

## Shifthead R1250 SC GS/GSA

### Tightening torques R 1250 GS

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11 - Engine	Value
<b>11 11 - Engine block</b>	
Threaded plug for locking at TDC in crankcase	
M16 x 1.5	30 Nm
Bracket, engine guard to crankcase	
M8 x 25	19 Nm
Oil drain plug to crankcase	
M20 x 1.5	42 Nm
Assembly of crankcase	
M10 x 130	Tightening torque, 25 Nm
	Additional angle of rotation, 90°
Engine guard to bracket	
M6 x 20	8 Nm
Anti-twist plate (friction bearing) to crankcase	
M6 x 25	12 Nm
Assembly of crankcase	
M6 x 30	12 Nm
Assembly of crankcase	
M8 x 80	19 Nm
Diaphragm valve to crankcase	
M6 x 16	12 Nm
Threaded plug (connection for oil pressure measurement) in crankcase	
M10 x 1	10 Nm
Coolant drain plug in crankcase	
M10 x 1	15 Nm
Coolant filler adapter in crankcase	
M10 x 1	10 Nm
<b>11 12 - Cylinder head with cover</b>	

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Cylinder head cover to cylinder head	
M6 x 76	10 Nm
Cylinder head to crankcase	
M10 x 110	tighten in diagonally opposite sequence
	1st tightening torque, 5 Nm
	2nd tightening torque, 20 Nm
	3rd tightening torque, 40 Nm
	Additional angle of rotation, 120°
M6 x 25	12 Nm
M6 x 95	12 Nm
Slip pad to cylinder-head cover	
M6 x 14	9 Nm
Camshaft bearing cap to cylinder head	
M6 x 35	tighten alternately
	10 Nm
Oil filler screw in cylinder head cover	
M34 x 1.5	8 Nm
<b>11 14 - Housing cover</b>	
Crankcase cover to crankcase	
M6 x 20	Tightening sequence: see Repair Manual
	12 Nm
Oil tank to front cover	
M5 x 16	5 Nm
<b>11 15 - Crankcase breather</b>	
Breather cover to gearbox cover	
M6 x 20	12 Nm
Breather wheel to crankshaft	
M10 x 1 x 25	40 Nm
<b>11 24 - Conrod with bearings</b>	
Conrod bolt	
M10 x 1 x 50 - 13.9, Replace screw	1st tightening torque, 5 Nm
Thread and seating face of the screw oiled	2nd tightening torque, 20 Nm
	Additional angle of rotation, 150°
	Slacken and then retighten the bolt
	1st tightening torque, 5 Nm
	2nd tightening torque, 20 Nm
	Additional angle of rotation, 150°
<b>11 26 - Starter freewheel, layshaft</b>	
Freewheel housing to alternator	
M8 x 16 - 12.9	35 Nm
Sleeve (axial stop, freewheel gear) to crankcase	
M6 x 50, for re-use	10 Nm
Thread-locking compound (Loctite 243, Medium strength)	
<b>11 31 - Camshaft</b>	
Camshaft sprocket to camshaft	
left exhaust camshaft, M10 x 1.25 x 35 - 10.9	65 Nm
other camshafts, M10 x 1.25 x 25 - 10.9	65 Nm
Trigger for camshaft sensor to camshaft	
M5 x 20	6 Nm
Securing screw for intermediate shaft axle in cylinder head	

