



**AIR COMPRESSOR  
INSTALLATION AND  
OPERATING INSTRUCTION  
MANUAL**

**TWO STAGE**

**WARNING**

Before installing and operating this compressor, read and understand the safety precautions contained in LV-474 supplement to and part of CAP-600

**IMPORTANT**

Make a permanent record of the Model and Serial number of your machine here. You'll save time and expense by including this reference identification on replacement part orders.

|   |                      |
|---|----------------------|
| <b>ChallengeAIR</b><br>CURTIS-TOLEDO, INC.<br>1905 Kienlen Avenue<br>St. Louis, MO 63133  |                      |
| REFER TO MODEL & SERIAL NUMBER.<br>READ INSTAL. & OPERATION INSTR.<br>DO NOT OPERATE LOWER THAN 500<br>R.P.M. OR ABOVE MAX. AS STIPULATED<br>BY PERFORMANCE DATA SHEET. |                      |
| MODEL NO.   | SERIAL NO.           |
| <input type="text"/>  | <input type="text"/> |

**\*CONSULT FACTORY FOR SPECIAL APPLICATIONS**

**CURTIS-TOLEDO, INC.**

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*Sales representatives in principal cities*

## INSTALLATION

**CONGRATULATIONS** on your new FSCurtis Challenge Air Compressor. Please examine the compressor for shipping damage(s) and if any are found report it immediately to the carrier.

Select a clean dry location with a rigid floor strong enough to support the compressor. If the compressor is to be located in an area where vibration is critical, properly engineered vibration mounts and flexible piping should be used. Remove the skid. **NOTE: The compressor should never be operated on the shipping skid.** Level the compressor so it can be bolted down securely. Before tightening the bolts, check to see that all four feet are resting on the foundation. Shim as necessary to eliminate stress on the receiver or base when the bolts are tightened. We suggest using a level for proper alignment.

Maximum ambient temperature in which the compressor and motor should be operated is 104°F. Therefore, adequate ventilation must be provided.

The suction openings of the compressor are equipped with a combination air filter-muffler to protect the compressor from normal dust and other harmful substances. If the air around the compressor is excessively hot, dusty, humid or contaminated with foreign gases (such as ammonia or acid fumes) move the filter-muffler to a remote point where the air is clean, cool and dry. Run a pipe to the compressor suction opening. If the run is over 50 feet in length, use a larger pipe to avoid excessive pressure drop. In order to fit the filter to the compressor, bush down the connections. Be sure piping and fittings are clean and free from dirt and chips. If the filter is installed outside, check to insure that it is located above the normal outside dust level, and that rain cannot enter the filter element. Where the relocation of the filter-muffler is not possible or feasible, an oil bath filter is recommended and is available from FSCurtis.

On basic or base mounted compressors run a discharge pipe to the receiver or optional aftercooler and bush up or down as necessary. The pipe should enter near the top of the receiver. Keep in mind that condensate may form in the discharge line; therefore, the lines should always be pitched to drain condensate away from the compressor. Always provide a safety relief valve in the discharge line between the compressor and in-line shutoff valves. If more than one compressor pumps into a common system, a check valve in the discharge line of each compressor is recommended to prevent moisture from entering the cylinder head when one compressor is idle. A globe or gate valve installed in the discharge line will allow compressor isolation from plant air system for compressor maintenance. (Note: A safety relief valve should be located between the compressor and the globe/gate valve.)

Check the electrical supply for voltage, phase, and frequency to see that they match the nameplate stampings on the motor, magnetic starter, solenoids, and other controls. Use electrical wires of adequate size to carry the full load current of the motor without excessive voltage drop. Charts are available from Curtis (upon request) to provide information on this. The motor must always be protected by a starter with properly sized thermal overload(s). The starter should protect the motor from overheating and burnout due to an overload, low voltage or single phasing of a 3-phase circuit. **Failure to install the proper starter and overloads will void the motor manufacturers warranty.** Follow the National Electric Code or local electric code in providing wiring, fusing and disconnect switches. **NOTE: Do not close the disconnect switch to start the compressor until the procedures outlined under "Startup Procedures" have been completed.**

### LIMITED SAFETY PRECAUTIONS

(Also see supplement LV-474)

The following safety precautions are recommended in the use of this compressor:

1. Use a totally enclosed OSHA-approved belt guard to cover the drive assembly. Where possible, place the flywheel toward the wall, and mount the unit a minimum distance of 2 feet from the wall for maintenance convenience.
2. Turn off & lock out the electrical disconnect switch before working on the unit to prevent the unit from starting unexpectedly
3. Release all air pressure from the system before working on the unit and red tag all electrical control switches, for safety precaution.
4. Do not by-pass motor over-current protection.
5. Do not change the setting or in any way affect the operation of the safety valve.
6. Keep unit securely anchored so that movement will not put a strain on piping, wiring, or air receiver.

**WARNING: Read and understand supplement LV-474 before installing and operating the compressor.**

## START-UP PROCEDURES

### OIL RECOMMENDATION

Use Genuine **CURTISLUBEPLUS** Lubricants. Specially formulated for Curtis Reciprocating Air Compressors. Non-Detergent type with anti-foam, anti-rust and oxidation inhibitors.

Recommended **ISO68 RC-1000** Premium Reciprocating Compressor Lubricant, **Part no. VO411-3**, 12-quart case or VO411-2, 4 gallon case.

Recommended **ISO100 RC-1000A** Premium Reciprocating Compressor Lubricant **Part no. VO421-3**, 12-quart case or VO421-2, 4 gallon case.

**CURTISLUBEPLUS** Lubricants are available through your authorized Curtis distributor.

If the compressor is equipped with an automatic start-stop control (with pressure switch unloading), it is automatically unloaded upon starting, and will automatically load after attaining running speed. If the compressor is equipped with a constant speed control (pilot valve unloading), it is necessary to manually unload the compressor, if there is pressure in the discharge line, in order to achieve an unloaded start. The compressor must be manually loaded after the compressor has attained full running speed, there after, it functions automatically to maintain operating pressure until the unit is shut off.

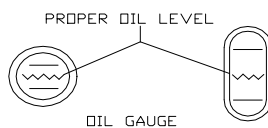
Close the disconnect switch and start the compressor. Observe the direction of rotation, which should be counterclockwise when viewed from the flywheel side of the compressor on all models. For single-phase units, the direction of rotation is determined by the motor nameplate instructions, and is adjusted at the factory. For three-phase units, if the rotation is incorrect, stop the unit and interchange any two of the three wires to the motor at the disconnect switch. This will reverse the direction of rotation of the motor and compressor.

## PREVENTIVE MAINTENANCE

A good maintenance program will add years of service to your air compressor. The following is recommended as a minimum maintenance program. (TURN OFF POWER BEFORE SERVICING.)

### LUBRICATION

- For proper lubrication the compressor shall not be operated below the minimum or above the maximum R. P.M. recommended for the various models.
- Maintain oil level mid-way between the upper and lower lines of the crankcase sight gage. **NOTE ILLUSTRATION:**



- Stop compressor to add and gauge oil.
- Do not fill above the upper line and do not operate compressor with oil level below the lower line.

### DO NOT OVER FILL

- Change oil at the first 100 hours of operation and 1000 hours thereafter, or as required. It may be necessary to change oil more frequent due to abnormal humid and contaminated conditions.

### DAILY MAINTENANCE

- Check and maintain oil level at centerline of sight glass and add oil as necessary.
- Drain condensate from receiver unless it is equipped with an automatic tank drain, in which case the drain should be checked weekly to see that it is operating. See automatic tank drain instructions.

- Check for unusual noise or vibration (See "Trouble Shooting".)

### WEEKLY MAINTENANCE

- Clean the air filters. A clogged air filter can seriously affect the efficiency of the compressor and cause overheating and oil usage.
- Clean all external parts of the compressor and driver. Be sure to clean the intercooler-finned surface on two-stage compressors. A dirty compressor will cause abnormally high discharge temperature and resulting oil carbonization on internal valve components
- Check the safety valve manually (by pulling ring or lever) to see that it is not stuck.

### MONTHLY MAINTENANCE

- Inspect the entire air system for leaks.
- Inspect condition of oil and change if necessary.
- Check drive belt tension and tighten if needed.

### EVERY 3 MOS. OR 1,000 HRS. OF OPERATION

- Change oil.
- Inspect valves. Clean the carbon from valves and head if necessary.
- Check and tighten if necessary all bolts, nuts, etc.
- Check unloader operation.

### \*CHECKING BELT TENSION

The v-belt(s) should be adjusted so that a declination of about 3/8 – 1/2 inch will be obtained when it is pushed by a finger at the middle point as shown in Figure 1.

**CAUTION: Over tightening the v-belt(s) will result in overloading of the motor and belt failure, while a loose belt will be slipping and resulting in an unstable speed, overheating the belt and high amp draw.**

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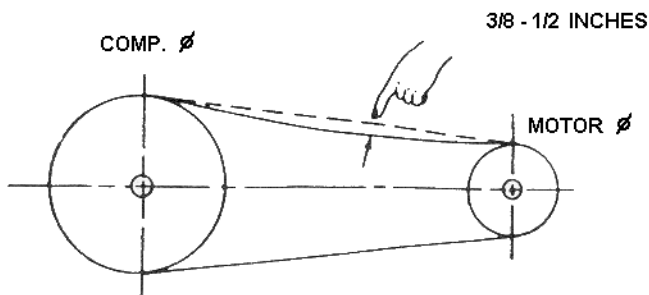


Figure 1

To change tension, loosen the motor hold-down bolts and slide the motor on the base, using a lever if necessary, or by turning the adjusting bolt at the end of the base.

Retighten motor hold-down bolts.

**NOTE: Do not over tighten belts.**

### ELECTRIC MOTOR

Grease once a year with a good grade of lithium ball bearing grease, or as directed by the motor manufacturer.

## VALVE INSPECTION AND MAINTENANCE

Valves should be inspected at regular intervals as recommended under "Maintenance" and cleaned or replaced when necessary. The valve can be serviced without disconnecting air piping or removing the head.

**(Be sure the power to the motor is disconnected and all pressure released before starting to work on the compressor.)**

On constant run models, it is necessary to remove the unloader piping before the valve plugs can be removed.

### MODELS E-11 AND E-23 (Figures 2 and 3)

#### A. Disassembly:

1. Unbolt the outlet valve push cover (2601021510).
2. Remove the outlet valve push cover packing (2601021540), spring (2601320030) and valve plate (2601310180). **CAUTION: Steps 1 and 2 are for outlet valve.**
3. Remove the unloading connecting tube for Models E-11 and E-23.
4. Untighten four cylinder head fixed bolts.
5. Remove cylinder head carefully and turn it over.
6. Unbolt inlet valve receiver (2601310170).
7. Remove valve spring (2601310190) and valve plate (2601310180).

Valves should be inspected approximately every 1,000 hours of operation. Inspect the valve seats on cylinder head for dents, cracks or wear. Replace all defective parts. Remove carbon deposits and wash all valve components in a suitable non-flammable cleaning fluid.

#### B. Assembly:

1. Place outlet valve plate (2601310180) in position.
2. Place the outlet valve push cover packing (2601021540) in position.
3. Insert the spring (2601320030) into outlet valve push cover (2601021510).
4. Turn outlet valve push cover (2601021510) in position carefully.

5. Check the valves to see if they can move freely in their guides.
6. Turn over the cylinder head (2601021340).
7. Place the inlet valve plate (2601310180) in position.
8. Insert the small end of inlet valve spring (2601310190) into position of valve receiver (2601310170).
9. Screw inlet valve receiver in position.
10. Check the valves to see if they can move freely in their guides and do not pinch or bind between the seat and guard legs.

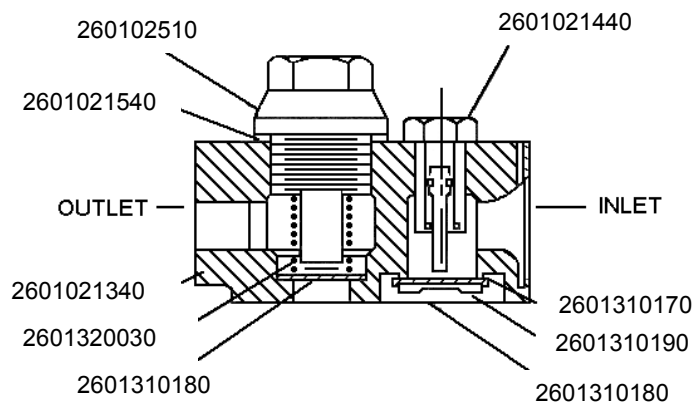


Figure 2

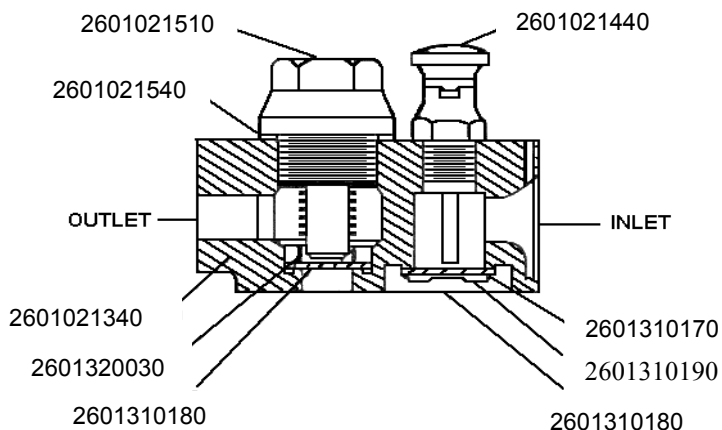


Figure 3

**WARNING: Read and understand supplement LV-474 before installing and operating the compressor.**

**MODELS E-50, E-71 AND E-15 (Figures 4 and 5)****A. Disassembly of Inlet Valve Assembly (Figure 4).**

1. Untighten the hex nut.
2. Remove unloading fork (2601310700), unloading fork guide (2601310710), unloading spring (2601024470) and valve seat (2601310650).

**CAUTION:**

1. If a vise is used to hold the valve assembly, be careful not to clamp the assembly too tight.
2. Valve assembly should be inspected approximately every 1,000 hours of operation.
3. Inspect the valve seat for dents, cracks or wear.
4. Replace all defective parts.
5. Valve seats that might be worn after years of operation can be re-lapped or re-ground, in this case the recess in which the valve guard legs fit must also be cut down accordingly to ensure a same valve lift.
6. Remove carbon deposits and wash all valve components in a suitable non-flammable cleaning fluid.

**B. Reassembly of Inlet Valve Assembly**

1. Place valve spring (2601310690 and valve plate (2601310680) on valve receiver (2601310660).
2. Place valve seat (2601310650), unloading fork guide 2601310710, unloading spring (2601024470) and unloading fork (2601310700) respectively.
3. Tighten the valve assembly by tightening the hex nut.
4. Check the valves to see if they can move freely in their guides and do not pinch or bind between the seat and guard legs.

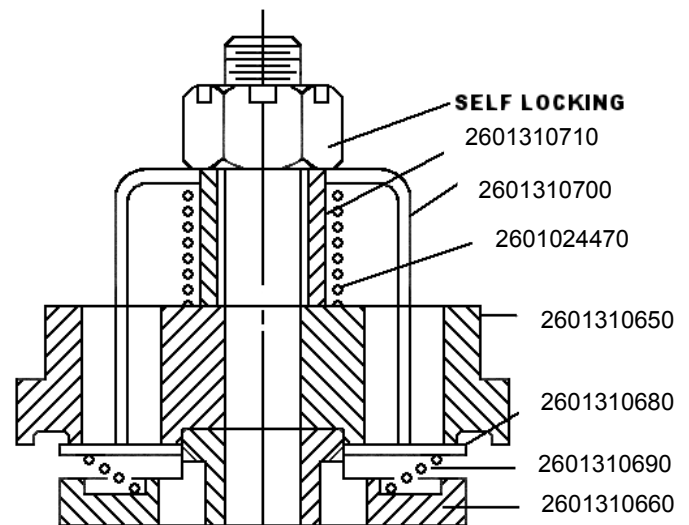
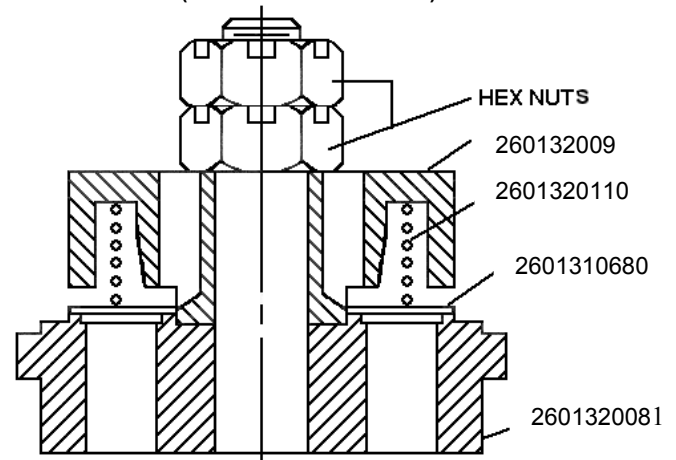
**C. Disassembly of Outlet Valve Assembly (Figure 5)**

1. Untighten the hex nuts.
2. Remove valve receiver (2601320090), valve spring (2601320110) and valve plate (2601310680).

CAUTION: Refer to disassembly of inlet valve assembly (paragraph B).

**D. Reassembly of Outlet Valve Assembly**

1. Place valve spring (2601320110) in valve receiver (2601320090).
2. Place valve plate (2601310680) in valve receiver (2601320090).
3. Insert the sub-assembled part (assembled in step 1 and 2) into valve seat (2601320081).
4. Tighten the hex nuts.
5. Check the valves to see if they can move freely in their guides and do not pinch or bind between the seat and guard legs.

**FIGURE 4 (EXAMPLE SHOWN E-50)****FIGURE 5 (EXAMPLE SHOWN E-50)**

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## VALVE ASSEMBLY INSTALLATION - E-50 MODEL

### (Figures 6 and 7)

1. Install valve assembly gasket (2601024400)
2. Install valve assembly (2601310630).
3. Install valve push cover (2601024420).
4. Install head bolt and tighten evenly and securely.

It is strongly recommended that a Preventative Maintenance Kit & Valve/Gasket Maintenance Kit be kept on hand. In this manner, the valves can be used in turn to keep the compressor always in good condition and a minimum downtime.

