Designation	Precondition	Value	Valid	
11 - Engine	I	l	1	
Running-in speed		<5000 min ⁻¹		
Engine oil, capacity	with filter change	approx. 2.9 l		
go o, capacity	Fluids and lubricants	арріол. 2.0 і		
	Viscosity class			
Engine oil, quantity for topping up	Difference between MIN and MAX	max 0.4 I		
	Fluids and lubricants		<u> </u>	
	Viscosity class			
additional quantity of engine oil after		0.31		
removal of swing-arm shaft cover	Fluids and lubricants			
	Viscosity class			
Engine oil, specified level MAX MIN MIN		Between MIN and MAX marks		
1134 - Valves with springs				
Inlet valve clearance	Engine cold max 35 °C	0.180.26 mm		
Exhaust valve clearance	Engine cold max 35 °C	0.270.35 mm		
1212 - Ignition wiring, spark plugs				
Spark plugs, manufacturer and designation		NGK DCPR 8 E		
13 - Fuel preparation and control				
Recommended fuel grade		Super unleaded max. 10 % ethanol, E10 95 ROZ/RON 89 AKI		
16 - Fuel supply		09 ANI		
Usable fuel capacity	İ	approx. 24 l		
Reserve fuel		min 2.7 l		
17 - Cooling	1	2.7 1		
Cooling system test pressure	Test pressure must remain unchanged: 5 min	1.5 bar		
Coolant, specified level		between MIN and MAX marks on the expansion tank		

General consumable (Antifreeze and corrosion inhibitor) 31 - Front axle, front-wheel steering Fork oil, capacity per fork leg Telescopic fork oil (Telescopic fork oil SAE 7.5) 3142 - Telescopic forks Projection of fork tube in fork bridge, top with cap 3273 - Bowden cables Setting of throttle-cable play 3273 - Bowden cables Setting of throttle-cable play 3383 - Traction drive, chain, belt Permissible chain length measured centre to centre over 10 pins, chain pulled taut Chain deflection Motorcycle with no weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) Hydraulic fluid (Brake fluid, DOT4) Brake fluid level, rear (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark.					
Fork oil, capacity per fork leg Telescopic fork oil (Telescopic fork oil SAE 7.5)		General consumable (Antifreeze and corrosion inhibitor)			
Telescopic fork oil (Telescopic fork oil SAE 7.5) 3142 - Telescopic forks Projection of fork tube in fork bridge, top with cap 3273 - Bowden cables Setting of throttle-cable play at outermost diameter of rubber grip, engine cold max 35 °C 3383 - Traction drive, chain, belt Permissible chain length measured centre to contre over 10 pins, chain pulled taut Chain deflection Motorcycle with no weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark. Hydraulic fluid (Brake fluid, DOT4) It is impermissible for the brake fluid level to drop below the MIN mark.	31 - Front axle, front-wheel steering				
3142 - Telescopic forks Projection of fork tube in fork bridge, top with cap 3273 - Bowden cables Setting of throttle-cable play at outermost diameter of rubber grip, engine cold max 35 °C 3383 - Traction drive, chain, belt Permissible chain length measured centre to centre over 10 pins, chain pulled taut Chain deflection Motorcycle with no weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) Hydraulic fluid (Brake fluid, DOT4) Brake fluid level, rear (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark.	Fork oil, capacity per fork leg				
Projection of fork tube in fork bridge, top with cap 3273 - Bowden cables Setting of throttle-cable play at outermost diameter of rubber grip, engine cold max 35 °C 3383 - Traction drive, chain, belt Permissible chain length measured centre to centre over 10 pins, chain pulled taut Chain deflection Motorcycle with no weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) Hydraulic fluid (Brake fluid, DOT4) It is impermissible for the brake fluid level to drop below the MIN mark. It is impermissible for the brake fluid level to drop below the MIN mark.		Telescopic fork oil (Teles	scopic fork oil SAE 7.5)		
top with cap 3273 - Bowden cables Setting of throttle-cable play at outermost diameter of rubber grip, engine cold max 35 °C 3383 - Traction drive, chain, belt Permissible chain length measured centre to centre over 10 pins, chain pulled taut Chain deflection Motorcycle with no weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) Hydraulic fluid (Brake fluid, DOT4) It is impermissible for the brake fluid level to drop below the MIN mark.	3142 - Telescopic forks	· · · · · · · · · · · · · · · · · · ·	·		
3273 - Bowden cables Setting of throttle-cable play at outermost diameter of rubber grip, engine cold max 35 °C 3383 - Traction drive, chain, belt Permissible chain length measured centre to centre over 10 pins, chain pulled taut Motorcycle with no weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark. Hydraulic fluid (Brake fluid, DOT4) It is impermissible for the brake fluid level to drop below the MIN mark.			4.0 mm		
Setting of throttle-cable play at outermost diameter of rubber grip, engine cold max 35 °C 3383 - Traction drive, chain, belt Permissible chain length measured centre to centre over 10 pins, chain pulled taut The cold max 35 °C Motorcycle with no weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark. Hydraulic fluid (Brake fluid, DOT4) It is impermissible for the brake fluid level to drop below the MIN mark.	with cap				
of rubber grip, engine cold max 35 °C 3383 - Traction drive, chain, belt Permissible chain length measured centre to centre over 10 pins, chain pulled taut Motorcycle with no weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) Hydraulic fluid (Brake fluid, DOT4) It is impermissible for the brake fluid level to drop below the MIN mark.	3273 - Bowden cables				
Permissible chain length measured centre to centre over 10 pins, chain pulled taut max 144.30 mm	Setting of throttle-cable play		12 mm		
Chain deflection Motorcycle with no weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) Hydraulic fluid (Brake fluid, DOT4) Brake fluid level, rear (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark.	3383 - Traction drive, chain, belt	3383 - Traction drive, chain, belt			
weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) Hydraulic fluid (Brake fluid, DOT4) Brake fluid level, rear (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark.	Permissible chain length	centre over 10 pins,	max 144.30 mm		
weight applied, supported on its side stand 34 - Brakes Brake fluid level, front (visual inspection) Hydraulic fluid (Brake fluid, DOT4) Brake fluid level, rear (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark.	1 2 3 8 9 10				
Brake fluid level, front (visual inspection) Hydraulic fluid (Brake fluid, DOT4) Brake fluid level, rear (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark.	Chain deflection	weight applied, supported on its side	3545 mm		
Hydraulic fluid (Brake fluid, DOT4) Brake fluid level, rear (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark.	34 - Brakes				
Brake fluid level, rear (visual inspection) It is impermissible for the brake fluid level to drop below the MIN mark.			It is impermissible for the brake fluid level to drop below the MIN mark.		
inspection) level to drop below the MIN mark.	MIN	Hydraulic fluid (Brake fluid, DOT4)			
MAX			It is impermissible for the brake fluid level to drop below the MIN mark.		
Hydraulic fluid (Brake fluid, DOT4)		Hydraulic fluid (Brake flu	id, DOT4)		

