

SR450S



IMPORTANT

Your SSR Motorsports Motorcycle will bring you much pleasure if you follow the proper maintenance and care instructions.

Beware though all the information in this document are provided without any obligation. Subject to change, deletion or substitution without adaptation to local requirements in technical information, pricing, and production of a final judgment of a particular model without prior notice or indication of any reason by SSR Motorsports.

Maintenance

Compliance with maintenance, maintenance and adjustment of the engine and chassis - parts contained in this manual is a prerequisite for the proper functioning of the bike and helps to avoid premature wear. Improper maintenance of the cycle part could result in damage or failure of components. Use of the motorcycle under extreme conditions, such as on slopes, very muddy or wet terrain, may lead to excessive wear of components such as chain or brakes.

Also observe the running-in period and the control and maintenance intervals, proper maintenance can significantly prolong the life of the motorcycle.

Warranty

The warranty period is 30 days on Engine / Transmission (Parts Only), 30 days Limited Vehicle Warranty (Parts Only), 30 days Limited Battery Warranty.

Only when not used for competition.

The work planned in the service schedule must always be performed by an authorized dealer and all work must be recorded in the service book or a bill with the chassis serial number. If applicable, the warranty is void. The warranty may be void and unsupported for damages and consequences resulting from manipulations and / or changes to the vehicle.

Transport

Risk of damage if the vehicle is parked on a slope, it may roll away or fall over.

Always park the vehicle on a firm level floor.

Note

- **Risk of fire during operation if the vehicle parts become very hot.**
- **Do not park the motorcycle near flammable or combustible materials. Do not place objects on the motorcycle when it is hot.**

Always wait until the motorcycle has cooled.

- **Stop the engine.**
- **Turn the fuel tap to OFF.**

Environment

This sport can have potential impacts on the environment and cause conflict with others.

Responsible use of the bike allows riders to avoid problems and conflicts. In order not to jeopardize the future of motorcycle sport, make sure that the use of the motorcycle complies with the law and respects the environment and the rights of others.

Technical Specification

ITEM		TECHNICAL DATA	
		OFFROAD	MOTARD
DIMENSIONS	OVERALL LENGTH	2175mm	
	OVERALL WIDTH	810mm	
	OVERALL HEIGHT	1240mm	
	F/R WHEEL AXIS DISTANCE	1505mm	
	SEAT HEIGHT	960mm	
	GROUND CLEARANCE	320mm	
	N.W	118kg	130kg
CHASSIS	FRAME TYPE	ALUMINIUM ALLOY TWIN-SPAR	
	FRONT TIRE SIZE	80/100-21	110/70-17
	REAR TIRE SIZE	110/90-19''	140/70-17
	FRONT SUSPENSION	INVERTED CARTRIDGE FORK WITH RE-BOUND COMPRESSION-DAMPING ADJUST	
	REAR SUSPENSION	MONOSHOCK WITH SPRING-PRELOAD, RE-BOUND AND COMPRESSION-DAMPING ADJUST	
	FUEL TANK CAPACITY	8.0L WITH RESERVE VALVE	
MOTEUR	TYPE	SINGLE CYLINDER, 4-STROKE, LIQUID COOLED	
	MAX POWER	32KW/7500RPM : 43.5HP/7500RPM	
RATED POWER		30.5KW/7000RPM	
COUPLE MAX		42.5NM/6500RPM	
IDLE SPEED		1700±150 RPM	
CONSOMMATION		≤340 g/kW.h	
BORE X STROKE		96×62.1 mm	
DISPLACEMENT		449 ml	
COMPRESSION RATIO		11:1	
VALVE TRAIN		CHAIN DRIVE SOHC FOUR VALVE	
LUBRICATION TYPE		PRESSURE SPRAY	
LUBRICATION OIL TYPE		SAE 10W-40	

IGNITION ADVANCE DEGREE	12° BTDC [3000RPM]	
VALVE CLEARANCE (COLD)	INTAKE VALVE: 0.16±0.03 mm EXHAUST VALVE: 0.28±0.03 mm	
DECOMPRESS CLEARANCE	EX VALVE CLEARANCE (0.28mm)+0.15mm=0.43mm	
SPARK PLUG TYPE	DENSO IK24/IK27	
DIMENSION	350mm × 297mm × 423 mm	
DRIVE TYPE	CHAIN	
DRIVE SPROCKET	13T	
CLUTCH TYPE	MANUAL, MULTI-WET	
TRANSMISSION TYPE	CONSTANT MESH, 5 SPEED, LEFT FOOT OPERATED	
PRIMARY ADJUNCTION RATIO	2.739(63/23)	
GEAR RATIO	1ST	2.230(29/13);
	2ND	1.625(26/16)
	3RD	1.235(21/17)
	4TH	1.000(19/19)
	5TH	0.826(19/23)
IGNITION TYPE	DC/AC CDI	
STARTER	KICK / ELECTRIC	
STARTING CAPACITY	≤ 15 s	

Lubrication system

ITEM		DATA
ENGINE OIL 870ml API SG or higher SAE 10W-40	AT DRAINING	670 ml
	AT FILTER CHANGE	700ml
	AT DISASSEMBLY	870ml
TRANSMISSION OIL 950ml API SG or higher SAE 10W-40	AT DRAINING	850ml
	AT DISASSEMBLY	900ml (Approximately One Quart)

ATTENTION: *Low Oil level in Transmission can cause transmission failure. Warranty Void if transmission oil is not kept at mandatory level. Failure to change transmission oil and oil filter on scheduled maintenance and at recommended level of 950ml can cause the transmission to lock and cause serious injury or death*

ITEM		DATA
COOLANT CAPACITY	AT CHANGE	1.11 liter
	DISASSEMBLY	1.20 liter
ANTIFREEZE		HIGH QUALITY ETHYLENE GLYCOL ANTIFREEZE CONTAINING SILICATE-FREE CORROSION INHIBITORS
STANDARDS COOLANT CONCENTRATION		1:1 MIXTURE WITH DISTILLED WATER

Tire Specifications

ITEM		STANDARDS	REPAIR LIMIT
COLD TIRE PRESSURE		33/2.3 (psi/bar)	
MAX LOAD	FRONT	430 / 195 (lbs/kgs)	
	REAR	548 / 265 (lbs/kgs)	