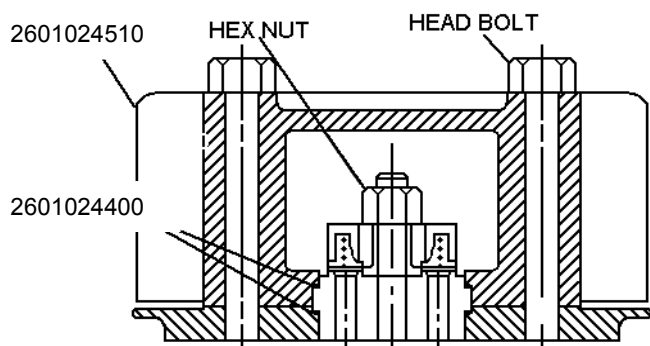


FIGURE 6

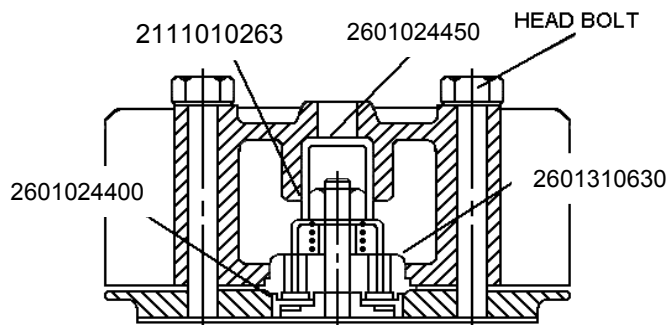


FIGURE 7

## PISTON RINGS (Rebuild Kit)

To inspect or replace piston rings as follows:

1. Remove cylinder head.
2. Remove cylinder.
3. Loosen the connecting rod bolts.
4. Push out the piston with piston rings and connecting rod.
5. To remove the old rings, pry them out of their grooves and slide them over the piston. Care should be taken not to damage the piston.
6. Inspect the ring grooves for nicks and carbon deposits. Clean the ring grooves and remove the obstructions, which might prevent the rings from moving freely.

**To install new rings on the piston as follows: (Be careful not to damage the piston and rings).**

1. Install the oil control ring (2601024990) first. Rotate ring in groove to make sure it is free.
2. Install the Compression ring (2601024970). Make sure the "top" or "R" mark is exactly on top. If not, it might cause excessive oil consumption.
3. Repeat the process with other rings, if any.
4. Assemble connecting rod into the crankshaft. Be sure that the connecting rod and its cap are in original pair and position, since the connecting rod cap and crankshaft pin bushing are selected fitted and are not interchangeable.
5. Check if the ring gaps are in proper positions (Figure 8).

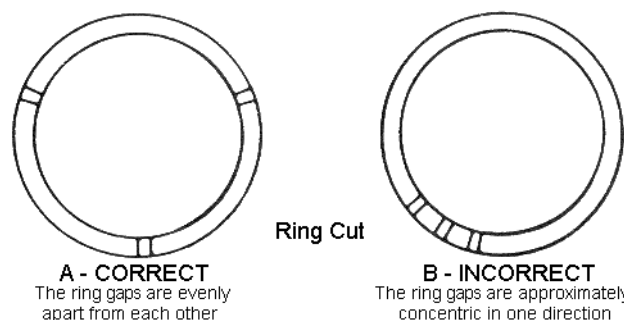


FIGURE 8

**WARNING: Read and understand supplement LV-474 before installing and operating the compressor.**

• REBUILD KITS

AIR COOLED TWO STAGE MODELS

E-35

| E-11     |               |  | E-23     |               |  |
|----------|---------------|--|----------|---------------|--|
| PART NO. | CONSISTS OF:  |  | PART NO. | CONSISTS OF:  |  |
| CF1250   | 1 2601021531  | Gasket/Cvr Packing Outlet Seal-Front Oil | CF1251   | 1 2601020300  | Gasket-Packing Outlet Valve              |
|          | 1 2601025680  | Packing-Rear Brg. Cvr.                   |          | 2 2601021531  | Gasket/Cvr Packing-Outlet Seal-Front-Oil |
|          | 1 2601025590  | Packing-Front Brg. Cvr.                  |          | 1 2601025680  | Packing-Rear Bearing Cover               |
|          | 2 2601021620  | Packing-Cylinder & Case                  |          | 2 2501310010  | Plate-Inlet & Outlet                     |
|          | 1 26016212610 | Packing-Cylinder/Head                    |          | 4 2601310180  | Plate-Inlet & Outlet Valve               |
|          | 1 2601021381  | Gasket-Packing Cyl&Head                  |          | 2 2601540050  | Filter Air Strainer                      |
|          | 2 7016262050  | Ring-Oil Control (2 <sup>nd</sup> )      |          | 1 2601025590  | Packing-Front Bearing Cover              |
|          | 2 7016262030  | Ring-Compression (2 <sup>nd</sup> )      |          | 3 2601021620  | Packing- Cylinder & Case                 |
|          | 1 2601021910  | Ring-Oil Control (2 <sup>nd</sup> )      |          | 1 2601020120  | Cylinder & Head Packing                  |
|          | 2 2601021890  | Ring-Compression (2 <sup>nd</sup> )      |          | 2 2601021381  | Gasket-Packing Cyl & Head                |
|          | 1 2601320180  | Spring-Outlet Valve (2 <sup>nd</sup> )   |          | 2 2601020840  | Ring-Oil Control (2 <sup>nd</sup> )      |
|          | 1 2601310190  | Spring-Inlet Valve (1st)                 |          | 2 2601020810  | Ring-Compression (2 <sup>nd</sup> )      |
|          | 2 2601310860  | Plate-inlet & Outlet Valve               |          | 2 2601021910  | Ring-Oil Control (2 <sup>nd</sup> )      |
|          | 2 2601310180  | Plate-inlet & Outlet Valve               |          | 4 2601021890  | Ring-Compression (2 <sup>nd</sup> )      |
|          | 1 2601540050  | Filter Air Strainer                      |          | 1 2601320390  | Spring-Outlet Valve (2 <sup>nd</sup> )   |
|          | 1 2601320030  | Spring-Outlet Valve 1st                  |          | 1 2601311470  | Spring-Inlet Valve (2 <sup>nd</sup> )    |
|          | 1 2601310870  | Spring-Inlet Valve (2 <sup>nd</sup> )    |          | 2 2601320030  | Spring-Outlet Valve 1st                  |
|          | 24 2102040082 | Washer-Copper                            |          | 2 2601310190  | Spring-Inlet Valve 1st                   |
|          |               |  |          | 32 2102040082 | Washer- Copper                           |

| PART NO. | CONSISTS OF:                           |  |
|----------|--|--|
| CF1306   | PREVENTATIVE MAINTENANCE KIT INCLUDES: |  |
|          | 1                                      | 70110HC1-66111 Element- Air Strainer             |
| CF1307   | VALVE/GASKET MAINT KIT INCLUDES:       |  |
|          | 4                                      | 7015231030 Plate- IO Valve (1 <sup>st</sup> )    |
|          | 2                                      | 7015232030 Plate- IO Valve (2 <sup>nd</sup> )    |
|          | 2                                      | 7015232070 Spring-Valve Plate (2 <sup>nd</sup> ) |
|          | 1                                      | 7015231120 Packing(Gasket)Valve Seat             |
|          | 4                                      | 7015231070 Spring-Valve Plate (1 <sup>st</sup> ) |
|          | 1                                      | 7015211622 Gasket-Cyl & Valve Seat               |
|          | 1                                      | 7015211612 Gasket-Packing Cyl Head               |
| CF1308   | REBUILD KIT E-35 INCLUDES:             |  |
|          | 1                                      | 7015251610 Packing, Cyl-Crankcase                |
|          | 1                                      | 7015257950 Packing-Front Cvr Gasket              |
|          | 2                                      | 7015261030 Ring-Compression (1 <sup>st</sup> )   |
|          | 1                                      | 7015261050 Ring-Oil Control (1 <sup>st</sup> )   |
|          | 1                                      | 7015261080 Bushing-Piston (1 <sup>st</sup> )     |
|          | 1                                      | 7015262080 Bushing-Piston Pin                    |
|          | 2                                      | 7015261090 Crankpin Metal                        |
|          | 3                                      | 7015262030 Ring-Compression(2 <sup>nd</sup> )    |
|          | 1                                      | 7015262050 Ring-Oil Control (2 <sup>nd</sup> )   |
|          | 1                                      | 7015257960 Packing-Rear Cvr Gasket               |
|          | 1                                      | 7012757080 Seal-Front/Oil                        |
|          | 6                                      | 2102040082 Washer- Copper                        |

| E-57     |   | E-50     |  | E-71     |  | E-15     |   |
|----------|---|----------|--|----------|--|----------|---|
| PART NO. | CONSISTS OF:  | PART NO. | CONSISTS OF:                                     | PART NO. | CONSISTS OF:                               | PART NO. | CONSISTS OF:  |
| CF1291   | KIT-PREVENTATIVE MAINTENANCE B-2B COMPRESSOR INCLUDES | CF1315   | KIT PREVENTATIVE MAINTENANCE INCLUDES:           | CF1315   | PREVENTATIVE MAINTENANCE KIT INCLUDES:     | CF1315   | PREVENTATIVE MAINTENANCE KIT INCLUDES:                |
|          | 1 2601540300 Air Filter Element                       |          | 2 2601540410 Air Strainer Filter                 |          | 2 2601540410 Air Strainer Filter           |          | 2 2601540410 Air Strainer Filter                      |
| CF1292   | B-2 VALVE/GASKET MAINT KIT INCLUDES:                  | CF1253   | E50 GASKET/VALVE MAINT KIT INCLUDES:             | CF1255   | E71 GASKET/VALVE MAINT KIT INCLUDES:       | CF1257   | E15 GASKET/VALVE MAINT KIT INCLUDES:                  |
|          | 4 2601310460 Valve Plate/Inlet & Outlet               |          | 3 2601024331 Packing- Cylinder Head              |          | 2 2601310940 Inlet Valve Spring            |          | 1 2601026130 Cyl Head Gasket 2 <sup>nd</sup> Stage    |
|          | 2 2601310560 Inlet & Outlet Valve Plate               |          | 6 2601024400 Inlet&Outlet Valv Gasket E71        |          | 1 2601024331 Packing- Cylinder Head        |          | 2 2601030530 Cyl Head Gasket 1st Stage                |
|          | 4 7015331072 Spring-Valve Plate 2 <sup>nd</sup>       |          | 3 2601320110 Spring-Outlet Valve                 |          | 2 2601026130 Packing-Cylinder & Head       |          | 2 2601026190 Inlet&Outlet Valv Seat Gaskt             |
|          | 2 7015332072 Spring-Valve Plate 2 <sup>nd</sup>       |          | 3 2601310690 Spring-Inlet Valve                  |          | 2 2601024400 Inlet&Outlet Val Gaskt E71    |          | 4 2601027620 Inlet&Outlet Valv Seat Gaskt             |
|          | 1 2601310500 Packing/Valve Seat (Gasket)              |          | 6 5012331030 Plate-Inlet & Outlet Valve          |          | 4 2601026190 Inlet & Outlet Valve Seat     |          | 1 2601320220 Outlet Valv Spring 2 <sup>nd</sup> Stage |
|          | 1 2601022880 Packing, Cylinder Head                   |          |  |          | 1 2601320110 Spring-Outlet Valve           |          | 6 2601320376 Outlet Valv Spring 1st Stage             |
|          | 1 2601310510 Gasket-Packing Cyl & Head                |          |  |          | 2 2601320220 Outlet Valve Spring           |          | 1 2601310940 Inlet Valv Spring 2 <sup>nd</sup> Stage  |
|          |   |          |  |          | 1 2601310690 Spring-Inlet Valve            |          | 2 2601311180 Inlet Valv Spring 1st Stage              |
|          |   |          |  |          | 2 5012331030 Plate-Inlet & Outlet Valve    |          | 1 2501320120 2 <sup>nd</sup> Stage Outlet Valve Plate |
|          |   |          |  |          | 4 7012431030 Inlet & Outlet Valve Plate    |          | 2 2501310130 1st Stage Inlet Valve Plate              |
|          |   |          |  |          | 3 2601024331 Packing-Cylinder Head         |          | 4 2601491240 Manifold Gasket                          |
|          |   |          |  |          | 6 2601024400 Inlet&Outlet Val Gaskt E71    |          | 2 2501320081 1 <sup>st</sup> Stage Outlet Valve Plate |
|          |   |          |  |          | 3 2601320110 Spring-Outlet Valve           |          | 1 2501310100 2 <sup>nd</sup> Stage Inlet Valve Plate  |
|          |   |          |  |          | 3 2601310690 Spring-Outlet Valve           |          |   |
|          |   |          |  |          | 6 5012331030 Plate-Inlet & Outlet Valve    |          |   |
| CF1293   | B-2 REBUILD KIT INCLUDES:                             | CF1254   | E50 REBUILD KIT INCLUDES:                        | CF1256   | E71 REBUILD KIT INCLUDES:                  | CF1258   | E15 REBUILD KIT INCLUDES:                             |
|          | 1 2601023270 Gasket Front Cover                       |          | 1 2110090036 Needle Bearing                      |          | 3 2601026310 Packing-Cyl & Case            |          | 1 2601030820 Packing-Frt Bearing Cvr                  |
|          | 2 2601026840 Compression Ring                         |          | 3 2601024570 Cyl/Head Case Packing               |          | 1 7017462081 Bushing-Con. Rod Pistn Pin    |          | 3 2601030630 Cylinder/Case Packing                    |
|          | 2 2601026860 Oil Control Ring                         |          | 6 2601025040 Bearing-Connecting Rod              |          | 2 2501020130 Con. Rod Pistn pin bush       |          | 6 2601027780 Connecting Rod Crank Pin                 |
|          | 3 2601023520 Compression Ring (2 <sup>nd</sup> )      |          | 2 2601025030 Bushg- Conn. Rod Pistn              |          | 4 2601026860 Oil Control Ring              |          | 2 2601026860 Oil Control Ring                         |
|          | 1 2601023540 Oil Control Ring (2 <sup>nd</sup> )      |          | 1 2601021910 Ring-Oil Control (2 <sup>nd</sup> ) |          | 4 2601026840 Compression Ring              |          | 3 2601026840 Compression Ring                         |
|          | 1 2601023560 Bushing-Piston Pin (1 <sup>st</sup> )    |          | 3 2601021890 Ring-Compression (2 <sup>nd</sup> ) |          | 1 2601026520 Packing- Frt Bush Cvr         |          | 4 2601027740 Ring-Oil Control (1 <sup>st</sup> )      |
|          | 1 7015362081 Bushing-Piston Pin (2 <sup>nd</sup> )    |          | 1 2601024750 Frt. Brg Cvr. Packing               |          | 1 2601029860 Front Oil Seal                |          | 4 2601027730 Ring-Compression (1 <sup>st</sup> )      |
|          | 4 2601023400 Crank Pin Metal (Bearing)                |          | 1 7012357080 Seal-Front Oil                      |          | 6 2601023900 Conn Rod Bearing              |          | 1 2601027860 Connecting Rod Assy.                     |
|          | 1 2601023130 Packing (Gasket) Cylinder                |          | 1 2601028600 Bushing-Piston Pin                  |          | 2 2601029810 Packing-Rear Brg Cvr          |          | 1 2601029860 Front Oil Seal                           |
|          | 1 7012357080 Seal-Front Oil                           |          | 1 701308A1-57070-512 Rear Brg Cvr Gasket         |          | 2 7013457070-01 Gaskt-Reat Brg Cvr         |          | 1 2110090016 Needle Bearing (2 <sup>nd</sup> )        |
|          | 1 2601023330 Gasket-Packing Rear Cover                |          | 4 2601024970 Compr. Ring, E71 E50 ES30           |          | 2 701310A1-57070-2 Shim, Bearing Cvr Gaskt |          | 2 2601029810 Packing-Rear Brg Cvr                     |
|          | 26 2102040074 Rear Brg Cvr Bolt Washer                |          | 4 2601024990 Oil Contrl Ring,E71 E50 ES30        |          | 3 2601024970 Compr. Ring, E71 E50 ES30     |          | 24 92521191200 Washer-Cover                           |
|          |   |          | 34 2102040074 Rear Brg Cvr Bolt Wshr             |          | 2 2601024990 Oil Contrl Ring,E71 E50 ES30  |          | 1 7017562080 Bush-Conn. Rod Pistn Pin                 |
|          |   |          |  |          | 34 2102040074 Rear Brg Cvr Bolt Wshr       |          | 2 7013457070-01 Gasket, Rear Brg Cvr                  |
|          |   |          |  |          |  |          | 2 701310A1-57070-2 Shim,Bearing Cvr Gaskt             |

\* **WARNING** – THESE ITEMS INTERCHANGE WITH PARTS ON SERIAL #3020000 & HIGHER ONLY. CONTACT FACTORY FOR EARLIER SERIES.

\*\* USE WITH SERIAL #A311XXXX AND LATER. 70135-11610 REPLACES 70125-11610

\*\*\* USE WITH SERIAL #A409XXXX AND LATER

\*\*\*\* USE FOR UNITS PRIOR TO SERIAL #A409XXXX

# RING SETS & GASKET SETS

## TWO-STAGE

| MODEL | PART NO. | DESCRIPTION   | QUANTITY<br>REQ'D |
|-------|----------|---------------|-------------------|
| E11   | CF1266   | Ring set (LP) | 1                 |
|       | CF1267   | Ring set (HP) | 1                 |
|       | CF1283   | Gasket set    | 1                 |
| E23   | CF1268   | Ring set (LP) | 2                 |
|       | CF1269   | Ring set (HP) | 1                 |
|       | CF1284   | Gasket set    | 1                 |
| E35   | CF1303   | Ring set(LP)  | 1                 |
|       | CF1304   | Ring set(HP)  | 1                 |
|       | CF1305   | Gasket set    | 1                 |
| E50   | CF1270   | Ring set(LP)  | 2                 |
|       | CF1271   | Ring set(HP)  | 1                 |
|       | CF1285   | Gasket set    | 1                 |
| E57   | CF1288   | Ring set(LP)  | 1                 |
|       | CF1289   | Ring set(HP)  | 1                 |
|       | CF1290   | Gasket set    | 1                 |
| E71   | CF1272   | Ring set(LP)  | 2                 |
|       | CF1273   | Ring set(HP)  | 1                 |
|       | CF1286   | Gasket set    | 1                 |
| E15   | CF1274   | Ring set(LP)  | 2                 |
|       | CF1275   | Ring set(HP)  | 1                 |
|       | CF1287   | Gasket set    | 1                 |
|       | *CF1313  | *Gasket set   | 1                 |

\* USE WITH SERIAL #A311XXXX AND LATER



## INSPECTION & MAINTENANCE OF E-57 VALVE ASSEMBLY

### INSTRUCTION FOR E-57 COMPRESSOR MODEL HEAD VALVE ASSEMBLY INSPECTION AND MAINTENANCE.

Model E-57 valve assembly inspection and maintenance instruction.

1. Inspect valve assemblies every 1000 hours of operation or as necessary to maintain efficient operation.
2. Turn off power, red tag power supply switch (caution: Maintenance in progress – DO NOT START). Drain all air pressure from system before starting work.
3. Disconnect air piping from head.

Remove valve package.

