ATD-5286 ***MADE IN MEXICO*** **FOR BULK FILLED UNIT**

AIR OPERATED CHASSIS PUMP

50:1 RATIO, OUTPUT – 80 CU. IN./MIN.
MIN. AIR PRESSURE – 30 PSI
MAX. AIR PRESSURE – 150 PSI
MAX. OUTPUT PRESSURE – 7500 PSI
RECOMMENDED OPERATING PRESSURE 80-100 PSI
GREASE TYPE: NLGI #2 (maximum for effective performance)

OWNERS MANUAL

RETAIN THIS MANUAL FOR FUTURE REFERENCE TO IMPORTANT WARNINGS AND OPERATING AND MAINTENANCE INSTRUCTIONS.

PROPER USE AND MAINTENANCE OF THIS EQUIPMENT IS THE RESPONSIBILITY OF THE OWNER AND/OR OPERATOR.

DO NOT USE THIS EQUIPMENT UNLESS YOU HAVE CAREFULLY READ AND UNDERSTAND THE INSTRUCTIONS AND WARNINGS IN THIS MANUAL.

! WARNING !

NEVER exceed the stated maximum working pressure of the pump or of the lowest rated component in your system.
NEVER modify any part of this equipment.
NEVER use combustible gas with this equipment.
NEVER attempt repairs while the system is under pressure.
NEVER attempt to disassemble the equipment while the system is under pressure.
ALWAYS tighten fluid connections before using this equipment
ALWAYS read/follow the fluid manufacturer's recommendations regarding fluid compatibility.
ALWAYS read/follow the fluid manufacturer's recommendations regarding the use of protective clothing and equipment.
ALWAYS use an air line filter/moisture eliminator at the air inlet for the pump.
ALWAYS use air line lubrication.
REGULARLY check all equipment and repair/replace worn or damaged parts immediately.

FAILURE TO HEED THESE WARNINGS INCLUDING OVERPRESSURIZING, ALTERING PARTS, USE OF INCOMPATIBLE FLUIDS, MISUSE, OR USE OF DAMAGED/WORN PARTS MAY RESULT IN EQUIPMENT DAMAGE, PROPERTY DAMAGE, FIRE, EXPLOSION AND/OR SERIOUS PERSONAL INJURY.

SAFETY INSTRUCTIONS

Extreme caution should be used when operating this equipment as it generates very high fluid pressure. Leaks from loose or ruptured components or material from dispensing valve can inject fluid through the skin causing serious bodily injury and possible need for amputation. Always wear protection to prevent material splashing onto skin or into eyes.
IMPORTANT: GET EMERGENCY MEDICAL CARE IMMEDIATELY IF ANY FLUID APPEARS TO PENETRATE THE SKIN! INFORM PHYSICIAN OF EXACTLY WHAT WAS INJECTED. PLEASE DO NOT TREAT THIS INJURY AS A SIMPLE CUT.

! WARNING ! – RELIEF PROCEDURE

DO NOT EVER point the dispensing valve at another person.
DO NOT EVER attempt to stop material from the dispensing valve or a leaking connection with your hand or body.
BEFORE EACH USE, check equipment for proper operation and to insure safety devices are in place and working properly.
NEVER modify this equipment. Modification could cause equipment malfunction and result in serious bodily injury.
When flushing the pump with solvents, ALWAYS hold a metal part of the dispensing valve firmly to the side of a grounded metal pail and operate pump at the lowest possible fluid pressure to reduce the risk of injury from splashing or static sparking.

WARNING: This pump can develop 7500 PSI working pressure at 120 PSI maximum incoming air pressure. Be sure that all system equipment and accessories are rated to withstand the maximum working pressure of this pump. **NEVER** exceed the maximum working pressure of the lowest rated component in the system. **IMPORTANT:** "Whip" hoses for dispensing valve are fluid pressure rated at 4500 PSI. **NEVER** exceed 90 PSI, air pressure to pump when using "whip" hoses.

WARNING: Water and even moist air can cause this pump to corrode. To aid in the prevention of this corrosion, **NEVER** leave the pump filled with water or air. After normal flushing, flush the pump once more with mineral spirits or an oil based solvent, relieve pressure and leave the mineral spirits in the pump. **BE SURE TO CORRECTLY FOLLOW THE PRESSURE RELIEF PROCEDURE.**

PRESSURE RELIEF PROCEDURE

ALWAYS FOLLOW THIS PROCEDURE to reduce the risk of serious bodily injury, including splashing into the eyes. After shutting off the pump; checking/servicing any part of the system; installing/cleaning or changing any part of the system, **ALWAYS** follow this procedure:

1. Disconnect the air supply to the pump.
2. Aim the dispensing valve away from yourself and others.
3. Aim the dispensing valve into an appropriate container and open until all pressure is relieved.

If you believe that the dispensing valve or hose is completely clogged or that pressure in the pump has not been fully relieved after following the above procedure, VERY SLOWLY loosen the hose end coupling to relieve the pressure gradually and then loosen completely. Then proceed to clear the valve or hose.
WARNING: ALWAYS follow the Pressure Relief Procedure after shutting off the pump.
WARNING: ALWAYS follow the Pressure Relief Procedure when checking/servicing any part of the system and when installing, cleaning or changing any part of the system.

INSPECTION INSTRUCTIONS

If you believe that you have overpressurized the equipment, or if your equipment requires adjustments or repair, contact ATD's service center for inspection of the pump.

INSTALLATION

It is recommended that you use an air line filter/regulator/lubricator to remove harmful dirt and moisture from the compressed air supply and to provide automatic lubrication to the air motor. Blow-dry the lines and hoses with air before connecting them to the system.

Instruction for Assembly of ATD-5286 Bulk filled Lubrigun

Unpack ATD-5286 Assembly from Carton	This should include the following pieces: Pump, Drum Cover (Red), Follower Plate, Grease Control Valve, 6 Foot Grease Hose, Muffler, Air Nipple and Rapid Disconnect Coupler and Container
Assemble Drum Cover to Pump	In mose cases your pump has been preassembled and tested.
Fill Container with Lubricant	This is a bulk filled unit. You can fill container 91117ME.

Unit comes ready to use with Minimal assembly required.; Release cover clamps (3) and remove the pump / cover assembly from the container. **Ensure Follower Plate is not left in the container at the bottom**.

Fill Container 91117ME with Lubricant (Grease); Ensure Follower plate is on the Downtube and not in the container BEFORE putting filling the container with grease**. (Please Read Again)**

Mount cover / pump assembly with downtube onto the container filled with grease. Apply slight pressure on the follower plate to remove air pockets.

Assemble the lubricant hose to the pump outlet body. The connections must be **leakproof. Do not connect the ATD-5218 Control Valve Yet. If it is connected, you might want to disconnect it . You want to prime the system and purge contaminants out of the Grease Hose.**

The Air Nipple 11660 has already been inserted and threaded into pump head opening. Use Teflon tape to seal threads to prevent air leakage if necessary.

Assemble air coupler 815ME to an air hose of sufficient length so that the lubrigun can be moved to cover the entire lubrication area with the hose attached. When air coupler 815ME is attached to air coupler nipple 11660, lubrigun is ready for operation. To release air coupler 815ME, draw back on the coupler sleeve.

DID YOU:	**Purchase a Filter / Regulator for your pump? The Filter / Regulator should have an automatic dump mechanism to purge the water out of the incoming air. Water in the compressed air system is the biggest "Killer" of Air Operated Equipment.**
YES:	**Proceed**
NO:	**Think about it! It is cheap insurance to keep your pump running at maximum efficiency and the pump will last longer.**

Initiating Air Motor and Pump Operation

To Start Pump: Turn on air from Air Regulator **slowly**. You will hear the air enter the air motor. Pump will start quickly and then reach prime at a stall pressure. It might take as much as 60-70 PSI to get the pump started initially. Recommended Air Pressure to operate the pump under normal conditions is 80PSI. Pump will activate as low as 15-20PSI. For first time operation, pump will start at 50-60 PSI. After that pump will activate at the lower pressure.

Pump will start quickly and then reach prime at a stall pressure when the control valve is attached.

Allow pump to operate: Pumping Grease into the hose. Allow approximately 1/3 Cup of Grease to flow out of the Hose. **This is to insure that any particles or contaminants or residue inside the hose do not enter the ATD-5218 Control Valve**. Stop Pump; Install the ATD-5218 Control Valve on the hose; Make sure connections are tight; Resume operation of the pump. The pump should reach stall pressure and stop.

Test the System	**Pull the Trigger slowly and Grease should be ejected from the nozzle. Don't point it at anyone!**

Never Put your Finger or Other Bodily parts near the valve control nozzle when pulling the trigger on the control valve ATD-5218ME.

To know the amount of lubricant pressure in your system or the hose, multiply the amount of air pressure by 50. For example, if there are 100 psi of air pressure indicated on the regulator (100 psi of air entering) then there are 5000 psi of grease pressure in the lubricant line.