Battery specifications

ITEM		DATA
BATTERY	CAPACITY	12V-6Ah
	CURRENT CONSUMPTION	MAX 0.1mA
	VOLTAGE(20 ⁰ /68 ⁰ F)	FULL 13.0-13.2V

Spark plug specifications

ITEM		DATA
SPARK PLUG	STANDARDS	DENSO IK24
	OPTIONAL	NGK IFR8H-11

INSPECTION BEFORE USE

Inspection Item	Inspection Objective
Engine oil	Inspect for proper fill level
Gearbox oil	Inspect for proper level (900ml)
Coolant	Inspect for proper fill level
Fuel	Be sure there is enough fuel to ride planned distance
Cooling system	Inspect for leaks, cracks, and fluid flow
Throttle	Check for free travel of throttle grip and that the throttle grip has a smooth operation and in both the forward and back to the closed position
Clutch	Adjust the clutch cable to fully disengaged
Steering	Be sure the bars move freely from lock to lock and steering head is tight
Brake	Inspect for free travel of pedal and lever and that there is full braking power
Tire	Check tire pressure and inspect tires for cracks
Spokes	Inspect and tighten loose spokes if necessary
Other Bolts and Parts	Inspect attachment points and other bolts to ensure they are tight
Exhaust muffler	Inspect for loose bolts and the exhaust is secure

BREAK-IN

The motorcycle is shipped with break in Oil ONLY!

Once the engine is run for an initial 30 minutes, drain and replace the oil with:
Synthetic API SG or higher **SAE 10W-40**

Failure to do so may decrease the engine transmission life or cause premature failure.

During initial break-in newly machined surfaces will be in contact with each other and these surfaces will wear in quickly. Break-in maintenance at 150km is designed to compensate for this initial minor wear. Timely performance of the break-in maintenance will ensure optimum service life and performance from the engine.

The general rules as follows:

Start the engine and let it run at idle until the engine is thoroughly warmed up.

Avoid full-throttle starts and rapid acceleration.

Maximum continuous engine speed during the first 150km must not exceed 5,000 rpm (or 10 hours Max)

After 150km ride maintenance the machine per the maintenance schedule.

After the break-in procedure has been properly carried out, the motorcycle is ready for regular operation. However, since premature high r/min (rpm) will lead to engine trouble, take care to use the necessary skill and technique in operating the motorcycle.

Never run the engine with full throttle at low speed operation. This rule is applicable not only during break-in but at all times.

This procedure should be followed each time:

- Piston is replaced
- Piston rings are replaced
- Cylinder is replaced
- Crankshaft or crank bearing are replaced

Maintenance

The Maintenance Schedule specifies how often you should have your motorcycle served, and what things need attention. It is essential that your motorcycle be served as scheduled to retain its high level of safety, dependability, and emission control performance. Remember, proper maintenance is your responsibility.

PRECAUTION

Make sure the engine is off before you begin any maintenance or repairs.

Exhaust contains poisonous carbon monoxide. Be sure there is adequate ventilation whenever you operate the engine. Let the engine and exhaust system cool before touching

Be careful when working around gasoline. Keep cigarettes, spark, and flames away from all fuel related parts

Regular Maintenance

Place the motorcycle on the firm level ground using optional work stand or equivalent support

Use genuine or recommend part and lubricants or other equivalents. Parts that do not meet design specifications may cause damage to the motorcycle

Use only metric tools when servicing the motorcycle, metric nuts, bolts, screws are not interchangeable with British fasteners. Always replace with new gaskets, O-rings, cotter pins, piston pin clips, snap rings, etc after disassembling the engine.

When tightening bolts and nuts, begin with larger diameter or inner bolt first. Then tighten to specified torque diagonally in incremental steps unless a particular sequence is specified.

Clean parts in cleaning solvent upon disassembly, lubricate and sliding surface before assembly. Always inspect all parts for proper installation and operation after reassemble
Route all electrical wires, cables and harness routing as designed.

MAINTENANCE SCHEDULE

Required maintenance schedule is based upon average riding condition. Sustained high speed operation, or operation in unusually wet or dusty conditions, will require more frequent service than specified in the REQUIRED MAINTENANCE SCHEDULE. See SPECIAL MAINTENANCE SCHEDULE for competition maintenance need.

Perform the Pre-ride inspection at each scheduled maintenance period

Symbol in maintenance schedule means:

I	Inspect, Clean, Lubricate and/or Replace as Necessary
C	Clean
R	Replace
A	Ajust
L	Lubricate

* Unless the rider is mechanically qualified and has proper tools, see authorized dealer for service

** Special maintenance strongly recommend to look for authorized dealer service.

NOTE1. Clean after every ride for dusty conditions

NOTE2. Replace every 2 years. Replacement requires mechanical skill

NOTE3. Replace after the first break-in ride

NOTE4. Inspect after the first break-in ride

NOTE5. Replace the transmission oil when the clutch plates are replaced.

Required Maintenance Schedule

MAINTENANCE ITEMS		NOTE	SCHEDULE BY HOURS OR KILOMETERS							
			Hours km	10 150	30 1500	50 3500	70 6000	90 9000	110 12000	130 15000
*	ENGINE OIL			R	R	R	R	R	R	R
*	AIR FILTER				R		R		R	
	GEARBOX OIL			R	R	R	R	R	R	R
	ENGINE OIL FILTER					R			R	
	RADIATOR COOLANT						R		R	
*	ENGINE VALVE CLEARANCE					I			I	
	SPARK PLUG					R			R	
**	FUEL FILTER					C			C	
*	FUEL LINE			I	I	I	I	I	I	I
*	THROTTLE ASSEMBLY			I	I	I	I	I	I	I
	COOLING SYSTEM			I	I	I	I	I	I	I
	SECONDARY AIR SUPPLY			I	I	I	I	I	I	I
	DECOMPRESSOR SYSTEM			I	I	I	I	I	I	I
	ENGINE IDLE SPEED			I,L	I,L	I,L	I,L	I,L	I,L	I,L
	DRIVE CHAIN			I	I	I	I	I	I	I
	DRIVE CHAIN SLIDER			I	I	I	I	I	I	I
	ENGINE IDLE SPEED			I	I	I	I	I	I	I
	BRAKE PAD WEAR			I	I	I	I	I	I	I
	BRAKE SYSTEM			I	I	I	I	I	I	I
	HEADLIGHT FOCUS			I	I	I	I	I	I	I
*	CLUTCH			I	I	I	I	I	I	I
	SIDE STAND			I	I	I	I	I	I	I
*	SUSPENSION			I	I	I	I	I	I	I
	MUFFLER			I	I	I	I	I	I	I
	NUTS, BOLTS, FASTENERS			I	I	I	I	I	I	I
	WHEELS/TIRES			I	I	I	I	I	I	I
*	SUSPENSION BUSHINGS/BEARINGS			I	I	I	I	I	I	I

