

CAPACITY UP GRADE KIT for FA20

Capacity Upgrade Kit developed by taking advantage of knowledge and experience acquired through D1 drift and time attack at Tsukuba Circuit.

This kit was designed exclusively for the FA20 engine by meticulous analysis and experiment. HKS delivers this kit with "Made in Japan" quality.

High performance specifications withstanding 550(ps)-50(kgf·m)!

This kit is for people want to upgrade all the way including the



FEATURES

POINT① PISTON KIT

- Carefully selected specially forged raw materials used
- Replacing the gasket enables both NA and turbo-charged engine users to use this kit.
- In order to cope with the demands of high outputs, strength analysis and tests have allowed optimisation of compression ratio for flexibility of setup and high boost use.
- Piston crown had 3D design in consideration of stock direct injection system.
- Stock pistons skirts overhang from the block during bottom of travel. Short height pistons have revised potential issues in this area.
- Friction, weight and other design properties to suit the needs of short height pistons.

POINT② CONNECTING ROD

- Specific connecting rods have been designed to suit the longer stroke.
- With no engine modifications, a special size crank pin has been set requiring new bearings.
- ※The crank metals (Nissan RB26 & SR) must be purchased separately.**
- High strength I beam design and revised connecting rod bolt size.

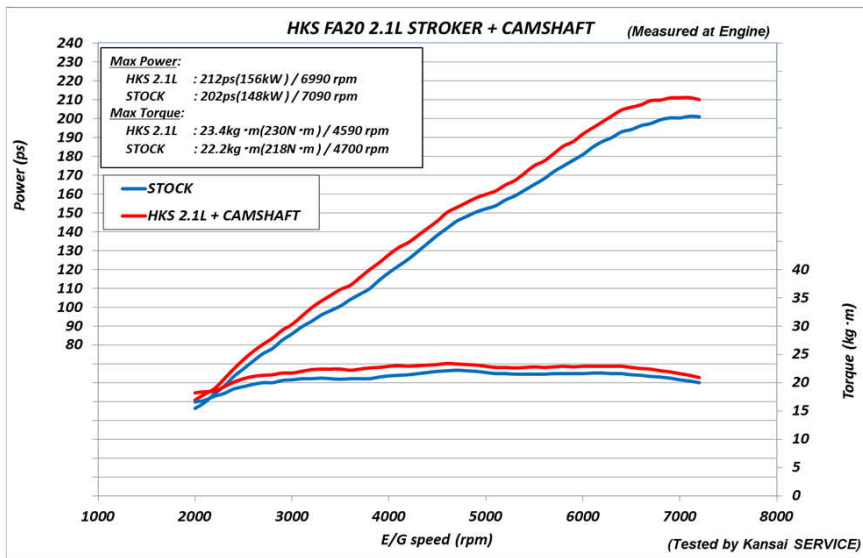
POINT③ CRANKSHAFT STROKE 90.0mm

- Made from HKS special forged material
- Perfect pin journal size was selected by meticulous analysis and experiment for extended stroke.
- Carefully designed weights balance the engine for maximum efficiency.

POINT④ Stock Bore Compatible 86.0mm

- In order to maintain the engine block strength the stock bore size is maintained meaning there is no need for cylinder liners
- Reduces the cost of installation as liners, bore & hone and block facing processes

PERFORMANCE



TEST VEHICLE			
Vehicle	BRZ(ZC6)	Kansai Demo Car	
Engine	FA20		
Transmission	6MT		
PARTS		SPECIFICATIONS	
Suction	HKS Premium Suction		
Exhaust Manifold	Kansai Original		
Front Pipe	Kansai Original		
Exhaust System	HKS Hi-power Spec L		
I/J	Stock		
Fuel Pump	Stock		
CPU	Kansai Original ECU		
Other	Big Throttle		

2.1L kit + Camshaft were tested on Kansai Service's demo car with NA engine.

This graph shows before & after installation.

Upgrading the capacity exceeds the stock engine power in whole power range.

Power increase continues to the high rpm range by using the camshaft together with 2.1L Kit.

Test supported by Kansai Service.

FA20 2.1L KIT

Product	Engine	Capacity	Type	Boring/Horning Modification	Full Flow Modification	Code No.	Price	Remarks
TOYOTA/SUBARU								
FA20 2.1L KIT	FA20	2091.2cc	φ86.0-22	Not Required	Not Required	21004-AT002		F. Piston Kit + I-beam Con'rod + F. Crankshaft
FORGED PISTON KIT	FA20	-	φ86.0-22	Not Required	Not Required	21003-AT003		F. Piston + Ring + Pin
I-BEAM CONROD	FA20	-	φ22 Pin	Not Required	Not Required	23004-AT001		Forged I-beam
FORGED CRANKSHAFT	FA20	-	90mm	Not Required	Not Required	23006-AT002		Stroke 90mm