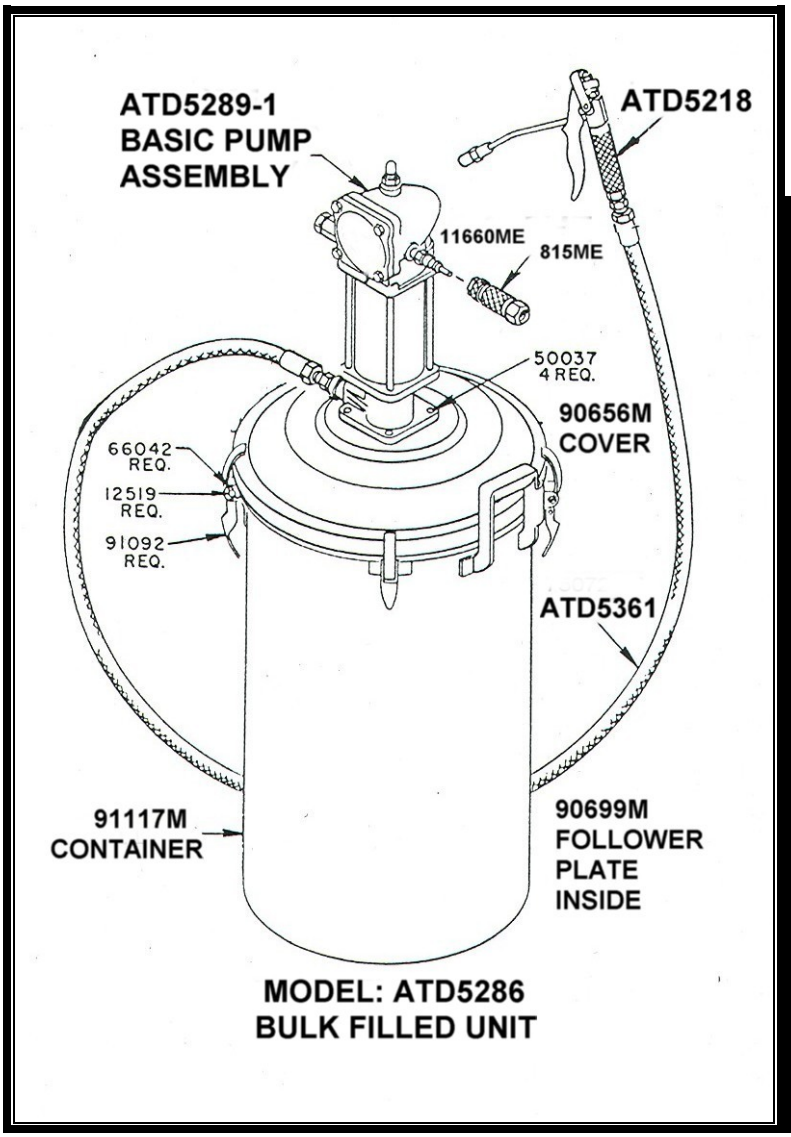
This checklist was done at the factory:

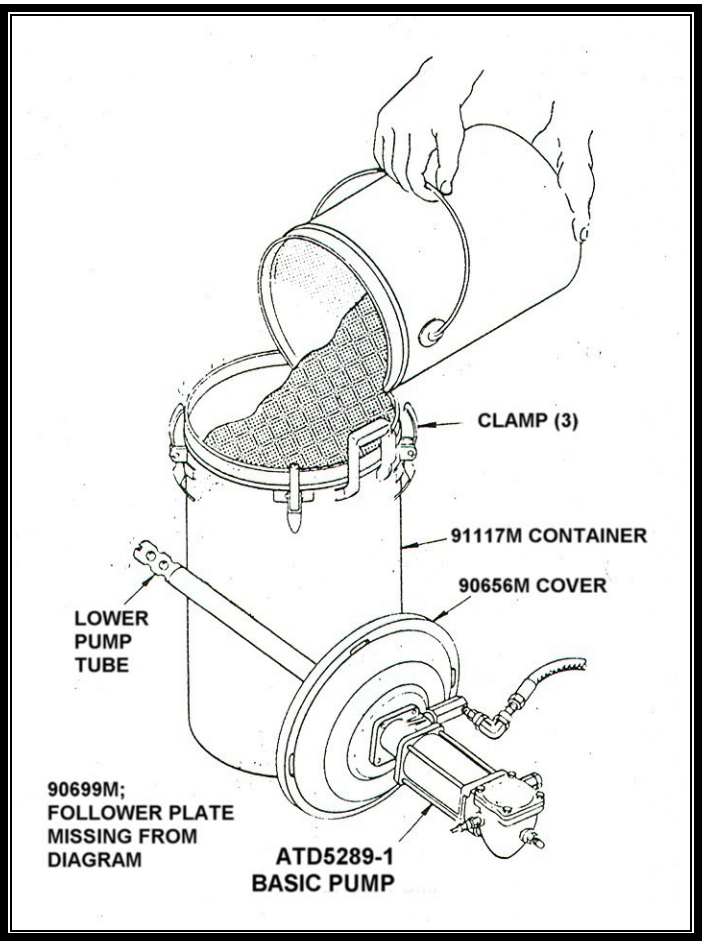
Ensure that the **Muffler ATD-5317** is inserted in the correct orifice.

The Lube Hose ATD-5361 has been connected to the pump. If you desire a longer hose, simply replace hose and use Teflon tape to seal the threads. Connect **ATD-5218 Control Valve** to Hose.

Have you thought of a **Grease Strainer** for the Pump Down Tube: 99% of Pump Repairs are due to Foreign Particles caught in the Down Tube. Ask for **Strainer ATD-5356**

	Version ATD-5286





SERVICE INSTRUCTIONS FOR ATD-5286 (ATD-5289-1) PUMP ASSEMBLY LUBRICATE AIR VALVE ONCE PER WEEK WITH COMMON SAE 30 MOTOR OIL. DO NOT USE ANY TYPE OF SYNTHETIC OIL AS THIS WILL SWELL THE BUNA N SEALS AND RENDER THE PUMP USELESS.

MAKE SURE NO FOREIGN MATERIALS SUCH AS METAL PARTS, ROCKS, DIRT, STONES, PLASTIC PARTS CONTAMINATE THE GREASE OR THE DOWNTUBE. WHEN FILLING THE CONTAINER.

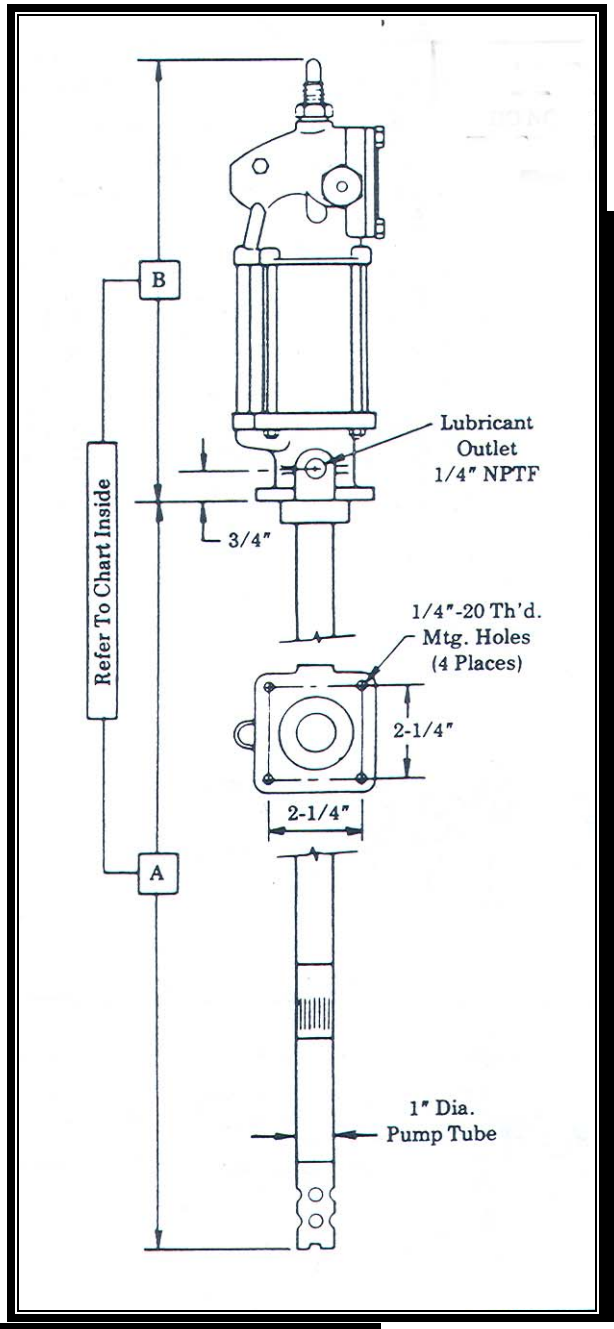
FULL DESCRIPTION: . Bulk Fill Pail Pump with Steel Container; 50:1 Contractor Grease Pump Assembly; w/ Container; Includes 50:1 Double Acting Grease Pump; Rapid Disconnect Air Coupler; Air Nipple; Muffler(not shown in assembly drawing above; Follower Plate; 6ft(1.85mtrs) High Pressure Grease Delivery Hose; Grease Control Valve; with Container Painted in Red. Container Size: 16" High by 9 1/2" Diameter; Output: 80 cu in/minute of grease at 100PSI NLGI#2 at 70 Degrees ambient Temperature (.35 cu in/cycle)(Air Inlet 1/8"NPT(f); Lube Outlet: 1/4"NPT(f)). Bulk Filled .

