



Doing Our Best to Provide You the Best

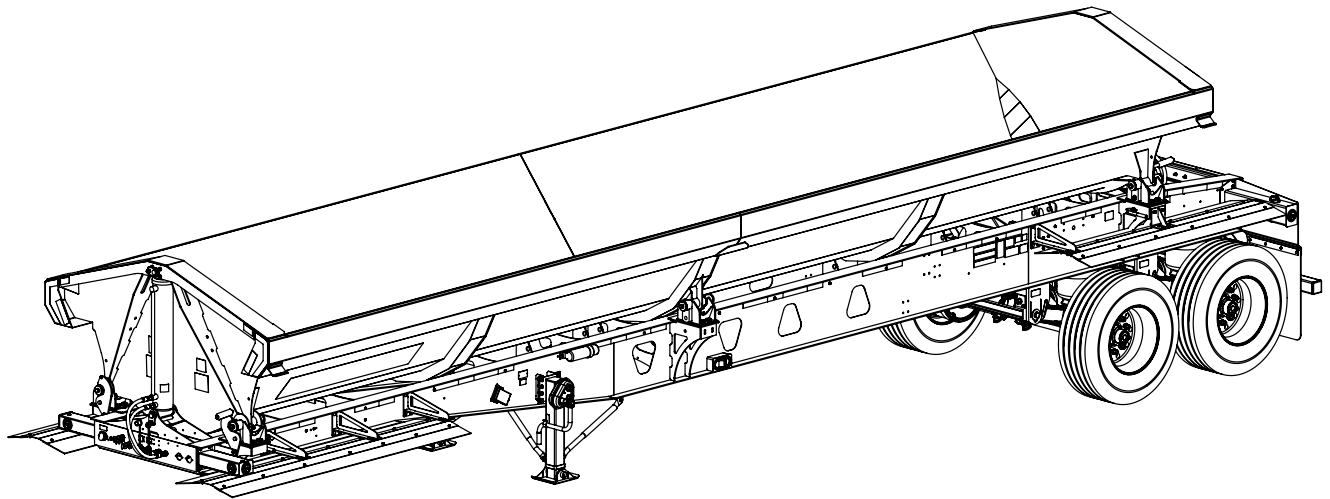
8C000202, A
02/24

SIDE DUMP

TANDEM AXLE - SPRING RIDE

9CSS3524LS 35' Chassis, 30' Tub, Leaf Spring Suspension

9CSS4024LS 40' Chassis, 34' Tub, Leaf Spring Suspension



PARTS MANUAL

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Side Dump Information

This parts manual is for the Demco Side Dump Models:

9CSS3524LS 35' Chassis, Leaf Spring Suspension, 30' Tub

9CSS4024LS 40' Chassis, Leaf Spring Suspension, 34' Tub

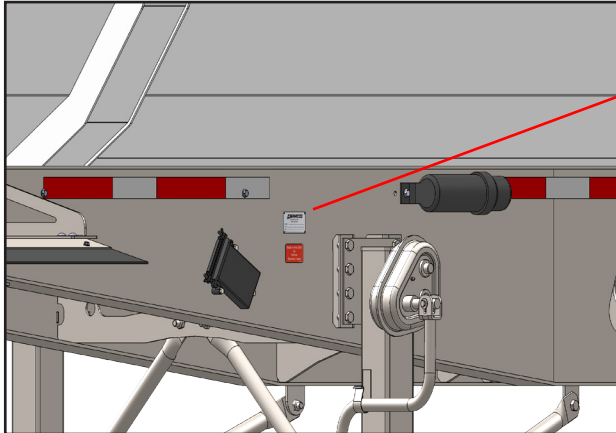
Record the following information for future reference in ordering replacement parts or additional options.

Serial Number _____

Date Purchased _____

Dealer Information _____

Serial Number



Example: VIN Number Description

57CKS4029CT627045

Demco
Side Dump
40' Length
No. of Axles
Check Digit
Model Year
Demco Identifier Number
Trailer Sequence

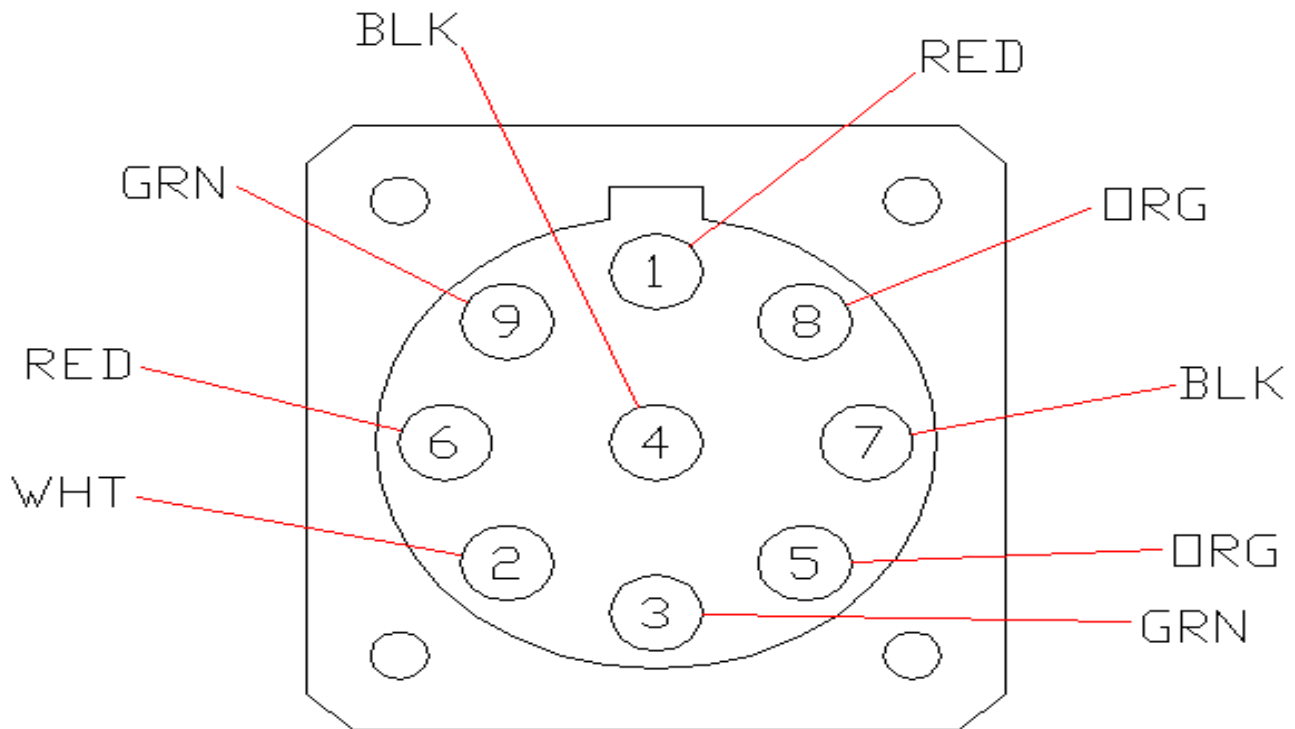
In addition to the VIN number Demco has placed a coded unit number on the chassis and the tub.

How To Order Parts

Use this manual to help determine the part number needed, then contact your dealer with the model number, serial number, and part information. They can order the part(s) directly from Demco.

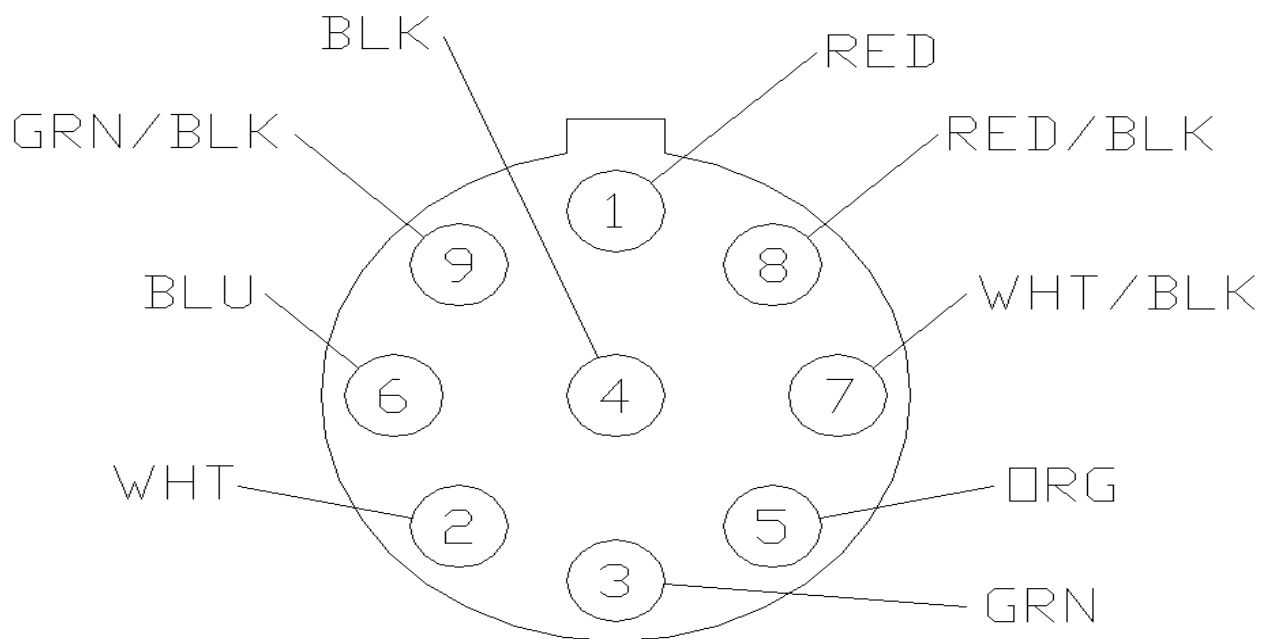
9-Pin Female Connector #1AEAP4546 Trailer Harness (View From Front)

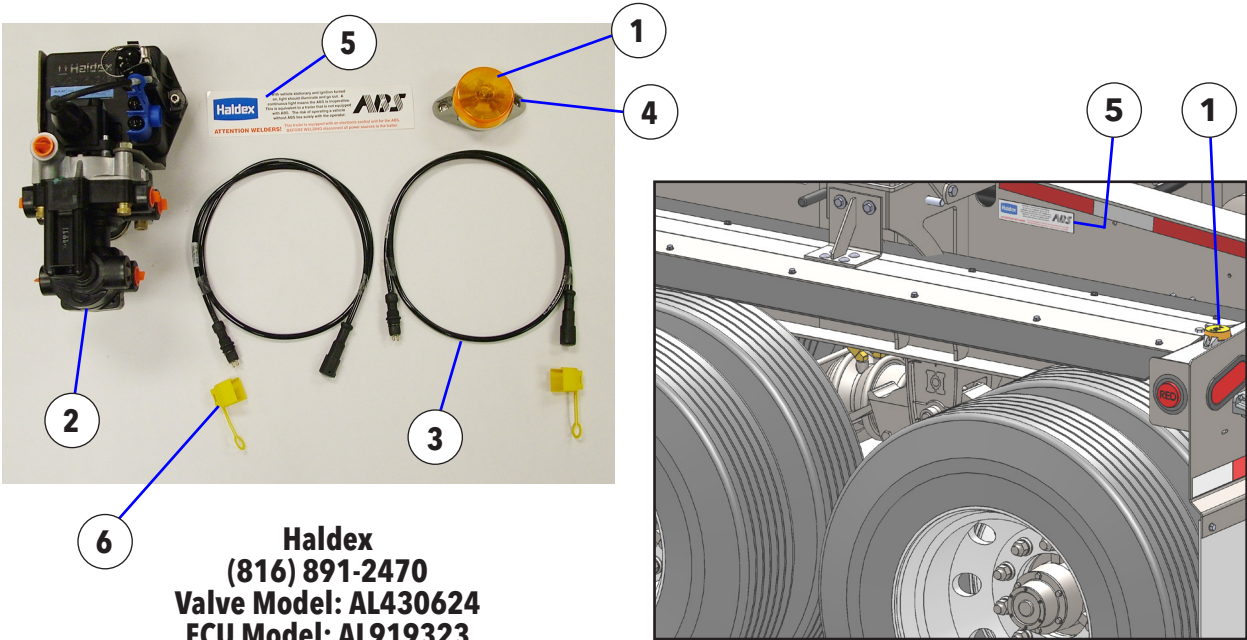
<i>Position</i>	<i>Color</i>	<i>Functions</i>
1	RED	TUB DUMP
2	WHT	TUB - RETURN
3	GRN	LIFT AXLE DOWN
4	BLK	GROUND - CENTER PIN
5	ORG	TUB SWITCH POWER
6	RED	TARP - UNCOVER
7	BLK	TARP - COVER
8	ORG	+ POSITIVE (Tarp Over-Ride)
9	GRN	TARP LOCK OUT - SENSOR



9-Pin Male Connctor #1AEAP4548 Control Box (View From Rear)

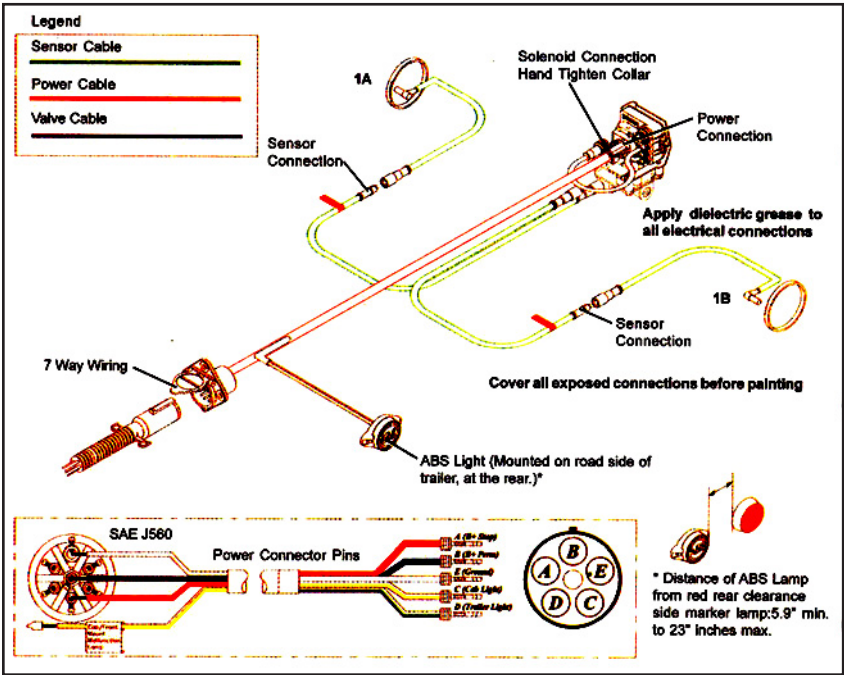
<i>Position</i>	<i>Color</i>	<i>Functions</i>
1	RED	TUB DUMP
2	WHT	TUB - RETURN
3	GRN	LIFT AXLE DOWN
4	BLK	GROUND - CENTER PIN
5	ORG	TUB SWITCH POWER
6	BLU	TARP - UNCOVER
7	WHT/BLK	TARP - COVER
8	RED/BLK	+ POSITIVE (Tarp Over-Ride)
9	GRN/BLK	TARP LOCK OUT - SENSOR





Hallex
(816) 891-2470
Valve Model: AL430624
ECU Model: AL919323
Visit Company's website for addt'l info at:
<https://www.hallex.com/en/North-America/>

ABS-1 Axle 2S1M System			
BOM ID	Qty	Item No	Description
1	1	1AEAP4301	ABS LIGHT BRACKET
2	3	1ABAP3528	VALVE, FFABS, 3/4" NPT, HALDEX N9001JB
3	1	1ABAP3754	ABS SENSOR EXT. CORD, 1 METER
4	2	1AEAP4302	ABS LIGHT
5	1	1AQAP4304	DECAL, ABS LIGHT/ATTN WELDERS
6	1	1AAP4308	RETAINING CLIP, ABS SENSOR PLUG



Haldex



PLC Select ABS (1M)

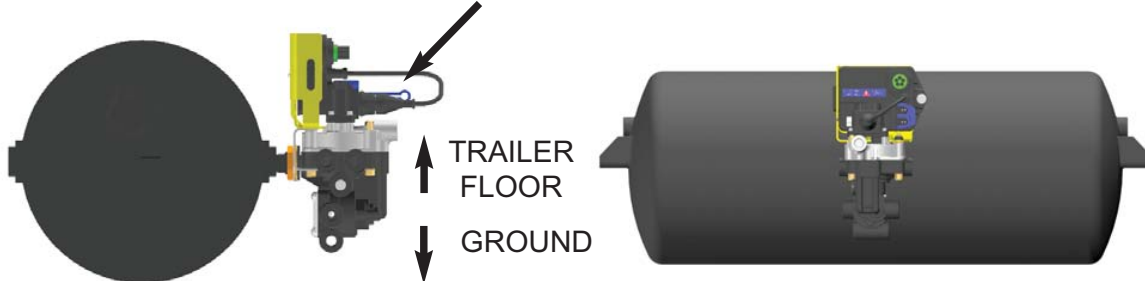
Installation/Service Manual for 2S/1M Systems

PLC Select 1M

PLC Select 1M & 2M Valve Orientation



The ABS Valve Solenoid must be installed as shown below

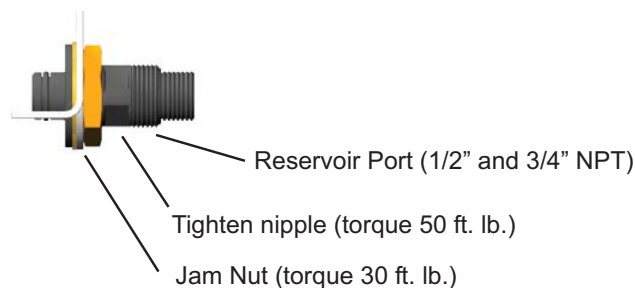


Typical tank mount valve orientation

1. Install fittings into valve. Sealant is not required on plastic threads or on fittings that go into plastic. **DO NOT** use teflon tape on fittings. It can break off and contaminate the air system. Liquid pipe sealant is approved for use if required.
2. For plastic ports, hand tighten fittings then rotate 1 to 1-1/2 additional turns. The maximum torque valve allowed is 210 in-lb.
3. Install valve nipple into reservoir port. Use 7/8" wrench to tighten the nipple.
4. Using a 1-1/2" wrench tighten the jam nut to 30 ft. lb, while holding the nipple with a 7/8" wrench.(see detail below).
5. Attach hoses to appropriate brake chambers. Use liquid thread sealant sparingly on all fittings (Loctite PST565 or equivalent).

Note: *If frame mounted follow same procedure for valve orientation.*

Valve solenoid on a 2-port relay, 6-port relay or FFABS must be facing up when the trailer is in normal operation or service/ABS performance could be effected.



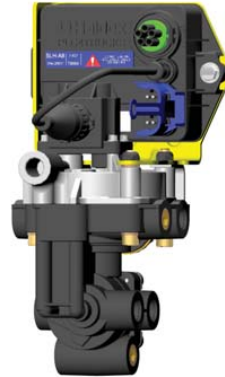
Warning: *Proper installation orientation shown above; otherwise, warranty is void.
Installation behind the tank is recommended, facing the back of the trailer.*

PLC Select 1M



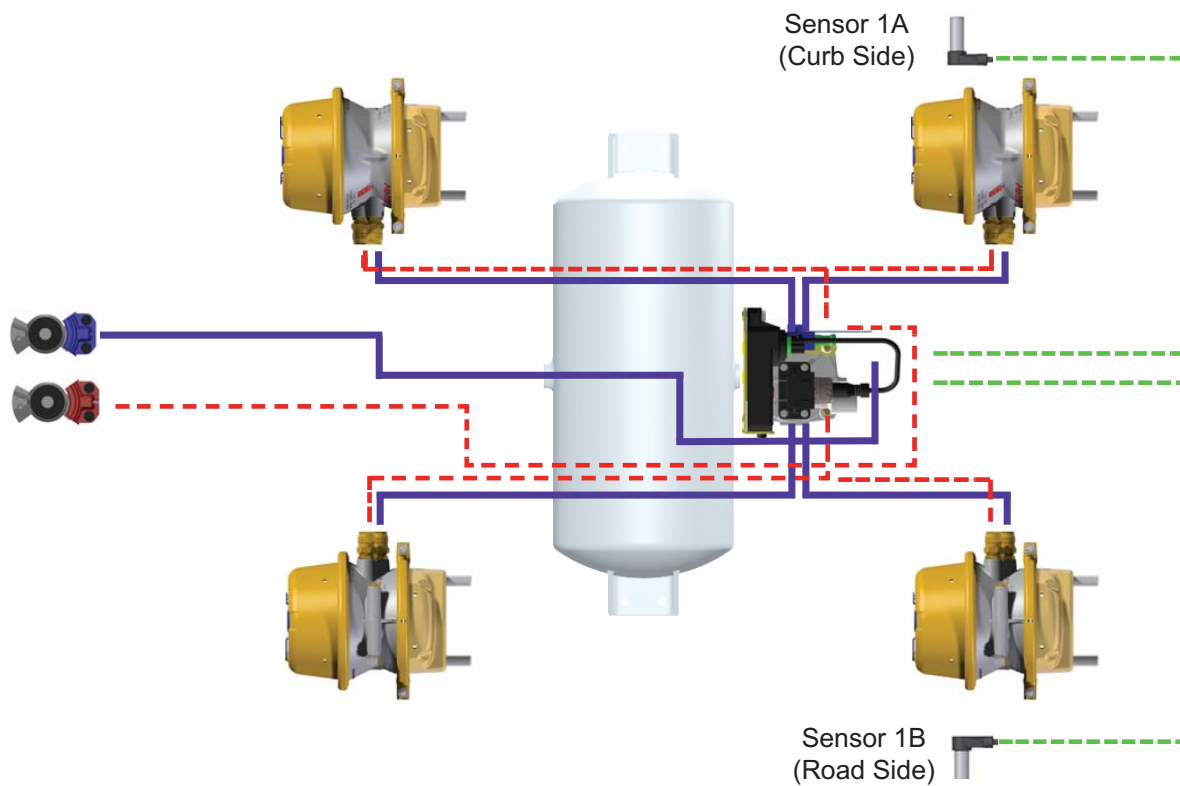
PLC Select FFABS 2S/1M (4 Service Delivery Ports/ 4 Spring Brake Ports)

- Air suspension typically have the sensors on the rear axle
- Spring suspension typically have the sensors on the front axle



PLC Select 1M (FFABS)

Plumbing Schematic (2S/1M) Top View



Legend:

Service/Control Line	
Emergency/Supply Line	
Sensor Line	

AIR BRAKE COMPONENTS AND SYSTEM SCHEMATIC ARE DESIGNED TO ALLOW COMPLIANCE WITH FMVSS 121.

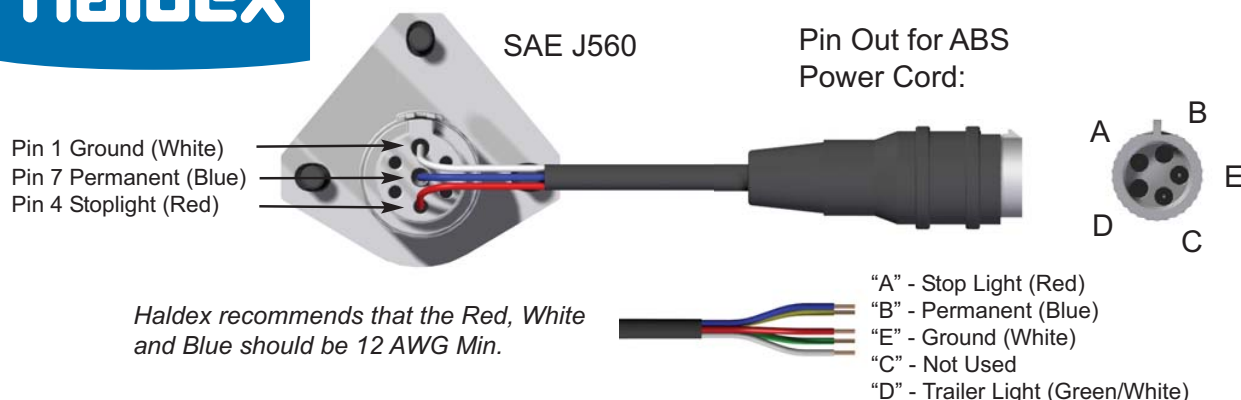
THIS SCHEMATIC IS FOR INFORMATION PURPOSE ONLY. IT IS THE VEHICLE MANUFACTURERS ULTIMATE RESPONSIBILITY TO CERTIFY THEIR SYSTEM MEETS ALL APPLICABLE REGULATIONS.

PIPE NIPPLES USED TO MOUNT BRAKE VALVES MUST BE HEAVY WALL TYPE PER SAE J514.

PLC Select 1M



ABS Power Cord - Pin Out

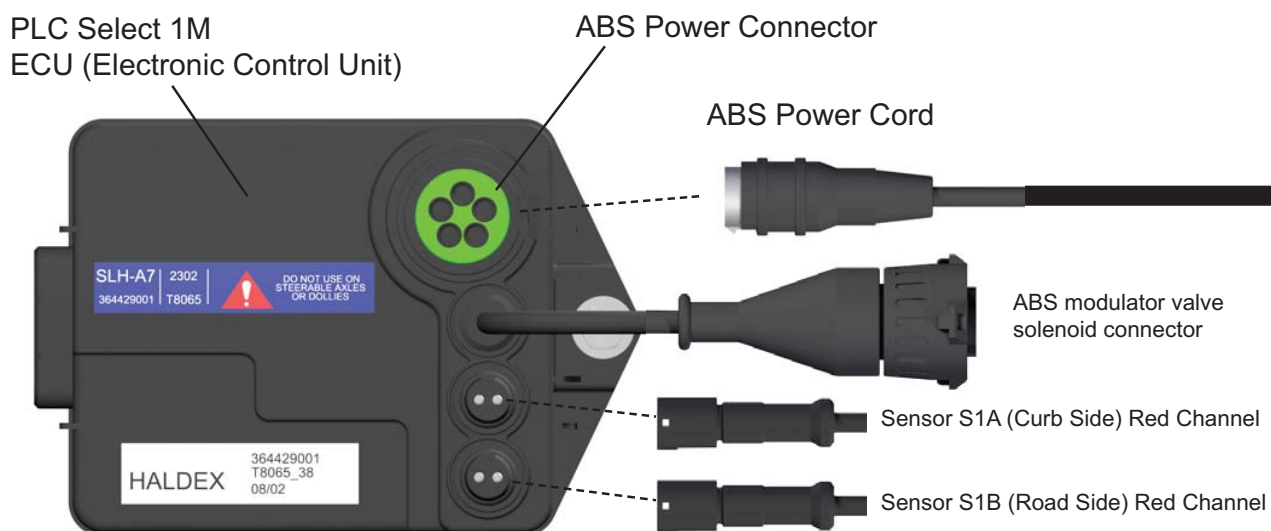


Note: Federal regulations mandate that new trailers, built after 3/1/2001, have the capability to provide an ABS fault signal from the trailer ABS into the tractor for an In-Cab trailer ABS Lamp. Option (1) is through Industry standard "PLC4Trucks" multiplexing (the signal is carried on Pin 7)

PLC Select 1M ECU Overview

Correct location of the speed sensors at the wheel ends is critical for proper ABS operation and troubleshooting. The PLC Select 1M will adjust the braking air pressure in response to the input from the speed sensors. Incorrect installation or location of speed sensors, sensor block clips and exciter rings will result in poor ABS performance or sensors crossed leading to incorrect diagnostics troubleshooting.

The figure below shows the correct power and speed sensor connections on the PLC Select 1M ECU (Electronic Control Unit).



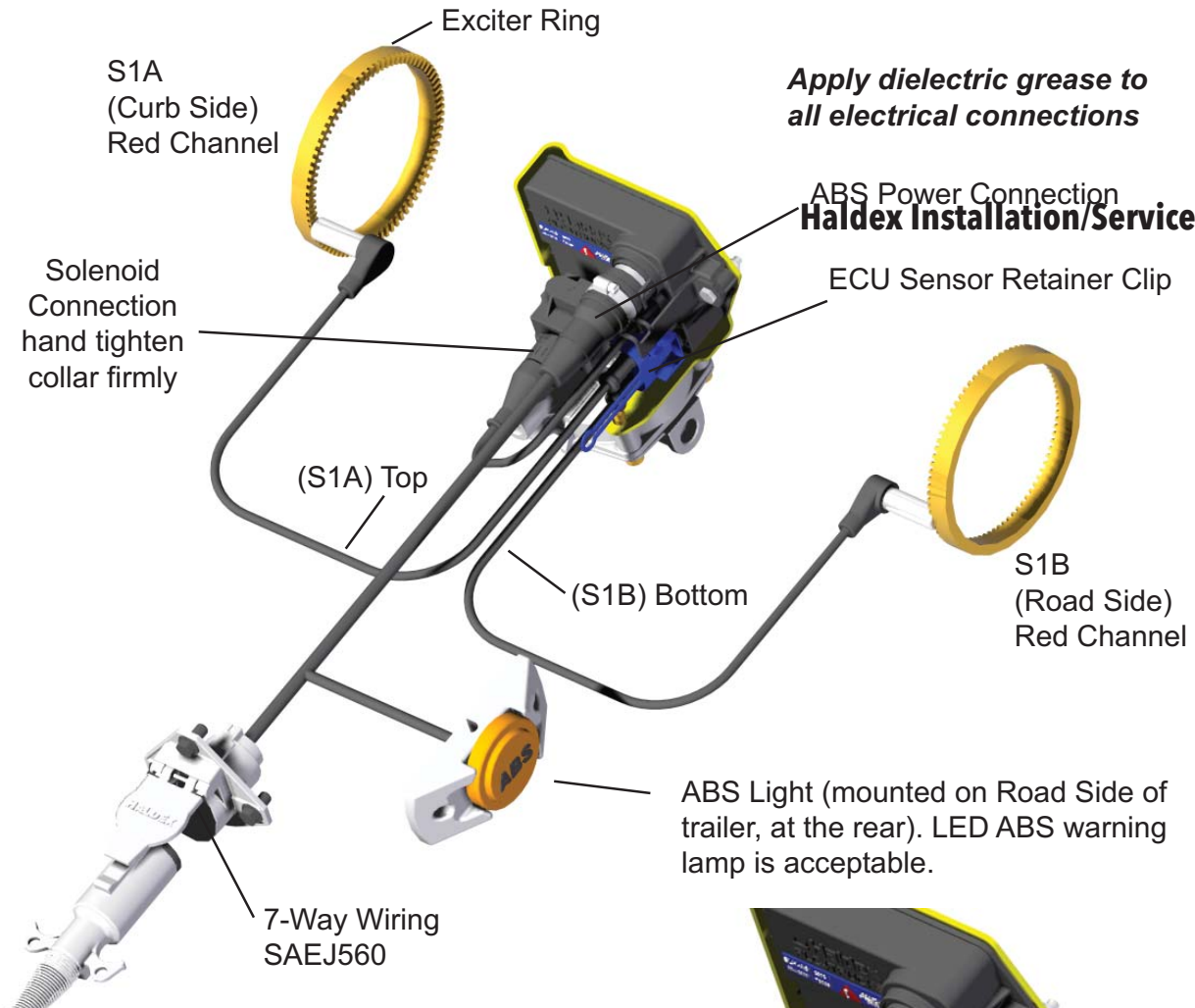
Note: When installing and servicing always apply small amount of dielectric grease to all electrical connections.

PLC Select 1M

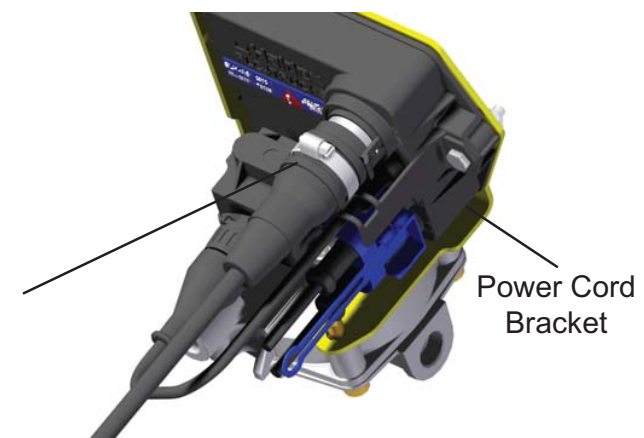
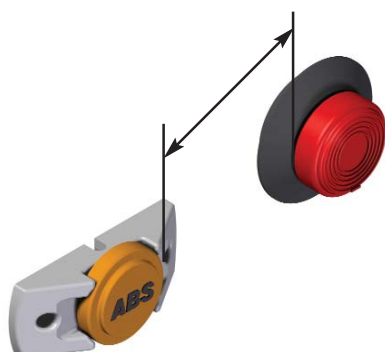
2S/1M System Wiring - PLC Select



Note: Cover all exposed electrical connections before painting



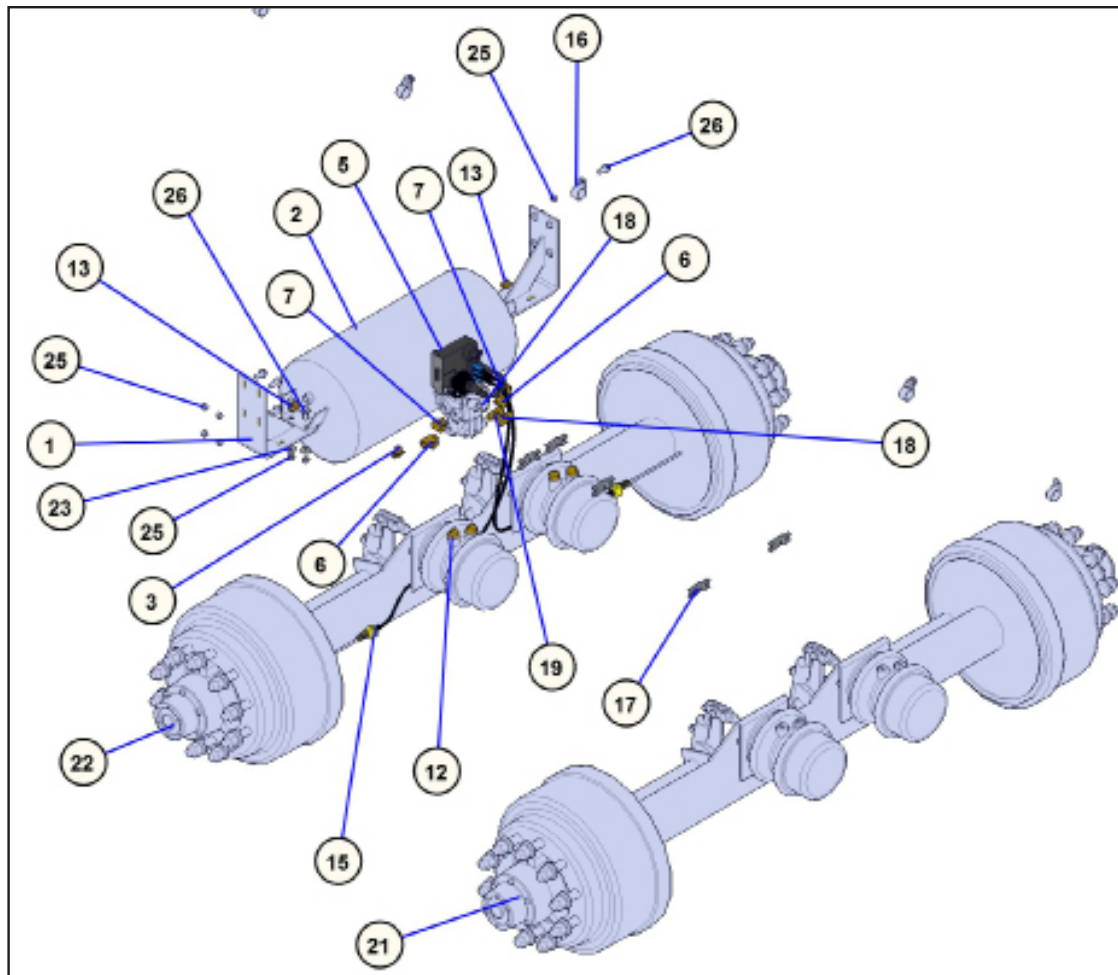
*Distance of ABS Light from Red rear clearance side marker light is 5.9" inches to 23" inches max.



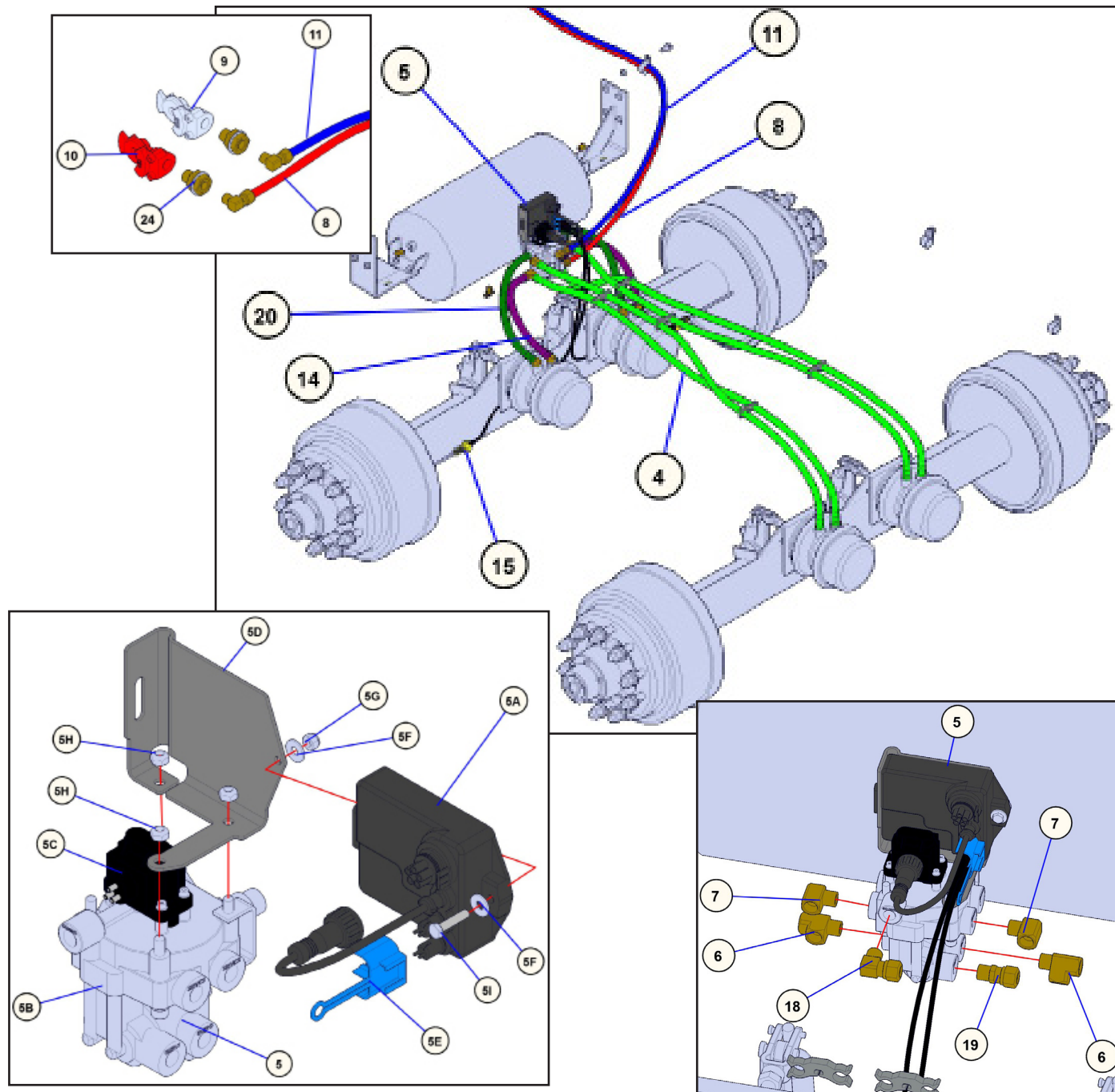
The ABS Power Cord is secured to the power cord bracket (page 13) and is secured with a hose clamp (preferred) or tie strap.

PLC Select 1M

AIR SUPPLY PARTS (LEAF SPRING)



BOM ID	Qty	Item No	Description
1	2	5CAM9018	BRACKET, AIR TANK MOUNTING
2	1	1ABAP3524	AIR TANK, 2800 CU IN
3	1	AP3525	DRAIN COCK, 1/4" NPT
4	4	1ABAP3527	HOSE, 1/2" AIR BRAKE X 60", 3/8MP-3/8MPX
5	1	1ABAP3528	VALVE, ABS, HALDEX N9001BB
6	2	1AKAP3531	STREET TEE, 3/8", 90 DEGREE
7	2	1AKAP3532	STREET ELBOW, 3/8", 90 DEGREE
8	1	1ABAP3537	NYLON TUBING, RED, 1/2"
9	1	1ABAP3555	GLADHAND, SERVICE, BLUE
10	1	1ABAP3556	GLADHAND, EMERGENCY, RED
11	1	1ABAP3635	NYLON TUBING, BLUE, 1/2"
12	4	1ABAP3688	STREET ELBOW, 3/8", 45 DEGREE
13	2	1ABAP3692	HEX PLUG, 3/8", BRASS
14	2	1ABAP3745	HOSE, 1/2" AIR BRAKE X 20", 3/8"MP-3/8"MPX
15	2	1ABAP3754	ABS CORD, 1 meter
16	15	1AFAP3809	1-1/4" HOSE SUPPORT CLAMP, 3/8" BOLT
17	5	1ABAP3864	AIR BRAKE HOSE SEPARATOR, 3/8" HOSE
18	3	1ABAP4199	TUBE, 1/2" X 3/8" MP, 90 DEGREE, NUT & FERRULE, BRASS
19	1	1ABAP4200	TUBE, 1/2" X 3/8" MP, STRAIGHT, NUT & FERRULE, BRASS
20	2	1ABAP4206	HOSE, 1/2" AIR BRAKE X 22", 3/8"MP X 3/8"MPX
21	1	1AAAP4250	HUB PILOT, NON ABS, CAST DRUM, STEEL HUB. 25K WITH BRAKE CANNISTER
22	1	1AAAP4251	HUB PILOT, ABS, CAST DRUM, STEEL HUB. 25K WITH BRAKE CANNISTER
23	4	1AFBP3015	WASHER, FLAT, 3/8", PLATED
24	2	1AFBP3584	BOLT, TERMINAL, HB646
25	26	1AFBP3612	NUT, HEX LOCK, 3/8"-16, TOP LOCK
26	26	1AFBP3692	BOLT, FLANGE HEAD, 3/8"-16 X 1", GRADE 8, PLATED



BOM ID	Qty	Item No	Description
5	1	1ABAP3528	VALVE, ABS, HALDEX N9001BB
5A	1	1AAAP4297	ABS ECU, HALDEX PLC SELECT, AL919323
5B	1	1AAAP4298	ABS VALVE, LESS ECU, HALDEX AL430624
5C	1	1AAAP4354	ABS VALVE SOLENOID, 12 VOLT, HALDEX AQ40525
5D	1	1AAAP4356	ABS VALVE ECU MOUNT, HALDEX 015505209
5E	1	1AAAP4357	ABS VALVE SENSOR CORD RETAINER, DOUBLE, HALDEX
5F	2	1AFBP3055	WASHER, FLAT, 1/4", PLATED
5G	1	1AFBP3587	NUT, HEX, 1/4" NYLOCK
5H	3	1AFBP3644	NUT, HEX LOCK, 5/16"-18, TOP LOCK
5I	1	1AFBP3648	BOLT, 1/4" X 1-1/4" GRADE 8

AXLES - MERITOR HUB PILOT AXLES

Hub Pilot Axles

1.

1AAAP3770

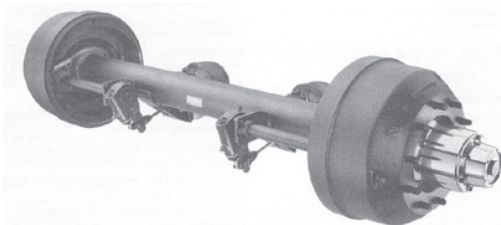
(1) Hub pilot, non-ABS, cast drum steel hub, 25,000#
2.

1AAAP3772

(1) Hub pilot, ABS, cast drum, steel hub, 25,000#
3.

1AAAP4179

(4) Brake spring canister, 30/30



Arvin Meritor
800-535-5560

TQ4670QH5106 25,000 lb. Non ABS
TQ4670QH5107 25,000 lb. ABS Axle
arvinmeritor.com

TYPICAL 16.5" x 7" Q SERIES BRAKE INSTALLATION

Item	Description	Item	Description	Item	Description
1	Capscrew	14	Bushing anchor pin	28	Capscrew
2	Lockwasher	15	Pin anchor	29	Slack adjuster washer
3	Hubcap	16	Beam axle	30	Slack adjuster locknut
4	Gasket	17	Camshaft (left)	31	Automatic slack adjuster
5	Wheel bearing jam nut	18	Camshaft (right)	32	Slack adjuster washer
6	Lockwasher	19	Washer	33	Slack adjuster snap ring
6A	Setscrew	20	Seal	34	Brake shoe return spring
7	Wheel bearing adjusting nut	21	Bushing	35	Brake shoe and lining assy.
8	Outer wheel bearing cone	22	Snap ring	36	Brake shoe retaining spring
9	Outer bearing cup	23	Capscrew	37	Brake shoe roller retainer
10	Brake drum	24	Air chamber	38	Brake shoe roller
11	Inner bearing cup	25	Lockwasher	39	Shoe return spring pin
12	Inner bearing cone	26	Locknut	40	Dust shield
13	Wheel bearing seal	27	Camshaft bushing assembly	41	Hub

Section 2 Disassembly



NOTE: The procedures in the "Disassembly" and "Assembly" sections of this manual are for current production Meritor trailer axles equipped with the following components:

- Disc wheel-end equipment
- Q Series cam brakes
- Meritor automatic slack adjusters
- TN/TQ axle spindles with standard retention hardware
- Oil lubricated wheel-ends

For axles equipped with different Meritor components, a reference will be made either to other procedures or other technical publications.

Remove Wheel-Ends

WARNING

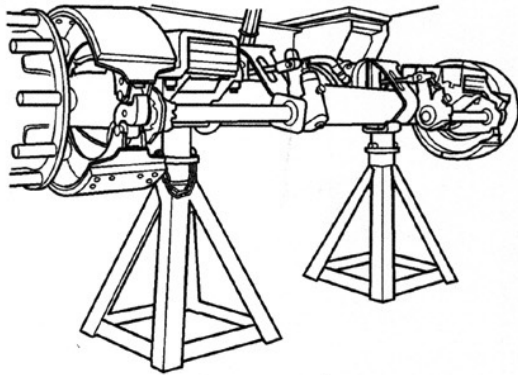
To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

WARNING

Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip and fall over. Serious personal injury can result.

1. Raise the trailer until the tires are off floor.
2. Place jack stands under trailer frame or under each axle spring seat. **Figure 2.1.**

Figure 2.1



3. Remove the tire and wheel assembly, using procedures specified by wheel manufacturer. **Figure 2.2.**

Figure 2.2

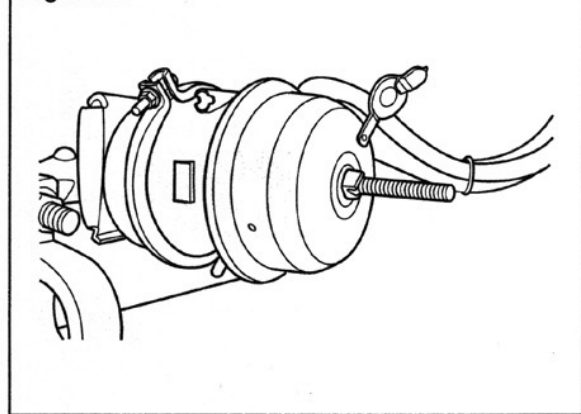


WARNING

When you work on a brake that has spring chambers, carefully follow the service instructions of the chamber manufacturer. Sudden release of a compressed spring can cause serious personal injury.

4. If the axle is equipped with spring brake chambers, carefully compress and lock the springs so that they cannot actuate. **Figure 2.3.**

Figure 2.3

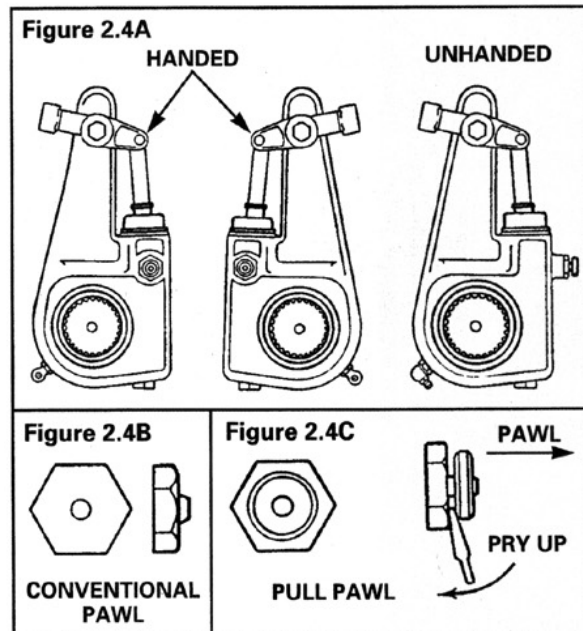




Section 2 Disassembly

NOTE: For complete information on Meritor's automatic slack adjuster, refer to Maintenance Manual No. 4B, *Automatic Slack Adjuster*. Call Meritor's Customer Service Center at 800-535-5560 to obtain a copy of this publication.

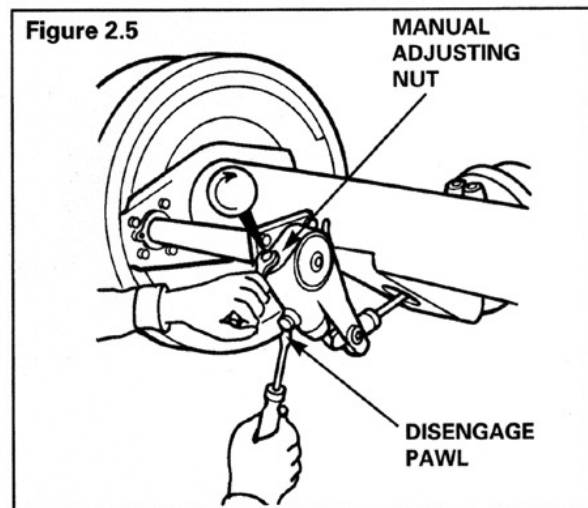
- There are two automatic slack adjuster designs: handed and unhanded. For most applications, install a handed slack adjuster so that the pawl faces **INBOARD** on the vehicle. The pawl can be located on either side or on the **FRONT** of the slack adjuster. **Figures 2.4A, B, C.**



CAUTION

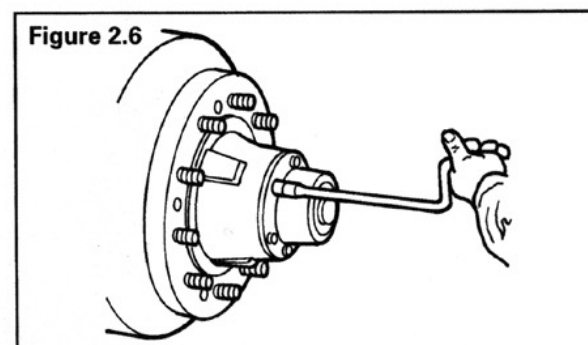
You must disengage the pawl before rotating the manual adjusting nut, or you will damage the pawl teeth. A damaged pawl will not allow the slack adjuster to automatically adjust the brake clearance. Replace damaged pawls before returning the vehicle to service.

- Rotate the manual adjusting nut clockwise until the linings clear the drums. Disengage the pawl:
 - Conventional pawl:** Remove the pawl from the slack adjuster.
 - Pull pawl:** Pry the pawl at least 1/32-inch to disengage the teeth. Replace a conventional pawl with a pull pawl. **Figure 2.5.**



NOTE: Do not reuse either the hubcap gasket or the oil.

- Place a container under the hubcap to receive the draining oil, then remove the hubcap and hubcap gasket. **Figure 2.6.**



Section 2 Disassembly



! WARNING

Do not loosen axle spindle nuts by either striking them directly with a hammer, or striking a drift or chisel placed against them. Damage to the parts will occur causing possible loss of axle wheel-end components and serious personal injury.

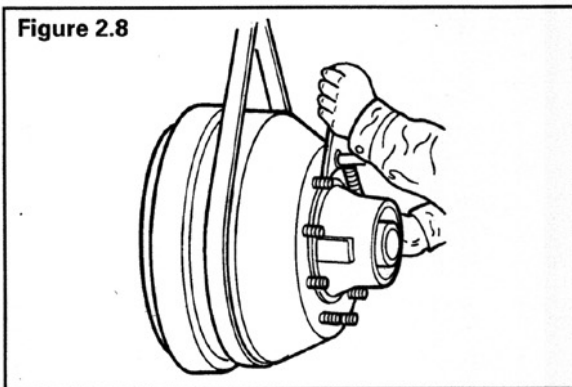
8. Remove setscrew from lockwasher. Then remove the jam nut, lockwasher and adjusting nut. **Figure 2.7.**

! CAUTION

Be careful when you remove the hub and drum assembly that you do not damage the outer bearing by dropping it on the floor.

9. Remove outer bearing cone and then hub and drum assembly from axle spindle. Support hub and drum assembly during entire removal process, since failure to do so may result in damage to axle spindle threads. **Figure 2.8.**

Figure 2.8



10. Remove inner bearing cone and seal from either spindle or hub. Discard seal. **Figure 2.7.**

! CAUTION

Never remove seal wiper with a hammer and chisel or other sharp tool. Damage to axle oil seal collar will occur.

