

# Maintenance BMW Integral ABS



**R 1150 RT**

**BMW Motorrad  
After Sales**

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## Maintenance schedule

### R 1100 S EVO / R 1150 R / R 1150 RT



		BMW Inspection at 1,000 km (600 miles)	BMW Service 10,000 km (6,000 miles)	BMW Inspection every 20,000 km (12,000 miles)	BMW Annual Service
Customer _____	Registration No. _____				
Order No. _____	Mechanic's signature _____				
Read the fault code memory with the <b>BMW</b> MoDiTeC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>[Integral ABS]</b> perform bleed test with <b>BMW</b> MoDiTeC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Change oil while at regular operating temperature and replace the oil filter element <b>If the motorcycle is ridden only for short distances or outside temperatures are below 0 °C: at the latest every 3,000 km (1,800 miles)*</b>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change oil in gearbox while at operating temperature <b>every 2 years*) at the latest</b>				<input type="checkbox"/>	<input type="checkbox"/> every 2 years
Change oil in rear wheel drive while at operating temperature if necessary, clean inductive sensor on rear wheel <b>every 40,000 km (24,000 miles) or at the latest every 2 years*)</b>		<input type="checkbox"/>		<input type="checkbox"/> 40,000	<input type="checkbox"/> every 2 years
Replace fuel filter *) <b>Normally every 40,000 km (24,000 miles), if fuel is of poor quality every 20,000 km (12,000 miles)</b>				<input type="checkbox"/> 40,000	
Check the battery fluid level, if necessary top up with distilled water Clean and grease battery poles if necessary				<input type="checkbox"/>	<input type="checkbox"/>
Replace intake air filter element <b>In very dirty and dusty operating conditions, replace every 10,000 km (6,000 miles) or even more frequently if necessary *)</b>				<input type="checkbox"/>	
Replace Poly-V belt *) <b>Replace the Poly-V belt every 60,000 km (36,000 miles); do not adjust it</b>				<input type="checkbox"/> 60,000	
Check brake fluid level at front and rear			<input type="checkbox"/>	<input type="checkbox"/>	
Check operation of brake system and freedom from leaks; repair/replace items if necessary*)				<input type="checkbox"/>	
Examine brake pads and discs for wear, replace as necessary*)			<input type="checkbox"/>	<input type="checkbox"/>	
<b>[Without ABS]</b> change brake fluid <b>every twelve months</b>					<input type="checkbox"/>
<b>[Integral ABS]</b> change brake fluid in wheel circuit <b>every 12 months</b>					<input type="checkbox"/>
<b>[Integral ABS]</b> change brake fluid in control circuit <b>every 2 years*)</b>					<input type="checkbox"/> every 2 years
<b>[Integral ABS]</b> perform bleed test with <b>BMW</b> MoDiTeC					<input type="checkbox"/>
Check clutch fluid level			<input type="checkbox"/>	<input type="checkbox"/>	
Change the clutch fluid*) <b>every 2 years at the latest</b>					<input type="checkbox"/> every 2 years
Check tightness of rear wheel studs		<input type="checkbox"/>			
Check rear wheel bearing play by tilting wheel				<input type="checkbox"/>	
Check swinging arm bearings (freedom from play), adjust if necessary *)		<input type="checkbox"/>		<input type="checkbox"/>	
Grease the side stand pivot		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Check function of side stand contact switch		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check condition of spark plugs			<input type="checkbox"/>		
Replace spark plugs				<input type="checkbox"/>	
Tighten cylinder head nuts		<input type="checkbox"/>			
Check/adjust valve clearances		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Check that the throttle cable moves freely and is free of kinks and chaffing, replace if necessary *) Check throttle-cable play check synchronisation, repair leaks if necessary *)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Final inspection with road safety and functional check: – Condition of tyres and wheels, tyre pressures – Lights and signalling equipment, telltale and warning lights, instruments, – clutch, gearshift mechanism, hand brake and foot brake, steering, – if necessary, test drive		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*) <b>Charged as an additional item</b>					