MOTOR

ITEM	CAUSE	REMARK
Cylinder head gasket	Compression leak	Replace whenever disassembled
Clutch disc	Wear or discoloration	
Cylinder gasket	Leakage	Replace whenever disassembled
Right crankcase cover gasket	Damage	Replace whenever disassembled

CHASSIS

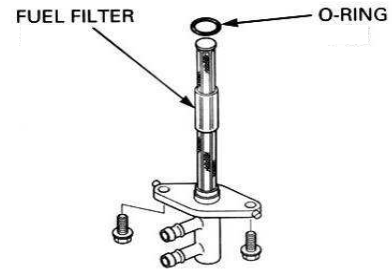
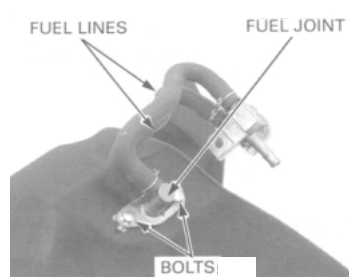
ITEM	CAUSE	REMARKS
Front / rear tire	wear	Minimum knob height:8mm
Front / rear brake pad	wear	Minimum thickness:1mm
Sub-frame mounting bolts	Fatigue or damage	
Chain guide plate	Wear or damage	
Side cover	Damage	
Front number plate	Damage	
Front / rear fender	Damage	
Clutch lever / holder	Free play or damage	
Brake lever	Free play or damage	
Air throttle lever	Free play or damage	
Handlebar	Bends or cracks	
Throttle housing	Damage	
Grip rubber	Damage	
Gearshift pedal	Damage	
Brake pedal	Damage	

NOTE:

These parts and their possible replacement schedule are based upon average riding conditions. Machines subjected to severe use require more frequent servicing.

CARBURATION SYSTEM

Inspect the fuel line for damage or leak, if necessary replace fuel line.



FUEL FILTER

Remove the fuel tank. Drain the gasoline into a container and remove the fuel line, nuts and the clamps. Wash the fuel filter and reinstall the O-ring and reinstall components onto the fuel tank.

Reinstall the fuel tank on the motorcycle. Make sure the tank does not leak.

THROTTLE OPERATION

Check for smooth throttle grip at full opening and automatic full closing in all steering positions. Check the throttle cable and replace them if they are deteriorated, kinked or damaged. Lubricate the throttle cable if throttle operation is not smooth.

Measure the free play at the throttle grip flange.

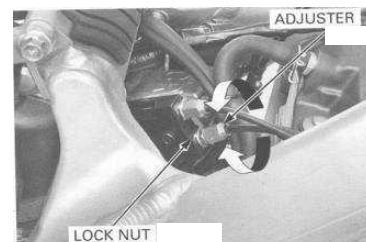
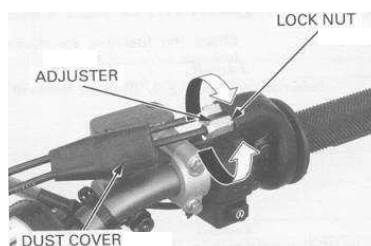
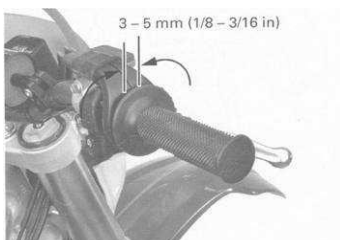
FREE PLAY

3-5mm (1/8-3/16 in)

Throttle grip free play can be adjusted at either end of the throttle cable.

Minor adjustments are made with the upper adjuster. Remove the dust cover from the adjuster. Adjust the free play by loosening the lock nut and turning the adjuster.

Tighten the lock nut after making the adjustment. Reinstall the dust cover and recheck the throttle operation. Major adjustments are made with the carburetor end of cable.



CHOKE LEVER

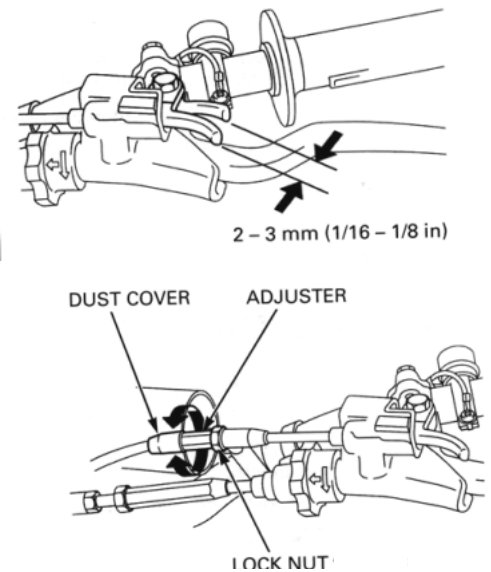
FREE PLAY: 2-3mm(1/8-3/16in)

Check for smooth choke lever operation and lubricate the cable if required.

Inspect the cable for cracks which could allow moisture to enter. Replace the cable if necessary.

Measure the choke lever free play at the lever end. Choke lever free play can be adjusted at the choke cable. Remove the dust cover from the adjuster. Adjust the free play by loosening the lock nut and turning the adjuster.

Tighten the lock nut. Reinstall the dust cover. Recheck the free play at the lever.



AIR FILTER

Loosen the air cleaner retaining bolt. Remove the air filter. Remove the air filter from the holder.

Thoroughly wash the air filter in clean non-flammable or high flash-point cleaning solvent. Then wash the element again in a solution of hot water and dishwashing liquid soap. Clean the inside of the air cleaner housing.

After cleaning, be sure there is no dirt or sand trapped between the inner and outer layer of the cleaner. Wash again if necessary.

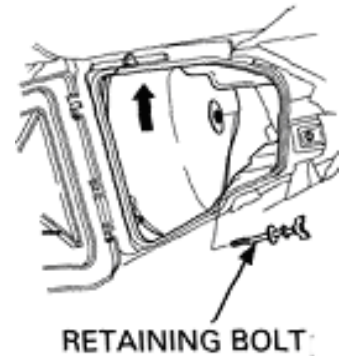
Allow the air cleaner to dry thoroughly. After drying, soak the air filter in clean Foam Filter Oil or an equivalent.

