

IOWA MOLD TOOLING CO., INC. 500 HWY 18 WEST, GARNER, IOWA 50438 515 - 923 - 3711

MANUAL PART NO. 99901250

Table of Contents

| PARAGRAPH | TITLE | PAGE |
|--|--|------------------------------|
| 1-1. 1-2. | SECTION 1. SPECIFICATIONS GENERAL SPECIFICATIONS | 1 1 |
| 2-1. 2-2. 2-3. 2-4. 2-5. | SECTION 2. INSTALLATION GENERAL AIR COMPRESSOR UNDERDASH SWITCH UNDERHOOD SWITCH ELECTRIC SPEED CONTROL | 1 1 1 2 2 |
| 3-1. 3-2. | SECTION 3. OPERATION GENERAL OPERATION | 3 3 |
| 4-1. | SECTION 4. MAINTENANCE GENERAL | 4 |
| 5-1. 5-2. 5-3. 5-4. 5-5. 5-6. | SECTION 5. REPAIR GENERAL PISTON RING REPLACEMENT OIL PUMP REPLACEMENT CRANKSHAFT AND BEARING REPLACEMENT CLUTCH REPLACEMENT TROUBLESHOOTING REPAIR KITS | 8 8 9 9 10 11 |

Section 1. SPECIFICATIONS

1-1. GENERAL

The IMT HD-1250 air compressor is an underhood, engine mounted, single stage, water cooled, 4-cylinder, pressure lubricated unit, with a delivery rate of 33 CFM at 1400 RPM.

The compressor is belt driven from the engine crankshaft, through a magnetic clutch. It is engaged and disengaged by use of an air pressure sensing, electric switch. The pressure switch is preset on factory installed units at approximately 120 PSI to engage, and 150 PSI to disengage.

1-2. SPECIFICATIONS

| Bore | 2-5/8" |
|------------------------|----------------|
| Stroke | 2-1/2" |
| Cylinder Configuration | V4 |
| Displacement | 47 CFM* |
| Delîvery | 33 CFM* |
| Lubrication | Oil Pump |
| Cooling | Water |
| Height | 13-1/2" |
| Width | 15" |
| Length | 13-7/8" |
| Material | Aluminum Alloy |

Weight 87 lbs.

* Based on 1400RPM

Section 2. INSTALLATION

2-1. GENERAL

This section pertains to the installation of the IMT Model HD-1250 compressor and related components. Because installations will vary somewhat, dependant on the chassis, it will describe the installation in general terms only.

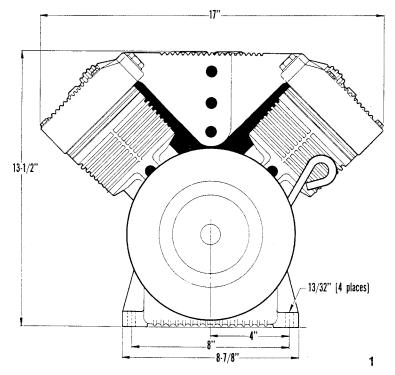
2-2. AIR COMPRESSOR

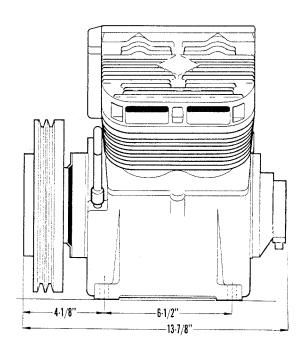
Each installation will differ dependant on the chassis make, model, year of manufacture, and optional equipment. Refer to the mounting kit for specific information relating to your application.

2-3. UNDERDASH SWITCH

The installation kit will include the correct bracket for the installation of the compressor power switch and the engine speed control. The bracket may house switches for other functions, depending on the total system.

- 1. Drill mounting holes in the underside of the dash. It may be possible to utilize existing holes.
- 2. Install the switch, or switches, needed for your installation.
- 3. Route the needed wiring harness to the rear of the bracket, and connect to the proper switches.
- 4. Securely fasten the assembled switch bracket to the dash with bolts, nuts, and washers provided.





NOTE

If the dashboard is plastic, the ground wire must be connected to chassis ground. The plastic dashboard is not conductive and will not provide a ground.

- 5. Connect the positive side of the compressor switch to the power switch. Connect the other side of the switch to the underhood safety switch and the indicator lamp.
- 6. Install the throttle cable mounting bracket to the underside of the dash, near the switch bracket. Install the cable and connect to the carburetor linkage. Make certain that there is enough free play to allow the engine to return to normal idle.

2-4.UNDERHOOD SWITCH

The purpose of the underhood switch is to prevent the compressor from running unless the vehicle's hood is raised. This will ensure a sufficient air flow to the compressor during operation.

