OWNER'S MANUAL 2017



1290 Super Adventure R

Art. no. 3213541en





Congratulations on your decision to purchase a KTM motorcycle. You are now the owner of a state-of-the-art sports motorcycle that will give you enormous pleasure if you service and maintain it properly.

We hope you enjoy your new vehicle!

Please enter the serial numbers of your vehicle below.

Chassis number (🕮 p. 22)	Dealer's stamp
Engine number (🕮 p. 24)	
Key number (₽ p. 23)	

The Owner's Manual contained the latest information for this model series at the time of going to print. However, minor differences due to further developments in design cannot be ruled out completely.

All specifications are non-binding. KTM Sportmotorcycle GmbH specifically reserves the right to modify or remove without replacement technical specifications, prices, colors, forms, materials, services, designs, equipment, etc., without prior notice and without specifying reasons, to adapt these to local conditions, as well as to stop production of a particular model without prior notice. KTM accepts no liability for delivery options, deviations from illustrations and descriptions, misprints, and other errors. The models portrayed partly contain special equipment that does not belong to the regular scope of supply.



3213541en

Reproduction, even in part, as well as copying of all kinds, is permitted only with the express written permission of the copyright owner.



ISO 9001(12 100 6061)

According to the international quality management standard ISO 9001, KTM uses quality assurance processes that lead to the maximum possible quality of the products.

Issued by: TÜV Management Service

REG.NO. 12 100 6061

KTM Sportmotorcycle GmbH 5230 Mattighofen, Austria

This document is valid for the following models:

1290 Super Adventure R EU (F9903Q6)

1290 Super Adventure R TKC EU (F9903Q7)

1290 Super Adventure R TKC AU (F9960Q6)

1290 Super Adventure R TKC JP (F9986Q6)

1	MEANS	S OF REPRESENTATION	8		5.5	Fork part number	24
	1.1	Symbols used	8		5.6	Shock absorber article number	25
	1.2	Formats used	9		5.7	Steering damper article number	25
2	SAFET	Y ADVICE	10	6	CONTR	ROLS	26
	2.1	Use definition - intended use	. 10		6.1	Clutch lever	26
	2.2	Misuse	. 10		6.2	Hand brake lever	26
	2.3	Safety advice	. 10		6.3	Throttle grip	27
	2.4	Degrees of risk and symbols	. 11		6.4	Combination switch, left side	27
	2.5	Tampering warning	. 11		6.5	Light switch	28
	2.6	Safe operation	. 12		6.6	Cruise control system tip switch	28
	2.7	Protective clothing	13		6.7	Menu switch	30
	2.8	Work rules	13		6.8	Turn signal switch	31
	2.9	Environment	13		6.9	Horn button	32
	2.10	Owner's Manual	. 14		6.10	Combination switch, right	32
3	IMPOR	TANT NOTES	. 15		6.11	Hazard warning flasher switch	33
	3.1	Warranty	15		6.12	Emergency OFF switch/electric starter button	33
	3.2	Operating and auxiliary substances	15		6.13	Race-on button	34
	3.3	Spare parts, accessories	15		6.14	Steering lock (antenna)	34
	3.4	Service	16		6.15	Immobilizer	35
	3.5	Figures	. 16		6.16	Race-on key	35
	3.6	Customer service	. 16		6.17	Socket for electrical accessories	36
4	VIEW C	OF VEHICLE	18		6.18	USB socket	37
	4.1	View of vehicle, front left (example)	18		6.19	Opening the filler cap	37
	4.2	View of vehicle, rear right (example)	. 20		6.20	Closing the filler cap	39
5	SERIA	L NUMBERS	. 22		6.21	Fuel cocks	39
	5.1	Chassis number	. 22		6.22	Opening storage compartment	40
	5.2	Type label	. 22		6.23	Closing storage compartment	40
	5.3	Key number	23		6.24	Seat lock	41
	5.4	Engine number	. 24		6.25	Grab handles	41

	6.26	Luggage rack plate	42	7.22	Menu	64
	6.27	Passenger footrest	42	7.22.1	KTM MY RIDE (optional)	64
	6.28	Shift lever	43	7.22.2	Info	65
	6.29	Foot brake lever	44	7.22.3	Motorcycle	65
	6.30	Side stand	44	7.22.4	Settings	66
	6.31	Center stand	45	7.22.5	Preferences	66
7	COMBI	NATION INSTRUMENT	46	7.22.6	Pairing (optional)	67
	7.1	Combination instrument	46	7.22.7	Audio (optional)	68
	7.2	Activation and test	47	7.22.8	Telephony (optional)	70
	7.3	Day-Night mode	47	7.22.9	Trip 1	71
	7.4	Warning notes	48	7.22.10	0 Trip 2	71
	7.5	Warning of icy roads	49	7.22.1	1 General Info	72
	7.6	Indicator lamps	50	7.22.12	2 TPMS	72
	7.7	Display	54	7.22.13	3 Warnings	74
	7.8	Speed	56	7.22.14	4 Heated Grips (optional)	74
	7.9	Shift warning light	57	7.22.1	5 Heated Seat (optional)	75
	7.10	Cruise control indicator	58	7.22.16	6 Ride Mode	75
	7.11	Speed	58	7.22.1	7 MTC	76
	7.12	Ride Mode display	59	7.22.18	8 MTC+MSR (optional)	77
	7.13	Heated grip (optional)	59	7.22.19	9 ABS	78
	7.14	Seat heating (optional)	60	7.22.20	O HHC (optional)	79
	7.15	Coolant temperature indicator	60	7.22.2	1 Favourites	79
	7.16	Fuel level display	61	7.22.22	2 Quick Selector 1	80
	7.17	Ambient temperature indicator	61	7.22.23	3 Quick Selector 2	80
	7.18	Time	62	7.22.24	4 Distance	81
	7.19	Favourites display	62	7.22.2	5 Temp 8	81
	7.20	Quick Selector 1 display	63	7.22.26	6 Pressure	82
	7.21	Quick Selector 2 display	63	7.22.2	7 Consumption	82
				7.22.28	8 Language	83

	7.22.2	9 Shift Light	84	10	RIDING	GINSTRUCTIONS	109
	7.22.3	O Setting the time and date	84		10.1	Checks and maintenance measures when	
	7.22.3	1 DRL	86			preparing for use	109
	7.22.3	2 Quick Shift + (optional)	87		10.2	Starting	110
	7.22.3	3 Heated Grips (optional)	88		10.3	Starting off	112
	7.22.3	4 Heated Seat Rid (optional)	88		10.4	Quickshifter+ (optional)	112
	7.22.3				10.5	Starting off with HHC	113
	7.22.3				10.6	Shifting, riding	113
	7.22.3	7 Service	90		10.7	MSR (optional)	118
	7.22.3	8 Extra Functions	91		10.8	Applying the brakes	118
8	ERGON	IOMICS	92		10.9	Stopping, parking	120
	8.1	Handlebar position	92		10.10	Transport	122
	8.2	Adjusting the handlebar position 4	92		10.11	Refueling	123
	8.3	Adjusting the windshield		11	SERVIC	CE SCHEDULE	126
	8.4	Adjusting basic position of clutch lever	95		11.1	Additional information	126
	8.5	Adjusting the basic position of the hand brake			11.2	Required work	126
		lever	95		11.3	Recommended work	128
	8.6	Rider footrests	96	12	SUSPE	NSION SETTING	130
	8.7	Adjusting the footrests 4	96		12.1	Fork/shock absorber	130
	8.8	Checking the basic position of the shift lever	99		12.2	Adjusting the compression damping of the	
	8.9	Adjusting the basic position of the shift lever 4	99			fork	130
	8.10	Setting the shift lever stub	101		12.3	Adjusting the rebound damping of the fork	131
	8.11	Adjusting the basic position of the foot brake			12.4	Adjusting the spring pretension of the fork	132
		lever 🖳	102		12.5	Compression damping of the shock absorber	133
	8.12	Adjusting the tilt of the combination			12.6	Adjusting the low-speed compression damping	
		instrument				of the shock absorber	133
9		RING FOR USE			12.7	Adjusting the high-speed compression damping	
	9.1	Advice on first use				of the shock absorber	134
	9.2	Running in the engine			12.8	Adjusting the rebound damping of the shock	105
	9.3	Loading the vehicle	107			absorber	135

	12.9	Adjusting the spring pretension of the shock			13.26	Installing the engine guard	167
		absorber			13.27	Removing the crash bar 4	168
13	SERVIC	CE WORK ON THE CHASSIS	138		13.28	Installing the crash bar 4	169
	13.1	Raising the vehicle with the center stand	138	14	BRAKE	SYSTEM	171
	13.2	Removing the vehicle from the center stand	138		14.1	Antilock brake system (ABS)	171
	13.3	Removing the seat	139		14.2	Checking the brake discs	173
	13.4	Mounting the seat	140		14.3	Checking the brake fluid level of the front	
	13.5	Checking for chain dirt	140			brake	174
	13.6	Cleaning the chain	141		14.4	Adding front brake fluid 4	175
	13.7	Checking the chain tension	142		14.5	Checking the front brake linings	176
	13.8	Adjusting the chain tension	143		14.6	Checking the rear brake fluid level	177
	13.9	Checking the chain, rear sprocket, and engine			14.7	Adding rear brake fluid 4	178
		sprocket	145		14.8	Checking the rear brake linings	180
	13.10	Checking/correcting the fluid level of the		15	WHEEL	S, TIRES	182
		hydraulic clutch			15.1	Removing the front wheel 4	182
	13.11	8 81 3			15.2	Installing the front wheel 🔦	184
		Removing the bottom triple clamp cover			15.3	Removing the rear wheel 4	187
		5 1 1			15.4	Installing the rear wheel 4	189
					15.5	Checking the rear hub rubber dampers ◀	192
	13.15	Installing the front side cover			15.6	Checking the tire condition	193
	13.16	Removing the mask spoiler 4			15.7	Checking the tire air pressure	195
	13.17	Installing the mask spoiler 🔦			15.8	Checking spoke tension	
		Removing the front fender			15.9	Tubeless tire system	197
	13.19	Installing the front fender		16	ELECT	RICAL SYSTEM	198
	13.20	Cleaning the dust boots of the fork legs ⁴			16.1	Daytime running light (DRL)	198
	13.21	8			16.2	Cornering headlight	
	13.22	Installing the tank cover	164		16.3	Removing the battery 4	199
		Removing the wind shield			16.4	Installing the battery 4	
	13.24	Installing the wind shield	166		16.5	Recharging the battery 4	
	13.25	Removing the engine guard	167			,	

	16.6	Changing the Race-on key battery	207		23.3	Capacities	24
	16.7	Changing the main fuse	208		23.3.1	Engine oil	24
	16.8	Changing the fuses in the fuse box	210		23.3.2	Coolant	24
	16.9	Checking the headlight setting	213		23.3.3	Fuel	24
	16.10	Adjusting the headlight range	213		23.4	Chassis	24
	16.11	Diagnostics connector	215		23.5	Electrical system	24
17	COOLII	NG SYSTEM	216		23.6	Tires	24
	17.1	Checking the coolant level in the compensating			23.7	Fork	24
		tank	216		23.8	Shock absorber	24
	17.2	Correcting the coolant level in the			23.9	Chassis tightening torques	24
		compensating tank	_	4	DECLA	RATIONS OF CONFORMITY	25
18		G THE ENGINE			24.1	EU declaration of conformity	25
	18.1	Ride Mode	_	5	OPEN S	SOURCE	25
	18.2	Motorcycle traction control (MTC)			25.1	Information on open source software	25
19	SERVIC	CE WORK ON THE ENGINE	_	6	SUBST	ANCES	25
	19.1	Checking the engine oil level	222 ₂	7	AUXILI	ARY SUBSTANCES	25
	19.2	Changing the engine oil and oil filter, cleaning		8	STAND	OARDS	26
		the oil screens 4		9	INDEX	OF SPECIAL TERMS	26
	19.3	Adding engine oil	.)	0	LIST O	F ABBREVIATIONS	26
20		ING, CARE		1	LIST O	F SYMBOLS	26
	20.1	Cleaning motorcycle	230		31.1	Red symbols	26
	20.2	Checks and maintenance steps for winter	000		31.2	Yellow and orange symbols	26
. 1	OTODA	operation			31.3	Green and blue symbols	
21		GE	11	NDI	ΞX		26
	21.1	Storage					
	21.2	Preparing for use after storage					
		BLESHOOTING					
23		IICAL DATA					
	23.1	Engine					
	23.2	Engine tightening torques	239				

1.1 Symbols used

The meaning of specific symbols is described below.



Indicates an expected reaction (e.g. of a work step or a function).



Indicates an unexpected reaction (e.g. of a work step or a function).



All work marked with this symbol requires specialist knowledge and technical understanding. In the interest of your own safety, have these jobs performed by an authorized KTM workshop. There, your motorcycle will be optimally cared for by specially trained experts using the specialist tools required.



Indicates a page reference (more information is provided on the specified page).



Indicates information with more details or tips.



Indicates the result of a testing step.

1.3	2	Fo	rma	te	used
	_	ıv	ша	12	uscu

The typographical formats used in this document are explained below.

Specific name Identifies a proprietary name.

Name® Identifies a protected name.

Brand™ Identifies a brand available on the open market.

<u>Underlined terms</u>

Refer to technical details of the vehicle or indicate technical terms that are explained in the glossary.

2.1 Use definition - intended use

KTM sport motorcycles are designed and constructed to meet the normal demands of regular road and light offroad operation (dirt roads), but not for use on race courses.



Info

The motorcycle is only authorized for operation on public roads in the homologated version.

2.2 Misuse

The vehicle must only be used as intended.

Dangers can arise for people, property and the environment through use not as intended.

Any use of the vehicle beyond the intended and defined use constitutes misuse.

Misuse also includes the use of operating and auxiliary fluids which do not meet the required specification for the respective use.

2.3 Safety advice

A number of safety instructions need to be followed to operate the vehicle safely. Therefore, read this manual carefully. The safety instructions are highlighted in the text and are referred to at the relevant passages.



Info

The vehicle has various information and warning labels at prominent locations. Do not remove information/warning labels. If they are missing, you or others may not recognize dangers and may therefore be injured.

2.4 Degrees of risk and symbols



Danger

Indicates a danger that will immediately and invariably lead to fatal or serious permanent injury if the appropriate measures are not taken.



Warning

Indicates a danger that is likely to lead to fatal or serious injury if the appropriate measures are not taken.



Caution

Indicates a danger that may lead to minor injuries if the appropriate measures are not taken.

Note

Indicates a danger that will lead to considerable machine and material damage if the appropriate measures are not taken.



Warning

Indicates a danger that will lead to environmental damage if the appropriate measures are not taken.

2.5 Tampering warning

Tampering with the noise control system is prohibited. Federal law prohibits the following acts or the causing thereof:

- 1 The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or
- 2 the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below:

1 Removal or puncturing of the main silencer, baffles, header pipes or any other components which conduct exhaust gases.

- 2 Removal or puncturing of parts of the intake system.
- 3 Lack of proper maintenance.
- 4 Replacing moving part of the vehicle, or parts of the exhaust or intake system, with parts other than those specified by the manufacturer.

2.6 Safe operation



Danger

Danger of accidents A rider who is not fit to ride poses a danger to him or herself and others.

- Do not operate the vehicle if you are not fit to ride due to alcohol, drugs or medication.
- Do not operate the vehicle if you are physically or mentally impaired.



Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

- Always make sure there is sufficient ventilation when running the engine.
- Use an effective exhaust extraction system when starting or running the engine in an enclosed space.



Warning

Danger of burns Some vehicle components become very hot when the vehicle is operated.

- Do not touch any parts such as the exhaust system, radiator, engine, shock absorber, or brake system before the vehicle parts have cooled down.
- Let the vehicle parts cool down before you perform any work on the vehicle.

Only operate the vehicle when it is in perfect technical condition, in accordance with its intended use, and in a safe and environmentally compatible manner.

The vehicle should only be used by trained persons. An appropriate driver's license is needed to ride the vehicle on public roads.

Have malfunctions that impair safety promptly eliminated by an authorized KTM workshop.

Adhere to the information and warning labels on the vehicle.

2.7 Protective clothing



Warning

Risk of injury Missing or poor protective clothing presents an increased safety risk.

- Wear appropriate protective clothing such as helmet, boots, gloves as well as trousers and a jacket with protectors on all rides.
- Always wear protective clothing that is in good condition and meets the legal regulations.

In the interest of your own safety, KTM recommends that you only operate the vehicle while wearing protective clothing.

2.8 Work rules

Special tools are necessary for some of the work. These are not included with the vehicle and can be ordered under the number in parentheses. Ex: valve spring mounter (59029019000)

During assembly, non-reusable parts (e.g. self-locking screws and nuts, seals and seal rings, O-rings, pins, lock washers) must be replaced by new parts.

Where thread lockers are used on screw connections (e.g., Loctite®), follow the instructions for use from the manufacturer.

Parts that you want to reuse following repairs and servicing should be cleaned and checked for damage and wear. Change damaged or worn parts.

Following repairs or servicing, the vehicle must be checked for roadworthiness.

2.9 Environment

If you use your motorcycle responsibly, you can ensure that problems and conflicts do not occur. To protect the future of the motorcycle sport, make sure that you use your motorcycle legally, display environmental consciousness, and respect the rights of others. When disposing of used oil, other operating and auxiliary fluids, and used components, comply with the laws and regulations of the respective country.

Because motorcycles are not subject to the EU regulations governing the disposal of used vehicles, there are no legal regulations that pertain to the disposal of an end-of-life motorcycle. Your authorized KTM dealer will be glad to advise you.

2.10 Owner's Manual

It is important that you read this Owner's Manual carefully and completely before making your first trip. The Owner's Manual contains useful information and many tips on how to operate, handle, and maintain your motorcycle. Only then will you find out how to customize the vehicle ideally for your own use and how you can protect yourself from injury.

Keep the Owner's Manual in an accessible place to enable you to refer to it as needed.

If you would like to know more about the vehicle or have questions on the material you read, please contact an authorized KTM dealer. The Owner's Manual is an important component of the vehicle and should be handed over to the new owner if the vehicle is sold.

3.1 Warranty

The work specified in the service schedule may only be performed in an authorized KTM workshop and must be recorded in both the Service & Warranty Booklet and in **KTM Dealer.net**, otherwise any warranty coverage will become void. No warranty claims can be considered for damage resulting from manipulations and/or alterations to the vehicle.

Additional information on the manufacturer or implied warranty and the procedures involved can be found in the service & warranty book-let.

3.2 Operating and auxiliary substances



Warning

Environmental hazard Improper handling of fuel is a danger to the environment.

- Do not allow fuel to enter the groundwater, the soil, or the sewage system.

Use operating and auxiliary substances (such as fuel and lubricants) as specified in the Owner's Manual.

3.3 Spare parts, accessories

For your own safety, only use spare parts and accessory products that are approved and/or recommended by KTM and have them installed by an authorized KTM workshop. KTM accepts no liability for other products and any resulting damage or loss.

Certain spare parts and accessory products are specified in parentheses in the descriptions. Your authorized KTM dealer will be glad to

advise you.

The current **KTM PowerParts** for your vehicle can be found on the KTM website.

International KTM Website: http://www.ktm.com

3.4 Service

A prerequisite for perfect operation and prevention of premature wear is that the service, care and tuning work on the engine and chassis are properly carried out as described in the owner's manual. Poor adjustment and tuning of the engine and suspension can lead to damage and breakage of components.

Using the motorcycle in extreme operating conditions, e.g. on very muddy and wet roads or in a dusty and dry environment, can lead to above-average wear of components, such as the drive train, brakes or air filter. For this reasons, it may be necessary to service or replace worn parts before the interval listed in the service schedule is reached.

It is imperative that you adhere to the stipulated run-in times and service intervals. If you observe these exactly, you will ensure a much longer service life for your motorcycle.

3.5 Figures

The figures contained in the manual may depict special equipment.

In the interest of clarity, some components may be shown disassembled or may not be shown at all. It is not always necessary to disassemble the component to perform the activity in question. Please follow the instructions in the text.

3.6 Customer service

Your authorized KTM dealer will be happy to answer any questions you may have on your vehicle and KTM.

A list of authorized KTM dealers can be found on the KTM website.

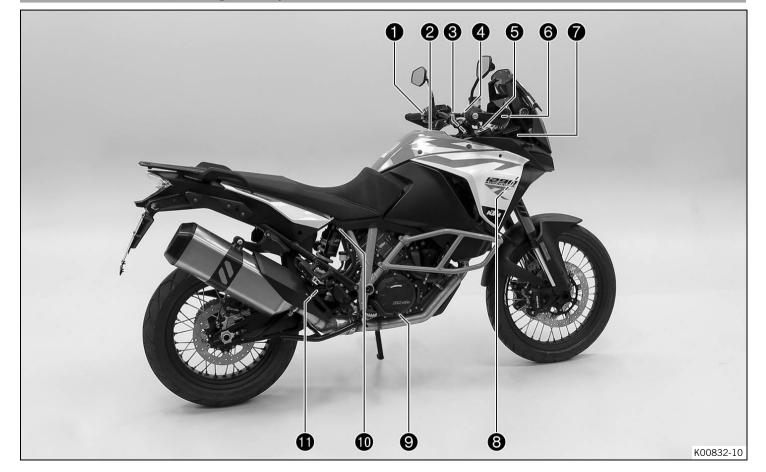
International KTM Website: http://www.ktm.com

4.1 View of vehicle, front left (example)



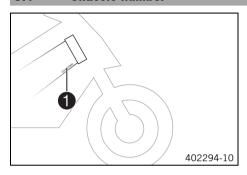
1	Socket for electrical accessories (🕮 p. 36)
2	Clutch lever (🕮 p. 26)
3	Grab handles (₽ p. 41)
4	Luggage rack plate (🕮 p. 42)
5	Seat lock (p. 41)
6	Passenger footrest (🕮 p. 42)
7	Center stand (@ p. 45)
8	Rider footrests (🕮 p. 96)
9	Shift lever (p. 43)
10	Side stand (p. 44)
11	Engine oil level viewer
12	Fuel cocks (🕮 p. 39)

4.2 View of vehicle, rear right (example)



1	Combination switch, left side (🕮 p. 27)
2	Filler cap
3	Fork compression adjustment
4	Combination switch, right (🕮 p. 32)
5	Fork rebound adjustment
6	Hand brake lever (≅ p. 26)
7	Storage compartment
8	Cooling system compensating tank
9	Foot brake lever (🕮 p. 44)
10	Shock absorber compression adjustment
11	Shock absorber rebound adjustment
	onock absorber repound adjustment

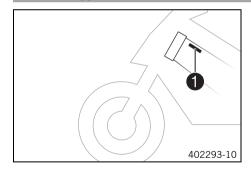
5.1 Chassis number



The chassis number **1** is stamped on the bottom right of the frame behind the steering head.

The chassis number is also shown on the type label.

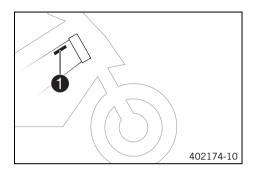
5.2 Type label



(All EU/JP models)

Type label 1 is affixed to the top left of the frame behind the steering head.

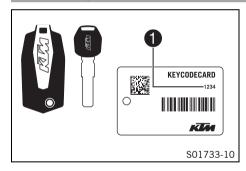
5 SERIAL NUMBERS



(Super Adventure R TKC AU)

Type label **1** is affixed the top right of the frame behind the steering head.

5.3 Key number



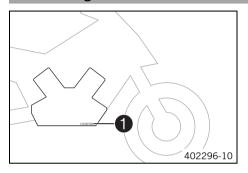
The key number **Code number** 1 can be found on the **KEYCODECARD**.



Info

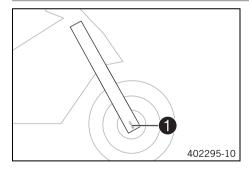
You need the key number to order a spare key. Keep the $\ensuremath{\mathbf{KEYCODECARD}}$ in a safe place.

5.4 Engine number



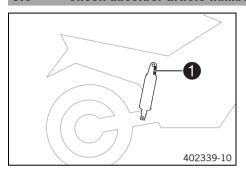
The engine number 1 is stamped on the right side of the engine.

5.5 Fork part number



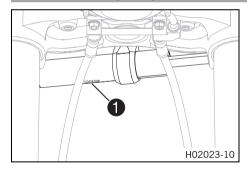
The fork part number 1 is stamped on the inner side of the fork stub.

5.6 Shock absorber article number



The shock absorber article number **1** is stamped on the top of the shock absorber.

5.7 Steering damper article number



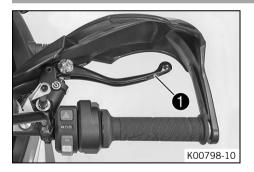
Steering damper article number 1 is embossed on the underside of the steering damper.

6.1 Clutch lever



The clutch lever **1** is fitted on the left side of the handlebar. The clutch is hydraulically operated and self-adjusting.

6.2 Hand brake lever



The hand brake lever 1 is fitted on the right side of the handlebar.

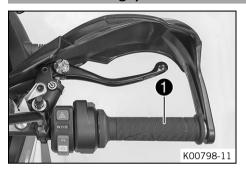
The hand brake lever is used to activate both the front brake and rear brake at the same time.



Info

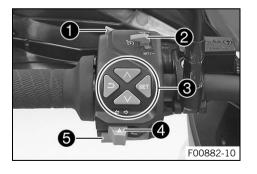
When the <u>ABS</u> mode **Offroad**is switched on, only the front brake is activated. When ABS is switched off, only the front brake is activated.

6.3 Throttle grip



The throttle grip **1** is fitted on the right side of the handlebar.

6.4 Combination switch, left side

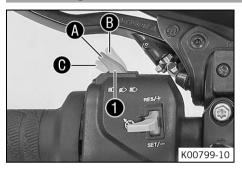


The left combination switch is fitted on the left side of the handlebar.

Overview of the left combination switch

1	Light switch (♥ p. 28)
2	Cruise control system tip switch (🕮 p. 28)
3	Menu switch (Pp. 30)
4	Turn signal switch (🕮 p. 31)
5	Horn button (p. 32)

6.5 Light switch



The light switch **1** is fitted on the combination switch on the left.

Possible states

 ■D	Low beam on – Light switch in position $oldsymbol{A}$. In this position, the low beam and tail light are switched on.
	High beam on – Push the light switch to position B . In this position, the high beam and the tail light are switched on.
≣ O	Headlight flasher. – Push the light switch into position ().

6.6 Cruise control system tip switch



The cruise control system tip switch 1 is fitted on the left side of the combination switch.

Possible states

- Cruise control system tip switch in the basic position.
- Cruise control system tip switch 'o pressed to the left. In this position, the cruise control system function is switched on and off. The operating mode is displayed in the combination instrument.
- Briefly press cruise control system tip switch to at the top. The last saved speed is reached and maintained. Every subsequent brief pressing increases the target speed by 1 km/h or 1 mph.
- Press and hold cruise control system tip switch to at the top. The target speed increases in increments of 5 km/h or 5 mph.
- Briefly press cruise control system tip switch to at the bottom. The cruise control system function is activated and the current speed is maintained. Every subsequent brief press reduces the target speed by 1 km/h or 1 mph.
- Press and hold cruise control system tip switch to at the bottom. The target speed decreases in increments of 5 km/h or 5 mph.



Info

After activation of the cruise control system function, the throttle grip can be turned back to the home position. The selected speed will be maintained. If the target speed is exceeded for less than 30 seconds when turning the throttle grip, the cruise control system remains activated.

To switch off the cruise control system function, press the cruise control system tip switch ∞ to the left.

In addition, the cruise control system function is deactivated when one of the following events occurs:

- Operating the hand brake lever
- Operating the foot brake lever
- Operating the clutch lever
- Shifting gears
- Turning the throttle grip beyond the home position
- Control of the motorcycle traction control (MTC)
- Also functions with deactivated motorcycle traction control (MTC) if the front wheel speed does not match the engine speed (slip at the rear wheel of lifting front wheel)
- A fault occurring, which impairs the cruise control system function
- Exceeding the target speed for more than 30 seconds when overtaking



Warning

Danger of accidents The cruise control system function is not suitable for all driving situations.

