

Electrical

Application	Torque (Nm)	Notes
Battery terminals	4.5 Nm	See Warning - Battery terminals
Alternator to crankcase	28 Nm	
Alternator drive gear	54 Nm	
Alternator decoupler to drive gear	3 Nm	Fit new fixing(s) if loosened or removed
Alternator power lead connector	10 Nm	See Warning - Battery terminals
Starter motor to crankcase	9 Nm	
Starter motor power lead connection	5 Nm	See Warning - Battery terminals
Starter motor cover	4 Nm	
Starter motor solenoid lead connector	5 Nm	See Warning - Battery terminals
Horn	18 Nm	
Ignition switch	12 Nm	Fit new fixing(s) if loosened or removed
Instruments	3 Nm	
Headlight surround	3 Nm	
Rear light	4 Nm	
Front and rear direction indicators	5 Nm	
Fog light adjustment fixings	4 Nm	If fitted
Fog light shroud to bracket	6 Nm	If fitted

Application	Torque (Nm)	Notes
Fog light to shroud	3 Nm	If fitted Fit new fixing(s) if loosened or removed
Electrical accessory socket(s)	2 Nm	
Inertial measurement unit to bracket	1.5 Nm	See Inertial Measurement Unit (IMU) - Installation
Inertial measurement unit and bracket to front seat support	1.5 Nm	See Inertial Measurement Unit (IMU) - Installation
Chassis electronic control module cover wing nut	1.25 Nm	
Ambient air temperature sensor	1.5 Nm	
Swinging arm position sensor	4 Nm	
Position sensor drop link ball stud	9 Nm	Apply a smear of proprietary general purpose grease to NLGI 2 standard to the ball stud. Fit new fixing(s) if loosened or removed
Starter Motor cable P clip to sump	6 Nm	
Side stand switch	7 Nm	

Frame and Bodywork

Application	Torque (Nm)	Notes
Upper crankcase to frame	100 Nm	See Engine - Installation
Lower crankcase to frame	100 Nm	See Engine - Installation
Cylinder head rear mountings to frame	85 Nm	See Engine - Installation
Cylinder head front left hand mounting to frame - initial torque	24 Nm	See Engine - Installation
Cylinder head front left hand mounting to frame - final torque	115 Nm	See Engine - Installation
Cylinder head front right hand mounting to frame	100 Nm	See Engine - Installation
Upper and lower crankcase to frame adjusters	5 Nm	See Engine - Installation
Cylinder head front right hand mounting to frame adjuster	3 Nm	See Engine - Installation
Headstock brace to frame - M6 lock nut	12 Nm	Fit new fixing(s) if loosened or removed
Headstock brace to frame - M6 x 20 bolt	12 Nm	
Fork protector and side reflector bracket to fork leg fixing	3 Nm	
Fork protector to front mudguard	3 Nm	
Front mudguard to fork leg	7 Nm	Fit new fixing(s) if loosened or removed
Front sub frame fixings	30 Nm	
Windscreen fixings	4 Nm	
Windscreen support to adjuster pivot bar fixings	4 Nm	

Application	Torque (Nm)	Notes
Windscreen support to motor fixing	5 Nm	
Windscreen motor infill fixings	3 Nm	
Wind deflector clear panel fixings	3 Nm	
Cockpit panel fixings	3 Nm	
High level mudguard to inner fixings	1.5 Nm	
Finisher to high level mudguard fixing	1.5 Nm	
Clear panel to high level mudguard finisher fixings	3 Nm	
Infill panel to high mudguard, finisher and clear panel assembly	3 Nm	
High level mudguard assembly to sub frame	5 Nm	
Fuel tank panels to radiator covers	1.5 Nm	
Radiator duct to radiator covers	1.5 Nm	
Fuel tank infill lower brackets to radiator covers	1.5 Nm	
Fuel tank upper infill brackets to radiator covers	3 Nm	
Side fairings to fuel tank fixings	3 Nm	
Side fuel tank infills	3 Nm	
Centre fuel tank infill	3 Nm	
Fuel tank panel badge fixings	3 Nm	
Fuel tank/seat infill locating slot fixing	9 Nm	
Seat Infill fixing	3 Nm	