Brake disc thickness, front	When new	5.0 mm	
	Wear limit	min 4.5 mm	1
Brake-pad wear limit, front	Friction pad only, without backing plate. The wear indicators (grooves) must be clearly visible.	min 1.0 mm	
Brake disc lateral runout, front	At circumference	max 0.15 mm	
3421 - Rear brake			
Brake-pad wear limit, rear	Friction pad only, without backing plate.	min 1.0 mm	
Brake disc thickness, rear	When new	5.0 mm	
	Wear limit	min 4.5 mm	1
Brake disc lateral runout, rear	At circumference	max 0.15 mm	
3630 - Motorcycle wheels			
Permissible front-wheel imbalance		max 5 g	
Permissible rear-wheel imbalance		max 45 g	
Balancing weight for front wheel		max 80 g	
Weight must be divided equally across both sides and weights attached to rim on left and right.			
Balancing weight for rear wheel		max 80 g	
Weight must be divided equally across both sides and weights attached to rim on left and right.			
3631 - Wheels with bearings	•	•	
Vertical runout, front wheel		max 1.7 mm	
Lateral runout, front wheel		max 1.7 mm	
Vertical runout, rear wheel		max 1.7 mm	
Lateral runout, rear wheel		max 1.7 mm	
3632 - Tyres	-		-
Tyre pressure, front	one-up, tyre cold	2.2 bar	
	two-up and/or with luggage, tyre cold	2.5 bar	
Tyre pressure, rear	one-up, tyre cold	2.5 bar	
	two-up and/or with luggage, tyre cold	2.9 bar	
Tyre tread depth, front and rear	Wear limit, for Germany only	min 1.6 mm	
	Wear limit, outside Germany	Country-specific legal requirements	

