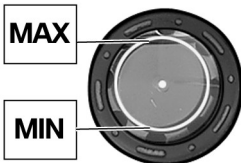
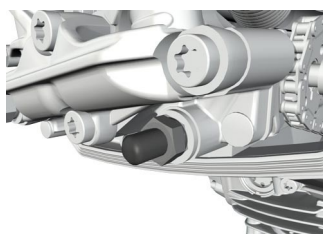
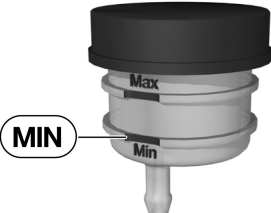
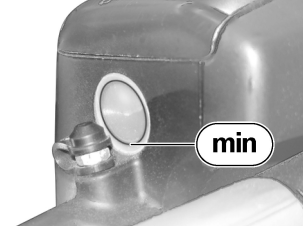
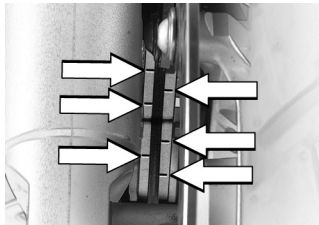


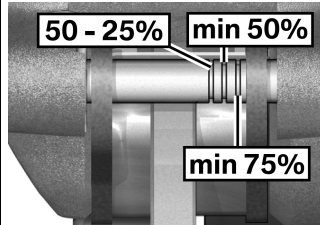
Service data 0368 - R 1200 RT

Construction status:

08.2006

Designation	Condition	Value	Valid
11 - Engine			
Running-in speed		<4000 min ⁻¹	
Engine oil, capacity	with filter change	max 4.0 l	
	Fluids and lubricants		
	products recommended by BMW Motorrad		
Engine oil, specified level		Between MIN and MAX marks	
			
1111 - Engine block			
Projecting length of thread of tie bolt	left cylinder, bottom inlet valve	16.5 mm	
			
1133 - Rocker/follower with bearing			
Rocker arm endplay		0.05...0.4 mm	
1134 - Valves with springs			
Inlet valve clearance	Engine cold max 35 °C	0.15 mm	
Exhaust valve clearance	Engine cold max 35 °C	0.3 mm	
1212 - Ignition wiring, spark plugs			
Spark plugs, manufacturer and designation		Bosch YR5LDE NGK DCPR 8 EKC	
Secondary spark plugs, manufacturer and designation		Bosch YR5LDE NGK DCPR 8 EKC	
13 - Fuel preparation and control			
Pressure differential between intakes	with throttle valves closed (engine idling)	max 25 mbar	
	with throttle valves slightly open, 1400...1800 min ⁻¹	max 15 mbar	
16 - Fuel supply			
Usable fuel capacity		approx. 27 l	
Reserve fuel		approx. 4 l	
21 - Clutch			

Clutch fluid level in reservoir	with new clutch liner, motorcycle upright and handlebars centred	bottom mark in reservoir	
Hydraulic fluid (Vitamol V10)			
23 - Gearbox			
Gearbox oil, capacity	to bottom edge of thread in filler neck	900 ml	
Gear oil (Castrol SAF-XO)			
3273 - Bowden cables			
Setting, throttle-cable play	measured at circumference of rubber grip (at handlebar fitting)	2...3 mm	
33 - Rear axle, rear-wheel drive and rear-wheel guidance			
Rear-wheel drive, oil capacity	Oil change	180 ml	
Gear oil (Castrol SAF-XO)			
34 - Brakes			
Brake fluid level, rear 	Brake-fluid reservoir horizontal	Do not permit the brake fluid level to drop below the MIN mark.	
Hydraulic fluid (Brake fluid, DOT4)			
Brake fluid level, front 	Brake-fluid reservoir horizontal. Before reading the level, swing the handlebars once from full left lock to full right lock.	Do not permit the brake fluid level to drop below the MIN mark.	
Hydraulic fluid (Brake fluid, DOT4)			
3411 - Front brake			
Brake disc thickness, front	When new	4.5 mm	
	Wear limit	4 mm	
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. Make sure that the brake disc is not visible through the bore in the inboard brake block.	1.0 mm	
Brake disc thickness, rear	When new	5 mm	

	Wear limit	4.5 mm	
<div>Brake-pad wear indicator</div> <div></div>	3 rings visible	Brake-pad thickness min. 75 %	
	2 rings visible	Brake-pad thickness min. 50 %	
	1 ring visible	Brake-pad thickness 50-25 %	
	No ring visible	Replace brake pad	
Brake disc lateral runout, rear	at outside circumference, components cooled	max 0.35 mm	
3630 - Motorcycle wheels			
Permissible front-wheel imbalance		max 5 g	
Permissible rear-wheel imbalance		max 25 g	
Permissible rear-wheel balancing weight		max 80 g	
Permissible front-wheel balancing weight		max 80 g	
3632 - Tyres			
Tyre pressure, front	one-up, tyre cold	2.2 bar	
	two-up and/or with luggage, tyre cold	2.5 bar	
Tyre tread depth, front and rear	For Germany only	min 1.6 mm	
	Outside Germany	Country-specific legal requirements	
Tyre pressure, rear	one-up, tyre cold	2.5 bar	
	two-up and/or with luggage, tyre cold	2.9 bar	
Wheel valve test pressure		4 bar	
6312 - Headlight			
Distance between headlight and vertical surface		10 m	
For headlight adjustment			
Distance between light/dark cut-off and mark at height of centre of headlight	Suspension set to basic setting and motorcycle loaded with 85 kg	15 cm	
11 11 - Engine block			
Oil drain plug to crankcase			
M16 x 1.5		32 Nm	
11 12 - Cylinder head with cover			
Cylinder head cover to cylinder head			
M6 x 72	tighten in diagonally opposite sequence		
	10 Nm		
Cylinder head to cylinder (check torque)			
Nut, tie bolt, M10	In diagonally opposite sequence, slacken and then retighten each nut		

