

TITAN 375

Service Manual



MAN-47900 REV A

September 2025

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1 - GENERAL INFORMATION

It is the purpose of this manual to help the technician properly understand and service the TITAN 375 truckmount. Additional general information is available in the Owners Manual, available at: <https://xxxxxxxxxxxxxxxxxxxxxx>

This manual includes:

- Common truckmount troubleshooting
- Maintenance recommendations
- Exploded parts lists
- Component specific repair instructions
- Wiring diagrams
- Water flow charts
- Warranty procedures

The illustrations in this manual include exploded views of each major machine system. Each illustration includes item numbers that correspond to a table with part numbers called a 'Bill of Materials' or BOM table.

Note: Not all parts are illustrated. If your machine was ordered with optional equipment refer to the instructions supplied with the optional equipment.

Refer to the Owners Manual for your specific model information when ordering parts.

Information in the is document are subject to change without notice.

Contact Information

If you have any questions regarding the operation, maintenance or repair of this machine, please contact your local distributor.

To find a local distributor, please visit our website at

<https://hydramaster.com/dealer-locator>

If your question cannot be resolved by your local distributor or by the information within this manual, you may contact HydraMaster directly using the following phone numbers:

HOURS	TELEPHONE NUMBERS	E-MAIL ADDRESSES
Monday – Friday 7:00 am to 5:00 pm Pacific Time	Technical Support (800) 426-1301 FAX: (800) 426-4225	Technical Support techsupport@hydramaster.com
	Customer Service/Parts (800) 426-1301 FAX: (800) 426-4225	Customer Service/Parts parts@hydramaster.com

When calling the distributor, be sure to reference the serial number and date of purchase.

FOR YOUR REFERENCE:

Model	
Serial number	
Date of Purchase	
Purchased From (Distributor)	
Address	
Phone Number	
Sales Representative	

2 – TROUBLESHOOTING

This section describes the standard troubleshooting procedures in the following areas:

- Heating System
- Chemical System
- Engine
- High Pressure System
- Vacuum System

Heating System

1.0 Truckmount overheats and shuts down

	Possible Cause	Solution
1.1	The orifice or filter screen is restricted	Remove and inspect. Clean as necessary
1.2	The high pressure dump solenoid is restricted.	Inspect the solenoid and the hose that delivers water to it. Clean or replace as necessary
1.3	The dump solenoid is faulty	Check the main fuse. If the fuse is blown, inspect electrical system for worn or shorted wires. Repair as necessary.
		Inspect the solenoid and test for functionality If the solenoid is operable, test the temperature control switch.

2.0 Unable to achieve normal cleaning solution temperature

	Possible Cause	Solution
2.1	Temperture control knob is turned down	Inspect the knob. Adjust if necessary
2.2	The dump solenoid is faulty	Inspect the solenoid and test for functionality If the solenoid is operable, test the temperature control switch.
2.3	Excessive solution flow at the tool	The cleaning tool jet is too large or worn. Inspect the jet. Replace as necessary
2.4	The heat exchanger has hard water scale buildup	Descale the system
2.5	The heat exchanger has blockage on the exhaust side	Inspect the interior of the heat exchanger. Remove the debris and clean as necessary

Chemical System

1.0 System will not prime

	Possible Cause	Solution
1.1	The check valves in the chemical pump are faulty	Remove the valves and inspect. Clean or replace as necessary
1.2	The chemical pump piston seals faulty	Remove and inspect. Replace as necessary
1.3	The check valve in high pressure pump is faulty	Remove the valve and inspect. Clean or replace as necessary
1.4	The filter in chemical jug is clogged	Inspect and clean
1.5	The hose between chemical jug and flow meter is loose, pinched or damaged	Inspect and repair
1.6	The chemical selector valve is faulty	Inspect the valve for leaks between ports. Replace as necessary

2.0 Chemical flow is unstable or low

	Possible Cause	Solution
2.1	Air in the lines	Check that all fittings and connections are tight and in good condition. Repair or replace as needed
2.2	The check valve in high pressure pump is faulty	Remove the valve and inspect. Clean or replace as necessary
2.3	The filter in chemical jug is partially clogged	Inspect and clean
2.4	The chemical selector valve is faulty	Inspect the valve for leaks between ports. Replace as needed
2.5	The chemical metering valve is faulty	Remove and inspect for cracks or damaged seals. Repair as needed
2.6	The high pressure check valve is faulty	Remove and inspect. Clean or rebuild as needed

3.0 Chemical is present in water box

	Possible Cause	Solution
3.1	The chemical pump seals are faulty	Remove and inspect the chemical pump piston. Replace as necessary
3.2	The high pressure check valve is faulty	Remove and inspect the valve. Clean or rebuild as needed

Engine

1.0 Engine will not turn over

CAUTION

Do not attempt to jump start the truckmount from a running vehicle. The amperage output from an automobile may damage the charging system of the truckmount

	Possible Cause	Solution
1.1	Loose or corroded battery terminal	Clean and tighten battery terminal connections. Apply sealant
1.2	The battery is flat	Recharge or replace the battery. Test the charging system. Repair is necessary.
1.3	The main fuse is blown	Check the main fuse
		If the fuse is blown, inspect the electrical system for worn or shorted wires. Repair or replace as necessary
1.4	The vacuum blower is seized	Attempt to turn the coupler by hand. If it will not turn refer to the Vacuum System Repair section
1.5	The ignition switch is faulty	Test to see there is power both to and from the switch.
1.6	The starter motor solenoid is faulty	Test to see if there is power to the solenoid with the ignition switch in the 'start' position.
1.7	The starter motor is faulty	Test to see if there is power to the motor with the ignition switch in the 'start' position.

2.0 Engine turns over but will not start – no spark

	Possible Cause	Solution
2.1	Recovery tank is full	Drain the tank
2.2	Recovery tank float switch is faulty	Inspect the float. Repair or replace as needed
2.3	Engine ignition system is faulty	Refer to engine repair section of this manual

3.0 Engine turns over but will not start – spark present

	Possible Cause	Solution
3.1	Fuel is not reaching the engine	Test for power to the fuel pump
		If power is present, inspect the fuel pump. Replace as needed
		Inspect the fuel lines and connections between the source and the engine. Repair or replace as needed
3.2	Engine fuel shutoff solenoid faulty	Test for power to the solenoid
		If power is present, inspect the solenoid. Replace as needed
3.3	The engine is flooded	Pull the throttle cable completely and crank until the engine starts
3.4	The spark plugs are worn or fouled	Inspect and replace as needed

4.0 Engine will not come up to speed

	Possible Cause	Solution
4.1	Throttle linkage out of adjustment	Inspect for broken or loose linkage. Repair or replace as needed
		Refer to engine repair manual for proper adjustment
4.2	Excessive load on the engine	Inspect and clean recovery tank filters
		Inspect the exterior and interior of the blower to tank vacuum hose
4.3	Excessive back pressure in exhaust	Inspect for blockage in heat exchangers. Clean or replace as needed

5.0 Engine runs rough at high speed

	Possible Cause	Solution
5.1	The spark plugs are faulty	Remove and inspect the plugs. Clean or replace as needed
5.2	The spark plug wires are faulty	Inspect the wires and connectors for damage or loose connection. Repair or replace as needed
5.3	Inadequate fuel supply to the engine	Check if the fuel pump is mounted in a vertical position near the fuel source. Correct if necessary
		Check for blockage in the filter. Replace as needed
		If operating altitudes have changed check the carburetor for proper jetting

6.0 Engine runs rich – black smoke

	Possible Cause	Solution
6.1	Air filter is dirty	Inspect and replace as needed
6.2	Choke is partially closed	Inspect and adjust as needed
6.3	Excessive fuel to the engine	Check to see if proper fuel pump installed
		If operating altitudes have changed check the carburetor for proper jetting

7.0 Engine overheats

	Possible Cause	Solution
7.1	Poor ventilation in the van	Open all van doors
		Install a roof vent in the van
		Remove any dividers or objects impeding airflow to the engine
7.2	Engine oil level is low	Check the oil level and fill as needed
7.3	Engine rpm is too high	Check the engine rpm. Adjust as needed
7.4	Excessive back pressure on the engine exhaust	Inspect for blockage in the heat exchanger. Clean or replace as needed

High Pressure System

1.0 Will not come up to pressure

	Possible Cause	Solution
1.1	Pressure adjusting valve is faulty	Inspect the valve. Repair or replace as needed
1.2	Worn seals or valves in the pump	Test the pump output volume directly from the pump while running at full rpm. If volume is below specification rebuild or replace pump
1.3	The pump rpm is low	Check for loose pump belt. Adjust or replace as needed
		Check the engine rpm and adjust as needed
1.4	The primary orifice is missing or loose	Remove and inspect. Tighten or replace as needed
1.5	The primary and secondary orifices have been installed incorrectly	Inspect and reverse if necessary. Refer to the illustrated parts list for proper orientation
1.6	The primary orifice is worn	Measure the orifice size and replace as needed.

2.0 No pressure reading on the gauge

	Possible Cause	Solution
2.1	Pump belt is worn	Inspect and replace as needed
2.2	The gauge is faulty	Replace as needed
2.3	Water box is empty	Fill the water box
2.4	Water box float switch is faulty	Replace water box float switch

3.0 Pressure gauge reads normal – low pressure at tool

	Possible Cause	Solution
3.1	Restriction at tool	Inspect the tool jets. Clean or replace as needed
		Inspect any filters in the cleaning tool and clean or replace as needed
3.2	Faulty quick connects	Inspect each quick connect and replace as needed
3.3	Restriction in on of the solution hoses	Remove the quick connects and inspect the hoses. Replace as necessary
3.4	Hard water deposits	Descale the system

4.0 Pressure pulsation

	Possible Cause	Solution
4.1	Air leak between the water box and pump	Check all hoses and fittings for cuts, breaks, loose connections or cracks. Repair or replace as needed
4.2	The check valve in the pump faulty	Remove each valve and inspect for correct operation. Replace as needed
4.3	Chemical pup is not primed	Prime the chemical system

5.0 Water box empty or filling slowly

	Possible Cause	Solution
5.1	Restriction in the water supply line	Inspect the supply line from the source through the incoming quick connect
5.2	Float valve in water box faulty	Disassemble and inspect the valve. Repair or replace as needed

6.0 Water box overflows

	Possible Cause	Solution
6.1	Float valve in water box faulty	Disassemble and inspect the valve. Repair or replace as needed
6.2	Float valve float filled with water	Replace as needed
6.3	Float valve float out of adjustment	Adjust as needed

Vacuum System

1.0 Weak vacuum at tool – gauge on machine reads normal

	Possible Cause	Solution
1.1	Blockage in the hoses or wand tube	Disconnect the hoses and check for obstruction. Clean and clear as needed
1.2	Excessive length of hose connected to the truckmount	Do not attach excessive length of hose

2.0 Weak vacuum

	Possible Cause	Solution
2.1	Air leak somewhere in the vacuum system	Check the vacuum relief valve for proper adjustment
		Check all the vacuum hoses for cut or breaks
		Check the recovery tank lid gasket
		Make sure the recovery tank drain valve is fully closed
2.2	Vacuum blower is turning too slowly	Check the engine rpm. Adjust as needed
2.3	Vacuum gauge is defective	Test the gauge and replace as needed

3.0 Vacuum gauge reads too high – no hoses attached

	Possible Cause	Solution
3.1	Filters in recovery tank clogged	Remove and clean or replace
3.2	Hose from blower to tank collapsed	Inspect interior of hose. Replace as needed

4.0 Excessive noise from blower

	Possible Cause	Solution
4.1	Blower is low on oil	Inspect oil level. Fill as needed
4.2	Blower has internal damage	Refer to blower service manual

5.0 Vacuum blower is locked and will not turn

	Possible Cause	Solution
5.1	Rust build up due to improper lubrication	Spray penetrating oil into the blower and let sit for at least 1 hour. Carefully use wrench to turn drive coupler. Do not use wrench directly on blower shaft
5.2	Foreign debris entered blower	Remove blower inlet and inspect for foreign debris. Clean as needed
5.2	Internal or gear damage	Replace blower

6.0 Water in blower exhaust

	Possible Cause	Solution
6.1	Recovery tank filled with foam or overfilled with water	Inspect the recovery tank. Drain and clean if needed
		Inspect the high level shutoff switch for proper operation. Clean or replace as needed
		If foam is in recovery tank the blower may need to be cleaned
6.2	Condensation	In cool humid operating conditions condensation may present upon startup. Condensation should dissipate after a few minutes of operation at temperature.
6.3	Heat exchanger is leaking water	Inspect and repair as needed

3 - MAINTENANCE

To avoid costly repairs and down time, it is imperative to develop and practice good maintenance procedures. These procedures fall into daily, weekly, monthly, and quarterly increments, and are outlined in this section. All recommended maintenance procedures must be performed by a competent service professional.

This section covers:

- Operational Maintenance
- Overall Machine Maintenance
- High Pressure Pump Maintenance
- Vacuum System Maintenance
- Descaling Procedures
- Freeze Guarding
- Drive Belts

NOTICE

Record the date and machine hours in the maintenance logs provided for your convenience. Records of maintenance must be kept, and copies may be required before warranty will be honored. It is recommended that you affix a copy of the log on the vehicle door near your unit for convenience and to serve as a reminder.

Operational Maintenance

Daily Maintenance

- Check the engine oil level. Add if needed
- Check the high-pressure pump oil. Add if needed
- Inspect and clean the recovery tank filters
- Inspect and clean the control orifices and filters
- Inspect and clean the garden hose screen
- Inspect the truckmount for water and oil leaks, loose electrical connections, etc. Repair as needed.
- Lubricate the blower lube port with HydraMaster recommended spray lubricant

Weekly Maintenance

- Inspect the recovery tank filters for tears, holes, etc. Repair or replace as needed
- Inspect the sacrificial anode assembly in the tank and repair or replace as needed
- Inspect the vacuum relief valve. Clean and lubricate as needed
- Clean the recovery tank thoroughly with pressurized water
- Check the oil level in the blower. Add oil if needed
- Check the pump drive belt for wear and proper tension. Tighten as needed
- Check all hoses and wiring for wear and chafing. Secure as needed
- Flush the water and chemical system with 50/50 vinegar solution
- Check all nuts and bolts. Tighten as needed
- First time high-pressure pump oil change at 50 hours
- First time engine oil change at 8 hours

Monthly Maintenance

- Check the engine air filter. Clean or replace as necessary
- Check the water level in battery. Fill as needed
- Clean the battery terminals as needed
- First time blower oil change at 100 hours.

Quarterly Maintenance

- Check the engine air filter. Clean or replace as needed
- Clean and gap the spark plugs to 0.030". Replace if excessive carbon buildup is visible
- Change the fuel filter
- Change pump drive belt

100 Hours

- Replace spark plugs

250 Hours

- Check coupler element (rubber insert) for crack or wear. Replace as needed

500 Hours

- Change the blower oil
- Change the high pressure pump oil
- Check the engine valve clearance (intake and exhaust 0.004" – 0.006")
- Change the fuel filter
- Check coupler element (rubber insert) for cracks or wear. Replace as needed
- Replace the sacrificial anode in the recovery tank

1000 Hours

- Change air filters
- Check plug wires. Replace as needed
- Check carburetor. Clean or replace as needed
- Clean the heat exchanger core
- Replace the coupler element (rubber insert)

High Pressure Pump Maintenance

Daily

Check the oil level and the condition of the oil. The oil level should be to the center of the sight glass or between the “MIN” and “MAX” lines on the dipstick. The dipstick may be found by removing the oil fill cap.

Periodic

Change the oil after the initial 50 hours of operation and every 500 hours after that. It may be necessary to replace the pump seals and check valves at 500 hours if the truckmount has been running in high ambient temperatures.

CAUTION

If the oil becomes discolored or contaminated, one of the oil seals may be damaged. Do not operate the pump if the crankcase oil has been contaminated. Do not rotate the drive shaft without oil in the crankcase reservoir.

CAUTION

The pump should not be run dry (without water). Running the pump dry will cause premature wear on the seals, packing and plungers. Running the pump dry for prolonged periods of time may cause damage that cannot be repaired and is not covered by the warranty.

CAUTION

Do not run the pump with frozen water in the manifold. If there is a risk of freezing, freeze guard the truckmount. See the Freeze Guarding section for more information.

Vacuum System Maintenance

The vacuum pump in this machine is commonly referred to as a 'rotary positive displacement blower' or just 'blower' for short. The performance and life of the truckmount is largely dependent on the care and proper maintenance it receives. Review the blower's owner's manual for a better understanding of this component.

To protect the blower from overloading and damaging itself, a vacuum relief system is installed on the recovery tank. When the recovery tank inlet is completely sealed off, a maximum of 12" Hg will be maintained.

CAUTION

Solid objects entering the blower will cause serious damage to the internal components of the blower. Extreme caution should be used when the truckmount is being run for test purposes with the inlet to the blower exposed (inlet hose removed).

CAUTION

Foam passing through the blower can lead to serious problems with the truckmount. It is important to keep the recovery tank free of foam. The tank is protected from overflowing by a float switch, however this switch will not be activated by foam in the tank.

Daily

At the end of each day the internal components of the blower need to be lubricated. This helps to prevent rust deposits and prolongs the life of the truckmount.

See the machine 'Shut Down Procedure' in the Operation section for proper method.

Periodic









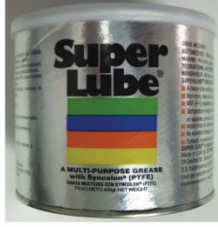

Change the oil in both ends of the blower after the initial 100 hours. Change the oil after each 500 hour interval thereafter.

4 – EXPLODED VIEWS

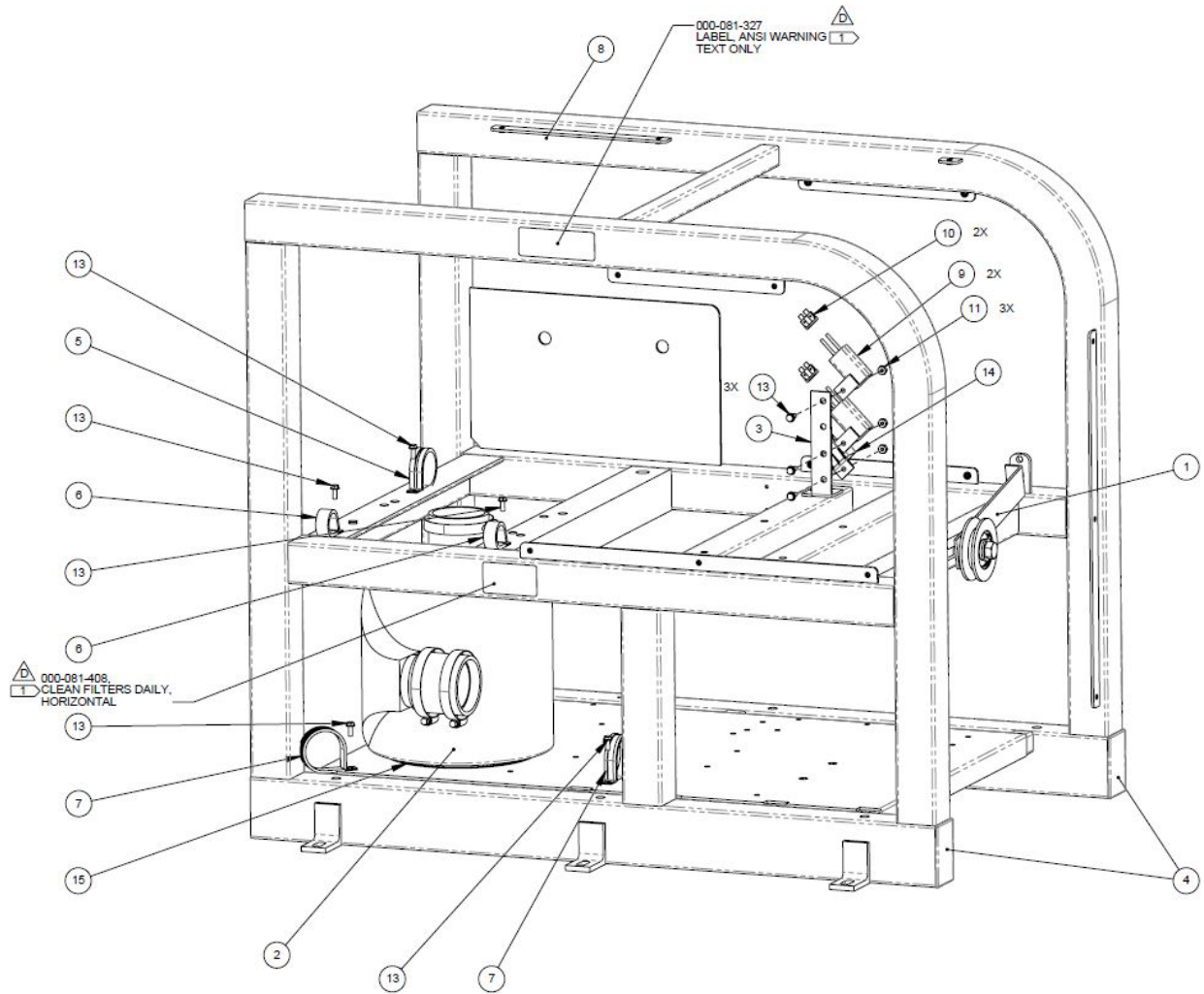
Sealant Chart

Some of the illustrations in this section reference sealants, thread lockers, adhesives, primers, anti-seize, and lubricant specifications.