11. If the seal incorporates a separate wiper on oil seal collar, loosen it by lightly striking with the round end of a ball-peen hammer, then remove it and discard. **Figure 2.9.**

Figure 2.9

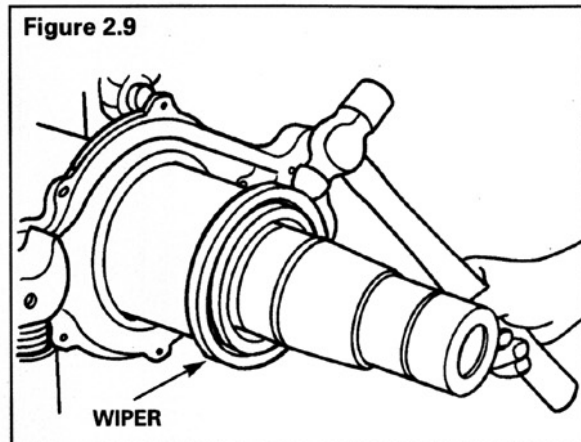
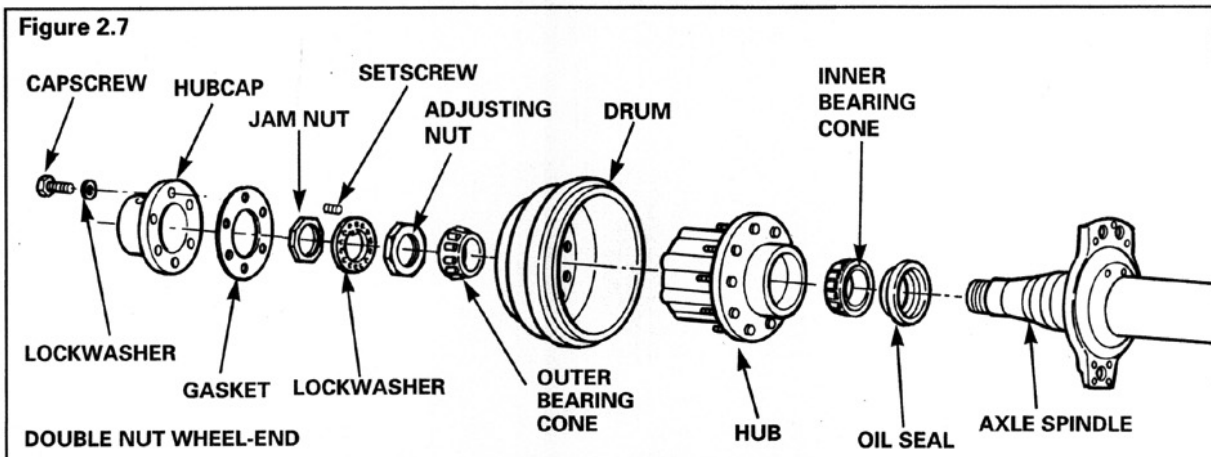


Figure 2.7

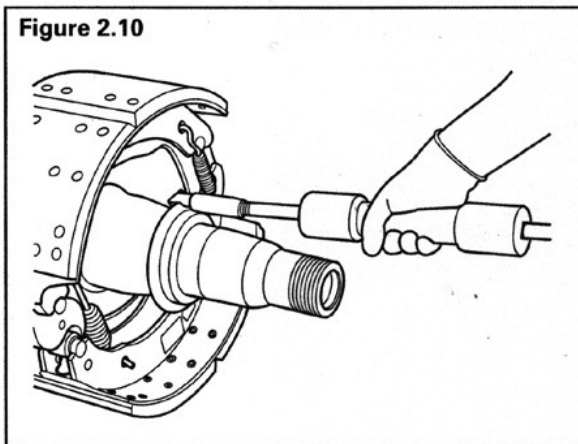




Section 2 Disassembly

12. An alternate method is to use a slide hammer with a hook on the end of the tool. **Figure 2.10.**

Figure 2.10

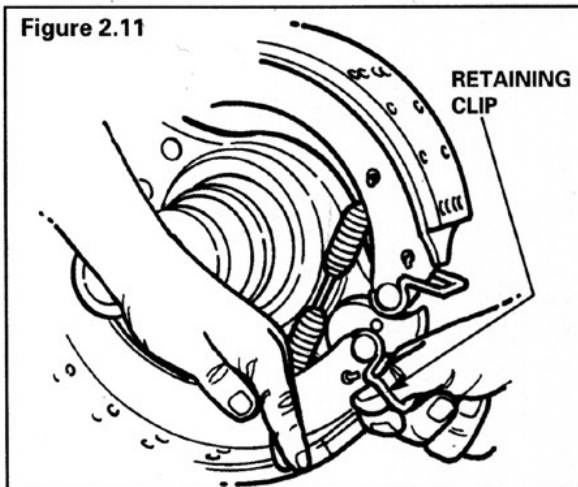


Remove the Brakes

Refer to the "Service Notes" page in this publication for instructions on how to obtain the correct Meritor maintenance manual for the brake you are servicing. Follow the manufacturer's instructions for components that are not supplied by Meritor.

1. Push down on bottom brake shoe and pull on roller retaining clip to remove bottom cam roller. **Figure 2.11.**

Figure 2.11



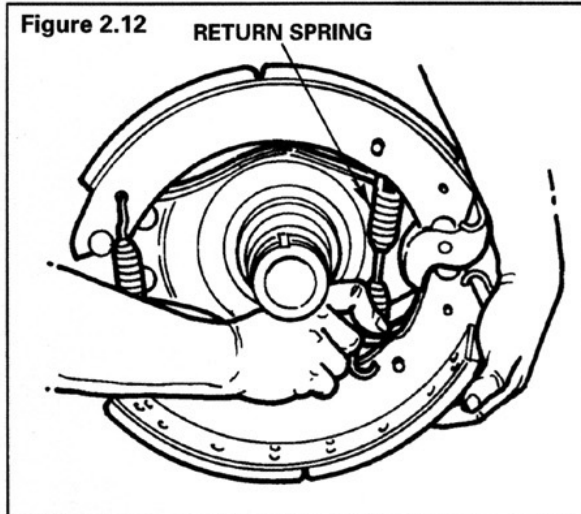
2. Lift the top brake shoe and pull on the roller retaining clip to remove top cam roller.

NOTE: You can remove a standard return spring by hand, if one is installed. If a heavy duty spring is installed, you will need a tool to remove the spring.

3. Lift the bottom shoe to release tension on the brake return spring. Remove the spring. **Figure 2.12.**

Figure 2.12

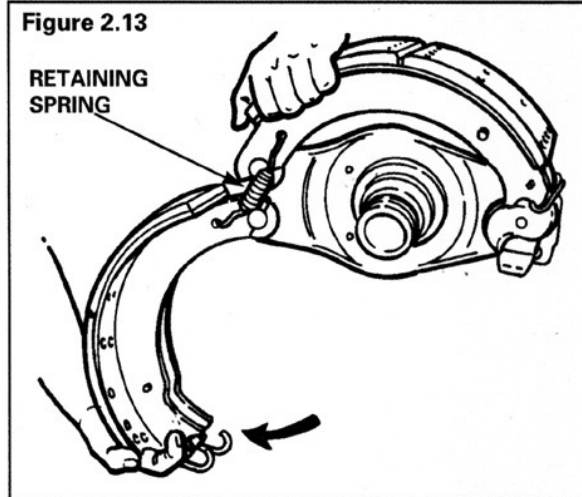
RETURN SPRING



Section 2 Disassembly



4. Rotate the bottom shoe to release tension on the two retaining springs. Remove springs and brake shoes. **Figure 2.13.**

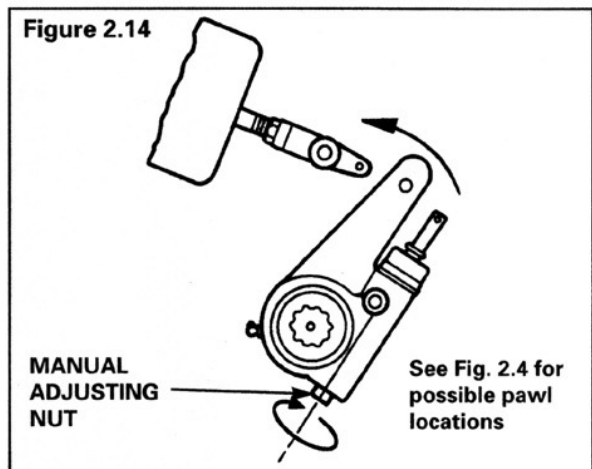


5. Disengage the slack adjuster from the air chamber push rod by removing the two slack adjuster clevis pins. Discard the two cotter pins that secure the clevis pins.

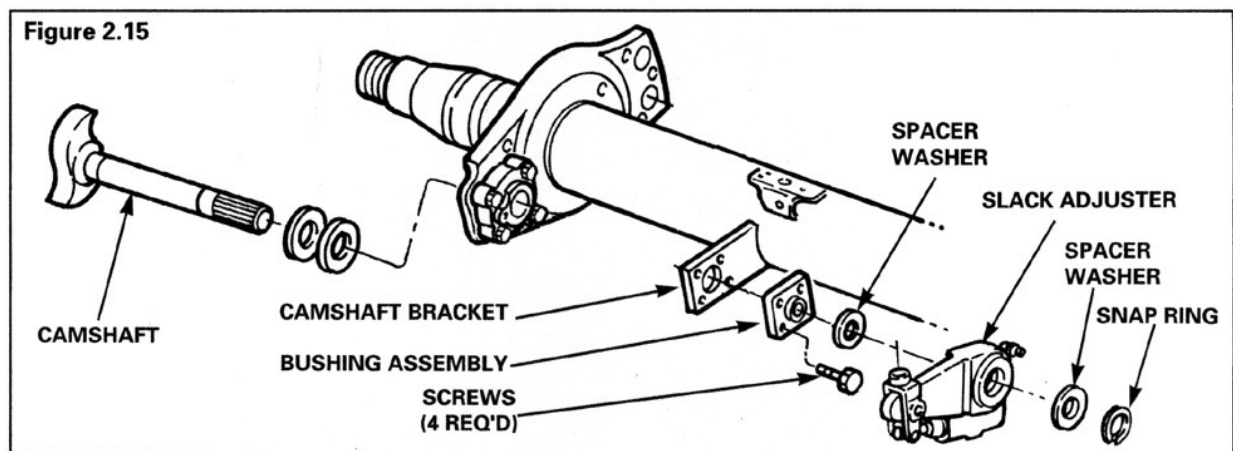
CAUTION

You must disengage the pawl before rotating the manual adjusting nut, or you will damage the pawl teeth. A damaged pawl will not allow the slack adjuster to automatically adjust the brake clearance. Replace damaged pawls before returning the vehicle to service.

6. Remove a conventional pawl or pry a pull pawl at least 1/32-inch to disengage teeth. Rotate the manual adjusting nut clockwise to move the slack adjuster away from the clevis. **Figure 2.14.**



7. Remove the snap ring, slack adjuster and spacer washers from camshaft spline. **Figure 2.15.**
8. Remove the camshaft and camshaft bushings as detailed in "Cam Brakes" section of this manual.





Section 3 Clean and Inspect Parts

⚠ WARNING

To prevent serious eye injury, always wear safe eye protection when you perform maintenance or service.

⚠ WARNING

Solvent cleaners can be flammable, poisonous and cause burns. Examples of solvent cleaners are carbon tetrachloride, emulsion-type cleaners and petroleum-base cleaners. To avoid serious personal injury when you use solvent cleaners, you must carefully follow the manufacturer's product instructions and these procedures:

- Wear safe eye protection.
- Wear clothing that protects your skin.
- Work in a well-ventilated area.
- Do not use gasoline or solvents that contain gasoline. Gasoline can explode.
- You must use hot solution tanks or alkaline solutions correctly. Carefully follow the manufacturer's instructions.

Steam Clean Axle Assembly

Steam clean a complete axle assembly to remove heavy dirt.

- **Before steam cleaning the assembly:** Cover all axle assembly openings, such as vents in hubcaps and air chambers, to help keep water out of these openings during high-pressure steam cleaning.
- **After steam cleaning the assembly:** Grease camshaft bushings and automatic slack adjusters until new grease flows from these parts. The grease will help to remove water that may have entered the parts during steam cleaning.

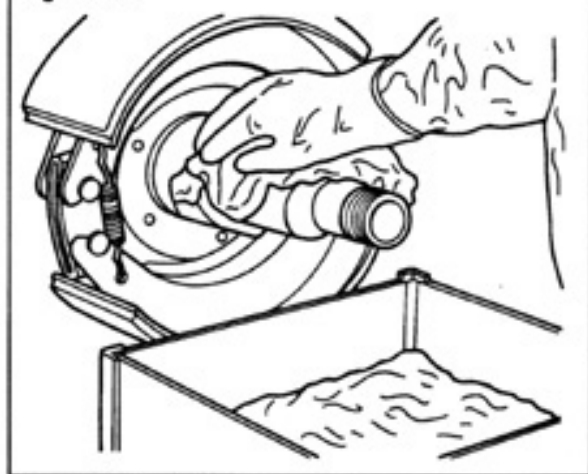
Clean Smooth Parts

⚠ CAUTION

Use only solvent cleaners on metal parts. Do not use hot solution tanks or water and alkaline solutions to clean ground or polished parts. Damage to parts will result.

1. Use a solvent cleaner to clean machined parts and surfaces, such as axle spindles and camshaft journals. Do not use a hot solution tank with water, steam or alkaline solutions. This will cause corrosion. **Figure 3.1.**

Figure 3.1



2. Remove gasket material from parts such as the hubcap gasket mounting face. Be careful not to damage machined surfaces.

Clean Rough Parts

1. Rough parts can be cleaned with either solvents or in hot solution tanks with a weak alkaline solution.
2. Parts should remain in the tank until they are completely cleaned and heated. When the parts are clean, remove them from the tank, wash them with water until hot solution is removed.

Section 3

Clean and Inspect Parts



Dry Cleaned Parts

1. Dry parts immediately after cleaning using clean paper, rags or compressed air.
2. Do not use compressed air to dry bearings. This may cause small abrasive particles to contaminate the bearings and may result in reduced bearing life.

Prevent Corrosion

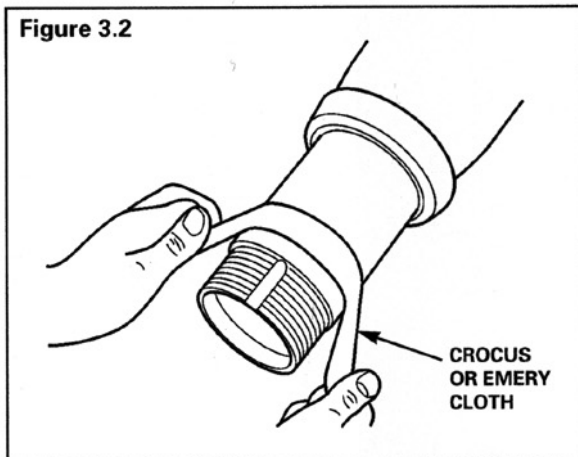
1. If parts are to be immediately assembled, apply lubricant to all machined surfaces.
2. If parts are to be stored, apply a coating that prevents corrosion to all machined surfaces.

Inspect Parts

It is important to inspect all axle components for damage or wear, and to repair or replace as required before assembly. Performing these procedures now can help prevent future problems.

1. Inspect all machined surfaces of the axle assembly. Repair any scratches, nicks or mars with a crocus or emery cloth. **Figure 3.2.**

Figure 3.2



2. Inspect axle spindle threads. Repair damaged threads with a correct sized die.
3. Inspect wheel-end retention hardware including nuts, washers and set screws. Replace if any of this equipment is worn or damaged.

4. Inspect all fasteners and tapped holes. Replace damaged fasteners and repair damaged tapped hole threads with a correct sized die.
5. Inspect entire axle assembly for cracks.
 - If a crack is found in the axle tube, brake spider or axle spindle, replace the axle.
 - If a crack is found in a weld attaching any component to the axle, and if this crack extends into axle tube, replace axle.
 - If a crack is found in a weld which attaches a vendor supplied component such as a spring seat to the axle, and if this crack is confined to the weld, it may be repaired using the guidance in the "Welding" section of this manual.
 - If a crack is found in a weld which attaches the brake spider, air chamber brackets or camshaft brackets to axle, and if the crack is confined to the weld, it may be repaired using guidance in the "Welding" section of this manual. Note that judgment must be used in this repair. These components are precisely located. If any question exists regarding whether these components can be properly located, replace axle.
6. Periodic removal of the wheel-end equipment either for maintenance or repair presents the opportunity for axle spindle inspection.

Visually inspect the spindle for cracks. If any crack is found in the spindle, immediate axle replacement is necessary. Neither in-house repair, nor repair by an outside contractor specializing in spindle welding repairs, is allowed.

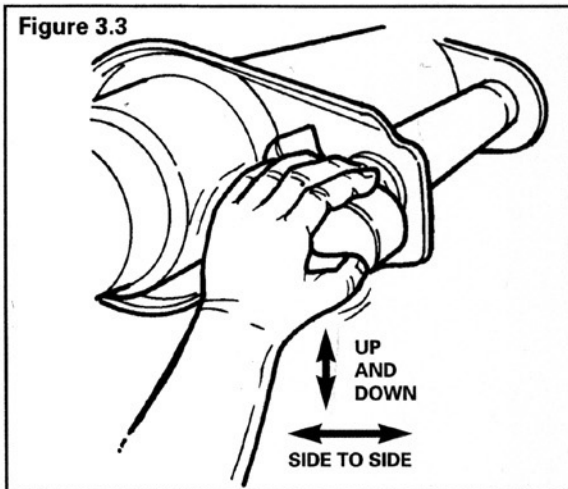
Surface rust, scratches, or slight pitting on the wheel spindle bearing or seal journals may be polished or sanded out with emery or crocus cloth. Do not reduce the diameters of the journals beyond the axle manufacturer's specifications. Excessive pitting, scratches or fretting on the spindle bearing or seal journals covering more than 50 percent of the surface require axle replacement.

Spindle threads may be cleaned with a wire brush or chased with a die. Repair welding of the spindle threads is not permitted. Consult the trailer axle manufacturer if any wear is questionable.

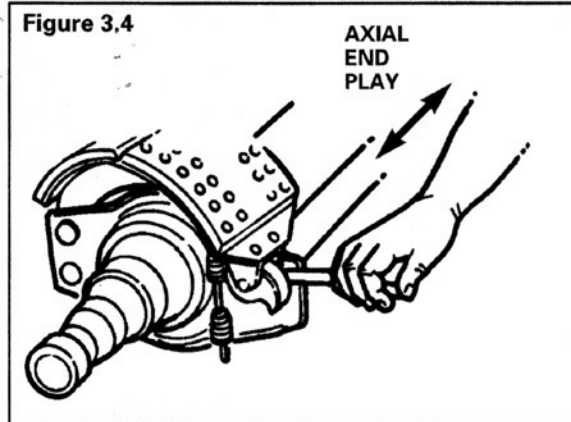


Section 3 Clean and Inspect Parts

7. Inspect hub or spoke wheel. If damaged or worn, repair or replace as outlined in appropriate component manufacturer's maintenance manual.
8. Measure axle camber and toe as outlined in the "Alignment" section of this manual. If either of these parameters is out of specification, replace axle.
9. Inspect dust shields if installed. Repair or replace damaged shields as necessary.
10. Inspect brake equipment. Repair or replace damaged components. Refer to the "Service Notes" page in this publication for instructions on how to obtain the correct Meritor maintenance manual for the brake you are servicing. Follow the manufacturer's instructions for components that are not supplied by Meritor.
11. If the trailer axle is equipped with cam brakes.
 - Check the up-and-down and side-to-side end play of camshaft. If total movement is more than 0.030 inch (0.76 mm) in either direction replace bushings and/or camshaft as detailed in "Cam Brakes" section of this manual. **Figure 3.3.**



- Check the axial end play of the camshaft. If total movement is more than 0.060 inch (1.52 mm), replace the bushings or camshaft or both as specified in the "Cam Brakes" section of this manual. **Figure 3.4.**



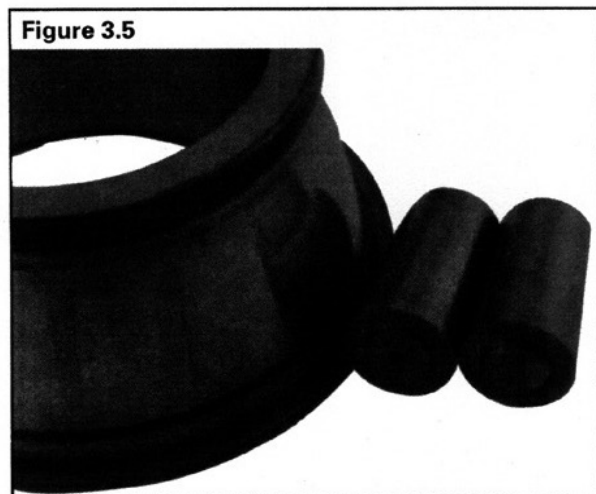
12. Inspect bearings using guidelines detailed below and/or literature published by bearing manufacturers.

- If any of the conditions shown exist, replace bearings.
- If there is a question as to whether any of these conditions exist, it makes sense to replace bearings, since bearing costs are small compared to the potential cost of a breakdown.
- In many instances conditions shown are the result of problems such as debris or water contaminating lubricant, improper bearing adjustment, or inadequate lubricant. If causes of these problems are not eliminated, the problems will persist.

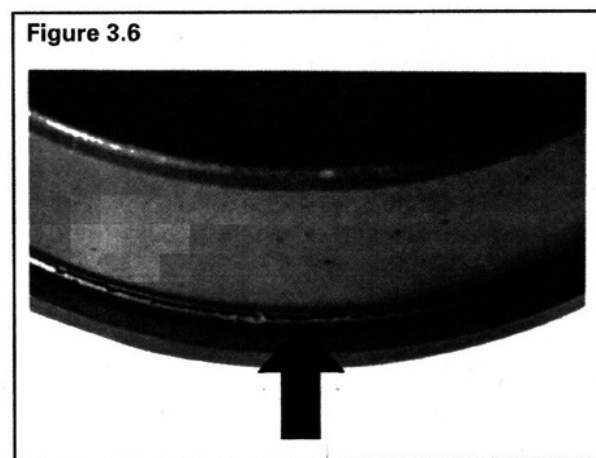
Section 3 Clean and Inspect Parts



a. The roller ends are worn. **Figure 3.5.**



b. The rib is worn. **Figure 3.6.**



c. The roller ends and the ribs are scored. **Figures 3.7 and 3.8.**

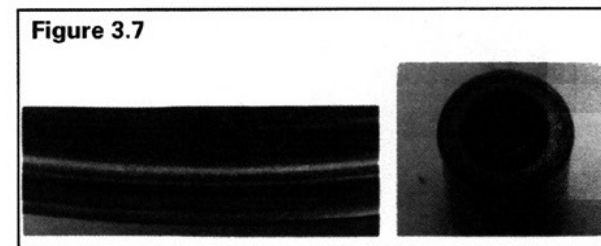
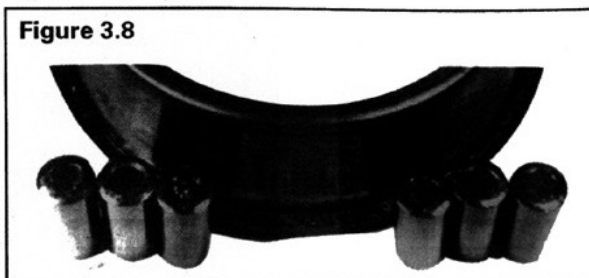


Figure 3.8

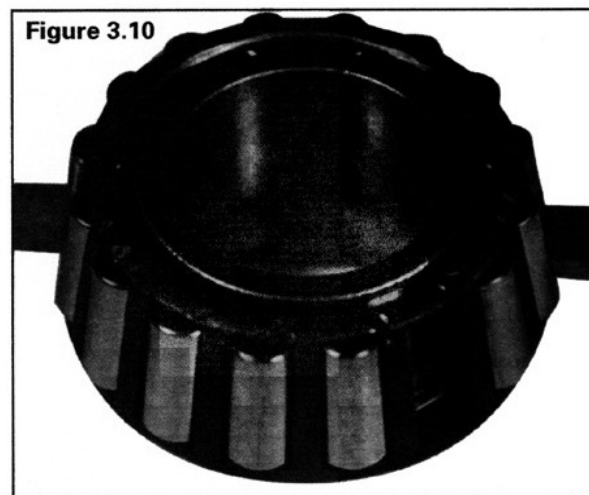


d. The roller cage is damaged. **Figures 3.9 and 3.10.**

Figure 3.9



Figure 3.10





Section 3 Clean and Inspect Parts

- e. The bearing is discolored. **Figure 3.11.**
- f. The cage, cup, cone or rollers are grooved. **Figure 3.12.**
- g. The races and/or rollers are bruised with deep indentations. **Figure 3.13.**

Figure 3.11

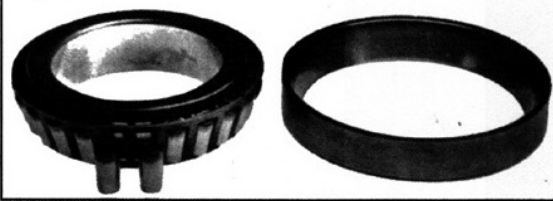


Figure 3.12

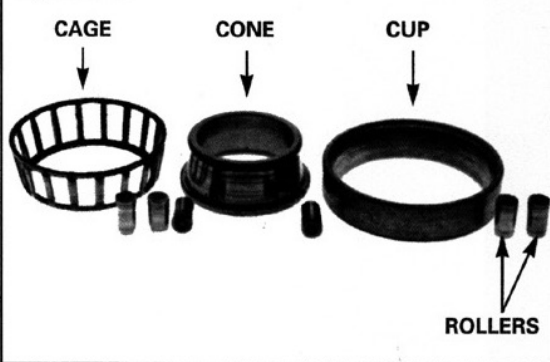


Figure 3.13



- h. The races or the rollers are etched. **Figure 3.14.**
- i. The races or the rollers are spalled. **Figures 3.15 and 3.16.**

Figure 3.14

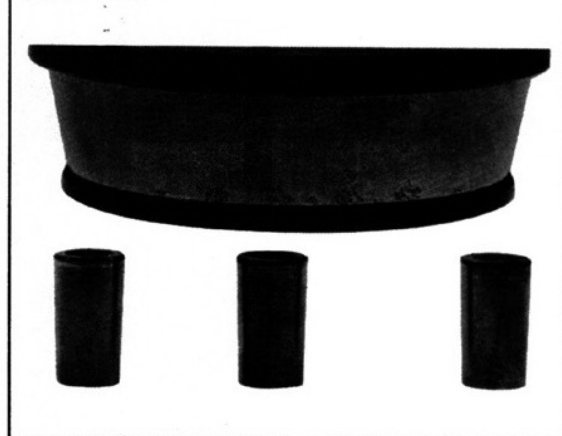


Figure 3.15

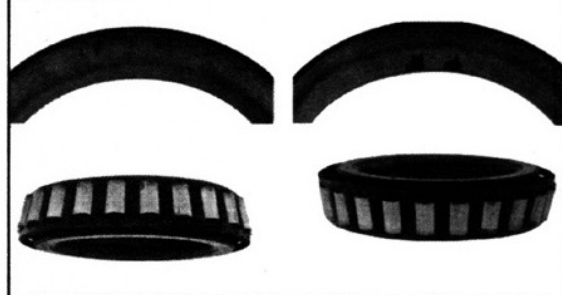


Figure 3.16





Section 4 Assembly

Install Brakes

⚠ WARNING

To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

⚠ ASBESTOS AND NON-ASBESTOS FIBERS WARNING

Some brake linings contain asbestos fibers, a cancer and lung disease hazard. Some brake linings contain non-asbestos fibers, whose long-term effects to health are unknown. You must use caution when you handle both asbestos and non-asbestos materials.

For complete information on Meritor brakes, refer to the manuals listed on the Service Notes page in this publication.

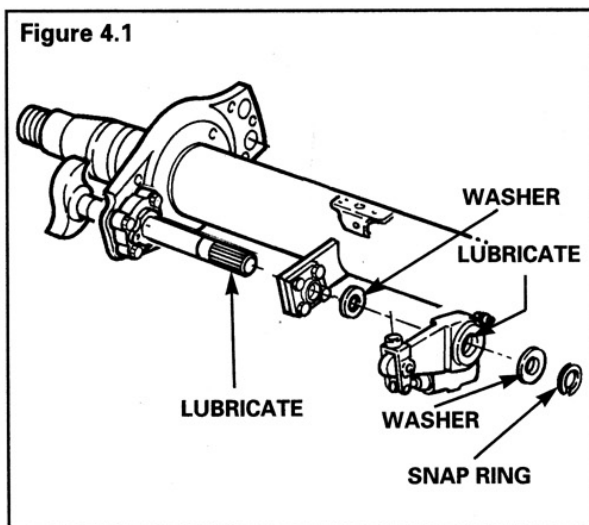
Most Meritor trailer axles are equipped with Q Series cam brakes. This section therefore details procedures for installing this brake. For information on lubricants specified, see the "Lubrication" section of this manual.

1. Install camshaft and camshaft bushings as detailed in the "Cam Brakes" section of this manual.

NOTE: Only one washer is needed on each side of slack adjuster.

2. Lubricate camshaft and slack adjuster splines with anti-seize compound. Install the slack adjuster, washers and snap ring. **Figure 4.1.**

Figure 4.1

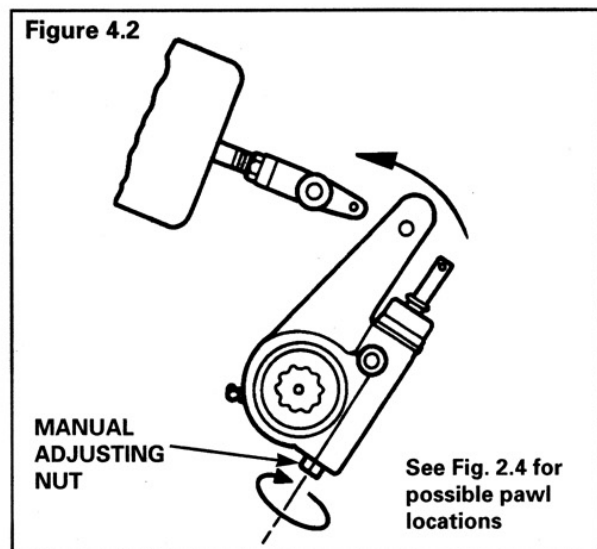


⚠ CAUTION

You must disengage the pawl before rotating the manual adjusting nut, or you will damage the pawl teeth. A damaged pawl will not allow the slack adjuster to automatically adjust the brake clearance. Replace damaged pawls before returning the vehicle to service.

3. Rotate slack adjuster manual adjusting nut clockwise to align holes in slack with holes in push rod clevis. **Figure 4.2.**

Figure 4.2



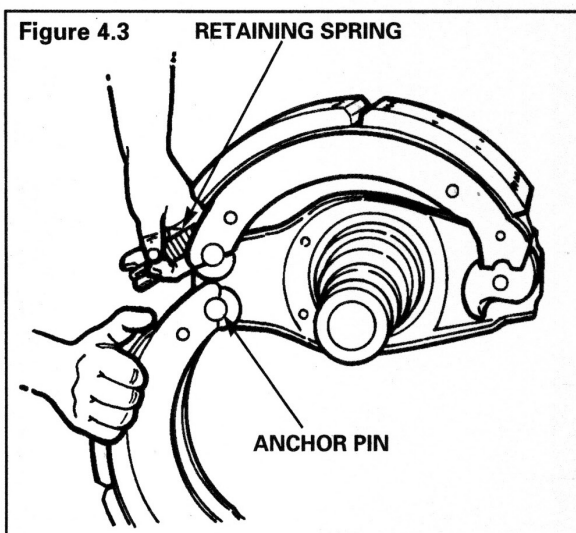
NOTE: Do not reuse cotter pins. Replace used cotter pins with clevis pin retainer clips.

4. Lubricate both slack adjuster clevis pins with anti-seize compound, then install through holes in clevis and slack. Secure in place with clevis pin retainer clips.

Section 4 Assembly

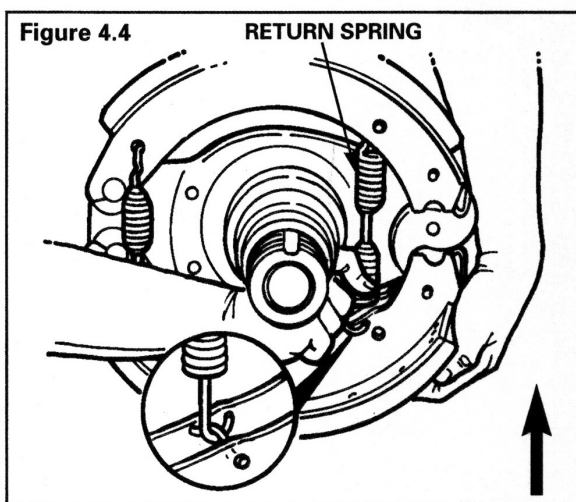


5. Lubricate anchor pins with Meritor specification O-616-A grease where brake shoes touch them. Put upper shoe in position on top anchor pin. Hold lower brake shoe on bottom anchor pin and install two new brake shoe retaining springs. **Figure 4.3.**



NOTE: You can remove a standard return spring by hand, if one is installed. If a heavy duty spring is installed, you will need a tool to remove the spring.

6. Rotate lower brake shoe forward to place retaining springs in tension and install a new return spring. **Figure 4.4.**



7. Lubricate cam rollers with grease where they touch brake shoe webs, making sure not to get lubricant on outer diameter of roller that touches camshaft head.
8. Pull each brake shoe away from cam permitting enough space to install cam rollers. Press ears of roller retainer clip together to fit retainer between brake shoe webs. **Figure 4.5.**
9. Push each roller retainer clip into brake shoe until its ears lock in holes in shoe webs. **Figure 4.6.**

Figure 4.5

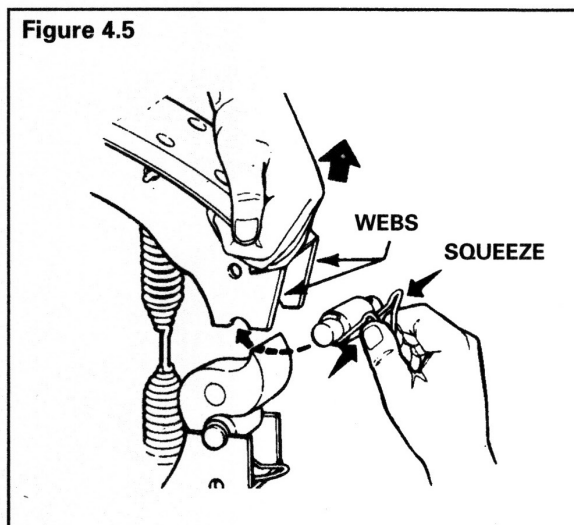
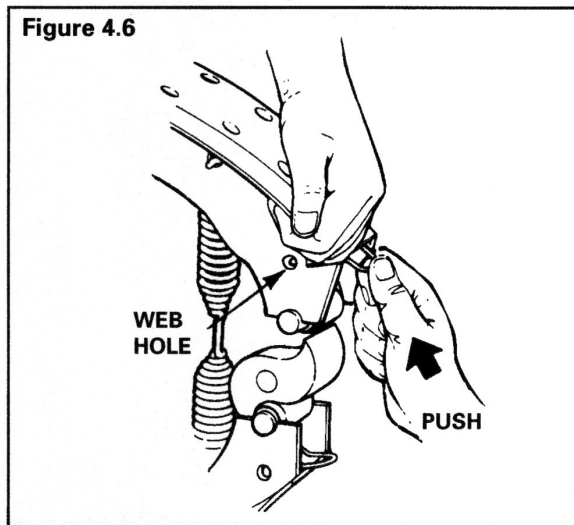


Figure 4.6



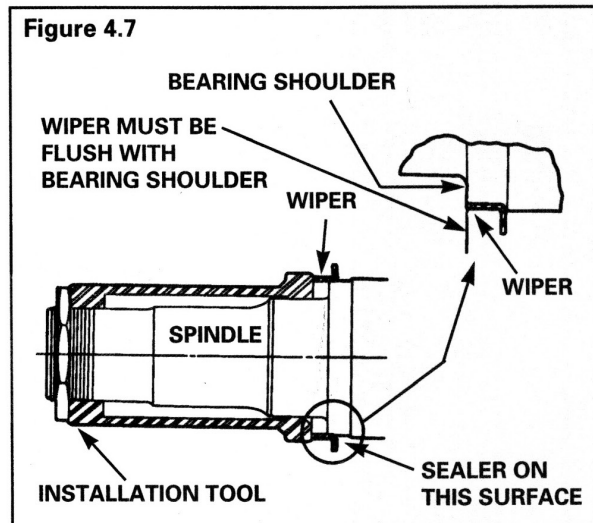


Section 4 Assembly

10. Lubricate camshaft bushings and slack adjusters as follows:
 - Wipe off grease fittings to prevent contamination from being injected into the joints along with grease.
 - Grease camshaft bushings until **new** grease flows from seals. If cam bushing seals at spider end of cam are installed correctly, grease will flow out toward slack adjuster.
 - Grease slack adjuster until **new** grease flows from around inboard splines and from pawl assembly.
 - Wipe away excess grease which purges from joints. This helps insure that road dirt is not attracted to the lube point and that grease does not drop onto either brake linings or road surface.

Install Wheel-Ends

1. If seal incorporates a separate wiper, apply a thin coat of sealant around the axle oil seal collar, then using an installation tool, drive wiper onto oil seal collar until its edge is flush with bearing shoulder. **Figure 4.7.**



NOTE: Use grease on axle spindle bearing journals. Do not use oil.

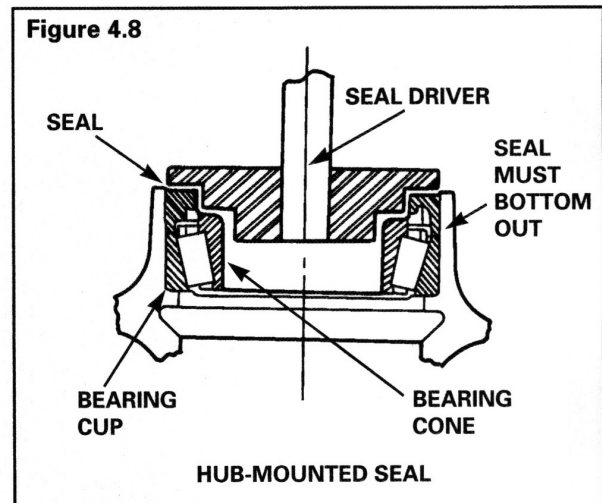
2. Coat bearing cones with oil and apply a light film of **grease** to axle spindle bearing journals to help protect them from fretting corrosion.

NOTE: Seal design and installation procedures vary. Contact the seal manufacturer for specific installation instructions.

WARNING

Use a brass or leather mallet for assembly and disassembly procedures. Do not hit steel parts with a steel hammer. Pieces of a part can break off and cause serious personal injury.

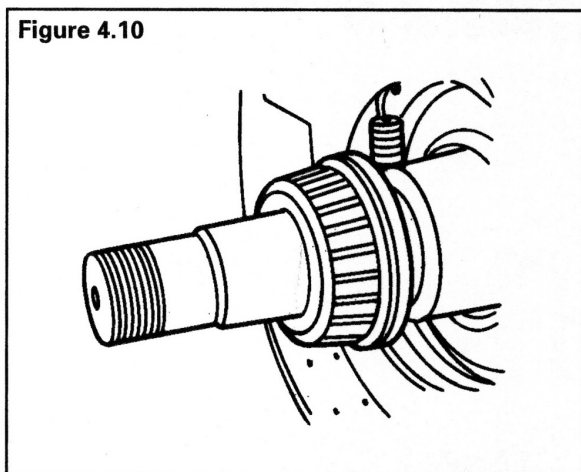
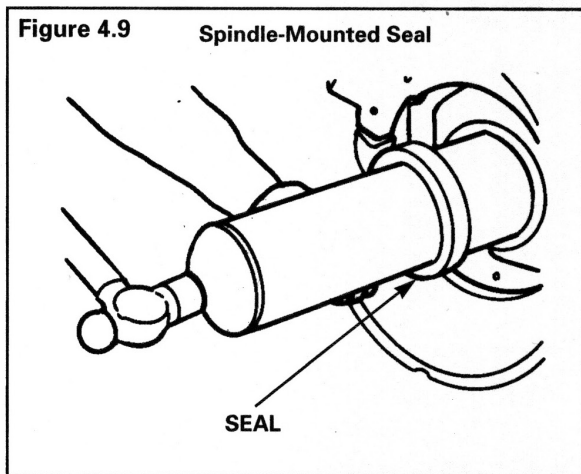
3. Install seal and inner bearing cone as follows.
 - a. **Hub-Mounted Seal** – Install inner bearing cone inside hub. Lubricate seal per seal manufacturer's recommendations, then place it on the installation tool. Align tool with hub seal bore and drive seal until it bottoms out in hub seal bore. Rotate tool and apply several light blows to insure seal is properly seated. Check bearing to be sure it rotates freely. **Figure 4.8.**



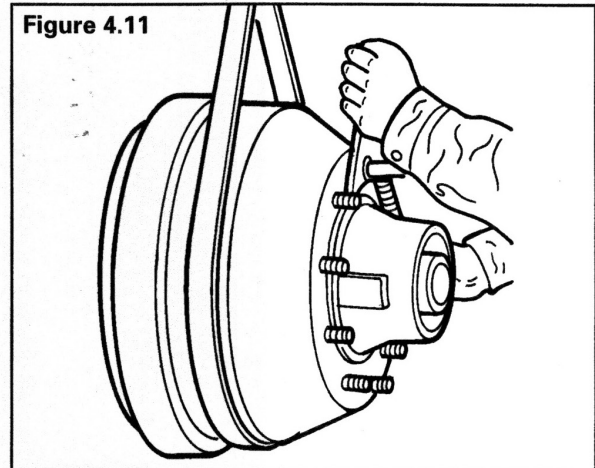
Section 4 Assembly



- b. **Spindle-Mounted Seal** – Lubricate seal per seal manufacturer's recommendations, then place it on axle oil seal collar. Place installation tool over spindle and drive seal until it is flush with bearing shoulder. Rotate tool and apply several light blows to insure seal is properly seated. **Figure 4.9.**
- c. Install inner bearing cone onto spindle. If it becomes misaligned, lightly tap the rough part of axle tube with a hammer to set up vibrations which will help realign it on spindle and ease installation. **Figure 4.10.**



4. Support hub and drum assembly using a sling or other appropriate method. Failure to do so may result in damage to spindle threads and/or seal. **Figure 4.11.**



CAUTION

When you tighten the spindle nuts, the hub and drum assembly will seat to the correct position. Do not try to completely seat the hub and drum assembly by hand. Damage to components can result.

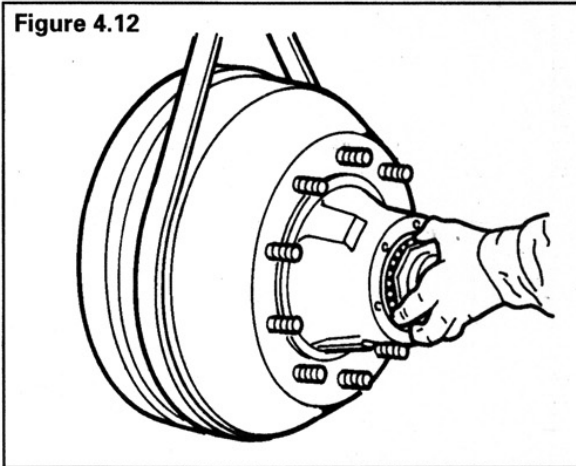
5. Install hub and drum assembly as follows.
 - a. **Spindle-Mounted Seal** – Align hub bore with spindle and push the assembly into position until bearing cone on spindle fits into bearing cup in hub. The brake drum will help maintain alignment of assembly during this operation.
 - b. **Hub-Mounted Seal** – Align hub bore with spindle and push assembly into position until bearing cone in hub bottoms out against oil seal collar. The bearing cone in hub will help maintain alignment of assembly during this operation.



Section 4 Assembly

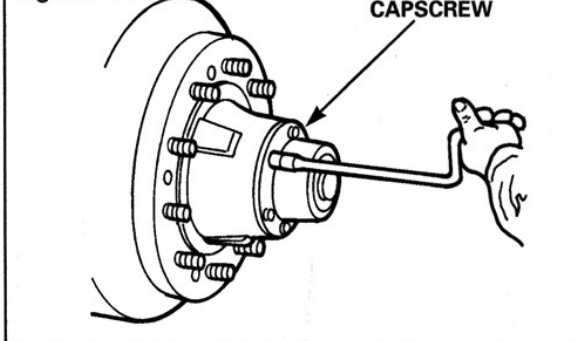
6. Install outer bearing cone then tighten adjusting nut until it is snug against outer bearing cone. Remove hub support so hub rests on bearings. **Figure 4.12.**

Figure 4.12



7. Adjust bearings as specified in "Manual Bearing Adjustment" section of this manual.
8. Install hubcap by tightening capscrews to 10-15 lb-ft (13-20 N·m) in a criss-cross pattern. Use a new hubcap gasket. **Figure 4.13.** 

Figure 4.13

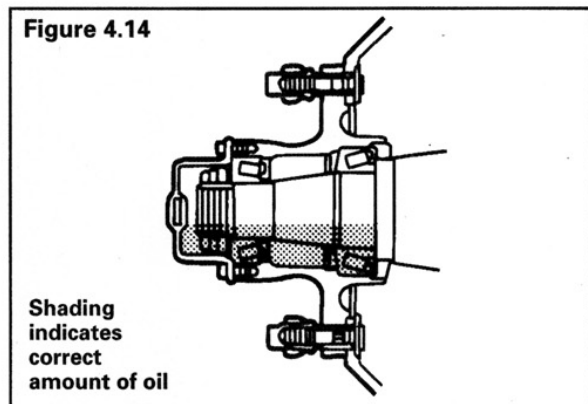


CAUTION

Add wheel-end lubricant only to the hubcap fill line. Do not overfill the hubcap. Wipe off excess lubricant, which can contaminate brake linings and cause reduced brake performance. Damage to components can result.

9. Fill wheel end with oil to hubcap fill line. Note that the oil must be given sufficient time to settle prior to the final check of oil level. This is especially important in cold conditions. Install hubcap plug, making sure vent hole, if present, is not clogged with debris. **Figure 4.14.**

Figure 4.14



10. Install tire and wheel assembly using procedures specified by wheel manufacturer.
11. Remove jack stands and lower vehicle.
12. Adjust brakes using procedures detailed in Meritor Maintenance Manual No. 4, *Cam Brakes*.

WARNING

When you work on a brake that has spring chambers, carefully follow the service instructions of the chamber manufacturer. Sudden release of a compressed spring can cause serious personal injury.

13. If axle is equipped with spring brake chambers, carefully release springs.

Section 9 Manual Bearing Adjustment



WARNING

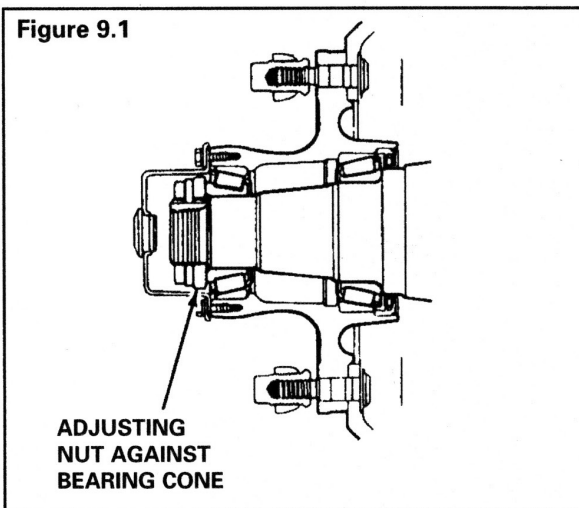
To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

Manual Bearing Adjustment

NOTE: An end play adjustment of 0.001-0.005 inch (0.025-0.127 mm) is preferable to an end play adjustment of 0.006-0.010 inch (0.152-0.25 mm).

1. **Manual bearing adjustment** is the current production standard. The goal of this procedure is to obtain a wheel bearing end play of between 0.001 and 0.010 inch. This is achieved by first tightening the adjusting nut against the bearing cone, then backing it off a prescribed amount. **Figure 9.1.**

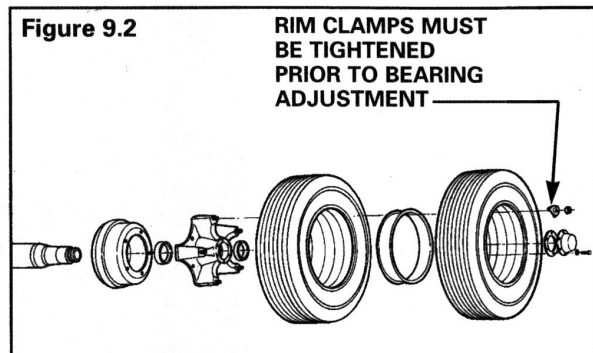
Figure 9.1



2. To help insure that a proper bearing adjustment can be achieved, be sure to do the following prior to performing this adjustment:
 - Release the brakes.
 - Inspect the wheel-end equipment, especially the axle and wheel retention hardware threads.
 - Repair or replace any damaged parts as detailed in the "Clean and Inspect Parts" section of this manual.
3. Wheel-end components can wear, causing correctly adjusted bearings to loosen. Wheel bearing end play should therefore be periodically checked and re-adjusted if necessary.

4. The procedures detailed in this section apply to both grease and oil lubricated wheel-ends.
5. When installing spoke wheels on Meritor trailer axles, Meritor requires that the wheel rim clamps be tightened prior to adjusting wheel bearings. This helps eliminate excessive bearing and spindle stresses resulting from wheel clamping pressures. **Figure 9.2.**

Figure 9.2



Note that this only applies when the entire wheel-end is disassembled. If only the rim clamps are removed as is necessary when replacing a flat tire, a new bearing adjustment is not necessary if rim clamp fasteners are retightened in the correct sequence and with the correct torque.

6. Meritor Video #89158 detailing wheel bearing adjustment procedures is available from Meritor publications. To order this publication, call Meritor's Customer Service Center at 800-535-5560.

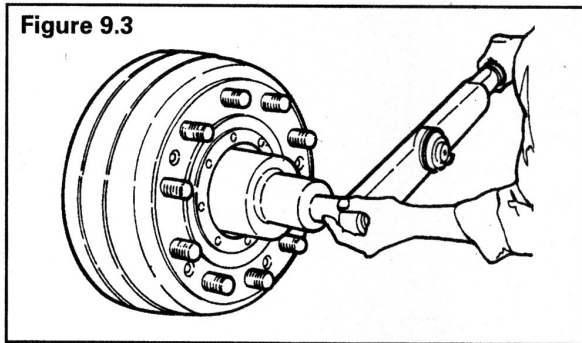


Section 9 Manual Bearing Adjustment

! WARNING

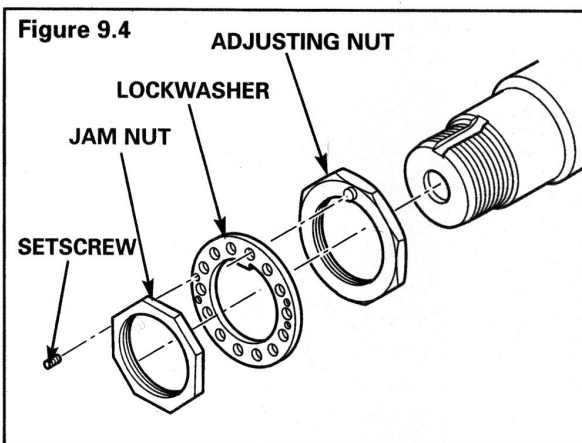
Use the correct sockets when you remove and install axle spindle nuts. Do not try to remove spindle nuts by striking them with a hammer or by striking a chisel or other tool that has been placed against the spindle nuts to loosen them. Loss of wheel-end components, serious personal injury and damage to components can result.

7. Use the correct size socket to remove or install spindle nuts. **Figure 9.3.**



Adjustment Procedure – Double Nut

The most common version of the double nut design consists of an adjusting nut, lockwasher, jam nut and setscrew. **Figure 9.4.**



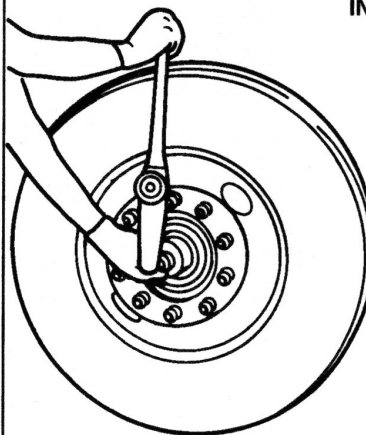
Other versions of the double nut design are either currently available or were available in the past.

- a. A washer was installed before the adjusting nut on an earlier version of the **manual adjust** TP axle model.
- b. A setscrew was not used on an earlier **manual adjust** TP axle model.
- c. A bendable tab lockwasher rather than a setscrew is used on the current production TR axle model.

Use the following procedure to adjust the wheel bearings.