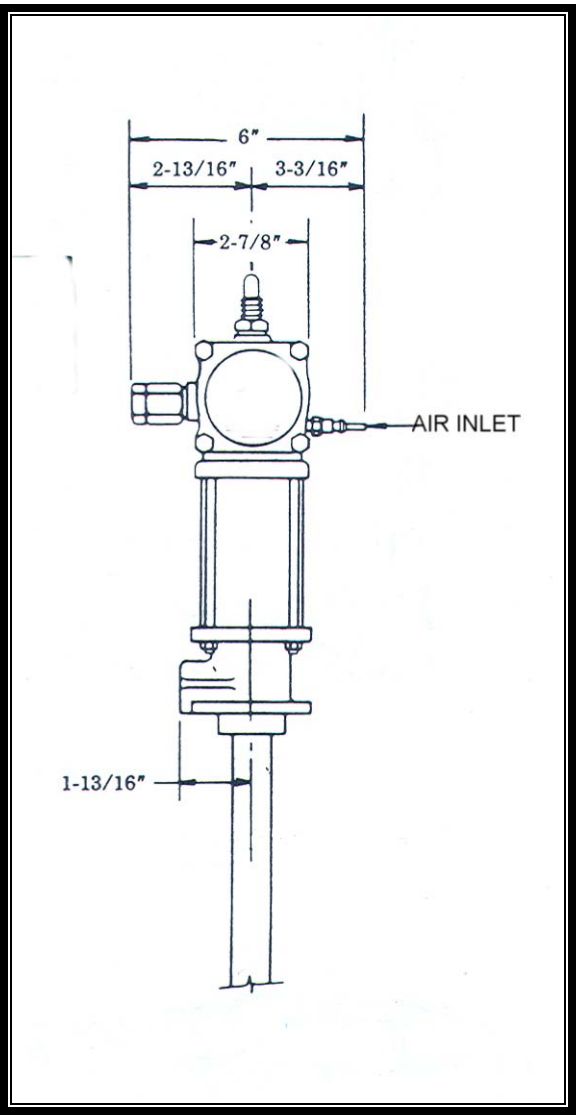
Trouble Shooting Guide for Pumps –ATD-5286

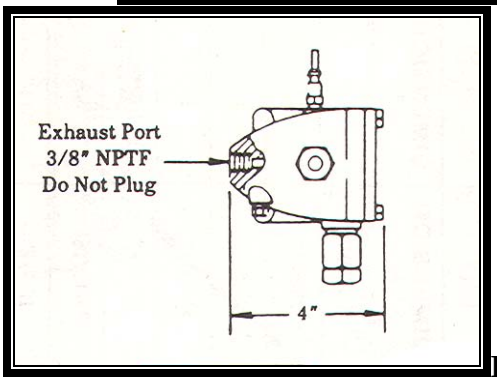
PROBLEM:	SOLUTION:
Warning:	**If the Air is connected to the pump, *consider the pump to be live*. Do not attempt to work on the pump or the system without disconnecting the Air Inlet and relieving pressure in the system, both air pressure and lube pressure. Make sure there are no live air pockets in the air motor and all air has been bled from the Air Motor.**
Pump does not Operate	Check In-Line Air Pressure to the pump. Recommended Air Pressure is 80 PSI – 100 PSI.
Pump is Leaking Air	Check the Inlet Air Nipple. Use Teflon tape to seal the threads at the Air Inlet. Silicon is not recommended since it can escape into the interior of the Air Motor and cause damage to the valves. Check the Quick Disconnect Coupler connection to the Air Hose. Use Teflon tape to seal the threads at the Connection
Pump blows air through the Muffler	Check to see that the Air Inlet Nipple is installed in the correct location. Check that the Brass Plug is installed in the Air Motor head and is not leaking air.
Question:	Are you using a **Filter / Regulator** on the pump?
Answer:	We strongly suggest the use of a Filter / Regulator on the pump. The Filter should be a moisture evaporator with an automatic dump on it so water is eliminated and purged from the air before entering the pump. If you do not have a Filter / Regulator on the pump, chances are the pump head could be full of water and this will corrode the inside of the pump and moving parts, thereby reducing the life of the pump.
Pump does not pump material	Check to see if there are any blockages in the Lubricant lines.
Pump operates, pumps material but does not shut off.	Reason: Pump is not reaching stall pressure. **1**: Check that all hoses, lubricant lines and controls valves are connected and the connections are tight. There should be no leaks. **2**: Check that the hoses are **SAE approved Grease Hoses** and made for pumping High Pressure Grease. **DO NOT use Oil Hose or garden hose for pumping High Pressure Grease.**
Air Motor on Pump operates but no material comes out	1: Check the follower plate. Make sure there are no air pockets in the grease underneath the follower plate. Push down lightly on the follower plate to ensure a positive prime. 2: Check that all hoses and control valves are fully connected 3: Check to see that there are no blockages in the lines, hoses or control valves.
Pump, hoses and valves are connected and pump does not pump when I pull the trigger on the control valve	**See Trouble Shooting Sequence On Following Page:**
Warning:	**If the Air is connected to the pump, *consider the pump to be live*. Do not attempt to work on the pump or the system without disconnecting the Air Inlet and relieving pressure in the system, both air pressure and lube pressure. Make sure there are no live air pockets in the air motor and all air has been bled from the Air Motor.**
	Version ATD-5286B

QUESTION	YES	NO
Does the pump Air Motor operate when it is removed from the Grease?	Yes? Then put the pump back in the grease. Remove the hose from the pump	No? Check Air Inlet for Pressure, and check Air Motor for Leaks at the Air Nipple, Muffler or Seals. If there are no air leaks and Air is fully engaged at least 80 psi, take the rubber part of a mallet and slightly tap the front cover of the Air Motor (41202) with the rubber part only. Sometimes and very rarely the Toggle Valve sticks and needs to be prodded off of the neutral position.
Does it pump grease now when inserted in the drum?	Yes? There is a blockage in the Hose or the Control Valve. Remove the Control Valve from the hose and connect the hose to the pump.	No? Return to a step above.
Does the grease pump through the hose?	Yes? Then the blockage is in the Control Valve. Attach the control valve to the hose. Remove the coupler from the Control Valve. Most likely the blockage is at the control valve.	No? Then the blockage is in the hose.
Does the grease pump through the Control Valve?	Yes? There was blockage in the coupler of the control valve. Clean the Coupler out with Mineral Spirits.	No? There is a blockage in the main body of the Control Valve. Control Valve needs to be disassembled and cleaned.
Is there Blockage in your Lubricant Lines, Hoses, Pumps and Control Valves Common?	If yes, we suggest the use of a foot valve strainer ATD-5356	
Note:	**To prevent Blockage in the pump, hose, lubricant lines or control valve with contaminated grease, or to prevent contaminated grease from entering your bearings, we suggest the use of a Grease Strainer:** ATD-5356..	
Has your Pump been Outside in the elements? Has water entered the pump?	Yes? There is a possibility that water has accumulated inside the Air Motor. Over time this can cause damage to the Air Motor. All pumps are packed at the factory with a water repellent grease. Over time with water accumulating inside the Air Motor, the grease can be flushed out.	
Note:	**To ensure the proper operation of your Pneumatic pump, we suggest an Air Lubricator, Moisture Evaporator and Regulator on each Pump OR at the very least a Filter /Regulator with an automatic dump mechanism on it to purge water out of the air.**	
Note:	Don't Bang on the pump with a hammer or blunt instrument. The pumps are rugged and made for professional and industrial use but are made of Aluminum and if any parts are dented, it will affect the operation of the pump.	
Warning:	**If the Air is connected to the pump, *consider the pump to be live.* Do not attempt to work on the pump or the system without disconnecting the Air Inlet and relieving pressure in the system, both air pressure and lube pressure. Make sure there are no live air pockets in the air motor and all air has been bled from the Air Motor.**	
	Version ATD-5286B	

GENERAL PUMP DIMENSIONS AND SIZE OF PUMP







DOWNTUBE LENGTH: 15-3/4"; AIR MOTOR HEIGHT: 11"

