

popular HOT RODDING QUICK REFERENCE CHART

426-cubic-inch HEMI MoPAR

Bore: 4.25
Stroke: 3.75

Compression Ratio: 10.25-to-1—street

Maximum BHP: 425 at 5000 rpm—street
Maximum Torque: 490 at 4000 rpm—street
Firing order: 1-8-4-3-6-5-7-2

Cylinders numbered: 1-3-5-7 on left bank
2-4-6-8 on right bank

Distributor rotation: counter-clockwise
Valve clearance: stock - intake - .028 cold
exhaust - .032 cold

Idle manifold vacuum: 18hg
Compression pressure: 175 psi
Plug gap: .028
Point gap: .019

Oil pressure: 50 psi
Fuel pressure: 7 psi
Total timing at 4000 rpm: 38 degrees

TORQUE SPECIFICATIONS

Cylinder head: 75 ft-lbs.
Rod bolts: 75 ft-lbs.
Main bolts: 100 ft-lbs.
Cross bolts: 45 ft-lbs.
Flywheel bolts: 70 ft-lbs.

Manifolds:

Intake: End four bolts 50 in-lbs center bolts
70-75 in-lbs.

Exhaust: 35 ft-lbs.

Crank bolt: 135 ft-lbs.

Rocker arm shaft: 30 ft-lbs.

CRANKSHAFT AND BEARING SPECIFICATIONS

Rod journal diameter: 2.375 2.375
Clearance: .002

Rod side clearance, per pair: .015

Main journal diameter: 2.750

Clearance: .002

End play: .005

ROD SPECIFICATIONS:

Weight: 38.2 Oz.

Pins: floating

Diameter: 1.03

PISTON SPECIFICATIONS: stock—street

Type: slipper skirt

Weight: 29.7 oz.

Valve to piston clearance: .100

Skirt to cylinder wall clearance: .003

RINGS:

Use ring manufacturers' specifications

VALVE SPECIFICATIONS:

Intake diameter: 2.25

Seat angle: 45 degrees

Lift: stock - .467

Spring pressure:

closed - 120 lbs. at 1.859

open - 290 lbs. at 1.375

Spring free length: 2.20

Exhaust diameter: 1.94

Seat angle: 45 degrees

Lift: stock - .473

Spring pressure:

closed - 120 lbs. at 1.859

open - 290 lbs. at 1.375

NHRA Technical information:

Cylinder head volume: 167.7cc.

Piston height above block: .536-inch

Mill .004 from head for one cc.

For each .010-inch cut from head remove .0085-inch from manifold and .0116-inch from front and rear manifold rail. Elongate manifold bolt holes.

SPECIAL PARTS

Available from Domestic Product Planning, Chrysler Corp.,
P.O. Box 1919, Detroit, Mich. 48231

Chrome vanadium valve springs 2806077

Titanium valve spring retainers 2836153

Modified intake manifold 2531943

Magnesium ram manifold 28336900

ENGINE TIPS

Engine markings are found on engine number pad. Pad is on left side of block.

Maltese cross - .001 undersize crank X - .010 undersize crank

A - .020 oversize bore Diamond - .008 oversize valve lifters

Do not use intake manifold to remove engine.

Oil Pickup screen should press against bottom of oil pan.

Remember pistons are sold for left and right banks. Assemble piston and rods with this in mind.

Oil pressure drop of 7 to 9 lbs. could indicate clogged oil filter.

Dark blue wire between starter relay and bulkhead connector is a fusible link.

Be sure both carbs will reach full throttle.

Carb float level setting - 7/32-inch

Axle ratio is on metal tag on cover screw.

The 9-1/4-inch and 9-3/4-inch ring gears are used only with 426 Hemi and 440 with powerpack.

Some 1968 Hemi's produced before 12-1-67 were equipped with 1967 dipsticks; these will show one quart overfull with correct oil change.

Slow warm up might be caused by manifold heat valve not closing on a cold engine.

Remember a Hemi, stock, is the best for the road. If you plan to use it to run around town, just refine and tune it. If you plan to race it, rebuild it with "RACE" in mind. Then just race it, don't plan to drive it on the street. A race Hemi is not a dual purpose engine.