- A1. Loosen and remove head bolts. On constant run models, remove upper tubing from unloader cylinder.
- A2. Remove cylinder head to expose valve assembly.
- A3. Remove valve assembly, head to valve package gasket and valve package to cylinder gasket. Use new gaskets in re-assembly. Note conditions of cylinders, clean out any foreign material and cover with clean shop cloth while open.
- A4. Refer to parts breakdown for description of valve package.
- A5. Secure valve assembly package, loosen and remove socket head bolts to separate the upper and lower valve seats. This will expose the valve springs and valve plates.  
CAUTION: Do not interchange upper and lower valve seats
- A6. Thoroughly clean and wash all valve seats and parts with a suitable non-flammable cleaning fluid.  
CAUTION: Use care to not scratch or deform valve parts in the cleaning.
- A7. Carefully inspect the valve seats, plates and springs for dents, cracks, wear, and any reason to prevent proper and efficient operation.
- A8. Replace all parts not in proper condition.

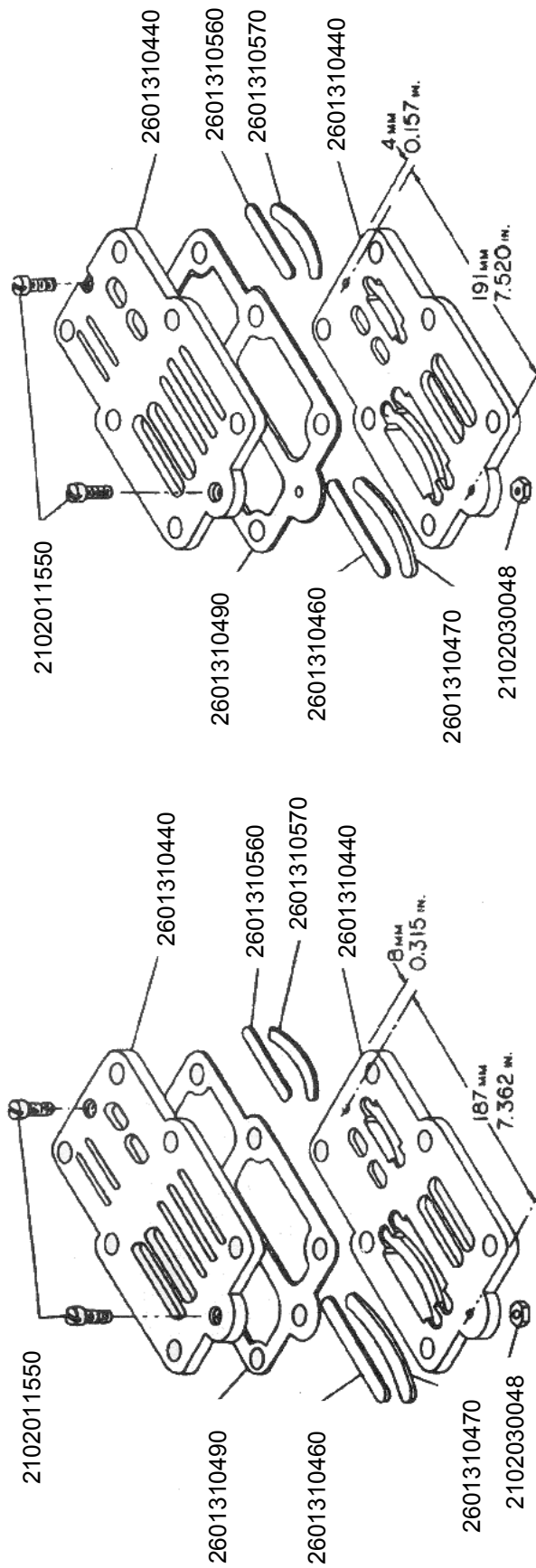
Assemble valve assembly package.

- B1. Secure lower valve plate in flat position with spring slots "up".
- B2. Refer to parts breakdown for valve package breakdown.
- B3. Place valve springs and valve plates in proper positions over slots in seat. Use tag wire or string for tie to hold in position for completing assembly.
- B4. Secure upper valve seat in flat position with spring slots up
- B5. Use new valve seat gasket.
- B6. Place valve seat gasket in position on lower valve plate.
- B7. Place upper valve seat with valve springs and plates tied in position on top of lower valve seat with new valve seat gasket in place between the two seats.
- B8. Start center and then two end valve plates socket head bolts, tighten finger tight being careful not to damage seat gasket, use socket head wrench to torque the three bolts uniformly to secure the top valve seat to the lower valve seat using care to avoid damage to the gasket, and valve springs and plates from moving out of position.
- B9. Remove ties to free valve springs and plates
- B10. Check to be sure valve springs and valve plates are in proper position and the plates are free to flex when manually touched with blunt instrument.

Assemble valve assembly package into compressor.

- C1. Use new gaskets, valve package to cylinder and cylinder head to valve package. Select gaskets by part numbers from parts breakdown.
- C2. Remove shop cloth to expose open cylinder bores. Remove any foreign matter from cylinder bores and top of cylinder.
- C3. Place gasket on top of cylinder, place and align valve package, place gasket on top of valve package and align holes for head bolts.
- C4. Place clean head on top of valve package with gasket and align with cylinder bolt holes.
- C5. Insert cylinder head bolts using care to avoid damage to the gaskets, start each bolt threading evenly to contact head surfaces.
- C6. Torque head bolts equally, follow torque specifications on page 20.
- C7. Attach and tighten copper tubing of constant running compressors.
- C8. Assemble and tighten discharge tubing.
- C9. Check oil level in crankcase
- C10. Close and tighten valve or the connections used to drain air pressure from system.
- C11. Remove all tools and make area safe to start compressor.
- C12. Turn on power at main switch and inspect to see that unit is operating properly.
- C13. Stay with unit for normal pump up to cut out pressure.
- C14. If unit has performed through a running cycle properly put on line for duties and remove red tag from power supply switch.
- C15. Make entry in equipment maintenance log.

**VALVE PLATES DESIGNS FOR E-57 COMPRESSOR**

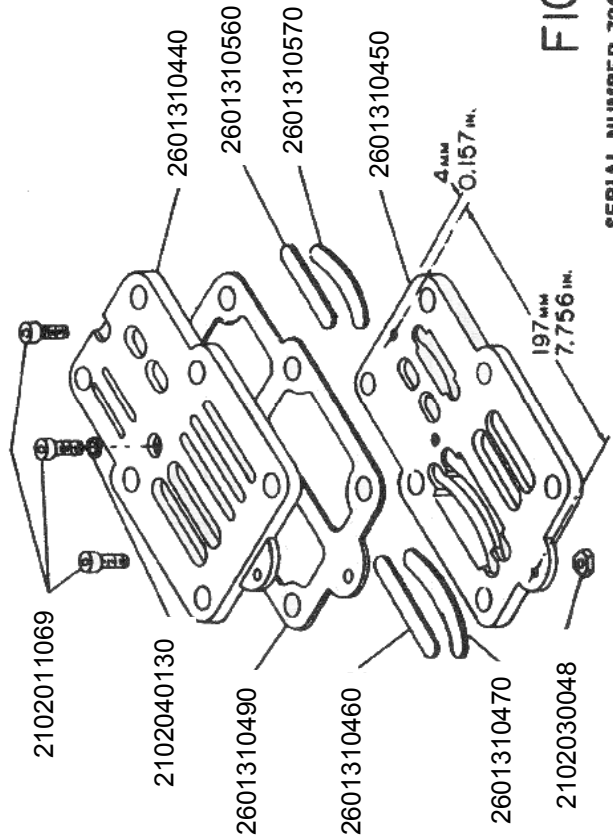


**FIG. 1**

**SERIAL NUMBER 6107030  
THROUGH 6116445**

**FIG. 2**

**SERIAL NUMBER 7010603  
THROUGH 7043734**



**FIG. 4**

**SERIAL NUMBER 7043735  
AND LATER**

## BOLT TORQUES FOR CHALLENGE AIR COMPRESSORS

|            | HEAD BOLTS |               | CYLINDER-CASE |               | ROD BOLTS |               | FRONT COVER |               | REAR COVER |               | INLET & OUTLET VALVE PUSH COVERS |                      |
|------------|------------|---------------|---------------|---------------|-----------|---------------|-------------|---------------|------------|---------------|----------------------------------|----------------------|
|            | SIZE BOLT  | TORQUE CM-FT. | SIZE BOLT     | TORQUE CM-FT. | SIZE BOLT | TORQUE CM-FT. | SIZE BOLT   | TORQUE CM-FT. | SIZE BOLT  | TORQUE CM-FT. | SIZE BOLT                        | TORQUE CM-FT.        |
|            |            |               |               |               |           |               |             |               |            |               |                                  |                      |
| <b>E11</b> | M8-1.25    | 200-14.5      | M8-1.25       | 200-14.5      | M8-1.25   | 180-13.0      | M8-1.25     | 180-13.0      | M8-1.25    | 180-13.0      |                                  |                      |
| <b>E23</b> | M8-1.25    | 200-14.5      | M8-1.25       | 200-14.5      | M8-1.25   | 180-13.0      | M8-1.25     | 180-13.0      | M8-1.25    | 180-13.0      |                                  |                      |
| <b>E35</b> | M8-1.25    | 200-14.5      | M8-1.25       | 200-14.5      | M8-1.25   | 180-13.0      | M8-1.25     | 180-13.0      | M8-1.25    | 300-21.7      |                                  |                      |
| <b>E50</b> | M10-1.5    | 300-21.7      | M10-1.5       | 280-20.35     | M8-1.5    | 280-20.25     | M8-1.5      | 280-20.25     | M10-1.5    | 280-20.25     | M8-1.25                          | 225-16.3             |
| <b>E57</b> | M10-1.5    | 320-23.1      | M10-1.5       | 280-20.25     | M8-1.25   | 280-20.25     | M10-1.5     | 300-21.7      | M8-1.25    | 300-21.7      |                                  |                      |
| <b>E71</b> | M10-1.5    | 320-23.1      | M10-1.5       | 280-20.25     | M8-1.5    | 300-21.7      | M8-1.5      | 300-21.7      | M10-1.5    | 280-20.25     | M8-1.25                          | 225-16.3             |
| <b>E15</b> | M10-1.5    | 320-23.1      | M10-1.75      | 350-25.3      | M10-1.5   | 300-23.1      | M10-1.5     | 320-23.1      | M10-1.5    | 280-20.25     | L M10-1.5<br>H M8-1.25           | 320-23.1<br>225-16.3 |

**BOLT TORQUES**

| <b>MODEL NO.</b> | <b>FLYWHEEL BOLTS</b>  |                        | <b>FAN BOLTS</b>       |                        |
|------------------|------------------------|------------------------|------------------------|------------------------|
|                  | <b>TORQUE FT.-LBS.</b> | <b>TORQUE IN.-LBS.</b> | <b>TORQUE FT.-LBS.</b> | <b>TORQUE IN.-LBS.</b> |
| E11<br>E35       | 12                     | 144                    | -                      | -                      |
| E57              | 23                     | 276                    | -                      | -                      |
| E23              | 12                     | 144                    | -                      | -                      |
| E50              | 40                     | 480                    | -                      | -                      |
| E71              | 45                     | 540                    | 24                     | 288                    |
| E15              | 50                     | 600                    | 24                     | 288                    |

**OIL CAPACITIES**

| <b>MODEL NUMBER</b> | <b>HORSEPOWER</b> | <b>MIN RPM</b> | <b>OIL CAPACITY</b> |
|---------------------|-------------------|----------------|---------------------|
| E23                 | 2 – 3             | 500            | 1¾ PINTS            |
| E50                 | 5                 | 500            | 1½ QUARTS           |
| E11                 | 1                 | 500            | 1¼ PINTS            |
| E35                 | 3 – 5             | 500            | 2½ PINTS            |
| E57                 | 5 – 7½            | 500            | 2 QUARTS            |
| E71                 | 10                | 500            | 2½ QUARTS           |
| E15                 | 15                | 500            | 5 QUARTS            |

## TROUBLESHOOTING

|  | <b>SYMPTOMS</b>  | <b>CAUSES</b>  | <b>REMEDIES</b>  |
|--|--|--|--|
| <b>WHEN COMPRESSOR CAN BE STARTED</b>    | Flywheel rotation in wrong direction                       | Incorrect connection of motor terminal   | Re-arrange terminal connection.  |
|  | Overheating of bearings                                    | 1. Insufficient lubrication.<br>2. Bad lubrication system.<br>3. Crankshaft bearings too tight.  | 1. Add lubrication oil.<br>2. Remove and examine the system.<br>3. Readjust load on bearings.  |
|  | Flywheel rotation slows down                               | 1. Heavy lubrication oil.<br>2. Drop in voltage.<br>3. Belts slipping.   | 1. Refill with lighter lubrication oil.<br>2. Contact power company or install a transformer.<br>3. Tighten belts  |
|  | Severe vibration   | Bent crankshaft  | Remove & Replace   |
|  | Abnormal noise   | 1. Loose valve assembly.<br>2. Piston hits cylinder cover.<br>3. Worn connecting rod bearing.  | 1. Tighten valve bolt and lock nut.<br>2. Check piston & rod assembly for excessive wear.<br>3. Replace bearing.   |
|  | Pressure cannot be built up or only up to a certain extent | 1. Worn valve plate.<br>2. Valve springs have lost their temper.<br>3. Dirt on the valve plate.<br>4. Leaks from safety valve.<br>5. Leaks from bolt holes.<br>6. Uneven valve seat surface.<br>7. Excessive blow by on piston rings.<br>8. Bad packing (gasket too thick).<br>9. Excessive air leaks. | 1. Repair or replace valve plate.<br>2. Replace valve springs.<br>3. Remove and clean it.<br>4. Repair or replace safety valve.<br>5. Tighten the nuts even with packing.<br>6. Remove and lap the surface.<br>7. Replace with new ones<br>8. Replace packing (gasket).<br>9. Eliminate air leaks. |
|  | Inaccuracy of pressure gauge                               | Pressure gauge damaged.  | Replace.   |
|  | Excessive oil consumption                                  | 1. Worn piston ring<br>2. Worn piston.<br>3. Worn cylinder.  | 1. Replace.<br>2. Replace.<br>3. Replace.  |
|  | Slipping of belts  | 1. Working pressure too high.<br>2. Improper belt tension.<br>3. Worn belt.  | 1. Lower working pressure.<br>2. Adjust belt tension.<br>3. Replace with new ones.   |
|  | Overheating of electric motors                             | 1. Overloading of motor due to excessive working pressure (higher than stipulated pressure).<br>2. Burnt piston.<br>3. Burnt bearing metals.<br>4. Drop of voltage.  | 1. Lower working pressure.<br>2. Rebuild compressor.<br>3. Rebuild compressor.<br>4. Contact power company or install a transformer  |
| <b>WHEN COMPRESSOR CANNOT BE STARTED</b> | Unit will not start  | 1. Breakdown of electric current.<br>2. Line failure.<br>3. Malfunction of motor   | 1. Contact power company.<br>2. Examine the line. Replace with new wiring.<br>3. Contact motor manufacturer.   |
|  | Fuse tends to blow   | 1. Incorrect size.<br>2. Wrong connections<br>3. Overloading of motor.<br>4. Overloading of motor due to leaks of outlet valve.<br>5. Crankshaft too tight.  | 1. Replace with correct size.<br>2. Change connections.<br>3. Eliminate the loading.<br>4. Remove and repair outlet valve.<br>5. Remove crankshaft and examine it for cause.   |

FS CURTIS

CUSTOMER SERVICE (314) 383-1300

## **RECOMMENDED STATEMENT ON DRYERS AND FILTERS**

Liquid water occurs naturally in air lines as a result of compression. Moisture vapor in ambient air is concentrated when pressurized and condenses when cooled in downstream air piping.

Compressed air dryers reduce water vapor concentration and prevent liquid water formation in compressed air lines. Dryers are necessary companion to air filters, aftercoolers, and automatic tank drains for improving the productivity of compressed air systems.

Water and water vapor removal increases the efficiency of air operated equipment, reduces contamination and rusting, increases service life of pneumatic equipment and tools, prevents air line freeze ups, and reduces product rejects. The use of dryer's filters is recommended when this moisture related problems are reported to our factory or distributor service departments.

### Troubleshooting guide

Symptom: Liquid water present in compressed air lines.

Problem: Water vapor condensation from cooling and compression occurs naturally

Solution: Remove the water vapor from compressed air prior to distribution through the air system. Check operation of after-cooler and moisture separator. Install a compressed air dryer sized for the flow and dryness level required.

(Note: filters may also be required to remove particles, liquid oil aerosols, or for oil vapor removal. Change cartridges as recommended by filter manufacturer.)

Check all drain traps routinely to insure their proper operation. Maintain them regularly.