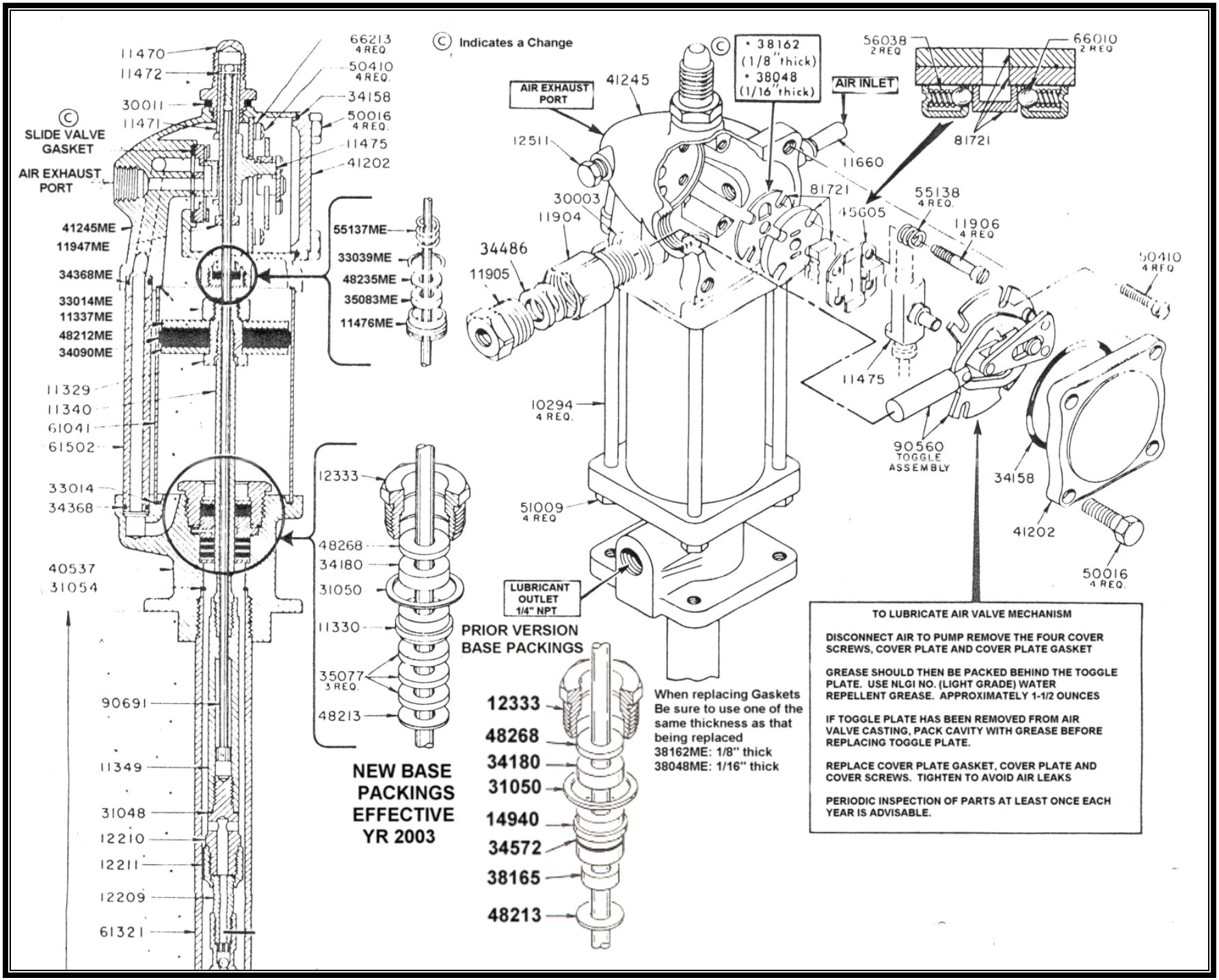
REPAIR KITS AVAILABLE:

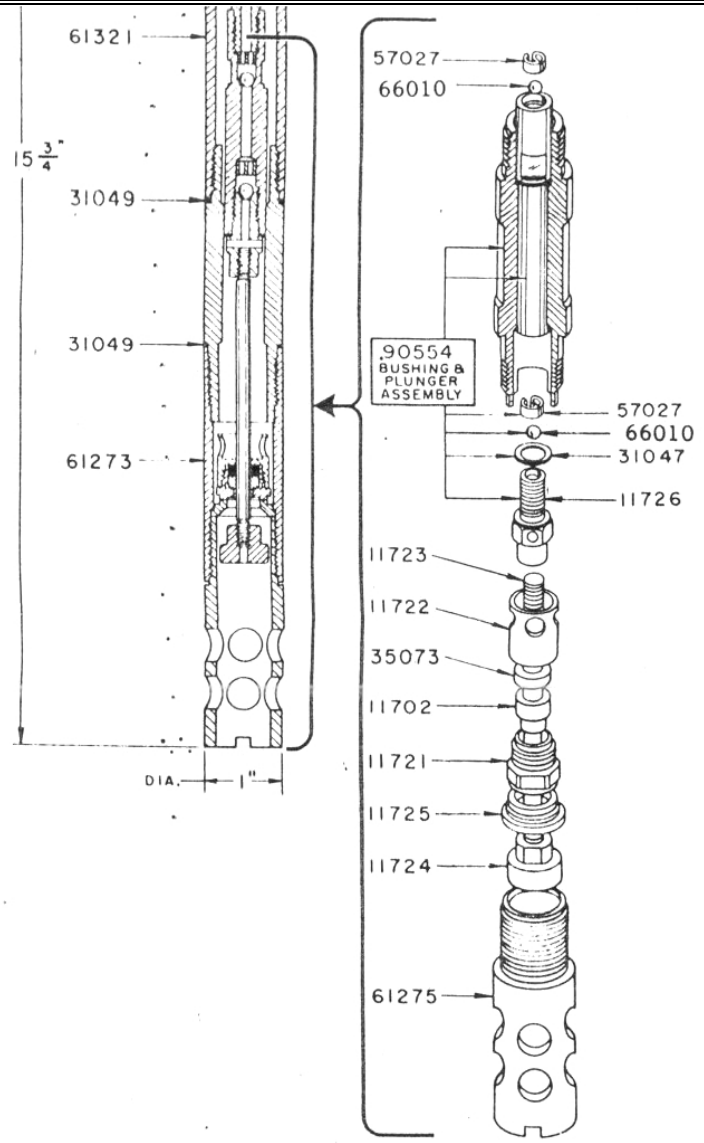
REPAIR KIT NO: ATD-5320: SIMPLE OVERALL REPAIR KIT FOR 82716ME PUMP

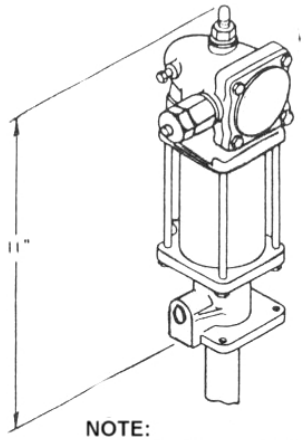
REPAIR KIT NO. R83054ME; COMPLEX REPAIR KIT FOR 82716ME PUMP

REPAIR KIT NO: ATD-5322: AIR MOTOR REPAIR KIT

REPAIR KIT NO. ATD-5323: DOWNTUBE REPAIR KIT


© Indicates a Change
11470
11472
30011
11471
© SLIDE VALVE GASKET
AIR EXHAUST PORT
66213 4 REQ.
50410 4 REQ.
34158
50016 4 REQ.
11475
41202
41245ME
11947ME
34368ME
33014ME
11337ME
48212ME
34090ME
55137ME
33039ME
48235ME
35083ME
11476ME
11329
11340
61041
61502
33014
34368
40537
31054
90691
11349
31048
12210
12211
12209
61321
12333
48268
34180
31050
11330
35077 3 REQ.
48213
NEW BASE PACKINGS EFFECTIVE YR 2003
AIR EXHAUST PORT
41245
12511
© * 38162 (1/8" thick) * 38048 (1/16" thick)
AIR INLET
56038 2 REQ
66010 2 REQ
81721
11660
30003
11904
34486
11905
81721
45605
55138 4 REQ.
11906 4 REQ
50410 4 REQ
11475
10294 4 REQ.
51009 4 REQ
90560 TOGGLE ASSEMBLY
34158
41202
50016 4 REQ.
LUBRICANT OUTLET 1/4" NPT
PRIOR VERSION BASE PACKINGS
12333
48268
34180
31050
14940
34572
38165
48213
When replacing Gaskets Be sure to use one of the same thickness as that being replaced
38162ME: 1/8" thick
38048ME: 1/16" thick
TO LUBRICATE AIR VALVE MECHANISM
DISCONNECT AIR TO PUMP REMOVE THE FOUR COVER SCREWS, COVER PLATE AND COVER PLATE GASKET
GREASE SHOULD THEN BE PACKED BEHIND THE TOGGLE PLATE. USE NLGI NO. (LIGHT GRADE) WATER REPELLENT GREASE. APPROXIMATELY 1-1/2 OUNCES
IF TOGGLE PLATE HAS BEEN REMOVED FROM AIR VALVE CASTING, PACK CAVITY WITH GREASE BEFORE REPLACING TOGGLE PLATE.
REPLACE COVER PLATE GASKET, COVER PLATE AND COVER SCREWS. TIGHTEN TO AVOID AIR LEAKS
PERIODIC INSPECTION OF PARTS AT LEAST ONCE EACH YEAR IS ADVISABLE.



