

INSTRUCTIONS



99TA526393 (for RCD use only)

Instruction Sheet Number: **99TA526393**

Description: Valve Plate Installation Instructions

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Valve Plate Installation Instructions for Carlyle 06D

HAZARDS: ELECTRIC SHOCK / PRESSURE / EXPLOSION

REFRIGERANT AND OIL UNDER PRESSURE

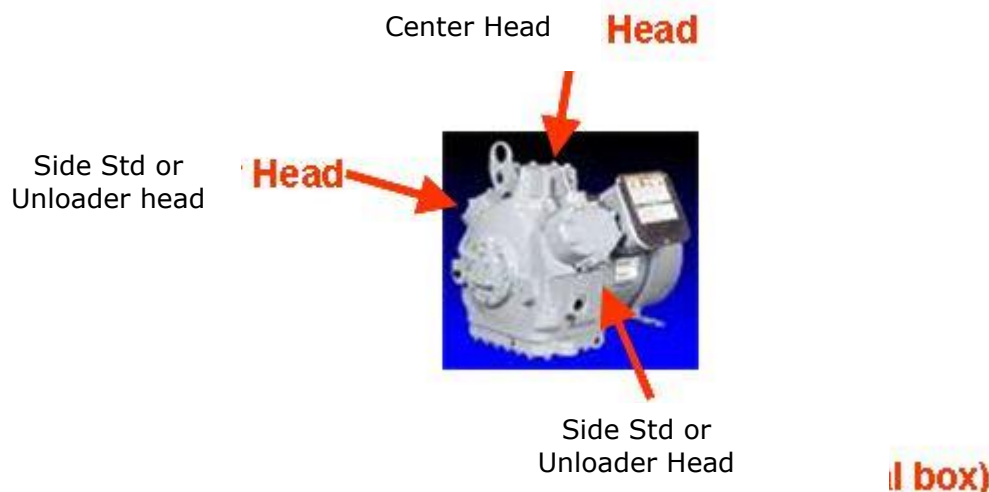
- Bodily injury may result from explosion and/or fire if power is supplied to compressor with terminal box cover removed or unsecured. Terminal pins may blow-out causing injuries, death or fire.
- Do not touch terminals, or wiring at terminals, or remove terminal cover or any part of compressor until power is disconnected and pressure is relieved. See safety instructions A, B, and C.

ELECTRIC SHOCK

- Bodily injury or death may result from electrocution if terminal cover is removed while power is supplied to compressor.
- Do not supply power to compressor unless terminal cover is secured in place and all service valves are open.

GENERAL

1. Inspect components for shipping damage and file claim with shipping company if damaged.
2. Before installation, review all the OEM literature to assure that following proper compressor has been selected.
3. The following kit can be used for replacement of the valve plate of any head on the compressor. Note that there are different head gaskets for each bank of cylinders.



Kit Contents

ITEM DESCRIPTION	PART NUMBER	QTY PER PLATE ASY.
VALVE PLATE ASY.		1
VALVE PLATE GASKET (COATED STEEL)	05DA500153	1
CYL HEAD GSKT (CENTER BANK) (CTD STEEL)	05GA502173	1
CYL HEAD GSKT(PLAIN)(SIDE BANK)(CTD STL)	05GA502213	1
CYL HEAD GSKT (Electric Suction Cut Off)	05GA502223	1
CYL HEAD GSKT (Hot Gas Bypass)	05GA502183	1
SUCTION VALVE (HI - EFFIC)	06DA502903	2
SUCTION VALVE POSITIONING SPRING	6D401021	2
DOWEL PIN	7J16032	4

* Parts may vary on non standard kits.

SAFETY INSTRUCTIONS WARNING: Failure to follow these instructions could result in serious injury. Service or maintenance must be performed only by trained certified technicians and according to service instructions.