1. Select a location for the mercury switch that will provide protection for the glass

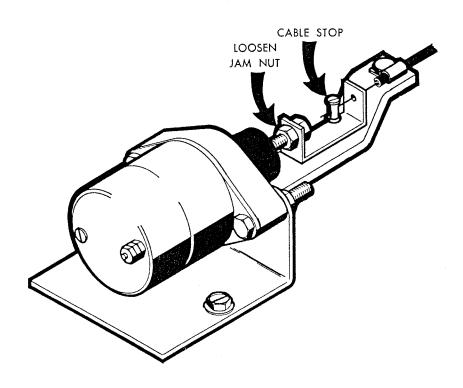
- envelope and keep the switch contacts open when the hood is closed. The mercury should not be in contact with the contacts to accomplish this.
- 2. Drill a 1/16 inch hole in the desired location and install the switch bracket. Install the switch in the bracket. Connect one lead to the underdash switch, the other to the compressor pressure switch. When wired properly, the switch in the cab must be on and the hood must be raised in order for the compressor to operate.

CAUTION

Warranty on the compressor will be void if the underhood safety switch is not used. Failure to use this switch will allow the compressor to operate with the hood closed and will cause overheating.

2-5.ELECTRIC SPEED CONTROL

An optional electric engine speed control may be used in lieu of the manual speed control. On units equipped with an electric speed control, the engine speed will automatically increase when the clutch is engaged, and decrease when the clutch is disengaged.



Section 3. OPERATION

3-1.GENERAL

Each compressor is bench tested under load at the factory to ensure proper break-in and operation. While it is not necessary to follow any break-in procedure, the following checks should be made before putting the unit into service, as well as, periodically during use.

1. Before start-up:

- A. Check the oil level in the compressor crankcase with the dipstick on the unit. If oil is needed, use only IMT's synthetic compressor oil.
- B. Check the air intake filter pads on each head to make certain that they are clean and unobstructed. Dirty filters are a possible cause of reduced air output.

2. With the compressor engaged:

On units having the automatic speed control option, check the engine RPM for proper setting (1400 RPM max.) under compressor load. If adjustment is required, loosen the jam nut as shown, and make the necessary adjustment. Retighten the jam nut.

3-2.OPERATION

To use the compressor, raise the hood to provide adequate ventilation, start the vehicle engine, and engage the compressor by operating the compressor switch in the cab. On systems without automatic engine speed control, adjust the engine RPM with the manual throttle cable to maintain the proper RPM setting while the compressor is pumping.

The system will now function automatically. It will engage the compressor clutch when the air pressure is below 120 psi, and disengage when the air pressure reaches 150 psi.

NOTE

On units with manual engine speed control, the engine RPM will increase when the compressor clutch disengages.

CAUTION

This unit is equipped with an underhood safety switch which requires that the hood be raised while the compressor is in operation. This is installed to ensure that the unit has adequate ventilation, and that the unit is not inadvertantly left on when not in use and the vehicle is in motion. Bypassing this safety device, or operating this unit in excess of 1400 RPM, will void the warranty, and will shorten the normal service life of the compressor.

Section 4. Maintenance

4-1. GENERAL

The following table is a list of routine maintenance items, including service intervals. It also includes a parts list and assembly drawing of the compressor.

ROUTINE MAINTENANCE CHECK LIST

| | Service Intervals | | |
|--|-------------------|-------|--------|
| Maintenance Operation | Weekly | 500/3 | 1000/6 |
| Air intake - inspect and clean | | | |
| Crankcase oil level - check, add if needed | | | |
| Crankcase oil quality - check, change if necessary | SEE NO | TE 1. | |
| Compressor valves - inspect and clean | | | |
| Cooling vanes (fins) - clean | | | |
| Safety valves - check operation | | | |
| Safety valves - clean | | | |
| Belt tension - check | | | |
| Electric clutch - check operation | | | |
| Air receiver - drain condensation | | | |
| Receiver safety valves - check operation | | | |
| Tighten and check all valves | | | |
| Check all electrical connections | | | |
| Check fittings and air lines for leaks | | | |
| Inspect check valves for proper operation | | | |
| Inspect check valves for carbon buildup | | | |

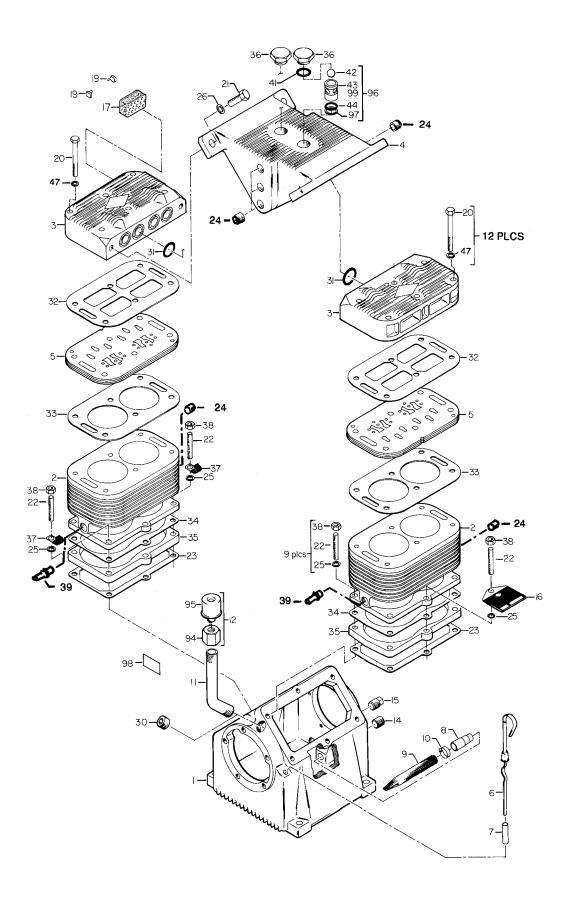
Service intervals are listed as hours/months, whichever occurs first.

