



STERN DRIVES/INBOARD ENGINES

# service bulletin

NUMBER: 81-23  
DATE: 9/14/81

CIRCULATE TO:  
SERVICE MANAGER  
PARTS MANAGER  
MECHANICS

**Subject: II-TR TRANSMISSION OIL COOLER DRAINING  
and WINTERIZING**

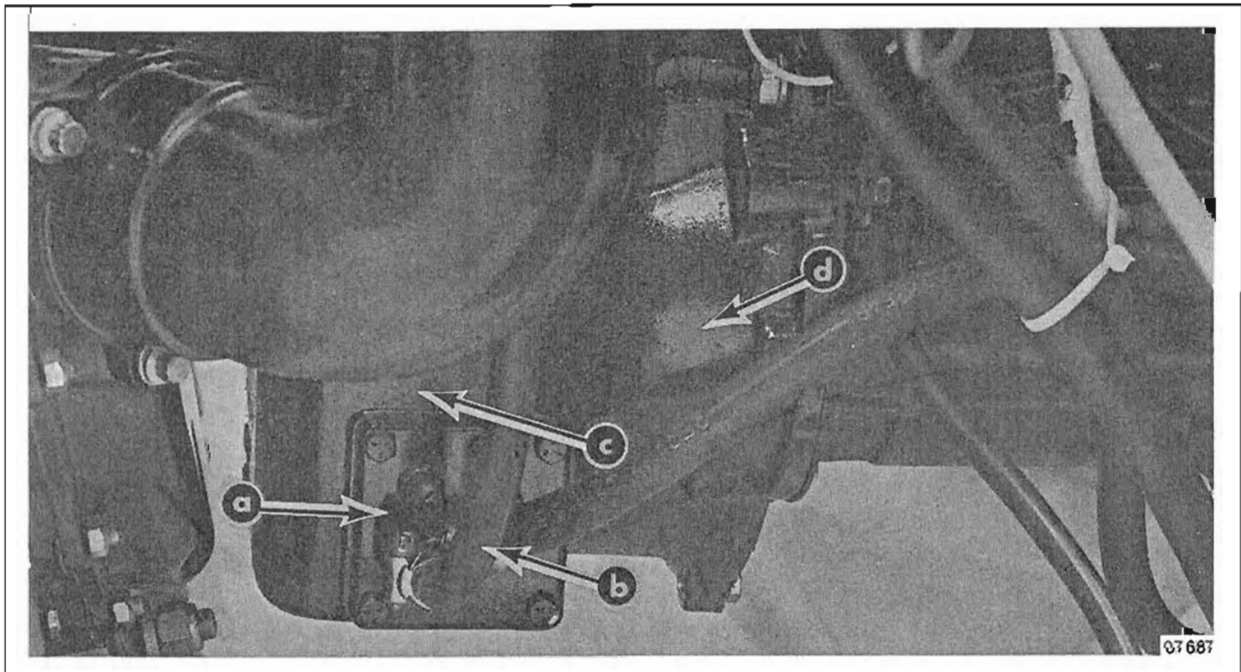
The single, largest reason for the II-TR Transmission failure is improper draining and winterization in the fall of the year. The damage is not discovered until after running the unit the following spring. Help protect YOUR customers' investment by reminding them to properly service the unit BEFORE it freezes. THIS TRANSMISSION OIL COOLER IS NOT SELF-DRAINING.

The II-TR Transmission is used on the following MerCruiser (MCM) engines.

Ford	G.M.
MCM 225 TR	MCM 228 TR
MCM 255 TR and TRS	MCM 255 TR
	MCM 280 TRS
	MCM 330 TR and TRS

The following procedures **MUST BE** followed to prevent damage to the transmission oil cooler from freezing.