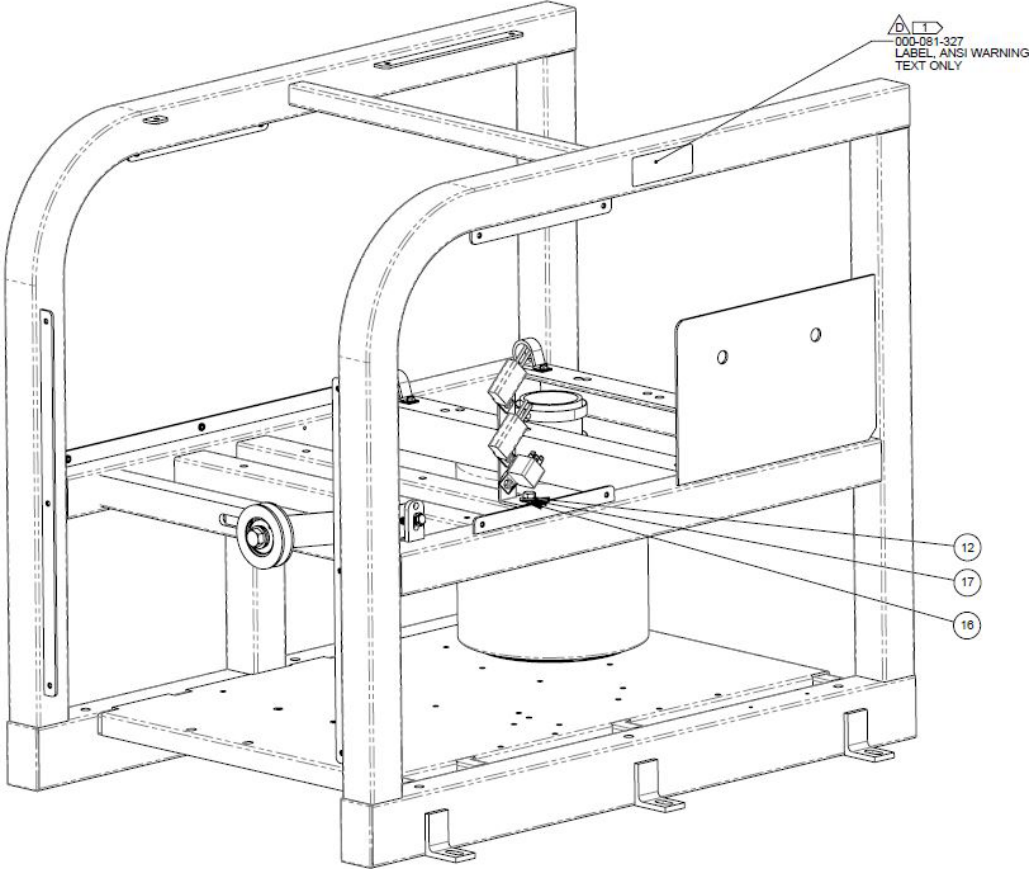
The following reference chart identifies those products noted in the illustrations. Equivalent products are acceptable if they meet or exceed current specifications and are approved by HydraMaster.

Adhesive Material Production Line Reference Card from ENG-45975 Rev. 0					
<p>A1 Silicone RTV</p> 	<p>A2 Loctite 567</p> 	<p>A3 Loctite 545</p> 	<p>A4 Teflon Tape</p> 	<p>E1 Loctite 51252 Grease</p> 	
<p>B1 Loctite 242</p> 	<p>B2 Loctite 262</p> 	<p>B3 Loctite 266</p> 	<p>C1 Gapper</p> 	<p>D1 Loctite 7649</p> 	<p>E2 Molykote Anti-Seize</p> 
<p>B4 Loctite 222MS</p> 	<p>B5 Loctite 425</p> 	<p>E4 Super Lube</p> 	<p>E5 SKF Anti-Fret</p> 		

610-050-767 Console

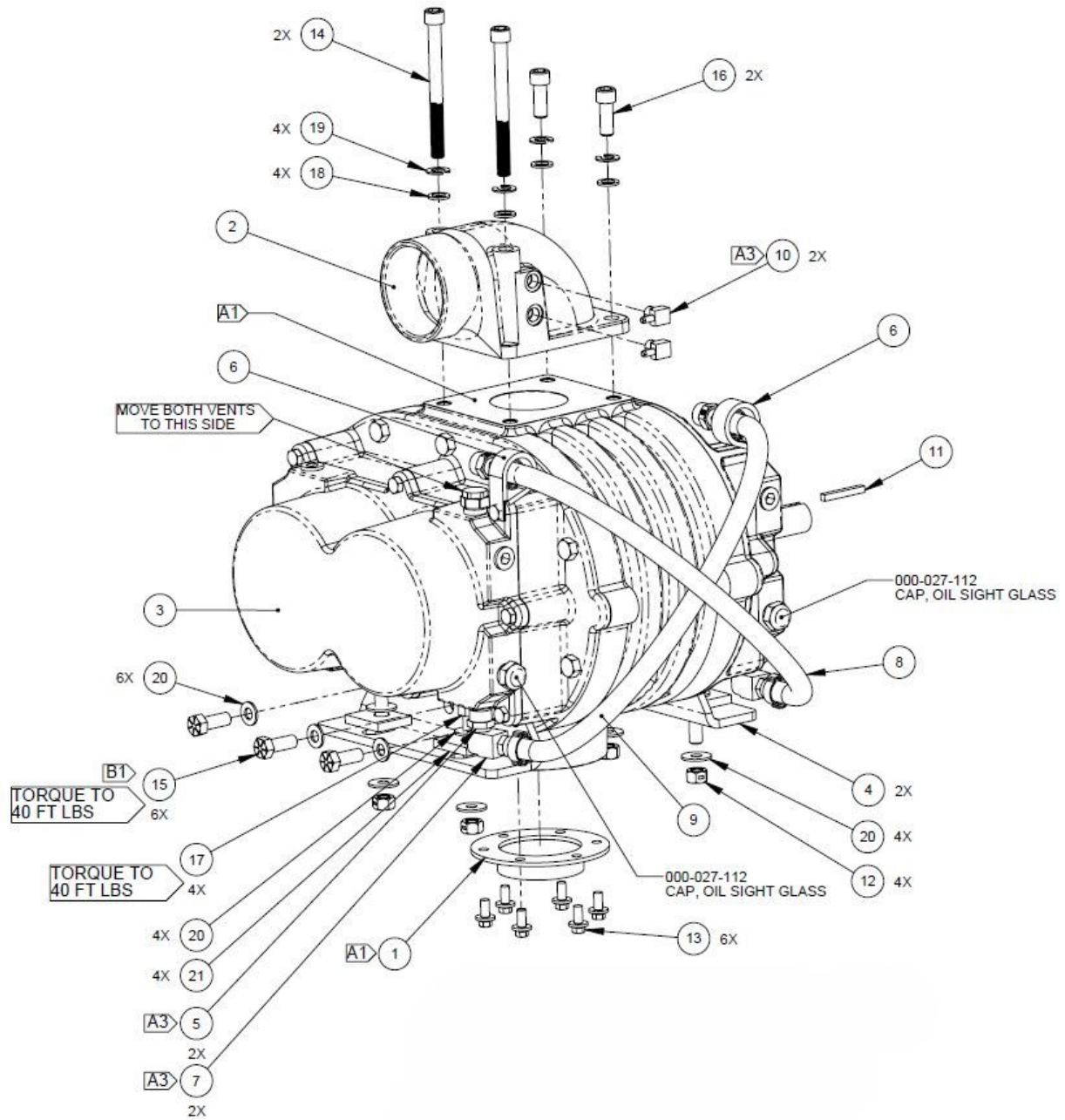


610-001-729 Frame

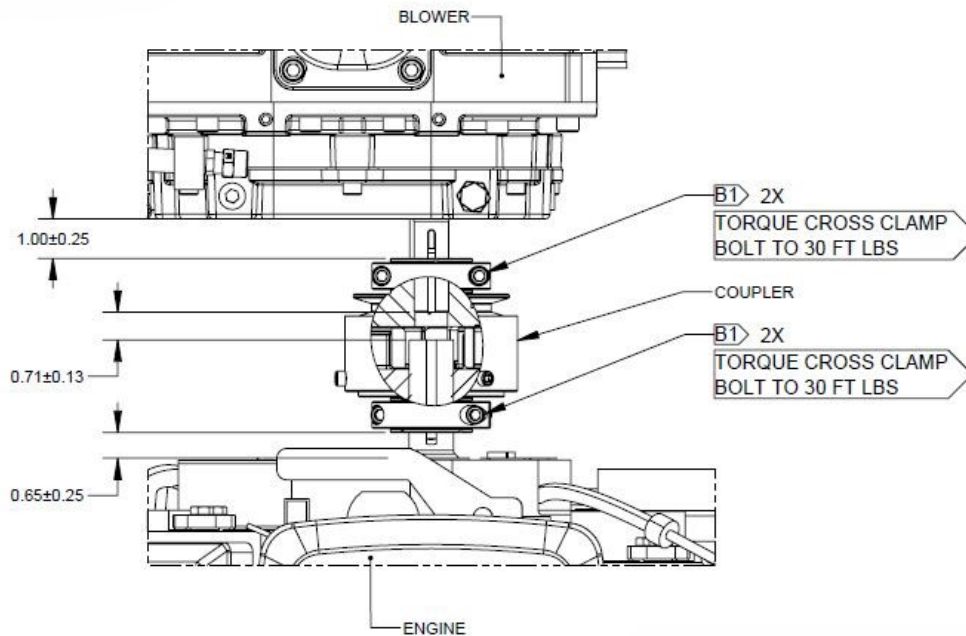


610-001-729 Frame

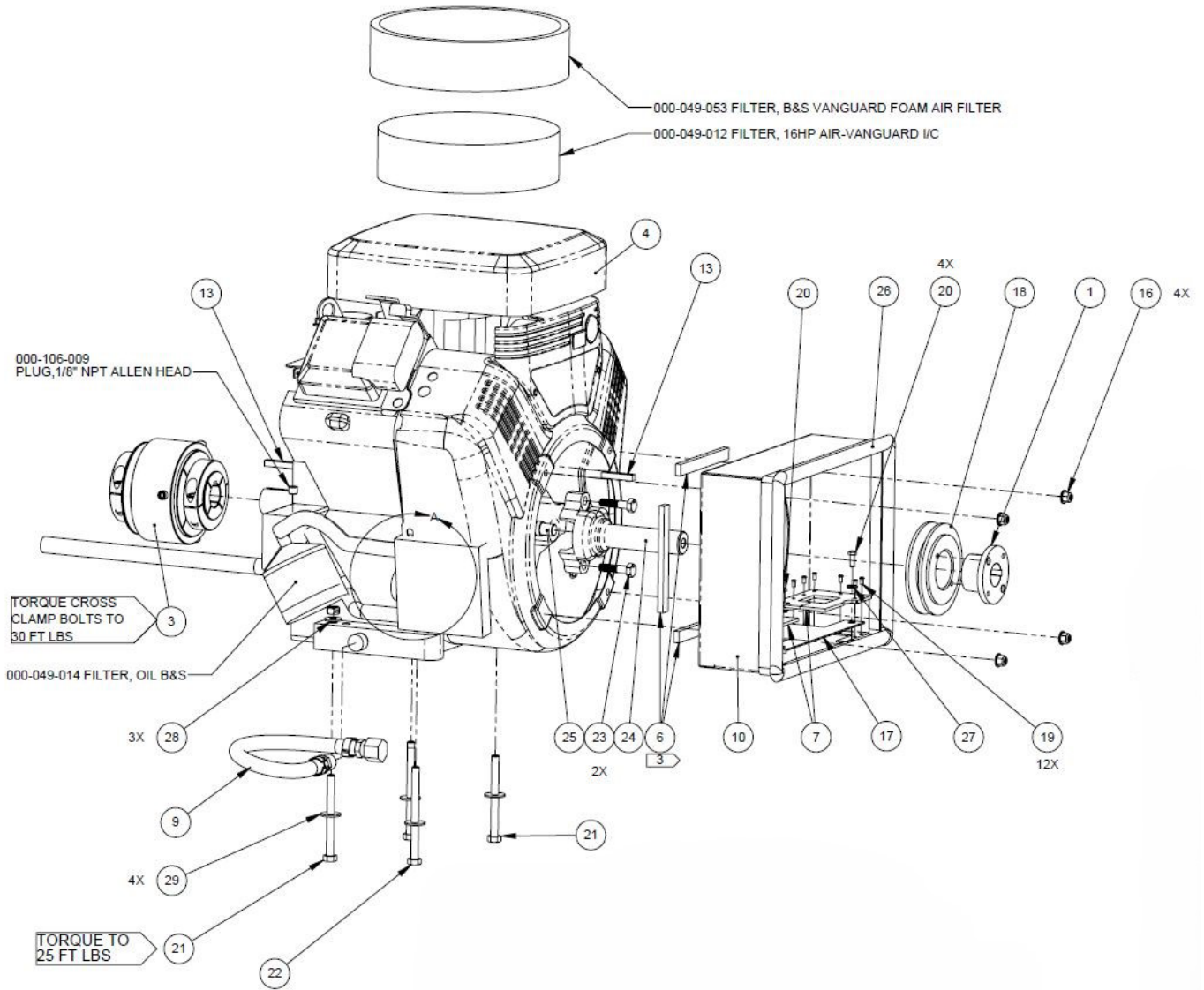
17	1	WASHER, 5/16 LOCK	000-174-018
16	1	WASHER, 5/16 FLAT	000-174-004
15	1	TRIMLOK 3/8 X 1/8 RUBBER	000-131-131
14	1	SWITCH, RELAY	000-157-022
13	8	SCREW, #10-24 X 0.50" LG HEX HEAD FLANGE	000-143-583
12	1	SCREW, 5/16"-18 X 3/4" LG	000-143-012
11	3	NUT, #10-24 NYLOCK	000-094-034
10	2	FUSE, 30AMP	000-056-011
9	2	FUSE HOLDER, INLINE	000-056-006
8	1	FRAME, COMPLETE	000-055-195
7	2	CLAMP, 2" CUSHION	000-033-067
6	2	CLAMP, 1" CUSHION	000-033-057
5	1	CLAMP, 1-3/4" CUSHION	000-033-050
4	2	CAP 2" X 3" FRAME END	000-027-110
3	1	BRACKET, HEAT EXCHANGER LEFT	000-015-177
2	1	ASSEMBLY, SILENCER	610-021-724
1	1	ASSEMBLY, IDLER PULLEY	610-021-009
ITEM	QTY	DESCRIPTION	PART NUMBER



610-002-767 Blower



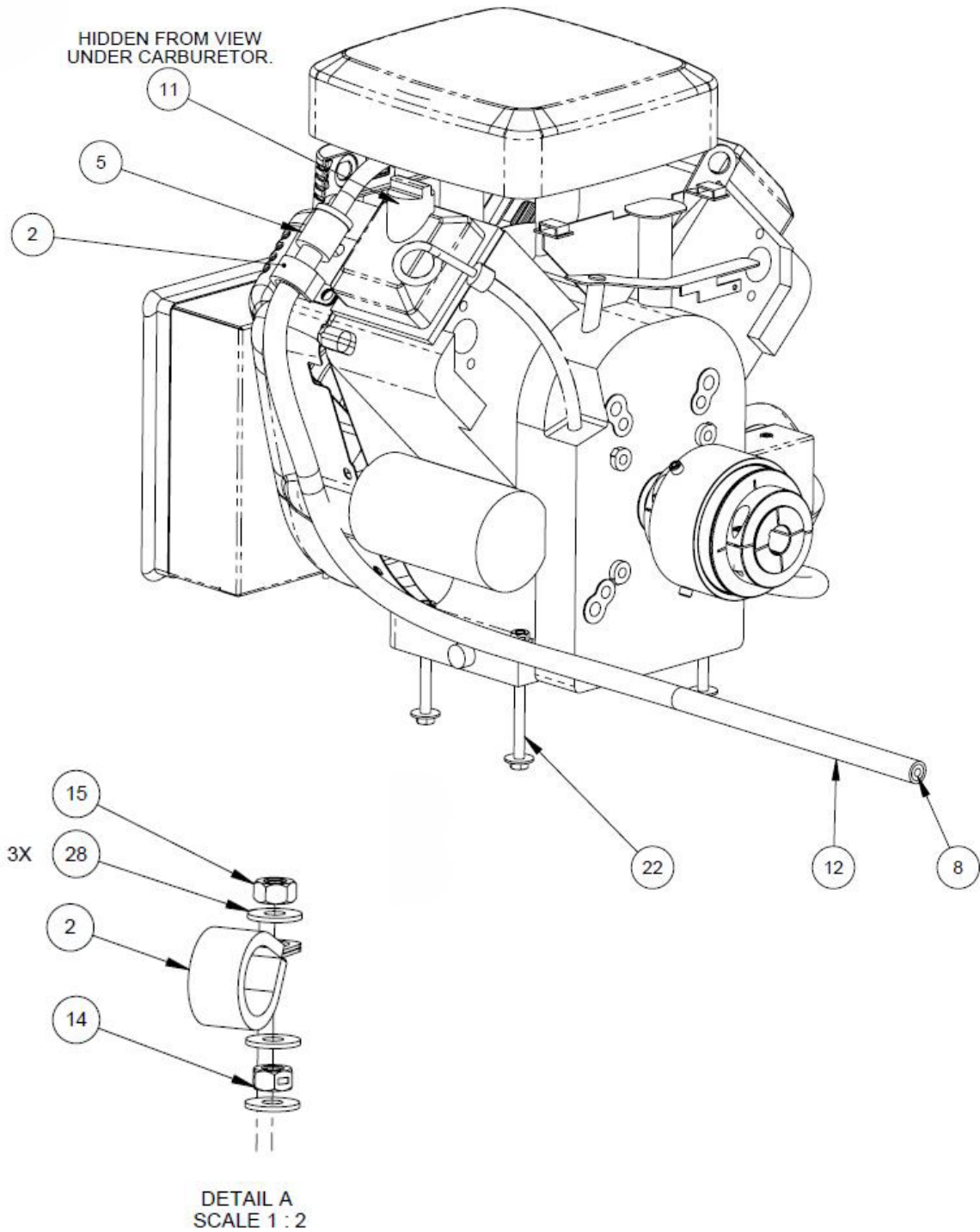
21	4	WASHER, BLOWER FEET	000-174-068
20	14	WASHER, 5/16" FLAT	000-174-004
19	4	WASHER, 3/8" LOCK	000-174-057
18	4	WASHER, 0.390"ID X 0.625" OD FLAT	000-174-055
17	4	SCREW, 3/8"-16 X 1.5" LG HEX HEAD	000-143-200
16	2	SCREW, 3/8"-16 X 1" LG SOCKET HEAD	000-143-081
15	6	SCREW, 3/8"-16 X 1" LG HEX HEAD	000-143-018
14	2	SCREW, 3/8"-16 X 4" LG SOCKET HEAD	000-143-786
13	6	SCREW, 1/4"-20 X 0.50" LG WHIZ LOCK	000-143-141
12	4	NUT, 3/8"-16 HEX 2 WAY LOCKING	000-094-015
11	1	KEY, 3/16" X 1-1/2" LG	000-077-011
10	2	INSERT, 1/8" NPT X 5/32" BARB X 90	000-052-106
9	1	HOSE ASSEMBLY, 3/8" X 17" LG DRAIN	000-068-784
8	1	HOSE ASSEMBLY, 3/8" X 17" LG DRAIN	000-068-784
7	2	ELBOW, 1/4" STREET	000-052-085
6	2	CLAMP, 1" CUSHION	000-033-057
5	2	BUSHING, 3/8" X 1/4" FPT	000-052-061
4	2	BRACKET, 4005 BLOWER MOUNTING	000-015-032
3	1	BLOWER, 4005 MD	000-111-145
2	1	ADAPTER, BLOWER INLET	000-001-872
1	1	ADAPTER, BLOWER OUTLET	000-001-871
ITEM	QTY	DESCRIPTION	PART NUMBER



NOTES:
 1. SEE ASY-45997 FOR ASSEMBLY INSTRUCTIONS.
 2. SEE ENG-45975 OR ADHESIVE MATERIAL PRODUCTION LINE
 REFERENCE CARD FOR SEALANT INFORMATION.