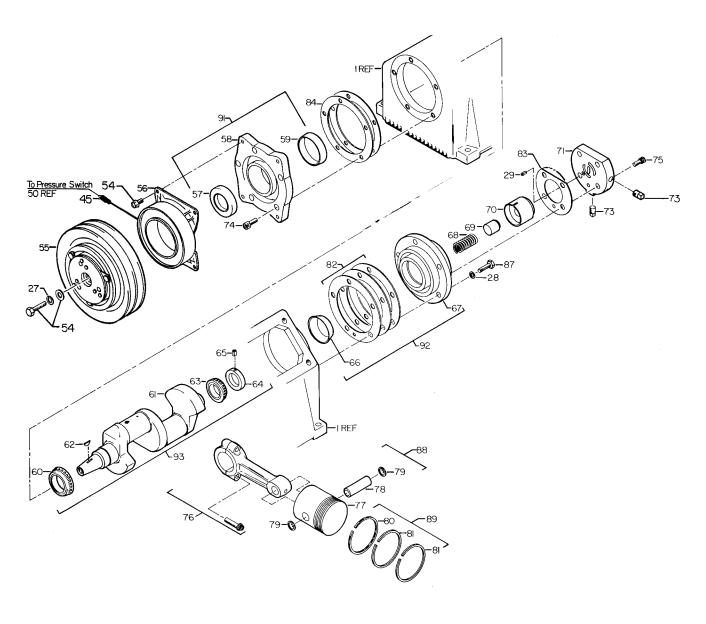
Use only IMT's synthetic compressor oil. The use of any other oil causes excessive carbon buildup, and will void the warranty on the compressor.

NOTE 1. Under normal operating conditions, oil changes are required every 12 months. It is advisable to check the oil quality at least every 6 months, especially when operating in a dirty environment. Change the oil more frequently as your particular operating conditions dictate.

