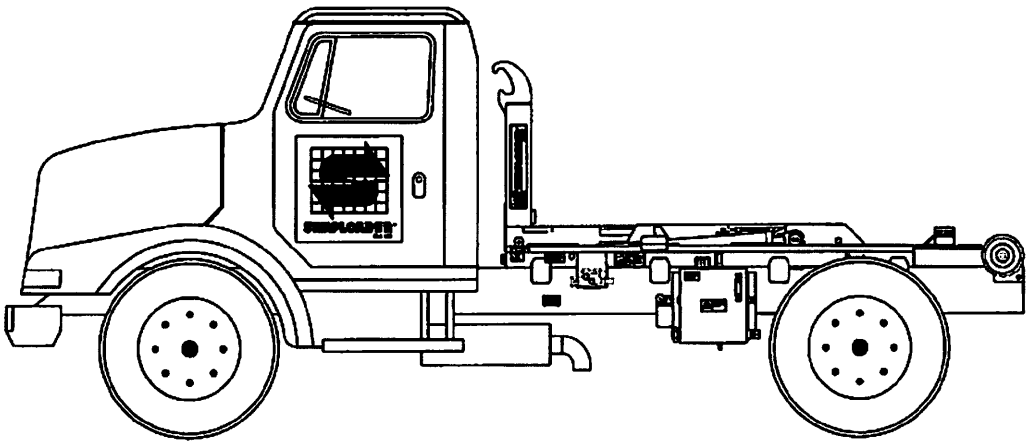
SWAPLOADER®
U.S.A. LTD.

# Model SL-95

# Parts and Operations Manual



Hoist Serial Number: _____

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# INTRODUCTION

## SWAPLOADER U.S.A., LTD.

### TO THE CUSTOMER

Your new SwapLoader was carefully designed and manufactured to give years of dependable service. To keep it operating efficiently, read the instructions in this manual thoroughly. It contains detailed descriptions and instructions for the efficient operation and maintenance of your SwapLoader. Each section is clearly identified so you can easily find the information that you need. Read the Table of Contents to learn where each section is located. All instructions are recommended procedures only.

Throughout this manual you will come across **"Dangers," "Warnings," or "Cautions"** which will be carried out in bolt type and preceded by the symbol as indicated to the left. Be certain to carefully read the message that follows to avoid the possibility of personal injury or machine damage.

Record your SwapLoader serial number in the appropriate space provided on the title page. You SwapLoader dealer needs this information to give you prompt, efficient service when you order parts. It pays to rely on an authorized SwapLoader Distributor for your service needs. For the location of the Distributor nearest you, contact SwapLoader.

**NOTE:** It is SwapLoader's policy to constantly strive to improve SwapLoader products. The information, specifications, and illustrations in this publication are based on the information in effect at the time of approval for printing and publishing. SwapLoader therefore reserves the right to make changes in design and improvements whenever it is believed the efficiency of the unit will be improved without incurring any obligations to incorporate such improvement in any unit which has been shipped or is in service. It is recommended that users contact an authorized SwapLoader Distributor for the latest revisions.

# LIMITED WARRANTY STATEMENT

Effective October 1, 2004

SwapLoader U.S.A., Ltd., (SwapLoader), warrants to the original purchaser of any new SwapLoader product for a period of thirty-six (36) months from the date of Retail Sale by an authorized SwapLoader distributor or service center, that such products are free of defects in material and workmanship. SwapLoader will, at its discretion, either repair the defective parts or replace them with equivalent parts, subject to the conditions below unless deferred warranty is approved by SwapLoader U.S.A., Ltd.

- Replacement or repair of parts will be provided for 36 months on SwapLoader products, subject to any applicable federal, state or local taxes. Labor charges authorized by the SwapLoader Warranty Department are covered for a period of 90 days from the date of Retail Sale by an authorized SwapLoader Distributor or service center.

- Defective parts must be reported to SwapLoader within 30 days of discovery on a SwapLoader warranty claim report form.

- Warranty Registration Card must be returned within 15 days of Retail Sale of SwapLoader hoist to SwapLoader, Des Moines, Iowa. If unit has not been registered, then the warranty start date will revert to the original factory invoice date.

- Warranty shall not apply if the equipment is operated at capacities in excess of factory recommendations.

- The warranty covers only defective material and workmanship. It does not cover depreciation or damage caused by normal wear and tear, accident, mishap, untrained operators, or improper or unintended use. The owner has the obligation of performing routine care and maintenance duties as stated in SwapLoader's written instructions, recommendations, and specifications. Any damage resulting from owner/ operator failure to perform such duties shall void the coverage of this warranty. The cost of labor and supplies associated with routine maintenance will be paid by the owner.

- In no event will SwapLoader, the SwapLoader distributor or any company affiliated with SwapLoader be liable for business interruptions, costs of delay, or for any special, indirect, incidental or consequential costs or damages. Such costs may include, but are not limited to loss of time, loss of revenue, loss of use, wages, salaries, commissions, lodging, meals, towing, hydraulic fluid, travel, mileage, or any other incidental costs.

- SwapLoader is not responsible for the removal or replacement of accessories (fenders, toolbox, etc.).

- Warranty service must be performed by a distributor or service center authorized by SwapLoader to sell and/or service SwapLoader products, which will use only new or remanufactured parts or components furnished by SwapLoader U.S.A., Ltd.

- Warranty is expressly void if seal on the main relief control valve has been broken.

- SwapLoader will ship the replacement part by the most economical, yet expedient means possible. Expedited freight delivery will be at the expense of the owner.

- Warranty is expressly void if serial number plate or stamping is tampered with.

IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT THERE ARE NO WARRANTIES MADE BY THE MANUFACTURER OR ITS AGENTS, REPRESENTATIVES OR DISTRIBUTORS, EITHER EXPRESSED, IMPLIED, OR IMPLIED BY LAW, EXCEPT THOSE EXPRESSLY STATED ABOVE IN THIS STANDARD LIMITED WARRANTY AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP. THE MANUFACTURER AND ITS AGENTS, REPRESENTATIVES AND DISTRIBUTORS SPECIFICALLY DISCLAIM ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

# SAFETY SUGGESTIONS

1. Do not operate or service this equipment until you have been properly trained and instructed in its use and have read the operation and service manual.

2. Do not operate this equipment on uneven ground.

3. Do not drive with the container in a dump position or with the hook to the rear.

4. Do not exceed 1,500 Engine RPM when operating the Power Take Off (P.T.O.). Never leave the P.T.O. in gear while transporting.

5. The hoist must be used with containers that properly fit the hook and rear holddowns. The container specifications must match the hoist specifications.

6. Keep the containers and hoist in good working order. **DO NOT** use if repairs are needed. Perform periodic inspections and maintenance as required by the maintenance section of the operator's manual.

7. Make sure work area is clear of people and obstacles prior to dumping or unloading containers. SwapLoader strongly recommends that a back up alarm be installed on the truck chassis. The operation of the hook hoist is that the truck is backed up to the body to pick it up and so there is a potential pinch point between the body and the hook.

8. Any container which is on the hoist **MUST** be unloaded prior to performing any repairs or maintenance to the hoist. Also, **DO NOT** allow any person to work on or be under the hoist in a raised position without first installing adequate safety blocks to eliminate all possibility of the hoist accidentally lowering. SwapLoader strongly recommends that if possible the container should be dismounted from the hoist prior to performing any maintenance to the hoist.

9. It is the responsibility of the owner and/or installer to insure that any additional safety devices required by state or local codes be installed on the SwapLoader Hoist and/or Truck Chassis.

# INSTALLATION

## INITIAL INSPECTION

When the SwapLoader hoist is received from the factory, you should inspect the hoist for damage, which may have occurred in shipment. If damage has occurred, you should contact the shipper immediately. Be sure to note any damage or missing items on bill of Lading.

You should then check the hoist to insure you have received all the parts as indicated by the Packing List and the Ship Loose Box List.

If you have any problems, shortages, or questions, please contact SwapLoader U.S.A., Ltd. immediately.

## GENERAL INSTALLATION PROCEDURE

The installation of the SwapLoader on a truck chassis will generally follow these steps:

1. Install hoist assembly onto truck chassis.

2. Mount the hydraulic control valve to the hoist and install the hydraulic plumbing from the control valve to the hydraulic cylinders. Then install the control levers in the cab and route the control cables to the hydraulic control value assembly.

3. Install the hydraulic tank, hydraulic filter, and hydraulic plumbing between the hydraulic tank and the control valve assembly.

4. Select and install the P.T.O. on the truck transmission. (Note: This can be done prior to hoist installation on the truck chassis.)

5. Install the hydraulic pump and the plumbing from the pump to the hydraulic tank and control valve assembly.

6. Fill the hydraulic tank with oil, bleed the air from the pump suction line, and start up the unit.

Although SwapLoader attempts to include the mounts and attaching fasteners with each hoist unit, your particular installation may require some additional mounts or modifications. If you have problems with your installation, please contact SwapLoader at 1-888-767-8000, as we may be aware of another customer who has installed a SwapLoader on a similar truck chassis.

## HOIST INSTALLATION TO TRUCK CHASSIS

1. Place the SL-95 hoist assembly on the truck chassis. The truck chassis mounting surface should be flat without any steps or protrusions. If necessary shim bars need to be added to ensure a flat surface on which to support hoist. The truck chassis should meet the following minimum specifications (See Figures A & B):

RBM for each frame channel: 350,000 in.-lb.
Total RBM: 700,000 in.-lb.
Minimum clear frame rail for mounting: 130" (See Fig. A)
Front Axle Cap: 4,000 lb. (Min)
Total Rear Axle Capacity: 9,000 lb. (Min)
CA Dim: 78" to 96" (96" preferred)

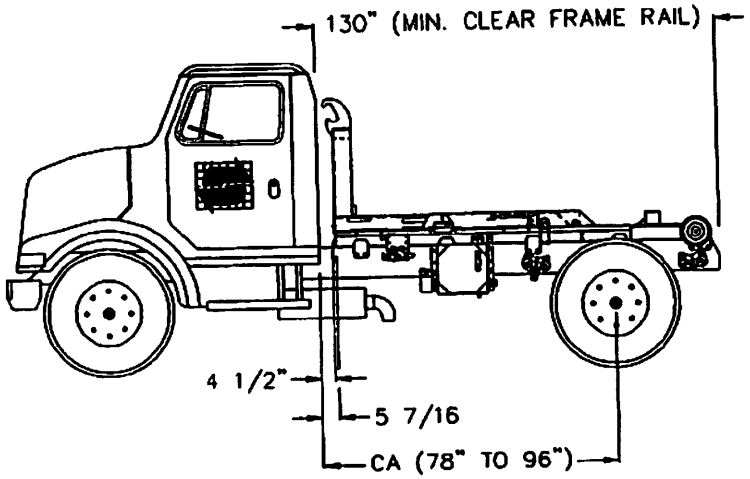



**Figure A**

**Note: The above specifications are a minimum requirement. It is the responsibility of the owner/operator to ensure the completed chassis meets or exceeds all federal, state, and local regulations. Also, the hoist should not be used to lift and haul any load that exceeds the load rating of any of the individual components of the completed chassis (tires, axles, suspension, etc.)**

The clear frame dimension indicated in the picture above allows for the overall length of the hoist plus 5 inches for cab clearance and rear light bar mounting. Extra frame length may be needed to allow for mounting additional accessories (e.g. Cab Guard, Tarper, Light Kit, etc.). For example, when mounting a light kit on a truck with a long CA, check that the hoist and the light kit are positioned far enough back to eliminate any interference between the fender and the light kit. You should also consider the final weight distribution with regard to the bridge code when positioning the hoist.

2. There are two types of mount brackets used on the Model SL-95 hoist as indicated in Drawing No. 11H19. They are the front mount brackets (Pt. No. 22H38), and the rear mount brackets (Pt. No. 22H39).

Locate the mount brackets on the side of the hoist as indicated in Figure C. These dimensions are flexible because of possible interference with chassis components. Also allow for mounting the control valve assembly and the hydraulic tank. You should consult the truck chassis supplier for any limitations regarding drilling mount holes in the truck chassis frame rails. Typically, the holes must be at least 2 ¾" from the top of the truck chassis rails (Reference figure C & D).

Once the locations of the mount brackets have been determined, use the mount brackets as a template for marking the mounting holes in the truck chassis frame rails. Drill the 17/32 diameter holes required and attach the brackets to the truck chassis with the 1/2-inch diameter bolts, washers, and locking hex nuts provided. Torque to 110 ft.lbs.

3. Weld the mount brackets to the hoist mainframe as indicated on Figures C thru D. You may need to modify the mount brackets or add shim plates to allow for variances in the width of the truck chassis as well as to allow for top rivets, stepped channels, etc.

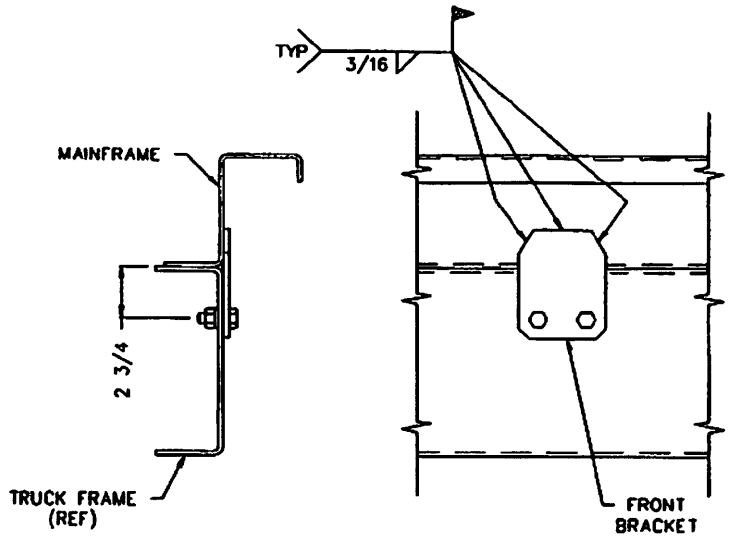



**Figure C**

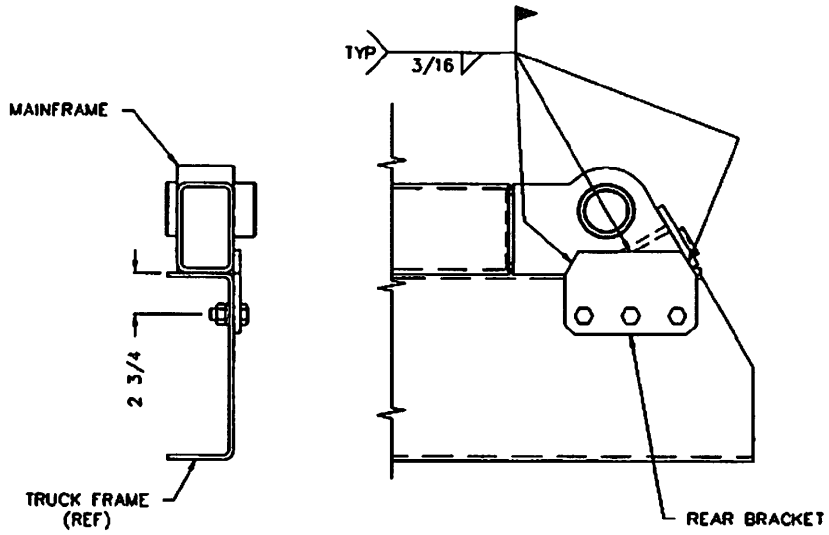



**Figure D**

**Note: Prior to any welding, consult the truck manufacturer for any special precautions that may need to be taken. Typically the batteries must be disconnected and the ground lead from the welder should be connected as close as possible to the part being welded to avoid the possibility of arching across bearings, gears, etc.**

**Note: The hoist mainframe is made from high strength low alloy steel. Use an appropriate welding process.**

## CONTROLS INSTALLATION - MANUAL

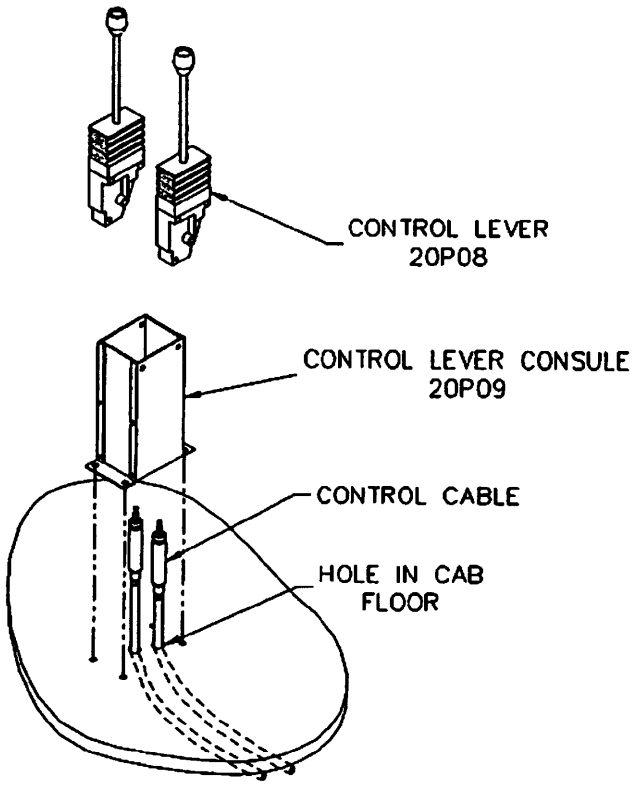
1. Attach the valve mount bracket (Pt. No. 10H51) to the mainframe as indicated on Dwg. No. 90H64 with the fasteners provided.

2. Mount the hydraulic control valve assembly (Pt. No. 20P39) to the valve mount bracket as shown on Drawing No. 90H64 with the fasteners provided.

3. Install the hydraulic adapters and connect the hydraulic tubing (Pt. Nos. 11P09, 11P10, 11P11 and 11P12) to the control valve assembly as indicated on Drawing No. 90H27. The tubing should be supported by the clamp assemblies that are provided in the Loose Parts Box (See Drawing 90H25).

4. Determine the best location in the cab for the control levers (Pt. No. 20P08). The location should be such that the controls can be easily reached while operating the truck. A control lever console (Pt. No. 20P09) is provided to facilitate the mounting of the control levers.

5. Assemble and install the control lever console (See diagram below). Typically the console is fastened to the floor of the cab and the control cables are routed through additional holes drilled in the floor. Your particular installation may require that additional brackets be fabricated or other modifications made.



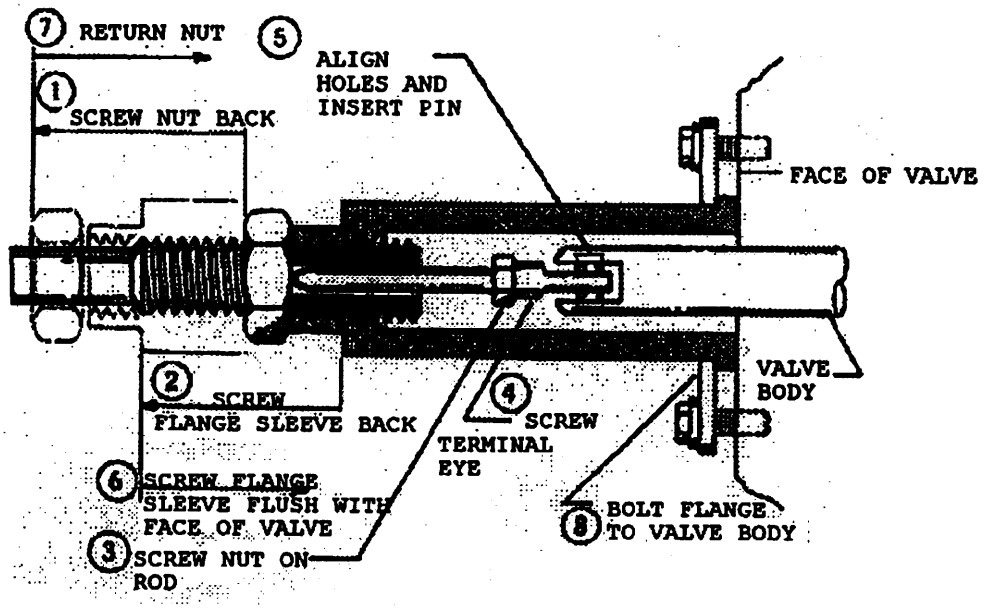
6. Attach the control cables to the control levers and route the cable through the holes in the cab. Install the control levers in the console. Levers should be installed such that when the levers are pushed forward the control cable is extended. See Drawing No. 90H64 (Manual Control Assembly) for control lever orientation.

