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FMK 68 L3S-8
2003-07 Ford Truck F-250-550
6.0 Diesel
W-WO/AC, WO/Dual Alt.

INSTALLATION NOTES

1. Disconnect the negative battery cables. Drain the engine coolant. Remove the upper radiator hose and overflow tube from the radiator. Disconnect the fan clutch wire. Remove the two bolts from the fan shroud. Using a flat bar against the top of the radiator, pry up on the fan shroud to free it from the diffuser. Raise the fan shroud approximately one foot. With the fan shroud raised, remove the fan clutch wire harness from the fan diffuser so the fan shroud can be removed completely without breaking the plastic wire support. Remove the five bolts from the fan diffuser, remove the fan from the water pump (*fan clutch has right hand threads*), then remove the diffuser and fan together from the engine compartment. Remove the passenger side air to air charge air cooler tube.
2. Remove the OEM serpentine belt and tensioner. Install bracket (15) onto the passenger side cylinder head at locations "A", "B", "C" & "D" with bolts (16) and lockwasher (3). Torque bolts to 40 ft/lbs.. Reinstall the OEM tensioner. Install idler (18) onto bracket (15) with bushing (17), flatwasher (13) and bolt (14). Remove the OEM idler at location "F". Remove the bolt and washer from the idler. Install the idler back to it's original location reusing the OEM washer and stud (6). (Torque to 35 ft/lbs.). Install the new accessory drive (42) belt onto the engine and route it the same as a vehicle with the dual alternator option. (*See belt diagram on the trucks radiator support*).
3. Install drive pulley (1) onto the balancer with bolts (2) and lockwashers (3), torque to 40ft/lbs.. Install bracket (4) with bushings (7 & 8), lockwashers (3), bolts (9) and nut (10). Torque bolts and nut to 40 ft/lbs.. Install idler (12) onto bracket (4) with bushing (11), flatwasher (13), and bolt (14).
4. Remove the module and module bracket located over the valve cover on the passenger side of the engine. Install the module onto the new module bracket (29) with bolts (30) and nuts (31). Install the module and bracket assembly onto the studs at the top of the heater housing with the existing nuts. Remove the nut holding the transmission dipstick tube to the valve cover bolt. Install the dipstick tube brace (37) onto the stud with the OEM nut. Install the dipstick onto the brace with nut (31). This should allow enough clearance to run the hydraulic hoses between the transmission dipstick tube and the engine oil fill spout.

(continued on back side)

