



THOMPSON VACUUM-PRESSURE UNITS

THOMPSON MODEL "J" VACUUM-PRESSURE PUMP CONVERSION KIT INSTRUCTIONS

Parts and Material furnished

- 1 — Model "J" THOMPSON Vacuum-Pressure Pump Head Assembly, complete with 20-J Valve Cover Plate, 21-J Valve Cover Plate Gasket, 5-C Suction Valve Assemblies, 6-C Discharge Valve Assemblies, 14-C Hold Down Springs, 3-J Pump Head, 38-J Pump Head Gasket, 4-J Head Bolts, 5-J Valve Cover Plate Bolts, 6-J Lock Washers, 7-J Flat Washers, 1130 Steel Flanges, 2 1/2", and 1130-A Flange Gaskets, 2 1/2".
- 1 — 30-J Flywheel, for mounting a Centaflex Type 30 Flexible Coupling, w/28-J 1/2" x 1" SAE Hex Hd. Bolts and 29-J 1/2" Lock Washers, Ext. Tooth. OPTIONAL: 58-J 6" Stub Drift Shaft, w/56-J 1/2" x 1 1/2" SAE Hex Hd. Bolts, 57-J 1/2" Lock Washers, Ext. Tooth and 59-J 3/8" x 1/2" Key.
- 12 — 41-J — 1 1/4" Split-Tube Hydraulic Valve Lifter Hole Plugs.
- 1 — 42-J Split-Tube Plug Installation Tool.
- 6 — P9C — 1 3/32" dia. Cup Expansion Plugs.
- 4 — P5C — 1/2" dia. Cup Expansion Plug.
- 6 — P1C — 1/8" Pipe Plugs.
- 1 — 24-J Fuel Pump Orifice Cover Plate w/25-J Fuel Pump Orifice Cover Plate Gasket, 22-J 3/16" x 1" N.C. Hex Hd. Bolts & 23-J 3/16" Lock Washers, Ext. Tooth.
- 1 — 33-J Oil Filter Cover Plate w/32-J Oil Filter Cover Plate Gasket, 31-J 3/8" x 1" N.C. Hex Hd. Bolts & 31-J-A 3/8" Lock Washers.
- 1 — 34-J Converted Timing Gear Cover Assy. w/Oil Fill Tube, Cap & 35-J 1/4" x 1/2" N.C. Hex Hd. Bolts w/attached Lock Washers, Ext. Tooth.
- 1 — 1-J Oil Pressure Gauge, 0-80 lbs.

FOR OPTIONAL REMOTE MOUNTING OF OIL PRESSURE GAUGE WE INCLUDE:

- 1 — M-43 Oil Pressure Gauge Bracket.
- 1 — 66-F, 3/16" O.D. x 1/8" NPT Coupling.
- 1 — 69-F, 3/16" O.D. x 1/8" NPT Elbow.
- 3 ft. — 3/16" O.D. Copper Tubing — (Oil Pressure Gauge Line).
- 1 — 8-J, 1/8" NPT Socket Head Pipe Plug — (Optional Oil Pressure Gauge Connection)
- 1 — 60-J Oil Pump Drive Assembly w/61-J 3/8" x 1" USS Hex Hd. Bolt, 62-J 3/8" Lock Washer, 63-J Retainer, 64-J Bushing, 65-J Spring Pin, 3/16" x 3/4", 66-J Gear & 67-J Shaft.
- 1 — 2-J Oil Level Sight Gauge.
- 1 — 9-J, 1/4" NPT Half Pipe Collar — (Oil Level Sight Gauge Connection)
- 1 — 10-J, 1/2" NPT Half Pipe Collar — (Oil Recirculator Return Line Connection).

