TRANE AIR CONDITIONING	FILE INFORMATION: DIVISION TAB-TRANE REFRIGERATION PRODUCTS PRODUCT TAB-RECIPROCATING COMPRESSOR-CONDENSER UNITS MODEL TAB-Hermetic M-R LITERATURE ITEM-GENERAL SERVICE BULLETIN	LITERATURE FILE NO. **HCOM-SB-49** **GENERAL SERVICE BULLETIN**

7/1/81
Supersedes G-78
Dated 9/5/72

SUBJECT: RECIPROCATING COMPRESSORS, ALL MODELS - OPERATING OIL LEVEL

INTRODUCTION

The purpose of this bulletin is to stress the importance of proper oil charge in all reciprocating compressors and to provide a means of identifying proper operating oil level for these compressors. Consistent overcharging can result in compressor damage.

DISCUSSION

Oil overcharging causes excessive oil circulation and possible oil entrapment in the system under certain load and operating conditions.

Refrigeration piping improperly designed or sized will result in the accumulation of oil in the system.

Expansion valve super heat settings will also be affected by excessive oil film in the area of the remote sensing bulb.

As the system load and velocities increase, the oil overcharge will rapidly return to the compressor and carry-over to the compressor suction valves.

PROPER OPERATING OIL LEVELS

The oil levels on all Trane Compressors may vary due to the load conditions of the system. The oil level may vary from halfway up the sight glass to 1/4" below the bottom of the sight glass on the compressor.

EXCESSIVE OIL

An excessive oil charge is indicated when the oil level in the sight glass of a compressor operating at full load is over the halfway mark.

REMOVAL OF EXCESSIVE OIL

To reduce excessive oil charge, run the compressor and drain sufficient oil so that the oil level in the sight glass is at the halfway mark at full

load. The compressor continuing to operate at full load should be observed again in approximately one hour. If the oil level increases, more oil should be removed and the process continued until the level in the 1/2 sight glass is maintained at the halfway mark.

ADDING OIL

On a new field piped system start-up, it may be necessary to add additional oil due to the size and length of the refrigeration piping. Only enough oil should be added to establish the oil level in the sight glass at the halfway mark when the compressor is operating at full load.

HOW OIL OVERCHARGING OCCURS

1. Adding oil because of a low level reading in the sight glass without determining the cause of the low level.
2. Adding oil when unit is stopped by the oil pressure control.
3. Adding excessive oil on oil change or after repair work.

CORRECTIVE ACTION

1. When customers report low oil levels, tell them what causes variation in oil level and corrective steps to be taken.
2. Always determine reason why oil pressure control is stopping compressor and take corrective action. Oil does not leave a system or a compressor without a reason.
3. On oil change of after compressor repair, add only the same amount of oil that was removed from the system.
4. Provide oil level operating range decals for attachment to the compressor terminal box cover. (See Figure 1).

ORDER INFORMATION

Oil level operating range decals may be ordered from La Crosse.

ITEM	ORDERING NO.
Oil Level Decal	X36180060