Apply air filter oil to the entire surface of the air filter and rub it with both hands to saturate the element with oil.

Gently squeeze out excess oil. It is important not to over oil or under oil the element. Apply a thin coat of grease or an equivalent to the sealing surface.

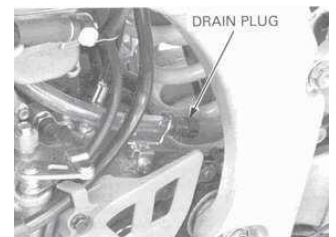
Assemble the air filter and the holder. Slip the air cleaner retaining bolt through the assembly. Tighten the retaining bolt securely.

NOTICE: If the air filter assembly is not installed correctly, dirt and dust may enter the engine resulting in wear of the piston ring and cylinder.



CRANKCASE BREATHER

Remove the breather hose drain plug, then drain any fluids or dirt from the hose into a proper container. Reinstall the drain plug.

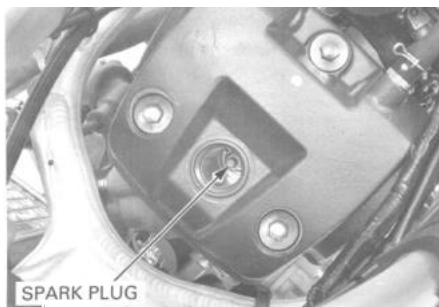


SPARK PLUG REMOVAL



Remove the fuel tank and disconnect the spark plug cap. Remove The spark plug and inspect it for damage

Clean around the spark plug base with compressed air before removing and be sure that no debris is allowed to enter the combustion chamber.



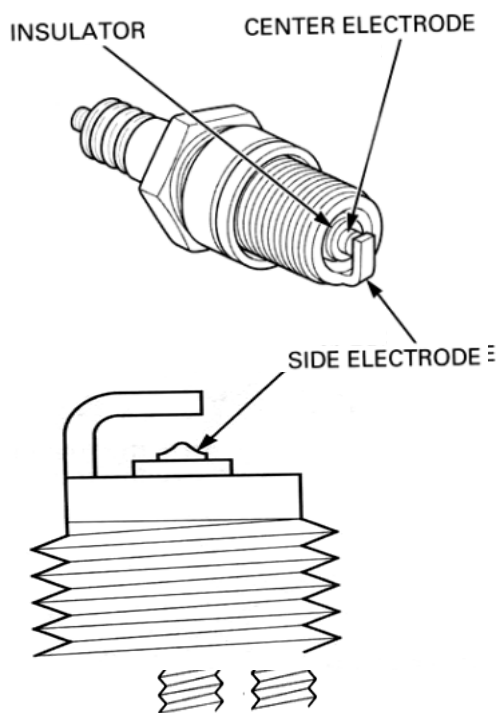
INSPECTION

Check the following and replace if necessary:

1) insulator for damage

2) electrodes for wear

3) burnt or discoloration



If the electrode is contaminated with accumulated debris or dirt replace the spark plug.

(this motorcycle's spark plug is equipped with an iridium center electrode. Re- place the spark plug if the electrode is contaminated.)

Replace the plug if the center electrode is rounded as shown in the picture.

(Always use the specified spark plugs on this motorcycle)
RECOMMENDED SPARK PLUG (OR EQUIVALENT) Standard: **DENSO: IK24**

Optional: **DENSO: IK27**

Check the gap between the center and side electrodes with a wire Type feeler gauge

(To prevent damaging the iridium center electrode, use a wire type Feeler gauge to check the spark plug gap. Do not adjust the spark Plug gap if the gap is out of specification, replace with a new one.) Spark plug gap: 0.4 mm

RADIATOR COOLANT

Inspect the level of the radiator coolant should be between “upper” and “lower” when the motorcycle running under the normal temperature. If need, put recommended coolant fluid in:

Remove the radiator cap. Put standard coolant concentration 1:1 to the upper line and then reinstall the cap.

Recommended antifreeze

Professional coolant or an equivalent high quality ethylene glycol antifreeze containing silicate free corrosion inhibitors.

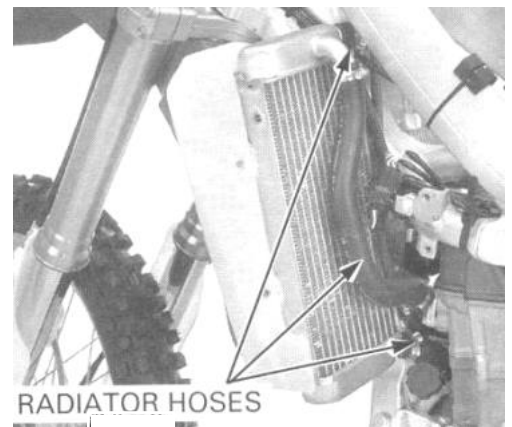
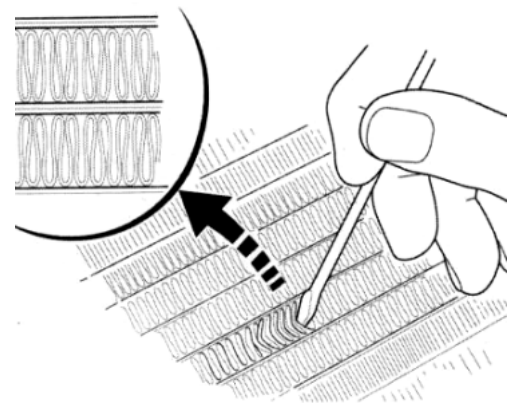
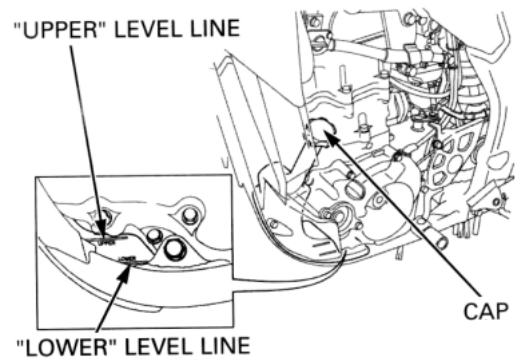
COOLING SYSTEM

Remove the radiator grills. Check the radiator air passage for clogs or damage.