Wheel valve test pressure	4 bar	1	
11 11 - Engine block	•	•	
Socket-head screw (hole for TDC locating pin)			
M8 x 16	25 Nm		
11 12 - Cylinder head with cover	•	•	
Cylinder head cover to cylinder head			
M6	tighten in diagonally opposite sequence		
	10 Nm		
Camshaft bearing cap to cylinder head		-	
M6	Tightening sequence: see Repair Manual		
	1st tightening torque, tightened uniformly until hand-tight		
	2nd tightening torque, 10 Nm		
11 13 - Oil sump			
Oil drain plug			
M24 x 2	40 Nm		
Engine-guard adapter to oil pan			
Silentblock, M8	19 Nm		
Engine guard to engine-guard adapter			
M8	8 Nm		
11 15 - Crankcase breather			
Vent connector to cylinder head cover			
M6 x 16, use thread-locking compound for repair	10 Nm		
Thread-locking compound (Loctite 243, Medium strength)			
11 31 - Camshaft			
Chain tensioner to cylinder head	_ _		
M18 x 1.5	40 Nm		
11 42 - Oil filter and lines			
Oil filter to crankcase	11 Nm		
12 12 - Ignition wiring, spark plugs			
Spark plugs			
M12 x 1.25	20 Nm		
13 71 - Intake air silencer			
Intake air silencer to frame			
	ì	1	

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5 Nm
ghtening torque, 25 Nm ving the forks 3x to left/right
rough full arc of travel
osen, 60°
ghtening torque, 11 Nm



M8 x 25	Tighten screws six times in alternate sequence	
	19 Nm	
32 71 - Motorcycle handlebars		
Handlebar weight to handlebar		
M8 x 45	23 Nm	
Thread-locking compound (Micro-encapsulated)		
or, Thread-locking compound (Loctite 243, Medium strength)		
Handlebar clamping block, top, to handlebar clamping block	ck, bottom (handlebar clamp)	
M8 x 30	in the forward direction of travel, tighten until seated	
	19 Nm	
33 35 - Rear wheel swinging arm with pivot mount, link		
Locknut of the final-drive chain tensioning screw		
M8	19 Nm	
33 84 - Traction drive, chainwheel, belt wheel		
Chain sprocket to chain-sprocket carrier		
M10, Replace the nuts and screws	Tightening torque, 10 Nm	
Thread-locking compound (mechanical)	Additional angle of rotation, 90°	
34 11 - Front brake		
Brake disc to front wheel		
M6 x 18, Replace screw	8 Nm	
Thread-locking compound (Micro-encapsulated)		
Brake caliper on telescopic fork		
M10 x 40	38 Nm	
Bleed screw, brake caliper, front		
M10 x 1 - 4.9	14 Nm	
34 21 - Rear brake		
Brake disc to rear wheel		
M8 x 15.5, Replace screw Thread-locking compound (Micro-encapsulated)	tighten by stages in diagonally opposite sequence	
J (30 Nm	

Rear brake caliper bleed screw	14 Nm	<u> </u>	
M10 x 1 - 4.9	14 Nm		
34 32 - Brake lines			
Clip with brake hose to fork leg			
M6 x 16	8 Nm		
34 52 - Electronic components			
Wheel-speed sensor, front, to fork leg			
M6 x 16	8 Nm		
Wheel-speed sensor, rear, to brake caliper			
M6 x 16	8 Nm		
36 31 - Wheels with bearings			
Axle screw in quick-release axle, front			
M14 x 1.5	30 Nm		
Rear quick-release axle in swinging arm			
M16 x 1.5	100 Nm		
Nipple on spoke			
M4.5 x 0.75	3.5 Nm		
46 53 - Side stand			
Side stand to pivot mount			
M10 x 1	40 Nm		
Thread-locking compound (Micro-encapsulated)			
or, Thread-locking compound (Loctite 243, Medium strength)			
Side-stand switch to side-stand screw		,	
M6, Replace nut	6 Nm		
Thread-locking compound (mechanical)			
46 61 - Front-wheel cover			
Front-wheel cover to telescopic fork			
M6 x 16	4 Nm		
Cover to fork bridge, bottom			
M6 x 16	4 Nm		
46 63 - Motorcycle fairing, windscreen			
Trim panels			
M5	2.5 Nm		
Windscreen to holder			
M5 x 25	2.5 Nm		

Centre trim panel to side panel			
M5 x 25	2.5 Nm		
51 16 - Mirrors, covers, ashtrays, stowage compartments			
Locknut (mirror) to clamping piece			
M14 x 1	20 Nm		
General consumable (Multi-wax spray)			
Clamping piece (mirror) to clamping block			
M10	30 Nm		
52 53 - Seat			
Seat retainer bridge to rubber mount			
M5	2.5 Nm		
61 21 - Battery with holder			
Wiring harness to battery			
M6	5 Nm		