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M6 x 14	8 Nm
Sprocket to intermediate shaft	
M6 x 12	10 Nm
other camshafts, M10 x 1.25 x 25 - 10.9	65 Nm
Chain tensioner to cylinder	
M18 x 1.5	30 Nm
<b>11 41 - Oil pump with strainer and drive</b>	
Oil-pump cover to crankcase	
M6 x 16	8 Nm
Oil intake in crankcase	
M6 x 20	8 Nm
Threaded plug for oil pressure control valve in crankcase	
M24 x 1.5	42 Nm
<b>11 42 - Oil filter and lines</b>	
Oil filter to crankcase	
Lubricate sealing ring with engine oil	11 Nm
Oil filter adapter to crankcase	
M20 x 1.5	35 Nm
<b>11 51 - Coolant pump with drive</b>	
Coolant pump to crankcase	
M6 x 40	12 Nm
<b>11 53 - Thermostat and on-engine coolant lines</b>	
Coolant adapter for thermostat to crankcase	
M6 x 16	12 Nm
Coolant adapter to crankcase	
M6 x 16	12 Nm
<b>11 78 - Exhaust controls</b>	
Oxygen sensor to exhaust manifold	
M18 x 1.5	45 Nm
Lubricate thread, Installation tool (Optimoly TA)	
<b>12 - Engine electrical system</b>	<b>Value</b>
<b>12 12 - Ignition wiring, spark plugs</b>	
Spark plug to cylinder head	
M10 x 1	12 Nm
<b>12 13 - Ignition coil</b>	
Cover for coil to cylinder head	
M5 x 20	5 Nm
<b>12 31 - Alternator with drive and fasteners</b>	
Rotor to crankshaft	
M24 x 1.5	250 Nm
Coil carrier to crankcase	
M6 x 20	12 Nm
Stator to coil carrier	
M6 x 40	10 Nm
<b>12 32 - Regulator</b>	
Voltage regulator to rear-wheel cover	
M5 x 25	5 Nm
<b>12 41 - Starter with fastener</b>	
Starter to gearbox cover	
M6 x 40	12 Nm

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Wiring harness (ground) to starter	
M6 x 10	8 Nm
Wiring harness (positive) to starter	
M6, Replace nut	8 Nm
Thread-locking compound (mechanical)	
<b>12 61 - Oil pressure, oil temperature, oil-level indicators</b>	
Oil-level sensor to gearbox cover	
M6 x 16	8 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
<b>12 62 - Coolant temperature</b>	
Coolant-temperature sensor to coolant port	
M12 x 1.5	15 Nm
<b>12 72 - Transmitter for control unit</b>	
Crankshaft sensor on crankcase	
M6 x 14	8 Nm
Camshaft sensor to cylinder head	
M6 x 16	8 Nm
<b>13 - Fuel preparation and control</b>	<b>Value</b>
<b>13 53 - Injection nozzles and lines</b>	
Injection valve to cylinder head	
M5 x 20	5 Nm
<b>13 64 - Injection valves, start valves</b>	
Cover for injection valve to cylinder head	
M5 x 20	5 Nm
<b>13 71 - Intake air silencer</b>	
Intake air silencer to tank bracket	
M6 x 25	8 Nm
<b>13 72 - Air filter</b>	
Air filter cover to intake air silencer	
M5 x 50	in diagonally opposite sequence
	3 Nm
<b>16 - Fuel supply</b>	<b>Value</b>
<b>16 11 - Fuel tank with filler neck</b>	
Tank bracket to frame	
M6 x 12	8 Nm
Fuel tank to frame	
M8 x 45	19 Nm
Fuel filler cap to fuel tank	
M5 x 28	4 Nm
<b>16 14 - Delivery, preparation and measurement, control unit, fuel pump</b>	
Fuel pump to fuel tank	
Union nut	35 Nm
<b>17 - Cooling</b>	<b>Value</b>
<b>17 11 - Radiator with fasteners</b>	
Radiator to front panel carrier	
Special thread for light alloy, 6 x 25	12 Nm
Radiator to frame	
M6 x 25	8 Nm

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Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
<b>17 13 - Expansion tank</b>	
Expansion tank to intake air silencer	
Screw for plastic, 5.5 x 16	4 Nm
<b>18 - Exhaust system</b>	
	<b>Value</b>
<b>18 51 - Exhaust system parts with mountings</b>	
Bracket for exhaust manifold/servomotor to gearbox	
M6 x 25	8 Nm
Servomotor to bracket	
Screw for plastic, 5 X 12	2 Nm
Exhaust header to cylinder head	
M8	19 Nm
Cover to silencer / exhaust manifold	
M5 x 10	5 Nm
Clamp to silencer and exhaust manifold	22 Nm
Silencer to rear frame	
M8 x 35	19 Nm
Clamp to silencer	
M5 x 16	8 Nm
Thread-locking compound (Loctite 243, Medium strength)	
Plastic cover to silencer	
M5 x 10	5 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
<b>21 - Clutch</b>	
	<b>Value</b>
<b>21 21 - Clutch with driver plate</b>	
Clutch hub to layshaft	
M20 x 1.5, Replace nuts and lubricate with engine oil	Tightening torque, 150 Nm
	Fully slacken nut
	Tightening torque, 150 Nm
Clutch cage to balancing shaft	
M36 x 1.5, Replace nuts and lubricate with engine oil	Tightening torque, 170 Nm
	Slacken the nut
	Tightening torque, 250 Nm
Drive gear to clutch cage	
M8 x 15.5	22 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
Mounting plate to clutch hub	
M6 x 30	10 Nm
lubricate with engine oil	
<b>21 52 - Clutch actuation (hydraulics)</b>	
Clutch slave cylinder to gearbox cover	
M6 x 20	Tighten the screws twice
	8 Nm
Clutch line to clutch lever fitting	
M10 x 1	7 Nm
Clutch line to clutch slave cylinder	
M10 x 1	7 Nm