Inspect the hoses for cracks and deteriorations.

Use low pressure water and a soft brush to wash off any dirt that may be stuck in the radiator core.

Replace if necessary. Check the tightness of the hose clamps and radiator mounting bolts.





VALVE CLEANCE / DECOMPRESSOR SYSTEM

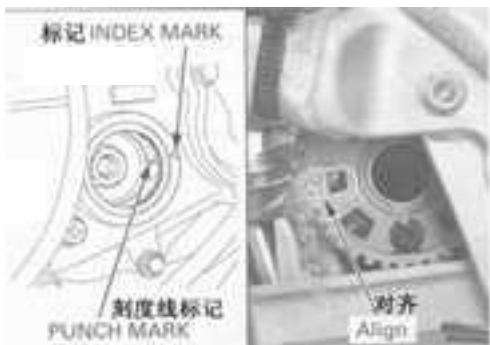
VALVE CLEARANCE INSPECTION

Inspect and adjust the valve clearance while the engine is cold (below 35°C/950 f)

Remove the cylinder head cover.

Remove the crankshaft hole cap and O-ring.

Turn the crankshaft clockwise to align the punch mark with the index mark on the right crankcase cover. Make sure the piston is at TDC (Top Dead Center) on the compression stroke.



Check that the index line on the cam sprocket aligns with the "△" mark on the cam holder.



INLET VALVE :

Insert the feeler gauge between the valve lifter and the cam lobe. Check the valve clearance for the intake valves using a feeler gauge.

Valve clearance IN: $0.16 + 0.03\text{mm}$



EXHAUST VALVE:

Insert the feeler gauge between the rocker arm and shim.

Check the valve clearance for the exhaust valves using a feeler gauge.

Valve clearance Ex: $0.28 + 0.03\text{mm}$



VALVE CLEARANCE ADJUSTMENT:

Remove the camshaft holder assembly

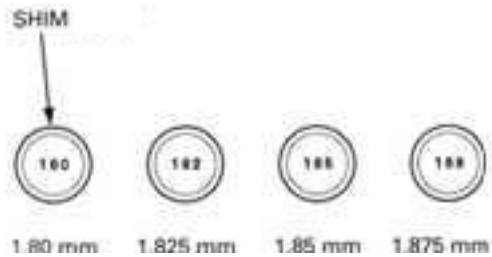
The shims may stick to the inside of the valve lifter. Do not allow the shims to fall into the crankcase.

The shims can be easily removed with tweezers or a magnet.

Clean the valve shim contact area in the valve lifter with compressed air.

Measure the shim thickness and record it.





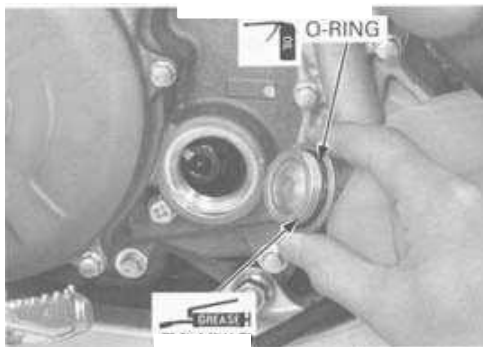
Seventy-three different shim series are available from 1.2000m m to 3.000m m in intervals of 0.025mm.

Calculate the new shim thickness using the equation below:

$$A=(B-C)+D$$

A: new shim thickness

B: recorded valve clearance C: specified valve clearance D: old shim thickness



Make sure of the correct shim thickness by measuring the shim using a micrometer

Reface the valve seat if carbon deposits result in a calculated dimension of over 3.000mm.

Install the valve lifters into the camshaft holder assembly. Install the camshaft holder assembly

With the valve clearance adjusted, check and adjust the decompressor clearance

Reinstall the cap and hand tighten, then torque to specification.
Torque: 15N .m(1.5kgf, 11 lbf.ft)

DECOMPRESSOR CLEARANCE INSPECTION / ADJUSTMENT:

Inspect and adjust the decompressor clearance while the engine is cold (below 350 C/950 F)

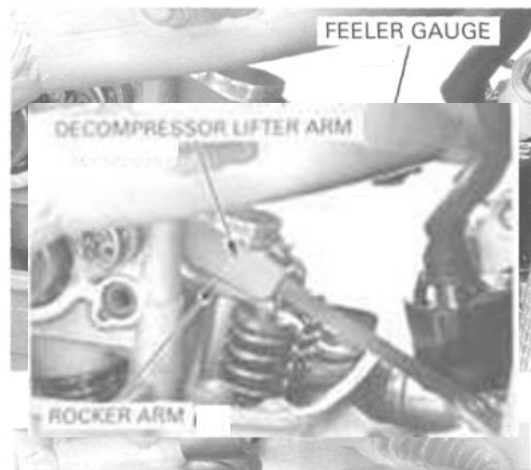


Remove the crankshaft hole cap.

Turn the crankshaft clockwise to align the punch mark with the index mark on the right crankcase cover.

Make sure that the piston is at Top Dead Center on the compression stroke.

Measure the decompressor arm clearance by inserting a feeler gauge between the decompressor arm adjusting screw and right side rocker arm.



DECOMPRESSOR CLEARANCE:

RIGHT SIDE EXHAUST VALVE CLEARANCE + 0.15 mm

EXAMPLE:

If measured right exhaust valve clearance is 0.28 mm, decompressor clearance is: $0.28\text{mm} + 0.15\text{mm} = 0.43\text{mm}$

If decompressor clearance needs adjustment, see following procedure.

Measure the right exhaust valve clearance by inserting a feeler gauge between the right side rocker arm and shim.

VALVE CLEARANCE: EX: $0.28\text{mm} \pm 0.03\text{mm}$

Pull out the feeler gauge between the rocker arm and shim

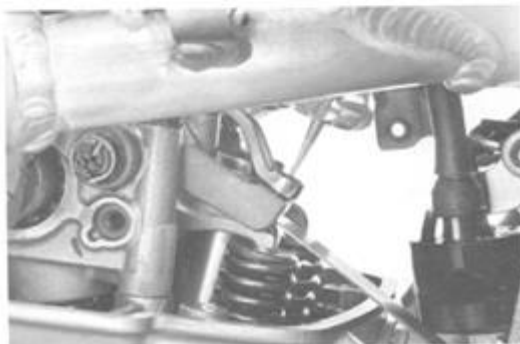
Insert the feeler gauge (right exhaust valve clearance +0.15mm) between the adjusting screw and right side rocker arm.

