

## 1290 Super Duke R

Art. no. 3213534en



**KTM**



# DEAR KTM CUSTOMER

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!

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 delete 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.

© 2017 KTM Sportmotorcycle GmbH, Mattighofen Austria  
All rights reserved



3213534en

04/2017

# DEAR KTM CUSTOMER

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

KTM Sportmotorcycle GmbH  
5230 Mattighofen, Austria

This document is valid for the following models:

1290 Super Duke R EU (F9903Q9, F9903Q2)


1290 Super Duke R AU (F9960Q9, F9960Q2)

1290 Super Duke R JP (F9986Q2)





# TABLE OF CONTENTS

1	MEANS 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	SAFETY ADVICE.....	10	6	CONTROLS.....	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	Menu switch.....	28
2.7	Protective clothing .....	13	6.7	Turn signal switch.....	29
2.8	Work rules.....	13	6.8	Horn button.....	30
2.9	Environment.....	13	6.9	Cruise control system tip switch .....	30
2.10	Owner's Manual .....	14	6.10	Combination switch, right .....	32
3	IMPORTANT NOTES.....	15	6.11	Hazard warning flasher switch .....	33
3.1	Manufacturer and implied 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 .....	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	Opening the filler cap.....	36
4	VIEW OF VEHICLE .....	18	6.18	Closing the filler cap .....	38
4.1	View of vehicle, front left (example) .....	18	6.19	Seat lock.....	38
4.2	View of vehicle, rear right (example) .....	20	6.20	Baggage lugs .....	39
5	SERIAL NUMBERS .....	22	6.21	Tool set.....	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	Helmet lock.....	41
5.4	Engine number .....	24	6.25	Supporting strap .....	41













# TABLE OF CONTENTS

6.26	Passenger footrests .....	42	7.13.12	Service .....	61
6.27	Shift lever .....	42	7.13.13	Clock/Date .....	61
6.28	Foot brake lever .....	43	7.13.14	Shift Light .....	62
6.29	Side stand.....	44	7.13.15	DRL .....	62
7	COMBINATION INSTRUMENT .....	45	7.13.16	Quick Selector 1 .....	63
7.1	Combination instrument .....	45	7.13.17	Quick Selector 2.....	64
7.2	Activation and test .....	45	7.13.18	Extra Functions .....	65
7.3	Day-Night mode.....	46	7.13.19	General Info .....	65
7.4	Warning notes.....	47	7.13.20	Warning .....	66
7.5	Indicator lamps.....	48	7.13.21	MTC/ABS .....	66
7.6	Display .....	50	7.13.22	Ride Mode .....	67
7.7	Shift warning light .....	52	7.14	TPMS .....	68
7.8	Fuel level display .....	52	7.15	Heated grips (optional) .....	69
7.9	Time.....	53	7.16	Heating (optional) .....	69
7.10	Coolant temperature indicator .....	53	7.17	Quick Shift + (optional) .....	70
7.11	Trip distance counter .....	54	7.18	Track (optional) .....	70
7.12	Cruise control indicator.....	54	7.19	Launch Control (optional) .....	71
7.13	Menu.....	55	7.20	Anti Wheelie Mode (optional) .....	71
7.13.1	Favorites .....	55	7.21	Bluetooth® (optional).....	72
7.13.2	Set Favorites .....	56	7.22	KTM MY RIDE (optional) .....	72
7.13.3	Trip 1 .....	56	7.23	Pairing (optional) .....	73
7.13.4	Trip 2 .....	57	7.24	Audio (optional) .....	75
7.13.5	Settings .....	57	7.25	Telephony (optional).....	76
7.13.6	Language .....	58	8	ERGONOMICS .....	77
7.13.7	Unit settings .....	58	8.1	Handlebar position .....	77
7.13.8	Fuel Cons.....	59	8.2	Adjusting the handlebar position  .....	77
7.13.9	Distance .....	59	8.3	Adjusting the basic position of the clutch lever .....	79
7.13.10	Temp.....	60	8.4	Adjusting the basic position of the hand brake lever .....	79
7.13.11	Pressure .....	60			

# TABLE OF CONTENTS

8.5	Adjusting the basic position of the foot brake lever 	80	12	SUSPENSION SETTING.....	113
8.6	Setting the step plate of the foot brake lever.....	81	12.1	Fork/shock absorber .....	113
8.7	Checking the basic position of the shift lever .....	81	12.2	Adjusting the compression damping of the fork .....	113
8.8	Adjusting the basic position of the shift lever  ....	82	12.3	Adjusting the rebound damping of the fork .....	114
8.9	Setting the shift lever stub.....	83	12.4	Compression damping of the shock absorber.....	115
8.10	Adjusting the tilt of the combination instrument ...	84	12.5	Adjusting the low-speed compression damping of the shock absorber .....	116
9	PREPARING FOR USE.....	87	12.6	Adjusting the high-speed compression damping of the shock absorber .....	117
9.1	Advice on first use .....	87	12.7	Adjusting the rebound damping of the shock absorber.....	118
9.2	Running in the engine .....	88	12.8	Measuring the rear wheel dimension unloaded ....	118
9.3	Loading the vehicle .....	89	12.9	Checking the static sag of the shock absorber ....	120
10	RIDING INSTRUCTIONS.....	91	12.10	Adjusting the spring pretension of the shock absorber 	120
10.1	Checks and maintenance measures when preparing for use.....	91	13	SERVICE WORK ON THE CHASSIS.....	123
10.2	Starting.....	92	13.1	Lifting the motorcycle with the rear lifting gear ...	123
10.3	Launch Control (optional) .....	94	13.2	Removing the rear of motorcycle from the lifting gear.....	123
10.4	Starting off.....	94	13.3	Lifting the motorcycle with the front lifting gear.....	124
10.5	Starting off with launch control (optional).....	94	13.4	Taking the motorcycle from the front lifting gear.....	125
10.6	Quickshifter+ (optional).....	96	13.5	Raising the motorcycle with the work stand (inserted) .....	125
10.7	Shifting, riding .....	96	13.6	Removing the motorcycle from the work stand (inserted) .....	126
10.8	MSR (optional) .....	101	13.7	Cleaning the dust boots of the fork legs 	128
10.9	Applying the brakes.....	102	13.8	Removing the passenger seat .....	129
10.10	Stopping, parking.....	104			
10.11	Transport .....	105			
10.12	Refueling .....	106			
11	SERVICE SCHEDULE .....	109			
11.1	Additional information.....	109			
11.2	Required work .....	109			
11.3	Recommended work .....	111			

# TABLE OF CONTENTS

13.9	Mounting the passenger seat.....	129	15.6	Checking the tire air pressure.....	165
13.10	Removing the front rider's seat.....	130	16	ELECTRICAL SYSTEM.....	167
13.11	Mounting the front rider's seat.....	130	16.1	Daytime running light (DRL).....	167
13.12	Mounting the helmet lock on the vehicle.....	131	16.2	Removing the battery  .....	168
13.13	Removing the main silencer  .....	131	16.3	Installing the battery  .....	170
13.14	Installing the main silencer  .....	133	16.4	Recharging the battery  .....	173
13.15	Checking the chain for dirt.....	134	16.5	Changing the Race-on key battery.....	177
13.16	Cleaning the chain.....	134	16.6	Changing the main fuse.....	178
13.17	Checking the chain tension.....	136	16.7	Changing the fuses in the fuse box.....	181
13.18	Adjusting the chain tension.....	137	16.8	Checking the headlight setting.....	185
13.19	Checking the chain, rear sprocket, engine sprocket, and chain guide.....	139	16.9	Adjusting the headlight range.....	185
13.20	Checking/correcting the fluid level of the hydraulic clutch.....	143	16.10	Diagnostics connector.....	187
14	BRAKE SYSTEM.....	145	16.11	ACC1 and ACC2 front.....	187
14.1	Antilock braking system (ABS).....	145	16.12	ACC1 and ACC2 rear.....	188
14.2	Checking the brake discs.....	147	17	COOLING SYSTEM.....	189
14.3	Checking the front brake fluid level.....	148	17.1	Checking the coolant level in the compensating tank.....	189
14.4	Adding front brake fluid  .....	149	17.2	Correcting the coolant level in the compensating tank.....	190
14.5	Checking the front brake linings.....	151	18	ENGINE TUNING.....	193
14.6	Checking the rear brake fluid level.....	152	18.1	Ride Mode.....	193
14.7	Adding rear brake fluid  .....	153	18.2	Motorcycle traction control (MTC).....	193
14.8	Checking the brake linings of the rear brake.....	154	18.3	Slip adjustment (optional).....	194
15	WHEELS, TIRES.....	156	18.4	Throttle Response (optional).....	194
15.1	Removing the front wheel  .....	156	19	SERVICE WORK ON THE ENGINE.....	195
15.2	Installing the front wheel  .....	157	19.1	Checking the engine oil level.....	195
15.3	Removing the rear wheel  .....	160	19.2	Changing the engine oil and oil filter, cleaning the oil screens  .....	196
15.4	Installing the rear wheel  .....	161	19.3	Adding engine oil.....	200
15.5	Checking the tire condition.....	163			



# TABLE OF CONTENTS

20	CLEANING, CARE .....	203	30	LIST OF SYMBOLS.....	237
	20.1 Cleaning the motorcycle .....	203	30.1	Red symbols.....	237
	20.2 Checks and maintenance steps for winter operation.....	205	30.2	Yellow and orange symbols.....	237
21	STORAGE.....	207	30.3	Green and blue symbols.....	238
	21.1 Storage .....	207	INDEX.....		239
	21.2 Preparing for use after storage.....	208			
22	TROUBLESHOOTING .....	209			
23	TECHNICAL DATA.....	211			
	23.1 Engine .....	211			
	23.2 Engine tightening torques .....	212			
	23.3 Capacities .....	216			
	23.3.1 Engine oil .....	216			
	23.3.2 Coolant .....	216			
	23.3.3 Fuel .....	216			
	23.4 Chassis .....	216			
	23.5 Electrical system.....	218			
	23.6 Tires .....	218			
	23.7 Fork.....	219			
	23.8 Shock absorber .....	220			
	23.9 Chassis tightening torques .....	221			
24	DECLARATIONS OF CONFORMITY .....	226			
	24.1 EU declaration of conformity.....	226			
	24.2 FCC declaration of conformity .....	226			
25	SUBSTANCES .....	229			
26	AUXILIARY SUBSTANCES .....	232			
27	STANDARDS .....	234			
28	INDEX OF SPECIAL TERMS .....	235			
29	LIST OF ABBREVIATIONS.....	236			

## 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 MEANS OF REPRESENTATION

## 1.2 Formats used

The typographical formats used in this document are explained below.

---


<b>Specific name</b>	Identifies a proprietary name.
<b>Name®</b>	Identifies a protected name.
<b>Brand™</b>	Identifies a brand available on the open market.
<b><u>Underlined terms</u></b>	Refer to technical details of the vehicle or indicate technical terms that are explained in the glossary.

---

### 2.1 Use definition – intended use

KTM Street motorcycles are designed and constructed to meet the normal demands of regular road operation and also for use on race courses. They are not designed for offroad use.

---

 **Info**  
The motorcycle is only authorized for operation on public highways 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 certain tasks. The tools are not contained in the vehicle but can be ordered under the number in parentheses. E.g.: bearing puller (15112017000)

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.

In some instances, a thread locker (e.g. **Loctite**®) is required. The manufacturer instructions for use must be followed.

After disassembly, clean the parts that are to be reused and check them for damage and wear. Change damaged or worn parts.

After you complete the repair or service work, check the operating safety of the vehicle.

### 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 must be handed over to the new owner if the vehicle is sold.



## 3.1 Manufacturer and implied 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. Damage or secondary damage caused by tampering with and/or conversions on the vehicle are not covered by the warranty.

Additional information on the manufacturer or implied warranty and the procedures involved can be found in the Service & Warranty Booklet.

## 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 is properly carried out as described in the Owner's Manual. Incorrect adjustment and tuning of the engine and chassis can lead to damage and breakage of components.

Use of the vehicle under difficult conditions, such in rain, high heat or with a heavy load, can lead to considerably more rapid wear of components such as the drive train, brake system, or suspension components. For this reason, it may be necessary to inspect or replace parts before the next scheduled service.

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 VIEW OF VEHICLE

## 4.1 View of vehicle, front left (example)



# 4 VIEW OF VEHICLE

1	Clutch lever (📖 p. 26)
2	Supporting strap (📖 p. 41)
3	Tool set (📖 p. 39)
4	Seat lock (📖 p. 38)
5	Passenger footrests (📖 p. 42)
6	Shock absorber, spring pretension setting
7	Rider footrests
8	Shift lever (📖 p. 42)
9	Side stand (📖 p. 44)
10	Cooling system compensating tank
11	Engine oil level viewer

# 4 VIEW OF VEHICLE

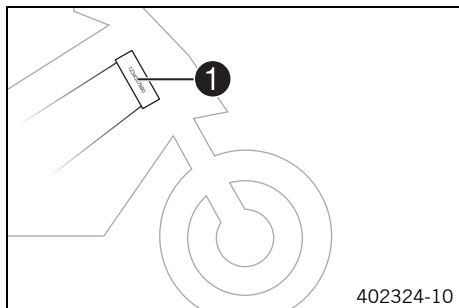
## 4.2 View of vehicle, rear right (example)



# 4 VIEW OF VEHICLE

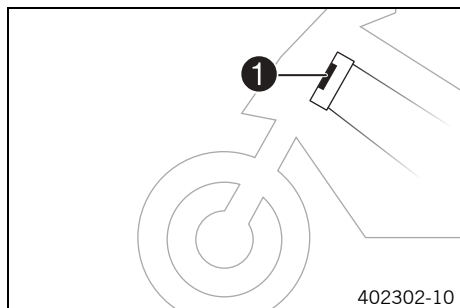
1	Filler cap
2	Combination switch, left side (📖 p. 27)
3	Steering lock (📖 p. 34)
4	Emergency OFF switch/electric starter button (📖 p. 33)
5	Race-on button (📖 p. 34)
6	Throttle grip (📖 p. 27)
7	Hand brake lever (📖 p. 26)
8	Fork compression adjustment
9	Fork rebound adjustment
10	Foot brake lever (📖 p. 43)
11	Compression damping of the shock absorber (📖 p. 115)
12	Shock absorber rebound damping

## 5.1 Chassis number



The chassis number **1** is stamped on the right side of the steering head. The chassis number is also shown on the type label.

## 5.2 Type label



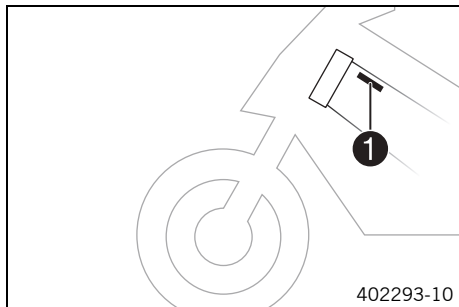
**(Super Duke R EU/IP)**

The type label **1** is located on the steering head.



## (Super Duke R AU)

The type label **1** is located on the frame on the left.



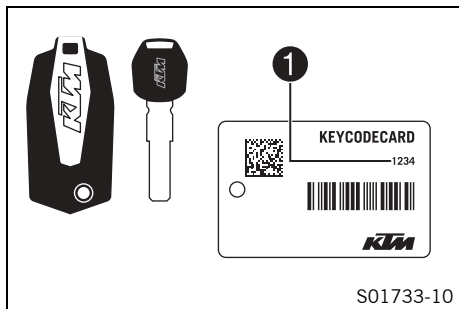
### 5.3 Key number

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

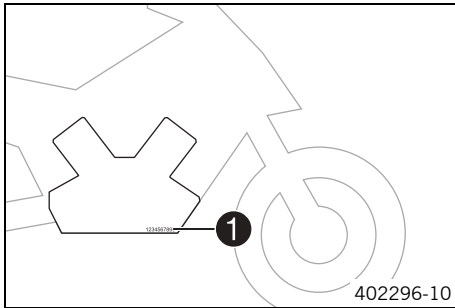


#### Info

You need the key number to order a spare key. Keep the **KEYCODECARD** in a safe place.

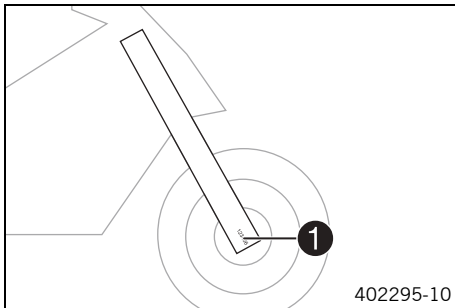


## 5.4 Engine number



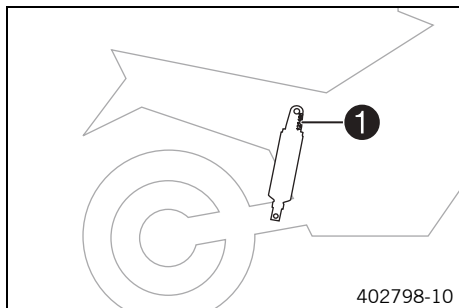
The engine number ❶ is stamped on the right side of the engine.

## 5.5 Fork part number



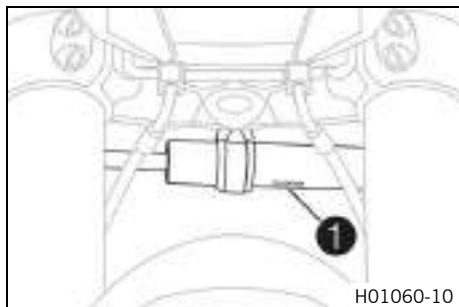
The fork part number ❶ is stamped on the inside of the axle clamp.

## 5.6 Shock absorber article number



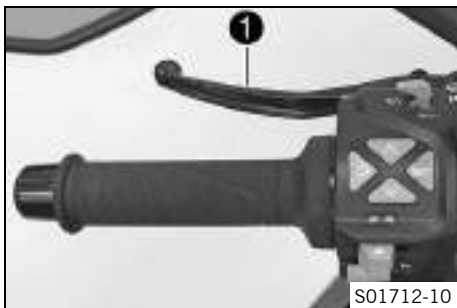
The shock absorber article number **1** is stamped on the top of the shock absorber above the adjusting ring towards the engine side.

## 5.7 Steering damper article number



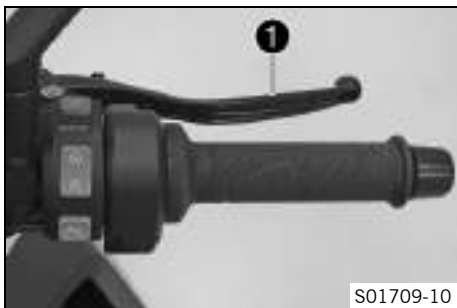
Steering damper item number **1** is embossed on the underside of the steering damper.

## 6.1 Clutch lever



Clutch lever ❶ is fitted on the handlebar on the left.  
The clutch is activated hydraulically and adjusts itself automatically.

## 6.2 Hand brake lever



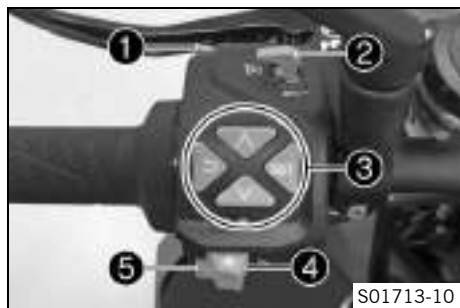
The hand brake lever ❶ is fitted on the right side of the handlebar.  
The front brake is engaged using the hand brake lever.

## 6.3 Throttle grip



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

## 6.4 Combination switch, left side

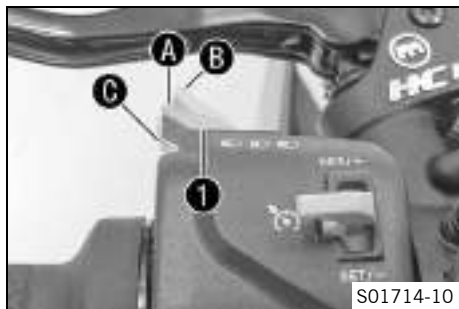


The left combination switch is fitted on the left side of the handlebar.

### Overview of the left combination switch




- |   |  |
|---|--|
| 1 | Light switch (📖 p. 28)                     |
| 2 | Cruise control system tip switch (📖 p. 30) |
| 3 | Menu switch (📖 p. 28)                      |
| 4 | Turn signal switch (📖 p. 29)               |
| 5 | Horn button (📖 p. 30)                      |

## 6.5 Light switch

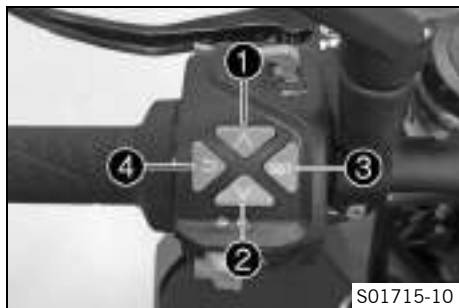


The light switch ❶ is fitted on the combination switch on the left.