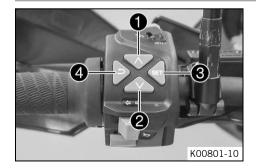
The selected target speed will not be reached, if the engine power is not sufficient for a gradient.

The selected target speed will be exceeded if the engine braking effect is not sufficient on a decline.

- Do not use the cruise control systems function on winding roads.
- Do not use the cruise control systems on slippery road surfaces (e.g. rain, ice or snow) or unpaved surfaces (e.g. sand, stones or gravel).
- Do not use the cruise control systems function if the traffic does not permit a constant speed.

The cruise control system function cannot be activated during rapid acceleration. The cruise control system function can only be activated in 3rd, 4th, 5th and 6th gear. The control range is from 40 to 200 km/h or from 25 to 125 mph.

6.7 Menu switch



The menu switch is fitted in the middle of the left combination switch.

The menu buttons are used to control the matrix display on the combination instrument.

Button **1** is the **UP** button.

Button 2 is the **DOWN** button.

Button **3** is the **SET** button.

Button 4 is the BACK button.

6.8 Turn signal switch



Turn signal switch **1** is fitted on the combination switch on the left.

Possible states

Δ	Turn signal off – Push the turn signal switch toward the switch housing.
4	Left turn signal, on – Turn signal switch pressed to the left. The turn signal switch returns automatically to the central position after use.
\Rightarrow	Right turn signal, on – Turn signal switch pressed to the right. The turn signal switch returns automatically to the central position after use.



Info

An automatic turn signal switch-off function ($\underline{\textbf{ATIR}}$) is available as a software feature. The $\underline{\textbf{ATIR}}$ function uses a time and distance counter.

If the turn signal has been on for at least 10 seconds and 150 meters of riding distance, the turn signal is switched off.

If the vehicle is stationary, both counters are stopped.

If the turn signal switch is reactivated, both counters are reset.

6.9 Horn button



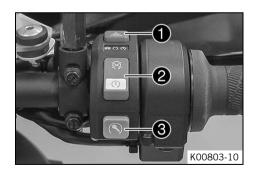
The horn button 1 is fitted on the combination switch on the left.

Possible states

- Horn button
 in basic position.
- Horn button

 pressed The horn is operated in this position.

6.10 Combination switch, right



The right combination switch is fitted on the right side of the handlebar.

Overview of the right combination switch

1	Hazard warning flasher switch (🕮 p. 33)
2	Emergency OFF switch/electric starter button (🕮 p. 33)
3	Race-on button (🕮 p. 34)

6.11 Hazard warning flasher switch



The hazard warning flasher switch **1** is fitted on the combination switch on the left. The hazard warning flasher is used to indicate emergency situations.



Info

The hazard warning flasher can be activated or deactivated while the ignition is switched on or up to 60 seconds after the ignition is switched off.

Only keep the hazard warning flasher activated as long as necessary as it depletes the battery.

Possible states



Hazard warning flasher on – All four turn signals and the green turn signal indicator lights in the combination instrument flash.

6.12 Emergency OFF switch/electric starter button



The emergency OFF switch/electric starter button • is fitted on the right side of the combination switch.

Possible states

\bowtie	position, the ignition circuit is interrupted, a running engine stops, and a non-running engine cannot be started. A message appears on the display.
\bigcirc	Emergency OFF switch/electric starter button on (middle position) – This position is required for operation; the ignition circuit is closed.
(3)	Starter motor on (lower position) – In this position, the starter motor is actuated.

6.13 Race-on button



The Race-on button **1** is fitted on the right side of the combination switch.



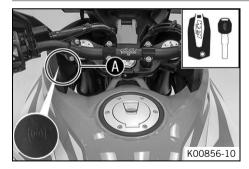
Info

The Race-on button performs the ignition lock function on this vehicle. The steering can only be locked if the handlebar is turned fully to the left.

Possible states

- Race-on button
 pressed briefly Pressing briefly switches the ignition on and unlocks the handlebar lock or switches the ignition off.

6.14 Steering lock (antenna)



On this vehicle, the ignition/steering lock is replaced by a remote key with transponder (Race-on key () p. 35)).

In order to activate the steering lock, the handlebar must be turned fully to the left. The steering is locked and unlocked electromechanically via the Race-on button (© p. 34).

If the battery voltage of the Race-on key is too low, hold the Race-on key or the black ignition key in area (A) on the motorcycle and repeat starting.



Info

Store the key safely again as soon as the engine has been started.

Possible states

 Ignition off, steering locked – In this operating mode, the ignition circuit is interrupted and the steering locked.

- Ignition off, steering unlocked In this operating mode, the ignition circuit is interrupted and the steering unlocked.
- Ignition on, steering unlocked In this operating mode, the ignition circuit is closed and the steering unlocked.

6.15 Immobilizer



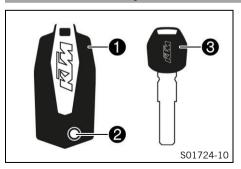
The electronic immobilizer secures the vehicle against unauthorized use.

The immobilizer is activated and the engine electronics are locked as soon as the ignition is switched off via the Race-on button \mathfrak{D} (\mathfrak{D} p. 34).

The Race-on indicator lamp 1 can indicate errors by flashing.

If the optional alarm system is installed, the Race-on indicator lamp **1** flashes when the ignition is switched off and the alarm system is switched on.

6.16 Race-on key



In this vehicle, the <u>Race-on key</u> performs all the functions of the conventional ignition key.

Press the **2** button to fold out the key bit. The key bit it is only used for unlocking the seat lock and for opening the cases (optional).

The black ignition key 3 is only intended for situations in which the Race-on key is not available or is not functional.

The black Race-on spare key can be used to start the vehicle if the Race-on key battery voltage is too low and the transponder is not recognized by the vehicle. The black Race-on key can also be used to unlock the seat lock and open the cases (optional).



Info

The key contains electronic components. Never attach multiple keys to a single key ring; this may cause mutual interference.

A lost key must be deactivated by an authorized KTM workshop to prevent unauthorized persons from operating the vehicle.

The keys supplied are activated when delivered.

A total of up to four keys can be activated from an authorized KTM workshop. The key number must be provided in each case.

6.17 Socket for electrical accessories



Socket **1** for electrical accessories is fitted in front of the upper triple clamp. It is connected to the permanent positive and is fuse-protected.

Socket for electrical accessorie	S
Voltage	12 V
Maximum current consumption	10 A

6.18 USB socket



A USB socket **1** is located in the storage compartment for supplying power to external devices.

The USB socket is activated when the ignition is switched on.

USB socket	
Voltage	5 V
Maximum current con- sumption	2.1 A

6.19 Opening the filler cap



Danger

Fire hazard Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.

- Do not refuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.



Warning

Danger of poisoning Fuel is poisonous and a health hazard.

- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
- Change your clothing in case of fuel spills on them.
- Keep fuels correctly in a suitable canister, and out of the reach of children.



Warning

Environmental hazard Improper handling of fuel is a danger to the environment.

- Do not allow fuel to enter the groundwater, the soil, or the sewage system.

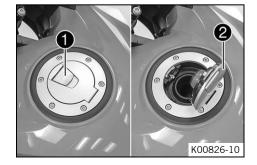
Condition

The motorcycle is stationary.

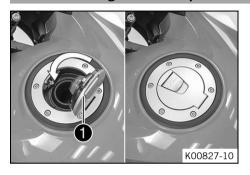
The engine is switched off.

The ignition has been switched on or off for less than 1 minute.

- Fold up cover 1 slowly.
 - ✓ The filler cap unlocks.
- Fold open filler cap **2**.



6.20 Closing the filler cap





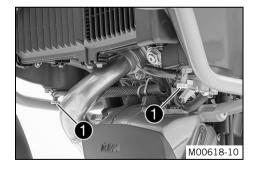
Warning

rarning

Fire hazard Fuel is highly flammable, toxic and a health hazard.

- Check the filler cap is locked correctly after closing.
- Change your clothing in case of fuel spills on them.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Fold down the filler cap 1 and push it down.
 - ✓ The filler cap locks audibly in place.

6.21 Fuel cocks



A fuel cock 1 is located on each side of the fuel tank.



Info

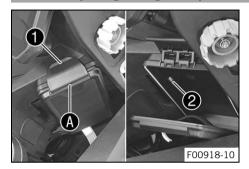
The fuel cocks must always be open during operation.

The fuel cocks are only closed to remove the fuel tank.

Possible states

- Fuel cocks are closed Level equalization cannot take place and the fuel supply to the throttle valve body is shut off.
- Fuel cocks are open Level equalization can take place and the fuel supply to the throttle valve body is open.

6.22 Opening storage compartment



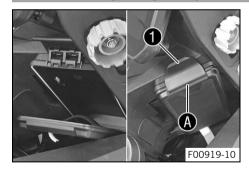
- Lift the lock $oldsymbol{1}$ and detach in area $oldsymbol{A}$.
- Open storage compartment.



Info

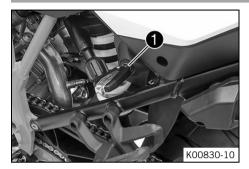
A <u>USB socket</u> (p. 37) is located in the storage compartment for supplying power to external devices.

6.23 Closing storage compartment



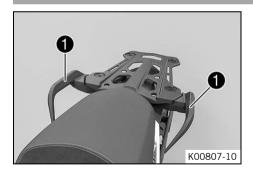
- Close storage compartment.
- Attach lock $oldsymbol{1}$ in area $oldsymbol{A}$ and press down.

6.24 Seat lock



Seat lock is located on the left side of the vehicle under the seat. It can be unlocked using the Race-on key or the black Race-on key.

6.25 Grab handles



The passenger can hold onto grab handles **1** during the trip.

6.26 Luggage rack plate



The luggage rack plate 1 is located behind the seat.

The base plate of a luggage system (optional) can be attached to the luggage rack plate. The luggage rack plate may not be loaded with more than the specified weight.

Maximum permissible load	8 kg (18 lb.)
on luggage rack plate	



Info

Note the information provided by the luggage manufacturer.

6.27 Passenger footrest

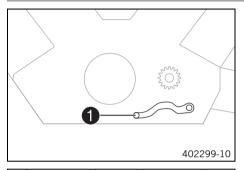


The passenger footrests are foldable.

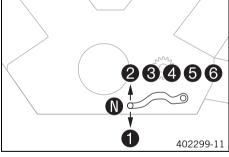
Possible states

- Passenger footrest folded in For operation without a passenger.
- Passenger footrest folded out For operation with a passenger.

6.28 Shift lever

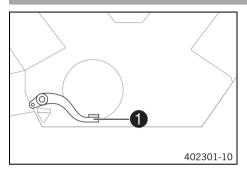


The shift lever **1** is fitted on the left side of the engine.



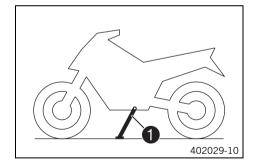
The gear positions can be seen in the figure. The idle position is between the first and second gears.

6.29 Foot brake lever



Foot brake lever 1 is located in front of the right footrest. The rear brake is activated using the foot brake lever.

6.30 Side stand



The side stand **1** is located on the left side of the vehicle. The side stand is used for parking the motorcycle.



Info

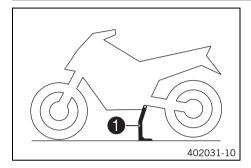
The side stand must be folded up during motorcycle use.

The side stand is coupled with the safety starting system. See the instructions in the "Stopping, parking" chapter.

Possible states

- Side stand folded out The vehicle can be supported on the side stand. The safety starting system is active.
- Side stand folded in This position is mandatory when riding the motorcycle. The safety starting system is inactive.

6.31 Center stand



In addition to the side stand, the vehicle is equipped with a center stand 1.

7.1 Combination instrument



The combination instrument is attached in front of the handlebar.

The combination instrument is divided into two function areas.

indicator lamps (
p. 50)

Display 2



Warning

situations.

Danger of burns Parts of the combination instrument become very hot in certain

The display becomes particularly hot in the case of external temperatures above $55\,^{\circ}\text{C}$ (131 °F), extended periods in standing position, e.g. at a traffic light, or in direct sunlight.

- Do not touch the combination instrument with bare hands in the situations referred to.
- Where appropriate protective clothing.
- If you have been burned, hold the area affected under lukewarm water immediately.

7.2 Activation and test



Activation

The combination instrument is activated when the ignition is switched on.



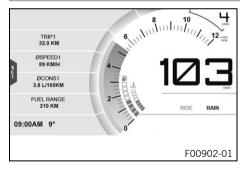
Info

The brightness of the displays is controlled by a brightness sensor in the combination instrument.

Test

The welcome text appears on the display and the indicator lamps are briefly activated for a function test.

7.3 Day-Night mode



Day mode is shown in a bright color.



Night mode is shown in a dark color.

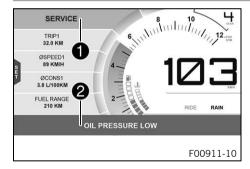


Info

The light sensor in the combination instrument measures the brightness of the environment and automatically switches the display to day or night mode. The display is brightened, darkened or switched to the other mode depending on the brightness measured by the light sensor.

The display mode cannot be changed manually.

7.4 Warning notes



Warning notes appear on the top and/or bottom edge of the display, these are marked yellow or red depending on their relevance.

Yellow warning notes 1 indicate errors or information which requires prompt intervention or an adjustment to the riding style.

Red warning notes **2** indicate errors or information which requires immediate intervention.

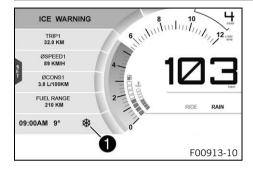


Info

Warning notes are cleared by pressing any button.

All existing warning notes are displayed in the **Warnings** menu until these are no longer active.

7.5 Warning of icy roads



The ice symbol * goes on when there is an increased risk of ice on the roads.

The ice symbol * is shown in area 1 of the display.

The ice symbol & appears on the display when the ambient temperature drops below the specified value.

Temperature	3 °C (37 °F)

The ice symbol \circledast goes out on the display when the ambient temperature rises back up above the specified value.

	Temperature	6 °C (43 °F)
--	-------------	--------------



Info

If the ice symbol * lights up, the warning note ICE WARNINGalso appears.

7.6 Indicator lamps



The indicator lamps offer additional information about the operating state of the motorcycle. When the ignition is switched on, all indicator lamps light up briefly.

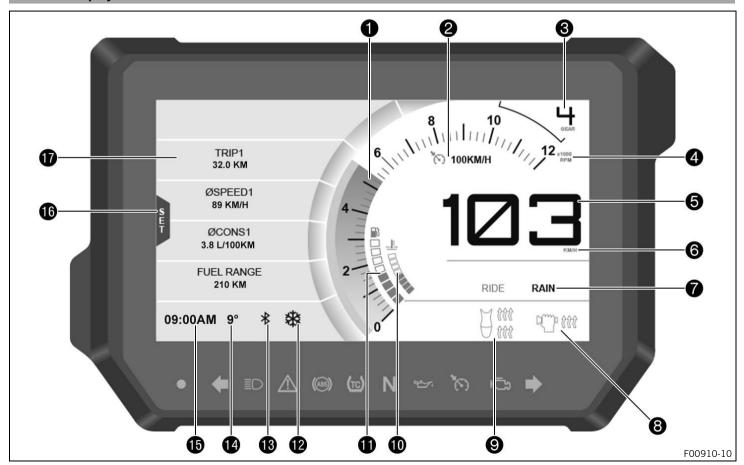
Possible states

	Race-on indicator lamp lights up/flashes yellow/orange/red – Status or error messages relating to Race-on system/alarm system.
(The left turn signal indicator lamp flashes green with a steady rhythmic flash – The left turn signal is switched on.
	The high beam indicator lamp lights up blue – The high beam is switched on.
\triangle	The general warning lamp lights up yellow – An operating safety (warning) message was detected. This is also shown on the display.
(ABS)	ABS indicator lamp lights up yellow – Status or error messages relating to <u>ABS</u> . The ABS indicator lamp flashes if the ABS mode Offroad is enabled.
<u>(TC</u>)	TC indicator lamp lights up/flashes yellow – The motorcycle traction control is not enabled or is currently intervening. The TC Indicator lamp also lights up if an error is detected. In addition, the TC indicator lamp flashes if the



The right turn signal indicator lamp flashes green with a steady rhythmic flash – The right turn signal is switched on.

7.7 Display



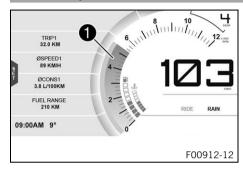


Info

The figure shows the standard display of the combination instrument. If the menu is opened, the speed is still displayed.

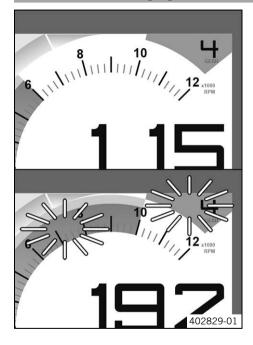
1	Speed (₽ p. 56)	
1	Shift warning light (🕮 p. 57)	
	The shift warning light is integrated in the tachometer display.	
2	Cruise control indicator (🕮 p. 58)	
3	Gear display	
4	Unit for the speed display	
5	Speed (₽ p. 58)	
6	Unit for the speedometer	
7	Ride Mode display (🕮 p. 59)	
8	Heated grip (optional) (🕮 p. 59)	
9	Seat heating (optional) (🕮 p. 60)	
10	Coolant temperature indicator (🕮 p. 60)	
11	Fuel level display (🕮 p. 61)	
12	Warning of icy roads (🕮 p. 49)	
	Only shown when there is an increased risk of ice on the roads.	
13	Bluetooth® (optional)	
14	Ambient temperature indicator (🕮 p. 61)	
15	Time (♀ p. 62)	
16	SET	
	Only shown where the menu overview is closed.	
17	Favourites display (🕮 p. 62)	

7.8 Speed



The speed **1** is measured in revolutions per minute.

7.9 Shift warning light



The shift warning light is integrated in the tachometer display.

In the **Shift Light** menu, the engine speed for the shift warning light can be set. The shift warning light is always active during the running-in phase (up to 1,000 km / 621 mi). The shift warning light can only be deactivated, and the values for **RPM1** and **RPM2** can only be adjusted after this. The shift warning light lights up red at **RPM1** and flashes red at **RPM2**.



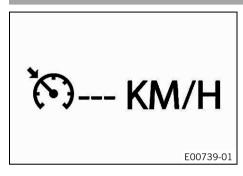
Info

In sixth-gear, the shift warning light is deactivated when the engine is warm after the first service.

Coolant temperature	≤ 35 °C (≤ 95 °F)
ODO	< 1,000 km (< 620 mi)
The shift warning light always lights up at	6,500 rpm

Coolant temperature	> 35 °C (> 95 °F)
ODO	> 1,000 km (> 620 mi)
RPM1 shift warning light	lights up
RPM2 shift warning light	flashes

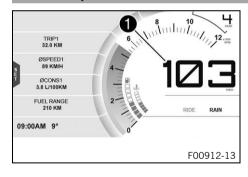
7.10 Cruise control indicator



When cruise control is activated, the operating mode is shown on the combination instrument display.

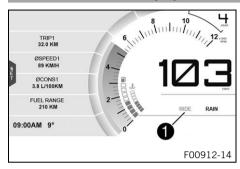
Cruise control is operated using the cruise control tip switch to (p. 28).

7.11 Speed



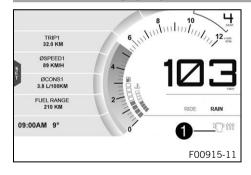
Speed **1** is shown in kilometers per hour **km/h** or in miles per hour **mph**.

7.12 Ride Mode display



The **Ride Mode** setting is shown in area **1** of the display. The drive mode can be configured in the **Ride Mode** menu.

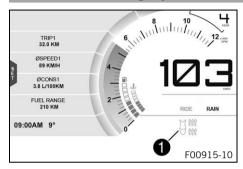
7.13 Heated grip (optional)



When the heated grip is switched on, the **Heated Grips**symbol appears in the **1** area of the display.

The heated grip can be configured in the **Heated Grips** menu.

7.14 Seat heating (optional)



When the seat heating is switched on, the **Heated Seat**symbol appears in the **1** area of the display.

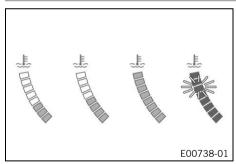
The seat heating can be configured in the **Heated Seat** menu.



Info

The heating level for the passenger seat heating can be controlled by a switch next to the right grab handle.

7.15 Coolant temperature indicator



The coolant temperature indicator consists of bars. The more bars that light up, the hotter the coolant.



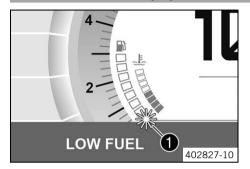
Info

When all bars flash, the following warning note **ENGINE TEMP HIGH** appears.

Possible states

- The engine is cold Up to three bars light up.
- Engine warm Four bars light up.
- Engine hot Five to eight bars light up.
- Engine very hot all eight bars flash red.

7.16 Fuel level display



The fuel tank contents are shown in area 1 of the display.

The fuel level indicator consists of bars. The more bars are lit, the more fuel is in the fuel tank.



Info

If the fuel level is getting low, the last segment flashes red and the following warning note also appears ${\bf LOW}$ ${\bf FUEL}$.

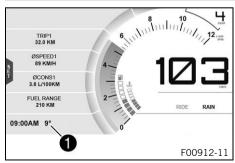
The fuel level is displayed with a slight delay to prevent the indicator from constantly moving while riding.

The fuel level display is not updated while the side stand is folded out or the emergency off switch is switched off.

Once the side stand is folded up and emergency OFF switch is switched on, the fuel level display is next updated after 2 minutes.

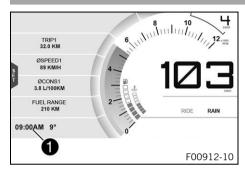
The fuel level display flashes if the combination instrument does not receive a signal from the fuel level sensor.

7.17 Ambient temperature indicator



The ambient temperature **1** is displayed in **°C** or **°F**.

7.18 Time



The time is shown in area 1 of the display.

The time is displayed in 24 hour format in all languages except for EN-US. The time is displayed in 12 hour format if the language is set to EN-US.

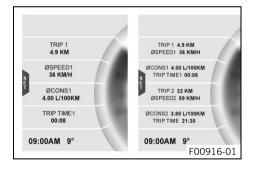
The time can be configured in the Clock/Date menu.



Info

The time must be reset after the battery was disconnected or the fuse was removed.

7.19 Favourites display



Up to eight items of information are shown in the Favourites display.

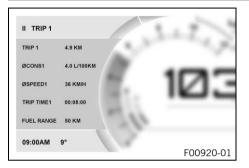
The Favourites display can be freely configured in the Favourites menu.



Info

One to four items of information selected are displayed on two lines. Five to eight items of information selected are displayed on a single line.

7.20 Quick Selector 1 display



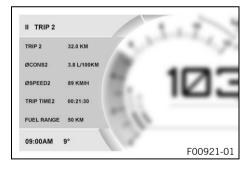
When the menu is closed, the **Quick Selector 1** menu is opened by pressing the **UP** button. Press the **BACK** button to close **Quick Selector 1**.



Info

The **Quick Selector 1** can be configured in the **Quick Selector 1** menu. Any information can be selected.

7.21 Quick Selector 2 display



When the menu is closed, the ${f Quick\ Selector\ 2}$ menu is opened by pressing the ${f DOWN}$ button.

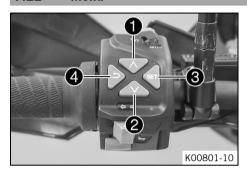
Press the BACK button to close Quick Selector 2.



Info

The **Quick Selector 2** can be configured in the **Quick Selector 2** menu. Any information can be selected.

7.22 Menu





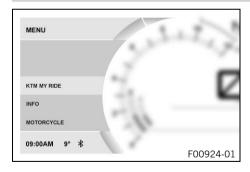
Info

Press the **SET** button **1** in the standard display to open the menu.

Navigate through the menu using the **UP** button **2** or the **DOWN** button **3**.

Press the **BACK** button **4** to close the current menu or the menu overview.

7.22.1 KTM MY RIDE (optional)



Condition

- The motorcycle is stationary.
- Function KTM MY RIDE activated (optional).
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until KTM MY RIDE is marked. Press the SET button to open the menu.

In **KTM MY RIDE** an appropriate cellphone or headset can be paired with the combination instrument via **Bluetooth®**.

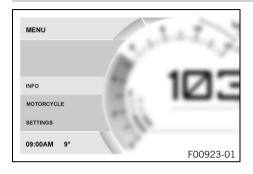


Info

Not every cellphone and headset is suitable for pairing with the combination instrument.

The standard **Bluetooth®** 2.1 must be supported.

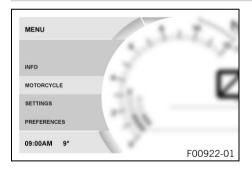
7.22.2 Info



- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Info is marked. Press the SET button to open the menu.

General information can be accessed in Info.

7.22.3 Motorcycle

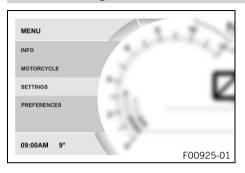


Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Motorcycle is marked. Press the SET button to open the menu.

The vehicle drive mode can be configured in Motorcycle.

7.22.4 Settings

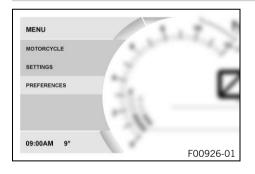


Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Settings is marked. Press the SET button to open the menu.

Favorites and quick selection can be configured in **Settings**.

7.22.5 Preferences

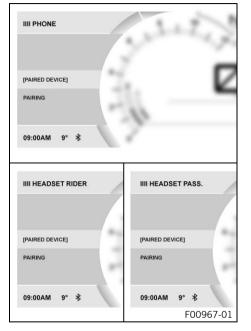


Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.

The combination instrument display can be configured in **Preferences**. Settings can be made for units or various values. Several functions can be enabled or disabled.

7.22.6 Pairing (optional)



Condition

- The motorcycle is stationary.
- Function KTM MY RIDE activated (optional).
- Similarly, the **Bluetooth**® function should also be activated in the device to be paired.
- Press the **SET** button when the menu is closed.
- Press the UP or DOWN button until KTM MY RIDE is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Setup is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Bluetooth is marked. Press the SET button to open the menu.
- Press the UP or the DOWN button until menu item Phone, Headset Rider or Headset Pass.
 is marked.



Info

Two cellphones can never be paired simultaneously with the combination instrument. Only one cellphone and one headset per submenu item can be paired with the combination instrument at the same time.

- A suitable cellphone can be paired with the combination instrument in the **Phone** submenu.
- A suitable rider headset can be paired with the combination instrument in the Headset Rider submenu.
- A suitable passenger headset can be paired with the combination instrument in the Headset Pass. submenu.



Info

The following steps are identical for cellphones and headsets.

- Press the SET button.
- When pairing the device for the first time, press the UP or DOWN button until Pairing is marked. Press the SET button to open the menu.
- Navigate to the device required using the UP or DOWN button. Confirm the selection using the SET button.
- Confirmation of the **Passkey** successfully completes the pairing.



Info

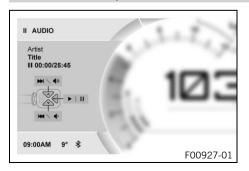
When a suitable device has been successfully paired, the name of the paired cellphone or headset appears in each case in the **Phone**, **Headset Rider** or **Headset Pass**, menu.

Press the **UP** or **DOWN** button until paired device is marked on the display. The paired device can be deleted by pressing the **SET** button.

The device most recently linked is automatically paired with the combination instrument when **Bluetooth®** is switched on and as soon as this device is in range and has not been previously deleted.

Not every cellphone or headset is suitable for pairing with the combination instrument.