## COMPRESSOR PUMP-UP TIME

### TWO STAGE

| H.P. Size | Compressor Model No. | R.P.M. | Piston Displ. C.F.M. | Tank size |     | Approx. Time Required To Pump From: |                             |
|-----------|----------------------|--------|----------------------|-----------|-----|-------------------------------------|-----------------------------|
|           |                      |        |                      | Size (in) | Gal | 0 to 175 PSIG Min. – Sec.           | 145 to 175 PSIG Min. – Sec. |
| 3         | 3VT6                 | 947    | 10.66                | 20 x 50   | 60  | 12' – 24"                           | 2' – 8"                     |
| 5         | 5E23VT6              | 1000   | 11.3                 | 20 x 50   | 60  | 11' – 47"                           | 2' – 1"                     |
| 5         | 5E1HT6               | 1100   | 15.81                | 20 x 50   | 60  | 7' – 46"                            | 1' – 20"                    |
| 5         | 5E1VT6               | 1100   | 15.81                | 20 x 50   | 60  | 7' – 46"                            | 1' – 20"                    |
| 5         | 5E1HT8               | 1100   | 15.81                | 20 x 48   | 80  | 10' – 21"                           | 1' – 46"                    |
| 5         | 5E1VT8               | 1100   | 15.81                | 20 x 48   | 80  | 10' – 21"                           | 1' – 46"                    |
| 5         | 5HT6                 | 968    | 20.58                | 20 x 50   | 60  | 5' – 56"                            | 1' – 1"                     |
| 5         | 5VT6                 | 968    | 20.58                | 20 x 50   | 60  | 5' – 56"                            | 1' – 1"                     |
| 5         | 5HT8                 | 968    | 20.58                | 20 x 66   | 80  | 7' – 54"                            | 1' – 21"                    |
| 5         | 5VT8                 | 968    | 20.58                | 20 x 48   | 80  | 7' – 54"                            | 1' – 21"                    |
| 5         | 5E2HT6               | 900    | 21.47                | 20 x 50   | 60  | 5' – 25"                            | 0' – 56"                    |
| 5         | 5E2VT6               | 900    | 21.47                | 20 x 50   | 60  | 5' – 25"                            | 0' – 56"                    |
| 5         | 5E2HT8               | 900    | 21.47                | 20 x 66   | 80  | 7' – 14"                            | 1' – 14"                    |
| 5         | 5E2VT8               | 900    | 21.47                | 20 x 48   | 80  | 7' – 14"                            | 1' – 14"                    |
| 7 1/2     | 7E2HT8               | 1100   | 26.24                | 20 x 66   | 80  | 6' – 16"                            | 1' – 05"                    |
| 7 1/2     | 7E2VT8               | 1100   | 26.24                | 24 x 48   | 80  | 6' – 16"                            | 1' – 05"                    |
| 7 1/2     | 7HT8                 | 764    | 29.57                | 20 x 66   | 80  | 5' – 22"                            | 0' – 55"                    |
| 10        | 10HT8                | 977    | 37.81                | 20 x 66   | 80  | 4' – 11"                            | 0' – 43"                    |
| 10        | 10HT12               | 977    | 37.81                | 24 x 70   | 120 | 6' – 17"                            | 1' – 5"                     |
| 10        | 10VT12               | 977    | 37.81                | 30 x 47   | 120 | 6' – 17"                            | 1' – 5"                     |
| 15        | 15HT12               | 855    | 54.55                | 24 x 70   | 120 | 4' – 28"                            | 0' – 46"                    |

### TWO STAGE GASOLINE ENGINE DRIVEN

| H.P. Size | Compressor Model No. | R.P.M. | Piston Displ. C.F.M. | Tank size |     | Approx. Time Required To Pump From: |                             |
|-----------|----------------------|--------|----------------------|-----------|-----|-------------------------------------|-----------------------------|
|           |                      |        |                      | Size (in) | Gal | 0 to 175 PSIG Min. – Sec.           | 145 to 175 PSIG Min. – Sec. |
| 10        | 10E2GT3              | 910    | 21.7                 | 16 x 41   | 30  | 2' – 42"                            | 0' – 28"                    |
| 10        | 10GT3                | 950    | 20.2                 | 16 x 41   | 30  | 3' – 1"                             | 0' – 31"                    |
| 10        | 10GT6                | 950    | 20.2                 | 20 x 50   | 60  | 6' – 3"                             | 1' – 2"                     |
| 13        | 13E2GT3K             | 910    | 21.7                 | 16 x 41   | 30  | 2' – 42"                            | 0' – 28"                    |
| 13        | 13GT3K               | 950    | 20.2                 | 16 x 41   | 30  | 3' – 1"                             | 0' – 31"                    |
| 13        | 13GTGK               | 950    | 20.2                 | 20 x 50   | 60  | 6' – 3"                             | 1' – 2"                     |
| 13        | 13E2GT3HE            | 910    | 21.7                 | 16 x 41   | 30  | 2' – 42"                            | 0' – 28"                    |



**NOTES**



## CA SERIES

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# E57A COMPRESSOR PUMP PARTS LIST

LOT NUMBER:

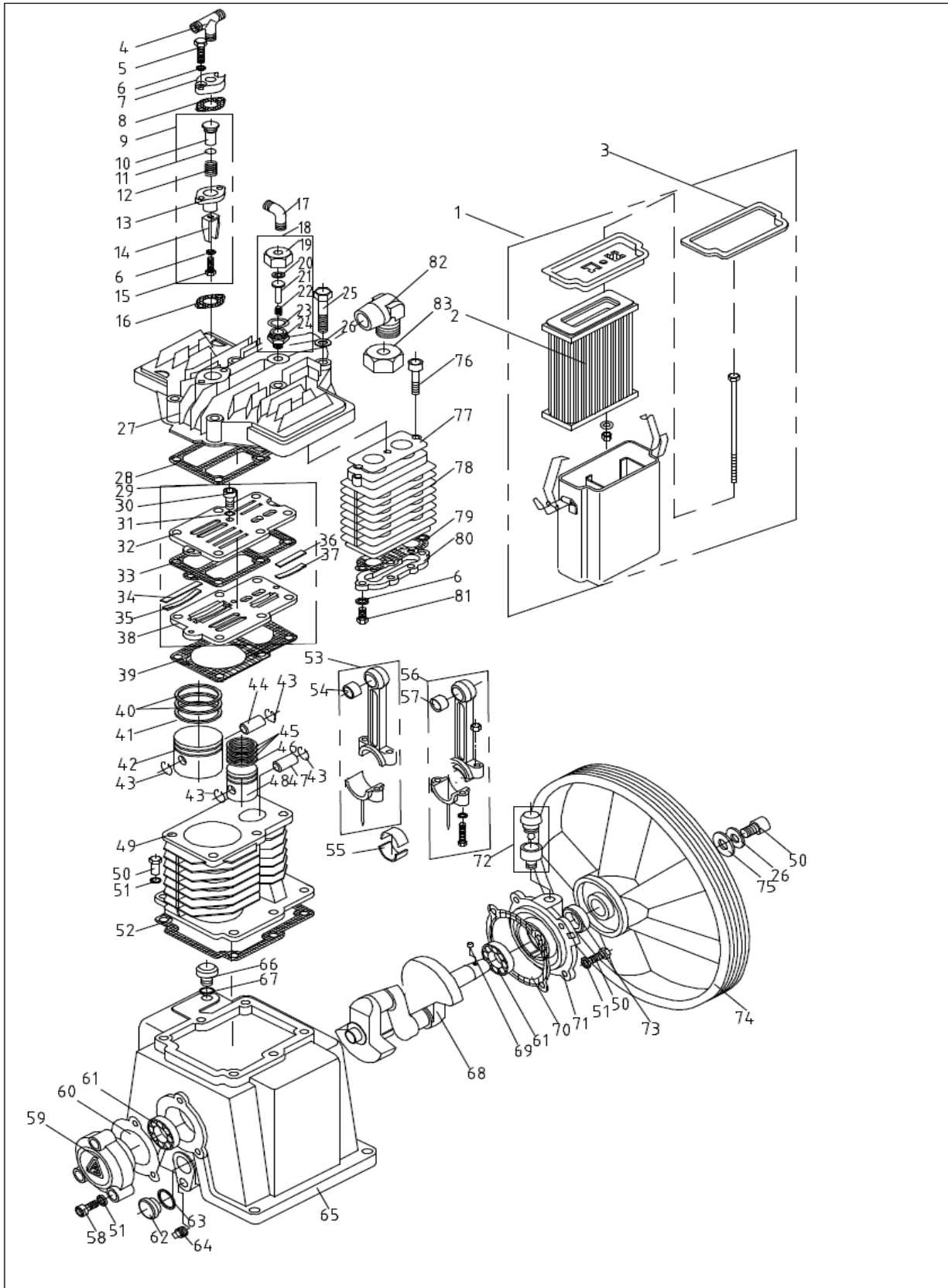
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RECORD MODEL & SERIAL NUMBER BELOW:

MODEL: \_\_\_\_\_

SERIAL: \_\_\_\_\_

Curtis Toledo Inc  
1905 Kienlen Avenue, St Louis, Missouri 63133  
Tel: (314) 383-1300 Fax: (314) 381-1439  
[www.fscurtis.com](http://www.fscurtis.com)



| ITEM                  | DESCRIPTION                                      | QTY | PART NUMBER |
|-----------------------|--|-----|-------------|
| <b>AIR STRAINER</b>   |  |     |             |
| 1                     | Air Strainer Assembly                            | 1   | 2601540262  |
| 2                     | Air Strainer Element                             | 1   | 2601540300  |
| 3                     | Air Strainer Cover Gasket                        | 1   | 2601540330  |
| <b>UNLOADER</b>       |  |     |             |
| 4                     | Unloader Copper Tee                              | 1   | 2101090006  |
| 5                     | Unloader Push Cover Bolt; M6 x L25, Gr 8.8 (1st) | 2   | 2102011103  |
| 6                     | Unloader Push Cover Spring Washer; M6 (1st)      | 7   | 2102040134  |
| 7                     | Unloader Push Cover (1st)                        | 1   | 2601022970  |
| 8                     | Unolader Push Cover Gasket (1st)                 | 1   | 2601023030  |
| 9                     | Unloader Assembly (1st)                          | 1   | 2601022921  |
| 10                    | Unloader Piston (1st)                            | 1   | 2601022952  |
| 11                    | Viton O-Ring Unloader (1st)                      | 1   | 2111010101  |
| 12                    | Unloader Spring (1st)                            | 1   | 2601022961  |
| 13                    | Unloader Cylinder (1st)                          | 1   | 2601022941  |
| 14                    | Unloading Fork (1st)                             | 1   | 2601310480  |
| 15                    | Unloader Bolt; M6 x L16 Gr 8.8 (1st)             | 1   | 2102011095  |
| 16                    | Unloader Gasket (1st)                            | 1   | 2601035400  |
| 17                    | Unloading Elbow                                  | 1   | 2688360780  |
| 18                    | Unloader Assembly (2nd)                          | 1   | 2601023051  |
| 19                    | Unloader Push Cover (2nd)                        | 1   | 2601022291  |
| 20                    | Viton O-Ring Unloader (2nd)                      | 1   | 2111010092  |
| 21                    | Unloader Piston (2nd)                            | 1   | 2601023072  |
| 22                    | Unloader Spring (2nd)                            | 1   | 2601022281  |
| 23                    | Unloader Copper Washer (2nd)                     | 1   | 2601022340  |
| 24                    | Unloader Body (2nd)                              | 1   | 2601022271  |
| <b>CYLINDER HEAD</b>  |  |     |             |
| 25                    | Cylinder Head Bolt; M10 x L85, Gr 8.8            | 6   | 2102010337  |
| 26                    | Cylinder Head Spring Washer; M10                 | 7   | 2102040140  |
| 27                    | Cylinder Head                                    | 1   | 2601022860  |
| 28                    | Cylinder Head - Valve Seat Gasket                | 1   | 2601022880  |
| <b>VALVE ASSEMBLY</b> |  |     |             |
| 29                    | Valve Plate Assembly                             | 1   | 2601310420  |
| 30                    | Valve Seat Bolt; M5 x L12, Gr 8.8                | 3   | 2102011071  |
| 31                    | Valve Seat Bolt Spring Washer; M5                | 3   | 2102030049  |
| 32                    | Valve Seat (Upper)                               | 1   | 2601310440  |
| 33                    | Valve Seat Gasket                                | 1   | 2601310500  |
| 34                    | Valve Plate (1st)                                | 4   | 2601310460  |
| 35                    | Valve Plate Spring (1st)                         | 4   | 2601310470  |
| 36                    | Valve Plate (2nd)                                | 2   | 2601310560  |
| 37                    | Valve Plate Spring (2nd)                         | 2   | 2601310570  |
| 38                    | Valve Seat (Bottom)                              | 1   | 2601310450  |
| 39                    | Cylinder-Valve Seat Gasket                       | 1   | 2601310510  |

| ITEM                               | DESCRIPTION                                      | QTY | PART NUMBER |
|------------------------------------|--|-----|-------------|
| <b>CYLINDER, PISTON &amp; RING</b> |  |     |             |
| 40                                 | Compression Ring (1st)                           | 2   | 2601026840  |
| 41                                 | Oil Control Ring (1st)                           | 2   | 2601026860  |
| 42                                 | Piston (1st)                                     | 1   | 2601023361  |
| 43                                 | Piston Snap Ring                                 | 4   | 2601023370  |
| 44                                 | Piston Pin (1st)                                 | 1   | 2601023420  |
| 45                                 | Compression Ring (2nd)                           | 3   | 2601023520  |
| 46                                 | Oil Control Ring (2nd)                           | 1   | 2601023540  |
| 47                                 | Piston Pin (2nd)                                 | 1   | 2601023570  |
| 48                                 | Piston (2nd)                                     | 1   | 2601023500  |
| 49                                 | Cylinder   | 1   | 2601023100  |
| 50                                 | Cylinder Bolt; M10 x L30, Gr 8.8                 | 11  | 2102010276  |
| 51                                 | Cylinder Copper Washer; M10                      | 13  | 2102040074  |
| 52                                 | Cylinder Crankcase Gasket                        | 1   | 2601023130  |
| <b>CONNECTING ROD</b>              |  |     |             |
| 53                                 | Connecting Rod Assembly (1st)                    | 1   | 2601023600  |
| 54                                 | Connecting Rod - Piston Pin Bushing (1st)        | 1   | 2601023391  |
| 55                                 | Connecting Rod Crank Pin Metal (1st)             | 4   | 2601023400  |
| 56                                 | Connecting Rod Assembly (2nd)                    | 1   | 2601023600  |
| 57                                 | Connecting Rod - Piston Pin Needle Bearing (2nd) | 1   | 2110090039  |
| <b>CRANKCASE &amp; CRANKSHAFT</b>  |  |     |             |
| 58                                 | Rear Bearing Cover Bolt; M8 x L30, Gr 8.8        | 3   | 2102011146  |
| 59                                 | Rear Bearing Cover                               | 1   | 2601023281  |
| 60                                 | Rear Bearing Cover Gasket                        | 1   | 2601023330  |
| 61                                 | Front & Rear Bearing                             | 2   | 2110020104  |
| 62                                 | Plug-in Oil Level Glass                          | 1   | 2601020740  |
| 63                                 | Oil Level Glass Gasket                           | 1   | 2601020770  |
| 64                                 | Crankcase Oil Plug (Special non-standard)        | 1   | 2601023080  |
| 65                                 | Crankcase  | 1   | 2601023200  |
| 66                                 | Oil Fill Cap                                     | 1   | 2601024910  |
| 67                                 | O-ring (Oil Fill Cap)                            | 1   | 2111010013  |
| 68                                 | Crankshaft                                       | 1   | 2601023150  |
| 69                                 | V-Pulley Pin                                     | 1   | 2601024660  |
| 70                                 | Front Bearing Cover Gasket                       | 1   | 2601023270  |
| 71                                 | Front Bearing Cover                              | 1   | 2601023220  |
| 72                                 | Breather Assembly                                | 1   | 2601026681  |
| 73                                 | Front Oil Seal                                   | 1   | 2601024870  |
| 74                                 | Compressor Pulley                                | 1   | 2601230941  |
| 75                                 | Compressor Pulley Thrust Washer                  | 1   | 2601237360  |

| ITEM                | DESCRIPTION                       | QTY | PART NUMBER |
|---------------------|-----------------------------------|-----|-------------|
| <b>INTER-COOLER</b> |                                   |     |             |
| 76                  | Inter-Cooler Bolt (Upper)         | 3   | 2102011161  |
| 77                  | Inter-Cooler Body Gasket (Upper)  | 1   | 2601510190  |
| 78                  | Inter-Cooler Body                 | 1   | 2601510140  |
| 79                  | Inter-Cooler Body Gasket (Bottom) | 1   | 2601510220  |
| 80                  | Inter-Cooler Bottom Cover         | 1   | 2601510161  |
| 81                  | Inter-Cooler Bolt (Bottom)        | 4   | 2102010123  |
| 82                  | Discharge Elbow                   | 1   | 2601490971  |
| 83                  | Discharge Elbow Nut               | 1   | 2688360290  |

**NOTES**



## CA SERIES

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# E71 COMPRESSOR PUMP PARTS LIST

LOT NUMBER:

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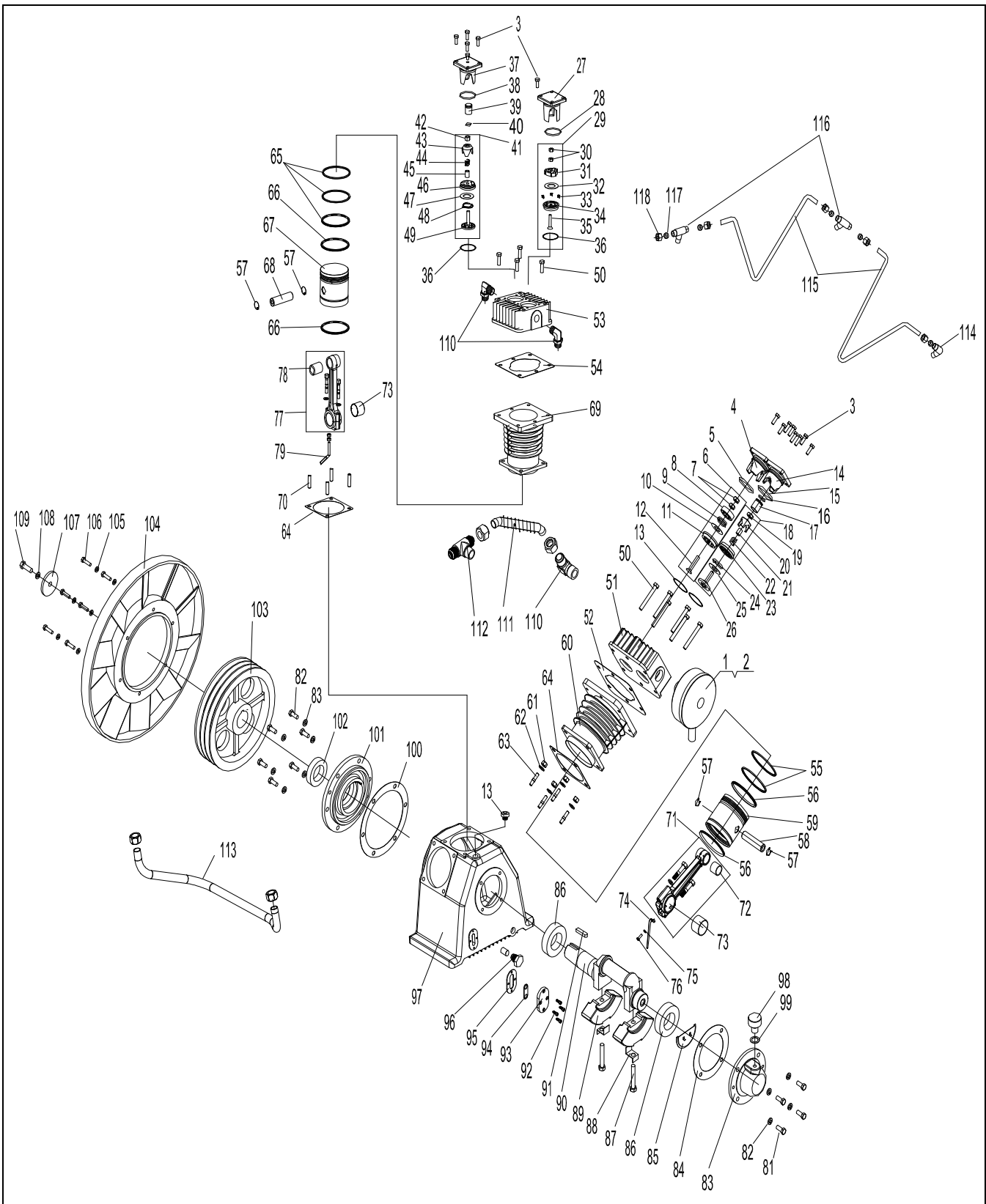
RECORD MODEL & SERIAL NUMBER BELOW:

