



ENGINE

USE	THREADING	Kgm	N.m.	Note
Head nuts (final)	10x1.5	5.2±0.10	52±0.10	(1)
Connecting rod screws	10x1			(2)
Crankshaft gear nut	22x1	11÷12	110÷120	LOCTITE 601
Generator rotor nut	20x1	18÷19	180÷190	
Clutch drum nut	20x1	18÷19	180÷190	
Timing layshaft gear nut	14x1	4÷4.5	40÷45	LOCTITE 242
Timing rollers ring nut on layshaft	15x1	6÷6.5	60÷65	
Timing rollers ring nut on head	15x1	7÷7.5	70÷75	
Oil pump gear nut	8x1	1.3÷1.5	13÷15	
Spark plug	12x1.25	2÷3	20÷30	
Gearbox drum setting screw	16x1.5	3÷3.5	30÷35	LOCTITE 510
Clutch housing screw	8x1	3÷3.4	30÷34	
Camshaft support screws	6x1	1÷1.2	10÷12	LOCTITE 222
Adjustable tensioner pin	8x1.25	2.5÷2.8	25÷28	
Fixed roller pin	8x1.25	2.5÷2.8	25÷28	LOCTITE 222
Cable guide ring nut on generator and ignition	22x1.5	4÷4.5	40÷45	LOCTITE 601
Flywheel holder flange screws	6x1	0.8÷1	8÷10	
Valve cover screws	6x1	1÷1.2	10÷12	
Crankcase jointing screws	8x1.25	2.3÷2.5	23÷25	
Crankcase jointing screws	6x1	0.8÷1	8÷10	
Gearbox bearing stopper plate screws	6x1	0.8÷1	8÷10	LOCTITE 222
Bypass plug	18x1.5	4÷4.5	40÷45	LOCTITE 242
Head bolts	10x1.5			(3) LOCTITE 222
Intake and exhaust flange stud bolts	6x1			(4) LOCTITE 222
Net-filter duct plug	12x1	2.3÷2.5	23÷25	LOCTITE 648 BV
Oil pump duct plug	10x1.5	0.8÷1	8÷10	LOCTITE 648 BV
Oil filter nipple	16x1.5	4÷4.5	40÷45	LOCTITE 222
Oil drain plug	22x1.5	4÷4.5	40÷45	
Neutral light switch	8x1	0.5÷0.7	5÷7	
Oil net filter	22x1.5	4÷4.5	40÷45	
Oil cartridge filter	16x1.5	1.5÷2	15÷20	
Breather cap	40x1.5	4÷4.5	40÷45	
Union for radiator piping	14x1.5	4÷4.5	40÷45	LOCTITE 222
Coolant pump bearing screws	6x1	0.8÷1	8÷10	
Generator stator screws	6x1	0.8÷1	8÷10	LOCTITE 222
Coolant delivery union	22x1.5	2.3÷2.5	23÷25	LOCTITE 648 BV
Coolant suction union	30x1.5	2.3÷2.5	23÷25	LOCTITE 648 BV
Filling union	12x1	2.3÷2.5	23÷25	LOCTITE 648 BV
Starter idle gear pin screws	6x1	0.8÷1	8÷10	LOCTITE 222
Oil pump body screws	8x1.25	2.3÷2.5	23÷25	
Ignition sensor screws	5x0.8	0.4÷0.6	4÷6	
Coolant temperature warning light switch	10x1	2.3÷2.5	23÷25	
Pressure switch	10x1	2.3÷2.5	23÷25	

(1) Grease with AGIP GR 33 FD (part no. 94460.0808).

Temporary torque: first 1.5 Kgm (14.7 N.m.), then 3 Kgm. (29.4 N.m.).

(2) For S.P. version see procedure on page G.30.

Lubricate: first 2 Kgm (19.6 N.m.), then 3.5 Kgm. (34.3 N.m.) and final: 65° angle with torque wrench.

(3) Projection 148±0.5 mm.

(4) Projection 18±0.5 mm.