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Bleed screw to clutch slave cylinder	5 Nm
<b>23 - Gearbox</b>	<b>Value</b>
<b>23 11 - Housing with cover</b>	
Gearbox cover to crankcase	
M6 x 25	12 Nm
Shift-mechanism cover to gearbox cover	
M6 x 20	12 Nm
<b>23 12 - Bearing in housing, sealing rings</b>	
Retaining plate for fixed mount to gearbox cover	
Inside, M6 x 16	Tightening torque, 8 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	Additional angle of rotation, 90°
at end, M6 x 25	Tightening torque, 8 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	Additional angle of rotation, 90°
<b>23 14 - Electrical components</b>	
Gearbox potentiometer to gearbox cover	
M5 x 14 - 10.9	5 Nm
<b>23 31 - Internal gearshift components</b>	
Retaining plate for selector drum to gearbox cover	
M6 x 16	10 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
Locking lever on gearbox cover	
M6 x 18	Tightening torque, 8 Nm
	Additional angle of rotation, 90°
<b>23 41 - External gearshift components</b>	
Selector lever to selector shaft	
M6 x 30	8 Nm
Peg (clamp) to shift lever	
M6 x 16	8 Nm
Gearshift lever to frame	
M8 x 25	19 Nm
Ball end to shift lever	
M8	19 Nm
Ball joint to shift rod	
Locknut, M6	8 Nm
<b>31 - Front axle, front-wheel steering</b>	<b>Value</b>
<b>31 42 - Telescopic forks</b>	
Clamping screw for quick-release axle in telescopic fork	
M8 x 35	19 Nm
Leading link to engine	
M14 x 1.5	120 Nm
Sealing screw in fork plug	
M4 x 8, Replace O-ring	2.5 Nm
Ball joint to leading link	
M14 x 1.5	130 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 2701, High strength)	
Stud bolts in fork bridge	

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M14 x 1.5	130 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
Fork bridge, top, to fork fixed tube	
M10 x 1.25	40 Nm
Thread-locking compound (mechanical) or, Thread-locking compound (Loctite 2701, High strength)	
Fork bridge, lower, to slider tube	
M8 x 35	19 Nm
<b>31 48 - Spring strut, mounting parts</b>	
Spring strut, front, to frame and leading link	
M10 x 1.5 x 55 - 10-9	56 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 2701, High strength)	
ride-height sensor to tank bracket	
M5	5 Nm
Ball end to leading link/ride-height sensor	
M6 x 14.5	8 Nm
Actuator rod to ride-height sensor	
M6	8 Nm
<b>32 - Steering</b>	<b>Value</b>
<b>32 71 - Motorcycle handlebars</b>	
Handlebar weight to handlebar	
M10 x 50	40 Nm
Clamping block (handlebar clamp) on fork bridge	
M8 x 35	tighten in riding direction at the front of the block
	19 Nm
Hand protector to bracket	
M5 x 14.5	2 Nm
<b>32 72 - Handlebar lever</b>	
Cap to reservoir	
M4 x 16	2.5 Nm
Handlebar fitting to handlebar	
M6 x 30	8 Nm
Lever to handlebar fitting	
M5, Replace nut	7 Nm
Thread-locking compound (mechanical)	
<b>33 - Rear axle, rear-wheel drive and rear-wheel guidance</b>	<b>Value</b>
<b>33 35 - Rear wheel swinging arm with pivot mount, link</b>	
Bevel gears to swinging arm	
M12 x 1.5	100 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 2701, High strength)	
Locknut (bearing stud) to frame	
M24 x 1.25	145 Nm
Floating bearing stud (swinging arm) to frame	
M24 x 1.25	Tightening torque, 15 Nm
Lubricate thread and bearing seat, Installation tool (Optimoly TA)	Loosen