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## Pre-delivery check

### R 1100 S EVO / R 1150 R / R 1150 RT



<p>_____</p> <p>Customer</p> <p>_____</p> <p>Order No.</p>	<p>_____</p> <p>Registration No.</p> <p>_____</p> <p>Mechanic's signature</p>	<p><b>BMW</b> <b>Pre-delivery check</b></p>
<p>Check the shipping crate for damage</p>		
<p>Motorcycle:</p> <ul style="list-style-type: none"> <li>- unpack</li> <li>- install remaining items</li> <li>- inspect for damage</li> <li>- check that delivery is complete: <ul style="list-style-type: none"> <li>Toolkit</li> <li>On-board literature</li> <li>Ignition keys</li> <li>Scope of optional extras</li> </ul> </li> </ul>		<input type="checkbox"/>
<p>Fill and charge the battery (mark with charging date)</p>		<input type="checkbox"/>
<p>Check engine oil level when cold and correct if necessary.</p>		<input type="checkbox"/>
<p>Check headlight setting and adjust if necessary.</p>		<input type="checkbox"/>
<p>Check tightness of rear wheel studs (note correct tightening torque)</p>		<input type="checkbox"/>
<p>Check tyre pressures</p>		<input type="checkbox"/>
<p>Fill up with fuel</p>		<input type="checkbox"/>
<p><b>[Integral ABS]</b> perform bleed test with <b>BMW</b> MoDiTeC</p>		<input type="checkbox"/>
<p>Final inspection as functional check:</p> <ul style="list-style-type: none"> <li>- Clutch, gear shift</li> <li>- Handbrake and foot brake</li> <li>- Lights and signalling equipment, telltale and warning lights, instruments,</li> <li>- Check operation of optional extras</li> <li>- If necessary, test drive</li> </ul>		<input type="checkbox"/>
<p>Confirm pre-delivery check in "Service and Technical Booklet".</p>		<input type="checkbox"/>
<p>Final cleaning</p>		<input type="checkbox"/>
<p>Motorcycle handed over on:</p>		

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## Service data

### R 1150 RT



Item	Desired value	Unit of measurement/specification
<b>Oil capacities</b>		
Engine (with filter) (without filter)	3.75 (6.6) 3.50 (6.15)	litres (Imp. pints) litres (Imp. pints) [SI 11 048 90] Engine oil grade: brand-name HD oil for four-stroke spark-ignition engines, API classes SE, SF, SG; combination with CC or CD specification
Transmission Initial filling Oil changes	approx. 1.0 (1.76) approx. 0.8 (1.41) of oil to bottom edge of filler neck	litres (Imp. pints) litres (Imp. pints) Brand-name hypoid gear oil, SAE class GL 5 SAE 90
Rear wheel drive Initial filling/oil change	approx. 0.25 (0.44) of oil to bottom edge of filler neck	litres (Imp. pints) Brand-name hypoid gear oil, SAE class GL 5 SAE 90
<b>Valve clearances</b> measured cold (max. 35 °C/95 °F)		
	Inlet: 0.15 (0.006) Exhaust: 0.30 (0.012)	mm (in) mm (in)
<b>Ignition timing</b> static setting		
	adjust at TDC	
<b>Spark plugs</b>		
Electrode gap	0.8 (0.0315)	mm (in)
Wear limit	1.0 (0.039)	mm (in)
<b>Idle speed</b>		
	1,100 <sup>±50</sup>	rpm
<b>Throttle cable setting</b> for cold-start (increased idle) speed for throttle (twistgrip) cable for divider cable		
	zero play approx. 0.5 (0.02) zero play	mm (in) free travel
<b>Brakes</b>		
Colour of identification mark on brake calipers/brake pads, front	white	DOT 4 brake fluid
Minimum front pad thickness	1.0 (0.039)	mm (in)
Minimum rear pad thickness	1.0 (0.039) (wear mark)	mm (in)
Minimum front disc thickness	4.5 (0.177)	mm (in)
Minimum rear disc thickness	4.5 (0.177)	mm (in)
<b>Tyre pressures</b> depending on load		
	front: 2.2 – 2.5 (31.9 – 36.26) rear: 2.5 – 2.9 (36.26 – 42.06)	bar (psi) bar (psi)
<b>Tightening torques:</b>		
Oil filter	11	Nm
Engine oil drain plug	32	Nm
Gearbox oil filler plug	30	Nm
Gearbox oil drain plug	30	Nm
Rear wheel drive oil filler/drain plug	23	Nm
Fuel tank to rear frame	22	Nm
Fuel pump assembly to tank	5	Nm
Poly-V belt preload	8	Nm
Alternator to cover mount	20	Nm
Brake caliper fasteners, front	30	Nm
Brake caliper fasteners, rear	40	Nm
Rear wheel studs	105	Nm
Tightening cylinder heads		
Nut	unscrew/20 180	Nm ° tightening angle
M 10 screw	unscrew/40	Nm
Locknut, valve adjusting screw	8	Nm
Cylinder head cover	8	Nm
Spark plugs NGK BKR 7 EKC	25	Nm