3 CUT ITEM 6 IN HALF.

610-004-728 Engine

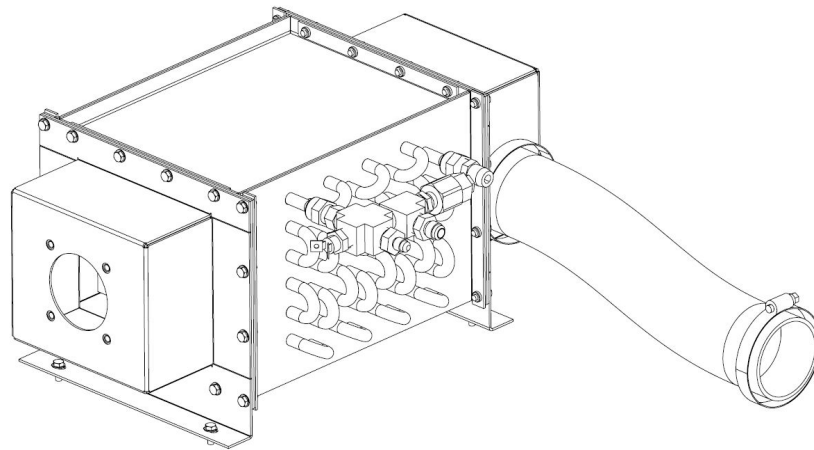
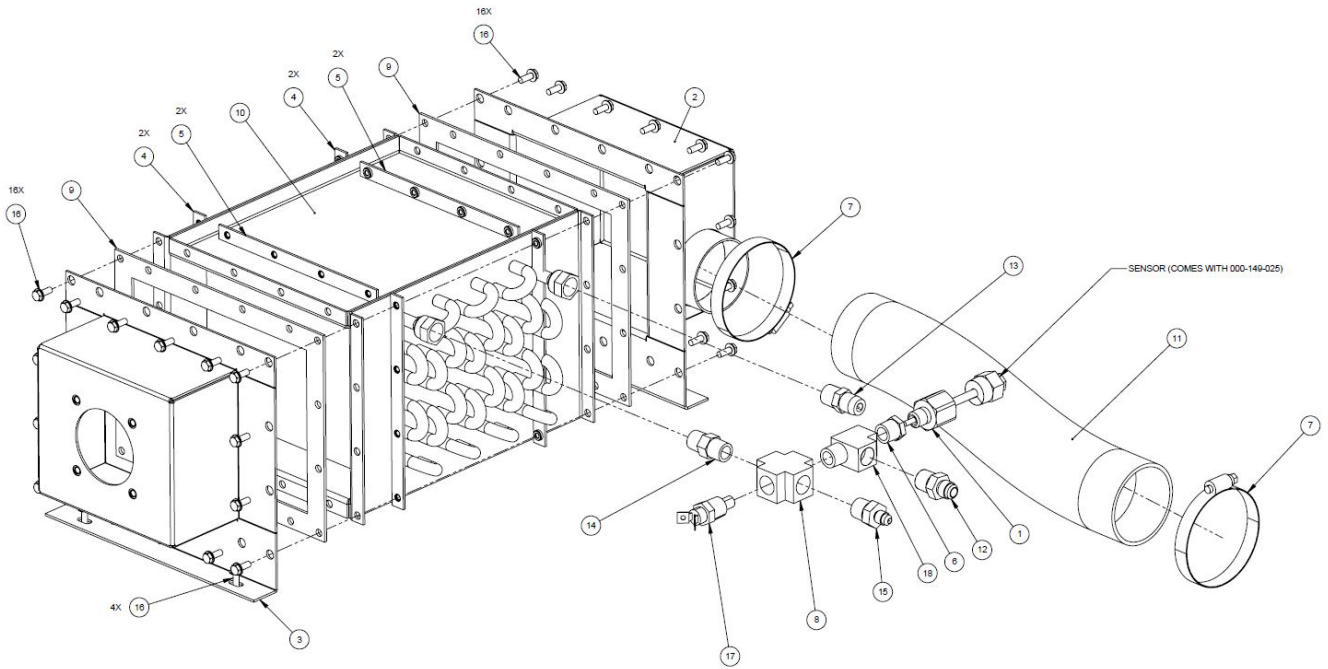


610-004-728 Engine

29	4	WASHER, 5/16 FLAT	000-174-004
28	6	WASHER, 1/4 FLAT	000-174-002
27	4	WASHER, 10 FLAT	000-174-001
26	1	TRIMLOK, 3/4" BULB X 3/16" OPEN X 40" LG	000-131-060
25	1	SHAFT, PILOT – ENGINE B&S 23HP	000-150-184
24	1	SHAFT, ENGINE STUB B&S 23HP	000-150-169
23	2	SCREW, 8MM X 1.25 X 35MM	000-143-370
22	2	SCREW, 5/16-18 X 4" LG HEX HEAD	000-143-660
21	2	SCREW, 5/16-18 X 3.5" LG	000-143-659
20	4	SCREW, #10-24 X 0.50" LG HEX HEAD	000-143-126
19	12	RIVET, 1/8" X 1/4" LG ALUMINUM	000-140-001
18	1	PULLEY, AK47H	000-109-040
17	1	PLATE, ENGINE DUCT	000-105-562
16	4	NUT, 6MM X 1.0 NYLOCK	000-094-125
15	1	NUT, 5/16-18 HEX SS	000-094-012
14	4	NUT, 5/16-18 HEX 2 WAY LOCKING	000-094-081
13	2	KEY, 1/4" X 1-1/2" LG CLASS 2	000-077-010
12	1	INSULATION, 1" HIGH TEMP	000-131-139
11	1	INSERT, 23	000-052-293
10	1	HOUSING, RADIATOR DUCT	000-042-074
9	1	HOSE, DRAIN	000-068-219
8	1	HOSE, 1/4" ID FUEL X 120" LG	000-068-979
7	2	GASKET, ENGINE DUCT	000-057-226
6	2	GASKET, 1/2" X 1/4" X 18-1/2" LG	000-057-026
5	1	FILTER, ENGINE FUEL	000-049-258
4	1	ENGINE, 23HP	000-047-037
3	1	COUPLER, 40 SERIES	000-039-054
2	2	CLAMP, 1" CUSHION W-7/16 HOLE	000-033-117
1	1	BUSHING, H X 1"	000-020-025
ITEM	QTY	DESCRIPTION	PART NUMBER

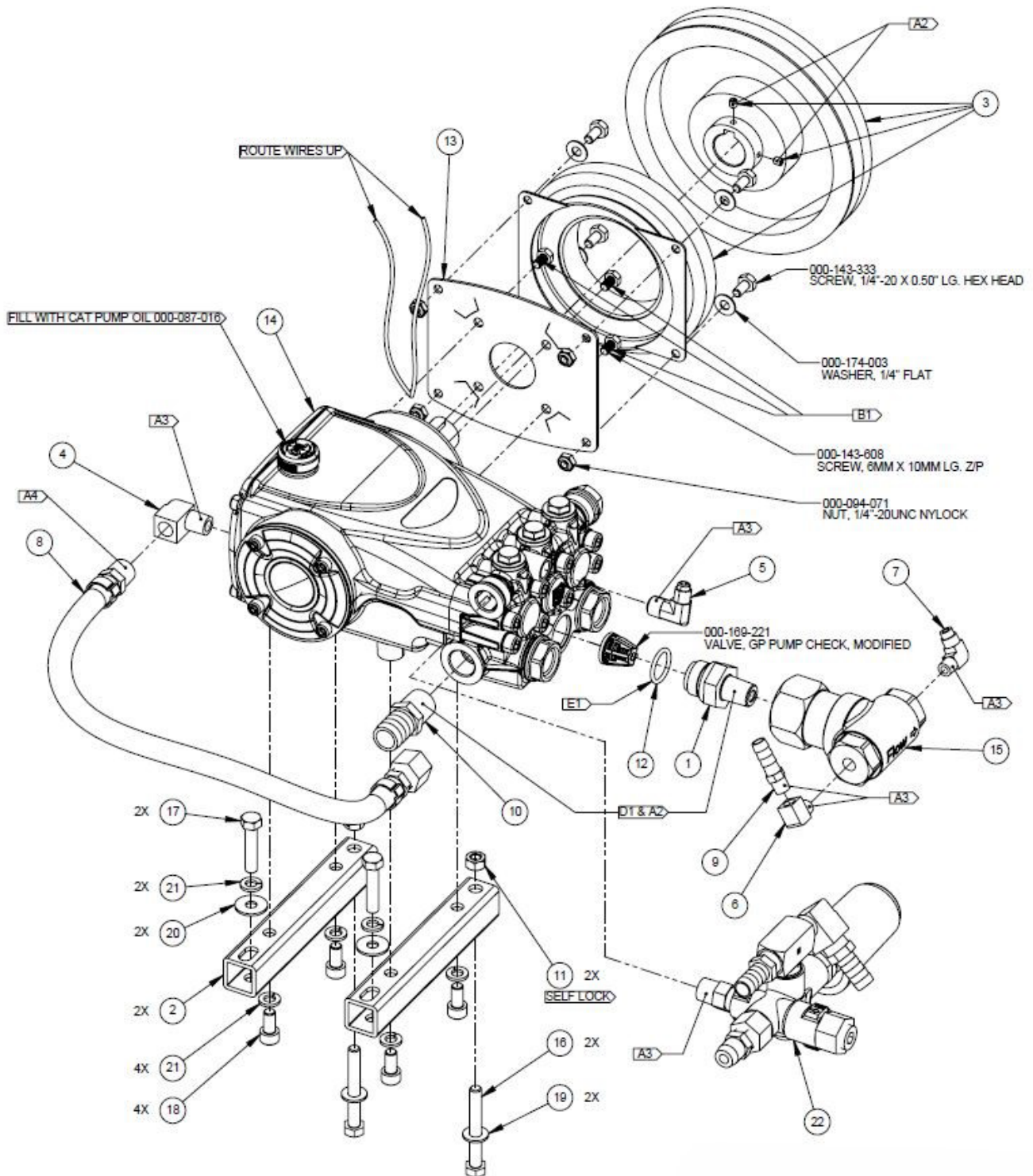
610-005-767 Heat Exchanger

NEEDS UPDATE



610-005-767 Heat Exchanger

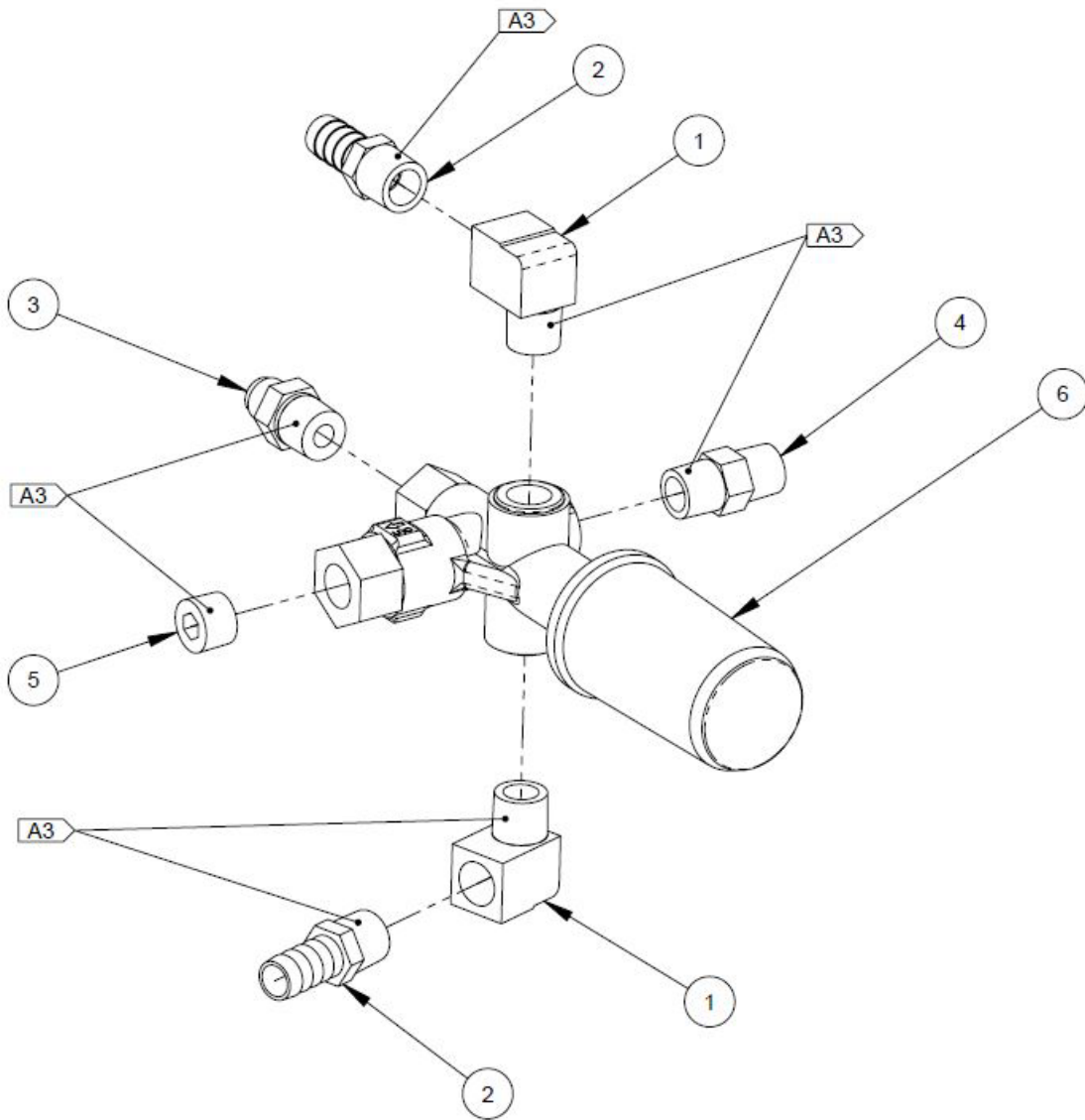
18	1	TEE, 3/8" MALE STREET	000-052-023
17	1	SENSOR, 285F – 3/8" NPT	000-149-027
16	36	SCREW, #10-24 X 1/2" SERRATED FLANGE	000-143-583
15	1	NIPPLE, 3/8" X 1/4" M SAE	000-052-662
14	1	NIPPLE, 3/8" HEX	000-052-074
13	1	NIPPLE, 3/8" X 3/8" SAE FLARE	000-052-218
12	1	NIPPLE, 3/8" M JIC X 3/8" NPT	000-052-528
11	1	HOSE, 2.5" HEAT FLEX NS X 15" LG	000-068-986
10	1	HEAT EXCHANGER 6 X 8 ALUM COPPER	000-038-096
9	2	GASKET, HX	000-057-255
8	1	CROSS, 3/8" FPT	000-052-113
7	2	CLAMP, #44 HOSE	000-033-012
6	1	BUSHING, 3/8" X 1/4"	000-052-061
5	4	BRACKET, HX PLENUM TOP	000-015-1302
4	4	BRACKET, HX PLENUM SIDE	000-015-1303
3	1	BOX, PLENUM INLET	000-013-141
2	1	BOX, PLENUM OUTLET	000-013-143
1	1	ADAPTER, 1/4" X 1/2"	000-052-738
ITEM	QTY	DESCRIPTION	ITEM NUMBER



610-007-767 Pump

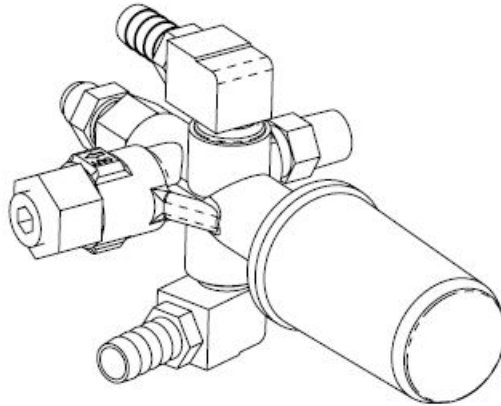
22	1	ASSEMBLY, BYPASS VALVE	610-009-767
21	6	WASHER, 5/16" LOCK SS	000-174-018
20	2	WASHER, 5/16" HEX6" FLAT USS	000-174-004
19	2	WASHER, 5/16" FLAT SS	000-174-049
18	4	SCREW, M8 X 1.25 X 16MM LG SOCKET	000-143-701
17	2	SCREW, 5/16-18 X 1.5" HEX	000-143-015
16	2	SCREW, 5/16-18 X 2.5" HEX	000-143-106
15	1	PUMP, CHEMICAL 3000 PSI	000-111-162
14	1	PUMP, HIGH PRESSURE	000-111-188
13	1	PLATE, PUMP CLUTCH	000-105-550
12	1	O-RING, ADAPTER – CHEMICAL PUMP	000-097-057
11	2	NUT, 5/16-18 HEX 2 WAY LOCKING	000-094-081
10	1	INSERT, #812 GFN	000-052-129
9	1	INSERT, #26	000-052-099
8	1	HOSE, 3/8" X 17" PUMP OIL DRAIN	000-068-794
7	1	ELBOW, 1/8" NPT X 1/4" SAE	000-052-531
6	1	ELBOW, 1/8" NPT STREET	000-052-084
5	1	ELBOW, 1/4" SAE X 1/4" NPT	000-052-532
4	1	ELBOW, 1/4" NPT STREET	000-052-085
3	1	CLUTCH, 7" OD X 24MM SINGLE GROOVE	000-036-008
2	2	BRACKET, PUMP MOUNTING – COATED	000-015-1001
1	1	ADAPTER, 3/8" CHEM PUMP	000-001-857
ITEM	QTY	DESCRIPTION	ITEM NUMBER