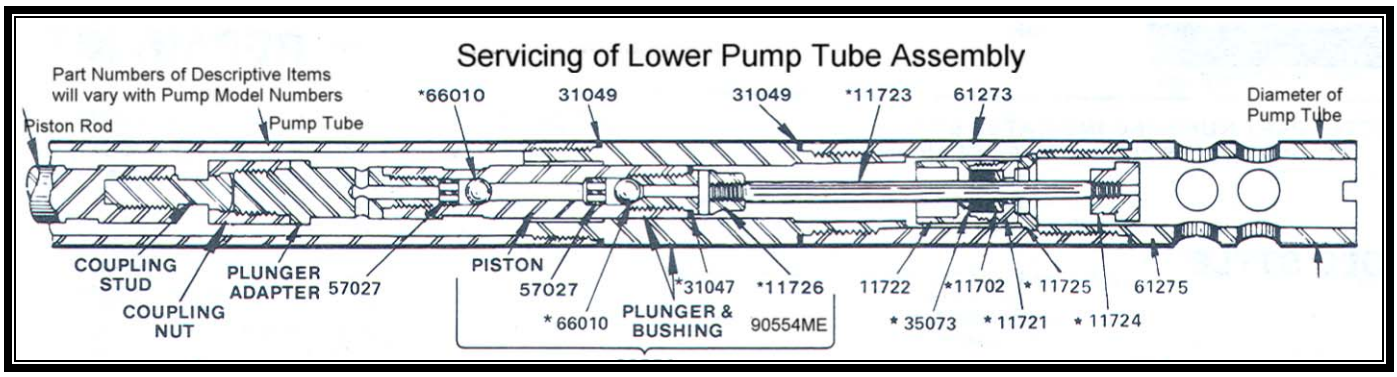


NOTE:
ALL OTHER PARTS ILLUSTRATED ARE THE SAME FOR BOTH OF THE BASIC PUMPS ATD5289-1

2-1/2" (6.35CM) DIAMETER AIR MOTOR CHASSIS HIGH PRESSURE PUMPS 50:1 RATIO

BASIC PUMP NO. ATD5289-1 USED ON MODELS: ATD5289; ATD5289-775ME; ATD5286 AND 346PMME

LUBRICATE AIR VALVE ONCE PER WEEK



Loss of pressure, volume or continuous operation of pump when not in normal use indicates:

A: Foreign material lodge under Piston Ball Checks or between Upper and Lower Inlet Checks. To correct this condition the Piston ball Checks and Inlet Checks should be removed and cleaned throughly. If sealing surfaces between Upper and Lower Inlet Checks are rough or pitted, replace or resurface if damage is slight.

B: Shovel Rod Packing worn or damaged: Before installing new packing, inspect surface of shovel rod and replace if rough or pitted. Do not grip Shovel Rod when disassembling lower pump tube assembly.

C: If pump continues to operate when not in normal use and lubricant level in drum drops, inspect lubricant supply line between pump and outlet for leaks or break in line

COMPLETE PARTS LIST FOR ATD-5289-1 FOR ATD-5286

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
10294	Tie Rod	12333	Gland Packing Nut	41202	Cover Casting
11329	Air Piston Bolt	12511	Pipe Plug	41245	Air Valve Casting
11330	Gland Packing Spacer	**14940ME**	**Gland Packing Spacer New Version**	45605	Valve Guide Plate
11337	Air Piston Nut	30003	Packing Nut Gasket	48212	Air Piston Washer
11340	Air Motor Piston Rod	30011	Valve Cap Gasket	48213	Gland Packing Washer
11349	Piston Rod Connector	31047	Check Seat Gasket	48235	Packing Washer
11470	Valve Cap	31048	'Connector Gasket	48237	Plunger Packing Washer
11471	Trip Rod Collar	31049	Bushing Gasket	48268	Gland Packing Washer
11472	Trip Rod Pin	31050	Gland Gasket	T-2489	Valve Cover Screw
11475	Trip Shoe	31054	Pump Tube Gasket	50410	Toggle Plate Screw
11476	Trip Rod Packing Nut	33014	Air Cylinder Gasket	51009	Tie Rod Nut
11660	Air Inlet Nipple	33039	Packing Nut Gasket	55137	Trip Rod Packing Spring
11702	Check Washer	34090	Air Piston Packing	55138	Valve Seat Spring
11721	Priming Check	2-206	Plunger Packing	56038	Spring
11722	Check Stop	34110	PLUNGER PACKING	57027	Ball Stop
11723	Plunger Rod	34158	Cover Gasket	61041	Air Cylinder
11724	Priming Plunger	34180	Gland Packing	61273	Bushing Extension
11725	Priming Check Seat	34206	O-RING	61275	Priming Tube
11726	Check Seat	34368	O-Ring	61321	Pump Tube
11904	Packing Nut	**34572**	**O-RING (NEW UNITS)**	61502	Air Passage Tube
11905	Packing Cap	35073	Priming Check Packing	66010	Equalizer Ball
11906	Valve Seat Bolt	**35077**	**Gland Packing (Previous Version)**	66213	LOCKWASHER
11947	Trip Sleeve	35083	Trip Rod Packing	81721	Valve Slide and Seat Assembly
12209	Coupling Stud	38162	Valve Seat Gasket	90554	Plunger and Bushing Assembly
12210	Coupling Adapter	**38165**	**U CUP PACKING (New Version)**	90560	Toggle Plate Assembly
12211	Coupling Nut	40537	Outlet Body	90691	Trip Rod Assembly

ADDITIONAL PARTS FOR ATD-5286

ATD-5218	Grease Control Valve	90656ME	Metal Cover for the Can to accept the Air Operated Grease Pumps: Outside Diamter 9-5/8"; Inside orifice to accept Air Operated Grease Pump 1-1/4"; Height 2.0"
815ME	RAPID DISCONNECT COUPLER		
66042ME	Cotter Pin	91092ME	CLIP OR CLAMPLING ASSEMBLY FOR THE CAN
11660ME	AIR NIPPLE	90699M (90580ME)	Metal Follower Plate Assembly for the Air Operated Grease Pump with inside diameter of 1.0"; outside diameter fits a 9-0" diameter metal circular can; Lip on the follower plate of 5/8" at the outer edge. Metal Reinforcing collar in the center of the downtube 1.0" high to provide stable fitting of the follower plate..
12519ME	Fastener Pin		
50037ME	MOUNTING SCREWS		
ATD-5361	HP 6FT X 1/4" GREASE HOSE	91117M	Metal Can 16" High x 9-5/8" Outside diameter (9.0" Inside Diameter)
		(91081ME)	with the clampling assembly with Handle

TIPS SHEET FOR A TD OIL & GREASE PUMPS

#1: Unpacking the pump; Be Careful where you lay the downtube. The slightest foreign material like a rock, grass, stone, metal or plastic will block the pump.

#2: Lubricate the Air Motor only with SAE 30 Common Motor Oil or NLGI #1 Grease.

DO NOT USE ANY TYPE OF SYNTHETIC OIL IN THE AIR MOTOR CASING. THIS INCLUDES MARVEL MYSTERY OIL OR ANY SYNTHETIC OIL. NO!!!!!!

#3: Use an Air Regulator with Gauge: Normal Operating Pressure on the pump is between 80-100 psi. This will deliver 4500 PSI TO 5000 PSI of Grease Pressure. OR 240-300 psi of Oil Pressure.

#4: Warranty is NULL AND VOID if used without an Air Regulator and Guage.

#5: Water will Damage and Corrode the inside of the pump; Use a Moisture Evacuation System on your Air line to keep water out of the pump.

#6: Lubricate the Air Motor of the Pump, Once per Week by injecting 2-5 FL OZ's of SAE 30 Common Motor Oil into the Air Motor Air Inlet.

#7: The pump has been tested and spec'd at the factory and was operated with NLGI #2 Grease under a Static Test and a Dynamic Test (Pressure Test) for Grease Pumps and SAE Motor Oil for Oil Pumps.

PUMP DIAGNOSTIC FOR ATD GREASE PUMPS

Note: All Grease Pumps are tested in NLGI#2 Chassis Grease at the factory. They are statically tested so they have to pump a certain amount of grease for a stated period of time. They are also dynamically tested so they are required to hold grease pressure for an extended period of time and at a stated rate of air pressure usually 100 psi of Air Pressure yields a grease pressure rating of 5000 PSI. Therefore problems of a new pump not working out of the box should be rare to none. However, problems can occur when unpacking and using your new grease pump for the first time. Please always read and follow directions in the Instruction Manual. Below are some minor trouble shooting tips to get you on your way, should you incur a problem. There is a more extensive trouble shooting manual in your instruction booklet and we request that you consult that for more information.

1: PUMP DOES NOT WORK OUT OF THE BOX:
Check List:
1: Is your Air Line live – Operating?
2: Is there Air connected to the Pump.
3: Check the Air Nipple 11660ME: Is it drilled all the way through? If you hold the air nipple up can you see light through the other end? (not a common problem)
4: Is the Air Nipple threaded in the correct Hole which is the Air inlet on the Air Motor NPT 1/8";
5: The other threaded holes are the Muffler 3/8" NPT and the Grease Outlet ¼" NPT. See Drawing in the Instruction Manual.