### Possible states

	<p>Low beam on – Light switch in position ❶. In this position, the low beam and the tail light are switched on.</p>
	<p>High beam on – Light switch in position ❷. In this position, the high beam and the tail light are switched on.</p>
	<p>Headlight flasher – Light switch in position ❸. The headlight flasher is operated in this position. The light switch returns automatically to the position ❶ after use.</p>

## 6.6 Menu switch



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

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

Button ❶ is the **UP** button.

Button ❷ is the **DOWN** button.

Button ❸ is the **SET** button.

Button ❹ is the **BACK** button.

## 6.7 Turn signal switch



S01716-10

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

### Possible states

	Turn signal off – Turn signal switch pushed toward the switch housing.
	Left turn signal, on – Turn signal switch pressed to the left. The turn signal switch returns automatically to the central position after use.
	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 (**ATIR**) is available as a software feature. The **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.

## 6.8 Horn button



The horn button ❶ 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.

## 6.9 Cruise control system tip switch



The ❶ cruise control system tip switch 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  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  in position **RES/+**. – The last saved speed is reapplied. Every subsequent brief pressing increases the target speed by 1 km/h or 1 mph.
- Press and hold cruise control system tip switch  in position **RES/+**. – The target speed increases in increments of 5 km/h or 5 mph.
- Briefly press cruise control system tip switch  in position **SET/-**. – 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  in position **SET/-**. – 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**)
- Slip at the rear wheel or lifting front wheel - functions even with deactivated motorcycle traction control (**MTC**)
- 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.

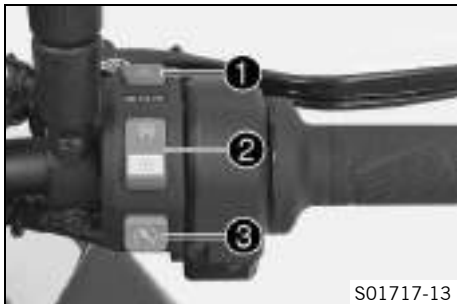
- Do not use the cruise control systems function on winding roads.
- Do not use the cruise control systems on slippery road surfaces (e.g. rain, ice or snow) or unpaved surfaces (e.g. sand, stones or gravel).
- Do not use the cruise control systems function if the traffic does not permit a constant speed.

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.

## 6.10 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 ❶ is fitted on the right side of the combination switch. 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 ❶ is fitted on the right side of the combination switch.

### Possible states

	Emergency OFF switch/electric starter button off (top position) – In this position, the ignition circuit is interrupted, a running engine stops, and a non-running engine cannot be started. A message appears on the display.
	Emergency OFF switch/electric starter button on (middle position) – This position is required for operation; the ignition circuit is closed.
	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 ④ in the basic position.
- Race-on button ④ pressed briefly – Pressing briefly switches the ignition on and unlocks the handlebar lock or switches the ignition off.
- Race-on button ④ pressed and held – Pressing and holding switches the ignition off and locks the handlebar.

## 6.14 Steering lock



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 ④ (🔑 p. 34).

If the battery voltage of the Race-on key is too low, place either the Race-on key or the black Race-on key in area ① 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



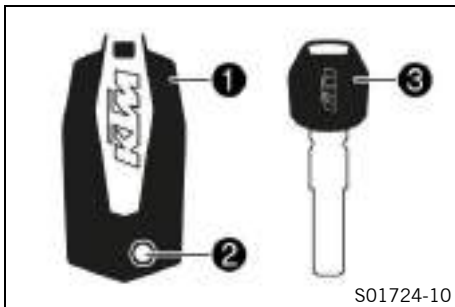
The electronic immobilizer secures the vehicle against unauthorized use.

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

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

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

## 6.16 Race-on key



In this vehicle, the Race-on key ❶ performs all the functions of the conventional ignition key.

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

The black ignition key ❸ 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 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.

---

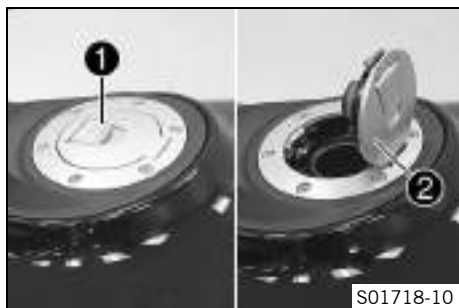
## Condition

The motorcycle is stationary.

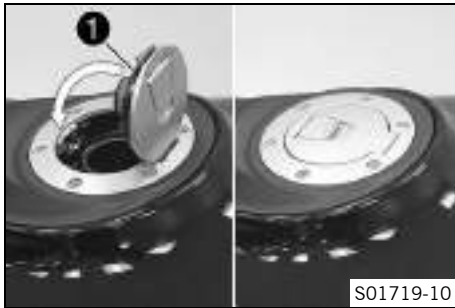
The engine is switched off.

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**.



## 6.18 Closing the filler cap



### Warning

**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.

## 6.19 Seat lock



Seat lock **1** 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.



## 6.20 Baggage lugs



The baggage lugs ❶ are located on the bottom of the passenger seat.



### Info

When the passenger seat is mounted, the lugs are accessible if they are turned outward.

No more than one small piece of luggage with the specified weight may be attached to the turned-out baggage lugs.

Maximum luggage weight	5 kg (11 lb.)
------------------------	---------------

## 6.21 Tool set



The tool set ❶ is located under the passenger seat.

## 6.22 Opening storage compartment



### Info

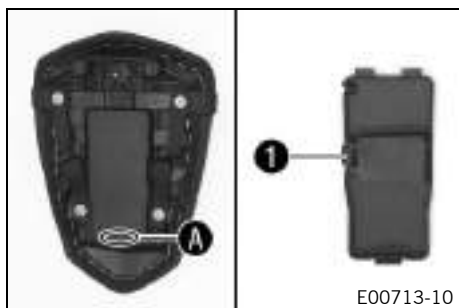
A storage compartment for flat items is located under the passenger seat.

### Preparatory work

- Remove the passenger seat. (📖 p. 129)

### Main work

- Press in area **A** in order to open the storage compartment.
- Take off storage compartment.
- Open rubber catch **1** and place item in storage compartment.



## 6.23 Closing storage compartment

### Main work

- Close rubber catch **1**.
- Mount storage compartment on seat.
  - ✓ Holding lugs **2** engage in recesses **3**.



## Finishing work

- Mount the passenger seat. (📖 p. 129)

### 6.24 Helmet lock



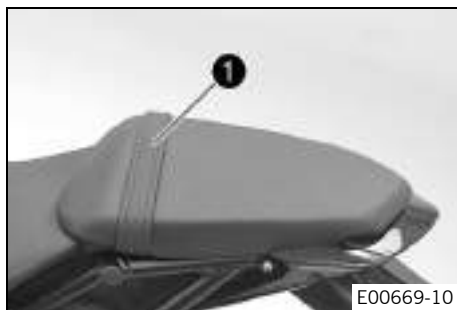
#### Warning

**Danger of accidents** An attached helmet lock or an attached helmet impair the handling characteristic.

- Do not use the helmet lock to attach a helmet or another object while riding.
- Remove the helmet lock before starting off.

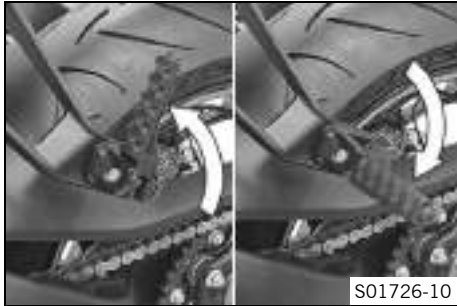
The steel cable **1** in the tool set can be used to lock a helmet to the vehicle to prevent it from being stolen.

### 6.25 Supporting strap



The supporting strap **1** is attached to the passenger seat.  
The supporting strap is provided for the passenger to hold on to.

## 6.26 Passenger footrests

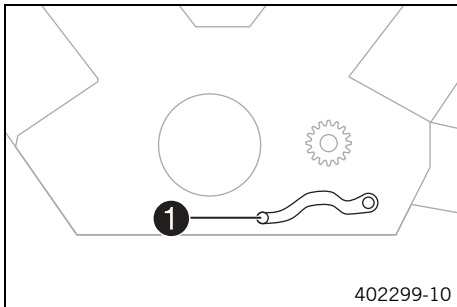


The passenger footrests can be folded up and down.

### Possible states

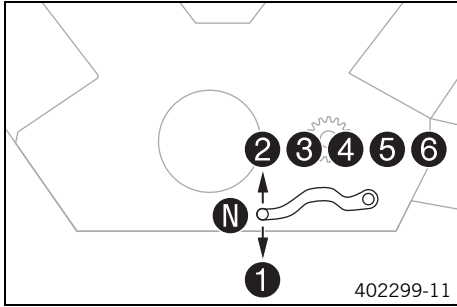
- Passenger footrests folded up – For operation without a passenger.
- Passenger footrests folded down – For operation with a passenger.

## 6.27 Shift lever



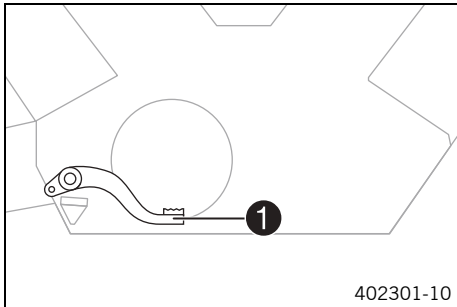
The shift lever **1** is fitted on the left side of the engine.

# 6 CONTROLS



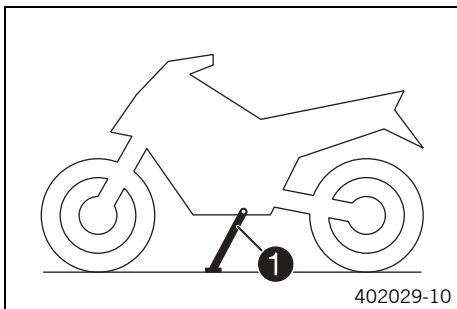
The gear positions can be seen in the figure.  
The idle position is between the first and second gears.

## 6.28 Foot brake lever



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

## 6.29 Side stand



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



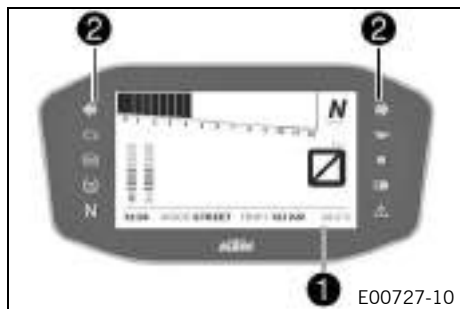
### Info

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.

## 7.1 Combination instrument



The combination instrument is attached in front of the handlebar.

The combination instrument is divided into two function areas.

Display **1**

**2** Indicator lamps (📖 p. 48)

## 7.2 Activation and test



### Activation

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

### **i** 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.



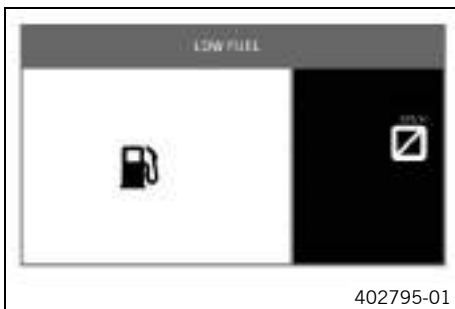
### Info



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



If the general warning lamp  lights up among the indicator lamps ( p. 48), the corresponding message appears in the display. The **Set** button is used to confirm receipt of the information and the message is cleared.

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

# 7 COMBINATION INSTRUMENT











## 7.5 Indicator lamps



# 7 COMBINATION INSTRUMENT

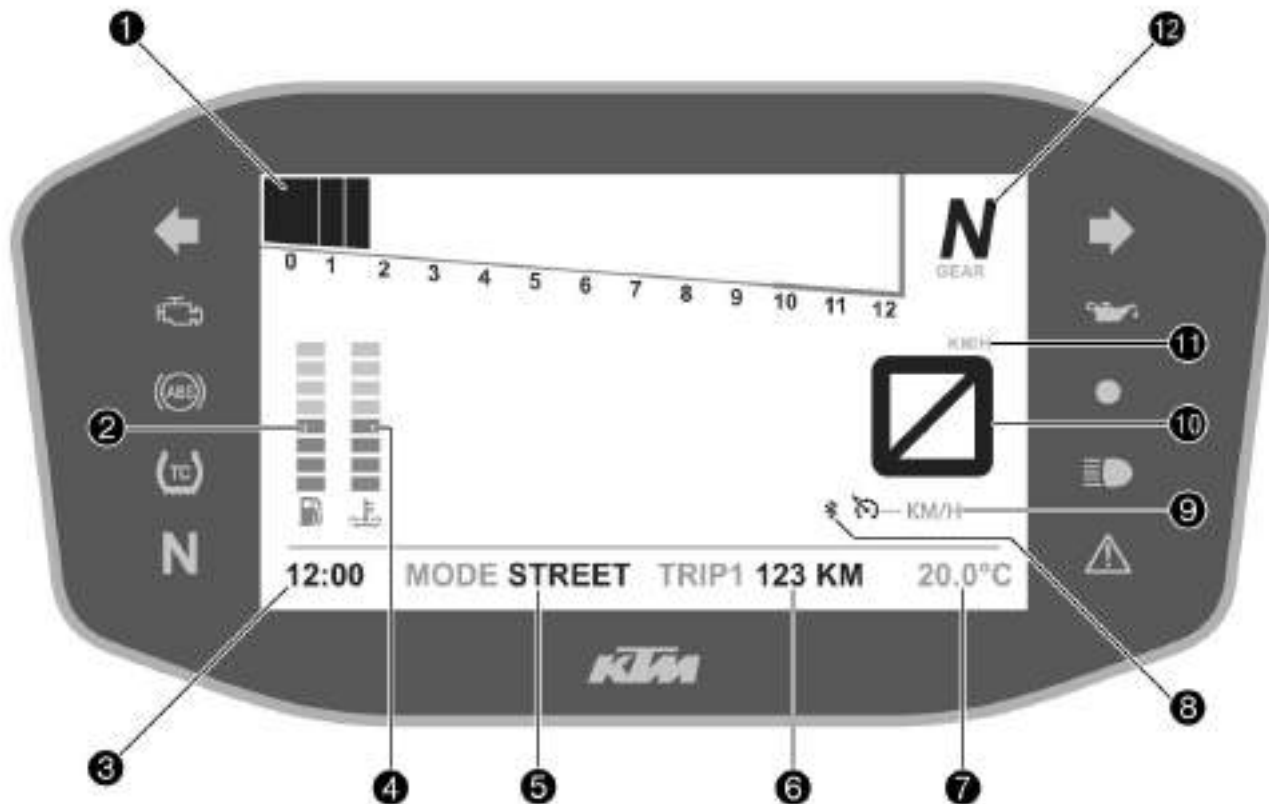
The indicator lamps offer additional information about the operating state of the motorcycle. When the ignition is switched on, all indicator lamps light up briefly.

## Possible states

	The left turn signal indicator lamp flashes green with a steady rhythmic flash – The left turn signal is switched on.
	Malfunction indicator lamp lights up/flashes yellow – The engine electronics has detected a fault.
	ABS indicator lamp lights up/flashes yellow – The <u>ABS</u> is not activated on one or both wheels. The ABS indicator lamp also lights up if an error is detected.
	TC indicator lamp lights up/flashes yellow – Traction control is not enabled or is currently intervening. The TC Indicator lamp also lights up if an error is detected. The TC indicator lamp flashes if the launch control (optional) is activated.
	The idle indicator lamp lights up green – The transmission is in idle.
	The right turn signal indicator lamp flashes green with a steady rhythmic flash – The right turn signal is switched on.
	The oil pressure warning lamp lights up red – Engine oil pressure is too low.
	Race-on indicator lamp lights up/flashes yellow/orange/red – Status or error messages relating to Race-on system/alarm system.
	The high beam indicator lamp lights up blue – The high beam is switched on.
	The general warning lamp lights up yellow – An operating safety (warning) message was detected. This is also shown on the combination instrument.

# 7 COMBINATION INSTRUMENT








## 7.6 Display



## Info

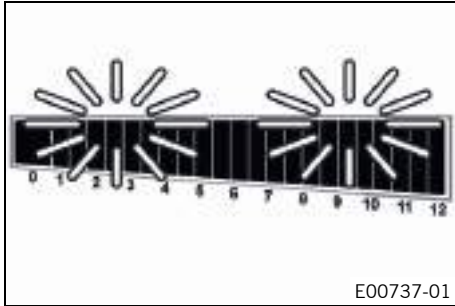
The figure shows the standard display of the combination instrument. If the menu is opened, the speed is still displayed. When drive mode is activated **TRACK** (optional), the elements shown change and the display colors change.

---

1	Tachometer
1	Shift warning light (  p. 52) The shift warning light is integrated in the tachometer display.
2	Fuel level display (  p. 52)
3	Time (  p. 53)
4	Coolant temperature indicator (  p. 53)
5	<b>Ride Mode</b> (  p. 193)
6	Trip distance counter (  p. 54)
7	Ambient temperature
8	<b>Bluetooth®</b> (optional)
9	Cruise control indicator (  p. 54)
10	Speed
11	Unit for the speedometer
12	Gear display

---

## 7.7 Shift warning light



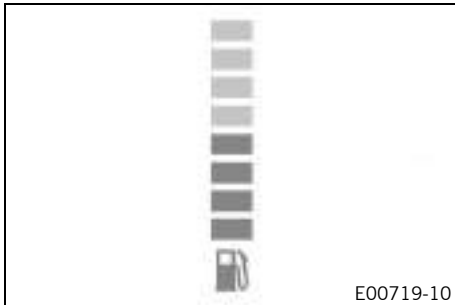
E00737-01

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**.

Coolant temperature	> 35 °C (> 95 °F)
<b>RPM1</b> shift warning light	lights up red
<b>RPM2</b> shift warning light	flashes red
Coolant temperature	≤ 35 °C (≤ 95 °F)
The shift warning light always lights up at	6,500 rpm

## 7.8 Fuel level display



E00719-10

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

### **i** Info

If the fuel level is getting low, the last two segments flash red and the following warning note also appears **LOW 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.

## 7.9 Time



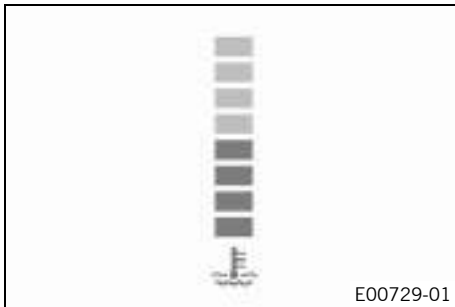
The time is displayed in 24 hour format in all languages except for EN-US. The time is displayed in 12 hour format if the language is set to EN-US. The time can be configured in the **Clock/Date** menu.



### Info

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

## 7.10 Coolant temperature indicator



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



### Info

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

### Possible states

- The engine is cold – Up to three bars light up.
- Engine warm – Four to five bars light up.
- Engine hot – Six to eight bars light up.
- Engine very hot – All eight bars light up red.

## 7.11 Trip distance counter



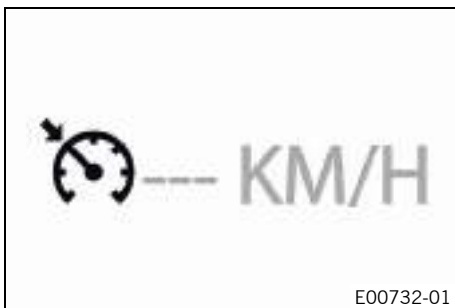
In the main display, **Trip 1** is displayed as the trip distance counter by default. This cannot be changed.

Information about the total riding distance covered can be accessed in the **General Info** menu under menu item **ODO**.



The trip distance counter can be configured in the **Trip 1** menu.

Information about other distances traveled can be accessed and configured in the **Trip 2** menu.

## 7.12 Cruise control indicator

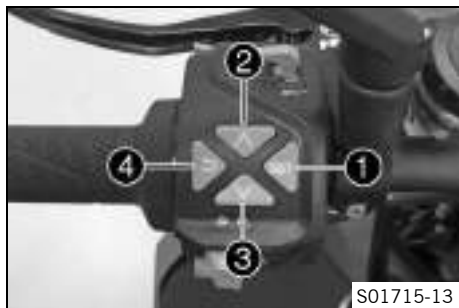


When cruise control is activated, the operating mode is shown on the combination instrument display.

Cruise control is operated using the cruise control tip switch  (  p. 30).



