# INSTRUCTIONS



*99TA516061 H* (for RCD use only)

Instruction Sheet Number: **99TA516061 H**

Description: CHECK VALVE & MUFFLER REPAIR KIT

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Date: June 3, 2005

Part Number: 06NA660004, 06NA660015

**WARNING**

**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.**

**Safety Instructions:**
Service or maintenance must be performed only by trained certified technicians and according to service instructions.

A. Follow recognized safety practices and wear protective goggles.
B. Disconnect and lockout all electrical power. Electrical measurements during operation must be taken outside of the compressor terminal box.
C. Isolate the compressor from the system. Reclaim all refrigerant in the compressor. Do not disassemble bolts, plugs, fittings, etc. unless all pressure has been relieved from the compressor. The oil filter cavity must be relieved independently from the rest of the compressor since it can be isolated by the oil check valve.

**NOTE: Valves may be sealing off refrigerant from the rest of the system. Do not open isolation valves while servicing the compressor.**

**Package Contents for 06NA660004:**

| Item | Part No. | Qty. | Description |
|---|---|---|---|
| 1 | 0TB0231 | 1 | Baffle Plate Assembly |
| 2 | 8TB0291 | 1 | Muffler Casing O-Ring |
| 3 | KK71EW234 | 1 | Discharge Line O-Ring |
| 4 | 1TB0946 | 1 | Discharge Check Valve |
| 5 | 2TB0774 | 1 | Neoprene Bumper |
| 6 | 2TB0254 | 1 | Support Tube |
| 7 | 8TB0400 | 8 | M12x1.75x45 Torx® Bolt |
| 8 | SLE140 | 1 | E14 Torx® Socket |
| 9 | 99TA516061 | 1 | Instruction Sheet |
| 10 | 8TB0245 | 1 | Roll Pin |

**Package Contents for 06NA660018:**

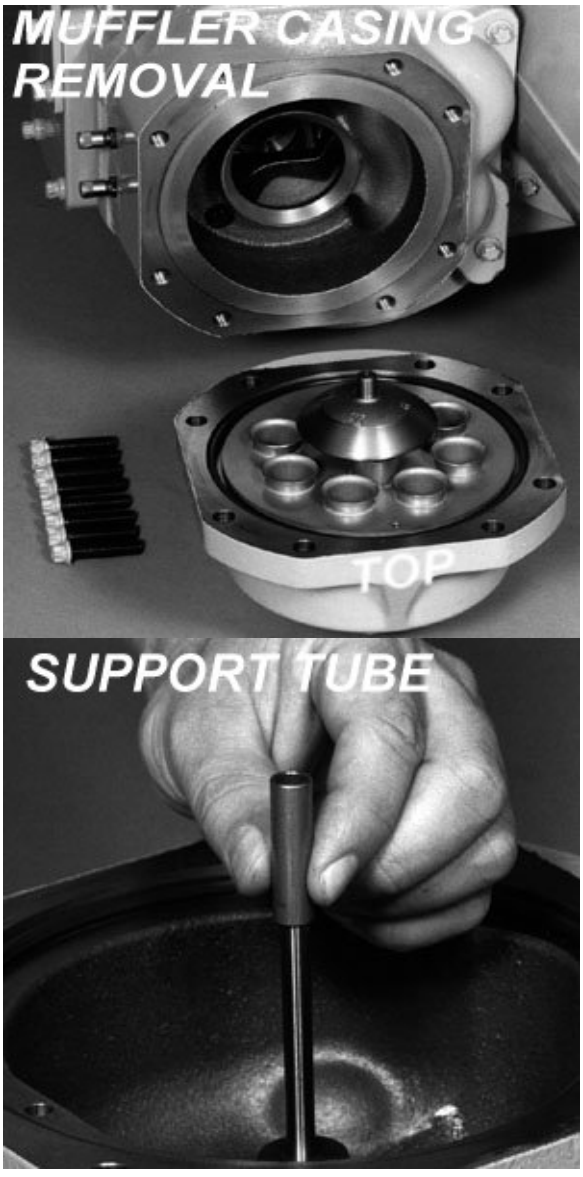
| Item | Part No. | Qty. | Description |
|---|---|---|---|
| 1 | 8TB0291 | 1 | Muffler Casing O-Ring |
| 2 | KK71EW234 | 1 | Discharge Line O-Ring |
| 3 | 99TA516061 | 1 | Instruction Sheet |

