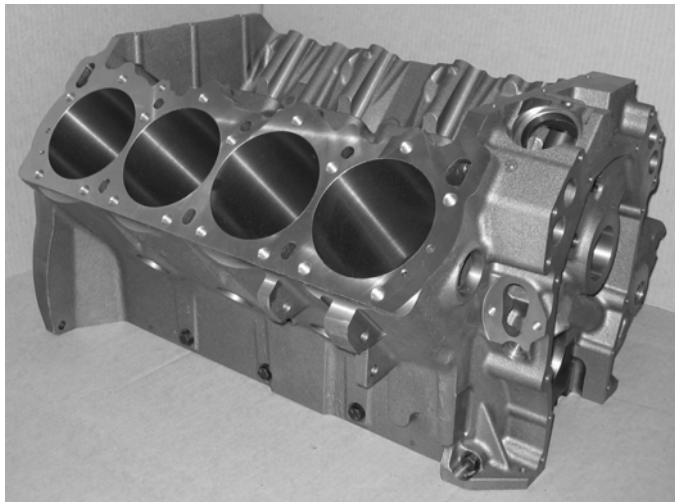




INSTALLATION INSTRUCTIONS RB WEDGE ENGINE BLOCK

PART NUMBERS P5153860, P5153868, P5153944



not have enough stock to allow modifications that have been common on prior blocks (drilling oil galleys oversize, tubing the block, modifications for tappet bushings, lifter angle modifications, lifter location modifications, etc). Mopar is not responsible for any oil or water passage break through that may occur due to modification of the block.

Engine Block Components

- (1) Engine Block Assembly (with main caps and studs)
- (2) 0.040" 3/8"-16 Oil Restrictors (installed in deck)
- (1) 3/8" Oil Pickup Tube Adapter (with fasteners)
- (1) Rear Oil Seal Retainer (with fasteners)
- (4) AN10 Valley Plugs (already installed if required)
- (1) Block Plug Kit (covers all applications)
- (1) Camshaft Bearing Kit (loose)

Part Number	Material	Bore	Cam Hone	Cam Height	Lifter Bores
P5153944	gray iron	4.31	no	std	finished
P5153860	gray iron	4.50	yes	std	finished
P5153868	aluminum	4.50	yes	std	sleeved

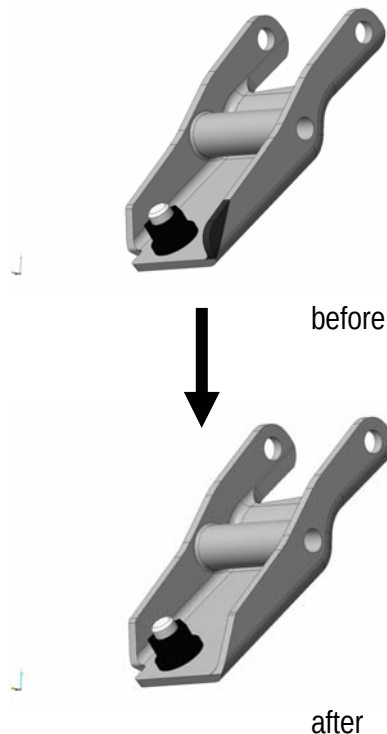
Please check your block's part number against the features listed in the above chart before performing any machining or assembly prep.

**READ ALL INSTRUCTIONS BEFORE BEGINNING
PREP AND INSTALLATION**

SPECIAL NOTICE: This block is made from a unique casting that is not the same as prior blocks. This casting may

Motor Mounts:

Stock Wedge motor mount bosses are provided. Some stock driver's side mounts may require slight trimming to fit. Be sure the mount fits flush to its mounting pad.





INSTALLATION INSTRUCTIONS RB WEDGE ENGINE BLOCK

PART NUMBERS P5153860, P5153868, P5153944

Main Caps + Main Bearings:

#1, #2, #3 and #4 main caps are cross bolted. Blocks are machined for stock main bearings. Install main bearing caps with bearing tangs facing the driver's side of the engine. Seat the caps in the block and torque the vertical bolts to 100 ft-lbs first to maintain cap alignment and then torque the cross bolts to 45 ft-lbs.

Lifter Bore Angle and Diameter:

Blocks listed with "finished" lifter bores are machined to stock 0.905" diameter and 45° angle. Aftermarket lifters vary so check your part's clearance. Clearance for typical roller tappet tie bars has been provided. Please check your specific application. Blocks with "sleeved" tappet bosses are semi-finished and will need to be honed to final size. Sleeved tappet bosses are also at 45°.

Distributor + Intermediate Shaft:

Blocks are machined to accept stock distributors and related drive components. A bronze intermediate shaft bushing has already been installed in each block and is finished to size.