	Tightening torque, 20 Nm	
	Additional angle of rotation, 180°	
M10 x 90	Slacken and then retighten screw	
	40 Nm	
11 33 - Rocker/follower with bearing		
Locknut, valve adjusting screw		
M6 x 0.5	8 Nm	
Bearing cap to timing-gear carrier		
M8 x 30	18 Nm	
M8 x 40	18 Nm	
Nut, tie bolt, M10	Tightening torque, 20 Nm	
	1st additional angle of rotation, 90°	
	2nd additional angle of rotation, 90°	
11 42 - Oil filter and lines		
Oil filter to crankcase		
Sealing ring wetted with engine oil	11 Nm	
12 12 - Ignition wiring, spark plugs		
Primary spark plug to cylinder head		
Bosch YR5LDE, M12 x 1.25	Initial torque and retorquing, 23 Nm	
NGK DCPR8EKC, M12 x 1.25	Initial torque and retorquing, 20 Nm	
Secondary spark plug to cylinder head		
Bosch YR5LDE, M12 x 1.25	Initial torque and retorquing, 23 Nm	
NGK DCPR8EKC, M12 x 1.25	Initial torque and retorquing, 20 Nm	
12 13 - Ignition coil		
Cover, secondary spark plug coil to cylinder head		
M6 x 12	8 Nm	
16 11 - Fuel tank with filler neck		
Fuel tank to link/rear frame		
M8 x 40	16 Nm	
18 12 - Silencer		
Silencer to rear frame		
M8 x 35	19 Nm	
Clamp to silencer and manifold		
M10 x 1,5	55 Nm	
21 52 - Clutch actuation (hydraulics)		
Clutch slave cylinder to gearbox		
M6 x 18	8 Nm	
Clutch line to clutch lever fitting		

Banjo bolt, M10 x 1		24 Nm	
Clutch pipe to slave cylinder			
Banjo bolt with bleeder, M10 x 1		24 Nm	
Gearbox oil filler plug			
M14 x 1.5		30 Nm	
Gearbox oil drain plug			
M18 x 1.5		30 Nm	
32 71 - Motorcycle handlebars			
Handlebar weight to handlebar			
M8 x 30		19 Nm	
33 11 - Final-drive unit housing with cover			
Oil drain plug in bevel gears			
M12 x 1		20 Nm	
Oil filler plug in final drive housing			
M12 x 1.5 with sealing ring 12 x 16		20 Nm	
33 17 - Rear-wheel drive hanger			
Paralever reaction link to final drive			
M10 x 55-10.9, Replace nut Thread-locking compound (mechanical)		42 Nm	
34 11 - Front brake			
Brake disc to front wheel			
Pan-head screw , M8 x 25 - 10.9, Replace screw Thread-locking compound (Micro-encapsulated)		tighten by stages in diagonally opposite sequence	
		1st tightening torque, 12 Nm	
		2nd tightening torque, 24 Nm	
Brake caliper to slider tube			
M8 - 10.9		30 Nm	
Bleed screw, brake caliper, front		10 Nm	
Bleed screw on handbrake fitting			
M5		5 Nm	
34 21 - Rear brake			
Brake caliper to bevel gears			
M8 x 25		24 Nm	
Brake caliper, rear, bleed screw		5 Nm	
Brake disc to wheel carrier			
M8 x 15.5, Replace screw Thread-locking compound (Micro-encapsulated)		tighten by stages in diagonally opposite sequence	
		1st tightening torque, 12 Nm	

		2nd tightening torque, 30 Nm	
34 52 - Electronic components			
Speed sensor to final drive			
M5 x 10	4 Nm		
36 31 - Wheels with bearings			
Quick-release axle in axle holder			
M24 x 1.5	50 Nm		
Rear wheel to wheel carrier			
M10 x 1.25 x 40	tighten in diagonally opposite sequence		
	60 Nm		
Quick-release axle clamp screws			
M8 x 40	20 Nm		
46 52 - Centre stand			
Centre stand to main frame			
M10 x 30, Replace screw Thread-locking compound (Micro-encapsulated)	40 Nm		
46 53 - Side stand			
Side stand to pivot mount			
M10 x 1-10.9, Replace screws Thread-locking compound (Micro-encapsulated)	42 Nm		
46 63 - Motorcycle fairing, windscreen			
Windshield with cover and support to windshield adjuster			
M5 x 16	2.5 Nm		
46 71 - Engine fasteners, footrests			
Footrest plate to rear frame			
M8 x 25	19 Nm		
Footrest plate to rear frame			
M8 x 35	19 Nm		