Loosen the lock nut and turn the adjusting screw until there is a slight drag on the feeler gauge.

Hold the adjusting screw and tighten the lock nut.

Couple: 10N.M

Recheck the decompressor clearance. Reinstall the cylinder head and the cap.





ENGINE IDLE SPEED

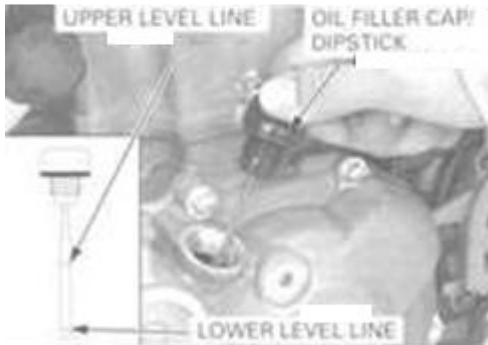
The engine must be warm for an accurate idle inspection and adjustment. Ten minutes of stop and go riding is sufficient.

Warm up the engine, shift the transmission into neutral and hold the motorcycle upright.

Connect a tachometer according to its manufacturer's instructions.

Turn the throttle stop screw to obtain the specified idle speed.

IDLE SPEED: 1, 500 +10 0 rpm



ENGINE OIL / OIL FILTER OIL LEVEL INSPECTION

Run the engine at idle speed for 3 minutes, then stop it for 3 Minutes. Support the motorcycle in an upright position on a level surface. Remove the oil filter cap/dipstick and wipe the oil with clean cloth. Insert the dipstick without screw in, take it out and check the oil level.

If the oil level is lower or near the lower level line on the stick, add Recommended oil to the upper level line through the hole.

Reinstall the engine oil filter cap

(Other viscosities shown in the chart may be used when the average temperature in your riding area is within the indicated range)

RECOMMENDED ENGINE OIL:

HP4M (with molybdenum additives) 4-stroke oil, or equivalent motor oil

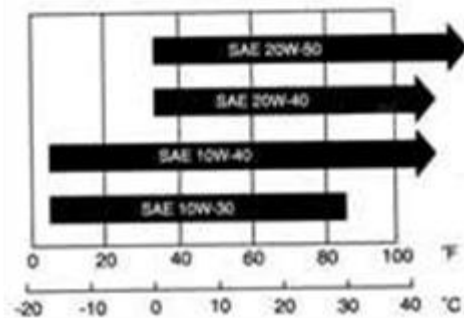
API service classification: SG or higher

JASO T 90 3 STANDARD: MA or M B, viscosity: SEA 10 W - 40

OIL CAPACITY

0 .67liter at draining

0 .70liter at oil filter change



ENGINE OIL & FILTER CHANGE

Run the engine for 3 minutes. Stop the engine for 3 minutes and remove the oil filter cap.

Remove the left side engine guard.

Place an oil pan under the engine to catch the oil and remove the engine oil drain bolt and sealing washer to drain the engine oil.

Operate the kick starter pedal several times while pushing the engine stop switch, so the engine oil completely drains.

Remove the bolts and oil filter cover. Remove the oil filter and spring. Install the engine oil drain bolt with a new sealing washer.

Tighten the engine oil drain bolt to the specified torque.

TORQUE: 16N.m

Apply grease to the filter side of the spring end. Install the spring into the oil filter as shown.

Install the oil filter with the "OUT SIDE" mark facing out. Installing the oil filter backwards will result in severe engine damage.

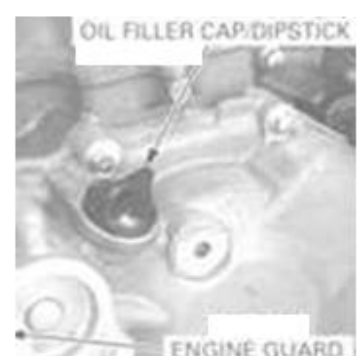
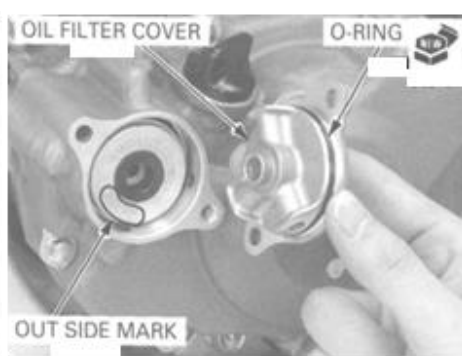
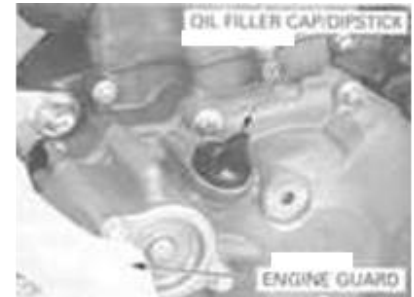
Apply engine oil to a new O-ring and install it to the oil filter cover. Install the oil filter cover and tighten the bolt to the specified torque. Fill the engine with the recommended engine oil and install the oil filter cap.

Start the engine and let it idle for a few minutes.

Stop the engine and recheck the oil level and check for leaks. Install the engine left side guard.

ENGINE OIL CAPACITY:

0.67 litre at drain 0.70 litre at change





TRANSMISSION OIL CHECKING OIL

Run the engine at Idle for 3 minutes, turn off engine and wait 3 minutes.

Support the motorcycle on a level surface and remove the transmission oil filler cap, engine check bolt and sealing washer from the right crankcase cover. A small amount of oil should flow out of the check bolt hole.

If no oil flow out, fill with recommended transmission oil through fueling hole until it can flow out of the hole.

Reinstall the oil check bolt and engine oil filler cap. Repeat steps above

After checking the oil level or filling, install the oil check bolt with a new sealing washer, tighten the oil check bolt and oil filler cap.



CHANGING ENGINE OIL

Run the engine to let it get hot before draining oil.

Support the motorcycle in an upright position on a level surface and remove the engine oil filler cap from the right crankcase cover

Place an oil drain pan under the engine to catch the oil. Then remove the drain bolt and sealing washer.

