

## 2002 Ford F-250 SUPER DUTY PICKUP

Submodel: | Engine Type: V8 | Liters: 7.3

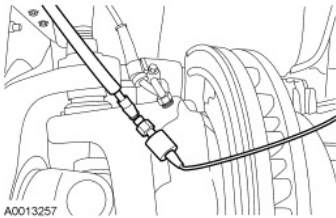
Fuel Delivery: FI | Fuel: DIESEL

SECTION 308-07A: Four-Wheel Drive Systems    2002 F-Super Duty 250-550/Excursion Workshop Manual  
GENERAL PROCEDURES    [Procedure revision date: 03/19/2003](#)

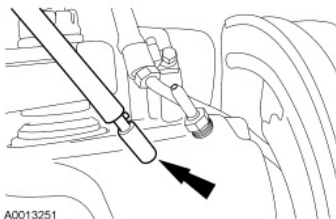
### Hublock Vacuum System Leak Test

**NOTE:** This procedure requires the use of a calibrated vacuum gauge that is accurate to within a minimum of 0.1 in-Hg. It is recommended the Pressure Vacuum Module 105-R0099 or equivalent be used.

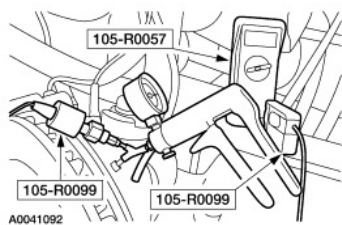
1. Make sure hublocks are in the AUTO position.
2. Lift and support the vehicle off the ground until the front tires can be spun freely. Refer to Section 100-02.
3. **NOTE:** The engine is required to be at idle during the following steps to supply the vacuum required for the hublocks to engage and disengage. Start the engine and allow to idle.
4. Turn the mode select switch (MSS) to the 2WD position and wait 15 seconds. If switching from 4X4 mode, wait an additional 45 seconds.
5. Disconnect the vacuum line at the right front knuckle and install a vacuum gauge on the line.



6. Disconnect the vacuum line at the left front knuckle and plug the line.



7. **NOTE:** Normal operation applies engagement vacuum for 45 seconds and then drops to 0 in-Hg. Turn the MSS to 4X4 and observe the vacuum reading. The vacuum reading should remain at or above 10 in-Hg for 45 seconds.
8. **NOTE:** Normal operation applies regulated disengagement vacuum for 15 seconds and then drops to 0 in-Hg. Turn the MSS to 2WD and observe the vacuum reading. The vacuum reading should remain between 5.8 and 7.3 in-Hg for 15 seconds.
9. Remove the vacuum gauge and connect the vacuum line at the right front knuckle.
10. Turn the MSS to 4X4.
11. **NOTE:** The right front axle shaft and universal joint should turn. Wait one minute then rotate the right front tire one revolution forward and one revolution backward while observing the right front axle shaft and universal joint.
12. Turn the MSS to 2WD.
13. **NOTE:** The right front axle shaft and universal joint should not turn. Wait one minute then rotate the right front tire one revolution forward and one revolution backward while observing the right front axle shaft and universal joint.
14. Install the vacuum pump and gauge line on the knuckle and pump to 20 in-Hg.
  - If the vacuum drop is not equal to 0.5 in-Hg in 30 seconds, Go To Pinpoint Test G for further diagnosis of the hublock system.



15. Repeat steps 1 through 13 for the LH hublock. If results are not as indicated, Go To Pinpoint Test G for further diagnosis of the hublock system.
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