

HYPERMAX ENGINEERING, INC.

7.3L "POWER STROKE" INTERCOOLER PACKAGE

INSTALLATION INSTRUCTIONS

Time will be saved if these instructions are read PRIOR to installation of the intercooler package.

A. ITEMS TO BE REMOVED:

1. Negative battery cables
2. Rubber air dam in back of bumper
3. Bumper
4. Radiator grille.
5. Hood latch
6. Headlight housing supports
7. Outer radiator grille support (remove brackets with support)
8. Painted trim strip

NOTE: Right side refers to passenger-side of vehicle

B. MOUNTING INTERCOOLER:

1. If the vehicle is equipped with an E40d automatic transmission or aftermarket transmission oil cooler, temporarily move it out of the way and then relocate it after the intercooler is installed.
2. Locate pass through holes in the radiator support for the intercooler air in and out pipes by using the template provided. Position the template between the two core support mounting bracket bolts, and line up the center line of the template to the middle of the bolts. Trace out the template and cut out the holes. Holes and the template are used for both sides of the radiator (refer to fig.1)
3. Grind or cut support frame for clearance of the intercooler tubes. Also grind rear side of support bracket on radiator for tube clearance as on above hole. (refer to fig.1)
4. Remove the two lower air-conditioning condenser mount brackets. Re-install the new air-conditioner condenser relocation brackets provided. Drill a 1/4" hole in the core support on the LH side and secure with the 5/16" self tapping sheet metal bolt provided. Note: it may be necessary to make clearance for the air-conditioner line on the RH side.
5. Install the rubber isolation mounts onto the outside of the intercooler mounts using the 3/8" NC nuts and lock washers.
6. Install the upper hanger brackets on the other end of the rubber isolation mounts and had tighten. Note: the 5/16" diameter hole in the upper hanger brackets should face towards outside of vehicle.
7. Hold the intercooler in place with tubes protruding through the center of holes cut in the radiator support brackets. Level the intercooler and mark the (2) holes for the mounting brackets. Remove the intercooler/bracket assembly.
8. Drill (2) 11/32" diameter holes through.
9. Install (2) 5/16" NC nut clips through the existing holes on either side of the 11/32" holes. Note: It may be necessary to grind more clearance for the clips.
10. Trial fit the intercooler as needed.
11. Reinstall the intercooler on vehicle.
12. Locate the lower mount on the left and right bottom of the intercooler. Mark through hole to locate on the radiator support frame.
13. Remove the intercooler; drill a 3/8" diameter hole through the frame for the lower mount. Be careful not to damage the radiator.

14. Install the lower rubber isolation mount into the frame with the 3/8" nut and lock washer.
15. Reinstall the intercooler using (2) 5/16" NC bolts with lock washers to the upper mount brackets.
16. Push the intercooler back against the lower mounts. Shim the mount with washers, if needed to have a minimum of 1/4" clearance at all points. Install the 3/8" nut with the lock washer.

C. INSTALLATION OF PIPES

1. Remove the cosmetic cover from the top of the engine. This cover will not be used.
2. Remove the intake manifold inlet pipe. Remove boost signal hose. Cap the fitting on the intake manifold with the cap and clamp provided. Remove the (2) valve cover bolts on top and in the middle of the right valve cover. Install the intercooler intake manifold inlet pipe mount bracket with the (2) spacers and bolts provided. Install the intercooler intake manifold pipe to the mount bracket using the original valve cover bolts.
3. Install the right hand intercooler pipe using the hoses and clamps provided.
4. Install the left hand intercooler pipe to the intercooler using the hoses and clamps provided.
5. Install the intercooler compressor discharge pipe (HYP-575) to the turbocharger using the v-band clamp provided and on to the left intercooler pipe. (NOTE: make sure the stock "O" ring is re-installed on the turbocharger before installing this pipe.) Use a M8 x 30 bolt with a 5/16" lock washer to secure it to the bracket on the left valve cover.

1997-1998 Models: Transfer the mount hole form the compressor discharge pipe to the bracket that is bolted to the left valve cover and secure it with the m8 x 30 bolt, 5/16" lock washer and m8 nut that is provided.

6. Install the barbed fitting into the intercooler compressor discharge pipe and install the boost signal hose (provided) to the fitting and manifold sensor.

D. INSTALLATION OF AUTOMATIC TRANSMISSION OIL COOLER:

1. Attach new brackets to cooler. Attach brackets to lower LH core support using holes in core support. Oil cooler will be located below condenser with inlet/outlet pointing RH.
2. Attach cooler hoses. Hoses route between frame/core support then across front of core support
3. Cable tie and protect as necessary.

E. MODIFICATION OF FRONT END COMPONENTS:

HOOD LATCH ATTACHING BRACKET: Cut-off 2-3/4" below top. Discard Lower piece. Remount on radiator core support.

HEADLAMP SUPPORT: Cut out and discard center vertical support rib between top Horizontal bar to above grille support tab on lower horizontal bar.

F. FINAL FRONT END ASSEMBLY:

1. Install front-end parts reverse order as removed.
2. Headlamp support to be trimmed to clear intercooler.
3. Adjust hood latch per Ford Manual if needed.