After the oil has drained, install the drain bolt with a new sealing bolt to the specified torque

Couple: 22N .M

Fill the recommend oil to the engine. Recommended transmission oil:
APLGL Viscosity: SAE 10w-40
Capacity: 0.85 liter at draining

0.900 liter at removing

Inspect the oil level as the steps of oil level checking procedure.



DRIVE CHAIN

The drive chain must be checked, adjusted, and lubricated in accordance with the Maintenance Schedule. If the chain becomes badly worn or maladjusted, being either too loose or too tight the chain could jump off the sprockets or break.

Under severe usage, or when the vehicle is ridden in unusually dusty or muddy areas, more frequent maintenance will be necessary.

WARNING:

A chain that breaks or jumps off the sprockets could snag on the engine sprocket or lock the rear wheel, severely damaging the motorcycle and causing it to go out of control.

DRIVE CHAIN SLACK INSPECTION

Turn the engine off, raise the rear wheel off the ground by placing the optional work stand.

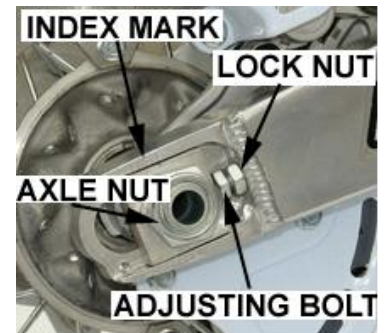
(Don't inspect and adjust the drive chain when the engine running)

Check slack in the upper drive chain run midway between the sprockets.

Drive chain slack: 2 5-3 5mm

Notice: Excessive chain slack (50mm/2.0in) may damage the vehicle.

In addition to checking the slack, rotate the rear wheel to inspect the drive chain and sprockets for damaged rollers, loose pin and links, unevenly or excessively worn or damaged teeth.



ADJUSTMENT

Adjust the chain if the slack is too much or too little.

Loosen the axle nut and adjuster lock nuts and turn the adjusting bolts.

Check that the chain adjuster index marks are in the same position on both sides, then tighten the axle nut..

Tighten the adjusting bolt lock nut against the axle adjustment plates.

REPLACEMENT

If adjustment procedure can not apply proper chain slack or the chain has damaged rollers, loose fitting links, replace with new one.

Whenever the chain is replaced, inspect both the countershaft and rear sprockets, and replace them if necessary. Worn sprockets will cause a new chain to wear quickly.

CLEANING AND LUBRICATION

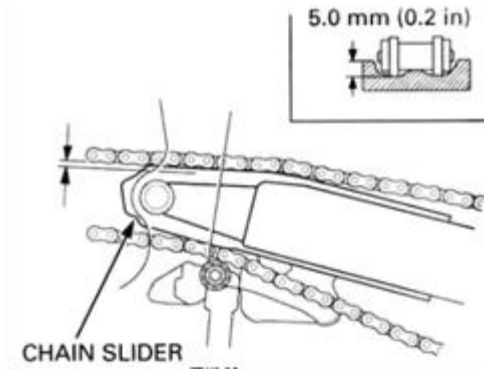
Clean the chain in non-flammable or high flash-point solvent by soft brush. Wipe it dry.

Be sure the chain is completely dry before lubricating.

Lubricate the drive chain with #80-90 gear oil or drive chain lubricant designed specifically for use with O-ring chains.

Apply oil to the side of the rollers so that it will penetrate to the rollers and bushings. Wipe off any excess oil.

DRIVE CHAIN SLIDERS



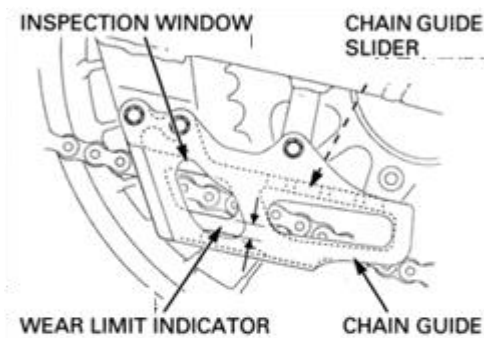
Chain slider

Inspect the drive chain slider for excessive wear.

Service limit: 5.0 mm from upper surface

Notice:

If the chain slider becomes worn through to the swing arm, the chain will wear against the swing arm.



Check the chain guide and chain guide slider for alignment, wear or damaged.

Replace the chain guide if it is damaged or worn.

Replace the chain guide slider if the chain is visible through the wear inspection window.

DRIVE CHAIN ROLLER

Inspect the drive chain roller for excessive wear or binding. Service limit:

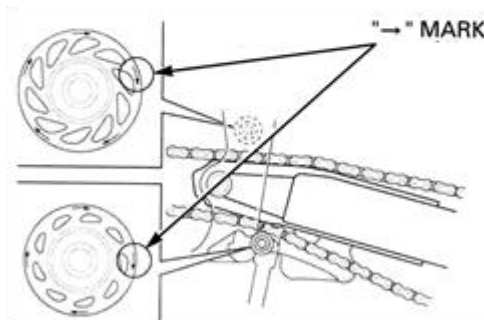
Minimum roller O.D: Upper: 39mm/Lower: 35 mm

Replace the roller if necessary, and tighten the roller bolt/nut to the specified torque.

(The sign "→" means installing the drive chain roller outside)

Torque: Upper bolt: 12N.m

Lower nut: 12N.m



DRIVE/DRIVEN SPROCKETS

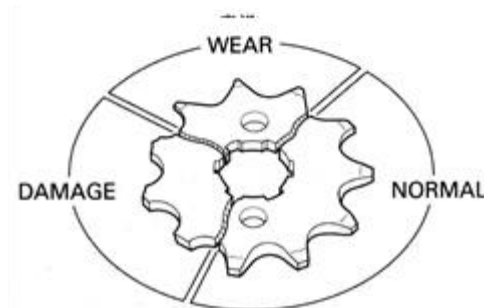
Inspect the drive and driven sprocket teeth for wear or damage and replace if necessary.

Do not install the new drive chain on worn sprocket. The chain and sprockets must be in good condition, or the new chain will wear rapidly.

Inspect the bolts and nuts on the drive and driven sprockets. Tighten them when they become loosened.

Torque: Drive sprocket bolt: 31N.m

Driven sprocket nut: 32N.m



BRAKE FLUID

Notice

Avoid spilling fluid will damage the plastic or rubber parts. Place a rag over these parts whenever the system is serviced.

Do not mix different types of fluid, as they are not compatible with each other.

