



UNIFIED INDUSTRIES, INC.

A Columbus McKinnon Company

Precision Bridge Cranes and Safety Trolleys



**Enclosed Track
Crane Systems**



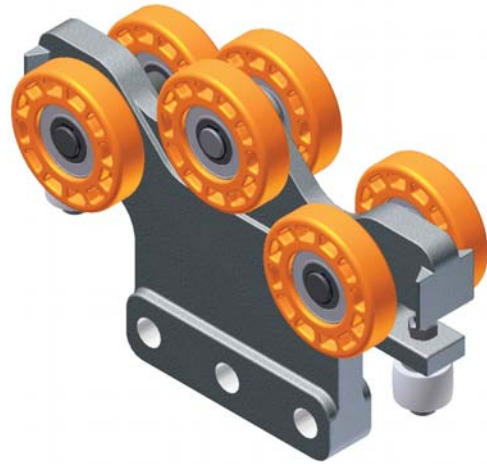
**Patented Rail
Crane Systems**

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www.unified-ind.com

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WHEN ORDERING OVERHEAD MATERIAL HANDLING EQUIPMENT,
THE FOLLOWING INFORMATION MUST ACCOMPANY YOUR ORDER:

TROLLEYS

- WHAT TYPE (SIZE) OF RAIL TROLLEYS WILL OPERATE ON

RUNWAYS

- PREP FOR EACH END (IE. SPLICE OR STOP)
- NUMBER OF SPLICES
- NUMBER OF HANGERS AND HANGING CENTERS
- NUMBER AND TYPE OF STOPS
- PAINT COLOR (YELLOW & ORANGE ARE STANDARD COLORS)
- CEILING SUPPORTED OR FREE STANDING FLOOR SUPPORTED

BRIDGE CRANES

- OVERALL LENGTH
- BRIDGE SPAN (BETWEEN RUNWAY CENTERS)
- OVERHANG (BEYOND RUNWAY CENTERS) FOR EACH END
- BRIDGE CAPACITY
- BRIDGE BEAM SIZE
- WHAT TYPE (SIZE) OF RAIL TROLLEYS WILL OPERATE ON
- WHAT TYPE OF BRIDGE END TRUCKS ARE REQUIRED
- NUMBER AND TYPE OF END STOPS
- PAINT COLOR (YELLOW & ORANGE ARE STANDARD COLORS)

AIR FESTOON OR ELECTRICAL PACKAGES

- MUST BE TOTALLY BROKEN DOWN WITH INDIVIDUAL REQUIREMENTS FOR EACH PACKAGE

ADDITIONAL ORDERING INFORMATION REQUIRED

- PURCHASE ORDER NUMBER
- REQUIRED SHIP DATE
- CONTACT PERSON & PHONE NUMBER
- BILL TO AND SHIP TO ADDRESSES
- SHIPPING INSTRUCTIONS (IE. PREFERRED METHOD OF SHIPPING)

PLEASE NOTE: UNIFIED INDUSTRIES MUST RECEIVE AN EMAILED, FAXED OR
MAILED COPY OF THE PURCHASE ORDER BEFORE SHIPMENTS CAN BE MADE

**PLEASE BE ASSURED THAT SHOULD YOU NEED ANY HELP WITH THE ABOVE
INFORMATION, YOU CAN RECEIVE ASSISTANCE BY CALLING UNIFIED
INDUSTRIES INC. AT THE HOWELL LOCATION**

catalog.inf





UNIFIED INDUSTRIES, INC.

A Columbus McKinnon Company

ETA-4 , ETA-5 AND ETA-8 ENGINEERING DATA

FOR TOOL RAIL
AND
BRIDGE CRANE
APPLICATIONS



UNIFIED INDUSTRIES, INC. -
ETA-4, ETA-5, ETA-8 SERIES

1. All track and hangers shall be installed in accordance with the manufacturer's detailed layout drawings. Which can be supplied at an additional cost.
2. Track and bridge beam provided is Series 6000 extruded aluminum alloy track.
3. The track or bridge beam provided shall be modular design, weld free application, and self-aligning with complete bolt-together capability at all splice joints and hangers.
4. All track sections provided shall be sawcut square to required length by the manufacturer. All joints shall be subjected to tensile stress and all track joints shall be flush when complete.
5. The rated load of the runway, monorail or bridge crane shall be determined so that deflection under rated load shall not exceed 1/450 of the span. Lateral deflection will not be accepted.
6. The allowable stresses applied shall not exceed 20% of the minimum yield strength of the materials used.
7. For bridge crane or hoist application(s), the maximum overhang of the bridge girder to the center of a runway rail shall not exceed the following requirements unless approved by the owner and manufacturer:
 - a. ETA-4, ETA-5 & ETA-8 the maximum overhang shall be 12" (304.8mm) not including the end cap and end stop.
 - b. For larger overhangs, consult factory.
8. All bridge cranes, hoists, runways, monorail, and track shall be installed straight, parallel, level and at the same elevation. Installation tolerance shall not exceed the values specified below:
 - a. Longitudinal leveling, multiple runways and single rail systems .250" (6.35mm) in overall length, with a maximum rate of change of no more than .125" (3.17mm) on twenty-foot centers (6m).
 - b. Elevation runway-to-runway .250" (6.35mm) in span, maximum rate of change .125" (3.17mm) on twenty-foot centers (6m).
 - c. Centering runway-to-runway +/- .188" (4.77mm) in overall length, maximum rate of change .125" (3.17mm) on twenty-foot centers (6m).
 - d. Centering for single rail to a parallel conveyor or workstation shall be +/- .188" (4.77mm) in overall length of the system, maximum rate of change .125" (3.17mm) on twenty-foot centers (6m).
9. All sway bracing and thrust bracing required shall be provided by the contractor, all connections shall be torsional - by design. Compression-type connections will not be accepted.
10. One month after system buyoff, the enclosed track shall be thoroughly inspected and releveled by the contractor. All bolts at the splice connections' hangers and support structure shall be rechecked for proper torque. Abnormalities noted by the contractor shall be brought to the attention of the manufacturer immediately.
11. All trolley running surfaces shall be aligned flush in accordance with this specification and shall present no shock loading at a splice connection. Transverse tilt will not be accepted.



12. Joint modification or holes required in track section(s) shall be by drilling or saw cutting only. The flame cutting of holes or splice joints will not be permitted.
13. The allowable stress shall not exceed 20% of the minimum yield strength of the material provided.
14. All hangers shall be installed true and vertical. All suspension fittings shall bear the load equally.
15. All bolts, nuts, fasteners, attachments, etc., required for rail for enclosed track assembly shall be provided by the equipment manufacturer.
16. All double girder bridge cranes provided shall incorporate diagonal bracing for parallel stabilization.
17. All painted rail is for indoor use only and must be stored inside. Exposure to elements will affect the paint finish.
6. The maximum overhang of straight track to the tangent point of a horizontal turn shall not exceed 12" (305mm).
7. A minimum of one (1) hanger shall be used in the radius of each 90-degree curve, the one (1) hanger shall be in addition to one (1) hanger at each splice joint. If required, additional hangers shall be provided in accordance with the design and calculated distance based on the trolley or carrier loading.
8. Curved track section shall be installed with uniform bolt tension to insure that load trolleys do not bind at splice joint.
9. A straight section of track shall be provided between each horizontal turn.
10. All hangers provided shall be installed true to the vertical plane.

URNS

1. Enclosed track turns shall be factory formed by the manufacturer. All tension tubes shall be aligned and installed at the manufacturer's facility.
2. The radius of all enclosed track turns shall be designed to allow the carriers or trolleys to freely negotiate each horizontal turn without binding.
3. The standard radius for enclosed track turns in the ETA-4 series shall be minimum 4'0" (1219mm), unless approved by the manufacturer.
4. The standard radius for enclosed track turns in the ETA-8 series shall be minimum 6'0" (1829mm), unless approved by the manufacturer.
5. Short radius turns with a radii that is less than the standard specified above shall be pre-approved.



1. All trolleys shall be as manufactured by Unified Industries, Inc.
2. All trolleys shall consist of one (1) high-tensile aluminum-magnesium alloy.
3. All trolley wheels provided for hoists, bridge cranes, and related equipment shall conform to the manufacturer's standards for monorail hand trolleys.
4. Trolley wheels shall be hard nylon, machined symmetrically true with the axis. All trolley wheels shall be the retainer type, designed for a single row of high quality, precision-ground ball bearings. All trolley wheels shall have a stud that is press-fitted into the trolley body.
5. Trolley side guide rollers shall be hard nylon machined symmetrically true with the axis. All trolley side guide rollers shall be designed for double row, full compliment, precision-ground ball bearings.
6. All trolleys shall be equipped with safety lugs so, in the event of a wheel failure, the trolley cannot come out of the enclosed track.
7. All bearings shall be protected by grease and dust seals.
8. Load links and load straps shall be provided by the manufacturer's recommendation.
9. Under no condition shall the contractor provide light capacity trolleys for use on heavy flange track.

***All dimensions are reference only
and need to be verified with factory.**

ETA-4 RAIL SECTION PROPERTIES:

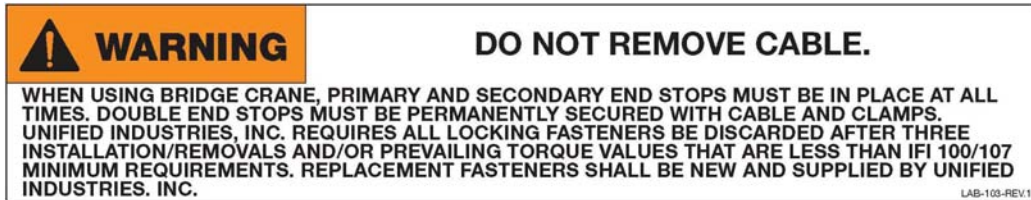
Material 6005-T5
Weight per foot=3.74 lb (5.57kg/m)
Cross sectional area=3.20 in² (2065 mm²)
Moment of inertia Ixx=5.80 in⁴ (2,414,142 mm⁴)
Iyy=4.49 in⁴ (1,868,879 mm⁴)

ETA-5 RAIL SECTION PROPERTIES:

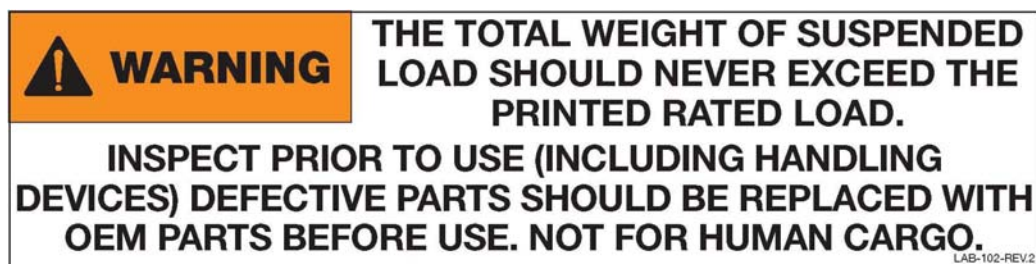
Material 6005-T5
Weight per foot=4.67 lb (6.95kg/m)
Cross sectional area=3.99 in² (2574 mm²)
Moment of inertia Ixx=11.28 in⁴ (4,695,090 mm⁴)
Iyy=5.69 in⁴ (2,368,357 mm⁴)

ETA-8 RAIL SECTION PROPERTIES:

Material 6005-T5
Weight per foot=8.16 lb (12.14kg/m)
Cross sectional area=6.98 in² (4,503 mm²)
Moment of inertia Ixx=47.26 in⁴ (19,671,097 mm⁴)
Iyy=19.75 in⁴ (8,220,571 mm⁴)



Double end stop cable Warning sticker



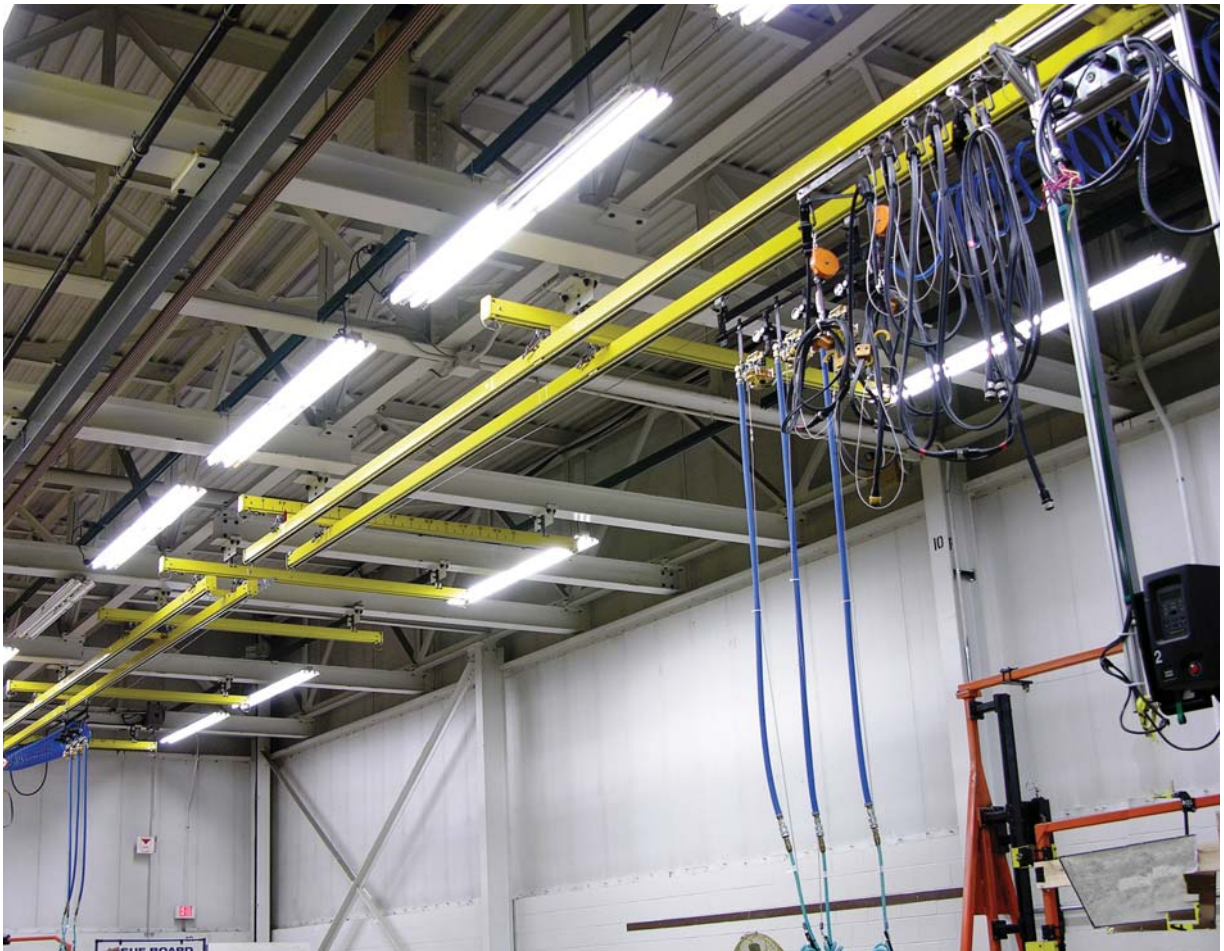
Rated load Warning sticker



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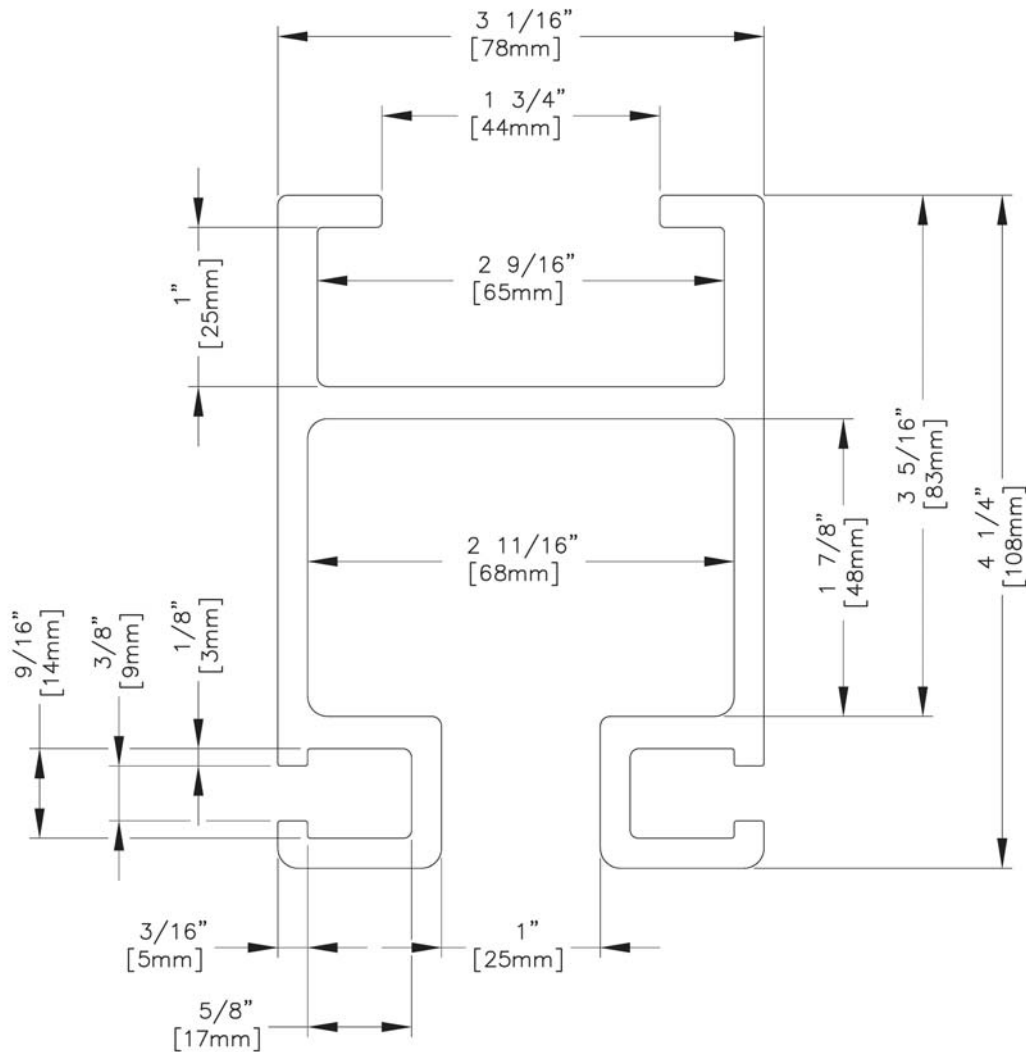
ETA-4 RAIL SYSTEMS





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***All dimensions are reference only
and need to be verified with factory.**



ETA-4 RAIL PROFILE (87022)

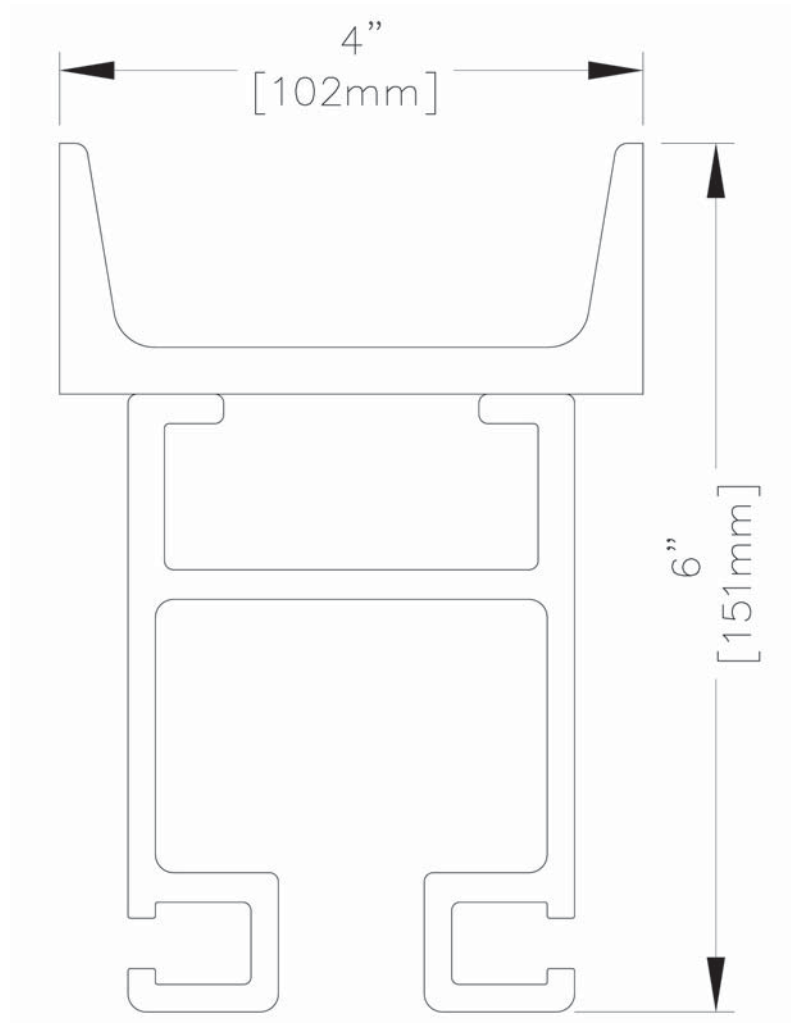
Part Number:

ETA4RW 08

Length of Rail in Feet (08 = 8 Feet)

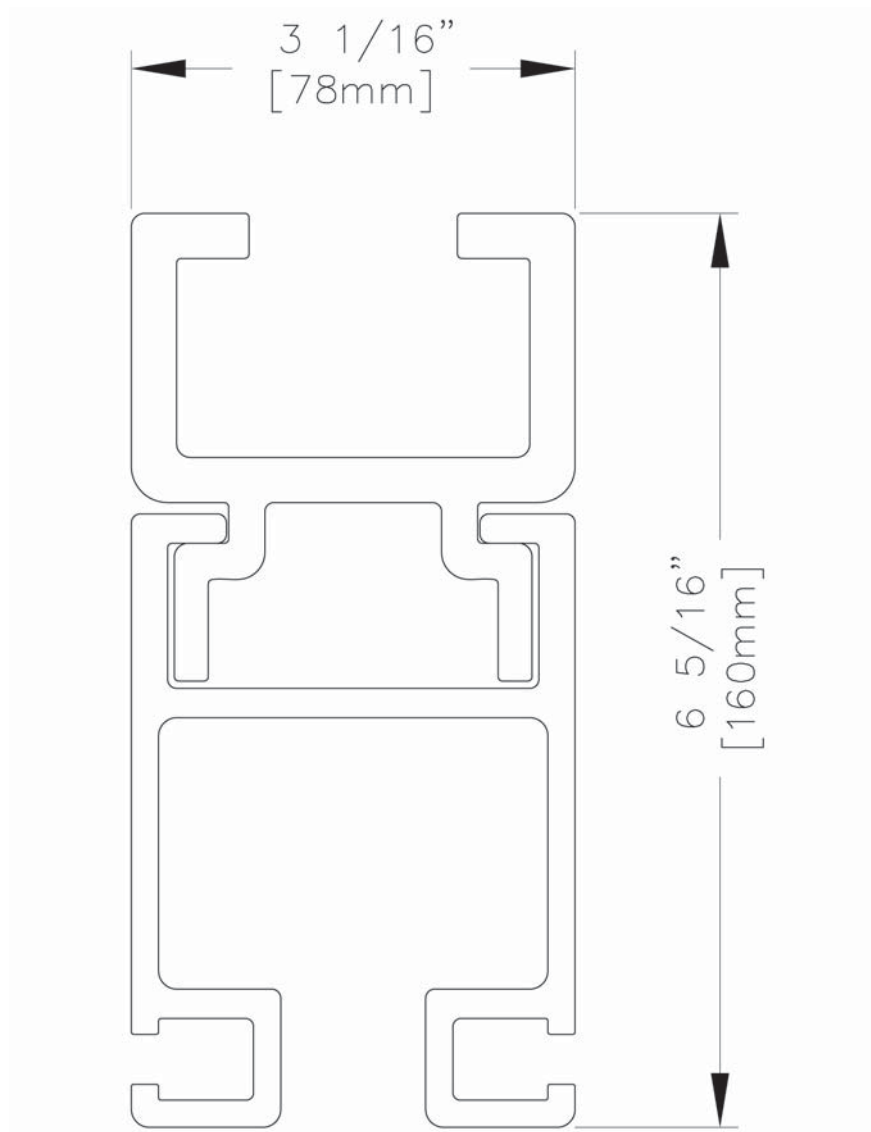
Rail Profile

- All Runways are Drilled for End Stops and Splice Holes.
- Round up to the nearest foot (Cut to 8'-6" = ETA4RW09)
- Maximum Length: 33'-0" (10m)
- Weight: 3.74 lbs./ft. (5.57kg/m)
- Standard Color Unified Safety Yellow
- Other Colors Specify when Ordering



ETA-4 RAIL WITH C4 X 2.5 CHANNEL CAP PROFILE

■ Weight: 6.24 lbs./ft. (9.29kg/m)



ETA-4 RAIL WITH ETA STRONG BACK PROFILE

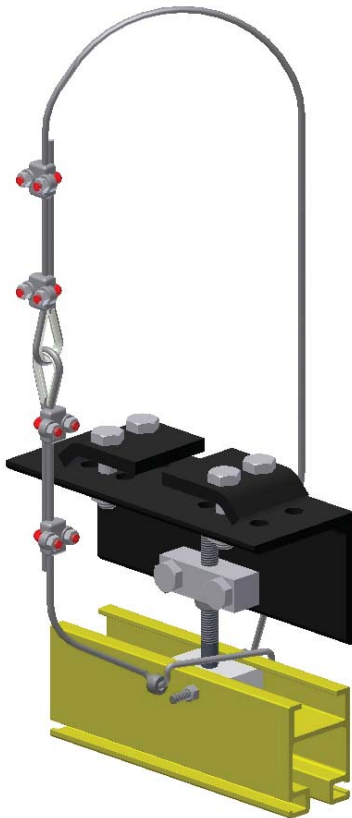
■ Weight: 7.32 lbs./ft. (10.88kg/m)



Span Ft. (in)	Deflection Limit (in) L/450	Point Load @ Center of Span (lbs)		
		ETA-4	ETA-4 + CHANNEL CAP	ETA-4 + ETA STRONG BACK
		L/450	L/450	L/450
5 (60)	.1333	1736	4000	4000
6 (72)	.1600	1205	3148	4000
7 (84)	.1867	886	2313	3046
8 (96)	.2133	678	1771	2332
9 (108)	.2400	536	1399	1843
10 (120)	.2667	434	1133	1493
11 (132)	.2933	359	937	1234
12 (144)	.3200	301	787	1036
13 (156)	.3467	256	671	883
14 (168)	.3733	221	578	762
15 (180)	.4000	193	504	663
16 (192)	.4267	169	443	583
17 (204)	.4533	150	392	516
18 (216)	.4800	134	350	461
19 (228)	.5067	120	314	413
20 (240)	.5333	108	283	373
21 (252)	.5600	98	257	338
22 (264)	.5867	89	234	308
23 (276)	.6133	82	214	282
24 (288)	.6400	75	197	259
25 (300)	.6667	69	181	239
26 (312)	.6933	64	168	221
27 (324)	.7200	59	155	205
28 (336)	.7467	55	145	190
29 (348)	.7733	52	135	177
30 (360)	.8000	48	126	166
31 (372)	.8267	45	118	155
32 (384)	.8533	42	111	146
33 (396)	.8800	40	104	137

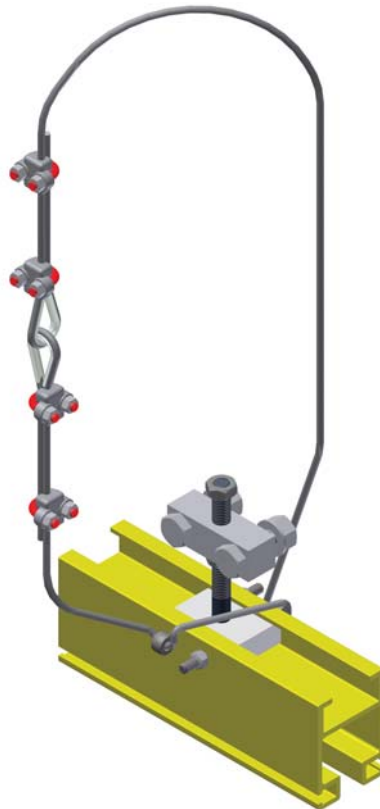


Span M (mm)	Deflection Limit (mm)	Point Load @ Center of Span (kg)		
		ETA-4	ETA-4 + CHANNEL CAP	ETA-4 + ETA STRONGBACK
		L/450	L/450	L/450
1.50 (1500)	3.3	813	1814	1814
1.75 (1750)	3.9	597	1560	1814
2.00 (2000)	4.4	547	1194	1572
2.25 (2250)	5.0	361	943	1242
2.50 (2500)	5.6	293	764	1006
2.75 (2750)	6.1	242	632	832
3.00 (3000)	6.7	203	531	699
3.25 (3250)	7.2	173	452	595
3.50 (3500)	7.8	149	390	513
3.75 (3750)	8.3	130	340	447
4.00 (4000)	8.9	114	299	393
4.25 (4250)	9.4	101	264	348
4.50 (4500)	10.0	90	236	311
4.75 (4750)	10.6	81	212	279
5.00 (5000)	11.1	73	191	252
5.25 (5250)	11.7	66	173	228
5.50 (5500)	12.2	60	158	208
5.75 (5750)	12.8	55	144	190
6.00 (6000)	13.3	51	133	175
6.25 (6250)	13.9	47	122	161
6.50 (6500)	14.4	43	113	149
6.75 (6750)	15.0	40	105	138
7.00 (7000)	15.6	37	97	128
7.25 (7250)	16.1	35	91	120
7.50 (7500)	16.7	33	85	112
7.75 (7750)	17.2	30	80	105
8.00 (8000)	17.8	29	75	98
8.25 (8250)	18.3	27	70	92
8.50 (8500)	18.9	25	66	87
8.75 (8750)	19.4	24	62	82
9.00 (9000)	20.0	23	59	78
9.25 (9250)	20.6	21	56	74
9.50 (9500)	21.1	20	53	70
9.75 (9750)	21.7	19	50	66
10.00 (10000)	22.2	18	48	63



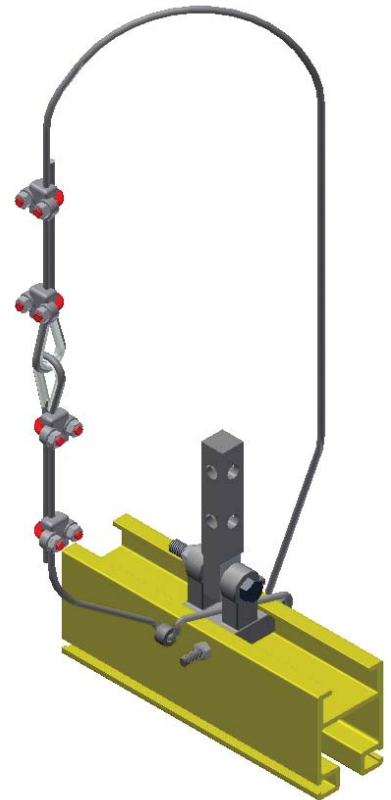
CLOSED ADJUSTABLE HANGER*

25473 FOR BEAMS 2.33" (59mm)
TO 3.33" (85mm) wide
25474 FOR BEAMS 4" (102mm)
TO 8" (203mm) wide



25467 ADJUSTABLE BLOCK HANGER

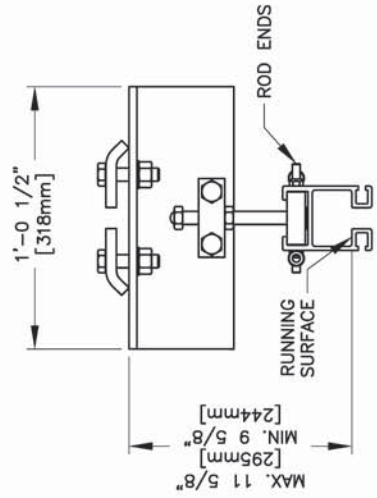
Allows for 2" (50mm) of vertical
adjustment in the field



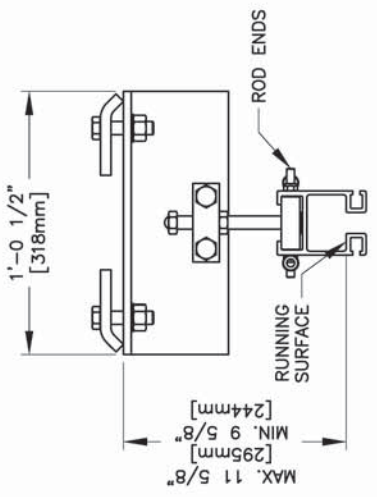
25286 BLOCK HANGER

- All hangers must be bolted through rail.
- All hangers include a 6'-0" (1.82m) safety cable 78287.

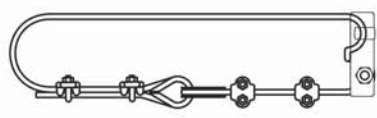
*Note: Grip range 1/4" (6mm) to 9/16" (15mm) thick flange.



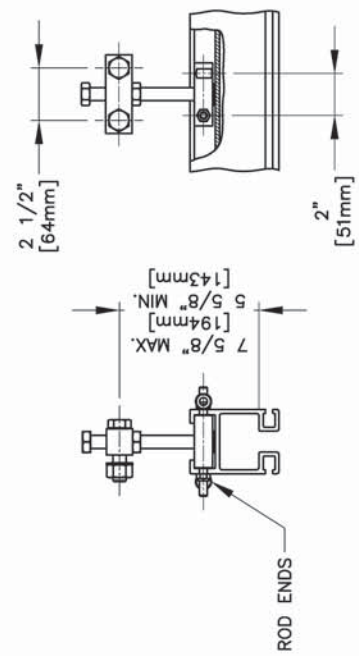
25473 CLOSED ADJUSTABLE HANGER
FOR BEAMS 2.33" [59mm] TO 3.33" [85mm] WIDE AND
FLANGE THICKNESS FROM 1/4" [6mm] TO 9/16" [15mm]
RATED LOAD 1500 lbs. [680 Kg.]
WEIGHT 22 lbs. [9.98 Kg.]



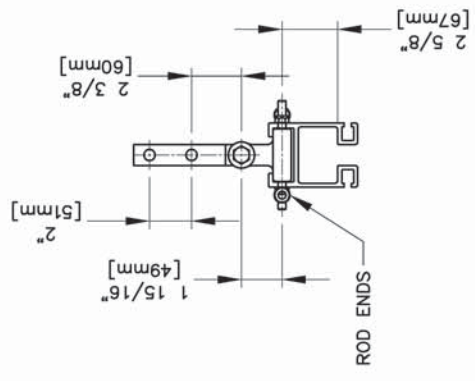
25474 CLOSED ADJUSTABLE HANGER
FOR BEAMS 4" [102mm] TO 8" [203mm] WIDE AND
FLANGE THICKNESS FROM 1/4" [6mm] TO 9/16" [15mm]
RATED LOAD 1500 lbs. [680 Kg.]
WEIGHT 23 lbs. [10.43 Kg.]



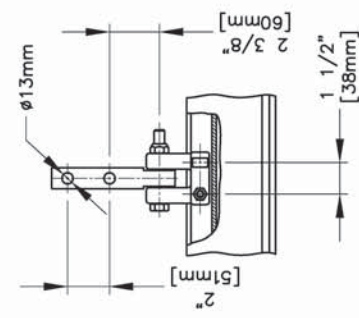
SAFETY CABLE ASSEMBLY VIEW
ALL HANGERS COME WITH A SAFETY CABLE 78287

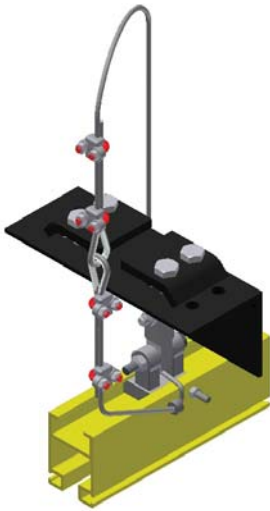


25467 ADJUSTABLE BLOCK HANGER
RATED LOAD 1500 lbs. [680 Kg.]
WEIGHT 6 lbs. [2.72 Kg.]



25286 BLOCK HANGER
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 4 lbs. [1.81 Kg.]

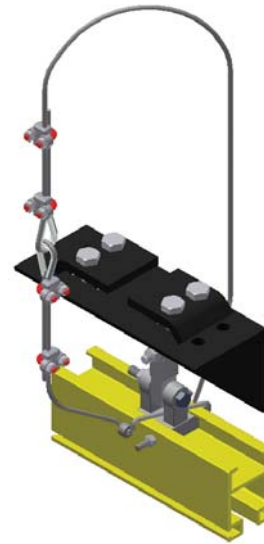




BEAM HANGER*

PARALLEL MOUNT

27055 FOR BEAMS 2.33" (59mm) TO 3.33" (85mm)
27057 FOR BEAMS 4" (102mm) TO 8" (203mm)



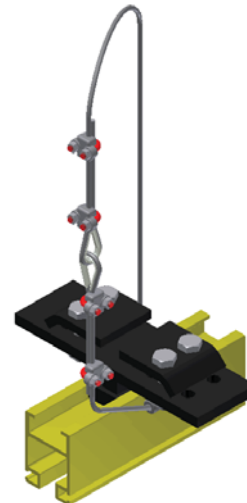
BEAM HANGER*

PERPENDICULAR MOUNT

27055 FOR BEAMS 2.33" (59mm) TO 3.33" (85mm)
27057 FOR BEAMS 4" (102mm) TO 8" (203mm)



27070 ETA RIGID MOUNT HANGER**



RIGID MOUNT HANGER*

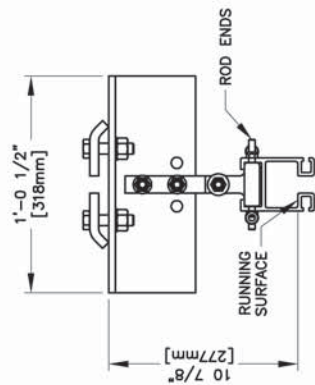
PARALLEL MOUNT

27073 FOR BEAMS 2.33" (59mm) TO 3.33" (85mm)
27071 FOR BEAMS 4" (102mm) TO 8" (203mm)

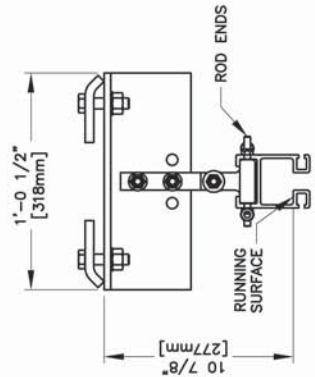
- All hangers must be bolted through rail.
- All hangers include a 6'-0" (1.82m) safety cable 78287.

*Grip range 1/4" (6mm) to 9/16" (15mm) thick flange.

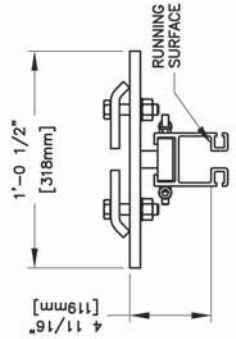
**For use on W-Shape beams only.



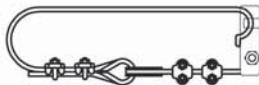
27055 BEAM HANGER PARALLEL MOUNT
FOR BEAMS 2.33\" [59mm] TO 3.33\" [85mm] WIDE AND
FLANGE THICKNESS FROM 1/4\" [6mm] TO 9/16\" [15mm]
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 23 lbs. [10.43 Kg.]



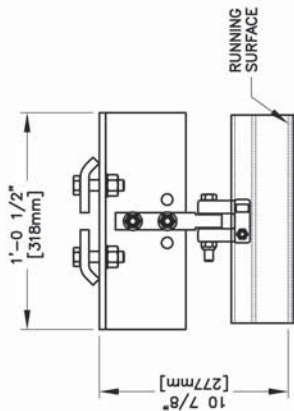
27057 BEAM HANGER PARALLEL MOUNT
FOR BEAMS 4\" [102mm] TO 8\" [203mm] WIDE AND
FLANGE THICKNESS FROM 1/4\" [6mm] TO 9/16\" [15mm]
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 24 lbs. [10.89 Kg.]



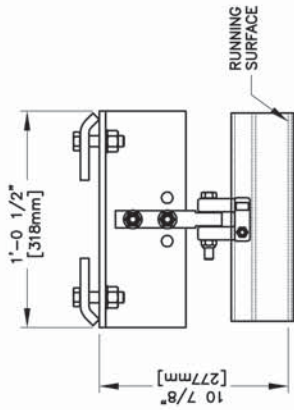
27071 PARALLEL RIGID MOUNT HANGER
FOR BEAMS 4\" [102mm] TO 8\" [203mm] WIDE AND
FLANGE THICKNESS FROM 1/4\" [6mm] TO 9/16\" [15mm]
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 18 lbs. [8.16 Kg.]



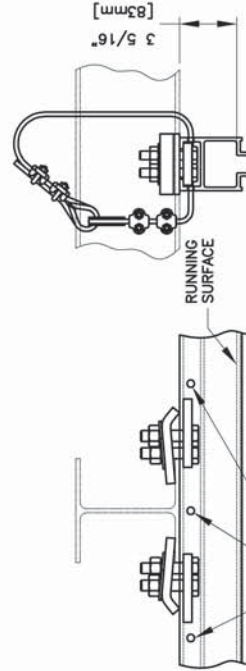
SAFETY CABLE ASSEMBLY VIEW
ALL HANGERS COME WITH A SAFETY CABLE 78287



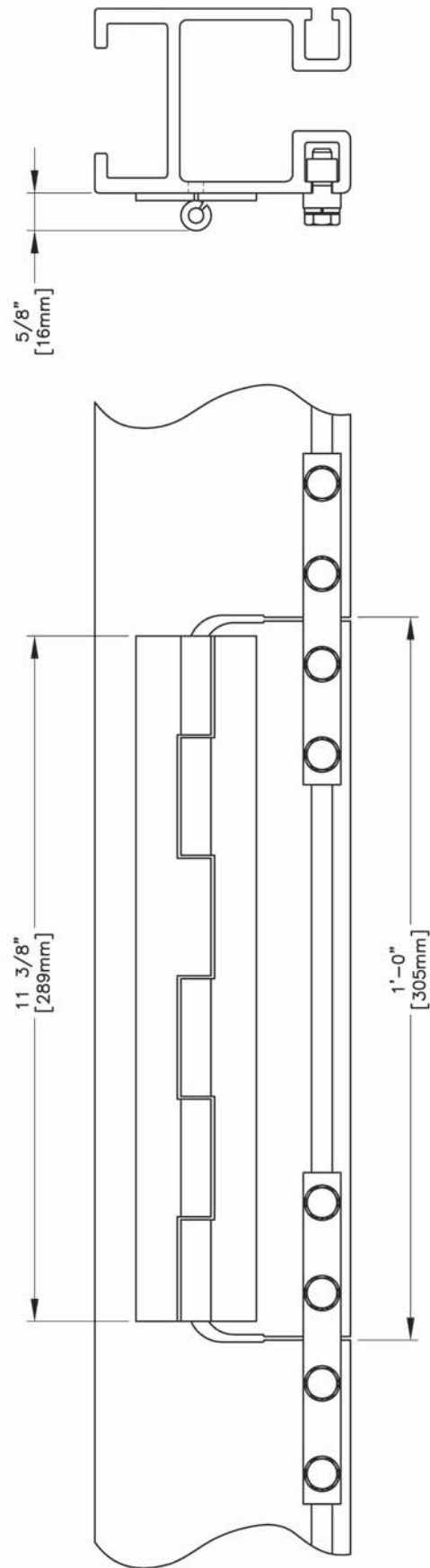
27055 BEAM HANGER PERPENDICULAR MOUNT
FOR BEAMS 2.33\" [59mm] TO 3.33\" [85mm] WIDE AND
FLANGE THICKNESS FROM 1/4\" [6mm] TO 9/16\" [15mm]
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 23 lbs. [10.43 Kg.]



27057 BEAM HANGER PERPENDICULAR MOUNT
FOR BEAMS 4\" [102mm] TO 8\" [203mm] WIDE AND
FLANGE THICKNESS FROM 1/4\" [6mm] TO 9/16\" [15mm]
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 24 lbs. [10.89 Kg.]

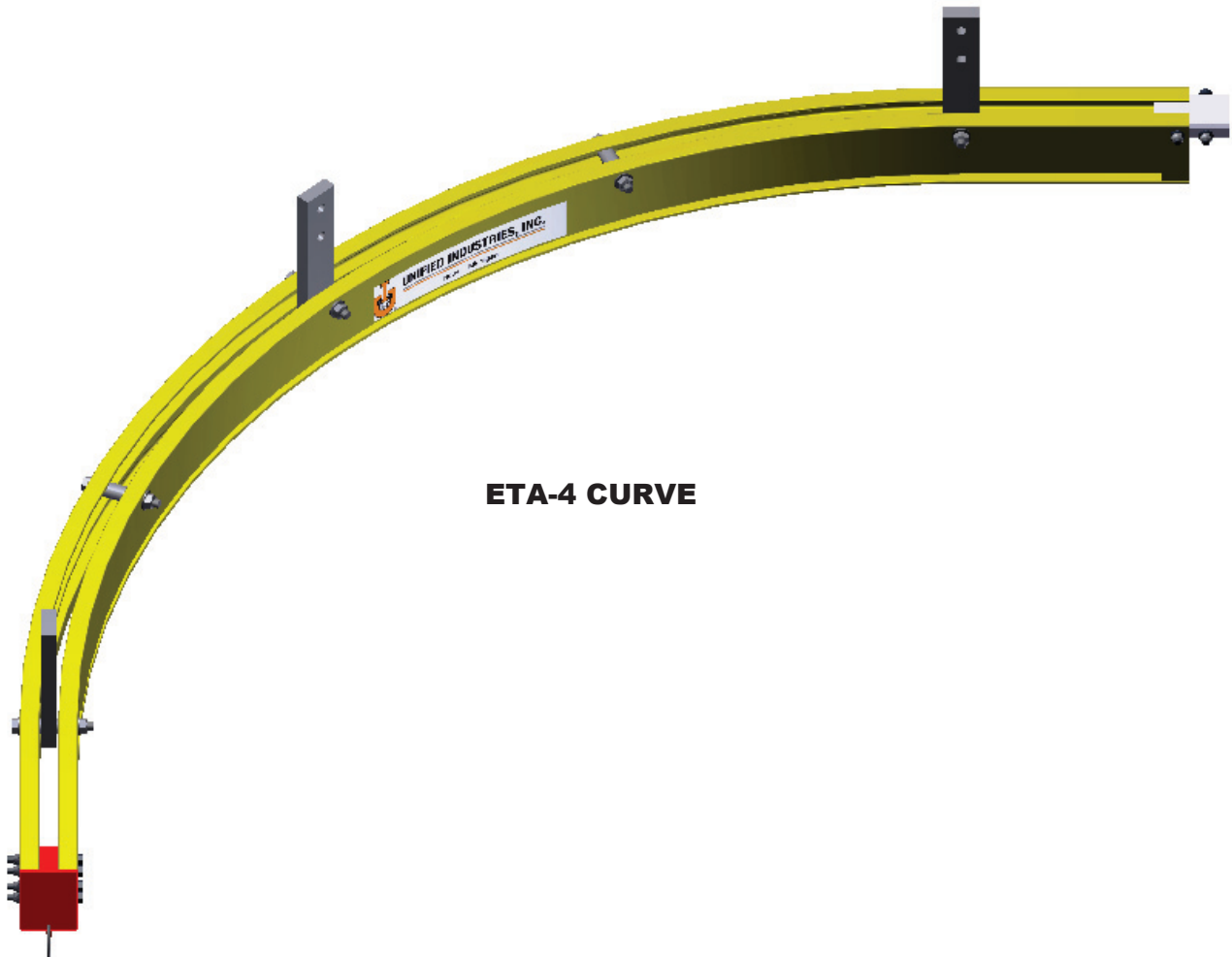


27070 ETA RIGID MOUNT HANGER
RATED LOAD 4000 lbs. [1588 Kg.]
FLANGE THICKNESS FROM
1/4\" [6mm] TO 9/16\" [15mm]
FOR W-SHAPE BEAMS ONLY
WEIGHT 10 lbs. [4.54 Kg.]



25790 INSPECTION GATE
FOR INSERTION AND REMOVAL OF TROLLEYS

Inspection Gate must be within 1'-0" (305 mm) of a hanger.

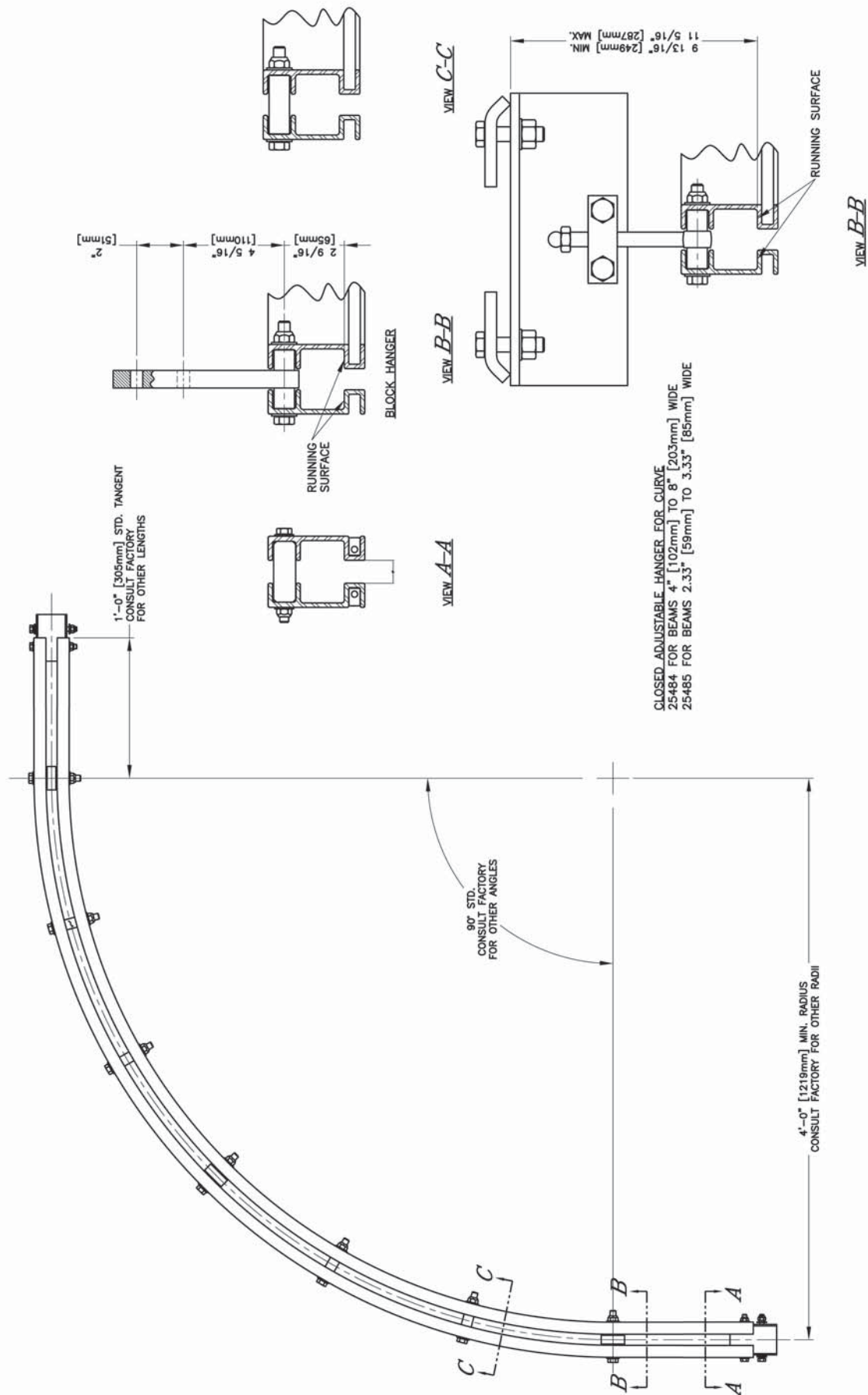


ETA-4 CURVE

Features

- 4'-0" (1219mm) minimum radius
- Consult factory for additional information
- **87051** up to 6'-0" (1829mm) radius x 90°
- **87052** up to 6'-0" (1829mm) radius x 90° with Closed Adjustable Hangers
- **87056** up to 6'-0" (1829mm) radius x 45°
- **87057** up to 6'-0" (1829mm) radius x 45° with Closed Adjustable Hangers
- **87061** 6'-1" (1855mm) to 14'-0" (4267mm) radius x 90°
- **87062** 6'-1" (1855mm) to 14'-0" (4267mm) radius x 90° with Closed Adjustable Hangers

Note: Standard Unified curved sections are not suitable for kick-up forces. If your application requires kick-up forces through a curved section, please contact the factory.



ETA-4 CURVED RAIL

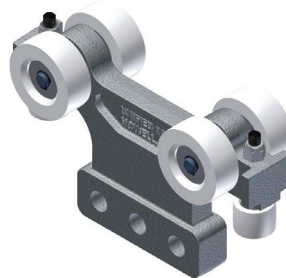
UNIFIED ETA-4 & ETA-5 RAIL TROLLEYS



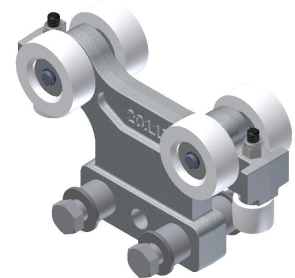
20100



20110



20115



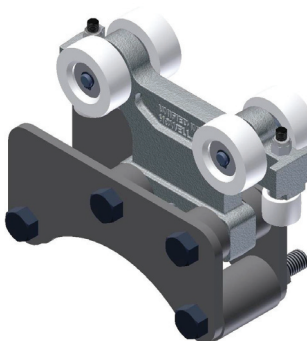
28070



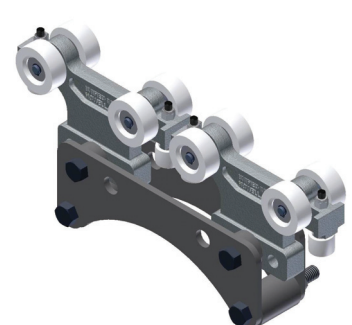
20130



20125



20116



20117

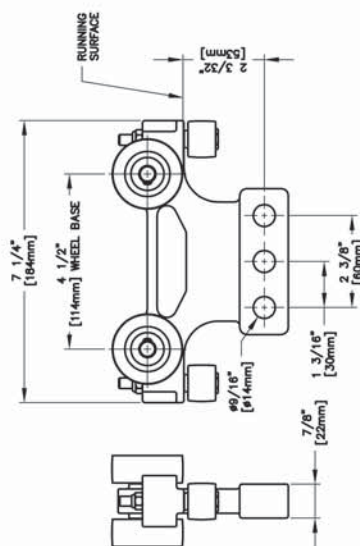
Part Number

- **20100** ETA-4/5 Short Body Load Trolley with 550 lb. (250kg) Rated Load
- **20110** ETA-4/5 Long Body Load Trolley with 550 lb. (250kg) Rated Load
- **20115** ETA-4/5 Three Hole Mount Load Trolley with 550 lb (250kg) Rated Load
- **28070** ETA-4/5 Unified Balancer Trolley with 550 lb. (250kg) Rated Load
- **20130** ETA-4/5 Single Hoist Trolley with 550 lb. (250kg) Rated Load
- **20125** ETA-4/5 Pin Mount Trolley with 550 lb. (250kg) Rated Load
- **20116** ETA-4/5 Trolley for IR 6" Balancer with 550 lb. (250kg) Rated Load
- **20117** ETA-4/5 Trolley for IR 10" Balancer with 550 lb. (250kg) Rated Load

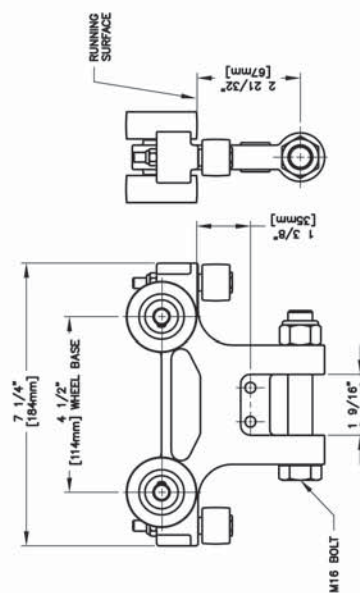
Features

- High tensile almag alloy frame
- 1.8"(46mm) Nylon glass reinforced wheels, with permanently sealed precision ball bearings
- High impact nylon guide rollers with dual race ball bearings for smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)

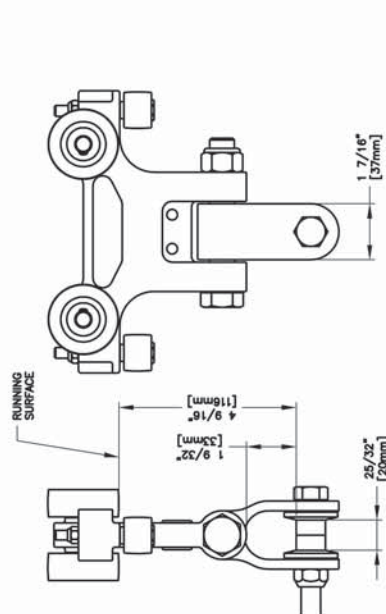
Note: If your application requires kick-up forces through a curved section, please consult the factory.



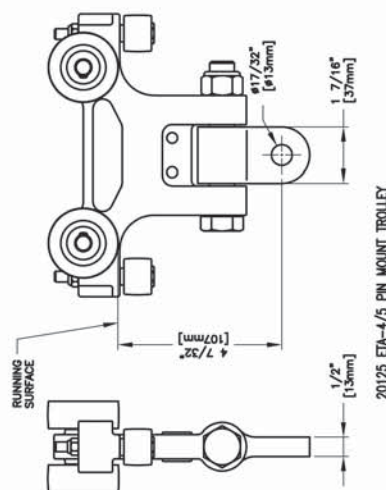
20100 ETA-4/5 SHORT BODY LOAD TROLLEY



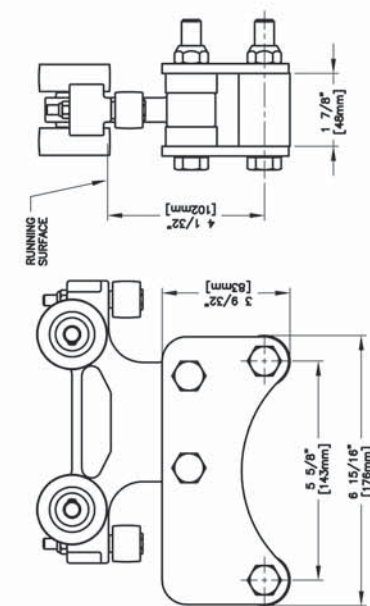
20110 ETA-4/5 LONG BODY LOAD TROLLEY



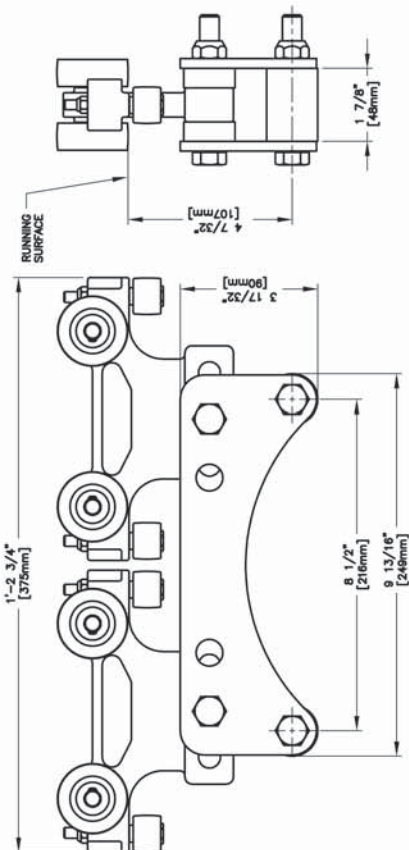
20130 ETA-4/5 SINGLE HOST TROLLEY



20125 ETA-4/5 PIN MOUNT TROLLEY



20116 ETA-4/5 IR 6\"/>



20117 ETA-4/5 IR 10\"/>

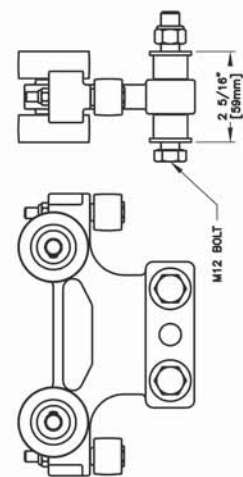
SPECIFICATIONS	
WEIGHT OF 20100:	2.15 lbs. [.98 Kg.]
WEIGHT OF 20110:	2.23 lbs. [1.01 Kg.]
WEIGHT OF 20115:	2.00 lbs. [.91 Kg.]
WEIGHT OF 20130:	2.92 lbs. [1.32 Kg.]
WEIGHT OF 20125:	2.45 lbs. [1.11 Kg.]
WEIGHT OF 20116:	7.08 lbs. [3.20 Kg.]
WEIGHT OF 20117:	9.80 lbs. [4.45 Kg.]
WEIGHT OF 28070:	2.10 lbs. [.95 Kg.]

BODY : HIGH TENSILE ALUMG
WHEELS : 1.825 DIA. [46.4mm DIA.] GLASS REINFORCED NYLON
BEARINGS : BALL PERMANENTLY LUBRICATED STUDS : .50 DIA. [12.7mm DIA.]
GUIDE ROLLERS : .94 DIA. [23.9mm DIA.] HIGH IMPACT NYLON

RATED LOAD

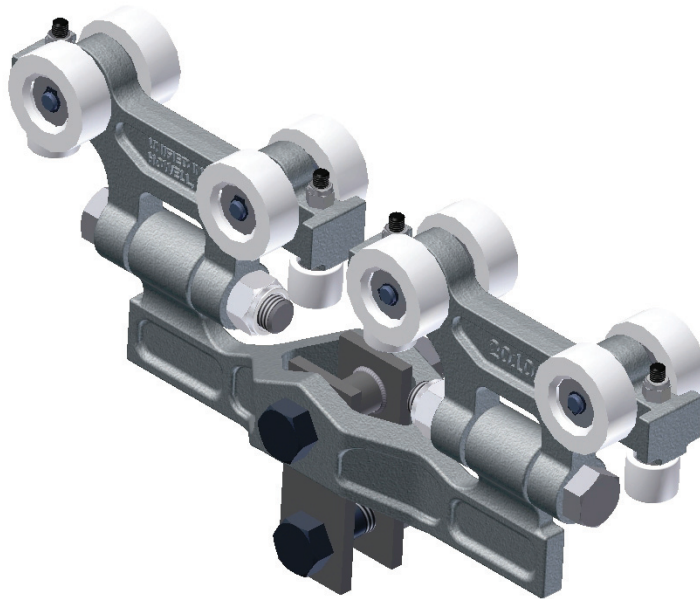
550 lbs. [250 Kg.]
550 lbs. [250 Kg.]
550 lbs. [250 Kg.]
550 lbs. [250 Kg.]
550 lbs. [250 Kg.]
550 lbs. [250 Kg.]
550 lbs. [250 Kg.]
1100 lbs. [500 Kg.]
550 lbs. [250 Kg.]

28070 ETA-4/5 BALANCER SUSPENSION KIT

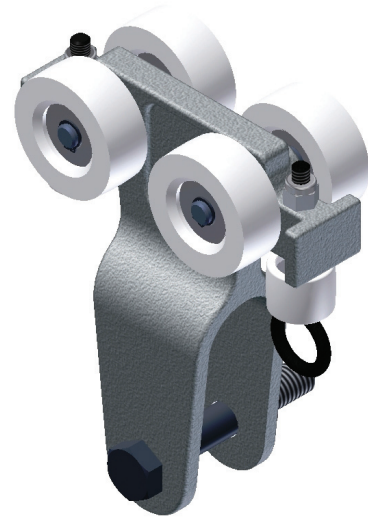


28070 ETA-4/5 BALANCER SUSPENSION KIT

UNIFIED ETA-4 & ETA-5 RAIL TROLLEYS



25330



20140

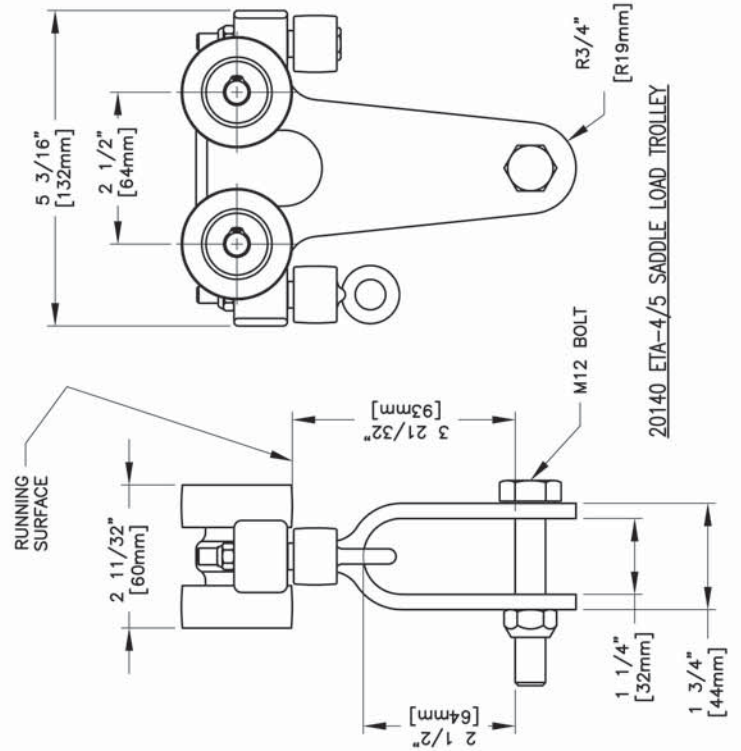
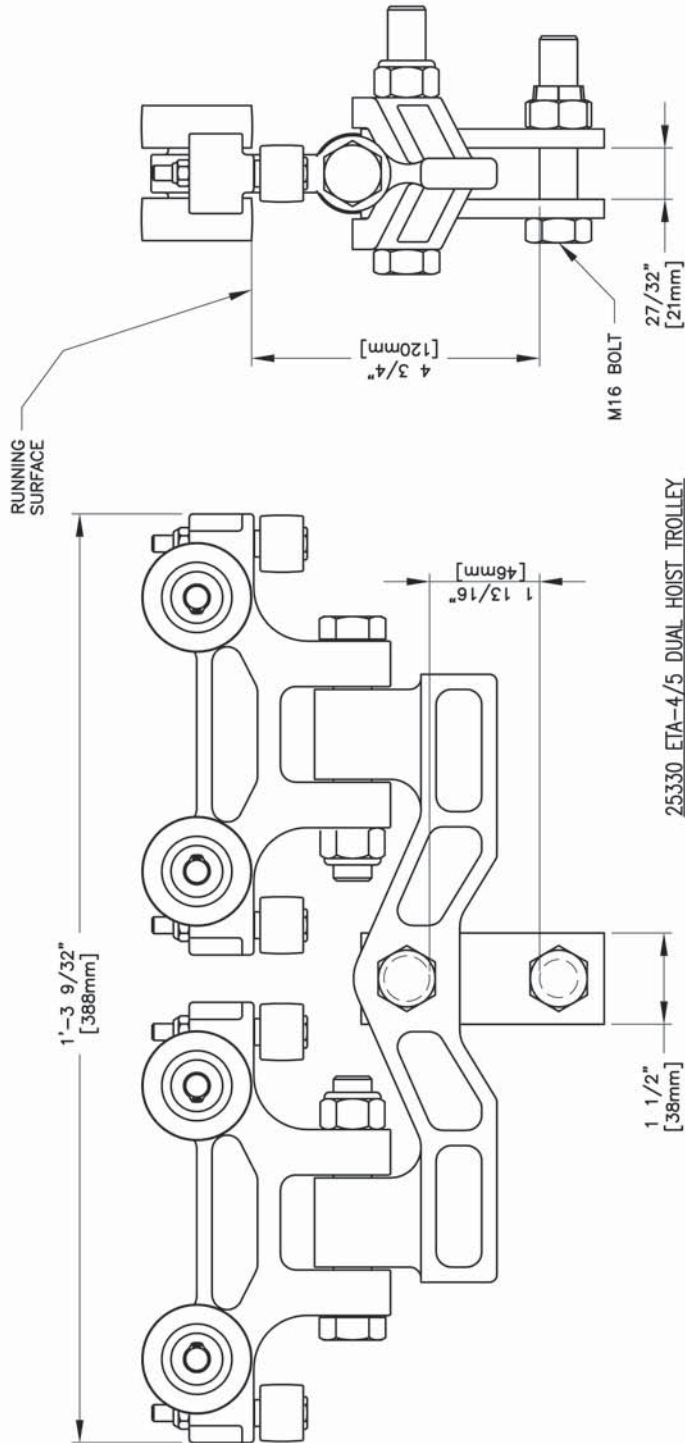
Part Number

- **25330** ETA-4/5 Dual Hoist Trolley with 1100 lb. (500kg) Rated Load
- **20140** ETA-4/5 Saddle Load Trolley with 550 lb. (250kg) Rated Load

Features

- High tensile almag alloy frame
- 1.8"(46mm) Nylon glass reinforced wheels, with permanently sealed precision ball bearings
- High impact nylon guide rollers with dual race ball bearings for smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)

Note: If your application requires kick-up forces through a curved section, please consult the factory.



SPECIFICATIONS

	RATED LOAD
WEIGHT OF 25330:	7.08 lbs. [3.21 Kg.]
WEIGHT OF 20140:	1.83 lbs. [.83 Kg.]
BODY :	HIGH TENSILE ALMAG
WHEELS :	1.825 DIA. [46.4mm DIA.] GLASS REINFORCED NYLON
BEARINGS :	BALL PERMANENTLY LUBRICATED
STUDS :	.50 DIA. [12.7mm DIA.]
GUIDE ROLLERS :	.94 DIA. [23.9mm DIA.] HIGH IMPACT NYLON

UNIFIED ETA-4 & ETA-5 FESTOON TROLLEY



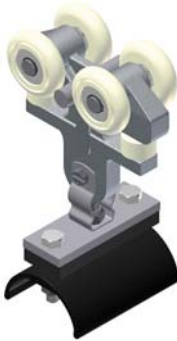
20150



20155



20160



20165



20180



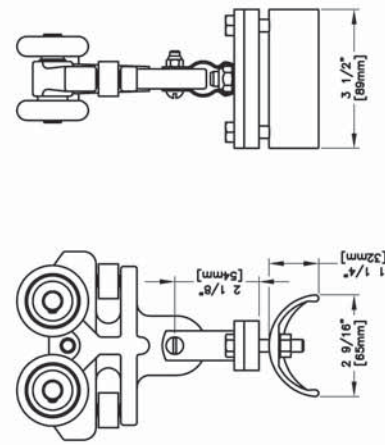
20185

Part Number

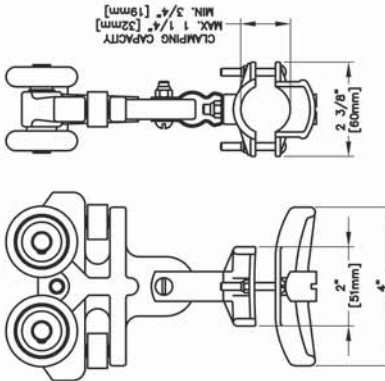
- **20150** ETA-4/5 Festoon Trolley with 100 lb. (45kg) Rated Load
- **20155** ETA-4/5 Festoon Trolley and Small Saddle with 100 lb. (45kg) Rated Load
- **20160** ETA-4/5 Festoon Trolley and Large Saddle with 100 lb. (45kg) Rated Load
- **20165** ETA-4/5 Festoon Trolley and Flatwire Saddle with 100 lb. (45kg) Rated Load
- **20180** ETA-4/5 Festoon Trolley and UH Saddle with 100 lb. (45kg) Rated Load
- **20185** ETA-4/5 Festoon Trolley with 12" Saddle 100 lb. (45kg) Rated Load

Features

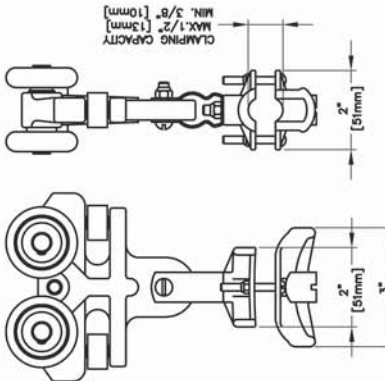
- High tensile almag alloy frame
- 1.8" (46mm) Nylon glass reinforced wheels, with permanently sealed precision ball bearings
- High-impact nylon guide rollers with smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)



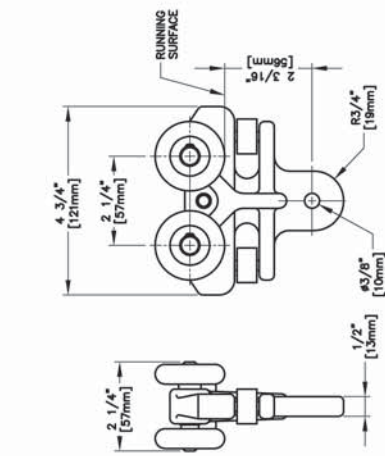
20165 ETA-4/5 FESTOON TROLLEY WITH FLATWIRE SADDLE



20160 ETA-4/5 FESTOON TROLLEY WITH LARGE SADDLE



20155 ETA-4/5 FESTOON TROLLEY WITH SMALL SADDLE

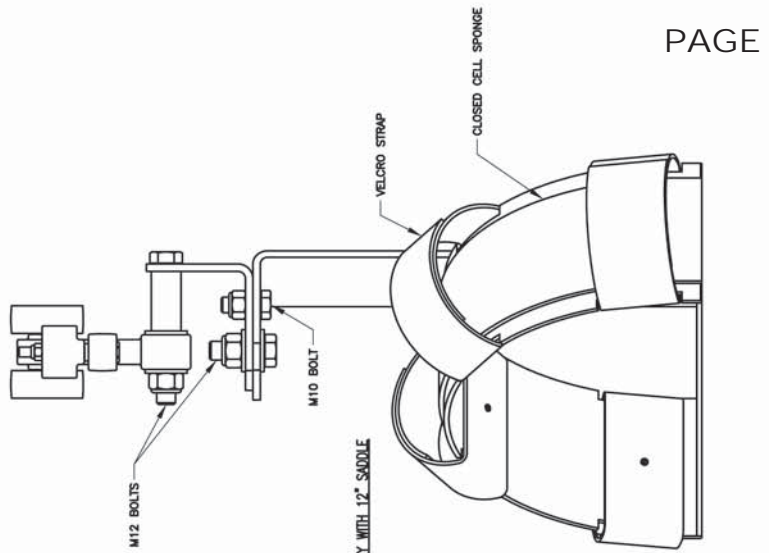


20150 ETA-4/5 FESTOON TROLLEY

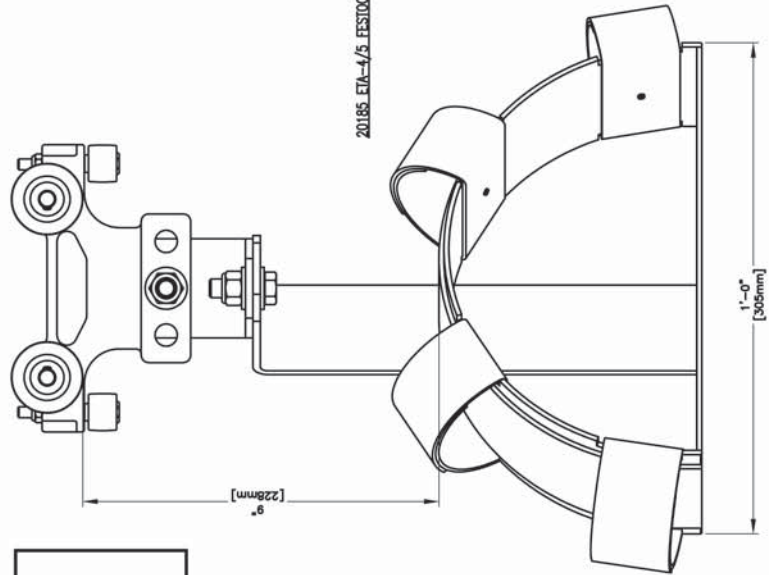
SPECIFICATIONS:

WHEELS: 1.312 DIA. [46mm DIA.] HIGH IMPACT NYLON
 BODY: ALUM. 35
 BEARINGS: BALL TYPE PERMANENTLY LUBRICATED
 STUDS: 2.55 DIA. [13mm DIA.]
 CABLES: 1/2\"/>

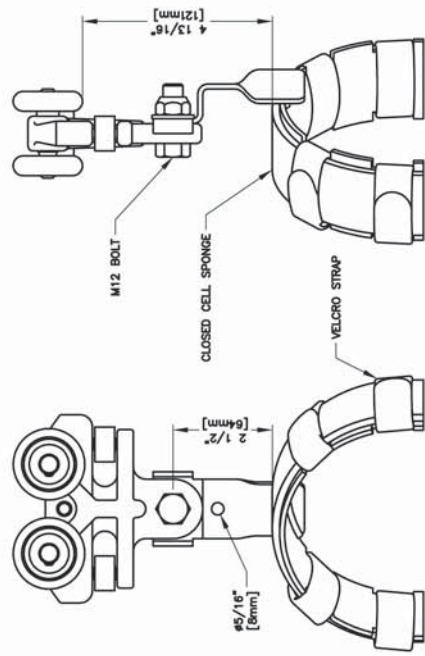
TROLLEY	WEIGHT
20150:	1.50 lbs. [.68 Kg.]
20155:	1.69 lbs. [.77 Kg.]
20160:	1.71 lbs. [.78 Kg.]
20165:	2.12 lbs. [.98 Kg.]
20160:	2.69 lbs. [1.22 Kg.]
20185:	9.50 lbs. [4.31 Kg.]



20185 ETA-4/5 FESTOON TROLLEY WITH 12\"/>



20180 ETA-4/5 FESTOON TROLLEY WITH UHL SADDLE





UNIFIED ETA-4 & ETA-5 FESTOON TROLLEY



20170



20175



78260



78184



78190



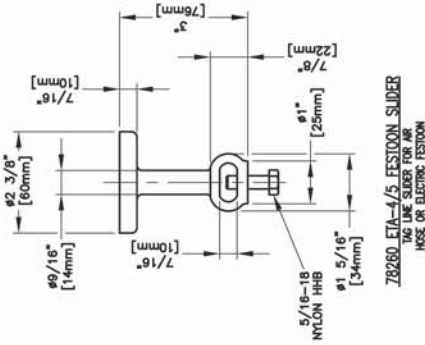
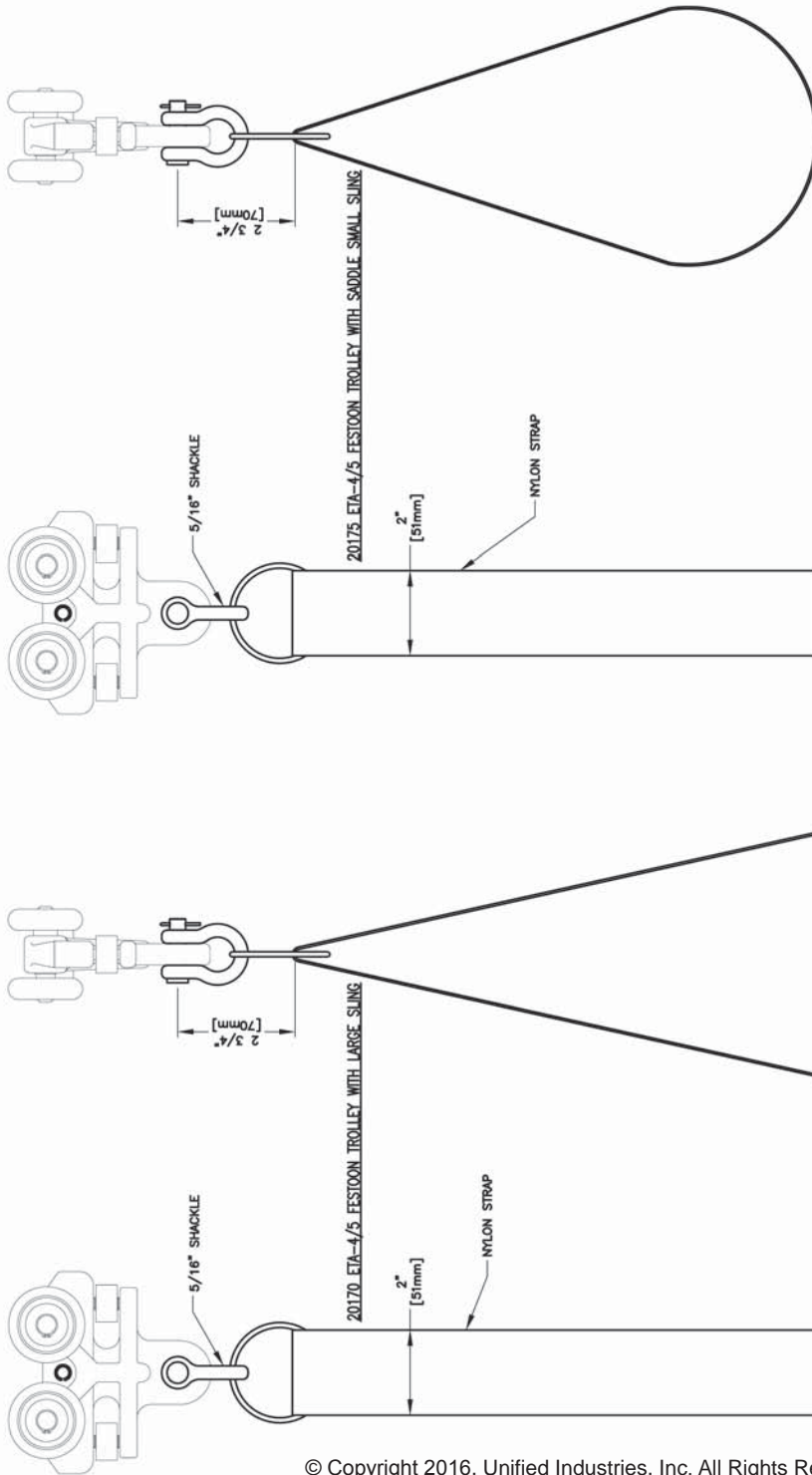
78170

Part Number

- **20170*** ETA-4/5 Festoon Trolley and 24" Large Sling with 100 lb. (45kg) Rated Load
- **20175*** ETA-4/5 Festoon Trolley and 12" Small Sling with 100 lb. (45kg) Rated Load
- **78260** ETA-4/5 Festoon Slider
- **78184** Cable Trolley with Small Saddle
- **78190** Cable Trolley with Large Saddle
- **78170** Cable Trolley Flatwire Saddle

Features

- High tensile almag alloy frame
- 1.8" (46mm) Nylon glass reinforced wheels, with permanently sealed precision ball bearings
- High-impact nylon guide rollers with smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)



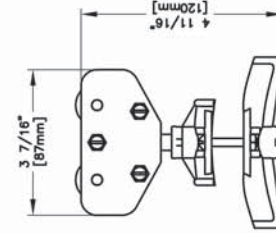
FESTOON TROLLEY SPECIFICATIONS :

WHEELS : 1 1/2" DIA. [46mm DIA.] HIGH IMPACT NYLON
 BODY : ALUMINUM 303
 BEARINGS : BALL TYPE PERMANENTLY LUBRICATED
 STUDS : .50" DIA. [13mm DIA.]
 GUIDE ROLLERS : .34" DIA. [24mm DIA.] HIGH IMPACT NYLON
 OPERATING TEMP. AT 100% LOAD : -10°F TO +110°F [-23°C TO +43°C]
 ROLLING FRICTION : .25 TO 1% OF LOAD
 MAX. LOAD PER WHEEL : 25 lbs. [11.2 Kg.]

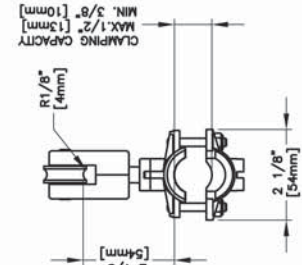
TROLLEY

WEIGHT

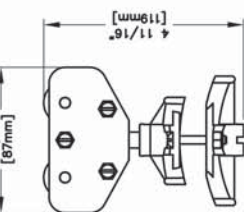
20170:	2.00 lbs. [91 Kg.]
20175:	1.83 lbs. [83 Kg.]
78260:	.07 lbs. [.03 Kg.]
78170:	.46 lbs. [.21 Kg.]
78184:	.37 lbs. [.17 Kg.]
78190:	.41 lbs. [.19 Kg.]



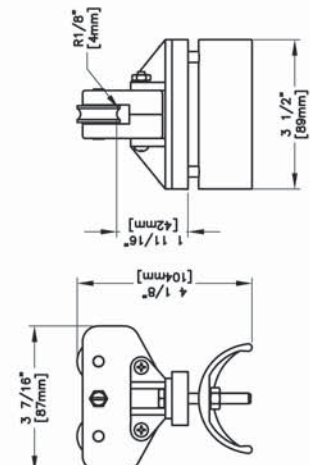
78190 CABLE TROLLEY WITH LARGE SADDLE

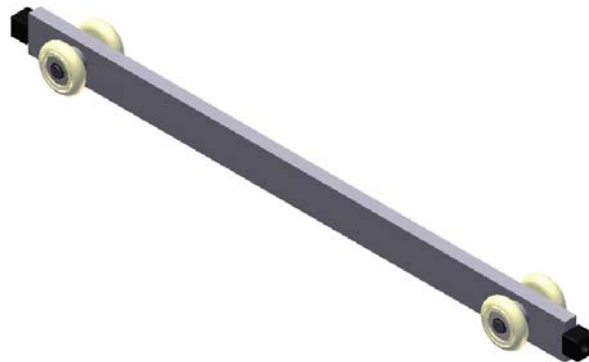


78184 CABLE TROLLEY WITH SMALL SADDLE



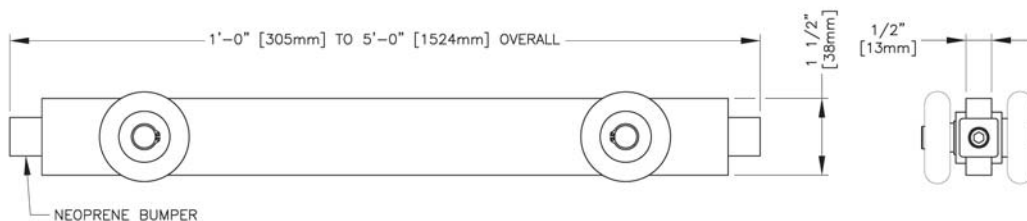
78170 CABLE TROLLEY WITH FLATWIRE SADDLE





ETA-4/ETA-5 BUMPER TROLLEY

BUMPER TROLLEY	
CARRIER SPECIFICATIONS :	
BODY : 6061 ALUMINUM	
STUDS : .50 DIA. [13mm DIA.]	
WEIGHT OF 20190:	1.63 lbs. [.74 Kg.]
WEIGHT OF 20191:	2.51 lbs. [1.14 Kg.]
WEIGHT OF 20192:	3.39 lbs. [1.54 Kg.]
WEIGHT OF 20193:	4.27 lbs. [1.94 Kg.]
WEIGHT OF 20194:	5.15 lbs. [2.34 Kg.]



Part Number

- **20190** 1'-0" (305mm) Bumper trolley to operate on Unified ETA-4 and ETA-5
- **20191** 2'-0" (610mm) Bumper trolley to operate on Unified ETA-4 and ETA-5
- **20192** 3'-0" (914mm) Bumper trolley to operate on Unified ETA-4 and ETA-5
- **20193** 4'-0" (1219mm) Bumper trolley to operate on Unified ETA-4 and ETA-5
- **20194** 5'-0" (1524mm) Bumper trolley to operate on Unified ETA-4 and ETA-5

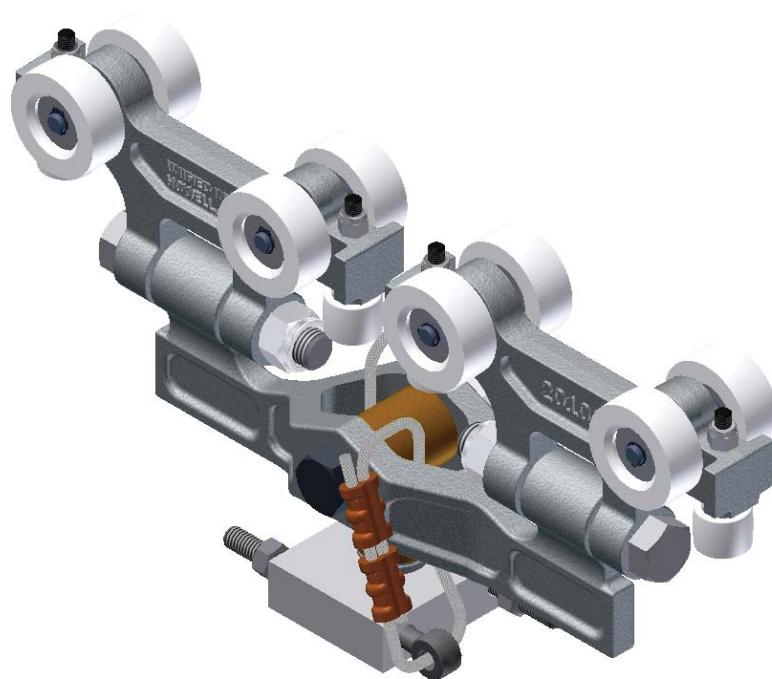
Features

- Aluminum trolley body
- 1.8" (46mm) High-impact nylon wheels, with permanently sealed precision ball bearings
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)



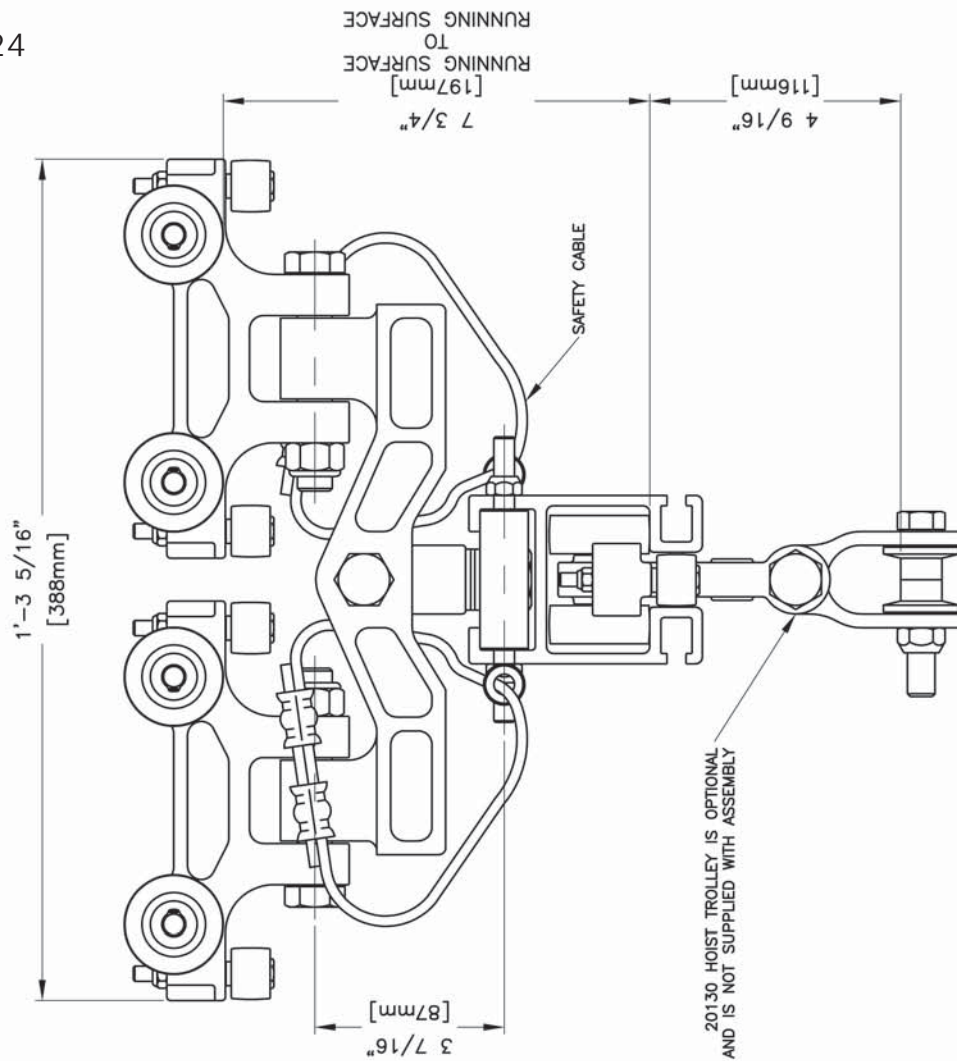
22521 ETA-4/5 SINGLE END TRUCK

- To operate on ETA-4 and ETA-5.
- Rated Load 550 lbs. (250kg)

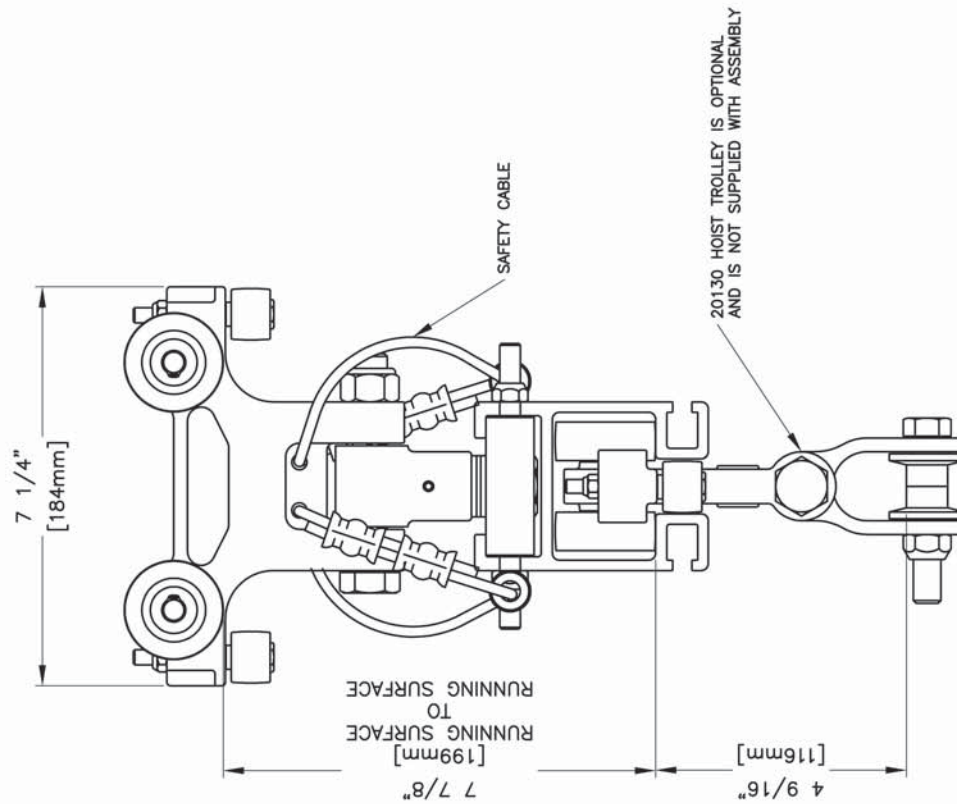


22540 ETA-4/5 DUAL END TRUCK

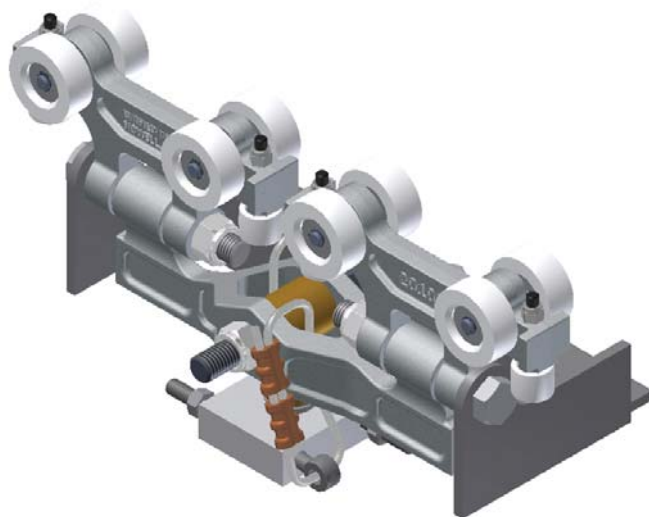
- To operate on ETA-4 and ETA-5.
- Rated Load 1100 lbs. (500 kg)



22540 DUAL END TRUCK
 DUAL TROLLEY END TRUCK AT EACH END OF CRANE ORDER.
 RATED LOAD: 1100 lbs. [500 Kg.]
 WEIGHT: 9 lbs. [4.1 Kg.]



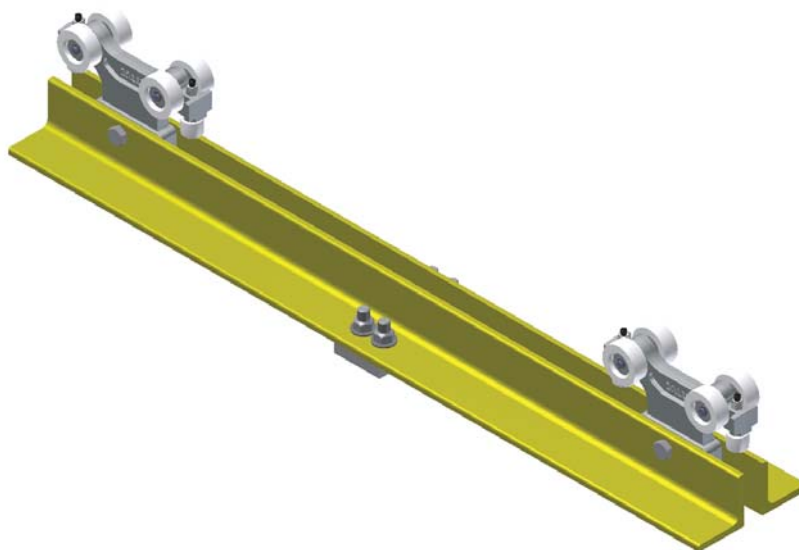
22521 SINGLE END TRUCK
 SINGLE TROLLEY END TRUCK AT EACH END OF CRANE ORDER.
 RATED LOAD: 550 lbs. [250 Kg.]
 WEIGHT: 5 lbs. [2.3 Kg.]



- **22545** ETA-4/5 Rigid End Truck for Spans up to 18' (5.5m)
- Rated Load 1100 lbs (500kg)

Weight

15 lbs. (6.8kg)

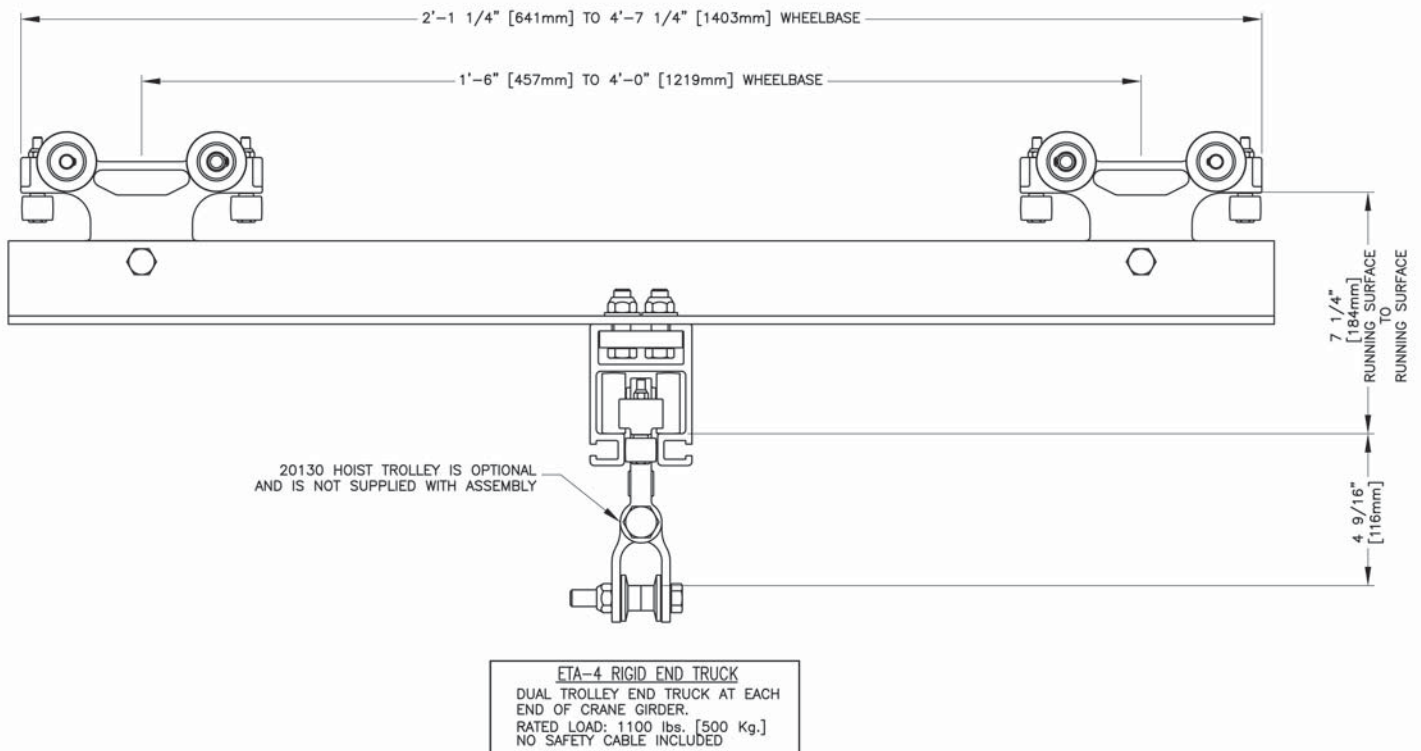
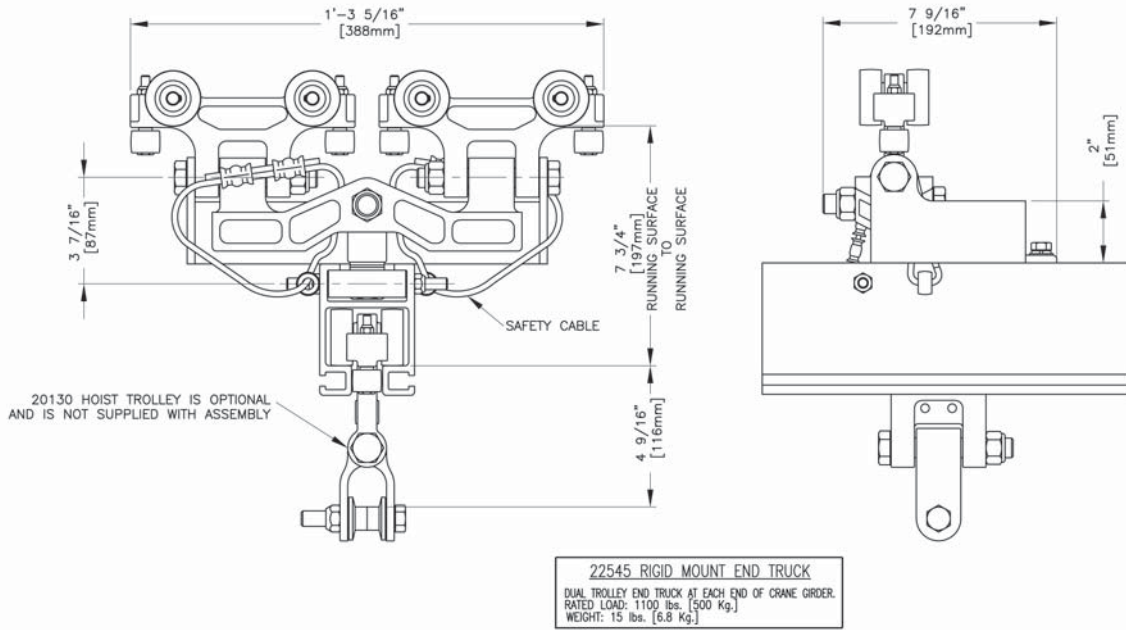


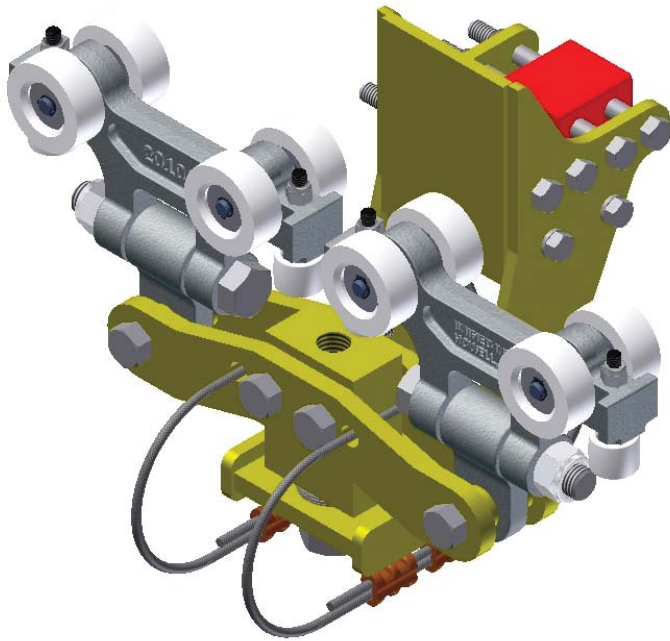
ETA-4 RIGID END TRUCK

- End truck assemblies for single girder bridge cranes to run on ETA4/5 runways.
- Attaches to ETA-4, ETA-5 and ETA-8.
- **22546** 1'-6" (457mm) wheelbase for spans 2'-0" (609mm) to 5'-0" (1524mm)
- **22547** 2'-0" (609mm) wheelbase for spans 6'-0" (1829mm) to 9'-0" (2743mm)
- **22548** 2'-6" (762mm) wheelbase for spans 10'-0" (3048mm) to 13'-0" (3962mm)
- **22549** 3'-0" (914mm) wheelbase for spans 14'-0" (4267mm) to 17'-0" (5182mm)
- **22550** 3'-6" (1066mm) wheelbase for spans 18'-0" (5486mm) to 20'-0" (6096mm)
- **22551** 4'-0" (1219mm) wheelbase for spans 21'-0" (6400mm) to 25'-0" (7620mm)
- No safety cable included
- Rated Load 1100 lbs (500kg)

Weight

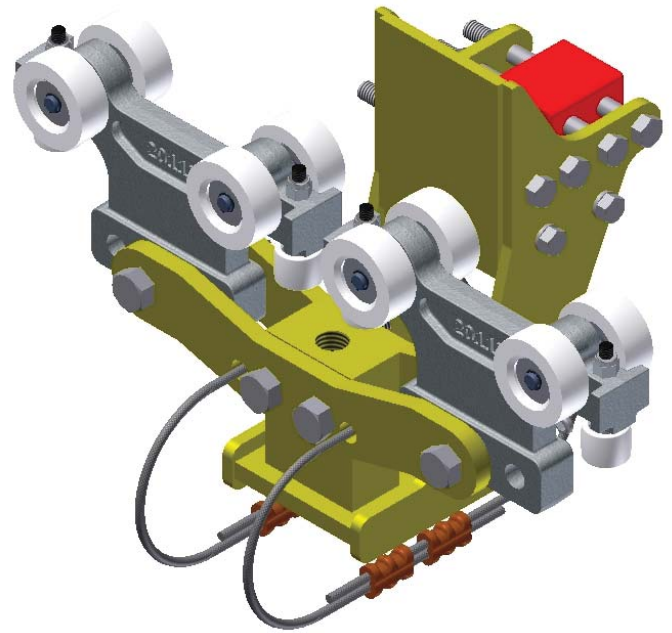
24 lbs. (10.8kg)
28 lbs. (12.7kg)
32 lbs. (14.5kg)
36 lbs. (16.3kg)
40 lbs. (18.1kg)
44 lbs. (20kg)





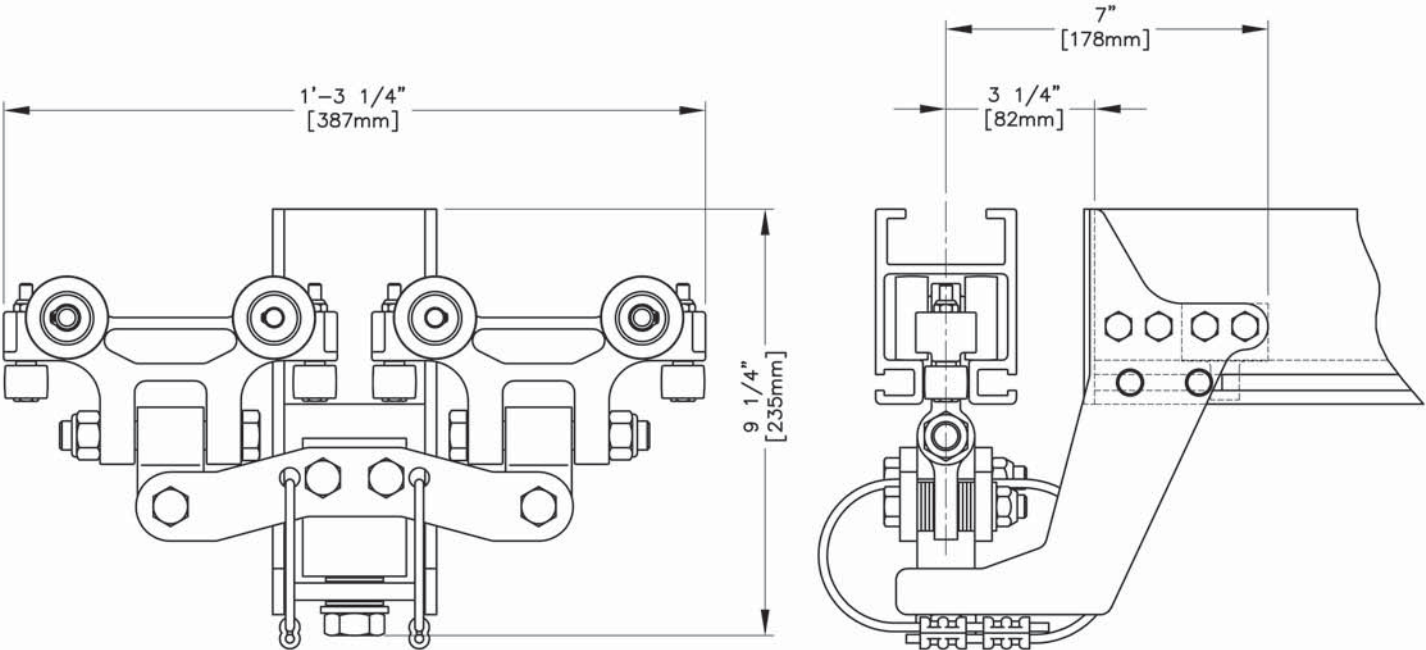
22600 ETA-4/5 Articulating Low Headroom
End Truck

- To operate on ETA-4/5.
- Rated Load 1100 lbs. (500kg)

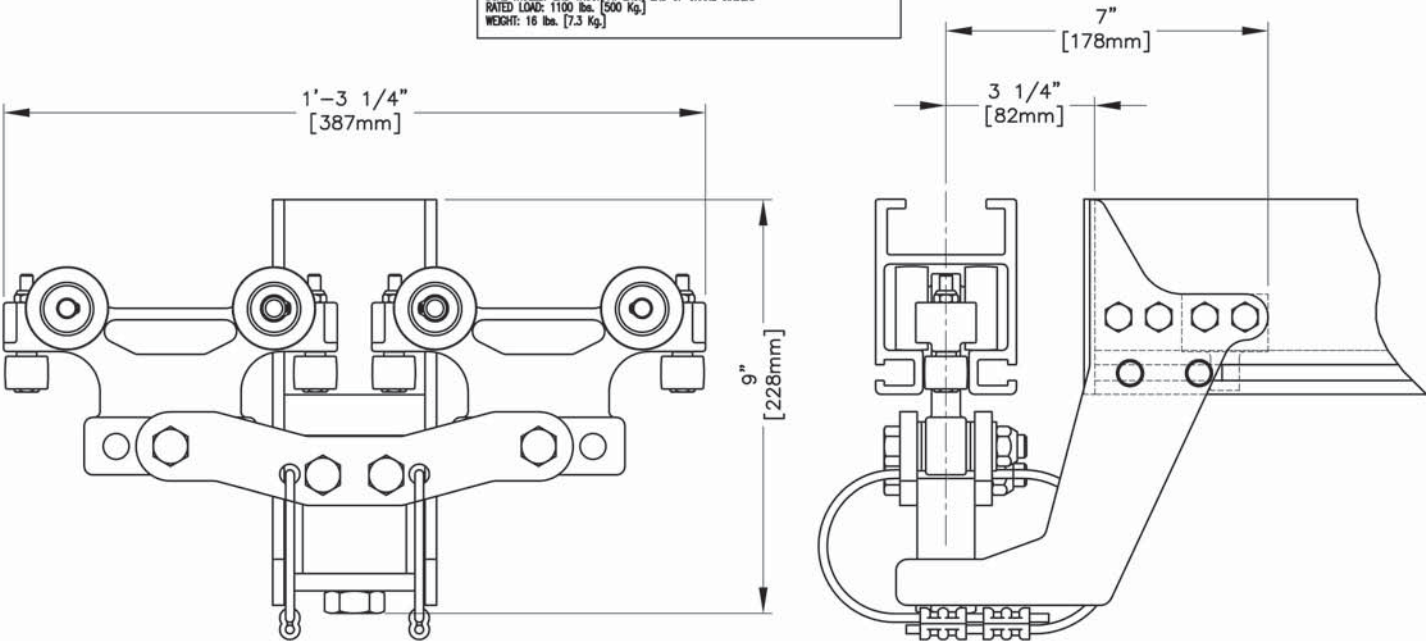


22605 ETA-4/5 Rigid Low Headroom
End Truck

- To operate on ETA-4/5.
- Rated Load 1100 lbs. (500kg)



22600 ETA-4/5 ARTICULATING LOW HEAD ROOM END TRUCK
DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
RATED LOAD: 1100 lbs. [500 Kg.]
WEIGHT: 16 lbs. [7.3 Kg.]



22605 ETA-4/5 RIGID LOW HEAD ROOM END TRUCK
DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
RATED LOAD: 1100 lbs. [500 Kg.]
WEIGHT: 13 lbs. [5.9 Kg.]



STANDARD RAIL END TRUCKS (WITHOUT KICKUP WHEELS)

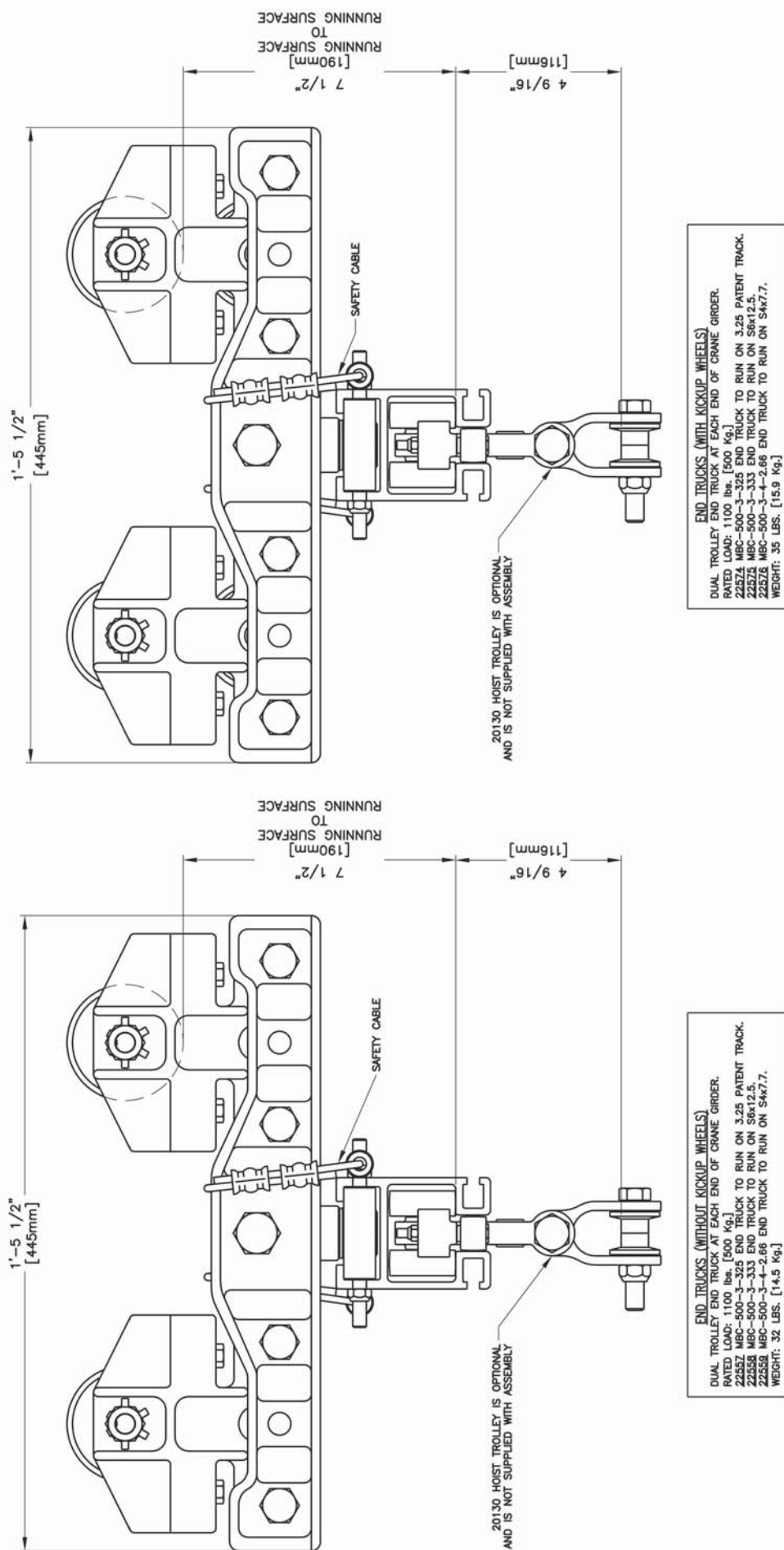
- End truck assemblies for bridge cranes.
Rated Load 1100 lbs. (500kg)
- **22557** MBC-500-3-325 End Truck to run on 3.25 Patent Track.
- **22558** MBC-500-3-333 End Truck to run on S6x12.5.
- **22559** MBC-500-3-4-266 End Truck to run on S4x7.7.

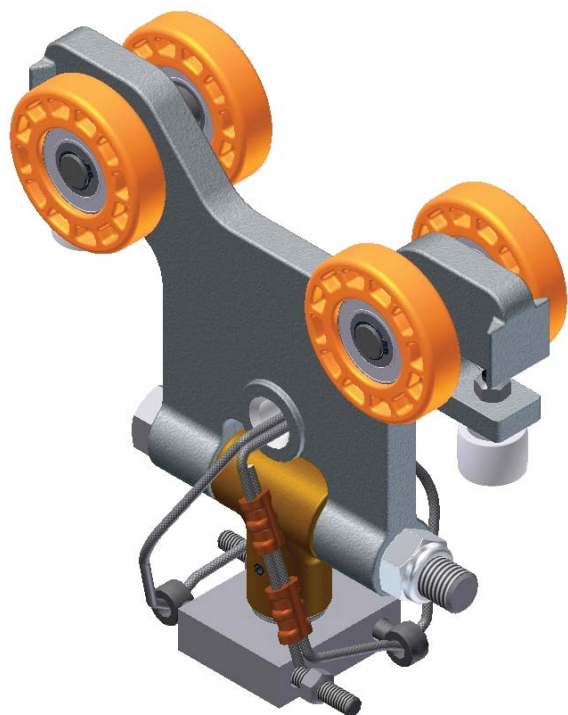


STANDARD RAIL END TRUCKS (WITH KICKUP WHEELS)

- End truck assemblies for bridge cranes.
Rated Load 1100 lbs. (500kg)
- **22574** MBC-500-3-325 End Truck to run on 3.25 Patent Track.
- **22575** MBC-500-3-333 End Truck to run on S6x12.5.
- **22576** MBC-500-3-4-266 End Truck to run on S4x7.7.

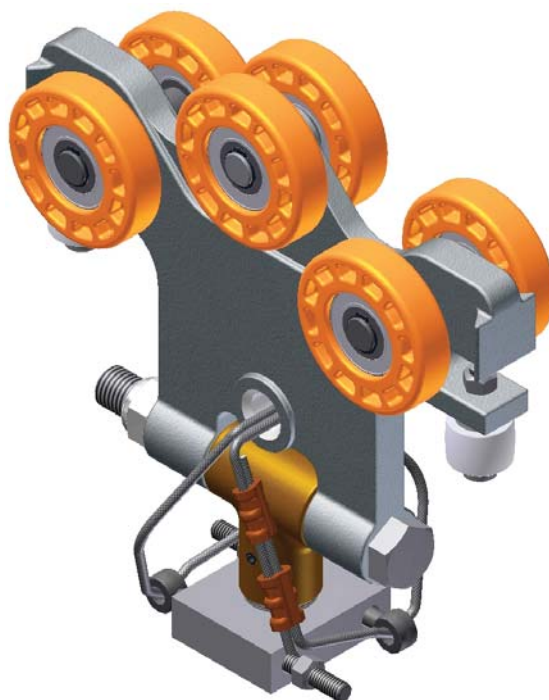
■ Note: Consult factory for end trucks that need to ride on metric beams.





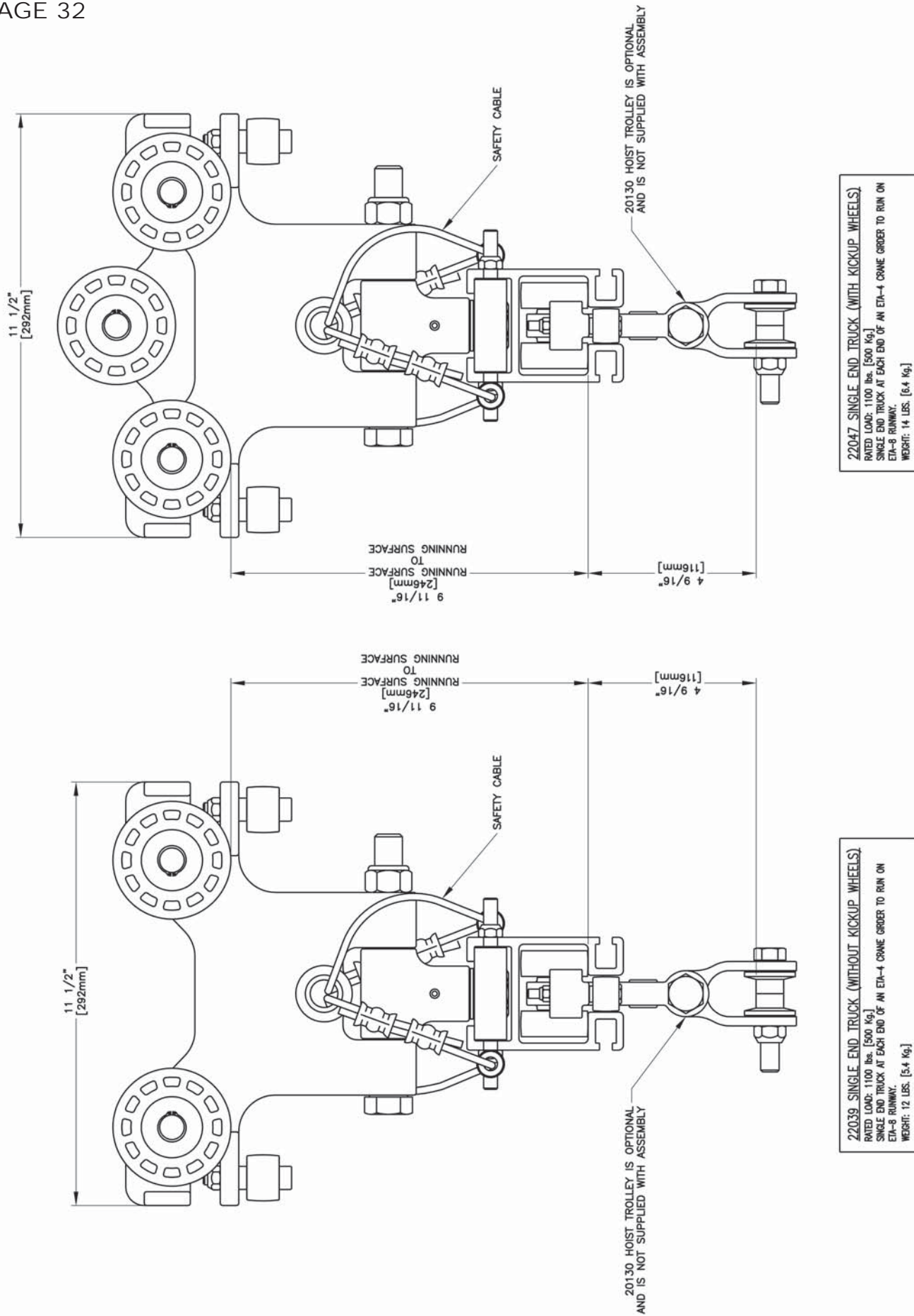
22039 ETA-4/5 SINGLE END TRUCK
(WITHOUT KICKUP WHEELS)

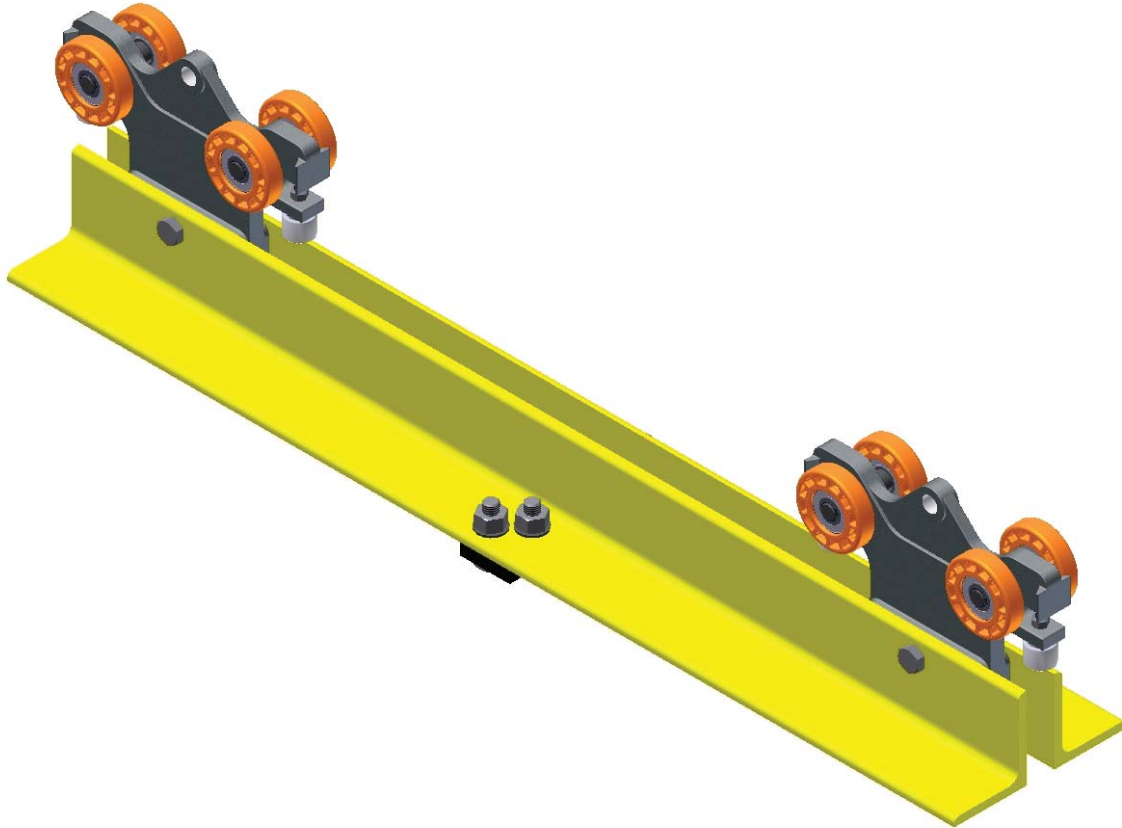
- To run on ETA-8 runway.
- Rated Load 1100 lbs. (500kg)



22047 ETA-4/5 SINGLE END TRUCK
(WITH KICKUP WHEELS)

- To run on ETA-8 runway.
- Rated Load 1100 lbs. (500kg)

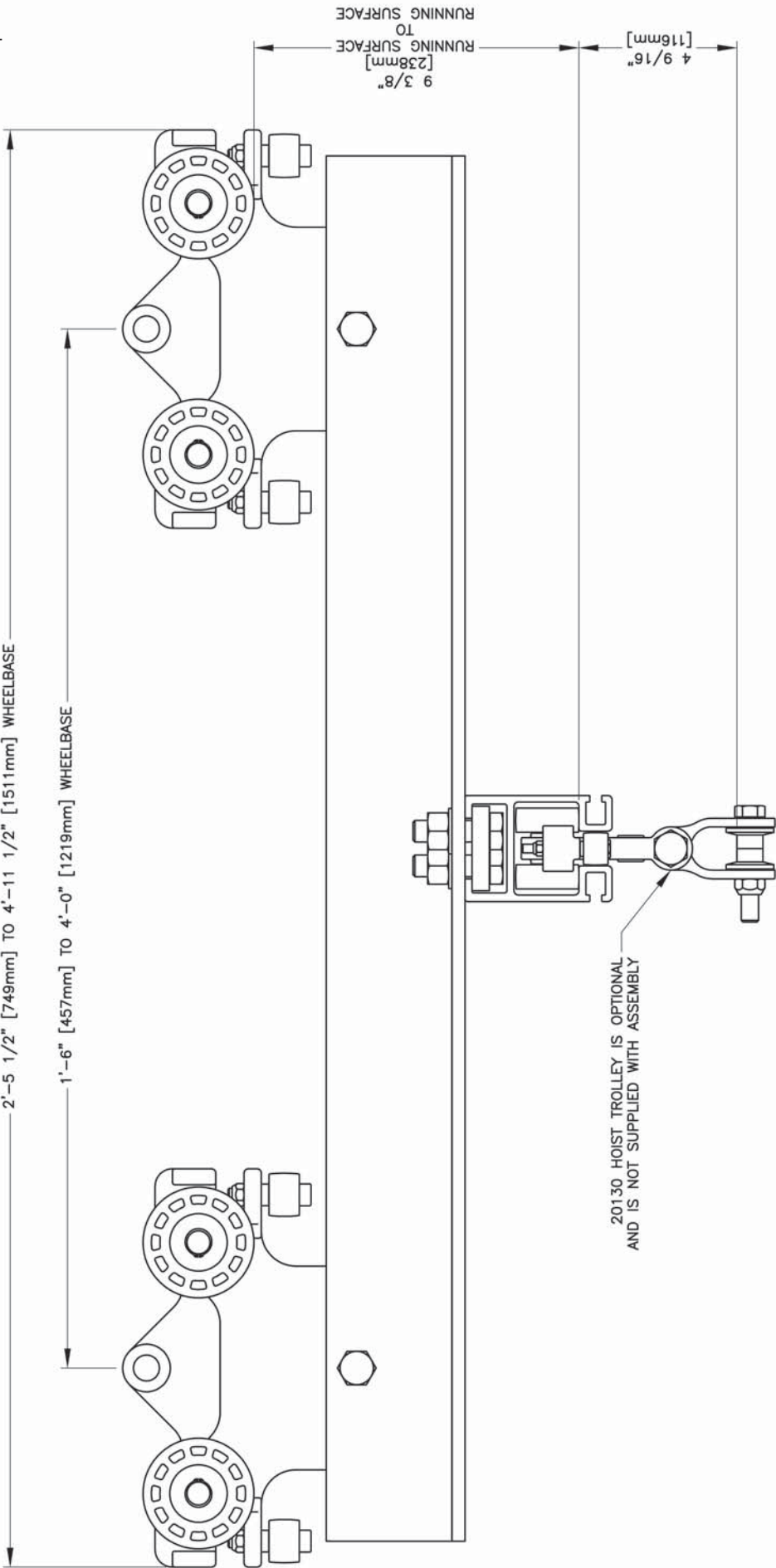




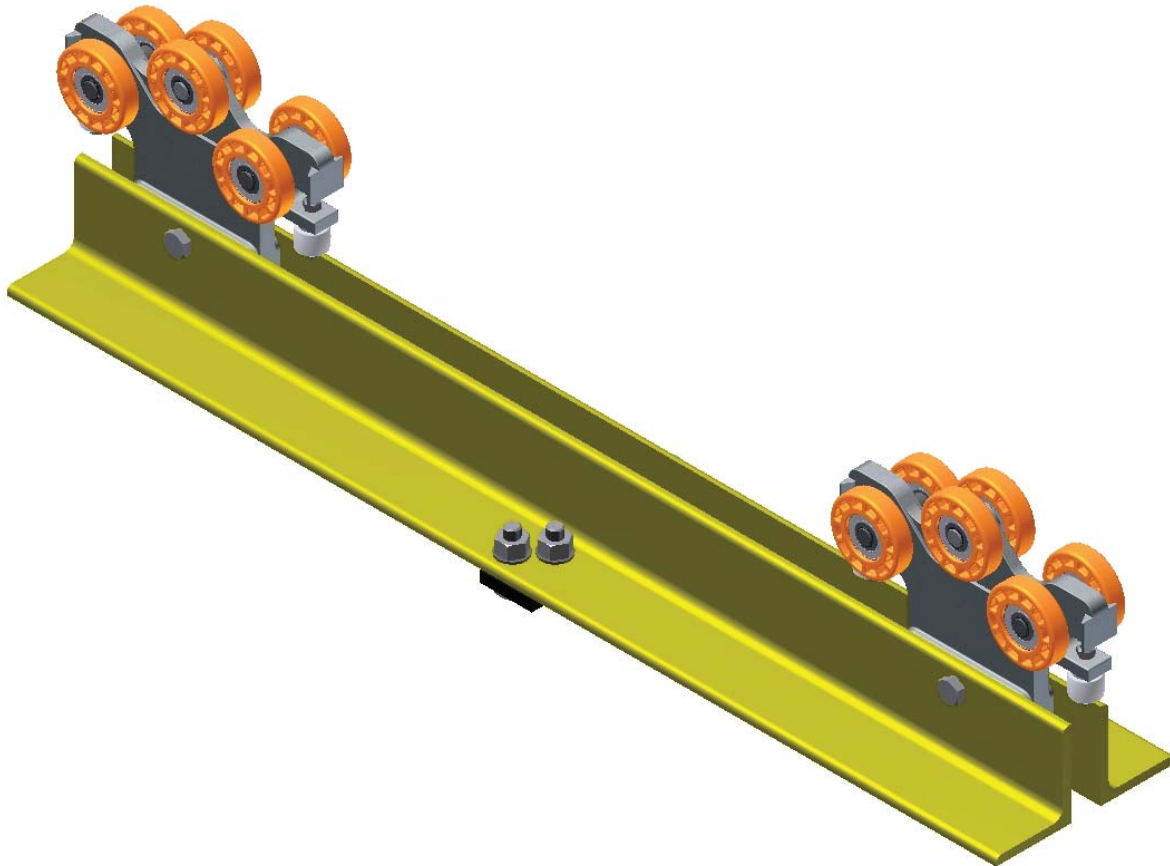
ETA-8 RIGID END TRUCKS WITHOUT KICKUP

- End truck assemblies for single girder bridge cranes to run on ETA-8 Runway.
- Attaches to ETA-4, ETA-5, and ETA-8 Bridges.

	Weight
■ 22221 1'-6" (457mm) wheelbase for spans 3'-0" (914mm) to 6'-0" (1829mm)	61 lbs. (27.6kg)
■ 22222 2'-0" (609mm) wheelbase for spans 7'-0" (2133mm) to 10'-0" (3048mm)	70 lbs. (32kg)
■ 22223 2'-6" (762mm) wheelbase for spans 11'-0" (3353mm) to 14'-0" (4267mm)	79 lbs. (35.8kg)
■ 22224 3'-0" (914mm) wheelbase for spans 15'-0" (4572mm) to 18'-0" (5486mm)	88 lbs. (40kg)
■ 22225 3'-6" (1066mm) wheelbase for spans 19'-0" (5791mm) to 21'-0" (6400mm)	98 lbs. (44.5kg)
■ 22226 4'-0" (1219mm) wheelbase for spans 22'-0" (6705mm) to 25'-0" (7620mm)	107 lbs. (48.5kg)
■ Rated Load 2200 lbs. (1000kg)	
■ No safety cable included	



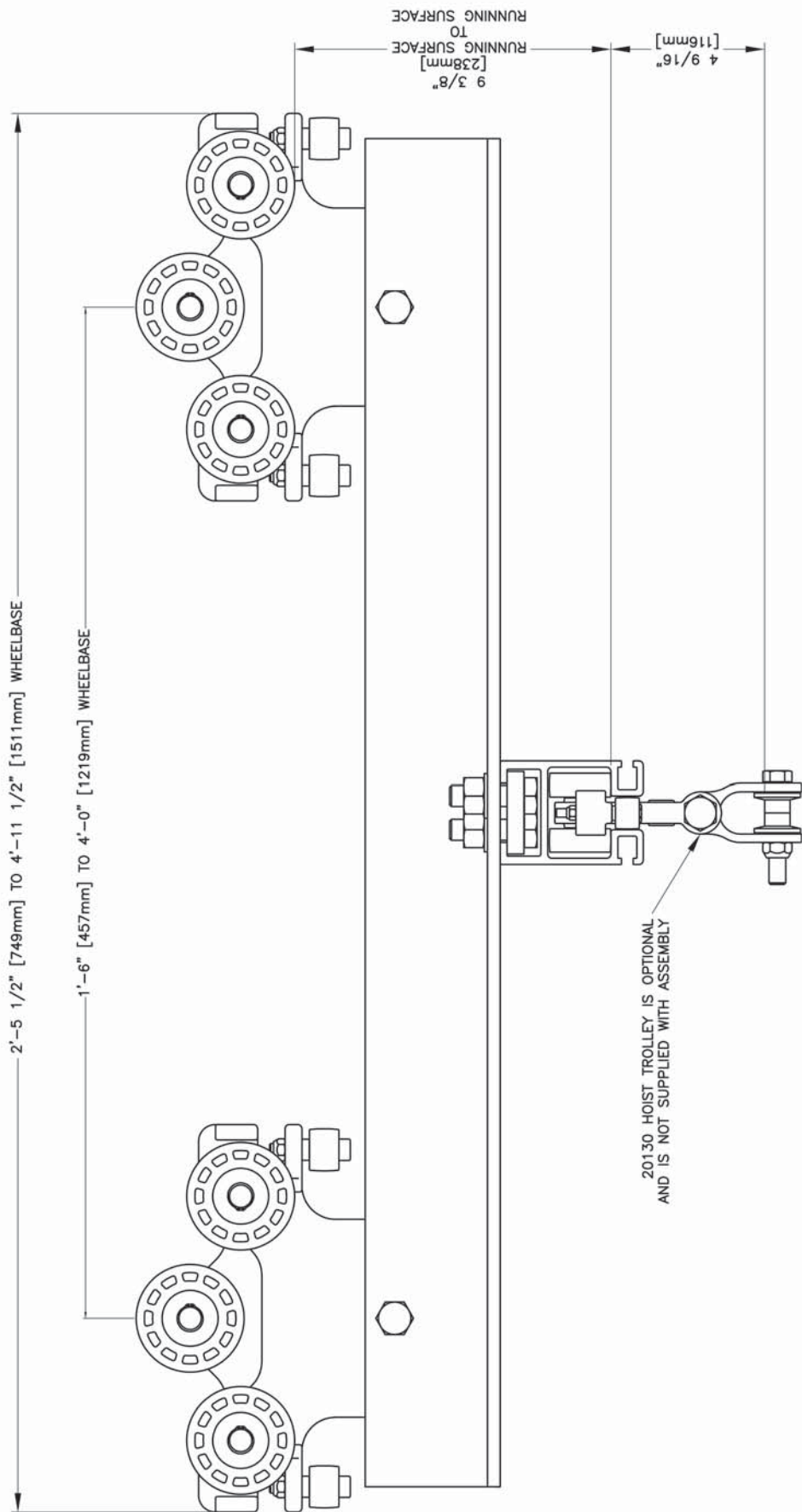
ETA-8 RIGID END TRUCK WITHOUT KICKUP
DUAL TROLLEY END TRUCK AT EACH
END OF CRANE GIRDER.
RATED LOAD: 2200 lbs. [1000 Kg.]
NO SAFETY CABLE INCLUDED



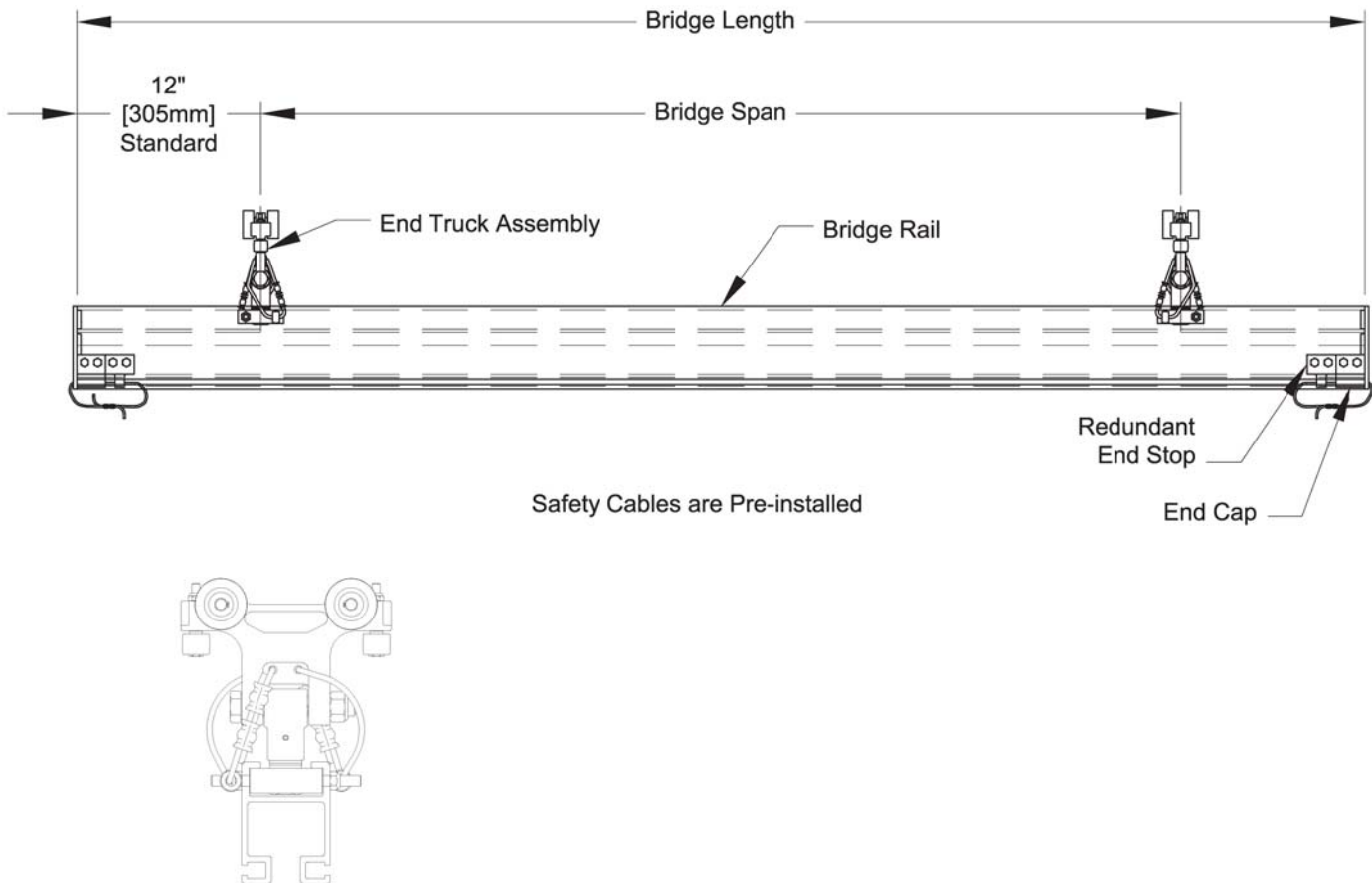
ETA-8 RIGID END TRUCKS WITH KICKUP

- End truck assemblies for single girder bridge cranes to run on ETA-8 Runway.
- Attaches to ETA-4, ETA-5, and ETA-8 Bridges.

	Weight
■ 22227 1'-6" (457mm) wheelbase for spans 3'-0" (914mm) to 6'-0" (1829mm)	63 lbs. (28.5kg)
■ 22228 2'-0" (609mm) wheelbase for spans 7'-0" (2133mm) to 10'-0" (3048mm)	72 lbs. (32.6kg)
■ 22229 2'-6" (762mm) wheelbase for spans 11'-0" (3353mm) to 14'-0" (4267mm)	81 lbs. (36.7kg)
■ 22230 3'-0" (914mm) wheelbase for spans 15'-0" (4572mm) to 18'-0" (5486mm)	90 lbs. (40.8kg)
■ 22231 3'-6" (1066mm) wheelbase for spans 19'-0" (5791mm) to 21'-0" (6400mm)	99 lbs. (45kg)
■ 22232 4'-0" (1219mm) wheelbase for spans 22'-0" (6705mm) to 25'-0" (7620mm)	108 lbs. (49kg)
■ Rated Load 2200 lbs. (1000kg)	
■ No safety cable included	



ETA-8 RIGID END TRUCK WITH KICKUP
DUAL TROLLEY END TRUCK AT EACH
END OF CRANE GIRDER.
RATED LOAD: 2200 lbs. [1000 Kg.]
NO SAFETY CABLE INCLUDED



The Bridge Crane Assembly Consists of:

- One bridge beam (section of rail)
- Two end truck assemblies (mounted to the bridge with a trolley to roll inside of the runway, safety cables are pre-installed)
- Double end stop Assembly (Ull Standard)

Example (Bridge Rail only)

Order Number:

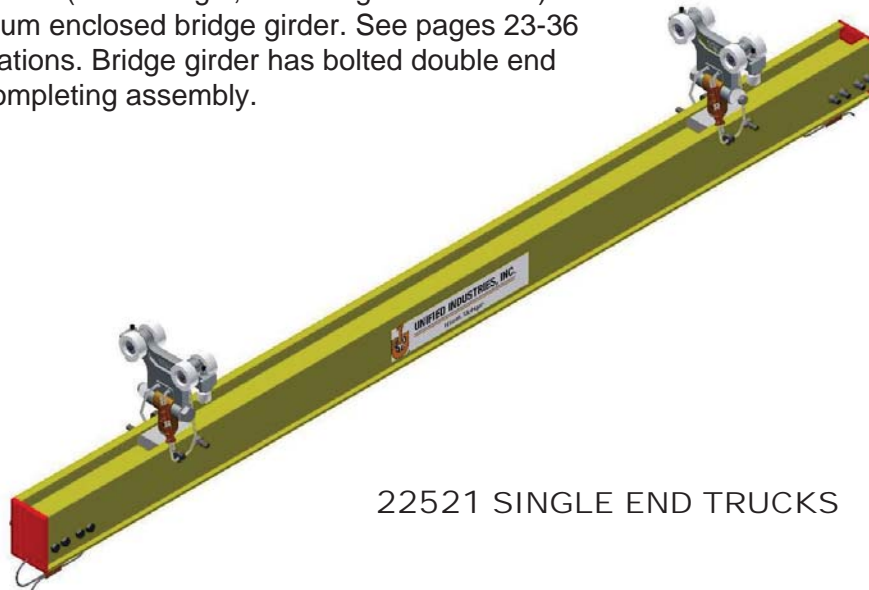
ETA4|BR|08

Total Bridge Length (in Feet)

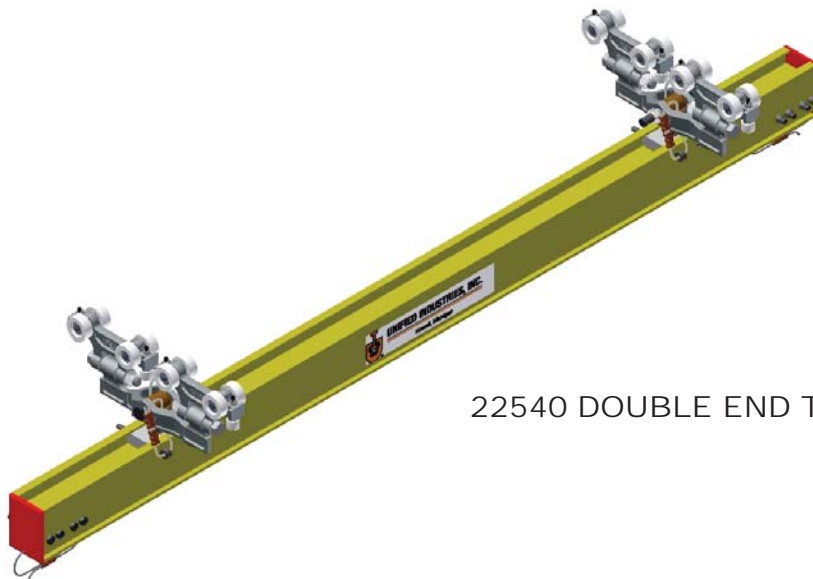
Type of Bridge Rail

- Round up to the nearest foot (Cut to 8'-6" = ETA4BR09)

Unified ETA-4 single girder bridge crane consists of two end truck assemblies (either single, dual or rigid end trucks) supporting an aluminum enclosed bridge girder. See pages 23-36 for end truck specifications. Bridge girder has bolted double end stops at each end, completing assembly.

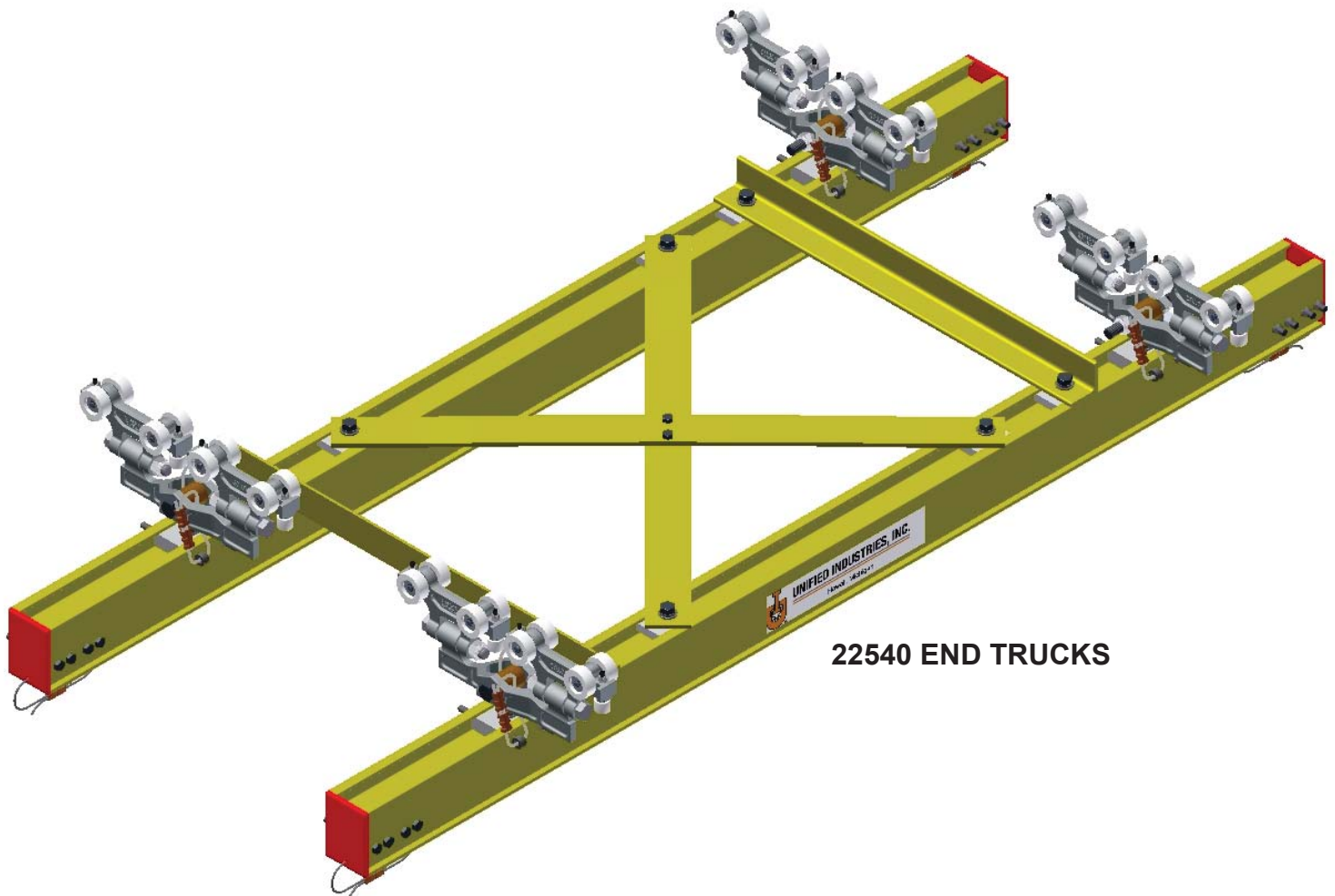


22521 SINGLE END TRUCKS



22540 DOUBLE END TRUCKS

- Standard overhang each end 12" (305mm)
- Longer overhangs consult Factory
- Paint color-specify when ordering
- Standard double end stops

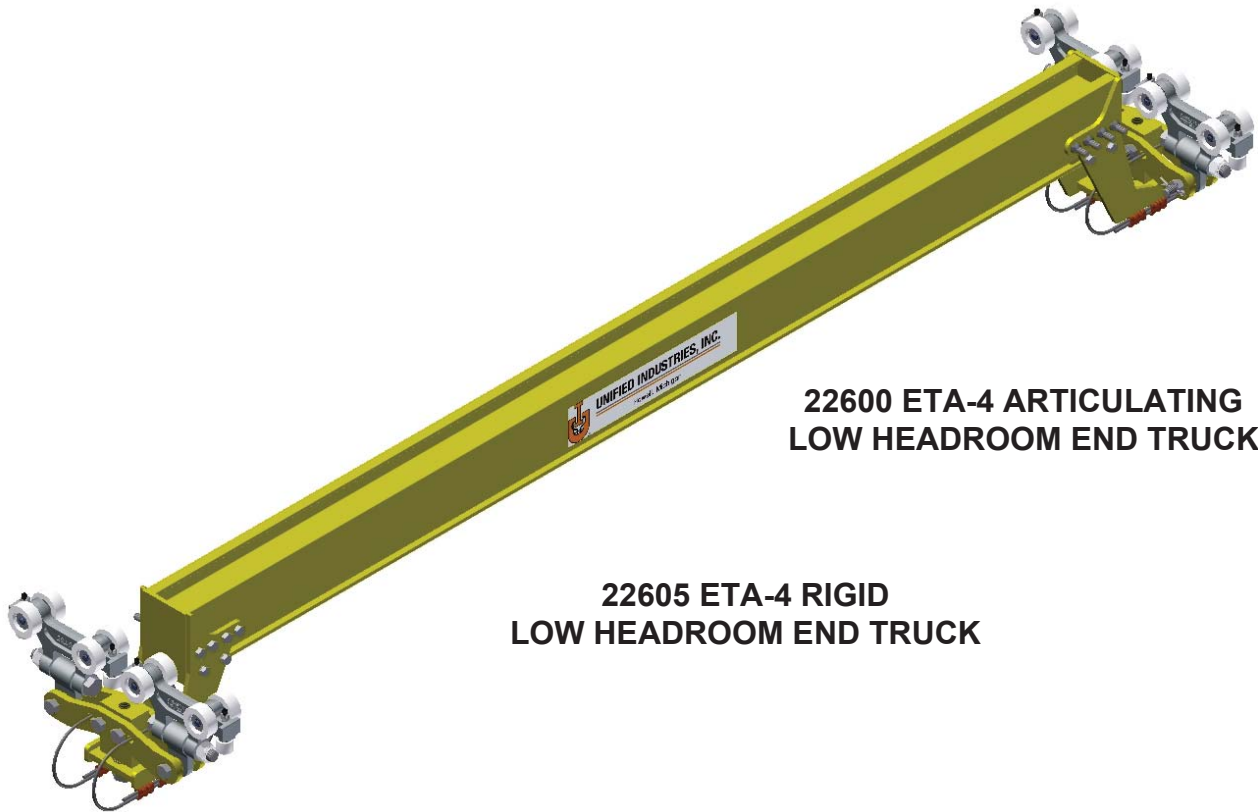


22540 END TRUCKS

ETA-4 double girder bridge cranes consist of four single or dual trolley end truck assemblies supporting ETA-4 extruded aluminum bridge girders. See page 23-36 for end truck specifications. Bridge girder has bolted polyurethane end caps at each end, completing assembly.

Used for suspending hoists, nut runners, indexing fixtures, mechanical grabs, etc.

- Diagonal bracing to prohibit articulation
- 12" (305mm) standard overhang
- Air line festoon kits available. See page 48 for specifications
- Festoon trolley available, see page 18 & 19
- Paint color - specify when ordering
- Double end stops standard
- Longer overhangs consult factory

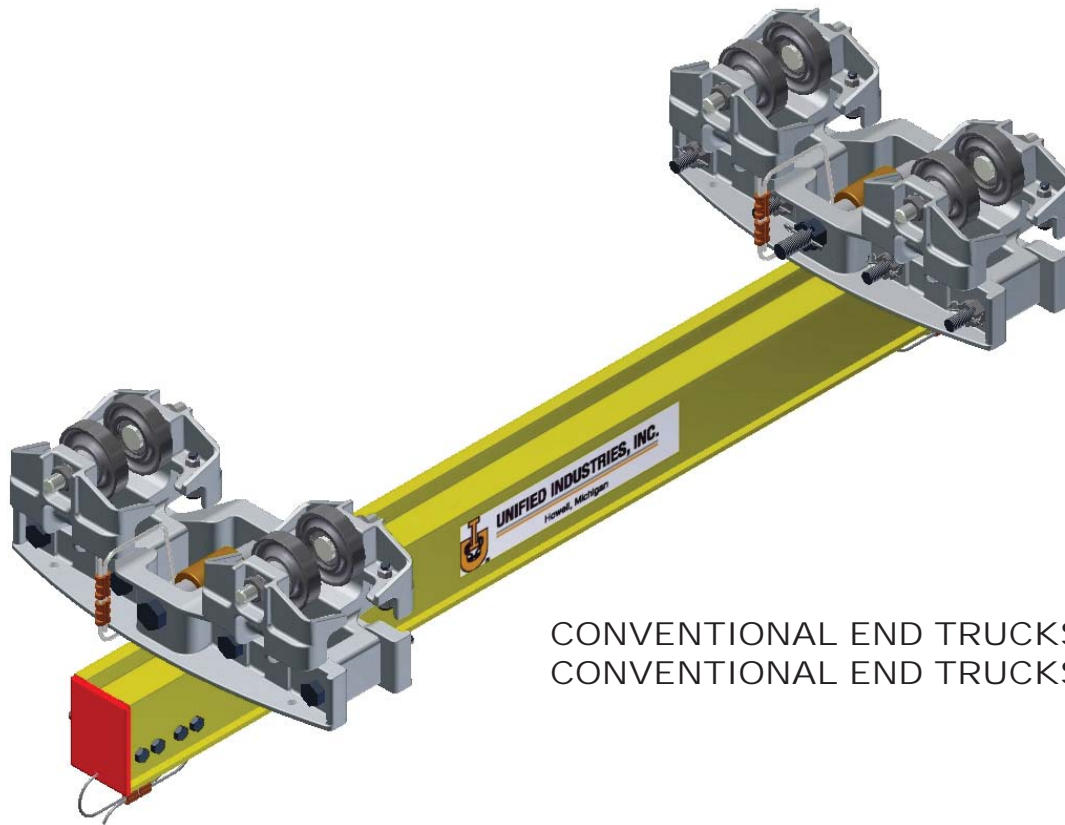


**22600 ETA-4 ARTICULATING
LOW HEADROOM END TRUCK**

**22605 ETA-4 RIGID
LOW HEADROOM END TRUCK**

Unified ETA-4 single girder low headroom bridge crane consists of two end truck assemblies supporting an aluminum enclosed bridge girder. Bridge girder and runway girder are held at the same elevation with bolted construction and a neoprene bumper at each end completing the assembly.

- Increased headroom in low areas
- Paint color - specify when ordering
- Air festooning brackets and kits are available
- Small tool, festoon trolley or tag line slider available.
- Overhangs are not available



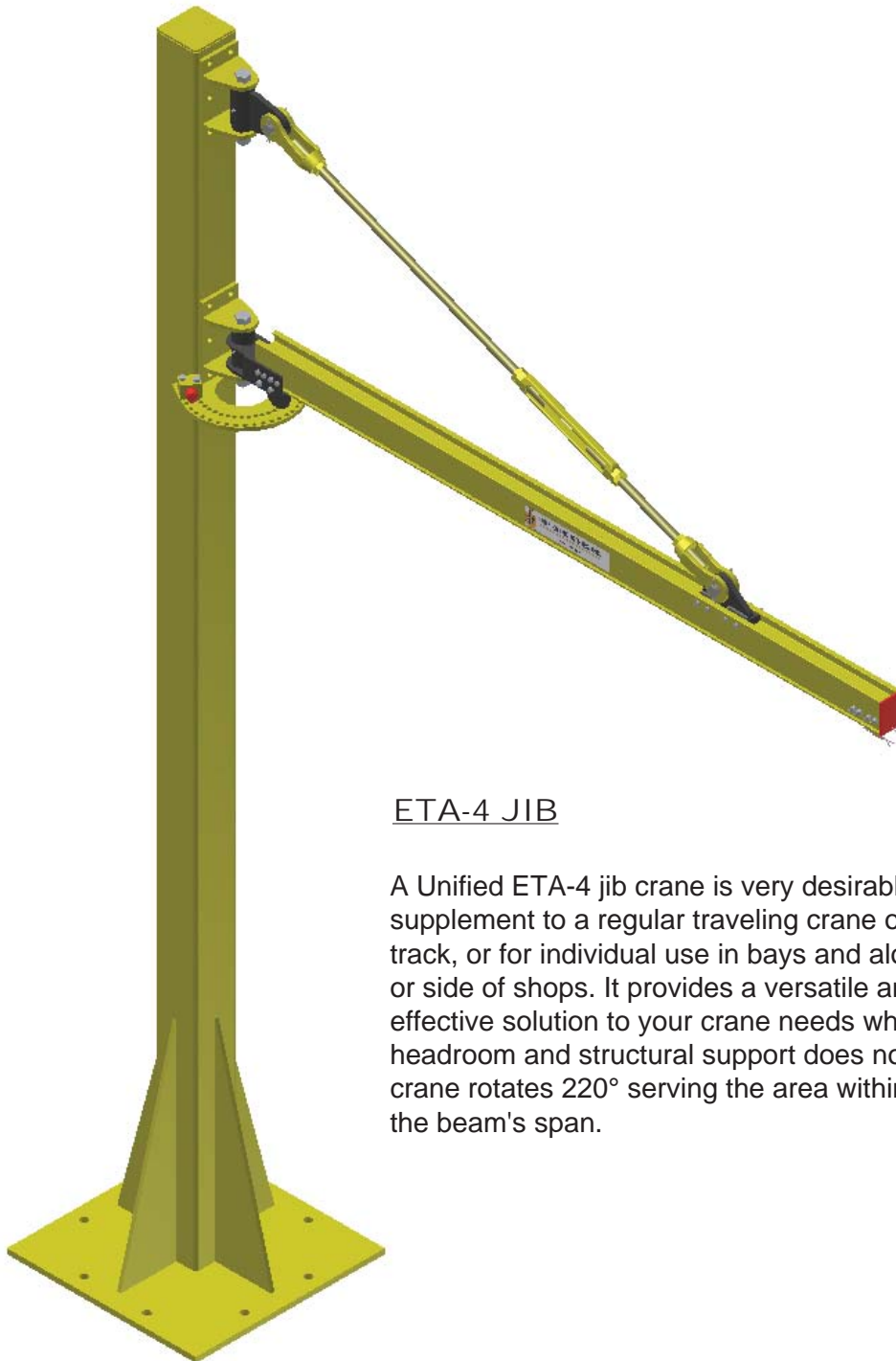
CONVENTIONAL END TRUCKS (W/O KICK-UP)
CONVENTIONAL END TRUCKS (KICK-UP)

Designed Specifically For Existing Runway Systems

- **22557** end truck assembly MBC-500-3-325 without kickup wheel for operation on 3.25 or 3.33 flat rail. Rated Load 1100 lbs. (500kg)
- **22558** end truck assembly MBC-500-3-333 without kickup wheel for operation on S6x12.5. Rated Load 1100 lbs. (500kg)
- **22559** end truck assembly MBC-500-3-4-266 without kickup wheel for operation on S4x7.7. Rated Load 1100 lbs. (500kg)
- **22574** end truck assembly MBC-500-3-325 with kickup wheel for operation on 3.25 or 3.33 flat rail. Rated Load 1100 lbs. (500kg)

Note: For Metric size beams consult factory.

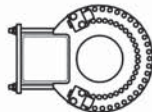
- **22575** end truck assembly MBC-500-3-333 with kickup wheel for operation on S6x12.5. Rated Load 1100 lbs. (500kg)
- **22576** end truck assembly MBC-500-3-4-266 without kickup wheel for operation on S4x7.7. Rated Load 1100 lbs. (500kg)
- Self aligning end trucks
- High tensile almag alloy castings make up end truck assembly
- Counter thrust trolleys for countering extended loads are available
- Low inertia: 1-2% of load
- Paint color-specify when ordering
- Double end stops standard
- Optional rigid mount bracket
- Longer overhangs consult factory



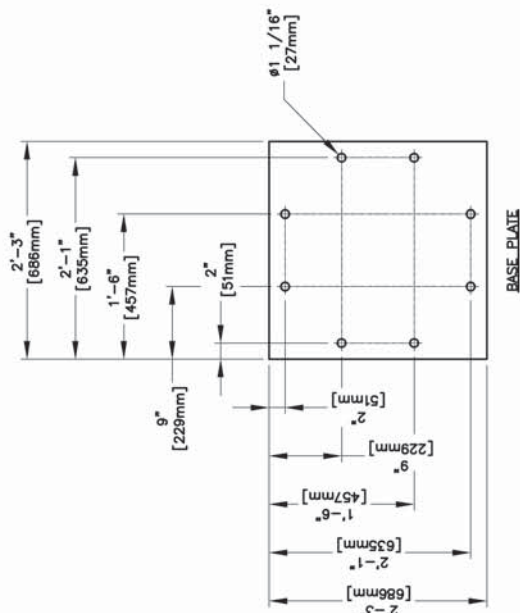
ETA-4 JIB

A Unified ETA-4 jib crane is very desirable as a supplement to a regular traveling crane or monorail track, or for individual use in bays and along the walls or side of shops. It provides a versatile and cost-effective solution to your crane needs where adequate headroom and structural support does not exist. The jib crane rotates 220° serving the area within the radius of the beam's span.

Note: Rated Loads above 550lbs require a Dual Hoist Trolley



98536 6" BOLTED JIB COLUMN INDEX STOP ASSEMBLY

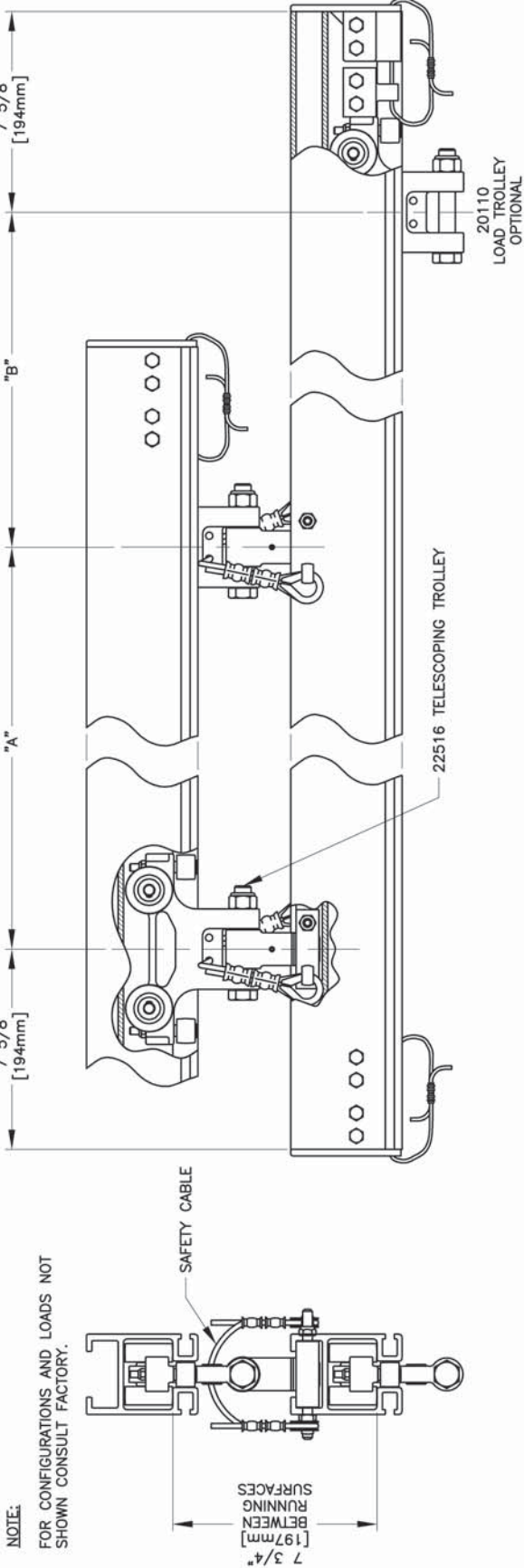


TEST LOAD SHALL NOT BE MORE THAN 125% OF THE RATED LOAD UNLESS RECOMMENDED BY THE MANUFACTURER. COLUMN SHALL NOT BE LOADED BEYOND IT'S RATED LOAD CAPACITY EXCEPT FOR TEST PURPOSES.

- NOTES:
1. CONSULT FACTORY FOR UNDEREANCES MORE THAN 12'-0" [3658mm].
 2. THE MINIMUM ANCHOR REQUIREMENT IS A #3/4" [20mm] WEDGE TYPE ANCHOR BOLT WITH 3 1/4" [83mm] STANDARD EMBEDMENT IN 6" [152mm] 3000 PSI [2070 N/cm²] CONCRETE.

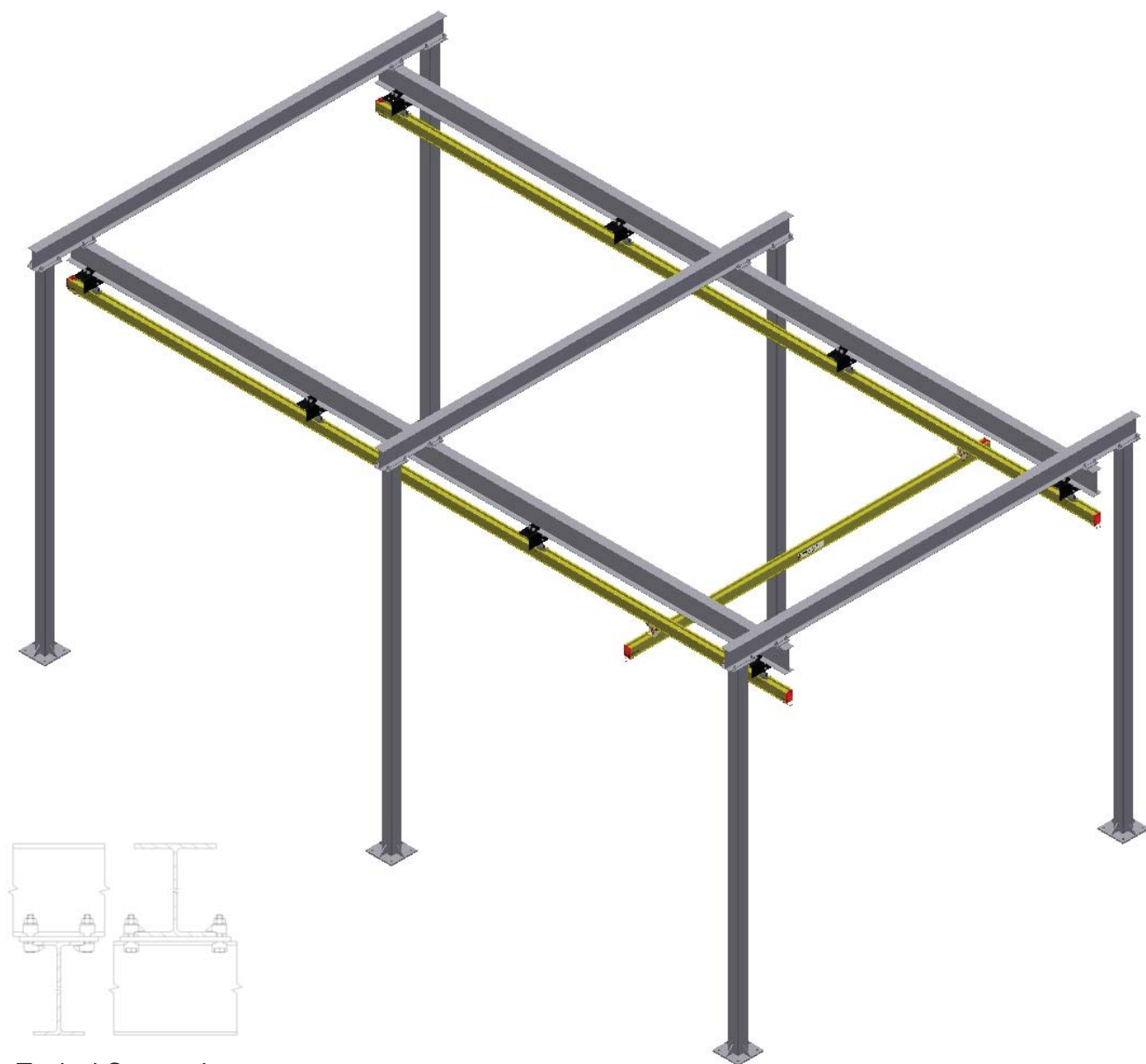
ETA-4 TELESCOPING UNITS

RATED LOAD: BASED UPON STATIC LOAD TESTING AND CARRYING CAPACITY OF HIGH IMPACT WHEELS.
TEST LOAD: SHALL NOT BE MORE THAN 125% OF THE RATED LOAD UNLESS RECOMMENDED BY THE MANUFACTURER. CRANE SHALL NOT BE LOADED BEYOND IT'S RATED LOAD CAPACITY EXCEPT FOR TEST PURPOSES.



ETA-4 TELESCOPE UNIT									
"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"
		L/250	L/450			L/250	L/450		
18	24	200 lbs.	200 lbs.	30	24	265 lbs.	265 lbs.	36	24
INCH	INCH	150 lbs.	150 lbs.	INCH	INCH	150 lbs.	150 lbs.	INCH	INCH
		120 lbs.	105 lbs.			170 lbs.	90 lbs.		
						155 lbs.	85 lbs.		

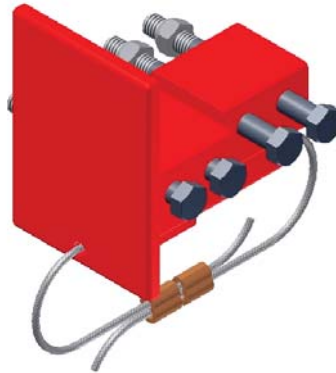
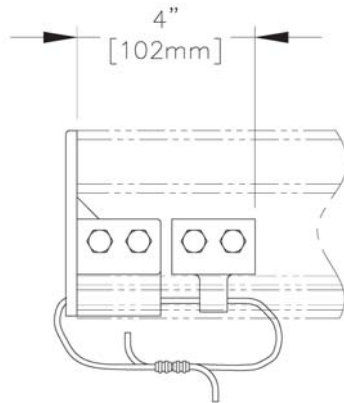
ETA-4 TELESCOPE UNIT									
"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"
		L/250	L/450			L/250	L/450		
457	610	91 Kg.	91 Kg.	762	610	120 Kg.	120 Kg.	914	610
mm	mm	68 Kg.	68 Kg.	mm	mm	104 Kg.	61 Kg.	mm	mm
		54 Kg.	48 Kg.			70 Kg.	39 Kg.		
						129 Kg.	113 Kg.		
						143 Kg.	98 Kg.		



Typical Connection

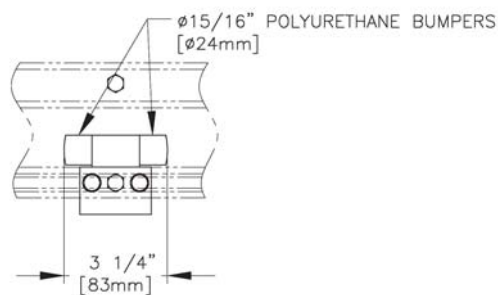
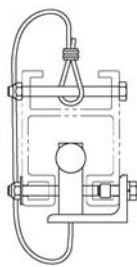
FREE STANDING FLOOR SUPPORT STRUCTURES

- Designed & engineered to each application.
- Floor supports do not require bracing to existing structures.
- P.E. certification optional.
- Paint to customer color specification.