MODEL: \_\_\_\_\_

SERIAL: \_\_\_\_\_

Curtis Toledo Inc  
1905 Kienlen Avenue, St Louis, Missouri 63133  
Tel: (314) 383-1300 Fax: (314) 381-1439  
[www.fscurtis.com](http://www.fscurtis.com)





| ITEM                         | DESCRIPTION                                    | QTY | PART NUMBER  |
|------------------------------|--|-----|--------------|
| <b>AIR STRAINER</b>          |  |     |              |
| 1                            | Air Strainer Assembly                          | 2   | 2601540560   |
| 2                            | Air Strainer Element (Not Shown)               | 2   | 2601540410   |
| <b>VALVE &amp; UNLOADERS</b> |  |     |              |
| 3                            | Outlet Valve Push Cover Bolt; M8 x L25, Gr 8.8 | 16  | 2102010189   |
| 4                            | Outlet Valve Push Cover (1st)                  | 2   | 2601026250   |
| 5                            | Viton O-ring G 55 (Outlet Valve-1st)           | 2   | 2111010267   |
| 6                            | Outlet Valve Assembly (1st)                    | 2   | 2601320190   |
| 7                            | Nut; M8 (Outlet Valve-1st)                     | 4   | 2102030064   |
| 8                            | Outlet Valve Receiver (1st)                    | 2   | 2601320210   |
| 9                            | Outlet Valve Spring (1st)                      | 2   | 2601320220   |
| 10                           | Outlet Valve Plate (1st)                       | 2   | 2501310100   |
| 11                           | Outlet Valve Seat (1st)                        | 2   | 2601320202   |
| 12                           | Outlet Valve Bolt; M10 x L50, Gr 8.8 (1st)     | 2   | 2102011755   |
| 13                           | Inlet & Outlet Valve Gasket (1st)              | 4   | 2601026190   |
| 14                           | Inlet Valve Push Cover (1st)                   | 2   | 2601026210   |
| 15                           | O-ring G 55 (Inlet Valve-1st)                  | 2   | 2111010224   |
| 16                           | Viton O-ring P 21 (Unloader-1st)               | 2   | 2111010105   |
| 17                           | Unloader Piston (1st)                          | 2   | 2601026230   |
| 18                           | Inlet Valve Assembly-1st                       | 2   | 2601310880   |
| 19                           | Locknut; M10 (Inlet Valve-1st)                 | 2   | CALL FACTORY |
| 20                           | Inlet Valve Unloader Fork (1st)                | 2   | 2601310950   |
| 21                           | Inlet Valve Unloader Fork Guide (1st)          | 2   | 2601310960   |
| 22                           | Unloader Spring (1st)                          | 2   | 2601026240   |
| 23                           | Inlet Valve Seat (1st)                         | 2   | 2601310901   |
| 24                           | Inlet Valve Plate (1st)                        | 2   | 2501310100   |
| 25                           | Inlet Valve Spring (1st)                       | 2   | 2601310940   |
| 26                           | Inlet Valve Receiver (1st)                     | 2   | 2601310910   |
| 27                           | Outlet Valve Push Cover (2nd)                  | 1   | 2601024510   |
| 28                           | Viton O-ring G 40 (Outlet Valve-2nd)           | 1   | 2111010263   |
| 29                           | Outlet Valve Assembly (2nd)                    | 1   | 2601320070   |
| 30                           | Nut; M8 (Outlet Valve-2nd)                     | 1   | SEE FACTORY  |
| 31                           | Outlet Valve Receiver (2nd)                    | 1   | 2601320090   |
| 32                           | Outlet Valve Plate (2nd)                       | 3   | 2501310050   |
| 33                           | Outlet Valve Spring (2nd)                      | 1   | 2601320110   |
| 34                           | Outlet Valve Seat (2nd)                        | 1   | 2601320081   |
| 35                           | Outlet Valve Bolt (2nd)                        | 1   | 2601320120   |
| 36                           | Inlet & Outlet Valve Gasket (2nd)              | 2   | 2601024400   |
| 37                           | Inlet Valve Push Cover (2nd)                   | 1   | 2601024420   |
| 38                           | Viton O-ring G 40 (Inlet Valve-2nd)            | 1   | 2111010263   |
| 39                           | Unloader Piston (2nd)                          | 1   | 2601024450   |
| 40                           | Viton O-ring P 20 (Unloader-2nd)               | 1   | 2111010104   |

| ITEM | DESCRIPTION                                      | QTY | PART NUMBER  |
|------|--|-----|--------------|
| 41   | Inlet Valve Assembly (2nd)                       | 1   | 2601311230   |
| 42   | Locknut; M8 (Inlet Valve-2nd)                    | 2   | CALL FACTORY |
| 43   | Inlet Valve Unloader Fork (2nd)                  | 1   | 2601310700   |
| 44   | Unloader Spring (2nd)                            | 1   | 2601024470   |
| 45   | Inlet Valve Unloader Fork Guide (2nd)            | 1   | 2601310710   |
| 46   | Inlet Valve Seat (2nd)                           | 1   | 2601310650   |
| 47   | Inlet Valve Plate (2nd)                          | 1   | 2501310050   |
| 48   | Inlet Valve Spring (2nd)                         | 1   | 2601310690   |
| 49   | Inlet Valve Receiver (2nd)                       | 1   | 2601311250   |
| 50   | Cylinder Head Bolt (1st); M10 x L80, Gr 8.8      | 16  | 2102010189   |
| 51   | Cylinder Head (1st)                              | 2   | 2601023100   |
| 52   | Head - Cylinder Gasket (1st)                     | 2   | 2601026130   |
| 53   | Cylinder Head (2nd)                              | 1   | 2601029991   |
| 54   | Head - Cylinder Gasket (2nd)                     | 1   | 2601024331   |
| 55   | Compression Ring (1st)                           | 4   | 2601026840   |
| 56   | Oil Control Ring (1st)                           | 4   | 2601026860   |
| 57   | Piston Pin Snap Ring (1st)                       | 6   | 2601026880   |
| 58   | Piston Pin (1st)                                 | 2   | 2601026990   |
| 59   | Piston (1st)                                     | 2   | 2601026820   |
| 60   | Cylinder (1st)                                   | 2   | 2601026261   |
| 61   | Cylinder Nut (1st); M10                          | 12  | 2102030065   |
| 62   | Cylinder Bolt Copper Washer (1st); M10           | 12  | 2102040140   |
| 63   | Cylinder Bolt (1st); M10 x L40, Gr 8.8           | 8   | 2601024620   |
| 64   | Cylinder - Case Gasket                           | 3   | 2601026310   |
| 65   | Compression Ring (2nd)                           | 3   | 2601024970   |
| 66   | Oil Control Ring (2nd)                           | 2   | 2601024990   |
| 67   | Piston (2nd)                                     | 1   | 2601030090   |
| 68   | Piston Pin (2nd)                                 | 1   | 2601030120   |
| 69   | Cylinder (2nd)                                   | 1   | 2601030021   |
| 70   | Cylinder Bolt (1st); M10 x L43, Gr 8.8           | 4   | 2601030010   |
| 71   | Connecting Rod Assembly (1st)                    | 2   | 2601027000   |
| 72   | Connecting Rod - Piston Pin Bushing (1st)        | 2   | 2501020130   |
| 73   | Connecting Rod Crank Pin Metal (1st)             | 6   | 2601026900   |
| 74   | Oil Splash Dipper                                | 2   | 2601030280   |
| 75   | Oil Splash Dipper Bolt Spring Washer; M5         | 3   | 2102040132   |
| 76   | Oil Splash Dipper Bolts; M5 x L16, Gr 8.8        | 3   | 2102011566   |
| 77   | Connecting Rod Assembly (2nd)                    | 1   | 2601030131   |
| 78   | Connecting Rod - Piston Pin Needle Bearing (2nd) | 1   | 2110090026   |
| 79   | Oil Splash Dipper                                | 1   | 2601030290   |

| ITEM                              | DESCRIPTION                                      | QTY | PART NUMBER  |
|-----------------------------------|--|-----|--------------|
| <b>CRANKCASE &amp; CRANKSHAFT</b> |  |     |              |
| 80                                | Breather Assembly (Rubber)                       | 1   | CCC1258      |
| 81                                | Rear Bearing Cover Bolt; M10 x L25, Gr 8.8       | 10  | 2102010276   |
| 82                                | Rear Bearing Cover Bolt Copper Washer; M10       | 10  | 2102040074   |
| 83                                | Rear Bearing Cover                               | 1   | 2601029750   |
| 84                                | Rear Bearing Cover Gasket                        | 1   | 2601029810   |
| 85                                | Oil Baffle                                       | 1   | 2601029870   |
| 86                                | Front & Rear Bearing                             | 2   | 2110060021   |
| 87                                | Crankshaft Counterweight Bolt; M12 x L72, Gr 8.8 | 2   | 2601026430   |
| 88                                | Crankshaft Counterweight Lockwasher              | 2   | 2601026440   |
| 89                                | Crankshaft Counterweight                         | 1   | 2601029620   |
| 90                                | Crankshaft                                       | 1   | 2601030040   |
| 91                                | V-Pulley Pin                                     | 1   | 2601029650   |
| 92                                | Oil Level Glass Bolt; M5 x L20, Gr 8.8           | 4   | VH1470       |
| 93                                | Oil Level Glass Push Cover                       | 1   | 2601026780   |
| 94                                | Oil Level Glass Assembly                         | 1   | 2601026740   |
| 95                                | Oil Level Glass Gasket                           | 1   | 2601026770   |
| 96                                | Crankcase Oil Plug (1/2" PT)                     | 1   | 2102020061   |
| 97                                | Crankcase  | 1   | 2601029690   |
| 98                                | Oil Fill Cap                                     | 1   | CCC1257      |
| 99                                | O-ring (Oil Fill Cap)                            | 1   | CALL FACTORY |
| 100                               | Front Bearing Cover Gasket                       | 1   | 2601026520   |
| 101                               | Front Bearing Cover                              | 1   | 2601029711   |
| 102                               | Front Oil Seal                                   | 1   | 2601029860   |
| 103                               | Compressor Pulley                                | 1   | 2601234581   |
| 104                               | Compressor Fan                                   | 1   | 2601232610   |
| 105                               | Compressor Fan Spring Washer, M8                 | 6   | 2102010437   |
| 106                               | Compressor Fan Bolt; M8 x L30, Gr 8.8            | 6   | 2102010195   |
| 107                               | Compressor Pulley Thrust Washer                  | 1   | 2601232980   |
| 108                               | Compressor Pulley Spring washer; M12             | 1   | 2102040143   |
| 109                               | Compressor Pulley Bolt; M12 x L40, Gr 8.8        | 1   | 2102010405   |
| <b>DISCHARGE PIPING</b>           |  |     |              |
| 110                               | Outlet Piping Joint                              | 3   | 2601490971   |
| 111                               | Discharge Piping Assembly - Short                | 1   | 2601491971   |
| 112                               | Outlet Piping Joint                              | 1   | 2601492011   |
| 113                               | Discharge Piping Assembly - Long                 | 1   | 2601492030   |
| <b>UNLOADER PIPING</b>            |  |     |              |
| 114                               | Unloader Elbow                                   | 1   | 2101080140   |
| 115                               | Unloader Tube Assembly                           | 2   | 2601410140   |
| 116                               | Unloader Copper Tee                              | 2   | 2101090006   |
| 117                               | Unloader Connection Ferrule                      | 1   | 2101100001   |
| 118                               | Unloader Tube Nut                                | 1   | 2101110001   |

**NOTES**



## CA SERIES

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# E23B COMPRESSOR PUMP PARTS LIST

LOT NUMBER:

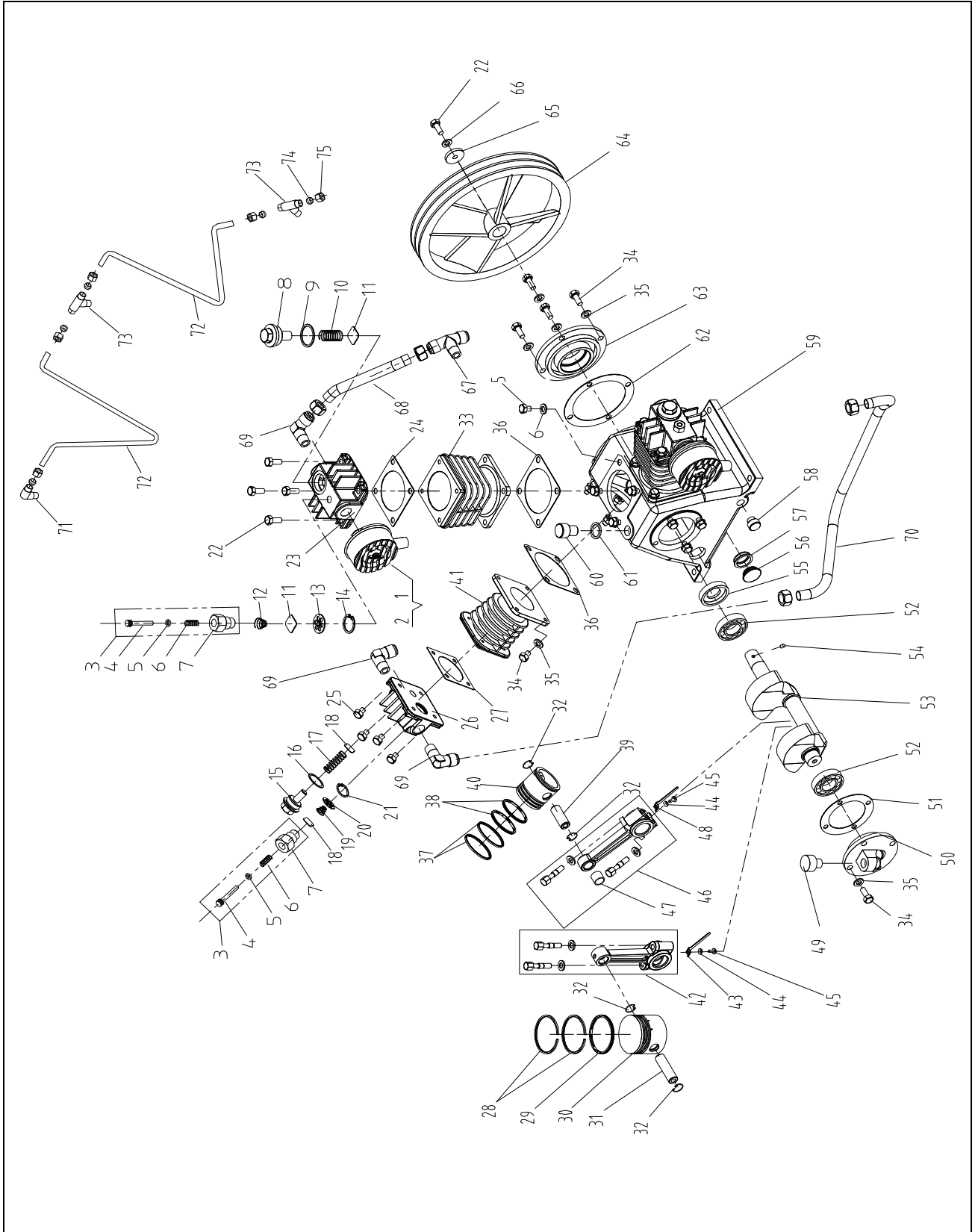
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RECORD MODEL & SERIAL NUMBER BELOW:

MODEL: \_\_\_\_\_

SERIAL: \_\_\_\_\_

Curtis Toledo Inc  
1905 Kienlen Avenue, St Louis, Missouri 63133  
Tel: (314) 383-1300 Fax: (314) 381-1439  
[www.fscurtis.com](http://www.fscurtis.com)



| ITEM                               | DESCRIPTION                                | QTY | PART NUMBER |
|------------------------------------|--|-----|-------------|
| <b>AIR STRAINER</b>                |  |     |             |
| 1                                  | Air Strainer Assembly                      | 2   | 2601540010  |
| 2                                  | Air Strainer Element (Not Shown)           | 2   | 2601540050  |
| <b>VALVE &amp; UNLOADERS</b>       |  |     |             |
| 3                                  | Unloader Assembly                          | 3   | 2601021441  |
| 4                                  | Unloader Piston                            | 3   | 2601021471  |
| 5                                  | O-Ring (Unloader)                          | 3   | 2111010004  |
| 6                                  | Unloader Spring                            | 3   | 2601021490  |
| 7                                  | Unloader Cylinder                          | 3   | 2601021450  |
| 8                                  | Outlet Valve Push Cover (1st)              | 2   | 2601021510  |
| 9                                  | Outlet Valve Push Cover Gasket (1st)       | 2   | 2601021531  |
| 10                                 | Outlet Valve Spring (1st)                  | 2   | 2601320030  |
| 11                                 | Inlet & Outlet Valve Plate (1st)           | 4   | 2501310020  |
| 12                                 | Inlet Valve Spring (1st)                   | 2   | 2601310190  |
| 13                                 | Inlet Valve Receiver (1st)                 | 2   | 2601310170  |
| 14                                 | Inlet Valve Snap Ring (1st)                | 2   | 2111030029  |
| 15                                 | Outlet Valve Push Cover (2nd)              | 1   | 2601020280  |
| 16                                 | Outlet Valve Push Cover Gasket (2nd)       | 1   | 2601020300  |
| 17                                 | Outlet Valve Spring (2nd)                  | 1   | 2601320390  |
| 18                                 | Inlet & Outlet Valve Plate (2nd)           | 2   | 2501310010  |
| 19                                 | Inlet Valve Spring (2nd)                   | 2   | 2601311470  |
| 20                                 | Inlet Valve Receiver (2nd)                 | 1   | 2601310010  |
| 21                                 | Inlet Valve Snap Ring (2nd)                | 1   | 2111030027  |
| <b>CYLINDERS HEAD</b>              |  |     |             |
| 22                                 | Cylinder Head Bolt (1st); M8 x L25, Gr 8.8 | 9   | 2111030027  |
| 23                                 | Cylinder Head (1st)                        | 2   | 2601021340  |
| 24                                 | Head - Cylinder Gasket (1st)               | 2   | 2601021380  |
| 25                                 | Cylinder Head Bolt (2nd); M6 x L25, Gr 8.8 | 4   | 2102010136  |
| 26                                 | Cylinder Head (2nd)                        | 1   | 2601029360  |
| 27                                 | Cylinder & Head Gasket (2nd)               | 1   | 2601020130  |
| <b>CYLINDER, PISTON &amp; RING</b> |  |     |             |
| 28                                 | Compression Ring (1st)                     | 4   | 2601021890  |
| 29                                 | Oil Control Ring (1st)                     | 2   | 2601035680  |
| 30                                 | Piston (1st)                               | 2   | 2601035670  |
| 31                                 | Piston Pin (1st)                           | 2   | 2601021940  |
| 32                                 | Piston Pin Snap Ring (1st)                 | 6   | 2601021930  |
| 33                                 | Cylinder (1st)                             | 2   | 2601021570  |
| 34                                 | Cylinder Bolt (1st); M8 x L20, Gr 8.8      | 20  | 2102010180  |
| 35                                 | Cylinder Bolt Copper Washer (1st); M8      | 20  | 2102040082  |
| 36                                 | Cylinder - Case Gasket                     | 3   | 2601021620  |
| 37                                 | Compression Ring (2nd)                     | 2   | 2601020810  |