Application	Torque (Nm)	Notes
Sump guard to engine fixings	6 Nm	Fit new fixing(s) if loosened or removed
Sump guard to bracket fixings (aluminium sump guard)	6 Nm	Fit new fixing(s) if loosened or removed
Right hand engine protector bar to lower crancase lock nut	100 Nm	
Engine bar to radiator mounting bracket	12 Nm	
Engine bar centre mounting	18 Nm	
Engine bars link bar	5 Nm	
Rear panel to frame fixings	7 Nm	
Luggage rack fixings	27 Nm	
Luggage rack cover fixings	7 Nm	
Pannier rail fixings	27 Nm	
Rear mudguard upper fixings	7 Nm	
Rear mudguard lower fixings	5 Nm	
Under seat tray fixings	7 Nm	
Chassis electronic control module cover bolt and lock nut to under seat tray	2 Nm	
Centre stand mounting bolts	50 Nm	Fit new fixing(s) if loosened or removed
Centre stand spring upper mounting pin	7 Nm	
Centre stand spring lower mounting bracket	20 Nm	
Side stand mounting bolts	70 Nm	
Mirror boss	25 Nm	

Application	Torque (Nm)	Notes
Mirror lock nut	25 Nm	
Control plate fixings	18 Nm	
Right hand front heel guard fixings	7 Nm	
Rear footrest hangers	27 Nm	
Rear footrest heel guard fixings	3 Nm	
Aluminium pannier mounting frame fixings	12 Nm	
Aluminium pannier mounting frame link bar fixings	20 Nm	
Aluminium pannier mounting frame mechanism fixings	20 Nm	
Aluminium pannier mounting frame bobbin fixings	9 Nm	
Seat bridge moulding to frame	5 Nm	
Seat lock to frame	9 Nm	Fit new fixing(s) if loosened or removed
Side panel brackets to radiator	7 Nm	

Wheels

Application	Torque (Nm)	Notes
Front wheel spindle/axle bolt	65 Nm	
Fork to wheel spindle pinch bolts	22 Nm	
Rear wheel to final drive unit	70 Nm	
Tyre valve - models without tyre pressure monitoring system	6 Nm	
Tyre valve - models with tyre pressure monitoring system	4.5 Nm	

ABS

Application	Torque (Nm)	Notes
ABS modulator to sub bracket fixings	9 Nm	
ABS modulator sub bracket to main bracket	9 Nm	
ABS modulator to main bracket	9 Nm	
ABS modulator bracket to frame lower fixing	9 Nm	
ABS rear pulser ring	5 Nm	Fit new fixing(s) if loosened or removed
ABS front and rear wheel speed sensors	9 Nm	Fit new fixing(s) if loosened or removed
ABS lines to modulator	25 Nm	Fit new sealing washer(s)
Rear brake line to crankcase tidy	8 Nm	
Rear brake master cylinder reservoir cover	1.5 Nm	
ABS modulator hose guide fixings	3 Nm	

Rear Brakes

Application	Torque (Nm)	Notes
Rear brake caliper	40 Nm	Fit new fixing(s) if loosened or removed
Rear brake pad retaining pin	17 Nm	
Rear brake caliper bleed screw	6 Nm	
Rear brake hose to caliper union	25 Nm	Fit new sealing washer(s)
Rear brake master cylinder	18 Nm	
Rear brake master cylinder reservoir	6 Nm	
Rear brake hose to master cylinder union	25 Nm	Fit new sealing washer(s)
Brake pedal pivot bolt	22 Nm	
Brake hose P-clip bolt	7 Nm	Fit new fixing(s) if loosened or removed
Rear brake disc	22 Nm	Fit new fixing(s) if loosened or removed
Lock nut, master cylinder push rod	18 Nm	