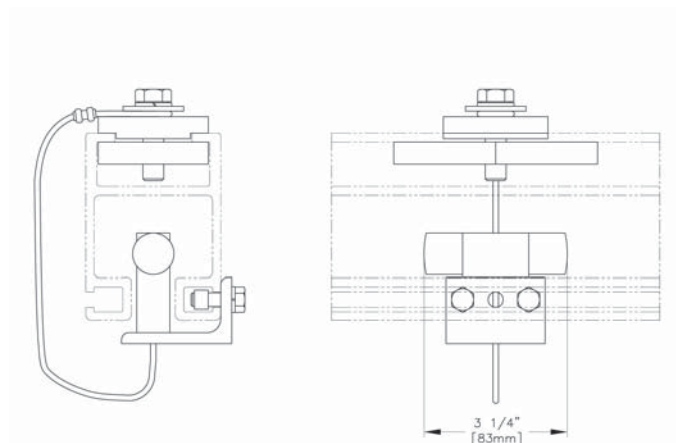


24900 ETA-4 POLY DOUBLE END CAP ASSEMBLY Weight 1 lb (.45kg)

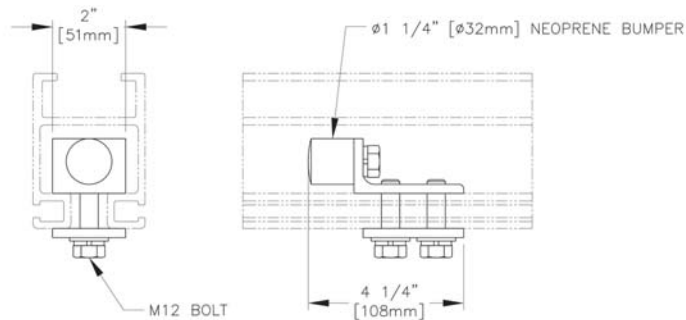
- Double End Stops for added safety are standard
- For Single End Stop replacement parts see ETA Parts Manual



25575 ETA-4/5 INSERTABLE MID-RAIL STOP ASSEMBLY Weight: 1 lb (.45 kg)

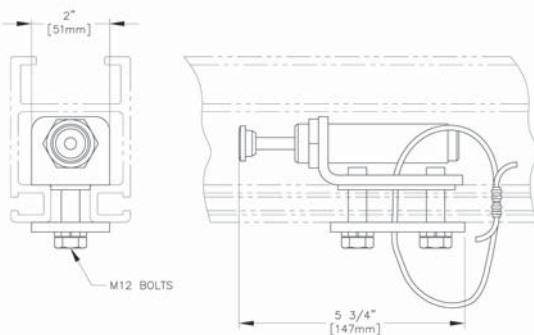


**25577 ETA-4/5 ADJUSTABLE INSERTABLE MID-RAIL STOP ASSEMBLY
Weight: 2 lbs. (.90 kg)**



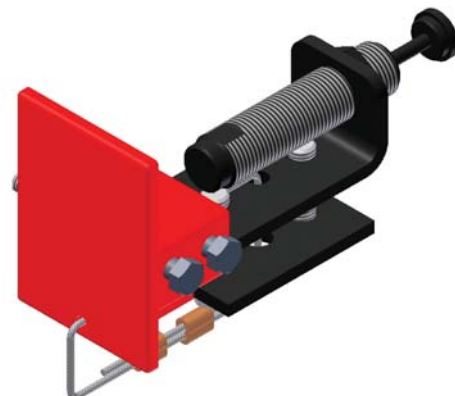
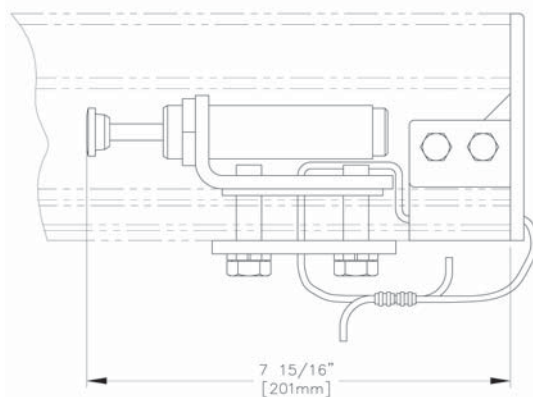
25580 ETA-4/5 MID-STOP ASSEMBLY

■ Weight 1 lb (0.4kg)



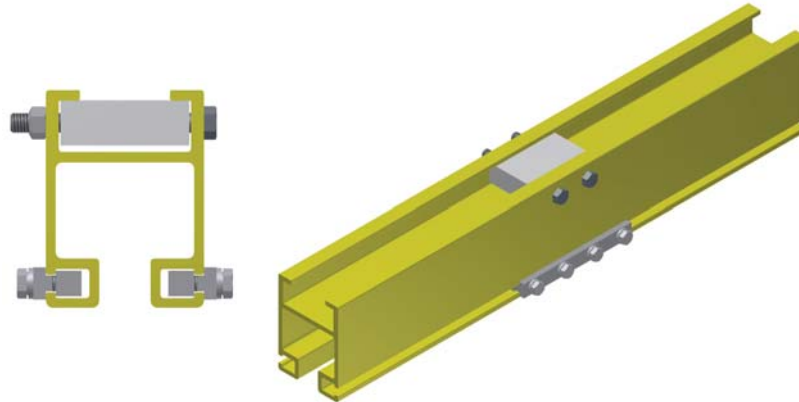
25185 ETA-4/5 POSITION STOP SHOCK ABSORBER ASSEMBLY

■ Weight: 2 lbs. (0.9kg)

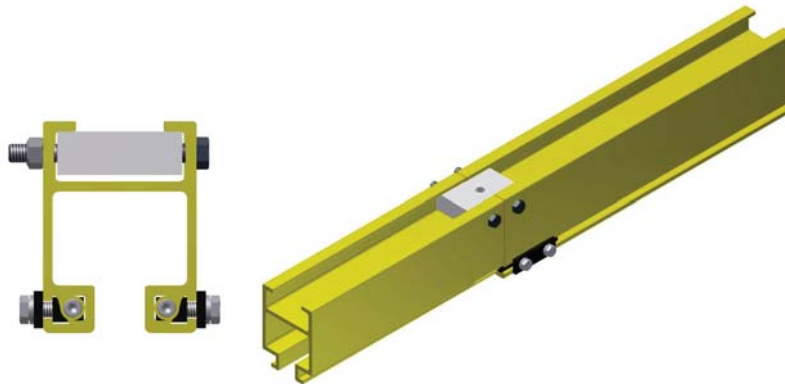


25133 ETA-4 END STOP SHOCK ABSORBER ASSEMBLY

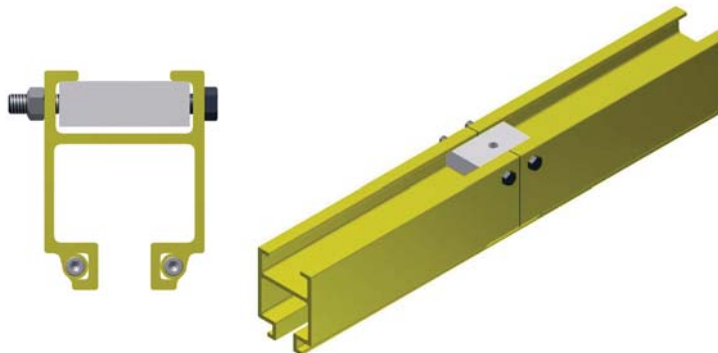
■ Weight: 3 lbs. (1.3kg)



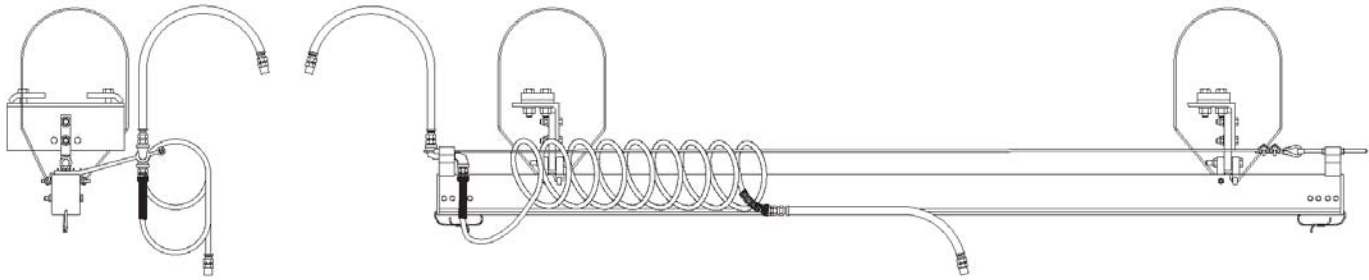
25514 ETA-4/5 BOLTED SPLICE ASSEMBLY
28050 ETA-4/5 BOLTED SPLICE BAR KIT (DOES NOT INCLUDE TOP BLOCK)



**25559 ETA-4 TRANSITION SPLICE ASSEMBLY
FOR OLD RAIL TO NEW RAIL**



25530 ETA-4 OLD RAIL SPLICE ASSEMBLY



RUNWAY AIR FESTOONING

RUNWAY AIR FESTOON KIT

Features

- Two Blue Whip Hoses x 36" (914mm)
- Blue Coiled Hose
- Two ETA Festoon Brackets
- 1/4" Nylon Coated Cable Assembly

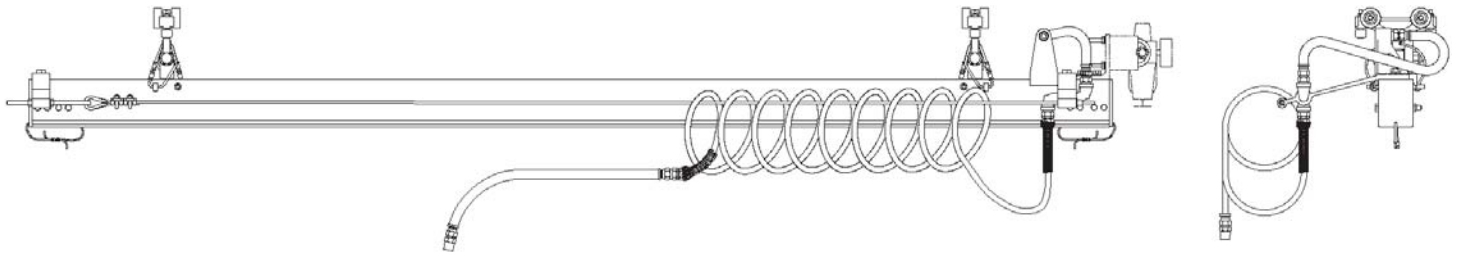
Part Number

■ 1/2" Hose Kits

- **29105** 5'-0" (1.5m) Long Runway Air Festoon Kit
- **29110** 10'-0" (3.0m) Long Runway Air Festoon Kit
- **29115** 15'-0" (4.5m) Long Runway Air Festoon Kit
- **29120** 20'-0" (6.0m) Long Runway Air Festoon Kit
- **29125** 25'-0" (7.6m) Long Runway Air Festoon Kit
- **29130** 30'-0" (9.1m) Long Runway Air Festoon Kit
- **29135** 35'-0" (10.6m) Long Runway Air Festoon Kit
- **29140** 40'-0" (12.1m) Long Runway Air Festoon Kit
- **29145** 45'-0" (13.7m) Long Runway Air Festoon Kit
- **29150** 50'-0" (15.2m) Long Runway Air Festoon Kit
- **29155** 55'-0" (16.7m) Long Runway Air Festoon Kit
- **29160** 60'-0" (18.2m) Long Runway Air Festoon Kit
- **29165** 65'-0" (19.8m) Long Runway Air Festoon Kit
- **29170** 70'-0" (21.3m) Long Runway Air Festoon Kit
- **29175** 75'-0" (22.8m) Long Runway Air Festoon Kit
- **29180** 80'-0" (24.3m) Long Runway Air Festoon Kit
- **29185** 85'-0" (25.9m) Long Runway Air Festoon Kit
- **29190** 90'-0" (27.4m) Long Runway Air Festoon Kit
- **29195** 95'-0" (28.9m) Long Runway Air Festoon Kit
- **29200** 100'-0" (30.4m) Long Runway Air Festoon Kit

■ 3/4" Hose Kits

- **29205** 5'-0" (1.5m) Long Runway Air Festoon Kit
- **29210** 10'-0" (3.0m) Long Runway Air Festoon Kit
- **29215** 15'-0" (4.5m) Long Runway Air Festoon Kit
- **29220** 20'-0" (6.0m) Long Runway Air Festoon Kit
- **29225** 25'-0" (7.6m) Long Runway Air Festoon Kit
- **29230** 30'-0" (9.1m) Long Runway Air Festoon Kit
- **29235** 35'-0" (10.6m) Long Runway Air Festoon Kit
- **29240** 40'-0" (12.1m) Long Runway Air Festoon Kit
- **29245** 45'-0" (13.7m) Long Runway Air Festoon Kit
- **29250** 50'-0" (15.2m) Long Runway Air Festoon Kit
- **29255** 55'-0" (16.7m) Long Runway Air Festoon Kit
- **29260** 60'-0" (18.2m) Long Runway Air Festoon Kit
- **29265** 65'-0" (19.8m) Long Runway Air Festoon Kit
- **29270** 70'-0" (21.3m) Long Runway Air Festoon Kit
- **29275** 75'-0" (22.8m) Long Runway Air Festoon Kit
- **29280** 80'-0" (24.3m) Long Runway Air Festoon Kit
- **29285** 85'-0" (25.9m) Long Runway Air Festoon Kit
- **29290** 90'-0" (27.4m) Long Runway Air Festoon Kit
- **29295** 95'-0" (28.9m) Long Runway Air Festoon Kit
- **29300** 100'-0" (30.4m) Long Runway Air Festoon Kit



BRIDGE AIR FESTOONING

BRIDGE AIR FESTOON KIT

Features

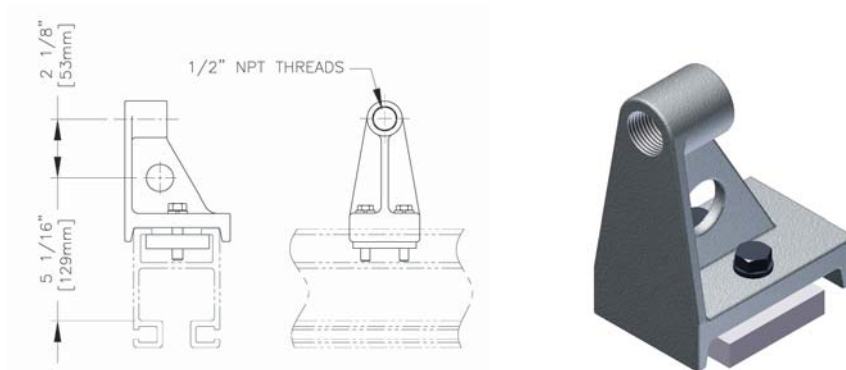
- Two Blue Whip Hoses x 36" (914mm)
- Blue Coiled Hose
- Two ETA Festoon Brackets
- One Air Hose Connector Bracket
- 1/4" Nylon Coated Cable with Hardware

Options

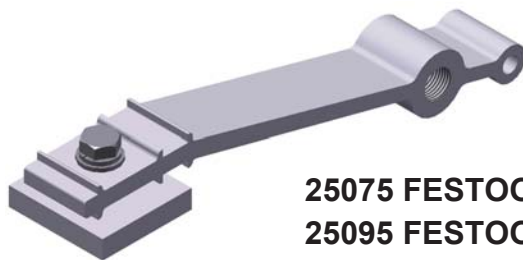
- FR Assembly
- FRL Assembly
- Lockout

Part Number

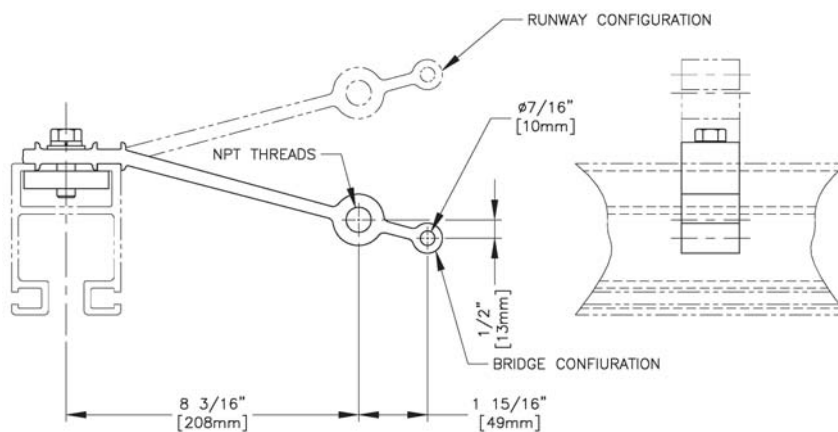
- **29305** 5'-0" (1.5m) Long 1/2" Bridge Air Festoon Kit
- **29310** 10'-0" (3.0m) Long 1/2" Bridge Air Festoon Kit
- **29315** 15'-0" (4.5m) Long 1/2" Bridge Air Festoon Kit
- **29320** 20'-0" (6.0m) Long 1/2" Bridge Air Festoon Kit
- **29325** 25'-0" (7.6m) Long 1/2" Bridge Air Festoon Kit
- **29330** 30'-0" (9.1m) Long 1/2" Bridge Air Festoon Kit
- **29335** 35'-0" (10.6m) Long 1/2" Bridge Air Festoon Kit
- **29340** 40'-0" (12.1m) Long 1/2" Bridge Air Festoon Kit
- **29405** 5'-0" (1.5m) Long 3/4" Bridge Air Festoon Kit
- **29410** 10'-0" (3.0m) Long 3/4" Bridge Air Festoon Kit
- **29415** 15'-0" (4.5m) Long 3/4" Bridge Air Festoon Kit
- **29420** 20'-0" (6.0m) Long 3/4" Bridge Air Festoon Kit
- **29425** 25'-0" (7.6m) Long 3/4" Bridge Air Festoon Kit
- **29430** 30'-0" (9.1m) Long 3/4" Bridge Air Festoon Kit
- **29435** 35'-0" (10.6m) Long 3/4" Bridge Air Festoon Kit
- **29440** 40'-0" (12.1m) Long 3/4" Bridge Air Festoon Kit



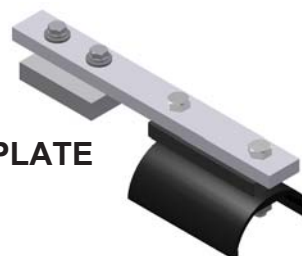
25290 1/2" AIR HOSE CONNECTOR BRACKET ASSEMBLY
25065 3/4" AIR HOSE CONNECTOR BRACKET ASSEMBLY



25075 FESTOON BRACKET ASSEMBLY 1/2" NPT
25095 FESTOON BRACKET ASSEMBLY 3/4" NPT



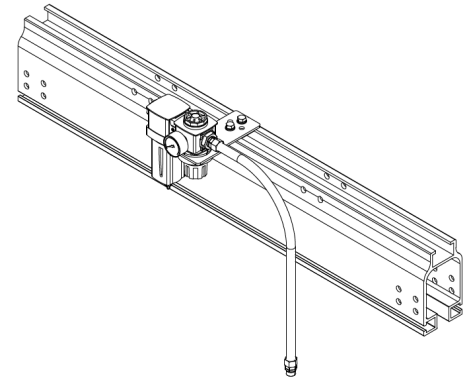
25815 ETA ELECTRIC FESTOON ANCHOR PLATE





FILTER REGULATORS

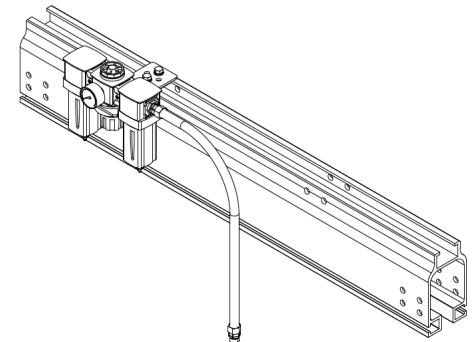
- **25503** FR Assembly 1/2" Air Supply (Parker Standard)
- **25516** FR Assembly 1/2" Air Supply includes Manual Lockout (SMC Optional)
- **25517** FR Assembly 3/4" Air Supply (Parker Standard)
- **25518** FR Assembly 3/4" Air Supply includes Manual Lockout (SMC Optional)



Shown with ETA-8 Rail, also connects to ETA-4 & ETA-5 rails

FILTER REGULATOR LUBRICATORS

- **25500** FRL Assembly 1/2" Air Supply (Parker Standard)
- **25519** FRL Assembly 1/2" Air Supply includes Manual Lockout (SMC Optional)
- **25521** FRL Assembly 3/4" Air Supply (Parker Standard)
- **25522** FRL Assembly 3/4" Air Supply includes Manual Lockout (SMC Optional)



Shown with ETA-8 Rail, also connects to ETA-4 & ETA-5 rails

MANUAL LOCKOUTS

- **25523** Manual Lockout 1/2" Air Supply (Parker Standard)
- **25524** Manual Lockout 1/2" Air Supply (SMC Optional)
- **78107** Manual Lockout 3/4" Air Supply (Parker Standard)
- **78108** Manual Lockout 3/4" Air Supply (SMC Optional)



(Parker Standard)

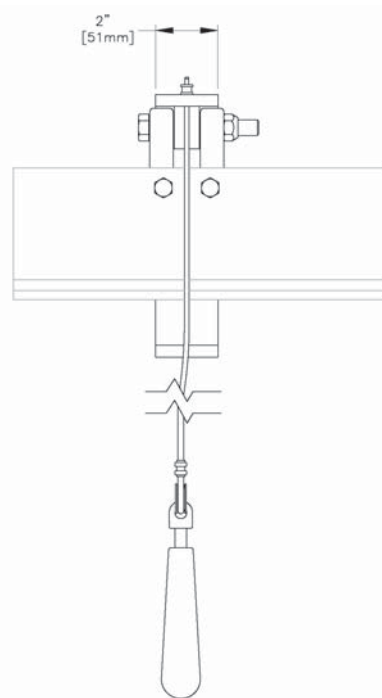
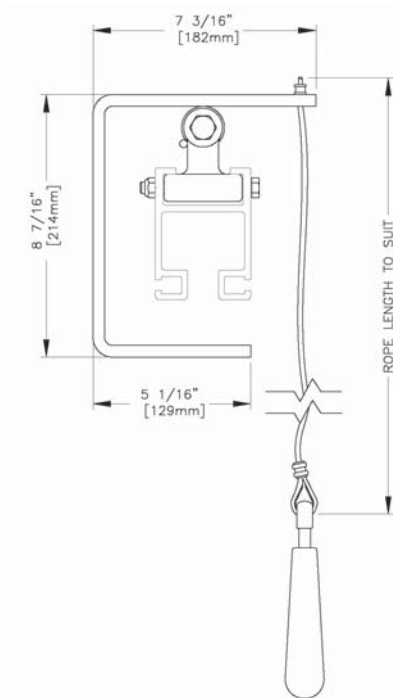
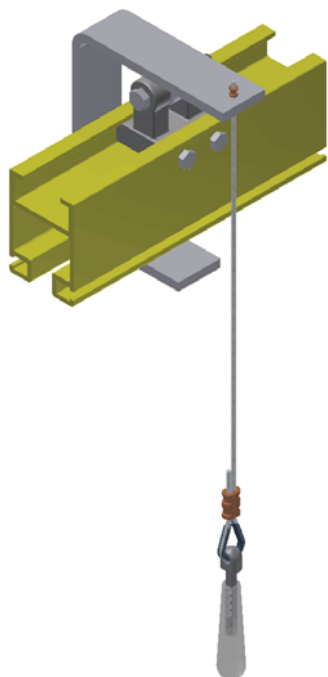


(SMC Optional)

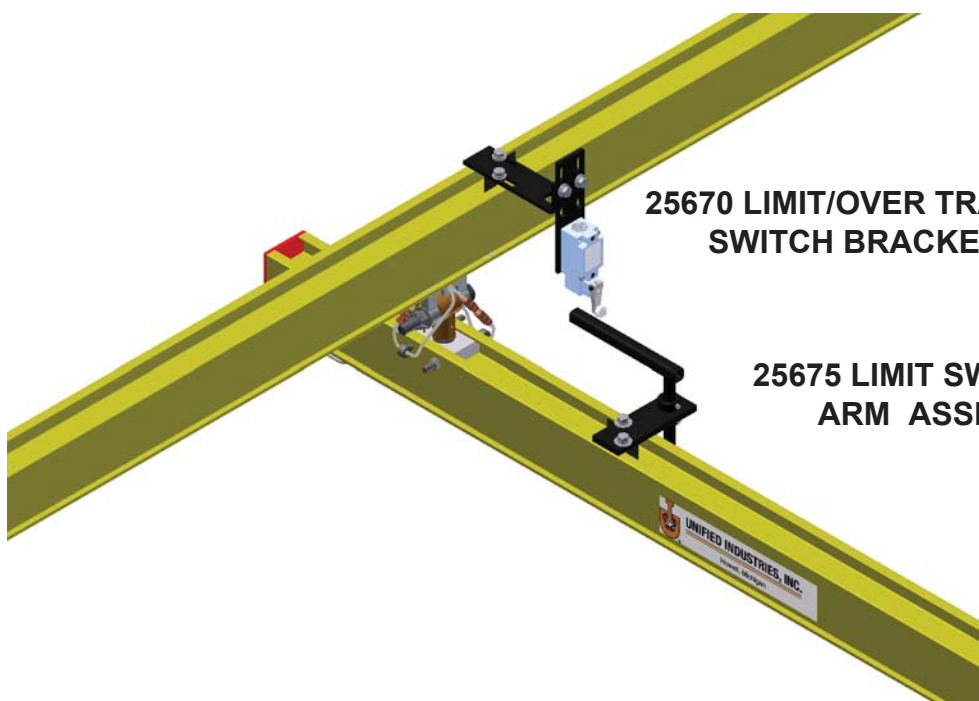
ELECTRIC JUNCTION BOX

- **25665** Electric Junction Box
- **67000** 4-Wire 12 ga. Flatwire Electric Cable (per foot)





27066 BY-PASS ASSEMBLY



**25670 LIMIT/OVER TRAVEL
SWITCH BRACKET**

**25675 LIMIT SWITCH TRIP
ARM ASSEMBLY**

25677 OVER TRAVEL SWITCH ASSEMBLY

■ Limit switch not included

UNIFIED DROP ANGLE KITS



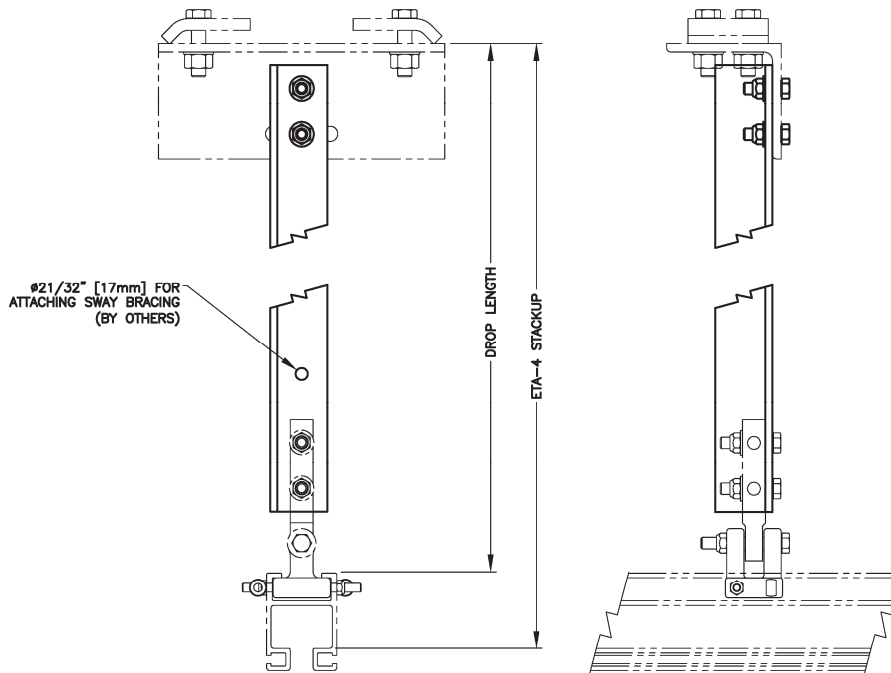
Beam Hanger

- Rated Load 2,000lbs (908kg)
- Beam Hanger sold separately
- Drop Angle Lengths 1'-2" (355mm) to 6'-0" (1829mm) require a cable hole
- Drop Angle Lengths 2'-0" (610mm) to 6'-0" (1829mm) require knee braces in both directions
- Knee Bracing by others
- Drops of 8" (203mm) to 11" (280mm) Consult Engineering



Adjustable Hanger

- Rated Load 1,500lbs (680kg)
- Adjustable Hanger sold separately
- Drop Angle Lengths 1'-2" (355mm) to 6'-0" (1829mm) require a cable hole
- Drop Angle Lengths 2'-0" (610mm) to 6'-0" (1829mm) require knee braces in both directions
- Knee Bracing by others
- Drops of 8" (203mm) to 11" (280mm) Consult Engineering

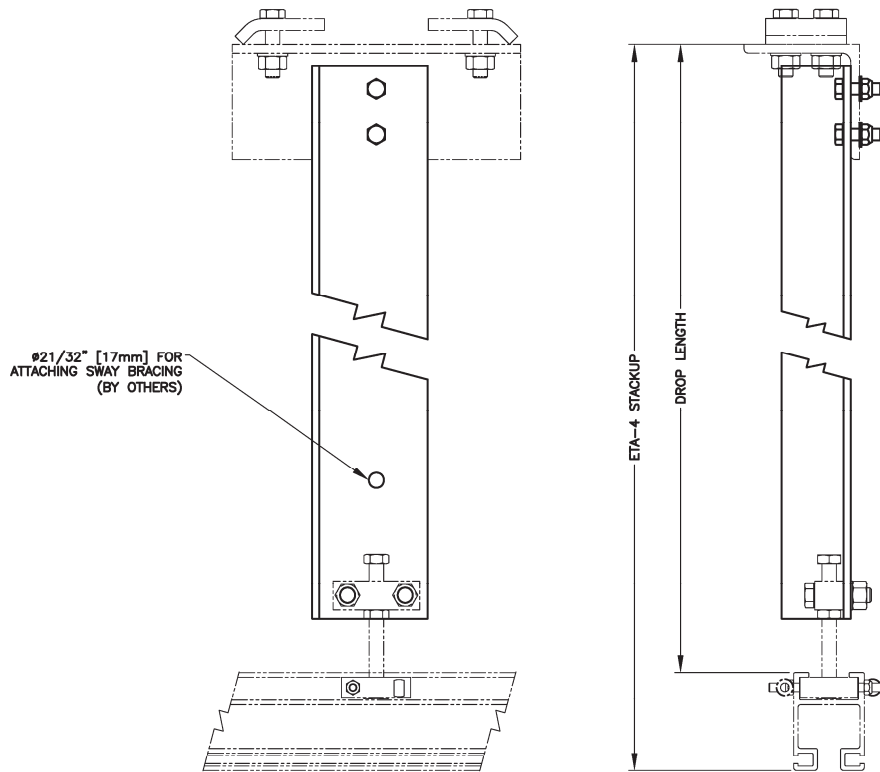


NOTE:
RATED LOAD 2000 LBS [907 Kg].

KIT PART #	DROP ANGLE PART #	DROP LENGTH		ETA-4 STACKUP	
28700	75101	1'-0"	305mm	1'-3 5/16"	389mm
		1'-1"	330mm	1'-4 5/16"	414mm
		1'-2"	356mm	1'-5 5/16"	440mm
		1'-3"	381mm	1'-6 5/16"	465mm
		1'-4"	406mm	1'-7 5/16"	491mm
		1'-5"	432mm	1'-8 5/16"	516mm
		1'-6"	457mm	1'-9 5/16"	542mm
		1'-7"	483mm	1'-10 5/16"	567mm
		1'-8"	508mm	1'-11 5/16"	593mm
		1'-9"	533mm	2'-0 5/16"	618mm
		1'-10"	559mm	2'-1 5/16"	643mm
		1'-11"	584mm	2'-2 5/16"	668mm
28701	75102	2'-0"	610mm	2'-3 5/16"	694mm
		2'-1"	635mm	2'-4 5/16"	719mm
		2'-2"	660mm	2'-5 5/16"	745mm
		2'-3"	686mm	2'-6 5/16"	770mm
		2'-4"	711mm	2'-7 5/16"	795mm
		2'-5"	737mm	2'-8 5/16"	821mm
		2'-6"	762mm	2'-9 5/16"	846mm
		2'-7"	787mm	2'-10 5/16"	872mm
		2'-8"	813mm	2'-11 5/16"	897mm
		2'-9"	838mm	3'-0 5/16"	922mm
		2'-10"	864mm	3'-1 5/16"	948mm
		2'-11"	889mm	3'-2 5/16"	973mm
28702	75103	3'-0"	914mm	3'-3 5/16"	999mm
		3'-1"	940mm	3'-4 5/16"	1024mm
		3'-2"	965mm	3'-5 5/16"	1049mm
		3'-3"	991mm	3'-6 5/16"	1075mm
		3'-4"	1016mm	3'-7 5/16"	1100mm
		3'-5"	1041mm	3'-8 5/16"	1126mm
		3'-6"	1067mm	3'-9 5/16"	1151mm

KIT PART #	DROP ANGLE PART #	DROP LENGTH		ETA-4 STACKUP	
28702	75103	3'-7"	1092mm	3'-10 5/16"	1176mm
		3'-8"	1118mm	3'-11 5/16"	1202mm
		3'-9"	1143mm	4'-0 5/16"	1227mm
		3'-10"	1168mm	4'-1 5/16"	1253mm
		3'-11"	1194mm	4'-2 5/16"	1278mm
		4'-0"	1219mm	4'-3 5/16"	1303mm
28703	75104	4'-1"	1245mm	4'-4 5/16"	1329mm
		4'-2"	1270mm	4'-5 5/16"	1354mm
		4'-3"	1295mm	4'-6 5/16"	1380mm
		4'-4"	1321mm	4'-7 5/16"	1405mm
		4'-5"	1346mm	4'-8 5/16"	1430mm
		4'-6"	1372mm	4'-9 5/16"	1456mm
		4'-7"	1397mm	4'-10 5/16"	1481mm
		4'-8"	1422mm	4'-11 5/16"	1507mm
		4'-9"	1448mm	5'-0 5/16"	1532mm
		4'-10"	1473mm	5'-1 5/16"	1557mm
		4'-11"	1499mm	5'-2 5/16"	1583mm
		5'-0"	1524mm	5'-3 5/16"	1608mm
28704	75105	5'-1"	1549mm	5'-4 5/16"	1634mm
		5'-2"	1575mm	5'-5 5/16"	1659mm
		5'-3"	1600mm	5'-6 5/16"	1684mm
		5'-4"	1626mm	5'-7 5/16"	1708mm
		5'-5"	1651mm	5'-8 5/16"	1735mm
		5'-6"	1676mm	5'-9 5/16"	1761mm
		5'-7"	1702mm	5'-10 5/16"	1786mm
		5'-8"	1727mm	5'-11 5/16"	1811mm
		5'-9"	1753mm	6'-0 5/16"	1837mm
		5'-10"	1778mm	6'-1 5/16"	1862mm
		5'-11"	1803mm	6'-2 5/16"	1888mm
		6'-0"	1829mm	6'-3 5/16"	1913mm

***Beam Hanger with safety cable sold separately**



NOTES:
RATED LOAD 1500 LBS [680 Kg].

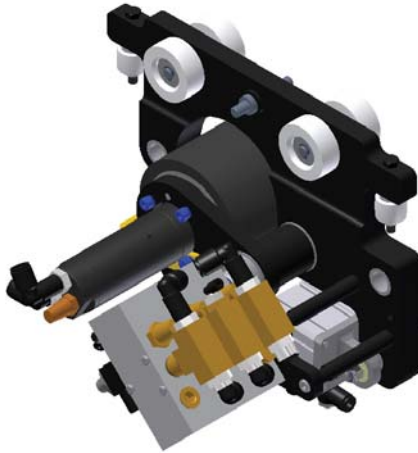
KIT PART #	DROP ANGLE PART #	DROP LENGTH		ETA-4 STACKUP	
28710	75111	9"	229mm	1'-0 5/16"	313mm
		10"	254mm	1'-1 5/16"	338mm
		11"	279mm	1'-2 5/16"	364mm
		1'-0"	305mm	1'-3 5/16"	389mm
28711	75112	1'-1"	330mm	1'-4 5/16"	414mm
		1'-2"	356mm	1'-5 5/16"	440mm
		1'-3"	381mm	1'-6 5/16"	465mm
		1'-4"	406mm	1'-7 5/16"	491mm
		1'-5"	432mm	1'-8 5/16"	516mm
		1'-6"	457mm	1'-9 5/16"	542mm
		1'-7"	483mm	1'-10 5/16"	567mm
		1'-8"	508mm	1'-11 5/16"	593mm
		1'-9"	533mm	2'-0 5/16"	618mm
		1'-10"	559mm	2'-1 5/16"	643mm
		1'-11"	584mm	2'-2 5/16"	668mm
		2'-0"	610mm	2'-3 5/16"	694mm
		2'-1"	635mm	2'-4 5/16"	719mm
		2'-2"	660mm	2'-5 5/16"	745mm
		2'-3"	686mm	2'-6 5/16"	770mm
		2'-4"	711mm	2'-7 5/16"	795mm
28712	75113	2'-5"	737mm	2'-8 5/16"	821mm
		2'-6"	762mm	2'-9 5/16"	846mm
		2'-7"	787mm	2'-10 5/16"	872mm
		2'-8"	813mm	2'-11 5/16"	897mm
		2'-9"	838mm	3'-0 5/16"	922mm
		2'-10"	864mm	3'-1 5/16"	948mm
		2'-11"	889mm	3'-2 5/16"	973mm
		3'-0"	914mm	3'-3 5/16"	999mm
		3'-1"	940mm	3'-4 5/16"	1024mm
		3'-2"	965mm	3'-5 5/16"	1049mm
		3'-3"	991mm	3'-6 5/16"	1075mm
		3'-4"	1016mm	3'-7 5/16"	1100mm

KIT PART #	DROP ANGLE PART #	DROP LENGTH		ETA-4 STACKUP	
28713	75114	3'-5"	1041mm	3'-8 5/16"	1126mm
		3'-6"	1067mm	3'-9 5/16"	1151mm
		3'-7"	1092mm	3'-10 5/16"	1176mm
		3'-8"	1118mm	3'-11 5/16"	1202mm
		3'-9"	1143mm	4'-0 5/16"	1227mm
		3'-10"	1168mm	4'-1 5/16"	1253mm
		3'-11"	1194mm	4'-2 5/16"	1278mm
		4'-0"	1219mm	4'-3 5/16"	1303mm
28714	75115	4'-1"	1245mm	4'-4 5/16"	1329mm
		4'-2"	1270mm	4'-5 5/16"	1354mm
		4'-3"	1295mm	4'-6 5/16"	1380mm
		4'-4"	1321mm	4'-7 5/16"	1405mm
		4'-5"	1346mm	4'-8 5/16"	1430mm
		4'-6"	1372mm	4'-9 5/16"	1456mm
		4'-7"	1397mm	4'-10 5/16"	1481mm
		4'-8"	1422mm	4'-11 5/16"	1507mm
		4'-9"	1448mm	5'-0 5/16"	1532mm
		4'-10"	1473mm	5'-1 5/16"	1557mm
		4'-11"	1499mm	5'-2 5/16"	1583mm
		5'-0"	1524mm	5'-3 5/16"	1608mm
28715	75116	5'-1"	1549mm	5'-4 5/16"	1634mm
		5'-2"	1575mm	5'-5 5/16"	1659mm
		5'-3"	1600mm	5'-6 5/16"	1684mm
		5'-4"	1626mm	5'-7 5/16"	1708mm
		5'-5"	1651mm	5'-8 5/16"	1735mm
		5'-6"	1676mm	5'-9 5/16"	1761mm
		5'-7"	1702mm	5'-10 5/16"	1786mm
		5'-8"	1727mm	5'-11 5/16"	1811mm
		5'-9"	1753mm	6'-0 5/16"	1837mm
		5'-10"	1778mm	6'-1 5/16"	1862mm
		5'-11"	1803mm	6'-2 5/16"	1888mm
		6'-0"	1829mm	6'-3 5/16"	1913mm

***Adjustable Hanger with safety cable sold separately**

UNIFIED AIR TRACTOR

The lube free air tractor was developed to be a compact, and reliable alternative to those large air tractors most companies are familiar with.



Features

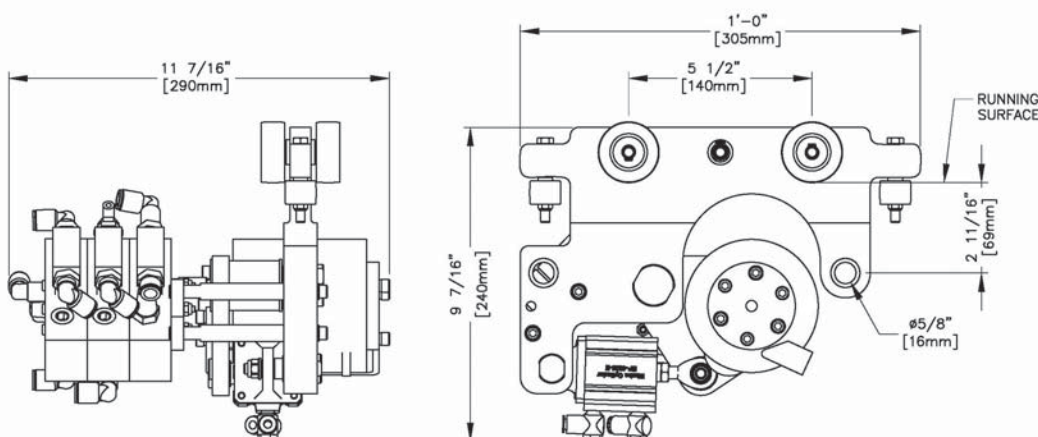
- Lightweight and Compact
- Lube Free Air Motor
- Maintenance Friendly Design
- Quick Delivery, Excellent Pricing

Control Package Options:

- C1 = SMC Control Pack w/Fwd/Rev 2-Button Control Pendant.
 C2 = SMC Control Pack Only. (Requires main air connection + Fwd/Rev signals)
 C3 = Base Tractor Only. No Control valves.
 C4 = SMC Control Pack w/4-Button Control Pendant (Fwd/Rev + ?/?)

Part Number

- **UAT-NB-C(x)-ETA4** Air Tractor to run on ETA-4/5 rail. Specify control pack above. Weight 30 lbs (15kg)
- **25682** ETA-4/5 Tractor Tow Bar-Hitch
- **60315** Replacement Drive Wheel



Proper Tractor Operation: Tractor must come to a complete stop before it can be engaged in the opposite direction. If this process is not followed, damage to the Tractor will occur and the warranty will be void.

Designed for a working plant air pressure of: 87-102psi (600-700kPA)

***NB = No Brake**



UNIFIED AIR BALANCER

A proven ergonomic lifting and positioning device

- **Capacities** up to 485lbs. (220kg) single reeve - 1940lbs. (880kg) tandem reeved.
- **Safety** overload limit and check valve in case of loss of air supply.
- **Energy Efficient** only a fraction of a CFM per cycle required when compared to a pneumatic hoist.
- **Robust** precision mechanical design & powder coated housing ensures trouble free extended service life.
- Uses non-lubricated air, assures clean environment.
- Ideal for ergonomic handling applications and suspension of tools, weld guns & fixtures.
- All Non-Reeved balancers come equipped with a 25'-6" (9m) cable.



Control Styles

UBB = Basic Balancer with no controls

UAB = Balancer with Up/Down controls

UZB = Balancer with Zero G

Model #	Weight Capacity/Lift	Air Consumption
U_B-132	132lbs (60kg)/79in (2000mm)	.5 CFM(.85CMH)
U_B-220	220lbs (100kg)/118in (3000mm)	1.3 CFM(2.21CMH)
U_B-331	331lbs (150kg)/79in (2000mm)	1.3 CFM(2.21CMH)
U_B-485	485lbs (220kg)/79in (2000mm)	1.9 CFM(3.23 CMH)

- Wire Rope Units (Air Pressure 7kgf/cm²) (100 PSI)

Optional Accessories

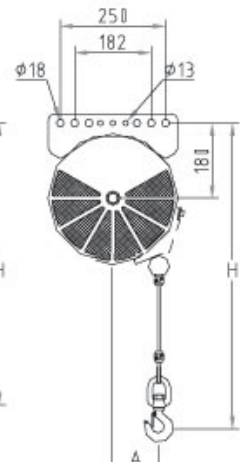
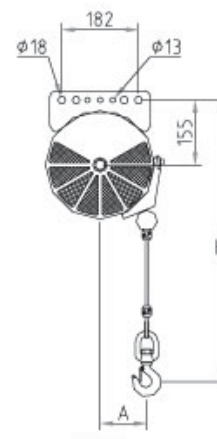
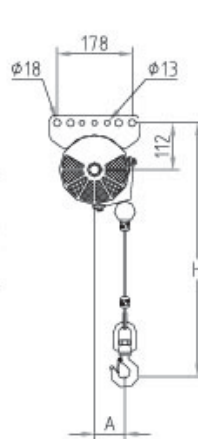
Part #	Description
99025	Up/Down Manifold
99026	Up/Down Control Kit—Includes Manifold, 12ft (3.65m) Hose and 2-button pendant
99100	Top Hook Assembly



Single Type

Model	"A" Dimension
U_B-132	2.83 inch (72mm)
U_B-220	4.35 inch (110.5mm)
U_B-331	2.83 inch (72mm)
U_B-485	2.83 inch (72mm)

Single Type

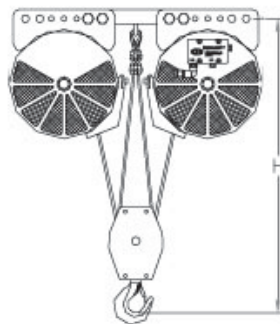


U_B-132

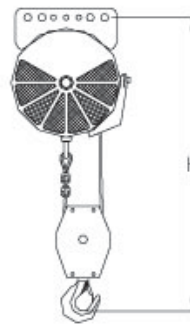
U_B-220, 331

U_B-485

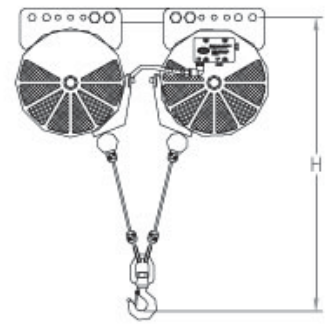
Tandem Reeved Type



Reeved Type



Tandem Type



Single Balancer

Model #	Capacity		Lift		D x L		H		Net Weight	CFM	
	lbs	kg	in	mm	in	mm	in	mm	lbs	kg	(per cycle)
U_B-132-079	132	60	79	2000	6.1 x 15.43	155 x 392	23	600	51	23	.5
U_B-220-118	220	100	118	3000	10.24 x 15.75	260 x 400	28	700	94	42.5	1.3
U_B-331-079	331	150	79	2000	10.24 x 15.75	260 x 400	28	700	105	47	1.3
U_B-485-079	485	220	79	2000	12.21 x 15.75	310 x 400	30	750	110	50	1.9

Reeved Balancer (R) Tandem Balancer (T) Tandem-Reeved Balancer (TR)

Model #	Capacity		Lift		D x L		H		Net Weight	
	lbs	kg	in	mm	in	mm	in	mm	lbs	kg
U_B-440-59R	440	200	59	1500	10.24 x 15.75	260 x 400	28	700	104	47
U_B-440-118T	440	200	118	3000	2-10.24 x 15.76	260 x 400	28	700	203	92
U_B-662-39R	662	300	39	1000	10.24 x 15.77	260 x 400	28	700	99	45
U_B-661-79T	662	300	79	2000	2-10.24 x 15.78	260 x 400	28	700	198	90
U_B-970-39R	970	440	39	1000	12.21 x 15.75	310 x 400	30	750	124	56
U_B-970-79T	970	440	79	2000	2-12.21 x 15.75	310 x 400	30	750	243	110
U_B-882-59TR	882	400	59	1500	2-10.24 x 15.78	260 x 400	28	700	209	95
U_B-1323-39TR	1323	600	39	1000	2-10.24 x 15.79	260 x 400	28	700	203	92
U_B-1940-39TR	1940	880	39	1000	2-12.21 x 15.75	310 x 400	30	750	254	115

CAUTION

This bridge crane has a safe load rating, which has been clearly marked on both sides by the manufacturer. The total weight of the suspended load should never exceed 125% of this limit. The weight of all handling devices such as buckets, magnets, grabs, balancers, hoists, weldguns, etc. must be included as a part of the suspended load. The weight of such devices should therefore be determined and clearly marked.

Consideration should be given when installing hoisting devices. Load ratings for such devices may exceed the load rating of the bridge crane.

The operator should inspect this bridge crane for loose bolts and worn, cracked or distorted parts prior to use (inspection should include all handling devices and mounting equipment). Defective parts should be replaced with manufacturer-approved parts before use of bridge crane is resumed.

This bridge crane conforms to the safety standards of the U.S. Occupational Safety and Health Administration (OSHA). Any alteration of its structure or change in its rated load capacity may render null and void any manufacturer's warranties, expressed or implied.

***All dimensions are reference only
and need to be verified with factory.**





UNIFIED INDUSTRIES, INC.

A Columbus McKinnon Company

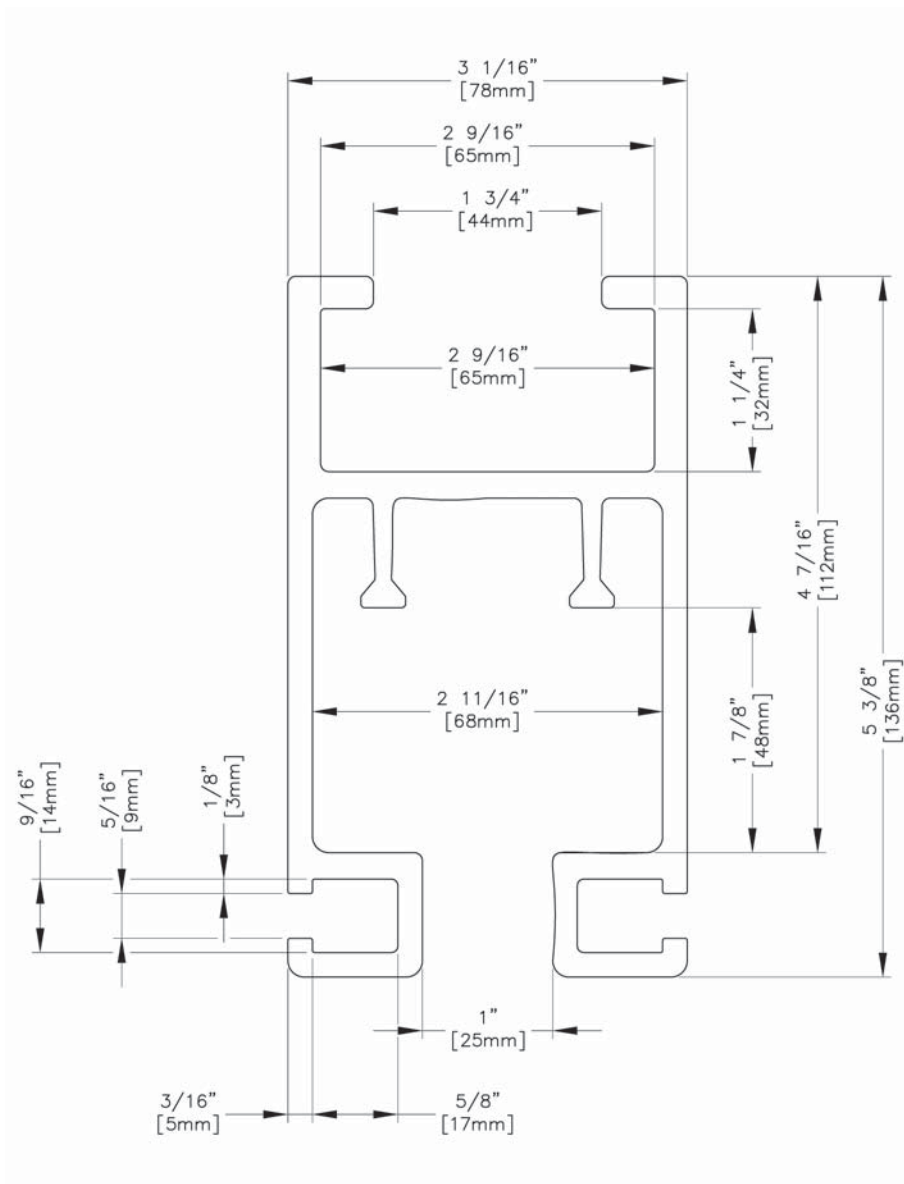
ETA-5 RAIL SYSTEMS





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***All dimensions are reference only
and need to be verified with factory.**



ETA-5 RAIL PROFILE
(87025)

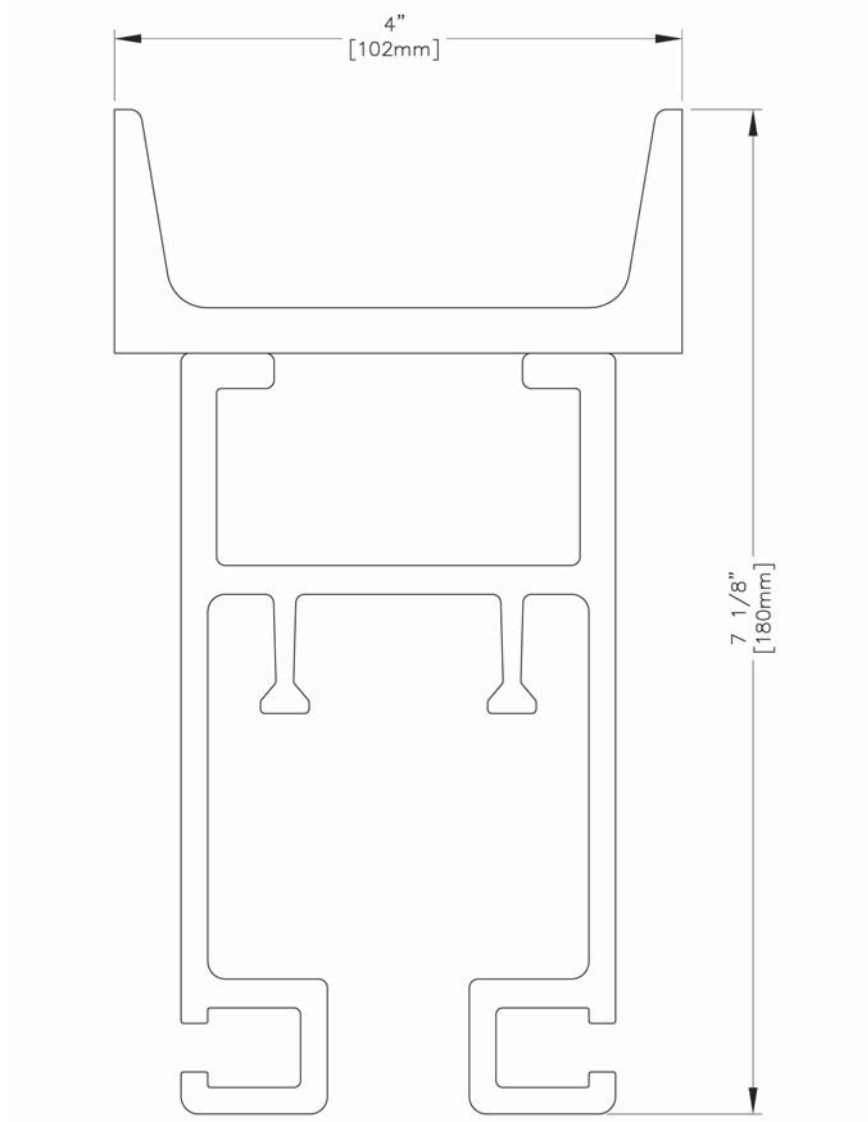
Part Number:

ETA5RW 08

Length of Rail in Feet (08 = 8 Feet)

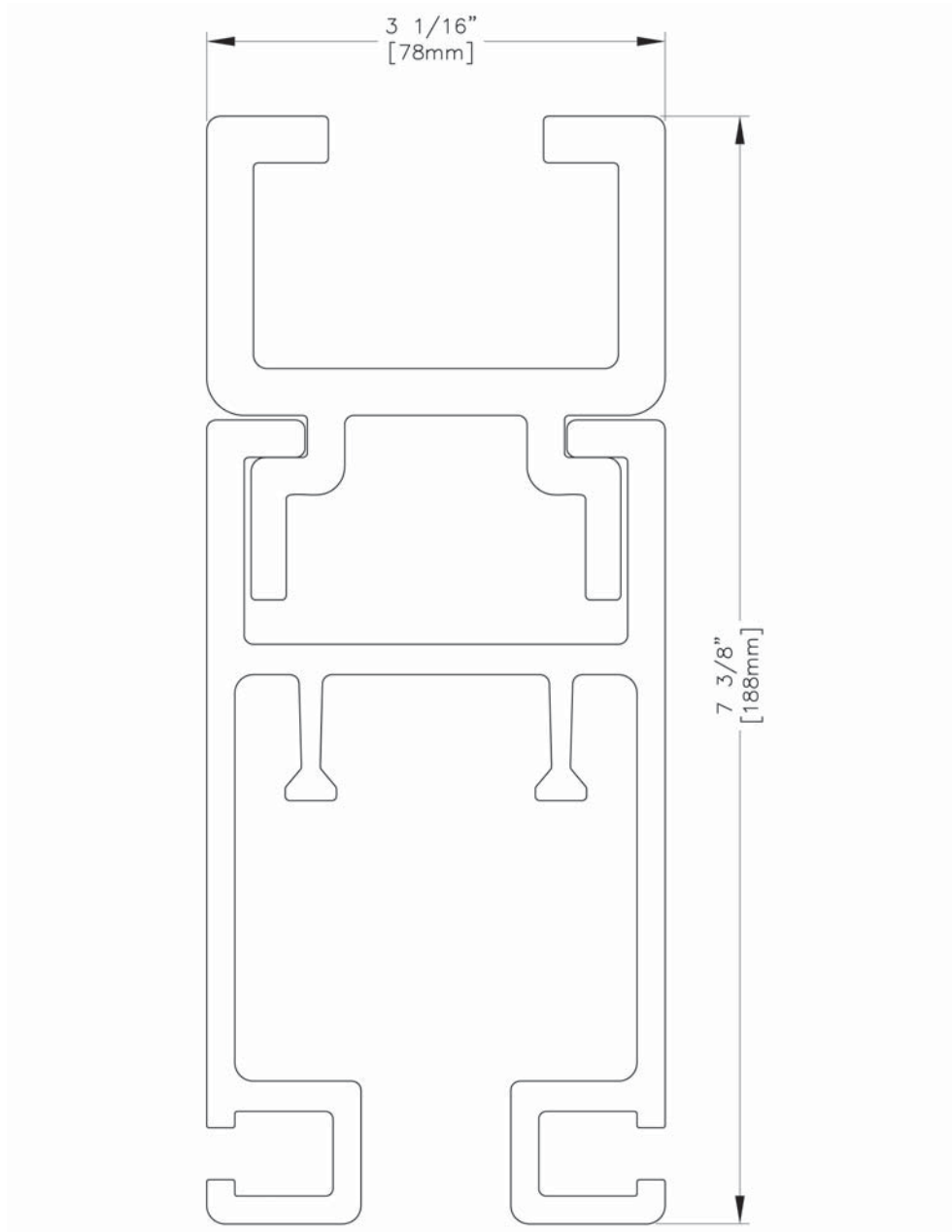
Rail Profile

- All Runways are Drilled for End Stops and Splice Holes.
- Round up to the nearest foot (Cut to 8'-6" = ETA5RW09)
- Maximum Length: 42'-0" (12.8m)
- Weight: 4.67lbs./ft. (6.95kg/m)
- Standard color Unified Safety Yellow
- Other Colors Specify when Ordering



ETA-5 RAIL WITH C4 X 2.5 CHANNEL CAP PROFILE

■ Weight: 7.18lbs./ft. (10.69kg/m)



ETA-5 RAIL WITH ETA STRONG BACK PROFILE

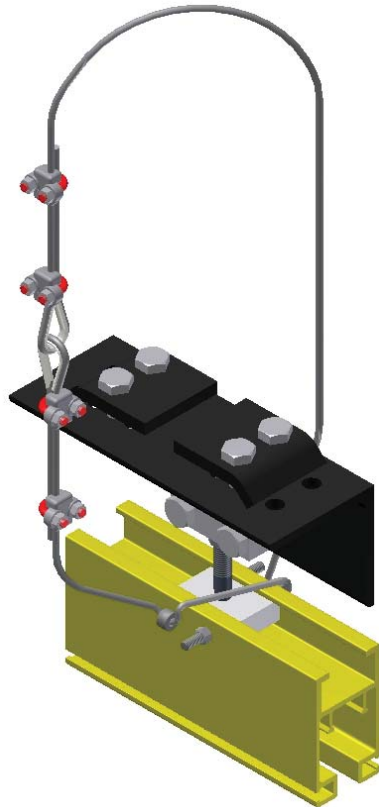
- Weight: 8.25lbs./ft. (12.27kg/m)



Span	Deflection Limit (in.)	Point Load @ Center of Span (lbs)		
		ETA-5	ETA-5 + CHANNEL CAP	ETA-5 + ETA STRONGBACK
Ft. (in)	L/450	L/450	L/450	L/450
5 (60)	.1333	3376	4000	4000
6 (72)	.1600	2344	4000	4000
7 (84)	.1867	1722	3887	4000
8 (96)	.2133	1319	2976	3674
9 (108)	.2400	1042	2352	2903
10 (120)	.2667	844	1905	2351
11 (132)	.2933	697	1574	1943
12 (144)	.3200	586	1323	1633
13 (156)	.3467	499	1127	1391
14 (168)	.3733	431	972	1200
15 (180)	.4000	375	847	1045
16 (192)	.4267	330	744	919
17 (204)	.4533	292	659	814
18 (216)	.4800	260	588	726
19 (228)	.5067	234	528	651
20 (240)	.5333	211	476	588
21 (252)	.5600	191	432	533
22 (264)	.5867	174	394	486
23 (276)	.6133	160	360	445
24 (288)	.6400	147	331	408
25 (300)	.6667	135	305	376
26 (312)	.6933	125	282	348
27 (324)	.7200	116	261	323
28 (336)	.7467	108	243	300
29 (348)	.7733	100	226	280
30 (360)	.8000	94	212	261
31 (372)	.8267	88	198	245
32 (384)	.8533	82	186	230
33 (396)	.8800	77	175	216
34 (408)	.9067	73	165	203
35 (420)	.9333	69	155	192
36 (432)	.9600	65	147	181
37 (444)	.9867	62	139	172
38 (456)	1.013	58	132	163
39 (468)	1.040	55	125	155
40 (480)	1.067	53	119	147

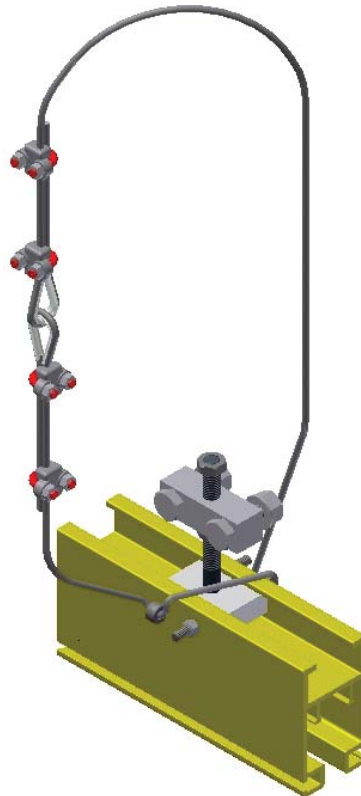


Span M (mm)	Deflection Limit (mm)	Point Load @ Center of Span (kg)		
		ETA-5	ETA-5 + CHANNEL CAP	ETA-5 + ETA STRONGBACK
		L/450	L/450	L/450
1.50 (1500)	3.3	1581	1814	1814
1.75 (1750)	3.9	1161	1814	1814
2.00 (2000)	4.4	889	1814	1814
2.25 (2250)	5.0	702	1586	1814
2.50 (2500)	5.6	569	1284	1585
2.75 (2750)	6.1	470	1061	1310
3.00 (3000)	6.7	395	892	1101
3.25 (3250)	7.2	337	760	938
3.50 (3500)	7.8	290	655	809
3.75 (3750)	8.3	253	571	705
4.00 (4000)	8.9	222	502	619
4.25 (4250)	9.4	197	444	549
4.50 (4500)	10.0	176	396	489
4.75 (4750)	10.6	158	356	439
5.00 (5000)	11.1	142	321	396
5.25 (5250)	11.7	129	291	360
5.50 (5500)	12.2	118	265	328
5.75 (5750)	12.8	108	243	300
6.00 (6000)	13.3	99	223	275
6.25 (6250)	13.9	91	205	254
6.50 (6500)	14.4	84	190	235
6.75 (6750)	15.0	78	176	217
7.00 (7000)	15.6	73	164	202
7.25 (7250)	16.1	68	153	189
7.50 (7500)	16.7	63	143	176
7.75 (7750)	17.2	59	134	165
8.00 (8000)	17.8	56	125	155
8.25 (8250)	18.3	52	118	146
8.50 (8500)	18.9	49	111	137
8.75 (8750)	19.4	46	105	129
9.00 (9000)	20.0	44	99	122
9.25 (9250)	20.6	42	94	116
9.50 (9500)	21.1	39	89	110
9.75 (9750)	21.7	37	84	104
10.00 (10000)	22.2	36	80	99
10.25 (10250)	22.8	34	76	94
10.50 (10500)	23.3	32	73	90
10.75 (10750)	23.9	31	69	86
11.00 (11000)	24.4	29	66	82
11.25 (11250)	25.0	28	63	78
11.50 (11500)	25.6	27	61	75
11.75 (11750)	26.1	26	58	72
12.00 (12000)	26.7	25	56	69
12.25 (12500)	27.2	24	53	66



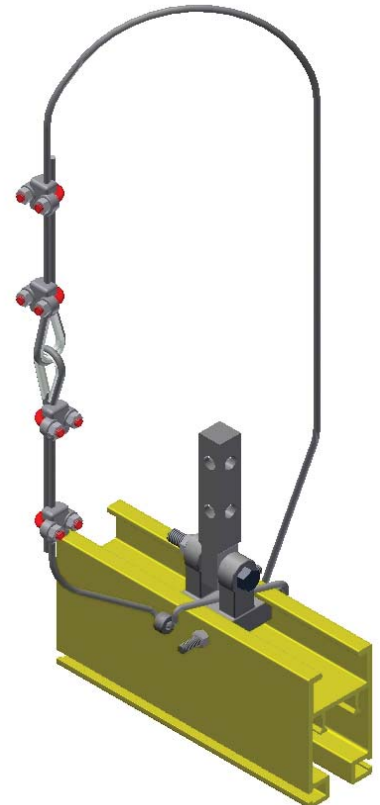
CLOSED ADJUSTABLE HANGER*

25473 FOR BEAMS 2.33" (59mm)
TO 3.33" (85mm) wide
25474 FOR BEAMS 4" (102mm)
TO 8" (203mm) wide



25467 ADJUSTABLE BLOCK HANGER

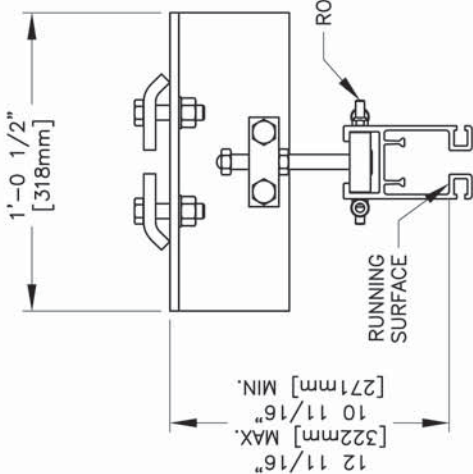
Allows for 2" (50mm) of vertical
adjustment in the field



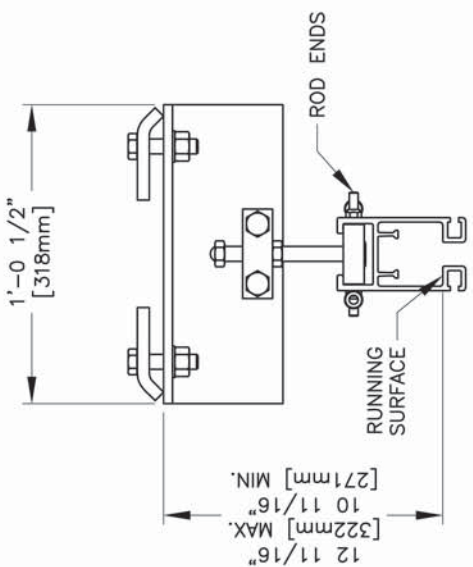
25286 BLOCK HANGER

- All hangers must be bolted through rail.
- All hangers include a 6'-0" (1.82m) safety cable 78287.

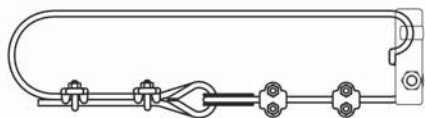
*Grip range 1/4" (6mm) to 9/16" (15mm) thick flange.



25473 CLOSED ADJUSTABLE HANGER
FOR BEAMS 2.33" [59mm] TO 3.33" [85mm] WIDE
RATED LOAD 1500 LBS. [680 Kg.]
WEIGHT 22 LBS. [9.98 Kg.]

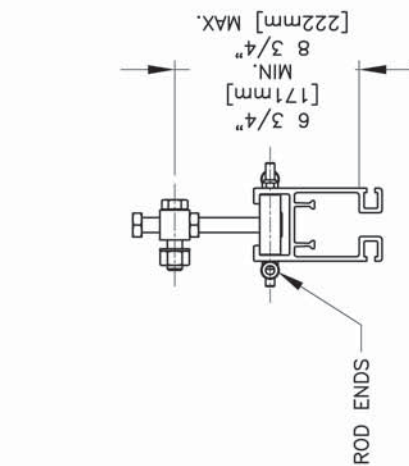


25474 CLOSED ADJUSTABLE HANGER
FOR BEAMS 4" [102mm] TO 8" [203mm] WIDE
RATED LOAD 1500 LBS. [680 Kg.]
WEIGHT 23 LBS. [10.43 Kg.]

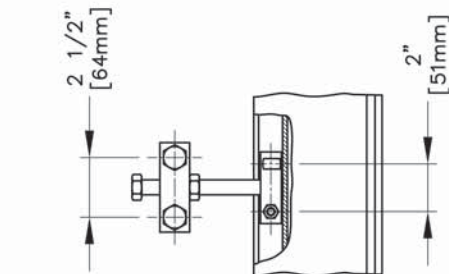


SAFETY CABLE ASSEMBLY VIEW
ALL HANGERS COME WITH A SAFETY CABLE 78287

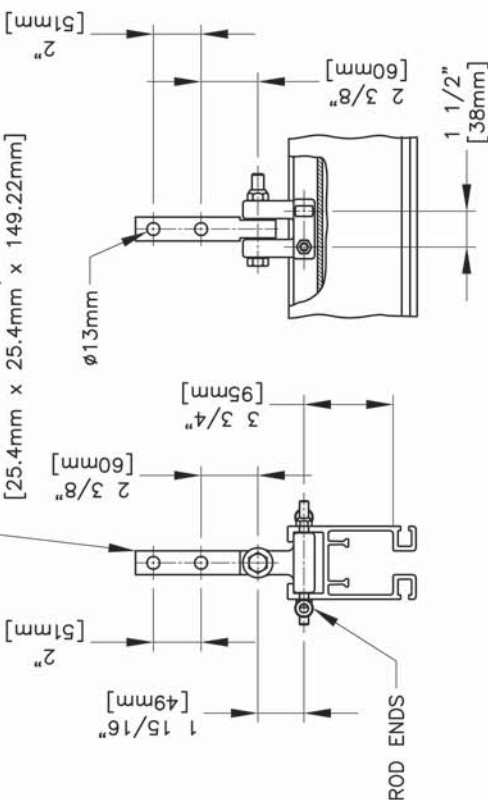
BAR, 1" x 1" x 5 7/8" STL.
[25.4mm x 25.4mm x 149.22mm]

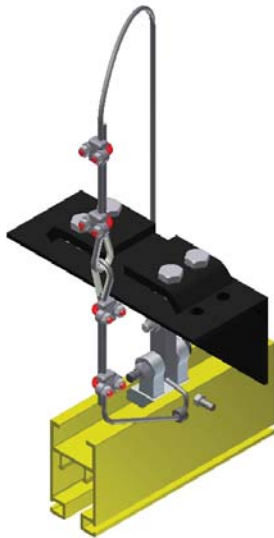


25467 ADJUSTABLE BLOCK HANGER
RATED LOAD 1500 LBS. [680 Kg.]
WEIGHT 6 LBS. [2.72 Kg.]



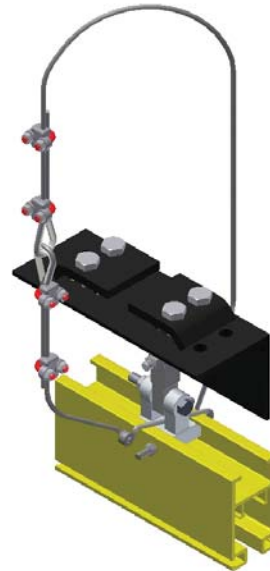
25286 BLOCK HANGER
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 4 LBS. [1.81 Kg.]





BEAM HANGER*
PARALLEL MOUNT

27055 FOR BEAMS 2.33" (59mm) TO 3.33" (85mm)
27057 FOR BEAMS 4" (102mm) TO 8" (203mm)

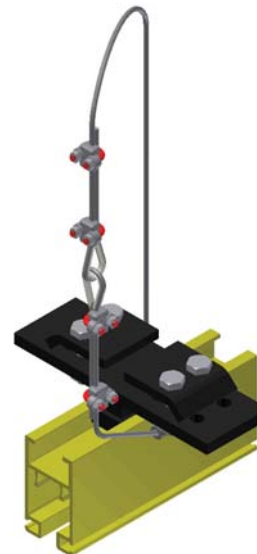


BEAM HANGER*
PERPENDICULAR MOUNT

27055 FOR BEAMS 2.33" (59mm) TO 3.33" (85mm)
27057 FOR BEAMS 4" (102mm) TO 8" (203mm)



27070 ETA RIGID MOUNT HANGER**



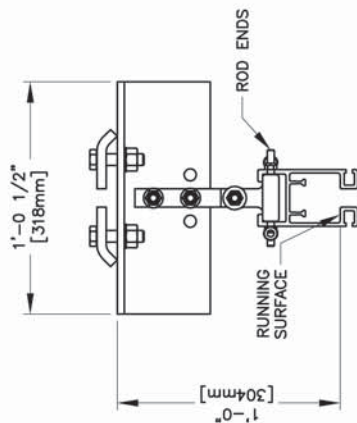
RIGID MOUNT HANGER*
PARALLEL MOUNT

27073 FOR BEAMS 2.33" (59mm) TO 3.33" (85mm)
27071 FOR BEAMS 4" (102mm) TO 8" (203mm)

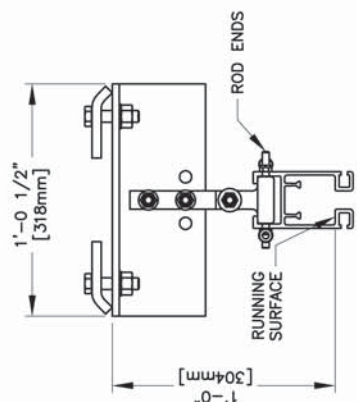
- All hangers must be bolted through rail.
- All hangers include a 6'-0" (1.82m) safety cable 78287.

*Grip range 1/4" (6mm) to 9/16" (15mm) thick flange.

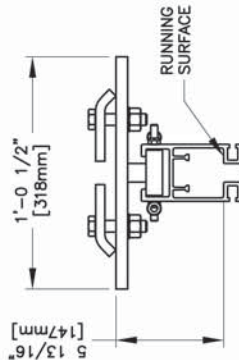
**For use on W-Shape beams only.



27055 BEAM HANGER PARALLEL MOUNT
FOR BEAMS 2.33\" [59mm] TO 3.33\" [85mm] WIDE
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 23 lbs. [10.43 Kg.]



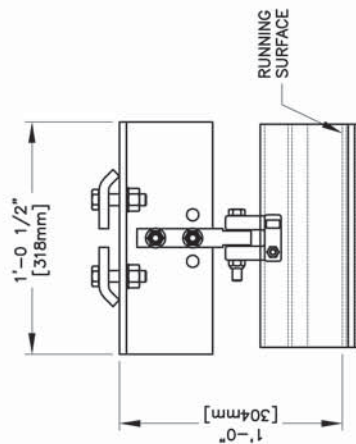
27057 BEAM HANGER PARALLEL MOUNT
FOR BEAMS 4\" [102mm] TO 8\" [203mm] WIDE
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 24 lbs. [10.89 Kg.]



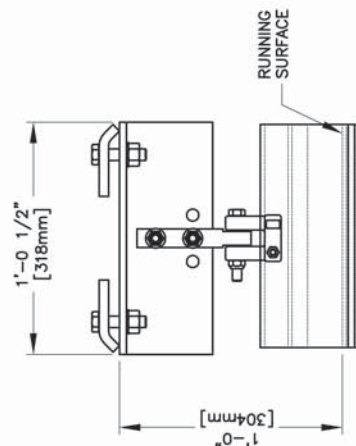
27071 PARALLEL RIGID MOUNT HANGER
FOR BEAMS 4\" [102mm] TO 8\" [203mm] WIDE
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 18 lbs. [8.16 Kg.]



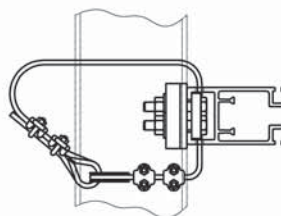
SAFETY CABLE ASSEMBLY VIEW
ALL HANGERS COME WITH A SAFETY CABLE 78287



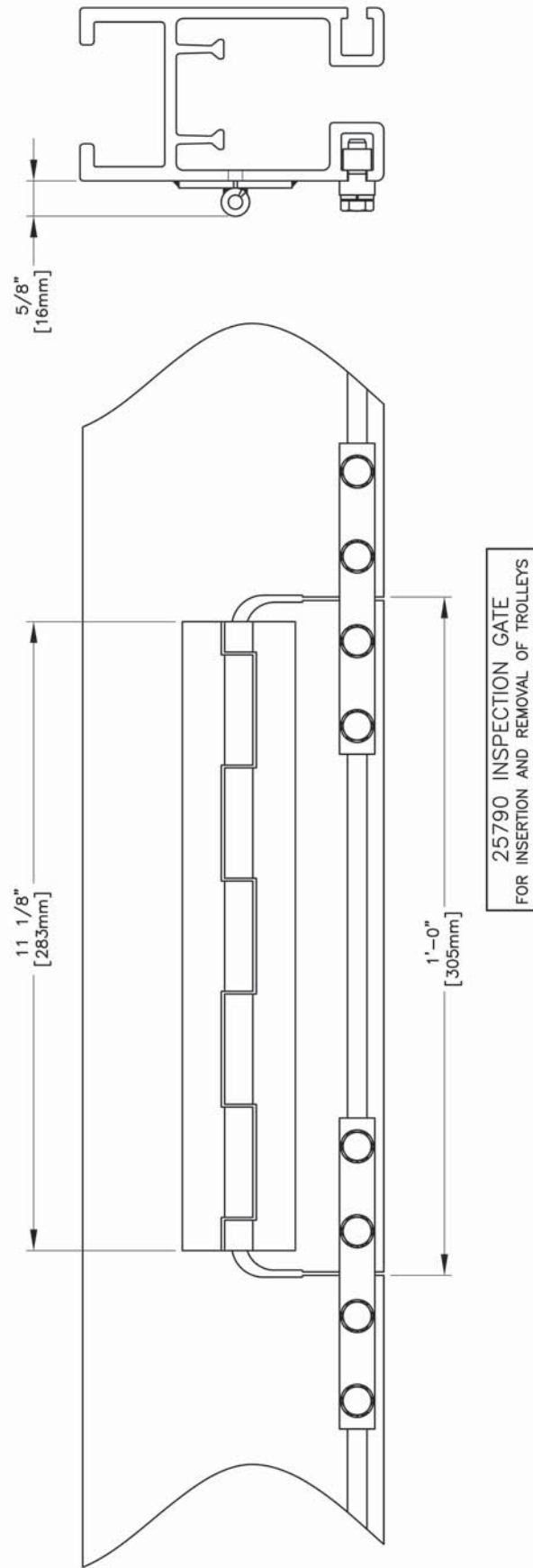
27055 BEAM HANGER PERPENDICULAR MOUNT
FOR BEAMS 2.33\" [59mm] TO 3.33\" [85mm] WIDE
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 23 lbs. [10.43 Kg.]



27057 BEAM HANGER PERPENDICULAR MOUNT
FOR BEAMS 4\" [102mm] TO 8\" [203mm] WIDE
RATED LOAD 2000 lbs. [907 Kg.]
WEIGHT 24 lbs. [10.89 Kg.]



27070 ETA RIGID MOUNT HANGER
SAFETY CABLE
RATED LOAD 3500 LBS. [1588 Kg.]
HOLE OPTIONS
WEIGHT 10 LBS. [4.54 Kg.]



Inspection Gate must be 1'-0" (304.8mm) from a hanger.

UNIFIED ETA-4 & ETA-5 RAIL TROLLEYS



20100



20110



20115



28070



20130



20125



20116



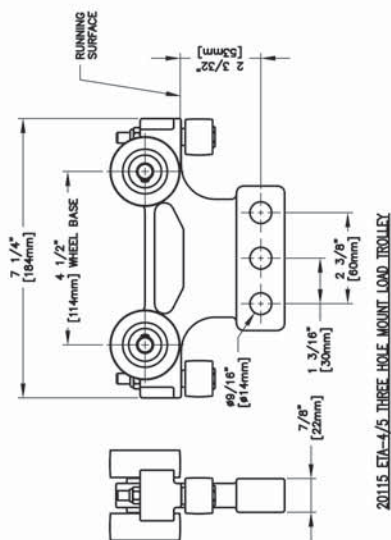
20117

Part Number

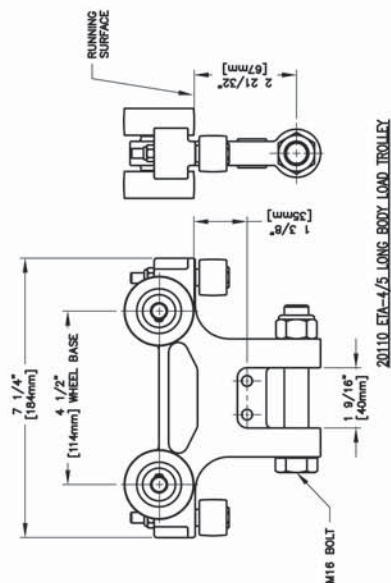
- **20100** ETA-4/5 Short Body Load Trolley with 550 lb (250kg) Rated Load
- **20110** ETA-4/5 Long Body Load Trolley with 550 lb (250kg) Rated Load
- **20115** ETA-4/5 Three Hole Mount Load Trolley with 550 lb (250kg) Rated Load
- **28070** ETA-4/5 Unified Balancer Trolley with 550 lb (250kg) Rated Load
- **20130** ETA-4/5 Single Hoist Trolley with 550 lb (250kg) Rated Load
- **20125** ETA-4/5 Pin Mount Trolley with 550 lb (250kg) Rated Load
- **20116** ETA-4/5 IR 6" Balancer Trolley with 550 lb (250kg) Rated Load
- **20117** ETA-4/5 IR 10" Balancer Trolley with 550 lb (250kg) Rated Load

Features

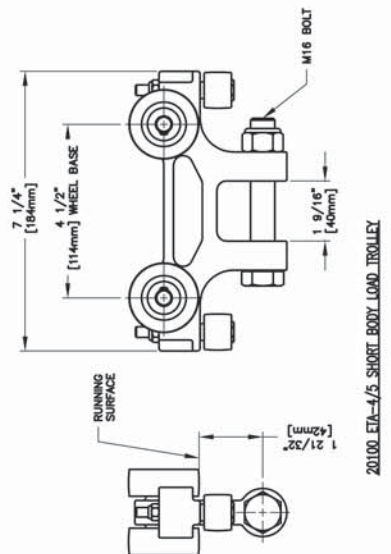
- High tensile almag alloy frame
- 1.8"(46mm) Nylon glass reinforced wheels, with permanently sealed precision ball bearings
- High impact nylon guide rollers with dual race ball bearings for smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)



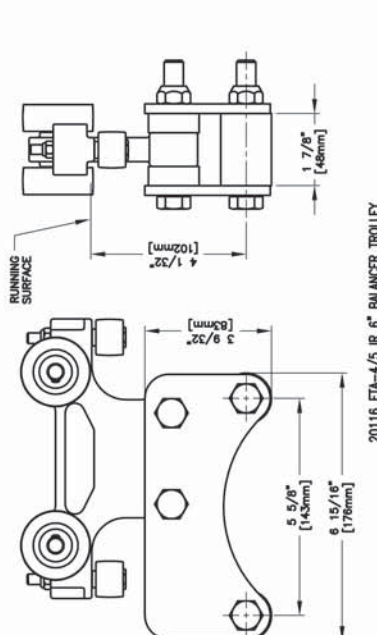
20115 ETA-4/5 THREE HOLE MOUNT LOAD TROLLEY



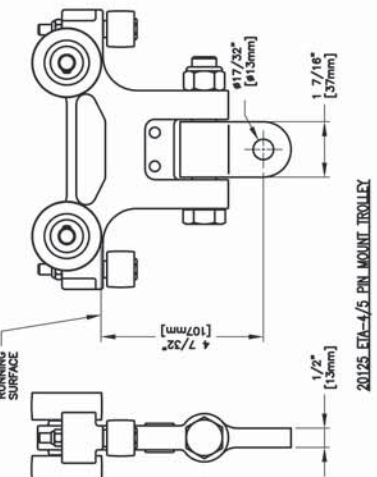
20110 ETA-4/5 LONG BODY LOAD TROLLEY



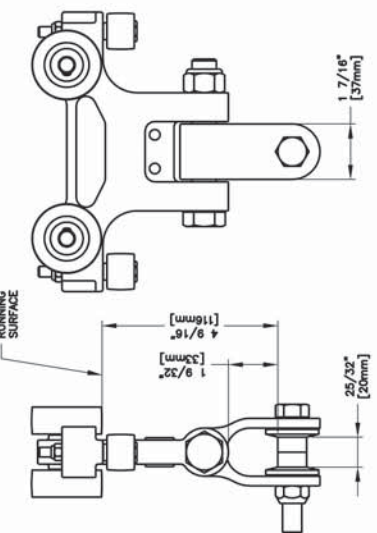
20100 ETA-4/5 SHORT BODY LOAD TROLLEY



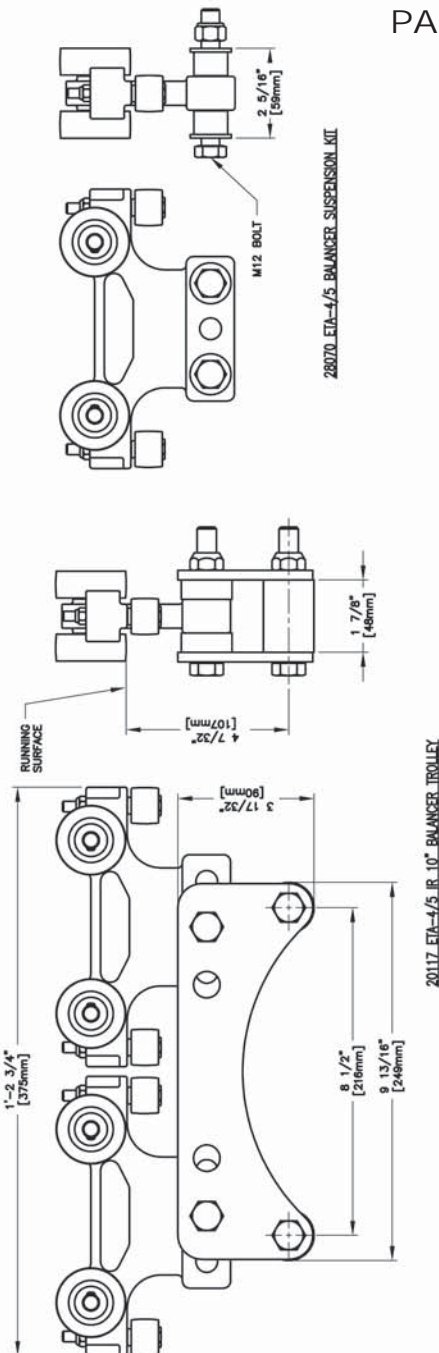
20116 ETA-4/5 IR 6\"/>



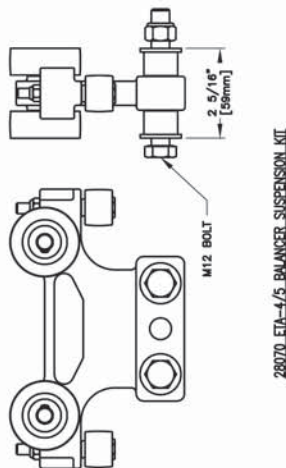
20125 ETA-4/5 PIN MOUNT TROLLEY



20130 ETA-4/5 SINGLE HOIST TROLLEY



20117 ETA-4/5 IR 10\"/>

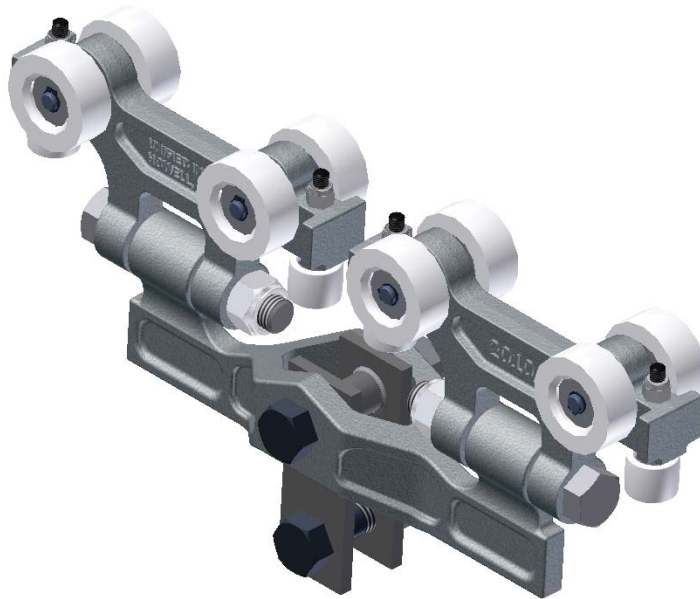


28070 ETA-4/5 BALANCER SUSPENSION KIT

SPECIFICATIONS	
WEIGHT OF 20100:	2.15 lbs. [98 Kg.]
WEIGHT OF 20110:	2.23 lbs. [1.01 Kg.]
WEIGHT OF 20115:	2.00 lbs. [91 Kg.]
WEIGHT OF 20130:	2.92 lbs. [1.32 Kg.]
WEIGHT OF 20125:	2.45 lbs. [1.11 Kg.]
WEIGHT OF 20116:	7.08 lbs. [3.20 Kg.]
WEIGHT OF 20117:	9.80 lbs. [4.45 Kg.]
WEIGHT OF 28070:	2.10 lbs. [95 Kg.]
BODY : HIGH TENSILE ALUMG	
WHEELS : 1.825 DIA. [46.4mm DIA.] GLASS REINFORCED NYLON	
BEARINGS : BALL PERMANENTLY LUBRICATED STUDS : .50 DIA. [12.7mm DIA.]	
GUIDE ROLLERS : .84 DIA. [21.3mm DIA.] HIGH IMPACT NYLON	



UNIFIED ETA-4 & ETA-5 RAIL TROLLEYS



25330



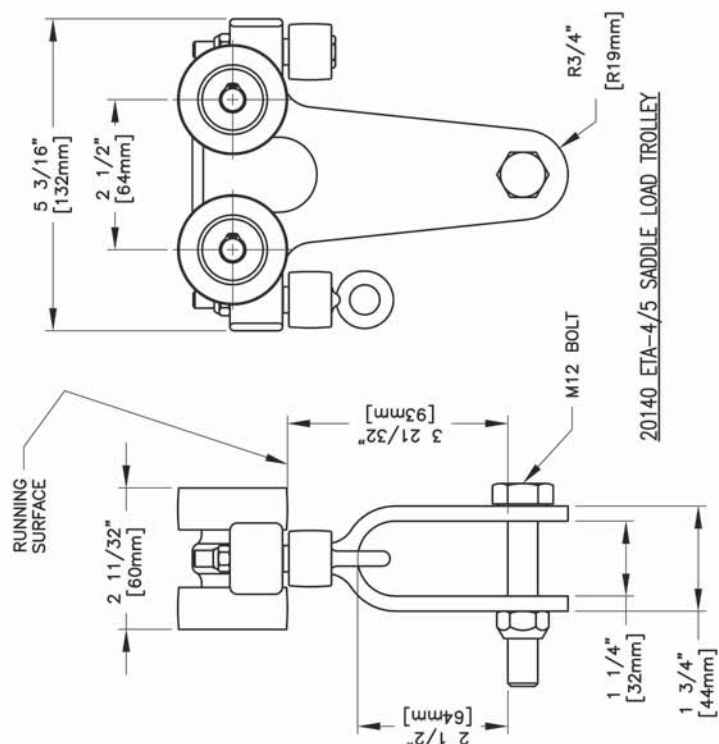
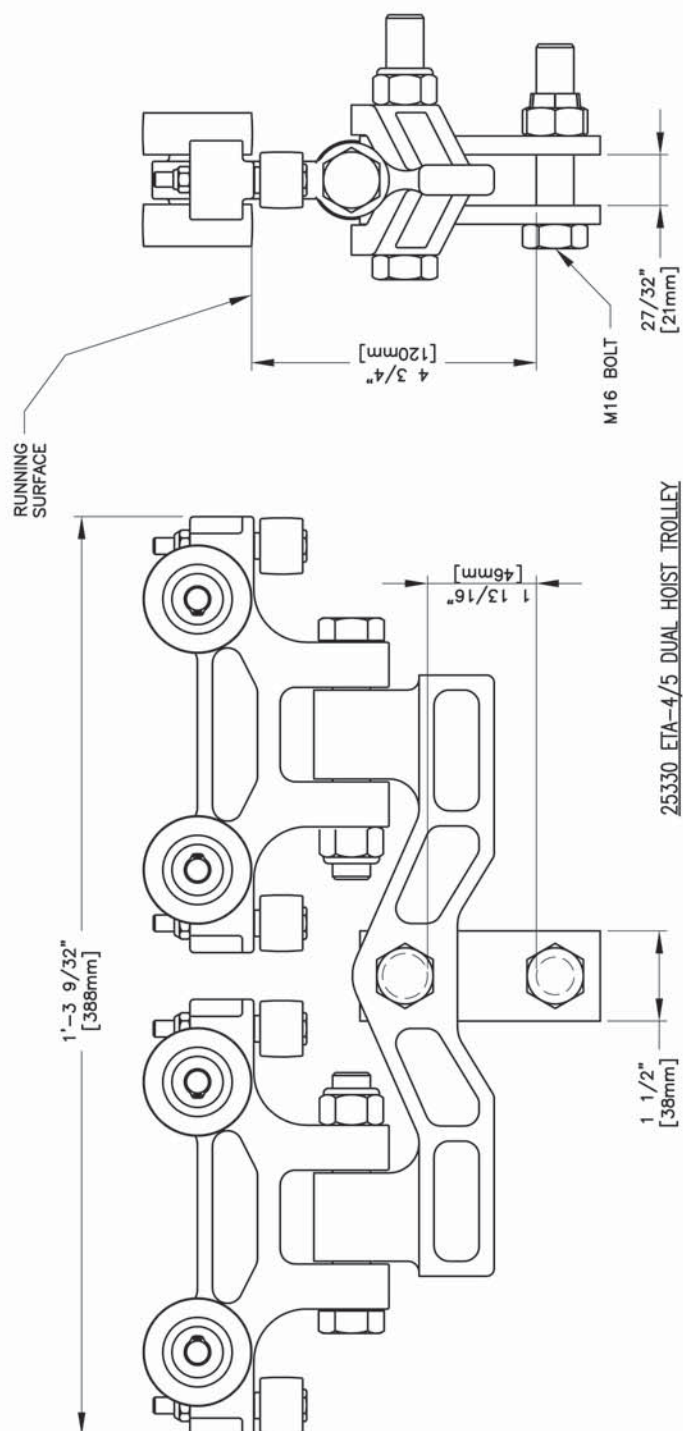
20140

Part Number

- **25330** ETA-4/5 Dual Hoist Trolley with 1100 lb (500kg) Rated Load
- **20140** ETA-4/5 Saddle Load Trolley with 550 lb (250kg) Rated Load

Features

- High tensile almag alloy frame
- 1.8" (46mm) Nylon glass reinforced wheels, with permanently sealed precision ball bearings
- High-impact nylon guide rollers with smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)



SPECIFICATIONS		RATED LOAD	
WEIGHT OF 25330:	7.08 lbs. [3.21 Kg.]	1100 lbs. [500 Kg.]	
WEIGHT OF 20140:	1.83 lbs. [.83 Kg.]	550 lbs. [250 Kg.]	
BODY :	HIGH TENSILE ALMAG		
WHEELS :	1.825 DIA. [46.4mm DIA.] GLASS REINFORCED NYLON		
BEARINGS :	BALL PERMANENTLY LUBRICATED		
STUDS :	.50 DIA. [12.7mm DIA.]		
GUIDE ROLLERS :	.94 DIA. [23.9mm DIA.] HIGH IMPACT NYLON		

UNIFIED ETA-4 & ETA-5 FESTOON TROLLEY



20150



20155



20160



20165



20180



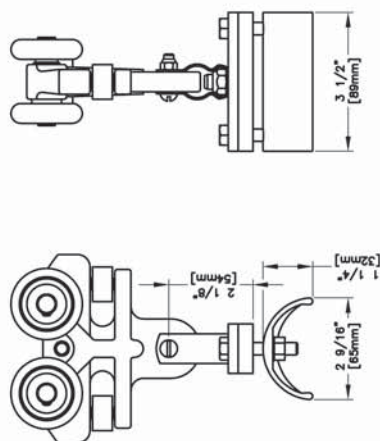
20185

Part Number

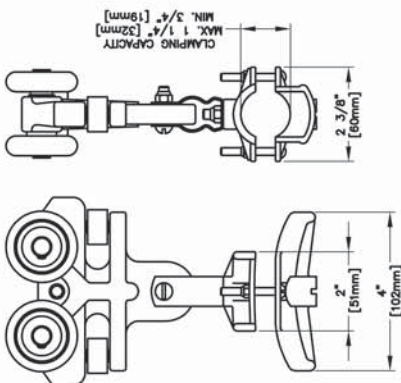
- **20150** ETA-4/5 Festoon Trolley with 100 lb (45kg) Rated Load
- **20155** ETA-4/5 Festoon Trolley and Small Saddle with 100 lb (45kg) Rated Load
- **20160** ETA-4/5 Festoon Trolley and Large Saddle with 100 lb (45kg) Rated Load
- **20165** ETA-4/5 Festoon Trolley and Flatwire Saddle with 100 lb (45kg) Rated Load
- **20180** ETA-4/5 Festoon Trolley and UII Saddle with 100 lb (45kg) Rated Load
- **20185** ETA-4/5 Festoon Trolley with 12" Saddle 100 lb (45kg) Rated Load

Features

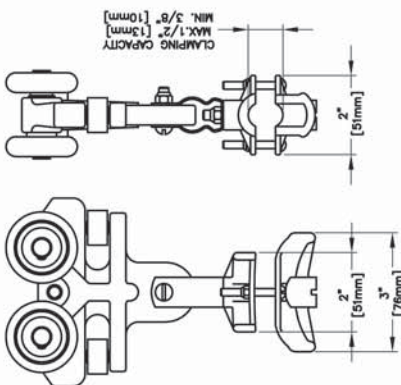
- High tensile almag alloy frame
- 1.8" (46mm) Nylon glass reinforced wheels, with permanently sealed precision ball bearings
- High-impact nylon guide rollers with smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)



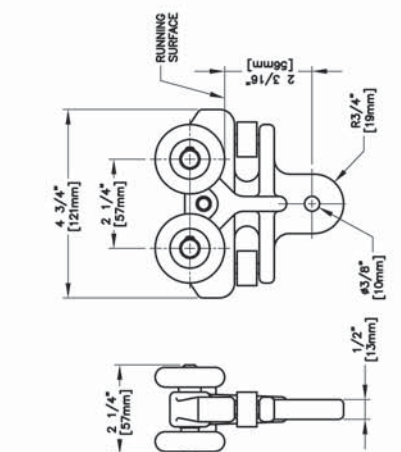
20165 ETA-4/5 FESTOON TROLLEY WITH FLATWIRE SADDLE



20160 ETA-4/5 FESTOON TROLLEY WITH LARGE SADDLE



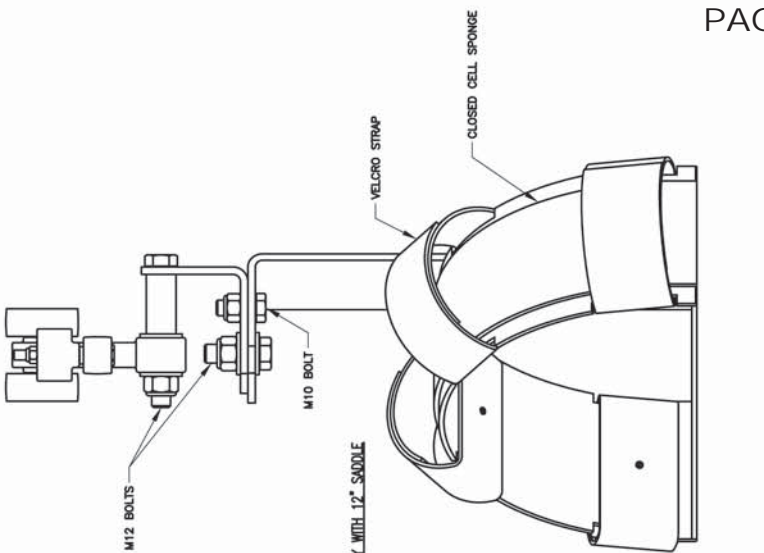
20155 ETA-4/5 FESTOON TROLLEY WITH SMALL SADDLE



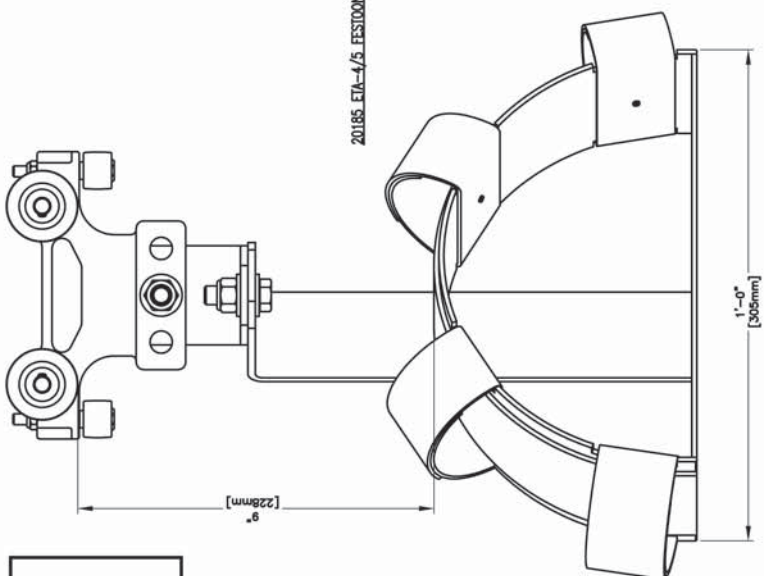
20150 ETA-4/5 FESTOON TROLLEY

TROLLEY	WEIGHT
20150:	1.50 lbs. [.68 Kg.]
20155:	1.69 lbs. [.77 Kg.]
20160:	1.71 lbs. [.78 Kg.]
20165:	2.12 lbs. [.96 Kg.]
20180:	2.69 lbs. [1.22 Kg.]
20185:	9.50 lbs. [4.31 Kg.]

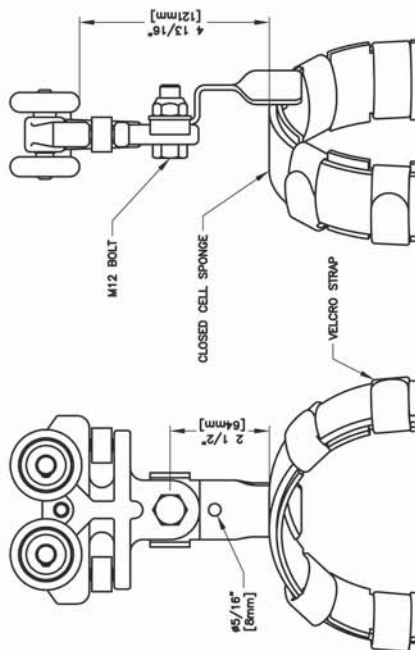
SPECIFICATIONS :
WHEELS : 1.812 DIA. (46mm DIA.) HIGH IMPACT NYLON
BODY : ALUM. 35
BEARINGS : BALL TYPE PERMANENTLY LUBRICATED
GUIDE ROLLERS : 25 DIA. (6mm DIA.)
GUIDE ROLLERS : 25 DIA. (6mm DIA.) HIGH IMPACT NYLON
OPERATING TEMP. AT 100% LOAD : -10°F TO +110°F [-23°C TO +43°C]
ROLLING FRICTION : 5% TO 1% OF LOAD
MAX. LOAD PER WHEEL : 25 lbs. [11.2 Kg.]



20185 ETA-4/5 FESTOON TROLLEY WITH 12\"/>



20180 ETA-4/5 FESTOON TROLLEY WITH UII SADDLE





UNIFIED ETA-4 & ETA-5 FESTOON TROLLEY



20170



20175



78260



78184



78190



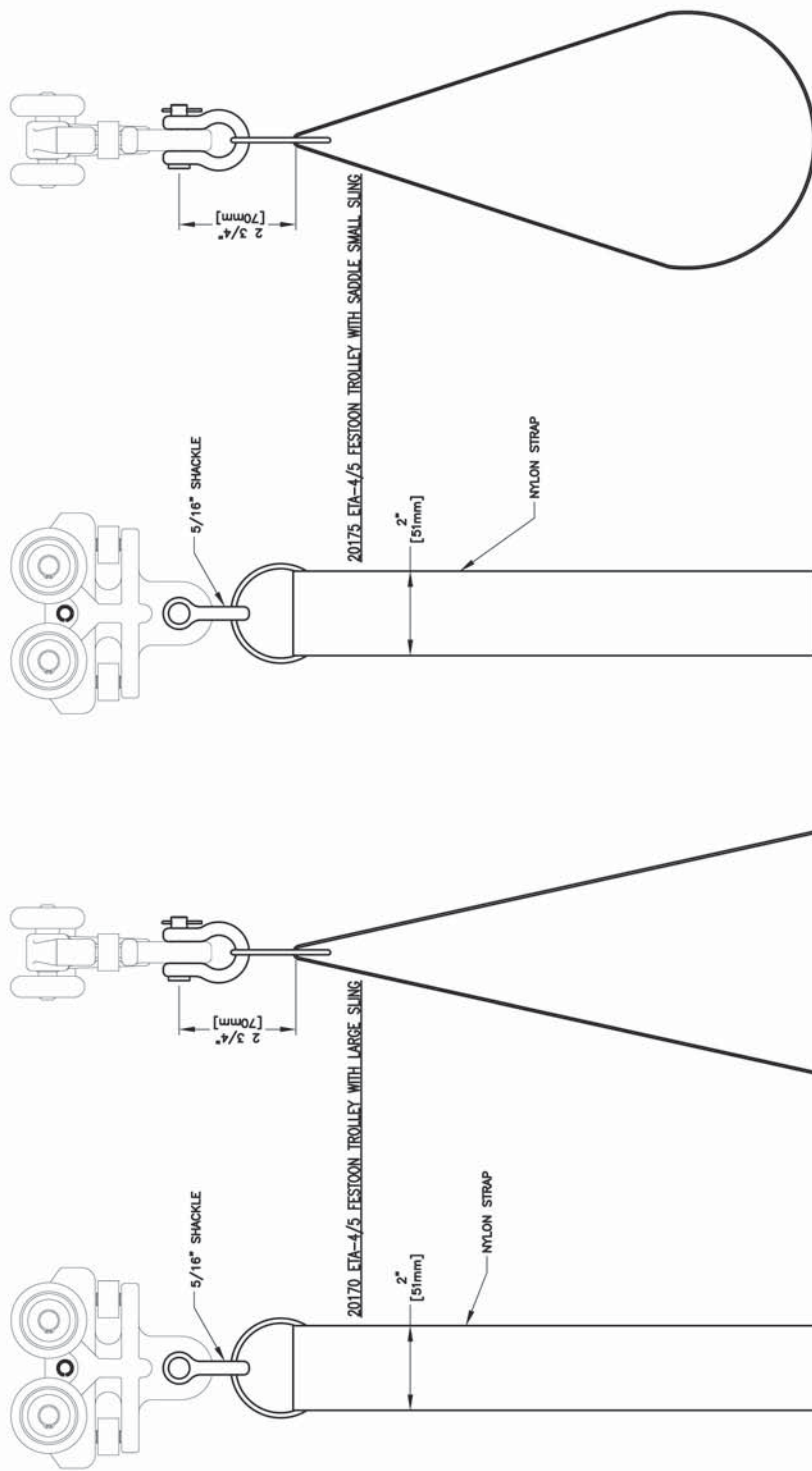
78170

Part Number

- **20170*** ETA-4/5 Festoon Trolley and 24" Large Sling with 100 lb (45kg) Rated Load
- **20175*** ETA-4/5 Festoon Trolley and 12" Small Sling with 100 lb (45kg) Rated Load
- **78260** ETA-4/5 Festoon Slider
- **78184** Cable Trolley with Small Saddle
- **78190** Cable Trolley with Large Saddle
- **78170** Cable Trolley Flatwire Saddle

Features*

- High tensile almag alloy frame
- 1.8" (46mm) Nylon glass reinforced wheels, with permanently sealed precision ball bearings
- High-impact nylon guide rollers with smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)



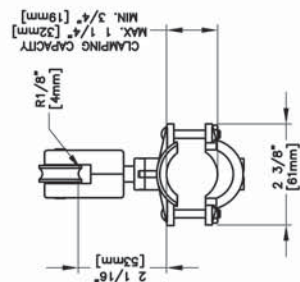
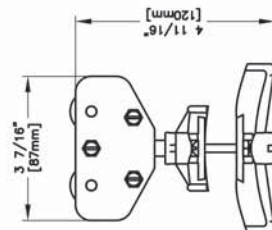
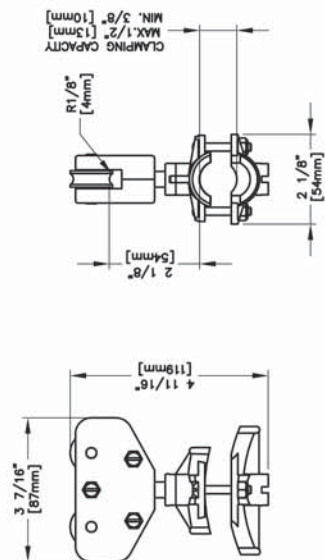
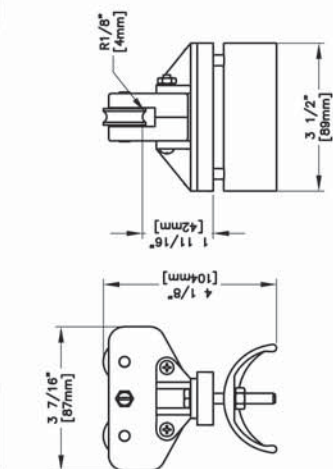
FESTOON TROLLEY SPECIFICATIONS:

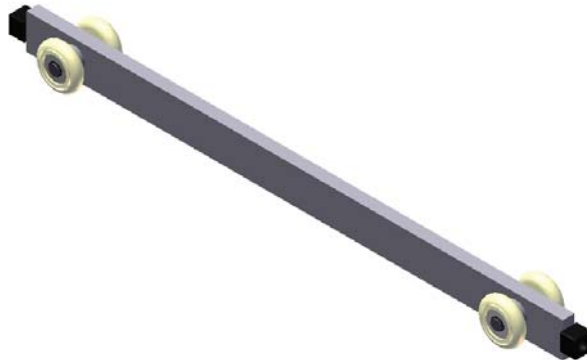
WHEELS: 1.812 DIA. [46mm DIA.] HIGH IMPACT NYLON
 BODY: ALUMINUM
 BEARINGS: BALL TYPE PERMANENTLY LUBRICATED
 STUDS: .50 DIA. [13mm DIA.]
 GUIDE ROLLERS: .94 DIA. [24mm DIA.] HIGH IMPACT NYLON
 OPERATING TEMP. AT 100% LOAD: -10°F TO +110°F [-23°C TO +43°C]
 ROLLING FRICTION: .25% TO 1% OF LOAD
 MAX. LOAD PER WHEEL: 25 lbs. [11.2 kg.]

TROLLEY

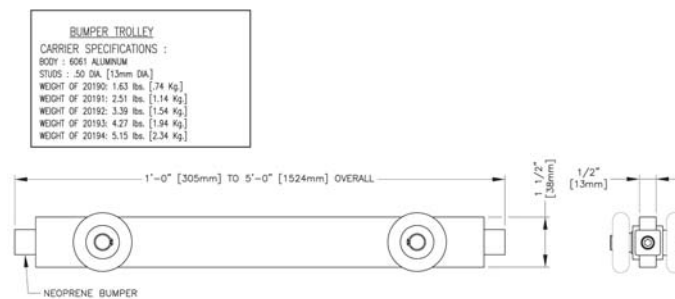
WEIGHT

20170:	2.00 lbs. [.91 kg.]
20175:	1.83 lbs. [.83 kg.]
78260:	.07 lbs. [.03 kg.]
78170:	.46 lbs. [.21 kg.]
78184:	.37 lbs. [.17 kg.]
78190:	.41 lbs. [.19 kg.]





ETA-4/ETA-5 BUMPER TROLLEY



Part Number

- **20190** 1'-0" (305mm) Bumper trolley to operate on Unified ETA-4 and ETA-5
- **20191** 2'-0" (610mm) Bumper trolley to operate on Unified ETA-4 and ETA-5
- **20192** 3'-0" (914mm) Bumper trolley to operate on Unified ETA-4 and ETA-5
- **20193** 4'-0" (1219mm) Bumper trolley to operate on Unified ETA-4 and ETA-5
- **20194** 5'-0" (1524mm) Bumper trolley to operate on Unified ETA-4 and ETA-5

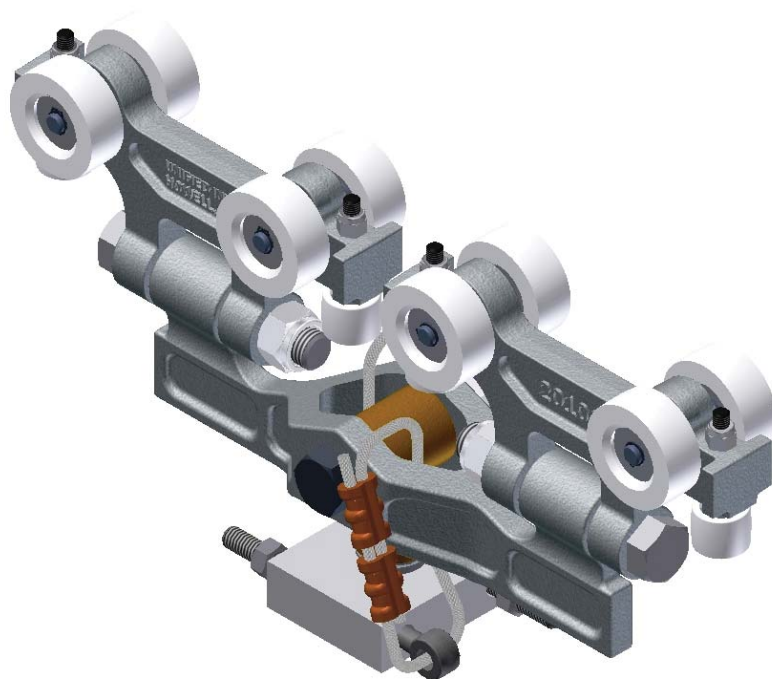
Features

- Aluminum trolley body
- 1.8" (46mm) High-impact nylon wheels, with permanently sealed precision ball bearings
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)



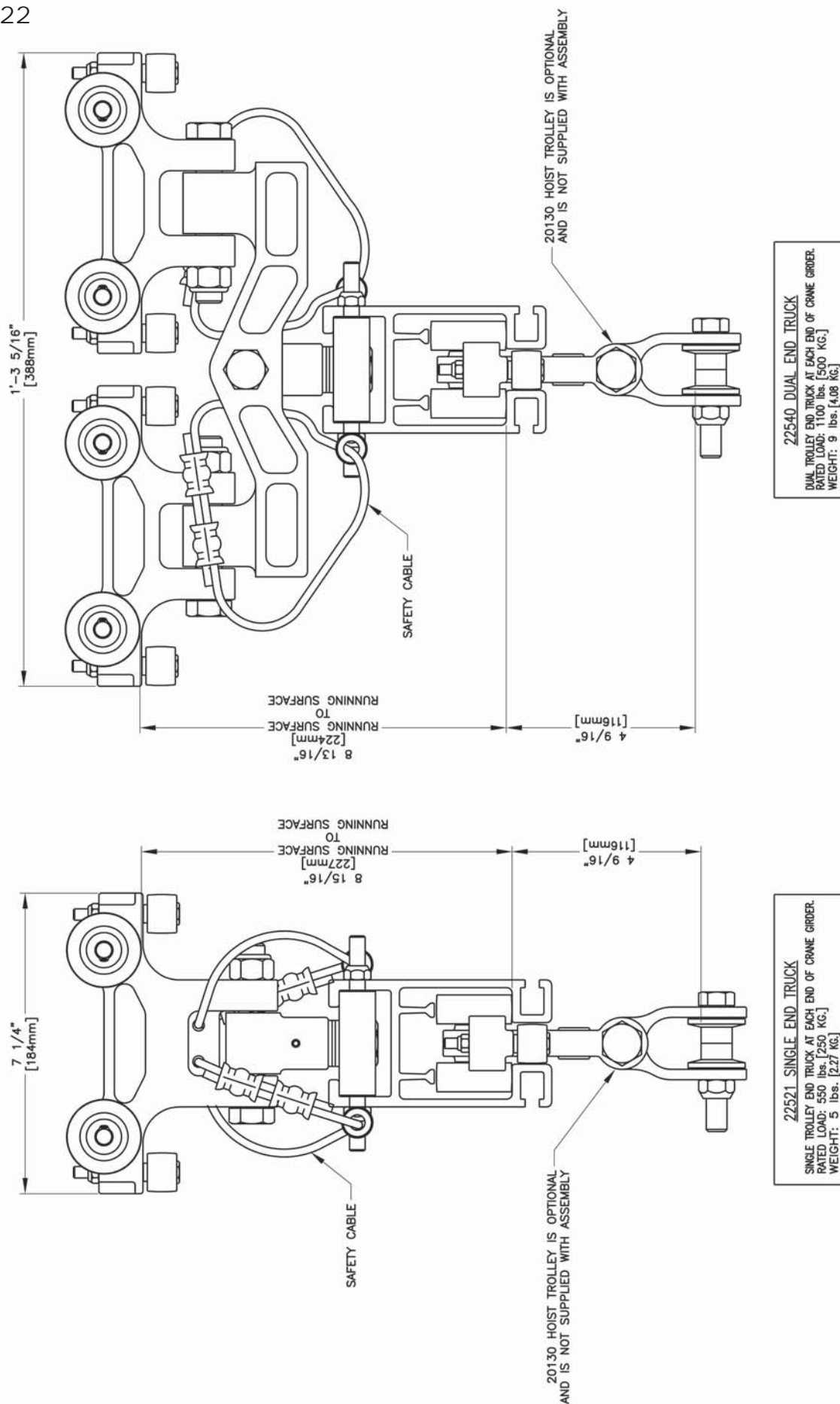
22521 ETA-4/5 SINGLE END TRUCK

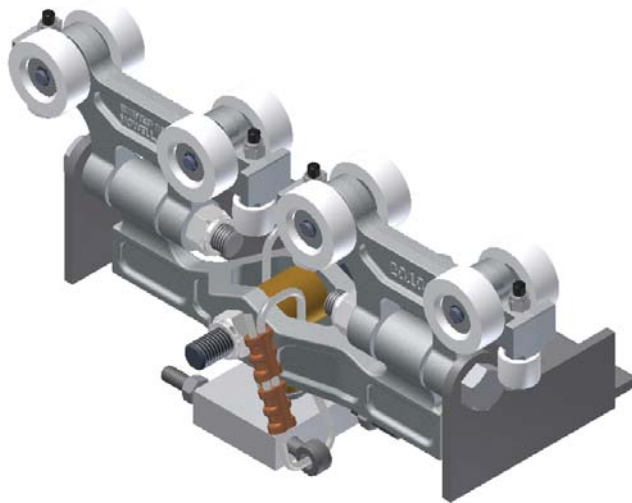
- To operate on ETA-4 and ETA-5
- Rated Load 550 lbs. (250kg)



22540 ETA-4/5 DUAL END TRUCK

- To operate on ETA-4 and ETA-5
- Rated Load 1100 lbs. (500kg)

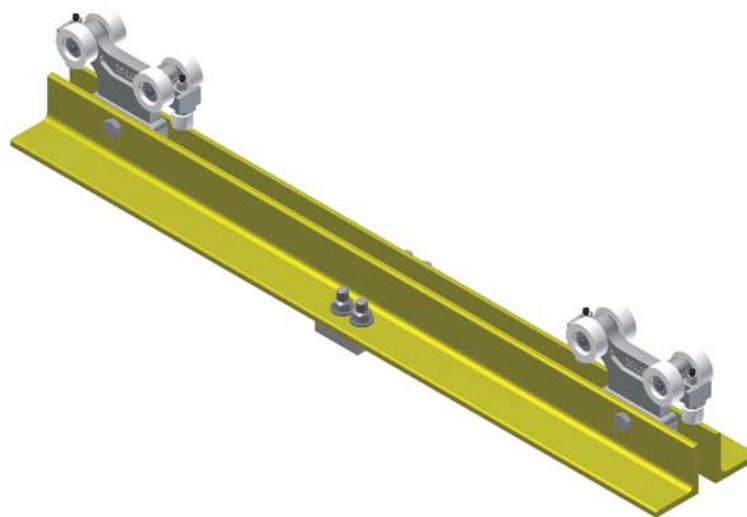




- **22545** ETA-4/5 Rigid End Truck for Spans up to 18' (5.5m)
- Rated Load 1100 lbs. (500kg)

Weight

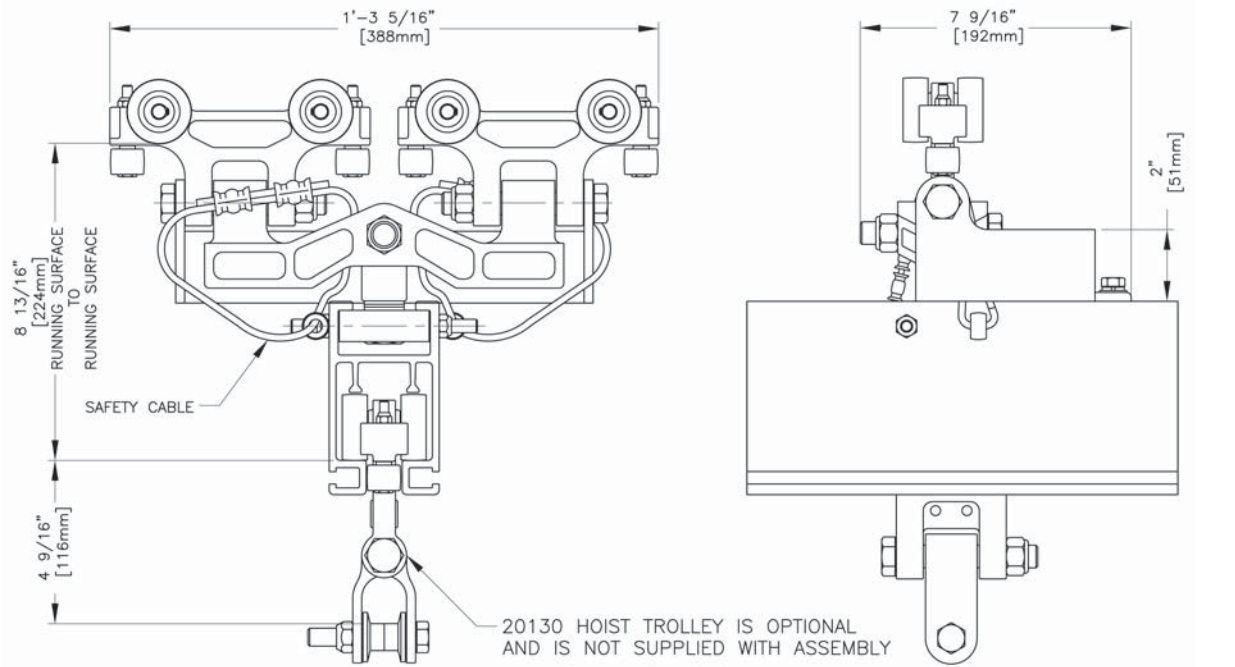
15 lbs (6.8kg)



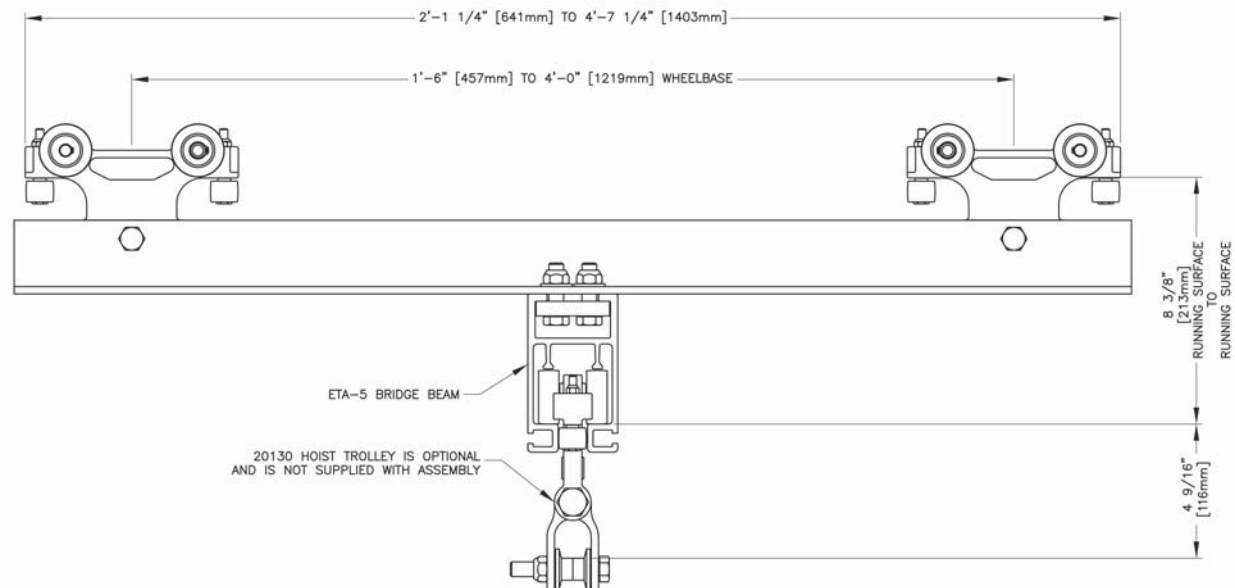
ETA-4/5 RIGID END TRUCK

- End truck assemblies for single girder bridge cranes to run on ETA-4/5 Runway.
- Attaches to ETA-4, ETA-5 and ETA-8 Bridges.

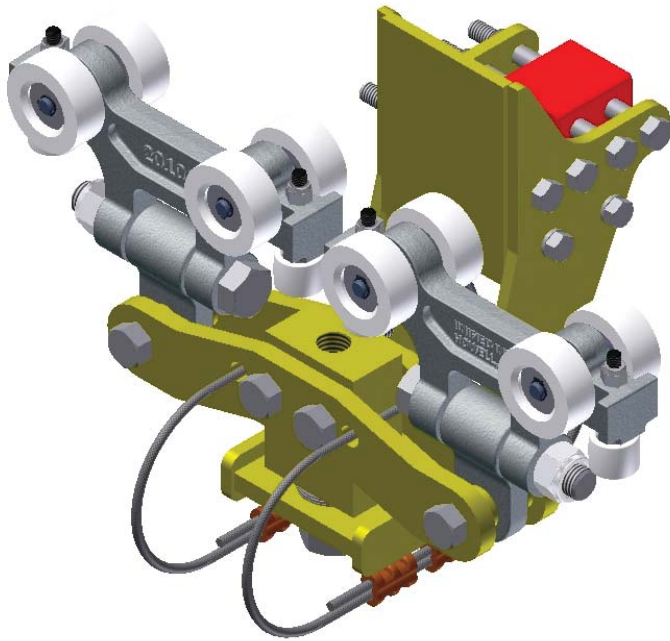
- | | |
|--|-----------------------------------|
| ■ 22546 1'-6" (457mm) wheelbase for spans 2'-0" (609mm) to 5'-0" (1524mm) | Weight
24 lbs. (10.8kg) |
| ■ 22547 2'-0" (609mm) wheelbase for spans 6'-0" (1829mm) to 9'-0" (2743mm) | 28 lbs. (12.7kg) |
| ■ 22548 2'-6" (762mm) wheelbase for spans 10'-0" (3048mm) to 13'-0" (3962mm) | 32 lbs. (14.5kg) |
| ■ 22549 3'-0" (914mm) wheelbase for spans 14'-0" (4267mm) to 17'-0" (5182mm) | 36 lbs. (16.3kg) |
| ■ 22550 3'-6" (1066mm) wheelbase for spans 18'-0" (5486mm) to 20'-0" (6096mm) | 40 lbs. (18.1kg) |
| ■ 22551 4'-0" (1219mm) wheelbase for spans 21'-0" (6400mm) to 25'-0" (7620mm) | 44 lbs. (20kg) |
| ■ No safety cable included | |
| ■ Rated Load 1100 lbs. (500kg) | |



22545 RIGID MOUNT END TRUCK
DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
RATED LOAD: 1100 lbs. [500 Kg.]
WEIGHT: 15 lbs. [6.8 Kg.]

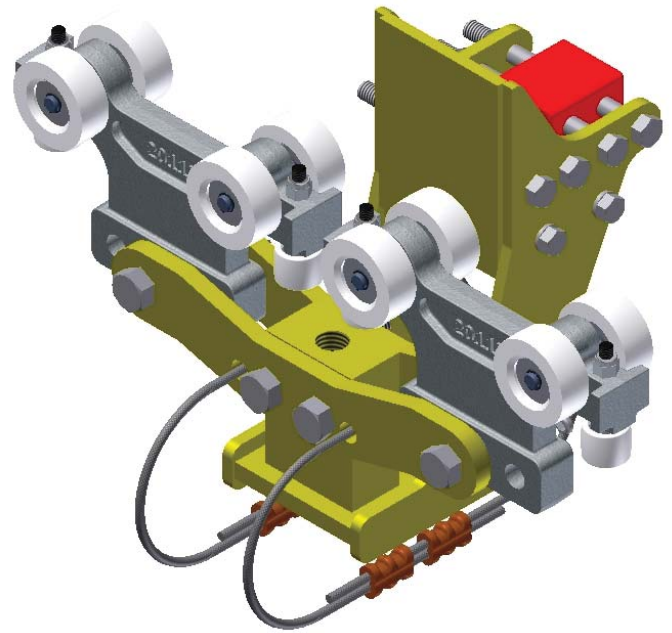


ETA-4 RIGID END TRUCK
DUAL TROLLEY END TRUCK AT EACH
END OF CRANE GIRDER.
RATED LOAD: 1100 lbs. [500 Kg.]
NO SAFETY CABLE INCLUDED



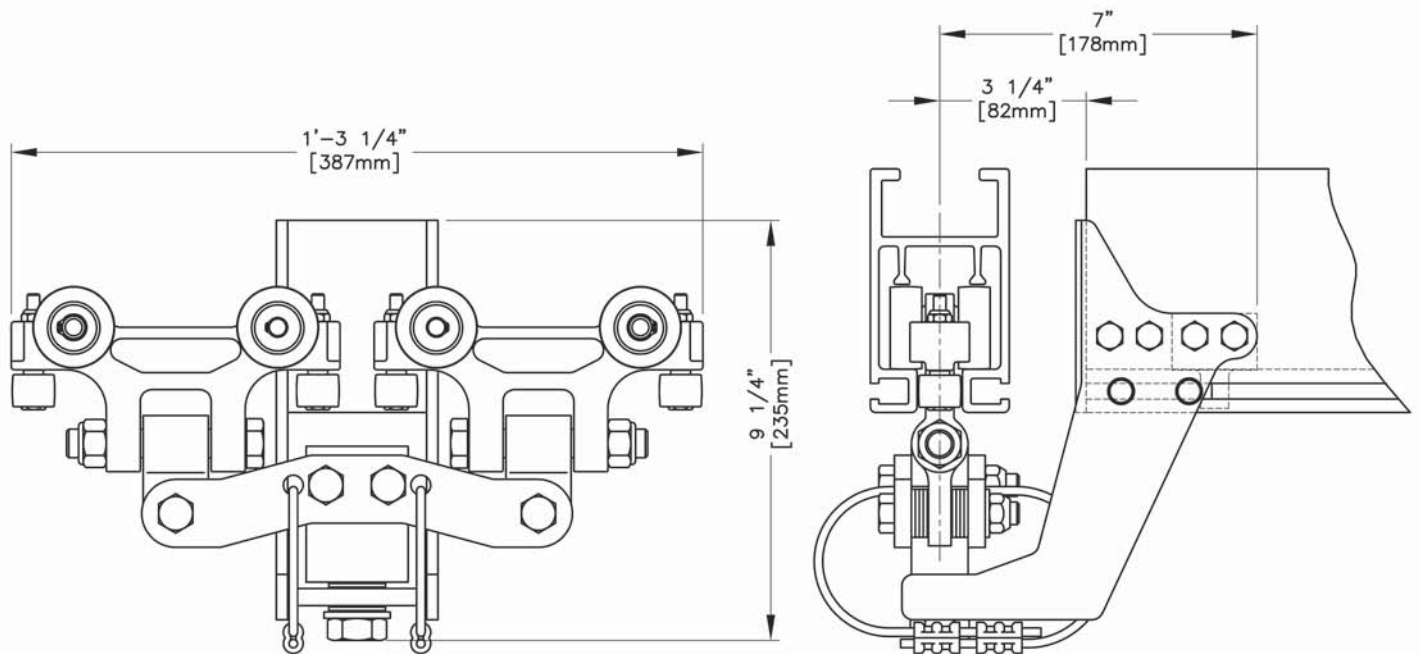
22600 ETA-4/5 Articulating Low Headroom
End Truck

- To operate on ETA-4/5
- Rated Load 1100 lbs. (500kg)

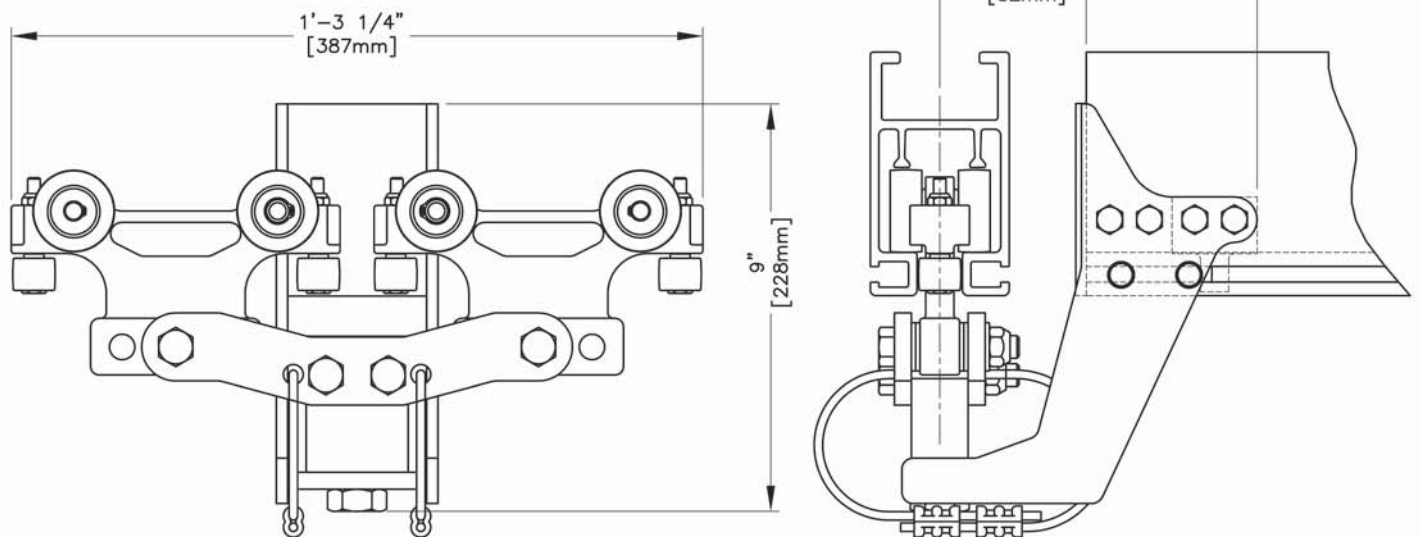


22605 ETA-4/5 Rigid Low Headroom
End Truck

- To operate on ETA-4/5
- Rated Load 1100 lbs. (500kg)



22600 ETA-4/5 ARTICULATING LOW HEAD ROOM END TRUCK
 DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
 RATED LOAD: 1100 lbs. [500 KG.]
 WEIGHT: 16 lbs. [7.26 KG.]



22605 ETA-4/5 RIGID LOW HEAD ROOM END TRUCK
 DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
 RATED LOAD: 1100 lbs. [500 KG.]
 WEIGHT: 13 lbs. [5.90 KG.]



STANDARD RAIL END TRUCKS (WITHOUT KICKUP WHEELS)

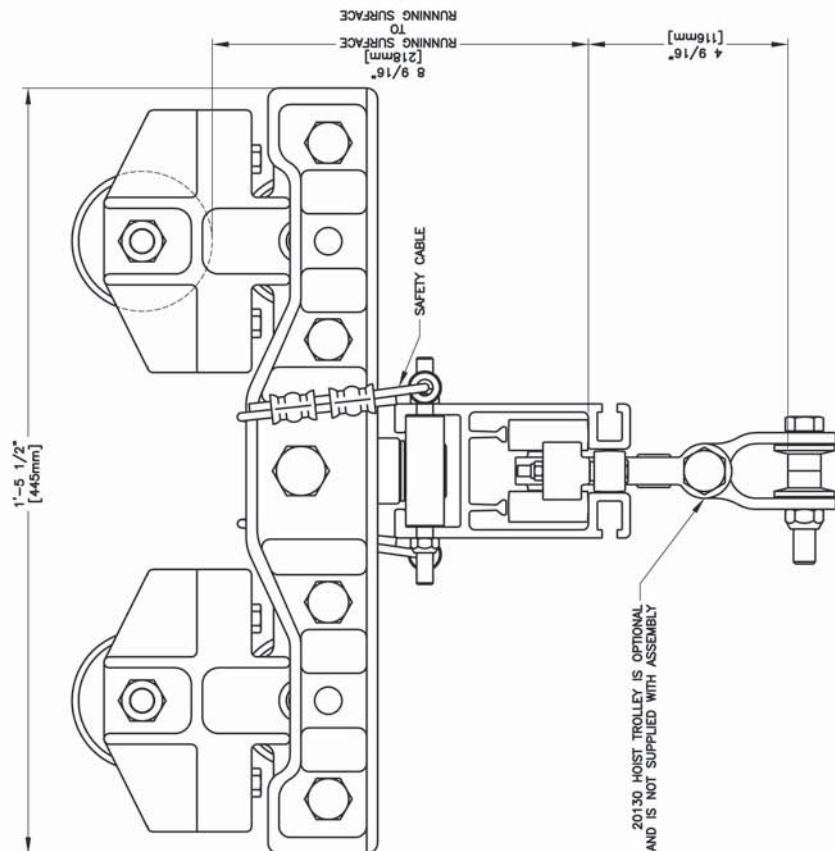
- End truck assemblies for bridge cranes.
Rated Load 1100 lbs. (500kg)
- **22557** MBC-500-3-325 End Truck to run on 3.25 Patent Track.
- **22558** MBC-500-3-333 End Truck to run on S6x12.5.
- **22559** MBC-500-3-4-266 End Truck to run on S4x7.7.

- Consult Factory to run on Metric Beams.

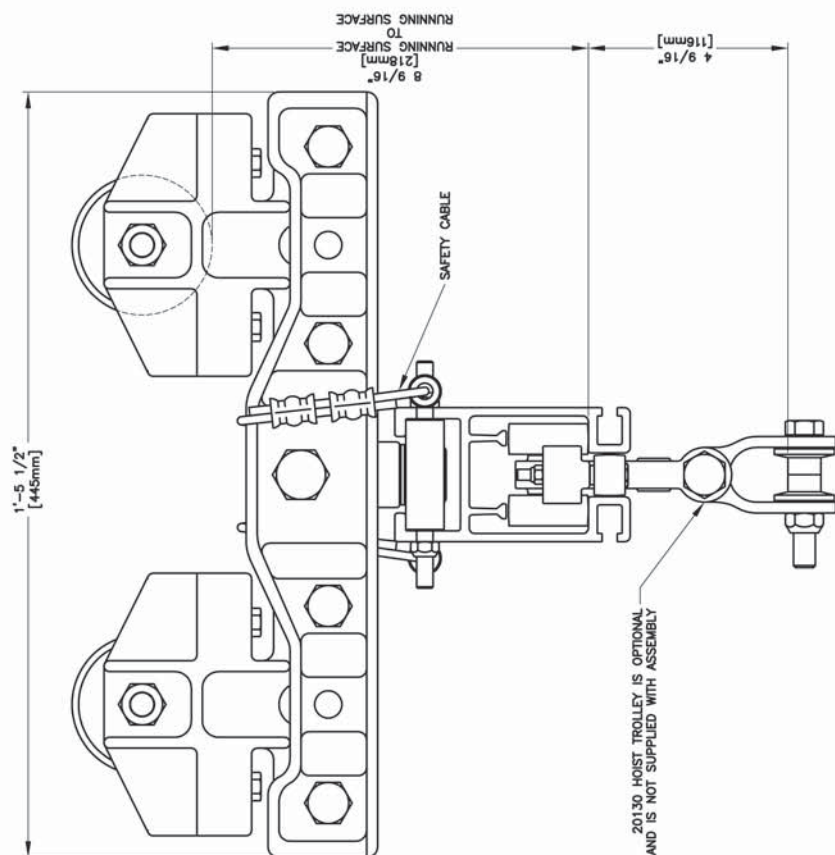


STANDARD RAIL END TRUCKS (WITH KICKUP WHEELS)

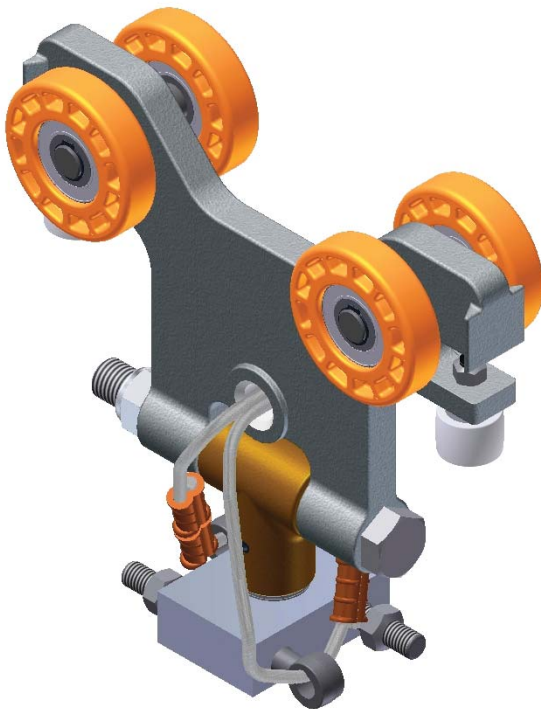
- End truck assemblies for bridge cranes.
Rated Load 1100 lbs. (500kg)
- **22574** MBC-500-3-325 End Truck to run on 3.25 Patent Track.
- **22575** MBC-500-3-333 End Truck to run on S6x12.5.
- **22576** MBC-500-3-4-266 End Truck to run on S4x7.7.



END TRUCKS (WITH KICKUP WHEELS)
 DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
 RATED LOAD: 1100 lbs. [500 KG.]
 22574 MRC-500-3-325 END TRUCK TO RUN ON 3.25 PATENT TRACK.
 22575 MRC-500-3-333 END TRUCK TO RUN ON S6x12.5.
 22576 MRC-500-3-4-2.66 END TRUCK TO RUN ON S4x7.7.
 WEIGHT: 35 LBS. [15.88 KG.]

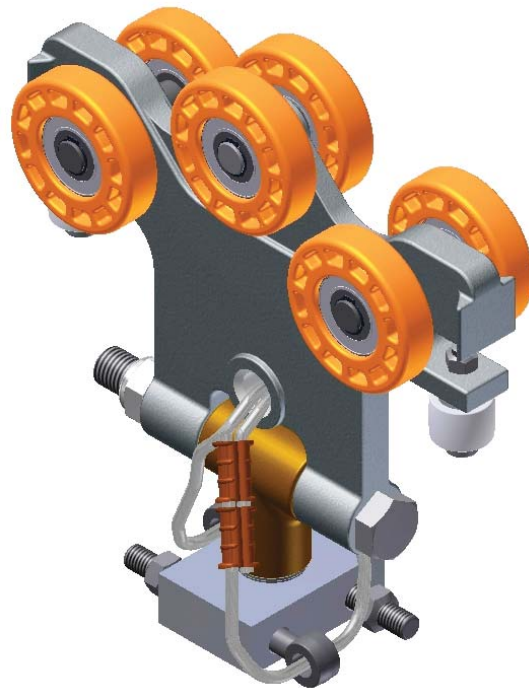


END TRUCKS (WITHOUT KICKUP WHEELS)
 DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
 RATED LOAD: 1100 lbs. [500 KG.]
 22557 MRC-500-3-325 END TRUCK TO RUN ON 3.25 PATENT TRACK.
 22558 MRC-500-3-333 END TRUCK TO RUN ON S6x12.5.
 22559 MRC-500-3-4-2.66 END TRUCK TO RUN ON S4x7.7.
 WEIGHT: 32 LBS. [14.51 KG.]



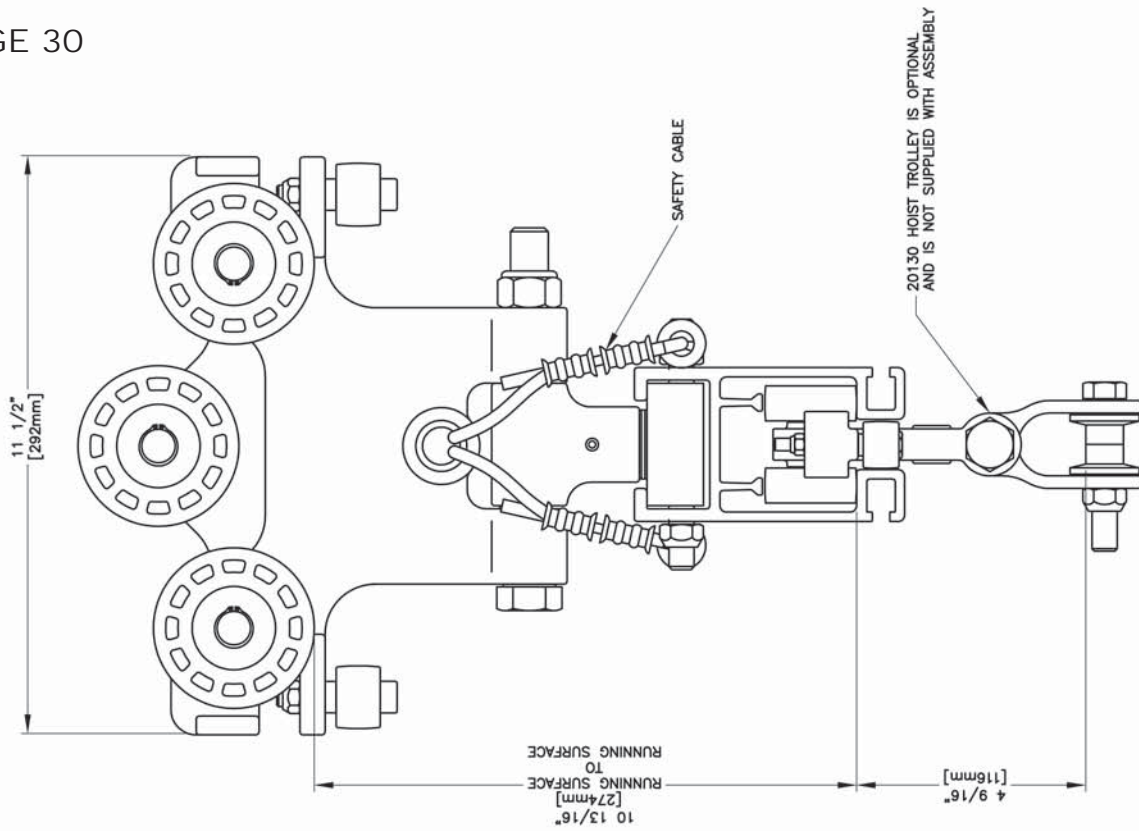
22041 SINGLE END TRUCK
(WITHOUT KICKUP WHEELS)

- For ETA-5 bridge to run ETA-8 runway
- Rated Load 1100 lbs. (500kg)

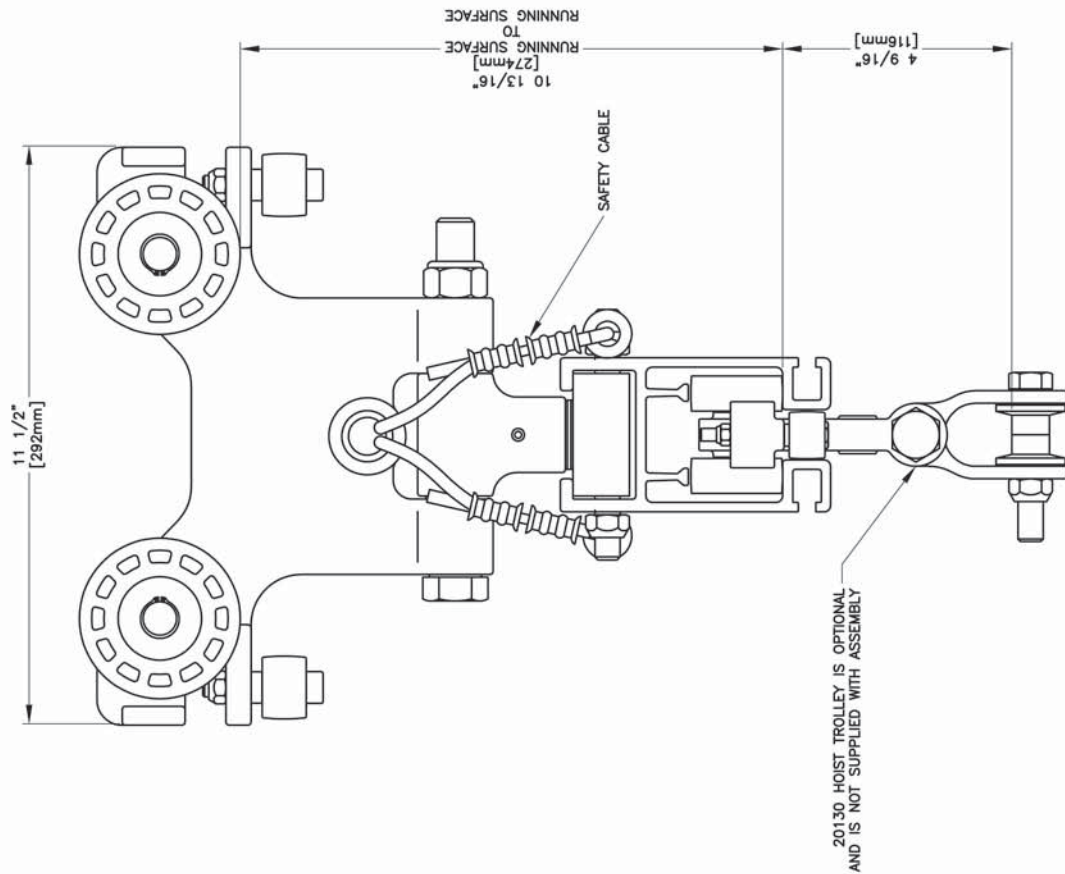


22046 SINGLE END TRUCK
(WITH KICKUP WHEELS)

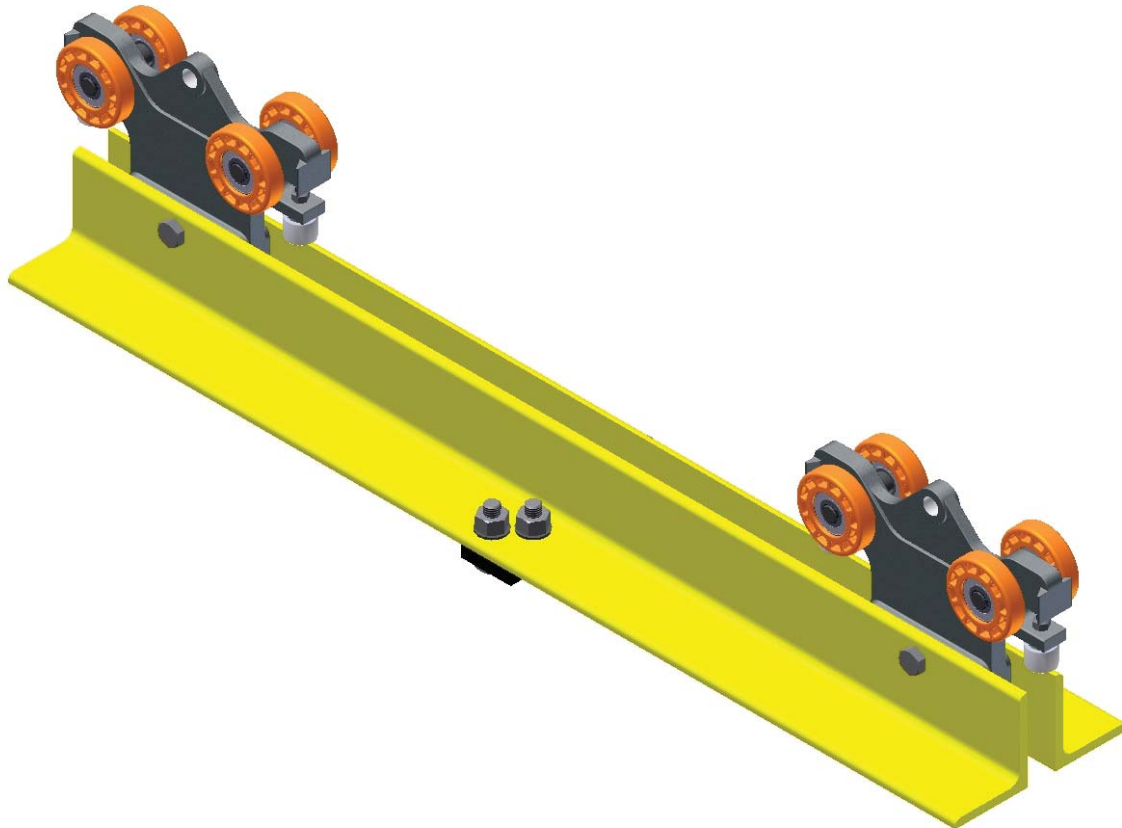
- For ETA-5 bridge to run ETA-8 runway
- Rated Load 1100 lbs. (500kg)



22046 SINGLE END TRUCK (WITH KICKUP WHEELS)
RATED LOAD: 1100 lbs. [500 KG.]
SINGLE END TRUCK AT EACH END OF AN ETA-5 CRANE ORDER TO RUN ON ETA-5 RUNWAY
WEIGHT: 14 LBS. [6.35 KG.]

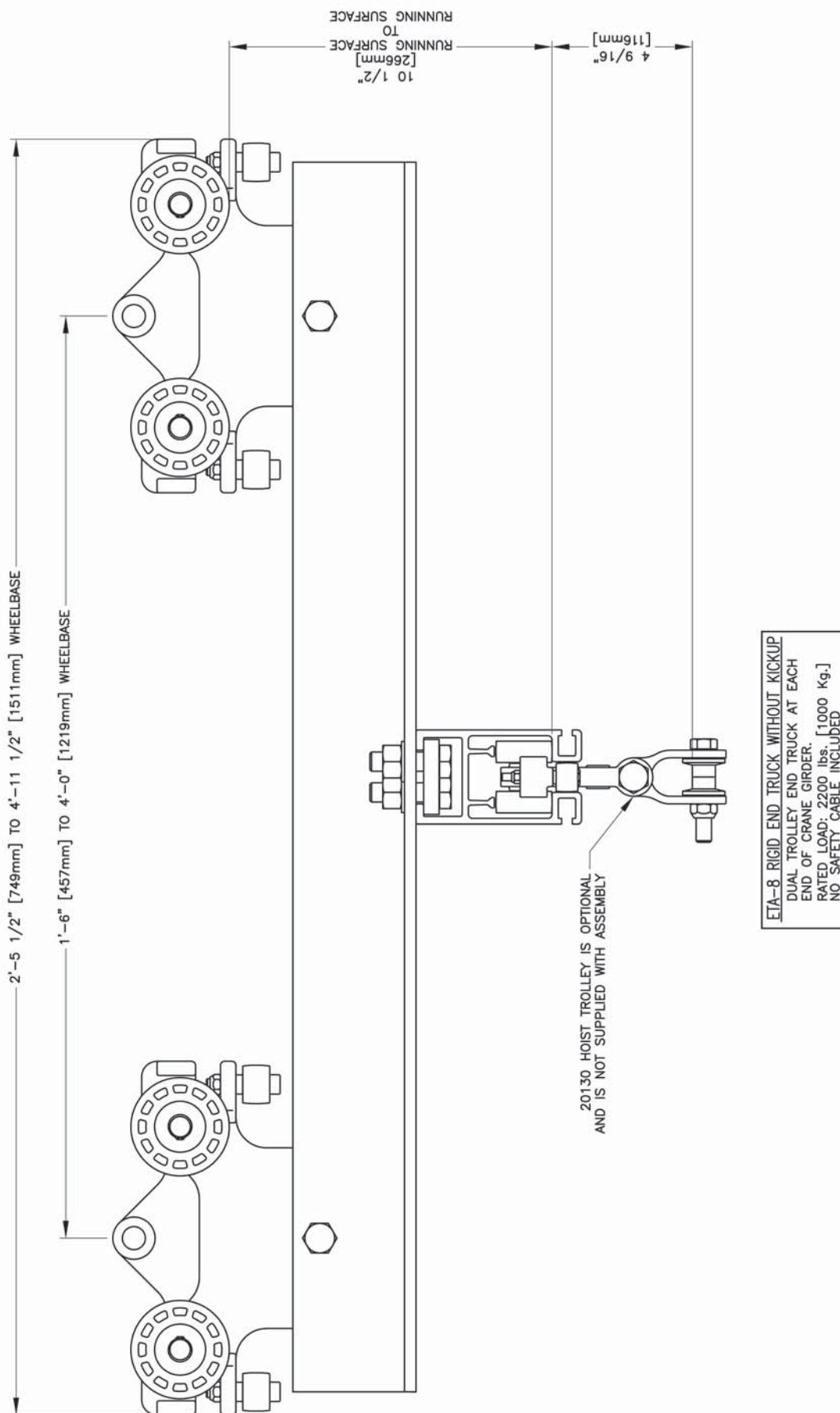


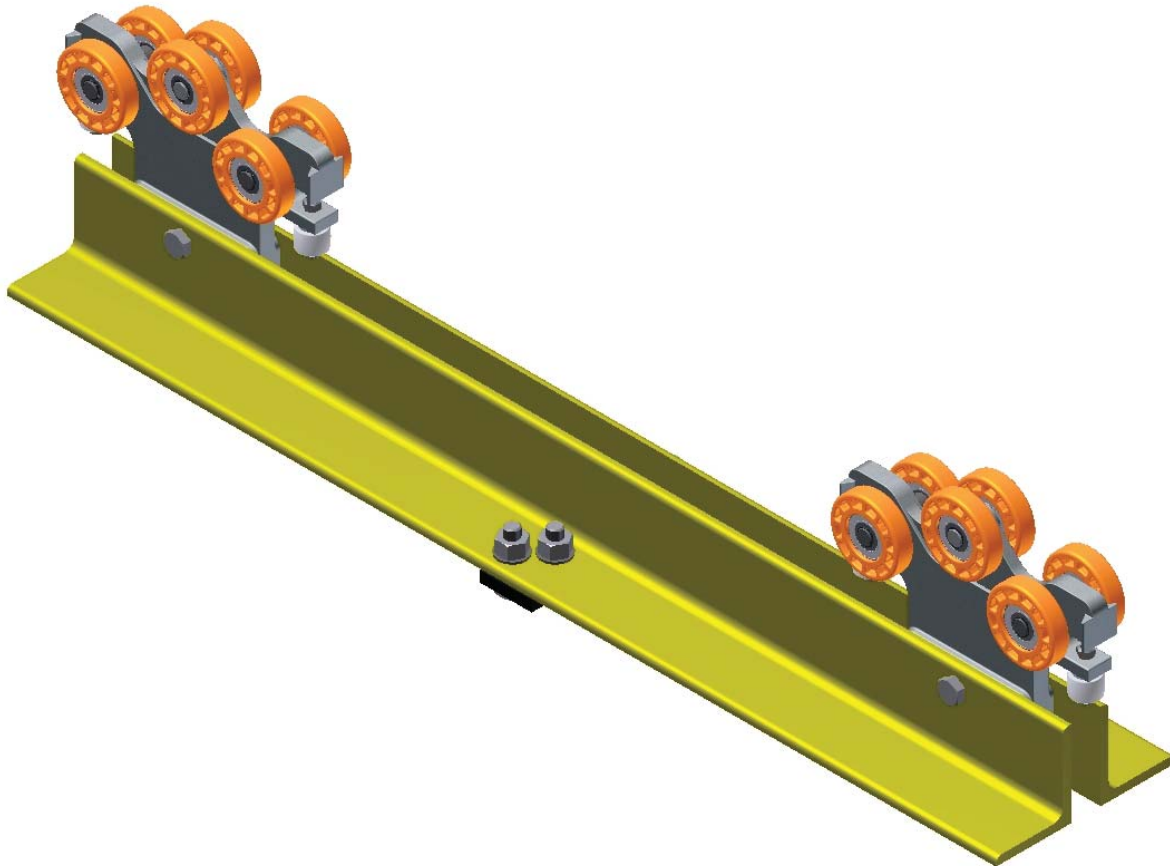
22041 SINGLE END TRUCK (WITHOUT KICKUP WHEELS)
RATED LOAD: 1100 lbs. [500 KG.]
SINGLE END TRUCK AT EACH END OF AN ETA-5 CRANE ORDER TO RUN ON ETA-5 RUNWAY
WEIGHT: 12 LBS. [5.44 KG.]



ETA-8 RIGID END TRUCKS WITHOUT KICKUP

- End truck assemblies for single girder bridge cranes to run on ETA-8 Runway.
- Attaches to ETA-4, ETA-5 and ETA-8 Bridges.
- **22221** 1'-6" (457mm) wheelbase for spans 3'-0" (914mm) to 6'-0" (1829mm) 61 lbs. (27.6kg)
- **22222** 2'-0" (609mm) wheelbase for spans 7'-0" (2133mm) to 10'-0" (3048mm) 70 lbs. (32kg)
- **22223** 2'-6" (762mm) wheelbase for spans 11'-0" (3353mm) to 14'-0" (4267mm) 79 lbs. (35.8kg)
- **22224** 3'-0" (914mm) wheelbase for spans 15'-0" (4572mm) to 18'-0" (5486mm) 88 lbs. (40kg)
- **22225** 3'-6" (1066mm) wheelbase for spans 19'-0" (5791mm) to 21'-0" (6400mm) 98 lbs. (44.5kg)
- **22226** 4'-0" (1219mm) wheelbase for spans 22'-0" (6705mm) to 25'-0" (7620mm) 107 lbs. (48.5kg)
- Rated Load 2200 lbs. (1000kg)
- No safety cable included

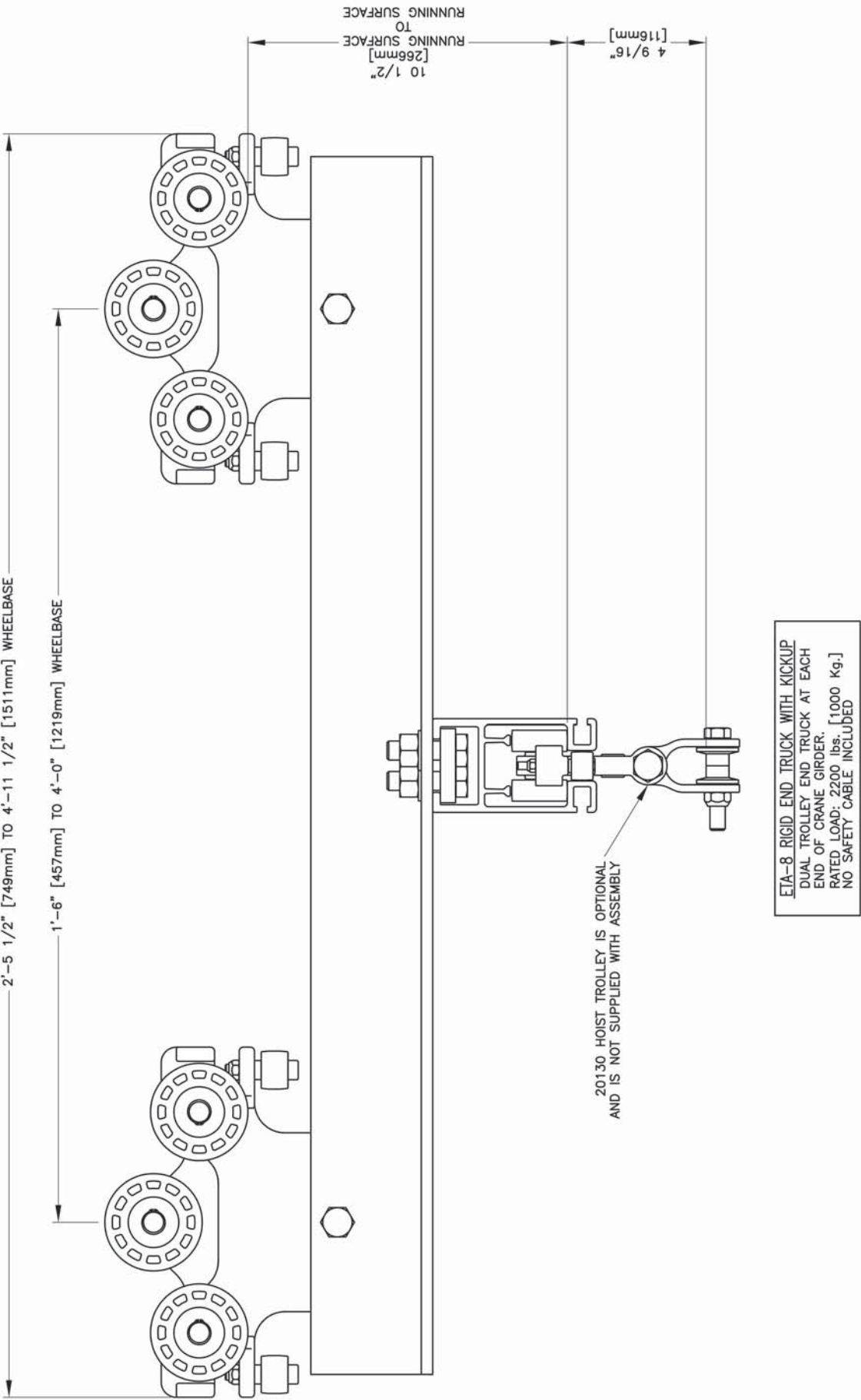


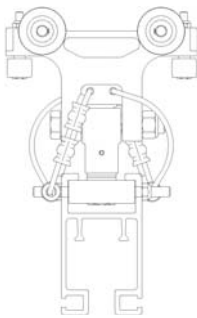
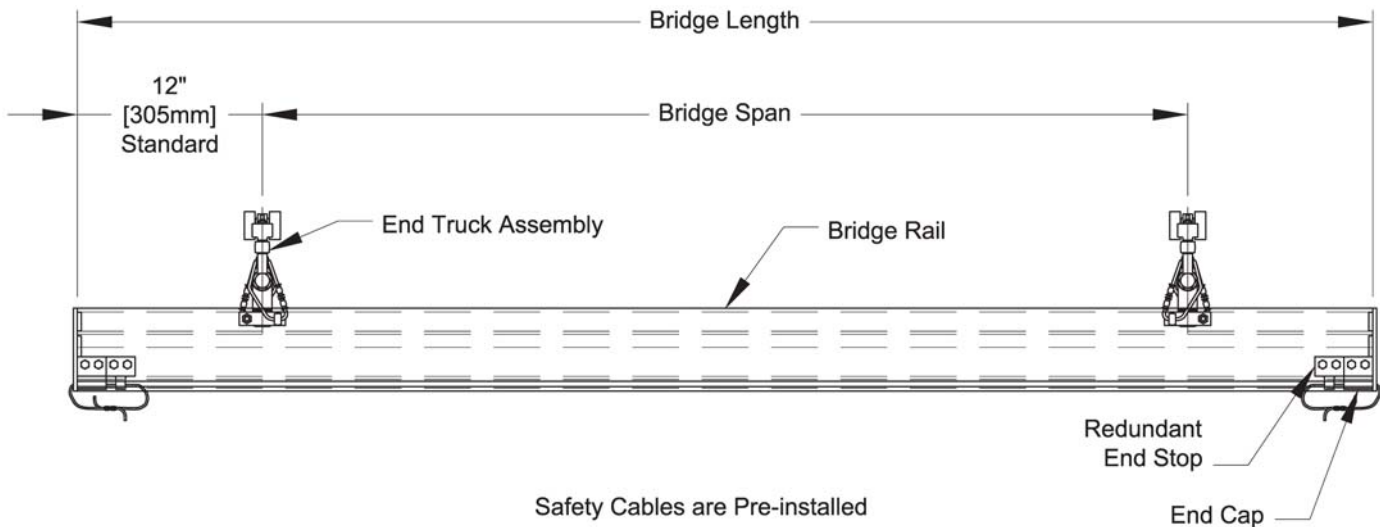


ETA-8 RIGID END TRUCKS WITH KICKUP

- End truck assemblies for single girder bridge cranes to run on ETA-8 Runway.
- Attaches to ETA-4, ETA-5 and ETA-8 Bridges.

	Weight
■ 22227 1'-6" (457mm) wheelbase for spans 3'-0" (914mm) to 6'-0" (1829mm)	63 lbs. (28.5kg)
■ 22228 2'-0" (609mm) wheelbase for spans 7'-0" (2133mm) to 10'-0" (3048mm)	72 lbs. (32.6kg)
■ 22229 2'-6" (762mm) wheelbase for spans 11'-0" (3353mm) to 14'-0" (4267mm)	81 lbs. (36.7kg)
■ 22230 3'-0" (914mm) wheelbase for spans 15'-0" (4572mm) to 18'-0" (5486mm)	90 lbs. (40.8kg)
■ 22231 3'-6" (1066mm) wheelbase for spans 19'-0" (5791mm) to 21'-0" (6400mm)	99 lbs. (45kg)
■ 22232 4'-0" (1219mm) wheelbase for spans 22'-0" (6705mm) to 25'-0" (7620mm)	108 lbs. (49kg)
■ Rated Load 2200 lbs. (1000kg)	
■ No safety cable included	





The Bridge Crane Assembly Consists of:

- One bridge beam (section of rail)
- Two end truck assemblies (mounted to the bridge with a trolley to roll inside of the runway, safety cables are pre-installed)
- Double end stop Assembly (Ull Standard)

Example (Bridge Rail only)

Order Number:

ETA5BR08

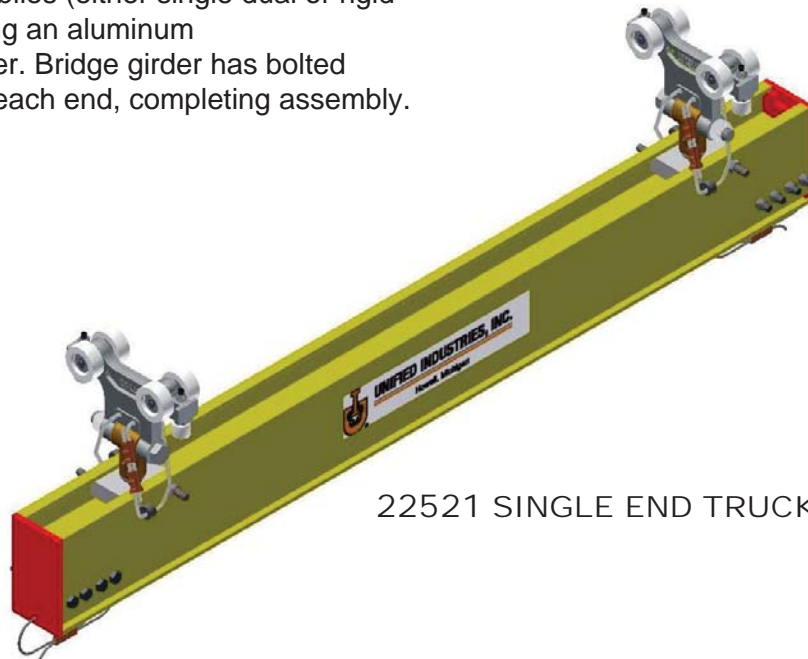
Total Bridge Length (in Feet)

Type of Bridge Rail

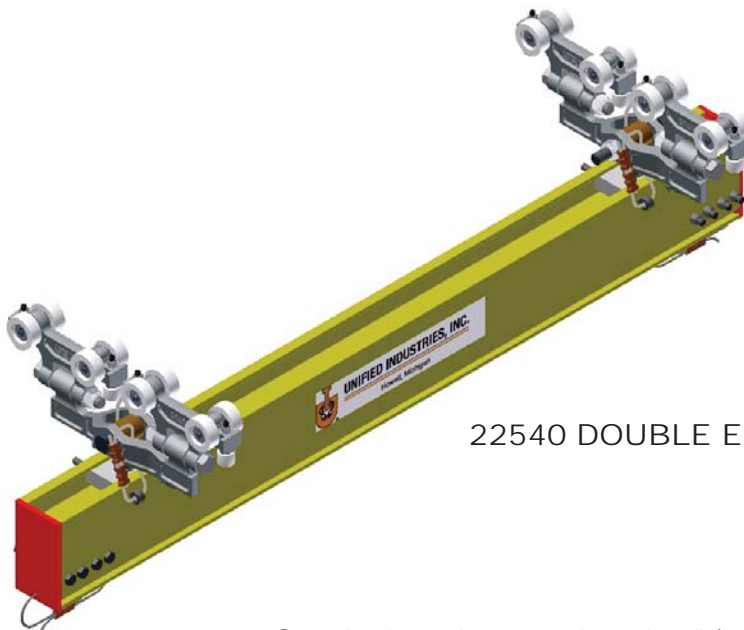
- Round up to the nearest foot (Cut to 8'-6" = ETA5BR09)



Unified ETA-5 single girder bridge crane consists of two end truck assemblies (either single dual or rigid end trucks) supporting an aluminum enclosed bridge girder. Bridge girder has bolted double end stops at each end, completing assembly.

