

HP Dec. 65

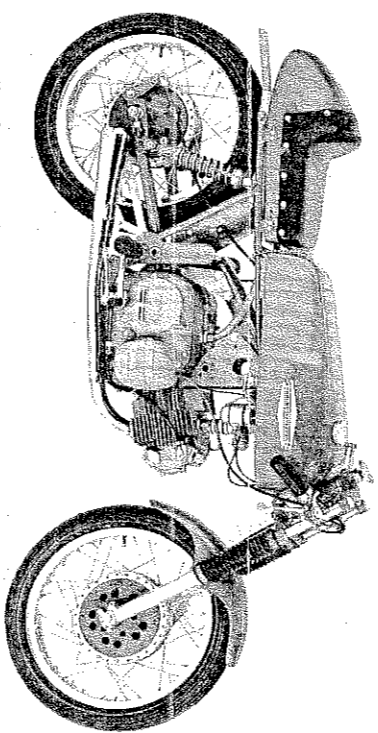
SPRINT OVERSQUARE 250

The fastest 250cc motorcycle in the world, the Sprint streamliner, was powered to that title by a new 1966 Harley-Davidson engine. This oversquare 250—so called because the bore (dia.) of the cylinder is greater than the stroke (distance the piston travels)—produces 35 horsepower at 10,000 RPM.

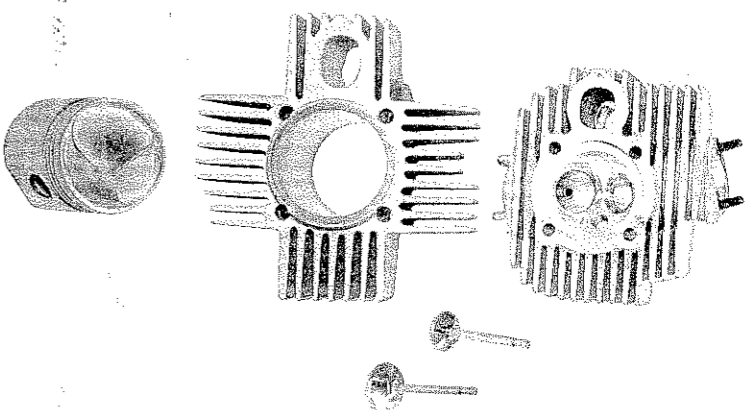
Compression ratio is an amazing 12 to 1. Overall gear ratio stands at 4.33 to 1 and the primary drive ratio is 2.09 to 1. The bore measures out to 72 millimeters and stroke is 61 millimeters.

The oversquare design of the Sprint engine enables it to reach higher RPM's. Though the engine is ordinarily red-lined at 10,000 RPM, Roeder revved the quick engine up to 10,400 during the run with no damage to the engine components.

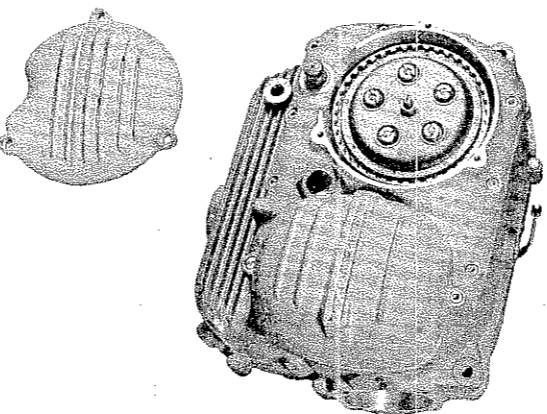
A new heavy duty dry clutch handled all the torque the high geared Sprint could put out. A 30 millimeter Del Orto carburetor completed the power plant. The very same 1966 250cc CR engines are available through any Harley-Davidson dealer across the country. No special request is necessary and anyone can order one.



Usual resting place for the Sprint CR engine is in the frame of this wicked looking 1966 CR-TT.



Exploded shot of Sprint oversquare cylinder, head and piston assembly.



New, tough dry clutch handled 35 horsepower from fast revving Sprint engine.

Below is a complete technical breakdown of the engine for those of you who want more information.

SPRINT SC-250

Displacement	15,028 cu. in.	Cylinder material	Aluminum alloy with iron alloy sleeve.
Bore	2.463 cc	Cylinder head material	Aluminum alloy with bronze alloy seats.
Stroke	72 millimeters	Exhaust pipe	1.50 i.d.—.32" long
Horsepower	35 @ 10,000 rpm	Piston	Forged aluminum alloy, cam ground solid skirt
Compression Ratio	12 to 1	Piston clearance	.004 inch
Intake valve diameter	1.535 inch	Piston pin type	Floating, with lock rings in the piston
Exhaust valve diameter	1.299 inch	Clutch	Dry—five plates
Valve lift—intake	.375 inch	Flywheels	Forged steel
Valve lift—exhaust	.375 inch	Main bearings	Ball
Cams	Type H	Crankpin diameter	1.25 inch
Tappets	Tubular steel, flat chrome faces	Connecting rod	Forged steel, I beam section
Pushrods	Tubular aluminum alloy with aluminum tips.	Connection rod rollers	.250 inch diameter
Valve timing—intake	Opens 73 degrees BTC	Rod roller retainers	Aluminum alloy
Valve timing—exhaust	Closes 92 degrees ABC	Cann bearings	Ball and needle
Valve springs	Opens 105 degrees BBC	Oil pump	Dry sump
Valve spring pressure	Closes 55 degrees ATC	Primary drive	Gear type
Ignition system	coil type	Tires	Special Goodyear record tires—3.50 x 19, front and rear; 50 lbs of air in each tire.
Carburetor venturi diameter	175 lbs.		
	90 lbs.		
	Magneto (1/2-speed)		
	1.18 inch (30 mm)		