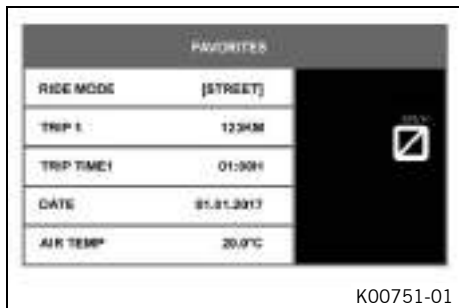
## 7.13 Menu



### 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.

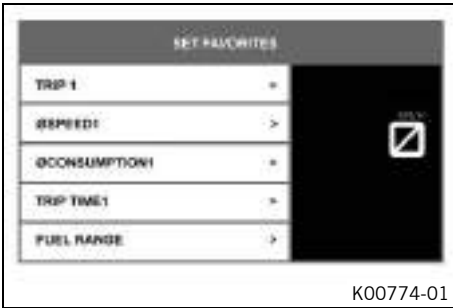
### 7.13.1 Favorites



- Press the **SET** button when the menu is closed.
- Access the menu by pressing the **SET** button again.
- Select the required menu item using the **UP** or **DOWN** button until it appears marked on the display and activate with the **SET** button.

You can directly open five freely configurable menus in the **Favorites** menu. The **Favorites** menu is configured in the **Set Favorites** menu.

## 7.13.2 Set Favorites

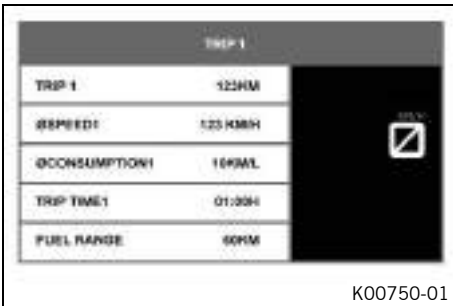


### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Set Favorites** menu appears on the display.
- Press **SET** button.
- Press the **UP** or **DOWN** button to select the menu. Press the **SET** button to set the menu for quick selection.

The **Favorites** menu is configured in the **Set Favorites** menu.

## 7.13.3 Trip 1



- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Trip 1** menu appears on the display.

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

**Ø Speed 1** indicates the average speed based on **Trip 1** and **Trip Time 1**.

**Ø Consumption 1** indicates the average fuel consumption based on **Trip 1**.

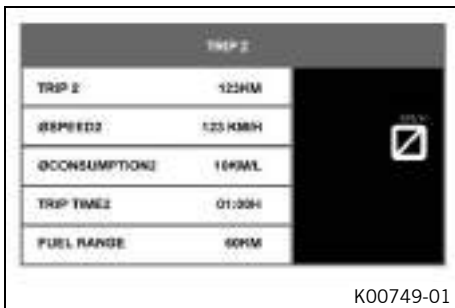
**Trip Time 1** shows the journey time on the basis of **Trip 1** and runs as soon as a speed signal is received.

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

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

All entries in the **Trip 1** menu are reset.

## 7.13.4 Trip 2



- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Trip 2** menu appears on the display.

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

**Ø Speed 2** indicates the average speed based on **Trip 2** and **Trip Time 2**.

**Ø Consumption 2** indicates the average fuel consumption based on **Trip 2**.

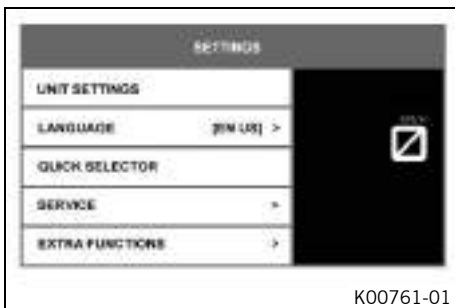
**Trip Time 2** shows the journey time on the basis of **Trip 2** and runs as soon as there is a speed signal.

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

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

All entries in the **Trip 2** menu are reset.

## 7.13.5 Settings

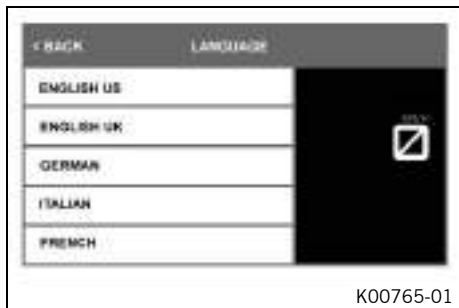


### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.

Settings for units or various values are made in the **Settings** menu. Several functions can be enabled or disabled.

## 7.13.6 Language

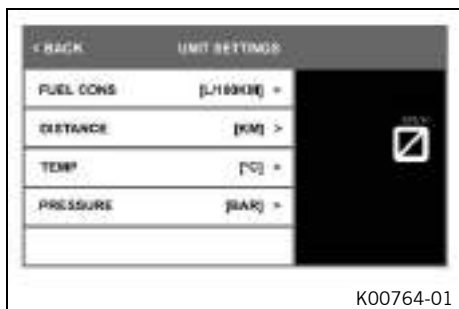


### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press **SET** button.
- Press the **UP** or **DOWN** button until the **Language** menu appears marked on the display. Press the **SET** button to access the menu.
- Press the **UP** or **DOWN** button until the desired language is marked. Select the language using the **SET** button.

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

## 7.13.7 Unit settings

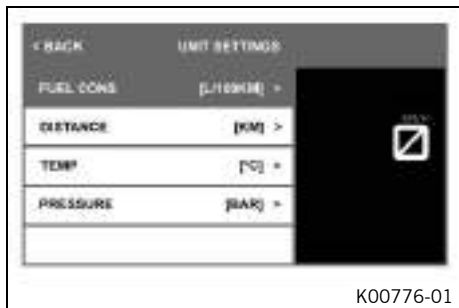


### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press **SET** button.
- Press the **UP** or **DOWN** button until the **Unit settings** menu appears marked on the display. Press the **SET** button to open the menu.

The settings for the units are displayed in the **Unit settings** menu.

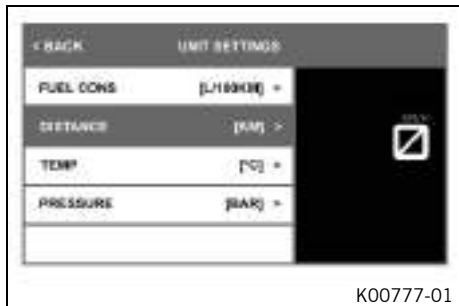
## 7.13.8 Fuel Cons



### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press **SET** button.
- Press the **UP** or **DOWN** button until **Unit settings** is marked on the display. Press the **SET** button again to access the menu.
- Press the **UP** or **DOWN** button until **Fuel Cons** is marked on the display. Press the **SET** button again to access the menu.
- Press the **UP** or **DOWN** button until the desired unit appears on the display. Press the **SET** button again to confirm the desired unit.

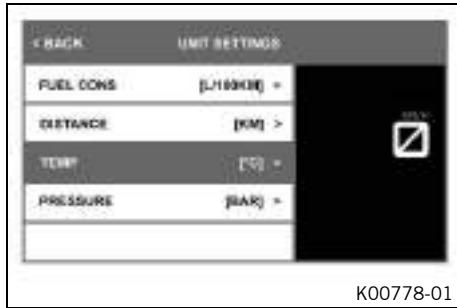
## 7.13.9 Distance



### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press **SET** button.
- Press the **UP** or **DOWN** button until **Unit settings** is marked on the display. Press the **SET** button again to access the menu.
- Press the **UP** or **DOWN** button until **Distance** is marked on the display. Press the **SET** button again to access the menu.
- Press the **UP** or **DOWN** button until the desired unit appears on the display. Press the **SET** button again to confirm the desired unit.

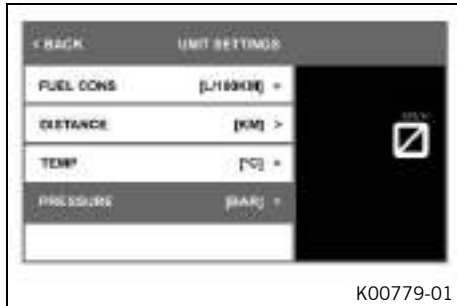
## 7.13.10 Temp



### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press **SET** button.
- Press the **UP** or **DOWN** button until the **Unit Settings** menu appears on the display. Press the **SET** button to access the menu.
- Press the **UP** or **DOWN** button until **Temp** is marked on the display. Press the **SET** button again to access the menu.
- Press the **UP** or **DOWN** button until the desired unit appears on the display. Press the **SET** button again to confirm the desired unit.

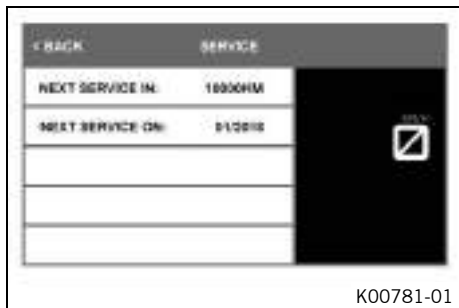
## 7.13.11 Pressure



### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press **SET** button.
- Press the **UP** or **DOWN** button until the **Unit Settings** menu appears on the display. Press the **SET** button to access the menu.
- Press the **UP** or **DOWN** button until the **Pressure** menu is highlighted in black on the display. Press the **SET** button again to access the menu.
- Press the **UP** or **DOWN** button until the desired unit appears on the display. Press the **SET** button again to confirm the desired unit.

## 7.13.12 Service

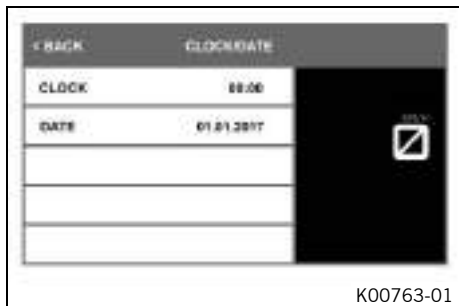


### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press **SET** button.
- Press the **UP** or **DOWN** button until the **Service** menu appears marked on the display. Press the **SET** button to open the menu.

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

## 7.13.13 Clock/Date

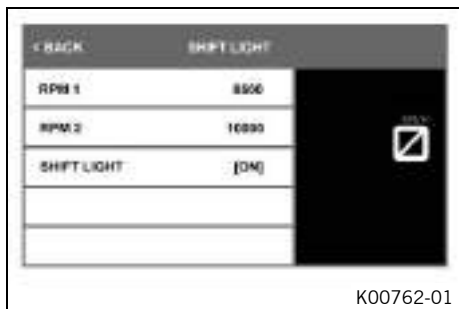


### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press **SET** button.
- Press the **UP** or **DOWN** button until the **Clock/Date** menu is marked on the display. Pressing the **SET** button again opens the menu.
- Press the **UP** or **DOWN** button to set the clock and confirm with the **SET** button.
- Press the **UP** or **DOWN** button to set the date and confirm with the **SET** button.

If the battery has been disconnected, the time and date must be set.

## 7.13.14 Shift Light



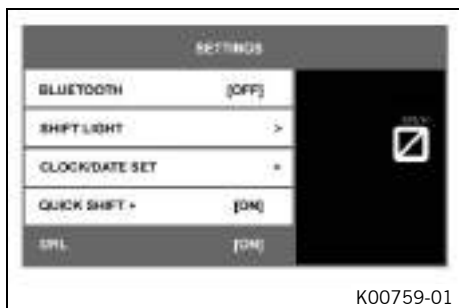
### Condition

- The vehicle is stationary.
- **ODO** > 1000 km (621 mi).
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press the **SET** button.
- Press the **UP** or **DOWN** button until **Shift Light** appears marked on the display. Pressing the **SET** button again opens the menu.
- Press the **UP** or **DOWN** button to select the function. Use the **SET** button to set the engine speed for the shift warning light.

When the engine speed reaches **RPM 1**, the shift warning light lights up red.

When the engine speed reaches **RPM 2**, the shift warning light flashes red.

## 7.13.15 DRL



### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press **SET** button.





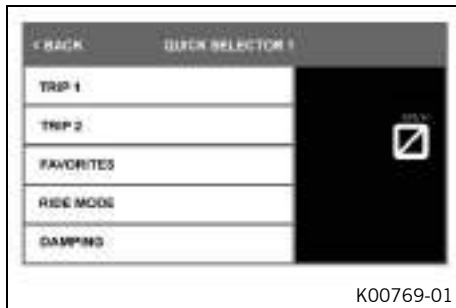
## Warning

**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** appears marked on the display. Pressing the **SET** button again switches the daytime running light on or off.

### 7.13.16 Quick Selector 1



#### Condition

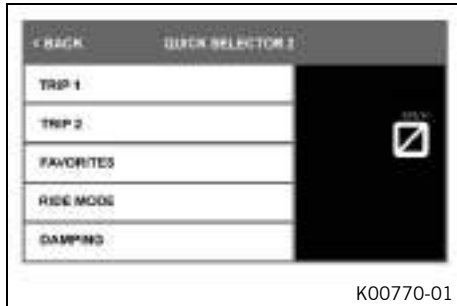
- The drive mode **TRACK** (optional) is not activated.
  - The vehicle is stationary.
- Press the **SET** button when the menu is closed.
  - Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
  - Press the **SET** button.
  - Press the **UP** or **DOWN** button until the **Quick Selector** menu appears on the display.
  - Press the **SET** button to open the menu.
  - Press the **UP** or **DOWN** button until the **Quick Selector 1** menu appears on the display.
  - Press the **SET** button to open the menu.
  - Press the **UP** or **DOWN** button until the required parameter is marked.

- Press the **SET** button to confirm the selection.

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.

## 7.13.17 Quick Selector 2



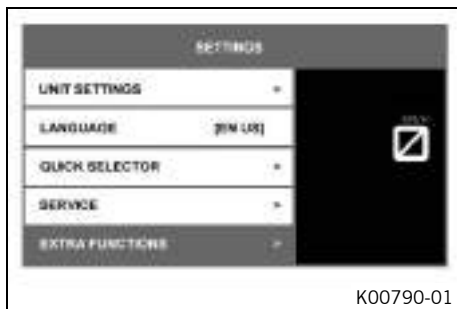
### Condition

- The drive mode **TRACK** (optional) is not activated.
- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press the **SET** button.
- Press the **UP** or **DOWN** button until the **Quick Selector** menu appears on the display.
- Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until the **Quick Selector 2** menu appears on the display.
- Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until the required parameter is marked.
- Press the **SET** button to confirm the selection.

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.

## 7.13.18 Extra Functions



### Condition

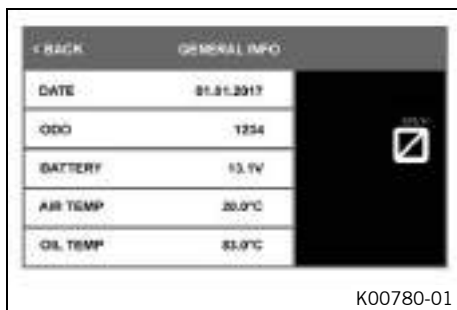
- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display.
- Press the **SET** button.
- Press the **UP** or **DOWN** button until **Extra Functions** appears marked in the display. Press the **SET** button to open the menu.
- Use the **UP** or **DOWN** button to navigate through the extra functions.



### Info

The optional extra functions are listed in **Extra Functions**. The current **KTM Power-Parts** and the available software for your vehicle can be found on the KTM website.

## 7.13.19 General Info



- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **General Info** menu appears on the display.

**Date** indicates the date.

**ODO** shows the total distance covered.



### Info

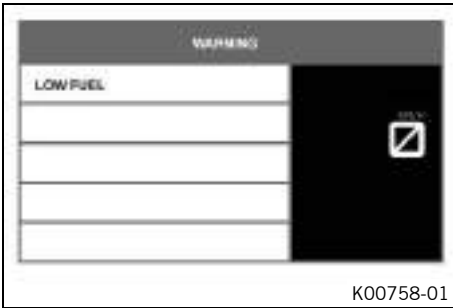
The value **ODO** is retained, even if the battery is disconnected from the vehicle and/or the fuse blows.

**Battery** indicates the battery voltage.

**Air Temp** indicates the ambient temperature.

**Oil Temp** indicates the engine oil temperature.

## 7.13.20 Warning

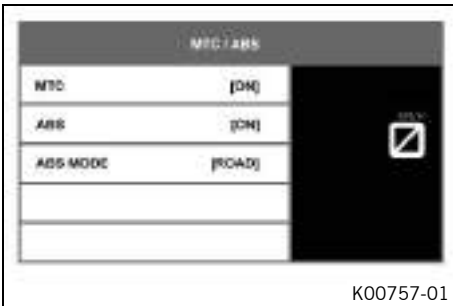


### Condition

- Message or warning is present.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Warning** menu appears on the display.
- Press the **SET** button.
- Use the **UP** or **DOWN** button to navigate through the warnings.

In the **Warning** menu, all warnings that occurred are displayed and stored.

## 7.13.21 MTC/ABS



### Condition

- The vehicle is stationary.



### 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 **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **MTC/ABS** menu appears on the display.
- Press **SET** button.
- Press the **UP** or **DOWN** button to navigate to the required menu item.
- Press and hold the **SET** button for 3-5 seconds.

The commands **Keep pressed** and **Release button** are displayed on the combination instrument.

In the **MTC/ABS** menu, **MTC** and **ABS** can be switched off.

In **ABS Mode** you can select between **ROAD** and **SMOTO**.



## Info

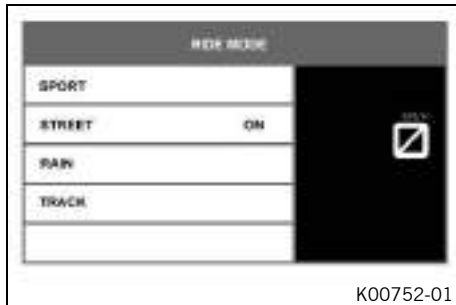
After the ignition is switched on, motorcycle traction control and ABS are enabled again.

In the **ROAD** ABS mode, the ABS controls both wheels.

In the **SMOTO** ABS mode, the ABS only controls the front wheel. There is no ABS intervention on the rear wheel. The ABS indicator lamp flashes slowly to remind you that the **SMOTO** ABS mode is enabled.

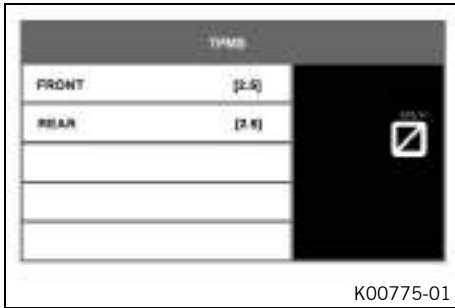
In the **SMOTO** ABS mode, the rear wheel may lock and there is a risk of falling.

## 7.13.22 Ride Mode



- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Ride Mode** menu appears on the display.
- Press **SET** button.
- Use the **UP** or **DOWN** button to navigate through the menu. The **SET** button can be used to select engine and traction control settings that are coordinated with each other.
  - ✓ **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.
  - ✓ **TRACK** - Optional setting available with homologated performance and extremely direct response. The traction control and the characteristic map of the throttle response can be individually set.

## 7.14 TPMS



### Condition

- Model with **TPMS**.



### 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 **SET** button when the menu is closed.
  - Press the **UP** or **DOWN** button until the **TPMS** menu appears on the display.

### Guideline

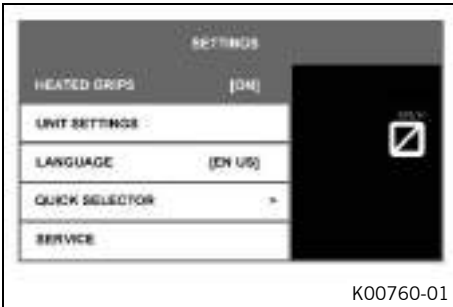
Tire air pressure, solo	
front: with cold tires	2.5 bar (36 psi)
rear: with cold tires	2.5 bar (36 psi)

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

**FRONT** indicates the tire air pressure at the front.

**REAR** indicates the tire air pressure at the rear.

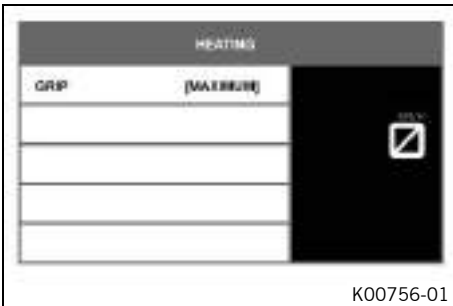
## 7.15 Heated grips (optional)



### Condition

- The vehicle is stationary.
- Press the **SET** button.
- Press the **UP** or **DOWN** button until **Heated grips** appears marked on the display. Pressing the **SET** button again switches the heated grips menu on or off.