7. Route the cables to the control valve location and attach them to the control valve with the bonnet connection kits provided (Pt. No. 20P10). See the following instruction sheet for installation procedures. The control cables supplied are 84 inches long. Your particular mounting may require different length control cables, which can be purchased locally or through Swaploader. Take proper care when routing the control cables, as a good cable path is essential for a proper operating system. Keep bends in the cable path to a minimum and be as generous as possible. Under no circumstances should any bend be tighter than an 8" radius. Protect the cable from heat above 225 degrees F. and avoid hot areas such as exhaust pipes, etc.. Protect the cable from physical damages such as pinching or crushing, and do not use cable supports, which may crush or deform the cable. Allow room for flexing where the cable is attached to moving parts of the equipment, so that the cable is neither kinked nor stretched.

## INSTALLATION PROCEDURE FOR A HYDRAULIC CONTROL CABLE TO HYDRAULIC VALVE WITH BONNET CONNECTION KIT

1. Turn .750-16 UNF Jam Nut entire length of Threaded Hub back over the Cable. Place Flange onto Sleeve.
2. Turn Flange/Sleeve Assembly entire length of Threaded Hub back over the Cable.
3. Turn .250-28 UNF Jam Nut onto Threaded Rod until it bottoms.
4. Turn Terminal Eye onto Treaded Rod until it bottoms against Jam Nut. (Minor adjustments may be necessary to align Terminal Eye with spool yoke.)
5. Slide the Terminal Eye into yoke on spool and align the holes. Insert Clevis Pin through yoke and Terminal Eye holes. Install Retaining Ring into groove between Terminal Eye and one side of the Yoke.
6. Now, with the Cable attached to the valve and control head, turn the Flange/Sleeve Assemble back onto the Threaded Hub until it is flush with the valve face. When turning on the Flange/Sleeve Assembly, make sure that the control head remains in neutral.
7. Thread the .750-16 UNF Jam Nut back over Threaded Hub and tighten against the Sleeve to lock in position.
8. Bring Flange into position on bolt assembly to valve housing.

**NOTE: FOR WORK SECTION NEXT TO INLET COVER, USE SPACER KIT.**



## HYDRAULIC TANK INSTALLATION

1. Select a location to mount the hydraulic tank. Reference Figure E or Drawing No. 90H64 for the suggested location of the hydraulic tank to the rear of the control valve assembly on the left-hand side of the truck. The hydraulic hoses have been sized for the tank to be mounted in this general area. The tank can be located on the right-hand side or behind the cab, if necessary, which means longer hoses may be required.

2. Drill four (4) holes for 1/2-inch diameter bolts (provided) in the mount angle of the hydraulic tank (two per angle) and the frame rails of the truck chassis. Mount the hydraulic tank and install the hydraulic filter. Install the hydraulic return hose and the hose barb fitting between the filter and the control valve assembly as shown on Drawing No. 90H26. The hose length can be shortened if necessary. Secure the hose to the barb fittings with the hose clamps provided.

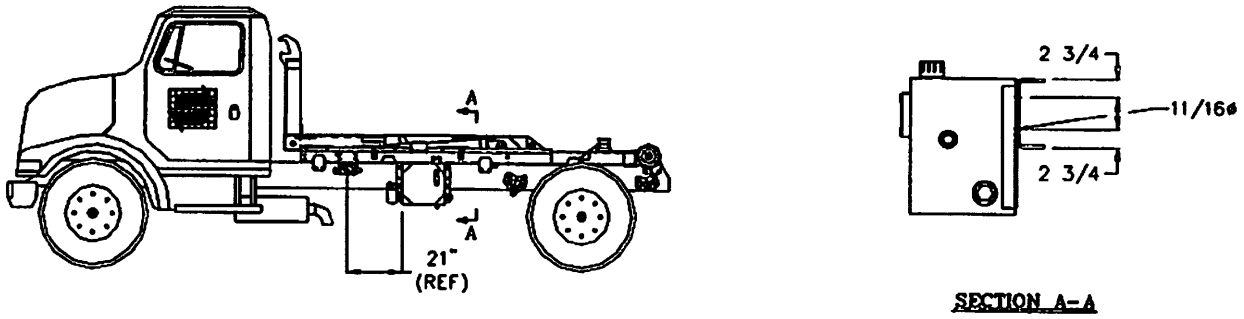



**Figure E**

## P.T.O. SELECTION

The next step is to select and install a direct drive type P.T.O. to the transmission. Please contact your local truck equipment representative for the correct unit sized on the following criteria:

| | |
|---|---|
| P.T.O. Torque Rating: | 80 ft.-lbs. (See Note 1) |
| Power at 1500 RPM: | 23 H.P. (See Note 1) |
| Output Flange: | SAE B 4 Bolt |
| Hydraulic Pump Spined Shaft Specifications: | 7/8 – 13T 16/32 D.P. |
| Hydraulic Pump Rotation: | L.H. As provided (See Note 2). The hydraulic pump rotation can be reversed to R.H. by a qualified hydraulic technician or it can be sourced through Swaploader. |
| Ratio of Pump RPM to Engine RPM: | 80% to 100% |

**NOTE 1:** P.T.O. torque and power requirements are based on the unit operating at main relief pressure. Normal operating pressure will be less.

**NOTE 2:** P.T.O. output rotation will need to be R.H. (clockwise) as viewed looking at output flange of P.T.O. for a L.H. Pump.

**NOTE 3:** Do not operate pump at speeds over 1500 R.P.M.

**NOTE 4:** Always disengage the P.T.O. after each operating cycle.

## PUMP INSTALLATION

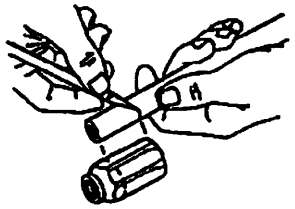
1. Install the hydraulic pump to the P.T.O. (Bolts are not provided).

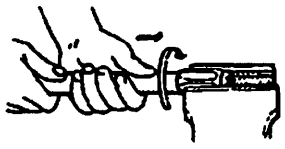
2. Install the hydraulic fittings into ports on the hydraulic pump as shown on Drawing No. 90H26.

3. Connect the suction hose assembly to the hydraulic tank (1" I.D. hose) and route to the hydraulic pump in as short and straight line as possible. Be sure to route the hose clear of exhaust components and of the drive shaft. Extra hose is provided so the hose can be shortened to an appropriate length. Install the hose on the hose barb fittings at the tank and at the pump and secure with the hose clamps provided.

   **NOTE: Prior to startup, this hose must be filled with oil.**

4. Connect pressure hose assembly (1/2 inch I.D. hose) to control valve inlet and route to the pump the same as the suction line. This hose is provided with only one fitting, so the hose can be shortened to appropriate length. Remove the hose and shorten as required. After the hose has been shortened, lubricate the insert threads of the fitting and the I.D. of the hose. Measure 1 3/16 inches from the end of the hose and mark the hose for the socket depth. Screw hose into the socket (left-hand thread) to the depth marked on the hose. Screw insert in socket until insert touches the socket. Clean the inside of the hose assembly by either blowing clean compressed air through it or by flushing it. Install the completed hose assembly to the inlet port of the control valve assembly and the outlet port of the hydraulic pump.





5. Tie up the pressure and suction hoses as necessary. Again, be sure the hoses are routed to avoid exhaust components and to stay clear of the drive shaft.

## START UP PROCEDURE

1. Fill the hydraulic tank with hydraulic oil (see oil specification in Maintenance Section.)

2. Prime the pump by loosening the clamp on the suction hose at the pump. Pull the hose back off the fitting till the air is bled from the line. Push the hose back on the fitting and retighten the clamp.

3. Engage the P.T.O. and run the pump at idle (700 to 900 RPM). Operate the cylinders at full stroke five to ten times to bleed the air from the lines and cylinders. The cylinders were filled with oil during testing at the factory, but some seepage may have occurred during shipping and installation. Refill the hydraulic tank, if needed, during this sequence and do not let the pump run without oil.

4. Check for leaks and tighten fittings as necessary.

5. Verify the movement of the control levers corresponds to the movement of the cylinders per Figure A.

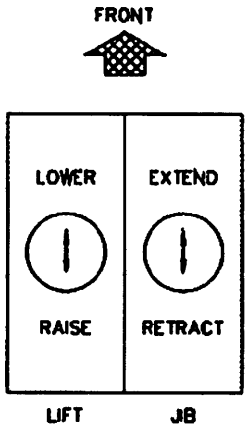



FIG A

6. Install all safety decals and product decals per Drawing No. 11H20 after final installation and painting have been completed. The factory prior to shipment of a hoist, will install some decals that have a premask layer. The premask will need to be removed after painting the hoist. It is very important when removing the premask not to pull the premask out and away from the decal at a 90° angle, but instead pull the premask straight down at a 180° angle to the decal surface. Should problems occur with the premask pulling the decal loose, wet the tack side of the premask with water via a spray bottle to weaken the adhesive bond, while pulling straight down on the premask.

7. Fill out pre-delivery checklist and warranty card and mail to SwapLoader U.S.A., Ltd.

**NOTE:** **Failure to fill out and return warranty card within 15 days of installation may possibly void the warranty.**

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**CAUTION:** **The SwapLoader hoist must be used with bodies or containers that properly fit the front hook and the rear hold-downs (See figure S025). If possible, pick up one of the containers that will actually be used with the SwapLoader hoist and verify the following:**

- **Outside dimensions of the long sills match the guiding rollers on the hoist.**
- **The front hook dimensions are correct for the hoist.**
- **The rear hold-downs of the container latch into the hold-downs on the hoist.**
- **Check for any interference between the container and any part of the hoist (i.e.: Hydraulic tank, hydraulic tubing or hose, hydraulic valve, etc.)**

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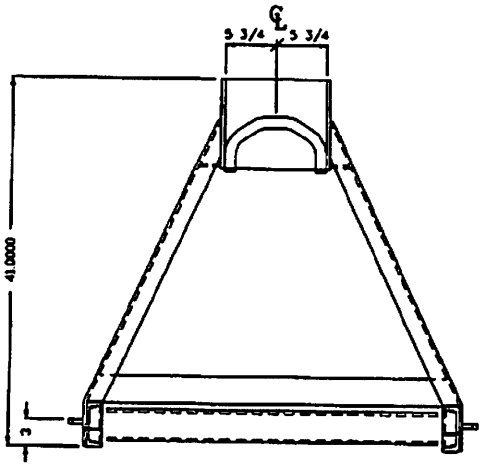
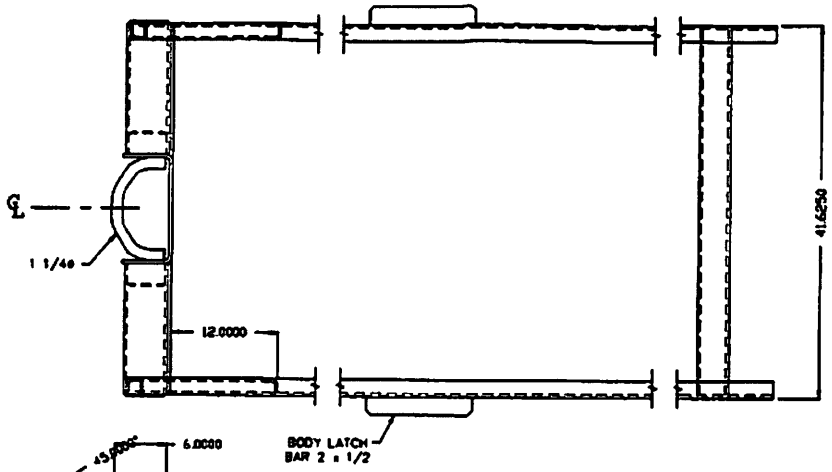
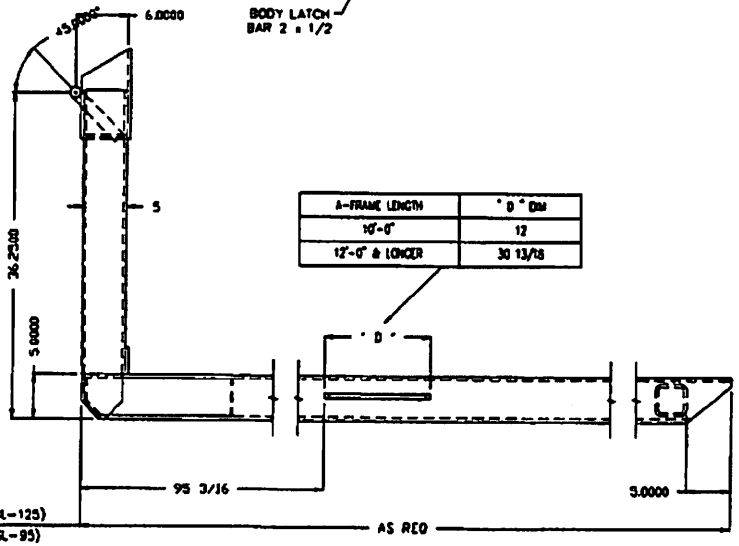
NOTE:

THE INTENT OF THIS DRAWING IS TO PROVIDE THE CRITICAL SUBFRAME DIMENSIONS TO ENSURE PROPER COMPATIBILITY WITH THE SWAPLOADER HOOK LIFT HOIST. IT IS THE RESPONSIBILITY OF THE SUBFRAME SUPPLIER TO PROVIDE A SUBFRAME WHICH WILL PROPERLY SUPPORT THE BODY / CONTAINER AS IT IS USED WITH THE HOOK LIFT HOIST.




| A-FRAME LENGTH | "D" DIM |
|---|---|
| 10'-0" | 12 |
| 12'-0" & LONGER | 30 13/16 |

NOTE

1. MIN LENGTH FOR JIB FULLY EXTENDED
2. SERIES 100 SUBFRAMES FIT THE FOLLOWING SWAPLOADER MODELS :
   SL-95
   SL-125 (SN 800512 & ABOVE)

| SUB-FRAME DIMENSION |
|---|
| SERIES 100 |
| S-025 |

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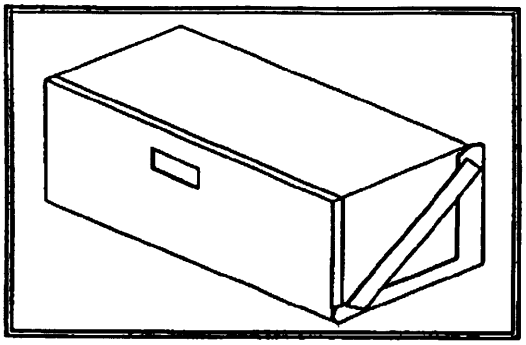

# TOOLBOX

## Aluminum (10H92) / Steel (11H12)

## INSTALLATION INSTRUCTIONS

1. Review all directions and diagrams provided before starting toolbox installation.
2. Position toolbox brackets [Part No. 10H88] on truck chassis. (NOTE: toolbox has an envelope of 18"x18"x36". See Fig. 1 for hole dimensions.)
3. Mark position of mounting holes through brackets onto truck chassis. Remove brackets and drill 9/16" dia. holes.
4. Mount toolbox brackets using fasteners provided (See Fig. 1).
5. Position toolbox [Part No. 90P27 or 90P37] on brackets. (NOTE: toolbox hinge should be on the forward, bottom edge.)
6. Mark position of mounting holes through brackets onto toolbox. Remove toolbox and drill 9/16" dia. holes.
7. Mount toolbox to brackets using fasteners provided (See Fig. 1).

# TOOLBOX
## Aluminum (10H92) / Steel (11H12)

**MATERIAL LIST**

| ITEM | QTY | P/N | DESCRIPTION | WT lb. PER EA. |
|---|---|---|---|---|
| 1 | 2 | 10H88 | 18" TOOLBOX BRACKET | 11.34 |
| 2 | 2 | 22H71 | TOOLBOX RUBBER SPACER (ALUMINUM TOOLBOX ONLY) | .27 |
| 3 | 1 | | 18 X 18 X 36 TOOLBOX | |
| | | 90P27 | ALUMINUM TOOLBOX | 50.00 |
| | | 90P37 | STEEL TOOLBOX | 72.00 |
| 4 | 8 | 00784 | 1/2 DIA. FLAT WASHER H.T. | .07 |
| 5 | 4 | 00P15 | 1/2-13 UNC X 1-3/4 HEX HEAD BOLT | .23 |
| 6 | 8 | 00P35 | 1/2-13 UNC METAL LOCKING NUT | .15 |
| 7 | 4 | 00P75 | 1/2-13 UNC X 1-1/2 SOCKET BUTTON HEAD BOLT | .12 |
| 8 | 4 | 00P76 | 1/2 DIA.NYLON FLAT WASHER (ALUMINUM TOOLBOX ONLY) | - |
| | | | ALUMINUM TOOLBOX TOTAL | 76.38 |
| | | | STEEL TOOLBOX TOTAL | 97.84 |

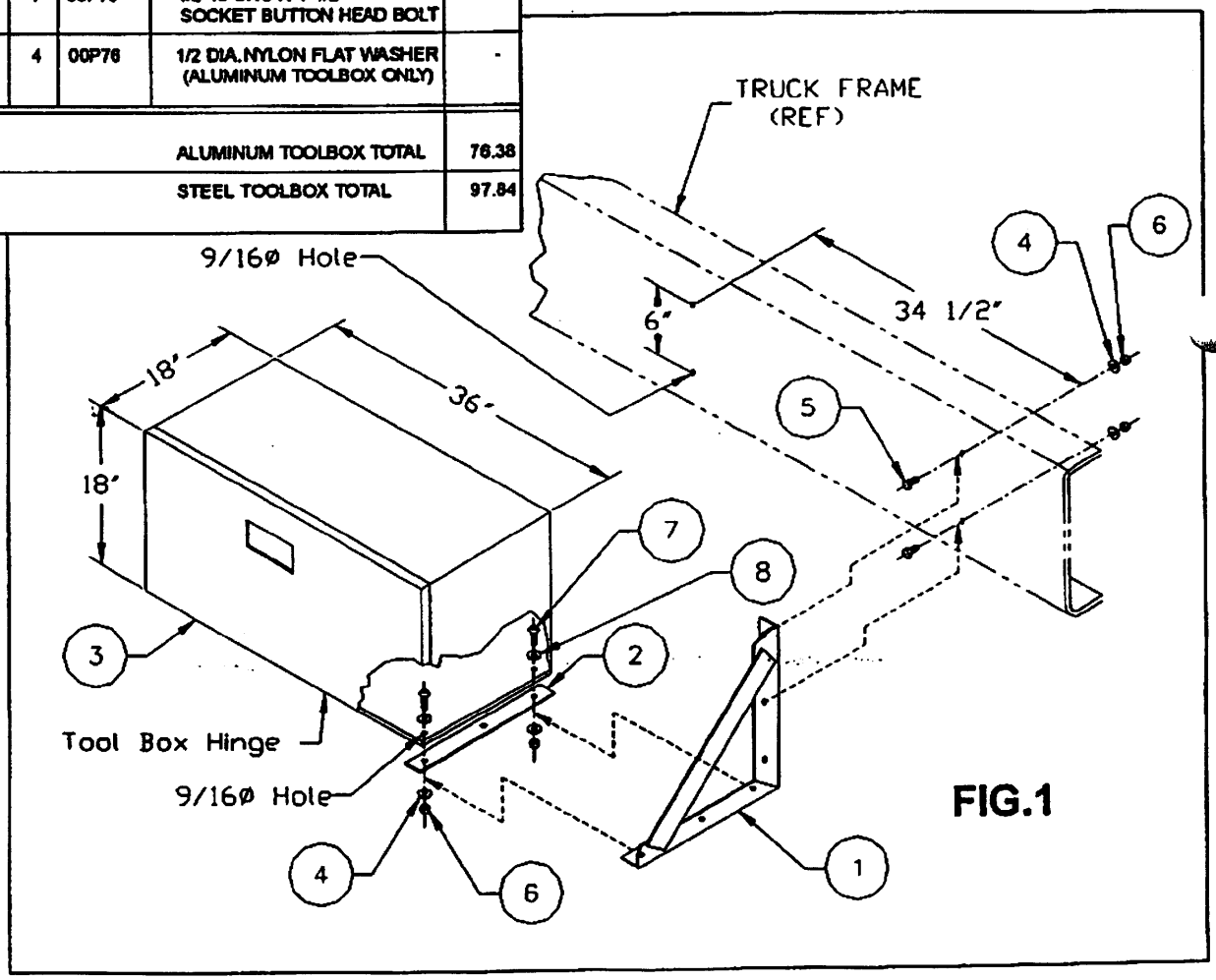


FIG.1

SWAPLOADER®
1800 N. E. Broadway Avenue, Box D, Des Moines, Iowa, U.S.A. 50316-0386 U.S.A. LTD.
Telephone: (515)265-3042 Fax: (515)265-3042

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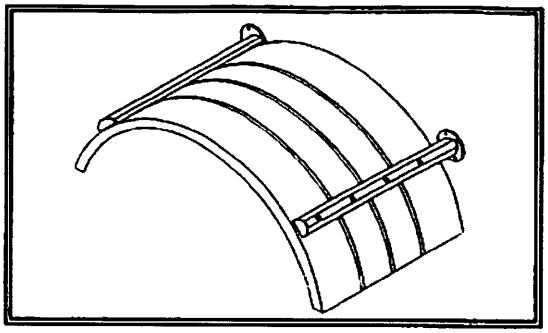


# FENDER ASSEMBLY, SINGLE AXLE

Aluminum (10H93) / Steel (11H13)

## INSTALLATION INSTRUCTIONS

1. Review all directions and diagrams provided before starting fender installation.

2. Center fender above tire using block to maintain the proper height. Fender should be approximately 5" above tire to allow for suspension movement (See Fig. 1). A maximum width of 48" from center of the truck to the outside edge of the fender should be maintained (See Fig. 2).