Front Brakes

Application	Torque (Nm)	Notes
Front brake caliper to fork	50 Nm	
Front brake pad retaining pin	6 Nm	
Front brake caliper bleed screw	6 Nm	
Front brake hose to caliper union	25 Nm	Fit new sealing washer(s)
Front brake master cylinder to handlebar	12 Nm	
Front brake hose to master cylinder union	25 Nm	Fit new sealing washer(s)
Front brake hose clamp on front fork	3 Nm	
Front brake master cylinder reservoir cover	1.5 Nm	
Front brake disc to wheel	22 Nm	Fit new fixing(s) if loosened or removed
Brake lever pivot bolt	1 Nm	
Brake lever pivot bolt lock nut	6 Nm	

Final Drive

Application	Torque (Nm)	Notes
Filler/level plug	25 Nm	Fit new sealing washer(s)
Drain plug	25 Nm	Fit new sealing washer(s)
Left hand pivot pin	100 Nm	See Rear Bevel Box - Installation
Right hand pivot pin	48 Nm	See Rear Bevel Box - Installation
Locking ring - right hand pivot pin	110 Nm	Apply a thin smear of proprietary high temperature copper based grease to the threads See Rear Bevel Box - Installation
Back plate to bevel box housing	30 Nm	
Rubber boot clip	1.5 Nm	

Rear Suspension

Application	Torque (Nm)	Notes
Swinging arm to frame, left hand pivot pin	170 Nm	See Swinging Arm - Installation
Swinging arm to frame, right hand pivot pin	45 Nm	See Swinging Arm - Installation
Swinging arm to frame pivot locking ring	110 Nm	See Swinging Arm - Installation
Rear suspension unit upper mounting bolt	75 Nm	
Rear suspension unit lower mounting bolt to drop link	85 Nm	See Rear Suspension Unit - Installation
Drag link to frame	85 Nm	See Drag and Drop Links - Installation Fit new fixing(s) if loosened or removed
Drop links to swinging arm	85 Nm	See Drag and Drop Links - Installation Fit new fixing(s) if loosened or removed
Torque arms to rear bevel box	48 Nm	
Torque arms to frame	48 Nm	
Hose guide on torque arm	3 Nm	
Torque arm spacers	12 Nm	
Rear suspension unit stone guard fixings	5 Nm	
Rear suspension unit damping connector fixing	1 Nm	

Front Suspension

Application	Torque (Nm)	Notes
Upper yoke pinch bolt	25 Nm	
Lower yoke pinch bolt	25 Nm	
Fork top cap to fork outer tube	40 Nm	
Fork top cap to damping rod	2.5 Nm	
Fork top cap locknut	25 Nm	
Fork damping rod bolt	25 Nm	Fit new sealing washer(s)
Headstock upper nut	90 Nm	
Handlebar clamp base to upper yoke (M10 bolt)	35 Nm	
Handlebar upper clamp to lower clamp (M8 bolt)	26 Nm	
Handlebar grip, left hand side	3 Nm	
Handlebar end weights	5 Nm	Fit new fixing(s) if loosened or removed
Headstock adjuster nut - stage 1	40 Nm	See Headstock Bearing Check/Adjustment
Headstock adjuster nut - stage 2	10 Nm	See Headstock Bearing Check/Adjustment
Headstock lock nut	40 Nm	See Headstock Bearing Check/Adjustment
Left handlebar switch housing screws	2.5 Nm	
Right handlebar switch housing screws	2.5 Nm	
Cable guide, upper yoke	7 Nm	
Clutch switch	2 Nm	

Application	Torque (Nm)	Notes
Fog light/heated grips switch to bracket	3 Nm	
Fog lights/heated grips switch and bracket to clutch master cylinder clamp	3 Nm	
Handguard to bracket fixing	6 Nm	