1. Install adjusting nut so that pin on nut faces away from wheel-end equipment. Tighten nut to 100 lb-ft (136 N•m) torque while rotating wheel-end in both directions. **Figure 9.5. 1**

Figure 9.5



QUICK REFERENCE ADJUSTING NUT INSTALLATION

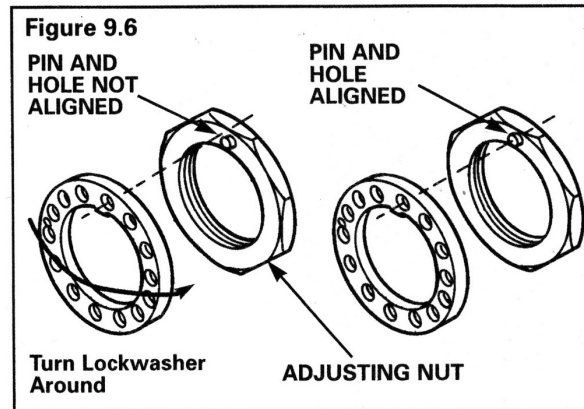
1. **TIGHTEN NUT TO 100 LB-FT (136 N•m).** **1**
2. **LOOSEN NUT COMPLETELY THEN TIGHTEN NUT TO 50 LB-FT (68 N•m).** **1**
3. **LOOSEN NUT 1/4 TURN.**

2. Completely loosen the nut, then tighten it to 50 lb-ft (68 N•m) while rotating the wheel end. **1**
3. Loosen the nut 1/4 turn. Do not include socket backlash in the 1/4 turn.

Section 9 Manual Bearing Adjustment



4. Install the lockwasher. If the hole in the washer is not aligned with the adjusting nut pin, remove the washer, turn it around and reinstall. The pin and hole should now be aligned. If not, slightly adjust the parts to align them. **Figure 9.6.**



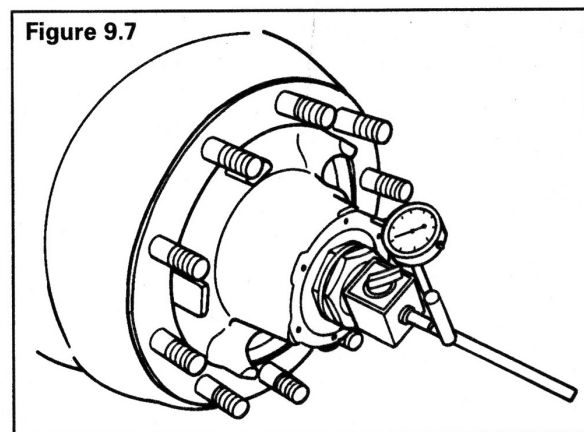
5. Install the jam nut and tighten the nut to 250-300 lb-ft (340-408 N·m). **1**



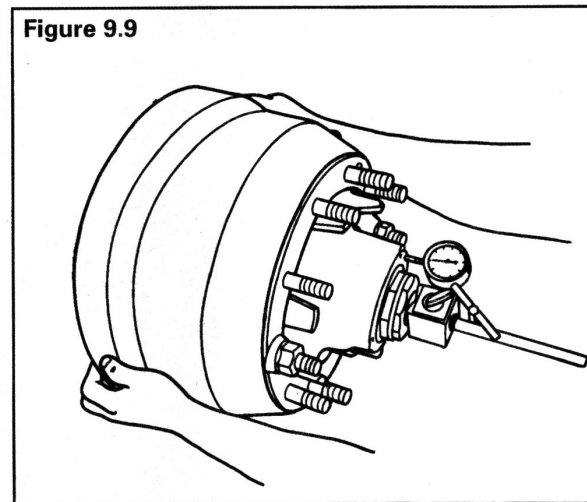
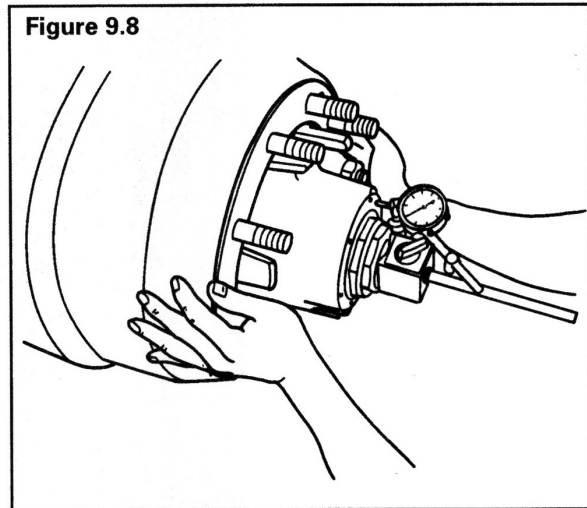
CAUTION

Too loose an adjustment will reduce bearing life, increase spindle wear and cause seal leaks. Too tight an adjustment will reduce bearing life and increase spindle wear. Extremely tight adjustments can cause complete bearing failure and possible loss of wheel-end equipment.

6. Check the wheel bearing end play as follows:
 - a. Attach the magnetic base of a dial indicator to spindle. Touch dial indicator stem to hubcap gasket face. **Figure 9.7.**



- b. Slightly rotate wheel-end in both directions while pushing inward until dial indicator does not change. Set the dial indicator to zero. **Figure 9.8.**
- c. Slightly rotate wheel-end in both directions while pulling outward until dial indicator does not change. **Figure 9.9.**
- d. End play is the difference between the two readings.





Section 9

Manual Bearing Adjustment

⚠ WARNING

You must adjust wheel bearing end play to within a 0.001-0.010 inch (0.025-0.25 mm) specification. An adjustment that is too loose will reduce wheel-end bearing life, increase spindle wear and cause seal leakage. An adjustment that is too tight can affect wheel-end bearing performance. Loss of wheel-end components, serious personal injury and damage to components can result.

NOTE: An end play adjustment of 0.001-0.005 inch (0.025-0.127 mm) is preferable to an end play adjustment of 0.006-0.010 inch (0.152-0.25 mm).

7. If end play falls between 0.001 and 0.010 inch go to step 8.

If end play does not meet this requirement:

- Remove jam nut and lockwasher.
 - Tighten or loosen adjusting nut as required to achieve proper end play.
 - Install lockwasher.
 - Tighten jam nut to 250-300 lb-ft (339-407 N•m). **1**
 - Check end play.
 - Continue to adjust until end play meets standard. Then go to step 8.
8. Using an Allen wrench, tighten setscrew into lockwasher until it is seated. (**Figure 9.10**) If the axle is fitted with the bendable tab lockwasher, bend two tabs over opposite flats of the jam nut. **Figure 9.11.**

Figure 9.10

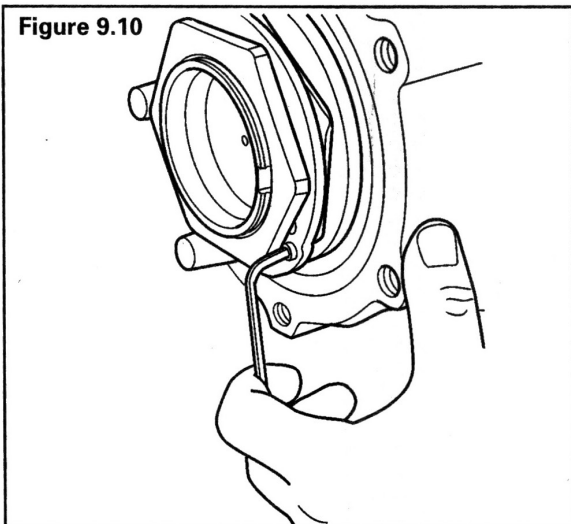
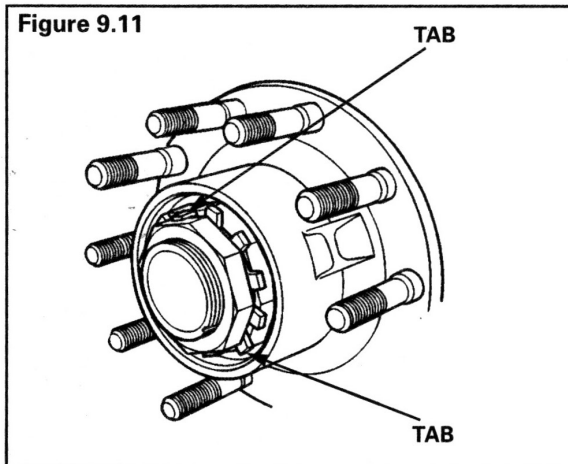


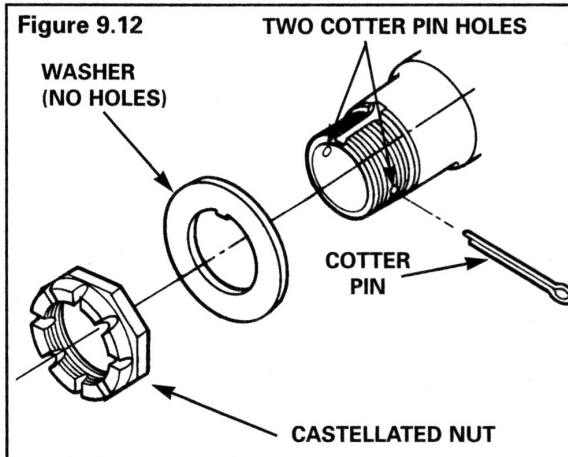
Figure 9.11



Adjustment Procedure – Single Nut

The Meritor single nut model consisting of a washer, castellated nut and cotter pin is no longer in production. It was available on **manual adjust** TP model axles. **Figure 9.12.**

Figure 9.12



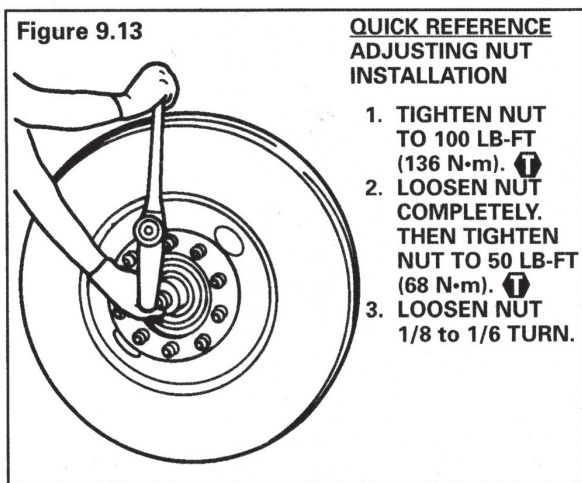
Section 9

Manual Bearing Adjustment



Use the following procedure to adjust the wheel bearings.

1. Install washer and castellated nut. Tighten nut to 100 lb-ft (136 N·m) while rotating wheel-end in both directions. **Figure 9.13.**



QUICK REFERENCE ADJUSTING NUT INSTALLATION

1. TIGHTEN NUT TO 100 LB-FT (136 N·m).
2. LOOSEN NUT COMPLETELY. THEN TIGHTEN NUT TO 50 LB-FT (68 N·m).
3. LOOSEN NUT 1/8 to 1/6 TURN.

2. Completely loosen nut, then tighten to 50 lb-ft (68 N·m) while rotating the wheel-end in both directions.
3. Loosen the nut 1/8 to 1/6 turn. Do not include socket backlash in the 1/8 to 1/6 turn.

CAUTION

Always replace used cotter pins with new ones when servicing the axle spindle. Do not reuse cotter pins after removing them. Discard used cotter pins. When removed for maintenance or service, cotter pins can be bent or "gapped apart" and can lose retention. Damage to components can result.

4. Install a new cotter pin in axle spindle hole, but do not bend.

WARNING

You must adjust wheel bearing end play to within a 0.001-0.010 inch (0.025-0.25 mm) specification. An adjustment that is too loose will reduce wheel-end bearing life, increase spindle wear and cause seal leakage. An adjustment that is too tight can affect wheel-end bearing performance. Loss of wheel-end components, serious personal injury and damage to components can result.

NOTE: An end play adjustment of 0.001-0.005 inch (0.025-0.127 mm) is preferable to an end play adjustment of 0.006-0.010 inch (0.152-0.25 mm).

5. Check end play using procedure detailed in this section. If end play falls between 0.001 and 0.010 inch go to step 6.

If end play does not meet this requirement:

- Remove cotter pin.
- Tighten or loosen castellated nut as required to achieve proper end play.
- Install cotter pin.
- Check end play.
- Continue to adjust until end play meets standard. Then go to step 6.

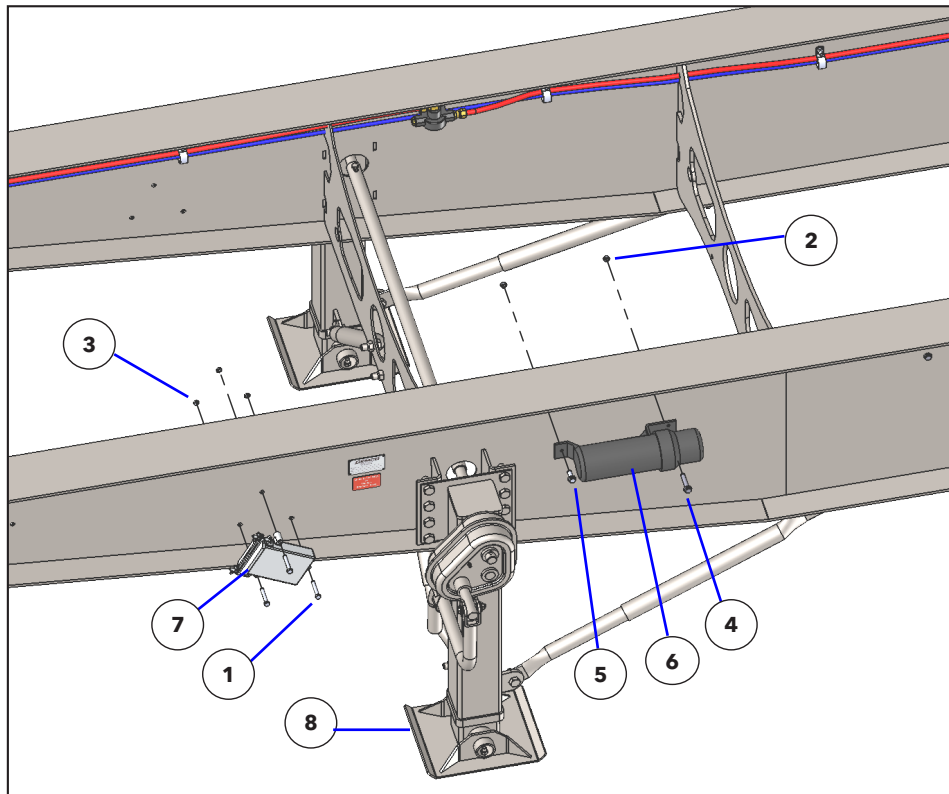
CAUTION

When you install a new cotter pin into the axle spindle hole, only bend one leg of the pin 90 degrees. If you bend both cotter pin legs in the same direction, the cotter pin can fall out of the spindle. Damage to components can result.

6. Bend one leg of the cotter pin 90 degrees. Do not bend both legs. If both legs are bent in the same direction the cotter pin could fall out.

Conversion – Single to Double Nut

The single nut design can be converted to the double nut by simply removing the single nut equipment and replacing with the correct double nut equipment. Conversions in the other direction are not recommended since axle will not have a hole for the cotter pin.



BOM ID	Qty	Item No	Description
1	3	1AFBP3601	HEX CAP SCREW, 5/16"-18 X 2", GR 5, PLTD
2	2	1AFBP3612	NUT, HEX LOCK, 3/8"-16, TOP LOCK, PLTD
3	3	1AFBP3644	NUT, HEX LOCK, 5/16"-18, TOP LOCK, PLTD
4	1	1AFBP3685	BOLT, FLANGE HEAD, 3/8"-16 X 2", GR 8, PLTD
5	1	1AFBP3692	BOLT, FLANGE HEAD, 3/8"-16 X 1", GR 8, PLTD
6	1	1AU00000011	MANUAL HOLDER, BLACK
7	1	1AUAP3811	JAMES KING DOCUMENT BOX, NO. 300
8	1	4CPKG00112	PACKAGE, LANDING GEAR, SIDE DUMP

Lights and Wiring

The lights and wiring system on every Demco Side Dump trailer meet or exceed all federal and state requirements in effect at the time of manufacture. Wherever required by law, lights and reflectors are marked by the manufacturer to indicate the appropriate specifications with which each complies.

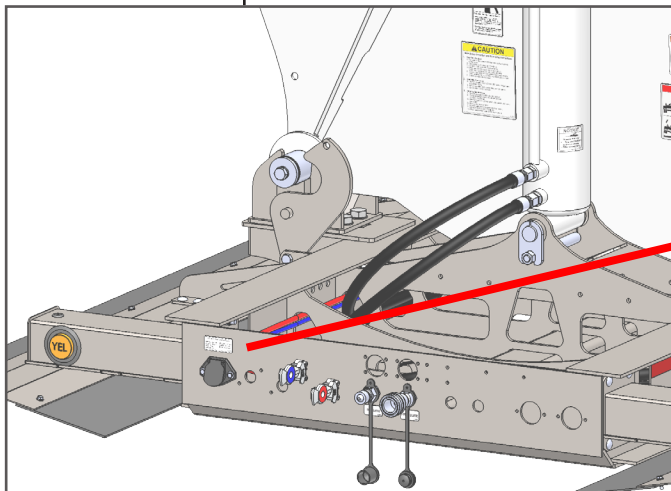
For optimum performance and long life from the trailer's lights and wiring, follow this inspection procedure:

1. Clean all reflectors and lights. See that all lights burn properly. Replace all burned out lights and broken reflectors. Factory approved replacement parts should be used, and replacement bulbs of equal candle power should be used for safety.



WARNING! Use only a 12 volt DC battery for checking lights or anti-lock systems. Never use battery chargers or transformers.

2. Inspect all wiring to see that it is not frayed, and that it is properly supported and protected, with all connections tight. See that the light cable is clean and long enough to permit jackknife parking. Be certain that the cable is supported so that it cannot be pinched or entangled by the lower and upper couplers. Keep the 7-way plug on the light cable and the 7-way connector on the trailer free of corrosion.
3. Never replace fuses or breakers with metal foil or other devices.
4. A decal is located near the 7-way connector. You may trace individual electrical circuits by the wire colors indicated. Refer to the schematic drawing and the decal for conductor number and wire colors.



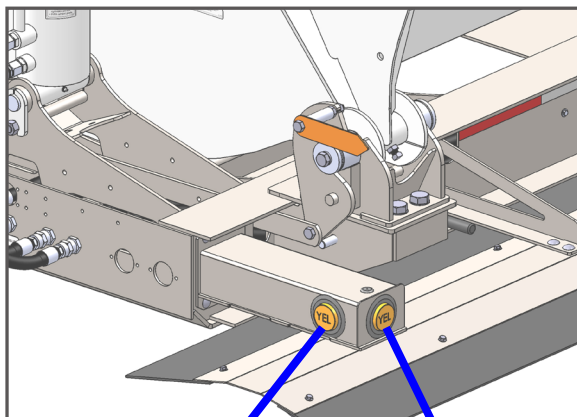
Wiring Harness Color Code

WHITE - Ground	YELLOW - Lt Turn
BLACK - Marker	GREEN - Rt Turn
RED - Stop	BLUE - Auxiliary
BROWN - Tail	

AP 3674

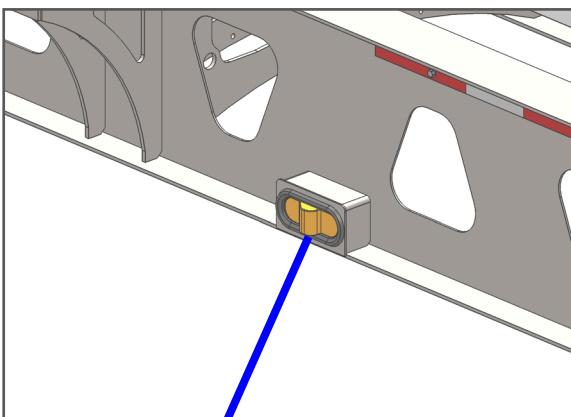
1AQAP3674

WIRING HARNESS COLOR CODE DECAL



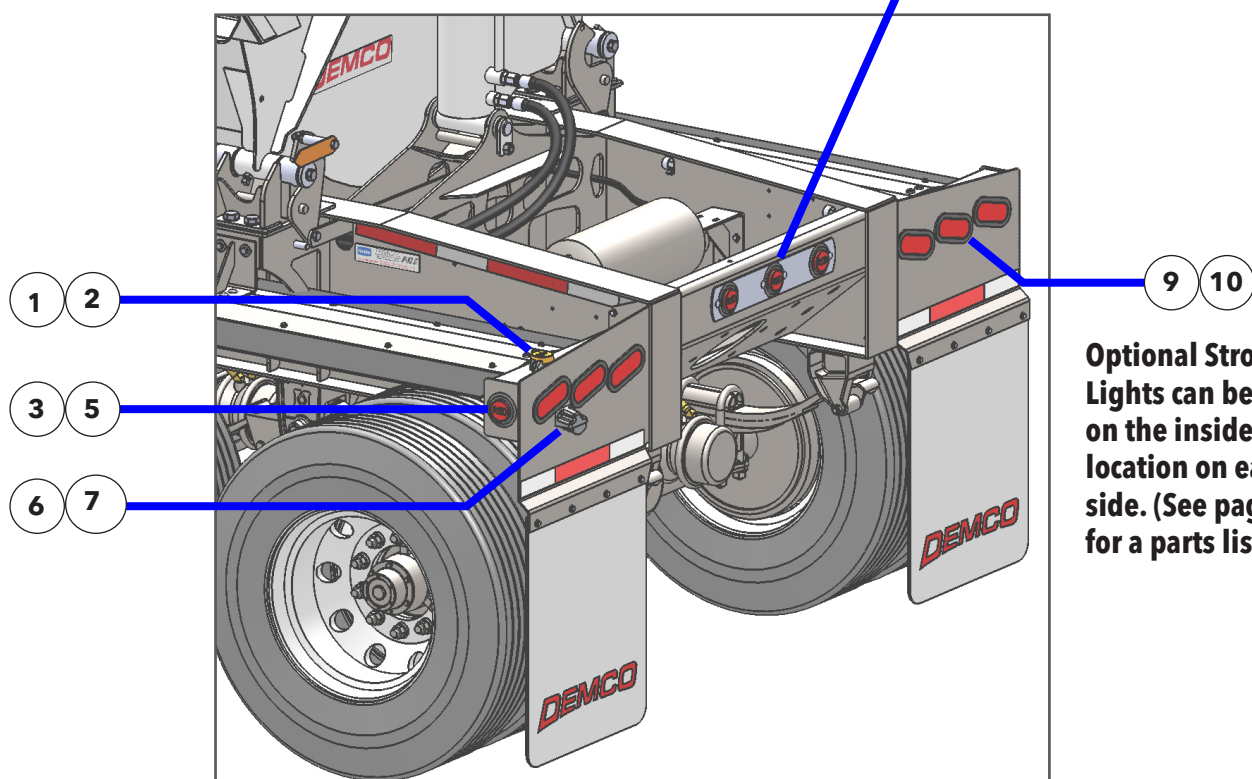
4 5

4 5



8 9

3 5

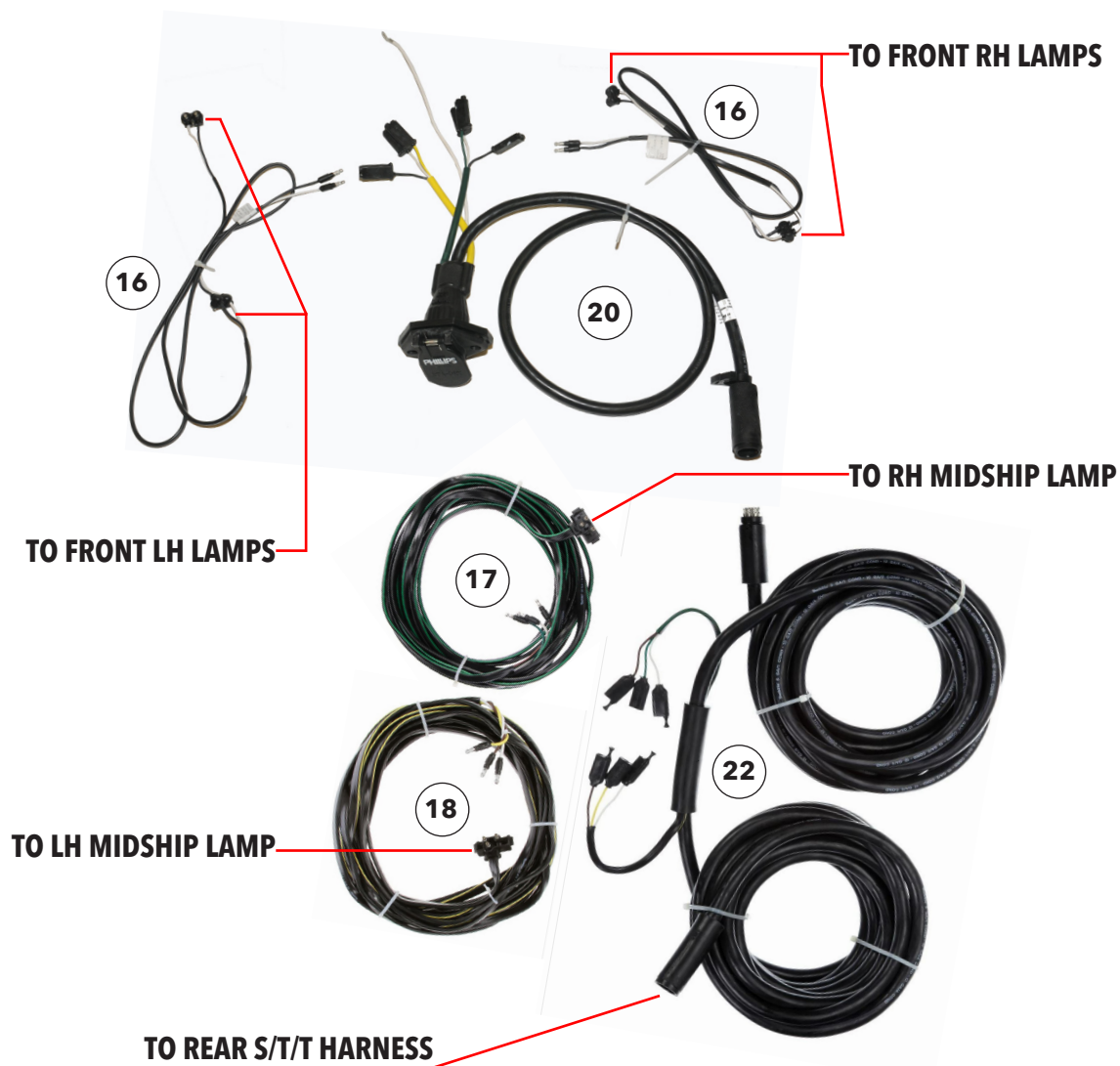


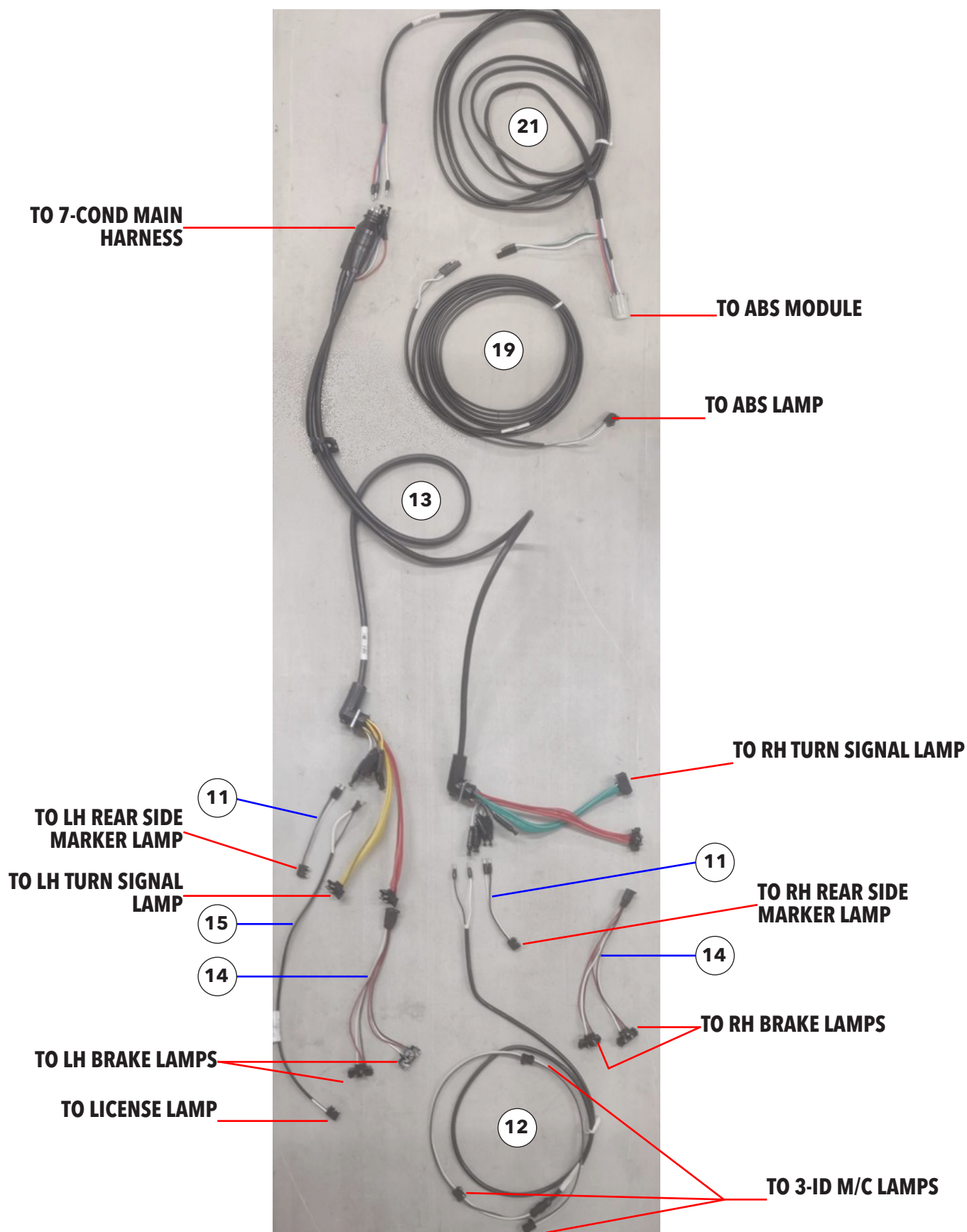
Optional Strobe Lights can be added on the inside light location on each side. (See page 78 for a parts list.)

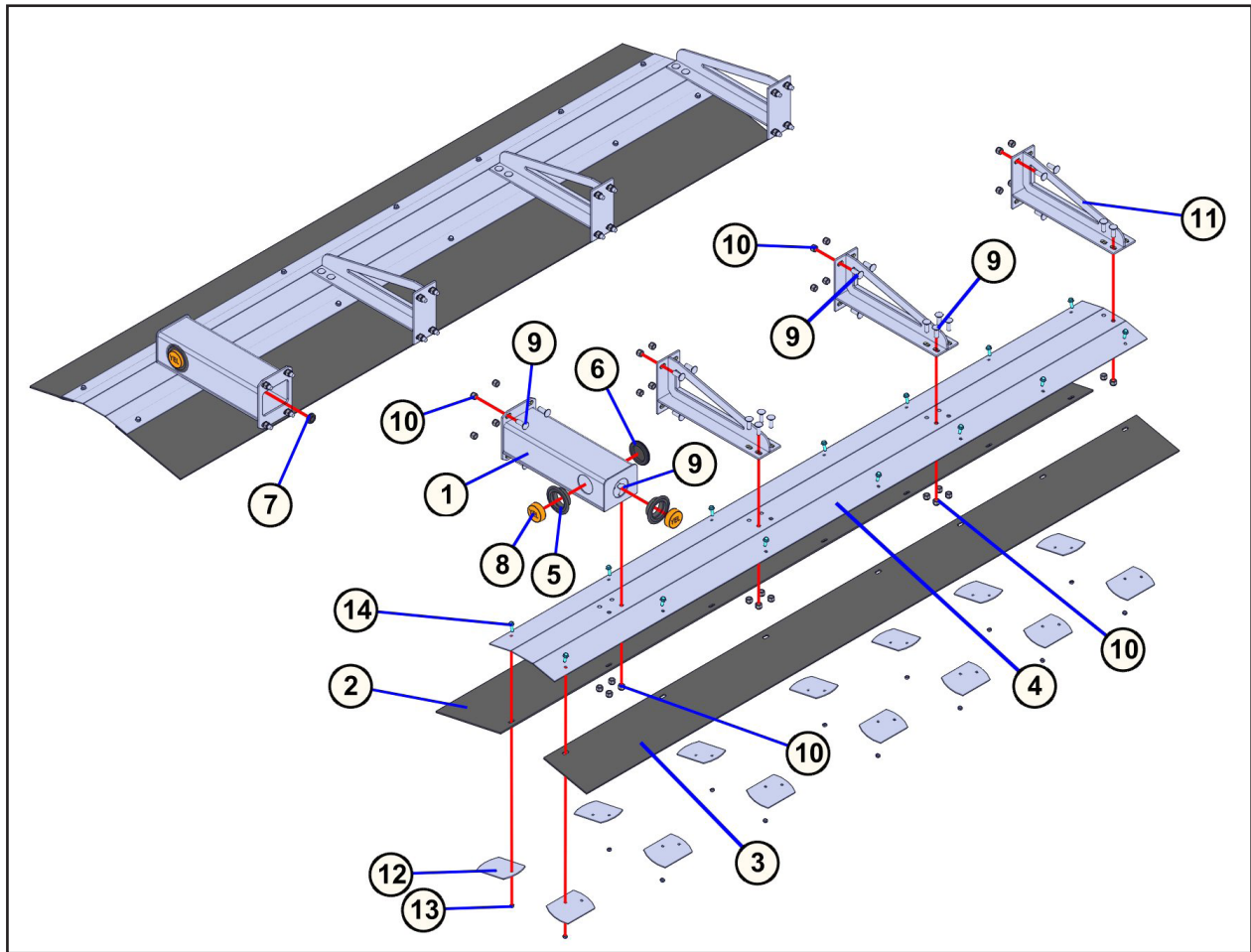
BOM ID	Qty	Item No	Description
1	1	1AEAP4301	ABS LIGHT BRACKET
2	1	1AEAP4302	ABS LIGHT
3	5	1AEAP4310	LAMP, LED, M/C, RED, 2-1/2"
4	4	1AEAP4311	LAMP, LED, M/C, YELLOW, 2-1/2"
5	9	1AEG0010700	2-1/2" ROUND GROMMET ONLY
6	1	1AEL0015208	LICENSE LAMP
7	1	1AEL0015730	BRACKET-BLACK
8	2	1AEL060215Y	MIDSHIP TURN LAMP
9	8	1AEL0607003	6" OVAL LIGHT GROMMET
10	6	1AEL6050000	LAMP, LED, S/T/T, RED, 6" OVAL

BOM ID	Qty	Item No	Description
11	2	1AEP0094972	HARNESS, M/C PLUG, WITH M-BULLETS
12	1	1AEX0088300	HARNESS, ID 3 PLUG, LOWER, 60"
13	1	1AEX0088911	HARNESS, REAR S/T/T, RH & LH
14	2	1AEX0094932	HARNESS, 2-PLUG Y-ADAPTER
15	1	1AEX3030024	HARNESS, LICENSE LAMP, 24"
16	2	1AEX3270084	HARNESS, FRONT M/C, 84"
17	1	1AEX3550096	HARNESS, LH MIDSHIP LIGHT, 96"
18	1	1AEX3560048	HARNESS, RH MIDSHIP LIGHT, 48"
19	1	1AEX5220312	HARNESS, ABS JUMPER, 312"
20	1	1AEX8502027	HARNESS, FRONT NOSE W/ BL-WHT DROPOUT
21	1	1AEX8810240	HARNESS, ABS POWER, 240"
22	1	1AEX9751552	HARNESS, 7 COND MAIN W/BRKOUT, 552"

Note: Images of some of these parts are continued on the next page.



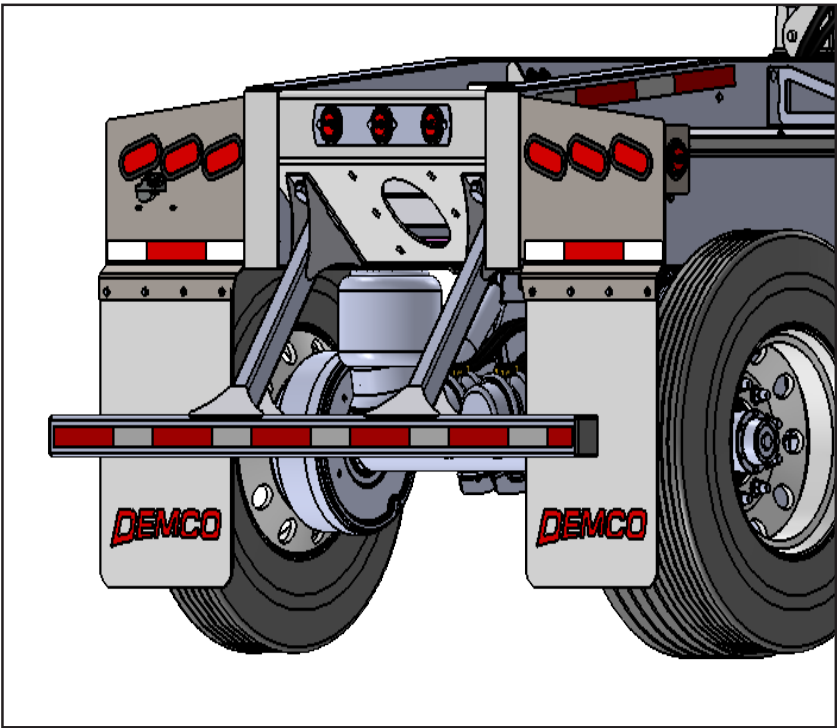
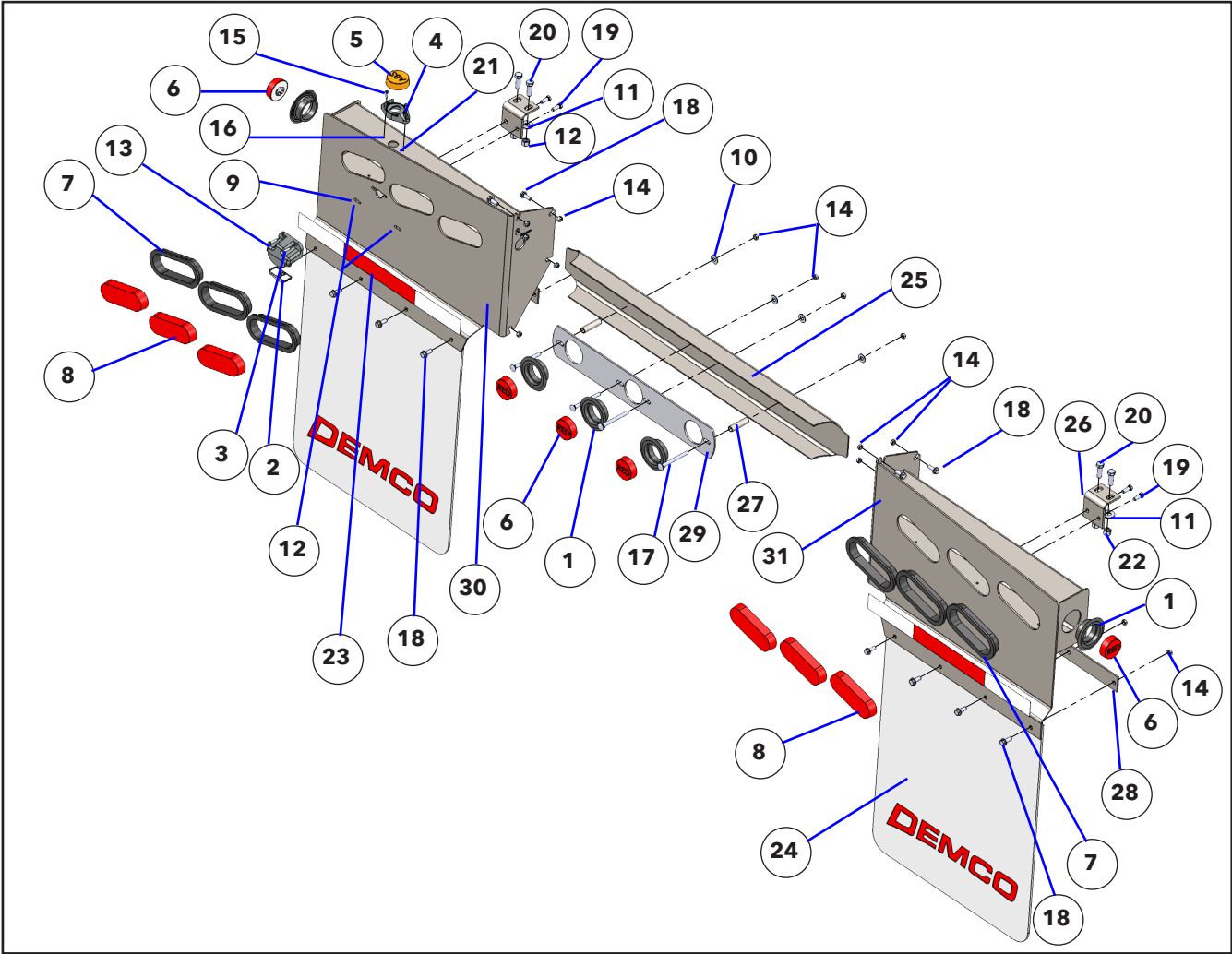


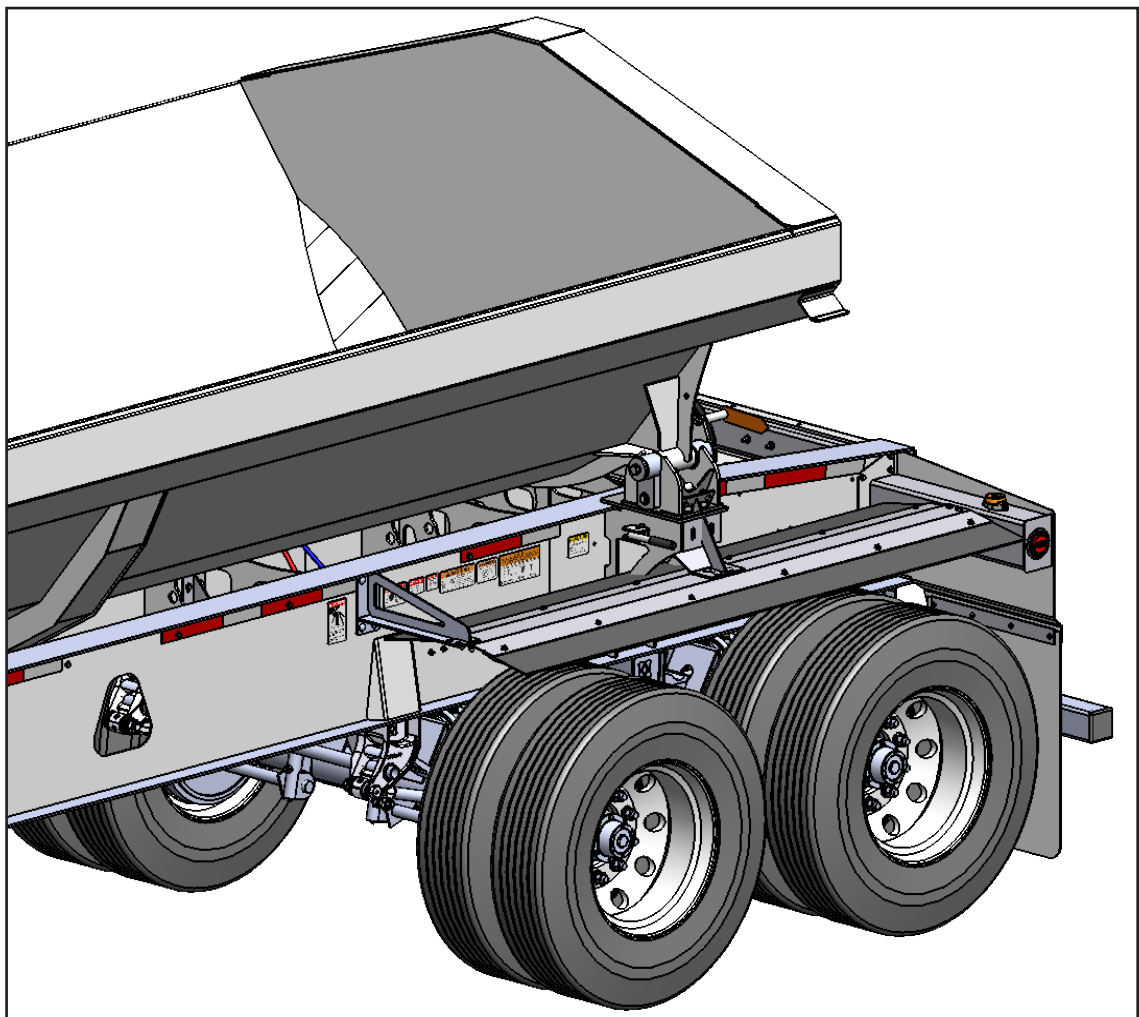
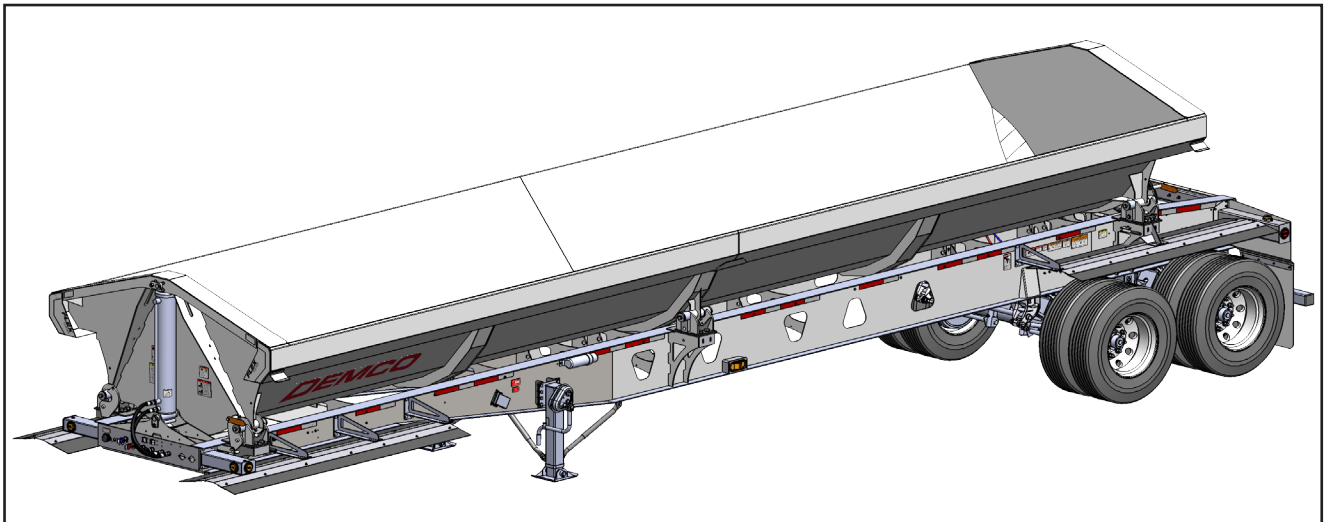


BOM ID	Qty	Item No	Description
1	2	5CAM9005	FRONT LIGHT/FENDER MOUNT
2	2	3CAM9091	FENDER RUBBER, 12" X 108", FRONT
3	2	3CAM9092	FENDER RUBBER, 8" X 108", FRONT
4	2	3CAM9386	FENDER SUPPORT, FRONT, 2013
5	4	1AEAP3548	LAMP, SUPER 10 GROMMET, 10700-3
6	2	1ARAP4010	GROMMET, PLUG, 2-3/4" HOLE, G8077-046000
7	2	1ARAP4045	GROMMET, 3/4" ID G3137-016
8	4	1AEAP4311	LAMP, LED, CLEAR/MARKER, YELLOW, 2-1/2"
9	60	1AFBP3232	BOLT, CARRIAGE, 1/2"-13 X 1-1/2", GRADE 5
10	60	1AFBP3704	NUT, LOCK, NYLON INSERT, 1/2"-13
11	6	5CAM9004	FRAME FENDER MOUNT
12	28	3CAM9089	FENDER WASHER
13	28	1AFBP3644	NUT, HEX LOCK, 5/16"-18, TOP LOCK
14	28	1AFBP3709	BOLT, FLANGE HEAD, 5/16"-18 X 1", GRADE 8, PLATED

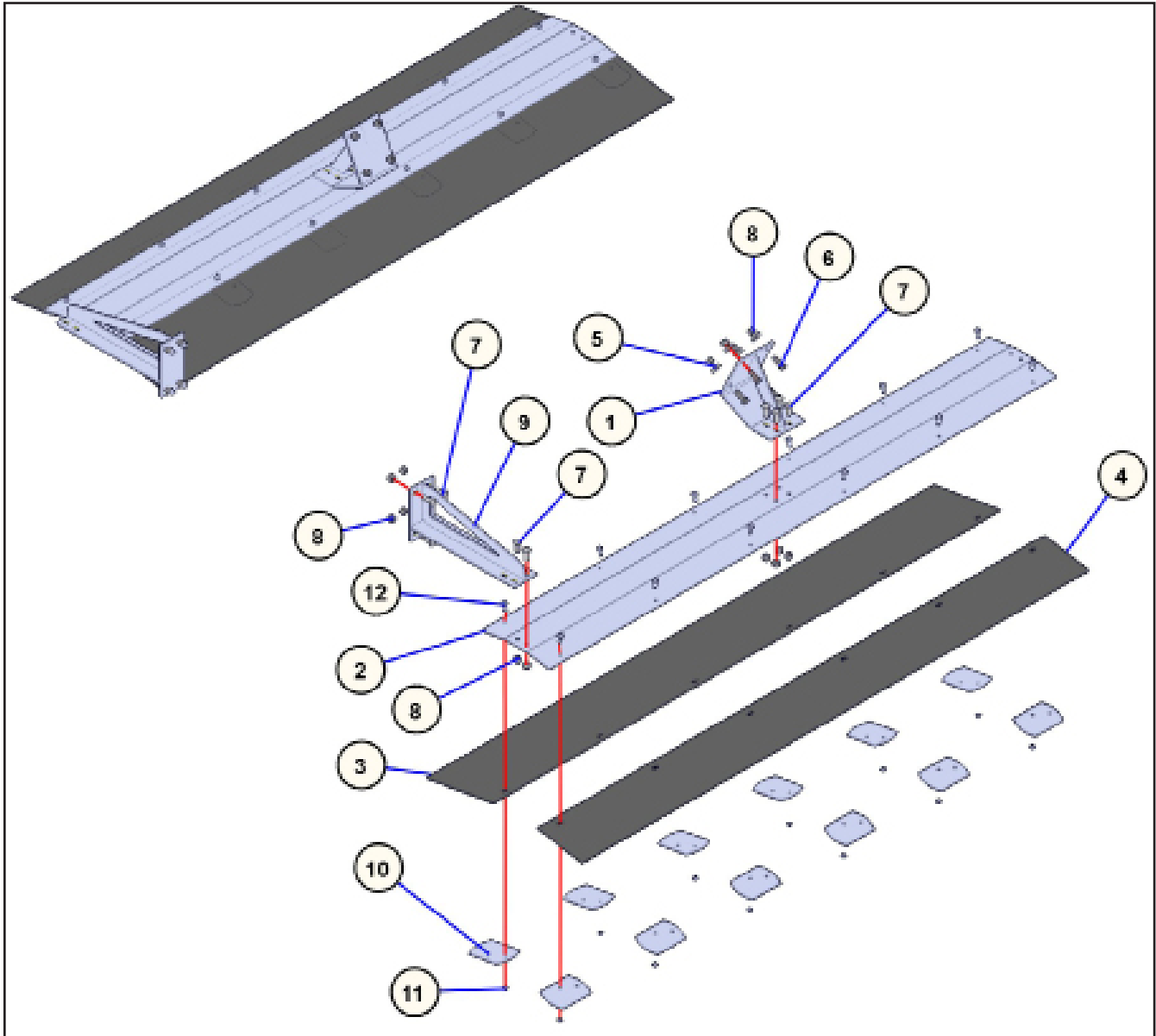
BOM ID	Qty	Item No	Description
1	5	1AEAP3548	LAMP, SUPER 10 GROMMET, 10700-3
2	1	1AEAP4120	LISCENSE PLATE LAMP, CLEAR, 12V
3	1	1AEAP4121	LISCENSE PLATE LAMP MTG BRACKET, GREY
4	1	1AEAP4301	ABS LIGHT BRACKET, 102008HP
5	1	1AEAP4302	ABS LIGHT, 101731F
6	5	1AEAP4310	LAMP, LED, CLEAR/MARKER, RED, 2-1/2"
7	6	1AEL0607003	MIDSHIP LIGHT GROMMET
8	6	1AEL6050000	RED 6" OVAL-LED
9	2	1AF009D0000	WASHER, FLAT, 1/4", PLTD
10	4	1AF009F0000	WASHER, FLAT, 3/8", PLTD
11	4	1AF009H0000	WASHER, FLAT, 1/2", PLTD
12	2	1AFBP3587	1/4" NYLOCK NUT
13	2	1AFBP3600	HEX CAP SCREW, 1/4-20 X 1 GRD 8, PLTD
14	30	1AFBP3612	NUT, HEX LOCK, 3/8-16, TOP LOCK
15	2	1AFBP3642	PAN HEAD MACHINE SCREW, #10-24 X 3/4"
16	2	1AFBP3643	WASHER, #10 USS FLAT Z
17	4	1AFBP3687	BOLT, CARRIAGE, 3/8-16 X 4, GRD 5, PLTD
18	18	1AFBP3692	BOLT, FLNG HEAD, 3/8-16 X 1, GRD 8, PLTD
19	4	1AFC12FAA05	HEX CAP SCREW, 3/8"-16 X 1", GRD 5, PLTD
20	4	1AFC12HAAH0	HEX CAP SCREW, 1/2"-13 X 1-1/2", GRD 5, PLTD
21	2	1AFC18C0000	NYLON INSERT LOCKNUT, 10-24 UNC, ZINC
22	4	1AFC18H0000	1/2" NYLOCK NUT
23	4.16'	1AQAS000000	RWR CONSPICUITY TAPE
24*	1	1AU00000804	MUDFLAP, DEMCO, 24" X 30"
25	1	3CAM9008	BACK COVER, ID LIGHTS
26	2	3CAM9010	BRACKET, FENDER MOUNT
27	2	3CAM9011	SPACER TUBE
28	2	3CAM9035	MUDFLAP BACKING STRAP
29	1	3CAM9058	ID LIGHT FACE PLATE
30	1	5C000181	FENDER / MUDFLAP MOUNT, LH, (DRIVER'S SIDE)
31	1	5C000182	FENDER / MUDFLAP MOUNT, RH, (PASSENGER SIDE)

*Shown with optional Demco Mudflap.