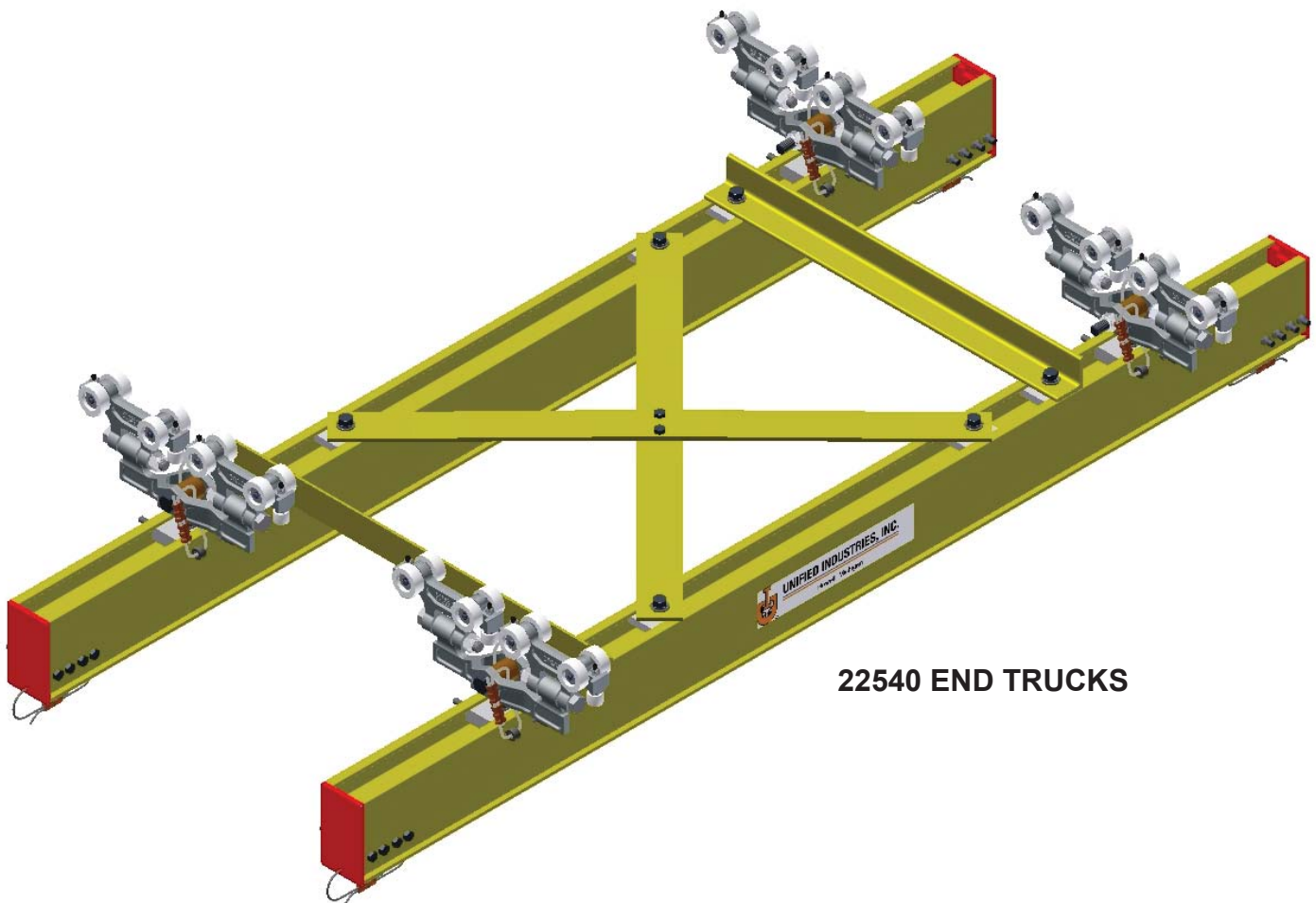


22521 SINGLE END TRUCK



22540 DOUBLE END TRUCK

- Standard overhang each end 12" (305mm)
- Longer overhangs consult Factory
- Paint color-specify when ordering
- Standard double end stops

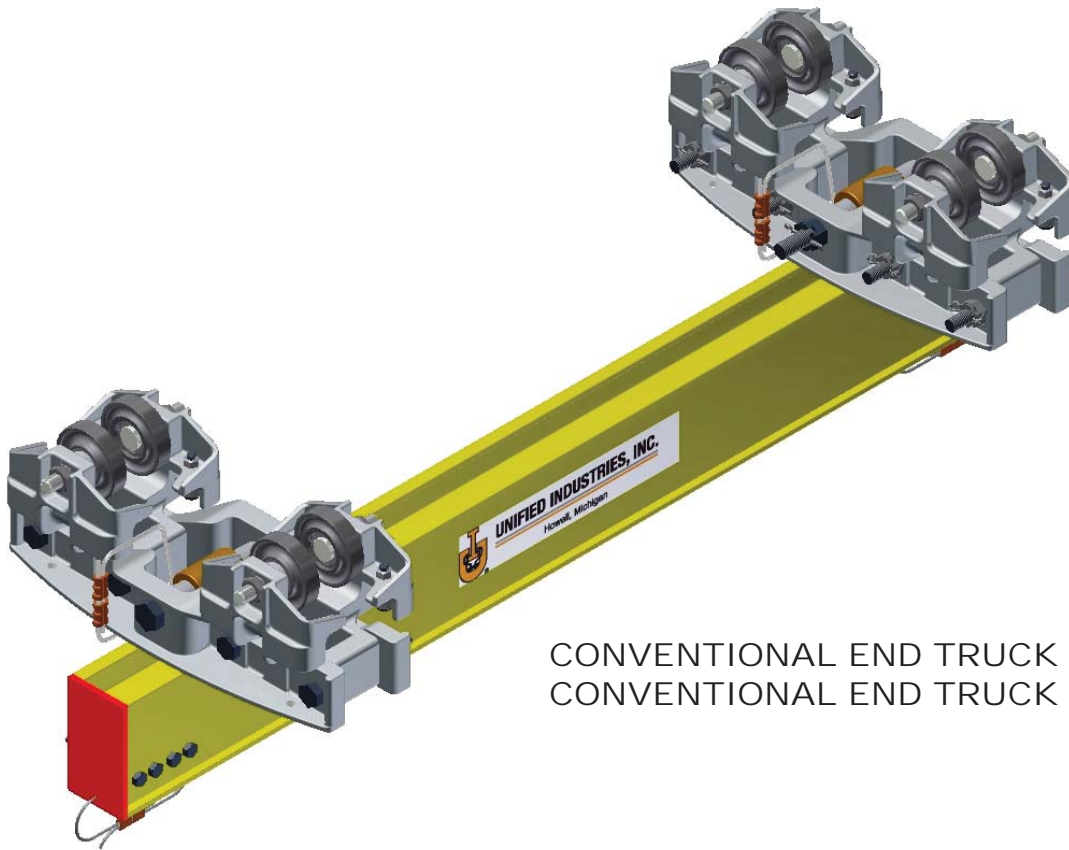


22540 END TRUCKS

Unified ETA-5 double girder bridge cranes are used for suspending hoists, nut runners, indexing fixtures, mechanical grabs, etc.

ETA-5 double girder bridge cranes consist of four single or dual trolley end truck assemblies supporting ETA-5 extruded aluminum bridge girders. Bridge girder has bolted polyurethane end caps at each end, completing assembly.

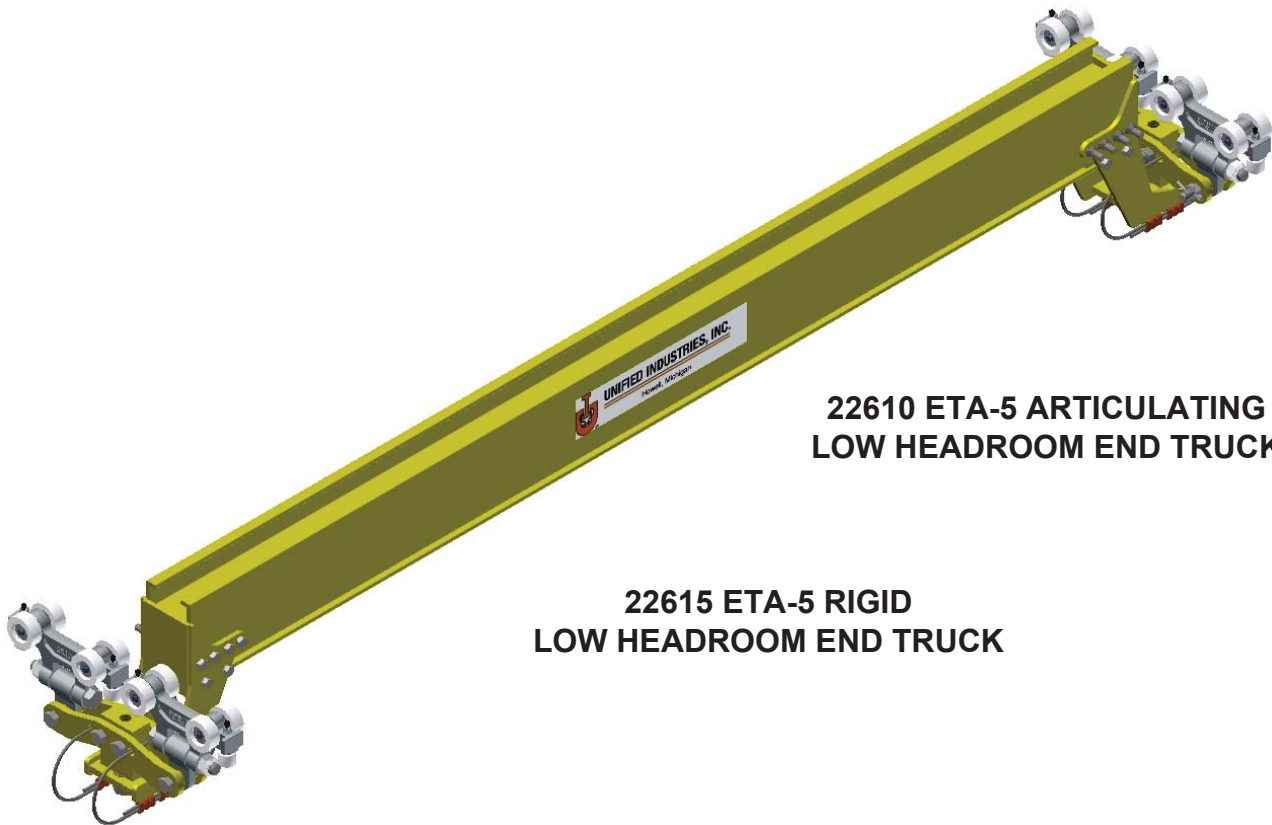
- Diagonal bracing to prohibit articulation
- 12" (305mm) standard overhang
- Air line festoon brackets and kits available.
- Festoon trolleys available
- Paint color - specify when ordering
- Double end stops standard
- Longer overhangs consult factory



CONVENTIONAL END TRUCK (W/O KICK-UP)
CONVENTIONAL END TRUCK (KICK-UP)

Designed Specifically For Existing Runway Systems

- **22557** end truck assembly MBC-500-3-325 without kickup wheel for operation on 3.25 or 3.33 flat rail. Rated Load 1100 lbs. (500kg)
- **22558** end truck assembly MBC-500-3-333 without kickup wheel for operation on S6x12.5. Rated Load 1100 lbs. (500kg)
- **22559** end truck assembly MBC-500-3-4-266 without kickup wheel for operation on S4x7.7. Rated Load 1100 lbs. (500kg)
- **22574** end truck assembly MBC-500-3-325 with kickup wheel for operation on 3.25 or 3.33 flat rail. Rated Load 1100 lbs. (500kg)
- **22575** end truck assembly MBC-500-3-333 with kickup wheel for operation on S6x12.5. Rated Load 1100 lbs. (500kg)
- **22576** end truck assembly MBC-500-3-4-266 without kickup wheel for operation on S4x7.7. Rated Load 1100 lbs. (500kg)
- Self aligning end trucks
- High tensile almag alloy castings make up end truck assembly
- Counter thrust trolleys for countering extended loads are available
- Low inertia: 1-2% of load
- Paint color-specify when ordering
- Double end stops standard
- Optional rigid mount bracket
- Longer overhangs consult factory



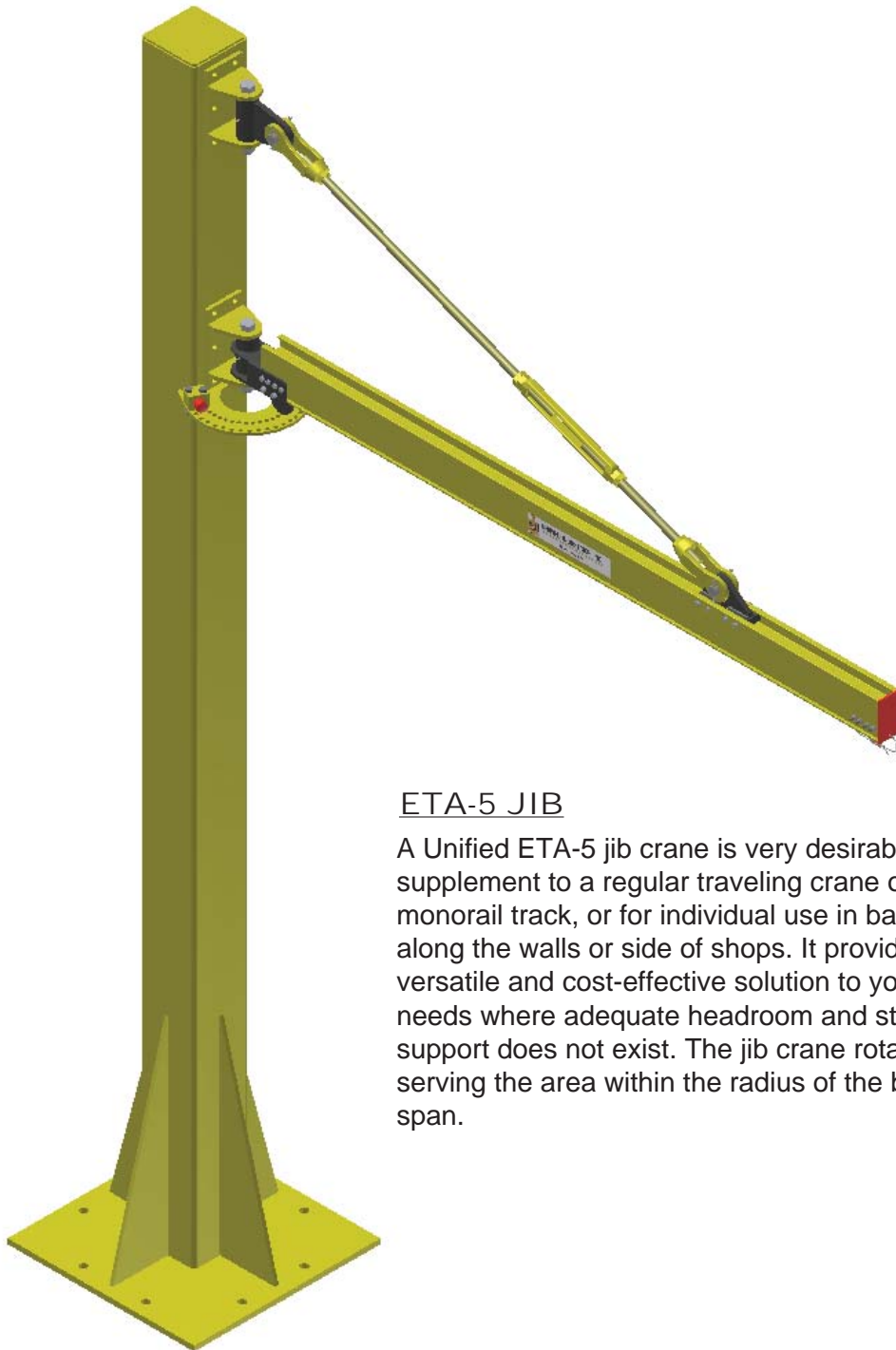
**22610 ETA-5 ARTICULATING
LOW HEADROOM END TRUCK**

**22615 ETA-5 RIGID
LOW HEADROOM END TRUCK**

Unified ETA-5 single girder low headroom bridge crane consists of two end truck assemblies supporting an aluminum enclosed bridge girder. Bridge girder and runway girder are held at the same elevation with bolted construction and a neoprene bumper at each end completing the assembly.

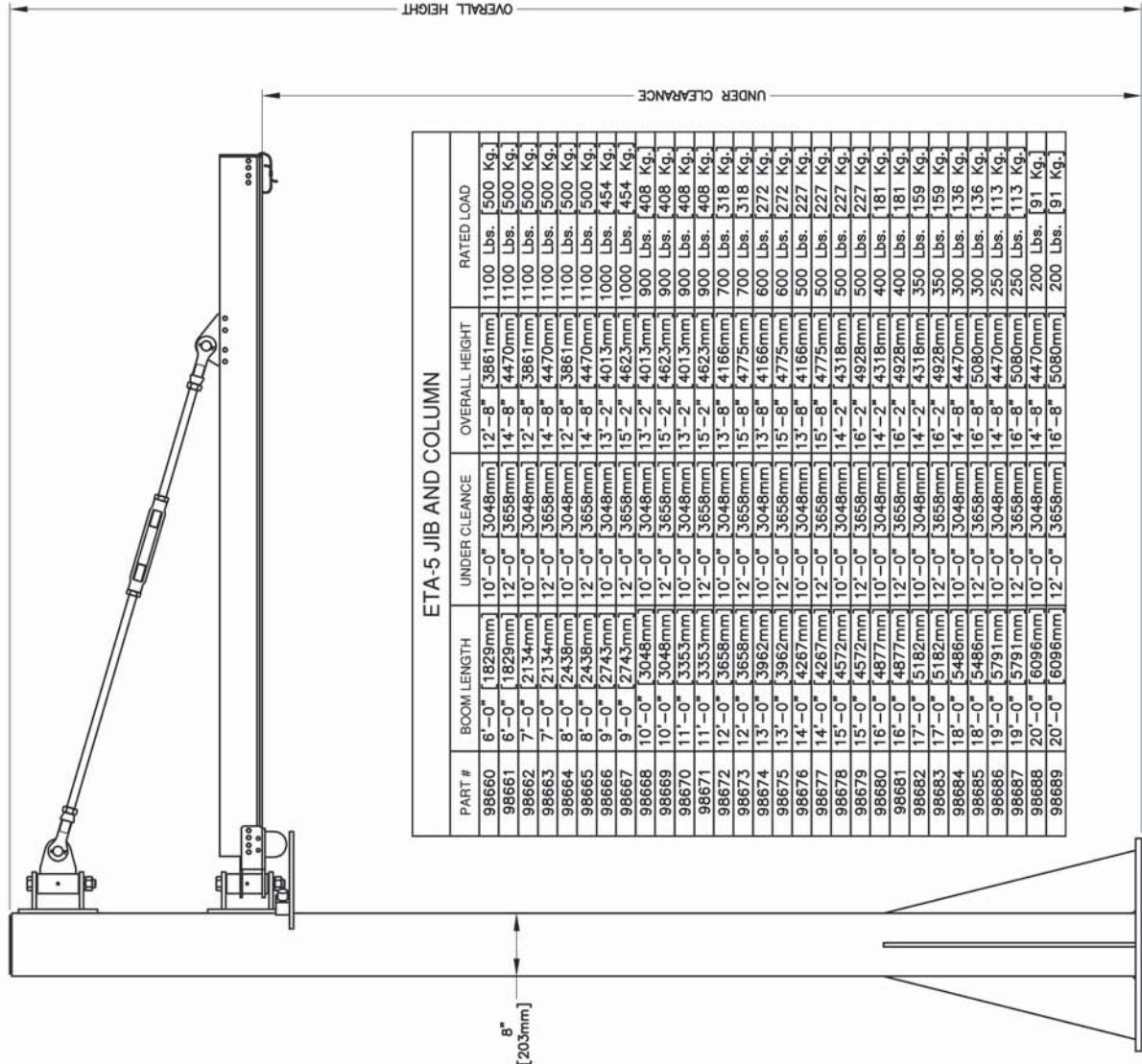
Unified ETA-5 single girder bridge cranes for rated loads to 1100 lbs. (500kg)

- Increased headroom in low areas
- Paint color - specify when ordering
- Air brackets and kits available
- Small tool, festoon trolley or tag line slider available.
- Overhangs are not available



ETA-5 JIB

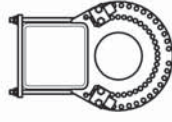
A Unified ETA-5 jib crane is very desirable as a supplement to a regular traveling crane or monorail track, or for individual use in bays and along the walls or side of shops. It provides a versatile and cost-effective solution to your crane needs where adequate headroom and structural support does not exist. The jib crane rotates 220° serving the area within the radius of the beam's span.



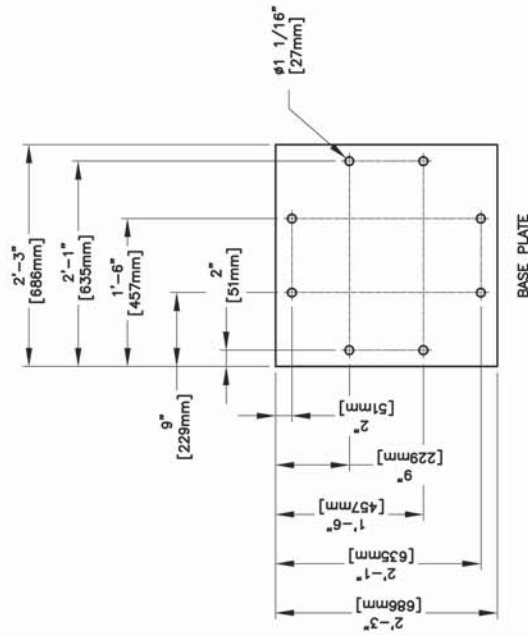
PART #	BOOM LENGTH	UNDER CLEARANCE	OVERALL HEIGHT	RATED LOAD
98660	6'-0" [1829mm]	10'-0" [3048mm]	12'-8" [3861mm]	1100 Lbs. 500 Kg.
98661	6'-0" [1829mm]	12'-0" [3658mm]	14'-8" [4470mm]	1100 Lbs. 500 Kg.
98662	7'-0" [2134mm]	10'-0" [3048mm]	12'-8" [3861mm]	1100 Lbs. 500 Kg.
98663	7'-0" [2134mm]	12'-0" [3658mm]	14'-8" [4470mm]	1100 Lbs. 500 Kg.
98664	8'-0" [2438mm]	10'-0" [3048mm]	12'-8" [3861mm]	1100 Lbs. 500 Kg.
98665	8'-0" [2438mm]	12'-0" [3658mm]	14'-8" [4470mm]	1100 Lbs. 500 Kg.
98666	9'-0" [2743mm]	10'-0" [3048mm]	13'-2" [4013mm]	1000 Lbs. 454 Kg.
98667	9'-0" [2743mm]	12'-0" [3658mm]	15'-2" [4623mm]	1000 Lbs. 454 Kg.
98668	10'-0" [3048mm]	10'-0" [3048mm]	13'-2" [4013mm]	900 Lbs. 408 Kg.
98669	10'-0" [3048mm]	12'-0" [3658mm]	15'-2" [4623mm]	900 Lbs. 408 Kg.
98670	11'-0" [3353mm]	10'-0" [3048mm]	13'-2" [4013mm]	900 Lbs. 408 Kg.
98671	11'-0" [3353mm]	12'-0" [3658mm]	15'-2" [4623mm]	900 Lbs. 408 Kg.
98672	12'-0" [3658mm]	10'-0" [3048mm]	13'-8" [4166mm]	700 Lbs. 318 Kg.
98673	12'-0" [3658mm]	12'-0" [3658mm]	15'-8" [4775mm]	700 Lbs. 318 Kg.
98674	13'-0" [3962mm]	10'-0" [3048mm]	13'-8" [4166mm]	600 Lbs. 272 Kg.
98675	13'-0" [3962mm]	12'-0" [3658mm]	15'-8" [4775mm]	600 Lbs. 272 Kg.
98676	14'-0" [4267mm]	10'-0" [3048mm]	13'-8" [4166mm]	500 Lbs. 227 Kg.
98677	14'-0" [4267mm]	12'-0" [3658mm]	15'-8" [4775mm]	500 Lbs. 227 Kg.
98678	15'-0" [4572mm]	10'-0" [3048mm]	14'-2" [4318mm]	500 Lbs. 227 Kg.
98679	15'-0" [4572mm]	12'-0" [3658mm]	16'-2" [4928mm]	500 Lbs. 227 Kg.
98680	16'-0" [4877mm]	10'-0" [3048mm]	14'-2" [4318mm]	400 Lbs. 181 Kg.
98681	16'-0" [4877mm]	12'-0" [3658mm]	16'-2" [4928mm]	400 Lbs. 181 Kg.
98682	17'-0" [5182mm]	10'-0" [3048mm]	14'-2" [4318mm]	350 Lbs. 159 Kg.
98683	17'-0" [5182mm]	12'-0" [3658mm]	16'-2" [4928mm]	350 Lbs. 159 Kg.
98684	18'-0" [5486mm]	10'-0" [3048mm]	14'-8" [4470mm]	300 Lbs. 136 Kg.
98685	18'-0" [5486mm]	12'-0" [3658mm]	16'-8" [5080mm]	300 Lbs. 136 Kg.
98686	19'-0" [5791mm]	10'-0" [3048mm]	14'-8" [4470mm]	250 Lbs. 113 Kg.
98687	19'-0" [5791mm]	12'-0" [3658mm]	16'-8" [5080mm]	250 Lbs. 113 Kg.
98688	20'-0" [6096mm]	10'-0" [3048mm]	14'-8" [4470mm]	200 Lbs. 91 Kg.
98689	20'-0" [6096mm]	12'-0" [3658mm]	16'-8" [5080mm]	200 Lbs. 91 Kg.



98540 8" JIB COLUMN INDEX STOP ASSEMBLY



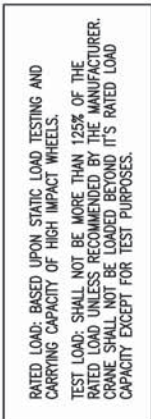
98541 8" BOLTED JIB COLUMN INDEX STOP ASSEMBLY



TEST LOAD SHALL NOT BE MORE THAN 125% OF THE RATED LOAD UNLESS RECOMMENDED BY THE MANUFACTURER. COLUMN SHALL NOT BE LOADED BEYOND ITS RATED LOAD CAPACITY EXCEPT FOR TEST PURPOSES.

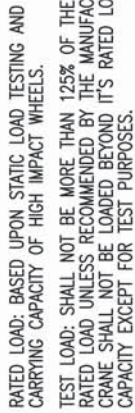
- NOTES:
- CONSULT FACTORY FOR UNDERPLACES MORE THAN 12'-0" [3658mm].
 - THE MINIMUM ANCHOR REQUIREMENT IS A 43/4" [20mm] WEDGE TYPE ANCHOR BOLT WITH 3 1/4" [83mm] STANDARD EMBEDMENT IN 6" [152mm] 3000 PSI [2070 N/cm²] CONCRETE.

Note: Rated Loads above 550lbs require a Dual Hoist Trolley

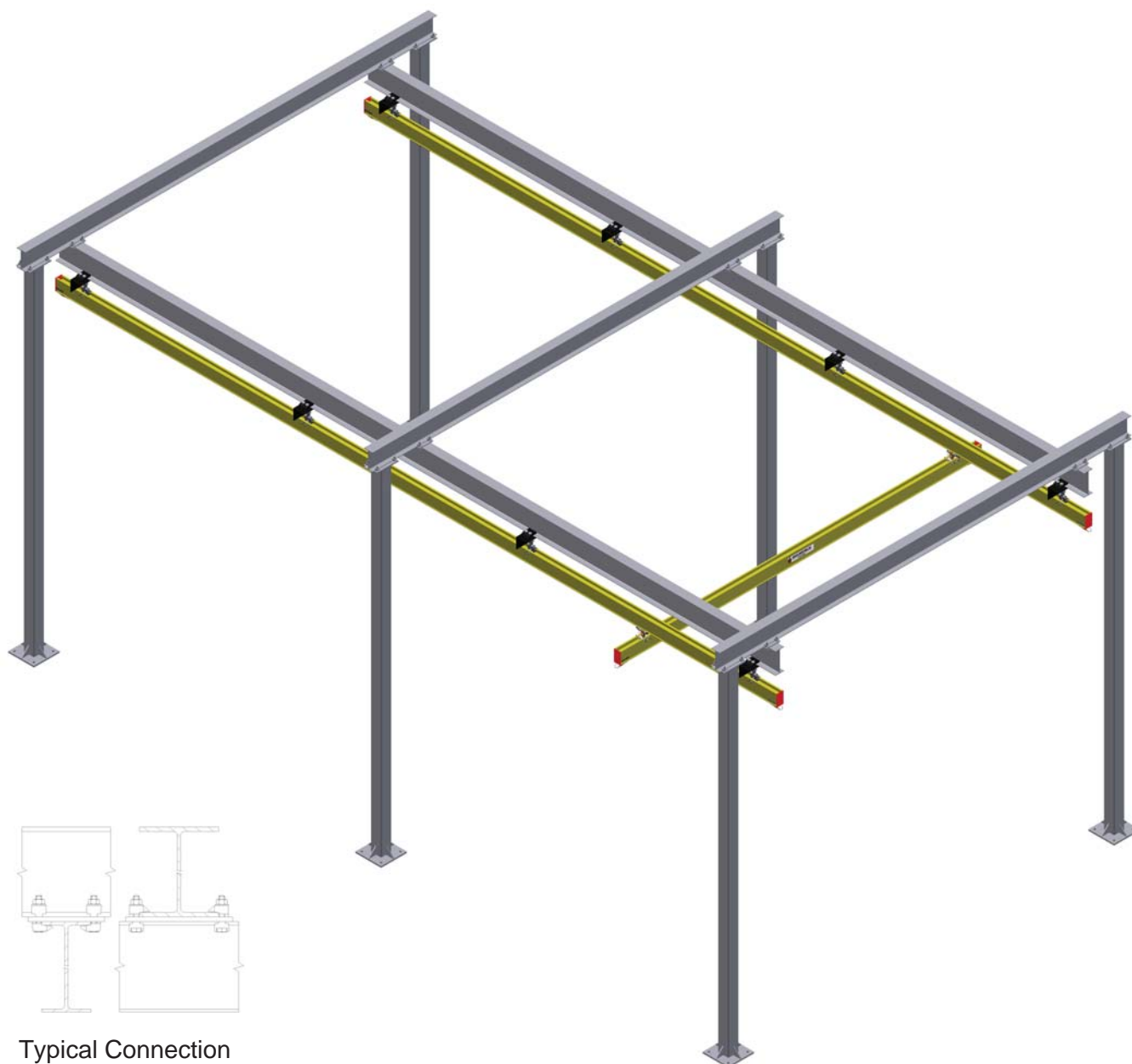


FOR CONFIGURATIONS AND LOADS NOT SHOWN CONSULT FACTORY.

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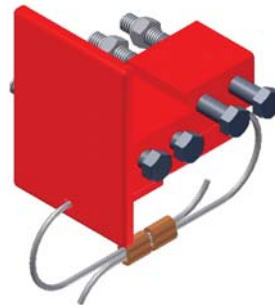
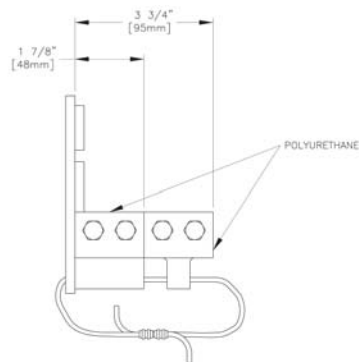
ETA-5 TELESCOPE UNIT WITH ETA-8 TROLLEYS											
"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD	
		L/250	L/450			L/250	L/450			L/250	L/450
457 mm	610mm	168 kg.	168 Kg.	610 mm	610mm	220 kg.	220 Kg.	914 mm	610mm	265 Kg.	227 Kg.
	914mm	109 Kg.	109 Kg.		914mm	147 Kg.	147 Kg.		914mm	218 Kg.	125 Kg.
	1219mm	79 Kg.	79 Kg.		1219mm	109 kg.	91 Kg.		1219mm	143 Kg.	77 Kg.



Typical Connection

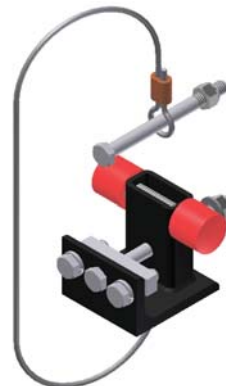
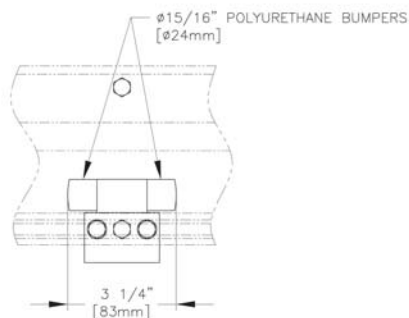
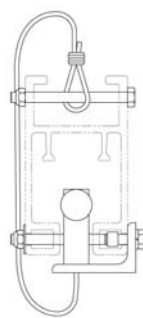
FREE STANDING FLOOR SUPPORT STRUCTURES

- Designed & engineered to each application.
- Floor supports do not require bracing to existing structures.
- P.E. certification optional.
- Paint to customer color specification.



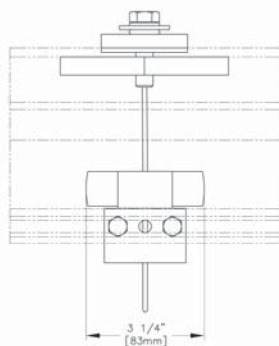
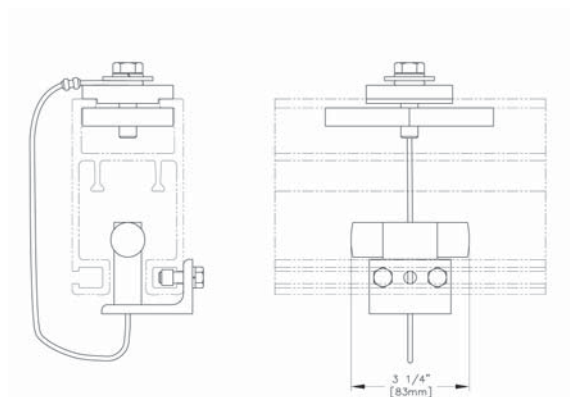
25194 ETA-5 POLY DOUBLE END CAP ASSEMBLY

- Double End Stops for added safety are standard
- For Single Stop replacement parts see ETA Parts Manual
- Weight: 1 lb (.45kg)



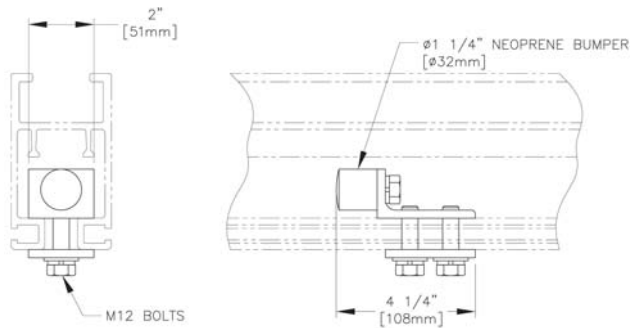
25575 ETA-4/5 INSERTABLE MID-RAIL STOP ASSEMBLY

- Weight: 1 lb (.45kg)



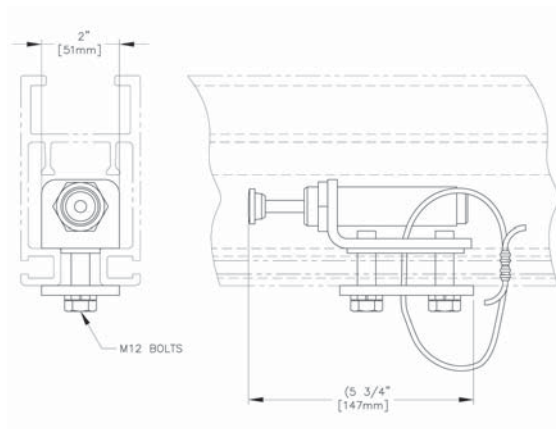
25577 ETA-4/5 ADJUSTABLE INSERTABLE MID-RAIL STOP ASSEMBLY

- Weight: 2 lbs. (.90kg)



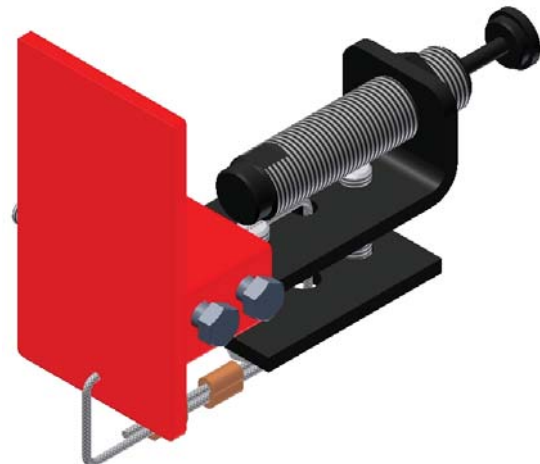
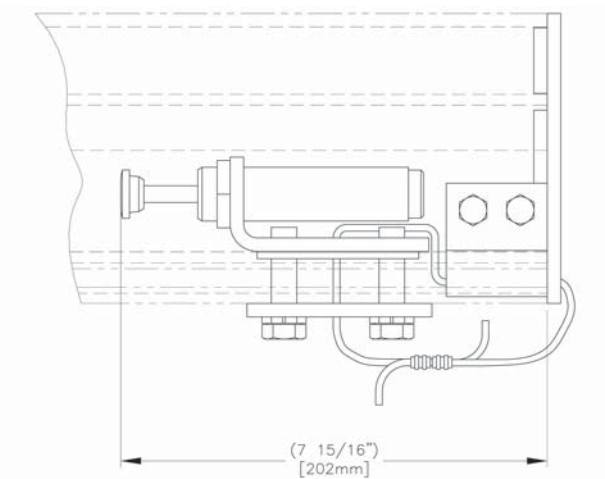
25580 ETA-4/5 MID-STOP ASSEMBLY

■ Weight: 1 lb. (.45kg)



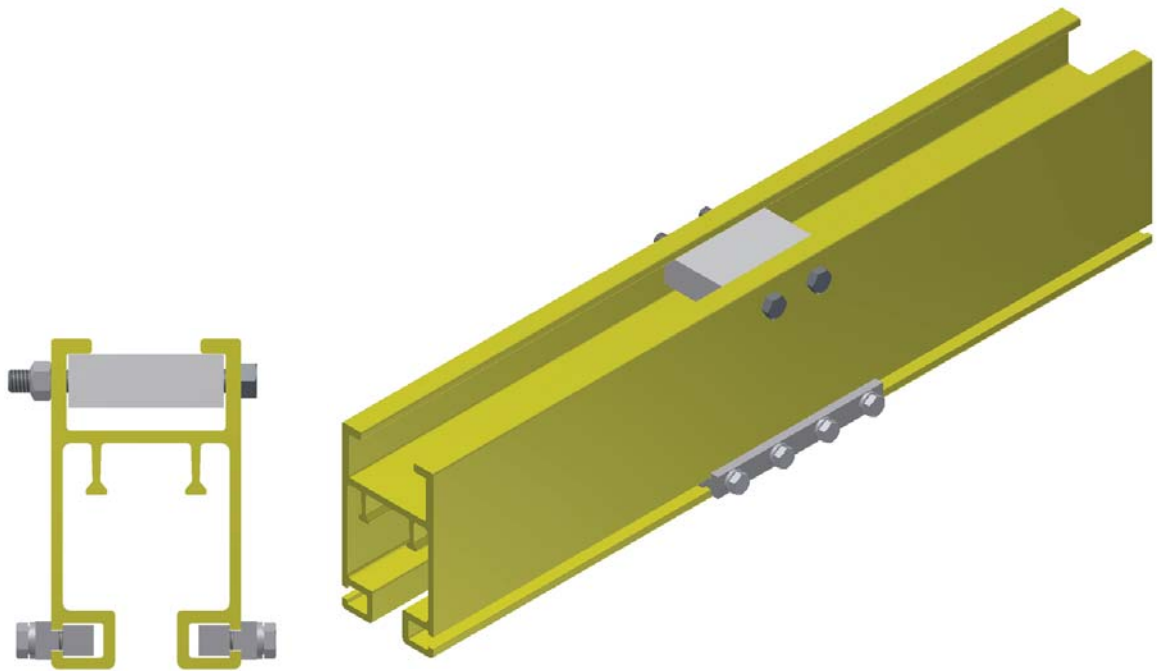
25185 ETA-4/5 POSITION STOP SHOCK ABSORBER ASSEMBLY

■ Weight: 2 lbs. (.90kg)



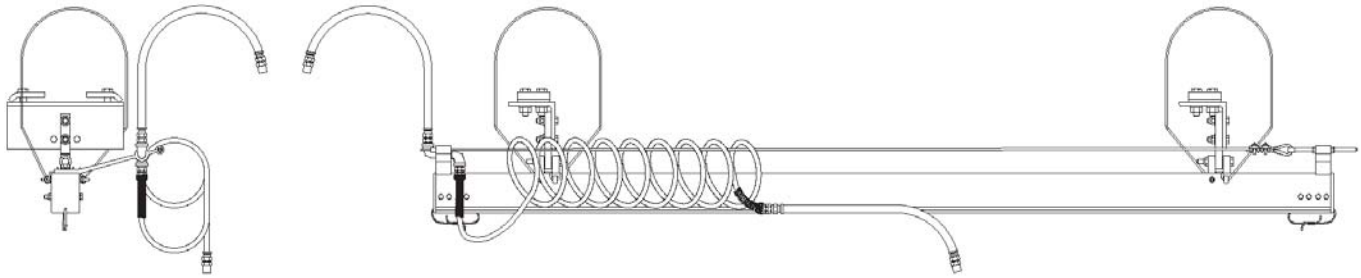
25134 ETA-5 END STOP SHOCK ABSORBER ASSEMBLY

■ Weight: 3 lbs. (1.3kg)



25514 ETA-4/5 SPLICE ASSEMBLY

28050 ETA-4/5 BOLTED SPLICE BAR KIT (DOES NOT INCLUDE TOP BLOCK)



RUNWAY AIR FESTOONING

RUNWAY AIR FESTOON KIT

Features

- Two Blue Whip Hoses x 36" (914mm)
- Blue Coiled Hose
- Two ETA Festoon Brackets
- 1/4" Nylon Coated Cable Assembly

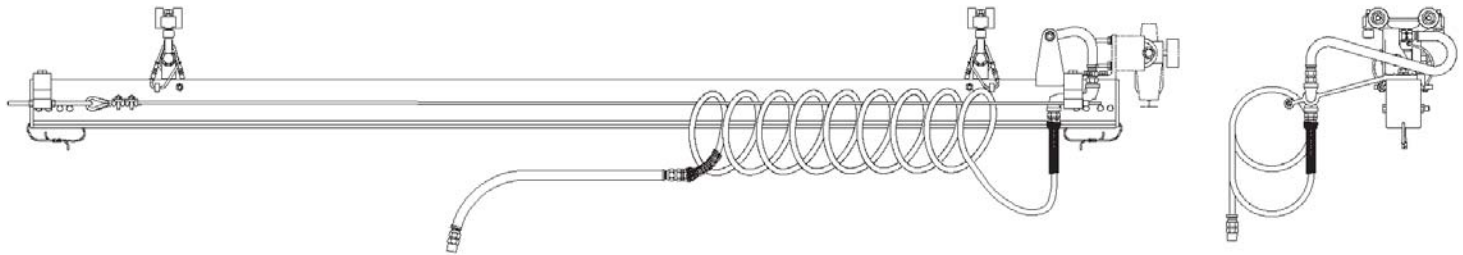
Part Number

■ 1/2" Hose Kits

- **29105** 5'-0" (1.5m) Long Runway Air Festoon Kit
- **29110** 10'-0" (3.0m) Long Runway Air Festoon Kit
- **29115** 15'-0" (4.5m) Long Runway Air Festoon Kit
- **29120** 20'-0" (6.0m) Long Runway Air Festoon Kit
- **29125** 25'-0" (7.6m) Long Runway Air Festoon Kit
- **29130** 30'-0" (9.1m) Long Runway Air Festoon Kit
- **29135** 35'-0" (10.6m) Long Runway Air Festoon Kit
- **29140** 40'-0" (12.1m) Long Runway Air Festoon Kit
- **29145** 45'-0" (13.7m) Long Runway Air Festoon Kit
- **29150** 50'-0" (15.2m) Long Runway Air Festoon Kit
- **29155** 55'-0" (16.7m) Long Runway Air Festoon Kit
- **29160** 60'-0" (18.2m) Long Runway Air Festoon Kit
- **29165** 65'-0" (19.8m) Long Runway Air Festoon Kit
- **29170** 70'-0" (21.3m) Long Runway Air Festoon Kit
- **29175** 75'-0" (22.8m) Long Runway Air Festoon Kit
- **29180** 80'-0" (24.3m) Long Runway Air Festoon Kit
- **29185** 85'-0" (25.9m) Long Runway Air Festoon Kit
- **29190** 90'-0" (27.4m) Long Runway Air Festoon Kit
- **29195** 95'-0" (28.9m) Long Runway Air Festoon Kit
- **29200** 100'-0" (30.4m) Long Runway Air Festoon Kit

■ 3/4" Hose Kits

- **29205** 5'-0" (1.5m) Long Runway Air Festoon Kit
- **29210** 10'-0" (3.0m) Long Runway Air Festoon Kit
- **29215** 15'-0" (4.5m) Long Runway Air Festoon Kit
- **29220** 20'-0" (6.0m) Long Runway Air Festoon Kit
- **29225** 25'-0" (7.6m) Long Runway Air Festoon Kit
- **29230** 30'-0" (9.1m) Long Runway Air Festoon Kit
- **29235** 35'-0" (10.6m) Long Runway Air Festoon Kit
- **29240** 40'-0" (12.1m) Long Runway Air Festoon Kit
- **29245** 45'-0" (13.7m) Long Runway Air Festoon Kit
- **29250** 50'-0" (15.2m) Long Runway Air Festoon Kit
- **29255** 55'-0" (16.7m) Long Runway Air Festoon Kit
- **29260** 60'-0" (18.2m) Long Runway Air Festoon Kit
- **29265** 65'-0" (19.8m) Long Runway Air Festoon Kit
- **29270** 70'-0" (21.3m) Long Runway Air Festoon Kit
- **29275** 75'-0" (22.8m) Long Runway Air Festoon Kit
- **29280** 80'-0" (24.3m) Long Runway Air Festoon Kit
- **29285** 85'-0" (25.9m) Long Runway Air Festoon Kit
- **29290** 90'-0" (27.4m) Long Runway Air Festoon Kit
- **29295** 95'-0" (28.9m) Long Runway Air Festoon Kit
- **29300** 100'-0" (30.4m) Long Runway Air Festoon Kit



BRIDGE AIR FESTOONING

BRIDGE AIR FESTOON KIT

Features

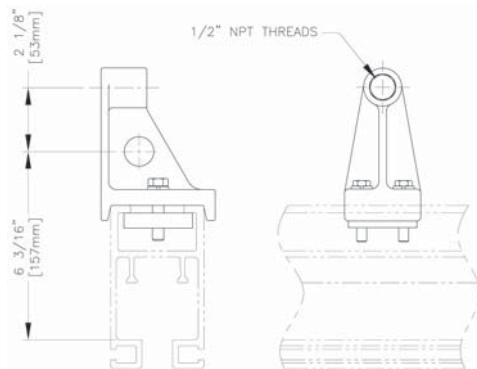
- Two Blue Whip Hoses x 36" (914mm)
- Blue Coiled Hose
- Two ETA Festoon Brackets
- One Air Hose Connector Bracket
- 1/4" Nylon Coated Cable with Hardware

Options

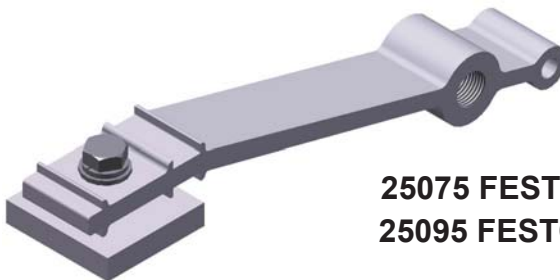
- FR Assembly
- FRL Assembly
- Lockout

Part Number

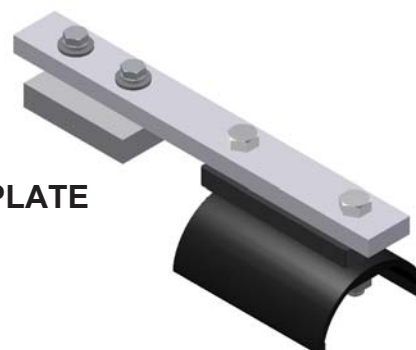
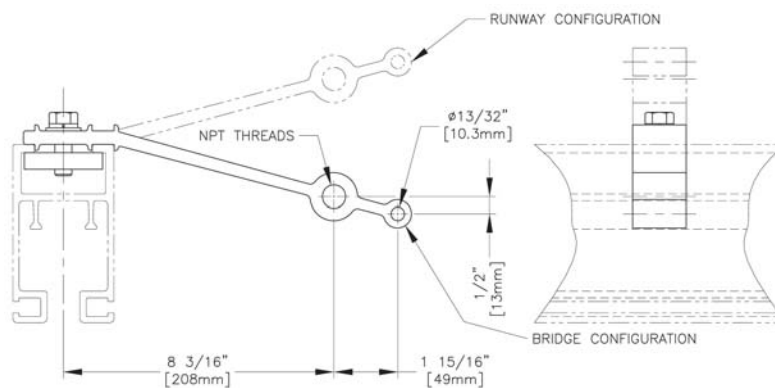
- **29305** 5'-0" (1.5m) Long 1/2" Bridge Air Festoon Kit
- **29310** 10'-0" (3.0m) Long 1/2" Bridge Air Festoon Kit
- **29315** 15'-0" (4.5m) Long 1/2" Bridge Air Festoon Kit
- **29320** 20'-0" (6.0m) Long 1/2" Bridge Air Festoon Kit
- **29325** 25'-0" (7.6m) Long 1/2" Bridge Air Festoon Kit
- **29330** 30'-0" (9.1m) Long 1/2" Bridge Air Festoon Kit
- **29335** 35'-0" (10.6m) Long 1/2" Bridge Air Festoon Kit
- **29340** 40'-0" (12.1m) Long 1/2" Bridge Air Festoon Kit
- **29405** 5'-0" (1.5m) Long 3/4" Bridge Air Festoon Kit
- **29410** 10'-0" (3.0m) Long 3/4" Bridge Air Festoon Kit
- **29415** 15'-0" (4.5m) Long 3/4" Bridge Air Festoon Kit
- **29420** 20'-0" (6.0m) Long 3/4" Bridge Air Festoon Kit
- **29425** 25'-0" (7.6m) Long 3/4" Bridge Air Festoon Kit
- **29430** 30'-0" (9.1m) Long 3/4" Bridge Air Festoon Kit
- **29435** 35'-0" (10.6m) Long 3/4" Bridge Air Festoon Kit
- **29440** 40'-0" (12.1m) Long 3/4" Bridge Air Festoon Kit



25070 AIR HOSE CONNECTOR BRACKET ASSEMBLY $\frac{1}{2}"$
25065 AIR HOSE CONNECTOR BRACKET ASSEMBLY $\frac{3}{4}"$



25075 FESTOON BRACKET ASSEMBLY $\frac{1}{2}"$ NPT
25095 FESTOON BRACKET ASSEMBLY $\frac{3}{4}"$ NPT

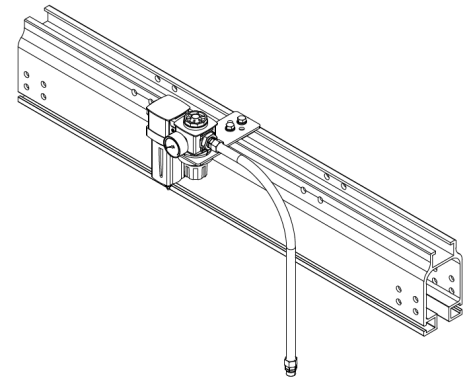


25815 ETA ELECTRIC FESTOON PLATE



FILTER REGULATORS

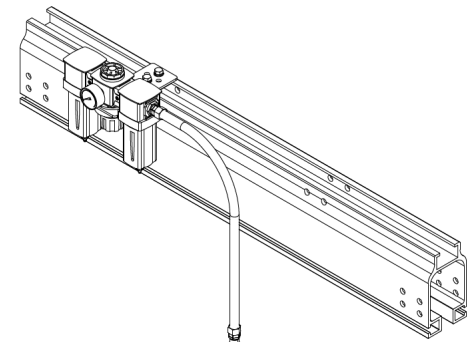
- **25503** FR Assembly 1/2" Air Supply (Parker Standard)
- **25516** FR Assembly 1/2" Air Supply includes Manual Lockout (SMC Optional)
- **25517** FR Assembly 3/4" Air Supply (Parker Standard)
- **25518** FR Assembly 3/4" Air Supply includes Manual Lockout (SMC Optional)



Shown with ETA-8 Rail, also connects to ETA-4 & ETA-5 rails

FILTER REGULATOR LUBRICATORS

- **25500** FRL Assembly 1/2" Air Supply (Parker Standard)
- **25519** FRL Assembly 1/2" Air Supply includes Manual Lockout (SMC Optional)
- **25521** FRL Assembly 3/4" Air Supply (Parker Standard)
- **25522** FRL Assembly 3/4" Air Supply includes Manual Lockout (SMC Optional)



Shown with ETA-8 Rail, also connects to ETA-4 & ETA-5 rails

MANUAL LOCKOUTS

- **25523** Manual Lockout 1/2" Air Supply (Parker Standard)
- **25524** Manual Lockout 1/2" Air Supply (SMC Optional)
- **78107** Manual Lockout 3/4" Air Supply (Parker Standard)
- **78108** Manual Lockout 3/4" Air Supply (SMC Optional)



(Parker Standard)

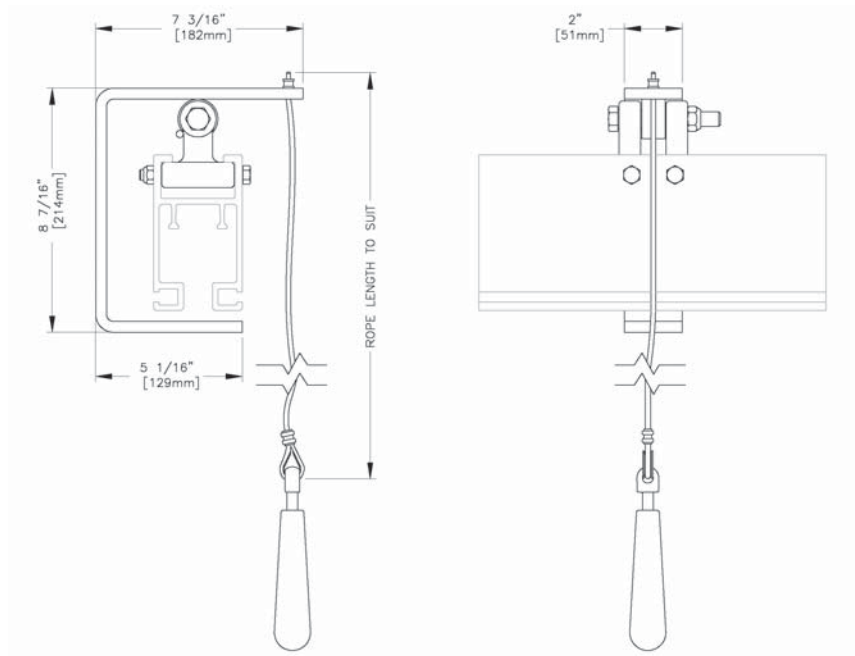
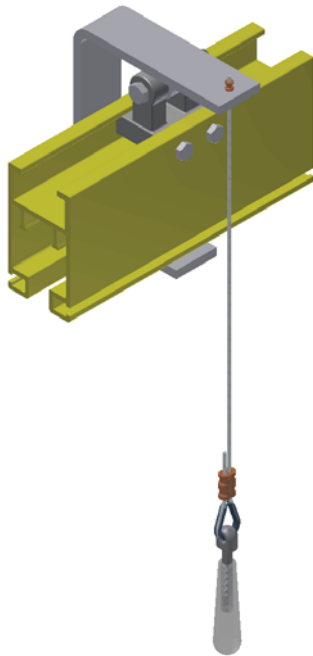


(SMC Optional)

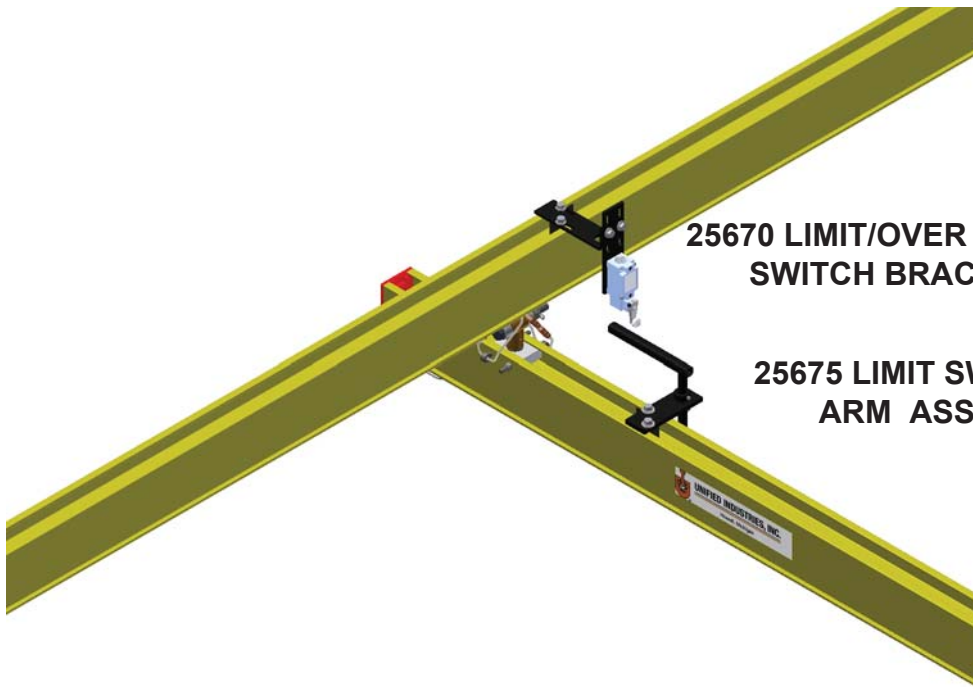
ELECTRIC JUNCTION BOX

- **25665** Electric Junction Box
- **67000** 4-Wire 12 ga. Flatwire Electric Cable (per foot)





27066 BYPASS ASSEMBLY



**25670 LIMIT/OVER TRAVEL
SWITCH BRACKET**

**25675 LIMIT SWITCH TRIP
ARM ASSEMBLY**

25677 OVER TRAVEL SWITCH ASSEMBLY

■ Limit switch not included

UNIFIED DROP ANGLE KITS



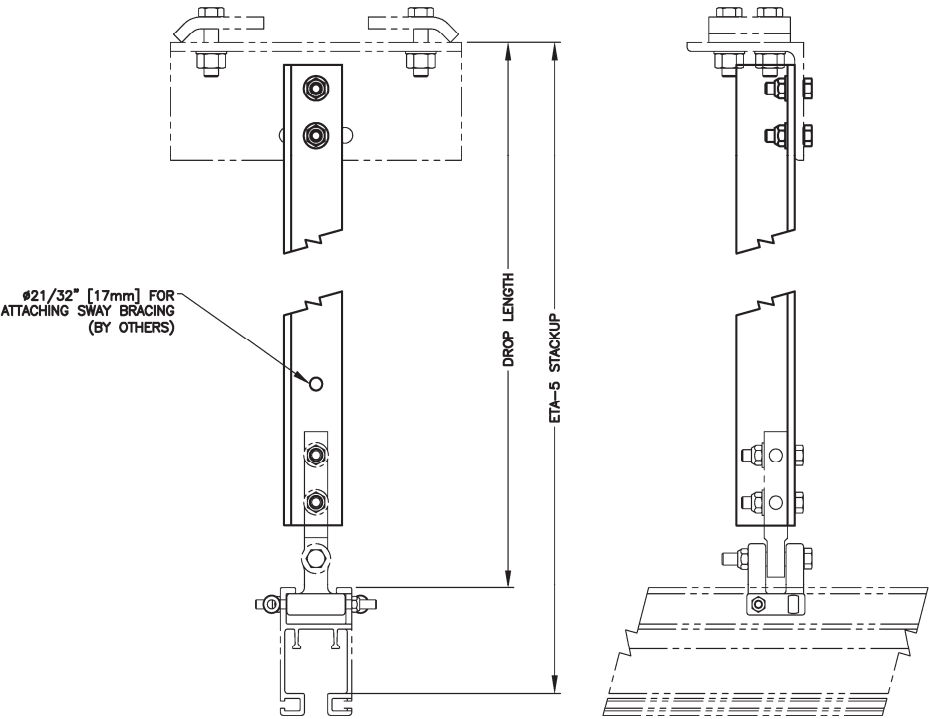
Beam Hanger

- Rated Load 2,000lbs (908kg)
- Beam Hanger sold separately
- Drop Angle Lengths 1'-2" (355mm) to 6'-0" (1829mm) require a cable hole
- Drop Angle Lengths 2'-0" (610mm) to 6'-0" (1829mm) require knee braces in both directions
- Knee Bracing by others
- Drops of 8" (203mm) to 11" (280mm) Consult Engineering



Adjustable Hanger

- Rated Load 1,500lbs (680kg)
- Adjustable Hanger sold separately
- Drop Angle Lengths 1'-2" (355mm) to 6'-0" (1829mm) require a cable hole
- Drop Angle Lengths 2'-0" (610mm) to 6'-0" (1829mm) require knee braces in both directions
- Knee Bracing by others
- Drops of 8" (203mm) to 11" (280mm) Consult Engineering

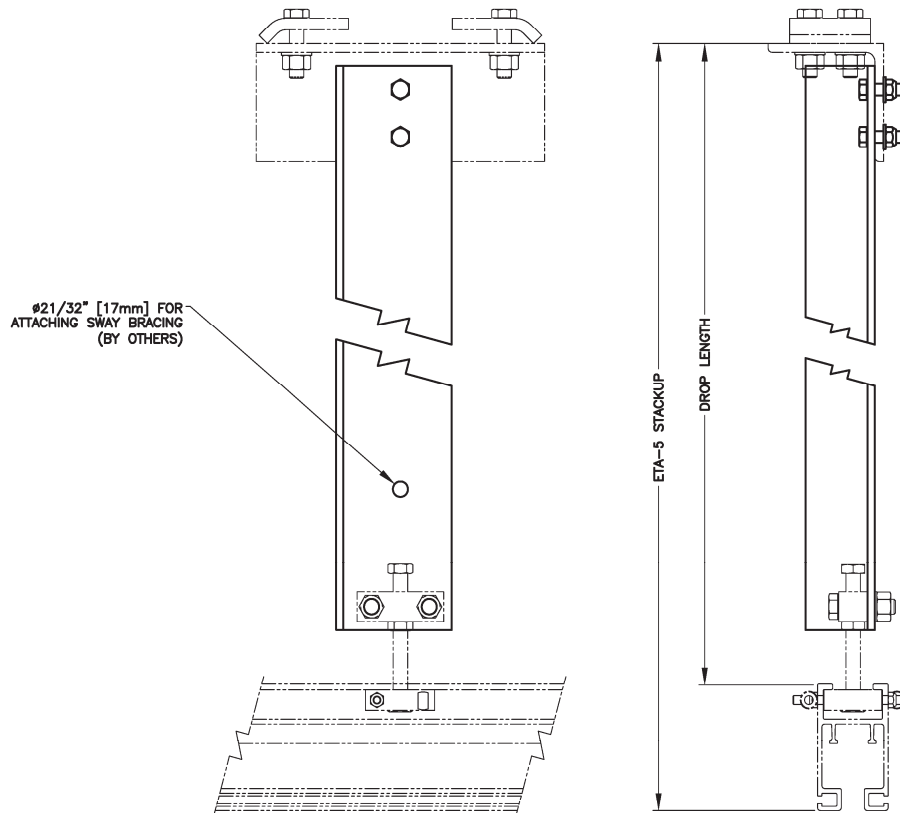


NOTE:
RATED LOAD 2000 LBS [907 Kg].

KIT PART #	DROP ANGLE PART #	DROP LENGTH		ETA-5 STACKUP	
28700	75101	1'-0"	305mm	1'-4 7/16"	418mm
		1'-1"	330mm	1'-5 7/16"	443mm
		1'-2"	356mm	1'-6 7/16"	468mm
		1'-3"	381mm	1'-7 7/16"	494mm
		1'-4"	406mm	1'-8 7/16"	519mm
		1'-5"	432mm	1'-9 7/16"	545mm
		1'-6"	457mm	1'-10 7/16"	570mm
		1'-7"	483mm	1'-11 7/16"	595mm
		1'-8"	508mm	2'-0 7/16"	621mm
		1'-9"	533mm	2'-1 7/16"	646mm
		1'-10"	559mm	2'-2 7/16"	672mm
		1'-11"	584mm	2'-3 7/16"	697mm
28701	75102	2'-0"	610mm	2'-4 7/16"	722mm
		2'-1"	635mm	2'-5 7/16"	748mm
		2'-2"	660mm	2'-6 7/16"	773mm
		2'-3"	686mm	2'-7 7/16"	799mm
		2'-4"	711mm	2'-8 7/16"	824mm
		2'-5"	737mm	2'-9 7/16"	849mm
		2'-6"	762mm	2'-10 7/16"	875mm
		2'-7"	787mm	2'-11 7/16"	900mm
		2'-8"	813mm	3'-0 7/16"	926mm
		2'-9"	838mm	3'-1 7/16"	951mm
		2'-10"	864mm	3'-2 7/16"	976mm
		2'-11"	889mm	3'-3 7/16"	1002mm
28702	75103	3'-0"	914mm	3'-4 7/16"	1027mm
		3'-1"	940mm	3'-5 7/16"	1053mm
		3'-2"	965mm	3'-6 7/16"	1078mm
		3'-3"	991mm	3'-7 7/16"	1103mm
		3'-4"	1016mm	3'-8 7/16"	1129mm
		3'-5"	1041mm	3'-9 7/16"	1154mm

KIT PART #	DROP ANGLE PART #	DROP LENGTH		ETA-5 STACKUP	
28702	75103	3'-6"	1092mm	3'-11 7/16"	1205mm
		3'-7"	1118mm	4'-0 7/16"	1230mm
		3'-8"	1143mm	4'-1 7/16"	1256mm
		3'-9"	1168mm	4'-2 7/16"	1281mm
		3'-10"	1194mm	4'-3 7/16"	1307mm
		3'-11"	1219mm	4'-4 7/16"	1332mm
28703	75104	4'-0"	1245mm	4'-5 7/16"	1357mm
		4'-1"	1270mm	4'-6 7/16"	1383mm
		4'-2"	1295mm	4'-7 7/16"	1408mm
		4'-3"	1321mm	4'-8 7/16"	1434mm
		4'-4"	1346mm	4'-9 7/16"	1459mm
		4'-5"	1372mm	4'-10 7/16"	1484mm
		4'-6"	1397mm	4'-11 7/16"	1508mm
		4'-7"	1422mm	5'-0 7/16"	1535mm
		4'-8"	1448mm	5'-1 7/16"	1561mm
		4'-9"	1473mm	5'-2 7/16"	1586mm
		4'-10"	1499mm	5'-3 7/16"	1611mm
		4'-11"	1524mm	5'-4 7/16"	1637mm
28704	75105	5'-0"	1549mm	5'-5 7/16"	1662mm
		5'-1"	1575mm	5'-6 7/16"	1688mm
		5'-2"	1600mm	5'-7 7/16"	1713mm
		5'-3"	1626mm	5'-8 7/16"	1738mm
		5'-4"	1651mm	5'-9 7/16"	1764mm
		5'-5"	1676mm	5'-10 7/16"	1789mm
		5'-6"	1702mm	5'-11 7/16"	1815mm
		5'-7"	1727mm	6'-0 7/16"	1840mm
		5'-8"	1753mm	6'-1 7/16"	1865mm
		5'-9"	1778mm	6'-2 7/16"	1891mm
		5'-10"	1803mm	6'-3 7/16"	1916mm
		5'-11"	1829mm	6'-4 7/16"	1942mm

*Beam Hanger with safety cable sold separately



NOTES:

RATED LOAD 1500 LBS [680 Kg].

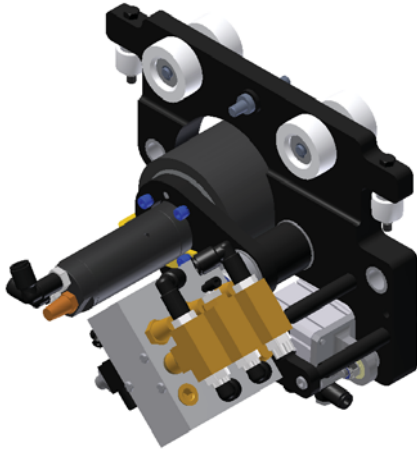
KIT PART #	DROP ANGLE PART #	DROP LENGTH		ETA-5 STACKUP	
28710	75111	9"	229mm	1'-1 7/16"	341mm
		10"	254mm	1'-2 7/16"	367mm
		11"	279mm	1'-3 7/16"	392mm
		1'-0"	305mm	1'-4 7/16"	418mm
28711	75112	1'-1"	330mm	1'-5 7/16"	443mm
		1'-2"	356mm	1'-6 7/16"	468mm
		1'-3"	381mm	1'-7 7/16"	494mm
		1'-4"	406mm	1'-8 7/16"	519mm
		1'-5"	432mm	1'-9 7/16"	545mm
		1'-6"	457mm	1'-10 7/16"	570mm
		1'-7"	483mm	1'-11 7/16"	595mm
		1'-8"	508mm	2'-0 7/16"	621mm
		1'-9"	533mm	2'-1 7/16"	646mm
		1'-10"	559mm	2'-2 7/16"	672mm
		1'-11"	584mm	2'-3 7/16"	697mm
		2'-0"	610mm	2'-4 7/16"	722mm
28712	75113	2'-1"	635mm	2'-5 7/16"	748mm
		2'-2"	660mm	2'-6 7/16"	773mm
		2'-3"	686mm	2'-7 7/16"	799mm
		2'-4"	711mm	2'-8 7/16"	824mm
		2'-5"	737mm	2'-9 7/16"	849mm
		2'-6"	762mm	2'-10 7/16"	875mm
		2'-7"	787mm	2'-11 7/16"	900mm
		2'-8"	813mm	3'-0 7/16"	926mm
		2'-9"	838mm	3'-1 7/16"	951mm
		2'-10"	864mm	3'-2 7/16"	976mm
		2'-11"	889mm	3'-3 7/16"	1002mm
		3'-0"	914mm	3'-4 7/16"	1027mm
28713	75114	3'-1"	940mm	3'-5 7/16"	1053mm
		3'-2"	965mm	3'-6 7/16"	1078mm
		3'-3"	991mm	3'-7 7/16"	1103mm
		3'-4"	1016mm	3'-8 7/16"	1129mm

KIT PART #	DROP ANGLE PART #	DROP LENGTH		ETA-5 STACKUP	
28713	75114	3'-5"	1041mm	3'-9 7/16"	1154mm
		3'-6"	1067mm	3'-10 7/16"	1180mm
		3'-7"	1092mm	3'-11 7/16"	1205mm
		3'-8"	1118mm	4'-0 7/16"	1230mm
		3'-9"	1143mm	4'-1 7/16"	1256mm
		3'-10"	1168mm	4'-2 7/16"	1281mm
		3'-11"	1194mm	4'-3 7/16"	1307mm
		4'-0"	1219mm	4'-4 7/16"	1332mm
		4'-1"	1245mm	4'-5 7/16"	1357mm
		4'-2"	1270mm	4'-6 7/16"	1383mm
28714	75115	4'-3"	1295mm	4'-7 7/16"	1408mm
		4'-4"	1321mm	4'-8 7/16"	1434mm
		4'-5"	1346mm	4'-9 7/16"	1459mm
		4'-6"	1372mm	4'-10 7/16"	1484mm
		4'-7"	1397mm	4'-11 7/16"	1508mm
		4'-8"	1422mm	5'-0 7/16"	1535mm
		4'-9"	1448mm	5'-1 7/16"	1561mm
		4'-10"	1473mm	5'-2 7/16"	1586mm
		4'-11"	1499mm	5'-3 7/16"	1611mm
		5'-0"	1524mm	5'-4 7/16"	1637mm
28715	75116	5'-1"	1549mm	5'-5 7/16"	1662mm
		5'-2"	1575mm	5'-6 7/16"	1688mm
		5'-3"	1600mm	5'-7 7/16"	1713mm
		5'-4"	1626mm	5'-8 7/16"	1738mm
		5'-5"	1651mm	5'-9 7/16"	1764mm
		5'-6"	1676mm	5'-10 7/16"	1789mm
		5'-7"	1702mm	5'-11 7/16"	1815mm
		5'-8"	1727mm	6'-0 7/16"	1840mm
		5'-9"	1753mm	6'-1 7/16"	1865mm
		5'-10"	1778mm	6'-2 7/16"	1891mm
		5'-11"	1803mm	6'-3 7/16"	1916mm
		6'-0"	1829mm	6'-4 7/16"	1942mm

*Adjustable Hanger with safety cable sold separately

UNIFIED AIR TRACTOR

The lube free air tractor was developed to be a compact, and reliable alternative to those large air tractors most companies are familiar with.



Features

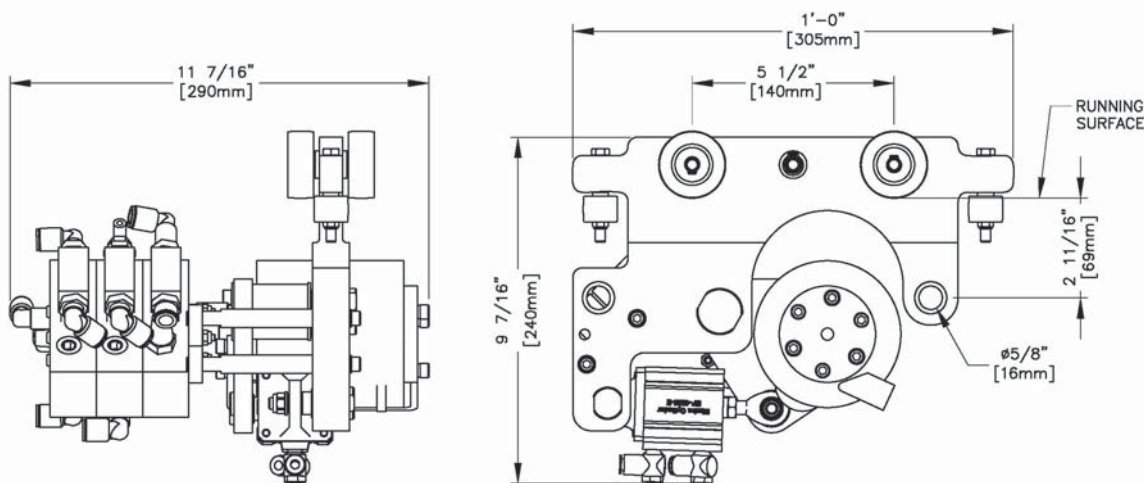
- Lightweight and Compact
- Lube Free Air Motor
- Maintenance Friendly Design
- Quick Delivery, Excellent Pricing

Control Package Options:

- C1 = SMC Control Pack w/Fwd/Rev 2-Button Control Pendant.
 C2 = SMC Control Pack Only. (Requires main air connection + Fwd/Rev signals)
 C3 = Base Tractor Only. No Control valves.
 C4 = SMC Control Pack w/4-Button Control Pendant (Fwd/Rev + ?/?)

Part Number

- **UAT-NB-C(x)-ETA4** Air Tractor to run on ETA-4/5 rail. Specify control pack above. Weight 30 lbs. (15kg)
- **25682** ETA-4/5 Tractor Tow Bar-Hitch
- **60315** Replacement Drive Wheel



Proper Tractor Operation: Tractor must come to a complete stop before it can be engaged in the opposite direction. If this process is not followed, damage to the Tractor will occur and the warranty will be void.

Designed for a working plant air pressure of: 87-102psi (600-700kPA)

*NB = No Brake



UNIFIED AIR BALANCER

A proven ergonomic lifting and positioning device

- **Capacities** up to 485lbs. (220kg) single reeve - 1940lbs. (880kg) tandem reeved.
- **Safety** overload limit and check valve in case of loss of air supply.
- **Energy Efficient** only a fraction of a CFM per cycle required when compared to a pneumatic hoist.
- **Robust** precision mechanical design & powder coated housing ensures trouble free extended service life.
- Uses non-lubricated air, assures clean environment.
- Ideal for ergonomic handling applications and suspension of tools, weld guns & fixtures.
- All Non-Reeved balancers come equipped with a 25'-6" (9m) cable.



Control Styles

UBB = Basic Balancer with no controls

UAB = Balancer with Up/Down controls

UZB = Balancer with Zero G

Model #	Weight Capacity/Lift	Air Consumption
U_B-132	132lbs (60kg)/79in (2000mm)	.5 CFM(.85CMH)
U_B-220	220lbs (100kg)/118in (3000mm)	1.3 CFM(2.21CMH)
U_B-331	331lbs (150kg)/79in (2000mm)	1.3 CFM(2.21CMH)
U_B-485	485lbs (220kg)/79in (2000mm)	1.9 CFM(3.23 CMH)

- Wire Rope Units (Air Pressure 7kgf/cm²) (100 PSI)

Optional Accessories

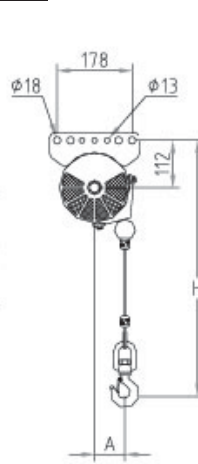
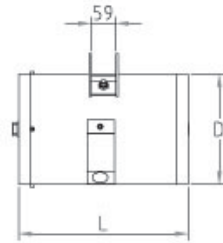
Part #	Description
99025	Up/Down Manifold
99026	Up/Down Control Kit—Includes Manifold, 12ft (3.65m) Hose and 2-button pendant
99100	Top Hook Assembly



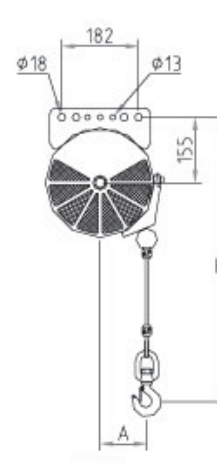
Single Type

Model	"A" Dimension
U_B-132	2.83 inch (72mm)
U_B-220	4.35 inch (110.5mm)
U_B-331	2.83 inch (72mm)
U_B-485	2.83 inch (72mm)

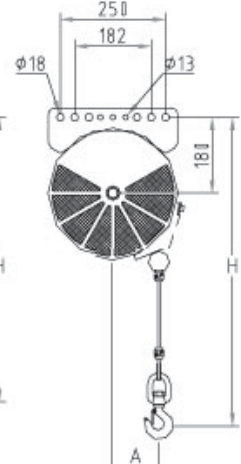
Single Type



U_B-132

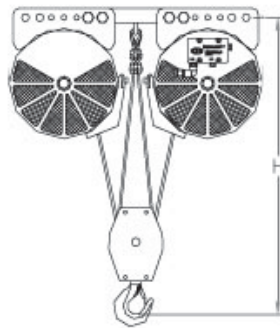


U_B-220, 331



U_B-485

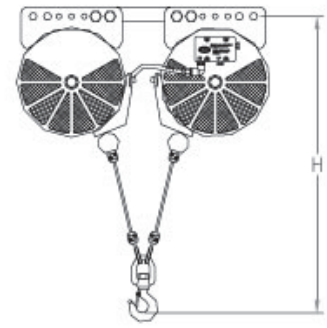
Tandem Reeved Type



Reeved Type



Tandem Type



Single Balancer

Model #	Capacity		Lift		D x L		H		Net Weight		CFM
	lbs	kg	in	mm	in	mm	in	mm	lbs	kg	(per cycle)
U_B-132-079	132	60	79	2000	6.1 x 15.43	155 x 392	23	600	51	23	.5
U_B-220-118	220	100	118	3000	10.24 x 15.75	260 x 400	28	700	94	42.5	1.3
U_B-331-079	331	150	79	2000	10.24 x 15.75	260 x 400	28	700	105	47	1.3
U_B-485-079	485	220	79	2000	12.21 x 15.75	310 x 400	30	750	110	50	1.9

Reeved Balancer (R) Tandem Balancer (T) Tandem-Reeved Balancer (TR)

Model #	Capacity		Lift		D x L		H		Net Weight	
	lbs	kg	in	mm	in	mm	in	mm	lbs	kg
U_B-440-59R	440	200	59	1500	10.24 x 15.75	260 x 400	28	700	104	47
U_B-440-118T	440	200	118	3000	2-10.24 x 15.76	260 x 400	28	700	203	92
U_B-662-39R	662	300	39	1000	10.24 x 15.77	260 x 400	28	700	99	45
U_B-661-79T	662	300	79	2000	2-10.24 x 15.78	260 x 400	28	700	198	90
U_B-970-39R	970	440	39	1000	12.21 x 15.75	310 x 400	30	750	124	56
U_B-970-79T	970	440	79	2000	2-12.21 x 15.75	310 x 400	30	750	243	110
U_B-882-59TR	882	400	59	1500	2-10.24 x 15.78	260 x 400	28	700	209	95
U_B-1323-39TR	1323	600	39	1000	2-10.24 x 15.79	260 x 400	28	700	203	92
U_B-1940-39TR	1940	880	39	1000	2-12.21 x 15.75	310 x 400	30	750	254	115

CAUTION

This bridge crane has a safe load rating, which has been clearly marked on both sides by the manufacturer. The total weight of the suspended load should never exceed 125% of this limit. The weight of all handling devices such as buckets, magnets, grabs, balancers, hoists, weldguns, etc. must be included as a part of the suspended load. The weight of such devices should therefore be determined and clearly marked.

Consideration should be given when installing hoisting devices. Load ratings for such devices may exceed the load rating of the bridge crane.

The operator should inspect this bridge crane for loose bolts and worn, cracked or distorted parts prior to use (inspection should include all handling devices and mounting equipment). Defective parts should be replaced with manufacturer-approved parts before use of bridge crane is resumed.

This bridge crane conforms to the safety standards of the U.S. Occupational Safety and Health Administration (OSHA). Any alteration of its structure or change in its rated load capacity may render null and void any manufacturer's warranties, expressed or implied.

***All dimensions are reference only
and need to be verified with factory.**





UNIFIED INDUSTRIES, INC.

A Columbus McKinnon Company

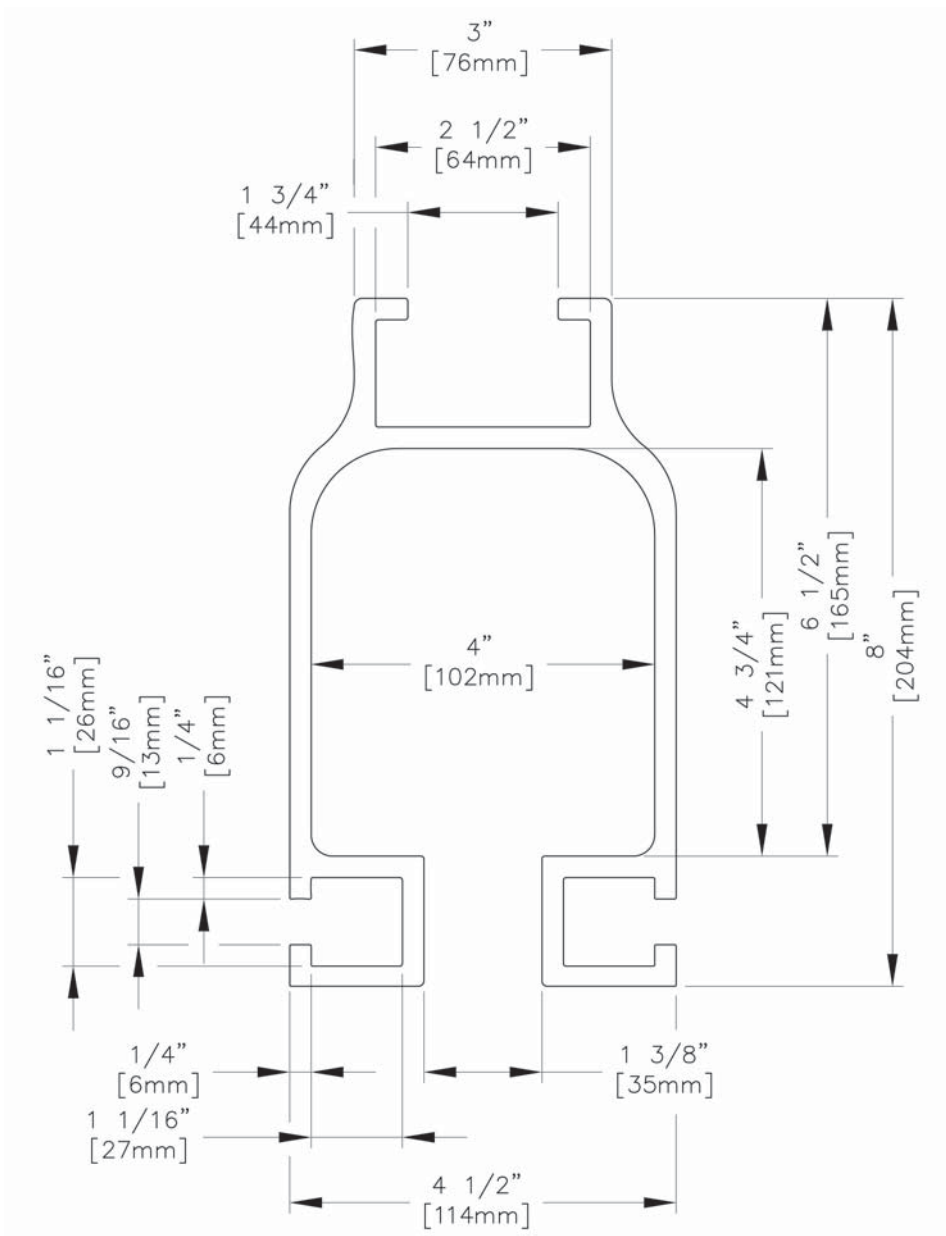
ETA-8 RAIL SYSTEMS





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***All dimensions are reference only
and need to be verified with factory.**



ETA-8 RAIL PROFILE

(87015)

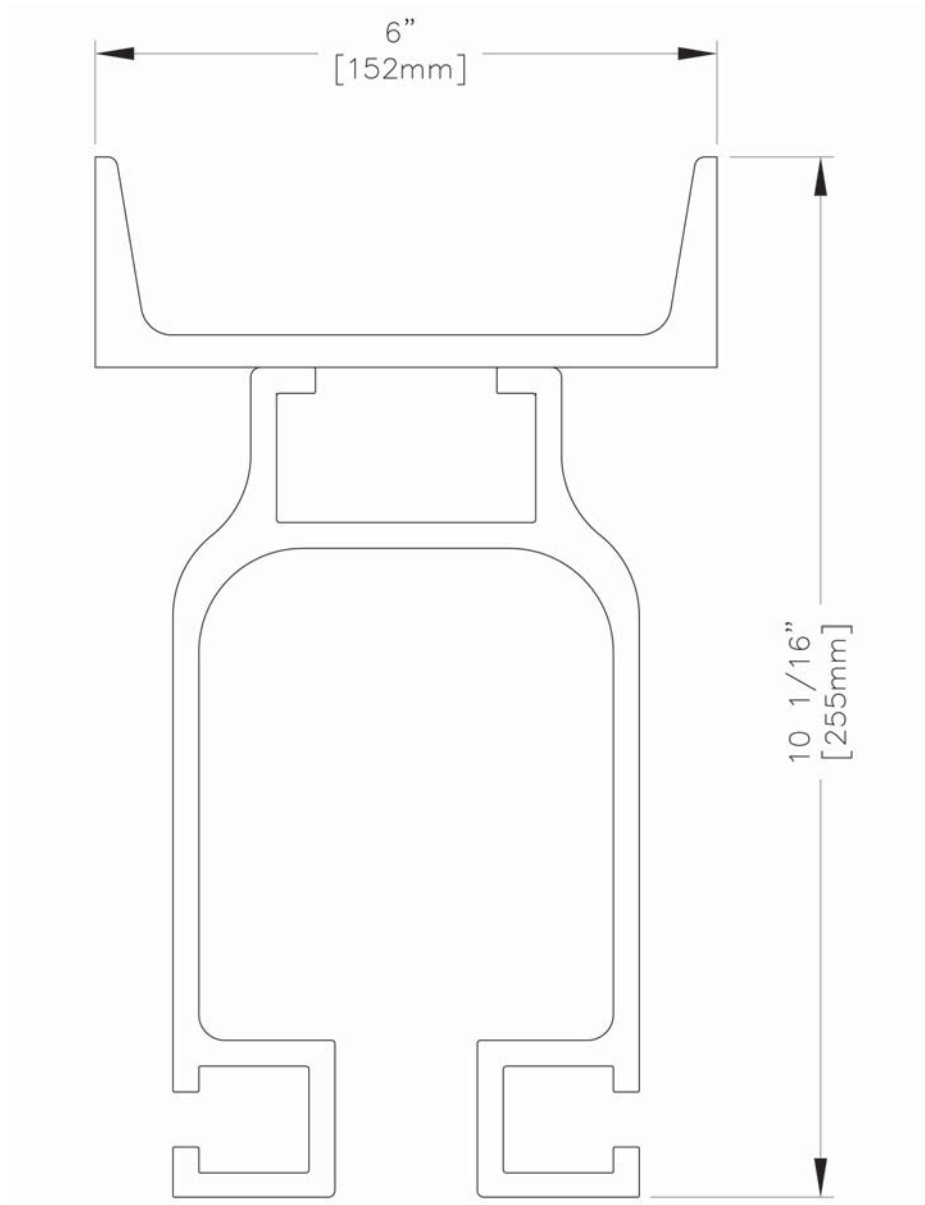
Part Number:

ETA8RW 08

Length of Rail in Feet (08 = 8 Feet)

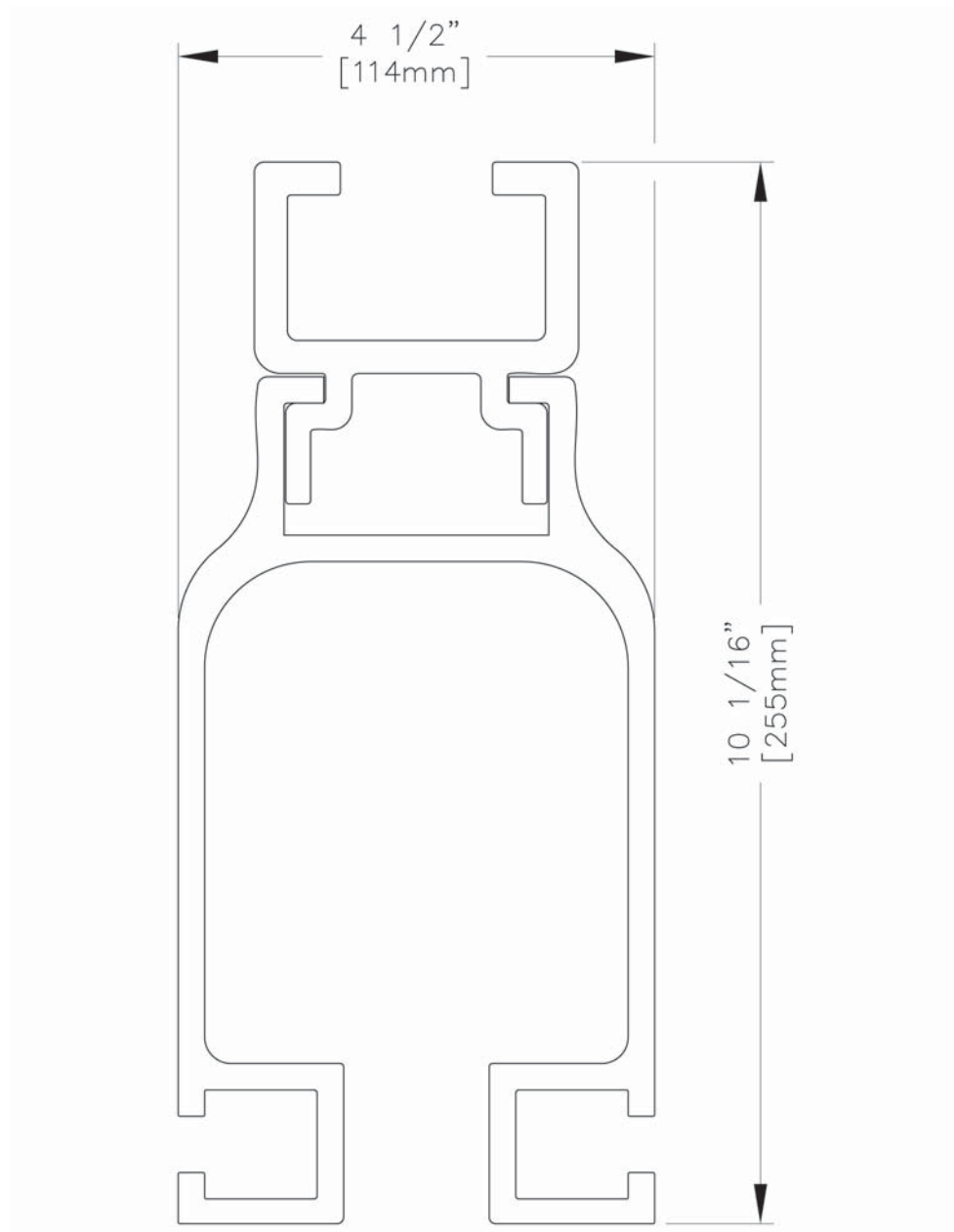
Rail Profile

- All Runways are Drilled for End Stops and Splice Holes.
- Round up to the nearest foot (Cut to 8'-6" = ETA8RW09)
- Maximum Length: 42'-0" (12.8m)
- Weight: 8.16lbs./ft. (12.14kg/m)
- Standard Color Unified Safety Yellow
- Other Colors Specify when Ordering



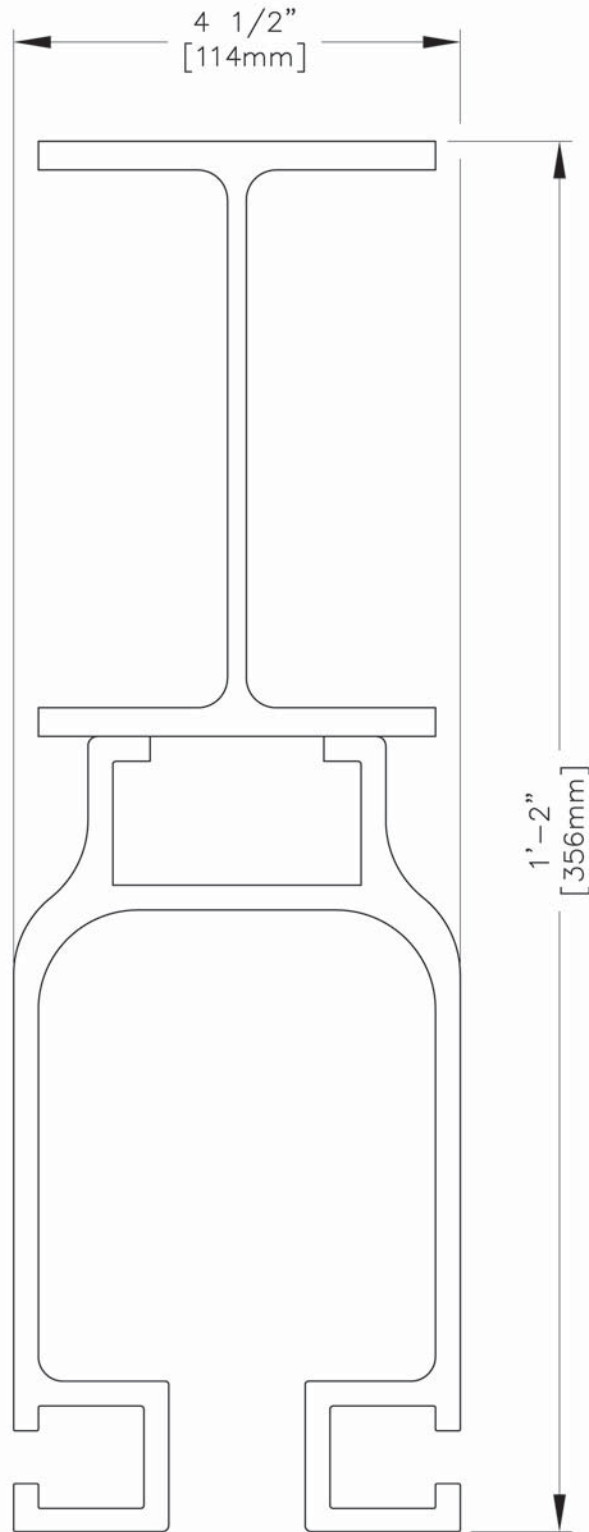
ETA-8 RAIL WITH C6 X 3.63 CHANNEL CAP PROFILE

■ Weight: 11.79 lbs./ft. (17.5kg/m)



ETA-8 RAIL WITH ETA STRONG BACK PROFILE

■ Weight: 11.74 lbs./ft. (17.5kg/m)



ETA-8 RAIL WITH W6 X 4 I-BEAM CAP PROFILE

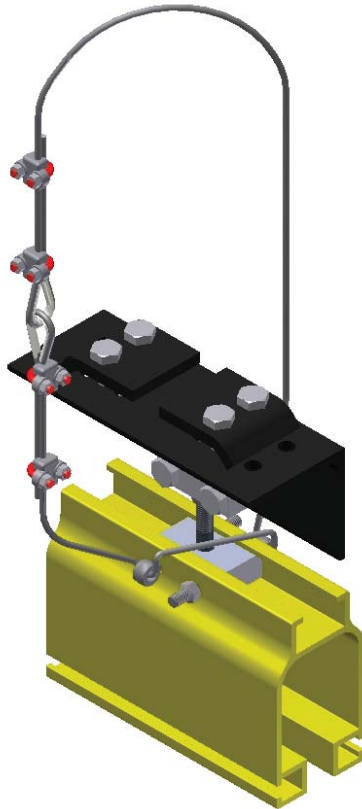
■ Weight: 12.32 lbs./ft. (18.3kg/m)



Span Ft. (in)	Deflection Limit (in)	Point Load @ Center of Span (lbs)			
		ETA-8	ETA-8 + CHANNEL CAP	ETA-8 + ETA STRONGBACK	ETA-8 + I-BEAM CAP
		L/450	L/450	L/450	L/450
5 (60)	.1333	4000	4000	4000	4000
6 (72)	.1600	4000	4000	4000	4000
7 (84)	.1867	4000	4000	4000	4000
8 (96)	.2133	4000	4000	4000	4000
9 (108)	.2400	4000	4000	4000	4000
10 (120)	.2667	3536	4000	4000	4000
11 (132)	.2933	2922	4000	4000	4000
12 (144)	.3200	2455	4000	4000	4000
13 (156)	.3467	2092	4000	4000	4000
14 (168)	.3733	1804	3651	3713	4000
15 (180)	.4000	1571	3180	3234	4000
16 (192)	.4267	1381	2795	2843	4000
17 (204)	.4533	1223	2476	2518	4000
18 (216)	.4800	1091	2208	2246	4000
19 (228)	.5067	979	1982	2016	3911
20 (240)	.5333	884	1789	1819	3530
21 (252)	.5600	802	1623	1650	3202
22 (264)	.5867	731	1478	1504	2917
23 (276)	.6133	668	1353	1376	2669
24 (288)	.6400	614	1242	1263	2451
25 (300)	.6667	566	1145	1164	2259
26 (312)	.6933	523	1058	1077	2089
27 (324)	.7200	485	982	998	1937
28 (336)	.7467	451	913	928	1801
29 (348)	.7733	420	851	865	1679
30 (360)	.8000	393	795	809	1569
31 (372)	.8267	368	745	757	1469
32 (384)	.8533	345	699	711	1379
33 (396)	.8800	325	657	668	1297
34 (408)	.9067	306	619	630	1221
35 (420)	.9333	289	584	594	1153
36 (432)	.9600	273	552	562	1089
37 (444)	.9867	258	523	532	1031
38 (456)	1.013	245	496	504	978
39 (468)	1.040	232	470	478	928
40 (480)	1.067	221	447	455	882



Span M (mm)	Deflection Limit (mm)	Point Load @ Center of Span (kg)			
		ETA-8	ETA-8 + CHANNEL CAP	ETA-8 + ETA STRONGBACK	ETA-8 + I-BEAM CAP
		L/450	L/450	L/450	L/450
1.50 (1500)	3.3	1814	1814	1814	1814
1.75 (1750)	3.9	1814	1814	1814	1814
2.00 (2000)	4.4	1814	1814	1814	1814
2.25 (2250)	5.0	1814	1814	1814	1814
2.50 (2500)	5.6	1814	1814	1814	1814
2.75 (2750)	6.1	1814	1814	1814	1814
3.00 (3000)	6.7	1656	1814	1814	1814
3.25 (3250)	7.2	1411	1814	1814	1814
3.50 (3500)	7.8	1216	1814	1814	1814
3.75 (3750)	8.3	1060	1814	1814	1814
4.00 (4000)	8.9	931	1814	1814	1814
4.25 (4250)	9.4	825	1669	1698	1814
4.50 (4500)	10.0	736	1489	1514	1814
4.75 (4750)	10.6	660	1336	1359	1814
5.00 (5000)	11.1	596	1206	1227	1814
5.25 (5250)	11.7	541	1094	1113	1814
5.50 (5500)	12.2	493	997	1014	1814
5.75 (5750)	12.8	451	912	928	1800
6.00 (6000)	13.3	414	838	852	1653
6.25 (6250)	13.9	381	772	785	1523
6.50 (6500)	14.4	353	714	726	1408
6.75 (6750)	15.0	327	662	673	1306
7.00 (7000)	15.6	304	615	626	1214
7.25 (7250)	16.1	283	574	583	1132
7.50 (7500)	16.7	265	536	545	1058
7.75 (7750)	17.2	248	502	511	991
8.00 (8000)	17.8	233	471	479	930
8.25 (8250)	18.3	219	443	451	874
8.50 (8500)	18.9	206	417	424	824
8.75 (8750)	19.4	195	394	401	777
9.00 (9000)	20.0	184	372	379	735
9.25 (9250)	20.6	174	352	358	695
9.50 (9500)	21.1	165	334	340	659
9.75 (9750)	21.7	157	317	323	626
10.00 (10000)	22.2	149	302	307	595
10.25 (10250)	22.8	142	287	292	566
10.50 (10500)	23.3	135	273	278	540
10.75 (10750)	23.9	129	261	265	515
11.00 (11000)	24.4	123	249	253	492
11.25 (11250)	25.0	118	238	242	470
11.50 (11500)	25.6	113	228	232	450
11.75 (11750)	26.1	108	218	222	431
12.00 (12000)	26.7	103	209	213	413
12.25 (12500)	27.2	99	201	204	396



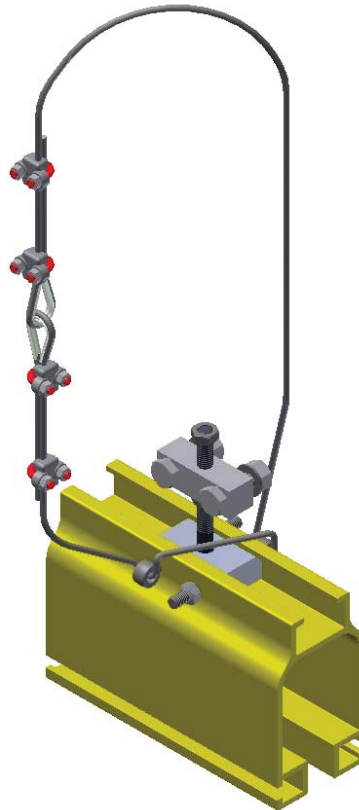
CLOSED ADJUSTABLE HANGER*

25471 FOR BEAMS 2.33" (59mm)

TO 3.33" (85mm) wide

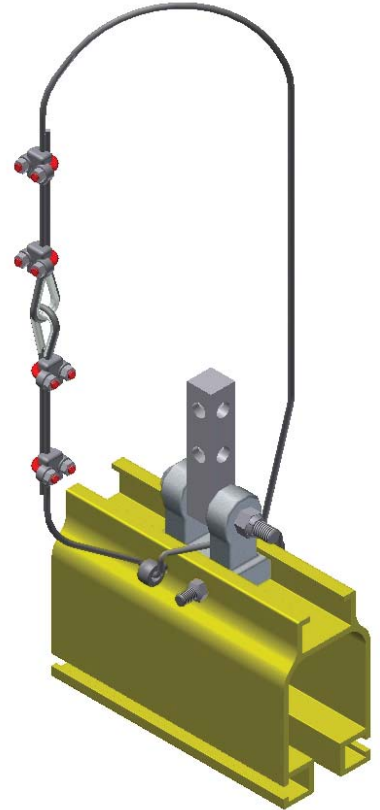
25472 FOR BEAMS 4" (102mm)

TO 8" (203mm) wide



25465 ADJUSTABLE BLOCK HANGER

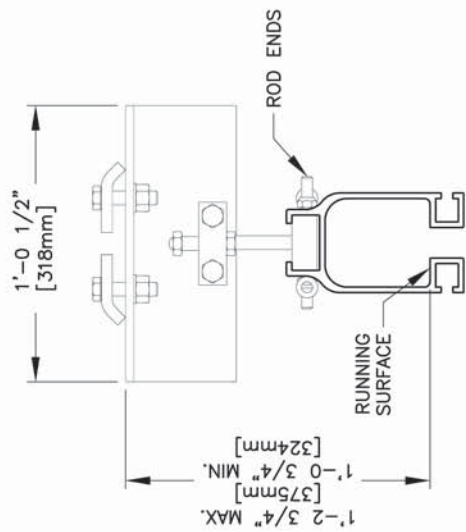
Allows for 2" (50mm) of vertical adjustment
in the field



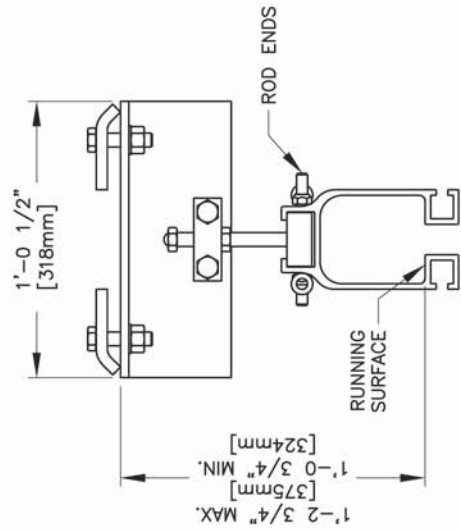
25170 BLOCK HANGER

- All hangers must be bolted through rail.
- All hangers include a 6'-0" (1.82m) safety cable 78287.

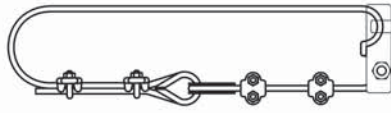
*Note: Grip range 1/4" (6mm) to 9/16" (15mm) thick flange.



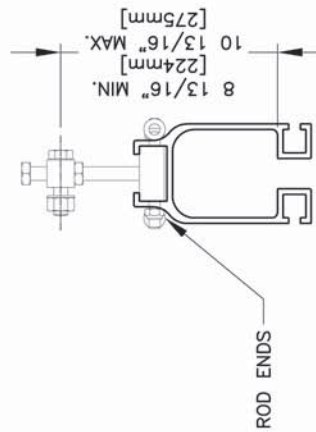
25471 CLOSED ADJUSTABLE HANGER
FOR BEAMS 2.33" [59mm] TO 3.33" [85mm] WIDE
RATED LOAD 3000 LBS. [1361 Kg.]
WEIGHT 25 LBS. [11.34 Kg.]



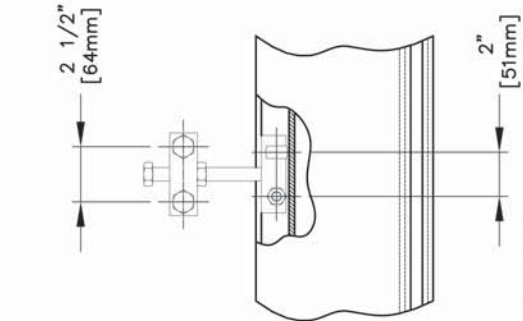
25472 CLOSED ADJUSTABLE HANGER
FOR BEAMS 4" [102 Kg.] TO 8" [203mm] WIDE
RATED LOAD 3000 LBS. [1361 Kg.]
WEIGHT 25 LBS. [11.34 Kg.]



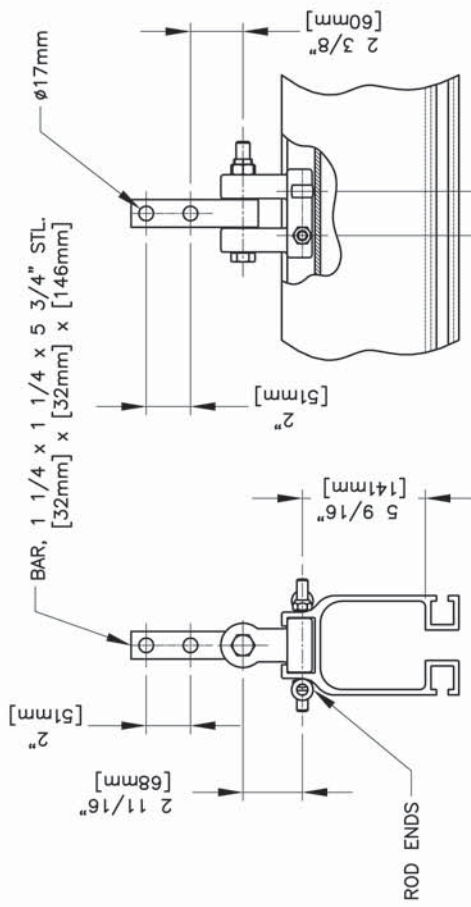
SAFETY CABLE ASSEMBLY VIEW
ALL HANGERS COME WITH A SAFETY CABLE 78287

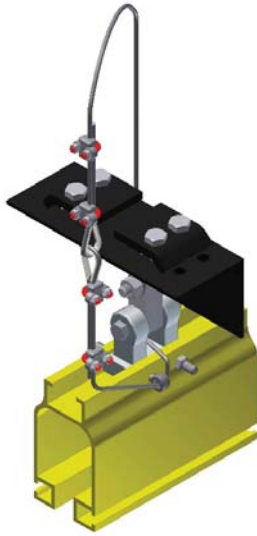


25465 ADJUSTABLE BLOCK HANGER
RATED LOAD 3000 LBS. [1361 Kg.]
WEIGHT 7 LBS. [3.18 Kg.]



25170 BLOCK HANGER
RATED LOAD 3500 LBS. [1588 Kg.]
WEIGHT 7 LBS. [3.18 Kg.]



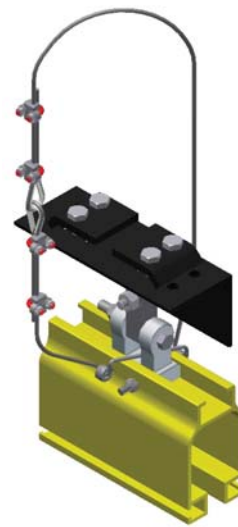


BEAM HANGER*

PARALLEL MOUNT

27059 FOR BEAMS 2.33" (59mm) TO 3.33" (85mm)

27061 FOR BEAMS 4" (102mm) TO 8" (203mm)



BEAM HANGER*

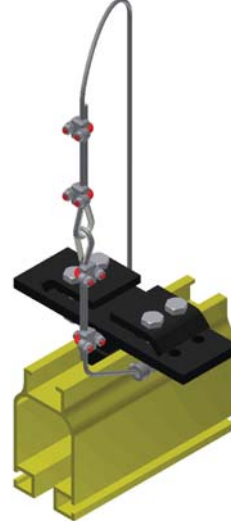
PERPENDICULAR MOUNT

27059 FOR BEAMS 2.33" (59mm) TO 3.33" (85mm)

27061 FOR BEAMS 4" (102mm) TO 8" (203mm)



27070 ETA RIGID MOUNT HANGER**



RIGID MOUNT HANGER*

PARALLEL MOUNT

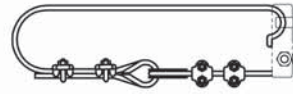
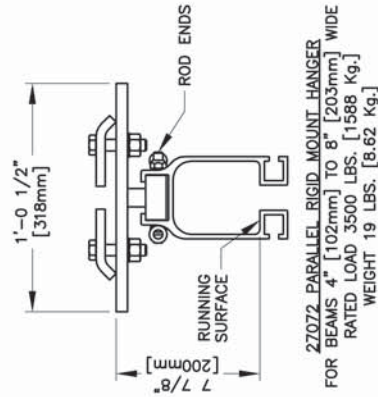
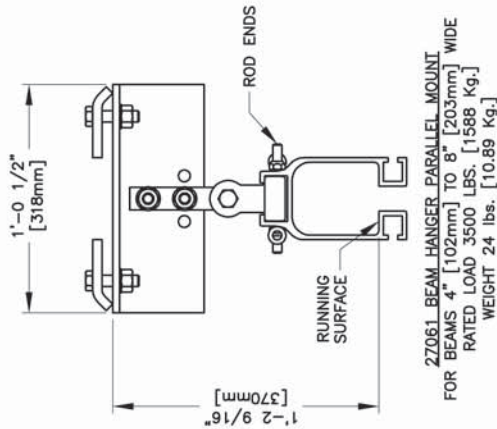
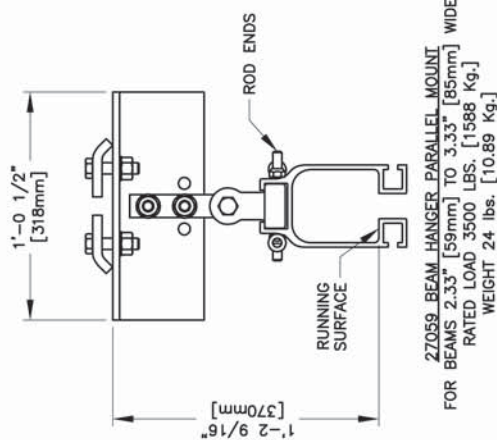
27074 FOR BEAMS 2.33" (59mm) TO 3.33" (85mm)

27072 FOR BEAMS 4" (102mm) TO 8" (203mm)

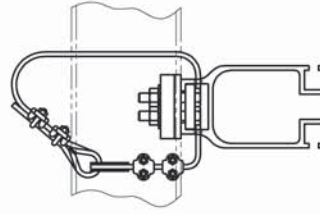
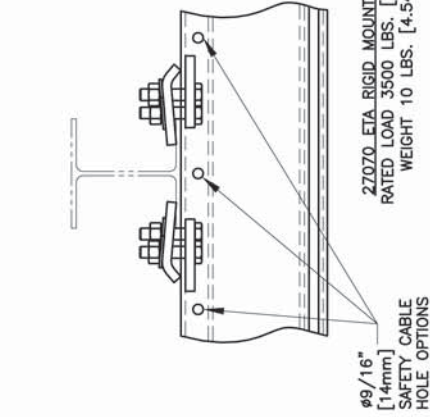
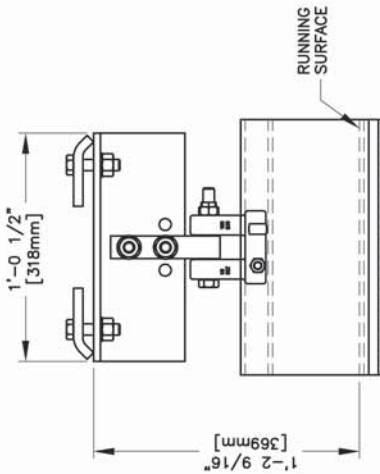
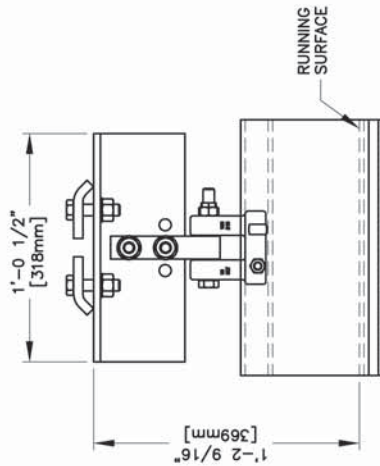
- All hangers must be bolted through rail.
- All hangers include a 6'-0" (1.82m) safety cable 78287.

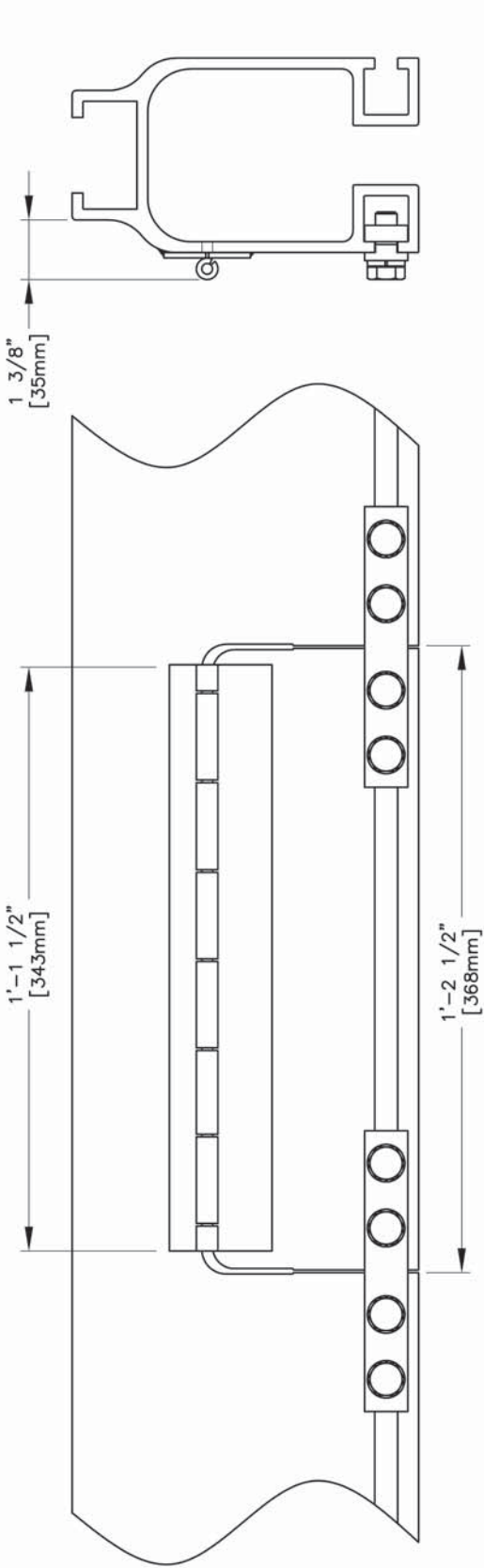
*Grip range 1/4" (6mm) to 9/16" (15mm) thick flange.

**For use on W-Shape beams only.

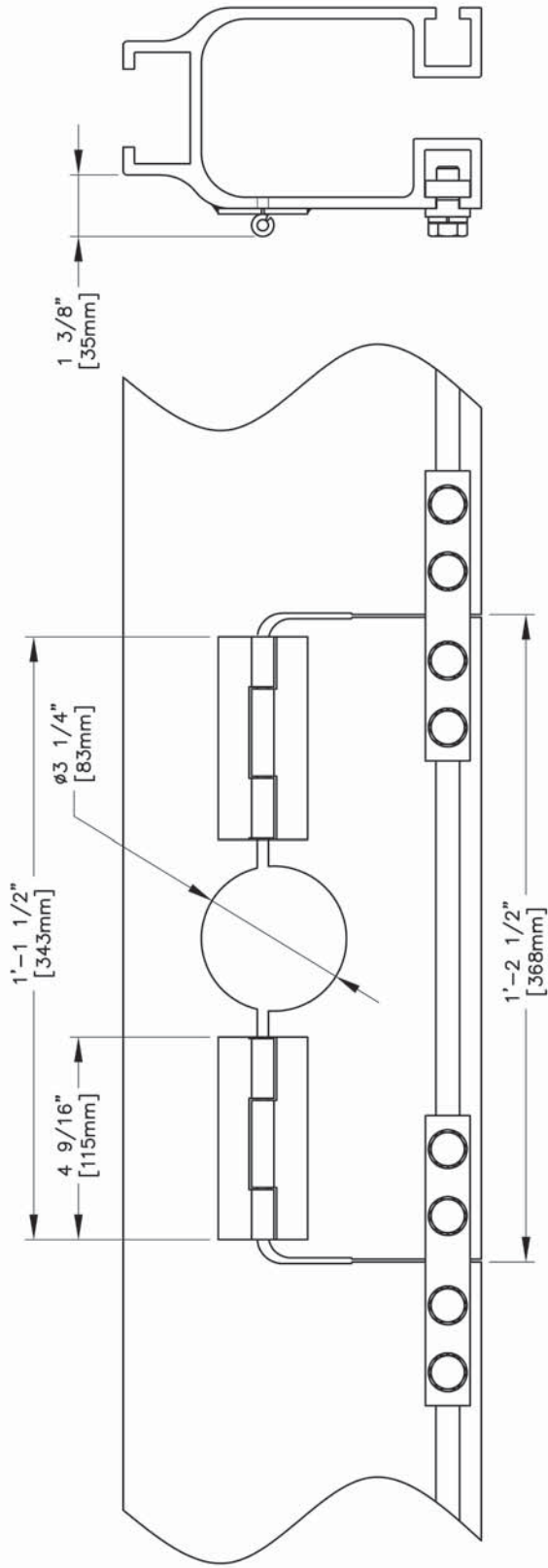


SAFETY CABLE ASSEMBLY VIEW
ALL HANGERS COME WITH A SAFETY CABLE 78287



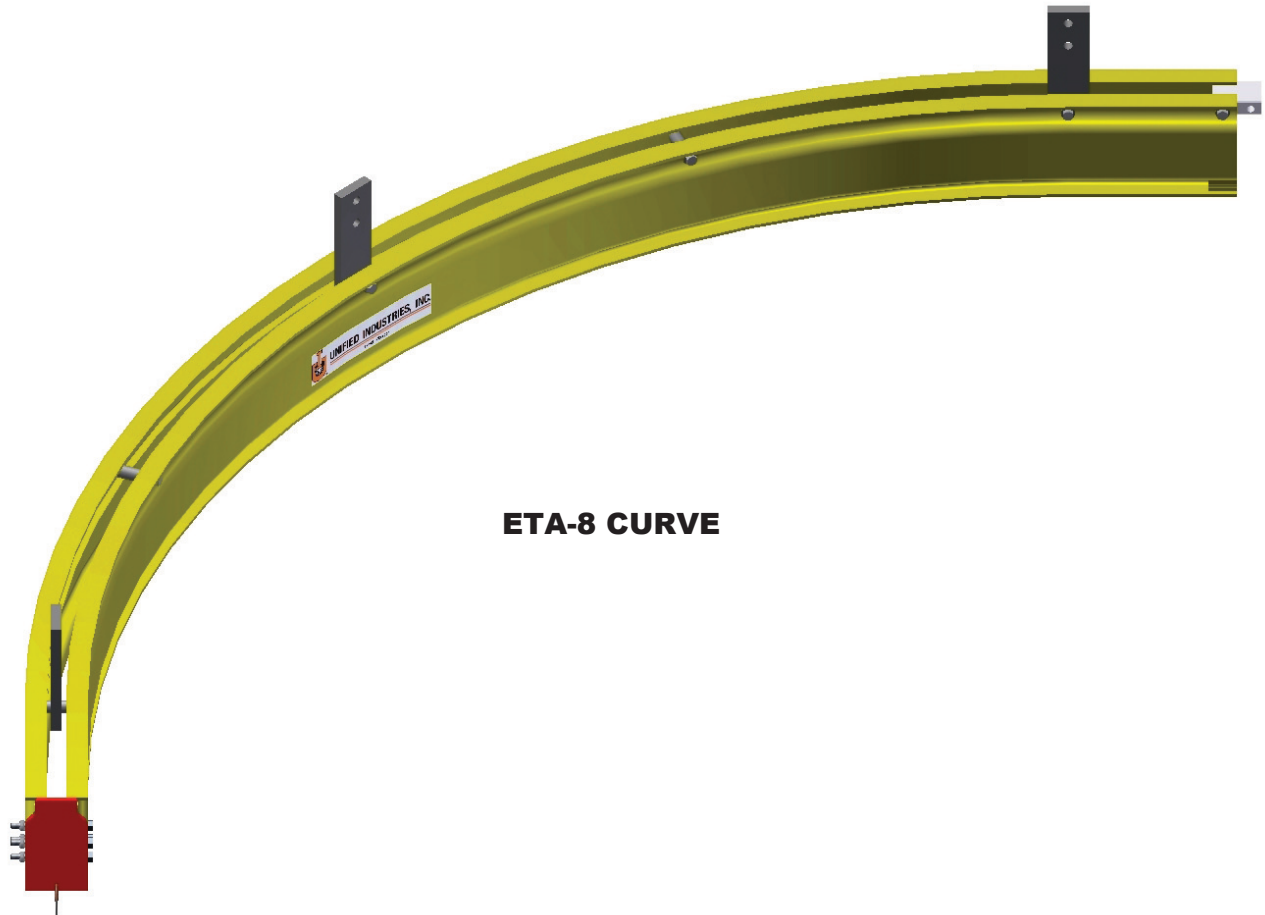


25785 ETA-8 TROLLEY INSPECTION GATE
FOR INSERTION AND REMOVAL OF TROLLEYS



25786 ETA-8 KICKUP TROLLEY INSPECTION GATE
FOR INSERTION AND REMOVAL OF KICK UP TROLLEYS

Inspection Gates must be 1'-0" from a hanger

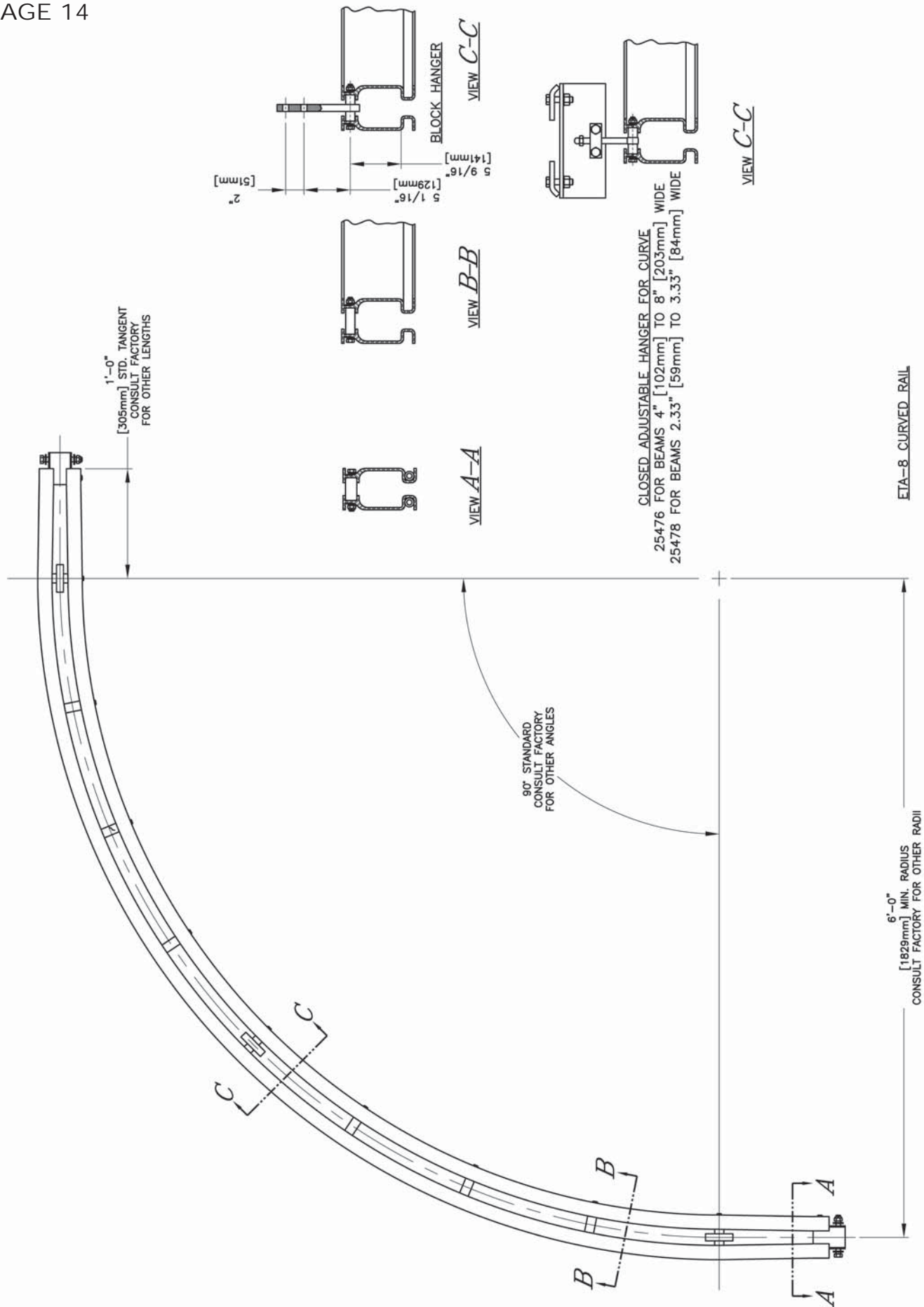


ETA-8 CURVE

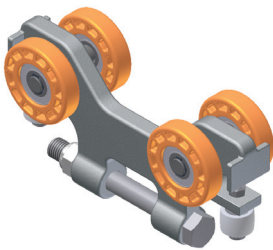
Features

- 6'-0" (1829mm) minimum radius
- Consult factory for additional information
- **87049** up to 6'-0" (1829mm) radius x 90° with Closed Adjustable Hangers
- **87050** up to 6'-0" (1829mm) radius x 90°
- **87054** up to 6'-0" (1829mm) radius x 45° with Closed Adjustable Hangers
- **87055** up to 6'-0" (1829mm) radius x 45°
- **87059** 6'-1" (1855mm) to 14'-0" (4267mm) radius x 90° with Closed Adjustable Hangers
- **87060** 6'-1" (1855mm) to 14'-0" (4267mm) radius x 90°

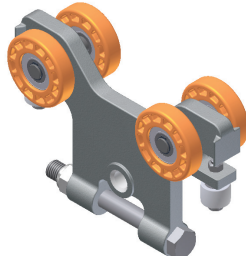
Note: Standard Unified curved sections are not suitable for kick-up forces. If your application requires kick-up trolleys through a curved section, please contact the factory.



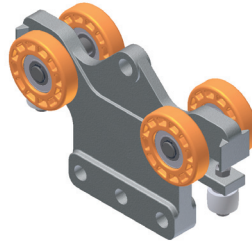
UNIFIED ETA-8 RAIL TROLLEYS



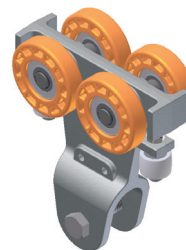
20011



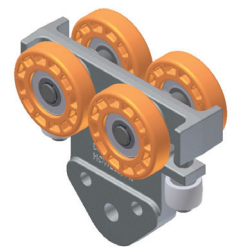
20019



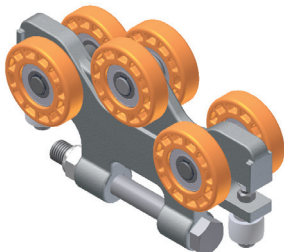
20024



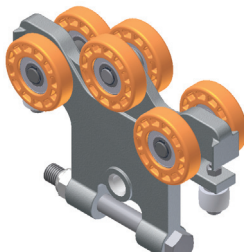
20052



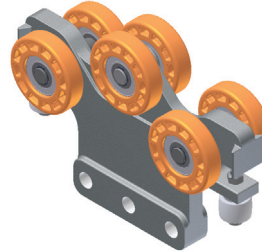
20070



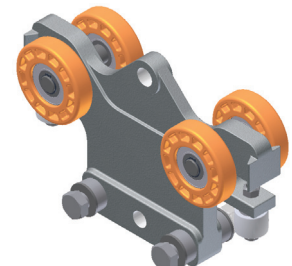
20068



20069



20071



28080

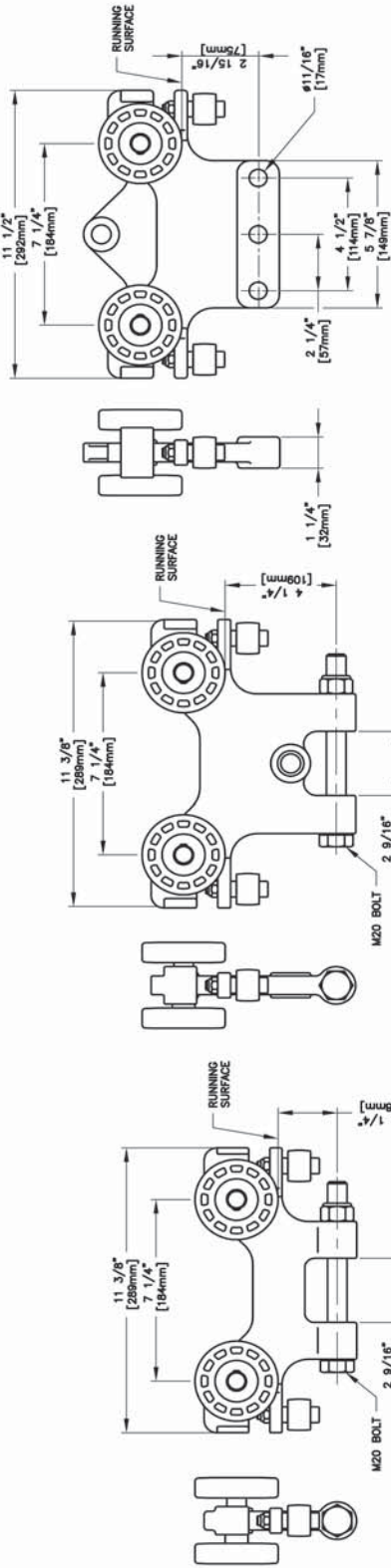
Part Number

- **20011** ETA-8 Short Body Load Trolley with 1100 lb (500kg) Rated Load
- **20019** ETA-8 Long Body Load Trolley with 1100 lb (500kg) Rated Load
- **20024** ETA-8 Three Hole Mount Load Trolley with 1100 lb (500kg) Rated Load
- **20052** ETA-8 Saddle Load Trolley with 1100 lb (500kg) Rated Load
- **20070** ETA-8 Pin Load Trolley with 1100 lb (500kg) Rated Load
- **20068** ETA-8 Short Body Kickup Trolley with 1100 lb (500kg) Rated Load
- **20069** ETA-8 Long Body Kickup Trolley with 1100 lb (500kg) Rated Load
- **20071** ETA-8 Three Hole Mount Kickup Trolley with 1100 lb (500kg) Rated Load
- **28080** ETA-8 Unified Balancer Trolley with 1100 lb (500kg) Rated Load

Features

- High tensile almag alloy frame
- 3.2" (82mm) glass filled nylon wheels, with permanently sealed precision ball bearings
- High impact nylon guide rollers with dual race ball bearings for smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)

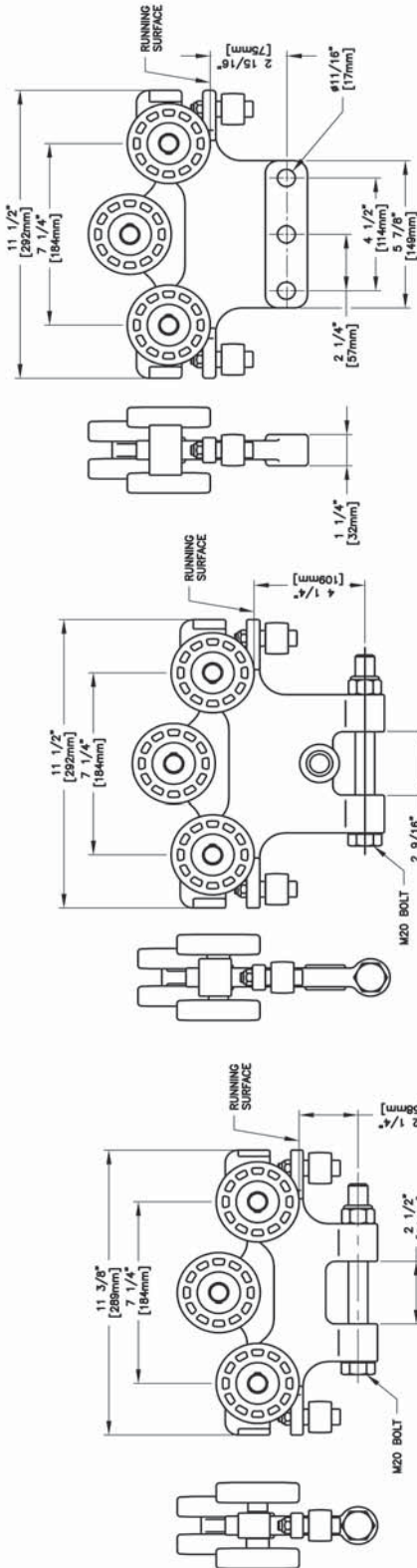
Note: If your application requires kick-up forces through a curved section, please consult the factory.



20024 ETA-8 THREE HOLE MOUNT LOAD TROLLEY

20019 ETA-8 LONG BODY LOAD TROLLEY

20011 ETA-8 SHORT BODY LOAD TROLLEY

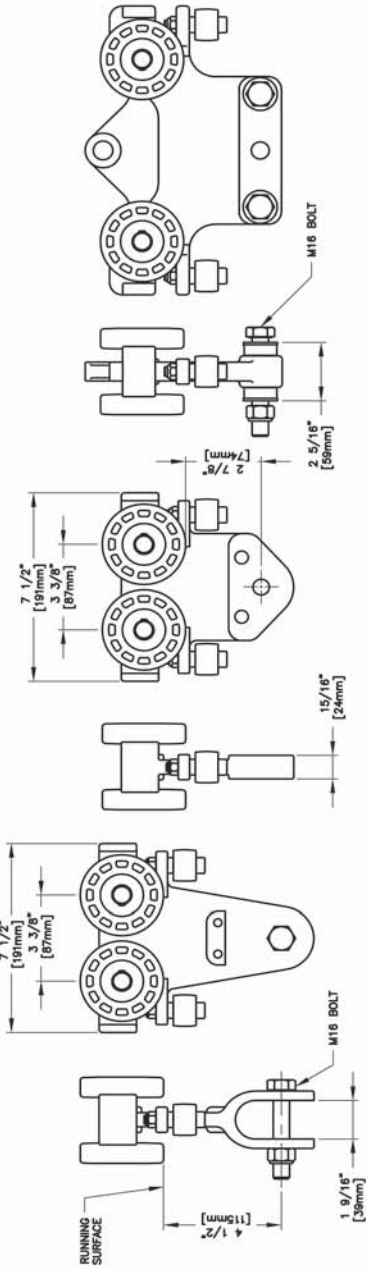


20071 ETA-8 THREE HOLE MOUNT KICKUP TROLLEY

20069 ETA-8 LONG BODY KICKUP TROLLEY

20068 ETA-8 SHORT BODY KICKUP TROLLEY

SPECIFICATIONS		RATED LOAD	
WEIGHT OF 20011:	6.29 lbs. [2.85 Kg.]	1100 lbs. [500 Kg.]	
WEIGHT OF 20019:	7.14 lbs. [3.23 Kg.]	1100 lbs. [500 Kg.]	
WEIGHT OF 20024:	6.68 lbs. [3.03 Kg.]	1100 lbs. [500 Kg.]	
WEIGHT OF 20052:	5.66 lbs. [2.57 Kg.]	1100 lbs. [500 Kg.]	
WEIGHT OF 20068:	7.67 lbs. [3.48 Kg.]	1100 lbs. [500 Kg.]	
WEIGHT OF 20069:	8.38 lbs. [3.80 Kg.]	1100 lbs. [500 Kg.]	
WEIGHT OF 20071:	7.53 lbs. [3.42 Kg.]	1100 lbs. [500 Kg.]	
WEIGHT OF 20070:	5.11 lbs. [2.32 Kg.]	1100 lbs. [500 Kg.]	
WEIGHT OF 20080:	9.00 lbs. [4.08 Kg.]	1100 lbs. [500 Kg.]	
BODY : HIGH TENSILE ALUMAG			
WHEELS : 3.2 DIA. [81.3mm DIA.] GLASS REINFORCED NYLON			
BEARINGS : BALL PERMANENTLY LUBRICATED			
STUDS : .75 DIA. [19.1mm DIA.]			
GUIDE ROLLERS : 1.25 DIA. [31.8mm] HIGH IMPACT NYLON			

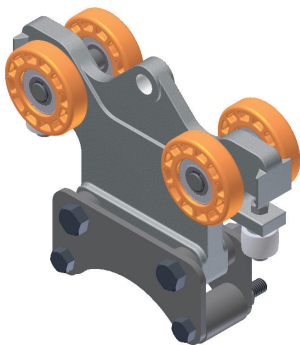


20052 ETA-8 SADDLE LOAD TROLLEY

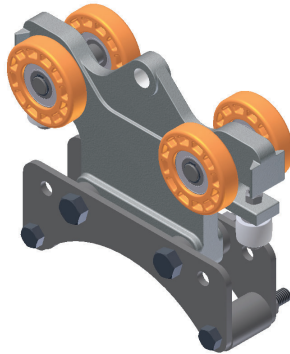
20070 ETA-8 PIN LOAD TROLLEY

20800 ETA-8 BALANCER SUSPENSION KIT

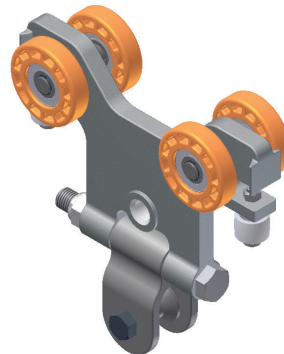
UNIFIED ETA-8 RAIL TROLLEYS



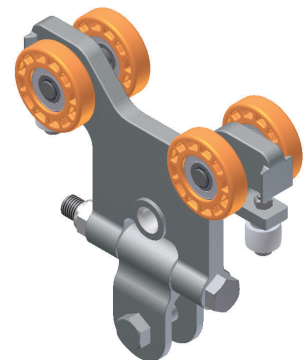
20022



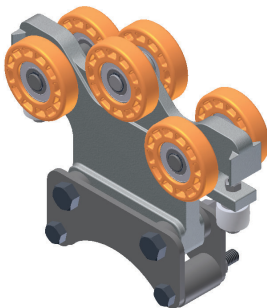
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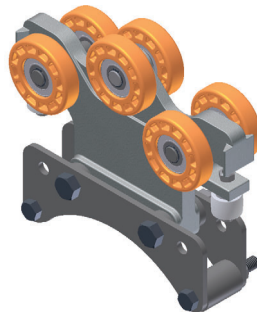
20040



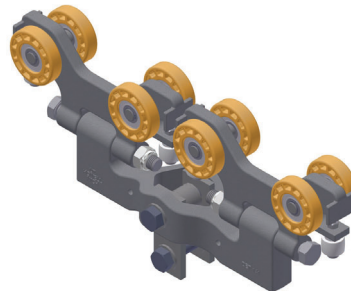
20041



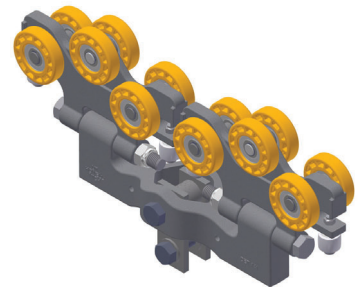
20066



20067



25120



25125

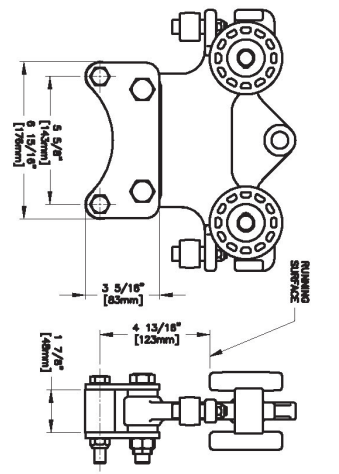
Part Number

- **20022** ETA-8 IR 6" Balancer Trolley with 1100 lb (500kg) Rated Load
- **20023** ETA-8 IR 10" Balancer Trolley with 1100 lb (500kg) Rated Load
- **20040** ETA-8 Single Hoist Trolley with 1100 lb (500kg) Rated Load
- **20041** ETA-8 Single Carriage Trolley with 1100 lb (500kg) Rated Load
- **20066** ETA-8 IR 6" Balancer Kickup Trolley with 1100 lb (500kg) Rated Load
- **20067** ETA-8 IR 10" Balancer Kickup Trolley with 1100 lb (500kg) Rated Load
- **25120** ETA-8 Dual Hoist Trolley with 2200 lb (1000kg) Rated Load
- **25125** ETA-8 Dual Hoist Kickup Trolley with 2200 lb (1000kg) Rated Load

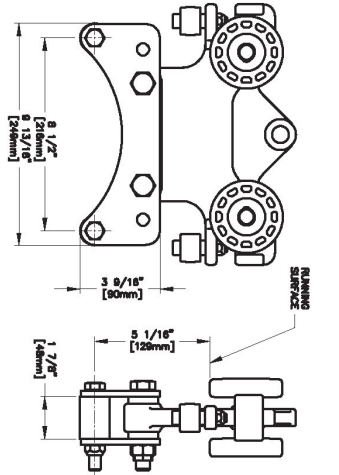
Features

- High tensile almag alloy frame
- 3.2" (82mm) glass filled nylon wheels, with permanently sealed precision ball bearings
- High impact nylon guide rollers with dual race ball bearings for smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to +100 degrees C)

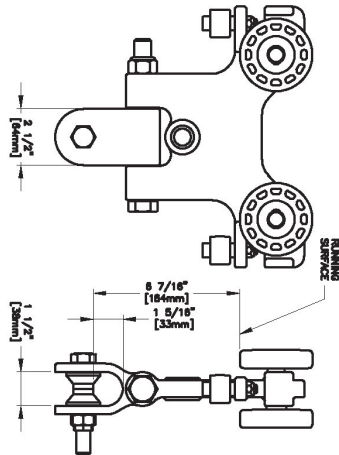
Note: If your application requires kick-up forces through a curved section, please consult the factory.



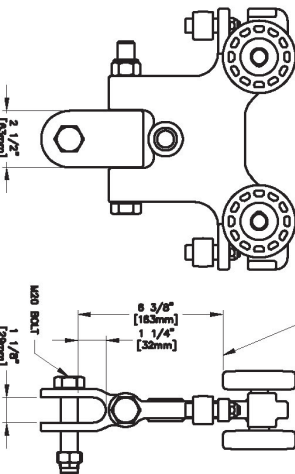
20022 ETA-8, IR 6" BALANCER TROLLEY



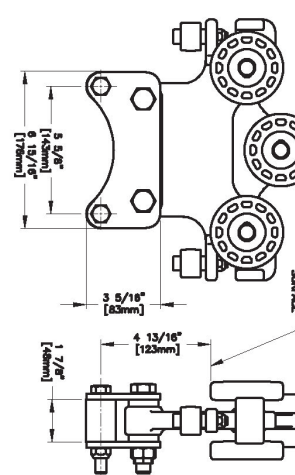
20023 ETA-8, IR 10" BALANCER TROLLEY



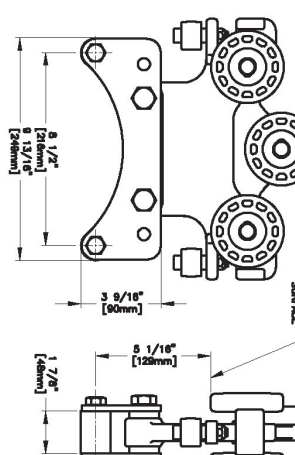
20040 ETA-8 SINGLE HOIST TROLLEY



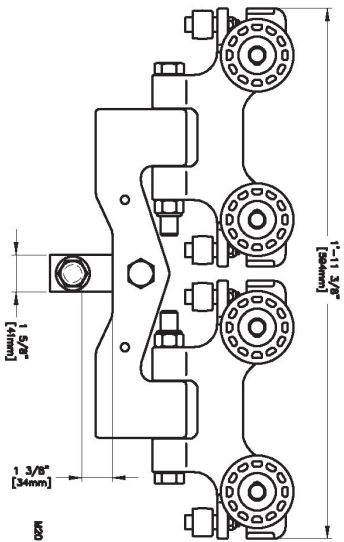
20041 ETA-8 SINGLE CARRIAGE TROLLEY



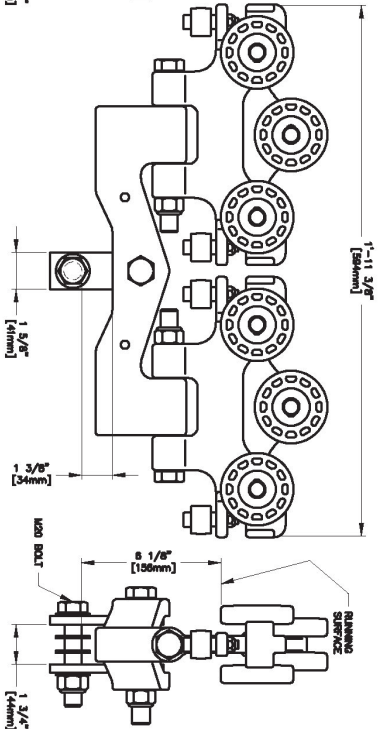
20066 ETA-8, IR 6" BALANCER KICKUP TROLLEY



20067 ETA-8, IR 10" BALANCER KICKUP TROLLEY



25120 ETA-8 DUAL HOIST TROLLEY



25125 ETA-8 DUAL HOIST KICKUP TROLLEY

SPECIFICATIONS		RATED LOAD
WEIGHT OF 20022	11.56 lbs. [5.24 kg.]	1100 lbs. [500 kg.]
WEIGHT OF 20023	12.83 lbs. [5.73 kg.]	1100 lbs. [500 kg.]
WEIGHT OF 20040	8.83 lbs. [4.00 kg.]	1100 lbs. [500 kg.]
WEIGHT OF 20041	8.82 lbs. [3.97 kg.]	1100 lbs. [500 kg.]
WEIGHT OF 20066	12.46 lbs. [5.65 kg.]	2200 lbs. [1000 kg.]
WEIGHT OF 20067	13.53 lbs. [6.14 kg.]	2200 lbs. [1000 kg.]
WEIGHT OF 25120	13.53 lbs. [6.14 kg.]	2200 lbs. [1000 kg.]
WEIGHT OF 25125	21.84 lbs. [9.92 kg.]	2200 lbs. [1000 kg.]
WHEELS : 3.2 DIA. [81mm] GLASS REINFORCED NYLON		
BEARINGS : BALL, PERMANENTLY LUBRICATED		
STUDS : .75 DIA. [19mm]		
GUIDE ROLLERS : 1.25 DIA. [32mm] HIGH IMPACT NYLON		

UNIFIED ETA-8 FESTOON TROLLEY



20090



20091



20092



20093



20096



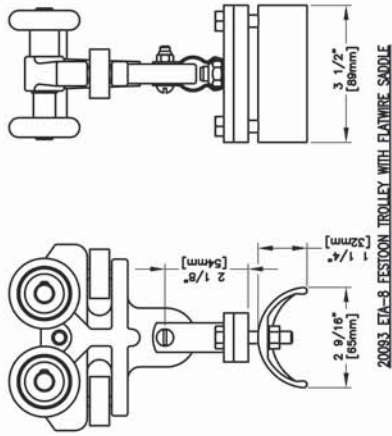
20097

Part Number

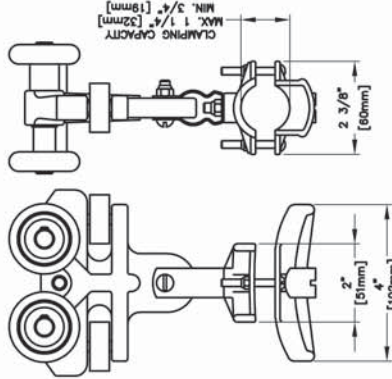
- **20090** ETA-8 Festoon Trolley with 100 lb (45kg) Rated Load
- **20091** ETA-8 Festoon Trolley and Small Saddle with 100 lb (45kg) Rated Load
- **20092** ETA-8 Festoon Trolley and Large Saddle with 100 lb (45kg) Rated Load
- **20093** ETA-8 Festoon Trolley and Flatwire Saddle with 100 lb (45kg) Rated Load
- **20096** ETA-8 Festoon Trolley and U/I Saddle with 100 lb (45kg) Rated Load
- **20097** ETA-8 Festoon Trolley with 12" Saddle 100 lb (45kg) Rated Load

Features

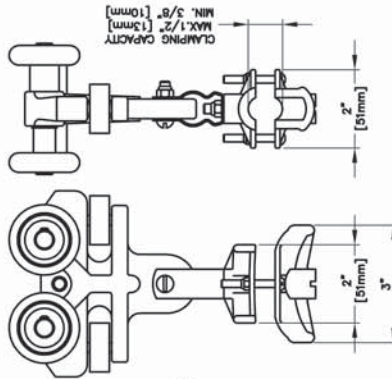
- High tensile almag alloy frame
- 1.8" (46mm) Nylon glass reinforced wheels, with permanently sealed precision ball bearings
- High-impact nylon guide rollers with smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to 100 degrees C)



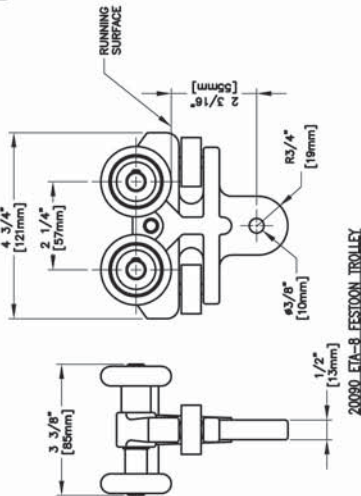
20093 ETA-8 FESTOON TROLLEY WITH FLATWIRE SADDLE



20092 ETA-8 FESTOON TROLLEY WITH LARGE SADDLE



20091 ETA-8 FESTOON TROLLEY WITH SMALL SADDLE

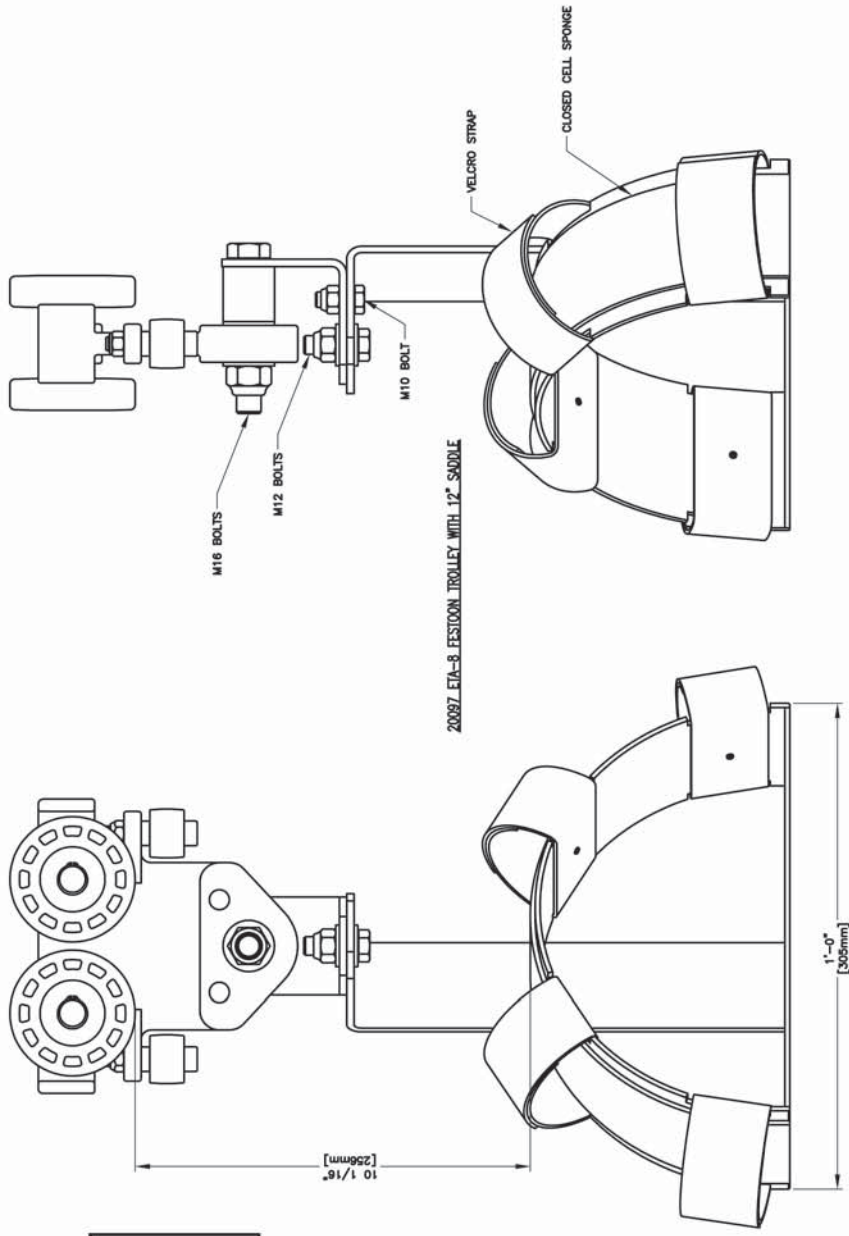


20090 ETA-8 FESTOON TROLLEY

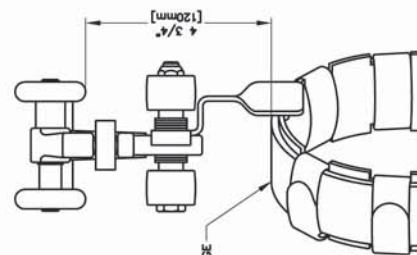
SPECIFICATIONS:

WHEELS: 1.812 DIA. [46mm] HIGH IMPACT NYLON
 BODY : ALUMG 35
 BEARINGS : BALL TYPE PERMANENTLY LUBRICATED
 STUDS : .50 DIA. [13mm]
 GUIDE ROLLERS : .34 DIA. [24mm] HIGH IMPACT NYLON
 OPERATING TEMP. AT 100% LOAD : -10°F TO +110°F
 ROLLING FRICTION : .25 TO 1% OF LOAD
 MAX. LOAD PER WHEEL : 25 lbs. [11.2 kg]

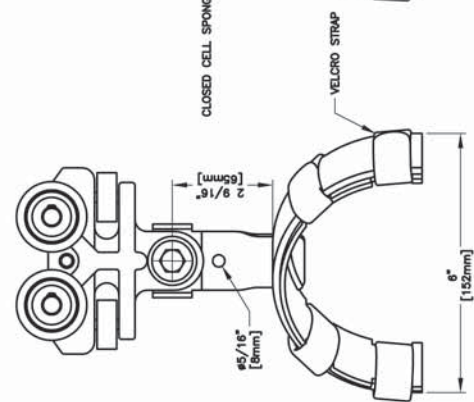
TROLLEY	WEIGHT
20090:	1.55 lbs. [70 kg]
20091:	1.74 lbs. [79 kg]
20092:	1.76 lbs. [80 kg]
20093:	2.17 lbs. [98 kg]
20096:	3.21 lbs. [1.46 kg]
20097:	12.61 lbs. [5.72 kg]



20097 ETA-8 FESTOON TROLLEY WITH 12\"/>



20096 ETA-8 FESTOON TROLLEY WITH UII SADDLE





UNIFIED ETA-8 FESTOON TROLLEY



20094



20095



78270



78184



78190



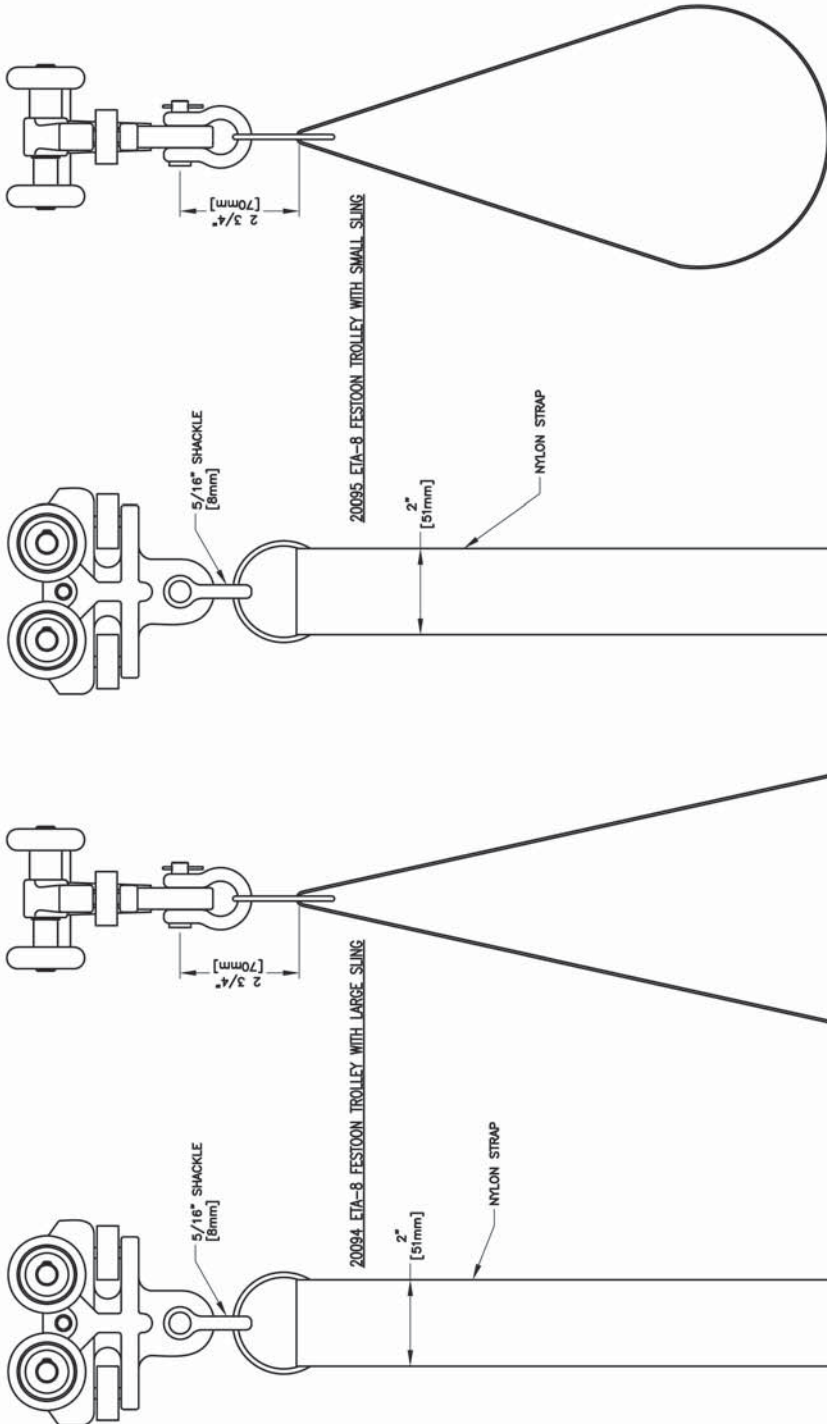
78170

Part Number

- **20094*** ETA-8 Festoon Trolley and 24" Large Sling with 100 lb (45kg) Rated Load
- **20095*** ETA-8 Festoon Trolley and 12" Small Sling with 100 lb (45kg) Rated Load
- **78270** ETA-8 Festoon Slider
- **78184** Cable Trolley with Small Saddle
- **78190** Cable Trolley with Large Saddle
- **78170** Cable Trolley with Flatwire Saddle

Features*

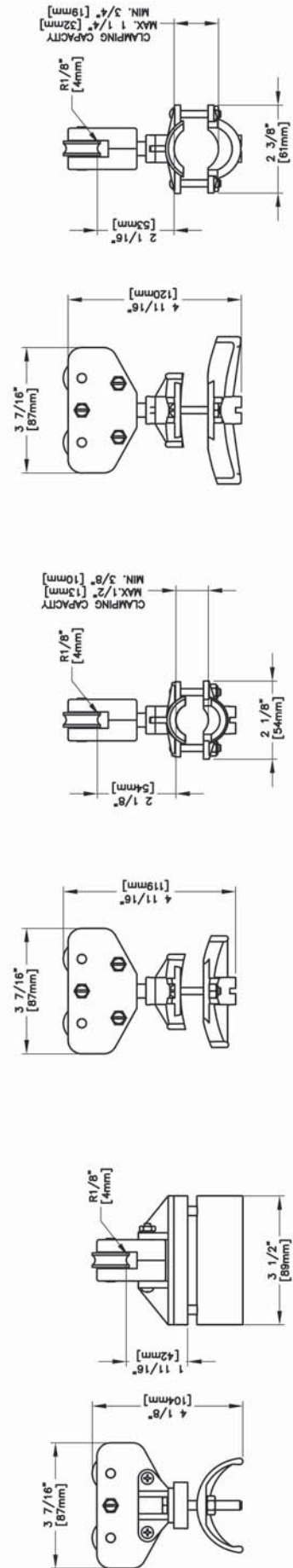
- High tensile almag alloy frame
- 1.8" (46mm) Nylon glass reinforced wheels, with permanently sealed precision ball bearings
- High-impact nylon guide rollers with smooth, quiet operation
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Low inertia: less than 1% of load
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to 100 degrees C)

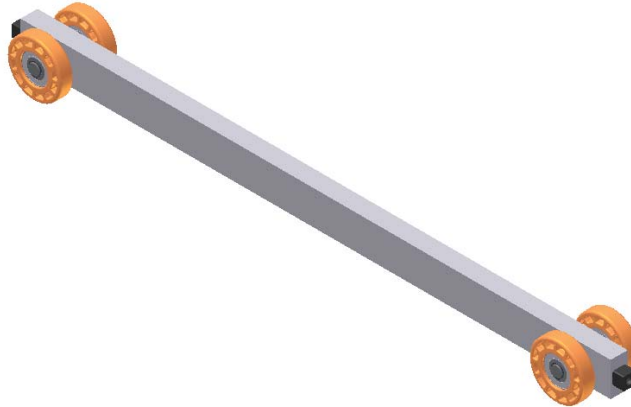


FESTOON TROLLEY SPECIFICATIONS:

WHEELS: 1.812 DIA. [46mm DIA.] HIGH IMPACT NYLON
BODY: ALUMINUM
BEARINGS: BALL TYPE PERMANENTLY LUBRICATED
STUDS: 5/16 DIA. [13mm DIA.]
STUDS: 5/16 DIA. [13mm DIA.]
OPERATING TEMP.: -10°F TO +110°F [-20°C TO +43°C]
ROLLING FRICTION: .5% TO 1% OF LOAD
MAX. LOAD PER WHEEL: 25 lbs. [11.2 kg.]

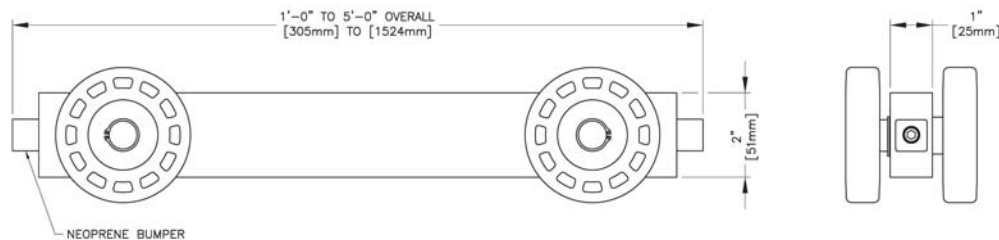
TROLLEY	WEIGHT
20094:	2.05 lbs. [.93 Kg.]
20095:	1.88 lbs. [.85 Kg.]
78270:	.10 lbs. [.05 Kg.]
78170:	.46 lbs. [.21 Kg.]
78184:	.37 lbs. [.17 Kg.]
78190:	.41 lbs. [.19 Kg.]





ETA-8 BUMPER TROLLEY

SPECIFICATIONS:	
BODY :	6061 ALUMINUM
STUDS :	.75 DIA. [19mm] DIA.
WEIGHT OF 20080:	4.38 lbs. [1.99 Kg.]
WEIGHT OF 20081:	6.73 lbs. [3.05 Kg.]
WEIGHT OF 20082:	9.08 lbs. [4.12 Kg.]
WEIGHT OF 20083:	11.43 lbs. [5.18 Kg.]
WEIGHT OF 20084:	13.78 lbs. [6.25 Kg.]



Part Number

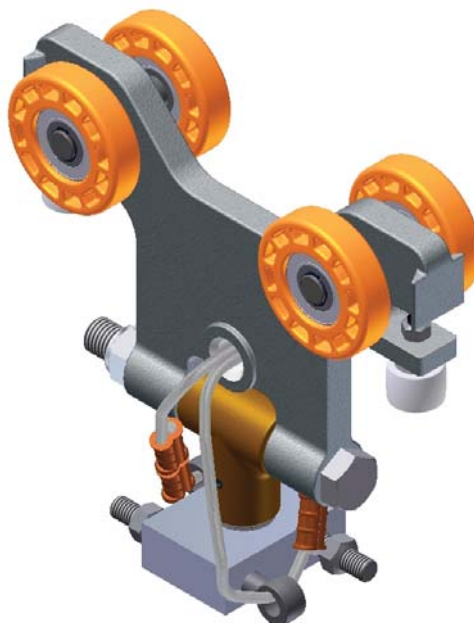
- **20080** 1'-0" (305mm) Bumper trolley to operate on Unified ETA-8
- **20081** 2'-0" (610mm) Bumper trolley to operate on Unified ETA-8
- **20082** 3'-0" (914mm) Bumper trolley to operate on Unified ETA-8
- **20083** 4'-0" (1219mm) Bumper trolley to operate on Unified ETA-8
- **20084** 5'-0" (1524mm) Bumper trolley to operate on Unified ETA-8

Features

- Aluminum trolley body
- 3.2" (82mm) glass filled nylon wheels, with permanently sealed precision ball bearings
- Operates within enclosed rail free from obstructing material
- Dielectrically insulated
- Operating temperature range: +32 degrees to +212 degrees F (0 degrees to 100 degrees C)

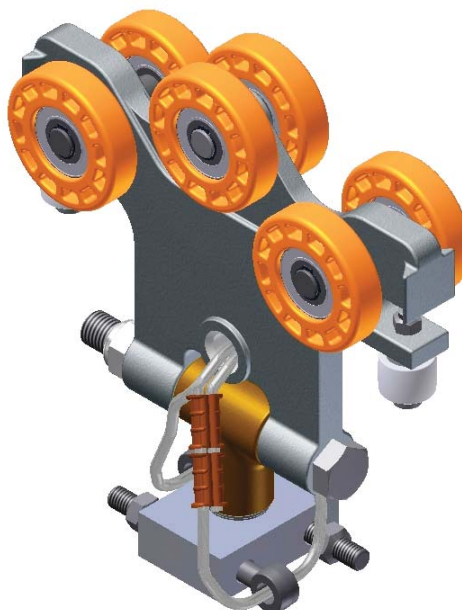
22041 SINGLE END TRUCK (WITHOUT KICKUP WHEELS)

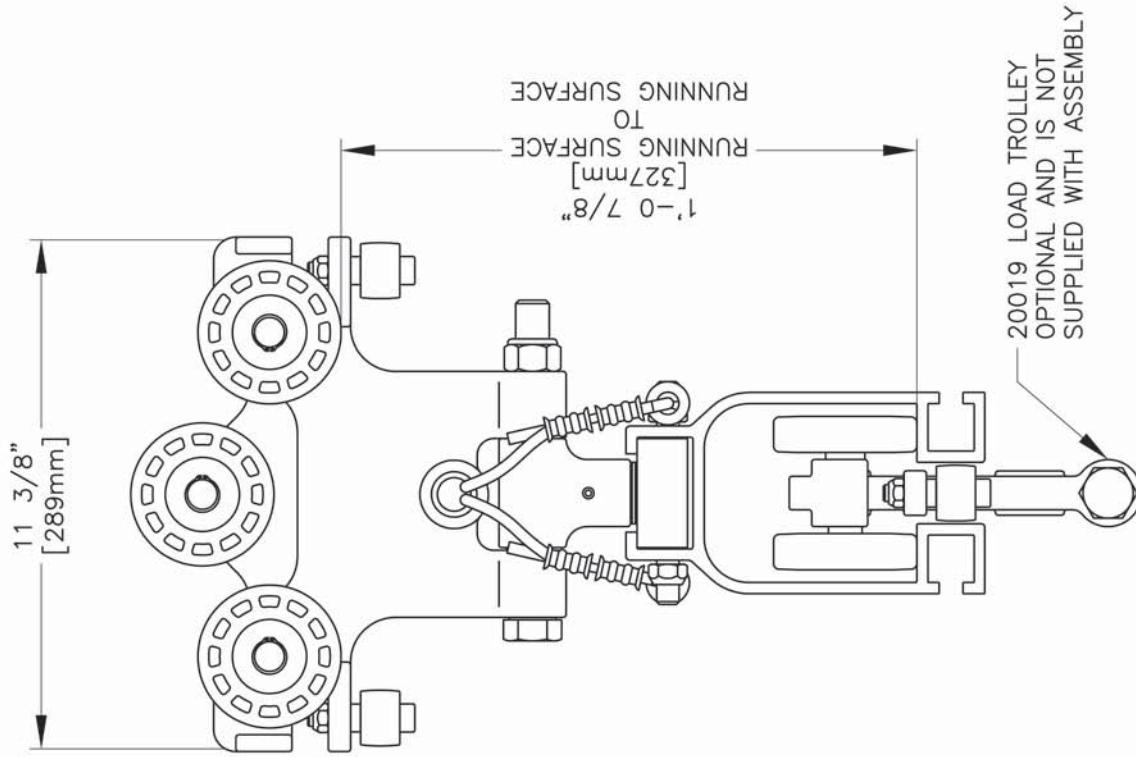
- End truck assembly for single girder bridge cranes.
- To operate on ETA-8 Bridge and Runway.
- Rated Load 1100 lbs. (500kg)



22046 SINGLE END TRUCK (WITH KICKUP WHEELS)

- End truck assembly for single girder bridge cranes.
- To operate on ETA-8 Bridge and Runway.
- Rated Load 1100 lbs. (500kg)



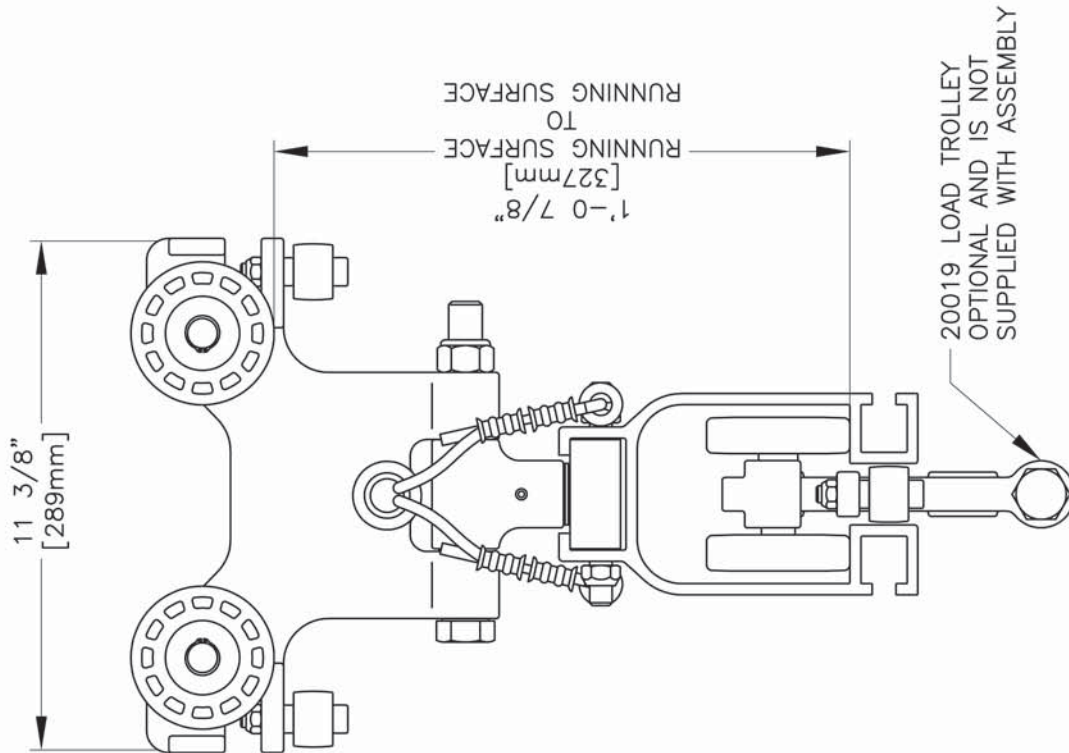


22046 ETA-8 SINGLE END TRUCK

WITH KICKUP

RATED LOADS OF 1100 LBS. [500 Kg.]

WEIGHT: 14 LBS. [6.35 Kg.]



22041 ETA-8 SINGLE END TRUCK

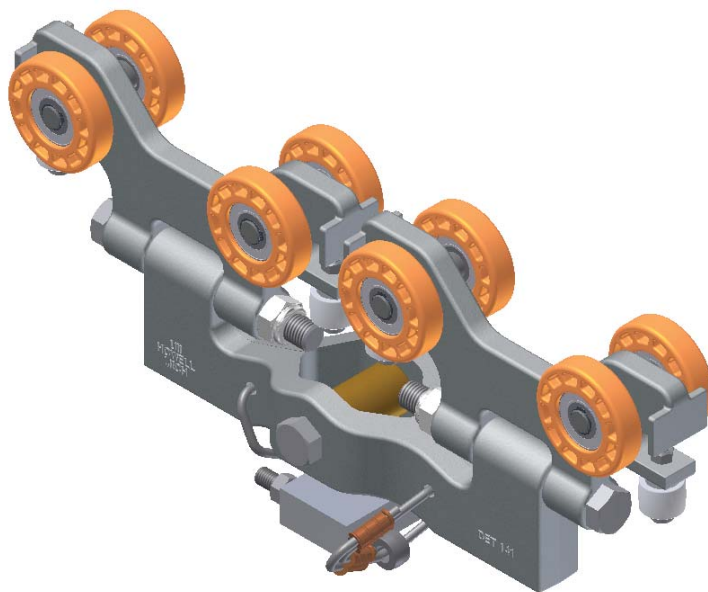
WITHOUT KICKUP

RATED LOADS OF 1100 LBS. [500 Kg.]

WEIGHT: 12 LBS. [5.44 Kg.]