OPTIONAL MOUNTING PLATES (Customers Choice)

- 1 — 1120 Front Side Mount Plate w/3/8" x 1" USS Hex Hd. Bolts & Lock Washers
or
- 1 — 1121 Front Platform Mount Plate w/3/8" x 1" USS Hex Hd. Bolts & Lock Washers.
- 1 — 1122 Rear Side Mount Plate w/3/8" x 1" USS Hex Hd. Bolts & Lock Washers,
and 7/16" x 1" USS Hex Hd. Bolts & Lock Washers.
or
- 1 — 1123 Rear Platform Mount Plate w/3/8" x 1" USS Hex Hd. Bolts & Lock Washers,
and 7/16" x 1" USS Hex Hd. Bolts & Lock Washers.

Chevrolet Block Parts (obtain locally)

- | | |
|---|---|
| 1 — 463325 292 cu. in., 6 cyl. Block assy.* | 1 — 3938923 Oil Pan w/Screen |
| 1 — 3847998 Camshaft, engine | 1 — 3832449 Oil Pump |
| 1 — 3882892 Crankshaft Timing Gear | 1 — 3930962 Oil Pan Gasket Set — 4 pcs. |
| 1 — 3882893 Camshaft Timing Gear | 2 — 0465810 Side Cover Plate |
| 1 — 3923472 Timing Gear Cover Gasket | 2 — 3858936 Side Cover Plate Gasket |
| 1 — 10000568 Camshaft Thrust Bearing | 1 — 3885452 Dip Stick |
| | 1 — 3918432 Dip Stick Tube |

* Chevrolet 250 and 230 cu. in., 6 cyl. Block can be substituted.

