



**OPERATING AND SERVICE MANUAL  
MODEL: AIR STREAM T-M SPRAY  
INJECTION PATCHER**

**PARTS MANUAL - 91685  
REV. "E"  
REVISED 2/2018**

Fill in appropriate fields that apply to this machine.

Machine S/N: \_\_\_\_\_

1st Hose S/N: \_\_\_\_\_

2<sup>nd</sup> Hose S/N: \_\_\_\_\_

1<sup>st</sup> Pump S/N: \_\_\_\_\_

2<sup>nd</sup> Pump S/N: \_\_\_\_\_

Engine S/N: \_\_\_\_\_

Compressor S/N: \_\_\_\_\_

Gear Box S/N (Patcher): \_\_\_\_\_

Blower S/N (T-M): \_\_\_\_\_

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# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER

This manual is furnished with each new **CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER**. The manual will help your machine operators learn to run the machine properly and understand its mechanical functions for trouble-free operation.

Your **CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER** is designed to give excellent service and save maintenance expense. However, as with all specifically engineered equipment, you can get best results at minimum costs if:

- (1) You operate your machine as instructed in this manual, and
- (2) Maintain your machine regularly as stated in this manual.

## TRUCK MOUNTING INSTRUCTIONS

1. Truck must have a minimum 33,000 lb (14966 KG) GVWR.
2. Truck frame rail must be 34 inches (86 cm) outside to outside dimension.
3. The truck frame length from back of cab to end of frame rail must be a minimum of 175 inches (444cm). Cab to center of rear axle length must be a minimum 140 inches (355cm)
4. The frame rails must not have any splices in the rail. Extensions should not be welded onto the main frame. Modifications to the main frame rails are unacceptable.
5. Temporarily secure the oak slats to the main frame rails on the truck with tape.
6. Carefully set the TM on the main frame rail with the oak slats in place. Leave a minimum of 18 inches (45cm) from the back of the cab to the TM frame rail.
7. Mount the 4 vertical frame mount bracket pairs as shown on page 59. 2 pairs go at the front (one pair on each frame rail), and 2 pairs go at the rear (one pair on each frame rail).
8. Secure the TM frame to the truck frame using 4 U-Bolts evenly distributed down the length of each frame rail (Total of 8). Tighten the U-Bolt nuts to 400 ft lbs each.
9. All mounting of the TM onto the truck frame, D.O.T. approved rear axle truck fenders, and D.O.T. approved mud flaps are the responsibility of the customer.

Refer to pages 57-59 for pictures.

# SAFETY PRECAUTIONS

- High operating temperatures of machine require protective clothing and gloves be worn by operator.

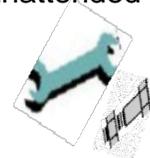


- Always wear eye protection.

- Observe all **CAUTION AND WARNING** signs posted on machine.



- Avoid bodily contact with hot emulsion material, serious burns may result.
- Read Operator Manual thoroughly before operating machine.
- Make sure operator is familiar with machine operation.
- Do not operate in closed building or confined areas.
- Shut-down engine prior to refilling diesel tank.
- Keep hands, feet, and clothing away from all moving parts.
- Always keep a fire extinguisher near the unit. Maintain extinguisher properly and be familiar with its use.
- Calibrate temperature control prior to initial operation and at each 50 hours of operation thereafter.
- Replace any hoses which show signs of wear, fraying, or splitting. Be sure all fittings and joints are tight and leak-proof.
- Precaution is the best insurance against accidents.
- The Crafcro Air Stream T-M Spray Injection Patcher should not be left unattended when running.
- Tighten all bolts and screws after every 100 hours of operation.
- CRAFCO, Inc. assumes no liability for an accident or injury incurred through improper use of the machine.



**EAC**

# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER LIMITED WARRANTY

Crafco, Inc. (Manufacturer), or one of its affiliated distributors, will replace for the original purchaser free of charge any parts found upon examination by the Manufacturer, to be defective in material or workmanship. This warranty is for a period **two years** from in-service date, but excludes engine or components, tires, and battery as these items are subject to warranties issued by their manufacturers.

Crafco, Inc. shall not be liable for parts that have been damaged by accident, alteration, abuse, improper lubrication/maintenance, normal wear, or other cause beyond our control.

The warranty provided herein extends only to the repair and/or replacement of those components on the equipment covered above and does not cover labor costs. The warranty does not extend to incidental or consequential damages incurred as a result of any defect covered by this warranty.

All transportation and labor costs incurred by the purchaser in submitting or repairing covered components must be borne by the purchaser. Crafco, Inc. specifically disavows any other representation, warranty, or liability related to the condition or use of the product.



**WARNING:** Use of replacement parts other than genuine Crafco parts may impair the safety or reliability of your equipment and nullifies any warranty.

## CONTACT US

For Warranty:

Crafco, Inc.

25527 South Arizona Avenue, Chandler, AZ 85248

Phone: (480) 655-8333 or (800) 528-8242

Fax: (480) 655-1712

For all other inquiries:

Crafco, Inc.

6165 W Detroit St, Chandler, AZ 85226

Phone: (602) 276-0406 or (800) 528-8242

Fax: (480) 961-0513

[CustomerService@crafco.com](mailto:CustomerService@crafco.com)

# WARRANTY CLAIM INSTRUCTIONS

Crafco, Inc. warrants parts and machinery purchased through Crafco or one of its affiliated distributors for two years from purchased or in-service date. Wear items are not covered under the Crafco, Inc. limited warranty. A wear item is defined as but not limited to: material pumps, sealing tips, tires, etc.

If parts fail to function within the two years of purchase, a return authorization number (RA) must be obtained. If the part was purchased through Crafco, Inc., please contact Crafco returns department at [Returns@Crafco.com](mailto>Returns@Crafco.com) for an RA number or if purchased through a Crafco distributor please contact your distributor.

Note: if the part has a serial number associated with it, for example; a machine or electric hose or wand, this must be furnished when requesting the RA number. The customer will be emailed or faxed an RA form with all instructions to return the item to Crafco, Inc. See example. If the part is found to be within the two year warranty period and has not been abused or modified, a credit will be issued to the customer's account or credit card. The customer may request the part be replaced instead of a credit, if desired.

Note: All engine warranties are covered through the engine manufacturer. If you need information for a distributor in your area please contact us and we will direct you to the closest engine distributor.

All parts returned are tested and evaluated. If the part has been modified in any way without prior consent from a Crafco, Inc. representative, warranty is void.

Please follow the instructions stated below when calling in a Warranty Claim. Failure to follow these procedures may be cause to void the warranty.

Call your local Crafco Distributor. If you do not know who your local distributor is, call a Crafco Customer Service Representative, (Toll Free 1-800-528-8242) for name, location and telephone number.

On contacting the distributor, be prepared to identify the serial number, model number, engine number, engine manufacturer, and the date of purchase if available.

Should the cause of the malfunction be a defective part, the Distributor will advise you of the procedure to follow for a replacement.

The warranty is valid only for parts, which have been supplied or recommended by Crafco, Inc.

If you have any additional questions regarding warranty repairs and parts, please do not hesitate to call toll free 1-800-528-8242.

## CAUTIONS



1. Never operate machine without all guards in place.
2. Do not open emulsion tank lid or open flush tank fill port when either tank is under pressure. Relieve pressure on emulsion tank using psi relief valve. Relieve pressure on diesel tank using relief valve. Gauge should read "0" pressure. Never relieve pressure in any other manner. Very serious injury can result.
3. Do not plug in emulsion tank heater unless emulsion is above the heating element enclosure inside the tank. This requires a minimum of 60 gallons in the tank.
4. Keep emulsion tank airtight when not in use.
5. Do not allow emulsion to freeze.
6. Do not fill flush tank more than 2/3 full.
7. Do not point the nozzle at another person.
8. Do not operate near an open flame.
9. Do not use any type of flame to unclog the emulsion hose or spray ring if they should become clogged.
10. When shooting material out the nozzle, protective eye glasses must be worn.
11. Do not place hand or fingers in the venturi eductor opening.
12. Do not touch the silencer as it can become very hot while the Air Stream T-M Spray Injection Patcher is operating.
13. Caution: Do not fill the emulsion storage tank more than 2/3's full. The emulsion will expand after the emulsion is heated up. Starting at the bottom of the lid opening, fill the emulsion about 12" down from the bottom of the lid opening. If you over fill the emulsion storage tank, you can damage the slide gate, compressor, and other vital components of the machine. If you over fill your emulsion storage tank you will void the warranty.

# **CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER OPERATING INSTRUCTIONS**

## **START UP SERVICING**

The CrafcO Air Stream T-M Spray Injection Patcher is fully serviced and tested prior to shipment. However, shipping regulations sometimes do not allow shipment of a fully serviced unit. The following should be checked prior to operation:

### DIESEL FLUSH TANK

Fill diesel flush tank 2/3 full with diesel fuel. Do not fill completely as this may cause diesel fuel to enter compressor or may cause the slide gate solenoid to have diesel fuel in it.

### DIESEL ENGINE FUEL TANK

Fill diesel tank located at front of machine.

### BLOWER

Check oil level. See Blower Operating Manual located in the Record Box. Re-check weekly. Grease the blower every 8 hrs. See manual.

### AIR COMPRESSOR

Check John Deere manual for the on-board compressor located in the Record Box.

### ENGINE - (4045 D John Deere)

Check oil level. See engine operating manual, in Record Box. Re-check daily.

--8.5L crankcase oil with off-board compressor.

--13.5L crankcase oil with on-board compressor.

### ENGINE AIR FILTER

Remove and clean. See Engine Operating Manual in Record Box. Re-check weekly.

### EMULSION TANK

Fill emulsion tank with asphalt emulsion. Temperature must be between 160° and 170°F prior to operation. If emulsion is not loaded above 160°F, fill tank 8 hours in advance of operation and plug in heating element to raise temperature to a minimum of 160°F.

# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER OPERATING PROCEDURES

## PREPARING FOR OPERATION

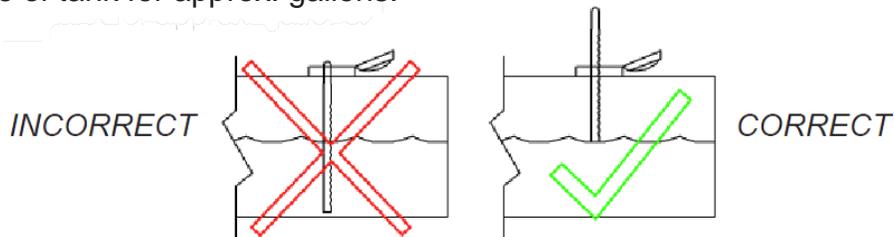
**Emulsion** - The emulsion tank should be filled with an asphalt emulsion suitable for the climate and condition in which the unit will be operating. Commonly this is an RS 2 or a CRS 2.

*(Note: All emulsions are not compatible. When changing emulsions brand or type you should completely empty and flush out the tank before the new emulsion is added.)*

Proper operation temperature for the emulsion is 160°F (+/-10°F). If the emulsion is below this temperature the unit must be plugged into a 110 Volt outlet. *(Optional 220 Volt wiring is available.)* The thermostat should be set at 160°F. The electric heating elements are designed to gently heat the emulsion at a rate of 10°F per hour. If the emulsion temperature is low it will take several hours to get the emulsion to operation temperature. Plugging the unit in overnight is recommended.

*(Never allow emulsion to freeze or heat emulsion above 190°F.)*

**Emulsion Level** -The Patcher comes with a dipstick that can be used to check the level. The dipstick is only meant to measure from the top of the emulsion to the lip of the lid. Do not submerge the dipstick into the emulsion. Just barely touch it to the top of the emulsion, take note of the notch, then wipe the dip stick clean so it won't stick in the holder. Compare notch to gauge on side of tank for approx. gallons.



**Stone** - A 3/8" crushed washed aggregate is the most common and versatile stone to use in patching operations. Smaller stone (1/4") can be used and may improve results when skin patching. Larger stone (1/2") can be used to improve results when patching larger hole or repairing shoulders

**Solvent** - Fill the solvent tank with diesel fuel or another solvent that has been recommended by the emulsion supplier.

**Stone Suggestion** - Each day, before operating the unit, rinse the stone with water. Allow the water to drain for several minutes. This will greatly reduce the dust developed during the patching operation and will improve the adhesion of the emulsion to the stone.

# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER OPERATING PROCEDURES

## START UP

### 1. Pressurize the emulsion tank.

- a. Remove the boom from the holder and remove the nozzle from the flush box.
- b. With the nozzle pointed at the ground, start the engine and allow to run for several minutes. The compressor runs when the engine is running and will automatically start building pressure in the emulsion tank. Allow the pressure to build until the pressure reaches a minimum of 90 PSI.

### 2. Purge the solvent from the emulsion lines.

- a. Locate the EMULSION TANK VALVE at the passenger side of the emulsion tank.
- b. With the nozzle positioned in the flush box and the engine off, turn the EMULSION TANK VALVE to the position marked Emulsion Only.
- c. Slowly open the EMULSION VALVE at the OPERATOR CONTROL PANEL approximately 1/4 open. Solvent will begin to flow from the nozzle. This will take 10 to 15 seconds.
- d. When the solvent is purged and emulsion is visible at the nozzle, quickly close the EMULSION VALVE on the boom.

### 3. Patching

- a. Remove the boom from the transport supports and position the nozzle over the area to be repaired.
- b. Start the engine.
- c. Adjust the throttle up to 1800 RPM.
- d. Lower the nozzle to about 12" from the ground and blow all dust, dirt and standing water away for the repair area.
- e. Reduce the engine RPMs to:
  - Skin Patching - 900 to 1000 RPM
  - Holes - 1100 to 1800 RPM
  - Shoulder Repairs 1300 to 1800 RPM

# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER OPERATING PROCEDURES

## START UP

### 3. Patching (continued)

*(with variables in stone, equipment and operating conditions, you may find that your unit works better at slightly higher RPM. These settings are our recommended setting for 3/8" stone. Each operator can adjust to their comfort level. We suggest with 1/2" stone increase by 100 RPM and with 1/4" stone decrease slightly.)*

- f. With the nozzle over the repair area at about knee high slowly open the EMULSION VALVE approximately 1/4 open.
- g. Tack the repair area with emulsion. (Coating the entire area including 6" past the edge of the repair is best. Highly distressed areas and damp areas require heavier tack application for good long lasting repairs.)
- h. With the emulsion running turn on the STONE SWITCH. Stone will immediately start shooting from the nozzle.
- i. Continuously move the nozzle over the repair building your repair from the bottom up. *(If you hold the nozzle still material will build up and you will not achieve a smooth repair.)*
- j. As the stone builds on the pavement you should see that less than 10% of the stone looks uncoated when your stone and emulsion flow are adjusted properly. If an excess of emulsion appears reduce the emulsion flow. If the stone appears undercoated increase the emulsion flow. *(Emulsion is the glue. To get a long-lasting repair, make sure you have enough emulsion.)*
- k. When the repair is at the desired level, close the EMULSION VALVE. Dry stone will continue to flow from the nozzle. Lightly cover the entire repair with dry stone to complete the repair.
- l. Shut off STONE SWITCH. *(Stone continues to flow for about 10 to 20 seconds after the switch is off.)*
- m. Move the nozzle away from the repair area.
- n. Lower the engine RPM.

***(TIP: With a push broom clean up any overspray of material by sweeping it back onto the repair area.)***

# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER OPERATING PROCEDURES

## START UP

4. Move to next repair area.

**(Never travel without properly stowing boom in the transport supports and locking into position. NEVER place the nozzle in the flush box with the engine running.)**

## SHUT DOWN

1. Shut down the engine.
2. Stow boom in transport supports and place the nozzle in the FLUSH BOX.
3. Turn the FLUSH VALVE to Flush Only.
4. Open the EMULSION VALVE and allow emulsion to flow into the FLUSH BOX until solvent replaces the emulsion coming out of the nozzle.
5. Close the EMULSION VALVE.
6. Turn the FLUSH VALVE to Off.
7. Stow the boom and the nozzle and lock in position for transport.

To assure proper operation of the Air Stream T-M unit, the aggregate feed system should be washed each day. This is done by pouring water into the empty aggregate hopper with the unit running at high RPM. This flushing will remove any dust and dirt build-up in the venturi, feed pipe, and hose.

# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER OPERATING PROCEDURES

## CLEAN OUT INSTRUCTIONS

### ASPHALT EMULSION LINE

The emulsion line should be flushed with diesel fuel, or solvent, when the time between repairs exceeds 20 minutes, and at the end of every day. To flush the line: Turn valve to flush and open valve. Flush into flush box. Flush only when engine is turned off. If the emulsion line ever becomes clogged do not attempt to unclog by applying any type of open flame to the emulsion line.

If some asphalt emulsion is spilled on machine it can be wiped off immediately with diesel fuel or solvent.

If asphalt emulsion has accumulated on the machine or hoses, you should spray them with your diesel fuel, or asphalt solvent, let soak approximately 3 minutes and wash off with water or steam. This should be done weekly.

### AGGREGATE FEED SYSTEM

The entire aggregate feed assembly (aggregate hopper, venturi eductor, and aggregate hose) should be cleaned daily. The aggregate feed system should be flushed with water for 10 minutes daily. Start the engine and run at 2400 RPM MAX. Then run water from a hose into the aggregate hopper and venturi eductor and blow the water out the aggregate hose and nozzle. For a more thorough cleaning, fill a 5 gallon bucket with water and dump the water into the aggregate hopper and venturi eductor and blow the water out the aggregate hopper and nozzle. Repeat two or three times. This will thoroughly clean the unit of any fines and aggregate buildup that may accumulate in the aggregate hopper, venturi eductor or aggregate hose and assure smooth operation and maximum Air Stream T-M Spray Injection Patcher output. After cleaning, shut off the engine.

# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER OPERATING PROCEDURES

## LUBRICATING AND MAINTENANCE INSTRUCTIONS

1. Engine - refer to separate manual in packet. (John Deere Maintenance Manual)
2. Blower - refer to separate manual in packet. (Tuthill Blower Manual)
3. Compressor - check separate manual in packet. (IMA Manual if off-board compressor)
4. Grease bearings every 100 hours for boom using the grease zerks.
5. Check drive belt on air compressor after 100 hours.
6. Check and tighten all bolts periodically, including axles (approximately 100 hours).
7. Grease the bearing stub support shaft assembly on the back of the bell housing.

## OPERATOR BOOM HEIGHT - SPRING CYLINDER ADJUSTMENT INSTRUCTIONS

For proper operation of the operator boom, the nozzle needs to be able to float in a constant position above the ground for best results. There are adjustable spring cylinders that control the tension on the boom. There is adjustment available because over time the springs may start to stretch, as well as different operating conditions might require a different tension. Correct adjustment allows the operator to be able to raise and lower the boom, and it will also hold its height without input from the operator.

### ADJUSTING SPRING CYLINDERS

To adjust the cylinders tension, there are adjustment nuts on the end of the cylinder. Turn the adjustment nuts to the right to increase tension, and to the left to decrease tension. Usually, all that is needed is an adjustment to the top cylinder. If not enough tension is available, you can decrease the tension on the upper cylinder, and increase tension on the 2 lower cylinders. In the event that a more extreme adjustment is needed, the upper cylinder can also be adjusted by changing the mounting bolt position on the cylinder. There are 5 positions available.



# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER OPERATING PROCEDURES

## TROUBLE SHOOTING

### NO EMULSION

CHECK THE FOLLOWING:

1. Emulsion tank empty. (Remove tank pressure first. Open pressurized lid on emulsion tank.)
2. Emulsion line valve closed on tank.
3. Low P.S.I. in emulsion tank. Check gauge.
4. Spray ring plugged. Remove and clean.
5. Hose from emulsion tank to nozzle plugged. If equipped with heated hose start engine to allow heating and turn flush on. Do not attempt to unplug the emulsion hose by applying an open flame to the emulsion hose or spray ring. The system has a water heating system (standard). Start engine. Let run to heat emulsion hose.
6. Emulsion cold. Check temperature. Check to be sure thermostat and heating element are working.
7. Emulsion has separated and become lumpy. Check emulsion by placing a rod to the bottom to check for "bubble gum" like asphalt residue on the bottom. If separated, drain tank and flush with diesel fuel.

# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER OPERATING PROCEDURES

## TROUBLE SHOOTING

### MOTOR WILL NOT START

CHECK THE FOLLOWING:

Refer to engine manual.

### AGGREGATE NOT COMING THROUGH HOSE

CHECK THE FOLLOWING:

1. Aggregate hopper empty.
2. Check for blockage in the Aggregate Hopper.
3. Check engine R.P.M. - 2,400 MAX.
4. Aggregate hose plugged. Angle front section of hose and nozzle down and shake hose. If hose is still plugged, remove hose from air flow pipe, angle down and shake hose, then reattach hose to air flow pipe. If hose is still plugged, flush out with large amounts of water as described in aggregate feed system.
5. Nozzle plugged - remove and clean.
6. Check venturi eductor to be sure an unusually large rock or foreign object has not gotten wedged in the venturi eductor air flow.

## WIRING CODE FOR TAIL LIGHTS AND BRAKES

GD (Ground) - Black  
LT (Left Turn) - Red  
RT (Right Turn) - Green  
S (Brakes) - White  
TM (Running Lights) - Brown

# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER

## MATERIAL SPECIFICATIONS

Below are general specifications for the materials used in a CrafcO Air Stream T-M Spray Injection Patcher. The materials are very common. This is not a complete list, as a variety of materials can be used and manufacturer trade names vary by location. Please call if we can assist in any way.

### STONE

General description: 3/8" or 1/4" preferably washed angular crushed stone. Round river rock is also acceptable, but crushed is preferred.

### GENERAL SIEVE ANALYSIS

100%	1/2 inch
90 - 100%	3/8 inch
20 - 100%	3/16 inch (#4 screen)
5 - 30%	1/8 inch (#8 screen)
0 - 10%	1/16 inch (#16 screen)

### EMULSION

General description: Rapid setting asphalt emulsion, commonly referred to as RSII, CRSII and sometimes CMSII. Other trade names are used in some areas. Rapid setting high floats are also acceptable, and are preferable in cold weather (less than 32°F.) operation.

### SPECIFICATIONS

	Min.	Max.
Viscosity, Saybolt Furol @ 122 degrees F. (50°C.), s.....	75	400
Settlement, 5-Day, %.....		5
Storage Stability, Test, 24-h, %.....		1
Demulsibility, 35 ml, 60.....	40	
Sieve test, %.....		0.10
Residue by distillation, %.....	63	
Penetration, 77°F. (25°C.).....	100	
Ductility, 77°F. (25°C.), 5.....	40	
Solubility in trichloroethylene, %.....	97.5	

# CRAFCO AIR STREAM T-M SPRAY INJECTION PATCHER

## TENSIONING V-BELT DRIVES

### INSTRUCTIONS

GENERAL RULES OF TENSIONING - for off-board compressor, older style belt driven blowers and hydraulic pumps.

Ideal tension is the lowest tension at which the belt will not slip under peak load conditions.

Check tension frequently during the first 24 - 48 hours of operation.

Over tensioning shortens belt and bearing life.

Keep belts free from foreign material which may cause slip.

Make V-drive inspection on a periodic basis. Tension when slipping.

Never apply belt dressing as this will damage the belt and cause early failure.

#### CRAFCO AIR STREAM T-M SPECIFIC RULES FOR TENSIONING

To check for proper belt tightness you must measure the force required to achieve the desired deflection at the center of the belt span, midway between the two pulleys. Below are the minimum and maximum forces permissible to achieve the desired deflection. This should be checked after the first 24 hours, 48 hours and weekly thereafter.

Belt	Drive	Desired Deflection	Force to Achieve Deflection - Min.	Force to Achieve Deflection - Max.
91409	Blower	.156"	7.1 lbs	10.5 lbs

# MAINTENANCE GUIDE OF THE V-BELT DRIVES

TYPE OF MAINTENANCE	WHEN TO DO	WHAT TO DO
Check for sheave groove wear.	Initial inspection - 8 hours. Second inspection - 24 hours. Third inspection - 100 hours. Periodically thereafter.	Check for belt riding in the groove. In multiple groove drives, belt ride should be uniform, not more than 1/16" above or below top of sheave groove. Check groove wear area for wear. Side wall of groove should be straight, not dished out. Bottom of groove should show no signs of belt contact.
Check for sheave runout.	Initial inspection - 8 hours. Second inspection - 24 hours. Third inspection - 100 hours. Periodically thereafter.	Check sheave by eye for runout. If runout is excessive, it can easily be seen by visual inspection. If runout is noticeable, check sheave for source of problem and correct.
Inspect for heat build-up and proper ventilation.	Initial inspection - 8 hours. Second inspection - 24 hours. Third inspection - 100 hours. Periodically thereafter.	Check belts for heat. Ambient temperatures should not exceed 140°F. Contact temperatures should not exceed 180 °F. Make sure drives are properly ventilated.
Clean belts and sheave grooves.	Initial inspection - 8 hours. Second inspection - 24 hours. Third inspection - 100 hours. Periodically thereafter.	Inspect belts for contaminates, such as oil or grease. Wipe belts clean with detergent and water. Inspect sheave grooves for buildup of such material and remove, if necessary.
Check belt tension.	Initial inspection - 8 hours. Second inspection - 24 hours. Third inspection - 100 hours. Periodically thereafter.	Check belt tension using Browning belt tension checker. Tension to recommendations shown in current catalogs.
Check sheave alignment.	Initial inspection - 8 hours. Second inspection - 24 hours. Third inspection - 100 hours. Periodically thereafter.	Check alignment with straight edge, string or machinist level. Correct alignment to as near perfect as possible.
Mismatched belt check.	Initial inspection - 8 hours. Second inspection - 24 hours. Third inspection - 100 hours. Periodically thereafter.	Check belt sag on slack side of drive. All belts should have a slight bow. If this bow is not uniform with all belts, replace entire set with a matched set.
Check for worn belts.	Initial inspection - 8 hours. Second inspection - 24 hours. Third inspection - 100 hours. Periodically thereafter.	Check wear surfaces of belt for excessive wear. If belts have a slick, glazed look, belts are slipping. Check drive capacity and belt tension. Never replace only one belt in a used set, as used belts will elongate. Replace entire set if replacement is necessary.
Check sheave setscrews and/or bushing capscrews.	Initial inspection - 8 hours. Second inspection - 24 hours. Third inspection - 100 hours. Periodically thereafter.	Check all setscrews and/or capscrews for looseness. Retighten to recommended torque, if necessary.

