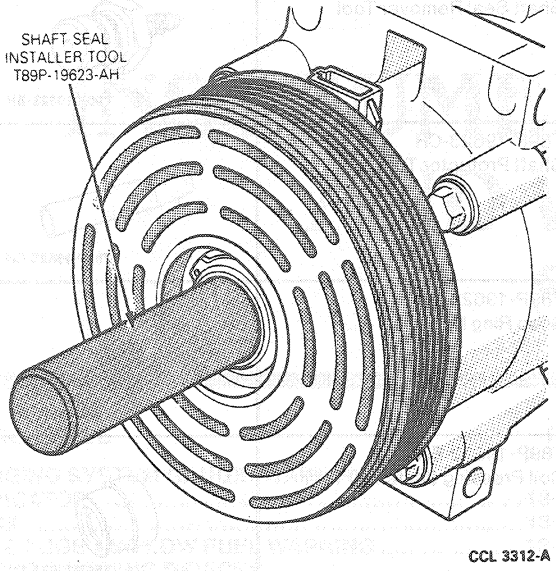
REMOVAL AND INSTALLATION (Continued)

5. Using Shaft Seal Installer Tool T89P-19623-AH, slowly push seal down shaft protector onto compressor shaft until seated.



6. Remove installer tool and shaft protector from compressor shaft.
7. Place a new shaft seal retaining snap ring into the compressor nose opening and seat the snap ring into the groove.
8. Leak test the shaft seal installation after rotating the compressor shaft about ten revolutions with the clutch hub. Refer to Compressor External Leak Test.
9. Install a new shaft seal felt in nose of compressor.
10. Install clutch hub on compressor as outlined.
11. Check and adjust the air gap as necessary.

MAINTENANCE

Adding Refrigerant Oil

The FX-15 compressor uses a unique high-quality refrigerant oil (E73Z-19577-A), Motorcraft Part Number YN-9 or an equivalent refrigerant oil meeting Ford specification ESH-M2C31-A2. An oil charge of 207 ml (7 oz) is used in a new system. It is extremely important that only the specified type and quantity of refrigerant oil be used in the FX-15 compressor. If there is a surplus of oil in the system, it will circulate with the refrigerant, reducing the cooling capacity of the system. Using too little oil or oil not meeting the Ford specification will result in poor lubrication of the compressor.

When replacing a component of the refrigerant system, the procedures in this section must be followed to ensure that the total oil charge in the system is correct after the new part is installed.

When the compressor is operated, oil gradually leaves the compressor and is circulated through the system with the refrigerant. Eventually, a balanced condition is reached in which a certain amount of oil is retained in the compressor and a certain amount is continually circulated. If a component of the system is removed after the system has been operated, some oil will go with it. To maintain the original total oil charge add oil as required to the new replacement part.

The procedures for replacing oil are as follows:

During Compressor Replacement

A new service replacement FX-15 compressor contains 207 ml (7 oz) of refrigerant oil. Prior to installing the replacement compressor, drain the refrigerant oil from the removed compressor into a calibrated container. Then, drain the refrigerant oil from the new compressor into a clean calibrated container.

- If the amount of oil drained from the removed compressor was between 90 and 148 ml (3 and 5 oz), pour the same amount of clean refrigerant oil into the new compressor.
- If the amount of oil that was removed from the old compressor is greater than 148 ml (5 oz), pour 148 ml (5 oz) of clean refrigerant oil into the new compressor.
- If the amount of refrigerant oil that was removed from the old compressor is less than 90 ml (3 oz), pour 90 ml (3 oz) of clean refrigerant oil into the new compressor.

NOTE: The suction accumulator / drier and orifice tube should also be replaced when the compressor is replaced.

During Component Replacement

When replacing other components of the air conditioning system, measured quantities of the specified refrigerant oil should be added to the component to ensure that the total oil charge in the system is correct before the system is operated.

Clean refrigerant oil should be poured directly into the replacement components as follows:

- Evaporator core: add 90 ml (3 oz).
- Condenser: add 30 ml (1 oz).
- Accumulator: drain oil from removed accumulator / drier. Add same amount plus 60 ml (2 oz) of clean refrigerant oil to new accumulator.

If any other component such as an orifice tube or a hose is replaced, no additional refrigerant oil is necessary unless a hose bursts with a fully charged system. Then, the addition of refrigerant oil may be necessary with the amount to be determined by the technician. The suction accumulator / drier should also be replaced under these circumstances.