

## ***Installation Instructions for 51453-55 and 51465 Cylinder Heads for Big-Block Chevrolet***

### **\*\*IMPORTANT - READ THIS FIRST\*\* These Heads are Intended for Racing Use Only!!**

- Heads are cast using virgin 356-A alloy material and heat treated to a T6 temper
- Combustion chamber volume: 119cc as-cast standard combustion chambers
- Intake runner volume: 310cc as cast
- Intake valve: 2.250" 11/32" stem diameter, 5.350" long
- Intake valve: 2.300" 11/32" stem diameter, 5.375" long
- Exhaust valve: 1.880" 11/32" stem diameter, 5.425" long
- Exhaust ports are raised .625" from stock location and are machined to standard bolt pattern
- Spring pockets: 1.770" diameter
- Premium bronze valve guides machined for .531" diameter seal
- Valve spring installed height: With a .060" spring cup you can achieve a 2.000"+ for intake and 1.950" and exhaust valve spring installed height.
- Valve seats: Cast alloy designed for unleaded gasoline
- Spark plugs: Gasket style seat, 3/4" reach with 5/8" hex. Always use anti-seize on plugs in aluminum heads.
- Guideplates: This head is designed to use stock dimension guideplates. We have found that some aftermarket guide plates will vary from those specifications and may need to be cut and welded to locate the rocker arm roller tip centered on the tip of the valve stem.
- **Pushrods: Using proper length pushrods cannot be over emphasized!!** Good valve train geometry starts when the right length pushrod is used for your specific engine combination (deck height, cam base circle, lifter length and choice of rocker arms). The fact is, if you are using stock length pushrods, your valvetrain is probably wrong. Before ordering pushrods use an adjustable pushrod checking tool (# 270-99730-2) to determine the proper length for your particular combination. **Always use heat treated pushrods with guideplates.**
- Rocker arms: Our stud location was established using standard aluminum extruded rocker arms and +.100" length valves. Always trial fit rockers before final assembly! Always use a premium grade extruded aluminum roller rocker arm.
- Piston to valve clearance: Most performance applications will require machining of the valve reliefs for proper piston to valve clearance or consider a set of custom pistons. **This is a must-check operation because the valve locations are modified and do not use stock dimensions.**
- Head bolts or studs: Requires 5 longer bolts or studs per head for the row beside the exhaust ports. Bolt kit #070-135-3612 includes 5 bolts per kit.
- Intake manifolds: There are many manifolds that do not match the flow requirements of this cylinder head. It pays to have your manifold checked on a flowbench.
- Stud girdles: Use Jeg's #555-20518.
- Head Gasket: 119cc as cast combustion chamber head on a Mark IV block requires a Fel-Pro #375-1017-1 or equivalent. Gen V and Gen VI block require a Fel-Pro # 375-17048. **Check** head gasket fire ring does not protrude into the chamber.
- Intake gasket: Because the intake ports are 2.45" x 1.75" they require a FEL-PRO # 375-1275, Mr.Gasket # 720-5817 or equivalent.
- Exhaust Gasket: Fel-Pro # 375-1412 or Mr. Gasket # 720-5912 or equivalent.

**Any modification to the casting voids any warranty!**



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