1. Follow recognized safety procedures and practices.
2. Disconnect and lockout all electrical power. Electrical measurements during operation must be taken outside of the compressor terminal box.
3. Do not remove any compressor bolts or fittings until the refrigerant charge has been removed and pressure relieved.
4. Do not apply any power to the compressor unless suction and discharge service valves are installed and opened.
5. Do not operate or provide any electrical power to the compressor unless the terminal box cover is in place and secured. Measurement of amps and volts during running conditions must be taken at other points in the power supply.
6. Do not remove terminal box cover until all electrical sources have been disconnected.
7. Follow recommended safety precautions listed on terminal box cover label before attempting any service work on the compressor.

DISASSEMBLY

1. Disassemble cylinder heads by first loosening cylinder head bolts. Leave at least 2 bolts partially threaded to prevent any problems if refrigerant is accidentally left in the compressor under pressure.
2. Separate the cylinder head from the valve plate by carefully prying up between the head and valve plate. After the cylinder head is separated from the compressor body, remove the last threaded bolts while securing the head and valve plate.

Note: Do not hit the cylinder head to break it free of the valve plate. This may shear the valve plate dowel pins. Sheared dowel pins usually require that the compressor be replaced.

3. Gently remove the head and valve plate paying close attention to the placement of the suction reeds and springs as they tend to stick to the valve plate when removed(Fig.1). Remove suction valves and springs from dowel pins if they are still in place.

a. If the valve plate is stuck to the compressor deck it may be removed by removing one valve stop cap screw and loosen the other. Then swivel valve stop to allow access to hole from which the cap screw was removed. Using the jack screw method, re-insert cap screw and tighten to break valve plate away from compressor



Figure 1

Note: Use care not to knock or drop the suction springs into compressor ports as they make stick to the valve plate when it is removed.

4. Inspect all components for cracks, abnormal wear or damage. If replacement is necessary, replace as a complete assembly. Individual parts must not be interchanged.

REASSEMBLY

If reassembling existing components, do not interchange valves or turn them over. They must be reassembled in their original position.

Compressor starting with S/N 4308 and later will have a slight difference to the valve plate as shown below. Either one may be used as a replacement although most replacements kits will have the Post S/N 4308 version.

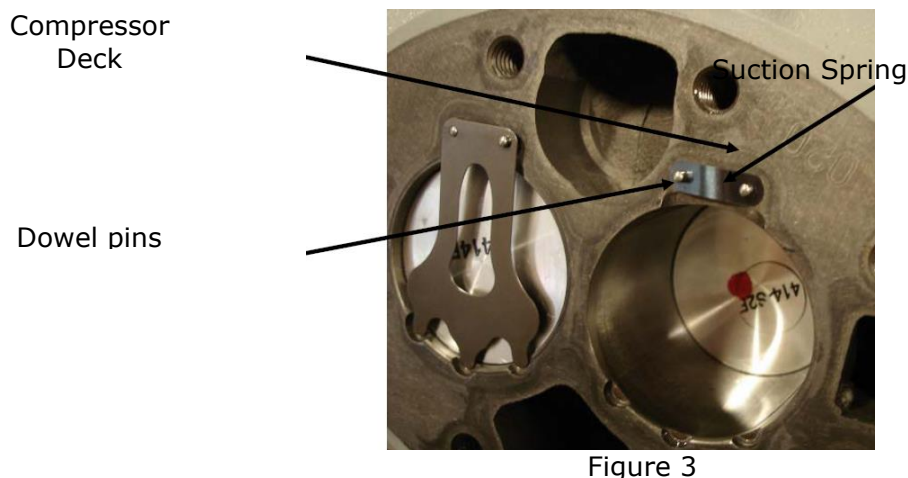
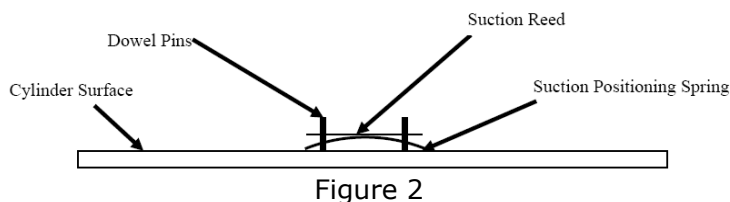
Pre S/N 4308



Post S/N 4308



1. Ensure all surfaces and cylinders are clean and free of debris.
2. Lightly oil the suction valve springs to aid in holding in place then install on the dowel pins. Assemble positioning springs with spring ends bearing against cylinder deck and spring bow upward (Fig. 2 and 3).
3. Lightly oil the suction valve and install on dowel pins on top of positioning springs so that the finger rest in the recessed area (Fig. 2 and 3).



