



CWMILL EQUIPMENT CO., INC.
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FMK 68 92V-8
2003-07 Ford Truck F-250-550
6.0 Diesel
W-W/O AC, W/O 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 glow-plug module and module bracket located on top of the passenger side valve cover. Remove the three nuts that hold the M.A.P. sensor and bracket to the top of the heating housing (retain the three nuts). Remove the M.A.P. sensor from its' bracket and install it onto the new bracket (23) according to the drawing with the O.E.M. screws. Replace the vacuum hose that runs from the engine to the M.A.P. sensor with the longer hose (33) provided in the kit. Reuse the hose clamps and protective cover. Mount the new bracket back onto the heater housing with the O.E.M. nuts. Remove some of the tape from the wiring harness where the wires from the sensor located in the valve cover enter the harness. Mount the module onto bracket (23) with bolts (24) and nuts (25). **CAUTION:** Make certain not to strain any wires or wire connectors, then secure them with tie straps (32).
3. 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 OEM washer (5) and stud (6). (Torque to 35 ft/lbs.). Install the new accessory drive 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*).
4. 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).

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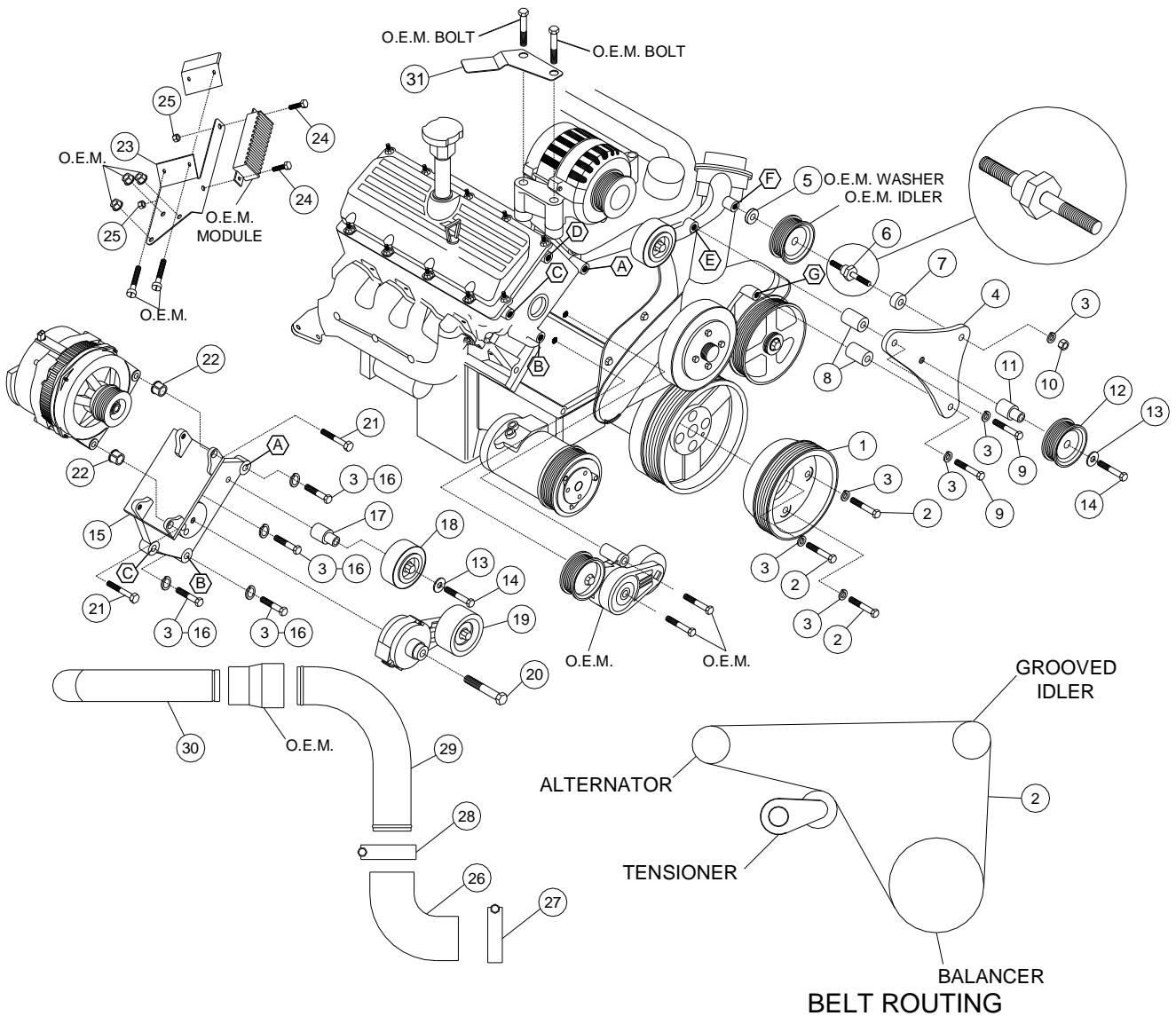