## REAR VIEW OF THE MACHINE – JOHN DEERE ENGINE CONTROLS



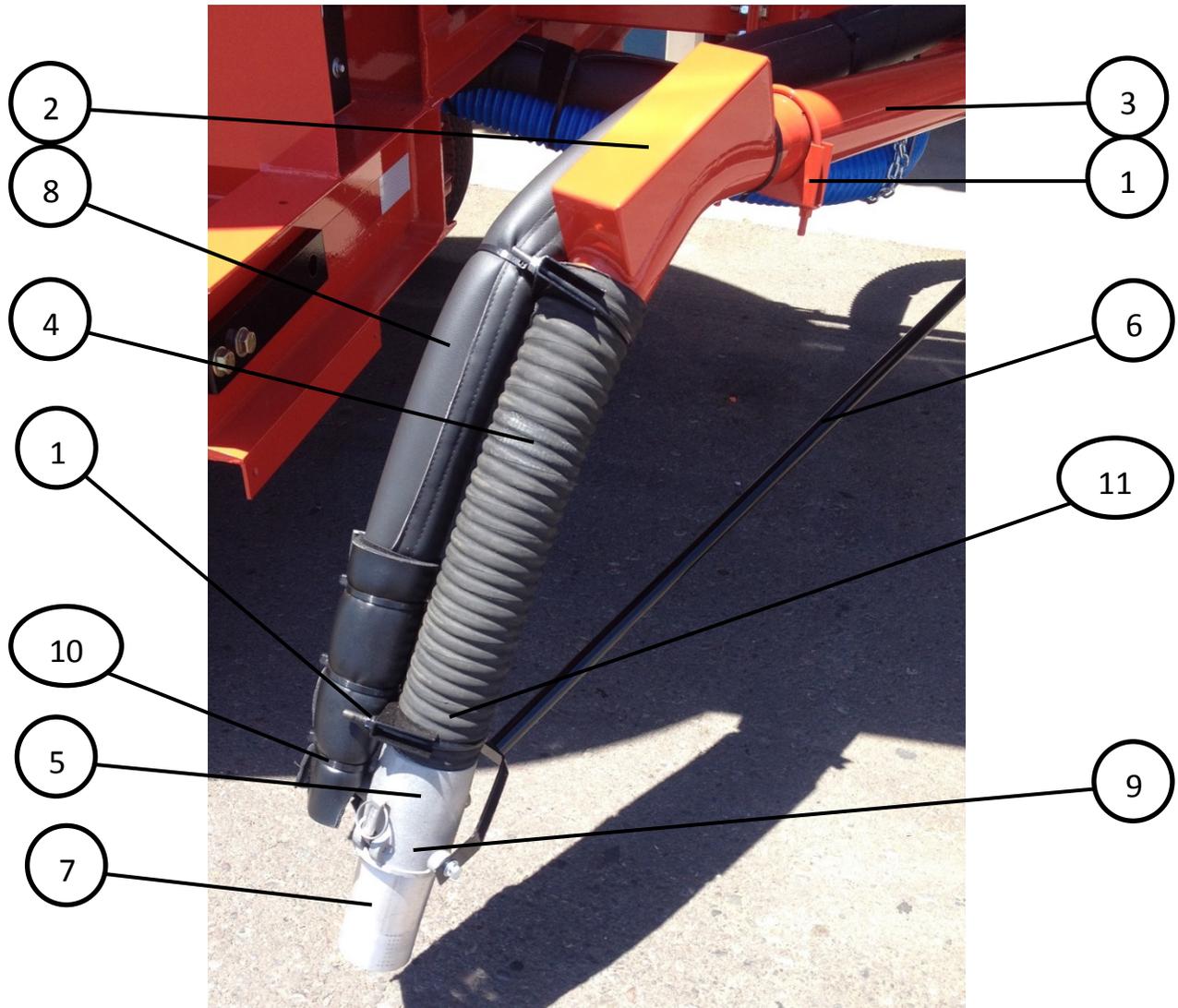
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	29270	1	BRONZE GATE VALVE - 2" (NOT SHOWN)
2	91530	1	DEEP NOZZLE STORAGE BOX (NOT SHOWN)
3	90661	1	3" ID BEARING ASSMBLY COVER
4	91540	1	SECTION BOOM - BOLT ON - T-M
5	91648	1	BOOM STOW SAFETY CHAIN ASSEMBLY
6	91578	1	2ND SECTION SUPPORT, BOOM ASSEMBLY
7	91380	1	JIB SUPPORT ASSEMBLY
8	91425	1	3.5" AGGREGATE BOOM CLAMP ASSEMBLY
9	92253	1	ENGINE CONTROL PANEL PURCHASED

**REAR VIEW OF THE MACHINE - JOHN DEERE  
ENGINE CONTROLS – CONT'D**



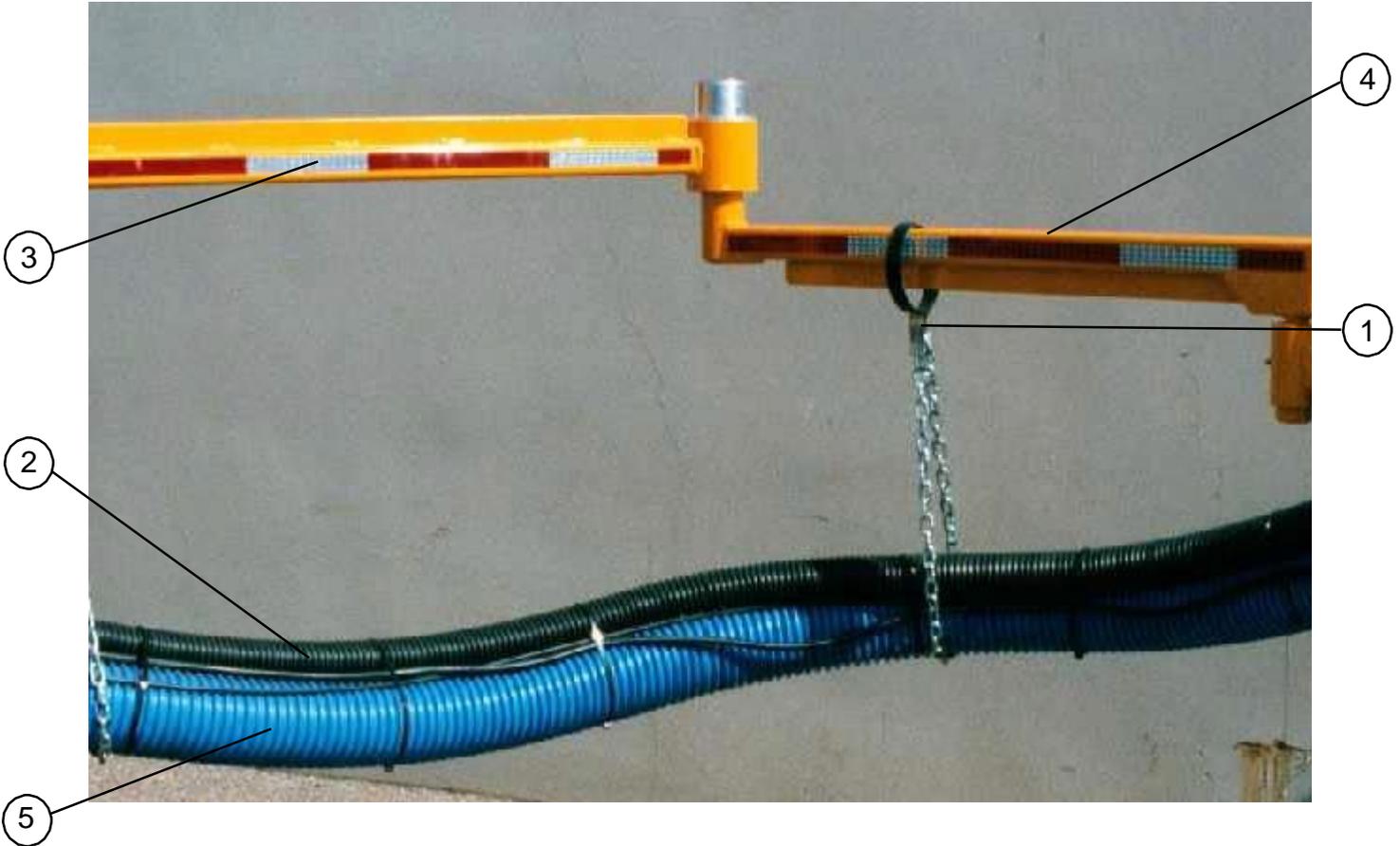
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	90395	1	ARROWBRD CONTRLR PROTECTION BOX
2	90625	1	ARROWBRD AND CONTROLLER
3	24023	1	TAIL LIGHT, LEFT
4	91418	1	3.5" BOXED 45° ELBOW
5	24022	1	TAIL LIGHT, RIGHT
6	91134	1	CYCLOPS TAIL LIGHT (BOOM)
7	91396	1	HANDLE ASSEMBLY
8	91415	1	3.5" ID WELD ASSEMBLY

## NOZZLE AND HOSE – 3.5” FEED SYSTEM



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	25953	3	4" U-BOLT MUFLER CLAMP
2	91418	1	3.5" BOXED 45° ELBOW
3	91415	1	3.5" ID WELD ASSEMBLY
4	91421	1	HOSE 3.5" X 20" GUM RUBBER LINED
5	91103	1	3" ALUMIN NOZZLE HOUSING
6	91162	1	NOZZLE POSITION HANDLE
7	91555	1	3" NOZZLE NO TAPER
8	90303	1	EMULSION LINE COVER, 115"
9	91099	1	3" O-RING (INSIDE NOZZLE HOUSING)
10	90301	1	EMULSION WATER RETURN BUTTON "U"
11	28077	1	3" PIPE NIPPLE BY 6" LG (INSIDE HOSE)

# OPERATOR BOOM



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	90149	1	4" ID AGGREGATE (TIGRFLEX) HOSE HANGER
2	90303	1	EMULSION LINE COVER
3	91535	1	1ST BOOM SECTION
4	91545	1	BOOM SECTION 2ND COMPLETE
5	91662	1	3" WILDCAT HOSE X 10.5 FT LONG

# OPERATOR BOOM CONTROL PANEL/SPRING ARM ASSEMBLY



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	51815	2	WASHDOWN SWITCH SPST
2	32521	1	WASHDOWN SWITCH SPDT MOMENTARY
3	91700	1	EMULSION REGULATION VALVE ASSEMBLY
4	32527	3	TOGGLE SWITCH BOOT
5	91230	1	COMPLETE ASSY CONTROL CONSOLE

# SPRING ARM ASSEMBLY



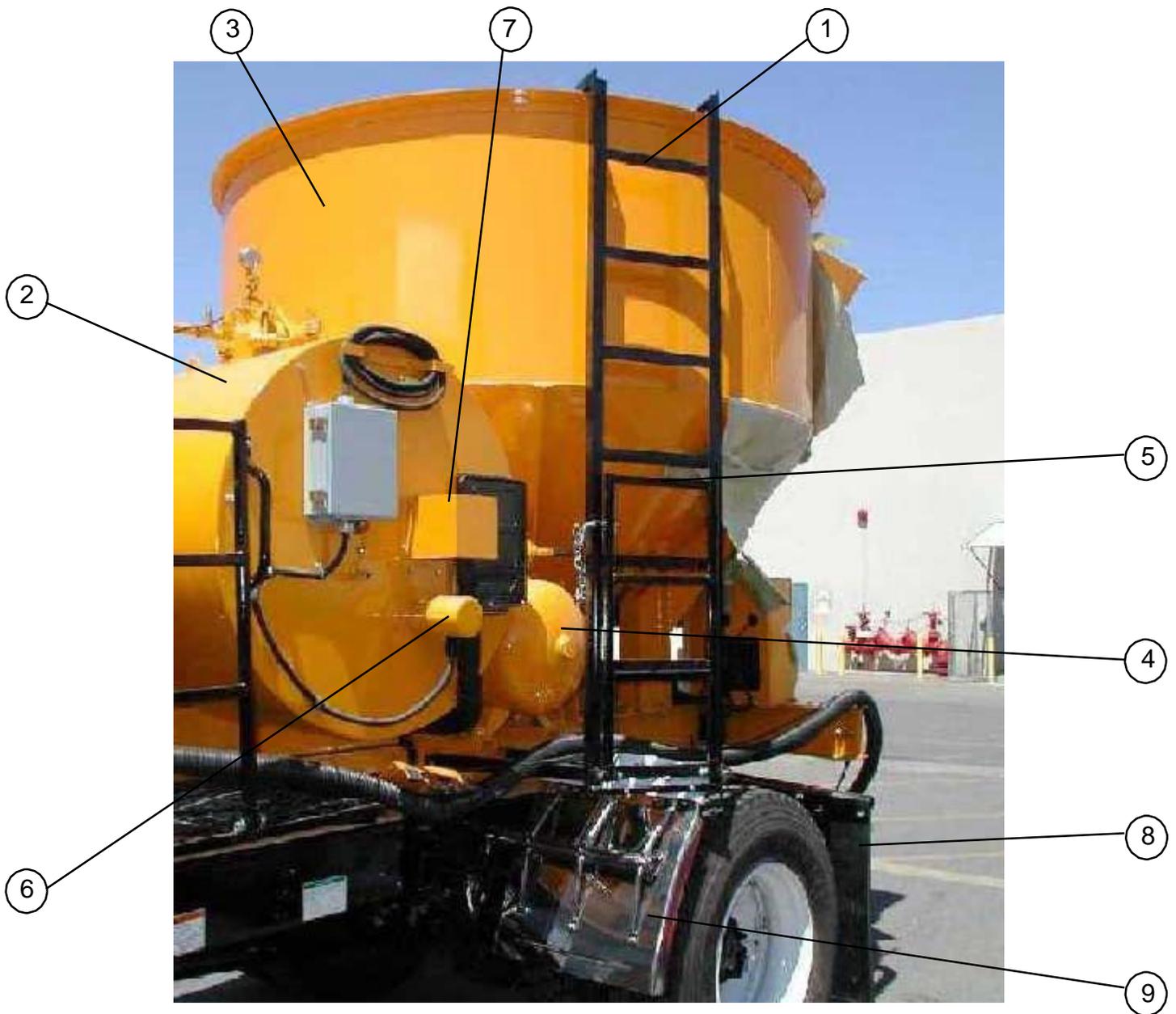
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91365	1	UPPER SPRING CYLINDER COMPLETE
2A	91360	1	SPRING CYLINDER L.H. ASSY
2B	91357	1	SPRING CYLINDER R.H. ASSY
3	91350	1	SPRING ARM ASSEMBLY
4	91396	1	HANDLE ASSEMBLY

## DRIVER'S SIDE ACCESS PLATFORM EXTENSION LADDER



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91095	1	READY TO MOUNT THERMOSTAT ASSEMBLY
2	91475	1	ACCESS PLATFORM EXTENSION LADDER
3	43594	1	26 GALLON DIESEL FUEL TANK
4	91465	1	ACCESS PLATFORM STEP
5	44462	1	HITCH PIN

## DRIVER'S SIDE - AGGREGATE HOPPER AND COMPONENTS



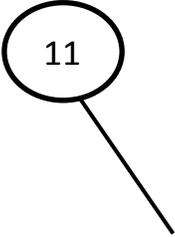
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91605	1	HOPPER ACCESS LADDER
2	91615	1	250 GALLON FAT BODY EMULSION TANK
3	91610	1	AGGREGATE HOPPER 6 CUBIC YARD
4	90860	1	30 GALLON DIESEL FLUSH TANK
5	91475	1	ACCESS PLATFORM EXTENSION LADDER
6	91799	1	EMULSION TANK HEATER
7	91455	1	EMULSION TANK HEAT SHIELD
8	-	2	MUD FLAPS SUPPLIED BY CUSTOMER
9	-	2	FENDER'S SUPPLIED BY CUSTOMER

## ENGINE COMPONENTS AND COVER



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	92255	1	ENGINE, JOHN DEERE 80HP AIRSTREAM
2	91048	1	MUFFLER EXHAUST
3	91031	1	INLET HOOD
4A	9104791014	1	ENGINE AIR FILTER , PRIMARY OUTER
4B	91013	1	ENGINE AIR FILTER, SAFETY INNER
5	91044	1	OIL FILTER, ENGINE
6	91016	1	FUEL FILTER, ENGINE
7	91795	1	AIR FILTER RESTRICTION INDICATOR
8	91727	1	AIR CLEANER VACTUATOR VALVE
9	91043	1	ENGINE SERPENTINE BELT
-	26491	1	SERVICE MANUAL, JOHN DEERE 4045 (not shown)

11	91872	1	OPTIONAL EXTERNAL FUEL FILTER
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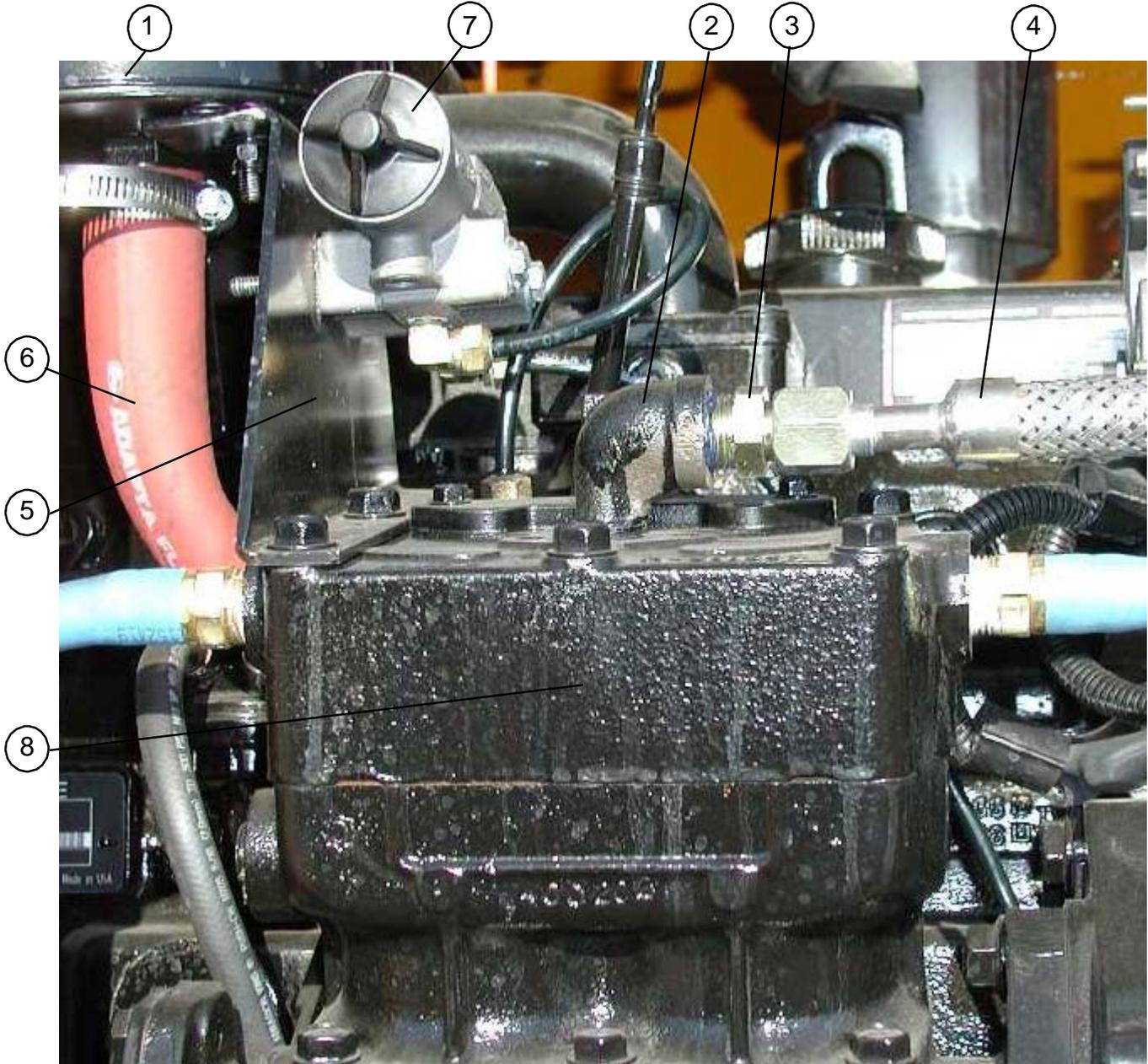


## BATTERY BOX AND BATTERY



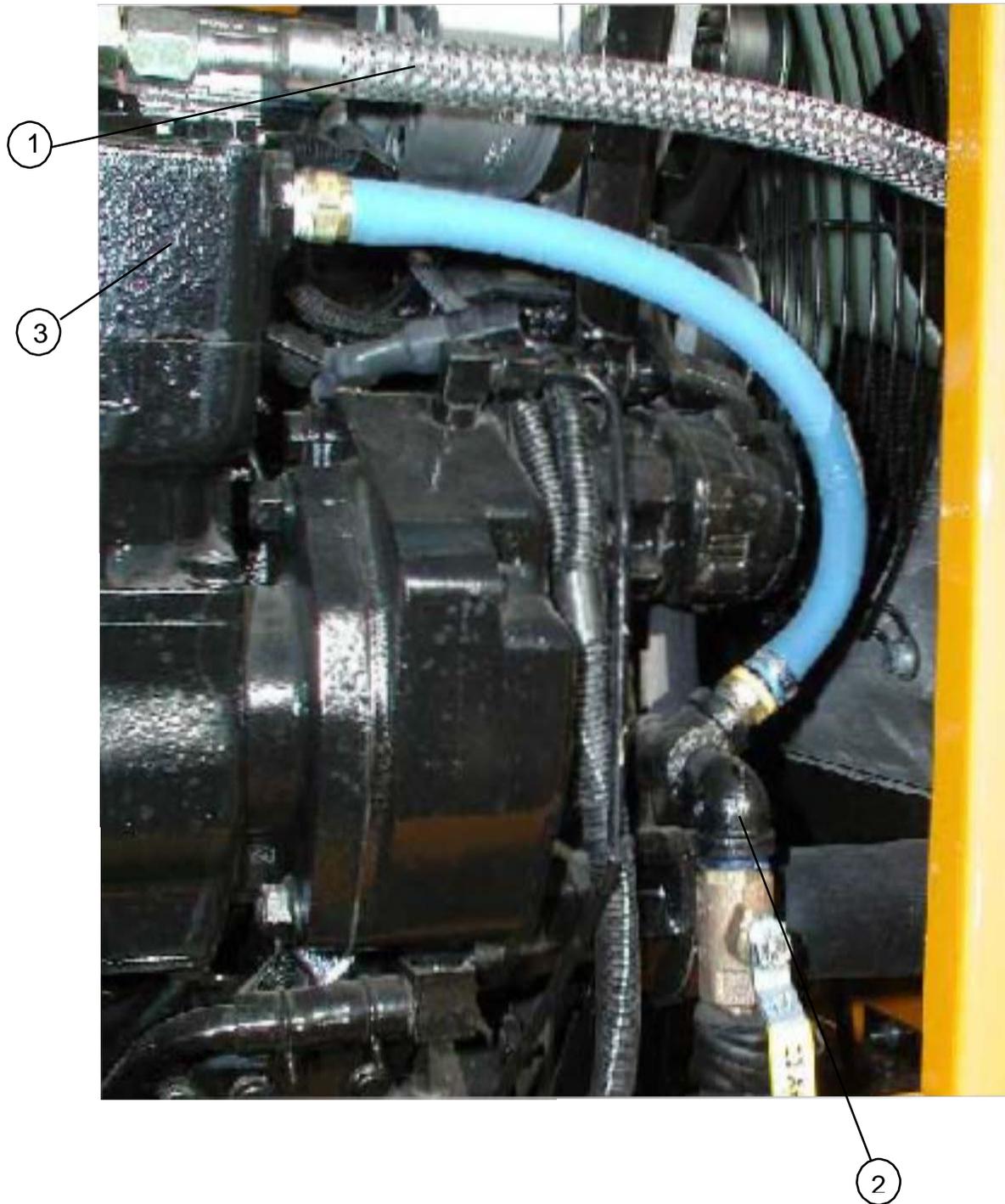
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	24001	1	1000 C.C.A. BATTERY
2	90200	1	BATTERY LOCK BOX ASSEMBLY
3	90215	1	BATTERY HOLD DOWN FRAME
4	90905	1	BATTERY CABLE 93" LONG
5	32602	1	20" CRESCENT BATTERY CABLE

