

**DIAGNOSIS AND TESTING (Continued)**

**External Leakage**

When looking for leaks, use this procedure to pinpoint the exact cause and location to avoid mis-diagnosis:

1. Check for overfilled power steering pump reservoir.
2. Wipe suspected area dry.
3. Check for power steering pump overflow and aeration.

4. Check for exact source of oil. Example: Oil may be running down from another area (engine, etc.) and drip may not be leak point.

**CAUTION: Do not hold the steering wheel against a stop for more than three to five seconds at a time, as damage to power steering pump may result. Cycle the steering wheel from stop to stop 10 times and check for leaks. The bellows may have to be moved back from the housing to see the leak.**

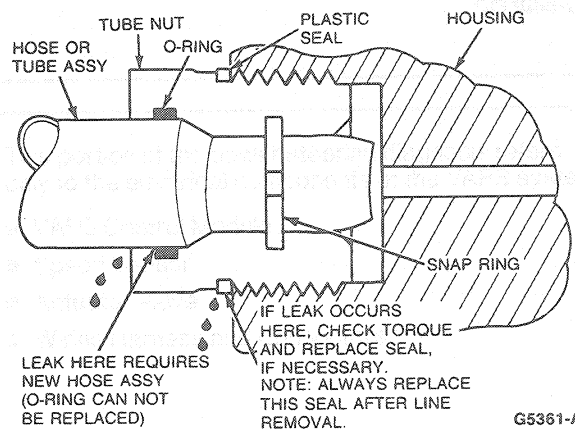
5. Some leaks are high pressure leaks and may require holding steering wheel against stops to seep out.
6. Power steering gear assembly leaks fall into several categories as listed in the Leakage Diagnosis chart. The category determines which seals or parts to replace. Refer to the corresponding illustrations for the leak category.

**LEAKAGE DIAGNOSIS**

Leak Category	Part Required to Service
1. Hose fittings.	<ul style="list-style-type: none"> <li>● Loose—Tighten to specification—Do not over-tighten.</li> <li>● Plastic seals at tube nut—Plastic seals should be replaced each time hose is disconnected.</li> <li>● O-ring leaks—Replace hose.</li> </ul>
2. Leak at (right or left) transfer line.	<ul style="list-style-type: none"> <li>● Loose—Tighten to specification—Do not over-tighten.</li> <li>● Replace plastic seals.</li> <li>● Replace line assembly as required.</li> </ul>
3. Leak at input shaft seal.	<ul style="list-style-type: none"> <li>● Replace input shaft seal kit. Rack and tie rod assembly removal is not required.</li> </ul>
4. Leak at either or both bellows.	<ul style="list-style-type: none"> <li>● Replace all gear housing and rack bushing seals. Do not disturb transfer lines.</li> </ul>
5. Leak at end of input shaft.	<ul style="list-style-type: none"> <li>● Replace input shaft valve assembly along with input shaft seal kit. Rack and tie rod assembly removal is not required.</li> </ul>
6. Housing—porosity, cracked or stripped threads.	<ul style="list-style-type: none"> <li>● Replace the housing assembly.</li> </ul>

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**NOTE: Whenever a gear assembly is disassembled for seal replacement, the gear seal contact surfaces should be checked for roughness and cleaned. Replace components such as input shaft / valve assembly or rack assembly only if the sealing surfaces cannot be cleaned satisfactorily with crocus cloth.**



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