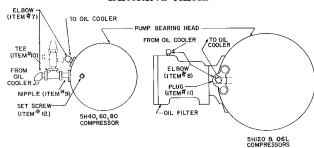
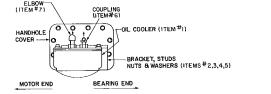
September 169 Oil Cooler of mets

# CONNECTION OF OIL COOLER TO BEARING HEAD





6L45-977 OIL COOLER ACCESSORY PACKAGE CONSISTING OF

D. D. T. V.O.		
PART NO.	REQ	DESCRIPTION
KH52HC101	1	Cooler, Oil
5F41-3342	1	Bracket, Cooler
5H40-1781	2	Stud, Cont. Brkt.
AU11AR241	2	Washer, Spr. Lock, 3/8
AT39AA241	2	Nut, Hex, 3/8 — 16
DD07DA203	1	Coupling, 3/8 MPT x 1/2 Flare
DD10CA203	3	Elbow, Half Union 3/8 MPT x 1/2 Fl
DD10CA201	2	Elbow, Half Union 1/2 MPT x 1/2 Fl
CE01CA110	1	Nipple, 3/8 x 2 LG. (Sched 80)
CE20RA101	1	Tee, 3/8 x 3/8 x 3/8
5H81-2171	1	Plug, Headless
AF19AR317	1	Screw, Socket Set 5/8 – 18 x 5/8 LG.
	KH52HC101 5F41-3342 5H40-1781 AU11AR241 AT39AA241 DD07DA203 DD10CA203 DD10CA201 CE01CA110 CE20RA101 5H81-2171	KH52HC101 1 5F41-3342 1 5H40-1781 2 AU11AR241 2 AT39AA241 2 DD07DA203 1 DD10CA203 3 DD10CA201 2 CE01CA110 1 CE20RA101 1 5H81-2171 1

Fig. 1 - 5H and 06L Oil Cooler Installation

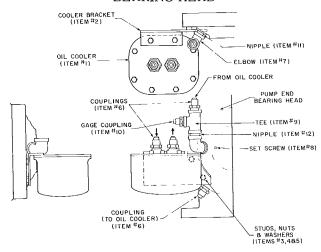
# **INSTALLATION**

If compressor is ordered for use with oil cooler, the internal plug must be installed in the bearing head when received. This plug prevents internal bypass of the oil from the pump discharge to the bearing feed. If plug is not installed oil will bypass cooler.

CAUTION: Do not operate without oil cooler installed. When internal bypass is plugged no oil can get to bearings.

If compressor is not ordered for use with oil cooler, a special bearing head must be ordered from Service for 5F,H compressors except the 5H120.

## CONNECTION OF OIL COOLER TO BEARING HEAD



5F20-547 OIL COOLER ACCESSORY PACKAGE CONSISTING OF

ITEM	PART NO.	REQ	DESCRIPTION
1	KH52HC101	1	Cooler, Oil
2	5F20-4932	1	Bracket, Cooler
3	5F20-1781	2	Stud, 3/8 - 16
4	AU11AR241	2	Washer, Spr. Lock, 3/8
5	AT39AA241	2	Nut, Hex 3/8 – 16
6	DD07DA101	4	Coupling, 3/8 MPT x 3/8 MFL
7	CE06RA106	1	Elbow, Reducing 3/8 x 1/4
8	AE11AR254	1	Screw, Socket Set 7/16 – 14 x 3/8 LG.
9	CE20RA102	1	Tee, 3/8 x 3/8 x 1/4 MPT
10	DD07UA051	1	Coupling, 1/4 MPT x 1/4 MFL
11	CE01CA051	1	Nipple, 1/4 - 18 x 7/8 LG.
12	CE01CA102	1	Nipple, 3/8 × 1 LG.

Fig. 2 - 5F Oil Cooler Installation

5F20,30,40,60 Bearing Head - 5F40 -677 5H40,60,80 Bearing Head - 5H40 -677

These bearing heads come less the internal plug. Therefore, plug in accessory package must be installed before installing bearing head on compressor. Plug position is shown in Fig. 1.

The 5H120 and all 06L compressors must have the plug added by removing the full flow oil filter and plugging the threaded hole in the flanged face of the bearing head as shown in Fig. 1. The 5F compressors can have the plug added externally as shown in Fig. 2. The 5H40-80 compressors must have plug installed internally as shown in Fig. 4. This means bearing head must be removed to install plug.

After internal plug is in place install fittings as shown in Fig. 1 or 2 and connect piping to cooler as shown in Fig. 3. Water connections on oil cooler are 3/4-inch FPT and oil tubing from cooler to bearing head should be 1/2-inch copper tubing.

NOTE: Water flow can be controlled by a throttling valve on the discharge of the cooler or a thermostatic control valve sensing return oil temperature.

### **OPERATION**

This package is needed for low temperature and/or high compression ratio applications where oil temperatures are high.

Oil breakdown and shaft seal leakage can occur due to high oil temperatures. Crankcase temperature should be kept below 140 F and shaft seal temperature at the seal housing should be kept below 170 F.

The water thru the oil cooler should be controlled to maintain 100-120 F oil returning to the compressor crankcase from the cooler.

### Estimated Water Flow Rates

COMPRESSOR	GPM*
5F	2 – 3
5H, 06L (4, 6 and 8 Cylinders)	6
5H, 06L (12 Cylinders)	8

<sup>\*</sup>Flow rate based on 80 F entering water.

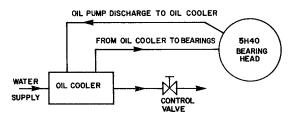


Fig. 3 - Oil Cooler Piping

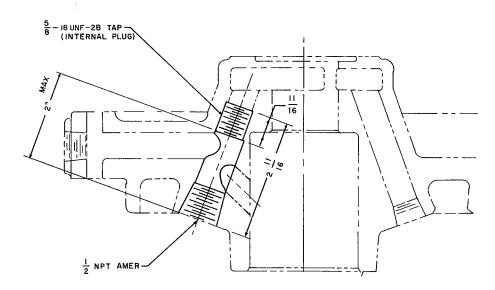


Fig. 4 - 5H40,60,80 Internal Plug Installation

Manufacturer reserves the right to change any product specifications without notice.