610-009-767 Bypass Valve

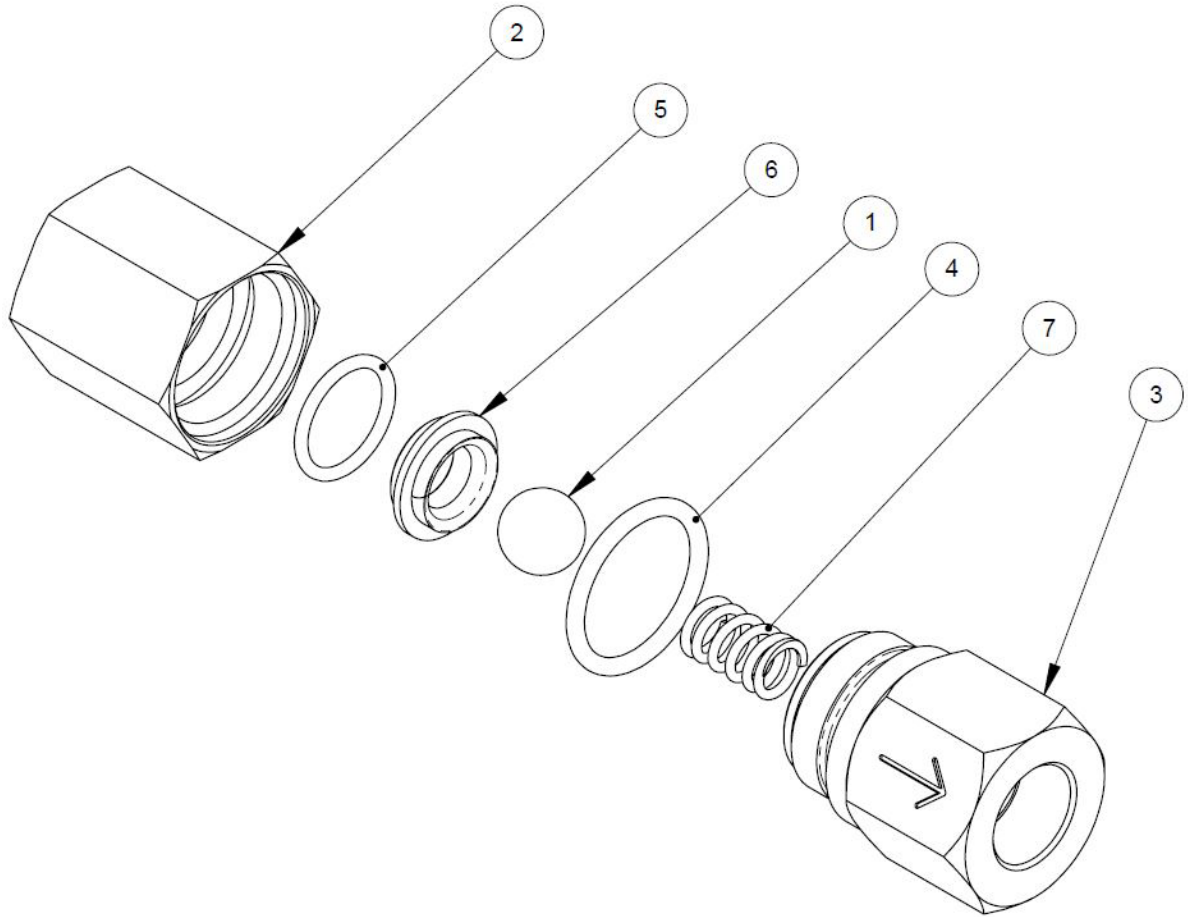


610-009-767

Bypass Valve

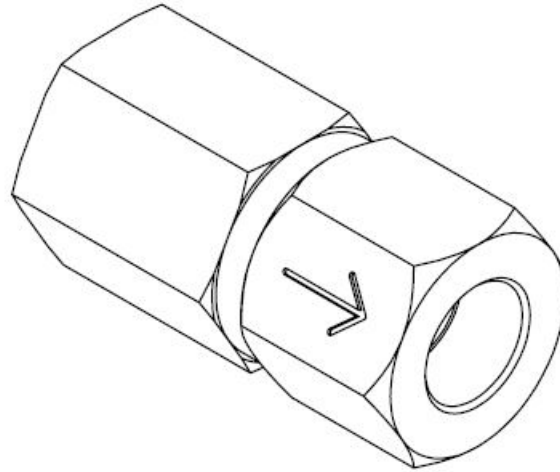


6	1	Valve, Pressure Regulator Modified	000-169-351
5	1	Plug, 3/8" NPT Allen	000-108-008
4	1	Nipple, 3/8" Hex	000-052-074
3	1	Nipple, 3/8" JIC x 3/8" NPT	000-052-528
2	2	Insert, #68	000-052-105
1	2	Elbow, 3/8" NPT Street	000-052-086
ITEM	QTY	DESCRIPTION	ITEM NUMBER

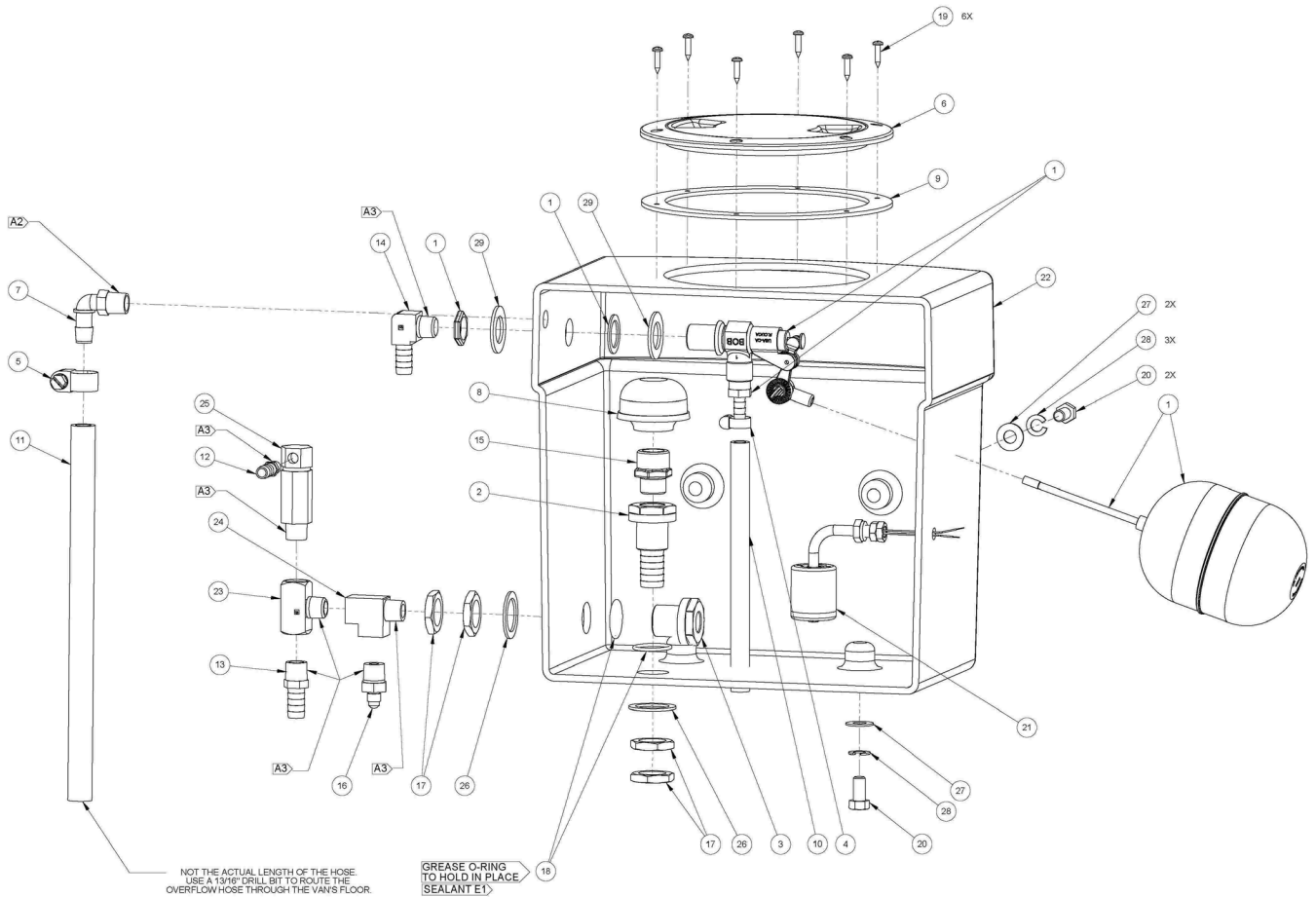


000-169-236

High Pressure Check



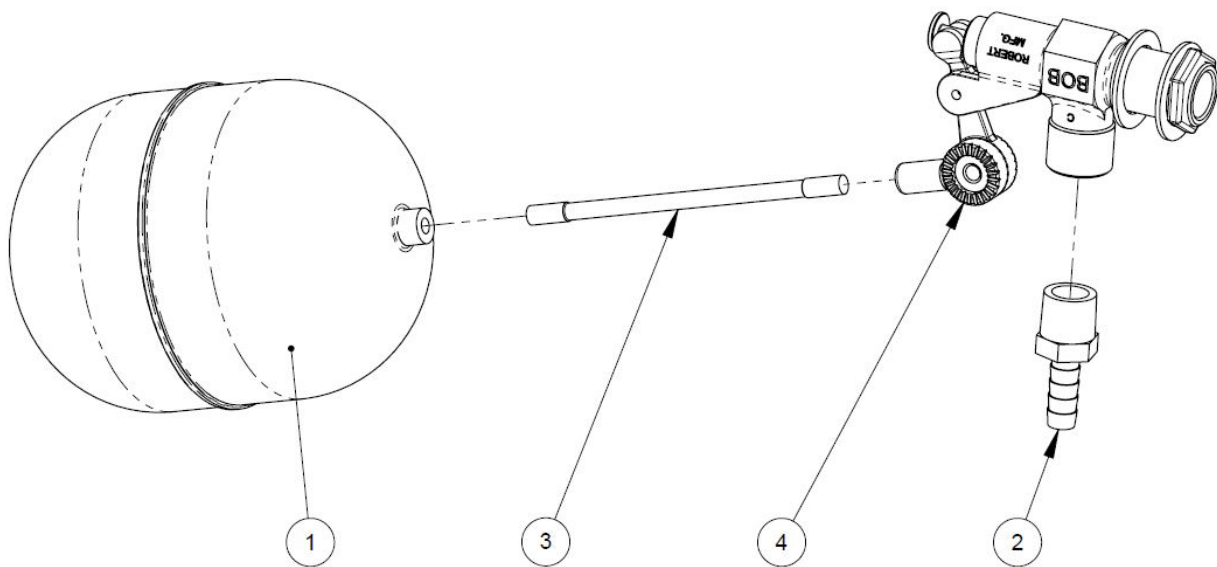
7	1	SPRING, DIFFERENTIAL CHECK VALVE	000-155-106
6	1	SEAT, DIFFERENTIAL CHECK VALVE	000-148-012
5	1	O-RING, CHEM PUMP VALVE	000-097-054
4	1	O-RING, CHECK VALVE PLUG	000-097-056
3	1	CAP, DIFFERENTIAL CHECK VALVE	000-106-180
2	1	BODY, DIFFERENTIAL CHECK VALVE	000-107-258
1	1	BALL, 0.500 DIA STAINLESS STEEL	000-005-012
ITEM	QTY	DESCRIPTION	ITEM NUMBER



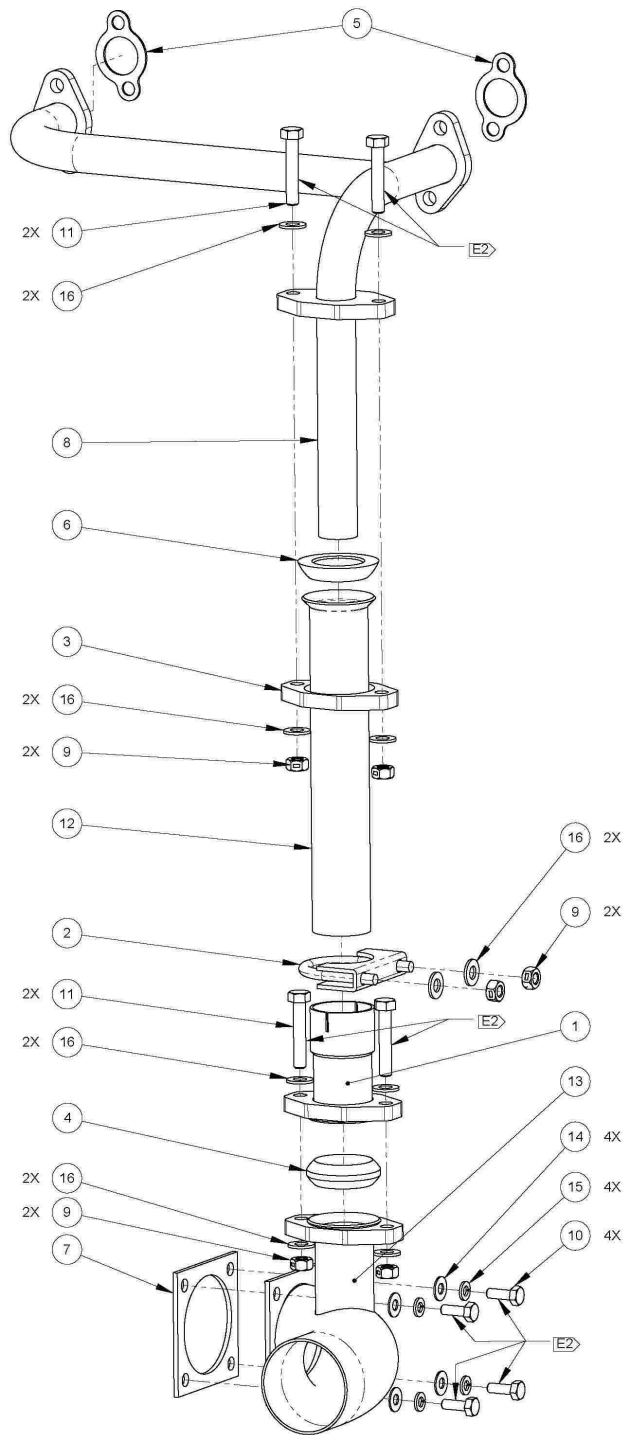
610-010-728 Water Box

29	2	WASHER, 7/8" x 1.50" OD x 0.090" THK	000-174-028
28	3	WASHER, 3/8" LOCK	000-174-057
27	3	WASHER, 3/8" FLAT	000-174-032
26	2	WASHER, 1.5" OD x 1.073" ID x 0.075" THK	000-174-063
25	1	VALVE, HI TEMP CONTROL	000-169-011
24	1	TEE, 3/8" NPT MALE STEET	000-052-023
23	1	TEE, 3/8" NPT MALE BRANCH	000-052-447
22	1	TANK, WATER BOX – 4 GALLON	000-159-190
21	1	SWITCH, W/BARREL – MODIFIED	000-157-163
20	3	SCREW, 3/8-16 x 0.75" LG HEX	000-143-017-1
19	6	SCREW, 8-15 x 3/4" LG SHEET METAL SS	000-143-739
18	2	O-RING, 1.174 ID x 0.103 BLKD	000-097-041
17	4	NUT, 1"-14 UNS BRASS	000-094-097
16	1	NIPPLE, 3/4" NPT x 1/4" M SAE	000-052-662
15	1	NIPPLE, 3/4" x 1/2"	000-052-823
14	1	INSERT, 3/8" NPT x 1/2" BARB x 90 BRASS	000-052-956
13	1	INSERT, #68	000-052-105
12	1	INSERT, #26	000-052-099
11	1	HOSE, 1/2" ID RUBBER x 48" LG	000-068-1126
10	1	HOSE, 3/8" CLEAR BRAID x 8" LG	000-068-827
9	1	GASKET, 6 IN COVER LID	000-057-270
8	1	FILTER SCREEN – MEDIUM	000-049-020
7	1	ELBOW, 3/8" NPT x 1/2" HOSE	000-052-355
6	1	COVER, 6" ACCESS	000-041-005
5	1	CLAMP, SIZE 6 HOSE MINI	000-033-004
4	1	CLAMP, SIZE 4 HOSE MINI	000-033-003
3	1	BULKHEAD, 3/8" FPT x 3/8" FPT	000-052-660
2	1	BULKHEAD, 1/2" FPT x 3/4" BARB	000-052-785
1	1	ASSEMBLY, FLOAT VALVE	000-169-235
ITEM	QTY	DESCRIPTION	ITEM NUMBER

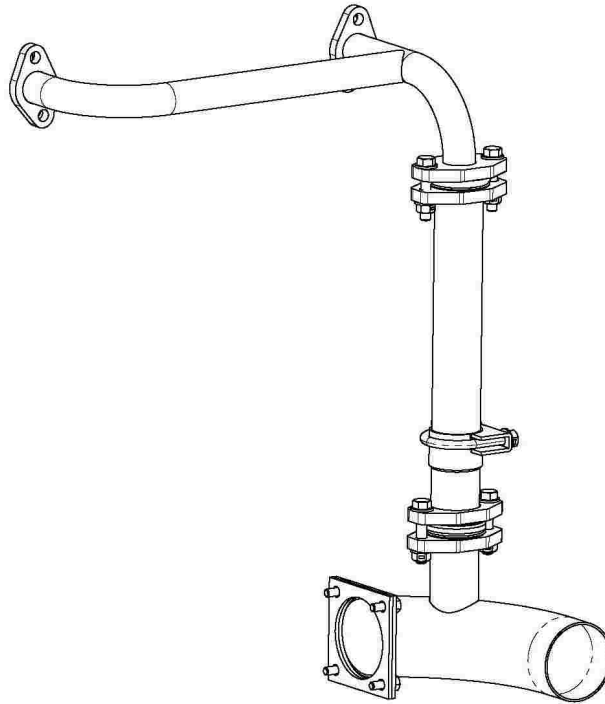
000-169-235 Float Valve



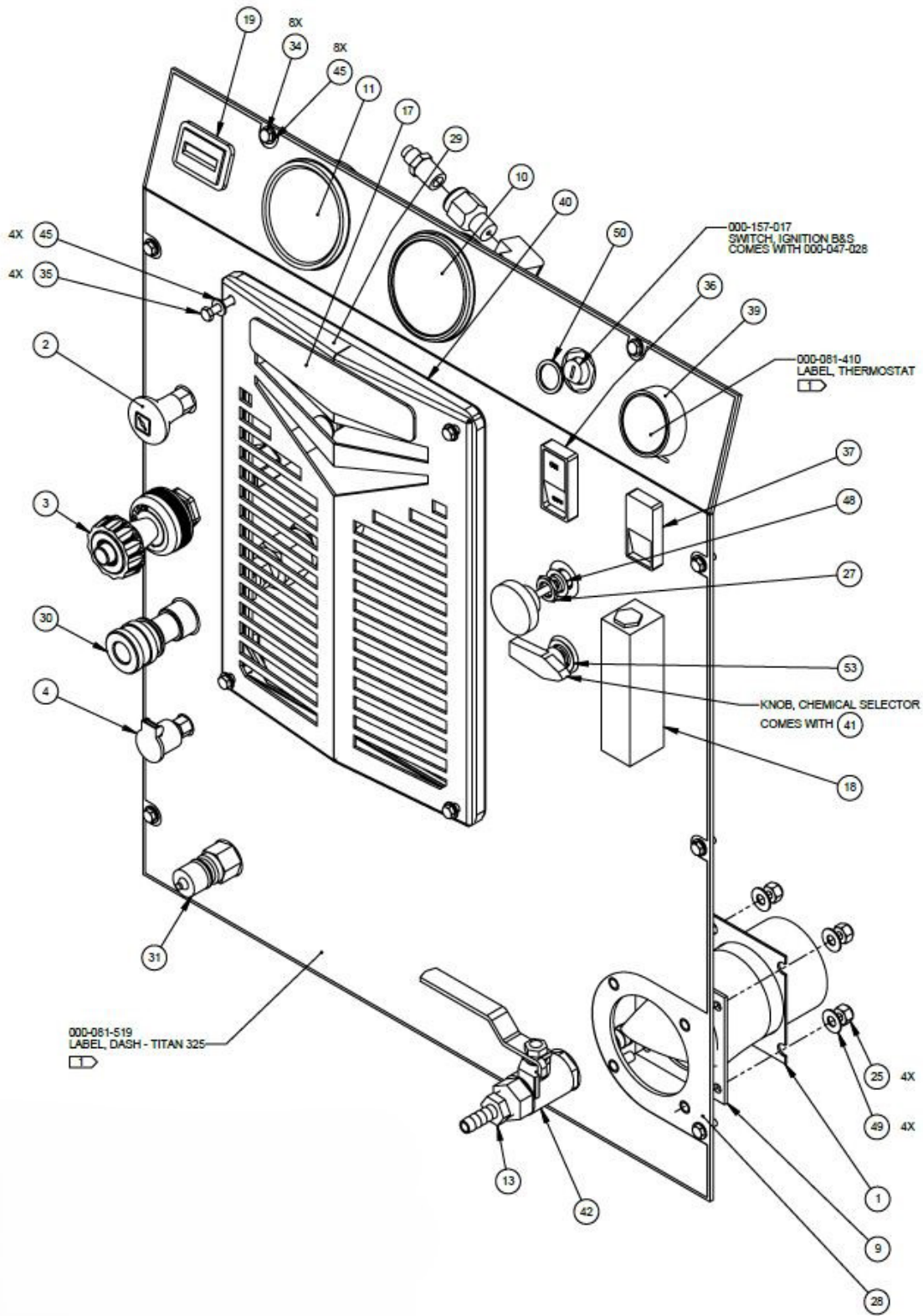
4	1	VALVE, BODY INLET	000-169-237
3	1	ROD, 4.5" VALVE STEM	000-117-031
2	1	INSERT, #66	000-052-104
1	1	FLOAT, 4" X 5" POLY	000-005-013
ITEM	QTY	DESCRIPTION	ITEM NUMBER