PLEASE TURN TO BACK PAGE



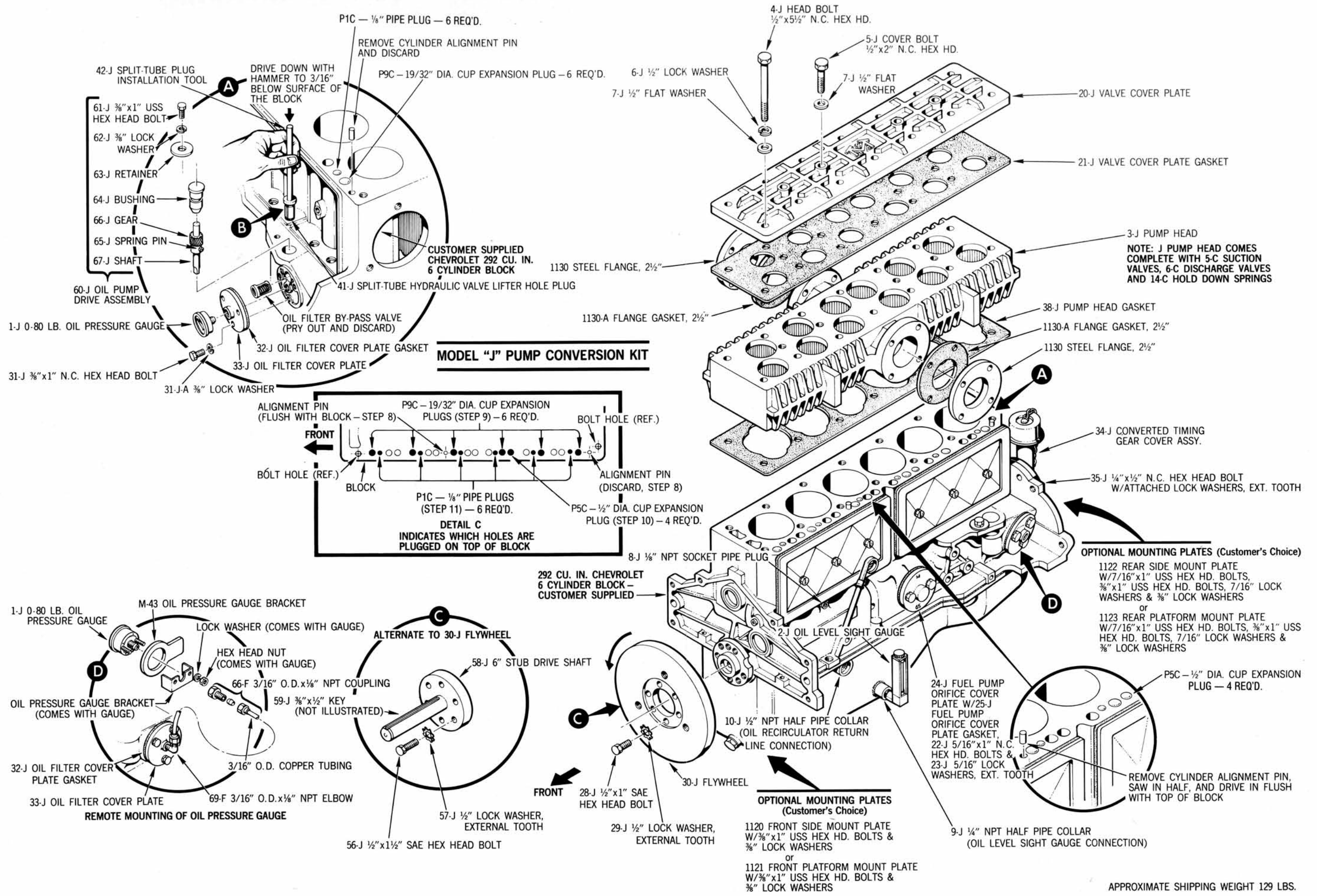
THOMPSON VACUUM-PRESSURE UNITS

MODEL "J" VACUUM-PRESSURE PUMP CONVERSION PROCEDURE:

1. Set Block upright with flywheel end down.
(Steps 2, 3 and 4 required if Block is unassembled as purchased from Chevrolet Dealer.)
2. Press 3882893 Camshaft Timing Gear with woodruff key onto Crankshaft. Hydraulic press is recommended.
3. Install 10000568 Camshaft Thrust Bearing, woodruff key and press 3882892 Crankshaft Timing Gear onto 3847998 Camshaft. Hydraulic press is recommended.
4. Install Camshaft, Camshaft Thrust Bearing and Crankshaft Timing Gear Assembly in Block, turning to clear Cam Bearings, and mesh timing marks on gears. Tighten Camshaft Thrust Bearing screws.
5. Install 34-J Converted Timing Gear Cover Assy. with 3923472 Timing Gear Gasket & 35-J, 1/4" x 1/2" N.C. Hex Hd. Bolts w/attached Lock Washers, Ext. Tooth.
6. Remove Oil Pan, Oil Pump and Oil Pump Screen, if installed, and set Block on Crankshaft. Steady Block assembly with wooden wedges.
7. Drive in twelve (12) 41-J, 1 1/4" Split-Tube Hydraulic Valve Lifter Hole Plugs, into valve lifter holes, beveled side down. Start Plug in lifter hole, split facing out, by tapping with 42-J Split Tube Plug Installation Tool and hammer. Drive Split-Tube Plug 3/16" below surface of Block to cover oil hole inlet. (SEE VIEW A)
8. Remove two (2) 1/4" Cylinder Head Alignment Pins and discard the rear one (SEE VIEW A) Saw the remaining pin in half and drive one half in flush with top of Block, discard remaining half.
9. Tap for 1/8" Pipe Plugs.

