M-6010-A460
Cylinder Block
INSTRUCTION SHEET

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 TECH LINE AT (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 to 4.600"
Minimum rec. bore thickness (@ dia.)	Designed for .180" minimum bore wall thickness @ 4.600"
Bore Spacing	4.900"
Block Deck Height (out of box)	10.322 +/- .005"
Siamese Bore	Siamese bores
Maximum Stroke recommended	4.500"
Deck Thickness	.600" - .650" deck thickness
Head Bolt Size	9/16-12 UNC head bolts (8 optional 7/16)
Main Bolt configuration	Splayed 4-bolt main caps on positions 2, 3, 4
Main Bearing Bore Size	3.1922" - 3.1930"
Main Cap Material	Nodular cast iron
Main Cap Fasteners	1/2-13 UNC grade 8 HCS
Cam Bearing Bore Size	2.2495" - 2.2505"
Cam Plug Size	2.500" diameter
Lifter Bore Size	.8767" - .8752"
Lifter Style compatibility	Flat tappet
Oiling System	Wet sump oiling system
Oil Filter Mounting	Block mount
Piston Squirters	No piston squirter provision

Tech Line (800) 367-3788

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

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.

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 ¼" NPTF pipe plug and installing it in the right side lifter gallery at the front. A ¼" 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 ¼" 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.