

M-6010-A460 Cylinder Block INSTALLATION INSTRUCTIONS

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD RACING PERFORMANCE PARTS.

Please visit www.fordracingparts.com for the most current instruction information

!!! PLEASE READ ALL OF THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION. AT ANY TIME YOU DO NOT UNDERSTAND THE INSTRUCTIONS, PLEASE CALL THE FORD RACING TECHLINE AT 1-800-367-3788!!!

OVERVIEW:

This sheet contains important information regarding dimensions and specifications of the M-6010-A460 block. These instructions should be reviewed by all engine builders, due to minor changes that could impact the engine assembly process.

CONTENTS:

Be sure to check for the following parts included with M-6010-A460.

M-6026-A460 plug and dowel kit

FEATURES AND SPECIFICATIONS:

Part Number M-6010-A460 Material Cast iron

Bore Size (finish) Out of box 4.340" - 4.345" finish up

Minimum rec. bore thickness (@

dia.)

Bore Spacing

Block Deck Height (out of box)

Siamese Bore

Maximum Stroke recommended

Deck Thickness

Head Bolt Size

Main Bolt configuration

Main Bearing Bore Size

Main Cap Material Main Cap Fasteners

Cam Bearing Bore Size

Cam Plug Size Lifter Bore Size

Lifter Style compatibility

Oiling System

Oil Filter Mounting

Piston Squirters

to 4.600"

Designed for .180" minimum bore wall thickness @ 4.600"

4.900"

10.322 +/- .005"

Siamese bores

4.500"

.600" - .650" deck thickness

9/16-12 UNC head bolts (8 optional

Splayed 4-bolt main caps on

positions 2, 3, 4

3.1922" - 3.1930" Nodular cast iron

1/2-13 UNC grade 8 HCS

2.2495" - 2.2505"

2.500" diameter .8767" - .8752"

Flat tappet

Wet sump oiling system

Block mount

No piston squirter provision

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



M-6010-A460 Cylinder Block INSTALLATION INSTRUCTIONS

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD RACING PERFORMANCE PARTS.

FEATURES AND SPECIFICATIONS (cont.):

Oil Pan Configuration Check oil pan fitment to main caps

to insure clearance

Freeze Plugs/Threaded Core Plugs Threaded core plugs 1 1/4 – 11, and

1/2 NPT

Rear Seal Type 2 piece rear seal

Weight 255 lbs.

Maximum Displacement 598 cubic inches

Recommended Parts

Heads Recommended cylinder heads M-

6049-SCJ, M-6049-C460

Head Gaskets M-6051-A441, M-6051-B460
Cam Bearings Roller cam bearings M-6261-A460

(roller cam bearings require SAE 8620 steel cam, block requires

machining)

Head Stud Kit ARP 155-4203 recommended with

M-6049-SCJ heads

Main Bearings

Oil Filter M-6731-FL1A or equivalent

Rear Seal Fel-Pro BS430032 or Freudenberg

NOK 351612

Timing Cover F1TZ-6019-A

Timing Chain and Sprocket Set M-6268-B429 or M-6268-A460

Plug and dowel kit M-6026-A460

INSTRUCTIONS:

- 1. Main cap removal is simplified by using the 5/16"-18 threaded hole in the cap. A slide hammer with an adapter that threads into the 5/16"-18 hole allows knocking the cap loose from the dowels and bulkhead register with a direct vertical impact
- 2. The 1970 thru 1978 429/460 production cast iron crankshafts (2Y or 2YABC casting) have large counterweight radii. Check for sufficient clearance between the counterweight and the bottom of the cylinder bores.
- 3. Main bearing caps should be fully seated by tapping with a rubber mallet before tightening bolts. The ½"-13 bolts should be torqued to 105 ft. lbs. in three steps; 50/80/105 ft.lbs. On each step tighten the inner bolts first and the outer angled bolts second. Use sealer on the angled bolts as the angled holes on some blocks break into the water jacket.

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



M-6010-A460 Cylinder Block INSTALLATION INSTRUCTIONS

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD RACING PERFORMANCE PARTS.

- 4. The A460 block has three oil galleries. The main oil gallery is the lower right (passenger side) one. If mechanical lifters and roller rocker arms are used, the oil supply to the lifter galleries can be restricted. This is accomplished by drilling and de-burring a .060" (minimum) diameter hole in a ½" NPTF pipe plug and installing it in the right side lifter gallery at the front. A ½" NPTF (solid) pipe plug must be installed at the rear of the RH side lifter gallery. The gallery has been tapped front and rear to accept these plugs. Make sure the 3/8 NPTF oil gallery end plugs do not restrict oil passages.
- 5. Production style pans will require modification to clear the 4-bolt main caps (.050" minimum).
- 6. The simplest way to plumb a dry sump oiling system into the block is by installing a #12AN fitting with a #1572-12 Weaver Bros. "O" ring in the filter mounting hole. The chamfer has been machined to properly compress the "O" ring. Plug the oil passage from the oil pump mounting pad with a 1/4" NPTF pipe plug. (you will have to tap this hole)
- 7. Hemi style heads may require modification of valley wall for pushrod clearance.
- 8. Verify head gasket/block/cylinder head steam hole locations. Modify as necessary.
- 9. Use sealer on top LH bell housing to block bolt.

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356