| ITEM  | DESCRIPTION                               | QTY | PART NUMBER |
|---|---|-----|-------------|
| <b>CYLINDER, PISTON &amp; RING, cont.</b>     |   |     |             |
| 38  | Oil Control Ring (2nd)                    | 2   | 2601020840  |
| 39  | Piston Pin (2nd)                          | 1   | 2601029480  |
| 40  | Piston (2nd)                              | 1   | 2601029450  |
| 41  | Cylinder (2nd)                            | 1   | 2601029400  |
| <b>CONNECTING ROD &amp; OIL SPLASH DIPPER</b> |   |     |             |
| 42  | Connecting Rod Assembly (1st)             | 2   | 2601021950  |
| 43  | Oil Splash Dipper                         | 2   | 2601025702  |
| 44  | Oil Splash Dipper Bolt Spring Washer; M4  | 2   | 2102040129  |
| 45  | Oil Splash Dipper Bolts; M4 x L10, Gr 8.8 | 3   | 2102011517  |
| 46  | Connecting Rod Assembly (2nd)             | 1   | 2601035820  |
| 47  | Connecting Rod - Piston Pin Bushing       | 1   | 2601035810  |
| 48  | Oil Splash Dipper                         | 1   | 2601029280  |
| <b>CRANKCASE &amp; CRANKSHAFT</b>             |   |     |             |
| 49  | Breather Assembly (Rubber)                | 1   | 2601020730  |
| 50  | Rear Bearing Cover                        | 1   | 2601025620  |
| 51  | Rear Bearing Cover Gasket                 | 1   | 2601025650  |
| 52  | Front & Rear Bearing                      | 2   | 2110020084  |
| 53  | Crankshaft                                | 1   | 2601035560  |
| 54  | V-Pulley Pin                              | 1   | 2601021680  |
| 55  | Front Oil Seal                            | 1   | 2601025680  |
| 56  | Screw-in Oil Level Glass                  | 1   | 2601037952  |
| 57  | O-ring (Oil Level Glass)                  | 1   | 2111010210  |
| 58  | Crankcase Oil Plug (1/4" PT)              | 1   | 2102020029  |
| 59  | Crankcase                                 | 1   | 2601029430  |
| 60  | Oil Fill Cap                              | 1   | 2601020600  |
| 61  | O-ring (Oil Fill Cap)                     | 1   | 2111010012  |
| 62  | Front Bearing Cover Gasket                | 1   | 2601025590  |
| 63  | Front Bearing Cover                       | 1   | 2601025560  |
| 64  | Compressor Pulley                         | 1   | 2601234241  |
| 65  | Compressor Pulley Thrust Washer           | 1   | 2601230800  |
| 66  | Compressor Pulley Spring washer; M8       | 1   | 2102040137  |
| <b>DISCHARGE PIPING</b>                       |   |     |             |
| 67  | Outlet Piping Joint                       | 1   | 2601491741  |
| 68  | Discharge Piping Assembly                 | 1   | 2601491770  |
| 69  | Outlet Piping Joint                       | 3   | 2601490751  |
| 70  | Discharge Piping Assembly                 | 1   | 2601491800  |
| <b>UNLOADER PIPING</b>                        |   |     |             |
| 71  | Unloader Elbow                            | 1   | 2101080140  |
| 72  | Unloader Tube Assembly                    | 2   | 2601410270  |
| 73  | Unloader Copper Tee                       | 2   | 2101090006  |
| 74  | Unloader Connection Ferrule               | 1   | 2101100001  |
| 75  | Unloader Tube Nut                         | 1   | 2101100001  |



## CA SERIES

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# E50B COMPRESSOR PUMP PARTS LIST

LOT NUMBER:

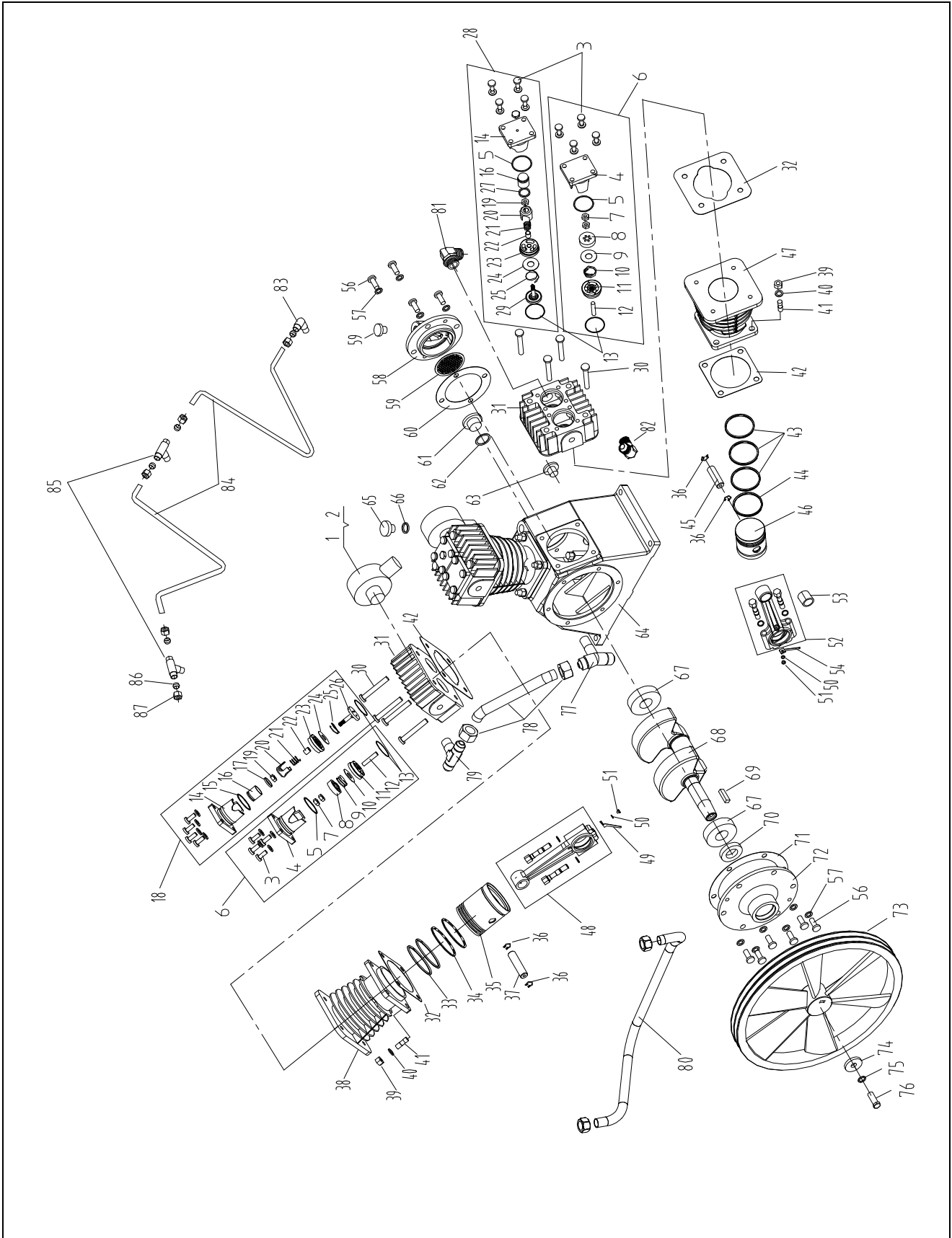
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RECORD MODEL & SERIAL NUMBER BELOW:

MODEL: \_\_\_\_\_

SERIAL: \_\_\_\_\_

Curtis Toledo Inc  
1905 Kienlen Avenue, St Louis, Missouri 63133  
Tel: (314) 383-1300 Fax: (314) 381-1439  
[www.fscurtis.com](http://www.fscurtis.com)



| ITEM                               | DESCRIPTION                                     | QTY | PART NUMBER |
|------------------------------------|---|-----|-------------|
| <b>AIR STRAINER</b>                |   |     |             |
| 1                                  | Air Strainer Assembly                           | 2   | 2601540560  |
| 2                                  | Air Strainer Element (Not Shown)                | 2   | 2601540410  |
| <b>VALVE &amp; UNLOADERS</b>       |   |     |             |
| 3                                  | Outlet Valve Push Cover Bolt; M8 x L20, Gr 8.8  | 24  | 2102010180  |
| 4                                  | Outlet Valve Push Cover (1st/2nd)               | 3   | 2601024510  |
| 5                                  | Viton O-ring G 40 (Outlet Valve-1st/2nd)        | 4   | 2111010263  |
| 6                                  | Outlet Valve Assembly (1st/2nd)                 | 3   | 2601320070  |
| 7                                  | Nut; M8 (Outlet Valve-1st/2nd)                  | 3   | 2102030118  |
| 8                                  | Outlet Valve Receiver (1st/2nd)                 | 3   | 2601320090  |
| 9                                  | Outlet Valve Spring (1st/2nd)                   | 3   | 2601320110  |
| 10                                 | Outlet Valve Plate (1st/2nd)                    | 3   | 2601310680  |
| 11                                 | Outlet Valve Seat (1st/2nd)                     | 3   | 2601320081  |
| 12                                 | Outlet Valve Bolt (1st/2nd)                     | 3   | 2601320120  |
| 13                                 | Inlet & Outlet Valve Gasket (1st/2nd)           | 6   | 2601024400  |
| 14                                 | Inlet Valve Push Cover (1st/2nd)                | 3   | 2601024420  |
| 15                                 | O-ring G 40 (Inlet Valve-1st)                   | 2   | 2111010221  |
| 16                                 | Unloader Piston (1st/2nd)                       | 3   | 2601024450  |
| 17                                 | O-ring P 20 (Unloader-1st)                      | 2   | 2111010014  |
| 18                                 | Inlet Valve Assembly-1st                        | 2   | 2601310630  |
| 19                                 | Locknut; M8 (Inlet Valve-1st/2nd)               | 3   | 2102030246  |
| 20                                 | Inlet Valve Unloader Fork (1st/2nd)             | 3   | 2601310700  |
| 21                                 | Unloader Spring (1st/2nd)                       | 3   | 2601024470  |
| 22                                 | Inlet Valve Unloader Fork Guide (1st/2nd)       | 3   | 2601310710  |
| 23                                 | Inlet Valve Seat (1st/2nd)                      | 3   | 2601310650  |
| 24                                 | Inlet Valve Plate (1st/2nd)                     | 3   | 2501310050  |
| 25                                 | Inlet Valve Spring (1st/2nd)                    | 3   | 2601310690  |
| 26                                 | Inlet Valve Receiver (1st)                      | 2   | 2601310660  |
| 27                                 | Viton O-ring P 20 (Unloader-2nd)                | 1   | 2111010104  |
| 28                                 | Inlet Valve Assembly (2nd)                      | 1   | 2601311230  |
| 29                                 | Inlet Valve Receiver (2nd)                      | 1   | 2601311250  |
| <b>CYLINDERS HEAD</b>              |   |     |             |
| 30                                 | Cylinder Head Bolt (1st/2nd); M10 x L70, Gr 8.8 | 12  | 2102010320  |
| 31                                 | Cylinder Head (1st/2nd)                         | 3   | 2601024290  |
| 32                                 | Head - Cylinder Gasket (1st/2nd)                | 3   | 2601024331  |
| <b>CYLINDER, PISTON &amp; RING</b> |   |     |             |
| 33                                 | Compression Ring (1st)                          | 4   | 2601024970  |
| 34                                 | Oil Control Ring (1st)                          | 4   | 2601024990  |
| 35                                 | Piston (1st)                                    | 2   | 2601024961  |
| 36                                 | Piston Pin Snap Ring (1st)                      | 6   | 2601025010  |
| 37                                 | Piston Pin (1st)                                | 2   | 2601025140  |
| 38                                 | Cylinder (1st)                                  | 2   | 2601024531  |

| ITEM  | DESCRIPTION                                      | QTY | PART NUMBER |
|---|--|-----|-------------|
| 39  | Cylinder Nut (1st); M10                          | 12  | 2102030065  |
| 40  | Cylinder Bolt Copper Washer (1st); M10           | 12  | 2102040140  |
| 41  | Cylinder Bolt (1st); M10 x L40, Gr 8.8           | 12  | 2601024620  |
| 42  | Cylinder - Case Gasket                           | 2   | 2601024570  |
| 43  | Compression Ring (2nd)                           | 3   | 2601021890  |
| 44  | Oil Control Ring (2nd)                           | 1   | 2601021910  |
| 45  | Piston Pin (2nd)                                 | 1   | 2601028650  |
| 46  | Piston (2nd)                                     | 1   | 2601028610  |
| 47  | Cylinder (2nd)                                   | 1   | 2601028560  |
| <b>CONNECTING ROD &amp; OIL SPLASH DIPPER</b> |  |     |             |
| 48  | Connecting Rod Assembly (1st)                    | 2   | 2601025151  |
| 49  | Oil Splash Dipper                                | 2   | 2601025702  |
| 50  | Oil Splash Dipper Bolt Spring Washer; M4         | 3   | 2102040129  |
| 51  | Oil Splash Dipper Bolts; M4 x L12, Gr 8.8        | 3   | 2102011524  |
| 52  | Connecting Rod Assembly (2nd)                    | 1   | 2601028661  |
| 53  | Connecting Rod - Piston Pin Needle Bearing (2nd) | 1   | 2110090036  |
| 54  | Oil Splash Dipper                                | 1   | 2601029280  |
| <b>CRANKCASE &amp; CRANKSHAFT</b>             |  |     |             |
| 55  | Breather Assembly (Rubber)                       | 1   | 2601020730  |
| 56  | Rear Bearing Cover Bolt; M10 x L20, Gr 8.8       | 10  | 2102010256  |
| 57  | Rear Bearing Cover Bolt Copper Washer; M10       | 10  | 2102040074  |
| 58  | Rear Bearing Cover                               | 1   | 2601028380  |
| 59  | Oil Baffle                                       | 1   | 2601028460  |
| 60  | Rear Bearing Cover Gasket                        | 1   | 2601028420  |
| 61  | Screw-in Oil Level Glass                         | 1   | 2601037952  |
| 62  | O-ring (Oil Level Glass)                         | 1   | 2111010210  |
| 63  | Crankcase Oil Plug (1/2" PT)                     | 1   | 2102020061  |
| 64  | Crankcase  | 1   | 2601028590  |
| 65  | Oil Fill Cap                                     | 1   | 2601024910  |
| 66  | O-ring (Oil Fill Cap)                            | 1   | 2111010013  |
| 67  | Front & Rear Bearing                             | 2   | 2110020109  |
| 68  | Crankshaft                                       | 1   | 2601028281  |
| 69  | V-Pulley Pin                                     | 1   | 2601024660  |
| 70  | Front Oil Seal                                   | 1   | 2601024870  |
| 71  | Front Bearing Cover Gasket                       | 1   | 2601024750  |
| 72  | Front Bearing Cover                              | 1   | 2601028350  |
| 73  | Compressor Pulley                                | 1   | 2601233640  |
| 74  | Compressor Pulley Thrust Washer                  | 1   | 2601231780  |
| 75  | Compressor Pulley Spring Washer; M12             | 1   | 2102040143  |
| 76  | Compressor Pulley Bolt; M12 x L30, Gr 8.8        | 1   | 2102010387  |

| ITEM                    | DESCRIPTION                       | QTY | PART NUMBER |
|-------------------------|-----------------------------------|-----|-------------|
| <b>DISCHARGE PIPING</b> |                                   |     |             |
| 77                      | Outlet Piping Joint               | 1   | 2601490581  |
| 78                      | Discharge Piping Assembly - Short | 1   | 2601491510  |
| 79                      | Outlet Piping Joint               | 1   | 2601491491  |
| 80                      | Discharge Piping Assembly - Long  | 1   | 2601491580  |
| 81                      | Outlet Piping Joint               | 1   | 2601491542  |
| 82                      | Outlet Piping Joint               | 1   | 2601491570  |
| <b>UNLOADER PIPING</b>  |                                   |     |             |
| 83                      | Unloader Elbow                    | 1   | 2101080140  |
| 84                      | Unloader Tube Assembly            | 2   | 2601410140  |
| 85                      | Unloader Copper Tee               | 2   | 2101090006  |
| 86                      | Unloader Connection Ferrule       | 1   | 2101100001  |
| 87                      | Unloader Tube Nut                 | 1   | 2101110001  |

**NOTES**



## CA SERIES

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# E15 COMPRESSOR PUMP PARTS LIST

LOT NUMBER:

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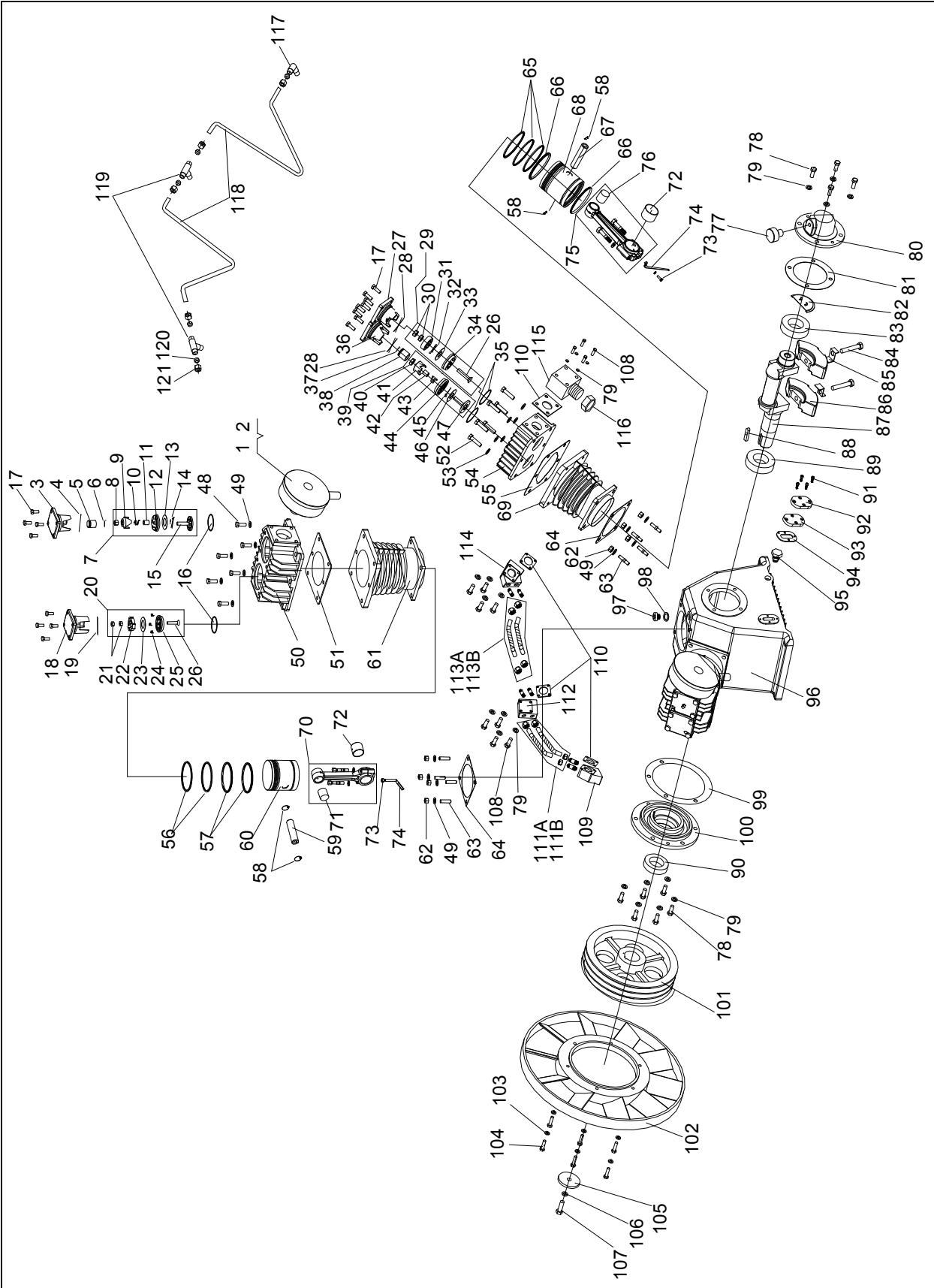
RECORD MODEL & SERIAL NUMBER BELOW:

MODEL: \_\_\_\_\_

SERIAL: \_\_\_\_\_

Curtis Toledo Inc  
1905 Kienlen Avenue, St Louis, Missouri 63133  
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[www.fscurtis.com](http://www.fscurtis.com)





| ITEM                         | DESCRIPTION                                     | QTY | PART NUMBER |
|------------------------------|---|-----|-------------|
| <b>AIR STRAINER</b>          |   |     |             |
| 1                            | Air Strainer Assembly                           | 2   | 2601540560  |
| 2                            | Air Strainer Element (Not Shown)                | 2   | 2601540410  |
| <b>VALVE &amp; UNLOADERS</b> |   |     |             |
| 3                            | Inlet Valve Push Cover (1st)                    | 2   | 2601027641  |
| 4                            | O-ring G 65 (Inlet Valve-1st)                   | 2   | 2111010270  |
| 5                            | Unloader Piston (1st)                           | 2   | 2601027660  |
| 6                            | Viton O-ring P 22A (Unloader-1st)               | 2   | 2111010108  |
| 7                            | Inlet Valve Assembly-1st                        | 2   | 2601311120  |
| 8                            | Locknut; M12 (Inlet Valve-1st)                  | 2   | 2102030206  |
| 9                            | Inlet Valve Unloader Fork (1st)                 | 2   | 2601311190  |
| 10                           | Inlet Valve Unloader Fork Guide (1st)           | 2   | 2601311200  |
| 11                           | Unloader Spring (1st)                           | 2   | 2601027680  |
| 12                           | Inlet Valve Seat (1st)                          | 2   | 2601311141  |
| 13                           | Inlet Valve Plate (1st)                         | 2   | 2501310130  |
| 14                           | Inlet Valve Spring (1st)                        | 2   | 2601311180  |
| 15                           | Inlet Valve Receiver (1st)                      | 2   | 2601311153  |
| 16                           | Inlet & Outlet Valve Gasket (1st)               | 4   | 2601027620  |
| 17                           | Outlet Valve Push Cover Bolt; M10 x L25, Gr 8.8 | 24  | 2102010265  |
| 18                           | Outlet Valve Push Cover (1st)                   | 2   | 2601027691  |
| 19                           | Viton O-ring G 65 (Outlet Valve-1st)            | 2   | 2111010270  |
| 20                           | Outlet Valve Assembly (1st)                     | 2   | 2601320311  |
| 21                           | Nut; M10 (Outlet Valve-1st)                     | 4   | 2102030064  |
| 22                           | Outlet Valve Receiver (1st)                     | 2   | 2601320345  |
| 23                           | Outlet Valve Plate (1st)                        | 2   | 2501320081  |
| 24                           | Outlet Valve Spring (1st)                       | 6   | 2601320376  |
| 25                           | Outlet Valve Seat (1st)                         | 2   | 2601320333  |
| 26                           | Outlet Valve Bolt; M10 x L50, Gr 8.8 (1st)      | 3   | 2102011755  |
| 27                           | Outlet Valve Push Cover (2nd)                   | 1   | 2601031350  |
| 28                           | Viton O-ring G 55 (Outlet Valve-2nd)            | 2   | 2111010267  |
| 29                           | Outlet Valve Assembly (2nd)                     | 1   | 2601320460  |
| 30                           | Nut; M8 (Outlet Valve-2nd)                      | 1   | 2102030064  |
| 31                           | Outlet Valve Receiver (2nd)                     | 1   | 2601320470  |
| 32                           | Outlet Valve Spring (2nd)                       | 1   | 2601320220  |
| 33                           | Outlet Valve Plate (2nd)                        | 1   | 2501320120  |
| 34                           | Outlet Valve Seat (2nd)                         | 1   | 2601320202  |
| 35                           | Inlet & Outlet Valve Gasket (2nd)               | 2   | 2601026190  |
| 36                           | Inlet Valve Push Cover (2nd)                    | 1   | 2601031330  |
| 37                           | Viton O-ring P 21 (Unloader-2nd)                | 1   | 2111010105  |
| 38                           | Unloader Piston (2nd)                           | 1   | 2601026230  |
| 39                           | Inlet Valve Assembly (2nd)                      | 1   | 2601311650  |
| 40                           | Locknut; M10 (Inlet Valve-2nd)                  | 3   | 2102030248  |

| ITEM  | DESCRIPTION                                      | QTY | PART NUMBER |
|---|--|-----|-------------|
| <b>VALVES &amp; UNLOADERS, cont.</b>          |  |     |             |
| 41  | Inlet Valve Unloader Fork (2nd)                  | 1   | 2601310950  |
| 42  | Unloader Spring (2nd)                            | 1   | 2601026240  |
| 43  | Inlet Valve Unloader Fork Guide (2nd)            | 1   | 2601310960  |
| 44  | Inlet Valve Seat (2nd)                           | 1   | 2601310901  |
| 45  | Inlet Valve Plate (2nd)                          | 1   | 2501310100  |
| 46  | Inlet Valve Spring (2nd)                         | 1   | 2601310940  |
| 47  | Inlet Valve Receiver (2nd)                       | 1   | 2601311670  |
| <b>CYLINDERS HEAD</b>                         |  |     |             |
| 48  | Cylinder Head Bolt (1st); M12 x L35, Gr 8.8      | 12  | 2102010396  |
| 49  | Cylinder Head Bolt Spring Washer; M12            | 12  | 2102040143  |
| 50  | Cylinder Head (1st)                              | 2   | 2601030500  |
| 51  | Head - Cylinder Gasket (1st)                     | 2   | 2601030530  |
| 52  | Cylinder Head Bolt (2nd); M10 x L100, Gr 8.8     | 6   | 2102010349  |
| 53  | Cylinder Head Bolt Spring Washer; M10            | 6   | 2102040140  |
| 54  | Cylinder Head (2nd)                              | 1   | 2601031300  |
| 55  | Head - Cylinder Gasket (2nd)                     | 1   | 2601026130  |
| <b>CYLINDER, PISTON &amp; RING</b>            |  |     |             |
| 56  | Compression Ring (1st)                           | 4   | 2601027730  |
| 57  | Oil Control Ring (1st)                           | 4   | 2601027740  |
| 58  | Piston Pin Snap Ring (1st)                       | 6   | 2601027750  |
| 59  | Piston Pin (1st)                                 | 2   | 2601027850  |
| 60  | Piston (1st)                                     | 2   | 2601027850  |
| 61  | Cylinder (1st)                                   | 2   | 2601030591  |
| 62  | Cylinder Nut; M12                                | 12  | 2102030073  |
| 63  | Cylinder Bolt; M12 x L46, Gr 8.8                 | 12  | 2601030680  |
| 64  | Cylinder - Case Gasket                           | 3   | 2601030630  |
| 65  | Compression Ring (2nd)                           | 3   | 2601026840  |
| 66  | Oil Control Ring (2nd)                           | 2   | 2601026860  |
| 67  | Piston Pin (2nd)                                 | 1   | 2601031481  |
| 68  | Piston (2nd)                                     | 1   | 2601031441  |
| 69  | Cylinder (2nd)                                   | 1   | 2601031360  |
| <b>CONNECTING ROD &amp; OIL SPLASH DIPPER</b> |  |     |             |
| 70  | Connecting Rod Assembly (1st)                    | 2   | 2601027860  |
| 71  | Connecting Rod - Piston Pin Bushing (1st)        | 2   | 2501020290  |
| 72  | Connecting Rod Crank Pin Metal (1st)             | 6   | 2601027780  |
| 73  | Oil Splash Dipper                                | 3   | 2601031021  |
| 74  | Oil Splash Dipper Nut; M8                        | 3   | 2102030060  |
| 75  | Connecting Rod Assembly (2nd)                    | 1   | 2601031491  |
| 76  | Connecting Rod - Piston Pin Needle Bearing (2nd) | 1   | 2110090016  |

| ITEM                              | DESCRIPTION                                      | QTY | PART NUMBER |
|-----------------------------------|--|-----|-------------|
| <b>CRANKCASE &amp; CRANKSHAFT</b> |  |     |             |
| 77                                | Breather Assembly (Rubber)                       | 1   | 2601026671  |
| 78                                | Rear Bearing Cover Bolt; M10 x L25, Gr 8.8       | 10  | 2102010265  |
| 79                                | Rear Bearing Cover Bolt Copper Washer; M10       | 26  | 2102040074  |
| 80                                | Rear Bearing Cover                               | 1   | 2601029750  |
| 81                                | Rear Bearing Cover Gasket                        | 1   | 2601029810  |
| 82                                | Oil Baffle                                       | 1   | 2601029870  |
| 83                                | Rear Bearing                                     | 1   | 2110060021  |
| 84                                | Crankshaft Counterweight Bolt; M12 x L72, Gr 8.8 | 2   | 2601030741  |
| 85                                | Crankshaft Counterweight Lockwasher              | 2   | 2601030750  |
| 86                                | Crankshaft Counterweight                         | 2   | 2601030722  |
| 87                                | Crankshaft                                       | 1   | 2601031380  |
| 88                                | V-Pulley Pin                                     | 1   | 2601029650  |
| 89                                | Front Bearing                                    | 1   | 2110060070  |
| 90                                | Front Oil Seal                                   | 1   | 2601029860  |
| 91                                | Oil Level Glass Bolt; M5 x L20, Gr 8.8           | 4   | 2102011571  |
| 92                                | Oil Level Glass Push Cover                       | 1   | 2601026780  |
| 93                                | Oil Level Glass Assembly                         | 1   | 2601026740  |
| 94                                | Oil Level Glass Gasket                           | 1   | 2601026770  |
| 95                                | Crankcase Oil Plug (1/2" PT)                     | 1   | 2102020061  |
| 96                                | Crankcase  | 1   | 2601031410  |
| 97                                | Oil Fill Cap                                     | 1   | 2601024881  |
| 98                                | O-ring (Oil Fill Cap)                            | 1   | 2111010013  |
| 99                                | Front Bearing Cover Gasket                       | 1   | 2601030820  |
| 100                               | Front Bearing Cover                              | 1   | 2601030790  |
| 101                               | Compressor Pulley                                | 1   | 2601235151  |
| 102                               | Compressor Fan                                   | 1   | 2601234880  |
| 103                               | Compressor Fan Spring Washer, M8                 | 6   | 2102040137  |
| 104                               | Compressor Fan Bolt; M8 x L30, Gr 8.8            | 6   | 2102010195  |
| 105                               | Compressor Pulley Thrust Washer                  | 1   | 2601232980  |
| 106                               | Compressor Pulley Spring washer; M12             | 1   | 2102040143  |
| 107                               | Compressor Pulley Bolt; M12 x L50, Gr 8.8        | 1   | 2102010415  |
| <b>DISCHARGE PIPING</b>           |  |     |             |
| 108                               | Outlet Piping Joint Bolt; M10 x L65, Gr 8.8      | 16  | 2102010314  |
| 109                               | Outlet Piping Joint                              | 1   | 2601492290  |
| 110                               | Gasket Manifold                                  | 4   | 2601491240  |
| 111a.                             | Discharge Piping Assembly (Long), 1st            | 1   | 2601492390  |
| 111b.                             | Discharge Piping Assembly (Short), 1st           | 1   | 2601492410  |
| 112                               | Outlet Piping Joint                              | 1   | 2601492510  |
| 113a.                             | Discharge Piping Assembly (Long), 2nd            | 1   | 2601492570  |
| 113b.                             | Discharge Piping Assembly (Short), 2nd           | 1   | 2601492590  |
| 114                               | Outlet Piping Joint                              | 1   | 2601492510  |
| 115                               | Outlet Piping Joint                              | 1   | 2601492540  |
| 116                               | Outlet Piping Joint Nut                          | 1   | 2601492560  |

| ITEM                   | DESCRIPTION                 | QTY | PART NUMBER |
|------------------------|-----------------------------|-----|-------------|
| <b>UNLOADER PIPING</b> |                             |     |             |
| 117                    | Unloader Elbow              | 1   | 2101080140  |
| 118                    | Unloader Tube Assembly      | 2   | 2601410360  |
| 119                    | Unloader Copper Tee         | 2   | 2101090006  |
| 120                    | Unloader Connection Ferrule | 1   | 2101100001  |
| 121                    | Unloader Tube Nut           | 1   | 2101110001  |



## CA SERIES

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# E35B COMPRESSOR PUMP PARTS LIST

LOT NUMBER:

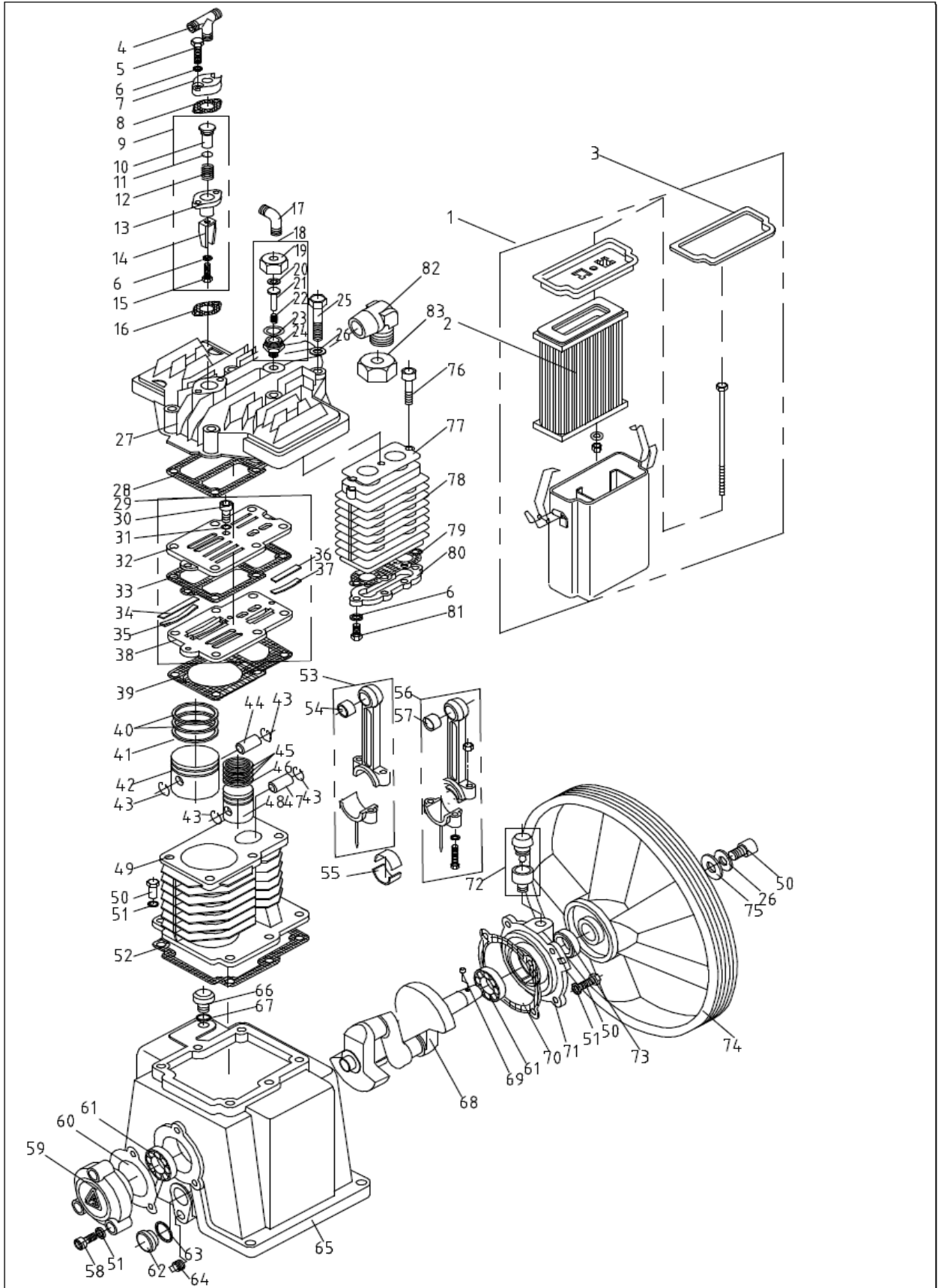
\_\_\_\_\_

RECORD MODEL & SERIAL NUMBER BELOW:

MODEL: \_\_\_\_\_

SERIAL: \_\_\_\_\_

Curtis Toledo Inc  
1905 Kienlen Avenue, St Louis, Missouri 63133  
Tel: (314) 383-1300 Fax: (314) 381-1439  
[www.fscurtis.com](http://www.fscurtis.com)



| ITEM                  | DESCRIPTION                                      | QTY | PART NUMBER |
|-----------------------|--|-----|-------------|
| <b>AIR STRAINER</b>   |  |     |             |
| 1                     | Air Strainer Assembly                            | 1   | 2601540161  |
| 2                     | Air Strainer Element                             | 1   | 2601540200  |
| 3                     | Air Strainer Cover Gasket                        | 1   | 2601540220  |
| <b>UNLOADER</b>       |  |     |             |
| 4                     | Unloader Copper Tee                              | 1   | 2101090006  |
| 5                     | Unloader Push Cover Bolt; M6 x L25, Gr 8.8 (1st) | 2   | 2102011103  |
| 6                     | Unloader Push Cover Spring Washer; M6 (1st)      | 7   | 2102040134  |
| 7                     | Unloader Push Cover (1st)                        | 1   | 2601022970  |
| 8                     | Unolader Push Cover Gasket (1st)                 | 1   | 2601023030  |
| 9                     | Unloader Assembly (1st)                          | 1   | 2601022261  |
| 10                    | Unloader Piston (1st)                            | 1   | 2601022952  |
| 11                    | Viton O-Ring Unloader (1st)                      | 1   | 2111010101  |
| 12                    | Unloader Spring (1st)                            | 1   | 2601022961  |
| 13                    | Unloader Cylinder (1st)                          | 1   | 2601022941  |
| 14                    | Unloading Fork (1st)                             | 1   | 2601310290  |
| 15                    | Unloader Bolt; M6 x L16 Gr 8.8 (1st)             | 1   | 2102011095  |
| 16                    | Unloader Gasket (1st)                            | 1   | 2601035400  |
| 17                    | Unloading Elbow                                  | 1   | 2688360780  |
| 18                    | Unloader Assembly (2nd)                          | 1   | 2601022320  |
| 19                    | Unloader Push Cover (2nd)                        | 1   | 2601022290  |
| 20                    | Viton O-Ring Unloader (2nd)                      | 1   | 2111010092  |
| 21                    | Unloader Piston (2nd)                            | 1   | 2601022331  |
| 22                    | Unloader Spring (2nd)                            | 1   | 2601022280  |
| 23                    | Unloader Copper Washer (2nd)                     | 1   | 2601022340  |
| 24                    | Unloader Body (2nd)                              | 1   | 2601022940  |
| <b>CYLINDER HEAD</b>  |  |     |             |
| 25                    | Cylinder Head Bolt; M8 x L70, Gr 8.8             | 6   | 2102010227  |
| 26                    | Cylinder Head Spring Washer; M8                  | 7   | 2102040137  |
| 27                    | Cylinder Head                                    | 1   | 2601022200  |
| 28                    | Cylinder Head - Valve Seat Gasket                | 1   | 2601022220  |
| <b>VALVE ASSEMBLY</b> |  |     |             |
| 29                    | Valve Plate Assembly                             | 1   | 2601310240  |
| 30                    | Valve Seat Bolt; M5 x L12, Gr 8.8                | 3   | 2102011070  |
| 31                    | Valve Seat Bolt Spring Washer; M5                | 3   | 2102040132  |
| 32                    | Valve Seat (Upper)                               | 1   | 2601310250  |
| 33                    | Valve Seat Gasket                                | 1   | 2601310300  |
| 34                    | Valve Plate (1st)                                | 4   | 2601310270  |
| 35                    | Valve Plate Spring (1st)                         | 4   | 2601310281  |



| ITEM                               | DESCRIPTION                               | QTY | PART NUMBER |
|------------------------------------|---|-----|-------------|
| <b>VALVE ASSEMBLY, cont.</b>       |   |     |             |
| 36                                 | Valve Plate (2nd)                         | 2   | 2601310350  |
| 37                                 | Valve Plate Spring (2nd)                  | 2   | 2601310361  |
| 38                                 | Valve Seat (Bottom)                       | 1   | 2601310260  |
| 39                                 | Cylinder-Valve Seat Gasket                | 1   | 2601310310  |
| <b>CYLINDER, PISTON &amp; RING</b> |   |     |             |
| 40                                 | Compression Ring (1st)                    | 2   | 2601022560  |
| 41                                 | Oil Control Ring (1st)                    | 1   | 2601022570  |
| 42                                 | Piston (1st)                              | 1   | 2601022550  |
| 43                                 | Piston Snap Ring                          | 4   | 2601022580  |
| 44                                 | Piston Pin (1st)                          | 1   | 2601022610  |
| 45                                 | Compression Ring (2nd)                    | 3   | 2601022670  |
| 46                                 | Oil Control Ring (2nd)                    | 1   | 2601022680  |
| 47                                 | Piston Pin (2nd)                          | 1   | 2601022700  |
| 48                                 | Piston (2nd)                              | 1   | 2601022660  |
| 49                                 | Cylinder                                  | 1   | 2601022360  |
| 50                                 | Cylinder Bolt; M8 x L30, Gr 8.8           | 11  | 2102010196  |
| 51                                 | Cylinder Copper Washer; M8                | 7   | 2102040082  |
| 52                                 | Cylinder Crankcase Gasket                 | 1   | 2601022380  |
| <b>CONNECTING ROD</b>              |   |     |             |
| 53                                 | Connecting Rod Assembly (1st)             | 1   | 2601022620  |
| 54                                 | Connecting Rod - Piston Pin Bushing (1st) | 1   | 2601022590  |
| 55                                 | Connecting Rod Crank Pin Metal (1st)      | 4   | 2601022600  |
| 56                                 | Connecting Rod Assembly (2nd)             | 1   | 2601022710  |
| 57                                 | Connecting Rod - Piston Pin Bushing (2nd) | 1   | 2601022690  |
| <b>CRANKCASE &amp; CRANKSHAFT</b>  |   |     |             |
| 58                                 | Rear Bearing Cover Bolt; M8 x L30, Gr 8.8 | 3   | 2102011146  |
| 59                                 | Rear Bearing Cover                        | 1   | 2601022480  |
| 60                                 | Rear Bearing Cover Gasket                 | 1   | 2601022520  |
| 61                                 | Front & Rear Bearing                      | 2   | 2110020084  |
| 62                                 | Plug-in Oil Level Glass                   | 1   | 2601020740  |
| 63                                 | Oil Level Glass Gasket                    | 1   | 2601020770  |
| 64                                 | Crankcase Oil Plug (Special non-standard) | 1   | 2601023080  |
| 65                                 | Crankcase                                 | 1   | 2601022420  |
| 66                                 | Oil Fill Cap                              | 1   | 2601020620  |
| 67                                 | O-ring (Oil Fill Cap)                     | 1   | 2111010012  |
| 68                                 | Crankshaft                                | 1   | 2601022400  |
| 69                                 | V-Pulley Pin                              | 1   | 2601021680  |
| 70                                 | Front Bearing Cover Gasket                | 1   | 2601022460  |
| 71                                 | Front Bearing Cover                       | 1   | 2601022430  |
| 72                                 | Breather Assembly                         | 1   |             |
| 73                                 | Front Oil Seal                            | 1   | 2601027590  |
| 74                                 | Compressor Pulley                         | 1   | 2601230840  |
| 75                                 | Compressor Pulley Thrust Washer           | 1   | 2601230800  |

| ITEM                | DESCRIPTION                       | QTY | PART NUMBER |
|---------------------|-----------------------------------|-----|-------------|
| <b>INTER-COOLER</b> |                                   |     |             |
| 76                  | Inter-Cooler Bolt (Upper)         | 3   | 2102011158  |
| 77                  | Inter-Cooler Body Gasket (Upper)  | 1   | 2601510070  |
| 78                  | Inter-Cooler Body                 | 1   | 2601510030  |
| 79                  | Inter-Cooler Body Gasket (Bottom) | 1   | 2601510100  |
| 80                  | Inter-Cooler Cover                | 1   | 2601510040  |
| 81                  | Inter-Cooler Bolt (Bottom)        | 4   | 2102010130  |
| 82                  | Discharge Elbow                   | 1   | 2601490450  |
| 83                  | Discharge Elbow Nut               | 1   | 2688360270  |

**NOTES**



## CA SERIES

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# E11B COMPRESSOR PUMP PARTS LIST

LOT NUMBER:

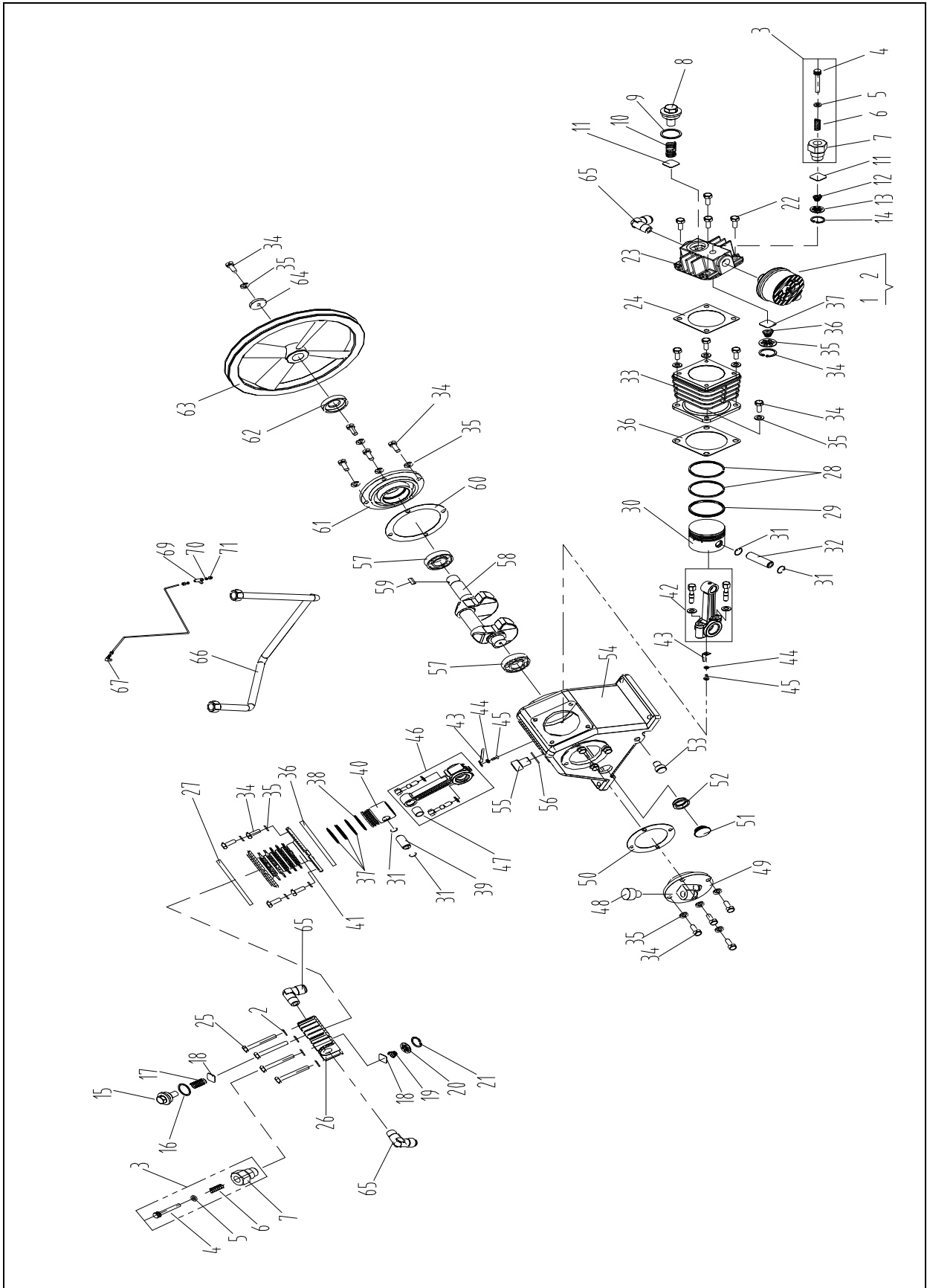
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RECORD MODEL & SERIAL NUMBER BELOW:

MODEL: \_\_\_\_\_

SERIAL: \_\_\_\_\_

Curtis Toledo Inc  
1905 Kienlen Avenue, St Louis, Missouri 63133  
Tel: (314) 383-1300 Fax: (314) 381-1439  
[www.fscurtis.com](http://www.fscurtis.com)



| ITEM                               | DESCRIPTION                                | QTY | PART NUMBER |
|------------------------------------|--|-----|-------------|
| <b>AIR STRAINER</b>                |  |     |             |
| 1                                  | Air Strainer Assembly                      | 2   | 2601540010  |
| 2                                  | Air Strainer Element (Not Shown)           | 2   | 2601540050  |
| <b>VALVE &amp; UNLOADERS</b>       |  |     |             |
| 3                                  | Unloader Assembly                          | 2   | 2601021441  |
| 4                                  | Unloader Piston                            | 2   | 2601021471  |
| 5                                  | O-ring (Unloader)                          | 2   | 2111010004  |
| 6                                  | Unloader Spring                            | 2   | 2601021490  |
| 7                                  | Unloader Cylinder                          | 2   | 2601021450  |
| 8                                  | Outlet Valve Push Cover (1st)              | 1   | 2601021510  |
| 9                                  | Outlet Valve Push Cover Gasket (1st)       | 1   | 2601021531  |
| 10                                 | Outlet Valve Spring (1st)                  | 1   | 2601320030  |
| 11                                 | Inlet & Outlet Valve Plate (1st)           | 2   | 2601310180  |
| 12                                 | Inlet Valve Spring (1st)                   | 1   | 2601310190  |
| 13                                 | Inlet Valve Receiver (1st)                 | 1   | 2601310170  |
| 14                                 | Inlet Valve Snap Ring (1st)                | 1   | 2111030029  |
| 15                                 | Outlet Valve Push Cover (2nd)              | 1   | 2601025831  |
| 16                                 | Outlet Valve Push Cover Gasket (2nd)       | 1   | 2601025880  |
| 17                                 | Outlet Valve Spring (2nd)                  | 1   | 2601320180  |
| 18                                 | Inlet & Outlet Valve Plate (2nd)           | 2   | 2601310860  |
| 19                                 | Inlet Valve Spring (2nd)                   | 1   | 2601310870  |
| 20                                 | Inlet Valve Receiver (2nd)                 | 1   | 2601310850  |
| 21                                 | Inlet Valve Snap Ring (2nd)                | 1   | 2111030026  |
| <b>CYLINDERS HEAD</b>              |  |     |             |
| 22                                 | Cylinder Head Bolt (1st); M8 x L25, Gr 8.8 | 4   | 2102010189  |
| 23                                 | Cylinder Head (1st)                        | 1   | 2601021340  |
| 24                                 | Head - Cylinder Gasket (1st)               | 1   | 2601021381  |
| 25                                 | Cylinder Head Bolt (2nd); M8 x L50, Gr 8.8 | 4   | 2102010215  |
| 26                                 | Cylinder Head (2nd)                        | 1   | 2601025790  |
| 27                                 | Cylinder & Head Gasket (2nd)               | 1   | 2601025810  |
| <b>CYLINDER, PISTON &amp; RING</b> |  |     |             |
| 28                                 | Compression Ring (1st)                     | 2   | 2601021890  |
| 29                                 | Oil Control Ring (1st)                     | 1   | 2601035680  |
| 30                                 | Piston (1st)                               | 1   | 2601035670  |
| 31                                 | Piston Pin Snap Ring (1st)                 | 4   | 2601021930  |
| 32                                 | Piston Pin (1st)                           | 1   | 2601021940  |
| 33                                 | Cylinder (1st)                             | 1   | 2601021570  |
| 34                                 | Cylinder Bolt (1st); M8 x L20, Gr 8.8      | 17  | 2102010180  |
| 35                                 | Cylinder Bolt Copper Washer (1st); M8      | 17  | 2102040082  |
| 36                                 | Cylinder - Case Gasket                     | 2   | 2601021620  |
| 37                                 | Compression Ring (2nd)                     | 3   | 2601025940  |
| 38                                 | Oil Control Ring (2nd)                     | 1   | 2601025950  |

| ITEM  | DESCRIPTION                               | QTY | PART NUMBER |
|---|---|-----|-------------|
| <b>CYLINDER, PISTON &amp; RING, cont.</b>     |   |     |             |
| 39  | Piston Pin (2nd)                          | 1   | 2601025970  |
| 40  | Piston (2nd)                              | 1   | 2601025930  |
| 41  | Cylinder (2nd)                            | 1   | 2601025890  |
| <b>CONNECTING ROD &amp; OIL SPLASH DIPPER</b> |   |     |             |
| 42  | Connecting Rod Assembly (1st)             | 1   | 2601021950  |
| 43  | Oil Splash Dipper                         | 2   | 2601025702  |
| 44  | Oil Splash Dipper Bolt Spring Washer; M4  | 2   | 2102040137  |
| 45  | Oil Splash Dipper Bolts; M4 x L10, Gr 8.8 | 2   | 2102011519  |
| 46  | Connecting Rod Assembly (2nd)             | 1   | 2601026001  |
| 47  | Connecting Rod - Piston Pin Bushing       | 1   | 2601025960  |
| <b>CRANKCASE &amp; CRANKSHAFT</b>             |   |     |             |
| 48  | Breather Assembly (Rubber)                | 1   | 2601020730  |
| 49  | Rear Bearing Cover                        | 1   | 2601025620  |
| 50  | Rear Bearing Cover Gasket                 | 1   | 2601025650  |
| 51  | Screw-in Oil Level Glass                  | 1   | 2601037952  |
| 52  | O-ring (Oil Level Glass)                  | 1   | 2111010210  |
| 53  | Crankcase Oil Plug (1/4" PT)              | 1   | 2102020029  |
| 54  | Crankcase                                 | 1   | 2601025910  |
| 55  | Oil Fill Cap                              | 1   | 2601020600  |
| 56  | O-ring (Oil Fill Cap)                     | 1   | 2111010012  |
| 57  | Front & Rear Bearing                      | 2   | 2110020084  |
| 58  | Crankshaft                                | 1   | 2601025490  |
| 59  | V-Pulley Pin                              | 1   | 2601021680  |
| 60  | Front Bearing Cover Gasket                | 1   | 2601025590  |
| 61  | Front Bearing Cover                       | 1   | 2601025560  |
| 62  | Front Oil Seal                            | 1   | 2601025680  |
| 63  | Compressor Pulley                         | 1   | 2601232371  |
| 64  | Compressor Pulley Thrust Washer           | 1   | 2601230800  |
| <b>DISCHARGE PIPING</b>                       |   |     |             |
| 65  | Outlet Piping Joint                       | 3   | 2601490751  |
| 66  | Discharge Piping Assembly                 | 1   | 2601490840  |
| <b>UNLOADER PIPING</b>                        |   |     |             |
| 67  | Unloader Elbow                            | 1   | 2101080140  |
| 68  | Unloader Tube Assembly                    | 1   | 2601410140  |
| 69  | Unloader Copper Tee                       | 1   | 2101090006  |
| 70  | Unloader Connection Ferrule               | 1   | 2101100001  |
| 71  | Unloader Tube Nut                         | 1   | 2101110001  |

**CURTIS – TOLEDO, INC.**

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[www.fscurtis.com](http://www.fscurtis.com)