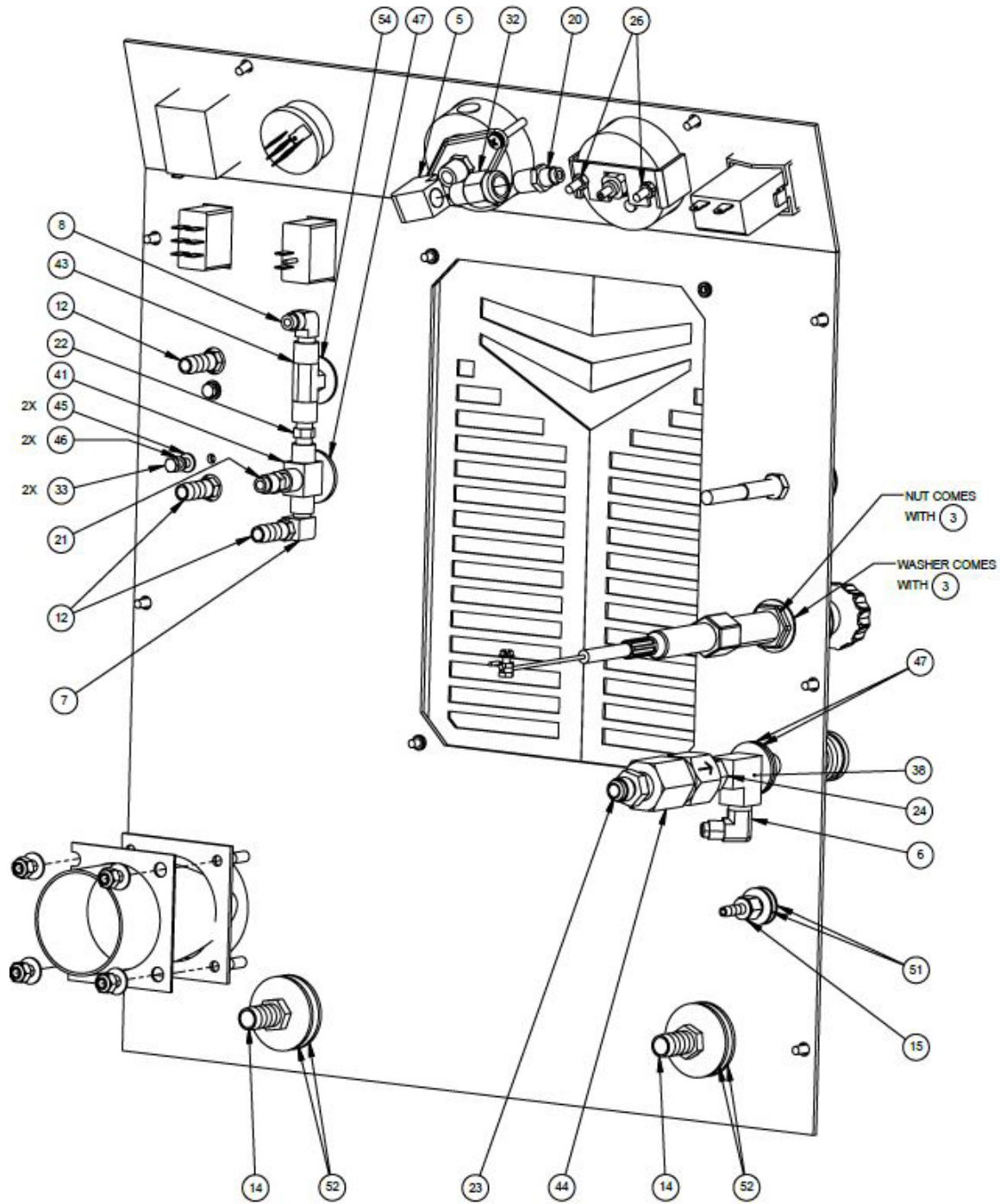


610-013-767 Exhaust



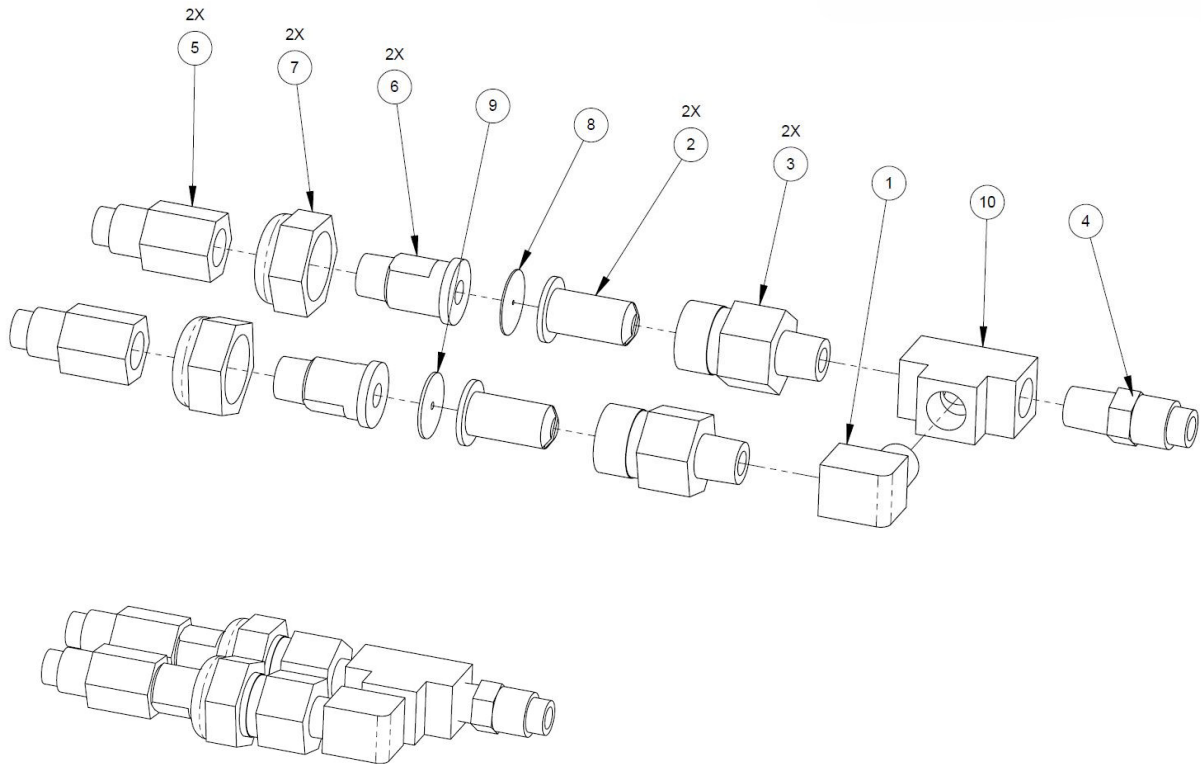
16	10	WASHER, 5/16" FLAT	000-174-049
15	4	WASHER, 1/4" LOCK SS	000-174-019
14	4	WASHER, 1/4" FLAT SS	000-174-003
13	1	TUBE, LOWER EXHAUST, COATED	000-125-612
12	1	TUBE, EXHAUST 8.75" LG W/FLARE - COATED	000-125-619
11	4	SCREW, 5/16-18 x 1.75" LG HEX	000-143-124
10	4	SCREW, 1/4-20 x 0.75" LG HEX	000-143-001
9	6	NUT, 5/16-18 HEX 2 WAY LOCKING	000-094-081
8	1	MANIFOLD, EXHAUST, COATED	000-090-111
7	1	GASKET, 2.5" x 3.5" BCD	000-057-209
6	1	GASKET, HALF DONUT	000-057-212
5	2	GASKET, EXHAUST MANIFOLD - VANGUARD	000-057-010
4	1	GASKET, EXHAUST DONUT 1.5" ID SS	000-057-199
3	1	FLANGE, 1.5" EXHAUST DONUT - COATED	000-105-848
2	1	CLAMP, 1-1/2" EXHAUST	000-033-068
1	1	ADAPTER, 1.5" F SLIP TO FLARE - COATED	000-001-210
ITEM	QTY	DESCRIPTION	ITEM NUMBER



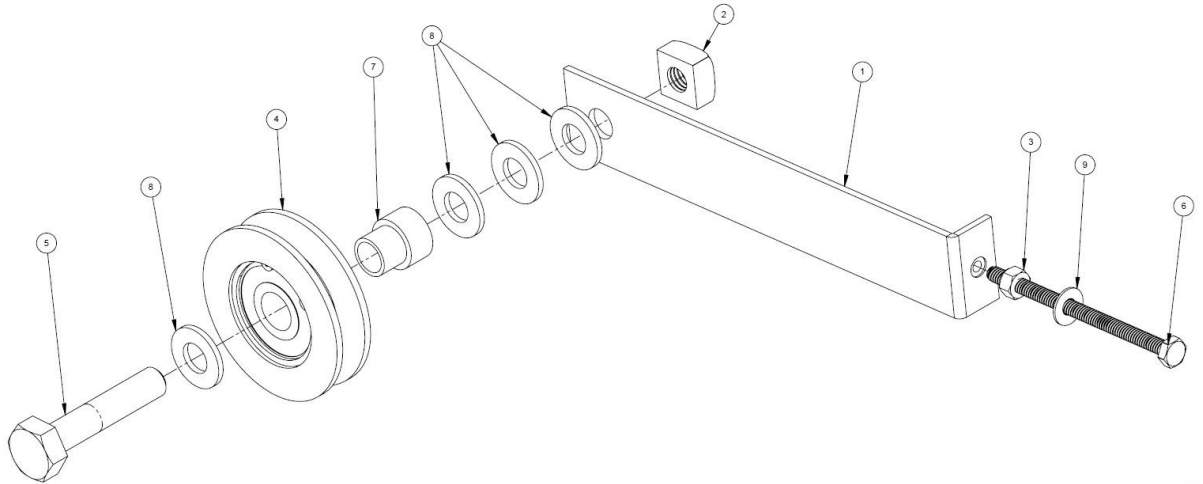


54	1	WASHER, 7/16" FLAT SAE	000-174-038
53	1	WASHER, 5/8" ID X 7/8" OD X 0.010 THK	000-174-030
52	4	WASHER, 5/8" FLAT	000-174-008
51	2	WASHER, 3/8" FLAT	000-174-032
50	1	WASHER, 21/32" ID X 27/32 OD NYLON	000-174-058
49	4	WASHER, 1/4" FLAT SS	000-174-003
48	1	WASHER, 1/2" ID X 3/4" OD X 0.010 THK	000-174-062
47	3	WASHER, 1/2" FLAT	000-174-007
46	2	WASHER, #10 LOCK	000-174-014
45	14	WASHER, #10 FLAT	000-174-001
44	1	VALVE, DIFFERENTIAL CHECK	000-169-236
43	1	VALVE, CHEMICAL METERING	000-169-160
42	1	VALVE, 3/8" NPT BALL	000-169-064
41	1	VALVE, 3-WAY BALL	000-169-0171
40	3.44	TRIMLOK, 3/8" X 1/8" RUBBER	000-131-131
39	1	THERMOSTATE, BULB & CAPILLARY	000-149-025
38	1	TEE, 1/4" NPT BRANCH	000-052-090
37	1	SWITCH, 3 WAY ROCKER	000-157-131
36	1	SWITCH, 20 AMP ROCKER	000-157-040
35	4	SCREW, 10-24 x 1.25" LG HEX	000-143-171
34	8	SCREW, 10-24 x 0.50" LG HEX	000-143-126
33	2	SCREW, 10-24 x 0.375" LG HEX	000-143-166
32	1	REGULATOR, HI PSI SNUBBER	000-135-052
31	1	QUICK CONNECT, 660 MALE	000-052-052
30	1	QUICK CONNECT, 440 FEMALE	000-052-051
29	1	PANEL, GRILL – TITAN 325/375/425	000-100-390
28	1	PANEL, DASH – COATED	000-100-391
27	1	NUT, 7/16-24 – 2 WAY METERING VALVE	000-094-098
26	2	NUT, 5MM HEX NYLOK	000-094-070
25	4	NUT, 1/4-20 HEX NYLOK	000-094-009
24	1	NIPPLE, 3/8" NPT X 1/4" NPT HEX	000-052-073
23	1	NIPPLE, 3/8" M JIC X 3/8" NPT	000-052-528
ITEM	QTY	DESCRIPTION	ITEM NUMBER

22	1	NIPPLE, 1/8" NPT HEX	000-052-069
21	1	NIPPLE, 1/4" SAE X 1/8" NPT	000-052-530
20	1	NIPPLE, 1/4" SAE X 1/4" NPT	000-052-527
19	1	METER, RECTANGULAR HOUR	000-074-170
18	1	METER, CHEMICAL FLOW	000-074-030
17	1	LABEL, DOME – TITAN 375	000-081-572
16	1	LABEL SET, TITAN 325	000-081-520
15	1	INSERT, #F23	000-052-096
14	2	INSERT, #68	000-052-105
13	1	INSERT, #66	000-052-104
12	3	INSERT, #26	000-052-099
11	1	GAUGE, 30" HG VACUUM	000-074-017
10	1	GAUGE, PRESSURE 0-3000	000-074-167
9	1	GASKET, FINAL EXHAUST TURN DOWN	000-057-271
8	1	ELBOW, 1/8" NPT X 1/4" SAE	000-052-531
7	1	ELBOW, 1/8" NPT STREET	000-052-084
6	1	ELBOW, 1/4" SAE x 1/4" NPT	000-052-532
5	1	ELBOW, 1/4" FPT X FPT	000-052-088
4	1	CUP, GRAVITY FEED OIL	000-052-272
3	1	CABLE, THROTTLE – MODIFIED	000-025-032
2	1	CABLE, CHOKE WITH DETENT	000-025-003
1	1	ADAPTER, 2.5" EXHAUST TURN DOWN COATED	000-001-148
ITEM	QTY	DESCRIPTION	ITEM NUMBER

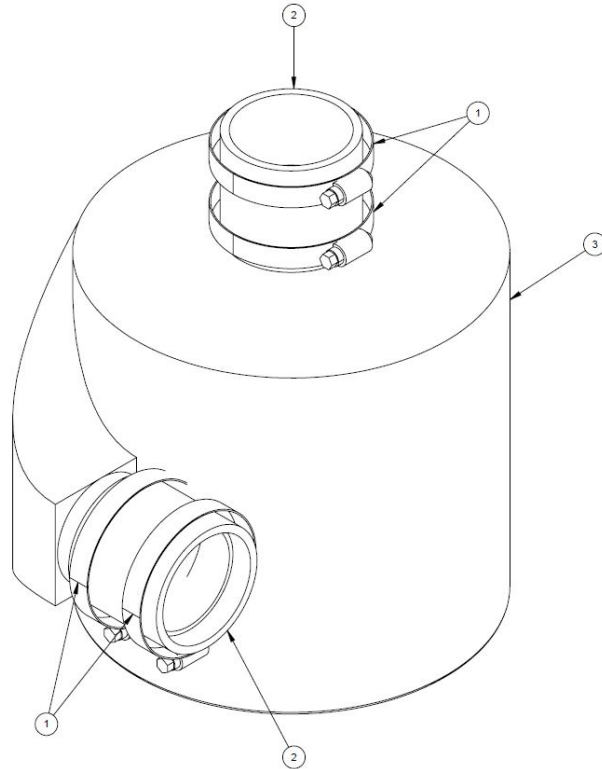


10	1	TEE, 1/8" FPT	000-052-092
9	1	ORIFICE, PLATE 0.067"	000-180-024
8	1	ORIFICE, PLATE 0.039"	000-180-010
7	2	NUT, BRASS JET ASSEMBLY	000-094-028
6	2	NIPPLE, TEE JET COLLAR x 1/8" NPT	000-052-582
5	2	NIPPLE, 1/8" FPT x 1/4" SAE	000-052-586
4	1	NIPPLE, 1/4" SAE x 1/8" NPT	000-052-530
3	2	HOUSING, STABILIZER	000-052-153
2	2	FILTER CARTRIDGE, 1/4" BRASS	000-049-052
1	1	ELBOW, 1/8" NPT STREET	000-052-084
ITEM	QTY	DESCRIPTION	ITEM NUMBER