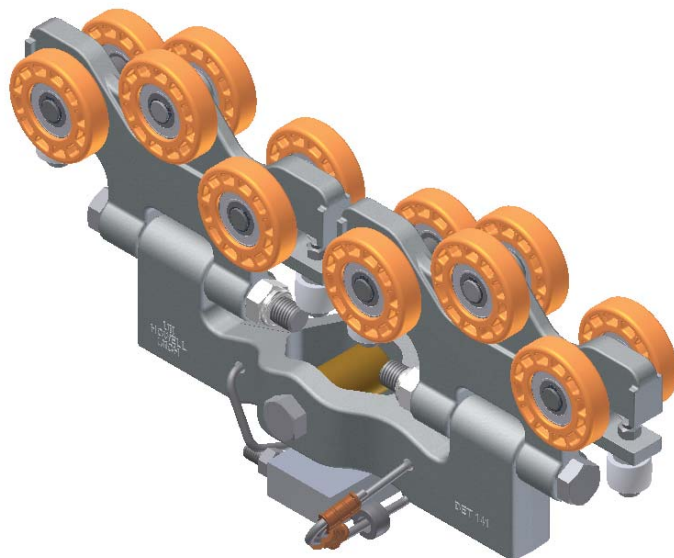
22051 ETA-8 DUAL END TRUCK (WITHOUT KICKUP WHEELS)

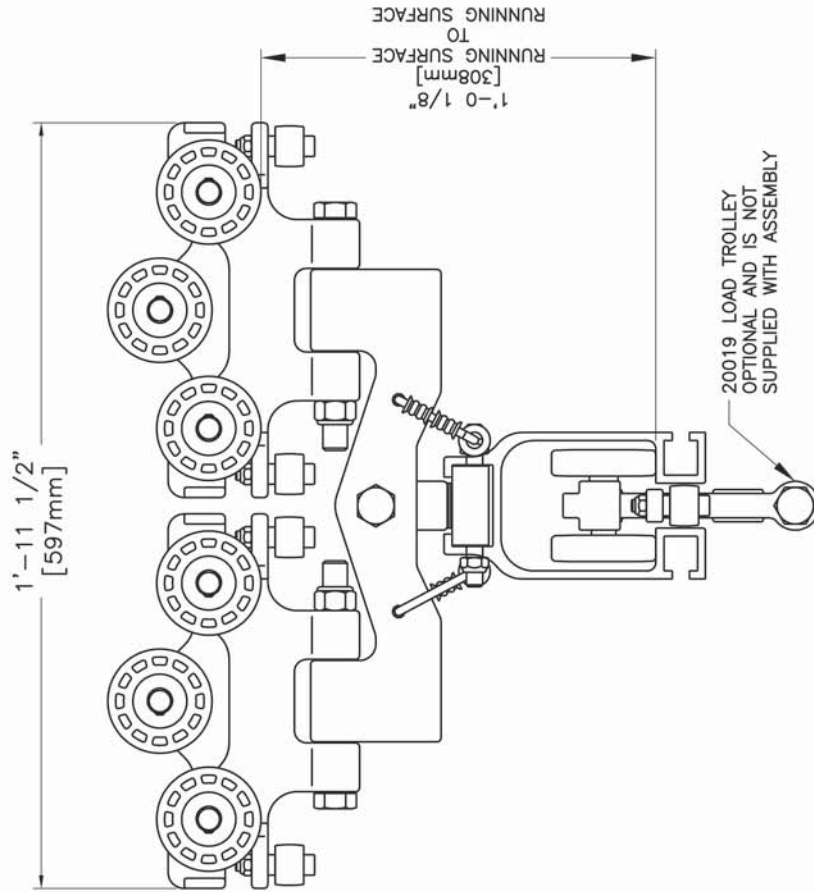
- End truck assembly for single girder bridge cranes.
- To operate on ETA-8.
- Rated Load 2200 lbs. (1000kg)



22131 ETA-8 DUAL END TRUCK (WITH KICKUP WHEELS)

- End truck assembly with counter thrust wheels for single girder bridge cranes.
- To operate on ETA-8.
- Rated Load 2200 lbs. (1000kg)



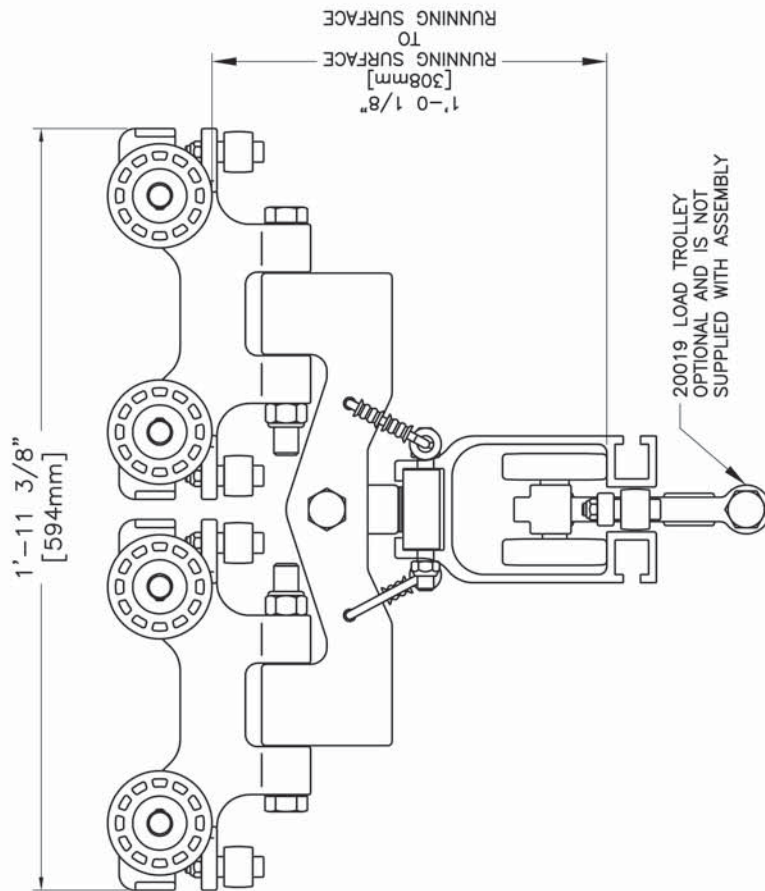


22131 ETA-8 DUAL END TRUCK

WITH KICKUP

RATED LOADS OF 2200 LBS. [1000 Kg.]

WEIGHT: 27 LBS. [12.25 Kg.]



22051 ETA-8 DUAL END TRUCK

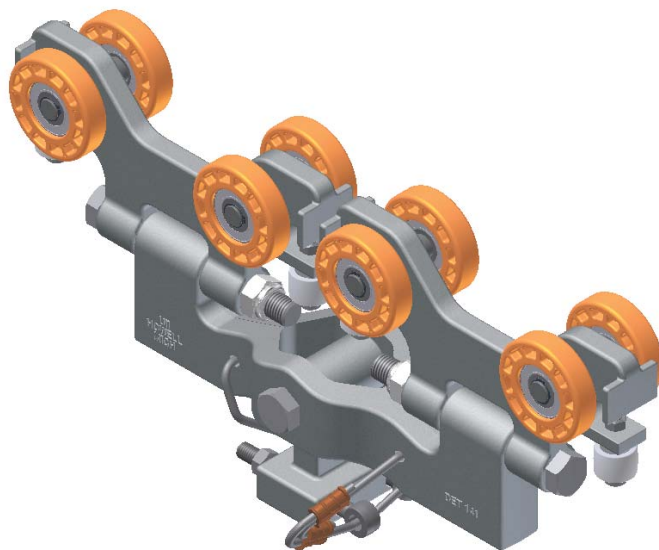
WITHOUT KICKUP

RATED LOADS OF 2200 LBS. [1000 Kg.]

WEIGHT: 24 LBS. [10.89 Kg.]

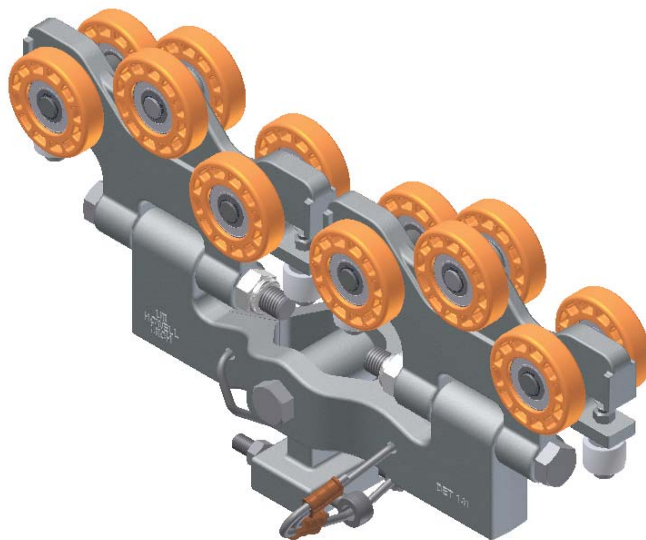
22052 RIGID DUAL END TRUCK (WITHOUT KICKUP WHEELS)

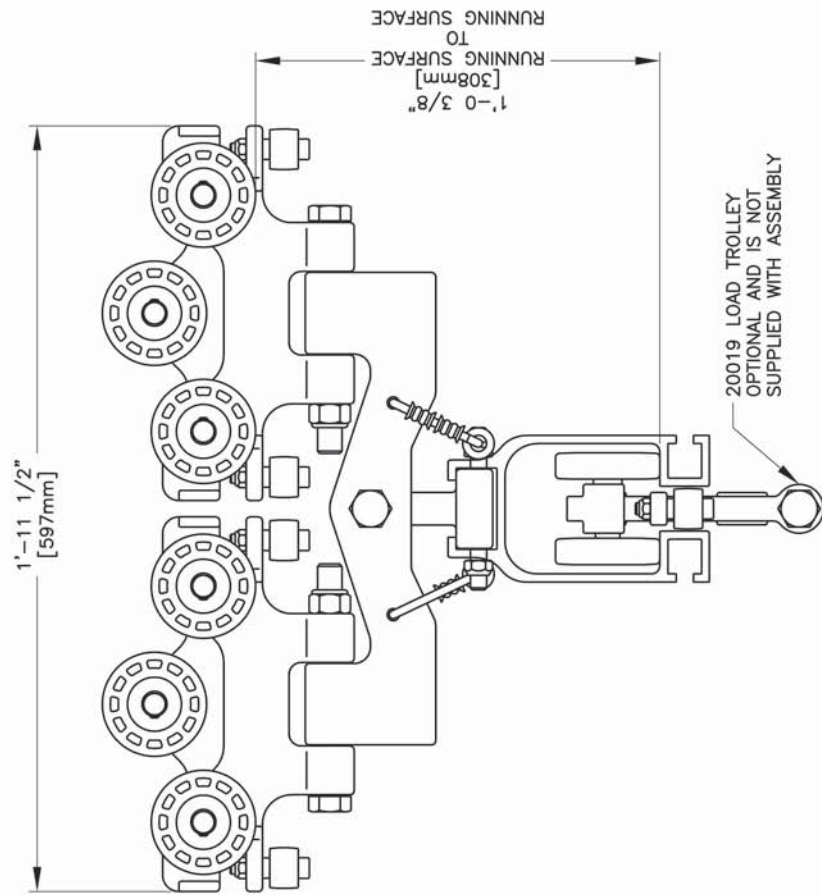
- End truck assembly for double girder bridge cranes.
- To operate on ETA-8.
- Rated Load 2200 lbs. (1000kg)



22068 RIGID DUAL END TRUCK (WITH KICKUP WHEELS)

- End truck assembly with counter thrust wheels for double girder bridge cranes.
- To operate on ETA-8.
- Rated Load 2200 lbs. (1000kg)



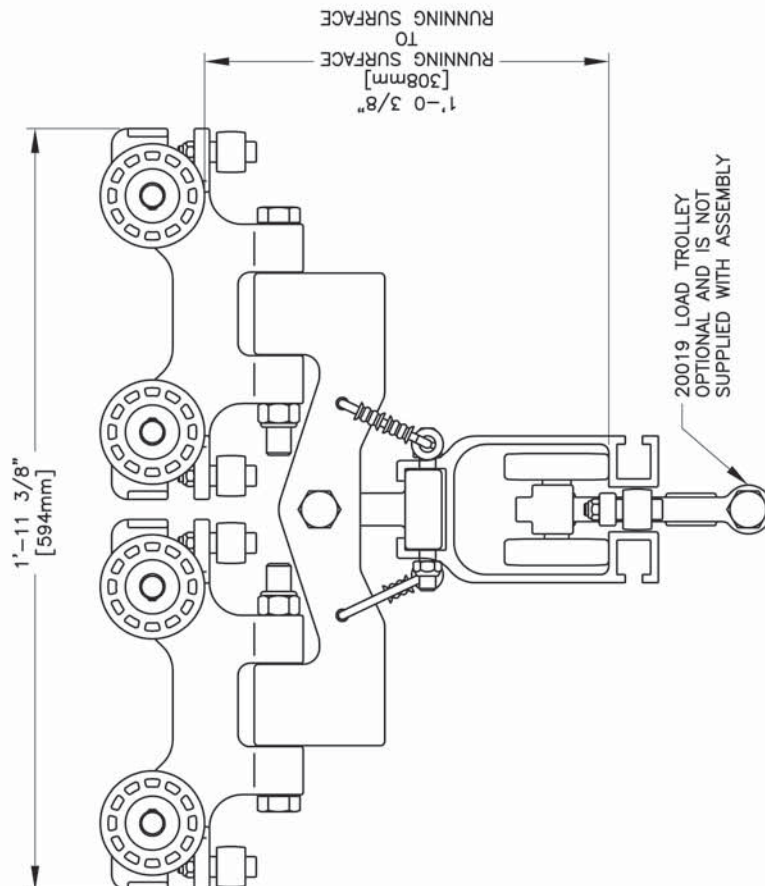


22068 ETA-8 RIGID DUAL END TRUCK

WITH KICKUP

RATED LOADS OF 2200 LBS. [1000 Kg.]

WEIGHT: 25 LBS. [11.34 Kg.]

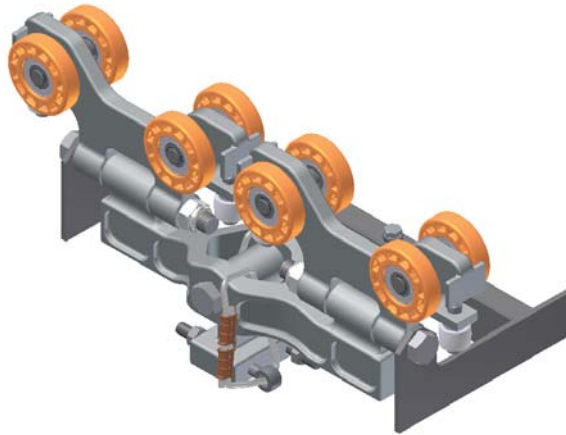


22052 ETA-8 RIGID DUAL END TRUCK

WITHOUT KICKUP

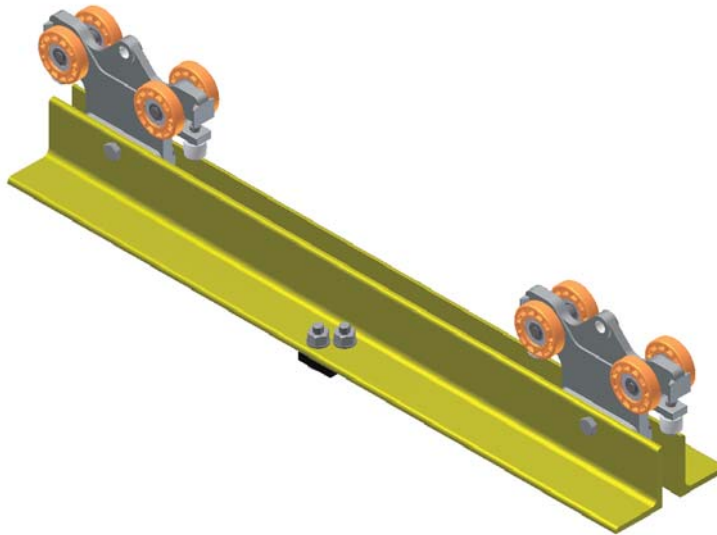
RATED LOADS OF 2200 LBS. [1000 Kg.]

WEIGHT: 22 LBS. [9.98 Kg.]



- **22055** Rigid Mount End Truck for Spans up to 18' (5.5m). Kickup version available, please consult factory
- Rated Load 2200 lbs. (1000kg)

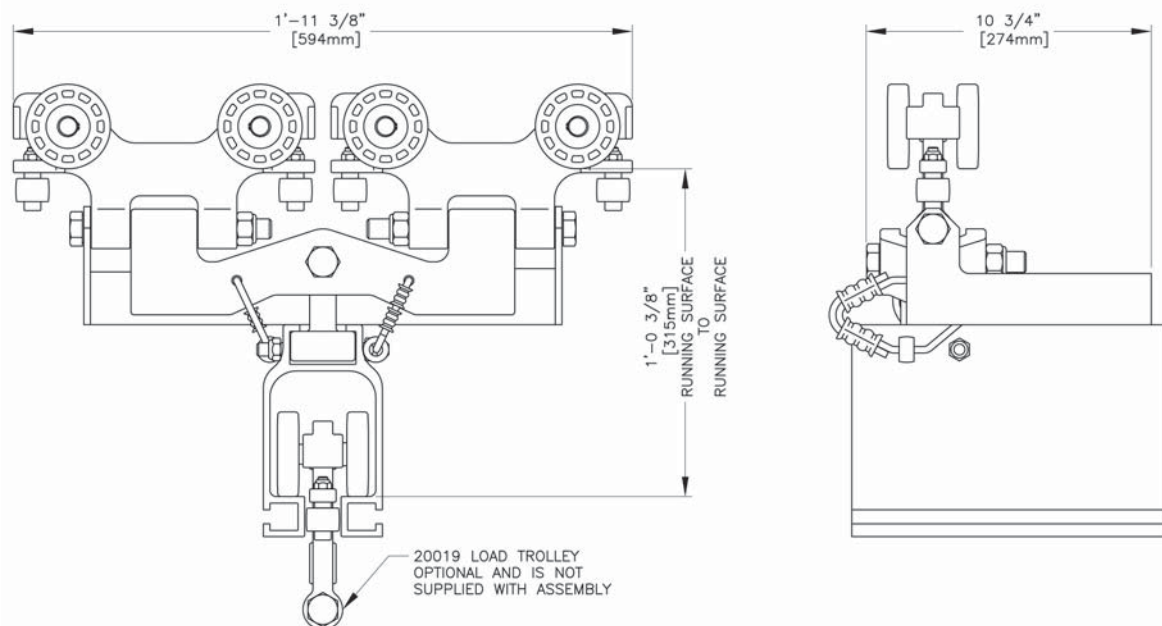
Weight
30 lbs. (13.6kg)



ETA-8 RIGID END TRUCKS WITHOUT KICKUP

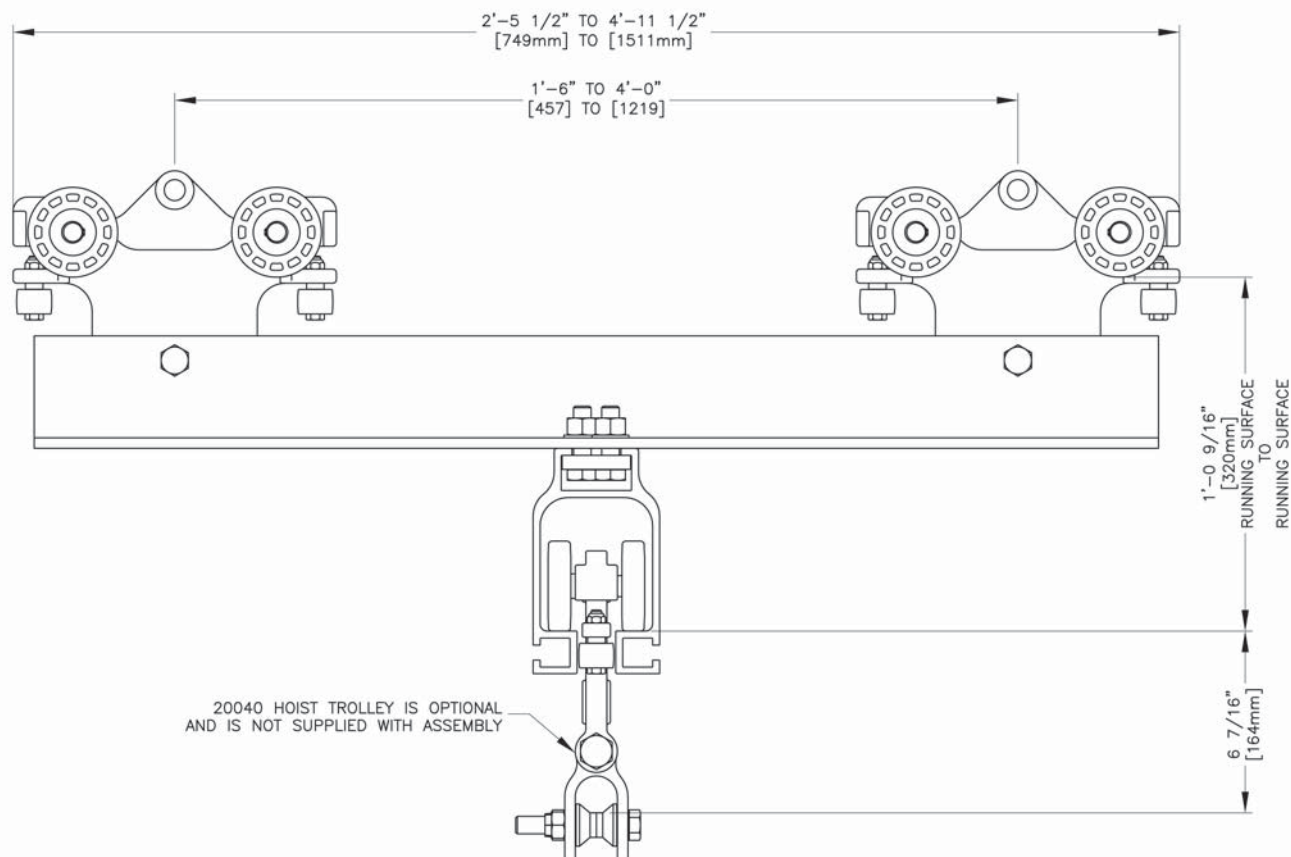
- End truck assemblies for single girder bridge cranes to run on ETA-8 Runway
- Attaches to ETA-4, ETA-5 and ETA-8 Bridges.

- | | Weight |
|--|-------------------|
| ■ 22221 1'-6" (457mm) wheelbase for spans 3'-0" (914mm) to 6'-0" (1829mm) | 61 lbs. (27.6kg) |
| ■ 22222 2'-0" (609mm) wheelbase for spans 7'-0" (2133mm) to 10'-0" (3048mm) | 70 lbs. (32kg) |
| ■ 22223 2'-6" (762mm) wheelbase for spans 11'-0" (3353mm) to 14'-0" (4267mm) | 79 lbs. (35.8kg) |
| ■ 22224 3'-0" (914mm) wheelbase for spans 15'-0" (4572mm) to 18'-0" (5486mm) | 88 lbs. (40kg) |
| ■ 22225 3'-6" (1066mm) wheelbase for spans 19'-0" (5791mm) to 21'-0" (6400mm) | 98 lbs. (44.5kg) |
| ■ 22226 4'-0" (1219mm) wheelbase for spans 22'-0" (6705mm) to 25'-0" (7620mm) | 107 lbs. (48.5kg) |
| ■ Rated Load 2200 lbs. (1000kg) | |
| ■ No safety cable included | |

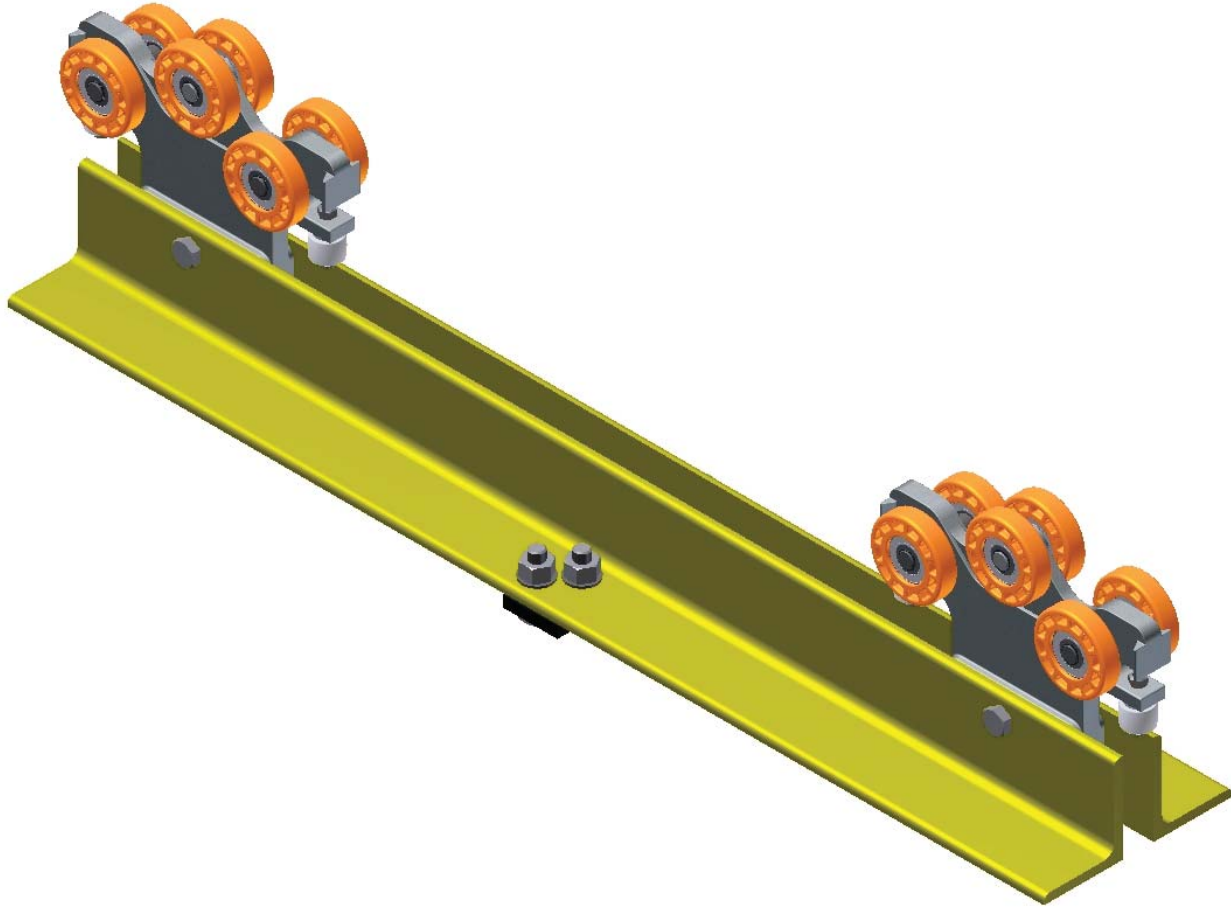


22055 ETA-8 DUAL RIGID MOUNT END TRUCK

WITHOUT KICKUP
RATED LOADS OF 2200 LBS. [1000 Kg.]
WEIGHT: 30 LBS. [13.6 Kg.]



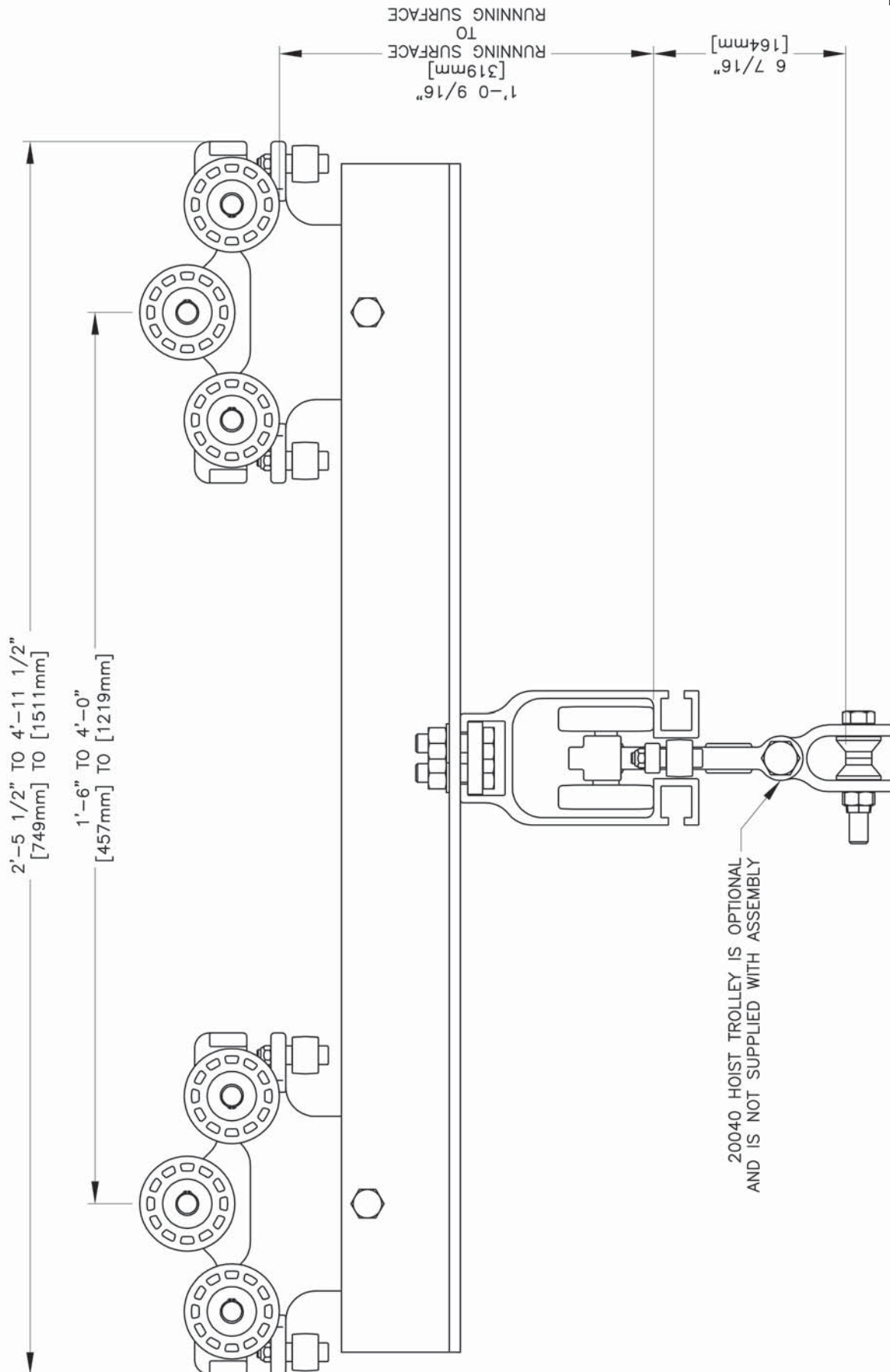
ETA-8 RIGID END TRUCKS WITHOUT KICKUP
DUAL TROLLEY END TRUCK AT EACH
END OF CRANE GIRDER.
RATED LOAD: 2200 lbs. [1000 Kg.]
NO SAFETY CABLE INCLUDED



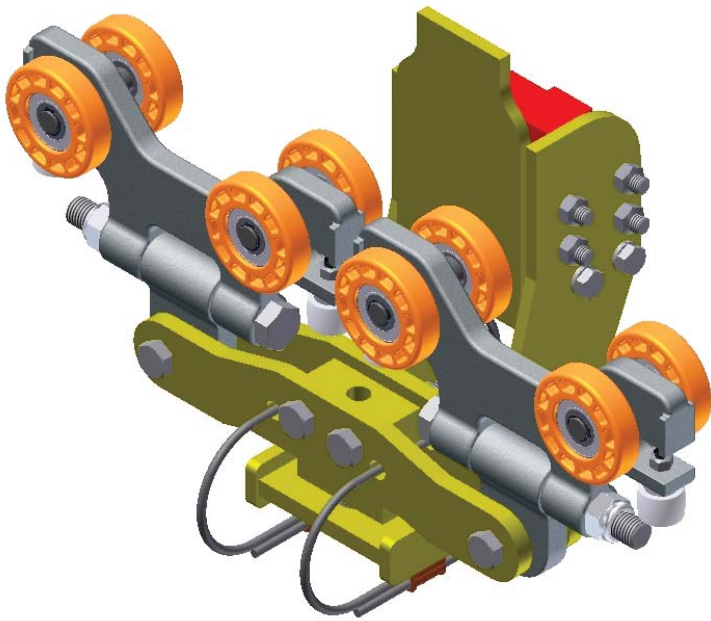
ETA-8 RIGID END TRUCKS WITH KICKUP

- End truck assemblies for single girder bridge cranes to run on ETA-8 Runway
- Attaches to ETA-4, ETA-5 and ETA-8 Bridges.

	Weight
■ 22227 1'-6" (457mm) wheelbase for spans 3'-0" (914mm) to 6'-0" (1829mm)	63 lbs. (28.5kg)
■ 22228 2'-0" (609mm) wheelbase for spans 7'-0" (2133mm) to 10'-0" (3048mm)	72 lbs. (32.6kg)
■ 22229 2'-6" (762mm) wheelbase for spans 11'-0" (3353mm) to 14'-0" (4267mm)	81 lbs. (36.7kg)
■ 22230 3'-0" (914mm) wheelbase for spans 15'-0" (4572mm) to 18'-0" (5486mm)	90 lbs. (40.8kg)
■ 22231 3'-6" (1066mm) wheelbase for spans 19'-0" (5791mm) to 21'-0" (6400mm)	99 lbs. (45kg)
■ 22232 4'-0" (1219mm) wheelbase for spans 22'-0" (6705mm) to 25'-0" (7620mm)	108 lbs. (49kg)
■ Rated Load 2200 lbs. (1000kg)	
■ No safety cable included	

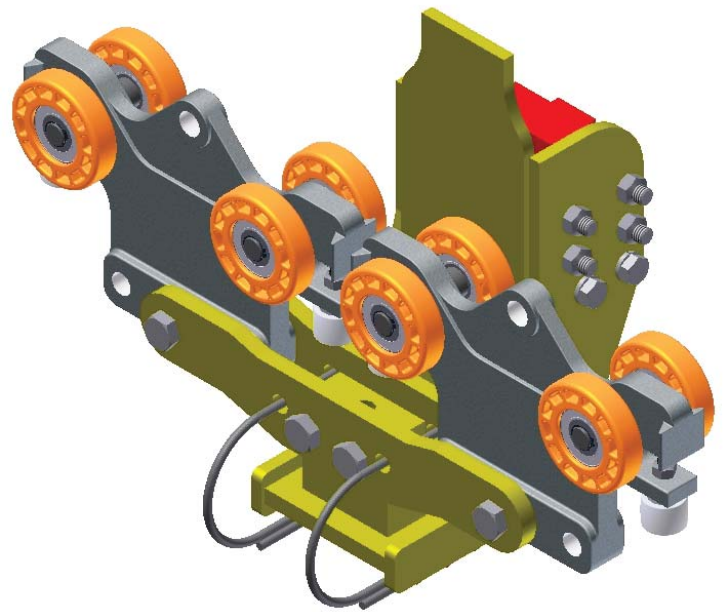


ETA-8 RIGID END TRUCKS WITH KICKUP
 DUAL TROLLEY END TRUCK AT EACH
 END OF CRANE GIRDER.
 RATED LOAD: 2000 lbs. [907 Kg.]
 NO SAFETY CABLE INCLUDED



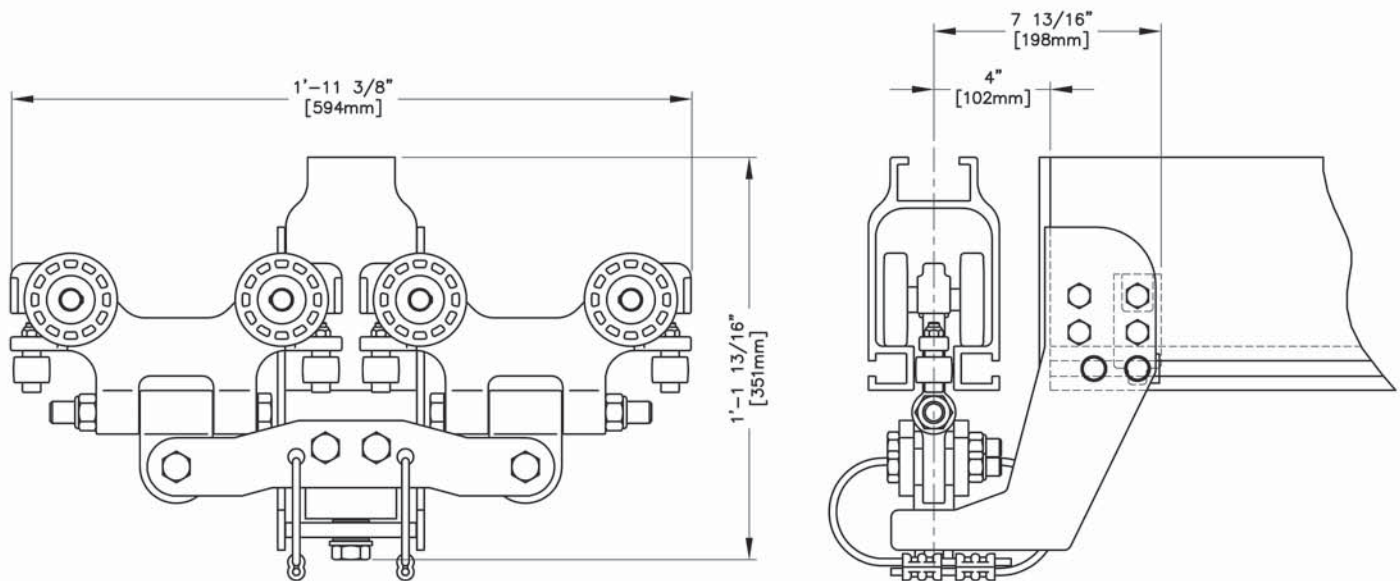
22620 ETA-8 Articulating Low Headroom
End Truck

- To operate on ETA-8.
- Rated Load 2200 lbs. (1000kg)

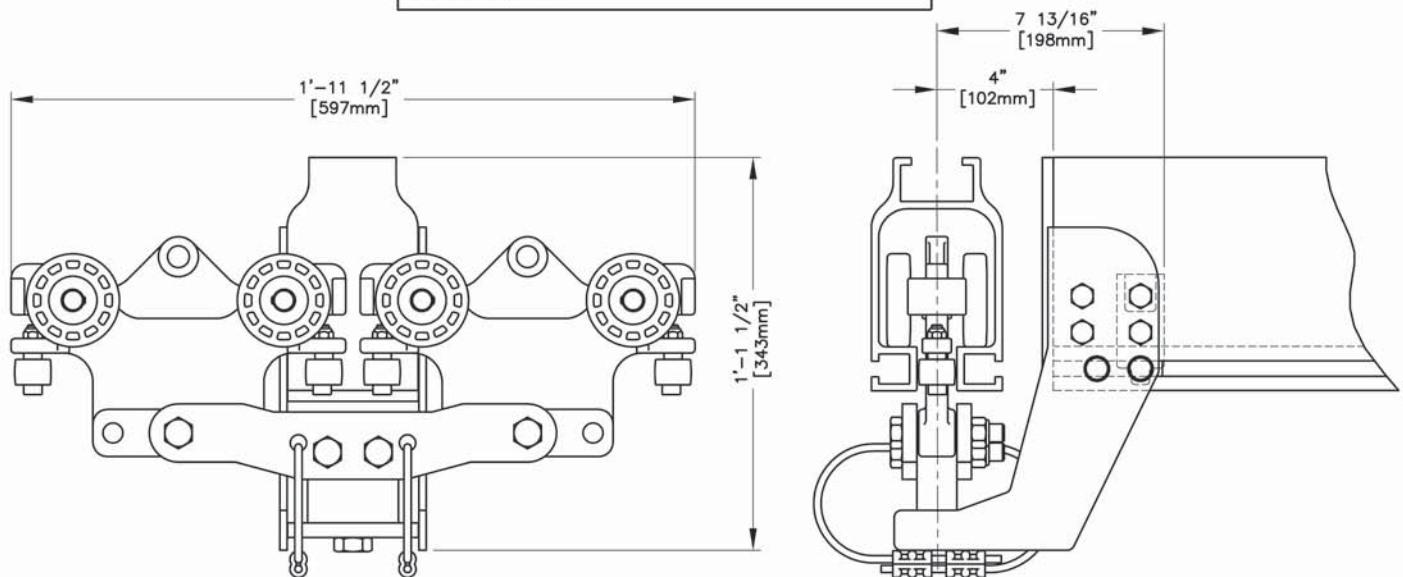


22625 ETA-8 Rigid Low Headroom
End Truck

- To operate on ETA-8.
- Rated Load 2200 lbs. (1000kg)



22620 ETA-8 ARTICULATING LOW HEAD ROOM END TRUCK
 DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
 RATED LOAD: 2200 lbs. [1000 Kg.]
 WEIGHT: 45 lbs. [20.41 Kg.]



22625 ETA-8 RIGID LOW HEAD ROOM END TRUCK
 DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
 RATED LOAD: 2200 lbs. [1000 Kg.]
 WEIGHT: 45 lbs. [20.41 Kg.]



STANDARD RAIL END TRUCKS (WITHOUT KICKUP WHEELS)

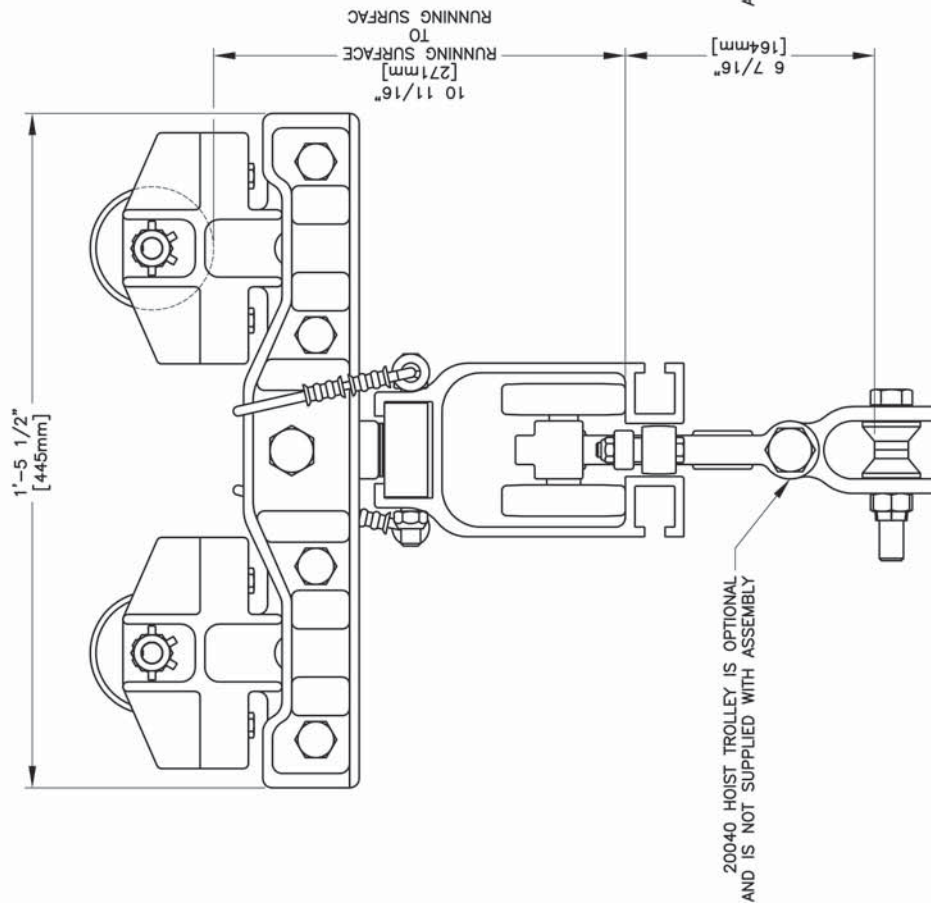
- End truck assemblies for bridge cranes.
Rated Load 1100 lbs. (500kg)
- **22199** MBC-500-3-325 End Truck to run on 3.25 Patent Track. Rated Load 1100 lbs. (500kg)
- **22200** MBC-500-3-333 End Truck to run on S6x12.5. Rated Load 1100 lbs. (500kg)
- **22201** MBC-500-3-4-266 End Truck to run on S4x7.7. Rated Load 1100 lbs. (500kg)

- Please consult factory for end trucks to ride on Metric Beams.



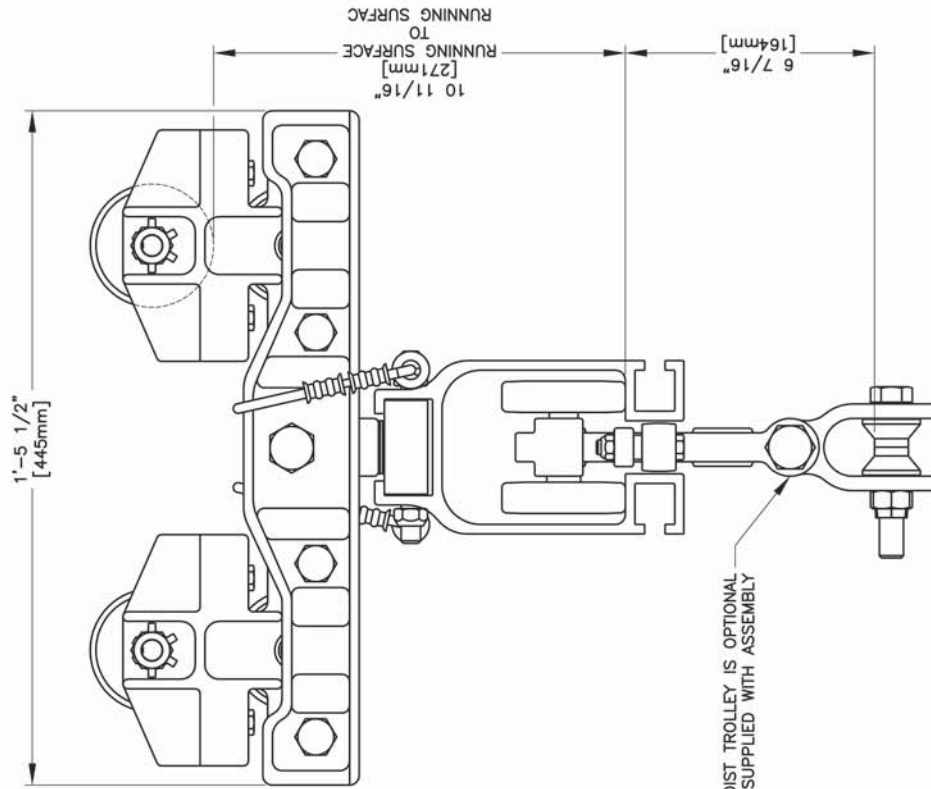
STANDARD RAIL END TRUCKS (WITH KICKUP WHEELS)

- End truck assemblies for bridge cranes.
Rated Load 1100 lbs. (500kg)
- **22208** MBC-500-3-325 End Truck to run on 3.25 Patent Track. Rated Load 1100 lbs. (500kg)
- **22210** MBC-500-3-333 End Truck to run on S6x12.5. Rated Load 1100 lbs. (500kg)
- **22212** MBC-500-3-4-266 End Truck to run on S4x7.7. Rated Load 1100 lbs. (500kg)



STANDARD RAIL END TRUCKS (WITHOUT KICKUP WHEELS)

DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
 RATED LOAD: 1100 lbs. [500 Kg.]
 22198 MBC-500-3-325 END TRUCK TO RUN ON 3.25 PATENT TRACK.
 22200 MBC-500-3-333 END TRUCK TO RUN ON S6x12.5.
 22201 MBC-500-3-4-2.66 END TRUCK TO RUN ON S4x7.7.
 WEIGHT: 33 LBS. [14.96 Kg.]



STANDARD RAIL END TRUCKS (WITH KICKUP WHEELS)

DUAL TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
 RATED LOAD: 1100 lbs. [500 Kg.]
 22208 MBC-500-3-325 END TRUCK TO RUN ON 3.25 PATENT TRACK.
 22210 MBC-500-3-333 END TRUCK TO RUN ON S6x12.5.
 22212 MBC-500-3-4-2.66 END TRUCK TO RUN ON S4x7.7.
 WEIGHT: 36 LBS. [16.33 Kg.]



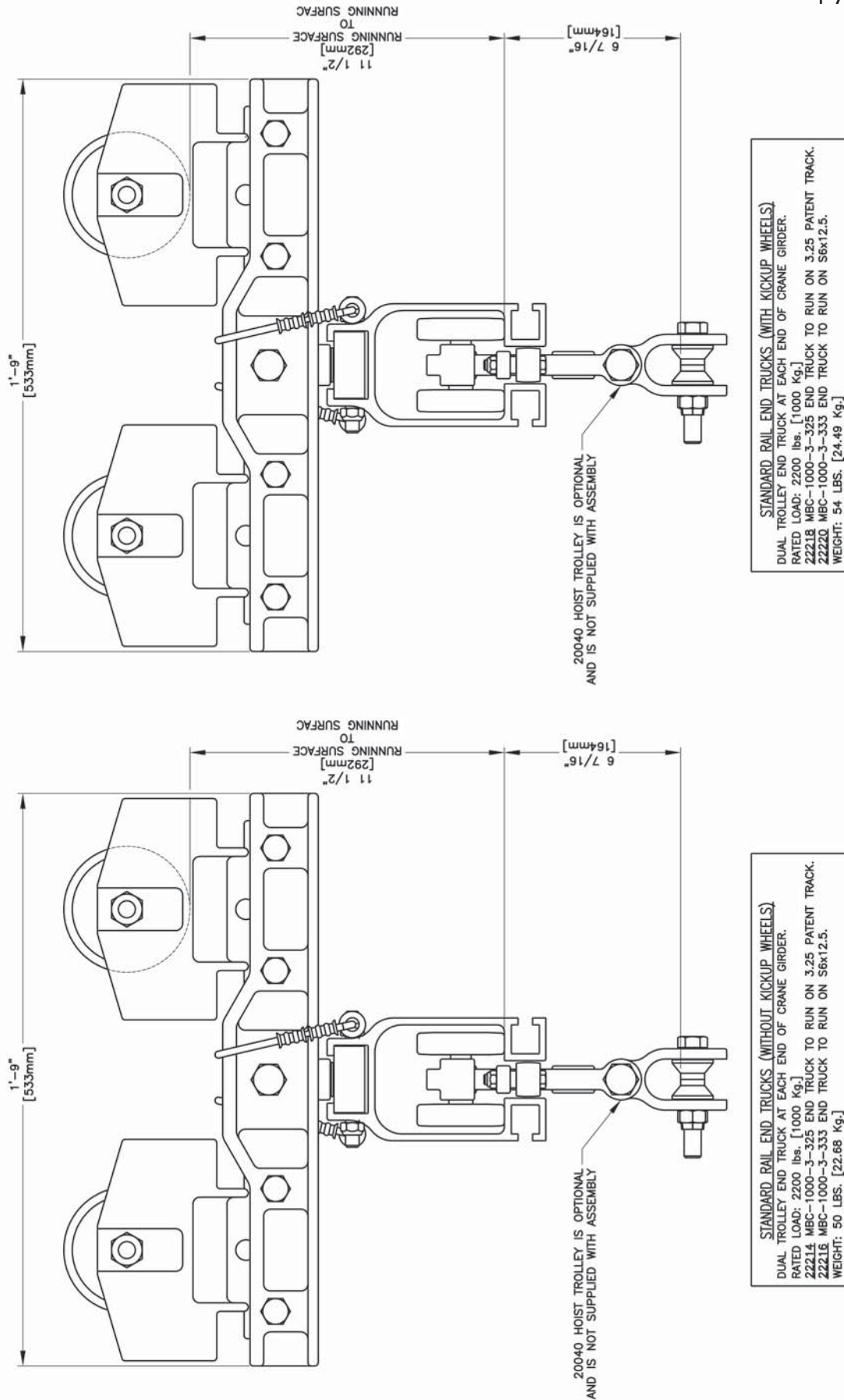
STANDARD RAIL END TRUCKS (WITHOUT KICKUP WHEELS)

- End truck assemblies for bridge cranes. Rated Load 2200 lbs. (1000kg)
 - **22214** MBC-1000-3-325 End Truck to run on 3.25 Patent Track. Rated Load 2200 lbs. (1000kg)
 - **22216** MBC-1000-3-333 End Truck to run on S6x12.5. Rated Load 2200 lbs. (1000kg)
- Please consult the factory for end trucks to ride on metric beams.



STANDARD RAIL END TRUCKS (WITH KICKUP WHEELS)

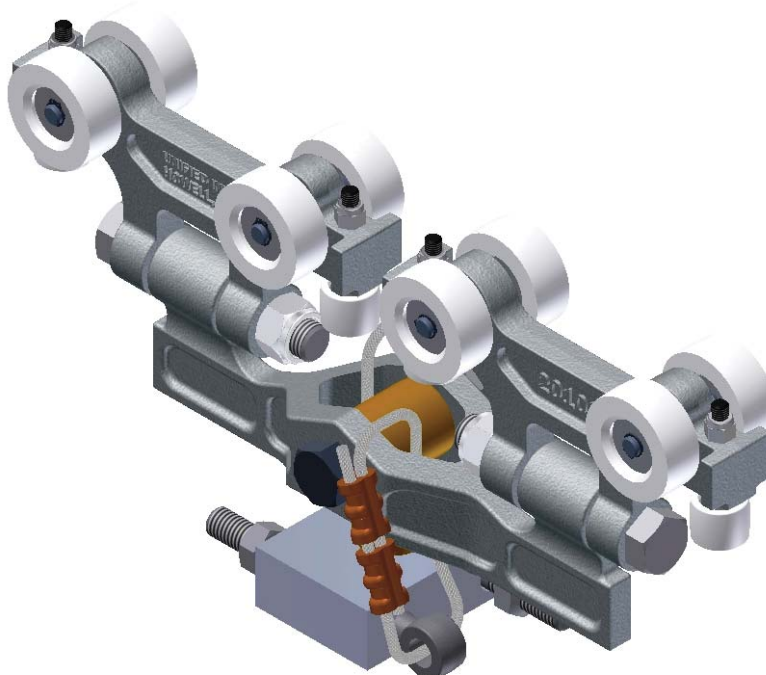
- End truck assemblies for bridge cranes. Rated Load 2200 lbs. (1000kg)
- **22218** MBC-1000-3-325 End Truck to run on 3.25 Patent Track. Rated Load 2200 lbs. (1000kg)
- **22220** MBC-1000-3-333 End Truck to run on S6x12.5. Rated Load 2200 lbs. (1000kg)





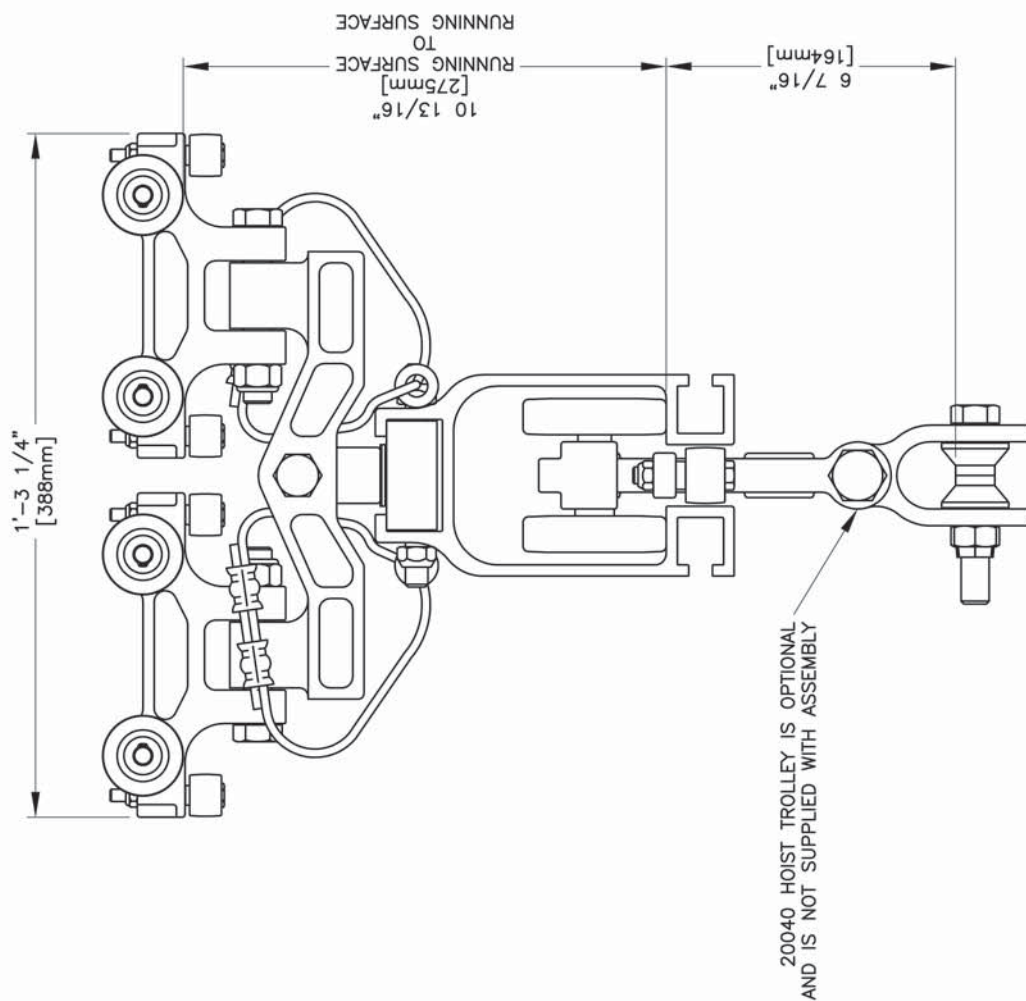
22519 ETA-8 SINGLE END TRUCK

- To operate on ETA-4 and ETA-5 Runway
- Rated Load 550 lbs. (250kg)



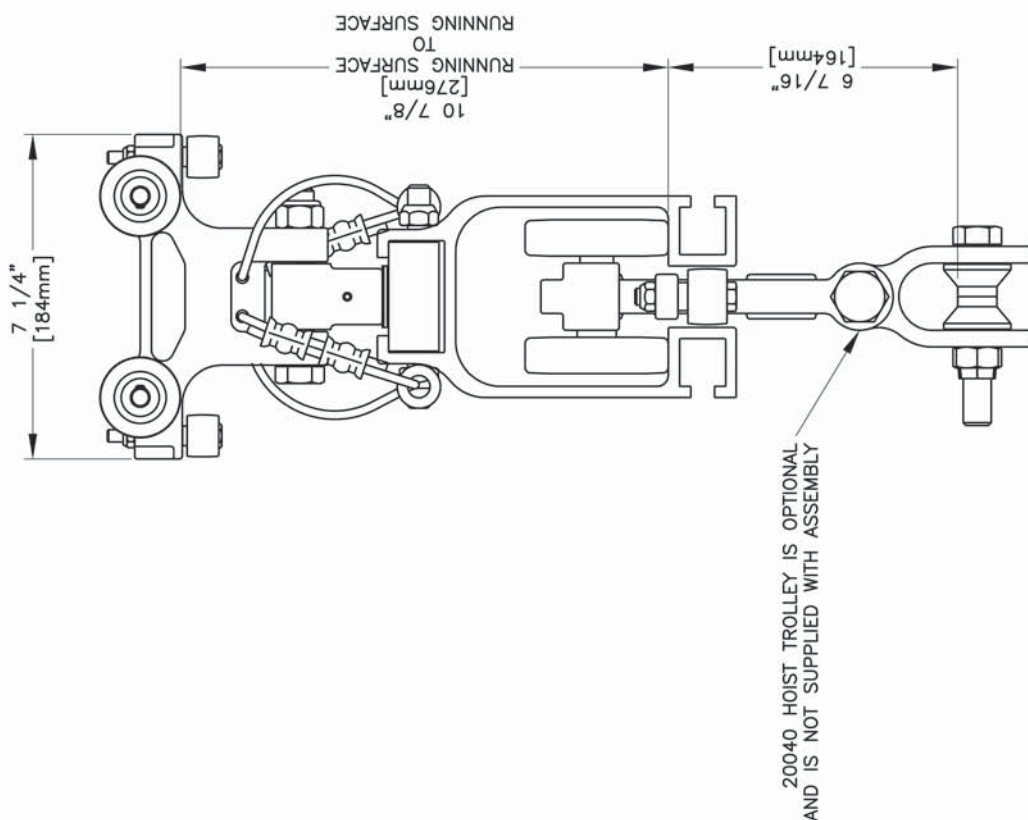
22528 ETA-8 DUAL END TRUCK

- To operate on ETA-4 and ETA-5 Runway
- Rated Load 1100 lbs. (500kg)



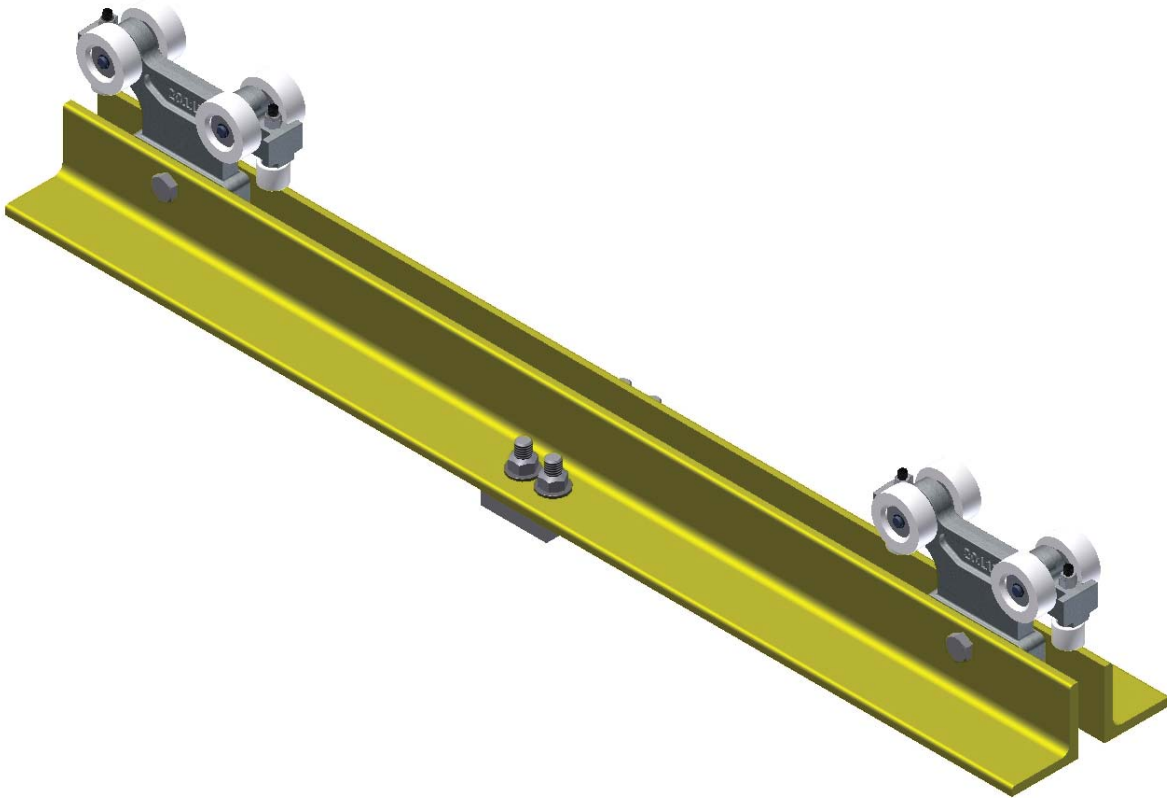
22528 DUAL END TRUCK

SINGLE TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
 RATED LOAD: 1100 lbs. [500 Kg.]
 WEIGHT: 10 lbs. [4.54 Kg.]



22519 SINGLE END TRUCK

SINGLE TROLLEY END TRUCK AT EACH END OF CRANE GIRDER.
 RATED LOAD: 550 lbs. [250 Kg.]
 WEIGHT: 7 lbs. [3.18 Kg.]

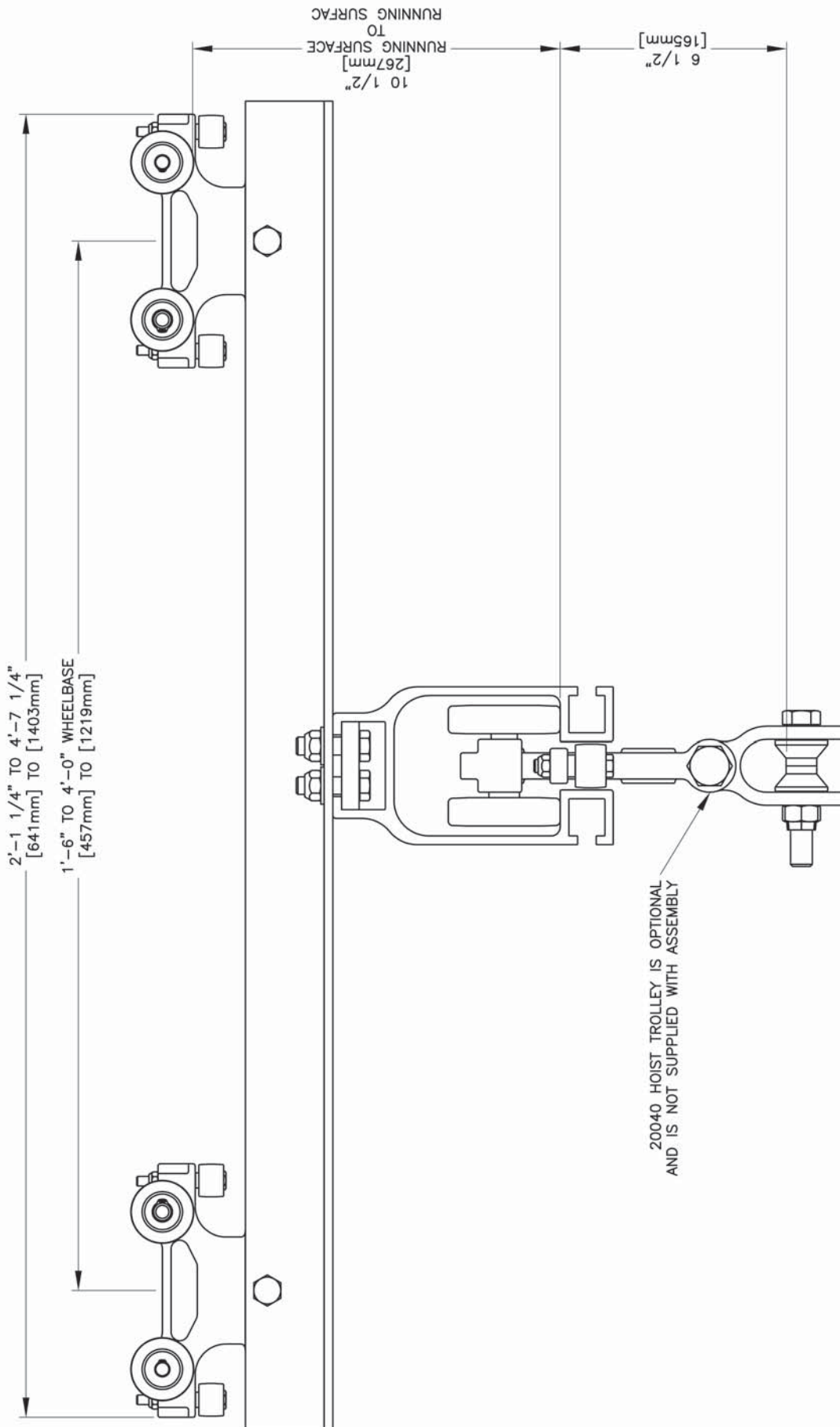


ETA-4/5 RIGID END TRUCK

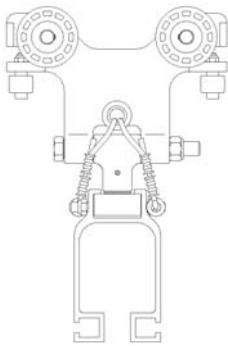
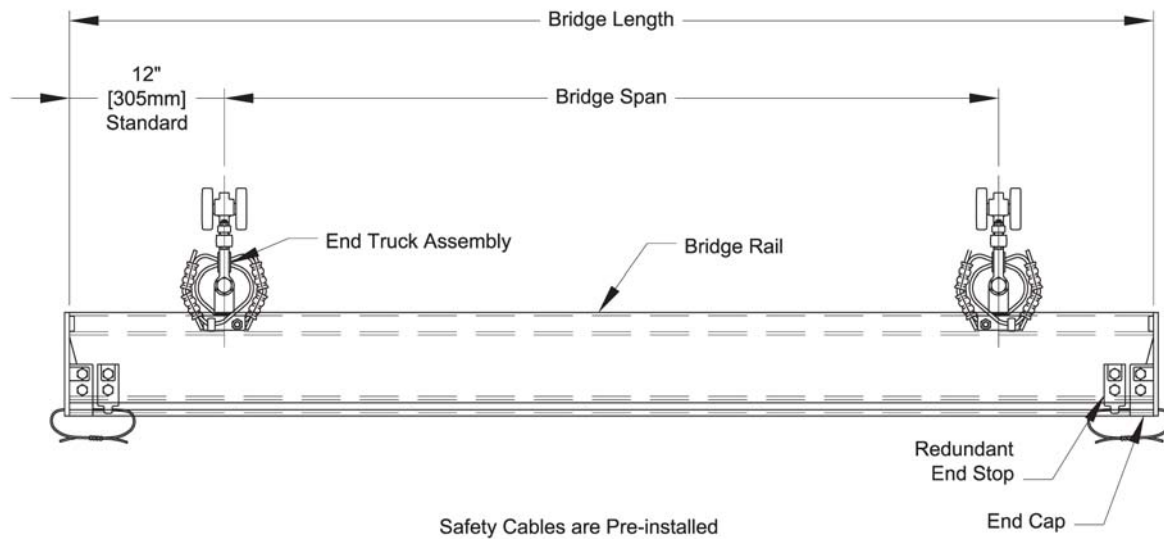
- End truck assemblies for single girder bridge cranes to run on ETA-4/5 Runways.
- Attaches to ETA-4, ETA-5 and ETA-8 Bridges.
- **22546** 1'-6" (457mm) wheelbase for spans 2'-0" (609mm) to 5'-0" (1524mm)
- **22547** 2'-0" (609mm) wheelbase for spans 6'-0" (1829mm) to 9'-0" (2743mm)
- **22548** 2'-6" (762mm) wheelbase for spans 10'-0" (3048mm) to 13'-0" (3962mm)
- **22549** 3'-0" (914mm) wheelbase for spans 14'-0" (4267mm) to 17'-0" (5182mm)
- **22550** 3'-6" (1066mm) wheelbase for spans 18'-0" (5486mm) to 20'-0" (6096mm)
- **22551** 4'-0" (1219mm) wheelbase for spans 21'-0" (6400mm) to 25'-0" (7620mm)
- No safety cable included
- Rated Load 1100 lbs. (500kg)

Weight

24 lbs. (10.8kg)
28 lbs. (12.7kg)
32 lbs. (14.5kg)
36 lbs. (16.3kg)
40 lbs. (18.1kg)
44 lbs. (20kg)



ETA-4 RIGID END TRUCK
DUAL TROLLEY END TRUCK AT EACH
END OF AN ETA-8 CRANE GIRDER.
RATED LOAD: 1100 lbs. [500 Kg.]
NO SAFETY CABLE INCLUDED



The Bridge Crane Assembly Consists of:

- One bridge beam (section of rail)
- Two end truck assemblies (mounted to the bridge with a trolley to roll inside of the runway, safety cables are pre-installed)
- Double end stops (UII Standard)

Example (Bridge Rail only)

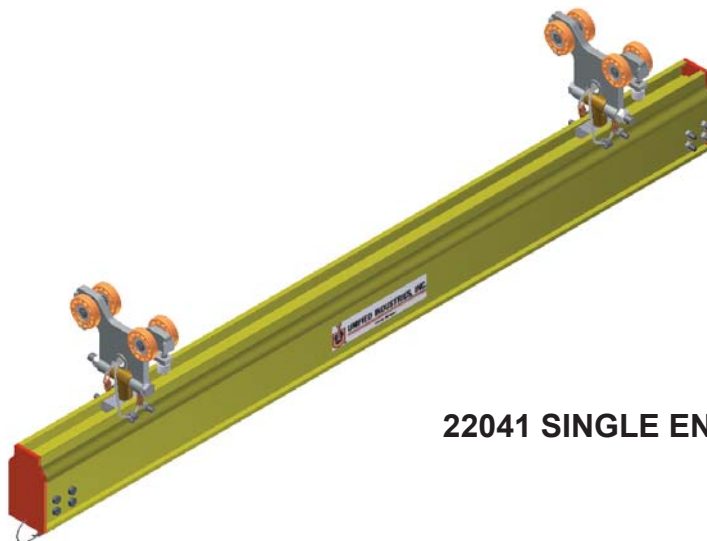
Order Number:

ETA8|BR|08

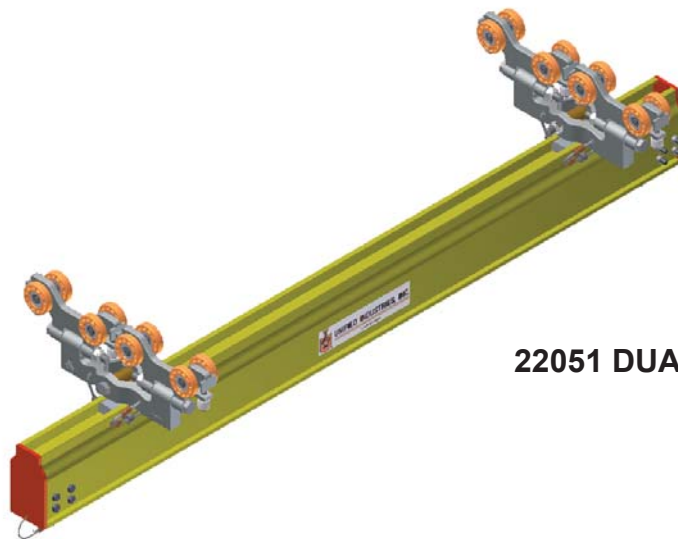
Total Bridge Length (in Feet)

Type of Bridge Rail

- Round up to the nearest foot (Cut to 8'-6" = ETA8BR09)



22041 SINGLE END TRUCK

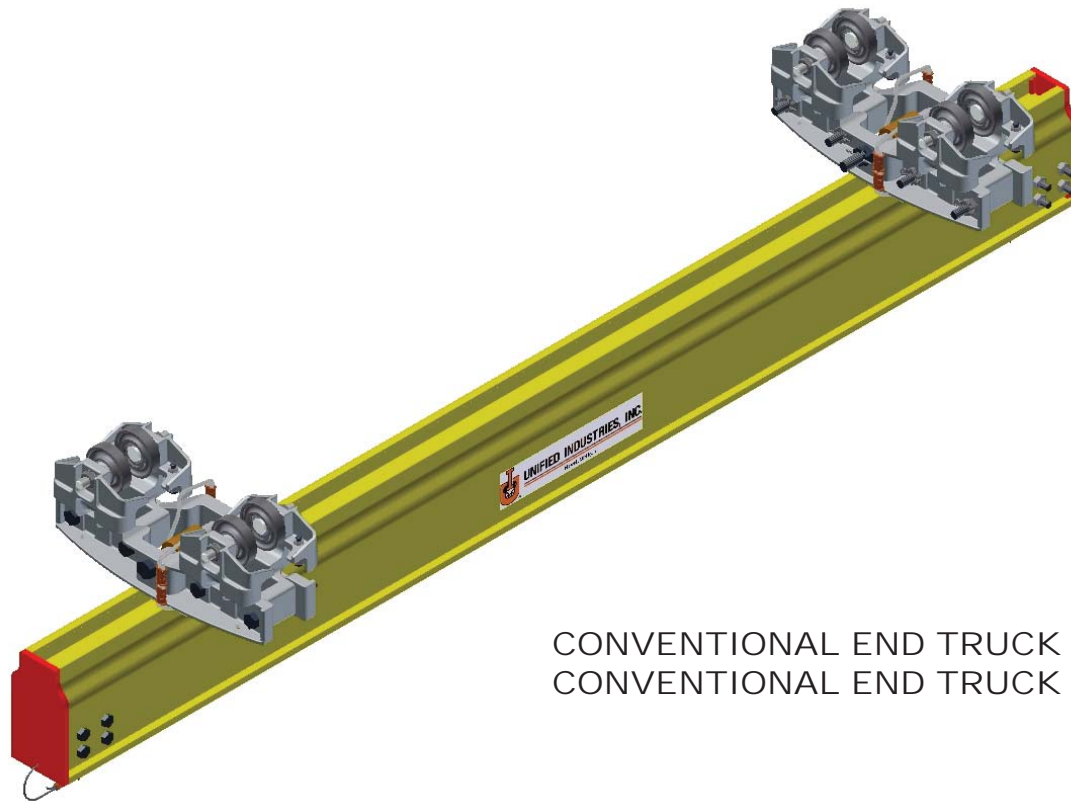


22051 DUAL END TRUCK

Unified ETA-8 single girder bridge cranes consist of two end truck assemblies (either single, dual or rigid carrier trolleys) supporting an aluminum enclosed bridge girder. Bridge girder has bolted polyurethane end caps at each end, completing assembly.

Unified ETA-8 single girder bridge cranes for rated loads to 2200 lbs. (1000kg)

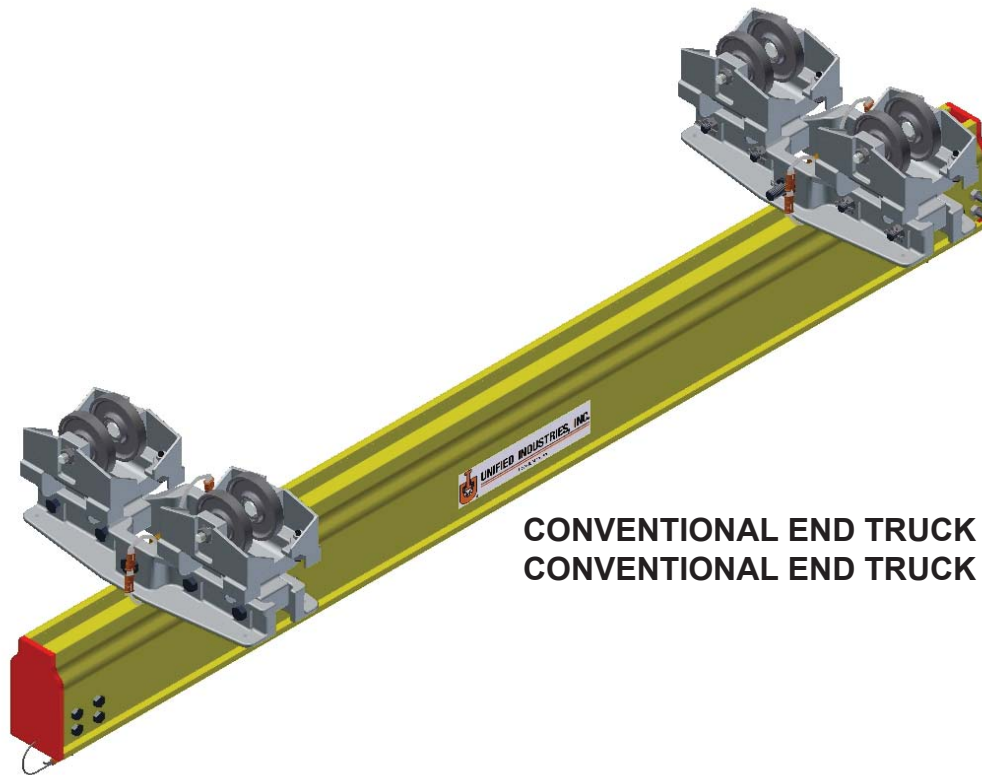
- Standard overhang each end 12 inches (305mm)
- Overhangs up to 48 inches (1219mm), consult factory for application review
- Counter thrust trolleys for countering extended loads are available
- Paint color - specify when ordering
- Air festooning brackets and assemblies are available
- Small tool or messenger cable trolleys available.
- Standard redundant end stops



CONVENTIONAL END TRUCK (W/O KICK-UP)
CONVENTIONAL END TRUCK (KICK-UP)

Designed Specifically For Existing Runway Systems

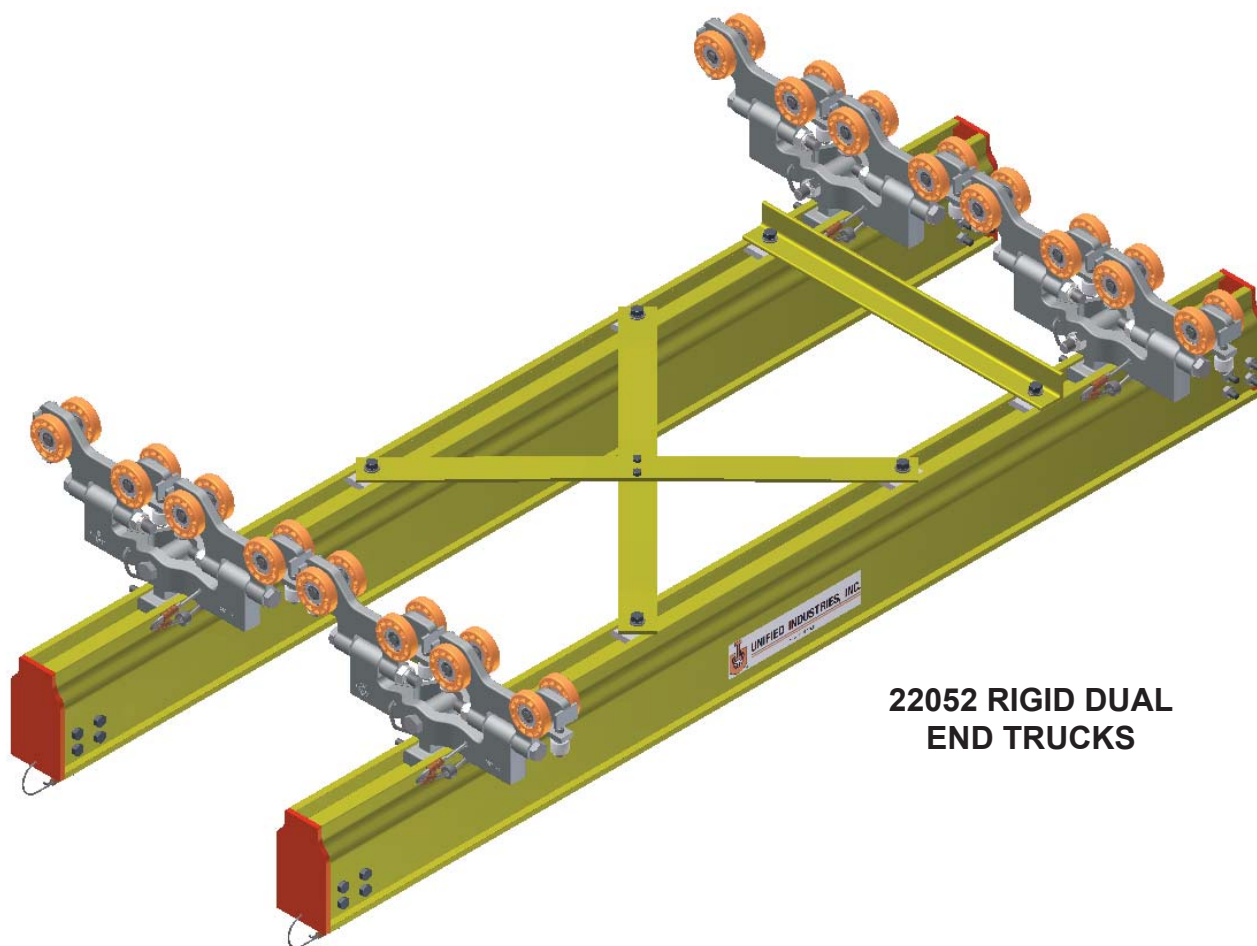
- **22199** end truck assembly MBC-500-3-325 without kickup wheel for operation on 3.25 patent track.
- **22200** end truck assembly MBC-500-3-333 without kickup wheel for operation on S6x12.5.
- **22201** end truck assembly MBC-500-3-4-266 without kickup wheel for operation on S4x7.7.
- **22208** end truck assembly MBC-500-3-325 with kickup wheel for operation on 3.25 patent track.
- Consult the factory for end trucks to ride on metric beams.
- **22210** end truck assembly MBC-500-3-333 with kickup wheel for operation on S6x12.5.
- **22212** end truck assembly MBC-500-3-4-266 without kickup wheel for operation on S4x7.7.
- Self aligning end trucks
- High tensile almag alloy castings make up end truck assembly
- Counter thrust trolleys for countering extended loads are available
- Low inertia: 1-2% of load
- Paint color-specify when ordering
- Double end stops standard
- End Trucks are equipped with 3.2" (82mm) steel wheels with permanently sealed precision ball bearings
- Optional Rigid Mount



CONVENTIONAL END TRUCK (W/O KICK-UP)
CONVENTIONAL END TRUCK (WITH KICK-UP)

Designed Specifically For Existing Runway Systems

- **22214** end truck assembly MBC-1000-3-325 without kickup wheel for operation on 3.25 patent track.
- **22216** end truck assembly MBC-1000-3-333 without kickup wheel for operation on S6x12.5.
- **22218** end truck assembly MBC-1000-3-325 with kickup wheel for operation on 3.25 patent track.
- **22220** end truck assembly MBC-1000-3-333 with kickup wheel for operation on S6x12.5.
- Consult factory for end trucks to ride on metric beams.
- Self aligning end trucks
- High tensile almag alloy casting make up end truck assembly
- Counter thrust trolleys for countering extended loads are available
- End truck carriers are equipped with 4.6" (117mm) steel wheels with permanently sealed precision ball bearings
- Steel side guide rollers with dual race ball bearings for smooth, quiet operation
- Low inertia: 1-2% of load
- Paint color-specify when ordering
- Standard redundant end stops
- Optional Rigid Mount

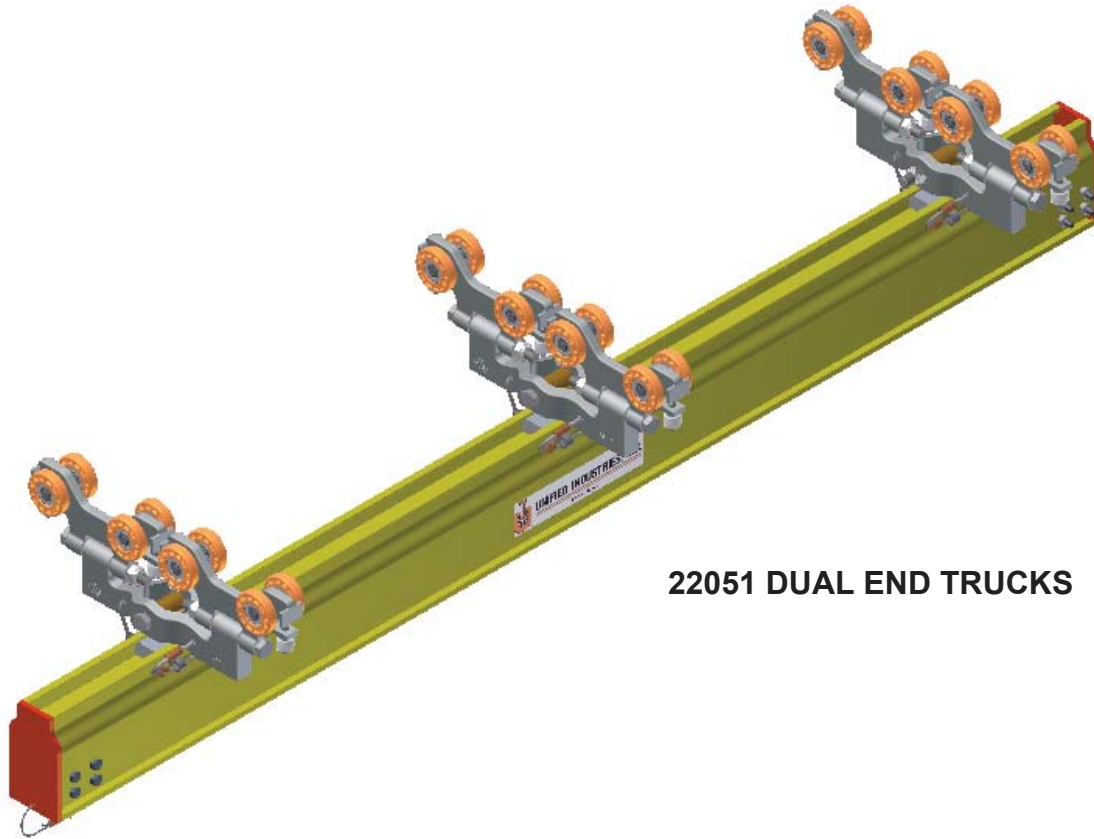


**22052 RIGID DUAL
END TRUCKS**

Unified ETA-8 double girder bridge cranes are used for suspending hoists, nut runners, indexing fixtures, mechanical grabs, etc.

ETA-8 double girder bridge cranes consist of four dual trolley end trucks supporting ETA-8 extruded aluminum bridge girders. Bridge girder has bolted polyurethane end caps at each end, completing assembly.

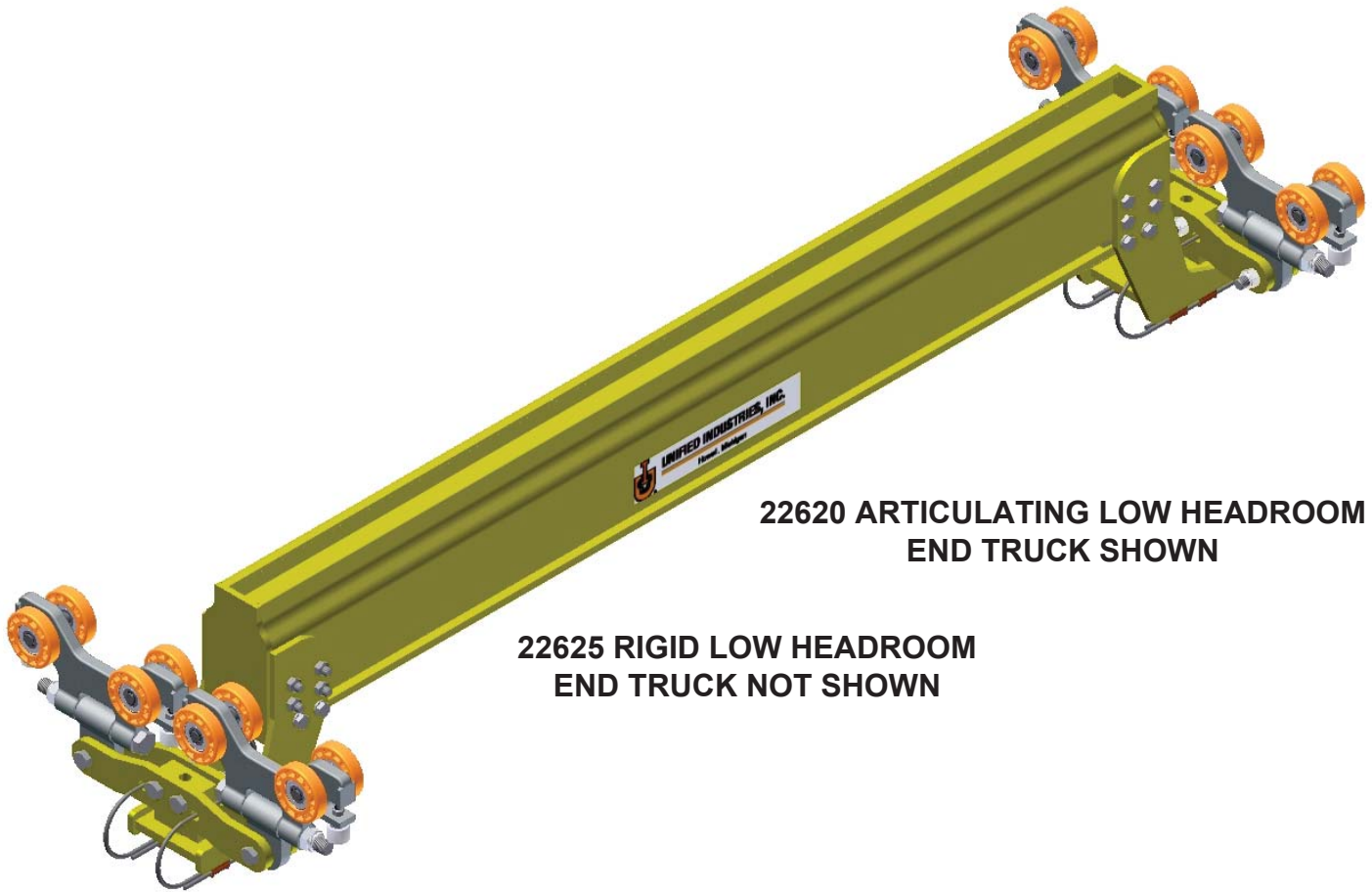
- Diagonal bracing to prohibit articulation
- 12" (305mm) standard overhang; specify when ordering
- Air line festoon brackets, trolleys and assemblies are available
- Paint color - specify when ordering
- Standard redundant end stops
- Longer overhangs consult factory



22051 DUAL END TRUCKS

Unified ETA-8 single girder tri-rail bridge crane equipped with three end truck assemblies **22051** dual end truck assemblies increases rated loads carrying when third rail is added. Bridge girder has bolted polyurethane end caps at each end, completing assembly. Tri-rail bridge cranes are used for hoist transfer of component parts or assemblies between stations.

- 12" (305mm) standard overhang at each end standard
- Anti-kick-up trolley available for end trucks
- Air line festooning brackets and assemblies available
- Festoon trolley or tag line slider available
- Paint color - specify when ordering
- Standard redundant end stops
- Longer overhangs consult factory

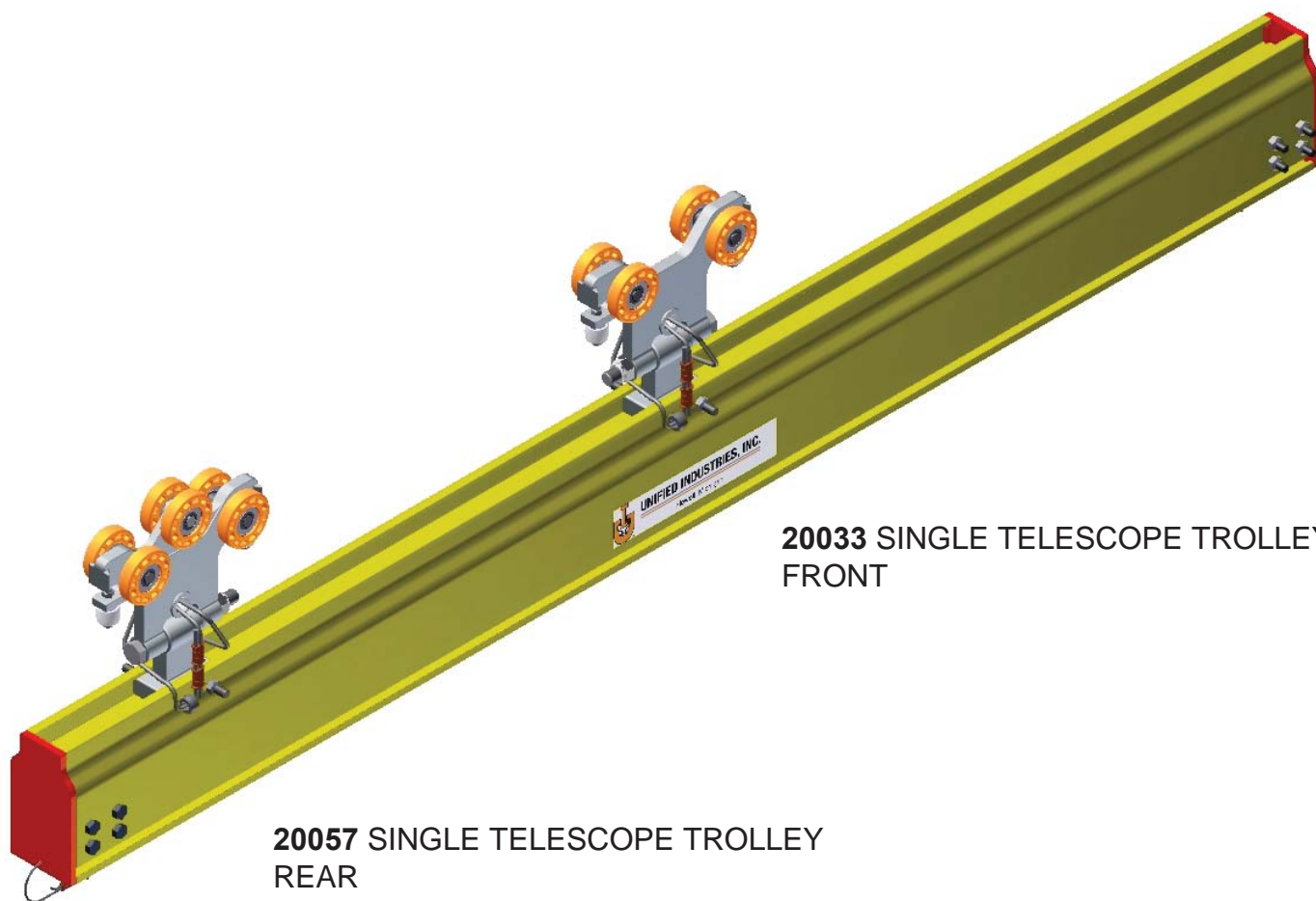


**22620 ARTICULATING LOW HEADROOM
END TRUCK SHOWN**

**22625 RIGID LOW HEADROOM
END TRUCK NOT SHOWN**

Unified ETA-8 single girder low headroom bridge crane consists of two end truck assemblies supporting an aluminum enclosed bridge girder. Bridge girder and runway girder are held at the same elevation with bolted construction and a urethane bumper at each end completing the assembly.

- Increased headroom in low areas
- Paint color - specify when ordering
- Air festooning brackets and assemblies available
- Small tool, festoon trolley or tag line slider available.
- Overhangs are not available



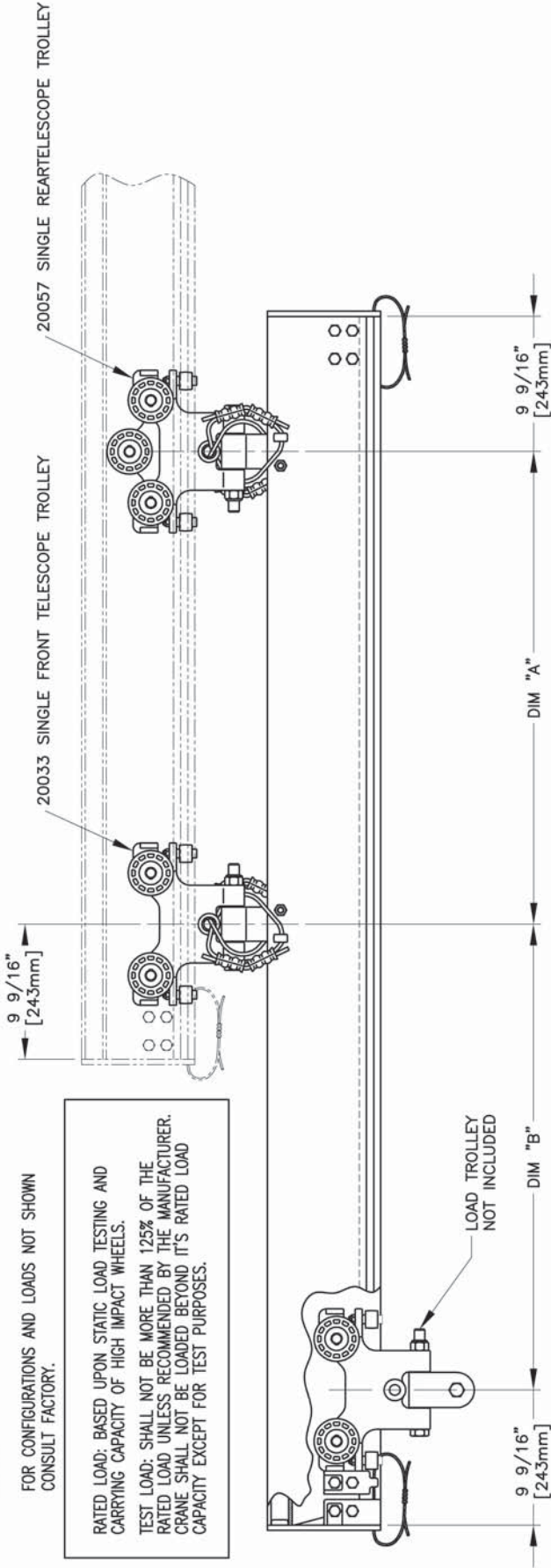
ETA-8 TELESCOPING UNITS

ETA-8 TELESCOPE UNIT WITH SINGLE TROLLEY FRONT AND REAR															
"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD	
		1/250	1/450			1/250	1/450			1/250	1/450			1/250	1/450
24 INCH	24 in.	475 lbs.	475 lbs.	36 INCH	24 in.	570 lbs.	570 lbs.	48 INCH	24 in.	635 lbs.	635 lbs.	60 INCH	24 in.	675 lbs.	675 lbs.
	36 in.	320 lbs.	320 lbs.		36 in.	465 lbs.	465 lbs.		36 in.	535 lbs.	535 lbs.		36 in.	585 lbs.	585 lbs.
	48 in.	230 lbs.	230 lbs.		48 in.	385 lbs.	385 lbs.		48 in.	480 lbs.	480 lbs.		48 in.	510 lbs.	510 lbs.
	60 in.	175 lbs.	175 lbs.		60 in.	280 lbs.	280 lbs.		60 in.	390 lbs.	390 lbs.		60 in.	450 lbs.	410 lbs.
	72 in.	140 lbs.	140 lbs.		72 in.	225 lbs.	225 lbs.		72 in.	315 lbs.	315 lbs.		72 in.	400 lbs.	300 lbs.

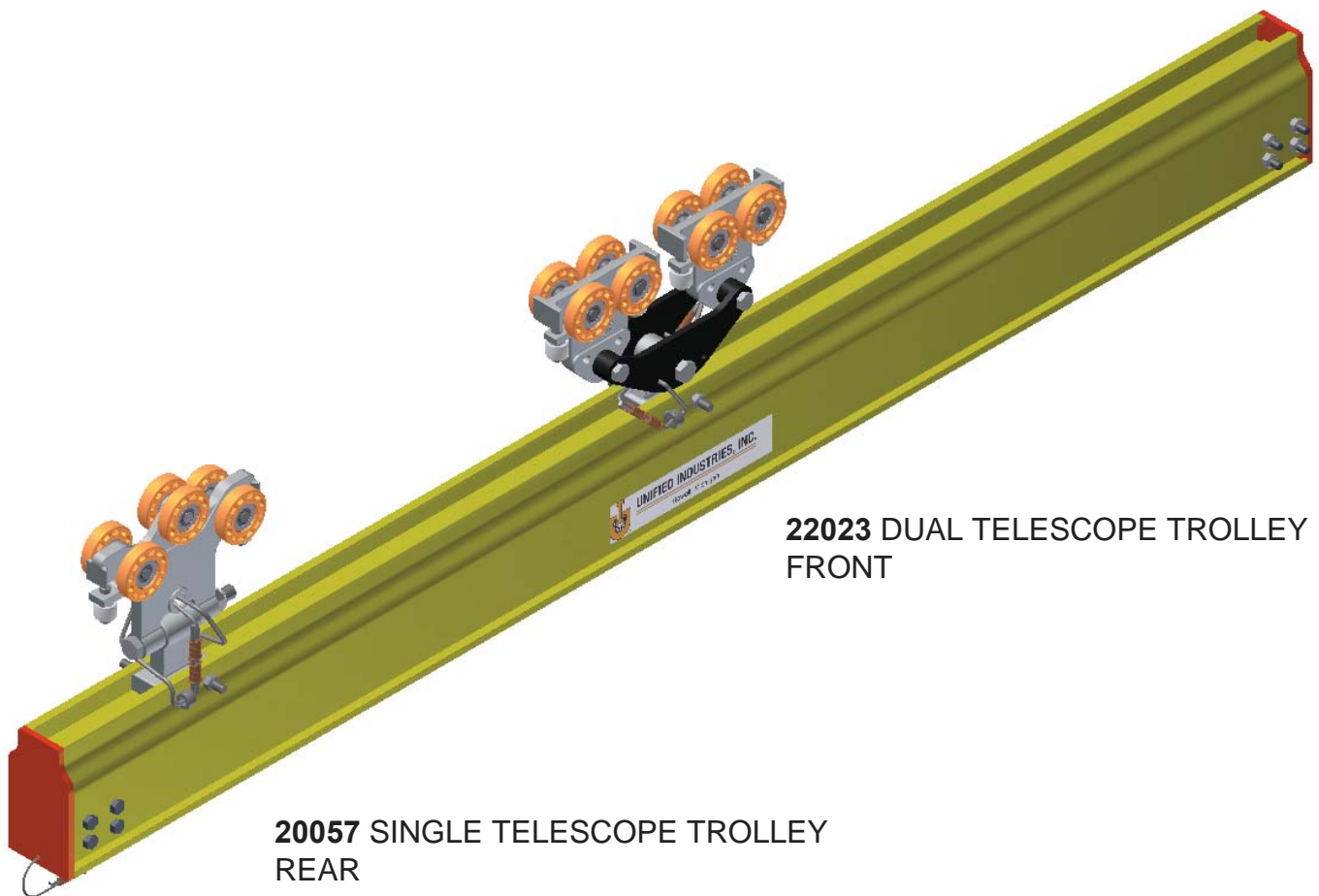
NOTE:

FOR CONFIGURATIONS AND LOADS NOT SHOWN
CONSULT FACTORY.

RATED LOAD: BASED UPON STATIC LOAD TESTING AND
CARRYING CAPACITY OF HIGH IMPACT WHEELS.
TEST LOAD: SHALL NOT BE MORE THAN 125% OF THE
RATED LOAD UNLESS RECOMMENDED BY THE MANUFACTURER.
CRANE SHALL NOT BE LOADED BEYOND IT'S RATED LOAD
CAPACITY EXCEPT FOR TEST PURPOSES.



ETA-8 TELESCOPE UNIT WITH SINGLE TROLLEY FRONT AND REAR															
"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD	
		1/250	1/450			1/250	1/450			1/250	1/450			1/250	1/450
610	610mm	215 Kg.	215 Kg.	914	610mm	259 Kg.	259 Kg.	1219	610mm	288 Kg.	288 Kg.	1524	610mm	306 Kg.	306 Kg.
	914mm	145 Kg.	145 Kg.		914mm	211 Kg.	211 Kg.		914mm	265 Kg.	265 Kg.				
	1219mm	104 Kg.	104 Kg.		1219mm	166 Kg.	166 Kg.		1219mm	231 Kg.	231 Kg.				
	1524mm	79 Kg.	79 Kg.		1524mm	127 Kg.	127 Kg.		1524mm	204 Kg.	186 Kg.				
	1829mm	64 Kg.	64 Kg.		1829mm	102 Kg.	102 Kg.		1829mm	143 Kg.	143 Kg.		1829mm	181 Kg.	136 Kg.



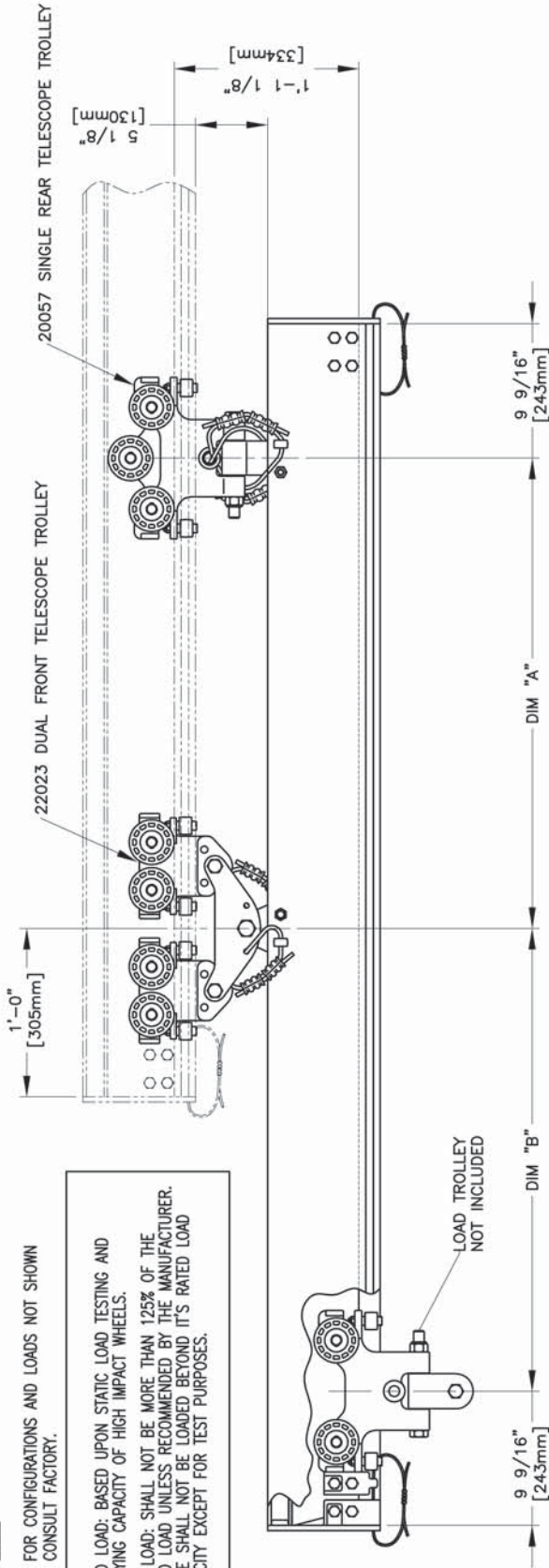
ETA-8 TELESCOPING UNITS

ETA-8 TELESCOPE UNIT WITH DUAL FRONT AND SINGLE REAR TROLLEYS											
"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD	
		1/250	1/450			1/250	1/450			1/250	1/450
24 INCH	24 in.	475 lbs.	475 lbs.	36 INCH	24 in.	760 lbs.	760 lbs.	48 INCH	24 in.	1000 lbs.	1000 lbs.
	36 in.	320 lbs.	320 lbs.		36 in.	495 lbs.	495 lbs.		36 in.	855 lbs.	855 lbs.
	48 in.	230 lbs.	230 lbs.		48 in.	365 lbs.	365 lbs.		48 in.	630 lbs.	590 lbs.
	60 in.	175 lbs.	175 lbs.		60 in.	280 lbs.	280 lbs.		60 in.	495 lbs.	410 lbs.
72 in.	140 lbs.	140 lbs.	72 in.	225 lbs.	225 lbs.	72 in.	315 lbs.	315 lbs.			
72 INCH	24 in.	1000 lbs.	1000 lbs.	60 INCH	24 in.	1000 lbs.	1000 lbs.	72 in.	24 in.	1000 lbs.	1000 lbs.
	36 in.	1000 lbs.	780 lbs.		36 in.	855 lbs.	855 lbs.		36 in.	1000 lbs.	780 lbs.
	48 in.	770 lbs.	520 lbs.		48 in.	630 lbs.	590 lbs.		48 in.	770 lbs.	520 lbs.
	60 in.	610 lbs.	370 lbs.		60 in.	495 lbs.	410 lbs.		60 in.	610 lbs.	370 lbs.
72 in.	500 lbs.	275 lbs.	72 in.	405 lbs.	300 lbs.	72 in.	500 lbs.	275 lbs.			

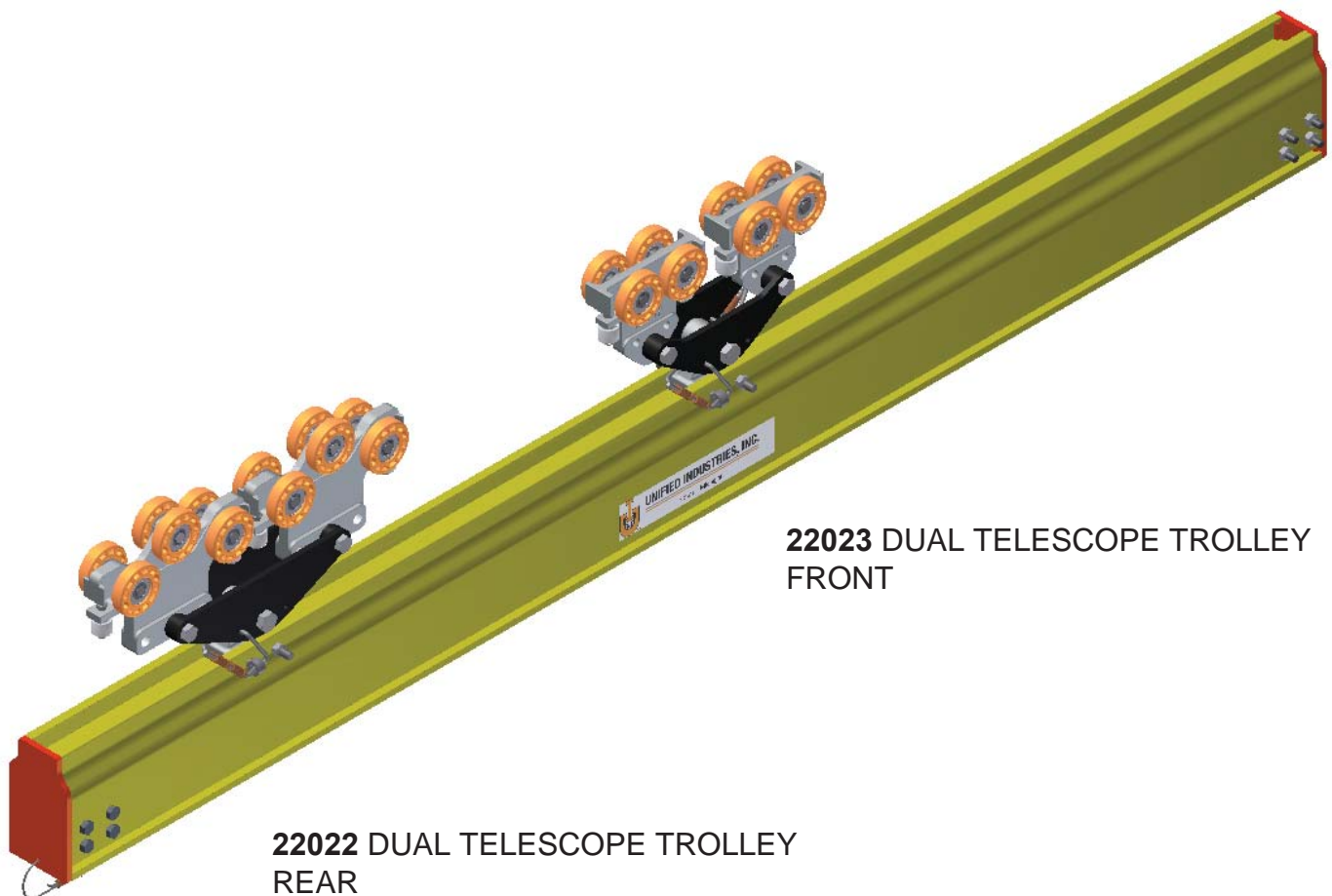
NOTE:

FOR CONFIGURATIONS AND LOADS NOT SHOWN
CONSULT FACTORY.

RATED LOAD: BASED UPON STATIC LOAD TESTING AND
CARRYING CAPACITY OF HIGH IMPACT WHEELS.
TEST LOAD: SHALL NOT BE MORE THAN 125% OF THE
RATED LOAD UNLESS RECOMMENDED BY THE MANUFACTURER.
CRANE SHALL NOT BE LOADED BEYOND IT'S RATED LOAD
CAPACITY EXCEPT FOR TEST PURPOSES.



ETA-8 TELESCOPE UNIT WITH DUAL FRONT AND SINGLE REAR TROLLEYS											
"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD	
		1/250	1/450			1/250	1/450			1/250	1/450
610	610mm	215 Kg.	215 Kg.	914	610mm	345 Kg.	345 Kg.	1219	610mm	454 Kg.	454 Kg.
	914mm	145 Kg.	145 Kg.		914mm	225 Kg.	225 Kg.		914mm	388 Kg.	354 Kg.
	1219mm	104 Kg.	104 Kg.		1219mm	166 Kg.	166 Kg.		1219mm	285 Kg.	236 Kg.
	1524mm	79 Kg.	79 Kg.		1524mm	127 Kg.	127 Kg.		1524mm	204 Kg.	168 Kg.
mm	1829mm	64 Kg.	64 Kg.	mm	1829mm	102 Kg.	102 Kg.	mm	1829mm	181 Kg.	136 Kg.
1829	610mm	454 Kg.	454 Kg.	1524	610mm	454 Kg.	454 Kg.	1524	610mm	454 Kg.	454 Kg.
	914mm	388 Kg.	354 Kg.		914mm	306 Kg.	306 Kg.		914mm	388 Kg.	354 Kg.
	1219mm	285 Kg.	236 Kg.		1219mm	225 Kg.	225 Kg.		1219mm	285 Kg.	236 Kg.
	1524mm	204 Kg.	168 Kg.		1524mm	177 Kg.	177 Kg.		1524mm	204 Kg.	168 Kg.
mm	1829mm	181 Kg.	136 Kg.	mm	1829mm	143 Kg.	143 Kg.	mm	1829mm	227 Kg.	125 Kg.



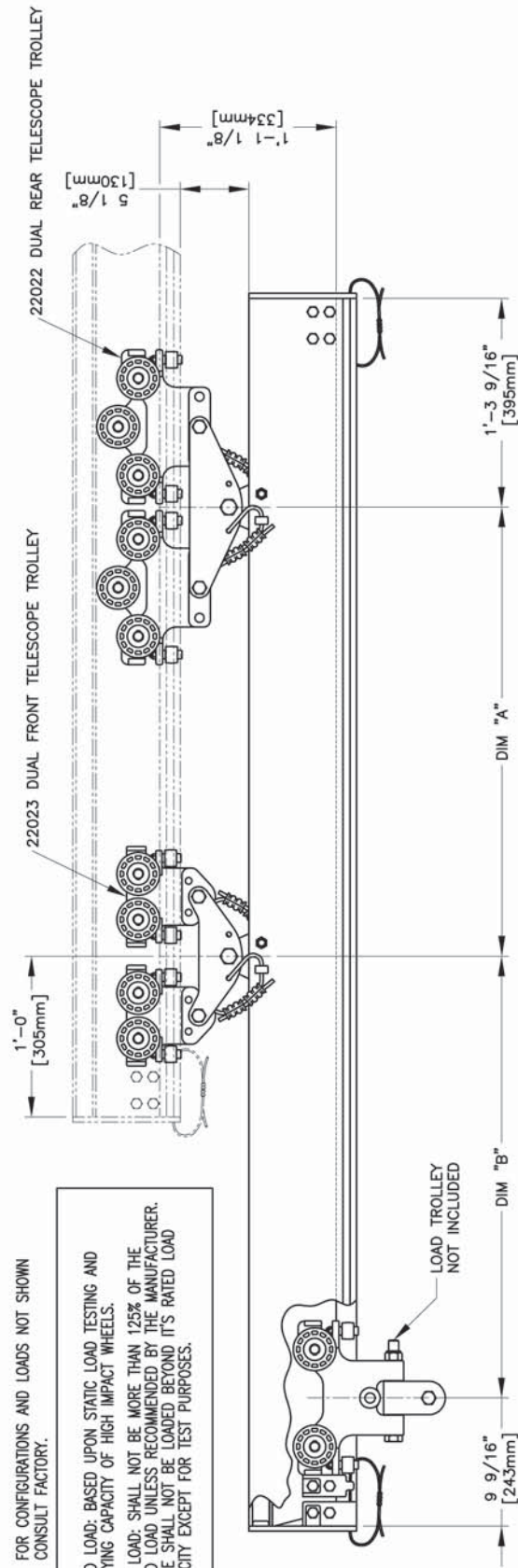
ETA-8 TELESCOPING UNITS

ETA-8 TELESCOPE UNIT WITH DUAL TROLLEYS FRONT AND REAR											
"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD	
		1/250	1/450			1/250	1/450			1/250	1/450
24 INCH	24 in.	975 lbs.	975 lbs.	36 INCH	24 in.	1170 lbs.	1170 lbs.	48 INCH	24 in.	1300 lbs.	1300 lbs.
	36 in.	655 lbs.	655 lbs.		36 in.	955 lbs.	955 lbs.		36 in.	1105 lbs.	990 lbs.
	48 in.	480 lbs.	480 lbs.		48 in.	740 lbs.	740 lbs.		48 in.	960 lbs.	850 lbs.
	60 in.	375 lbs.	375 lbs.		60 in.	580 lbs.	510 lbs.		60 in.	790 lbs.	455 lbs.
72 INCH	72 in.	305 lbs.	305 lbs.	72 in.	72 in.	475 lbs.	370 lbs.	72 in.	72 in.	615 lbs.	330 lbs.
24 INCH	24 in.	1460 lbs.	1340 lbs.	60 INCH	24 in.	1390 lbs.	1390 lbs.	60 INCH	24 in.	1390 lbs.	1390 lbs.
	36 in.	1290 lbs.	780 lbs.		36 in.	1210 lbs.	870 lbs.		36 in.	1210 lbs.	870 lbs.
	48 in.	950 lbs.	520 lbs.		48 in.	1050 lbs.	575 lbs.		48 in.	1050 lbs.	575 lbs.
	60 in.	680 lbs.	370 lbs.		60 in.	750 lbs.	410 lbs.		60 in.	750 lbs.	410 lbs.
72 INCH	72 in.	515 lbs.	275 lbs.	72 in.	72 in.	560 lbs.	300 lbs.	72 in.	72 in.	515 lbs.	275 lbs.

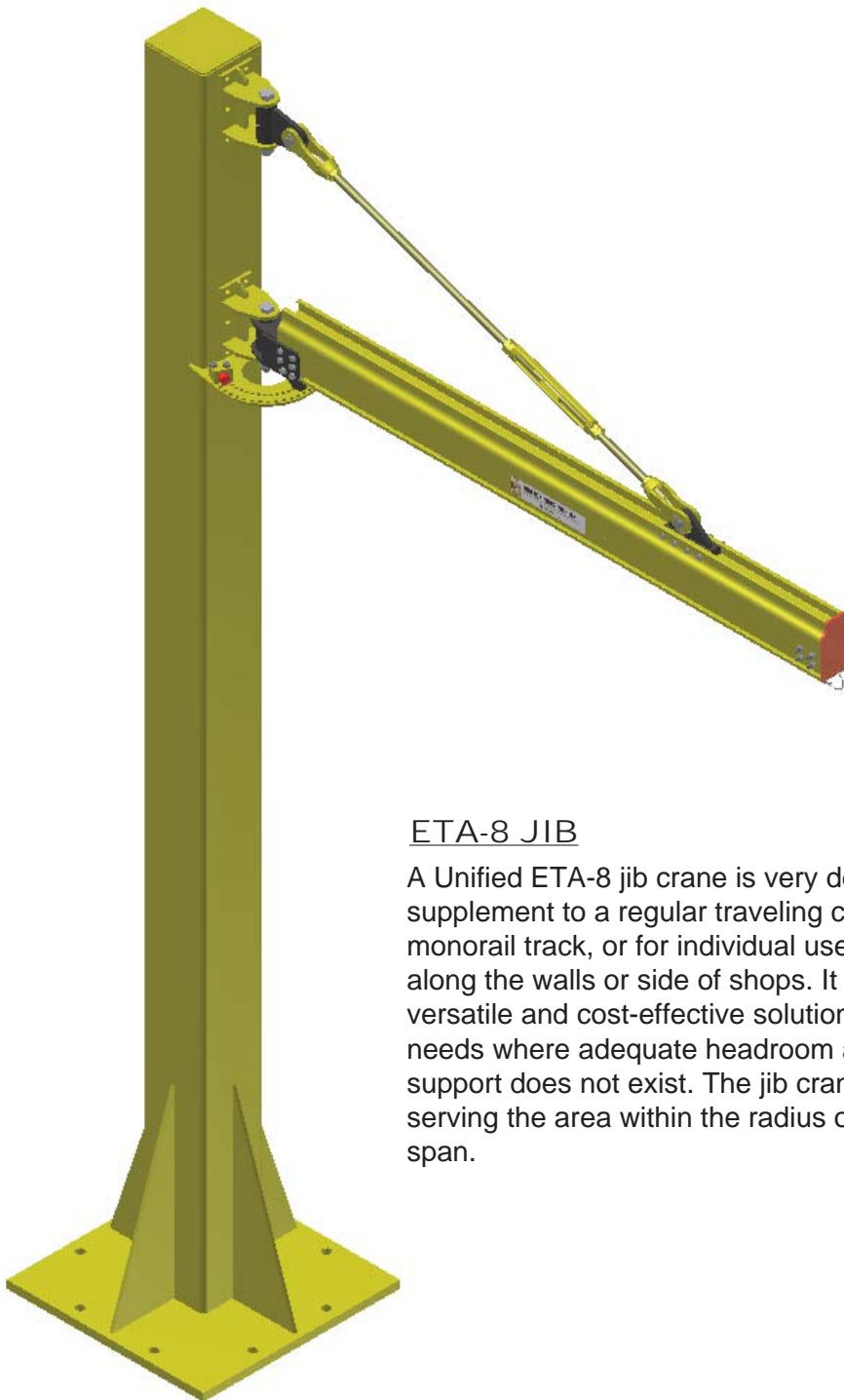
NOTE:

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TEST LOAD: SHALL NOT BE MORE THAN 125% OF THE
RATED LOAD UNLESS RECOMMENDED BY THE MANUFACTURER.
CRANE SHALL NOT BE LOADED BEYOND IT'S RATED LOAD
CAPACITY EXCEPT FOR TEST PURPOSES.



ETA-8 TELESCOPE UNIT WITH DUAL TROLLEY FRONT AND REAR											
"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD		"A"	"B"	RATED LOAD	
		1/250	1/450			1/250	1/450			1/250	1/450
610	610mm	442 Kg.	442 Kg.	914	610mm	531 Kg.	531 Kg.	1219	610mm	590 Kg.	590 Kg.
	914mm	297 Kg.	297 Kg.		914mm	433 Kg.	433 Kg.		914mm	501 Kg.	449 Kg.
	1219mm	218 Kg.	218 Kg.		1219mm	336 Kg.	336 Kg.		1219mm	435 Kg.	295 Kg.
	1524mm	170 Kg.	170 Kg.		1524mm	263 Kg.	231 Kg.		1524mm	358 Kg.	206 Kg.
mm	1829mm	138 Kg.	138 Kg.	mm	1829mm	215 Kg.	168 Kg.	mm	1829mm	279 Kg.	150 Kg.
1829	610mm	662 Kg.	608 Kg.	1829	610mm	630 Kg.	630 Kg.	1524	610mm	630 Kg.	630 Kg.
	914mm	585 Kg.	354 Kg.		914mm	549 Kg.	395 Kg.		914mm	549 Kg.	395 Kg.
	1219mm	431 Kg.	236 Kg.		1219mm	476 Kg.	261 Kg.		1219mm	476 Kg.	261 Kg.
	1524mm	308 Kg.	168 Kg.		1524mm	340 Kg.	186 Kg.		1524mm	340 Kg.	186 Kg.
mm	1829mm	234 Kg.	125 Kg.	mm	1829mm	254 Kg.	136 Kg.	mm	1829mm	254 Kg.	136 Kg.

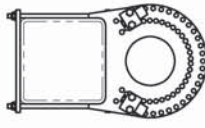


ETA-8 JIB

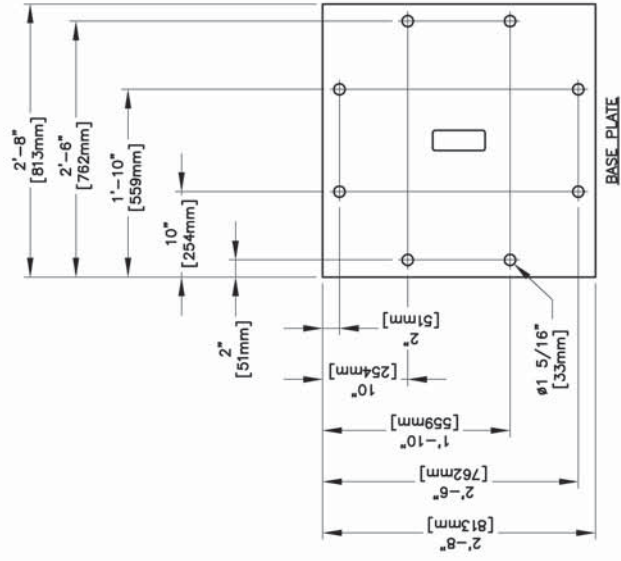
A Unified ETA-8 jib crane is very desirable as a supplement to a regular traveling crane or monorail track, or for individual use in bays and along the walls or side of shops. It provides a versatile and cost-effective solution to your crane needs where adequate headroom and structural support does not exist. The jib crane rotates 220° serving the area within the radius of the beam's span.



98545 10" JIB COLUMN INDEX STOP ASSEMBLY

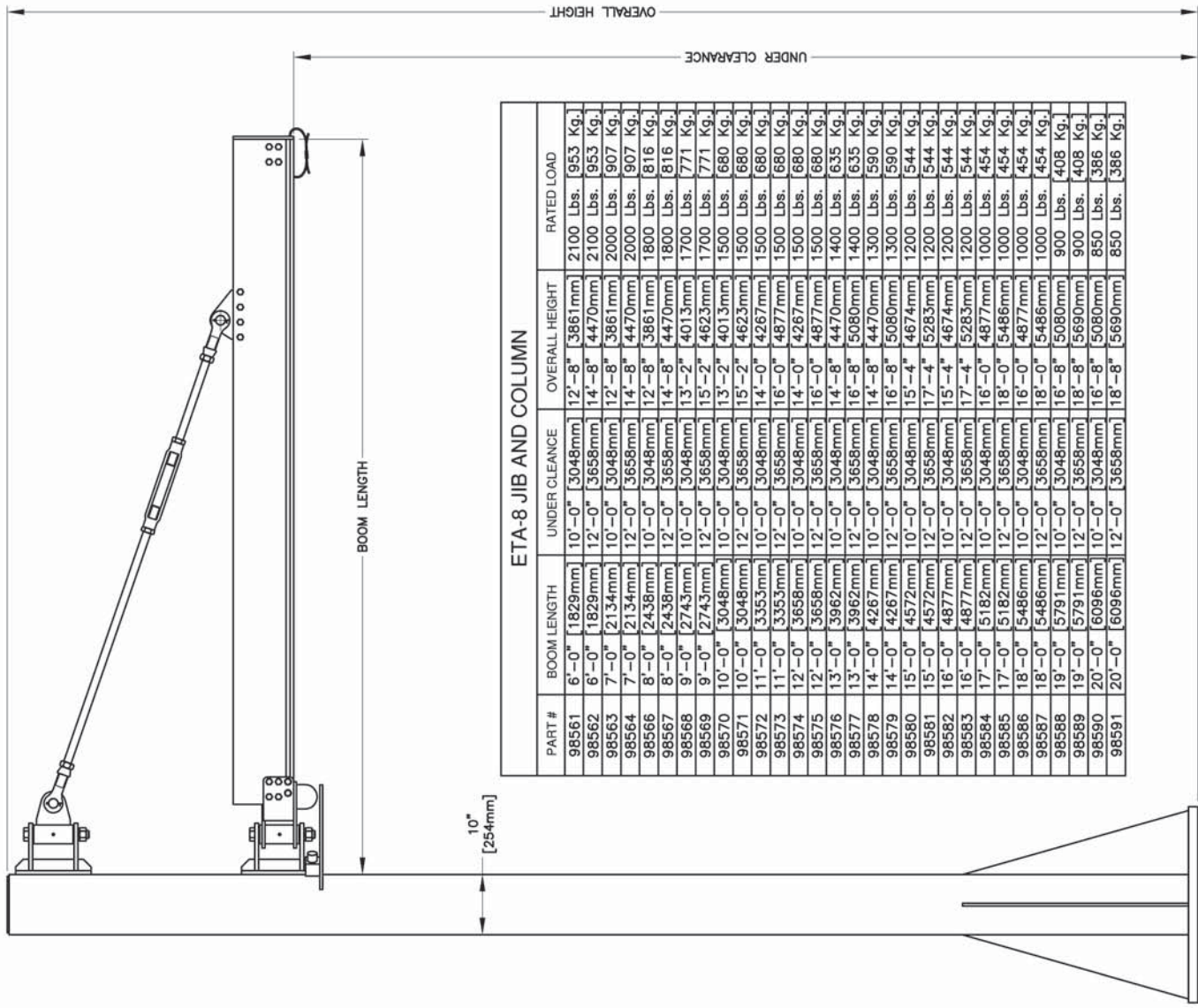


98546 10" BOLTED JIB COLUMN INDEX STOP ASSEMBLY

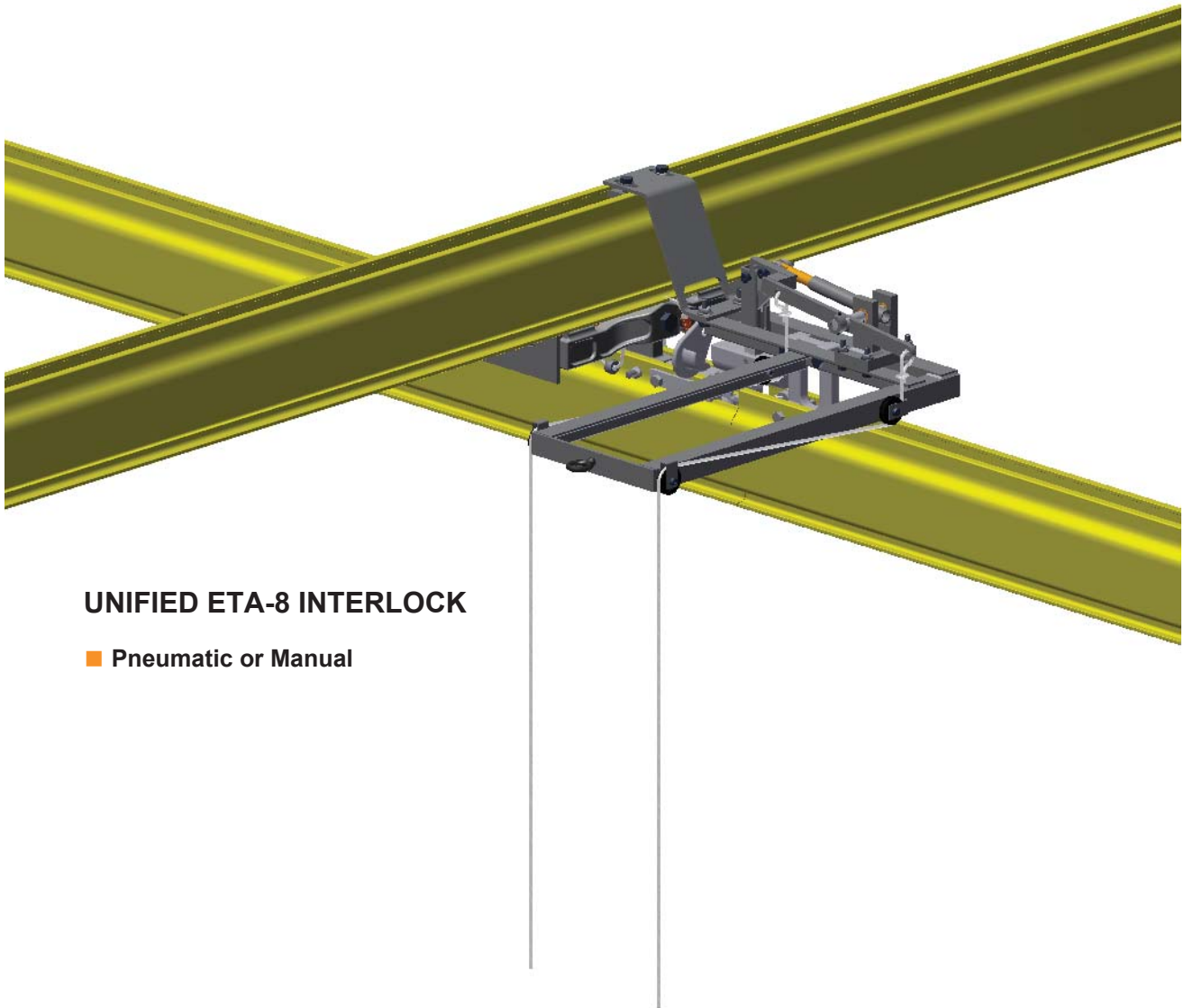


TEST LOAD SHALL NOT BE MORE THAN 125% OF THE RATED LOAD UNLESS RECOMMENDED BY THE MANUFACTURER. COLUMN SHALL NOT BE LOADED BEYOND IT'S RATED LOAD CAPACITY EXCEPT FOR TEST PURPOSES.

NOTES:
1. CONSULT FACTORY FOR UNDEREANCES MORE THAN 12'-0" [3658mm].
2. THE MINIMUM ANCHOR REQUIREMENT IS A #1" [25mm] WEDGE TYPE ANCHOR BOLT WITH 6" [152mm] STANDARD EMBEDMENT IN 3" [76mm] 3000 PSI [2070 N/cm²] CONCRETE.



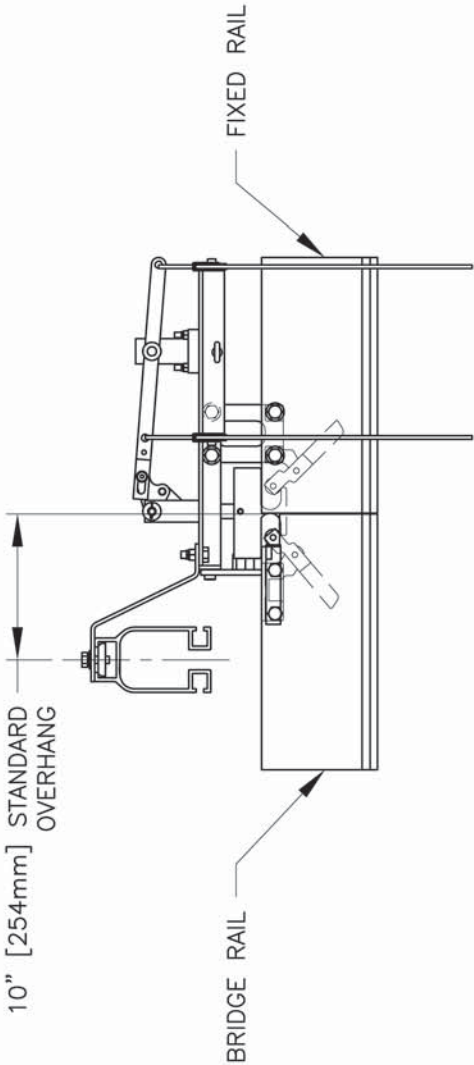
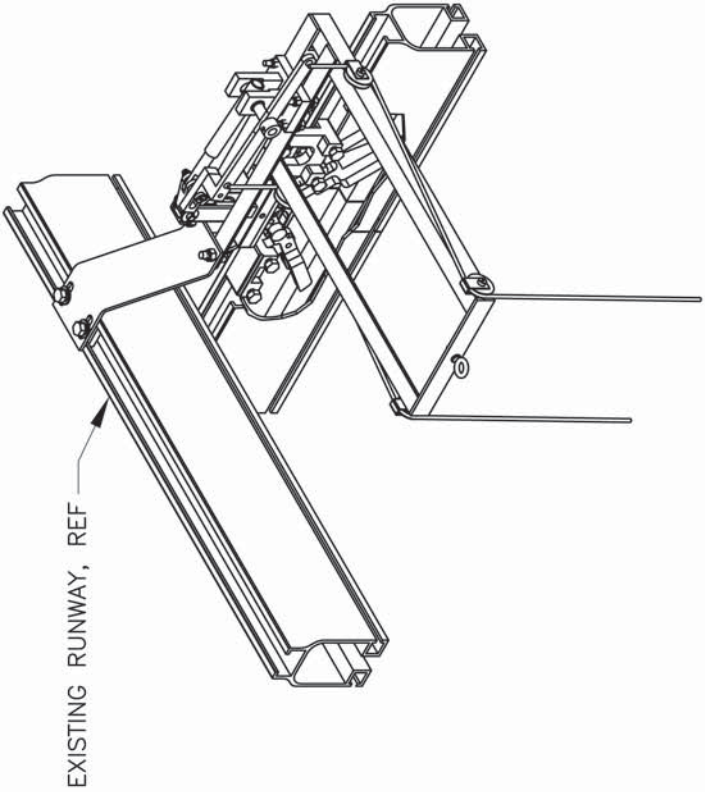
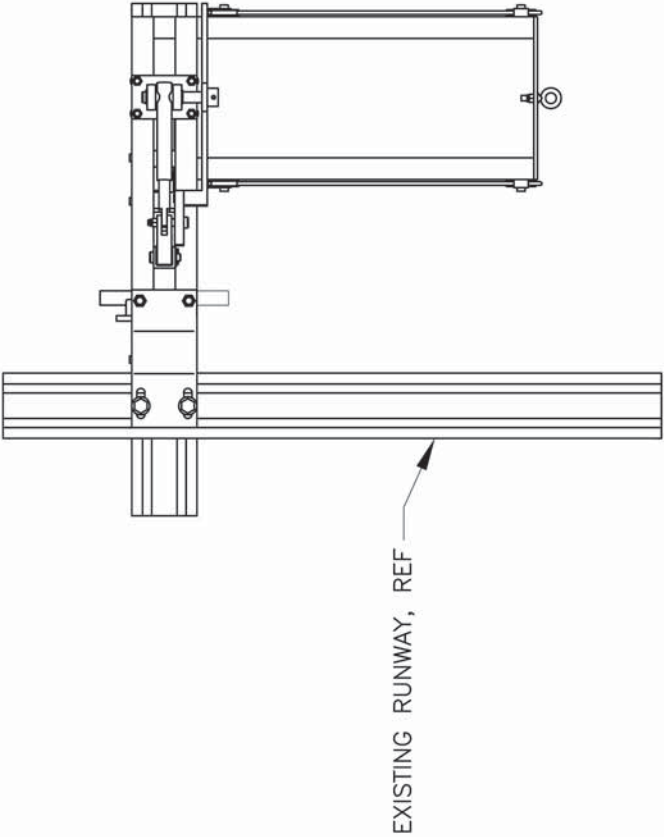
Note: Rated Loads above 1100lbs require a Dual Hoist Trolley

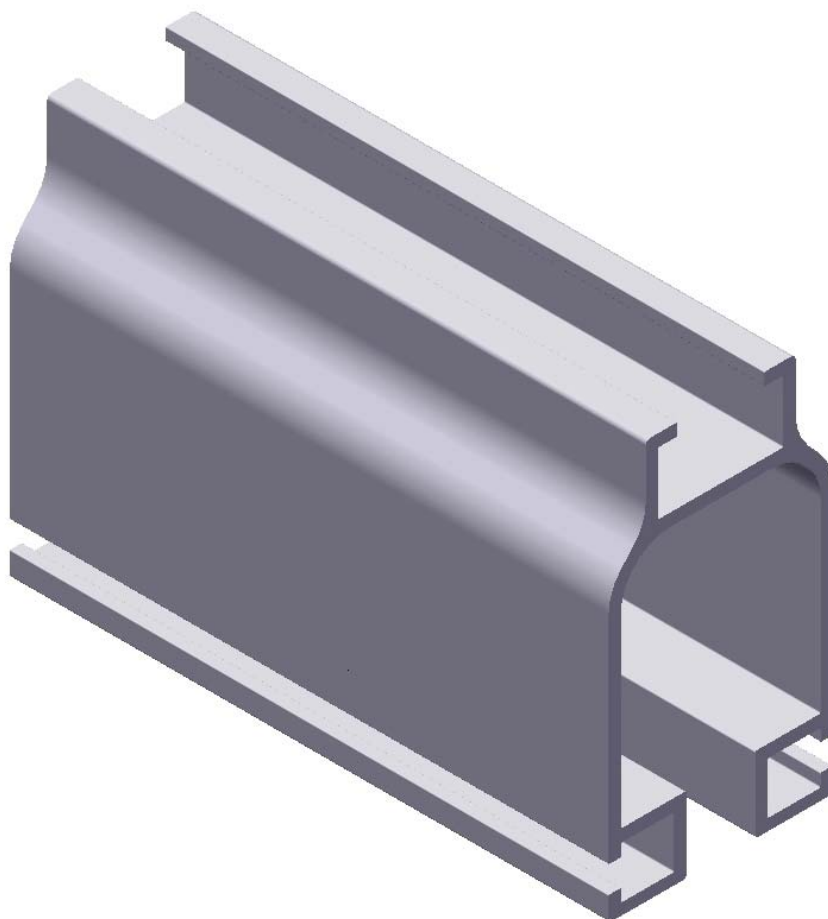


UNIFIED ETA-8 INTERLOCK

■ Pneumatic or Manual

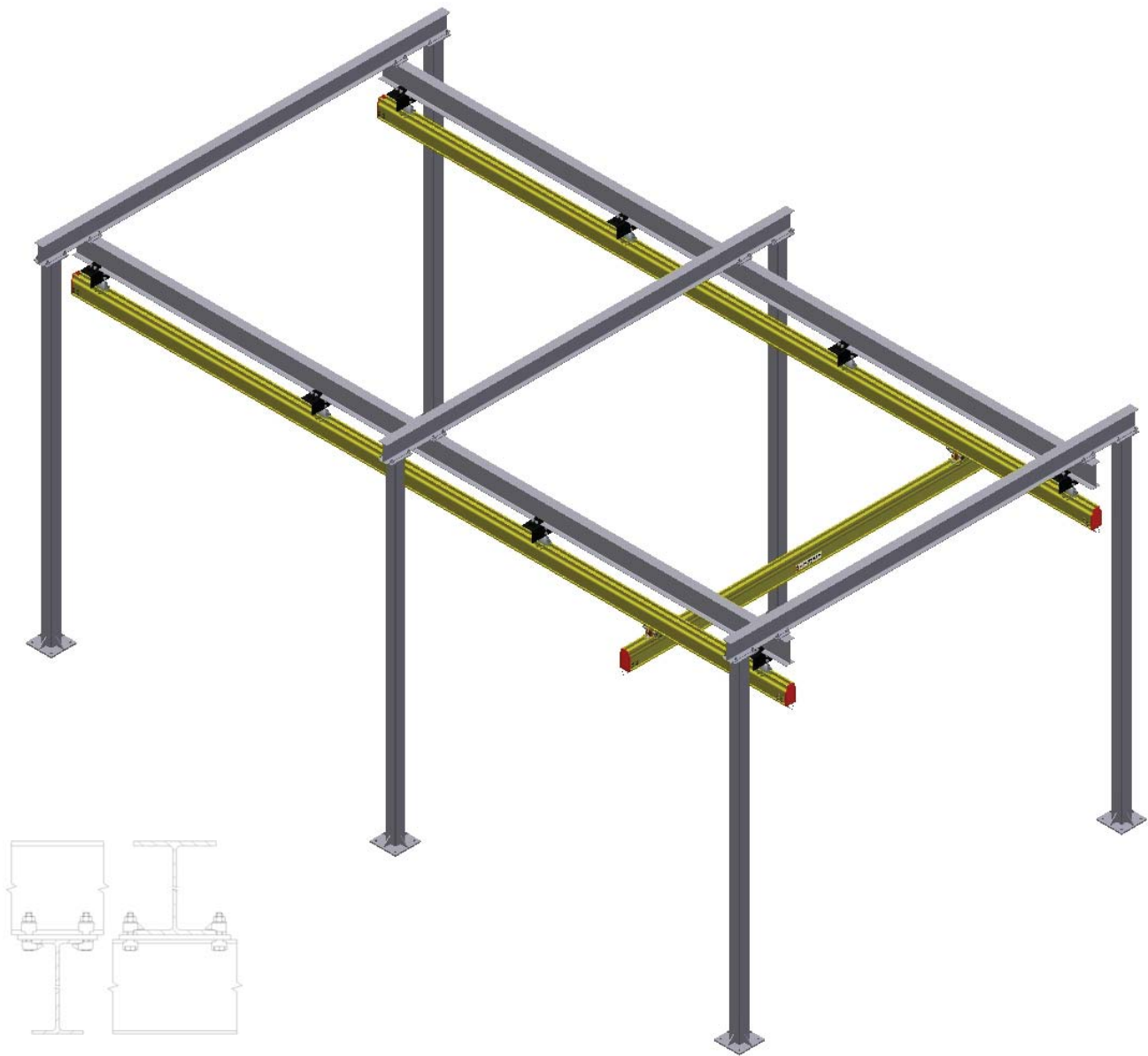
PNEUMATIC OR MANUAL INTERLOCK





ETA-8 CLEAN ROOM APPLICATIONS

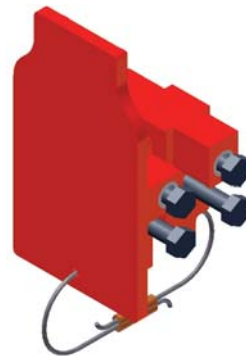
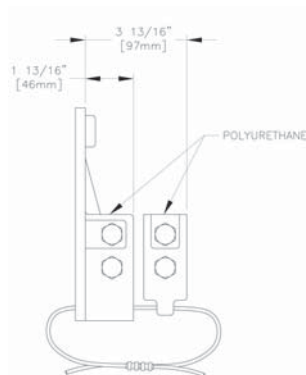
No paint, sealed bearings and stainless steel hardware.
Optional: Anodized Rail



Typical Connection

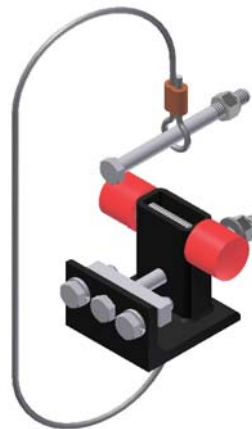
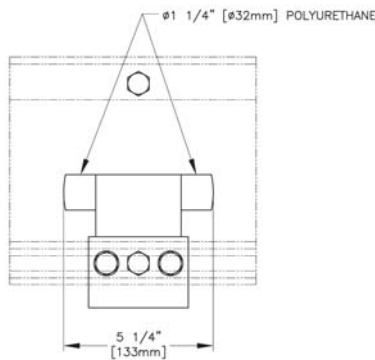
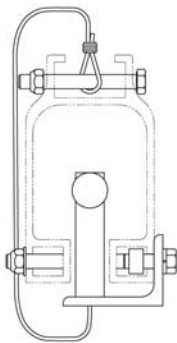
FREE STANDING FLOOR SUPPORT STRUCTURES

- Designed & engineered to each application.
- Floor supports do not require bracing to existing structures.
- P.E. certification optional.
- Paint to customer color specification.



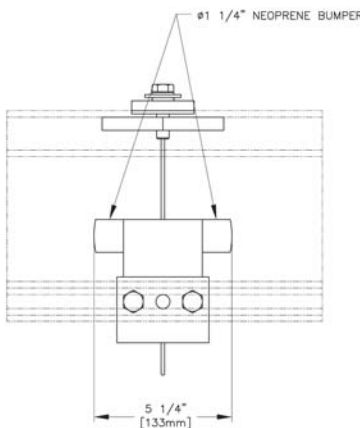
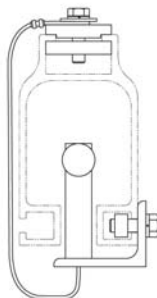
24950 ETA-8 POLY DOUBLE END CAP ASSEMBLY

- Double End Stops for added safety are standard
- For Single End Stop replacement parts see ETA Parts Manual
- Weight: 3 lbs. (1.4kg)



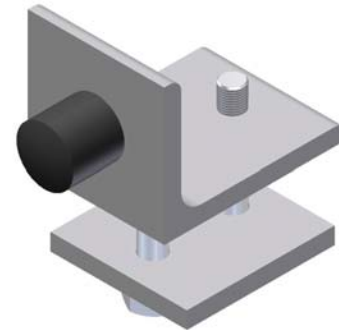
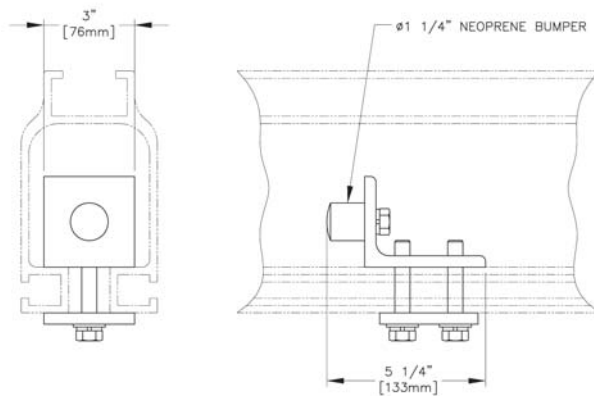
25576 ETA-8 INSERTABLE MID-RAIL STOP ASSEMBLY

- Weight: 4 lbs. (1.8kg)



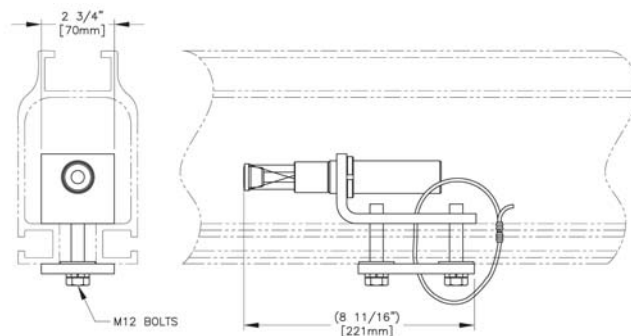
25578 ETA-8 ADJUSTABLE INSERTABLE MID-RAIL STOP ASSEMBLY

- Weight: 5 lbs. (2.3kg)



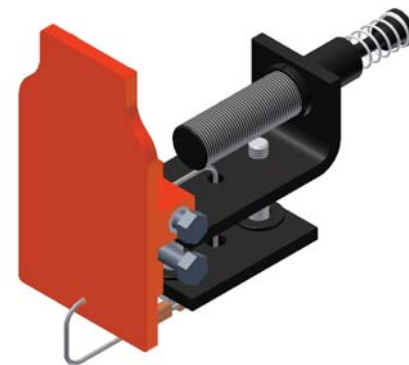
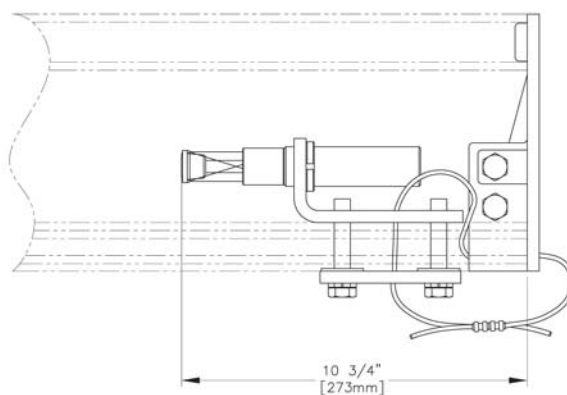
25570 ETA-8 MID-STOP ASSEMBLY

■ Weight: 2 lbs. (.91kg)



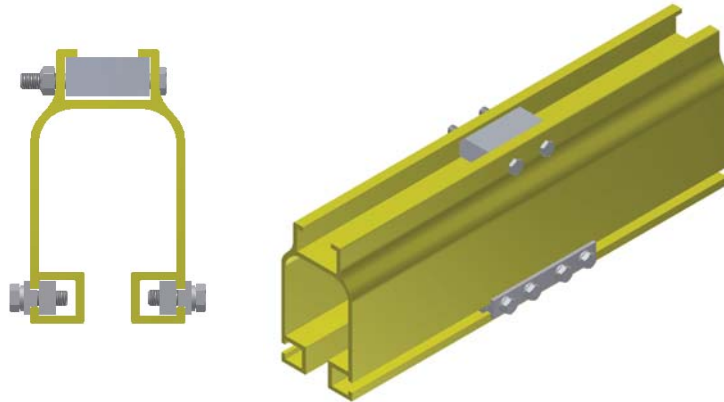
25179 ETA-8 POSITION STOP SHOCK ABSORBER ASSEMBLY

■ Weight: 5 lbs. (2.3kg)

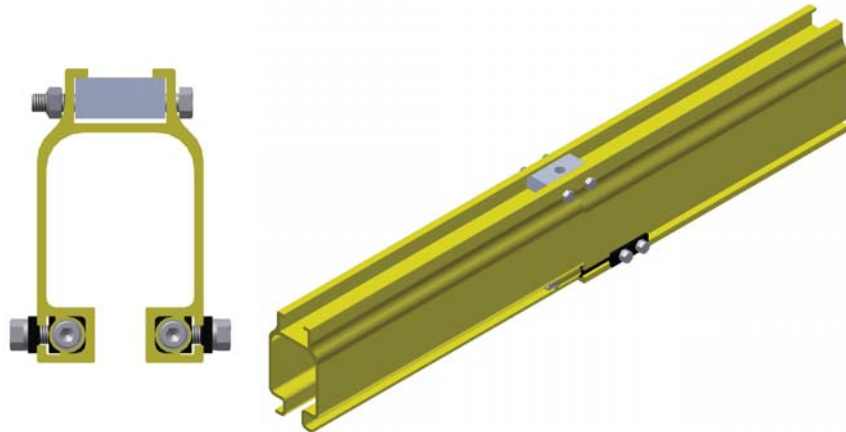


25135 ETA-8 END STOP SHOCK ABSORBER ASSEMBLY

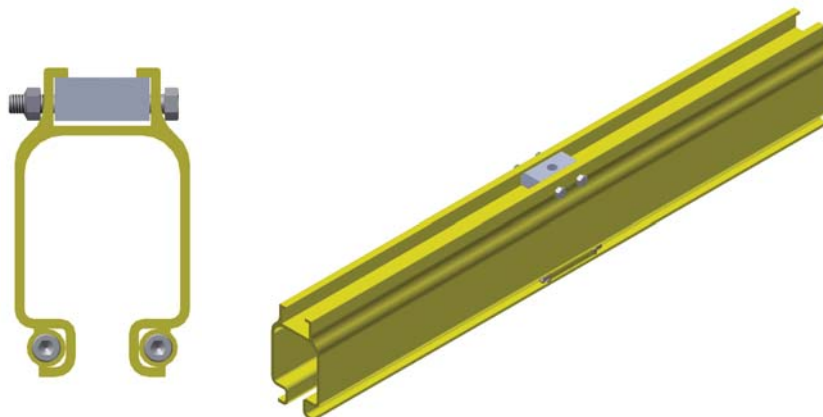
■ Weight: 7 lbs. (3.2kg)



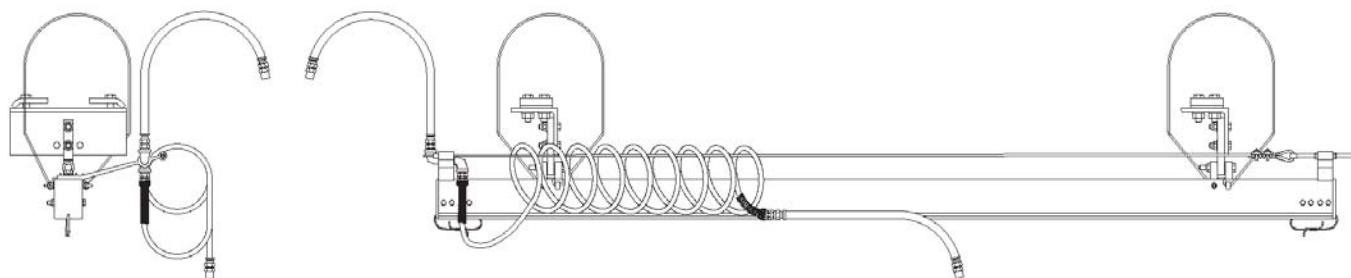
**25552 ETA-8 BOLTED SPLICE ASSEMBLY
28010 BOLTED SPLICE BAR KIT (DOES NOT INCLUDE TOP BLOCK)**



**25557 ETA-8 TRANSITION SPLICE ASSEMBLY
FOR OLD RAIL TO NEW RAIL**



25550 ETA-8 OLD RAIL SPLICE ASSEMBLY



RUNWAY AIR FESTOONING

RUNWAY AIR FESTOON KIT

Features

- Two Blue Whip Hoses x 36" (914mm)
- Blue Coiled Hose
- Two ETA Festoon Brackets
- 1/4" Nylon Coated Cable Assembly

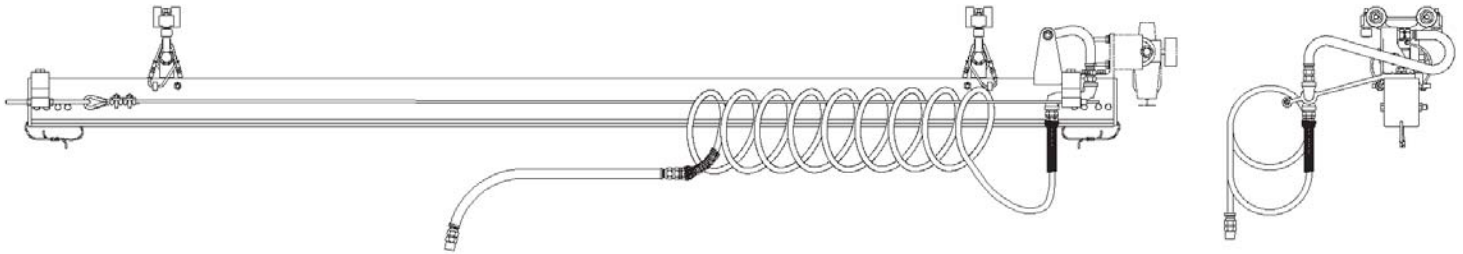
Part Number

■ 1/2" Hose Kits

- **29105** 5'-0" (1.5m) Long Runway Air Festoon Kit
- **29110** 10'-0" (3.0m) Long Runway Air Festoon Kit
- **29115** 15'-0" (4.5m) Long Runway Air Festoon Kit
- **29120** 20'-0" (6.0m) Long Runway Air Festoon Kit
- **29125** 25'-0" (7.6m) Long Runway Air Festoon Kit
- **29130** 30'-0" (9.1m) Long Runway Air Festoon Kit
- **29135** 35'-0" (10.6m) Long Runway Air Festoon Kit
- **29140** 40'-0" (12.1m) Long Runway Air Festoon Kit
- **29145** 45'-0" (13.7m) Long Runway Air Festoon Kit
- **29150** 50'-0" (15.2m) Long Runway Air Festoon Kit
- **29155** 55'-0" (16.7m) Long Runway Air Festoon Kit
- **29160** 60'-0" (18.2m) Long Runway Air Festoon Kit
- **29165** 65'-0" (19.8m) Long Runway Air Festoon Kit
- **29170** 70'-0" (21.3m) Long Runway Air Festoon Kit
- **29175** 75'-0" (22.8m) Long Runway Air Festoon Kit
- **29180** 80'-0" (24.3m) Long Runway Air Festoon Kit
- **29185** 85'-0" (25.9m) Long Runway Air Festoon Kit
- **29190** 90'-0" (27.4m) Long Runway Air Festoon Kit
- **29195** 95'-0" (28.9m) Long Runway Air Festoon Kit
- **29200** 100'-0" (30.4m) Long Runway Air Festoon Kit

■ 3/4" Hose Kits

- **29205** 5'-0" (1.5m) Long Runway Air Festoon Kit
- **29210** 10'-0" (3.0m) Long Runway Air Festoon Kit
- **29215** 15'-0" (4.5m) Long Runway Air Festoon Kit
- **29220** 20'-0" (6.0m) Long Runway Air Festoon Kit
- **29225** 25'-0" (7.6m) Long Runway Air Festoon Kit
- **29230** 30'-0" (9.1m) Long Runway Air Festoon Kit
- **29235** 35'-0" (10.6m) Long Runway Air Festoon Kit
- **29240** 40'-0" (12.1m) Long Runway Air Festoon Kit
- **29245** 45'-0" (13.7m) Long Runway Air Festoon Kit
- **29250** 50'-0" (15.2m) Long Runway Air Festoon Kit
- **29255** 55'-0" (16.7m) Long Runway Air Festoon Kit
- **29260** 60'-0" (18.2m) Long Runway Air Festoon Kit
- **29265** 65'-0" (19.8m) Long Runway Air Festoon Kit
- **29270** 70'-0" (21.3m) Long Runway Air Festoon Kit
- **29275** 75'-0" (22.8m) Long Runway Air Festoon Kit
- **29280** 80'-0" (24.3m) Long Runway Air Festoon Kit
- **29285** 85'-0" (25.9m) Long Runway Air Festoon Kit
- **29290** 90'-0" (27.4m) Long Runway Air Festoon Kit
- **29295** 95'-0" (28.9m) Long Runway Air Festoon Kit
- **29300** 100'-0" (30.4m) Long Runway Air Festoon Kit



BRIDGE AIR FESTOONING

BRIDGE AIR FESTOON KIT

Features

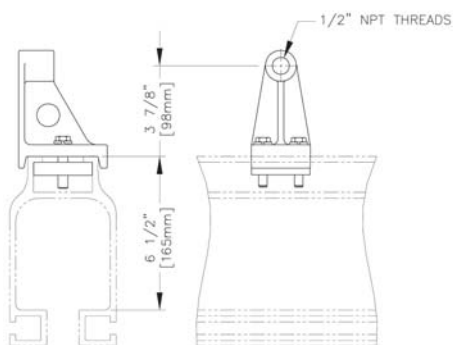
- Two Blue Whip Hoses x 36" (914mm)
- Blue Coiled Hose
- Two ETA Festoon Brackets
- One Air Hose Connector Bracket
- 1/4" Nylon Coated Cable with Hardware

Options

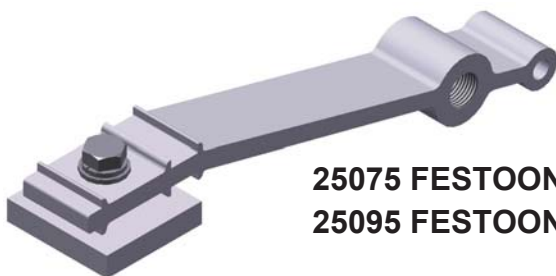
- FR Assembly
- FRL Assembly
- Lockout

Part Number

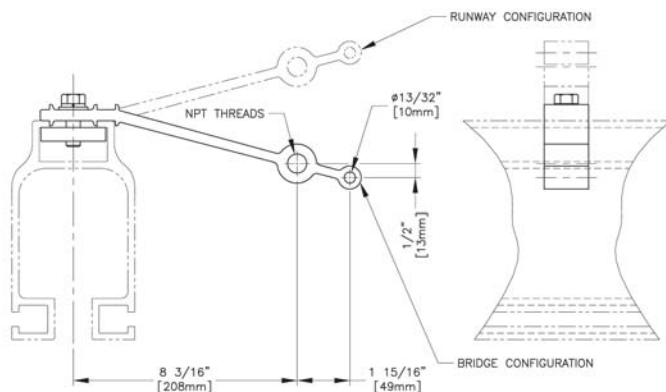
- **29305** 5'-0" (1.5m) Long 1/2" Bridge Air Festoon Kit
- **29310** 10'-0" (3.0m) Long 1/2" Bridge Air Festoon Kit
- **29315** 15'-0" (4.5m) Long 1/2" Bridge Air Festoon Kit
- **29320** 20'-0" (6.0m) Long 1/2" Bridge Air Festoon Kit
- **29325** 25'-0" (7.6m) Long 1/2" Bridge Air Festoon Kit
- **29330** 30'-0" (9.1m) Long 1/2" Bridge Air Festoon Kit
- **29335** 35'-0" (10.6m) Long 1/2" Bridge Air Festoon Kit
- **29340** 40'-0" (12.1m) Long 1/2" Bridge Air Festoon Kit
- **29405** 5'-0" (1.5m) Long 3/4" Bridge Air Festoon Kit
- **29410** 10'-0" (3.0m) Long 3/4" Bridge Air Festoon Kit
- **29415** 15'-0" (4.5m) Long 3/4" Bridge Air Festoon Kit
- **29420** 20'-0" (6.0m) Long 3/4" Bridge Air Festoon Kit
- **29425** 25'-0" (7.6m) Long 3/4" Bridge Air Festoon Kit
- **29430** 30'-0" (9.1m) Long 3/4" Bridge Air Festoon Kit
- **29435** 35'-0" (10.6m) Long 3/4" Bridge Air Festoon Kit
- **29440** 40'-0" (12.1m) Long 3/4" Bridge Air Festoon Kit



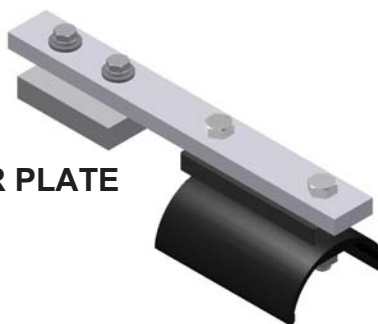
25070 AIR HOSE CONNECTOR BRACKET ASSEMBLY 1/2"
25065 AIR HOSE CONNECTOR BRACKET ASSEMBLY 3/4"



25075 FESTOON BRACKET ASSEMBLY 1/2" NPT
25095 FESTOON BRACKET ASSEMBLY 3/4" NPT



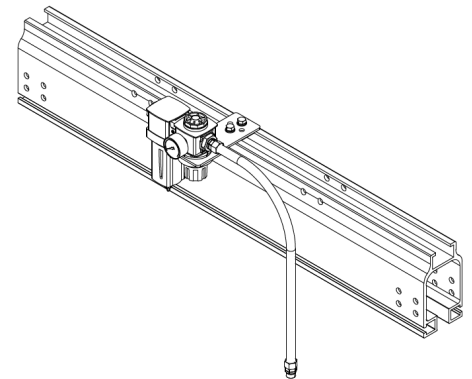
25815 ETA ELECTRIC FESTOON ANCHOR PLATE





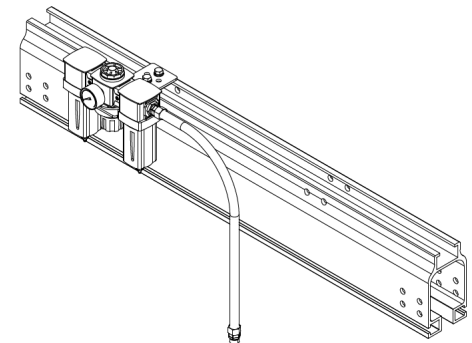
FILTER REGULATORS

- **25503** FR Assembly 1/2" Air Supply (Parker Standard)
- **25516** FR Assembly 1/2" Air Supply includes Manual Lockout (SMC Optional)
- **25517** FR Assembly 3/4" Air Supply (Parker Standard)
- **25518** FR Assembly 3/4" Air Supply includes Manual Lockout (SMC Optional)



FILTER REGULATOR LUBRICATORS

- **25500** FRL Assembly 1/2" Air Supply (Parker Standard)
- **25519** FRL Assembly 1/2" Air Supply includes Manual Lockout (SMC Optional)
- **25521** FRL Assembly 3/4" Air Supply (Parker Standard)
- **25522** FRL Assembly 3/4" Air Supply includes Manual Lockout (SMC Optional)



MANUAL LOCKOUTS

- **25523** Manual Lockout 1/2" Air Supply (Parker Standard)
- **25524** Manual Lockout 1/2" Air Supply (SMC Optional)
- **78107** Manual Lockout 3/4" Air Supply (Parker Standard)
- **78108** Manual Lockout 3/4" Air Supply (SMC Optional)



(Parker Standard)

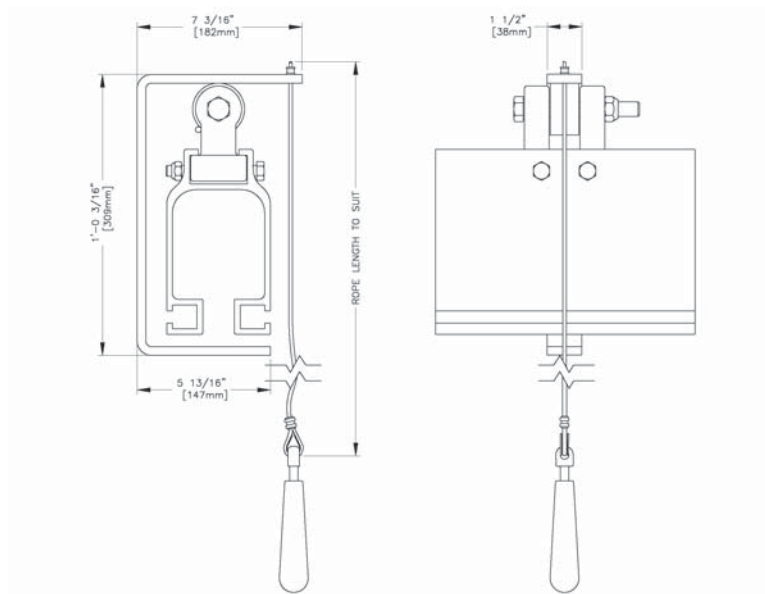
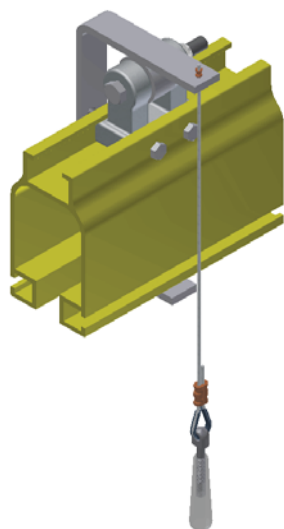


(SMC Optional)

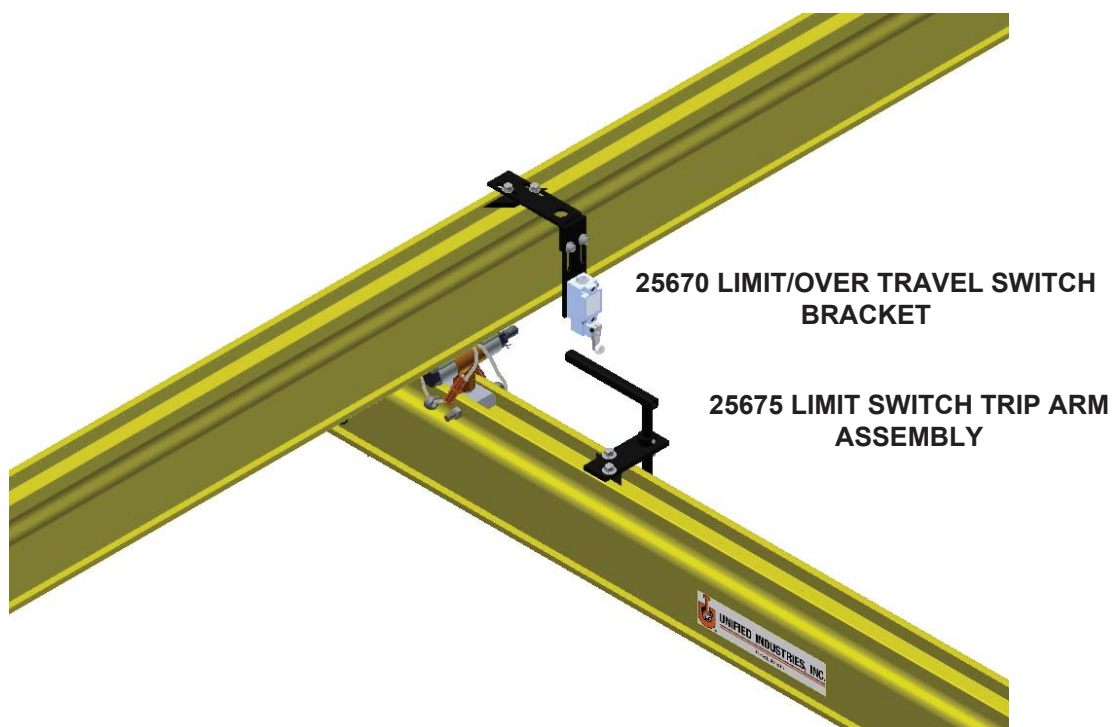
ELECTRIC JUNCTION BOX

- **25665** Electric Junction Box
- **67000** 4-Wire 12 ga. Flatwire Electric Cable (per foot)





27065 BY-PASS ASSEMBLY



25677 OVER TRAVEL SWITCH ASSEMBLY

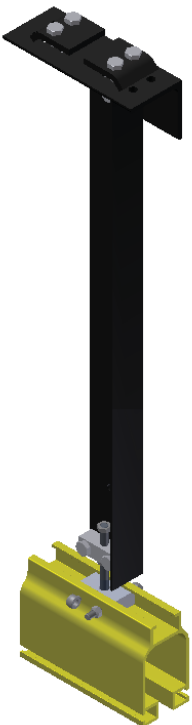
■ Limit switch not included

UNIFIED DROP ANGLE KITS



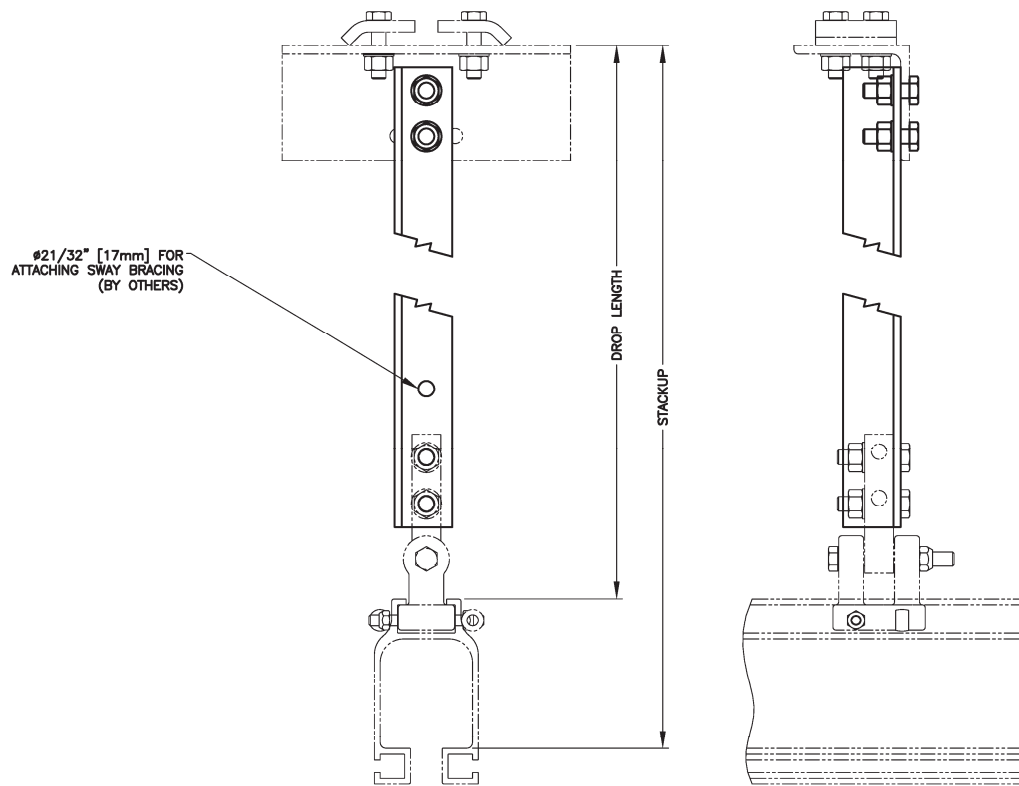
Beam Hanger

- Rated Load 3,500lbs (908kg)
- Beam Hanger sold separately
- Drop Angle Lengths 1'-2" (355mm) to 6'-0" (1829mm) require a cable hole
- Drop Angle Lengths 2'-0" (610mm) to 6'-0" (1829mm) require knee braces in both directions
- Knee Bracing by others
- Drops of 8" (203mm) to 11" (280mm) Consult Engineering



Adjustable Hanger

- Rated Load 3,000lbs (680kg)
- Adjustable Hanger sold separately
- Drop Angle Lengths 1'-2" (355mm) to 6'-0" (1829mm) require a cable hole
- Drop Angle Lengths 2'-0" (610mm) to 6'-0" (1829mm) require knee braces in both directions
- Knee Bracing by others
- Drops of 8" (203mm) to 11" (280mm) Consult Engineering

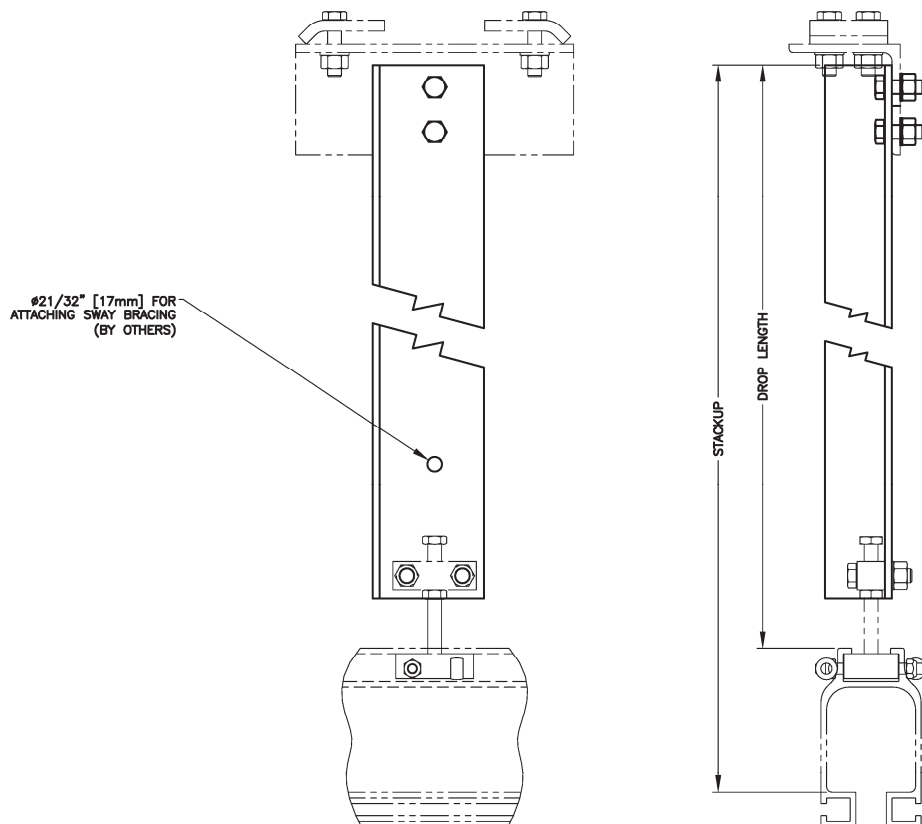


NOTE:
RATED LOAD 3500 LBS [1588 Kg].