7.22.7 Audio (optional)



Condition

- Function KTM MY RIDE activated (optional).
- Similarly, the **Bluetooth®** function should also be activated in the device to be paired.
- Press the **SET** button when the menu is closed.
- Press the UP or DOWN button until KTM MY RIDE is marked. Press the SET button to open the menu.



Warning

Danger of accidents Headphone volume which is too high distracts attention from traffic activity.

- Always select headphone volume which is low enough for you to still clearly hear acoustic signals.
- Press the UP or DOWN button until Audio is marked. Press the SET button to open the menu.
- Press and hold the **UP** button to increase the audio volume.
- Press and hold the **DOWN** button to reduce the audio volume.
- Press the UP button briefly to change to the next audio track.
- Press the **DOWN** button briefly to change to the previous audio track.
- Press the **SET** button to play or pause the audio track.



Info

The audio function can be added to ${\bf Quick\ Selector\ 1}$ or ${\bf Quick\ Selector\ 2}$ for easier operation.

7.22.8 Telephony (optional)





Condition

- KTM MY RIDE Function activated (optional).
- Similarly, the **Bluetooth®** function should also be activated in the device to be paired.
- Headset linked with appropriate cellphone.



Warning

Danger of accidents Headphone volume which is too high distracts attention from traffic activity.

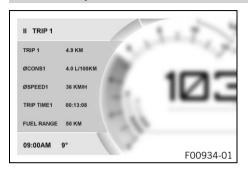
- Always select headphone volume which is low enough for you to still clearly hear acoustic signals.
- Press the SET button to accept an incoming call.
- Press the **BACK** button to reject an incoming call.
- Press and hold the **UP** button to increase the audio volume.
- Press and hold the **DOWN** button to reduce the audio volume.



Info

The call duration and contact are displayed. Depending on the cellphone settings, the contact is shown by name.

7.22.9 Trip 1



- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Info is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Trip 1 is marked. Press the SET button to open the menu.

Trip 1 shows the distance since the last reset, such as between two refueling stops. **Trip 1** is running and counts up to **9999**.

ØCons1 indicates the average fuel consumption based on **Trip 1**.

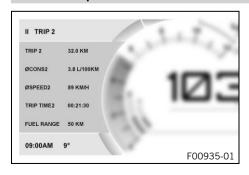
ØSpeed1 indicates the average speed based on Trip 1 and Trip Time1.

Trip Time1 shows the journey time on the basis of **Trip 1** and runs as soon as a speed signal is received.

Fuel Range indicates the possible distance you can cover with the fuel reserve.

Press and hold the	All entries in the Trip 1 menu are reset.
SET button for 3-5	
seconds.	

7.22.10 Trip 2



- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Info is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Trip 2 is marked. Press the SET button to open the menu.

Trip 2 shows the distance since the last reset, such as between two refueling stops. **Trip 2** is running and counts up to **9999**.

ØCons2 indicates the average fuel consumption based on Trip 2.

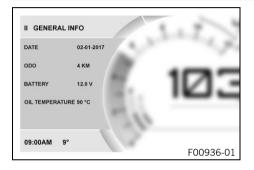
ØSpeed2 indicates the average speed based on Trip 2 and Trip Time2.

Trip Time2 shows the journey time on the basis of **Trip 2** and runs as soon as a speed signal is received.

Fuel Range indicates the possible distance you can cover with the fuel reserve.

Press and hold the	All entries in the Trip 2 menu are reset.
SET button for 3-5	
seconds.	

7.22.11 General Info



- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Info is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until General Info is marked. Press the SET button to open the menu.

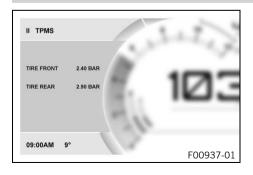
Date shows the date.

ODO shows the total distance covered.

Battery indicates the battery voltage.

Oil Temperature indicates the engine oil temperature.

7.22.12 TPMS



- Model with TPMS.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Info is marked. Press the SET button to open the menu.



Warning

Danger of accidents The tire pressure control system does not eliminate the necessity to check the tires before going on a ride.

To avoid false alarms, the tire pressure values are evaluated over a period of several minutes.

- Check the tire pressure before every ride.
- Correct the tire pressure if the tire pressure deviates from the specified value.
- Even if the tire pressure values are correct, stop the vehicle immediately if its behavior indicates a pressure loss in the tires.
- Press the UP or DOWN button until the <u>TPMS</u> menu appears in the display.
 Guideline

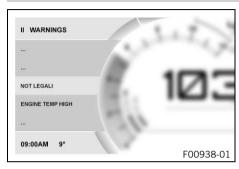
Tire air pressure, solo/with passenger/full payload		
Front: with cold tires	2.4 bar (35 psi)	
Rear: with cold tires	2.9 bar (42 psi)	

The **TPMS** menu displays the tire air pressure of the front and rear tires.

TIRE FRONT indicates the tire air pressure at the front.

TIRE REAR indicates the tire air pressure at the rear.

7.22.13 Warnings

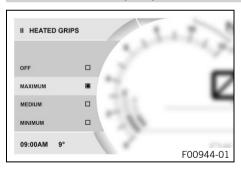


Condition

- Message or warning is present.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Info is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Warnings is marked. Press the SET button to open the menu.
- Use the UP or DOWN button to navigate through the warnings.

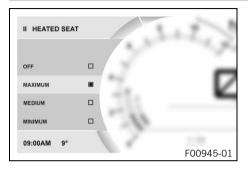
In the Warnings menu, all warnings that have occurred are displayed and stored.

7.22.14 Heated Grips (optional)



- The motorcycle is stationary.
- Menu Heated Grips activated.
- Press the **SET** button when the menu is closed.
- Press the UP or DOWN button until Motorcycle is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Heated Grips is marked. Press the SET button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Press the SET button to select the heating level or to switch the heated grip on or off.

7.22.15 Heated Seat (optional)



Condition

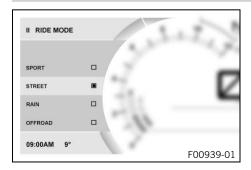
- The motorcycle is stationary.
- Menu Heated Seat Ride activated.
- Menu Heated Seat Pas activated.
- Press the **SET** button when the menu is closed.
- Press the UP or DOWN button until Motorcycle is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Heated Seat is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Press the SET button to select the heating level or to switch the seat heating on or off.



Info

The heating level for the passenger seat heating is selected using the switch next to the right grab handle.

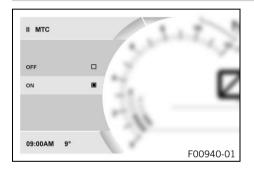
7.22.16 Ride Mode



- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Motorcycle is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Ride Mode is marked. Press the SET button to open the menu.
- Press the UP or DOWN button to activate the menu item and select it with the SET button. By pressing the SET button, engine and traction control settings that are coordinated with each other can be selected.
 - SPORT homologated performance with very direct response; the traction control allows greater slip on the rear wheel.

- ✓ STREET homologated performance with balanced response; the traction control allows normal slip on the rear wheel.
- RAIN reduced homologated performance for better ridability; the traction control allows normal slip on the rear wheel.
- ✓ OFFROAD reduced homologated performance for better ridability; the traction control allows high slip on the rear wheel.

7.22.17 MTC



Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Motorcycle is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until MTC is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Switch the MTCon or off by pressing the SET button.

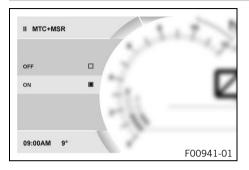


Info

After the ignition is switched on, the motorcycle traction control is reactivated.

Press and hold the	Activation of motorcycle traction control.
SET button for 3-5	
seconds.	

7.22.18 MTC+MSR (optional)



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the UP or DOWN button until Motorcycle is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until MTC+MSR is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Switch the MTC+MSRon or off by pressing the SET button.



Info

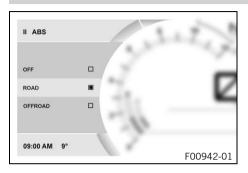
When the ABS or active Drive Mode ${\bf Offroad}$ is switched off, the ${\bf MSR}$ is not active.

After the ignition is switched on, motorcycle traction control and engine braking control are enabled again.

Press and hold the SET button for 3-5 seconds.

Activation of motorcycle traction control and engine braking control.

7.22.19 ABS



Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Motorcycle is marked. Press the SET button to open the menu.



Warning

Voiding of the government approval for road use and the insurance coverage If the ABS is switched off completely, the vehicle's approval for road use is invalidated.

- Only operate the vehicle in closed-off areas remote from public road traffic if the ABS is switched off completely.
- Press the UP or DOWN button until ABS is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Press the ABS button to switch off SET or to select between ABS modes.

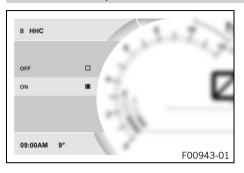


Info

The ABS can only be reactivated by switching on the ignition again. When the **Road** ABS mode is enabled, ABS controls both wheels. When the **Offroad** ABS mode is enabled, ABS only controls the front wheel. The rear wheel is not controlled by ABS and may lock during braking maneuvers.

Press and hold the	Activation of the different ABS modes.
SET button for 3-5	
seconds.	

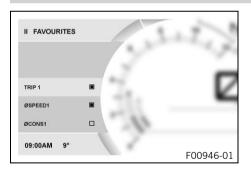
7.22.20 HHC (optional)



Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Motorcycle is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until HHC is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Switch the **HHC**on or off by pressing the **SET** button.

7.22.21 Favourites

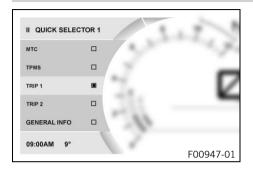


Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Settings is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Favourites is marked. Press the SET button to open the menu.
- Press the UP or DOWN button to activate the menu item and select it with the SET button.

Up to eight items of information can be selected in the Favourites menu.

7.22.22 Quick Selector 1



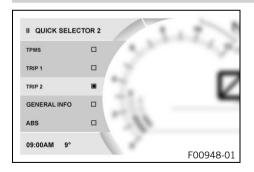
Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Settings is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Quick Selector 1 is marked. Press the SET button to open the menu.
- Press the UP or DOWN button to activate the menu item and select it with the SET button.

Information can be selected in the Quick Selector 1 menu.

When the menu is closed, the **Quick Selector 1** menu is opened by pressing the **UP** button.

7.22.23 Quick Selector 2



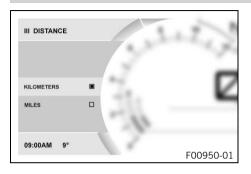
Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Settings is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Quick Selector 2 is marked. Press the SET button to open the menu.
- Press the UP or DOWN button to activate the menu item and select it with the SET button.

Information can be selected in the Quick Selector 2 menu.

When the menu is closed, the **Quick Selector 2** menu is opened by pressing the **DOWN** button.

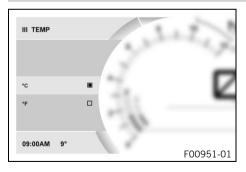
7.22.24 Distance



Condition

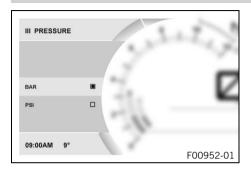
- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Units is marked.
- Press the SET button to open the menu.
- Press the UP or DOWN button until Distance is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Press the SET button to confirm the desired unit.

7.22.25 Temp



- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Units is marked.
- Press the SET button to open the menu.
- Press the UP or DOWN button until Temp is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Press the **SET** button to confirm the desired unit.

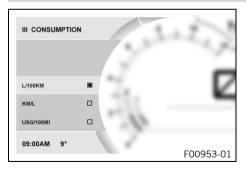
7.22.26 Pressure



Condition

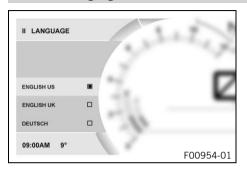
- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Units is marked.
- Press the SET button to open the menu.
- Press the UP or DOWN button until Pressure is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Press the SET button to confirm the desired unit.

7.22.27 Consumption



- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Units is marked.
- Press the SET button to open the menu.
- Press the UP or DOWN button until Consumption is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Press the SFT button to confirm the desired unit

7.22.28 Language

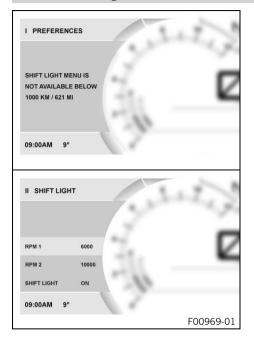


Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Language is marked. Press the SET button to open the menu.
- Press the UP or DOWN button to activate the menu item and select it with the SET button.

The menu languages are US English, UK English, German, Italian, French, and Spanish.

7.22.29 Shift Light



Condition

- The motorcycle is stationary.
- **0D0** > 1000 km (621 mi).
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Shift Light is marked. Press the SET button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Press the SET button to switch the shift warning light on or off and to adjust the engine speed for the gear shift recommendation.



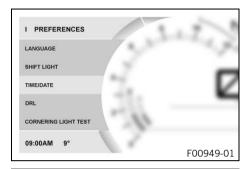
Info

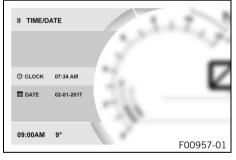
When the engine speed reaches $RPM\ 1$, the speed display lights up red. When the engine speed reaches $RPM\ 2$, the speed display flashes red.

7.22.30 Setting the time and date

Condition

The motorcycle is stationary.

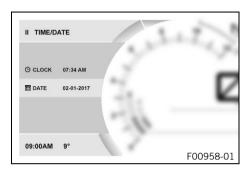




- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences appears. Press the SET button to open the menu.
- Press the UP or DOWN button until Time/Date is marked. Press the SET button to open the menu.

Setting the clock

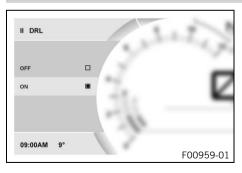
- Press the **UP** or **DOWN** button until the time is marked.
- Press the SET button.
 - ✓ The hour next to "Clock" flashes.
- Press the UP or DOWN button until the current hour is set.
- Press the SET button.
 - ✓ The minute next to "Clock" flashes.
- Press the UP or DOWN button until the current minute is set.
- Press the SET button.
 - ✓ The time is stored.



Setting the date

- Press the **UP** or **DOWN** button until the date is marked.
- Press the SET button.
 - ✓ The day next to "Date" flashes.
- Press the **UP** or **DOWN** button until the current day is set.
- Press the SET button.
 - ✓ The month next to "Date" flashes.
- Press the UP or DOWN button until the current month is set.
- Press the SET button.
 - ✓ The year next to "Date" flashes.
- Press the UP or DOWN button until the current year is set.
- Press the SET button.
 - The date is stored.

7.22.31 DRL



- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.



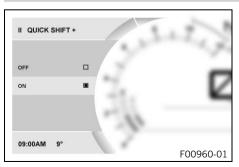
Warning

Danger of accidents When visibility is poor, the daytime running light is not a substitute for the low beam.

Automatic switching between the daytime running light and low beam may only be partially available when visibility is significantly impaired due to fog, snow or rain.

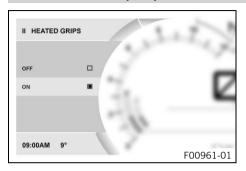
- Ensure that the appropriate type of lighting is always selected.
- If necessary switch off the daytime running lights using the menu before going on a ride or when stopped so that the low beam is switched on permanently.
- Note the legal regulations regarding the daytime running light.
- Press the UP or DOWN button until DRL is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Press the SET button to switch the daytime running light on or off.

7.22.32 Quick Shift + (optional)



- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Quick Shift + is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Switch the Quick Shift +on or off by pressing the SET button.

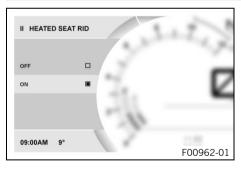
7.22.33 Heated Grips (optional)



Condition

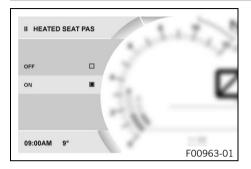
- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Heated Grips is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Switch the Heated Gripson or off by pressing the SET button.

7.22.34 Heated Seat Rid (optional)



- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Heated Seat Rid is marked. Press the SET button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Switch the Heated Seat Ridon or off by pressing the SET button.

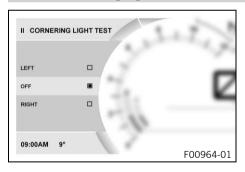
7.22.35 Heated Seat Pas (optional)



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Heated Seat Pas is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.
- Switch the Heated Seat Pason or off by pressing the SET button.

7.22.36 Cornering Light Test



Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Cornering Light Test is marked. Press the SET button to open the menu.
- Activate the menu item using the UP or DOWN button.



Info

The **Cornering Light Test**is performed on the left cornering light in the **Left** submenu.

The **Cornering Light Test**is performed on the right cornering light in the **Right** submenu.

The Cornering Light Test is completed in the Off submenu.

- Press the **SET** button in order to perform or switch off the desired **Cornering Light Test**.

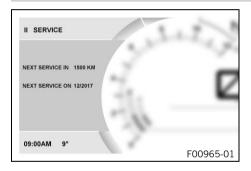


Info

The respective cornering light segments light up in succession, starting with the lower segment.

When the test of the respective cornering light is complete, the upper segment lights up continuously.

7.22.37 Service

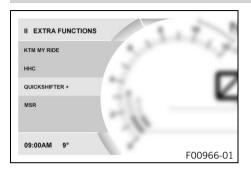


Condition

- The motorcycle is stationary.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Service is marked. Press the SET button to open the menu.

The next service due is shown in the **Service** menu.

7.22.38 Extra Functions



Condition

- The motorcycle is stationary.
- Motorcycle with optional supplementary function.
- Press the SET button when the menu is closed.
- Press the UP or DOWN button until Preferences is marked. Press the SET button to open the menu.
- Press the UP or DOWN button until Extra Functions is marked. Press the SET button to open the menu.
- Use the UP or DOWN button to navigate through the extra functions.

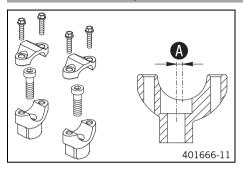
The optional extra functions are listed in **Extra Functions**.



Info

The current **KTM PowerParts** and the available software for your vehicle can be found on the KTM website.

8.1 Handlebar position



The holes on the handlebar support are placed at a distance of **A** from the center.

Hole distance (A)	3.5 mm (0.138 in)

The handlebar can be mounted in two different positions. In this way, the handlebar can be mounted in the position that is most comfortable for the rider.

8.2 Adjusting the handlebar position 4

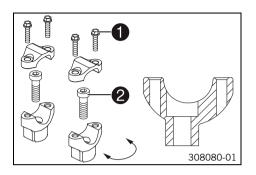


Warning

Danger of accidents A repaired handlebar poses a safety risk.

If the handlebar is bent or straightened, the material becomes fatigued. The handlebar may break as a result.

- Change the handlebar if the handlebar is damaged or bent.



 Remove screws 1. Remove the handlebar clamps. Remove the handlebar and lay it to one side.



Info

Cover the components to protect them against damage. Do not bend the cables and lines.

- Remove screws 2. Take off the handlebar supports.
- Place the handlebar supports in the required position. Mount and tighten screws ②.
 Guideline

Screw, handlebar support	M10	40 Nm	Loctite® 243™
		(29.5 lbf ft)	



Info

Position the left and right handlebar supports evenly.

Position the handlebar.



Info

Make sure the cables and wiring are positioned correctly.

Position the handlebar clamps. Mount and evenly tighten screws ①. Guideline

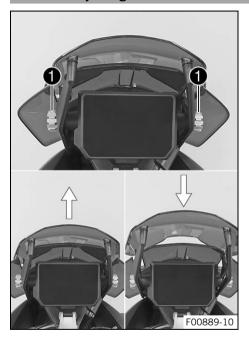
Screw, handlebar clamp	M8	20 Nm
		(14.8 lbf ft)



Info

Make sure the gap widths are even.

8.3 Adjusting the windshield



Turn the adjusting wheel 1 to bring the windshield in the required position.

8.4 Adjusting basic position of clutch lever



 Adjust the basic setting of the clutch lever to your hand size by turning adjusting screw 1.



Info

Turn the adjusting screw clockwise to increase the distance between the clutch lever and the handlehar

Turn the adjusting screw counterclockwise to decrease the distance between the clutch lever and the handlebar.

The range of adjustment is limited.

Turn the adjusting screw by hand only, and do not apply any force.

Do not make any adjustments while riding!

8.5 Adjusting the basic position of the hand brake lever



 Adjust the basic position of the hand brake lever to your hand size by turning adjusting wheel

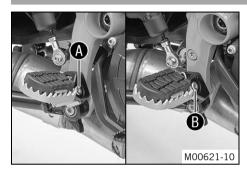


Info

Push the hand brake lever forward and turn the adjusting wheel.

Do not make any adjustments while riding.

8.6 Rider footrests



The rider footrests can be mounted in one of two positions.

Possible states

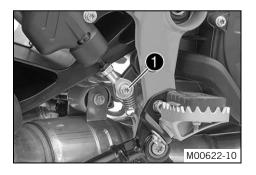
- Rider footrests, low (A)
- Rider footrests, high

8.7 Adjusting the footrests 🔌

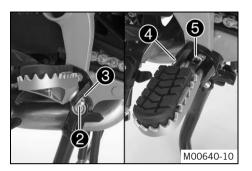


Info

The operations on the footrest brackets are the same for the left and right sides.



- Remove screw 1.
 - ✓ The foot brake lever swings up to the stop.





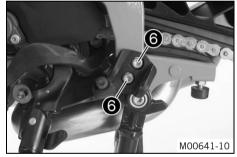
Carefully remove the pin 4 of the rider footrest.



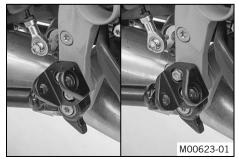
Info

The spring is under high tension and can pop out when the pin is removed.

- Take off the rider footrest **5** with the spring.



- Remove screws **6**.

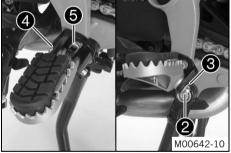


- Adjust the footrest bracket to the desired position.



Mount and tighten screws 6.
 Guideline

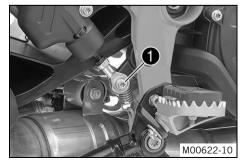
Screw, front footrest bracket	M8	25 Nm	Loctite [®] 243™
		(18.4 lbf ft)	



- Mount the rider footrest with spring **5** and pin **4**.

Pliers for footrest spring (58429083000)

Mount washer 3 and cotter pin 2.



- Position the foot brake lever.
- Mount and tighten screw ①.

Guideline

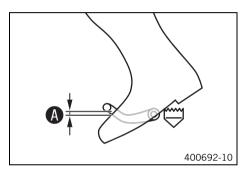
Screw, ball joint of push rod	M6	10 Nm	Loctite® 243™
on foot brake cylinder		(7.4 lbf ft)	

8.8 Checking the basic position of the shift lever



Info

When driving, the shift lever must not touch the driver's boot when in the basic position. When the shift lever keeps touching the boot, the transmission will be subject to an excessive load.

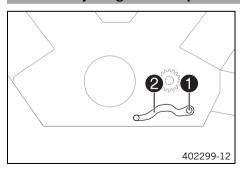


Sit on the vehicle in the riding position and determine distance between the upper edge of your boot and the shift lever.

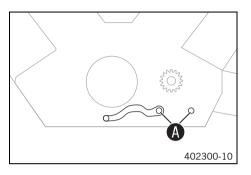
Distance between shift lever and upper	10 20 mm (0.39 0.79 in)
edge of boot	

- If the distance does not meet specifications:
 - Adjust the basic position of the shift lever. ◄ (□ p. 99)

8.9 Adjusting the basic position of the shift lever 🔌



- Remove screw 1 with the washers and take off shift lever 2.



- Clean gear teeth A of the shift lever and shift shaft.
- Mount the shift lever on the shift shaft in the required position and engage the gearing.



Info

The range of adjustment is limited.

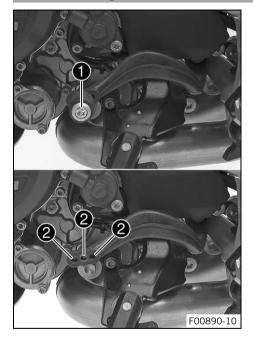
The shift lever must not come into contact with any other vehicle components during the shift procedure.

- Mount and tighten screw 1 with washers.

Guideline

Screw, shift lever	M6	18 Nm (13.3 lbf ft)	Loctite [®] 243 [™]
		(10.0,	

8.10 Setting the shift lever stub



- Remove screw 1 along with the shift lever stub.
- Position the shift lever stub with the screw in one of drilled holes **2** depending on the desired lever length.

Guideline

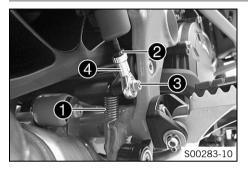
Standard	Middle hole
----------	-------------

- Tighten the screw.

Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)
--------------------------	----	--------------------

8.11 Adjusting the basic position of the foot brake lever &



- Disconnect spring 1.
- Loosen nut 22.
- Remove screw 3.
- To adjust the basic position of the foot brake lever to individual requirements, turn ball joint 4 accordingly.



Info

The range of adjustment is limited.

The screw must be screwed into the ball joint by at least 5 turns.

Hold ball joint 4 and tighten nut 2.

Guideline

Remaining chassis nuts	M6	10 Nm (7.4 lbf ft)
------------------------	----	--------------------

- Mount and tighten screw **3**.

Guideline

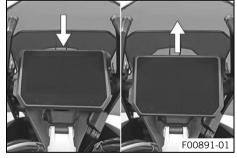
Screw, ball joint of push rod	M6	10 Nm	Loctite® 243™
on foot brake cylinder		(7.4 lbf ft)	

Attach spring ①.

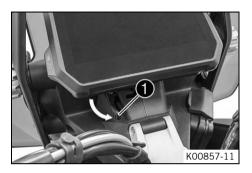
8.12 Adjusting the tilt of the combination instrument



- Pull clamping lever 1 in the direction of the arrow.
 - ✓ The combination instrument is unlocked.



 To move the combination instrument to the desired position, press the combination instrument upward or downward.



- Pull clamping lever 1 in the direction of the arrow.
 - ✓ The combination instrument is locked.

9.1 Advice on first use



Danger

Danger of accidents A rider who is not fit to ride poses a danger to him or herself and others.

- Do not operate the vehicle if you are not fit to ride due to alcohol, drugs or medication.
- Do not operate the vehicle if you are physically or mentally impaired.



Warning

Risk of injury Missing or poor protective clothing presents an increased safety risk.

- Wear appropriate protective clothing such as helmet, boots, gloves as well as trousers and a jacket with protectors on all rides.
- Always wear protective clothing that is in good condition and meets the legal regulations.



Warning

Danger of crashing Different tire tread patterns on the front and rear wheel impair the handling characteristic.

Different tire tread patterns can make the vehicle significantly more difficult to control.

Make sure that only tires with a similar tire tread pattern are fitted to the front and rear wheel.



Warning

Danger of accidents Non-approved or non-recommended tires and wheels impact the handling characteristic.

Only use tires/wheels approved by KTM with the corresponding speed index.



Warning

Danger of accidents New tires have reduced road grip.

The contact surface on new tires is not yet roughened.

Run in new tires with moderate riding at alternating angles.
 Running-in phase
 200 km (124 mi)



Warning

Danger of accidents The brake system fails in the event of overheating.

If the foot brake lever is not released, the brake linings drag continuously.

- Take your foot off the foot brake lever when you are not braking.



Info

When using your vehicle, remember that others may feel disturbed by excessive noise.