## ENGINE AIR COMPRESSOR AND COMPRESSOR GOVERNOR



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	50109	1	AIR COMPRESSOR FILTER
2	28238	1	1/2" STREET ELBOW
3	29844	1	1/2" MPT X 1/2" 37° ADAPTER
4	41403	1	1/2" STAINLESS STEEL LINE
5	90890	1	BRACKET
6	90891	1	INTAKE AIR COMPRESSOR HOSE
7	90899	1	GOVERNOR - COMPRESSOR UNLOADING
8	91022	1	ENGINE - BOLT ON AIR COMPRESSOR

## WATER PUMP OUTLET HEATING VALVE



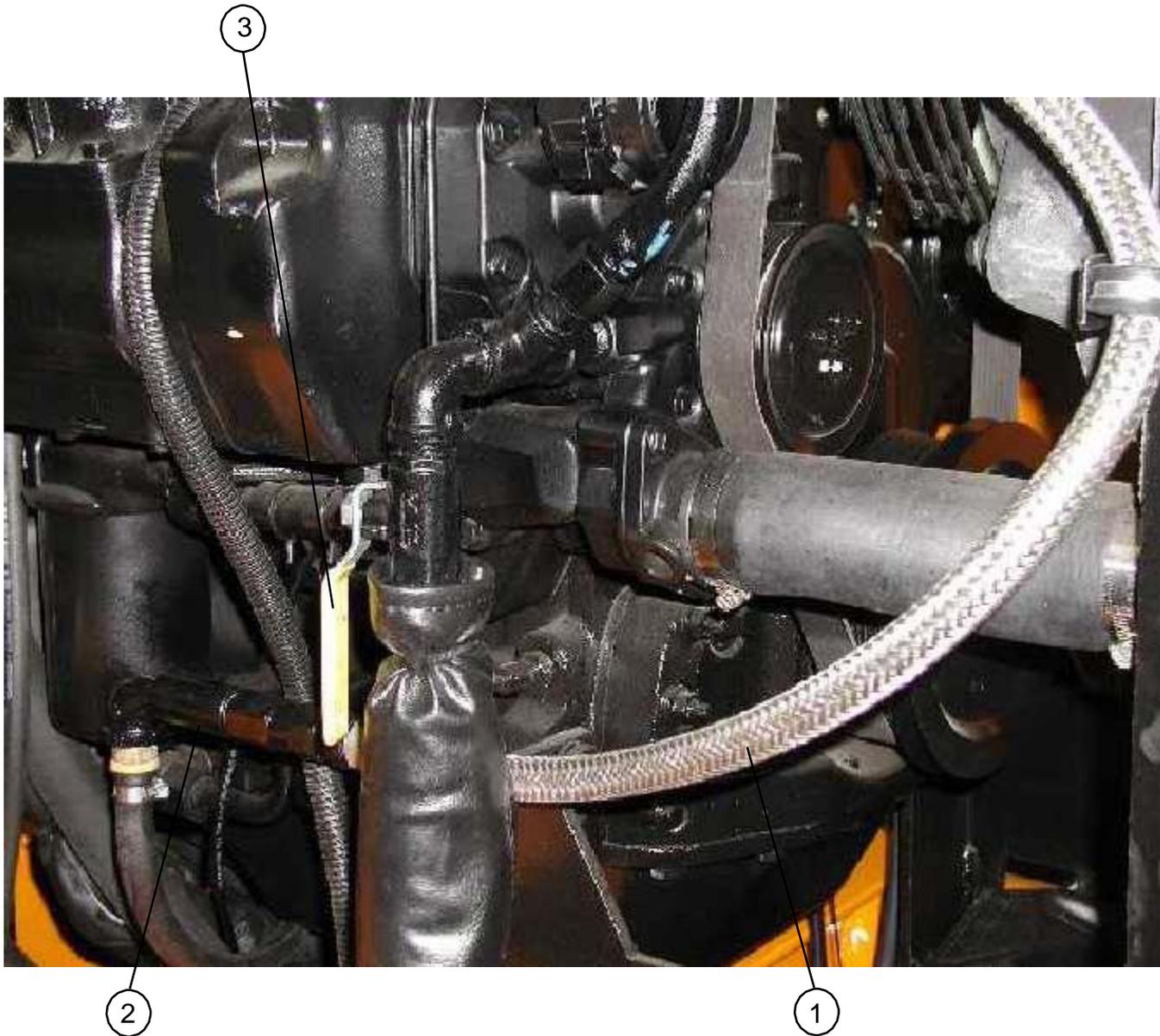
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	41403	1	1/2" STAINLESS LINE
2	90530	1	WATER PUMP OUTLET HEATING VALVE
3	91022	1	ENGINE BOLT ON 13CFM COMPRESSOR J.D. ENGINE

## BOLT-ON ENGINE COMPRESSOR AND COMPONENTS



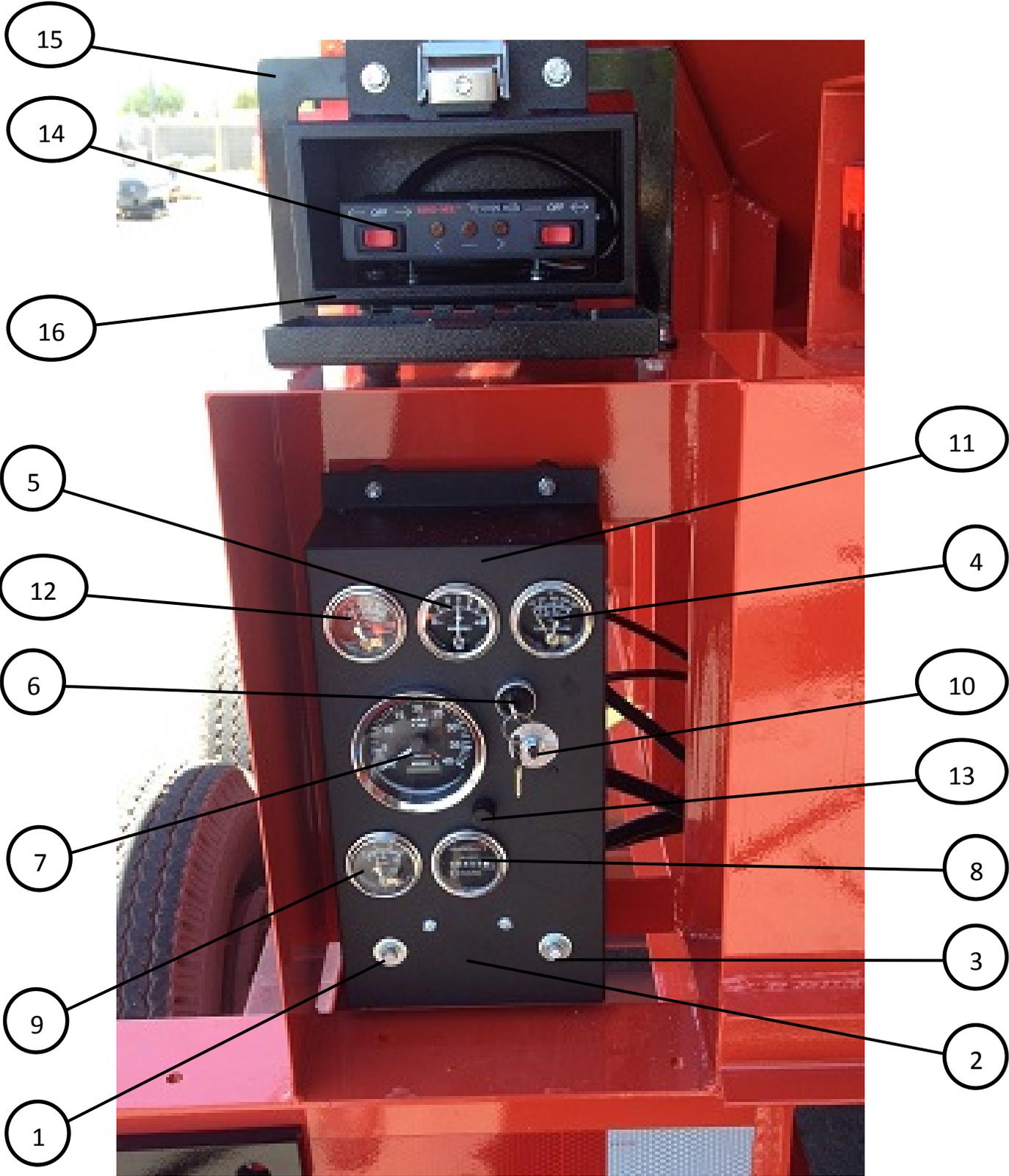
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	50109	1	FILTER AIR COMPRESSOR
2	90899	1	GOVERNOR - COMPRESSOR UNLOADING MECHANISM
3	41403	1	1/2" STAINLESS STEEL LINE
4	91022	1	ENGINE BOLT-ON 13 CFM COMPRESSOR - JOHN DEERE ENGINE
5	90890	1	INTAKE AIR COMPRESSOR FILTER BRACKET
6	90891	1	INTAKE AIR COMPRESSOR HOSE

## ON-BOARD COMPRESSOR VALVE ASSEMBLY



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	41403	1	1/2" STAINLESS STEEL LINE
2	90895	1	ON-BOARD COMPRESSOR CHECK VALVE ASSEMBLY
3	90530	1	WATER PUMP OUTLET HEATING VALVE ASSEMBLY

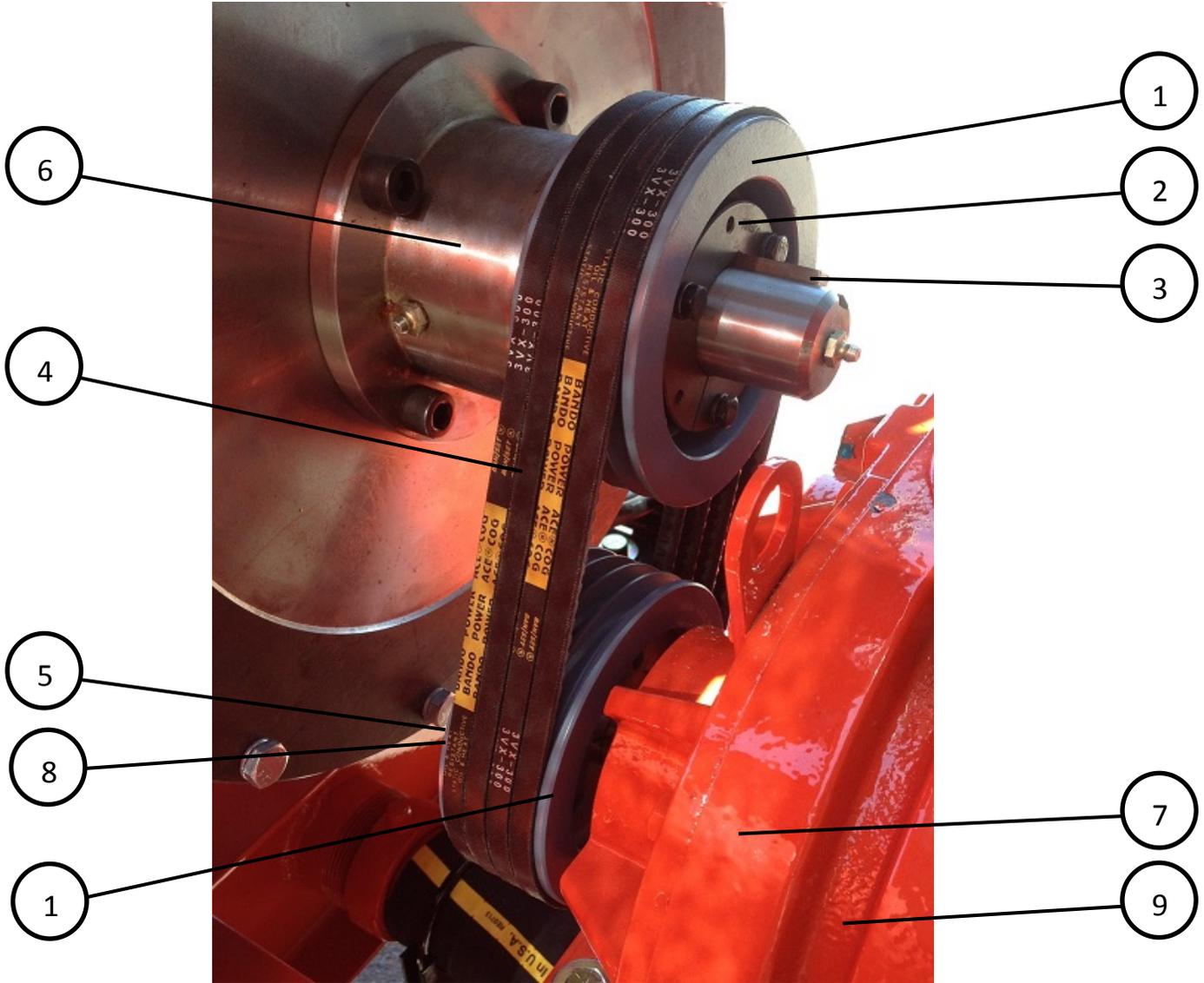
# CONTROL PANEL



## CONTROL PANEL

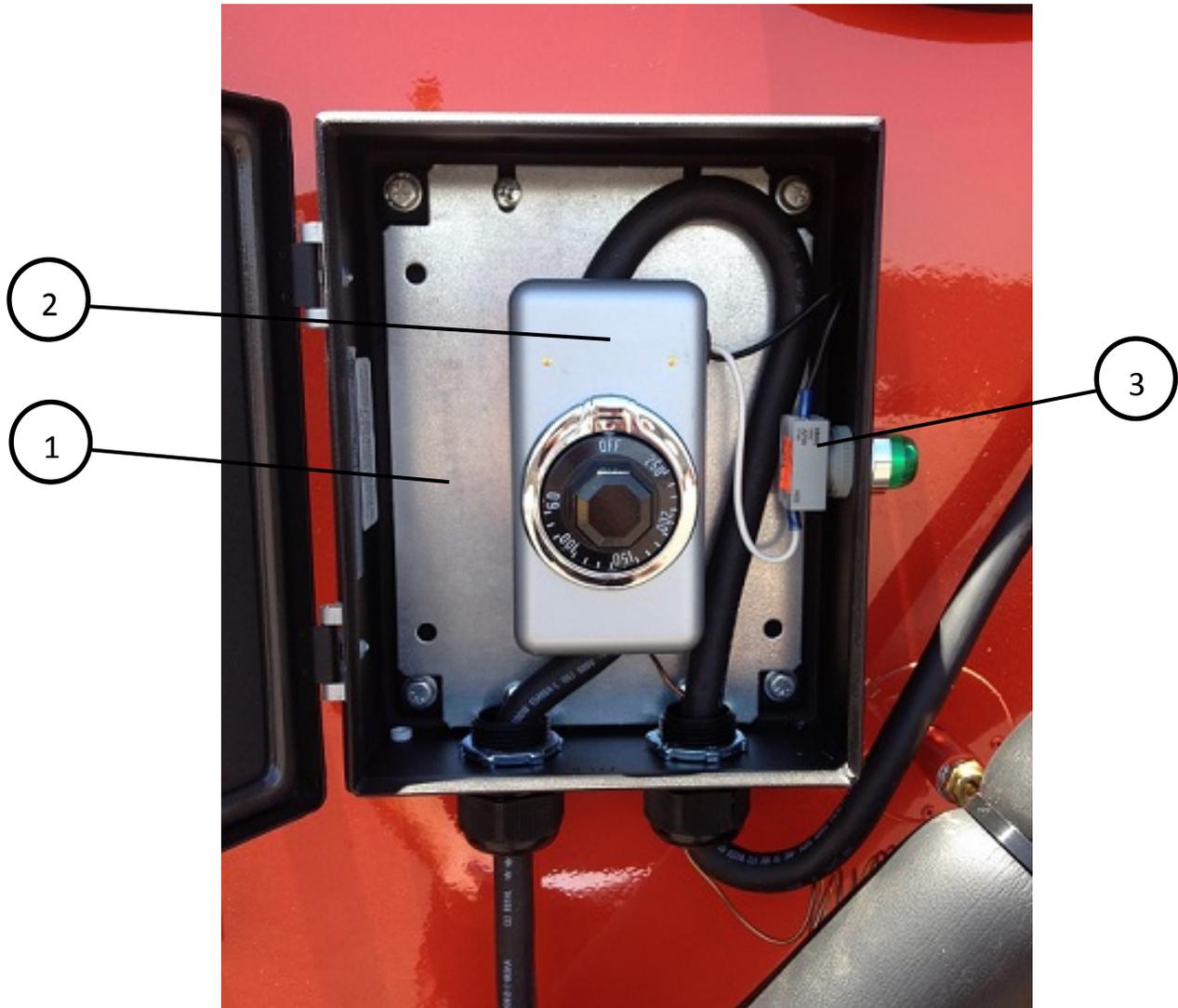
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	51695	1	CIRCUIT BREAKER 30 AMPS
2	50238	1	JUMPER (INSIDE BOX)
3	51694	1	CIRCUIT BREAKER 5 AMPS
4	91764	1	TEMPERATURE SWITCH GAUGE
5	91822	1	AMP METER
6	90537	1	SWITCH KEY
7	91854	1	TACHOMETER WITH HOUR METER
8	91780	1	HOUR METER
9	91837	1	COOLANT PRESSURE SWITCH GAUGE
10	91758	1	MAGNETIC SWITCH
11	92253	1	CONTROL PANEL-PURCHASED COMPLETE
12	91869	1	OIL PRESSURE SWITCH GAUGE
13	91177	1	FUSE HOLDER
14	90625	1	ARROW BOARD & CONTROL BOX
15	91444	1	ARROW BOARD CONTROL BOX BRACKET
16	90395	1	ARROW BOARD CONTROL PROTECTION BOX

## ENGINE TO BLOWER - 4 BELT DRIVE SYSTEM



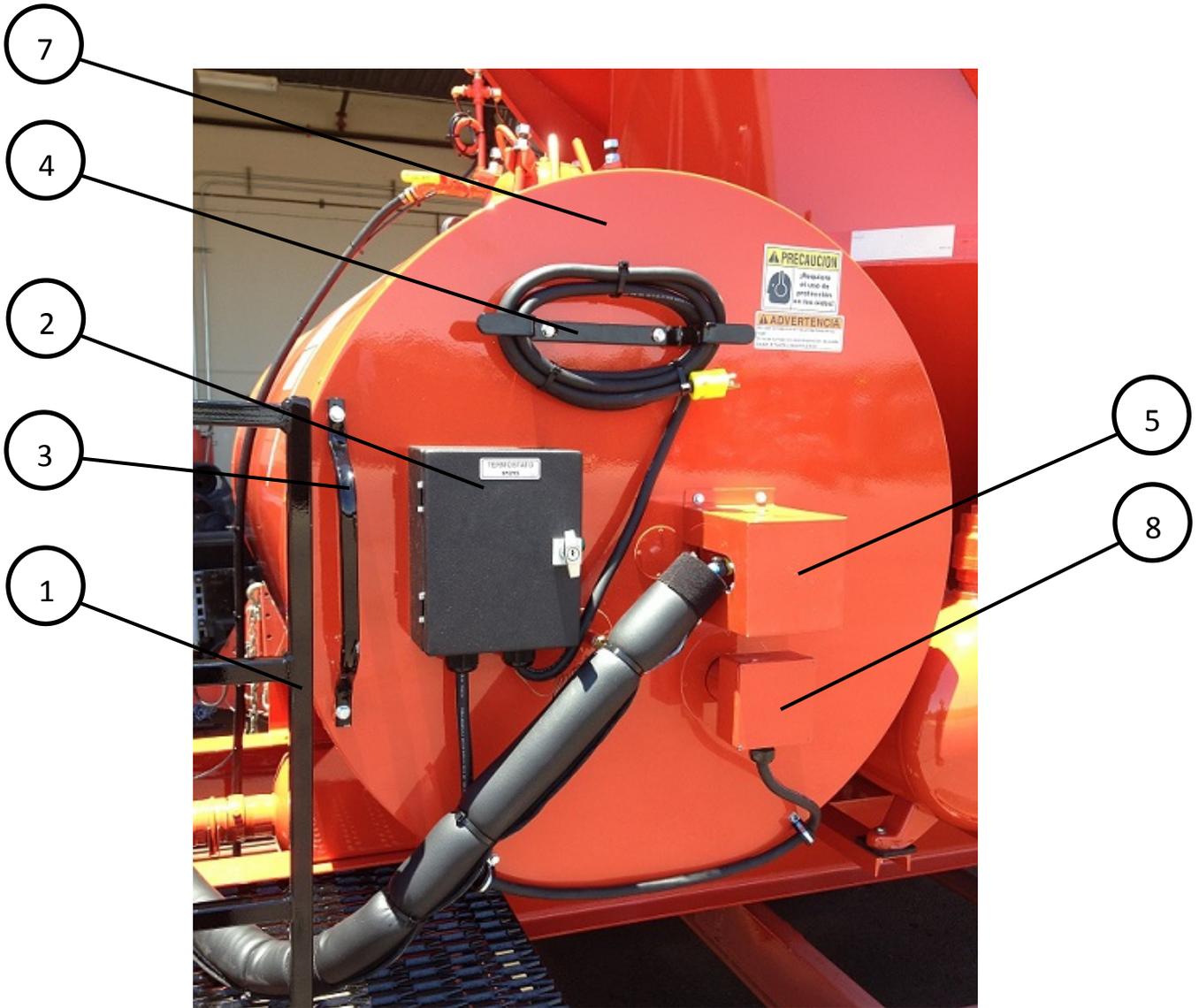
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91412	2	ENGINE BLOWER 4 GROOVE SHEAVES
2	91411	1	1-1/2" SDS BUSHING ENGINE
3	91326	1	ENGINE SHAFT KEY 3/8" X 3/8"
4	91409	4	ENGINE/BLOWER BELTS
5	91410	1	1-1/8" SDS BUSHING BLOWER
6	91335	1	BEARING SUPPORT STUB SHAFT
7	91660	1	BLOWER
8	37032	1	BRUSH SHAFT KEY 1/4" X 1-1/8"
9	60335	.25 gal	OIL-BLOWER SYNTHETIC LUBRICATION

## THERMOSTAT AND THERMOSTAT BOX



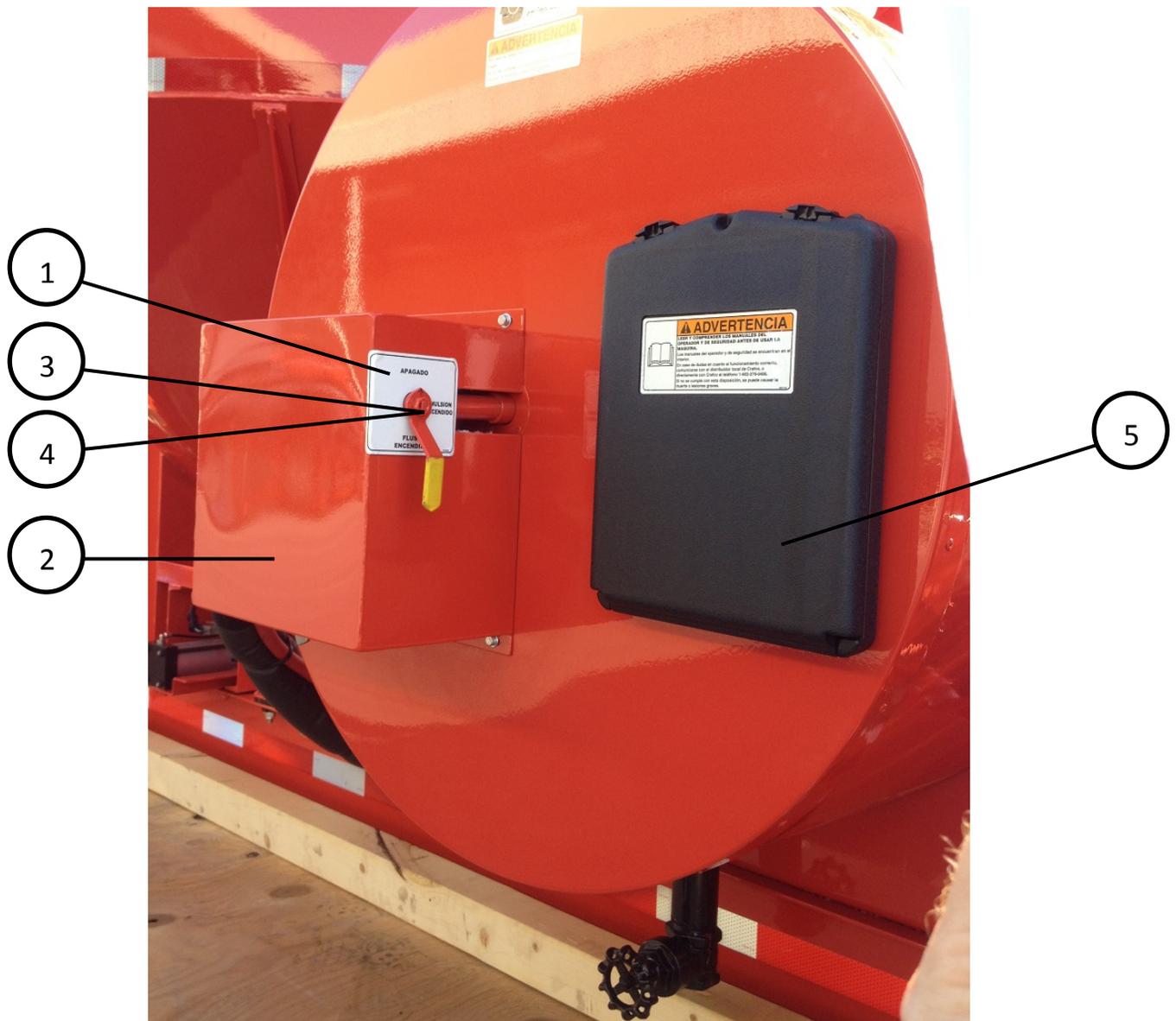
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91095	1	READY TO MOUNT THERMOSTAT ASSEMBLY
2	91215	1	THERMOSTAT
3	90542	1	LIGHT FIXTURE