FRAME

USE	THREADING	Kgm	N.m.	Note
Rear wheel L.H. nut	33x1.5	14	137	(5) (9)
Rear wheel R.H. nut	38x1.8	16	157	(5) (9)
Front wheel L.H. nut	25x1.25	6÷6.6	60÷65	(5)
Shock absorber top screw	10x1.25	4÷4.4	40÷44	(5)
Shock absorber bottom screw	10x1.25	4÷4.4	40÷44	(5)
Suspension rod top screw	10x1.25	4÷4.4	40÷44	(5)
Suspension equalizer screw to frame	10x1.25	4÷4.4	40÷44	(5)
Swing arm screw	15x1.25	7÷7.6	70÷75	(5) (9)
Chain eccentric adjuster screw	12x1.25	2.8÷3.3	28÷33	(5) (9)
Steering head screw	8x1.25	2÷2.4	20÷24	(5)
Steering base screw	8x1.25	1.2÷1.5	12÷15	(5)
Front brake caliper screw	10x1.5	4÷4.5	40÷45	(5)
Steering tube screw	8x1.25	2÷2.4	20÷24	(5)
Handlebar screw	6x1	0.9÷1	9÷10	(5)
Handlebar clamp screw	6x1	0.9÷1	9÷10	(5)
Clutch pump screw	6x1	0.9÷1	9÷10	
Front brake master cylinder screw	6x1	0.9÷1	9÷10	
Driving pin screw	6x1	1÷1.2	10÷12	Loctite 242
Rear brake caliper screw	8x1.25	2.3÷2.6	23÷26	(5)
Chain guard screw	6x1	0.7÷0.8	7÷8	Loctite 242
Sprocket stopper screw	5x0.8	0.5÷0.7	5÷7	Loctite 222
Rear subframe screw	8x1.25	3,4÷3,7	34÷37	Loctite 242
Front sprocket nut	10x1.25	4.5÷5.1	45÷50	(6) On flange
Steering bearing ring nut	35x1	2	20	Loosen by 30°
Caliper holder plate pin	12x1.25	3÷3.5	30÷35	Loctite 601
Rear brake disc screw	8x1.25	2,3÷2,6	23÷26	Loctite 648 AV
Rear brake disc screw	6x1	1	10	Loctite 648 AV
Oil cooler nipple	14x1.5	2.4	24	Loctite 222 (7)
Chain sliding shoe screw	6x1	0.9÷1	9÷10	Loctite 222
Engine mounting bolt	10x1.25	4.4	44	
Front subframe screw	6x1	1÷1.2	10÷12	(5)
Coolant radiator screw	6x1	0.9÷1	9÷10	
Oil cooler screw	6x1	0.9÷1	9÷10	
Front brake disc screw	8x1.25	2.3÷2.5	23÷25	Loctite 242
Quick coupling for tank flange	1÷4" NPT	0.3	3	Loctite 577
Brake breather union	10x1	1.2	12	
Oil pipe union on cooler	9÷16" UNF	1.8÷2	18÷20	(8)
Oil pipe union on crankcase	9÷16" UNF	1.8÷2	18÷20	(8)
Clutch pipe union	10x1	1.8÷2	18÷20	
Screw fixing plates to battery terminals	6x1	0.7	7	
Sprocket cover screw	6x1	0.7÷0.8	7÷8	
Power module screw (916 STR./S.P.)	4x0.7	0.9÷1	9÷10	
Side stand plate screw	10x1.5	4÷4.5	40÷45	Loctite 648 BV
Stand pivot nut	8x1.25	2.4÷2.8	24÷28	
Head supply oil pipe union on cooler	10x1	1.2	12	
Warning horn screw	6x1	0.9÷1	9÷10	
Rear brake line guard screw	6x1	—	—	Loctite 242
Seat hinge screw	—	—	—	Loctite 242
Computer holder plate screw (916 STR./S.P.)	5x0.8	—	—	Loctite 242



USE	THREADING	Kgm	N.m.	Note
Front manifold screw	6x1	—	—	Loctite 242
Intake funnel springs screw	5x0.8	—	—	Loctite 242
Steering damper joint screw on cyl. head	6x1	—	—	Loctite 242
Steering tube reference pin	12x1	1.8÷2	18÷20	(5)
Fork bottom screw	8x1.25	1.8÷2	18÷20	
Silencer bracket screw (fix. to crankcase)	12x1.75	2.3÷2.5	23÷25	Loctite 222
Exhaust pipe screw (fix. to subframe)	6x1	0.9÷1	9÷10	
Fairing support screw	6x1	0.9÷1	9÷10	
Battery box mount screw	6x1	0.9÷1	9÷10	
Rear brake master cylinder supp. screw	6x1	0.9÷1	9÷10	
Rear brake master cylinder bracket screw	10x1.5	4÷4.5	40÷45	Loctite 242
Rear brake lever pivot	10x1.5	2.8÷3	28÷30	
Footrest bracket screw (fix. to frame)	8x1.25	2.3÷2.5	23÷25	Loctite 242
Pedal guard screw (fix. to frame)	6x1	0.9÷1	9÷10	Loctite 242
Gear change lever screw	6x1	0.9÷1	9÷10	
Air box screw	8x1.25	1.8÷2	18÷20	
Throttle twist-grip screw	6x1	0.9÷1	9÷10	
Brake and clutch tank holder plate screw	6x1	0.9÷1	9÷10	
Coolant temperature sensor	12x1.5	1.5	15	
Coolant temperature transmitter	10x1	1	10	
Thermal switch	22x1.5	5	50	Loctite 601 Loctite 242 Loctite 242 Hylomar
Steering pin	37x1	—	—	
Hinge-to-frame bracket screw	5x0.8	—	—	
Hinge-to-seat bracket screw	5x0.8	—	—	
Tank drain screw	10x1	0.8÷2	18÷20	
Fix. screw for key-operated switch	6x1	0.8÷1	8÷10	
Nut for exhaust pipe on heads	6x1	0.8÷1	8÷10	
Fix. screw for exhaust silencer	5x0.8	0.4÷0.6	4÷6	
Fix. screw for tank plug	5x0.8	0.4÷0.6	4÷6	
Fix. screw for front mudguard	6x1	0.7	7	
Fix. pin for gear change pedal	8x1.25	2.2÷2.4	22÷24	
Screws and nuts in general	5	0.4÷0.6	4÷6	
Screws and nuts in general	6	0.8÷1	8÷10	
Screws and nuts in general	8	2.2÷2.4	22÷24	
Screws and nuts in general	10	3.4÷3.7	34÷37	
Screws and nuts in general	12	5.3÷5.8	52÷57	

(5) Grease thread with AGIP GR SM (part no. 94460.0812).

(6) Grease with AGIP GR PV2 (part no. 94460.0815).

(7) Hold with wrench on cooler.

(8) Hold with nipple.

(9) Screw head underside, too.