

Repair manual



C1

C1 200

**BMW Motorrad
After Sales**

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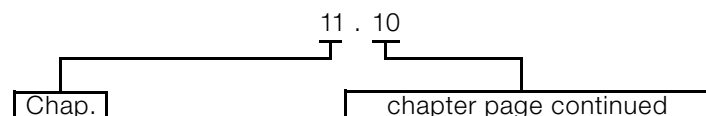
Preface

This Repair Manual is intended to assist you in performing all essential maintenance and repair operations to a professional standard. In its role as a reference source for service personnel, it supplements and expands upon the theoretical and hands-on instruction provided at our training centres to enhance the quality of our service.

A new edition of this manual will be issued in response to required revisions or the need to incorporate additional information (supplements).

The illustrations and descriptions contained in this manual apply exclusively to standard, unmodified BMW Motorcycles and/or BMW Motorcycles equipped with factory-approved BMW accessories and options.

- The Repair Manual's structure reflects the logical sequence in which the operations it describes will be performed: removal, dismantling, repairs, assembly and installation.
- The individual chapters in this manual correspond to the motorcycle's individual assembly groups.



A reference arrow with chapter and page calls your attention to additional information contained in another section of the manual.

e.g.  Refer to Assembly Group 46

- Group "00" describes the operations carried out in the course of each Inspection. The various inspection routines are numbered I, II, III and IV. To help in maintaining a continuous, logical work sequence, these same numerical designations are employed to identify the subsequent sections describing the actual repair operations.
- Use of the BMW special tools needed for certain operations is described in the work instructions.

When the need arises, repair instructions are also issued in the form of Service Information Bulletins. This information is then incorporated into subsequent editions of the repair manual. We also recommend the lavishly illustrated Electronic Parts Catalogue as a supplementary source of information.

When individual steps within an overall operation only apply to motorcycles with specific accessories or optional equipment, the options to which the steps refer are identified by brackets at the start of the line, such as **[with heated grips]**.

Please devote your careful attention to the following pages with their explanations describing the symbols used in the manual and their significance.

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How to use this manual

Each chapter starts with a table of contents.

Following the table of contents is a table containing the technical data and specifications for the chapter's subject.

Chapter 00 describes maintenance procedures and provides general information as well as the pre-delivery inspection; it furnishes all torque specifications along with listings of fluids and lubricants.

Explanation of symbols

This repair manual for the C1 employs the following symbols; please refer to the table for their meanings.

Special notices for more efficient procedures



Note:

These special notices help technicians work more efficiently when operating, inspecting, adjusting and maintaining motorcycles.



Attention:

Special information and precautionary notices to prevent damage to the motorcycle. Failure to observe these mandatory precautions may invalidate the warranty.



Warning:

Precautions intended to protect the rider and/or other individuals against injury as well as potentially fatal hazards.

Contents

The titles of the operations described in this chapter together with the page numbers

Operations

- Operations
- A dot or period identifies individual procedures described under a title
- Previous operations
- The hyphen identifies procedures described in more detail under a different title or in another chapter

Remove means:

to completely unscrew a retaining component (such as a bolt or screw)

or

to detach a component (such as an injection rail) and move it enough to gain access to assemblies installed behind it (such as a throttle-valve).

Loosen means:

to unscrew an attachment (such as a bolt or screw) without removing it entirely from its threaded socket or retainer



Torque specifications:

These data are indicated whenever torques deviate from the standards defined in DIN EN 24 014 and DIN 912 ISO.

