

10.0 Installation & Specifications

10.1 GENERAL MOUNTING INSTRUCTIONS

Mark 5 series generators are specifically designed for underslung mounting on railcars. The unit is designed to be supported exclusively from the (2) endplates **Item #1**. These are the **only** approved mounting surfaces; mounting of the unit from any other surface may result in catastrophic failure of the unit enclosure and will void manufacturers warranty and relieves Stadco of all responsibilities with regard to the units frame integrity and strength.

It is the responsibility of the installer to provide mounting members and necessary hardware to mount the generator unit to the railcar. Be sure to provide members with ample strength to withstand and maintain structural integrity under the impact of coupling railcars and stresses of railroad travel.

Mounting load should be evenly distributed across the entire width of the unit endplate. Do not concentrate mounting load & stresses to a small area, as this may cause structural failure of the unit endplate. Support members are to be bolted to the generator unit endplates using only high quality grade 8 hardened bolts. A series of (12) holes for 1/2" Dia. bolts are provided on each endplate.

When mounting the generator unit, be certain to mount it in a level attitude both front to back and end to end.

CAUTION: Always disconnect the battery cables before attempting to weld on the unit, otherwise damage to the battery charging alternator or other electrical components may result. General Warranty notes apply. Refer to section 14.1.

10.2 MOUNTING USING OPTIONAL SERVICE TRACK KIT #1508

Service track kit #1508 is designed to aid in periodic maintenance and service by allowing you to roll the unit out from under the railcar where it can easily be accessed from all sides. The following installation instructions will refer to **DRAWINGS 12230_P1, 12230_P2, & 121230_P3 & 1508**.

A few items to consider before beginning installation:

- What clearances are needed for rolling genset unit in and out?
- Connection & disconnection of engine exhaust system.
- Extra length of load cables & control system cords to allow for roll out of genset unit or connection/disconnection plugs.
- Extra length of fuel hose or use of a quick disconnect coupling. Be sure to install either a shut-off valve or spill-proof couplings.

IMPORTANT: Depending upon available tools, you may need to drill the mounting holes in the main carrier rails before they are installed. See step D) for locating these holes.

- A) To mount the main carrier rails, **Item #5**, select the mounting dimension "**A**", according to GENSET MODEL. It is the installers responsibility to provide support members to attach the main carrier rails to the railcar frame structure. Support members should be attached to surfaces labeled "**Z**", of the main carrier rails. Other surfaces must remain clear to provide unobstructed roll-out of the genset unit. Be sure to provide members with ample strength to withstand and maintain structural integrity under the impact of coupling railcars and stresses of railroad travel.

IMPORTANT: Be sure to leave clearance at battery box to allow genset to roll in and out. Battery box protrudes past main carrier rail. Do not block the hot air discharge or the cool air intake openings. You can find these locations on the unit sales drawings.

Do not concentrate the mounting stresses of the support members to a small area of the main carrier rails **Item #5**, as this may cause structural failure. If the main carrier rails need to be shortened they may be cut to desired length. Position the main carrier rails **Item #5** with the roller guides facing each other. Make certain the rails are parallel with each other and level in all directions. This is important to prevent stressing of mounting members & the genset frame when bolting into position. This will also insure equal weight distribution onto rollers when rolling genset in & out.

- B) The next step is to install & assemble the roller mounting brackets **Items #8 & #9**. Start by attaching (1) **Item #8** mounting bracket to genset endplate at right front corner. Assemble using (6) each **Item #'s 19,20 & 21**. Securely tighten. Repeat for remaining **Item #8** at left rear corner and (2) **Item #9** at right rear and left front corners.
- C) Next step is to install rollers as shown on drawing no. 1508. Place roller **Item #11** onto spindle **Item #10**. Place (1) 3/4" SAE flat washer **Item #12** onto 3/4"-10 x 3.5" lg. grade 8 bolt **Item #13**. Insert bolt w/ washer through spindle & roller assembly, through mounting bracket **Item #8** and through genset endplate.