- Make sure that the pre-delivery inspection work has been carried out by an authorized KTM workshop.
 - ✓ You receive a delivery certificate and the Service and Warranty Booklet at vehicle handover.
- Before your first trip, read the entire Owner's Manual carefully.
- Get to know the controls.
- Adjust the motorcycle to your requirements, as described in the "Ergonomics" chapter.
- Get used to handling the motorcycle on a suitable piece of land before making a longer trip. Try also to ride as slowly as possible and
 in a standing position to get a better feeling for the motorcycle.
- Hold the handlebar firmly with both hands and keep your feet on the footrests when riding.
- Run the engine in.

9.2 Running in the engine

- During the running-in phase, do not exceed the specified engine speed.

Guideline

Maximum engine speed		
During the first: 1,000 km (620 mi)	6,500 rpm	
After the first: 1,000 km (620 mi)	10,250 rpm	

Avoid fully opening the throttle!



Info

If the maximum engine speed is exceeded before the first service, the shift warning light flashes.

9.3 Loading the vehicle



Warning

Danger of accidents Total weight and axle loads influence the handling characteristic.

The overall weight consists of: motorcycle ready for operation and with a full tank, driver and passenger with protective clothing and helmet, and luggage.

Do not exceed the maximum permissible overall weight or the axle loads.



Warning

Danger of accidents Improper mounting of cases or the tank rucksack impairs the handling characteristic.

Mount and secure cases and tank rucksack according to the manufacturer's instructions.



Warning

Danger of accidents Unstable handling characteristics at high speed.

Adapt your speed according to your payload. Ride more slowly if your motorcycle is loaded with cases or other baggage.
 Maximum speed with luggage
 150 km/h (93.2 mph)



Warning

Danger of accidents The luggage system will be damaged if it is overloaded.

- Read the manufacturer information on maximum payload when mounting cases.



Warning

Danger of accidents Luggage which has slipped impairs visibility.

If the tail light is covered, you are less visible to traffic behind you, especially when it is dark.

Check that your luggage is fixed properly at regular intervals.



Warning

Danger of accidents A high payload alters the handling characteristic and increases the stopping distance.

Adapt your speed to your payload.



Warning

Danger of accidents Pieces of luggage which have slipped impair the handling characteristic.

- Check that your luggage is fixed properly at regular intervals.



Warning

Fire hazard The hot exhaust system may burn luggage.

- Fasten your luggage in such a way that it cannot be burned or singed by the hot exhaust system.
- If you are carrying baggage, make sure it is fixed firmly as close as possible to the center of the vehicle and ensure even weight distribution between the front and rear wheels.
- Do not exceed the maximum permitted total weight and the axle loads.

Guideline

Maximum permissible total weight	450 kg (992 lb.)
Maximum permissible front axle load	159 kg (351 lb.)
Maximum permissible rear axle load	291 kg (642 lb.)

10.1 Checks and maintenance measures when preparing for use



Info

Before every trip, check the condition of the vehicle and ensure that it is roadworthy. The vehicle must be in perfect technical condition when it is being operated.

- Check the engine oil level. (p. 222)

- Check that the brake system is functioning properly.
- Check the coolant level in the compensating tank. (
 p. 216)
- Check the chain tension. (
 p. 142)

- Check the spoke tension. (🕮 p. 196)
- Check the settings of all controls and ensure that they can be operated smoothly.
- Check that the electrical equipment is functioning properly.
- Check that baggage is correctly secured.
- Check the setting of the rear mirror.
- Check the fuel level.

10.2 Starting



Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

- Always make sure there is sufficient ventilation when running the engine.
- Use an effective exhaust extraction system when starting or running the engine in an enclosed space.



Caution

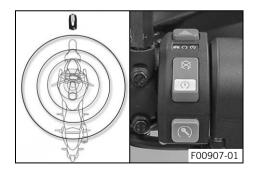
Danger of accidents Electronic components and safety devices will be damaged if the battery is discharged or missing.

Never operate the vehicle with a discharged battery or without a battery.

Note

Engine damage High revving speed with a cold engine negatively impacts the lifespan of the engine.

Always run the engine warm at a low speed.



- Take the motorcycle off side stand and sit in the motorcycle.
- Bring the Race-on key within range of the antenna.
- Ensure that the Race-on key stays in range while riding.

 Guideline

Maximum range of the Race-on key	1.5 m (4.9 ft)
around the antenna	



Info

The range may be reduced by decreases in battery voltage of the Race-on key and interfering radio waves.

If the battery voltage of the Race-on key is too low, one of the keys must be held in area of the antenna (
p. 34) and must be safely stored again after starting.

10 RIDING INSTRUCTIONS

- Make sure that the emergency OFF switch/electric starter button is in the middle position O.
- Switch on ignition; to do this, briefly press the Race-on button

 (maximum of 1 second).
 - ✓ The steering is unlocked.
 - ✓ The function check of the combination instrument is run.
 - ✓ The ABS indicator lamp goes out when you start off.



Info

If the handlebar does not unlock, move the handlebar slightly.

- Shift the transmission to idle N.
 - ✓ The green idling speed indicator lamp

 lights up.
- Turn the emergency OFF switch/electric starter button to the lower position ③.



Info

Do not press the emergency off switch/electric starter button into the lower position © until the combination instrument function check has been completed. When starting, **DO NOT** open the throttle. If you open the throttle during the starting procedure, fuel is not injected by the engine management system and the engine cannot start.

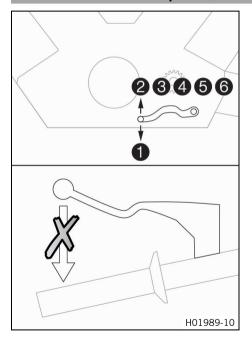
Press the emergency OFF switch/electric starter button into the lower position ③ for a maximum of 5 seconds. Wait for a least 5 seconds before trying again. This motorcycle is equipped with a safety starting system. You can only start the engine if the transmission is in neutral or if the clutch lever is pulled when a gear is engaged. If the side stand is folded out and you shift into gear, the engine stops.



10.3 Starting off

- Pull the clutch lever, engage 1st gear, release the clutch lever slowly and simultaneously open the throttle carefully.

10.4 Quickshifter+ (optional)

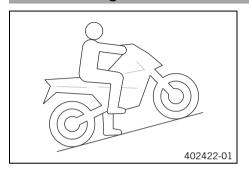


If the Quickshifter+ (optional) is activated, you can shift up and down without actuating the clutch.

Because there is no need to close the throttle grip, uninterrupted gear shifts are possible. The quickshifter+ uses the shifter shaft position to check whether or not a shift should be initiated, and sends a corresponding signal to the engine control.

If the quickshifter+ is disabled in the combination instrument, the clutch needs to be actuated in the normal way for each shift.

10.5 Starting off with HHC



The **HHC** is an optional auxiliary function of the brake system.

The **HHC** prevents accidental rolling back of the motorcycle on hills.

The **HHC** recognizes stopping on hills and operates the rear brake.

After releasing the brake lever, the brake force is maintained for a maximum of 5 seconds as long as the motorcycle is not moving forward.

When driving off the **HHC** releases the rear brake automatically.



Info

When the **HHC** is active, the TC light [10] flashes

When the ignition is switched on, the **HHC** can still be active, even if the engine is stopped.

To roll back with active \mathbf{HHC} , wait 5 seconds, shift to neutral, or switch off the ignition.

If the \mbox{HHC} does not detect a start off after 5 seconds, the braking force is automatically reduced gently.

When a brake lever is actuated, the \mbox{HHC} is re-activated.

10.6 Shifting, riding



Warning

Danger of accidents Abrupt load alterations can cause the vehicle to get out of control.

- Avoid abrupt load alterations and sudden braking actions.
- Adapt your speed to the road conditions.



Warning

Danger of accidents If you change down at high engine speed, the rear wheel blocks and the engine races.

Do not change into a low gear at high engine speed.



Warning

Danger of accidents Adjustments to the vehicle distract attention from traffic activity.

Make all adjustments when the vehicle is at a standstill.



Warning

Risk of injury The passenger may fall from the motorcycle if they conduct themselves incorrectly.

- Ensure that the passenger sits correctly on the passenger seat, places his or her feet on the passenger foot rest and holds on to the rider or the grab handles.
- Note the regulations governing the minimum age of passengers in your country.



Warning

Danger of accidents A risky riding style constitutes a major risk.

- Comply with traffic regulations and ride defensively and with foresight to detect sources of danger as early as possible.



Warning

Danger of accidents Cold tires have reduced road grip.

- Ride the first miles carefully on every journey at moderate speed until the tires reach operating temperature.



Warning

Danger of accidents New tires have reduced road grip.

The contact surface on new tires is not yet roughened.

Run in new tires with moderate riding at alternating angles.
 Running-in phase
 200 km (124 mi)



Warning

Danger of accidents Total weight and axle loads influence the handling characteristic.

The overall weight consists of: motorcycle ready for operation and with a full tank, driver and passenger with protective clothing and helmet, and luggage.

Do not exceed the maximum permissible overall weight or the axle loads.

10 RIDING INSTRUCTIONS



Warning

Danger of accidents Pieces of luggage which have slipped impair the handling characteristic.

Check that your luggage is fixed properly at regular intervals.



Warning

Danger of accidents A fall can damage the vehicle more seriously than it may first appear.

Check the vehicle after a fall as you do when preparing for use.

Note

Engine damage Unfiltered intake air has a negative effect on the service life of the engine.

Dust and dirt will enter the engine without an air filter.

Never start to use the vehicle without an air filter.

Note

Engine failure Overheating damages the engine.

- If the coolant temperature warning is displayed, stop immediately and take care not to endanger yourself or other traffic participants in the process.
- Allow the engine and cooling system to cool down.
- Check and, if necessary, correct the coolant level on the cooling system while it is in a cooled state.

Note

Transmission damage Incorrect use of the quickshifter+ will damage the transmission.

The quickshifter+ can only be used if the function is enabled in the combination instrument.

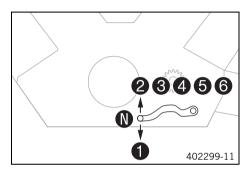
The quickshifter+ is not active if you pull the clutch lever.

Only use the quickshifter+ in the permitted speed range shown.



Info

If you hear unusual noises while riding, stop immediately, switch off the engine, and contact an authorized KTM workshop.



- Shift into a higher gear when conditions allow (incline, road situation, etc.).
- Release the throttle while simultaneously pulling the clutch lever, shift into the next gear, release the clutch lever, and open the throttle.



Info

You can see the positions of the 6 forward gears in the figure. The idle position is between the first and second gears. First gear is used for starting off or for steep inclines.

- After reaching maximum speed by fully opening the throttle grip, turn the throttle back so it is ¾ open. This will barely reduce the speed but fuel consumption will be considerably lower.
- Accelerate only up to a speed suitable for the road surface and weather conditions. Particularly in bends, do not shift, and accelerate very carefully.
- Brake if necessary and close the throttle at the same time in order to shift down.
- Pull the clutch lever and shift into a lower gear, release the clutch lever slowly, and open the throttle or shift again.
- If the engine stalls (e.g. at a crossroads), just pull the clutch lever and press the electric starter button. You do not have to shift into neutral.
- Switch off the engine if running at idle or standing for a long time.
- If the oil pressure warning lamp lights up during a trip, stop immediately and switch off the engine. Contact an authorized KTM workshop.
- If the malfunction indicator lamp lights up during a trip, please contact an authorized KTM workshop as soon as possible.
- If the general warning lamp lights up during a trip, the display shows a message for 10 seconds.



Info

Very important messages are stored in the Warning menu.

If the icy road symbol * appears in the combination instrument, the roads may be icy.
 Adjust your speed to the road conditions.

Condition

Quickshifter+ (optional) activated.

 If the <u>quickshifter+</u> is enabled in the combination instrument, you can shift up in the speed range shown without pulling the clutch lever.



Info

The minimum engine speed before shifting up in revolutions per minute is shown in the figure.

Pull the shift lever quickly back to the stop without changing the throttle twist grip position.

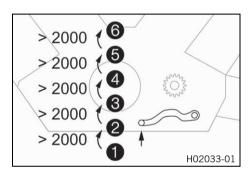
 If the quickshifter+ is enabled in the combination instrument, you can shift down in the speed range shown without pulling the clutch lever.

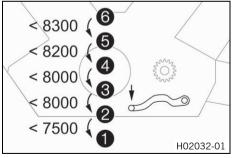


Info

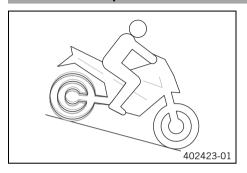
The maximum engine speed before shifting down in revolutions per minute is shown in the figure.

Depress the shift lever quickly back to the stop without changing the throttle twist grip position.





10.7 MSR (optional)



The MSR is an optional auxiliary function of the engine control.

If the engine braking effect is too great, the **MSR** prevents the rear wheel from locking or sliding away on a sloping position.

To avoid slip of the rear wheel, the **MSR** only opens the throttle valve as far as absolutely necessary.

The **MSR** is applied on surfaces, where the friction is to low to open the anti-hopping clutch.

To further increase ride safety, the **MSR** is slope dependent.



Info

If \overline{ABS} is disabled, \overline{MTC} is disabled or ABS Mode **Offroad** is enabled, the **MSR** is not active.

10.8 Applying the brakes



Warning

Danger of accidents Moisture and dirt impair the brake system.

- Brake carefully several times to dry out and remove dirt from the brake linings and the brake discs.



Warning

Danger of accidents A spongy pressure point on the front or rear brake reduces braking efficiency.

 Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)



Warning

Danger of accidents The brake system fails in the event of overheating.

If the foot brake lever is not released, the brake linings drag continuously.

Take your foot off the foot brake lever when you are not braking.

10 RIDING INSTRUCTIONS



Warning

Danger of accidents Higher total weight increases the stopping distance.

- Take the longer stopping distance into account when carrying a passenger or luggage with you.



Warning

Danger of accidents Salt on the roads impairs the brake system.

Brake carefully several times to remove salt from the brake linings and the brake discs.



Warning

Danger of accidents ABS may increase the stopping distance in certain situations.

Adjust application of the brakes to the respective riding situation and riding surface conditions.



Warning

Danger of accidents Excessively forceful application of the brakes blocks the wheels.

The ABS effectiveness is only ensured if it is switched on.

- Leave the ABS switched on in order to benefit from the protective effect.



Warning

Danger of accidents Driving aids can only prevent a rollover within the physical limitations.

It is not always possible to compensate for extreme riding situations, for example with luggage loaded with a high center of gravity, varying road surfaces, steep descents or full braking without disengaging the gear.

- Adapt your riding style to the road conditions and your driving ability.
- When braking, release the throttle and apply the front and rear brakes at the same time.



Info

When the <u>ABS</u> is enabled, you can achieve maximum braking power even on low grip surfaces such as sandy, wet, or slippery terrain without locking of the wheels.



Warning

Danger of accidents The rear wheel can lock due to the engine braking effect.

- Pull in the clutch, if you perform emergency or full braking, or if you brake on a slippery ground.



Warning

Danger of accidents Banked or laterally sloping ground reduces the maximum possible delay.

- If possible finish braking before going into a bend.
- Braking should always be completed before you go into a bend. Change down to a lower gear appropriate to your road speed.
- On long downhill stretches, use the braking effect of the engine. Change down one or two gears, but do not over-rev the engine. In this
 way, you have to brake far less and the brakes do not overheat.

10.9 Stopping, parking



Warning

Risk of injury People who act without authorization endanger themselves and others.

If a valid transponder is in range, the vehicle can be started.

- Do not leave the vehicle unattended if the engine is running.
- Never leave the vehicle unattended if the Race-on key or the black Race-on key are close the the vehicle.
- Protect the vehicle against access by unauthorized persons.
- Lock the steering if you leave the vehicle unattended.



Warning

Danger of burns Some vehicle components become very hot when the vehicle is operated.

- Do not touch any parts such as the exhaust system, radiator, engine, shock absorber, or brake system before the vehicle parts have cooled down.
- Let the vehicle parts cool down before you perform any work on the vehicle.

Note

Fire hazard Hot vehicle components pose a fire hazard and explosion risk.

- Do not park the vehicle near to materials which are highly flammable or explosive.
- Allow the vehicle to cool down before covering it.

Note

Material damage The vehicle may be damaged by incorrect procedure when parking.

Significant damage may be caused if the vehicle rolls away or falls over.

The components for parking the vehicle are designed only for the weight of the vehicle.

- Park the vehicle on a firm and level surface.
- Ensure that nobody sits on the vehicle when the vehicle is parked on a stand.

Note

Material damage Damage and destruction of components from excessive load.

- The center stand is only designed for the weight of the motorcycle and the baggage. Do no sit on the motorcycle when it is resting on the center stand. The center stand or the frame may become damaged and the motorcycle may fall over.
- Pull the motorcycle up onto the center stand at the grab handles.
- Apply the brakes on the motorcycle.
- Shift the transmission to idle N.
- Switch off ignition to do this briefly press the Race-on button ♥ (maximum of 1 second) with the ignition switched on.



Info

If the engine is switched off with the emergency OFF switch and the ignition remains switched on at the Race-on button, the power supply to most power consumers remains unbroken. This discharges the battery. You should therefore always switch off the engine with the Race-on button – the emergency OFF switch is intended for emergencies only.

Park the motorcycle on a firm surface.

Alternative 1

- Swing the side stand forward with your foot as far as it will go and lean the vehicle on it.

Alternative 2

- Raise the vehicle with the center stand. (p. 138)
- Move handlebar fully to the left and press and hold the Race-on button S(for at least 2 seconds).
 - ✓ The steering is locked.



Info

If the handlebar lock does not engage, move the handlebar slightly.

10.10 Transport

Note

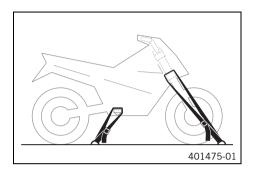
Danger of damage The parked vehicle can roll away or fall over.

- Park the vehicle on a firm and level surface.

Note

Fire hazard Hot vehicle components pose a fire hazard and explosion risk.

- Do not park the vehicle near to materials which are highly flammable or explosive.
- Allow the vehicle to cool down before covering it.



- Switch off the engine.
- Use tension belts or other suitable devices to secure the motorcycle against accidents or falling over.

10.11 Refueling



Danger

Fire hazard Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.

- Do not refuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.



Warning

Danger of poisoning Fuel is poisonous and a health hazard.

- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
- Change your clothing in case of fuel spills on them.

Note

Material damage Inadequate fuel quality causes the fuel filter to quickly become clogged.

In some countries and regions, the available fuel quality and cleanliness may not be sufficient. This will result in problems with the fuel system.

Refuel only with clean fuel that meets the specified standards. (Your authorized KTM workshop will be glad to help.)



Warning

Environmental hazard Improper handling of fuel is a danger to the environment.

- Do not allow fuel to enter the groundwater, the soil, or the sewage system.



- Switch off the engine.
- Fill the fuel tank with fuel up to the lower edge f A of the filler neck.

Total fuel tank	23 I (6.1 US gal)	Super unleaded (ROZ 95/RON 95/PON
capacity, approx.		91) (🕮 p. 257)

Close the filler cap. (🕮 p. 39)

11 SERVICE SCHEDULE

11.1 Additional information

Any further work that results from the required work or from the recommended work must be ordered separately and invoiced separately. Different service intervals may apply in your country, depending on the local operating conditions.

11.2 Required work

			Every	two y	/ears
			Every	year	
every 30,000) km (1	8,60	O mi)		
every 15,000 km	(9,300	O mi)			
after 1,000 km (62	0 mi)				
Read out the trouble code memory using the KTM diagnostics tool. 🌂	0	•	•	•	•
Check that the electrical system is functioning properly.	0	•	•	•	•
Change the engine oil and oil filter and clean the oil screens. ◀ (興 p. 223)	0	•	•	•	•
Check the front brake linings. (🕮 p. 176)	0	•	•	•	•
Check the rear brake linings. (🕮 p. 180)	0	•	•	•	•
Check the brake discs. (p. 173)	0	•	•	•	•
Check the brake lines for damage and leakage. ◀	0	•	•	•	•
Change the front brake fluid. 🔏					•
Change the rear brake fluid. ◀					•
Change the hydraulic clutch fluid. 🔦					•
Check the brake fluid level of the front brake. (🕮 p. 174)	0	•	•	•	
Check the rear brake fluid level. (🕮 p. 177)	0	•	•	•	
Check/correct the fluid level of the hydraulic clutch. (🕮 p. 148)		•	•	•	
Check the shock absorber and fork for leaks. Perform service as needed and depending on how the vehicle is used. ◀	0	•	•	•	•

11 SERVICE SCHEDULE

				Every	two y	/ears
				Every	year	
	every 30,000 k	m (1	8,600) mi)		
	every 15,000 km (9	,300	mi)			
	after 1,000 km (620 r	mi)				
Clean the dust boots of the fork legs. ◀ (興 p. 160)			•	•		
Check the steering head bearing play. (🕮 p. 149)		0	•	•	•	•
Check the tire condition. (p. 193)		0	•	•	•	•
Check the tire air pressure. (p. 195)		0	•	•	•	•
Retighten the spokes. 🌂		0				
Check the spoke tension. (🕮 p. 196)			•	•	•	•
Check the rim run-out.		0	•	•	•	•
Check the chain, rear sprocket, and engine sprocket. (🕮 p. 145)			•	•	•	•
Check the chain tension. (@ p. 142)		0	•	•	•	•
Change the spark plugs. (Air filter removed) 🔧				•		
Check the valve clearance. (air filter and spark plugs removed) ◀				•		
Change the SAS membrane. ◀				•		
Check the cables for damage and for routing without kinks. (fuel tank removed) 🔏			•	•	•	•
Check the coolant level in the compensating tank. (@ p. 216)		0	•	•	•	•
Change the air filter, clean the air filter box.			•	•		
Check the fuel pressure.			•	•	•	•
Check the CO adjustment using the KTM diagnostics tool. ◀		0	•	•		
Check the headlight setting. (🕮 p. 213)		0	•	•		

11 SERVICE SCHEDULE

			Every	y two y	/ears
			Every	year	
	every 30,000 km (18,60	O mi)		
	every 15,000 km (9,30	0 mi)			
	after 1,000 km (620 mi)				
Check that the radiator fan is functioning properly. ◀	0	•	•	•	•
Final check: Check the vehicle is roadworthy and take a test ride.	0	•	•	•	•
Read out the error memory after the test ride using the KTM diagnostics tool.	0	•	•	•	•
Reset the service display using the KTM diagnostic tool.	0	•	•	•	•
Make the service entry in KTM Dealer.net and in the Service and Warranty Booklet.	0	•	•	•	•

- One-time interval
- Periodic interval

11.3 Recommended work

			Every	four y	years
			Every	year	
every 30,000 km (18,60			0 mi)		
	every 15,000 km (9,	300 mi)			
	after 1,000 km (620 m	i)			
Check the frame. ◀			•		
Check the swingarm. 4			•		
Check/clean the oil nozzle for clutch lubrication. ◀		•	•		
Check the swingarm bearing for play. 🌂		•	•		
Check the wheel bearing for play. ◀		•	•		

			Every	four y	/ears
			Every	year	
every 30,000) km (1	8,60	0 mi)		
every 15,000 km	(9,300	O mi)			
after 1,000 km (62	0 mi)				
Grease all moving parts (e.g. side stand, hand lever, chain, etc.) and check for smooth operation. 🌂	0	•	•	•	•
Empty the drainage hoses.	0	•	•	•	•
Check all hoses (e.g. fuel, cooling, bleeder, drainage, etc.) and sleeves for cracking, leaks, and incorrect routing.		•	•	•	•
Check the screws and nuts for tightness. ◂	0	•	•	•	•
Check the antifreeze.	0	•	•	•	
Change the coolant. ◀					•

- One-time interval
- Periodic interval

12.1 Fork/shock absorber



The fork and the shock absorber offer many options of adapting the suspension to the riding style and the payload.



Info

The recommendations for the suspension setting are shown in table **1**. The table is found on the left inside cover.

These adjustments are guidelines and should always be the basis for a suspension setting. If the guidelines are not adhered to, the riding characteristics could deteriorate, particularly at high speeds.

12.2 Adjusting the compression damping of the fork



Info

The hydraulic compression damping determines the fork suspension behavior.



Turn white adjusting screw 1 clockwise as far as it will go.



Info

Adjusting screw is located at the upper end of the left fork leg. The compression damping is located in left fork leg **COMP** (white adjusting screw). The rebound damping is located in right fork leg **REB** (red adjusting screw).

- Turn counterclockwise by the number of clicks corresponding to the fork type.

Guideline

Compression damping	
Comfort	17 clicks
Standard	12 clicks
Sport	7 clicks
Full payload	7 clicks



Info

Turn clockwise to increase damping; turn counterclockwise to reduce damping.

12.3 Adjusting the rebound damping of the fork



Info

The hydraulic rebound damping determines the fork suspension behavior.



- Turn red adjusting screw ① clockwise as far as it will go.



Info

Adjusting screw is located at the upper end of the right fork leg. The rebound damping is located in right fork leg **REB** (red adjusting screw). The compression damping is located in left fork leg **COMP** (white adjusting screw).

Turn counterclockwise by the number of clicks corresponding to the fork type.

Guideline

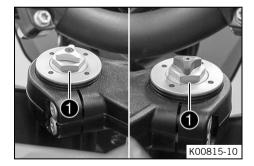
Rebound damping	
Comfort	17 clicks
Standard	12 clicks
Sport	7 clicks
Full payload	7 clicks



Info

Turn clockwise to increase damping; turn counterclockwise to reduce damping.

12.4 Adjusting the spring pretension of the fork





Turn adjusting screws 1 counterclockwise all the way.



Info

Make the same adjustment on both fork legs.

Turn clockwise by the number of turns corresponding to the fork type.

Guideline

Spring preload - Preload Adjuster	
Comfort	2 turns
Standard	5 turns
Sport	5 turns
Full payload	8 turns



Info

Turn clockwise to increase the spring pretension; turn counterclockwise to reduce the spring preload.

Adjusting the spring pretension has no influence on the absorption setting of the rebound damping.

Basically, however, you should set the rebound damping higher with a higher spring pretension.

12.5 Compression damping of the shock absorber

The compression damping of the shock absorber is divided into two ranges: high-speed and low-speed.

High-speed and low-speed refer to the compression speed of the rear wheel suspension and not to the vehicle speed.

The high-speed setting, for example, has an effect when riding over an asphalt edge: the rear wheel suspension compresses quickly.

The low-speed setting, for example, has an effect when riding over long ground swells: the rear wheel suspension compresses slowly.

These two ranges can be adjusted separately, although the transition between high-speed and low-speed is gradual. Thus, changes in the high-speed range affect the compression damping in the low-speed range and vice versa.

12.6 Adjusting the low-speed compression damping of the shock absorber



Caution

Risk of injury Parts of the shock absorber will fly off if the shock absorber is disassembled incorrectly.

The shock absorber is filled with highly compressed nitrogen.

Please follow the description provided. (Your authorized KTM workshop will be glad to help.)



Info

The effect of the low-speed setting can be seen in slow to normal compression of the shock absorber.

12 SUSPENSION SETTING



Turn adjusting screw 1 clockwise with a screwdriver up to the last perceptible click.



Info

Do not loosen fitting **2**!

 Turn counterclockwise by the number of clicks corresponding to the shock absorber type.

Guideline

Compression damping, low-speed	
Comfort	20 clicks
Standard	15 clicks
Sport	10 clicks
Full payload	10 clicks



Info

Turn clockwise to increase damping; turn counterclockwise to reduce damping.

12.7 Adjusting the high-speed compression damping of the shock absorber



Caution

Risk of injury Parts of the shock absorber will fly off if the shock absorber is disassembled incorrectly.

The shock absorber is filled with highly compressed nitrogen.

Please follow the description provided. (Your authorized KTM workshop will be glad to help.)



Info

The effect of the high-speed setting can be seen in fast compression of the shock absorber.



Turn adjusting screw 1 all the way clockwise with a socket wrench.



type.

Info

Do not loosen fitting **2**!

Turn counterclockwise by the number of turns corresponding to the shock absorber

Guideline

Compression damping, high-speed	
Comfort	1.5 turns
Standard	1.5 turns
Sport	1 turn
Full payload	1 turn



Info

Turn clockwise to increase damping; turn counterclockwise to reduce damping.