3. Place fender bracket weldements [Part No. 10H74] on fender. Position the brackets to avoid any mounting obstacles on hoist and/or truck chassis.

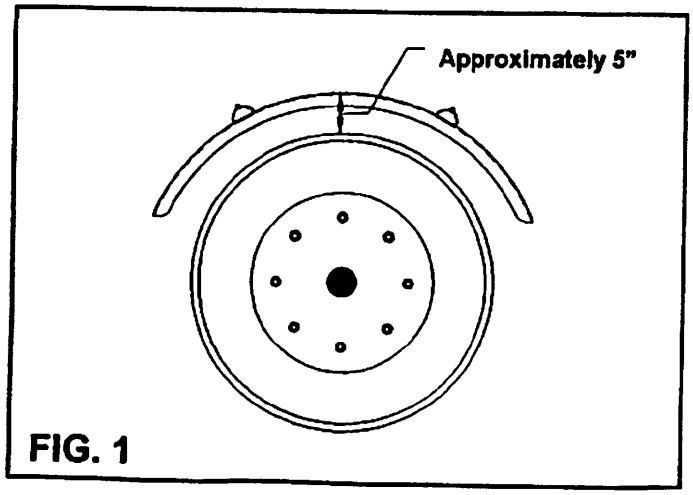


FIG. 1

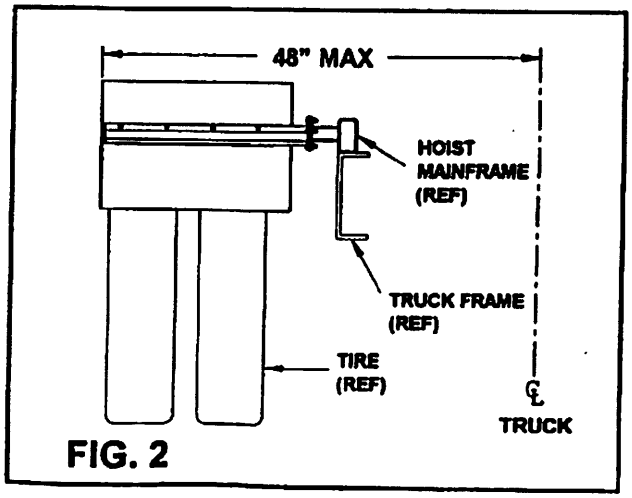


FIG. 2

11/02/99

# FENDER ASSEMBLY, SINGLE AXLE

## Aluminum (10H93) / Steel (11H13)

## INSTALLATION INSTRUCTIONS (continued)

4. Mark mounting holes through the fender bracket weldment onto the fender. Remove the bracket and drill 7/16" dia. Holes in fender (See FIG. 3).

5. Attach fender bracket weldments to fender using fasteners provided.

6. Weld mounting plates [Part No. 21H37] to fender tubes [Part No. 21H61].

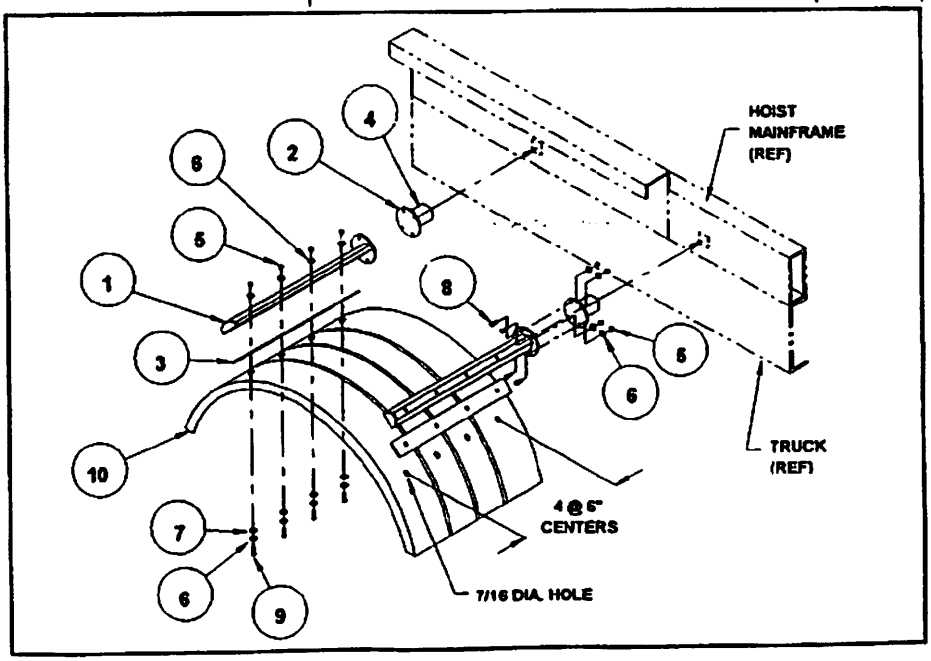
7. Position fender tubes with mount plates on hoist mainframe; align with fender bracket weldments. (NOTE: Fender tube length may need to be modified to fit specific application.)

8. Weld fender tube to hoist mainframe. If attaching the fender tubes to the truck chassis, an additional mount plate may need to be fabricated so the assembly can be bolted to the to the truck chassis.

9. Attach fender bracket weldment [Part No. 10H74] to mounting plate [Part No. 21H37] using fasteners provided (See FIG. 3).

**MATERIAL LIST**

| ITEM | QTY | P/N | DESCRIPTION | WT lb. PER EA. |
|---|---|---|---|---|
| 1 | 4 | 10H74 | FENDER BRACKET WDMT. | 8.05 |
| 2 | 4 | 21H37 | MOUNTING PLATE | 1.09 |
| 3 | 4 | 21H42 | RUBBER SPACER | .85 |
| 4 | 4 | 21H61 | FENDER TUBE | 1.26 |
| 5 | 32 | 00P34 | 3/8-16 UNC LOCKING NUT | .02 |
| 6 | 48 | 00771 | 3/8 DIA. FLAT WASHER | .05 |
| 7 | 16 | 00P78 | 3/8 DIA. NYLON WASHER | - |
| 8 | 16 | 00P44 | 3/8-16 UNC X 1-1/2 HHCS | .07 |
| 9 | 16 | 01P21 | 3/8-16 UNC X 2-1/2 HHCS | .09 |
| 10 | 2 | | FENDER | |
| | | 90P24 | FENDER – ALUMINUM | 19.00 |
| | | 90P25 | FENDER – STEEL | 35.00 |
| | | | ALUMINUM FENDER TOTAL | 87.80 |
| | | | STEEL FENDER TOTAL | 119.80 |




**ADDITIONAL NOTES:**

*Prior to any welding, consult the truck manufacture for any special precautions that may need to be taken. Typically the batteries must be disconnected and the ground lead from the welder should be as close to the part being welded to avoid the possibility of arcing across bearings, gears, etc.*

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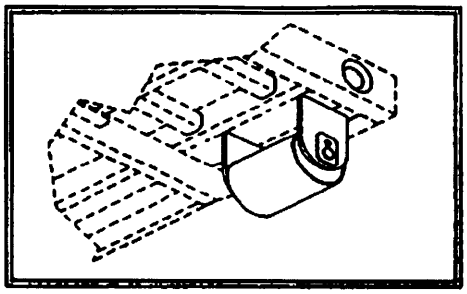

# ROLLER & ROLLER MOUNT

## (10H90 & 10H91)

## INSTALLATION INSTRUCTIONS

1. Review all directions and diagrams provided before starting the roller and roller mount installation.
2. Locate position for roller mount brackets [Part No. 32H03] between cross sills of the container. Rollers should be positioned as far back and as wide as possible for stability. For hoist and folding bumper clearance, do not place brackets any closer than 11" to the subframe longsill (See Fig.1). Also, the roller axle center line should be approximately 1-11/16" below the bottom of the subframe longsill for roller clearance (See Fig. 1).

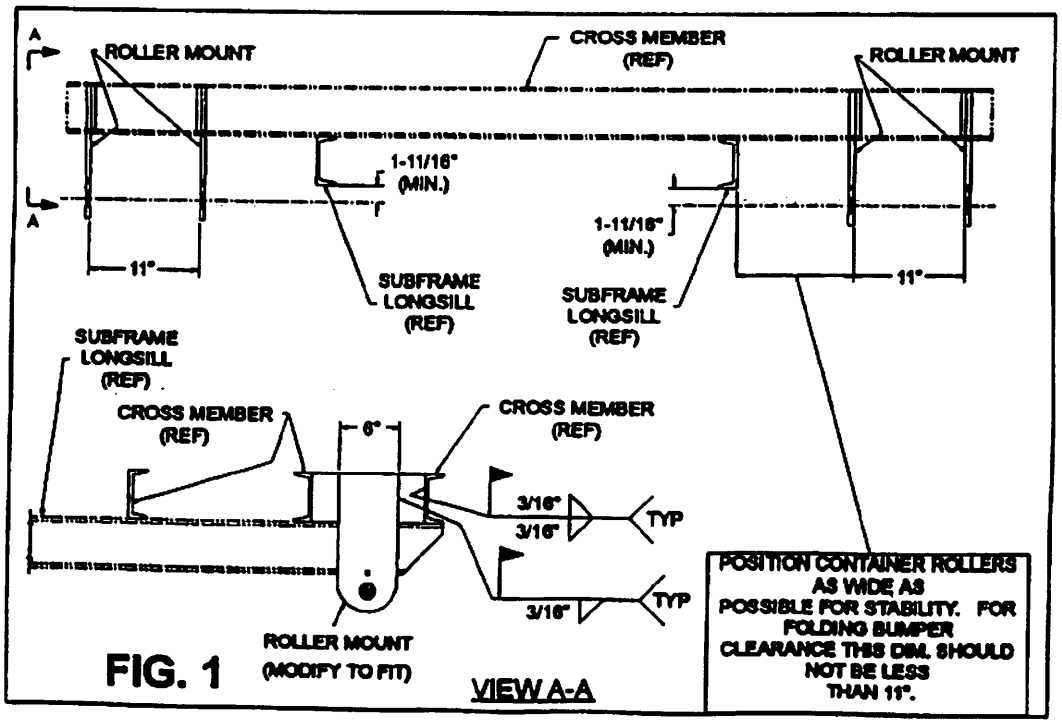


FIG. 1

# ROLLER & ROLLER MOUNT
## (10H90 & 10H91)

## INSTALLATION INSTRUCTIONS (continued)

3. Some modification to the roller mount bracket may be required for the roller mount to fit properly. If the existing container cross members are wider than 6", a fabricated support member of 1/2" plate or thicker will need to be added (See Fig. 2).

4. Once the mount brackets are located on the container, weld the roller mount brackets in place (See Fig. 1).

5. Install the roller [Part No. 10H12] between the brackets with the roller axle [Part No.10H31] and the fasteners provided (See Fig. 3). Grease the rollers before use.

**MATERIAL LIST**

| ITEM | QTY | P/N | DESCRIPTION | WT lb. PER EA. |
|---|---|---|---|---|
| 1 | 4 | 32H03 | ROLLER EAR | 11.95 |
| 2 | 2 | 10H12 | ROLLER WDMT. | 39.78 |
| 3 | 2 | 10H31 | ROLLER AXLE WDMT. | 7.28 |
| 4 | 2 | 00P62 | 3/8-16 UNC X 1 BOLT | .05 |
| 5 | 2 | 90P03 | 1/8 NPT GREASE ZERK | .01 |
| 6 | 2 | 00755 | 3/8 DIA. LOCK WASHER | .01 |
| 7 | 2 | 00P36 | 3/8 DIA. WASHER H.T. | .10 |
| | | | TOTAL | 142.26 |

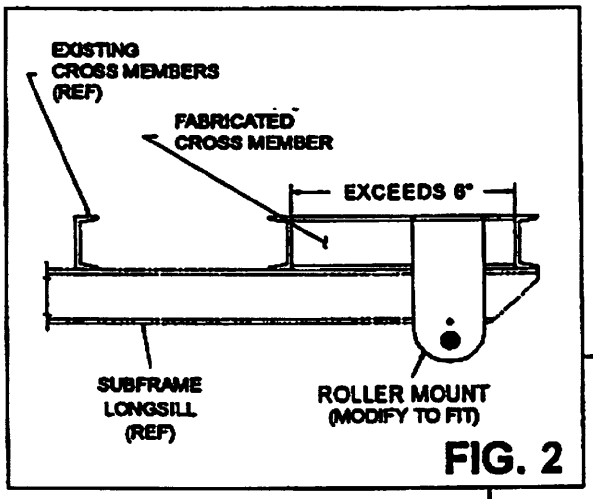

FIG. 2

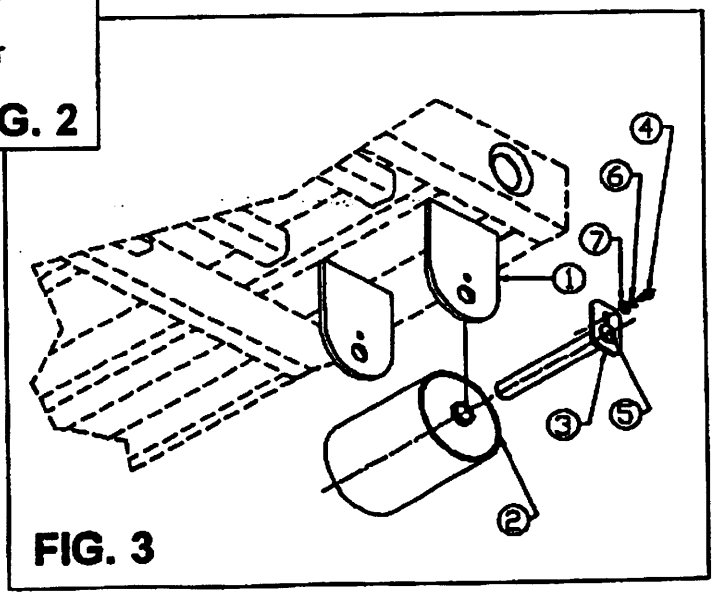

FIG. 3

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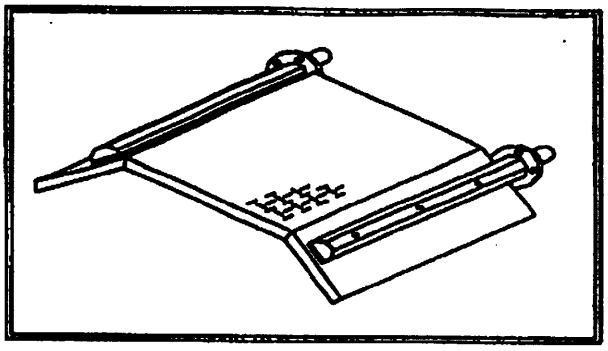

# FENDER ASSEMBLY, SINGLE AXLE

## Steel (11H52)

## INSTALLATION INSTRUCTIONS

1. Review all directions and diagrams provided before starting fender installation.

2. Center fender above tire using blocks to maintain the proper height. Fender height should be 3" to 4" above tire to allow for suspension movement (See Fig. 1). A maximum width of 45-1/2" from center of the truck to the outside edge of the fender should be maintained (See Fig. 2).

3. Place fender bracket weldments [Part No. 11H50] on fender. Position the brackets to avoid any mounting obstacle on hoist and/or truck chassis.

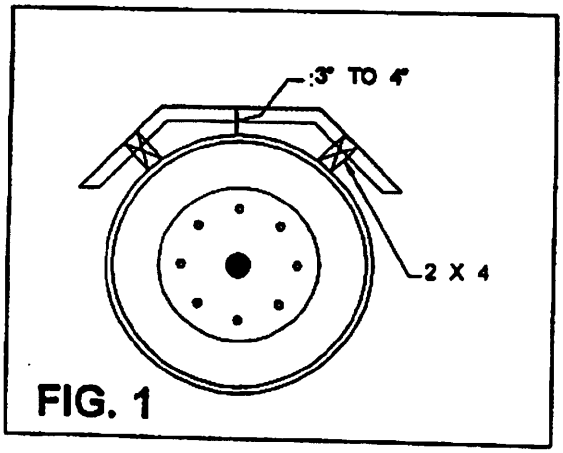

FIG. 1

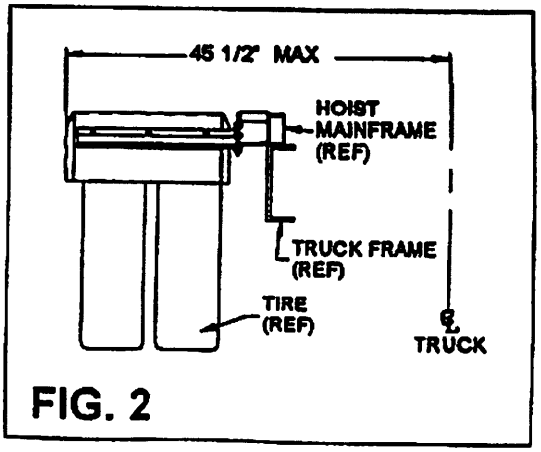

FIG. 2

# FENDER ASSEMBLY, SINGLE AXLE
## Steel (11H52)

## INSTALLATION INSTRUCTIONS (continued)

4. Mark mounting holes through the fender bracket weldment onto the fender. Remove the bracket and drill 7/16" dia. holes in fender.
5. Attach fender bracket weldments to fender using fasteners provided.
6. Posistion fender mount weldment [Part No. 11H51] on hoist mainframe; align with fender bracket weldment. Mark mounting holes through the fender bracket weldment onto the fender mount weldment. Drill 7/16" dia. holes in fender mount weldment.
7. Weld fender mount weldment to hoist mainframe.
8. Weld guide gussets [Part No. 22H15] inside Z-channel of hoist mainframe (See Fig. 3), two guide gussets per fender mount weldment.

**MATERIAL LIST**

| ITEM | QTY | P/N | DESCRIPTION | WT lb. PER EA. |
|---|---|---|---|---|
| 1 | 4 | 11H50 | FENDER BRACKET WDMT. | 6.98 |
| 2 | 4 | 11H51 | FENDER MOUNT WDMT. | 2.41 |
| 3 | 8 | 22H15 | GUIDE GUSSET | .36 |
| 4 | 4 | 22H81 | RUBBER SPACER | .77 |
| 5 | 12 | 00P77 | 3/8-16 X 3 HHCS | .18 |
| 6 | 12 | 00P78 | 3/8 DIA. NYLON WASHER | - |
| 7 | 28 | 00771 | 3/8 DIA. FLAT WASHER | .05 |
| 8 | 28 | 00P34 | 3/8-16 LOCKING HEX NUT | .10 |
| 9 | 16 | 00P62 | 3/8-16 X 1 HHCS | .12 |
| 10 | 2 | 11H48 | FENDER, STEEL TREAD PLATE | 30.26 |
| | | | TOTAL | 111.52 |

9. Attach fender bracket weldment [Part No. 10H50] to fender mount weldment [Part No 11H51] using fasteners provided (See Fig. 3).