HD1250 UNDERHOOD AIR COMPRESSOR PART NO. 51706306

| ITEM | PARTNO. | CRANKCASE (PART OF 90) CYLINDER BLOCK CYLINDER BLOCK CYLINDER HEAD PULSATION TANK VALVE PLATE DIPSTICK DIPSTICK TUBE OIL SCREEN TUBE (PART OF 90) OIL SCREEN (PART OF 90) OIL SCREEN CLAMP (PART OF 90) OIL FILL PIPE BREATHER CAP (INCL:94,95) PLUG 3/8NPT (PART OF 90) IDENTIFICATION PLATE AIR FILTER AIR FILTER CLIP CAP SCR 5/16X2-3/4 CAP SCR 7/16X1-1/4 STUD 5/16X2 GASKET PLUG-PIPE 3/8NPT SH WASHER 5/16 (PART OF 90) PIN DRIVE PLUG 1/2NPT O-RING GASKET SPACER CAP CABLE CLAMP NUT 5/16 BARBED NIPPLE 3/8NPT X 5/8 ADAPTER 3/8X1/4 MPT O-RING STEEL BALL (PART OF 96) INSERT (PART OF 96) INSERT (PART OF 96) TERMINAL WASHER 1/4 FLAT CLUTCH HARDWARE KIT (INCL:55) PULLEY (PART OF 54) | QTY | ITEM | PART NO. | DESCRIPTION | QTY |
|-----------|----------|---|----------|-----------|----------------------|--|-----------------------|
| 1. | 60025012 | CRANKCASE (PART OF 90) | 1 | 56 | 77044419 | COII | 1 |
| 2. | 60025247 | CYLINDER BLOCK | ż | 57 | 76039119 | SEAL (PART OF 91) | 1 |
| 3. | 60025248 | CYLINDER HEAD | 2 | 58. | 60025007 | FRT BRG HSG (PART OF 91) | 1 |
| 4. | 60025193 | PULSATION TANK | 1 | 59. | 70055011 | SEAL (PART OF 91) FRT BRG HSG (PART OF 91) FRT BRG CUP (PART OF 91) FRT BRG CONE PART OF 93) CRANKSHAFT (PART OF 93) | 4 |
| 5. | 70731729 | VALVE PLATE | ż | 60. | 70055012 | FRT BRG CONF PART OF 93) | 4 |
| 6. | 73073030 | DIPSTICK | 1 | 61. | 60108748 | CRANKSHAFT (PART OF 93) | ; |
| 7. | 70014613 | DIPSTICK TUBE | i | 62. | 72066267 | WOODBUFF KEY (PART OF 93) | 1 |
| 8. | 60101270 | OIL SCREEN TUBE (PART OF 90) | 1 | 63. | 70055009 | REAR BRG CONE (PART OF 93) | i |
| 9. | 70014610 | OIL SCREEN (PART OF 90) | 1 | 64. | 60101269 | OIL PUMP COLLAR (PART OF 93) | i |
| 10. | 72066008 | OIL SCREEN CLAMP (PART OF 90) | 1 | 65. | 72066307 | DRIVE PIN (PART OF 93) | i |
| 11. | 60101507 | OIL FILL PIPE ` ` | 1 | 66. | 70055010 | REAR BRG CUP (PART OF 92) | i |
| 12. | 51705310 | BREATHER CAP (INCL:94,95) | 1 | 67. | 60025005 | REAR BRG HSG (PART OF 92) | 1 |
| 14. | 72053403 | PLUG 3/8NPT (PART OF 90) | 1 | 68. | 70014583 | COIL SPRING ` | 1 |
| 15. | 72053413 | PLUG 3/8NPT (PART OF 90) | 1 | 69. | 60101505 | SLEEVE | 1 |
| 16. | 70039300 | IDENTIFICATION PLATE | 1 | 70. | 70051006 | OIL PUMP | 1 |
| 17. | 70393518 | AIR FILTER | 4 | 71. | 60025006 | PUMP COVER | 1 |
| 19. | 70014626 | AIR FILTER CLIP | 8 | 73. | 72053411 | PIPE PLUG 1/8NPT | 1 2 5 4 4 |
| 20. | 72060032 | CAP SCR 5/16X2-3/4 | 12 | 74. | 72060731 | CAP SCR 5/16X3/4 SH | 5 |
| 21. | 72060063 | CAP SCR 7/16X1-1/4 | 4 | 75. | 72060731 | CAP SCR 5/16X3/4 SH | 4 |
| 22. | 72601060 | STUD 5/16X2 | 12 | 76. | 51029283 | CONNECTING ROD | 4 |
| 23. | 76039111 | GASKET | 2 | 77. | 70029062 | PISTON (PART OF 88) | 4 |
| 24. | 72053403 | PLUG-PIPE 3/8NPT SH | 6 | 78. | 70014627 | WRIST PIN (PART OF 88) | 1 |
| 25. | 70024122 | WASHER 5/16 FLAT COPPER | 12 | 79. | 72066018 | RETAINING RING (PART OF 88) | 8 |
| 26. | 72063052 | WASHER 7/16 LOCK | 4 | 80. | 70014600 | OIL RING (PART OF 89) | 4 |
| 27. | 72063050 | WASHER 5/16 LOCK | 1 | 81. | 70014599 | COMPRESSION RING (PART OF 89 | 8 (|
| 28. | 72063050 | WASHER 5/16 (PART OF 90) | 5 | 82. | 76039092 | GASKET-REAR BRG .006 | 2AR |
| 29. | 72066307 | PIN DRIVE | 1 | | 76039094 | GASKET-REAR BRG .006 GASHET-REAR BRG .010 GASKET-REAR BRG .020 GASKET-REAR BRG .015 | 2AR |
| 30. | 72053404 | PLUG 1/2NP1 | 1 | | 76039144 | GASKET-REAR BRG .020 | 2AR |
| 31. | 7QU/2212 | O-RING | 8 | | 76039143 | GASKET-REAR BRG .015 | 2AR |
| 32. | 76392445 | CASKET | 2 | - | =0000000 | (PART OF 90) | _ |
| აა. ი | 70392440 | CACKET | 2 | 83. | 76039093 | PUMP COVER GASKET | 1 |
| 34. 25 | 70000000 | CDACED | 2 | 84. | 76039112 | FRT BRG HSG GASKET(PART OF S | 30)_2 |
| აე. ეგ | 60106022 | CAR | 2 | 87. | 72060025 | CAP SCR 5/16X1(PART OF 90) | 5 |
| 30. 37 | 72066527 | CAPI E CLAMD | 2 | 88. | 51029285 | PISTON SET (INCL:77-79) | 4 |
| ა/. 20 | 72000001 | NUT 5/46 | 2 | 89. | 51014947 | RING SET (INCL:80,81) |] |
| 30. 20 | 72522716 | DADDED NIDDI E 2/0NDT V E/0 | 12 | 90. | 51/05/44 | CHANKSHAFI/CASE ASM |] |
| 40 | 72052710 | ADADTED 2/0V4/4 MOT | 2 | 91. | 51705709 | FRI BRG HSG (PART OF 90) | 1 |
| 40. | 76202107 | AUAPTER 3/0AT/4 MPT | 1 | 92. | 51705710 | CRANCELATT ACM (DADT OF OO) | _1 |
| 41. | 70050107 | CTEEL DALL (DADT OF OC) | 2 | 93. | 01700001 | CHANKSHAFI ASM (PART OF 90) | 1, |
| 42. | 7000420 | INSEPT (DART OF 96) | 2 | 94. | 70049090 | PRECAP (PART OF 12) | 1 |
| 40. 44 | 70023377 | O-RING (PART OF 96) | 2 | JJ. QG | 70040000 51704259 | INCEDT ACM | 2 |
| 45 | 77040050 | TERMINAL | 1 | 30. 97 | 70020469 | SHIM (DADT OF OR) | 2 |
| 47 | 72063001 | WASHER 1/4 FLAT | 12 | QΩ. | 70023400 | DECAL OI EII | 4 |
| 54 | 70056300 | CLUTCH HARDWARE KIT (INCL-55) | 1 1 | aa. | 76303025 | O-DING (DART OF 96) | 1 |
| 55 | . 000000 | PULLEY (PART OF 54) | 1RFF | aa. | 10000000 | O-HING (PART OF 30) | 4 |
| 501 | | · (17111 VI VI) | : : 13ml | | 51392479 | GASKET SET | REF |
| | | | | | UIUUETIU | GASKET SET (INCLUDES ITEMS 23, 31, 32, 33, 34, 57, 82, 83 AND 84) | i The I |
| | | | | | | 33, 34, 57, 82, 83 AND 84) | |
| | | | | | | , - i, v., v., vo /iii v./ | |