5. Remove the passenger side battery. With a suitable tool, cut the flange with the two holes in it from the battery tray. Remove any sharp edges. Reinstall the battery, and move it as close to the fender as possible. If equipped A/C: the A/C line coming from the receiver dryer will need to be bent outward 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 with bolts (21) provided in the kit. Install tensioner (19) onto the bracket with bolt (20). Install alternator drive belt (31) according to belt diagram.
7. Cut the fan diffuser as necessary to clear the alternator. Install the fan shroud, upper radiator hose and overflow tube. Install the 3" 90° rubber elbow (26) onto the air to air charge air cooler with the opening pointing straight up. Install the 2-1/2" 90° rubber elbow (30) on turbo with the opening pointed straight back. Install the 3" 90° steel tube (29) with the long end down into the rubber elbow. Install the O.E.M. rubber adapter and 2 1/2" steel tube (30) (the long end goes on the turbo). Align the cooler tube then tighten the clamps securely. Install the clamps (27, 28) with the bolts on the bottom side of the cooler tube. **IMPORTANT:** Wipe any oil from the turbo 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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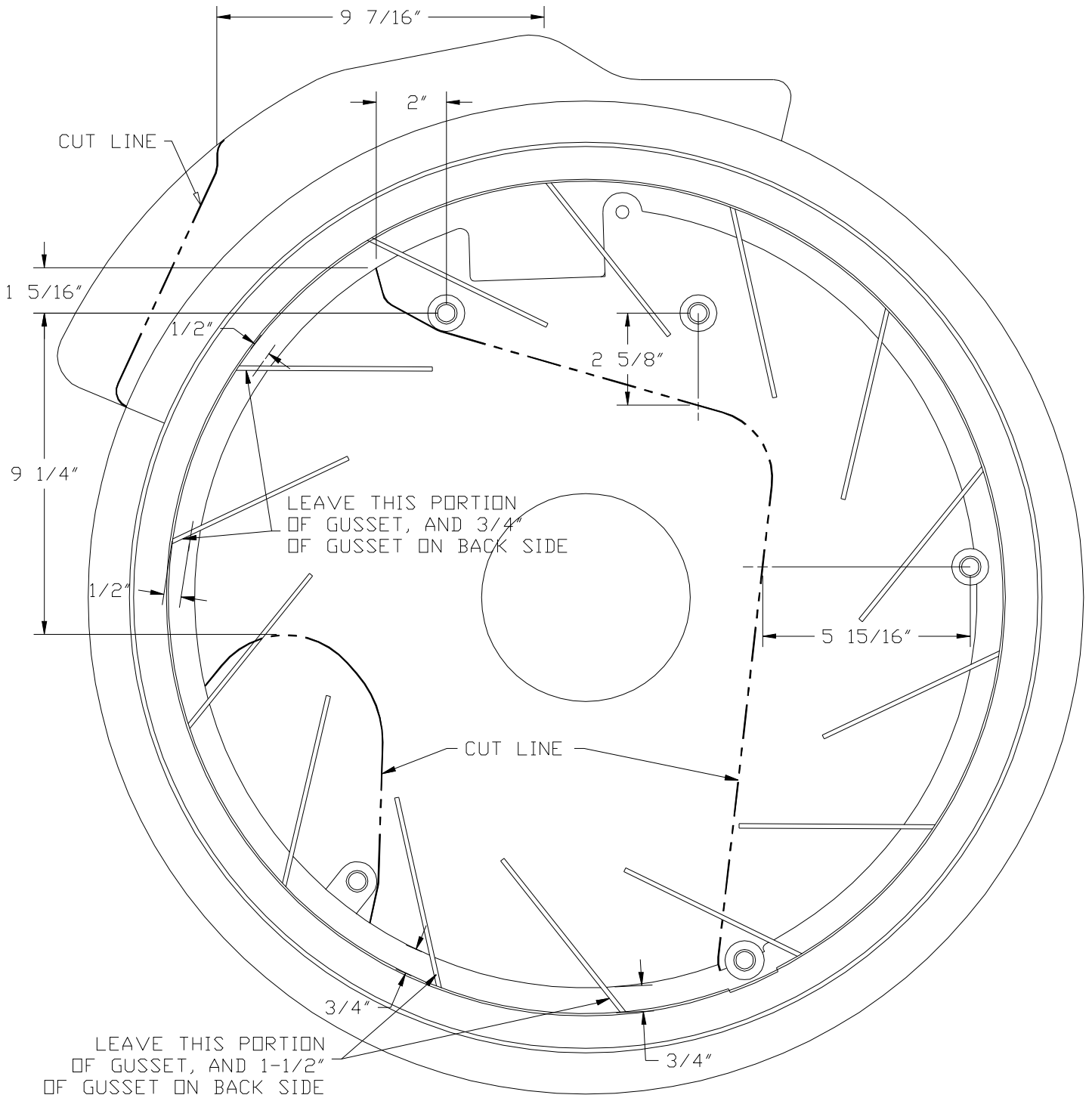
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PARTS LIST

