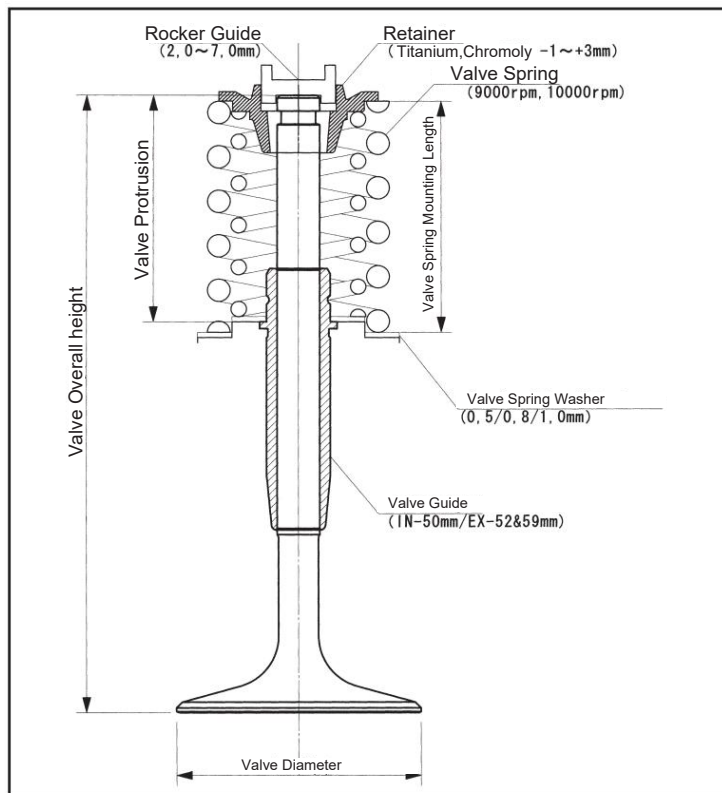
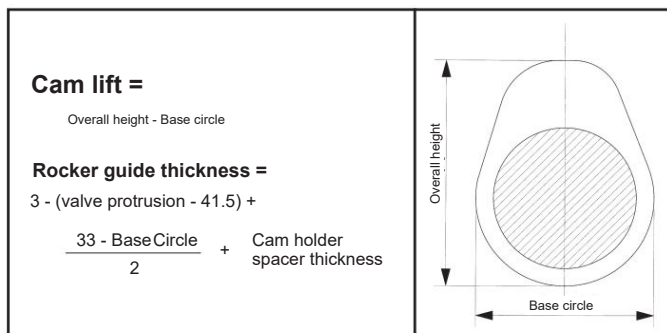


Cylinder head reference data

L28 Original Value	L28 (N42) Head	L28 (P90) Head
Valve head diameter	φ44/35	φ44/35
IN valve total length	116.5mm	114.5mm
EX Valve total length	117.5mm	115.5mm
Valve protrusion amount	41.5mm	41.5mm
Valvespring mounting length	40mm	40mm
Spring washer thickness	1.0mm	1.0mm
Rocker guide thickness	3.0mm	3.0mm
Head thickness	108mm	108mm
Head volume	43cc	54cc
Camshaft operating angle	58-60 degrees	58-60 degrees
Cam lift	7.0mm	7.0mm
Valve lift	10mm	10mm
camshaft base circle	φ33	φ33



L28 head setup reference values (Kameari specifications)