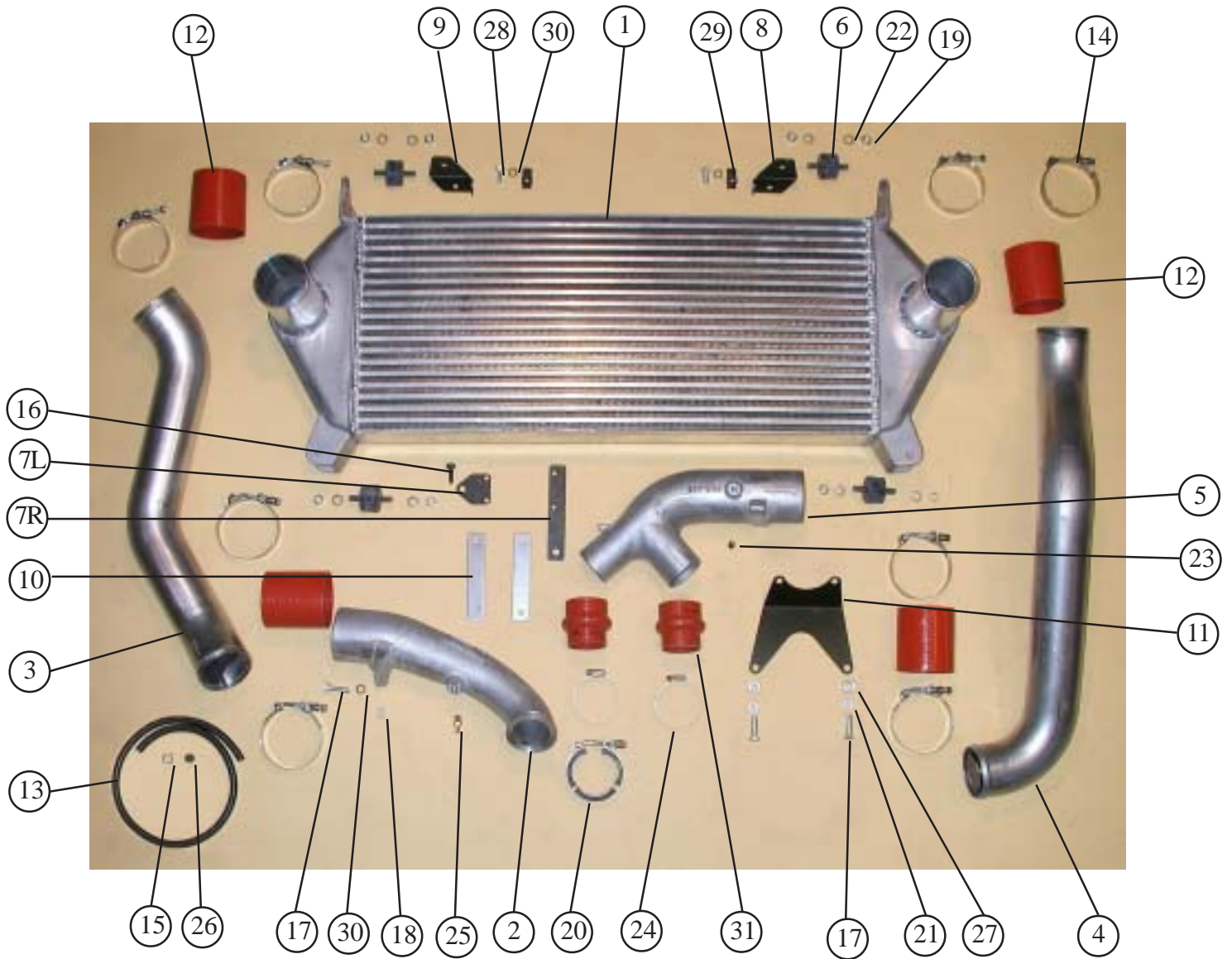
OPERATING NOTE:

Oil from the crankcase breather system may accumulate in the intercooler core after an extended period of time (15,000-20,000 miles) and cause a reduction in turbocharger boost. Do not confuse this condition with low boost due to a contaminated air or fuel filter.

If the intercooler is diagnosed as being oil restricted, simply flush the interior with a petroleum solvent.

Hypermax

1994-1997 7.3L POWER STROKE INTERCOOLER





94 1/2 TO 97 POWERSTROKE INTERCOOLER

ITEM	DESCRIPTION	PART NO.	QTY
1	INTERCOOLER ASSEMBLY		1
2	PIPE, IC COMPRESSOR DISCHARGE	HYP-575	1
3	PIPE, IC 3" DIA HOT SIDE DS	HYP-016	1
4	PIPE, IC 3" DIA COLD SIDE PS	HYP-017	1
5	PIPE, IC 3" DIA. INTAKE MANIFOLD INLET	HYP-574	1
6	MOUNT, RUBBER ISOLATION		4
7L	BRACKET, AIR CONDITIONER LH	HYP-020	1
7R	BRACKET, AIR CONDITIONER RH	HYP-021	1
8	BRACKET, UPPER HANGER RH	HYP-002	1
9	BRACKET, UPPER HANGER LH	HYP-001	1
10	BRACKET, AUTO TRANS COOLER	HYP-071	2
11	BRACKET, INTAKE MANIFOLD INLET PIPE	HYP-583	1
12	HOSE - 3" DIA.		4
13	HOSE - MANIFOLD SENSOR		1
14	CLAMP - 3" DIA. HOSE		8
15	CLAMP- 1/4"		1
16	5/16" SELF TAPPING SHEET METAL SCREW		1
17	BOLT - M8x30		3
18	NUT - M8		1
19	NUT - 3/8" NC		8
20	CLAMP - 2 3/4" COMPRESSOR DISCHARGE		1
21	WASHER - 5/16" FLAT		2
22	WASHER - 3/8" LOCK		8
23	PLUG - 1/8" PIPE		1
24	CLAMP - 2 1/4" HOSE		2
25	FITTING - 1/8" NPT - 1/4" HOSE		1
26	CAP - 1/4" HOSE		1
27	SPACERS - 3/4" X 0.400		2
28	BOLT - 5/16-18 X 3/4		2
29	NUT CLIP - 5/16-18		2
30	WASHER - 5/16" LOCK		3
31	HOSE - 2 1/4" DIA. - 2" DIA. ADAPTER		2