Do not allow foreign material to enter the system when filling the reservoir. Fluid level inspection

When the fluid level is low, check the brake pads for wear. A low fluid level

may be due to wear of the brake pads. If the brake pads are worn, the caliper piston is pushed out, and this accounts for a low reservoir level. If the brake

pads are not worn and the fluid level is low, check the entire system for leaks. Front brake

Position the site level in the horizontal position.

If the level is near the low level line, check the brake pad wear.

Rear brake

Support the motorcycle in an upright position on a level surface and check the rear brake fluid level.

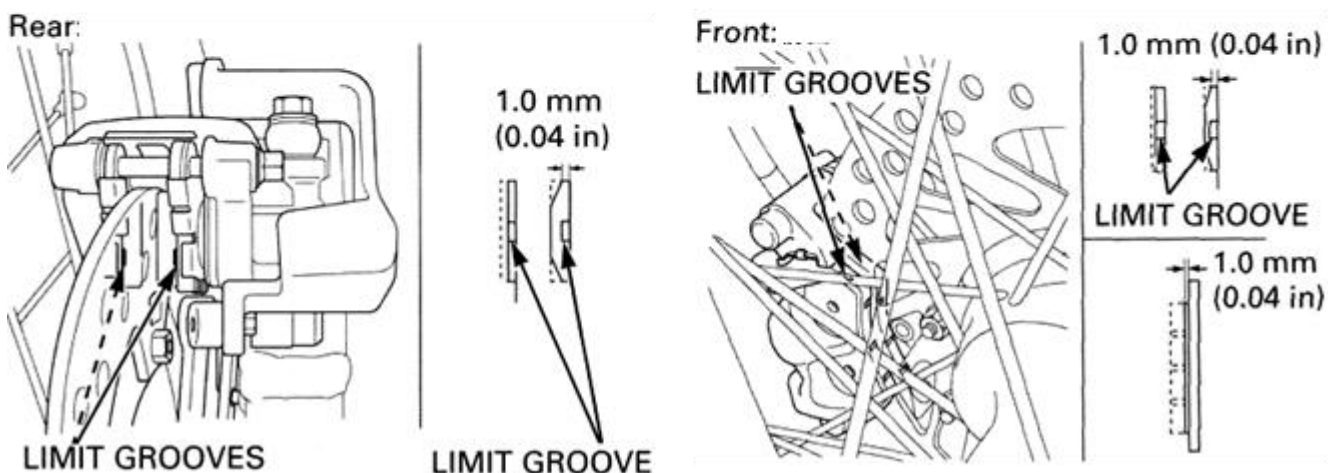
If the level is near the low level line, check the brake pad wear.

BRAKE PAD WEAR

Check the brake pads for wear.

Replace the brake pads if either pad is worn to the bottom of the wear limit groove.

Service limit: 1.0mm



BRAKE SYSTEM

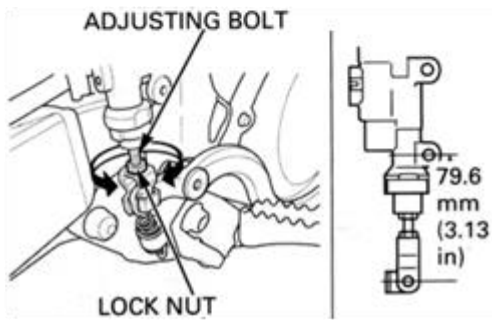
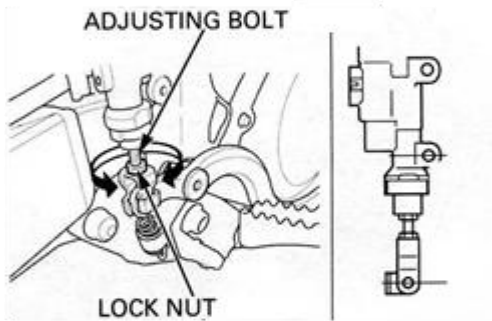
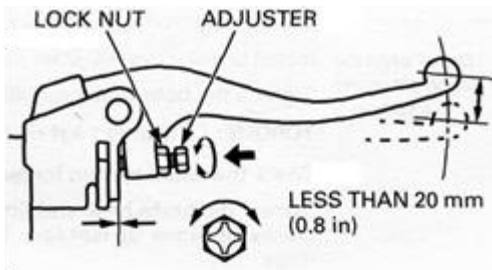
Level position inspection

The brake lever position can be adjusted by loosening the lock nut and turning the adjuster. Turning the adjuster clockwise moves the brake lever farther away from the grip; turning the adjuster counterwork wise moves The brake lever closer the grip.

After adjustment, hold the adjuster and tighten the lock nut to the specified torque.

Torque: 5.9N.m

If the brake lever free play exceeds 20mm, there is air in the system that must be bled.



Brake pedal height

Adjust the brake pedal to the desired height by loosening the lock nut and turning the pedal height adjusting bolts.

Standard height: 79.6mm

Tighten the lock nut to the specified torque

Couple: 5.9N.m

SWINGARM/SHOCK LINKAGE

Raise the rear wheel off the ground by placing a work stand or equivalent under the engine.

Check for worn swing arm bearings by grabbing the rear swing arm and attempting to move the swing arm side-to-side.

Replace the bearing if excessively worn.

Check the shock linkage and replace any damaged needle bearings. Disassemble, clean, and inspect the swing arm and shock linkage pivot bearing and related seals every three races or about 7.5 hours of operation.



TIRES

Support the frame by the bracket under the engine, so that the front wheel off the ground.

Grab the bottom of front suspension and rock the front wheel on both sides to check whether the front wheel axle is loose.

Grab the rocker and rock the rear wheel on both sides to check whether the rear wheel axle has problem.

Check the tires for cuts, embedded nails, or other damage.

Check the cold tire pressure (Remember to do it when the tire is cold). Check the rims and spoke for damage.

Tighten all the loose wheel spokes and lock (valve nut) Torque Specs

Tire pressure Front wheel: 98kPa (1.0kgf/cm² ,14psi)

Rear wheel: 98kPa (1.0kgf/cm² ,14psi)

Tools:

Torque Front wheel spoke: 3.68N.m (0.4kgf.m,2.7lbf.ft)

Rear wheel spoke: 3.7N.m (0.4kgf.m,2.7lbf.ft)

Valve nut: 13N.m (1.2kgf.m, 9lbf.ft)



SSR Motorsports

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