	L30-L32 Setup A 77°i 77°G 75°B Cam		L30-L32 Setup B 77°i 77°G 75°B Cam		L28-L32 Setup C	
	N42 head	P90 head	N42 head	P90 head	75 degrees C / 77 degrees J	73 degrees A / 75 degrees A
					N42/P90 head	N42/P90 head
Valve head diameter	φ46/38	φ46/38	φ45/36.5	φ45/36.5	STD φ44/35	φ44/35 STD
valve total length	119mm	117mm	118mm	116mm	STD	STD
seat ring replacement	need	need	No need	No need	No need	No need
valve protrusion amount	44.3-44.5 mm	44.3-44.5 mm	43.3-43.5mm	43.3-43.5mm	41.5-42.0 mm	41.5-42.0 mm
Valve springs	10,000rpm	10,000rpm	10,000 rpm	10,000 rpm	9,000rpm	9,000rpm
Retainer offset	0-0.5mm up	0-0.5mm up	1-1.5mm up	1-1.5mm down	STD	STD
valve spring mounting length	43mm-0+0.5	43mm-0+0.5	43mm-0+0.5	43mm-0+0.5	40mm-0+0.8	40mm-0+0.8
spring washer thickness	0.8-1.5 mm	0.8-1.5 mm	0.8-1.5 mm	0.8-1.5 mm	1.0-1.5 mm	1.0-1.5 mm
Lower surface surface grinding amount	1.0-2.0 mm	3.0-3.5 mm	1.0-2.0 mm	3.0-3.5 mm	N42 0.5-1.5mm P90 2.5-3.5mm	N42 0.5-1.5mm P90 2.5-3.5mm
Rocker guide thickness	2.5- 3.0 mm	2.5- 3.0 mm	3.5- 4.0 mm	3.5- 4.0 mm	4.5- 5.0 mm	4.25- 4.75 mm
Valve oil seal	Low head/STD	Low head/STD	Important) Low head	Important) Low head	Important) Low head	STD
IN port inlet diameter	φ41	φ41	φ41	φ41	φ38- 40	φ38
IN port aperture diameter	φ38- 39	φ37- 38	φ38-39	φ37- 38	φ37-38	φ36.5 - 37.5
Valve recess depth (approximate)	77 degrees i / 5.0mm 77 degrees G / 5.0mm 75 degrees B / 4.5mm				77 degrees J 5.0mm 75 degrees C 4.5mm	L28STD piston recess not required <small>Cylinder head surface grinding to within 0.2mm</small>

• The above data is based on the assumption of using Kameari parts and is for Kameari specifications. Please note that the data will differ if you use parts from other manufacturers.

• The above values are for reference only. Actual performance may vary depending on driving purpose, normal operating RPM, and other factors. Please contact us for more details.

To address chain deflection caused by cylinder head resurfacing, please use a cam holder spacer or twin idler gear.

- The rocker guide thickness mentioned above is the thickness when a cam holder spacer is not used. (When a spacer is used, add the spacer thickness.) Masu.)

Using a low-head valve oil seal can increase the gap between the retainer and the oil seal by 1.3 mm. (Used when the valve protrusion is insufficient.)

(When installing 75-degree C or 77-degree J cams in an L28 standard head, be sure to use the Low Head Valve Oil Seal.)

- When using a stock L28 engine with a 73-degree A or 75-degree A camshaft, the maximum possible head surface grinding is 0.8mm. (Assuming a head gasket thickness of 1.2mm)

- For intake port machining, we recommend "intake port mechanical finishing," which allows for precise determination of the inlet diameter, port position, and port angle. - If argon welding is performed on the combustion chamber, distortion will occur in the cylinder head, causing inaccuracies in the valve protrusion measurement reference surface during seat cutting. We

recommend either correcting the valve spring seat surface or using a seat cutting jig that allows for measurement of the seat cutting reference point based on the head top surface after surface grinding.

Total displacement (cc) =

$$\frac{\text{Bore diameter} \times \text{Bore diameter} \times \text{Stroke} \times 3.14}{4} \times 0.001 \times \text{Number of cylinders}$$

Compression ratio =

$$\frac{\text{Displacement of one cylinder} + \text{combustion chamber volume}}{\text{Combustion chamber capacity}}$$

Combustion chamber volume = Head volume + Head gasket volume + Valve recess volume - Piston protrusion volume