Section 5. REPAIR

5-1. GENERAL

This section describes the disassembly and assembly procedures for the underhood air compressor. In all cases, remove the compressor from the vehicle before proceeding with disassembly. Refer to the parts drawing in section 4 of this manual for parts locations.

5-2. PISTON RING REPLACEMENT

- 1. Remove the pulsation tank.
- 2. Unscrew the head bolts and remove the heads.

NOTE

A rubber faced mallet will help when removing the head. Tap the sides of the head carefully until the head is loose. Lift off the heads.

- 3. Remove the cylinder bolts. Tap the sides of the cylinder several times to break it loose from the gasket. Rock the cylinder back and forth and lift until it is free. Lift it off the pistons.
- 4. Use a single edged razor blade, or sharp putty knife, to remove the old gasket material.

CAUTION

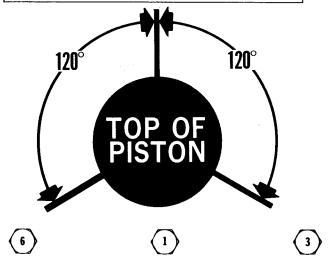
Do not allow the gasket material to fall into the crankcase. Do not nick the head, cylinder, or crankcase mating faces while removing the old gasket. Remove all of the old gasket material to provide a smooth, clean surface for the new gasket. Failure to follow this procedure may result in the need to reseal the unit later.

- 5. Hone the cylinder to break the glaze and to remove the buildup at the top of the cylinders.
- Measure the inside diameter of the cylinder for roundness and excessive wear. The bore should be 2.625" (0.0025" tolerance). If the bore is oversized, the cylinder must be replaced.

- 7. With a ring expander, remove the compression and oil rings.
- 8. With the ring expander, install the new ring kit. Make certain that the oil ring is on the bottom and the beveled inside edge of the compression ring is toward the top of the piston.
- Position the cylinder base gasket on the crankcase. Use a few drops of oil to hold it in position. Install the cylinder block spacer and gasket on the crankcase.
- 10. Rotate the rings so that the gaps of the three rings are 120 degrees apart. Lightly lubricate the inside of the cylinder. Rotate the crankshaft so that a piston is at the top of the stroke. Compress the rings with a ring compressor, and slide the cylinder over the piston. Repeat for the other piston.

CAUTION

Do not lubricate the rings. Use a light lubricant, such as WD-40 only, on the cylinder walls. Oiling the rings will prevent them from seating and cause excessive oil consumption.









- 11. Slide the cylinder down until it mates with the crankcase. Start all cylinder mounting bolts, until they are snug. Torque the bolts to 180 inch pounds in the sequence shown. Do not torque to the full 180 inch pounds all at once. Torque in 25 50 pound increments.
- 12. Position the gaskets and valve plate on top of the cylinder. Position the head on the cylinder and turn all of the bolts finger tight. Torque in the same manner described in step 11.

NOTE

Install the valve plate with the marked surface facing up.

- 13. Install the pulsation tank, and torque to 180 inch pounds.
- 14. Install the compressor, connect the wiring and the air lines. Test the unit.

NOTE

If pressure fails to build and the compressor is excessively noisy, check the valve plate. It may have been installed upside down.