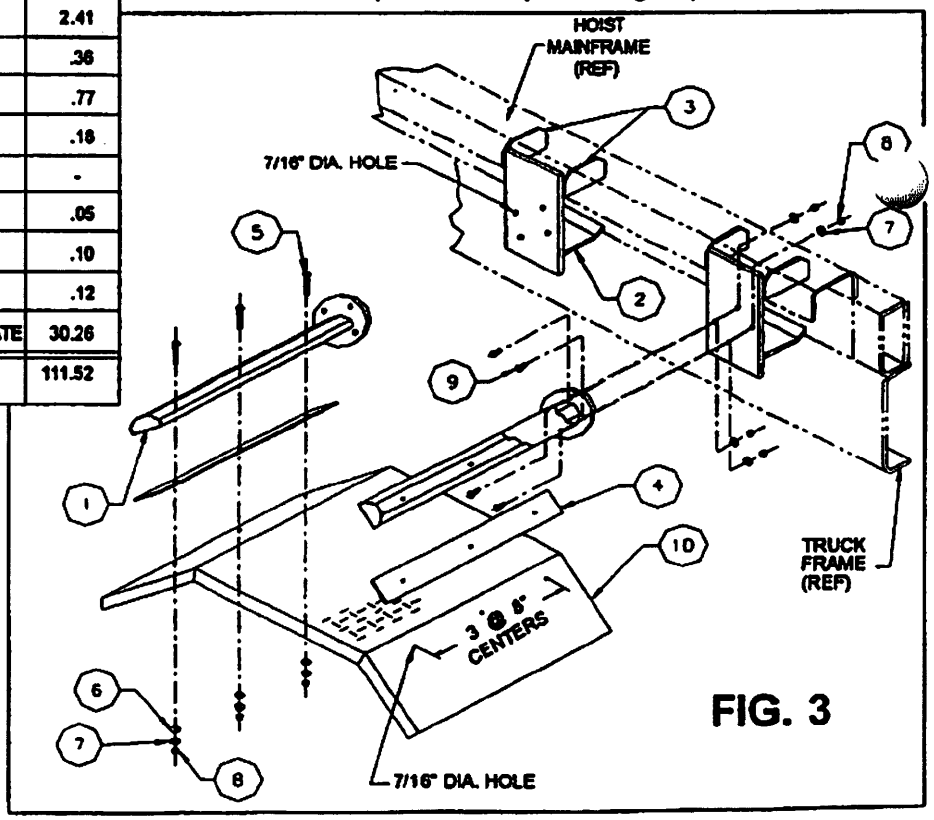


FIG. 3

*ADDITIONAL NOTE:*

*Prior to any welding, consult the truck manufacturer for any special precautions that may need to be taken. Typically the batteries must be disconnected and the ground lead from the welder should be connected as close as possible to the part being welded to avoid the possibility of arcing across bearings, gears, etc.*

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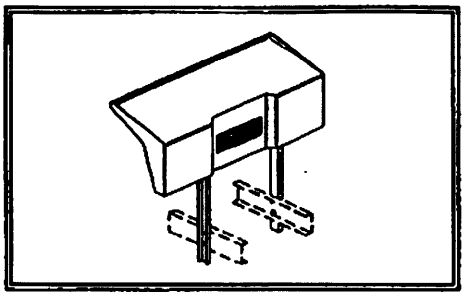

# CAB GUARD ASSEMBLY

## (50H99)

## INSTALLATION INSTRUCTIONS

1. Review all directions and diagrams provided before starting cab guard installation.
2. Position cab guard weldment [Part No. 50H95] on frame with sufficient clearance between cab and cab guard (See Fig.1).
3. Determine location for mounting holes. Mounting holes should not be located within 2-3/8" of the truck frame edge (See Fig. 1). Drill 21/32" dia. mount holes through cab guard channels.

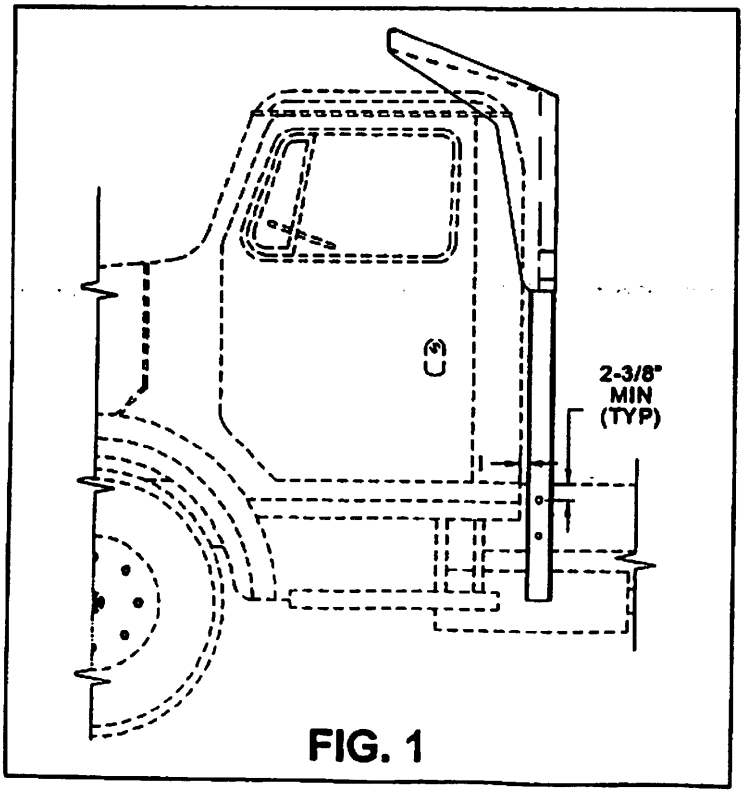


FIG. 1

# CAB GUARD ASSEMBLY
## (50H99)

## INSTALLATION INSTRUCTIONS (continued)

4. Mark mounting holes through the cab guard weldment onto truck frame. Remove cab guard weldment and drill 21/32" dia. holes in truck frame.

5. Attach cab guard weldment to truck frame using fasteners provided (See Fig. 2).

**MATERIAL LIST**

| ITEM | QTY | P/N | DESCRIPTION | Wt lb. PER EA. |
|---|---|---|---|---|
| 1 | 1 | 50H95 | CAB GUARD WDMT. | 295.36 |
| 2 | 4 | 00P69 | 5/8-11 X 2 HHCS | .33 |
| 3 | 4 | 00P55 | 5/8-11 LOCKING HEX NUT | .18 |
| 4 | 4 | 00785 | 5/8 DIA. WASHER HT. | .08 |
| | | | TOTAL | 292.72 |

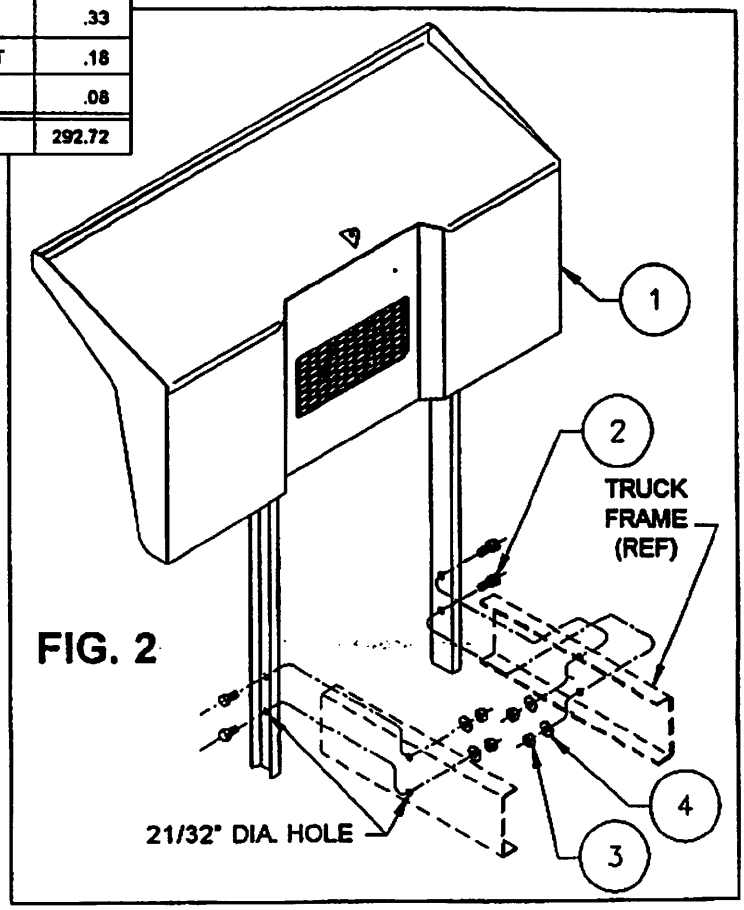


FIG. 2

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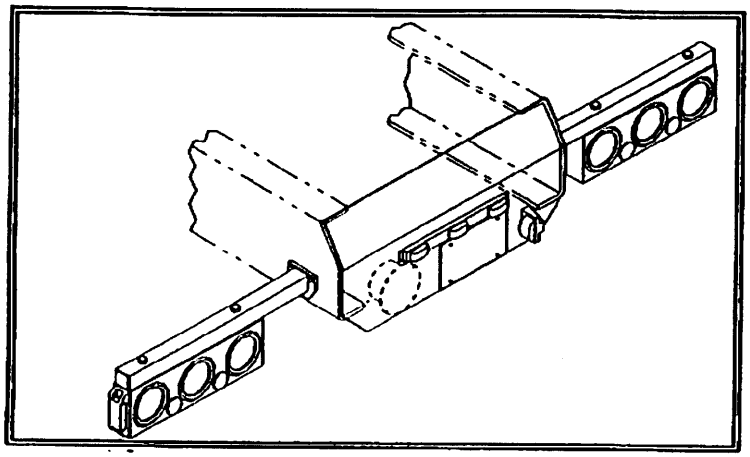

# REAR LIGHT BAR ASSEMBLY
(51H68)

08/21/00

# REAR LIGHT BAR ASSEMBLY
(51H68)

## INSTALLATION INSTRUCTIONS

1. Review all directions and diagrams provided before starting rear light bar installation.

2. Trim truck frame to indicated dimensions (See Fig. 1). This step may have already been preformed if a bumper was previously installed.

3. Position center plate [Part No. 63H08] on the rear of the main frame. Weld center plate to truck frame (See Fig. 2 & Additional Notes).

4. Position stub light bar weldment [Part No. 51H69] on truck frame. Stub light bar weldment should be as high and as far back as possible on the truck frame to avoid interference with the bumper and fenders. It may be necessary to modify the stub light bar weldment to avoid interference. Drill mounting holes as required and mount using fasteners provided (See Fig. 3).

5. Attach the tail light module to the stub light bar weldments with the fasteners provided (See Fig 3).

6. Mount the identification light bar at top center of the center plate [Part No. 63H08] using the fasteners provided (See Fig. 3).

7. Mount license lamp right of the license plate (See Fig. 2) using the fasteners provided (See Fig. 3).

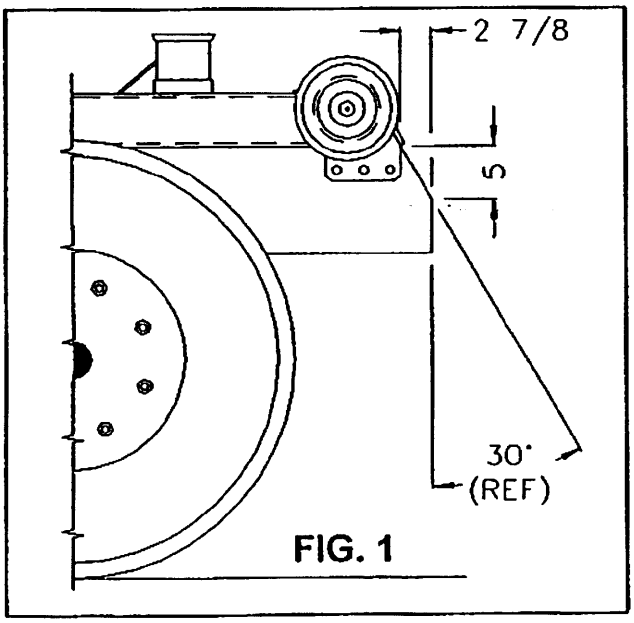

FIG. 1

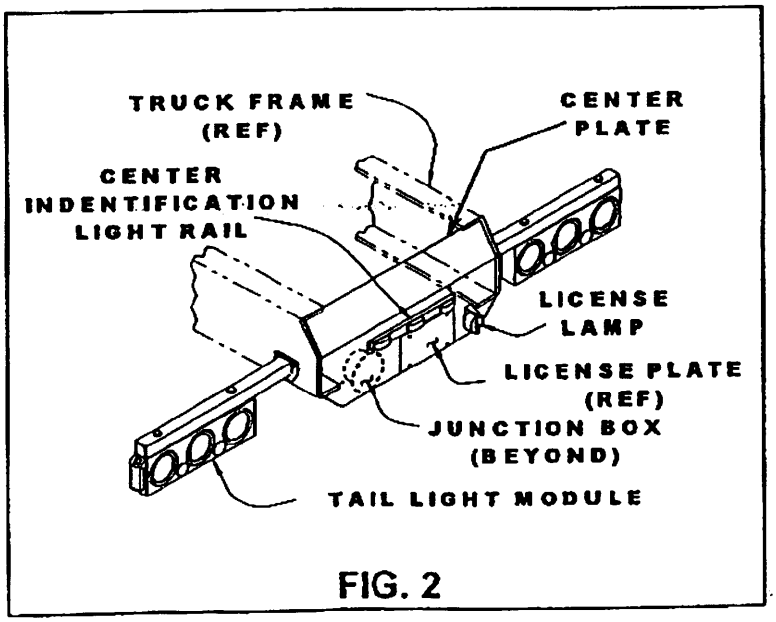

FIG. 2

08/21/00

# REAR LIGHT BAR ASSEMBLY
## (51H68)

8. Mount junction box on the back left side of center plate (See Fig. 2), using the fasteners provided (See Fig. 3).

9. Route all wire harnesses into the junction box. Wire harnesses must enter the junction box through a compression fitting (Based on the size of the wire harness, choose a compression fitting with an appropriately sized grommet). Make wiring connections in junction box with wire harness from truck cab as indicated on wiring diagram (See Fig.4).

MATERIAL LIST

| ITEM | QTY. | P/N | DESCR. | WT. - lb. PER EACH |
|---|---|---|---|---|
| 1 | 2 | 51H69 | STUB LIGHT BAR MOUNT. | 7.87 |
| 2 | ONE | 63H08 | CENTER PLATE | 27.33 |
| 3 | 6 | 00P44 | 3/8-16 x 1 1/2 HHCS | 0.07 |
| 4 | 6 | 00P34 | 3/8-16 LOCKING HEX NUT | 0.02 |
| 5 | 6 | 00771 | 3/8 DIA FLAT WASHER | 0.01 |
| 6 | 4 | 01P18 | 5/8-11 x 3 HHCS | 0.35 |
| 7 | 8 | 00P81 | #8-32 x 1 RND HD SCR | - |
| 8 | 8 | 00P82 | #8-32 HEX NUT | - |
| 9 | 8 | 00P83 | #8 LOCK WASHER | - |
| 10 | ONE | 40P26 | LIGHT KIT ASSEMBLY | 23.00 |
| 11 | REF | 40P27 | LEFT TAIL LIGHT MODULE WITH HARNESS | - |
| 12 | REF | 40P28 | RIGHT TAIL LIGHT MODULE WITH HARNESS | - |
| 13 | REF | 40P29 | SIDE MARKER LAMP | - |
| 14 | REF | 40P30 | STOP, TURN, & TAIL LAMP | - |
| 15 | REF | 40P31 | BACK-UP LAMP | - |
| 16 | REF | 40P32 | LICENSE LAMP ASSEMBLY (WITHOUT HARNESS) | - |
| 17 | REF | 40P33 | LICENSE LAMP | - |
| 18 | REF | 40P34 | LICENSE LAMP HARNESS | - |
| 19 | REF | 40P35 | IDENTIFICATION LIGHT BAR RAIL | - |
| 20 | REF | 40P36 | ID LIGHT BAR LAMP | - |
| 21 | REF | 40P37 | ID LIGHT BAR HARNESS | - |
| 22 | REF | 40P38 | JUNCTION BOX ASSEMBLY | - |
| | | | TOTAL | 68.07 |

## ADDITIONAL NOTES:

*Prior to any welding, consult the truck manufacture for any special precautions that may need to be taken. Typically the batteries must be disconnected and the ground lead from the welder should be as close to the part being welded to avoid the possibility of arcing across bearings, gears, etc.*

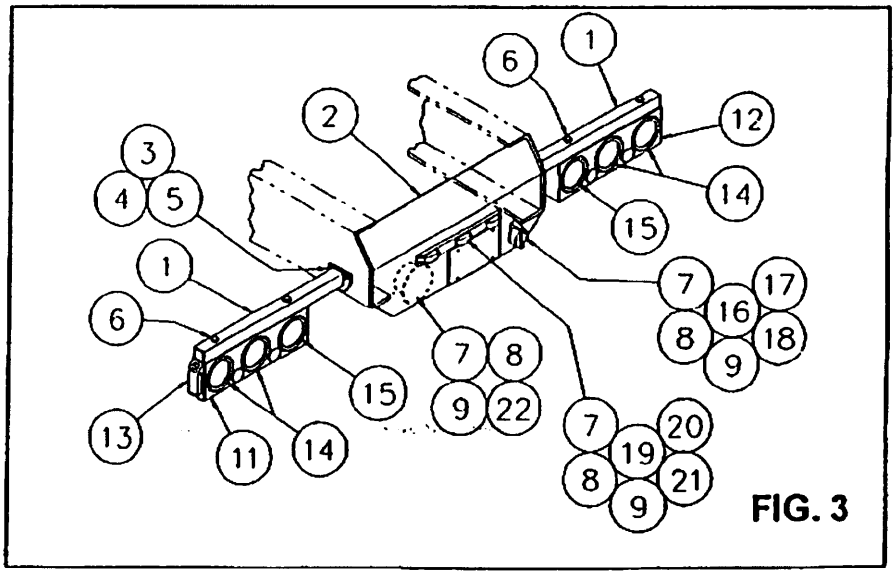


FIG. 3

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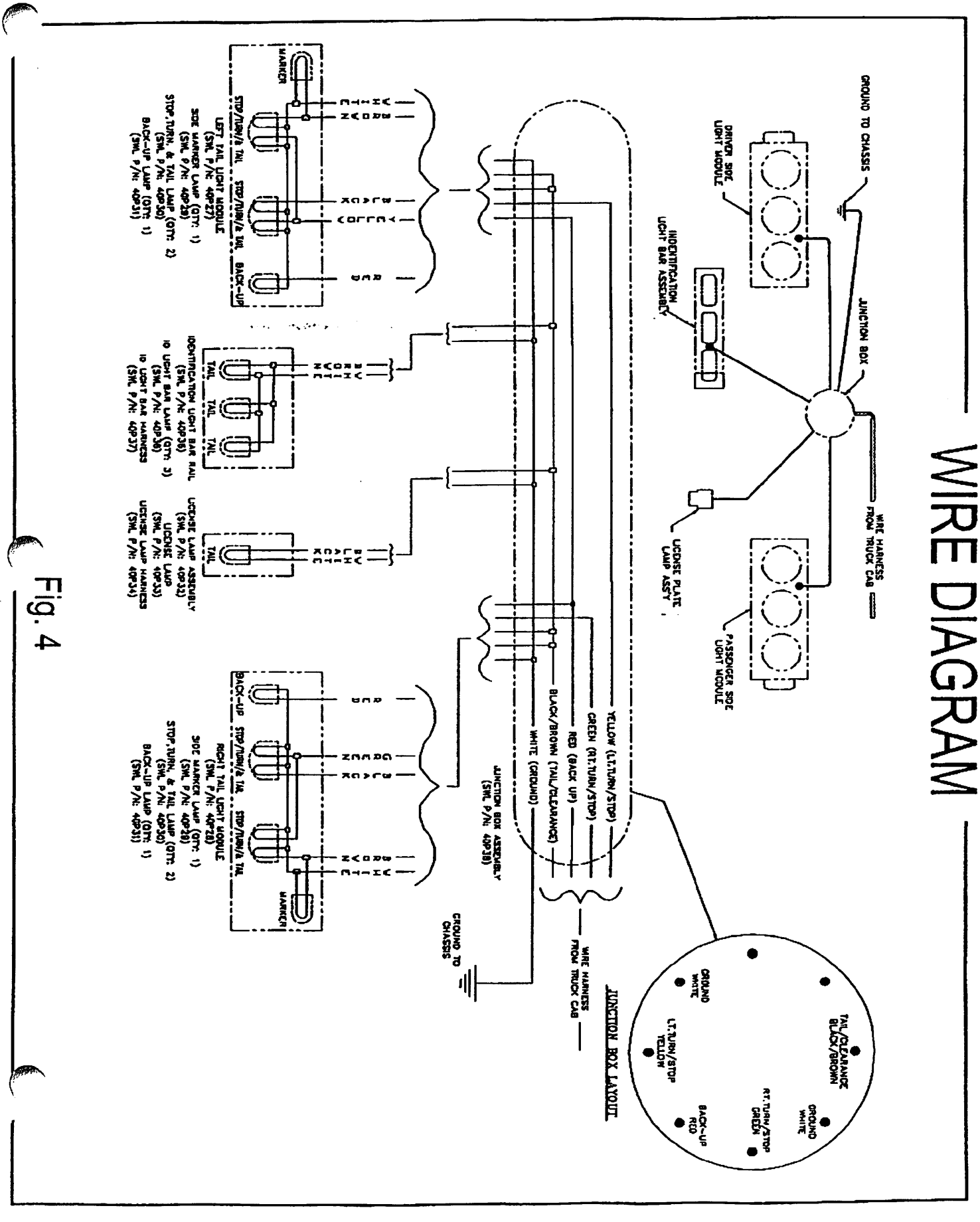
WIRE DIAGRAM
GROUND TO CHASSIS
DRIVER SIDE LIGHT MODULE
IDENTIFICATION LIGHT BAR ASSEMBLY
JUNCTION BOX
WIRE HARNESS FROM TRUCK CAB
LICENSE PLATE LAMP ASSY.
PASSENGER SIDE LIGHT MODULE
YELLOW (LT.TURN/STOP)
GREEN (RT.TURN/STOP)
RED (BACK UP)
BLACK/BROWN (TAIL/CLEARANCE)
WHITE (GROUND)
JUNCTION BOX ASSEMBLY (SWL P/N: 40P38)
GROUND TO CHASSIS
WIRE HARNESS FROM TRUCK CAB
JUNCTION BOX LAYOUT
TAIL/CLEARANCE BLACK/BROWN
GROUND WHITE
RT.TURN/STOP GREEN
BACK-UP RED
LT.TURN/STOP YELLOW
LEFT TAIL LIGHT MODULE (SWL P/N: 40P27)
SIDE MARKER LAMP (QTY: 1) (SWL P/N: 40P28)
STOP,TURN, & TAIL LAMP (QTY: 2) (SWL P/N: 40P30)
BACK-UP LAMP (QTY: 1) (SWL P/N: 40P31)
IDENTIFICATION LIGHT BAR RAIL (SWL P/N: 40P36)
ID LIGHT BAR LAMP (QTY: 3) (SWL P/N: 40P36)
ID LIGHT BAR HARNESS (SWL P/N: 40P37)
LICENSE LAMP ASSEMBLY (SWL P/N: 40P32)
LICENSE LAMP (SWL P/N: 40P33)
LICENSE LAMP HARNESS (SWL P/N: 40P34)
RIGHT TAIL LIGHT MODULE (SWL P/N: 40P28)
SIDE MARKER LAMP (QTY: 1) (SWL P/N: 40P28)
STOP,TURN, & TAIL LAMP (QTY: 2) (SWL P/N: 40P30)
BACK-UP LAMP (QTY: 1) (SWL P/N: 40P31)