4. Install new valve plate gasket with the rib protruding toward the compressor to reduce the risk of knock the suction valve off the dowel pins (Figure 4 and 5).

Note: Metal gaskets must be installed dry.

Incorrect
With rib up the suction
valve may be easily
knocked off the dowels

Correct
Rib towards body



Figure 4



Figure 5

5. Place valve plate on cylinder deck and align with the dowel pin holes (Fig 6). Apply light pressure to keep gasket from moving. Look through the suction valve port to confirm the reeds are in the proper location (Fig.7).

Dowel Pins

Alignment Holes

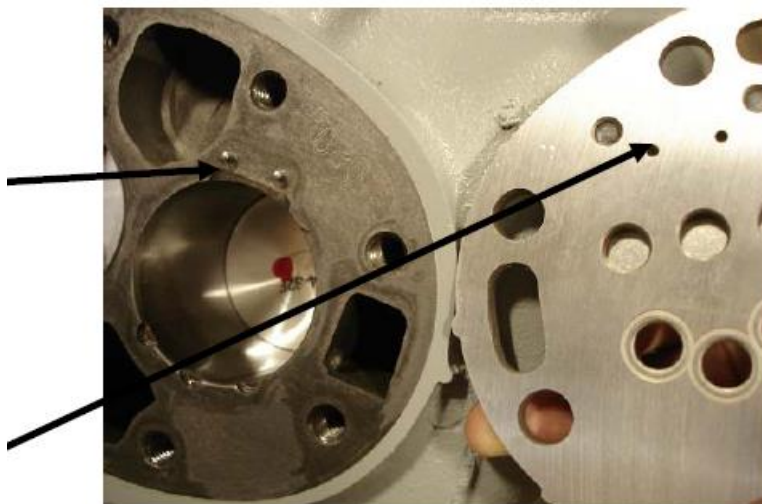


Figure 6

Note: Use caution not to slide the valve plate gasket and knock the suction valve or spring from the dowel pins. See Figure 7 to confirm valves are in position.

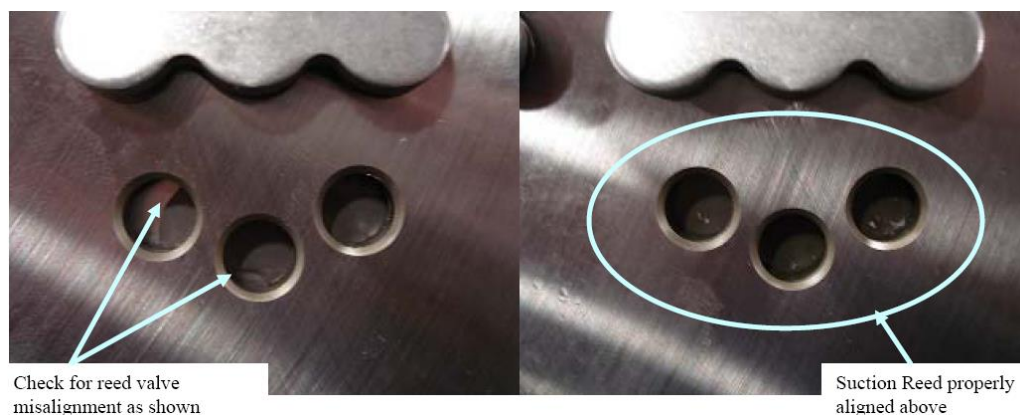


Figure 7

6. Install cylinder head gasket and line up the gasket with the cylinder head and valve plate. See Figure 7 for correct gasket selection.

Note: The center, side and unloader side heads use different gaskets. Confirm the gasket is correct by placing it over the cylinder head and verify all exposed machined surfaces will be covered by the gasket.

