

## Cylinder Head Replacement

### Cylinder Head Removal and Replacement

1. Be sure all internal compressor pressure has been relieved.
2. Inspect cylinder head for fitting or thread damage. Replace if damaged
3. Remove cylinder head bolts.
4. Use a small hammer and gasket scraper to separate the cylinder head from the valve plate. Be careful not to scratch the gasket surface of the cylinder head.
5. Carefully lift the cylinder head from the valve plate.
6. It is recommended that both the head gasket (between the cylinder head and the valve plate) and the block gasket (between the valve plate and the cylinder block) be replaced any time the cylinder head is removed. However, if no service is required to the valve plate, it may be left in place. If the valve plate comes loose from the cylinder block, the block gasket must be replaced.
7. Carefully remove old head gasket from top of valve plate with gasket scraper. Be careful not to disturb the valve plate to cylinder block joint if valve plate has been left in place. If valve plate comes loose from cylinder block, proceed to Section 8.3.2, Valve Plate Removal, and replace block gasket.
4. Use vacuum pump and small tube to remove residual oil from each bolt hole. If this step is not performed, hydraulic pressure can be created when the cylinder head bolts are tightened. This pressure can break the cylinder block.
5. Coat head gasket with clean 5GS refrigerant oil.
6. Install head gasket cover location pins, checking for correct orientation.
7. Install cylinder head.
8. Install cylinder head bolts and tighten in a star pattern. Torque first to approximately 14 ft•lbf (19.6 N•m, 200 kgf•cm), then finish by torquing to 24-27 ft•lbf (32.4-36.3 N•m, 330-370kgf•cm).