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Place a second 3/4" SAE flat washer **Item #12** onto bolt **Item #13** and tighten securely with a 3/4"-10 conical locknut **Item #14**.

Repeat step C for the remaining three rollers.

- D) Before placing genset onto main carrier rails **Item #5** you must first locate the mounting holes for mounting bolts **Item #15**. Determine the desired genset location, drill (4) 9/16" diameter holes through main carrier rails.

The genset unit is ready to be placed onto the main carrier rails when the following steps have been completed:

1. The main carrier rails have been securely mounted to the railcar.
2. The mounting holes have been drilled.
3. The roller mounting brackets have been assembled and fastened to the genset endplates.

IMPORTANT: Be sure jacking screws **Item #18** are not protruding through support pads a greater distance than the thickness of the mounting spacers.

- E) Locate (4) mounting pad spacers **Item #16**. Spacers must be placed under mounting bracket support pads **Items #8 & #9**, before fastening genset to main carrier rails. Secure the genset with (4) 1/2"x 6.00 lg. grade 8 hex head bolts **Item #15** & 1/2" grade 8 nylon locknuts **Item #17**. Roller wheels **Item #11** should not be making contact with main carrier rails when the genset is in transport (operating) position.

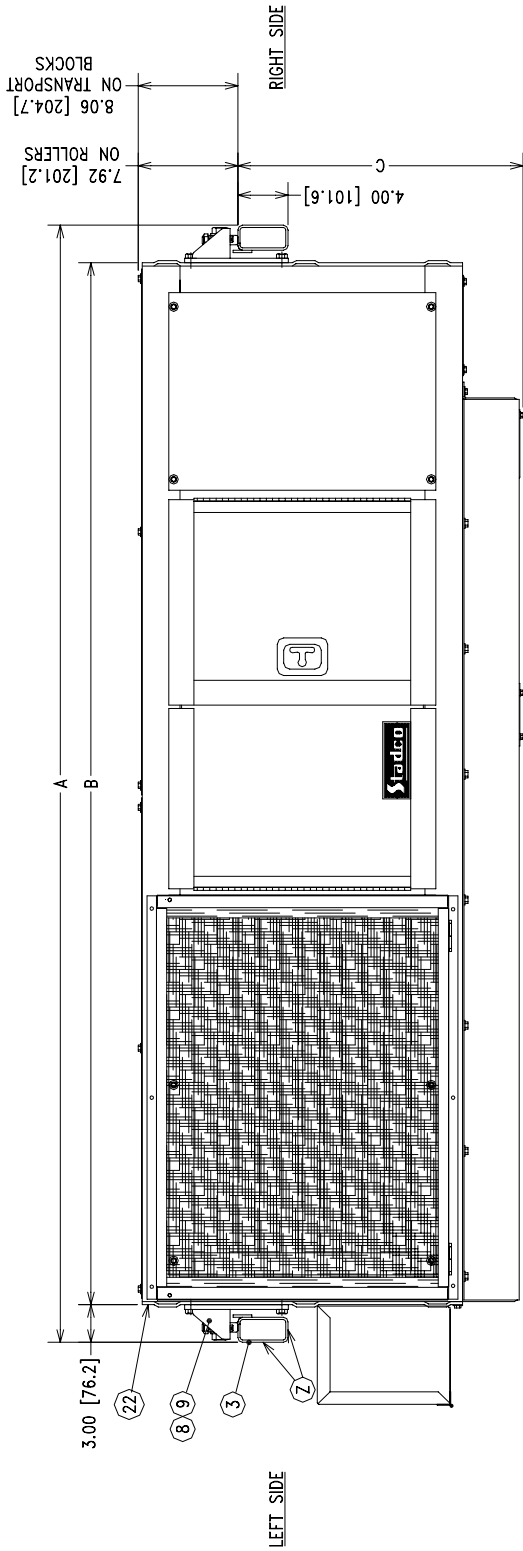
NOTE: Do not store extension rails, support legs, and their associated hardware inside the genset enclosure.