Fig. 4

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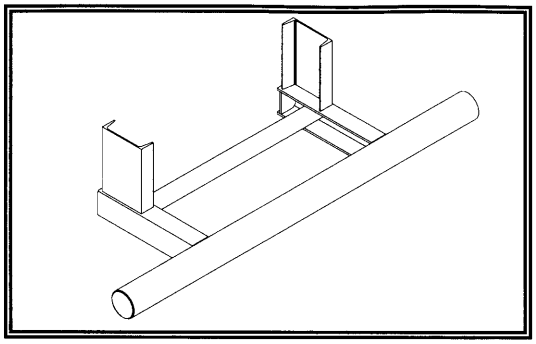

# REAR BUMPER ASSEMBLY
## (52H11)

## INSTALLATION INSTRUCTIONS

1. Review all directions and diagrams provided before starting bumper installation.

2. Trim truck frame to indicated dimensions (See Fig. 1). These dimensions will facilitate the mounting of the rear light assembly if it is also being mounted.

3. Measure the distance from the bottom of the truck frame to the ground (NOTE: This should be performed on a level surface). Based this measurement and the dimensions in Fig. 1, the vertical channel [P/N: 63H94] may need to be modified in length to meet the Office of Motor Carrier Safety (OMCS) regulations. Regulation 393.86 requires that no bumper be located more than 30" off the ground when the truck is empty, and the end of the bumper should not be located more than 24" from the extreme rear of the vehicle, including truck bodies (See Fig. 2). Once the length has been determined for the vertical channels, weld them to the truck frame (See additional notes on next page).

4. Center the bumper weldment [P/N: 52H12] on the vertical channels [P/N: 63H94]. Position rear of bumper from rear of the hoist as indicated by the bumper location chart. This is crucial in order to ensure that the container longsills do not contact the bumper during the dump cycle (See Fig. 1 & 2).

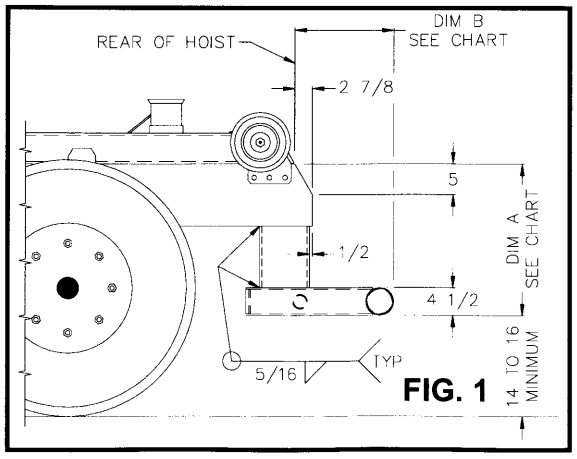

FIG. 1

| BUMPER LOCATION CHART | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DIM. A | DIM B. (Max) | | | | | | | |
| | SL-95 | SL-145 | SL-180 | SL-220/222 & SL-240 | SL-2418 | SL-330 & SL-400 | SL-375/405 & SL-505/545 | SL-650 |
| 24 5/8" | 13 1/2 | 15 3/4 | 15 1/4 | 17 | 14 1/4 | 14 | 16 1/2 | 19 1/4 |
| 22 5/8" | 12 1/4 | 14 1/2 | 14 | 15 3/4 | 13 | 12 3/4 | 15 | |
| 20 5/8" | 11 | 13 | 12 3/4 | 14 1/4 | 11 3/4 | | | |
| 18 5/8" | 9 3/4 | 11 3/4 | 11 1/2 | | | | | |

01FEB06

# REAR BUMPER ASSEMBLY
## (52H11)

**INSTALLATION INSTRUCTIONS (continued)**

**5.** Weld the bumper weldment to the vertical channels (See Fig. 1 & 3).

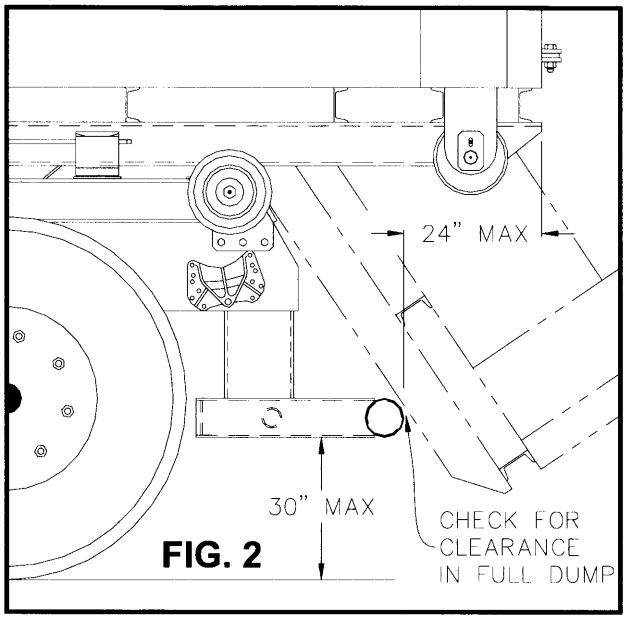

FIG. 2

## ADDITIONAL NOTES:

*1. Prior to any welding, consult the truck manufacture for any special precautions that may need to be taken. Typically the batteries must be disconnected and the ground lead from the welder should be as close to the part being welded to avoid the possibility of arcing across bearings, gears, etc.*

*2. All welds should be done utilizing a low hydrogen welding process.*

**MATERIAL LIST**

| ITEM | QTY | P/N | DESCRIPTION | WT lb. PER EA. |
|---|---|---|---|---|
| 1 | 1 | 52H12 | REAR BUMPER WDMT | 95.66 |
| 2 | 2 | 63H94 | VERTICAL CHANNEL | 9.58 |
| | | | TOTAL | 114.82 |

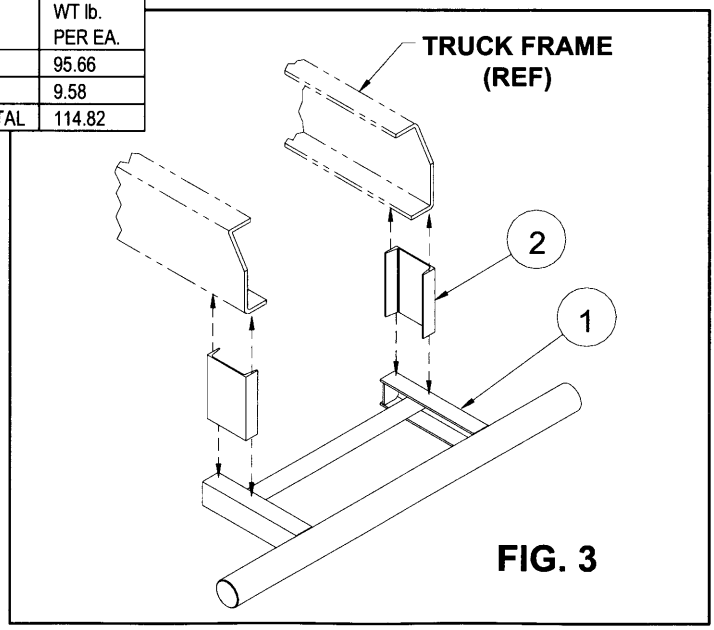

FIG. 3

SWAPLOADER® U.S.A. LTD.

1800 NE Broadway Avenue, Des Moines, Iowa, U.S.A. 50313-2644
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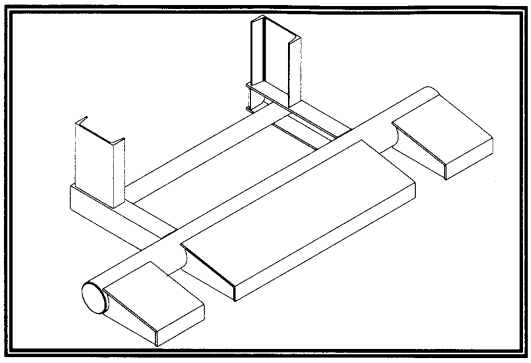
E-Mail: sales@swaploader.net • Web Site: www.swaploader.com

SWAPLOADER®
U.S.A. LTD.



# REAR BUMPER ASS'Y w/ EXTENSIONS

(52H11 with 52H13 Extensions)

## INSTALLATION INSTRUCTIONS

1. Review all directions and diagrams provided before starting bumper installation.

2. Trim truck frame to indicated dimensions (See Fig. 1). These dimensions will facilitate the mounting of the rear light assembly if it is also being mounted.

3. Measure the distance from the bottom of the truck frame to the ground (NOTE: This should be performed on a level surface). Based this measurement and the dimensions in Fig. 1, the vertical channel [P/N: 63H94] may need to be modified in length to meet the Office of Motor Carrier Safety (OMCS) regulations. Regulation 393.86 requires that no bumper be located more than 30" off the ground when the truck is empty, and the end of the bumper should not be located more than 24" from the extreme rear of the vehicle, including truck bodies (See Fig. 2). Once the length has been determined for the vertical channels, weld them to the truck frame (See additional notes on next page).

4. Center the bumper weldment [P/N: 52H12] with factory installed extensions [ P/N: 52H13] on the vertical channels [P/N: 63H94]. Position rear of bumper from rear of the hoist as indicated by the bumper location chart. This is crucial in order to ensure that the container longsills do not contact the bumper during the dump cycle (See Fig. 1 & 2).

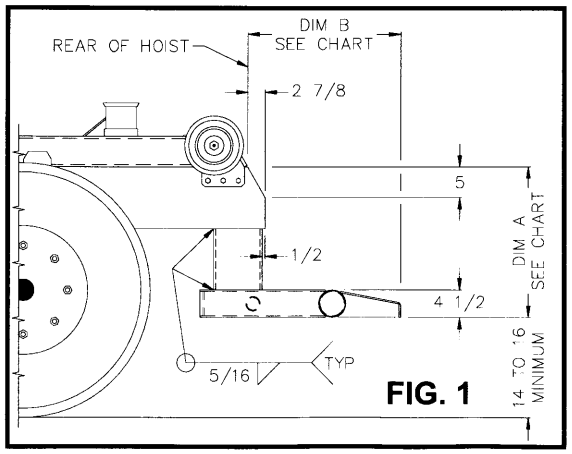


FIG. 1

| BUMPER LOCATION CHART | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DIM. A | DIM B. (Max) | | | | | | | |
| | SL-95 | SL-145 | SL-180 | SL-220/222 & SL-240 | SL-2418 | SL-330 & SL-400 | SL-375/405 & SL-505/545 | SL-650 |
| 24 5/8" | 19 3/4 | 22 1/2 | 21 3/4 | 25 1/4 | 21 3/4 | 21 1/2 * | 24 1/4 * | 27 1/4 |
| 22 5/8" | 18 1/2 | 21 | 20 1/2 | 23 3/4 | 20 1/2 | 20 * | 22 3/4 * | |
| 20 5/8" | 17 1/4 | 19 1/2 | 19 1/4 | 22 1/4 | 19 1/4 | | | |
| 18 5/8" | 16 | 18 1/4 | 18 | | | | | |

* Dimensions assume 6" tall longsills. For 8" tall longsills add 2 ¼" to the dimension shown.

01FEB06

# REAR BUMPER ASS'Y w/ EXTENSIONS
## (52H11 with 52H13 Extensions)

**INSTALLATION INSTRUCTIONS (continued)**

5. Weld the bumper weldment to the vertical channels (See Fig. 1 & 3).

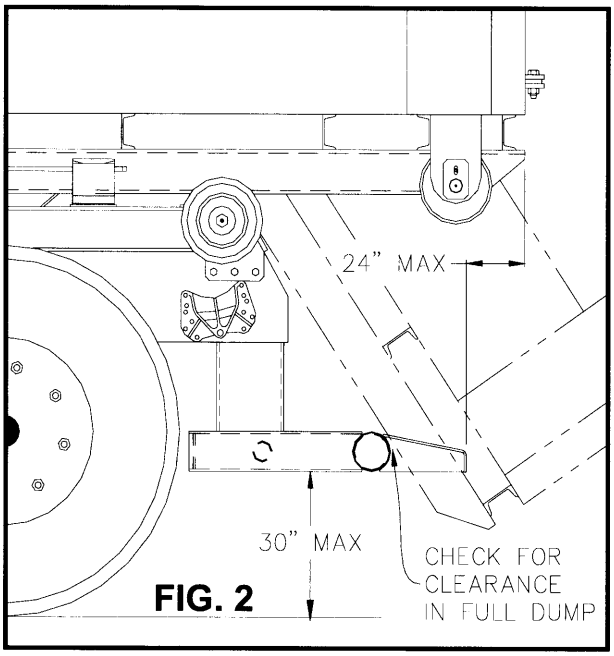


FIG. 2

## ADDITIONAL NOTES:

*1. Prior to any welding, consult the truck manufacture for any special precautions that may need to be taken. Typically the batteries must be disconnected and the ground lead from the welder should be as close to the part being welded to avoid the possibility of arcing across bearings, gears, etc.*

*2. All welds should be done utilizing a low hydrogen welding process.*

**MATERIAL LIST**

| ITEM | QTY | P/N | DESCRIPTION | WT lb. PER EA. |
|---|---|---|---|---|
| 1 | 1 | 52H12 | REAR BUMPER WDMT | 95.66 |
| 2 | 2 | 63H94 | VERTICAL CHANNEL | 9.58 |
| 3 | 1 | 52H13 | REAR BUMPER EXTENSIONS | 58.42 |
| | | | TOTAL | 173.24 |

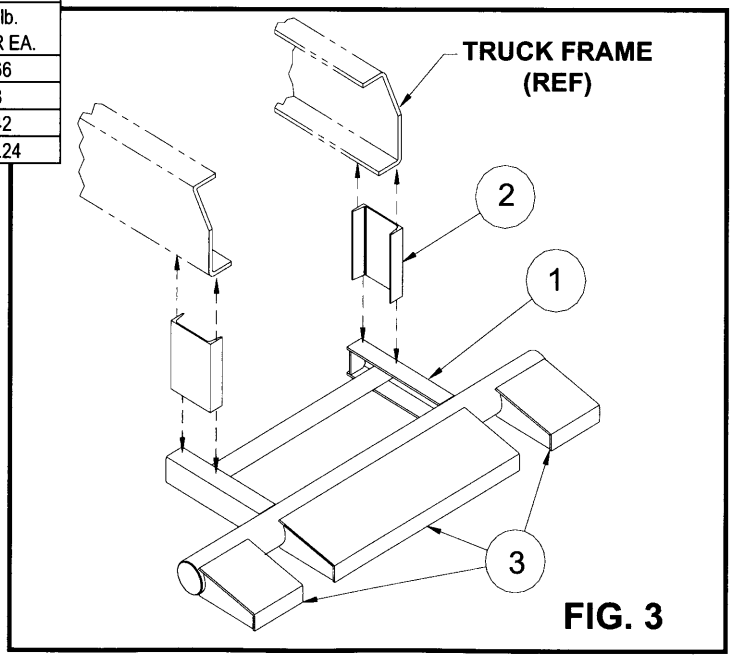


FIG. 3

SWAPLOADER® U.S.A. LTD.

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E-Mail: sales@swaploader.net • Web Site: www.swaploader.com

# PREDELIVERY CHECK LIST
# SWAPLOADER U.S.A., LTD.

Conducted By: _____ Date: _____
Dealer: _____
Customer: _____

## I. RECORD THE FOLLOWING INFORMATION:

SwapLoader Hoist:
Model No.: _____
Serial No.: _____

Truck Chassis:
Identification No.: _____
GVW: _____
CA (Cab to Axle): _____
Distance From Center Line of Rear Axle to Rear of Hoist: _____

PTO:
Make: _____
Model: _____
Serial No.: _____
% of Engine RPM: _____

Hydraulic Pump:
Make: _____
Model: _____
Serial No.: _____

## II. INSTALLATION TO CHASSIS

Were there any problems bolting the hoist to the truck chassis with the parts provided? ___ Yes ___ No
If yes, please describe _____

_____

_____

____ All bolts checked for proper tightness.

____ Please include photos of the hoist installed on the truck chassis. Be sure to include at least one photo from each side.

## III. CONTROLS

____ Controls easy to reach from diver's seat.
____ Movement of controls correct per installation instructions.

## IV. HYDRAULICS INSTALLATION

____ Correct hydraulic oil level in reservoir
____ Check for leaks
Any abnormal noise during operation: ____ Yes ____ No
If yes, explain:_____

_____

**WITH ENGINE OPERATING @ 1000 RPM, RECORD THE FOLLOWING INFORMATION:**

Cycle time for dump mode:
Up_____Sec. Down_____Sec.
Cycle time for load/unload mode:
Unload_____Sec. Load_____Sec.
Filter pressure_____PSI
Main pressure, controls in neutral_____PSI
Main relief pressure_____PSI

## V. OPERATION

____ Jib operates freely in both directions
____ Jib cannot be extended or retracted when raised in dump position or when pivot joint is tilted in unload position.
Both safety hooks are fully engaged when jib is extended.
____ Parts and operators manuals in cab.
____ Lubricate sliding jib and all grease zerks per installation instructions.

## VI. DECAL

____ All safety decals and product decals installed per Drawing 11H20.

**ADDITION COMMENTS:**

_____

_____

_____

Send completed form to:

**SwapLoader U.S.A., Ltd.**
**1800 NE Broadway Avenue**
**Des Moines, IA 50313**

Retain one copy for your file.

# OPERATION

## OPERATING INSTRUCTIONS

During all operations of the SwapLoader, the speed of the engine should be maintained at 1,000 to 1,200 RPM, assuming the ratio of the Power Take Off is about 100%.

Depress the clutch and, after 2 seconds, switch on the P.T.O.. Then, smoothly release the clutch: the pump should be running.

### LOADING A CONTAINER

1 - Retract the jib (right control backward). Then, tilt the arm backward (left control backward).

