Port Flow Analyzer v3.0 Performance World

Test: PW SBC 70200 www.performance-world.com

Folder: Chevrolet

Head #:

Customer:

Operator:

Bore Adapter Diameter: 4.00"

Int Port Adapter: Radiused Inlet

Exh Port Adapter: Short "stub stack"

Test Comments:

PW 70200 SB Chevrolet aluminum head as cast. Note:

Report of:					Tested at	Corr to	# Vlvs	Vlv Dia	Stem Dia	Port Area
Comparing				Int:	28"	28.0"	1	2.02"	.341"	0.00 sq in
1 Cylinders				Exh:	28"	28.0"	1	1.60"	.341"	0.00 sq in

Port	Lift	L/D	Avg CFM	Cyl 1 CFM
Intake	0.100	0.050	63.4	63.4
Intake	0.200	0.099	122.8	122.8
Intake	0.300	0.149	178.0	178.0
Intake	0.400	0.198	226.4	226.4
Intake	0.500	0.248	259.8	259.8
Intake	0.600	0.297	260.9	260.9
Intake	0.700	0.347	261.2	261.2
Exhaust	0.100	0.063	50.3	50.3
Exhaust	0.200	0.125	100.6	100.6
Exhaust	0.300	0.188	140.2	140.2
Exhaust	0.400	0.250	155.8	155.8
Exhaust	0.500	0.313	161.0	161.0
Exhaust	0.600	0.375	163.4	163.4
Exhaust	0.700	0.438	164.6	164.6

NOTE: ALL FLOWBENCHES ARE NOT CREATED EQUAL!
Data from one bench to the next can be vastly different.
If you are modifying this head, it is important to "baseline" first to ensure accuracy.
The data on this sheet is for reference only.

Head File: 70200

Head Comments:

PW 70200 SB Chevrolet aluminum head as cast.

Head Number

Customer

Intake		Exhaust	
Layout:	1 valve & 1 port	Layout:	1 valve & 1 port
Valve Diameter, in	2.02"	Valve Diameter, in	1.60"
Stem Diameter, in	.341"	Stem Diameter, in	.341"
Throat Diameter, in		Throat Diameter, in	
Avg Seat Angle, deg	45	Avg Seat Angle, deg	45
Port Shape:	Rectangular	Port Shape:	D
Port Volume, ccs	206cc	Port Volume, ccs	70cc
Avg Port Diameter, in		Avg Port Diameter, in	
Avg Port Height, in		Avg Port Height, in	
Port Length, in		Port Length, in	

Specifications 70200	
Material	A356 Aluminum
Combustion Chamber CC	72cc
Intake Port Volume CC	206cc
Intake Port Dimension	2.22"x1.31"
Exhaust Port Volume CC	70cc
Exhaust Port Design	D Shape
Spark Plug Location	Straight
Intake Valve Diameter	2.02"
Exhaust Valve Diameter	1.60"
Valve Stem Diameter	11/32" (.343")
Valve Spring Pocket I.D.	1.49"
Valve Guide Material	Manganese Bronze
Valve Guide O.D.	0.530" (.570" at base)
Rocker Stud Thread Size	7/16"x14
Valve Cover Mounting	Perimeter & Centerbolt
Valve Angle	23 Degree
Valve Seat Machining	Intake=4-Angle Exhaust=3-Angle
Oiling	Through Pushrod

Hyd Flat Tappet (up to .525" lift) (Check Cam Manufacturer Recommendation)		
Suggested Components	**Size**	**Brand**
Intake Valves	2.02" x 4.91" x 11/32"	PW 360020
Exhaust Valves	1.60" x 4.91" x 11/32"	PW 360016
Valve Spring Spec	1.26" Single w/damper	PEP 053-574-700 (16pcs)
Valve Retainers	7-Degree 11/32"	Manley 23651-1 (16pcs)
Valve Locks	7-Degree 11/32"	PW 360410
Valve Seals	11/32" x .530"	PW 360480
Valve Spring Cups		PW 360112
Rocker Arm Studs	7/16"-14 x 3/8"-24	PW 360338
Pushrod Guide Plates	5/16" Flat	PW 360200
Spark Plugs	Autolite 3924 or Equivalent	

Cylinder Head Checklist

All PWHEADS “bare” cylinder heads are sold ready for assembly.

What this means is the heads are ready for the assembly process, but still MUST be checked per the following list below. This includes a visual inspection. Check all cylinders and measurements as you normally would for any engine assembly.

It is the responsibility of the assembly technician/installer to:

1) Check valves for proper seating. Lap them and check surfaces.
2) Check guide to valve stem clearance. Clearance as required.
3) Check valve guide O.D. and ensure you have the correct seals.
4) Check valve springs for coil bind height and ensure they are correct for your camshaft.
5) Check for correct installed height on valve springs. Do this with inserts installed. Shim as necessary.
6) Check for retainer to top of guide clearance. Do this with inserts installed.
7) Use a non-hardening sealer on the rocker arm studs for applications where the threads run into a port such as the Small Block Chevrolet intake.
8) After setting the guideplates in place, torque the rocker studs down to 45 lb-ft in three stages.
9) Install sensors or pipe plugs in any open external water jacket holes if applicable.
10) Don’t forget to check for proper pushrod length after heads are installed.

Any questions, please contact your engine builder or e-mail tech@performance-world.com