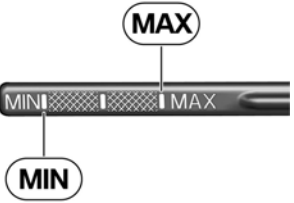


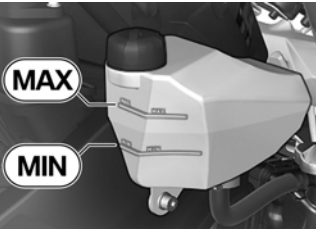


**Service data 0227 - F 800 R****Equipment trim-level variant:**


0603 - Anti-theft alarm

0524 - BMW Motorrad ABS

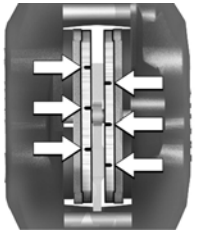
0530 - Tyre pressure monitoring (RDC)

Designation	Condition	Value	Valid
<b>11 - Engine</b>			
Engine oil, capacity	with filter change	3 l	
	additional, if swing-arm shaft cover is removed	0.3 l	
	Fluids and lubricants		of products recommended by <b>BMW Motorrad</b> and generally admissible viscosity classes
Engine oil, quantity for topping up	maximum top-up quantity between MIN and MAX marks	0.4 l	
	Fluids and lubricants		
	Engine oil level		Between MIN and MAX marks
			
<b>1134 - Valves with springs</b>			
Inlet valve clearance	Engine cold max 35 °C	0.18...0.26 mm	
Exhaust valve clearance	Engine cold max 35 °C	0.27...0.35 mm	
<b>1212 - Ignition wiring, spark plugs</b>			
Spark plugs, manufacturer and designation		NGK DCPR 8 E	
<b>16 - Fuel supply</b>			
Usable fuel capacity		approx. 13.5 l	
Reserve fuel		approx. 2 l	
<b>17 - Cooling</b>			
Coolant, specified level		Between MIN and MAX marks on the expansion tank	

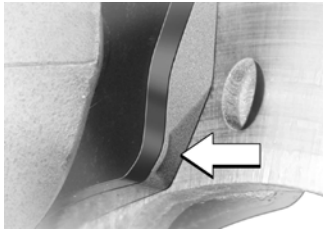
			
<p>Minimum quantity of coolant</p> 		<p>do not permit the fluid level to drop below the MIN mark on the expansion tank</p>	
<p>Coolant, frost protection</p>		<p>min -25 °C</p>	
	<p>Fluids and lubricants</p>		
	<p><a href="#">Antifreeze</a></p>		
<p><b>2772 - Chain</b></p>			
<p>Chain deflection</p>	<p>Motorcycle with no weight applied, supported on its side stand</p>	<p>30...40 mm</p>	
<p><b>3142 - Telescopic forks</b></p>			
<p>Adjusting steering-head bearing</p>		<p>movement completely smooth and free of play</p>	
<p>Projection of fork tube in fork bridge, top</p>	<p>To top edge of hex head</p>	<p>14 mm</p>	
<p><b>3273 - Bowden cables</b></p>			
<p>Setting, throttle-cable play</p>	<p>at outermost diameter of rubber grip, engine cold max 35 °C</p>	<p>1...2 mm</p>	
<p>Clutch play</p>	<p>Handlebars turned fully left, between handlebar fitting and clutch cable</p>	<p>1 mm</p>	
<p><b>34 - Brakes</b></p>			
<p>Brake fluid level, front (visual inspection)</p> 		<p>Do not permit the brake fluid level to drop below the MIN mark.</p>	
	<p>Fluids and lubricants</p>		
	<p><a href="#">DOT4 brake fluid</a></p>		

Brake fluid level, rear (visual inspection) 		Do not permit the brake fluid level to drop below the MIN mark.	
	Fluids and lubricants		
	DOT4 brake fluid		

**3411 - Front brake**

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 thickness, front	When new	4.5 mm	
	Wear limit	min 4.0 mm	

**3421 - Rear brake**

Brake-pad wear limit, rear 	Friction pad only, without backing plate. The wear indicators must be clearly visible.	min 1.0 mm	
Brake disc thickness, rear	When new	5.0 mm	
	Wear limit	min 4.5 mm	

**3630 - Motorcycle wheels**

Permissible front-wheel imbalance		max 5 g	
Permissible rear-wheel imbalance		max 45 g	
Front wheel, imbalance permissible balancing weight		max 80 g	
Rear wheel, imbalance permissible balancing weight		max 80 g	

**3632 - Tyres**

Tyre pressure, front	Tyre cold	2.5 bar	
Tyre pressure, rear	Tyre cold	2.9 bar	
Tyre tread depth, front and rear	Wear limit, for Germany	min 1.6 mm	

	only		
	Wear limit, outside Germany	Country-specific legal requirements	
Wheel valve test pressure		4 bar	
<b>6575 - Anti-theft alarm</b>			
Battery type and rated voltage		CR123A lithium 3 V	
<b>11 11 - Engine block</b>			
<b>Socket-head screw (hole for TDC locating pin)</b>			
M8 x 16		25 Nm	
<b>11 12 - Cylinder head with cover</b>			
<b>Cylinder head cover to cylinder head</b>			
M6 x 20		<b>tighten in diagonally opposite sequence</b>	
		10 Nm	
<b>Camshaft bearing cap to cylinder head</b>			
M6		<b>Tightening sequence: see Repair Manual</b>	
		Initial torque, tightened uniformly until hand-tight	
		Final torque, 10 Nm	
<b>11 13 - Oil sump</b>			
<b>Oil drain plug</b>			
M24 x 2		40 Nm	
<b>11 14 - Housing cover</b>			
<b>Pinion cover to engine</b>			
M6 x 16		4 Nm	
M6 x 25		4 Nm	
<b>11 31 - Camshaft</b>			
<b>Chain tensioner to cylinder head</b>			
M18 x 1.5		40 Nm	
<b>11 42 - Oil filter and lines</b>			

