

Cylinder Head Change

**Mercury Pro-Max (ALL)
Mariner Super Magnum (ALL)
Mercury and Mariner MHP 2.5
Carb/EFI/EFI Offshore(Running
change)**

An improved cylinder head which has cast-in head bolt washers is used on the models listed. The cast-in washer eliminates the use of flat washers under the head bolt, (except MHP 2.5 engines). The torque sequence and the bolt torque are also cast into the cylinder head. The cylinder head attaching bolt p/n 10-98534 remains the same.

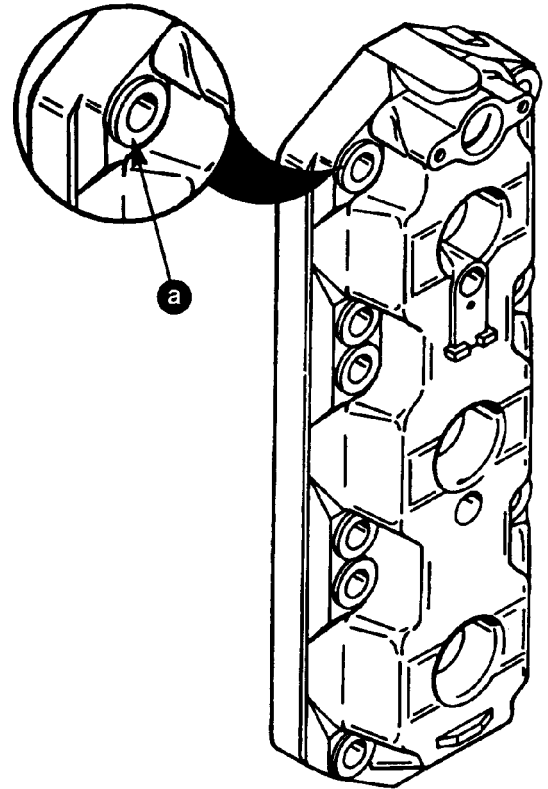
IMPORTANT: The heavy washer will continue to be used on all Hi-Performance 2.5 engines with the new cylinder head.

CYLINDER HEAD PART NUMBERS

150/200 PRO MAX	18488-10
150/200 SUPER MAGNUM	18488-10
2.5 CARB /EFI. /EFI. OFFSHORE	18789A-3

WARRENTY:

The new cylinder heads are offered as an improvement in servicing the product and are not covered by warranty to up-grade previous product.



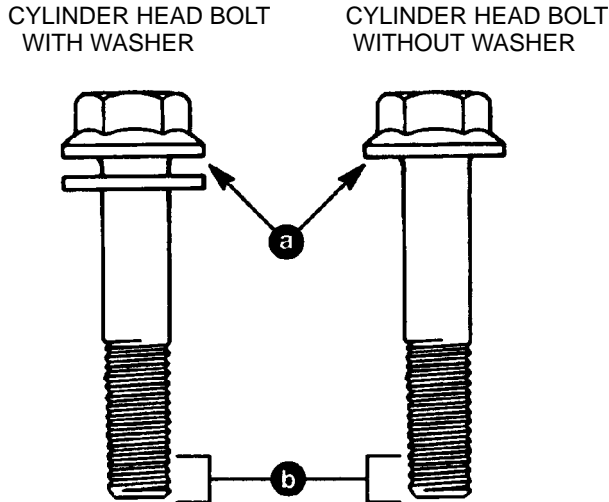
a - Cast-in material to eliminate washers

Figure 1. New Cylinder Head

1. **Pro Max and Super Magnum:** DO NOT install a washer under the head of the bolt when the washer is cast-in the cylinder head.
2. **2.5 Carb/EFI and EFI Offshore:** Will continue to use the heavy washer on the head bolt with the new cylinder head.

HEAD BOLT LUBRICATION

When replacing or installing a cylinder head bolt, apply 10W-30 or 2 cycle oil to the bolt head in the areas shown. The absence of lubrication may result in insufficient clamp load and possible head gasket failure.



- a - Oil under the washer or the bolt head
- b - Oil the first 4 threads

Figure 2. Cylinder Head Bolt

CYLINDER HEAD BOLT TORQUE

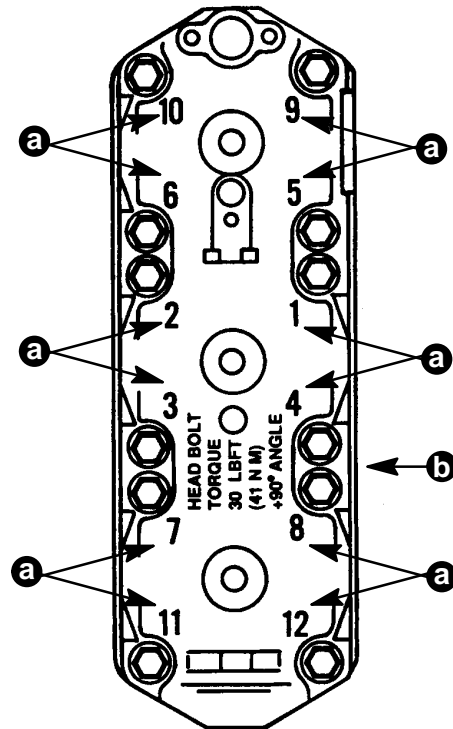
The cylinder head bolt torque has been changed on all models that have the new style cylinder head. Retorque of the new head bolts has been eliminated when using this new specification. The new torque specification is 30 Ft. Lbs.(41 N.m) plus an additional 90° / 1/4 turn.

1st – Torque all bolts to: 10 Ft. Lbs (14 N.m).

2nd – Torque all bolts to: 30 Ft. Lbs (41 N.m).

3rd – Turn all bolts an additional 90° / 1/4 turn.

IMPORTANT: DO NOT retorque the head bolts when using this new specification. The clamping force can not be improved by retorqueing and the life of the bolt will be shortened.



- a - Cast-in Torque sequence
- b - Cast-in Head bolt torque

Figure 3. Cylinder Head Torque and Torque Sequence

NOTE: It is recommended to replace the cylinder head bolts when they have been torqued to this new specification 10 times.