KIT PART #	DROP ANGLE PART #	DROP LENGTH		STACKUP	
28705	75106	1'-0"	305mm	1'-6 1/2"	470mm
		1'-1"	330mm	1'-7 1/2"	495mm
		1'-2"	356mm	1'-8 1/2"	521mm
		1'-3"	381mm	1'-9 1/2"	546mm
		1'-4"	406mm	1'-10 1/2"	572mm
		1'-5"	432mm	1'-11 1/2"	597mm
		1'-6"	457mm	2'-0 1/2"	622mm
		1'-7"	483mm	2'-1 1/2"	648mm
		1'-8"	508mm	2'-2 1/2"	673mm
		1'-9"	533mm	2'-3 1/2"	699mm
		1'-10"	559mm	2'-4 1/2"	724mm
28706	75107	1'-11"	584mm	2'-5 1/2"	749mm
		2'-0"	610mm	2'-6 1/2"	775mm
		2'-1"	635mm	2'-7 1/2"	800mm
		2'-2"	660mm	2'-8 1/2"	826mm
		2'-3"	686mm	2'-9 1/2"	851mm
		2'-4"	711mm	2'-10 1/2"	876mm
		2'-5"	737mm	2'-11 1/2"	902mm
		2'-6"	762mm	3'-0 1/2"	927mm
		2'-7"	787mm	3'-1 1/2"	953mm
		2'-8"	813mm	3'-2 1/2"	978mm
		2'-9"	838mm	3'-3 1/2"	1003mm
28707	75108	2'-10"	864mm	3'-4 1/2"	1029mm
		2'-11"	889mm	3'-5 1/2"	1054mm
		3'-0"	914mm	3'-6 1/2"	1080mm
		3'-1"	940mm	3'-7 1/2"	1105mm
		3'-2"	965mm	3'-8 1/2"	1130mm
		3'-3"	991mm	3'-9 1/2"	1156mm
		3'-4"	1016mm	3'-10 1/2"	1181mm
		3'-5"	1041mm	3'-11 1/2"	1207mm
		3'-6"	1067mm	4'-0 1/2"	1232mm

KIT PART #	DROP ANGLE PART #	DROP LENGTH		STACKUP	
28707	75108	3'-7"	1092mm	4'-1 1/2"	1257mm
		3'-8"	1118mm	4'-2 1/2"	1283mm
		3'-9"	1143mm	4'-3 1/2"	1308mm
		3'-10"	1168mm	4'-4 1/2"	1334mm
		3'-11"	1194mm	4'-5 1/2"	1359mm
		4'-0"	1219mm	4'-6 1/2"	1384mm
28708	75109	4'-1"	1245mm	4'-7 1/2"	1410mm
		4'-2"	1270mm	4'-8 1/2"	1435mm
		4'-3"	1295mm	4'-9 1/2"	1461mm
		4'-4"	1321mm	4'-10 1/2"	1486mm
		4'-5"	1346mm	4'-11 1/2"	1511mm
		4'-6"	1372mm	5'-0 1/2"	1537mm
		4'-7"	1397mm	5'-1 1/2"	1562mm
		4'-8"	1422mm	5'-2 1/2"	1588mm
		4'-9"	1448mm	5'-3 1/2"	1613mm
		4'-10"	1473mm	5'-4 1/2"	1638mm
		4'-11"	1499mm	5'-5 1/2"	1664mm
28709	75110	5'-0"	1524mm	5'-6 1/2"	1689mm
		5'-1"	1549mm	5'-7 1/2"	1715mm
		5'-2"	1575mm	5'-8 1/2"	1740mm
		5'-3"	1600mm	5'-9 1/2"	1765mm
		5'-4"	1626mm	5'-10 1/2"	1791mm
		5'-5"	1651mm	5'-11 1/2"	1816mm
		5'-6"	1676mm	6'-0 1/2"	1842mm
		5'-7"	1702mm	6'-1 1/2"	1867mm
		5'-8"	1727mm	6'-2 1/2"	1892mm
		5'-9"	1753mm	6'-3 1/2"	1918mm
		5'-10"	1778mm	6'-4 1/2"	1943mm
		5'-11"	1803mm	6'-5 1/2"	1969mm
		6'-0"	1829mm	6'-6 1/2"	1994mm

*Beam Hanger sold separately



NOTE:

RATED LOAD 3000 LBS [1361 Kg].

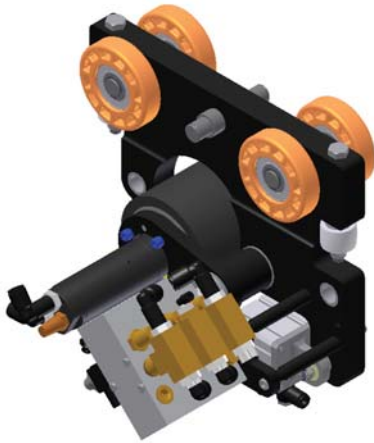
KIT PART #	DROP ANGLE PART #	DROP LENGTH		STACKUP	
28716	75117	9"	229mm	1'-3 1/2"	394mm
		10"	254mm	1'-4 1/2"	419mm
		11"	279mm	1'-5 1/2"	445mm
		1'-0"	305mm	1'-6 1/2"	470mm
28717	75118	1'-1"	330mm	1'-7 1/2"	495mm
		1'-2"	356mm	1'-8 1/2"	521mm
		1'-3"	381mm	1'-9 1/2"	546mm
		1'-4"	406mm	1'-10 1/2"	572mm
		1'-5"	432mm	1'-11 1/2"	597mm
		1'-6"	457mm	2'-0 1/2"	622mm
		1'-7"	483mm	2'-1 1/2"	648mm
		1'-8"	508mm	2'-2 1/2"	673mm
		1'-9"	533mm	2'-3 1/2"	699mm
		1'-10"	559mm	2'-4 1/2"	724mm
		1'-11"	584mm	2'-5 1/2"	749mm
		2'-0"	610mm	2'-6 1/2"	775mm
28718	75119	2'-1"	635mm	2'-7 1/2"	800mm
		2'-2"	660mm	2'-8 1/2"	826mm
		2'-3"	686mm	2'-9 1/2"	851mm
		2'-4"	711mm	2'-10 1/2"	876mm
		2'-5"	737mm	2'-11 1/2"	902mm
		2'-6"	762mm	3'-0 1/2"	927mm
		2'-7"	787mm	3'-1 1/2"	953mm
		2'-8"	813mm	3'-2 1/2"	978mm
		2'-9"	838mm	3'-3 1/2"	1003mm
		2'-10"	864mm	3'-4 1/2"	1029mm
		2'-11"	889mm	3'-5 1/2"	1054mm
		3'-0"	914mm	3'-6 1/2"	1080mm
28719	75120	3'-1"	940mm	3'-7 1/2"	1105mm
		3'-2"	965mm	3'-8 1/2"	1130mm
		3'-3"	991mm	3'-9 1/2"	1156mm
		3'-4"	1016mm	3'-10 1/2"	1181mm

KIT PART #	DROP ANGLE PART #	DROP LENGTH		STACKUP	
28719	75120	3'-5"	1041mm	3'-11 1/2"	1207mm
		3'-6"	1067mm	4'-0 1/2"	1232mm
		3'-7"	1092mm	4'-1 1/2"	1257mm
		3'-8"	1118mm	4'-2 1/2"	1283mm
		3'-9"	1143mm	4'-3 1/2"	1308mm
		3'-10"	1168mm	4'-4 1/2"	1334mm
		3'-11"	1194mm	4'-5 1/2"	1359mm
		4'-0"	1219mm	4'-6 1/2"	1384mm
		4'-1"	1245mm	4'-7 1/2"	1410mm
		4'-2"	1270mm	4'-8 1/2"	1435mm
		4'-3"	1295mm	4'-9 1/2"	1461mm
		4'-4"	1321mm	4'-10 1/2"	1486mm
28720	75121	4'-5"	1346mm	4'-11 1/2"	1511mm
		4'-6"	1372mm	5'-0 1/2"	1537mm
		4'-7"	1397mm	5'-1 1/2"	1562mm
		4'-8"	1422mm	5'-2 1/2"	1588mm
		4'-9"	1448mm	5'-3 1/2"	1613mm
		4'-10"	1473mm	5'-4 1/2"	1638mm
		4'-11"	1499mm	5'-5 1/2"	1664mm
		5'-0"	1524mm	5'-6 1/2"	1689mm
		5'-1"	1549mm	5'-7 1/2"	1715mm
		5'-2"	1575mm	5'-8 1/2"	1740mm
		5'-3"	1600mm	5'-9 1/2"	1765mm
		5'-4"	1626mm	5'-10 1/2"	1791mm
28721	75122	5'-5"	1651mm	5'-11 1/2"	1816mm
		5'-6"	1676mm	6'-0 1/2"	1842mm
		5'-7"	1702mm	6'-1 1/2"	1867mm
		5'-8"	1727mm	6'-2 1/2"	1892mm
		5'-9"	1753mm	6'-3 1/2"	1918mm
		5'-10"	1778mm	6'-4 1/2"	1943mm
		5'-11"	1803mm	6'-5 1/2"	1969mm
		6'-0"	1829mm	6'-6 1/2"	1994mm

*Adjustable Hanger sold separately

UNIFIED AIR TRACTOR

The lube free air tractor was developed to be a compact, and reliable alternative to those large air tractors most companies are familiar with.



Features

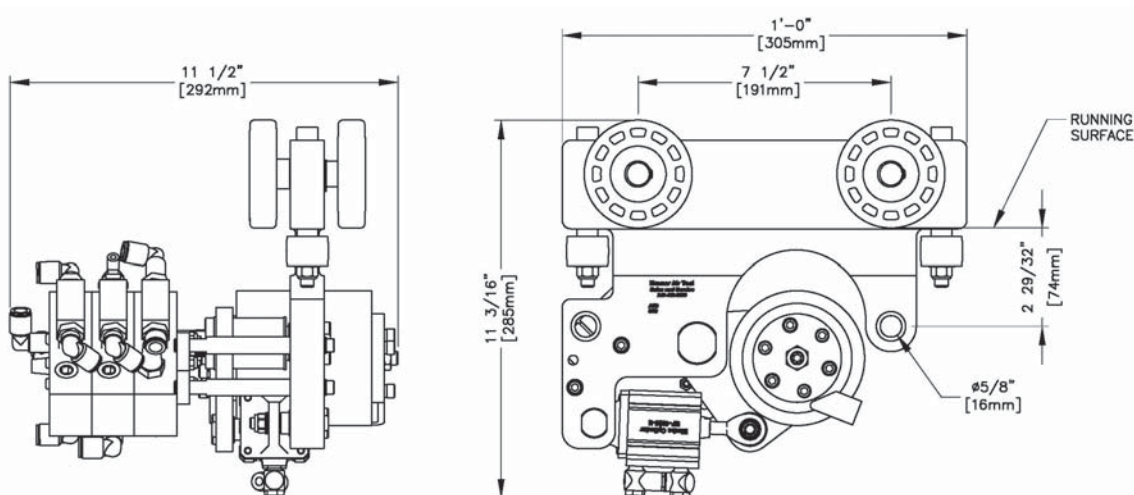
- Lightweight and Compact
- Lube Free Air Motor
- Maintenance Friendly Design
- Quick Delivery, Excellent Pricing

Control Package Options:

- C1 = SMC Control Pack w/Fwd/Rev 2-Button Control Pendant.
 C2 = SMC Control Pack Only. (Requires main air connection + Fwd/Rev signals)
 C3 = Base Tractor Only. No Control valves.
 C4 = SMC Control Pack w/4-Button Control Pendant (Fwd/Rev + ?/?)

Part Number

- **UAT-NB-C(x)-ETA8** Air Tractor to run on ETA-8 rail. Specify control pack above. Weight 33lbs (15kg)
- **25684** ETA-8 Tractor Tow Bar-Hitch
- **60315** Replacement Drive Wheel



Proper Tractor Operation: Tractor must come to a complete stop before it can be engaged in the opposite direction. If this process is not followed, damage to the Tractor will occur and the warranty will be void.

Designed for a working plant air pressure of: 87-102psi (600-700kPA)

***NB = No Brake**



UNIFIED AIR BALANCER

A proven ergonomic lifting and positioning device

- **Capacities** up to 485lbs. (220kg) single reeve - 1940lbs. (880kg) tandem reeved.
- **Safety** overload limit and check valve in case of loss of air supply.
- **Energy Efficient** only a fraction of a CFM per cycle required when compared to a pneumatic hoist.
- **Robust** precision mechanical design & powder coated housing ensures trouble free extended service life.
- Uses non-lubricated air, assures clean environment.
- Ideal for ergonomic handling applications and suspension of tools, weld guns & fixtures.
- All Non-Reeved balancers come equipped with a 25'-6" (9m) cable.



Control Styles

UBB = Basic Balancer with no controls

UAB = Balancer with Up/Down controls

UZB = Balancer with Zero G

Model #	Weight Capacity/Lift	Air Consumption
U_B-132	132lbs (60kg)/79in (2000mm)	.5 CFM(.85CMH)
U_B-220	220lbs (100kg)/118in (3000mm)	1.3 CFM(2.21CMH)
U_B-331	331lbs (150kg)/79in (2000mm)	1.3 CFM(2.21CMH)
U_B-485	485lbs (220kg)/79in (2000mm)	1.9 CFM(3.23 CMH)

- Wire Rope Units (Air Pressure 7kgf/cm²) (100 PSI)

Optional Accessories

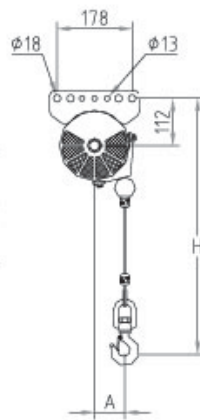
Part #	Description
99025	Up/Down Manifold
99026	Up/Down Control Kit—Includes Manifold, 12ft (3.65m) Hose and 2-button pendant
99100	Top Hook Assembly



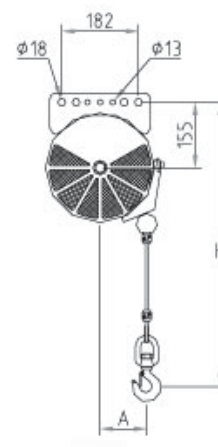
Single Type

Model	"A" Dimension
U_B-132	2.83 inch (72mm)
U_B-220	4.35 inch (110.5mm)
U_B-331	2.83 inch (72mm)
U_B-485	2.83 inch (72mm)

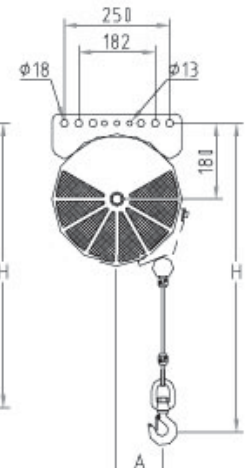
Single Type



U_B-132

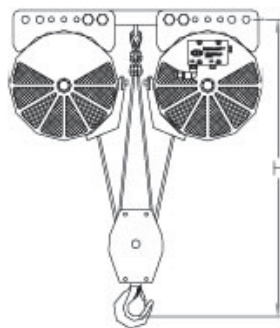


U_B-220, 331

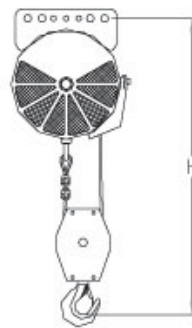


U_B-485

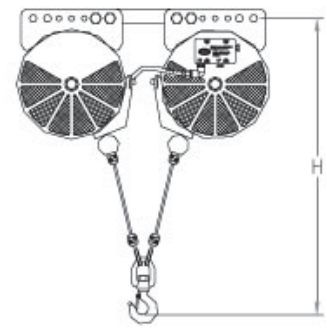
Tandem Reeved Type



Reeved Type



Tandem Type



Single Balancer

Model #	Capacity		Lift		D x L		H		Net Weight		CFM
	lbs	kg	in	mm	in	mm	in	mm	lbs	kg	
U_B-132-079	132	60	79	2000	6.1 x 15.43	155 x 392	23	600	51	23	.5
U_B-220-118	220	100	118	3000	10.24 x 15.75	260 x 400	28	700	94	42.5	1.3
U_B-331-079	331	150	79	2000	10.24 x 15.75	260 x 400	28	700	105	47	1.3
U_B-485-079	485	220	79	2000	12.21 x 15.75	310 x 400	30	750	110	50	1.9

Reeved Balancer (R) Tandem Balancer (T) Tandem-Reeved Balancer (TR)

Model #	Capacity		Lift		D x L		H		Net Weight	
	lbs	kg	in	mm	in	mm	in	mm	lbs	kg
U_B-440-59R	440	200	59	1500	10.24 x 15.75	260 x 400	28	700	104	47
U_B-440-118T	440	200	118	3000	2-10.24 x 15.76	260 x 400	28	700	203	92
U_B-662-39R	662	300	39	1000	10.24 x 15.77	260 x 400	28	700	99	45
U_B-661-79T	662	300	79	2000	2-10.24 x 15.78	260 x 400	28	700	198	90
U_B-970-39R	970	440	39	1000	12.21 x 15.75	310 x 400	30	750	124	56
U_B-970-79T	970	440	79	2000	2-12.21 x 15.75	310 x 400	30	750	243	110
U_B-882-59TR	882	400	59	1500	2-10.24 x 15.78	260 x 400	28	700	209	95
U_B-1323-39TR	1323	600	39	1000	2-10.24 x 15.79	260 x 400	28	700	203	92
U_B-1940-39TR	1940	880	39	1000	2-12.21 x 15.75	310 x 400	30	750	254	115

CAUTION

This bridge crane has a safe load rating, which has been clearly marked on both sides by the manufacturer. The total weight of the suspended load should never exceed 125% of this limit. The weight of all handling devices such as buckets, magnets, grabs, balancers, hoists, weldguns, etc. must be included as a part of the suspended load. The weight of such devices should therefore be determined and clearly marked.

Consideration should be given when installing hoisting devices. Load ratings for such devices may exceed the load rating of the bridge crane.

The operator should inspect this bridge crane for loose bolts and worn, cracked or distorted parts prior to use (inspection should include all handling devices and mounting equipment). Defective parts should be replaced with manufacturer-approved parts before use of bridge crane is resumed.

This bridge crane conforms to the safety standards of the U.S. Occupational Safety and Health Administration (OSHA). Any alteration of its structure or change in its rated load capacity may render null and void any manufacturer's warranties, expressed or implied.

***All dimensions are reference only
and need to be verified with factory.**



ABELL-HOWE

BUDGIT®
Hoists



COFFING®
HOISTS



UNIFIED



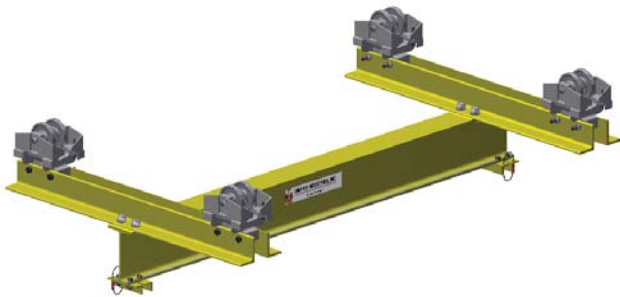
SHAW-BOX®



UNIFIED INDUSTRIES, INC.

A Columbus McKinnon Company

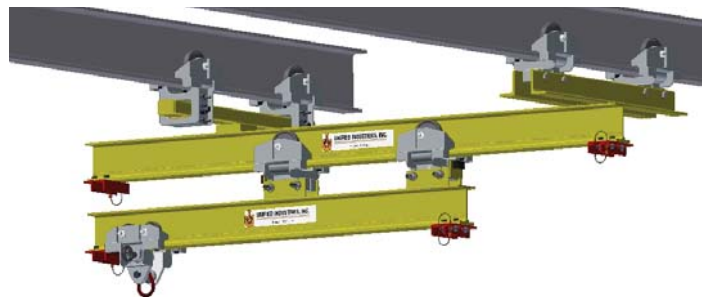
MANUAL BRIDGE CRANES



Custom bridge cranes for special applications...to your specifications

Low headroom bridge crane

- For extremely low headroom conditions
- Bridge beam operates with a better under clearance

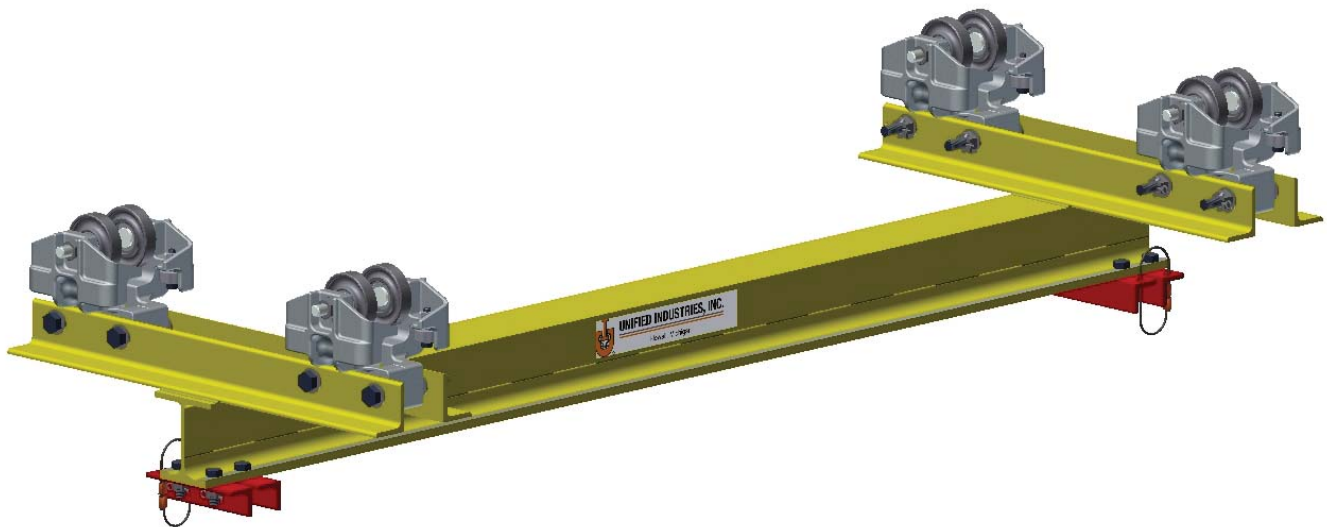


Dual beam bridge crane for suspension of large fixtures that move parallel to an assembly line for a balanced suspended load condition.



	PAGE
Custom Bridge Cranes	1-2
Light load Bridge Cranes.....	3-4
Medium Load Bridge Cranes.....	5-6
Overhanging Bridge Cranes	7-8
Heavy Load Bridge Cranes.....	9-10
Telescoping Unit Light/Medium Duty	11-12
Telescoping Unit Standard Duty.....	13-14
Telescoping Unit Heavy Duty.....	15-16
Custom Combination Unit.....	17-18

***All dimensions are reference only
and need to be verified with factory.**



Application

Unified light load bridge cranes are designed for the suspension of portable spotwelding guns, power tools, balancers, hoists, fixtures etc., and other light loads not exceeding 1000 lbs. (454kg).

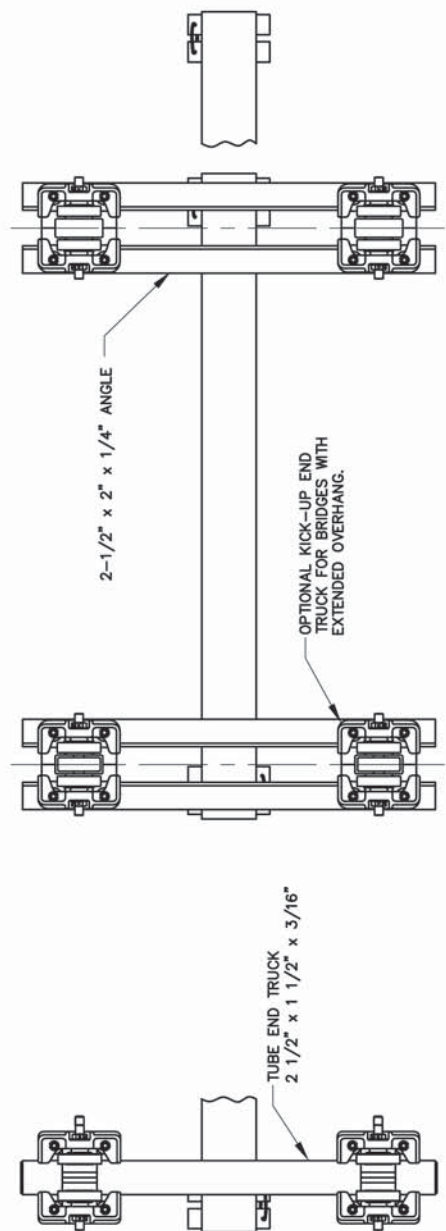
Specifications

Unified light load bridge cranes consist of two end truck assemblies, mounted with either MBC-500, SAC-500 or AC-500 trolleys, supporting a bridge beam. The bridge beam is a compound section with a hardened and ground flat track 3.25" in width. (See trolley section for trolley specifications).

End trucks are mounted with trolleys for operation on either flat rail or S-Beam. End stops bolted to each end of the bridge complete the assembly.

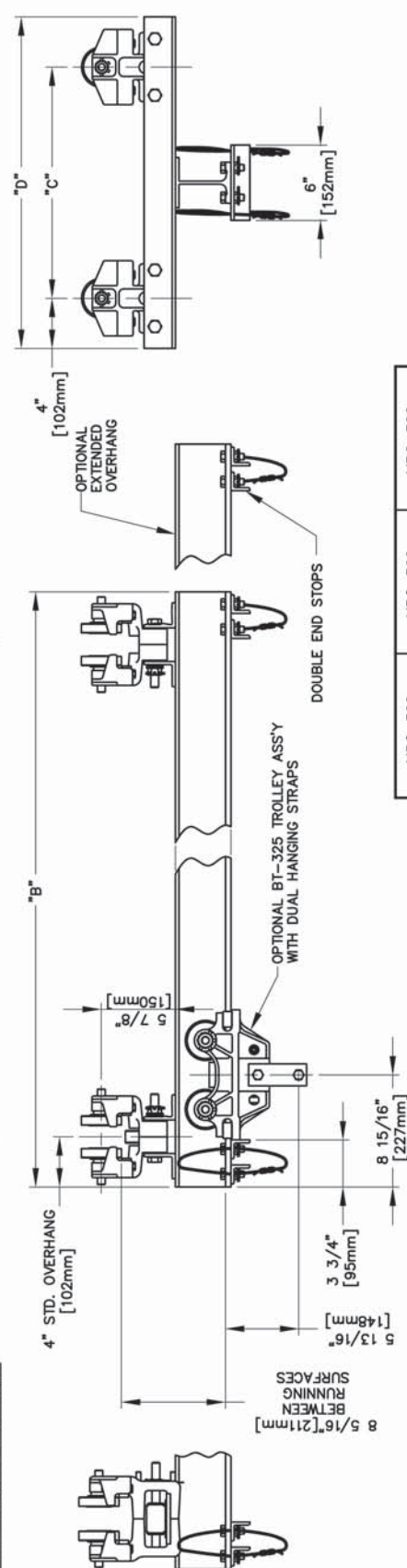
Options

- Bridge beam overhang to your specifications
- Counter thrust wheels or trolleys are available to prevent "kick-up" action when suspended load must be extended beyond bridge span
- Standard redundant end stops



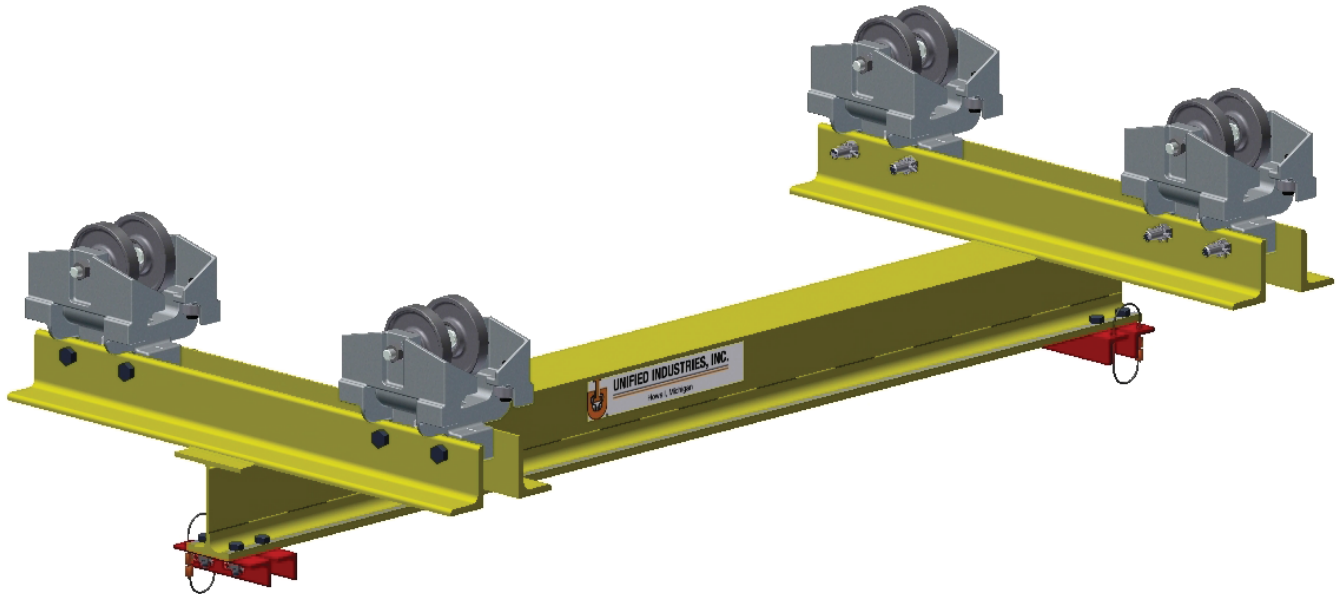
NOTE:
BRIDGE CRANES ARE ALL JIGGED AND FIXTURED IN
MACHINING AND ASSEMBLY TO INSURE PROPER ALIGNMENT.
WT. COMPLETE
FOR BRIDGE CRANE ASSEMBLY INCLUDING END TRUCK TROLLEYS.
THIS DOES NOT INCLUDE LOAD SUSPENSION TROLLEY.

OPTIONAL SELF ALIGNING END TRUCK



BRIDGE SPAN A	OVERALL B	WHEEL BASE C	OVERALL D	RATED LOAD	MBC-500		MBC-500		MBC-500	
					MBC-500	WT. COMPLETE	MBC-500 W/KU	WT. COMPLETE	MBC-500	WT. COMPLETE
2'-0"	2'-8"	812 mm	22"	1000 LBS	90 LBS	40.3 KGS	96 LBS	43 KGS	90 LBS	40.3 KGS
3'-0"	3'-8"	1117 mm	22"	1000 LBS	96 LBS	43 KGS	102 LBS	45.7 KGS	96 LBS	43 KGS
4'-0"	4'-8"	1422 mm	26"	1000 LBS	108 LBS	48.4 KGS	114 LBS	51.1 KGS	107 LBS	47.9 KGS
5'-0"	5'-8"	1727 mm	26"	1000 LBS	121 LBS	54.2 KGS	127 LBS	56.9 KGS	127 LBS	56.9 KGS
6'-0"	6'-8"	2032 mm	32"	1000 LBS	134 LBS	60.0 KGS	139 LBS	62.3 KGS	133 LBS	59.6 KGS
7'-0"	7'-8"	2336 mm	38"	1000 LBS	146 LBS	65.4 KGS	152 LBS	68.1 KGS	145 LBS	65 KGS
8'-0"	8'-8"	2641 mm	38"	1000 LBS	159 LBS	71.2 KGS	165 LBS	73.9 KGS	158 LBS	70.8 KGS
9'-0"	9'-8"	2946 mm	42"	750 LBS	172 LBS	77.1 KGS	178 LBS	79.7 KGS	171 LBS	76.6 KGS
10'-0"	10'-8"	3251 mm	42"	500 LBS	185 LBS	82.9 KGS	190 LBS	85.1 KGS	183 LBS	82 KGS

The above table is based on 1/550 deflection ratio.



Application

Unified medium load bridge cranes are designed for the suspension of portable spot-welding guns, power tools, balancers, hoists, fixtures etc., and other medium loads not exceeding 3000 lbs. (1360kg)

Specifications

Unified medium load bridge cranes consist of two end truck assemblies, mounted with either BT-325 or MBC-1000 trolleys, supporting a bridge beam. The bridge beam is a compound section with a hardened and ground flat track 3.25" in width. (See trolley section for trolley specifications).

End trucks are mounted with trolleys for operation on either flat rail or S-Beam. End stops bolted to each end of the bridge complete the assembly.

Spans of 10 ft (3m) or more have diagonal bracing from bridge beam to end trucks.

Options

- Bridge beam overhang to your specifications
- Counter thrust wheels or trolleys are available to prevent "kick-up" action when suspended load must be extended beyond bridge span
- Bridge crane spans 10 feet (3m) to 15 feet (4.6m) will be furnished with 6" compound section bridge beam flat flange 3.25" in width
- Bridge crane spans 16 ft. (4.9m) to 20 (6m) feet will be furnished with 8" Trambeam bridge beam flat flange 3.25" in width
- Standard redundant end stops

FOR BRIDGE CRANE ASSEMBLY
INCLUDING END TRUCK TROLLEYS
THIS DOES NOT INCLUDE LOAD
SUSPENSION TROLLEY.

NOTES:
(1) BRIDGE BEAMS OVER 12 FT. [3657.6 mm]
SPANS WILL BE FURNISHED WITH 6" [152]
BRIDGE BEAM

(2) BRIDGE CRANES ARE JIGGED AND
FIXTURED IN MACHINING AND ASSEMBLY
PROCESS FOR ALIGNMENT

(3) RATED LOADS SHOWN ARE FOR BRIDGE
CRANE ASSEMBLIES WITH EITHER
MBC-1500 CARRIER HEADS, OR BT-325,
4 WHEEL TROLLEY.

BRIDGE	BT-325 END TRUCK (STANDARD)		MBC-1000 OR MBC-1500 END TRUCKS (OPTIONAL)		△		∇ WT. COMPLETE
	SPAN	OVERALL	WHEEL BASE	OVERALL	WHEEL BASE	OVERALL	
5" BRIDGE BEAM	"A"	"B"	"C"	"D"	"E"	"F"	
	3'-0" [914mm]	3'-10" [1168mm]	1'-6" [467mm]	2'-6" [762mm]	1'-6" [467mm]	2'-4" [711mm]	lbs. Kgs.
	4'-0" [1219mm]	4'-10" [1473mm]	1'-6" [467mm]	2'-6" [762mm]	1'-6" [467mm]	2'-4" [711mm]	3000 1361
	5'-0" [1524mm]	5'-10" [1778mm]	2'-0" [610mm]	3'-0" [914mm]	2'-0" [610mm]	2'-10" [864mm]	3000 1361
	6'-0" [1829mm]	6'-10" [2083mm]	2'-0" [610mm]	3'-0" [914mm]	2'-0" [610mm]	2'-10" [864mm]	3000 1361
	7'-0" [2134mm]	7'-10" [2388mm]	2'-6" [762mm]	3'-6" [1067mm]	2'-6" [762mm]	3'-4" [1016mm]	3000 1361
	8'-0" [2438mm]	8'-10" [2692mm]	3'-0" [914mm]	4'-0" [1219mm]	3'-0" [914mm]	3'-10" [1088mm]	3000 1361
	9'-0" [2743mm]	9'-10" [2997mm]	3'-4" [1016mm]	4'-4" [1321mm]	3'-4" [1016mm]	4'-2" [1270mm]	3000 1361
	10'-0" [3048mm]	10'-10" [3302mm]	4'-0" [1219mm]	5'-0" [1524mm]	4'-0" [1219mm]	4'-10" [1473mm]	3000 1361
	11'-0" [3353mm]	11'-10" [3607mm]	4'-6" [1372mm]	5'-6" [1676mm]	4'-6" [1372mm]	5'-4" [1626mm]	2250 1021
6" BRIDGE BEAM	12'-0" [3658mm]	12'-10" [3912mm]	5'-0" [1524mm]	6'-0" [1829mm]	5'-0" [1524mm]	6'-10" [2083mm]	2000 907
	13'-0" [3963mm]	13'-10" [4216mm]	5'-6" [1676mm]	6'-6" [1981mm]	5'-6" [1676mm]	7'-6" [2343mm]	2212 1003
	14'-0" [4267mm]	14'-10" [4521mm]	6'-0" [1829mm]	7'-0" [2134mm]	6'-0" [1829mm]	8'-0" [2438mm]	2212 1003
	15'-0" [4572mm]	15'-10" [4826mm]	6'-6" [1981mm]	7'-6" [2343mm]	6'-6" [1981mm]	8'-6" [2646mm]	1937 879
	16'-0" [4877mm]	16'-10" [5131mm]	7'-0" [2134mm]	8'-0" [2438mm]	7'-0" [2134mm]	9'-0" [2743mm]	1705 773
	17'-0" [5182mm]	17'-10" [5436mm]	7'-6" [2343mm]	8'-6" [2646mm]	7'-6" [2343mm]	9'-6" [2951mm]	1508 684
	18'-0" [5486mm]	18'-10" [5740mm]	8'-0" [2438mm]	9'-0" [2743mm]	8'-0" [2438mm]	10'-0" [3048mm]	1338 607
	19'-0" [5791mm]	19'-10" [6045mm]	8'-6" [2646mm]	9'-6" [2951mm]	8'-6" [2646mm]	10'-6" [3353mm]	
	20'-0" [6096mm]	20'-10" [6350mm]	9'-0" [2743mm]	10'-0" [3048mm]	9'-0" [2743mm]	11'-0" [3607mm]	
	21'-0" [6401mm]	21'-10" [6654mm]	9'-6" [2951mm]	11'-0" [3353mm]	9'-6" [2951mm]	12'-0" [3963mm]	

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Application

Unified overhanging bridge cranes are designed for the suspension of portable spotweld guns, power tools, balancers, hoists, fixtures etc. and other loads not exceeding recommended rated loads. See next page for rated loads of various overhangs.

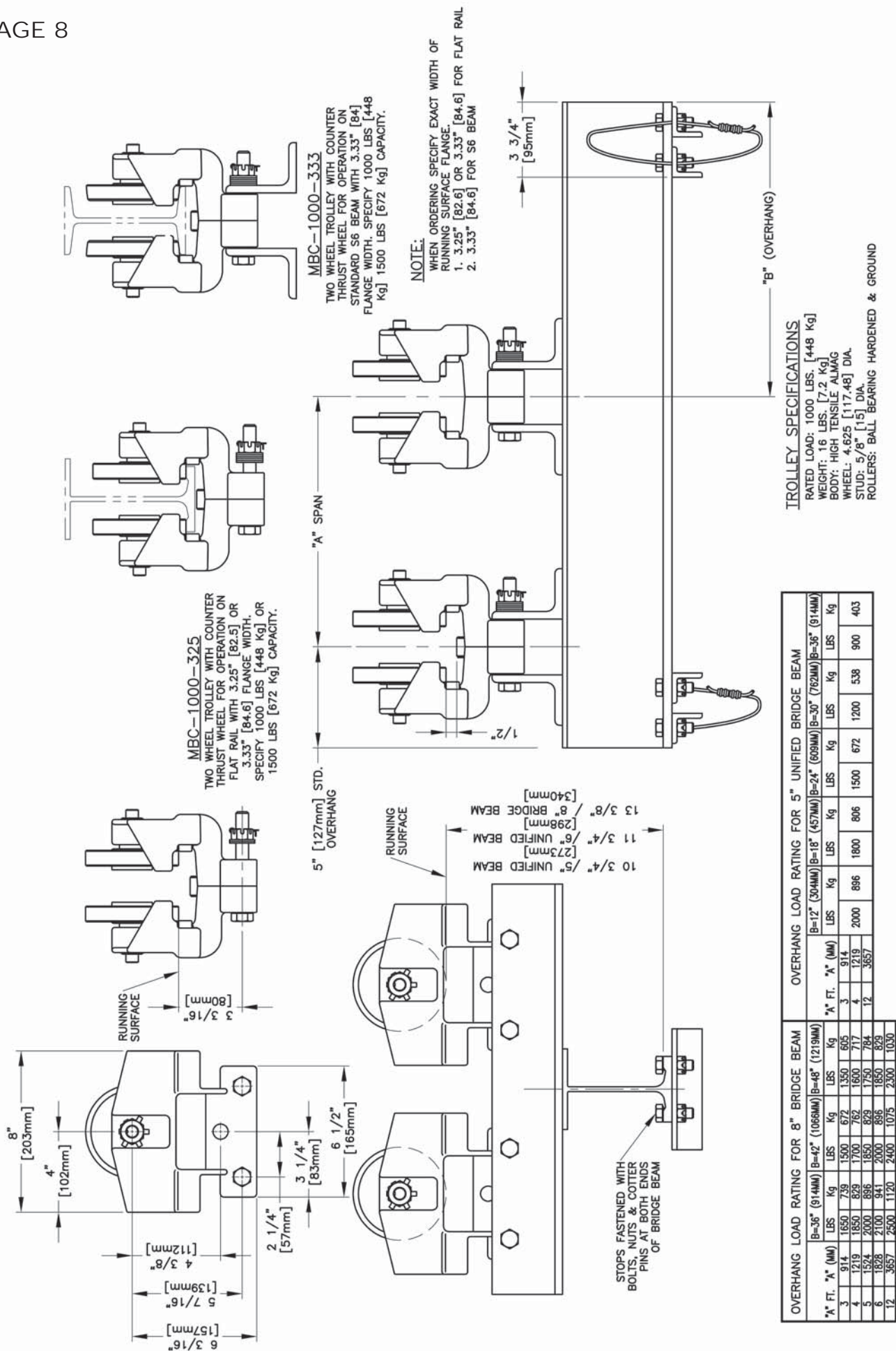
Specifications

Unified overhanging bridge cranes consist of two end truck assemblies, mounted with two MBC-1000 trolleys without kickup wheels and two MBC-1000 trolleys with kickup wheels on opposite end of overhang, supporting a bridge beam. The bridge beam is a compound section with a hardened and ground flat rail 3.25" in width. See next page for various spans and rated loads.

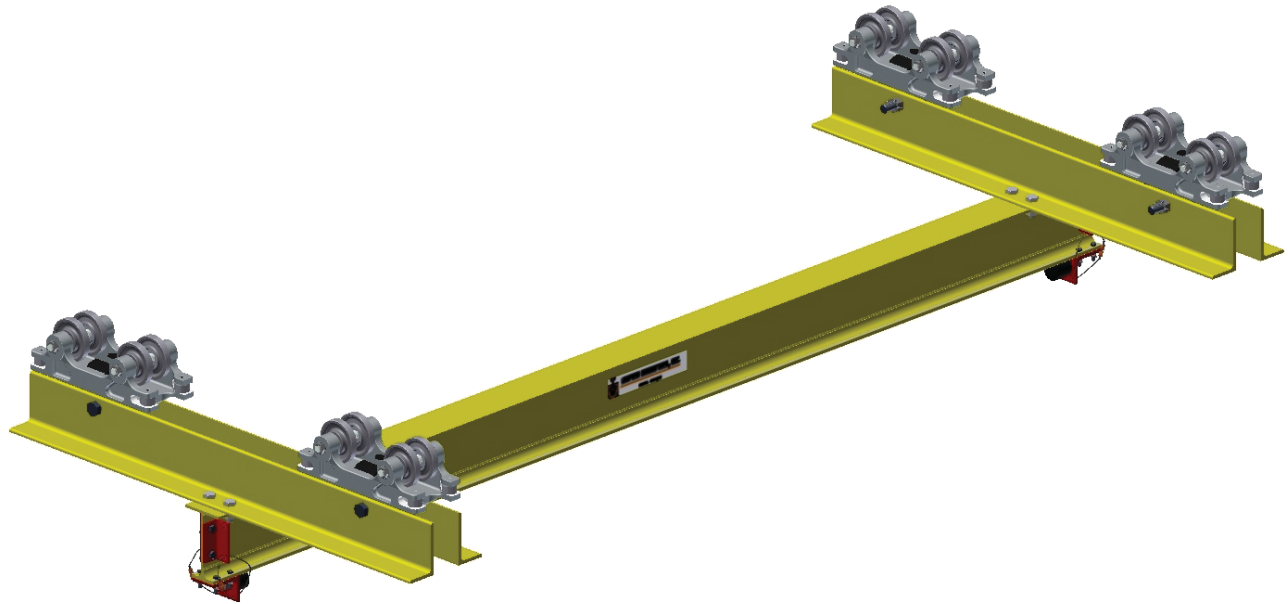
End trucks are mounted with trolleys for operation on either flat rail or S-Beam. End stops bolted to each end of the bridge beam complete the assembly. Spans of 10 feet (3m) or more have diagonal bracing from bridge beam to end trucks.

Options

- Bridge beam overhang opposite of regular overhang to suit your requirements
- Standard redundant end stops



The above table is based on 1/550 deflection ratio.



Application

Unified heavy load bridge cranes are designed for the suspension of balancers, hoists, fixtures, heavy portable tools etc. and other heavy loads not exceeding 8000 lbs. (3629kg)

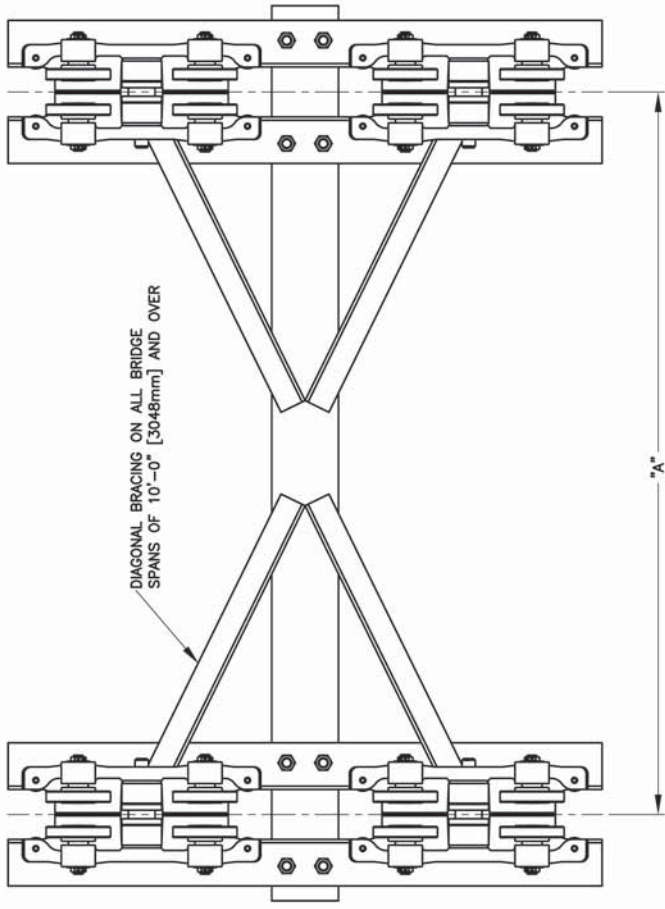
Specifications

Unified heavy load bridge cranes consist of two end truck assemblies, mounted with BT- 325-10, supporting a bridge beam. The bridge beam is either 8" or 8 1/2" in height with a hardened and ground flat track 3.25" in width. (See trolley section for trolley specifications). End trucks are mounted with trolleys for operation on either flat rail or S-beam. Bolted end stops with neoprene bumpers complete the assembly.

Spans of 10 ft (3m) or more have diagonal bracing from bridge beam to end trucks.

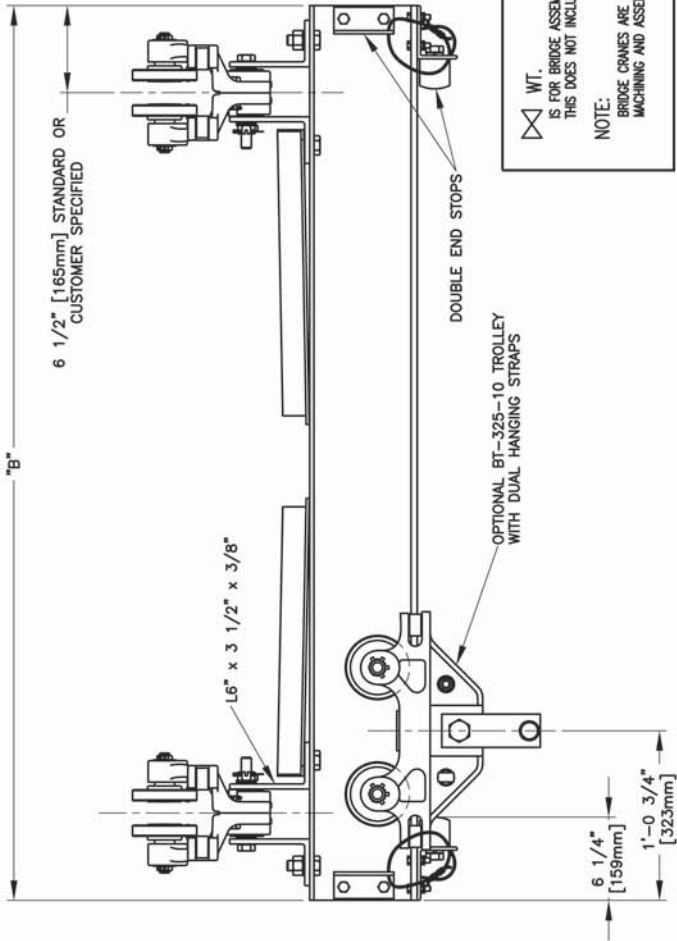
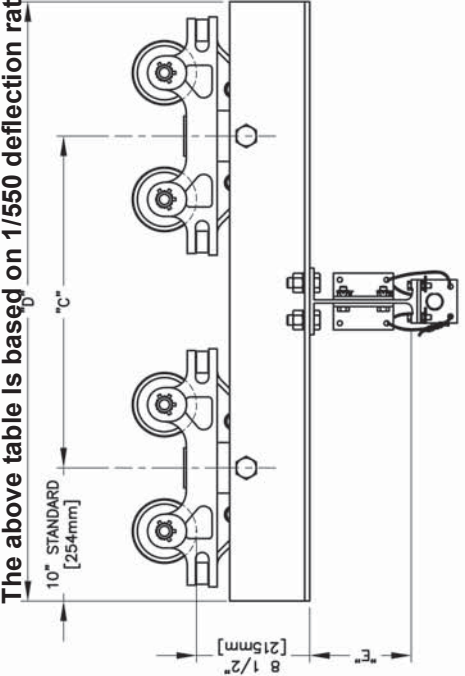
Options

- Bridge beam overhang to your specifications
- Counter thrust wheels can be furnished on request when suspended load must be extended beyond bridge span
- 10" bridge beam with hardened and ground flat rail 3.25" in width
- Standard redundant end stops

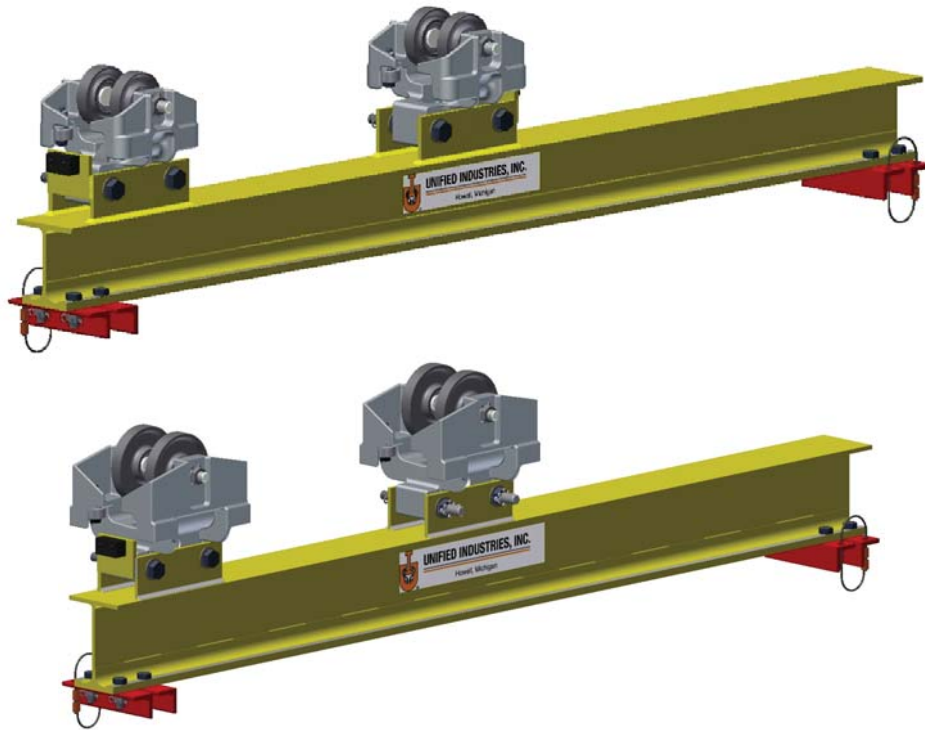


HEAVY LOAD BRIDGE CRANE ASSEMBLY									
BRIDGE			END TRUCK			RATED LOAD		WEIGHT COMPLETE	
SPAN			WHEEL BASE			OVERALL			
"A" (mm)	"B" (mm)	"C" (mm)	"D" (mm)	"E" (mm)	"F" (mm)	Lb	kg	Lb	kg
5'-0 (1524.0)	6'-1 (1854.2)	2'-0 (609.6)	3'-8 (1117.6)	3'-0 (914.4)	4'-8 (1422.4)	6000	2688	461	209
6'-0 (1828.8)	7'-1 (2159.0)	2'-6 (762.0)	4'-2 (1270.0)	5'-0 (1524.0)	6'-2 (1879.6)	5200	2329	477	216
7'-0 (2133.6)	8'-1 (2463.8)	3'-0 (914.4)	5'-8 (1727.2)	6'-0 (1828.8)	7'-2 (2184.4)	4300	1926	516	234
8'-0 (2438.4)	9'-1 (2768.6)	3'-4 (1016.0)	6'-2 (1879.6)	7'-0 (2133.6)	8'-0 (2438.4)	3600	1612	532	241
9'-0 (2743.2)	10'-1 (3073.4)	4'-0 (1219.2)	6'-8 (2032.0)	7'-6 (2286.2)	8'-6 (2590.6)	3000	1344	572	259
10'-0 (3048.0)	11'-1 (3378.2)	4'-6 (1371.6)	7'-0 (2133.6)	8'-0 (2438.4)	9'-0 (2743.2)	2600	1164	635	288
11'-0 (3352.8)	12'-1 (3683.0)	5'-0 (1524.0)	7'-6 (2286.2)	8'-6 (2590.6)	9'-6 (2925.6)	2200	985	652	296
12'-0 (3657.6)	13'-1 (3987.8)	5'-6 (1676.4)	8'-0 (2438.4)	9'-0 (2743.2)	10'-0 (3048.0)	2000	907	698	317
13'-0 (3962.4)	14'-1 (4292.6)	6'-0 (1828.8)	8'-6 (2590.6)	9'-6 (2925.6)	11'-0 (3352.8)	1800	816	719	326
14'-0 (4267.2)	15'-1 (4597.4)	6'-6 (1981.2)	9'-0 (2743.2)	10'-0 (3048.0)	12'-0 (3657.6)	1600	726	758	344
15'-0 (4572.0)	16'-1 (4902.2)	7'-0 (2133.6)	9'-6 (2925.6)	11'-0 (3352.8)	13'-0 (3962.4)	1400	635	774	351
16'-0 (4876.8)	17'-1 (5207.0)	7'-6 (2286.2)	10'-0 (3048.0)	12'-0 (3657.6)	14'-0 (4267.2)	1200	544	811	368
17'-0 (5181.6)	18'-1 (5511.8)	8'-0 (2438.4)	10'-6 (3200.4)	13'-0 (3962.4)	15'-0 (4572.0)	1000	453	831	377
18'-0 (5486.4)	19'-1 (5816.6)	8'-6 (2590.6)	11'-0 (3352.8)	14'-0 (4267.2)	16'-0 (4876.8)	800	362	883	401
19'-0 (5791.2)	20'-1 (6121.4)	9'-0 (2743.2)	11'-6 (3505.2)	15'-0 (4572.0)	17'-0 (5181.6)	600	271	903	410
20'-0 (6096.0)	21'-1 (6426.2)	9'-6 (2925.6)	12'-0 (3657.6)	16'-0 (4876.8)	18'-0 (5486.4)	500	227	930	421
					19'-0 (5791.2)	400	181	953	432
					20'-0 (6096.0)	300	136	973	441
					21'-0 (6399.6)	200	90	993	450
					22'-0 (6699.6)	150	68	1036	470

The above table is based on 1/550 deflection ratio.



WT.
IS FOR BRIDGE ASSEMBLY INCLUDING END TRUCK TROLLEYS.
THIS DOES NOT INCLUDE LOAD SUSPENSION TROLLEY.
NOTE:
BRIDGE CRANES ARE ALL JOGGED AND FITURED IN
MACHINING AND ASSEMBLY TO INSURE PROPER ALIGNMENT



Application

Unified light and medium duty telescoping units are designed for the suspension of portable spotweld guns, power tools balancers, hoists fixtures etc. and other light or medium weight loads not exceeding recommended rated loads. See next page for rated loads of various extensions.

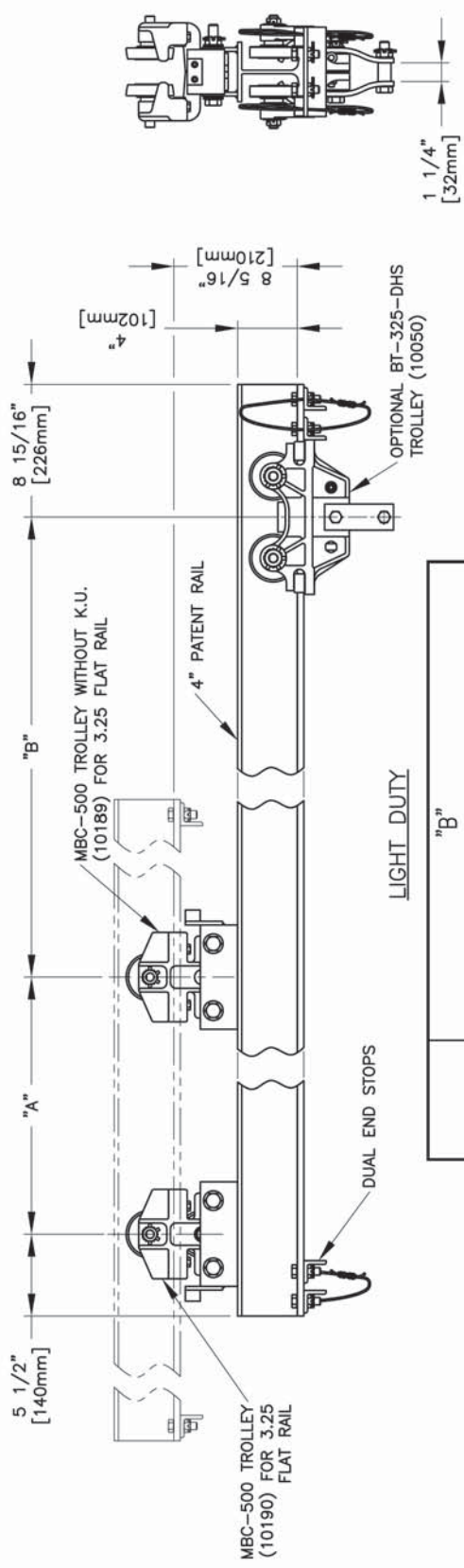
Specifications

Unified light and medium duty telescoping units consist of one two-wheel and one three-wheel trolley or carrier head opposite of overhang, mounted to a transfer beam. The medium duty units have a compound section, with a hardened and ground flat track 3.25" in width. (See trolley section for trolley or carrier head specifications).

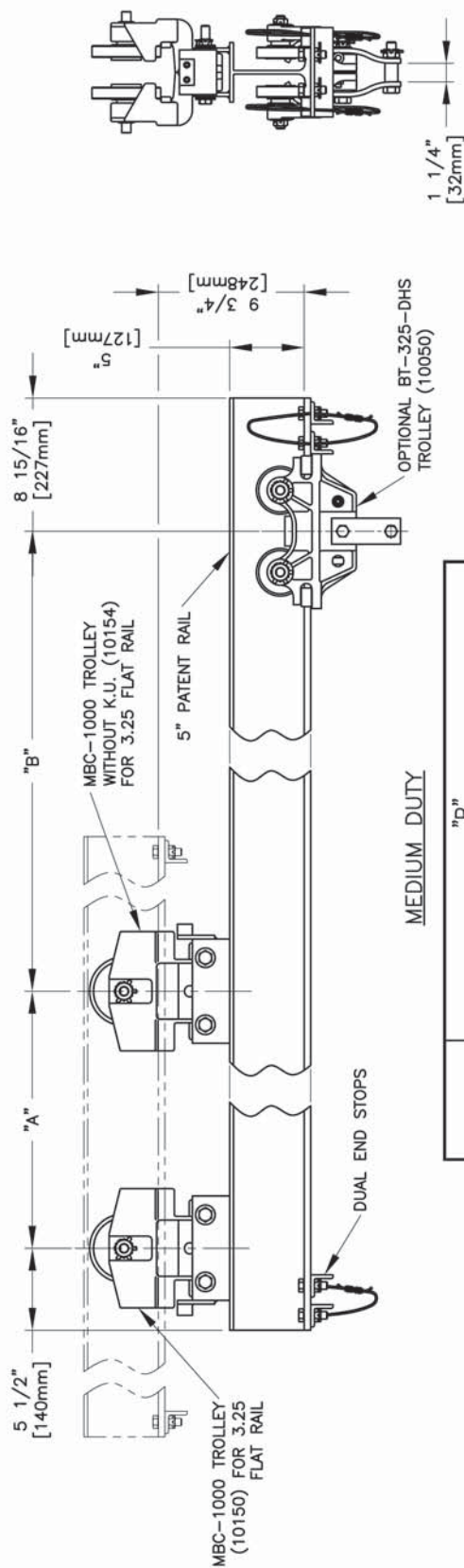
Transfer beam is mounted with trolleys or carrier heads for operation on either flat rail or S-Beam. End stops bolted to each end of transfer beam complete the assembly.

Options

- Transfer beam overhang opposite of extension to your specifications
- Standard redundant end stops

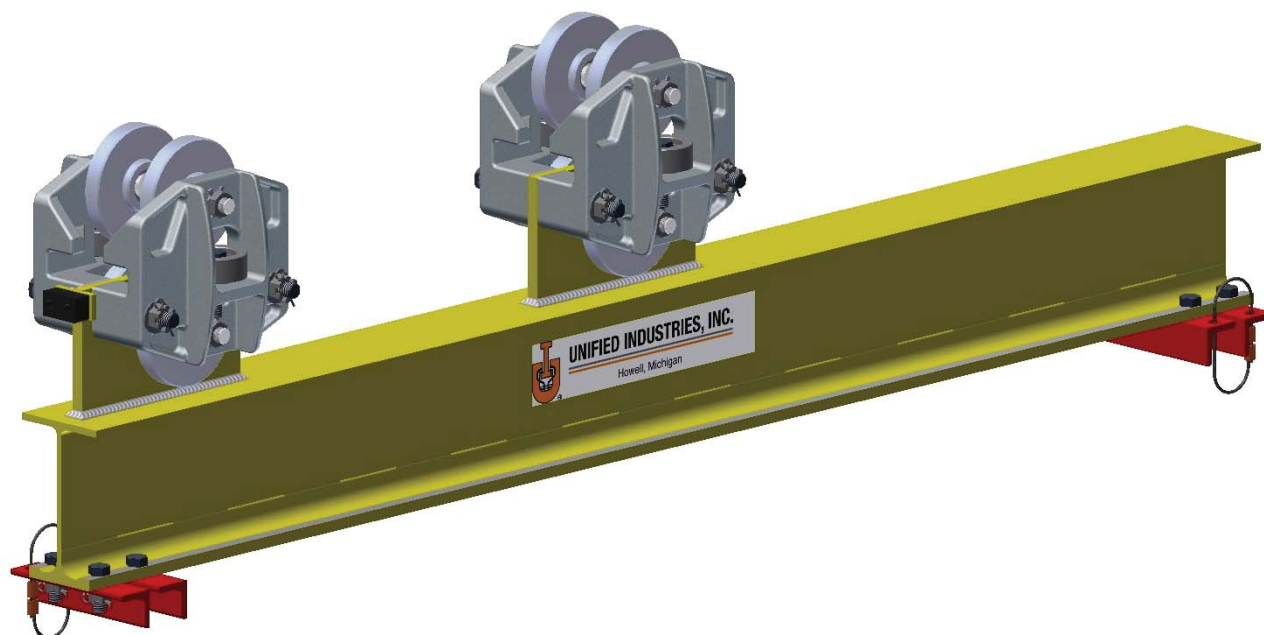


"A"		"B"											
		12" [304 mm]	24" [609 mm]	36" [914 mm]	48" [1219 mm]	LBs		Kgs		LBs		Kgs	
18" [457 mm]		300	136.3	210	95.4	165	75	135	61.3				
24" [609 mm]		330	150	250	113.6	200	90.9	165	75				
30" [762 mm]		355	161.3	275	125	225	102.2	190	86.3				



"A"		"B"											
		12" [304 mm]	24" [609 mm]	36" [914 mm]	48" [1219 mm]	LBs		Kgs		LBs		Kgs	
18" [457 mm]		600	272.7	425	193.1	330	150	270	122.7				
24" [609 mm]		665	302.2	500	227.2	400	181.8	330	150				
30" [762 mm]		710	321.7	555	252.2	450	204.5	380	172.7				

The above tables are based on 1/550 deflection ratio.



Application

Unified standard duty telescoping self-equalizing tandem trolley units are designed for the suspension of portable spotweld guns, power tools, balancers, hoists, fixtures, etc., and other loads not exceeding recommended rated loads. See next page for rated loads of various extensions.

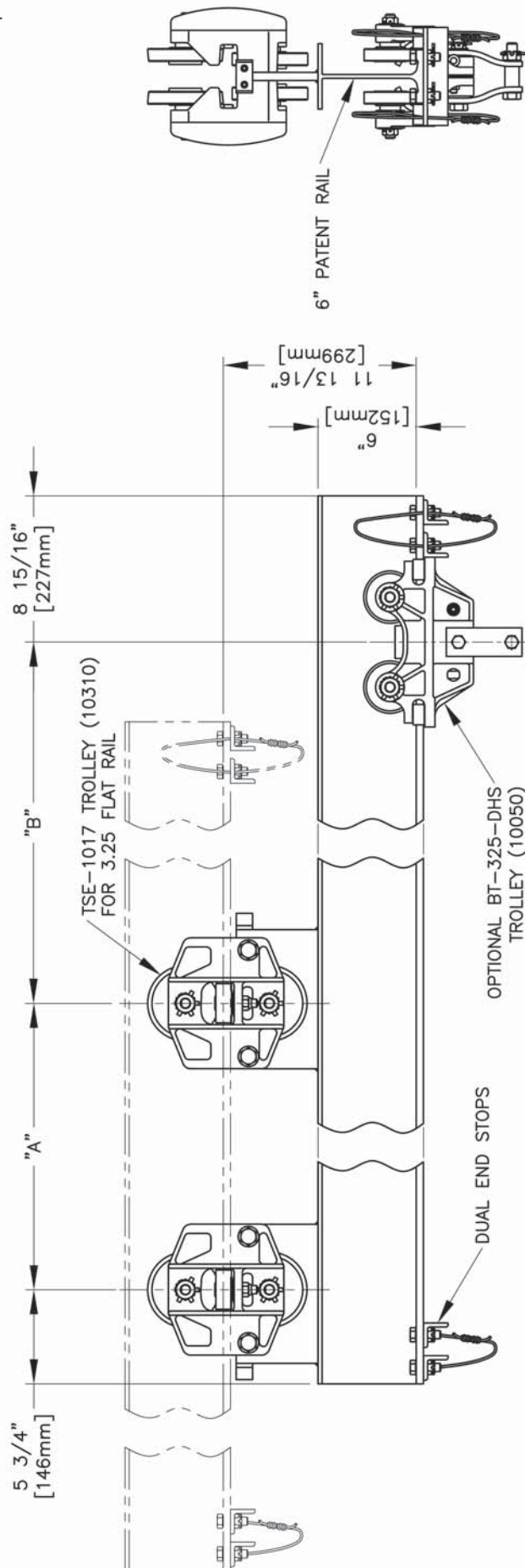
Specifications

Unified standard duty telescoping units consist of two tandem trolleys welded to a transfer beam. The transfer beam is a compound section 6" in height with a hardened and ground flat rail 3.25" in width. (See trolley section for trolley specifications).

Transfer beam is mounted with tandem trolleys for operation on either flat rail or S-Beam. End stops bolted to each end of transfer beam complete the assembly.

Options

- Transfer beam overhang opposite of extension to your specifications ("C" dimension).
- Standard redundant end stops



TROLLEY SPECIFICATIONS

RATED LOAD: 2,500 LBS. (1120 Kgs)
WEIGHT: 31 LBS. (14 Kgs)
BODY: HIGH TENSILE ALMAG
WHEEL: 4 5/8" [117] DIA.
STUD: 5/8" [15] DIA.

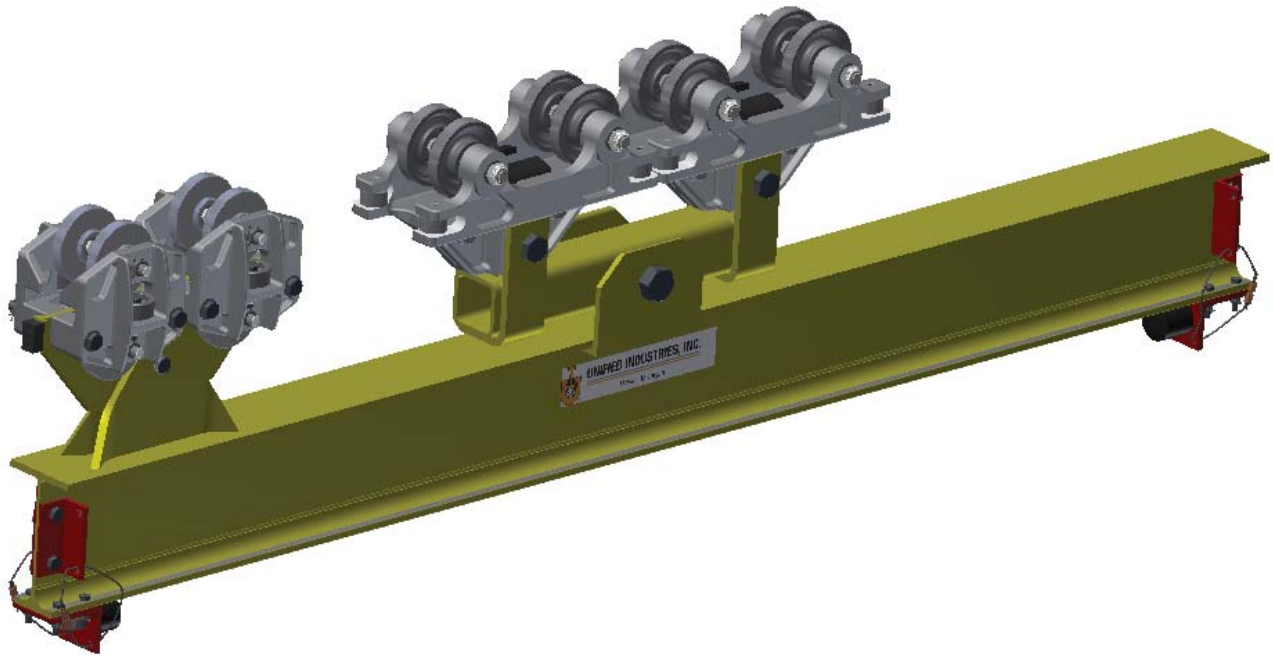
NOTE:

WHEN ORDERING SPECIFY EXACT WIDTH
OF RUNNING SURFACE FLANGE.

1.	3.25"	[82.6]	FOR STD. FLAT RAIL AND FLAT RAIL.
2.	3.33"	[84.6]	FOR S6 BEAM

"A"		DIMENSION "B" EXTENDED LOAD RATINGS IN POUNDS & KILOGRAMS											
IN.	MM	12"	304 mm	24"	609 mm	36"	914 mm	48"	1219 mm	60"	1524 mm	72"	1828 mm
18	457	1500 LBS	681.8 KGS	1070 LBS	486.3 KGS	830 LBS	377.2 KGS	680 LBS	309 KGS	575 LBS	261.3 KGS	500 LBS	227.2 KGS
24	609	1685 LBS	756.8 KGS	1250 LBS	568.1 KGS	1000 LBS	454.5 KGS	830 LBS	377.2 KGS	710 LBS	322.7 KGS	585 LBS	265.9 KGS
36	914	1785 LBS	811.3 KGS	1385 LBS	629.5 KGS	1135 LBS	515.9 KGS	960 LBS	436.3 KGS	750 LBS	340.9 KGS	550 LBS	250 KGS
36	914	1875 LBS	852.2 KGS	1500 LBS	681.8 KGS	1250 LBS	568.1 KGS	1000 LBS	454.5 KGS	700 LBS	318.1 KGS	520 LBS	236.3 KGS
42	1066	1940 LBS	881.8 KGS	1590 LBS	722.7 KGS	1345 LBS	611.3 KGS	930 LBS	422.7 KGS	660 LBS	300 KGS	495 LBS	225 KGS
48	1219	2000 LBS	909 KGS	1665 LBS	756.8 KGS	1430 LBS	604.5 KGS	875 LBS	397.7 KGS	625 LBS	284 KGS	470 LBS	213.6 KGS

The above table is based on 1/550 deflection ratio.



Application

Unified heavy duty telescoping self-equalizing tandem trolley units are designed for the suspension of portable spotweld guns, power tools, balancers, hoists, fixtures, etc., and other loads not exceeding recommended rated loads. See next page for rated loads of various extensions.

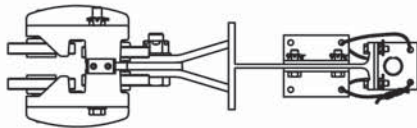
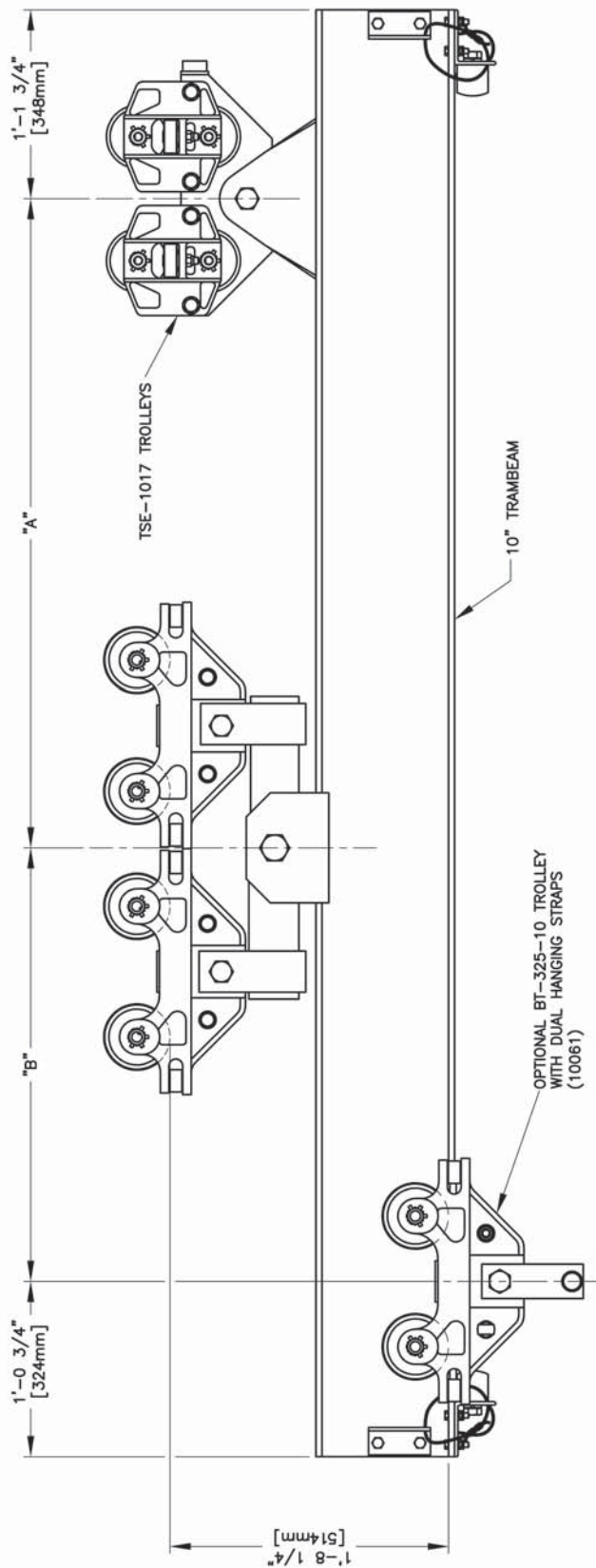
Specifications

Unified heavy duty telescoping units consist of two tandem trolleys welded to a transfer beam.

Transfer beam is mounted with tandem trolleys for operation on either flat rail or S-Beam. End stops bolted to each end of transfer beam complete the assembly.

Options

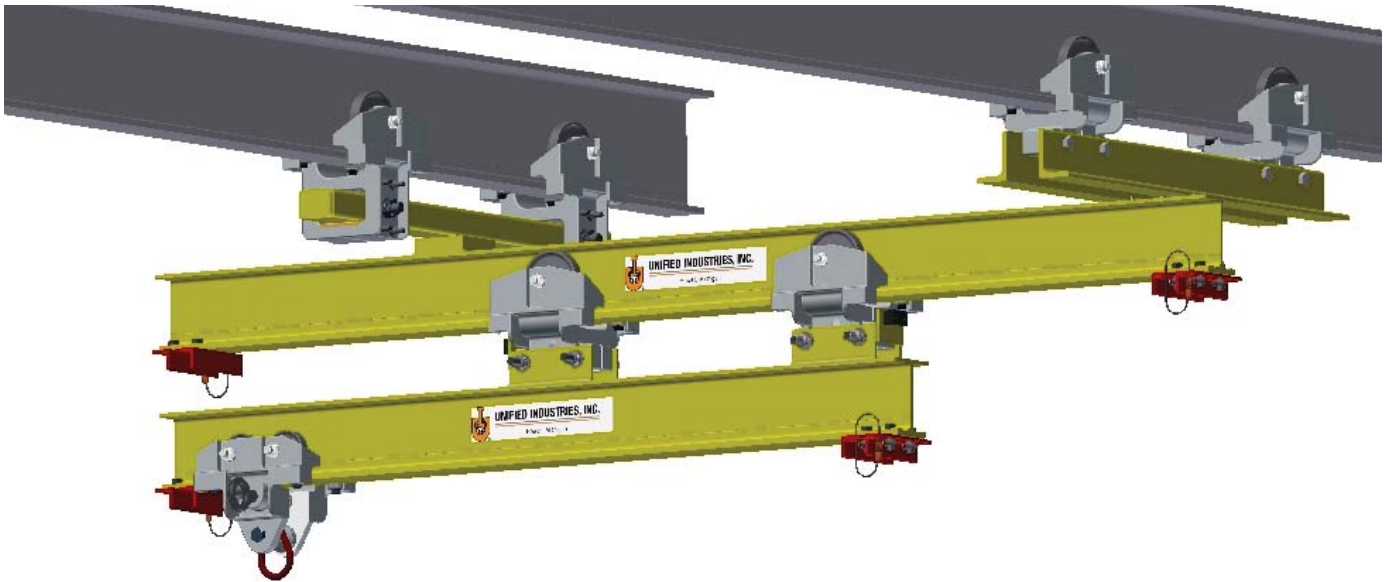
- Transfer beam overhang opposite of extension to your specifications ("C" dimension).



BEAM SIZE	"A"		"B" LOAD IN POUNDS AND KILOGRAMS							
			36"	914 mm	48"	1219 mm	60"	1524 mm	72"	1828 mm
10"	36"	914 mm	4000 LBS	1818.1 Kg	3425 LBS	1556.8 Kg	3000 LBS	1363.6 Kg	2225 LBS	1011.3 Kg
10"	48"	1219 mm	4570 LBS	2077.2 Kg	3750 LBS	1704.5 Kg	2660 LBS	1209 Kg	2000 LBS	909 Kg
11 1/2"	60"	1524 mm	5000 LBS	2272.7 Kg	4440 LBS	2018.1 Kg	3650 LBS	1659 Kg	2760 LBS	1254.5 Kg
11 1/2"	72"	1828 mm	5330 LBS	2422.7 Kg	4550 LBS	2086.1 Kg	3330 LBS	1513.6 Kg	2540 LBS	1154.5 Kg

FOR ADDITIONAL LOADS AND
DIMENSIONS, CONSULT FACTORY.

The above table is based on 1/550 deflection ratio.



Unified bridge crane and telescope unit combination for extending loads beyond normal span of runway.

Unified self-aligning carrier SAC-1020-1 used for runways that are not parallel.

Unified anti kick-up carrier MBC-1000-3 for opposing counter thrust of extended load.



UNIFIED INDUSTRIES, INC.

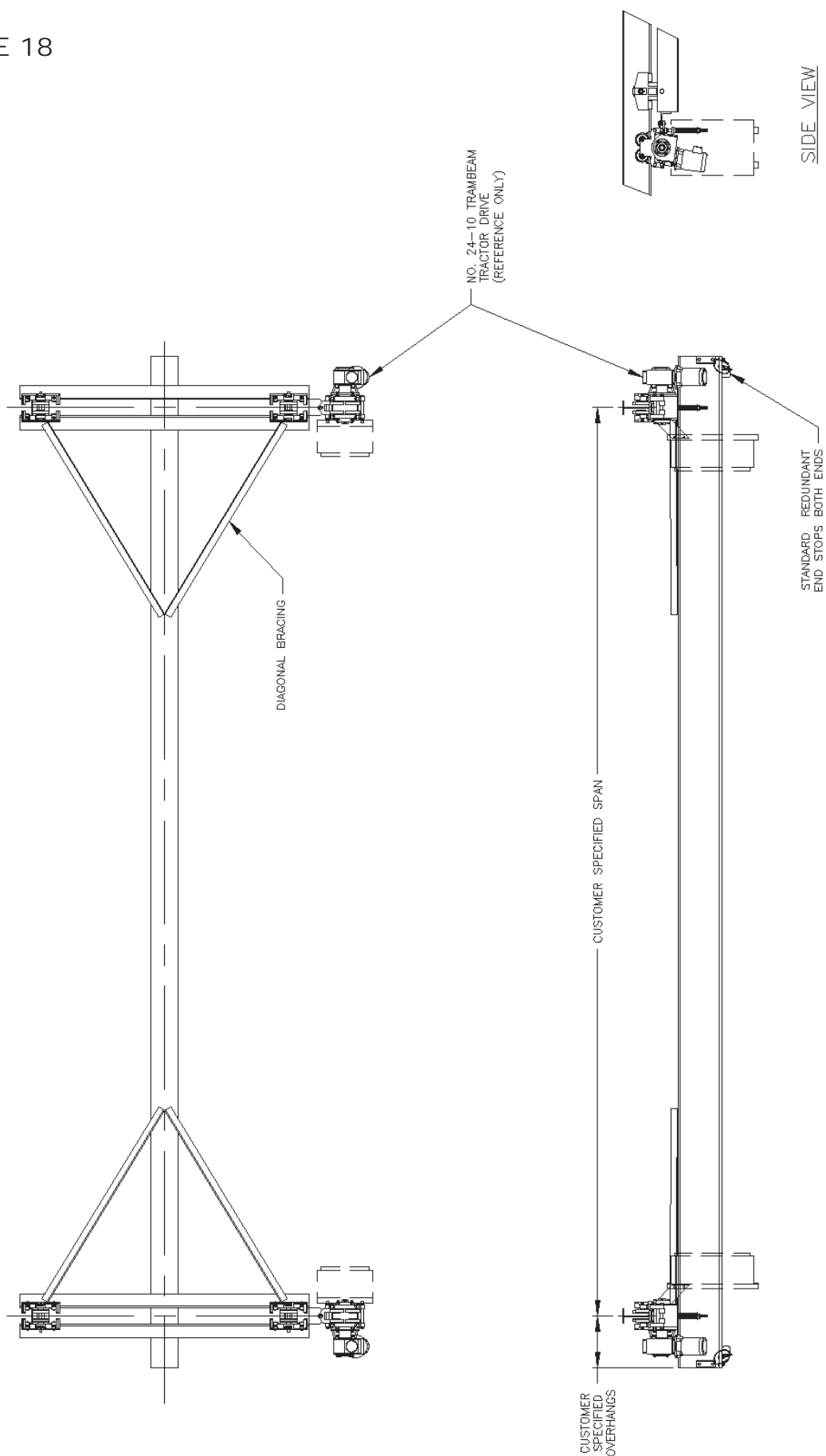
A Columbus McKinnon Company

Phone: 517-546-3220

Email: sales@unified-ind.com

MOTORIZED BRIDGE CRANES (AIR AND ELECTRIC)





UNIFIED MOTORIZED BRIDGE CRANE
ELECTRIC AND AIR OPERATED
(SHOWN) (NOT SHOWN)

CAUTION

This bridge crane has a safe load rating, which has been clearly marked on both sides by the manufacturer. The total weight of the suspended load should never exceed 125% of this limit. The weight of all handling devices such as buckets, magnets, grabs, balancers, hoists, weldguns, etc. must be included as a part of the suspended load. The weight of such devices should therefore be determined and clearly marked.

Consideration should be given when installing hoisting devices. Load ratings for such devices may exceed the load rating of the bridge crane.

The operator should inspect this bridge crane for loose bolts and worn, cracked or distorted parts prior to use (inspection should include all handling devices and mounting equipment). Defective parts should be replaced with manufacturer-approved parts before use of bridge crane is resumed.

This bridge crane conforms to the safety standards of the U.S. Occupational Safety and Health Administration (OSHA). Any alteration of its structure or change in its rated load capacity may render null and void any manufacturer's warranties, expressed or implied.

***All dimensions are reference only
and need to be verified with factory.**

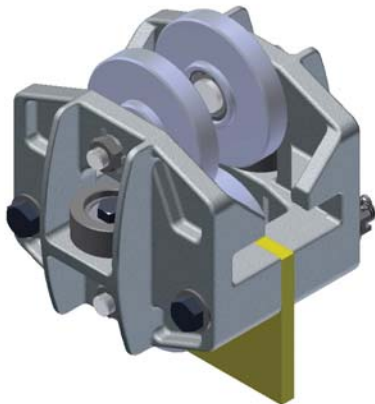
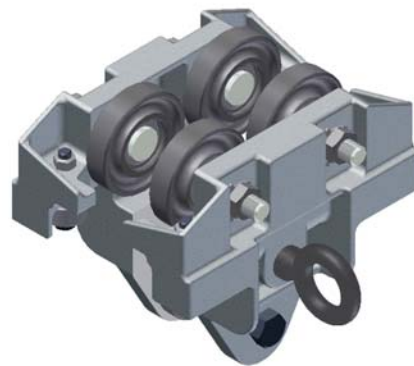




UNIFIED INDUSTRIES, INC.

A Columbus McKinnon Company

PATENT RAIL & STANDARD SHAPES TROLLEYS





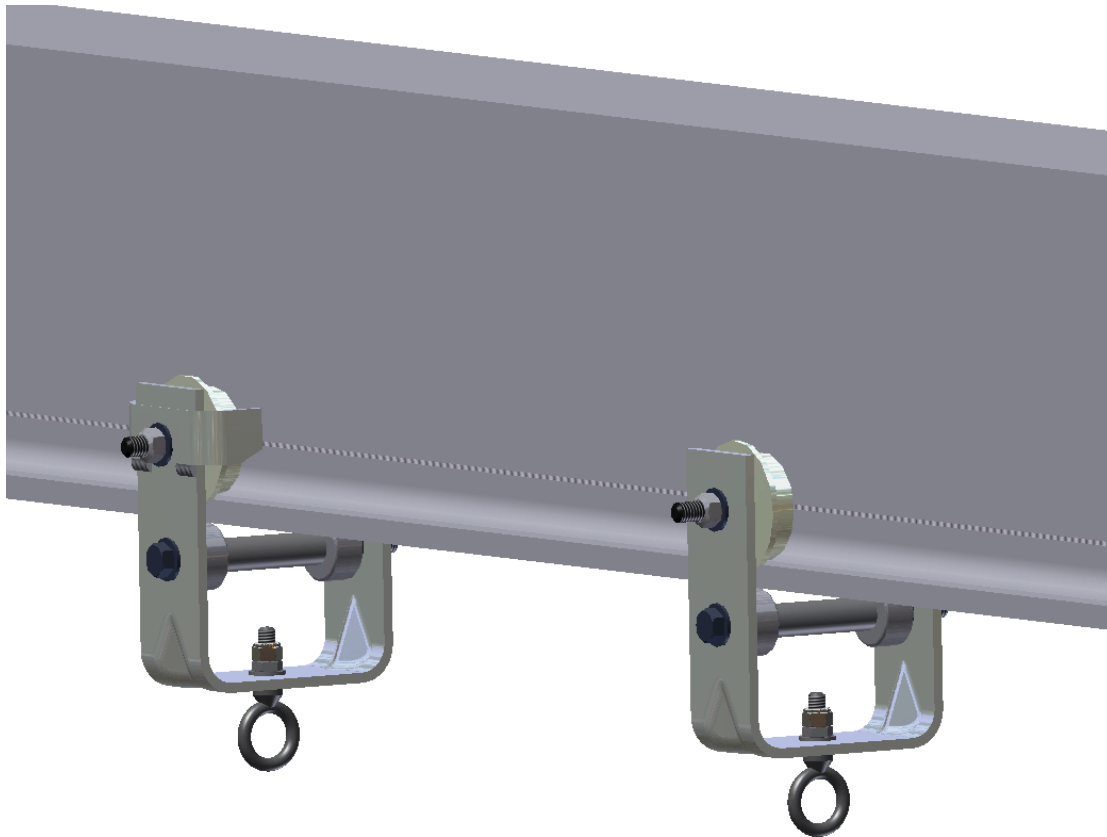
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***All dimensions are reference only
and need to be verified with factory.**



MODEL NUMBER	RATED LOAD POUNDS	kg	SAFETY CLEVIS	FOR OPERATION ON:				ADJUST-ABLE WIDTH	SEE PAGE
				3.25" FLAT RAIL	4" "S" BEAM	6" S" BEAM	3.33" FLAT TRACK		
FT-325 FT-266 FT-333	150	68	NO	X	X	X	X	NO	3-4
MT-250-B	250	113	LUG	X	X	X	X	YES	5-6
MBC-500 MBC-500-4	500	228	LUG	X	X	X	X	NO	7-8
MBC-500 W/KU MBC-500-4 W/KU	500	228	LUG	X	X	X	X	NO	9-10
AC-500-2 AC-500-2-4	500	228	LUG	X	X	X	X	NO	11-12
SAC-500-2 SAC-500-2-4	500	228	LUG	X	X	X	X	NO	13-14
UT-500	500	228	LUG	X	X	X	X	YES	15-16
UT-1000	1000	453	LUG	X	X	X	X	YES	17-18
MBC-1000 MBC-1500	1000 or 1500	453 or 680	LUG	X		X	X	NO	19-20
MBC-1000 W/KU MBC-1500 W/KU	1000 or 1500	453 or 680	LUG	X		X	X	NO	21-22
AC-1027-1	1000 or 1500	453 or 680	LUG	X		X	X	NO	23-24
SAC-1020-1	1000 or 1500	453 or 680	LUG	X		X	X	NO	25-26
BT-325 BT-266 BT-333	2000	907	STEEL	X	X		X	NO	27-28
TSE-1017-1	2500	1134	LUG	X		X	X	NO	29-30
BT-325-10 BT-333-10	4000	1814	STEEL	X		X	X	NO	31-32

* Consult factory for metric beams



Part Number

- **10080** FT-233 for operation on 2.33" flange 3" S-Beam
- **10100** FT-266 for operation on 2.66" flange 4" S-Beam
- **10120** FT-325 for operation on 3.25/3.33" flange flat rail
- **10135** FT-333 for operation on 3.33" flange 6" S-Beam

Trolleys with Bumpers

- **10090** FT-233-B for operation on 2.33" flange 3" S-Beam
- **10110** FT-266-B for operation on 2.66" flange 4" S-Beam
- **10130** FT-325-B for operation on 3.25/3.33" flange flat rail
- **10137** FT-333-B for operation on 3.33" flange 6" S-Beam
- Consult factory for metric beams

Application

- For festooning of cable or hose along runway
- For suspension of small portable tools
- For suspension of light duty balancers

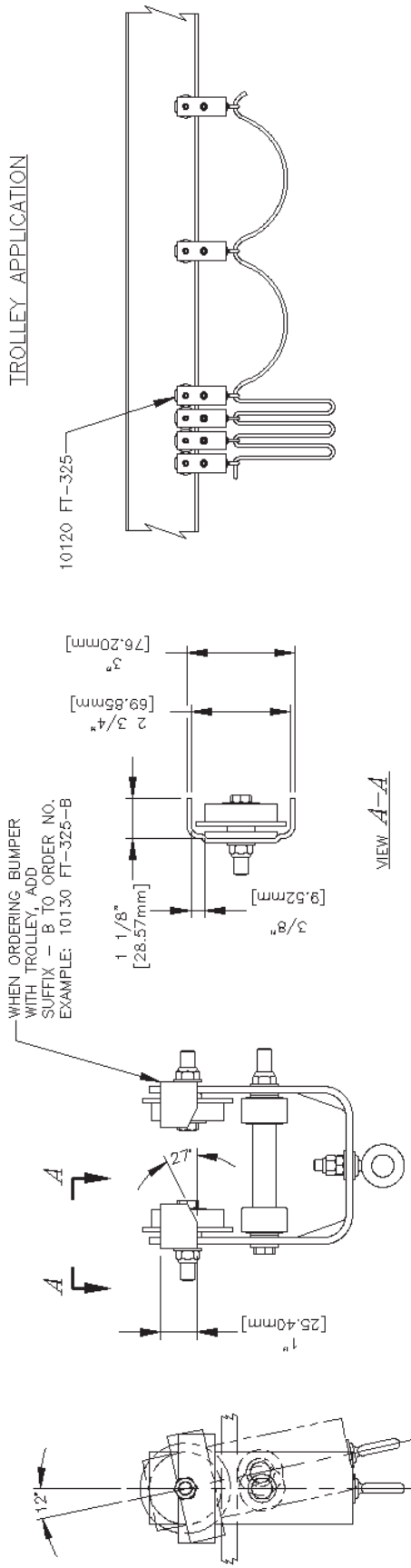
Features

- 2 inch diameter ball bearing flanged load wheels
- Flat or tapered tread for flat rail or S-Beam
- Flat ball bearing "kick-up" wheels
- Bumpers are optional
- Fits up to 7/16" max. bottom flange thickness

Options

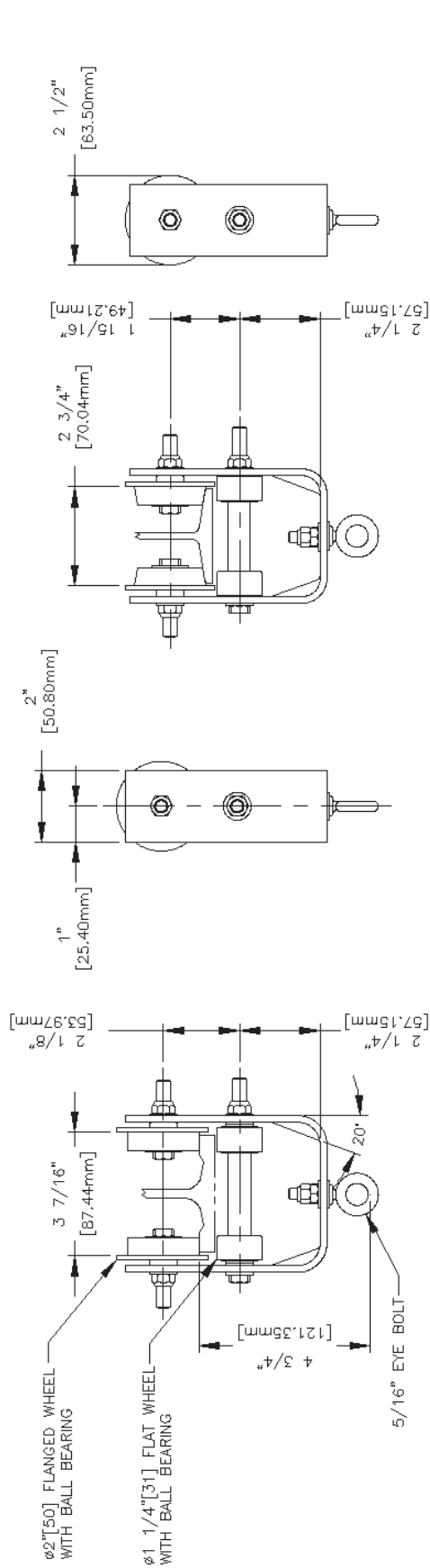
- Can be furnished with various festooning saddles to accommodate either round or flat cables, consult factory.

TROLLEY APPLICATION



VIEW A-A

• ALL DIMENSIONS ARE REFERENCE ONLY



10135 FT-333 TROLLEY

FOR USE ON S6 BEAM.
TROLLEY LOAD RATING: 150LBS (67.2Kgs)
10137 FT-333-B

10120 FT-325 TROLLEY

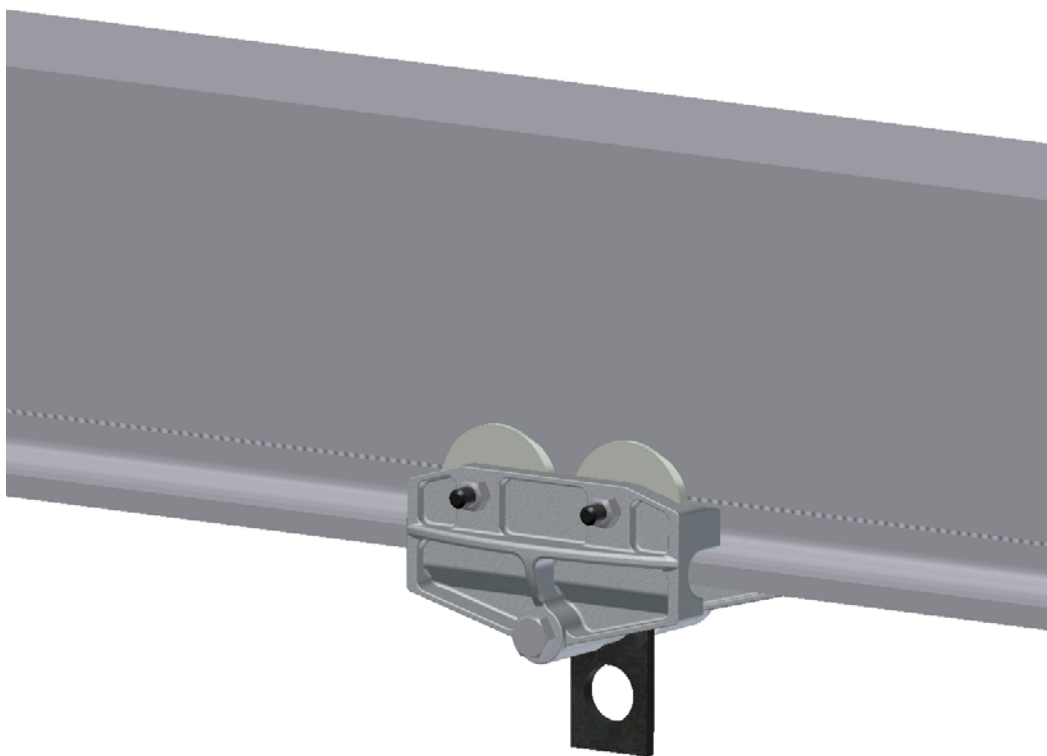
FOR USE ON FLAT TRACK WITH
A 3.25"[82.6] OR 3.33"[84.6] FLANGE WIDTH.
TROLLEY LOAD RATING: 150LBS (67.2Kgs)
10130 FT-325-B

10100 FT-266 TROLLEY

FOR USE ON S4 BEAM WITH
A 2.66"[67.6] FLANGE WIDTH.
TROLLEY LOAD RATING: 150LBS (67.2Kgs)
10110 FT-266-B

10080 FT-233 TROLLEY

FOR USE ON S3 BEAM WITH
A 2.33"[59.2] FLANGE WIDTH.
TROLLEY LOAD RATING: 150LBS (67.2 Kgs)
10090 FT-233-B



Part Number

- **10210** MT-250-B for operation on 3.25"/3.33" flange flat rail
- **10211** MT-250-B for operation on 3.33" flange 6" S-Beam
- **10212** MT-250-B for operation on 2.66" flange 4" S-Beam
- **10215** MT-250-B for operation on 2.66" flange 4" S-Beam with brass wheels

Application

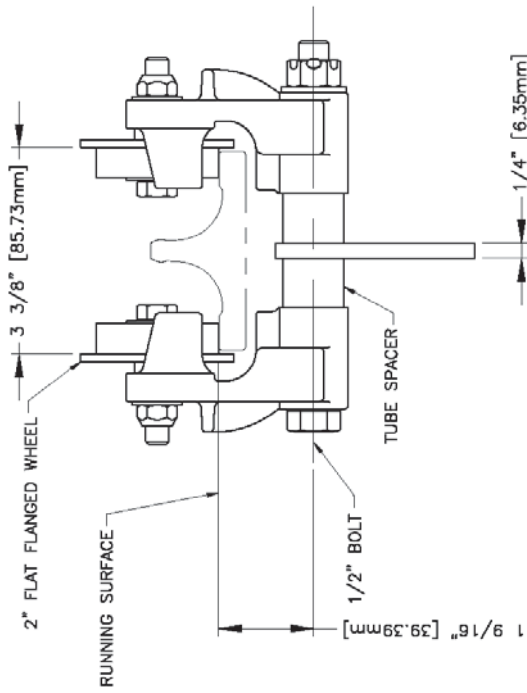
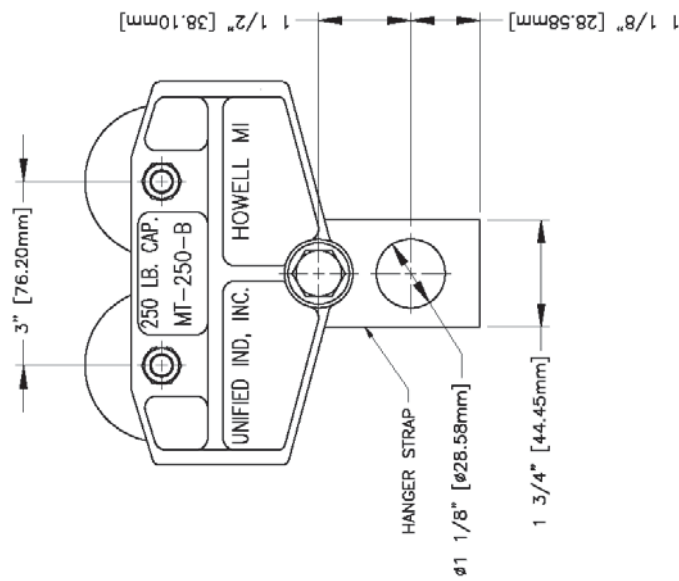
- For suspension of light duty balancer or hoist
- For suspension of portable tools or fixtures

Features

- Adjustable width to fit flat rail and 4" to 6" S-Beam
- High tensile almag alloy frames
- Built in safety lugs also prevent "kick-up"
- Ball bearing flanged load wheels for flat rail or S-Beam
- Minimum track radius is 36" (914mm)
- Fits up to 9/16" max. bottom flange thickness

Options

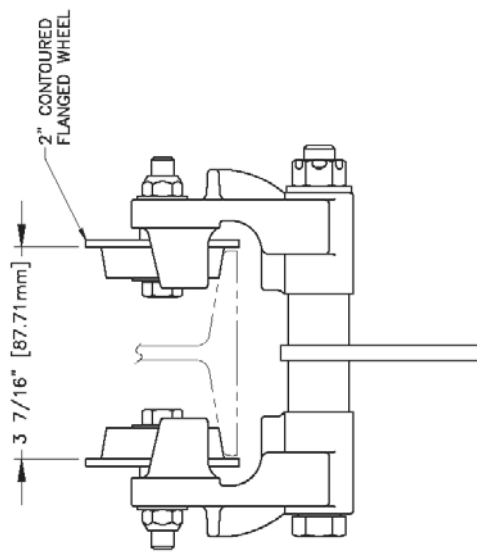
- Can be furnished with load link



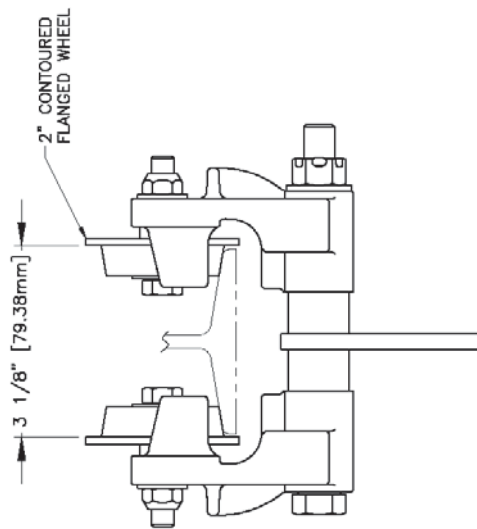
TROLLEY SPECIFICATIONS
RATED LOAD: 250 lbs. (112 kgs)
WEIGHT: 5.5 lbs. (2.5 kgs)
BODY: HIGH TENSILE ALUMINUM
WHEELS: 2" DIA. FLAT OR CONTOURED FLANGED
STUDS: 3/8" DIA.
BEARING TYPE: BALL THRUST BEARING, HARDENED AND GROUND.

NOTE:
WHEN ORDERING SPECIFY WIDTH OF RUNNING SURFACE FLANGE
3.25" FOR STD. OR SPECIAL FLAT RAIL
3.33" FOR S6 BEAM
3.00" FOR S5 BEAM
2.66" FOR S4 BEAM

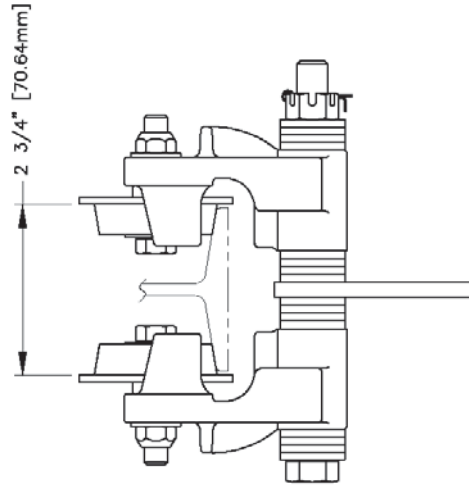
10210 MT-250-B-325
FOR OPERATION ON FLAT RAIL WITH A
3.25" [82.6] OR 3.33" [84.6] FLANGE WIDTH



10211 MT-250-B-333
FOR OPERATION ON S6 BEAM
WITH A 3.33" [84.6] FLANGE WIDTH



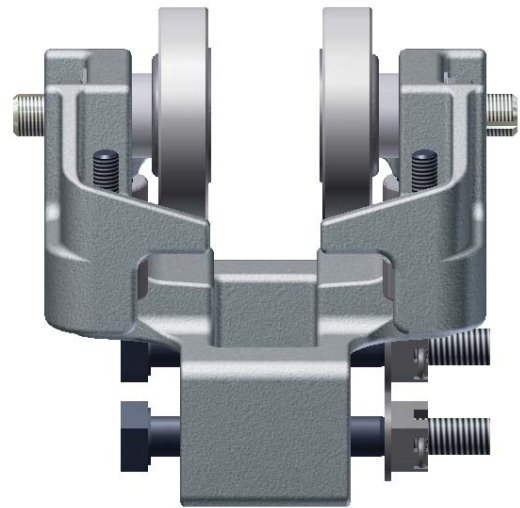
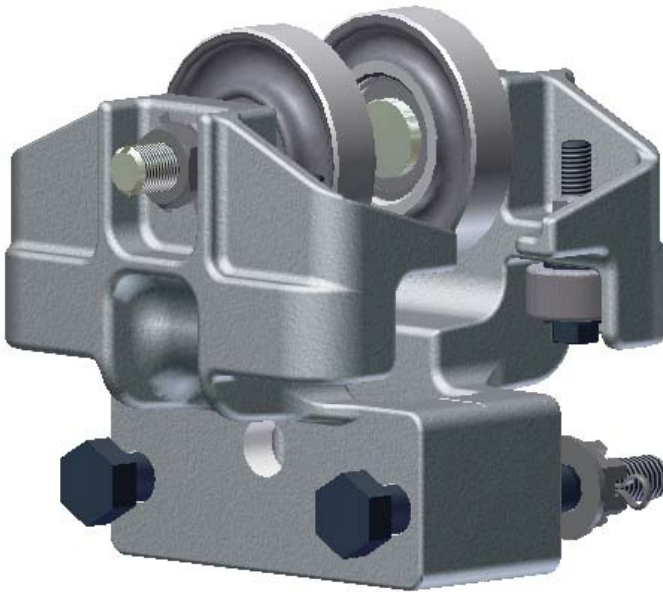
10209 MT-250-B-300
FOR OPERATION ON S5 BEAM
WITH A 3.00" [76.2] FLANGE WIDTH



10212 MT-250-B-266
FOR OPERATION ON S4 BEAM
WITH 2.66" [67.6] FLANGE WIDTH

10215 MT-250-B-266
WITH BRASS WHEELS FOR
OPERATION ON S4 BEAM WITH
2.66" [67.6] FLANGE WIDTH

• ALL DIMENSIONS ARE REFERENCE ONLY



Part Number

- **10189** MBC-500-3-325 without pickup wheels for operation on 3.25" or 3.33" - flange flat rail
- **10192** MBC-500-3-333 without pickup wheels for operation on 3.33" flange 6" S-Beam
- **10201** MBC-500-3-4-266 without pickup wheels for operation on 2.66" flange 4" S-Beam

Application

- Used in pairs for light load bridge crane end trucks
- Use in tandem for rated load to 1000 lbs. (454kg)

Features

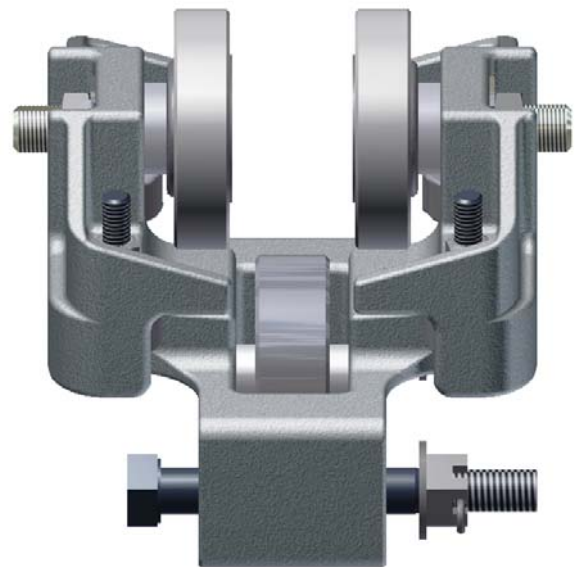
- High tensile almag alloy frames
- Integral built in safety lugs
- Shielded side thrust roller protection
- Hardened ball bearing side thrust rollers
- Forged wheels 3.2" (81mm) diameter flat or contoured induction hardened with permanently sealed precision ball bearings

Options

- Standard conveyor wheels 3.2" (81mm) diameter flat or contoured with lubricated ball bearings
- Can be furnished as assembled end truck



- ALL DIMENSIONS ARE REFERENCE ONLY



Part Number

- **10190** MBC-500-3-325 with kickup wheels for operation on 3.25" or 3.33" - flange flat rail
- **10191** MBC-500-3-333 with kickup wheels for operation on 3.33" flange 6" S-Beam
- **10200** MBC-500-3-4-266 with kickup wheels for operation on 2.66" flange 4" S-Beam

Application

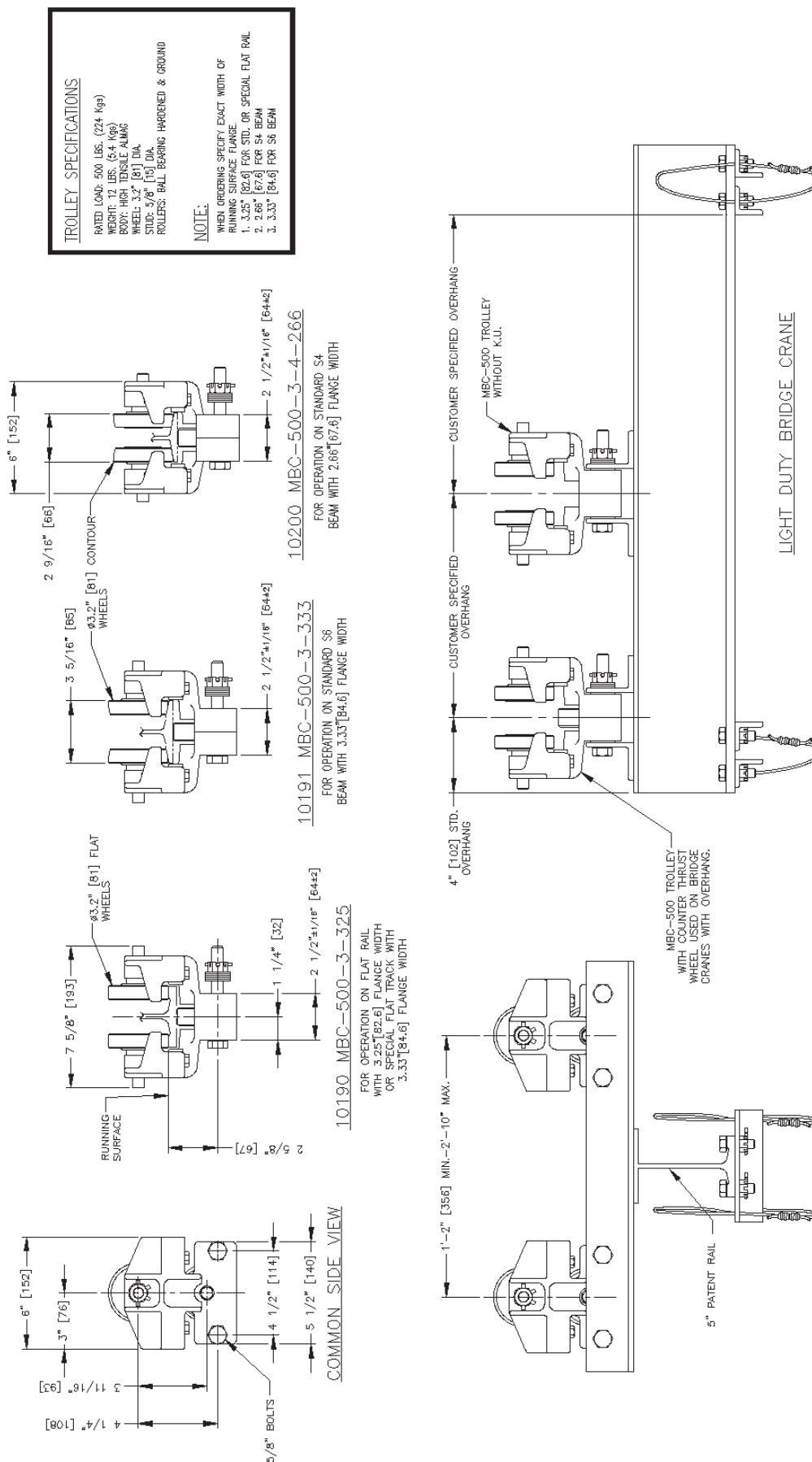
- Used in pairs on one or both ends of bridge crane to eliminate cantilever "kick-up" where overhang of bridge beam and load exceeds counter weight of bridge
- Use on light load telescope units for extending load beyond bridge crane span
- Can be adapted to tools and fixtures where cantilever rolling action is required. Third wheel engages underside of rail to eliminate possible drag

Features

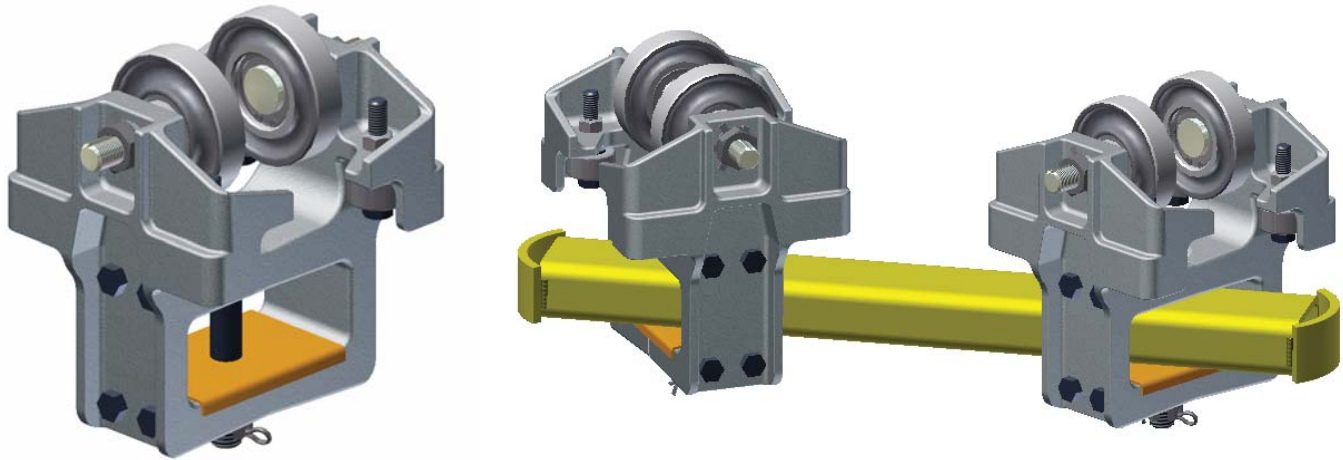
- High tensile almag alloy frames
- Integral built in safety lugs
- Shielded side thrust roller protection
- Hardened ball bearing side thrust rollers
- Forged wheels 3.2" (81mm) diameter flat or contoured induction hardened with permanently sealed precision ball bearings

Options

- Standard conveyor wheels 3.2" (81mm) diameter flat or contoured with lubricated ball bearings
- Can be furnished as assembled end truck



ALL DIMENSIONS ARE REFERENCE ONLY



Part Number

- **10020** AC-500-2-325 for operation on 3.25" or 3.33" flange flat rail
- **10021** AC-500-2-333 for operation on or 3.33" flange 6" S-Beam
- **10030** AC-500-2-4 for operation on 2.66" flange 4" S-Beam

Application

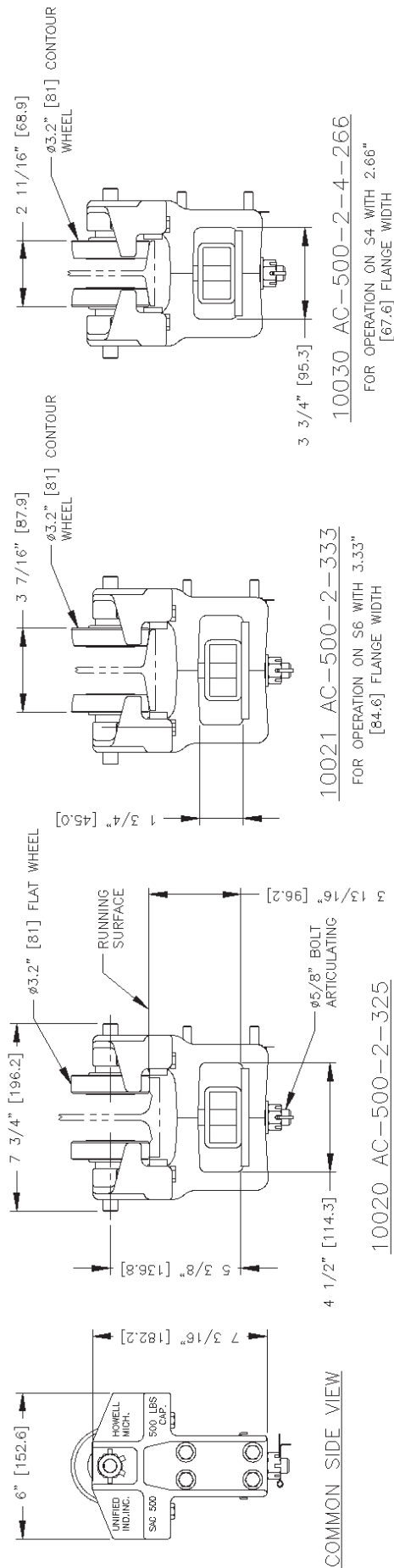
- Used in tandem as articulating load bars on horizontal curved monorail systems

Features

- High tensile almag alloy frames
- Integral built-in safety lugs
- Shielded side thrust roller protection
- Hardened ball bearing side thrust rollers
- Forged wheels 3.2" (81mm) diameter flat or contoured induction hardened with permanently sealed precision ball bearings
- Load bearing brass wear plate
- Heat treated steel pivot bolt

Options

- Standard conveyor wheels 3.2" (81mm) diameter flat or contoured with lubricated ball bearings
- Can be furnished as an assembled end truck or load bar



• ALL DIMENSIONS ARE REFERENCE ONLY

APPLICATIONS FOR AC-500 ARTICULATING CARRIER HEAD TROLLEYS

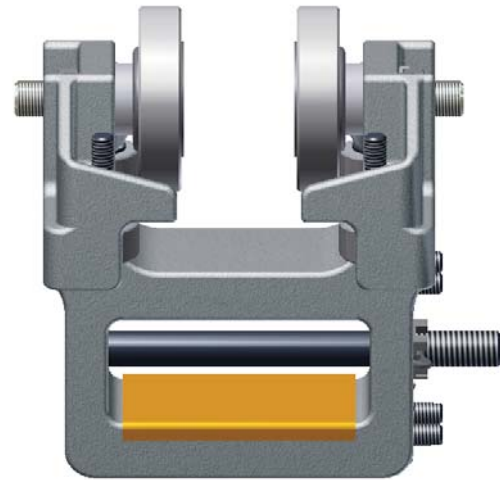
ASSEMBLIES ON A MINIMUM 3FT. CURVED RUNWAY.
USE IN PAIRS FOR LOAD BAR ASSEMBLIES ON
3FT. MINIMUM CURVED MONORAIL.

TROLLEY SPECIFICATIONS

RATED LOAD: 500LBS. (224Kgs)
WEIGHT: 10.5LBS. (4.70Kgs)
BODY: HIGH TENSILE ALMAG
WHEELS: Ø3.2" [82.6]
STUD: Ø5/8" [16]
ROLLERS: BALL THRUST BEARINGS

NOTES:

ALL AC-500 TROLLEYS COME WITH A BRASS WEAR
PLATE.
WHEN ORDERING PLEASE SPECIFY WIDTH OF RUNNING
SURFACE FLANGE.
(1) 3.25" [82.6] FOR STD. & SPECIAL FLAT RAIL.
(2) 2.66" [67.6] FOR S4 BEAM
(3) 3.33" [84.6] FOR S6 BEAM
AVAILABLE WITH FLAT OR CONTOUR WHEELS.



Part Number

- **10230** SAC-500-2-325 for operation on 3.25" or 3.33" flange flat rail or
- **10231** SAC-500-2-333 for operation on 3.33" flange 6" S-Beam
- **10240** SAC-500-2-266 for operation on 2.66" flange 4" S-Beam

Application

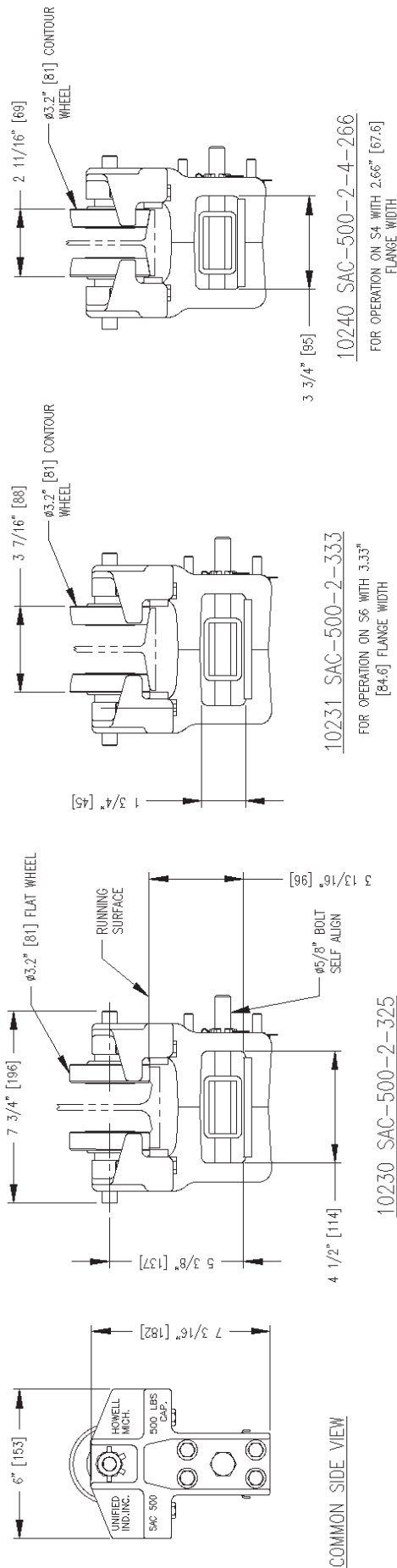
- Used in pairs for bridge crane end trucks where gage of span is not parallel

Features

- High tensile almag alloy frames
- Integral built in safety lugs
- Shielded side thrust roller protection
- Hardened ball bearing side thrust rollers
- Forged wheels 3.2" (81mm) diameter flat or contoured induction hardened with permanently sealed precision ball bearings
- Load bearing brass wear plate
- Hardened steel self aligning bolt
- Trolley is designed to seek center of runway rail

Options

- Standard conveyor wheels 3.2" (81mm) diameter flat or contoured with lubricated ball bearings
- Can be furnished as an assembled end truck



- ALL DIMENSIONS ARE REFERENCE ONLY

APPLICATIONS FOR SAC-500 TROLLEYS

USE IN PAIRS FOR BRIDGE CRANE END TRUCK

TROLLEY SPECIFICATIONS

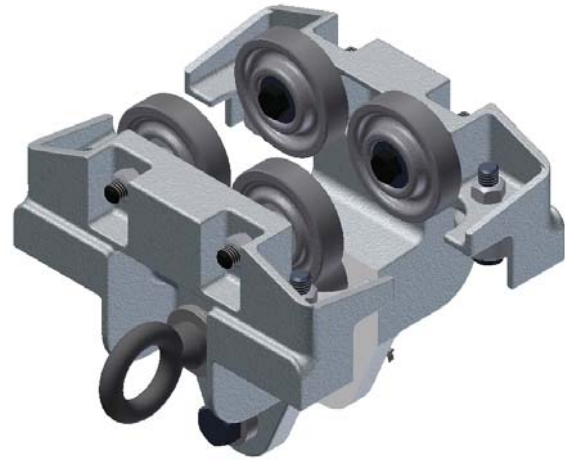
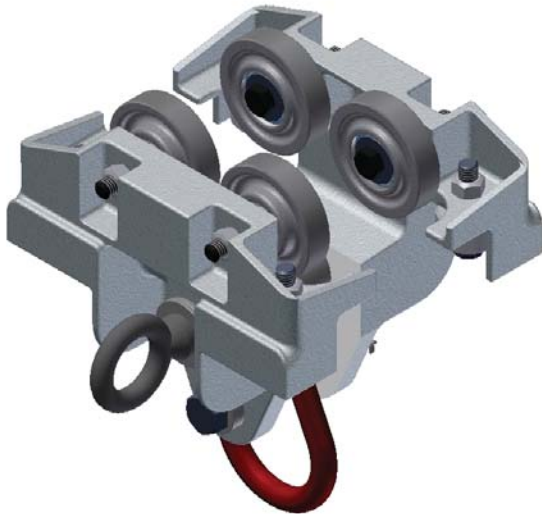
RATED LOAD: 500LBS. (224Kgs)
WEIGHT: 10.5LBS. (4.70Kgs)
BODY: HIGH TENSILE ALMAG
WHEELS: $\phi 3.2"$ [82.6]
STUD: $\phi 5/8"$ [16]
ROLLERS: BALL THRUST BEARING

NOTES:

ALL SAC-500 TROLLEYS COME WITH A BRASS WEAR PLATE.
WHEN ORDERING PLEASE SPECIFY WIDTH OF RUNNING
SURFACE FLANGE.

(1)	3.25"	[32.6]	FOR STD. & SPECIAL FLAT RAIL.
(2)	2.66"	[67.6]	FOR S4 BEAM
(3)	3.33"	[84.6]	FOR S6 BEAM

AVAILABLE WITH FLAT OR CONTOUR WHEELS.



Part Number

- **10350** UT-500-LL-325 For operation on 3.25"/3.33" flange flat rail
- **10351** UT-500-LL-333 For operation on 3.33" flange 6" S-Beam
- **10352** UT-500-LL-266 For operation on 2.66" flange 4" S-Beam
- **10353** UT-500-S-325 For operation on 3.25"/3.33" flange flat rail
- **10354** UT-500-S-333 For operation on 3.33" flange 6" S-Beam
- **10355** UT-500-S-266 For operation on 2.66" flange 4" S-Beam

Application

- Suspension of hook mounted spring balancers, hoists, nut runners, rivet guns, hand tools, fixtures, etc.
- Used in pairs for load bars

Features

- High tensile almag alloy frames
- Integral built in safety lugs
- Shielded side thrust roller protection
- Safety eye bolt penetrates through both almag trolley frames
- Independent load bearing bolt
- Forged 2.3" diameter wheels flat or contoured induction hardened with permanently sealed precision ball bearings
- Hardened ball bearing side thrust rollers
- Minimum track radius is 18" (457mm)
- Fully adjustable with stored spacers to allow for adjustment to the rail sizes at left

Options

- UT-500-S with spool and no load link
- UT-500-LL with load link
- Standard conveyor wheel 2.3" diameter flat or contoured with lubricated ball bearings

FOR OPERATION ON FLAT RAIL
WITH A 3.25 [B2.8] FLANGE WIDTH.
HOOK MOUNTED BALANCER SHOWN

RATED LOAD: 500 LBS (224 Kgs)

WEIGHT: 3.2 LBS (4.1 Kgs)

BODY: HIGH TENSILE ALUMINUM

WHEELS: Ø2.4" [61] DIA. FLAT OR CONTOUR,
STIRLING 43/64" [11.5]

STUD: $\phi 3/8"$ [9.5]
THRUST ROLLERS: BALL

THRUST ROLLERS: BALL HARDENED AND GROUND

NOTES

NOTE:

WHEN ORDERING SPECIFY EXACT WIDTH OF RUNNING SURFACE FLANGE

(1) 2.66° [67.6] FOR 54 BEAM

(2) 3.33" [84.6] FOR S6 BEAM

(3) 3.25" [82.8] FOR FLAT RAIL
EASY WAY CURVED RAIL MINIMUM

EAST WAY CURVED RAIL MINIMUM
HARDWAY CURVED RAIL MINIMUM

THE UNIVERSITY OF CHICAGO

OPTIONAL USES:

(1) USED IN TANDEM WITH A LOAD BAR TO

(1) USED IN TANDEM WITH A LOAD
MAX. LOAD OF 1000 LBS (448 Kgs)

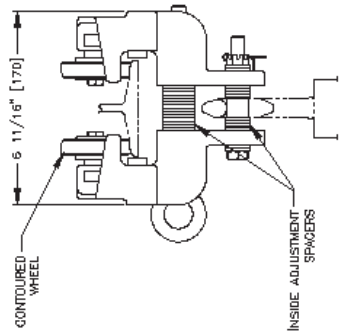
(2) USED FOR BRIDGE CRANE END TRUCKS

(3) USED FOR HOOK MOUNTED DEVICES.

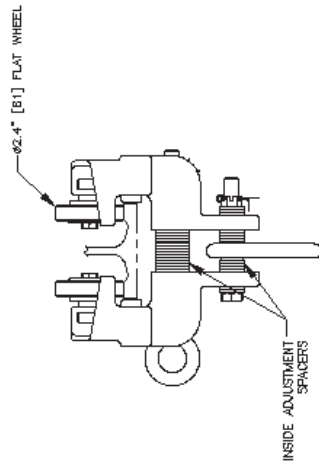
SAFETY CHAINS AND SHACKLES CAN BE ORDERED FOR HOOK MOUNTED DEVICES

GROUPED FOR HOOK MOUNTED DEVICES

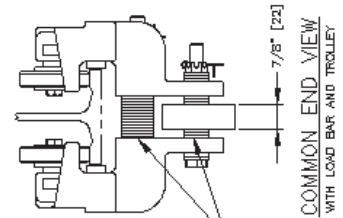
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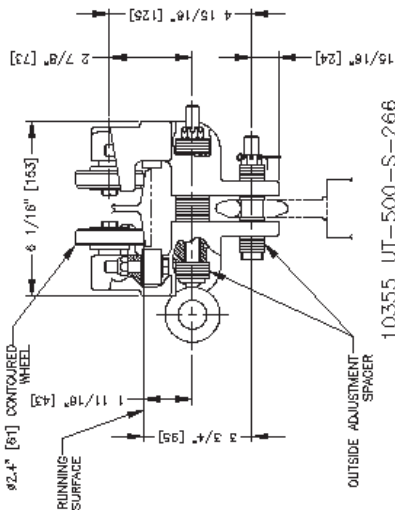
FOR OPERATION ON
18 BEAM WITH A FLANGE
WIDTH OF 3.33"[94.6]



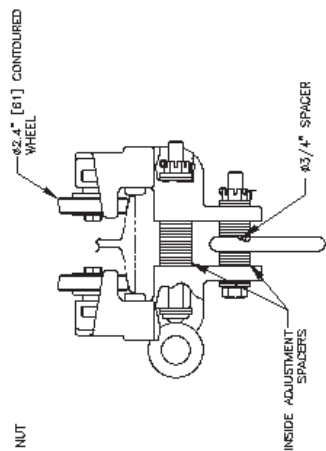
FOR OPERATION ON
FLAT RAIL WITH A 3.25" [82.6]
FLANGE WIDTH.



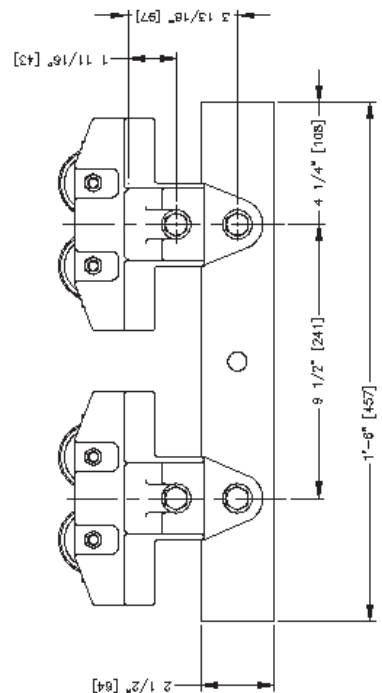
COMMON END VIEW
WITH LOAD BAR AND TROLLEY



FOR OPERATION ON
S4 BEAM WITH 2.68" (67.6
FLANGE WIDTH



FOR OPERATION ON
6 BEAM WITH A FLANGE
WIDTH OF 3.33"[84.6]

COMMON SIDE VIEW



Part Number

- **10339** UT-1000-S-325 for operation on 3.25"/3.33" flange flat track with brass wheels
- **10340** UT-1000-LL-325 for operation on 3.25"/3.33" flange flat track
- **10341** UT-1000-LL-333 for operation on 3.33" flange 6" S-Beam
- **10342** UT-1000-LL-266 for operation on 2.66" flange 4" S-Beam
- **10343** UT-1000-S-325 for operation on 3.25"/3.33" flange flat track
- **10344** UT-1000-S-333 for operation on 3.33" flange 6" S-Beam
- **10345** UT-1000-S-266 for operation on 2.66" flange 4" S-Beam
- **10346** UT-1000-YBC-325 for operation on 3.25"/3.33" flange flat track
- **10347** UT-1000-YBC-333 for operation on 3.33" flange 6" S-Beam
- **10348** UT-1000-YBC-266 for operation on 2.66" flange 4" S-Beam

Application

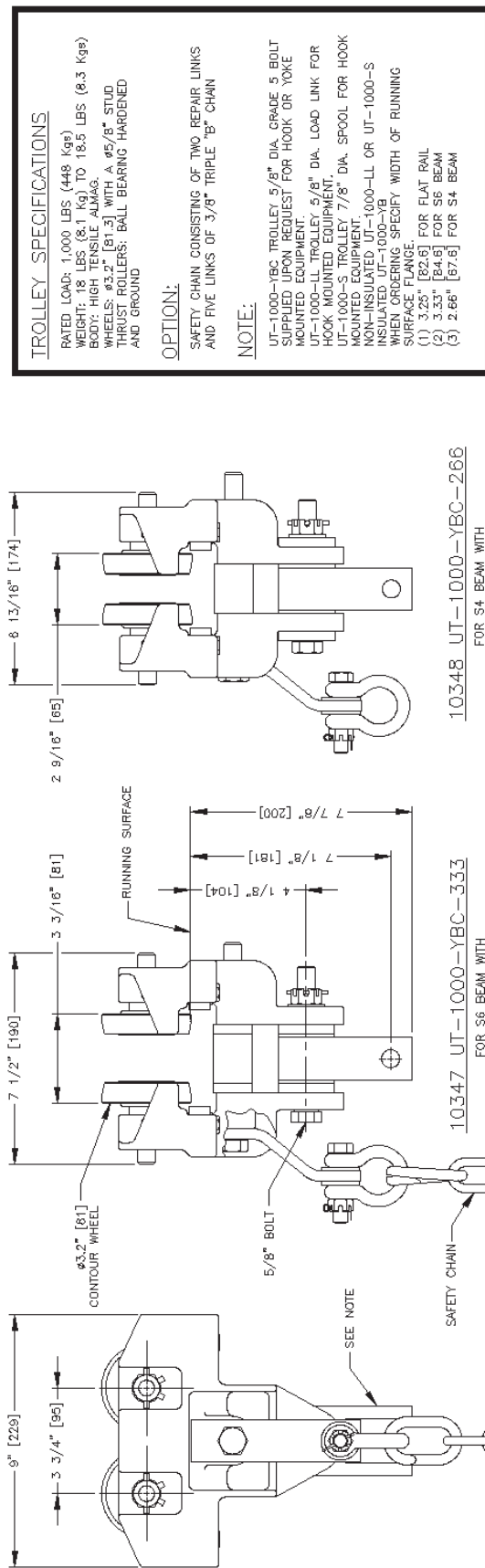
- Suspension of weld gun balancers, hoists, nut runners, rivet guns, hand tools, fixtures, etc.
- Used in pairs for load bars

Features

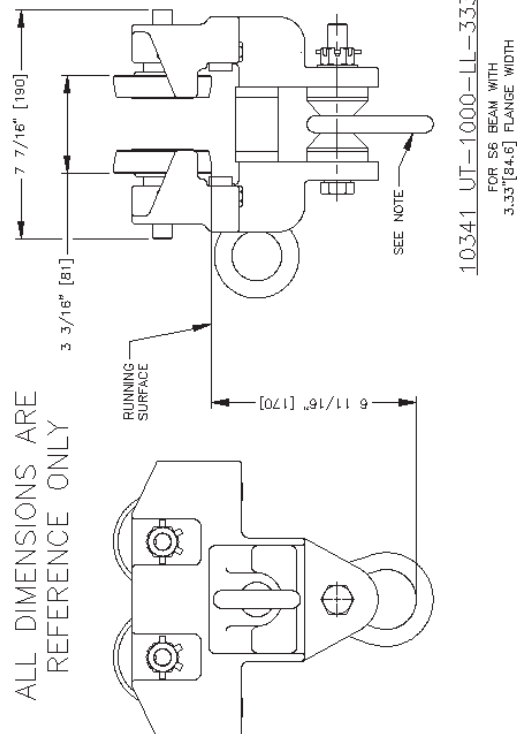
- High tensile almag alloy frames
- Built-in safety lugs, Integral in almag frames
- Shielded side guide rollers
- Safety eye bolt penetrates through both almag trolley frames
- Independent load bearing bolt
- Forged 3.2" diameter wheels flat or contoured induction hardened with permanently sealed precision ball bearings
- Hardened and ground ball bearing side guide rollers
- Minimum track radius is 24" (610mm)
- Fully adjustable with stored spacers to allow for adjustment to the rail sizes at left

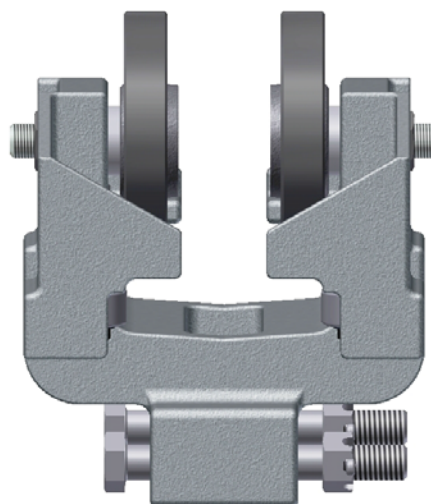
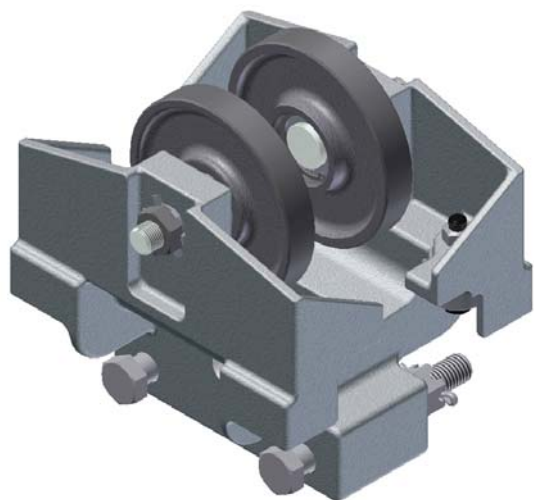
Options

- UT-1000-YB dielectrically insulated yoke block, safety strap and shackle
- UT-1000-LL non-insulated with forged through eyebolt, spool and load link
- UT-1000-S non-insulated with spool
- 3.2" dia. flat or contour load wheel
- Lubricated hardened and ground steel wheel (standard)
- Permanently lubricated forged steel wheels induction hardened



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Part Number

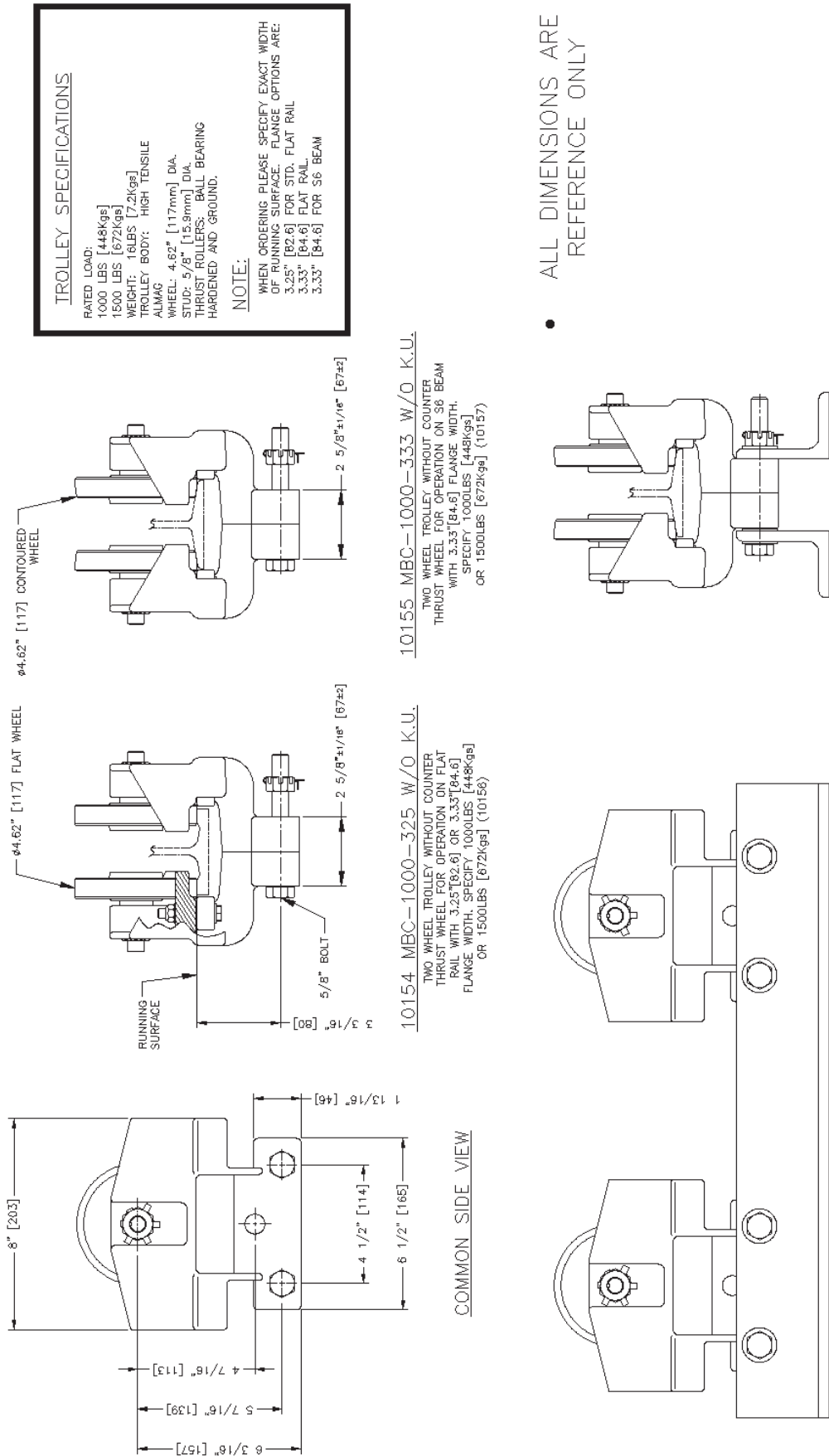
- **10154** MBC-1000-3-325 without kickup wheels for operation on 3.25"/3.33" flange flat rail. 1000 lb. Rated Load
- **10155** MBC-1000-3-333 without kickup wheels for operation on 3.33" flange 6" S-Beam. 1000 lb. Rated Load
- **10156** MBC-1500-3-325 without kickup wheels for operation on 3.25"/3.33" flange flat rail. 1500 lb. Rated Load
- **10157** MBC-1500-3-333 without kickup wheels for operation on 3.33" flange 6" S-Beam. 1500 lb. Rated Load

Application

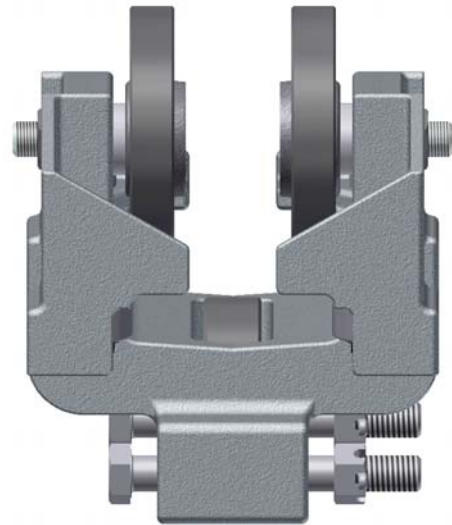
- Used in pairs for bridge crane end truck assemblies and load bars

Features

- Built-in safety lugs, integral in almag frames
- High tensile almag alloy frames
- 4.62" diameter drop forged steel load wheels with low friction sealed bearings permanently lubricated
- Hardened and ground ball bearing side thrust rollers



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Part Number

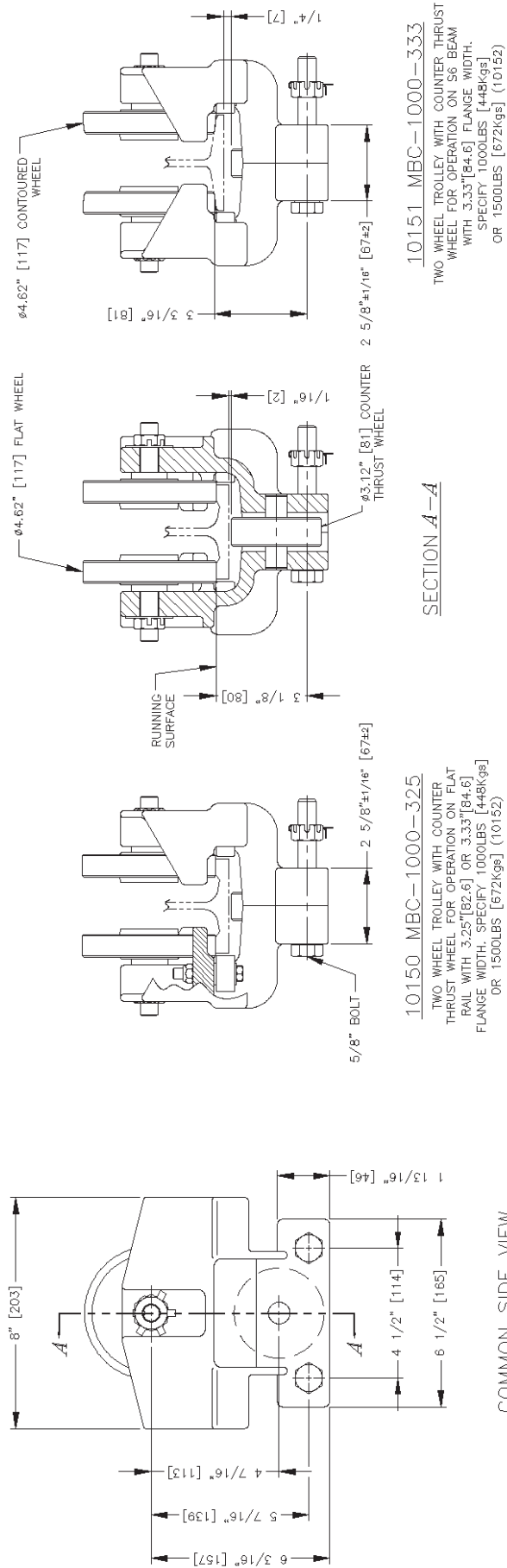
- **10150** MBC-1000-3-325 with kickup wheels for operation on 3.25"/3.33" flange flat rail. 1000 lb. Rated Load
- **10151** MBC-1000-3-333 with kickup wheels for operation on 3.33" flange 6" S-Beam. 1000 lb. Rated Load
- **10152** MBC-1500-3-325 with kickup wheels for operation on 3.25"/3.33" flange flat rail. 1500 lb. Rated Load
- **10153** MBC-1500-3-333 with kickup wheels for operation on 3.33" flange 6" S-Beam. 1500 lb. Rated Load

Application

- Used in pairs on one or both end truck assemblies of medium or standard bridge cranes with overhanging bridge beam
- Can be adapted for tools or fixtures where a "kick-up" rolling action is required

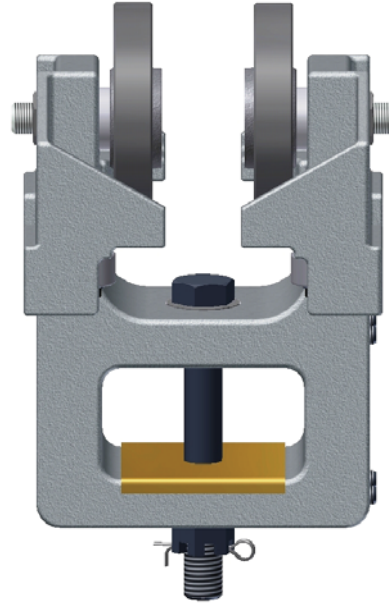
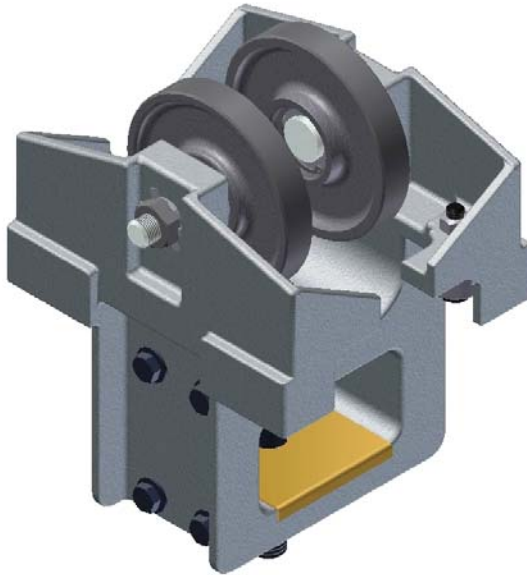
Features

- Built-in safety lugs, integral in frames
- High tensile almag alloy frames
- 4.62" diameter drop forged steel load wheels with low friction sealed bearings permanently lubricated
- Third wheel acts as a counter thrust to avoid kick-up when load is extended beyond normal bridge span. This will allow movement of bridge with suspended load
- Hardened and ground ball bearing side thrust rollers



ALL DIMENSIONS ARE REFERENCE ONLY

TROLLEY SPECIFICATIONS	NOTE:
RATED LOAD: 1000 LBS [448Kgs] 1500 LBS [672Kgs]	WHEN ORDERING PLEASE SPECIFY EXACT WIDTH OF RUNNING SURFACE. FLANGE OPTIONS ARE: 3.25" [82.6] FOR STD. FLAT RAIL & 3.33" [84.6] FLAT RAIL.
WEIGHT: 16LBS [7.2Kgs]	
TROLLEY BODY: HIGH TENSILE ALMAG	
WHEEL: 4.62" [117mm] DIA.	
STUD: 5/8" [15.9mm] DIA.	
THRUST ROLLERS: BALL BEARING HARDENED AND GROUND.	



Part Number

- **10010** AC-1027-325 for operation on 3.25"/3.33" flange flat rail. 1000 lb. Rated Load
- **10011** AC-1027-333 for operation on 3.33" flange 6" S-Beam. 1000 lb. Rated Load
- **10012** AC-1027-325D for operation on 3.25"/3.33" flange flat rail. 1500 lb. Rated Load
- **10013** AC-1027-333D for operation on 3.33" flange 6" S-Beam. 1500 lb. Rated Load

Application

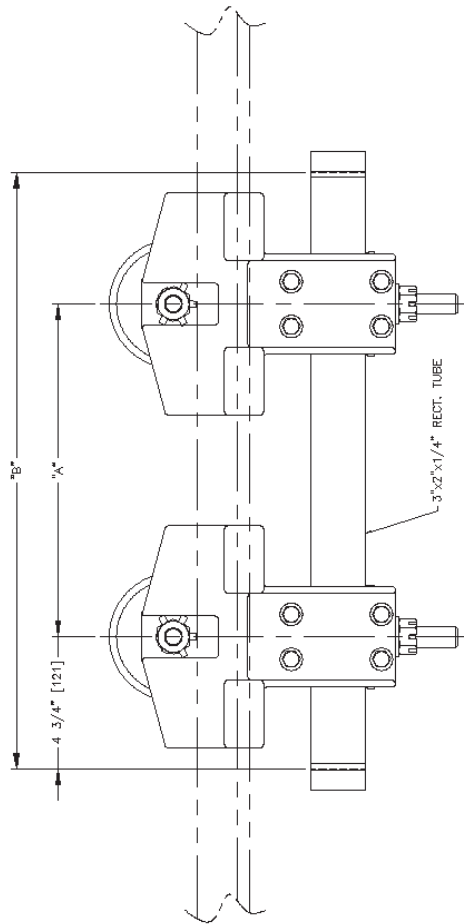
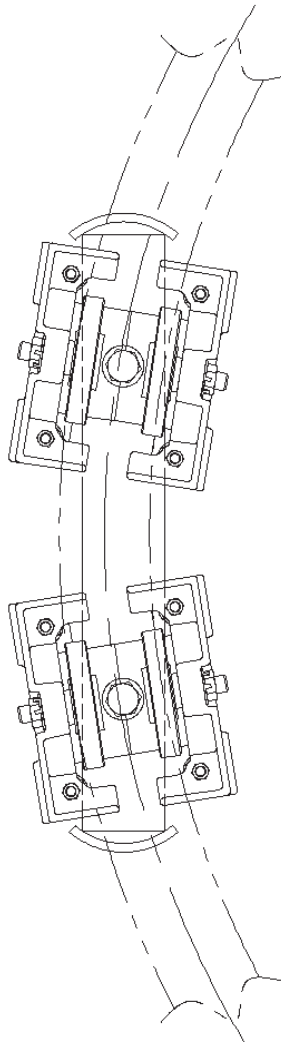
- Load bars for curved monorail, minimum 3 ft. (914mm) radius

Features

- High tensile almag alloy frames
- Built-in safety lugs, integral in almag frames
- 4.62" diameter drop forged steel load wheels with low friction sealed bearings permanently lubricated
- Hardened and ground ball bearing side thrust rollers
- Steel pivot pin (centralized to permit rotation around its axis)
- Brass wear plate

Options

- Dual bearing for greater rated loads up to 1500 lbs. (680kg) designated by the D at the end of the description



AC-1027 LOAD BAR ASSEMBLY

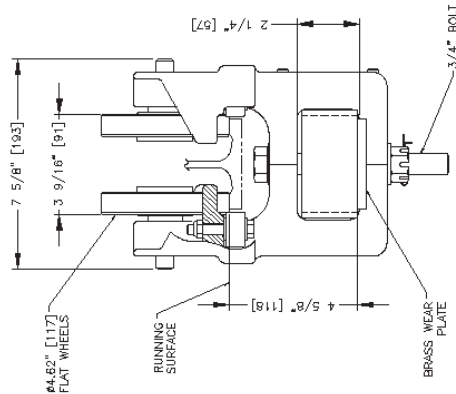
COMMON SIDE VIEW

CURVED RAIL RADIUS	"A" WHEEL BASE	"B" OVERALL
3'-0" [914]	12" [304]	22" [558]
4'-0" [1219]	18" [457]	28" [711]
5'-0" [1524]	24" [609]	34" [863]
6'-0" [1828]	30" [762]	40" [1016]
7'-0" [2133]	36" [914]	46" [1168]
8'-0" [2438]	42" [1066]	52" [1320]
9'-0" [2743]	48" [1219]	58" [1473]
10'-0" [3048]	54" [1371]	64" [1625]

TROLLEY SPECIFICATIONS

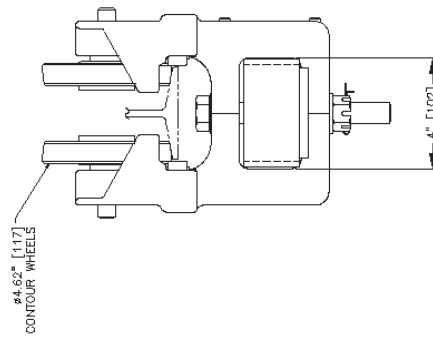
RATED LOAD:
1500 LBS (680 kg)
1800 LBS (816 kg)
WEIGHT: 16.5 LBS (7.5 kg)
BODY: HIGH TENSILE ALMAG
WHEEL:
4.62" [117.3] DIA.
4.50" [114.3] DIA. FLANGED
5/8" [15.9] DIA. STUD
SHEAR PIN: 1/2" DIA. STUD
THROT ROLLERS: BALL BEARING
(AS REQ'D)
NOTE:
WHEN ORDERING SPECIFY EXACT WIDTH OF
RUNNING SURFACE FLANGE:
3.25" [82.6] FOR FLAT RAIL
3.33" [84.6] FOR S6 BEAM
SUPPORT 1500 LBS OR 1500 LBS
RATED LOAD.

ALL DIMENSIONS ARE REFERENCE ONLY



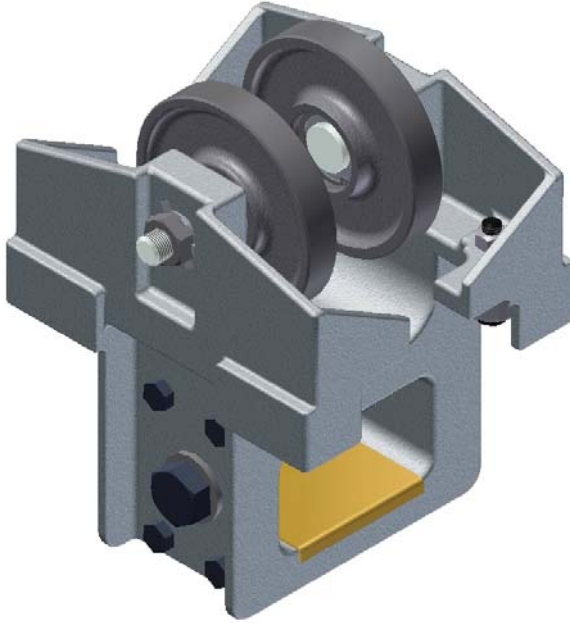
10010 AC-1027-325

FOR OPERATION ON STD.
RAIL WITH 3.25" [82.6]
FLANGE WIDTH.



10011 AC-1027-333

FOR OPERATION ON S6 BEAM
WITH 3.33" [84.6] FLANGE WIDTH.



Part Number

- **10220** SAC-1020-325 for operation on 3.25"/3.33" flange flat rail. 1000 lb. Rated Load
- **10221** SAC-1020-333 for operation on 3.33" flange 6" S-Beam. 1000 lb. Rated Load
- **10222** SAC-1020-325D for operation on 3.25"/3.33" flange flat rail. 1500 lb. Rated Load
- **10223** SAC-1020-333D for operation on 3.33" flange 6" S-Beam. 1500 lb. Rated Load

Applications

- Used in pairs for bridge crane end truck assemblies where runway spans are not parallel

Features

- High tensile almag alloy frames
- Built-in safety lugs, integral in frames
- 4.62" diameter drop forged steel load wheels with low friction sealed bearings permanently lubricated
- Hardened and ground ball bearing side thrust rollers
- Steel self-aligning pin
- Brass wear plate

Options

- Dual bearing for greater rated loads up to 1500 lbs. (680kg) designated by the D at the end of the description

TROLLEY SPECIFICATIONS

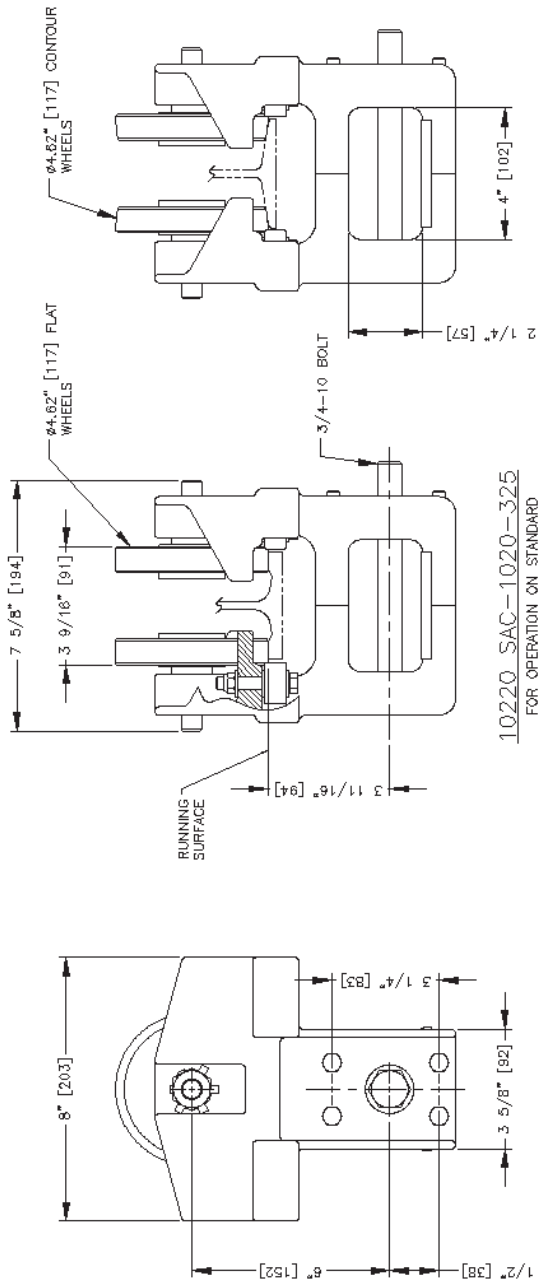
RATED LOAD:
1000 LBS (448 Kgs)
1500 LBS (672 Kgs)
WEIGHT: 18.5 LBS (8.3 Kgs)
BODY: HIGH TENSILE ALMAG
WHEEL:
4.62" [117.3] DIA.
4.50" [114.3] DIA. FLANGED
5/8" [15.9] DIA. STUD
SIDE THRUST ROLLERS: BALL BEARING
(AS REQ'D)

NOTE:

WHEN ORDERING SPECIFY EXACT WIDTH OF
RUNNING SURFACE FLANGE:
3.25" [82.6] FOR FLAT RAIL
3.33" [84.6] FOR S8 BEAM
SPECIFY 1000 LBS OR 1500 LBS
RATED LOAD.

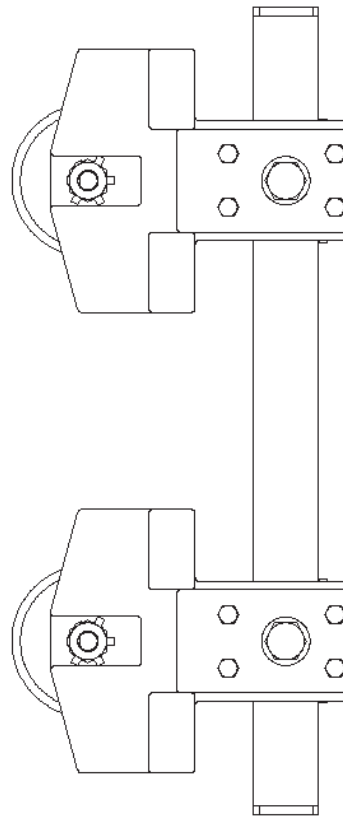
APPLICATION:

PAIR UP FOR BRIDGE CRANE END TRUCK
ASSEMBLIES IF RUNWAY SPAN IS NOT PARALLEL.

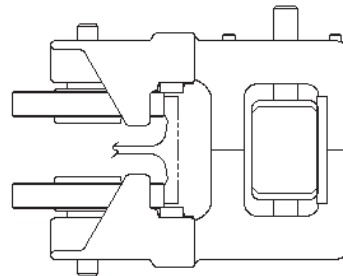


10220 SAC-1020-325
FOR OPERATION ON STANDARD
FLAT RAIL WITH 3.25" [82.6]
FLANGE WIDTH.
1000 LBS. RATED LOAD

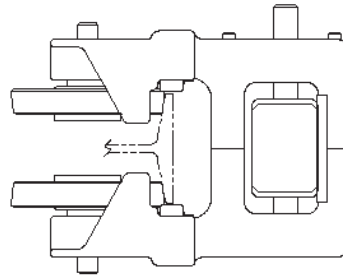
10221 SAC-1020-333
FOR OPERATION ON S8 BEAM
WITH 3.33" [84.6] FLANGE WIDTH.
1000 LBS. RATED LOAD



COMMON SIDE VIEW
SAC-1020 LOAD BAR ASSEMBLY
AVAILABLE IN VARIOUS LENGTHS

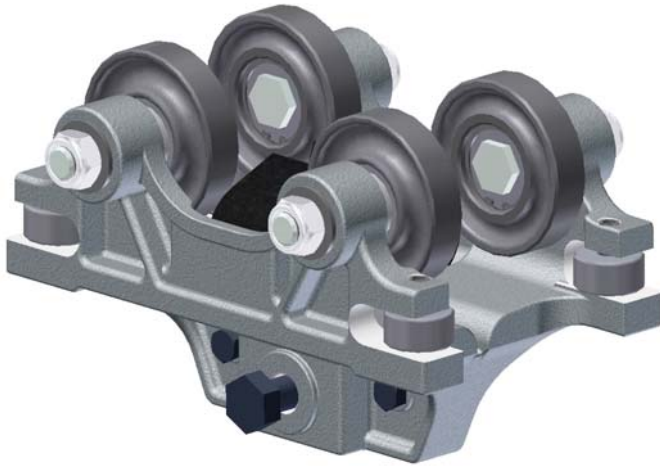


10222 SAC-1020-325D
FOR OPERATION ON STANDARD
FLAT RAIL WITH 3.25" [82.6]
FLANGE WIDTH.
1500 LBS. RATED LOAD



10223 SAC-1020-333D
FOR OPERATION ON S8 BEAM
WITH 3.33" [84.6] FLANGE WIDTH.
1500 LBS. RATED LOAD

• ALL DIMENSIONS ARE REFERENCE ONLY



Part Number

- **10040** BT-266 for operation on 2.66" flange 4" S-Beam
- **10041** BT-266-DHS for operation on 2.66" flange 4" S-Beam
- **10050** BT-325-DHS for operation on 3.25"/3.33" flange flat rail
- **10051** BT-325 for operation on 3.25"/3.33" flange flat rail
- **10052** BT-333 for operation on 3.33" flange 6" S-Beam
- **10053** BT-333-DHS for operation on 3.33" flange 6" S-Beam

Application

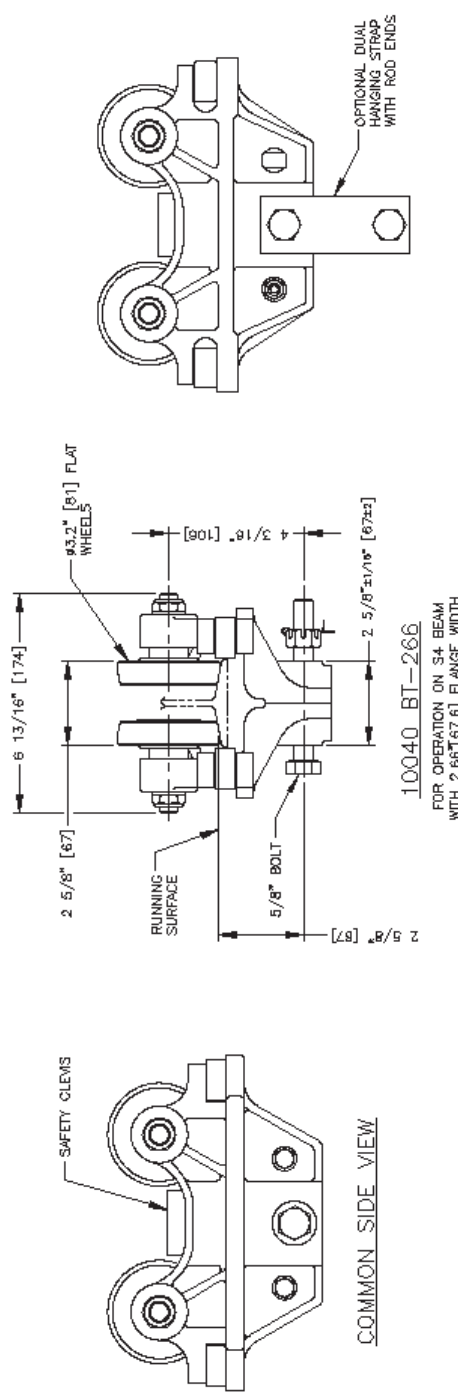
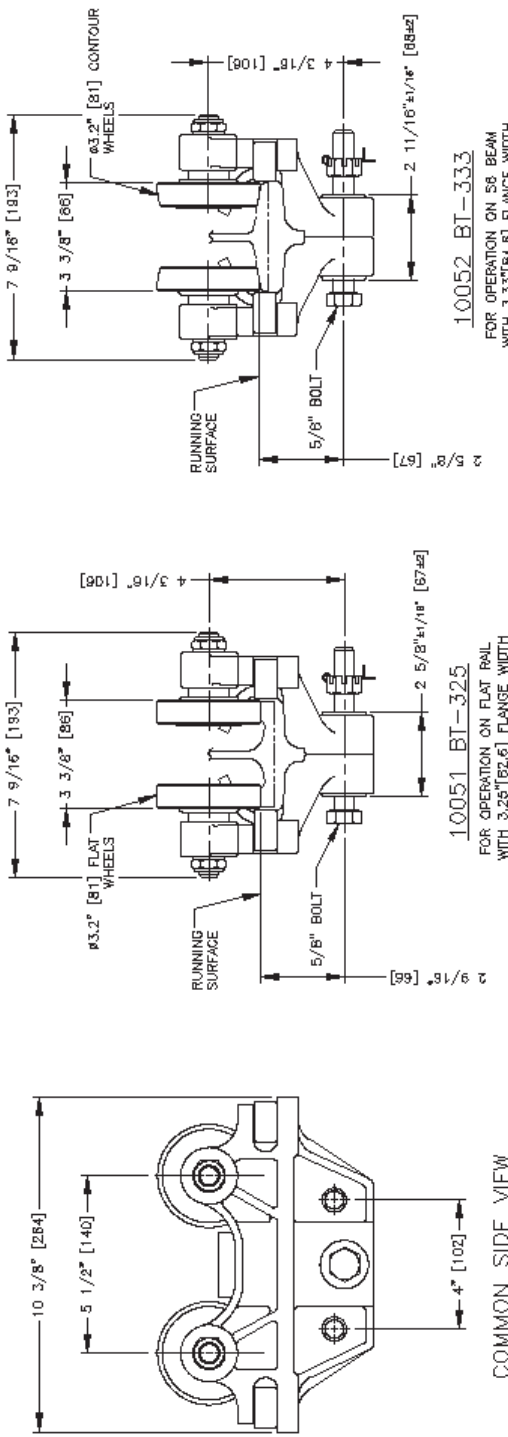
- For suspension of portable tools, welding guns, balancers, hoists, fixtures etc.
- Used in pairs for bridge crane end truck assemblies and load bars

Features

- Patented dual safety clevis
- 3.25" diameter load wheels
- High tensile almag alloy frames
- Hardened and ground ball bearing side thrust rollers
- Minimum track radius is 60" (1524mm)

Options

- Available with or without forged eye bolt
- Available with or without dual hanging strap
- Flat or contoured "Conveyor" steel load wheels



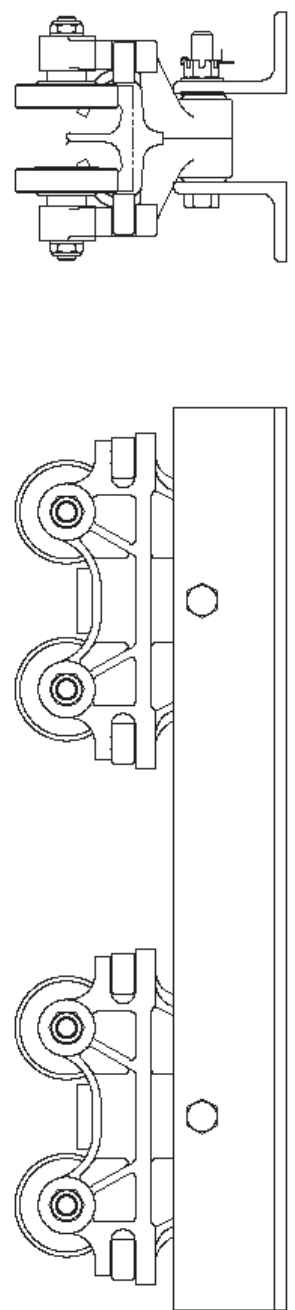
TROLLEY SPECIFICATIONS:

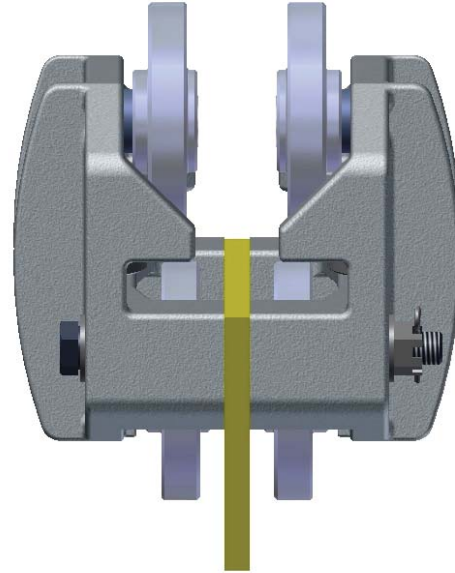
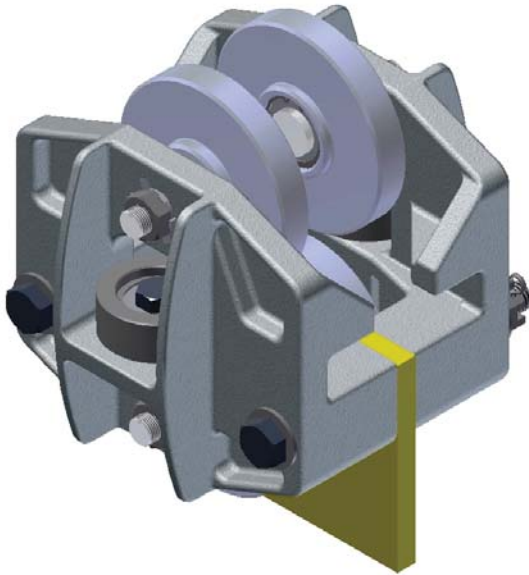
RATED LOAD: 2000 LBS (972 Kgs)
WEIGHT: 16 LBS (7.2 Kgs)
BODY: HIGH TENSILE ALUMAG
WHEELS: 3.2" [81.3] DIA.
STUDS: 5/8" [16] DIA.
THRUST ROLLERS: BEARING
HARDENED & GROUND

NOTES:

WHEN ORDERING SPECIFY EXACT WIDTH OF
RUNNING SURFACE FLANGE.

