

# FJ20 ENGINE TUNING PARTS

## FJ20 Reinforced valve springs and spring washers



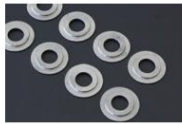
**10,000 rpm valve spring**  
 This is a racing valve spring designed to support high lift cams and engine specifications aimed at high revolutions. Strengthening the set load and full load is the most important point in drawing out the potential of the engine. The spring rate has a margin that allows you to select the load according to your purpose, and it can be fine-tuned by changing the installation length.

1set ¥19,200



**Valve spring washer**  
 When installing a camshaft with a high angle or lift, the valve projection is increased to prevent interference between the valves. This lengthens the valve spring installation length and weakens the load. This spring washer is used to compensate for the loosened set load.

•1mm thickness ¥6,400/1set  
 •0.5mm thickness ¥6,400/1set



**Valve spring stepped seat (2-stage type/total thickness 2.5mm)**  
 A must-have item for stabilizing the valve spring. Because it is a two-stage type, when using a high cam, the valve guide can be lowered to gain stroke.

1set ¥16,000

## FJ20 camshaft processing



**High lift cam processing**  
 ¥46,000/1 piece \*Normal cam processing fee  
 \*If the base circle after machining is thinner than the casting surface of the camshaft, it is necessary to machine off the casting surface to create a lifter relief so that the valve lifter does not come into contact with the casting surface.

**Lifter relief processing ¥10,000/each**

Note  
 It is necessary to process the valve guide. An outer clearance cap is required for installation. Please contact us regarding the amount of protrusion when cutting the valve seat.

## FJ20 Lightweight titanium retainer & reinforced valve cotter



**Lightweight titanium retainer**  
 (Weight: Titanium 7.5g / Genuine 14.1g) 1 set  
 ¥52,000

**Reinforced Valve Cotter**  
 Over-revving due to surging or shifting mistakes can cause galling and wear on the valve cotter taper surface. This causes variation in the valve spring set length, which reduces tracking at high revolutions. This reinforced valve cotter has a heat treatment to increase the surface hardness, preventing galling and wear. 1 set ¥12,600

\*Titanium coating enhances wear resistance.

## DR30 Reinforced Mount



The engine vibrations specific to the FJ20 not only have a negative effect on the engine and carburetor, but also affect the shifting feeling when they are transmitted to the shift lever. This reinforced mount absorbs vibrations appropriately, improves driving stability, and transmits engine power to the drivetrain without loss.

**DR30 reinforced engine mount**  
 1SET ¥24,000  
 \*The engine mount bolt holes on the body side need to be enlarged by about 0.5 mm.

**DR30 reinforced transmission mount**  
 ¥15,000/The use of reinforced rubber with a hardness 1.5 times that of the genuine product helps to absorb vibrations transmitted to the transmission and shift lever, allowing for smoother gear changes.

## FJ20 Super Single Clutch Kit



(Flywheel, disc, cover, sleeve, bearing included)  
**¥109,800**  
 Specifications: Lightweight flywheel hole type  
 Lightweight machined aluminum cover Clamping force: 1200kg Disc diameter: 225 $\phi$  Total weight: 10.2kg Compatible horsepower: 380ps

## FJ20 Reinforced Metal



\*Narrow metal features  
 High-strength F112 material, which has a proven track record in endurance races and is compatible with high loads and high revolutions, is used. In addition, the high-precision finish, which has a thickness tolerance of just 5 microns, allows for

uncompromising oil clearance adjustment. Furthermore, the narrow design reduces the contact area, lowering friction loss and improving engine response.

For engine specifications that require particularly high strength, such as race cars and highly tuned cars, we recommend WPC molybdenum-treated products, which have molybdenum disulfide powder directly sprayed onto the metal surface to improve seizure load resistance.

¥FJ20 Turbo Narrow width racing metal (shared with L type)

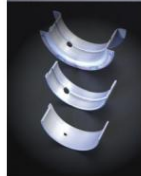
- FJ20 turbo narrow main metal set ¥15,400
- FJ20 turbo narrow connecting rod metal set ¥8,800
- FJ20 Turbo Narrow WPC Main Metal Set ¥23,460
- FJ20 Turbo Narrow WPC Connecting Rod Metal Set ¥15,040

\*Can be used with FJ20ET cylinder blocks that have oil grooves in the main metal housing.