- | | | |
|-------------------------|---------------------------|---|
| 1. FPC 688 (1) | 13. 12mm FW (2) | 25. 1/4 NC (2) |
| 2. 10mm x 30mm 10.9 (3) | 14. 12mm x 65mm 10.9 (2) | 26. 3-1/4" x 3" TP-140 Rubber Elbow (1) |
| 3. 10mm LW (10) | 15. FMB 6892V (1) | 27. 250-87 Hose Clamp (1) |
| 4. FMB 680 (1) | 16. 10mm x 40mm 10.9 (4) | 28. 250-84 Hose Clamp (1) |
| 5. OEM Washer (1) | 17. FMB 685 (1) | 29. 3-90ST 3" Steel Elbow (1) |
| 6. 1080ST (1) | 18. 89016 (1) | 30. 2.5-85-ST 2-1/2" Steel Tube (1) |
| 7. FMB 682 (1) | 19. 8920236 Tensioner (1) | 31. 5080685 Dayco (1) |
| 8. FMB 683 (2) | 20. 12mm x 80mm 10.9 (1) | 32. Plastic Tie Straps (3) |
| 9. 10mm x 65mm 10.9 (2) | 21. 10mm x 75mm 10.9 (2) | 33. 1/4" x 20" Vacuum Hose (1) |
| 10. 10mm Nut (1) | 22. 1255-0090 Bushing (2) | |
| 11. FMB 684 (1) | 23. FMB 686 (1) | |
| 12. GPCD8 (1) | 24. 1/4 x 3/4 NC (2) | |

'03 Ford 6.0L Diesel Diffuser Cut-Out



VIEW FROM FRONT