(1) 3.25" [82.6] FOR FLAT RAIL
(2) 2.66" [67.6] FOR S4 BEAM
(3) 3.33" [84.6] FOR S8 BEAM
MINIMUM TRACK RADIUS 60' [1524].





Model Number

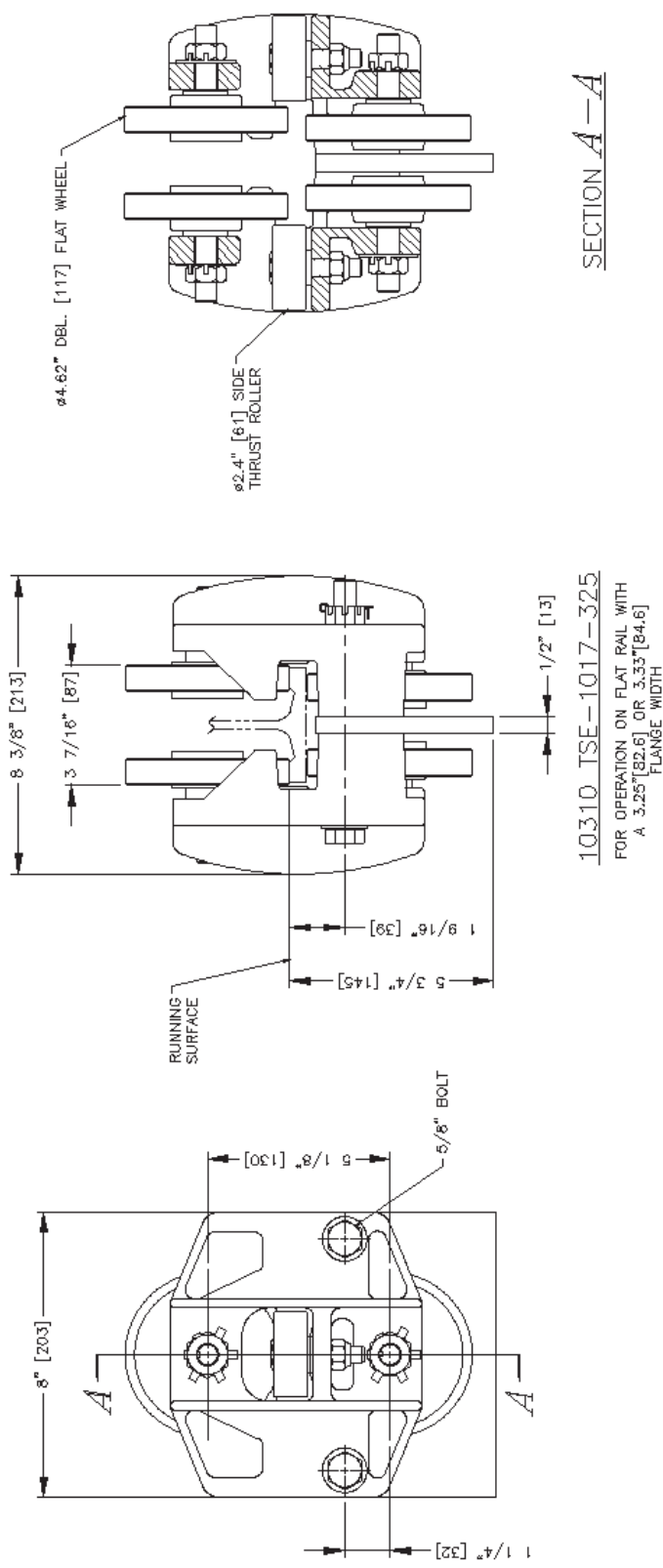
- **10310** TSE-1017-325 for operation on 3.25"/3.33" flange flat rail
- **10315** TSE-1017-333 for operation on 3.33" flange 6" S-Beam

Application

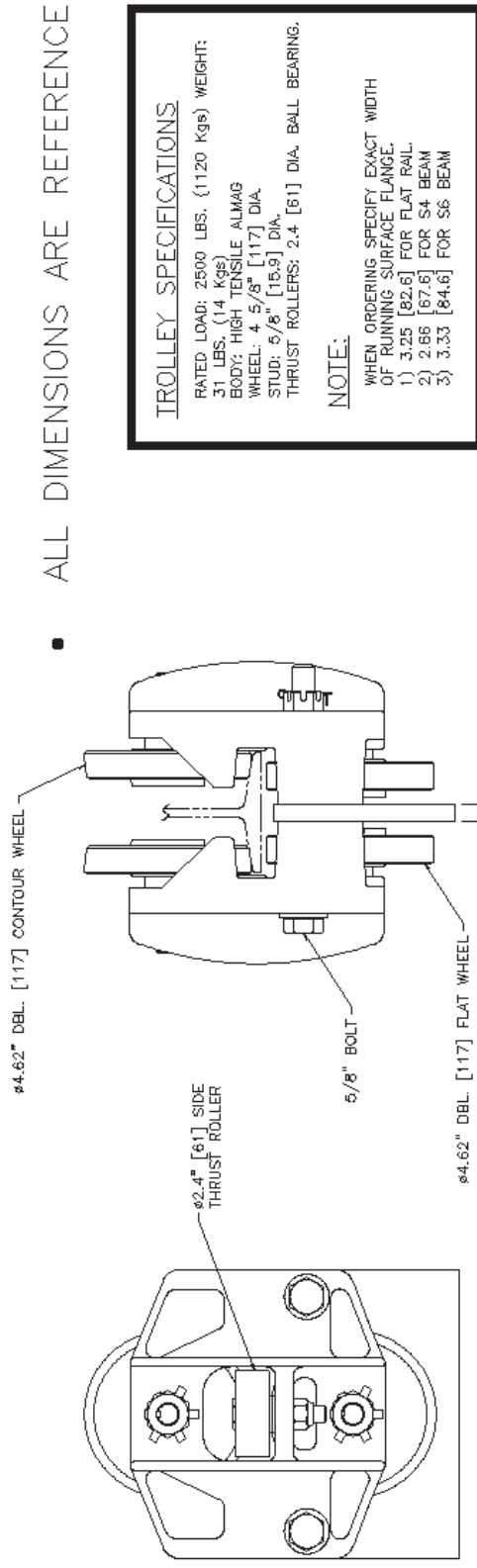
- Used in pairs on telescoping transfer beam extensions

Features

- High tensile almag alloy frames
- Built-in safety lugs integral in frames
- 4.62" diameter drop forged steel load and kick-up wheels with low friction sealed bearings permanently lubricated
- Large 2.40" diameter hardened and ground ball bearing side thrust rollers



SECTION A-A



TROLLEY SPECIFICATIONS

RATED LOAD: 2500 LBS. (1120 Kgs) WEIGHT:
31 LBS. (14 Kgs)
BODY: HIGH TENSILE ALMAG
WHEEL: 4.5/8" [117] DIA.
STUD: 5/8" [15.9] DIA.
THRUST ROLLERS: 2.4 [61] DIA. BALL BEARING.

NOTE:

WHEN ORDERING SPECIFY EXACT WIDTH
OF RUNNING SURFACE FLANGE.

1) 3.25 [82.6] FOR FLAT RAIL.
2) 2.66 [67.6] FOR S4 BEAM
3) 3.33 [84.6] FOR S6 BEAM

ALL DIMENSIONS ARE REFERENCE ONLY



10060



10061

Model Number

- **10060** BT-325-10 for operation on 3.25/3.33" flange flat rail
- **10061** BT-325-10-DHS for operation on 3.25/3.33" flange flat rail
- **10062** BT-333-10 for operation on 3.33" flange 6" S-Beam
- **10063** BT-333-10-DHS for operation on 3.33" flange 6" S-Beam

Application

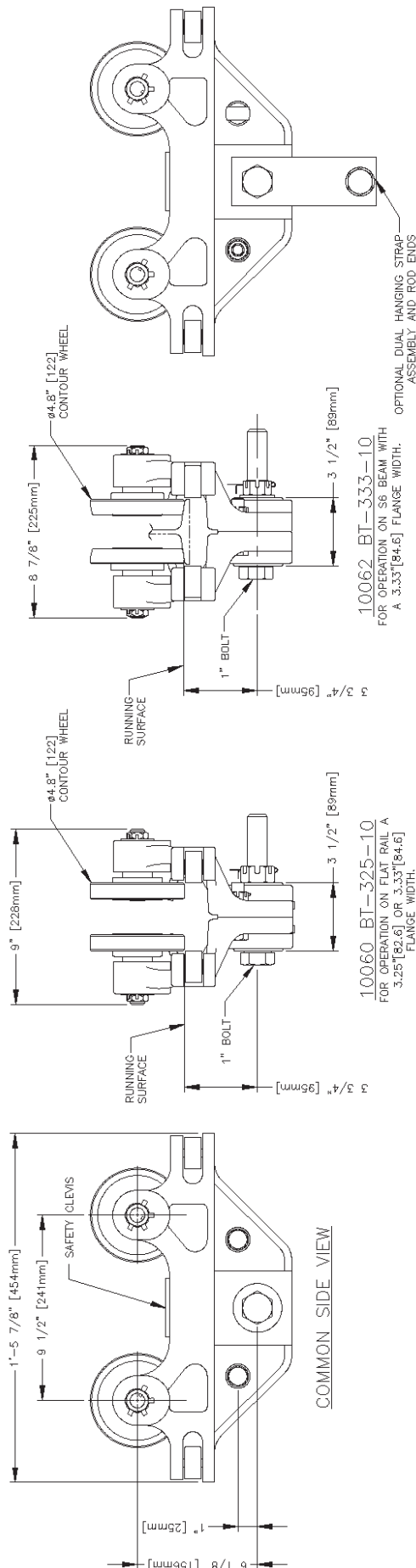
- Used in pairs for heavy load bridge crane end truck assemblies
- For suspension of portable tools, balancer, hoists, fixtures etc.
- For bridge beam trolley with optional dual hanging strap designated by DHS.

Features

- Patented dual safety clevis
- High tensile almag alloy frames
- 4.81" diameter heavy duty load wheels
- Hardened and ground ball bearing side thrust rollers
- Minimum track radius is 10'-0" (3048mm)

Options

- Available with dual hanging straps for suspension of heavy hook mounted loads. Rod ends come with dual hanging straps for safety cable.
- Available with universal swivel assembly



BT-325-10 OR BT-333-10
TROLLEY SPECIFICATIONS:
RATED LOAD: 4000 LBS (1814 Kg)
WEIGHT: 50 LBS (22.4 Kg)
BODY: HIGH TENSILE ALMAG WHEELS:
4.8" [121.9] DIA.
FLAT OR CONTOURED
WHEEL STUD: 3/4" [19] DIA. GREASE
FITTING OPTIONAL
10"-0" MINIMUM RADIUS
SIDE THRUST ROLLERS: BALL BEARING
HARDENED & GROUND

NOTE:
WHEN ORDERING PLEASE SPECIFY EXACT WIDTH
OF RUNNING SURFACE FLANGE:
3.25" [82.6] FOR FLAT RAIL
3.33" [84.6] FOR S6 BEAM

ALL DIMENSIONS ARE REFERENCE ONLY

CAUTION

This bridge crane has a safe load rating, which has been clearly marked on both sides by the manufacturer. The total weight of the suspended load should never exceed 125% of this limit. The weight of all handling devices such as buckets, magnets, grabs, balancers, hoists, weldguns, etc. must be included as a part of the suspended load. The weight of such devices should therefore be determined and clearly marked.

Consideration should be given when installing hoisting devices. Load ratings for such devices may exceed the load rating of the bridge crane.

The operator should inspect this bridge crane for loose bolts and worn, cracked or distorted parts prior to use (inspection should include all handling devices and mounting equipment). Defective parts should be replaced with manufacturer-approved parts before use of bridge crane is resumed.

This bridge crane conforms to the safety standards of the U.S. Occupational Safety and Health Administration (OSHA). Any alteration of its structure or change in its rated load capacity may render null and void any manufacturer's warranties, expressed or implied.

***All dimensions are reference only
and need to be verified with factory.**

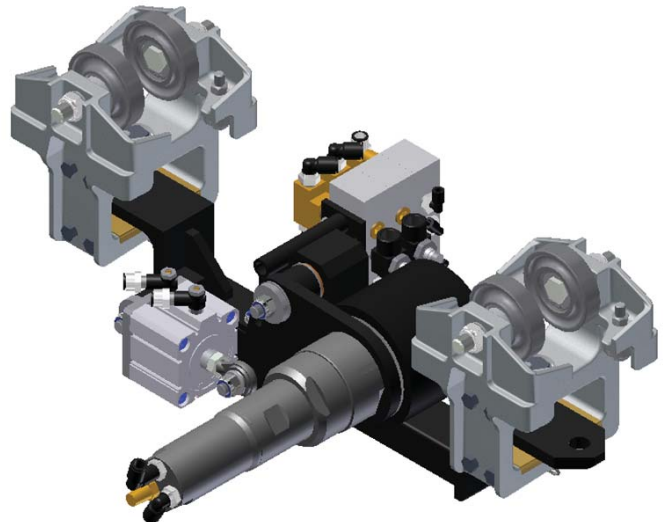
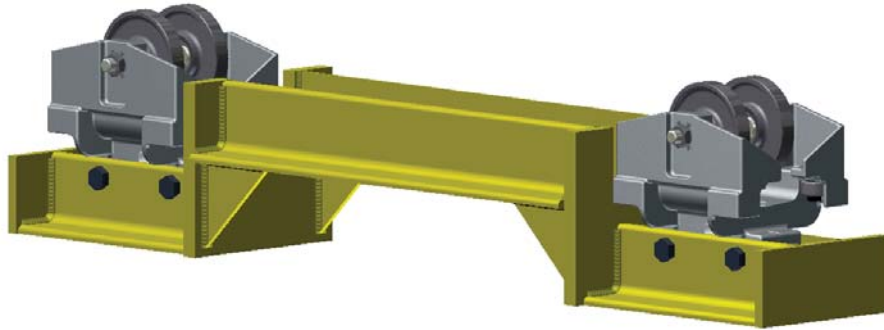


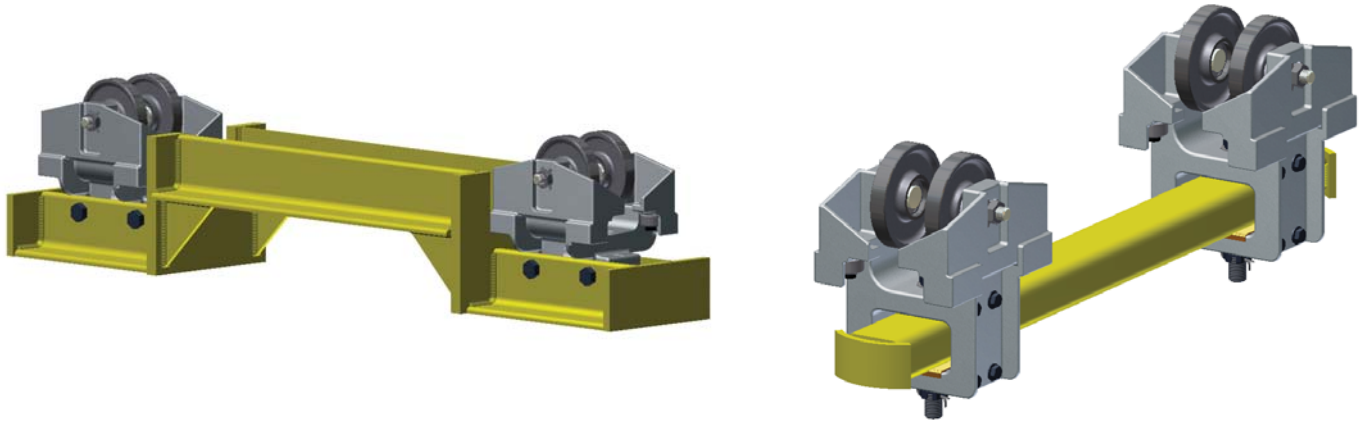


UNIFIED INDUSTRIES, INC.

A Columbus McKinnon Company

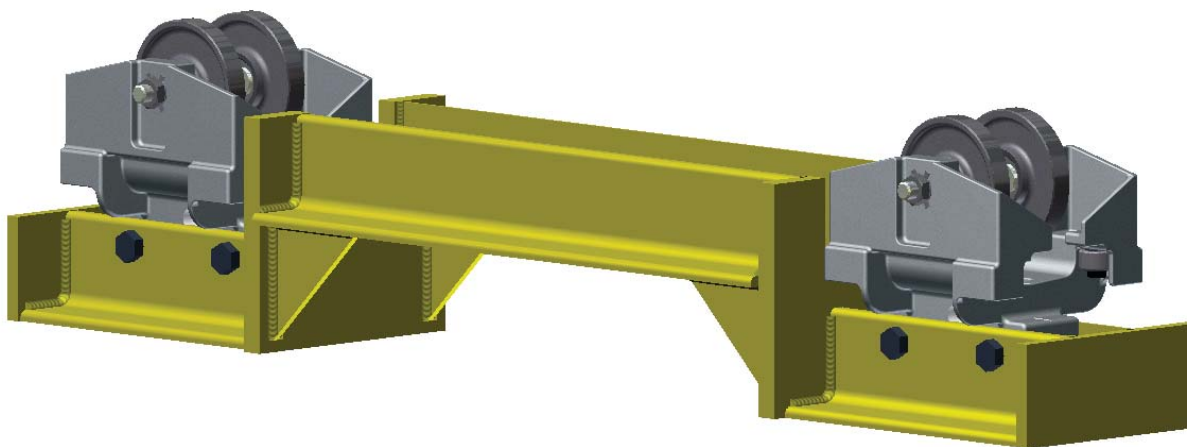
ACCESSORIES & SPECIALIZED CUSTOM PRODUCTS





Accessory Products

- Low headroom end trucks
- Customized load bars
- Universal swivel assembly
- Counter thrust roller assembly
- Insulated load link
- Dual hanging straps
- End stops
- Load links
- Air Tractors
- Patent Rail Sections



Model Number

- | | |
|--------------------|------------|
| ■ Series MBC-500 | See page 3 |
| ■ Series MBC-1000 | See page 4 |
| ■ Series MBC-1500 | See page 4 |
| ■ Series BT-325-10 | See page 5 |

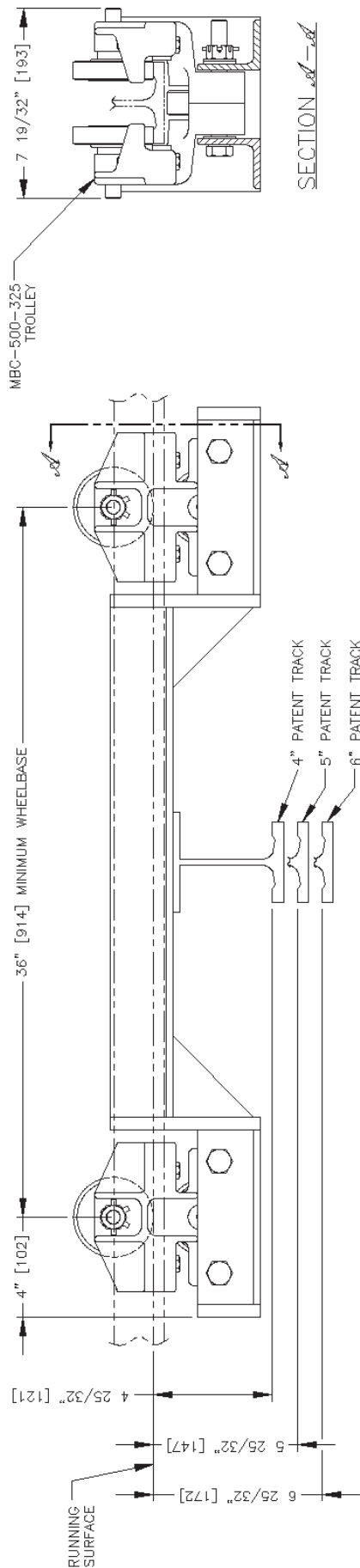
Application

- **Unified** low headroom end trucks are designed for use on bridge cranes that operate in an area of low headroom conditions.
- Or used as individual load bars to your specifications

Features

Unified low headroom end trucks are available with three trolley or carrier head adaptions.

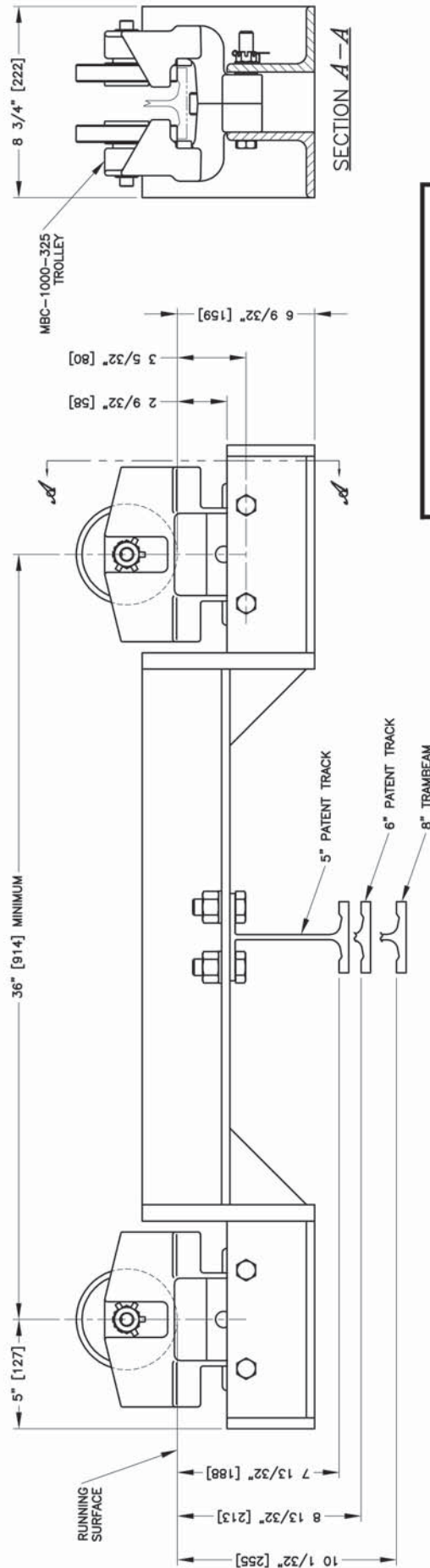
- Series BT for bridge cranes with no overhang
- Series MBC-1000 with no kickup wheel for bridge cranes with no overhang or used in conjunction with MBC-1000 with kickup wheel end truck
- Series MBC-1000 for bridge cranes with overhang that requires an end truck with kickup wheels



OPTIONAL TROLLEYS:	
(1)	MBC-500-4-266 W/O K.U.
(2)	MBC-500-325 W/O K.U.
(3)	MBC-500-333 W/O K.U.
(4)	MBC-500-4-266
(5)	MBC-500-325
(6)	MBC-500-333

LIGHT LOAD LOW HEADROOM END TRUCK

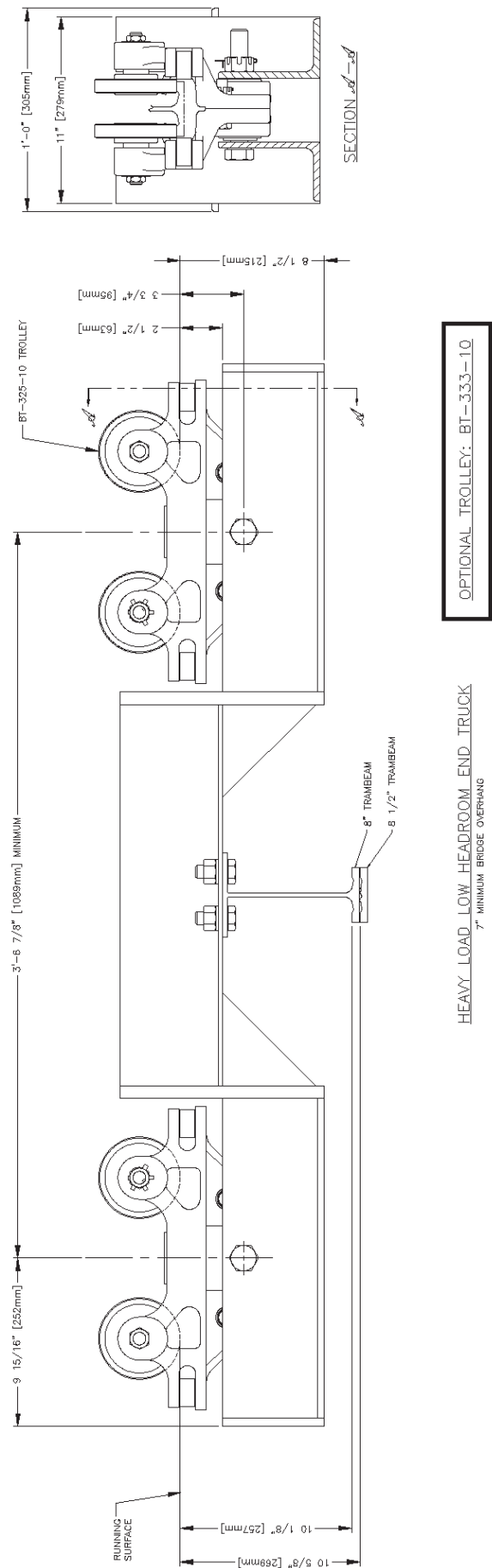
5" MINIMUM BRIDGE OVERHANG

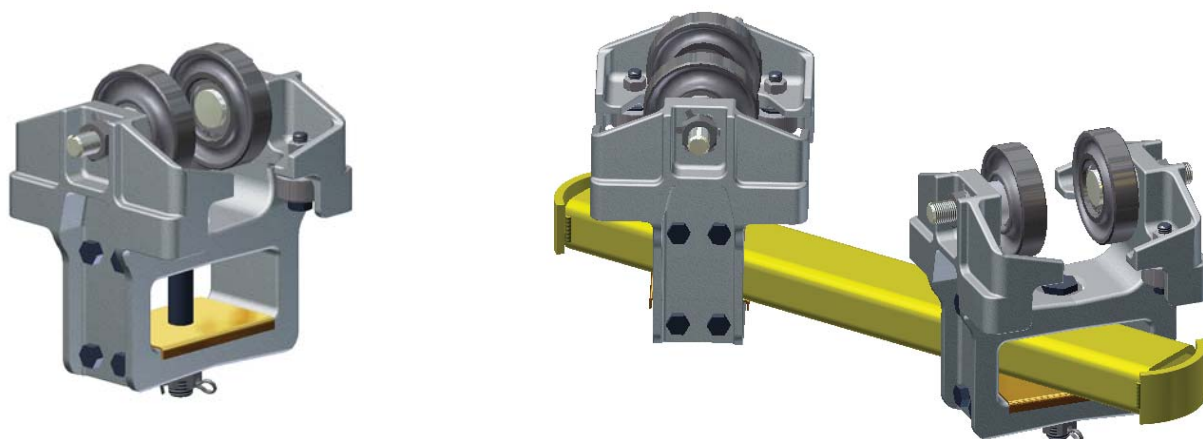


OPTIONAL TROLLEYS:

- (1) MBC-1000-333
- (2) MBC-1000-325 W/O KICKUP
- (3) MBC-1000-333 W/O KICKUP
- (4) MBC-1500-325
- (5) MBC-1500-333
- (6) MBC-1500-325 W/O KICKUP
- (7) MBC-1500-333 W/O KICKUP
- (8) BT-266
- (9) BT-325
- (10) BT-333

MEDIUM LOAD LOW HEADROOM END TRUCK
6" MINIMUM BRIDGE OVERHANG





Model Number

- AC-500-2 for operation on 3.25" or 3.33" flange flat rail or 3.33" flange 6" S-beam (12.5 lb.)
- AC-500-2-4 for operation on 2.66 flange 4" S-Beam (7.7 lb.)

Application

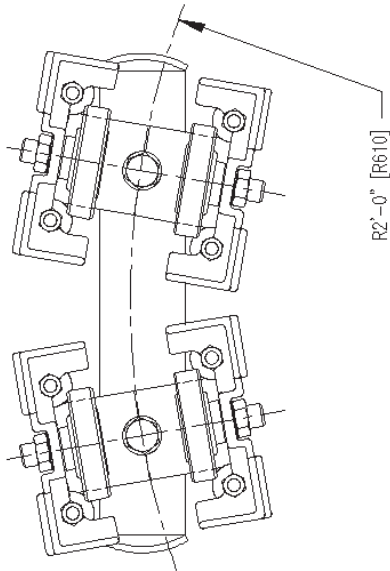
- Used in tandem as articulating load bars on horizontal curved monorail systems

Features

- High tensile almag alloy frames
- Integral built-in safety lugs
- Shielded side thrust roller protection
- Hardened ball bearing side thrust rollers
- Forged wheels 3.2" diameter flat or contoured induction hardened with permanently sealed precision ball bearings
- Load bearing brass wear plate
- Heat-treated steel pivot bolt

Options

- Standard conveyor wheels 3.2" diameter flat or contoured with lubricated ball bearings
- Can be furnished as an assembled end truck or load bar



R2'-0" [R610]

LOAD BAR SPECIFICATIONS:

RATED LOAD: 1000 LBS (448Kgs)
WEIGHT: 29.5 LBS (13.2Kgs)
BODY: HIGH TENSILE ALMAG
WHEELS: 3.2" [81.3] DIA.
STUD: 5/8" [15] DIA.
THRUST ROLLERS: BALL THRUST BEARINGS

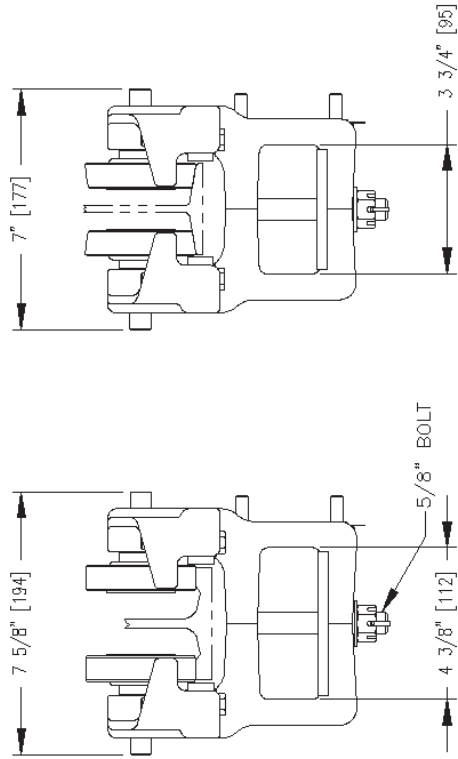
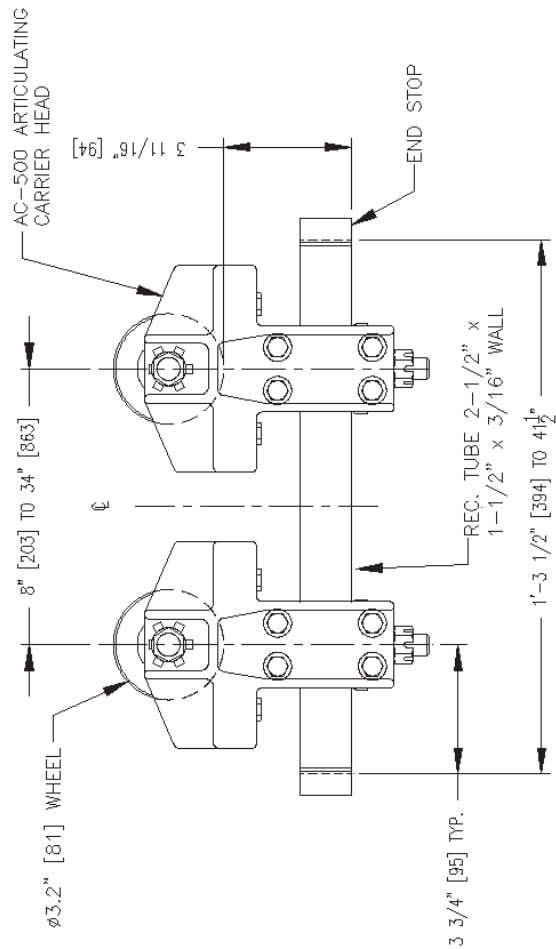
NOTES:

WHEN ORDERING PLEASE SPECIFY EXACT WIDTH OF RUNNING SURFACE FLANGE.

(1) 3.25" [82.6] FOR STANDARD FLAT RAIL.

(2) 2.66" [67.6] FOR S4 BEAM.

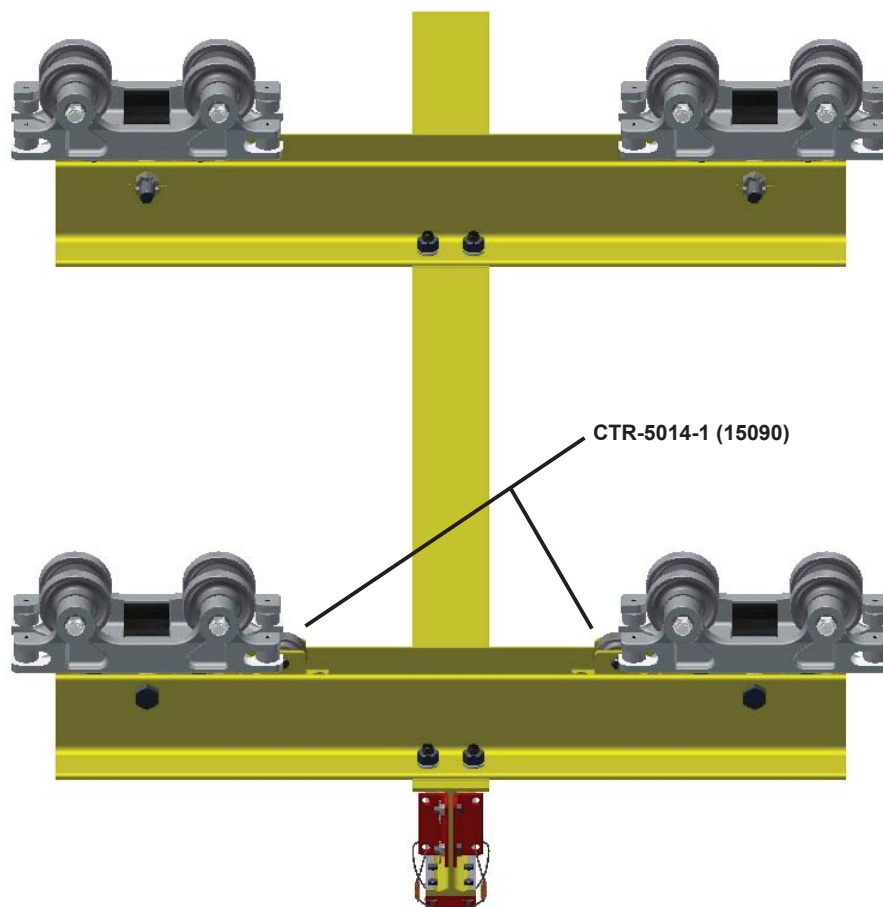
(3) 3.33" [84.6] FOR S6 BEAM



S4 BEAM

3.25" FLAT RAIL

Counter Thrust Roller Assembly



Model Number

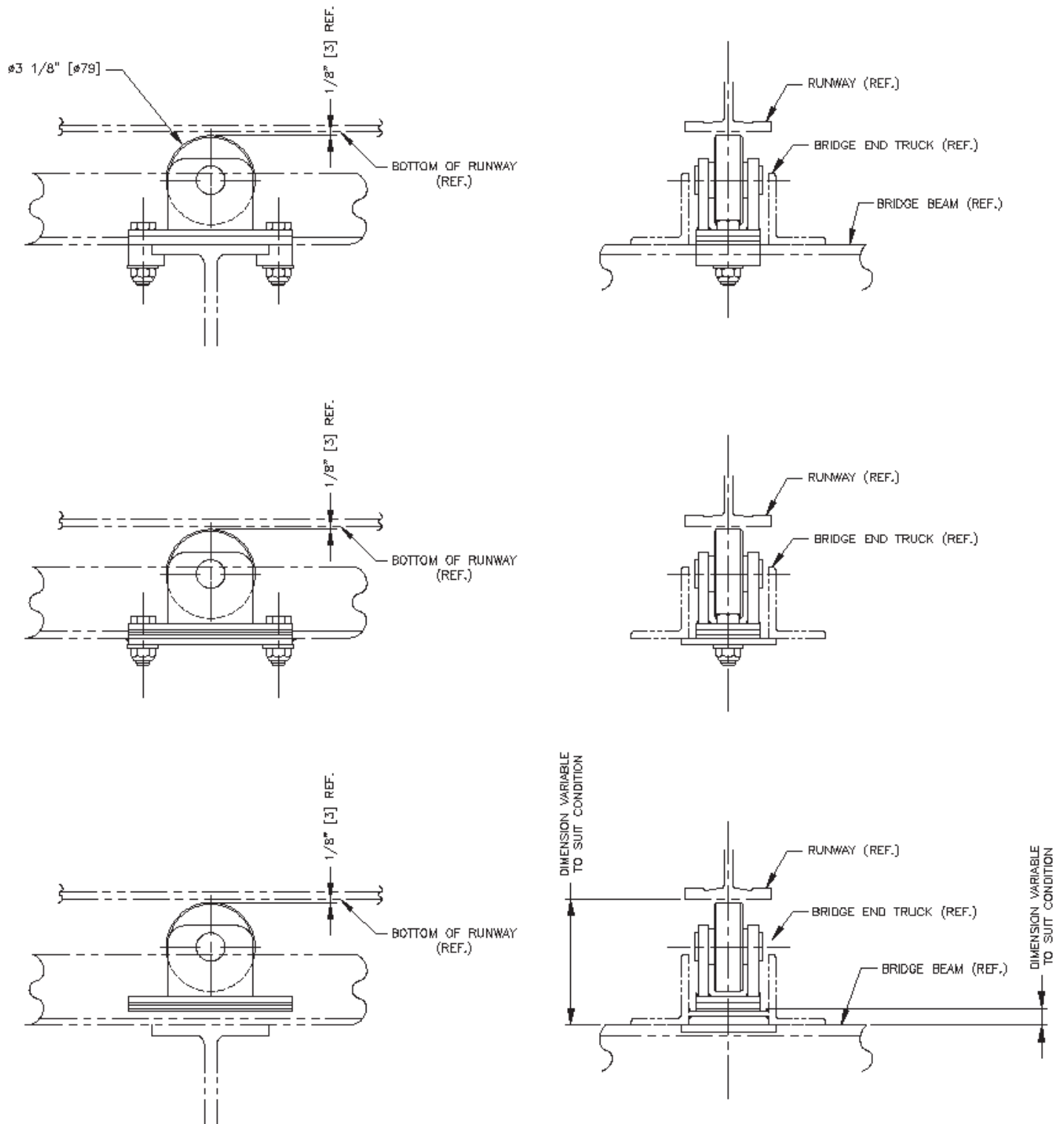
- CTR-5014-1 (15090)

Application

- Used singly or in pairs on bridge crane end trucks where wheel engages bottom surface of runway rail to absorb "kick-up" action when load is moved to extreme end of an overhang bridge beam

Features

- Large 3 1/8" dia. wheel
- Adjustable height for runway rail clearance
- 1,500 lb. (680kg) Rated Load per CTR



COUNTER THRUST ROLLER ASSEMBLY #CTR-5014-1
LARGE 3 1/8" DIA. WHEEL

Universal Swivel Assemblies



Model Number

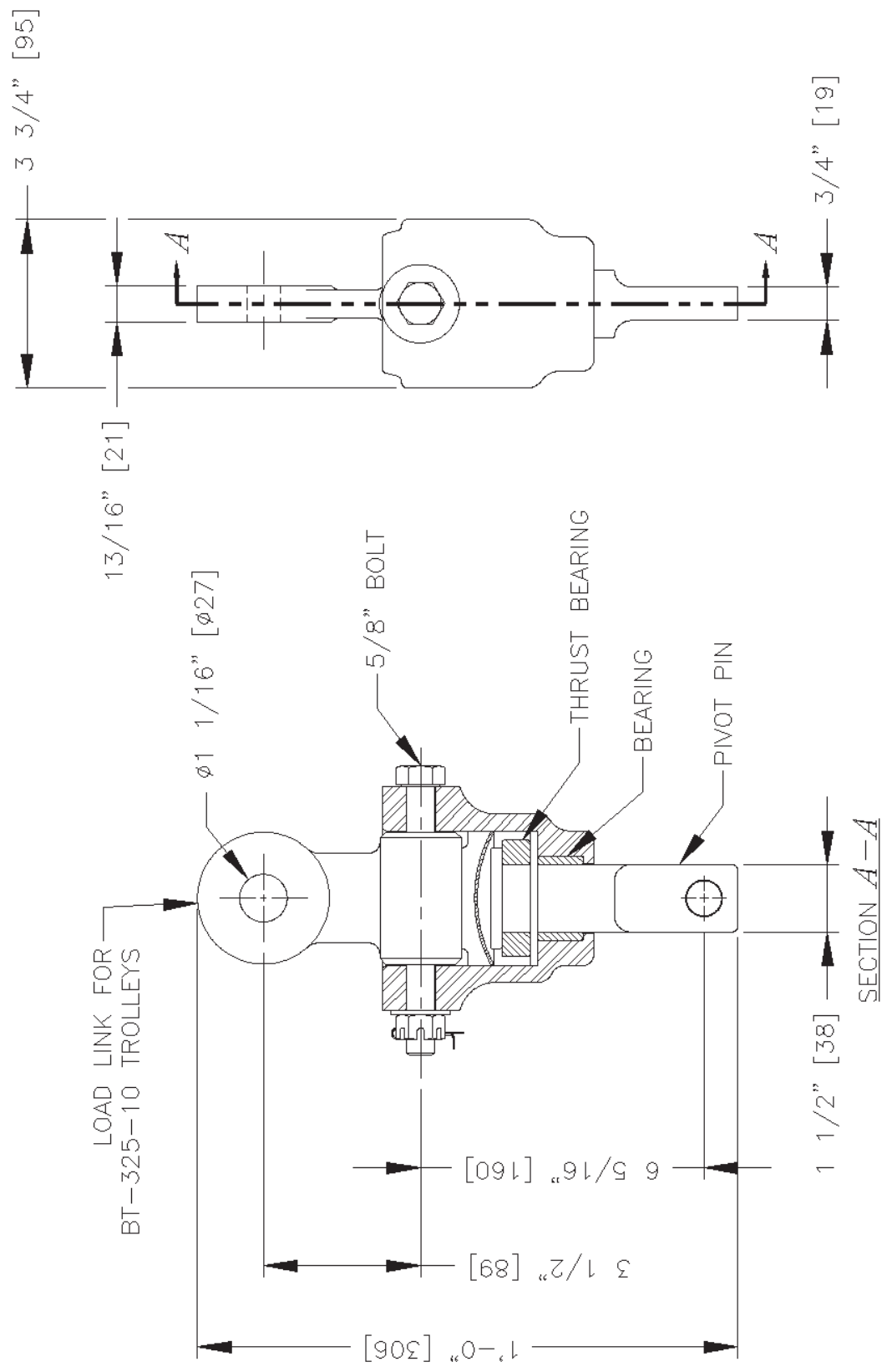
- S-300-1 For use on **Unified** trolley BT-325-10 and BT-333-10

Application

- **Unified** universal swivel assemblies are designed for the suspension of transformer stations not exceeding 2000 lbs. (907kg)
- Also used for the suspension of portable tools, hoists and fixtures

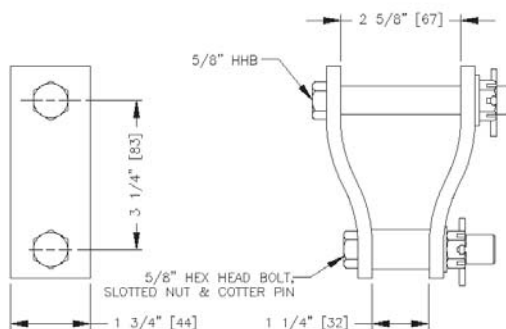
Features

- Rotating shaft on universal swivel designed to fit standard transformer clevis
- Universal swivel permits suspended load to move in all three planes

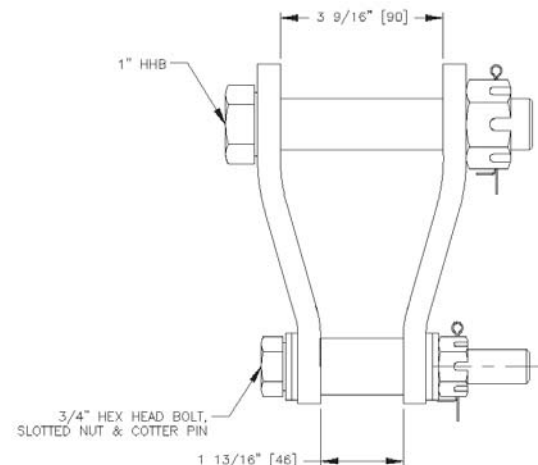
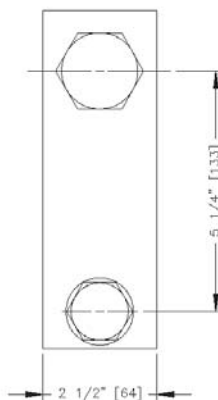


S-300-1 (15250)

Dual Hanging Straps



DHS-5011-1 (15100)
FOR USE ON UNIFIED TROLLEYS
BT-325, BT-266, AND BT-333



DHS-5012-1 (15110)
FOR USE ON UNIFIED TROLLEYS
BT-325-10 & BT-333-10

DHS-5011-1 (15100)



DHS-5012-1 (15110)



Model Number

- DHS-5011-1 for use with **Unified** trolleys BT-325, BT-266 and BT-333
- DHS-5012-1 for use with **Unified** trolleys BT-325-10, BT-333-10

Application

- For suspension of balancers, hoists, portable tools, power tools, fixtures etc.

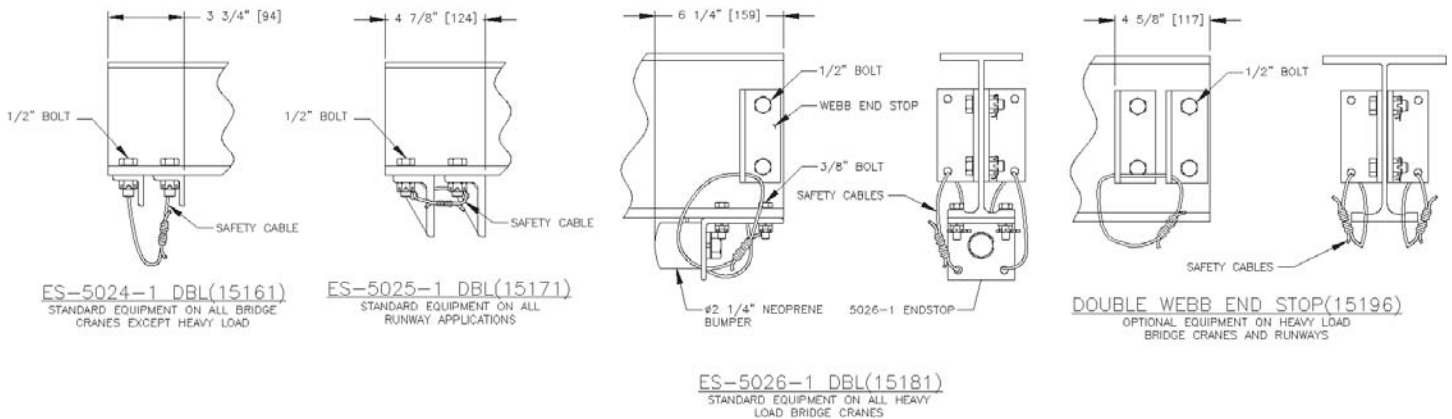
Features

- Forged steel eyebolt or eyebolt and eyenut

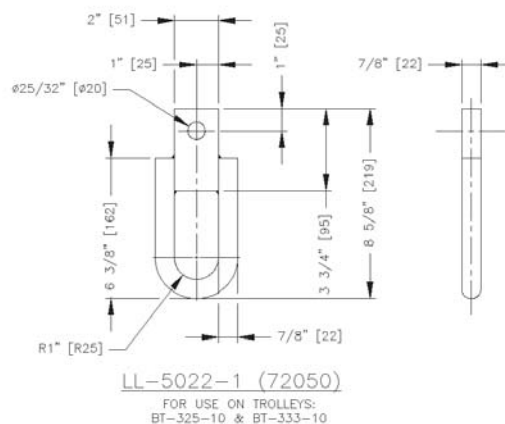
Options

- Available with or without forged eyebolt and eyenut or with standard hex head bolt

End Stops



Load Link



Model Number

Unified standard redundant end stop

- **15161** ES-5024-1
- Furnished as standard equipment on all **Unified** bridge cranes except heavy load bridge crane

Unified standard redundant end stop

- **15171** ES-5025-1
- Attached with two 1/2" steel bolts
- Will take the impact of the carrier on the end truck or load bar rather than on the load wheel

Unified standard redundant end stop

- **15181** ES-5026-1
- Furnished as standard equipment on all **Unified** heavy load bridge cranes
- Optional on other bridge cranes
- **15196** Double Webb End Stop
- Optional on heavy load bridge cranes and runways

Model Number

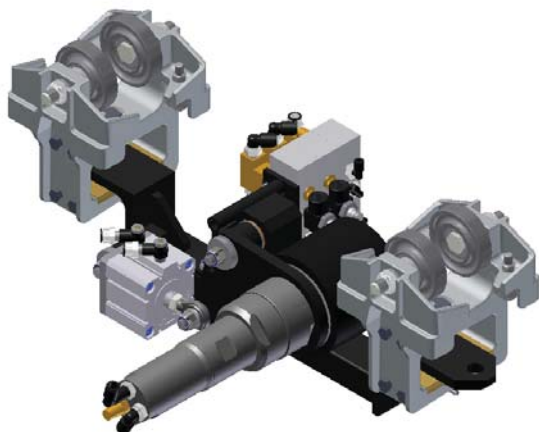
- **LL-5022-1** for use on **Unified** trolleys **BT-325-10** & **BT-333-10**

Application

Used to suspend a variety of loads such as balancers, hoists, hooks, fixtures etc.

UNIFIED AIR TRACTOR

The lube free air tractor was developed to be a compact, and reliable alternative to those large air tractors most companies are familiar with.



Features

- Lightweight and Compact
- Lube Free Air Motor
- Maintenance Friendly Design
- Quick Delivery, Excellent Pricing

Control Package Options:

C1 = SMC Control Pack w/Fwd/Rev 2-Button Control Pendant.

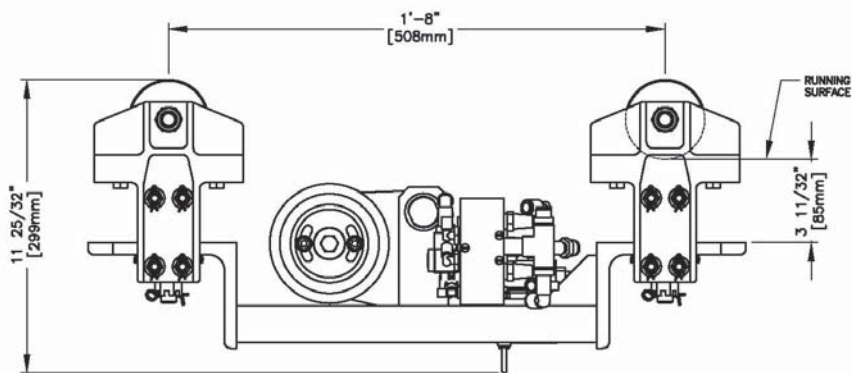
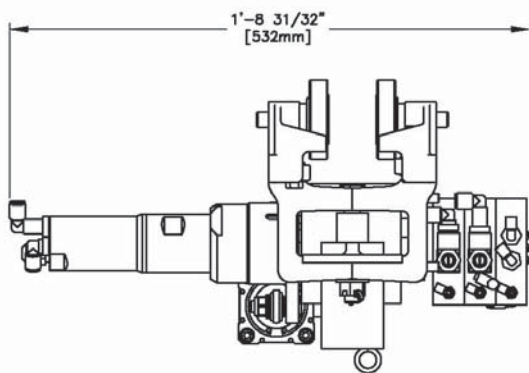
C2 = SMC Control Pack Only. (Requires main air connection + Fwd/Rev signals)

C3 = Base Tractor Only. No Control valves.

C4 = SMC Control Pack w/4-Button Control Pendant (Fwd/Rev + ?/?)

Part Number

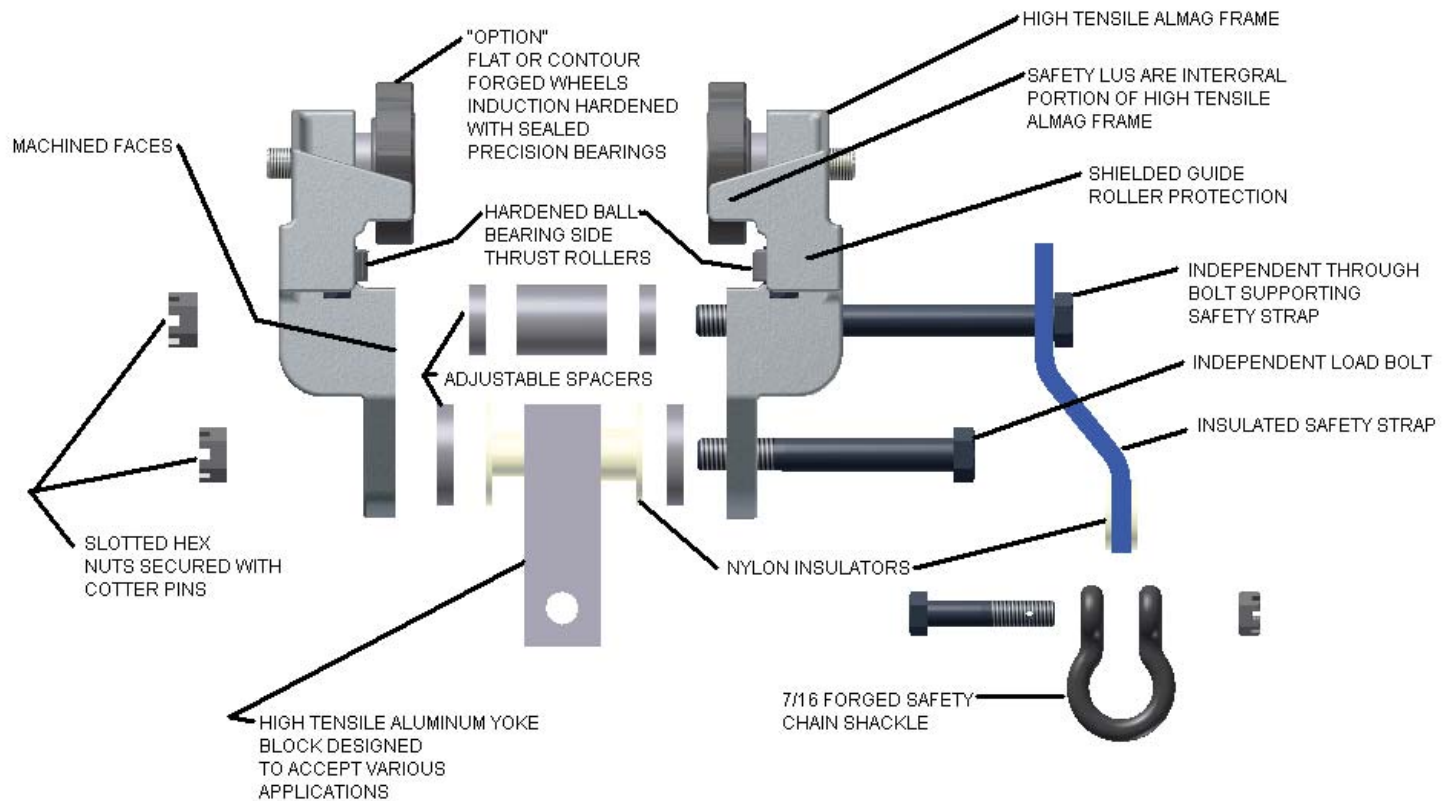
- **UAT-NB-C(x)-PAT** to run on Patent Track rail. Specify control pack above. Weight 75 lbs (34kg)
- **UAT-NB-C(x)-S4** to run on S4x7.7 rail. Specify control pack above. Weight 75 lbs (34kg)
- **UAT-NB-C(x)-S6** to run on S6x12.5 rail. Specify control pack above. Weight 75 lbs (34kg)
- **UAT-NB-C(x)-S8** to run on S8x18.4 rail. Specify control pack above. Weight 75 lbs (34kg)
- **60316** Replacement Drive Wheel



Proper Tractor Operation: Tractor must come to a complete stop before it can be engaged in the opposite direction. If this process is not followed, damage to the Tractor will occur and the warranty will be void.

*NB = No Brake

Unified Universal Insulated Trolley Assembly (Series UT-1000)





UNIFIED INDUSTRIES IS PROUD TO PROVIDE OUR UNIFIED CUSTOM PATENT RAIL SECTIONS

Unified Custom Patent Rail Sections are available up to 20'-0" (6m) in length and three (3) different sizes: 4", 5" & 6" (see page 16 for cross-section).

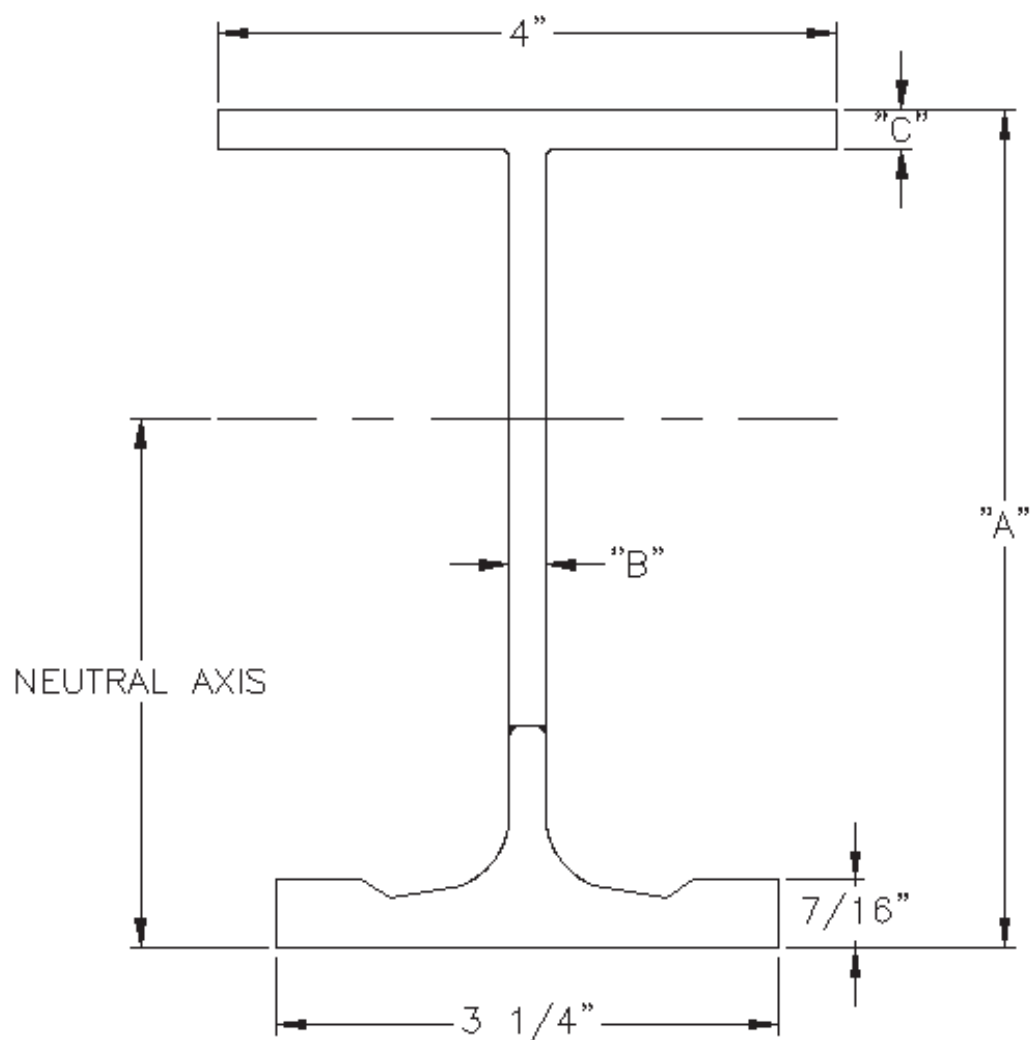
Unified Custom Patent Rails are compatible with our Unified Patent Rail Trolleys as shown in the "Standard Shapes Trolleys" Section of this catalog.

Unified Custom Patent Rails can be utilized in special circumstances such as: custom-built bridges and runways as illustrated in the "Manual Bridge Cranes" Section of this catalog.

Should you require further information concerning the "Unified Custom Patent Rail" Section or any other Unified Product, please consult the factory.

Unified Industries is also pleased to provide "Trambeam" patented rail sections in both light and heavy rail.

Note: Unified stocks all light rail sections and has to order all Heavy rail sections.

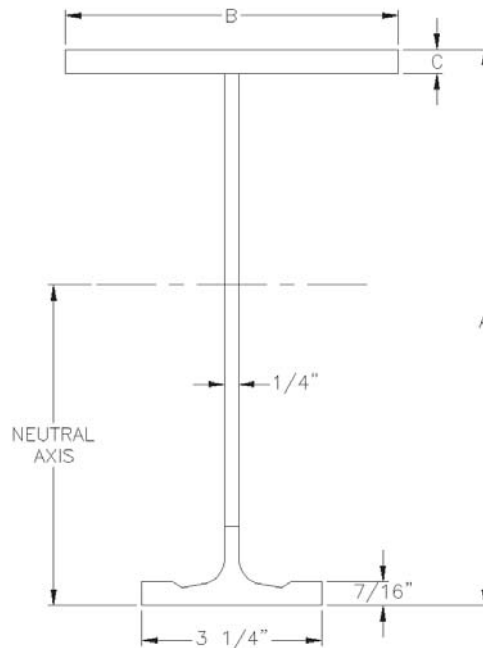


"A"	"B"	"C"
4 7/16"	15/64"	9/32"
5 7/16"	15/64"	1/4"
6 7/16"	15/64"	1/4"

Light Rail Sections

Nos. 34011 through 34031 light rail sections are used for runway and monorail tracks and bridge girders. Dimensions and section properties are shown in the tables.

Nos. 34011 and 34016 tracks are manufactured in stock lengths of 41 feet. All other light rail tracks are manufactured in stock lengths of 41, 50 and 60 feet. They are cut to length and fabricated in any length up to the maximum stock length.



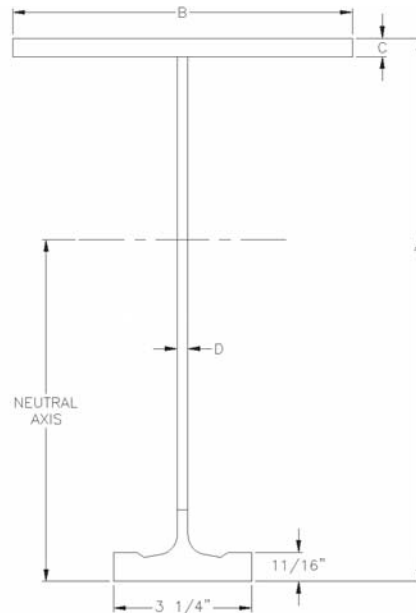
Item Number	Norminal Size and Weight	A	B	C
34011	8 @ 16.5	8-1/16	5	5/16
34016	8-1/2 @ 19.4	8-9/16	5	7/16
34021	10 @ 22.2	10-1/16	6	7/16
34026	11-1/2 @ 26.3	11-9/16	7	1/2
34031	13 @ 29.3	13-1/16	8	1/2

Item Number	Maximum Wheel Dia.(In)	Area (In. x 2)	Section Modulus (In. x 3)		Moment of Interia(In. x 4)	Neutral Axis (In.)
			Tension	Compression		
34011	5	4.672	12.920	11.585	54.399	3.812
34016		5.703	14.857	18.254	70.133	4.720
34021		6.515	18.799	25.656	109.171	5.807
34026		7.750	23.298	37.568	166.270	7.137
34031		8.625	27.924	48.310	231.148	8.278

Heavy Rail Sections

No. 34037 Nos. 34041 through 34066 heavy rail sections are used for runway and monorail tracks and bridge girders. No. 34038 sections are used for monorail curves. Dimensions and section properties are shown in the tables.

Nos. 34037 and Nos. 34041 through 34056 tracks are manufactured in stock lengths of 41, 50 and 60 feet. Nos. 34061 and 34066 tracks are manufactured to order. They are cut to length and fabricated in any length up to the maximum.



Item Number	Norminal Size and Weight	A	B	C	D
34037	12-1/2 @ 33.6	12-9/16	8	1/2	5/16
*34038	12-1/2 @ 30.2	12-9/16	6	1/2	5/16
34041	14 @ 38.5	14-1/16	8	5/8	5/16
34046	16 @ 42.7	16-1/16	9	5/8	5/16
34051	18 @ 50.3	18-1/16	10	5/8	3/8
34056	20 @ 55.0	20-1/16	11	5/8	3/8
34061	22-1/2 @ 61.4	22-9/16	12-1/2	5/8	3/8
34066	25 @ 67.8	25-1/16	14	5/8	3/8

Item Number	Maximum Wheel Dia.(In)	Area (In. x 2)	Section Modulus (In. x 3)		Moment of Interia(In. x 4)	Neutral Axis (In.)
			Tension	Compression		
34037	8	9.888	34.440	48.781	253.605	7.364
*34038		8.888	33.251	39.324	226.337	6.807
34041		11.318	40.939	65.239	353.731	8.460
34046		12.568	49.889	84.012	502.776	10.078
34051		14.802	62.307	106.516	710.066	11.396
34056		16.177	73.512	130.069	942.276	12.818
34061		18.052	88.875	165.152	1303.680	14.669
34066		19.927	105.539	204.237	1743.910	16.524

CAUTION

This bridge crane has a safe load rating, which has been clearly marked on both sides by the manufacturer. The total weight of the suspended load should never exceed 125% of this limit. The weight of all handling devices such as buckets, magnets, grabs, balancers, hoists, weldguns, etc. must be included as a part of the suspended load. The weight of such devices should therefore be determined and clearly marked.

Consideration should be given when installing hoisting devices. Load ratings for such devices may exceed the load rating of the bridge crane.

The operator should inspect this bridge crane for loose bolts and worn, cracked or distorted parts prior to use (inspection should include all handling devices and mounting equipment). Defective parts should be replaced with manufacturer-approved parts before use of bridge crane is resumed.

This bridge crane conforms to the safety standards of the U.S. Occupational Safety and Health Administration (OSHA). Any alteration of its structure or change in its rated load capacity may render null and void any manufacturer's warranties, expressed or implied.

***All dimensions are reference only
and need to be verified with factory.**





UNIFIED INDUSTRIES, INC.

A Columbus McKinnon Company

STANDARD SHAPES TROLLEY PARTS MANUAL

PARTS AND REPAIR MANUAL

This manual has been compiled to expedite the ordering of repair parts for Unified Industries' products, as well as to present to maintenance personnel the correct method of servicing the product.

In order to show all component details of Unified Industries' products, an exploded view has been shown for each model. Further technical information is available in our current full line product catalog.

INSTRUCTIONS FOR ORDERING

Locate the model required in the index and turn to the page number indicated for the exploded view.

Each serviceable part or sub-assembly in the exploded view is identified by a reference number. Use the reference number to locate the necessary part information in the parts list on the opposite page.

Any parts listed without a reference number in the parts list are not sold separately, but are included in the sub-assembly above it as shown in the exploded view. Each item listed as a sub-assembly will be sold complete including all of its component parts listed directly below it.

The parts list quantity column gives the required amount of each component part for each complete assembly.

Specify which model each part is being ordered for to ensure that the correct part is shipped.

Always use the complete stock code number and part description for each part being ordered.

Specify the quantity needed for each part being ordered.

Email your order to: sales@unified-ind.com

or call Project / Distributor Sales at: (517) 546-3220

GENERAL OPERATION AND MAINTENANCE INSTRUCTIONS

A physical inspection of all Unified Industries' products is required at least every six months. Visually inspect all parts, moving as well as non-moving, for cracks, excessive wear, or other damage. Particular attention should be given to the following parts: load wheels (outer surface and bearings), side guide rollers, kick-up wheels, safety straps, attachment mechanisms or bolts, and all contact surfaces. Should cracks, excessive wear, or other damage be present, replace the part.

All trollies must move freely without restriction during operation. Should any restriction be present, an inspection and correction of the problem should be made.

Rail and bridge girder running surfaces must be clean and in good condition to allow the trollies to move freely.

Runway surfaces must be parallel and level to provide proper alignment for the bridge crane end trucks.

End stops on all bridge cranes, telescoping beams, or rails must be securely fastened with Grade 5 bolts, slotted nuts, and cotter pins. End stop bolts must be mounted with bolt head on rail surface, threads down, through the rail and end stop, as shown in exploded views of bridge cranes and telescopes.

Never operate bridge cranes without end truck trollies properly and securely fastened.

Do not load any bridge crane and/or trolley beyond its rated capacity as so labeled.

Safety straps are provided on trollies without built-in safety lugs in the casting. Any safety items such as safety straps, chains, etc. - provided with Unified Industries' trollies - must remain in place to provide added safety protection for the operator.

Any trolley model designed with special sliding or articulating action must be correctly mounted to allow the movement required.

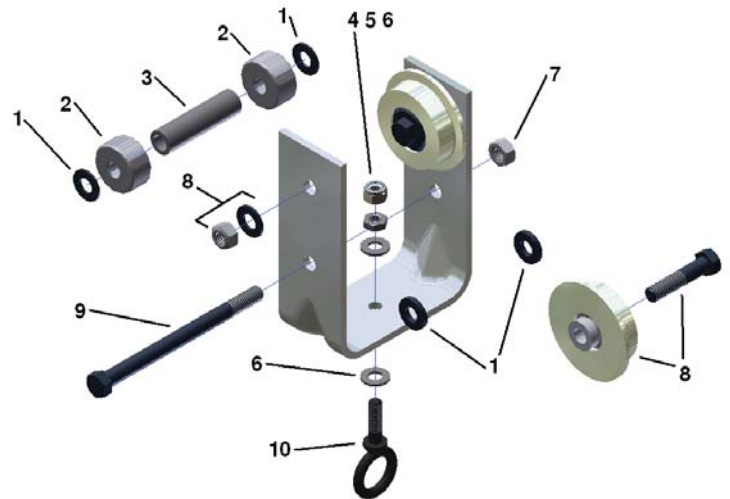
Any conveyor type load wheels with grease fittings on the axle should be inspected and properly greased, using a silicone free molysulfide grease, approximately every six months depending on work load and use.



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FT-325, FT-325
FT-333, FT-333

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	53040	3/8" Washer	4
2	56170	3021 1.25" Guide Roller	2
3	55730	FT-333 Spacer	1
4	52020	5/16" Nylon Locknut	1
5	52040	5/16" Hex Nut	1
6	53030	5/16" Washer	2
7	52095	3/8" Top Lock Nut	1
8	30010	3022 Flanged Flat Wheel Sub-Assembly	2
		2" Flat Wheel	2
		Wheel Bearing	2
		3/8" Washer	2
		3/8" Top Lock Nut	2
		3/8" Hex Bolt	2
9	50600	3/8" Hex Bolt	1
10	50020	5/16" Eyebolt	1

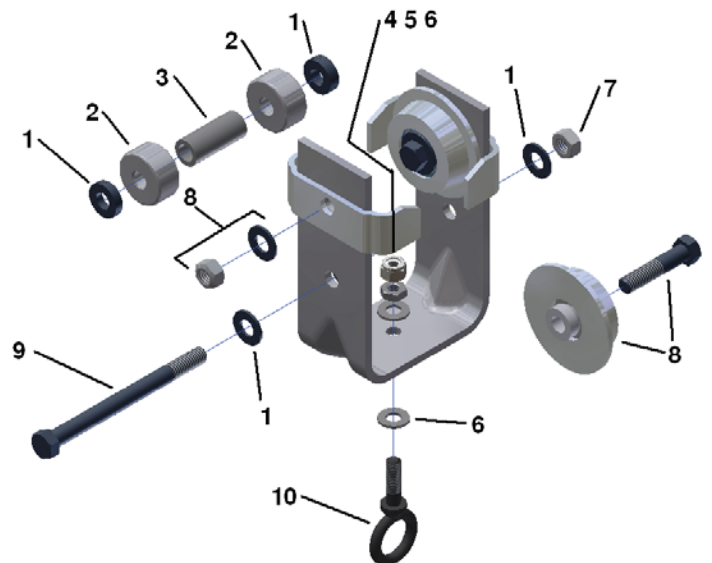


FT-333 and FT-333-B OPTIONS
(See Page 19 for Optional Wheels)

STOCK CODE		DESCRIPTION
30020	3039	2" Flanged Contour Wheel Assembly

FT-233, FT-233-B (BUMPER)
FT-266, FT-266-B (BUMPER)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	53040	3/8" Washer	4
2	56170	3021 1.25" Guide Roller	2
3	55710	FT-233 Spacer	1
4	52020	5/16" Nylon Locknut	1
5	52040	5/16" Hex Nut	1
6	53030	5/16" Washer	2
7	52095	3/8" Top Lock Nut	1
8	30020	3039 Flanged Contour Wheel Sub-Assembly	2
		2" Contour Wheel	2
		Wheel Bearing	2
		3/8" Washer	2
		3/8" Top Lock Nut	2
		3/8" Hex Bolt	2
9	50600	3/8" Hex Bolt	1
10	50020	5/16" Eyebolt	1



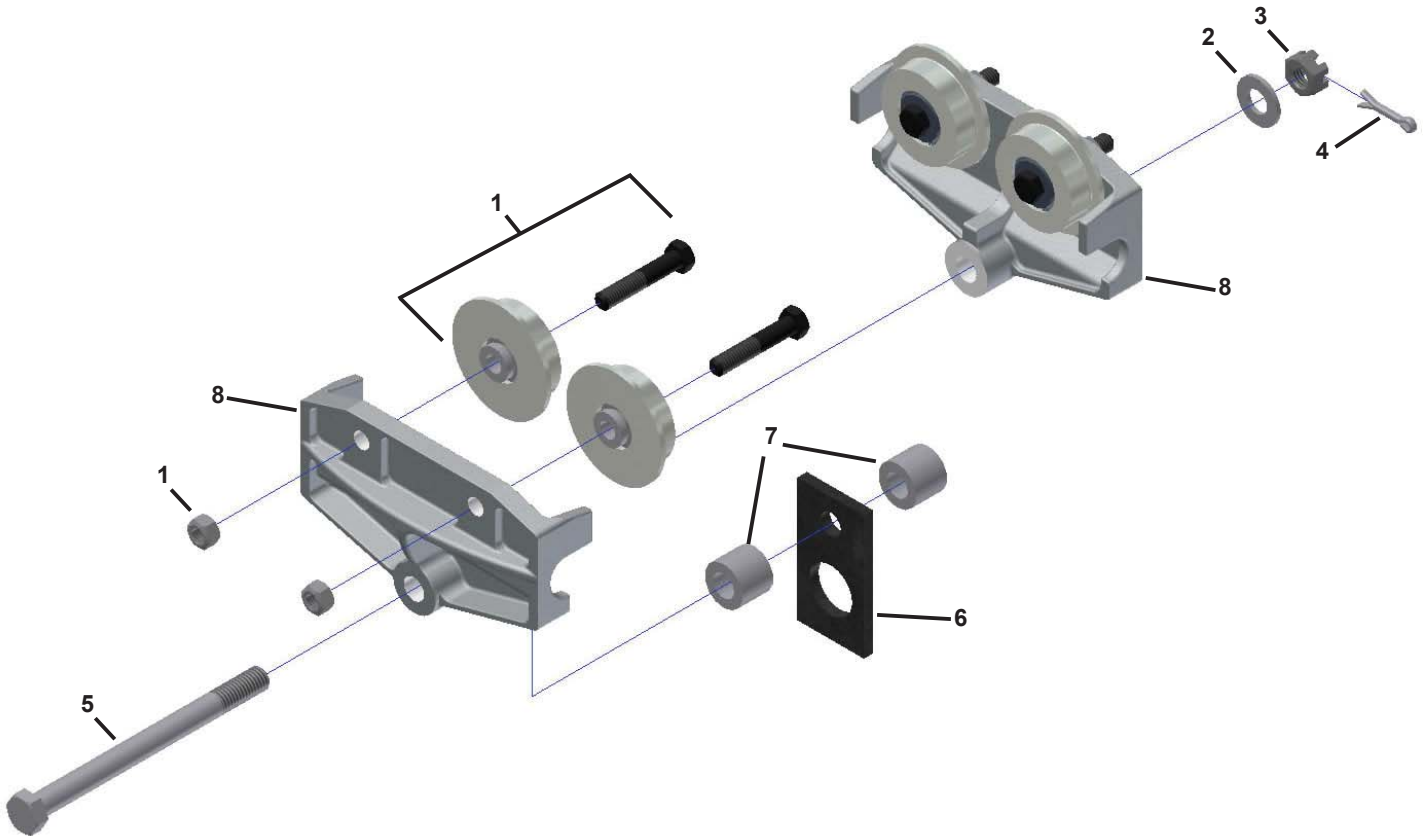
MT-250-B

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	30010	3022 Flanged Flat Wheel Sub-Assembly	4
		2" Flanged Flat Wheel	4
		Wheel Bearing	4
		3/8" Top Lock Nut	4
		3/8" Hex Bolt	4
2	53060	1/2" Washer	1
3	52220	1/2" Slotted Hex Nut	1
4	54040	1/8" Cotter Pin	1
5	50900	1/2" Hex Bolt	1
6	61180	MT-250B Hanger Strap	1
7	83540	1" OD x 9/16 ID CQ STL Tube	2
8	59150M	MT-250B Machined Casting	2

MT-250-B OPTIONS

(See Page 25 for Optional Wheels)

STOCK CODE		DESCRIPTION
30020	3039	2" Flanged Contour Wheel Assembly
30025		2" Brass Flanged Contour Wheel Assembly
30365		2" Brass Flanged Flat Wheel Assembly

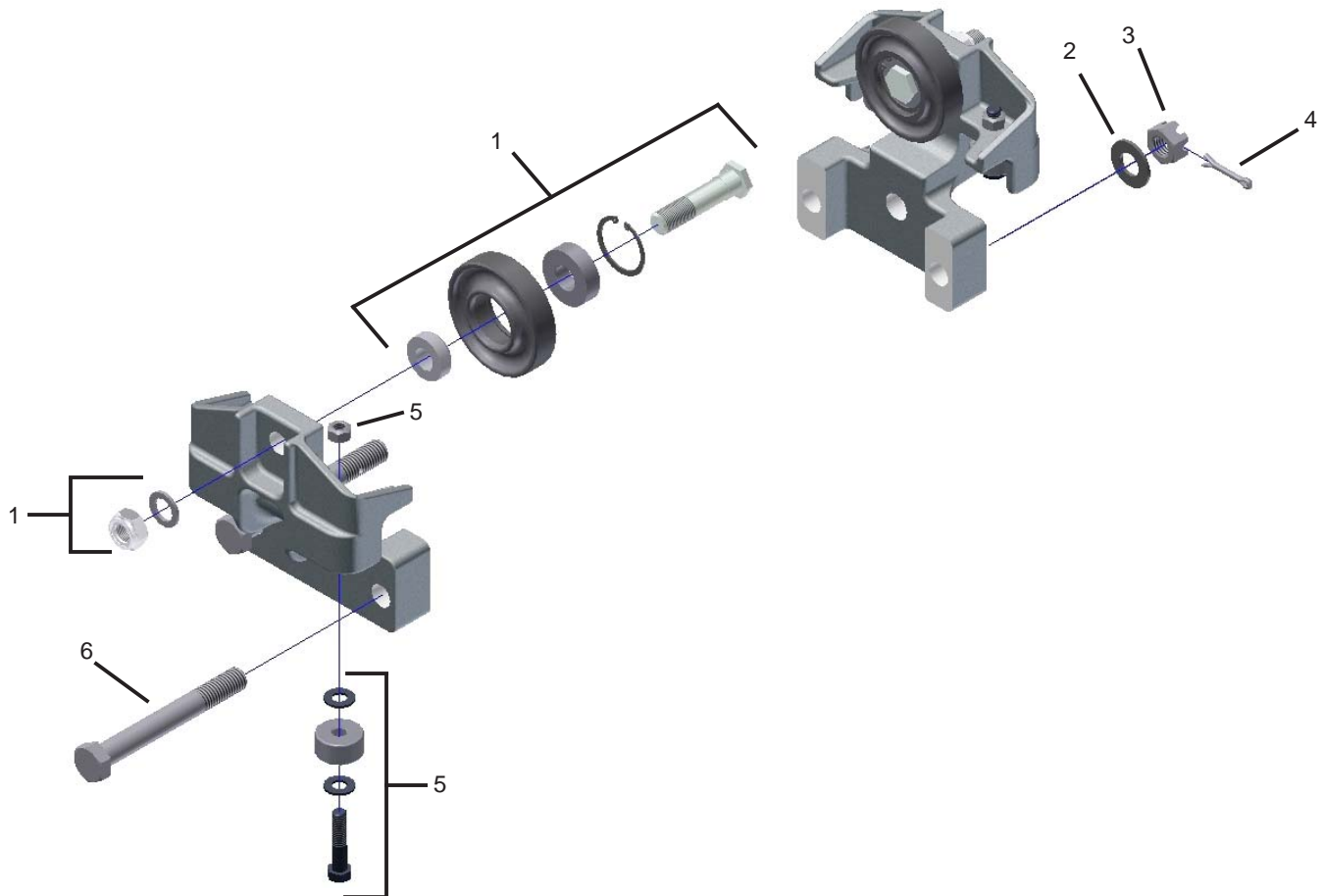


MBC-500 WITHOUT KICKUP WHEELS
MBC-500-S4 WITHOUT KICKUP WHEELS

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	30095	3.2 Flat Wheel Assembly	2
		3.2" Flat Wheel	2
		Snap Ring	2
		Wheel Bearing	2
		Stud	2
		Spacer	2
		5/8" Wheel Stud Washer	2
		5/8" Nylon Insert Jam Nut	2
2	53070	5/8" Washer	2
3	52290	5/8" Slotted Hex Nut	2
4	54083	5/32" Cotter Pin	2
5	15010	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" Washer	8
6	51110	5/8" Hex Bolt	2

MBC-500 and MBC-500-S4 WITHOUT KICKUP WHEELS OPTIONS
(See Page 19 for Optional Wheels)

STOCK CODE		DESCRIPTION
30110	3050	3.2" Contour Wheel Assembly
30370	3065	3.2" Flanged Brass Wheel Assembly
30420	3017	4" Flat Conveyor Wheel Assembly
30430	3018	4" Contour Conveyor Wheel Assembly

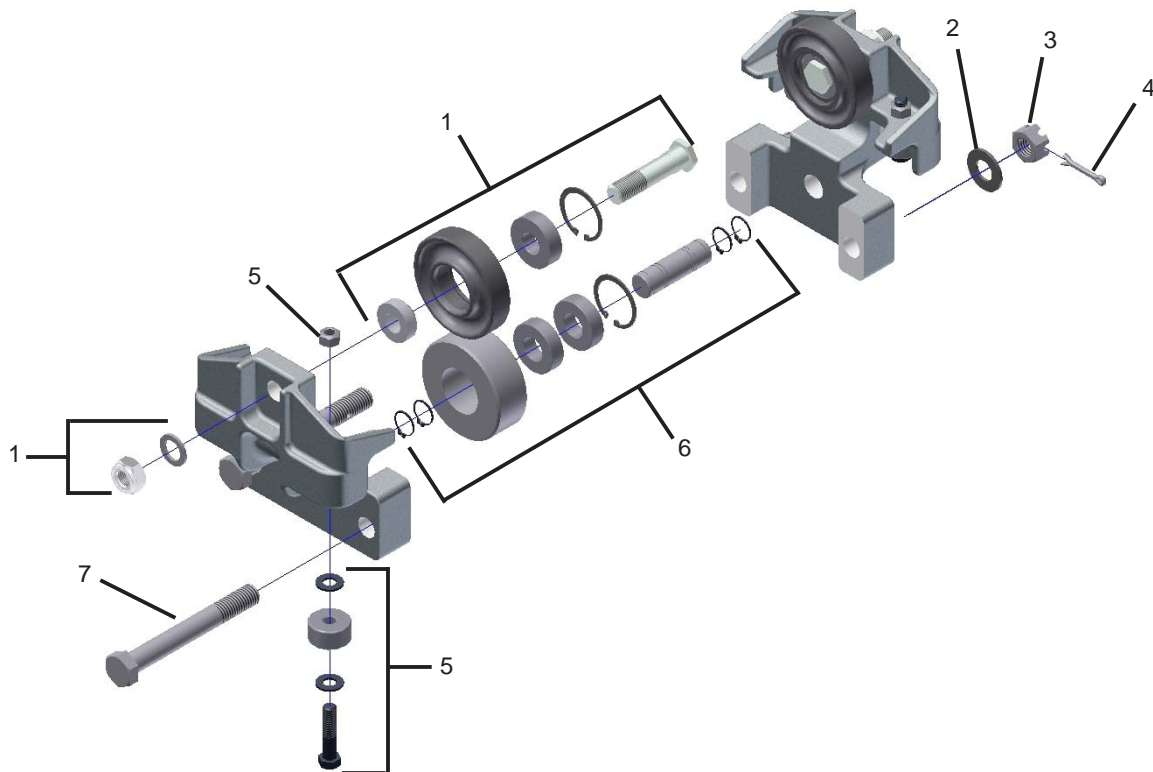


MBC-500 WITH KICKUP WHEELS
MBC-500-S4 WITH KICKUP WHEELS

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	30095	3.2 Flat Wheel Assembly	2
		3.2" Flat Wheel	2
		Snap Ring	2
		Wheel Bearing	2
		Stud	2
		Spacer	2
		5/8" Wheel Stud Washer	2
		5/8" Nylon Insert Jam Nut	2
2	53070	5/8" Washer	2
3	52290	5/8" Slotted Hex Nut	2
4	54083	5/32" Cotter Pin	2
5	15010	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" Washer	8
6	30080	Double Bearing Kick-Up Wheel Assembly	1
		3.12" Double Bearing Kick-Up Wheel	1
		Wheel Bearing	2
		Snap Ring	1
		Snap Ring	4
		Double Bearing Kickup Axle	1
7	51110	5/8" Hex Bolt	2

MBC-500 and MBC-500-S4 WITH KICKUP WHEELS OPTIONS
(See Page 19 for Optional Wheels)

STOCK CODE		DESCRIPTION
30110	3050	3.2" Contour Wheel Assembly
30370	3065	3.2" Flanged Brass Wheel Assembly
30420	3017	4" Flat Conveyor Wheel Assembly
30430	3018	4" Contour Conveyor Wheel Assembly

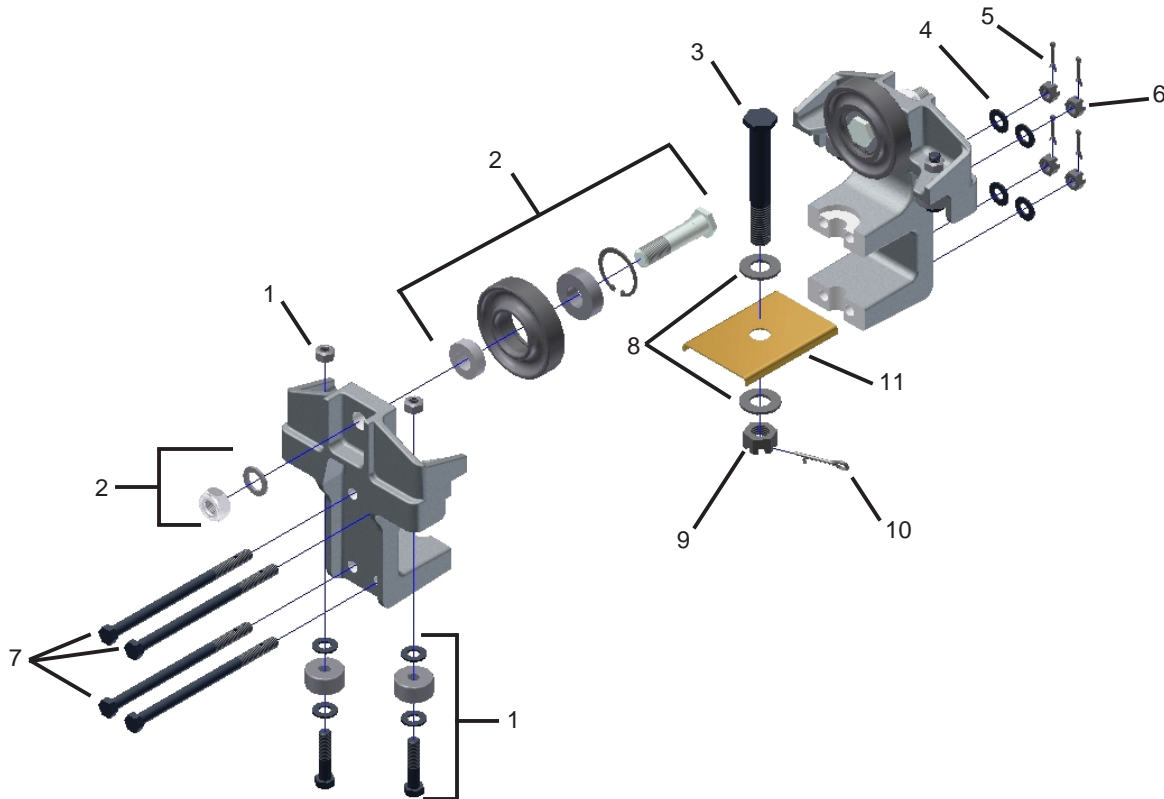


AC-500-2
AC-500-2-4

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	15010	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" Washer	8
2	30095	3.2 Flat Wheel Assembly	2
		3.2" Flat Wheel	2
		Snap Ring	2
		Wheel Bearing	2
		Stud	2
		Spacer	2
		5/8" Wheel Stud Washer	2
		5/8" Nylon Insert Jam Nut	2
3	51090	5/8" Half Head Hex Bolt	1
4	53040	3/8" Washer	4
5	54010	3/32" Cotter Pin	4
6	52110	3/8" Slotted Hex Nut	4
7	50610	3/8" Hex Bolt	4
8	53070	5/8" Washer	1
9	52290	5/8" Slotted Hex Nut	1
10	54083	5/32" Cotter Pin	1
11	75050	SAC-500 Brass Pad	1

AC-500-2 and AC-500-2-4 OPTIONS
(See Page 19 for Optional Wheels)

STOCK CODE		DESCRIPTION
30110	3050	3.2" Contour Wheel Assembly
30370	3065	3.2" Flanged Brass Wheel Assembly
30420	3017	4" Flat Conveyor Wheel Assembly
30430	3018	4" Contour Conveyor Wheel Assembly

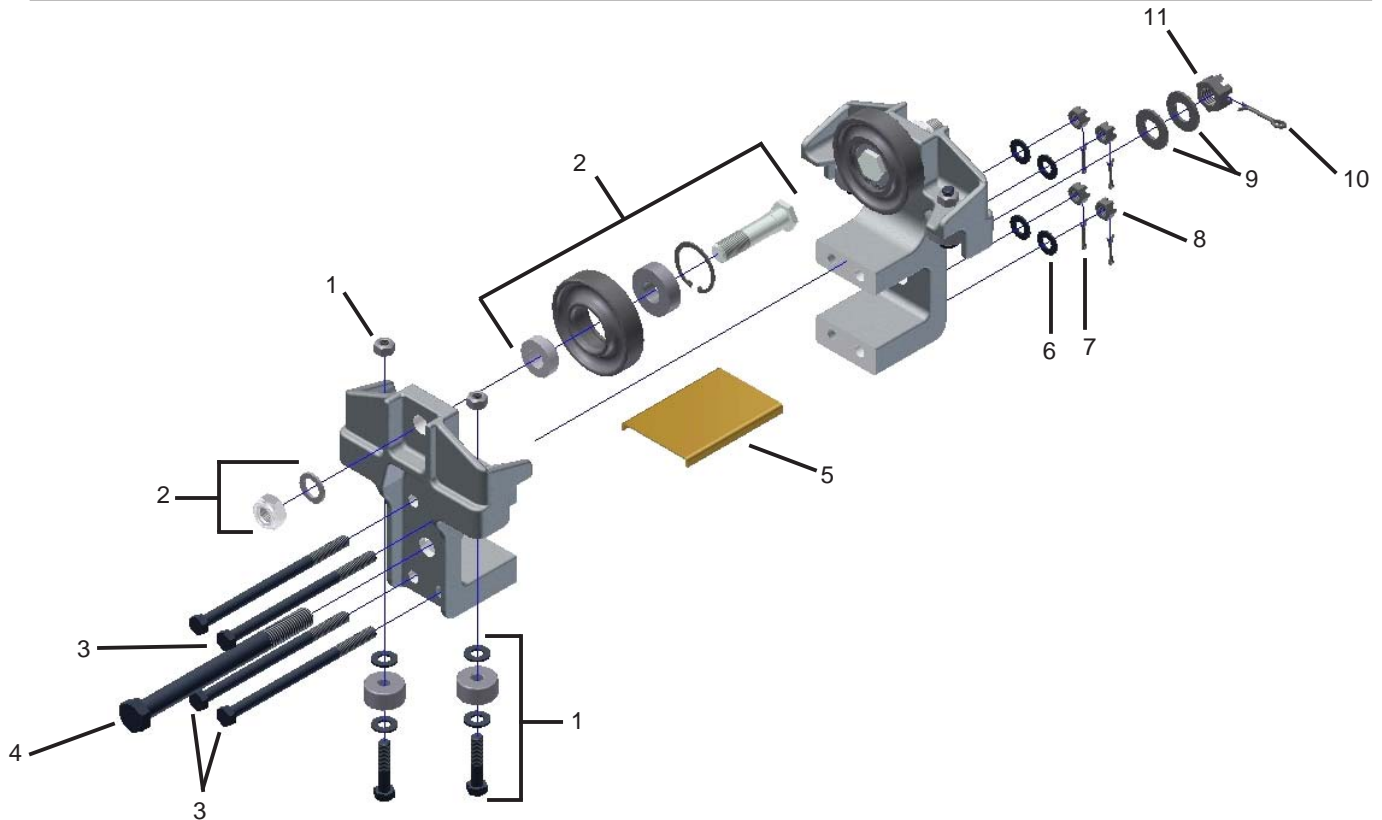


SAC-500-2
SAC-500-2-4

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	15010	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" Washer	8
2	30095	3.2" Flat Wheel Assembly	2
		3.2" Flat Wheel	2
		Snap Ring	2
		Wheel Bearing	2
		Stud	2
		Spacer	2
		5/8" Wheel Stud Washer	2
		5/8" Nylon Insert Jam Nut	2
3	50610	3/8" Hex Bolt	4
4	51170	5/8" Hex Bolt	1
5	75050	SAC-500 Brass Pad	1
6	53040	3/8" Washer	4
7	54010	3/32" Cotter Pin	4
8	52110	3/8" Slotted Hex Nut	4
9	53070	5/8" Washer	1
10	54083	5/32" Cotter Pin	1
11	52290	5/8" Slotted Hex Nut	1

SAC-500-2 and SAC-500-2-4 OPTIONS
(See Page 19 for Optional Wheels)

STOCK CODE		DESCRIPTION
30110	3050	3.2" Contour Wheel Assembly
30370	3065	3.2" Flanged Brass Wheel Assembly
30420	3017	4" Flat Conveyor Wheel Assembly
30430	3018	4" Contour Conveyor Wheel Assembly

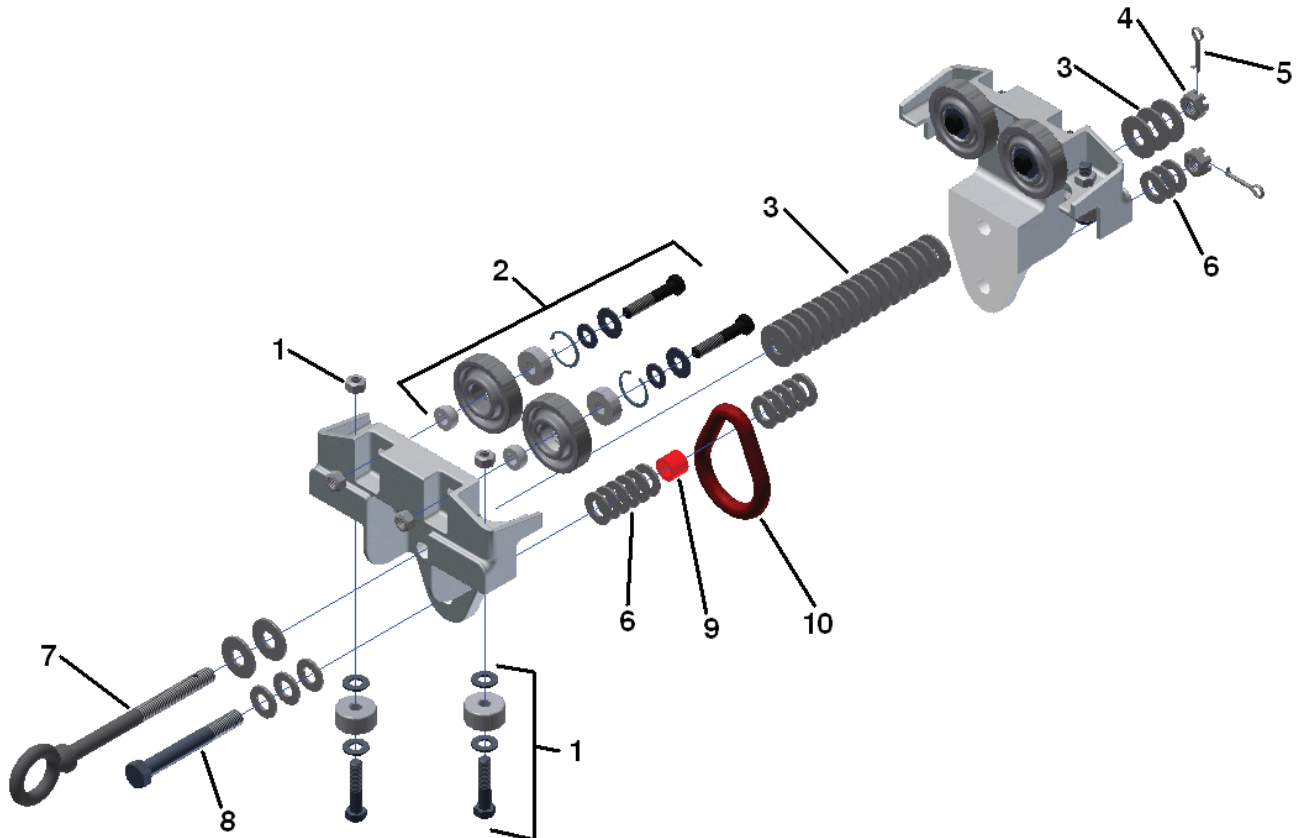


UT-500-LL
UT-500-S

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	15010	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Nylon Locknut	4
		3/8" Washer	8
2	30040	3052 Flat Wheel Sub-Assembly	4
		2.4" Flat Wheel	4
		Snap Ring	4
		Wheel Bearing	4
		Spacer	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" SAE Washer	4
		3/8" USS Washer	4
3	53140	1/2" USS Washer	17
4	52220	1/2" Slotted Hex Nut	2
5	54040	1/8" Cotter Pin	2
6	53060	1/2" SAE Washer	17
7	50080	1/2" Eyebolt	1
8	58040	1/2" Hex Bolt	1
9	55820	Spacer	1
10	72010	1/2" Sling Link (For UT-500-LL Only)	1

UT-500-LL and UT-500-S OPTIONS
(See Page 19 for Optional Wheels)

STOCK CODE		DESCRIPTION
30060	3053	2.4" Contour Wheel Assembly

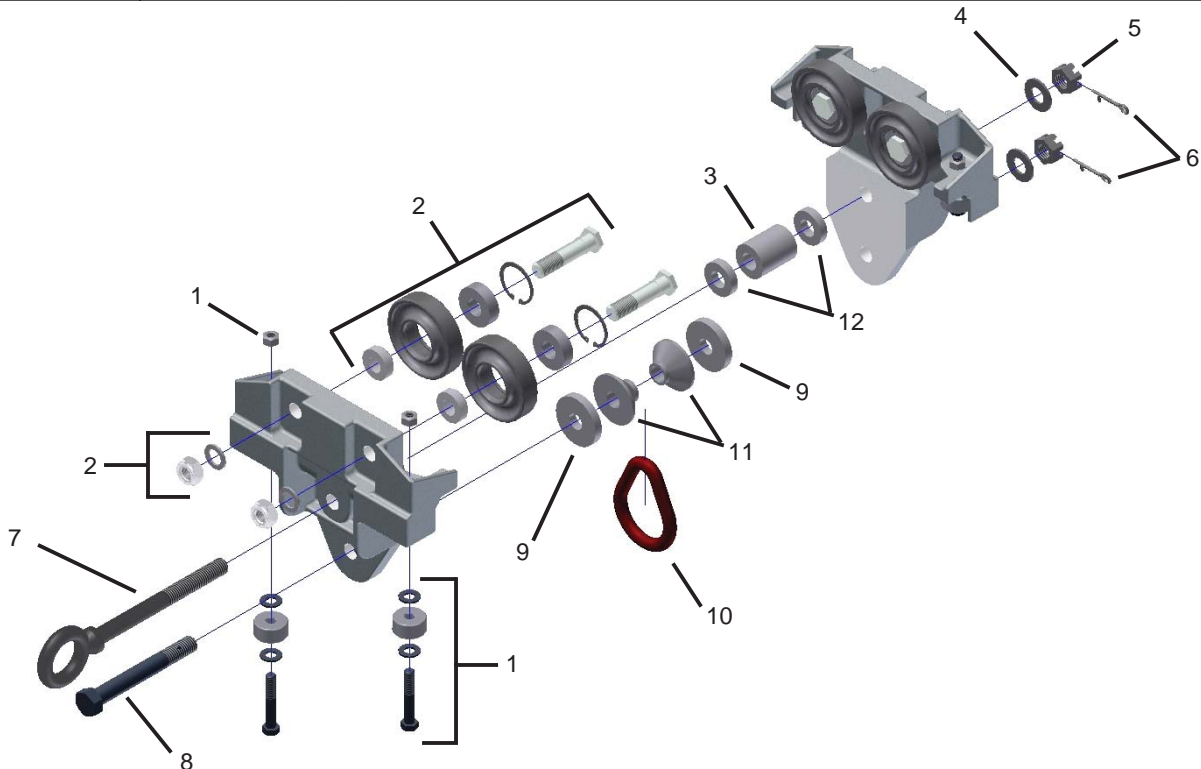


UT-1000-S
UT-1000-LL

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	15020	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" Washer	8
2	30090	3049 Flat Wheel Sub-Assembly	4
		3.2" Flat Wheel	4
		Snap Ring	4
		Wheel Bearing	4
		Stud	4
		Spacer	4
		5/8" Wheel Stud Washer	4
		5/8" Nylon Insert Jam Nut	4
3	55660	#4 UT Spacer	1
4	53070	5/8" Washer	2
5	55229	5/8" Slotted Hex Nut	2
6	54083	5/32" Cotter Pin	1
7	50110	5/8" Eye Bolt	1
8	51100	5/8" Hex Bolt	1
9	55700	#10 UT Spacer	2
10	72010	1/2" Sling Link (For UT-1000-LL Only)	1
11	78440	UT-1000 Spool	2
12	55670	#5 UT Spacer	2

UT-1000-S and UT-1000-LL OPTIONS
(See Page 19 for Optional Wheels)

STOCK CODE		DESCRIPTION
30110	3050	3.2" Contour Wheel Assembly
30370	3065	3.2" Flanged Brass Wheel Assembly
30420	3017	4" Flat Conveyor Wheel Assembly
30430	3018	4" Contour Conveyor Wheel Assembly

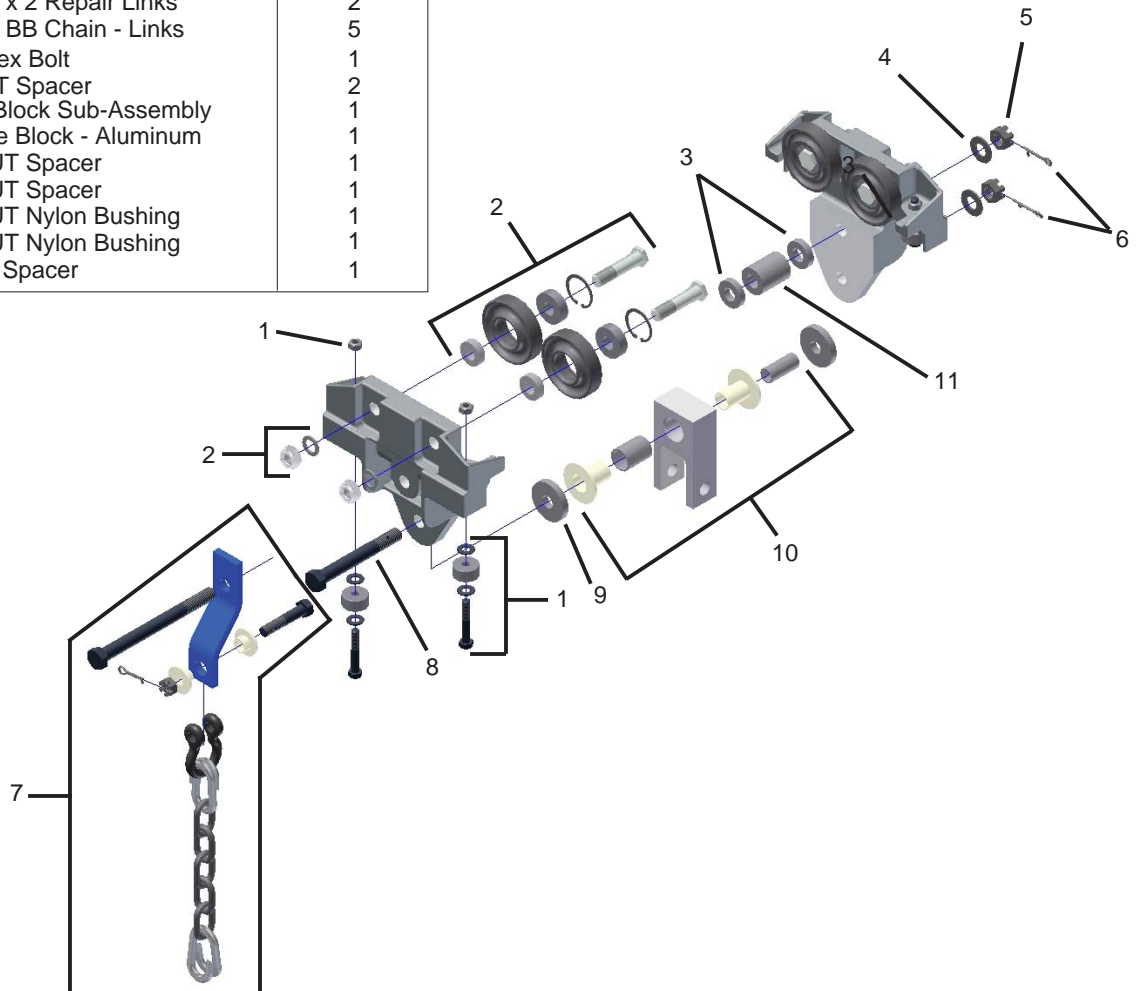


UT-1000-YBC

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	15020	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" Washer	8
2	30090	3049 Flat Wheel Sub-Assy.	4
		3.2" Flat Wheel	4
		Snap Ring	4
		Wheel Bearing	4
		Stud	4
		Spacer	4
		5/8" Wheel Stud Washer	4
		5/8" Nylon Insert Jam Nut	4
3	55670	#5 UT Spacer	2
4	53070	5/8" Washer	2
5	52290	5/8" Slotted Hex Nut	2
6	54083	5/32" Cotter Pin	2
7	15150	Safety Strap Sub-Assembly	1
		5/8" Hex Bolt	1
		UT Safety Strap	1
		#12 UT Nylon Bushing	1
		#13 UT Nylon Bushing	1
		Anchor Shackle	1
		1/2" Hex Bolt	1
		1/2" Slotted Hex Nut	1
		1/8" Cotter Pin	1
		3/8" x 2 Repair Links	2
		3/8" BB Chain - Links	5
8	51100	5/8" Hex Bolt	1
9	55700	#10 UT Spacer	2
10	15085	Yoke Block Sub-Assembly	1
		Yoke Block - Aluminum	1
		#8 UT Spacer	1
		#9 UT Spacer	1
		#6 UT Nylon Bushing	1
		#7 UT Nylon Bushing	1
11	55660	#4 UT Spacer	1

UT-1000-YBC OPTIONS
(See Page 19 for Optional Wheels)

STOCK CODE		DESCRIPTION
30110	3050	3.2" Contour Wheel Assy.
30370	3065	3.2" Flanged Brass Wheel Assy.
30420	3017	4" Flat Conveyor Wheel Assy.
30430	3018	4" Contour Conveyor Wheel Assembly

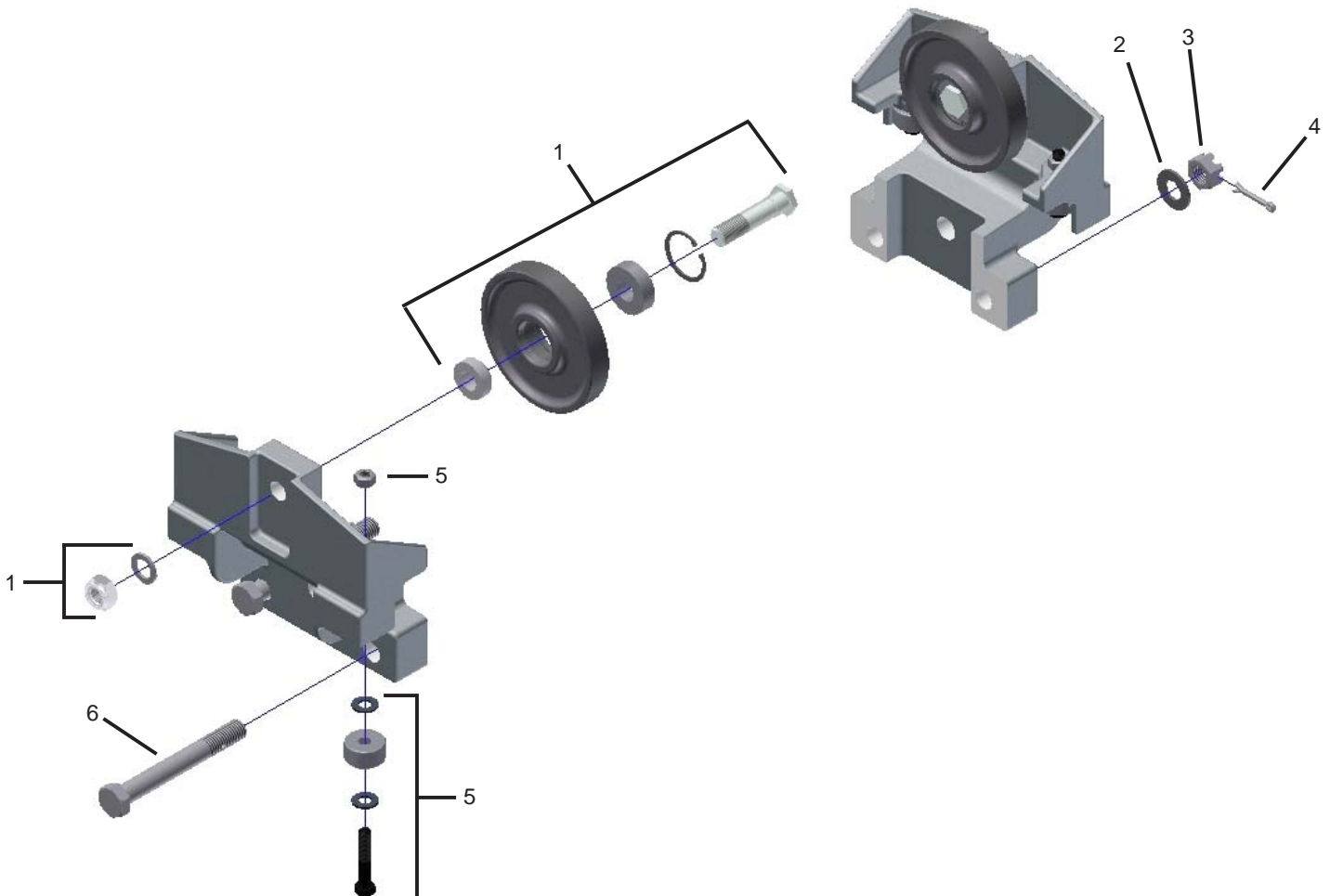


MBC-1000 Without Kickup Wheels

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	30250	3011 Flat Wheel Sub-Assembly	2
		4.6" Flat Wheel	2
		Snap Ring	2
		Wheel Bearing	2
		Stud	2
		Spacer	2
		5/8" Wheel Stud Washer	2
		5/8" Nylon Insert Jam Nut	2
2	53070	5/8" Washer	4
3	52290	5/8" Slotted Hex Nut	2
4	54083	5/32" Cotter Pin	2
5	15020	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" Washer	8
6	51110	5/8" Hex Bolt	2

MBC-1000 Without Kickup Wheels OPTIONS (See Page 20 for Optional Wheels)

STOCK CODE		DESCRIPTION
30270	3029	4.6" Contour Wheel Assembly
30290	3005	4.6" Double, Flat Wheel Assembly (MBC-1500)
30240	3038	4.6" Double, Contour Wheel Assembly (MBC-1500)
30380	3054	4.5" Flanged Brass Wheel Assembly

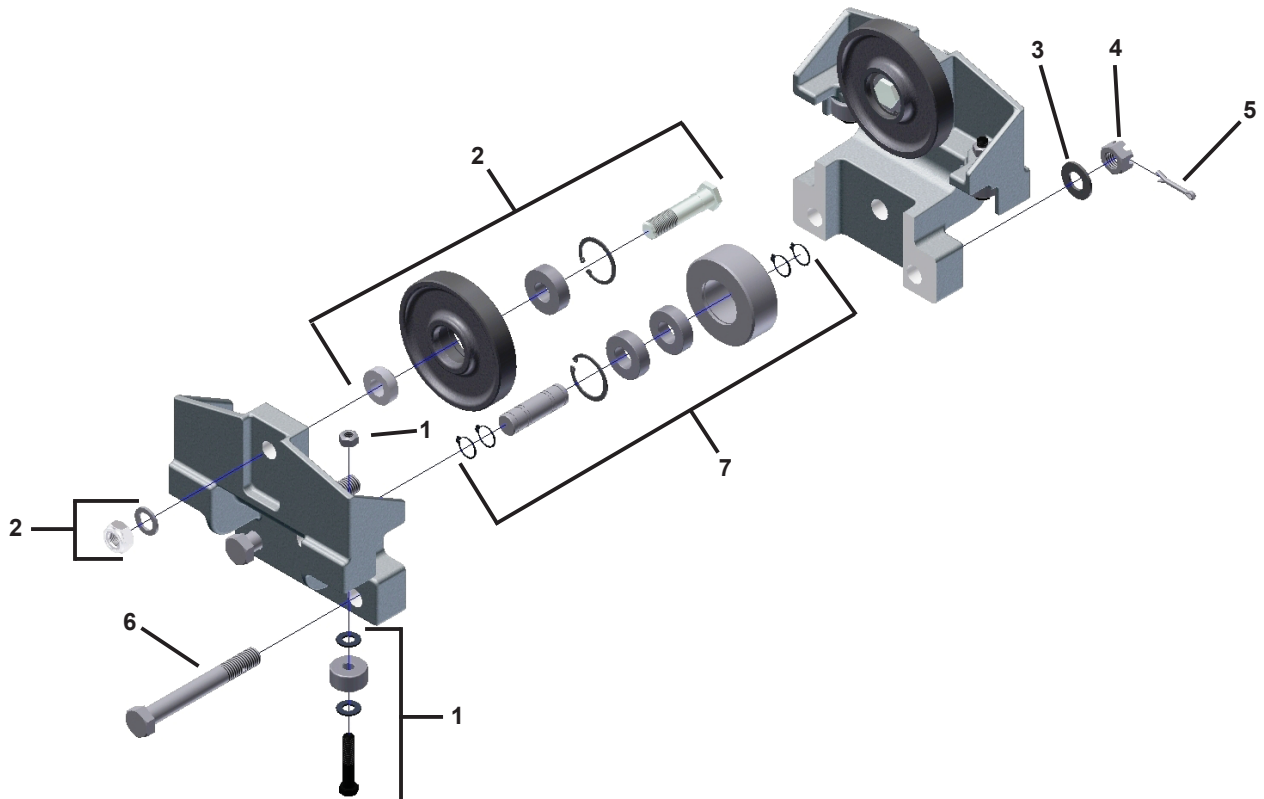


MBC-1000 With Kickup Wheels

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	15020	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" Washer	8
2	30250	3011 Flat Wheel Sub-Assembly	2
		4.6" Flat Wheel	2
		Snap Ring	2
		Wheel Bearing	2
		Stud	2
		Spacer	2
		5/8" Wheel Stud Washer	2
		5/8" Nylon Insert Jam Nut	2
3	53070	5/8" Washer	2
4	52290	5/8" Slotted Hex Nut	2
5	54083	5/32" Cotter Pin	2
6	51110	5/8" Hex Bolt	2
7	30080	Double Bearing Kick-Up Wheel Assembly	1
		3.12" Double Bearing Kick-Up Wheel	1
		Wheel Bearing	2
		Snap Ring	1
		Snap Ring	4
		Double Bearing Kick-Up Axle	1

MBC-1000 With Kickup Wheels OPTIONS (See Page 20 for Optional Wheels)

STOCK CODE		DESCRIPTION
30270	3029	4.6" Contour Wheel Assembly
30290	3005	4.6" Double, Flat Wheel Assembly (MBC-1500)
30240	3038	4.6" Double, Contour Wheel Assembly (MBC-1500)
30380	3054	4.5" Flanged Brass Wheel Assembly

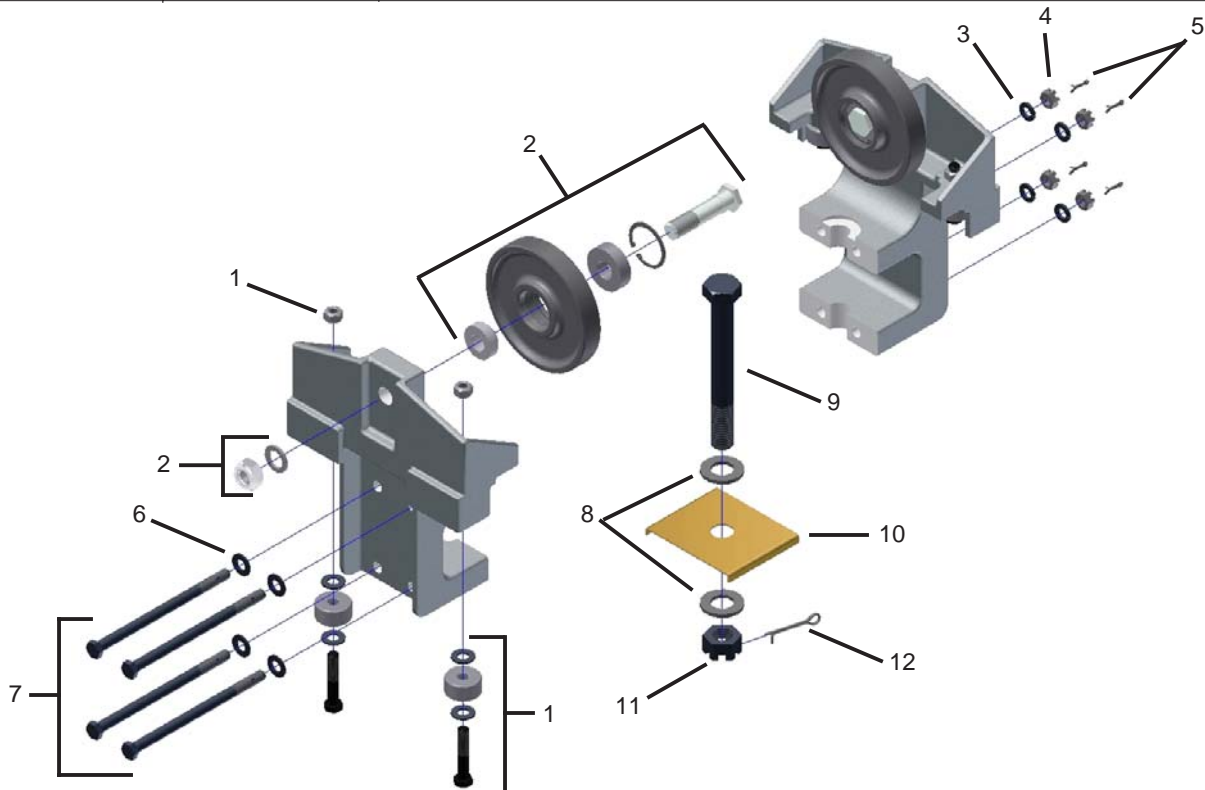


AC-1027

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	15020	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" Washer	8
2	30250	3011 Flat Wheel Sub-Assembly	2
		4.6" Flat Wheel	2
		Wheel Bearing	2
		Stud	2
		Spacer	2
		5/8" Wheel Stud Washer	2
		Snap Ring	2
		5/8" Nylon Insert Jam Nut	2
3	53200	3/8" Lockwasher	4
4	52110	3/8" Slotted Hex Nut	4
5	54010	3/32" Cotter Pin	4
6	53040	3/8" Washer	4
7	50610	3/8" Hex Bolt	4
8	53080	3/4" Washer	2
9	51370	3/4" Hex Bolt	1
10	75040	SAC-1020 Brass Pad	1
11	52370	3/4" Slotted Hex Nut	1
12	54083	5/32" Cotter Pin	1

AC-1027 OPTIONS (See Page 20 for Optional Wheels)

STOCK CODE		DESCRIPTION
30270	3029	4.6" Contour Wheel Assembly
30290	3005	4.6" Double, Flat Wheel Assembly
30240	3038	4.6" Double, Contour Wheel Assembly
30380	3054	4.6" Flanged Brass Wheel Assembly

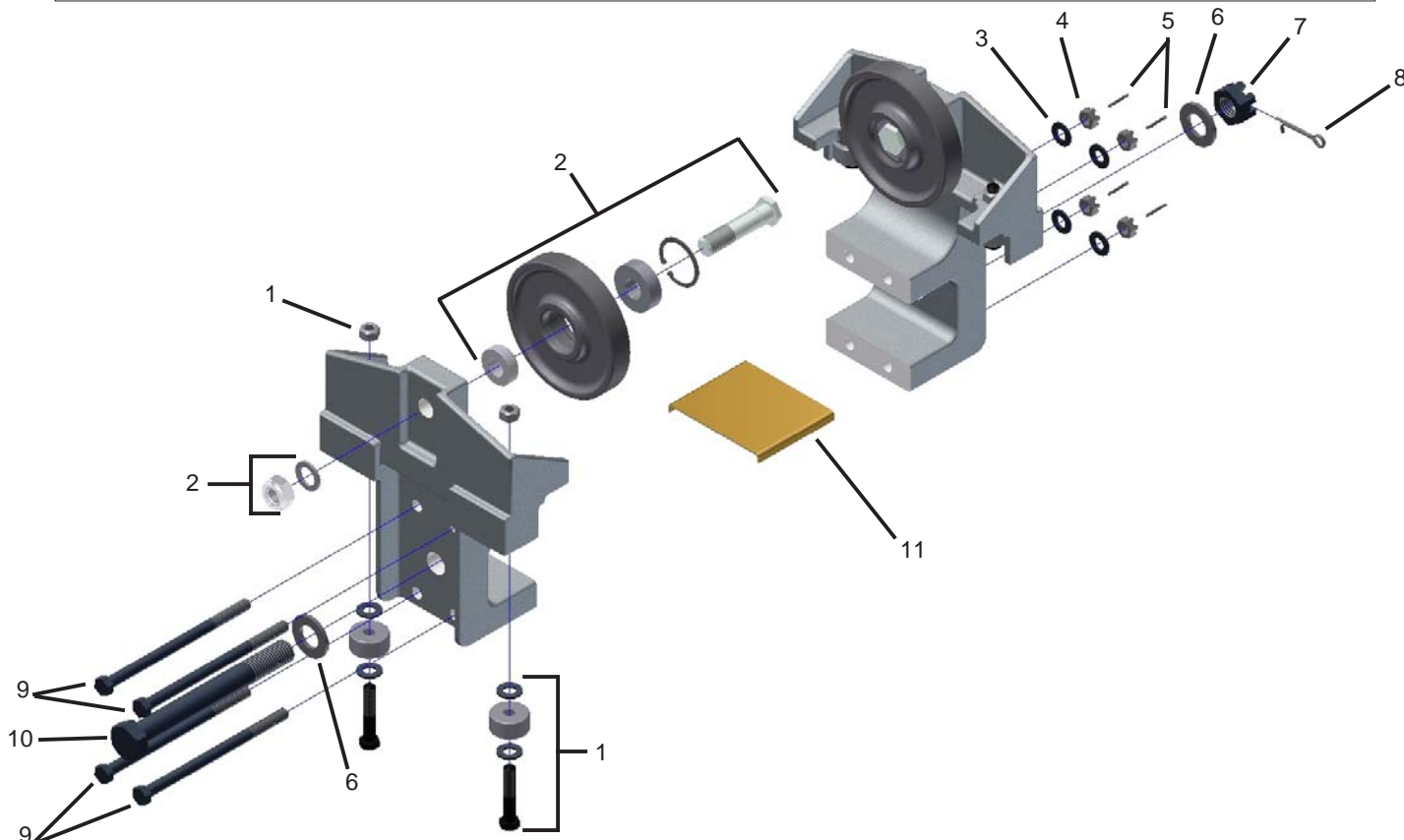


SAC-1020

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	15020	Guide Roller Sub-Assembly	4
		3021 1.25" Guide Roller	4
		3/8" Hex Bolt	4
		3/8" Top Lock Nut	4
		3/8" Washer	8
2	30250	3011 Flat Wheel Sub-Assembly	2
		4.6" Flat Wheel	2
		Snap Ring	2
		Wheel Bearing	2
		Stud	2
		Spacer	2
		5/8" Wheel Stud Washer	2
		5/8" Nylon Insert Jam Nut	2
3	53040	3/8" Washer	4
4	52110	3/8" Slotted Hex Nut	4
5	54010	3/32" Cotter Pin	4
6	53080	3/4" Washer	2
7	52370	3/4" Slotted Hex Nut	1
8	54083	5/32" Cotter Pin	1
9	50610	3/8" Hex Bolt	4
10	51390	3/4" Hex Bolt	1
11	75040	SAC-1020 Brass Pad	1

SAC-1020 OPTIONS (See Page 20 for Optional Wheels)

STOCK CODE		DESCRIPTION
30270	3029	4.6" Contour Wheel Assembly
30290	3005	4.6" Double, Flat Wheel Assembly
30240	3038	4.6" Double, Contour Wheel Assembly
30380	3054	4.6" Flanged Brass Wheel Assembly



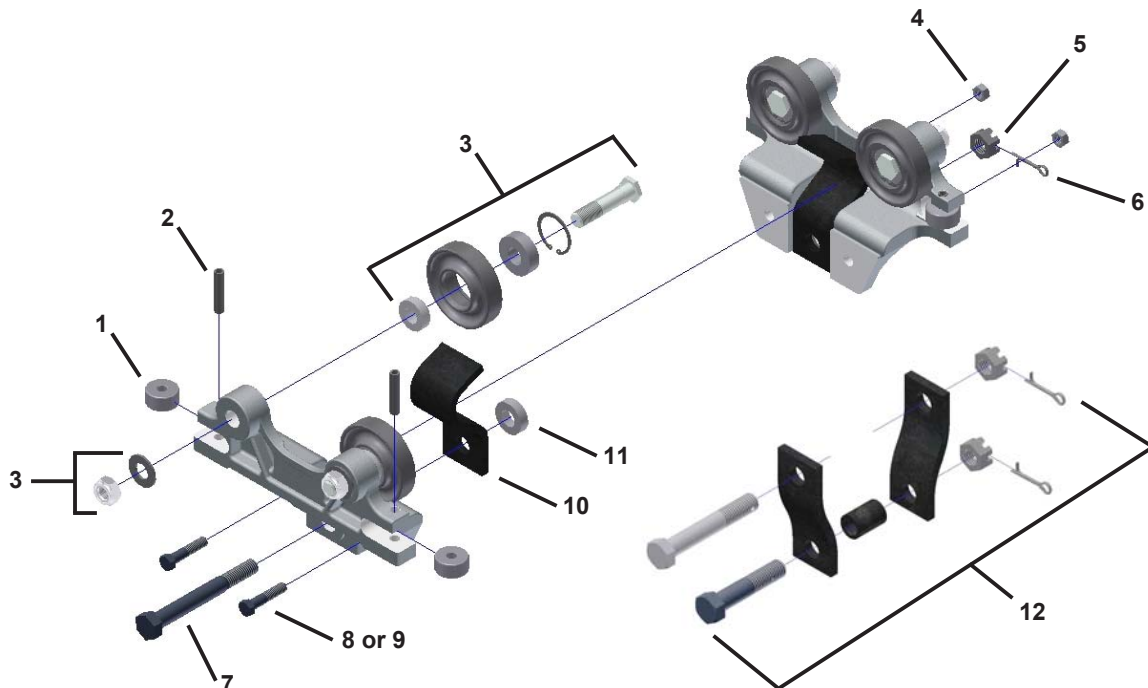
BT-325, BT-266, BT-333
BT-325-DHS, BT-266-DHS, BT-333-DHS

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	56170	3021-1 1.25" Guide Roller	4
2	54200	3/8" x 1.75" Spring Pin	4
3	30095	3049 Flat Wheel Sub-Assembly	4
		3.2" Flat Wheel	4
		Snap Ring	4
		Wheel Bearing	4
		Stud	4
		Spacer	4
		5/8" Sae Flat Washer	4
		5/8" Nylon Insert Jam Nut	4
4	52095	3/8" Top Lock Nut	2
5	52290	5/8" Slotted Hex Nut	1
6	54083	5/32" Cotter Pin	1
7	51110	5/8" Hex Bolt	1
8	50500	3/8" Hex Bolt	2
9**	50045	3/8" Rod End	2
10	61120	Safety Strap	2
11	55590	Spacer (Specify Trolley Model)	1
12**	15100	DHS-5011-1 Hanger Strap Sub-Assembly	1
		5/8" Eyebolt	1
		Hanger Strap	2
		Spacer	1
		5/8" Hex Bolt	1
		5/8" Slotted Hex Nut	2
		5/32" Cotter Pin	2

** For DHS Option Only

BT-325, BT-266, BT-333
BT-325-DHS, BT-266-DHS, BT-333-DHS OPTIONS
(See Page 19 for Optional Wheels)

STOCK CODE		DESCRIPTION
30110	3050	3.2" Contour Wheel Assembly
30370	3065	3.2" Flanged Brass Wheel Assembly
30420	3017	4" Flat Conveyor Wheel Assembly
30430	3018	4" Contour Conveyor Wheel Assembly

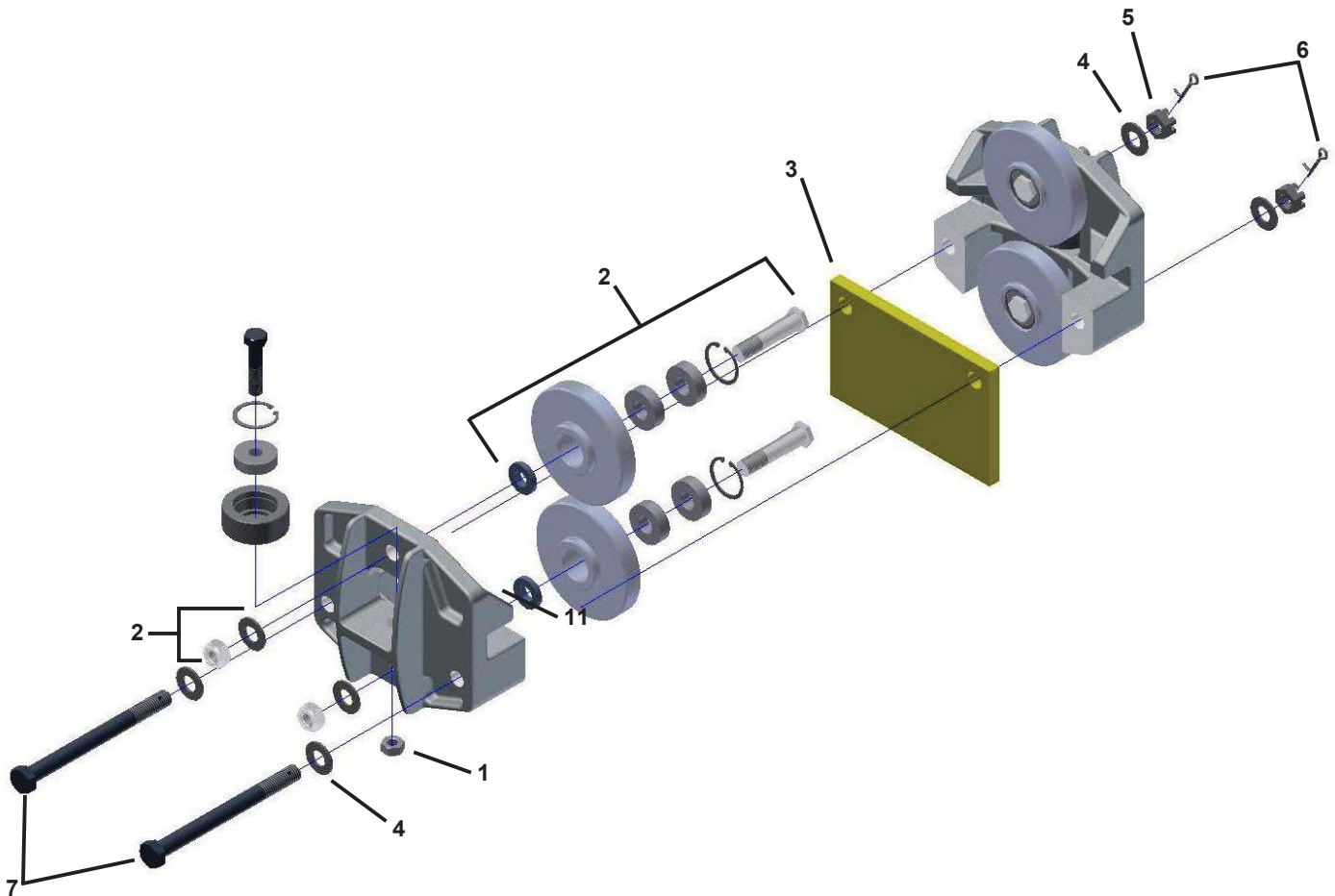


TSE-1017

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	15038	TSE Guide Roller Assembly	2
		2.4" Flat Wheel	2
		Snap Ring	2
		Wheel Bearing	4
		Spacer	2
		1/2" Hex Bolt	2
		1/2" Top Lock Nut	2
2	30290	3005 Double Flat Wheel Sub-Assembly	4
		4.6" Flat Wheel	4
		Snap Ring	4
		Wheel Bearing	8
		Stud	4
		Spacer	4
		5/8" Wheel Stud Washer	4
		5/8" Nylon Insert Jam Nut	4
3	55815	TSE Spacer	1
4	53070	5/8" Washer	4
5	52290	5/8" Slotted Hex Nut	2
6	54083	5/32" Cotter Pin	2
7	51170	5/8" Hex Bolt	2

TSE-1017 OPTIONS (See Page 20 for Optional Wheels)

STOCK CODE		DESCRIPTION
30240	3038	4.6" Double, Contour Wheel Assembly



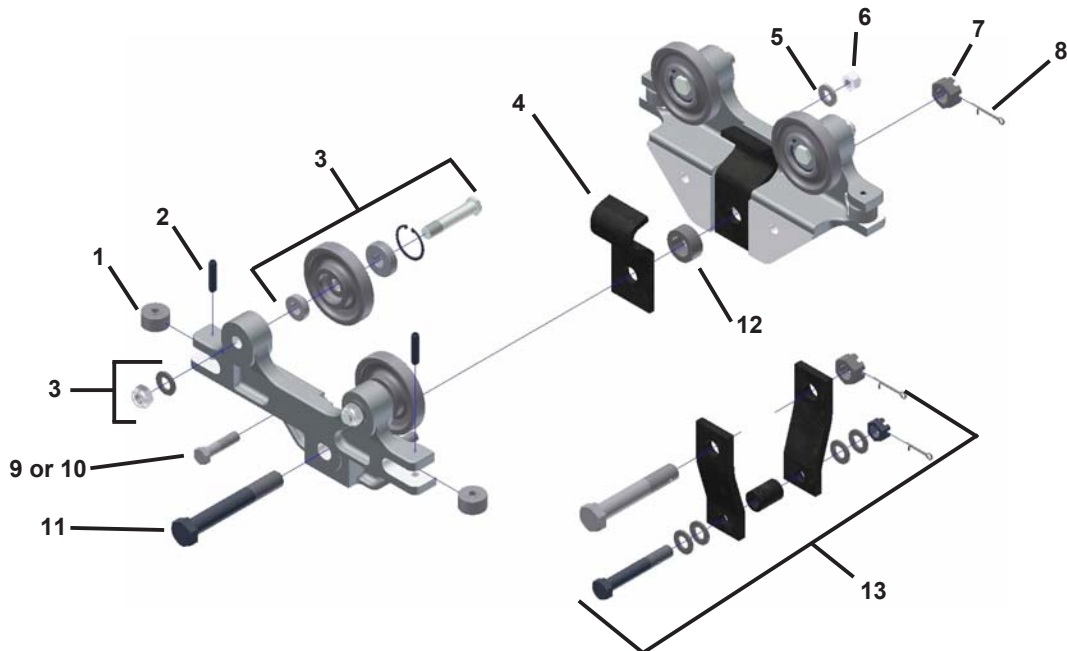
BT-325-10, BT-333-10, BT-325-10-DHS, BT-333-10-DHS

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	56180	3044-1 1.62 G. R. Bearing	4
2	54210	7/16" x 2" Spring Pin	4
3	30300	3046 Flat Wheel Sub-Assembly	4
		4.8" Flat Wheel	4
		Snap Ring	4
		Wheel Bearing	4
		Stud	4
		Spacer	4
		3/4" Flat Washer	4
		3/4" Nylon Insert Jam Nut	4
4	61110	Safety Strap	2
5	53240	5/8" Flat Washer	2
6	52255	5/8" Nylon Insert Lock Nut	2
7	52400	1" Slotted Hex Nut	1
8	54083	5/32" Cotter Pin	1
9	51020	5/8" Hex Bolt	2
10**	50102	5/8" Rod End	2
11	51550	1" Hex Bolt	1
12	55610	Spacer	1
13**	15110	DHS-5012-1 Hanger Strap Sub-Assembly	1
		1" Hex Bolt	1
		1" Slotted Hex Nut	1
		3/16" Cotter Pin	1
		Spacer	1
		Hanger Strap	2
		3/4" Hex Bolt	1
		3/4" Slotted Hex Nut	1
		5/3" Cotter Pin	1
		3/4" Washer	4

** For DHS Option Only

BT-325-10, BT-333-10, BT-325-10-DHS, BT-333-10-DHS OPTIONS
(See Pages 20 for Optional Wheels)

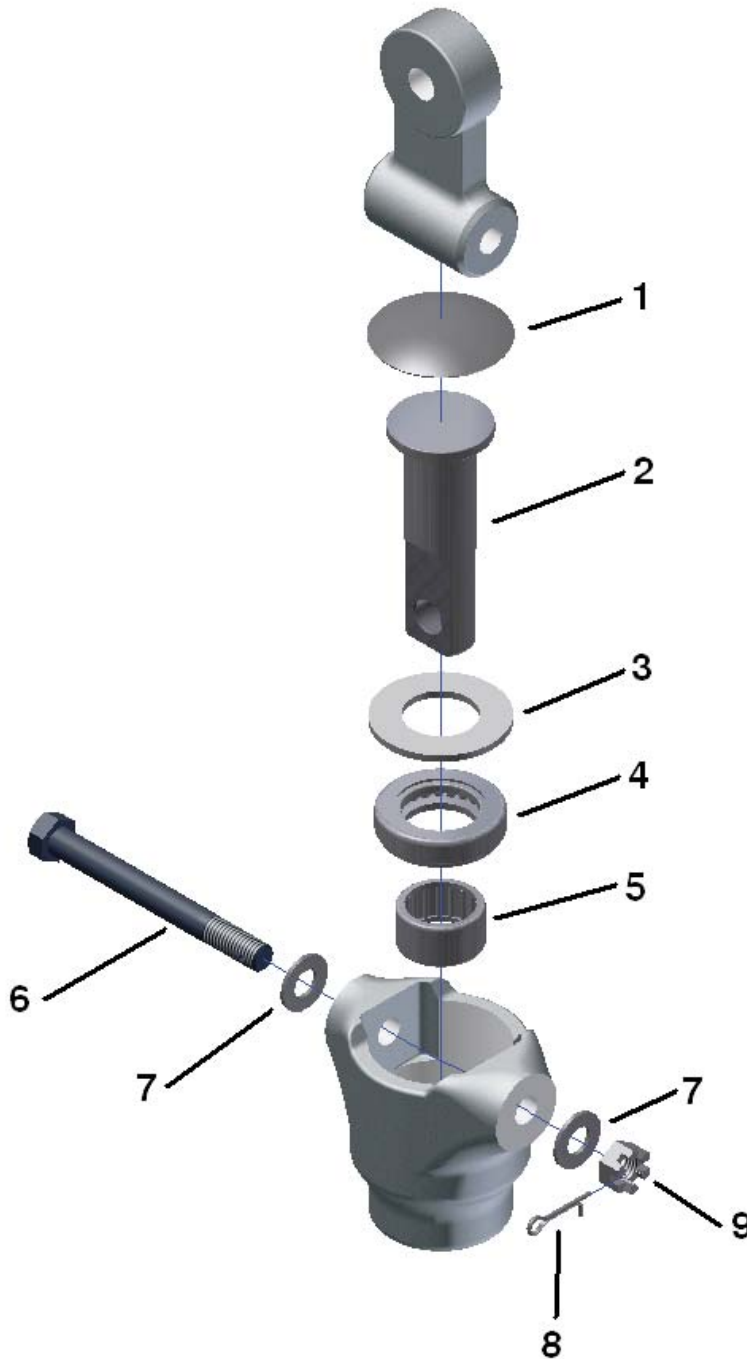
STOCK CODE		DESCRIPTION
30320	3047	4.8" Contour Wheel Assembly
30390	3061	4.8" Brass Flanged Wheel Assembly



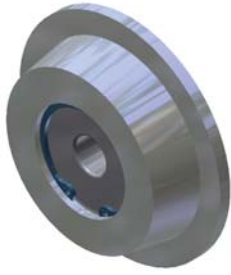
UNIVERSAL SWIVEL
S-300

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	78470	Welsh Plug	1
2	54280	Detent 9 Swivel Pin	1
3	53110	1-1/2" Washer	1
4	56010	Thrust Bearing	1
5	56050	Roller Bearing	1
6	51130	5/8" Hex Bolt	1
7	53070	5/8" Washer	2
8	54083	5/32" Cotter Pin	1
9	52290	5/8" Slotted Hex Nut	1

NOTE: Sold separately or as an Option on the BT-325-10 Trolley



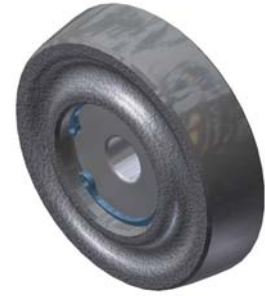
OPTIONAL WHEEL ASSEMBLIES



2" DIA. FLANGED WHEEL
3039 - Contour (Shown) (30020)



2" DIA. BRAS FLANGED WHEEL
Flat (Shown) (30365)



2.4" DIA. WHEEL
3053 - Contour (Shown) (30060)



3.2" DIA. WHEEL
3050 - Contour (Shown) (30110)



4" DIA. CONVEYOR WHEEL
3017 - Flat (Shown) (30420)
3018 - Contour (30430)



BRASS
3.2" DIA. FLANGED WHEEL
3065 - Flat or Contour Brass (30370)

OPTIONAL WHEEL ASSEMBLIES



BRASS
4.5" DIA. FLANGED WHEEL
3030 - Flat or Contour / Brass (30380)



4.62" DIA. WHEEL
3029 - Contour (Shown) (30270)
Single Bearing
3011 - Flat (30250)
3005 - Flat / Double Bearing (30290)
3038 - Contour / Double Bearing (30240)



4.8" DIA. WHEEL
3047 - Contour (Shown) (30320)
3046 - Flat (30300)



BRASS
4.8" DIA. FLANGED WHEEL
3061 - Flat (Shown) or Contour Brass
(30390)





UNIFIED INDUSTRIES, INC.

A Columbus McKinnon Company

ETA SYSTEM PARTS MANUAL

ETA-4, ETA-5 & ETA-8



PARTS AND REPAIR MANUAL

This manual has been compiled to expedite the ordering of repair parts for Unified Industries' products, as well as to present to maintenance personnel the correct method of servicing the product.

In order to show all component details of Unified Industries' products, an exploded view has been shown for each model. Further technical information is available in our current full line product catalog.

INSTRUCTIONS FOR ORDERING

Locate the model required in the index and turn to the page number indicated for the exploded view.

Each serviceable part or sub-assembly in the exploded view is identified by a reference number. Use the reference number to locate the necessary part information in the parts list on the opposite page.

Any parts listed without a reference number in the parts list are not sold separately, but are included in the sub-assembly above it as shown in the exploded view. Each item listed as a sub-assembly will be sold complete including all of its component parts listed directly below it.

The parts list quantity column gives the required amount of each component part for each complete assembly.

Specify which model each part is being ordered for to ensure that the correct part is shipped.

Always use the complete stock code number and part description for each part being ordered.

Specify the quantity needed for each part being ordered.

Email your order to: sales@unified-ind.com

Fax your order to: (517) 546-1273

or call Sales at: (517) 546-3220

GENERAL OPERATION AND MAINTENANCE INSTRUCTIONS

A physical inspection of all Unified Industries' products is required per OSHA standards. Visually inspect all parts, moving as well as non-moving, for cracks, excessive wear, or other damage. Particular attention should be given to the following parts: load wheels (outer surface and bearings), side guide rollers, kick-up wheels, safety straps, attachment mechanisms or bolts, and all contact surfaces. Should cracks, excessive wear, or other damage be present, replace the part.

All trolleys must move freely without restriction during operation. Should any restriction be present, an inspection and correction of the problem should be made.

Rail and bridge girder running surfaces must be clean and in good condition to allow the trolleys to move freely.

Runway surfaces must be parallel and level to provide proper alignment for the bridge crane end trucks.

End stops on all bridge cranes, telescoping beams, or rails must be securely fastened with Grade 5 bolts, slotted nuts, and cotter pins. End stop bolts must be mounted with bolt head on rail surface, threads down, through the rail and end stop, as shown in exploded views of bridge cranes and telescopes.

Never operate bridge cranes without end truck trolleys properly and securely fastened.

Do not load any bridge crane and/or trolley beyond its rated capacity as so labeled.

Safety straps are provided on trollies without built-in safety lugs in the casting. Any safety items such as safety straps, chains, etc. - provided with Unified Industries' trolleys - must remain in place to provide added safety protection for the operator.

Any trolley model designed with special sliding or articulating action must be correctly mounted to allow the movement required.

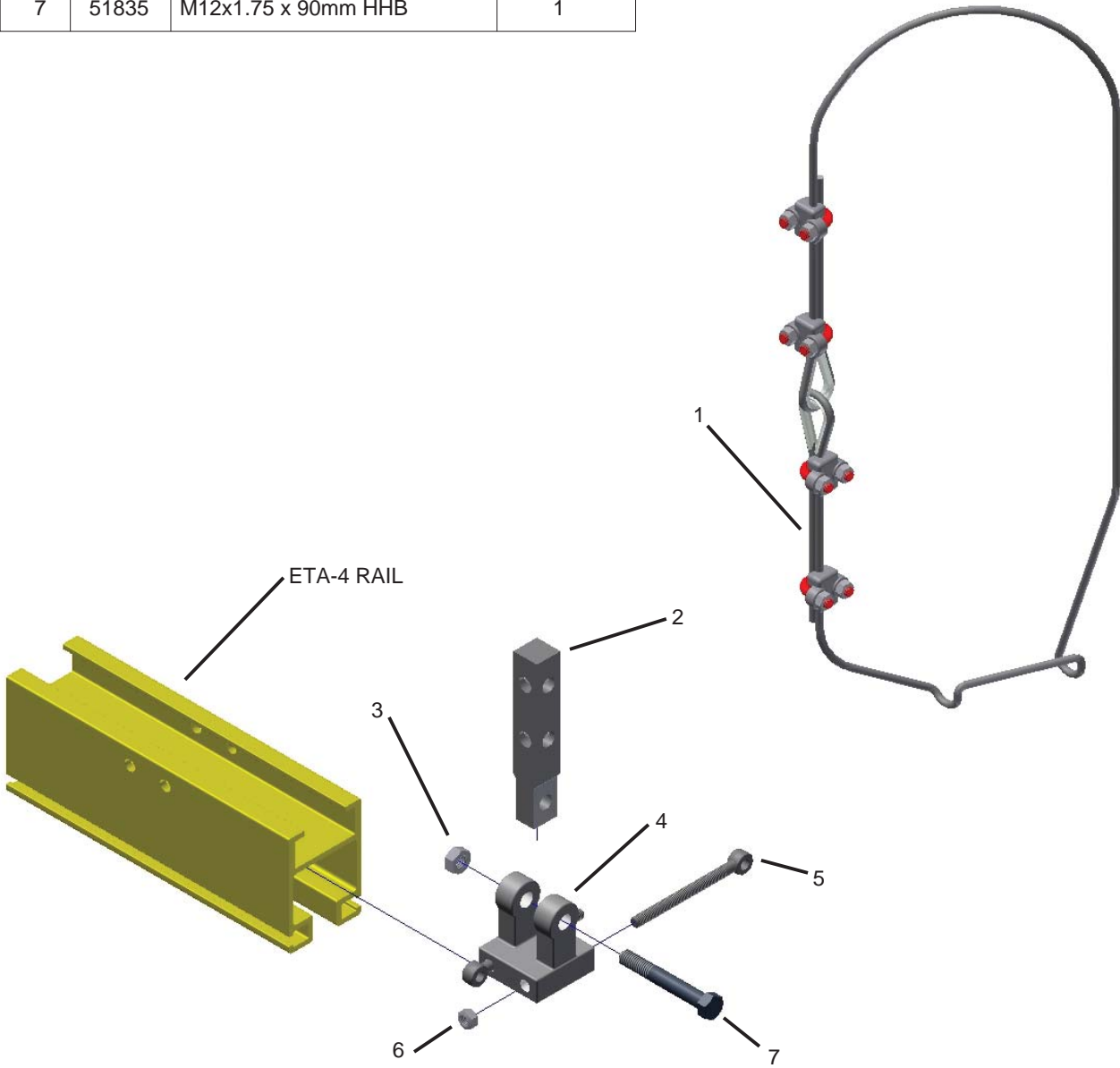
Any conveyor type load wheels with grease fittings on the axle should be inspected and properly greased, using a silicone free molysulfide grease, approximately every six months depending on work load and use.



