

piston ring, connecting rods, etc.; and to prevent preignition due to overheating, the cylinder and cylinder head are made of an aluminum alloy with good conductivity, and fins are provided on the exterior to further increase cooling efficiency.

If carbon formed by incomplete combustion accumulates heavily on the inner surface of the cylinder head, not only does this hinder heat radiation, but the carbon becomes red hot and causes overheating and preignition.

Compression in the combustion chamber has a direct relationship with engine output power; if the cylinder head is tightened down with less than normal torque, or if the head bolts are not tightened evenly, the head will warp and leaks will develop, with a resultant lowering of compression. Again, cylinder, piston and piston ring wear will cause a decrease in compression and consequently limit engine performance.

In the case of cylinder wear or piston seizure, restoration is possible with boring and honing.

1) Construction

The cylinder itself is light – made of aluminum alloy with a high cooling coefficient – and its inner surface is made wear resistant by casting into it a surface-hardened cast iron sleeve. The special fusion process by which the sleeve is bonded to the aluminum, averts the formation of any air pockets which might reduce heat conduction and decrease cooling efficiency.

In the inner surface of the cylinder, exhaust, scavenge and intake ports are provided, and these are opened and closed by the sides of the piston as it moves up and down inside the cylinder.

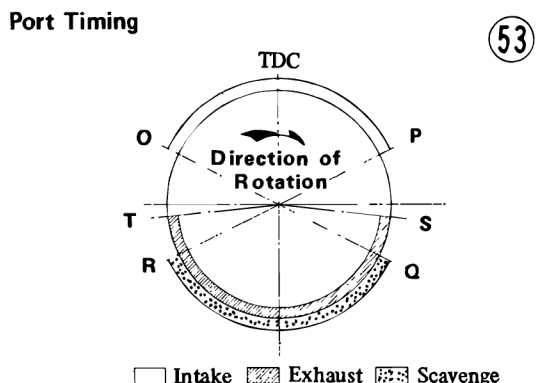
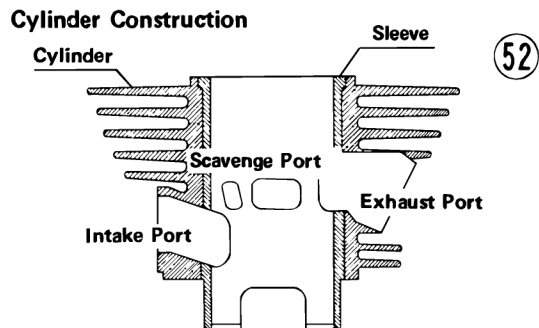


Table 2 Port Timing

Model		H1	H2
Intake	Open O°	76° BTDC	75° BTDC
	Close P°	76° ATDC	75° ATDC
Scavenge	Open Q°	59°30' BBDC	58° BBDC
	Close R°	59°30' ABDC	58° ABDC
Exhaust	Open S°	89° BBDC	89° BBDC
	Close T°	89° ABDC	89° ABDC

Port Measurements

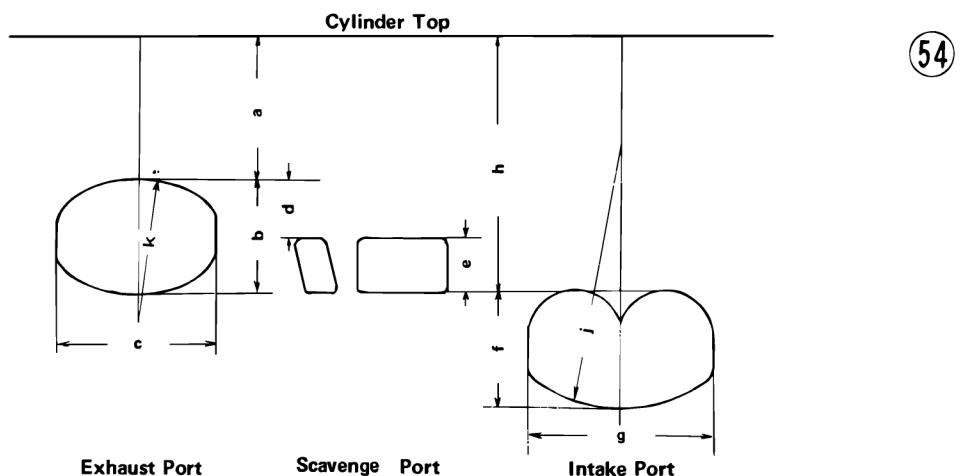


Table 3 Port Measurements [mm (inch)]

Model	A	B	C	D	E	F	G	H	J	K
H1	35.4 (1.394)	26.8 (1.055)	39.0 (1.535)	13.4 (.528)	12.6 (.496)	27.5 (1.083)	41 (1.614)	65.4 (2.575)	100 (3.937)	60 (2.362)
H2	36.8 (1.449)	29.3 (1.154)	43 (1.693)	14.9 (.587)	14.1 (.555)	29.8 (1.173)	48.5 (1.909)	66.1 (2.602)	100 (3.937)	65 (2.559)