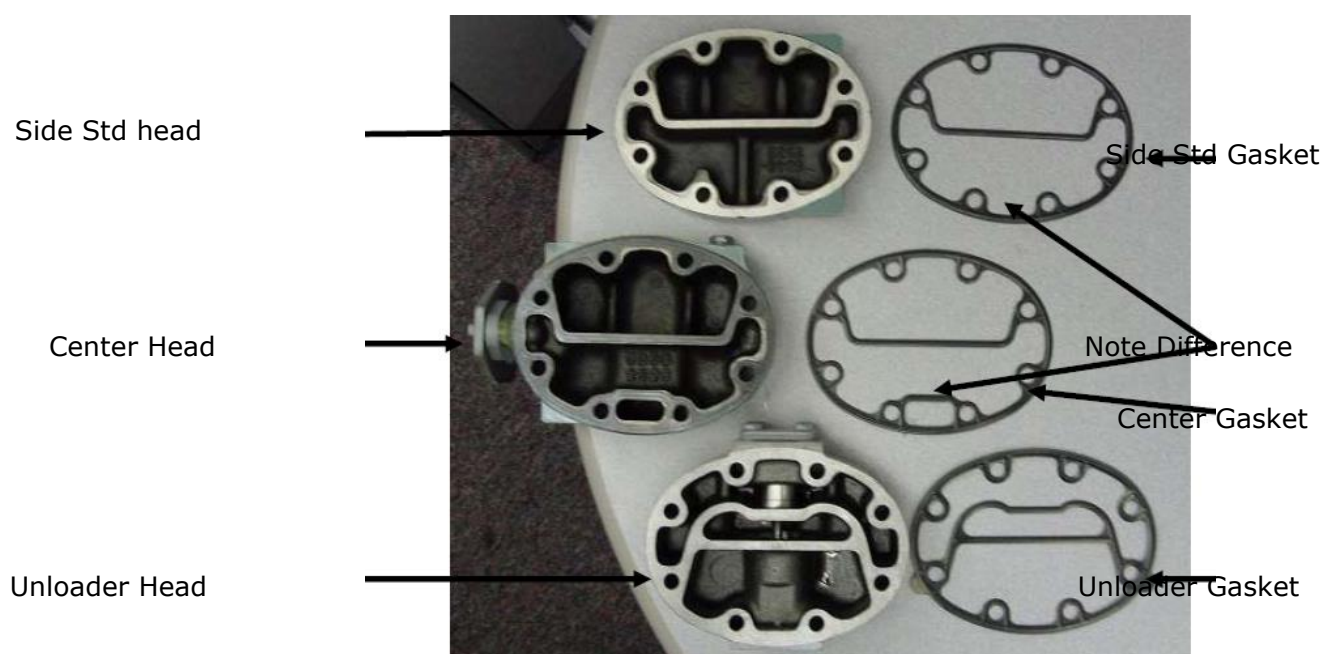


Figure 8

7. Replace cylinder head. While holding light pressure to prevent any movement installed several bolts finger tight.

8. Torque bolts in an alternating sequence pattern (top to bottom, left to right See Fig. 9) to 35 to 50 ft-lbs. (48 to 68 Nm). Do not torque bolts in a circular pattern.

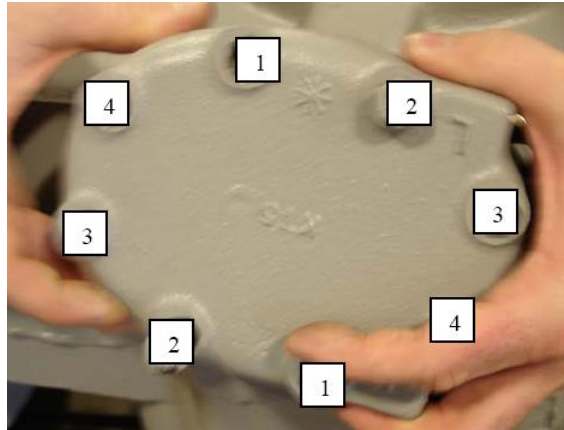


Figure 9

NOTE: Compressors with metal core gaskets do not require re-torque.