Cooling System

Application	Torque (Nm)	Notes
Radiator upper mountings to frame	9 Nm	
Radiator lower mountings to brackets	9 Nm	
Radiator lower brackets to engine	18 Nm	
Radiator drain plug	1.5 Nm	Fit new sealing washer(s)
Thermostat housing to cylinder head	9 Nm	Fit new sealing washer(s)
Crankcase coolant drain plug	8 Nm	
Water temperature sensor	18 Nm	
Radiator fan cowl fixings	8 Nm	
Expansion tank fixings	3 Nm	
Expansion tank cover upper fixing	3 Nm	
Expansion tank cover lower fixing	7 Nm	
Right hand radiator shroud fixings	1.5 Nm	
Left hand radiator shroud fixings	3 Nm	
Radiator stone guard fixings	7 Nm	
Radiator top hose bleed screw	1.5 Nm	

Fuel System, Exhaust System and Airbox

Application	Torque (Nm)	Notes
Fuel tank to frame	12 Nm	
Fuel cap to fuel tank	4 Nm	
Fuel pump mounting plate to fuel tank	9 Nm	
Throttle body transition piece to cylinder head	9 Nm	
Throttle body to transition piece clip	1.5 Nm	
Throttle balance blanking screw	5 Nm	
Fuel rail to throttle bodies	3.5 Nm	
Exhaust downpipe to cylinder head	23 Nm	See Exhaust System - Installation
Exhaust downpipe to frame	15 Nm	
Exhaust downpipe clamp to exhaust silencer	10 Nm	
Exhaust silencer to frame	30 Nm	
Exhaust silencer front and rear end cap fixings	5 Nm	
Exhaust downpipe heatshield fixings	5 Nm	
Exhaust silencer strap fixings	5 Nm	
Oxygen sensor	25 Nm	
Secondary air injection solenoid fixings	2 Nm	
Air filter housing	1.5 Nm	
Airbox mounting bracket to throttle bodies	5 Nm	

Application	Torque (Nm)	Notes
Airbox to mounting bracket	5 Nm	
Intake air temperature sensor	2 Nm	
Ambient air temperature sensor	1.5 Nm	
Manifold absolute pressure sensor	2 Nm	
Ambient air pressure sensor	2 Nm	
Fall detection switch to mounting bracket	3 Nm	Fit new fixing(s) if loosened or removed
Crankshaft position sensor	6 Nm	Fit new fixing(s) if loosened or removed
Seat bridge to frame	5 Nm	
Evaporative cannister	8 Nm	
Purge valve	3 Nm	
Gear position sensor	5 Nm	Fit new fixing(s) if loosened or removed
Sump cable tidy	3 Nm	

Lubrication System

Application	Torque (Nm)	Notes
Sump plug	25 Nm	Fit new sealing washer(s)
Oil pressure relief valve	15 Nm	Apply ThreeBond 1305 to the threads
Low oil pressure warning light switch to crankcase	13 Nm	Fit new sealing washer(s)
Oil filter adapter to crankcase	16 Nm	Fit new fixing(s) if loosened or removed
Oil filter to adapter	10 Nm	Apply clean engine oil to the seal(s)
Oil pump to crankcase	9 Nm	Fit new fixing(s) if loosened or removed
Oil pump drive sprocket to pump shaft	12 Nm	Fit new fixing(s) if loosened or removed
Oil pump drive chain guide	6 Nm	Fit new fixing(s) if loosened or removed
Oil feed pipe casting	8 Nm	Fit new fixing(s) if loosened or removed
Heat exchanger to oil pump	10 Nm	Fit new fixing(s) if loosened or removed
Breather drain tube	9 Nm	Fit new fixing(s) if loosened or removed
Oil pump rotor housing fixings	10 Nm	
Sump blanking plug	9 Nm	