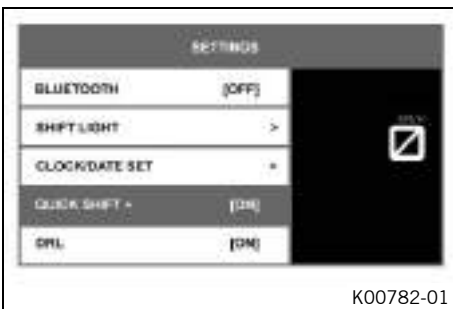
## 7.16 Heating (optional)



### Condition

- The **Heated grips** menu is activated.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Heating** menu appears on the display.
- Select a heating level for the heated grip or switch off the heated grip with the **SET** button.

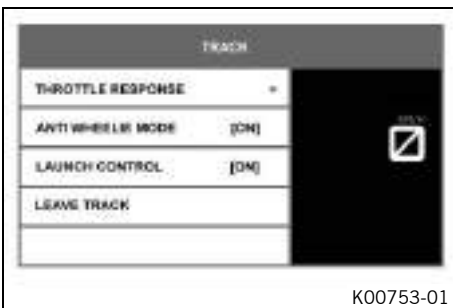
## 7.17 Quick Shift + (optional)



### Condition

- The vehicle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Quick Shift +** appears marked on the display.
- Switch Quickshifter+ (📖 p. 96) on and off using the **SET** button.

## 7.18 Track (optional)



### Condition

- The drive mode **TRACK** (optional) is activated.
- Press the **SET** button when the menu is closed.
- Use the **UP** or **DOWN** button to navigate through the menu. Use the **SET** button to adjust the individual settings of the **TRACK PACK**.

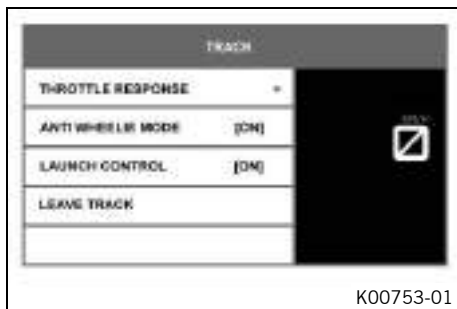


### Info

The **TRACK** drive mode is ended via **Leave Track** and automatically switches to the **STREET** drive mode.



## 7.19 Launch Control (optional)



### Condition

- The drive mode **TRACK** (optional) is activated.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the menu item **Launch Control** is marked.



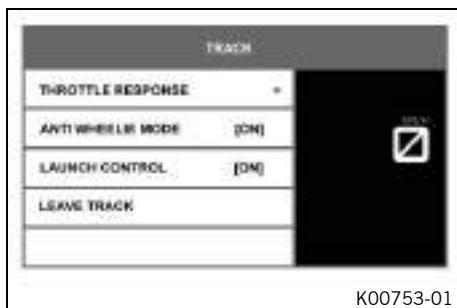
### Warning

**Danger of accidents** When Anti Wheelie Mode is disabled, the motorcycle traction control no longer counteracts the raising of the front wheel.

- Only switch off the Anti Wheelie Mode if you have the appropriate experience.

- Switch the launch control on and off using the **SET** button.

## 7.20 Anti Wheelie Mode (optional)



### Condition

- The drive mode **TRACK** (optional) is activated.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the menu item **Anti Wheelie Mode** is marked.



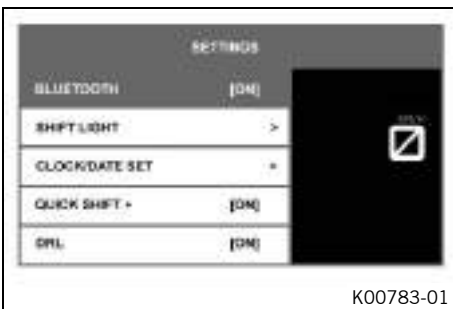
### Warning

**Danger of accidents** When Anti Wheelie Mode is disabled, the motorcycle traction control no longer counteracts the raising of the front wheel.

- Only switch off the Anti Wheelie Mode if you have the appropriate experience.

- Switch Anti Wheelie Mode on and off using the **SET** button.

## 7.21 Bluetooth® (optional)



### Condition

- The motorcycle is stationary.
- **KTM MY RIDE** function activated (optional).
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **Settings** menu appears on the display. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Bluetooth®** appears marked on the display.
- Switch the **Bluetooth®** on and off using the **SET** button.

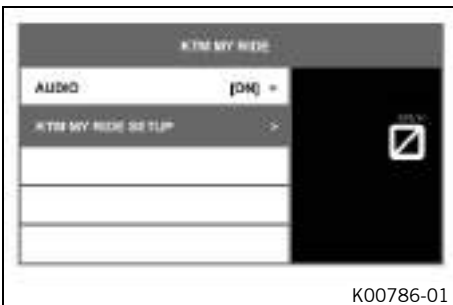


### Info

The **Bluetooth®** function can only be used in conjunction with **KTM MY RIDE** (optional).

When the **Bluetooth®** function is switched on, the **Bluetooth®** symbol appears and flashes in the display of the combination instrument. The **Bluetooth®** symbol lights up as soon as the device is connected.

## 7.22 KTM MY RIDE (optional)



### Condition

- The motorcycle is stationary.
- Function **KTM MY RIDE** activated (optional).
- Function **Bluetooth®** activated.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **KTM MY RIDE** menu appears on the display. Press the **SET** button to open the menu.

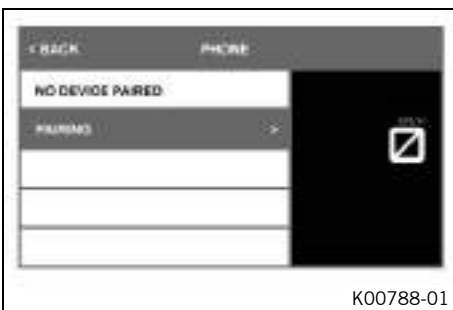
In **KTM MY RIDE** an appropriate cellphone or headset can be paired with the combination instrument via **Bluetooth®**.



## Info

Not every cellphone and headset is suitable for pairing with the combination instrument. The standard **Bluetooth®** 2.1 must be supported.

## 7.23 Pairing (optional)



### Condition

- The motorcycle is stationary.
- Function **KTM MY RIDE** activated (optional).
- Function **Bluetooth®** activated.
- 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 the **KTM MY RIDE** menu appears on the display. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **KTM MY RIDE Setup** appears marked on the display.
- Press the **SET** button.
- Press the **UP** or the **DOWN** button until the menu item **PHONE** or **HEADSET** is marked.



## Info

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

- A suitable cellphone can be paired with the combination instrument in the **PHONE** sub-menu.
- A suitable headset can be paired with the combination instrument in the **HEADSET** sub-menu.

**Info**

The following steps are identical for cellphones and headsets.

---

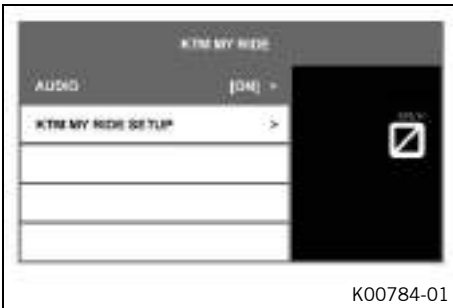
- Press the **SET** button.
  - When pairing the device for the first time, press the **UP** or **DOWN** button until **Pairing** is marked. Press the **SET** button to open the menu.
  - Navigate to the device required using the **UP** or **DOWN** button. Confirm the selection using the **SET** button.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

---

## 7.24 Audio (optional)



### Condition

- Function **KTM MY RIDE** activated (optional).
- Function **Bluetooth®** activated.
- Similarly, the **Bluetooth®** function is also activated when devices are paired.
- Headset connected to suitable audio device.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until the **KTM MY RIDE** menu appears on the display. Press the **SET** button to open the menu.



### Warning

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

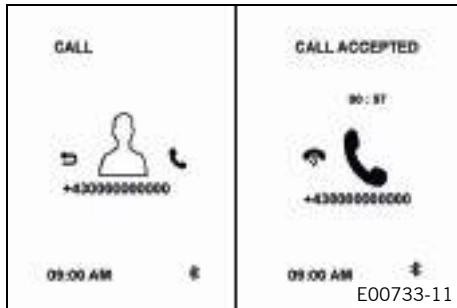
- Always select headphone volume which is low enough for you to still clearly hear acoustic signals.
- 
- Press the **UP** or **DOWN** button until **Audio** is marked on the display. Press the **SET** button to open the menu.
  - Press and hold the **UP** button to increase the audio volume.
  - Press 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.



### Tip

The audio function can be added to **Quick Selector 1** or **Quick Selector 2** for easier operation.

## 7.25 Telephony (optional)



### Condition

- **KTM MY RIDE** Function activated (optional).
- Function **Bluetooth®** activated.
- Similarly, the **Bluetooth®** function is also activated when devices are 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.

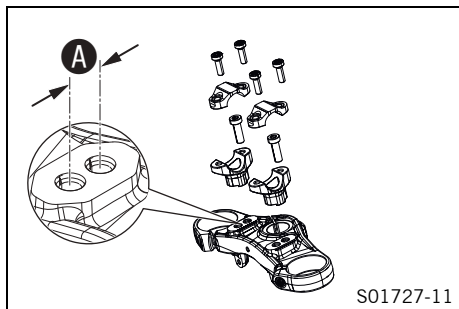
- Press the **SET** button to accept an incoming call.
- Press the **BACK** button to reject an incoming call.
- Press and hold the **UP** button to increase the audio volume.
- Press and hold the **DOWN** button to reduce the audio volume.



### Info

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

## 8.1 Handlebar position



On the upper triple clamp there are two holes at a distance of **A** apart.

Hole distance <b>A</b>	15 mm (0.59 in)
------------------------	-----------------

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



### Info

KTM recommends the front handlebar position when using the vehicle on a race track.

## 8.2 Adjusting the handlebar position ↴



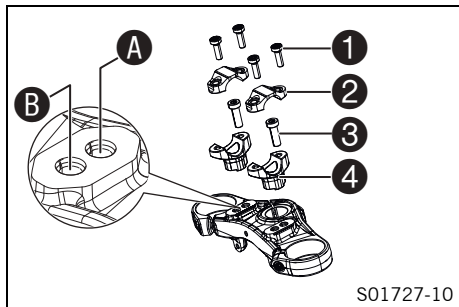
### Warning

**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.

# 8 ERGONOMICS



- Remove screws ①. Take off the handlebar clamps ②. Position the handlebar so that screws ③ are accessible.



**Info**

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

- Remove screws ③. Take off handlebar supports ④.
- Move the handlebar supports into the desired position A or B. Mount and tighten screws ③.

Guideline

Mount the left and right handlebar supports in the same position.

Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	<b>Loctite® 243™</b>
--------------------------	-----	------------------------	----------------------

- Position the handlebar.



**Info**

Make sure the cables and wiring are positioned correctly.

- Position the handlebar clamp. Mount screws ① and tighten evenly.

Guideline

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



## 8.3 Adjusting the basic position of the clutch lever

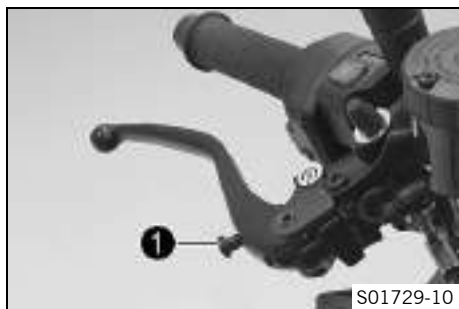


- Push the clutch lever forward.
- Adjust the basic position of the clutch lever to your hand size by turning adjusting screw ①.

### **i** Info

Turn the adjusting screw clockwise to increase the distance between the clutch lever and the handlebar.  
Turn the adjusting screw counterclockwise to decrease the distance between the clutch lever and the handlebar.  
The range of adjustment is limited.  
Only turn the adjusting screw by hand, and do not use force.  
Do not make any adjustments while riding.

## 8.4 Adjusting the basic position of the hand brake lever



- Push the hand brake lever forward.
- Adjust the basic position of the hand brake lever to your hand size by turning adjusting screw ①.

### **i** Info

Turn the adjusting screw clockwise to increase the distance between the hand brake lever and the handlebar.  
Turn the adjusting screw counterclockwise to decrease the distance between the hand brake lever and the handlebar.  
The range of adjustment is limited.  
Only turn the adjusting screw by hand, and do not use force.  
Do not make any adjustments while riding.

## 8.5 Adjusting the basic position of the foot brake lever ↘



- Loosen nut ❶.
- Press the foot brake lever down to be able to turn push rod ❷ more easily.
- Turn the push rod until the foot brake lever is in the desired position.

---

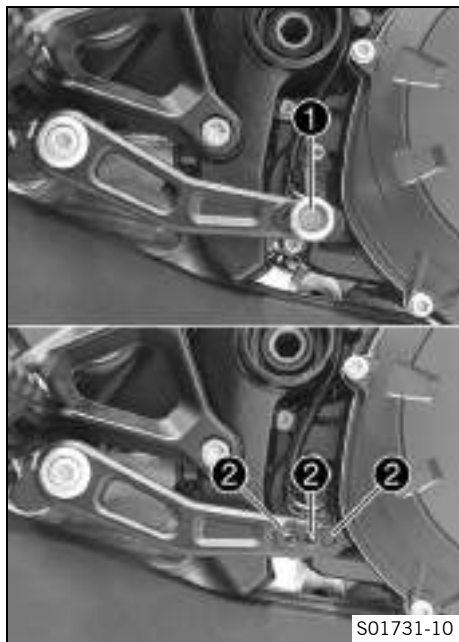
### **i** Info

The range of adjustment is limited.  
The screw must be screwed into the ball joint by at least five turns.

---

- Lock nut ❶.

## 8.6 Setting the step plate of the foot brake lever



- Remove screw ① together with the step plate of the foot brake lever.
- To adjust the length of the foot brake lever, position the step plate of the foot brake lever using screw ① in a drill hole ②.

Guideline

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

- Tighten screw ①.

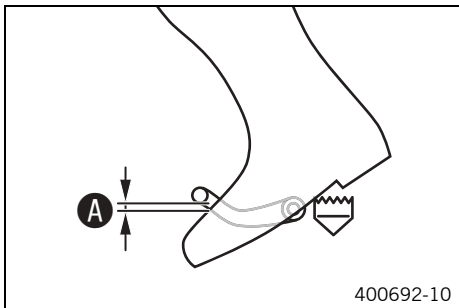
Guideline

Screw, step plate for foot brake lever	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
--	----	-----------------------	---------------

## 8.7 Checking the basic position of the shift lever

### Info

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

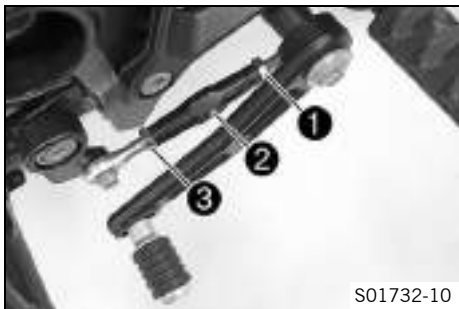


- Sit on the vehicle in the riding position and determine distance **A** between the upper edge of your boot and the shift lever.

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

- » If the distance does not meet specifications:
  - Adjust the basic position of the shift lever. 🛠️ (📖 p. 82)

## 8.8 Adjusting the basic position of the shift lever 🛠️



- Loosen nut **1**, holding the threaded rod **2**.

**i Info**  
Nut **1** has a left-handed thread.

- Loosen nut **3**, holding the threaded rod **2**.
- Turn threaded rod **2** to adjust the shift lever.

**i Info**  
The range of adjustment is limited.  
The shift lever must not come into contact with any other vehicle components during the shift procedure.

- Tighten nut **3**, holding the threaded rod **2**.

Guideline

Nut, shift rod	M8	12 Nm (8.9 lbf ft)
----------------	----	--------------------

- Tighten nut ❶, holding the threaded rod ❷.

Guideline

Nut, shift rod	M8LH	12 Nm (8.9 lbf ft)
----------------	------	--------------------

## 8.9 Setting the shift lever stub



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

Guideline

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

- Tighten the screw.

Guideline

Screw, shift lever stub	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
-------------------------	----	-----------------------	---------------



E00707-10

## 8.10 Adjusting the tilt of the combination instrument



### Info

The tilt of the combination instrument can be continuously adjusted using clamping on the handlebar.



- Unplug the connector ① with sleeve.



- Remove cable guide ② from the turn signal bracket cover.



- Loosen screw ③ using Allen key from the tool set.

Allen key with ball head (61329099200)
--

- Adjust the tilt of the combination instrument.



**Info**

The combination instrument must also not touch any other components following completion of the work.

- Tighten screw ③ using Allen key from the tool set.

Guideline

Screw, combination instrument clamping	M6	2 Nm (1.5 lbf ft)
--	----	-------------------

- Mount cable guide ② in the turn signal bracket.



## 8 ERGONOMICS



- Plug in the connector ① with sleeve.



## 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 to get a better feel 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!

## 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 130 km/h (80.8 mph)



### Warning

**Danger of accidents** Destruction of luggage carrier system.

- If the motorcycle is fitted with luggage cases, note the manufacturer's specifications concerning the maximum payload.



### 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.

# 9 PREPARING FOR USE



### 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 carry luggage, make sure you secure it 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 permissible weight and the maximum permissible axle loads.

#### Guideline

Maximum permissible overall weight	418 kg (922 lb.)
Maximum permissible front axle load	160 kg (353 lb.)
Maximum permissible rear axle load	260 kg (573 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. 195)
- Check the front brake fluid level. (📖 p. 148)
- Check the rear brake fluid level. (📖 p. 152)
- Check the front brake linings. (📖 p. 151)
- Check the brake linings of the rear brake. (📖 p. 154)
- Check that the brake system is functioning properly.
- Check the coolant level in the compensating tank. (📖 p. 189)
- Check the chain for dirt. (📖 p. 134)
- Check the chain tension. (📖 p. 136)
- Check the tire condition. (📖 p. 163)
- Check the tire air pressure. (📖 p. 165)
- Check the settings of all controls and ensure that they can be operated smoothly.
- Check that the electrical equipment is functioning properly.
- Check that luggage is properly 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

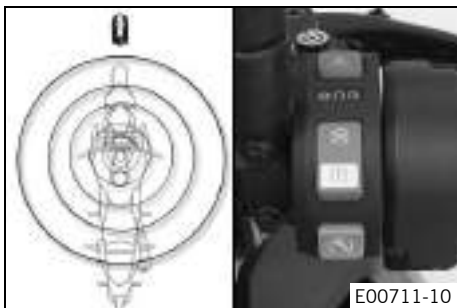
**Danger of accidents** Electronic components and safety devices will be damaged if the battery is discharged or missing.

- 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 steering lock.
- Ensure that the Race-on key stays in range while riding.

#### Guideline

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



### Info

The range may be reduced by decrease 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 placed in area of the steering lock (📖 p. 34) and must be safely stored again after starting.

- Make sure that the emergency OFF switch/electric starter button is in the middle position ①.
- Switch on ignition; to do this, briefly press the Race-on button ② (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.

---

**i** Info

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

---

- Shift the transmission to idle **N**.
  - ✓ The green idling speed indicator lamp **N** lights up.
- Turn the emergency OFF switch/electric starter button to the lower position ③.

---

**i** Info

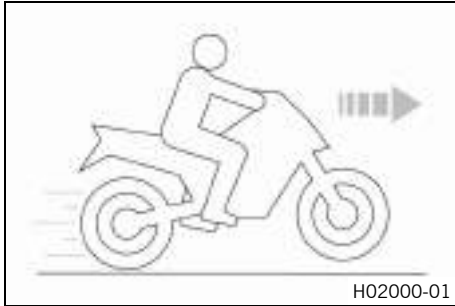
Do not press the emergency off switch/electric starter button into the lower position ③ until the combination instrument function check has been completed. When starting, **DO NOT** open the throttle. If you open the throttle during the starting procedure, fuel is not injected by the engine management 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 Launch Control (optional)



Launch Control is an optional vehicle electronics function.

Launch control adjusts the engine speed in order to achieve the best possible acceleration. Launch control can be used for starting off for a maximum of three times in succession. Launch control is temporarily deactivated after the third starting off in order to protect the engine, transmission and cooling system from overloading.


Launch control is also deactivated if all conditions for activation are no longer met.

Launch control is enabled again in the following cases: the engine runs for at least three minutes, the engine is switched off for 20 minutes or a distance of 1.5 km (0.93 mi) has been covered.

## 10.4 Starting off

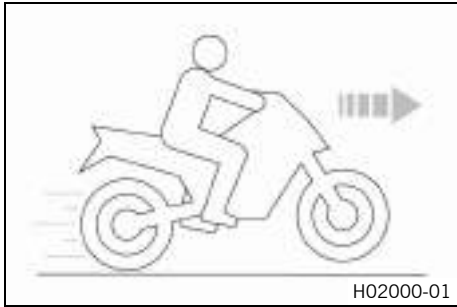
- Pull the clutch lever, shift into first gear, release the clutch lever slowly and at the same time open the throttle gently.

