

**BLACKMER COMPRESSOR HYDRAULIC
MOTOR ADAPTER KITS (*Patent Pending*)
INSTALLATION AND MAINTENANCE INSTRUCTIONS**

961827
INSTRUCTIONS NO. CB-343

Effective Replaces	September 2025 NEW
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This is a SAFETY ALERT SYMBOL.

When you see this symbol on the product, or in the manual, look for one of the following signal words and be alert to the potential for personal injury, death or major property damage



Warns of hazards that **WILL** cause serious personal injury, death or major property damage.



Warns of hazards that **CAN** cause serious personal injury, death or major property damage.



Warns of hazards that **CAN** cause personal injury or property damage.

NOTICE:

Indicates special instructions which are very important and must be followed.

NOTICE:

Blackmer compressors **MUST** only be installed in systems, which have been designed by qualified engineering personnel. The system **MUST** conform to all applicable local and national regulations and safety standards.

These instructions are intended to assist in the installation of Blackmer hydraulic motor adapters, and **MUST** be kept with the compressor.

Blackmer compressor service shall be performed by qualified technicians **ONLY**. Service shall conform to all applicable local and national regulations and safety standards.

Thoroughly review the compressor manual, all instructions and hazard warnings, **BEFORE** performing any work on the Blackmer compressor.

Maintain **ALL** system and Blackmer compressor operation and hazard warning decals.

WARNING



Hazardous machinery can cause serious personal injury or property damage.

Failure to set the vehicle emergency brake and chock wheels before performing service can cause severe personal injury or property damage.

WARNING



Hazardous pressure can cause serious personal injury or property damage.

Failure to relieve system pressure prior to performing compressor service or maintenance can cause serious personal injury or property damage.

WARNING



Hazardous machinery can cause serious personal injury.

Failure to disconnect and lockout electrical power or engine drive before attempting maintenance can cause severe personal injury or death.

NOTICE:

The appropriate Blackmer compressor manual and parts list may be obtained from the Blackmer website (www.blackmer.com) or by contacting Blackmer customer service.

NOTICE:

Maintenance and trouble shooting must be done by an individual experienced with compressor maintenance and the type of system involved.

NOTICE:

The following instructions include only the steps necessary to install the Blackmer hydraulic motor adapter kit. Before proceeding, read and follow related instructions and hazard warnings provided in the appropriate compressor "Installation, Operation and Maintenance" manual.

TOOLS REQUIRED:

- 3/8" – 12 point wrench/socket
- 1/2" – 12 point wrench/socket
- 3/16" Allen Socket
- 3/8, 11/16, 3/4 Box End Wrench
- 0-50 FT*LB Torque Wrench
- Small Funnel

HYDRAULIC MOTOR ADAPTER INSTALLATION

1. Remove (4) Bearing Cover Plate bolts that attach Bearing Cover Plate (9) to compressor.
2. If the compressor manufacture date is prior to **09/2025**, replace Bearing Cover Plate (9) with new Bearing Cover Plate (9) provided in adaptor kit.

CRANKSHAFT ENDPLAY MUST BE RESET IF BEARING COVER IS REPLACED.

3. If the Bearing Cover Plate (9) is being replaced, install and reinstall four Bearing Cover Plate bolts and verify crankshaft endplay in the Bearing Replacement Section of compressor IOM. Endplay should be at 0.0015" to .0030" (0.038 to 0.076 mm) at room temperature. If required a shim kit is included for this purpose.
4. Once the endplay is achieved, remove the original four Bearing Cover Plate bolts, with new Bearing Cover (9) remaining in place.
5. Install the Hydraulic Motor Coupling (7) onto compressor crankshaft. Verify the four 1/4" cap screws are loose on the clamp and 1/4" key (8) is present. A new key is included in the kit. Coupling (7) should be installed at 1.5" from end of compressor shaft to end of coupling on the splined side. See Figure 1. Once located torque the four 1/4" cap screws evenly to 10 ft*lbs. (13.5 Nm).
6. Install Hydraulic Adaptor Gasket (6) onto the Hydraulic Motor Adaptor (2). Install Hydraulic Adaptor (2) onto the Bearing Cover Plate (9) pilot diameter, over the coupling.
7. Install the four new Bearing Cover Bolts (3) through the adaptor and gasket and torque to 35 ft*lbs. evenly. (47.5 Nm)
8. Install the Hydraulic Motor pad gasket (1) onto the hydraulic motor dowl with holes aligned.