# 00 Tightening torque

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## Tightening torque

Model		R 1150 RT	
<b>Connection</b>			
<b>11 Engine</b>			
<b>Cylinder head</b>			
Tightening sequence:			
1 Tighten cylinder head nuts (oiled) in diagonally opposite sequence			
1.1	Tighten all nuts to closing torque	Nm	20
1.2	Tighten all nuts to correct wrench angle	°	90
1.3	Tighten all nuts to correct wrench angle	°	90
2	M 10 screw	Nm	40
3	M 6 screw	Nm	9
After 1,000 km (600 miles), tighten cylinder head nuts in diagonally opposite sequence:			
1 Slacken one nut			
2	Tighten nut to initial torque	Nm	20
3	Tighten nut to wrench angle	°	180
4	Slacken and retighten M 10 screw	Nm	40
Timing gear carrier to cylinder head		Nm	9
Bearing cap on rocker shaft		Nm	18
Locknut, valve adjusting screw		Nm	8
Cylinder head cover to cylinder head		Nm	8
Camshaft end cover to cylinder head		Nm	9
Air intake connection to cylinder head		Nm	9
<b>Camshaft</b>			
Chain sprocket to camshaft		Nm	65
Camshaft bearing cap		Nm	15
<b>Alternator mount cover</b>			
M 6 screw		Nm	9
M 8 screw		Nm	20
<b>Auxiliary shaft</b>			
Chain sprocket to crankshaft		Nm	10
Chainwheel to auxiliary shaft		Nm	70
Chain tensioner housing to engine block		Nm	9







<b>Model</b>		<b>R 1150 RT</b>
<b>Connection</b>		
<b>11 Engine</b>		
<b>Oil filter</b>		
Oil filter	Nm	11
Oil drain plug	Nm	32
<b>Oil pump</b>		
Mesh filter basket to engine block	Nm	10
Oil pump cover	Nm	9
Pressure relief valve	Nm	42
Oil pressure switch	Nm	30
<b>Oil cooler</b>		
Cooling oil line to engine block	Nm	10
Cooling oil line banjo screw with oil vent valve	Nm	25
Oil cooler to bracket	Nm	9
Oil cooler return line to engine block	Nm	35
Oil cooler connection to crankcase	Nm	9
<b>Cylinders</b>		
Tightening sequence:		
1 M 8 screw	Nm	20
2 M 6 screw	Nm	9
3 Chain guide rail pivot screw	Nm	18
<b>Timing chain</b>		
Chain tensioner	Nm	32
<b>Connecting rod</b>		
Big end cap		
Closing torque	Nm	20
Wrench angle	°	80
<b>Crankcase</b>		
Tightening sequence:		
M 10 screw (oiled) to initial torque	Nm	25
Wrench angle	°	90
M 8 screw	Nm	22 (oiled)
M 6 screw	Nm	9