2: So you have Air on the Pump and it does not work?
What is the Pump Doing? Hissing air out of the Air Motor?:
1: This is not common but it does occur.
2: If it is hissing out of the Muffler, the air valve or slide valve is stuck in the neutral postion.
3: Increase the Air Pressure to 100 PSI. Sometimes increasing the air pressure will throw the valve up or down and start the pump cycling.
4: If the pump has not been inserted in the grease, hold it upside down and tap it slightly – lightly on the cement floor. Please read the word **lightly**.
5: If the pump has been inserted in grease, use a rubber mallet and tap the pump slightly on the air motor head. Do not beat the muffler. Use only a rubber mallet not a hammer. The air motor head is a casting and it will crack.

3: Is the Air Motor Hissing Air out of any of the seals on the Air Motor:
1: This is not a common Problem.
2: It can be fixed by tightening the bolts on the Air Motor for the Seals in Question. This would be very rare and should not need to be done.

4: Pump is new out of the box; Air Motor Operates but no grease is coming out:
1: Did you remove the plastic tube off of the bottom of the pump?
2: Did you accidentally lay the pump down in any foreign material such as metal pieces, rocks, dirt, paper, plastic, saw dust or shavings?
3: The slightest piece of foreign material will block the downtube of the pump. Consult the manual that accompanied the pump for an appropriate fix.

5: Pump is new out of the box; Air Motor Operates but no grease is coming out:
1: Disconnect the lube hose from the pump.
2: Seat the Follower plate; Sometimes the follower plate catches an air pocket underneath it. Pull out the pump and firmly push down on the follower plate to push out any air pockets.
3: Reseat the pump by pulling the pump half way out of the container, turning it and putting it back in the container?
4: Turn Air on to the Pump and let the pump operate. These pumps are self priming will pick up grease and create a vacuum under the follower plate.
5: Pump about ½ cup of grease out of the pump. You should hear a popping noise as the air pockets are released from the grease.

6: Air Motor is still operating but no grease is coming out.
1: Does the container have plastic bag that holds the grease.
2: If so, try raising the pump ever so slightly and make sure the pump does not push up against the bottom of the container.
3: Sometimes that downtube when sitting on top of the plastic bag will try to suck up the plastic and the plastic will block the downtube.

7: Grease comes out of the pump outlet but not the control valve.
1: The control valve is plugged. Whenever you change hoses or have a new hose you should always pump about ½ cup of grease through the hose to remove any contaminants inside the hose.
2: If control valve is plugged with a contaminant, you need to remove the debris from inside the control valve.

8: Pump was operating fine; we changed the container of grease and now it will not pump grease:
1: Did you change the container? How did you set the pump down when you changed the vat? A small amount of foreign material can block the inlet of the pump
2: Reset the follower plate in the new vat of grease to expel air pockets.
3: Try resetting the pump.
4: Disconnect the lube and operate the pump. If it pumps grease, the control valve is clogged.

9: Pump was Operating fine; We did not change a vat of grease; The pump will not start;
1: Check the Air Motor. Do you have water in your air line.
2: Try injecting 8-10 fl oz's of common SAE Motor oil into the Pump Inlet and let it sit.
3: Do not use any type of Synthetic Oil or Air Tool Oil as this will ruin (swell) the Buna N Packings and render the pump useless.

REPAIR KIT LISTINGS FOR THE ATD-5286 AND ATD-5289-1

COMPLEX REPAIR KIT FOR AIR MOTOR AND DOWNTUBE 83054-ME
FOR MODELS ATD-5217-1, ATD-5289-1, ATD-5219-1

QTY	MODEL	DESCRIPTION
1	11340	AIR MOTOR PISTON ROD
1	11472	TRIP PIN
1	11475	TRIP SHOE
1	11702	CHECK WASHER
1	11721	PRIMING CHECK
1	11723	PLUNGER ROD
1	11724	PRIMING PLUNGER
1	11725	PRIMING CHECK SEAT
1	11726	CHECK SEAT
1	30003	PACKING NUT GASKET
1	30011	VALVE CAP GASKET
1	31047	CHECK SEAT GASKET
1	31048	CONNECTOR GASKET
2	31049	BUSHING GASKET
1	31050	GLAND GASKET
1	31054	PUMP TUBE GASKET
2	33014	AIR CYLINDER GASKET
1	33039	PACKING NUT GASKET
1	34090	AIR PISTON PACKING
1	34206	O RING
1	34158	COVER GASKET
1	34180	GLAND PACKING
2	34368	O RING
1	35073	PRIMING CHECK PACKING
3	35077	GLAND PACKING OLD VER
1	35083	TRIP ROD PACKING
1	38162	VALVE SEAT GASKET
1	55137	TRIP ROD PACKING SPRING
2	56038	SPRING
1	61041	AIR CYLINDER
4	66010	EQUALIZER BALL
4	66213	LOCK WASHER

NEW VERSION GLAND PACKINGS

QTY	MODEL	DESCRIPTION
1	34572	O RING GLAND PACKINGS
1	38165	U CUP GLAND PACKINGS

SIMPLE REPAIR KIT FOR AIR MOTOR AND DOWNTUBE ATD-5320
FOR MODELS ATD-5217-1, ATD-5289-1, ATD-5219-1

QTY	MODEL	DESCRIPTION
1	11340	AIR MOTOR PISTON ROD
1	11472	TRIP PIN
1	11702	CHECK WASHER
1	11721	PRIMING CHECK
1	11723	PLUNGER ROD
1	11724	PRIMING PLUNGER
1	11725	PRIMING CHECK SEAT
1	11726	CHECK SEAT
1	30003	PACKING NUT GASKET
1	30011	VALVE CAP GASKET
1	31047	CHECK SEAT GASKET
1	31048	CONNECTOR GASKET
1	31050	GLAND GASKET
1	31054	PUMP TUBE GASKET
2	33014	AIR CYLINDER GASKET
1	33039	PACKING NUT GASKET
1	34206	O RING
1	34158	COVER GASKET
1	34180	GLAND PACKING
2	34368	O RING
1	35073	PRIMING CHECK PACKING
3	35077	GLAND PACKINGS OLD VER
1	35083	TRIP ROD PACKING
1	38162	VALVE SEAT GASKET
1	55137	TRIP ROD PACKING SPRING
2	56038	SPRING
4	66010	EQUALIZER BALL
4	66213	LOCK WASHER

NEW VERSION GLAND PACKINGS

QTY	MODEL	DESCRIPTION
1	34572	O RING GLAND PACKINGS
1	38165	U CUP GLAND PACKINGS

DOWNTUBE REPAIR KIT ATD-5323
FOR MODELS ATD-5217-1, ATD-5289-1, ATD-5219-1

QTY	MODEL	DESCRIPTION
1	11702	CHECK WASHER
1	11721	PRIMING CHECK
1	11723	PLUNGER ROD
1	11724	PRIMING PLUNGER
1	11725	PRIMING CHECK SEAT
1	11726	CHECK SEAT
1	31047	CHECK SEAT GASKET
2	31049	BUSHING GASKET
1	35073	PRIMING CHECK PACKING
2	66010	EQUALIZER BALL

AIR MOTOR REPAIR KIT ATD-5322
FOR MODELS ATD-5217-1, ATD-5289-1, ATD-5219-1

QTY	MODEL	DESCRIPTION
1	11340	AIR MOTOR PISTON ROD
1	11472	TRIP PIN
1	11475	TRIP SHOE
1	30003	PACKING NUT GASKET
1	30011	VALVE CAP GASKET
1	31048	CONNECTOR GASKET
1	31050	GLAND GASKET
1	31054	PUMP TUBE GASKET
2	33014	AIR CYLINDER GASKET
1	33039	PACKING NUT GASKET
1	34090	AIR PISTON PACKING
1	34206	O RING
1	34158	COVER GASKET
1	34180	GLAND PACKING
2	34368	O RING
3	35077	GLAND PACKING OLD VER
1	35083	TRIP ROD PACKING
1	38162	VALVE SEAT GASKET
1	55137	TRIP ROD PACKING SPRING
2	56038	SPRING
1	61041	AIR CYLINDER
2	66010	EQUALIZER BALL
4	66213	LOCK WASHER