5-3.OIL PUMP REPLACEMENT

- Remove the bolts and lift off the pump cover.
- With a single edged razor blade, or sharp putty knife, remove the old gasket material. Take care not to damage the machined surfaces.
- 3. Lift the pump out of the cavity.
- 4. Position a new gasket on the rear bearing housing.
- 5. Insert the pump into the cavity. Position the pump slightly to one side, using a common screwdriver. Wedge the pump into position so that it partially compresses the spring.
- 6. Place the pump cover into position and start two bolts (bolts must be diagonally opposed). Strike the pump cover with a rubber faced mallet to jar the pump loose. When the tension spring can be felt against the pump cover, the pump is loose.
- 7. Insert the two remaining bolts and torque to 180 inch pounds. The bolts should be torqued in a diagonal pattern.

8. Install the air compressor in the vehicle. Connect the air lines and wiring.

5-4.CRANKSHAFT AND BEARING REPLACEMENT

If it is necessary to replace the crankshaft, related components must also be replaced. Replace both bearings, both races, the key, pump collar and pump drive pin.

NOTE

Depending on the condition of the crankshaft, bearing may be replaced without replacing the crankshaft. Replace the bearing races whenever the bearings are replaced.

- 1. Remove the pulsation tank, both heads, cylinders, and pistons. Refer to the instructions in section 5, paragraph 2.
- 2. Remove the bolts on the connecting rods, and lift them out. Reassemble the connecting rods to be certain that the matched parts remain together.
- 3. Remove the pump cover, oil pump, sleeve, spring, and rear bearing housing.
- 4. Remove the clutch and pulley assembly, and the front bearing housing.
- 5. Pull the crankshaft from he crankcase.
- 6. Remove all gasket material with a single edged razor blade, or sharp putty knife.

CAUTION

Do not gouge the machined surfaces when removing the gaskets. This may cause leaks.

- 7. Press the bearing races out of the bearing housing.
- Press the tapered roller bearings off of the crankshaft if only the bearings are being replaced. If the crankshaft is to be replaced, discard the entire assembly.
- 9. Press the new bearings into position.

NOTE

The crankshaft should have new bearings installed. If not, press the new bearings into position on the crankshaft.

10. Generously oil the front bearing race and install the front bearing housing with gasket. Torque the bolts to 180 inch pounds. Torque the bolts as shown in the pattern below.









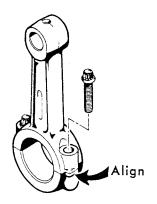


11. Slide the crankshaft into the crankcase. Generously lubricate the bearing race and install the rear bearing housing and gaskets.

NOTE

Gasket kits are supplied with two (2) each of .006, .010, .015, and .020 gaskets. Use these rear bearing gaskets in any combination and quantity to limit all play front to rear, but still allow the crankshaft to turn freely.

- 12. Install the oil pump as indicated in section 5, paragraph 3.
- 13. Install the connecting rods. Thoroughly oil the crankshaft and rods before installing them. When installing the rods, make certain that the tabs are aligned on the same side of the rod as shown below.



14. Install the pistons, rings, heads and pulsation tank. See section 5, paragraph

5-5. CLUTCH REPLACEMENT

CAUTION

Clutch failure may be due to a leaking check valve. Make certain that the check valves are functioning properly before installing the new clutch. The check valves may be checked by pressurizing the tank and shutting off the compressor. There should be no air escaping from the unloader valve. If there is air escaping, the check valves are faulty.

The clutch assembly can be removed while the compressor is still on the vehicle. The following procedure should be used.

WARNING

Attempting to start the engine while the clutch is being removed will cause serious injury.

- 1. Turn on the ignition switch, and move the compressor switch to the on position. This will engage the clutch, and make for easier removal.
- 2. Remove the bolt in the center of the pulley and insert a 5/8-11 bolt.
- 3. Tighten the 5/8-11 bolt until the pulley is forced off the crankshaft.
- 4. Loosen the drive belt and remove the pulley.

NOTE

If the drive belt is loosened before the pulley is loose, it will be difficult to hold the pulley stationary while tightening the 5/8-11 bolt.

CAUTION

Do not use a wheel puller on the outer rim of the pulley. This can result in damage to the clutch bearing.

5. Remove the four (4) bolts holding the coil assembly to the front of the compressor.

To reinstall the clutch:

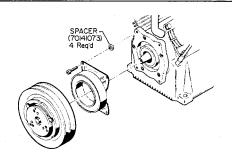
- 1. Position the magnetic coil assembly over the front bearing housing and secure the assembly with the 1/4-20 bolts. Torque to 85 120 inch pounds.
- 2. Insert the woodruff key into the crankshaft slot.
- 3. Slide the pulley, spacer, and lock washer onto the end of crankshaft. Be certain that the pulley slot aligns with the woodruff key. Secure them with the 5/16-18 bolts.
- 4. Rotate the pulley assembly manually to check for interference between the pulley and the coil. If there is interference, disassemble the clutch and repeat the procedure.
- 5. Install and tighten the drive belts.
- 6. Connect the coil wire to the air pressure switch.