12.8 Adjusting the rebound damping of the shock absorber



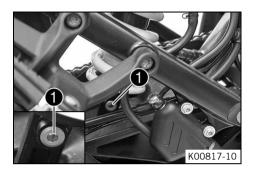
Caution

Risk of injury Parts of the shock absorber will fly off if the shock absorber is disassembled incorrectly.

The shock absorber is filled with highly compressed nitrogen.

Please follow the description provided. (Your authorized KTM workshop will be glad to help.)

12 SUSPENSION SETTING



- Turn adjusting screw 1 clockwise up to the last perceptible click.
- Turn counterclockwise by the number of clicks corresponding to the shock absorber type.

Guideline

Rebound damping	
Comfort	20 clicks
Standard	15 clicks
Sport	10 clicks
Full payload	10 clicks



Info

Turn clockwise to increase damping; turn counterclockwise to reduce damping.

12.9 Adjusting the spring pretension of the shock absorber



Caution

Risk of injury Parts of the shock absorber will fly off if the shock absorber is disassembled incorrectly.

The shock absorber is filled with highly compressed nitrogen.

Please follow the description provided. (Your authorized KTM workshop will be glad to help.)

12 SUSPENSION SETTING



- Turn handwheel 1 counterclockwise as far as it will go.
- Turn it clockwise by the number of turns corresponding to the shock absorber type and use.

Guideline

Spring preload	
Comfort	2 turns
Standard	2 turns
Sport	2 turns
Full payload	18 turns



Info

Turn clockwise to increase the spring pretension; turn counterclockwise to reduce the spring pretension.

13.1 Raising the vehicle with the center stand

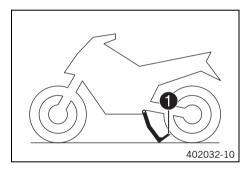
Note

Material damage The vehicle may be damaged by incorrect procedure when parking.

Significant damage may be caused if the vehicle rolls away or falls over.

The components for parking the vehicle are designed only for the weight of the vehicle.

- Park the vehicle on a firm and level surface.
- Ensure that nobody sits on the vehicle when the vehicle is parked on a stand.



- Stand to the left of the vehicle.
- Hold the handlebar with your left hand and push the center stand onto the ground with your right foot.
- Put your entire weight on arm 1 of the center stand while pulling the vehicle up at the left grab handle.
 - ✓ The center stand folds out all the way.

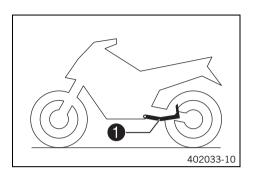
13.2 Removing the vehicle from the center stand

Note

Danger of damage The parked vehicle can roll away or fall over.

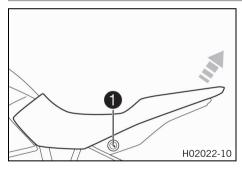
Park the vehicle on a firm and level surface.

13 SERVICE WORK ON THE CHASSIS



- Make sure that the steering is unlocked.
- Move the vehicle forward with both hands on the handlebar.
- While the vehicle tips off of the center stand, activate the front brake to stop the vehicle from rolling away.
- Check that the center stand 1 is folded all the way up.

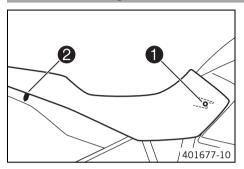
13.3 Removing the seat



- Insert the Race-on key or the black ignition key into the seat lock

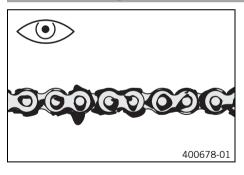
 and turn clock-wise.
- Lift up the seat at the rear, pull it back, and lift off.
- Remove the key.

13.4 Mounting the seat



- Hook catch
 of the seat onto the fuel tank and lower the rear while pushing it forward.
- Insert locking pin 2 into the lock housing and push down the rear of the seat until the locking pin engages with a click.
- Check that the seat is correctly mounted.

13.5 Checking for chain dirt



- Check the chain for coarse dirt accumulation.
 - » If the chain is very dirty:
 - Clean the chain. (
 p. 141)

13.6 Cleaning the chain



Warning

Danger of accidents Oil or grease on the tires reduces the road grip.

- Remove the lubricant from the tires using a suitable cleaning agent.



Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

- Always keep the brake discs free of oil and grease.
- Clean the brake discs with brake cleaner when necessary.



Warning

Environmental hazard Hazardous substances cause environmental damage.

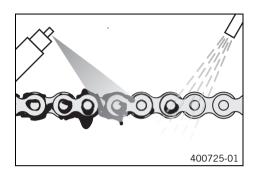
Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.



Info

The service life of the chain depends largely on its maintenance.

Preparatory work



Main work

- Clean the chain regularly.
- Rinse off loose dirt with a soft jet of water.
- Remove old grease remains with chain cleaner.

Chain cleaner (🕮 p. 258)

After drying, apply chain spray.

Chain lube for road use (🕮 p. 258)

Finishing work

13.7 Checking the chain tension



Warning

Danger of accidents Incorrect chain tension damages components and results in accidents.

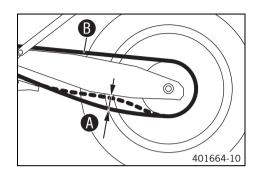
If the chain is tensioned too much, the chain, engine sprocket, rear sprocket, transmission and rear wheel bearings wear more quickly. Some components may break if overloaded.

If the chain is too loose, the chain may fall off the engine sprocket or the rear sprocket. As a result, the rear wheel locks or the engine will be damaged.

- Check the chain tension regularly.
- Set the chain tension in accordance with the specification.

Preparatory work

- Raise the vehicle with the center stand. (p. 138)



Main work

- Shift the transmission to idle N.
- In the area in front of the chain guide, push the chain up and determine chain tension A.



Info

The upper part of the chain **B** must be taut.

Chain wear is not always even, so you should repeat this measurement at different chain positions.

Chain	tension
Onam	rension

40... 45 mm (1.57... 1.77 in)

- If the chain tension does not meet the specification:

Finishing work

- Remove the vehicle from the center stand. (🕮 p. 138)

13.8 Adjusting the chain tension



Warning

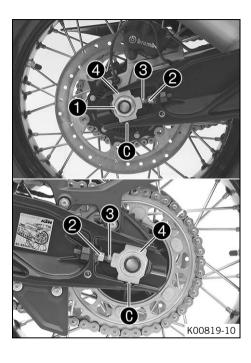
Danger of accidents Incorrect chain tension damages components and results in accidents.

If the chain is tensioned too much, the chain, engine sprocket, rear sprocket, transmission and rear wheel bearings wear more quickly. Some components may break if overloaded.

If the chain is too loose, the chain may fall off the engine sprocket or the rear sprocket. As a result, the rear wheel locks or the engine will be damaged.

- Check the chain tension regularly.
- Set the chain tension in accordance with the specification.

Preparatory work



Main work

- Loosen nut 1.
- Loosen nuts **2**.
- Adjust the chain tension by turning the adjusting screws 3 on the left and right.
 Guideline

Chain tension 40... 45 mm (1.57... 1.77 in)

Turn adjusting screws 3 on the left and right so that the markings on the left and right chain adjusters 4 are in the same position relative to reference marks 6. The rear wheel is then correctly aligned.



Info

The upper part of the chain must be taut. Chain wear is not always even, so you should check the setting at different chain positions.

- Tighten nuts 2.
- Make sure that chain adjusters 4 are resting against adjusting screws 3.
- Tighten nut 🕦.

Guideline

Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)	Thread greased
-------------------------	---------	------------------------	----------------



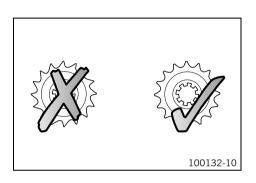
Info

Chain adjusters 4 can be turned through 180°.

Finishing work

- Remove the vehicle from the center stand. (p. 138)

13.9 Checking the chain, rear sprocket, and engine sprocket



Preparatory work

- Raise the vehicle with the center stand. (p. 138)

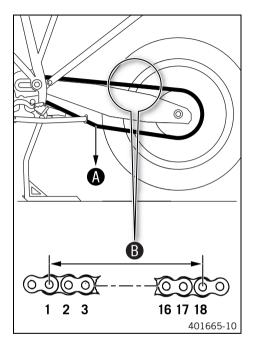
Main work

- Check the rear sprocket and engine sprocket for wear.
 - » If the rear sprocket and engine sprocket are worn:
 - Change the drivetrain kit. 🔦



Info

The engine sprocket, rear sprocket and chain should always be replaced together.



- Shift the transmission to idle N.
- Pull the lower chain section with specified weight A.
 Guideline

Weight, chain wear measurement	15 kg (33 lb.)

- Measure the distance **B** of 18 chain rollers on the upper part of the chain.



Info

Chain wear is not always even, so you should repeat this measurement at different chain positions.

Maximum distance B at the longest	272 mm (10.71 in)
chain section	

- » If distance **(B)** is greater than the specified measurement:
 - Change the drivetrain kit.

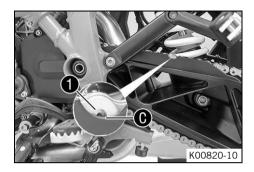


Info

When a new chain is mounted, the rear sprocket and engine sprocket should also be changed.

New chains wear out faster on old, worn sprockets.

For safety reasons, the chain has no chain joint.



- Check the chain sliding guard for wear at the recess.



Info

When the chain sliding guard is new, the rivets **1** are half visible at the bottom edge **6** of the recess.

- » When the rivets of the chain are no longer visible at the bottom edge of the recess of the chain sliding guard:
 - Change the chain sliding guard.
- Check that the chain sliding guard is firmly seated.
 - » If the chain sliding guard is loose:
 - Tighten the screws on the chain sliding guard.

Guideline

- Check the chain guide for wear.
 - If the chain guide is worn:
 - Change the chain guide. 4
- Check that the chain guide is firmly seated.
 - If the chain guide is loose:
 - Tighten the screws on the chain guide.

Guideline

Finishing work



13.10 Checking/correcting the fluid level of the hydraulic clutch



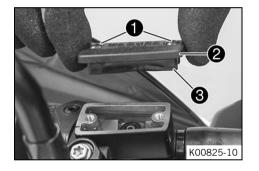
Info

The fluid level rises with increasing wear of the clutch facing discs.

Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and clutch lines are not designed for DOT 5 brake fluid.

Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.

Only use clean brake fluid from a sealed container.



- Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws 1.
- Remove cover **2** with membrane **3**.
- Check the fluid level.

Fluid level below container rim 4 mm (0.16 in)

- If the fluid level does not meet specifications:
 - Correct the fluid level of the hydraulic clutch.

Brake fluid DOT 4 / DOT 5.1 (p. 255)

Position the cover with the membrane. Mount and tighten the screws.



Info

Clean up overflowed or spilled brake fluid immediately with water.

13.11 Checking the steering head bearing play



Warning

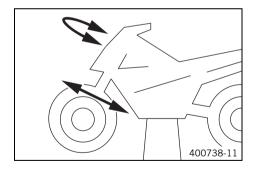
Danger of accidents Incorrect steering head bearing play impairs the handling characteristic and damages components.

- Correct incorrect steering head bearing play immediately. (Your authorized KTM workshop will be glad to help.)



Info

If the vehicle is operated for a lengthy period with play in the steering head bearing, the bearings and the bearing seats in the frame can become damaged over time.



Preparatory work

- Raise the vehicle with the center stand. (
p. 138)

Main work

- Place a load on the rear of the vehicle.
 - ✓ The front wheel is not in contact with the ground.
- Move the handlebar to the straight-ahead position. Move the fork legs back and forth in the direction of travel.

Play should not be detectable on the steering head bearing.

- » If there is no detectable play:
 - Adjust the steering head bearing play.
- Move the handlebar to and fro over the entire steering range.

It must be possible to move the handlebar easily over the entire steering range. There should be no detectable detent positions.

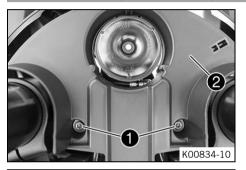
- » If detent positions are detected:
 - Adjust the steering head bearing play.

- Check the steering head bearing and adjust if necessary.

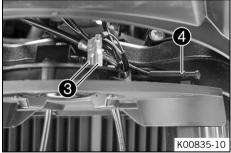
Finishing work

Remove the vehicle from the center stand. (
 p. 138)

13.12 Removing the bottom triple clamp cover

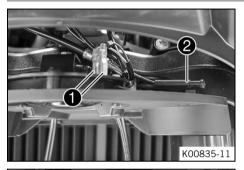


- Remove screws 1.
- Lower triple clamp cover 2 slightly.

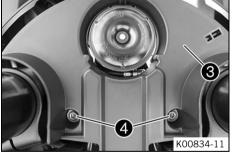


- Disconnect plugs **3** of the horn.
- Detach temperature sensor 4.
- Remove the triple clamp cover.

13.13 Installing the bottom triple clamp cover



- Plug in connectors 1 of the horn.
- Attach temperature sensor 2.



- Position the triple clamp cover 3.
- Mount and tighten screws 4.
 Guideline

Remaining chassis screws M6 10 Nm (7.4 lbf ft)	Remaining chassis screws	M6	10 Nm (7.4 lbf ft)
--	--------------------------	----	--------------------

13.14 Removing the front side cover



- Remove screws 1.
- Remove side cover 2.
- Repeat these steps on the opposite side.

13.15 Installing the front side cover



- Position the side cover in the area **A** under the tank cover.



- Attach side cover to bracket **2** using the catch **1**.
- Attach catch **3** of the side cover to bracket **4** and position on the fuel tank.



Mount and tighten screws **5**.
 Guideline

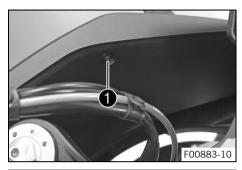
Screw, cover part	M5	3.5 Nm
		(2.58 lbf ft)

Repeat these steps on the opposite side.

13.16 Removing the mask spoiler 🔌

Preparatory work

- Remove the seat. (
 p. 139)
- Remove the front side cover. (p. 152)

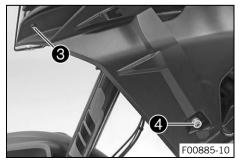


Main work

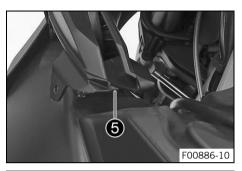
- Remove screw 1.



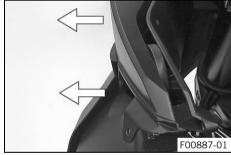
Remove screw 2.



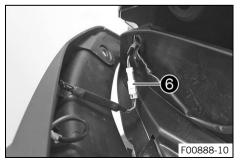
- Remove screw 3.
- Remove screw 4 with the bushing.



Loosen holding lug 6 from the inside cover.



Remove the mask spoiler laterally from the supports.



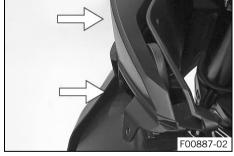
- Disconnect plug-in connector 6.
- Remove the mask spoiler with the turn signal.
- Repeat these steps on the opposite side.

13.17 Installing the mask spoiler 🔌



Main work

Connect plug-in connector 1.

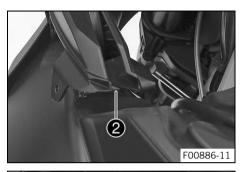


Position the mask spoiler and press laterally into the supports.

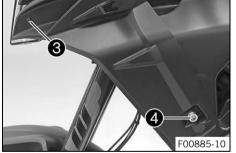


Info

Ensure that the turn signal cable is placed correctly.



- Position holding lug **2** in the drill hole.



(5)

F00884-11

Mount and tighten screw 3.
 Guideline

Screw, mask spoiler	M5x17	3.5 Nm
		(2.58 lbf ft)

- Mount and tighten screw 4 with the bushing.

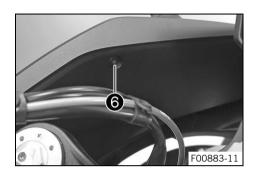
Guideline

Screw, bushing	M6	4 Nm (3 lbf ft)
----------------	----	-----------------

- Mount and tighten screw **5**.

Guideline

Screw, mask spoiler	M5x17	3.5 Nm (2.58 lbf ft)
---------------------	-------	-------------------------



Mount and tighten screw 6.
 Guideline

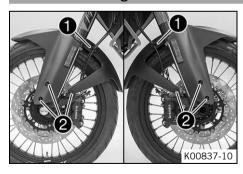
Screw, mask spoiler	M5x17	3.5 Nm
		(2.58 lbf ft)

Repeat these steps on the opposite side.

Finishing work

- Mount the seat. (
 p. 140)

13.18 Removing the front fender



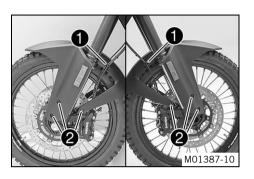
(Super Adventure R EU)

- Open holder and detach the brake lines and cable.
- Remove screws 2.
- Take the fender off to the front.



Info

Pay attention to the brake lines and the cable.



(All TKC models)

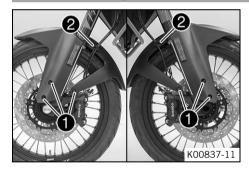
- Open holder 1 and detach the brake lines and cable.
- Remove screws 2.
- Take the fender off to the front.



Info

Pay attention to the brake lines and the cable.

13.19 Installing the front fender



(Super Adventure R EU)

Position the fender.



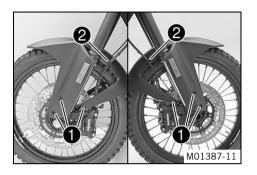
Info

Pay attention to the routing of the brake lines and the cable.

Mount and tighten screws ①.
 Guideline

Screw, fender	M5x12	3.5 Nm
		(2.58 lbf ft)

- Insert the brake lines and cable in brackets **2** and close the holder.



(All TKC models)

Position the fender



Info

Pay attention to the routing of the brake lines and the cable.

Mount and tighten screws 1.



Guideline

Screw, fender	M5x12	3.5 Nm
		(2.58 lbf ft)

Insert the brake lines and cable in brackets **2** and close the holder.

13.20 Cleaning the dust boots of the fork legs &

Preparatory work

- Raise the vehicle with the center stand. (p. 138)
- Remove the front fender. (p. 158)

Main work

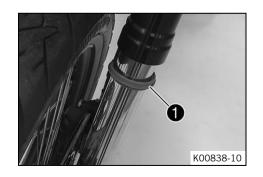
(Super Adventure R EU)

Push dust boots **1** of both fork legs downward.



Info

The dust boots should remove dust and coarse dirt particles from the fork tubes. Over time, dirt can accumulate behind the dust boots. If this dirt is not removed, the oil seals behind can start to leak.





Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

- Always keep the brake discs free of oil and grease.
- Clean the brake discs with brake cleaner when necessary.
- Clean and oil the dust boots and inner fork tubes of both fork legs.

Universal oil spray (🕮 p. 259)

- Press the dust boots back into their installation position.
- Remove excess oil.

(All TKC models)

Push dust boots 1 of both fork legs downward.



Info

The dust boots should remove dust and coarse dirt particles from the fork tubes. Over time, dirt can accumulate behind the dust boots. If this dirt is not removed, the oil seals behind can start to leak.



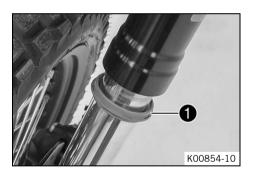
Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

- Always keep the brake discs free of oil and grease.
- Clean the brake discs with brake cleaner when necessary.
- Clean and oil the dust boots and inner fork tubes of both fork legs.

Universal oil spray (p. 259)

Press the dust boots back into their installation position.



Remove excess oil.

Finishing work

- Remove the vehicle from the center stand. (
 p. 138)

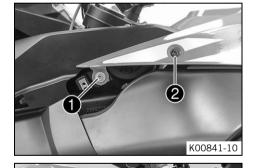
13.21 Removing the tank cover

Preparatory work

- Remove the seat. (🕮 p. 139)

Main work

- Remove screw 1.
- Remove screw 2.



K00842-10

- Remove screw 3.
- Remove screw 4.

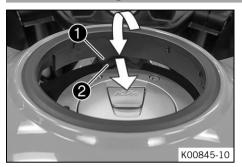


Remove screw 6.



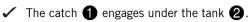
Raise the tank cover at the rear and remove it in a forward direction.

13.22 Installing the tank cover





Position the tank cover.





Info

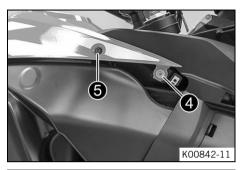
Pay attention to the sealing lip and the bleeder hose.

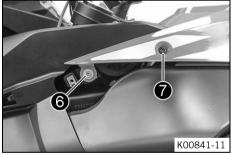


Mount and tighten screw 3.

Guideline

Screw, cover part	M5	3.5 Nm
•		(2.58 lbf ft)





Mount and tighten screw 4.
 Guideline

Screw, cover part M6 6 Nm (4.4 lbf ft)

- Mount and tighten screw **6**.

Guideline

Screw, cover part	M5	3.5 Nm
·		(2.58 lbf ft)

Mount and tighten screw 6.
 Guideline

Guideillie

Screw, cover part M6 6 Nm (4.4 lbf ft)

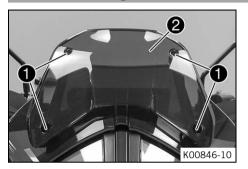
- Mount and tighten screw 7.

Guideline

Screw, cover part	M5	3.5 Nm
·		(2.58 lbf ft)

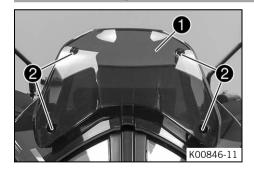
Finishing work

13.23 Removing the wind shield



- Remove screws lacktriangle and wind shield lacktriangle.

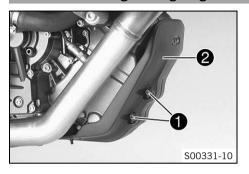
13.24 Installing the wind shield



- Position wind shield ①.
- Mount and tighten screws **2**. Guideline

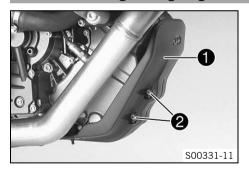
Screw, wind shield	M5	3.5 Nm
		(2.58 lbf ft)

13.25 Removing the engine guard



- Remove screws 1 with bushings and engine guard 2.

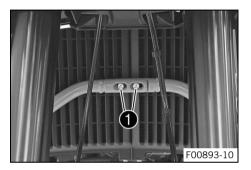
13.26 Installing the engine guard

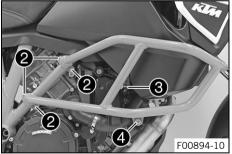


Position engine guard ①, mount screws ② with bushings and tighten.
 Guideline

Screw, engine guard	M6	10 Nm (7.4 lbf ft)
---------------------	----	--------------------

13.27 Removing the crash bar 🔦





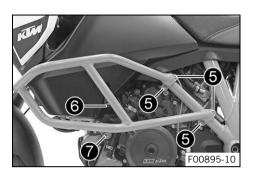
Preparatory work

- Raise the vehicle with the center stand. (p. 138)

Main work

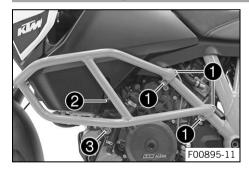
- Remove fittings 1.

- Remove screws **2** and take off the clamp halves.
- Remove screw 3.
- Remove screw 4 and take off right crash bar.



- Remove screws 5 and take off the clamp halves.
- Remove screw 6.
- Remove screw and take off left crash bar.

13.28 Installing the crash bar 🔦



Position the left crash bar with frame protector and attach the clamp to the frame tube.



Info

Cover the components to protect them against damage.

Mount screws but do not tighten yet.

Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)
--------------------------	----	--------------------

- Mount screw 2 but do not tighten yet.

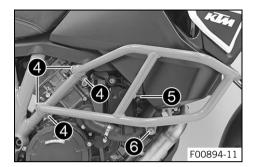
Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)
--------------------------	----	--------------------

- Mount screw **3** but do not tighten yet.

Guideline

Remaining chassis screws	M10	45 Nm
		(33.2 lbf ft)



 Position the right crash bar with frame protector and attach the clamp to the frame tube.



Info

Cover the components to protect them against damage.

Mount screws 4 but do not tighten yet.

Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)

– Mount screw **5** but do not tighten yet.

Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)
--------------------------	----	--------------------

Mount screw 6 but do not tighten yet.

Guideline

Remaining chassis screws	M10	45 Nm
		(33.2 lbf ft)

Mount and tighten fittings 7.

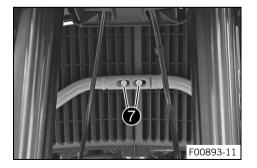
Guideline

Ī	Remaining chassis screws	M6	10 Nm (7.4 lbf ft)

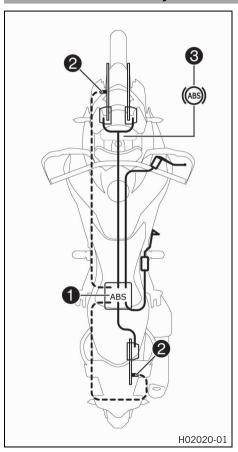
- ✓ The crash bars are equally aligned with each other.
- Tighten all the screws of the crash bar.

Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)
Remaining chassis screws	M10	45 Nm (33.2 lbf ft)



14.1 Antilock brake system (ABS)



The ABS unit 1, which consists of a hydraulic unit, brake electronics control unit, and return pump, is installed under the seat. One wheel speed sensor 2 is located in each case on the front and the rear wheel.



Warning

Danger of accidents Changes to the vehicle impair the function of the ABS.

 Only allow the rear wheel to spin with the front brake applied away from public road traffic if the ABS is switched off.

171

- Do not make any changes to the suspension travel.
- Only use spare parts on the brake system which have been approved and recommended by KTM.
- Only use tires/wheels approved by KTM with the corresponding speed index.
- Maintain the specified tire air pressure.
- Service work and repairs must be performed professionally. (Your authorized KTM workshop will be glad to help.)

ABS is a safety system that prevents locking of the wheels when driving straight ahead without the influence of lateral forces



Warning

Danger of accidents Driving aids can only prevent a rollover within the physical limitations.

It is not always possible to compensate for extreme riding situations, for example with luggage loaded with a high center of gravity, varying road surfaces, steep descents or full braking without disengaging the gear.

Adapt your riding style to the road conditions and your driving ability.

ABS has two operating modes: the Road and OffroadABS modes.

In the **Road** ABS mode, the brakes are also applied to the rear wheel when the front brake is applied. ABS can intervene on both wheels.

In the **Offroad** ABS mode, the front brake slows the front wheel. The rear brake slows the rear wheel. There is no ABS intervention on the rear wheel. The ABS bulb **3** flashes slowly to remind you that the **Offroad** ABS mode is enabled.



Info

In the **Offroad** ABS mode, the rear wheel may lock and there is a risk of falling.

The ABS operates with two independent brake circuits (front and rear brakes). When the brake electronics control unit detects a locking tendency in a wheel, ABS begins regulating the brake pressure. The regulating process causes a slight pulsing of the hand and foot brake levers.

The ABS indicator lamp 3 must light up after the ignition is switched on and go out after starting off. If it does not go out after starting off or if it is lit while riding, this indicates a fault in the ABS. In this case, the ABS is no longer enabled and the wheels may lock during braking. The brake system itself stays functional; only ABS control is not available.

The ABS indicator lamp may also light up if the rotating speeds of the front and rear wheels differ greatly under extreme riding conditions, for example when making "wheelies" or if the rear wheel spins. This causes the ABS to switch off.

To reactivate the ABS, stop the vehicle and switch off the ignition. The ABS is reactivated when the vehicle is switched on again. The ABS indicator lamp goes out when you start off.