The following actions will automatically void all Stadco warranty coverage:

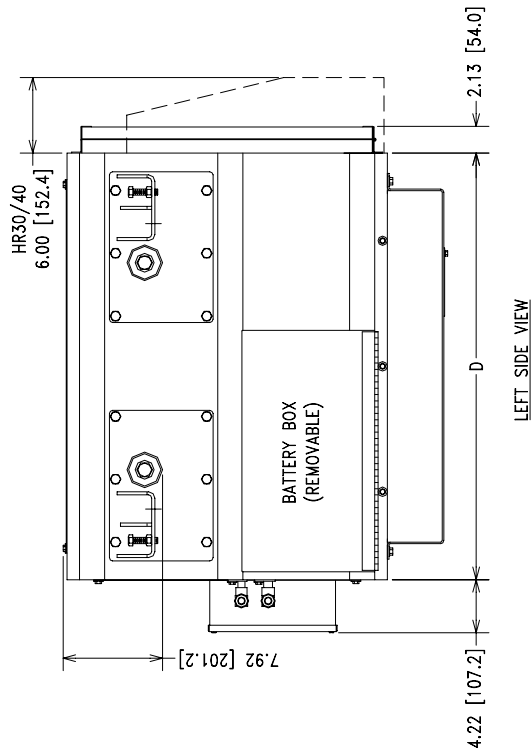
- a. Failure to use Stadco designated attachment points for mounting the genset unit.
- b. Storing service track extensions, support jacks or any other unapproved or loose equipment inside the genset enclosure.
- c. Installation of any equipment, not approved by Stadco in writing, that would destroy the integrity, performance or service life of critical internal systems of the generator unit.
- d. Unapproved modifications to the generator unit.

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Figure 10.1.1 - Roll Out Kit #1508 Mounting Details (Drawing #12230B_P1)



SERVICE SIDE FRONT VIEW



LEFT SIDE VIEW

MODEL	DIMENSION (NOMINAL)			
	A	B	C	D
5-62DA	89.0"	83.0"	22.7"	32.0"
5-80DA	95.5"	89.5"	24.7"	34.0"
5-140DE	111.0"	105.0"	25.0"	36.0"
5-150DA	111.0"	105.0"	25.0"	38.0"

NOTE:

1. MOUNTING HOLES FOR ITEM #2 BRACKET ARE FACTORY LOCATED. FOR INSTALLATION INSTRUCTIONS
2. SEE OPERATION AND MAINTENANCE MANUAL.
3. FOR SPECIFIC UNIT DIMENSIONS SEE SALES DRAWING.

Drawing 12230B_P2

Figure 10.1.1a - Roll Out Kit #1508 Mounting Details (Drawing #12230B_P2)