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	Tightening torque, 7 Nm
Bearing stud, swinging arm to frame, left	
M27 x 1.25	100 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 2701, High strength)	
Paralever link to bevel gears	
M10 x 60 - 10.9	56 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 2701, High strength)	
Paralever link to frame	
M10 x 60 - 10.9	56 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 2701, High strength)	
<b>33 54 - Spring strut, mounting parts</b>	
Spring strut to frame	
M12 x 1.5 x 60	100 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 2701, High strength)	
Spring strut to swinging arm	
M12 x 1.5 x 75 - 10.9	100 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 2701, High strength)	
Retaining plate (ride-height sensor) to frame	
M6 x 35	8 Nm
Ball end (actuator rod) to rear wheel swinging arm	
M6	8 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
Ball end (actuator rod) to ride-height sensor	
Nut, M6	
Ball end, M6	8 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
Spray guard to spring strut	
M4 x 6	3 Nm
Thread-locking compound (Loctite 243, Medium strength)	
<b>33 74 - Bevel gears, rear</b>	
Cover to bevel gears, rear	
M8 x 30, Replace screws	tighten in diagonally opposite sequence
	Tightening torque, 10 Nm
	Additional angle of rotation, 45°
<b>33 75 - Housing for bevel gears, rear</b>	
Oil drain plug in bevel gears	
M12 x 1	20 Nm
Oil filler plug to bevel gears	
M12 x 1.5	20 Nm
<b>34 - Brakes</b>	<b>Value</b>
<b>34 11 - Front brake</b>	
Brake disc to front wheel	



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M8 x 27, Replace screw	tighten by stages in diagonally opposite sequence
Thread-locking compound (Micro-encapsulated)	19 Nm
Brake caliper on telescopic fork	
M10 x 65	38 Nm
Sensor ring to front wheel	
M5 x 10	5 Nm
Bleed screw in front brake caliper	
M8	10 Nm
Grub screw (brake pads) in brake caliper	6 Nm
<b>34 21 - Rear brake</b>	
Brake caliper to bevel gears	
M8 x 25	24 Nm
Sensor ring to rear wheel	
M5 x 10	5 Nm
Bleed screw in rear brake caliper	14 Nm
Brake disc to wheel flange	
M8 x 15.5, Replace screw	tighten by stages in diagonally opposite sequence
Thread-locking compound (Micro-encapsulated)	Tightening torque, 12 Nm
	Additional torque, 30 Nm
<b>34 31 - Brake master cylinder</b>	
Locknut to piston rod (footbrake cylinder)	
M8	17 Nm
Footbrake cylinder with heel deflector to frame	
M6 x 20	8 Nm
Brake-fluid reservoir to frame	
M6 x 16	8 Nm
<b>34 32 - Brake lines</b>	
Brake hose cover to strut	
M5 x 12	5 Nm
Brake hose with banjo bolt to components	
M10 x 1	24 Nm
Brake line to fork bridge	
M6 x 16	8 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
<b>34 51 - Mechanical, hydraulic components</b>	
ABS pressure modulator on retainer	
M6 x 14.5	8 Nm
<b>35 - Foot operation</b>	<b>Value</b>
<b>35 21 - Footbrake lever with connecting linkage</b>	
Footbrake lever to frame	
M8 x 25	19 Nm
Cable holder for wheel-speed sensor to telescopic forks	
M5 x 10	5 Nm
Wheel-speed sensor to telescopic forks/bevel gears	
M6 x 16	8 Nm
<b>36 31 - Wheels with bearings</b>	
Quick-release axle in telescopic forks	