## DRIVER SIDE VIEW OF EMULSION TANK AND COMPONENTS



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91475	1	ACCESS PLATFORM EXTENSION LADDER
2	91095	1	READY TO MOUNT THERMOSTAT ASSEMBLY
3	91453	1	GRAB HANDLE SUPPORT RAIL-SHORT
4	91298	1	ELECTRICAL CORD STORAGE BRACKET
5	91455	1	EMULSION TANK HEAT SHIELD ASSEMBLY
6	91465	1	ACCESS PLATFORM STEP
7	91615	1	TANK 250 GALLON COMPLETE FATBOY
8	91799	1	EMULSION TANK HEATER

# PASSENGER SIDE OF THE EMULSION TANK AND COMPONENTS



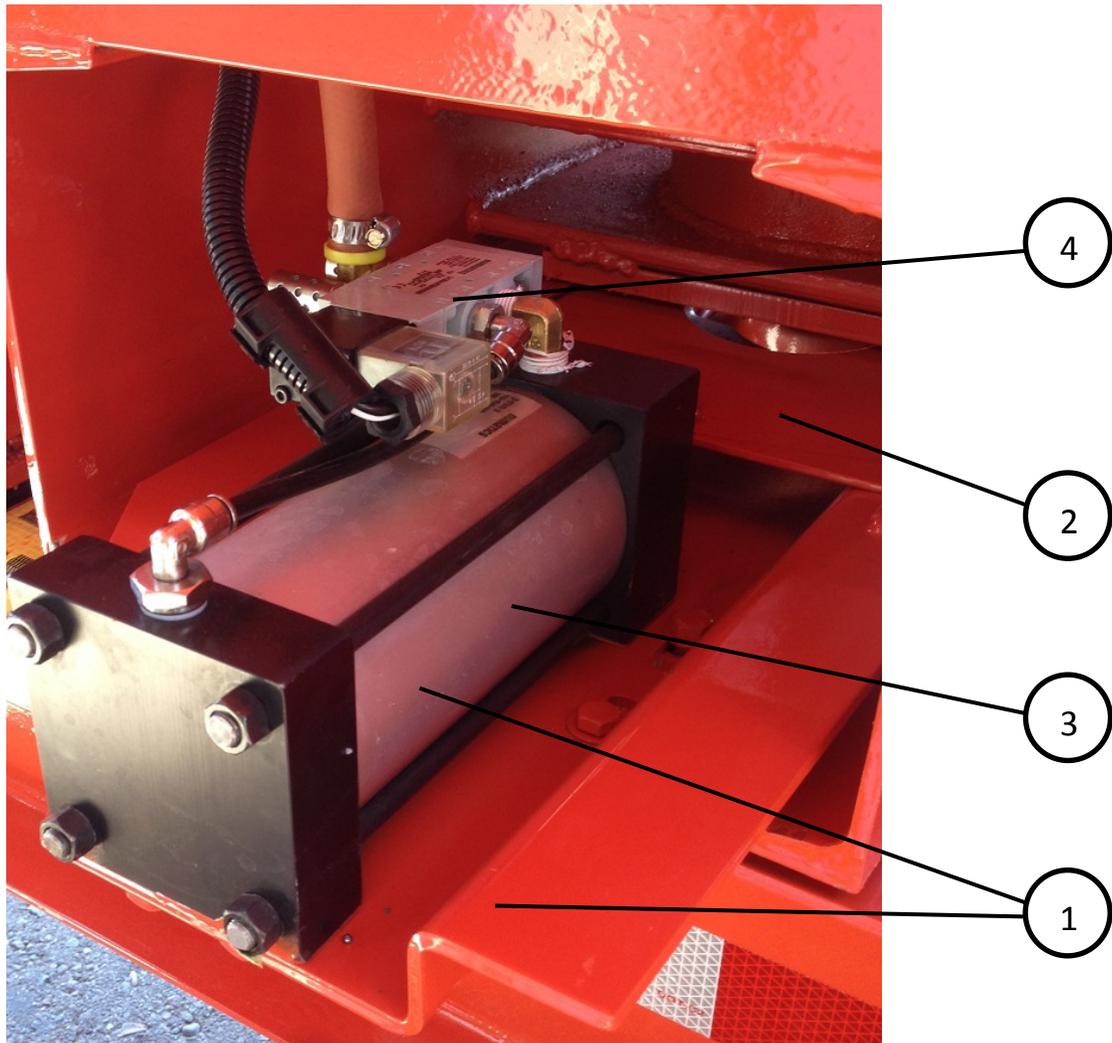
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91403	1	INDICATOR DECAL - EMULSION TANK
2	91460	1	LARGE EMULSION TANK HEAT SHIELD ASSEMBLY
3	91683	1	EMULSION CONTROL VALVE PIPE ASSEMBLY
4	90618	1	5 PART BALL VALVE
5	25289	1	RECORD BOX

# EMULSION TANK PRESSURE GAUGE AND THERMOSTAT



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	42629	1	SAFETY VALVE
2	29961	1	200 PSI PRESSURE GAUGE
3	41243	1	24" TEMPERATURE GAUGE BOTTOM MOUNT
4	90861	1	1/2" CHECK VALVE
5	28262	1	1/4" BLK PIPE CROSS
6	90896	2	AIR BRAKE FITTING 90°
7	90629	1	EMULSION TANK TOP VALVE ASSEMBLY
8	29214	1	BRONZE BALL VAVLE, 1/2"

## SLIDE CHANNEL WITH SOLENOID/AIR CYLINDER



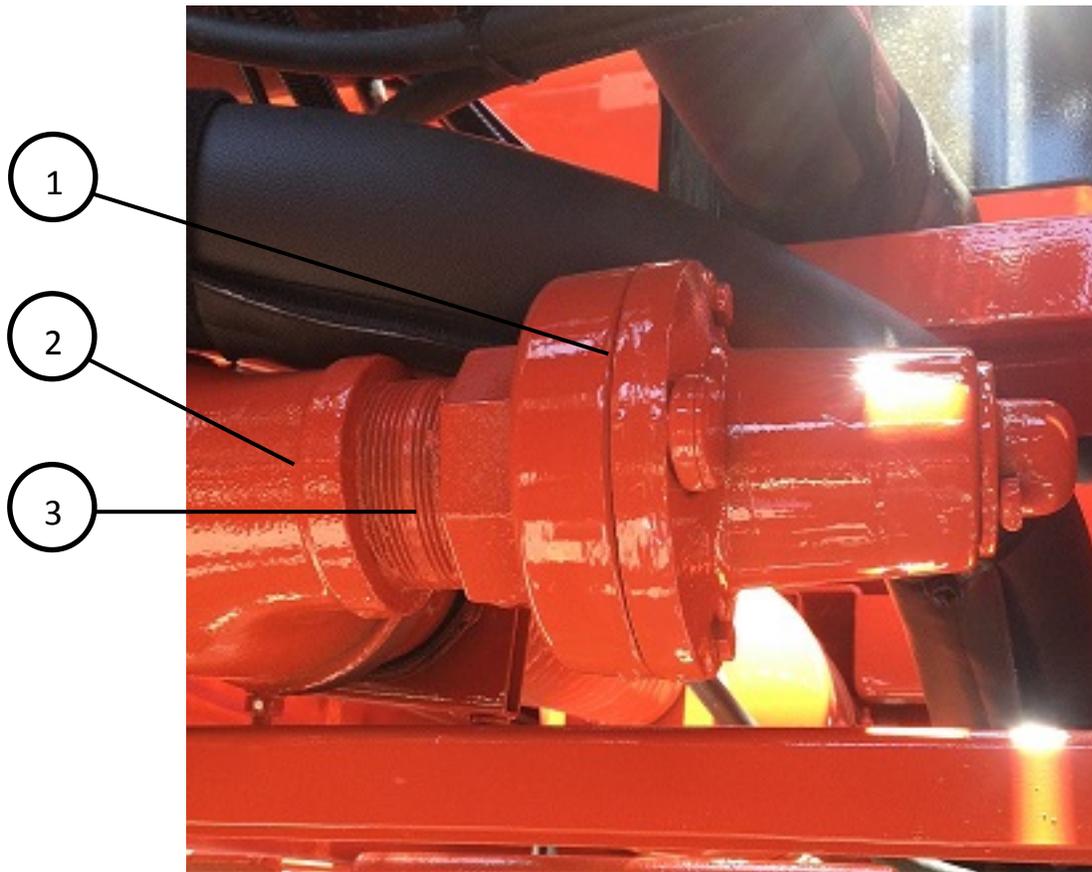
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	90085	1	SLIDE CHANNEL - WITH SOLENOID/AIR CYLINDER
2	90089	1	SLIDE PLATE
3	90091	1	AIR CYLINDER FOR SLIDE PLATE
4	90092	1	AIR CYLINDER ACTUATOR SOLENOID VALVE

## BLOWER/BASE FRAME - PLUMBING - AIR FEED SYSTEM



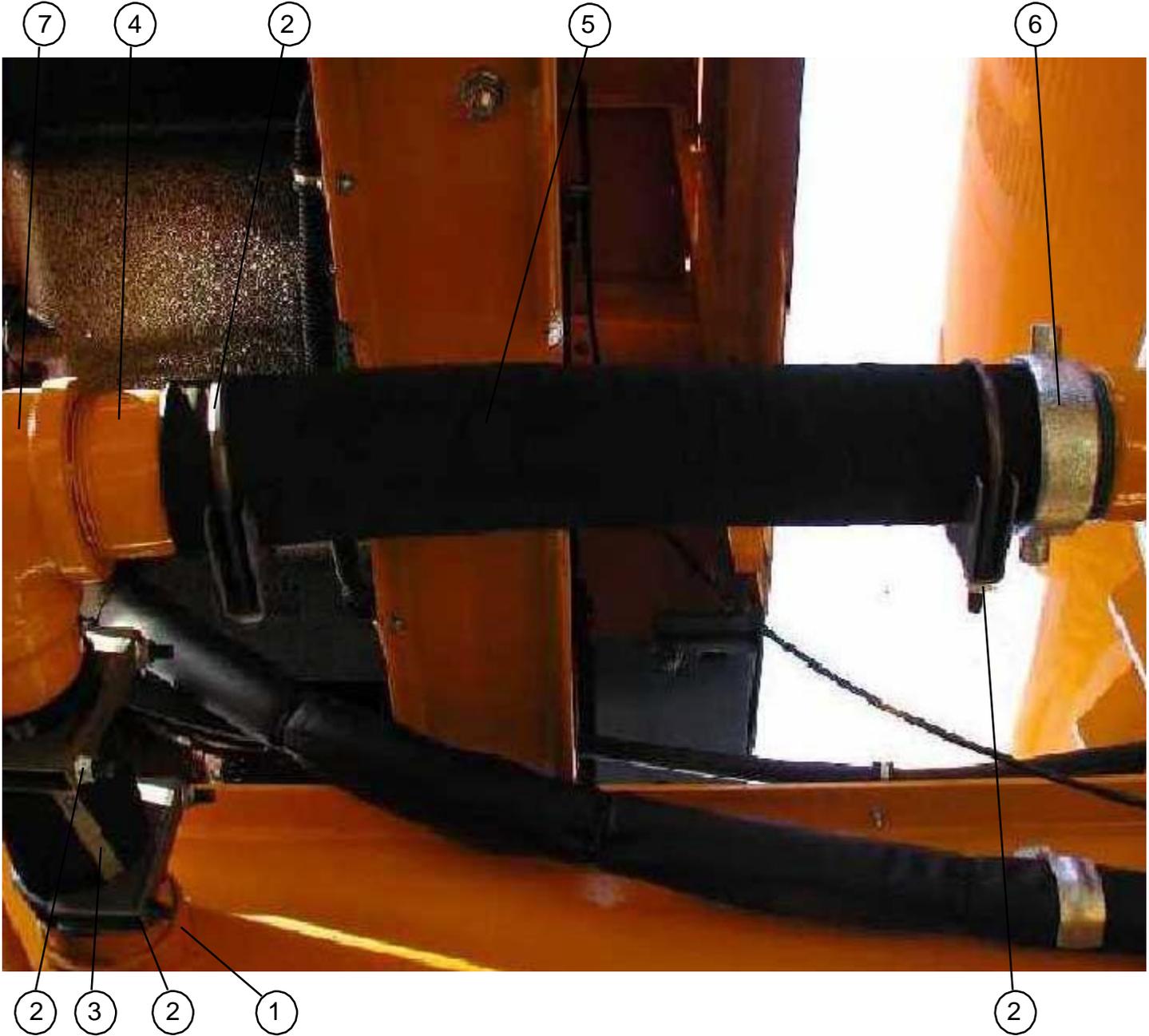
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	28364	1	4" X 3" BUSHING
2	28077	1	3" X 6" BLACK PIPE NIPPLE
3	28215	1	3" 90° ELBOW
4	91344	1	3" KING NIPPLE
5	25952	2	3-1/2" U-BOLT MUFFLER CLAMP
6	91662	1	3" WILDCAT HOSE X 10.5" LONG

## ROTARY AIR BLOWER -RELIEF VALVE



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91661	1	BLOWER RELIEF VALVE- 10 PSI
2	91668	1	3X2X3 BLK MI TEE-DRILLED
3	28008	1	CLOSE NIPPLE, 2"

## INSIDE BASE FRAME TO SILENCER - PLUMBING



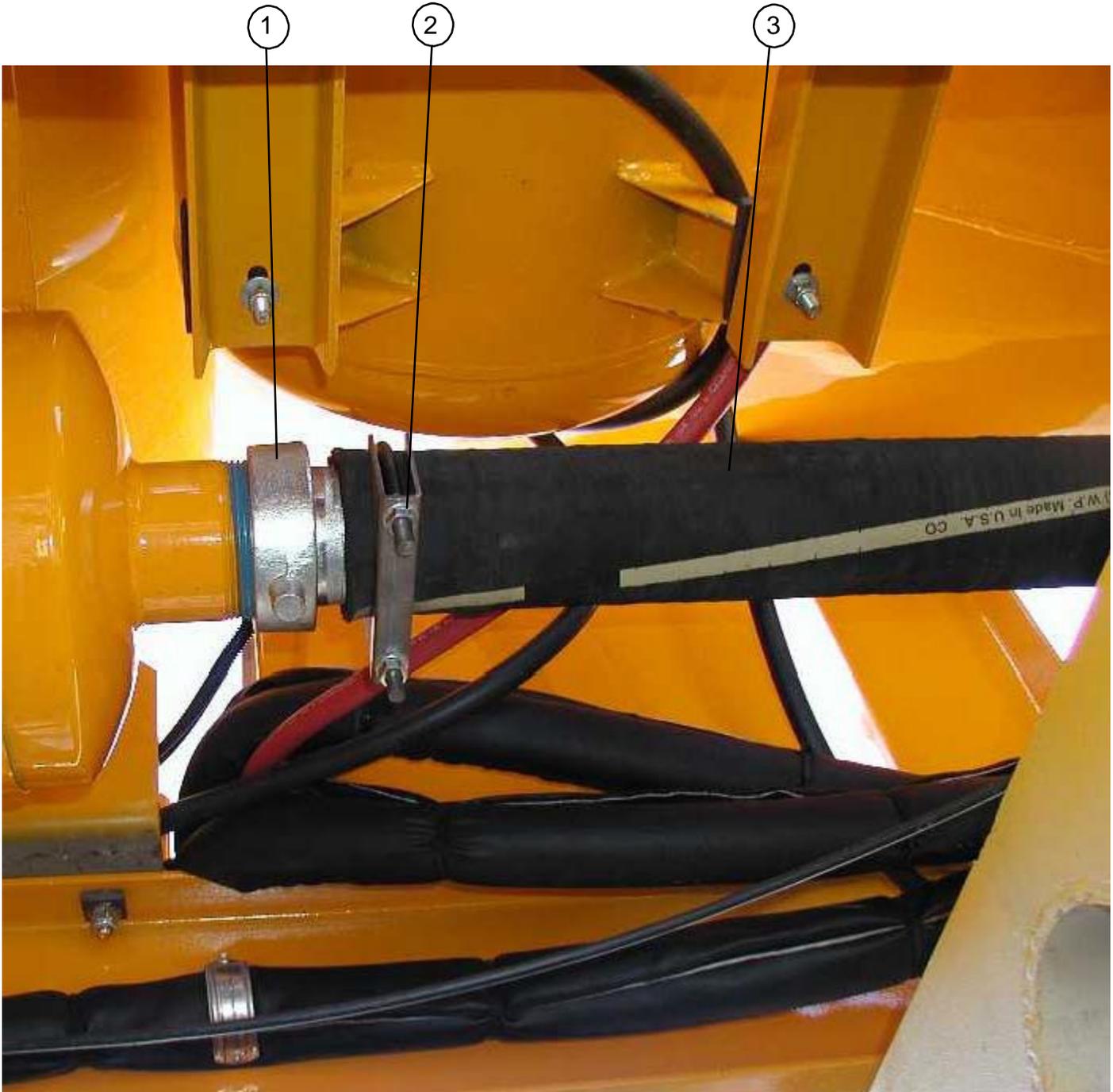
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	28077	1	3" X 6" NIPPLE
2	25952	4	MUFFLER CLAMP
3	91339	1	3" WILDCAT HOSE X 8.5"
4	91344	1	3" KING NIPPLE
5	91656	1	3" WILDCAT HOSE X 18.5"
6	90554	1	PIN PLUG/3" FEMALE COUPLER
7	91668	1	3" X 2" X 3" TEE- DRILLED

## PLUMBING TO SILENCER - AIR SYSTEM



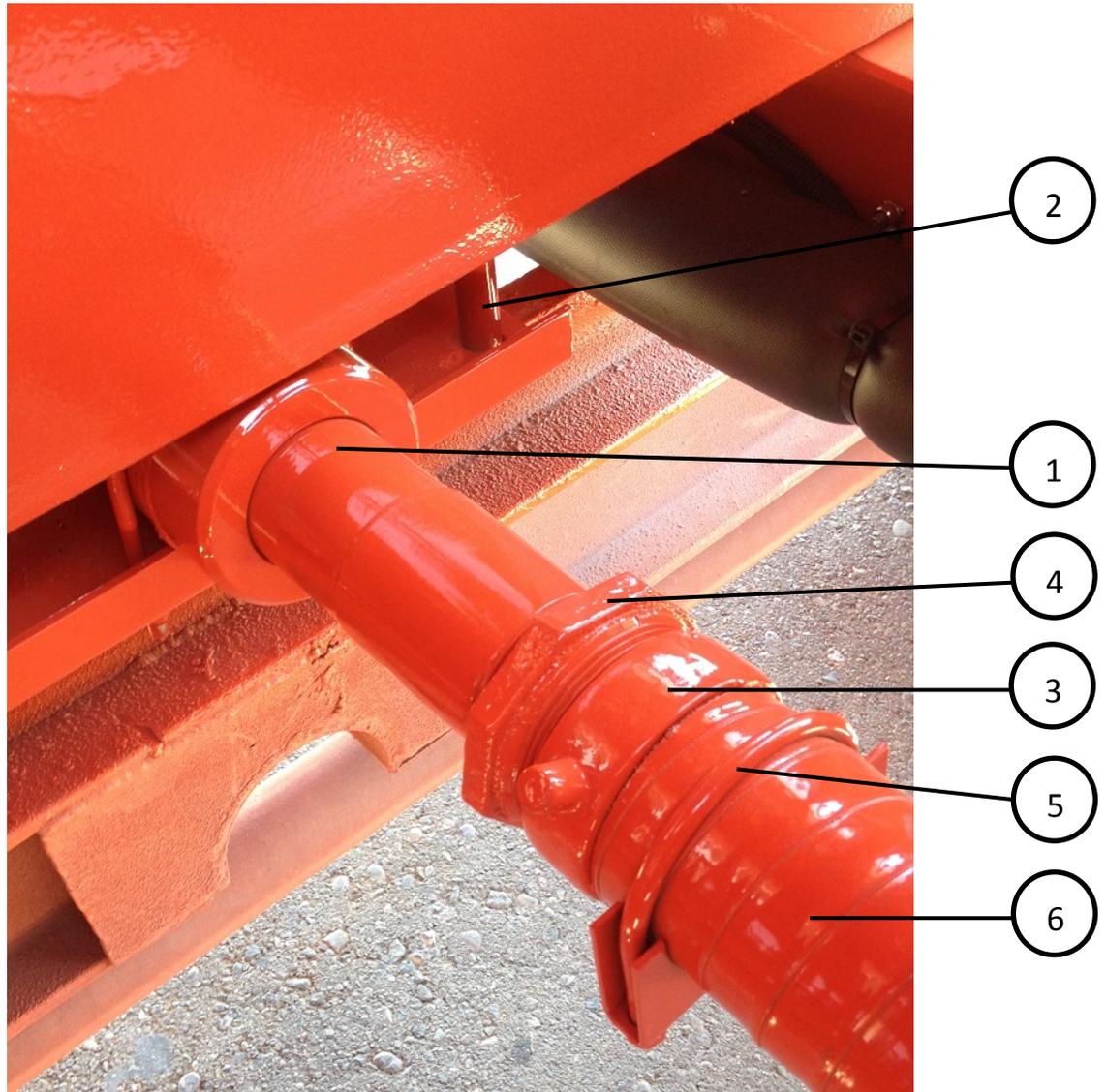
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	60116	1	CHAMBER ABSORPTION SILENCER
2	90554	1	PIN PLUG/3" FEMALE COUPLER
3	91465	1	ACCESS PLATFORM STEP
4	91656	1	3" WILDCAT AIR HOSE X 18.5" LONG

## PLUMBING FROM SILENCER - AIR SYSTEM



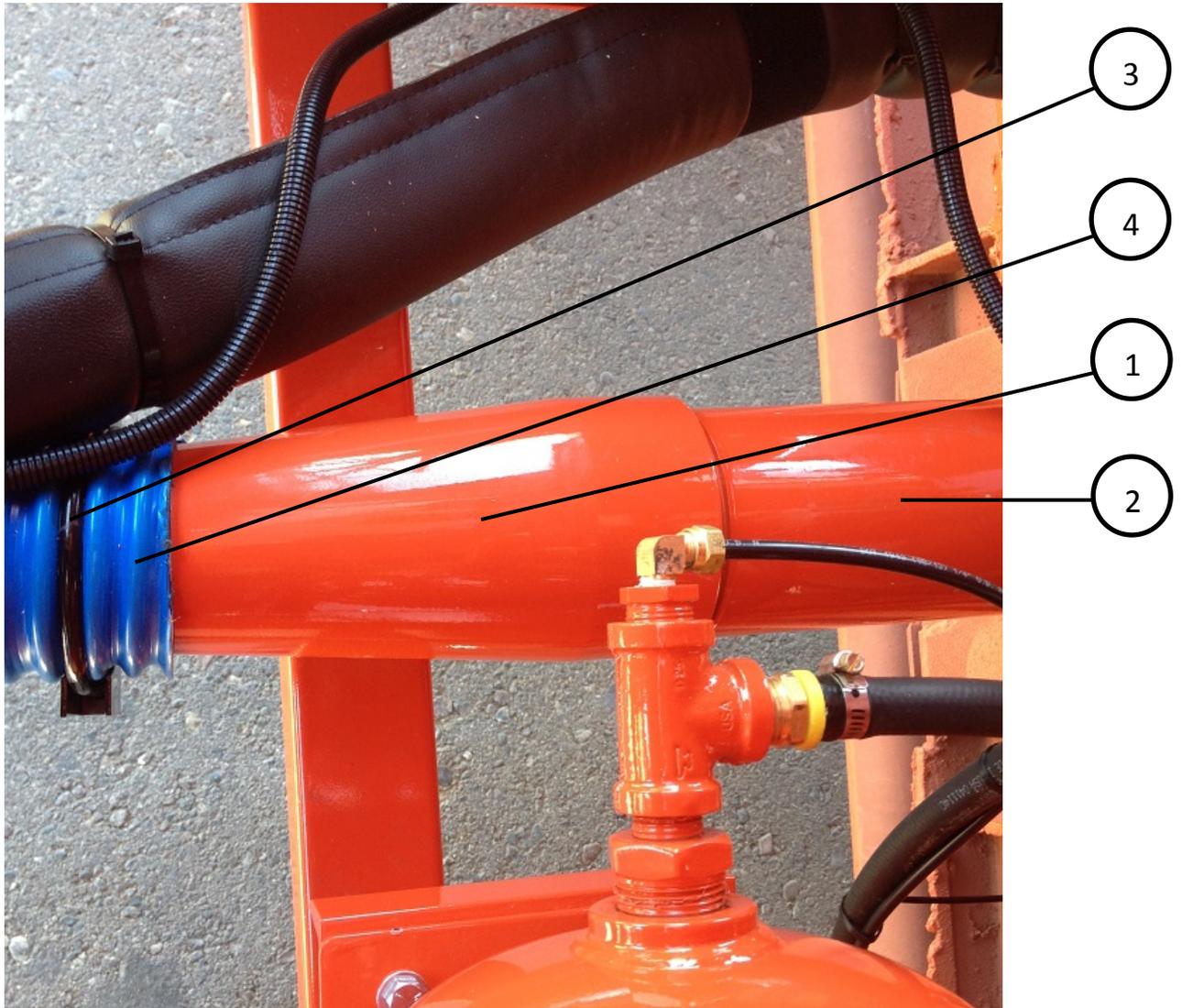
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	90554	1	PIN PLUG/3" FEMALE COUPLER
2	25952	1	3-1/2" U-BOLT MUFFLER CLAMP
3	91656	1	3" WILDCAT HOSE X 18.5"