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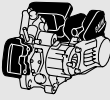
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00 Pre-delivery check

00 Maintenance



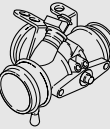
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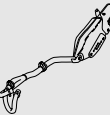
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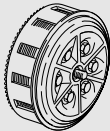
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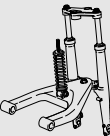
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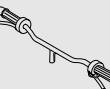
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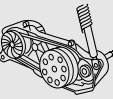
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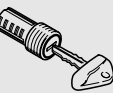
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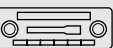
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Maintenance schedule

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Customer	Licence No.	Mileage	BMW Inspection at 10,00 km/600 miles	BMW Maintenance Service every 7,500 km/4,500 miles	BMW Inspection every 15,000 km/9,000 miles	BMW Annual Service
Job Order No.	Date	Mechanic's signature				
MoDiTeC/DIS plus, read fault code memory			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change the engine oil while at regular operating temperature and replace the oil filter element If the vehicle is ridden for short distances only or at outside temperatures below 0° C (32° F): every 3 months or after every 3,000 km (1,800 miles) at the latest			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clean oil strainer and magnetic plug			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change transmission fluid every 30,000 km/18,000 miles or 3 years^{*)}					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Inspect coolant level, top up if necessary, inspect hoses for damage, chafing points			<input type="checkbox"/>		<input type="checkbox"/>	
Change the coolant every 2 years^{*)}						<input checked="" type="checkbox"/>
Check valve clearances and adjust if necessary ^{*)}			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Replacing spark plug				<input type="checkbox"/>	<input type="checkbox"/>	
Replace air filter element shorten change interval if severely dirty or dusty				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Drain condensate drain hose from air manifold						<input type="checkbox"/>
Brake hoses and connections: check condition and routing				<input type="checkbox"/>	<input type="checkbox"/>	
Check operation of brake system and check for leaks; repair/replace as necessary ^{*)}				<input type="checkbox"/>	<input type="checkbox"/>	
Inspect brake fluid level at front/rear			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Examine brake pads and discs for wear, renew if necessary ^{*)}				<input type="checkbox"/>	<input type="checkbox"/>	
Renew brake fluid at least once a year						<input checked="" type="checkbox"/>
Replace variator belt				<input type="checkbox"/>	<input type="checkbox"/>	
Check clutch liner, replace if necessary ^{*)}					<input type="checkbox"/>	
Cleaning mesh filter of variator				<input type="checkbox"/>	<input type="checkbox"/>	
Grease driving variator (greased version)				<input type="checkbox"/>	<input type="checkbox"/>	
Check and clean driving variator (ungreased version, replace variator if necessary)					<input type="checkbox"/>	
Replace complete driving variator every 22,500 km/14,000 miles, greased version only				<input checked="" type="checkbox"/>		
Check wheel bearings for play; replace if necessary ^{*)}					<input type="checkbox"/>	
Checking that leading-link mounts are free of play			<input type="checkbox"/>			<input type="checkbox"/>
Battery: check battery acid level, if necessary add distilled water						<input type="checkbox"/>
Clean and grease the battery terminals, if necessary						<input type="checkbox"/>
Check freedom of movement of Bowden cables, check for abrasion and damage					<input type="checkbox"/>	<input type="checkbox"/>
Easy-lift mechanism: – Check operation of mechanism and check freedom of movement – Inspect Bowden cables for damage and signs of wear and chafing, ensuring that mechanism moves freely without binding; check free travel and adjust as required ^{*)}			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check windscreen washer system; adjust nozzles if necessary and top up washer fluid in reservoir			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Check windscreen wiper; replace wiper blade if necessary ^{*)}				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety elements: check cable for release, belt buckles, belt strap, inertia reels, and belt locks			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check crash element for damage			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspect shoulder bar for damage, replace deformation element if necessary ^{*)}			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Replace fuel filter every 37,500 km/22,500 miles				<input checked="" type="checkbox"/>		
Only ABS: Replace seal in brake master cylinder every 30,000 km/18,000 miles^{*)}					<input checked="" type="checkbox"/>	
Check tightness of bolts and nuts at engine mountings and quick-release axles			<input type="checkbox"/>			
Final inspection with road safety and functional check: – Clutch engagement, steering, front and rear brake – Condition of tyres and wheels, tyre inflation pressure – Lights and signalling equipment, telltale and warning lights, instruments – If necessary, test ride				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