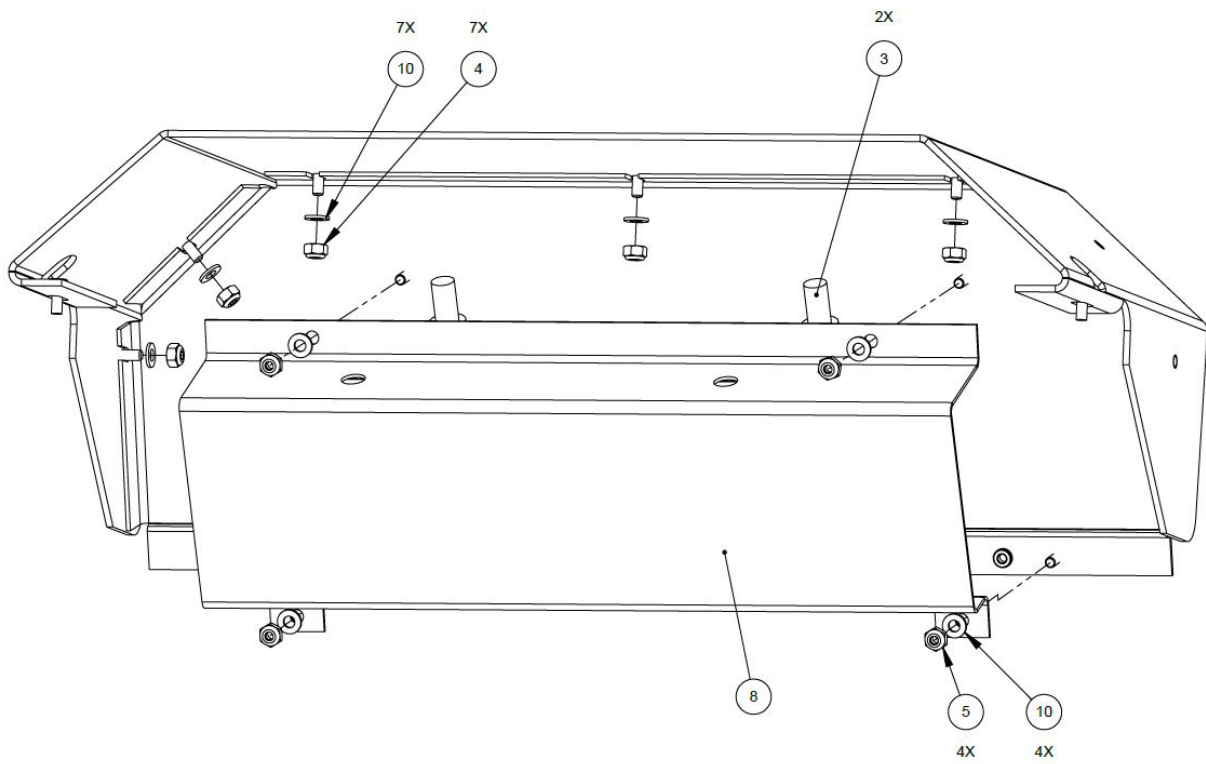
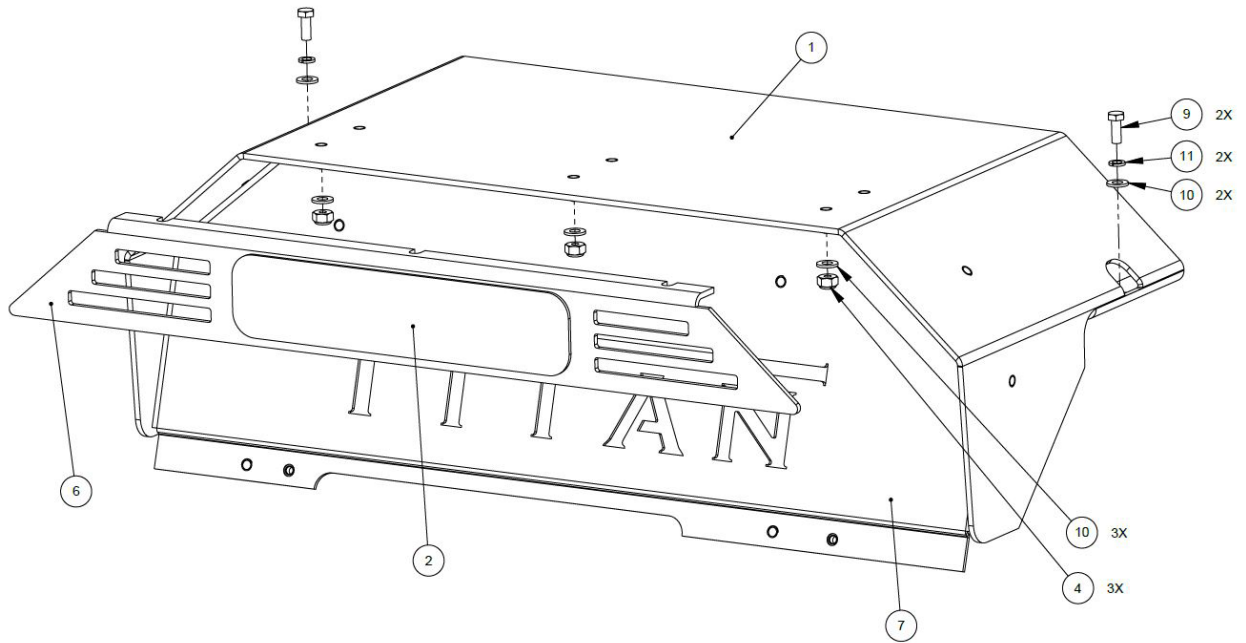
9	1	WASHER, 1/4" FLAT SS	000-174-003
8	4	WASHER, 1/2" SAE HD	000-174-012
7	1	SPACER, PUMP IDLER – COATED	000-154-049
6	1	SCREW, 1/4-20 x 4.00" LG SS FULL THREAD	000-143-376
5	1	SCREW, 1/2-13 x 2.5 HHC	000-143-716
4	1	PULLEY, 3" A SECTION IDLER	000-109-093
3	1	NUT, 1/4-20 NYLOK	000-094-009
2	1	NUT, 1/2-13 SQUARE	000-094-119
1	1	BRACKET, IDLER TENSION – COATED	000-015-942
ITEM	QTY	DESCRIPTION	ITEM NUMBER

610-021-724 Silencer



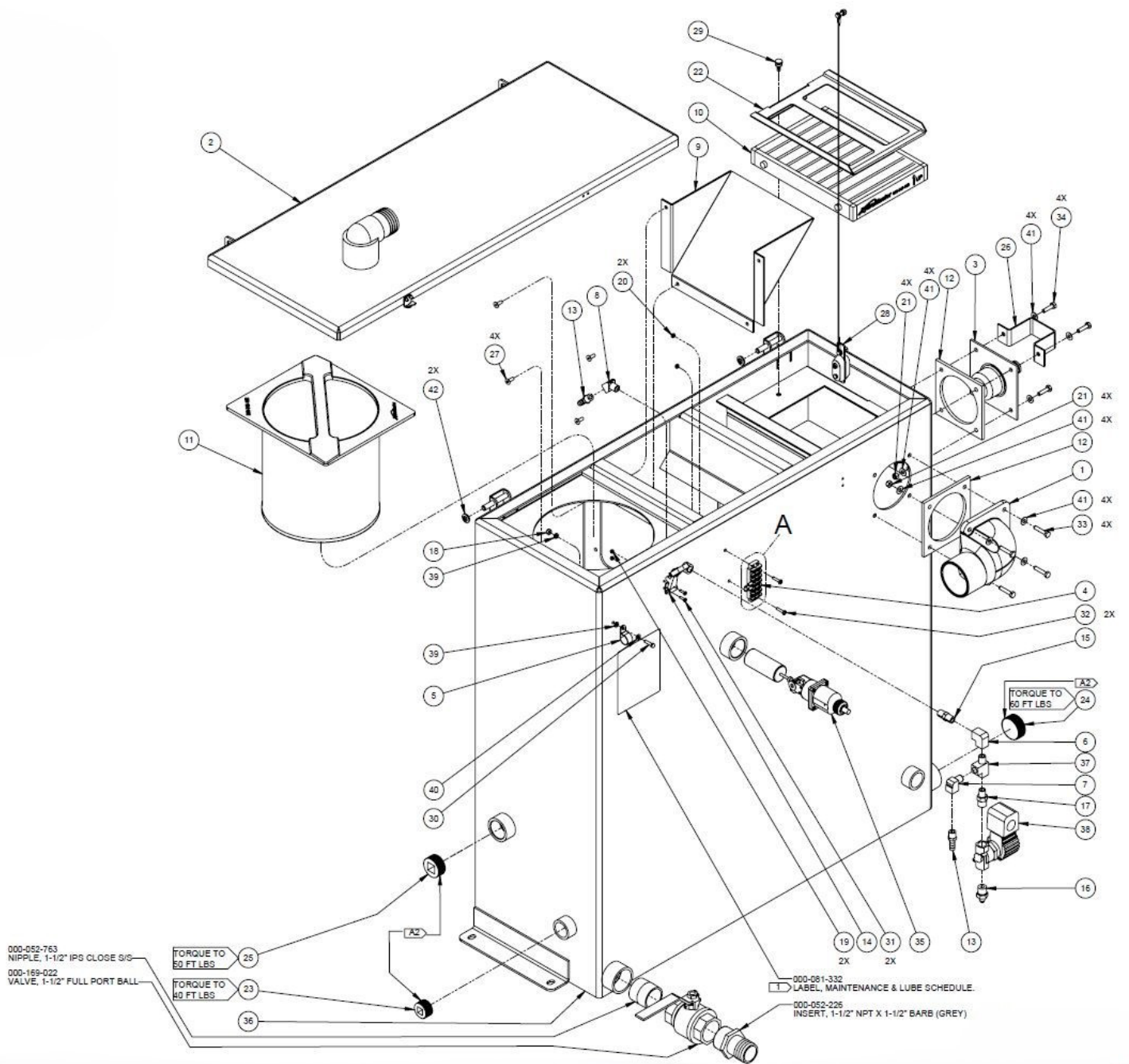
3	1	SILENCER, 2.5" OD INLET/OUTLET - COATED	000-093-108
2	2	HOSE, 2.5" ID x 2.5" LG	000-068-104
1	4	CLAMP, SIZE #44 HOSE	000-033-012
ITEM	QTY	DESCRIPTION	ITEM NUMBER

610-022-752 Top Cover



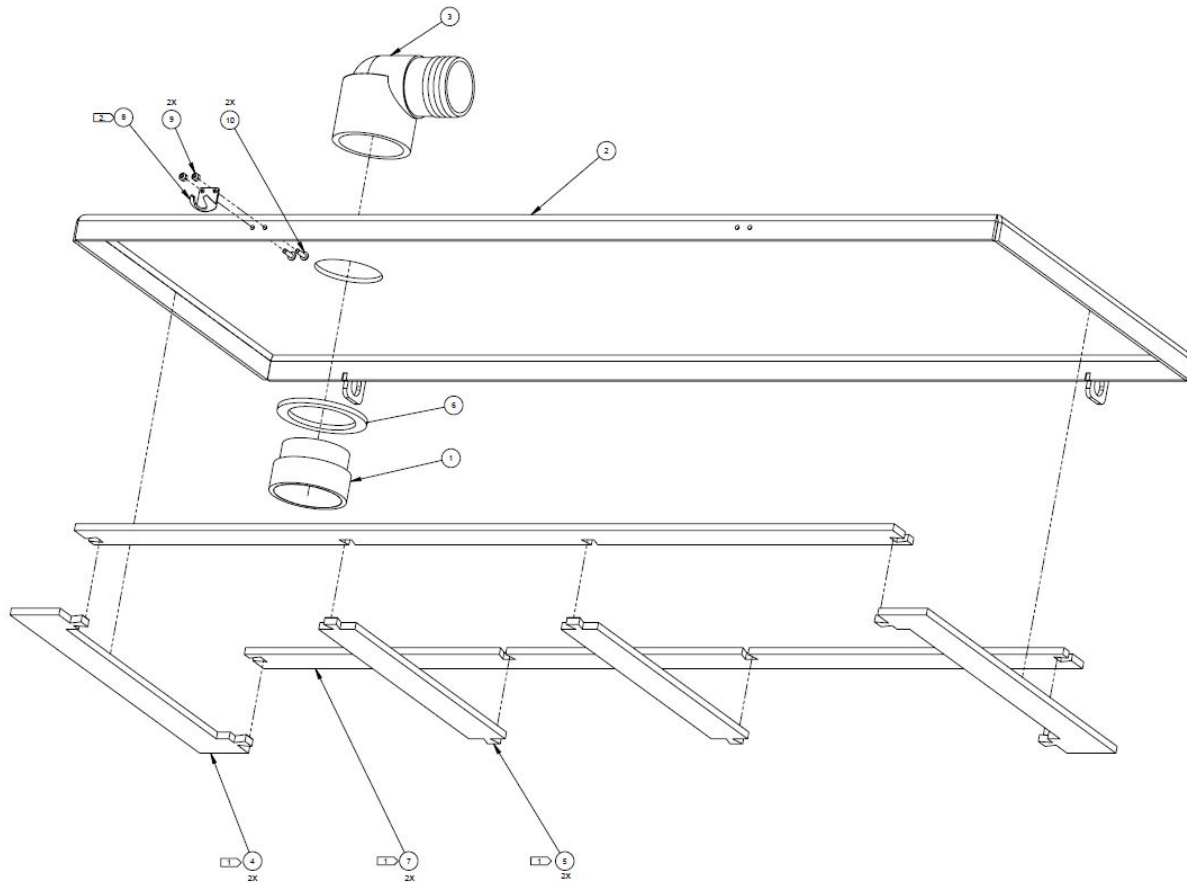
610-022-752 Top Cover

11	2	WASHER, #10 LOCK	000-174-014
10	16	WASHER, #10 FLAT	000-174-001
9	2	SCREW, #10-24 x 0.50" LG HEX	000-143-126
8	1	PLATE, LED DEFLECTOR	000-105-810
7	1	PANEL, BROW FRONT - COATED	000-100-389
6	1	PANEL, BROW END - COATED	000-100-388
5	4	NUT, 10-32 HEX NYLOK	000-094-058
4	10	NUT 10-24 HEX NYLOK	000-094-034
3	2	LAMP, 12V LED 12MM PANEL MOUNT	000-084-025
2	1	LABEL, DOME – HYDRAMASTER	000-081-526
1	1	COVER, MACHINE TOP – COATED	000-041-921
ITEM	QTY	DESCRIPTION	ITEM NUMBER

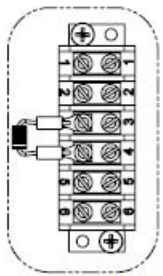
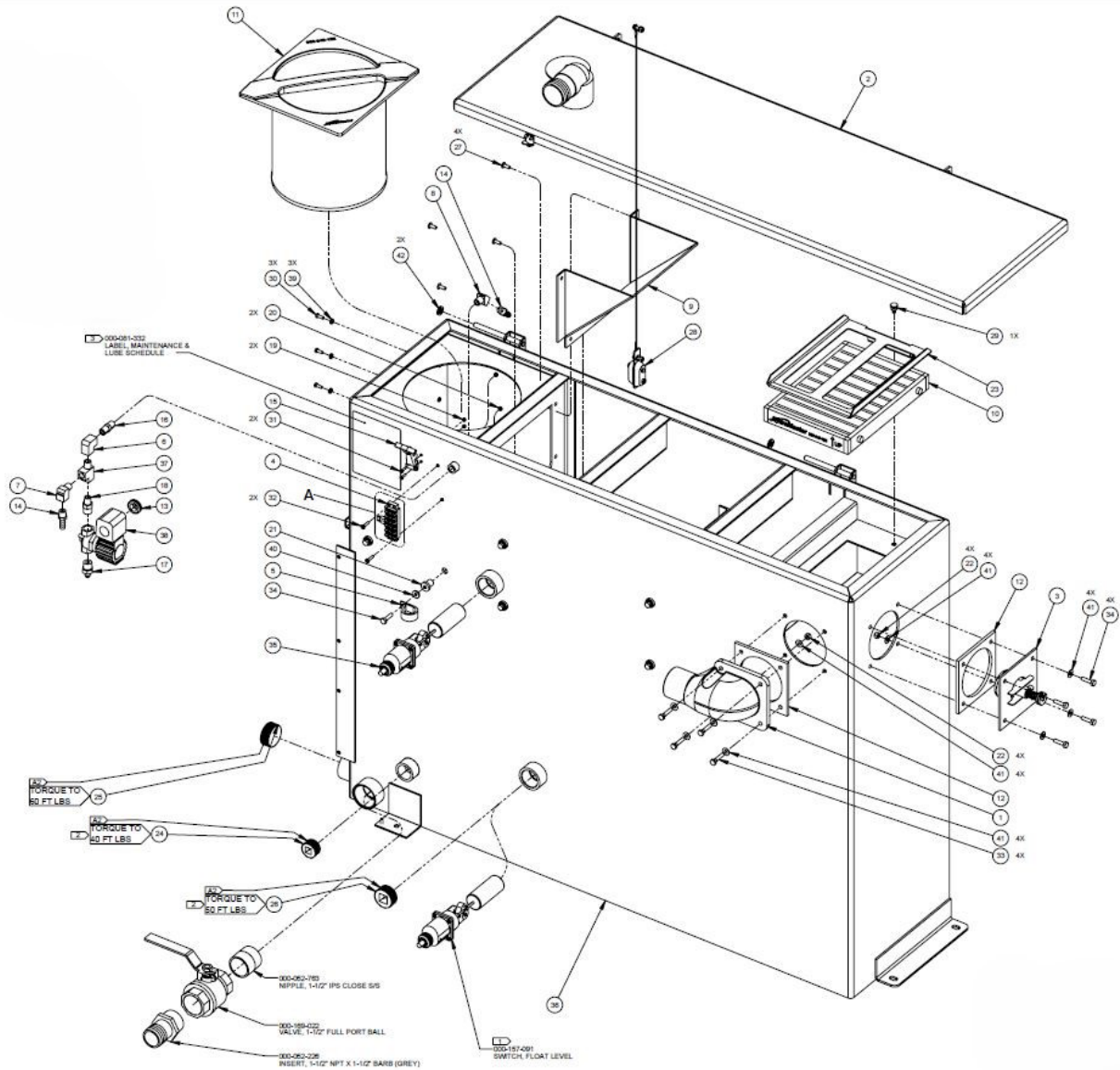


42	2	WASHER, 3/8" FLAT RUBBER BACKED	000-174-029
41	16	WASHER, 1/4" FLAT SS	000-174-003
40	1	WASHER, #10 FLAT	000-174-001
39	2	WASHER, #10 FLAT RUBBER BACKED	000-174-036
38	1	VAVLE, 12 VOLT SOLENOID 1200 PSI	000-169-082
37	1	TEE, 1/4" NPT BRANCH	000-052-090
36	1	TANK, 70 GALLON URT	000-159-128
35	1	SWITCH, FLOAT LEVER – MODIFIED	000-157-091
34	4	SCREW, 1/4-20 x 1.00" LG HEX	000-143-002
33	4	SCREW, 1/4-20 X 1.25" LG HEX SS	000-143-010
32	2	SCREW, 8-32 x 0.75" LG BINDER HEAD	000-143-051
31	2	SCREW, 6-32 x 0.50" LG BUTTON HEAD	000-143-539
30	1	SCREW, 10-24 x 0.75" LG HEX	000-143-132
29	1	SCREW, 1/4-20 x 3/8" LG THUMB BRASS	000-143-787
28	1	SACRIFICIAL ANODE, MAGNESIUM	000-079-226
27	4	RIVET, AB8-6A ALUMINUM	000-140-023
26	1	PROTECTOR, VACUUM RELIEF – COATED	000-108-179
25	1	PLUG, 1-1/4 NPT BRONZE	000-106-046
24	1	PLUG, 1-1/2 NPT BRONZE	000-106-019
23	1	PLUG, 1" NPT BRONZE	000-106-049
22	1	PLATE, BLOWER FLAT FILTER	000-105-785
21	8	NUT, 1/4-20 HEX NYLOK	000-094-009
ITEM	QTY	DESCRIPTION	ITEM NUMBER

20	2	NUT, 8-32 HEX NYLOK	000-094-059
19	2	NUT, 6-32 HEX NYLOK	000-094-063
18	1	NUT, 10-24 HEX NYLOK	000-094-034
17	1	NIPPLE, 3/8 NPT x 1/4 NPT HEX	000-052-073
16	1	NIPPLE, 3/8 NPT x 1/4 M SAE	000-052-662
15	1	NIPPLE, 1/4 NPT HEX	000-052-071
14	1	LATCH, BUNGEE KEEPER	000-086-008
13	2	INSERT, #46	000-052-102
12	2	GASKET, ADAPTER – URT	000-057-206
11	1	FILTER, RECOVERY TANK BASKET	000-049-152
10	1	FILTER, FLAT – URT	000-049-153
9	1	FILTER, AIR DEFLECTOR – URT	000-049-154
8	1	ELBOW, 1/4 NPT STREET x 45 DEGREE	000-052-082
7	1	ELBOW, 1/4 NPT STREET	000-052-085
6	1	ELBOW, 1/4 FPT x FPT	000-052-088
5	1	CLAMP, 3/4" NYLON HOSE	000-033-023
4	1	BLOCK, 6 POST TERMINAL	000-012-002
3	1	ASSEMBLY, VACUUM RELIEF VALVE	610-026-724
2	1	ASSEMBLY, COVER 70 GAL URT SINGLE VAC	610-029-726
1	1	ADAPTER, 3.0 TANK BLOWER HOSE - CAST	000-001-135
ITEM	QTY	DESCRIPTION	ITEM NUMBER