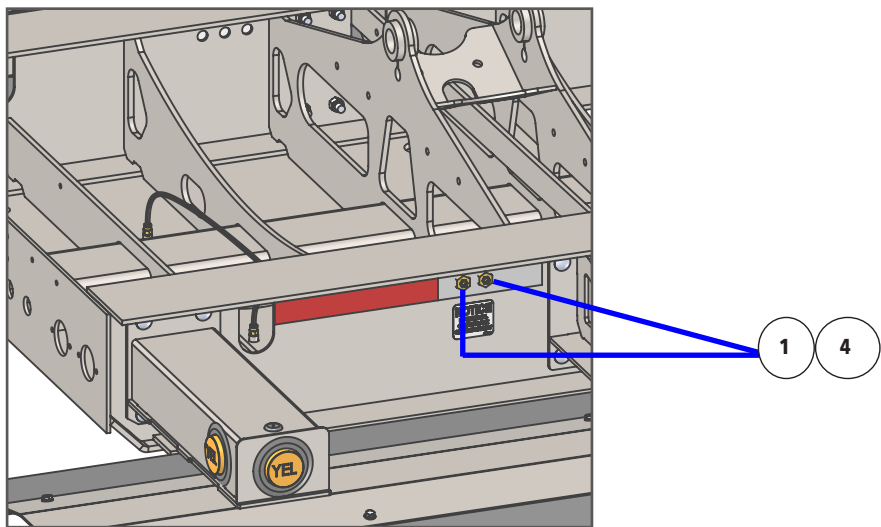
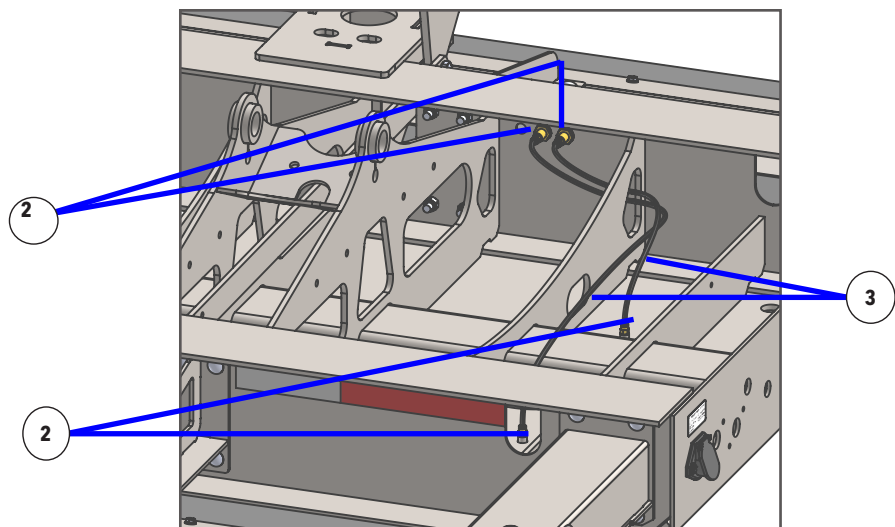




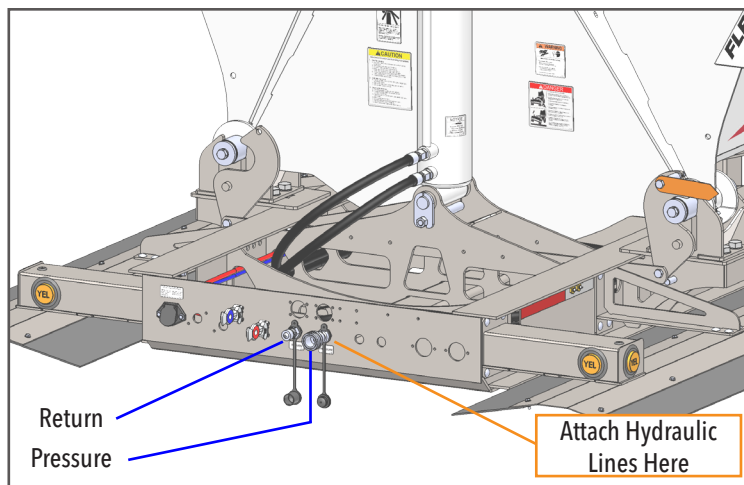
FENDER PARTS -- REAR (FOR 35' AND 40' TANDEM LEAF SPRING)



BOM ID	Qty	Item No	Description
1	2	5CAM9003	SADDLE FENDER MOUNT
2	2	3CAM9093	FENDER SUPPORT, REAR, TANDEM, 2002
3	2	3CAM9094	FENDER RUBBER, 12" X 90-3/16", REAR, TANDEM
4	2	3CAM9095	FENDER RUBBER, 8" X 90-3/16", REAR, TANDEM
5	4	1AFBP3050	WASHER, FLAT, 1/2", PLATED
6	4	1AFBP3126	HEX CAP SCREW, 1/2"-13 X 1-1/2", GRADE 5, PLATED
7	16	1AFBP3232	BOLT, CARRIAGE, 1/2"-13 X 1-1/2", GRADE 5
8	28	1AFBP3704	NUT, LOCK, NYLON INSERT, 1/2"-13
9	2	5CAM9004	FRAME FENDER MOUNT
10	24	3CAM9089	FENDER WASHER
11	24	1AFBP3644	NUT, HEX LOCK, 5/16"-18, TOP LOCK
12	24	1AFBP3709	BOLT, FLANGE HEAD, 5/16"-18 X 1", GRADE 8, PLATED



BOM ID	Qty	Item No	Description
1	2	1ABAP3423	BULKHEAD ADAPTER, 1/8 FPT - 1/8 FPT
2	4	1ABAP3426	ADAPTER, 1/4" TUBE X 1/8 MPT, STRAIGHT
3	4.63'	1ABAP3685	NYLON TUBING, BLACK, 1/4"
4	2	1AKZAAA0000	GREASE ZERK, 1/8" NPT



WARNING: Hydraulic fluid escaping under pressure can have enough force to penetrate the skin. Hydraulic fluid may also infect a minor cut or opening in the skin. If injured by escaping fluid, see doctor at once. Serious infection or reaction can result if medical treatment is not given immediately. Make sure all connections are tight and that hoses and lines are in good condition before applying pressure to the system. Relieve all pressure before disconnecting the lines or performing other work on the hydraulic systems.

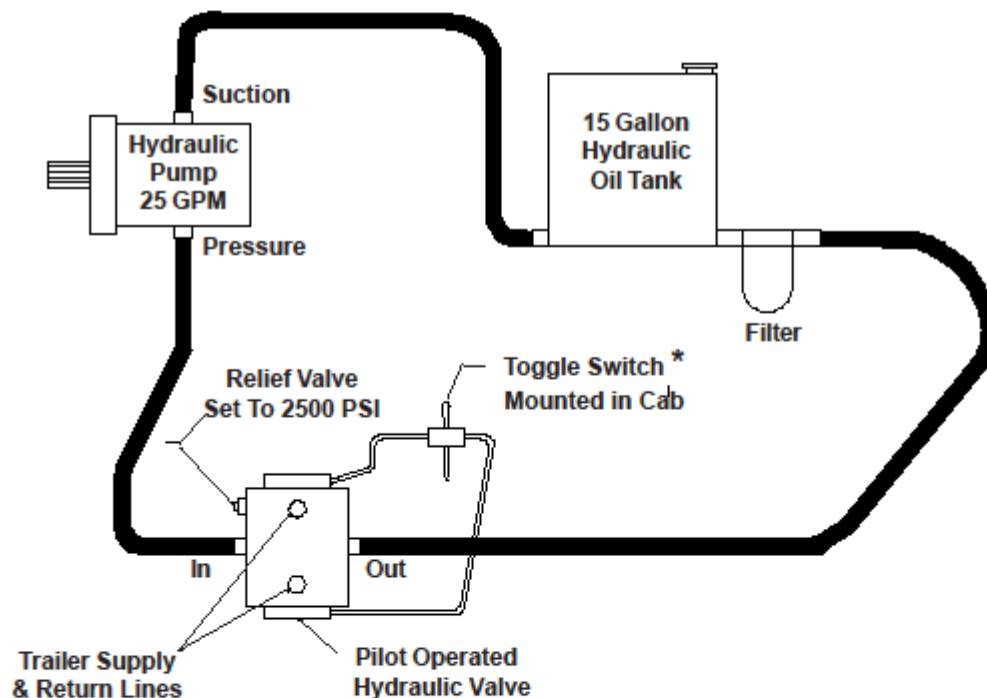
Truck-Tractor Hydraulic Systems

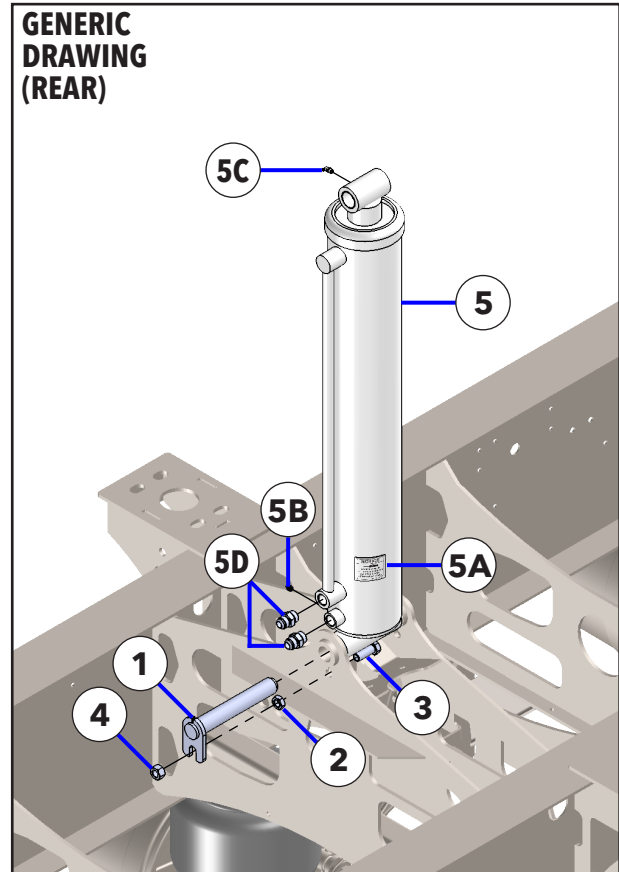
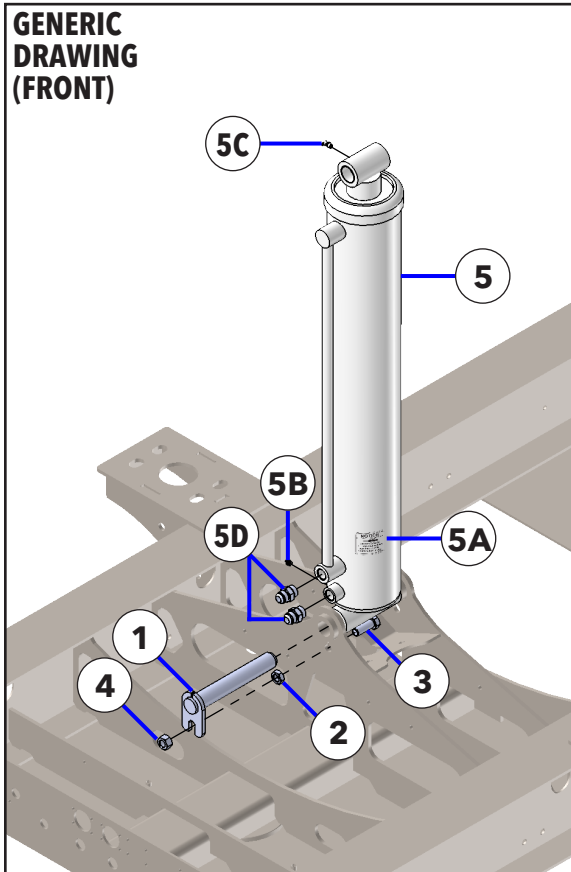
Efficient, safe operation of side dump trailers require that the tractor hydraulic system provide a clean, high pressure, high volume oil supply. The hydraulic pump pressure should be set at 2500 PSI with a minimum output of 25 GPM supply and a minimum 15 gallon filtered and strained reservoir.

NOTE:

Hydraulic Oil Filter should be Changed every 25,000 miles or yearly, which ever comes first and hydraulic system flushed every 50,000 miles with pressure and flow rates checked.

Generic Tractor Hydraulic System

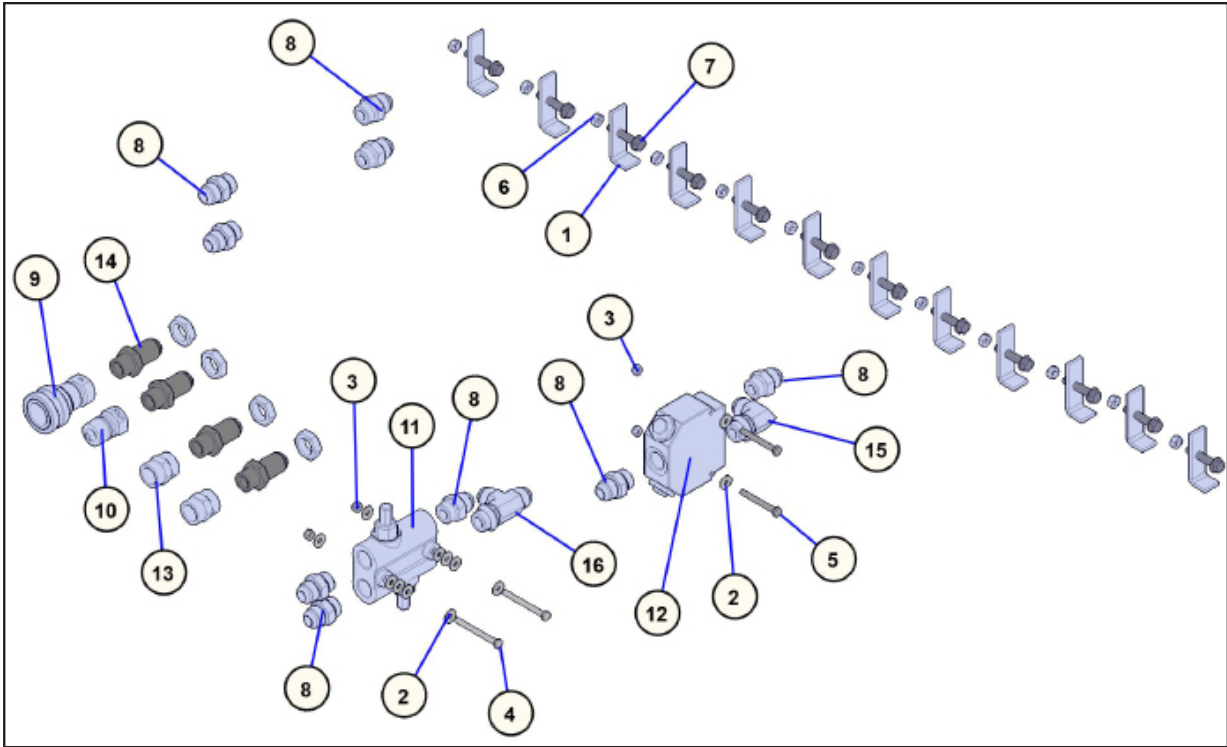




BOM ID	Qty	Item No	Description
1	2	5CAM9019	PIN, CYLINDER, 1-1/2" X 9-5/8"
2	2	1AFBP3107	NUT, HEX JAM, 3/4"-10, GR 2, PLATED
3	2	1AFBP3139	HEX CAP SCREW, 3/4"-10 X 2", GR 5, PLATED
4	2	1AFC05L0005	3/4 CENTERLOCK NUT
5	2	1AYDP6347	CYLINDER, HYDRAULIC, 5" X 36", WITH DROP TUBE
5	2	1AYDP6349	CYLINDER, HYDRAULIC, 6" X 36", WITH DROP TUBE
5A	2	1AQAP2986	DECAL, GREASE TRAILER WEEKLY, 2-3/4"W X 3"T
5B	2	1AKZAAA0000	GREASE ZERK, 1/8" NPT
5C	2	1AFBP3654	GREASE ZERK, 1/8" MP X 45 DEGREE ELBOW
5D	4	1AKDP4368	ADAPTER, 12MJIC-12MSAE, STRAIGHT, 6400-12
*	1	1AKDP6603	SEAL KIT 5" WETHERELL CYLINDER
*	1	1AKDP6569	SEAL KIT 6" WETHERELL CYLINDER

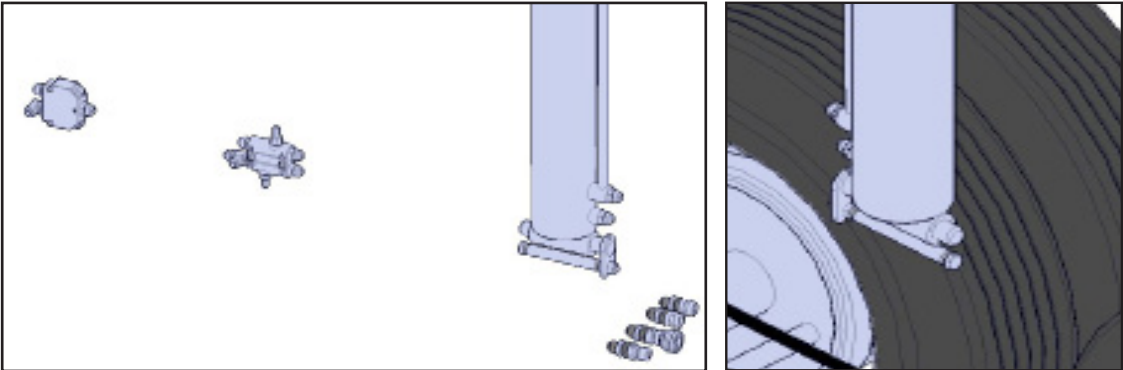
*Not shown in part diagrams.

(5C090019) STANDARD HYDRAULIC PKG, SET FORWARD 34' TUB



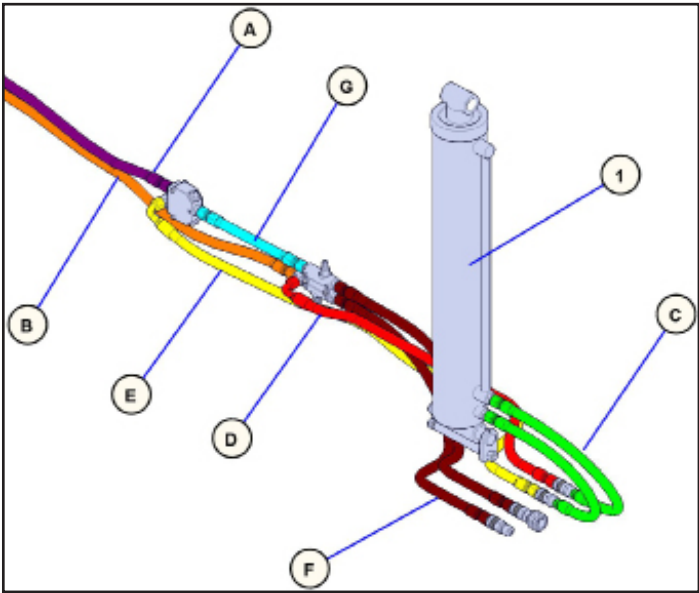
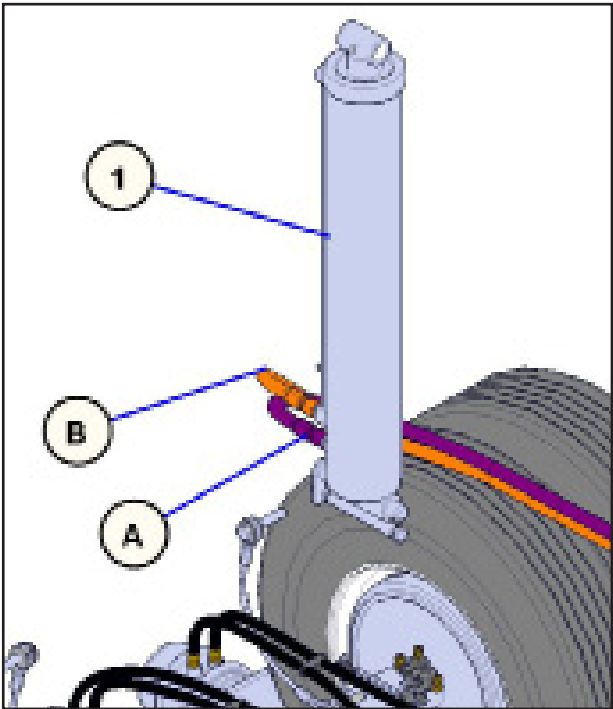
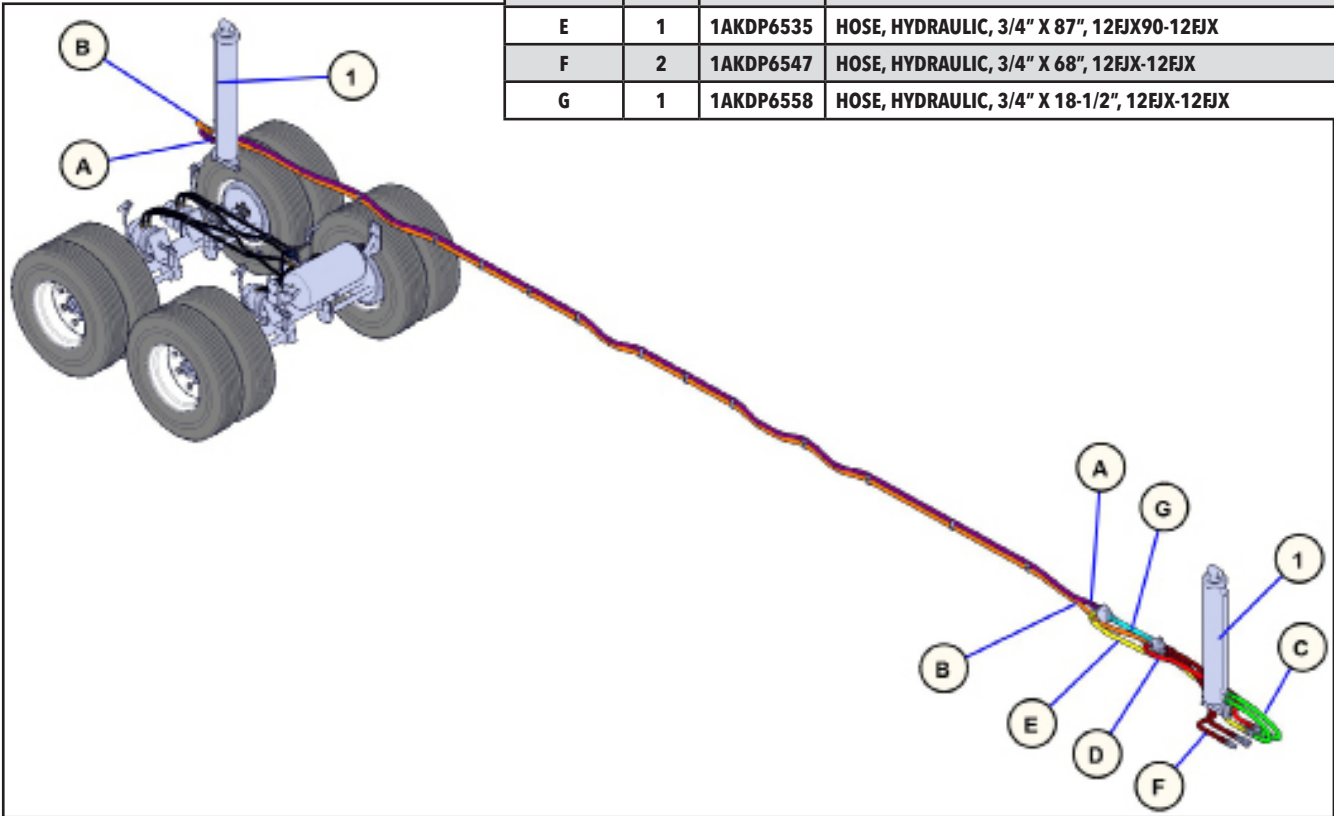
BOM ID	Qty	Item No	Description
1	12	3CAM8053	HOSE RETAINER, SINGLE
2	12	1AFBP3055	WASHER, FLAT, 1/4", PLATED
3	4	1AFBP3587	NUT, HEX, 1/4" NYLOCK
4	2	1AFBP3588	HEX CAP SCREW, 1/4"-20 X 3", GRADE 8, PLATED
5	2	1AFBP3589	HEX CAP SCREW, 1/4"-20 x 2-1/2" GRADE 8
6	12	1AFBP3612	NUT, HEX LOCK, 3/8"-16, TOP LOCK
7	12	1AFBP3685	BOLT, FLANGE HEAD, 3/8"-16 X 2", GRADE 8, PLATED
8	9	1AKDP4368	ADAPTER, 12MJIC-12MSAE, STRAIGHT, 6400-12
9	1	1ACDP6300	COUPLER, QUICK, FEMALE, 3/4" NPT
10	1	1ACDP6301	COUPLER, QUICK, MALE, 3/4" NPT
11	1	1AKDP6302	VALVE, DOUBLE RELIEF, PRINCE, H-L
12	1	1AKDP6303	VALVE, PROPORTIONAL DIVIDER, PRINCE
13	2	1ACDP6307	COUPLING, 12FP-12FP, 5000-12

Standard Hydraulic Package for 40' Tandem Axle, 34' Tub, With Air Ride Suspension (CR402AR-3424)

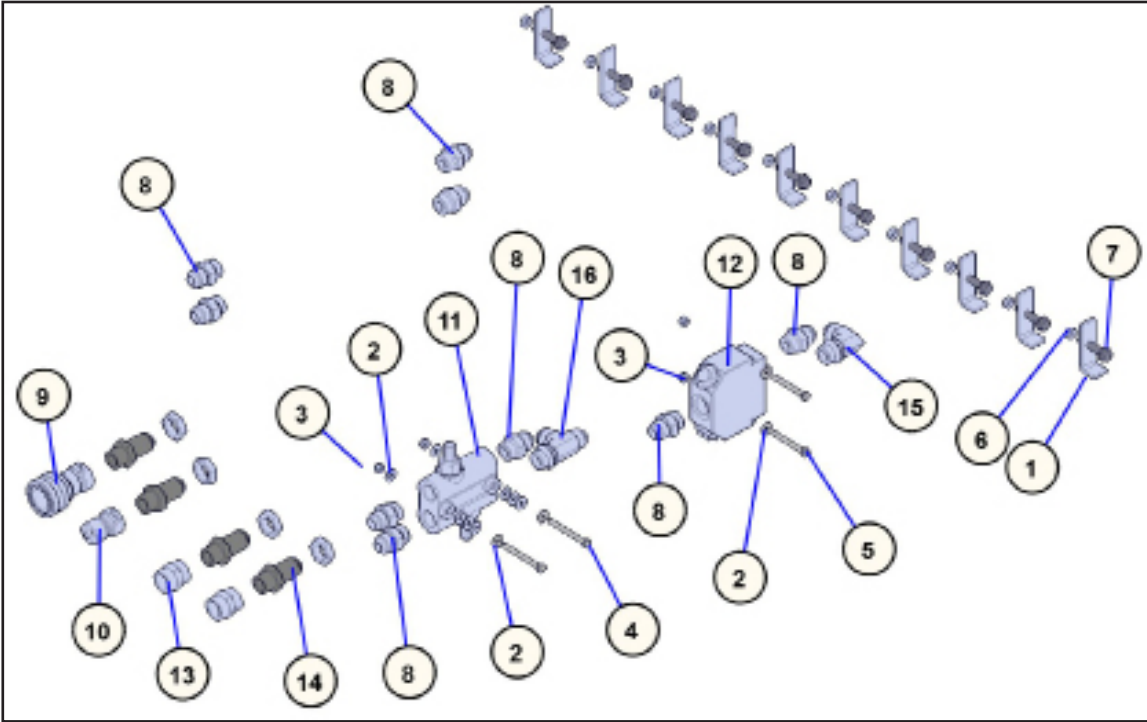


(1AKDDP1117) HOSE KIT, 34' TUB, SET FORWARD

BOM ID	Qty	Item No	Description
1	2	1AYDP6349	*SHOWN WITH CYLINDER, HYDRAULIC, 6 X 36, WITH DROP TUBE
A	1	1AKDP6524	HOSE, HYDRAULIC, 3/4" X 400", 12EJX-12EJX
B	1	1AKDP6525	HOSE, HYDRAULIC, 3/4" X 425", 12EJX-12EJX
C	2	1AKDP6526	HOSE, HYDRAULIC, 3/4" X 40", 12EJX-12MP
D	1	1AKDP6534	HOSE, HYDRAULIC, 3/4" X 62", 12EJX90-12EJX
E	1	1AKDP6535	HOSE, HYDRAULIC, 3/4" X 87", 12EJX90-12EJX
F	2	1AKDP6547	HOSE, HYDRAULIC, 3/4" X 68", 12EJX-12EJX
G	1	1AKDP6558	HOSE, HYDRAULIC, 3/4" X 18-1/2", 12EJX-12EJX

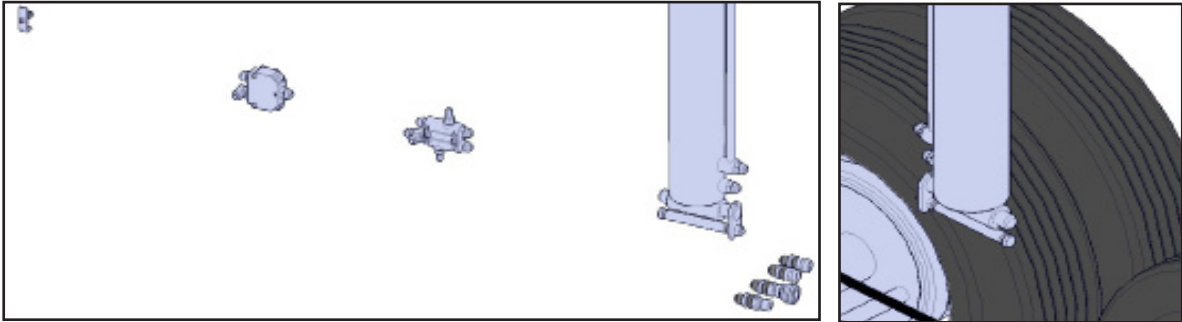


(5C090021) STANDARD HYDRAULIC PACKAGE, SET FORWARD 30' TUB



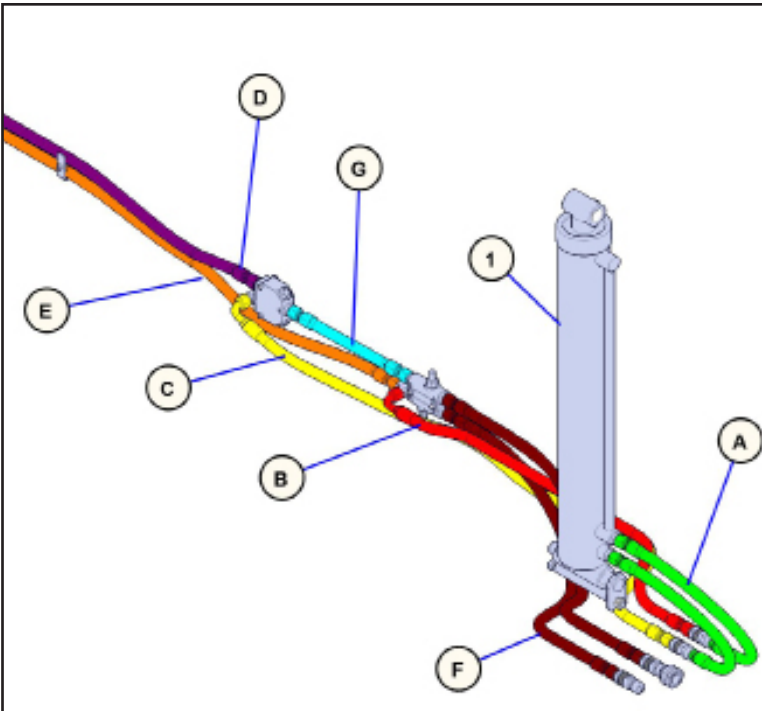
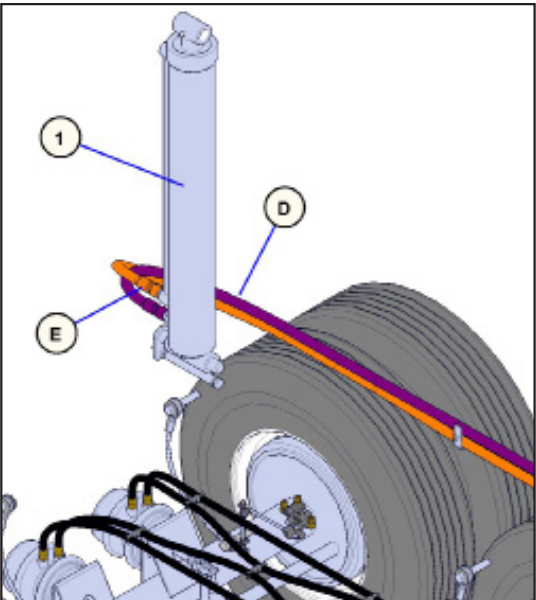
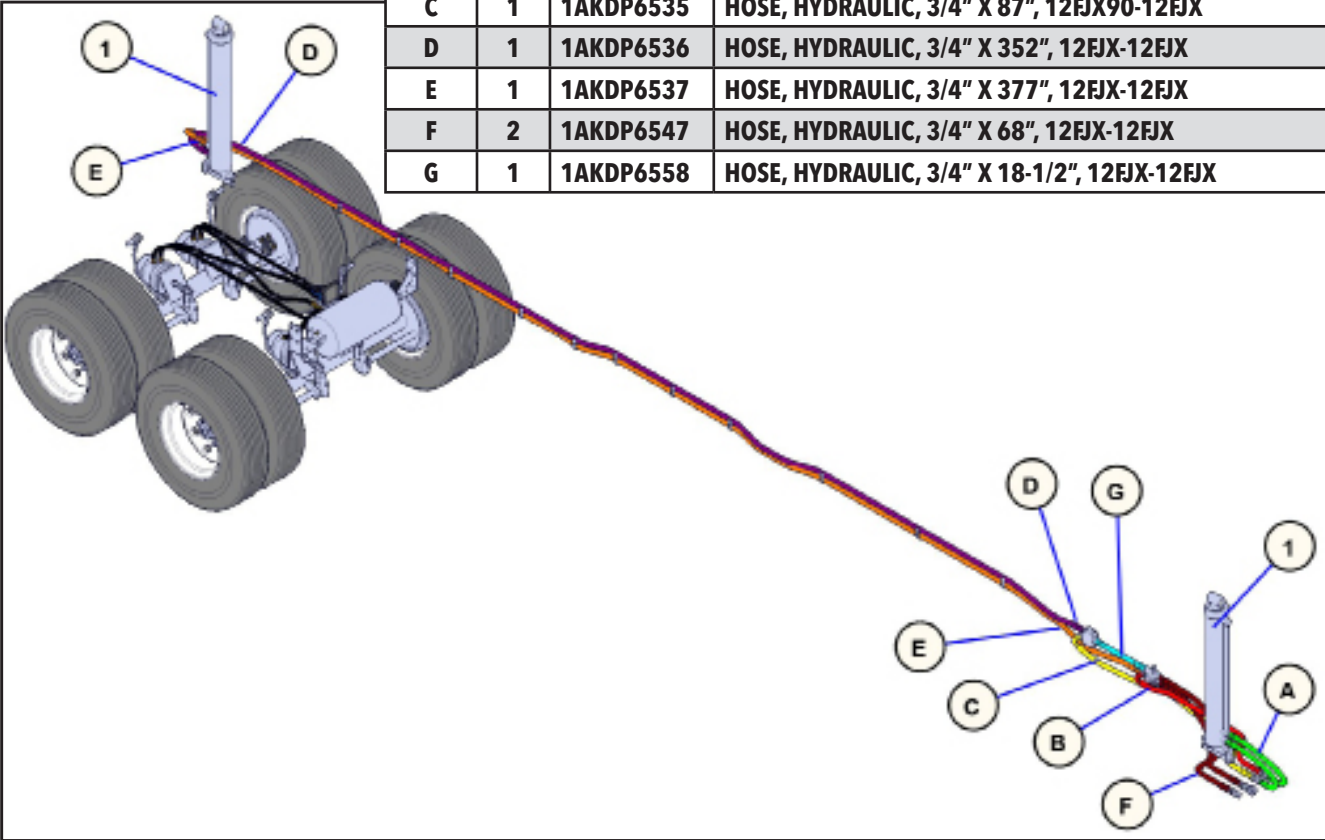
BOM ID	Qty	Item No	Description
1	10	3CAM8053	HOSE RETAINER, SINGLE
2	12	1AF009D0000	1/4" FLAT WASHER ZINC
3	4	1AFBP3587	NUT, HEX LOCK, 1/4" -20 NYLOCK ZINC PLT U
4	2	1AFBP3588	HEX CAP SCREW, 1/4"-20 X 3", GRADE 8, PLATED
5	2	1AFBP3589	HEX CAP SCREW, 1/4"-20 x 2-1/2", GRADE 8, PLATED
6	10	1AFBP3612	NUT, HEX LOCK, 3/8"-16 ZINC, TOP-LOCK GRC ZINC&WAXED
7	10	1AFBP3685	BOLT, FLANGE HEAD, 3/8"-16 X 2", GRADE 8, Y-ZINC PLATED
8	9	1AKDP4368	ADAPTER, 12MJIC-12MSAE, STRAIGHT, 6400-12
9	1	1ACDP6300	COUPLER, QUICK, FEMALE, 3/4" NPT
10	1	1ACDP6301	COUPLER, QUICK, MALE, 3/4" NPT
11	1	1AKDP6302	VALVE, DOUBLE RELIEF, PRINCE, H-L
12	1	1AKDP6303	VALVE, PROPORTIONAL DIVIDER, PRINCE
13	2	1ACDP6307	COUPLING, 12FP-12FP, 5000-12
14	4	1AKDDP6495	BULKHEAD ADAPTER WITH NUT, 12MP-12MJ, 2706-LN-12-12
15	1	1AKDP6538	ADAPTER, 12MJ-12MSAE 90, 6801-12
16	1	1AKDP6557	TEE, 12MJ-12MSAE-12MJ, 6804-12

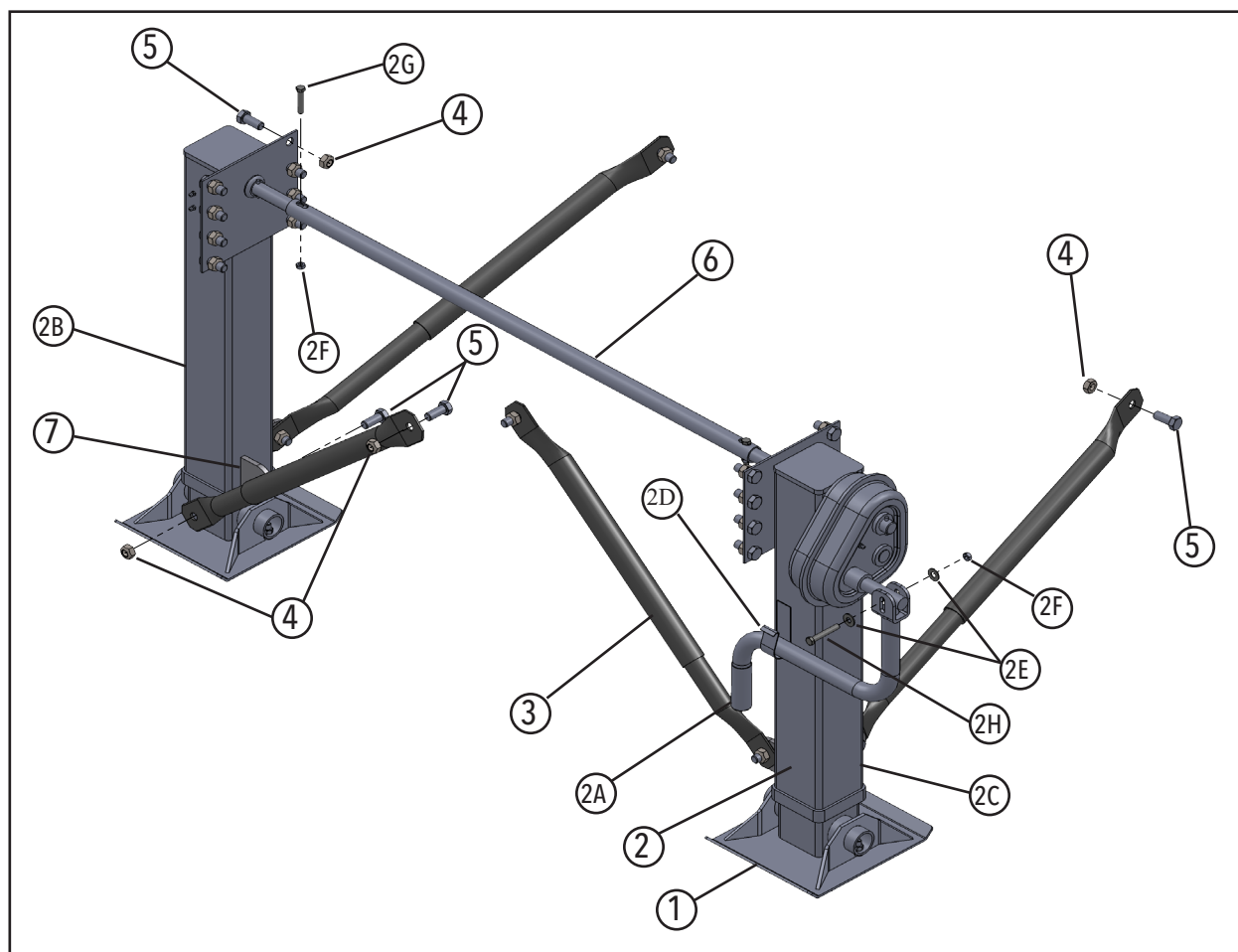
Standard Hydraulic Package for 35' Tandem Axle, 30' Tub With Air Ride Suspension (CR352AR-3021)



(1AKDDP1121) HOSE KIT, 30' TUB, SET FORWARD

BOM ID	Qty	Item No	Description
1	2	1AYDP6347	*SHOWN WITH CYLINDER, HYDRAULIC, 5 X 36, WITH DROP TUBE
A	2	1AKDP6526	HOSE, HYDRAULIC, 3/4" X 40", 12MP-12FJX
B	1	1AKDP6534	HOSE, HYDRAULIC, 3/4" X 62", 12FJX90-12FJX
C	1	1AKDP6535	HOSE, HYDRAULIC, 3/4" X 87", 12FJX90-12FJX
D	1	1AKDP6536	HOSE, HYDRAULIC, 3/4" X 352", 12FJX-12FJX
E	1	1AKDP6537	HOSE, HYDRAULIC, 3/4" X 377", 12FJX-12FJX
F	2	1AKDP6547	HOSE, HYDRAULIC, 3/4" X 68", 12FJX-12FJX
G	1	1AKDP6558	HOSE, HYDRAULIC, 3/4" X 18-1/2", 12FJX-12FJX



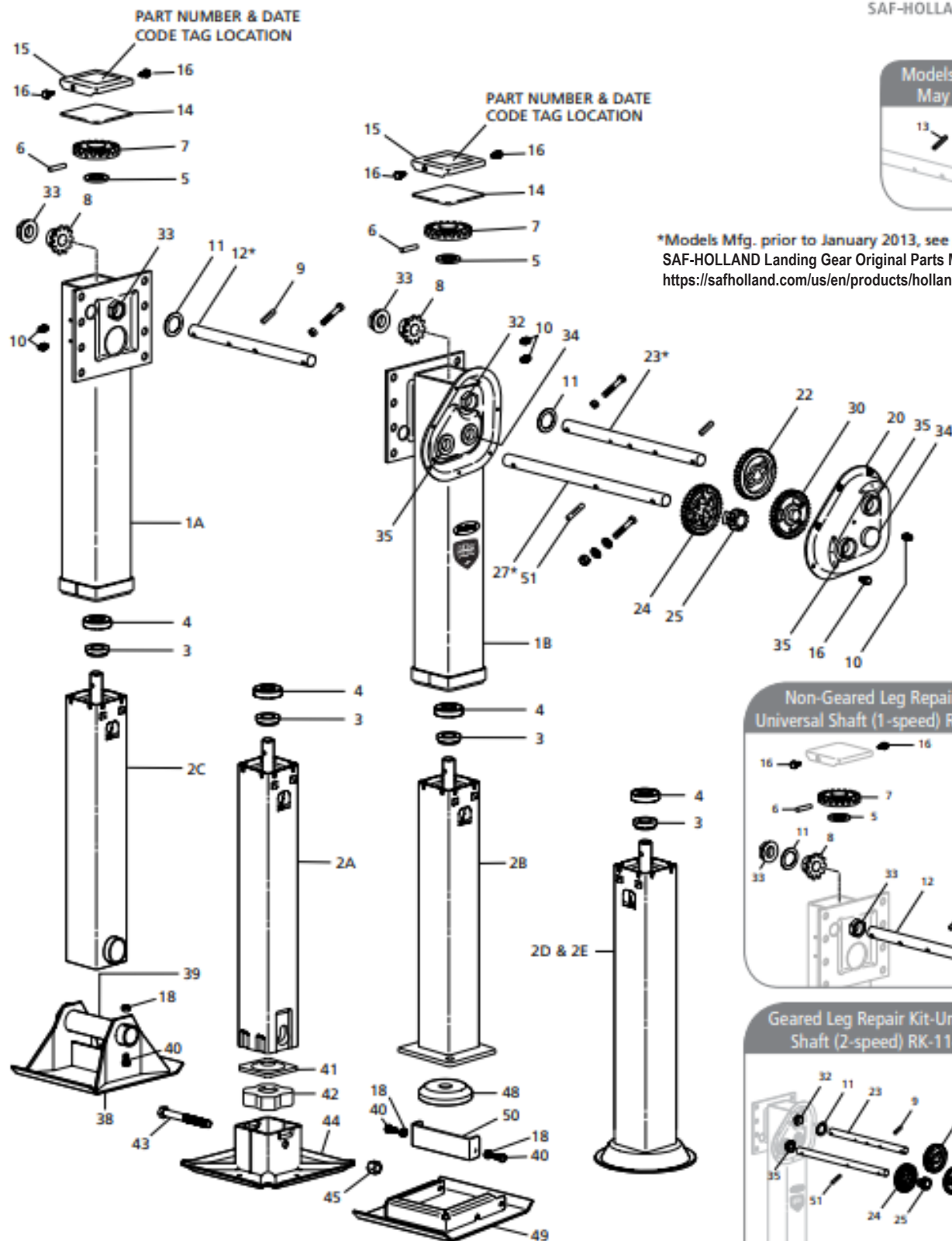


BOM ID	Qty	Item No	Description
1	1	4CPKG00112	PACKAGE, JACK, 2001 SIDE DUMP
2	1	1AJAP3503	JACK, LANDING LEG AND GEAR SET
2A	1	1AJAP3504	CRANK HANDLE
2B	1	1AJAP4098	JACK LEG, CURB SIDE
2C	1	1AJAP4099	JACK LEG, ROAD SIDE
2D	1	1AJAP4101	CRANK HANDLE CLIP
2E	2	1AFBP3015	WASHER, FLAT, 3/8", PLATED
2F	3	1AFBP3612	NUT, HEX LOCK, 3/8"-16, TOP LOCK
2G	2	1AFBP3625	HEX CAP SCREW, 3/8"-16 X 2", GRADE 8, PLATED
2H	1	1AFBP3626	HEX CAP SCREW, 3/8"-16 X 2-1/2", GRADE 8, PLATED
3	4	1ASAP3505	ADJUSTABLE BRACE
4	24	1AFBP3615	NUT, HEX LOCK, 5/8"-11, GRADE 8, PLATED, UTC
5	24	1AFBP3617	HEX CAP SCREW, 5/8"-11 X 1-1/2", GRADE 8, PLATED
6	1	1AU00000146	CROSS SHAFT, SHORT
7	4	3C000371	JACK BRACE MOUNT TAB

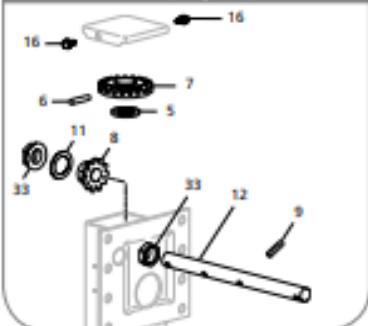


SAF-HOLLAND Group

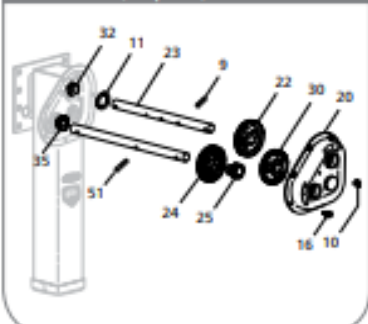
ATLAS 55 Standard - Exploded View



Non-Geared Leg Repair Kit- Universal Shaft (1-speed) RK-11442



Geared Leg Repair Kit-Universal Shaft (2-speed) RK-11443

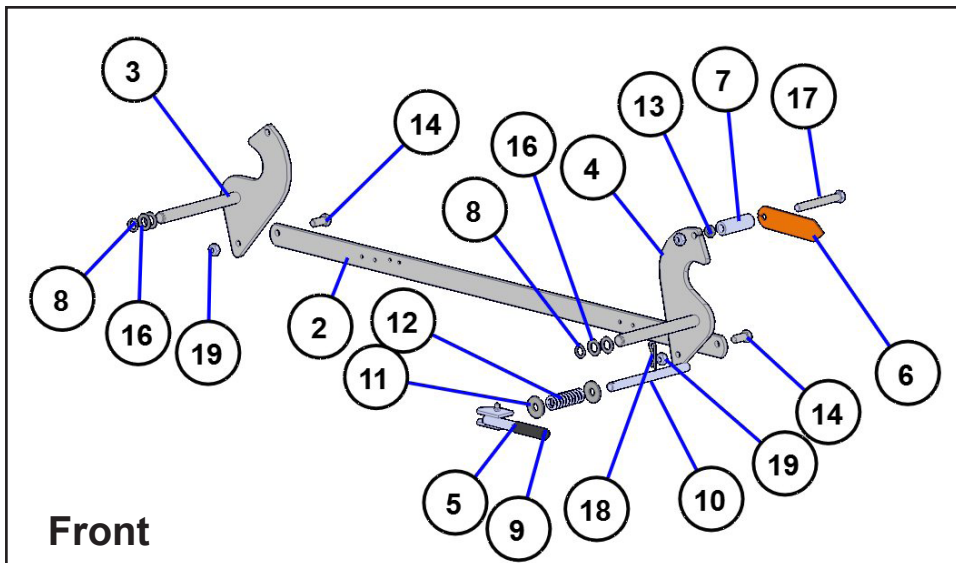


For a complete parts list or technical assistance, please go to www.safholland.us or call 800.876.3929

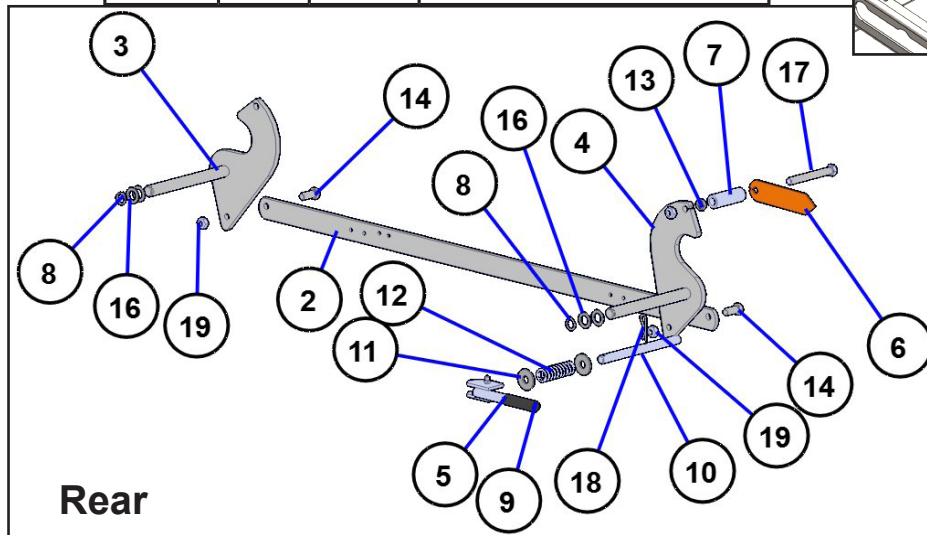
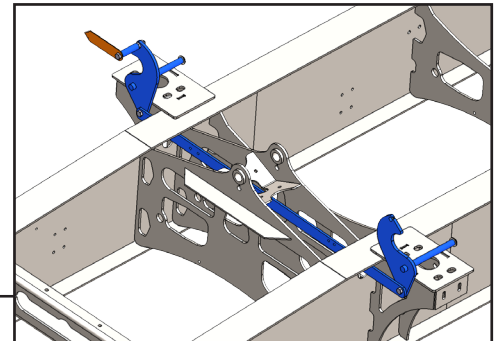
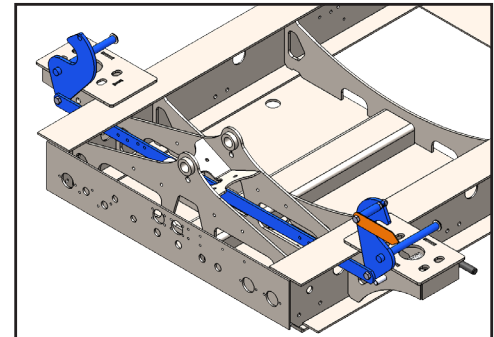
Parts List for Atlas 55 Standard and NoLube Landing Gear