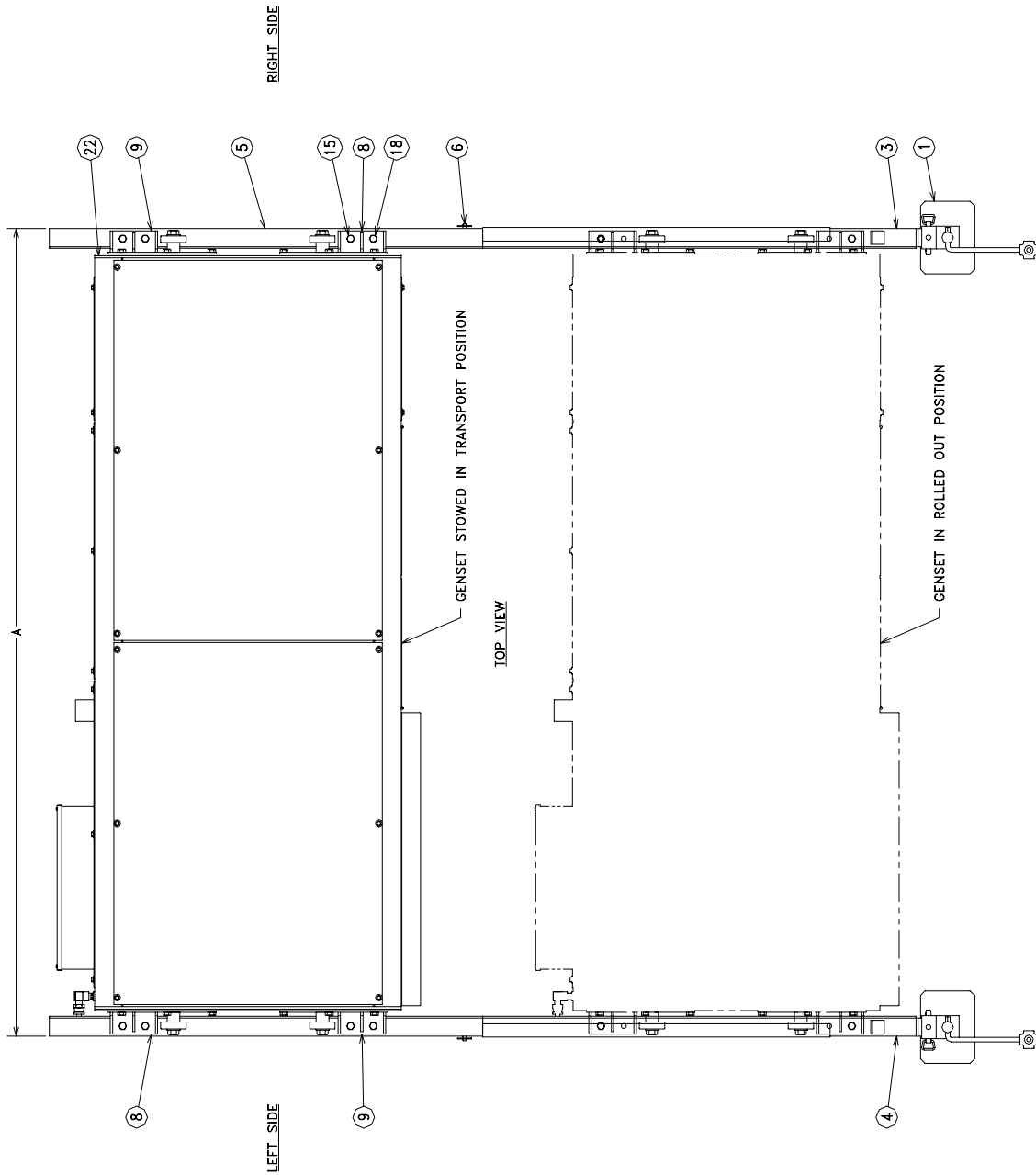
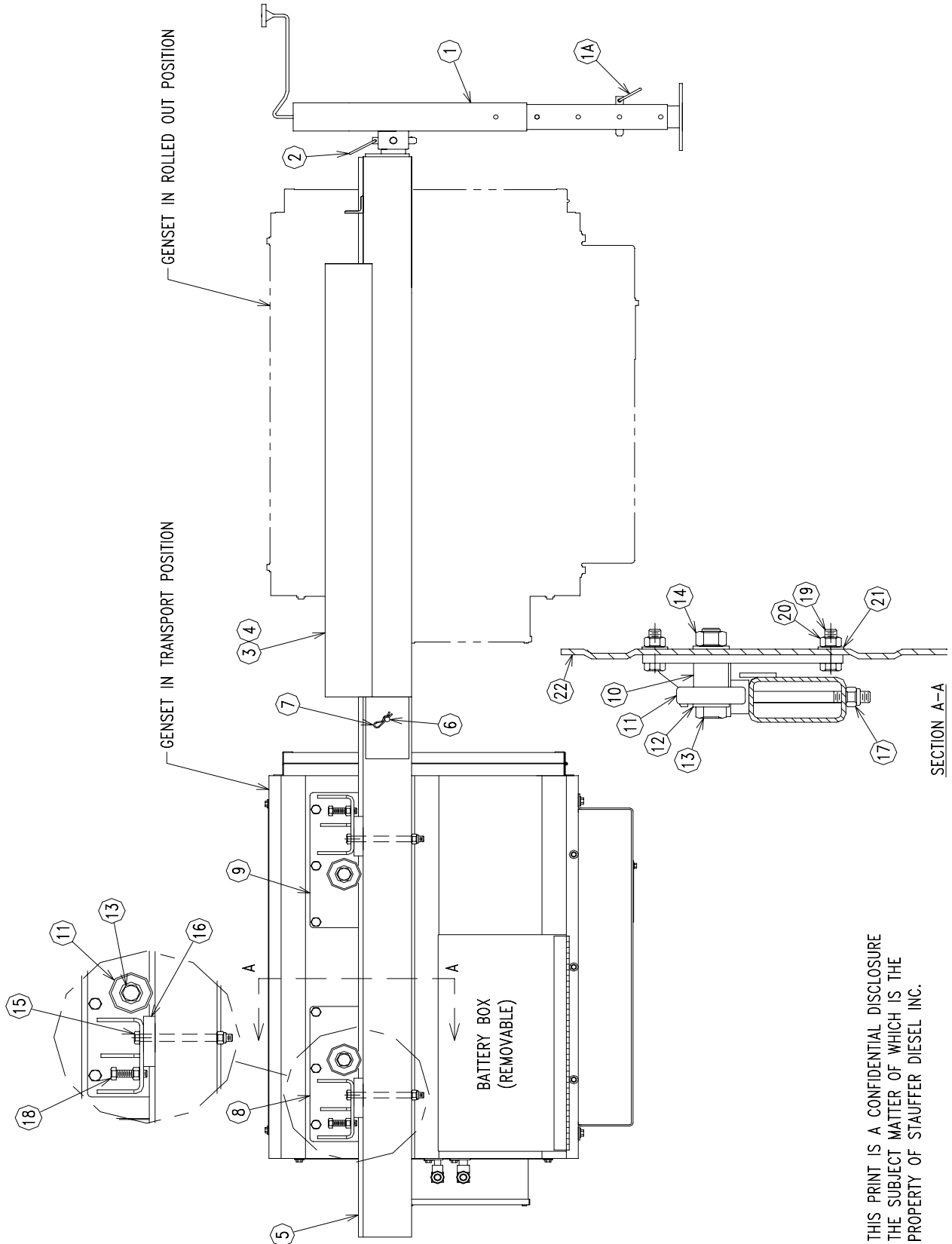