## SILENCER PLUMBING TO VENTURI - AIR SYSTEM



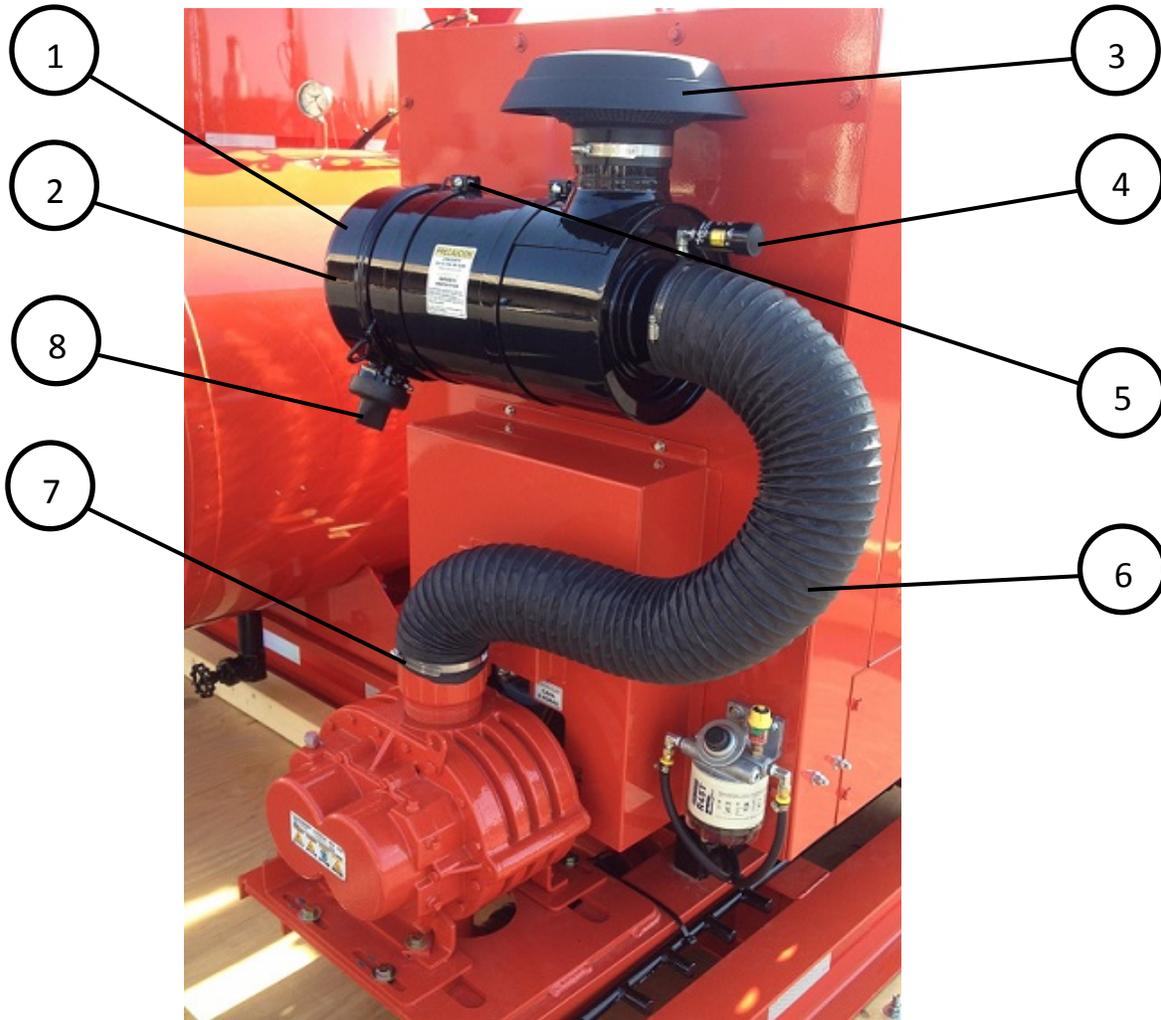
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	90140	1	VENTURI
2	90141	1	VENTURI VERTICLE SPACER TUBE
3	90554	1	PIN PLUG/3" FEMALE COUPLER
4	28369	1	3" X 2-1/2" REDUCER BUSHING
5	25952	1	3 1/2" U BOLT MUFFLER CLAMP
6	91656	1	3" WILDCAT HOSE X 18.5 LONG

## VENTURI PLUMBING TO AGGREGATE FEED HOSE



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	90146	1	VENTURI EXTENSION TUBE
2	90140	1	VENTURI
3	25953	1	4" MUFFLER CLAMP
4	90745	1	3.5" 180AR AGGREGATE HOSE

## BLOWER AIR FILTER SYSTEM



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	92261	1	AIR CLEANER HOUSING, BLOWER
2	92262	1	FILTER ELEMENT, AIR CLEANER
3	91031	1	INLET HOOD – LARGE BLOWER AIR CLEANER
4	91795	1	AIR FILTER RESTRICTION INDICATOR
5	91708	2	AIR CLEANER MOUTING RING CLAMP
6	91413	1	FAB CON HOSE TO BLOWER, T-250
7	91843	2	6" WORM DRIVE HOSE CLAMP
8	91727	1	VACTUATOR VALVE, AIR CLEANER

## AGGREGATE HOPPER-DRIVER'S SIDE



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91610	1	6 CUBIC YARD HOPPER
2	90607	2	2000 LBS. PULL CLAMP WITH LOCK

# AGGREGATE HOPPER & COMPONENT - REAR



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	24022	1	TAIL LIGHT-RIGHT
2	24023	1	TAIL LIGHT - LEFT
3	90576	6	LARGE TAPER BEARING
4	90577	6	LARGE TAPER BEARING RACE
5	90625	1	ARROW BOARD AND CONTROL BOX
6	91134	1	CYCLOPS TAIL LIGHT (BOOM)
7	91540	1	SECTION BOOM - BOLT ON
8	91560	1	AGGREGATE HOPPER ASSY 6 CUBIC YARDS
9	90581	3	OIL SEAL - LARGE
10	90661	3	3" I.D. BEARING ASSEMBLY COVER

## FUEL TANK - DRIVER'S SIDE

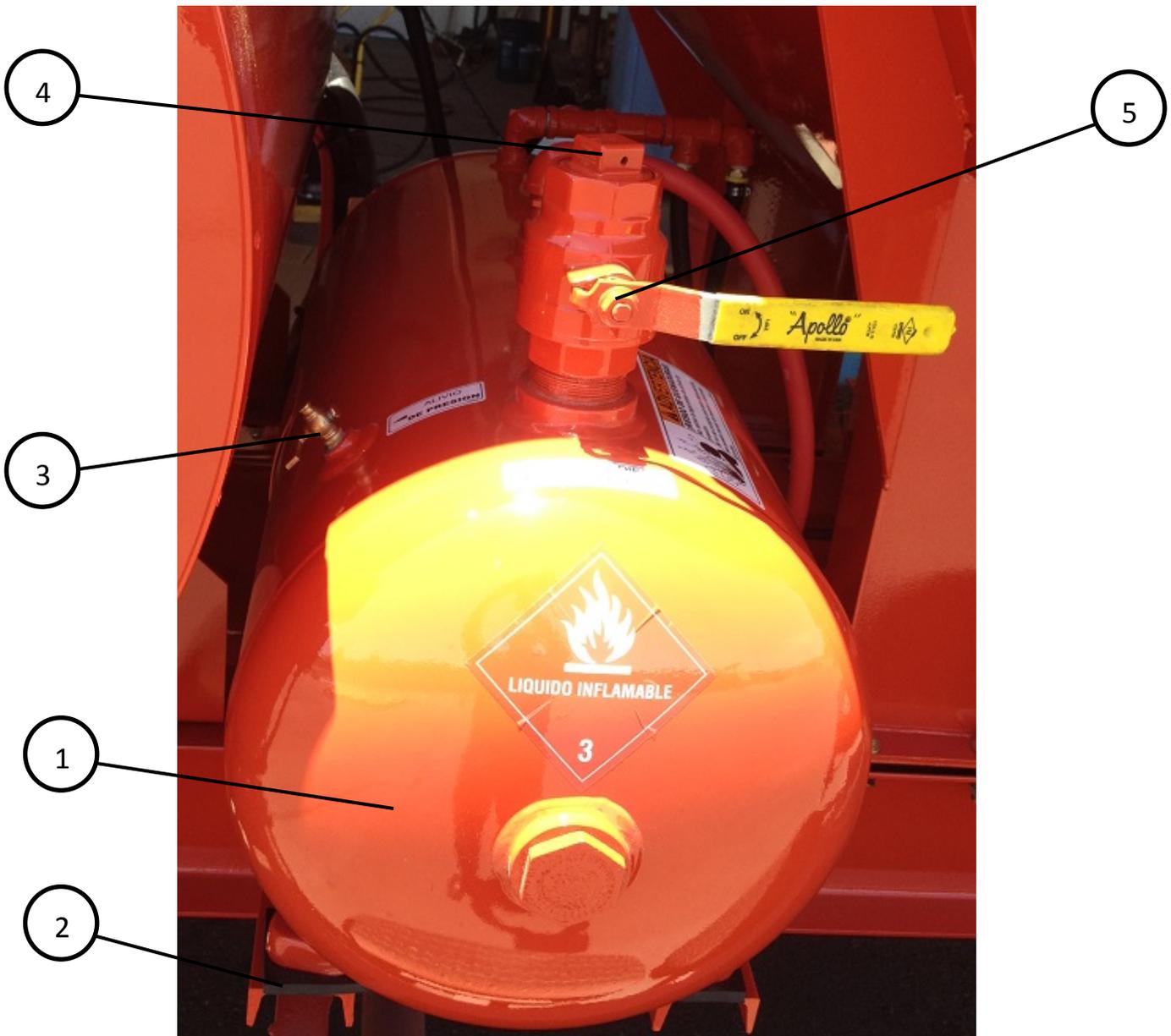


## BOTTOM OF TANK



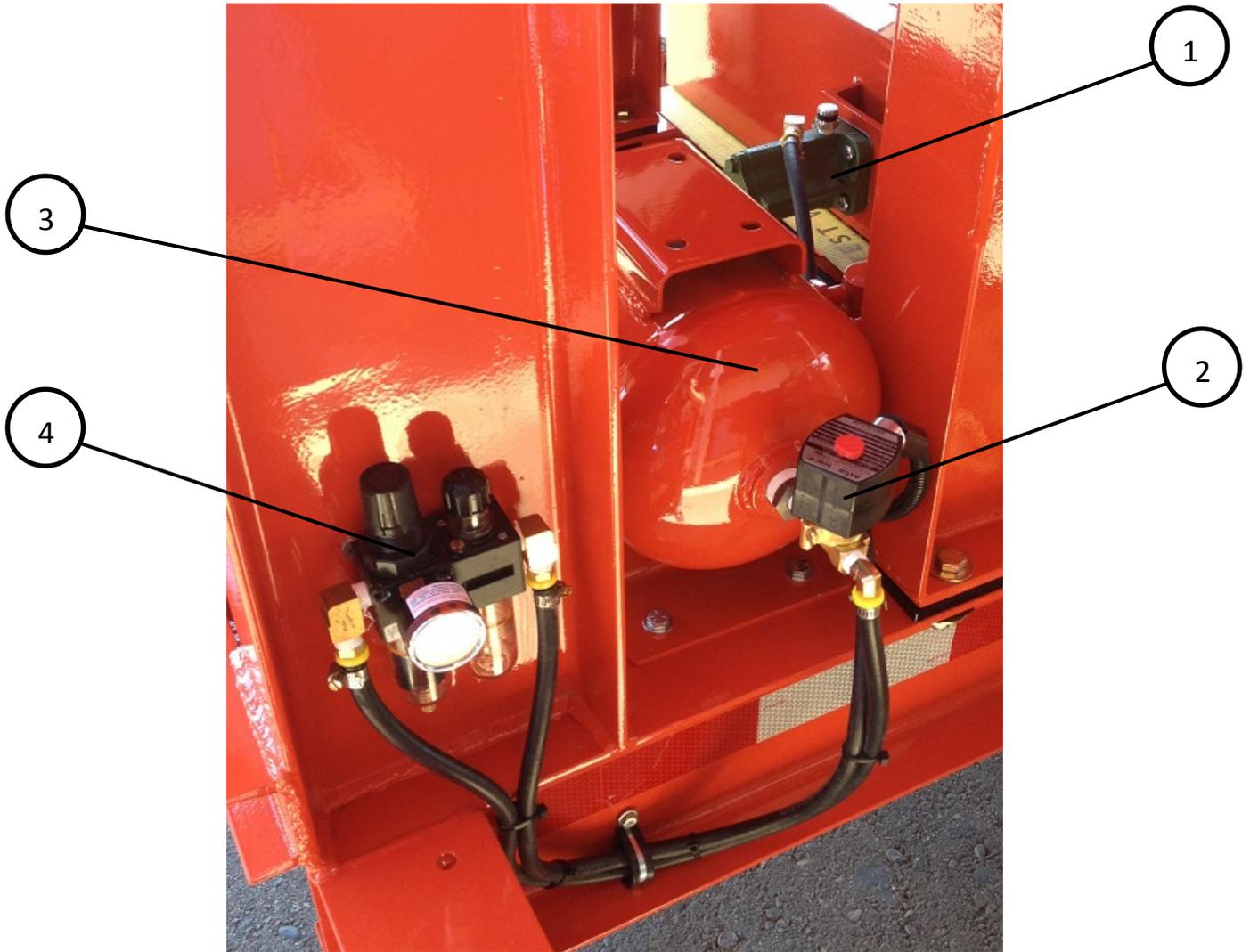
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	43594	1	26 GALLON DIESEL TANK ASSEMBLY
2	44191	1.5 FT	1/2" FUEL SIGHT TUBING
3	91645	1	BACKUP ALARM-HVY DTY-112 DB
4	29213	1	1/2" BRASS GATE VALVE
5	28283	1	1/2" PIPE PLUG
6	26782	2	HOSE PUSH ON MALE PIPE 90

## DIESEL FLUSHING TANK



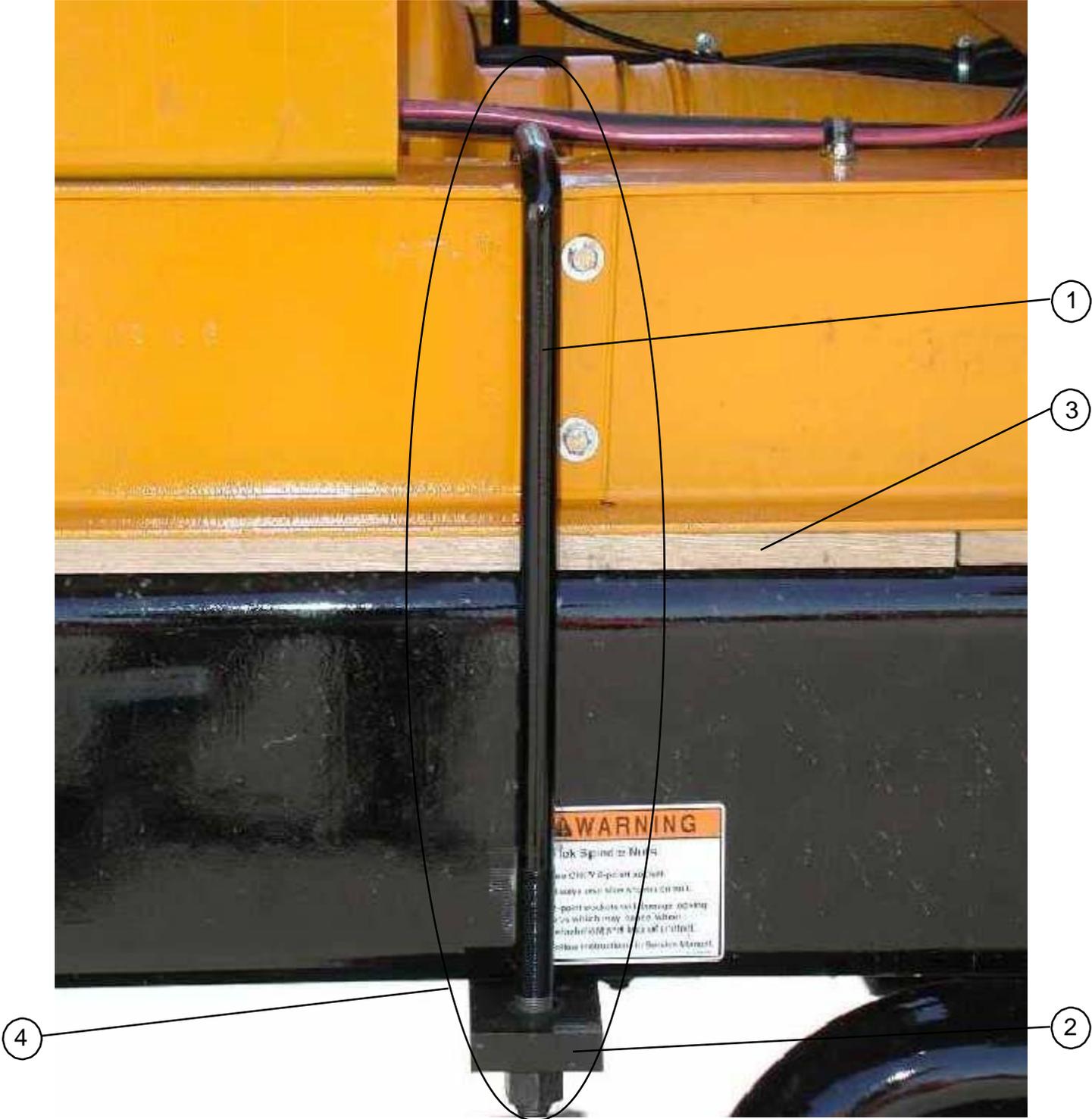
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	90860	1	30 GALLON DIESEL FLUSH TANK
2	43876	4	COMPRESSOR MNTG PAD
3	91815	1	1/4" DRAIN PET COCK
4	90703	1	2" PIPE PLUG W/PSI RELIEF HOLE
5	29281	1	2" BALL VALVE

## VIBRATOR KIT - VIBRATOR



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91431	1	AIR-POWERED VIBRATOR
1A	91430	1	AIR-POWERED VIBRATOR KIT - REFERENCE ONLY (ITEMS 1, 2, 4)
2	91434	1	ELECTRIC 1/4" 2-WAY -12 VOLT VALVE
3	90124	1	AIR STORAGE TANK ASSY. W/ FITTINGS
4	91435	1	LUBRICATION CONTROL

# FRAME TO TRUCK (MOUNTING KIT) - "U" BOLTS



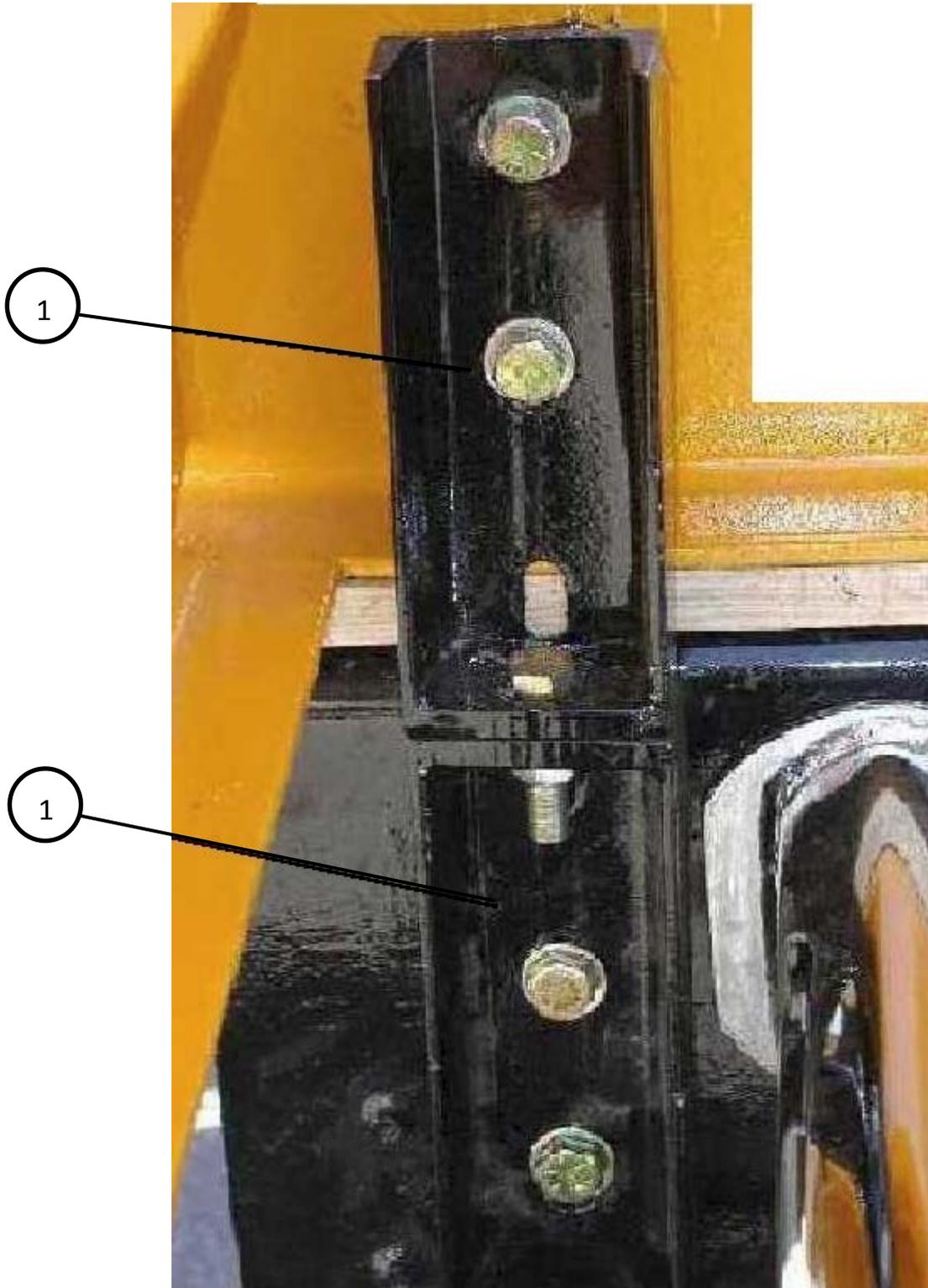
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91695	8	TRUCK TIE DOWN U-BOLT
2	91688	8	"U"-BOLT TIE DOWN PLATE
3	91689	2	OAK SLAT 1" X 4"
4	91695K	1	TRUCK TIE DOWN MOUNTING KIT

## FRAME TO TRUCK (MOUNTING KIT) - OAK SLAT



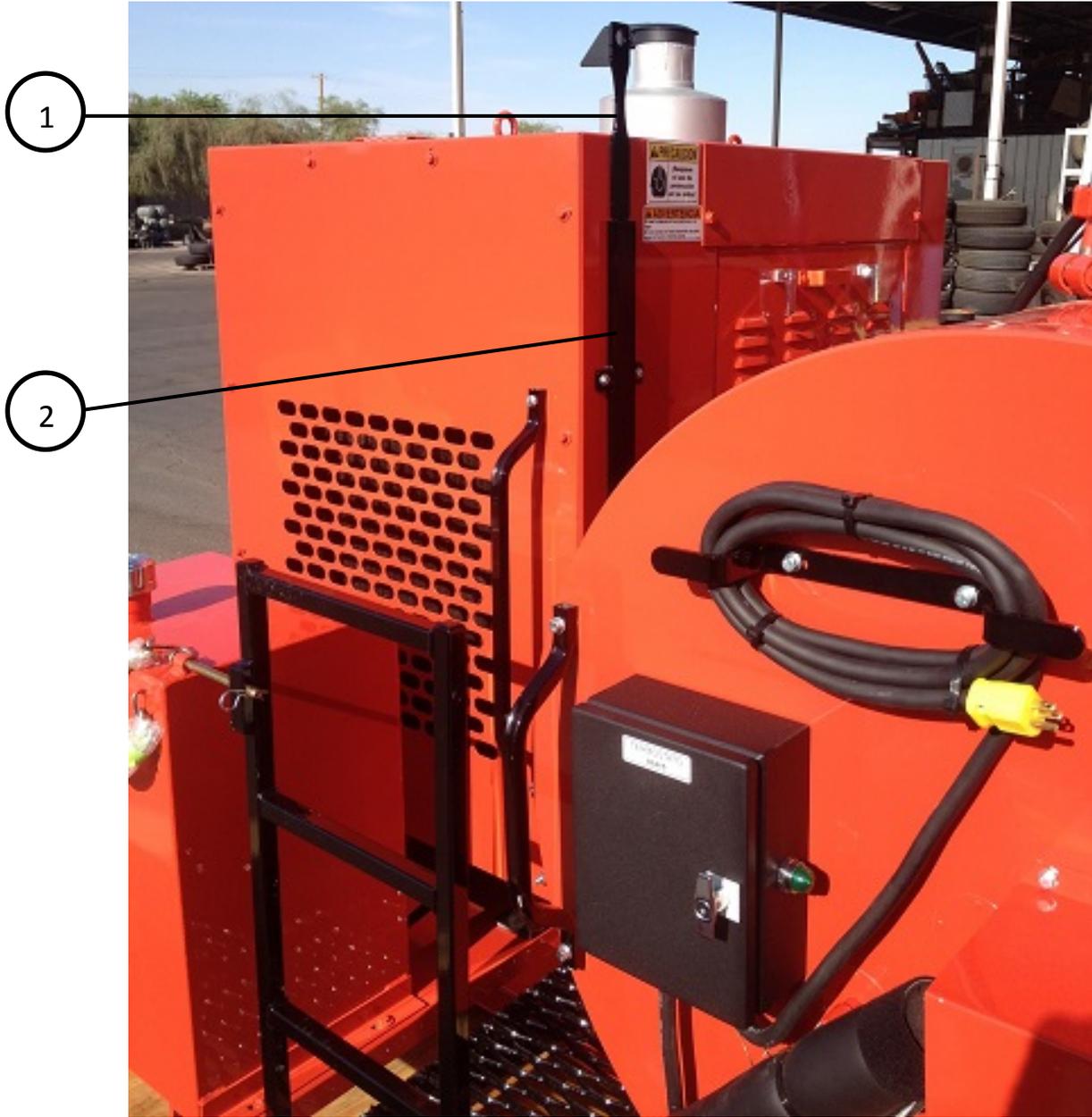
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91695	8	TRUCK TIE DOWN U-BOLT
2	91688	8	"U"-BOLT TIE DOWN PLATE
3	91689	2	OAK SLAT 1" X 4"