2 - Move the truck backwards until the hook engages the curved bar of the container. **NEVER EXTEND THE JIB** to reach the proper catching height, rather tilt the arm.

3 - Tilt the arm forward (left control forward), making sure the curved bar is securely attached to the hook. Release the brakes of the truck and steer to get the truck correctly aligned with the container. Watch the container rails which must come to rest centered on the rear rollers. Do not extend the jib during lifting.

4 - When the container is resting on the frame, move the jib forward all the way to ensure the container is locked on (right control forward). Disengage the P.T.O..

### DUMPING

1 - Again move the jib forward (right control forward) to ensure that the container is locked.

2 - Extend the main lift cylinders (left control backward). **DO NOT RETRACT THE JIB WHILE DUMPING. Retracting the jib during dumping may unlock the mechanical jib latches which could allow the container to crash down onto the hoist and/or abruptly unload.**

### PLACING A CONTAINER ON THE GROUND

1 - Move the sliding jib all the way back (right control backward) until mechanical jib latches unlock.

2 - Tilt the arm backwards (left control backward). When the container touches the ground, release the brakes to free the truck for forward movement caused by the container.

**WARNING:**
1 - DON'T OVERSPEED THE PUMP - 1,500 RPM MAXIMUM.
2 - DON'T DUMP ON UNEVEN GROUND.
3 - DON'T DRIVE WITH THE CONTAINER IN THE DUMPED POSITION OR WITH THE HOOK TILTED BACK.

## HOIST PROP OPERATING INSTRUCTIONS

### RAISING PROP

1. Unload all cargo from body.
2. Raise hoist and stand prop in upright position.
3. Lower hoist until hoist rests on top of prop.

**WARNING:**
1 - Do not power hoist down onto prop.
2 - Make sure prop is inserted into retaining pocket on hoist (see Dwg. No. 50H23).
3 - Do not attempt to use prop to support the hoist with a loaded container.

### LOWERING PROP

1. Raise hoist and lower prop until it sets on the prop rest.

**WARNING:** If the prop is not in perfect working order, it must be repaired before using.

# MAINTENANCE

## WEEKLY SERVICE
## (50 OPERATIONS)

1. Lubricate with grease
   - Lifting hook on jib
   - Jib slide - top, bottom, and side guides

2. Check hydraulic oil level

3. Check hydraulic hose and fittings for leaks. Also check hydraulic hose for wear. Repair and/or retighten as necessary.

## MONTHLY SERVICE
## (200 OPERATIONS)

1. Lubricate with grease
   - Fittings on ar lift cylinders (quantity: 4)
   - Front pins on rear pivot joint weldment (quantity: 2)
   - Fittings on rear pivot and rollers (quantity: 4)

2. Check all bolts and retighten as required.

3. Check adjustments on safety lock mechanism.

## YEARLY SERVICE

1. Change hydraulic oil, replace hydraulic filter element, and wash out suction strainer.

2. Check main relief valve setting.

# HYDRAULIC OIL SPECIFICATIONS

Type: High Pressure (Anti-Wear) Hydraulic
ISO Viscosity Grade: 46 Viscosity,
SUS at 100 Degree F: 194-236

AMOCO
AMOCO AW 46

ARCO
Duro AW 46

Chevron
AW Hydraulic Oil 46

Cities Service
AW Hydraulic Oil 46

Conoco
Super Hydraulic Oil 46

Exxon
Nuto H 46

Gulf
Harmony 46 AW

Kendall
Kenoil R & O AW-46

Keystone
KLC-5

Lubriplate
HO-1

Mobil
DTE 25

Phillips
Magnus A Oil 46

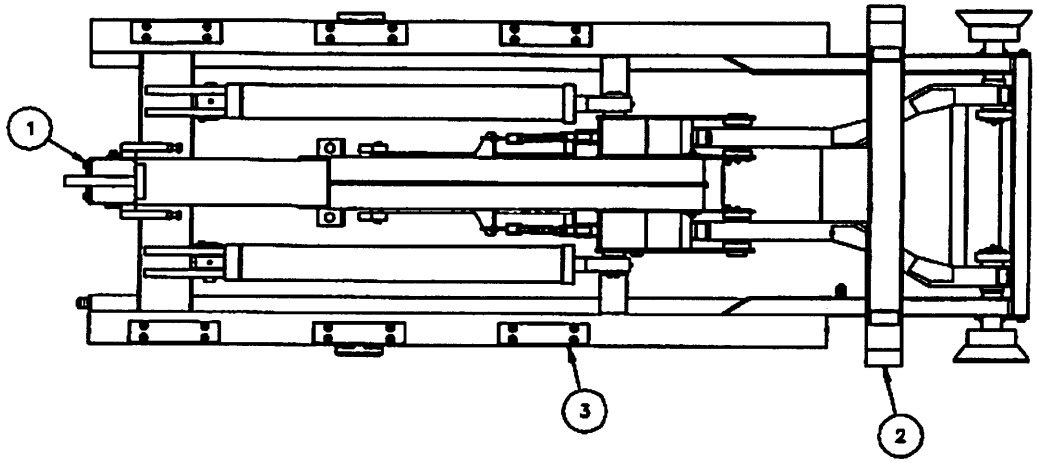
Shell
Tellus 46

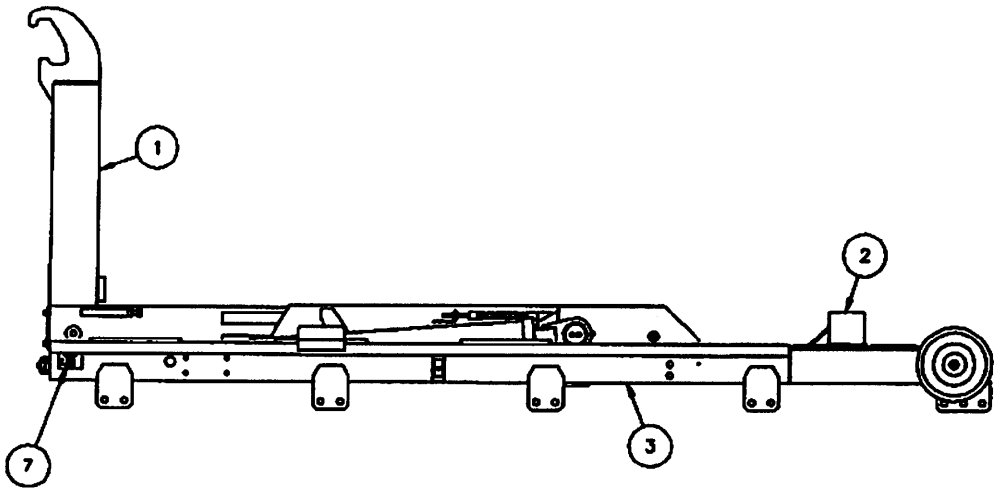
Sun
Sun Vis 747 (821 WR)

Texaco
Rando Oil HD 46

Union
Unax AW 46

# PARTS LIST




| SL-95 HOIST FINAL ASS'Y |
| --- |
| SL-95 |
| DWG.-11H15 ~ REV. B |

| SL-95 HOIST FINAL ASSEMBLY DWG.-11H15 | | | | | REVISION B |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.- lb. PER EACH | REMARKS |
| 1 | ONE | 11H17 | TELESCOPIC JIB SUB-ASS'Y | 475.80 | |
| 2 | ONE | 11H18 | PIVOT JOINT SUB-ASS'Y | 330.59 | |
| 3 | ONE | 11H19 | MAINFRAME SUB-ASS'Y | 584.56 | |
| 4 | ONE | 90H25 | FINAL HYD ASS'Y | 176.51 | NOT SHOWN |
| 5 | ONE | 11H20 | DECAL ASS'Y | - | NOT SHOWN |
| 6 | ONE | 11H21 | PARTS & OPER. MANUAL | - | |
| 7 | ONE | 90P42 | SERIAL TAG | .01 | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
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| 18 | | | | | |
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| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| | | | | 1567.47 | TOTAL |

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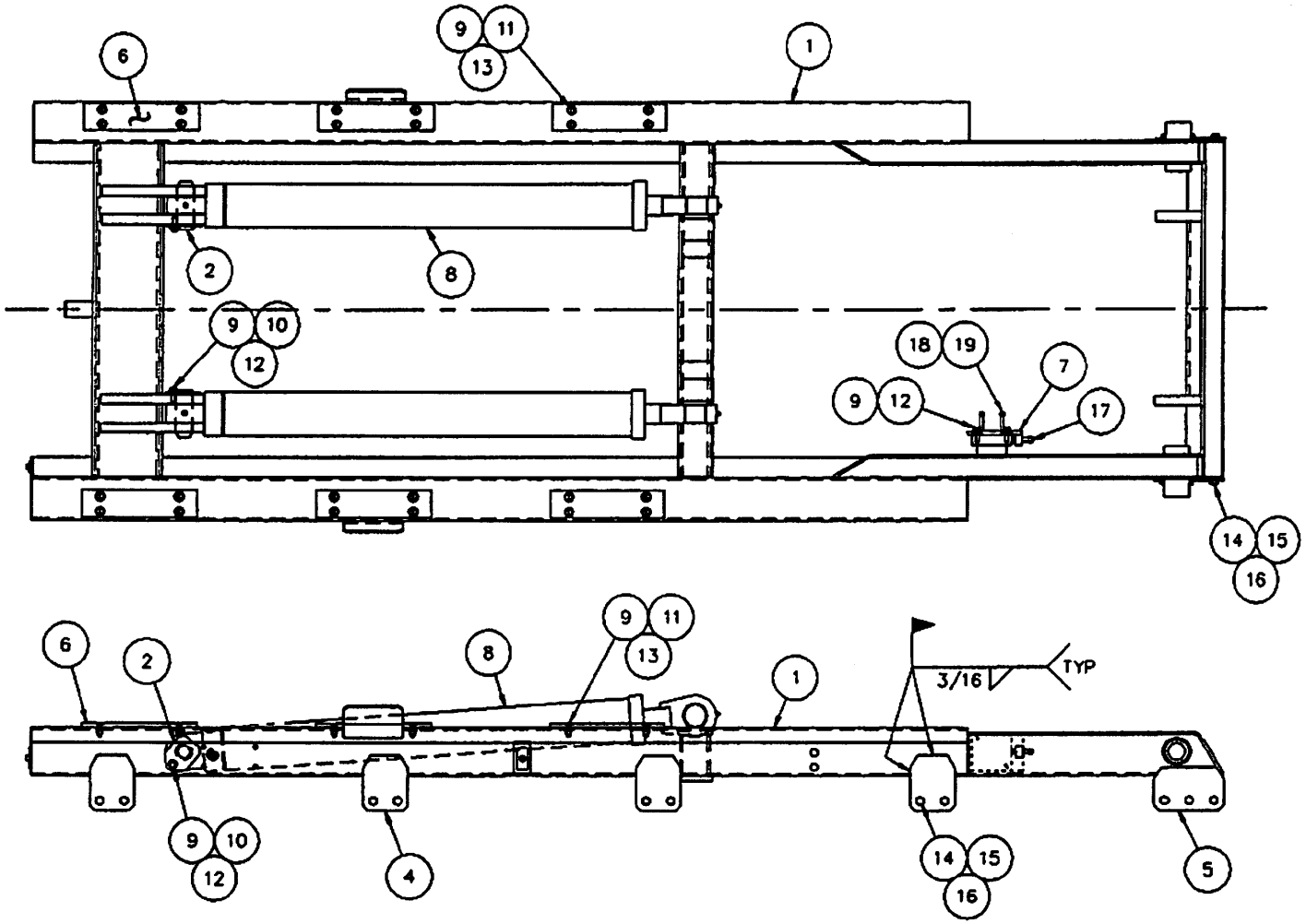


| MAINFRAME SUB-ASSEMBLY |
| --- |
| SL-95 |
| DWG.-11H19 ~ REV C |

| MAINFRAME SUB-ASSEMBLY DWG.-11H19 | | | | | REVISION C |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.- lb. PER EACH | REMARKS |
| 1 | ONE | 11H58 | MAINFRAME WDMT | 329.38 | |
| 2 | 2 | 11H09 | MAINFRAME PIN WDMT | 3.76 | |
| 3 | | | | | |
| 4 | 8 | 22H38 | FRONT BRACKET | 1.72 | |
| 5 | 2 | 22H39 | REAR BRACKET | 2.10 | |
| 6 | 6 | 90P71 | 12" WEAR BLOCK | .71 | |
| 7 | ONE | 11H91 | JIB LOCK VALVE MOUNT | 2.49 | |
| 8 | 2 | 20P29 | HYD CYL 4ø X 38 | 109.00 | |
| 9 | 28 | 00755 | 3/8ø LOCK WASHER | .01 | |
| 10 | 2 | 00P36 | 3/8ø FLAT WASHER HT | .01 | F-436 |
| 11 | 24 | 00P14 | 3/8-16 HEX NUT | .02 | GR-8 |
| 12 | 4 | 00P13 | 3/8-16 X 1 1/4 HHCS | .06 | GR-8 |
| 13 | 24 | 00P68 | 3/8-16 X 1 1/4 FL HD SCR | .03 | BRASS |
| 14 | 22 | 00784 | 1/2ø FLAT WASHER HT | .02 | F-436 |
| 15 | 22 | 00P35 | 1/2-13 LOCKING HEX NUT | .06 | GR-C |
| 16 | 22 | 00P15 | 1/2-13 X 1 3/4 HHCS | .15 | GR-8 |
| 17 | ONE | 01P20 | 3/8-16 x 1 3/4 SOC HD SCR | .07 | GR-8 |
| 18 | 2 | 01P08 | 5/16-18 x 2 HHCS | .05 | GR-8 |
| 19 | 2 | 00752 | 5/16ø LOCK WASHER | .01 | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| | | | | 595.89 | TOTAL |

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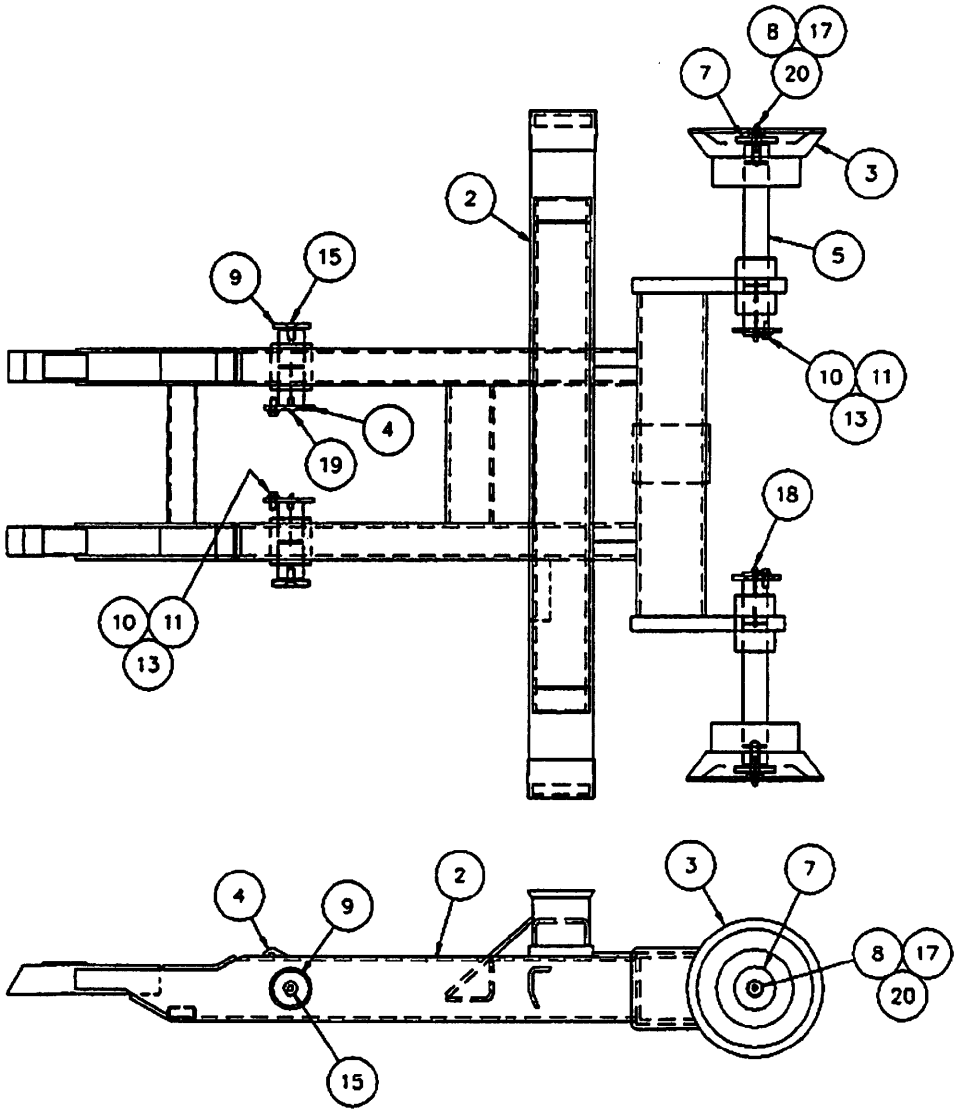
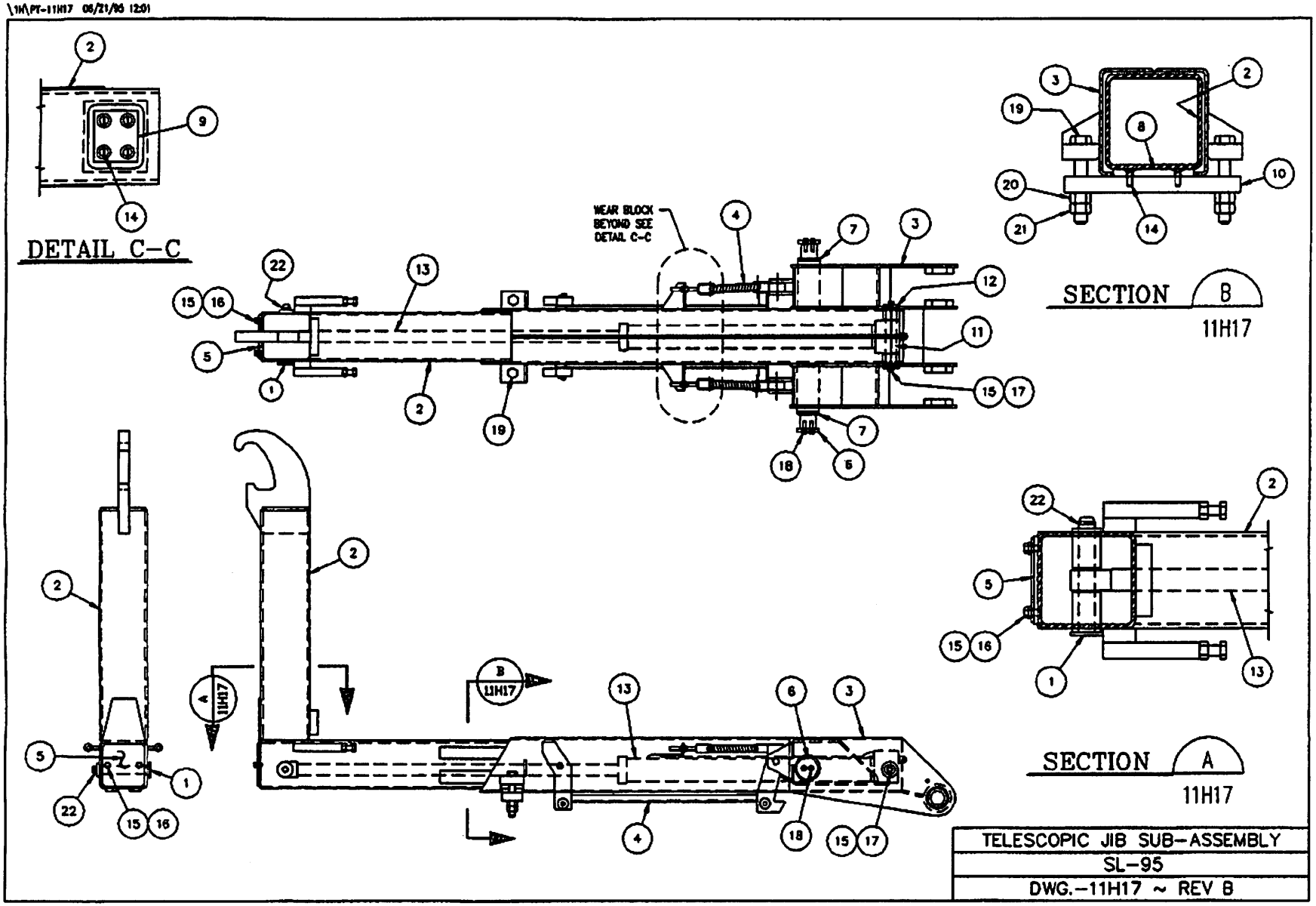