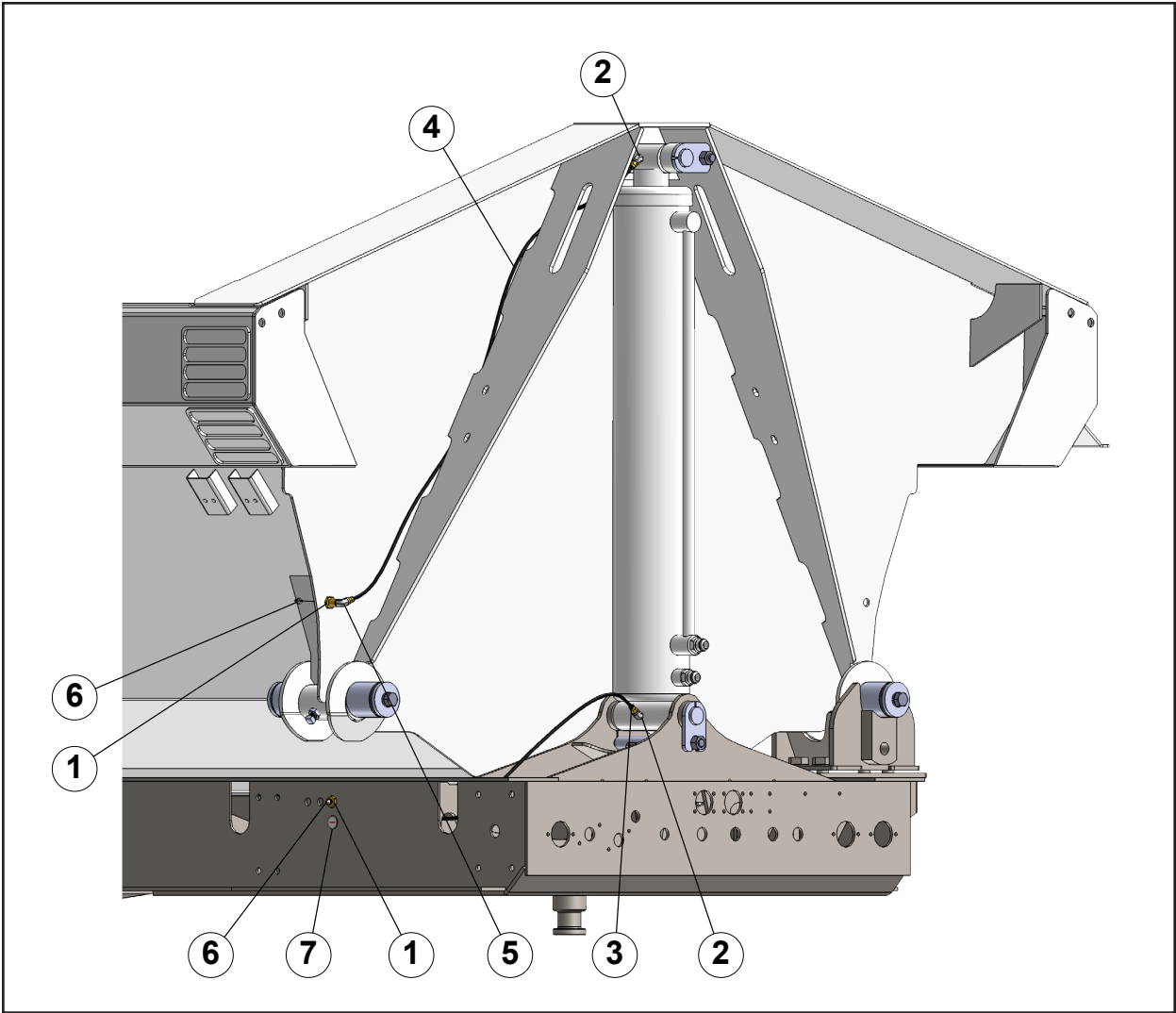
NO.	DESCRIPTION	RETRACT TUBE CODE	17" TRAVEL STANDARD	17" TRAVEL NOLUBE
2A	Retract Tube - RCF	0 or 5 (MRL)	LG3053-04	LG3071-04
2B	Retract Tube - Low Profile RCF	0	LG3097-03	LG3097-13
2C	Retract Tube - Axle	0	LG3012-03	LG3077-03
2D	Retract Tube - Shockfoot 10" DIA	0, 6 (CAN) or B	LG3061-04	LG3095-01
2E	Retract Tube - Shockfoot 12" DIA	0, 6 (CAN) or B	LG3061-05	LG3095-02

NO.	DESCRIPTION	PART NO.	SPEED ONE	SPEED TWO
1A	Upper Housing LH	N/A	-	-
1B	Upper Housing RH	N/A	-	-
3	Collar	XB-LG0544	1	1
4	Thrust Bearing	XB-BRG-013-77	1	1
5	Washer - FL 2" OD x 1.19" ID x .13" THK	XB-PW-016-62	1	1
6	Pin - DIA .39" x 2"	XA-CRP-V-06635	1	2
7	Bevel Gear	LG2884	1	1
8	Pinion Gear	LG1823-02	1	1
9	Groove Pin - DIA .38" x 1.50"	XB-GP-014-18	1	1
10	Ftg - Grease .25" -28 Self-Tapping	XB-GRF-022-16	2	3
11	O-Ring, #319	2024100000100	1	1
12	Jack Shaft LH Universal Mount	LG2964-01	1	-
13	Pin - Spring DIA .25" x 1.5" (Not Required)	N/A	-	-
15	Top Cover	2111100004080	1	1
16	Self-Tapping Screw .25" -20 x .5" Lg	XB-STS-008-11	2	9
17	Screw, Hex Cap .38"-16 x 2.25" Lg GR5	XB-HHC-050-42	1	2
18	Self-Locking Nut .38"-16 - Sandshoe	XB-SLN-012-04	2	3
19	Washer .38" Std Type A	XB-PW-016-03	--	2
20	Gearbox Half, Outside w/Hole for Grease Fitting	LG2996	-	1
22	Output Gear	LG2980	-	1
23	Jackshaft RH - Universal Mount	LG2963-01	-	1
24	Gear, Drive, High Speed - Machined	2040100000060	-	1
25	Gear, Drive, Low Speed - Machined	2040100000050	-	1
26	Groove Pin, Type E DIA .38" x 2.00" Lg	XB-GP-052-21	-	1
27	Shift Shaft - Universal	2111100003400	-	1
30	Idler Gear	LG2975	-	1
32	Boss, Hex Lock - Oversized	2022100000180	-	1
33	Hex Lock Boss - Sealed	LG2926-10	2	1
34	Idler Shaft Bushing (Included in Item #23)	LG3005	-	2
35	Boss Bearing - Sealed (Included in Item #20)	LG0659-10	-	3
38	Sandshoe - 10" x 12" x 2.00"	50616007	1	1
39	Sandshoe Axle - Hollow Axle 8.50" Lg	LG0070-02	1	1
40	Screw, Hex Cap .38"-16 x .75" Lg GR5 - Sandshoe	XB-HHC-050-69	1	1
	Screw, Hex Cap .38"-16 x .75" Lg GR5 - Low Profile RCF	XB-HHC-050-69	2	2
41	Foot Plate	LG0725	1	1
42	Foot Rubber	XB-LG0726	1	1
45	Self-Locking Nut - .63-11"	XB-SP0012-10	1	1
48	Foot Pad - Low Profile RCF	728003	1	1
49	Interchangeable Collar - Low Profile RCF	730640	1	1
50	Interchangeable Strap	730638	1	1
51	Pin Groove, .31" Dia x 2.00" Lg	XB-GP-052-52	-	1



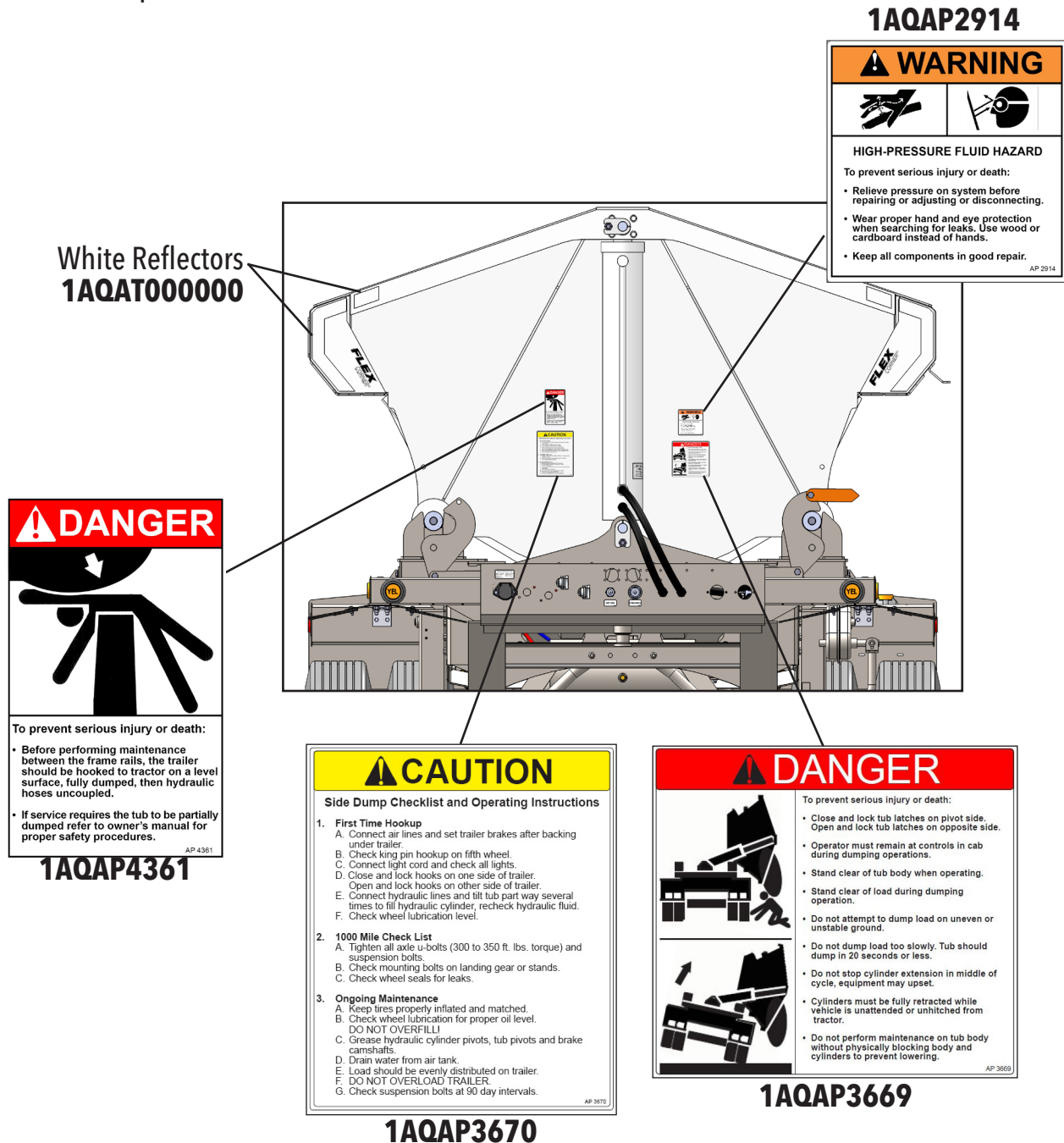
BOM ID	Qty	Item No	Description
1	1	4CPKG00113	PACKAGE, PIVOT LATCH, 2001 SIDE DUMP
2	2	3CAM9078	LATCH CONNECTOR
3	2	5CAM9123	TUB PIVOT LOCK, LEFT HAND FRONT/RIGHT HAND REAR
4	2	5CAM9124	TUB PIVOT LOCK, RIGHT HAND FRONT/ LEFT HAND REAR
5	2	3CAM9125	LATCH LOCK HANDLE
6	2	3CAM9155	LATCH INDICATOR FLAG
7	2	3CAM9156	SPACER
8	4	1AFAP2407	SNAP RING, 1" EXTERNAL, HEAVY DUTY
9	2	1ABAP4208	GRIP, .843" ID X 4" OAL
10	2	1AFBM3727	PIN, LATCH LOCK, 3/4" X 10-3/8" OAL
11	4	1AFBP3033	WASHER, FLAT, 3/4", PLATED, STANDARD, TYPE A, SERIES W
12	2	1AFBP3066	COMPRESSION SPRING RIGID HITCH
13	2	1AFBP3080	NUT, HEX JAM, 5/8"-11, GRADE 2
14	4	1AFBP3097	HEX CAP SCREW, 5/8"-11 X 1-1/2", GRADE 5, PLATED
15	2	1AFBP3110	HEX CAP SCREW, 5/16"-18 X 2", GRADE 5, PLATED
16	8	1AFBP3215	MACHINERY BUSHING, 1-1/2" OD X 1" ID, 14 GAUGE, PLATED
17	2	1AFBP3298	HEX CAP SCREW, 5/8"-11 X 5-1/2", GRADE 5, PLATED
18	2	1AFBP3504	PIN, HAIRCLIP, 1/8"
19	6	1AFBP3615	NUT, HEX LOCK, 5/8"-11, GRADE 8, PLATED
20	2	1AFBP3644	NUT, HEX LOCK, 5/16"-18, TOP LOCK





BOM ID	Qty	Item No	Description
1	4	1AFBP3423	BULKHEAD FITTING, 1/8" FNPT - 1/8" FNPT
2	4	1AKEABAAAA0	45 DEG ELBOW ADAPTER, 1/8" FNPT X 1/8" MNPT
3	2	1AKHAAAACA0	1/8" X 50" GREASE HOSE, 1/8" MNPT RIGID X 1/8" MNPT SWIV
4	2	1AKHAAAACA1	1/8" X 60" GREASE HOSE, 1/8" MNPT RIGID X 1/8" MNPT SWIV
5	2	1AKLABAAAA0	90 DEG ELBOW ADAPTER, 1/8" FNPT - 1/8" MNPT
6	4	1AKZAAA0000	1/8"-27 GREASE ZERK, STRAIGHT, PLTD
7	4	1AQBC015065	DECAL, GREASE GUN, RED ON WHITE

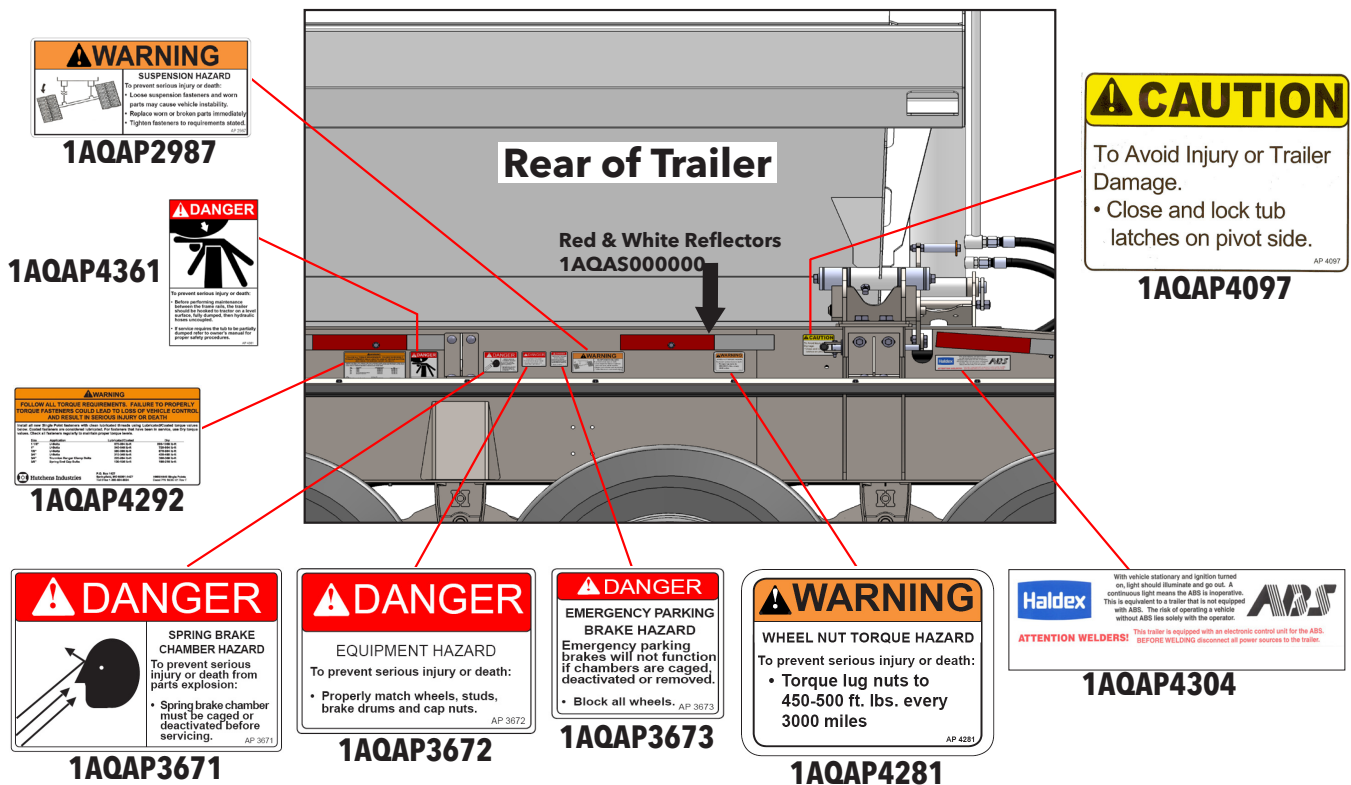
Important: Install new safety decals and reflectors if the old decals and reflectors are destroyed, lost, painted over or cannot be read. When parts are replaced that have decals or reflectors, make sure you install a new decal with each new part.



1AQAP3669 (1) DANGER (Load Dumping Safety) 8"W x 5-1/2"L
1AQAP3670 (1) CAUTION (Side Dump Checklist and Operating Instructions) 6"W x 7"L
1AQAP2914 (1) WARNING (High Pressure Fluid) 4"W x 4"L
1AQAP4361 (2) DANGER (Frame Area Maintenance) 3"W x 6-1/4"L
***1AQAT000000 (4) White Conspicuity Tape, 2" Wide**

***White Conspicuity Tape is located at both sides of both ends of tub.**

NOTE: New decals and reflectors are available from your dealer.



IMPORTANT:

Install new safety decals and reflectors if the existing decals and reflectors are destroyed, lost, painted over, or cannot be read. When parts are replaced that have decals or reflectors, make sure you install a new decal with each new part.

- 1AQAP2987 (1) Decal, WARNING, Suspension Hazard
- * 1AQAP3673 (2) Decal, DANGER Emergency Parking Brake Hazard
- * 1AQAP3672 (2) Decal, DANGER Equipment Hazard
- * 1AQAP3671 (2) Decal, DANGER Spring Brake Chamber Hazard
- 1AQAP4097 (2) Decal, CAUTION, lock tub latches
- 1AQAP4281 (1) Decal, WARNING, Wheel Nut Torque
- † 1AQAP4292 (1) Decal, Hutch Suspension Torque, Orange/Black
- 1AQAP4304 (1) Decal, Haldex ABS Light/ATTN Welders
- 1AQAP4361 (2) Decal, Frame Area Maintenance, Trailer
- † 1AQAP4556 (1) Decal, Holland CBX Swing Align Instruction
- † 1AQAP4557 (1) Decal, Holland CBX Torque Specs

KEY:

- * Safety decals are located at the rear of the trailer on both sides.
- * Spring Ride Trailers only.
- † Air Ride Trailers only.



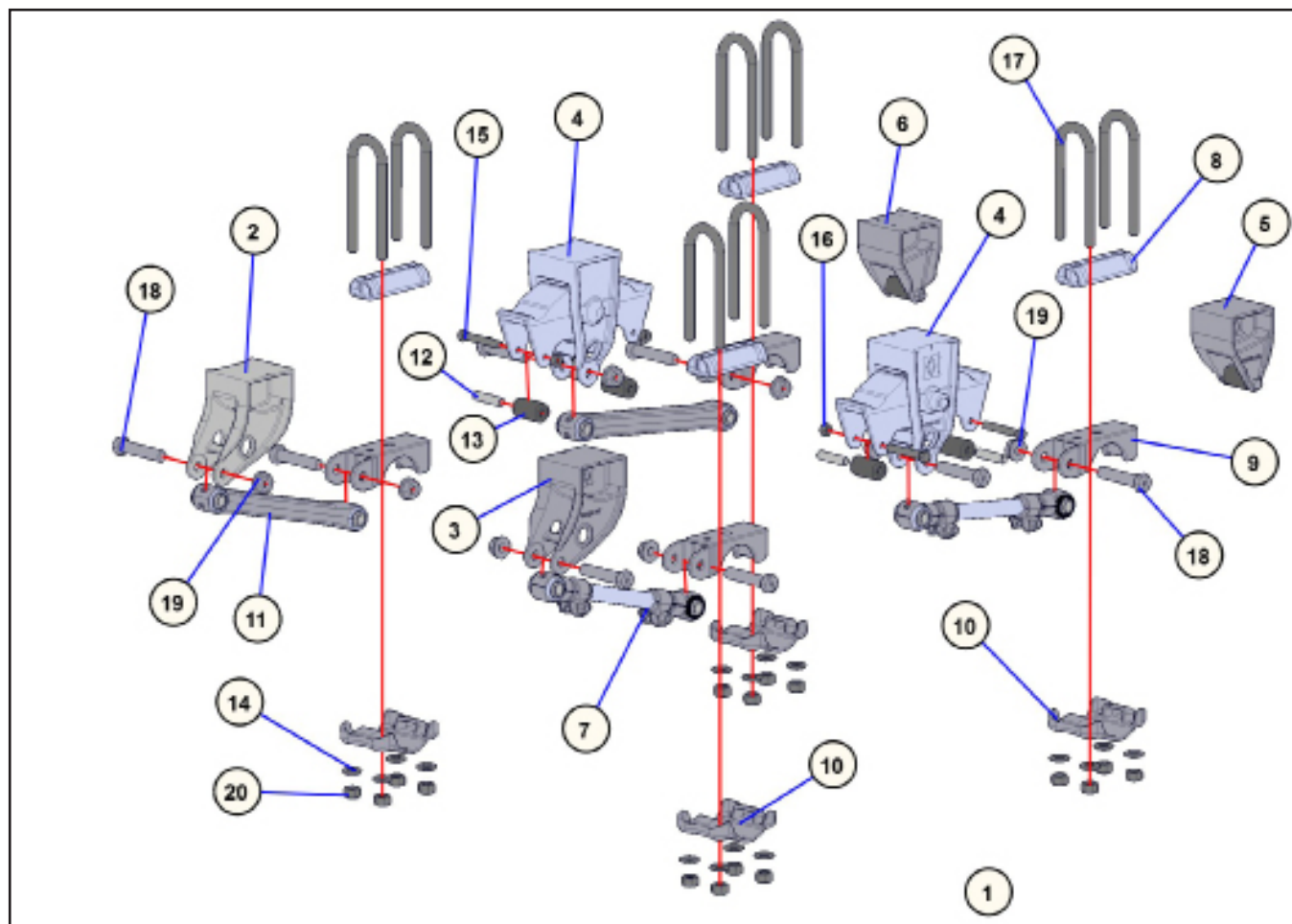
1AQAP4556



1AQAP4557

HOW TO APPLY SAFETY DECALS:

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50°F(10°C).
- Decide on exact position before removing the backing paper.
- Remove smallest portion of split backing paper.
- Align decal over specified area and carefully press the small portion with the exposed adhesive in place.
- Slowly peel back remaining paper and carefully smooth remaining portions of decal into place.
- Small air pockets can be pierced with a pin and smoothed out using a piece of decal backing paper.



NOTE:

3/4" Torque Specifications
310 ft. lb. oiled
420 ft. lb. dry

Hutchens Industries
800-654-8824
Model 9700 Cast Spring Suspensions
Model 900 Single Point
hutch-susp.com

BOM ID	Qty	Item No	Description
1	1	1ASAP4183	SUSPENSION, HUTCH CAST 9700, 3 LEAF SPRING
2	1	1ASAP3957	CAST FRONT HANGER, CURB SIDE, 16291-01
3	1	1ASAP3958	CAST FRONT HANGER, ROAD SIDE, 16291-02
4	2	1ASAP3960	HUTCH CAST CENTER EQUALIZER ASSEMBLY, 16197-01
5	1	1ASAP3962	CAST REAR HANGER, CURB SIDE, 16292-01
6	1	1ASAP3963	CAST REAR HANGER, ROAD SIDE, 16292-02
7	2	1ASAP3965	ADJUSTABLE TORQUE ROD, 19-1/4", 16398-04
8	4	1ASAP3967	TOP PLATE, 7029-00
9	4	1ASAP3968	SPRING SEAT, 3/4" HEIGHT
10	4	1ASAP3969	BOTTOM PLATE
11	2	1ASAP3970	RIGID TORQUE ROD, 19-1/4", 715-00
12	4	1ASAP4138	SPACER, 3/4" OD X 18 GAUGE X 3-1/4" OAL
13	6	1ASAP4291	BUSHING, RUBBER, HUTCH SUSPENSION, LSF-3.19
14	16	1AFBP3618	WASHER, 3/4" USS THRU-HARD FLAT
15	4	1AFBP3694	BOLT, 5/8"-18 X 4-1/2", 0001-04
16	4	1AFBP3696	NUT, LOCK, 5/8"-18, 0002-07
17	8	1AFBP3715	U-BOLT, 3/4"-16 X 3" X 10-1/2", HUTCH 16300-08
18	8	1AFBP3716	HEX CAP SCREW, 1"-14 X 5" HUTCH 719-02
19	8	1AFBP3717	NUT, HEX LOCK, 1"-14, FLANGE TOP LOCK, 10562-00
20	16	1AFBP3718	NUT, HEX, 3/4"-16, UN-PLATED

900 Tapered Leaf (shown) and Multi-Leaf - 36 thru 60,000

Bill of Materials

Item	Part No.	Quantity				Description
		Overslung Trunnion		Underslung Trunnion		
		Overslung Axle	Underslung Axle	Overslung Axle	Underslung Axle	
1	See Chart A, Page 8	2	2	2	2	Trunnion Hanger
2	10376-00	4	4	4	4	Hex Bolt 3/4" - 16 UNF x 4 1/2" GR5
3	895-00	2	2	2	2	Washer, 7GA x 4 1/32 ID x 5 3/4 OD
4	See Chart B, Page 8	1	1	1	1	Trunnion Tube
5	See Chart C, Page 8	4	4	4	4	U-Bolt, Trunnion
6	9640-00	2	2	0	0	Top Plate - Cast, Square U-Bolt
7	See Chart D, Below	2	2	2	2	Spring
8	See Chart E, Page 8	4	4	4	4	Spring End Cap
9	841-00	20	4	20	4	Hex Nut, Self Locking 3/4" - 16 UNF
10	9293-00	16	8	16	8	Hex Bolt, 5/8" - 18 UNF x 2" GR5
11	817-00	32	0	32	0	Washer, 1/8" x 13/16 ID x 1 1/2 OD
12	814-00	8	8	8	8	Rubber Pad - Plain
13	10608-00	4	4	4	4	Adjustment Plate
14	See Chart F, Page 8	4	4	4	4	Spring Seat
15	10273-00	16	8	16	8	Washer, 1/8" x 21/32 ID x 1 15/16 OD
16	11513-03	16	8	16	8	Hex Locknut 5/8" - 18 UNF
17	See Chart G, Page 8	8	8	8	8	U-Bolt - Axle
18	12919-01*	2	2	2	2	Galvanized Liner - .040 x 4.75 x 10.00
19	891-00	2	2	2	2	Trunnion Hub - Upper Half
20	890-00	2	2	2	2	Rubber Bushing, Trunnion Hub
	20248-01	2	2	2	2	Free Oscillating Trunnion Bushing*
21	898-00	2	2	—	—	Trunnion Hub - Lower Half
	892-00	—	—	2	2	Trunnion Hub - Lower Half
22	837-00	8	8	8	8	Washer, 1/8" x 1 1/4 ID x 2 1/4 OD
23	836-00	8	8	8	8	Hex Nut, 1 1/8" - 12 UNF x 1 1/2 HI
24	10562-00	0	16	0	16	Flange Nut - Self Locking 1-14 UNS
25	820-00	0	0	2	2	Spring Clamp Plate
26	10488-00	4	4	4	4	Pressure Plate, 5" x 5" Axle Only

Chart D - Spring Identification ** (Item #7)

Unit Weight Capacity (lbs.)	36,000	36,000	36,000	42,000	42,000	44/50,000	50,000	50,000	50,000	60,000
Number of Leaves	Tapered 2*	5	5	6	6	Tapered 3*	7	7	8	9
Spring Part No.	16258-01	10054-00	11151-00	9997-00	9998-00	12258-01	10055-00	9999-00	10000-00	10001-00

* Available upon request, must be specified.

** For a detailed description of axle spacings, mounting heights, etc. obtained when utilizing the above springs, see the Axle Specifications And Mounting Heights Charts on Page 4.

† A galvanized liner is required on the tension surface (bottom side) of the spring when taper leaf (2 and 3 leaf) springs are utilized. Liners are not required on flat plate (5, 6, 7, 8 and 9 leaf) springs.

900 Tapered Leaf (shown) and Multi-Leaf - 36 thru 60,000**Bill of Materials**

Item	Part No.	Quantity				Description
		Overslung Trunnion		Underslung Trunnion		
		Overslung Axle	Underslung Axle	Overslung Axle	Underslung Axle	
1	See Chart A, Page 8	2	2	2	2	Trunnion Hanger
2	10376-00	4	4	4	4	Hex Bolt 3/4" - 16 UNF x 4 1/2" GR5
3	895-00	2	2	2	2	Washer, 7GA x 4 1/32 ID x 5 3/4 OD
4	See Chart B, Page 8	1	1	1	1	Trunnion Tube
5	See Chart C, Page 8	4	4	4	4	U-Bolt, Trunnion
6	9640-00	2	2	0	0	Top Plate - Cast, Square U-Bolt
7	See Chart D, Below	2	2	2	2	Spring
8	See Chart E, Page 8	4	4	4	4	Spring End Cap
9	841-00	20	4	20	4	Hex Nut, Self Locking 3/4" - 16 UNF
10	9293-00	16	8	16	8	Hex Bolt, 5/8" - 18 UNF x 2" GR5
11	817-00	32	0	32	0	Washer, 1/8" x 13/16 ID x 1 1/2 OD
12	814-00	8	8	8	8	Rubber Pad - Plain
13	10608-00	4	4	4	4	Adjustment Plate
14	See Chart F, Page 8	4	4	4	4	Spring Seat
15	10273-00	16	8	16	8	Washer, 1/8" x 21/32 ID x 1 15/16 OD
16	11513-03	16	8	16	8	Hex Locknut 5/8" - 18 UNF
17	See Chart G, Page 8	8	8	8	8	U-Bolt - Axle
18	12919-01*	2	2	2	2	Galvanized Liner - .040 x 4.75 x 10.00
19	891-00	2	2	2	2	Trunnion Hub - Upper Half
20	890-00	2	2	2	2	Rubber Bushing, Trunnion Hub
	20248-01	2	2	2	2	Free Oscillating Trunnion Bushing*
21	898-00	2	2	—	—	Trunnion Hub - Lower Half
	892-00	—	—	2	2	Trunnion Hub - Lower Half
22	837-00	8	8	8	8	Washer, 1/8" x 1 1/4 ID x 2 1/4 OD
23	836-00	8	8	8	8	Hex Nut, 1 1/8" - 12 UNF x 1 1/2 HI
24	10562-00	0	16	0	16	Flange Nut - Self Locking 1-14 UNS
25	820-00	0	0	2	2	Spring Clamp Plate
26	10488-00	4	4	4	4	Pressure Plate, 5" x 5" Axle Only

Chart D - Spring Identification ** (Item #7)

Unit Weight Capacity (lbs.)	36,000	36,000	36,000	42,000	42,000	44/50,000	50,000	50,000	50,000	60,000
Number of Leaves	Tapered 2*	5	5	6	6	Tapered 3*	7	7	8	9
Spring Part No.	16258-01	10054-00	11151-00	9997-00	9998-00	12258-01	10055-00	9999-00	10000-00	10001-00

* Available upon request, must be specified.

** For a detailed description of axle spacings, mounting heights, etc. obtained when utilizing the above springs, see the Axle Specifications And Mounting Heights Charts on Page 4.

‡ A galvanized liner is required on the tension surface (bottom side) of the spring when taper leaf (2 and 3 leaf) springs are utilized. Liners are not required on flat plate (5, 6, 7, 8 and 9 leaf) springs.



7700/9700

4-Spring Suspension Series

Maintenance Procedures



Advancing the Practical Application of Suspension Technology

Springfield, MO ■ (800) 654-8824 ■ (417) 862-5012
Fax (417) 862-2317 ■ www.hutchensindustries.com

Warning

We strongly emphasize that each of the maintenance procedures that we will discuss have a significant safety purpose. Failure to maintain proper torque values on each of the suspension components can result in a failure of suspension components. Further, use of any visibly worn component can result in a failure. Any of these failures can result in loss of vehicle control and personal injury or death. Safety is the number one concern at Hutchens Industries. We urge you to follow the maintenance procedures set out in our video and in these written instructions.

The first maintenance check should be performed after an initial break-in period of about 1,000 miles. A visual inspection of all suspension components and attachment welds should be performed to reveal any obvious problems, such as cracks or unexpected wear.

During this "walk-around" it is essential to also check the torque on all suspension fasteners. In the course of the initial "shake down" period in which the components of the suspension "seat-in," as much as 25% of the original clamp load on the bolted joints can be lost. After the parts of the suspension have worked together for a very short period of time, re-torquing the bolts is necessary to ensure that undue movement - which results in excessive suspension wear - does not occur.

During the first maintenance check, the trailer's axle alignment should be examined and adjusted to comply with the Truck Trailer Manufacturers Association (TTMA) Recommended Practice #71-90. Alignment should also be checked following any maintenance or repair procedure performed on the suspension. Visual inspections and re-torquing are maintenance procedures that are performed every four months throughout the life of the trailer.

Begin each inspection with a review of the Hutchens torque decal (shown below) for the appropriate torque values for each suspension fastener. The oiled torque values in the first column are for new fasteners with lubricated threads. When you are installing new components, we recommend you lubricate the threads and use the torque values in this column. For maintenance checks on fasteners that have been in service, use the higher torque values in the dry thread column. It is important that you check all bolts and nuts to ensure that the recommended torque values are being maintained.

You cannot rely on your visual inspection to detect loose fasteners. **USE A TORQUE WRENCH!**

WARNING

SAFETY ALERT! (1) FOLLOW ALL TORQUE REQUIREMENTS. (2) DO NOT USE ANY COMPONENT WITH VISIBLY WORN OR DAMAGED THREADS. FAILURE TO FOLLOW THESE SAFETY ALERTS CAN LEAD TO LOSS OF VEHICLE CONTROL, PROPERTY DAMAGE, SERIOUS PERSONAL INJURY OR DEATH.

Hutchens Suspension Torque Requirements
9600-9700 Series (Decal Part Number 16086-01 Rev. J)

After an initial break in period, approximately 1000 miles, and at least every 4 months periodically thereafter, ALL bolts and nuts should be checked to insure that recommended torque values are being maintained.

Oil torque values listed are for new fasteners with lubricated threads. It is recommended that new installations be performed with oiled fasteners. For dry threads which have been in service, use the higher torque values which are noted below.

	OILED	DRY
1 1/8-7 (9600/9700 Rocker Bolt)	590 lb-ft	790 lb-ft
1-14 or 1-8 (9700 Radius Rod Bolt)	540 lb-ft	720 lb-ft
7/8-14 (Axle U-Bolts & 9600 Radius Rod Bolt)	350 lb-ft	470 lb-ft
3/4-16 (Axle U-Bolts)	310 lb-ft	420 lb-ft
5/8-18 (Radius Rod Clamp Bolt)	130 lb-ft	170 lb-ft
5/8-18 (Spring Retainer Bolt)	35 lb-ft	50 lb-ft

Hutchens Industries, Inc., P.O. Box 1427, Springfield, Missouri 65801-1427
 Toll Free 1 (800) 654-8824

Hutchens Torque Decal Part No. 16086-01

This decal should be installed on the side of the trailer in a visible location.
Decals can be obtained free of charge by contacting Hutchens Industries, Inc.



Advancing the Practical Application of Suspension Technology

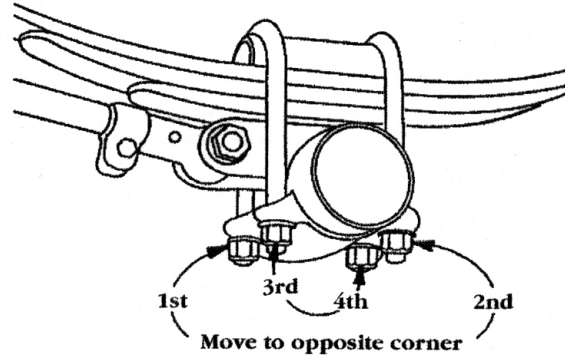
Springfield, MO ■ (800) 654-8824 ■ (417) 862-5012
Fax (417) 862-2317 ■ www.hutchensindustries.com

Now let's look closely at the maintenance requirements for each of the suspension's main component groups.

Axle Clamp Group and Springs

1. Check the torque on the U-bolt nuts by alternately tightening opposing corners of the clamp assembly. See Figure 1.
 - a. When using 7/8" - 14 U-bolts, the nuts should be torqued to a **dry** level of 470 lb-ft.
 - b. When using 3/4" - 16 U-bolts, the nuts should be torqued to a **dry** level of 420 lb-ft.

Fig. 1

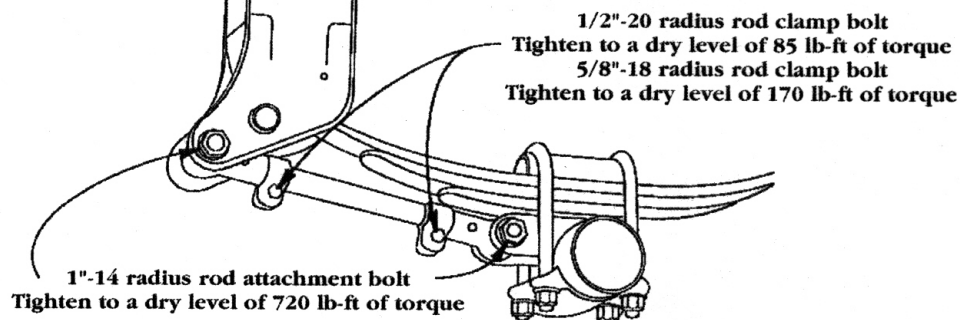


Always carefully inspect the spring and axle clamp components for any signs of wear or cracks, and replace if visible wear or cracks are present.

Radius Rods

- 2a. The 1" - 14 radius rod attachment bolts at the hangers and spring seats should be tightened to a **dry** level of 720 lb-ft of torque on both the adjustable and non-adjustable radius rods. See Figure 2.

Fig. 2



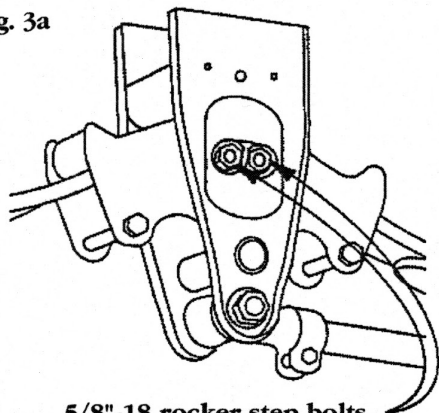
Loose operation of this bolt can result in wear requiring that new components be installed to avoid structural damage. During your visual inspection, if you observe any visible wear or loosening in the bushing, it is imperative that you immediately replace the radius rod bushing and bolt. Failure to replace these components will result in damage to the hanger, spring seat, and/or radius rod.

- 2b. Next check the 1/2" - 20 radius rod clamp bolt, which should be tightened to a **dry** level of 85 lb-ft of torque. The 5/8" - 18 radius rod clamp bolt should be tightened to a **dry** level of 170 lb-ft of torque. See Figure 2. If the clamp bolt has not been properly maintained, then wear between the radius rod screw and the eye end may be observed. If so, then the entire radius rod must be replaced. **Simply retightening or replacing the clamp bolt will not correct the problem.**

Rocker Bushings

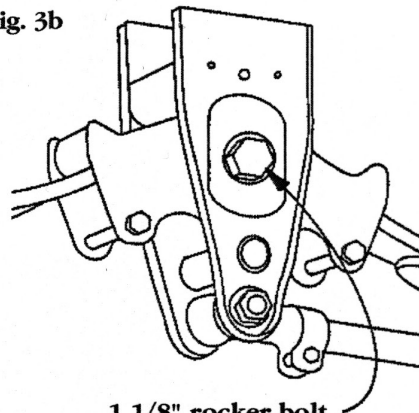
3. The recommended torque values for the rocker bushing clamp bolts are different for each model.
 - a. If you are working on the 7700 model suspension, the 5/8" - 18 rocker step bolts should be tightened to a **dry** level of 170 lb-ft of torque. See Figure 3a.
 - b. If you are working on the 9700 model suspension, the single 1 1/8" - 7 rocker bolt should be tightened to a **dry** level of 790 lb-ft of torque. See Figure 3b.

Fig. 3a



5/8"-18 rocker step bolts
Tighten to a dry level of 170 lb-ft of torque

Fig. 3b



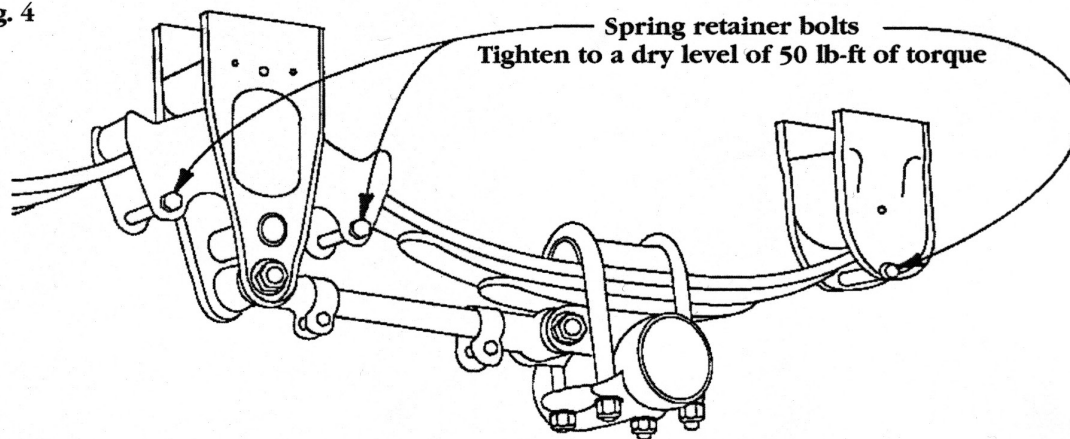
1 1/8" rocker bolt
Tighten to a dry level of 790 lb-ft of torque

During your check, if the bolts are loose a detailed inspection of the rocker is important to ensure that no structural damage has occurred. One way this can be done is by raising the trailer until the trailer weight is taken off the springs. If the rocker is displaced or if the joint is loose, then the rocker should be removed and the rocker and/or rocker bushing be replaced. Again, visually inspect the condition of all rocker/rocker hanger assembly components and replace if visible wear is present.

Hangers

4. Check all of the spring retainer bolts found in the rockers and rear hangers. A **dry** value of 50 lb-ft of torque should be maintained on all of these bolts. See Figure 4.

Fig. 4



Loose fasteners that are allowed to operate for any period of time will result in irreversible suspension damage and possible loss of vehicle control. **Retightening a worn fastener will not correct a situation created by loose operation!**

July 2004-CA

Huckbolt® Removal

(with common shop tools)

The 1 1/8" Huckbolt® C50L® Fasteners used in truck/trailer suspension applications are designed as permanent fasteners. Once installed, they should be removed only by mechanical method. Use of a cutting torch may damage suspension components, and should be avoided. The mechanical removal process is rather simple in concept.

NOTE: The Huckbolt® fastener is clamped at a very high rate. Proper caution should be exercised when removing these bolts, as they may release their clamp suddenly. Wear proper eye protection and keep your face at least 2 feet away from the collar as you work on the removal process.

An installed fastener (as shown in Fig. 1) has a collar that is cold-worked or 'swaged' over the grooved C50L pin.

No amount of twisting or hammering will dislodge the pin from the collar.

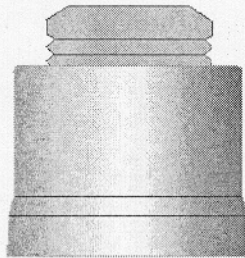


Fig. 2

The collar must be cut longitudinally to the extent of the swaged section. This may best be accomplished with a small wheel grinder, as shown in Fig. 2

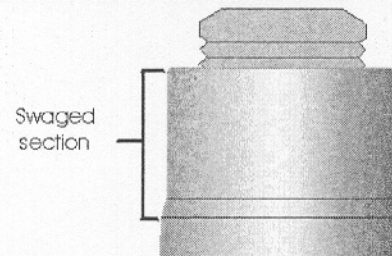


Fig. 1

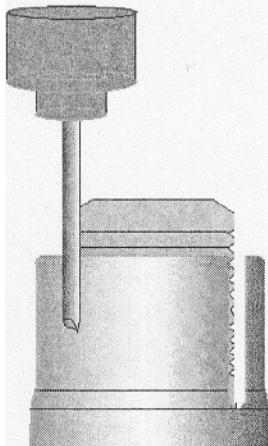


Fig. 3

Also, a drill may be used on opposing sides of the collar as seen in Fig. 3

An alternate method of opening the collar is to chisel the collar walls out to free up the pin as seen in Fig. 4

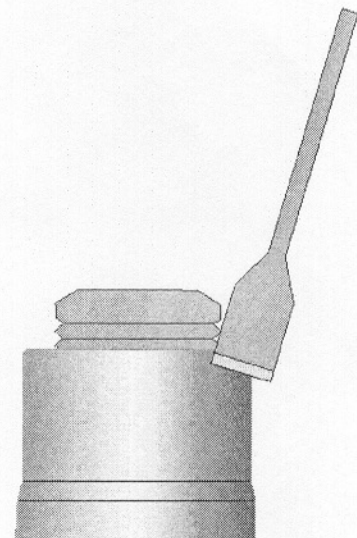


Fig. 4

Once the collar has been opened over the length of the swaged portion on two opposing sides, as shown in Fig. 5, the pin may become freed, or be may require additional force to hammer or punch the pin out of the collar

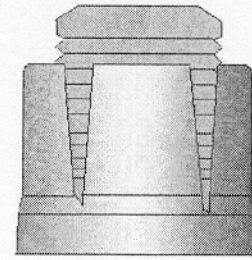


Fig. 5

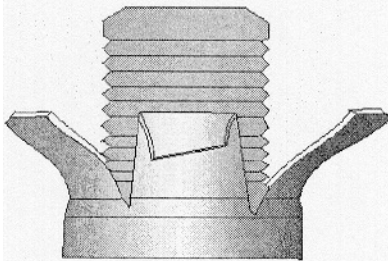
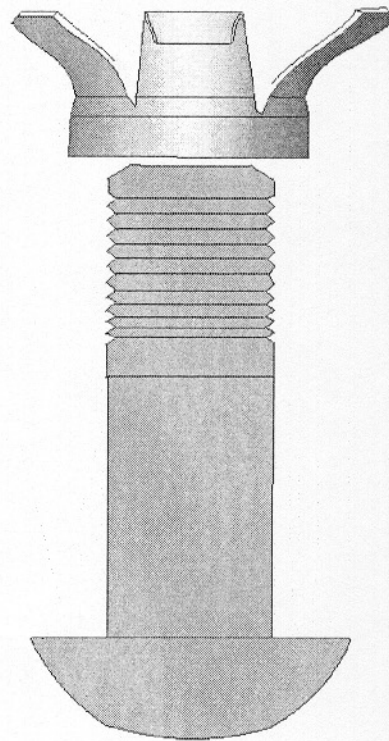
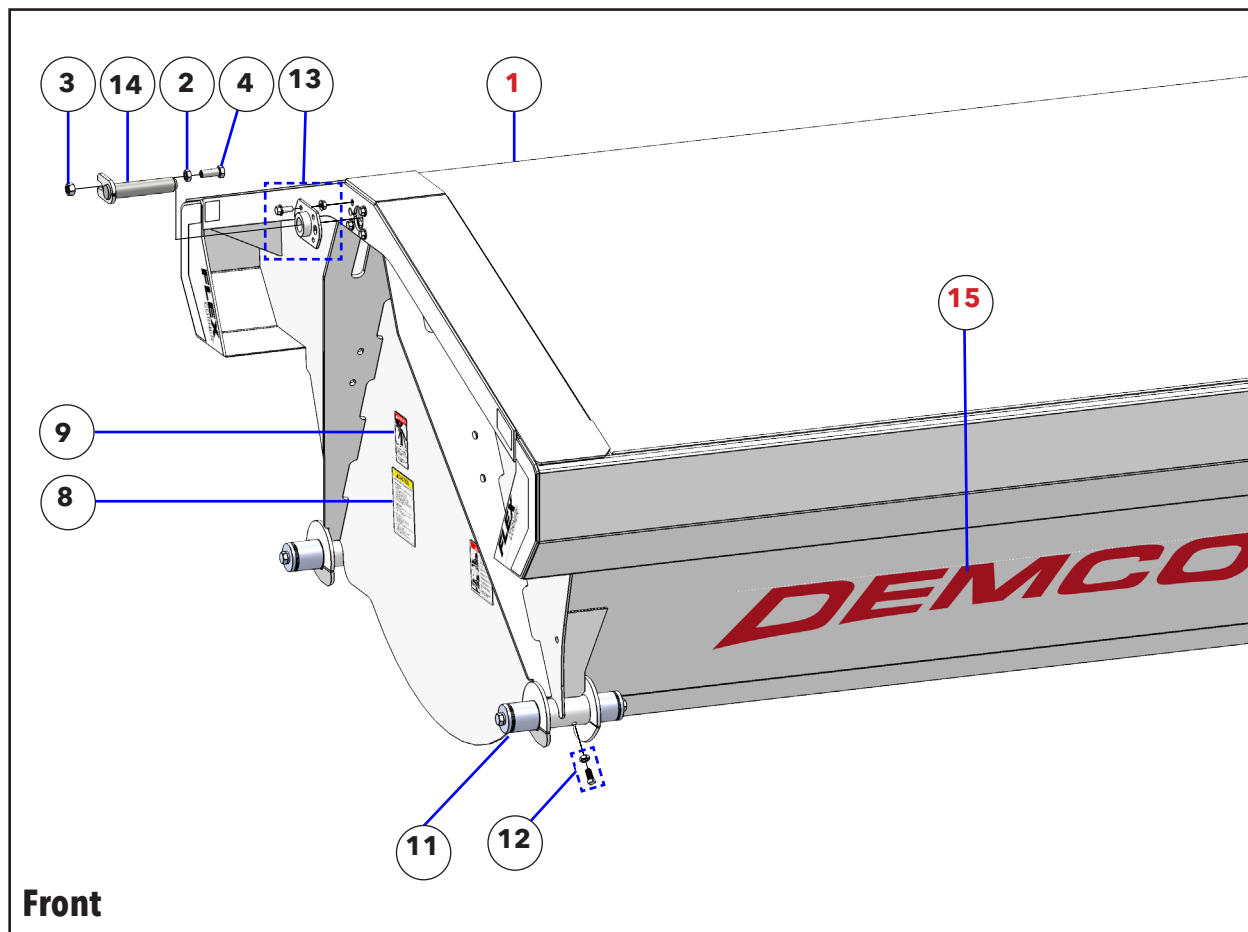


Fig 6.

