GENIII Hemi Iron Engine Block – Technical Notes

Part #	31612111 to 31622321
Material:	High Strength 220BHN Cast Iron
Bore:	3.927” to 4.250”
Bore & stroke:	4.250” x 4.250”
Cam bearing bore ID:	VVT #1 = 2.5775” Non VVT #1,#2,#3,#4 = 2.424” #5 = 1.851”
Cam bearings:	P/N: 32210500 VVT set / P/N: 32210600 Non-VVT set.
Cam rear bushing	P/N: 32960000A
Cam bearing press:	.0028”- .003”
Camshaft position:	Standard cam location
Cam thrust plate VVT only:	P/N: 32227000
Cam Plug:	P/N: 32680000
Cubic Inch:	482 cubic inches
Cylinder Wall Thickness:	.230” to .250” @ 4.250” bore.
Deck Height:	9.250” Non VVT / 9.285” VVT
Deck Thickness:	.625”
Dist. Tap Hole Valley:	N/A
Fuel Pump Boss:	N/A
Fuel Pump Pushrod:	N/A
Freeze Plugs:	1.500” brass press in cup plugs PN#32820000B.
Head Bolt Pattern:	O.E. GENIII Hemi M12 / * ½” optional upgrade.
Lifter Bores:	O.E. .842” up to 1.062” for standard and keyed lifter bushings
Main bearing size:	2.5599” to 2.5612”
Main bearing bore:	2.7517” to 2.7522”
Main caps:	Steel 4 bolt
Oil system:	Priority main oiling system with relocated main feed.
Oil Cooler Holes:	External oil feed provision located on the front passenger side
Oil Filter:	Yes
Oil Pan:	O.E. and aftermarket oil pans.
Rear Main Seal:	Fel Pro seal kit P/N: Fel Pro BS-40735
Hyd. Roller Provisions:	Uses non-MDS lifters and Comp cam yoke PN# 8561-1
Serial No.	on main caps and on front of block below the deck surface
Starter:	Drivers side stock position mounted to bell housing
Stud & bolt holes:	M12 (Head Bolt Holes)
Tapped Holes:	Blind
Timing chain / gears:	O.E. and aftermarket GENIII Hemi VVT and Non-VVT chain
Timing Cover:	O.E. timing cover
Torque Specs:	3/8" studs 40 ft lbs w/ CMD # 3 high pressure lube. 7/16" studs 65 ft lbs w/ CMD # 3 high pressure lube.
Weight:	244lbs

Actual deck height can be .002”-.005” taller for additional machining requirements.

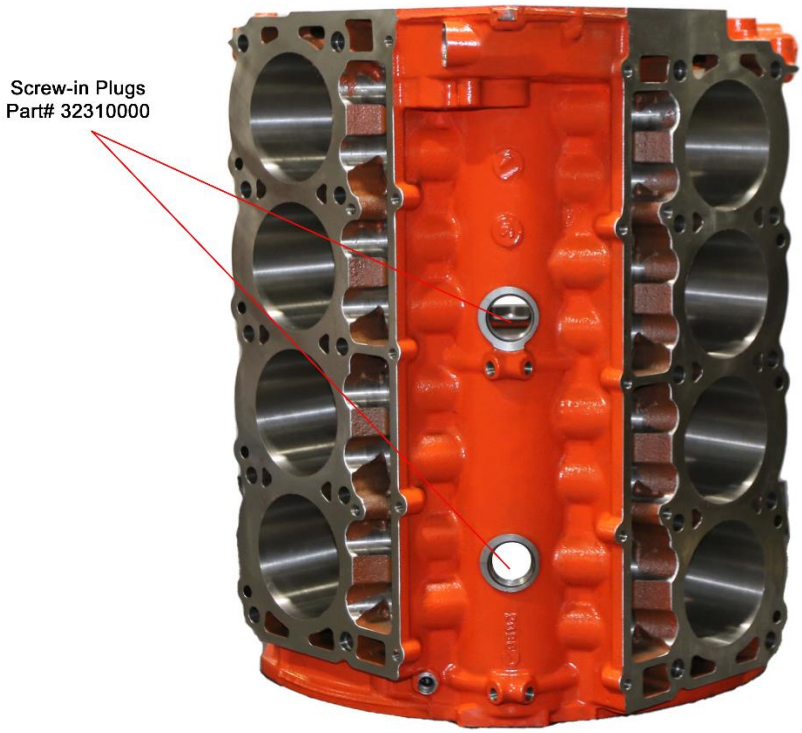
When initially removing main caps, the caps & block should be deburred before reinstalling. This will insure that correct main size is maintained.

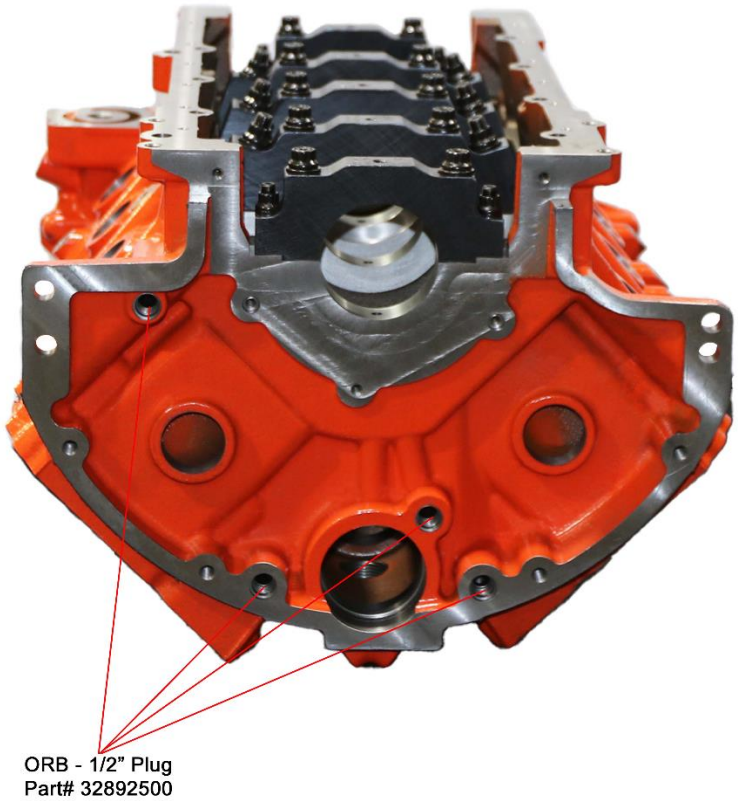
Additional rod clearance may be necessary at bottoms of cylinders depending on type of rod and stroke being used. Mock is required to ensure proper rod to block clearances.

Head stud holes are blind, they do not insect the water jacket.

ARP Ultra Torque Assembly Lube is recommended when installing the head and main studs into the block. Studs should *never* be torqued into the block; they should only be lightly snugged.

SPECIAL NOTES: **With a multitude of different crank, rod, and piston combinations available it's important to check clearance of all moving parts (especially crankshaft counterweight to block) before attempting any type of assembly.**





SPECIAL NOTES FOR NON-VVT BLOCKS ONLY: **Use a ¼" NPT - .333" OAL plug (Part# 32890250S) in the front oil galley threaded port. Using a longer plug may cause it to extend into the main oil galley feed port, leading to oiling issues and potential engine failure.**