# TRUCK MOUNT (FRAME TO TRUCK)-REAR TIE DOWNS



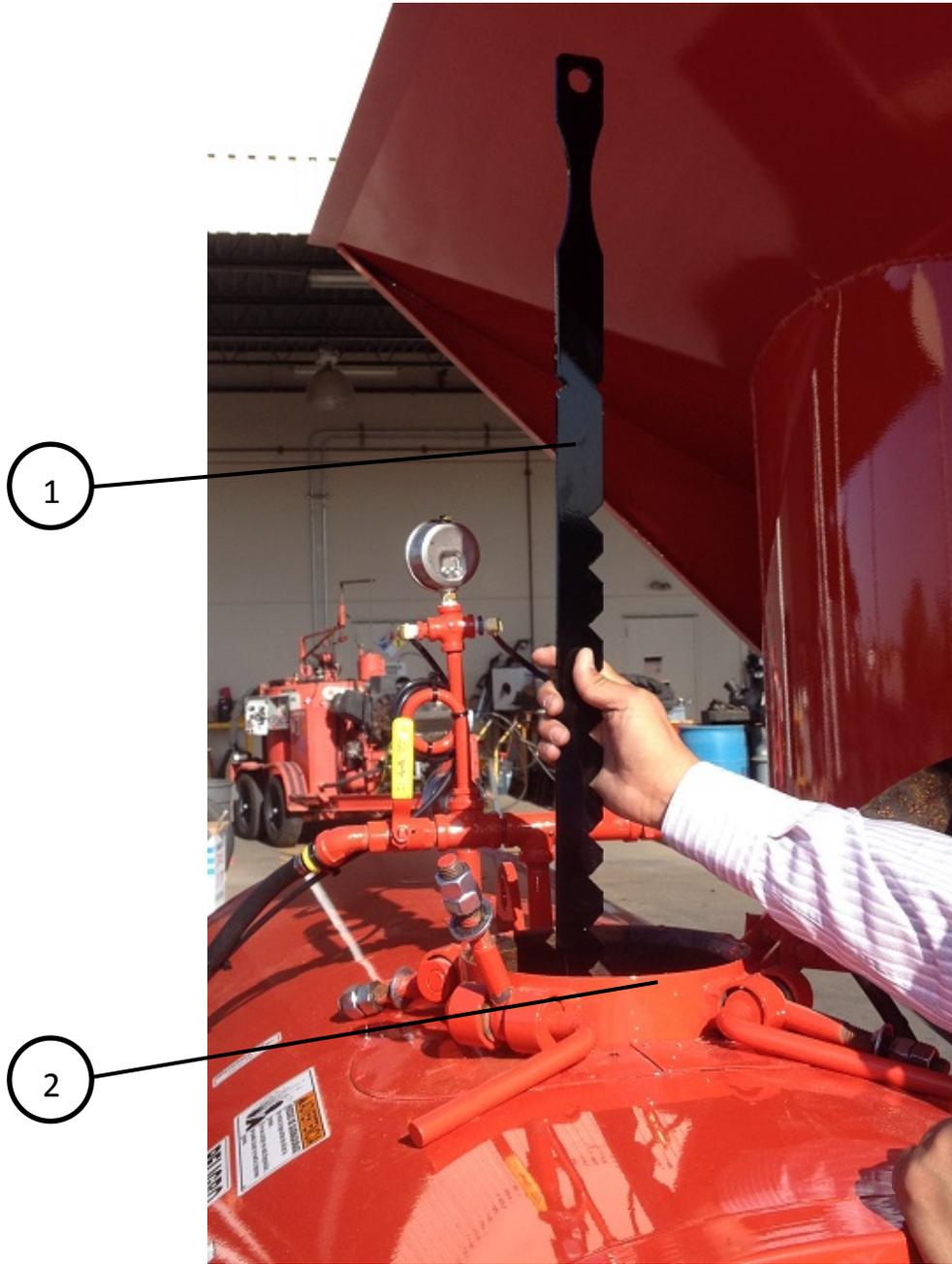
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91699	8	MOUNTING BRACKET, T-250 FRAME

# EMULSION TANK GAUGE HOLDER



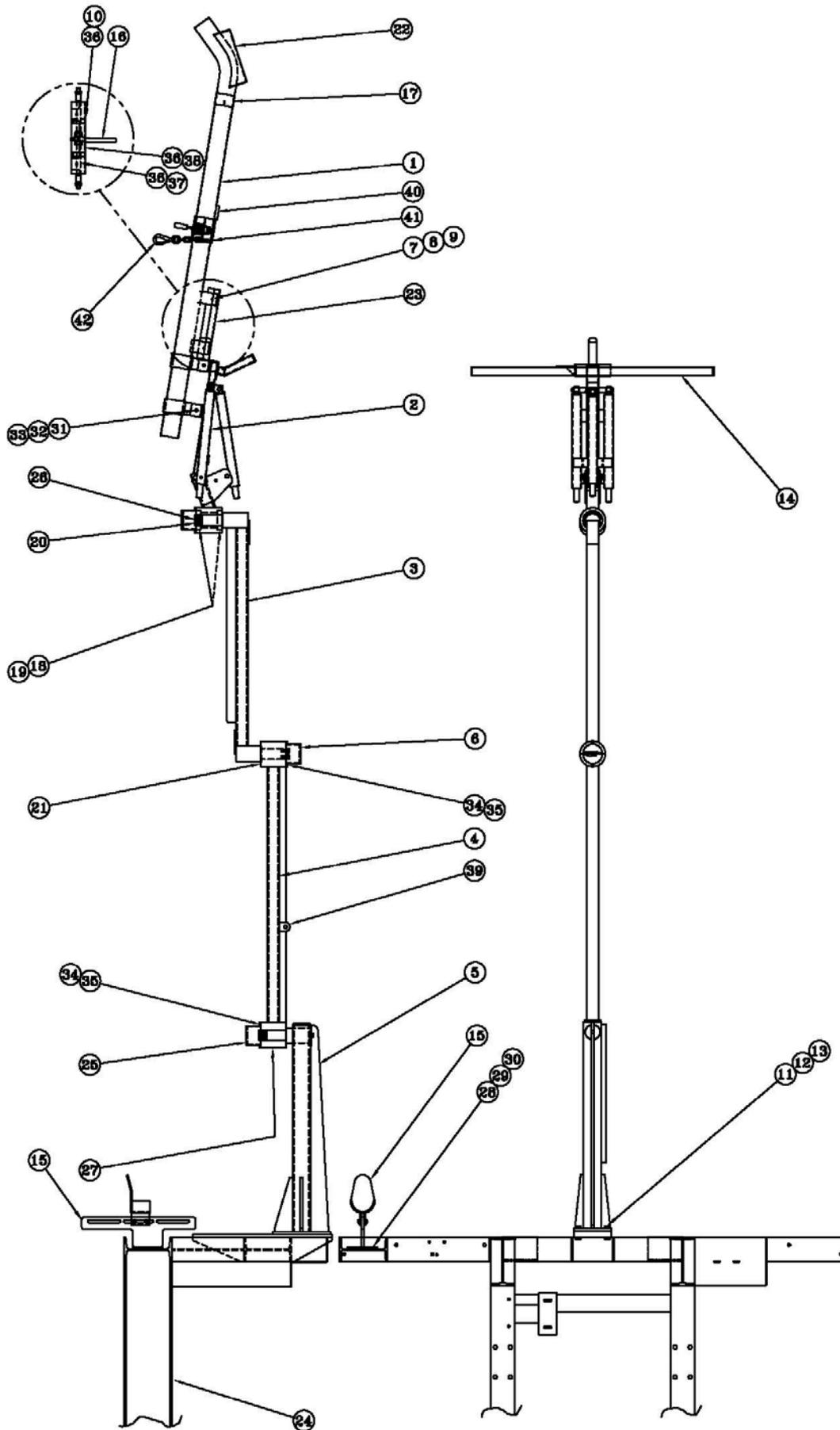
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91830	1	EMULSION TANK GAUGE DIPSTICK
2	90235	1	DIPSTICK HEIGHT GAUGE HOLDER

# EMULSION TANK GAUGE



NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91830	1	EMULSION TANK GAUGE DIPSTICK (REFERENCE- SEE DECAL ON FRONT OF EMULSION TANK FOR DEPTH)
2	90621	1	8" ENCLOSURE O-RING (FOR EMULSION TANK LID)

# AIR STREAM T-M SPRAY INJECTION PATCHER COBRA BOOM OUT OF THE REAR-PART NUMBERS 91501APB



## AIR STREAM T-M SPRAY INJECTION PATCHER COBRA BOOM OUT OF THE REAR - PART NUMBERS 91501APB

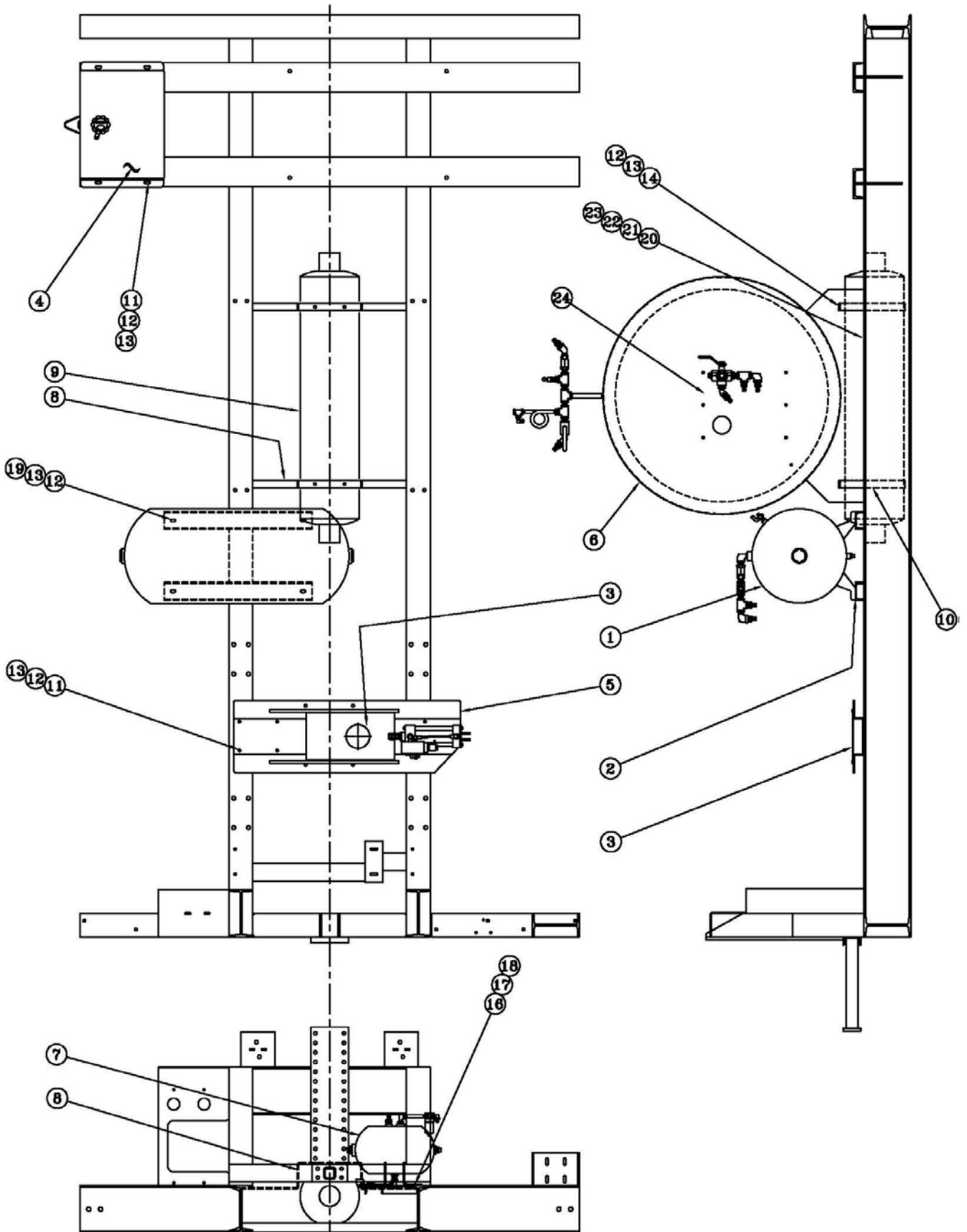
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	91415	1	3.5" ID WELD ASSEMBLY
2	91350	1	SPRING ARM ASSEMBLY
3	91545	1	BOOM SECTION 2ND COMPLETE
4	91535	1	1ST BOOM SECTION
5	91540	1	SECTION BOOM - BOLT-ON
6	90661	2	3" ID BEARING COVER
7	28702	2	1/4" X 1" HEX HEAD BOLT
8	28670	4	1/4" FLAT WASHER
9	28524	2	1/4" ESNA LOCK NUT
10	51815	1	TOGGLE SWITCH
11	28649	6	1/2" LOCK WASHER
12	27984	12	1/2" GR8 FLAT WASHER
13	27957	8	1/2" X 1-3/4" HEX HEAD BT GRADE 8
14	91396	1	HANDLE ASSEMBLY
15	91578	1	2ND SECTION SUPPORT BOOM ASSEMBLY
16	91700	1	EMULSION REGULATION VALVE
17	25953	1	4" MUFFLER CLAMP
18	90576	6	LARGE TAPER BEARING
19	90577	6	LARGE TAPER BEARING RACE
20	91722	3	1 3/4"-12 HEX CASTLE NUT
21	90581	3	LARGE OIL SEAL
22	91418	1	3.5" BOX 45 DEGREE ELBOW
23	91230	1	COMPLETE ASSEMBLY CONTROL CONSOLE
24	91505	1	AIR STREAM T-M FRAME
25	90661	1	3" ID BEARING ASSY COVER

**AIR STREAM T-M SPRAY INJECTION PATCHER  
COBRA BOOM OUT OF THE REAR  
PART NUMBERS 91501APB**

<b>NUMBER</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
26	29641	3	1/8" X 2-1/2" COTTER PIN
27	32026	3	1/8" NPT GREASE ZERK
28	28717	4	5/16" X 1-1/4" HEX HEAD BOLT
29	28525	4	5/16" ESNA LOCK NUT
30	28671	8	5/16" FLAT WASHER
31	28732	2	3/8" 1-1/4" HEX HOLD BOLT
32	28526	2	3/8" ESNA LOCK NUT
33	28634	4	3/8" FLAT WASHER
34	28630	6	#8 STAR LOCK WASHER
35	28826	6	8-32 X 1/2" ROUND HEAD SCREW
36	32527	3	SWITCH COVER BOOT
37	51815	1	TOGGLE SWITCH
38	32521	1	TOGGLE SWITCH
39	31131	1	ACTUATOR LUG
40	37032	1	1/4" X 1-1/8" KEY
41	91425	1	3.5" AGGREGATE BOOM CLAMP ASSEMBLY
42	91648	2	BOTTOM STOW SAFETY CHAIN ASSEMBLY

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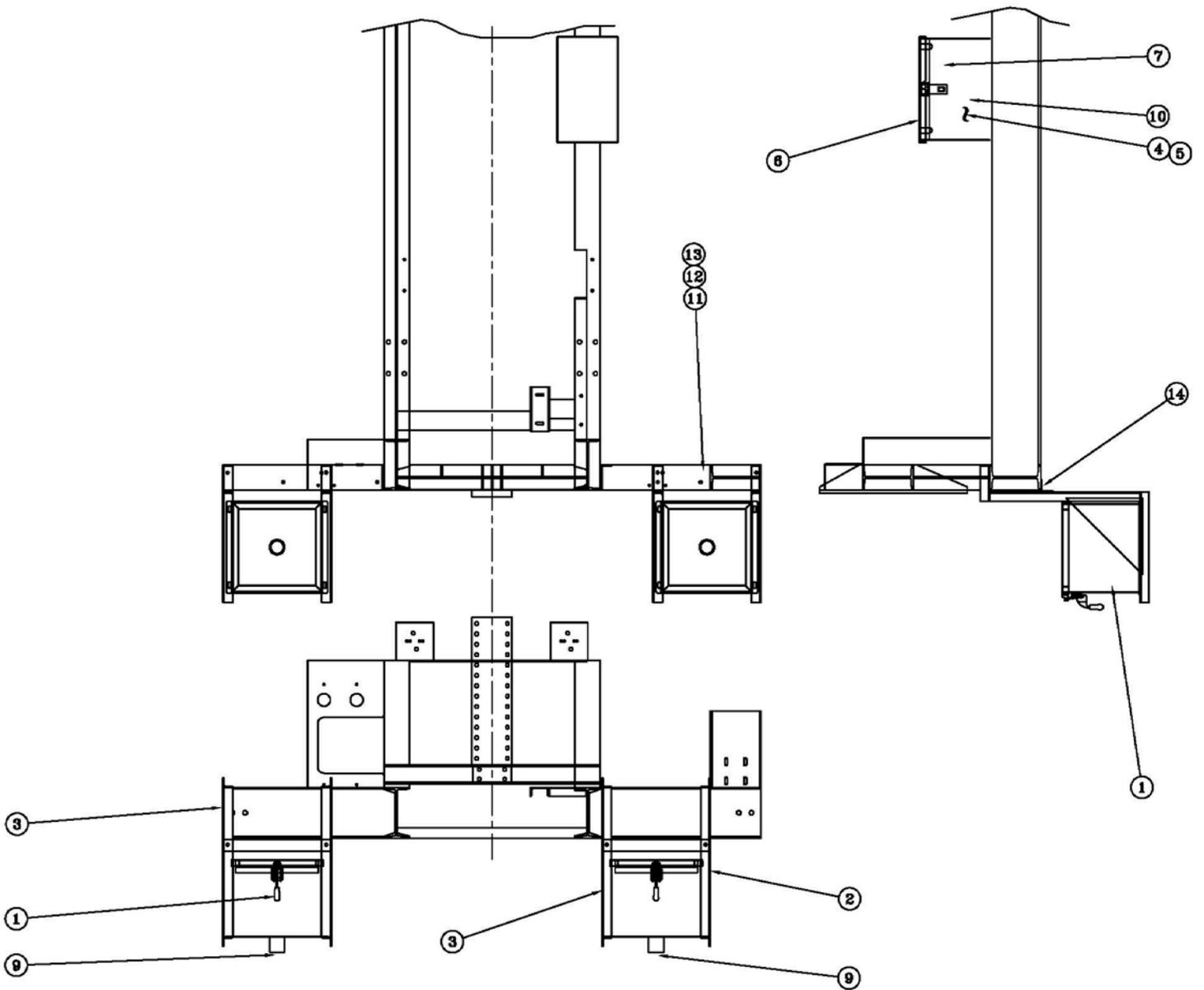
**AIR STREAM T-M SPRAY INJECTION PATCHER  
BASE FRAME & COMPONENTS  
PART NUMBERS 91501BPB**



**AIR STREAM T-M SPRAY INJECTION PATCHER  
BASE FRAME & COMPONENTS  
PART NUMBERS 91501BPB**

<b>NUMBER</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	90860	1	30 GALLON DIESEL FLUSH TANK
2	43876	4	MOUNTING PAD
3	90089	1	SLIDE PLATE
4	43594	1	26 GALLON DIESEL TANK ASSEMBLY
5	90085	1	SLIDE CHANNEL WITH SOLENOID
6	91615	1	TANK 250 GAL. FATBOY COMPLETE
7	90124	1	AIR STORAGE TANK ASSEMBLY
8	91638	2	SILENCER SUPPORT BRACKET
9	60116	1	CHAMBER ABSORPTION SILENCER
10	91708	2	MOUNTING RING CLAMP
11	28732	12	3/8" X 1-1/4" HEX HEAD BOLT
12	28634	34	3/8" FLAT WASHER
13	28526	18	3/8" ESNA LOCK NUT
14	28731	4	3/8" X 1" HEX HEAD BOLT
15	N/A	N/A	N/A
16	28716	4	5/16" X 1" HEX HEAD BOLT
17	28671	8	5/16" FLAT WASHER
18	28525	4	5/16" ESNA LOCK NUT
19	28736	4	3/8" X 2-1/2" HEX HEAD BOLT
20	29023	4	1/2" X 2" GRADE 8 HEX HEAD BOLT
21	27984	8	1/2" GRADE 8 FLAT WASHER
22	27983	4	5/8" GRADE 8 FLAT WASHER
23	28528	4	1/2" ESNA LOCK NUT
24	91460	1	LARGE EMULSION TANK HEAT SHIELD

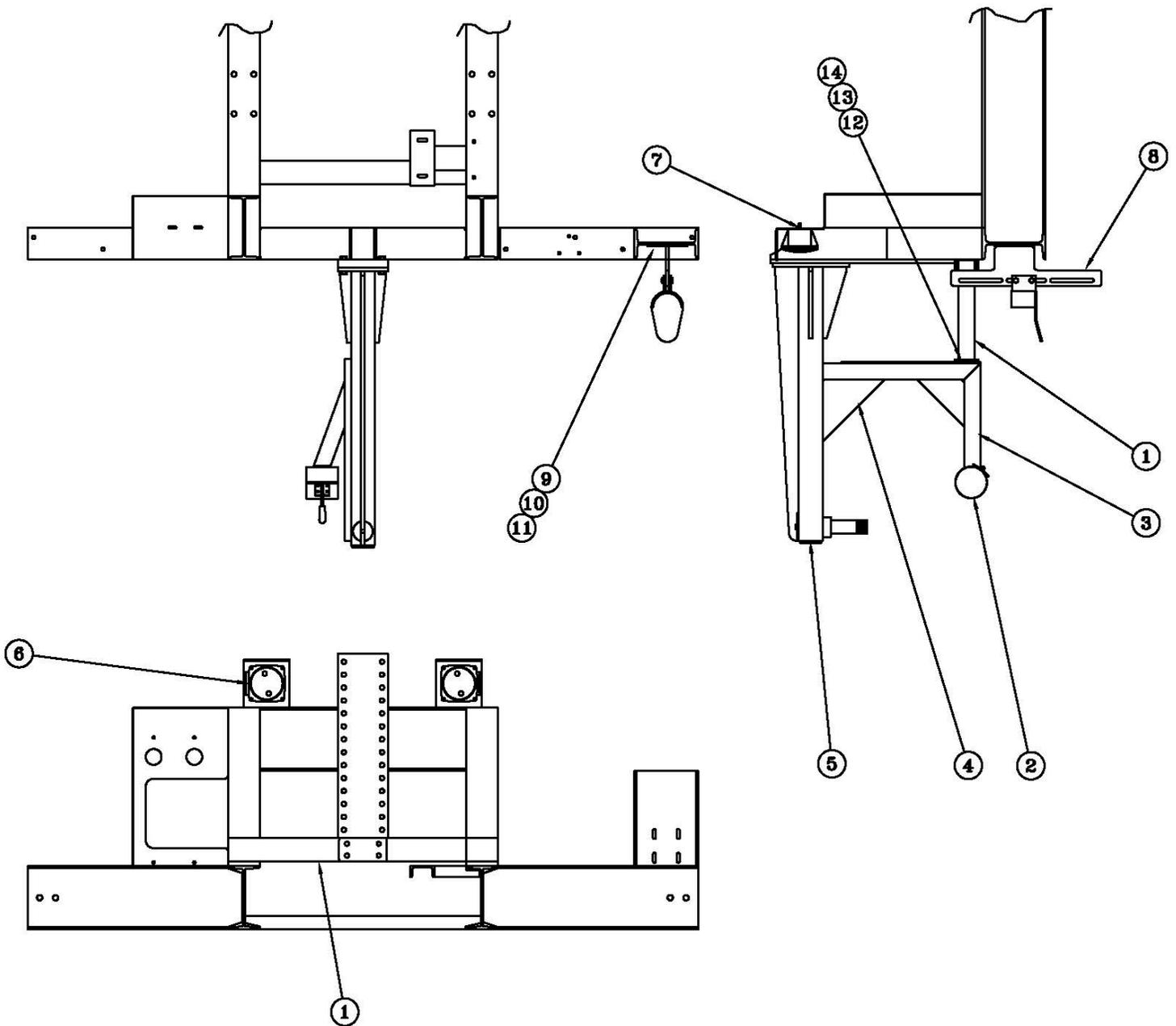
**AIR STREAM T-M SPRAY INJECTION PATCHER  
DEEP STORAGE NOZZLE BOX AND COMPONENTS  
PART NUMBERS 91501CPB**