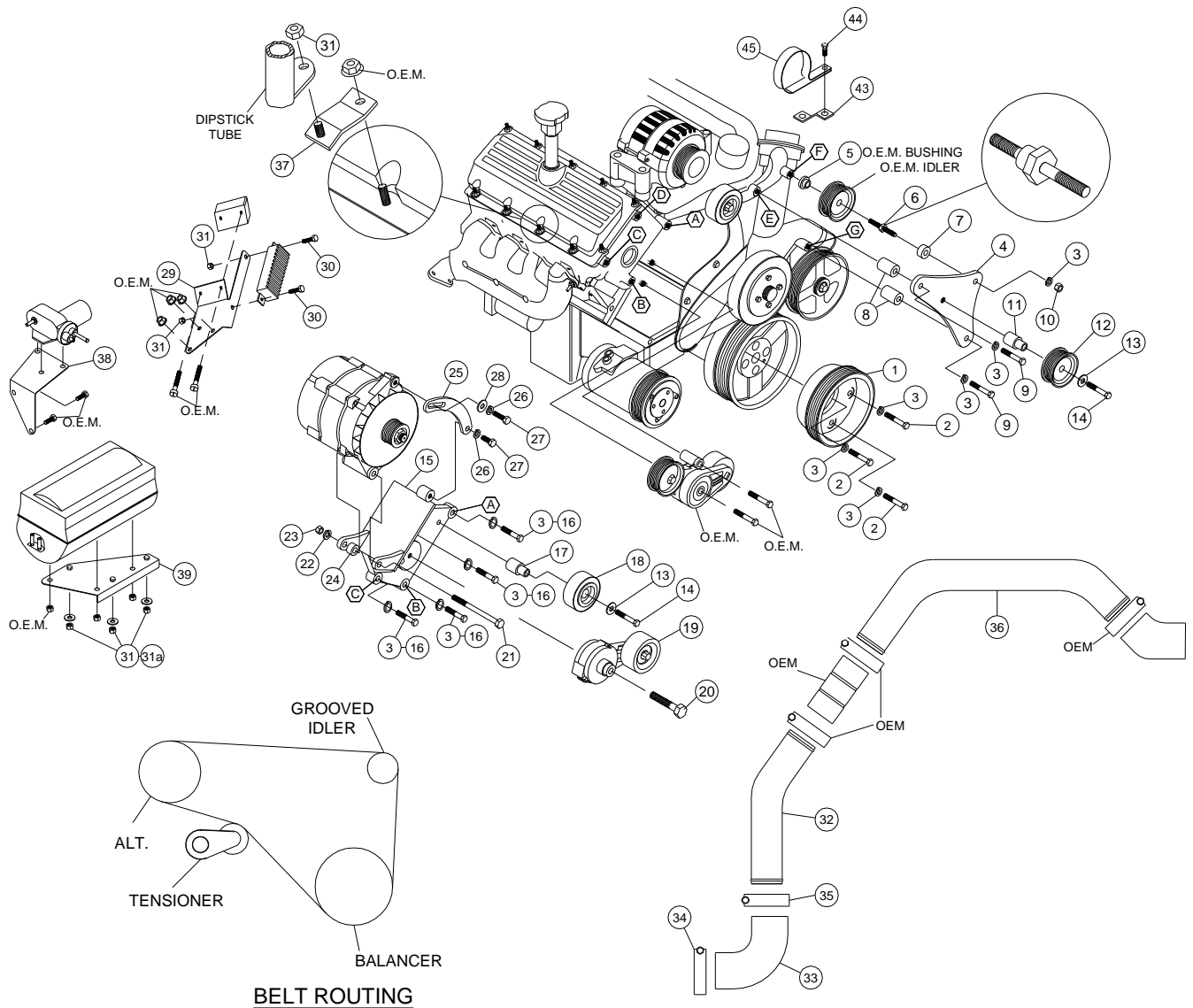
5. Remove the passenger side battery. With a suitable tool, cut the flange with the two holes in it from the battery tray. Remove any sharp edges. Remove the vacuum valve from the passenger side fender and reinstall it with bracket (38). Remove the vacuum canister and install it onto the bracket (39) using the O.E.M. nuts. Install bracket (39) to the wheel well with nuts (31) & flatwashers (31a). Reinstall the battery, and move it as close to the fender as possible. If equipped A/C: the A/C line coming from the receiver dryer will need to be bent outward to run down along side the battery. It is easiest to bend the line by standing on the passenger side of the vehicle, place your left hand on the A/C line right where it comes out of the receiver dryer, and your right hand where the rubber hose is crimped onto the aluminum tube. Pull the A/C line towards you with your right hand until the rubber hose just comes in contact with the battery cables. Secure the A/C line to the battery cables with tie straps. The A/C line coming from the condenser will need to be bent outward and to clear the new cooler tube.
6. Install the alternator onto the bracket (15) with bolts (21,27), flatwasher (28), lockwashers (22,26), slide (25), & nut (23). Install tensioner (19) onto the bracket with bolt (20). Install Alt. drive belt (41) according to belt diagram.
7. Cut the fan diffuser as necessary to clear the drive pulley, idler and clutch pump. Use the diagram supplied with this kit for diffuser cut out lines. If cutting the diffuser is not desirable, a diffuser for a 6.0 liter with the dual alternator option is available from Ford Motor Co. as a replacement. The part# is 3C3Z-8B614-BD.
Install the diffuser and fan. Install the fan shroud, upper radiator hose and overflow tube. Install the 90° rubber elbow onto the air to air charge air cooler with the opening pointing straight up. Install the cooler tube (32) with the long end down, the 3" OEM coupler and the 2-1/2" steel tube (36). Rotate the OEM elbow on the turbo until it aligns with tube (36). Install tube rest (43) onto the inside alternator bolt and point it towards the front. Install the adel clamp (45) around the turbo tube and hold it into place with bolt (44). Once turbo tube is aligned, tighten all clamps securely.
IMPORTANT: Wipe any oil from the turbo tube elbow with brake cleaner, ether, or other suitable cleaner. Failure to do this may result in the cooler tube blowing out of the coupler under high pressure situations.
8. Replace the antifreeze and connect the battery cables. Run the engine and check for proper belt tracking and clearances.