CAUTION: READ THE DIRECTIONS ON EPOXY PACKAGE, AND ALLOW THE FULL CURE TIME RECOMMENDED BEFORE FURTHER ASSEMBLY

10. Plug one (1) 1/2" hole in top of Block with a P5C, 1/2" dia. Cup Expansion Plug.
11. Plug six (6) 1/4" holes in top of Block with a P1C, 1/8" Pipe Plugs per Step 9.
12. Clean out thoroughly all reamer cuttings and residue.
13. Cement 3858936 Side Cover Gaskets to 0465810 Side Cover Plates, and install on Block w/5/16" x 1/2" N.C. Hex Head Bolts w/attached Lock Washers, Ext. Tooth.
14. Remove and discard press-fitted Oil Filter By-Pass Valve from side of Block. (SEE VIEW A)
15. Install 33-J Oil Filter Cover Plate w/32-J Oil Filter Cover Plate Gasket, 31-J, 3/8" x 1" N.C. Hex Hd. Bolts & 31-J-A, 3/8" Lock Washers.
16. Install 24-J Fuel Pump Orifice Cover Plate w/25-J Fuel Pump Orifice Cover Plate Gasket, 22-J, 5/16" x 1" N.C. Hex Hd. Bolts & 23-J, 5/16" Lock Washers, Ext. Tooth.
17. Install 8-J, 1/8" NPT Socket Head Pipe Plug, located immediately below Side Cover Plate, 6" from Flywheel/Shaft end of Block. (Optional Oil Pressure Gauge Connection).
18. Remove three (3) 1 1/2" dia. Cup Expansion Plugs (Freeze Plugs) from the side of Block to allow air flow through water course and out the Water Pump orifice.
19. Turn Block over, Crankshaft up.
20. Remove Bell Housing Guide Pins from flywheel end of Block and discard.
21. Install pre-lubricated (Fill pump with Motor Oil) 3832449 Oil Pump and 3920912 Oil Pump Screen.
22. Determine outward side of Oil Pan when Pump (Vacuum Pressure) is installed on your equipment. Braze 10-J, 1/2" NPT Half Pipe Collar (Oil Recirculator Return Line Connection) & 9-J, 1/4" NPT Half Pipe Collar (Oil Level Sight Gauge Connection) to the side of Oil Pan at the following locations:
 - A. 10-J, 1/2" NPT Half Pipe Collar, 3/4" below lip of Pan, close to Front end.
 - B. 9-J, 1/4" NPT Half Pipe Collar, 2" from bottom of deep portion of Oil Pan.
23. Drill or burn holes through Oil Pan inside Half Pipe Collar Connections. Approx. 1/2" dia. hole for Oil Recirculator Return Line Connection & 1/8" dia. hole for Oil Level Sight Gauge Connection.
24. Cement 3930962 Oil Pan Gasket Set — 4 pcs. to Block, and lightly grease exposed side of Gasket.
25. Examine bottom portion of Block assembly for debris, pre-lube all moving parts and install Oil Pan.
26. Return Block to an upright position, resting on the Oil Pan.
27. Install 60-J Oil Pump Drive Assembly in distributor orifice. 67-J Shaft should fit into slot of the Oil Pump Shaft. (SEE VIEW A)
28. Install 64-J Oil Pump Drive Bushing over 67-J Shaft, with 66-J Gear attached with 65-J Spring Pin, and secure with 63-J Retainer, 62-J, 3/8" Lock Washer & 61-J, 3/8" x 1" USS Hex Hd. Bolt. (SEE VIEW A)
29. Clean and pre-lube cylinder walls.
30. Align 38-J Pump Head Gasket on Block and install Model "J" Pump Head Assembly w/4-J Head Bolts, 1/2" x 5 1/2" N.C. Hex Hd., 6-J, 1/2" Lock Washers & 7-J, 1/2" Flat Washers. (Torque: 50 ft. lbs.)
31. Determine direction of rotation of drive system. Facing 30-J Flywheel or 58-J Stub Drive Shaft, pump most rotate COUNTER clockwise.
32. Gauges, Tubing and easily damaged components should be installed after completion of Steps 1 through 31.
33. OPTIONAL: 30-J Flywheel or 58-J Stub Drive Shaft mounting holes are drilled for 7/16" bolts. To accommodate crankshaft flanges with 1/2" SAE threaded holes, Flywheel or Shaft may need to be drilled out to 1 1/32" for 1/2" SAE bolts.



APPROXIMATE SHIPPING WEIGHT 129 LBS.