**AIR STREAM T-M SPRAY INJECTION PATCHER  
DEEP STORAGE NOZZLE BOX AND COMPONENTS  
PART NUMBERS 91501CPB**

<b>NUMBER</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	91530	2	DEEP NOZZLE STORAGE BOX
2	91666	2	L.H. NOZZLE TANK BRACKET ASSEMBLY
3	91665	2	R.H. NOZZLE TANK BRACKET ASSEMBLY
4	24001	1	1000 CCA BATTERY
5	90215	1	BATTERY HOLD DOWN CLAMP ASSEMBLY
6	90200	1	BATTERY LOCK BOX ASSEMBLY
7	32602	1	20" BATTERY CABLE FOUND INSIDE BOX
8	90905	1	93" BATTERY CABLE (NOT SHOWN)
9	29270	2	BRONZE GATE VALVE - 2"
10	28717	4	5/16-18 X 1 ¼" BOLT
11	28526	4	3/8" ESNA LOCK NUT
12	28634	8	3/8" FLAT WASHER
13	28732	4	3/8" X 1-1/4" HEX HEAD BOLT
14	91671	2	TOOL BOX FRAME MOUNT ANGLE

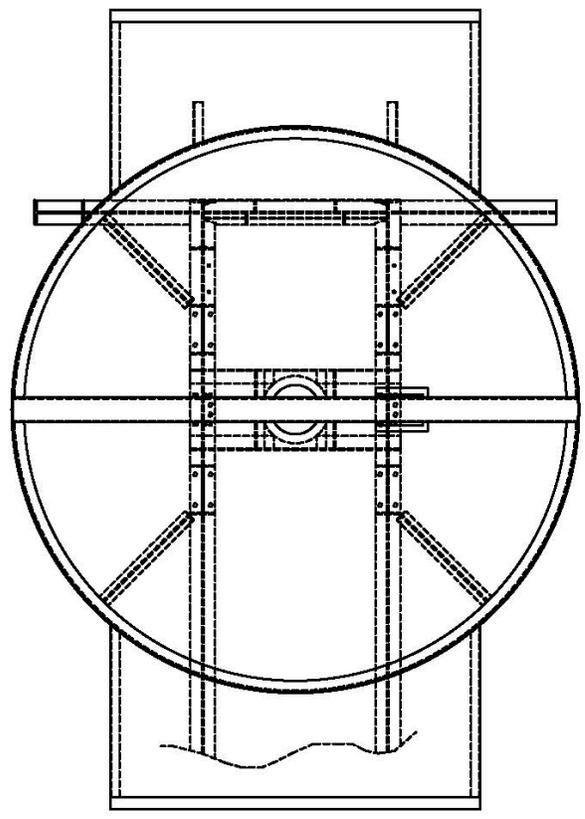
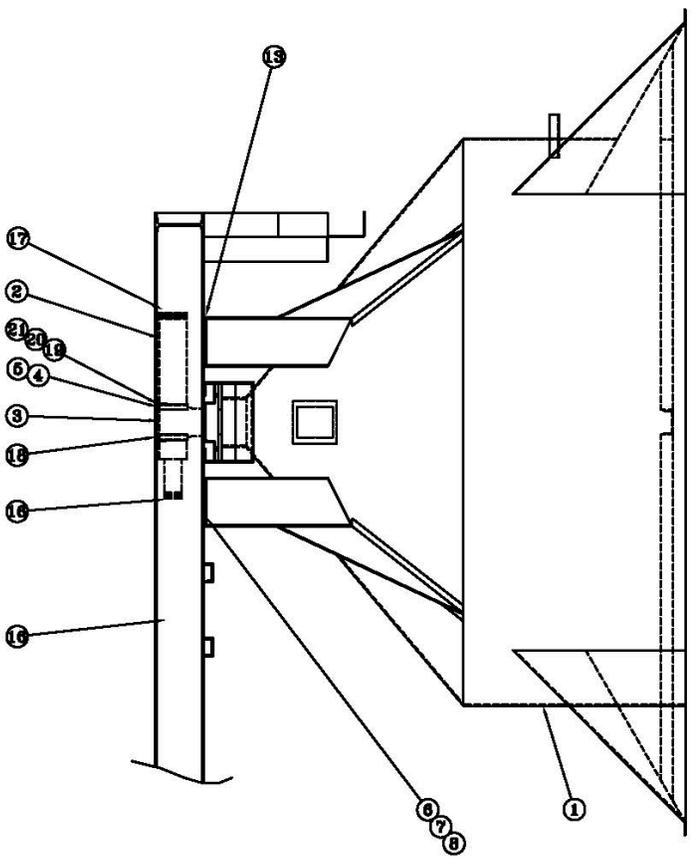
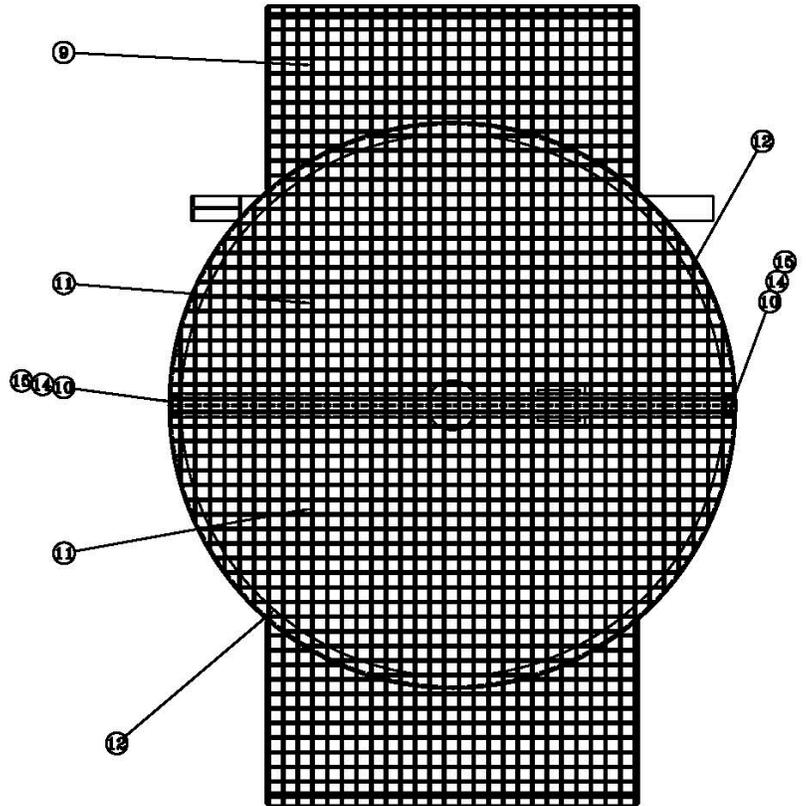
**AIR STREAM T-M SPRAY INJECTION PATCHER**  
**ADJUSTABLE BOOM AND COMPONENTS**  
**PART NUMBERS 91501DPB**



**AIR STREAM T-M SPRAY INJECTION PATCHER  
ADJUSTABLE BOOM AND COMPONENTS  
PART NUMBERS 91501DPB**

<b>NUMBER</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	91476	1	BACK SUPPORT REAR BRACE ASSEMBLY
2	91425	1	3.5" AGGREGATE BOOM CLAMP ASSEMBLY
3	91380	1	JIB SUPPORT ASSEMBLY
4	91482	1	INNER UPPER BOOM SUPPORT GUSSETT
5	91134	1	CYCLOPS TAIL LIGHT BOOM
6	24022	1	TAIL LIGHT – RIGHT (24023= TAIL LIGHT LEFT)
7	-	4	NUT (NOT SHOWN)
8	91578	1	2ND SECTION SUPPORT BOOM ASSEMBLY
9	28717	4	5/16"-18" X 1-1/4" BOLT HEX HEAD BOLT
10	28633	8	5/16" FLAT WASHER
11	28525	4	5/16"-18" ESNA LOCK NUT
12	28763	4	1/2"-13" X 1-1/2" BOLT
13	28528	4	1/2"-13" ESNA LOCK NUT
14	28636	8	1/2" LOCK WASHER

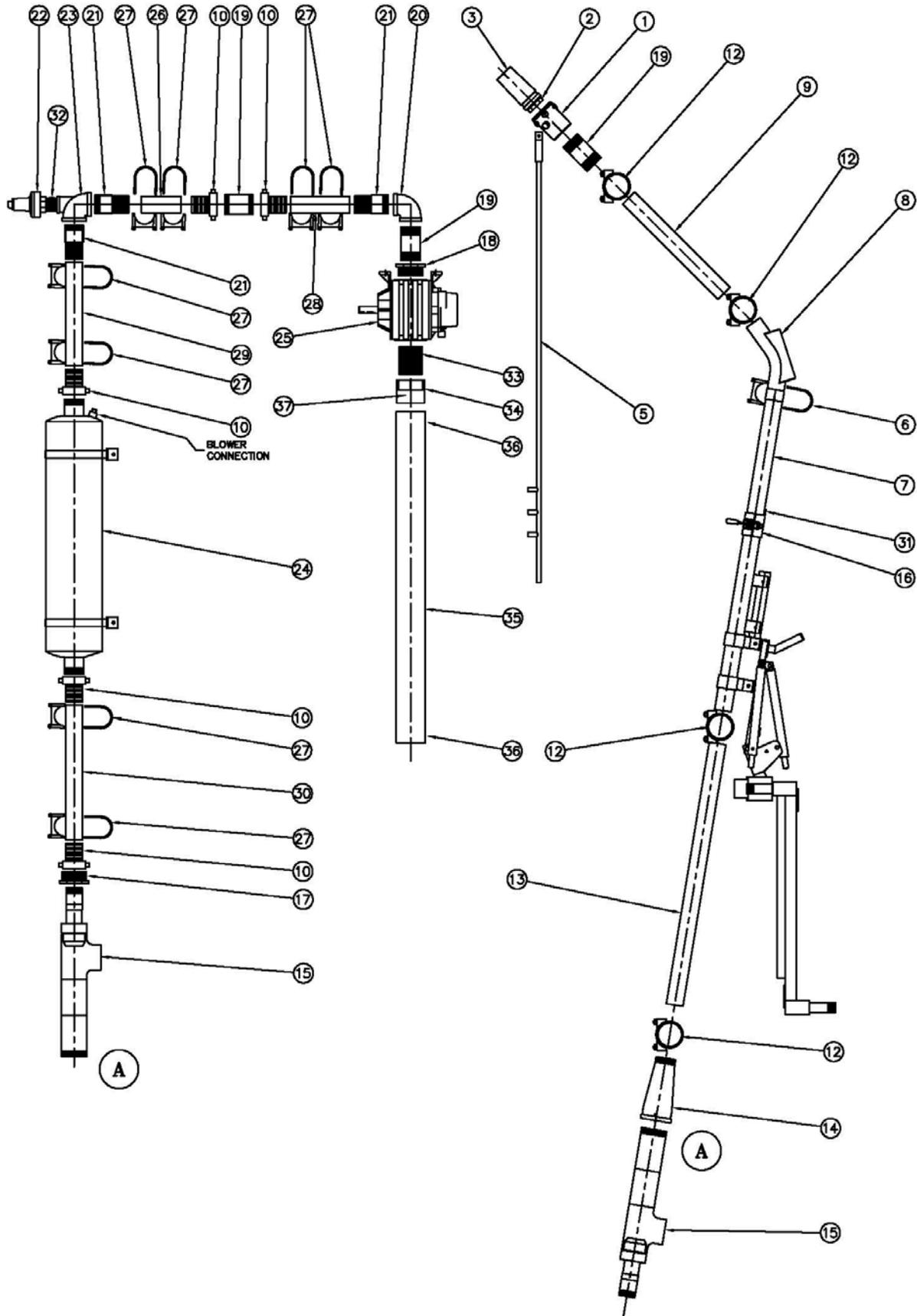
**AIR STREAM T-M SPRAY INJECTION PATCHER  
AGGREGATE HOPPER AND COMPONENTS  
PART NUMBERS 91501EPB**



**AIR STREAM T-M SPRAY INJECTION PATCHER  
AGGREGATE HOPPER AND COMPONENTS  
PART NUMBERS 91501EPB**

<b>NUMBER</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	91610	1	AGGREGATE HOPPER 6 CUBIC YARDS
2	90140	1	VENTURI
3	90751	1	VENTURI HOLDING ANGLE CLAMP
4	90141	4	VENTURI VERTICAL SPACER TUBE
5	91824	8	1/2" BEVEL WASHER
6	28528	16	1/2" ESNA LOCK NUT
7	27984	32	1/2" GRADE 8 FLAT WASHER
8	29023	16	1/2" X 2" GRADE 8 HEX HEAD BOLT
9	91634	2	2" WIRE CLOTH-REAR
10	91633	20	WIRE CLOTH MOUNTING TAB
11	91632	2	SEMICIRCULAR INSIDE WIRE CLOTH
12	91608	2	HOPPER CLOTH INSIDE MOUNT
13	91497	4	HOPPER SPACER PLATE
14	28733	44	3/8" X 1-1/2" HEX HEAD BOLT
15	28526	44	3/8" ESNA LOCK NUT
16	25952	2	3-1/2" MUFFLER CLAMP
17	-	-	-
18	25954	2	4-1/4" U-BOLT MUFFLER CLAMP
19	28740	4	3/8"-16 X 6" HEX HEAD BOLT
20	28647	8	3/8" SPLIT WASHER
21	28526	4	3/8"-16 ESNA LOCK-NUT

# AIR STREAM T-M SPRAY INJECTION PATCHER BLOWER AND COMPONENTS AIR SYSTEM PART NUMBERS 91501FPB



**AIR STREAM T-M SPRAY INJECTION PATCHER  
BLOWER AND COMPONENTS AIR SYSTEM  
PART NUMBERS 91501FPB**

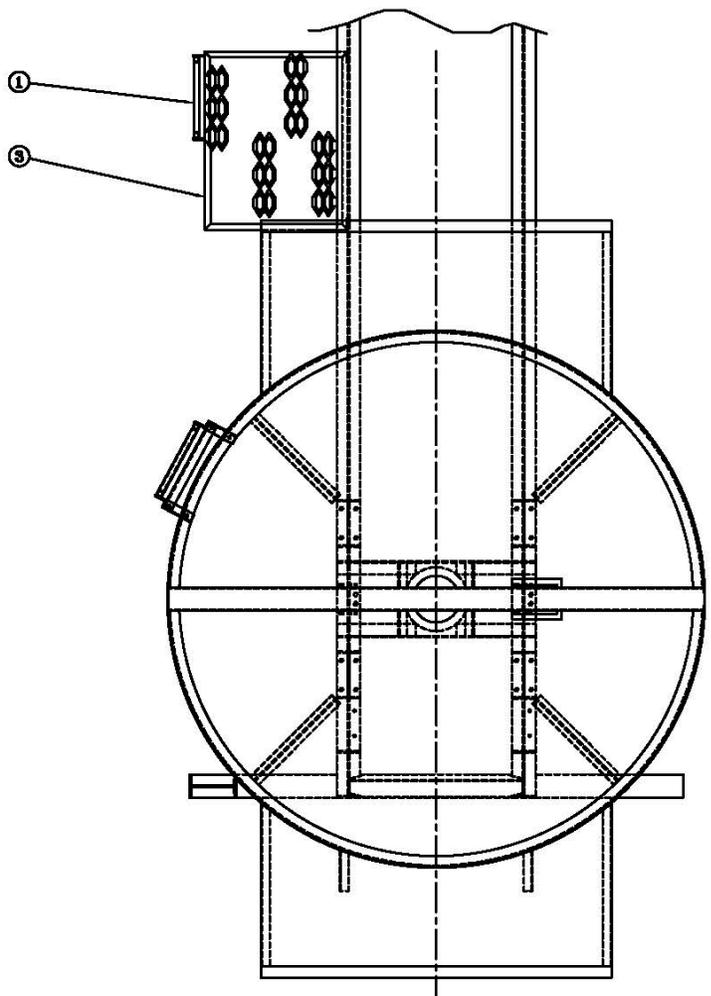
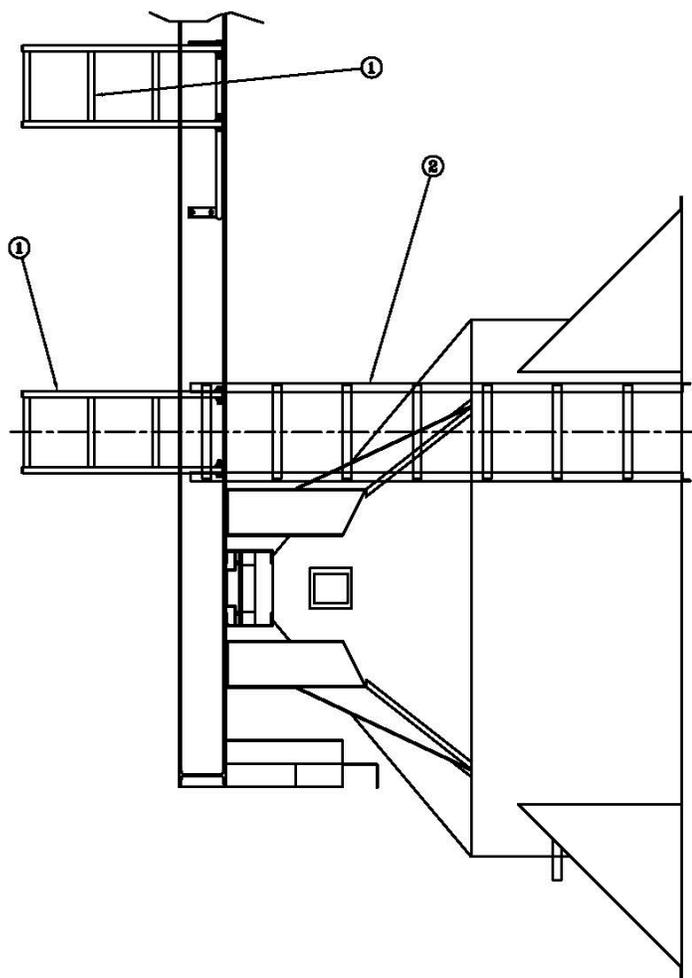
<b>NUMBER</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	91103	1	3" ALUMINUM NOZZLE HOUSING
2	91099	1	3" O-RING
3	91555	1	3" NOZZLE NO-TAPER
4	-	-	-
5	91162	1	NOZZLE POSITION HANDLE
6	25953	1	4" MUFFLER CLAMP
7	91415	1	3.5" ID WELD ASSEMBLY
8	91418	1	3.5" BOXED 45 DEGREE ELBOW
9	91421	1	3.5" X 20" GUM RUBBER HOSE
10	90554	6	3" FEMALE LUG COUPLER
11	-	-	-
12	25953	4	4" MUFFLER CLAMP
13	90745	14FT	3.5" 180AR AGGREGATE HOSE
14	90146	1	VENTURI EXTENSION TUBE
15	90140	1	VENTURI
16	91425	1	3.5" AGGREGATE BOOM CLAMP ASSEMBLY
17	28369	1	3" X 2-1/2" REDUCER BUSHING
18	28364	1	4" X 3" BUSHING
19	28077	3	3" X 6" BLACK PIPE NIPPLE
20	28215	1	3" 90 DEGREE ELBOW
21	91344	3	3" KING NIPPLE
22	91661	1	BLOWER PRESSURE RELIEF - 10 PSI
23	91668	1	3" X 2" X 3" BLACK MI TEE DRILLED
24	60116	1	CHAMBER ABSORPTION SILENCER
25	91660	1	T-M BLOWER

**AIR STREAM T-M SPRAY INJECTION PATCHER  
BLOWER AND COMPONENTS AIR SYSTEM  
PART NUMBERS 91501FPB**

<b>NUMBER</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
26	91339	1	3" WILDCAT HOSE X 6.5" LONG
27	25952	8	3-1/2" U-BOLT MUFFLER CLAMP
28	91662	1	3" WILDCAT HOSE - X 10.5" LONG
29	91656	1	3" WILDCAT HOSE - X 18.5" LONG
30	91656	1	3" WILDCAT HOSE - X 18.5" LONG
31	37032	1	1/4" X 1-1/8" KEY
32	28008	1	2" CLOSED NIPPLE
33	27979	1	4" CLOSED NIPPLE
34	91332	1	4" SCH 40 FEMALE ADPTR - DRILLED
35	91413	1	FAB CON HOSE TO BLOWER T-250
36	91843	2	6" WORM DRIVE HOSE CLAMP
37	90754	1	ELBOW OIL - HOLE COVER

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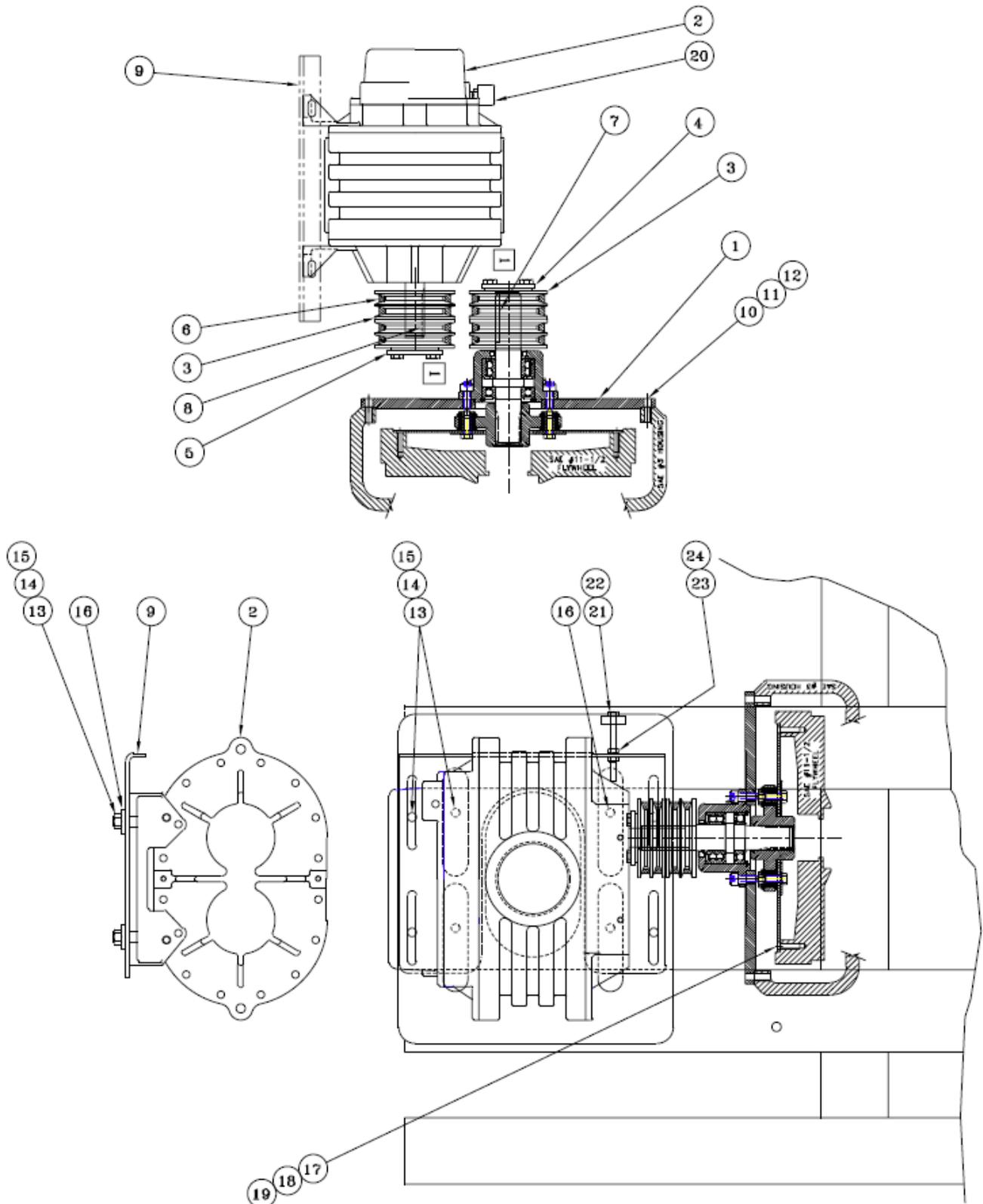
**AIR STREAM T-M SPRAY INJECTION PATCHER  
PLATFORM AND ACCESS LADDERS  
PART NUMBERS 91501GPB**



**AIR STREAM T-M SPRAY INJECTION PATCHER  
PLATFORM AND ACCESS LADDERS  
PART NUMBERS 91501GPB**

<b>NUMBER</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	91475	2	ACCESS PLATFORM EXTEND LADDER
2	91605	1	HOPPER ACCESS LADDER ASSEMBLY
3	91465	1	ACCESS PLATFORM STEP
4	42262	1	QUICK RELEASE PIN (NOT SHOWN)