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M12 x 20	30 Nm
Rear wheel to wheel flange	
M10 x 1.25 x 40	tighten in diagonally opposite sequence
	60 Nm
Metal valve in rim	
Thread 1/8 inch	12 Nm
Thread-locking compound (Loctite 243, Medium strength)	
Nipple on spoke	
M4	1st tightening torque, 1 Nm
	2nd tightening torque, 4 Nm
Thread locking compound for spoke nipples	
Grubscrew, M4	2 Nm
RDC sensor to wheel rim	
M8 x 25, use thread-locking compound for repair	9 Nm
Thread-locking compound (Loctite 243, Medium strength)	
<b>46 - Frame and mounted components</b>	<b>Value</b>
<b>46 51 - Motorcycle frame</b>	
Rear frame to main frame	
Top, M10 x 30	56 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 2701, High strength)	
Main frame to engine	
top front, M12 x 255 - 10.9	100 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
bottom rear, M10 x 45	55 Nm
bottom front, M10 x 45	55 Nm
top rear, M12 x 210	100 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
<b>46 53 - Side stand</b>	
Side stand to pivot mount	
M10 x 1, Use thread-locking compound	35 Nm
Thread-locking compound (Loctite 2701, High strength)	
Threaded pin (side-stand spring) in frame	
M10 x 1.5	38 Nm
<b>46 54 - Luggage system</b>	
<b>Luggage rack base to luggage rack</b>	
M6 x 20	5 Nm
Luggage carrier to rear frame	
M8 x 20	19 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
M8 x 40	19 Nm
Thread-locking compound (Micro-encapsulated)	
or, Thread-locking compound (Loctite 243, Medium strength)	
Luggage carrier to rear frame	
M8	19 Nm
Thread-locking compound (Loctite 243, Medium strength)	
<b>46 61 - Front-wheel cover</b>	

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Front-wheel cover, top, to fairing bracket	
M5 x 14.5	2 Nm
Front-wheel cover to telescopic forks/fork bridge	
M5 x 14.5	2 Nm
<b>46 62 - Rear-wheel cover, number-plate carrier</b>	
Number-plate carrier to rear frame	
M6 x 17.5	8 Nm
Rear-wheel cover to rear frame	
M6 x 17.5	8 Nm
Spray guard to bevel gears	
M6 x 20	8 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
Tail section to rear frame	
Front, M8 x 40	19 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
Rear, M8 x 25	19 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
<b>46 63 - Motorcycle fairing, windscreen</b>	
Bracket to windscreen and covers	
M5 x 14.5	2 Nm
Front panel carrier, left/right to frame	
M8 x 30	19 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
Trim panels	
M5	2 Nm
Windscreen to windscreen holder	
M5 x 10	4 Nm
Front panel carrier, centre, to frame	
M6 x 50	12 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
Front panel carrier, left/right to front panel carrier, centre	
Front, M6 x 16, Replace screw	8 Nm
Rear, M6 x 30, Replace screw	8 Nm
Cover for fuel tank, centre, to frame	
M6 x 25	8 Nm
<b>46 71 - Engine fasteners, footrests</b>	
Footrest plate (rear) to rear frame	
M8 x 30 - 10.9	38 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
Cap to rear footrest plate	
M4 x 12	1.5 Nm
Left heel deflector to frame	
M6 x 12	8 Nm
<b>51 - Trim panels</b>	<b>Value</b>

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<b>51 16 - Mirrors, covers, ashtrays, stowage compartments</b>	
Mirror (lock nut) to adapter	
Left-hand thread, M10 x 1.25	22 Nm
Adapter to clamping block	
M10 x 14 - 4.8	25 Nm
<b>51 25 - Other fasteners</b>	
Ignition/steering lock to fork bridge	
Non-removable screw, M8, Replace screw	20 Nm
Thread-locking compound (Micro-encapsulated)	
<b>52 - Seats and seat bench</b>	<b>Value</b>
<b>52 53 - Seat</b>	
Latch, rear seat, to rear carrier	
Screw for plastic, 4 x 10	1 Nm
Seat adjuster to frame	
M6 x 14.5	4 Nm
<b>61 - General vehicle electrics</b>	
<b>61 13 - Plug, terminal</b>	
Wiring harness (ground) to cylinder head	
M6 x 10	8 Nm
Battery-positive connection point to battery carrier	
M6 x 14	2 Nm
<b>61 21 - Battery with holder</b>	
Wiring harness to battery	
M6 x 10	5 Nm
<b>61 31 - Switch, sensor</b>	
Multifunction switch to grip unit	
Screw for plastic, 2.5 x 15	0.4 Nm
Cover to multifunction switch	
Screw for plastic, 2.5 x 15	0.4 Nm
Throttle twistgrip/handlebar grip, left, to handlebar	
M3.5 x 30	1.5 Nm
Clutch switch to handlebar fitting	
Screw for plastic, 2.2 x 22	0.4 Nm
<b>61 33 - Horn</b>	
Horn to front panel carrier	
M8 x 18	19 Nm
<b>61 34 - On-board sockets, cigarette lighter</b>	
On-board socket to front panel carrier	
M18 x 1	3 Nm
<b>61 36 - Relay</b>	
Wiring harness to starter relay	
M6, Replace nut	6 Nm
Thread-locking compound (mechanical)	
<b>63 - Lights</b>	<b>Value</b>
<b>63 12 - Headlight</b>	
Headlight to front panel carrier	
M6 x 20	5 Nm
<b>63 13 - Flashing turn indicators, front</b>	
Flashing turn indicator to front panel carrier	
M6 x 16	4 Nm