## 10.5 Starting off with launch control (optional)

 **Warning**  
**Danger of accidents** Launch control enables very powerful acceleration which may ask too much of a novice rider.

- Only use the launch control if you have the appropriate experience.
- Do not use launch control on public roads.





## Condition

The drive mode **TRACK** (optional) is activated.

First gear is engaged.

Motorcycle traction control does not have an error stored.

Coolant temperature: > 60 °C (> 140 °F)

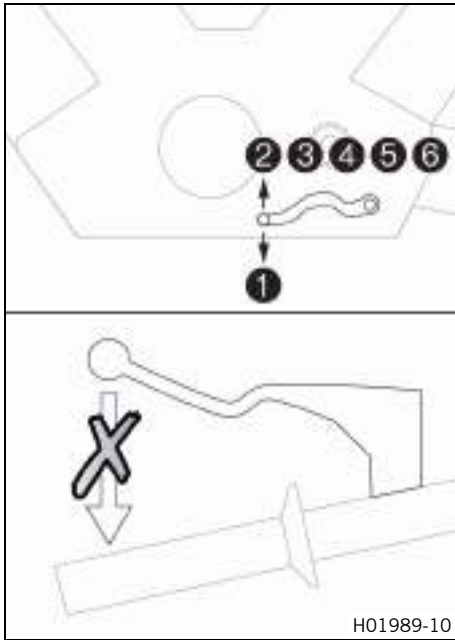
Total riding distance covered: > 1,000 km (> 620 mi)

- Activate launch control in the combination instrument.
  - ✓ The TC indicator lamp flashes quickly.
- Apply full throttle with the clutch lever pulled.
  - ✓ The engine speed is adjusted.

6,500 rpm

- Release the clutch lever quickly but in a controlled manner.

## 10.6 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.

## 10.7 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.



## 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.

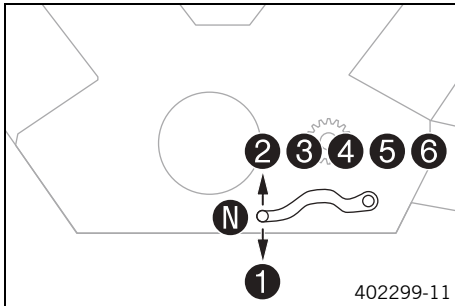
The quickshifter+ is not active if you pull the clutch lever.

- 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  $\frac{3}{4}$  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 emergency OFF switch/electric starter button into the lower position (3). 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 ice warning appears in the combination instrument, the roads may be icy. Adjust your speed to the road conditions.

### Condition

Quickshifter+ (optional) activated.

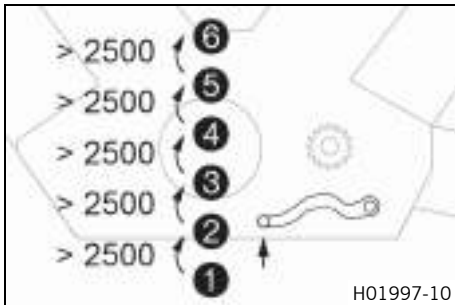
- If the quickshifter+ is enabled in the combination instrument, you can shift up in the speed range shown without pulling the clutch lever.

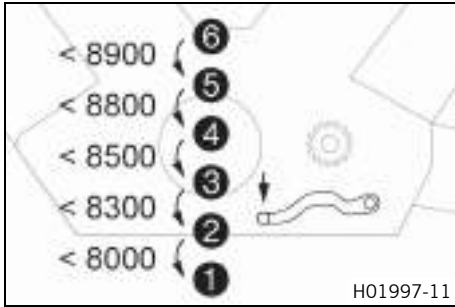


### Info

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.



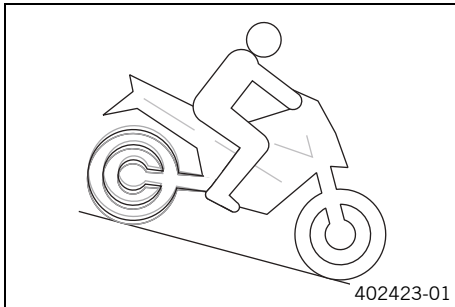


- If the quickshifter+ is enabled in the combination instrument, you can shift down in the speed range shown without pulling the clutch lever.

## **i** 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.

## 10.8 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 too low to open the anti-hopping clutch.

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

## **i** Info

If **ABS** is disabled, **MTC** is disabled or **ABS Mode SMOTO** is enabled, the **MSR** is not active.

## 10.9 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.



### 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 ABS 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.

- 
- Always finish braking before you go into a bend. Change down to a lower gear appropriate to your road speed.
  - Use the braking effect of the engine on long downhill stretches. 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.

## 10.10 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 to 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

**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

**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.


- Apply the brakes on the motorcycle.
  - Shift the transmission to idle .
  - 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.
  - Swing the side stand forward with your foot as far as it will go and lean the vehicle on it.
  - Move handlebar fully to the left and press and hold the Race-on button  (for at least 2 seconds).
  - ✓ The steering is locked.
- 



### Info

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

---

## 10.11 Transport

---

### Note

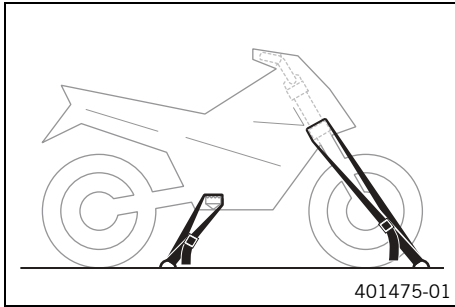
**Danger of damage** The parked vehicle can roll away or fall over.

- 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.

## 10.12 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.

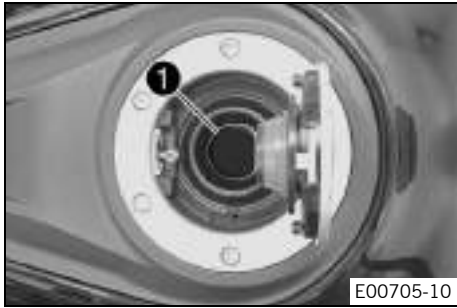
- Refuel only with clean fuel that meets the specified standards. (Your authorized KTM workshop will be glad to help.)



## 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.
- Open the filler cap. (📖 p. 36)
- Fill the fuel tank with fuel up to the lower edge **1** of the filler neck.

Total fuel tank capacity, approx.	18 l (4.8 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (📖 p. 231)
-----------------------------------	-------------------	--

- Close the filler cap. (📖 p. 38)

## 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 years				
		Every year				
		every 30,000 km (18,600 mi)				
		every 15,000 km (9,300 mi)				
		after 1,000 km (620 mi)				
Read out the fault memory using the KTM diagnostics tool. 🛠️	○	●	●	●	●	●
Check the exhaust valve control with the KTM diagnostics tool. 🛠️		●	●	●	●	●
Check that the electrical system is functioning properly.	○	●	●	●	●	●
Change the engine oil and oil filter and clean the oil screens. 🛠️ (📖 p. 196)	○	●	●	●	●	●
Check the front brake linings. (📖 p. 151)	○	●	●	●	●	●
Check the brake linings of the rear brake. (📖 p. 154)	○	●	●	●	●	●
Check the brake discs. (📖 p. 147)	○	●	●	●	●	●
Check the brake lines for damage and leakage.	○	●	●	●	●	●
Change the front brake fluid. 🛠️						●
Change the rear brake fluid. 🛠️						●
Change the hydraulic clutch fluid. 🛠️						●
Check the front brake fluid level. (📖 p. 148)	○	●	●	●		
Check the rear brake fluid level. (📖 p. 152)	○	●	●	●		
Check/correct the fluid level of the hydraulic clutch. (📖 p. 143)		●	●	●		

# 11 SERVICE SCHEDULE

	Every two years				
	Every year				
	every 30,000 km (18,600 mi)				
	every 15,000 km (9,300 mi)				
	after 1,000 km (620 mi)				
Check the shock absorber and fork for leaks. Perform service as needed and depending on how the vehicle is used. 🛠️	○	●	●	●	●
Clean the dust boots of the fork legs. 🛠️ (📖 p. 128)		●	●		
Check the play of the steering head bearing. 🛠️	○	●	●	●	●
Check the tire condition. (📖 p. 163)	○	●	●	●	●
Check the tire air pressure. (📖 p. 165)	○	●	●	●	●
Check the chain, rear sprocket, engine sprocket, and chain guide. (📖 p. 139)		●	●	●	●
Check the chain tension. (📖 p. 136)	○	●	●	●	●
Measure the wheel bearing play and grease the rear hub. 🛠️			●		
Check that the rear wheel nut (right side) is tightened to the specified torque. 🛠️	○	●	●	●	●
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 routing without sharp bends (fuel tank removed). 🛠️		●	●	●	●
Check the coolant level in the compensating tank. (📖 p. 189)	○	●	●	●	●
Change the air filter, clean the air filter box. 🛠️		●	●		
Check the fuel pressure. 🛠️		●	●	●	●
Check the CO adjustment using the KTM diagnostics tool. 🛠️	○	●	●		
Check the headlight setting. (📖 p. 185)	○	●	●		



	Every two years				
	Every year				
	every 30,000 km (18,600 mi)				
	every 15,000 km (9,300 mi)				
	after 1,000 km (620 mi)				
Check that the radiator fan is functioning properly. 🛠️	○	●	●	●	●
Final check: Check the vehicle is roadworthy and take a test ride. 🛠️	○	●	●	●	●
Read out the error memory after the test ride using the KTM diagnostics tool. 🛠️	○	●	●	●	●
Reset the service display using the KTM diagnostic tool. 🛠️	○	●	●	●	●
Make the service entry in <b>KTM Dealer.net</b> and in the Service and Manufacturer Warranty Booklet. 🛠️	○	●	●	●	●

- One-time interval
- Periodic interval

## 11.3 Recommended work

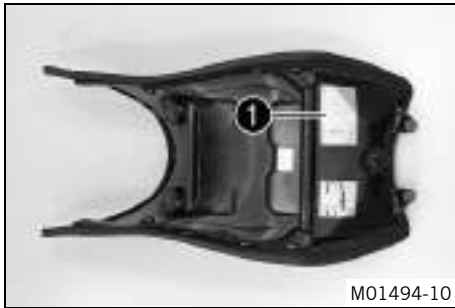
	Every four years				
	Every year				
	every 30,000 km (18,600 mi)				
	every 15,000 km (9,300 mi)				
	after 1,000 km (620 mi)				
Check the frame. 🛠️			●		
Check the swingarm. 🛠️			●		
Check/clean the oil nozzle for clutch lubrication. 🛠️	○	●	●		
Check the swingarm bearing. 🛠️		●	●		
Check the wheel bearings. 🛠️		●	●		

# 11 SERVICE SCHEDULE

				Every four years
				Every year
		every 30,000 km (18,600 mi)		
		every 15,000 km (9,300 mi)		
		after 1,000 km (620 mi)		
Grease all moving parts (e.g., side stand, hand lever, chain, ...) and check for smooth operation. 🛠️	○	●	●	●
Empty the drainage hoses. 🛠️	○	●	●	●
Check all hoses (e.g. fuel, cooling, bleeder, drainage, etc.) and sleeves for cracking, leaks, and incorrect routing. 🛠️		●	●	●
Check the antifreeze. 🛠️	○	●	●	
Check the screws and nuts for tightness. 🛠️	○	●	●	●
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.

### **i** Info

The recommendations for the suspension setting are shown in Table ①. The table is located on the underside of the front rider's seat.

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

### **i** Info

The hydraulic compression damping determines the fork suspension behavior.



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

### **i** Info

Adjusting screw ① 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	15 clicks
Standard	12 clicks
Sport	9 clicks
Full payload	9 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 ① 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	15 clicks
Standard	12 clicks
Sport	9 clicks
Full payload	9 clicks



### Info

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

## 12.4 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.

## 12.5 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.



- 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	12 clicks
Full payload	12 clicks

- Info**  
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

## 12.6 Adjusting the high-speed compression damping of the shock absorber



### Caution

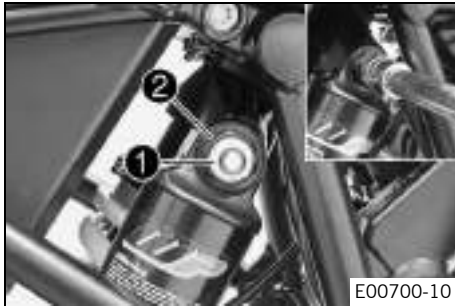
**Risk of injury** Parts of the shock absorber will fly off if the shock absorber is disassembled incorrectly. The shock absorber is filled with highly compressed nitrogen.

- 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.



### Info

Do not loosen fitting **2**!

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

### Guideline

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



### Info

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

## 12.7 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.)



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

### Guideline

Rebound damping	
Comfort	15 clicks
Standard	12 clicks
Sport	10 clicks
Full payload	10 clicks



### Info

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

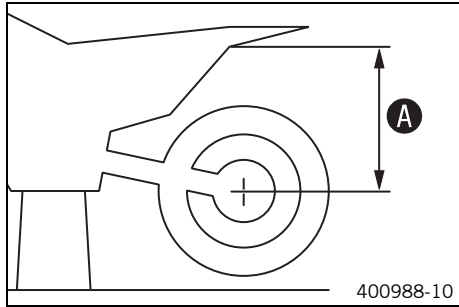
## 12.8 Measuring the rear wheel dimension unloaded

### Preparatory work

- Raise the motorcycle with the work stand (inserted). (📖 p. 125)



## 12 SUSPENSION SETTING



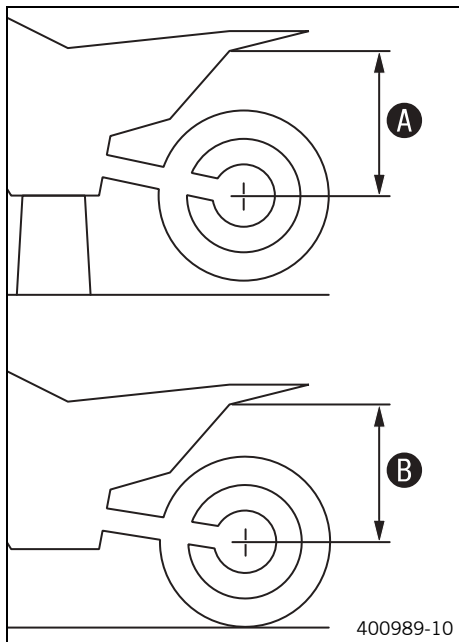
### Main work

- Measure the distance – as vertical as possible – between the rear axle and a fixed point, for example, a mark on the rear fairing.
- Note down the value as dimension **A**.

### Finishing work

- Remove the motorcycle from the work stand (inserted). (📖 p. 126)

## 12.9 Checking the static sag of the shock absorber



- Measure dimension **A** of rear wheel unloaded. (📖 p. 118)
- Hold the motorcycle upright with the aid of an assistant.
- Measure the distance between the rear axle and the fixed point again.
- Note down the value as dimension **B**.

### **i** Info

The static sag is the difference between measurements **A** and **B**.

- Check the static sag.

Full fuel tank (standard)	20 mm (0.79 in)
Full fuel tank (race track mode)	14 mm (0.55 in)

- » If the static sag is less or more than the specified value:
  - Adjust the spring pretension of the shock absorber. 🗨️ (📖 p. 120)

## 12.10 Adjusting the spring pretension of the shock absorber 🛠️

**Warning**  
**Danger of accidents** Modifications to the suspension settings can seriously alter the vehicle's ride behavior.

- Following modifications, ride slowly at first to get the feel of the new ride behavior.



## Info

The spring pretension defines the initial status of the spring operation on the shock absorber. The best spring pretension setting is achieved when it is set for the weight of the rider and that of any baggage and a passenger, thus ensuring an ideal compromise between maneuverability and stability.

## Preparatory work

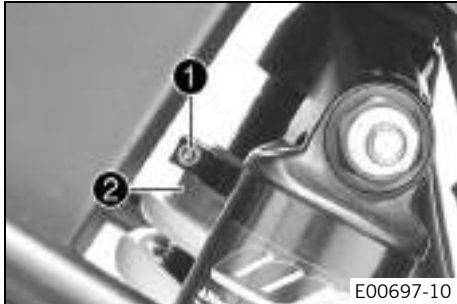
### Condition

- The swingarm is unloaded.

### Main work

- Loosen screw ①.
- Turn adjusting ring ② counterclockwise with the hook wrench from the tool set until the spring is no longer under tension.

Hook wrench, shock absorber (61329083000)



# 12 SUSPENSION SETTING



- Tighten the spring by turning adjusting ring ② to measurement ①.

Guideline

Spring preload	
Comfort	8 mm (0.31 in)
Standard	8 mm (0.31 in)
Sport	8 mm (0.31 in)
Full payload	9 mm (0.35 in)

**i** Info

Turn clockwise to increase the spring pretension; turn counterclockwise to reduce the spring pretension.  
For race track mode, increased preload should be selected as appropriate.

- Tighten screw ①.

Guideline

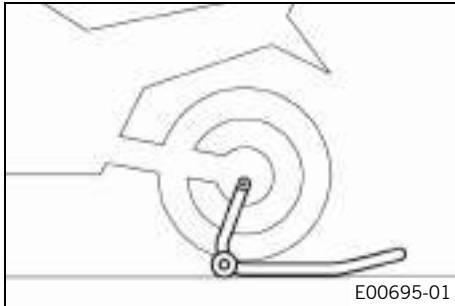
Screw, shock absorber adjusting ring	M5	5 Nm (3.7 lbf ft)
--------------------------------------	----	-------------------

## 13.1 Lifting the motorcycle with the rear lifting gear

### Note

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

- Park the vehicle on a firm and level surface.



- Place the adapter into the rear lifting gear.

Lifting gear, rear (61329955000)

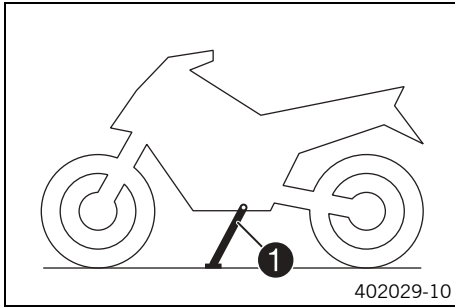
- Position the motorcycle upright, place the lifting gear in the axle, and raise the motorcycle.

## 13.2 Removing the rear of motorcycle from the lifting gear

### Note

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

- Park the vehicle on a firm and level surface.



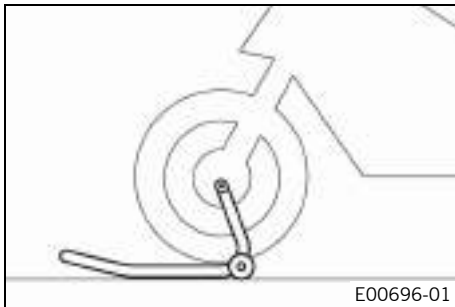
- Secure the motorcycle against falling over.
- Remove the rear wheel stand and lean the vehicle on side stand ①.

## 13.3 Lifting the motorcycle with the front lifting gear

### Note

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

- Park the vehicle on a firm and level surface.



### Preparatory work

- Lift the motorcycle with the rear lifting gear. (📖 p. 123)

### Main work

- Move the handlebar to the straight-ahead position. Align the front lifting gear with the fork legs.

Front lifting gear (61129965000)



### Info

Always raise the motorcycle at the rear first.

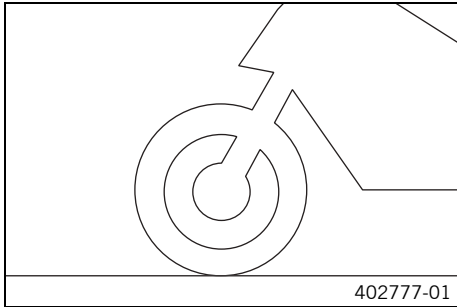
- Raise the motorcycle at the front.

## 13.4 Taking the motorcycle from the front lifting gear

### Note

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

- Park the vehicle on a firm and level surface.



- Secure the motorcycle against falling over.
- Remove the front lifting gear.

## 13.5 Raising the motorcycle with the work stand (inserted)

### Note

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

- Park the vehicle on a firm and level surface.



- The plastic bushing of the work stand should engage in the opening of the swingarm pivot. Select the right height and width of the work stand.

Work stand (62529055100)

- Raise the motorcycle.



### Info

Check that the work stand is properly seated.

