



INFORMATION SHEET
W9RP Cylinder Head
PART NUMBER P5007904AB

W9RP Cylinder Head

One semi machined aluminum W9RP cylinder head (bare semi machined head - sold individually). The valve guide holes, valve seat pockets, valve spring seats, spark plug holes, injector holes, and pushrod clearance have not been machined on this head to allow flexibility when finishing this racing cylinder head. The rocker stands are now machined to the final dimensions and all 12 rocker stand tapped holes are fully machined. This head is designed for racing and requires extensive machining to complete the head (i.e. machining, porting, chamber machining, valve seats, valve guides, valve job, etc).

Read all instructions before beginning machining or assembly.

Note: Please check your machined part number and compare to the features shown in the chart below to confirm that you have the proper block prior to performing any machining, or assembly of the block.

Recent Update

This head has been updated by adding ribs and additional support for the rocker stands. A new style rocker stand is required to take advantage of the additional stiffness in the head. The new rocker stands will bolt onto the head with 12 fasteners (please use all 12 fasteners). Rocker stands are available from T&D Machine.

Existing older rocker stands w/ 8 or 10 bolts will still fit on the heads, but this will not provide as much stiffness as with the new stands that use all 12 bolts.

Applications

The W9RP cylinder head must be used on the A-8 engine block, 48 degree R3/R4 cast iron wedge engine block, or A-4 4-cylinder race block. The W9RP cylinder head cannot be used on any engine block that does not have the 48 degree tappet bore (i.e. stock production blocks and 59 degree "R" blocks).

Part number P5007904AB is designed for use on sprint cars and midgets and has an intake surface that is machined perpendicular to the deck. Modifications and adapter plates will be needed to use most V-8 manifolds since the ports have been raised a substantial amount, and existing W9 manifolds are too narrow.

CNC Porting

The ports and chambers on this head must be CNC machined prior to use (extra stock has been added to the ports and chamber areas to allow for small or large ports and chambers for different applications). Several CNC porters have experience with this cylinder head (i.e. Chapman Racing Heads 801-292-3909, Ultra Pro Machining 704-392-9955, and Weld Tech 317-852-4450).

Valves / Springs

The W9RP head is designed to use generic racing valves with an 11/32" stem and approximate length of 6.040"-Intake, and 6.060"-Exhaust. Most suppliers call these valves +1.100" long (or +1.100" longer than stock generic valves). The suggested valve head size is 2.100" to 2.200" intake, and 1.580" to 1.625" exhaust.

Other Component Parts

W9RP rocker arms & 12-bolt rocker stands are available from T&D Machine – phone 775-884-2292. The intake rocker arms will need about .750" offset to clear the large intake ports on these heads. Headers and header plates are available from Schoenfeld – phone 479-474-7529. Most other components are the same as used on the original W9 (i.e. head gaskets, valve cover & gasket). Some of these gaskets will require trimming for best fit.

Cooling System

The intake manifold / injectors designed for the W9RP cylinder heads do not have a valley tray, coolant passages, and thermostat housing. This intake design improves the performance of the engine by keeping heat off the intake manifold. This type of manifold requires the use of AN style plumbing (i.e. Aeroquip/Earl's/XRP) to route the coolant back to the radiator. In Sprint car applications the lines can be routed directly back to the radiator. In other HP applications, the lines can be routed to a remote filler neck housing (or



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thermostat housing). These remote filler neck housings are available from Moroso, CV Products and other sources.

The W9RP cylinder heads have 3 coolant exit passages on the intake surface of each head. These 3 passages are machined for use with AN-10 "AN O-ring Port Adapters". These "AN O-ring Port Adapters" are available from XRP. Use XRP adapter # 980061 (AN-6 hose) on the end of each head, and XRP # 980081 (AN-8 hose) in the center of each head. These hose sizes provide the ideal water flow for the best cooling system using W9RP heads. XRP can be reached at phone (562) 861-4765.

Head Studs & Torque

This head is designed for use with stepped head studs, with 1/2" thread in the block and the top necked down to 7/16" with 7/16" nuts. The recommended head torque is 75 ft/lbs on the 7/16" nuts and 45 ft/lbs on the 3/8" nuts.

Suggested Engine Packages

If you are building a sprint car or dirt late model engine please see book part number P5007520. This book details a suggested engine packages with a listing of the part numbers and features tips for building these engine.

For technical assistance, please contact the Direct Connection Tech Hotline - 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.