NOTE:

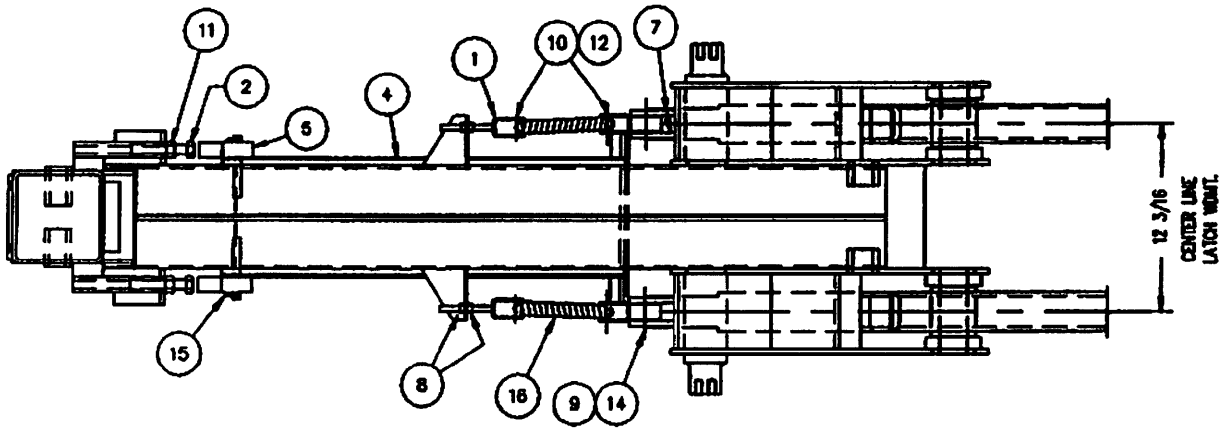
WDMT 11H93 TO BE USED
WITH S/N A00709 & HIGHER.
WDMT 11H62 TO BE USED
WITH S/N A00708 & LOWER

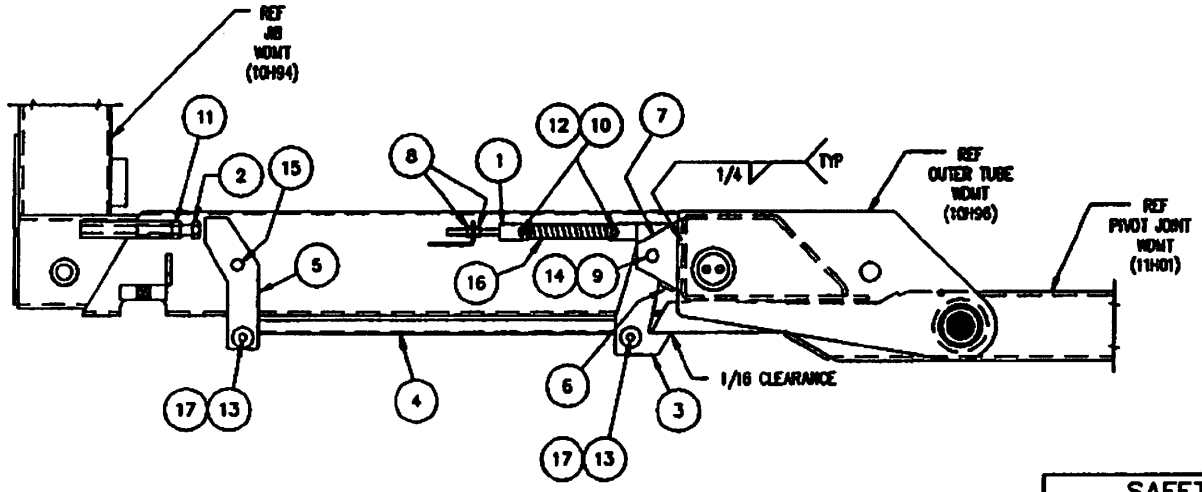
| PIVOT JOINT SUB-ASSEMBLY |
| --- |
| SL-95 |
| DWG.-11H18 ~ REV C |

| PIVOT JOINT SUB-ASSEMBLY DWG.-11H18 | | | | | REVISION C |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.- lb. PER EACH | REMARKS |
| 1 | | | | | |
| 2 | ONE | 11H93 | PIVOT JOINT WDMT | 251.90 | |
| 3 | 2 | 11H04 | ROLLER ASS'Y | 34.98 | |
| 4 | 2 | 11H08 | PIVOT PIN WDMT | 4.33 | |
| 5 | 2 | 11H10 | MAIN PIVOT PIN WDMT | 9.81 | |
| 6 | | | | | |
| 7 | 2 | 22H35 | ROLLER RETAINER | .52 | |
| 8 | 2 | 22H36 | ROLLER RETAINER BOLT | .16 | |
| 9 | 2 | 22H37 | PIVOT PIN CAP | .51 | |
| 10 | 4 | 00P36 | 3/8ø FLAT WASHER HT | .05 | F-436 |
| 11 | 4 | 00755 | 3/8ø LOCK WASHER | .05 | |
| 12 | | | | | |
| 13 | 4 | 00P62 | 3/8-16 x 1 HHCS | .12 | GR-8 |
| 14 | | | | | |
| 15 | 2 | 00P73 | 1/2-13 x 1 1/4 FL HD SOC SCR | .11 | GR-8 |
| | | | | | |
| 17 | 2 | 00767 | 5/8ø LOCK WASHER | .08 | |
| 18 | 2 | 90P03 | 1/8 NPT ZERK STR | .01 | |
| 19 | 2 | 90P05 | 1/8 NPT ZERK 45° | .01 | |
| 20 | 2 | 90P20 | 1/4-28 ZERK STR | .01 | |
| 21 | | | | | |
| 22 | | | | | |
| | | | | 353.76 | TOTAL |


DETAIL C-C
WEAR BLOCK BEYOND SEE DETAIL C-C
SECTION B
11H17
SECTION A
11H17
TELESCOPIC JIB SUB-ASSEMBLY
SL-95
DWG.-11H17 ~ REV B

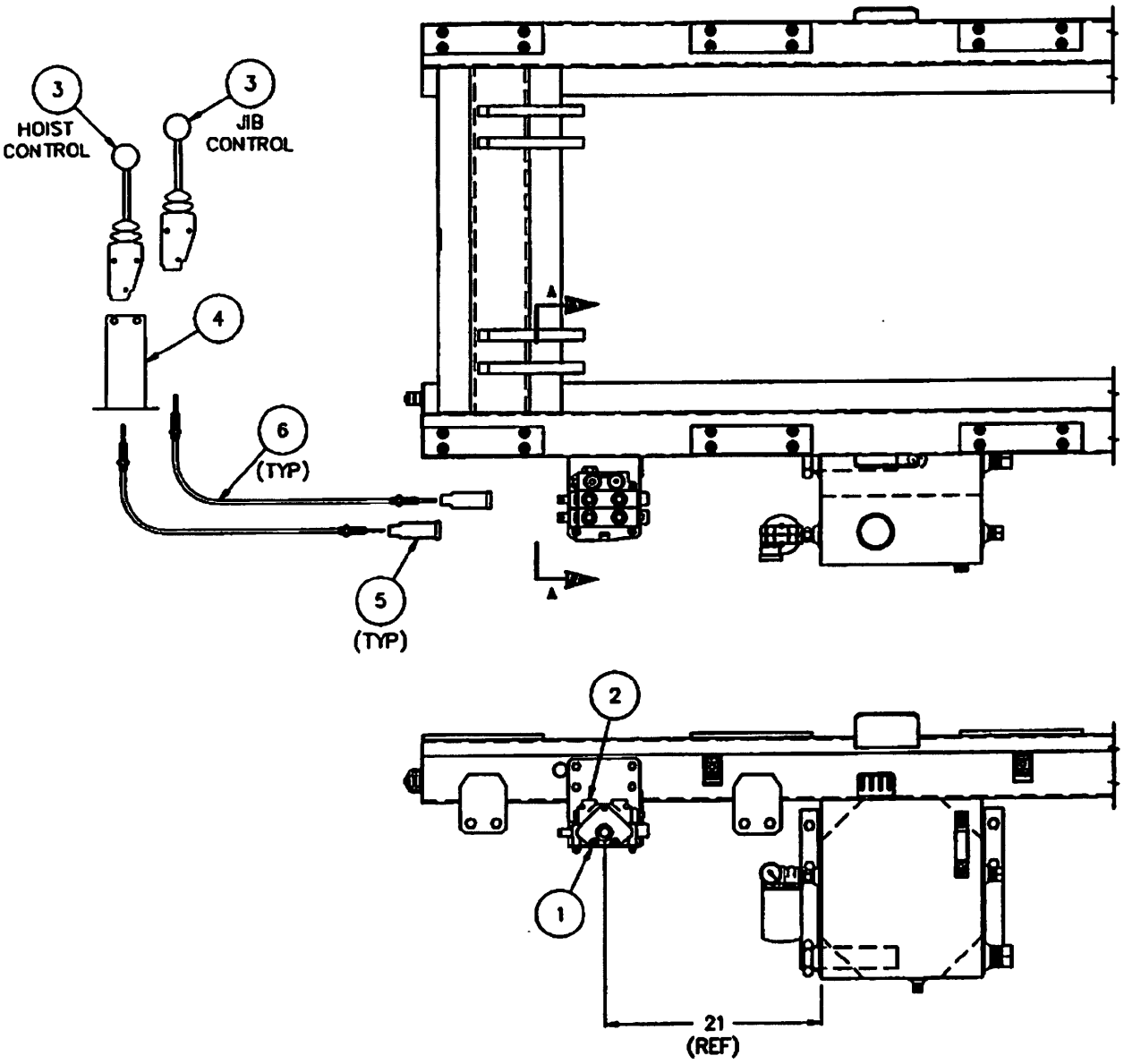
| TELESCOPIC JIB SUB-ASSEMBLY DWG.-11H17 | | | | | REVISION B |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.- lb. PER EACH | REMARKS |
| 1 | ONE | 10H08 | 1ø CYLINDER PIN | 1.75 | |
| 2 | ONE | 10H94 | JIB WDMT | 184.41 | |
| 3 | ONE | 10H96 | OUTER TUBE WDMT | 174.95 | |
| 4 | ONE | 11H11 | SAFETY LATCH ASS'Y | 37.49 | |
| 5 | ONE | 62H11 | JIB COVER PLATE | .94 | |
| 6 | 2 | 20H19 | CYLINDER RETAINER | .60 | |
| 7 | 2 | 20H21 | SPACER | .20 | |
| 8 | ONE | 20H65 | CLAMP LINER | .21 | |
| 9 | ONE | 22H27 | WEAR BLOCK | .14 | |
| 10 | ONE | 22H28 | CLAMP BAR | 7.43 | |
| 11 | ONE | 22H29 | CYLINDER PIN | 2.59 | |
| 12 | 2 | 60H27 | 1 1/2ø PIN WASHER | .16 | |
| 13 | ONE | 20P30 | HYD CYL 2 1/2ø X 24 | 61.00 | |
| 14 | 8 | 00P18 | 5/16-18 x 1 FL HD SCR | .01 | BRASS |
| 15 | 4 | 00755 | 3/8ø LOCK WASHER | .01 | |
| 16 | 2 | 00P03 | 3/8-16 x 3/4 HHCS | .04 | GR-8 |
| 17 | 2 | 00P62 | 3/8-16 x 1 HHCS | .05 | GR-8 |
| 18 | 4 | 00P32 | 3/8-16 x 1 1/4 SOC HD SCR | .06 | GR-8 |
| 19 | 2 | 00P80 | 3/4-10 x 5 HHCS | .81 | GR-8 |
| 20 | 2 | 00P17 | 3/4-10 HEX NUT | .20 | GR-8 |
| 21 | 2 | 00P72 | 3/4-10 LOCKING HEX NUT | .20 | GR-C |
| 22 | ONE | 00P05 | EXT RET RING FOR 1ø | .01 | |
| | | | | 475.80 | TOTAL |

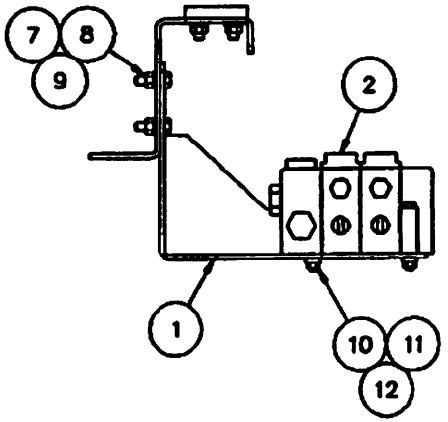



| SAFETY LATCH ASSEMBLY |
| --- |
| SL-95 |
| DWG.-11H11 ~ REV B |

| SAFETY LATCH ASSEMBLY DWG.–11H11 | | | | | REVISION B |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.– lb. PER EACH | REMARKS |
| 1 | 2 | 10H35 | TAKE UP WDMT | .25 | |
| 2 | 2 | 00P85 | 5/8–11 x 3 1/2 HHCS | .46 | GR–8 |
| 3 | 2 | 11H02 | SAFETY LATCH WDMT | 5.54 | |
| 4 | ONE | 11H03 | CONN BAR WDMT | 9.29 | |
| 5 | 2 | 20H69 | RELEASE LEVER | 4.98 | |
| 6 | 2 | 20H93 | LATCH STOP | .10 | |
| 7 | 4 | 22H02 | PIVOT SUPPORT | .92 | |
| 8 | 4 | 00P14 | 3/8–16 HEX NUT | .02 | GR–8 |
| 9 | 2 | 00P22 | 3/4ø X 2 1/2 CLV PIN | .33 | |
| 10 | 4 | 00P23 | 1/4ø X 1 3/4 CLV PIN | .03 | |
| 11 | 2 | 00P24 | 5/8–11 HEX NUT | .09 | GR–8 |
| 12 | 4 | 00P25 | 1/16ø X 3/4 COTTER PIN | – | |
| 13 | 4 | 00P26 | 1/8ø X 1 COTTER PIN | .01 | |
| 14 | 2 | 00P27 | 1/8ø X 1 1/4 COTTER PIN | .01 | |
| 15 | 2 | 00P28 | EXT RET RING FOR 3/4ø | .01 | |
| 16 | 2 | 90P04 | 7/8ø X 6 SPRING | .38 | |
| 17 | 4 | 00772 | 1/2ø FLAT WASHER | .04 | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| | | | | 37.67 | TOTAL |




SECTION A-A

| MANUAL CONTROL ASSEMBLY |
| --- |
| DWG.-90H64 |

| MANUAL CONTROL ASSEMBLY DWG.-90H64 | | | | | REVISION |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.- lb. PER EACH | REMARKS |
| 1 | ONE | 10H51 | VALVE MOUNT BRACKET | 8.24 | |
| 2 | ONE | 20P39 | HYD VALVE ASS'Y | 27.00 | |
| 3 | 2 | 20P08 | REMOTE VALVE CONTROL HANDLE | 2.80 | |
| 4 | ONE | 20P09 | CONTROL HANDLE MOUNT CONSOLE | 4.05 | |
| 5 | 2 | 20P10 | BONNET CONNECTION KIT | .50 | |
| 6 | 2 | 20P15 | CONTROL CABLE 84" LG | 1.75 | |
| 7 | 4 | 00755 | 3/8ø LOCK WASHER | .05 | |
| 8 | 4 | 00P13 | 3/8-16 x 1 1/4 HHCS | .13 | GR-8 |
| 9 | 4 | 00P14 | 3/8-16 HEX NUT | .10 | GR-8 |
| 10 | 3 | 00P19 | 5/16-18 x 2 3/4 HHCS | .13 | GR-8 |
| 11 | 3 | 00P20 | 5/16-18 HEX NUT | .09 | GR-8 |
| 12 | 3 | 00752 | 5/16ø LOCK WASHER | .04 | |
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| | | | | 51.29 | TOTAL |

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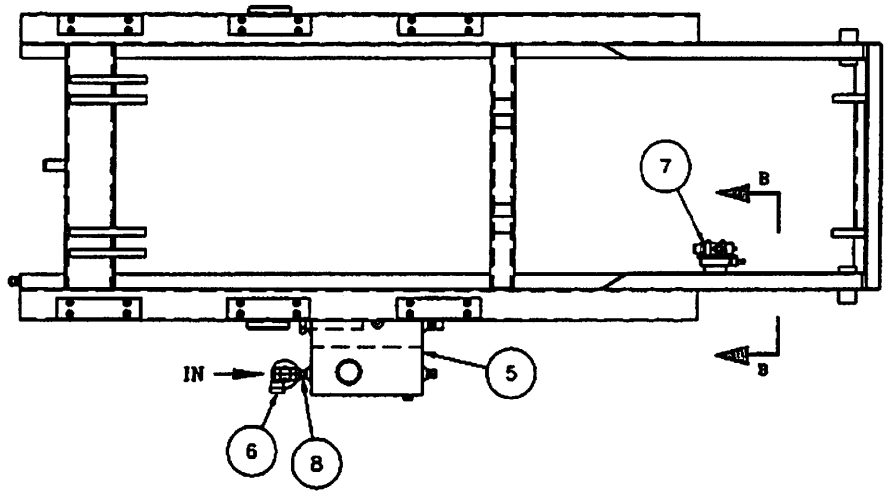
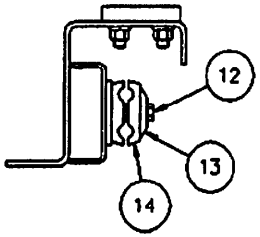
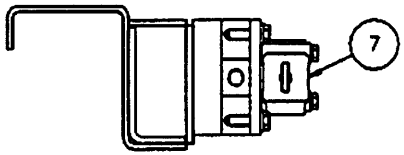
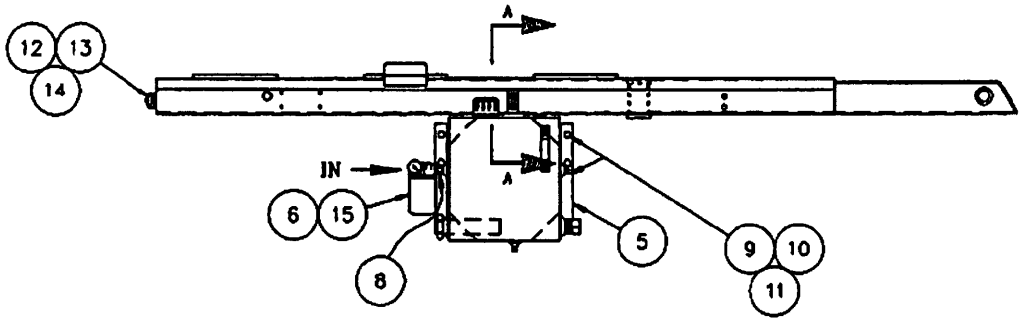