10	2	SCREW, 6-32 x 0.50" LG BUTTON	000-143-539
9	2	NUT, 6-32 HEX NYLOK	000-094-063
8	1	LATCH, BUNGEE - STRIKE (PART OF 086-008)	---
7	2	GASKET, SIDE - RECOVERY TANK	000-057-204
6	1	GASKET, 1-1/2" BULKHEAD FITTING	000-057-015
5	2	GASKET, MIDDLE - REC TANK COVER	000-057-203
4	2	GASKET, END - REC TANK COVER	000-057-202
3	1	ELBOW, 2" BARB x 2" FPT	000-052-222
2	1	COVER, 70 URT 1 PORT - COATED	000-041-443
1	1	ADAPTER, 2" NPT x 2" F SLIP	000-052-219
ITEM	QTY	DESCRIPTION	ITEM NUMBER



DETAIL VIEW A

NOTES:

1 LOWER FLOAT SWITCH IS ONLY USED WHEN AWDS IS INSTALLED.

2 ITEMS 25 AND 24 ARE NOT USED WHEN APO IS INSTALLED.

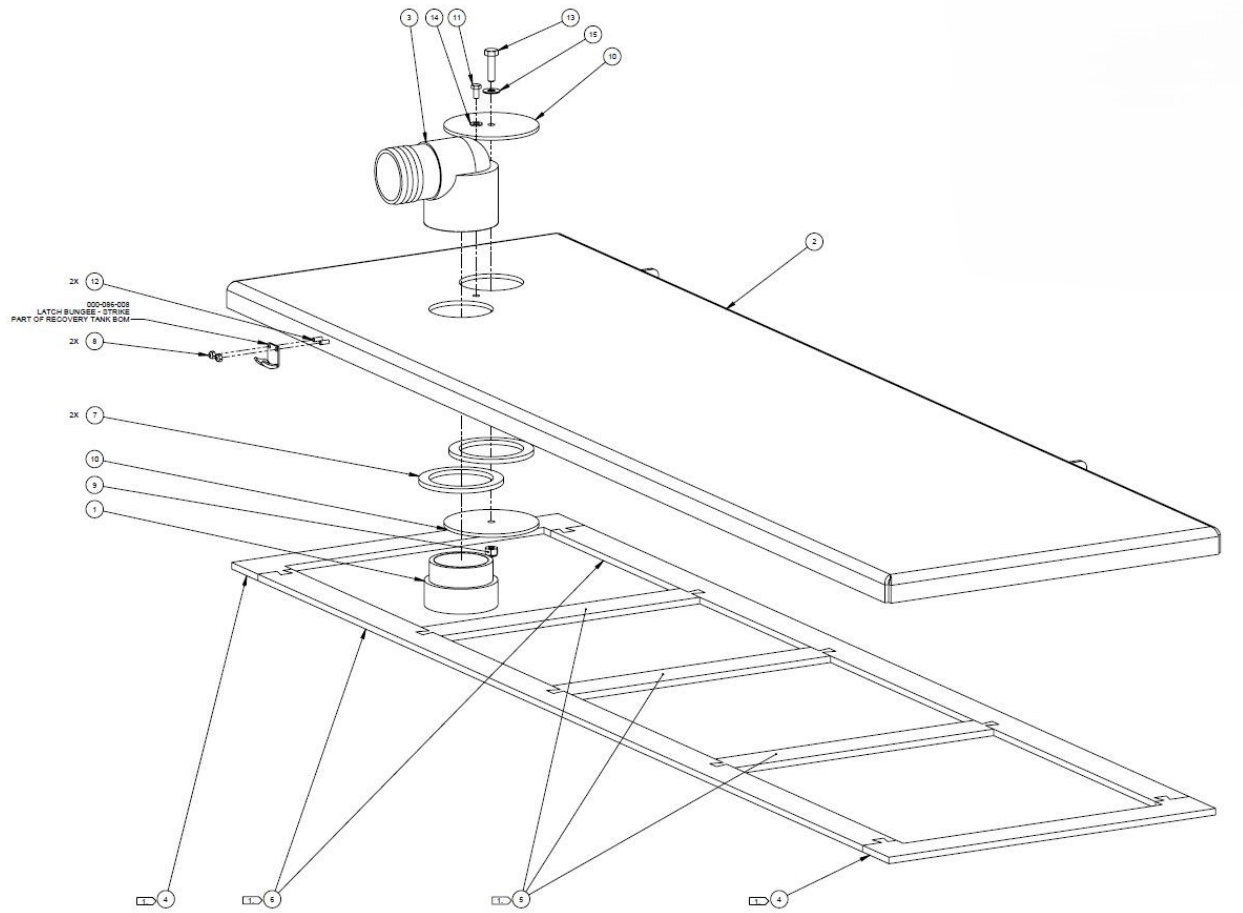
3 ITEM IS PART OF LABEL SET #000-081-415.

4 SEE ENG-45975 OR ADHESIVE MATERIAL PRODUCTION LINE REFERENCE CARD FOR SEALANT INFORMATION.

610-003-763 100 Gallon Recovery Tank

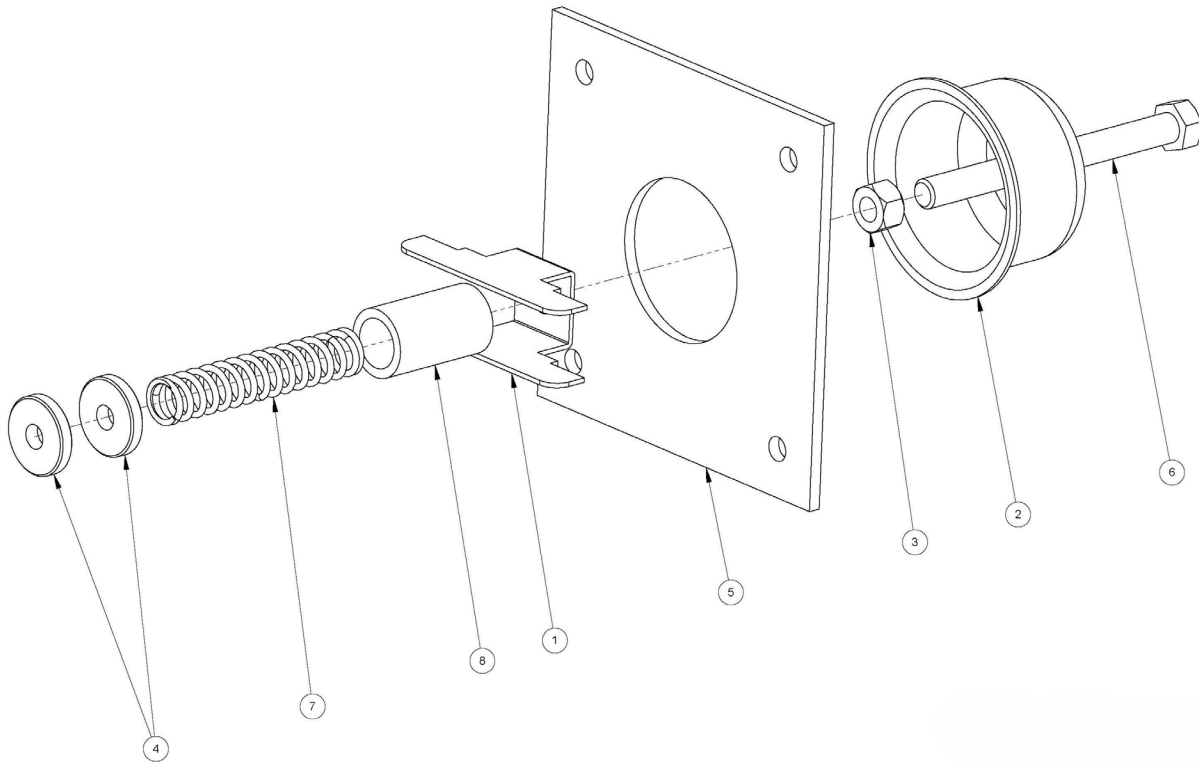
42	2	WASHER, 3/8" FLAT RUBBER BACK	000-174-029
41	16	WASHER, 1/4" FLAT SS	000-174-003
40	6	WASHER, 1/4" FLAT RUBBER BACK	000-174-060
39	3	WASHER, #10 FLAT RUBBER BACK	000-174-036
38	1	VALVE, 12 VOLT SOLENOID 1200 PSI	000-169-082
37	1	TEE, 1/4" NPT BRANCH	000-052-090
36	1	TANK, 100 GALLON URT – COATED	000-159-130
35	1	SWITCH, FLOAT LEVER – MODIFIED	000-157-091
34	10	SCREW, 1/4-20 x 1.00" LG HEX SS	000-143-002
33	4	SCREW, 1/4-20 x 1.25" LG HEX SS	000-143-010
32	2	SCREW, 8-32 x 0.75" LG BINDER	000-143-051
31	2	SCREW, 6-32 x 0.50" LG BUTTON	000-143-539
30	3	SCREW, 10-32 x 0.50" LG HEX SS	000-143-126
29	1	SCREW, 1/4-20 x 3/8" LG THUMB	000-143-787
28	1	SACRIFICIAL ANODE, MAGNESIUM	000-079-226
27	4	RIVET, AB8-6A ALUMINUM	000-143-023
26	1	PLUG, 1-1/4 NPT BRONZE	000-106-046
25	1	PLUG, 1-1/2 NPT BRONZE	000-106-019
24	1	PLUG, 1" NPT BRONZE	000-106-049
23	1	PLATE, BLOWER FLAT FILTER	000-105-785
22	8	NUT, 1/4-20 HEX NYLOK	000-094-009
21	6	NUT, 1/4-20 NEOPRENE WELL	000-094-113
ITEM	QTY	DESCRIPTION	ITEM NUMBER

20	2	NUT, 8-32 HEX NYLOK	000-094-059
19	2	NUT, 6-32 HEX NYLOK	000-094-063
18	1	NIPPLE, 3/8 NPT x 1/4 NPT HEX	000-052-073
17	1	NIPPLE, 3/8 NPT x 1/4 M SAE	000-052-662
16	1	NIPPLE, 1/4 NPT HEX	000-052-071
15	1	LATCH, BUNGEE KEEPER	000-086-008
14	2	INSERT, #46	000-052-102
13	1	GROMMET, LARGE WIRING	000-060-002
12	2	GASKET, ADAPTER – URT	000-057-206
11	1	FILTER, RECOVERY TANK BASKET	000-049-152
10	1	FILTER, FLAT – URT	000-049-153
9	1	FILTER, AIR DEFLECTOR, URT	000-049-154
8	1	ELBOW, 1/4 NPT STREET x 45 DEGREE	000-052-082
7	1	ELBOW, 1/4 NPT STREET	000-052-085
6	1	ELBOW, 1/4 FPT x FPT	000-052-088
5	1	CLAMP, 1" CUSHION LOOP	000-033-057
4	1	BLOCK, 6 POST TERMINAL	000-012-002
3	1	ASSEMBLY, VACUUM RELIEF VALVE	610-026-724
2	1	ASSEMBLY 100 GAL URT COVER SINGLE PORT	610-029-763
1	1	ADAPTER 2.5" TANK TO BLOWER – CAST	000-001-134
ITEM	QTY	DESCRIPTION	ITEM NUMBER

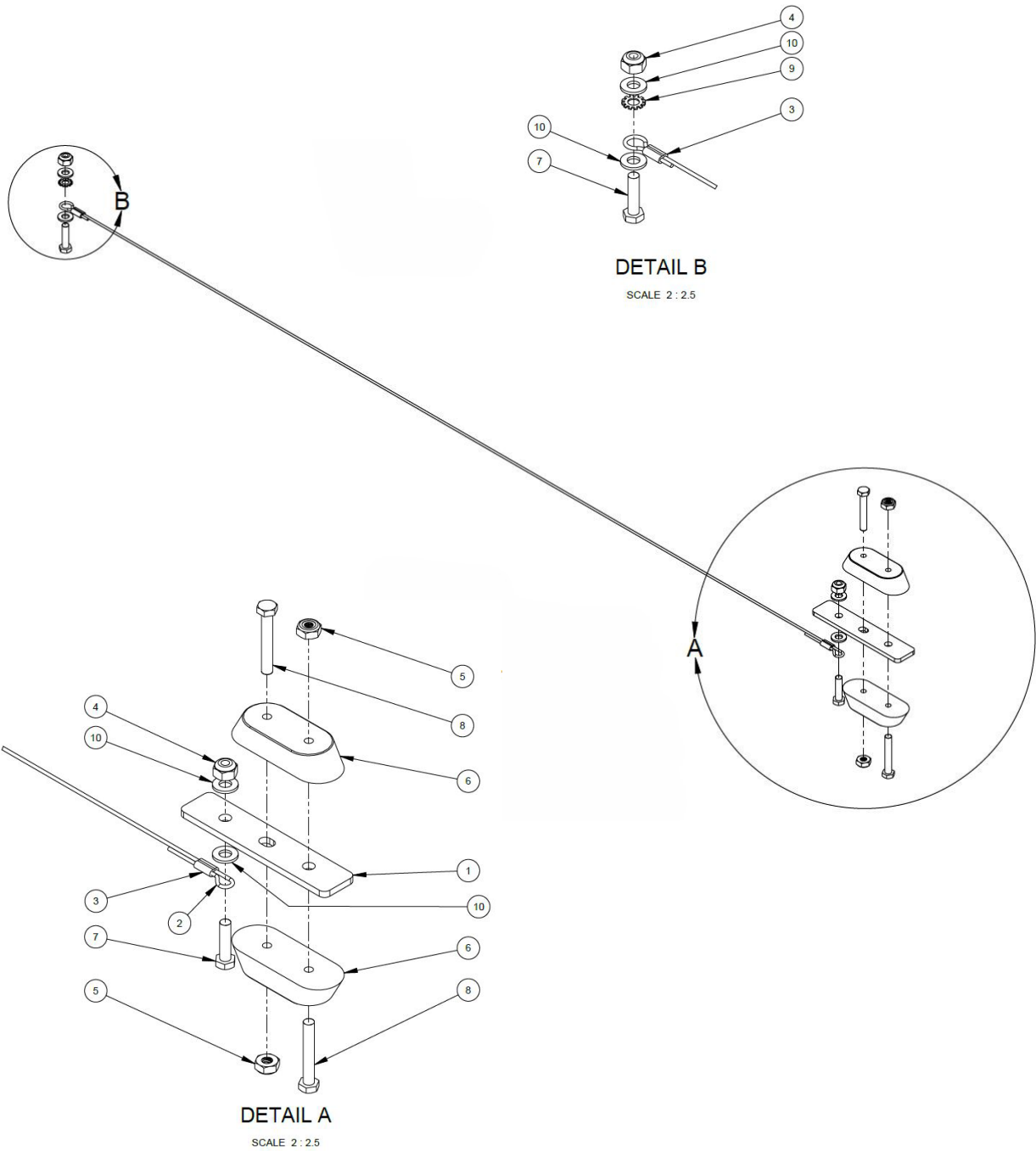


610-029-763 – 100 Gallon Tank Lid

16	10	WASHER, 5/16" FLAT	000-174-049
15	4	WASHER, 1/4" LOCK SS	000-174-019
14	4	WASHER, 1/4" FLAT SS	000-174-003
13	1	TUBE, LOWER EXHAUST, COATED	000-125-612
12	1	TUBE, EXHAUST 8.75" LG W/FLARE – COATED	000-125-619
11	4	SCREW, 5/16-18 x 1.75" LG HEX	000-143-124
10	4	SCREW, 1/4-20 x 0.75" LG HEX	000-143-001
9	6	NUT, 5/16-18 HEX 2 WAY LOCKING	000-094-081
8	1	MANIFOLD, EXHAUST, COATED	000-090-111
7	1	GASKET, 2.5" x 3.5" BCD	000-057-209
6	1	GASKET, HALF DONUT	000-057-212
5	2	GASKET, EXHAUST MANIFOLD – VANGUARD	000-057-010
4	1	GASKET, EXHAUST DONUT 1.5" ID SS	000-057-199
3	1	FLANGE, 1.5" EXHAUST DONUT – COATED	000-105-848
2	1	CLAMP, 1-1/2" EXHAUST	000-033-068
1	1	ADAPTER, 1.5" F SLIP TO FLARE – COATED	000-001-210
ITEM	QTY	DESCRIPTION	ITEM NUMBER



8	1	TUBE, VACUUM RELIEF SPRING GUIDE	000-125-111
7	1	SPRING, VACUUM RELIEF VALVE	000-155-026
6	1	SCREW, 3/8-16 x 4" LG HEX – FULL THREAD	000-143-198
5	1	PLATE, VACUUM RELIEF VALVE MOUNTING	000-105-332
4	2	NUT, 3/8-16 x 1" OD KNURLED	000-094-077
3	1	NUT, 3/8-16 HEX JAM	000-094-101
2	1	CAP, SPUN VACUUM RELIEF VALVE	000-027-032
1	1	BRACKET, VACUUM RELIEF VALVE	000-015-182
ITEM	QTY	DESCRIPTION	ITEM NUMBER