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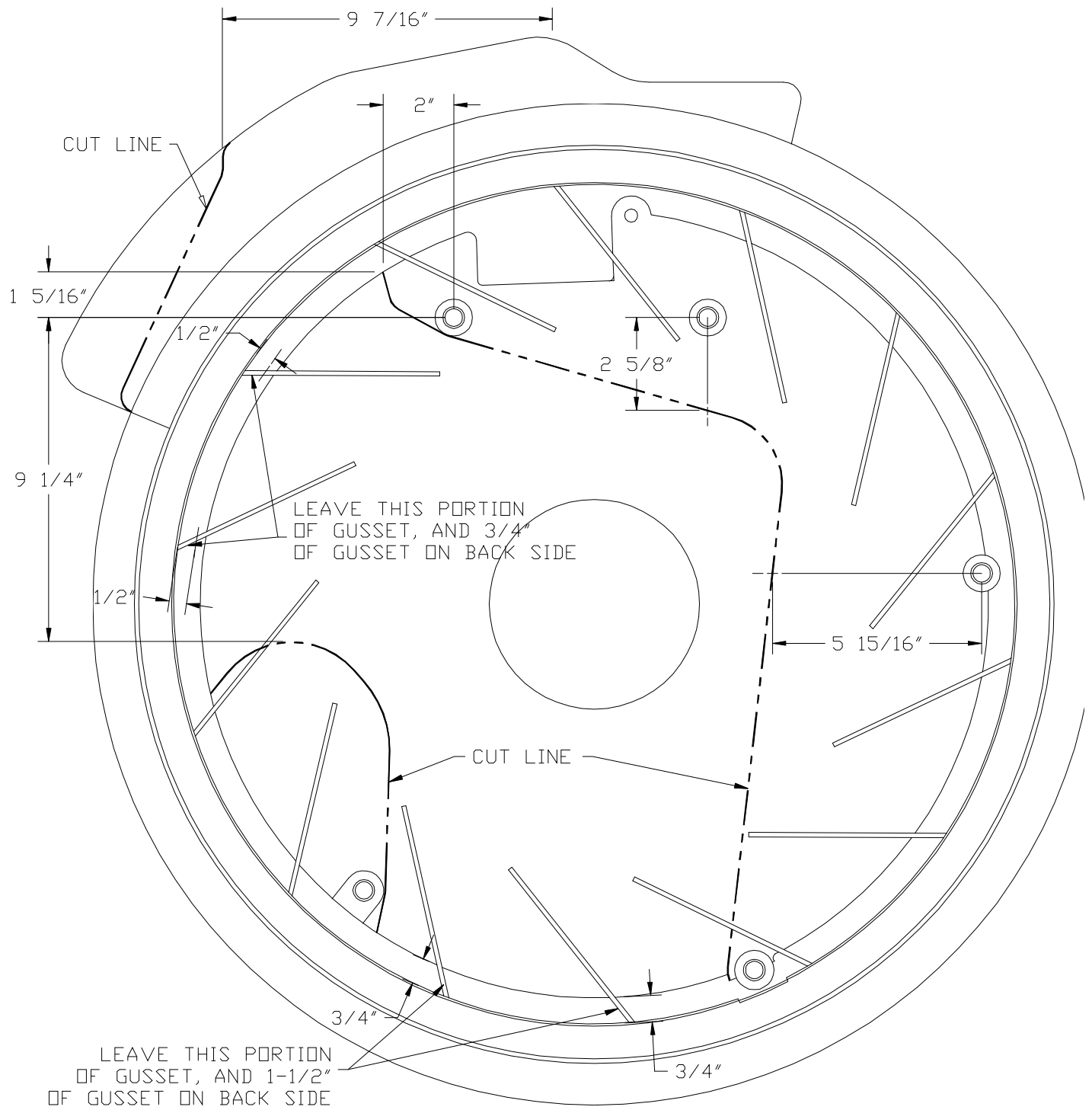
W-WO/AC, WO/Dual Alt.



PARTS LIST

- | | | |
|--------------------------|---------------------------|---|
| 1. FPC 688 (1) | 17. FMB 685 (1) | 31a. 1/4 FW (3) |
| 2. 10mm x 30mm 10.9 (3) | 18. 89016 (1) | 32. ST30553 3" Steel Tube (1) |
| 3. 10mm LW (10) | 19. 8920236 Tensioner (1) | 33. TP 140 Rubber Elbow (1) |
| 4. FMB 680 (1) | 20. 12mm x 80mm 10.9 (1) | 34. 250-87 Hose Clamp (1) |
| 5. O.E.M. Washer (1) | 21. 7/16 X 5-1/2 (1) | 35. 250-84 Hose Clamp (1) |
| 6. 1080ST (1) | 22. 7/16 LW (1) | 36. ST256030 2 1/2" Steel Tube(1) |
| 7. FMB 682 (1) | 23. 7/16 Nut (1) | 37. FMB 688 (1) |
| 8. FMB 683 (2) | 24. SP88-.500 (1) | 38. FMB 689 (1) |
| 9. 10mm x 65mm 10.9 (2) | 25. FMB681L3S (1) | 39. FMB 6810 (1) |
| 10. 10mm Nut (1) | 26. 3/8 FW (2) | 40. Alternator (Sold Separately) |
| 11. FMB 689 (1) | 27. 3/8 x 1-1/4 (2) | 41. 5080700 Dayco (1) (Pump drive belt) |
| 12. GPCD8 (1) | 28. 5/16 FW (1) | 42. K81325 Dayco (1) (Main drive belt) |
| 13. 12mm FW (2) | 29. FMB 686 (1) | 43. FMB6812 Cooler Tube Rest (1) |
| 14. 12mm x 65mm 10.9 (2) | 30. 1/4 x 3/4 NC (2) | 44. 8mm x 25mm Flange Bolt (1) |
| 15. FMP 68 L3S (1) | 31. 1/4 NC Nut (6) | 45. 2-1/2 Adel Clamp (1) |
| 16. 10mm x 40mm 10.9 (4) | | |

'03 Ford 6.0L Diesel Diffuser Cut-Out



VIEW FROM FRONT