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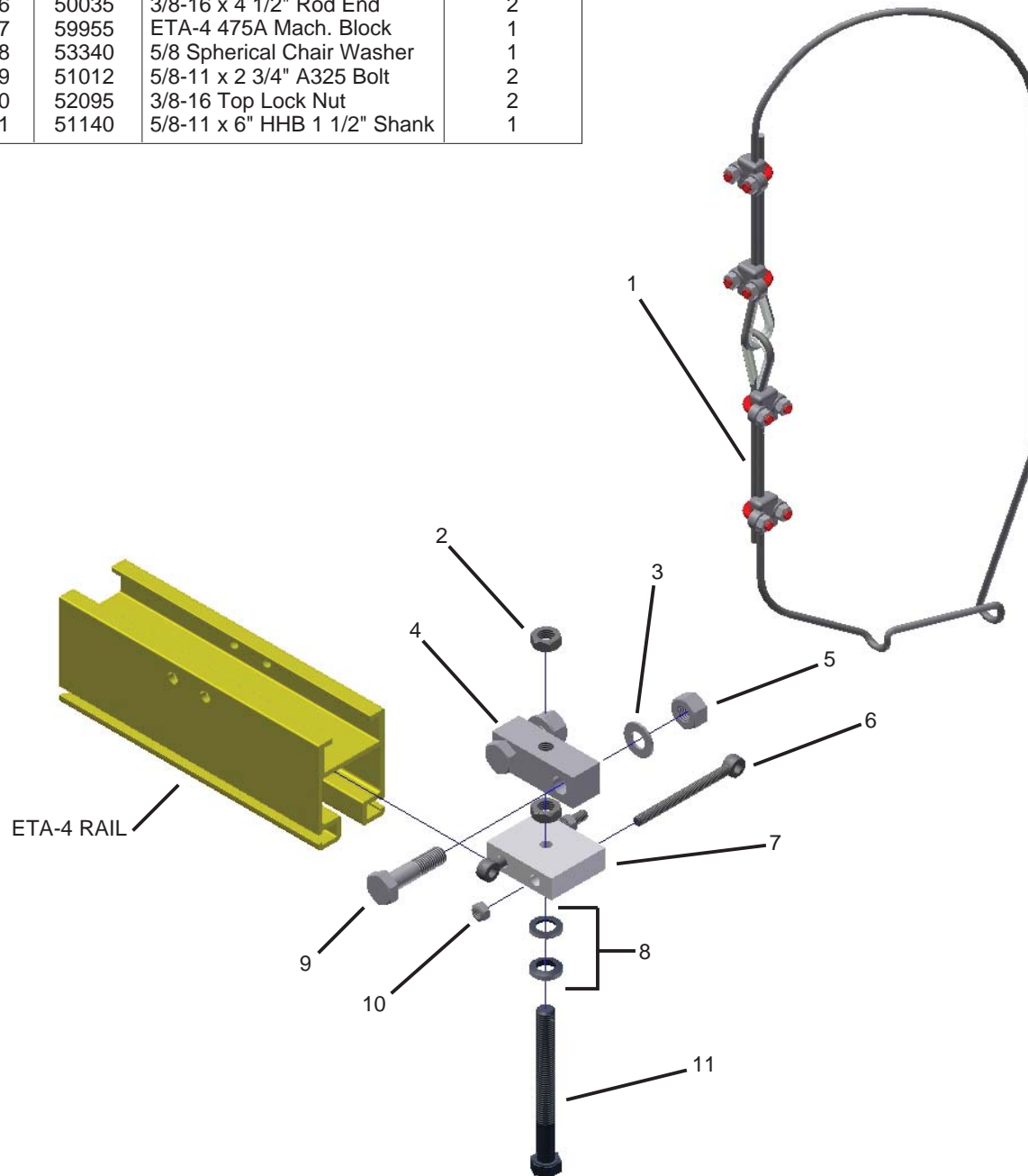
25286 ETA-4/5 BLOCK HANGER

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	78287	Safety Cable for ETA Hangers	1
2	63031	ETA-4 Hanger Block	1
3	52445	M12x1.75 Prevailing Torque Nut	1
4	59850M	415 Mach. Hanger Casting	1
5	50035	3/8-16 x 4 1/2" Rod End	2
6	52095	3/8-16 Top Lock Nut	2
7	51835	M12x1.75 x 90mm HHB	1



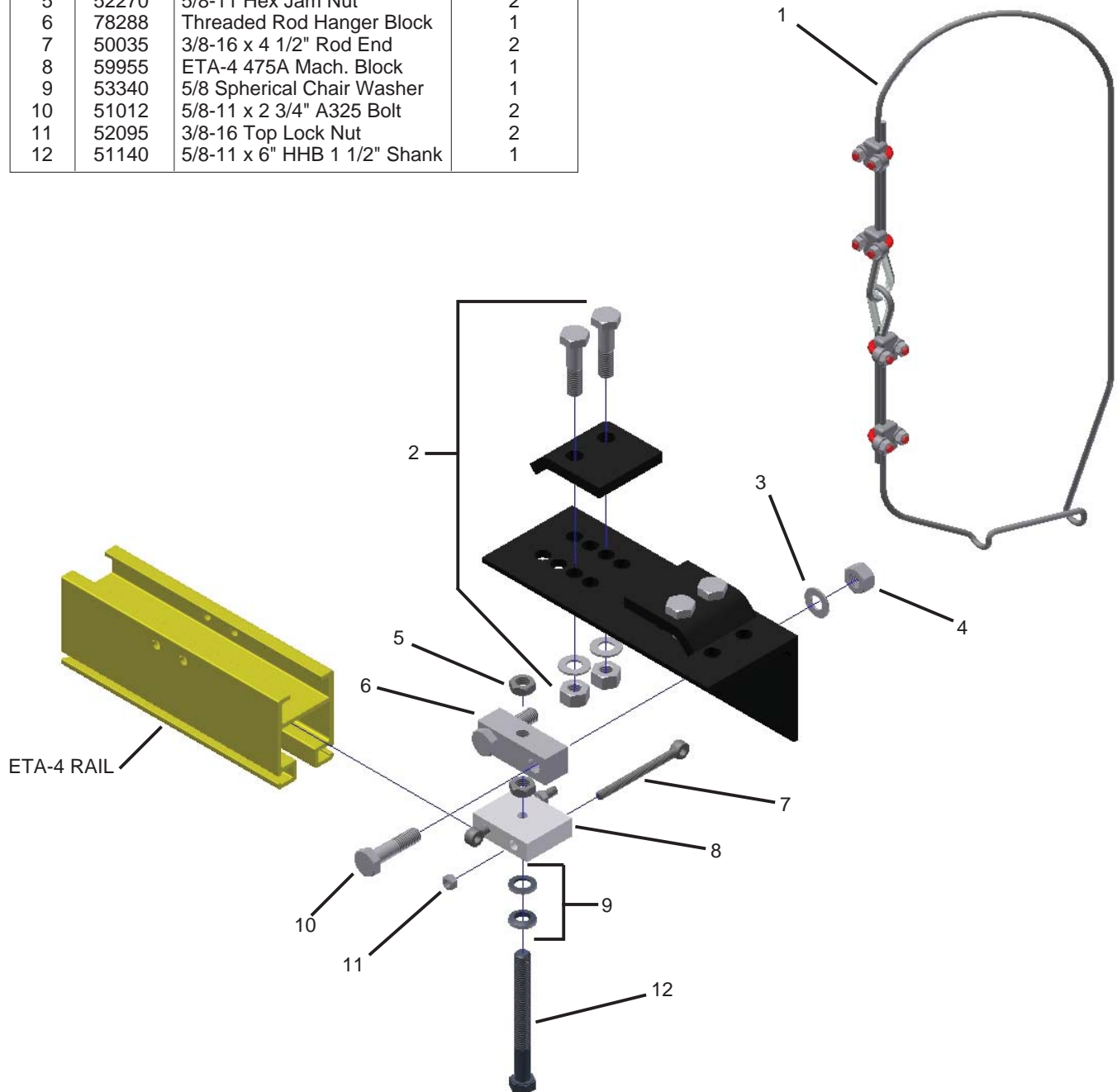
25467 ETA-4/5 ADJUSTABLE BLOCK HANGER

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	78287	Safety Cable for ETA Hangers	1
2	52270	5/8-11 Hex Jam Nut	2
3	53405	5/8 F436 (A325 Struc F/W)	2
4	78288	Threaded Rod Hanger Block	1
5	52315	5/8-11 Anco 2H Coloc Nut	2
6	50035	3/8-16 x 4 1/2" Rod End	2
7	59955	ETA-4 475A Mach. Block	1
8	53340	5/8 Spherical Chair Washer	1
9	51012	5/8-11 x 2 3/4" A325 Bolt	2
10	52095	3/8-16 Top Lock Nut	2
11	51140	5/8-11 x 6" HHB 1 1/2" Shank	1



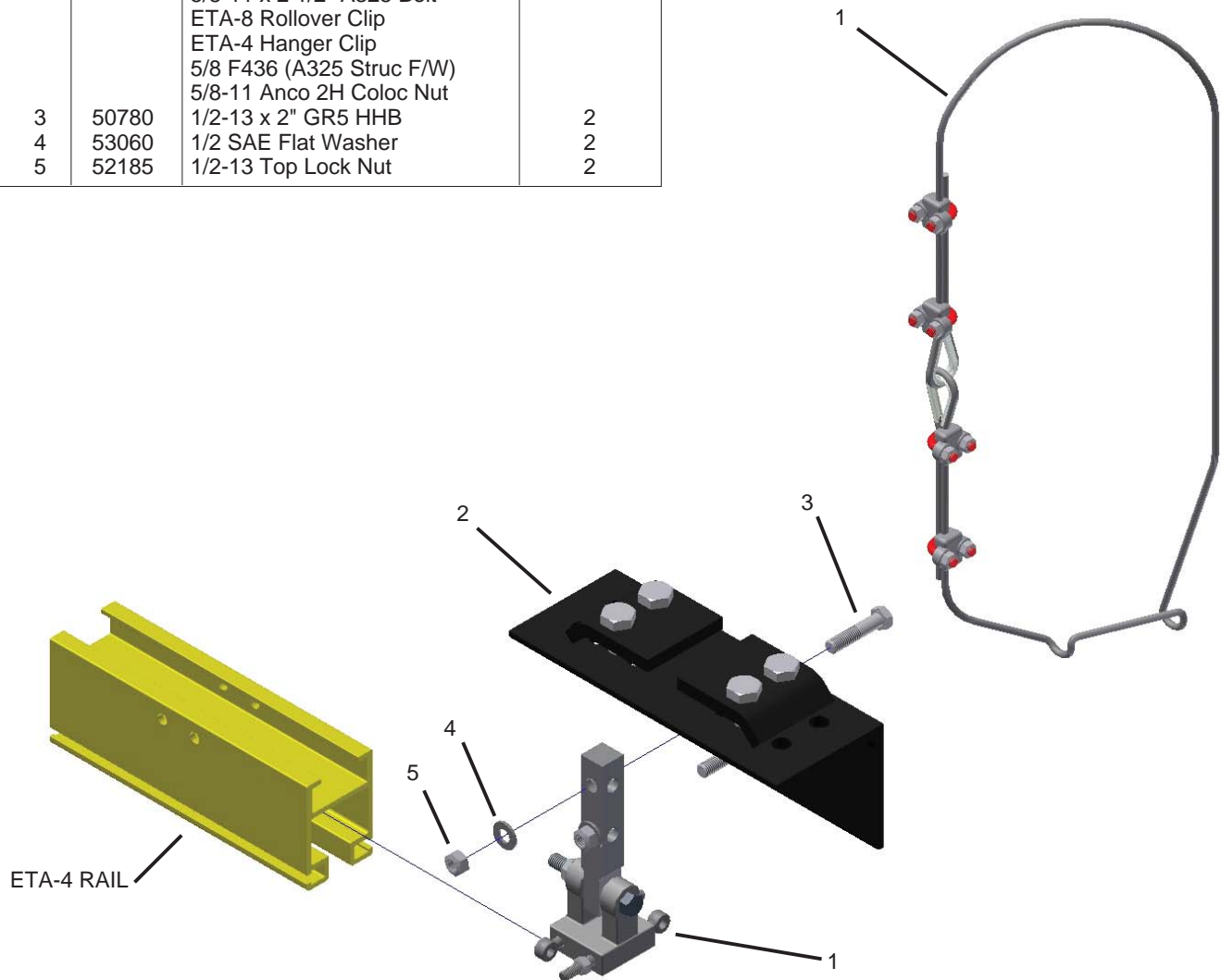
25474 ETA-4/5 CLOSED ADJUSTABLE HANGER

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	78287	Safety Cable for ETA Hangers	1
2	25704	ETA-4 Hanger Clip Assembly	1
		5/8-11 x 2 1/2" A325 Bolt	
		ETA-8 Rollover Clip	
		ETA-4 Hanger Clip	
		5/8 F436 (A325 Struc F/W)	
3	53405	5/8-11 Anco 2H Coloc Nut	2
4	52315	5/8 F436 (A325 Struc F/W)	2
5	52270	5/8-11 Anco 2H Coloc Nut	2
6	78288	5/8-11 Hex Jam Nut	2
7	50035	Threaded Rod Hanger Block	1
8	59955	3/8-16 x 4 1/2" Rod End	2
9	53340	ETA-4 475A Mach. Block	1
10	51012	5/8 Spherical Chair Washer	1
11	52095	5/8-11 x 2 3/4" A325 Bolt	2
12	51140	3/8-16 Top Lock Nut	2
		5/8-11 x 6" HHB 1 1/2" Shank	1



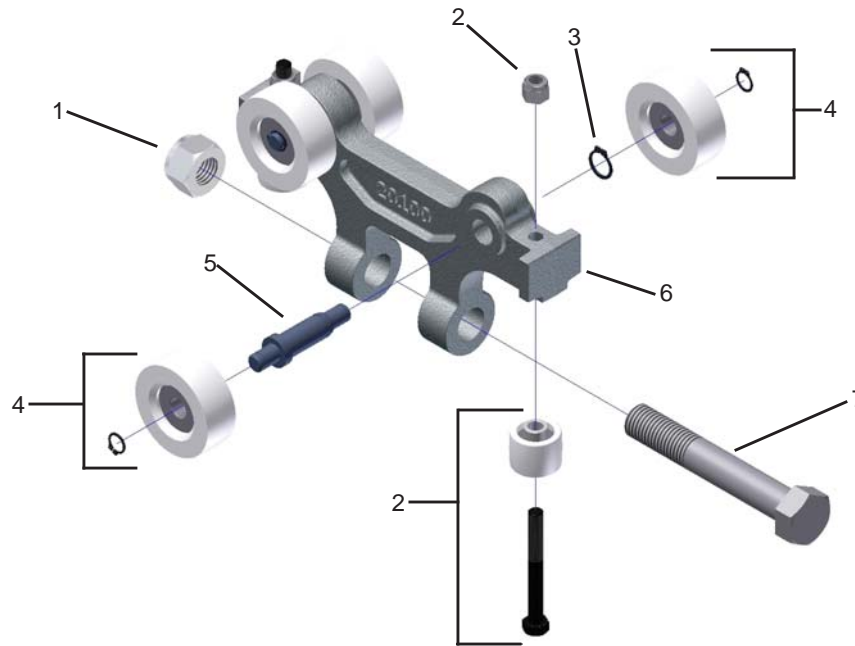
27057 ETA-4/5 BEAM HANGER

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	25286	ETA-4/5 Block Hanger Safety Cable for ETA Hangers ETA-4 Hanger Block M12x1.75 Prevailing Torque Nut 415 Mach. Hanger Casting 3/8-16 x 4 1/2" Rod End 3/8-16 Top Lock Nut M12x1.75 x 90mm HHB	1
2	25704	ETA-4 Hanger Clip Assembly 5/8-11 x 2 1/2" A325 Bolt ETA-8 Rollover Clip ETA-4 Hanger Clip 5/8 F436 (A325 Struc F/W) 5/8-11 Anco 2H Coloc Nut	1
3	50780	1/2-13 x 2" GR5 HHB	2
4	53060	1/2 SAE Flat Washer	2
5	52185	1/2-13 Top Lock Nut	2



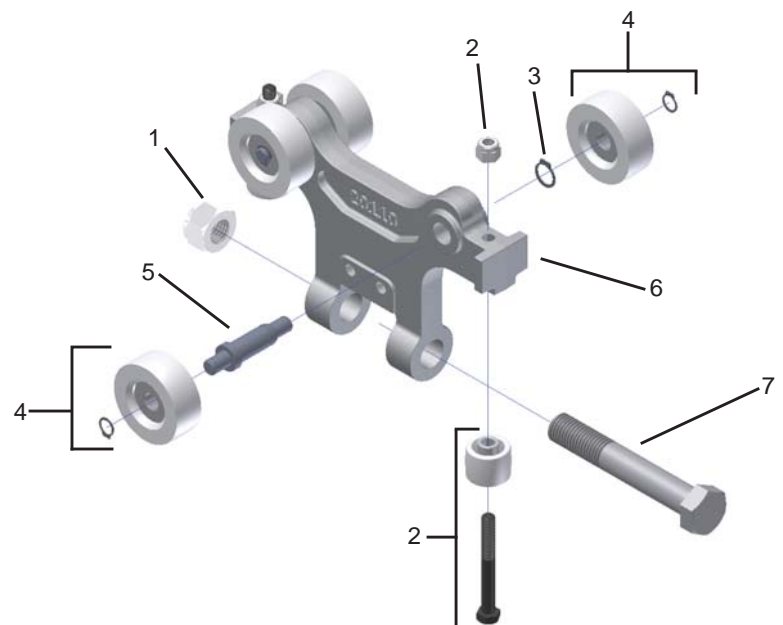
20100 ETA-4/5 SHORT BODY LOAD TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY	REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52455	M16x2.0 Nylon Insert Nut	1	5	57130	431 ETA-4 Wheel Stud	2
2	25159	ETA-4 Guide Roller Assy	2	6	59790M	401A Casting	1
3	55060	N-5100-50 Snap Ring	2	7	51900	M16x2.0x100mm CL 8.8 HHB	1
4	28000	437 1.8 White Wheel	4				
		N-5100-37 Snap Ring					



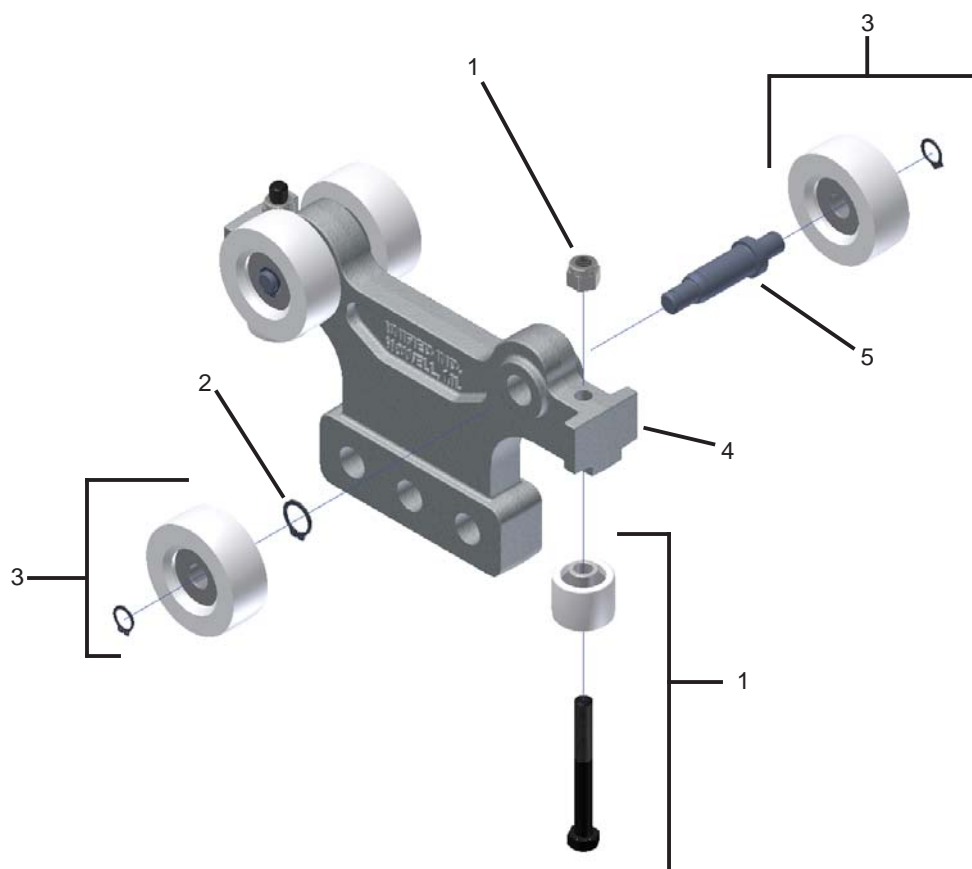
REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52455	M16x2.0 Nylon Insert Nut	1
2	25159	ETA-4 Guide Roller Assy	2
3	55060	N-5100-50 Snap Ring	2
4	28000	437 1.8 White Wheel	4
		N-5100-37 Snap Ring	
5	57130	431 ETA-4 Wheel Stud	2
6	59800M	401B Casting	1
7	51900	M16x2.0x100mm CL 8.8 HHB	1

20110 ETA-4/5 LONG BODY LOAD TROLLEY



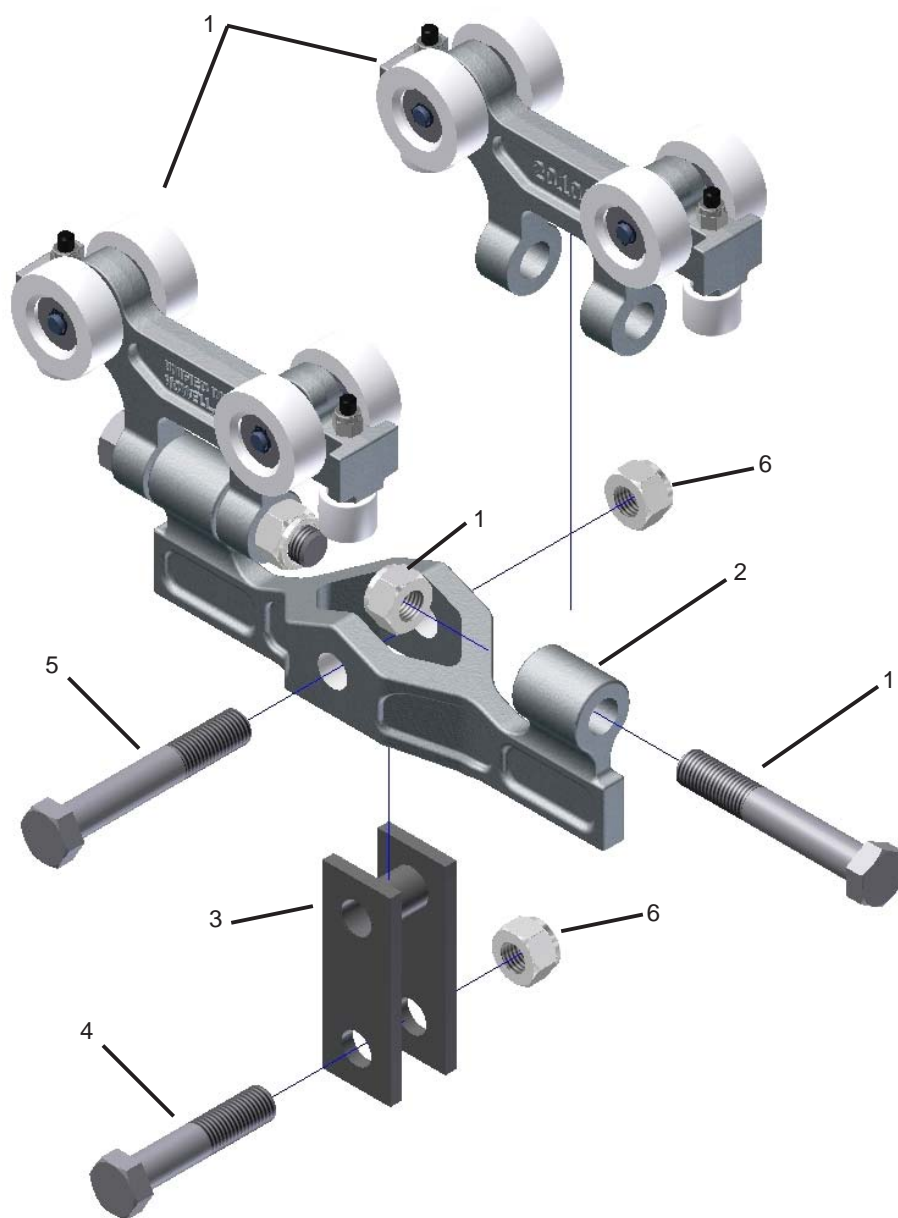
20115 ETA-4/5 THREE HOLE MOUNT LOAD TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY	REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	25159	ETA-4 Guide Roller Assy	2	5	57130	431 ETA-4 Wheel Stud	2
2	55060	N-5100-50 Snap Ring	2				
3	28000	437 1.8 White Wheel	4				
4	59801M	N-5100-37 Snap Ring	1				
		401C Casting					



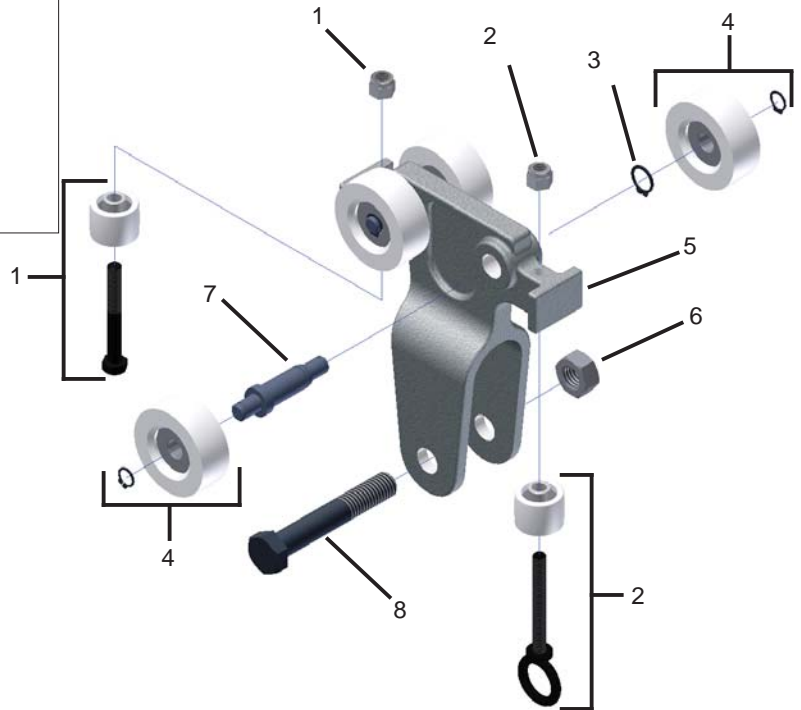
25330 ETA-4/5 DUAL HOIST TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20100	ETA-4/5 Short Body Load Trolley	2
2	59880M	441 Machined E/T Casting	1
3	25325	ETA-4/5 Clevis Weldment	1
4	51880	M16x2.0 x 75mm Nylon Insert Nut	1
5	51900	M16x2.0 x 100mm HHB	1
6	52455	M16 x 2.0 Nylon Insert Lock Nut	2



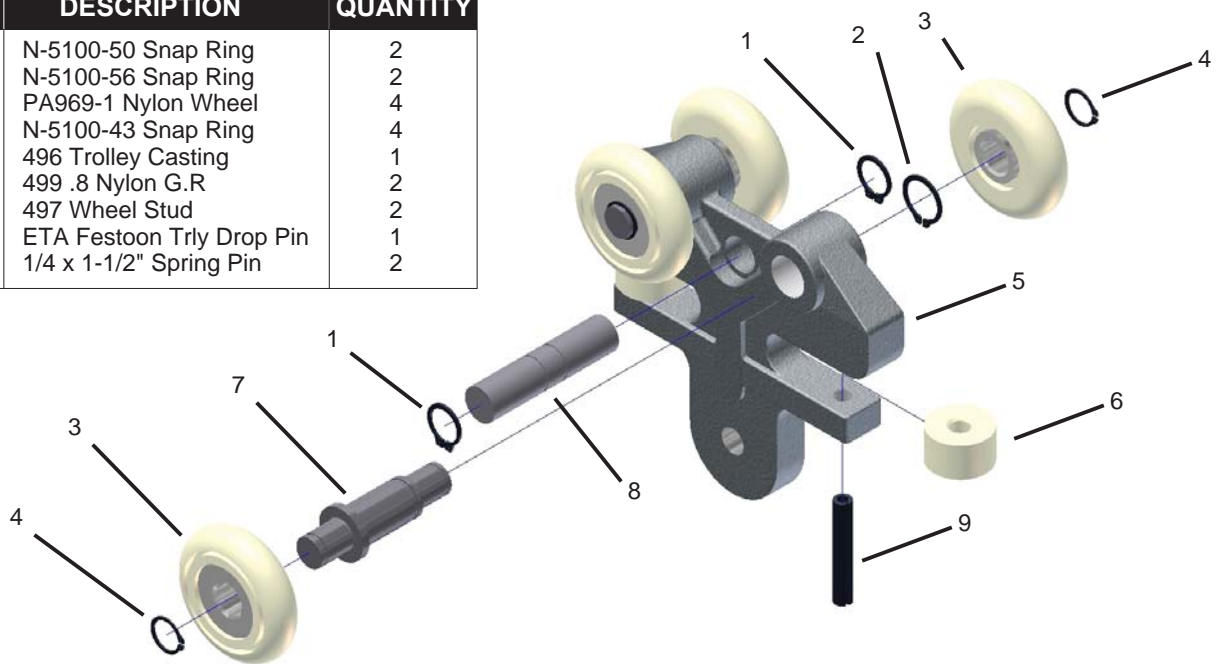
20140 ETA-4/5 SADDLE LOAD TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	25159	ETA-4 Guide Roller Assy	1
2	25157	ETA-4 Guide Roller w/Eyebolt	1
3	55060	N-5100-50 Snap Ring	2
4	28000	437 1.8 White Wheel	4
		N-5100-37 Snap Ring	
		437 1.8 White Wheel	
5	59840M	411B Trolley Casting	1
6	52445	M12x1.75 Torque Nut	1
7	57130	431 ETA-4 Wheel Stud	2
		1/2" Dia. 1215	
8	51820	M12x1.75 x 70mm HHB	1



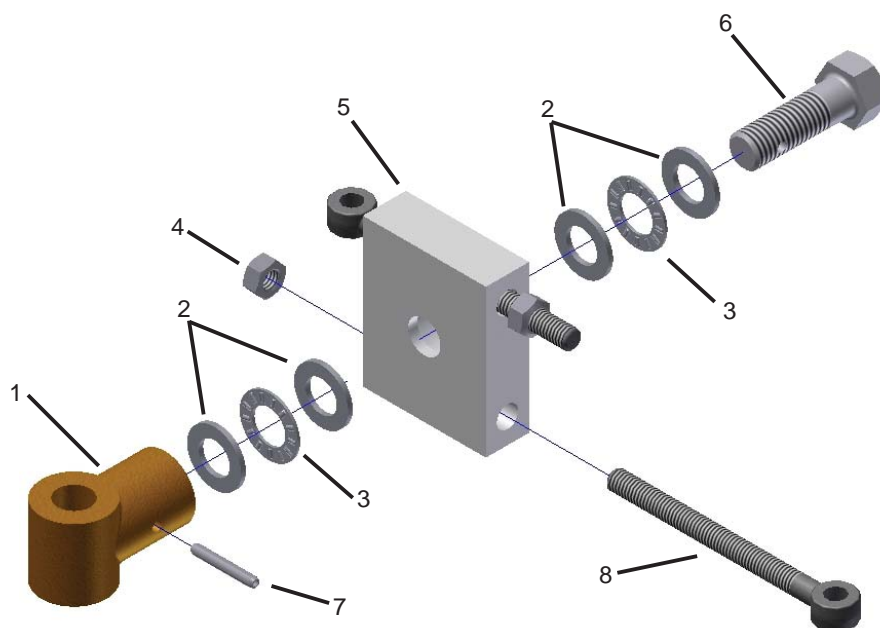
REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	55060	N-5100-50 Snap Ring	2
2	55080	N-5100-56 Snap Ring	2
3	58240	PA969-1 Nylon Wheel	4
4	55070	N-5100-43 Snap Ring	4
5	59900M	496 Trolley Casting	1
6	70040	499 .8 Nylon G.R	2
7	57150	497 Wheel Stud	2
8	57135	ETA Festoon Trly Drop Pin	1
9	54190	1/4 x 1-1/2" Spring Pin	2

20150 ETA-4/5 FESTOON TROLLEY



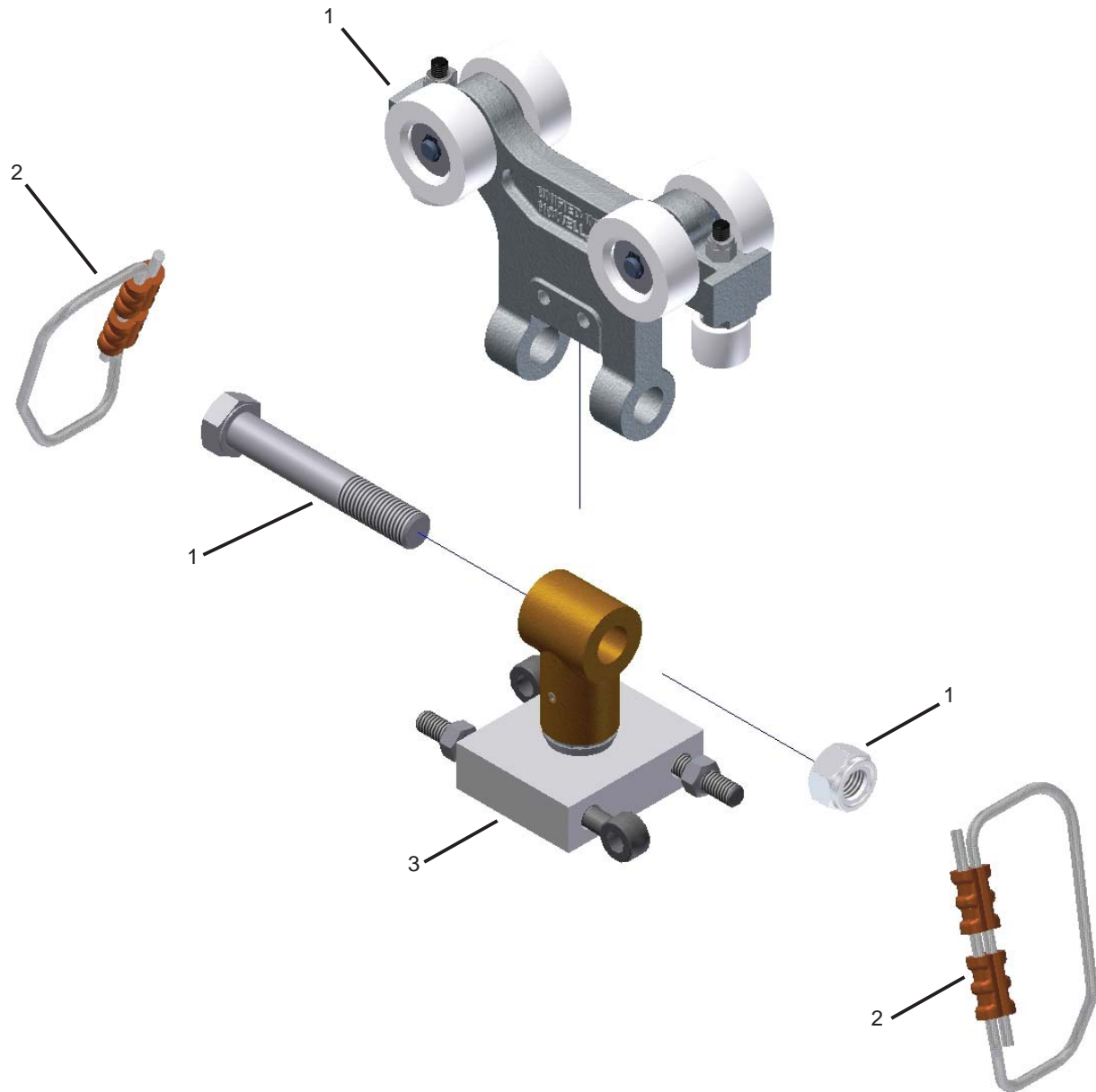
25260 ETA-4/5 BRONZE TEE ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	59830M	406 T Mn Br Casting	1
2	53370	TRC-1018 Thrust Washer	4
3	56150	NTA-1018 Thrust Bearing	2
4	52095	3/8-16 Top Lock Nut	2
5	59960	475B Machined Block	1
6	51020	5/8-11 x 2 1/2" GD5 HHB	1
7	54180	3/16 x 1 1/4" Spring Pin	1
8	50035	3/8-16 x 4 1/2" Rod End	2



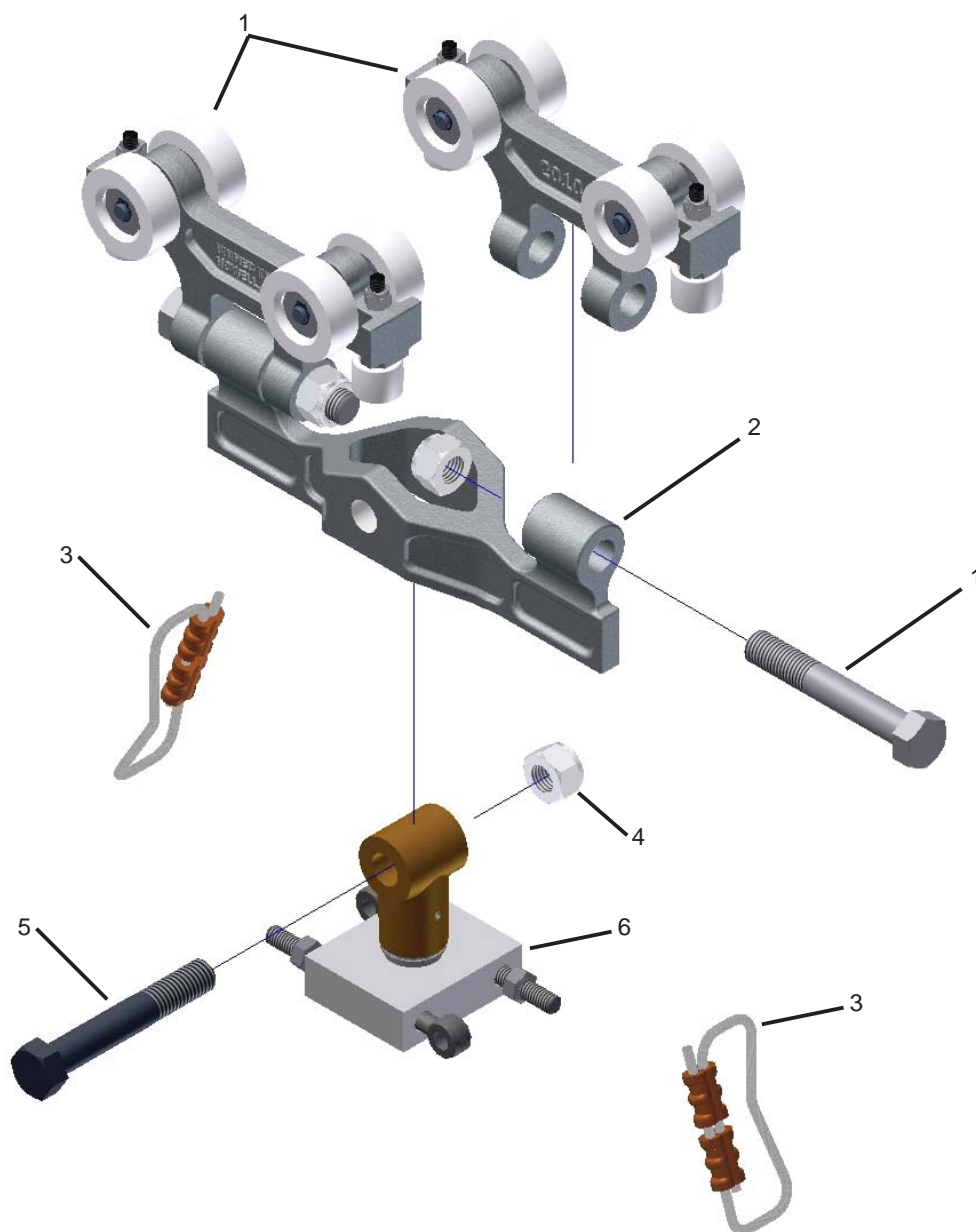
22521 ETA-4/5 SINGLE END TRUCK ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20110	ETA-4/5 Long Body Load Trolley	1
2	25640	ETA-4 Safety Cable Assembly	2
3	25260	ETA-4/5 Bronze Tee Assembly	1



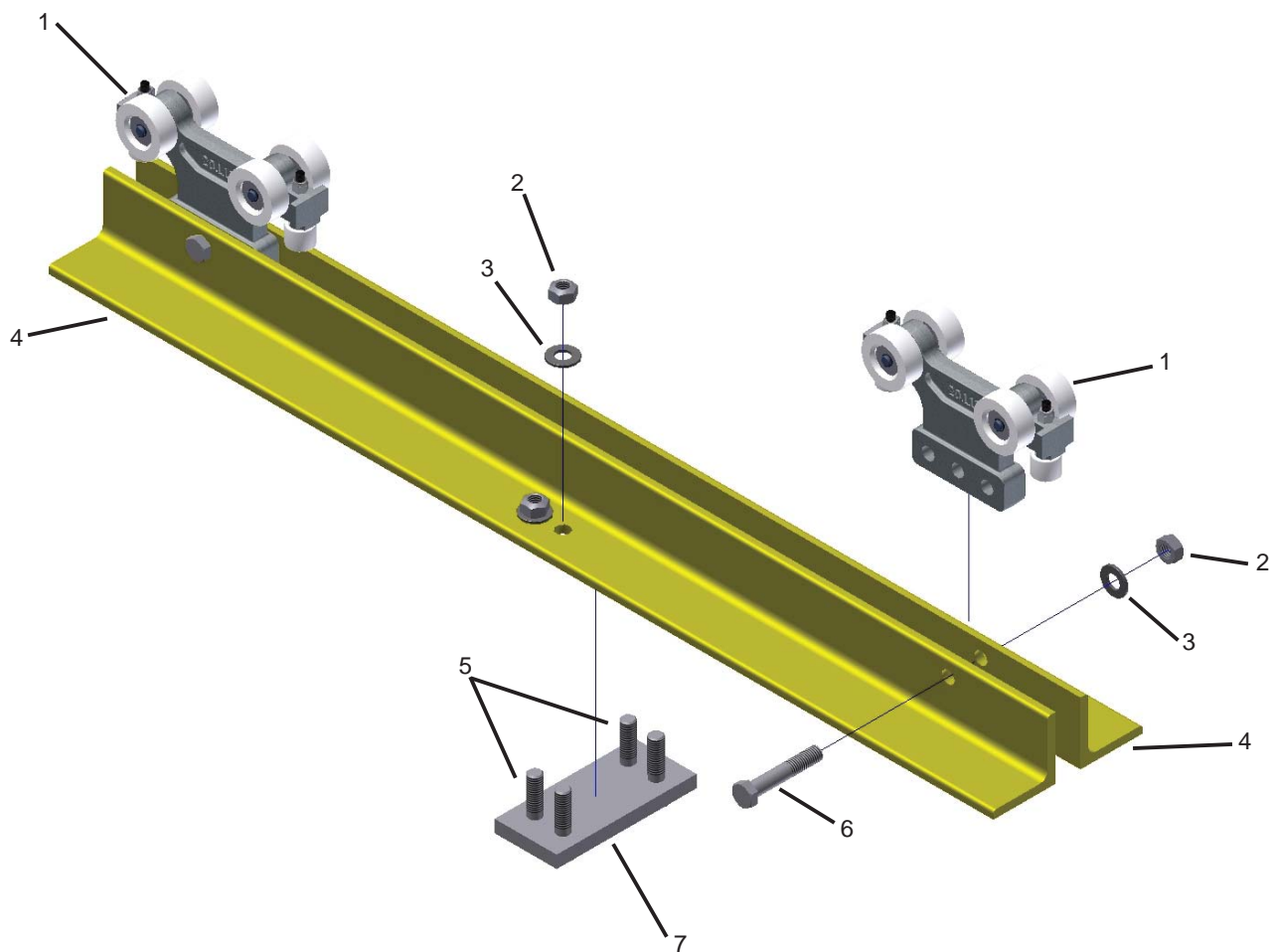
22540 ETA-4/5 DUAL END TRUCK ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20100	ETA-4/5 Short Body Load Trolley	2
2	59880M	441 Machined E/T Casting	1
3	25640	ETA-4 Safety Cable Assembly	2
4	52455	M16x2.0 Nylon Insert Nut	1
5	51900	M16x2.0 x 100mm HHB	1
6	25260	ETA-4/5 Bronze Tee Assembly	1



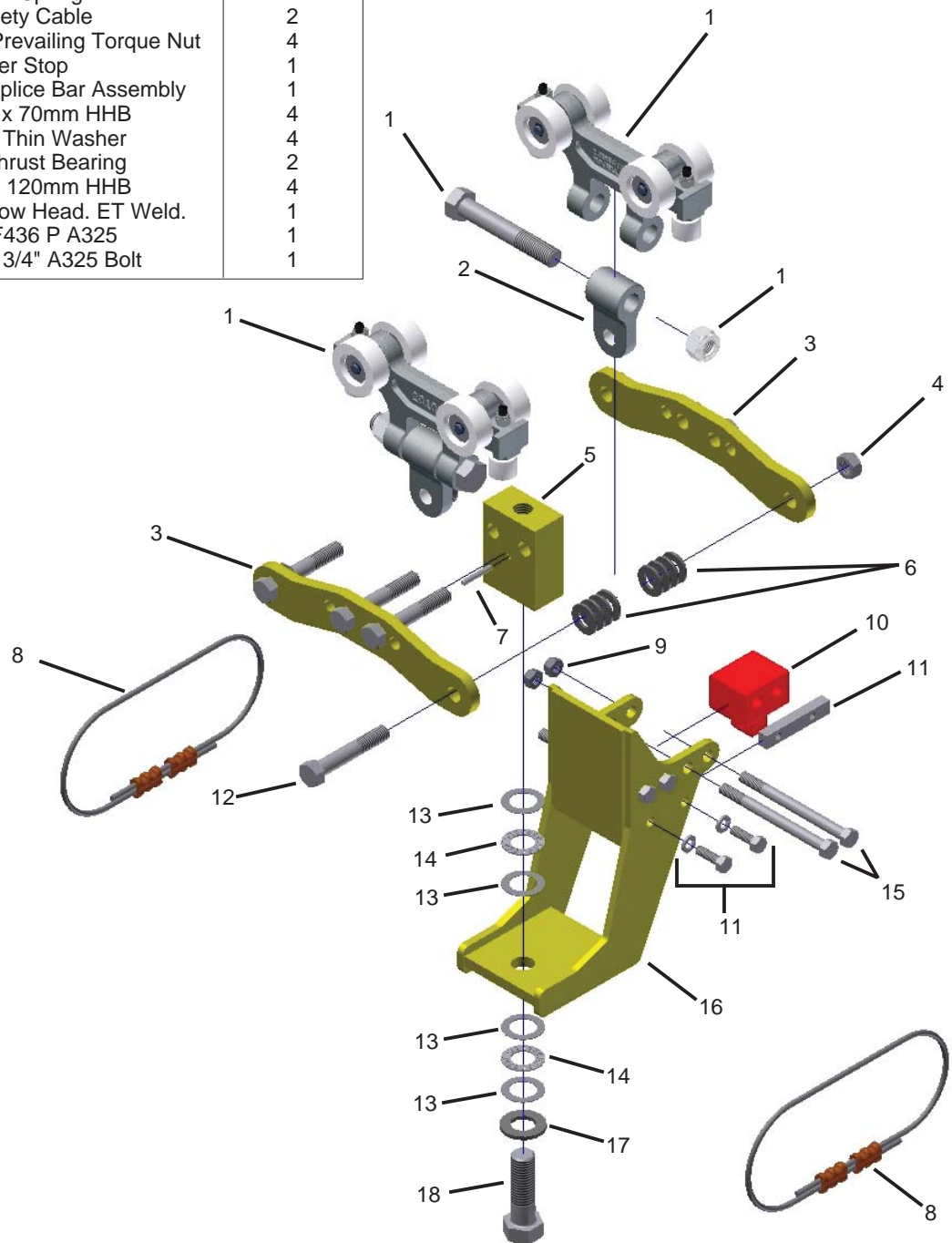
ETA-4/5 RIGID END TRUCK ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20115	ETA-4/5 Three Hole Mount Load Trolley	2
2	52185	1/2-13 Top Lock Nut	6
3	53060	1/2" SAE Flat Washer	6
4		End Truck Angle	2
5	50760	1/2-13 x 1 3/4 GR5 HHB	4
6	50809	1/2-13 x 2 3/4 GR5 HHB	2
7	78570	ETA-4 End Truck Block	1



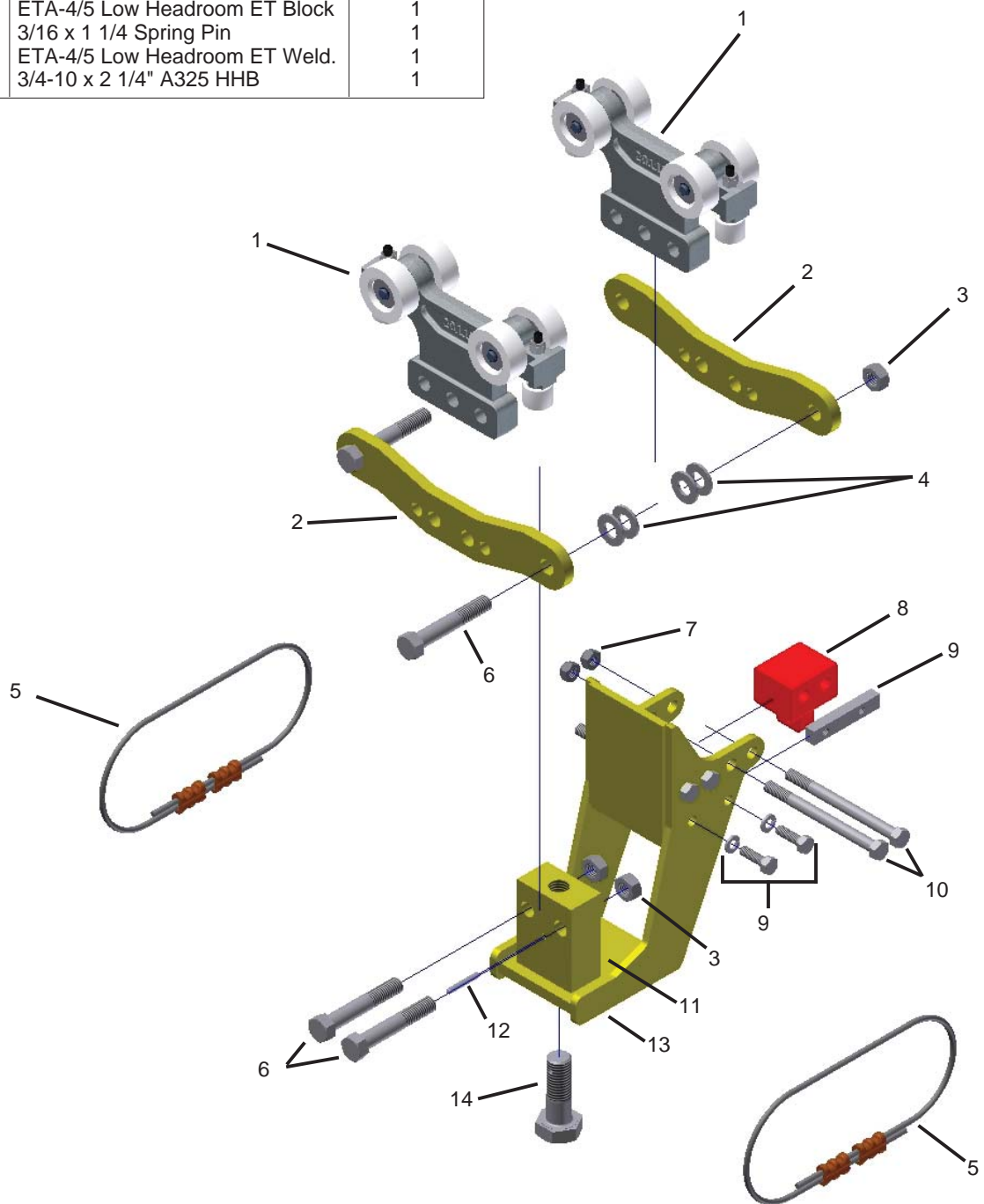
22600 ETA-4/5 ARTICULATING LOW HEADROOM END TRUCK

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20100	ETA-4/5 Short Body Load Trolley	2
2	59810M	402 Mach. Flat LL Casting	2
3	60025	ETA-4/5 Low Head. ET Load Bar	2
4	52445	M12x1.75 Prevailing Torque Nut	4
5	60030	ETA-4/5 Low Head. ET Block	1
6	53060	1/2 SAE Flat Washer	16
7	54180	3/16 x 1 1/4 Spring Pin	1
8	25640	ETA-4 Safety Cable	2
9	52440	M10x1.5 Prevailing Torque Nut	4
10	59980	ETA-5 Inner Stop	1
11	25515	ETA-4/5 Splice Bar Assembly	1
12	51820	M12x1.75 x 70mm HHB	4
13	53321	TWA1220 Thin Washer	4
14	56161	TC1220 Thrust Bearing	2
15	51770	M10x1.5 x 120mm HHB	4
16	25336	ETA-4/5 Low Head. ET Weld.	1
17	53410	3/4" F/W F436 P A325	1
18	51281	3/4-10 x 2 3/4" A325 Bolt	1



22605 ETA-4/5 RIGID LOW HEADROOM END TRUCK

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20115	ETA-4/5 Three Hole Mount Trolley	2
2	60025	ETA-4/5 Low Head. ET Load Bar	2
3	52445	M12x1.75 Prevailing Torque Nut	4
4	53060	1/2 SAE Flat Washer	12
5	25640	ETA-4 Safety Cable Assembly	2
6	51820	M12x1.75 x 70mm HHB	4
7	52440	M10x1.5 Prevailing Torque Nut	4
8	59980	ETA-5 Inner Stop	1
9	25515	ETA-4/5 Splice Bar Assembly	1
10	51770	M10x1.5 x 120mm HHB	4
11	60030	ETA-4/5 Low Headroom ET Block	1
12	54180	3/16 x 1 1/4 Spring Pin	1
13	25336	ETA-4/5 Low Headroom ET Weld.	1
14	51260	3/4-10 x 2 1/4" A325 HHB	1

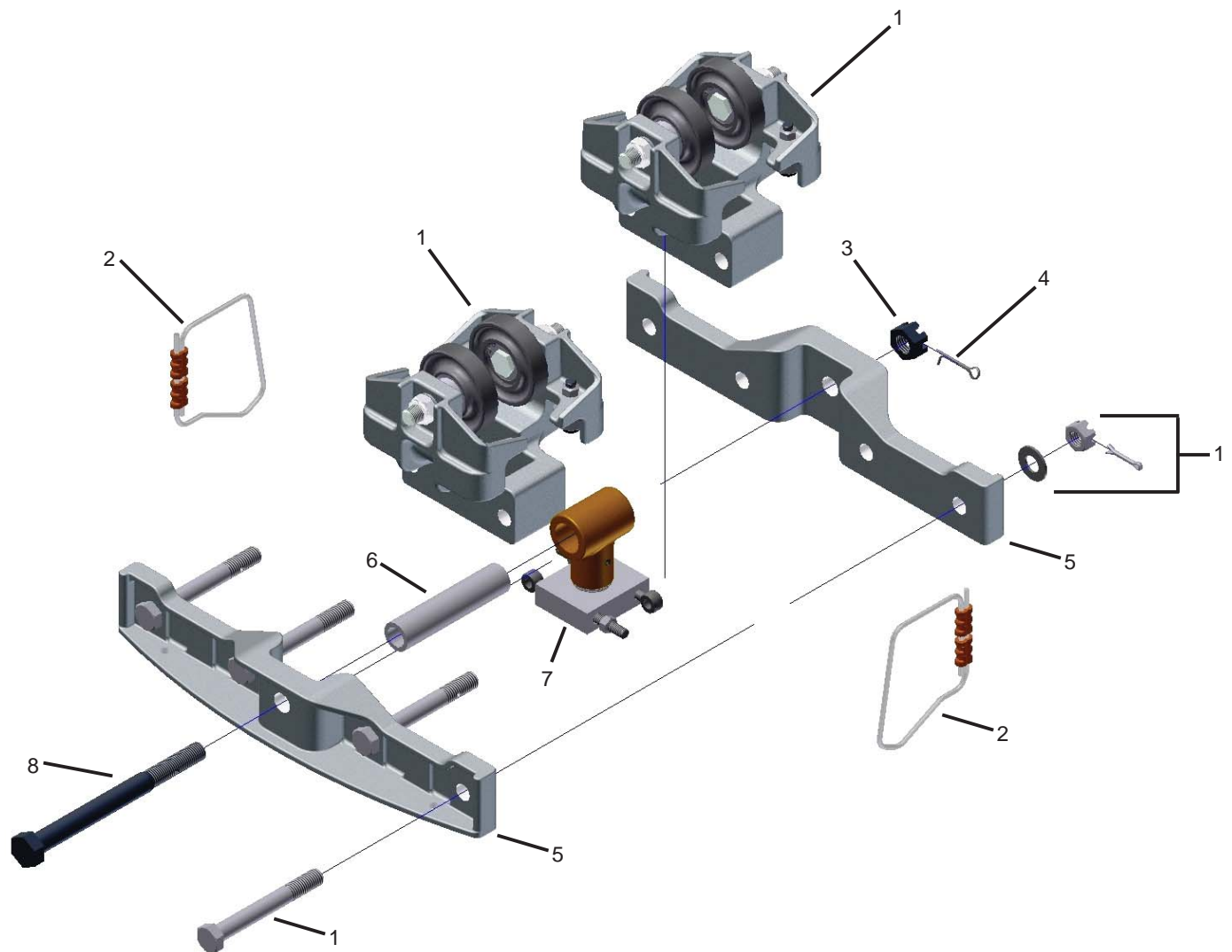


ETA-4/5 STANDARD RAIL END TRUCK ASSEMBLIES

(22557, 22558 AND 22559 WITHOUT KICKUP)

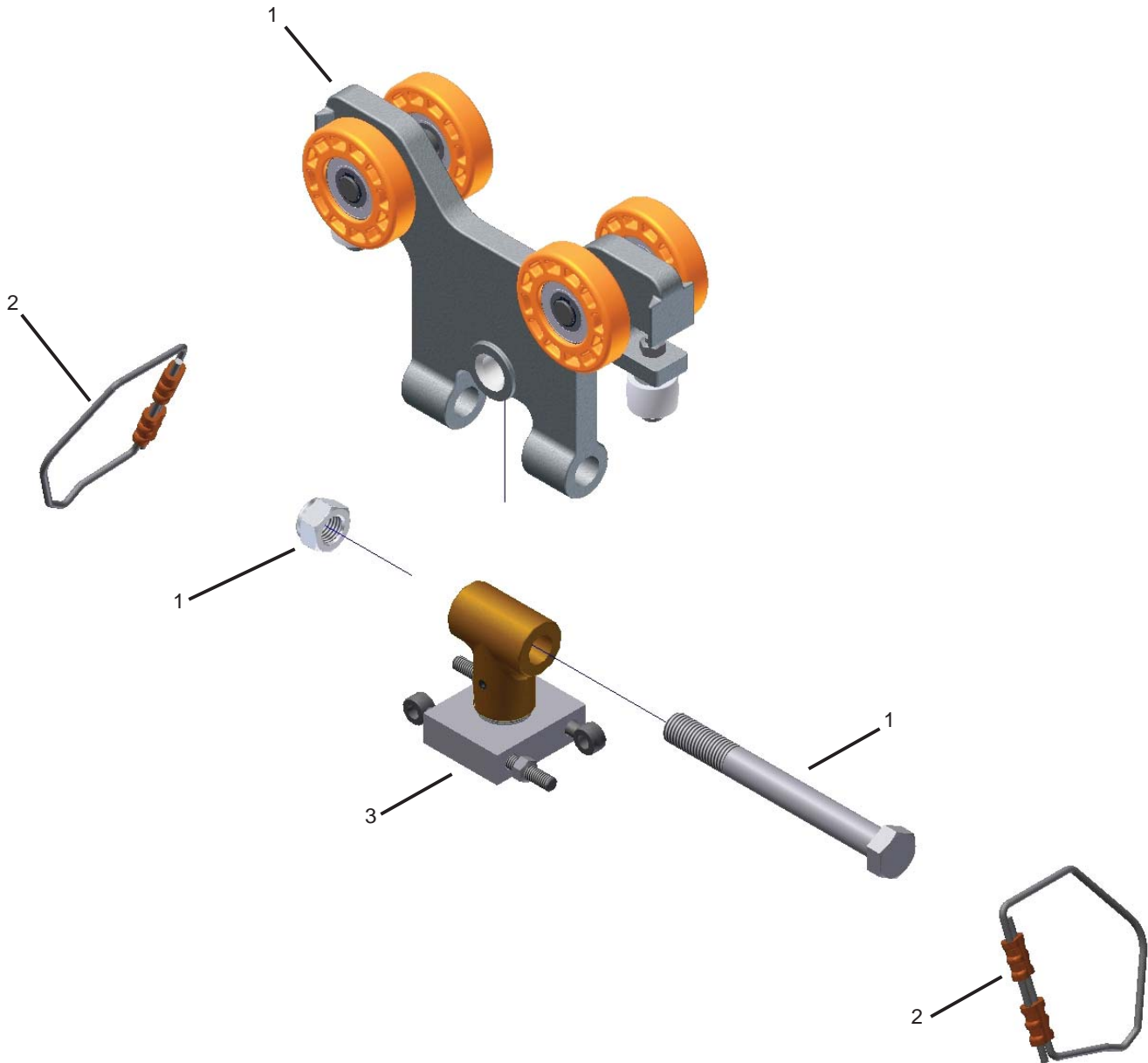
(22574, 22575 AND 22576 WITH KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	10189	MBC-500-3-325 Trolley W/O KU	2
2	25640	ETA-4 Safety Cable	2
3	52370	3/4-10 Small Slot Hex Nut	1
4	54086	5/32 x 1 1/2 Cotter Pin	1
5	59580M	156 MBC End Truck Mach. Cast.	2
6	25010	1 1/8 OD Wear Sleeve Assy	1
7	25411	ETA-4 507 Hanger Assy 108/475	1
8	51420	3/4-10 x 8 GR5 HHB	1



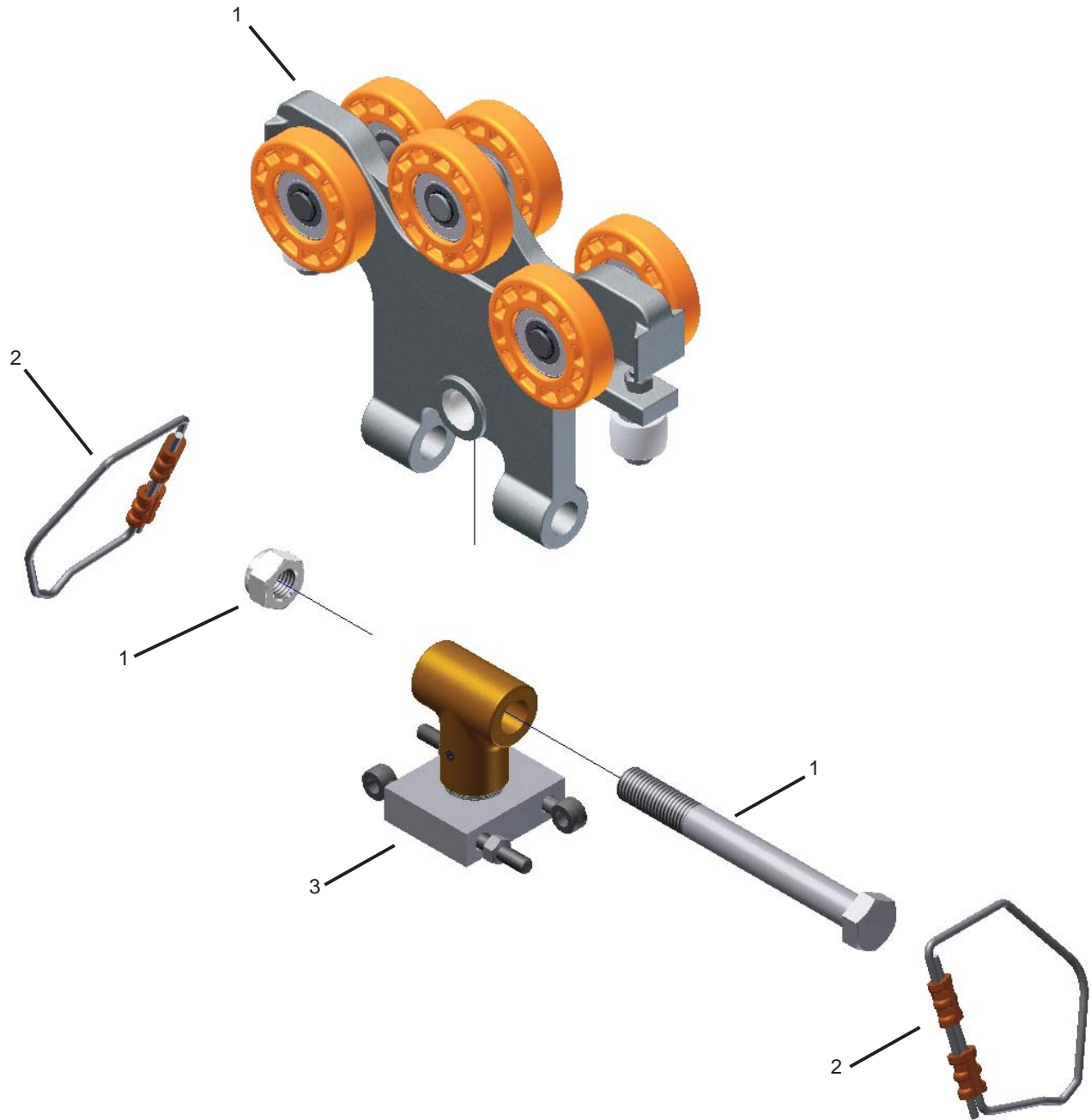
22039 ETA-4/5 SINGLE END TRUCK ASSEMBLY TO RUN ON ETA-8 (WITHOUT KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20019	ETA-8 Long Body Load Trolley	1
2	25640	ETA-4 Safety Cable Assembly	2
3	25251	505A Hanger Assy (106/475)	1



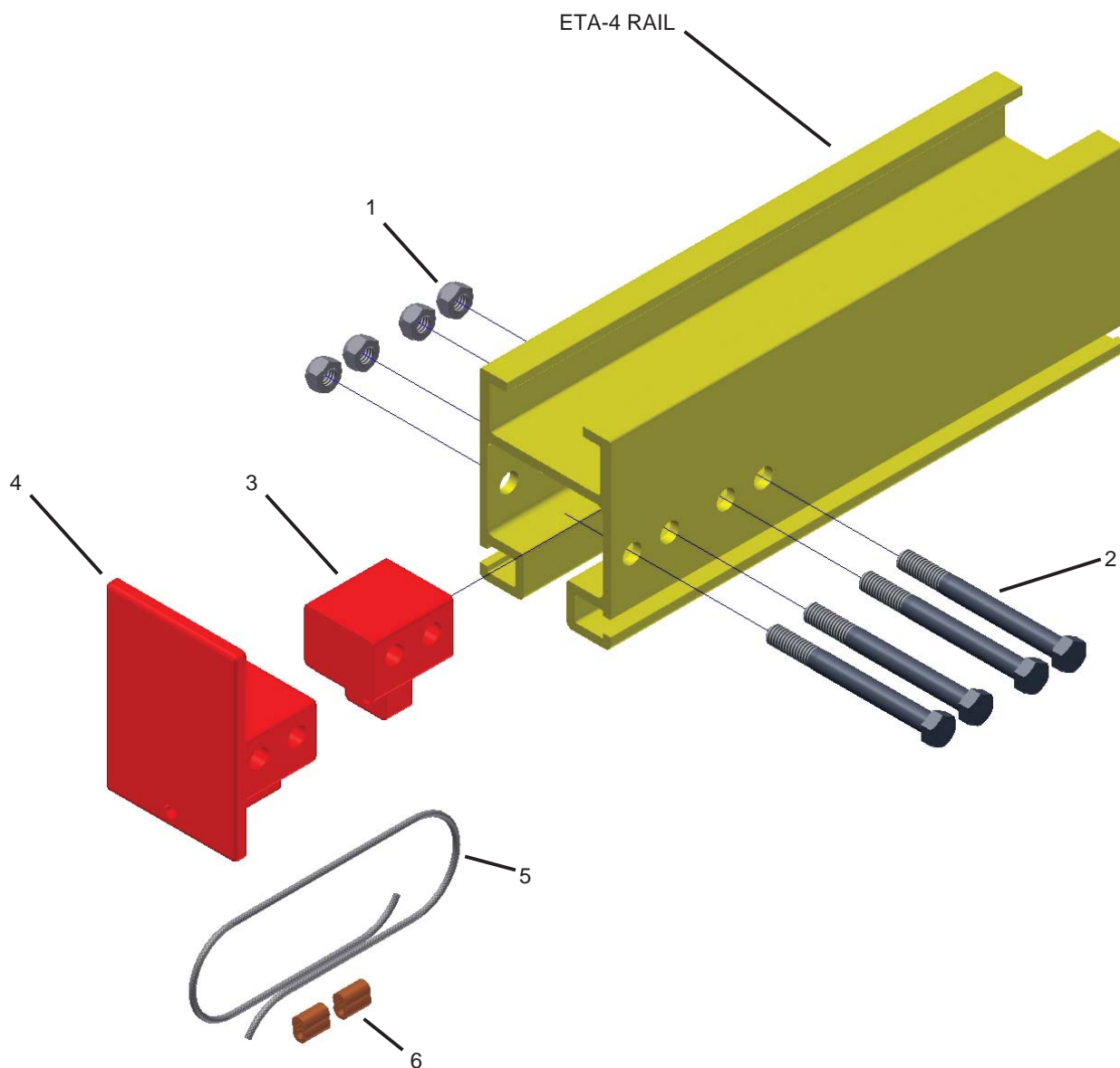
22047 ETA-4/5 SINGLE END TRUCK ASSEMBLY TO RUN ON ETA-8 (WITH KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20069	ETA-8 Long Body Kickup Trolley	1
2	25640	ETA-4 Safety Cable Assembly	2
3	25251	505A Hanger Assy (106/475)	1



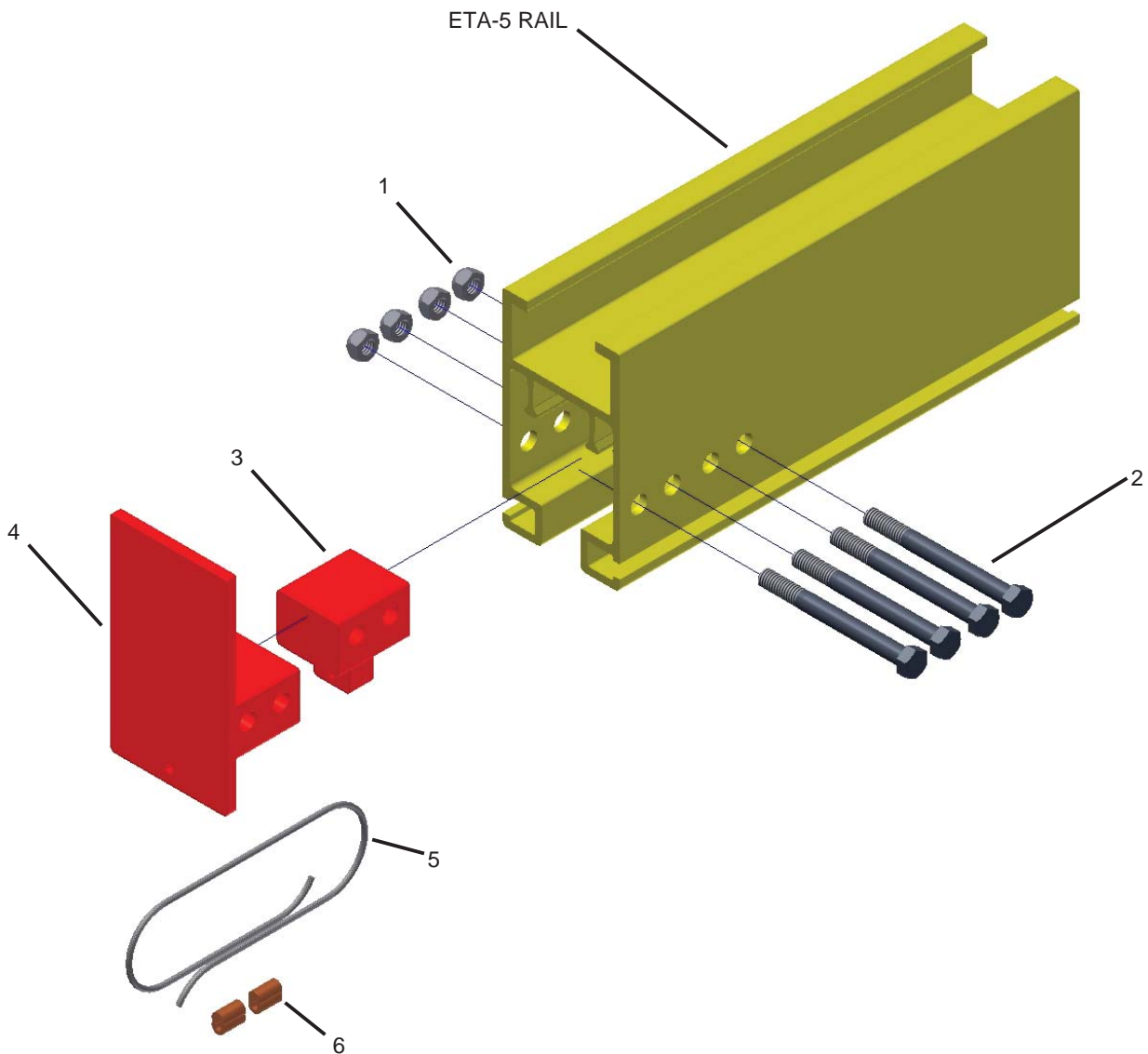
24900 ETA-4 DOUBLE END STOP

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52440	M10x1.5 Prevailing Torque Nut	4
2	51765	M10x1.5 x 100mm HHB	4
3	59980	ETA-5 Inner Stop	1
4	59967	ETA-4 End Cap	1
5	65020	1/8" 7x19 Stain. Stl. Wire Rope	1
6	78020	1/8" Copper Oval Sleeve	2



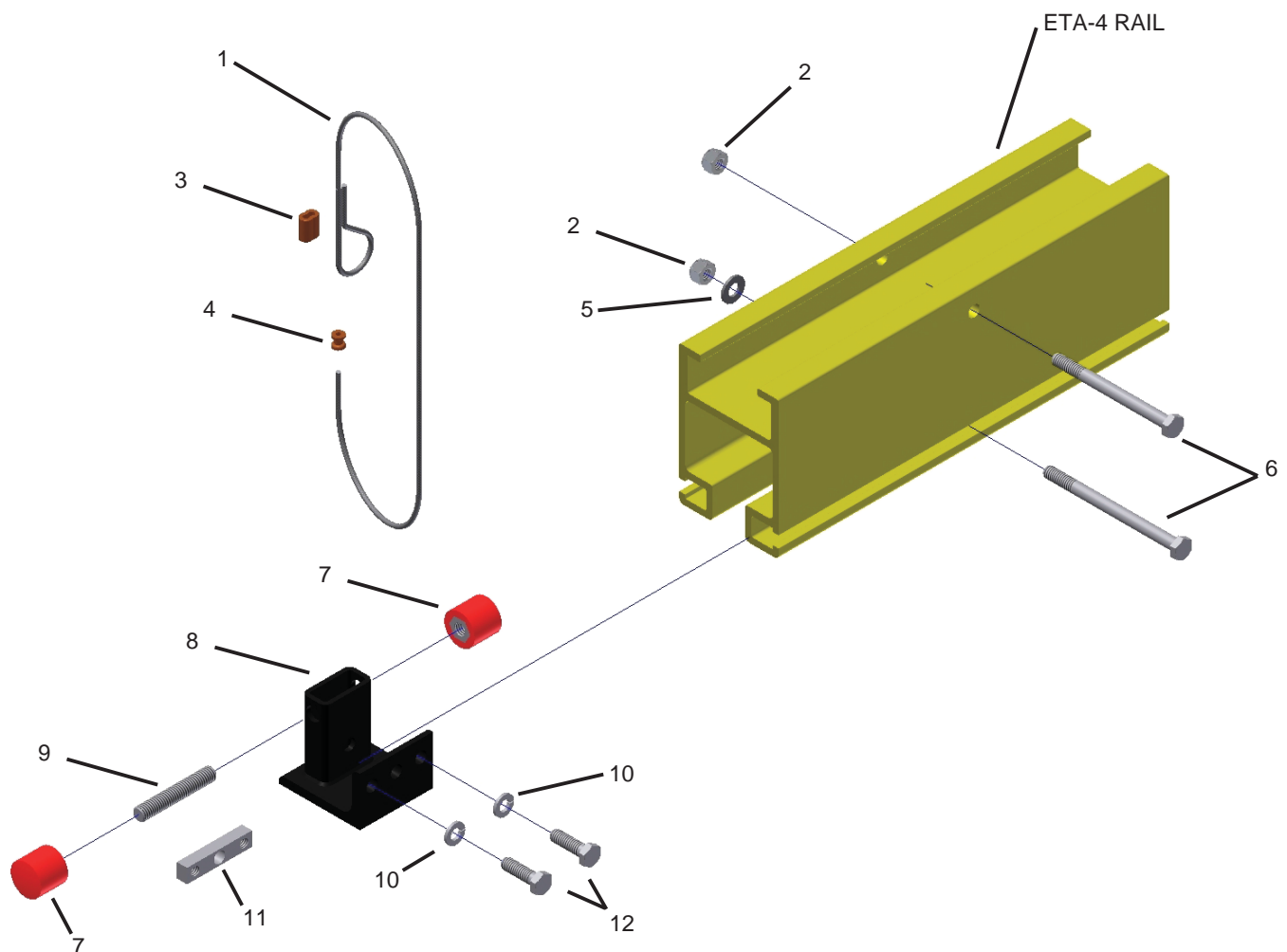
25194 ETA-5 DOUBLE END STOP

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52440	M10x1.5 Prevailing Torque Nut	4
2	51765	M10x1.5 x 100mm HHB	4
3	59980	ETA-5 Inner Stop	1
4	59970	ETA-5 Poly End Cap	1
5	65020	1/8" 7x19 Stain. Stl. Wire Rope	1
6	78020	1/8" Copper Oval Sleeve	2



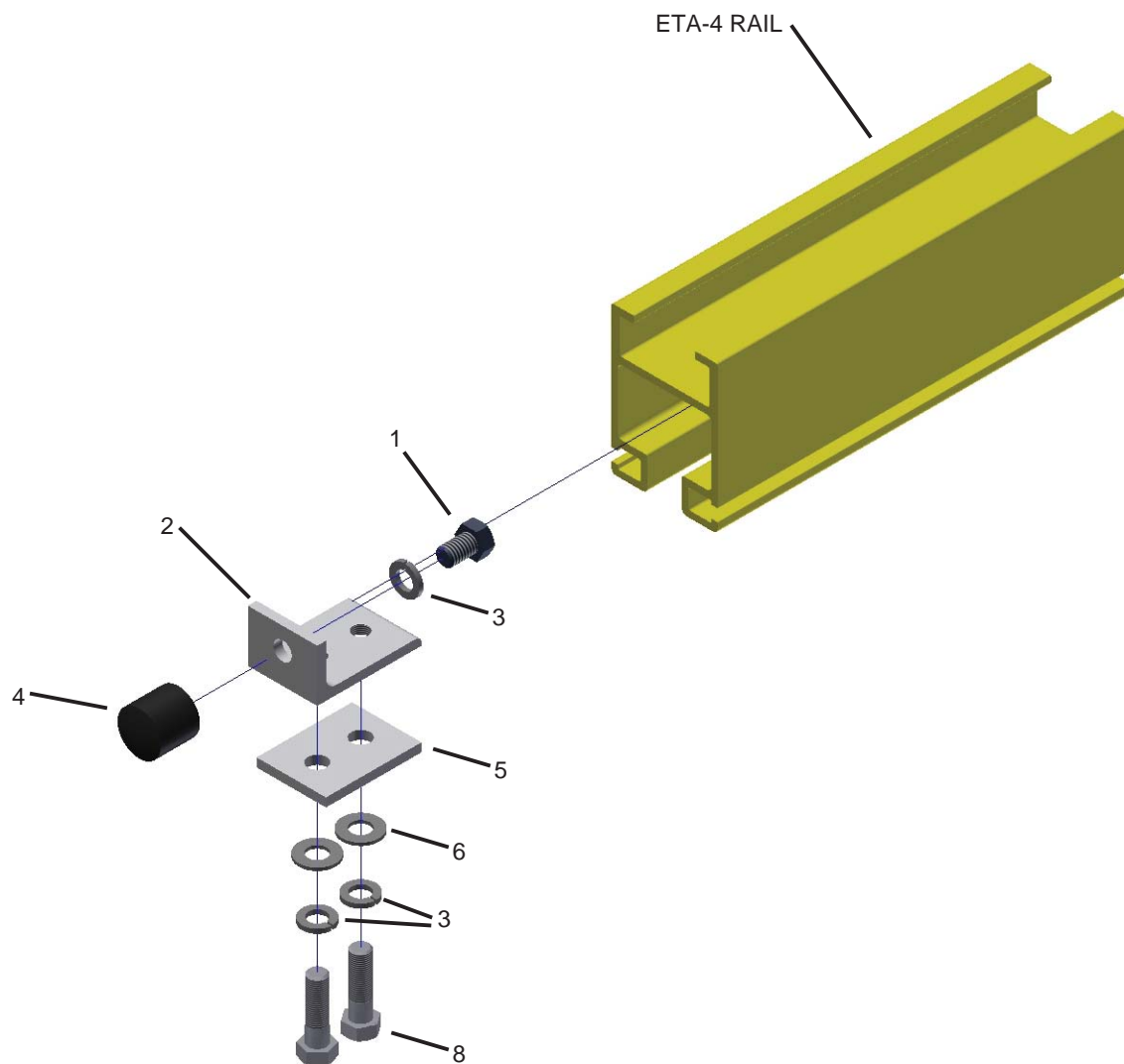
25575 ETA-4/5 INSERTABLE MID-RAIL STOP

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	65020	1/8" x 18" 7X19 SST. Wire Rope	1
2	52435	M8x1.25 Nylon Insert Lock Nut	2
3	78020	1/8" Copper Oval Sleeve	1
4	78021	1/8" Copper Stop Sleeve	1
5	53030	5/16 SAE Flat Washer	1
6	51725	M8x1.25 x 100mm HHB	2
7	60001	ETA-4/5 Poly Bumper	2
8	60000	ETA-4/5 Mid -Rail Stop Weldment	1
9	80970	3/8-16 x 2 1/4" Threaded Rod	1
10	52500	M8 Spring Lock Washer	2
11	60002	ETA-4/5 Mid-Rail Stop Bar	1
12	51720	M8x1.25 x 25mm HHB	2



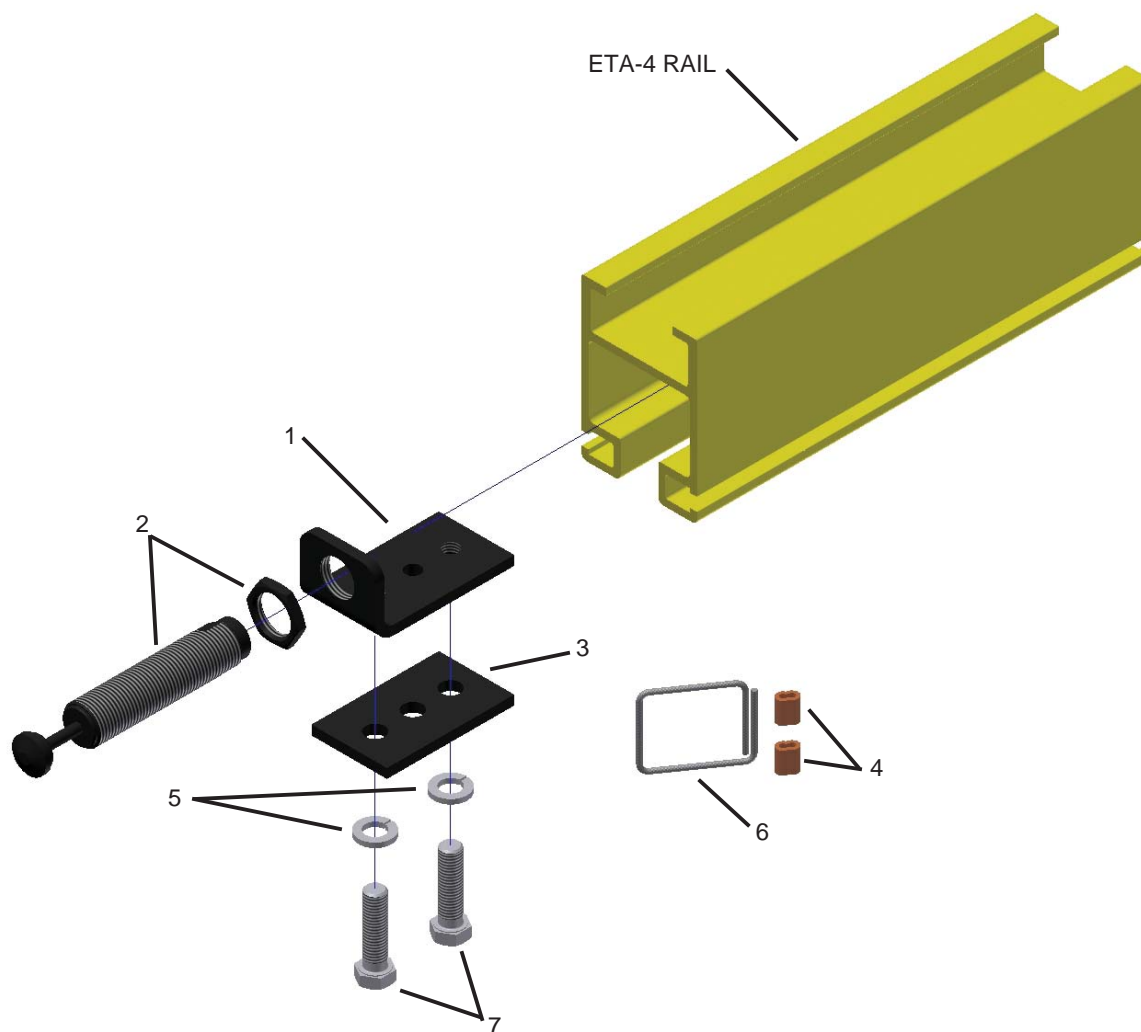
25580 ETA-4/5 MID-RAIL STOP ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	50720	1/2-13 x 3/4" HHB	1
2	25573	ETA-4 Mid Stop Angle	1
3	53230	1/2" Spring Lock Washer	3
4	62010	1 1/4" Neo Bumper	1
5	25574	ETA-4 Mid Stop Plate	1
6	53060	1/2" SAE Flat Washer	2
7	51795	M12x1.5 x 45mm HHB	2



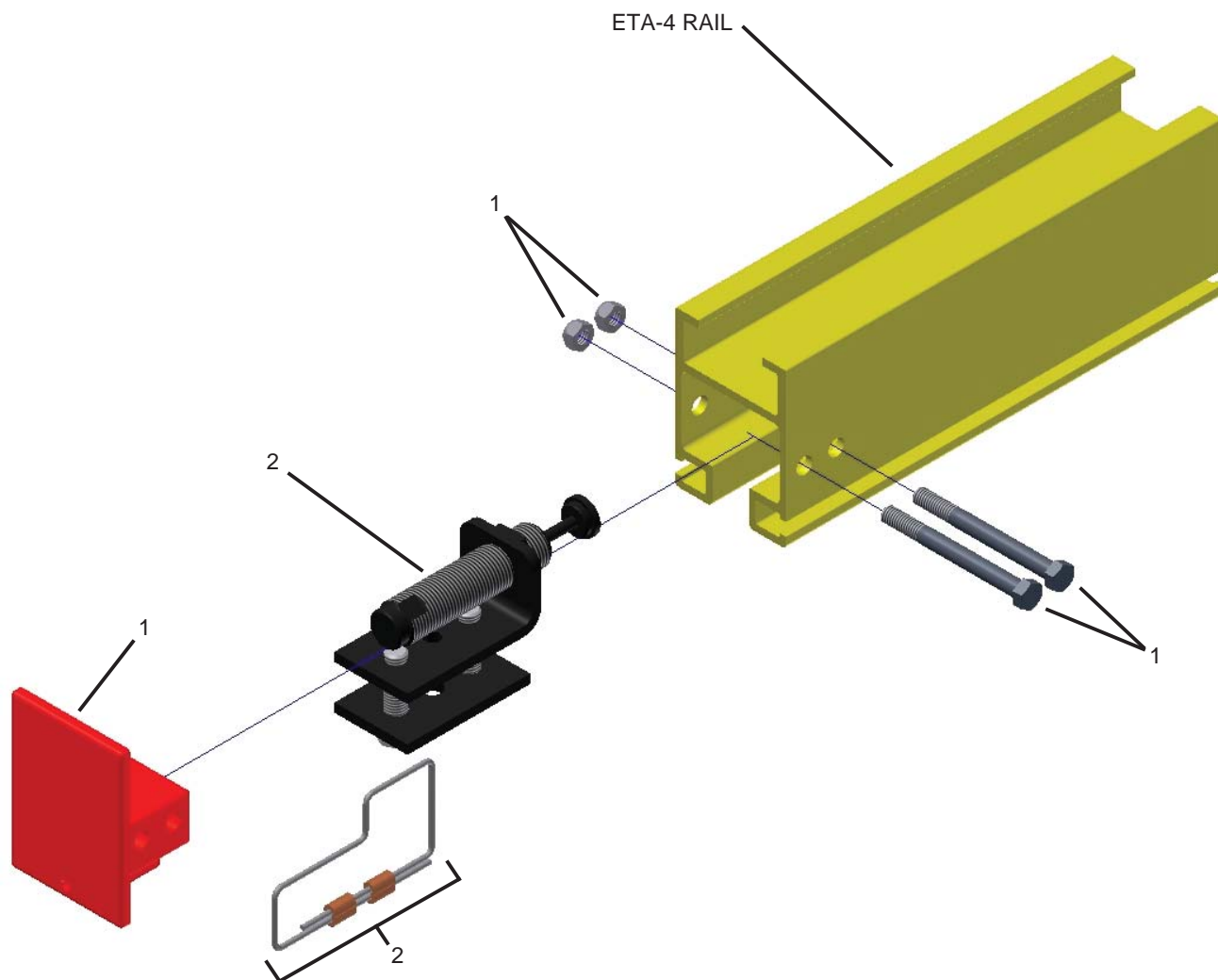
25185 ETA-4/5 POSITION STOP SHOCK ABSORBER ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	59902	ETA-4/5 Shock Absorber Holder	1
2	59904	SC650-3 SC Series Shock Absorber	1
3	59903	ETA-4/5 Position Stop Clamp Plate	1
4	78020	1/8" Copper Oval Sleeve	2
5	52510	12mm Spring Lock Washer	2
6	65020	1/8" x 14" 7x19 SST. Wire Rope	1
7	51790	M12x1.75 x 45mm HHB	2



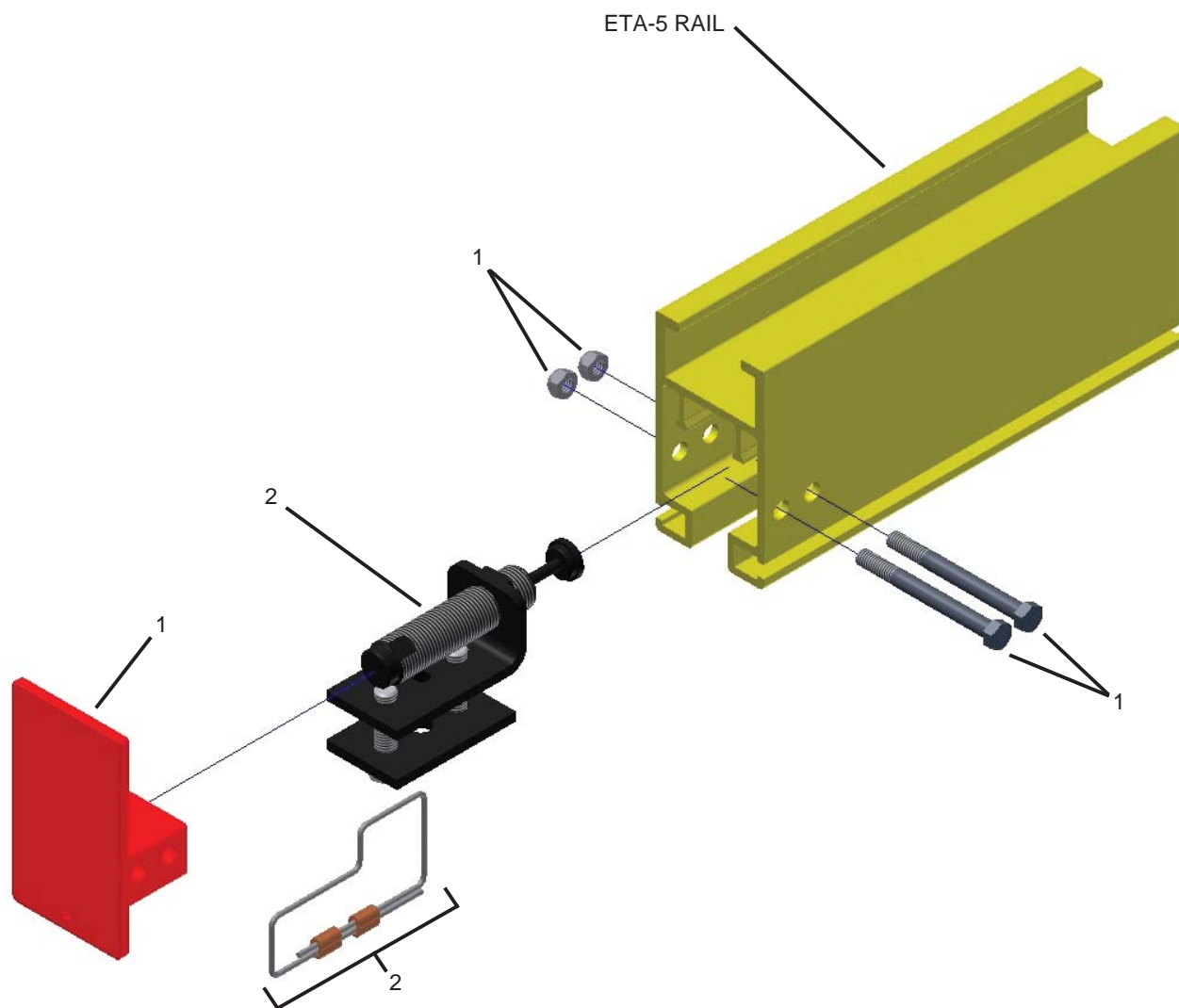
25133 ETA-4 END STOP SHOCK ABSORBER ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	25199	ETA-4 End Cap Assembly	1
2	25185	ETA-4/5 Position Stop Shock Absorber	1



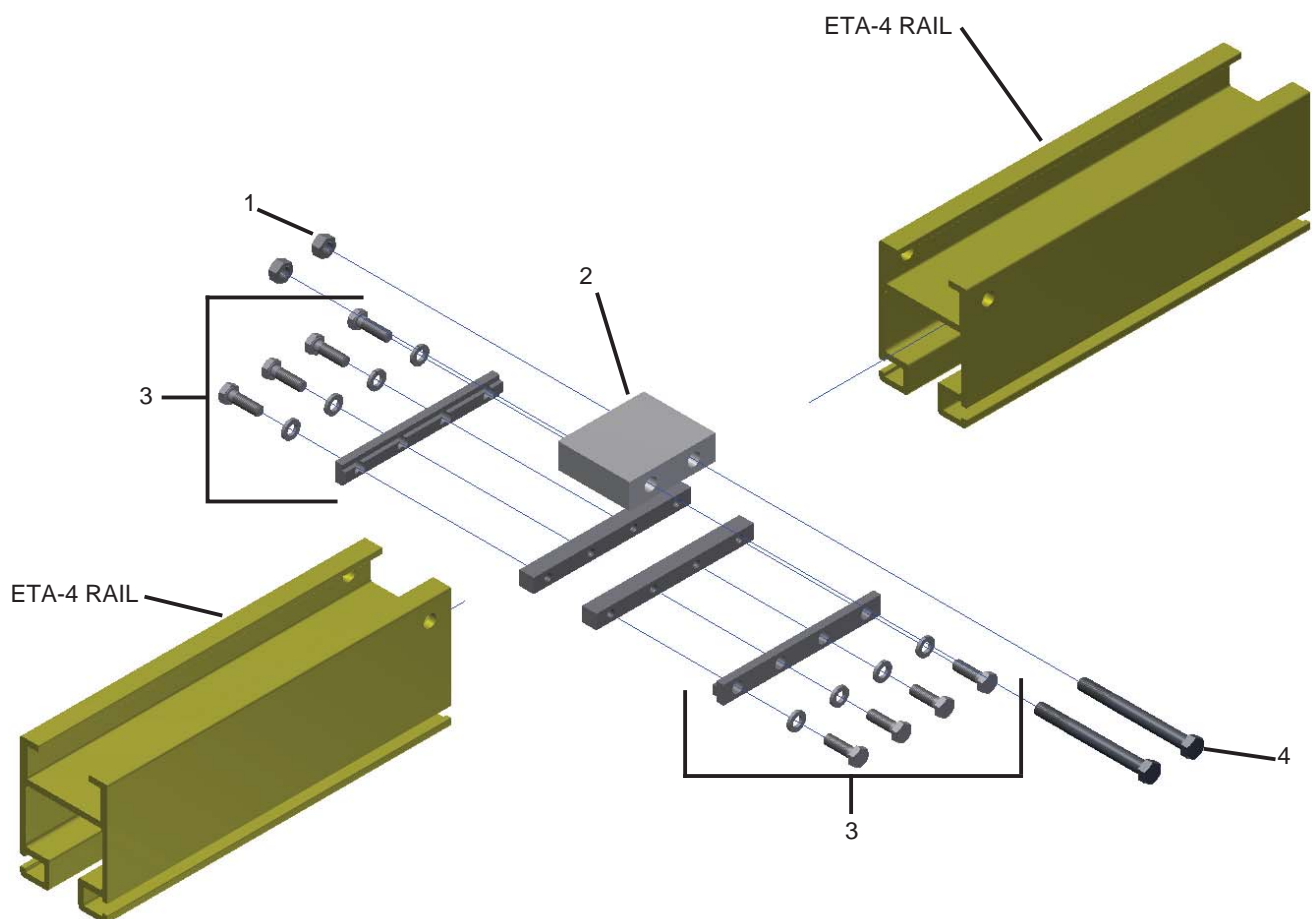
25134 ETA-5 END STOP SHOCK ABSORBER ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	25192	ETA-5 End Cap Assembly	1
2	25185	ETA-4/5 Position Stop Shock Absorber	2



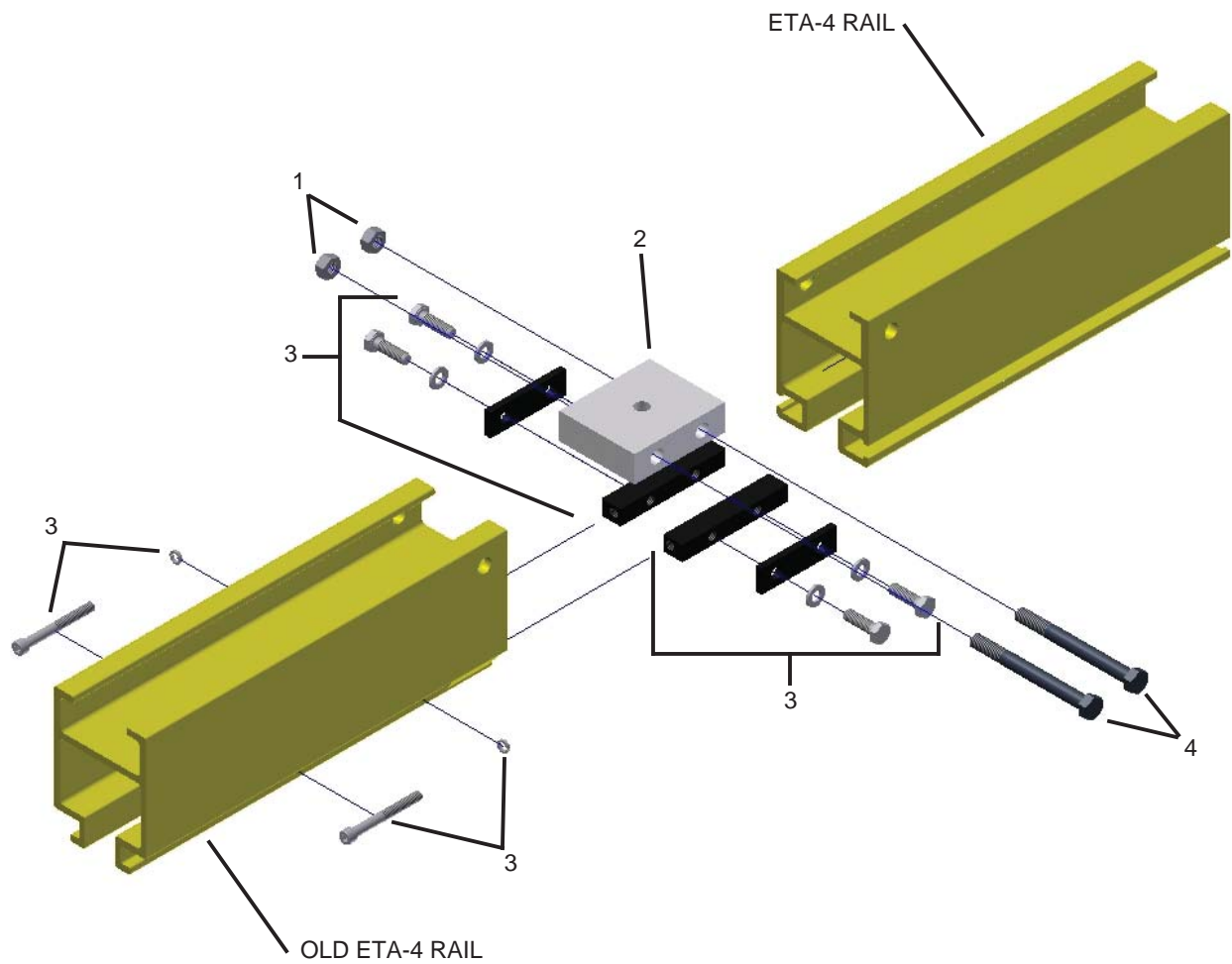
25514 ETA-4/5 BOLTED SPLICE ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52095	3/8-16 Top Lock Nut, GR C	2
2	59955	ETA-4 475A Block	1
3	25515	ETA-4/5 Splice Bar Assembly M8x1.25 x 25mm HHB 8mm Spring Lock Washer	2
4	50035	3/8-16 X 4-1/2" Rod End	2



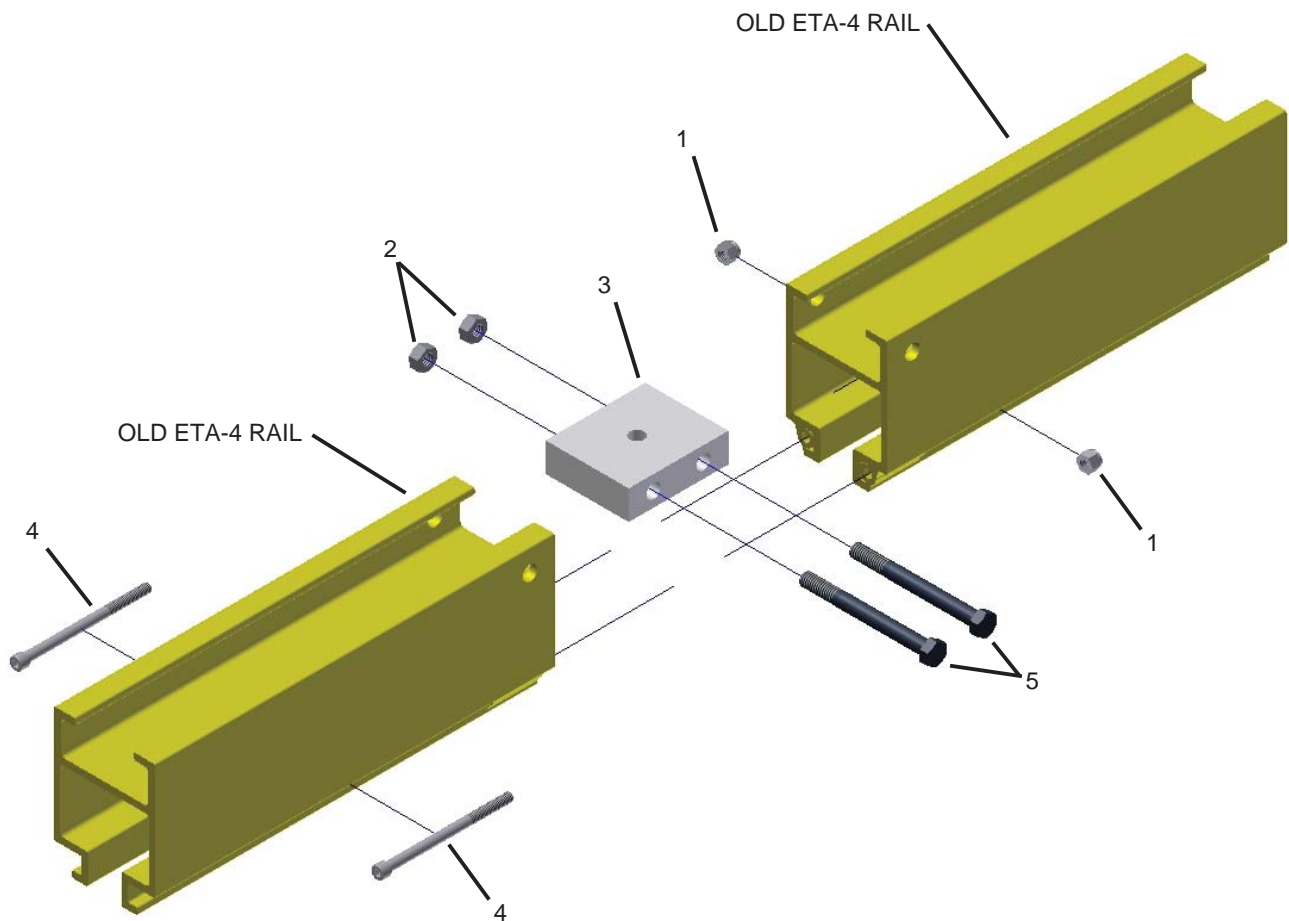
25559 ETA-4 TRANSITION SPLICE ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52440	M10x1.5 Prevailing Torque Nut	2
2	59955	ETA-4 475A Block	1
3	78290	ETA-4 Transition Splice Bar	2
		M8x1.25 x 25mm HHB	2
		8mm Spring Lock Washer	2
		M6x1.0 x 60mm SHCS	1
		6mm Spring Lock Washer	1
4	51765	M10x1.5 x 100mm HHB	2



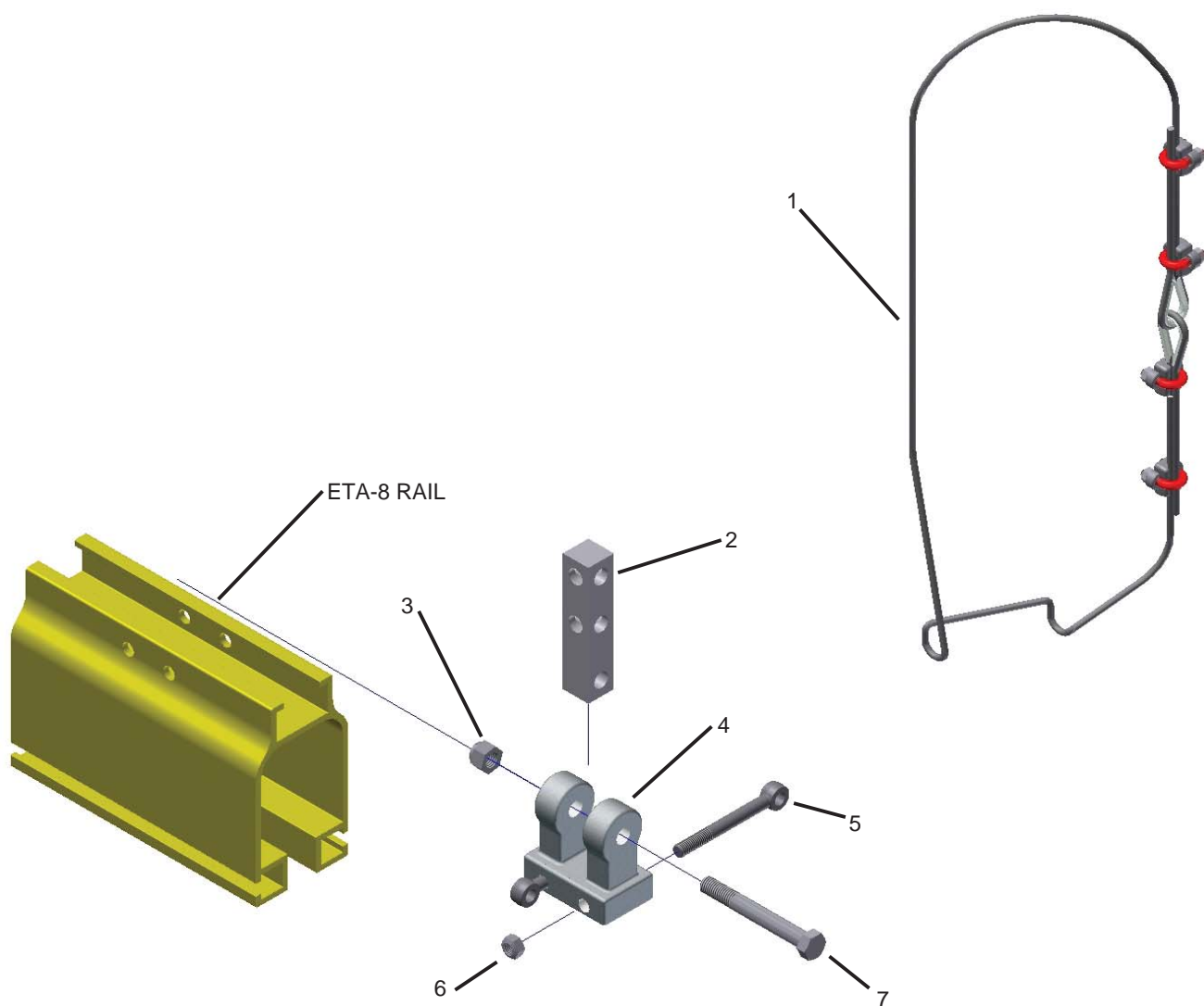
25530 ETA-4 OLD RAIL SPLICE ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52430	M6x1.0 Nylon Insert Lock Nut	2
2	52440	M10x1.5 Prevailing Torque Nut	2
3	59955	ETA-4 475A Block	1
4	51715	M6x1.0 x 100mm SHCS	2
5	51765	M10x1.5 x 100mm HHB	2



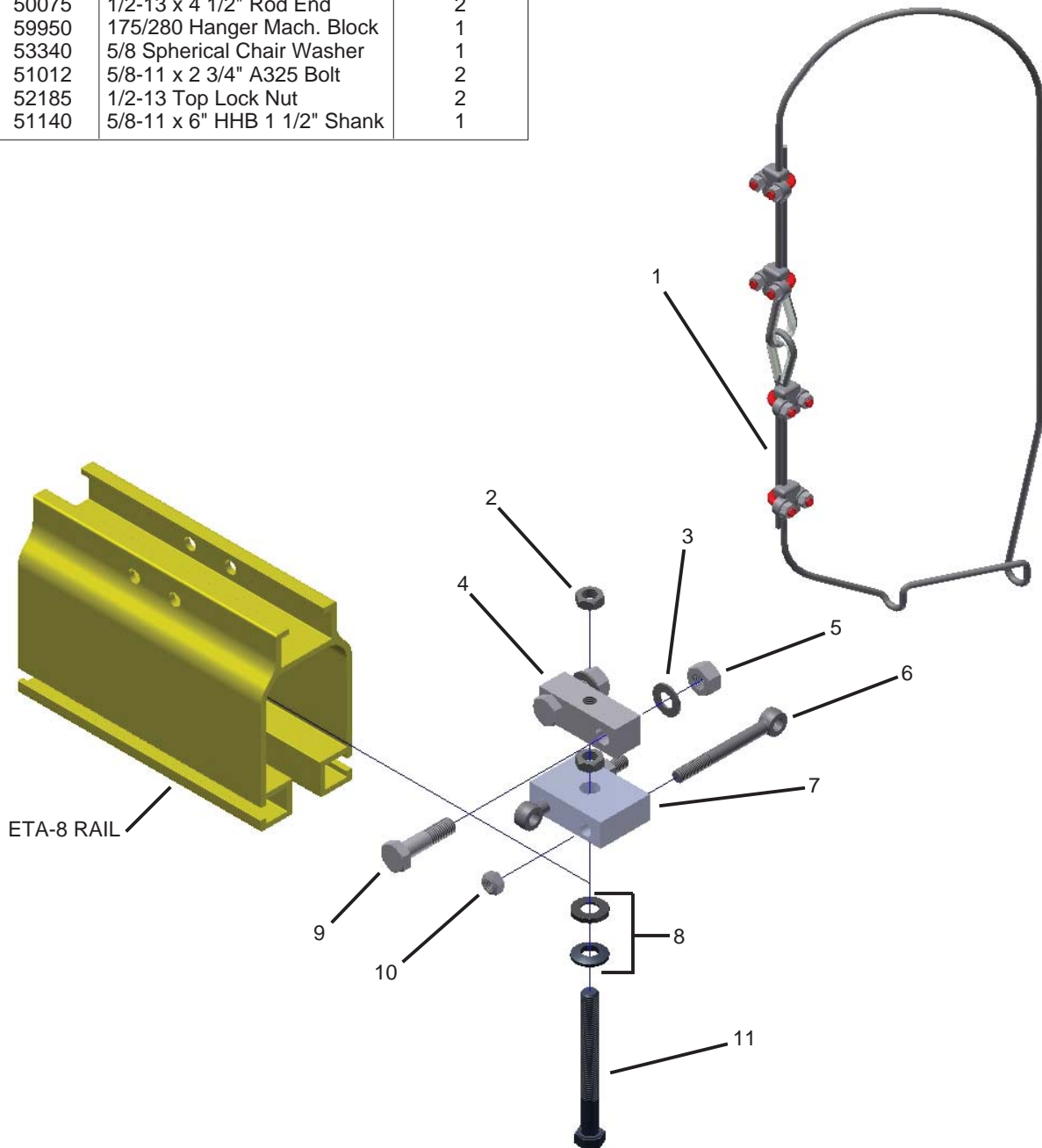
25170 ETA-8 BLOCK HANGER

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	78287	Safety Cable for ETA Hangers	1
2	63020	ETA-8 Hanger Block	1
3	52450	M16x2.0 Prevailing Torque Nut	1
4	59690M	180/215 Mach. Hanger Casting	1
5	50075	1/2-13 x 4 1/2" Rod End	2
6	52185	1/2-13 Top Lock Nut	2
7	51915	M16x2.0 x 130mm HHB	1



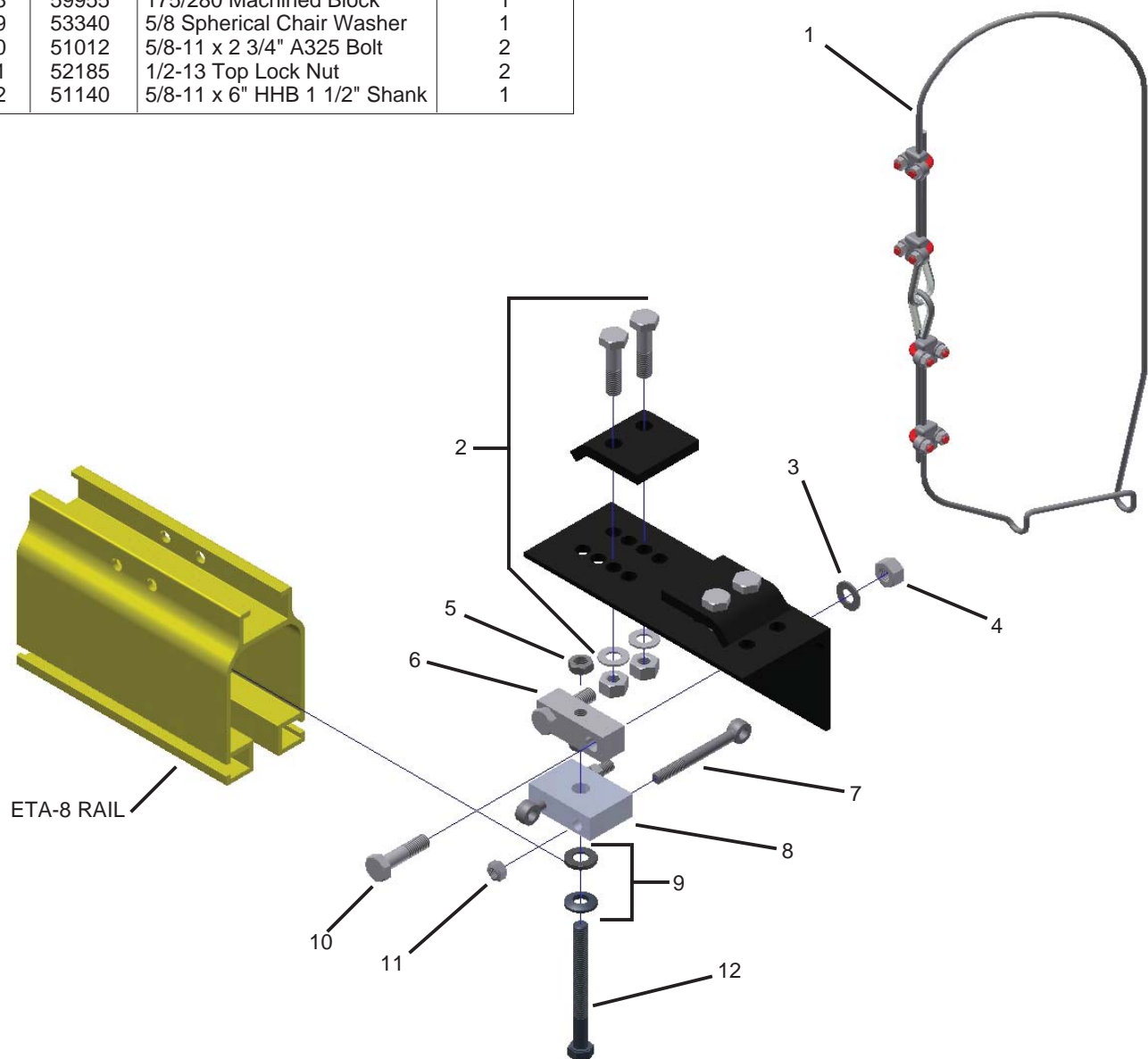
25465 ETA-8 ADJUSTABLE BLOCK HANGER

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	78287	Safety Cable for ETA Hangers	1
2	52270	5/8-11 Hex Jam Nut	2
3	53405	5/8 F436 (A325 Struc F/W)	2
4	78288	Threaded Rod Hanger Block	1
5	52315	5/8-11 Anco 2H Coloc Nut	2
6	50075	1/2-13 x 4 1/2" Rod End	2
7	59950	175/280 Hanger Mach. Block	1
8	53340	5/8 Spherical Chair Washer	1
9	51012	5/8-11 x 2 3/4" A325 Bolt	2
10	52185	1/2-13 Top Lock Nut	2
11	51140	5/8-11 x 6" HHB 1 1/2" Shank	1



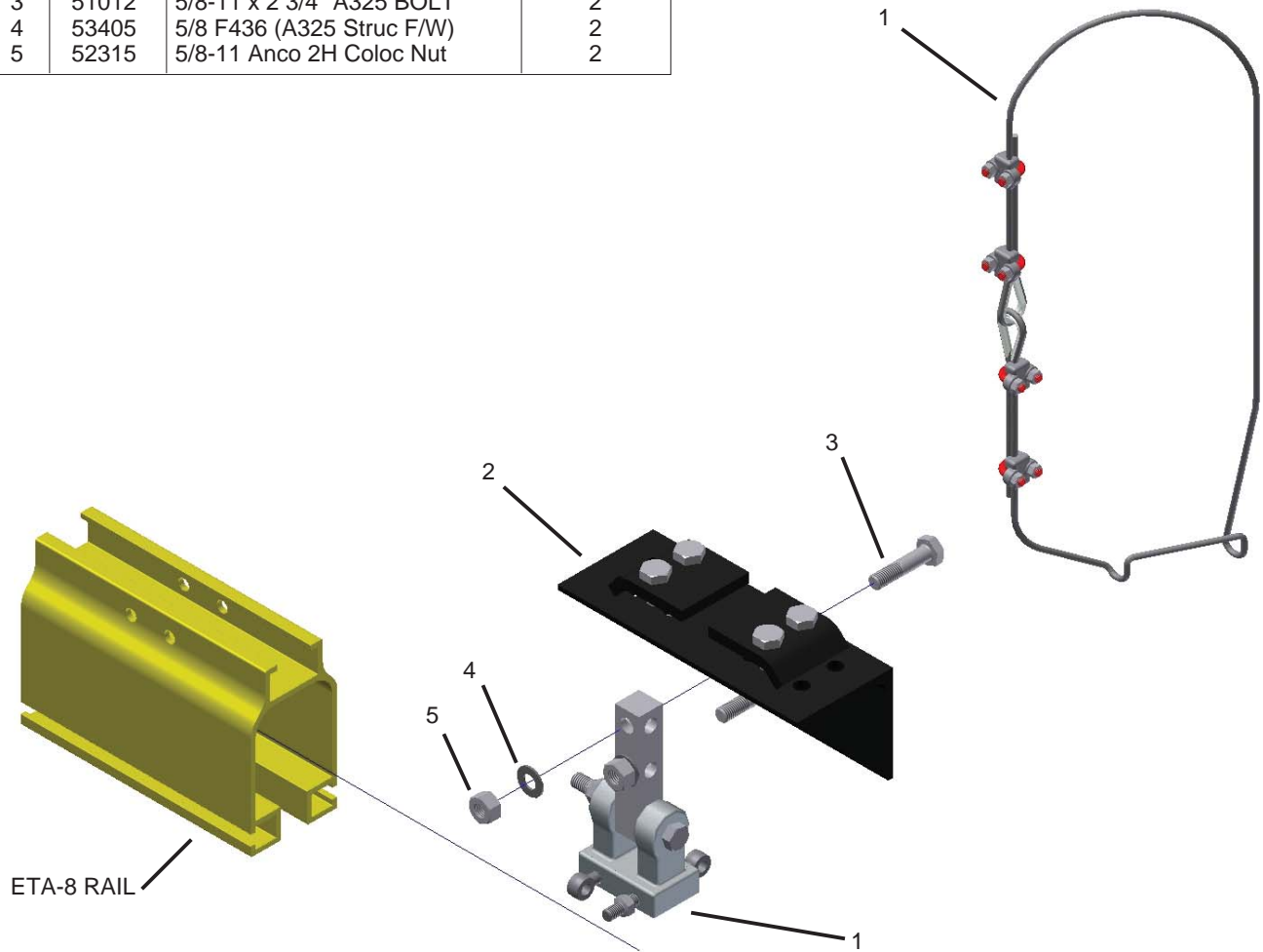
25472 ETA-8 CLOSED ADJUSTABLE HANGER

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	78287	Safety Cable for ETA Hangers	1
2	25702	ETA-8 Hanger Clip Assembly	1
		5/8-11 x 2 1/2" A325 Bolt	
		ETA-8 Rollover Clip	
		ETA-8 Hanger Clip	
		5/8 F436 (A325 Struc F/W)	
3	53405	5/8-11 Anco 2H Coloc Nut	2
4	52315	5/8 F436 (A325 Struc F/W)	2
5	52270	5/8-11 Anco 2H Coloc Nut	2
6	78288	5/8-11 Hex Jam Nut	2
7	50075	Threaded Rod Hanger Block	1
8	59955	1/2-13 x 4 1/2" Rod End	2
9	53340	175/280 Machined Block	1
10	51012	5/8 Spherical Chair Washer	1
11	52185	5/8-11 x 2 3/4" A325 Bolt	2
12	51140	1/2-13 Top Lock Nut	2
		5/8-11 x 6" HHB 1 1/2" Shank	1



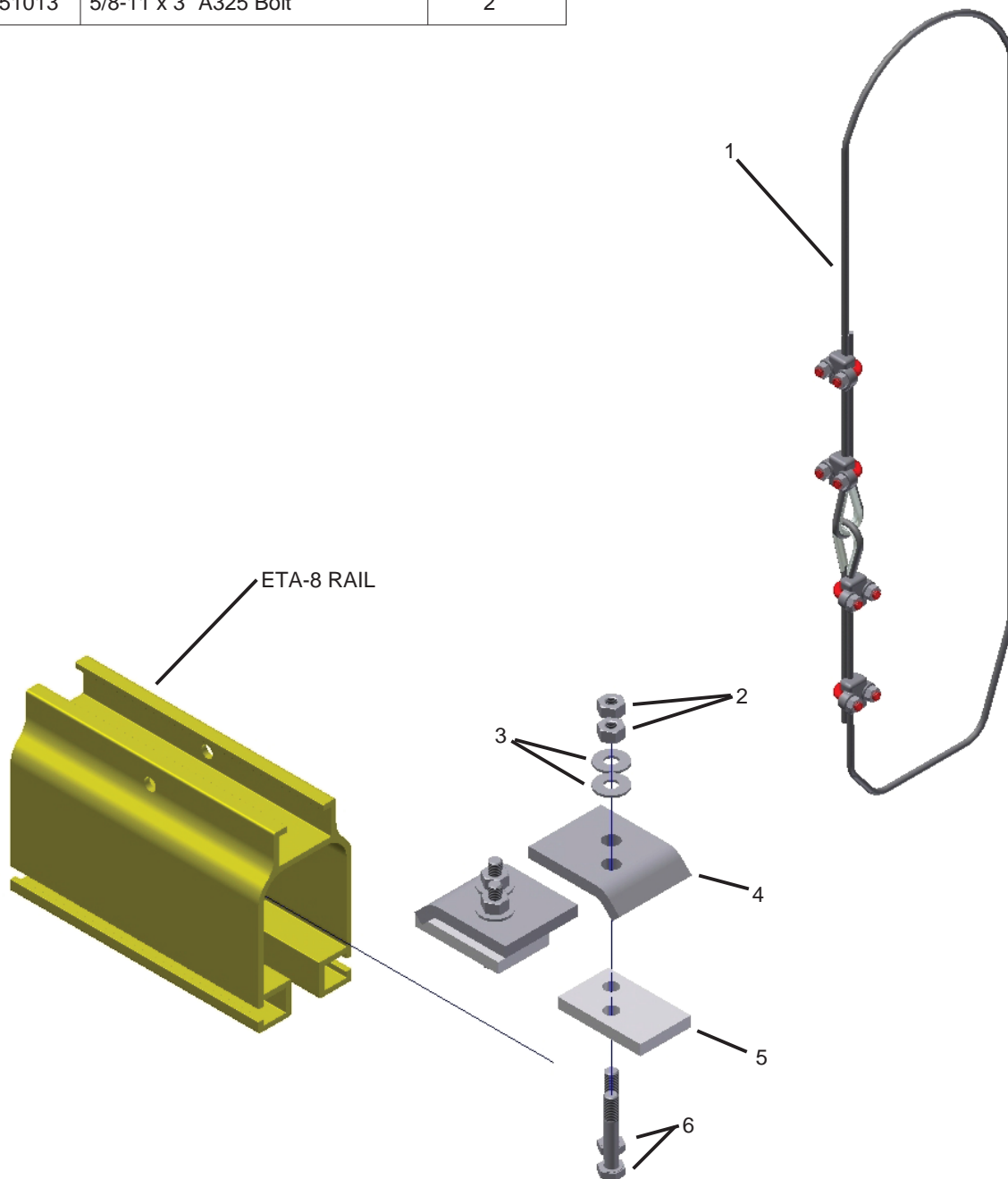
27061 ETA-8 BEAM HANGER

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	25170	ETA-8 Block Hanger Safety Cable for ETA Hangers ETA-8 Hanger Block M16x2.0 Prevailing Torque Nut 180/215 Mach. Hanger Casting 1/2-13 x 4 1/2" Rod End 1/2-13 Top Lock Nut M16x2.0 x 130mm HHB	1
2	25702	ETA-8 Hanger Clip Assembly 5/8-11 x 2 1/2" A325 Bolt ETA-8 Rollover Clip ETA-8 Hanger Clip 5/8 F436 (A325 Struc F/W) 5/8-11 Anco 2H Coloc Nut	1
3	51012	5/8-11 x 2 3/4" A325 BOLT	2
4	53405	5/8 F436 (A325 Struc F/W)	2
5	52315	5/8-11 Anco 2H Coloc Nut	2



27070 ETA RIGID MOUNT HANGER

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	78287	Safety Cable for ETA Hangers	1
2	52315	5/8-11 Anco 2H Coloc nut	2
3	53405	5/8-11 F436 (A325 Struc. Washer)	2
4	78285	ETA Toe Clip	1
5	78565	ETA-8 Rigid End Truck Block	1
6	51013	5/8-11 x 3" A325 Bolt	2



20011 ETA-8 SHORT BODY LOAD TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	55040	N-5100-075 Snap Ring	2
2	32050	137-C 3.2 Load Wheel	4
3	52465	N-5100-66PP Snap Ring	1
4	59390M	M20x2.5 Nylon Insert Nut	1
5	25161	101 Trolley Casting	1
		ETA-8 Guide Roller	2
		M10x1.5 Nylon Insert Nut	
		M10x1.5 x 50mm SHCS	
6	57121	ETA-8 Axle	2
		3/4" Dia. 1215	
7	51996	M20x2.5 x 180mm HHB CL 8.8	1

* For a trolley with **Black Load** wheels use replacement load wheel:

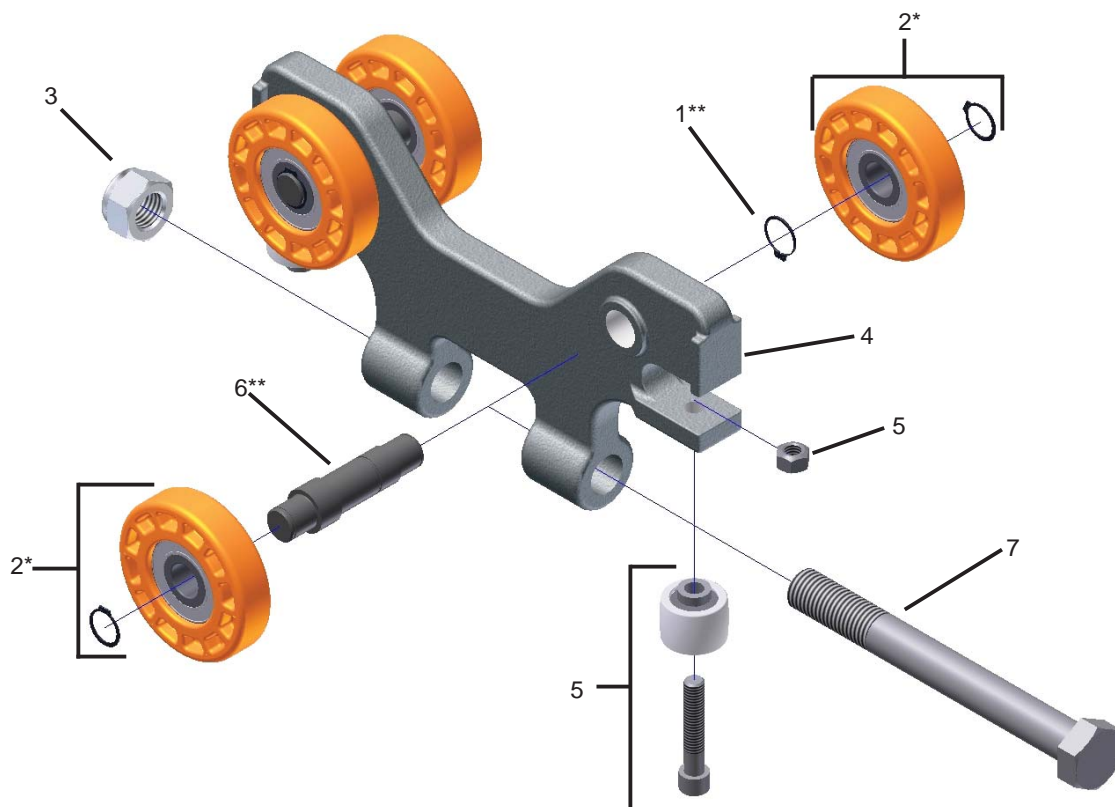
STOCK CODE	DESCRIPTION	QUANTITY
32040	3.2 Flat Black Load Wheel Assembly N-5100-66PP Snap Ring	4

To change a trolley with **Black Load** wheels to **Orange Load** wheels:

STOCK CODE	DESCRIPTION	QUANTITY
28003	ETA-8 Load Wheel and Axle Kit	1
	ETA-8 Axle	1
	N-5100-075 Snap Ring	1
	137 Wheel Assy. with Snap Ring	2

Axle Kit to change a trolley with **Black Load wheels to accept **Orange Load** wheels (does not include wheels):

STOCK CODE	DESCRIPTION	QUANTITY
28006	ETA-8 Load Trolley Axle Kit	1
	ETA-8 Load Trolley Axle	2
	N-5100-075 Snap Ring	2



20019 ETA-8 LONG BODY LOAD TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	55040	N-5100-075 Snap Ring	2
2	32050	137-C 3.2 Load Wheel	4
3	52465	N-5100-66PP Snap Ring	1
4	59400M	M20x2.5 Nylon Insert Nut	1
5	25161	101B Trolley Casting	1
		ETA-8 Guide Roller	2
		M10x1.5 Nylon Insert Nut	
		M10x1.5 x 50mm SHCS	
6	57121	ETA-8 Axle	2
		3/4" Dia. 1215	
7	51996	M20x2.5 x 180mm HHB CL 8.8	1

* For a trolley with **Black Load** wheels use replacement load wheel:

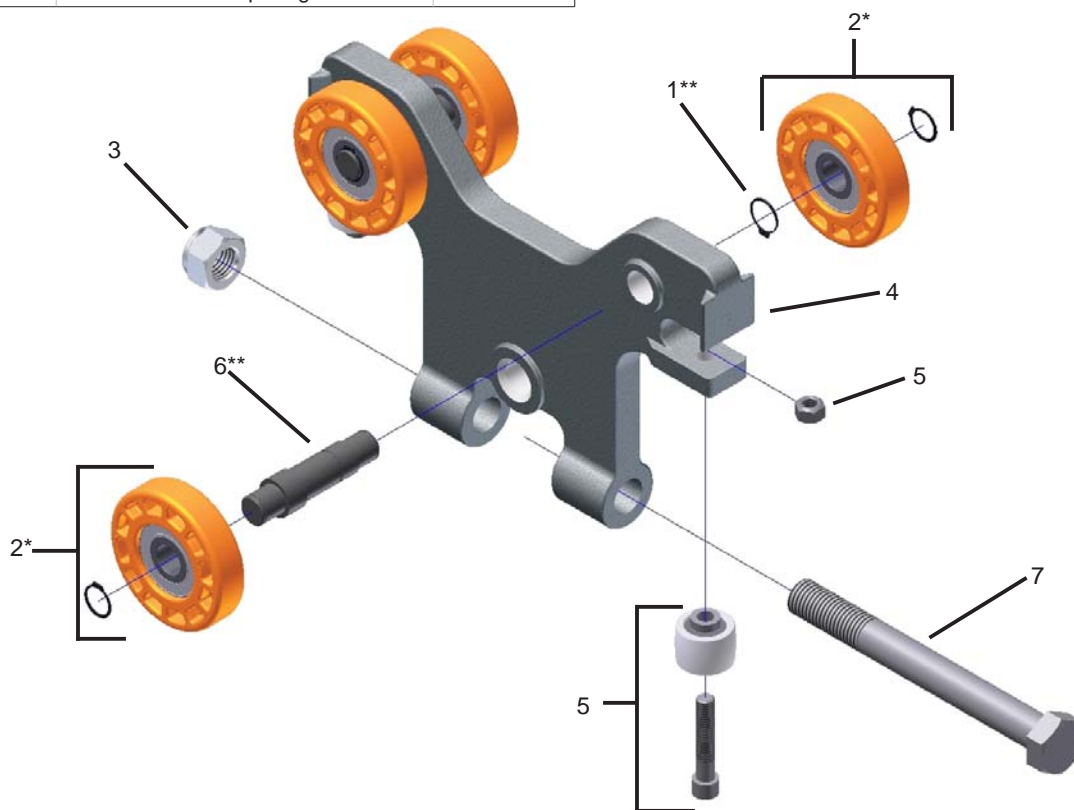
STOCK CODE	DESCRIPTION	QUANTITY
32040	3.2 Flat Black Load Wheel Assembly N-5100-66PP Snap Ring	4

To change a trolley with **Black Load** wheels to **Orange Load** wheels:

STOCK CODE	DESCRIPTION	QUANTITY
28003	ETA-8 Load Wheel and Axle Kit	1
	ETA-8 Axle	1
	N-5100-075 Snap Ring	1
	137 Wheel Assy. with Snap Ring	2

Axle Kit to change a trolley with **Black Load wheels to accept **Orange Load** wheels (does not include wheels):

STOCK CODE	DESCRIPTION	QUANTITY
28006	ETA-8 Load Trolley Axle Kit	1
	ETA-8 Load Trolley Axle	2
	N-5100-075 Snap Ring	2



20024 THREE HOLE MOUNT LOAD TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	55040	N-5100-075 Snap Ring	2
2	32050	137-C 3.2 Load Wheel	4
3	59486M	N-5100-66PP Snap Ring	1
4	57121	113C Trolley Casting	2
5	25161	ETA-8 Axle 3/4" Dia. 1215 ETA-8 Guide Roller M10x1.5 Nylon Insert Nut M10x1.5 x 50mm SHCS	2

* For a trolley with **Black Load** wheels use replacement load wheel:

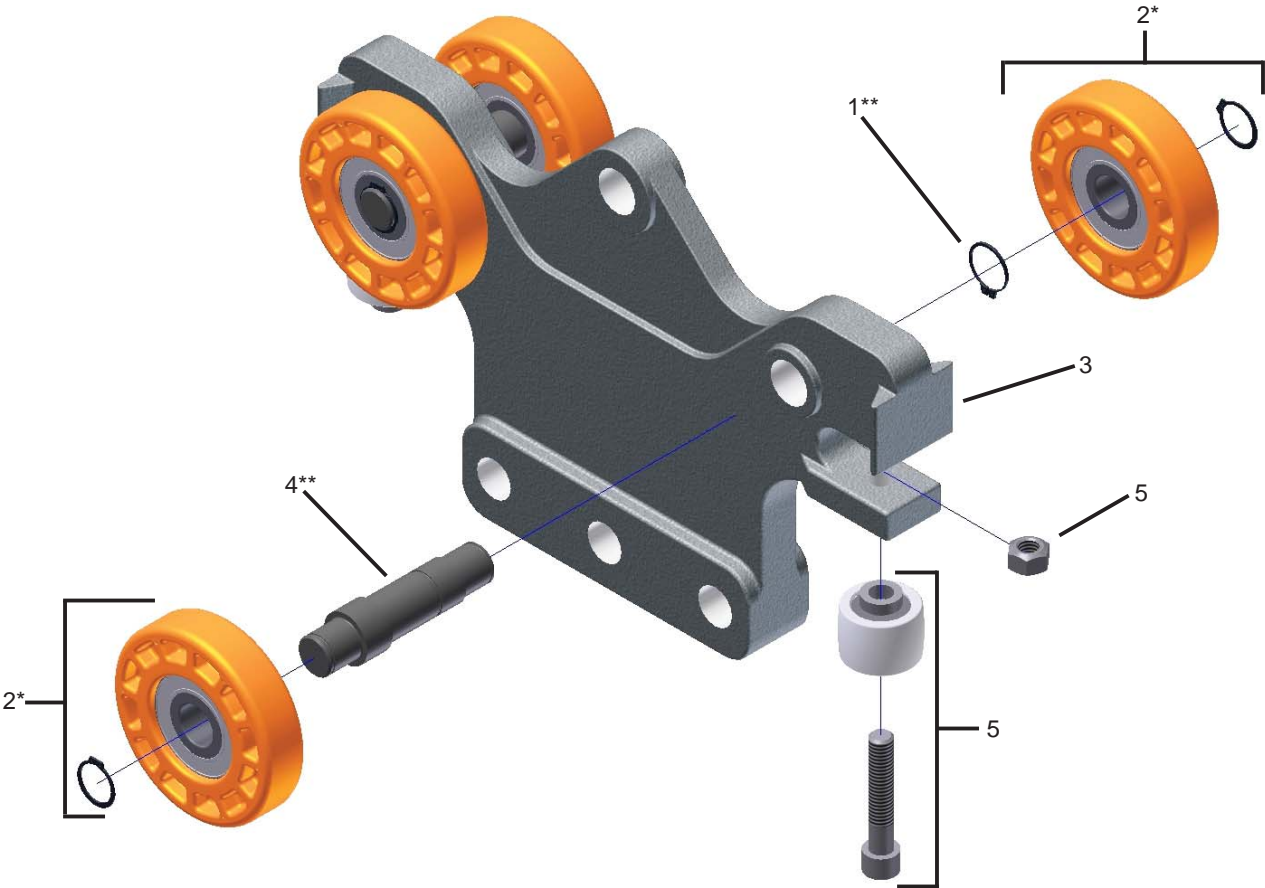
STOCK CODE	DESCRIPTION	QUANTITY
32040	3.2 Flat Black Load Wheel Assembly N-5100-66PP Snap Ring	4

To change a trolley with **Black Load** wheels to **Orange Load** wheels:

STOCK CODE	DESCRIPTION	QUANTITY
28003	ETA-8 Load Wheel and Axle Kit	1
	ETA-8 Axle	1
	N-5100-075 Snap Ring	1
	137 Wheel Assy. with Snap Ring	2

Axle Kit to change a trolley with **Black Load wheels to accept **Orange Load** wheels (does not include wheels):

STOCK CODE	DESCRIPTION	QUANTITY
28006	ETA-8 Load Trolley Axle Kit	1
	ETA-8 Load Trolley Axle	2
	N-5100-075 Snap Ring	2



20068 ETA-8 SHORT BODY KICKUP TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	55040	N-5100-075 Snap Ring	3
2	32050	137-C 3.2 Load Wheel N-5100-66PP Snap Ring	6
3	52465	M20x2.5 Nylon Insert Nut	1
4	59480M	113 K.U. Trolley Casting	1
5	57141	ETA-8 Kickup Axle 3/4" Dia. 1215	1
6	25161	ETA-8 Guide Roller M10x1.5 Nylon Insert Nut M10x1.5 x 50mm SHCS	2
7	57121	ETA-8 Axle 3/4" Dia. 1215	2
8	51996	M20x2.5 x 180mm HHB	1

For a trolley with **Black Load** or **Black Kick-up** wheels use replacement:

STOCK CODE	DESCRIPTION	QUANTITY
32040	3.2 Flat Black Load Wheel Assembly N-5100-66PP Snap Ring	4
28005	137 3.2 Black K.U. Wheel Assembly N-5100-66PP Snap Ring	2

Axle Kit to change a trolley with **Black Load & Kick-up** wheels to accept **Orange Load & Kick-up** wheels (does not include wheels):

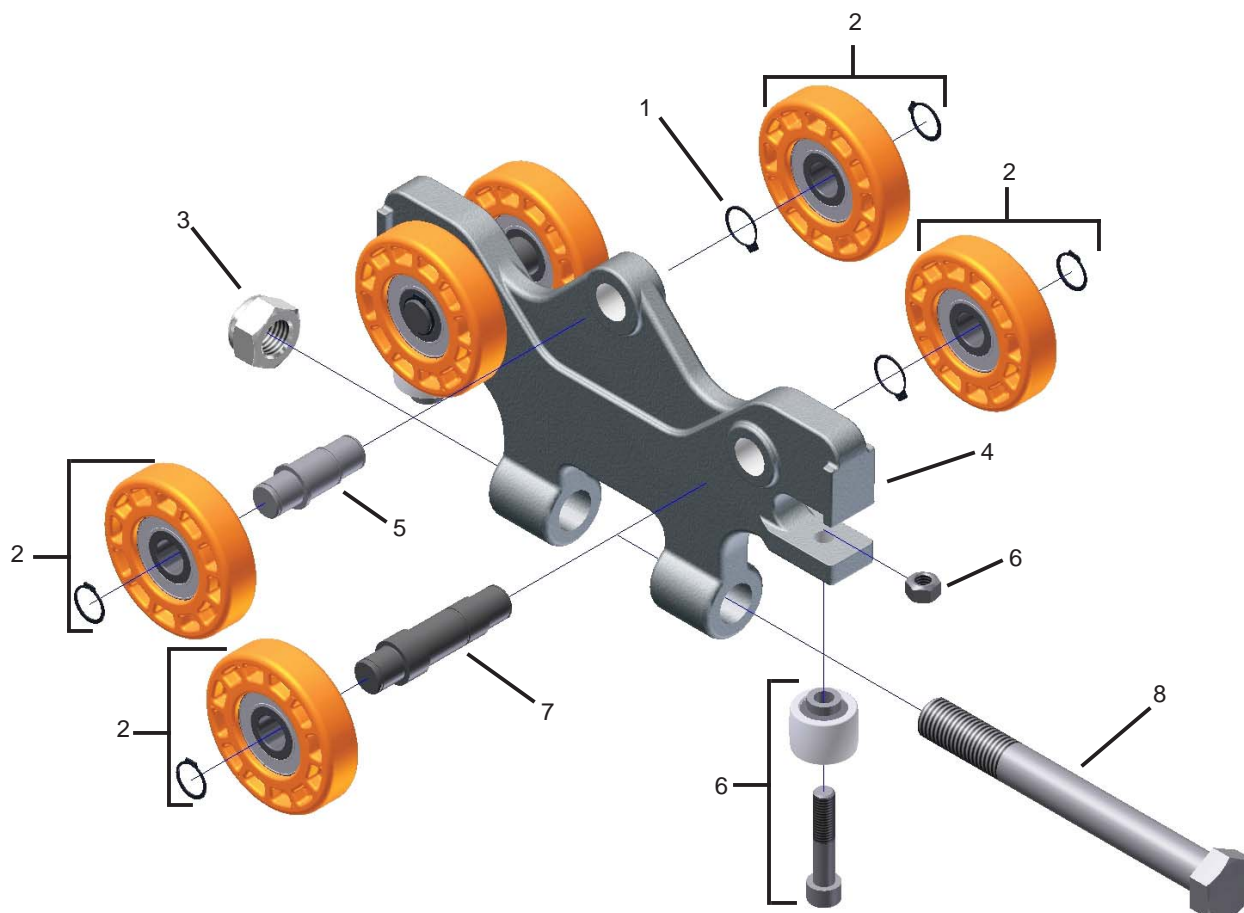
STOCK CODE	DESCRIPTION	QUANTITY
28007	Kick-up Trolley Axle Kit ETA-8 Load Trolley Axle ETA-8 Kick-up Trolley Axle N-5100-075 Snap Ring	1 2 1 3

To change **Black Load** wheels to **Orange Load** wheels:

STOCK CODE	DESCRIPTION	QUANTITY
28003	ETA-8 Load Wheel and Axle Kit ETA-8 Axle N-5100-075 Snap Ring 137 Wheel Assy. with Snap Ring	1 1 1 2

To change **Black Kick-up** wheels to **Orange** wheels:

STOCK CODE	DESCRIPTION	QUANTITY
28004	ETA-8 K.U. Wheel and Axle Kit ETA-8 Kick-up Axle N-5100-075 Snap Ring 137 Wheel Assy. with Snap Ring	1 1 1 2



20069 ETA-8 LONG BODY KICKUP TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	55040	N-5100-075 Snap Ring	3
2	32050	137-C 3.2 Load Wheel N-5100-66PP Snap Ring	6
3	52465	M20x2.5 Nylon Insert Nut	1
4	59485M	113B Trolley Casting	1
5	57141	ETA-8 Kickup Axle 3/4" Dia. 1215	1
6	25161	ETA-8 Guide Roller M10x1.5 Nylon Insert Nut M10x1.5 x 50mm SHCS	2
7	57121	ETA-8 Axle 3/4" Dia. 1215	2
8	51996	M20x2.5 X 180mm HHB	1

For a trolley with **Black Load** or **Black Kick-up** wheels use replacement:

STOCK CODE	DESCRIPTION	QUANTITY
32040	3.2 Flat Black Load Wheel Assembly N-5100-66PP Snap Ring	4
28005	137 3.2 Black K.U. Wheel Assembly N-5100-66PP Snap Ring	2

Axle Kit to change a trolley with **Black Load & Kick-up** wheels to accept **Orange Load & Kick-up** wheels (does not include wheels):

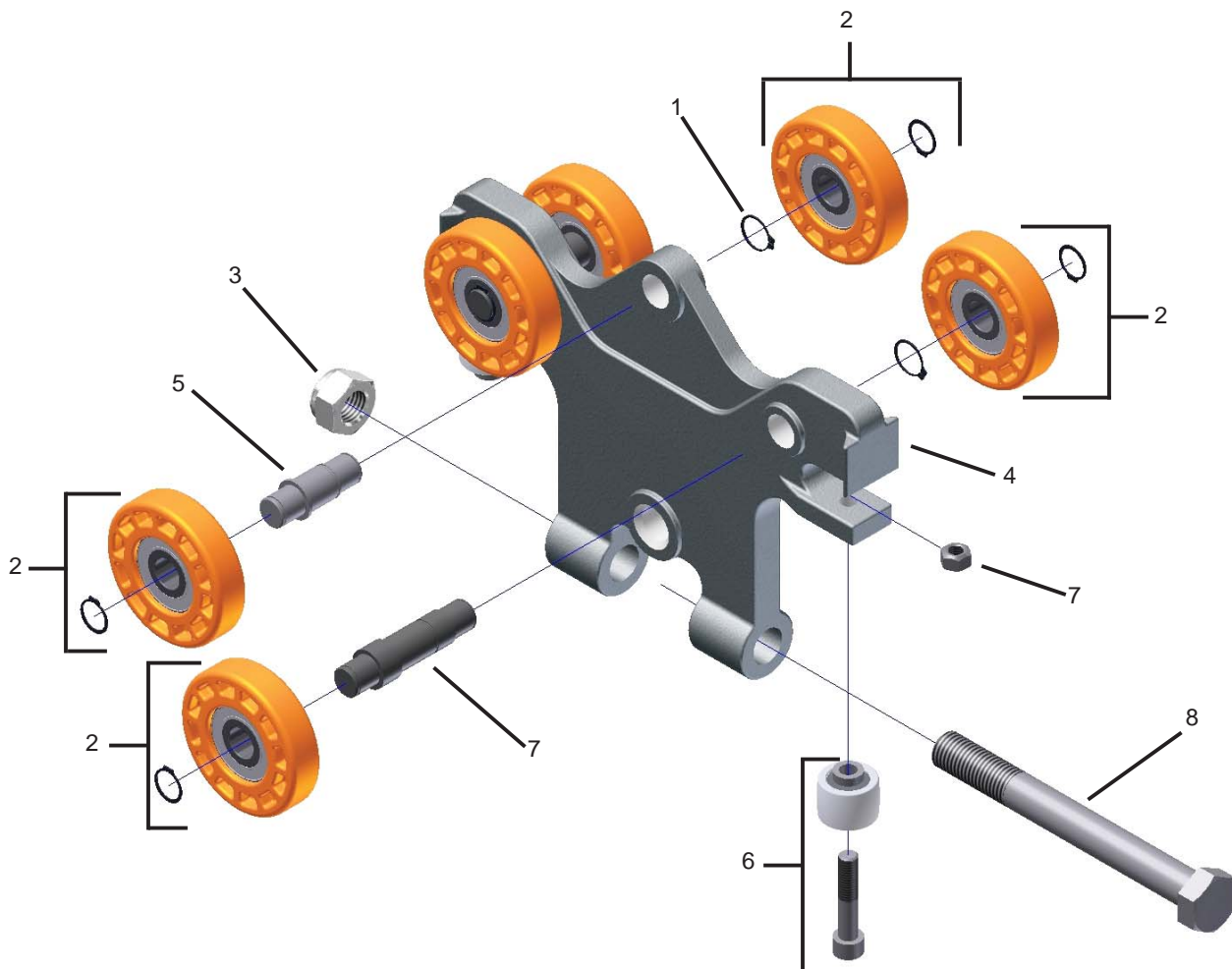
STOCK CODE	DESCRIPTION	QUANTITY
28007	Kick-up Trolley Axle Kit ETA-8 Load Trolley Axle ETA-8 Kick-up Trolley Axle N-5100-075 Snap Ring	1 2 1 3

To change **Black Load** wheels to **Orange Load** wheels:

STOCK CODE	DESCRIPTION	QUANTITY
28003	ETA-8 Load Wheel and Axle Kit ETA-8 Axle N-5100-075 Snap Ring 137 Wheel Assy. with Snap Ring	1 1 1 2

To change **Black Kick-up** wheels to **Orange** wheels:

STOCK CODE	DESCRIPTION	QUANTITY
28004	ETA-8 K.U. Wheel and Axle Kit ETA-8 Kick-up Axle N-5100-075 Snap Ring 137 Wheel Assy. with Snap Ring	1 1 1 2



20071 ETA-8 THREE HOLE KICKUP TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	55040	N-5100-075 Snap Ring	3
2*	32050	137-C 3.2 Load Wheel N-5100-66PP Snap Ring	6
3	59486M	113C Trolley Casting	1
4	57141	ETA-8 Kickup Axle 3/4" Dia. 1215	1
5	25161	ETA-8 Guide Roller M10x1.5 Nylon Insert Nut M10x1.5 x 50mm SHCS	2
6	57121	ETA-8 Axle 3/4" Dia. 1215	2

For a trolley with **Black Load** or **Black Kick-up** wheels use replacement:

STOCK CODE	DESCRIPTION	QUANTITY
32040	3.2 Flat Black Load Wheel Assembly N-5100-66PP Snap Ring	4
28005	137 3.2 Black K.U. Wheel Assembly N-5100-66PP Snap Ring	2

Axle Kit to change a trolley with **Black Load & Kick-up** wheels to accept **Orange Load & Kick-up** wheels (does not include wheels):

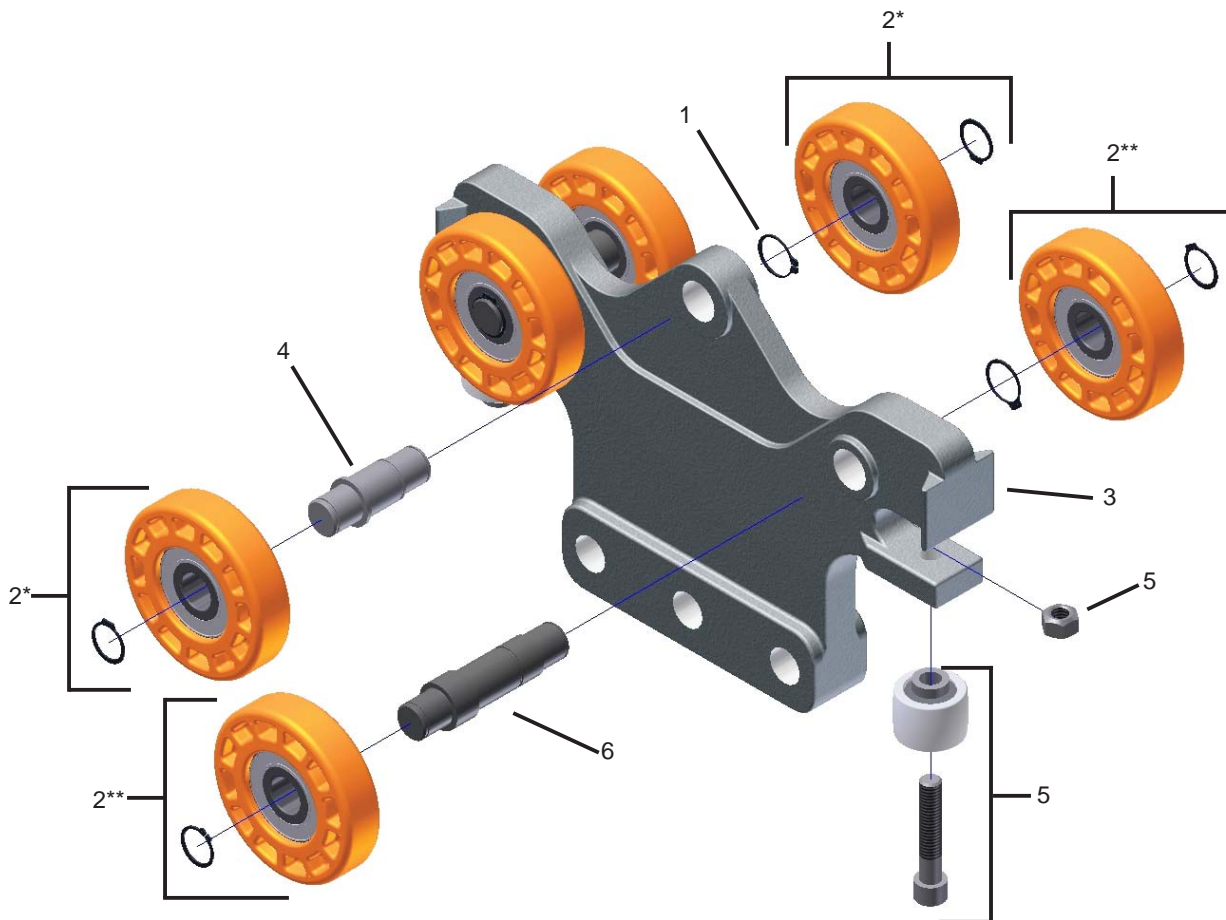
STOCK CODE	DESCRIPTION	QUANTITY
28007	Kick-up Trolley Axle Kit ETA-8 Load Trolley Axle ETA-8 Kick-up Trolley Axle N-5100-075 Snap Ring	1 2 1 3

To change **Black Load** wheels to **Orange Load** wheels:

STOCK CODE	DESCRIPTION	QUANTITY
28003	ETA-8 Load Wheel and Axle Kit ETA-8 Axle N-5100-075 Snap Ring 137 Wheel Assy. with Snap Ring	1 1 1 2

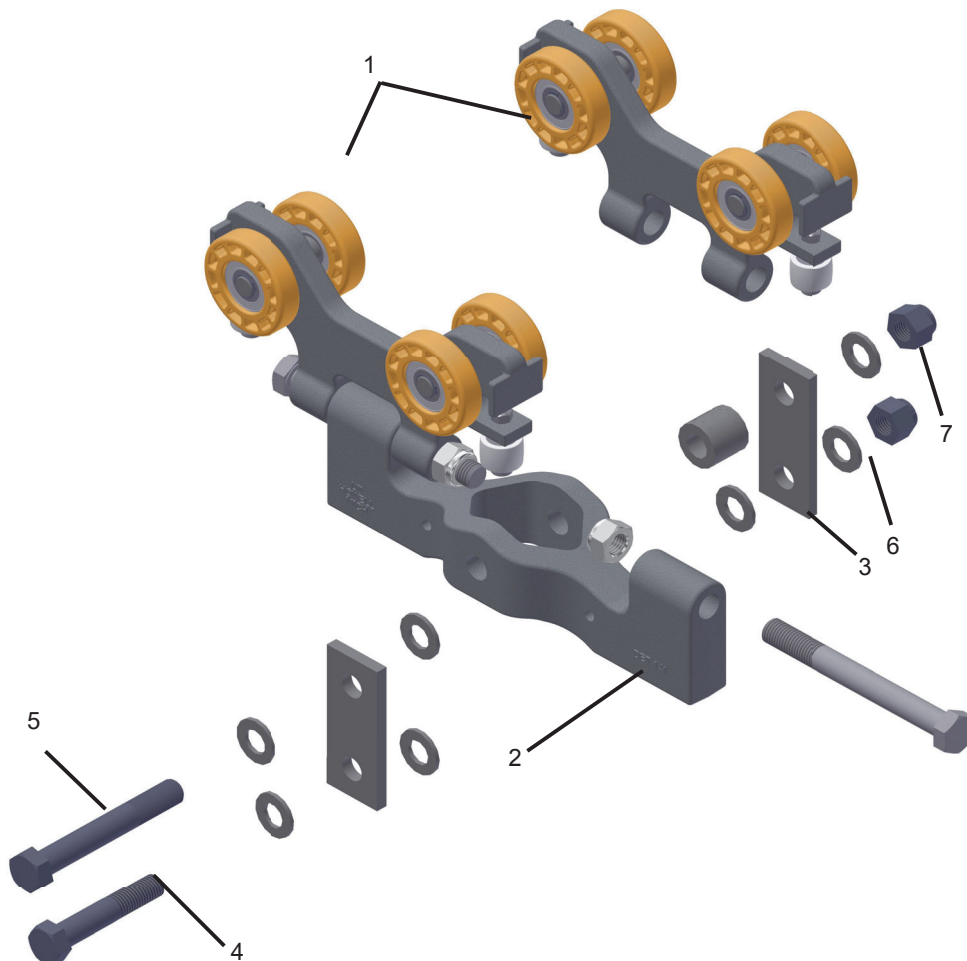
To change **Black Kick-up** wheels to **Orange** wheels:

STOCK CODE	DESCRIPTION	QUANTITY
28004	ETA-8 K.U. Wheel and Axle Kit ETA-8 Kick-up Axle N-5100-075 Snap Ring 137 Wheel Assy. with Snap Ring	1 1 1 2



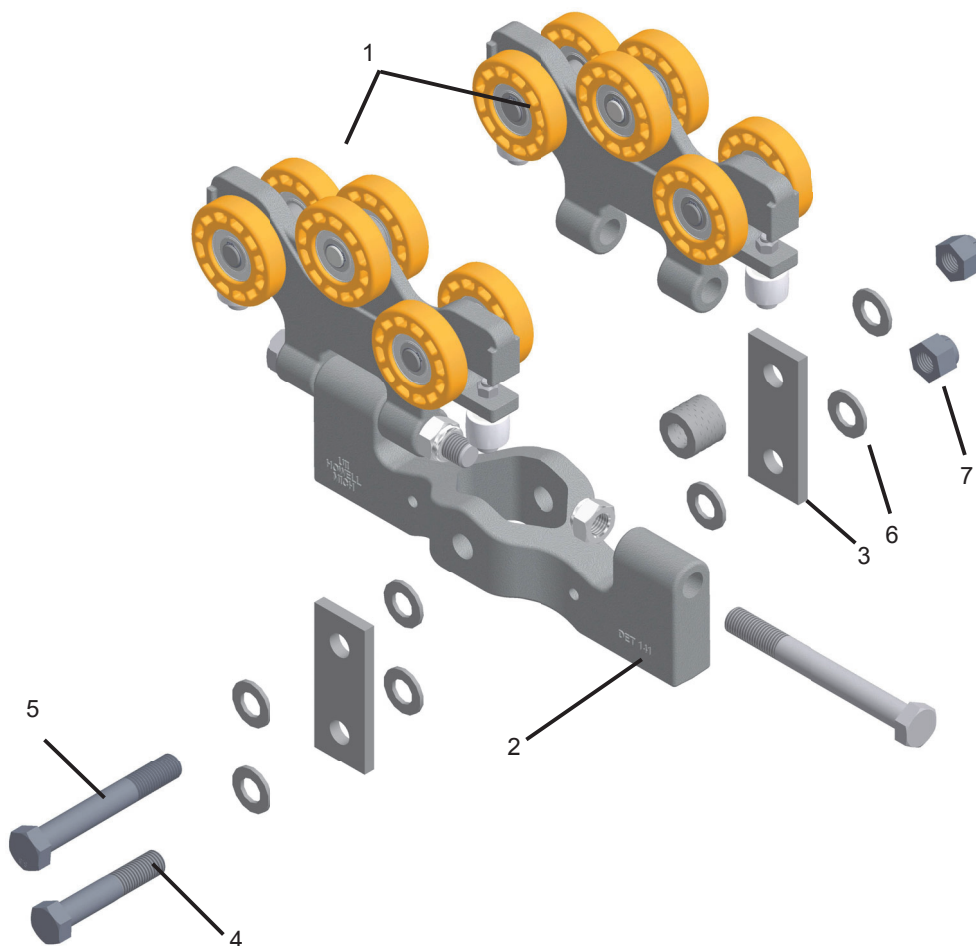
25120 ETA-8 DUAL HOIST TROLLEY (WITHOUT KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20011	ETA-8 Short Body Load Trolley	2
2	59540M	141 Mach.Flt End Trk Casting	1
3	25121	150A Load Bar Clevis	2
4	51975	M20 X 2.5 X 100MM HHB CL 8.8	1
5	51987	M20 X 2.5 X 140MM HHB CL 8.8	1
6	53080	3/4 SAE FLAT WASHER	20
7	52465	M20 X 2.5 Nylon Insert Lock Nut	2



25125 ETA-8 DUAL HOIST TROLLEY (WITH KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20068	ETA-8 Short Body Load Trolley w/KU	2
2	59540M	141 Mach.Flt End Trk Casting	1
3	25121	150A Load Bar Clevis	2
4	51975	M20 X 2.5 X 100MM HHB CL 8.8	1
5	51987	M20 X 2.5 X 140MM HHB CL 8.8	1
6	53080	3/4 SAE FLAT WASHER	20
7	52465	M20 X 2.5 Nylon Insert Lock Nut	2

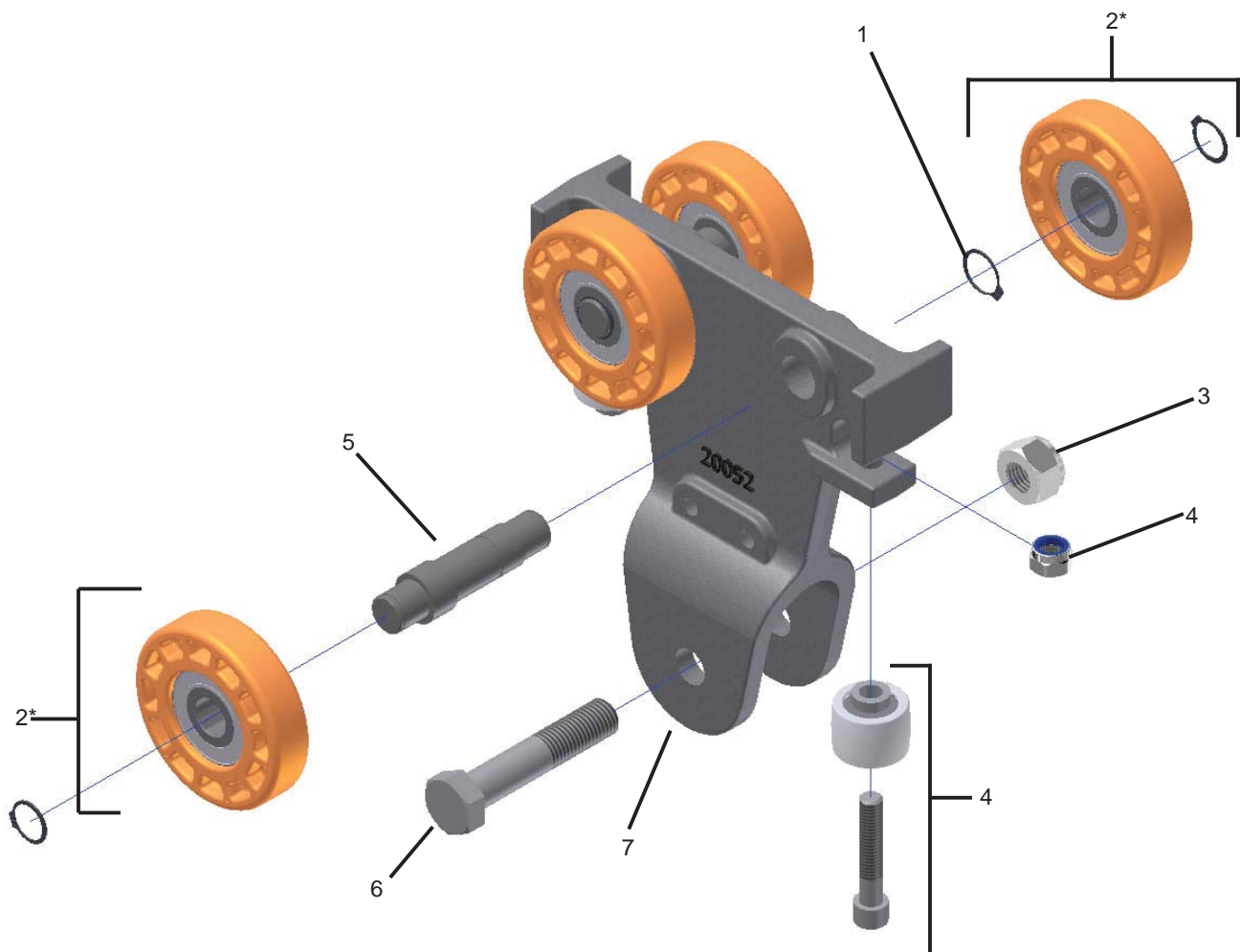


REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	55040	N-5100-075 Snap Ring	2
2	32050	137-C 3.2 Load Wheel	4
3	52455	N-5100-66PP Snap Ring	1
4	25161	M16x2.0 Nylon Insert Nut	2
5	57121	ETA-8 Guide Roller Assembly	2
6	51890	M10x1.5 Nylon Insert Nut	1
7	59470M	M10x1.5 x 50mm SHCS	1
		ETA-8 Axle	2
		3/4" Dia. 1215	
		M16x2.0 x 90mm HHB	1
		111 Yoke Trolley Casting	1

20052 SADDLE LOAD TROLLEY

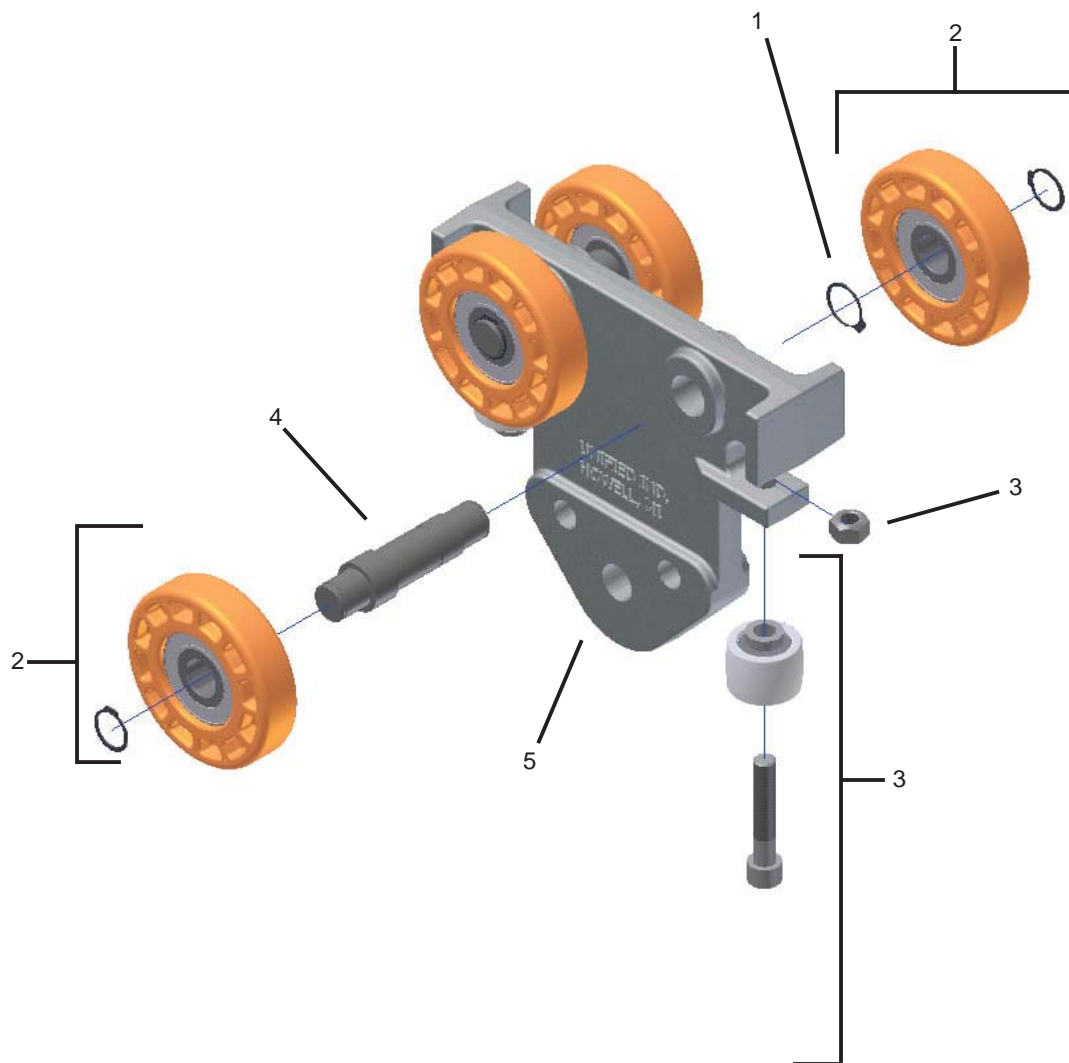
* For a trolley with **Black Load** wheels use replacement load wheel:

STOCK CODE	DESCRIPTION	QUANTITY
32040	3.2 Flat Black Load Wheel Assembly N-5100-66PP Snap Ring	4



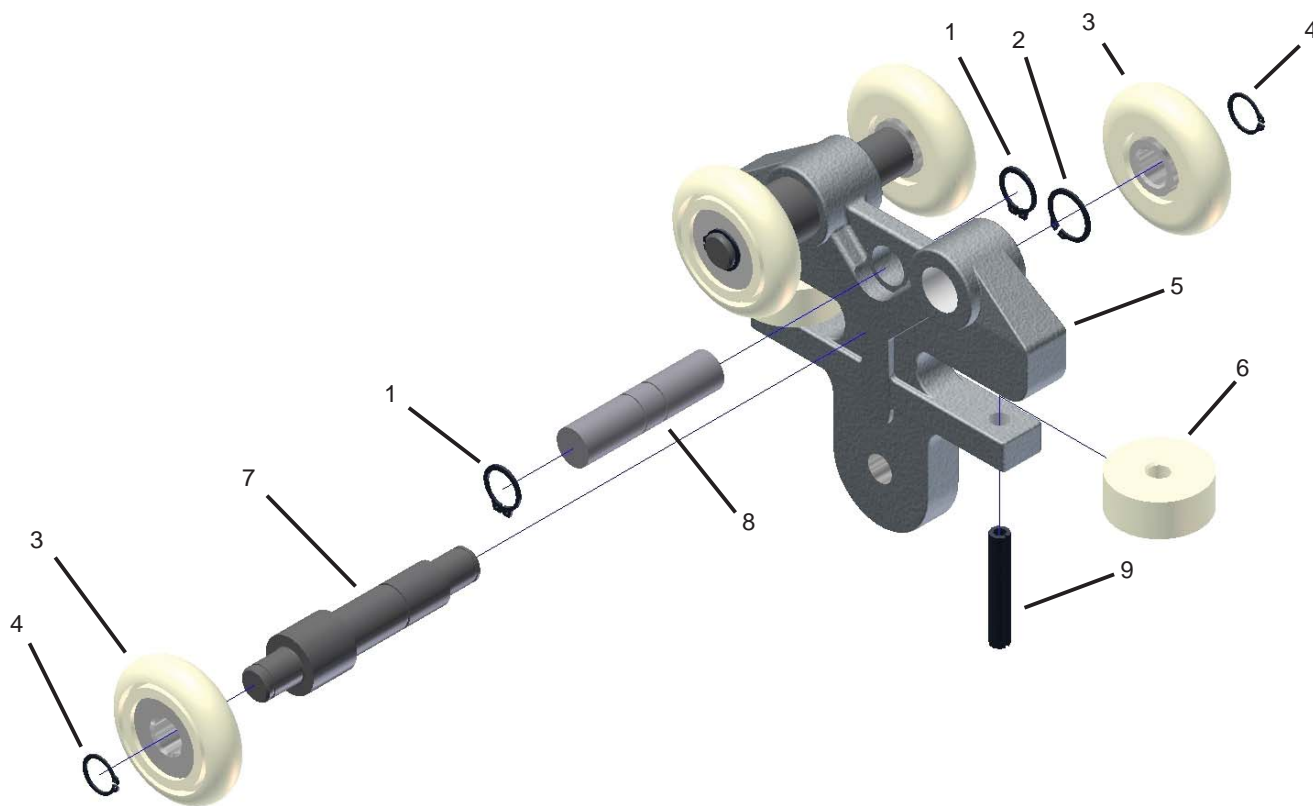
REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	55040	N-5100-075 Snap Ring	2
2	32050	137B 3.2 Load Wheel	4
3	25161	ETA-8 Guide Roller Assembly M10x1.5 Nylon Insert Nut M10x1.5 x 50mm SHCS	2
4	57121	ETA-8 Axle 3/4" Dia. 1215 M16x2.0 x 90mm HHB	2
5	59500M	121 Machined Flat Trolley Cast	1

20070 PIN LOAD TROLLEY



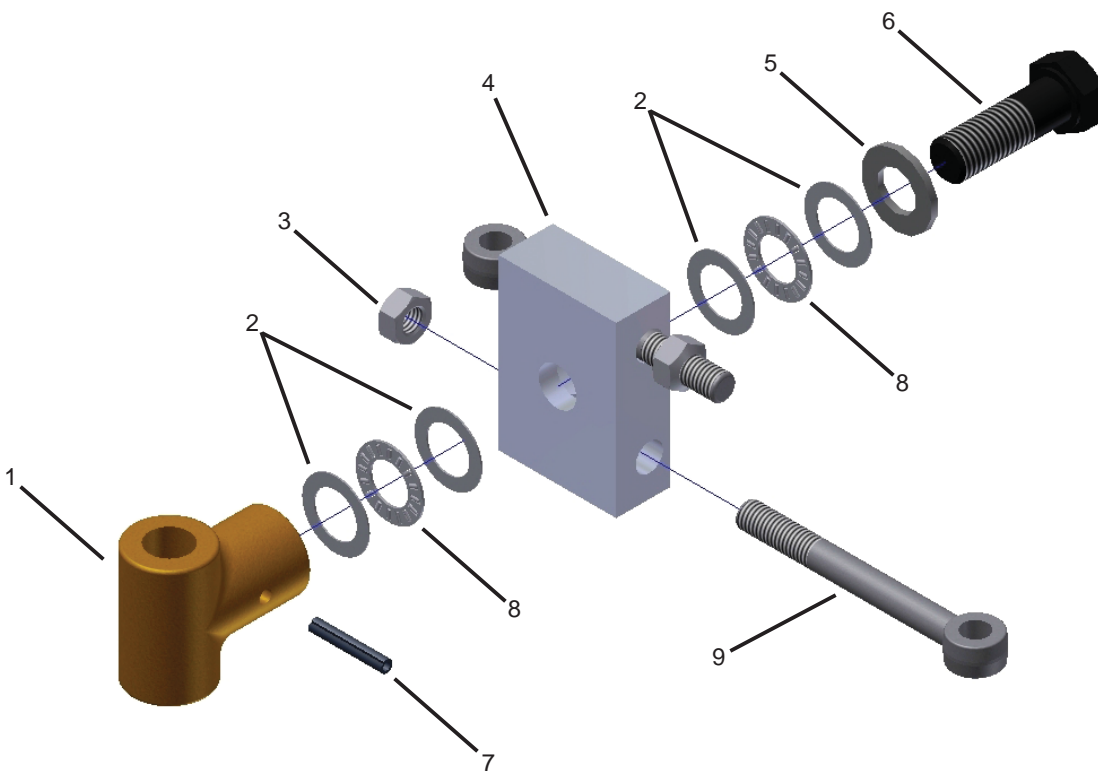
20090 ETA-8 FESTOON TROLLEY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	55060	N-5100-50 Snap Ring	2
2	55080	N-5100-56 Snap Ring	2
3	58240	PA969-1 Nylon Wheel	4
4	55070	N-5100-43 Snap Ring	4
5	59900M	496 Trolley Casting	1
6	70020	199 1 1/4" Nylon G.R	2
7	57160	197 Wheel Stud	2
8	57135	ETA Festoon Trly Drop Pin	1
9	54190	1/4 x 1-1/2" Spring Pin	2



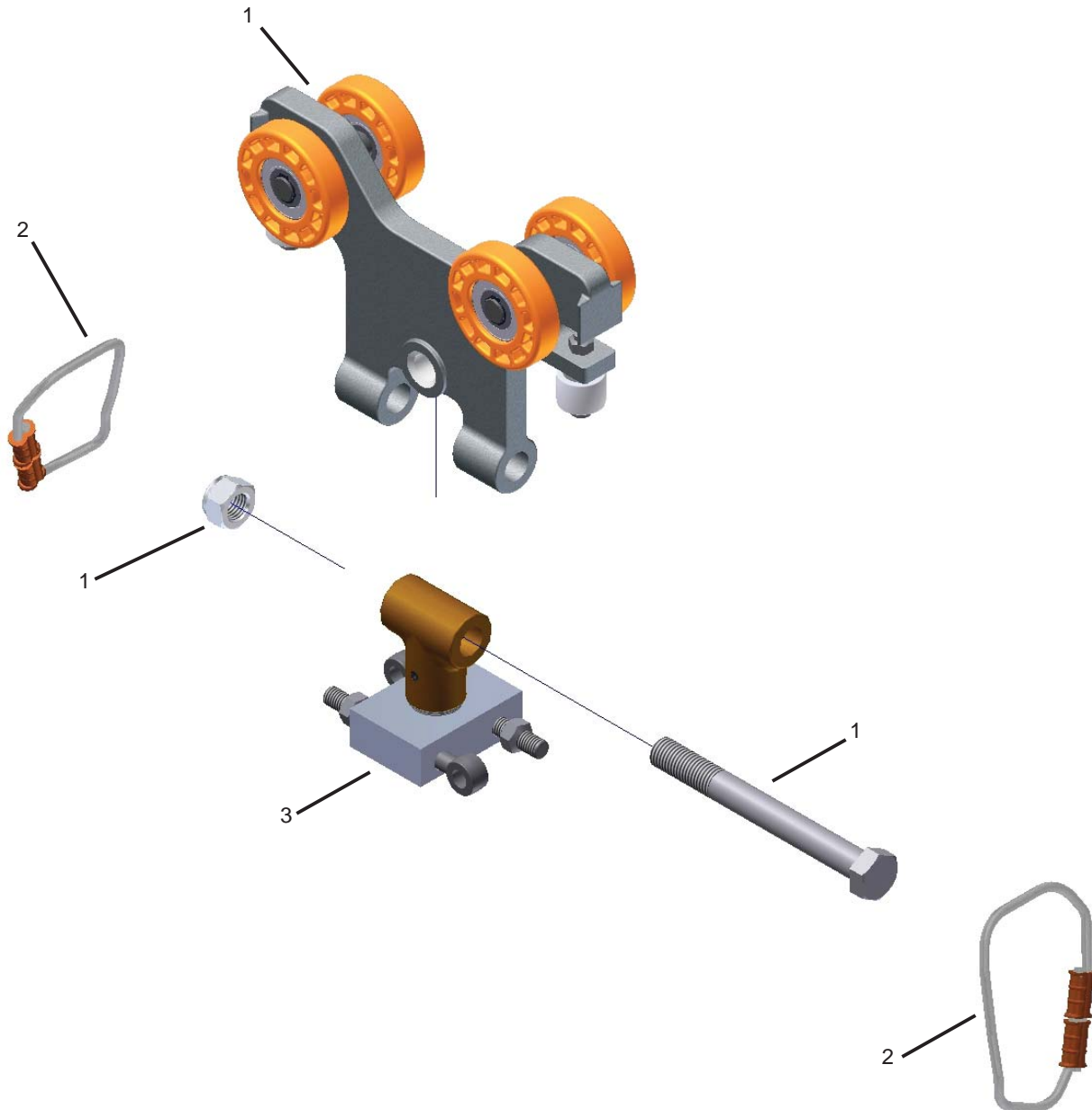
REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	59450M	106 Bronze Tee Mach.	1
2	53321	TWA1220 Thin Washer	4
3	52185	1/2-13 Top Lock nut	2
4	59950	175/280 Hanger Mach. Block	1
5	53080	1/4" WASHER	1
6	51260	3/4-10 x 2 1/4" GD5 HHB	1
7	54190	1/4 x 1 1/2" Spring Pin	1
8	56161	TC 1220 Thrust Bearing	2
9	50075	1/2-13 x 4 1/2" Rod End	2

25250 ETA-8 BRONZE TEE ASSEMBLY



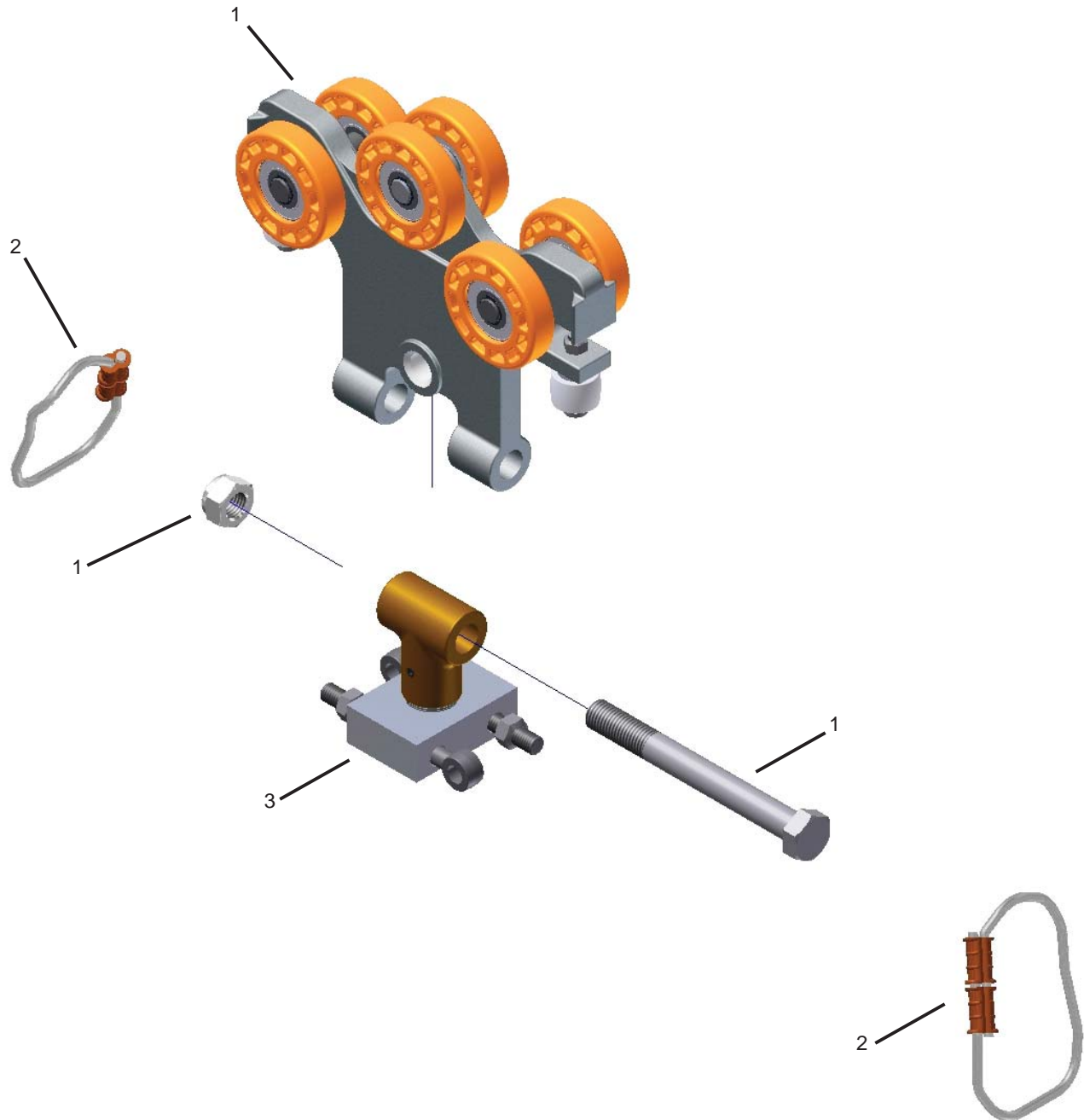
22041 ETA-8 SINGLE END TRUCK ASSEMBLY (WITHOUT KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20019	ETA-8 Long Body Load Trolley	1
2	25630	ETA-8 Safety Cable Assembly	2
3	25250	ETA-8 Bronze Tee Assembly	1



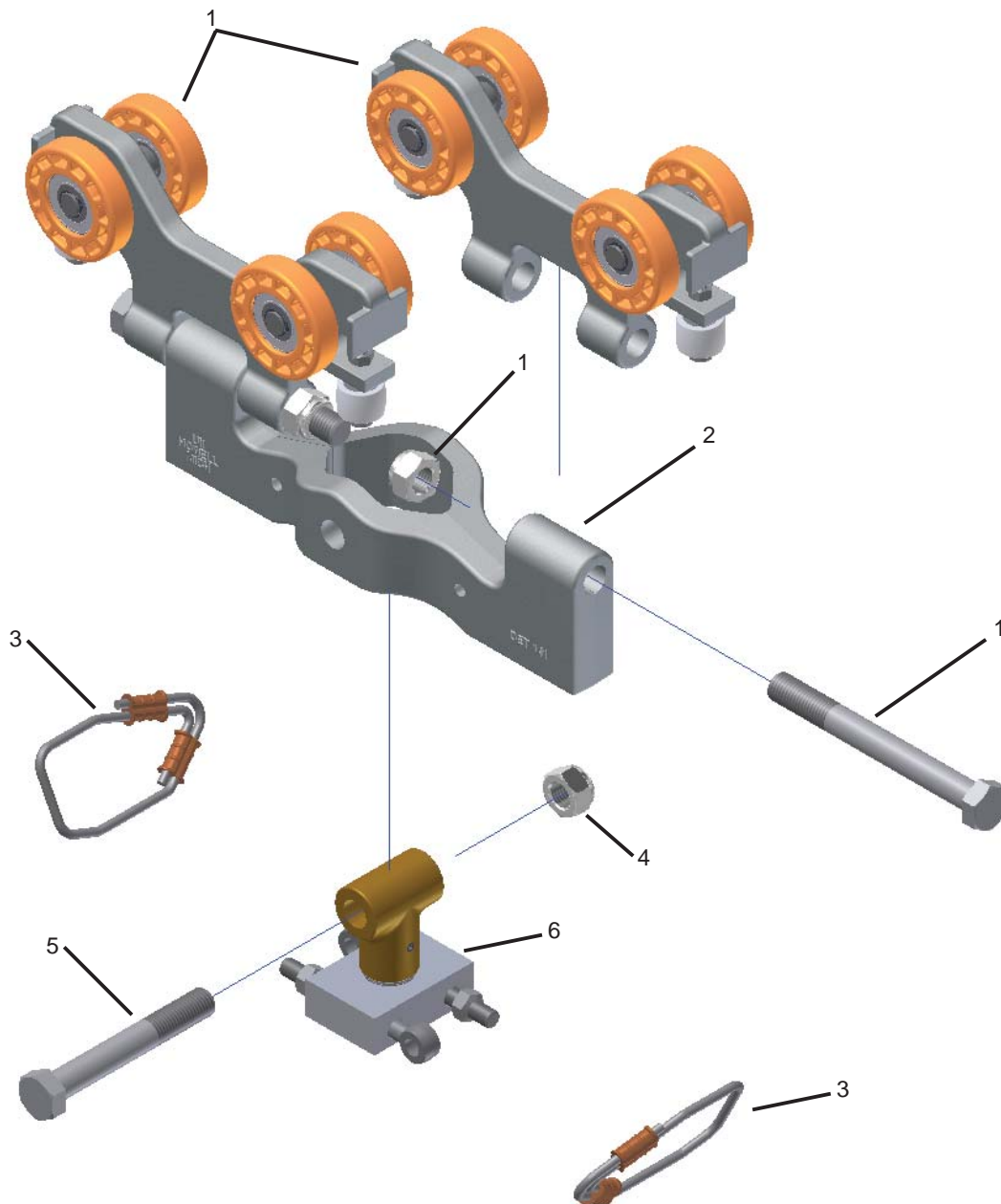
22046 ETA-8 SINGLE END TRUCK ASSEMBLY (WITH KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20069	ETA-8 Long Body Kickup Trolley	1
2	25630	ETA-8 Safety Cable Assembly	2
3	25250	ETA-8 Bronze Tee Assembly	1



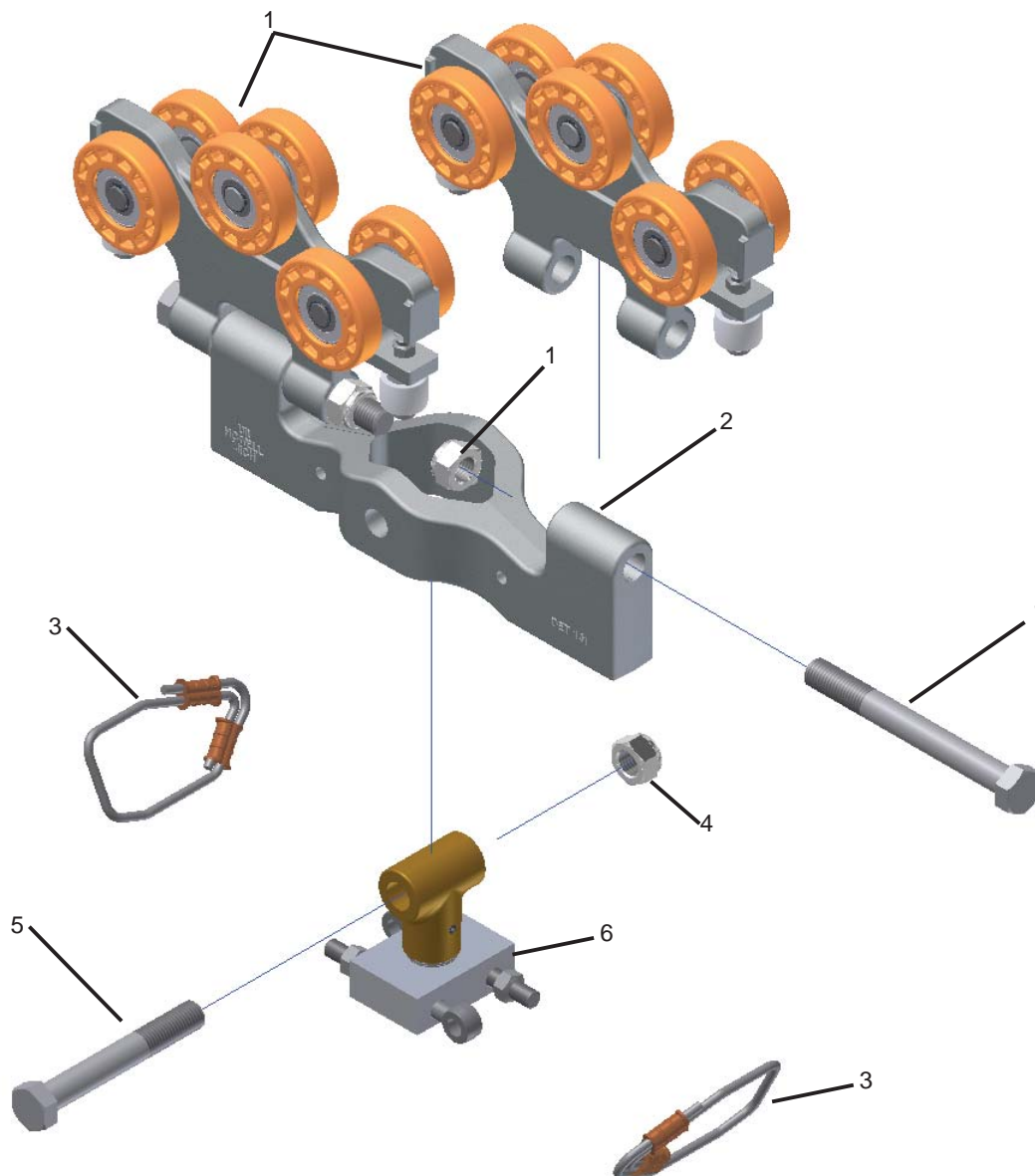
22051 ETA-8 DUAL END TRUCK ASSEMBLY (WITHOUT KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20011	ETA-8 Short Body Load Trolley	2
2	59540M	141 Machined E/T Casting	1
3	25630	ETA-8 Safety Cable Assembly	2
4	52465	M20x2.5 Nylon Insert Nut	1
5	51987	M20x2.5 x 140mm HHB	1
6	25250	ETA-8 Bronze Tee Assembly	1



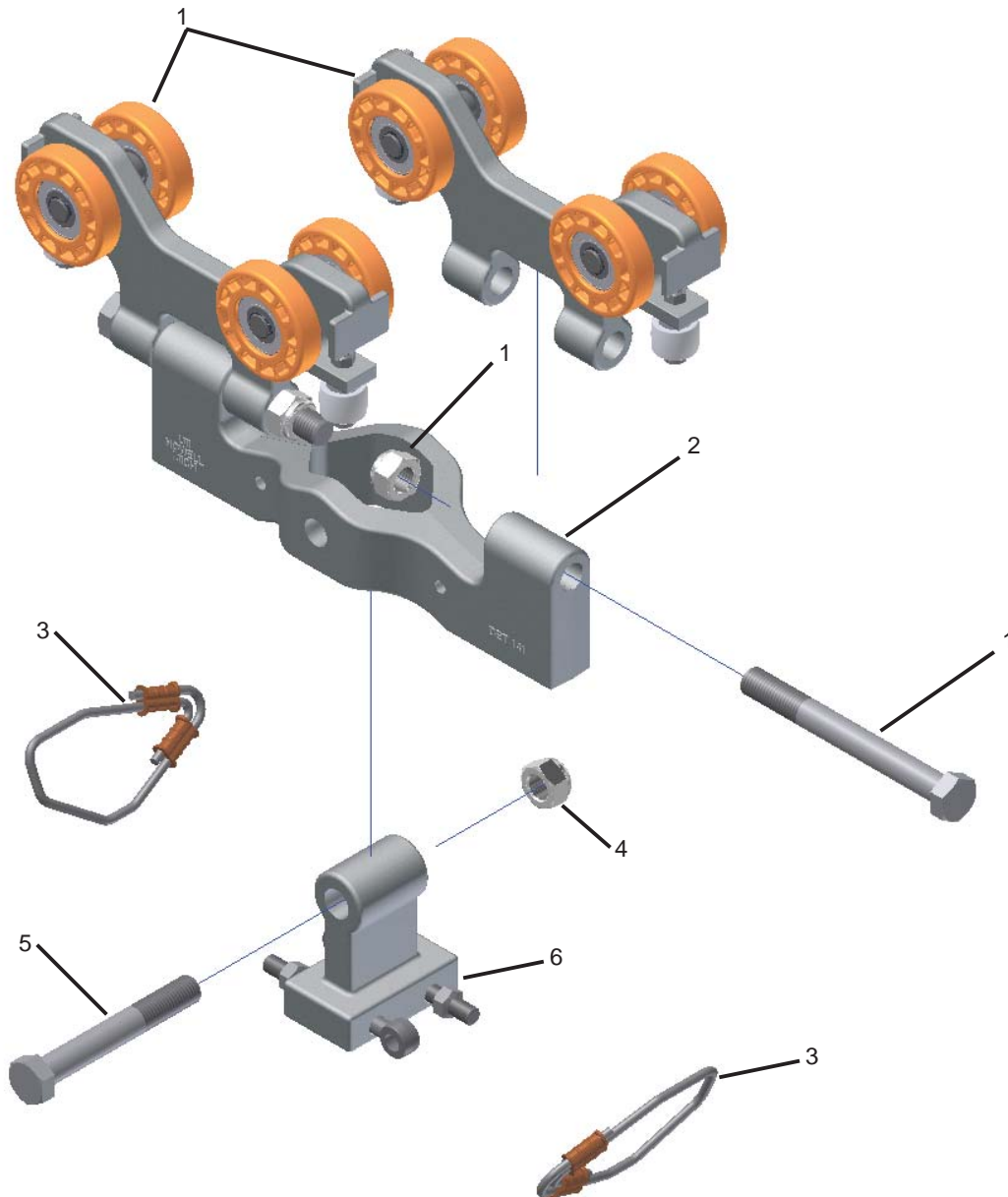
22131 ETA-8 DUAL END TRUCK ASSEMBLY (WITH KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20068	ETA-8 Short Body Kickup Trolley	2
2	59540M	141 Machined E/T Casting	1
3	25630	ETA-8 Safety Cable Assembly	2
4	52465	M20x2.5 Nylon Insert Nut	1
5	51987	M20x2.5 x 140mm HHB	1
6	25250	ETA-8 Bronze Tee Assembly	1



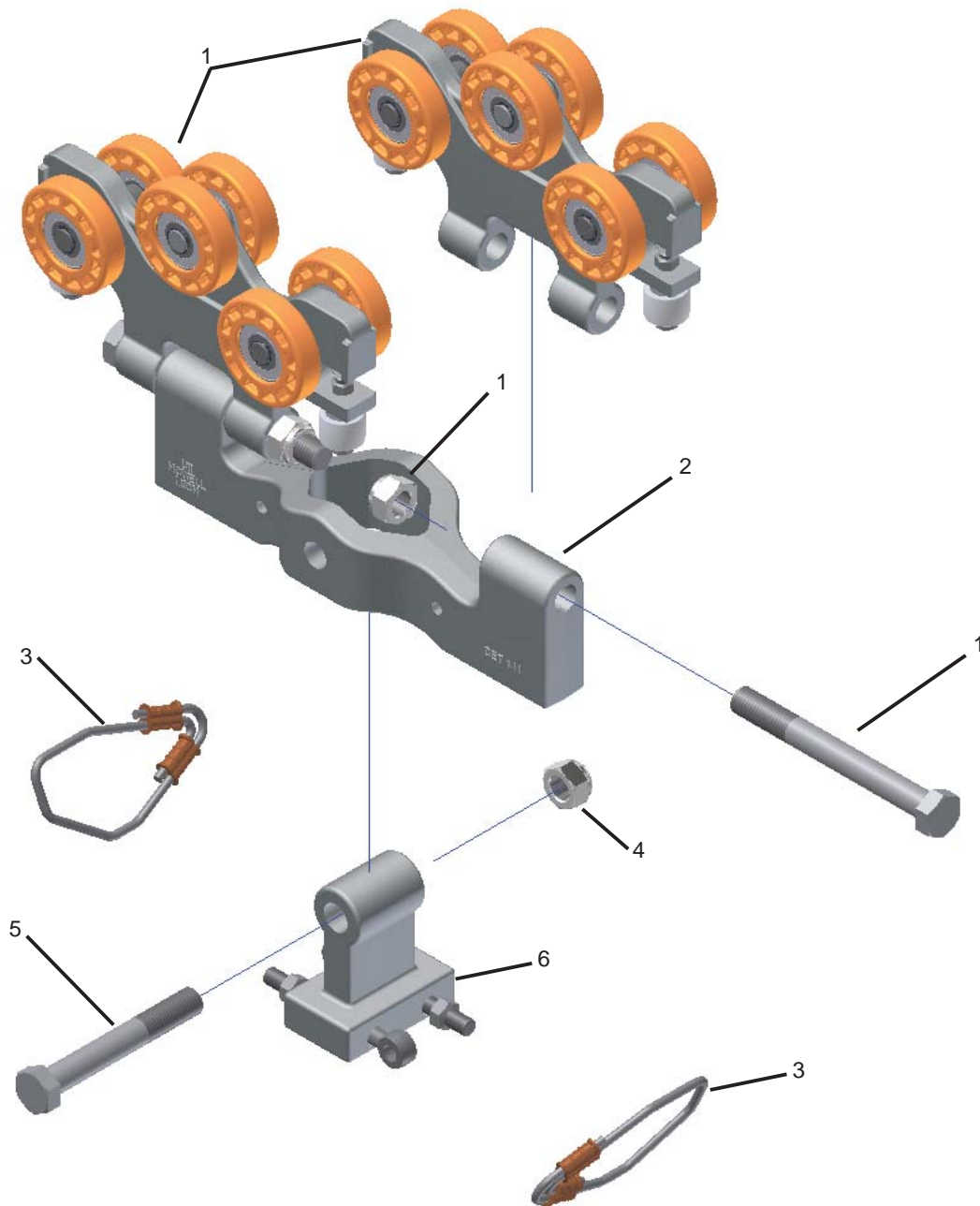
22052 ETA-8 RIGID DUAL END TRUCK ASSEMBLY (WITHOUT KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20011	ETA-8 Short Body Load Trolley	2
2	59540M	141 Machined E/T Casting	1
3	25630	ETA-8 Safety Cable Assembly	2
4	52465	M20x2.5 Nylon Insert Nut	1
5	51987	M20x2.5 x 140mm HHB	1
6	59650M	167 Machined Hanger Casting	1



