**Congratulations**, you have just purchased the finest ported, Chrysler cylinder head available. To insure the longest possible life and the smoothest installation, we have a few suggestions.

- 1. Be sure and follow the head bolt or stud manufacturer's torque procedures.
- 2. Check piston-to-valve clearance. We prefer a minimum clearance of .060" on the intake valves and .100" on the exhaust valves.
- 3. Check piston-to-head clearance on all engines using a dome piston.
- 4. Re-torque cylinder heads after initial engine warm-up.
- 5. Check pushrod clearance with the cylinder heads and head gaskets installed on the block that is to be used.
- 6. On the OEM iron heads, most exhaust studs/bolts go into the water jacket and require sealer. These studs/bolts also may not be square with the exhaust gasket surface. Outer valve cover bolt holes on factory heads may be drilled into the water jacket. Inner valve cover bolt holes may be drilled into the intake port. Therefore, we suggest you use sealer at these locations.
- 7. Use anti-seize on the spark plug threads.
- 8. When using double valve springs, we recommend breaking in the camshaft with the outer springs only. Note: Engines using roller camshafts can be assembled with both valve springs. We have an on-engine valve spring compression tool available for rental. This tool allows you to change the valve springs without removing the cylinder head. Call for more details.
- 9. If your cylinder heads are not fully assembled, it is mandatory to use the proper lubrication on the valve stems and guides. During assembly of the heads, we recommend the use of an engine bearing assembly lube. Bronze guides do not like to be run dry. We do not recommend the use of hard, tight fitting seals such as "PC" or white Teflon type seals. We prefer ProFit positive seals for better oil control and valve stem life.
- 10. The dowel pins are in blind holes. If the pin sticks up too high it can force the head up off of the gasket allowing the gasket to leak, crack the head or both. Make sure the head sits flat on the block without a head gasket before assembly.

Special Note: Due to factory core shifts on OEM iron heads (and Chryslers have plenty), it is probable that thin spots, sand holes and porosity will be encountered when modifying cylinder heads. Therefore we pressure test and/or sonic test all cylinder heads before they are shipped. With this in mind, we may determine that corrections are in order to assure the future integrity of the heads before we send them out. Corrections may take the form of epoxy, welding or ceramic seal. This same situation applies to aluminum cylinder heads when they are ported for increased airflow.



If you have any questions, contact us!

Phone (309) 745-9558 Fax (309) 296-9990 www.HughesEngines.com