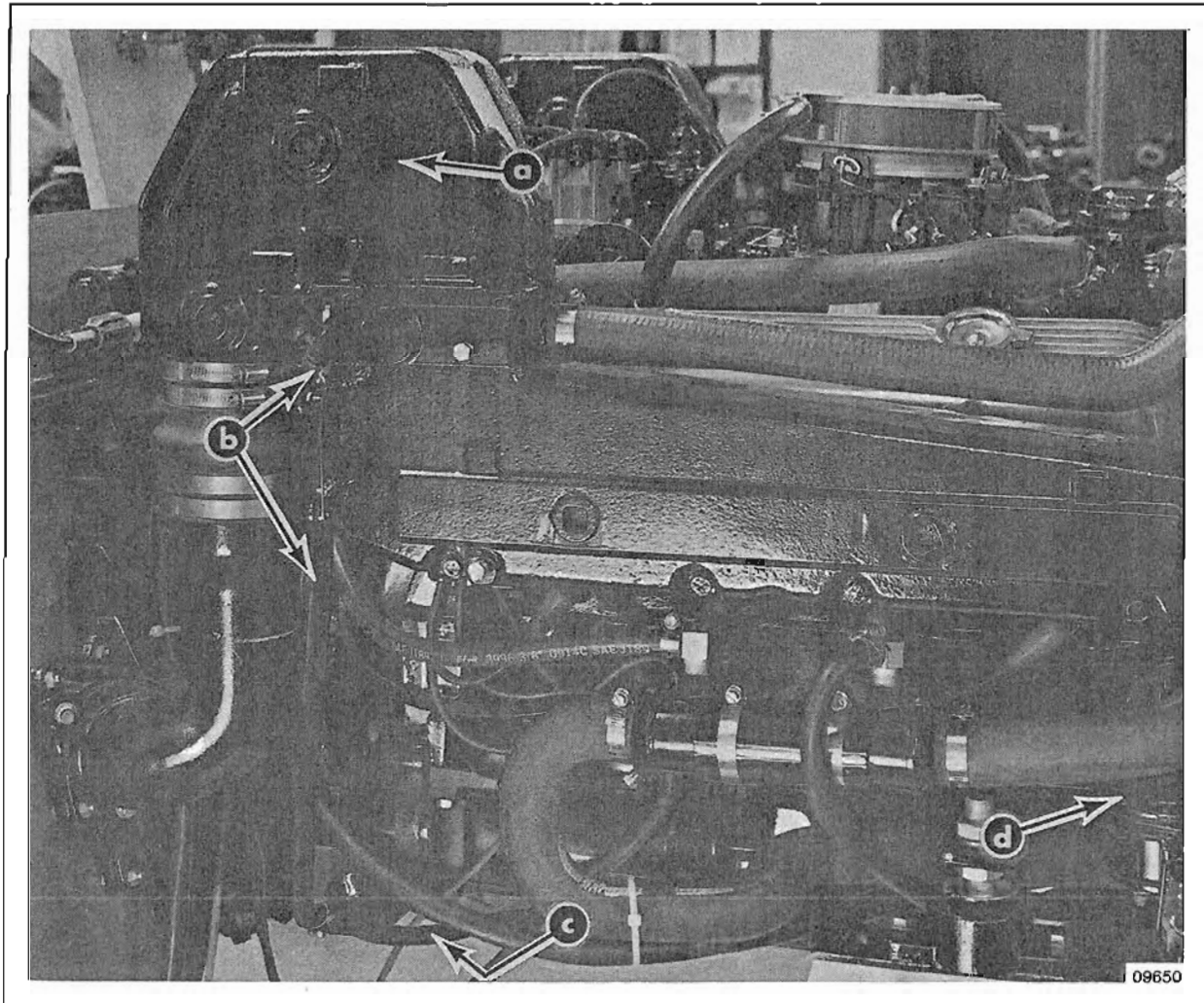
1. Drain transmission oil cooler by removing outlet hose in Figure 1.
2. After water has been removed, reinstall hose.



a - Oil Cooler  
b - Outlet Hose  
c - Transmission  
d - Flywheel Housing

**Figure 1. Draining Transmission Oil Cooler**

3. Remove transmission oil cooler inlet hose from seawater pickup pump, Figure 2.
4. Remove transmission oil cooler outlet hose from exhaust elbow, Figure 2.
5. Pour a solution of anti-freeze and water (mixed to proportions recommended by manufacturer for the lowest temperature to which engine will be exposed while in storage) into cooler outlet hose until solution appears at seawater pickup pump end of oil cooler inlet hose. A small funnel can be used to aid in pouring solution into outlet hose.
6. Reattach both hoses and tighten clamps securely.



a - Exhaust Elbow (Right Side)

b - Oil Cooler Outlet Hose

c - Oil Cooler Inlet Hose

d - Seawater Pump (Hidden)

**Figure 2. Winterizing Transmission Oil Cooler**