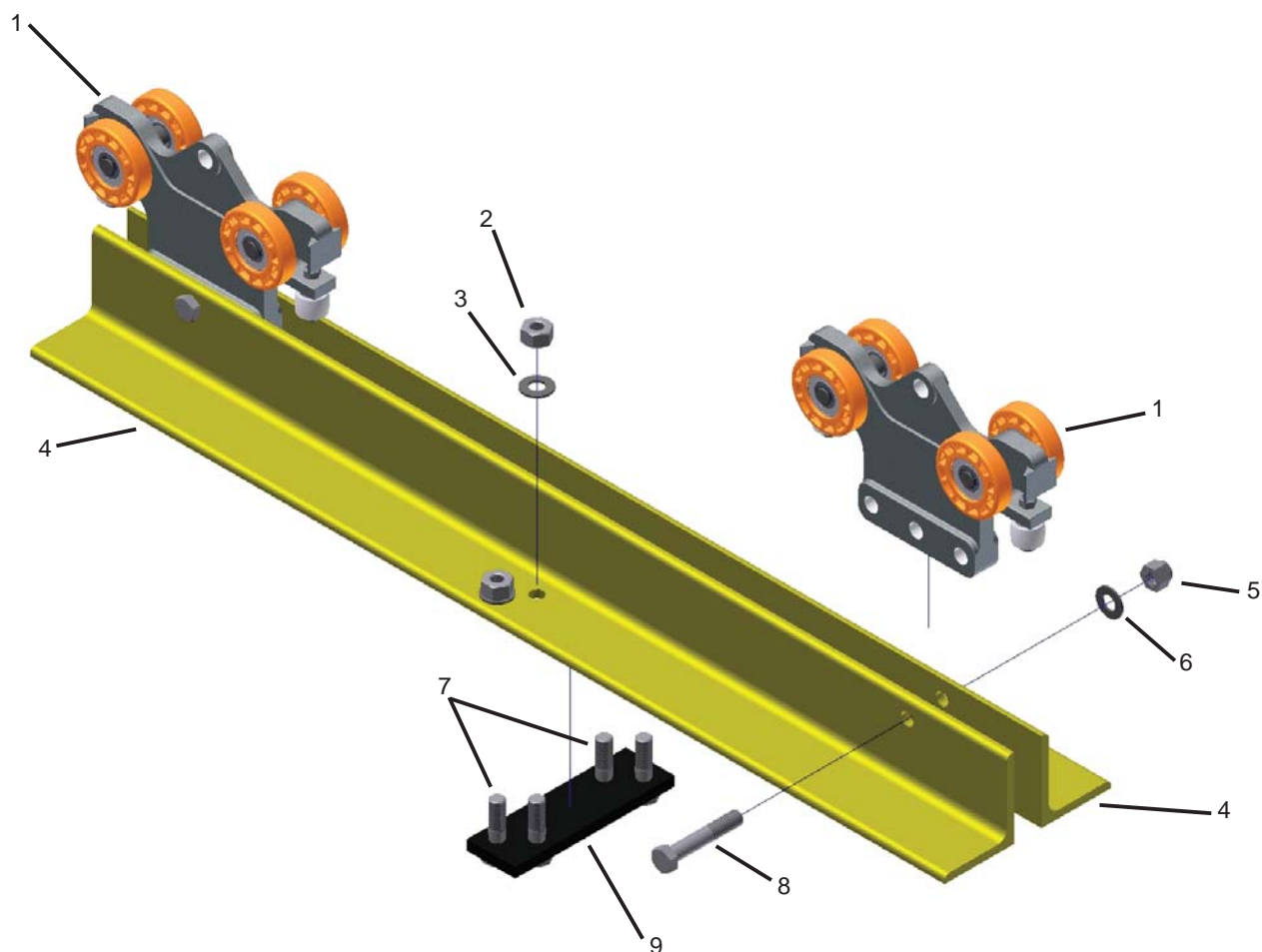
22068 ETA-8 RIGID DUAL END TRUCK ASSEMBLY (WITH KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20068	ETA-8 Short Body Kickup Trolley	2
2	59540M	141 Machined E/T Casting	1
3	25630	ETA-8 Safety Cable Assembly	2
4	52465	M20x2.5 Nylon Insert Nut	1
5	51987	M20x2.5 x 140mm HHB	1
6	59650M	167 Machined Hanger Casting	1



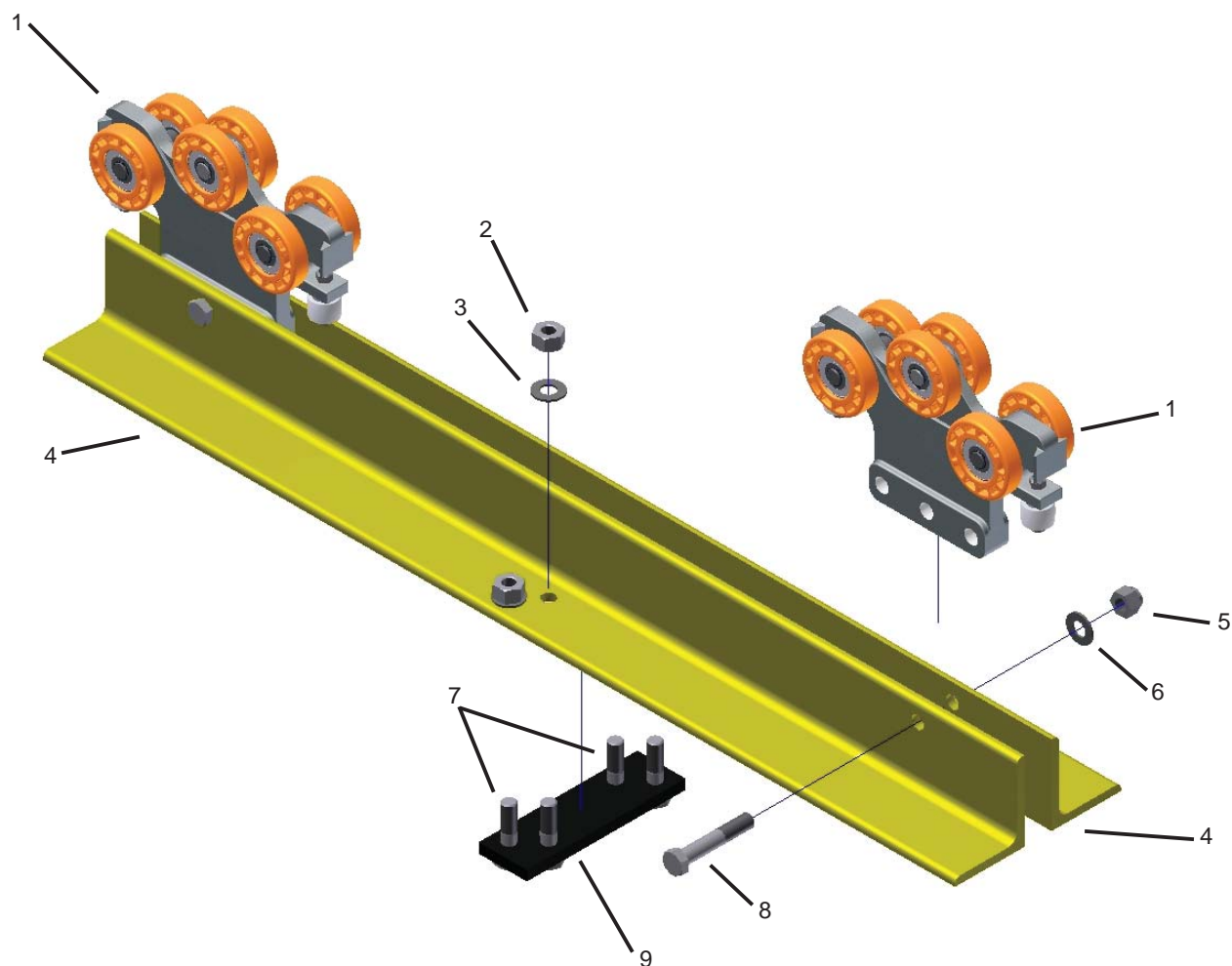
ETA-8 RIGID END TRUCK ASSEMBLY (WITHOUT KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20024	ETA-8 Three Hole Mount Load Trolley	2
2	52315	5/8-11 Anco 2H Coloc Nut	4
3	53405	5/8 F436 (A325 Structural Flat Washer)	4
4		L4 x 3 1/2 x 3/8	2
5	52450	M16x2.0 Prevailing Torque Nut	2
6	53070	5/8" SAE Flat Washer	2
7	51009	5/8-11 x 2 1/4" A325 Bolt	4
8	51890	M16x2.0 x 90mm HHB	2
9	78565	ETA-8 Rigid End Truck Block	1



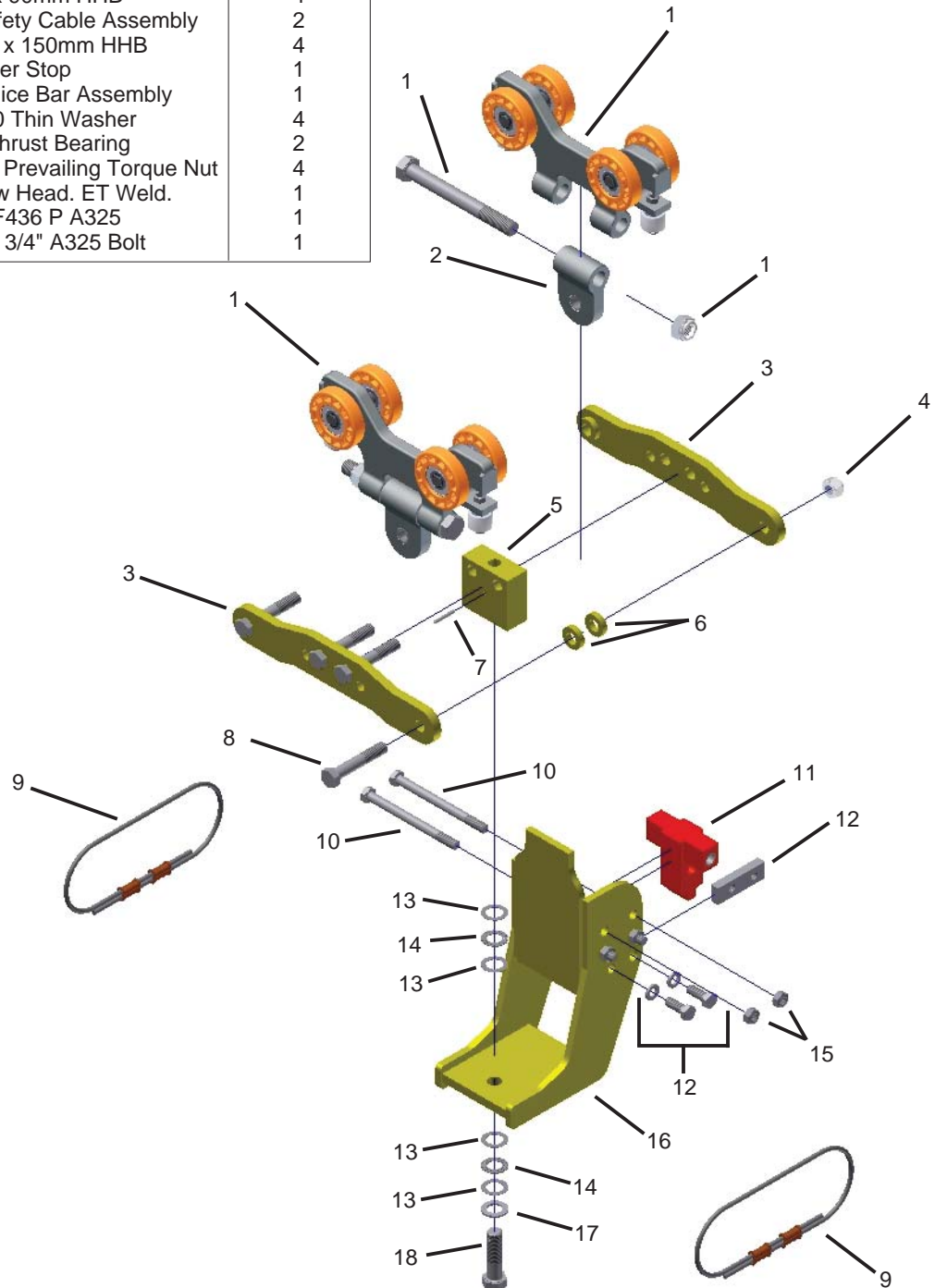
ETA-8 RIGID END TRUCK ASSEMBLY (WITH KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20071	ETA-8 Three Hole Mount Kickup Trolley	2
2	52315	5/8-11 Anco 2H Coloc Nut	4
3	53405	5/8 F436 (A325 Structural Flat Washer)	4
4		L4 x 3 1/2 x 3/8	2
5	52450	M16x2.0 Prevailing Torque Nut	2
6	53070	5/8" SAE Flat Washer	2
7	51009	5/8-11 x 2 1/4" A325 Bolt	4
8	51890	M16x2.0 x 90mm HHB	2
9	78565	ETA-8 Rigid End Truck Block	1



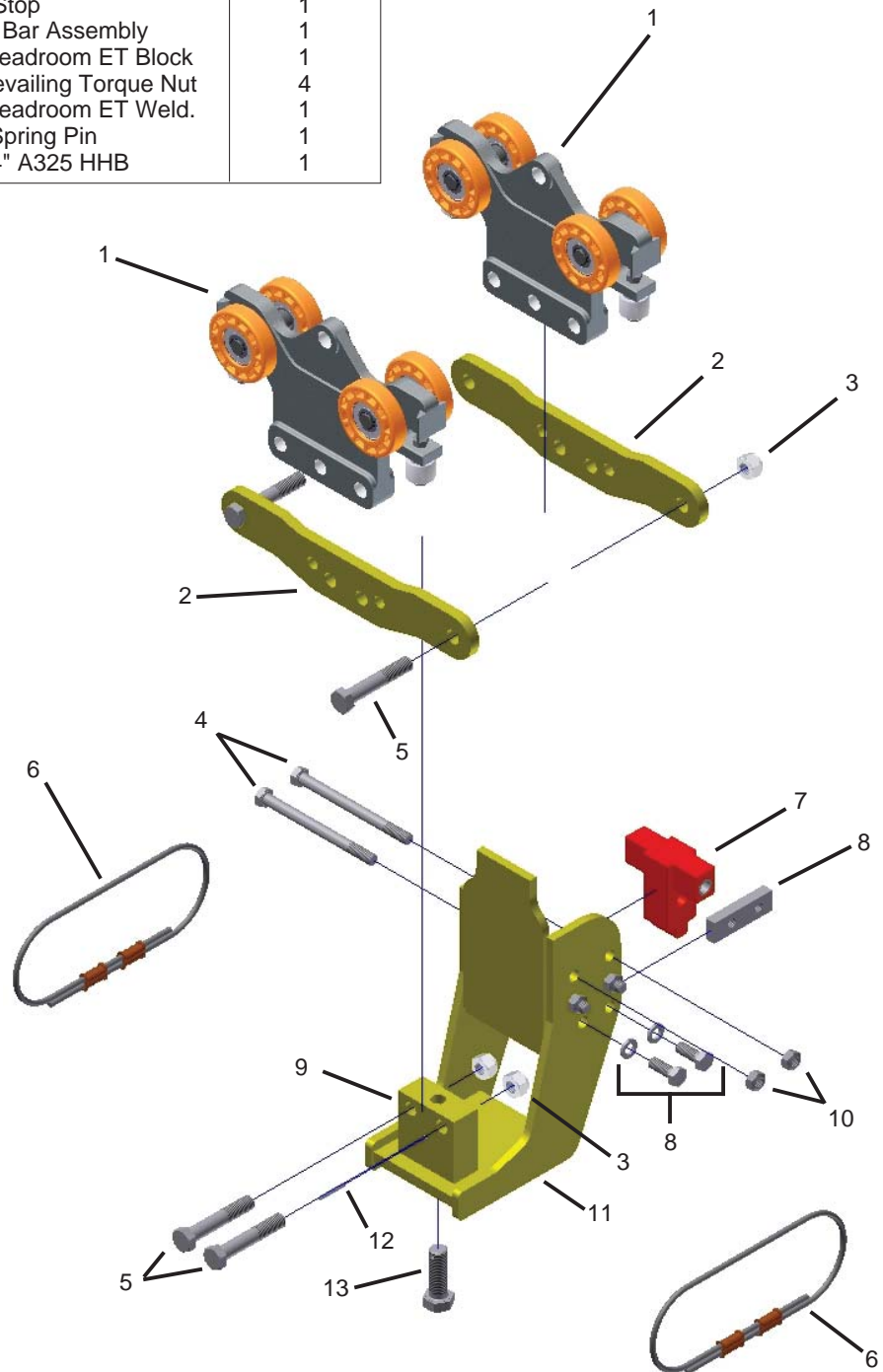
22620 ETA-8 ARTICULATING LOW HEADROOM END TRUCK

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20011	ETA-8 Short Body Load Trolley	2
2	25020	102 Flat Hanger Assembly	2
3	60050	ETA-8 Low Head. ET Load Bar	2
4	52445	M16x2.0 Nylon Insert Lock Nut	4
5	60055	ETA-8 Low Head. ET Block	1
6	83580	1 1/4" OD x 11/16" ID Stl. Tube	4
7	54180	3/16 x 1 1/4 Spring Pin	1
8	51890	M16x2.0 x 90mm HHB	4
9	25630	ETA-8 Safety Cable Assembly	2
10	51851	M12x1.75 x 150mm HHB	4
11	59920	ETA-8 Inner Stop	1
12	25553	ETA-8 Splice Bar Assembly	1
13	53321	TWA 1220 Thin Washer	4
14	56161	TC1220 Thrust Bearing	2
15	52445	M12x1.75 Prevailing Torque Nut	4
16	25338	ETA-8 Low Head. ET Weld.	1
17	53410	3/4" F/W F436 P A325	1
18	51281	3/4-10 x 2 3/4" A325 Bolt	1



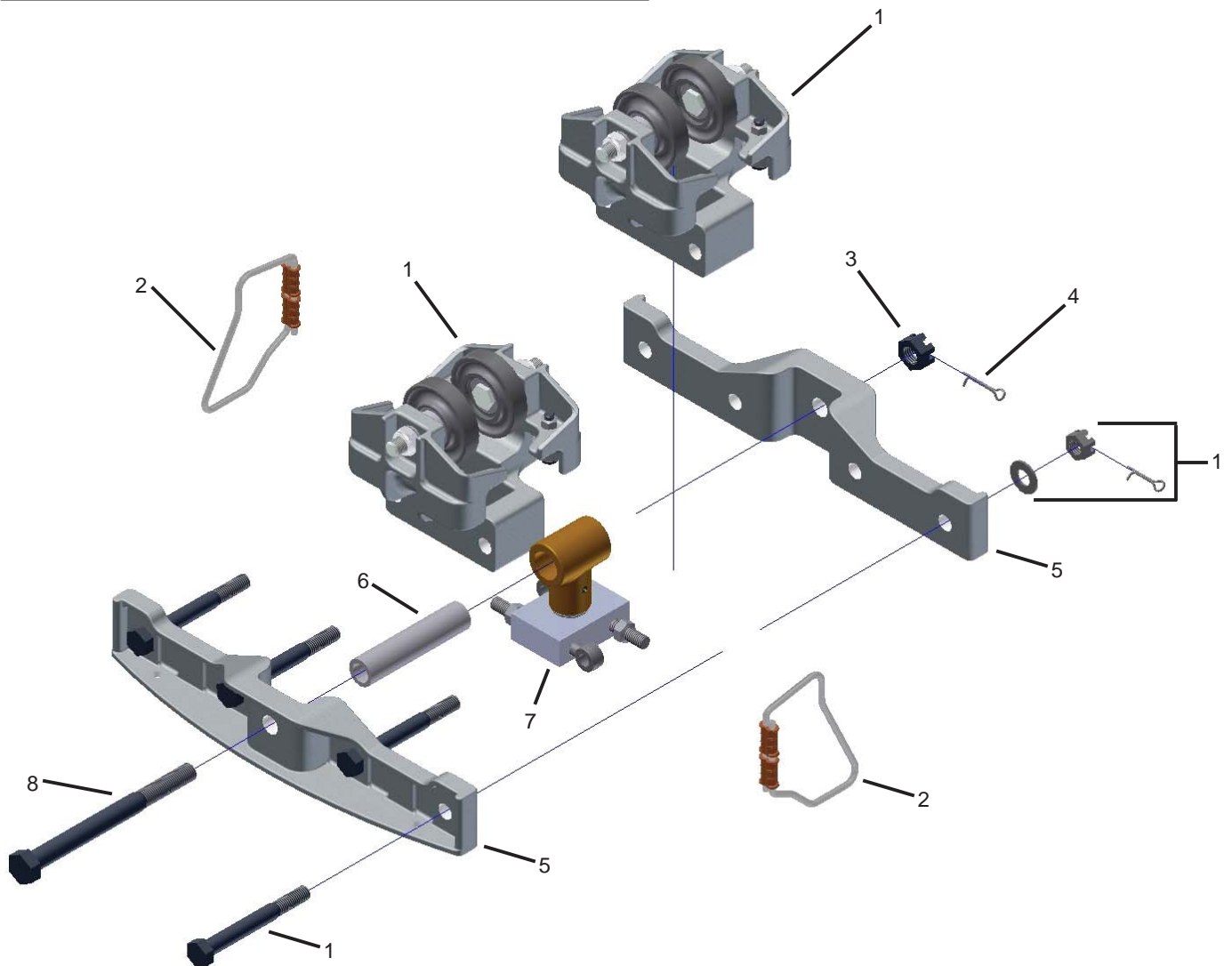
22625 ETA-8 RIGID LOW HEADROOM END TRUCK

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20024	ETA-8 Three Hole Mount Trolley	2
2	60050	ETA-8 Low Head. ET Load Bar	2
3	52455	M16x2.0 Nylon Insert Lock Nut	4
4	51851	M12x1.75 x 150mm HHB	4
5	51890	M16x2.0 x 90mm HHB	4
6	25630	ETA-8 Safety Cable Assembly	2
7	59920	ETA-8 Inner Stop	1
8	25553	ETA-8 Splice Bar Assembly	1
9	60055	ETA-8 Low Headroom ET Block	1
10	52445	M12x1.75 Prevailing Torque Nut	4
11	25338	ETA-8 Low Headroom ET Weld.	1
12	54180	3/16 x 1 1/4 Spring Pin	1
13	51260	3/4-10 x 2 1/4" A325 HHB	1



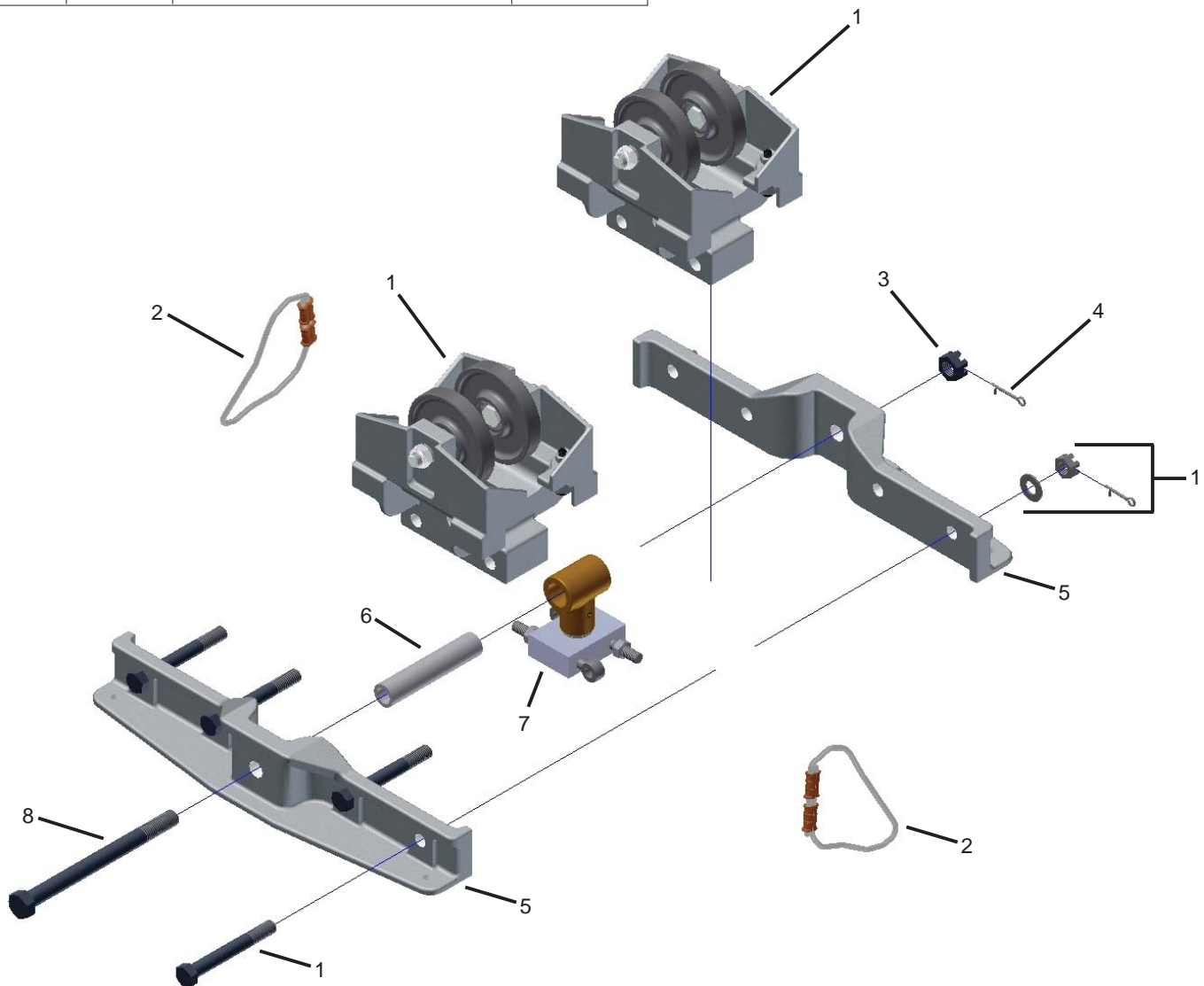
ETA-8 STANDARD RAIL END TRUCKS 1000 lb. RATED LOAD
 (22199, 22200 AND 22201 WITHOUT KICKUP)
 (22208, 22210 AND 22212 WITH KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	10189	MBC-500-3-325 Trolley W/O KU	2
2	25630	ETA-8 Safety Cable	2
3	52370	3/4-10 Small Slot Hex Nut	1
4	54086	5/32 x 1 1/2 Cotter Pin	1
5	59580M	156 MBC End Truck Mach. Cast.	2
6	25010	1 1/8 OD Wear Sleeve Assy	1
7	25410	507 Hanger Assembly	1
8	51420	3/4-10 x 8 GR5 HHB	1



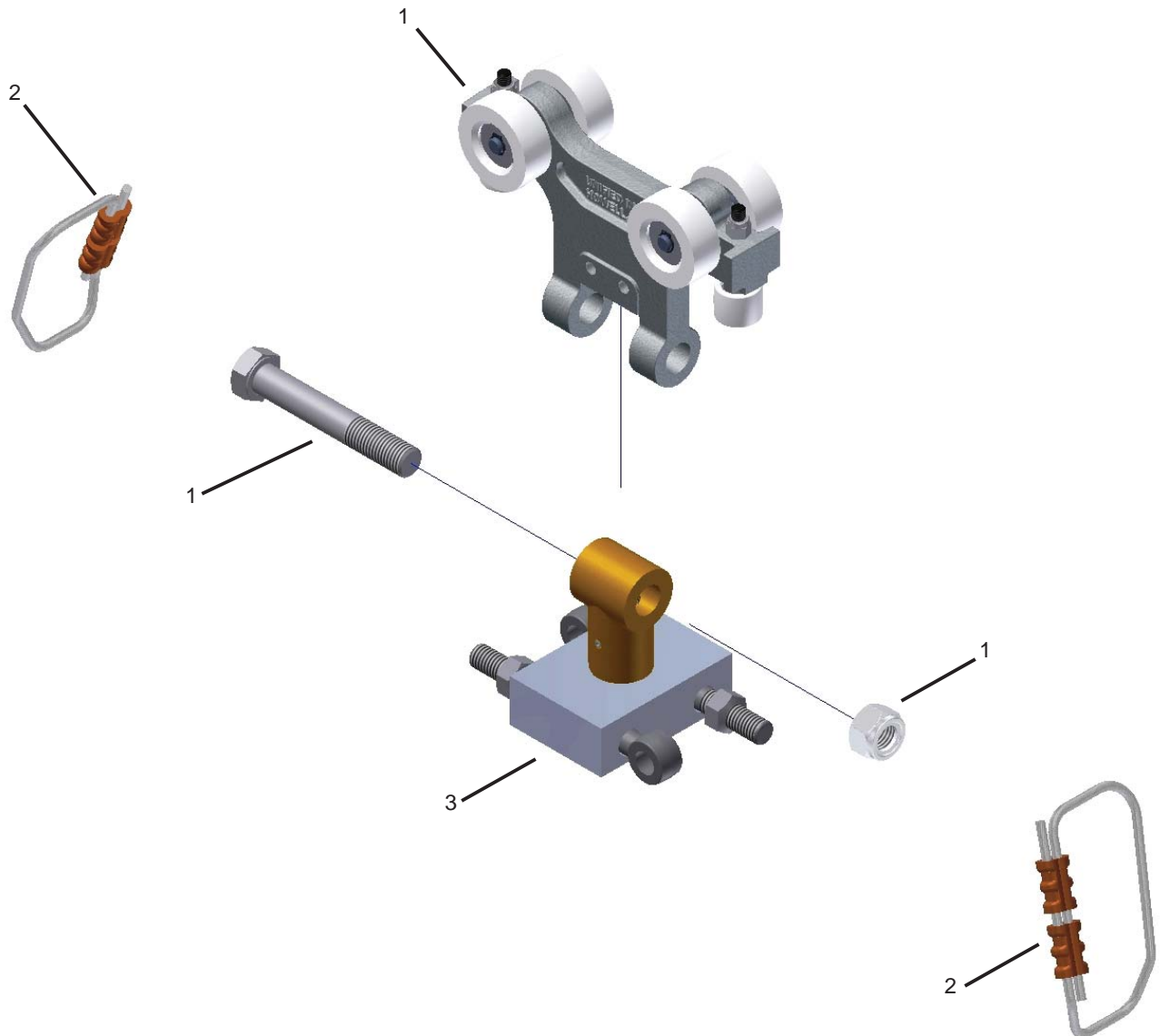
ETA-8 STANDARD RAIL END TRUCKS 2000 lb. RATED LOAD
 (22214 AND 22216 WITHOUT KICKUP)
 (22218 AND 22220 WITH KICKUP)

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	10154	MBC-1000-3-325 Trolley W/O KU	2
2	25630	ETA-8 Safety Cable	2
3	52370	3/4-10 Small Slot Hex Nut	1
4	54086	5/32 x 1 1/2 Cotter Pin	1
5	59590M	158 MBC End Truck Mach. Cast.	2
6	25010	1 1/8 OD Wear Sleeve Assy	1
7	25410	507 Hanger Assembly	1
8	51450	3/4-10 x 9 GR5 HHB	1



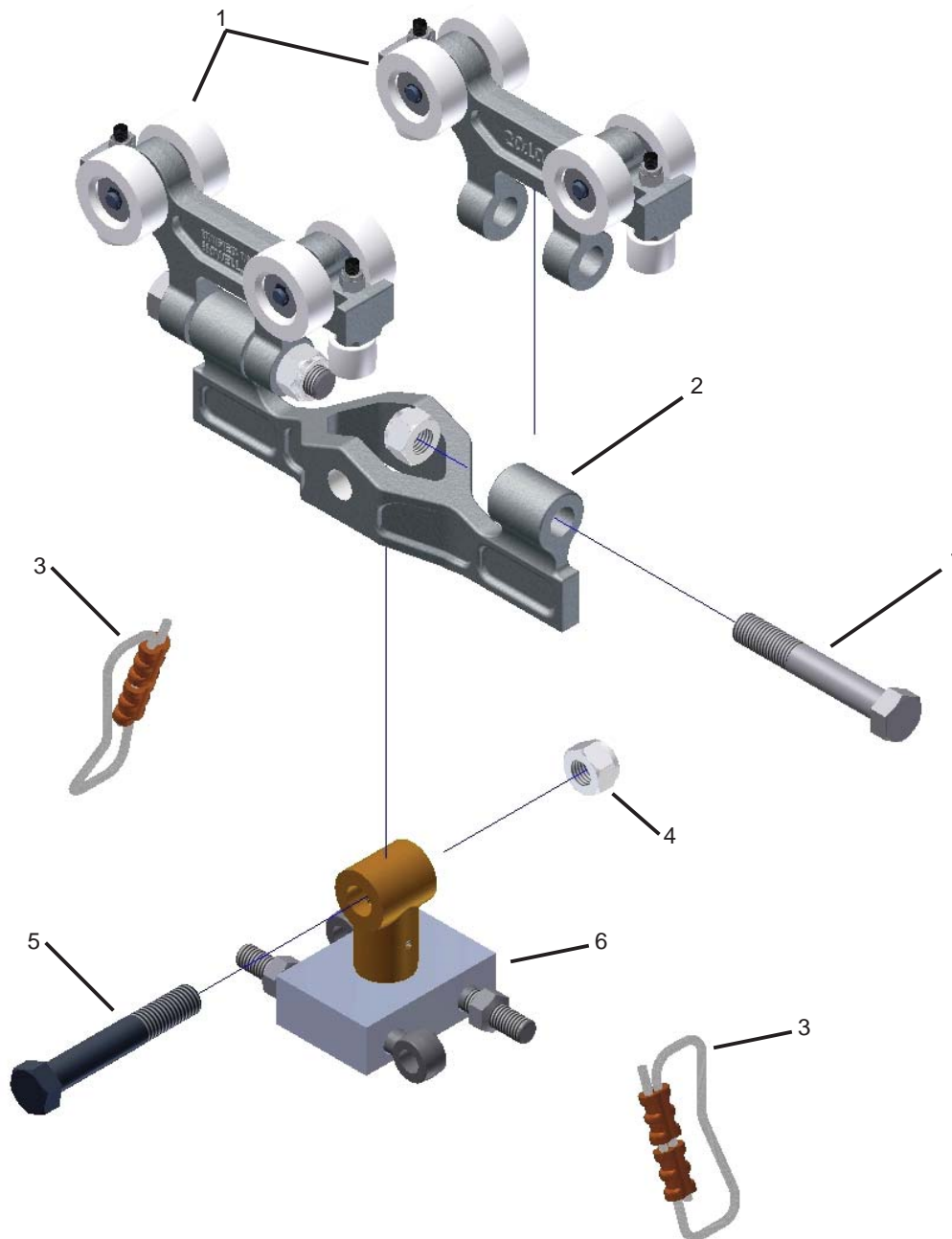
22519 ETA-8 SINGLE END TRUCK ASSEMBLY TO RUN ETA-4/5

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20110	ETA-4/5 Long Body Load Trolley	1
2	25640	ETA-4 Safety Cable Assembly	2
3	25261	405 Hanger Assy (406/175)	1



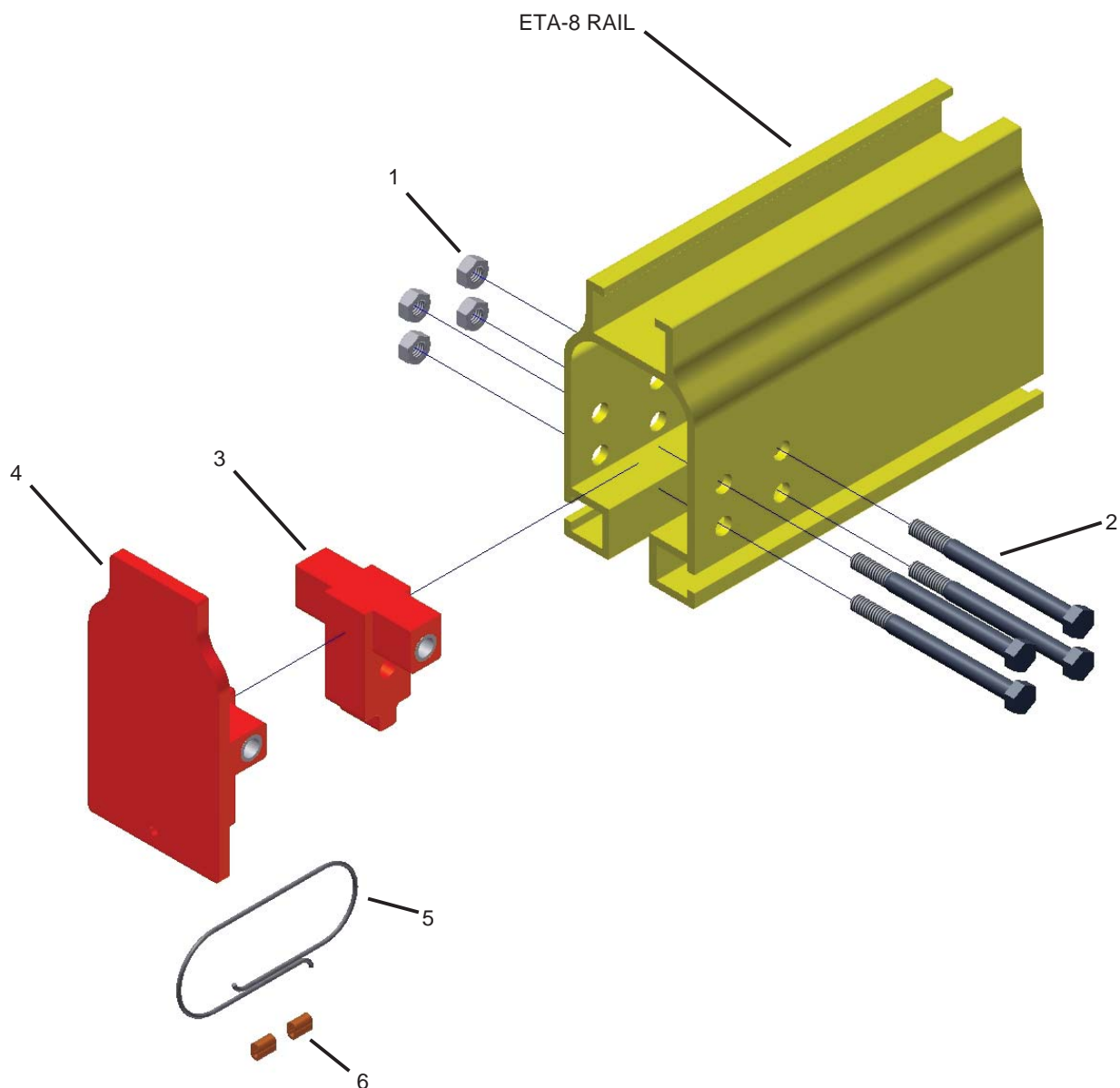
22528 ETA-8 DUAL END TRUCK ASSEMBLY TO RUN ON ETA-4/5

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	20100	ETA-4/5 Short Body Load Trolley	2
2	59880M	441 Machined E/T Casting	1
3	25640	ETA-4 Safety Cable Assembly	2
4	52455	M16x2.0 Nylon Insert Nut	1
5	51900	M16x2.0 x 100mm HHB	1
6	25261	405 Hanger Assembly (406/175)	1



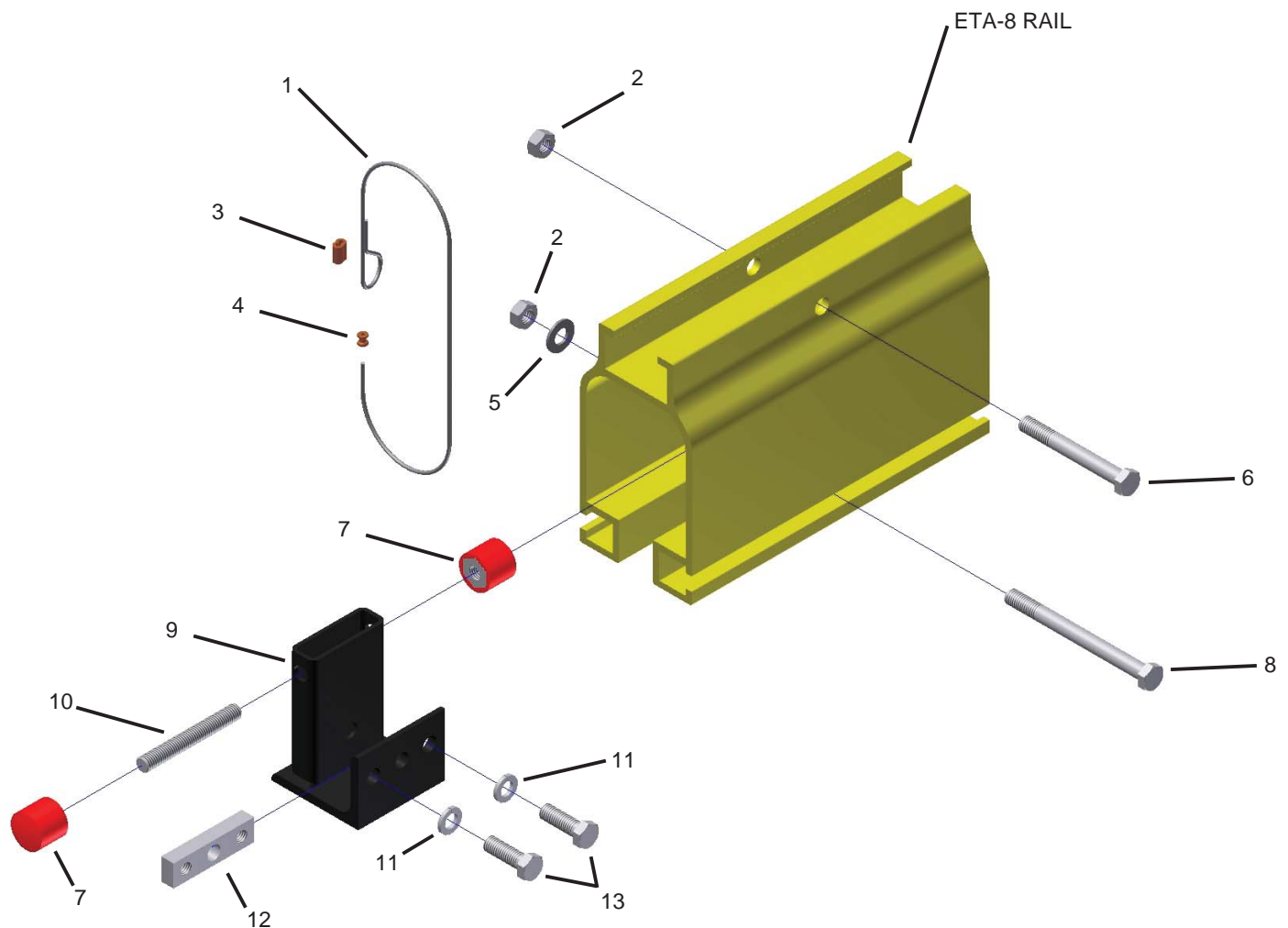
24950 ETA-8 DOUBLE END STOP

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52445	M12x1.75 Prevailing Torque Nut	4
2	51850	M12x1.75 x 140mm HHB	4
3	59920	ETA-8 Inner Stop	1
4	59967	ETA-4 End Cap	1
5	65020	1/8" 7x19 Stain. Stl. Wire Rope	1
6	78020	1/8" Copper Oval Sleeve	2



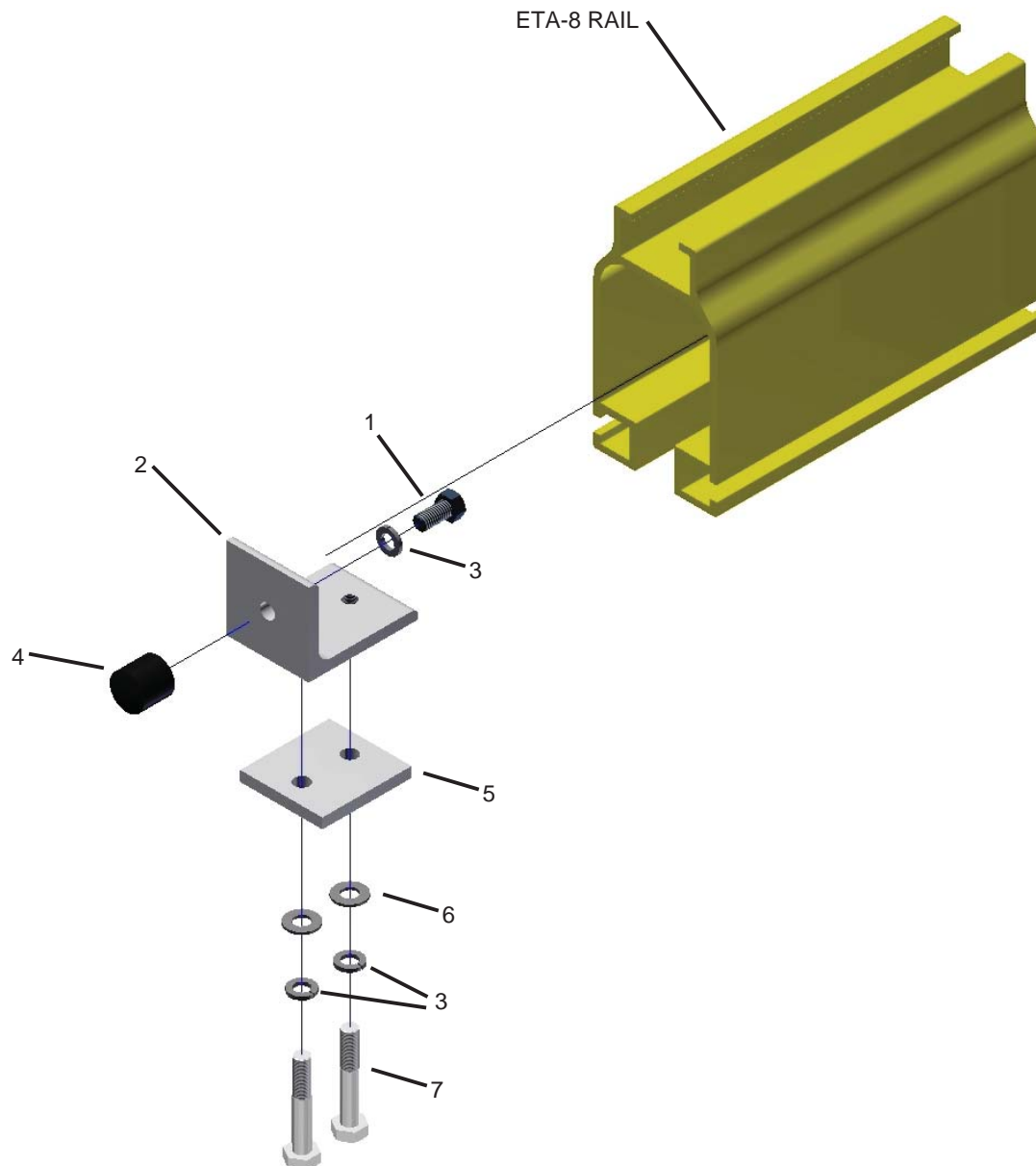
25576 ETA-8 INSERTABLE MID-RAIL STOP

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	65020	1/8" x 18" 7X19 SST. Wire Rope	1
2	52445	M12x1.75 Prevailing Torque Nut	2
3	78020	1/8" Copper Oval Sleeve	1
4	78021	1/8" Copper Stop Sleeve	1
5	53060	1/2 SAE Flat Washer	1
6	51840	M12x1.75 x 110mm HHB	1
7	60004	ETA-8 Poly Bumper	2
8	51850	M12x1.75 x 140mm HHB	1
9	60003	ETA-8 Mid -Rail Stop Weldment	1
10	80990	1/2-13 x 3 13/16" Threaded Rod	1
11	52510	12mm Spring Lock Washer	2
12	60005	ETA-8 Mid-Rail Stop Bar	1
13	51785	M12x1.75 x 40mm HHB	2



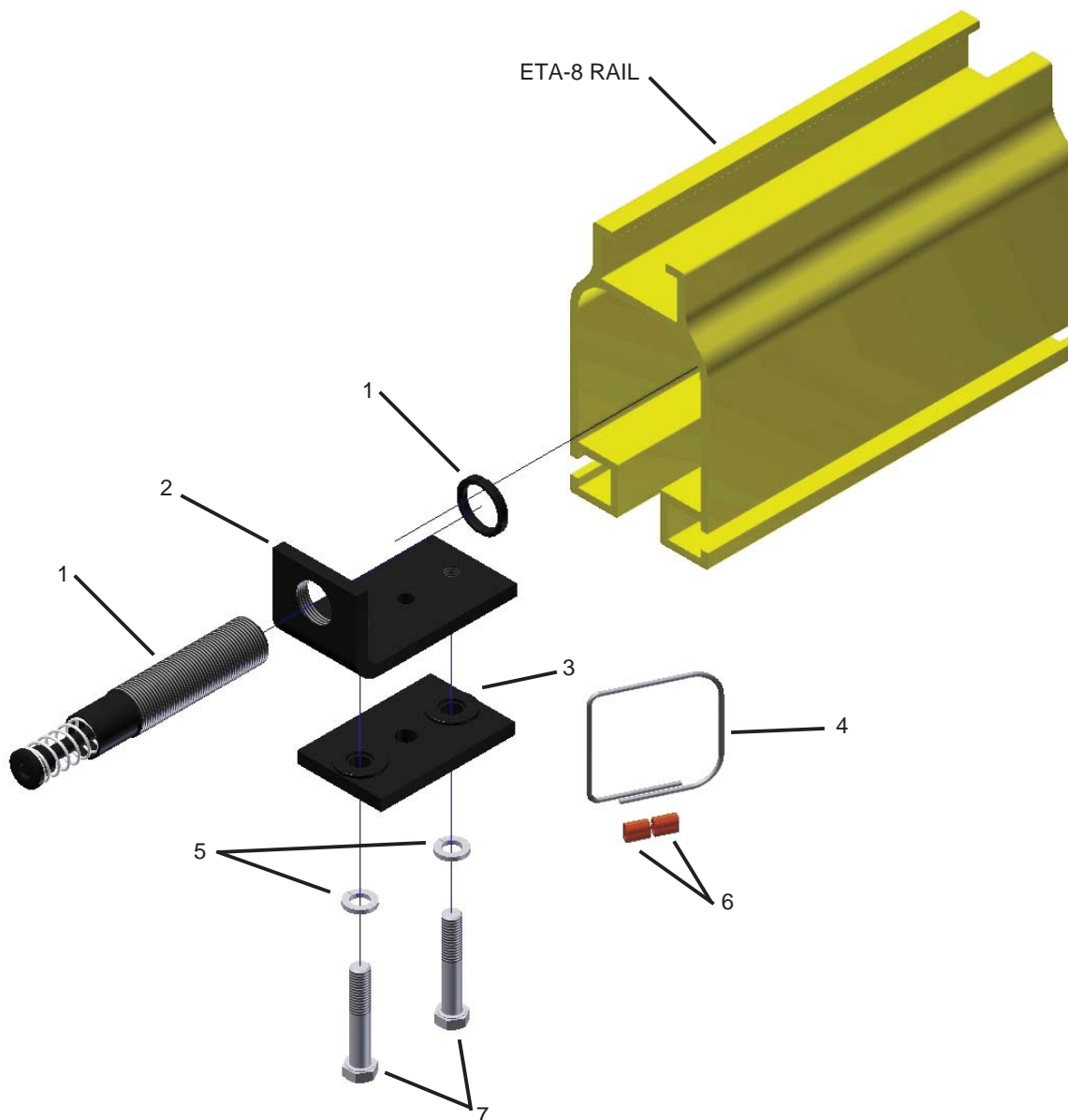
25570 ETA-8 MID-RAIL STOP ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	50730	1/2-13 x 1" HHB	1
2	25571	ETA-8 Mid Stop Angle	1
3	53230	1/2" Spring Lock Washer	3
4	62010	1 1/4" Neo Bumper	1
5	25572	ETA-8 Mid Stop Plate	1
6	53060	1/2" SAE Flat Washer	2
7	51830	M12x1.5 x 80mm HHB	2



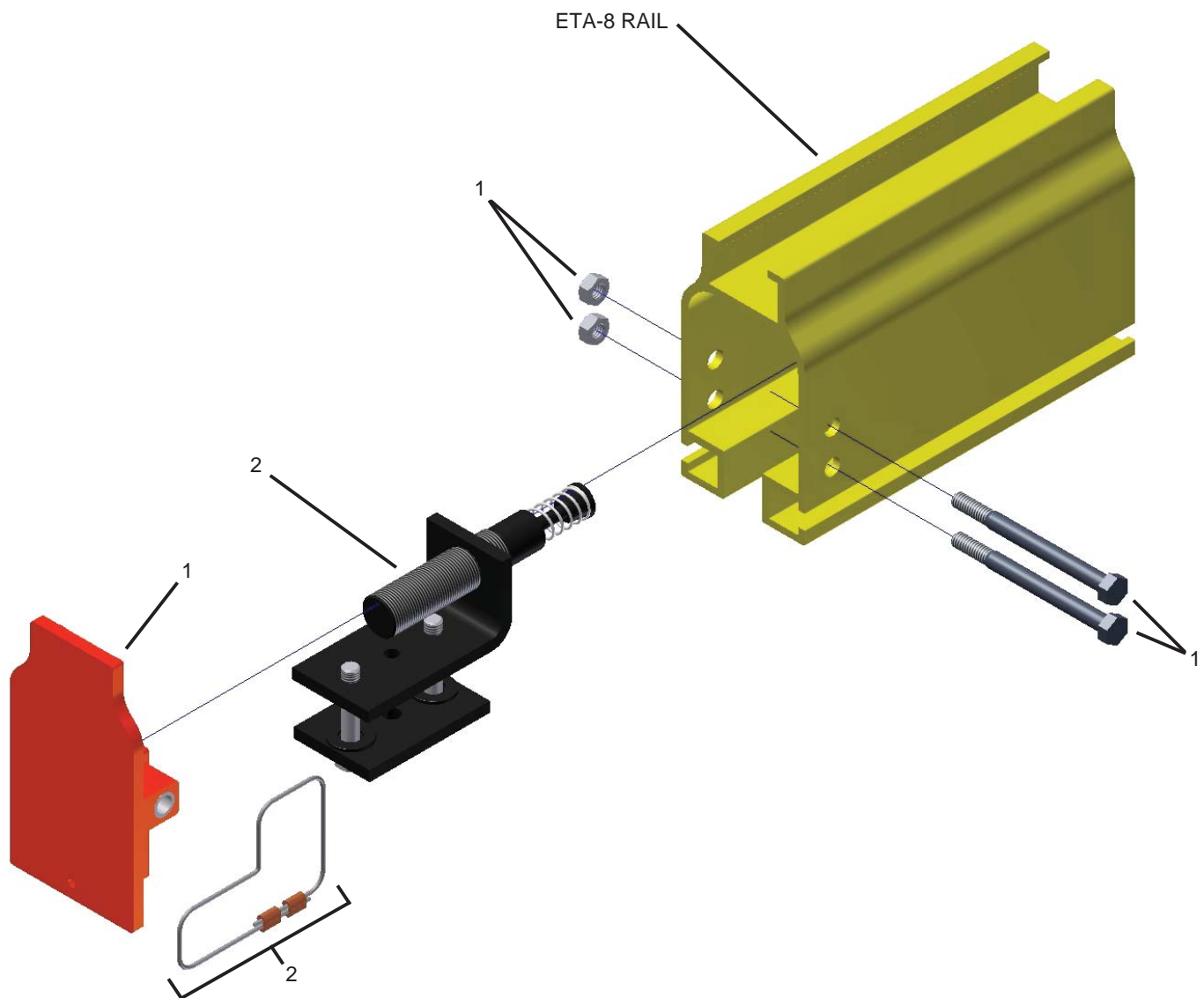
25179 ETA-8 POSITION STOP SHOCK ABSORBER ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	59905	MC3350-3 MC Series Shock Absorber	1
2	59908	ETA-8 Shock Absorber Holder	1
3	59906	Clamp Plate	1
4	65020	1/8" x 14" 7x19 SST. Wire Rope	1
5	52510	12mm Spring Lock Washer	2
6	78020	1/8" Copper Oval Sleeve	2
7	51820	M12x1.75 x 70mm HHB	2



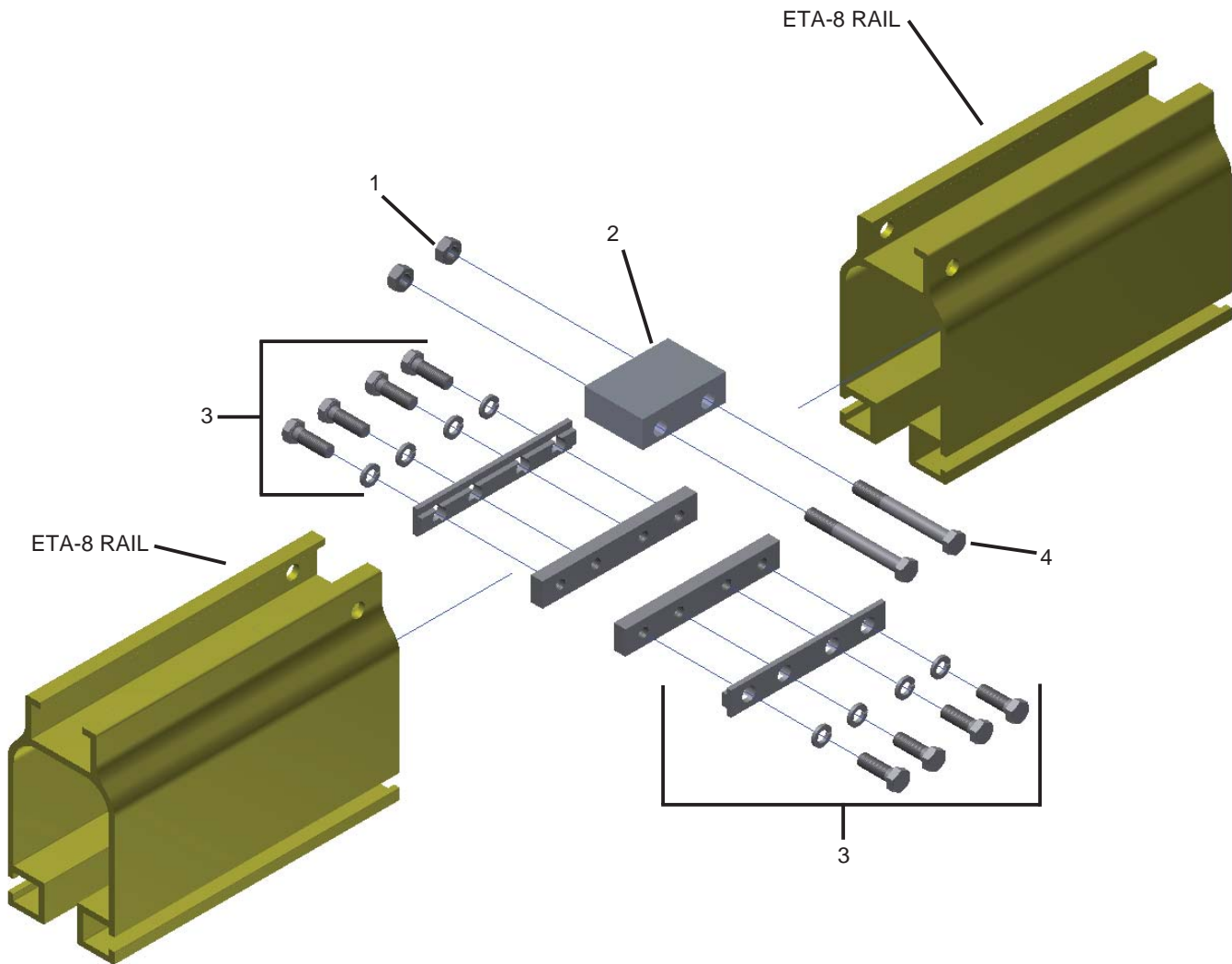
25135 ETA-8 END STOP SHOCK ABSORBER ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	25198	ETA-8 End Cap Assembly	1
2	25179	ETA-8 Position Stop Shock Absorber	1



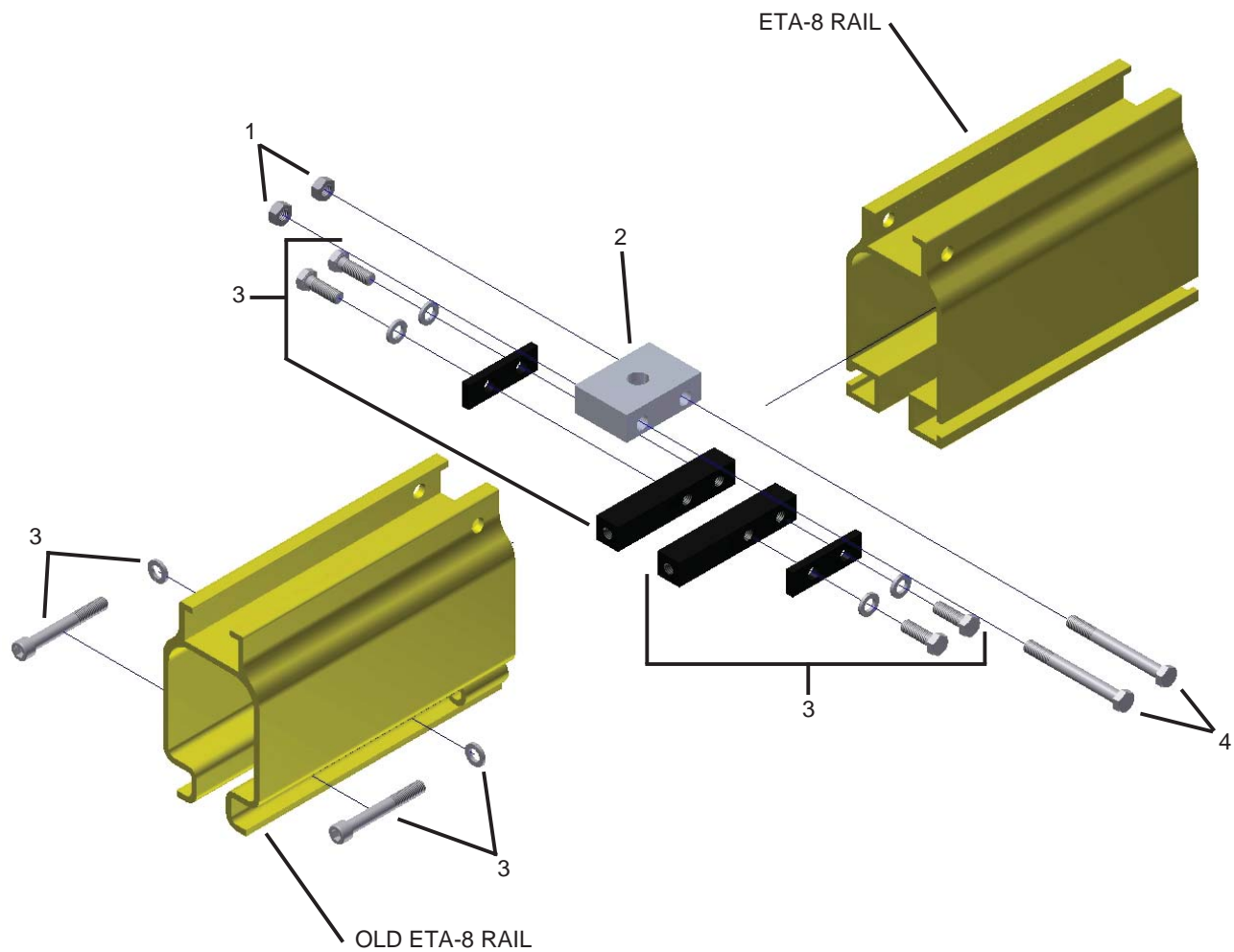
25552 ETA-8 BOLTED SPLICE ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52185	1/2-13 Top Lock Nut, GR C	2
2	59950	175/280 Hanger Mach. Block	1
3	25553	ETA-8 Splice Bar Assembly M12x1.75 x 35mm HHB	2
		12mm Spring Lock Washer	4
4	51837	M12 x 1.75 x 100mm HHB	2



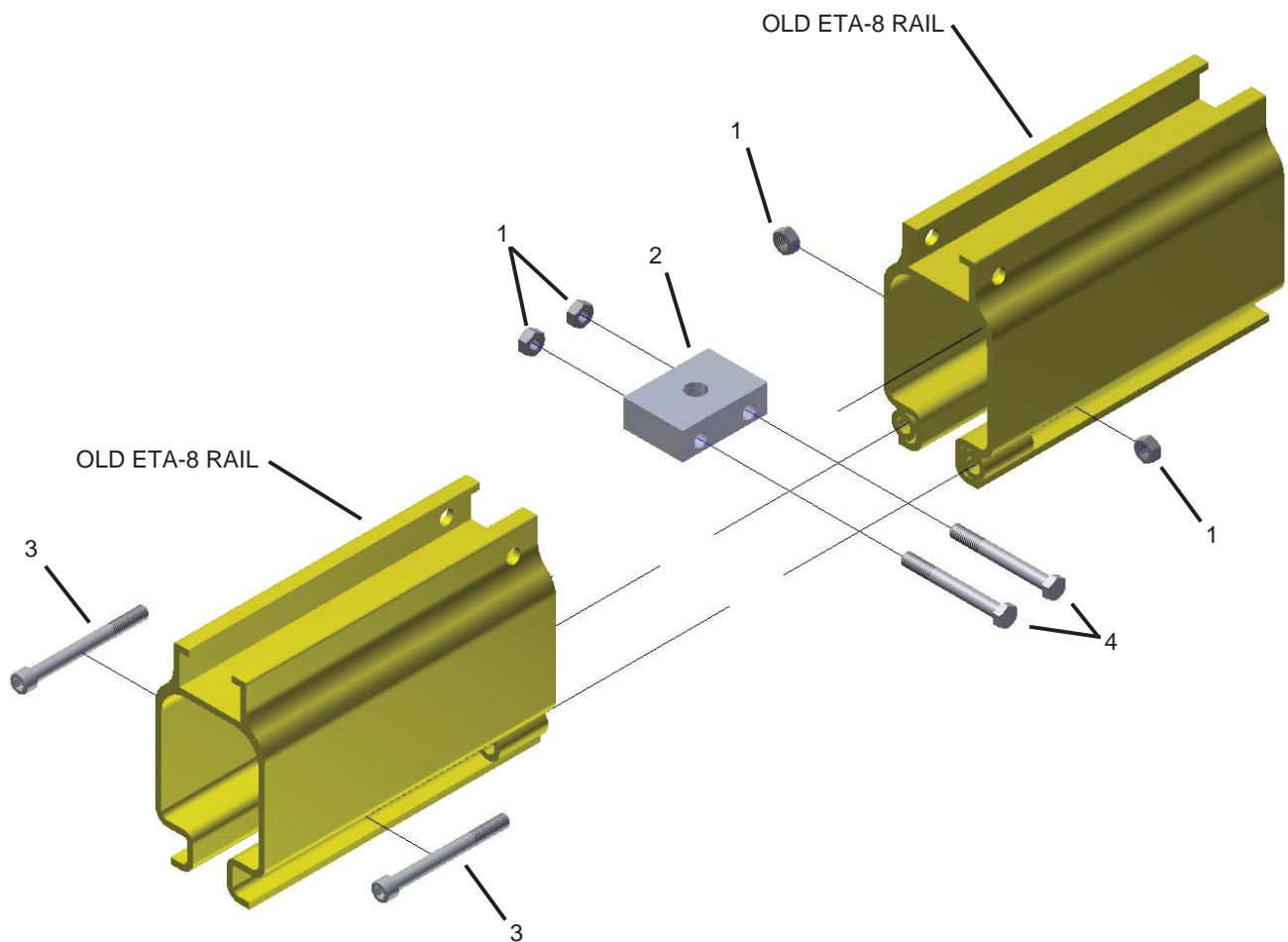
25557 ETA-8 TRANSITION SPLICE ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52445	M12x1.75 Prevailing Torque Nut	2
2	59950	175/280 Hanger Mach. Block	1
3	25555	ETA-8 Transition Splice Bar	2
		M12x1.75 x 35mm HHB	2
		12mm Spring Lock Washer	3
		M12x1.75 x 90mm SHCS	1
4	51840	M12x1.75 x 110mm HHB	2



25550 ETA-8 OLD RAIL SPLICE ASSEMBLY

REF.	STOCK CODE	DESCRIPTION	QUANTITY
1	52445	M12x1.75 Prevailing Torque Nut	4
2	59950	175/280 Hanger Mach. Block	1
3	51842	M12x1.75 x 120mm SHCS	2
4	51840	M12x1.75 x 100mm HHB	2







UNIFIED INDUSTRIES, INC.

A Columbus McKinnon Company

INSTALLATION MANUAL

ETA & STEEL

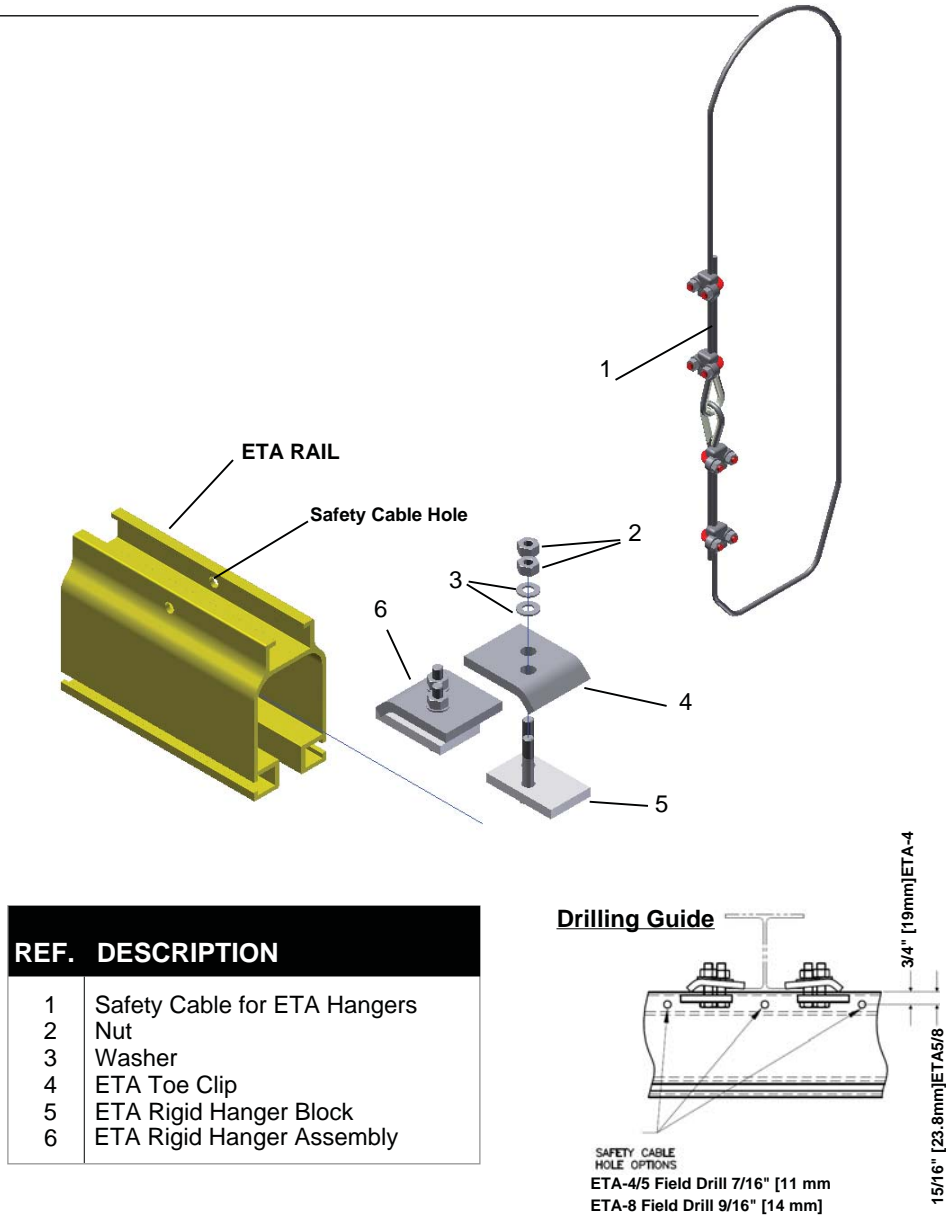
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INSTALLATION OF THE 27070 HANGER ASSEMBLY

- Shown as an exploded assembly, the 27070 Hanger Assembly is shipped completely assembled.
- The 27070 Hanger Assembly can be used on ETA-4/5 & 8 rail series. **NOTE: For use on W-Beams Only.**

INSTALLATION PROCEDURE

1. Loosen nuts, washers (Items 2, 3) on 27070 Hanger Assembly (Item 6).
2. Slide rigid hanger block (Item 5) into top channel of ETA rail.
3. Slide Hanger assemblies (Item 6) onto header steel and push into place on beam, snug* tighten nuts. (Item 2)
- This procedure requires the installer to lift entire rail and hangers to the header steel.
4. Drill (1) hole thru in the center of where the header steel will be directly above ETA Runway. (See Drilling guide below)
5. Fasten Safety cable (Item 1) through drilled holes and around header steel. Refer to Safety cable installation instructions.
6. Continue until all required hangers are placed onto header steel.



*Snug tight is the condition that exists when all of the plies in a connection have been pulled into firm contact by the bolts in the joint and all of the bolts in the joint have been tightened sufficiently to prevent the removal of the nuts without the use of a wrench. (RCSC – Specifications for Structural Joints Using High-Strength Bolts Sec. 8.1)

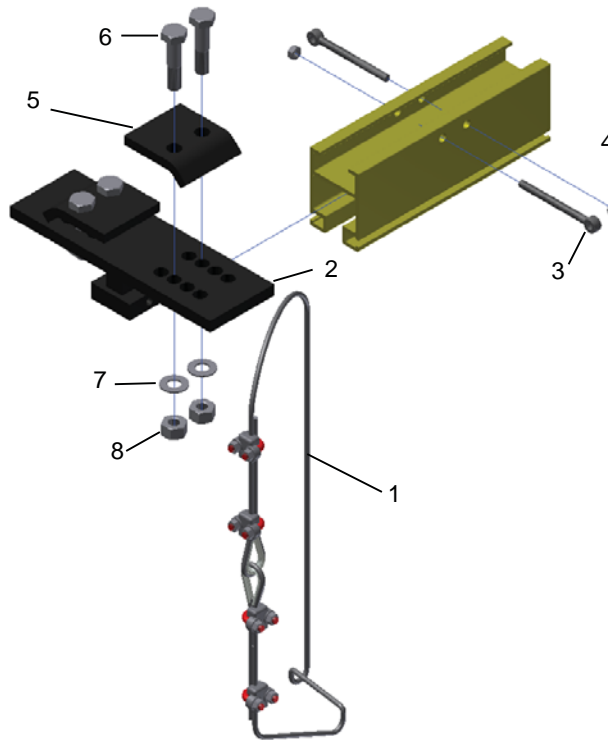
INSTALLATION OF THE ETA-4/5 27071/27073 PARALLEL RIGID HANGER ASSEMBLY

- The ETA-4/5 27073 Hanger Assembly can be used for beams 2.33" to 3.33". Assembly can be mounted to header steel that is parallel to the runway.
- The ETA-4/5 27071 Hanger Assembly can be used for beams 4" to 8". Assembly can be mounted to header steel that is parallel to the runway.

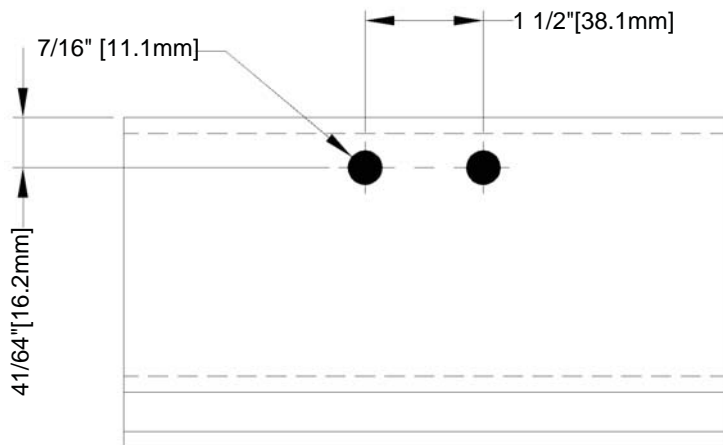
INSTALLATION PROCEDURE

1. Drill (2) holes in the location where the center of the hanger weldment will need to clamp to the header steel above. (See Drilling guide below)
2. Remove the (2) rod ends & (2) nuts (Items 3,4) on beam clamp weldment (Item 2).
3. Slide beam clamp weldment (Item 2) into top channel of ETA rail. Place rod ends (Item 3) through runway rail & beam clamp weldment and secure with nuts (Item 4) until snug* against rail.
- This procedure requires the installer to lift entire rail and hangers to the header steel.
4. Remove hardware (Items 5,6,7,8) from beam clamp weldment (item 2). Center hanger clip below header steel. Bolt on rollover clips (item 5) into the closest holes to the center of header beam using washers (item 7) and nuts (item 8) until snug* tight.
5. Fasten Safety cable (Item 1) through rod end holes and around header steel. Refer to Safety cable installation instructions.
6. Continue until all required hangers are placed onto header steel.

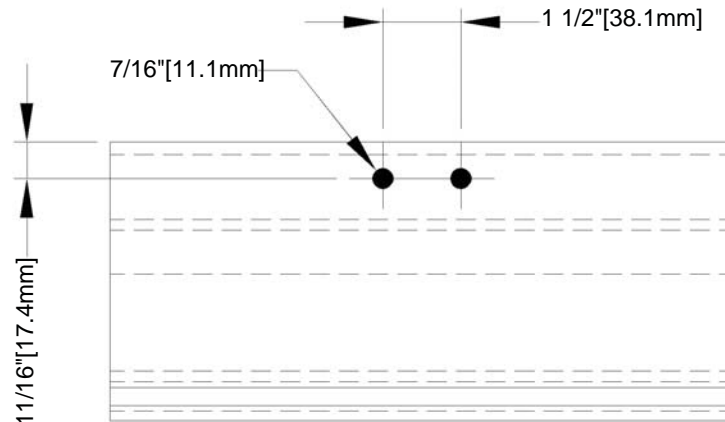
REF.	DESCRIPTION
1	Safety Cable for ETA Hangers
2	ETA-4/5 parallel beam clamp weldment
3	Hanger rod end bolt
4	Hanger rod end nut
5	ETA-4/5 Rollover Clip
6	5/8-11 X 2 3/4" Rollover Clip Bolt
7	Washer for Rollover Clip
8	Nut for Rollover Clip



Drilling Guide for ETA-4



Drilling Guide for ETA-5



*Snug tight is the condition that exists when all of the plies in a connection have been pulled into firm contact by the bolts in the joint and all of the bolts in the joint have been tightened sufficiently to prevent the removal of the nuts without the use of a wrench. (RCSC – Specifications for Structural Joints Using High-Strength Bolts Sec. 8.1)

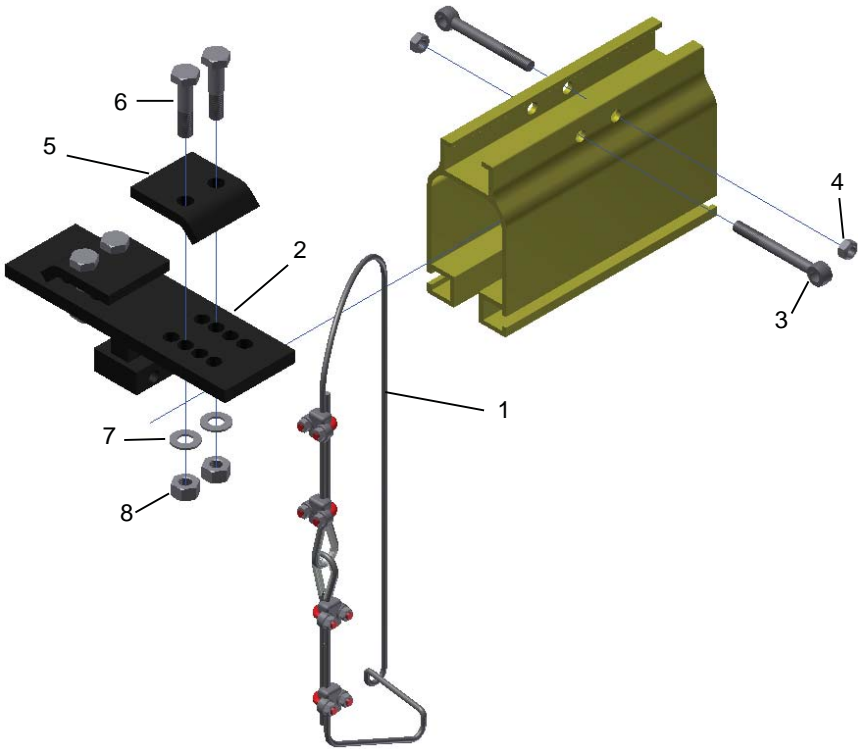
INSTALLATION OF THE ETA-8 27072/27074 PARALLEL RIGID HANGER ASSEMBLY

- The ETA-8 27074 Hanger Assembly can be used for beams 2.33" to 3.33". Assembly can be mounted to header steel that is parallel to the runway.
- The ETA-8 27072 Hanger Assembly can be used for beams 4" to 8". Assembly can be mounted to header steel that is parallel to the runway.

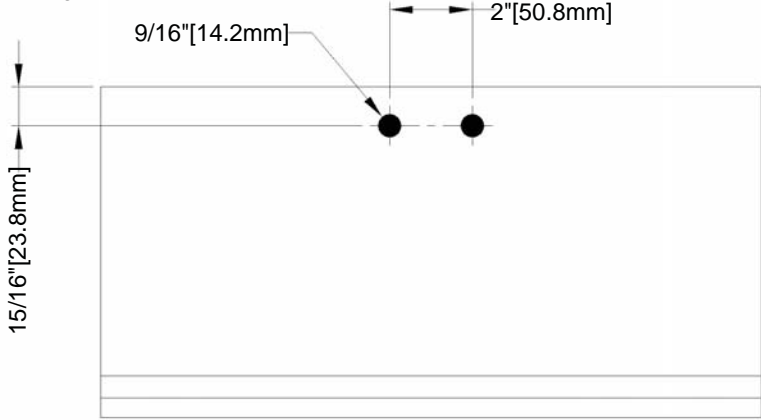
INSTALLATION PROCEDURE

1. Drill (2) holes in the location where the center of the hanger weldment will need to clamp to the header steel above. (See Drilling guide below)
2. Remove the (2) rod ends & (2) nuts (Items 3,4) on beam clamp weldment (Item 2).
3. Slide beam clamp weldment (Item 2) into top channel of ETA rail. Place rod ends (Item 3) through runway rail & beam clamp weldment and secure with nuts (Item 4) until snug* against rail.
- This procedure requires the installer to lift entire rail and hangers to the header steel.
4. Remove hardware (Items 5,6,7,8) from beam clamp weldment (item 2). Center hanger clip below header steel. Bolt on rollover clips (item 5) into the closest holes to the center of header beam using washers (item 7) and nuts (item 8) until snug* tight.
5. Fasten Safety cable (Item 1) through rod end holes and around header steel. Refer to Safety cable installation instructions.
6. Continue until all required hangers are placed onto header steel.

REF.	DESCRIPTION
1	Safety Cable for ETA Hangers
2	ETA-8 parallel beam clamp weldment
3	Hanger rod end bolt
4	Hanger rod end nut
5	ETA-8 Rollover Clip
6	5/8-11 X 2 3/4" Rollover Clip Bolt
7	Washer for Rollover Clip
8	Nut for Rollover Clip



Drilling Guide



**Snug tight is the condition that exists when all of the plies in a connection have been pulled into firm contact by the bolts in the joint and all of the bolts in the joint have been tightened sufficiently to prevent the removal of the nuts without the use of a wrench. (RCSC – Specifications for Structural Joints Using High-Strength Bolts Sec. 8.1)*

INSTALLATION OF THE ETA-4/5 27055/27057 BEAM & 25286 BLOCK HANGER ASSEMBLY

- Shown as an exploded assembly, the ETA-4/5 25286 Hanger Assembly is shipped completely assembled.
- The ETA-4/5 27055 Hanger Assembly can be used for beams 2.33" to 3.33". Assembly can be mounted to header steel that is either parallel or perpendicular to runway.
- The ETA-4/5 27057 Hanger Assembly can be used for beams 4" to 8". Assembly can be mounted to header steel that is either parallel or perpendicular to runway.

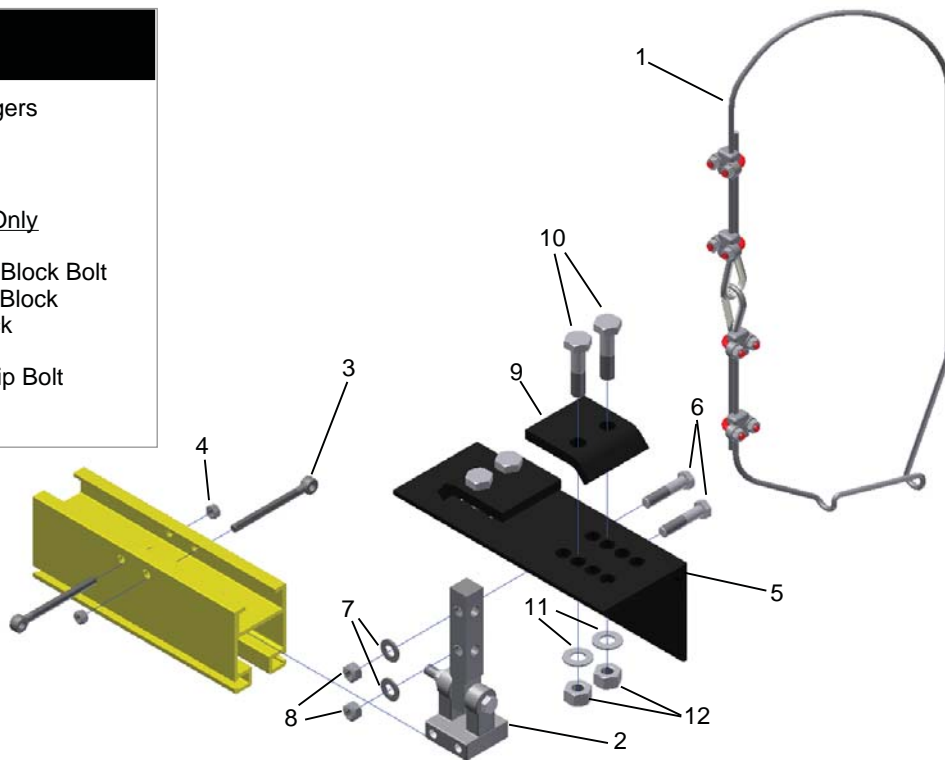
INSTALLATION PROCEDURE

1. Drill (2) holes in the center of where the header steel will be directly above ETA Runway into top channel of rail. (See Drilling guide below)
2. Remove the (2) rod ends & (2) nuts (Items 3,4) on Hanger Block (Item 2).
3. Slide hanger block (Item 2) into top channel of ETA rail. Place rod ends (Item 3) through runway rail & hanger block and secure with nuts (Item 4) until snug* against rail.

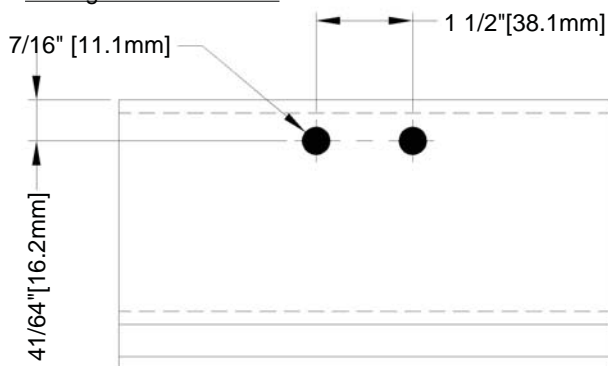
Below steps are for 27055/27057 Beam Hangers only; for 25286 block hanger skip to steps (6 & 7)

4. Remove hardware (Items 9,10,11,12) from hanger clip (item 5). Center hanger clip below header steel and position so runway rail will be under Beam hanger (item 5). Bolt on rollover clips (item 9) into the closest holes to the center of header beam using washers (item 11) and nuts (item 12) until snug* tight.
- This procedure requires the installer to lift entire rail and hangers to the header steel.
5. Remove items (6,7,8) from Hanger Clip (item 5) and bolt hanger block (item 2) to Hanger Clip until snug* tight.
6. Fasten Safety cable (Item 1) through rod end holes and around header steel. Refer to Safety cable installation instructions.
7. Continue until all required hangers are placed onto header steel.

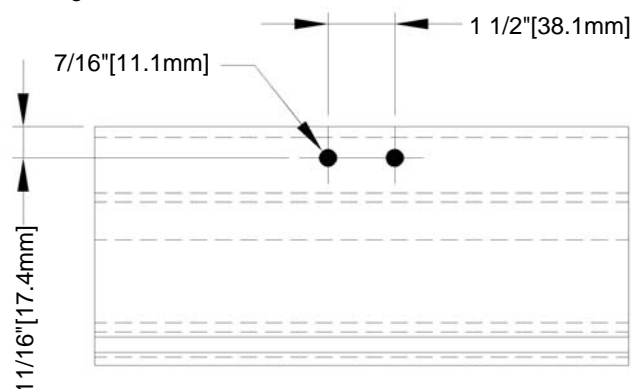
REF.	DESCRIPTION
1	Safety Cable for ETA Hangers
2	ETA-4/5 Block Hanger
3	Hanger rod end bolt
4	Hanger rod end nut
For 27055/27057 Models Only	
5	ETA Hanger Clip
6	1/2-13 X 2" Hanger Clip to Block Bolt
7	Washer for Hanger Clip to Block
8	Nut for Hanger Clip to Block
9	ETA-4/5 Rollover Clip
10	5/8-11 X 2 1/2" Rollover Clip Bolt
11	Washer for Rollover Clip
12	Nut for Rollover Clip



Drilling Guide for ETA-4



Drilling Guide for ETA-5



**Snug tight is the condition that exists when all of the plies in a connection have been pulled into firm contact by the bolts in the joint and all of the bolts in the joint have been tightened sufficiently to prevent the removal of the nuts without the use of a wrench. (RCSC – Specifications for Structural Joints Using High-Strength Bolts Sec. 8.1)*

INSTALLATION OF THE ETA-4/5 25473/25474/25467 ADJUSTABLE BLOCK HANGER ASSEMBLY

- Shown as an exploded assembly, the ETA-4/5 25467 Hanger Assembly is shipped completely assembled.
- The ETA-4/5 25473 Hanger Assembly can be used for beams 2.33" to 3.33". The ETA-4/5 25474 Hanger Assembly can be used for beams 4" to 8". The assembly can be mounted to header steel that is either parallel or perpendicular to runway.

INSTALLATION PROCEDURE

1. Drill (2) holes in the center of where the header steel will be directly above ETA Runway into top channel of rail. (See Drilling guide below)
2. Remove the (2) rod ends & (2) nuts (Items 3,4) on Hanger Block (Item 2).
3. Slide hanger block (Item 2) into top channel of ETA rail. Place rod ends (Item 3) through runway rail & hanger block and secure with nuts (Item 4) until snug* against rail.

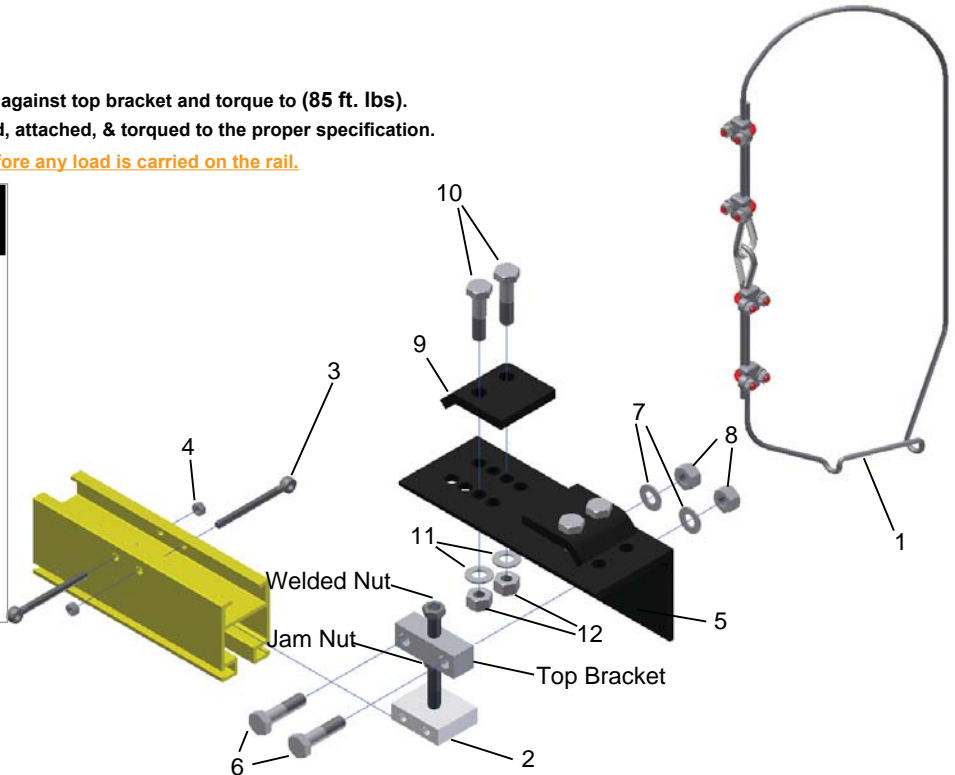
Below steps are for 25473/25474 Hangers only; for 25467 Hanger skip to steps (6 & 7)

4. Remove hardware (Items 9,10,11,12) from hanger clip (item 5). Center hanger clip below header steel and position so runway rail will be under Beam hanger (item 5). Bolt on rollover clips (item 9) into the closest holes to the center of header beam using washers (item 11) and nuts (item 12) until snug* tight.
- This procedure requires the installer to lift entire rail and hangers to the header steel.
5. Remove items (6,7,8) from Hanger Block (item 2) and bolt hanger block (item 2) to Hanger Clip until snug* tight.
6. Fasten Safety cable (Item 1) through rod end holes and around header steel. Refer to Safety cable installation instructions.
7. Continue until all required hangers are placed onto header steel.

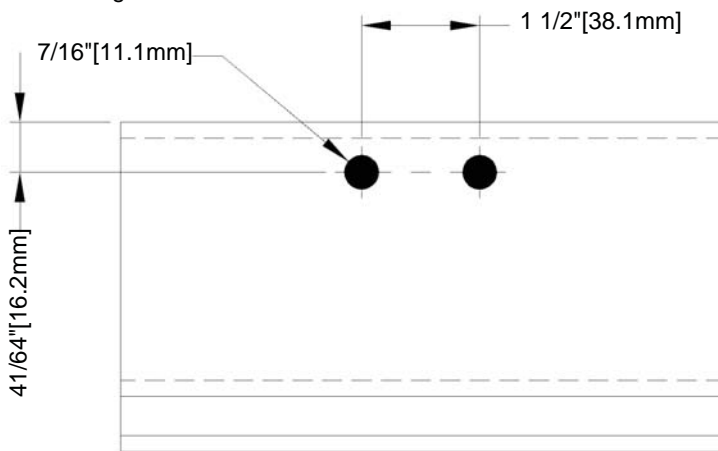
RAIL LEVELING PROCEDURE

1. Loosen jam nut (See Below)
2. Adjust height by turning welded nut (see below)
3. When proper adjustment is obtained, run jam nut against top bracket and torque to (85 ft. lbs).
4. Verify that ALL Hanger Assemblies are positioned, attached, & torqued to the proper specification.
5. **It is vital that all hardware is properly secured before any load is carried on the rail.**

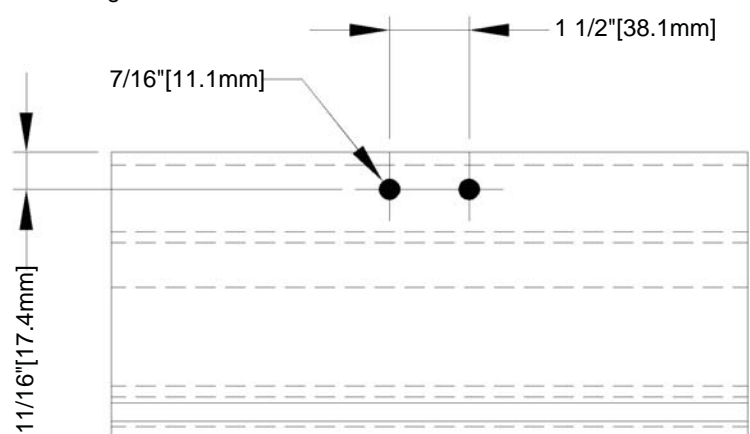
REF.	DESCRIPTION
1	Safety Cable for ETA Hangers
2	ETA-4/5 Adjustable Hanger Block
3	Hanger rod end bolt
4	Hanger rod end nut
For 25473/25474 Models Only	
5	ETA Hanger Clip
6	5/8-11 X 2 3/4" Hanger Clip to Block Bolt
7	Washer for Hanger Clip to Block
8	Nut for Hanger Clip to Block
9	ETA-4/5 Rollover Clip
10	5/8-11 X 2 1/2" Rollover Clip Bolt
11	Washer for Rollover Clip
12	Nut for Rollover Clip



Drilling Guide for ETA-4



Drilling Guide for ETA-5



*Snug tight is the condition that exists when all of the plies in a connection have been pulled into firm contact by the bolts in the joint and all of the bolts in the joint have been tightened sufficiently to prevent the removal of the nuts without the use of a wrench. (RCSC – Specifications for Structural Joints Using High-Strength Bolts Sec. 8.1)


INSTALLATION OF THE ETA-8 27059/27061 BEAM & 25170 BLOCK HANGER ASSEMBLY

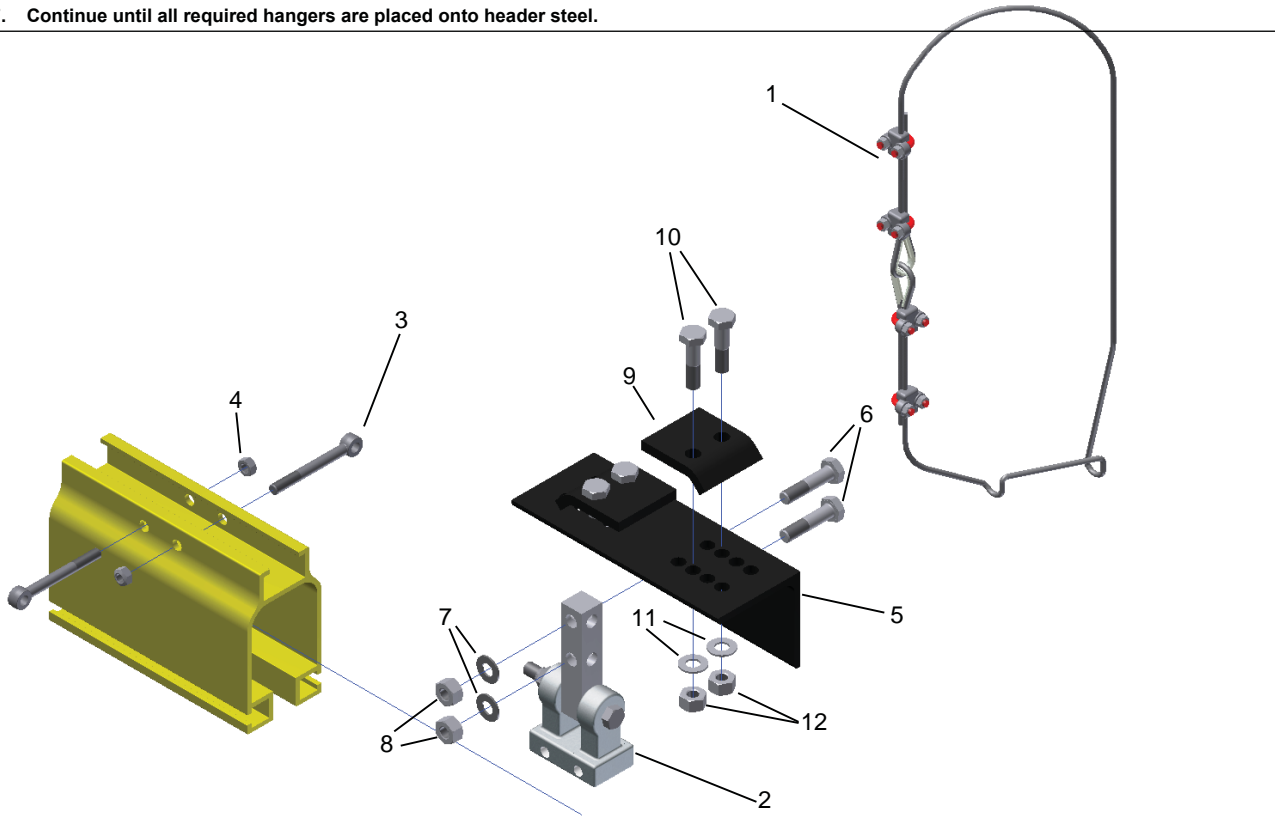
- Shown as an exploded assembly, the ETA-8 25170 Hanger Assembly is shipped completely assembled.
- The ETA-8 27059 Hanger Assembly can be used for beams 2.33" to 3.33". Assembly can be mounted to header steel that is either parallel or perpendicular to runway.
- The ETA-8 27061 Hanger Assembly can be used for beams 4" to 8". Assembly can be mounted to header steel that is either parallel or perpendicular to runway.

INSTALLATION PROCEDURE

1. Drill (2) holes in the center of where the header steel will be directly above ETA Runway into top channel of rail. (See Drilling guide below)
2. Remove the (2) rod ends & (2) nuts (Items 3,4) on Block Hanger (Item 2).
3. Slide Block Hanger (Item 2) into top channel of ETA rail. Place rod ends (Item 3) through runway rail & block hanger and secure with nuts (Item 4) until snug* against rail.

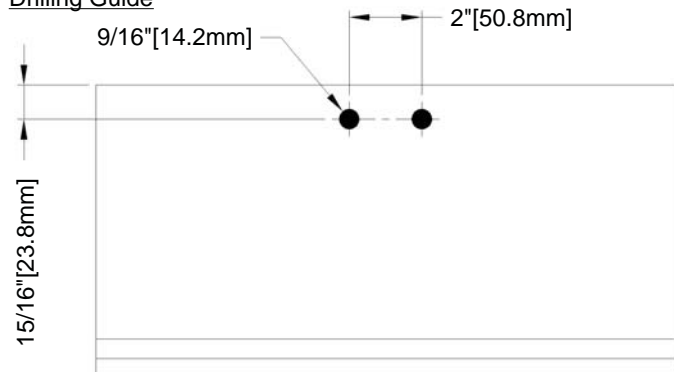
Below steps are for 27059/27061 Beam Hangers only; for 25170 block hanger skip to steps (6 & 7)

4. Remove hardware (Items 9,10,11,12) from hanger clip (item 5). Center hanger clip below header steel and position so runway rail will be under Beam hanger (item 5). Bolt on rollover clips (item 9) into the closest holes to the center of header beam using washers (item 11) and nuts (item 12) until snug* tight.

- This procedure requires the installer to lift entire rail and hangers to the header steel.
5. Remove items (6,7,8) from Hanger Clip (item 5) and bolt block hanger (item 2) to Hanger Clip until snug* tight.
6. Fasten Safety cable (Item 1) through rod end holes and around header steel. Refer to Safety cable installation instructions.
7. Continue until all required hangers are placed onto header steel.



REF.	DESCRIPTION
1	Safety Cable for ETA Hangers
2	ETA-8 Block Hanger
3	Hanger rod end bolt
4	Hanger rod end nut
	<u>For 27059/27061 Models Only</u>
5	ETA-8 Hanger Clip
6	5/8-11 X 2 3/4" Hanger Clip to Block Bolt
7	Washer for Hanger Clip to Block
8	Nut for Hanger Clip to Block
9	ETA-8 Rollover Clip
10	5/8-11 X 2 1/2" Rollover Clip Bolt
11	Washer for Rollover Clip
12	Nut for Rollover Clip

Drilling Guide



**Snug tight is the condition that exists when all of the plies in a connection have been pulled into firm contact by the bolts in the joint and all of the bolts in the joint have been tightened sufficiently to prevent the removal of the nuts without the use of a wrench. (RCSC – Specifications for Structural Joints Using High-Strength Bolts Sec. 8.1)*

INSTALLATION OF THE ETA-8 25471/25472/25465 ADJUSTABLE BLOCK HANGER ASSEMBLY

- Shown as an exploded assembly, the ETA-8 25465 Hanger Assembly is shipped completely assembled.
- The ETA-8 25471 Hanger Assembly can be used for beams 2.33" to 3.33". The ETA-8 25472 Hanger Assembly can be used for beams 4" to 8". The assembly can be mounted to header steel that is either parallel or perpendicular to runway.

INSTALLATION PROCEDURE

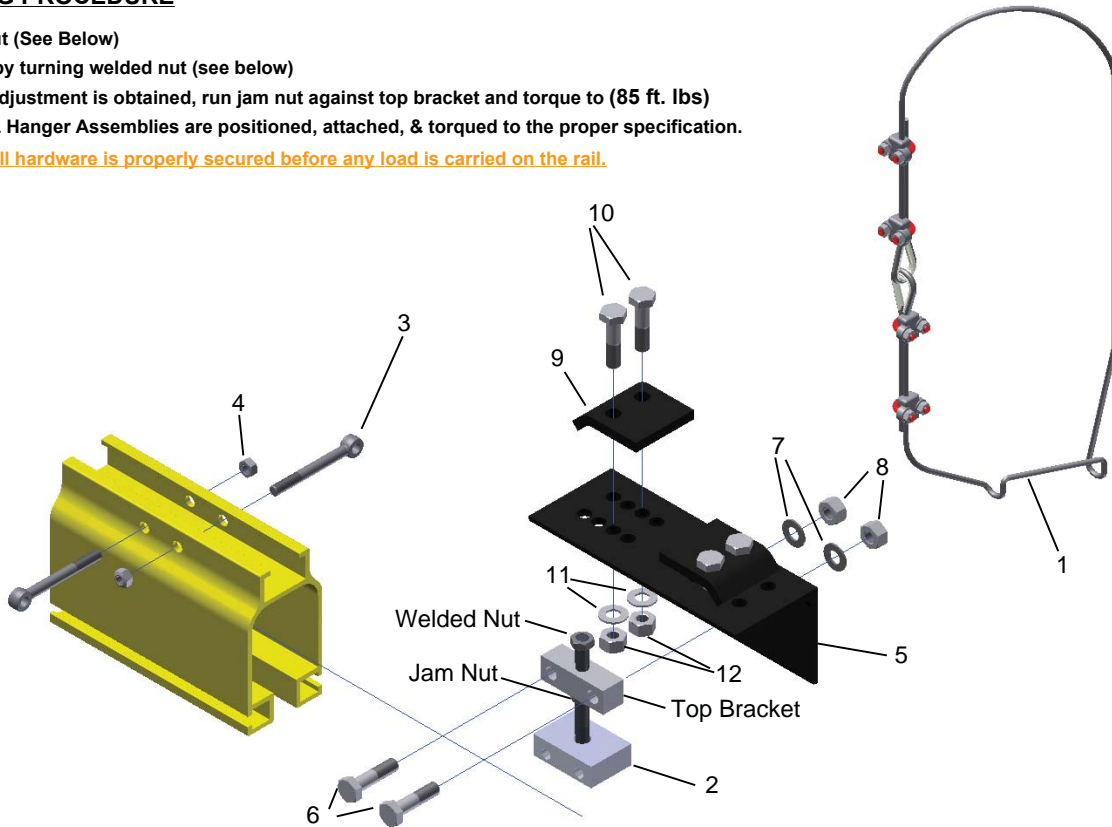
1. Drill (2) holes in the center of where the header steel will be directly above ETA Runway into top channel of rail. (See Drilling guide below)
2. Remove the (2) rod ends & (2) nuts (Items 3,4) on Hanger Block (Item 2).
3. Slide hanger block (Item 2) into top channel of ETA rail. Place rod ends (Item 3) through runway rail & hanger block and secure with nuts (Item 4) until snug* against rail.

Below steps are for 25471/25472 Hangers only; for 25465 Hanger skip to steps (6 & 7)

4. Remove hardware (Items 9,10,11,12) from hanger clip (item 5). Center hanger clip below header steel and position so runway rail will be under Beam hanger (item 5). Bolt on rollover clips (item 9) into the closest holes to the center of header beam using washers (item 11) and nuts (item 12) until snug* tight.
- This procedure requires the installer to lift entire rail and hangers to the header steel.
5. Remove items (6,7,8) from Hanger Block (item 2) and bolt hanger block (item 2) to Hanger Clip until snug* tight.
6. Fasten Safety cable (Item 1) through rod end holes and around header steel. Refer to Safety cable installation instructions.
7. Continue until all required hangers are placed onto header steel.

RAIL LEVELING PROCEDURE

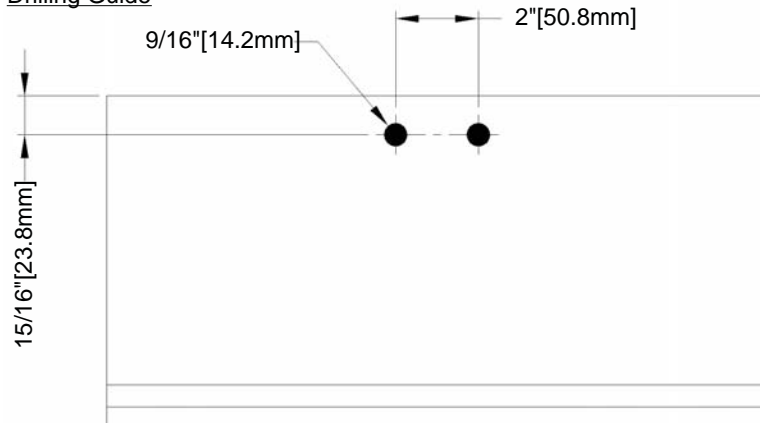
1. Loosen jam nut (See Below)
2. Adjust height by turning welded nut (see below)
3. When proper adjustment is obtained, run jam nut against top bracket and torque to (85 ft. lbs)
4. Verify that ALL Hanger Assemblies are positioned, attached, & torqued to the proper specification.
5. It is vital that all hardware is properly secured before any load is carried on the rail.



REF. DESCRIPTION

1	Safety Cable for ETA Hangers
2	ETA-8 Adjustable Block Hanger
3	Hanger rod end bolt
4	Hanger rod end nut
<u>For 25471/25472 Models Only</u>	
5	ETA-8 Hanger Clip
6	5/8-11 X 2 3/4" Hanger Clip to Block Bolt
7	Washer for Hanger Clip to Block
8	Nut for Hanger Clip to Block
9	ETA-8 Rollover Clip
10	5/8-11 X 2 1/2" Rollover Clip Bolt
11	Washer for Rollover Clip
12	Nut for Rollover Clip

Drilling Guide



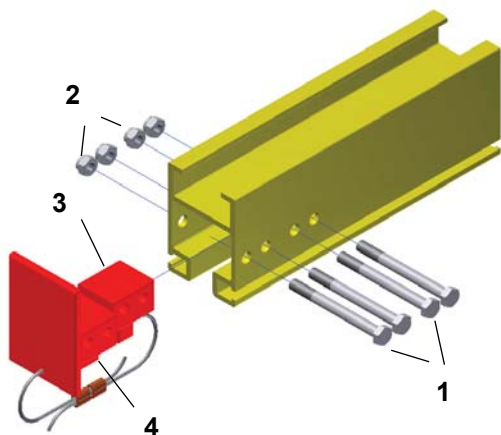
*Snug tight is the condition that exists when all of the plies in a connection have been pulled into firm contact by the bolts in the joint and all of the bolts in the joint have been tightened sufficiently to prevent the removal of the nuts without the use of a wrench. (RCSC – Specifications for Structural Joints Using High-Strength Bolts Sec. 8.1)

INSTALLATION OF THE 24900/25194/24950 CAP ASSEMBLIES

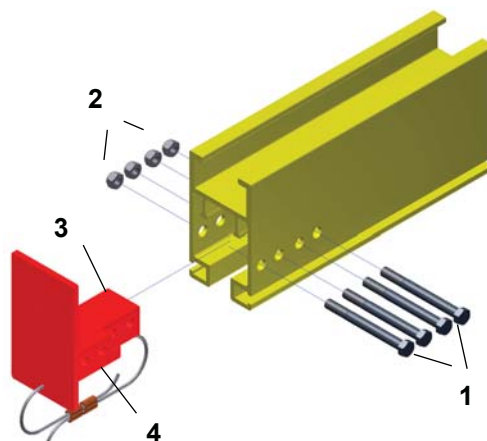
- Shown as an exploded assemblies, the Double End Cap Assembly is shipped separately with nuts and bolts attached.
- The 1/8" safety cable and crimped sleeves are not intended to be removed and will **VOID** the warranty.
- Rail comes pre-drilled from the factory. Drilling Guide is available on next page (Figure 1.)

INSTALLATION PROCEDURE

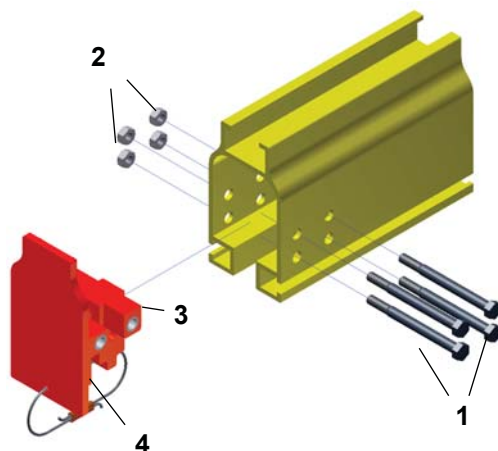
1. Remove (Items 1 & 2) from End Cap Assembly (Items 3 & 4).
2. Slide inner stop (Item 3) Assy. into runway until bolt holes line up.
3. Insert bolts and attach locknuts, (Items 1&2), tighten until nut is snug, do not over-tighten and collapse rail.
4. Slide End Cap over end of Rail until bolt holes line up.
5. Insert bolts and attach locknuts (Items 1 & 2), tighten until nut is snug, do not over-tighten and collapse rail.



ETA-4 (24900)



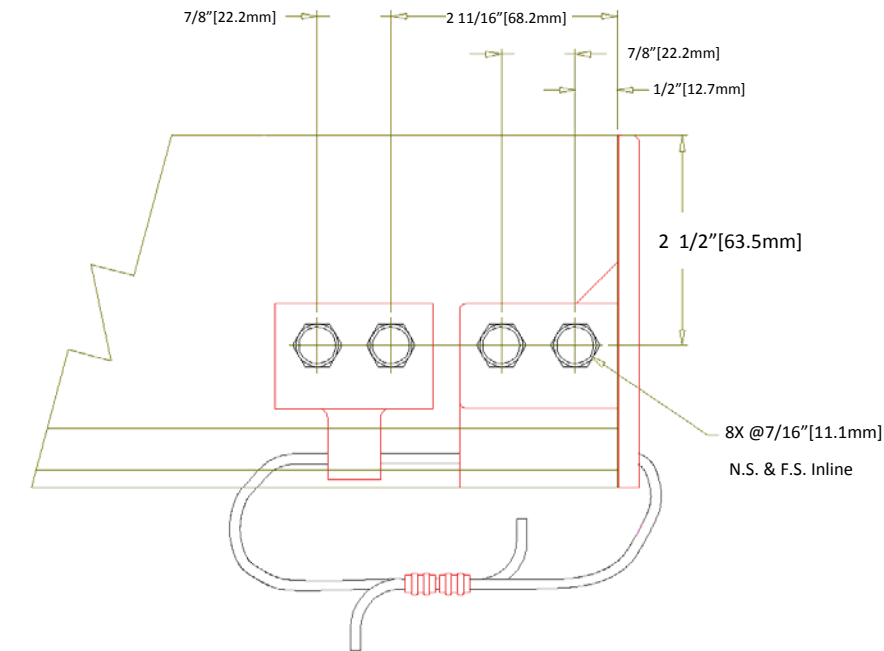
ETA-5 (25194)



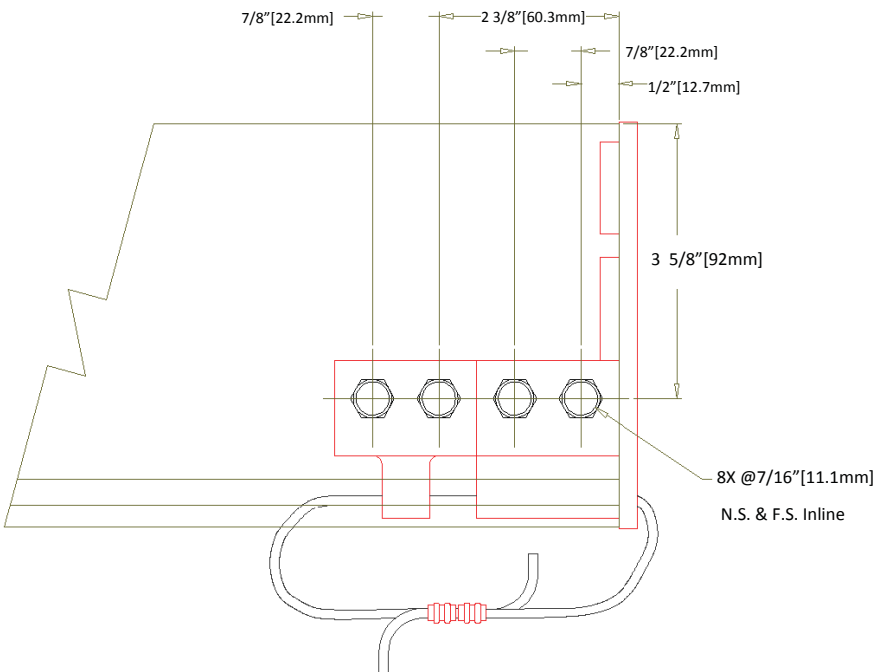
ETA-8 (24950)

End Stop Assembly Drilling Guide (Fig. 1)

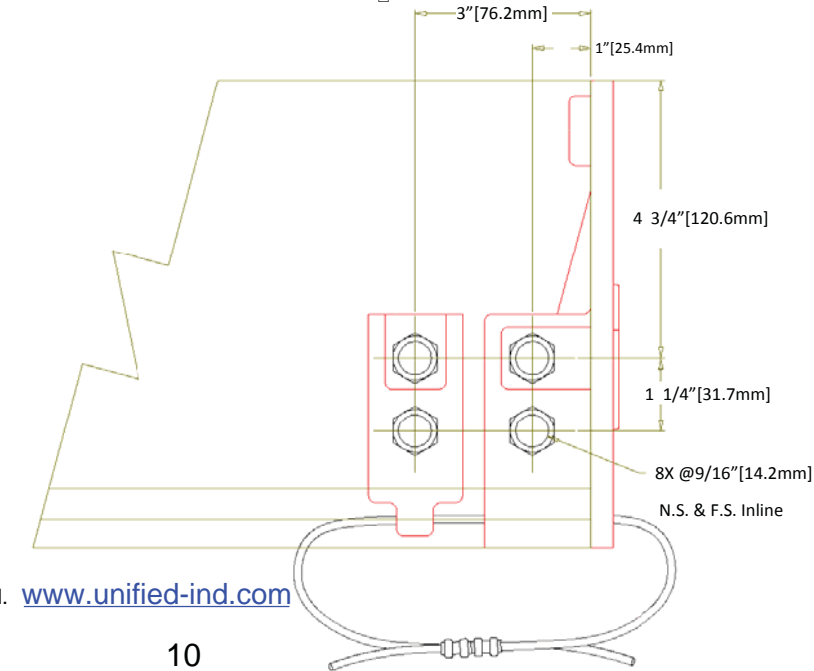
24900 ETA-4



25194 ETA-5



24950 ETA-8

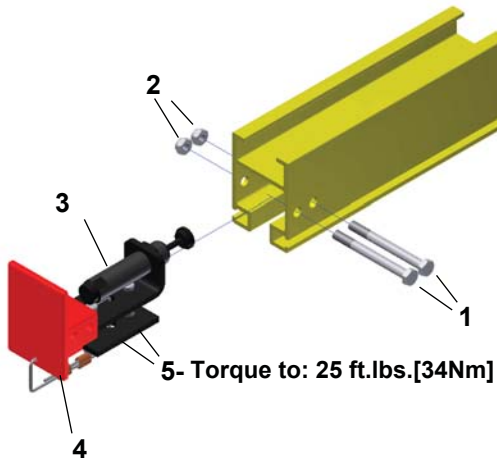


INSTALLATION OF THE 25133/25134/25135 STOP SHOCK ABSORBER ASSEMBLIES

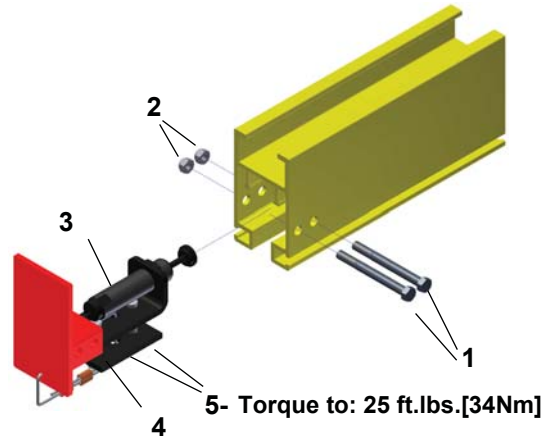
- Shown as an exploded assemblies, the End Cap Shock Absorber Assembly is shipped separately with nuts and bolts attached.
- The 1/8" safety cable and crimped sleeves are not intended to be removed and will **VOID** the warranty.

INSTALLATION PROCEDURE

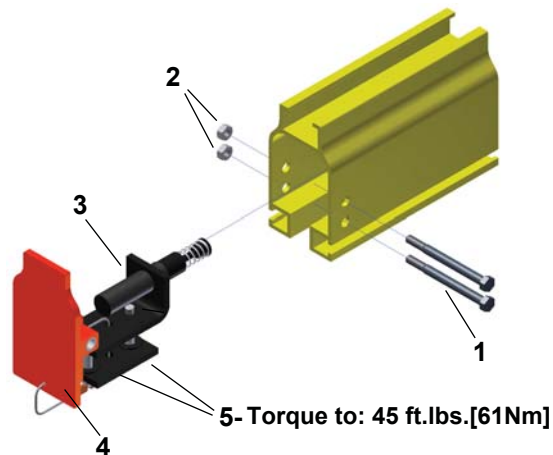
1. Remove (Items 1 & 2) from End Cap Assembly (Items 3 & 4).
2. Loosen the (2) bolts (item 5) in bottom of (item 3) and slide into channel of rail followed by End Cap (item 4) into rail until bolt holes line up.
3. Torque bolts (items 5)
4. Insert bolts and attach locknuts, (Items 1 & 2), tighten until nut is snug, do not over-tighten and collapse rail.



ETA-4 (25133)



ETA-5 (25134)



ETA-8 (25135)

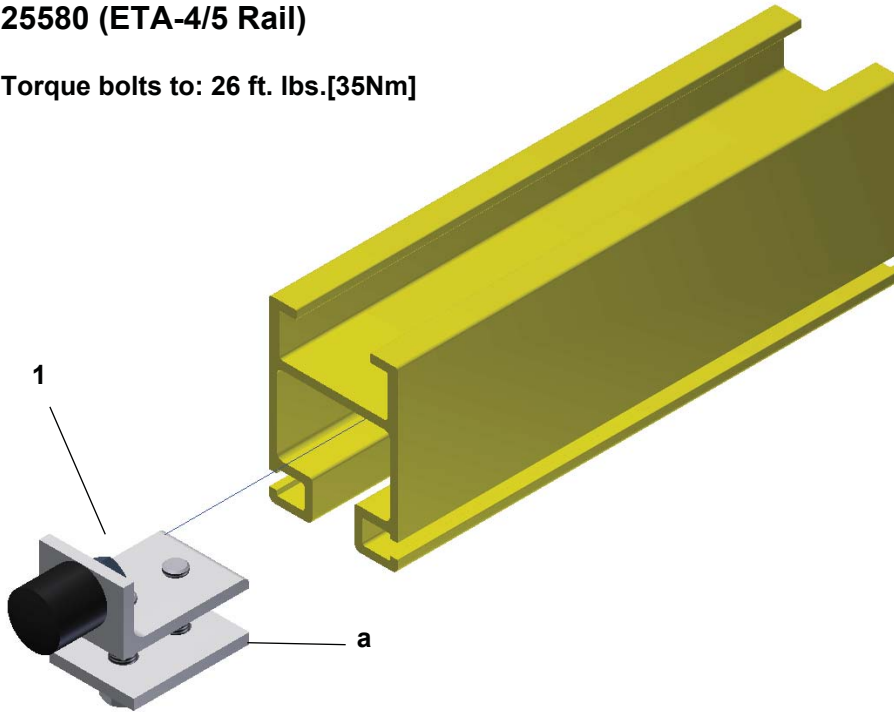
INSTALLATION OF THE 25570/25580 MID RAIL STOP ASSEMBLY

INSTALLATION PROCEDURE

1. Loosen bolts on Mid Rail Stop assembly. (Item 1)
 2. Slide Mid Rail Stop assembly into ETA rail with (Detail a) portion of assembly below rail.
 3. After Mid Rail Stop assembly is positioned torque bolts to (see below)
-

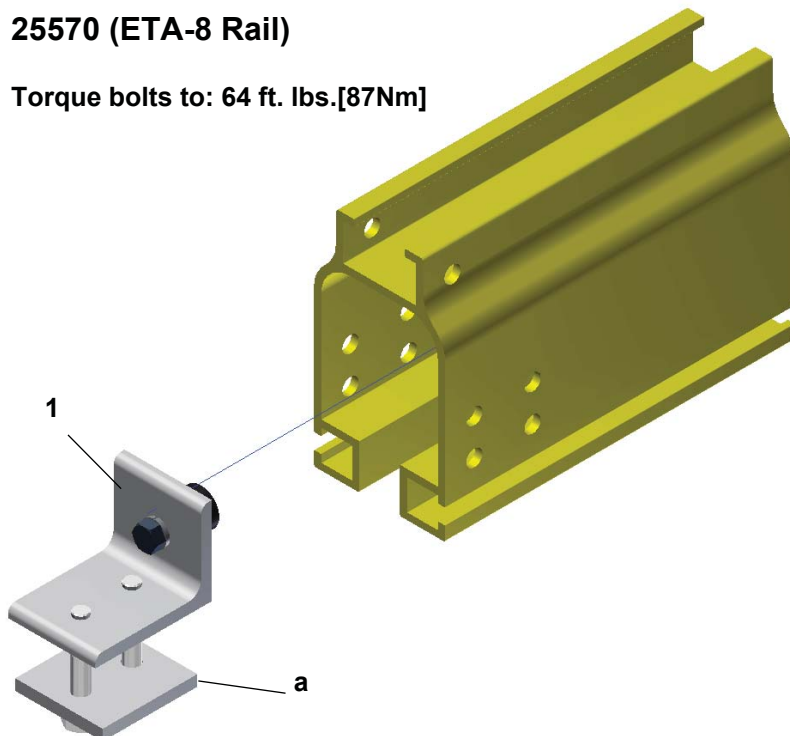
25580 (ETA-4/5 Rail)

Torque bolts to: 26 ft. lbs.[35Nm]



25570 (ETA-8 Rail)

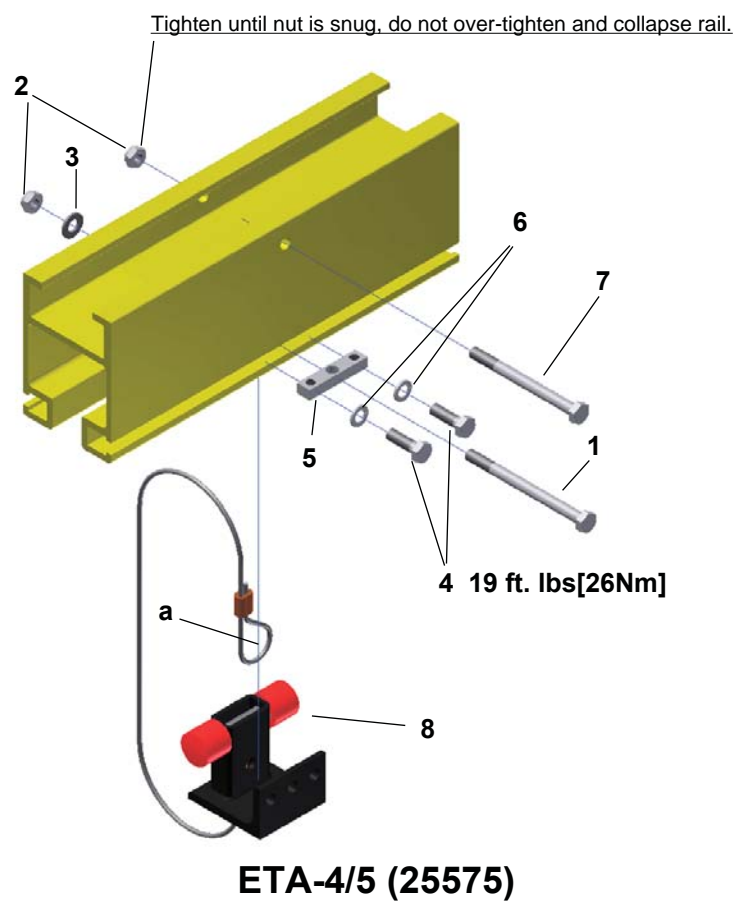
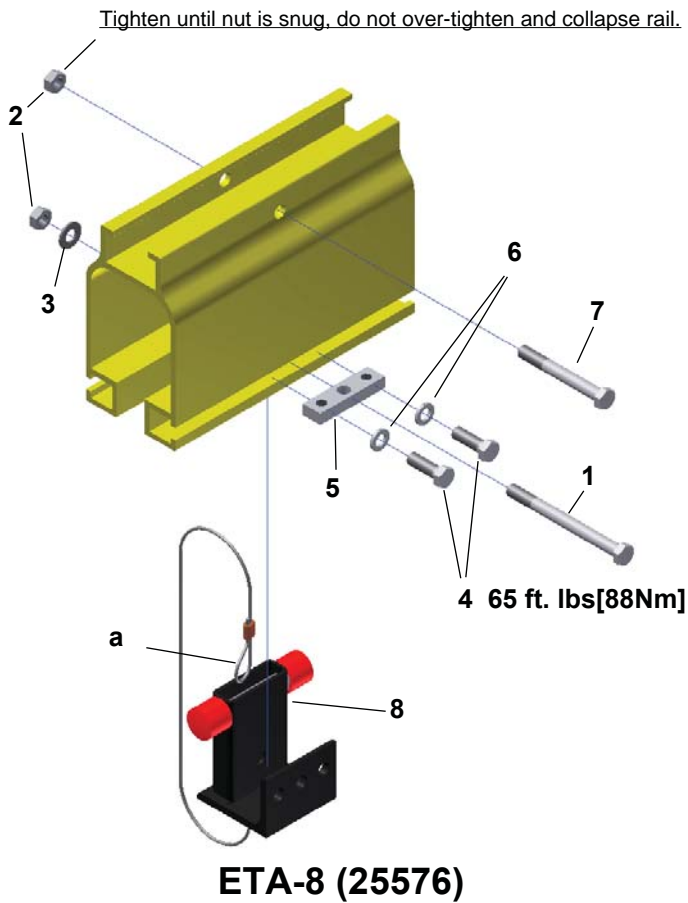
Torque bolts to: 64 ft. lbs.[87Nm]



INSTALLATION OF THE 25575/25576 INSERTABLE MID RAIL STOP ASSEMBLY

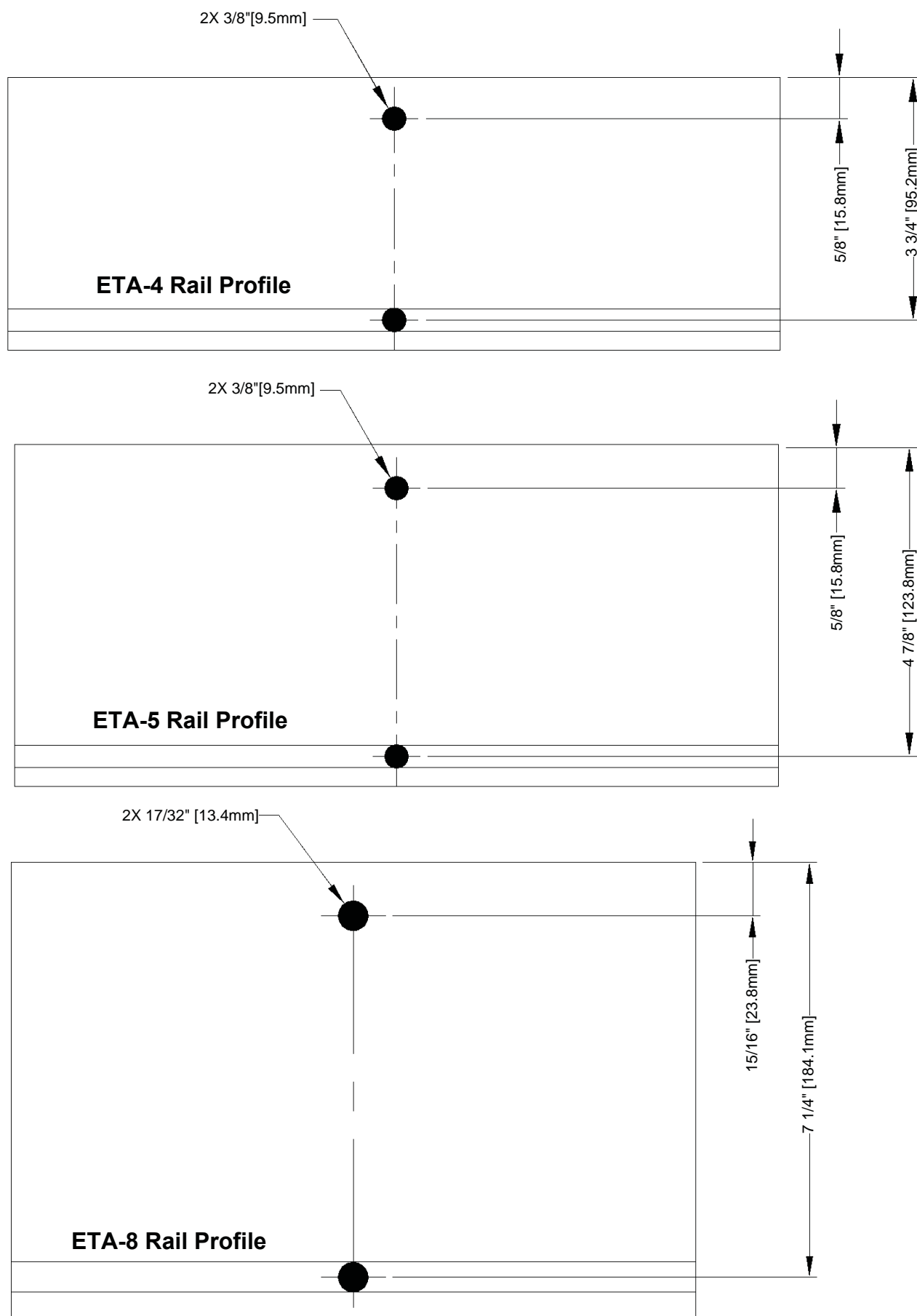
INSTALLATION PROCEDURE

1. Drill Top and bottom holes in upper and lower channel at desired location (see fig 2. on next page) for specific rail type hole location and hole size)
2. Loosen/remove washers nuts and bolts and plate on Mid Rail Stop (item 8) assembly. (Items 1,2,4,5 & 6)
3. Place plate (item 5) into lower channel of rail. With a flat head screw driver place upright with holes facing out. Insert Mid Stop assembly (item 8) into rail and line up with plate. Screw bolts and lock washers (items 4 & 6) into Mid Stop assembly, leave loose.
4. Slide Mid Stop assembly (item 8) into place over the lower drilled hole. Place lower bolt (item 1) through Mid Stop assembly and out the other side of rail. Secure with washer (item 3) and nut (item 2). Tighten until nut seats against washer.
5. Insert bolt (item 7) into upper hole of rail and place through safety wire loop (item a) and then through the next hole in rail and secure with nut (item 2). NOTE: Please make sure wire loop is inside the upper channel of rail.
6. After Mid Rail Stop assembly is positioned torque bolts (item 4) to (see below)



MID RAIL STOP ASSEMBLY DRILLING GUIDE

Figure 2



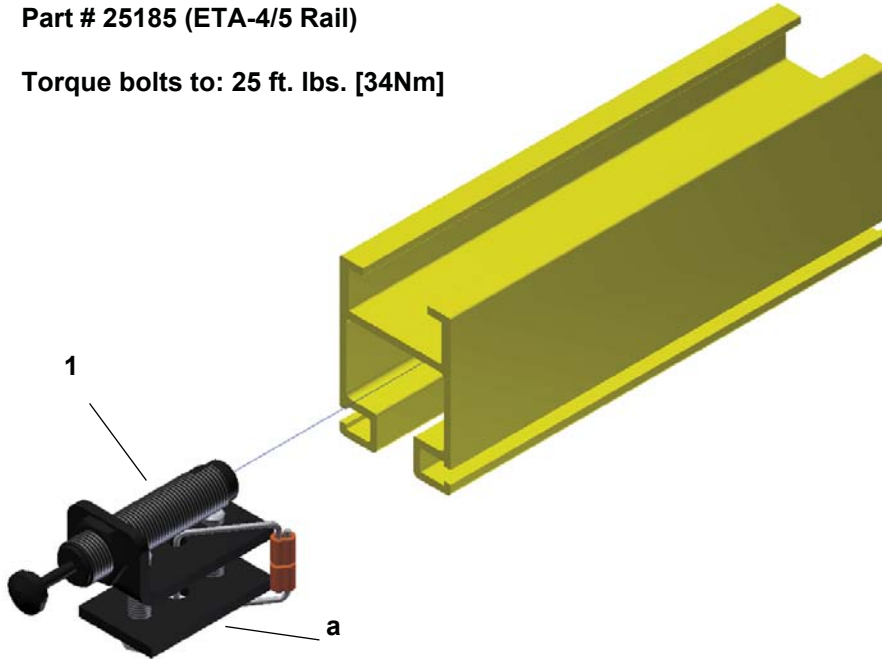
INSTALLATION OF THE 25185/25179 POSITION STOP SHOCK ASSEMBLY

INSTALLATION PROCEDURE

1. Loosen bolts on Position Stop Shock Absorber Assembly. (Item 1)
 2. Slide Stop Shock Absorber Assembly into ETA rail with (Detail a) portion of assembly below rail.
 3. After Stop Shock Absorber Assembly is positioned torque bolts to (see below)
-

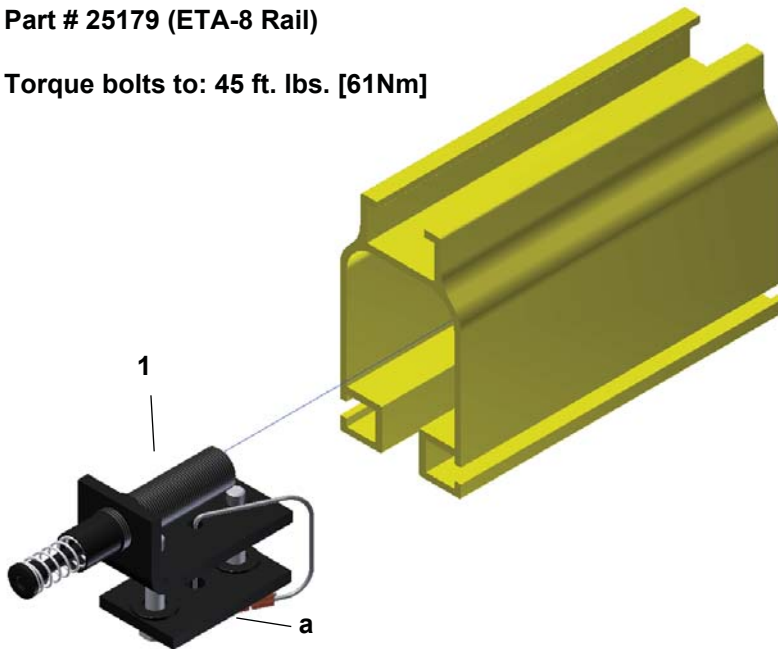
Part # 25185 (ETA-4/5 Rail)

Torque bolts to: 25 ft. lbs. [34Nm]



Part # 25179 (ETA-8 Rail)

Torque bolts to: 45 ft. lbs. [61Nm]



The diagram illustrates the components and assembly of a safety cable. The main components shown are the LIVE END, DEAD END, U-BOLT, SADDLE, THIMBLE, CROSBY CLAMP, and the 1/4" WIRE ROPE. The assembly is shown in a perspective view, with the wire rope running through the U-bolt, saddle, thimble, and Crosby clamp. The dead end is secured with a nut and washer. A note indicates that the rod end is not required for the ETA rigid mount hanger assembly (part no. 27070).

INSTALLING SAFETY CABLE:

1. ROUTE THE WIRE ROPE THROUGH ONE ROD END, OVER RUNWAY AND THROUGH THE SECOND ROD END AND LAST OVER HEADER. (ROD END NOT REQUIRED FOR ETA RIGID MOUNT HANGER ASSEMBLY - PART NO. 27070. WIRE TO BE ROUTED THROUGH FIELD DRILLED HOLE AND OVER HEADER FOR PART NO. 27070 ONLY.)
2. USE THE TWO THIMBLES TO MAKE AN INTERLOCKING CONNECTION AND ROUTE THE WIRE ROPE AROUND THE THIMBLES.
3. APPLY THE FIRST CLAMP ONE BASE WIDTH FROM DEAD END OF THE WIRE ROPE, SNUG NUTS.
4. APPLY SECOND CLAMP AS CLOSE TO THIMBLE AS POSSIBLE, SNUG NUTS.
5. MAXIMUM HOLDING POWER IS ACHIEVED WHEN THE DISTANCE BETWEEN THE CLAMP AT ONE END IS 6-7 TIMES THE DIAMETER OF THE WIRE ROPE APART FROM THE OTHER CLAMP.
6. TAKE UP SLACK BY APPLYING TENSION TO THE THIMBLE AND CABLE, TIGHTEN NUTS EVENLY, ALTERNATING FROM ONE NUT TO THE OTHER UNTIL REACHING 15 FT. LBS. OF TORQUE.
7. ALL REDUNDANT SUPPORT SYSTEMS SHALL BE INSTALLED TO MINIMIZE LOAD DROP TO 1" OR LESS IN THE EVENT OF FAILURE AT THE PRIMARY CONNECTION.

CAUTION

WHEN ASSEMBLING WIRE ROPE CLAMPS TO WIRE ROPE BE SURE THE SADDLE PART OF THE CLAMP IS ON THE LIVE END OF THE ROPE. THE U-BOLT PART OF THE CLAMP SHOULD BE ON THE DEAD OR SHORT END OF THE ROPE.

SAFETY CABLE ASSEMBLY VIEW

WHEN ASSEMBLING WIRE ROPE CLAMPS TO WIRE ROPE BE SURE THE SADDLE PART OF THE CLAMP IS ON THE LIVE END OF THE ROPE. THE U-BOLT PART OF THE CLAMP SHOULD BE ON THE DEAD OR SHORT END OF THE ROPE.

SAFETY CABLE ASSEMBLY VIEW

INSTALLATION OF AN ETA INSPECTION GATE (CURRENT VERSION)

NOTE

Use this process to re-secure an inspection gate after use.

1. DETERMINE GATE LOCATION. GATE SHOULD BE LOCATED NO MORE THAN 12" FROM A HANGER.
2. CLOSE GATE AND SECURE WITH GATE SPLICES. TORQUE SPLICE BAR BOLTS PER TABLE 1.
3. WHEN INSTALLING NEAR A SPLICE, GATE MUST BE LOCATED A MINIMUM OF 12".

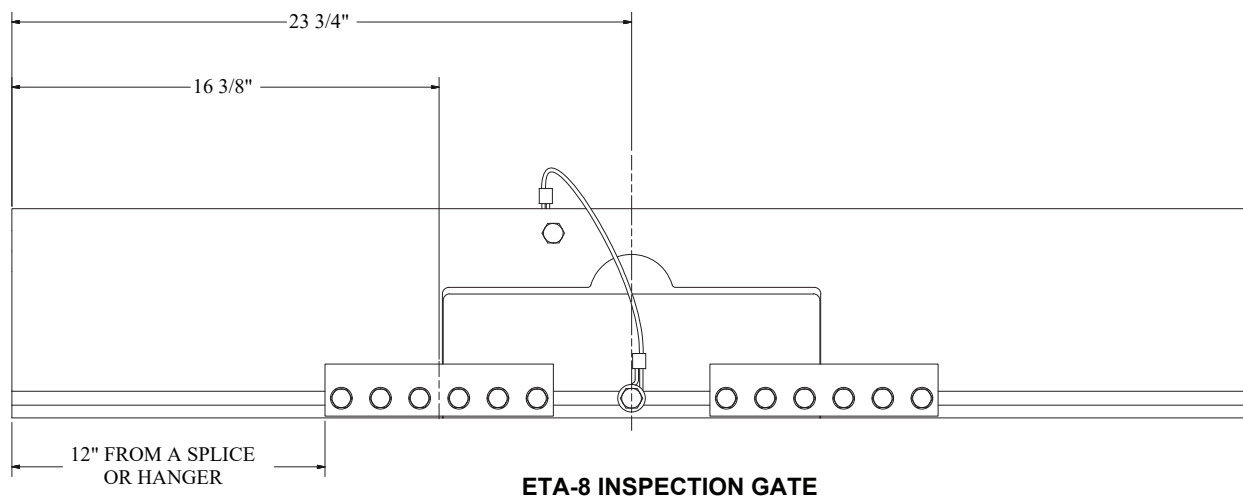
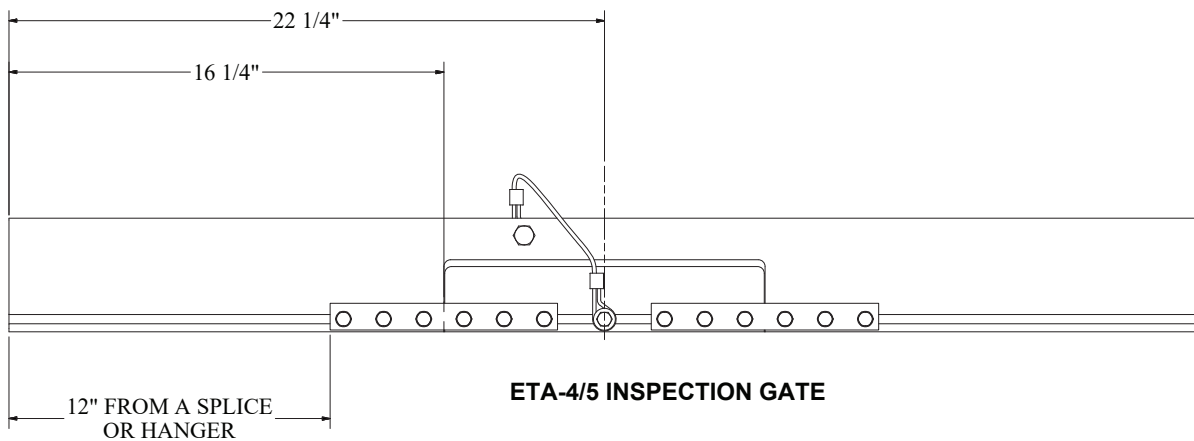
TABLE 1.

Splice bar assembly torque requirement:

ETA-4 17 ft.lbs

ETA-5 17 ft.lbs

ETA-8 70 ft.lbs



INSTALLATION OF AN ETA INSPECTION GATE (OLD VERSION)

NOTE

Use this process to re-secure an inspection gate after use.

1. Place (2) C-clamps on each seam of the inspection gate and rail. Snug tight.
2. Insert splice bar assemblies into each end of the inspection gate (as shown in Fig. 1)
Tighten bolts to recommended torque. This will insure that the running surface and guide roller surface remain flush to each other.

Splice bar assembly torque requirement:

ETA-4 - 19 ft. lbs [26Nm]

ETA-5 - 19 ft. lbs [26Nm]

ETA-8 - 65 ft. lbs [88Nm]

3. Remove C-Clamps.

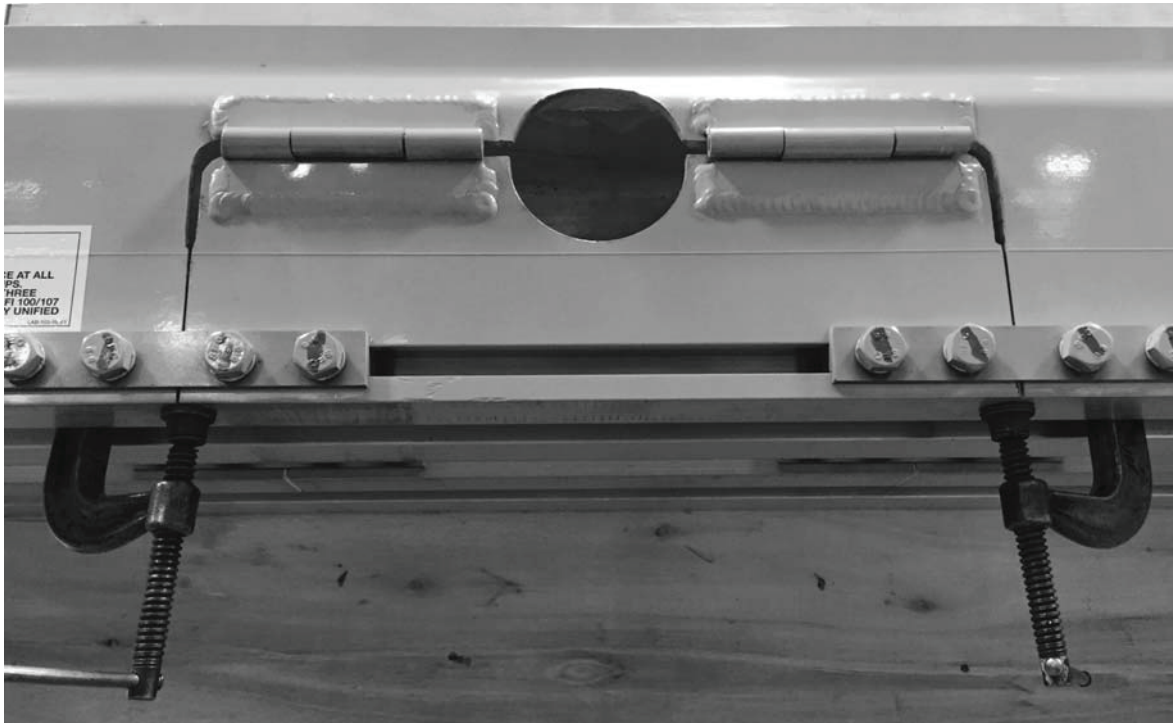


FIG. 1

INSTALLATION OF AN ETA RAIL SYSTEM

STEP 1: Insure that your overhead steel will comply with your system to be installed (ie):

1. Weight.
2. Hang points.

STEP 2: You must first slide the hanger assembly into the upper channel of the rail. Move hanger to the approximate desired location. Follow hanger installation instructions on pages:

SAFETY NOTE

Unified Ind. Strongly recommends the use of non-coated safety cable on all hangers.

NOTE

When splicing two rails together:

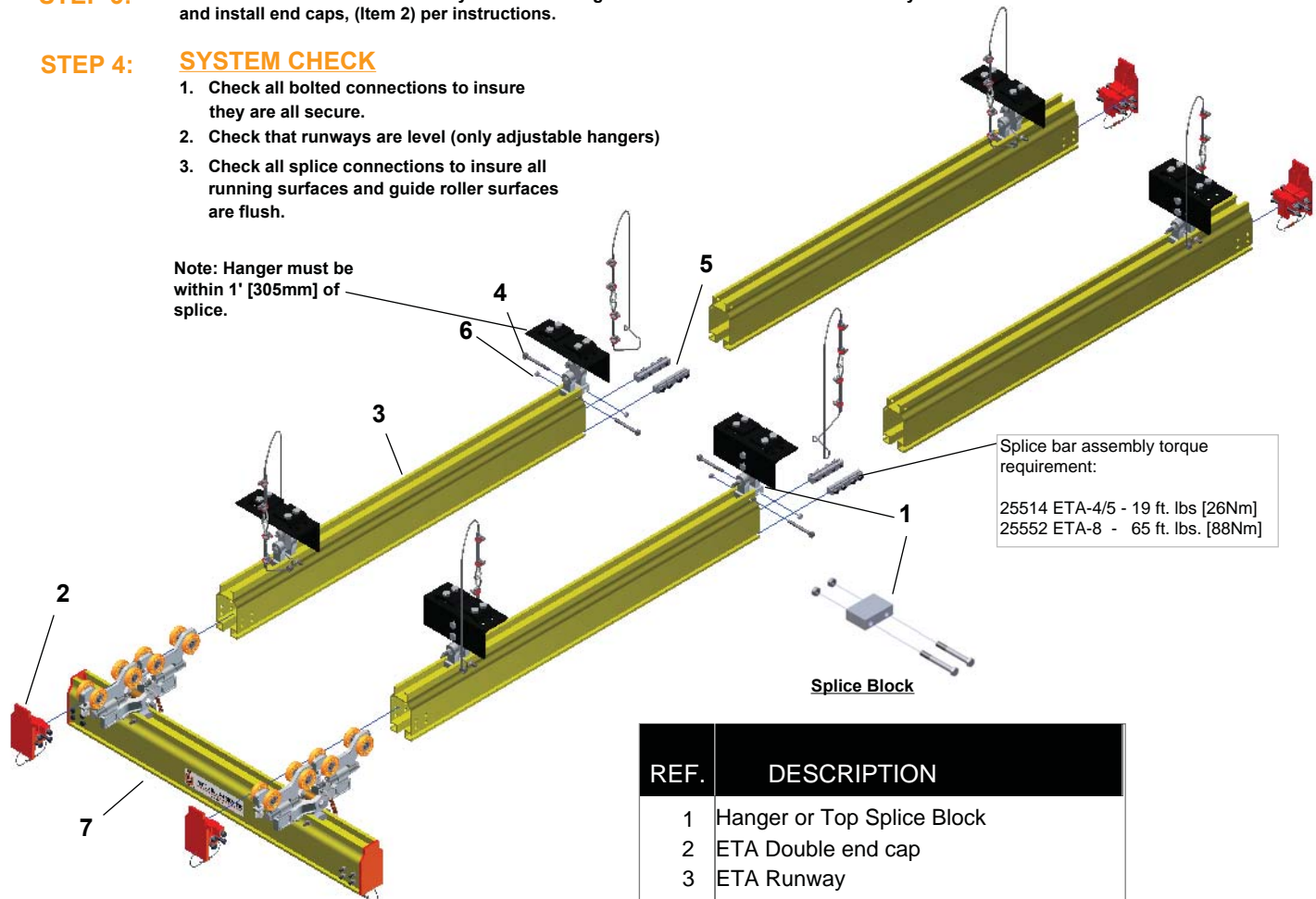
1. Slide lower portion of hanger or splice block (Item 1) into top channel of one rail, insert rod end or top splice bolt, (item 4) into place.
Insert ETA splice bar assemblies into both side channels of one rail. (Item 5)
Slide second rail onto hanger or splice block and ETA splice bar assemblies from the other side, insert rod end or second top splice bolt into place.
2. Now that the two rails are butted up to each other, center ETA splice bar assemblies, (Item 5) across both rails and tighten to recommended torque. This will insure that the running surface and guide roller surface remain flush to each other.
3. Now tighten upper rod ends or upper splice bolts, (Item 4) until snug against rail.

STEP 3: Lift and roll end trucks into runways. Position bridge a safe distance from ends of runways and install end caps, (Item 2) per instructions.

STEP 4: **SYSTEM CHECK**

1. Check all bolted connections to insure they are all secure.
2. Check that runways are level (only adjustable hangers)
3. Check all splice connections to insure all running surfaces and guide roller surfaces are flush.

Note: Hanger must be within 1' [305mm] of splice.



REF.	DESCRIPTION
1	Hanger or Top Splice Block
2	ETA Double end cap
3	ETA Runway
4	Top Splice Bolt/Hanger Bolt
5	ETA Splice bar assembly
6	Top lock nut
7	ETA Bridge

INSTALLATION OF A STEEL BRIDGE SYSTEM

STEP 1: Insure that your overhead steel will comply with your system to be installed (ie):

1. Weight.
2. Hang points.

STEP 2: Attach beam clips, (Item 1), to overhead steel and slide into approximate position

NOTE

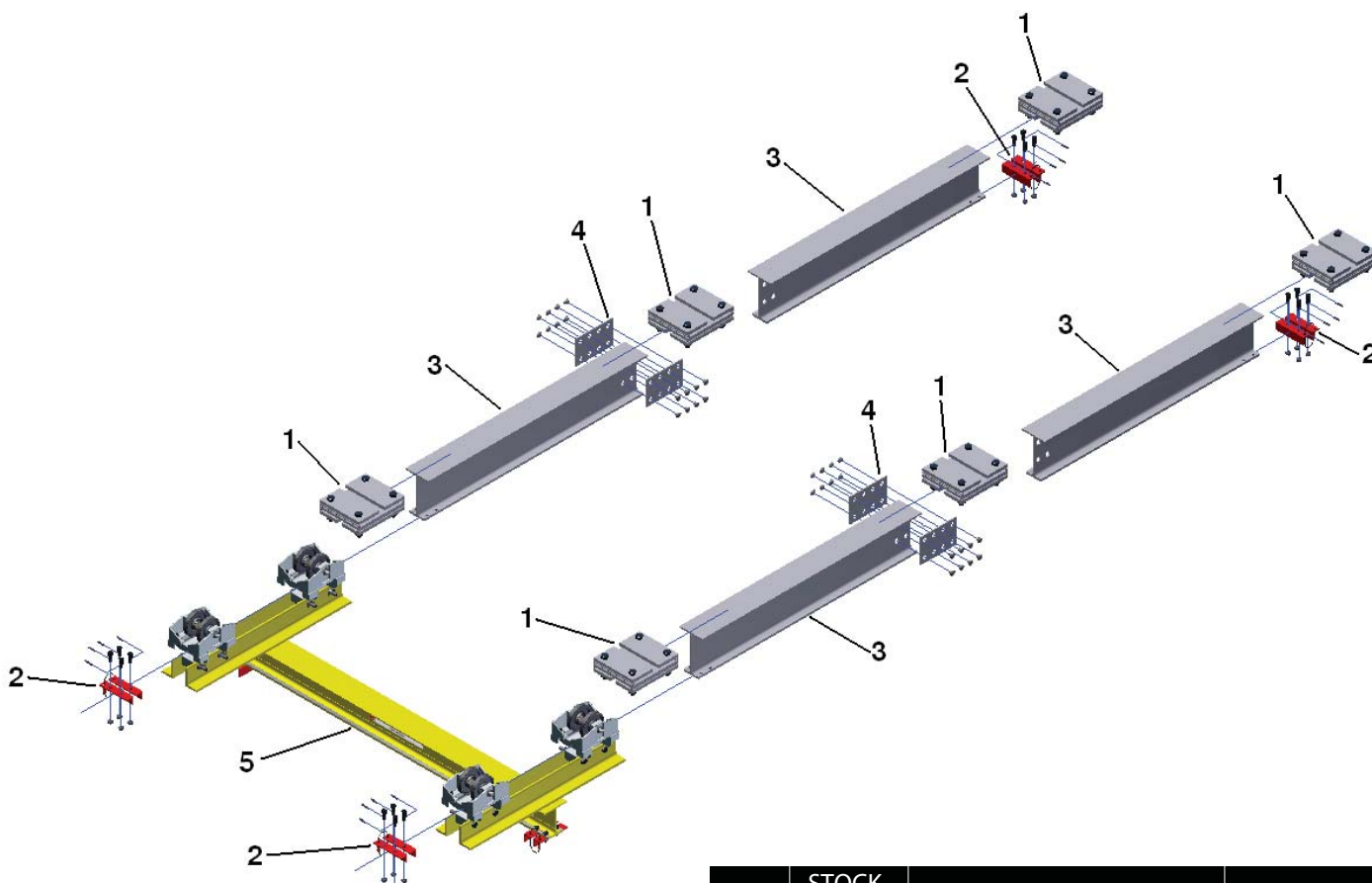
When splicing two rails together:

1. Slide top flange of one runway rail into beam clips (Item 1). Slide next rail into beam clips and push both rails together.
2. Now that the two rails are butted up to each other, center a beam clip, (Item 1), over the location where the beams meet and tighten.
3. Place splice plates on both sides of web where rails butt together insert splice bolts and tighten.

STEP 3: Lift and roll end trucks into runways. Position bridge a safe distance from ends of runways and install end caps, (Item 2) per instructions.

STEP 4: SYSTEM CHECK

1. Check all bolted connections to insure they are all secure.
2. Check that runways are level.
3. Check all splice connections to insure all running surfaces and guide roller surfaces are flush.



REF.	STOCK CODE	DESCRIPTION	QUANTITY
1		Beam Clip	6
2	15171	ES-5025-1 Dual End Stop	4
3	80039	8" Trambeam	4
4	80890	Trambeam Splice Assembly	2
5		Medium Load Bridge	1

INSTALLATION OF THE ETA COILED HOSE RUNWAY & BRIDGE FESTOON PACKAGE

■ Note: ETA runways should be installed level and secured, per instructions prior to festoon installation.

INSTALLATION PROCEDURE

- 1. Each festoon package (Runway or Bridge) comes with (2) festoon brackets (Item 4). Slide the one with elbows and coated cable ass'y attached (item 4a) into top channel of one ETA runway or bridge. Locate on end of rail closest to plant air supply. Place the other bracket (Item 4b), on other end of the same runway rail.
- 2. Run coated cable end with rod end through coiled hose assembly (Item 5).
- 3. Remove one of the two jam nuts on rod end and attach it to the other festoon bracket, (Item 4b), at other end of runway, (cable comes cut and assembled to length).
- 4. After the rod end has been inserted into festoon bracket put second jam nut on rod end on opposite side of bracket. Adjust jam nuts until proper cable tension is achieved and tighten jam nuts against bracket.
- 5. Attach plant air supply to whip hose (Item 8a) on festoon bracket (runway festoon kit only).
- 6. Install coiled hose to bottom elbow on festoon bracket (Item 4a).
- 7. Use coupling and attach whip hose (Item 8b) to other end of coiled hose.
- 8. Install bridge per instructions (Item 3).
- 9. Attach ETA Double End caps per instructions. (Item 2)
- 10. Connect free end of runway whip hose (Item 8b) to open end of air hose bracket (Item 6), on bridge. (Air Hose bracket included in bridge kit)
- 11. Install Bridge Festoon Kit using brackets,cable, whip hose, and coiled hose to bridge using steps 1,2,3,4 & 6 above.

■ Unified Industries, Inc. recommends the use of a Filter Regulator or Filter Regulator Lubricator with any air festooning.

If using FR or FRL:

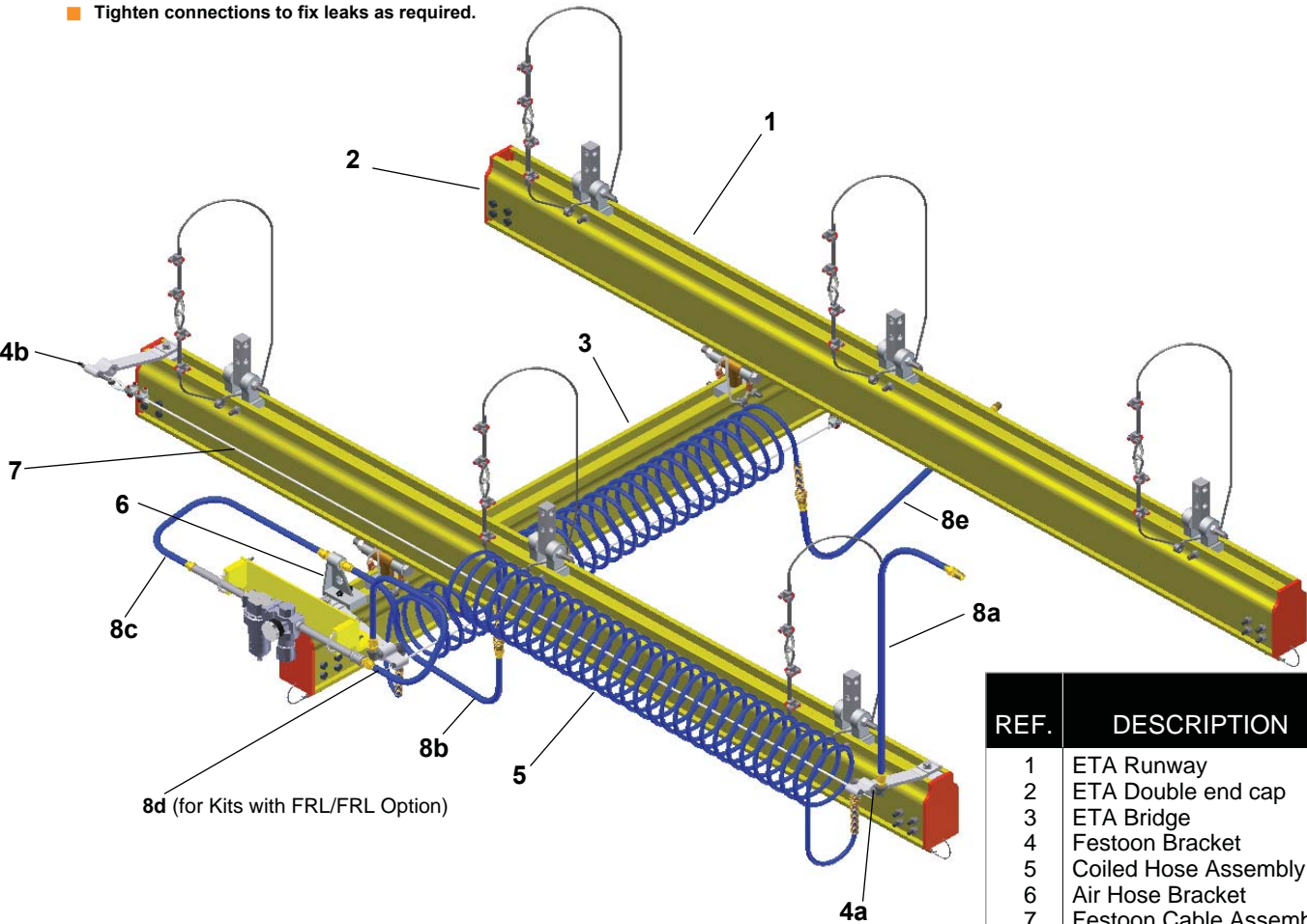
- a. Attach a whip hose (Item 8c) to Air Hose bracket on bridge and to FR or FRL.
- b. Connect another whip hose (Item 8d) to FR or FRL and top elbow of Bridge festoon bracket.

If NOT using FR or FRL:

- a. Attach a whip hose (Item 8c) to Air Hose bracket to top elbow of bridge festoon bracket.
- b. Install coiled hose to bottom elbow on festoon bracket.
- c. Use coupling and attach whip hose (Item 8e) to other end of coiled hose.

SYSTEM CHECK

- Pressurize system and check for leaks.
- Tighten connections to fix leaks as required.



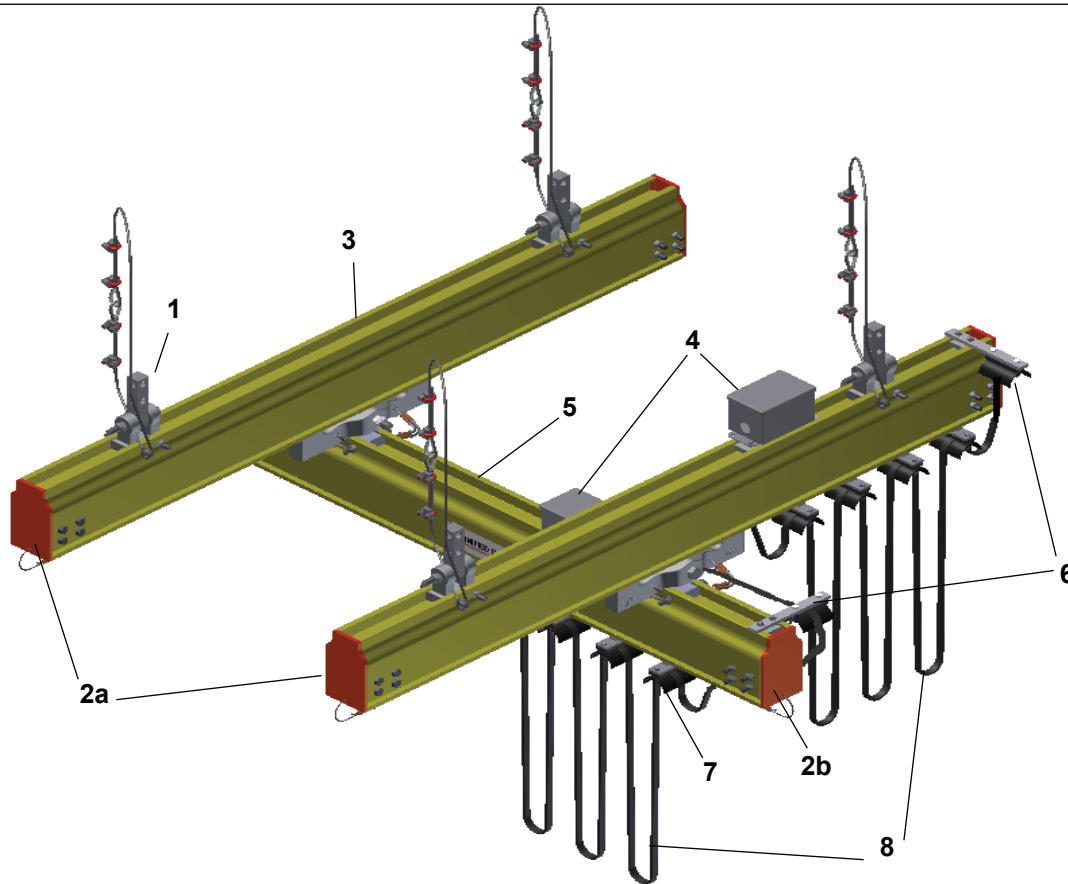
REF.	DESCRIPTION
1	ETA Runway
2	ETA Double end cap
3	ETA Bridge
4	Festoon Bracket
5	Coiled Hose Assembly
6	Air Hose Bracket
7	Festoon Cable Assembly
8	Whip Hose

INSTALLATION OF ETA FLAT WIRE ELECTRIFICATION

■ Note: ETA runways should be installed level and secured, prior to festoon installation.

INSTALLATION PROCEDURE

1. Loosen nuts and bolts on flat wire saddles attached to the trolleys.
2. Roll trolleys with flat wire saddles (Item 7), into the end of the runway closest to the power drop.
3. Install bridge per instructions page (Item 5).
4. Attach ETA Double End Caps per instructions page (Item 2a).
5. Install load trolley or hoist.
6. Roll trolleys with flat wire saddles into the end of bridge rail.
7. Attach ETA Double End Caps per instructions page (Item 2b).
8. Connect junction boxes, (Item 4), to top of runway and on top of bridge in locations where there will be no interference with bridge operation.
9. Connect plant electrification to runway junction box (Item 4). **NOTE: Make sure power to wire is turned off**
10. Attach flat wire (Item 8), to runway junction box and insert through runway flat wire anchor (Item 6).
11. Insert flat wire through saddles on runway trolleys with maximum equal spacing of five feet.
12. Install end of runway flat wire through bridge flat wire anchor (item 6) and into bridge junction box.
13. Attach bridge flat wire from bridge junction box (Item 4) and insert through bridge flat wire anchor (Item 6).
14. Insert flat wire through saddles on bridge trolleys with maximum equal spacing of five feet.
15. Connect bridge flat wire to hoist.
16. Tighten nuts and bolts on flat wire saddles.



REF.	DESCRIPTION
1	Hanger
2	ETA Double end cap
3	ETA Runway
4	4" x 4" x 4" Junction Box
5	ETA Bridge
6	ETA Flat Wire Anchor
7	Trolley w/ Saddle
8	Flatwire

INSTALLATION OF AN ETA JIB CRANE

■ All standard ETA jibs are shipped in (2) pieces, Jib Column Assembly (see figure 1) and Jib Crane Assembly (see figure 2).

1. Place Jib Column Assembly in desired location.
2. Shim under base plate to level vertical column in all directions.
3. Use concrete lag bolts or threaded rod and epoxy to secure Jib Column Assembly in place. Always allow the manufacturer recommended dry time for epoxy type anchors before installing the Jib Crane Assembly. The print package shipped with the jib will specify the minimum anchor requirements for your Jib Crane.
(Anchor Bolts not included with Jib, but may be purchased)
4. Attach lower hinge to lower jib hinge mount as shown in figure 2.
5. Hand tighten the nut on the lower hinge assembly.
6. Attach the upper hinge to the upper hinge mount as shown in figure 2.
7. Hand tighten upper and lower slot nuts. Install cotter pin through slot nuts and hinge bolts at upper and lower hinge mount. Secure the cotter pin by spreading the prongs in opposite directions, using pliers if desired. **Do not over tighten.**

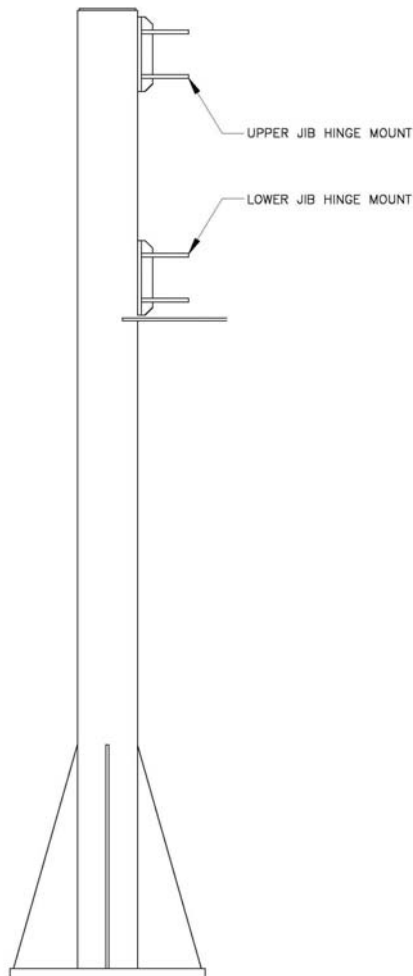


Figure 1 --Jib Column Assembly

ETA Jib and Column Maintenance:

- A visual inspection of all components should be done every 6 months to check for loose, damaged or missing parts. This should include hardware, concrete anchors, tie-rod, upper and lower hinge assemblies and safety pins.
- The grease zerks located on the upper and lower hinges should be greased every 6 months with an all purpose lithium-based grease. For high cycle applications the zerks may need to be greased more often.

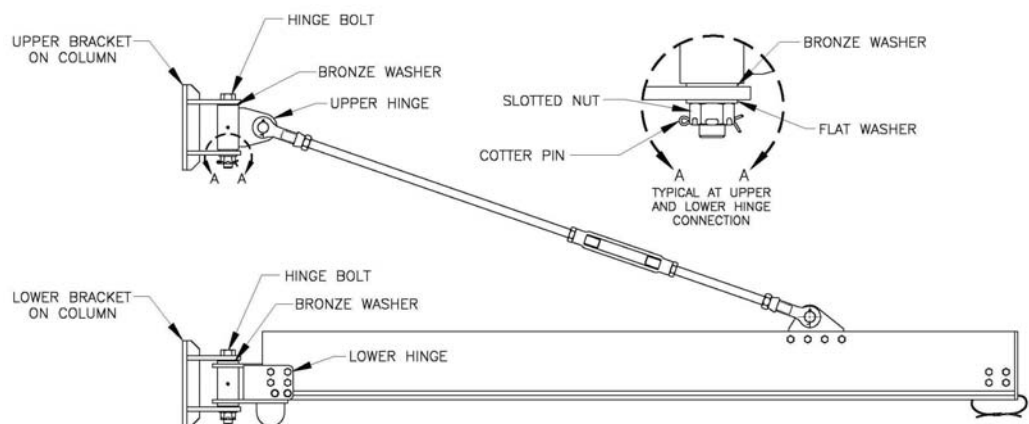


Figure 2 --Jib Crane Assembly

INSTALLATION OF A FREE STANDING STRUCTURE

This structure is designed to be self-supporting and stable after it is fully completed. It is solely the contractor's responsibility to ensure the stability of the structure and its component parts, and the adequacy of temporary or incomplete connection, during erection. This includes the addition of whatever temporary bracing, guys, or tie-downs that might be necessary. Such material is not shown on drawings. If applied, they shall be removed as conditions permit, and shall remain the contractor's property.

1. Use install prints to layout columns. Take careful note to ensure column top plates are in the orientation showing on the installation prints.
2. Place header beams on top of columns. Attach header to column using provided hardware and pretension per drawing notes.
3. Locate stringers locations from print.
 - Stringer must be level ± 0.188 inches per 20 feet.
 - Stringer must be parallel ± 0.125 inches
4. Use supplied hardware to attach stringers to headers using provided hardware and pretension per drawing notes.
5. Install ETA system per instructions on page 18.