NEW VERSION GLAND PACKINGS

QTY	MODEL	DESCRIPTION
1	34572	O-RING GLAND PACKING
1	38165	U CUP GLAND PACKINGS

Lower Pump Tube Disassembly and Cleaning Instructions

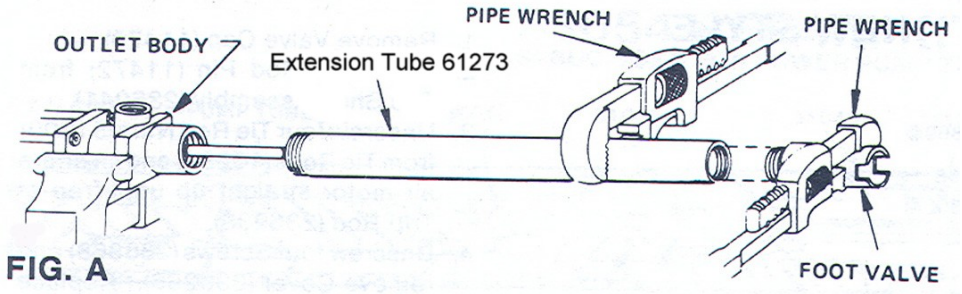


FIG. A

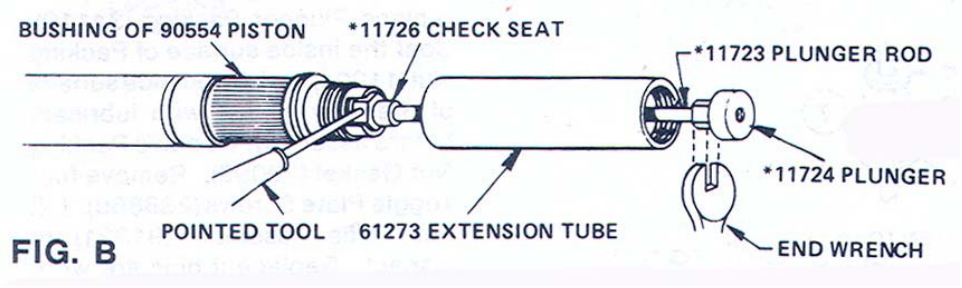


FIG. B

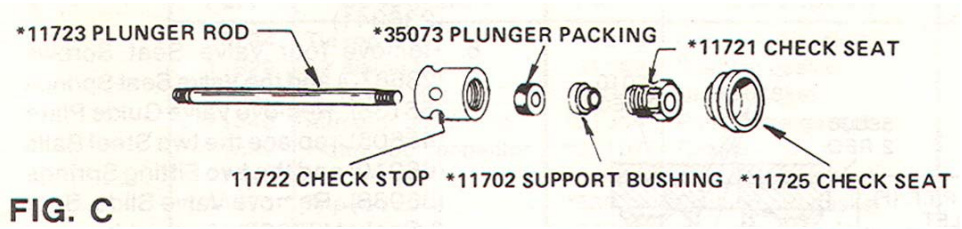


FIG. C

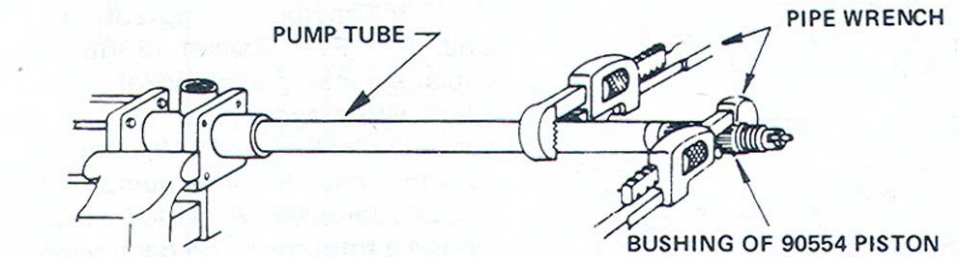


FIG. D

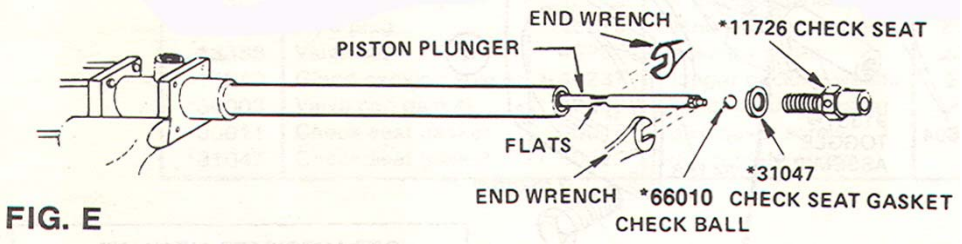


FIG. E

Cleaning: Use Mineral Spirits and a Brush to Throughly Clean all Debris out of the Foot Valve 61275 and Extension Tube 61273; Thoroughly inspect all parts for wear or damage; Clean all Parts

Tenative Check List

1: Is the Plunger Rod 11723 bent?

2: Is the Packing 35073 excessively worn?

3: Is the Check Seat 11725 worn or has abrasions or cuts?

4: Is the plunger 11724 bent or broken?

5: 95% of the problems with the pump not pumping material; not holding pressure or not operating have to do with foreign Material such as Rocks, Stones, Metal, Nuts, Bolts, Plastic, Paper, Gum and other materials being picked up by the downtube and getting caught in the extension tube or the down tube. When Changing Lube Containers, Watch where you lay the pump and what the dowtube touches. Anything will stick to the grease on the end of the downtube.

95% of the problems that ocurr with the pump not pumping material; not holding pressure or not operating at all have to do with foreign Material such as Rocks, Stones, Metal, Nuts, Bolts, Plastic, Paper and other materials being picked up by the downtube and lodging themselves in the extension tube or the down tube.

To avoid this, use a strainer for the downtube, if in a difficult environment. In rare cases with paper and bubble gum, the material can work its way up into the bushing and plunger assembly (90554) and therefore this part needs to be disassembled and cleaned as well. If sand or dirt is a constant problem, you will find that the bushing and plunger assembly will wear excessively. These two pieces are lapped and fitted together as one. Constant Sand or Dirt passing through the part 90554 Bushing and Plunger can ruin the tight fit.

Procedure

FIG A.(See Fig. A) Lay pump horizontal in vise and grip outlet body tightly in vise jaws. Hold Extension Tube (61273) and unscrew Priming Tube (61275).

Fig B. (See Fig. B) Pull Plunger (11724) straight out until Plunger Rod (11723) is extended as far as possible out of the Extension Tube (61273). Hold bushing of Piston (90554) and unscrew Extension Tube (61273).

Center Extension Tube (61273) between end of piston bushing and Plunger(11724). Insert any pointed tool in through hole at Base of Check Seat 11726.

Note: Plunger may unscrew from Plunger Rod (11723) or plunger rod may unscrew from Check Seat (11726). Extension Tube (61273) can be removed from free end of Plunger Rod (11723).

Fig C: (See Fig. C) When you remove the Extension Tube (61273) this exposes the Check Seat (11725), Priming Check (11721), Check Stop (11722), Support Bushing (11702) and Plunger Packing (35073).

Note: Unscrew Priming Check Seat (11721) from Check Stop (11722) to remove Support Bushing (11702) and Plunger Packing (35073); To do this you will have to put Check Seat (11721) in a vise and insert a point tool such as a punch through the holes in Check Stop (11722) to unthread Check Stop (11722) from Check Seat (11721).

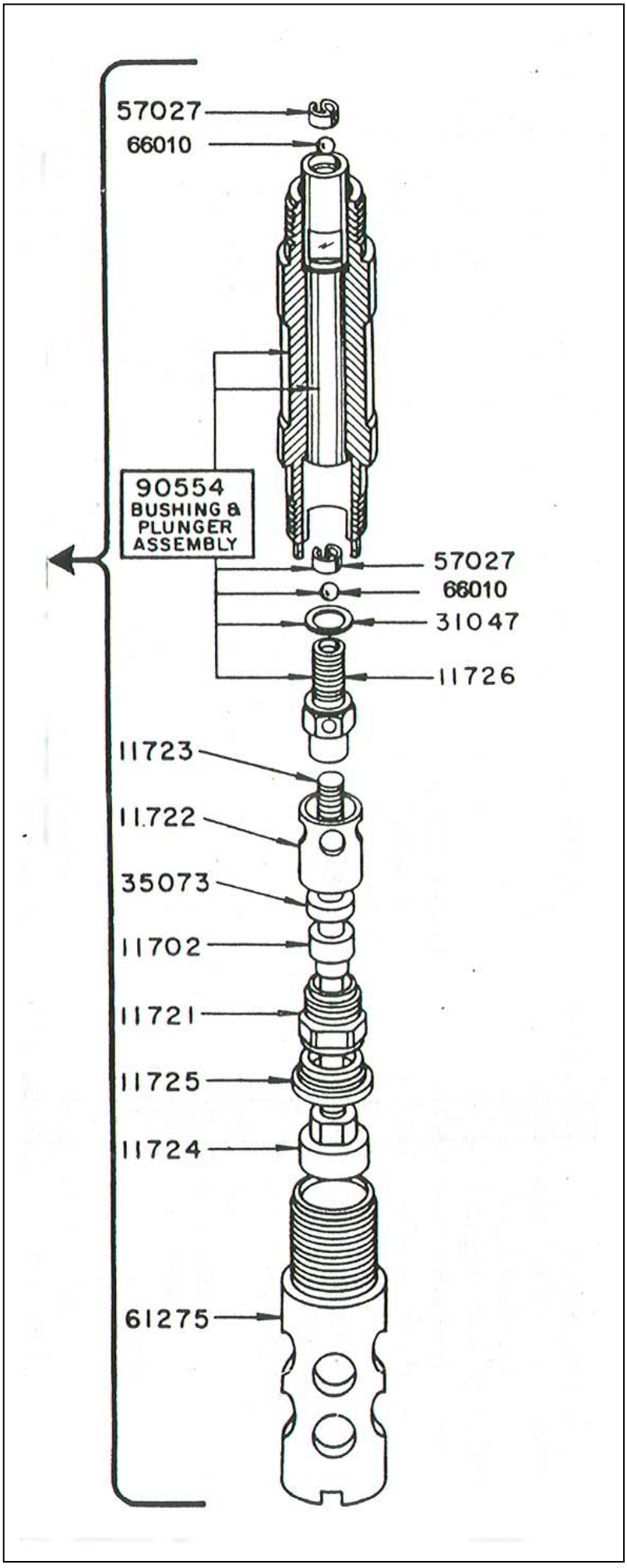
Plunger Packing (35073) incurs heavy wear and it is advisable to replace this part if worn.

