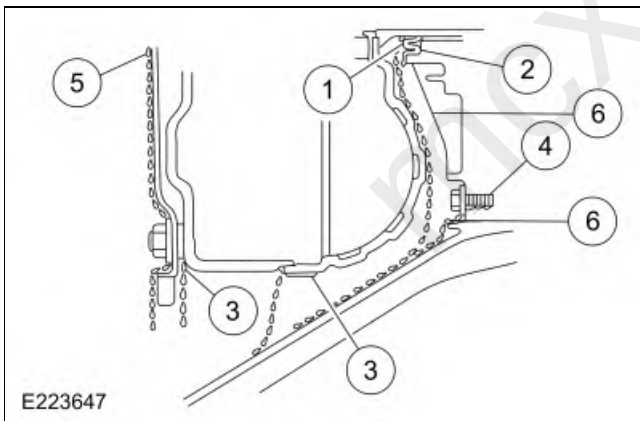


Leakage Inspection

External Leak Diagnosis

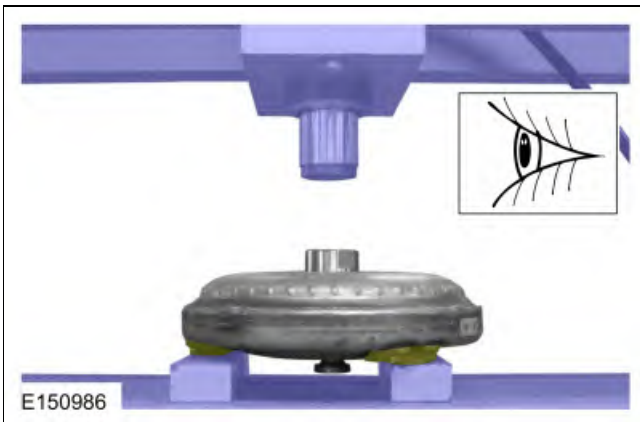
1. With the vehicle in NEUTRAL, position the vehicle on a hoist.
REFER to: Jacking and Lifting - Overview (100-02 Jacking and Lifting, Description and Operation).
2. Inspect the gaskets and sealing areas for evidence of leakage.
3. Trace the transmission fluid leak to the highest point.
4. Clean the area of the suspected leak.
5. Lower the vehicle.
6. Remove the transmission fluid fill plug or fluid level indicator.
7. Add leak detection dye to the transmission fluid. Use 1 fl oz (30 ml) of dye solution for every 4 qt (3.8 L) of transmission fluid.
8. With the transmission fluid at normal operating temperature, road test the vehicle for at least 1 mile with at least 1 application of the TCC.
9. With the vehicle in NEUTRAL, position the vehicle on a hoist.
REFER to: Jacking and Lifting - Overview (100-02 Jacking and Lifting, Description and Operation).
10. If the source of the leak is obvious, repair as required.
11. After the repair, clean the affected area.

Leakage From Torque Converter Housing

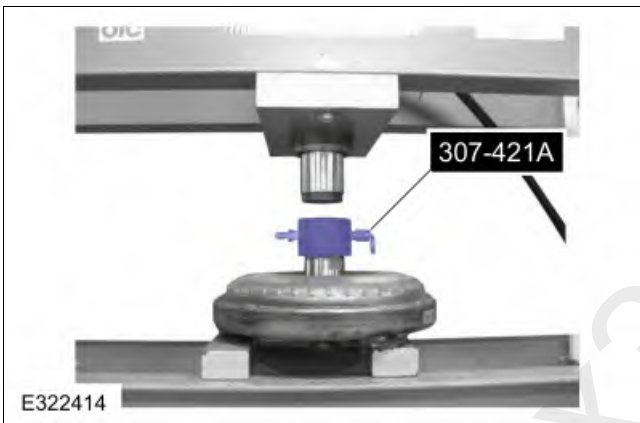


12. Leaks from the torque converter housing can originate from several locations. The paths which the transmission fluid takes to reach the bottom of the torque converter housing is shown in the illustration. The following 6 steps correspond with the numbers in the illustration.
 1. Transmission fluid leaking by the converter hub seal lip will tend to move along the drive hub and onto the back of the torque converter. Except in the case of a total seal failure, transmission fluid leakage by the lip of the seal will be deposited on the inside of the torque converter housing only, near the outside diameter of the housing.
 2. Transmission fluid leakage by the outside diameter of the torque converter impeller hub seal and the case will follow the same path that leaks by the inside diameter of the converter hub seal follow.
 3. Transmission fluid leakage from the converter cover weld or the converter-to-flexplate stud weld will appear at the outside diameter of the torque converter, on the back face of the flexplate and in the converter housing only near the flexplate. If a converter-to-flexplate lug, lug weld or converter cover weld leak is suspected, remove the converter and pressure test it.
 4. Transmission fluid leakage from the bolts inside the converter housing will flow down the back of the torque converter housing. Leakage may be from loose or missing bolts.
 5. Engine oil leaks from the rear main oil seal.
 6. Transmission fluid leak from pump to case seal.

