



**Quarter Midgets of America, Inc.**  
**HONDA TECH INSPECTION WORK SHEET**

Class: \_\_\_\_\_ Honda 160

Division: \_\_\_\_\_ Lt \_\_\_\_\_ Hvy

Driver Name: \_\_\_\_\_ Car #: \_\_\_\_\_ Date: \_\_\_\_\_

Finish Position: \_\_\_\_\_

**Check OK**

1	Exhaust length 20'-26' no steps or tapers, 1' O.D. Max, unaltered screw in muffler	
2	External visual check- exhaust shrouds, air cleaner, engine seals in tact	
3	Carburetor- # BE 65B Thailand # BE 65 Q or BE540	
4	Insulator stock gaskets both sides. Gasket= 0.025 max	
5	Carburetor Bore: Intake end= 0.951 Throttle end= 0.710	
6	Venturi Bore: Go= 0.522	
7	Main Jet: Honda #82 max #67 Drill (0.033) No Go Silver ok	
8	Main Air Jet: #53 Drill (0.0595) No Go at back of hole	
9	Main Jet access passage: #41 Drill No Go	
10	Main Nozzle Bore: #47 Drill (0.078) No Go	
11	Main Nozzle: Installed Height 0.424 No Go	
12	See tech manual for main nozzle are bleed hole dimensions	
13	Pilot Jet: #79 Drill (0.0145) No Go	
14	Pilot Air Jet: 0.050 min. 1.25 mm #55 Drill (0.052) No Go	
15	Pilot Seat: #61 Drill (0.039) No Go	
16	Pilot Screw tip: 0.020 min.	
17	Float Bowl Vent: #31 Drill (0.120) No Go	
18	Needle Valve Seat: #51 Drill (0.070) No Go	
19	Remove gear box and sun gear- check for any alterations, except to output end of shaft, no polishing	
20	Remove cooling shrouds- check for all pieces installed. No metal added or subtracted	
21	Valve Lift Retainer with zero clearance: Intake= 0.245 max Exhaust= 0.255 max	
22	Push Rod Length 5.279 max	
23	Visually inspect rocker arms, pivots, studs for alteration. See tech manual	
24	Coil and Timing: Remove head and check coil position @ .115" bt/dc- see tech manual	
25	Check timing: if quick check of timing line 27 is in question. 0.104 bt/dc or 26 bt/dc max	
26	Check Coil Air Gap: 0.016 + .008 effective 1998- not a tech item but recommended	
27	Coil Mounting Bolts: Stock 6mm 1-1/16" long. 3/8" max. no thread 0.230 min. threaded dia.	
28	Cylinder Head: Head gasket inner rim thickness = 0.040 min.	
29	Valve depth intake: 0.264max / 0.242min Exhaust: 0.250 max / 0.225 min	
30	Combustion Chamber: 10cc with stock spark plug Reference	
31	Retainers: (thickness) Intake: 0.228 min Exhaust: 0.241 min	
32	Flange thickness: Intake= 0.110 max Exhaust= 0.070 max	
33	Flat of Flange to machined surface: Intake= 0.148 Exhaust= 0.165 min	
34	Springs: Wire Dia.; 160: 0.071 max Stacked length= 0.394; 140: 0.079 max Stacked length= 0.524	
35	160: O.D. 0.790 max, # of coils= 5.3 140: O.D. 0.808, # of coils= 7	
36	Pressure: 160: 11 lbs max, 140: 16 lbs max @ 0.8125	
37	Valve: Single angle= 45 degrees unaltered	
38	Weight: Intake= 22 grams min Exhaust= 22 grams min	

Tech Official Signature: \_\_\_\_\_

Engine: \_\_\_\_\_ Pass \_\_\_\_\_ Fail

Honda 160

## HONDA TECH INSPECTION MANUAL

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39	Head Diameter: Intake= 0.980/0.988 Exhaust= 0.941/0.949	
40	Overall length: Intake= 2.500/2.514 Exhaust= 2.443/2.453	
41	Stem diameter: Intake=0.212/0.216 Exhaust= 0.212/0.216	
42	See tech manual for additional dimensions	
43	Head Surface to Valve Seat: Intake and exhaust= 0.287min/0.305max	
44	-to Valve Guide: 1.000max	
45	- to lowest machined area in port: Intake= 1.162max Exhaust= 1.122max	
46	Head thickness@ Flange Bolts: 2.911min/ 2.917max Thailand Heads 2.909 min	
47	Ports- stock "AS CAST"- Single 45 degree angle valve seats	
48	Port Diameter @ valve: Intake: 0.900min/ 0.915max Exhaust= 0.858min/ 0.869max	
49	Block: Bore= 2.682max Stroke= 1.778max/ 1.758min	
50	Top of Piston Deck: 0.000" to 0.013" below deck	
51	Plastic fan- all blades intact	
52	Degree Cam: See tech manual	
53	Max lift: Intake= 0.227 Exhaust= 0.229	
54	Centerline: Intake= 104-107.5 atdc Exhaust= 107.5-110.5 bt dc	
55	Check flywheel and crankshaft keyways for alterations	
56	Check key for alteration	
57	Check flywheel magnet and screw for alteration	
58	Check flywheel weight: 2360 grams min	
59	Check flywheel diameter magnet area – 6.285 min	
60	Crankcase cover: Stock "AS CAST"	
61	Gasket: Stock Honda gasket 0.025 max thickness	
62	Cover to be flat + .005	
63	Piston: Stock Honda standard size no alterations. Triangle or dot toward push rod	
64	Piston Weight: With rings and retainers 200 grams min	
65	Height: 2.103-2.108 Piston #13101-24M-000 Height 1.928 Reference	
66	Skirt diameter= 2.674 min 2.678 max (perpendicular to pin)	
67	Wrist Pin: Stock OD 0.709 ID 0.556 length 2-125ref	
68	Rings: Stock Honda- thickness= compression and scraper 0.036, 3 piece Oil Ring= 0.096 N or T Thai rings marked R or N/T	
69	Connection Rod: Big end I.D.- 1.021 min 1.0265 max	
70	Small end bore= 0.5111 ref.	
71	Length- near edges of bore= 2.101 min 2.111 max	
72	Weight with Bolts: 140 grams min.	
73	Crankshaft: Stock Honda no alterations. Governor drive gear in place	
74	Camshaft: Stock Honda no alterations. Compression release intact.	
75	Heel to heel: Intake= 0.865 –0.869 Exhaust= 0.866-0.870	
76	Heel to peek: Intake= 1.079-1.093 Exhaust= 1.081-1.095	
77	Length flange to flange: 3.135 min 3.142 max	
78	Cam bearings: 0.547 min- 0.551 max	
79	Tappets: Stock Honda no alterations. Base Diameter= 0.930 min	
80	Stem Diameter= 0.312 min Base thickness= 0.076 min – 0.090 max	
81	Length= 1.180 min- 1.220 max Weight= 17 grams min	
82	Block Stock Honda "AS CAST". Oil level sensor intact (Honda replacement block allowed)	
83	Bore= 2.682 max	

84	Deck surface non tech	
85	Machined side cover surface- to cam thrust face= 3.228/3.240max	
86	Machined side cover surface- to bearing face= 3.430min/3.442max	
87		