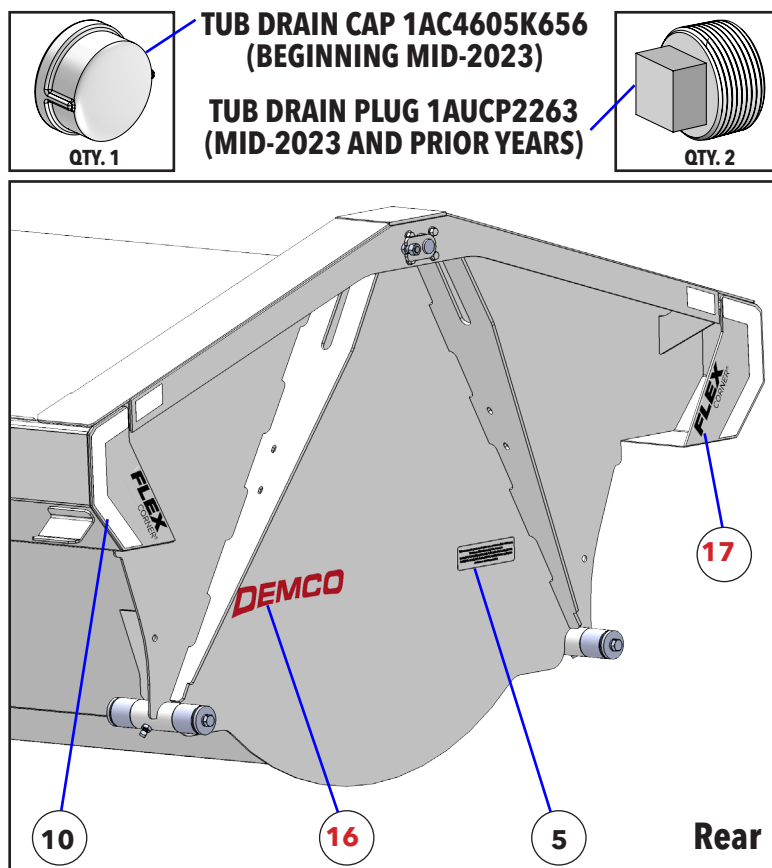
If the pin doesn't come loose, use a chisel, or vice-grip type pliers, to peel the collar sections back as seen in Fig. 6

The pin will come free when sufficient collar material has been pulled away from the swaged section of collar as seen in Fig. 7

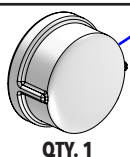




Front



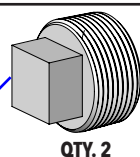
Rear



QTY. 1

**TUB DRAIN CAP 1AC4605K656
(BEGINNING MID-2023)**

**TUB DRAIN PLUG 1AUCP2263
(MID-2023 AND PRIOR YEARS)**



QTY. 2



1AQAP4361

9



1AQAP3669

7



1AQAP3670

8



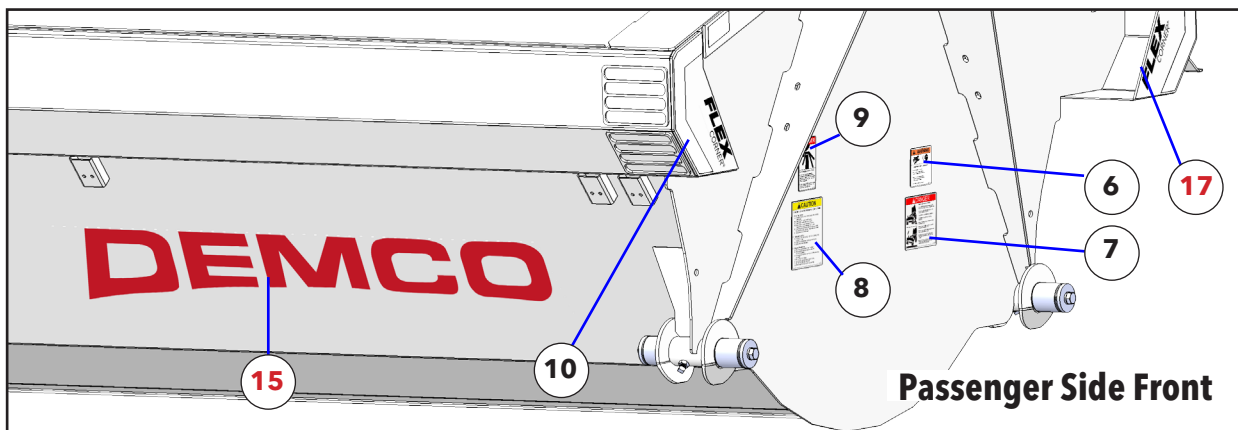
1AQAP2914

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This product is protected under one or more of the following Demco Patents:
5,480,214; 5,845,971; 6,257,670 B1; 6,402,453 B1;
6,425,726; 6,428,264; 6,488,340 B2; 6,520,589 B2; 6,554,364
and other patents pending

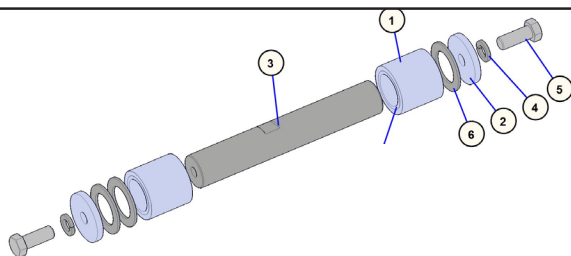
1AQAP2491

5



NOTE: A
RED BOM ID#
indicates an
option.

BOM ID	Qty	Item No	Description
1	1	5C000283	MY24 34' TUB, 1/4" AR450
1	1	5C000203	MY24 34' TUB, 3/16" AR450
1	1	5C000288	MY24 30' TUB, 1/4" AR450
1	1	5C000314	My24 30" TUB, 3/16" AR450
2	2	1AFBP3107	NUT, HEX JAM, 3/4"-10, GR 2, PLTD
3	2	1AFC05L0005	NUT, HEX LOCK, 3/4"-10, GR 2, PLTD
4	2	1AFC12LBAH8	HEX BOLT, 3/4-10 x 2-1/2, GR 8, YELLOW ZINC
5	1	1AQAP2491	DECAL, PATENT PROTECTION, 8-1/2"W X 2-1/2"L
6	1	1AQAP2914	DECAL, WARNING (HIGH-PRESSURE FLUID) 4"W X 4"L
7	1	1AQAP3669	DECAL, DANGER (LOAD DUMPING SAFETY) 8"W X 5-1/2"L
8	1	1AQAP3670	DECAL, CAUTION (SIDE DUMP CHECKLIST & INST) 6"W X 7"L
9	1	1AQAP4361	DECAL, DANGER (FRAME AREA MAINT) 3"W X 6-1/4"L
10	4	1AQAT000000	WHITE CONSPICUITY TAPE, 2" WIDE
11	4	4CFK2005	PIVOT PIN & BUSHING KIT (See sub-assembly parts list below)
12	4	4CAAM7991	ASSEMBLY, SET SCREW & JAM NUT, 5/8"-11 X 1-1/4", PLTD
12A	4	1AFBP3080	NUT, HEX JAM, 5/8"-11, GR 2, PLTD
12B	4	1AFBP3673	SET SCREW, SQ HEAD, 5/8"-11 X 1-1/4", PLTD
13	2	5C000015	ADJUSTABLE TOP CYLINDER MOUNT ASSEMBLY
13A	4	1AFC08H0000	NUT, HEX SERRATED FLANGE, 1/2"-13, PLTD
13B	4	1AFC37HAAD5	HEX CAP SCREW, 1/2"-13 X 1-1/4", SERRATED FLANGE HD, PLTD
14	2	5CAM9057	PIN, CYLINDER, 1-1/2" X 7-1/8", ANTI-ROTATION, PLTD
15	2	DE21026	DECAL, DEMCO LOGO, X-LARGE RED
15	2	DE21027	DECAL, DEMCO LOGO, X-LARGE WHITE
16	1	DE21004	DECAL, DEMCO LOGO, SMALL WHITE
16	1	DE21005	DECAL, DEMCO LOGO, SMALL RED
17	4	DE21024	DECAL, FLEX CORNER, BLACK
17	4	DE21025	DECAL, FLEX CORNER, WHITE,

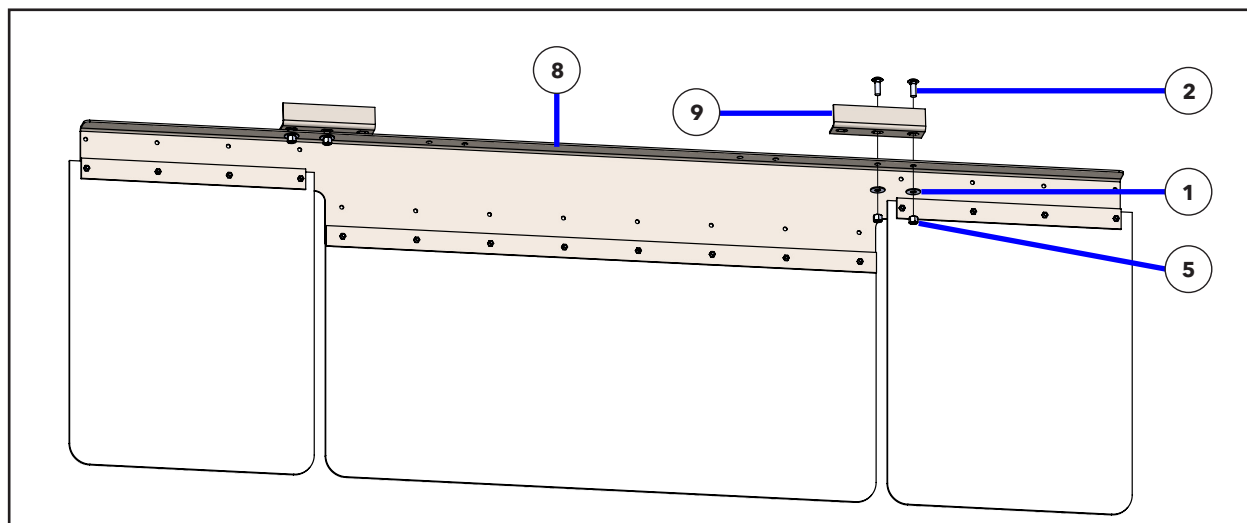
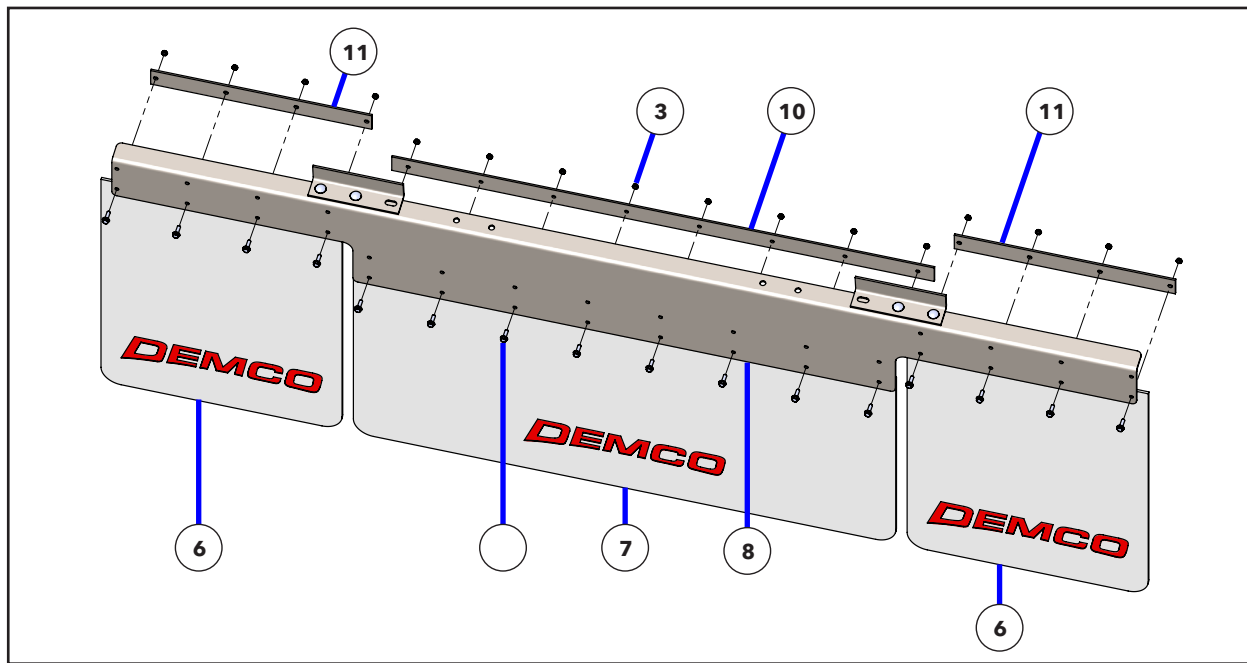


4CFK2005 PIVOT PIN & BUSHING KIT

BOM ID	Qty	Item No	Description
1	2	4CAAM7990	ASSEMBLY, TUB PIVOT BEARING
2	2	3CAM9026	WASHER, PIVOT PIN
3	1	1AUAM9136	PIVOT PIN, 2" X 12-1/8" OAL, PLTD
4	2	1AF015L0000	WASHER, LOCK, 3/4", PLTD
5	2	1AFBP3139	HEX CAP SCREW, 3/4"-10 X 2", GR 5, PLTD
6	3	1AFBP3599	MACHINERY BUSHING, 3" OD X 2" ID X 10 GA, PLTD

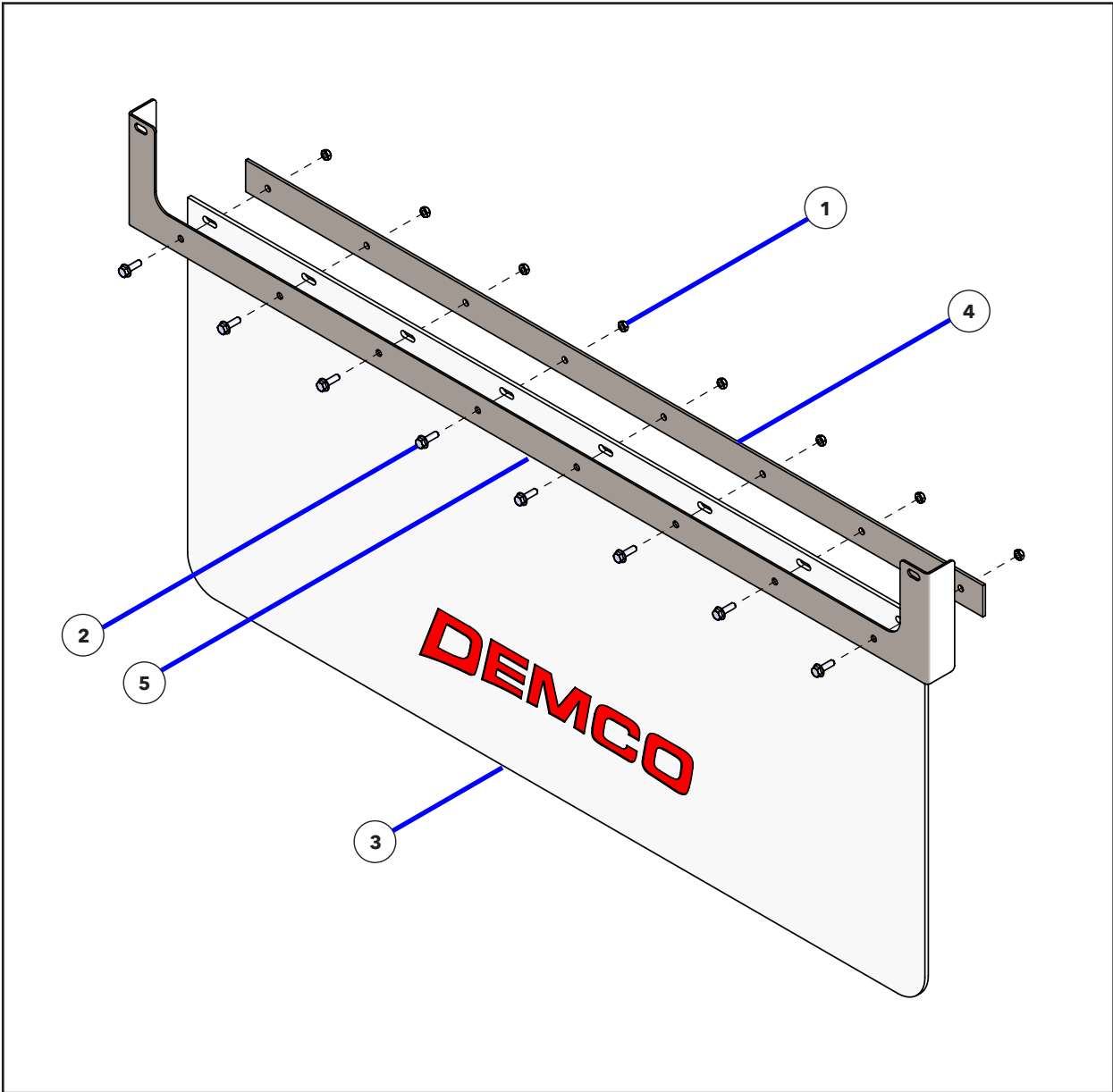
OPTIONAL PARTS SECTION

The following pages contain parts information for accessories that can be added to your Demco Side Dump Trailer.

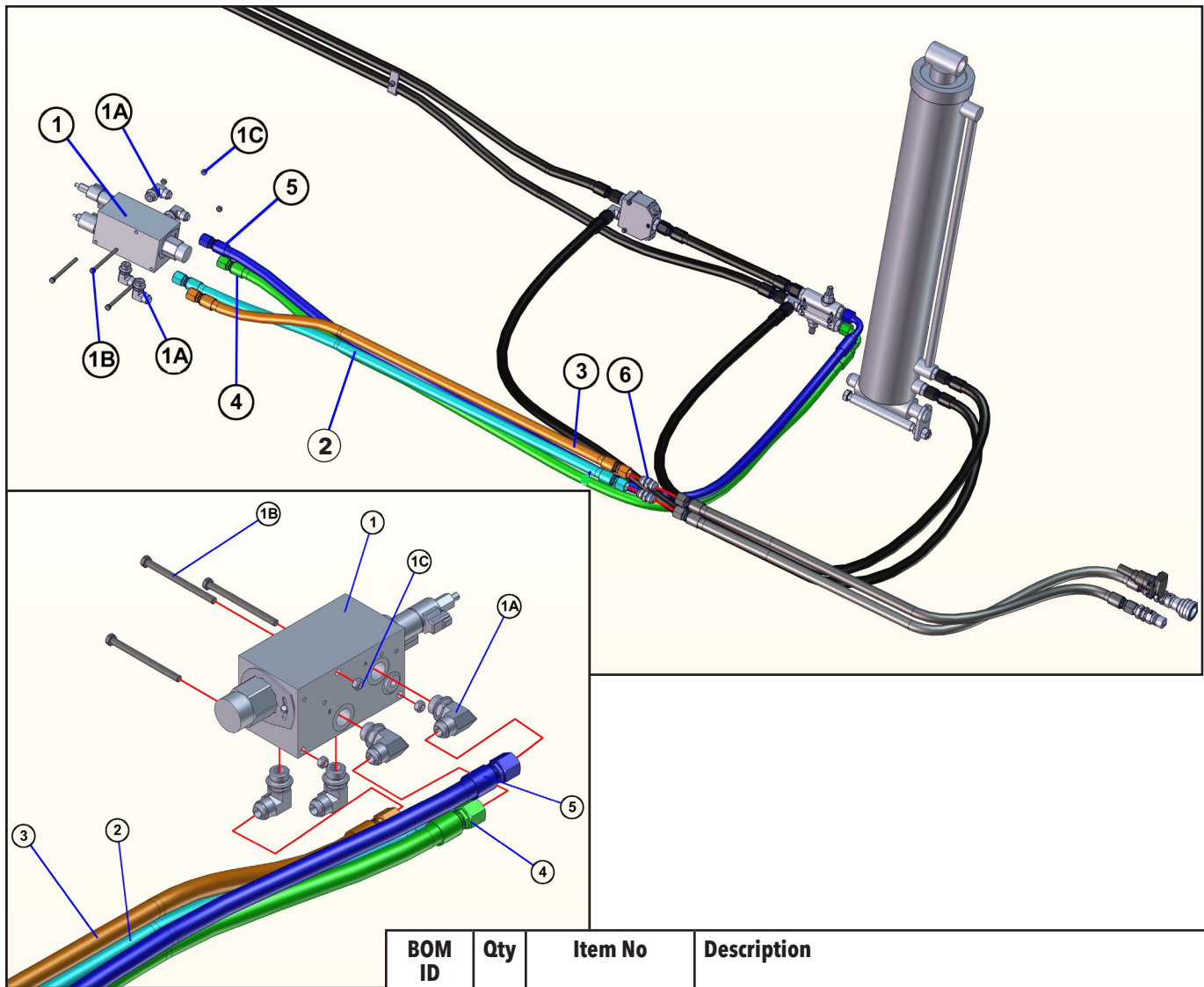


5C000184 (FRONT CENTER MUDFLAP OPTION)

BOM ID	Qty	Item No	Description
1	4	1AF009H0000	WASHER, FLAT, 1/2", PLTD
2	4	1AFBP3232	BOLT, CARRIAGE, 1/2"-13 X 1-1/2", GR 5
3	16	1AFBP3644	NUT, HEX LOCK, 5/16"-18 TOP LOCK, PLTD
4	16	1AFBP3709	BOLT, FLANGE HEAD, 5/16"-18 X 1", GR 8, PLTD
5	4	1AFC18H0000	NUT, HEX LOCK, 1/2"-13, NYLOCK, PLTD
6	2	1AU00000804	MUDFLAP, DEMCO, 24" X 30"
7	1	1AU00000807	CENTER MUDFLAP, 54" X 24.5" W/ LOGO
8	1	3C000178	FRONT CENTER MUDFLAP BRKT
9	2	3C000179	FRONT CENTER MUDFLAP CLAMP
10	1	3C000180	CENTER MUDFLAP BACKING STRAP
11	2	3CAM9035	MUDFLAP BACKING STRAP



5C000186 (REAR CENTER MUDFLAP OPTION)			
BOM ID	Qty	Item No	Description
1	8	1AFBP3644	NUT, HEX LOCK, 5/16"-18 TOP LOCK, PLTD
2	8	1AFBP3709	BOLT, FLANGE HEAD, 5/16"-18 X 1, GR 8, PLTD
3	1	1AU00000807	CENTER MUDFLAP, 54" X 24.5" W/ LOGO
4	1	3C000180	CENTER MUDFLAP BACKING STRAP
5	1	5C000185	REAR CENTER MUDFLAP BRKT WELDMENT



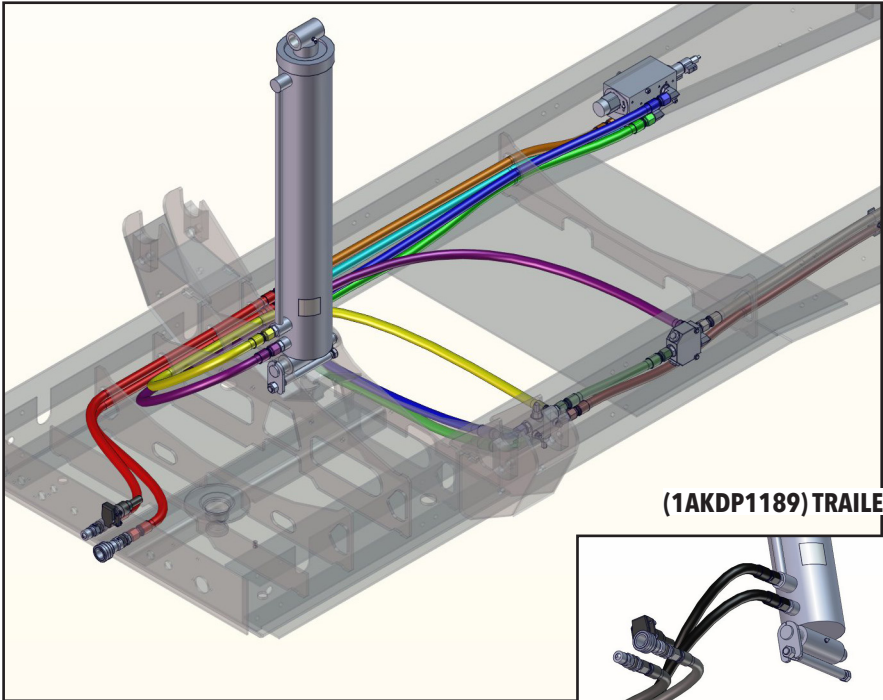
BOM ID	Qty	Item No	Description
1	1	1AAAP4543	VALVE, EOH, TRAILERPRO 302-578
1A	4	1AKDP6538	ADAPTER, 12MJ-12MSAE 90 DEGREE, 6801-12
1B	3	1AFBP3118	HEX CAP SCREW, 3/8"-16 X 5", GR 5, PLTD
1C	3	1AFBP3612	NUT, HEX LOCK, 3/8"-16, TOP LOCK, GR C, PLTD
2	1	1AKDP6546	HOSE, HYDRAULIC, 3/4" X 57", 12FJX-12FJX
3	1	1AKDP6554	HOSE, HYDRAULIC, 3/4" X 53", 12FJX-12FJX
4	1	1AKDP6614	HOSE, HYDRAULIC, 3/4" X 105", 12FJX-12FJX90
5	1	1AKDP6615	HOSE, HYDRAULIC, 3/4" X 108", 12FJX-12FJX90
6	2	1AKDP4388	UNION, 12MJ-12MJ, 2403-12

TO CONVERT YOUR SIDE DUMP TO TRAILER PRO ELECTRIC CONTROLS, CONTACT YOUR DEALER FOR COMPLETE KIT AND PRICING FOR [4CFK2018 \(KIT, TRAILER PRO, EOH VALVE ADD-ON\)](#).

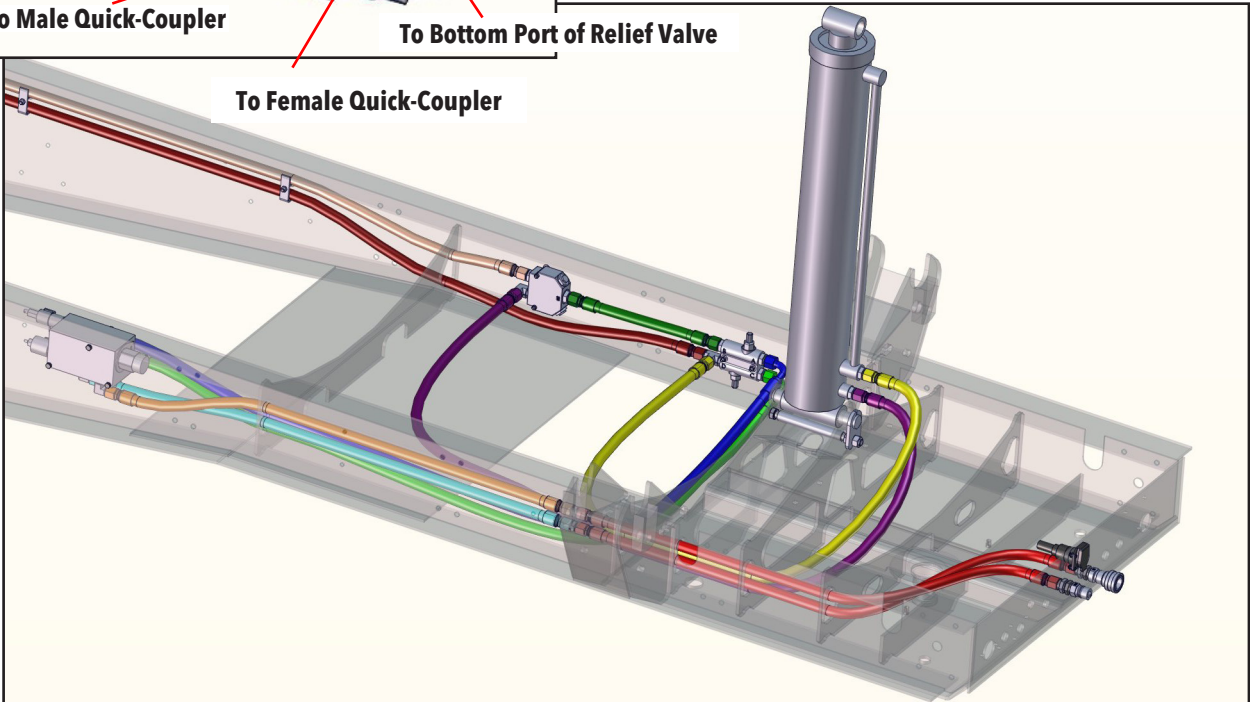
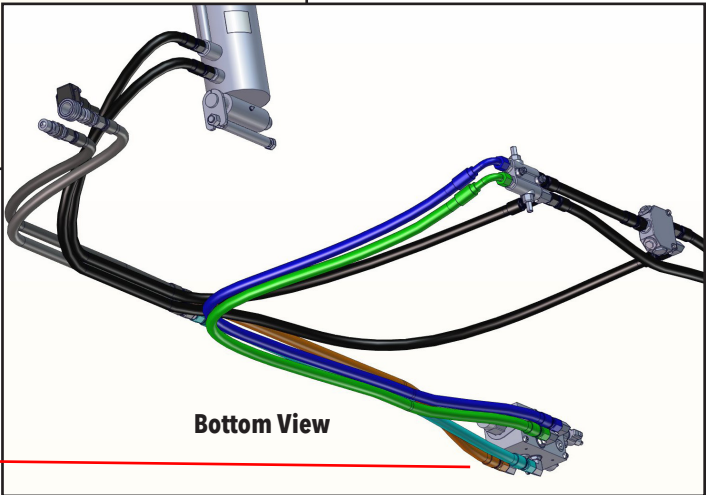
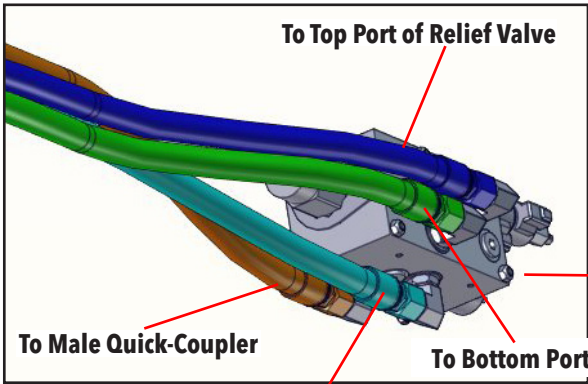
TO ADD A CONTROL BOX TO A SECOND TRACTOR:
CONTACT YOUR DEALER FOR
[4CFK2017 \(KIT, TRAILER PRO CONTROL BOX FOR 2ND TRACTOR, W/ROLL-RITE\)](#)
FOR DEMCO SIDE DUMPS EQUIPPED WITH ROLL-RITE TARPS;

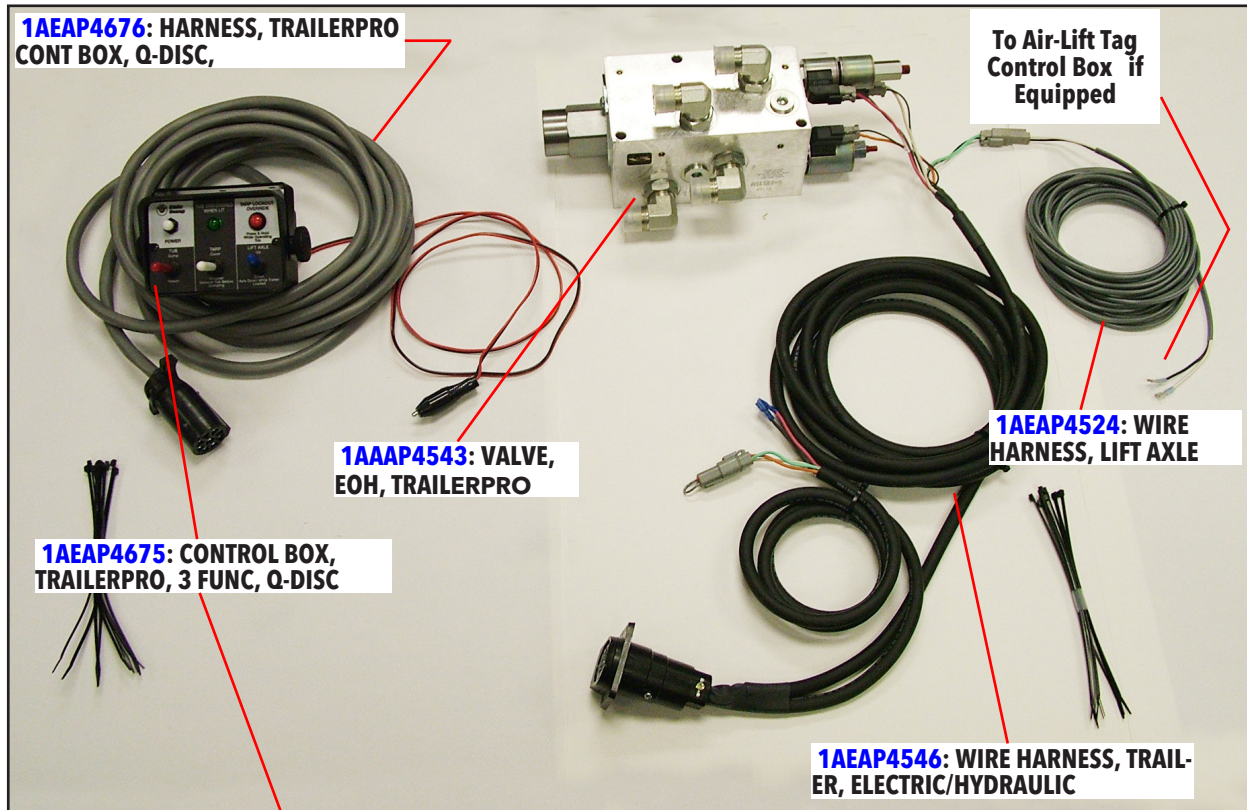
-OR-

CONTACT YOUR DEALER FOR
[4CFK2016 \(KIT, TRAILER PRO CONTROL BOX FOR 2ND TRACTOR, W/AERO\)](#)
FOR DEMCO SIDE DUMPS EQUIPPED WITH AERO TARPS.

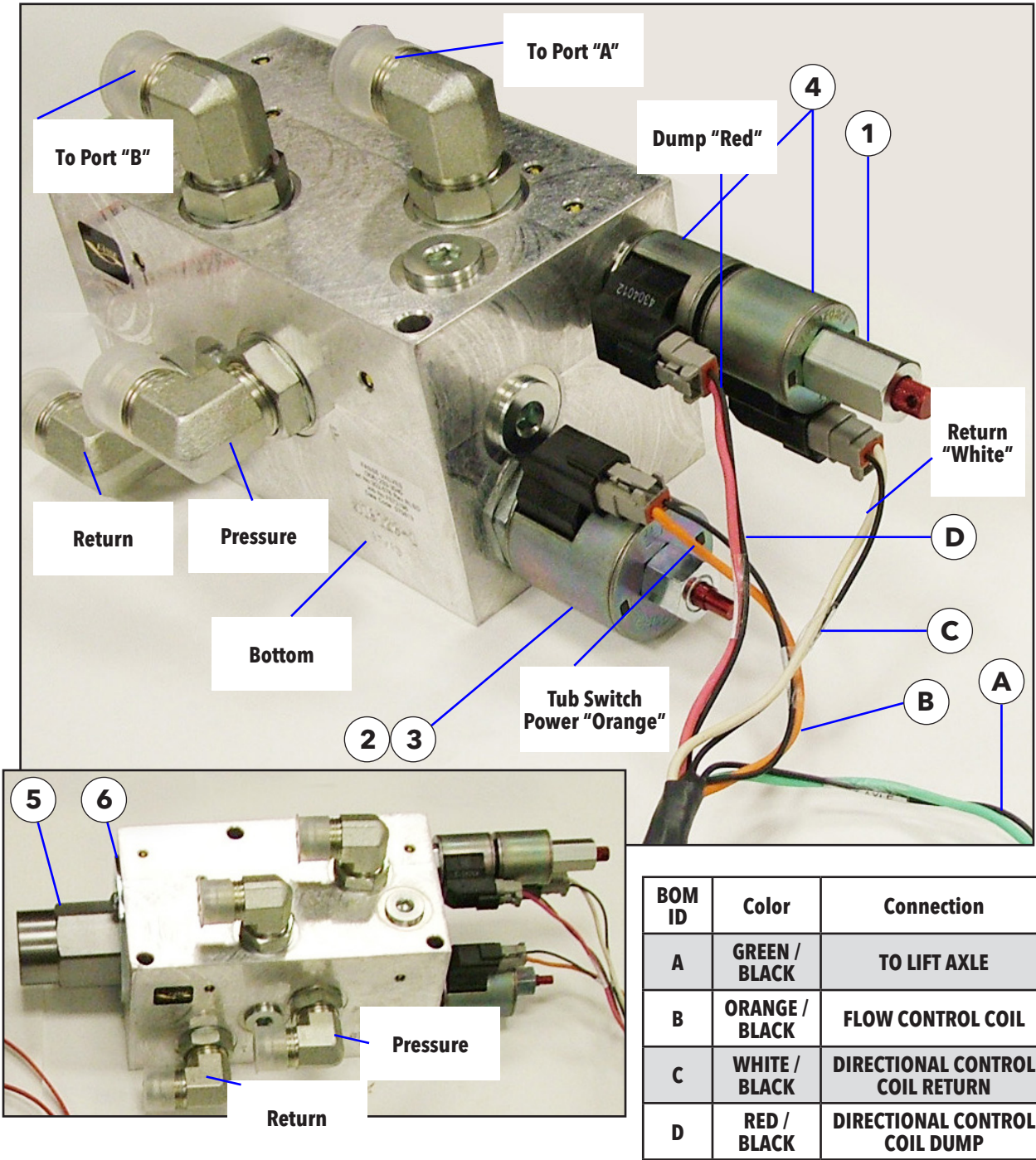


(1AKDP1189) TRAILER PRO HOSE KIT; 4CFK2018





ELECTRIC OVER HYDRAULIC CONTROL OPTION



BOM ID	Qty	Item No	Description
1	1	1AAAP4590	CARTRIDGE, EOH VALVE, DIRECTIONAL, 273-982
2	1	1AAAP4591	CARTRIDGE, EOH VALVE, FLOW CONTROL, 273-339
3	1	1AAAP4605	COIL, EOH VALVE, 1.81" OD, FLOW CONTROL, 10V, 253-800
4	2	1AAAP4606	COIL, EOH VALVE, 1.43" OD, DIRECTIONAL, 10V, 253-071
5	1	1AK00273340	CARTRIDGE, HYD, HPD42-S67C, 273-340
6	1	1AK00273341	LOCK NUT ADAPTER, CARTRIDGE HYD, 273-341

Installing the Control Box in the Tractor

Find a suitable location in the cab of the tractor and mount the control box. The red and black two wire cable attached to the back of the box is the power cable. Plug the cigarette lighter end into a power outlet in the cab.

If you do not have an available outlet for the cigarette lighter end, use the following instructions:

- Cut the cigarette lighter plug off.
- Split apart the wires and connect the red wire to a 12 volt dc power source and the black wire to ground.
- A bag of terminals is included to allow you to tap into most fuse panels.



WARNING: Red wire must be positive and black wire negative. Reversing these wires can damage the control system. Route the gray cord and male 9 pole plug out of the cab and to the front bulkhead of the side dump. Plug the cord into the female 9 pole socket on the side dump bulkhead.

To operate your Demco side dump, your tractor will need a hydraulic pump that can supply a minimum of 25gpm to the trailer at 2,500 psi. See page 36 for more information on the tractor's hydraulic requirements.

Operating the TrailerPro Control Box

If your side dump is equipped with a tarp, you will also need to wire a power cord from the tractor's battery to the side dump to supply power to the tarp's motor. For wiring instructions, see pages 56-58 for an Aero tarp option or pages 64-66 for a Roll-Rite tarp option. For more detailed wiring instructions, refer to the online Parts Manual.

Press the "Power" button to turn the system on. The button will light up to indicate the power is on. Press the button again to turn the system off.

Dumping the Tub

When the green light in the top center is illuminated, the tub can be dumped. (See Tarp Lock Out Option on next page.)

The red switch in the lower left corner operates the tub. To dump the tub, turn on the tractor's hydraulic pump and then lift and hold the red toggle in the "dump" position to raise the tub and empty its contents. Release the switch when the cylinders reach the fully extended position.



WARNING: Do not stop dumping the load in mid dump and then try to return the tub to the transport position. You may tip over the side dump instead of returning the tub. Push and hold the red switch in the "Return" position to bring the tub back to its transport position. Release the switch when the cylinders are fully retracted.

Operating the Tarp (If Equipped)



The white switch in the lower middle operates the tarp. Lift and hold the white switch to unroll the tarp and cover the tub. Push down and hold the switch to roll the tarp and uncover the tub.

WARNING: When rolling the tarp do not continue to hold the switch after the tarp has reached its fully rolled position. Damage to the tarp or the motor can occur when the motor continues to try to roll the tarp after it has reached its fully rolled position.

Operating the Lift Axle (If Equipped)



The blue switch in the lower right corner controls the lift axle option. Lifting the switch to the up position raises the lift axle and pushing the switch down lowers the lift axle. There is a manual control switch for the lift axle in the gray plastic box at the back of the side dump. There is also a regulator in the box that adjusts the amount of weight the lift axle carries. Instructions are printed inside the box.

WARNING: Always lower the lift axle when the side dump is loaded. Damage to the side dump's frame can occur if the side dump is transported loaded with the lift axle in the raised position.

Using the Tarp Lock Out Option

The Tarp Lock Out prevents the tub from being dumped while the tarp is covering the tub. Dumping the contents of the tub while the tarp covers the tub will ruin the tarp and may cause the side dump to tip over.

If your side dump has a tarp and you purchased the tarp lockout option, the green light and the red button in the top row of the control box will be used. The green light will illuminate when the tarp is in the fully rolled up position.

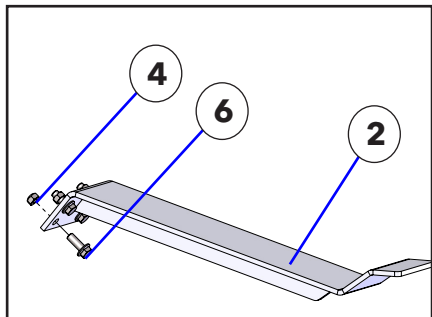
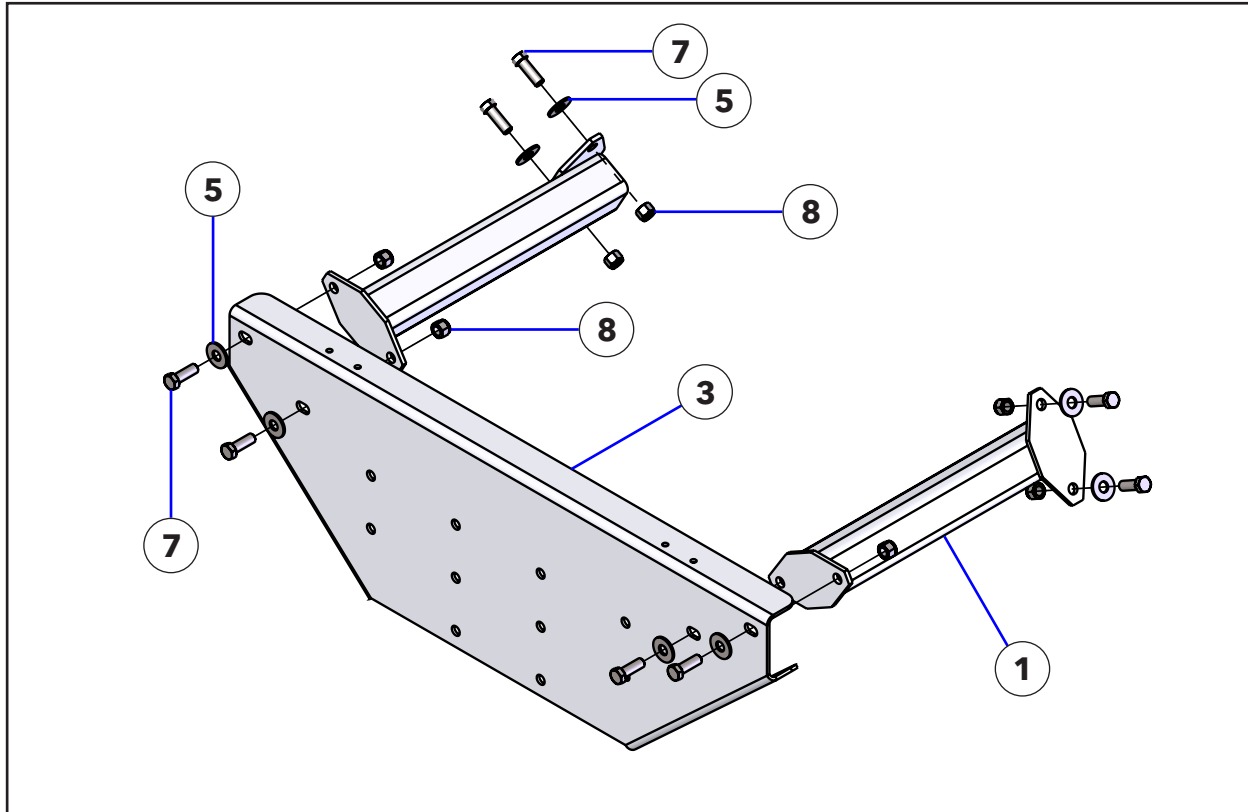
Once the green light is on, the red switch will be able to operate the tub. If the green light is not illuminated the red switch is "locked out" and the tub can't be moved.

The red button will allow you to dump the tub regardless of the position of the tarp. If the sensor for the green light is damaged or fails, or if you want to tip the tub with the tarp unrolled for maintenance, you can push and hold the red button while using the red switch to move the tub.

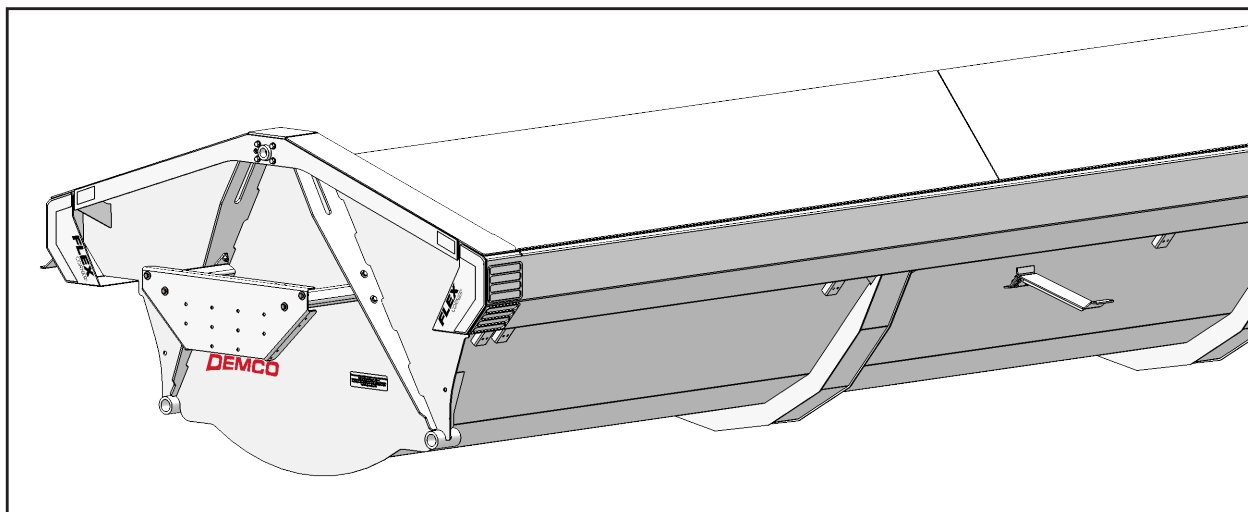
CAUTION: If the Tarp Lock Out option is not installed on your side dump, the green light will be illuminated all the time, regardless of the tarp's position.

The Tarp Lock Out can be added to any side dump with a TrailerPro control box. Contact your Demco Dealer for more information. Specify the brand of tarp you have when placing your order.

The following Demco mounting parts are needed if an Aero Electric Tarp option is added.

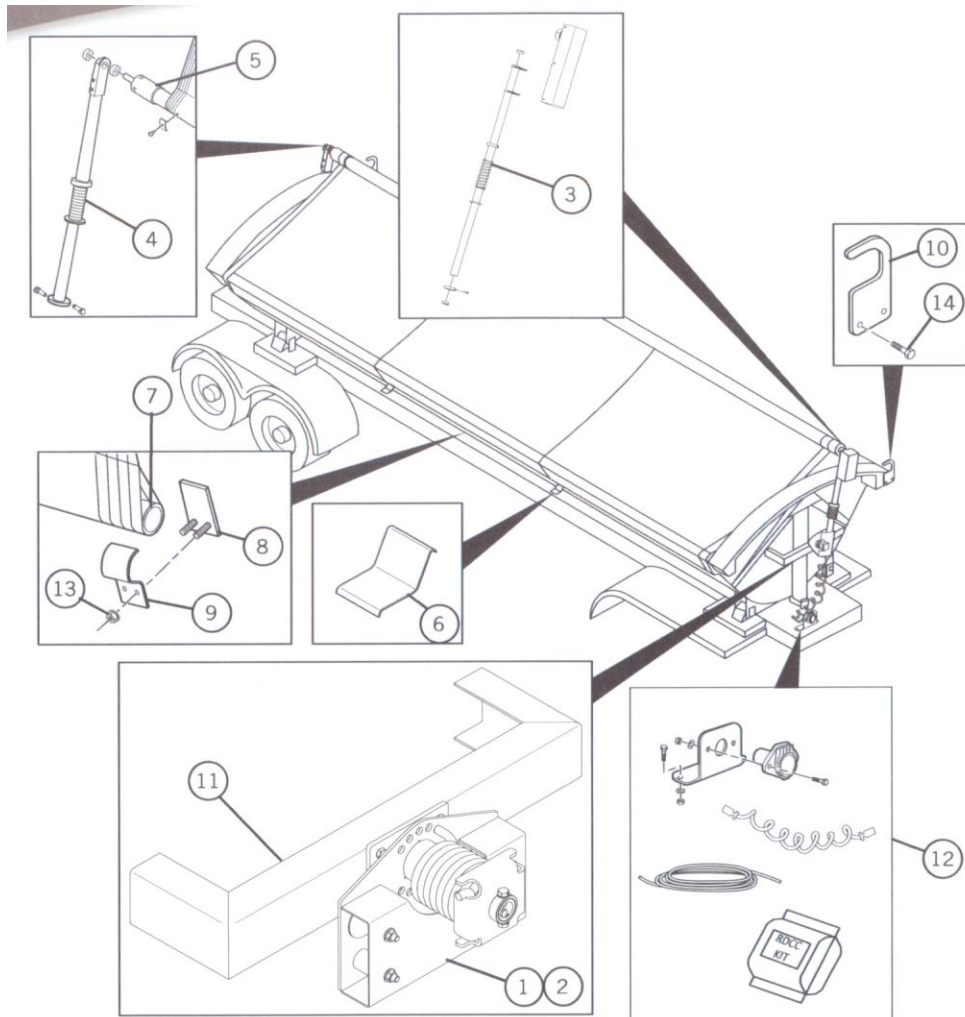


BOM ID	Qty	Item No	Description
1	4	5CAM9038	TARP CHANNEL MOUNT
2	2	5C000008	TARP SUPPORT BRACKET, AERO/ROLL-RITE
3	2	5C000021	AERO TARP MOUNT PLATE ASSY
4	8	1AFBP3612	NUT, HEX LOCK, 3/8-16, TOP LOCK, GR C, PLTD
5	16	1AF009H0000	WASHER, FLAT, 1/2", PLTD
6	8	1AFC12FAA05	HEX BOLT, 3/8-16 X 1", GR 5, PLTD
7	16	1AFC12HAAH8	HEX BOLT, 1/2-13 X 1-1/2", GR 8, PLTD
8	16	1AFC18H0000	NUT, HEX LOCK, 1/2-13, NYLOK, PLTD



ELECTRIC TARP OPTION -- AERO

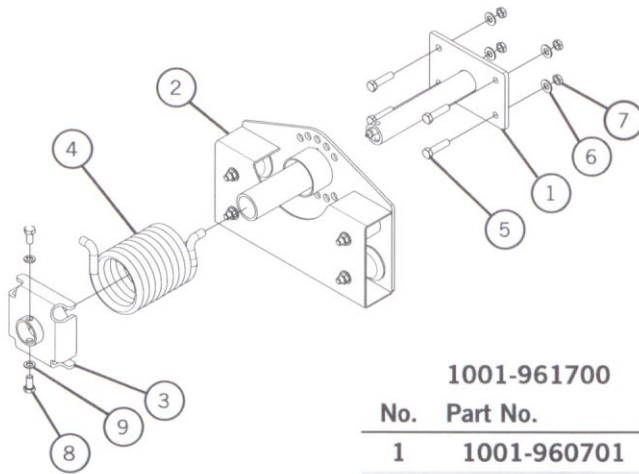
The following pages contain Parts Lists for the Aero Electric Tarp option. For additional questions regarding these parts, contact Aero directly at 1-800-535-9545 or online at www.aeroindustries.com.