9. Install the Hydraulic Motor on the Hydraulic adaptor by aligning the splines and install two Motor Bolts (11). Torque the motor bolts to 50 ft*lbs. (67.8 Nm)
10. Install Hydraulic Adaptor Oil Drain Plug (12).
11. Add oil to the hydraulic motor adapter through the top 1/4" NPT fitting using a small funnel.

HYDRAULIC ADAPTOR OIL FILL VOLUME

US Fluid Ounces	Quarts	Liters
10	0.31	0.3 L

Recommended Oil:

Mobil® - SHC 630 – ISO 220

DO NOT OVERFILL THE ADAPTOR, SPILLAGE WILL RESULT DURING OPERATION

It is recommended to change the oil when servicing the compressor oil, every 6 months or 1000 hours of service, whichever comes first.

12. Install Adaptor (4), Breather (5), and top 1/4 NPT fitting (12) and attach the hydraulic hoses to the hydraulic motor.

HYDRAULIC MOTOR DRIVE SPECIFICATION

Torque Requirements:

LB081 – 1320 in*lbs. (150 N*m) @ 740 RPM

LB161 – 1500 in*lbs. (170 N*m) @ 740 RPM

Output Shaft Requirements: 1" SAE 6B Spline

Mounting Options: SAE A – 2 or 4 Bolt

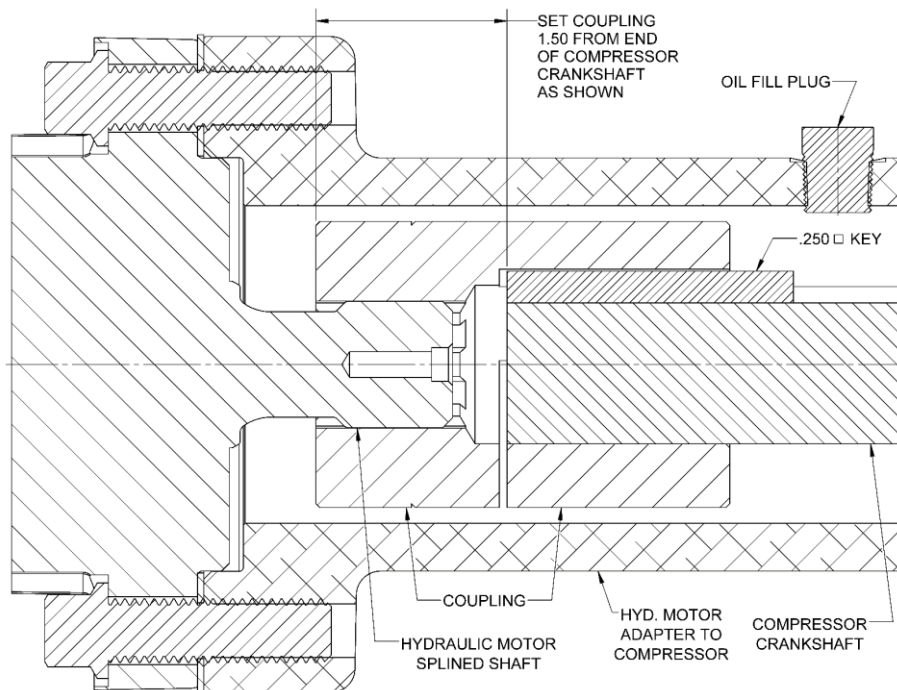
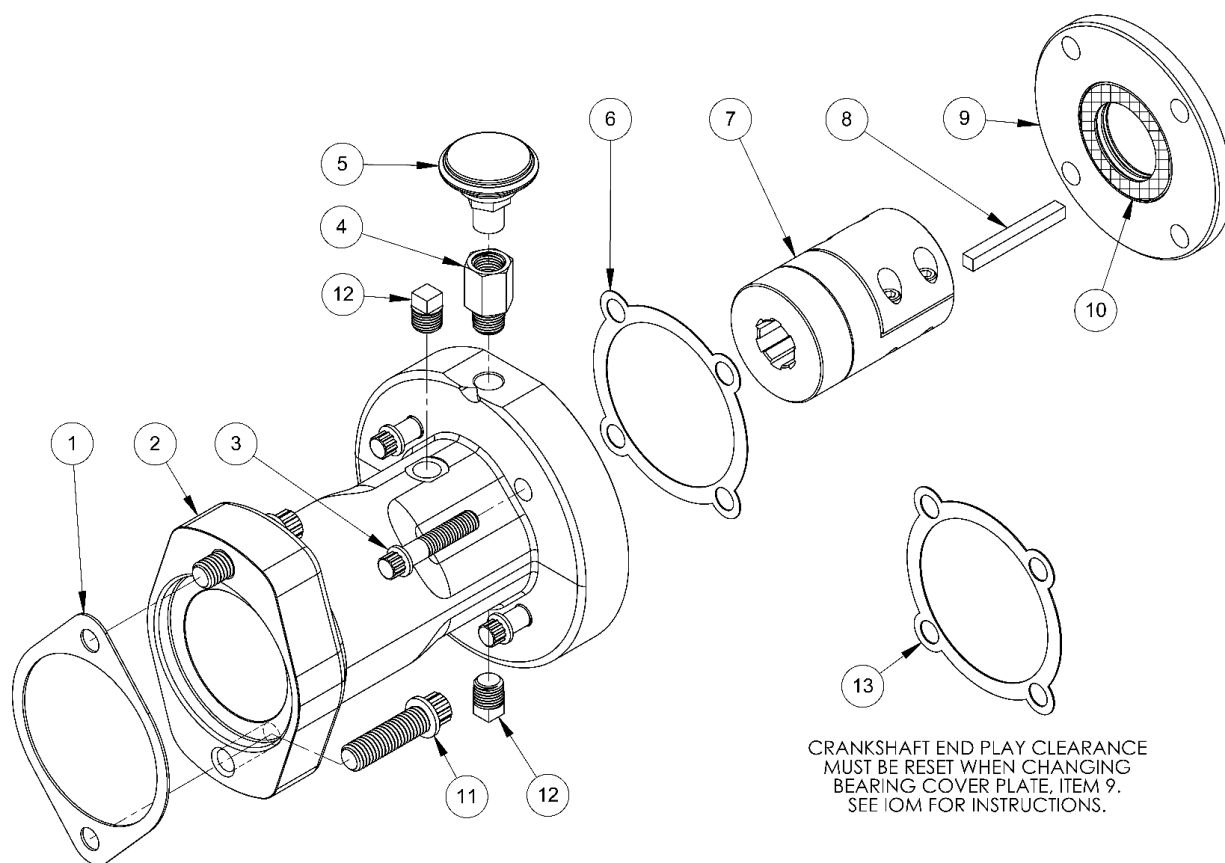


FIGURE 1: COUPLING CROSS-SECTION



HYDRAULIC MOTOR ADAPTER KIT – 791230



HYDRAULIC MOTOR ADAPTER KIT, COMPRESSOR

Ref No.	Part Number	Description	Qty.
1	791294	Gasket, SAE A 2-Bolt Hydraulic Motor	1
2	791299	Hydraulic Motor Adapter, Compressor	1
3	797186	CPSW 12 PT 3/8-16 X 1.75	4
4	791296	Adapter, Straight NPTF 1/4 Male/Female	1
5	792070	Breather, 1/4 NPT	1
6	793185	Gasket/Shim 0.020" Adapter to Bearing Cover	1
7	791297	Hydraulic Coupling, Splined	1
8	792167	Key, Locating .25 Square	1
9	793106	Bearing Cover Plate, Machined	1
10	793143	Oil Lip Seal, Crankshaft	1
11	797176	CPSW 12 PT 1/2-13 X 1.75	2
12	908195	Pipe Plug 1/4 NPT Square Head	2
13	793133	Shim Kit	1



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