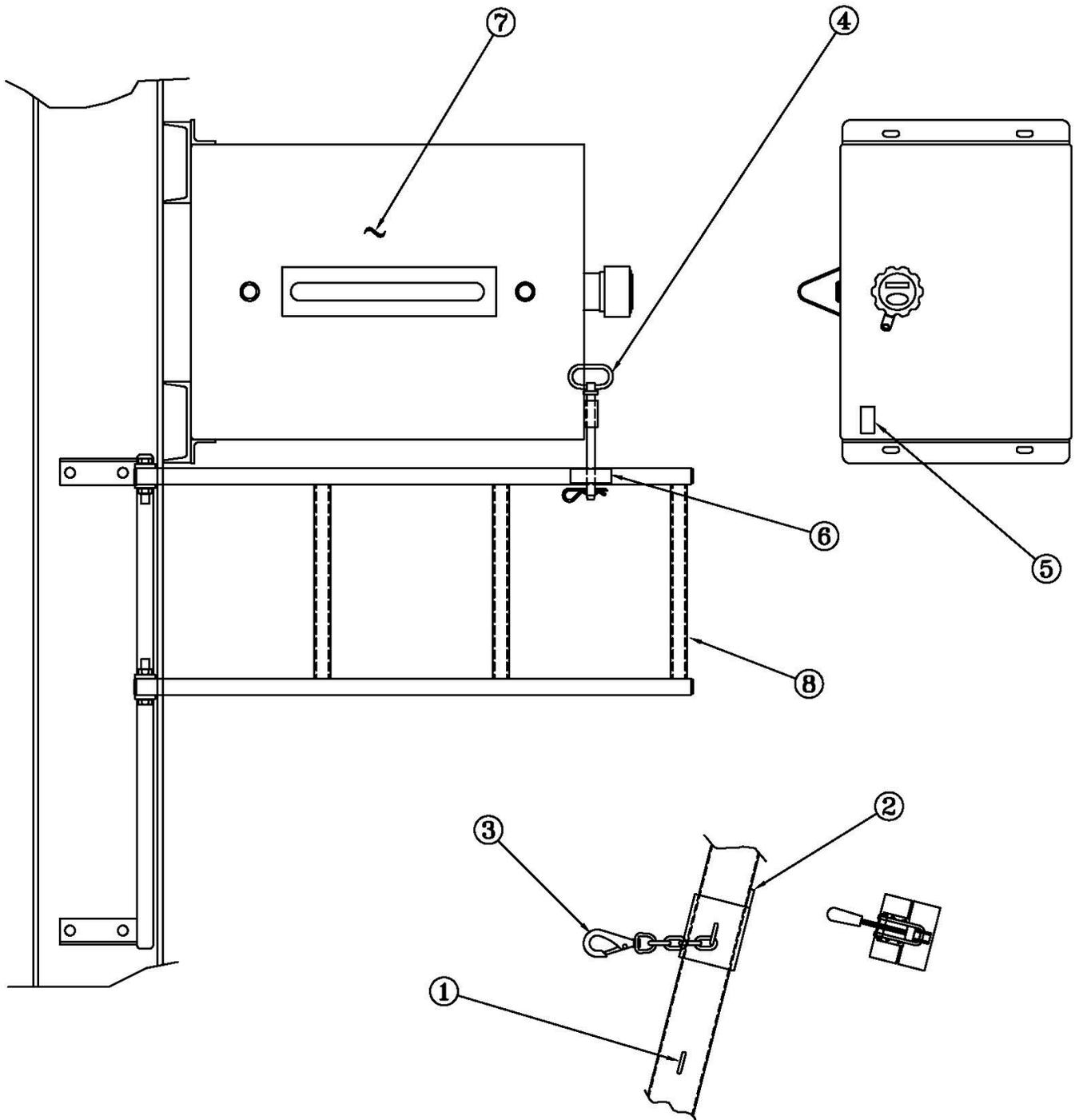
**AIR STREAM T-M SPRAY INJECTION PATCHER  
 BLOWER/ENGINE 4-BELT DRIVE SYSTEM  
 PART NUMBERS 91501HPB**



**AIR STREAM T-M SPRAY INJECTION PATCHER  
BLOWER/ENGINE 4-BELT DRIVE SYSTEM  
PART NUMBERS 91501HPB**

<b>NUMBER</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	91335	1	BEARING SUPPORT STUB SHAFT
2	91660	1	T-M BLOWER
3	91412	2	ENGINE/BLOWER 4 GROOVE SHEAVE
4	91411	1	1-1/2" SDS BUSHING - ENGINE
5	91410	1	1-1/8" SDS BUSHING - BLOWER
6	91409	4	ENGINE BLOWER BELT
7	91326	1	ENGINE SHFT KEY 3/8" X 3/8"
8	37032	1	BRUSH SHAFT KEY 1/4" X 1-1/8"
9	91448	1	BLOWER SLIDE PLATE
10	28641	20	3/8" FLAT HARDENED WASHER
11	28658	20	3/8" LOCK WASHER GRADE 8
12	27955	12	3/8"-16 X 1-1/4" GRADE 8 HEX HEAD BOLT
13	28528	8	1/2"-13 ESNA LOCK-NUT
14	28659	8	1/2" LOCK WASHER GRADE 8
15	29026	8	1/2"-13 X 1-1/2" GRADE 9 BOLT
16	90827	8	BLOWER MOUNTING TAB
17	27953	8	3/8"-16 NC X 1" GRADE 8 HEX HEAD BOLT
18	28641	20	3/8" FLAT HARDENED WASHER
19	28658	20	3/8" LOCK WASHER GRADE 8
20	60335	0.25 GAL	OIL-BLOWER SYNTHETIC LUBRICATION
21	90858	2	3/8"-16 X 4" FULL THREADED BOLT
22	28526	2	3/8"-16 ESNA LOCK NUT
23	27986	2	3/8" FLAT WASHER GRADE 8
24	27964	2	3/8"-16NC GRADE 8 NUT

**AIR STREAM T-M SPRAY INJECTION PATCHER  
FUEL TANK AND FRONT ACCESS LADDER  
PART NUMBERS 91501JPB**

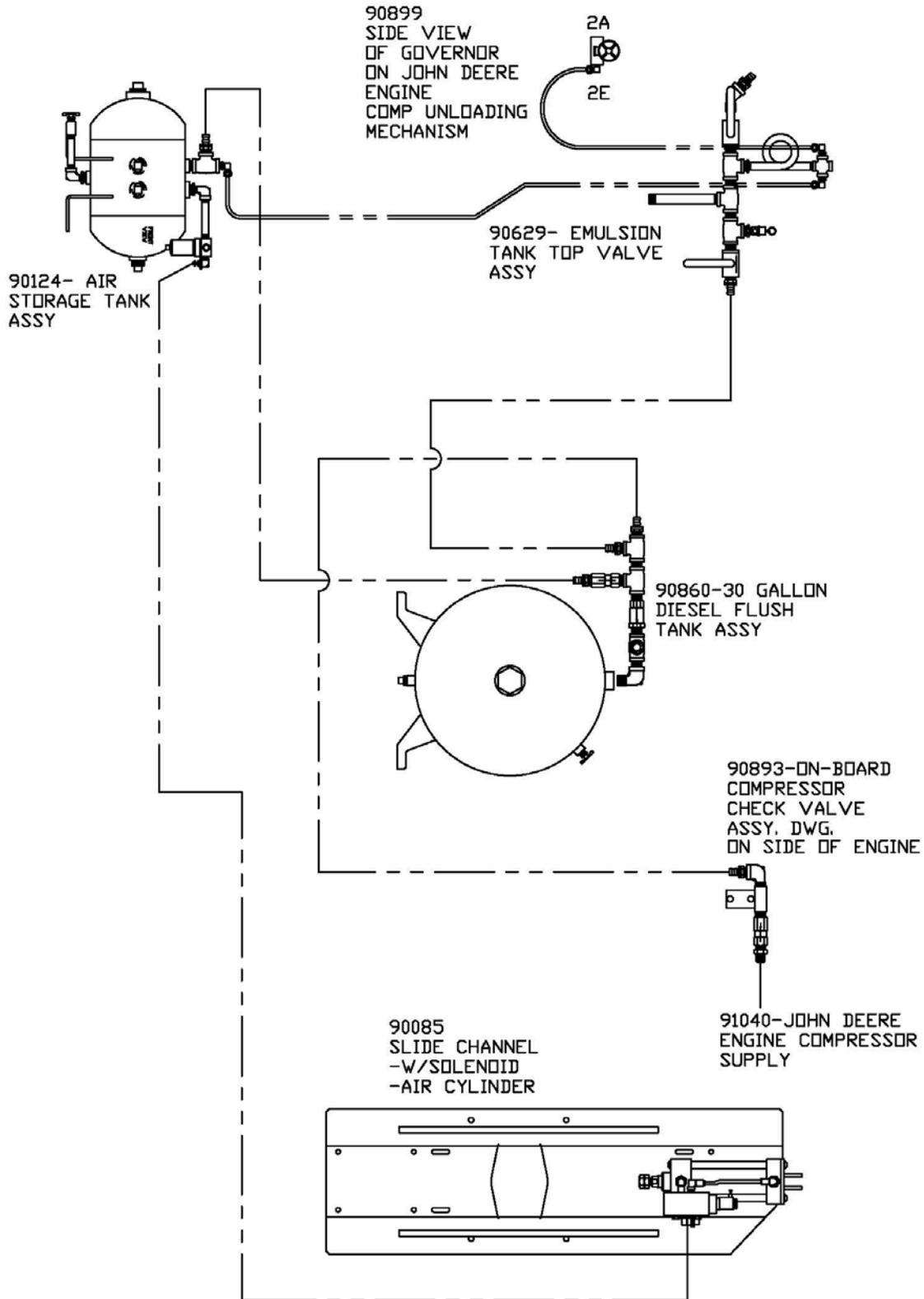


**BOOM MOUNT**

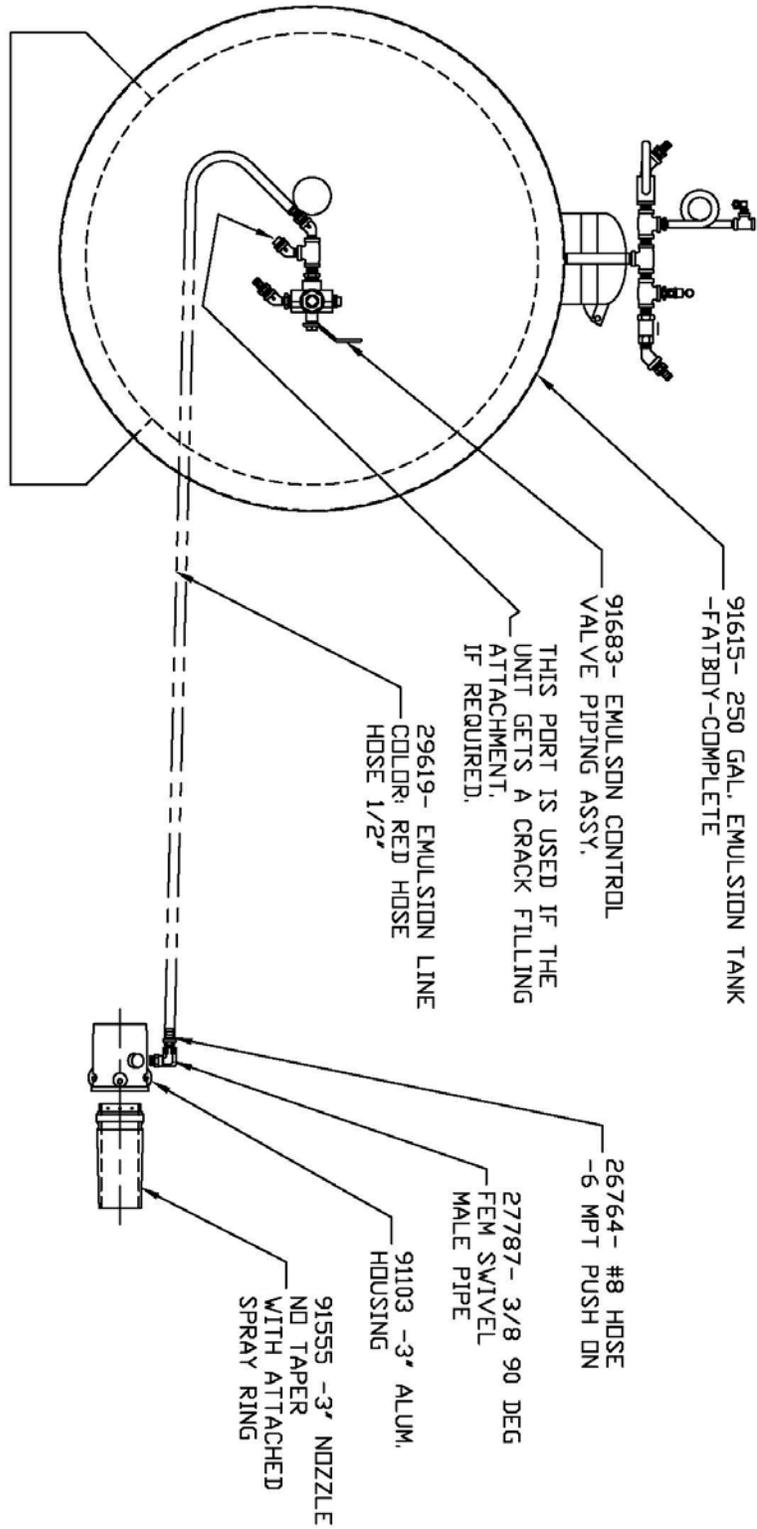
**AIR STREAM T-M SPRAY INJECTION PATCHER  
FUEL TANK AND FRONT ACCESS LADDER  
PART NUMBERS 91501JPB**

<b>NUMBER</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>
1	43897	1	3/16" CHAIN, 1 LINK
2	37032	1	1/4" X 1/8" KEY
3	91648	1	BOOM STOW SAFETY CHAIN
4	44462	1	HITCH PIN
5	51259	1	T-HANDLE ALIGNMENT TUBE
6	91686	1	LADDER TIE DOWN BRACKET
7	43594	1	26 GALLON DIESEL TANK ASSEMBLY
8	91475	1	ACCESS PLATFORM EXTENSION LADDER

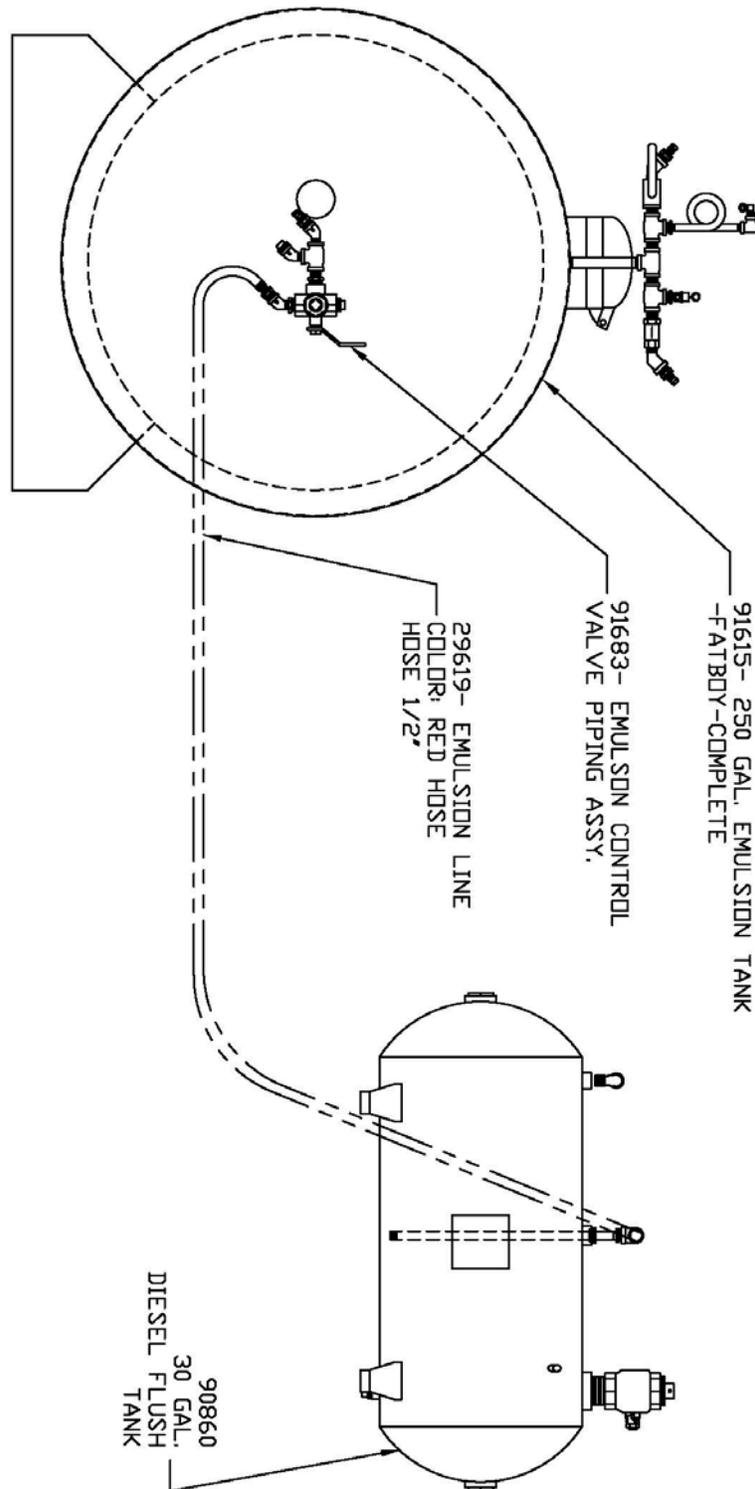
# AIR STREAM T-M SPRAY INJECTION PATCHER AIR LINE SUPPLY LINE ROUTING PART NUMBER 91550



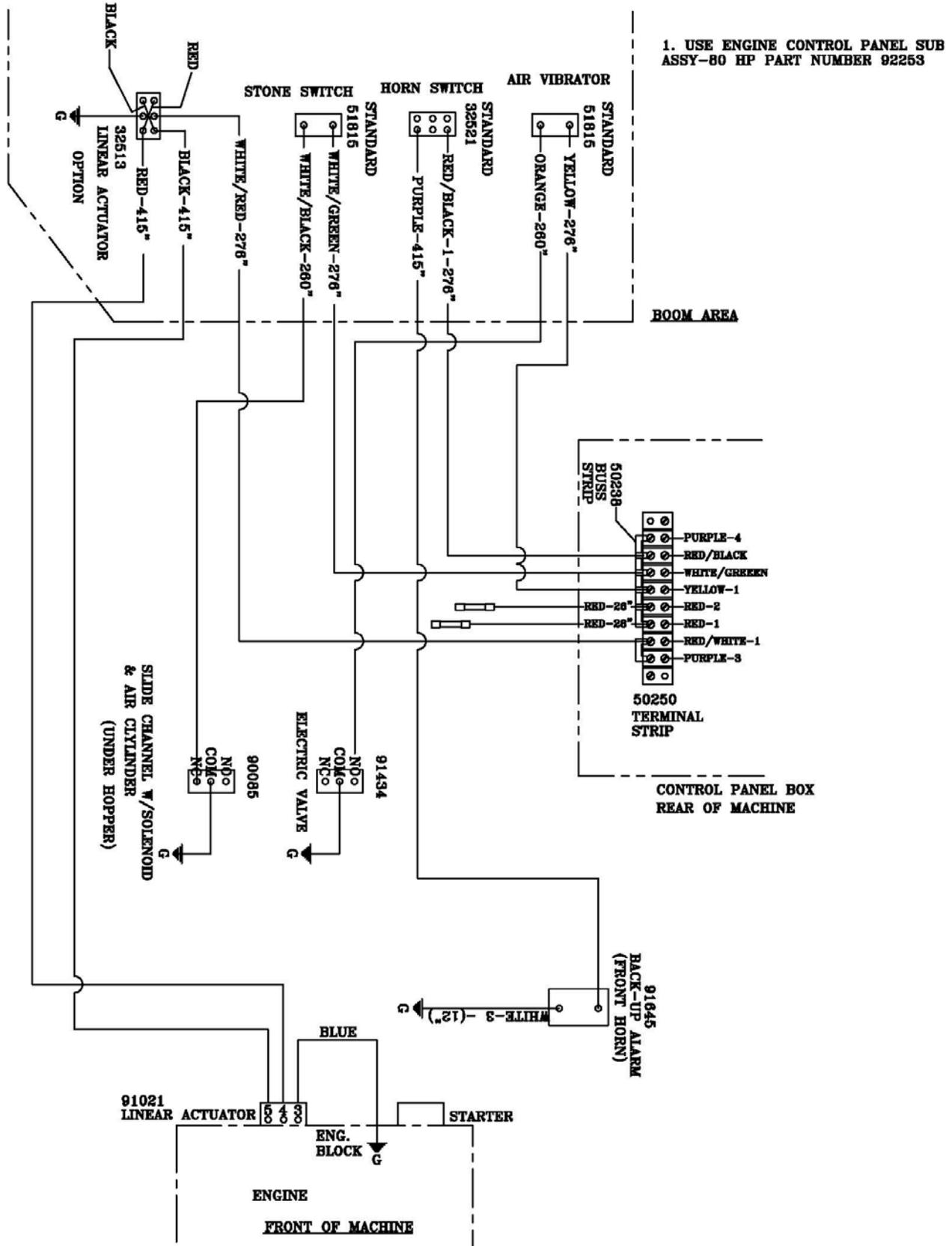
# AIR STREAM T-M SPRAY INJECTION PATCHER EMULSION SUPPLY LINE ROUTING PART NUMBER 91552



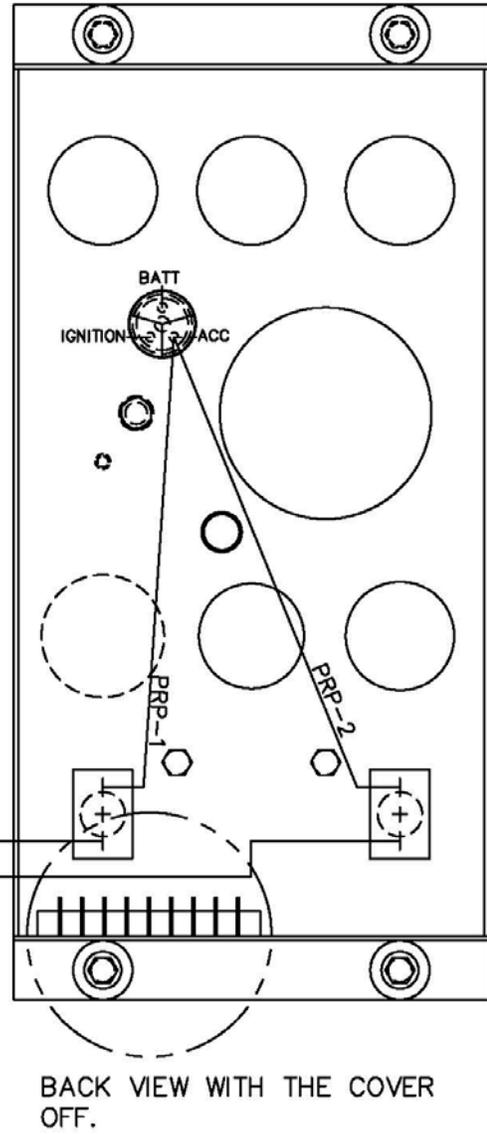
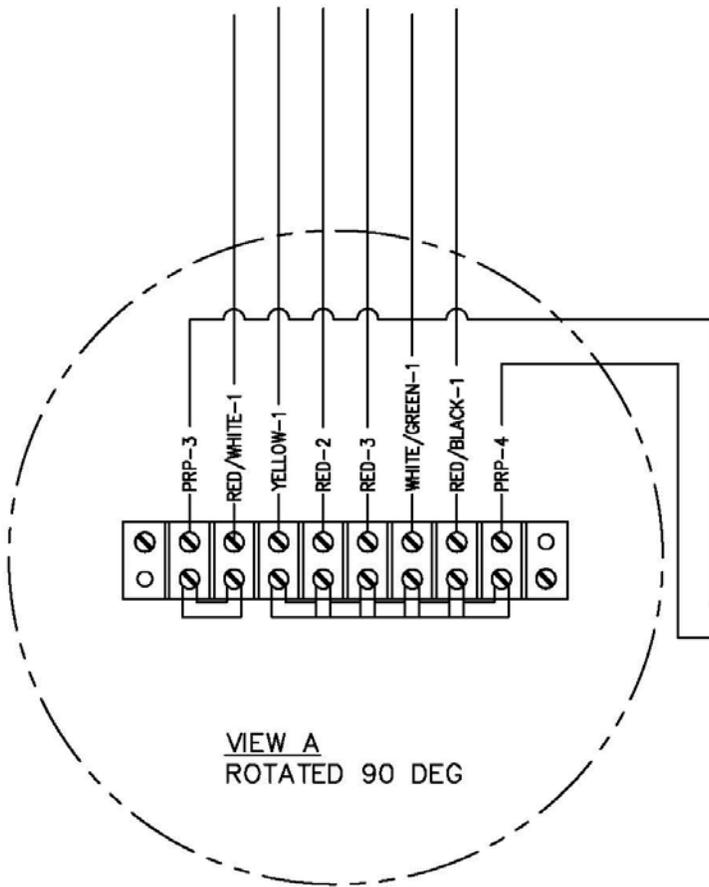
# AIR STREAM T-M SPRAY INJECTION PATCHER EMULSION SUPPLY LINE ROUTING PART NUMBER 91552A



# AIR STREAM T-M SPRAY INJECTION PATCHER WIRING SCHEMATIC PART NUMBER 91600



**AIR STREAM T-M SPRAY INJECTION PATCHER  
ENGINE CONTROL PANEL WIRING SCHEMATIC  
PART NUMBER 92253**







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