000-079-226 Anode

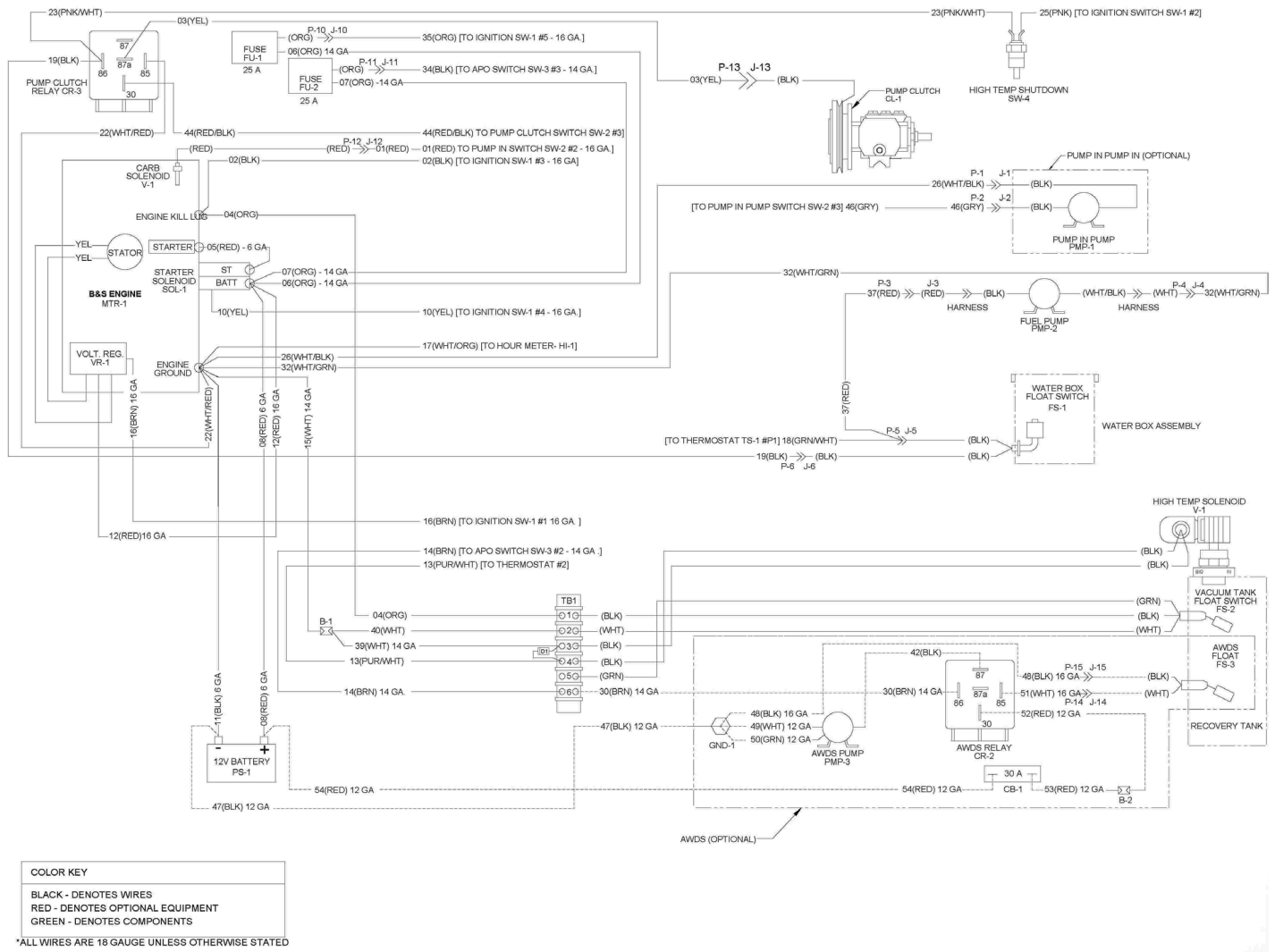
10	4	WASHER, #10 FLAT	000-174-001
9	1	WASHER, #10 EXTERNAL STAR	000-174-015
8	2	SCREW, 10-24 x 1.25" LG HEX	000-143-171
7	2	SCREW, 10-24 x 0.75" LG HEX	000-143-132
6	2	PROTECTOR, MAGNESIUM ANODE	000-108-025
5	2	NUT, 10-24 SS NYLOK HALF	000-094-150
4	2	NUT, 10-24 SS NYLOK	000-094-034
3	2	CLAMP, WIRE SLEEVE 1/16 SS	000-033-149
2	1	CABLE, 1/16 SS - 31"	000-025-098
1	1	BRACKET, SACRIFICIAL ANODE	000-015-1413
ITEM	QTY	DESCRIPTION	ITEM NUMBER

5 – ENGINE REPAIR

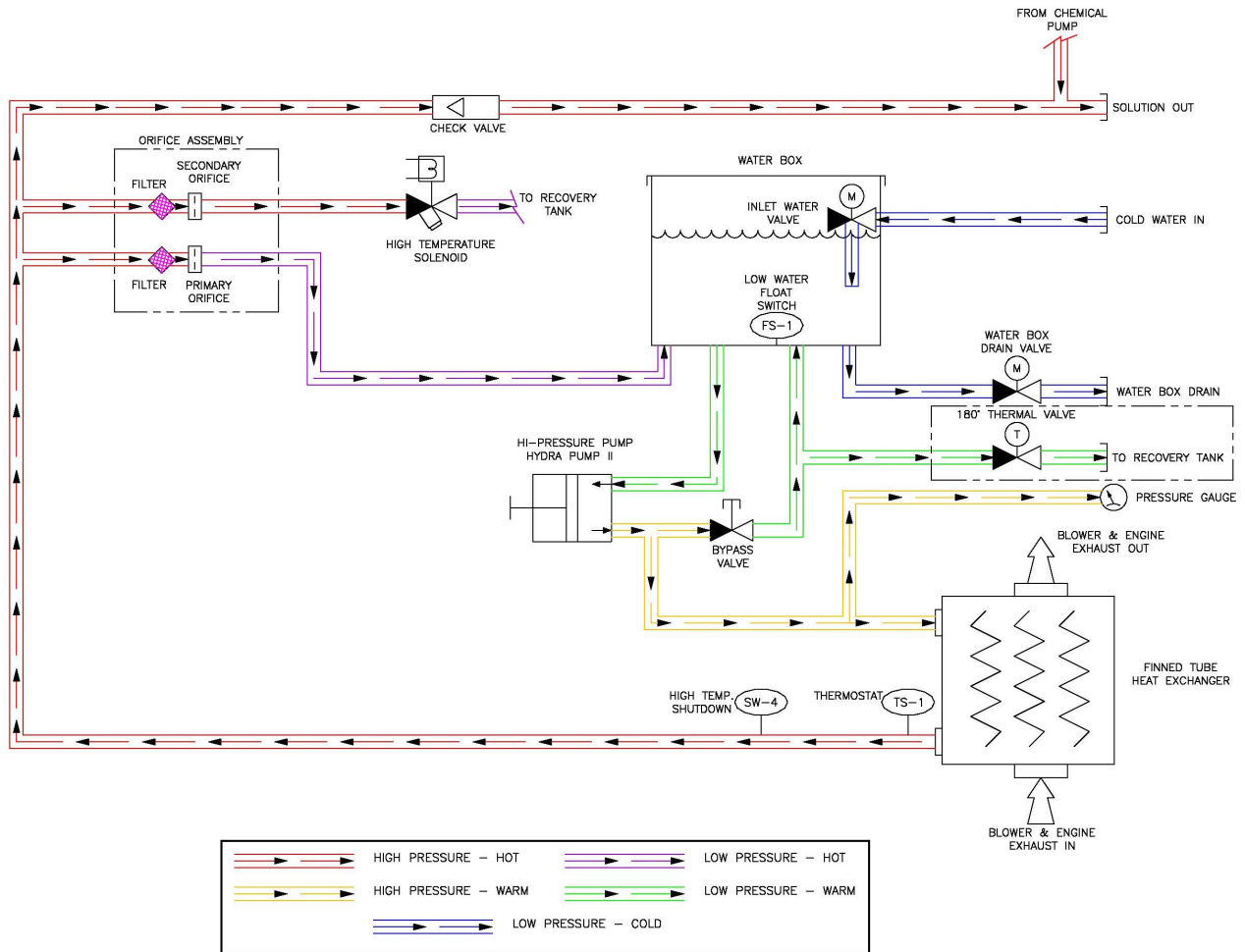
6 – PUMP REPAIR

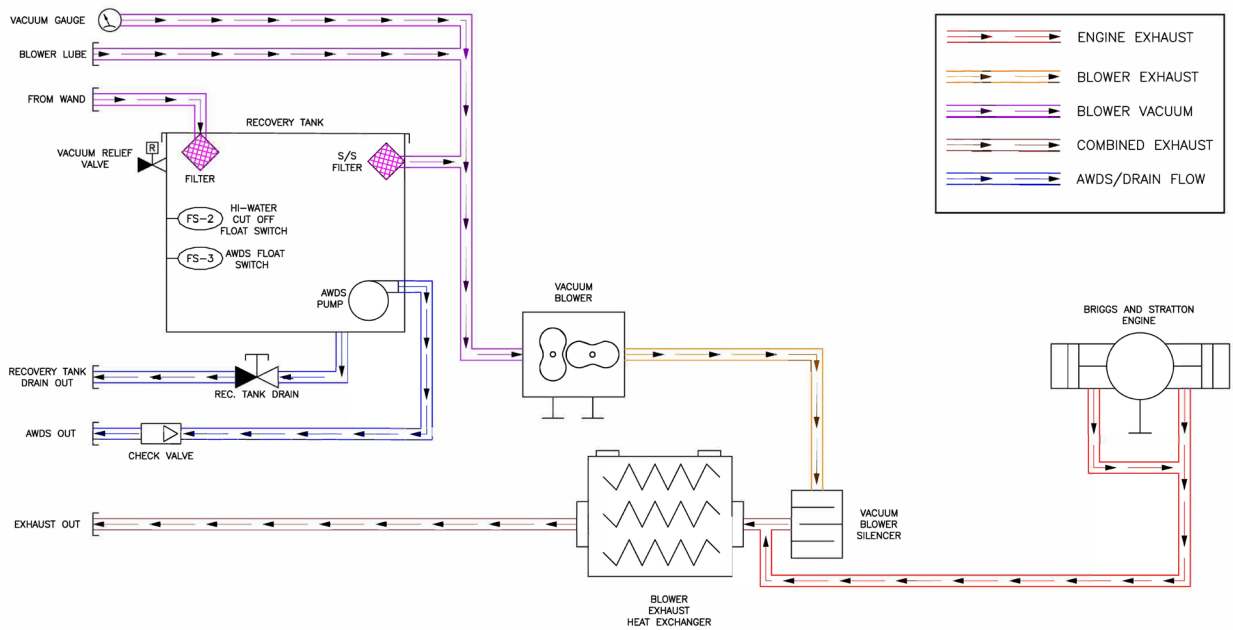
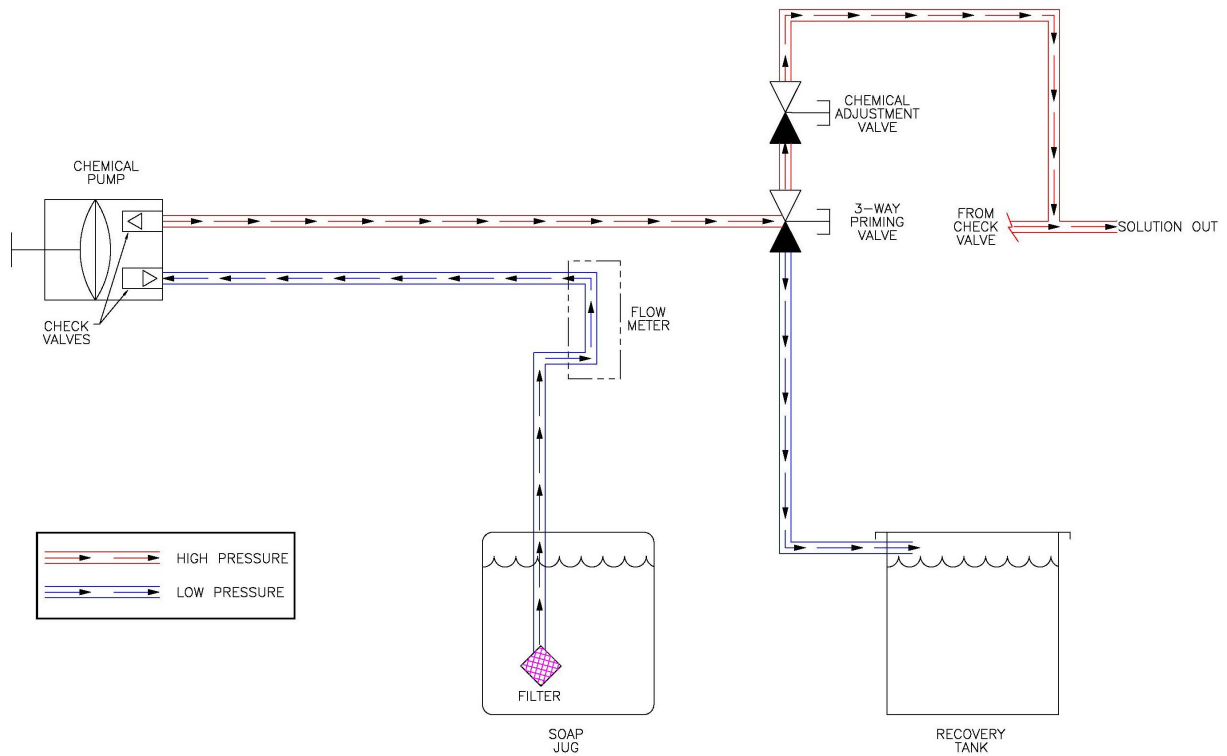
7 – BLOWER REPAIR

Diagram – page 2



9 – WATER FLOW





10 - WARRANTY

This section lists causes of component failure that specifically void warranty coverage. Such causes as listed in this section shall constitute **abuse** or **neglect**.

Blower

- Failure to lubricate the impellers daily
- Failure to lubricate the bearings as recommended by the manufacturer
- Failure to maintain the proper oil levels
- Failure to change the oil at recommended intervals
- Failure to use the correct oil as recommended by the manufacturer
- Failure to maintain blower safeguard systems (filters, screens, relief valve, shut-off)
- Allowing foam to pass through blower

High Pressure Water Pump

- Failure to maintain proper oil level
- Failure to change oil at recommended intervals
- Failure to use the correct oil as recommended by the manufacturer
- Failure to protect the pump against freezing
- Failure to maintain the pump protection shut off system
- Failure to use water softener in hard water areas
- Use of improper chemicals

Recovery Tank

- Failure to properly maintain screens and filters in the tank
- Failure to clean the tank as recommended
- Failure to maintain the vacuum safety release system
- Use of improper chemicals

Chemical System

- Use of chemicals advised against in this manual
- Failure to use water softener in hard water areas
- Operating without chemical filter screens
- Failure to protect against freezing

Control Panel

- Failure to protect meters, gauges, fittings, against freezing

Vacuum and Solution Hoses

- Failure to protect against freezing
- Failure to protect against damage from hot exhaust contact
- Damage caused by impact or crushing
- Kinking or cracking due to improper storage
- Wear and tear from normal use

Cleaning Wand

- Failure to protect from freezing
- Damage from impact, crushing, or cosmetic

Water Heating System

- Over-pressurization
- Failure to protect against freezing

Hard Water Deposits

- Failure to install or maintain water softener system in hard water areas

Warranty Procedure

Warranty coverage is available through you local distributor

If you have moved to a new area or have purchased a used machine and need information regarding you local distributor, call HydraMaster at (800) 426-1301 or email us at:

techsupport@hydramaster.com

When calling the distributor, be sure to reference the serial number and date of purchase.

FOR YOUR REFERENCE:

Model	
Serial number	
Date of Purchase	
Purchased From (Distributor)	
Address	
Phone Number	
Sales Representative	

HYDRA MASTER® STANDARD SLIDE-IN LIMITED WARRANTY

HydraMaster warrants to the original end user, each new machine, new accessories and genuine replacement parts against defects in material and workmanship under normal use and service. Our obligation under this warranty is limited to repair or replacement of the defective item at our factory or by an Authorized Service Center. Warranty coverage shall begin on the date of purchase by the original end user (as evidenced by your invoice from the factory or Authorized Dealer) or six (6) months from the date the machine was shipped from the factory, whichever is earlier. The warranty registration card must be completed and returned within 30 days of purchase. The warranty coverage period is specified below.

GROUP	Parts ^{1,2}	Labor ²
Frame	3 Years	2 Years
Covers	3 Years	2 Years
Vacuum Recovery Tank (Structural only)	3 Years	2 Years
Vacuum Pump – see Note 3	2 Years	2 Years
Chemical Systems	2 Years	2 Years
Hoses, Internal Machine	2 Years	2 Years
Hoses, External Machine	2 Years	2 Years
Valve, High pressure bypass	2 Years	2 Years
Water Heating System	2 Years	2 Years
Pump, High pressure water	2 Years	2 Years
Belts	2 Years	2 Years
Fittings, internal machine	2 Years	2 Years
Filter Screens	2 Years	2 Years
Gauges	2 Years	2 Years
Electrical Components	2 Years	2 Years
Engine	See Note 3	2 Years
Accessories and Fresh Water Tanks	1 Year	1 Year
Replacement Parts – see Note 4	90 Days	NA
NOTES:		
1-Parts repaired or replaced are guaranteed for the remainder of the original machine warranty period.		
2-Coverage only applicable to products sold and used in the United States and Canada.		
3-As provided by the original Manufacturer.		
4-Applies to replacement parts only after machine warranty coverage has expired.		

This warranty shall not apply to repairs resulting from accidents or misuse, damage in transit, overloading the capacity of the machine, failure due to lack of proper maintenance or care as described in the operating and maintenance instructions. Freezing of any water or chemical related component will VOID all warranties on water or chemical related components, internal or external. Corrosion, deposits and/or build-up in the water, chemical, recovery or heating systems due to hardness in the water used or chemicals which result in deposits, will VOID all warranties on affected components. The use or application of any chemical, including but not limited to acids or solvents, which results in damage to metal, rubber, plastic, or painted parts will VOID all warranties on those parts. Minor adjustments, such as tightening of screws or bolts not connected with the replacement of parts, are not covered. Replacement of expendable wear items including, but not limited to paint, labels and other cosmetic parts are also not covered. Repairs or alterations by an organization other than the factory or an Authorized Service Center are not covered and will void any HydraMaster warranty as to the parts or systems repaired or altered by a non-authorized organization.

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION OF THE LIMITED WARRANTIES STATED WITHIN. NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS MADE EXCEPT AS EXPRESSLY STATED HEREIN. ANY STATUTORY IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, THAT ARE IMPOSED BY LAW DESPITE THE EXPRESS LIMITATION OR WARRANTIES ABOVE, ARE EXPRESSLY LIMITED TO THE DURATION OF THE WRITTEN WARRANTY. BUYER UNDERSTANDS, ACKNOWLEDGES AND AGREES THAT THE REMEDIES PROVIDED UNDER THIS LIMITED WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES AVAILABLE TO THE BUYER. HYDRAMASTER WILL NOT BE LIABLE FOR ANY OTHER OR ADDITIONAL DAMAGES, INCLUDING BUT NOT LIMITED TO INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE FURNISHING, PERFORMANCE, USE OF OR INABILITY TO USE THE MACHINE. ANY EXTENSIONS OF OR MODIFICATIONS MADE TO THIS WARRANTY BY A DEALER/DISTRIBUTOR OF HYDRAMASTER ARE THE SOLE RESPONSIBILITY OF THE DEALER/DISTRIBUTOR.

HydraMaster will pay all freight and transportation charges within the United States, via normal ground shipping means, for replacement of parts covered under this warranty. All material must be properly authorized by HydraMaster prior to being returned. When returning, please provide an explanation of the problem and include the serial number of the machine as well as the name of the selling organization. All defective material must be returned to HydraMaster within 60 days of authorization. The Technical Service department of the authorized Dealer Service Center or the factory will investigate and then contact you.

Transportation of hazardous waste or contaminated equipment is subject to various laws and regulations. In returning machines, parts, or accessories under this limited warranty, the end user must certify in writing that the machines, parts or accessories being returned have not been used for handling, clean up, or disposal of hazardous waste or hazardous materials including but not limited to such things as asbestos, anthrax etc. or if the machines, parts or accessories being returned have been used for handling, clean up, or disposal of hazardous waste or hazardous materials, then the end user must have the machines, parts or accessories decontaminated by licensed and qualified decontamination professionals and provide written certification of this decontamination signed by the decontamination professionals. These machines, parts or accessories are to be returned only to the local HydraMaster Authorized Service Center for Warranty service along with decontamination certification.

HydraMaster reserves the right to change its warranty policy without notice.

CS-46247 rev B

How to Order Parts

Warranty Parts Orders

1. Call your local distributor and ask for the Service Department.
2. Have the following information available:
 - a. Equipment Model
 - b. Date of Purchase
 - c. Hours on the Unit
 - d. Unit Serial Number
 - e. Description of Malfunction
3. Once it has been determined which parts are needed to correct the problem with your truckmount make arrangements with your local distributor to either perform the repairs or ship the parts to you.

We shall always endeavor to be fair in our evaluation of your warranty claim, and shall provide you with a complete analysis of our findings.

HydraMaster's warranty covers only defective materials and/or workmanship for the periods listed in the warranty statement. **Diagnostic reimbursement is specifically excluded.**

Parts Orders

Call you local distributor. In most cases they either stock or have access to the parts through a regional service center.

Emergencies

If for any reason your distributor is unable to supply you with the necessary parts, they may call us and arrange for expedited shipping.

HydraMaster sells parts only through authorized distributors and service centers.