## 13.6 Removing the motorcycle from the work stand (inserted)

### 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



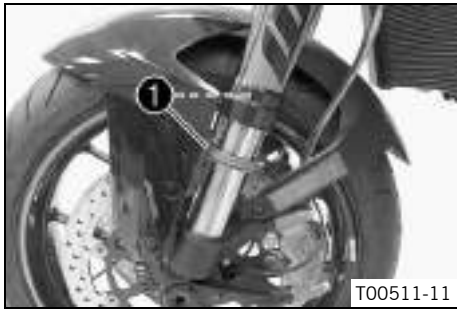
- Remove the motorcycle from the work stand and rest it on the side stand.
- Remove the work stand.

Work stand (62529055100)



R01907-10

## 13.7 Cleaning the dust boots of the fork legs ↴



- Push dust boots ❶ of both fork legs downward.

### **i** 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. 233)

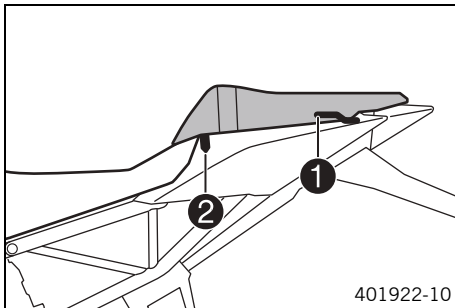
- Press the dust boots back into their installation position.
- Remove excess oil.

## 13.8 Removing the passenger seat



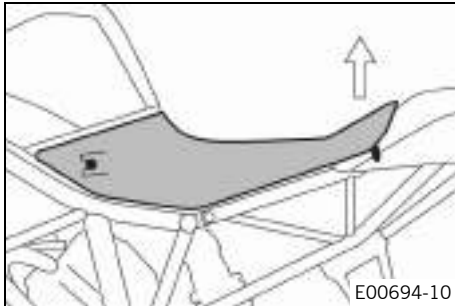
- Insert the Race-on key or the black Race-on key into the seat lock ❶ and turn clockwise.
- Lift the passenger seat at the front and pull it out of the holder toward the front.
- Remove the passenger seat.
- Remove the key.

## 13.9 Mounting the passenger seat



- Attach the recesses of the passenger seat in the guides ❶ and lower at the front while pushing it back.
- Position locking pin ❷ in the lock housing and push down the passenger seat at the front.
  - ✓ The locking pin engages with an audible click.
- Check that the passenger seat is correctly mounted.

## 13.10 Removing the front rider's seat



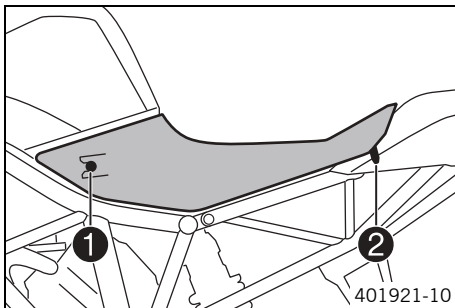
### Preparatory work

- Remove the passenger seat. (📖 p. 129)

### Main work

- Raise the rear of the front rider's seat.
- Detach the front of the front rider's seat and remove it.

## 13.11 Mounting the front rider's seat



### Main work

- Attach recesses ① on the front rider's seat to the fuel tank and push the front rider's seat forward while lowering it.
- ✓ Catch ② is located in the recess.
- Check that the front rider's seat is correctly mounted.

### Finishing work

- Mount the passenger seat. (📖 p. 129)

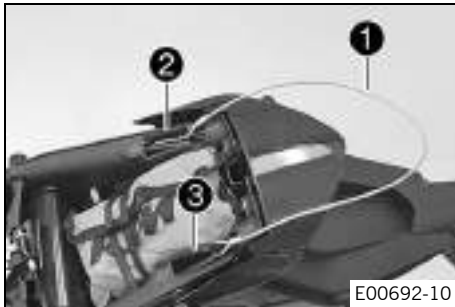
## 13.12 Mounting the helmet lock on the vehicle



### Warning

**Danger of accidents** An attached helmet lock or an attached helmet impair the handling characteristic.

- Do not use the helmet lock to attach a helmet or another object while riding.
- Remove the helmet lock before starting off.



- Remove the passenger seat. (📖 p. 129)
- Position steel cable ① from the tool set with the loop around catch ②.

Steel cable (60012015000)

- Pass the steel cable through the helmet opening.
- Position the other loop of the steel cable around catch ③.
- Carefully position the helmet on the back of the vehicle.
- Mount the passenger seat. (📖 p. 129)

## 13.13 Removing the main silencer



- Remove screw ①.
- Take off the exhaust clamp.

# 13 SERVICE WORK ON THE CHASSIS

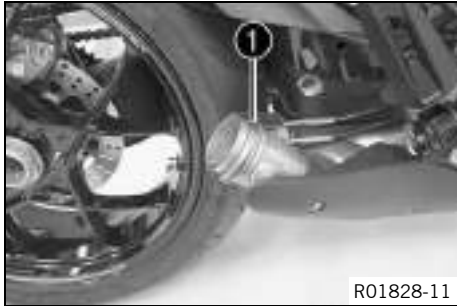


- Remove screw ② with the washer.
- Take off the main silencer.



- Remove seal ring ③.

## 13.14 Installing the main silencer ↴



- Mount seal ring ①.

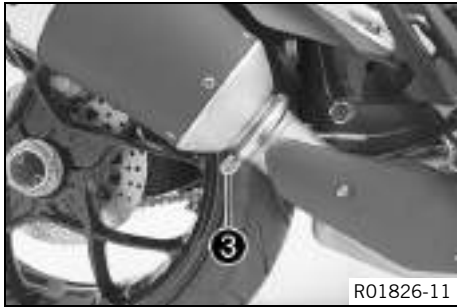


- Position the main silencer.
- Mount screw ② with washer but do not tighten yet.

### Guideline

Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)
---------------------------	----	------------------------

# 13 SERVICE WORK ON THE CHASSIS



- Position the exhaust clamp.
- Mount and tighten screw ③.

Guideline

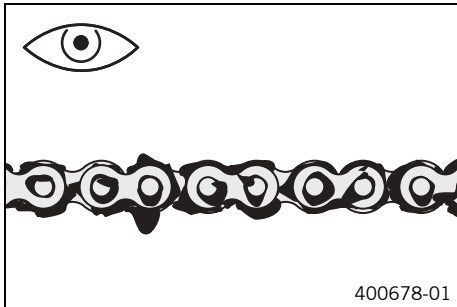
Screw, exhaust clamp on main silencer	M6	8 Nm (5.9 lbf ft)
---------------------------------------	----	-------------------

- Tighten screw ②.

Guideline

Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)
---------------------------	----	---------------------

## 13.15 Checking the chain for dirt



- Check the chain for coarse dirt accumulation.
  - » If the chain is very dirty:
    - Clean the chain. (📖 p. 134)

## 13.16 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

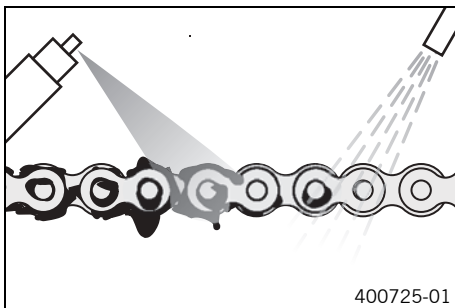
**Environmental hazard** Hazardous substances cause environmental damage.

- 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.  
Regular cleaning increases the service life of the chain.



### Preparatory work

- Lift the motorcycle with the rear lifting gear. (📖 p. 123)

### Main work

- Rinse off loose dirt with a soft jet of water.
- Remove old grease residue with chain cleaner.

Chain cleaner (📖 p. 232)

- After drying, apply chain spray.

Chain lube for road use (📖 p. 232)

### Finishing work

- Remove the rear of the motorcycle from the lifting gear. (📖 p. 123)

## 13.17 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

- Lift the motorcycle with the rear lifting gear. (📖 p. 123)

### Main work

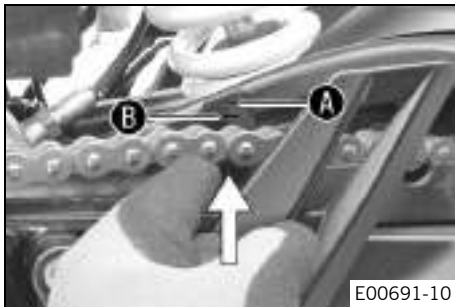
- Shift the transmission to idle **N**.
- At the chain sliding guard in the area of markings **A** and **B**, push the chain upward and determine the chain tension.



### Info

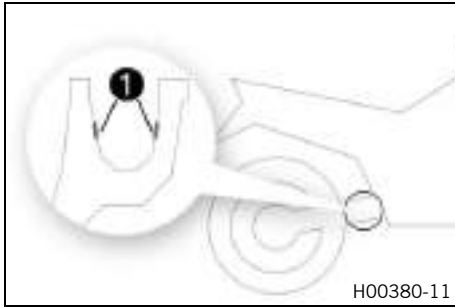
The lower chain section must be taut.

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



The upper edge of the chain is located between markings **A** and **B**.

- » If the chain tension does not meet the specification:
  - Adjust the chain tension. (📖 p. 137)



- Check locking caps ❶ for damage and firm seating.
  - » If the locking caps are damaged or loose:
    - Replace the locking caps.

Link fork locking cap (61304041100)

### Finishing work

- Remove the rear of the motorcycle from the lifting gear. (📖 p. 123)

## 13.18 Adjusting the chain tension



### Warning

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

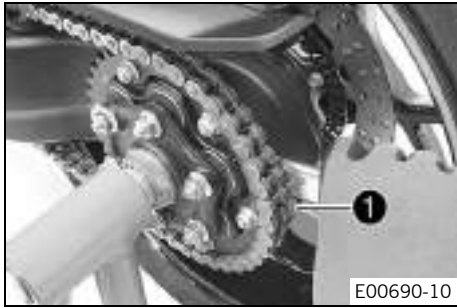
If the chain is tensioned too much, the chain, engine sprocket, rear sprocket, transmission and rear wheel bearings wear more quickly. Some components may break if overloaded.

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

- Lift the motorcycle with the rear lifting gear. (📖 p. 123)
- Check the chain tension. (📖 p. 136)



### Main work

- Loosen screw ❶.
- Set the chain tension by turning the hub housing.

Hook wrench (61329085000)
---------------------------

Handle for ring wrench (60012060000)
--------------------------------------

### **i** Info

Turn clockwise to increase the chain tension; turn counterclockwise to reduce the chain tension.

The tool required is in the tool set.

- Check the chain tension. (📖 p. 136)

✓ The chain tension matches the specified value.

### **i** Info

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

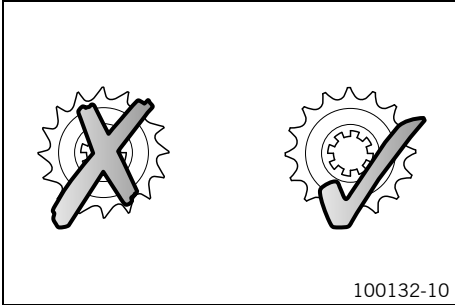
- Tighten screw ❶.

### Guideline

Screw, eccentric	M16	70 Nm (51.6 lbf ft)
------------------	-----	------------------------

- Remove the rear of the motorcycle from the lifting gear. (📖 p. 123)

## 13.19 Checking the chain, rear sprocket, engine sprocket, and chain guide



### Preparatory work

- Lift the motorcycle with the rear lifting gear. (📖 p. 123)

### Main work

- Check the rear sprocket and engine sprocket for wear.
  - » If the rear sprocket or engine sprocket is worn:
    - Change the drivetrain kit. 🛠️

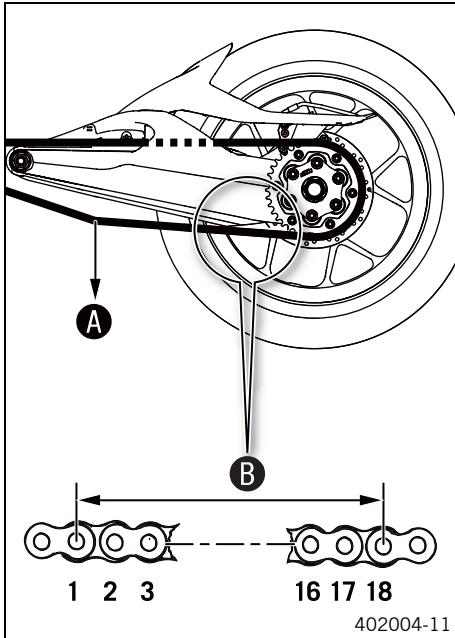


### Info

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

---

# 13 SERVICE WORK ON THE CHASSIS



- 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 distance **B** of 18 chain rollers in the lower chain section.

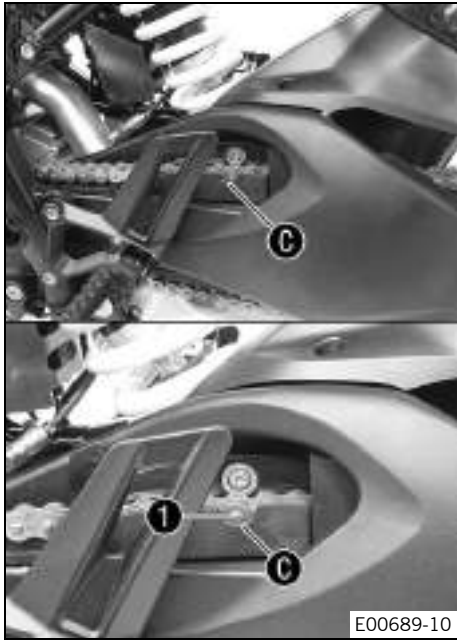
**i** **Info**  
Chain wear is not always even, so you should repeat this measurement at different chain positions.

Maximum distance <b>B</b> at the longest chain section	272 mm (10.71 in)
--	-------------------

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

**i** **Info**  
When the chain is replaced, the rear sprocket and engine sprocket should also be changed.  
New chains wear out faster on an old, worn rear sprocket or engine sprocket.  
For safety reasons, the chain has no chain joint.

# 13 SERVICE WORK ON THE CHASSIS



- Check the chain sliding guard for wear at the recess.
  - » If chain rivet 1 is no longer visible at bottom edge C 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

Screw, chain sliding guard	M5	5 Nm (3.7 lbf ft)
----------------------------	----	-------------------

# 13 SERVICE WORK ON THE CHASSIS



- Check the chain sliding piece for wear.
  - » If the lower edge of the chain is in line with or below the chain sliding piece:
    - Change the chain sliding piece. 🛠️
- Check that the chain sliding piece is firmly seated.
  - » If the chain sliding piece is loose:
    - Tighten the screw on the chain sliding piece.

### Guideline

Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)
---------------------------	----	------------------------



### Finishing work

- Remove the rear of the motorcycle from the lifting gear. (📖 p. 123)



## 13.20 Checking/correcting the fluid level of the hydraulic clutch



### 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

**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.



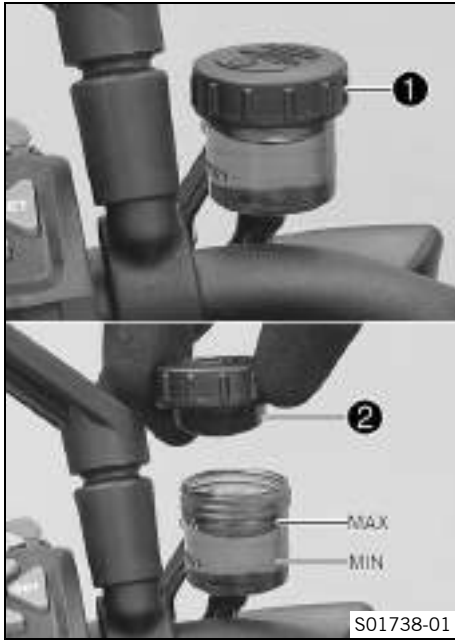
### Info

The 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.
- Check the fluid level.

The fluid level must be between **MIN** and **MAX** markings.

- » If the fluid level does not meet specifications:
  - Remove screw cap ① with membrane ② and the shim.
  - Correct the fluid level of the hydraulic clutch.

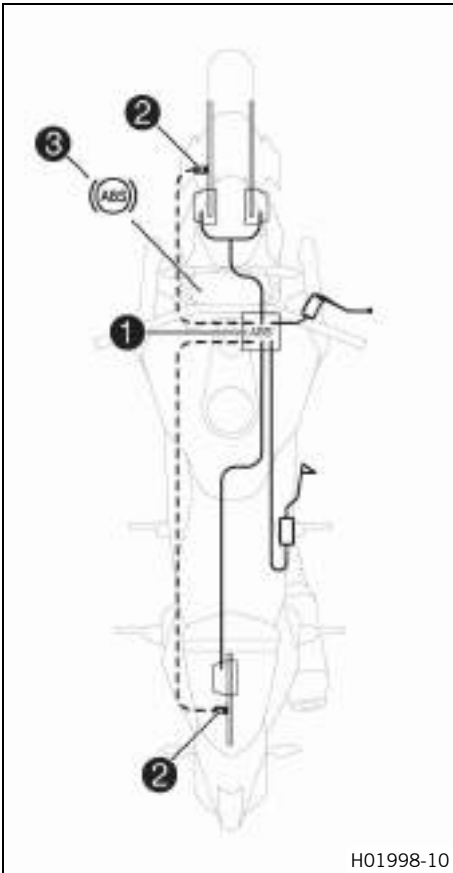
Brake fluid DOT 4 / DOT 5.1 (📖 p. 229)

- Mount and tighten screw cap ① with membrane ② and the shim.

**i** Info

Clean up overflowed or spilled brake fluid immediately with water.

## 14.1 Antilock braking system (ABS)



ABS unit **1**, which consists of a hydraulic unit, brake electronics control unit, and return pump, is installed on the right vehicle side below the fuel tank. 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.
- 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.)



### 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.

The ABS is a safety system that, within physical limitations, can prevent locking and slipping of the wheels during braking.



## 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 **SMOTOABS** modes.

In the **ROAD** ABS mode, the ABS controls both wheels.

In the **SMOTO** ABS mode, the ABS only controls the front wheel. There is no ABS intervention on the rear wheel. The ABS indicator lamp  flashes slowly to remind you that the **SMOTO** ABS mode is enabled.




## Info

In the **SMOTO** 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  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 system. 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 **MSC** 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.



### Info

The **MSC** is only active in **ROAD** ABS mode.

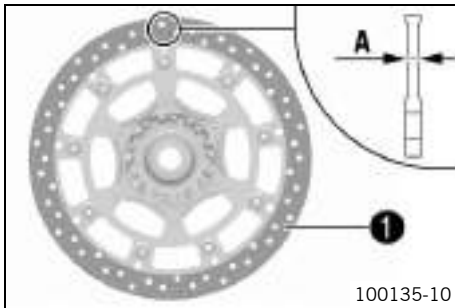
## 14.2 Checking the brake discs



### 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 contact surface **1** of the brake linings.

Brake discs - wear limit	
front	4.5 mm (0.177 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 disc. 🛠️
- 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 disc. 🛠️

## 14.3 Checking the front 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.)



- 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** ②:
    - Add front brake fluid. 🛠️ (📖 p. 149)

## 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.



## 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

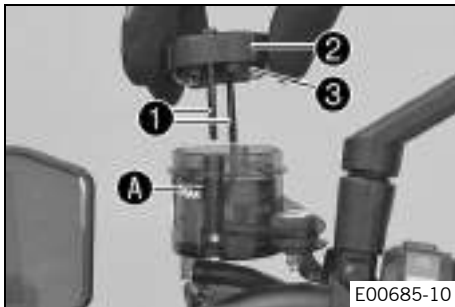
- Check the front brake linings. (📖 p. 151)

## 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 to the **MAX** marking ④.

Brake fluid DOT 4 / DOT 5.1 (📖 p. 229)

- 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.)

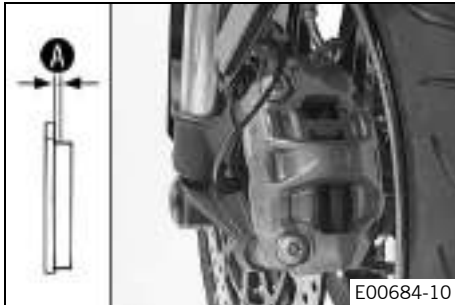


#### Warning

**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.

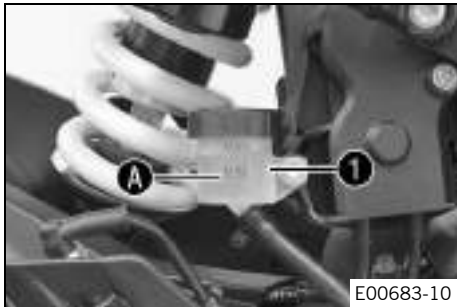
- Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)



### 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.)



- Stand the vehicle upright.
- Check the brake fluid level in the brake fluid reservoir **1**.
  - » If the fluid level reaches the **MIN** marking **A**:
    - Add rear brake fluid. 🛠️ (📖 p. 153)

## 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.)



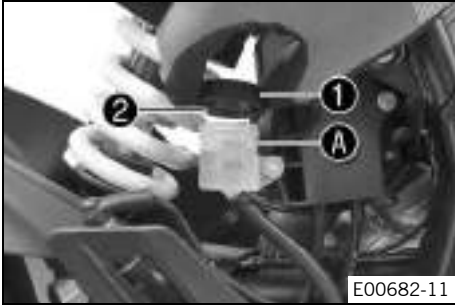
### Warning

**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.

## **i** 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 brake linings of the rear brake. (📖 p. 154)

## Main work

- Stand the vehicle upright.
- Remove screw cap ❶ with the washer and membrane ❷.
- Add brake fluid up to **MAX** marking **A**.