MSC

The <u>MSC</u> is a supplementary function for the ABS that can prevent blocking and slipping of the wheels during braking when the vehicle is inclined (riding in curves) within the physical limitations.

By means of the 5D sensor, ABS control is now dependent on the inclination and pitch angle.

ABS control that is dependent on the inclination and pitch angle improves the riding stability and braking effect in all riding situations. The **MSC** also reduces the righting moment during hard braking in curves. This prevents the motorcycle from righting itself from an inclined angle and moving along a larger curve radius. Due to the additional electronic con-

trol of the brake force distribution between the two wheels, the braking force is optimally distributed and the motorcycle is additionally stabilized.



Info

The MSC is only active in Road ABS mode.

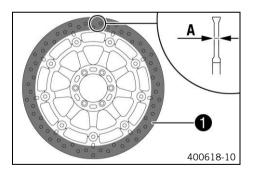
14.2 Checking the brake discs



Warning

Danger of accidents Worn-out brake discs reduce the braking effect.

Make sure that worn-out brake discs are replaced immediately. (Your authorized KTM workshop will be glad to help.)



Check the thickness of the front and rear brake discs at multiple points on each brake disc to ensure it is at least thickness **A**.



Info

Wear will reduce the thickness of the brake disc at the contact surface 1 of the brake linings.





Brake discs - wear limit		
Front	4 mm (0.16 in)	
Rear	4.5 mm (0.177 in)	

- If the brake disc thickness is less than the specified value.
 - Change the front brake discs.
 - Change the rear brake discs.
- Check the front and rear brake discs for damage, cracking, and deformation.
 - If the brake disc exhibits damage, cracking, or deformation:
 - Change the front brake discs.

Change the rear brake discs.

14.3 Checking the brake fluid level of the front brake



Warning

Danger of accidents
An insufficient brake fluid level will cause the brake system to fail.

If the brake fluid level drops below the MIN marking, the brake system is leaking or the brake linings are worn down.

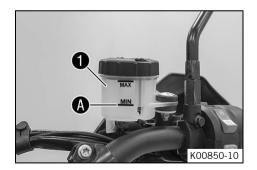
 Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)



Warning

Danger of accidents Old brake fluid reduces the braking effect.

 Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized KTM workshop will be glad to help.)



- Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
- Check the brake fluid level in the brake fluid reservoir ①
 - » If the brake fluid has dropped below marking MIN (A):
 - Add front brake fluid. 🔌 (🕮 p. 175)

14 BRAKE SYSTEM 175

14.4 Adding front brake fluid 🔦



Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

If the brake fluid level drops below the **MIN** marking, the brake system is leaking or the brake linings are worn down.

 Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)



Warning

Skin irritation Brake fluid causes skin irritation.

- Keep brake fluid out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Do not allow brake fluid to come into contact with the skin, the eyes or clothing.
- Consult a doctor immediately if brake fluid has been swallowed.
- Rinse the affected area with plenty of water in the event of contact with the skin.
- Rinse eyes thoroughly with water immediately and consult a doctor if brake fluid comes into contact with the eyes.
- If brake fluid spills on to your clothing, change the clothing.



Warning

Danger of accidents Old brake fluid reduces the braking effect.

 Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized KTM workshop will be glad to help.)



Warning

Environmental hazard Hazardous substances cause environmental damage.

Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

14 BRAKE SYSTEM 176

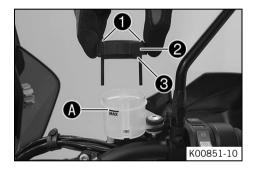


Info

Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.

Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.

Only use clean brake fluid from a sealed container.



Preparatory work

- Check the front brake linings. (p. 176)

Main work

- Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws 1.
- Remove cover 2 with membrane 3.
- Add brake fluid up to ${ t MAX}$ marking old A .

Brake fluid DOT 4 / DOT 5.1 (
p. 255)

- Position cover 2 with membrane 3.
- Mount and tighten screws 1.



Info

Clean up overflowed or spilled brake fluid immediately with water.

14.5 Checking the front brake linings



Warning

Danger of accidents Worn-out brake linings reduce the braking effect.

Ensure that worn-out brake linings are replaced immediately. (Your authorized KTM workshop will be glad to help.)

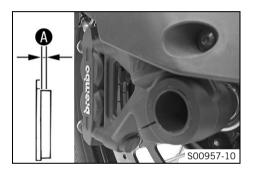


Warning

Danger of accidents Damaged brake discs reduce the braking effect.

If the brake linings are not changed in time, the brake lining carriers grind against the brake disc. As a consequence, the braking effect is greatly reduced and the brake discs are destroyed.

Check the brake linings regularly.



Check all brake linings on both brake calipers to ensure they have minimum thickness A.

Minimum thickness

 $\geq 1 \text{ mm } (\geq 0.04 \text{ in})$

- If the minimum thickness is less than specified:
 - Change the front brake linings.
- Check all brake linings on both brake calipers for damage and cracking.
 - » If there is damage or cracking:
 - Change the front brake linings. 🔦

14.6 Checking the rear brake fluid level



Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

If the brake fluid level drops below the MIN marking, the brake system is leaking or the brake linings are worn down.

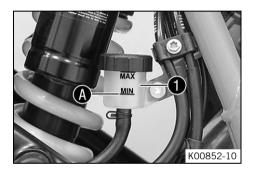
 Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)



Warning

Danger of accidents Old brake fluid reduces the braking effect.

- Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized KTM workshop will be glad to help.)



Preparatory work

- Raise the vehicle with the center stand. (

p. 138)

Main work

- Check the brake fluid level in the brake fluid reservoir 1.
 - » If the fluid level reaches the MIN marking $oldsymbol{\mathbb{A}}$:
 - Add rear brake fluid. 🔌 (🕮 p. 178)

14.7 Adding rear brake fluid 🔌



Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

If the brake fluid level drops below the MIN marking, the brake system is leaking or the brake linings are worn down.

 Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)



Warning

Skin irritation Brake fluid causes skin irritation.

- Keep brake fluid out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Do not allow brake fluid to come into contact with the skin, the eyes or clothing.
- Consult a doctor immediately if brake fluid has been swallowed.
- Rinse the affected area with plenty of water in the event of contact with the skin.
- Rinse eyes thoroughly with water immediately and consult a doctor if brake fluid comes into contact with the eyes.
- If brake fluid spills on to your clothing, change the clothing.



Warning

Danger of accidents Old brake fluid reduces the braking effect.

 Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized KTM workshop will be glad to help.)



Warning

Environmental hazard Hazardous substances cause environmental damage.

Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.



Info

Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.

Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.

Only use clean brake fluid from a sealed container.

Preparatory work



- Check the rear brake linings. (🕮 p. 180)

Main work

- Remove screw cap with membrane 2.
- Add brake fluid up to MAX marking (A).

Brake fluid DOT 4 / DOT 5.1 (@ p. 255)

Mount and tighten screw cap 1 with membrane 2.



Info

Clean up overflowed or spilled brake fluid immediately with water.

14.8 Checking the rear brake linings



Warning

Danger of accidents Worn-out brake linings reduce the braking effect.

- Ensure that worn-out brake linings are replaced immediately. (Your authorized KTM workshop will be glad to help.)

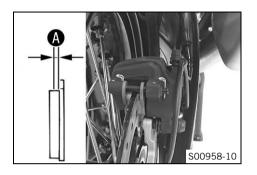


Warning

Danger of accidents Damaged brake discs reduce the braking effect.

If the brake linings are not changed in time, the brake lining carriers grind against the brake disc. As a consequence, the braking effect is greatly reduced and the brake discs are destroyed.

Check the brake linings regularly.

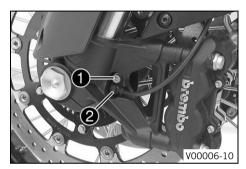


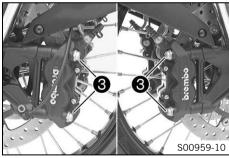
- Check the brake linings for minimum thickness **A**.

Minimum thickness ♠ ≥ 1 mm (≥ 0.04 in)

- » If the minimum thickness is less than specified:
 - Change the rear brake linings.
- Check the brake linings for damage and cracking.
 - $\ensuremath{\text{\textit{»}}}$ If there is wear or tearing:
 - Change the rear brake linings. 4

15.1 Removing the front wheel &





Preparatory work

- Raise the vehicle with the center stand. (🕮 p. 138)

Main work

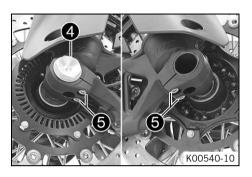
- Place a load on the rear of the vehicle.
 - ✓ The front wheel is not in contact with the ground.
- Remove screw 1 and pull wheel speed sensor 2 out of the hole.

- Remove screws 3 from both brake calipers.
- Press back the brake linings with a slight lateral tilting of the brake calipers on the brake disc.
- Pull the brake calipers carefully back from the brake discs and hang them to one side loosely.



Info

Do not pull the hand brake lever when the brake caliper has been removed.



- Loosen screw 4 by several rotations.
- Loosen screws **5**.
- Press on screw 4 to push the wheel spindle out of the axle clamp.
- Remove screw 4.



Warning

Danger of accidents Damaged brake discs reduce the braking effect.

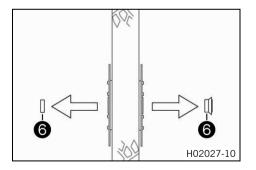
- Always lay the wheel down in such a way that the brake discs are not damaged.
- Hold the front wheel and remove the wheel spindle. Take the front wheel out of the fork.



Info

Do not pull the hand brake lever when the front wheel is removed.

Remove spacers 6.



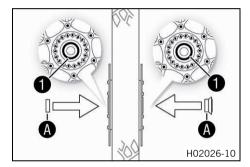
15.2 Installing the front wheel 4



Warning

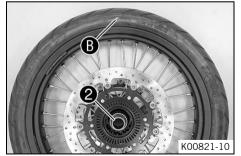
Danger of accidents Oil or grease on the brake discs reduces the braking effect.

- Always keep the brake discs free of oil and grease.
- Clean the brake discs with brake cleaner when necessary.



- Check the wheel bearing for damage and wear.
 - » If the wheel bearing is damaged or worn:
 - Change the front wheel bearing.
- Clean and grease shaft seal rings 1 and contact surface A of the spacers.

Long-life grease (p. 258)



(Super Adventure R EU)

- Insert wide spacer **2** on the left in the direction of travel.

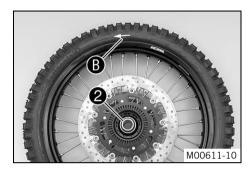


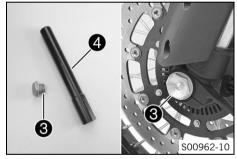
Info

The arrow **(B)** indicates the direction of travel of the front wheel. The ABS sensor wheel is on the left-hand side when looking in the direction of travel.

184

Insert the narrow spacer on the right in the direction of travel.





(All TKC models)

Insert wide spacer 2 on the left in the direction of travel.



Info

The arrow **B** indicates the direction of travel of the front wheel. The ABS sensor wheel is on the left-hand side when looking in the direction of travel.

Insert the narrow spacer on the right in the direction of travel.



Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

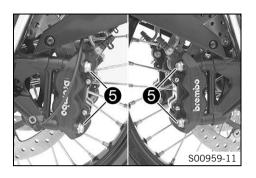
- Always keep the brake discs free of oil and grease.
- Clean the brake discs with brake cleaner when necessary.
- Clean and grease screw 3 and wheel spindle 4.

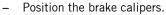
Long-life grease (p. 258)

- Lift the front wheel into the fork, position it, and insert the wheel spindle.
- Mount and tighten screw **3**.

Guideline

Screw, front wheel spindle M	//25x1.5	45 Nm (33.2 lbf ft)	Thread greased
------------------------------	----------	------------------------	----------------





- ✓ The brake linings are correctly positioned.
- Mount screws 6 on both brake calipers but do not tighten yet.
- Operate the hand brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point. Fix the hand brake lever in the activated position.
 - ✓ The brake calipers straighten.
- Tighten screws **5** on both brake calipers.

Guideline

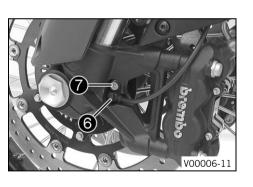
Screw, front brake caliper M10	45 Nm (33.2 lbf ft)	Loctite [®] 243 [™]
--------------------------------	------------------------	---------------------------------------

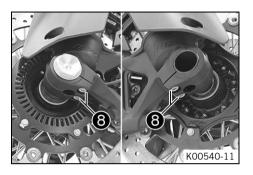
- Remove the fixation of the hand brake lever.
- Position wheel speed sensor 6 in the drill hole.
- Mount and tighten screw 7.

Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)

Remove the vehicle from the center stand. (p. 138)





- Operate the front brake and compress the fork a few times firmly.
 - ✓ The fork legs straighten.
- Tighten screws **8**.

Guideline

Screw, fork stub	M8	15 Nm	
		(11.1 lbf ft)	

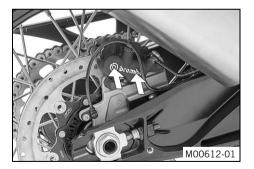
15.3 Removing the rear wheel 4

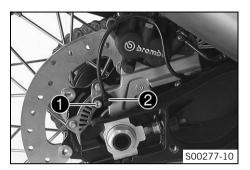


Raise the vehicle with the center stand. (
 p. 138)

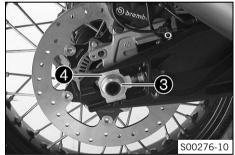
Main work

 Press the brake caliper by hand on to the brake disc in order to press back the brake pistons.

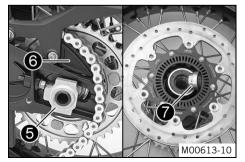




Remove screw **1** and pull wheel speed sensor **2** out of the hole.



- Remove nut **3**. Remove chain adjuster **4**.



- Pull out wheel spindle **6** only far enough to allow the rear wheel to be pushed forward.
- Push the rear wheel forward as far as possible. Take the chain off of the rear sprocket and place it on chain sprocket guard 6.



Warning

Danger of accidents Reduced braking effect caused by damaged brake discs.

Always lay the wheel down in such a way that the brake discs are not damaged.

 Holding the rear wheel, withdraw the wheel spindle. Take the rear wheel out of the swing arm.



Info

Do not operate the foot brake when the rear wheel is removed.

Remove the spacer 7.

15.4 Installing the rear wheel 🔦



Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

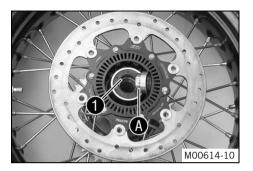
- Always keep the brake discs free of oil and grease.
- Clean the brake discs with brake cleaner when necessary.

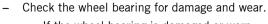


Warning

Danger of accidents There is no braking effect to start with at the rear brake after installing the rear wheel.

- Actuate the foot brake several times before going on a ride until you can feel a firm pressure point.
 - Check the rear hub rubber dampers. ◀ (♥ p. 192)





If the wheel bearing is damaged or worn:

Change the rear wheel bearing.

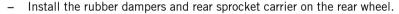
Clean and grease shaft seal ring and contact surface of the spacer.

Long-life grease (🕮 p. 258)

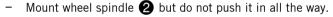
- Insert the spacer.

- Clean and grease the thread of the wheel spindle and nut.

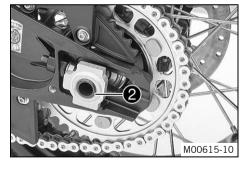
Long-life grease (🕮 p. 258)

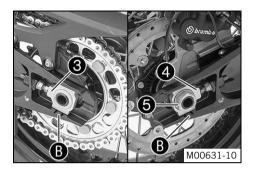


 Place the rear wheel in the swingarm and bring the brake disc into contact with the brake caliper.



- Push the rear wheel forward as far as possible and lay the chain on the rear sprocket.





Push the wheel spindle in all the way and mount chain adjuster **4** and nut **5**.









Mount chain adjusters **3** and **4** in the same position.

Make sure that the chain adjusters are fitted correctly on the adjusting screws. Guideline

In order for the rear wheel to be correctly aligned, the markings on the left and right chain adjusters must be in the same position relative to reference markings **B**.

Tighten nut 6.

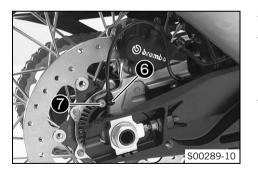
Guideline

Nut, rear wheel spindle	M25x1.5	90 Nm	Thread greased
		(66.4 lbf ft)	

- Position wheel speed sensor 6 in the drill hole.
- Mount and tighten screw 7. Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)

Operate the foot brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point.

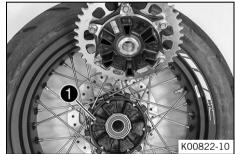


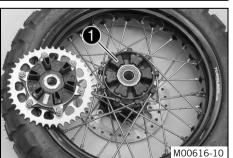
15.5 Checking the rear hub rubber dampers 🔌



Info

The engine power is transmitted from the rear sprocket to the rear wheel via 6 rubber dampers. The rubber dampers wear out during operation. If the rubber dampers are not changed in time, the rear sprocket carrier and the rear hub will be damaged.





Preparatory work

- Remove the rear wheel. 🔌 (🕮 p. 187)

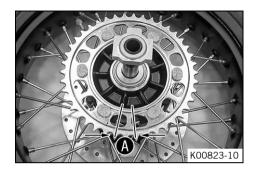
Main work

(Super Adventure R EU)

- Check the rubber dampers of the rear hub for damage and wear.
 - » If the rubber dampers of the rear hub are damaged or worn:
 - Change all rubber dampers in the rear hub. 🔦

(All TKC models)

- Check the rubber dampers of the rear hub for damage and wear.
 - » If the rubber dampers of the rear hub are damaged or worn:
 - Change all rubber dampers in the rear hub.



- Lay the rear wheel on a workbench with the rear sprocket facing upwards and insert the wheel spindle in the hub.
- Check the rear sprocket play A.



Info

Measure the play on the outside of the rear sprocket.

Play in rubber dampers, rear wheel ≤ 5 mm (≤ 0.2 in)

- » If clearance \Lambda is larger than the specified value:
 - Change all rubber dampers in the rear hub. 🔌

Finishing work

Install the rear wheel. ◄ (♠ p. 189)

15.6 Checking the tire condition



Warning

Danger of accidents If a tire bursts while riding, the vehicle becomes uncontrollable.

Ensure that damaged or worn tires are replaced immediately. (Your authorized KTM workshop will be glad to help.)



Warning

Danger of crashing Different tire tread patterns on the front and rear wheel impair the handling characteristic.

Different tire tread patterns can make the vehicle significantly more difficult to control.

Make sure that only tires with a similar tire tread pattern are fitted to the front and rear wheel.



Warning

Danger of accidents Non-approved or non-recommended tires and wheels impact the handling characteristic.

Only use tires/wheels approved by KTM with the corresponding speed index.



Warning

Danger of accidents New tires have reduced road grip.

The contact surface on new tires is not yet roughened.

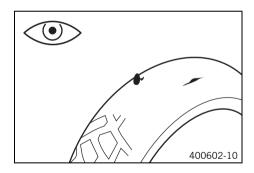
Run in new tires with moderate riding at alternating angles.
 Running-in phase

200 km (124 mi)



Info

Tire type, tire condition, and tire air pressure influence the braking and handling characteristics of the vehicle. Worn tires are particularly unfavorable on wet surfaces.



- Check the front and rear tires for cuts, run-in objects, and other damage.
 - » If the tires have cuts, run-in objects, or other damage:
 - Change the tires.
- Check the tread depth.

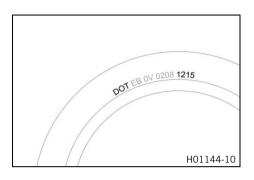


Info

Adhere to the legally required minimum tread depth.

Minimum tread depth	≥ 2 mm (≥ 0.08 in)

- If the tread depth is less than the minimum tread depth:
 - Change the tires.



Check the tire age.



Info

The tire date of manufacture is usually contained in the tire label and is indicated by the last four digits of the **DOT** number. The first two digits indicate the week of manufacture and the last two digits the year of manufacture. KTM recommends that the tires be changed after 5 years at the latest, regardless of the actual state of wear.

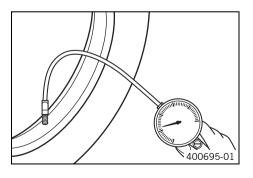
- » If the tires are more than 5 years old:
 - Change the tires.

15.7 Checking the tire air pressure



Info

Low tire air pressure leads to abnormal wear and overheating of the tire. Correct tire air pressure ensures optimal riding comfort and maximum tire service life.



- Remove the dust cap.
- Check the tire air pressure when the tires are cold.

Tire air pressure, solo/with passenger/full payload	
Front: with cold tires	2.4 bar (35 psi)
Rear: with cold tires	2.9 bar (42 psi)

- » If the tire pressure does not meet specifications:
 - Correct the tire pressure.
- Mount the dust cap.

15.8 Checking spoke tension

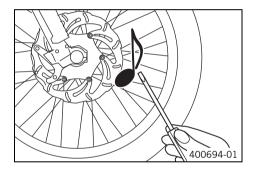


Warning

Danger of accidents Incorrectly tensioned spokes impair the handling characteristic and result in secondary damage.

The spokes break due to being overloaded if they are too tightly tensioned. If the tension in the spokes is too low, then lateral and radial run-out will form in the wheel. Other spokes will become looser as a result.

- Check spoke tension regularly, and in particular on a new vehicle. (Your authorized KTM workshop will be glad to help.)



Strike each spoke briefly using a screwdriver blade.



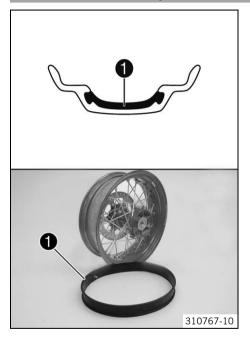
Info

The frequency of the sound depends on the spoke length and spoke diameter. If spokes of the same length and diameter vibrate with a different tone, this is an indication that the spoke tensions differ.

You should hear a high note.

- » If the spoke tension differs:
 - Correct the spoke tension.

15.9 Tubeless tire system



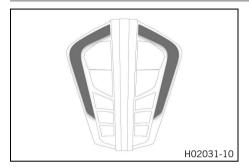
This vehicle makes use of a tubeless tire system in which a tubeless sealing profile **1** is used instead of the conventional tube.

The advantage of the tubeless system is that there is no risk of a defective tube. This greatly reduces the risk of a sudden loss in pressure.

The masses and moments of inertia of these wheels are smaller than in conventional spoke wheels with a tube. This results in better handling and riding comfort.

The rigid rim design results in a spoke wheel that is almost entirely maintenance-free. KTM recommends that the tubeless sealing profile be changed after 5 years at the latest, regardless of the actual state of wear.

16.1 Daytime running light (DRL)





Warning

Danger of accidents When visibility is poor, the daytime running light is not a substitute for the low beam.

Automatic switching between the daytime running light and low beam may only be partially available when visibility is significantly impaired due to fog, snow or rain.

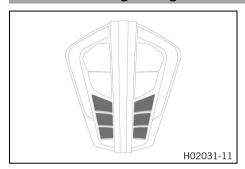
- Ensure that the appropriate type of lighting is always selected.
- If necessary switch off the daytime running lights using the menu before going on a ride or when stopped so that the low beam is switched on permanently.
- Note the legal regulations regarding the daytime running light.

The daytime running (<u>DRL</u>)/position light is integrated in the main headlight. The daytime running light is brighter than the position light.

The daytime running light must only be switched on when visibility conditions are good. Control is provided by the brightness sensor in the combination instrument. When visibility conditions are good, the low beam with position light is switched off and the daytime running light is switched on.

When the daytime running light is switched off, the low beam with position light lights up. On high beam or headlight flasher, the daytime running light changes automatically to the position light.

16.2 Cornering headlight



The cornering headlights are integrated in the main headlight.



Info

To activate the cornering light, the low beam must be switched on and the daytime running light switched off.

The cornering headlights are activated with:

Lean angle for the lower LED	≥ 12°
Lean angle for the middle LED	≥ 20°
Lean angle for the upper LED	≥ 28°
Speed	≥ 6 km/h (≥ 3.7 mph)

16.3 Removing the battery 4



Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

- Keep batteries out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Avoid contact with battery acid and battery gases.
- Keep sparks or open flames away from the battery.
- Only charge batteries in well-ventilated rooms.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes with water for at least 15 minutes and consult a doctor immediately if battery acid and battery gases get into the
 eyes.



Caution

Danger of accidents Electronic components and safety devices will be damaged if the battery is discharged or missing.

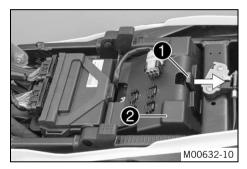
- Never operate the vehicle with a discharged battery or without a battery.



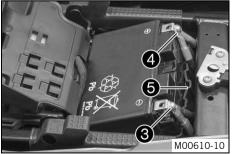
- Switch off all power consumers and switch off the engine.
- Remove the seat. (🕮 p. 139)

Main work

- Pull locking mechanism 1 in the direction of the arrow.
- Fold open cover **2**.



- Disconnect negative cable 3 from the battery.
- Disconnect positive cable 4 from the battery.
- Take the battery and battery case **5** out of the battery compartment.



16.4 Installing the battery 4



Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

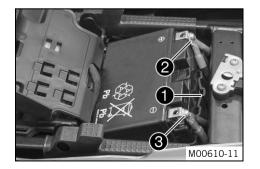
- Keep batteries out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Avoid contact with battery acid and battery gases.
- Keep sparks or open flames away from the battery.
- Only charge batteries in well-ventilated rooms.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes with water for at least 15 minutes and consult a doctor immediately if battery acid and battery gases get into the
 eyes.



Caution

Danger of accidents Electronic components and safety devices will be damaged if the battery is discharged or missing.

Never operate the vehicle with a discharged battery or without a battery.



Main work

Position the battery in battery case
Guideline

The even side of the battery case must be opposite the poles.

- Position the battery and battery case in the battery compartment.
- Position the positive cable **2** and mount and tighten the screw. Guideline

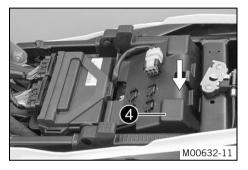
Screw, battery terminal	M6	4.5 Nm
-		(3.32 lbf ft)

Position the negative cable 3 and mount and tighten the screw.
 Guideline

Screw, battery terminal	M6	4.5 Nm
		(3.32 lbf ft)



 \checkmark The cover engages with an audible click.



Finishing work

- Mount the seat. (
 p. 140)
- Set the time and date.

16.5 Recharging the battery 4



Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

- Keep batteries out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Avoid contact with battery acid and battery gases.
- Keep sparks or open flames away from the battery.
- Only charge batteries in well-ventilated rooms.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes with water for at least 15 minutes and consult a doctor immediately if battery acid and battery gases get into the
 eyes.



Warning

Environmental hazard Batteries contain environmentally-hazardous materials.

- Do not dispose of batteries as household waste.
- Dispose of batteries at a collection point for used batteries.



Warning

Environmental hazard Hazardous substances cause environmental damage.

Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.



Info

Even when there is no load on the battery, it discharges steadily.

The charge state and the type of charge are very important for the service life of the battery.

Rapid recharging with a high charging current shortens the service life of the battery.

If the charging current, charging voltage, and charging time are exceeded, electrolyte escapes through the safety valves. This reduces the battery capacity.

If the battery is depleted from starting the vehicle repeatedly, the battery must be charged immediately.

If the battery is left in a discharged state for an extended period, over-discharge and sulfating occurs, destroying the battery.

The battery is maintenance-free, i.e., the acid level does not have to be checked.

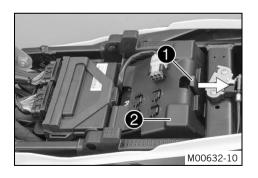
If the battery is not charged using the KTM battery charger, the battery must be removed for charging. Otherwise, overvoltage may damage electronic components. Charge the battery according to the instructions on the battery housing.