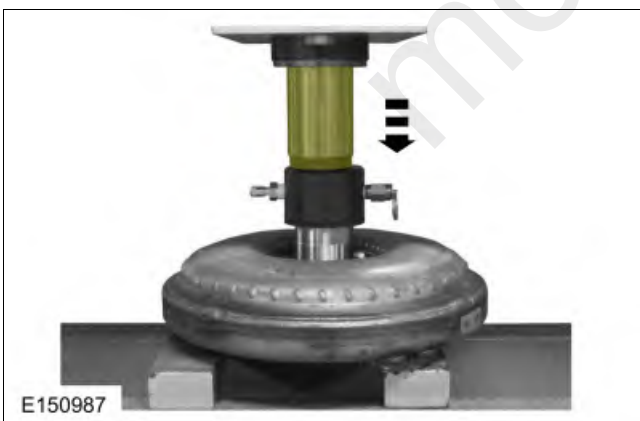
13. Remove the torque converter.
14. Using a black light, observe the torque converter housing. Inspect for evidence of dye from the pump bolts, pump seal, and torque converter hub seal. Repair as required.
15. If the source of the leak is not evident, continue with this procedure to leak test the torque converter.
16. Place the torque converter in an arbor press. Support the torque converter on the mounting pads.



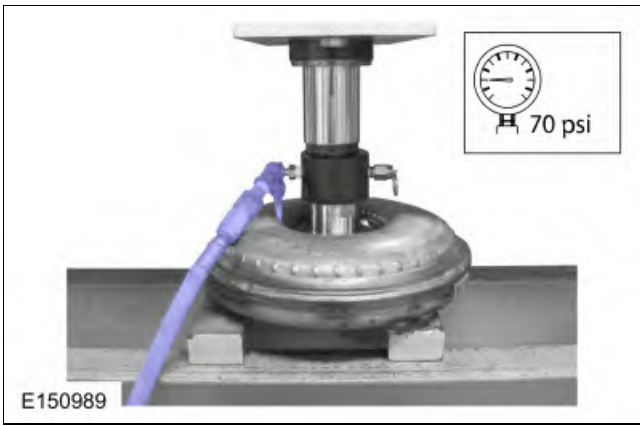
17. Install the torque converter leak tester (307-421A) into the torque converter hub.



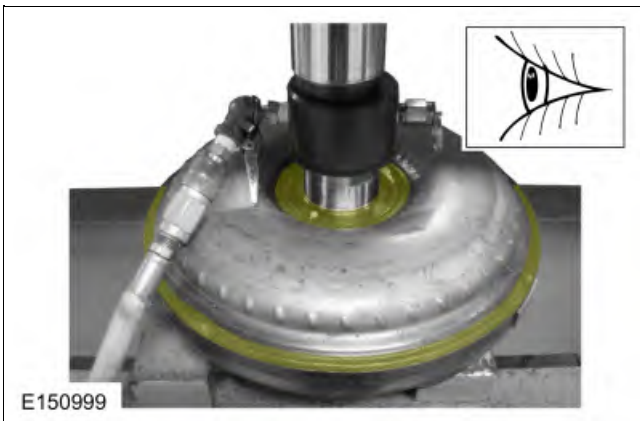
18. Secure the press. Apply enough force from the press to seal the torque converter leak tester (307-421A) into the torque converter hub.



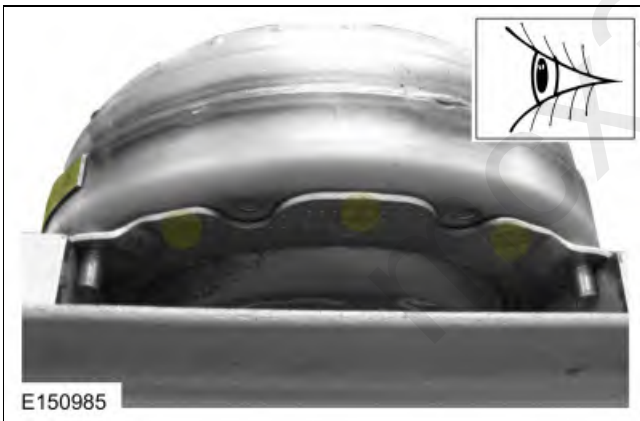
19. Connect a compressed air supply to the torque converter leak tester (307-421A).



20. Apply air pressure to the torque converter and inspect for leaks at the torque converter hub welds and seams. Use a soap bubble solution around those areas to aid in diagnosis. If any leaks are present, install a new torque converter.



21. Inspect for leaks at the stud or mounting pad and balance weight welds. Use a soap bubble solution around those areas to aid in diagnosis. If any leaks are present, install a new torque converter.



22. After leaks are repaired, clean the remaining transmission fluid dye from serviced areas.
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