5-6.TROUBLESHOOTING

- 7. Move the compressor switch in the cab to the on position to activate the clutch. Tighten the center bolt in the pulley.
- 8. Test the unit for proper operation.

NOTE

If there is excessive clearance between the coil and the pulley, the clutch will not engage. Use three 1/4" flat washer as shims between the coil and the front bearing housing. Retest the unit. If the clutch operates properly, order four spacers to replace the washer shims.



| SYMPTOM | PROBABLE CAUSE | | |
|-------------------------------|---|--|--|
| Low oil pressure | Low oil level | | |
| | Loose pipe plug on oil pump cover | | |
| | Worn or defective oil pump | | |
| | Crack or scratch on oilpump cover | | |
| | | | |
| No oil pressure | Defective oil pump | | |
| | Blocked oil passage | | |
| | Damaged oil pump drive pin | | |
| | | | |
| Compressor will not engage | Vehicle hood closed | | |
| | Blown fuse | | |
| | Defective clutch | | |
| | Defective pressure switch or underhood switch | | |
| Compressor engages but will | Air leak in plumbing | | |
| not pressurize air tank | Worn piston piston rings or valve plates | | |
| | Defective check valve/valves | | |
| Compressor does not recover | Defective check valve/valves | | |
| pressure as fast as it should | Dirty filters | | |
| | Loose fan belt | | |
| | Air leak in plumbing | | |
| | Worn valve plates or piston rings | | |

REPAIR KITS

GASKET KIT - 51392479

CRANKSHAFT KIT - 51705743

| 7Q072212 | O-RING | 8 |
|----------|--------------------------|---|
| 76039092 | GASKET-REAR BRG HSG .006 | 2 |
| 76039093 | GASKET-PUMP COVER | 1 |
| 76039094 | GASKET-REAR BRG HSG .010 | 2 |
| 76039111 | GASKET-CYL BLOCK BOTTOM | 2 |
| 76039112 | GASKET-FRT BRG HSG | 2 |
| 76039119 | SEAL | 1 |
| 76039143 | GASKET-REAR BRG HSG .015 | 2 |
| 76039144 | GASKET-REAR BRG HSG .020 | 2 |
| 76392119 | GASKET-CYL BLOCK | 2 |
| 76392445 | GASKET-REED VALVE/HEAD | 2 |
| 76392446 | GASKET-REED VALVE/CLY | 2 |

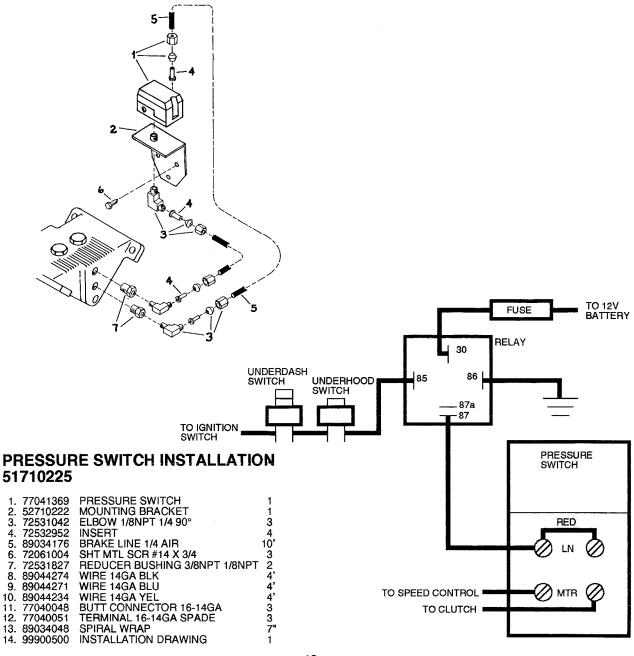
| 51705742 | CRANKSHAFT ASM | |
|----------|---------------------|---|
| | (INCL: KEY & CRANK) | 1 |
| 70055012 | BEARING-FRT CONE | 1 |
| 70055009 | BEARING-REAR CONE | 1 |
| 72066307 | DRIVE PIN | 1 |
| 60101269 | OIL PUMP COLLAR | 1 |
| 70055010 | BEARING-REAR CUP | 1 |
| 70055011 | BEARING-FRT CUP | 1 |

PISTON RING SET - 51014947

| 70014599 | COMPRESSION RING | Ω |
|----------|----------------------|---|
| 70014333 | COMIT LIFOOLOM LINAR | U |
| 70014600 | OIL RING | А |
| 70014000 | OIL MINO | - |

CHECK VALVE KIT - 51704358

7Q073017 O-RING 70029377 CHECK VALVE INSERT 70029468 SHIM .53 ID X .94 OD X .005 THK 72066426 BALL .594 DIA 76393085 O-RING



The information within this manual has been compiled and checked but errors do occur. To provide our customers with a method of communicating those errors we have provided the Manual Change Request form below. In addition to error reporting, you are encouraged to suggest changes or additions to the manual which would be of benefit to you. We cannot guarantee that these additions will be made but we do promise to consider them. When completing the form, please write or print clearly. Submit a copy of the completed form to the address listed below.