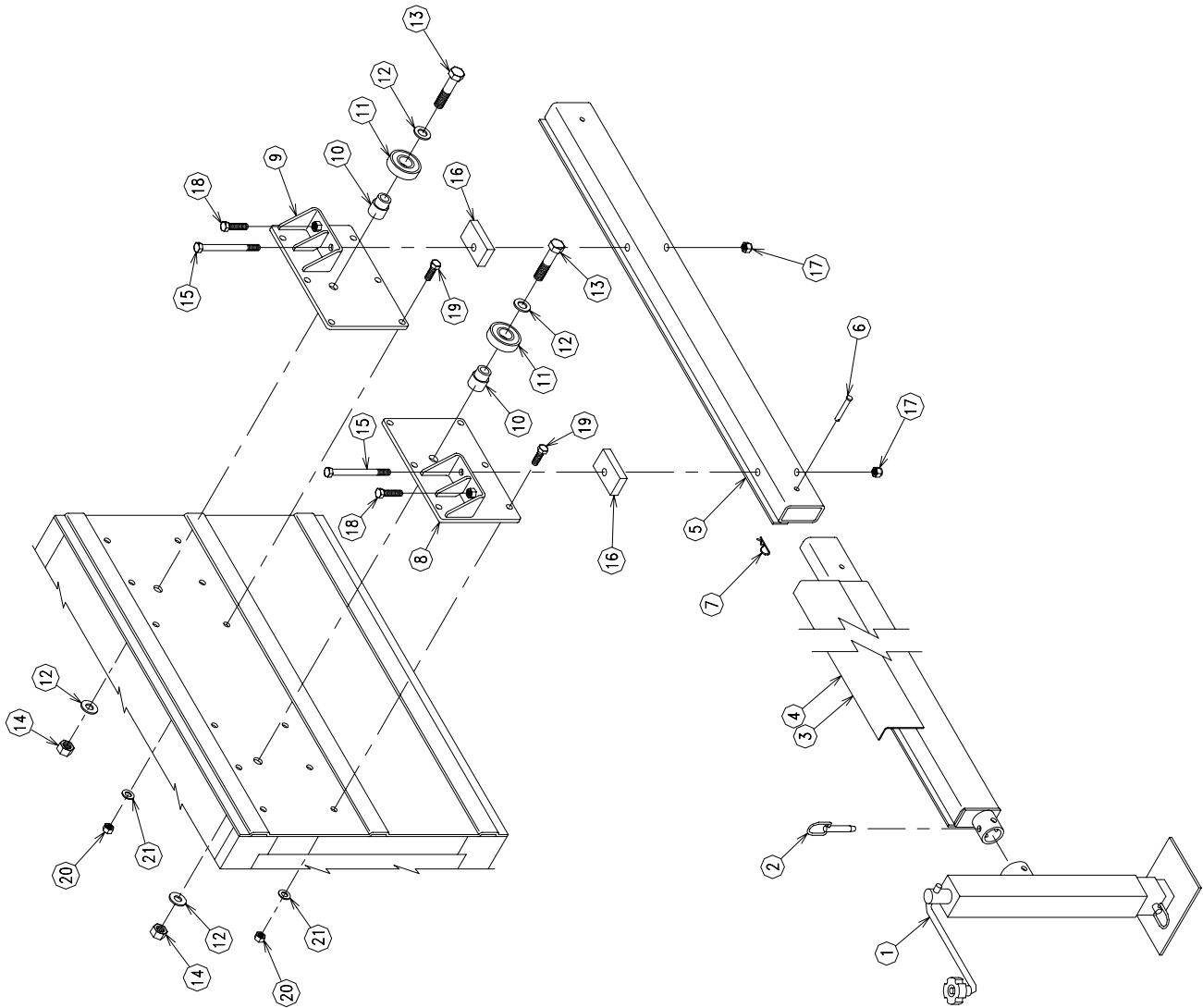
Figure 10.1.1b - Roll Out Kit #1508 Mounting Details (Drawing #12230B_P3)