**MUFFLER INSPECTION**

1. After all pressure has been relieved from the compressor, remove the discharge line from the compressor. The discharge end of the screw compressor will contain residual oil after the compressor is stopped, care should be taken to catch this oil during disassembly.
2. Support the muffler casing then remove the eight M12 Torx® head bolts (use a E14 Torx® wrench) holding the muffler casing to the bearing cover.

**CAUTION: The muffler assembly weight is 30 lb, (13.5 kg).**

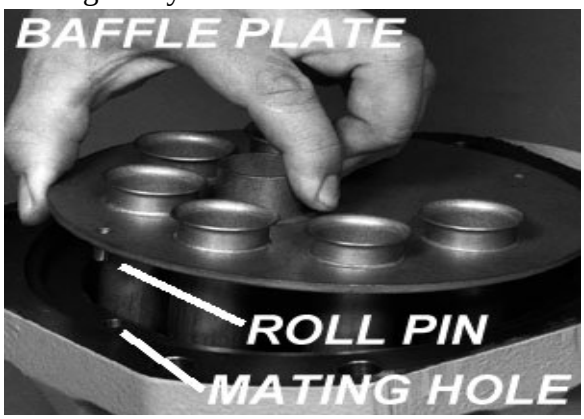
3. Remove the old o-rings, check valve, baffle plate and support tube from the muffler casing assembly. The baffle plate does not sit level on the outer circumference of the part. The support tube under the center of the plate is intended to pre-load the plate to prevent flexing during operation.
4. Install the new support tube on the check valve dowel guide pin.
5. Install the new baffle plate on the check valve dowel guide pin such that flared ends of the tubes are facing out and the roll pin is properly aligned with the mating hole in the muffler casing. Failure to properly orient this baffle plate will result in oil logging in the muffler. Again, the baffle plate does not sit level on the outer circumference of the part. The support tube under the center of the plate is intended to pre-load the plate to prevent flexing during operation.
6. Install the check valve and bumper by first inserting the neoprene bumper into the guide hole of the check valve, then install the check valve by engaging the dowel guide pin in the guide hole. The check valve should bottom out, then apply pressure (by hand) to the check valve so the neoprene bumper becomes seated within bottom of the guide hole.




7. Remove the check valve and verify that the neoprene bumper is seated in the bottom of the hole. (It will fall out if not properly seated.) Repeat step 6 above as necessary until the bumper is seated, then re-install the check valve.
8. Clean the muffler o-ring groove and flange faces of any dirt or paint chips. Install the new muffler casing o-ring.
9. Install the muffler assembly back on the compressor with the eight M12 Torx® head bolts. Torque these bolts to 60-80 lb-ft, (81-108 Nm)
10. Clean the discharge o-ring groove and flange faces of any dirt or paint chips. Wipe any residual oil from the discharge line o-ring groove. Install the new o-ring.

11. Re-install the discharge line, SNUG ALL FOUR BOLTS HAND TIGHT PRIOR TO TORQUING. Using a “star” pattern, torque the M14 hex head bolts to 60-100 lb-ft (81-136 Nm).
12. Evacuate the system and check for leaks.
13. Refer to the unit installation and start-up procedures for restarting the system.




The failed check valve must be returned to the address below with the required information:

Carlyle Compressor Company
Division of Carrier Corporation
Attn: Reliability Engineering - Screw Compressors
6500 New Venture Gear Drive, Bldg. CC-1
Syracuse, NY 13221

Each valve should be clearly identified with the following:

* Claim #
* Chiller Model Number
* Chiller Serial Number
* Chiller Installation Date
* Head pressure control means provided (yes/no)
* Valve Replacement Date
* Compressor Circuit Designation A1 / A2 / B1 / B2
* Compressor Model Number
* Compressor Serial Number
* Compressor Hours & Starts
* Pin Length Measurement
* Oil Filters Changed (YES / NO)