MANUAL CHANGE REQUEST

| DATE | PRODUCT | | MANUAL | |
|--|-----------------|---------|----------|----------------|
| | MANUAL | HD-1250 | PART NO. | 99901250-11/90 |
| SUBMITTED BY | | | | |
| COMPANY | | | | |
| ADDRESS | | | | |
| CITY, STATE, ZIP | | | | |
| TELEPHONE | | | | |
| | | | | |
| ERROR FOUND | | | | |
| LOCATION OF ERRO | OR (page no.): | | | |
| DESCRIPTION OF ER | RROR: | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| 17.75 | | | | |
| | | | | |
| | | | | |
| REQUEST FOR ADD | ITION TO MANUAL | | | |
| DESCRIPTION OF AL | DDITION: | | | |
| | | | | |
| * | *** | | | |
| | | | | |
| | | | | |
| REASON FOR ADDIT | TON: | | | |
| and the second s | | | | |
| | | | | |
| | 1 | | | |

MAIL TO: IOWA MOLD TOOLING Co., Inc.

Box 189,

Garner IA 50438

ATTN: Technical Publications

MANUFACTURER'S LIMITED WARRANTY

WARRANTY COVERAGE - Products manufactured by lowa Mold Tooling Co., Inc. (IMT) are warranted to be free from defects in material and workmanship, under proper use, application and maintenance in accordance with IMT's written recommendations, instructions and specifications as follows:

- 1. Ninety (90) days; labor on IMT workmanship from the date of delivery to the end user.
- 2. One (1) year; original IMT parts from the date of delivery to the end user.

IMT's obligation under this warranty is limited to, and the sole remedy for any such defect shall be the repair or replacement (at IMT's option) of unaltered parts returned to IMT, freight prepaid, provided such defect occurs within the above stated warranty period and is reported within fourteen (14) days of its occurence.

IMPLIED WARRANTY EXCLUDED - This is the only authorized IMT warranty and is in lieu of all other express or implied warranties or representations, including any implied warranties of merchantability or fitness for any particular purpose or of any other obligations on the part of IMT.

ITEMS EXCLUDED - The manufacturer gives no warranty on any components or parts purchased by the manufacturer, and such components as are covered only by the warranties of their respective manufacturers.

WARRANTY CLAIMS - Warranty claims must be submitted and shall be processed in accordance with IMT's established warranty claim procedure.

WARRANTY SERVICE - Warranty service will be performed by any IMT distributor authorized to sell new IMT products of the type involved or by any IMT Service Center authorized to service the type of product involved or by IMT in the event of direct sales made by IMT. At the time of requesting warranty service, the purchaser must present evidence of the date of delivery of the product. The purchaser shall pay any premium for overtime labor requested by the purchaser, any charge for making service calls and for transporting the equipment to the place where warranty work is performed.

WARRANTY VOIDED - All obligations of IMT under this warranty shall be terminated:(1) if service other than normal maintenance or normal replacement of service items is performed by someone other than an authorized IMT dealer, (2) if product is modified or altered in ways not approved by IMT.

PURCHASER'S RESPONSIBILITY - This warranty covers only defective material and workmanship. It does not cover depreciation or damage caused by normal wear, accident, improper protection in storage, or improper use. The purchaser has the obligation of performing the care and maintenance duties discussed in IMT's written recommendations, instructions and specifications. Any damage which results because of purchaser's failure to perform such duties shall not be covered by this warranty. The cost of normal maintenance and normal replacement of service items such as filters, belts, etc. shall be paid by the purchaser.

CONSEQUENTIAL DAMAGES - The only remedies the purchaser has in connection with the breach or performance of any warranty on IMT products are those set forth above. In no event will the dealer, IMT or any company affiliated with IMT, be liable for business interruptions, loss of sales and/or profits, rental or substitute equipment, costs of delay or for any other special, indirect, incidental or consequential losses, costs or damages.

REPRESENTATIONS EXCLUDED - IMT products are subject to no expressed, implied or statutory warranty other than herein set forth, and no agent, representative or distributor of the manufacturer has any authority to alter the terms of this warranty in any way whatsoever or to make any representations or promises, express or implied, as to the quality or performance of IMT products other than those set forth above.

CHANGE IN DESIGN - IMT reserves the right to make changes in design or improvements upon its products without imposing any obligation upon itself to install the same upon its products theretofore manufactured.

Effective January, 1984

This parts manual is provided to the user to assist in servicing the equipment. It is the property of lowa Mold Tooling Co., Inc and, as such, may not be reproduced either whole or in part, whether by chemical, electrostatic, mechanical or photographic means without the expressed written permission of an officer of lowa Mold Tooling Co., Inc. One manual is provided with each piece of new equipment and additional manuals may be obtained at a nominal price.

IOWA MOLD TOOLING Co., Inc.

500 Hwy 18 West - Garner - IA 50438 515-923-3711