Preparatory work

- Switch off all power consumers and switch off the engine.
- Remove the seat. (B p. 139)

Main work

- Pull locking mechanism 1 in the direction of the arrow.
- Fold open cover 2.



16 ELECTRICAL SYSTEM



Disconnect both negative cables 3 of the battery to avoid damage to the motorcycle's electronics.



Connect the battery charger to the battery. Switch on the battery charger.

Battery charger (58429074000)



Info

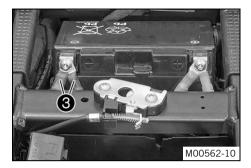
You can also use the battery charger to test the open-circuit voltage and start potential of the battery, and to test the alternator. With this device, you cannot overcharge the battery.

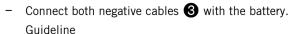
Charge the battery at no more than $10\ \%$ of the capacity specified on the battery housing.

Switch off the battery charger after charging and disconnect from the battery.
 Guideline

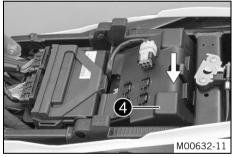
The charging current, charging voltage, and charging time must not be exceeded.		
Charge the battery regularly when the motorcycle is not in use	3 months	

16 ELECTRICAL SYSTEM





Screw, battery terminal	M6	4.5 Nm
		(3.32 lbf ft)

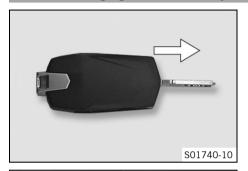


- Close cover 4 and push down slightly.
 - ✓ The cover engages with an audible click.

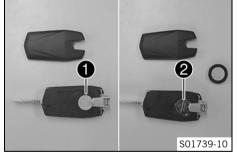
Finishing work

- Mount the seat. (🕮 p. 140)
- Set the time and date.

16.6 Changing the Race-on key battery



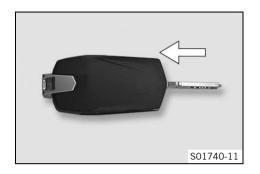
- Fold out the key bit of the Race-on key.
- Push the lower half of the Race-on key in the direction of the arrow and take off.



- Remove battery cover 1.
- Remove battery **2**.
- Insert the new battery with the marking facing upward.

Battery for Race-on key (CR 2032) (
p. 245)

- Mount battery cover 1.



Fit lower half of the Race-on key and snap into place in the direction of the arrow.

16.7 Changing the main fuse



Warning

Fire hazard Incorrect fuses overload the electrical system.

- Only use fuses with the required ampere value.
- Do not bypass or repair fuses.

Preparatory work

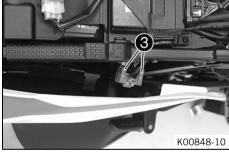
- Switch off all power consumers and switch off the engine.

16 ELECTRICAL SYSTEM

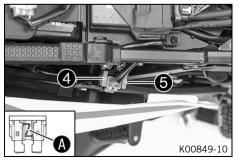


Main work

- Remove screws 1.
- Carefully raise rear fairing 2 slightly.



Take off protection caps 3.



Remove faulty main fuse 4.



Info

You can recognize a faulty fuse by a burned-out fuse wire **A**. A spare fuse **5** is located in the starter relay. The main fuse protects all power consumers of the vehicle.

Install a new main fuse.

Fuse (58011109130) (🕮 p. 245)

- Check that the electrical system is functioning properly.
- Mount the protection caps.



Tip

Insert a new spare fuse into the starter relay to have it available when needed.

- Position rear fairing **2**.
- Mount and tighten screws 1.

Guideline

Screw, cover part	M5	3.5 Nm
		(2.58 lbf ft)



Finishing work

- Mount the seat. (🕮 p. 140)
- Set the time and date.

16.8 Changing the fuses in the fuse box



Warning

Fire hazard Incorrect fuses overload the electrical system.

- Only use fuses with the required ampere value.
- Do not bypass or repair fuses.



Info

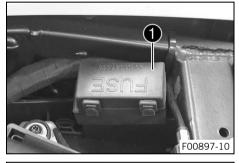
The fuse box containing the fuses of individual power consumers is located under the seat.

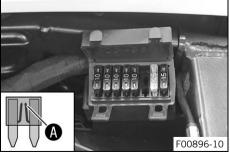
Preparatory work

- Switch off all power consumers and switch off the engine.
- Remove the seat. (p. 139)

Main work

Open fuse box cover 1.





Check the fuses.



Info

You can recognize a faulty fuse by a burned-out fuse wire **A**.



Remove the defective fuse.

Guideline

Fuse 1 - 10 A - power supply for control units and components

Fuse **2** - 10 A - permanent positive for auxiliary equipment (ACC1), accessories connected with ignition for auxiliary equipment (ACC2)

Fuse 3 - 10 A - headlight control unit

Fuse 4 - 10 A - headlight control unit

Fuse 5 - 10 A - control unit

Fuse 6 - not assigned

Fuse 7 - 25 A - ABS return pump

Fuse 8 - 15 A - ABS hydraulic unit

Use spare fuses with the correct rating only.

Fuse (58011109110) (p. 245)

Fuse (58011109115) (🕮 p. 245)

Fuse (58011109125) (p. 245)



Tip

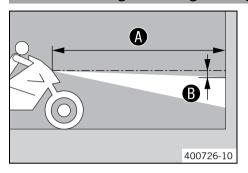
Insert a spare fuse so that it is available if needed.

- Check that the power consumer is functioning properly.
- Close the fuse box cover.

Finishing work

Mount the seat. (
 p. 140)

16.9 Checking the headlight setting



- Park the vehicle on a horizontal surface in front of a light-colored wall and make a mark at the height of the center of the low beam headlight.
- Make another mark at a distance f B under the first mark.

Guideline

Distance **B** 5 cm (2 in)

 Position the vehicle perpendicular to the wall at a distance (A) from the wall and switch on the low beam.

Guideline

Distance **(A)** 5 m (16 ft)

- The rider, with luggage and passenger if applicable, now mounts the motorcycle.
- Check the headlight setting.

The light-dark boundary must lie exactly on the lower mark when the motorcycle is ready to operate with the rider mounted along with any luggage and a passenger if applicable.

- » If the boundary between light and dark does not meet specifications:

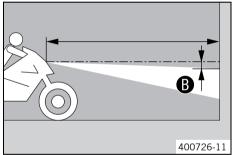
16.10 Adjusting the headlight range

Preparatory work

Check the headlight setting. (
 p. 213)

16 ELECTRICAL SYSTEM





Main work

Turn adjusting wheel 1 to adjust the headlight range.



Info

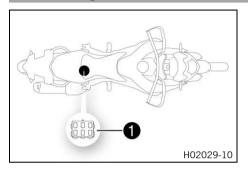
Turn counterclockwise to increase the headlight range; turn clockwise to reduce the headlight range.

If you have a payload, you may have to correct the headlight range.

Set the headlight to marking **B**.
 Guideline

The light-dark boundary must lie exactly on lower mark **B** when the motorcycle is ready to operate with the rider mounted along with any luggage and a passenger if applicable.

16.11 Diagnostics connector



Diagnostics connector 1 is located under the front rider's seat.

17.1 Checking the coolant level in the compensating tank



Warning

Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

- Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
- Allow the cooling system and the engine to cool down before you open the radiator, the radiator hoses or other components of the cooling system.
- In the event of scalding, rinse the area affected immediately with lukewarm water.



Warning

Danger of poisoning Coolant is toxic and a health hazard.

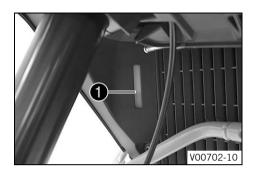
- Keep coolant out of the reach of children.
- Do not allow coolant to come into contact with the skin, the eyes and clothing.
- Consult a doctor immediately if coolant is swallowed.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
- Change clothing if coolant spills onto your clothing.

Condition

The engine is cold.

The radiator is completely full.

17 COOLING SYSTEM



- Park the motorcycle on a horizontal surface.
- Check the coolant level in compensating tank $oldsymbol{1}$.

The coolant level must be between MIN and MAX.

- » If there is no coolant in the compensating tank:
 - Check the cooling system for leaks.



Info

Do not start up the motorcycle!

- Add coolant/bleed the cooling system.
- » If the coolant in the compensating tank is not at the required level, but the tank is not empty:

17.2 Correcting the coolant level in the compensating tank



Warning

Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

- Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
- Allow the cooling system and the engine to cool down before you open the radiator, the radiator hoses or other components of the cooling system.
- In the event of scalding, rinse the area affected immediately with lukewarm water.



Warning

Danger of poisoning Coolant is toxic and a health hazard.

- Keep coolant out of the reach of children.
- Do not allow coolant to come into contact with the skin, the eyes and clothing.
- Consult a doctor immediately if coolant is swallowed.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
- Change clothing if coolant spills onto your clothing.

Condition

The engine is cold.

The radiator is completely full.

Preparatory work

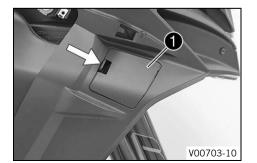


Info

Only disassemble the right-hand side.

Main work

- Remove cover 1.



17 COOLING SYSTEM



Remove cover 2 of the compensating tank.



Add coolant until the coolant reaches the specified level.
 Guideline

The coolant level must be between MIN and MAX.

Coolant (@ p. 255)

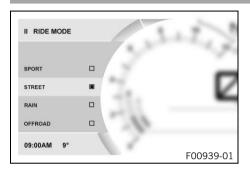
- Mount cover **2** of the compensating tank.
- Mount cover 1.

Finishing work

Install the front side cover. (
 p. 152)

18 TUNING THE ENGINE

18.1 Ride Mode



Possible states

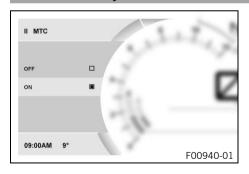
- SPORT Homologated performance with very direct response; the traction control allows greater slip on the rear wheel.
- STREET Homologated performance with balanced response; the traction control allows normal slip on the rear wheel.
- RAIN Reduced homologated performance for better ridability; the traction control allows normal slip on the rear wheel.
- OFFROAD Reduced homologated performance for better ridability; the traction control allows high slip on the rear wheel

Various vehicle tunings can be selected in the **Ride Mode** menu. **SPORT**, **STREET**, **RAIN** and **OFFROAD**are available.

The drive mode selected last is displayed in the combination instrument.

The drive mode can also be changed while riding with a closed throttle grip and deactivated speed sensor.

18.2 Motorcycle traction control (MTC)



The motorcycle traction control ($\underline{\text{MTC}}$) lowers the engine torque in case of loss of traction in the rear wheel. Depending on the motorcycle traction control setting, a slight slip on the rear wheel may be desirable. Example: offroad.



Info

When traction control is switched off, the rear wheel may spin during high acceleration and on surfaces with low grip.

After the ignition is switched back on, traction control is enabled again.

Traction control is controlled via the **Motorcycle** menu on the combination instrument. The traction control can be switched off in the **MTC** menu.



Info

When traction control is active, the TC indicator lamp flashes. When traction control is switched off, the TC indicator lamp is lit.

19.1 Checking the engine oil level



Info

Oil consumption depends on the riding style and the operating conditions.

Condition

The engine is at operating temperature.

Preparatory work

- Stand the motorcycle upright on a horizontal surface.

Main work

Check the engine oil level in the engine oil level viewer.

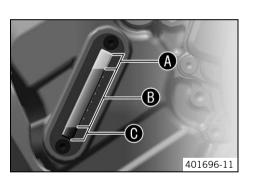


Info

After switching off the engine, wait one minute before checking the level.

The engine oil level should be in the upper part of the range **(B)** of the engine oil level viewer.

- \sim When the engine oil level is in area \mathbf{A} of the engine oil level viewer:
 - Do not add engine oil.
- » When the engine oil level is in area **(B)** of the engine oil level viewer:
 - Engine oil can be added.
- When the engine oil level is in area $oldsymbol{0}$ of the engine oil level viewer:



19.2 Changing the engine oil and oil filter, cleaning the oil screens 4



Warning

Danger of scalding Engine and gear oil get very hot when the motorcycle is ridden.

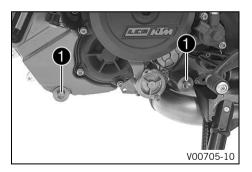
- Wear suitable protective clothing and safety gloves.
- In the event of scalding, rinse the area affected immediately with lukewarm water.



Warning

Environmental hazard Hazardous substances cause environmental damage.

Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

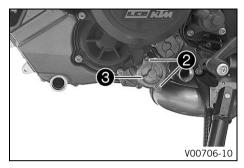


Preparatory work

Remove the engine guard. (♠ p. 167)

Main work

- Stand the motorcycle on its side stand on a horizontal surface.
- Place a suitable container under the engine.
- Remove oil drain plugs 1 with the magnets, O-rings, and oil screens.



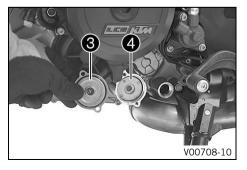
- Remove screws **2**. Remove oil filter cover **3** with the O-ring.



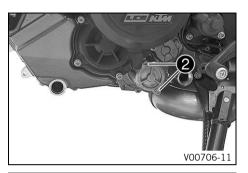
Pull oil filter 4 out of the oil filter housing.

Circlip pliers reverse (51012011000)

- Completely drain the engine oil.
- Thoroughly clean the parts and sealing surface.



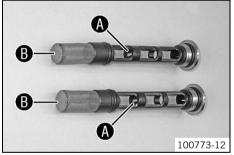
- Insert oil filter 4.
- Lubricate the O-ring of the oil filter cover. Mount oil filter cover 3.



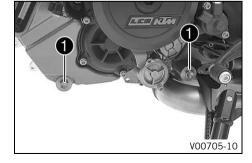
- Mount and tighten screws **2**.

Guideline

Remaining engine screws	M5	6 Nm (4.4 lbf ft)



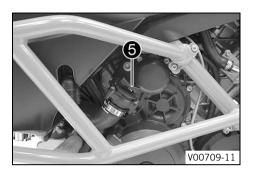
- Thoroughly clean magnets **A** and oil screens **B** of the oil drain plugs.



Mount and tighten oil drain plugs with the magnets, O-rings, and oil screens.
 Guideline

Oil drain plug	M20x1.5	20 Nm (14.8 lbf ft)
----------------	---------	------------------------

19 SERVICE WORK ON THE ENGINE



Add the oil quantity in two separate operations.

Engine oil 3.60 I (3.8 qt.)	Outside temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (🕮 p. 256)	
		Outside temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (의 p. 256)

Remove screw plug **5** and fill in engine oil.

Engine oil (1st quantity) approx. 3.0 I (3.2 qt.)	Outside temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (🙉 p. 256)
	Outside temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (🕮 p. 256)

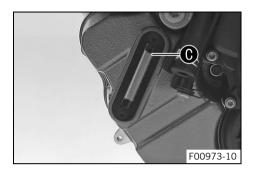
Mount screw plug 6.



Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

- Always make sure there is sufficient ventilation when running the engine.
- Use an effective exhaust extraction system when starting or running the engine in an enclosed space.
- Start the engine and check that it is oil-tight.



- Remove the screw plug and add the remaining engine oil to upper marking
 on the engine oil level viewer.
- Mount the screw plug.



Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

- Always make sure there is sufficient ventilation when running the engine.
- Use an effective exhaust extraction system when starting or running the engine in an enclosed space.
- Start the engine and check that it is oil-tight.

Finishing work

- Check the engine oil level. (
 p. 222)

19.3 Adding engine oil



Info

Too little engine oil or poor-quality engine oil results in premature wear to the engine.

The engine may be damaged if the engine oil level is too high.

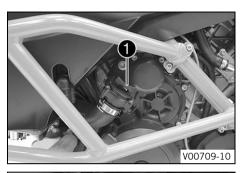
Condition

The engine is at operating temperature.

Preparatory work

- Stand the motorcycle upright on a horizontal surface.

19 SERVICE WORK ON THE ENGINE



Main work

- Remove screw plug 1.



Condition

Outside temperature: ≥ 0 °C (≥ 32 °F)

Engine oil (SAE 10W/50) (p. 256)

Condition

Outside temperature: < 0 °C (< 32 °F)

Engine oil (SAE 5W/40) (p. 256)



Info

In order to achieve optimal engine performance, it is not advisable to mix different engine oils.

KTM recommends changing the engine oil.

Mount the screw plug.



Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

- Always make sure there is sufficient ventilation when running the engine.
- Use an effective exhaust extraction system when starting or running the engine in an enclosed space.
- Start the engine and check that it is oil-tight.

Finishing work

20.1 Cleaning motorcycle

Note

Material damage Components become damaged or destroyed if a pressure cleaner is used incorrectly.

The high pressure forces water into the electrical components, connectors, throttle cables, and bearings, etc. Pressure which is too high causes malfunctions and destroys components.

- Do not direct the water jet directly on to electrical components, connectors, throttle cables or bearings.
- Maintain a minimum distance between the nozzle of the pressure cleaner and the component.

Minimum clearance 60 cm (23.6 in)



Warning

Environmental hazard Hazardous substances cause environmental damage.

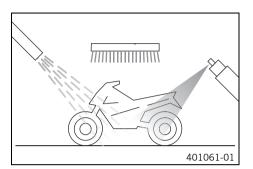
Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.



Info

If you clean the motorcycle regularly, its value and appearance will be maintained over a long period. Avoid direct sunshine on the motorcycle during cleaning.

20 CLEANING, CARE



- Close off the exhaust system to keep water from entering.
- First remove coarse dirt particles with a gentle spray of water.
- Spray very dirty areas with a normal motorcycle cleaner and then clean with a brush.

Motorcycle cleaner (🕮 p. 258)



Info

Use warm water containing normal motorcycle cleaner and a soft sponge. Never apply motorcycle cleaner to a dry vehicle; always rinse the vehicle with water first.

If the vehicle was operated in road salt, clean it with cold water. Warm water would enhance the corrosive effects of salt.

- After rinsing the motorcycle with a gentle spray of water, allow it to dry thoroughly.
- Remove the closure of the exhaust system.



Warning

Danger of accidents Moisture and dirt impair the brake system.

- Brake carefully several times to dry out and remove dirt from the brake linings and the brake discs.
- After cleaning, ride the vehicle a short distance until the engine warms up.



Info

The heat produced causes water at inaccessible locations in the engine and on the brake system to evaporate.

- Push back the protection caps of the handlebar controls to allow any water that has penetrated to evaporate.
- After the motorcycle has cooled off, lubricate all moving parts and bearings.
- Clean the chain. (
 p. 141)

Treat bare metal parts (except for brake discs and exhaust system) with corrosion inhibitor.

Preserving materials for paints, metal and rubber (🕮 p. 259)

- Treat the painted parts with a mild paint polish.

Perfect Finish and high gloss polish for paints (
p. 259)



Info

Do not polish plastic parts that are matte when the vehicle is delivered as this would seriously impair the material quality.

Treat the plastic parts and powder-coated parts with a mild cleaning and care product.

Special cleaner for glossy and matte paint finishes, metal and plastic surfaces (@ p. 259)

Oil the ignition/steering lock, tank lock, and seat lock.

Universal oil spray (🕮 p. 259)

20.2 Checks and maintenance steps for winter operation

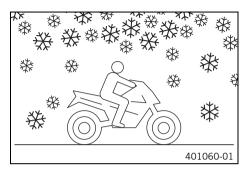


Info

If you use the motorcycle in winter, you must expect salt on the roads. You should therefore take precautions against aggressive road salt.

If the vehicle was operated in road salt, clean it with cold water after riding. Warm water would enhance the corrosive effects of salt.

CLEANING, CARE 20



- Clean the motorcycle. (p. 230)
- Clean the brakes.



Info

After **EVERY** trip on salted roads, thoroughly wash the brake calipers and brake linings with cold water and dry carefully. This should be done after the parts are cooled down and while they are installed.

After riding on salted roads, thoroughly wash the motorcycle with cold water and dry it well.

Treat the engine, the swingarm, and all other bare or galvanized parts (except brake discs) with a wax-based corrosion inhibitor.



Info

Corrosion inhibitor must not come into contact with the brake discs. This would severely lower the braking effect.

Clean the chain. (p. 141)

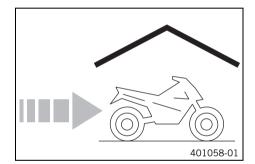
21 STORAGE 234

21.1 Storage



Info

If you plan to garage the motorcycle for a longer period, perform the following steps or have them performed. Before storing the motorcycle, check all parts for function and wear. If service, repairs or replacements are necessary, you should do this during the storage period (less workshop overload). In this way, you can avoid long workshop waiting times at the start of the new season.



 When refueling for the last time before taking the motorcycle out of service, add fuel additive.

Fuel additive (🕮 p. 258)

- Clean the motorcycle. (
 p. 230)
- Change the engine oil and oil filter and clean the oil screens. ◄ (□ p. 223)
- Check the coolant fill level and antifreeze.
- Remove the battery. 🔌 🕮 p. 199)

Guideline

Storage temperature of battery without	0 35 °C (32 95 °F)
direct sunshine	

- Recharge the battery. ♣ (♠ p. 203)
- Store the vehicle in a dry location that is not subject to large fluctuations in temperature.
- Cover the vehicle with a tarp or similar cover that is permeable to air.

21 STORAGE 235

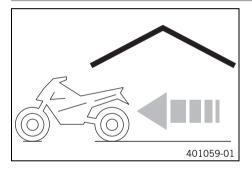


Info

Do not use non-porous materials since they prevent humidity from escaping, thus causing corrosion.

Avoid running the engine for a short time only. Since the engine cannot warm up properly, the water vapor produced during combustion condenses and causes valves and the exhaust system to rust.

21.2 Preparing for use after storage



- Remove the vehicle from the center stand. (p. 138)
- Install the battery. ◀ (

 p. 201)



Info

If the battery was removed, the time and date must be set.

- Take a test ride.

Faults	Possible cause	Action
The combination instrument shows	Fuse 1 blown	 Change the fuses in the fuse box. (
nothing on the display	Main fuse burned out	– Change the main fuse. (🕮 p. 208)
	The battery is discharged	– Recharge the battery. ◀ (興 p. 203)
		 Check the quiescent current.
The engine does not turn if the emer-	Operating error	 Carry out the start procedure. (■ p. 110)
gency OFF switch/electric starter but- ton is pressed into the lower position	The battery is discharged	 Recharge the battery. ◄ (♠ p. 203)
ton is pressed into the lower position		 Check the quiescent current.
	Safety start system is faulty	 Read out the fault memory using the KTM diagnostics tool. <
	Electronic fault	 Read out the fault memory using the KTM diagnostics tool. ▲
Engine turns only if the clutch lever is	The vehicle is in gear	 Shift the transmission to idle ■.
drawn	Safety start system is faulty	 Read out the fault memory using the KTM diagnostics tool. ▲
Engine turns although a gear is engaged	Safety start system is faulty	 Read out the fault memory using the KTM diagnostics tool. <
Engine turns but does not start	The plug-in connection of the fuel hose connection is not connected	Connect the plug-in connection of the fuel line.
	Fault in fuel injection system	 Read out the fault memory using the KTM diagnostics tool.
	Fuel quality is insufficient	 Add suitable fuel.
Engine dies during the trip	Lack of fuel	- Refuel. (₽ p. 123)
	Fault in fuel injection system	 Read out the fault memory using the KTM diagnostics tool.
Malfunction indicator lamp lights up or flashes	Fault in fuel injection system	 Read out the fault memory using the KTM diagnostics tool. <

Faults	Possible cause	Action	
The ABS indicator lamp lights up	ABS fuse is blown	- Change the fuses in the fuse box. (🕮 p. 210)	
	Wheel speeds of front and rear wheels differ greatly	Stop, switch off the ignition, start again.	
	Malfunction in ABS	 Read out the fault memory using the KTM diagnostics tool. 	
High oil consumption	Engine oil level too high	- Check the engine oil level. (🕮 p. 222)	
	Engine oil too thin (low viscosity)	 Change the engine oil and oil filter and clean the oil screens. ³ (♠ p. 223) 	
The battery is discharged	A power consumer is connected to the socket/ACC1.	Disconnect the power consumer from the socket/ACC1.	
		 Recharge the battery. ◀ (興 p. 203) 	
	The hazard warning flasher is switched	 Switch off the hazard warning flasher. 	
	on	 Recharge the battery.	
	Battery is not charged by alternator	 Check the charging voltage. 	
	Ignition was not switched off when vehicle was parked	- Recharge the battery. ◀ (의 p. 203)	

23.1 Engine

Design	2-cylinder 4-stroke Otto engine, 75° V arrangement, water-cooled
Displacement	1,301 cm ³ (79.39 cu in)
Stroke	71 mm (2.8 in)
Bore	108 mm (4.25 in)
Compression ratio	13.1:1
Idle speed	1,300 1,500 rpm
Control	DOHC, 4 valves per cylinder, chain-driven
Valve - valve plate diameter	
Intake	42 mm (1.65 in)
Exhaust	34 mm (1.34 in)
Valve clearance	
Exhaust at: 20 °C (68 °F)	0.25 0.30 mm (0.0098 0.0118 in)
Intake at: 20 °C (68 °F)	0.10 0.15 mm (0.0039 0.0059 in)
Crankshaft bearing	Sleeve bearing
Conrod bearing	Sleeve bearing
Piston	Forged light alloy
Piston ring	1 upper compression (rectangular) ring, 1 lower compression ring, 1 oil scraper ring
Engine lubrication	Pressure circulation lubrication with three rotary pumps
Primary transmission	40:76
Clutch	Antihopping clutch in oil bath/hydraulically operated
Transmission	6-speed claw gears
Transmission ratio	·

1st gear	12:35
2nd gear	15:32
3rd gear	18:30
4th gear	20:27
5th gear	24:27
6th gear	35:32
Mixture preparation	Electronically controlled fuel injection
Ignition system	Contactless controlled fully electronic ignition with digital ignition adjustment
Alternator	12 V, 450 W
Spark plug	<u>.</u>
Inside spark plug	NGK LKAR9BI-10
Outside spark plug	NGK LMAR7DI-10
Electrode gap, spark plug	1.0 mm (0.039 in)
Cooling	Water cooling, permanent circulation of coolant by water pump
Cold start device	Electric starter

239

23.2 Engine tightening torques

Screw plug		10 Nm (7.4 lbf ft)	_
Screw, damping plate	EJOT ALtracs® M6x14	10 Nm (7.4 lbf ft)	Loctite® 243 TM
Screw, retaining bracket, valve cover, rear	EJOT ALtracs® M6x10	10 Nm (7.4 lbf ft)	-
Hose clip, intake flange	M4	1.5 Nm (1.11 lbf ft)	-
Oil nozzle	M5	2 Nm (1.5 lbf ft)	Loctite® 243 TM
Remaining engine screws	M5	6 Nm (4.4 lbf ft)	-

Screw, bearing retainer	M5	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, bearing shells retaining bracket	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, engine oil level viewer	M5	4 Nm (3 lbf ft)	-
Screw, gear sensor	M5	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, pulse generator	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, resonator	M5	8 Nm (5.9 lbf ft)	Loctite® 243™
Swing angle sensor screw	M5	5 Nm (3.7 lbf ft)	Loctite® 243™
Bleeder screw, water pump cover	M6	10 Nm (7.4 lbf ft)	-
Freewheel ring bolt	M6 – 10.9	15 Nm (11.1 lbf ft)	Loctite® 648™
Nut, cylinder head	M6	9 Nm (6.6 lbf ft)	-
Plug, vacuum connection	M6	5 Nm (3.7 lbf ft)	Loctite® 243™
Remaining engine screws	M6	10 Nm (7.4 lbf ft)	-
Screw, camshaft bearing support	M6 – 10.9	10 Nm (7.4 lbf ft)	-
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	-
Screw, clutch spring	M6	12 Nm (8.9 lbf ft)	-
Screw, coolant connection on cylinder head	M6	8 Nm (5.9 lbf ft)	Loctite® 243™
Screw, engine case	M6x60	10 Nm (7.4 lbf ft)	-
Screw, engine case	M6x80	10 Nm (7.4 lbf ft)	-
Screw, engine case	M6x90	10 Nm (7.4 lbf ft)	-
Screw, freewheel holder	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, locking lever	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, oil pump cover	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, shift drum locating	M6	18 Nm (13.3 lbf ft)	Loctite [®] 243™
Screw, shift lever	M6	18 Nm (13.3 lbf ft)	Loctite® 243™