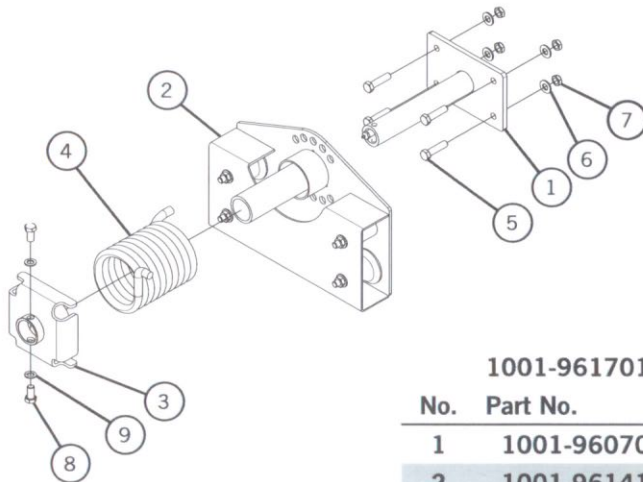
*Roll Tube Assemble
includes the Fixed Tube

No.	Part No.	Description	Qty	Page
1	1001-961700	Spring Mount Assembly Front	1	19-20
2	1001-961701	Spring Mount Assembly Rear	1	19-20
3	1001-961703	Front Swing Arm Assembly	1	21-22
4	1001-961705	Rear Swing Arm Assembly	1	23
5	1001-961702	Roll Tube Assemble	1	
6	1001-860166	Tarp Cradle	2	
7	1440-281223	Fixed Tube	2	
8	1001-961304	Quick Release Clamp Weldment	7	
9	1040-960158	Quick Release Clamp	7	
10	1001-861320	Tarp Stop Hook	2	
11		Swing Arm Mounting Hardware		18
12		Electrical Hardware		24
13	0815-660210	5/16-18 Flange Nut	14	
14	0810-650510	5/16 Self-Tapping Screw	4	

Spring Mount Assemblies

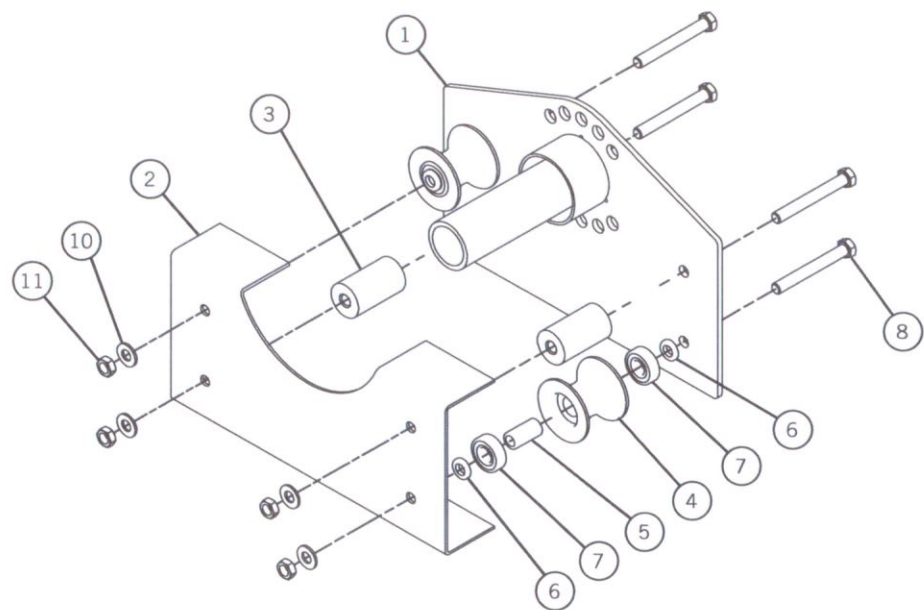


1001-961700 Spring Mount Assembly Front			
No.	Part No.	Description	Qty
1	1001-960701	Spring Mount Post	1
2	1001-961410	Roller Plate Assembly	1
3	1001-960703	Spring Stop Assy	1
4	1001-861408	SK2 Hub Spring LH	1
5	0810-600002	1/2-13 x 2 Hex Bolt	4
6	0820-680810	1/2 Flat Washer	4
7	0815-660127	1/2-13 NYLOCK Hex Jam Nut	4
8	0810-650553	1/2-13 x 3/4 SHCS	2
9	0820-680820	1/2 Lock Washer	2



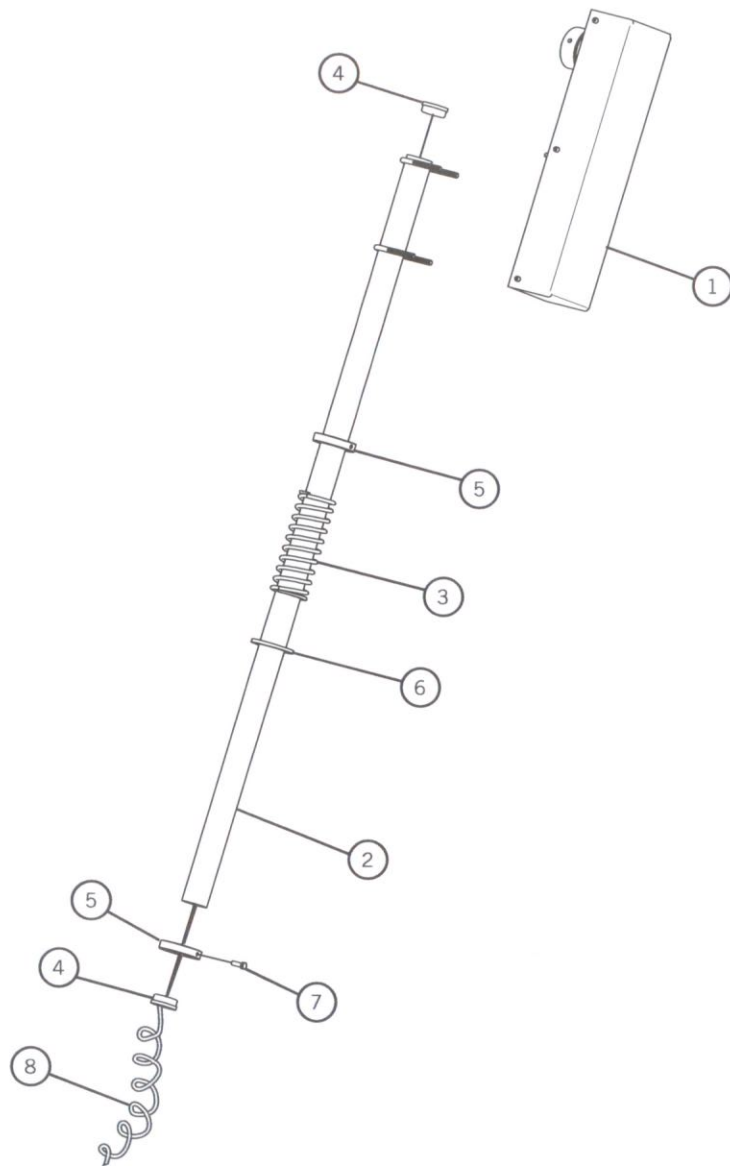
1001-961701 Spring Mount Assembly Rear			
No.	Part No.	Description	Qty
1	1001-960701	Spring Mount Post	1
2	1001-961410	Roller Plate Assembly	1
3	1001-960703	Spring Stop Assy	1
4	1001-861400	SK2 Hub Spring RH	1
5	0810-600002	1/2-13 x 2 Hex Bolt	4
6	0820-680810	1/2 Flat Washer	4
7	0815-660127	1/2-13 NYLOCK Hex Jam Nut	4
8	0810-650553	1/2-13 x 3/4 SHCS	2
9	0820-680820	1/2 Lock Washer	2

Roller Plate Assembly



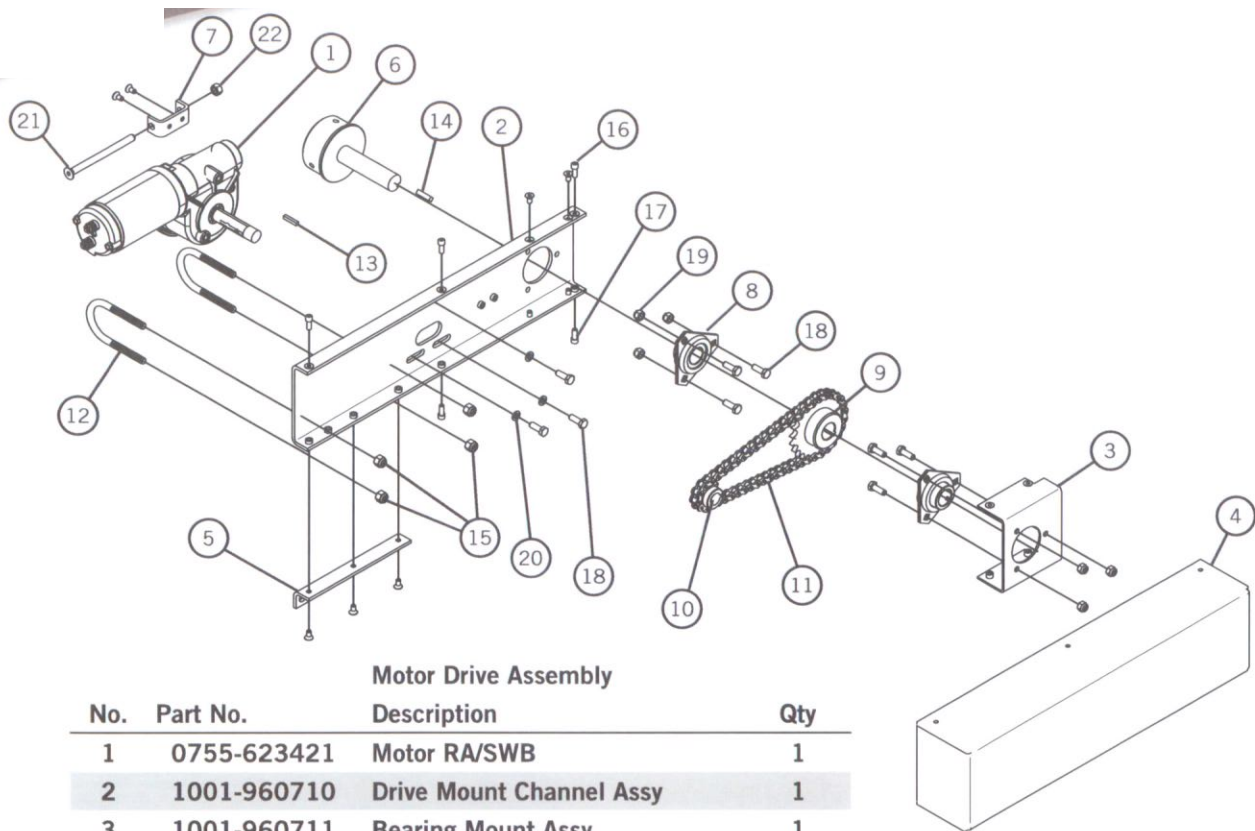
1001-961410 Roller Plate Assembly			
No.	Part No.	Description	Qty
1	1001-960702	Swivel Collar Assembly	1
2	1001-861411	Roller Plate	1
3	1001-861412	Roller Block	2
4	1001-861325	Roller Radius	2
5	1001-861304	Roller Spacer "V"	2
6	1001-861307	Steel Washer	4
7	0710-602144	Bearing .5" ID x 1.575" OD	4
8	0810-650839	1/2-13 x 4 Hex Bolt	4
9	0815-660127	1/2-13 NYLOCK Hex Nut	4
10	0820-680810	1/2 Flat Washer	4

Front Swing Arm



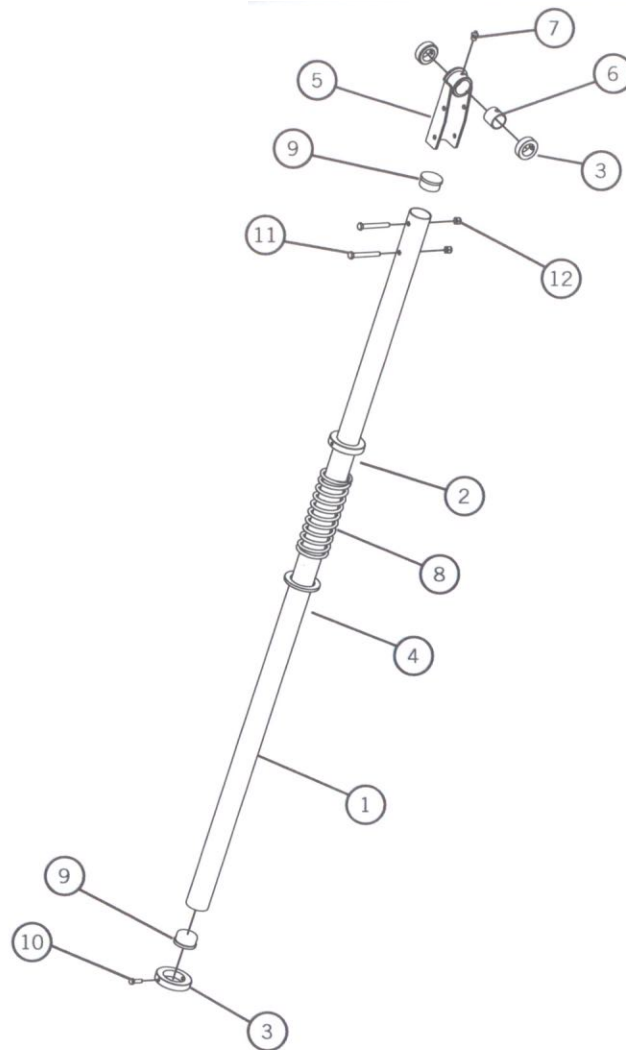
1001-961703		Front Swing Arm	
No.	Part No.	Description	Qty
1		Motor Drive Unit Assembly (See Page 22)	
2	1440-281635	Steel Tube 2" Rd x 5' Lg	1
3	0715-619405	Compression Spring Jumbo	1
4	1001-861309	Swing Arm Tube Plug	2
5	1001-861316	Collar Lock Swing Arm	2
6	0820-680401	Washer 1/4 x 2 1/4 x 3 1/4	1
7	0810-650170	5/16-18 x 1 Hex Bolt W/Patch	2
8	0755-626433	Flex Cord Motor to Plug	1

Motor Drive Assembly



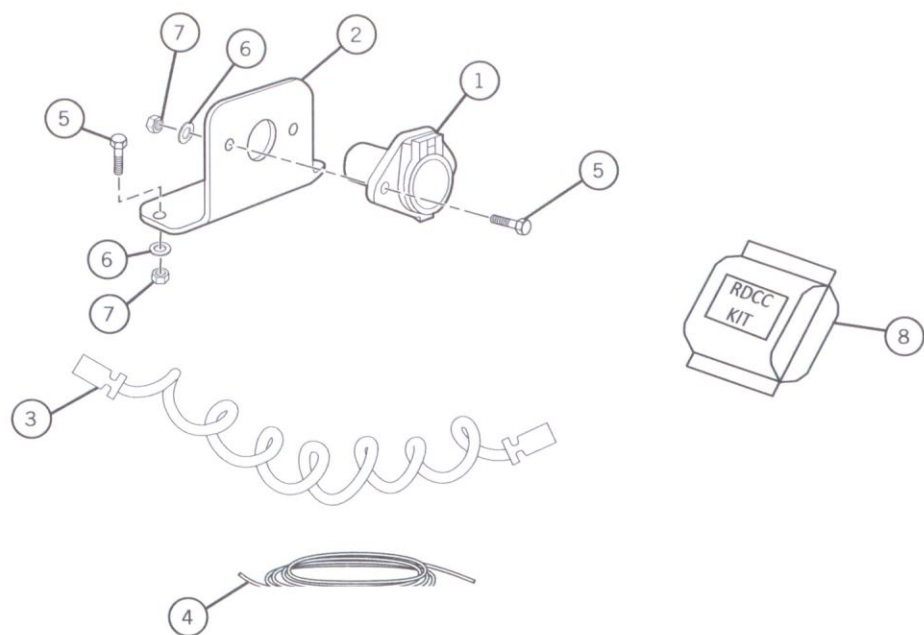
Motor Drive Assembly				
No.	Part No.	Description	Qty	
1	0755-623421	Motor RA/SWB	1	
2	1001-960710	Drive Mount Channel Assy	1	
3	1001-960711	Bearing Mount Assy	1	
4	1001-861722	Drive Unit Cover	1	
5	1001-861716	Swing Arm Extension Bracket	1	
6	1001-861717	Roll Pipe Adapter	1	
7	1001-860704	Chain Tension Bracket	1	
8	1001-861714	Bearing Set 1" Bore	2	
9	1001-861719	Sprocket 40B24 1" Bore	1	
10	1001-861720	Sprocket 40B10 3/4" Bore	1	
11	1001-861721	#40 Roller Chain	1	
12	1001-861718	U-Bolt 2" Swing Arm Mount	2	
13	1001-861723	Key 1/4" x 1"	1	
14	1001-861724	Key 3/16" x 1"	1	
15	0815-660660	3/8-16 NYLOCK Hex Nut	4	
16	0810-650497	1/4-20 x 1/2 FHCS	9	
17	0825-617251	1/4-20 x 5/8 SHCS	6	
18	0810-650552	5/16-18 x 7/8" Hex Bolt	9	
19	0815-660550	5/16-18 NYLOCK Hex Nut	6	
20	0820-680520	5/16 Lock Washer	3	
21	0810-650496	3/8-16 x 5 FHCS	1	
22	0815-661640	3/8-16 Hex Nut	1	

Rear Swing Arm



1001-961705 Rear Swing Arm			
No.	Part No.	Description	Qty
1	1440-281636	Steel Tube 2" Rd x 6' Lg	1
2	1001-861316	Collar Lock Swing Arm	2
3	0785-690335	Collar Shaft 1 1/4" ID	2
4	0820-680401	Washer 1/4 x 2 1/4 x 3 1/4	1
5	1001-962122	Motor Mount Bracket Assy	1
6	0845-691233	Bronze Bushing	1
7	0825-670394	Zerk 1/4-28 Straight	1
8	0715-619405	Compression Spring Jumbo	1
9	1001-861308	Swing Arm Tube Plug-Top	2
10	0810-650170	5/16-18 x 1 Hex Bolt W/Patch	2
11	0810-670657	3/8-16 x 3 Hex Bolt	2
12	0815-660660	3/8-16 NYLOCK Hex Nut	2

Electrical Hardware



Electrical Hardware			
No.	Part No.	Description	Qty
1	1041-860143	Female Electrical Socket	2
2	1001-860165	Socket Mounting Bracket	2
3	0755-626434	Flex Cord with Plugs	1
4	0755-626540	#6 Wire (20')	1
5	0810-650552	5/16-18 x 7/8 Hex Bolt	4
6	0820-680510	5/16 Flat Washer	4
7	0815-660461	5/16-18 NYLOCK Hex Nut	4
8	0755-962108	RDCC Kit	1

Wiring the Tractor Instructions

There are two items to wire on the tractor before you can operate your Demco side dump. The control box and the tarp power wire.

To install the control box, find a suitable location in the cab of the tractor and mount the control box. The red and black two wire cable attached to the back of the box is the power wire. Plug the cigarette lighter end into a power connection in the cab.

If you do not have an available outlet for the cigarette lighter end, use the following instructions:

- Cut the cigarette lighter plug off.
- Split apart the wires and connect the red wire to a 12v dc power source and the black to ground.

 **Red wire must be positive and Black negative. Reversing these wires can damage the control system.**

- A bag of terminals is included to allow you to tap into most truck fuse panels.

Route the gray cord and male 9 pole plug out of the cab and to the front bulkhead of the side dump. Plug the cord into the female 9 pole socket on the trailer bulkhead. You will now be able to raise and lower the rear axle and dump the tub.

NOTE: Air must be supplied to the side dump for the lift axle to operate properly. Hydraulic oil must be supplied to the side dump to dump the tub.

To use the tarp you will need to supply 12 volt power to the side dump to operate the tarp motor. Due to the large power draw of the tarp motor, the electrical supply must be hooked directly to the battery and the heavy #6 wire included with the kit must be used.

Refer to the Aero wiring diagram for reference. The relay has been already mounted on the side dump and the momentary switch that rolls/unrolls the tarp is in the control box installed previously. All that needs to be done is to run a wire from the battery to the female two pole socket on the road side front corner of the side dump.

Find a suitable location on the tractor to mount the included female two pole socket. A mounting bracket and hardware is also supplied.

Locate the circuit breaker as close to the positive battery post as possible. If the circuit breaker is not mounted to the battery box or truck frame, make sure that the terminals cannot touch anything that would create a short circuit.

Separate enough of the red wire on the #6 red/black cord to reach from the positive battery terminal to the circuit breaker. Cut off the red wire. Strip the red wire and crimp on ring terminals to match the battery cable bolt and the post on the circuit breaker.



Do Not hook the red wire to the battery until everything else is wired.

Crimp a ring terminal on the red wire on the remaining red/black cord and attach it to the circuit breaker.

Crimp a ring terminal on the black wire and attach it to the negative battery post.

Route the red/black cord to the female socket. Cut the cord and crimp ring terminals on the end of the wires.

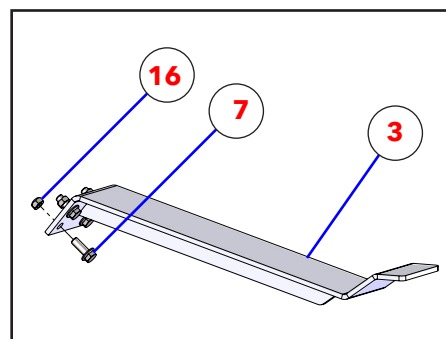
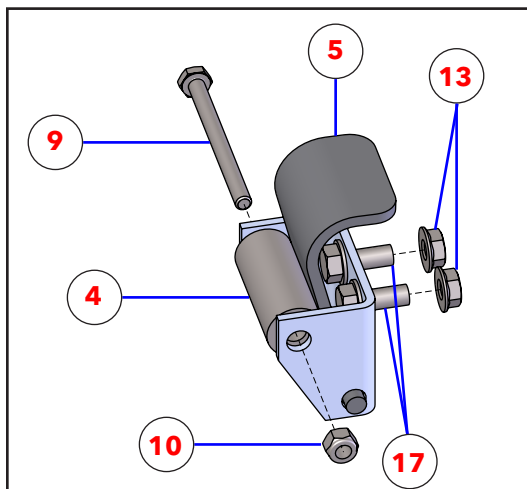
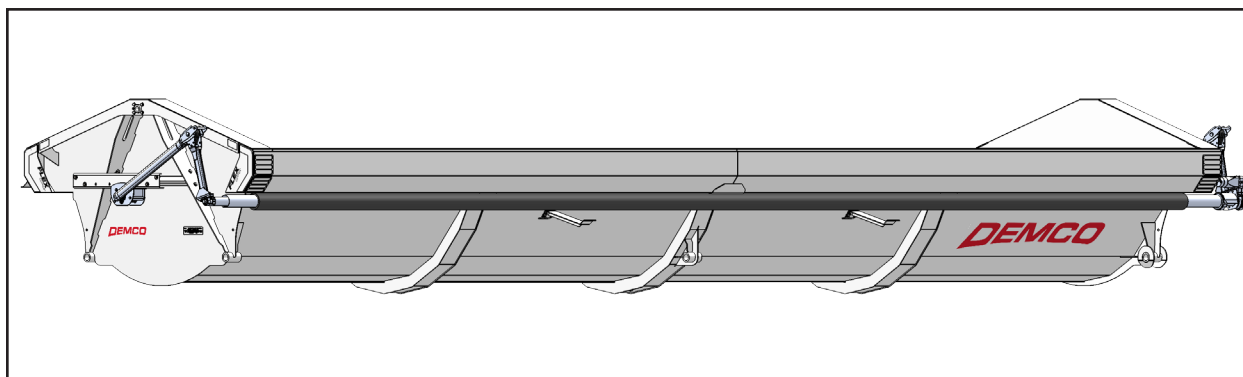
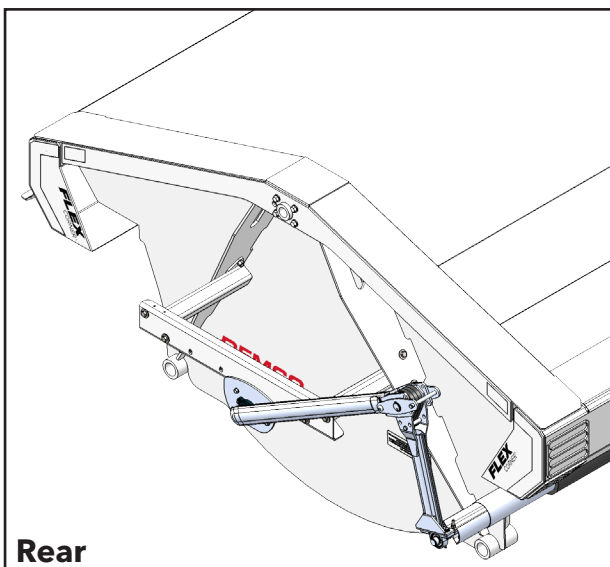
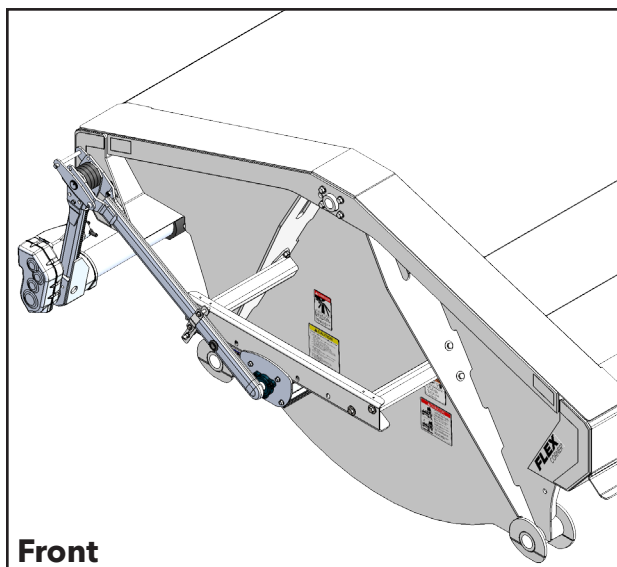
Slip the cover for the back of the socket over the cord and bolt the ring terminals to the socket. Match the positive and negative wires to the corresponding terminals marked on the socket.

Slip the cover over the back of the socket. Secure the red/black cord to the truck frame.

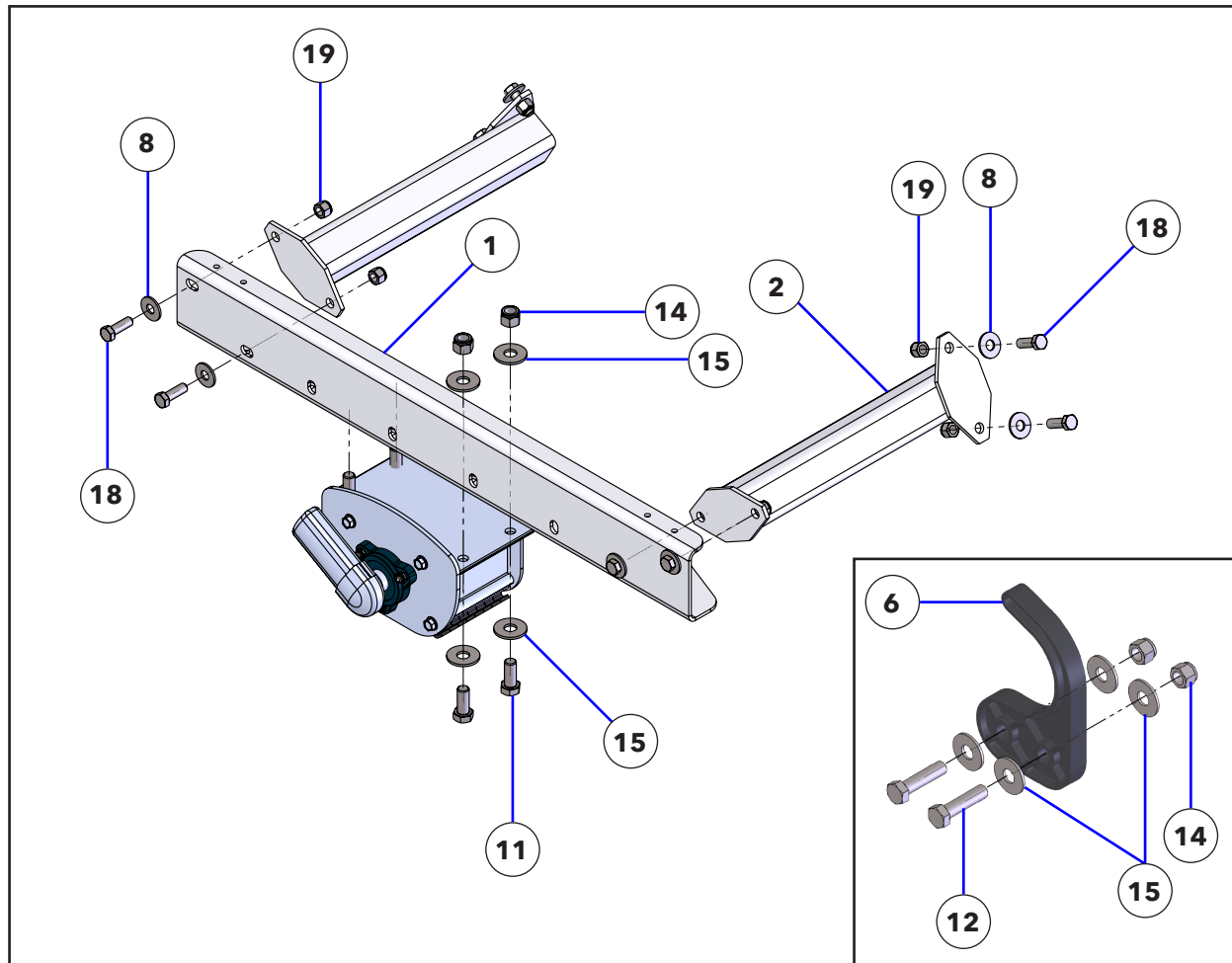
Hook the red wire to the battery. A double male stretch cord is included to connect the tractor to the side dump.

The tarp will now operate from the control box. It is best to have the tractor running while operating the tarp.

Mounting Parts

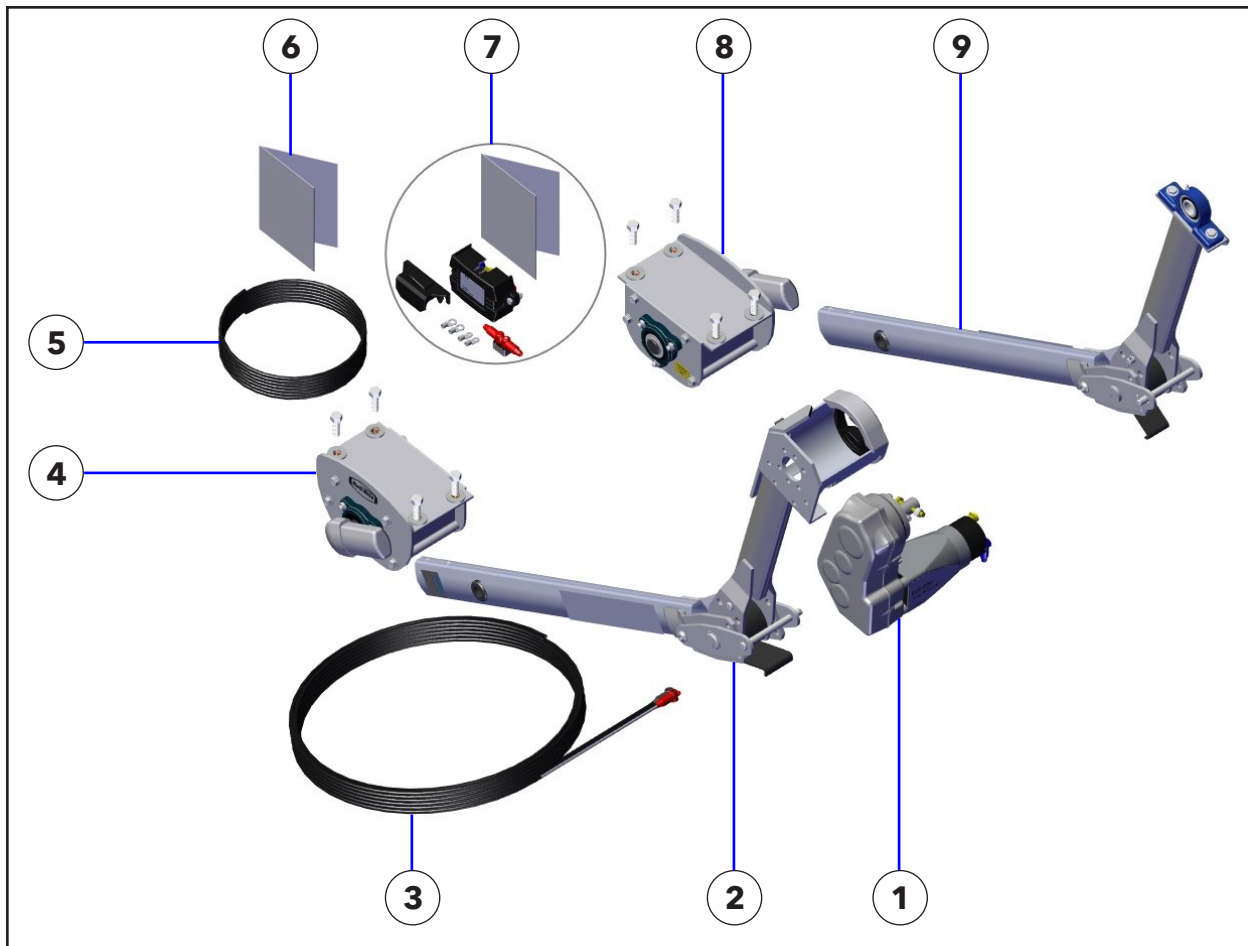


Mounting Parts

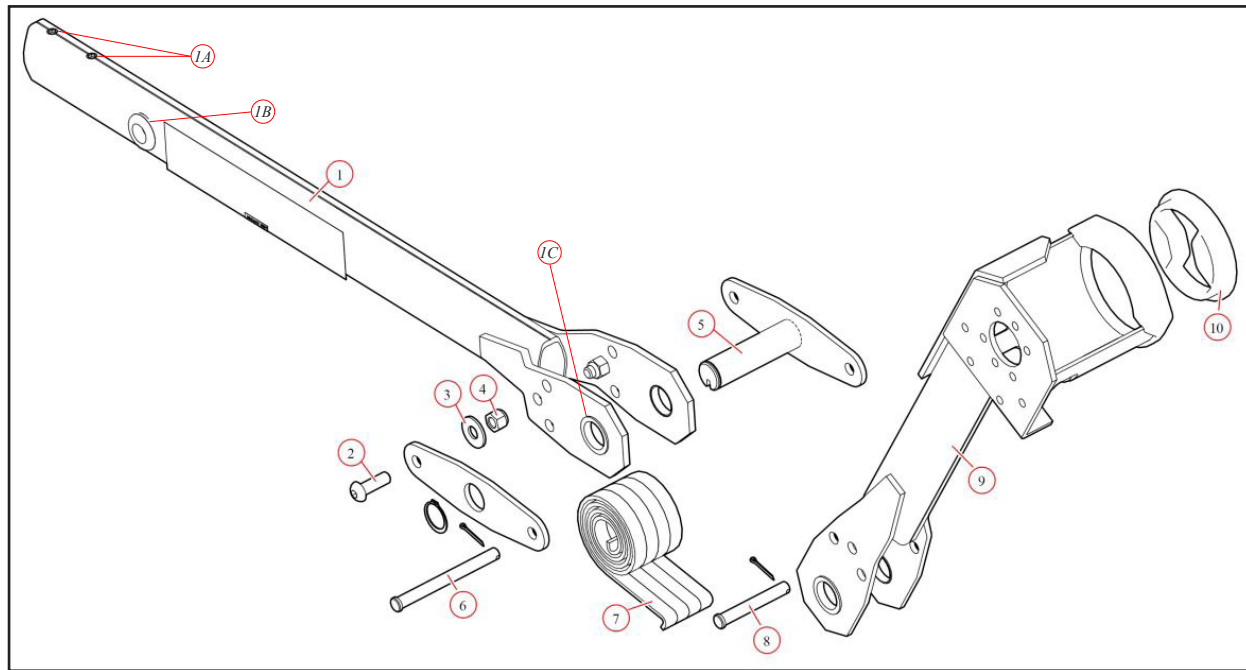


BOM ID	Qty	Item No	Description
1	2	3CAM9385	TARP MOUNTING CHANNEL
2	4	5CAM9038	TARP CHANNEL MOUNT
3	*	5C000008	BRACKET, TARP SUPPORT
4	*	1AUAM9073	SPACER, TARP MOUNTING, 7/8" OD X 11/32" ID X 2" OAL
5	*	1AZAP4108	CLAMP, STEEL CLAMP FOR TARP SECURING ROD PLTD, EA (36830)
6	2	1AZAP4152	TARP HOOK, PLASTIC, ROLLRITE, EA (36840)
7	*	1AFC12FAA05	HEX CAP SCREW, 3/8"-16 X 1", GR 5, PLTD
8	16	1AF009H0000	WASHER, FLAT, 1/2", PLTD
9	*	1AFBP3588	HEX CAP SCREW, 1/4"-20 X 3", GR 8, PLTD
10	*	1AFC18D0000	NUT, HEX LOCK, 1/4"-20, NYLOCK, PLTD
11	4	1AFC12JAAH5	HEX CAP SCREW, 5/8"-11 X 1-1/2", GR 5, PLTD
12	4	1AFC12JBAH5	HEX CAP SCREW, 5/8"-11 X 2-1/2", GR 5, PLTD
13	*	1AFC08E0000	NUT, HEX SERRATED FLANGE, 5/16"-18, PLTD
14	12	1AFC18J0000	NUT, HEX LOCK, 5/8"-11, NYLOCK, PLTD
15	16	1AF009J0000	WASHER, FLAT, 5/8", PLTD
16	*	1AFBP3612	NUT, HEX LOCK, 3/8"-16, TOP LOCK, PLTD
17	*	1AFC37E00L0	HEX CAP SCREW, 5/16"-18 X 3/4", SERRATED FLANGE HD, PLTD
18	16	1AFC12HAAH8	HEX CAP SCREW, 1/2"-13 X 1-1/2" GR 8, PLTD
19	16	1AFC18H0000	NUT, HEX LOCK, 1/2"-13, NYLOCK, PLTD

* Quantities vary by tub length.


1AZAP3576 (Rite-Lock Power Arm Kit, Pass. Side Stowing for Side Dump 12VTS)

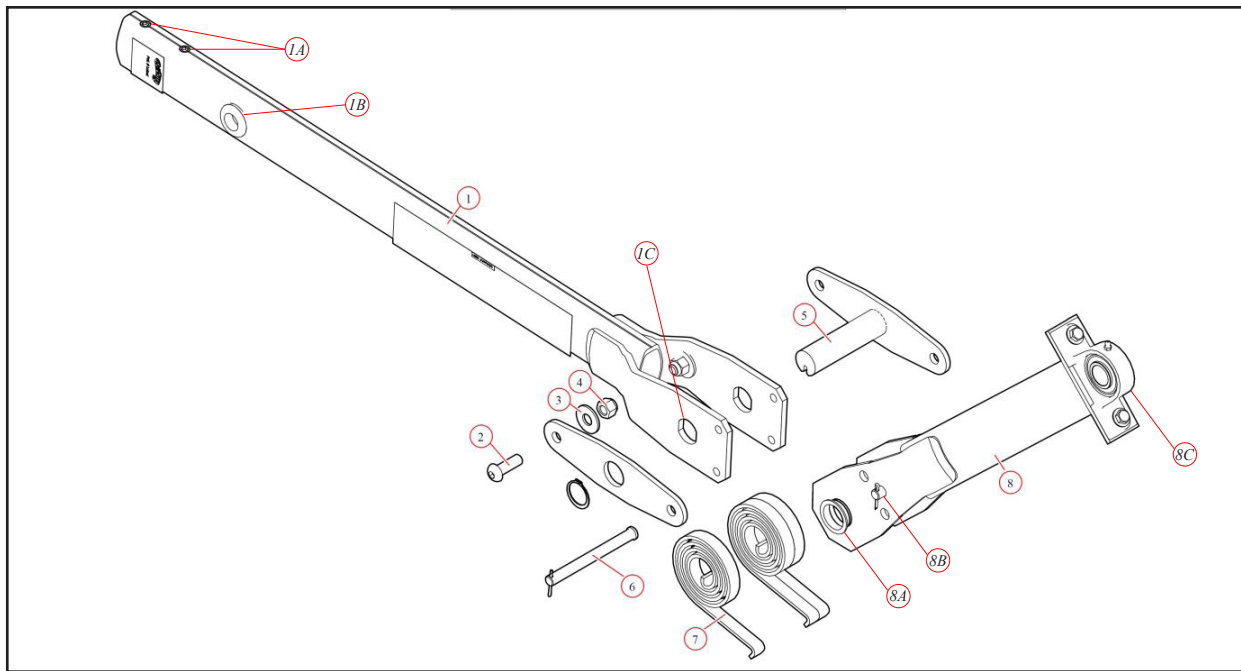
BOM ID	Qty	Item No	Description
1	1	1AZAP4293	MOTOR, ROLL RITE TARP (10200)
2	1	-	PIVOT, ASSY FRONT 4-SPRING KNUCKLE ARM, MOTOR END (46802)
3	1	1AEW000WF62	PARALLEL BAT CABLE, 6GA, BLK W/RED (11330)
4	1	-	PIVOT, UB ASSEMBLED STS 8-SPR FRONT (102354)
5	1	1AZAP4295	CABLE, 16GA / 3COND, BLU/YEL/RED, 15' (11411)
6	1	-	INSTRUCTIONS, UNIVERSAL STS DUMP SYSTEM (102317)
7	1	1AZ00103460	ELECTRIC KIT, TSCM W/ SS GEN1+ RELAY & ROCKER SW, 6GA (103460)
8	1	-	PIVOT, UB ASSEMBLED STS 8-SPR REAR (102353)
9	1	-	PIVOT, ASSY REAR KNUCKLE ARM, NON-MOTOR END (46803)



Pivot, Assy Front 4-Spring Knuckle Arm, Motor End (46802)

BOM ID	Qty	Item No	Description
* 1	1	-	PIVOT TUBE, BASE W/SIDE PLATES, 4 SPRING STS KNUCKLES (102199)
1A	1	-	SCREW, 1/2" X 5/8" SET (18291)
1B	1	-	GROMMET, RUBBER 7/8 ID X 1/8 GROOVE FOR TOP MT PIVOTS (16419)
1C	1	-	BUSHING, 1-1/4 POLY T-BUSHING FOR PIVOT PIN (47040)
2	2	-	BOLT, 1/2" X 1-1/2" BUTTON HEAD PLTD (18295)
3	2	1AF009H0000	WASHER, 1/2" FLAT PLTD (18412)
4	2	1AFC18H0000	NUT, 1/2" NYLOCK NUT PLTD (18631)
5	1	-	BRACKET, 4-SP KNUCKLE W/STOP PLATE FOR STS MOTOR END (47970)
6	1	-	PIN, 1/2" X 5-1/4" CLEVIS (18540)
7	4	1AZAP4589	SPRING, SPIRAL TORSION 1-1/4" (47230)
8	1	1AFAP4507	PIN, 1/2" X 3-1/2" CLEVIS (18520)
9	1	-	PIVOT TUBE, FRONT UPPER FOR 4-SP KNUCK W/BUSH 13.06" (102197)
10	1	1AZAP4539	BUSHING, AXLE STABILIZER FOR 4" AXLE (37580)

* Note: All High Capacity Kits require longer lower tarp arms see page 66 for High Capacity specific tarp parts.

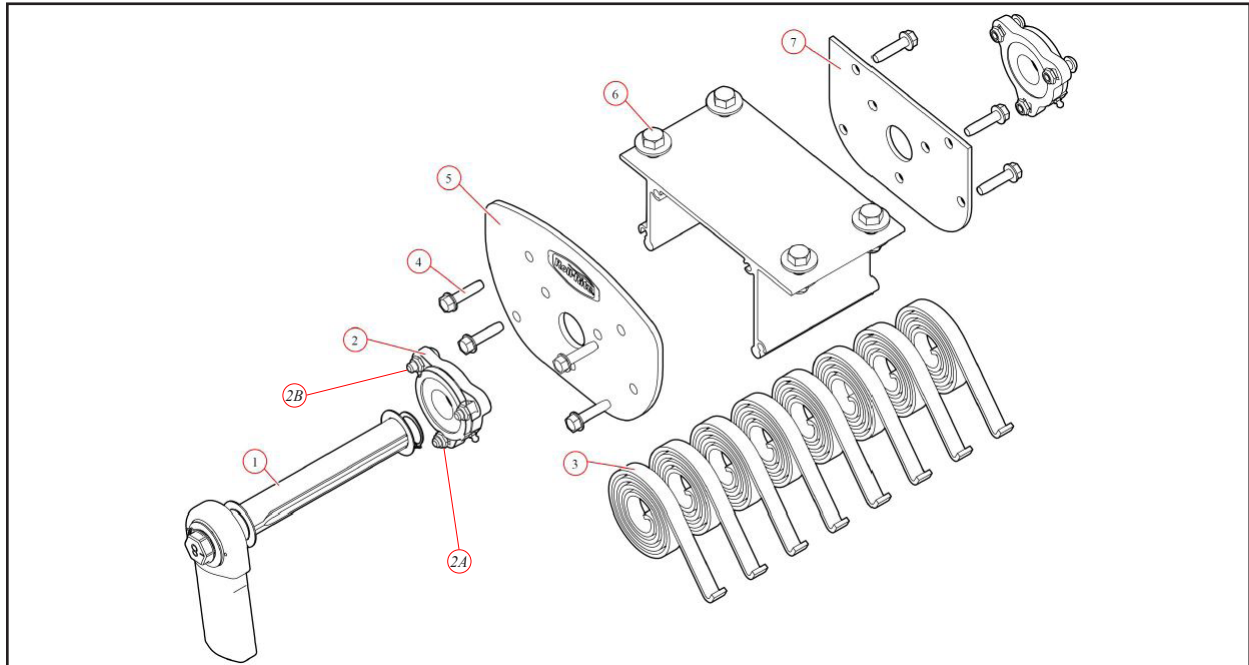


Pivot, Assy Rear Knuckle Arm, Non-Motor End (46803)

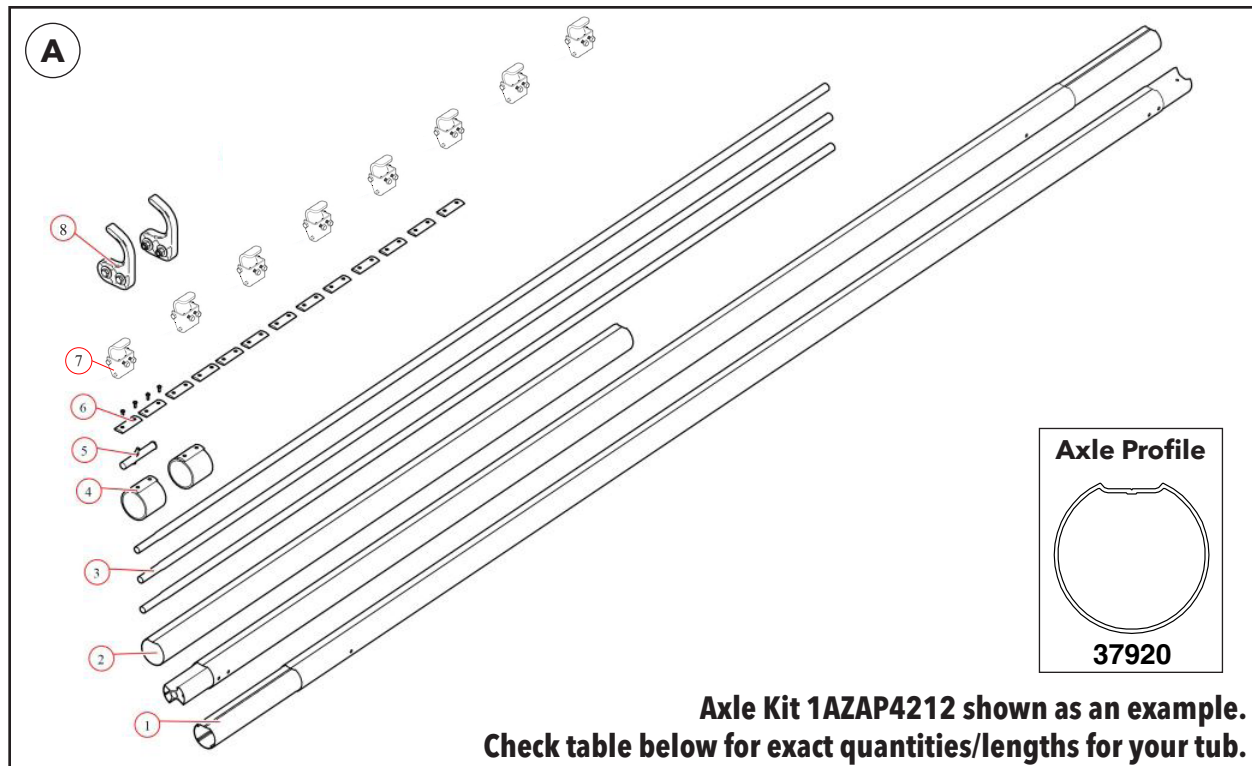
BOM ID	Qty	Item No	Description
* 1	1	-	PIVOT TUBE, BASE W/SIDE PLATES, 4-SPRING STS KNUCKLES (102199)
1A	1	-	SCREW, 1/2" X 5/8" SET (18291)
1B	1	-	GROMMET, RUBBER 7/8 ID X 1/8 GROOVE FOR TOP MT PIVOTS (16419)
1C	1	-	BUSHING, 1-1/4 POLY T-BUSHING FOR PIVOT PIN (47040)
2	2	-	BOLT, 1/2" X 1-1/2" BUTTON HEAD PLTD (18295)
3	2	1AF009H0000	WASHER, 1/2" FLAT PLTD (18412)
4	2	1AFC18H0000	NUT, 1/2" NYLOCK NUT PLTD (18631)
5	1	-	BRACKET, 4-SP KNUCKLE W/STOP PLATE FOR STS MOTOR END (47970)
6	1	-	PIN, 1/2" X 5-1/4" CLEVIS (18540)
7	4	1AZAP4589	SPRING, SPIRAL TORSION 1-1/4" (47230)
8	1	-	PIVOT TUBE, REAR UPPER FOR 4-SP KNUCKLE W/BEARING (47890)
8A	1	-	BUSHING, 1-1/4 POLY T-BUSHING FOR PIVOT PIN (47040)
8B	1	1AFAP4507	PIN, 1/2" X 3-1/2" CLEVIS (18520)
8C	1	1AZ31050000	BEARING, PILLOW BLOCK (31055)

* Note: All High Capacity Kits require longer lower tarp arms see page 66 for High Capacity specific tarp parts.