Transmission

Application	Torque (Nm)	Notes
Transmission housing to crankcase	20 Nm	Fit new fixing(s) if loosened or removed
Input shaft bearing retainer	9 Nm	Fit new fixing(s) if loosened or removed
Detent wheel to selector drum	11 Nm	Fit new fixing(s) if loosened or removed
Selector drum bearing retaining screw	9 Nm	Fit new fixing(s) if loosened or removed
Gear position sensor	5 Nm	Fit new fixing(s) if loosened or removed
Gear pedal crank pinch bolt	9 Nm	
Gear change rod lock nuts	6 Nm	
Gear pedal pinch bolt	9 Nm	Fit new fixing(s) if loosened or removed
Bevel box front cover bolts	25 Nm	Fit new fixing(s) if loosened or removed
Bevel box side cover bolts	9 Nm	Fit new fixing(s) if loosened or removed
Selector cover to crankcase - 28mm fixing	11 Nm	
Selector cover to crankcase - 90mm fixing	11 Nm	
Selector shaft retainer	12 Nm	Fit new fixing(s) if loosened or removed

Crankshaft and Crankcases

Application	Torque (Nm)	Notes
Crankcase lower M8 bolts	*	See Crankcases - Assembly
Crankcase lower M6 bolts	*	See Crankcases - Assembly
Crankcase upper bolts	*	See Crankcases - Assembly
Balancer gear to crankshaft	35 Nm	
Big end bearings	*	See Connecting Rods - Installation
Crankcase coolant drain plug	8 Nm	Fit new sealing washer(s)
Breather plate to crankcase	12 Nm	Fit new fixing(s) if loosened or removed
Flywheel to crankshaft	*	See Flywheel, Starter Drive Gears and Sprag Clutch - Installation
Crankcase dry seal plug	25 Nm	Fit new fixing(s) if loosened or removed
Camshaft drive sprocket to crankshaft	27 Nm	Fit new fixing(s) if loosened or removed
Oil retainer plate	12 Nm	
Face seal plug	8 Nm	Fit new fixing(s) if loosened or removed
Crankcase cable tidy - right hand fixing	6 Nm	

Clutch

Application	Torque (Nm)	Notes
Clutch centre nut	160 Nm	Fit new fixing(s) if loosened or removed
Clutch release plate to pressure plate	10 Nm	Fit new Belleville washer
Clutch master cylinder clamp bolts	12 Nm	
Clutch lever nut	6 Nm	
Clutch lever pivot bolt	1 Nm	
Clutch slave cylinder to clutch cover	10 Nm	
Clutch slave cylinder bleed screw	5 Nm	
Clutch hose union bolts	25 Nm	Fit new sealing washer(s)
Clutch master cylinder cover	1.5 Nm	
Clutch slave cylinder cover	4 Nm	
Clutch switch to clutch master cylinder	3 Nm	
Switch housing screws (left hand)	2.5 Nm	
Switch housing screws (right hand)	2.5 Nm	

Cylinder Head

Application	Torque (Nm)	Notes
Secondary air injection valve covers to camshaft cover	9 Nm	
Camshaft drive chain tensioner to crankcase	*	See Camshaft Drive Chain Tensioner - Installation
Camshaft bearing ladder to cylinder head	10 Nm	Apply clean engine oil to the thread(s)
Camshaft sprocket to camshaft	*	See Camshaft Drive Chain Tensioner - Installation
Camshaft drive chain top pad to cylinder head	10 Nm	Apply clean engine oil to the thread(s)
Cylinder head to crankcase (M6 screws)	10 Nm	Fit new fixing(s) if loosened or removed
Cylinder head to crankcase bolts	*	See Cylinder Head - Installation
Cylinder head dry seal plug	25 Nm	Fit new fixing(s) if loosened or removed
Spark plugs	12 Nm	
Cylinder head exhaust stud	10 Nm	Fit new fixing(s) if loosened or removed
Electrical connector bracket to fuel transfer pipe bracket	3 Nm	

Engine Covers

Application	Torque (Nm)	Notes
Camshaft cover to cylinder head	12 Nm	Apply engine oil to seals See Camshaft Cover - Installation
Flywheel cover	11 Nm	
Crankcase cover to crankcase	11 Nm	
Balancer cover to crankcase	11 Nm	
Clutch cover to crankcase	11 Nm	
Breather cover to crankcase	11 Nm	
Sump to crankcase	12 Nm	