- Distributor Drive Bushing P1737725
- Electronic Distributor (vac adv) P3690432 (413/440/426 Wedge)
- Distributor Hold Down Clamp P4349279

Oiling System:

The oil feeds from the deck surfaces that connect to the cylinder heads have .040" restrictions installed to control the flow of oil to the valve train. **These should not be removed.** Stock oil pumps will bolt directly to these blocks. Torque oil pump attaching bolts to 30 ft-lbs.

- Oil Pump Assembly P4286590

Oil Pan + Pickup:

Blocks come with an adapter that accommodates the use of stock oil pickup tubes with 3/8" pipe. Stock oil pans will fit as well. The pickup tube can be upgraded to

1/2" pipe by ordering the 1/2" pickup tube adapter for your block. Torque oil pan attaching screws to 200 in-lbs.

- 1/2" Pickup Tube Adapter Kit P5155064
- Center Sump, 6 qt, Pan P5007807AB
- Center Sump, 6 qt, 3/8" Pickup P5007848
- Center Sump, 8 qt, Pan P5007816
- Center Sump, 8 qt, 3/8" Pickup P5007817
- Center Sump, 8 qt, 1/2" Pickup P5007818
- Oil Pan Bolt Kit P4120613

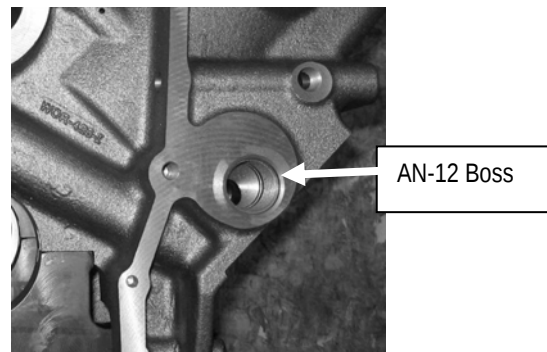
Rear Seal Retainer and Seal

Engine blocks come with the rear seal retainer installed. The seal needed for this application is listed below. Retorque the seal cap retaining bolts to 30 ft-lbs.

- Rear Seal Package P4271961

External Oil Pickup Passage

Your block comes prepped to run an externally routed oil pickup tube if you lack proper clearance in the crankcase. An AN-12 boss (1 1/16" – 12 tpi) is machined on the front face of the block that connects directly to the inlet side of the oil pump. An AN-12 fitting can be installed here connecting externally to an oil pickup tube installed in your oil pan. You will need to plug the oil pickup tube adapter inside the crankcase with either a 3/8" or 1/2" pipe plug when making this modification.



External Oil Pickup Passage



INSTALLATION INSTRUCTIONS RB WEDGE ENGINE BLOCK

PART NUMBERS P5153860, P5153868, P5153944

Camshaft and Front Drive:

Blocks are prepped for stock cam bearings although the cam bearing bores can be machined oversize to allow use of 60mm roller bearings for racing applications. When installing journal bearings be sure to line up the oil hole in the bearing shell with the oil feed hole in the block. All stock cam drive components can be used with the standard cam height packages. Raised cam blocks require a custom drive system. Torque front cover bolts to 15-18 ft-lbs.

•Timing Chain + Sprockets	P4452815
•Sprocket Attaching Hardware	P5007801
•Offset Camshaft Bushing Set	P3690936
•Chrome Front Cover	P4349816
•Chrome Cover Fastener Kit	P4452795

Cylinder Heads:

Stock cylinder head assemblies will bolt directly on to these blocks. Head bolt holes are blind tapped and do not extend into the water jacket. It is the builder's responsibility to determine that mounting fasteners have the proper engagement to prevent stripping threads.

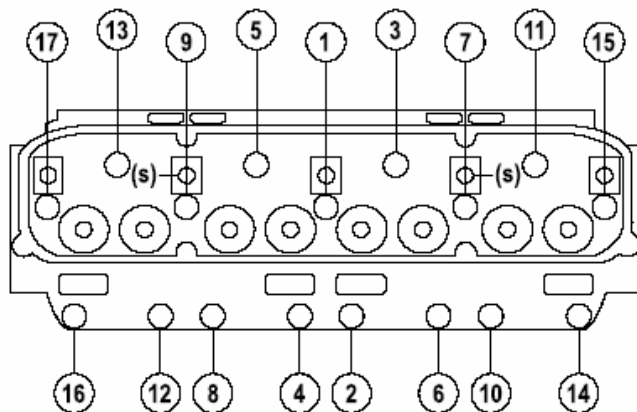
Cylinder Bores:

Blocks that are listed without hone must be finish honed before use. All blocks have siamese water jackets that accommodate a maximum overbore of 4.600". Honing with a torque plate is recommended.