M6	10 Nm (7.4 lbf ft)	_
M6	10 Nm (7.4 lbf ft)	Loctite® 243™
M6	10 Nm (7.4 lbf ft)	-
M6	10 Nm (7.4 lbf ft)	-
M6	10 Nm (7.4 lbf ft)	Loctite [®] 243 [™]
M6	8 Nm (5.9 lbf ft)	-
M6x0.75	4 Nm (3 lbf ft)	Loctite [®] 243 [™]
M8	15 Nm (11.1 lbf ft)	-
M8 – 10.9	Step 1 10 Nm (7.4 lbf ft) Step 2 18 Nm (13.3 lbf ft)	-
M8 – 10.9	Step 1 8.5 Nm (6.27 lbf ft) Step 2 14.5 Nm (10.7 lbf ft)	Only applies when using: Hex key bit (61229025000)
M8	18 Nm (13.3 lbf ft)	-
M8	15 Nm (11.1 lbf ft)	Loctite [®] 243 [™]
M8	10 Nm (7.4 lbf ft)	-
M8	15 Nm (11.1 lbf ft)	Loctite [®] 243 [™]
M10	45 Nm (33.2 lbf ft)	-
M10x1	10 Nm (7.4 lbf ft)	-
M10x1	15 Nm (11.1 lbf ft)	-
M10x1	10 Nm (7.4 lbf ft)	-
	M6 M6 M6 M6 M6 M6 M6 M6 M6 M8 M8 M8 – 10.9 M8 M8 M8 M8 M8 M8 M8 M10 M10x1 M10x1	M6 10 Nm (7.4 lbf ft) M6 8 Nm (5.9 lbf ft) M6 8 Nm (3 lbf ft) M8 15 Nm (11.1 lbf ft) M8 – 10.9 Step 1 10 Nm (7.4 lbf ft) Step 2 18 Nm (13.3 lbf ft) M8 – 10.9 Step 1 8.5 Nm (6.27 lbf ft) Step 2 14.5 Nm (10.7 lbf ft) M8 15 Nm (11.1 lbf ft) M8 15 Nm (11.1 lbf ft) M8 15 Nm (11.1 lbf ft) M10 45 Nm (33.2 lbf ft) M10x1 10 Nm (7.4 lbf ft) M10x1 15 Nm (11.1 lbf ft)

Screw, conrod bearing	M10x1	Step 1 25 Nm (18.4 lbf ft) Step 2 30 Nm (22.1 lbf ft) Step 3 90°	_
Screw, timing chain tensioner release	M10x1	10 Nm (7.4 lbf ft)	-
Spark plug	M10x1	11 Nm (8.1 lbf ft)	-
Cylinder head screw	M11x1.5	Tightening sequence: Using a crisscross pattern Step 1 15 Nm (11.1 lbf ft) Step 2 30 Nm (22.1 lbf ft) Step 3 90° Step 4 90°	Lubricated with engine oil
Coolant temperature sensor	M12x1.5	12 Nm (8.9 lbf ft)	-
Rotor screw	M12x1.5	115 Nm (84.8 lbf ft)	-
Spark plug	M12x1.5	18 Nm (13.3 lbf ft)	-
Nut of engine sprocket	M20x1.5	100 Nm (73.8 lbf ft)	Loctite® 243™
Oil drain plug	M20x1.5	20 Nm (14.8 lbf ft)	-
Nut, inner clutch hub	M22x1.5	120 Nm (88.5 lbf ft)	Loctite® 243™
Plug, timing-chain tensioner	M24x1.5	25 Nm (18.4 lbf ft)	-
Screw in alternator cover	M24x1.5	8 Nm (5.9 lbf ft)	-
Nut, primary gear	M33LHx1.5	130 Nm (95.9 lbf ft)	Loctite® 243™

23.3 Capacities

23.3.1 Engine oil

Engine oil 3.60 I (3.8 qt.)	3.60 l (3.8 qt.)	Outside temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (🙉 p. 256)
		Outside temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (🕮 p. 256)

23.3.2 **Coolant**

Coolant	2.40 l (2.54 qt.)	Coolant (@ p. 255)

23.3.3 Fuel

Total fuel tank capacity, approx.	23 (6.1 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (🗐 p. 257)
Fuel reserve, approx.		3.5 I (3.7 qt.)

23.4 Chassis

Frame	Lattice frame made of chrome molybdenum steel tubing, powder-coated
Fork	WP Performance Systems 4860 ROTA SPLIT
Shock absorber	WP Performance Systems 4618 DCC PA
Suspension travel	
Front	220 mm (8.66 in)
Rear	220 mm (8.66 in)
Brake system	

244

Front	Double disc brake with radially mounted four-pot brake calipers, floating brake discs
Rear	Single disc brake with dual-piston brake caliper, floating brake disc
Brake discs - diameter	•
Front	320 mm (12.6 in)
Rear	267 mm (10.51 in)
Brake discs - wear limit	•
Front	4 mm (0.16 in)
Rear	4.5 mm (0.177 in)
Tire air pressure, solo/with passenger/full payload	·
Front: with cold tires	2.4 bar (35 psi)
Rear: with cold tires	2.9 bar (42 psi)
Secondary drive ratio	17:42
Chain	5/8 x 5/16" (525) X-ring
Steering head angle	64°
Wheelbase	1,580±15 mm (62.2±0.59 in)
Seat height, unloaded	890 mm (35.04 in)
Ground clearance, unloaded	250 mm (9.84 in)
Weight without fuel, approx.	229.3 kg (505.5 lb.)
Maximum permissible front axle load	159 kg (351 lb.)
Maximum permissible rear axle load	291 kg (642 lb.)
Maximum permissible total weight	450 kg (992 lb.)

23.5 Electrical system

Battery	YTZ14S	Battery voltage: 12 V Nominal capacity: 11.2 Ah maintenance-free
Battery for Race-on key	CR 2032	3 V
Fuse	58011109110	10 A
Fuse	58011109115	15 A
Fuse	58011109125	25 A
Fuse	58011109130	30 A
Fuse	58011109140	40 A

Low beam	LED
High beam	LED
Parking light	LED
Instrument lights and indicator lamps	LED
Turn signal	LED
Tail light	LED
Brake light	LED
License plate lamp	LED

23.6 Tires

Validity	Front tires	Rear tires
(Super Adventure R EU)	90/90 V 21 M/C (54V) TL Continental ContiTrailATTACK 2	150/70 ZR 18 M/C 70W TL Continental ContiTrailATTACK 2
(All TKC models)	90/90 - 21 M/C 54T M+S TL Continental TKC 80 Twinduro	150/70 B 18 M/C 70Q M+S TL Continental TKC 80 Twinduro

The tires specified represent one of the possible series production tires. Additional information is available in the Service section under: http://www.ktm.com

23.7 Fork

Fork article number	14.18.8Q.25
Fork	WP Performance Systems 4860 ROTA SPLIT
Compression damping	
Comfort	17 clicks
Standard	12 clicks
Sport	7 clicks
Full payload	7 clicks
Rebound damping	
Comfort	17 clicks
Standard	12 clicks
Sport	7 clicks
Full payload	7 clicks
Spring preload - Preload Adjuster	
Comfort	2 turns

Standard		5 turns
Sport		5 turns
Full payload		8 turns
Spring length with preload space	r(s)	577 mm (22.72 in)
Spring rate		
Soft		5.9 N/mm (33.7 lb/in)
Medium (standard)		6.5 N/mm (37.1 lb/in)
Hard		7.0 N/mm (40 lb/in)
Fork length		920 mm (36.22 in)
Air chamber length		85±35 mm (3.35±1.38 in)
Fork oil per fork leg	715 ml (24.17 fl. oz.)	Fork oil (SAE 4) (48601166S1) (🕮 p. 257)

23.8 Shock absorber

Shock absorber article number	15.18.7Q.25
Shock absorber	WP Performance Systems 4618 DCC PA
Compression damping, low-speed	
Comfort	20 clicks
Standard	15 clicks
Sport	10 clicks
Full payload	10 clicks
Compression damping, high-speed	
Comfort	1.5 turns
Standard	1.5 turns
Sport	1 turn

Full payload	1 turn			
Rebound damping				
Comfort	20 clicks			
Standard	15 clicks			
Sport	10 clicks			
Full payload	10 clicks			
Spring preload				
Comfort	2 turns			
Standard	2 turns			
Sport	2 turns			
Full payload	18 turns			
Spring rate				
Soft	170 N/mm (971 lb/in)			
Medium (standard)	180 N/mm (1,028 lb/in)			
Hard	190 N/mm (1,085 lb/in)			
Spring length	205 mm (8.07 in)			
Gas pressure	10 bar (145 psi)			
Static sag	25 mm (0.98 in)			
Riding sag	55 mm (2.17 in)			
Fitted length	408 mm (16.06 in)			
Shock absorber fluid (🕮 p. 257)	SAE 2.5			

23.9 Chassis tightening torques

Nut, tire pressure sensor (All EU/AU models)	ISO 10V2	12 Nm (8.9 lbf ft)	Loctite® 2701 TM
Nut, valve (Super Adventure R TKC JP)	ISO 10V2	12 Nm (8.9 lbf ft)	Loctite® 2701™
Screw, combination switch, left		5 Nm (3.7 lbf ft)	
Screw, headlight	EJOT ALtracs® 60x20	10 Nm (7.4 lbf ft)	-
Screw, headlight holder	EJOT ALtracs® 50x12	7 Nm (5.2 lbf ft)	-
Screw, fixed grip, left	M4	2 Nm (1.5 lbf ft)	-
Screw, side stand switch	M4	2 Nm (1.5 lbf ft)	-
Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)	-
Screw for throttle grip	M5	3.5 Nm (2.58 lbf ft)	-
Screw, brake line holder on frame	M5	2 Nm (1.5 lbf ft)	-
Screw, brake line holder on swingarm	M5	5 Nm (3.7 lbf ft)	-
Screw, cable channel	M5	5 Nm (3.7 lbf ft)	-
Screw, cable guide, wheel speed sensor, rear	M5	3 Nm (2.2 lbf ft)	-
Screw, chain sliding guard	M5	5 Nm (3.7 lbf ft)	-
Screw, combination instrument	M5	4.5 Nm (3.32 lbf ft)	-
Screw, combination switch, right	M5	5 Nm (3.7 lbf ft)	-
Screw, cover part	M5	3.5 Nm (2.58 lbf ft)	-
Screw, filler cap	M5	3 Nm (2.2 lbf ft)	
Screw, foot brake lever stub	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243 [™]
Screw, fuel level sensor	M5	3 Nm (2.2 lbf ft)	-
Screw, heat guard on main silencer	M5	4 Nm (3 lbf ft)	-

	1	1	<u> </u>
Screw, wind shield	M5	3.5 Nm (2.58 lbf ft)	-
Spoke nipple	M5	5 Nm (3.7 lbf ft)	_
Ground fitting on frame	M6	6 Nm (4.4 lbf ft)	_
Nut, ABS unit fixation	M6	8 Nm (5.9 lbf ft)	-
Remaining chassis nuts	M6	10 Nm (7.4 lbf ft)	-
Remaining chassis screws	M6	10 Nm (7.4 lbf ft)	-
Screw, angle sensor	M6	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)	-
Screw, bushing	M6	4 Nm (3 lbf ft)	-
Screw, cable channel	M6	5 Nm (3.7 lbf ft)	-
Screw, chain guide	M6	5 Nm (3.7 lbf ft)	-
Screw, clutch assembly	M6	5 Nm (3.7 lbf ft)	-
Screw, cooler retaining bracket	M6	7 Nm (5.2 lbf ft)	-
Screw, cover part	M6	6 Nm (4.4 lbf ft)	-
Screw, engine guard	M6	10 Nm (7.4 lbf ft)	-
Screw, exhaust clamp	M6	8 Nm (5.9 lbf ft)	-
Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	Loctite® 243™
Screw, fuel pump	M6	6 Nm (4.4 lbf ft)	-
Screw, fuel tank	M6	10 Nm (7.4 lbf ft)	-
Screw, fuel tap	M6	6 Nm (4.4 lbf ft)	-
Screw, lower rear part	M6	6 Nm (4.4 lbf ft)	-
Screw, magnetic holder on side stand	M6	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	Loctite® 243™
Screw, retaining bracket, angle sensor	M6	10 Nm (7.4 lbf ft)	-
			•

I 0 11	N.C	C.N. (4.4.11.5.51)	
Screw, voltage regulator	M6	6 Nm (4.4 lbf ft)	_
Screw, wheel speed sensor, front	M6	10 Nm (7.4 lbf ft)	-
Screw, wheel speed sensor, rear	M6	10 Nm (7.4 lbf ft)	_
Remaining chassis nuts	M8	25 Nm (18.4 lbf ft)	-
Remaining chassis screws	M8	25 Nm (18.4 lbf ft)	-
Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)	-
Screw, foot brake lever	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, fork stub	M8	15 Nm (11.1 lbf ft)	-
Screw, front footrest bracket	M8	25 Nm (18.4 lbf ft)	Loctite [®] 243™
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	_
Screw, ignition lock (tamper-proof screw)	M8	25 Nm (18.4 lbf ft)	Loctite [®] 243™
Screw, rear footrest bracket	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, steering damper	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, steering damper clamp	M8	12 Nm (8.9 lbf ft)	-
Screw, steering stem	M8	20 Nm (14.8 lbf ft)	-
Screw, suitcase hook	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
Screw, top triple clamp	M8	20 Nm (14.8 lbf ft)	-
Engine carrying screw	M10	45 Nm (33.2 lbf ft)	-
Remaining chassis nuts	M10	45 Nm (33.2 lbf ft)	_
Remaining chassis screws	M10	45 Nm (33.2 lbf ft)	-
Screw, front brake caliper	M10	45 Nm (33.2 lbf ft)	Loctite® 243™
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	Loctite® 243™
Screw, side stand	M10	35 Nm (25.8 lbf ft)	Loctite® 243™
Screw, side stand bracket	M10	45 Nm (33.2 lbf ft)	Loctite® 243™

Banjo bolt, brake line	M10x1	25 Nm (18.4 lbf ft)	_
Nut, rear sprocket screw	M10x1.25	50 Nm (36.9 lbf ft)	Loctite [®] 243™
Lambda sensor	M12x1.25	25 Nm (18.4 lbf ft)	-
Screw, bottom shock absorber	M14x1.5	80 Nm (59 lbf ft)	Thread greased
Screw, top shock absorber	M14x1.5	80 Nm (59 lbf ft)	Thread greased
Nut, socket	M18x1	4 Nm (3 lbf ft)	-
Nut, swingarm pivot	M19x1.5	130 Nm (95.9 lbf ft)	Thread greased
Screw, steering head, top	M22x1.5	18 Nm (13.3 lbf ft)	-
Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)	Thread greased
Screw, front wheel spindle	M25x1.5	45 Nm (33.2 lbf ft)	Thread greased

24.1 EU declaration of conformity



Info

The functional and equipment scope is model-dependent and may not include all wireless systems referred to.

COBO SpAhereby declares that the **BT-ROUTER** wireless system conforms with the relevant guidelines. The full text of the EU Declaration of Conformity is available at the following Internet address.

Certification website: http://www.ktm.com/btrouter

KTM AGhereby declares that the **KTM RACE ON system** wireless system conforms with the relevant guidelines. The full text of the EU Declaration of Conformity is available at the following Internet address.

Certification website: http://www.ktm.com/ktm-race-on-system

KTM AGhereby declares that the **LC8 DASHBOARD** wireless system conforms with the relevant guideline. The full text of the EU Declaration of Conformity is available at the following Internet address.

Certification website: http://www.ktm.com/lc8-dashboard

Schrader Electronics Ltdhereby declares that **Tyre Pressure Monitoring Sensor "RDC3"** wireless system conforms with the relevant guideline. The full text of the EU Declaration of Conformity is available at the following Internet address.

Certification website: http://www.ktm.com/tpms

25.1 Information on open source software

Some vehicle components use open source software.

The source code of the software used and other information are available online.

Overview: http://www.ktm.com/ktm-oss



Info

Due to the file size, the download may time a long time.

Depending on the Internet provider, costs may arise due to the data volume.

Brake fluid DOT 4 / DOT 5.1

Standard/classification

DOT

Guideline

 Use only brake fluid that complies with the specified standard (see specifications on the container) and that exhibits the corresponding properties.

Recommended supplier

Castrol

REACT PERFORMANCE DOT 4

Motorex®

- Brake Fluid DOT 5.1

Coolant

Guideline

- Only use high-grade, silicate-free coolant with corrosion inhibitor additive for aluminum motors. Low grade and unsuitable antifreeze
 causes corrosion, deposits and frothing.
- Do not use pure water as only coolant is able to meet the requirements needed in terms of corrosion protection and lubrication properties.
- Only use coolant that complies with the requirements stated (see specifications on the container) and that has the relevant properties.

Antifreeze protection to at least	-25 °C (-13 °F)
-----------------------------------	-----------------

The mixture ratio must be adjusted to the necessary antifreeze protection. Use distilled water if the coolant needs to be diluted.

The use of premixed coolant is recommended.

26 SUBSTANCES 256

Observe the coolant manufacturer specifications for antifreeze protection, dilution and miscibility (compatibility) with other coolants.

Recommended supplier

Motorex®

- COOLANT M3.0

Engine oil (SAE 10W/50)

Standard/classification

- SAE (□ p. 260) (SAE 10W/50)

Guideline

 Use only engine oils that comply with the specified standards (see specifications on the container) and that possess the corresponding properties.

Fully synthetic engine oil

Recommended supplier

Motorex®

- Power Synt 4T

Engine oil (SAE 5W/40)

Standard/classification

- SAE (♥ p. 260) (SAE 5W/40)

Guideline

 Use only engine oils that comply with the specified standards (see specifications on the container) and that possess the corresponding properties.

Synthetic engine oil

26 SUBSTANCES 257

Recommended supplier

Motorex®

- Power Synt 4T

Fork oil (SAE 4) (48601166S1)

Standard/classification

– SAE (🕮 p. 260) (SAE 4)

Guideline

Use only oils that comply with the specified standards (see specifications on the container) and that exhibit the corresponding properties.

Shock absorber fluid (SAE 2.5) (50180751S1)

Standard/classification

Guideline

Use only oils that comply with the specified standards (see specifications on the container) and that exhibit the corresponding properties.

Super unleaded (ROZ 95/RON 95/PON 91)

Standard/classification

DIN EN 228 (ROZ 95/RON 95/PON 91)

Guideline

- Only use unleaded super fuel that matches or is equivalent to the specified fuel grade.
- Fuel with an ethanol content of up to 10 % (E10 fuel) is safe to use.



Info

Do not use fuel containing methanol (e. g. M15, M85, M100) or more than 10 % ethanol (e. g. E15, E25, E85, E100).

Chain cleaner

Recommended supplier Motorex®

- Chain Clean

Chain lube for road use

Guideline

Recommended supplier Motorex®

Chainlube Road

Fuel additive

Recommended supplier Motorex®

- Fuel Stabilizer

Long-life grease

Recommended supplier Motorex®

- Bike Grease 2000

Motorcycle cleaner

Recommended supplier Motorex®

- Moto Clean

Perfect Finish and high gloss polish for paints

Recommended supplier Motorex®

- Moto Polish & Shine

Preserving materials for paints, metal and rubber

Recommended supplier Motorex®

- Moto Protect

Special cleaner for glossy and matte paint finishes, metal and plastic surfaces

Recommended supplier Motorex®

Quick Cleaner

Universal oil spray

Recommended supplier Motorex®

Joker 440 Synthetic

28 STANDARDS 260

JASO T903 MA

Different technical development directions required a separate specification for 4-stroke motorcycles – the **JASO T903 MA** standard. Earlier, engine oils from the automobile industry were used for 4-stroke motorcycles because there was no separate motorcycle specification.

Whereas long service intervals are demanded for automobile engines, the focus for motorcycle engines is on high performance at high engine speeds.

In most motorcycle engines, the transmission and the clutch are lubricated with the same oil.

The JASO MA standard meets these special requirements.

SAE

The SAE viscosity classes were defined by the Society of Automotive Engineers and are used for classifying oils according to their viscosity. The viscosity describes only one property of oil and says nothing about quality.

ABS	ABS	Safety system that prevents locking of the wheels when driving straight ahead without the influence of lateral forces
ATIR	Automatic Turn Indicator Reset	Software, which automatically switches the indicator off according to a time or travel distance counter
DRL	Daytime Running Light	Light, which enhances the visibility of the vehicle during the day but is not focused, and in contrast to low beam does not illuminate the road surface
HHC	Hill Hold Control	Assist, which prevents the vehicle from rolling backwards on an incline
	KTM RACE ON	System which releases ignition, steering lock and filler cap via a remote key with transponder
MSR	Motor Slip Regulation	Auxiliary function of the motor control, which prevents rear wheel locking with excessive engine braking effect, by lightly opening the throttle valve
MSC	Motorcycle Stability Control	The is an auxiliary function for the ABS, which can prevent blocking and slipping of the wheels during braking on an inclined position, within the physical limitations
MTC	Motorcycle Traction Control	Auxiliary function of the motor control, which reduces engine torque with spinning rear wheel
OBD	On-board diagnosis	Vehicle system that monitors emission- and safety-related values
	Quickshifter+	Engine electronics function for shifting up and down without clutch actuation
TPMS	Tire Pressure Monitoring System	Safety system, which monitors tire air pressure, with the help of sensors in the tire, and displays it to the rider

Art. no.	Article number
ca.	circa
cf.	compare
e.g.	for example
etc.	et cetera
i.a.	inter alia
no.	number
poss.	possibly

31.1 Red symbols

Red symbols indicate an error condition that requires immediate intervention.

9=>;	The oil pressure warning lamp lights up red – The oil pressure is too low.

31.2 Yellow and orange symbols

Yellow and orange symbols indicate an error condition that requires prompt intervention. Active driving aids are also represented by yellow or orange symbols.

	Race-on indicator lamp lights up/flashes yellow/orange/red – Status or error messages relating to Race-on system/alarm system.
\triangle	The general warning lamp lights up yellow – An operating safety (warning) message was detected. This is also shown on the display.
(ABS))	ABS indicator lamp lights up yellow – Status or error messages relating to ABS. The ABS indicator lamp flashes if the ABS mode Offroad is enabled.
(<u>rc</u>)	TC indicator lamp lights up/flashes yellow – The motorcycle traction control is not enabled or is currently intervening. The TC Indicator lamp also lights up if an error is detected. In addition, the TC indicator lamp flashes if the HHC (🕮 p. 113) (optional) is active.
*(5)	The cruise control system lamp lights up yellow – The cruise control system function is switched on, but the speed control is not active.
亡	Malfunction indicator lamp lights up yellow – The OBD has detected an emission- or safety-critical fault.

31.3 Green and blue symbols

Green and blue symbols reflect information.

(The left turn signal indicator lamp flashes green with a steady rhythmic flash – The left turn signal is switched on.
	The high beam indicator lamp lights up blue – The high beam is switched on.
N	The idle indicator lamp lights up green – The transmission is in idle.
*(5)	The cruise control system lamp lights up green – The cruise control system function is switched on and the speed control is active.
→	The right turn signal indicator lamp flashes green with a steady rhythmic flash – The right turn signal is switched on.

	G	
ABS	Capacity coolant	242
Accessories		
Antilock brake system	engine oil	•
Auxiliary substances	fuel	•
В	Center stand	45
	Chain	
Battery	checking	145
installing	checking for dirt	140
recharging	cleaning	141
removing	Chain tension	
Brake discs	adjusting	143
checking	checking	142
Brake fluid	Chassis number	
front brake, adding	Clutch	
rear brake, adding178	fluid level, checking/correcting	1/10
Brake fluid level		
front brake, checking	Clutch lever	
rear brake, checking	basic position, adjusting	
Brake linings	Combination instrument	46-52, 54-91
front brake, checking	ABS	
rear brake, checking	activation and test	
_	adjusting tilt	
Brake system	Audio	
Brakes	Consumption	
Brakes, applying	coolant temperature indicator	
	Cornering Light Test	
	cruise control indicator	58

day-night mode	Quick Selector 2	80
display	Quick Selector 2 display	63
display, ambient temperature	Quick Shift + (optional)	87
Distance	Ride Mode	75, 220
DRL	Ride Mode display	59
Extra Functions	Seat heating (optional)	60
Favourites	Service	90
Favourites display62	Settings	66
fuel level display61	shift warning light	57
General Info	speed	56, 58
heated grip (optional)	telephony	70
Heated Grips (optional)	Temp	81
Heated Seat (optional)	time	62
Heated Seat Pas (optional)89	TPMS	72
Heated Seat Rid (optional)88	Trip 1	71
HHC (optional)	Trip 2	71
indicator lamps50	warning notes	48
Info	warning of icy roads	49
KTM MY RIDE	Warnings	74
Language	Combination switch	
menu64	left side	27
MTC	overview left side	
MTC+MSR (optional)77	overview right	32
overview	right	
Pairing	Coolant level	
Preferences	checking in the compensating tank	216
Pressure 82	correcting in the compensating tank	
Quick Selector 1	· · ·	
Quick Selector 1 display	Cornering headlight	199

266

Crash bar installing 169 removing 168	Engine oil level checking
Cruise control system operation	checking
Customer service	F
D	Figures
Daytime running light	Filler cap closing
Diagnostics connector	Foot brake lever
Electric starter button	Footrests adjusting 96 Fork 130
Engine running in	compression damping, adjusting
Engine guard installing	Fork part number
Engine oil adding	removing

Fuel cocks	L
Fuses in fuse box, changing	Light switch
G	Luggage rack plate
Grab handles	M
Н	Main fuse
Hand brake lever	changing
basic position, adjusting95	Mask spoiler
Handlebar position	installing
adjusting	removing
Hazard warning flasher	Misuse
Hazard warning flasher switch	Motorcycle
Headlight	cleaning
daytime running light	Motorcycle traction control
Headlight setting	MTC 220
checking	0
Horn button	Oil filter
	changing223
Immobilizer	Oil screens cleaning
Intended use	Open source
K	information
Key number	Operating substances 15 Owner's Manual 14

P	Riding 113
Parking	starting off
Preparing for use	S
advice on first use	Safe operation 12 Seat mounting 140
Protective clothing	removing
Q	Seat lock
Quickshifter+	Service
R	Shift lever
Race-on button 34 Race-on key 35 battery, changing 207	basic position, adjusting
Rear hub rubber dampers checking	adjusting
Rear sprocket checking	Shock absorber
Rear wheel installing 189 removing 187	high-speed compression damping, adjusting
Refueling	spring pretension, adjusting
fuel	Shock absorber article number
Rider footrests	Side cover, front

269

270

removing	electrical system245
Side stand	engine
Socket for electrical accessories	engine tightening torques
Spare parts	fork
Spoke tension checking	shock absorber 247 tires 246
Starting110Steering damper article number25	Throttle grip
Steering head bearing play checking	adjusting
Steering lock 34 Stopping 120 Storage 234	checking
Storage compartment	Transport
closing 40 opening 40 USB socket 37	Triple clamp cover, bottom installing
Suspension setting	Troubleshooting
	Tubeless tire system
Tank coverinstalling	Type label
Technical data capacities	USB socket

chassis tightening torques249

V
Vehicle loading 107 raising with the center stand 138 removing from the center stand 138
View of vehicle front left 18 rear right 20
W
Warning of icy roads
Wind shield installing
Windshield adjusting
Winter operation checks and maintenance steps
Work rules





3213541en 01/2017