Brake fluid DOT 4 / DOT 5.1 (📖 p. 229)

- Mount and tighten screw cap ❶ with shim and membrane ❷.

## **i** Info

Clean up overflowed or spilled brake fluid immediately with water.

## 14.8 Checking the brake linings of the rear brake

### **!** 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.)

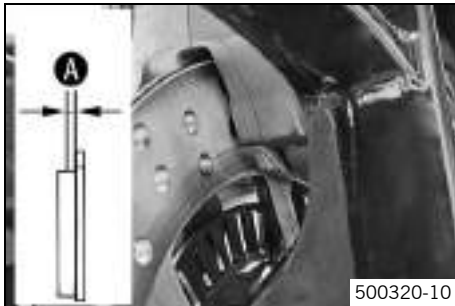


## Warning

**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 <b>A</b>	$\geq 1 \text{ mm } (\geq 0.04 \text{ in})$
----------------------------	---

- » If the minimum thickness is less than specified:
  - Change the rear brake linings. 🛠️
- Check the brake linings for damage and cracking.
  - » If there is damage or cracking:
    - Change the rear brake linings. 🛠️

## 15.1 Removing the front wheel ↩

### Preparatory work

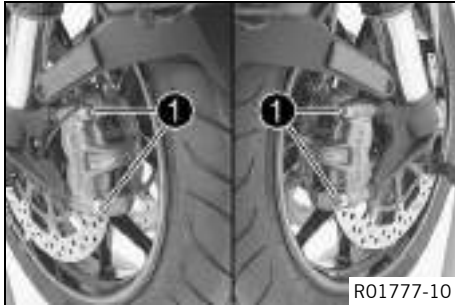
- Lift the motorcycle with the rear lifting gear. (📖 p. 123)
- Lift the motorcycle with the front lifting gear. (📖 p. 124)

### Main work

- Remove screws ❶ from both brake calipers.
- Press back the brake linings with a light 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.

#### Info

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

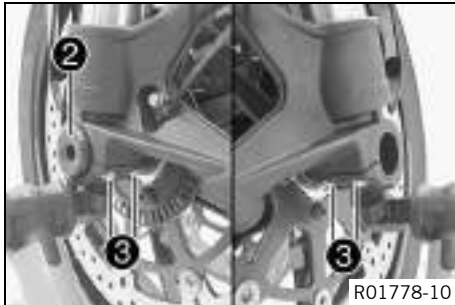


- Loosen screws ❷ and ❸.
- Unscrew screw ❷ about six turns and press your hand on the screw to push the wheel spindle out of the axle clamp. Remove screw ❷.

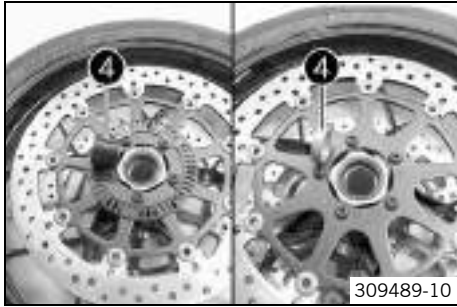
#### Warning

**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.

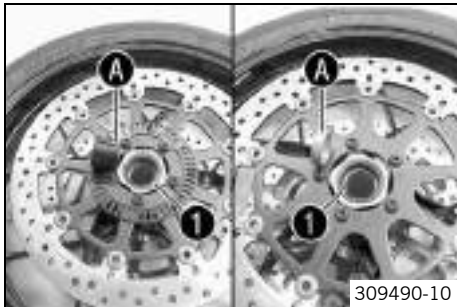


- Holding the front wheel, withdraw the wheel spindle. Take the front wheel out of the fork.



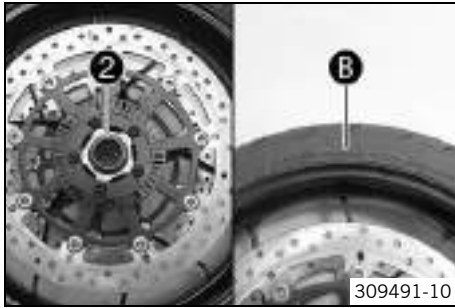
- Remove spacers ④.

## 15.2 Installing the front wheel ↗



- 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 mating surfaces ① of the spacers.

Long-life grease (📖 p. 232)



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



**Info**

Arrow **B** indicates the direction of travel of the front wheel.  
The ABS sensor wheel is on the left viewed in the direction of travel.

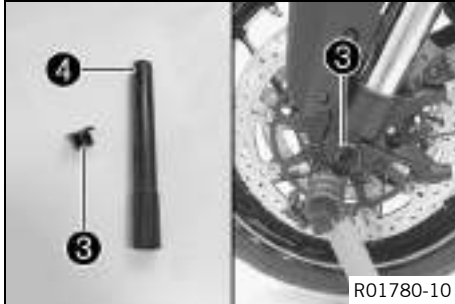
- Insert the narrow spacer on the right in the direction of travel.



**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 screw **3** and wheel spindle **4**.
- Grease wheel spindle **4**.

Long-life grease (📖 p. 232)

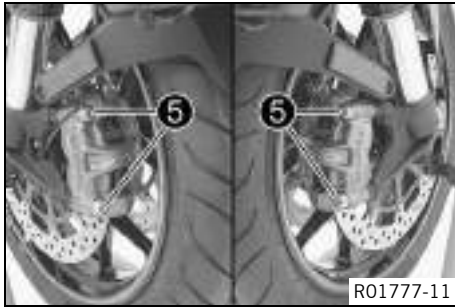
- Lift the front wheel into the fork, position it, and insert the wheel spindle.
- Mount and tighten screw **3**.

Guideline

Bolt, front axle	M25x1.5	45 Nm (33.2 lbf ft)	Thread greased
------------------	---------	------------------------	----------------



# 15 WHEELS, TIRES



- Position the brake calipers and check that the brake linings are seated correctly.
- Mount screws **5** 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.

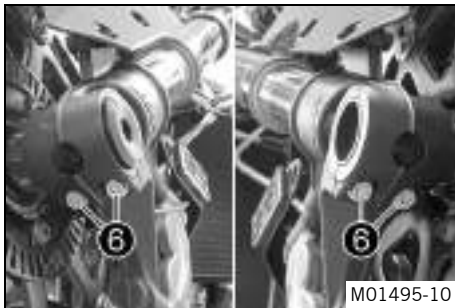
### Guideline

Screw, front brake caliper	M10	45 Nm (33.2 lbf ft)	Loctite® 243™
----------------------------	-----	------------------------	---------------

- Remove the locking piece of the hand brake lever.
- Take the motorcycle from the front lifting gear. (📖 p. 125)
- Remove the rear of the motorcycle from the lifting gear. (📖 p. 123)
- Operate the front brake and compress the fork a few times firmly.
  - ✓ The fork legs straighten.
- Tighten screws **6**.

### Guideline

Screw, axle clamp	M8	15 Nm (11.1 lbf ft)	
-------------------	----	------------------------	--



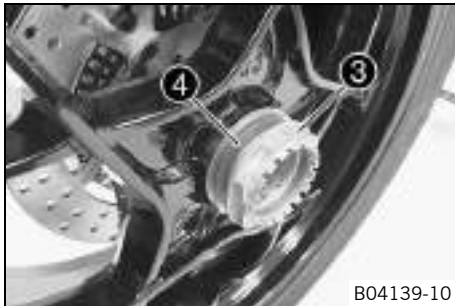
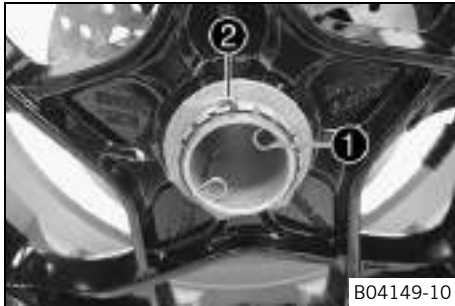
## 15.3 Removing the rear wheel 🛠️

### Preparatory work

- Lift the motorcycle with the rear lifting gear. (📖 p. 123)
- Remove the main silencer. 🛠️ (📖 p. 131)

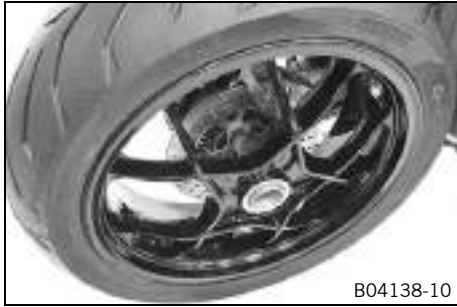
### Main work

- Remove the inside locking wire ❶.
- Remove the outside locking wire ❷.



- Have an assistant operate the rear brake.
- Loosen nut ❸ and remove it with washer ❹.

# 15 WHEELS, TIRES



- Take off the rear wheel.

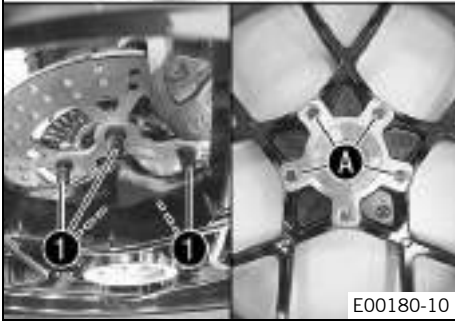
## 15.4 Installing the rear wheel



### 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.



### Main work

- Check the rear wheel bearing for damage and wear.
  - » If the rear wheel bearing is damaged or worn:
    - Change the rear wheel bearing. 🛠️
- Clean and grease the threads of the wheel axle and axle nut.

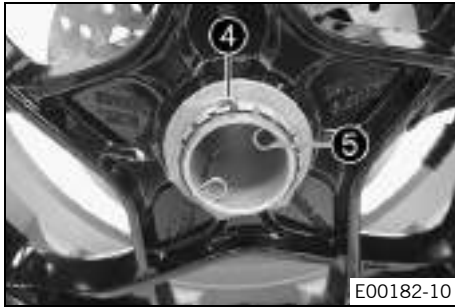
Long-life grease (📖 p. 232)

- Slide the rear wheel onto the axle.
  - ✓ Driving pins (1) engage in drilled holes (A) of the rim.

- Mount washer (2) and nut (3).
- Have an assistant operate the rear brake.
- Tighten nut (3).

### Guideline

Nut, rear axle	M50x1.5	250 Nm (184.4 lbf ft)	Thread greased/lock locking wire with locking varnish
----------------	---------	--------------------------	--




- Mount outside locking wire ④.
- Mount inside locking wire ⑤.
- ✓ The pins of the locking wires engage in the drilled holes of the wheel axle.


## Finishing work

- Remove the rear of the motorcycle from the lifting gear. (📖 p. 123)
- Install the main silencer. 🛠️ (📖 p. 133)


## 15.5 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.

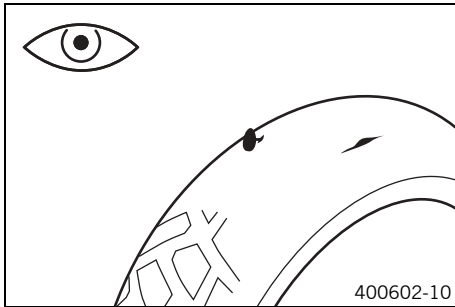
Running-in phase

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.

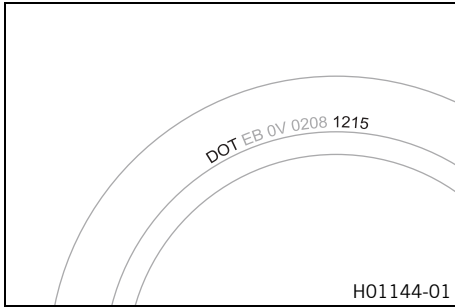


## Info

Adhere to the legally required minimum tread depth.

Minimum tread depth	$\geq 2 \text{ mm } (\geq 0.08 \text{ in})$
---------------------	---

- » 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.

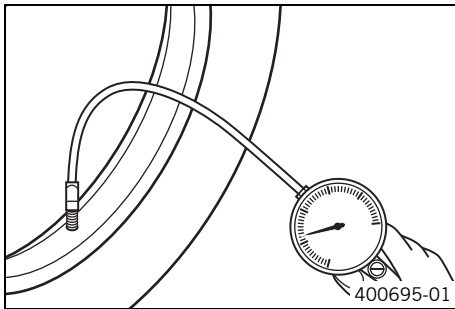
- » If the tires are more than 5 years old:
  - Change the tires. 🛠️

## 15.6 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	
front: with cold tires	2.5 bar (36 psi)
rear: with cold tires	2.5 bar (36 psi)

Tire air pressure with passenger/full payload	
front: with cold tires	2.5 bar (36 psi)
rear: with cold tires	2.9 bar (42 psi)

- » If the tire pressure does not meet specifications:

# 15 WHEELS, TIRES

- Correct the tire pressure.
- Mount the dust cap.



## 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 (DRL)/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 Removing the battery ↴



### 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

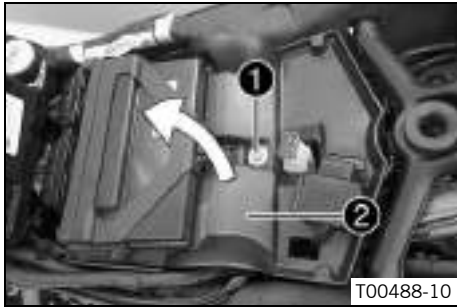
**Danger of accidents** Electronic components and safety devices will be damaged if the battery is discharged or missing.

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

---

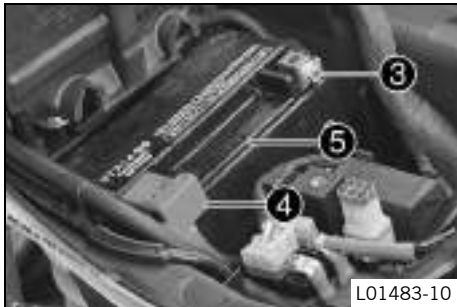
### Preparatory work

- Switch off all power consumers and switch off the engine.
- Remove the passenger seat. (📖 p. 129)
- Remove the front rider's seat. (📖 p. 130)



### Main work

- Remove screw ①.
- Lift cover ② at the rear and pull toward the rear.
- Fold up the cover.



- Disconnect negative cable ③ of the battery.
- Remove positive terminal cover ④ and disconnect the positive cable from the battery.
- Take the battery ⑤ out of the battery compartment.

## 16.3 Installing the battery ↱



### 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.

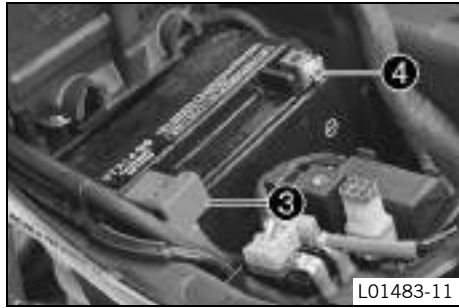


### Main work

- Fold up cover ①.
- Place battery ② in the battery compartment.

Battery (YTX14-BS) (📖 p. 218)

# 16 ELECTRICAL SYSTEM



- Position the positive cable and mount and tighten the screw.

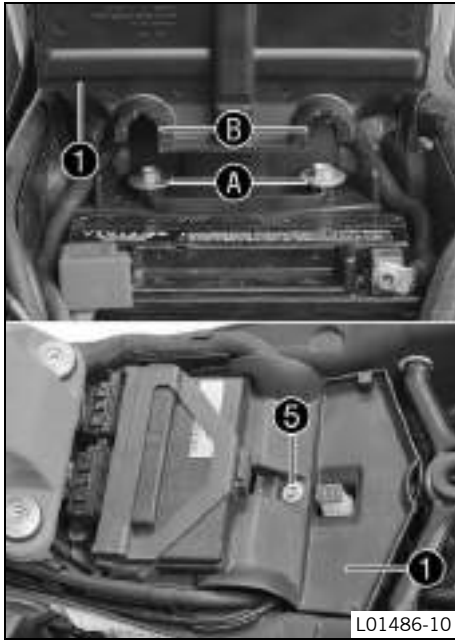
Guideline

Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)
-------------------------	----	-------------------------

- Mount positive terminal cover ③.
- Position negative cable ④; mount and tighten the screw.

Guideline

Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)
-------------------------	----	-------------------------



- Position cover ①.
- ✓ Screw heads ① engage in recesses ②.
- Mount and tighten screw ③.

### Finishing work

- Mount the front rider's seat. (📖 p. 130)
- Mount the passenger seat. (📖 p. 129)
- Set the time and date.

## 16.4 Recharging the battery ↴



### 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.

## **i** 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 battery's service life.

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, it will become over-discharged and sulfate, destroying the battery.

The battery is maintenance-free, i.e., the acid level does not have to be checked.

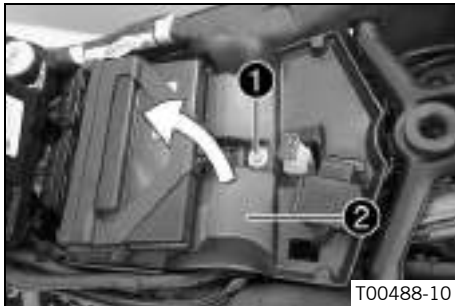
If the battery is not charged using the KTM battery charger, the battery must be removed for charging. Otherwise, overvoltage may damage electronic components. Charge the battery according to the instructions on the battery housing.

### **Preparatory work**

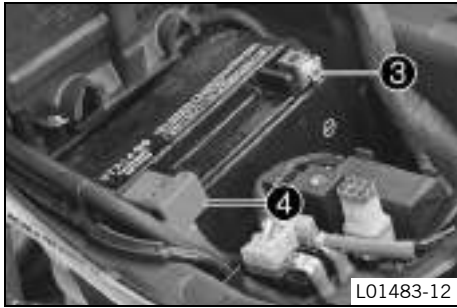
- Switch off all power consumers and switch off the engine.
- Remove the passenger seat. (📖 p. 129)
- Remove the front rider's seat. (📖 p. 130)

### **Main work**

- Remove screw ①.
- Lift cover ② at the rear and pull toward the rear.
- Fold up the cover.







- Disconnect negative cable ③ of the battery to avoid damage to the motorcycle's electronics.
- Remove positive terminal cover ④.



- Connect the battery charger to the battery. Switch on the battery charger.

Battery charger (58429074000)
-------------------------------

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.



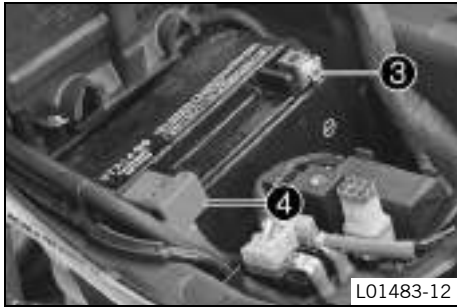
**Info**

Charge the battery with a maximum of 10% of the capacity specified on the battery housing.

- Switch off and disconnect the battery charger from the battery after charging.

**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

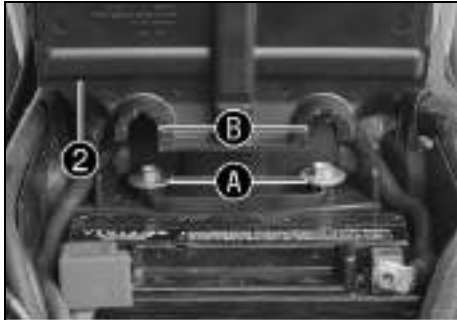


L01483-12

- Mount positive terminal cover ④.
- Position negative cable ③ and mount and tighten the screw.

Guideline

Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)
-------------------------	----	-------------------------



- Position cover ②.
- ✓ Screw heads ① engage in recesses ②.
- Mount and tighten screw ①.