¥FJ20NA/Turbo shared reinforced metal (standard width)

- FJ20 F780 main metal set ¥15,400
- FJ20 F112 connecting rod metal set ¥8,800
- FJ20 WPC F780 main metal set ¥23,460
- FJ20 WPC F112 connecting rod metal set ¥15,040

\*There are three types of clearance for connecting rod metals (wide, standard, narrow).



¥ Narrow width metal grade  
 A Red (wide clearance)  
 B Blue (clearance standard)  
 C Yellow (narrow clearance)  
 D Green (narrow / connecting rod only)

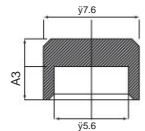
## FJ20 reinforced valve cap



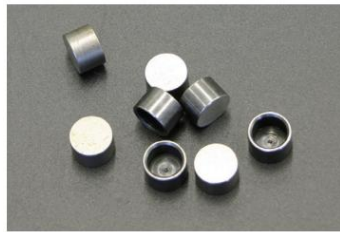
specification  
 •Material SCM435 (Chrome Molybdenum Steel)  
 •Hardness HRC45-49  
 •Heat treatment Hardened and tempered  
 •Surface Barrel polished 1.25-2.65mm (0.05 unit) Tolerance treatment •Thickness: 1.0-3.0 Same shape as genuine

price ¥1,500

A dimension (tolerance +0.03 -0)  
 A=1.25 A=1.55 A=1.85 A=2.15 A=2.45 A=1.30  
 A=1.60 A=1.90 A=2.20 A=2.50 A=1.35 A=1.65  
 A=1.95 A=2.25 A=2.55 A=1.40 A=1.70 A=2.00  
 A=2.30 A=2.60 A=1.45 A=1.75 A=2.05 A=2.35  
 A=2.65 A=1.50 A=1.80 A=2.10 A=2.40



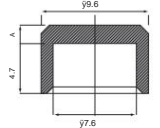
## FJ20 outer clearance cap



The maximum thickness of commercially available valve caps for adjusting valve clearance is 2.65mm. When using a cam that has been thinned by machining the stock cam, it is possible to adjust the clearance by placing an outer clearance cap on top of the valve cap.

•Thickness (1mm/2mm/3mm) ¥1,700/1 piece

A dimension (tolerance +0.03 -0)  
 A=1.0 A=2.0 A=3.0



## FJ20 Flyhole & Flywheel Bolt



The most effective way to make the FJ20 engine more responsive is to reduce the weight of the flywheel. We have adopted SCM material, which has excellent durability, and designed it to be thin while maintaining high strength. You can choose from two types depending on the application, from the STD type for street use to the R type for racing use.

Chromoly lightweight flywheel STD type

- FJ20E (weight 4.8kg) ¥50,000
- FJ20ET (weight 4.9kg) ¥50,000

Chromoly lightweight flywheel R type (lightweight hole product)

- FJ20E (weight 4.3kg) ¥54,000
- FJ20ET (weight 4.4kg) ¥54,000

ARP reinforced flywheel bolts

While the tightening torque of the genuine bolts is 15kg/m, the ARP reinforced bolts have a tightening strength of 18.5kg/m, preventing the bolts from loosening at high revolutions.

¥15,500



\*Clutch size\*  
 •FJ20E (225 $\phi$ )  
 •FJ20ET (240 $\phi$ )

## FJ20 reinforced clutch kit



FJ20 (240 $\phi$ ) Turbo Reinforced Clutch Kit

- Lightweight flywheel + 850kg cover + super disc specification Type A 320ps / Estimated) ¥102,000 (Applicable horsepower)

- Lightweight flywheel + 580kg cover + super disc specifications (Approximate horsepower 300ps / Estimated) Type B ¥100,000

FJ20NA reinforced clutch kit (240 $\phi$ )

- Lightweight flywheel + 580kg cover + reinforced non-asbestos disc specifications (Approx. horsepower 280ps / Estimated) Type C ¥95,000

- Lightweight flywheel + 580kg cover + STD non-asbestos disc specification (Applicable horsepower 260ps / Estimated) Type D ¥87,000

\*24mm sleeve and bearing set sold separately ¥4,170