Pivot, UB Assembled STS 8-Spr Front (102354)			
BOM ID	Qty	Item No	Description
1	1	-	PIVOT PIN, FOR 8-SPR ROLLER BEARING PIV, DRIVER SIDE (47400)
2	2	-	BEARING, CARRIER UNDERBODY FLANGED (47800)
2A	3	1AFC18F0000	NUT, 3/8" NYLOCK NUT PLTD (18628)
2B	3	1AFBP3633	BOLT, 3/8-16 X 1-1/8", BUTTON HEAD, PLTD (18242)
3	8	1AZAP4589	SPRING, SPIRAL TORSION 1-1/4" (47230)
4	8	1AFC37FAAH5	BOLT, 3/8 X 1-1/2", THREAD-CUTTING SCREW, HEX WASHER HD (18120)
5	1	-	PLATE, AL FRONT FOR EXT BOLT FLANGE MOUNT UB BOX (102349)
6	1	-	BRACKET, EXT BODY WITH HOLES FOR 8-SPR UB BOX (102269)
7	1	-	PLATE, AL BACK FOR EXT BOLT FLANGE MOUNT UB BOX (102259)



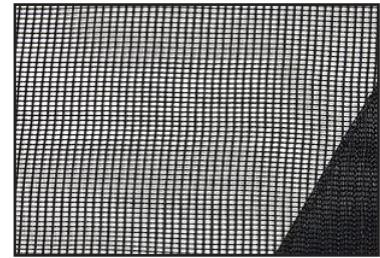
Pivot, UB Assembled STS 8-Spr Rear (102353)			
BOM ID	Qty	Item No	Description
1	1	-	PIVOT PIN, FOR 8-SPR ROLLER BEARING PIV, PASS SIDE (47410)
2	2	-	BEARING, CARRIER UNDERBODY FLANGED (47800)
2A	3	1AFC18F0000	NUT, 3/8" NYLOCK NUT PLTD (18628)
2B	3	1AFBP3633	BOLT, 3/8-16 X 1-1/8", BUTTON HEAD, PLTD (18242)
3	8	1AZAP4589	SPRING, SPIRAL TORSION 1-1/4" (47230)
4	8	1AFC37FAAH5	BOLT, 3/8 X 1-1/2", THREAD-CUTTING SCREW, HEX WASHER HD (18120)
5	1	-	PLATE, AL FRONT FOR EXT BOLT FLANGE MOUNT UB BOX (102349)
6	1	-	BRACKET, EXT BODY WITH HOLES FOR 8-SPR UB BOX (102269)
7	1	-	PLATE, AL BACK FOR EXT BOLT FLANGE MOUNT UB BOX (102259)



	A	① + ②	③	⑥	⑦
Tub Length	Axle Kit Item No	Axle Tube Length	Fixed Tarp Rod Length	Axle Tarp Clips (C/C)	Tarp Rod Clamps (1AZAP4108)
14'	1AZAP4279	17' - 2 1/2"	13' - 8 1/4"	6 (32")	6
15'	1AZAP4279	18' - 2 1/2"	14' - 8 1/4"	6 (34")	6
16'	1AZAP4279	19' - 3"	15' - 8 3/4"	6 (36")	6
17'	1AZAP4459	20' - 2 1/2"	16' - 8 1/4"	6 (38")	6
20'	1AZAP4459	23' - 3"	19' - 9 1/4"	7 (38")	6
24'	1AZAP4410	27' - 3"	23' - 9"	10 (32")	6
30'	1AZAP4212	33' - 6"	30' - 0 3/8"	11 (36")	8
34'	1AZAP4212	37' - 6"	34' - 0 1/2"	11 (40")	8
37'	1AZAP4563	40' - 3"	36' - 9 1/4"	11 (44")	8

BOM ID	Qty	Item No	Description
1		-	AXLE, 4" UNIVERSAL FRONT/REAR SECTION FOR SIDE DUMP (37920)
2		-	EXTRUSION, 4" AXLE, 98" (102367)
3		-	STEEL TUBING, 1.125D X 16GA X 12' RND GALV W/SWEDGE (101815)
4	2	-	AXLE SLEEVE, SIDE DUMP BELT STYLE, AXLE SLEEVE KIT (102379)
5	1	-	HARDWARE, STUB SHAFT KIT FOR SIDE DUMP SYSTEM (102365)
6		-	CLIP, TARP CLIP W/HARDWARE FOR STS AXLE (37830)
7		1AZAP4108	CLAMP, STEEL CLAMP FOR TARP SECURING ROD PLTD, EA (36830)
8	2	1AZAP4152	TARP HOOK , PLASTIC, ROLLRITE, EA (36840)

Tub Length	Tarp Kit	Mesh Tarp	Tarp Size
14'	1AZAP3576	1AZAP4598	13'-6" x 162"
15'	1AZAP3576	1AZAP4599	14'-6" x 162"
16'	1AZAP3576	1AZAP4600	15'-6" x 162"
17'	1AZAP3576	1AZAP4601	16'-6" x 162"
20'	1AZAP3576	1AZAP4602	19'-7" x 162"
24'	1AZAP3576	1AZJ23800RE	23'-8" x 162"
30'	1AZAP3576	1AZAP4603	29'-10" x 162"
34'	1AZAP3576	1AZAP4604	33'-10" x 162"
37'	1AZAP3576	1AZAP4605	36'-7" x 162"

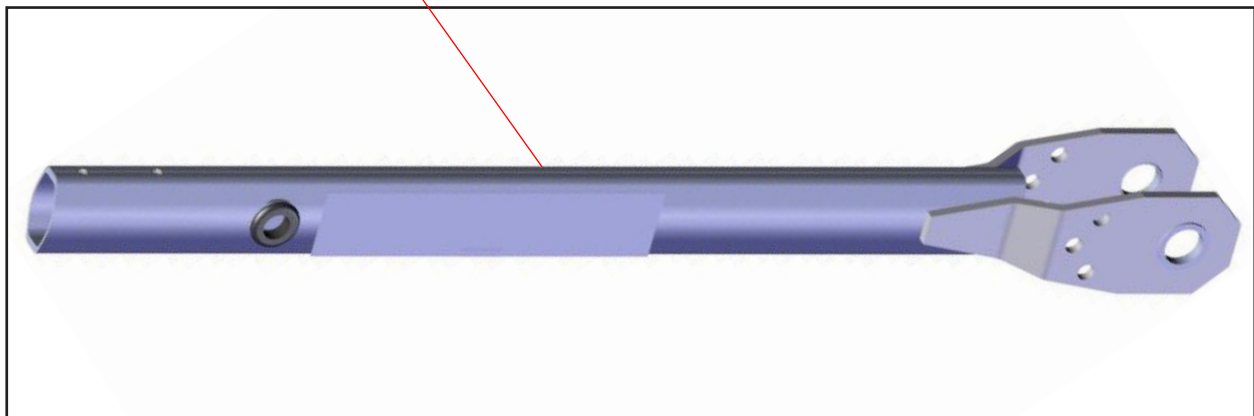


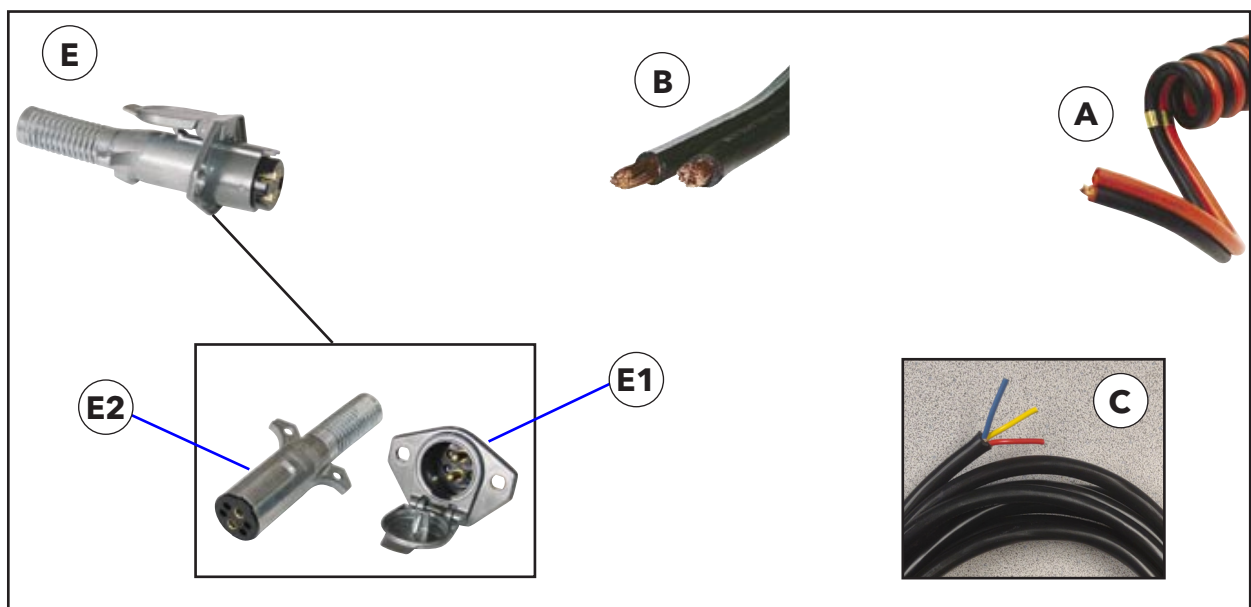
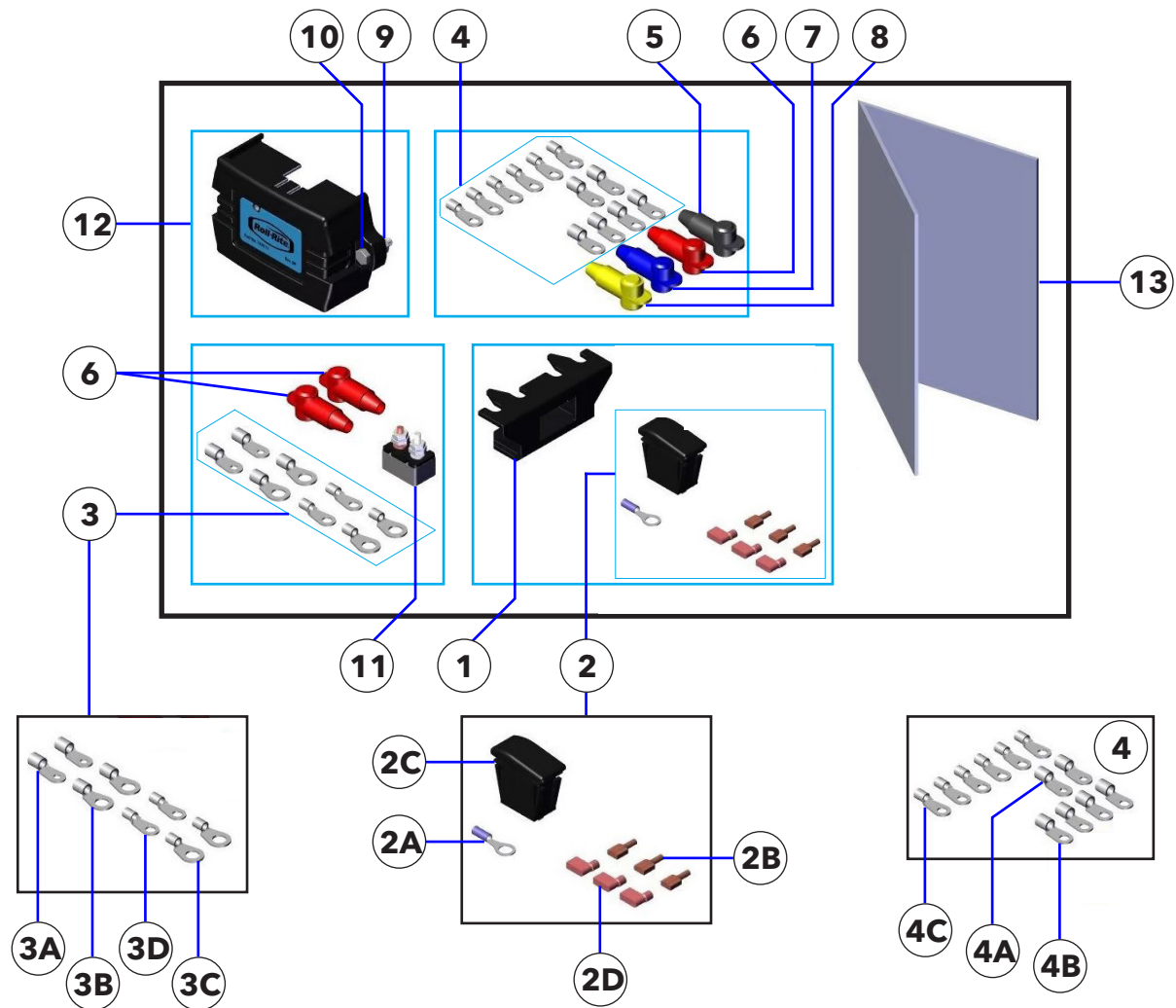
Mesh Tarp

Roll-Rite Electric Tarp Parts for High-Capacity Kits Only

Tub Length	Axle Kit	Tarp Kit	Mesh Tarp	Tarp Size	Axle Tube Length	Fixed Tarp Rod Length
20' H.C.	1AZAP4459	1AZAP4402	-	20' x 147"	23' - 3"	20' - 1 3/4"
24' H.C.	1AZAP4410	1AZAP4402	1AZAP4409	24' x 147"	27' - 3"	24' - 1 1/2"
34' H.C.	1AZAP4212	1AZAP4402	1AZAP3950	34' x 147"	37' - 6"	34' - 4 3/4"
37' H.C.	1AZAP4563	1AZAP4402	1AZAP4562	37' x 147"	40' - 3"	37' - 1 3/4"

Note: All High Capacity Kits, including XL Kits, use the same quantity and spacing of Axle Tarp Clips and Tarp Rod Clamps as standard tubs. Longer lower tarp arms are required for all High Capacity Kits - use Item Number 1AZ102266RE (ROLL-RITE HIGH CAPACITY TARP ARM, EA, #102266).



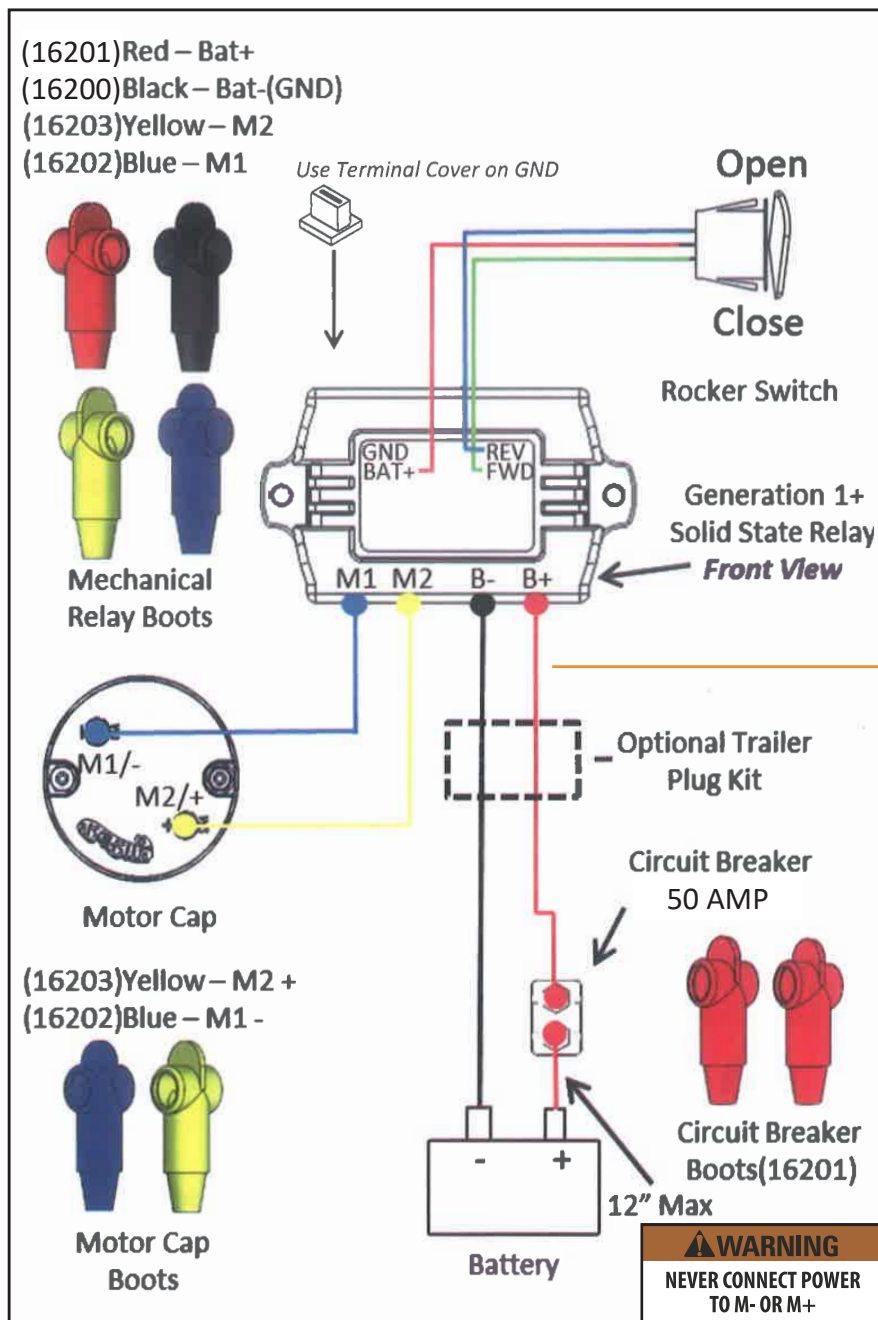


1AZ00103460 (Electric Kit, TSCM W/SS Gen1+ Relay & Rocker Switch, 6GA)			
BOM ID	Qty	Item No	Description
1	1	1AZ00010390	MOUNT BRACKET, ROCKER SWITCH (10390)
2	1	-	ROCKER SWITCH KIT (10915)
2A	1	1AEC0031506	TERMINAL, 14 GA INSULATED, 3/8" RING (16080)
2B	3	-	TERMINAL, 18 GA INSULATED, Q.D. FEMALE (16118)
2C	1	1AZ00019300	SWITCH, ROCKER (OPEN/CLOSE) (19300)
2D	3	-	TERMINAL, 14-16 GA INSULATED, Q.D. FLAG FEMALE (100460)
3	1	-	TERMINAL KIT FOR CIRC. BREAKER, 6/8 GA TERMINALS (10918)
3A	2	-	TERMINAL, 6 GA, #10 RING (16020)
3B	2	1AEC0036073	TERMINAL, 6 GA, 3/8" RING (16030)
3C	2	-	TERMINAL, 8 GA, 3/8" RING (16150)
3D	2	1AEC0033002	TERMINAL, 8 GA, 1/4" RING (16155)
4	1	-	TERMINAL KIT FOR SS RELAY, 6/8 GA TERMINALS (10919)
4A	2	-	TERMINAL, 6 GA, #10 RING (16020)
4B	4	1AEC0036071	TERMINAL, 6 GA, 1/4" RING (16021)
4C	6	1AEC0033002	TERMINAL, 8 GA, 1/4" RING (16155)
5	1	-	TERMINAL BOOT, BLACK, 8-2GA (16200)
6	3	-	TERMINAL BOOT, RED, 8-2GA (16201)
7	1	-	TERMINAL BOOT, BLUE, 8-2GA (16202)
8	1	-	TERMINAL BOOT, YELLOW, 8-2GA (16203)
9	2	1AFC08D0000	HEX NUT, 1/4-20 FLANGE, SERRATED, PLTD (18620)
10	2	1AFC12DAA05	HEX BOLT, 1/4-20 X 1", GR5, PLTD (18700)
11	1	1AZ00101259	50A MANUAL RESET CIRCUIT BREAKER, RITE TOUCH (101259)
12	1	1AZ00103238	12V RITE TOUCH RELAY SS GEN1+ W/HOUSING (103238)
13	-	-	ELECTRICAL COMPONENT INSTALLATION GUIDE (105568)

TO ADD TARP CONTROLS TO A SECOND TRACTOR FOR A STANDARD HYDRAULIC SIDE DUMP, SEE YOUR DEALER FOR COMPLETE KIT AND PRICING FOR 4CFK2014 (KIT, ROLL-RITE TARP, CONTROL SWITCH FOR 2ND TRACTOR). FOR EOH TRAILERS, SEE PAGE 43.

Other Electrical Components for Roll-Rite Tarps			
BOM ID	Qty	Item No	Description
A	-	1AZ00011320	6GA DUAL COILED CORD (11320)
B	-	1AEW000WF62	PARALLEL BAT CABLE, 6GA, BLK W/RED (11330)
C	-	1AZAP4295	CABLE, 16GA / 3COND, BLU/YEL/RED, 15' (11411)
E	-	1AZAP4211	MALE & FEMALE PLUG SET, 2-PIN, ROLL-RITE TARP (12760)
E1	1	1AZAP4236	FEMALE PLUG, 2-PIN, ROLL-RITE TARP (12770)
E2	1	1AZAP4235	MALE PLUG, 2-PIN, ROLL-RITE TARP (12780)

Roll-Rite Generation 1+ Solid State Reversing Relay with Rocker Switch (Tarp Uncovering to the right of driver)



WARNING

Note: After installation, the terminals on the B+ circuit contain un-switched 12V energy at all times. Installation requirements must be followed to avoid contact between these terminals and chassis ground.

Wiring the Tractor

There are two items to wire on the tractor before you can operate your Demco side dump. The control box and the tarp power wire.

To install the control box, find a suitable location in the cab of the tractor and mount the control box. The red and black two wire cable attached to the back of the box is the power wire. Plug the cigarette lighter end into a power connection in the cab.

If you do not have an available outlet for the cigarette lighter end, use the following instructions:

- Cut the cigarette lighter plug off.
- Split apart the wires and connect the red wire to a 12v dc power source and the black to ground.
-  - **Red wire must be positive and Black negative. Reversing these wires can damage the control system.**
- A bag of terminals is included to allow you to tap into most truck fuse panels.

Route the gray cord and male 9 pole plug out of the cab and to the front bulkhead of the side dump. Plug the cord into the female 9 pole socket on the trailer bulkhead. You will now be able to raise and lower the rear axle and dump the tub.

NOTE: Air must be supplied to the side dump for the lift axle to operate properly. Hydraulic oil must be supplied to the side dump to dump the tub.

To use the tarp you will need to supply 12 volt power to the side dump to operate the tarp motor. Due to the large power draw of the tarp motor, the electrical supply must be hooked directly to the battery and the heavy #6 wire included with the kit must be used.

Refer to the Roll Rite wiring diagram for reference. The relay has been already mounted on the side dump and the momentary switch that rolls/unrolls the tarp is in the control box installed previously. All that needs to be done is to run a wire from the battery to the female two pole socket on the road side front corner of the side dump.

Locate the circuit breaker as close to the positive battery post as possible. If the circuit breaker is not mounted to the battery box or truck frame, make sure that the terminals cannot touch anything that would create a short circuit. See image on next page for installation orientation of circuit breaker.

Separate enough of the white wire on the #6 white/black cord to reach from the positive battery terminal to the circuit breaker. Cut off the white wire. Strip the white wire and crimp on ring terminals to match the battery cable bolt and the post on the circuit breaker.



Do not hook the white wire to the battery until everything else is wired.

Crimp a ring terminal on the white wire on the remaining white/black cord and attach it to the circuit breaker.

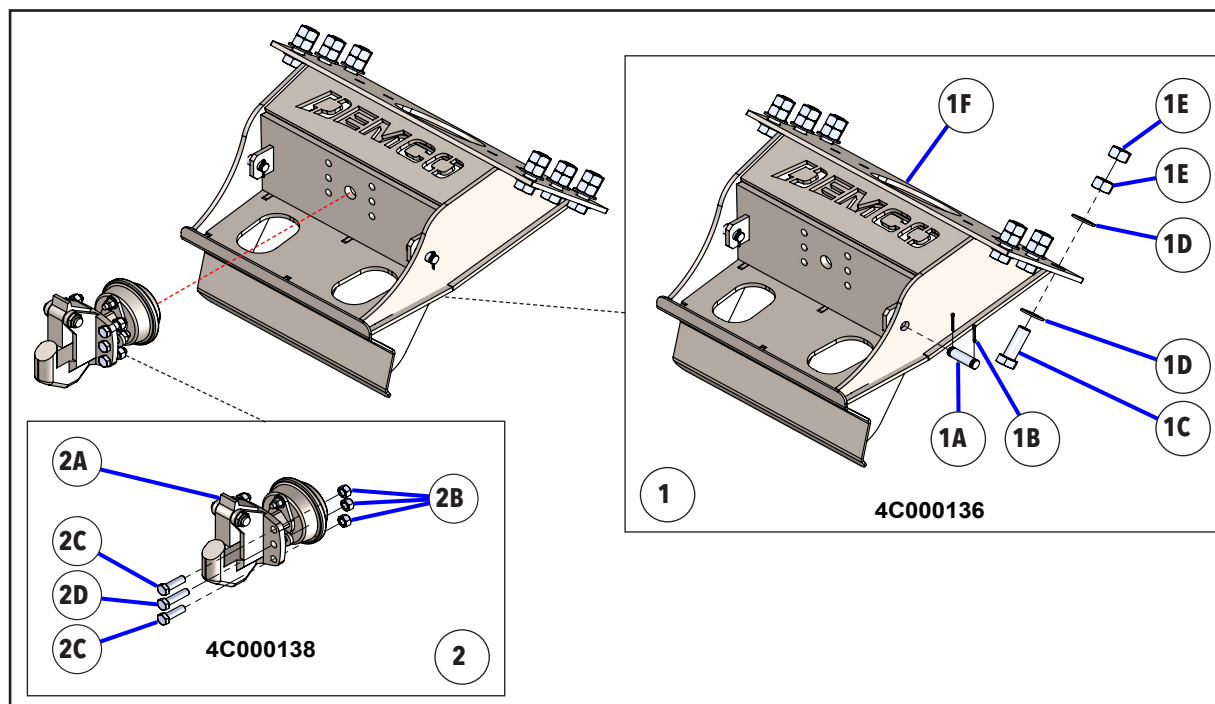
Crimp a ring terminal on the black wire and attach it to the negative battery post.

Route the white/black cord to the female socket on the side dump. Cut the cord and strip the ends back to slip into the terminals on the back of the male 2 pin plug. Match the white and black wires to the corresponding wires in the side dump socket. You may need to slip the cover off the back of the socket to make sure that the wires match up. Secure the white/black cord to the truck frame.

Hook the white wire to the battery.

The tarp will now operate from the control box. It is best to have the tractor running while operating the tarp.

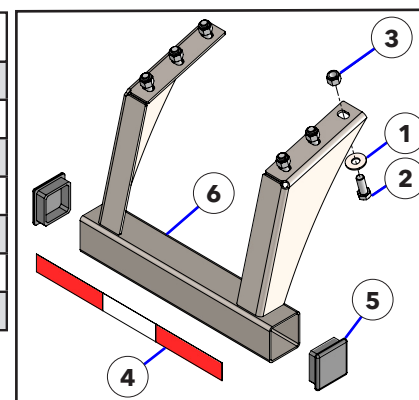
REAR ATTACHMENT OPTIONS

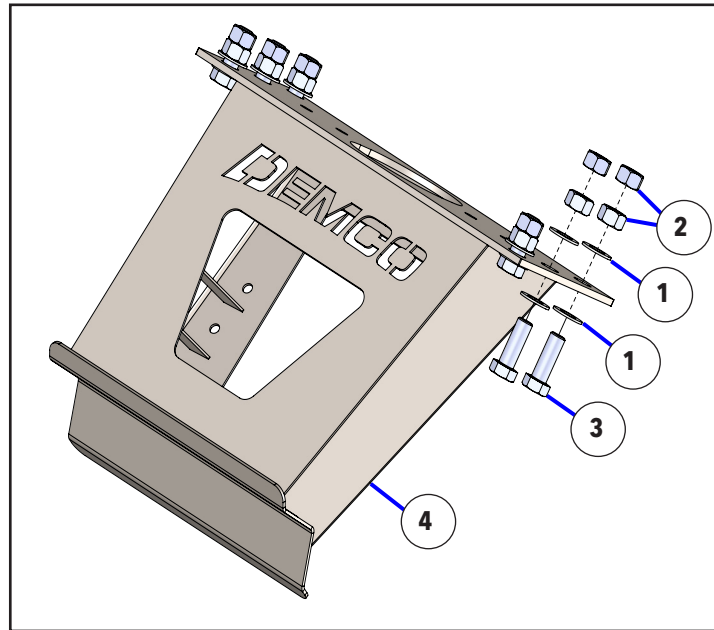


BOM ID	Qty	Item No	Description
1	1	4C000136	PUSH BLOCK PINTLE HITCH COMPLETE W/ HARDWARE
1A	2	1AFBP3403	PIN, CLEVIS, 1 X 2-3/4 USEABLE
1B	4	1AFBP3511	PIN, COTTER, 3/16 X 1-3/4
1C	6	1AFC12SDAH8	BOLT, 1-1/4-7 X 4", GRD 8, YZ
1D	12	1AFBP3634	WASHER, FLAT, 1-1/4, SAE, ZINC PLTD
1E	12	1AFBP3720	NUT, HEX, 1-1/4" - 7, GRD 8, YZ
1F	1	5C000189	PUSH BLOCK PINTLE HITCH
2	1	4C000138	PINTLE HOOK ASSY, COMPLETE W/ HARDWARE
2A	1	1ACAP3644	PINTLE HOOK ASSY W/ AIR LOCK, PREMIER 2300A
2B	6	1AFBP3442	NUT, HEX LOCK, 3/4"-10, TOP LOCK, GRD C, PLTD
2C	4	1AFBP3197	HEX CAP SCREW, 3/4"-10 X 2-1/2", GRD 8, PLTD
2D	2	1AFBP3209	HEX CAP SCREW, 3/4"-10 X 3, GRD 8, PLTD

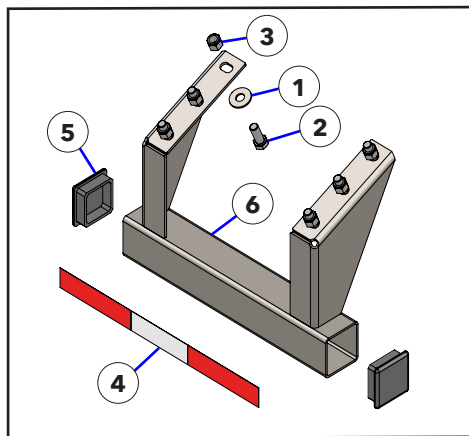
4C000137 (PINTLE HITCH STUB BUMPER COMPLETE)			
BOM ID	Qty	Item No	Description
1	6	1AF009L000	3/4 USS FLAT WASHER ZINC PLTD
2	6	1AFBP3139	HEX CAP SCREW, 3/4"-10 X 2", GRD 5, ZINC PLTD
3	6	1AFBP3296	NYLON INSERT LOCKNUT, 3/4-10 UNC
4	2.04	1AQAS000000	RWR CONSPICUITY TAPE
5	2	1AR00000050	4X4X3/16 PLASTIC TUBE CAP
6	1	5C000191	PINTLE HITCH STUB BUMPER

***THIS STUB BUMPER IS SPECIFIC TO THE PINTLE HITCH/PUSH BLOCK COMBO**





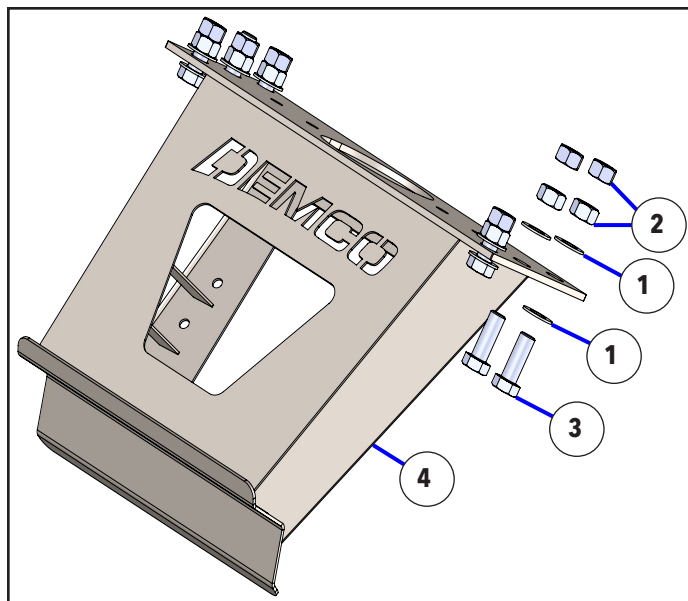
4C000117 (PUSH BLOCK W/ LOGO, COMPLETE W/ HARDWARE)			
BOM ID	Qty	Item No	Description
1	12	1AFBP3634	WASHER, FLAT, 1-1/4, SAE, ZINC PLTD
2	12	1AFBP3720	NUT, HEX, 1-1/4"-7, GRD 8, YZ
3	6	1AFC12SDAH8	BOLT, 1-1/4-7 X 4", GRD 8, YZ
4	1	5C000172	PUSH BLOCK W/ DEMCO LOGO



4C000116 (STUB BUMPER, COMPLETE W/ END CAPS & HARDWARE)			
BOM ID	Qty	Item No	Description
1	6	1AF009L000	3/4 USS FLAT WASHER ZINC PLTD
2	6	1AFBP3139	HEX CAP SCREW, 3/4"-10 X 2", GRD 5, ZINC PLTD
3	6	1AFBP3296	NYLON INSERT LOCKNUT, 3/4-10 UNC
4	2.04	1AQAS000000	RWR CONSPICUITY TAPE
5	2	1AR00000050	4X4X3/16 PLASTIC TUBE CAP
6	1	5C000173	PINTLE HITCH STUB BUMPER

***THIS STUB BUMPER IS SPECIFIC TO THE PUSH BLOCK OPTION**

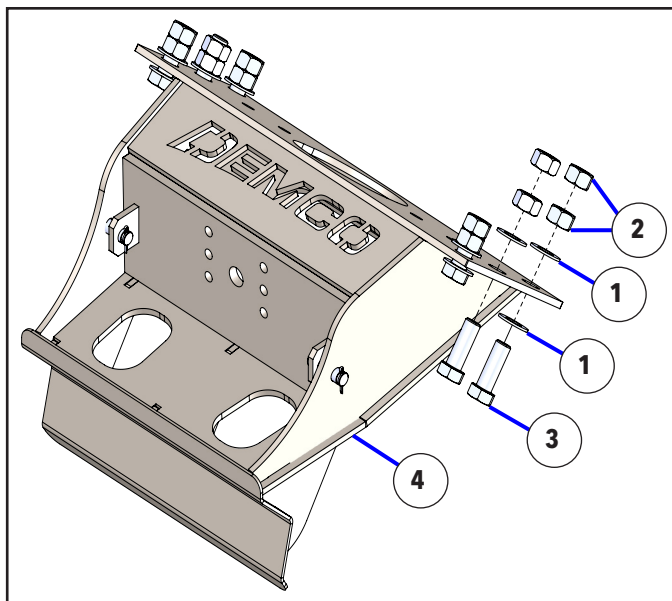
REAR ATTACHMENT OPTIONS



4C000119

(PUSH BLOCK W/ LOGO, COMPLETE FOR UR BUMPER)

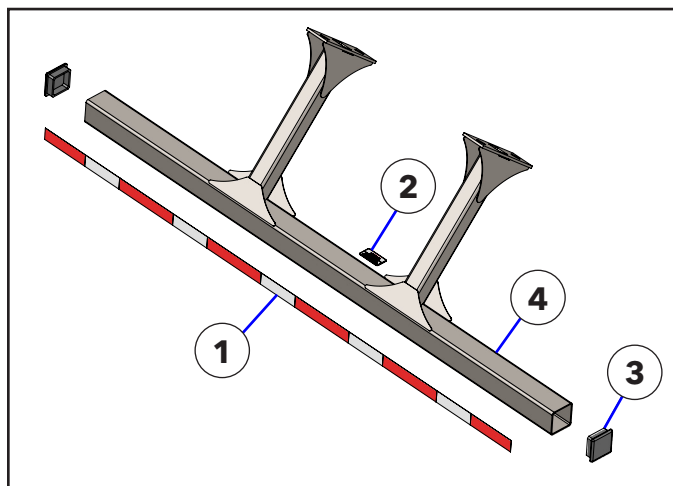
BOM ID	Qty	Item No	Description
1	10	1AFBP3634	WASHER, FLAT, 1-1/4, SAE, PLTD
2	12	1AFBP3720	NUT, HEX, 1-1/4"-7, GRD 8, YZ
3	6	1AFC12SDAH8	BOLT, 1-1/4-7 X 4", GRD 8, YZ
4	1	5C000172	PUSH BLOCK W/ DEMCO LOGO



4C000139

(PUSH BLOCK PINTLE HITCH W/ HARDWARE, UR BUMPER)

BOM ID	Qty	Item No	Description
1	10	1AFBP3634	WASHER, FLAT, 1-1/4, SAE, PLT
2	12	1AFBP3720	NUT, HEX, 1-1/4"-7, GRD 8, YZ
3	6	1AFC12SDAH8	BOLT, 1-1/4-7 X 4", GRD 8, YZ
4	1	5C000189	PUSH BLOCK W/ DEMCO LOGO



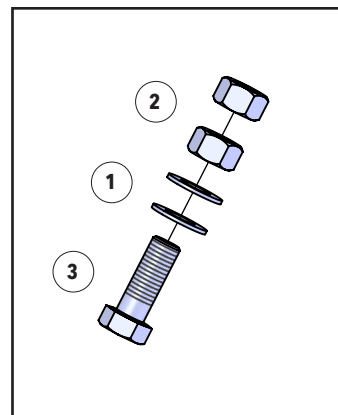
4C000118

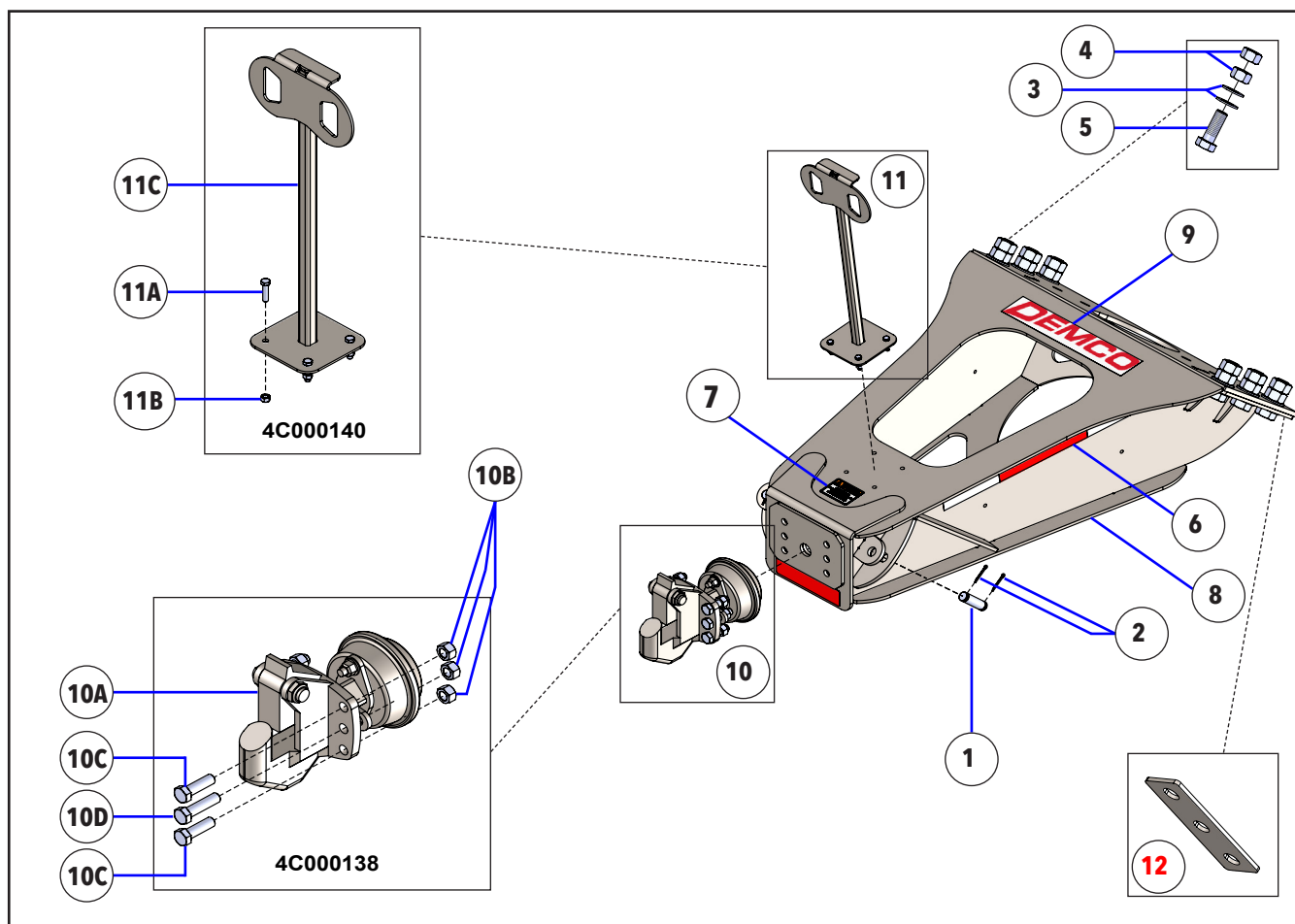
(UNDERRIDE BUMPER PROTECTOR, COMPLETE W/O HARDWARE)

BOM ID	Qty	Item No	Description
1	7.95	1AQAS000000	RWR CONSPICUITY TAPE
2	1	1AQCD065061	ICC BUMPER DECAL
3	2	1AR00000050	4X4X3/16 PLASTIC TUBE CAP
4	1	5CAM8105	UNDERRIDE BUMPER GUARD

UNDERRIDE BUMPER ONLY HARDWARE

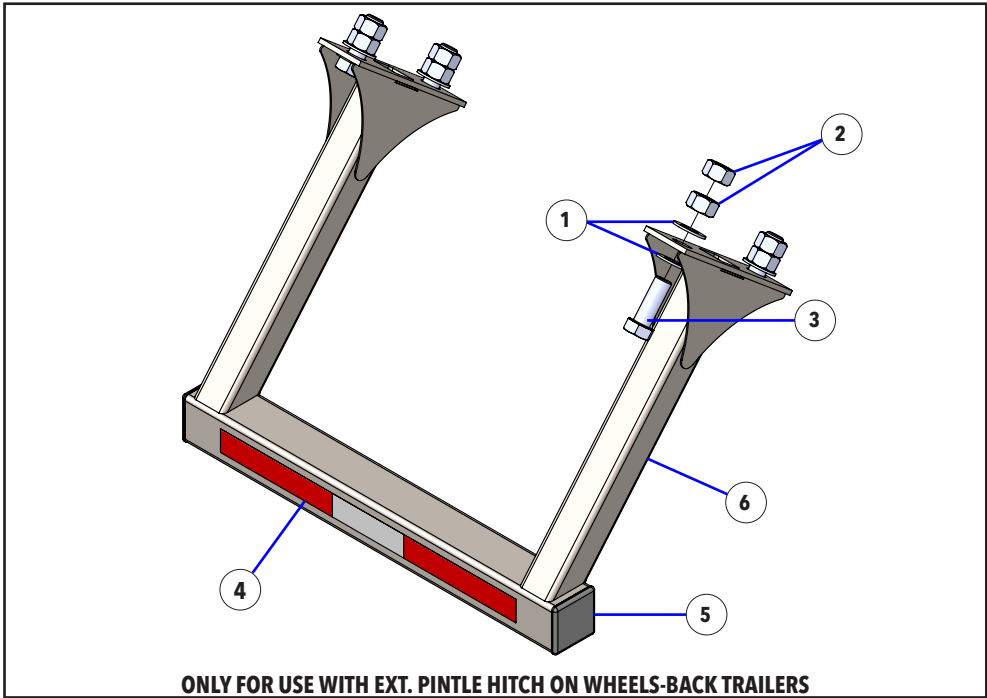
BOM ID	Qty	Item No	Description
1	8	1AFBP3634	WASHER, FLAT, 1-1/4, SAE, PLTD
2	8	1AFBP3720	NUT, HEX, 1-1/4"-7, GRD 8, YZ
3	4	1AFC12SDAH8	BOLT, 1-1/4-7 X 4", GRD 8, YZ





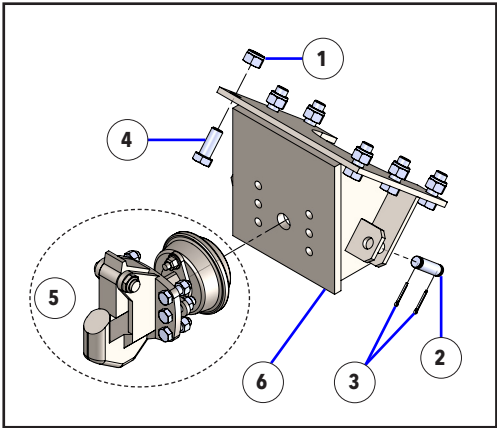
5C000200 (EXTENDED PINTLE HITCH ASSEMBLY)			
BOM ID	Qty	Item No	Description
1	2	1AFBP3403	PIN, CLEVIS, 1 X 2-3/4 USEABLE
2	4	1AFBP3511	PIN, COTTER, 3/16 X 1-3/4
3	10	1AFBP3634	WASHER, FLAT, 1-1/4, SAE, PLTD
4	12	1AFBP3720	NUT, HEX, 1-1/4"-7, GRD 8, YZ
5	6	1AFC12SDAH8	BOLT, 1-1/4-7 X 4", GRD 8, YZ
6	6.58	1AQAS000000	RWR CONSPICUITY TAPE
7	1	1AQWA065076	WARNING - HITCH LOAD HAZARD
8	1	5C000199	MY24 EXTENDED PINTLE HITCH MOUNT
9	1	DE21005	SMALL RED DEMCO DECAL, 17" X 3.125"
10	1	4C000138	PINTLE HOOK ASSY, COMPLETE W/ HARDWARE
10A	1	1ACAP3644	PINTLE HOOK ASSY W/ AIR LOCK, PREMIER 2300A
10B	6	1AFBP3442	NUT, HEX LOCK, 3/4"-10, TOP LOCK, GRD C, PLTD
10C	4	1AFBP3197	HEX CAP SCREW, 3/4"-10 X 2-1/2", GRD 8, PLTD
10D	2	1AFBP3209	HEX CAP SCREW, 3/4"-10 X 3, GRD 8, PLTD
11	1	4C000140	EXTENDED PINTLE HOSE HANGER COMPLETE W/ HARDWARE
11A	4	1AFBP3005	HEX CAP SCREW, 3/8"-16 X 1-1/2", GRD 5, PLTD
11B	4	1AFC17F0000	NUT, HEX, 3/8"-16, GRD 2, PLTD
11C	1	5C000192	EXTENDED PINTLE HOSE HANGER
12*	2	3C000226	MY24 EPH MOUNTING BACKING PLATE

*NOT REQUIRED WHEN MOUNTING WITH UNDERRIDE BUMPER



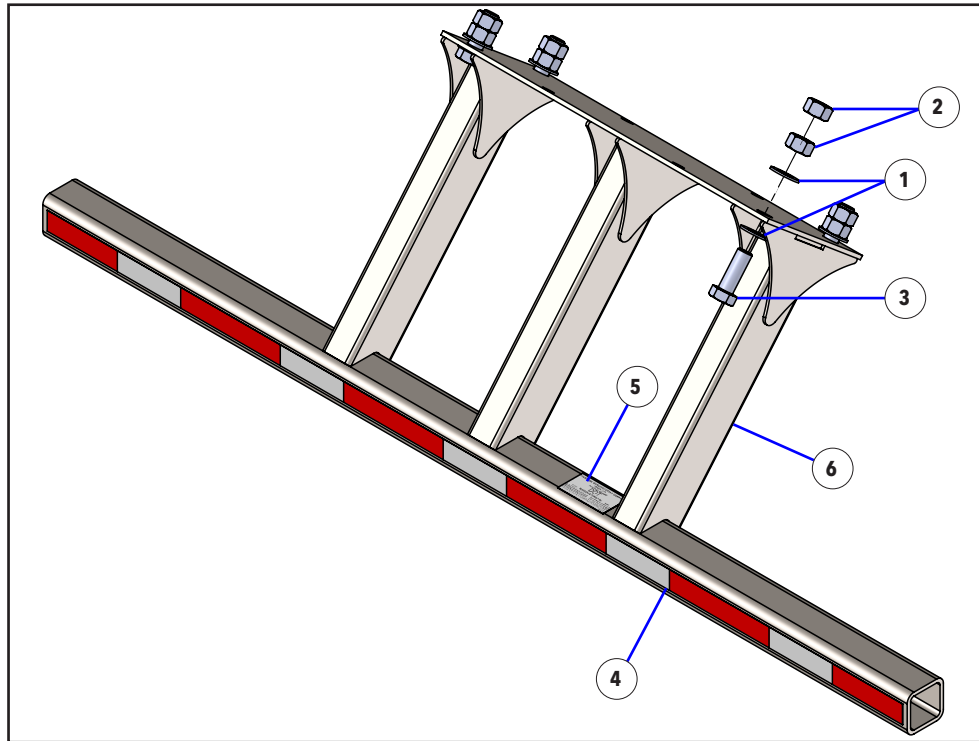
ONLY FOR USE WITH EXT. PINTLE HITCH ON WHEELS-BACK TRAILERS

4C000153			
(LIGHTWEIGHT BUMPER, COMPLETE FOR EXTENDED PINTLE HITCH)			
BOM ID	Qty	Item No	Description
1	8	1AFBP3634	WASHER, FLAT, 1-1/4, SAE, PLTD
2	8	1AFBP3720	NUT, HEX, 1-1/4"-7, GRD 8, YZ
3	4	1AFC12SDAH8	BOLT, 1-1/4-7 X 4", GRD 8, YZ
4	2.42	1AQAS000000	RWR CONSPICUITY TAPE
5	2	1AR00000050	4X4X3/16 PLASTIC TUBE CAP
6	1	5C000227	MY24 SLIM BUMPER FOR EPH, WELDMENT



STANDARD PINTLE HITCH MOUNT			
BOM ID	Qty	Item No	Description
1	6	1AFBP3295	NUT, NYLOCK, 1"-8, GRD 8, YZ
2	2	1AFBP3403	PIN, CLEVIS, 1" X 2-3/4" L
3	4	1AFBP3511	PIN, COTTER, 3/16 X 1-3/4
4	6	1AFBP3721	BOLT, 1"-8 X 2-1/2", GRD 8, YZ
5*	1	4C000138	PINTLE HOOK ASSY, COMP.
6	1	5CAM8103	PINTLE HITCH MOUNT

*SEE PREVIOUS PAGE FOR PARTS BREAKDOWN

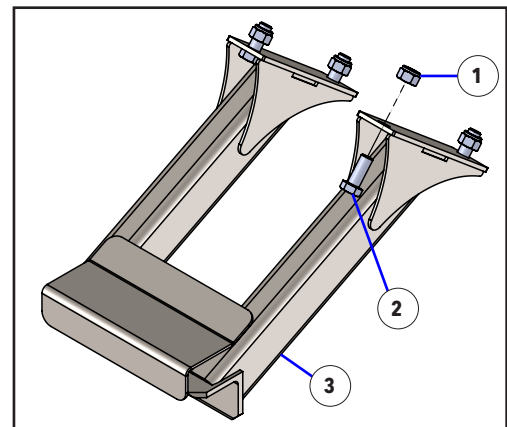


CMVSS UNDERRIDE BUMPER

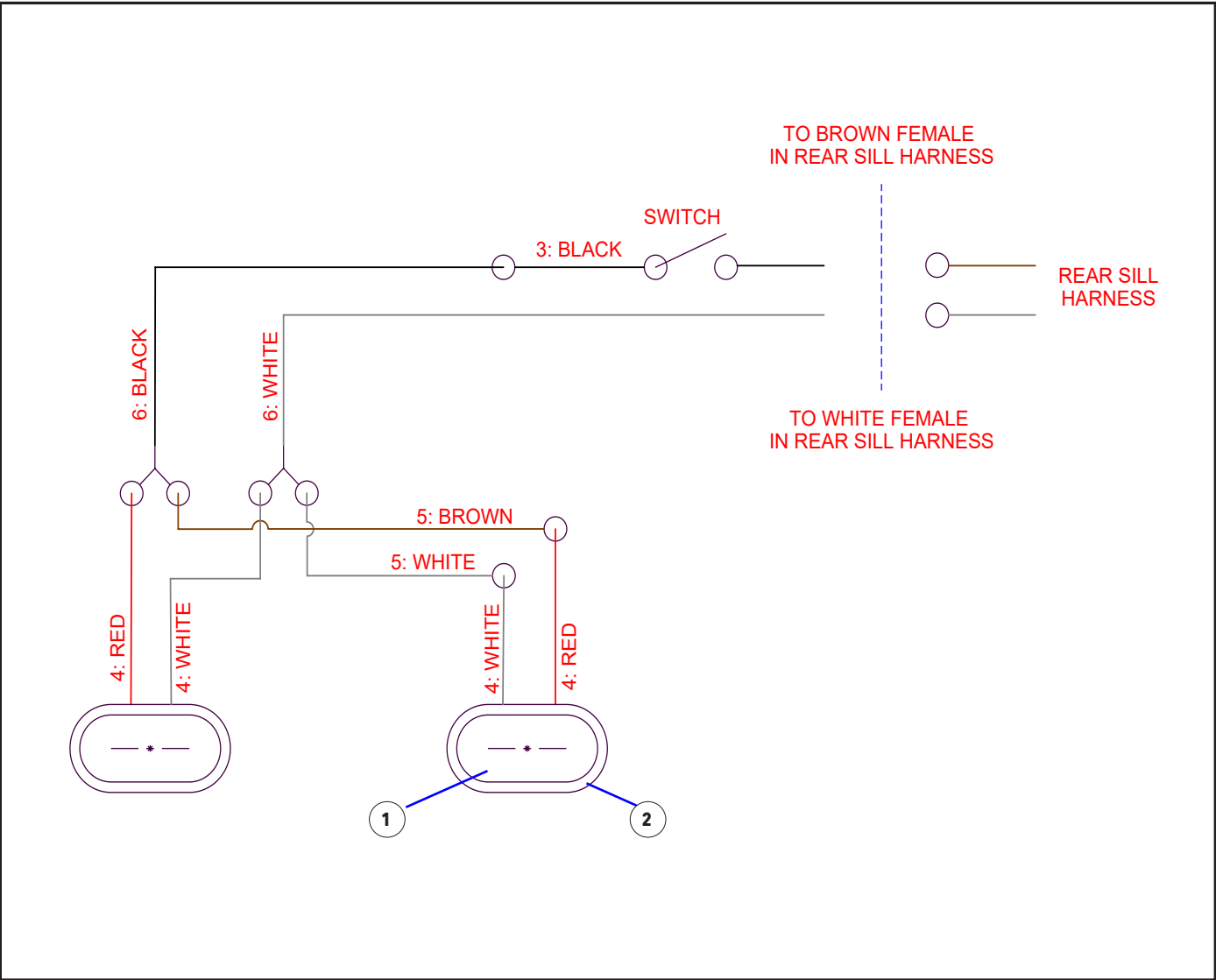
BOM ID	Qty	Item No	Description
1	8	1AFBP3634	WASHER, FLAT, 1-1/4, SAE, PLTD
2	8	1AFBP3720	NUT, HEX, 1-1/4"-7, GRD 8, YZ
3	4	1AFC12SDAH8	BOLT, 1-1/4-7 X 4", GRD 8, YZ
4	7.95	1AQAS000000	RWR CONSPICUITY TAPE
5	1	1AQCD065061	ICC BUMPER DECAL
6	1	5CAM9343	UNDERRIDE BUMPER GUARD, CMVSS

PUSH BLOCK COMPATIBLE W/ CMVSS BUMPER

BOM ID	Qty	Item No	Description
1	4	1AFBP3295	NUT, NYLOCK, 1"-8, PLTD
2	4	1AFBP3721	BOLT, 1"-8 X 2-1/2", GRD 8, YZ
3	1	5CAM9345	CMVSS BUMPER PUSHBLOCK



REAR STROBE LIGHT OPTION



REAR STROBE LIGHT KIT (4C000133)			
BOM ID	Qty	Item No	Description
1	2	1AEL060360Y	6" OVAL AMBER STROBE LIGHT
2	2	1AEL0607003	6" OVAL GROMMET
3	1	1AES0096843	SWITCH, SPST ON-OFF
4	2	1AEX0095500	HARN 8" STROBE LIGHT PLUG WIRE
5	1	1AEX4010060	HARN 60" M/C, 2M .180 BULLETS/2F
6	1	1AEX8834236	HARN 60" M/C, 2M .180 BULLETS/4F

[illegible]

NOTES

[illegible]

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4010 320th St., Boyden, IA. 51234

Phone: (712) 725-2311

Fax: (712) 725-2380

Toll Free: 1-800-54DEMCO (1-800-543-3626)

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www.demco-products.com