



# S/R TORQUER Technical Information

High Performance Cast Iron Cylinder Heads  
for 265-400 (first generation) small block Chevy engines

## SPECIFICATIONS

**VALVES:** 2.020"x1.600" Manley Street-Flo forged steel  
**VALVE LOCKS:** 11/32" x 7° Hardened steel  
**VALVE SPRINGS:** 1.250" Single, 1.750" Installed height  
**VALVE SEALS:** Umbrella style  
**VALVE GUIDES:** Integral steel  
**ROCKER ARMS:** Not included. Accepts stamped or roller type  
**ROCKER ARM STUDS:** 3/8" screw-in with hex shoulder. Not machined for guideplates. Accepts non-hardened pushrods.  
**SPARK PLUGS:** Not included. 14mm-5/8", .460" reach tapered seat  
**COMBUSTION CHAMBERS:** 67cc or 76cc volume. OE style shape  
**INTAKE RUNNERS:** 171cc volume  
**EXHAUST FLANGE:** Stock port location  
**HEAD BOLTS:** Not included. Stock. Washers are preferred.  
**ACCESSORY PADS:** Stock location.

## MACHINE SHOP SPECS

**MAXIMUM VALVE SPECS:** 2.055" x 1.625"  
**MAXIMUM SPRING SEAT DEPTH:** .030" Depth.  
**MAXIMUM SPRING DIAMETER:** Use World Part# 831214 spring locator (1.550" O.D.) with 1.440" springs.  
**MAXIMUM FLAT MILL:** .020" Depth. Must maintain .125" at base of intake ports.

## BEFORE ASSEMBLY OR INSTALLATION

Please inspect castings for defects or damage before modification, assembly or installation. Modified or used cylinder heads are not returnable. Bare castings must be thoroughly cleaned before assembly. To avoid shipping damage, rocker studs are not installed. Please locate these items before discarding boxes.

## RECOMMENDED INSTALLATION ITEMS

**HEAD GASKETS:** Fel-Pro #1003 (265-350)  
**SPARK PLUGS (gasoline):** Accel 274 or 276; AC-Delco: 43TS or 44TS; Champion: BL11Y or BL13Y; or equivalent  
**INTAKE GASKETS:** Fel-Pro 1204, 1256 or equivalent  
**EXHAUST GASKETS:** Fel-Pro #1404 or equivalent  
**HEAD BOLTS:** Manley: 42171 or equivalent  
**7/16" HEAD BOLT WASHERS:** Manley 42102 or equivalent

## CENTERBOLT VALVE COVERS

Late model S/R Torquer (042770) cylinder heads have center bolt valve cover bolt bosses only. All other cylinder head models (042660 and 042670) feature dual valve cover rails. To correctly install centerbolt valve covers, you must grind down the perimeter valve cover bolt bosses before cylinder head installation.

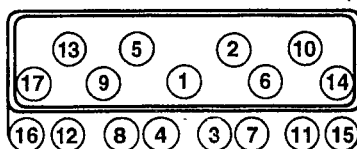
## HEAT RISER PASSAGE

Heat riser passages are blocked for maximum flow. To activate, drill through EGR passage at center of intake flange to exhaust valve bowl with a 6"x1/4" bit. Disassemble heads prior to drilling.

## 3/8" TEMP SENSOR NOTE

Temp sensor hole is 1/2" NPT. Contact your gauge manufacturer (Auto Meter: 815-895-8141) or your local auto parts store for a 3/8" NPT to 1/2" NPT adapter bushing.

## HEAD BOLT TORQUE SEQUENCE



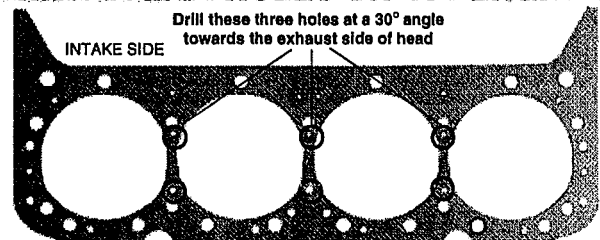
TORQUE ALL ROCKER ARM STUDS TO 55 FT-LBS

Torque All Head Bolts to 65 Ft. Lbs.  
Coat all head bolt, rocker arm stud and valve cover bolt threads with Teflon® paste for proper sealing.

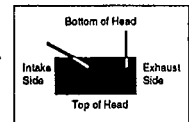
## FREQUENTLY ASKED QUESTIONS

**S/R TORQUER FLOW NUMBERS:** @ 28" H<sub>2</sub>O Unmodified:  
 .500" Lift: INTAKE: 221 cfm / EXHAUST: 166 cfm  
 .400" Lift: INTAKE: 205 cfm / EXHAUST: 156 cfm  
**VALVES:** Stock length small block Chevy specifications  
**1.250" SINGLE SPRING:** Maximum Lift: .560"  
 Installed Height: 1.820"  
 Pressure: 100Lbs Closed / 280 Open  
**1.440" DOUBLE SPRING:** Maximum Lift: .600"  
 Installed Height: To customer specs  
 Pressure: to customer specs  
**COMPRESSION:** Mill roughly 10cc for each compression point.  
 .042" = 6.5cc  
 .007"/cc

## DRILL STEAM HOLES ON 400 ENGINES



On 400 blocks, it's necessary to drill six 1/8" steam holes as shown. Turn each head upside down. Use an old 400 head gasket as a template. Drill the three holes on the intake side of each head at 30°. Drill remaining three holes straight down towards top of head.



## S/R TORQUER REPLACEMENT PARTS

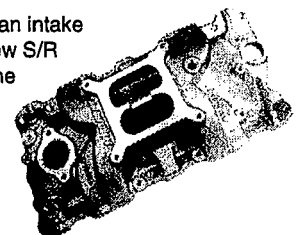
2.020" S/R Torquer Intake Valve (ea) .....	800005
1.600" Exhaust Valve (ea) .....	800004
1.250" Valve Spring (ea) .....	830000
1.440" Optional Valve Spring (ea) .....	830007
7° 1.250" Retainer (ea) .....	831100
10° 1.440" Retainer (ea) .....	831102
7° Lock (ea) .....	831001
10° Lock (ea) .....	831004
Umbrella Valve Seal (ea) .....	831300
Optional Viton Seal (ea) .....	831302
Screw-in Rocker Studs-3/8 (ea) .....	831500

## CARB EXEMPTION:

S/R Torquer cylinder heads are 50 state legal as stock replacement parts. No E.O. number or certification stickers are applicable.

## INTAKE MANIFOLD RECOMMENDATION

The World Products Dart II™ Sportsman intake manifold is a perfect match for your new S/R Torquer cylinder heads. The dual plane design is ideal for street/strip carbureted 265-400 small block Chevy applications. It offers an extra wide 1500-6500 power band. Ask your dealer for World part #061010.



## WORLD PRODUCTS, INC.

35330 STANLEY, STERLING HEIGHTS, MI 48312  
 TEL: 810-939-9628 FAX: 810-939-8153