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<b>63 23 - Flashing turn indicators, rear</b>	
Flashing turn indicator to number-plate carrier	
M6 x 20	3 Nm
<b>65 - Audio, navigation, information systems</b>	
<b>Value</b>	
<b>65 90 - Navigation systems</b>	
Left retainer to front panel carrier	
M6 x 18	8 Nm
Right retainer to front panel carrier	
M6 x 16	8 Nm
<b>77 - Optional accessories, motorcycle</b>	
<b>Value</b>	
<b>77 11 - Exhaust system</b>	
Sports silencer to rear frame	
M8 x 35	19 Nm
Heat shield to exhaust manifold	
Clamp	3 Nm
Screw, M5 x 12	3 Nm
Sports silencer to exhaust manifold	10 Nm
<b>77 14 - Engine guard, crash bars</b>	
Crash bar to engine	
M8 x 35	19 Nm
Pipe clamp with retaining plate to frame tube	
M6 x 16	8 Nm
Enduro engine guard to retaining plate	
M6 x 16	8 Nm
Enduro engine guard to bracket	
M6 x 25	8 Nm
Spacers (engine protection bar) to frame	
M8 x 20	19 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
Crash bar to frame, top	
M8 x 30	19 Nm
Crash bar with frame to engine	
Rear bottom, M10 x 45	55 Nm
<b>77 25 - Frame, footrests, mounted parts</b>	
Mount to carrier	
M8 x 25	20 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
Clamping block to footrest	
M8 x 20	20 Nm
<b>77 30 - Mounted parts, trim panels</b>	
Cover for hole for grab handle to rear frame	
M8 x 20	3 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
M8 x 40	3 Nm
Thread-locking compound (Micro-encapsulated) or, Thread-locking compound (Loctite 243, Medium strength)	
<b>77 42 - Mounted parts, cases</b>	

## Shifthead R1250 SC GS/GSA

### Tightening torques R 1250 GS

Cap to footrest plate	
M4 x 12	1.5 Nm
<b>77 44 - Mounted parts, topcase, luggage carrier</b>	
Topcase rack with grab handle to rear frame	
M8 x 35	19 Nm
Thread-locking compound (Loctite 243, Medium strength)	
M8 x 40	19 Nm
Thread-locking compound (Loctite 243, Medium strength)	
Cover to carrier plate	
M5 x 14.5	2 Nm
Topcase rack to grab handle	
M6 x 20	5 Nm
Carrier plate to rear frame	
M8 x 35	19 Nm
M8 x 50	19 Nm
<b>77 45 - Tank rucksack</b>	
Front attachment for tank rucksack to frame	
M6 x 28	8 Nm
<b>77 51 - Lights</b>	
LED auxiliary headlight to bracket	
M6 x 40	6 Nm
Bracket, LED auxiliary headlight to front panel carrier	
M6 x 30	8 Nm
Thread-locking compound (mechanical) or, Thread-locking compound (Loctite 243, Medium strength)	
Bracket to cockpit fairing	
M5 x 17.5	2 Nm
Headlight guard to attachment	
M6 x 10	5 Nm
<b>77 53 - Switches, small items, control unit</b>	
Additional switch to clamping block	
M5 x 14	3 Nm