Perfom this only if you need to remove Bushing and Plunger Assembly; Otherwise Reassembly Pump Tube

Fig D. (See Fig. D) Removing Bushing and Plunger Assembly (90554ME); Hold pump tube and unscrew bushing of Piston (90554). Bushing should slide off once unthreaded from the Pump Tube.

Fig E. Grip two flats at top of piston plunger with an end wrench and remove Check Seat (11726).

Note #1: Check Ball (66010) may remain in plunger after Check Seat (11726) is removed. To remove check ball tilt pump in vise and gently tap top of plunger at location of two flats.



Note #2: You only remove that check ball (66010) if you suspect foreign material is behind the check ball. You can perform a visual inspection after the check ball is removed and if there is foreign debris behind the check ball, then continue and remove the bushing and plunger assembly as well. (See below).

Occasionally debris such as **paper, bubble gum, plastic, cellophane, plastic bags etc**, have gotten wedged up inside the plunger portion of the bushing and plunger assembly. Flats are provided on the plunger portion to remove the complete plunger and inspect the inside.
This removal will also facilitate the easy extraction of the ball cage 57027 and ball 66010 at either end of the plunger. Be sure to note the order of installation of the plunger assembly on the pump rod (ie which is the top and which is the bottom). Don't confuse the two. If you reverse the plunger, the pump will not work correctly. **Again, don't confuse the top and bottom of the plunger**. Once you remove the two (2) ball cages 57027 and the 2 balls 66010, you should be able to look directly through a clean orifice inside the plunger assembly. If not, then something is blocking the inside of the plunger assembly and it must be removed. Do not scratch the machined surfaces of the plunger or the inside of the bushing. Normally the item in the plunger is of a nature similar to the materials mentioned above in bold. This is not a common occurrence to have material stuck or wedged in the plunger assembly but it has happened.

When reassembling the plunger assembly, NOTE #1: The top and bottom of the plunger assembly. You were careful in the beginning and noted it when you took it apart. NOTE #2: notice the order of the ball and cage. Starting from the bottom, it is ball ; cage; then at the top of the plunger it is cage; ball; If you reverse this order, the pump will not operate at all.

Now use the flats on the plunger and thread the top portion of the plunger onto the coupling (different number for different pumps). Tighten the plunger but don't strip the threads.

Next prepare to insert the plunger into the bushing by pushing the bushing into the plunger rod. Please note the bushing and plunger are a lapped pair and they are fitted at the factory. You cannot take a plunger from one pair and change it with another bushing. The fit is a tight fit. Make sure the Bushing is straight before you attempt to slide it on. The bushing should just slide on. A Bit of grease inside the bushing or on the plunger will help the insertion. Thread the bushing 90554ME onto the pump tube. Tighten securely.

The gasket ring 31047 and 11726 is inserted onto the bottom of the plunger. Use the milled flats to tighten 11726. Assemble the balance of the items in reverse order to disassembly. Note the drawing to the left. When reinstalling the bushing extension 61273(not shown), install the unit over the other interior parts and let it hang loose. Thread the rod 11723 onto the bottom of 11726. To tighten the rod, you will have to insert a small punch into the hole of 11726. See Fig B on page 1. We are now tightening the rod 11723 by putting a wrench on the plunger 11724. Assemble balance of items as shown.

Tighten all outside parts securely with wrench.

Additional Instructions: with some tips to help you

Cleaning out the Downtube with Foreign Material and Debris
Pumps: ATD-5289-1; ATD-5217-1; ATD-5219-1

You need to have the plunger all the way extended to the end of the foot valve before you start. It makes life easier. Put a small amount of air on the unit to extend it out. When it is extended out to the bottom of the foot valve, disconnect the air.

Start with Figure "A" in the attached photo description sheet. Do not unthread the pump tube. You don't need to even though it indicates the same in the sketch.

Take off the Foot Valve 61275.

#2: Unscrew the extension tube 61273; Do not Yank it out. You will need a pipe wrench to unthread the extension tube; actually two; one on the bushing and plunger assembly piece (90554ME) to hold it steady and the other on the extension tube to unthread the extension tube off of the end of the Bushing and Plunger Assembly.

Stick the pointed tool (usually a punch of the correct diameter) in the check seat hole of 11726 and use an adjustable wrench on the plunger. .

Once the plunger is off of the plunger rod (it is unthreaded) you can slide the complete unit off. Sometimes the rod 11723 unthreads from the the check seat 11726, that is fine as well. If there are dirt, rocks, metal or plastic in that area, clean it out. While you have it off, replace the plunger packing 35073. We offer Buna N (black), Viton(Brown) and Teflon(White). It is a wear part.

Do not unthread the bushing and plunger assembly unless you suspect there is obstruction problems. If paper, bubble gum, plastic gets into the bushing and plunger assembly you will have to clean out the inside of the plunger. The debris usually gets caught in the ball cages. Note the order of the ball cage in the plunger assembly on the drawing. If you put it in reverse order the pump will not pump grease. Starting from the bottom of the pump tube, it is ball, cage, ball cage. Look at the drawing on page 2 and you will understand.

Assemble the unit back in the reverse order.

Normally, we pump mineral spirits through a completed repair job to clean it out and test the pump. The mineral spirits should be pumping out on the up and down stroke. Mineral Spirits is easier than grease if you have to dissemble the pump again because a part or parts was installed incorrectly.

ATD5286

Description: ***Bulk Fill Pail Pump with Steel Container Grease Pump Assembly w/ Follower Plate (self enclosed unit)***

1. Includes 50:1 Double Acting High Pressure Pump(ATD5289-1) provides uniform pressure and delivery on the up and down stroke

2 6'(1.85mts) High Pressure Grease Delivery Hose(ATD5361)

3. High Pressure Grease Delivery Control Valve(ATD5218)

4. Rapid Disconnect Coupler(815ME) & Air Nipple (11660ME) & Air Motor Muffler(ATD5317)

5. Steel Container Size: 16"(40.6CM) High by 9 1/2"(24.1CM) Diameter Painted in Red

6. Pump Specifications: Pump Tube Length 15-3/4"(40.01cm) & Diameter 1.0"(2.54CM); Air Motor Height: 11.0"(27.9CM); Overall Height: 28-1/2"(72.4CM)

7. Follower Plate made of steel that fits the inside of the container.

8. 3 Rigid Steel Clamps that clamp the cover firmly in place on the container

9. Steel Drum Cover with screws that firmly fasten the cover to the base of the pump.

10: Easy Carry Handle welded to the side of the container makes for easy transportability

11. Output: 80cu in/minute (45 oz) of grease at 100PSI of NLGI #2 at 70 Degrees ambient Temperature (.35cu in/cycle)

12. Air Inlet 1/8"NPT(f); Lube Outlet: 1/4"NPT(f);

13. These High Pressure Grease Pumps incorporate a 20 cu in Air Motor Design

14: Application: Construction Sites, Maintenance, where bulk filling is an option and portability is priority

15: New Downtube Packings made of Viton / Teflon for longer life

16. Maximum Air Pressure: 150PSI; Recomended: 80-100PSI; Maximum Grease Pressure: 7500PSI; Recomended: 5000 PSI; Note: Pump life reduces considerably if operating above the recommended air pressure.

17. Two year Warranty against Defective Materials, Workmanship and Labor

18. All Pumps are Pressure Tested Statically and Dynamically in NLGI#2 Grease at the Factory for Output, Pressure, Performance and Quality.

19. Additional Accessories Available:ATD5356 Grease Strainer for Pump Tube; ATD5253 "Z" Swivel for the Control Valve; 84191ME Band Dolly; 66645ME Locking Swivel 1/4"(m) x 1/4"(f) ;

20. Optional Hoses Available(See Below):

ATD5362 10ft(3.04mtrs) X ¼" High Pressure Grease Hose

ATD5363 20ft (6.09 mtrs)X ¼" High Pressure Grease Hose

ATD5364 30ft ((9.14mtrs)X ¼" High Pressure Grease Hose

ATD5365 40ft (12.2mtrs)X ¼" High Pressure Grease Hose

ATD5366 50ft (15.2mtrs) X ¼" High Pressure Grease Hose

21. Complete Repair Kits Parts Available:

ATD5320: Simple Repair Kit for Grease Pumps ATD5286

ATD5322: Air Motor Repair Kit for ATD5286

ATD5323: Down Tube Repair Kit for ATD5286

22. Other Information: Weight and Dimensions:BOX Weight: 30LBS (13.6KG); BOX DIMS: Length: 30.5"(77.5cm) X Width:14"(35.6cm) X Height: 13"(33.1cm)