•Wedge Block Hone Plate	P4452194
-------------------------	----------

Cylinder Head Installation and Torque Sequence:

1. Be sure that the surface of the block and the surface of the head are thoroughly cleaned to remove any oily film before installation. Use alcohol or lacquer thinner on a lint-free rag to clean.
2. Apply oil or suitable thread lubricant to head bolt threads and the underside of bolt heads and washers.
3. Torque head bolts and nuts initially to 40 ft-lbs in sequence shown. Then repeat the procedure tightening to 55 ft-lbs and finally to 70 ft-lbs following the same sequence.
4. A head bolt re-torque is recommended after initial start-up and cool-down (allow 2-3 hours for adequate cooling).



Cylinder Head Bolt Tightening Sequence



Technical drawing of a mechanical part, likely a manifold or housing, showing dimensions and callouts. The drawing includes a central circular feature and several smaller circular features, some of which are marked with 'X' or a circle with a dot.

Dimensions (in inches):

- Overall width: 10.16
- Overall height: 9.82
- Top horizontal dimensions: 5.08, 8.57, 4.58, 4.18, 3.44, 2.24, 9.16, 8.36, 6.88, 4.48
- Left vertical dimensions: 8.73, 8.38, 6.64, 5.62
- Right vertical dimensions: 7.56, (5.152), (5.147)
- Bottom horizontal dimensions: 3.092, 3.088, 3.25, 3.90, 5.12, 6.182, 6.178, 6.50, 7.80, 10.24
- Internal vertical dimensions: 1.62, 2.31, .502, .498
- Small dimensions: .59, .246, .244

Callouts and Notes:

- 1.125 CORE 4 HOLES
- TAP 5/16-18 UNC 2B .62 DEEP-4 HOLES MARKED X
- 1.21 2 PLACES
- DOWEL PIN
- .246 .244 REAM-.30 DEEP 2 HOLES MARKED (circle with dot)
- TAP 3/8-16 UNC 2B .75 DEEP-10 HOLES

Page 4 of 5



INSTALLATION INSTRUCTIONS RB WEDGE ENGINE BLOCK

PART NUMBERS P5153860, P5153868, P5153944

Deck Height:

Blocks are machined to a stock RB deck height of 10.725". At this height the deck is .600" thick.

Fuel Pump and Drive Pushrod:

Stock fuel pump and drive pushrod components can be used with these blocks. A block-off plate is available if a mechanical fuel pump is not required for your application. Torque fuel pump or block-off plate to 30 ft-lbs.

- | | |
|-------------------------|------------|
| •Fuel Pump Assembly | P4007039AB |
| •Fuel Pump Pushrod Kit | P5249569 |
| •Chrome Block-Off Plate | P5007546 |

Water Pump:

Stock water pump components can be used with these blocks. Torque the water pump to housing bolts to 30 ft-lbs and torque the housing to block bolts to 30 ft-lbs.

- | | |
|------------------------------|------------|
| •Aluminum Water Pump Housing | P4286900 |
| •Aluminum Water Pump | P5007643AB |
| •Water Pump Installation Kit | P5007449 |

Bell Housing Pattern:

Part numbers P5153860 and P5153944 have the stock bell housing bolt pattern on the rear face of block. Part number P5153868 has a dual bell housing pattern that accommodates use of stock components as well as many popular aftermarket components.

Other Recommended Components:

- Crankshaft
(4.15" stroke 8 bolt rear flange) P5007250
(3.75" stroke 8 bolt rear flange) P5007251
- Complete Engine Gasket kit P4452113
- Dip Stick and Tube P4349629
- Crate Motor Installation Manual P5007521

For technical assistance regarding the Wedge Engine Block, please contact the Mopar Performance Tech Line Monday-Friday, 7:00am - 3:00pm EST at 1(888) 528-HEMI or 1(888) 528-4364.

NO PARTS WARRANTY – "AS IS"

Mopar Performance parts beginning with a "P" prefix are sold "as is" unless otherwise noted. This means that parts sold by Mopar Performance carry no warranty whatsoever. **Implied warranties, such as warranties of merchantability, are excluded.** (An implied warranty of merchantability means that the part is reasonably fit for the general purpose for which it was sold). The entire risk as to quality and performance of such parts is with the buyer. Should such parts prove defective following their purchase, the buyer and not the manufacturer, distributor or retailer, assumes the entire cost of all necessary servicing or repair. Chrysler, Dodge and Jeep® vehicle and parts warranties are voided if the vehicle or parts are used for competition. The addition of performance parts does not by itself void a vehicle's warranty. However, added performance parts (parts not originally supplied on the vehicle from the factory) are not covered by the vehicle's warranty, and any failure that they may cause is also not covered by the vehicle's warranty.