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Service Track Assembly Drawing 1508

Figure 10.1.2 - Roll Out Kit #1508 Parts Details (Drawing #1508)



ITEM	REQ'D	DESCRIPTION
21	4	Ø1/2 SAE G8 FLAT WSHR PN:57196
20	24	Ø1/2-13 GC STOVER LOCKNUT PN:57192
19	24	Ø1/2-13 x 1.5 LG G8 HHCS PN:56899
18	4	Ø1/2-13 x 2.0 LG FULL THRD. HHCS PN:56902
17	4	Ø1/2-13 G8 NYLON LOCKNUT PN:57194
16	4	3/4 TH. 80A S.H. RUBBER BLOCK PN:21689
15	4	Ø1/2-13 x 6.0 LG G8 HHCS PN:56900
14	4	Ø3/4-10 GC STOVER LOCKNUT PN:57193
13	4	Ø3/4-10 x 3.5 LG G8 HHCS PN:56901
		Ø3/4 SAE G8 FLAT WASHER PN:57197
11	4	BALL BEARING PN:62247
10	4	BEARING SPINDLE PN:2270
9	2	MOUNTING BRACKET PN:21684
8	2	MOUNTING BRACKET PN:21685
7	2	Ø3/32 HAIR PIN PN:56905
6	2	Ø3/8 CLEVIS PIN x 2.5 LG. PN:56903
5	2	PRIMARY CARRIER TRACK PN:21013
4	1	LEFT SIDE CARRIER TRACK EXTENSION PN:1398
3	1	RIGHT SIDE CARRIER TRACK EXTENSION PN:1319
2	2	Ø9/16 PIN PN:57116
1	2	JACK STAND PN:21297