<b>Oil filter</b>	14 Nm	
<b>12 12 - Ignition wiring, spark plugs</b>		
<b>Spark plugs</b>		
M12 x 1.25	18 Nm	
<b>13 71 - Intake air silencer</b>		
<b>Intake air silencer to frame</b>		
M6 x 25	6 Nm	
<b>17 11 - Radiator with fasteners</b>		
<b>Radiator to main frame</b>		
M6 x 20	8 Nm	
<b>18 11 - Exhaust pipe</b>		
<b>Manifold to cylinder head</b>		
M7	14 Nm	
<b>Manifold to retaining plate</b>		
M8 x 50	19 Nm	
<b>23 00 - Gearbox mechanical</b>		
<b>Pinion to gearbox output shaft</b>		
M10 x 35	50 Nm	
<b>27 72 - Chain</b>		
<b>Chain guard to swinging arm</b>		
M6 x 16	8 Nm	
<b>Chain slide rail to rear wheel swinging arm</b>		
M5 x 12	4 Nm	
<b>31 40 - Front forks for motorcycle</b>		
<b>Steering damper to fork bridge</b>		
M8 x 35, Replace screw <a href="#">Micro-encapsulated</a>	20 Nm	
<b>Steering damper to bracket</b>		

M8 x 35, Replace screw Micro-encapsulated	20 Nm	
<b>31 42 - Telescopic forks</b>		
<b>Clamping screw, fork bridge, top, to fixed fork tube</b>		
M8 x 25 -10.9	20 Nm	
<b>Clamp of quick-release axle</b>		
M8 x 40	20 Nm	
<b>Clamping screws, bottom fork bridge</b>		
M8 x 25 -10.9	25 Nm	
<b>Clamping screw, fork bridge to steering tube</b>		
M8 x 25	25 Nm	
<b>Adjusting screw to steering-head bearing</b>		
M18 x 1	Initial torque, 25 Nm	
	Swing handlebars through 3 full arcs	
	Back off through angle of rotation, 60°	
	Final torque, 10 Nm	
<b>32 72 - Handlebar lever</b>		
<b>Handlebar fitting to handlebar</b>		
M5 x 30	5 Nm	
<b>33 11 - Final-drive unit housing with cover</b>		
<b>Chain sprocket to chain-sprocket carrier</b>		
M10	Initial torque, 10 Nm	
	Final torque, 90°	
<b>33 17 - Final-drive unit attachment</b>		
<b>Locknut of the final-drive chain tensioning screw</b>		
M8	19 Nm	
<b>34 11 - Front brake</b>		
<b>Brake caliper on fork leg</b>		
M10 x 1.25 x 35 - 10.9	30 Nm	

<b>Brake discs to front wheel</b>		
Flat-head screw for rivet package, M8 x 27 - 10.9, Replace screw <a href="#">Micro-encapsulated</a>	<b>tighten by stages in diagonally opposite sequence</b>	
	19 Nm	
<b>Bleed screw to brake caliper, front</b>	9 Nm	
<b>Bleed screw on handbrake fitting</b>		
M5	2 Nm	
<b>34 21 - Rear brake</b>		
<b>Brake disc with sensor ring to rear-wheel hub</b>		
M8 x 18,5, Replace screw <a href="#">Micro-encapsulated</a>	<b>tighten by stages in diagonally opposite sequence</b>	
	20 Nm	
<b>Rear brake caliper bleed screw</b>		
M8	14 Nm	
<b>34 32 - Brake lines</b>		
<b>Distributor to bottom fork bridge</b>		
M6 x 12	9 Nm	
<b>36 23 - Electronic components</b>		
<b>Wheel-speed sensor, rear</b>		
M6 x 16	9 Nm	
<b>Wheel-speed sensor, front</b>		
M6 x 16	9 Nm	
<b>36 31 - Wheels with bearings</b>		
<b>Quick-release axle in fork leg</b>		
M24 x 1.5	50 Nm	
<b>Rear quick-release axle in swinging arm</b>		
M16 x 1.5	100 Nm	
<b>RDC sensor to wheel rim</b>		
M8 <a href="#">Loctite 243</a>	9 Nm	

**46 51 - Motorcycle frame****Clamp of swinging-arm shaft**

M10 x 90

Final torque, 40 Nm

**46 53 - Side stand****Side stand to pivot mount**M10 - 10.9, Replace screw  
[Micro-encapsulated](#)

40 Nm

**Pivot mount to footrest plate**

M8 x 40

20 Nm

**Side stand switch to side stand screw**

M5

5 Nm

**46 61 - Front-wheel cover****Front-wheel cover to forks**

M6 x 16

4.5 Nm

**46 63 - Motorcycle fairing, windscreen****Headlight bracket to fork bridges**

M6 x 16

8 Nm

**46 71 - Engine fasteners, footrests****Footrest plate to engine**

M8 x 55

22 Nm

M8 x 70

22 Nm

**61 21 - Battery with holder****Positive lead/earth lead, battery**

M6 x 11

4 Nm

**61 31 - Switches and relays****Throttle twistgrip cover**

M4 x 16

3 Nm