

FJ20 ENGINE TUNING PARTS

FJ20改

89.5φ91φFJ20Forged lightweight piston

(Updated 2026.01.01)

High compression ¥125,000
Low compression ¥125,000

Type	High Comp	Low Comp
Manufacturing method	Forged	Forged
Piston diameter	φ91 / φ89.5	φ91 / φ89.5
Pin height	32mm	32mm
Displacement	2080cc / 2012cc	2080cc / 2012cc
Piston weight	322g	324g
Pin diameter x length	φ22×52mm	φ22×52mm
Piston ring thickness y90.5	1.2-1.2-2.5mm	1.2-1.2-2.5mm
Piston ring thickness y91	1.2-1.2-2.8mm	1.2-1.2-2.8mm
Recess depth (INEX)	5.0/3.8mm	4.5/3.8mm
Piston concave/convex volume	-6.54cc	12.52cc
Compression ratio	11.5 (1.2mm G/K)	8.3 (1.5mm G/K)



FJ20 Engine Parts

FJ20 lightweight chromium connecting rod



¥23,000

Details

Type: Type II Chromoly Lightweight Specifications
 Manufacturing method: Forged (Upper and Lower Integrated Die)
 Material: Chromium molybdenum steel
 Center distance: 139.5mm (OEM: 140mm)
 Heat treatment: Quenched and tempered
 Surface treatment: Shot blasting
 Hardness: HB285-352
 Coining: I-shape ribs on both sides
 bolts: ARP (strength standard 230,000-260,000 psi)
 Pin diameter: φ21 (need to be machined to φ22 for L-type common connecting rods)
 weight: 620 g or less (variation within 5 g)

FJ20 cam sprocket gear



Kameari Cam Sprocket Gears are made of high-strength metal and undergo strict precision machining and heat treatment processes. The slide has two-degree adjustment scales, allowing for easy and accurate valve timing settings.

Sliding cam sprocket gear

¥18,000

FJ20 Timing Chain



This reinforced chain has a relatively thin 5-10μm manganese phosphate-based insoluble film formed on the metal surface, which is evenly and permeated into the material surface. This achieves four times the wear resistance! It keeps the chain in the best condition for a long time by suppressing valve timing delays caused by chain elongation. It is also resistant to seizure and galling that often occur in the sliding parts of the chain, and helps maintain smooth movement and reduce friction loss.

Primary side reinforced timing chain

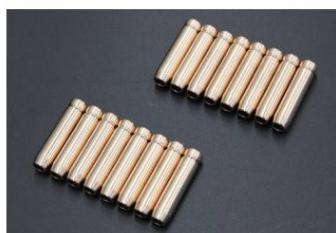
¥8,000

Secondary side reinforced timing chain

¥12,000

*The sprocket in the image is not included in the price.

FJ20 valve guide



The overall length is 53mm, but the shape of the tip has been changed to reduce air resistance for the intake and exhaust. In addition, the use of PBB material, which has excellent thermal conductivity and sliding properties, reduces valve vibration and friction, helping the valve move at higher revolutions for the FJ20.

Racing valve guide

¥32,000

*Total length 3mm short (53mm)

*Material: IN ABB aluminum copper EX PBB phosphor bronze

FJ20 Big Valve



This valve is made from a strong metal material and is manufactured through strict inspection standards including forging, precision machining, heat treatment, and quality control. The valve's light weight is achieved by cutting the valve head thinly to create the most efficient valve head angle. This racing valve was designed based on the three concepts of "efficiency, strength, and light weight" to maximize the effect of high cams and port polishing.

IN35.5φEX30.5φ Lightweight big valve SET

¥56,000

IN35.5φ lightweight big valve

¥3,500

piece * Total length 0.5mm short (124.7mm) / Weight 61g

EX30.5φ lightweight big valve

¥3,500

piece * Total length 0.5mm short (124.7mm) / Weight 53g

*No need to replace the seat ring

FJ20 metal head gasket



FJ20 Bead Type Head Gasket (Street)

This bead-type head gasket secures surface pressure by providing pressed beads around the combustion chamber and water/oil holes, which require a high level of sealing. The layout is appropriately distributed by the width and height of the beads.

1.0mm	φ90 φ92 φ93	¥ 22,000
1.2mm	φ90 φ92 φ93	¥ 23,000
1.5mm	φ90 φ92 φ93	¥ 24,000
2.0mm	φ90 φ92 φ93	¥ 27,000
2.5mm	φ90 φ92 φ93	¥ 30,000
3.0mm	φ90 φ92 φ93	¥ 32,000

New design(2025.9.25)

FJ20 Stopper Type Head Gasket (Race)

1.0mm	φ90 φ92 φ93	¥30,000
1.2mm	φ90 φ92 φ93	¥31,000
1.5mm	φ90 φ92 φ93	¥32,000
2.0mm	φ90 φ92 φ93	¥35,000
2.5mm	φ90 φ92 φ93	¥39,000

The stopper type was developed to improve the sealing performance around the combustion chamber.

The inner plate is wrapped around the bore in a grommet shape, and the stopper part is overlapped with the outer bead plate, improving the sealing performance with a two-stage structure of stopper and bead.