



STEVENS

INSTRUMENT COMPANY

MODEL V-34 GEARCASE LEAKAGE TESTER (VACUUM) Instructions

The V-34 was designed to check gearcases for leaks around seals, O-rings, etc. The unit consists of:

- A hand pump for pulling vacuum in the gearcase.
- A zero to 30 inch gauge to establish a known amount of vacuum in the gearcase. (Some older units have a compound gauge which is also used on the S-34. The pressure side of the gauge serves no function on the V-34 and can be ignored.)
- Hose and fitting necessary to connect the tester to a gearcase. This fitting is made of relatively soft aluminum so that gearcase threads cannot be easily damaged.

TO CHECK GEARCASE

Refer to engine service manual. If manual is not available, the following procedures may be used; however, engine manufacturer's instructions may differ and are preferred.

1. **The V-34 should never be used when a gearcase is filled with lube. If lubricant is pulled into the tester, the valve may malfunction and will not be covered by the tester warranty.**
2. Remove the upper vent plug and seal washer.
3. Thread fitting at end of tester hose into the upper hole. **Hand tighten** to prevent air leak at this point. If leaks occur here, replace O-Ring on fitting.
4. Draw as much vacuum as possible (7-10 inches on most gearcases) and observe reading on gauge.
5. Allow unit to stand a couple of minutes and again observe gauge. If vacuum remains constant, turn engine over by hand and work gearshift several times. Check vacuum again; if constant, the gearcase and seals are in good condition.

Should vacuum drop, visual inspection of seals may indicate point of leakage.