SECTION A–A

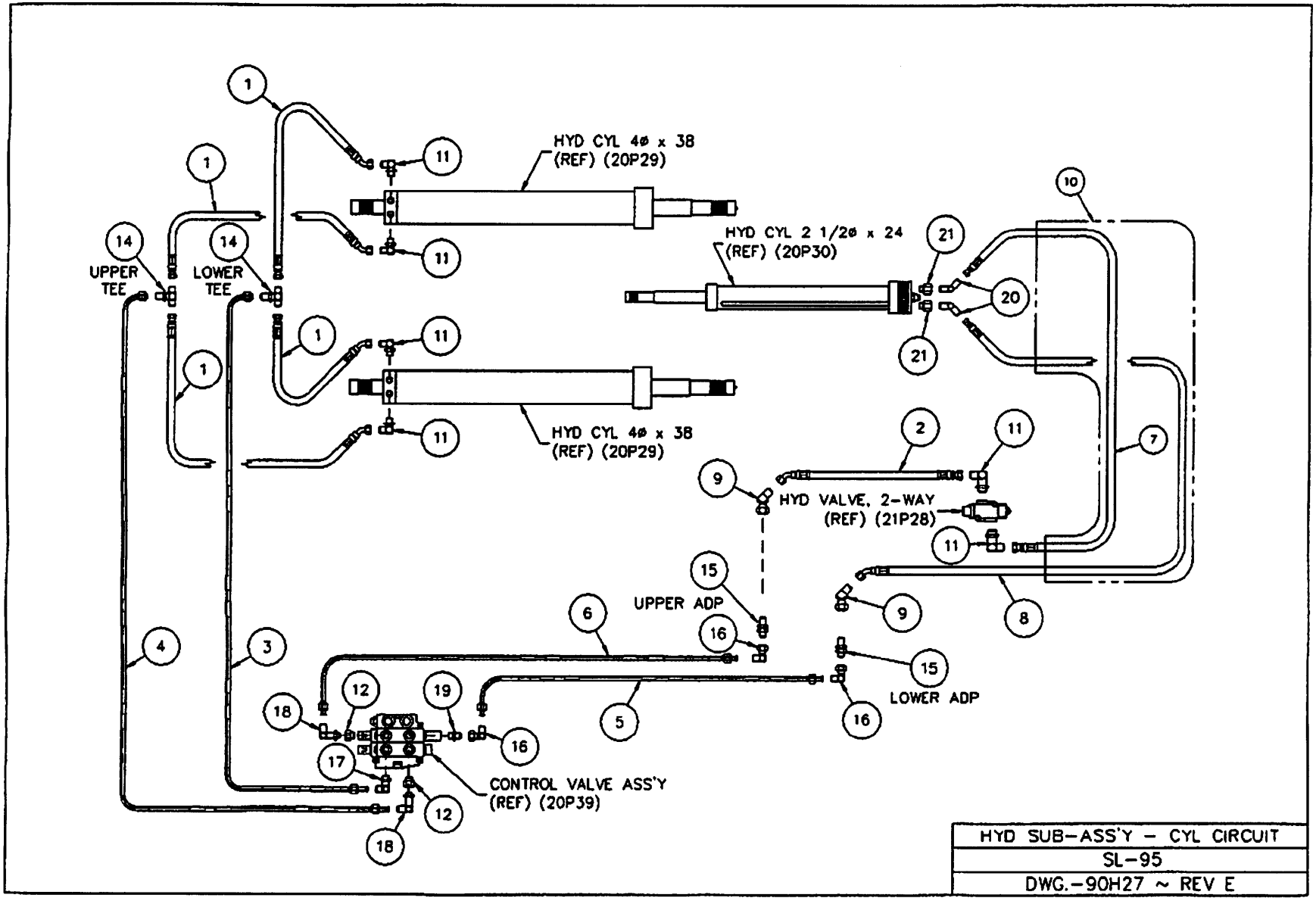



SECTION B–B




| FINAL HYDRAULIC ASSEMBLY |
| --- |
| SL–95 |
| DWG.–90H25 ~ REV G |

| FINAL HYDRAULIC ASSEMBLY DWG.-90H25 | | | | | REVISION C |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.- lb. PER EACH | REMARKS |
| 1 | ONE | 90H27 | HYD SUB-ASS'Y | 30.95 | NOT SHOWN |
| | | | CYL CIRCUIT | | |
| 2 | ONE | 90H26 | HYD SUB-ASS'Y | 15.33 | NOT SHOWN |
| | | | PUMP CIRCUIT | | |
| 3 | ONE | 90H64 | MANUAL CONTROL ASS'Y | 51.29 | NOT SHOWN |
| 4 | ONE | 20P31 | HYD PUMP, GEAR | 18.00 | NOT SHOWN |
| 5 | ONE | 20P05 | HYD TANK | 54.20 | |
| 6 | ONE | 20P22 | HYD FILTER | 2.30 | |
| 7 | ONE | 21P28 | HYD VALVE | 2.20 | |
| 8 | ONE | 10P26 | ADP, HYD PIPE NIPPLE | .70 | |
| 9 | 4 | 00P15 | 1/2-13 x 1 3/4 HHCS | .23 | GR-8 |
| 10 | 4 | 00P35 | 1/2-13 LOCKING HEX NUT | .05 | GR-C |
| 11 | 4 | 00784 | 1/2ø FLAT WASHER HT | .04 | F-436 |
| 12 | 2 | 10P28 | HEX BOLT 5/16ø x 1 1/4 | .03 | HEX-T2 |
| 13 | 2 | 10P29 | COVER PLATE | .10 | TCP-T2 |
| 14 | 2 | 10P30 | CLAMP HALF ASS'Y | .04 | T2050 |
| 15 | ONE | 20P64 | INDICATOR GAUGE | .01 | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| | | | | 175.36 | TOTAL |



| HYD SUB-ASS'Y - CYL CIRCUIT DWG.-90H27 | | | | | REVISION E |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.- lb. PER EACH | REMARKS |
| 1 | 4 | 10P49 | HOSE ASS'Y 1/2 HP X 26 | 1.45 | |
| 2 | ONE | 12P82 | HOSE ASS'Y 3/8 HP X 19 | 1.09 | |
| 3 | ONE | 11P09 | HYD TUBING - FRONT LOWER | 2.11 | |
| 4 | ONE | 11P10 | HYD TUBING - FRONT UPPER | 2.19 | |
| 5 | ONE | 11P11 | HYD TUBING - VALVE LOWER | 2.57 | |
| 6 | ONE | 11P12 | HYD TUBING - VALVE UPPER | 2.66 | |
| 7 | ONE | 12P83 | HOSE ASS'Y 3/8 HP X 59 | 2.83 | |
| 8 | ONE | 12P84 | HOSE ASS'Y 3/8 HP X 79 | 3.00 | |
| 9 | ONE | 12P85 | ADP, HYD FMJIC SWIVEL / MJIC 45° | .30 | |
| 10 | ONE | 90H47 | NYLON HOSE SLEEVE, 1 1/2ø | .30 | |
| 11 | 6 | 11P23 | ADP, HYD MJIC / O-RING 90° | .30 | 6801-8 |
| 12 | 2 | 12P17 | ADP, HYD O-RING PORT RED. | .16 | 6410-10-8 |
| 13 | | | | | |
| 14 | 2 | 10P42 | ADP, HYD M JIC BHD BRANCH TEE | .30 | 2703-LN-8 |
| 15 | 2 | 10P43 | ADP, HYD M JIC BHD UNION | .30 | 2700-LN-8 |
| 16 | 3 | 10P44 | ADP, HYD M JIC/ FM JIC SWIVEL 90° | .30 | 6500-8 |
| 17 | ONE | 10P45 | ADP, HYD MJIC / O-RING 90° | .30 | 6801-8-10 |
| 18 | 2 | 12P16 | ADP, HYD M JIC/ O-RING 90° EXT | .37 | 6801-LL-8 |
| 19 | ONE | 11P08 | ADP, HYD MJIC / O-RING STR | .30 | 6400-8-10 |
| 20 | 2 | 12P14 | ADP, HYD MJIC / MP 45° | .20 | 2503-6-6 |
| 21 | 2 | 11P35 | ADP, HYD O-RING / FP STR | .30 | 6405-8-6 |
| 22 | | | | | |
| | | | | 29.71 | TOTAL |

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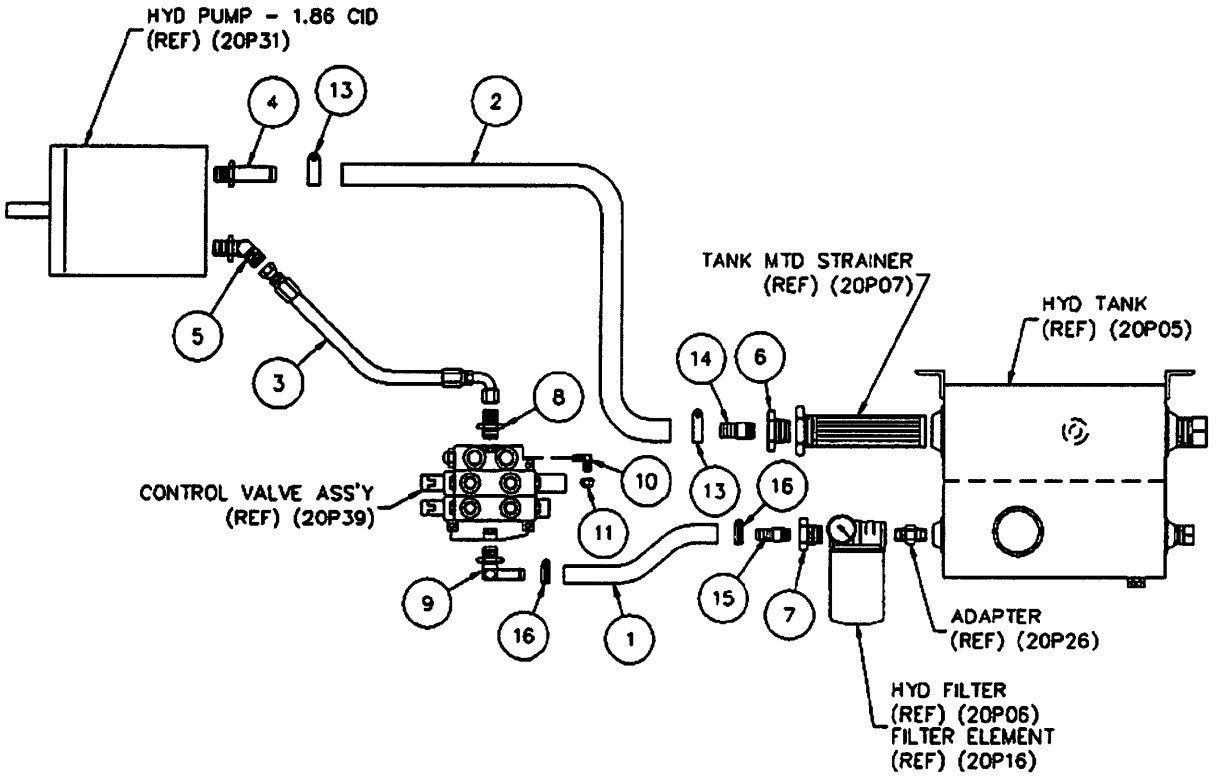


| HYD SUB-ASS'Y - PUMP CIRCUIT |
| --- |
| SL-95 |
| DWG.-90H26 ~ REV B |

| HYD SUB-ASS'Y - PUMP CIRCUIT DWG.-90H26 | | | | | REVISION B |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.- lb. PER EACH | REMARKS |
| 1 | ONE | 12P29 | HOSE 3/4 LP X 24 | .88 | |
| 2 | ONE | 12P28 | HOSE 1 LP X 120 | 6.60 | |
| 3 | ONE | 10P61 | HOSE ASS'Y 1/2 HP X 106 | 4.42 | |
| 4 | ONE | 12P18 | ADP. HYD HOSE INSERT/ O-RING | .38 | 4604-16 |
| 5 | ONE | 10P32 | ADP. HYD MJIC / ORB 45° | .30 | 6802-10-12 |
| 6 | ONE | 12P20 | ADP. HYD MP/ FP RED. BUSH. | .30 | 1 1/4 x 1 |
| 7 | ONE | 12P21 | ADP. HYD MP/ FP RED. BUSH. | .18 | 1 x 3/4 |
| 8 | ONE | 10P35 | ADP. HYD MJIC / O-RING STR | .30 | 6400-10-12 |
| 9 | ONE | 12P23 | ADP. HYD HOSE INS./ ORB 90° | .58 | 4601-12 |
| 10 | ONE | 10P37 | ADP. HYD MJIC / MP 90° | .30 | 2501-4-4 |
| 11 | ONE | 10P38 | ADP. HYD JIC CAP | .10 | 304-C-4 |
| 12 | | | | | |
| 13 | 2 | 10P21 | 1 1/2ø T-BOLT CLAMP | .10 | TBC 150 |
| 14 | ONE | 12P19 | ADP. HYD HOSE INSERT/ MP | .30 | ST10 |
| 15 | ONE | 12P22 | ADP. HYD HOSE INSERT/ MP | .31 | ST5 |
| 16 | 2 | 11P20 | WORM GEAR CLAMP | .10 | HSS16 |
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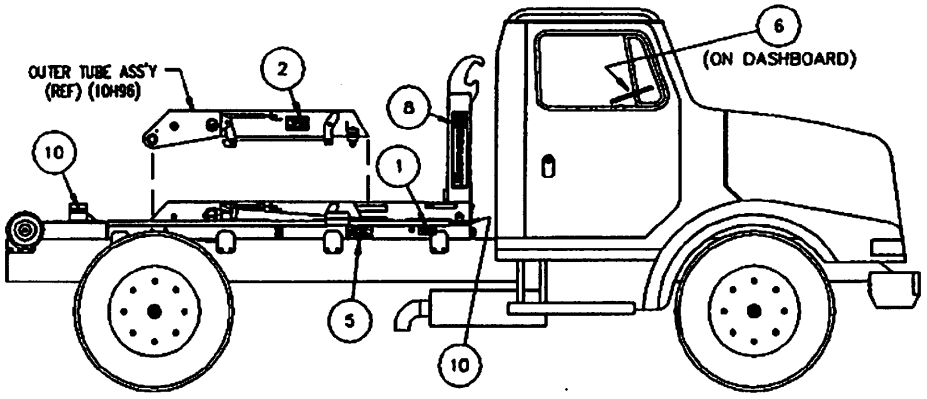
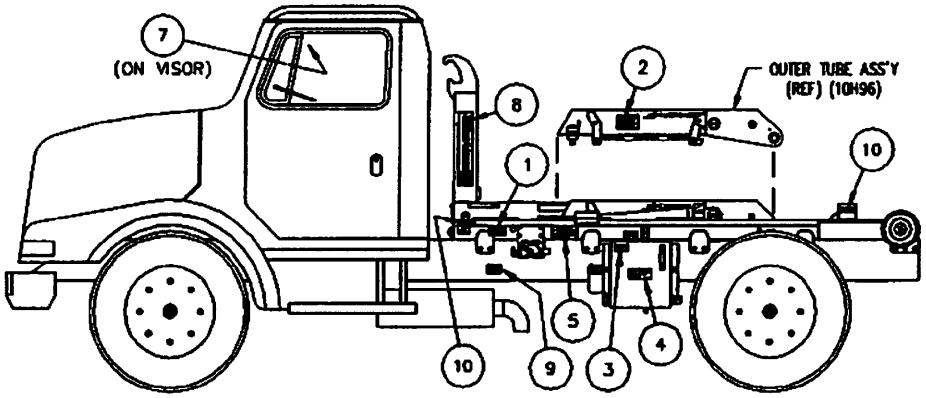
| | | | | 15.35 | TOTAL |




RIGHT SIDE




LEFT SIDE

| DECAL ASSEMBLY |
| --- |
| SL-95 |
| DWG.-11H20 ~ REV A |

| | | DECAL ASSEMBLY DWG.-11H20 | | | REVISION A |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.- lb. PER EACH | REMARKS |
| 1 | 2 | 90P07 | OPR & SERV MANUAL | | |
| 2 | 2 | 90P08 | HOIST - BODY SPEC. | | |
| 3 | ONE | 90P09 | HYD OIL SPEC | | |
| 4 | ONE | 90P10 | HYD OIL FLAMMABLE | | |
| 5 | 2 | 90P11 | HOIST FALLING | | |
| 6 | ONE | 90P12 | LEVER CONTROL | | |
| 7 | ONE | 90P13 | SAFTY INST | | |
| 8 | 3 | 90P14 | SWAPLOADER - JIB | | |
| 9 | ONE | 90P18 | RELIEF VALVE | | |
| 10 | 4 | 90P22 | SL-95 | | |
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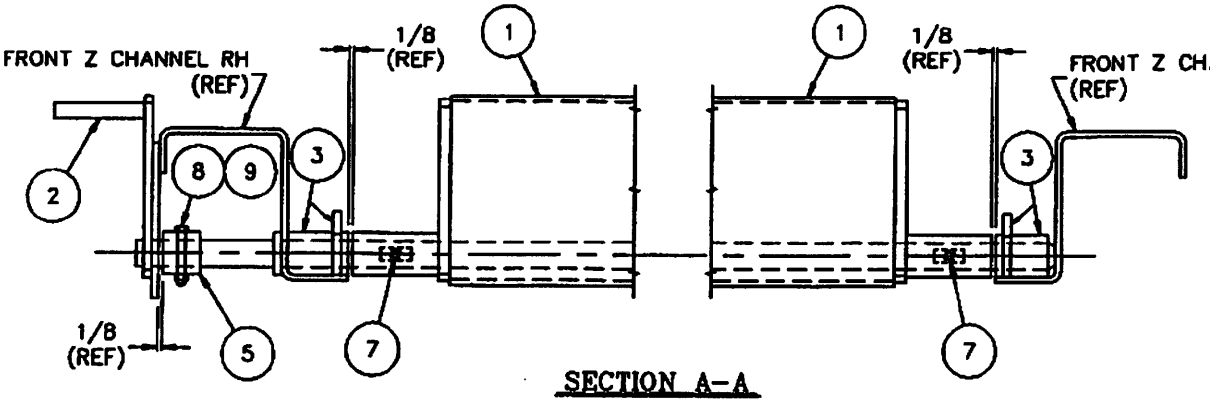
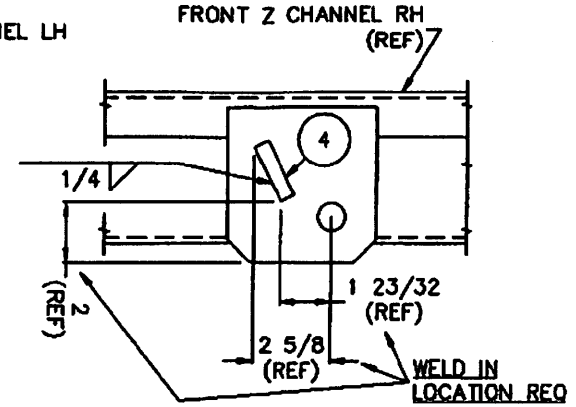
| | | | | | TOTAL |

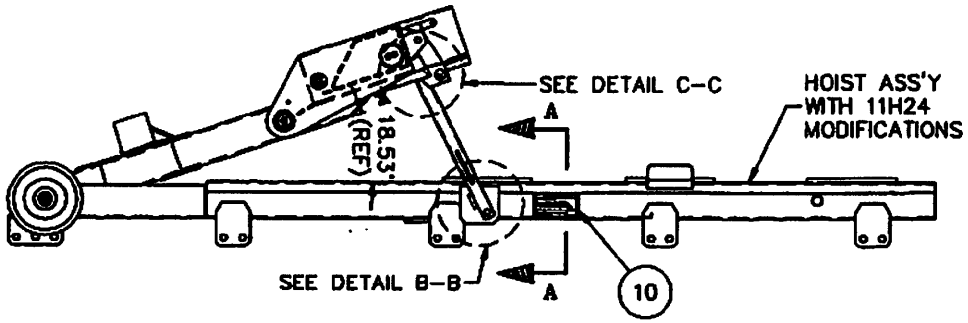
# OPTIONS

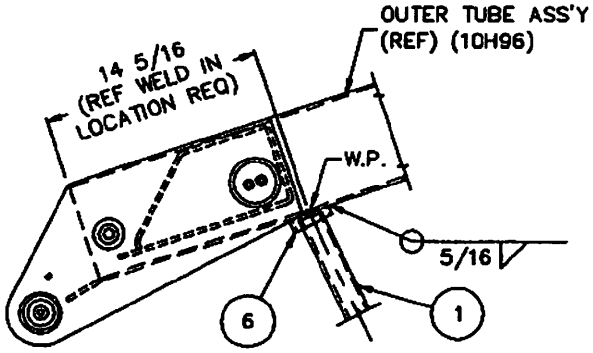



SECTION A-A




DETAIL B-B




DETAIL C-C

| PROP FINAL ASSEMBLY |
| --- |
| SL-95 |
| DWG.-11H25 REV B |

| PROP FINAL ASSEMBLY DWG.–11H25 | | | | | REVISION B |
|---|---|---|---|---|---|
| ITEM | QTY. | P/N | DESCR. | WT.– lb. PER EACH | REMARKS |
| 1 | ONE | 11H22 | CENTER PROP WDMT | 26.36 | |
| 2 | ONE | 11H23 | PROP SHAFT WDMT | 7.40 | |
| 3 | ONE | 11H24 | PROP MODIFICATION WDMT | 5.64 | |
| 4 | ONE | 21H57 | CRANK STOP | .14 | |
| 5 | ONE | 22H62 | BUSHING | .28 | |
| 6 | ONE | 22H63 | PROP CRADLE | .48 | |
| 7 | 2 | 00P08 | 3/8–16 x 3/4 SOC SET SCR | .02 | |
| 8 | ONE | 00P74 | 14–20 x 1 3/4 HHCS | .08 | GR–8 |
| 9 | ONE | 00P51 | 1/4–20 LOCKING HEX NUT | .07 | GR–C |
| 10 | ONE | 90P52 | PROP DECAL | – | |
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| | | | | 40.49 | TOTAL |


1800 NE Broadway Avenue, Des Moines, Iowa, U.S.A. 50313-2644
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