^{*)} Write up on separate invoice; ☐ Not part of standard service procedure

BMW Motorrad Pre-delivery Check C1, C1 200



<div>Customer _____</div> <div>Registration number _____</div> <div>Order no. _____</div> <div>Signature of mechanic _____</div>	BMW Pre-delivery Check
Inspect transportation packaging for damage	<input type="checkbox"/>
C1: <ul style="list-style-type: none"> – Unpack – Inspect for damage – Attach parts – Clean 	<input type="checkbox"/>
Battery: <ul style="list-style-type: none"> – Remove – Pour in electrolyte – Charge – Grease terminals – Install (mark date of installation) 	<input type="checkbox"/>
Inspect complete scope of supply: <ul style="list-style-type: none"> – Toolkit – Documentation – Keys – Scope of optional equipment 	<input type="checkbox"/>
Inspect tyre inflation pressure	<input type="checkbox"/>
Pour in fuel	<input type="checkbox"/>
Operational check as final inspection: <ul style="list-style-type: none"> – Engine idling – Clutch, clutch engagement – Steering – Seat belt – Easy-lift mechanism – Brakes, front and rear – Lights and signalling equipment, telltale and warning lights, instruments – Set headlight – If necessary, test ride 	<input type="checkbox"/>

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Service data

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Item	Specified value	Unit of measure or specification
Oil capacities		
Engine (with filter)	1.0 (0.22)	litres (Imp pints) 15W40
Gearbox	0.090 (0.020)	litres (Imp pints) API GL 4
Coolant		
Cooling system	1.25 (2.2)	litres (Imp pints)
Expansion tank	0.2 (0.35)	litres (Imp pints)
		Mixing ratio: Water: 50% Antifreeze: 50% Protection down to -25 °C (-13 °F)
Windshield washer fluid	1.0 (1.8)	litres (Imp pints) Water and cleaning product, antifreeze as required
Brake fluid		DOT 4
Valve clearances		
Measured cold, maximum 35 °C (95 °F)	Inlet: 0.05...0.14 (0.002...0.006) Exhaust: 0.20...0.29 (0.009...0.010)	mm (in) mm (in)
Spark plugs		NGK CR8 EB
Electrode gap	0.8...0.9 (0.031...0.035)	mm (in)
Idle speed	1 900	rpm
Tyre pressures (tyres cold)		
Solo	Front/rear 1.9/2.1 (27.6/30.5)	bar (psi)
Full load	1.9/2.4 (27.6/34.8)	bar (psi)
Tightening torques:		
Engine oil drain plug	20	Nm
Oil strainer to engine	30	Nm
Engine water drain plug	10	Nm
Oil filter cover	10	Nm
Camshaft gears to camshaft	30	Nm (Loctite 243)
Guide rail to camshaft support	10	Nm (Loctite 243)
Chain tensioner plug	35	Nm
Camshaft bearing bridge	10	Nm
Valve cover	10	Nm
Machine bolt TDC setting	15	Nm
Spark plug	15	Nm
Driving variator	60	Nm (Loctite 243)
Driving variator cover	4	Nm
Driven variator	60	Nm
Locknut of clutch to driven variator	50	Nm (Loctite 243)
Variator cover to power train link	10	Nm
Ventilation cover for variator	9	Nm
Front stub axle	30	Nm
Clamping bolts for front stub axle	21	Nm
Brake calliper at fork slider tube	41	Nm
Bleed screw in brake calliper	14	Nm
Cover of handbrake control	Hand-tight	Nm
Rear stub axle, use nut only once	130	Nm
Exhaust to cylinder head	15	Nm
Auxiliary link to power train link M8	21	Nm
Auxiliary link to power train link M10	60	Nm (Loctite 243)
Silencer to auxiliary link	21	Nm
Suspension strut to power train link/brake calliper holder	21	Nm
Link mounting to power train link	73	Nm
Tubular link to frame	73	Nm
Stand to frame	41	Nm
Rubber element to tubular link	42	Nm
Cladding bolts	2.8	Nm

