

HUDSON 1952-1954

990S

Models 5B, 4C—1952-1953

Model 5C—1953

WASP

AND

SUPER WASP

2114S

Model 5D—1954

(Two Carbureters Per Engine)

WAI Down-Draft Climatic® Control Carbureters Nos. 990S-2114S

CARBURETER SPECIFICATIONS

For Hudson 6 Cylinder Engine (Models 5B, 5C and 5D): 3-9/16 Inch Bore, 4³/₈ Inch StrokeFor Hudson 6 Cylinder Engine (Model 4C): 3-9/16 Inch Bore, 3⁷/₈ Inch Stroke**Dimensions:** Flange size, 1¹/₄ inch S. A. E.Primary venturi, 1¹/₃₂ inch I. D.Secondary venturi, 1¹/₁₆ inch I. D.Main venturi, 1³/₈ inch I. D.**Float Level:** Distance from seam of float (at free end) to tip on lower edge of float chamber cover, when needle is seated, to be 1/2 inch.**Vents:** Outside, No. 10 (.1935 inch) drill. Inside, none.**Gasoline Intake:** Square vertical push-pull needle. Size No. 46 (.081 inch) drill hole in needle seat.**Low Speed Jet Tube:** Jet, size (990S) No. 65 (.035 inch) drill; (2114S) No. 66 (.033 inch) drill. By-pass in body size No. 53 (.0595 inch) drill. Economizer, in body .0545-.0555 inch diameter. Idle bleed, in body, size No. 53 (.0595 inch) drill.**Idle Port:** Length .165 inch; width .030 inch.**Idle Port Opening:** .120 to .124 inch above valve with valve tightly closed.**Idle Screw Seat:** No. 46 (.081 inch) drill.**Set Idle Adjustment Screw:** 3/4 to 1³/₄ turns open. For richer mixture turn screw out. Do not idle engine below 500 r.p.m. (Hydra-Matic—in Drive Range); 550 r.p.m. (Standard and Overdrive Trans.).**Main Nozzle: (Assembly)** Slip nozzle, flush type, (angle tip) seats in primary venturi, at 45° angle. Discharge jet size, .110 inch diameter. Inner nozzle (seats in slip nozzle) I. D. No. 31 (.120 inch) drill.**Metering Rod (Vacumeter Type):** Economy step (990S) .075 inch; (2114S) .0745 inch diameter. Middle step tapers to (990S) .059 inch; (2114S) .066 inch diameter. Power step (990S) .055 inch; (2114S) .059 inch diameter.**Metering Rod Jet:** .1015 inch diameter.**Metering Rod Setting:** Use gauge, part No. T109-102 (2.468 inches).**Accelerating Pump:** Pressure type (spring operated lever) with adjustable stroke.

Discharge jet, Size No. 74 (.0225 inch) drill. Intake ball check seat, size No. 60 (.040 inch) drill. Discharge ball check seat, size No. 32 (.116 inch) drill. Relief passage (to outside), size No. 42 (.0935 inch) drill.

Pump Adjustment: See Adjustments.**Choke:** Carter Climatic® Control, set 1 point lean—butterfly type, offset valve. Choke Heat Suction Hole, in body, size No. 40 (.098 inch) drill.**Vacuum Spark Port:** .051-.054 inch diameter. Top of port .040 inch above top edge of valve.

MOTOR TUNE-UP

Spark Plug	Breaker Point	Ignition Timing	Valve Setting	Float Setting	Idle Adjustment
Gap	Setting	Breaker Points to Open:	(Hot)	1/2 Inch	Screw Setting
.032"	.020"	T. D. C.	Intake .010"} 1952-53	(Use Gauge T109-83)	3/4 to 1 3/4
			Exhaust .012"} 1954		Turns Open
			Intake .008"} 1954		
			Exhaust .010"} 1954		

CARBURETER ADJUSTMENTS

PUMP ADJUSTMENT: With throttle valve seated, and connector link in lower hole (medium stroke), pump plunger should travel 16/64" from closed to wide open throttle position. Measure pump travel by using Universal pump travel gauge T109-117S. Place base of the gauge on ridged portion of bowl cover so that projecting portion of pump gauge rests on top surface of connector link at pump shaft. Hold gauge vertical. The difference between the numbers shown by index mark on gauge, at wide open and closed throttle position should be "16" (16/64"). Adjust by bending throttle connector rod at lower angle.**METERING ROD ADJUSTMENT:** Correct setting of metering rod is important and must be made after pump adjustment or when leaner than standard rods are installed. Insert gauge (tool T109-102) in place of metering rod, seating tapered end of gauge in metering rod jet. Hold gauge vertical to insure seating in jet. With throttle valve seated, press down on piston link directly over piston until it contacts the pump arm. There should now be less than .005" clearance between metering rod pin and shoulder in notch

of gauge. Gauge must not drag on pin. Adjust by bending lip on piston link (use tool T109-105). Remove gauge and install metering rod, disc, pin and spring.

ANTI-PERCOLATOR ADJUSTMENT: Crack throttle valve .020" by placing gauge T109-29 between throttle valve and bore of carbureter (side opposite idle port). Bend rocker arm (use tool T109-105) until there is a clearance of .005" to .015" between rocker arm lip and pump arm.**FAST IDLE ADJUSTMENT:** With fast idle cam in normal idle position, tighten throttle lever adjusting screw until it just seats against cam. Hold throttle lever closed and pull cam back until first (or lower) step is against (not on) set screw. There should now be 1/2" clearance (gauge T109-83) between inside wall of air horn and lower edge of choke valve. Adjust by bending fast idle link at offset portion (use tool T109-41).**UNLOADER ADJUSTMENT:** With throttle valve wide open there should be 9/16" clearance (gauge T109-84) between lower edge of choke valve and inner wall of air horn. Adjust by bending cam on throttle lever (use tool T109-41)