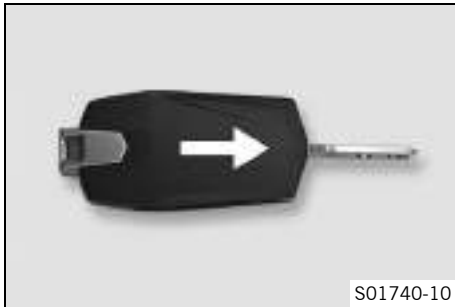


L01486-11

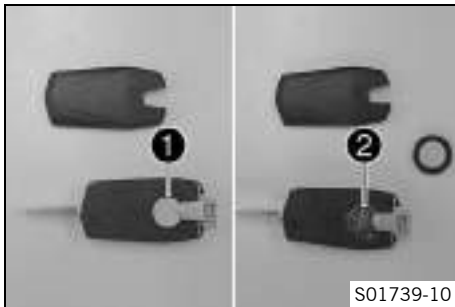
## Finishing work

- Mount the front rider's seat. (📖 p. 130)
- Mount the passenger seat. (📖 p. 129)
- Set the time and date.

## 16.5 Changing the Race-on key battery



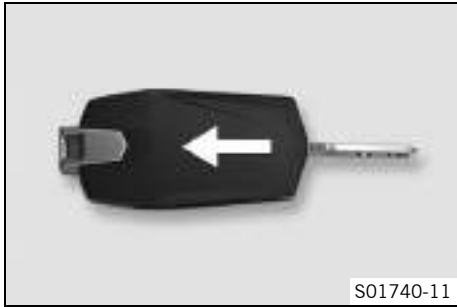
- Fold out the key bit of the Race-on key.
- Push the lower half of the Race-on key in the direction of the arrow and take off.



- Remove battery cover ❶.
- Remove battery ❷.
- Insert the new battery with the marking facing upward.

Battery for Race-on key (CR 2032) (📖 p. 218)

- Mount battery cover ❶.



- Fit lower half of the Race-on key and snap into place in the direction of the arrow.

## 16.6 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.
- Remove the passenger seat. (📖 p. 129)
- Remove the front rider's seat. (📖 p. 130)

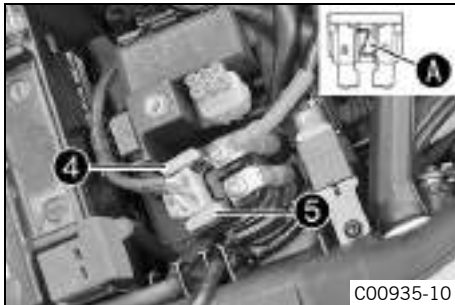


## Main work

- Remove screw ①.
- Lift cover ② at the rear and pull toward the rear.
- Fold up the cover.



- Take off protection caps ③.



- Remove faulty main fuse ④.

---

### **i** 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.

---

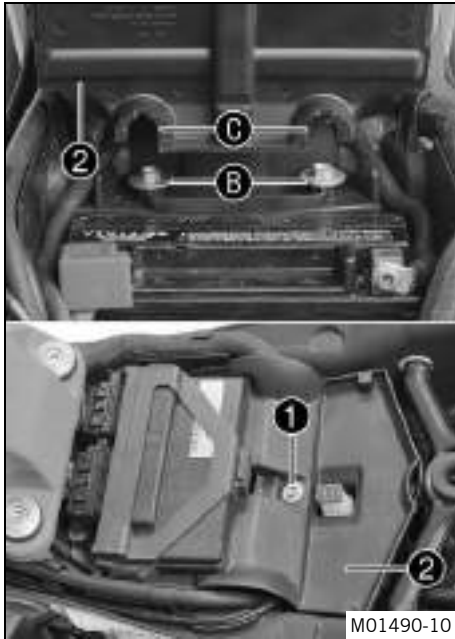
- Install a new main fuse.

Fuse (58011109130) (📖 p. 218)

- Check that the electrical equipment is functioning properly.
- Mount the protection caps.

**i** **Tip**

Insert a new spare fuse into the starter relay to have it available when needed.



- Position cover **2**.
- ✓ Screw heads **B** engage in recesses **C**.
- Mount and tighten screw **1**.

**Finishing work**

- Mount the front rider's seat. (🛠 p. 130)
- Mount the passenger seat. (🛠 p. 129)

- Set the time and date.

## 16.7 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

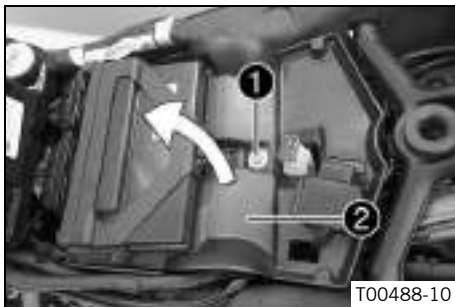
The fuse box containing the fuses of individual power consumers is located under the seat.

### Preparatory work

- Switch off all power consumers and switch off the engine.
- Remove the passenger seat. (📖 p. 129)
- Remove the front rider's seat. (📖 p. 130)

### Main work

- Remove screw ①.
- Lift cover ② at the rear and pull toward the rear.
- Fold up the cover.





- Open fuse box cover ③.



- Check the fuses.

---

**i** **Info**

You can recognize a faulty fuse by a burned-out fuse wire ①.

---

- Remove the defective fuse.



## Guideline

Fuse <b>1</b> - 10 A - power supply for control units and components
Fuse <b>2</b> - 10 A - permanent positive for auxiliary equipment
Fuse <b>3</b> - 10 A - permanent positive for headlight
Fuse <b>4</b> - 10 A - permanent positive for headlight
Fuse <b>5</b> - 10 A - ECU
Fuse <b>6</b> - 25 A - ABS return pump
Fuse <b>7</b> - 15 A - ABS hydraulic unit
Fuse <b>8</b> - not assigned
Fuse <b>9</b> - not assigned
Fuse <b>10</b> - not assigned
Fuse <b>res</b> - 10 A - spare fuses
Fuse <b>res</b> - 15 A - spare fuse
Fuse <b>res</b> - 25 A - spare fuse

- Use spare fuses with the correct rating only.

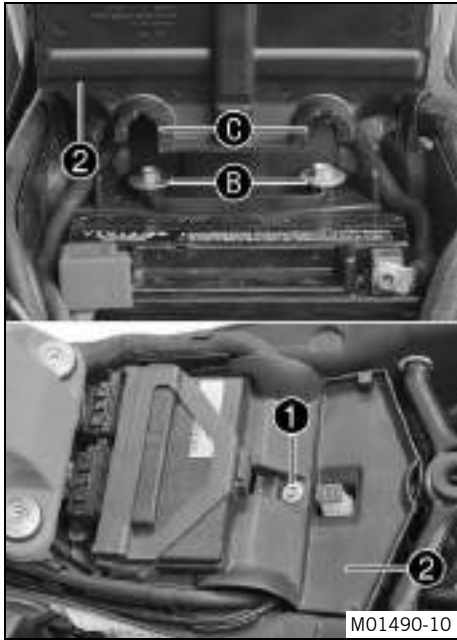
Fuse (58011109110) (📖 p. 218)
Fuse (58011109115) (📖 p. 218)
Fuse (58011109125) (📖 p. 218)



### 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.

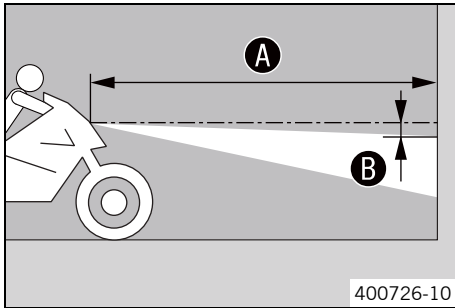


- Position cover ②.
- ✓ Screw heads ② engage in recesses ③.
- Mount and tighten screw ①.

### Finishing work

- Mount the front rider's seat. (📖 p. 130)
- Mount the passenger seat. (📖 p. 129)

## 16.8 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 **B** under the first mark.

Guideline

Distance <b>B</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 <b>A</b>	5 m (16 ft)
-------------------	-------------

- The rider, with luggage and passenger if applicable, now mounts the motorcycle.
- Check the headlight setting.

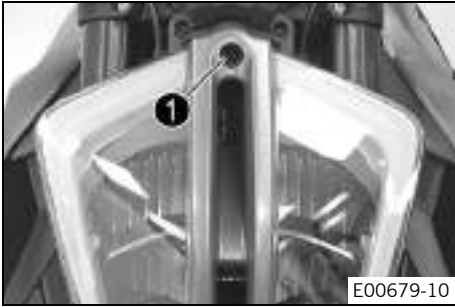
The light-dark boundary must lie exactly on the lower mark when the motorcycle is ready to operate with the rider mounted along with any luggage and a passenger if applicable.

- » If the boundary between light and dark does not meet specifications:
  - Adjust the headlight range. (📖 p. 185)

## 16.9 Adjusting the headlight range

**Preparatory work**

- Check the headlight setting. (📖 p. 185)



### Main work

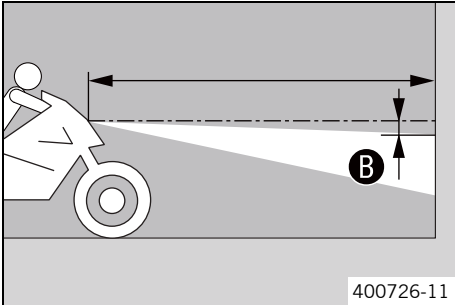
- Turn adjusting screw **1** to adjust the headlight range.

### **i** Info

Turn clockwise to increase the headlight range; turn counterclockwise to reduce the headlight range.

If you have a payload, you may have to correct the headlight range.

Screw **1** also secures the headlight. Ensure the screw is always screwed in far enough.

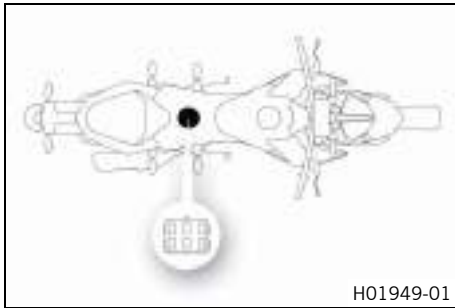


- Set the headlight to marking **B**.

### 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.

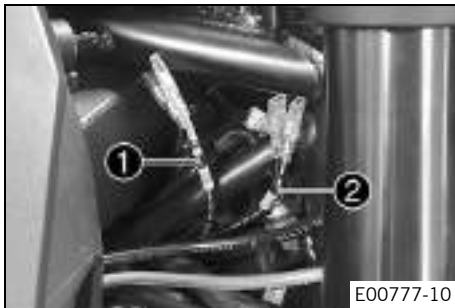
## 16.10 Diagnostics connector



H01949-01

Diagnostics connector ① is located under the front rider's seat.

## 16.11 ACC1 and ACC2 front



E00777-10

Power supplies ACC1 ① and ACC2 ② front are located behind the right cover between the triple clamps.

## 16.12 ACC1 and ACC2 rear



Power supplies ACC1 ① and ACC2 ② rear are located under the 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.



- Park the motorcycle on a horizontal surface.
- Check the coolant level in the compensating tank 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:
  - Correct the coolant level in the compensating tank. (📖 p. 190)

## 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.

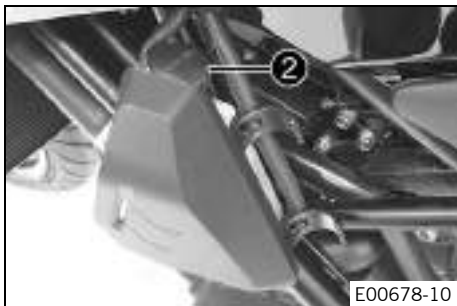
## Preparatory work

- Check the coolant level in the compensating tank. (📖 p. 189)



## Main work

- Pull and take off the compensating tank from the side with the holding lug ❶.

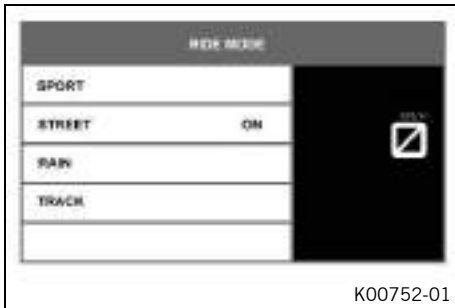


- Remove cover ❷ of the compensating tank.
- Add coolant to the **MAX** marking.

Coolant (📖 p. 229)

- Mount cover ❷ of the compensating tank.
- Mount compensating tank and snap into place with the holding lug ❶.

## 18.1 Ride Mode



### Possible states

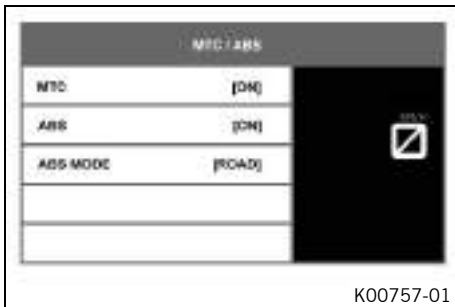
- **SPORT** – Homologated performance with very direct response; the traction control allows greater slip on the rear wheel.
- **STREET** – Homologated performance with balanced response; the traction control allows normal slip on the rear wheel.
- **RAIN** – Reduced homologated performance for better rideability; the traction control allows normal slip on the rear wheel.
- **TRACK** – Optional setting available with homologated performance and extremely direct response. The traction control and the characteristic map of the throttle response can be individually set.

Various vehicle tunings can be selected in the **Ride Mode** menu. **SPORT**, **STREET**, **RAIN** and **TRACK** are available (optional).

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 (MTC) lowers the engine torque in case of loss of traction in the rear wheel.



### 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.

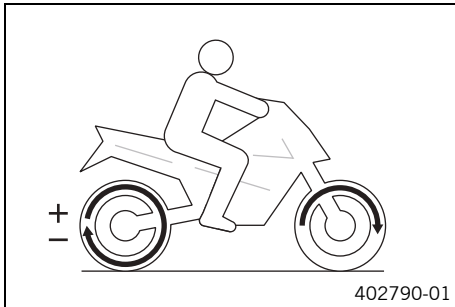
Traction control is operated via the **Ride Mode** menu on the combination instrument. The traction control can be switched off in the **MTC/ABS** menu.



### Info

When traction control is active, the TC indicator lamp  flashes.  
When traction control is switched off, the TC indicator lamp  is lit.

## 18.3 Slip adjustment (optional)



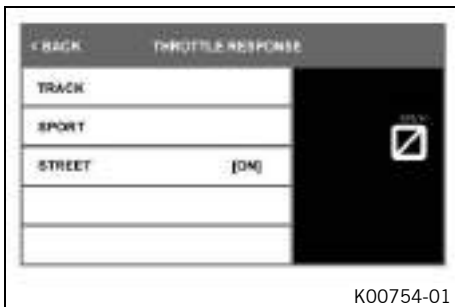
The slip adjustment is an optional motorcycle traction control function. The slip adjustment allows the motorcycle traction control to be tuned through nine levels to the desired characteristic map. Level 1 allows the maximum slip on the rear wheel, and level 9 the minimum. The slip adjustment can be set while riding with a closed menu using the **UP** or **DOWN** button.



### Info

The slip adjustment is only available in Ride Mode **TRACK** ( p. 193) (optional).

## 18.4 Throttle Response (optional)



### Possible states

- TRACK – Extremely direct response
- SPORT – Very direct response.
- STREET – Balanced response

The characteristic map of the throttle response can be adjusted in the **Throttle Response** menu.

The **Throttle Response** can also be set while riding with a closed throttle grip and deactivated speed sensor.



### Info

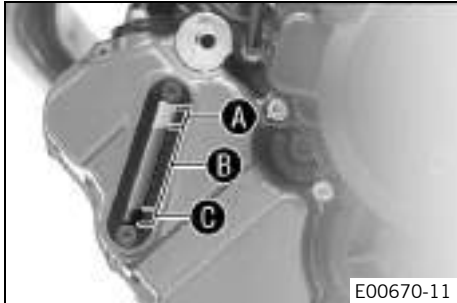
**Throttle Response** is only available with the **TRACK** drive mode enabled.

## 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 area **B** of the engine oil level viewer.

- » When the engine oil level is in area **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 **C** of the engine oil level viewer:
  - Add engine oil. (📖 p. 200)

## 19.2 Changing the engine oil and oil filter, cleaning the oil screens ↩



### Warning

**Danger of scalding** Engine and gear oil get very hot when the motorcycle is ridden.

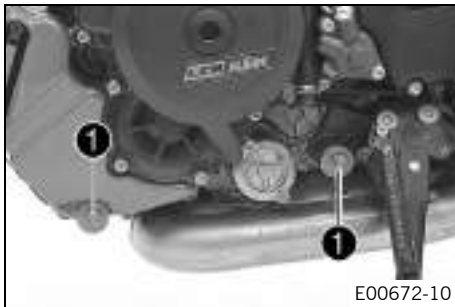
- Wear suitable protective clothing and safety gloves.
- In the event of scalding, rinse the area affected immediately with lukewarm water.



### 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.



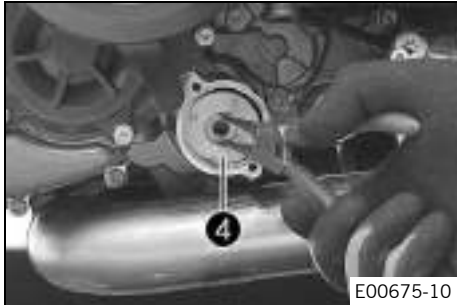
### Main work

- 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 magnet, O-rings, and oil screen.

# 19 SERVICE WORK ON THE ENGINE



- 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 surfaces.



- Insert new oil filter ④.

**i** Info

Only insert the oil filter by hand.

- Lubricate the O-ring of the oil filter cover. Mount oil filter cover ③.

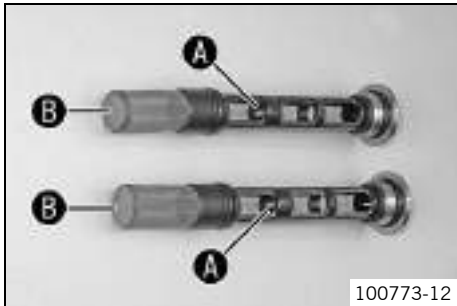
# 19 SERVICE WORK ON THE ENGINE



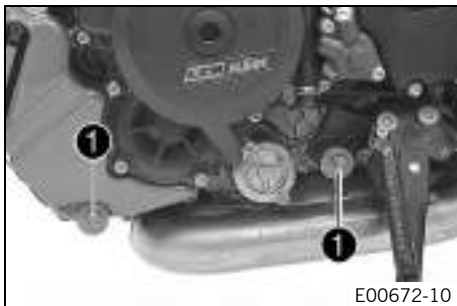
- Mount and tighten screws ②.

Guideline

Remaining engine screws	M5	6 Nm (4.4 lbf ft)
-------------------------	----	-------------------



- Thoroughly clean magnets ① and oil screens ② of the oil drain plugs.

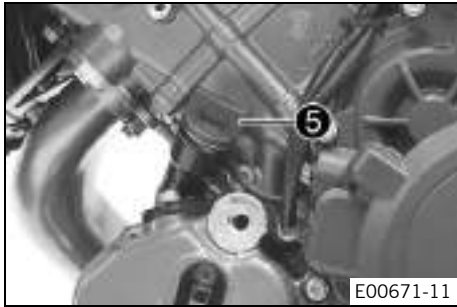


- Mount and tighten oil drain plugs ① with the magnets, O-rings, and oil screens.

Guideline

Oil drain plug	M20x1.5	20 Nm (14.8 lbf ft)
----------------	---------	------------------------





- Add the oil quantity in two separate operations.

Engine oil	3.50 l (3.7 qt.)	Outside temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (📖 p. 230)
		Outside temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (📖 p. 230)

- Remove screw plug **5** and fill in engine oil.

Engine oil (1st quantity), approx.	3.0 l (3.2 qt.)	Outside temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (📖 p. 230)
		Outside temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (📖 p. 230)

- Mount screw plug **5**.

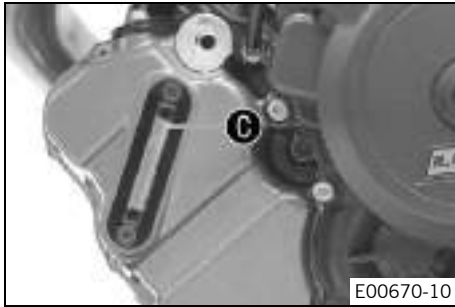


**Danger**

**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 **C** 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. 195)

## 19.3 Adding engine oil



### **Info**

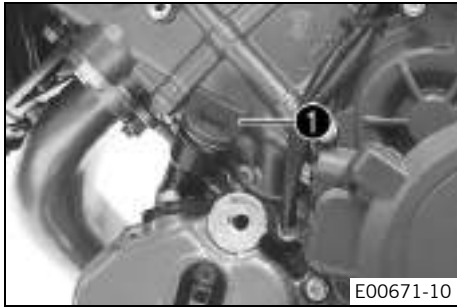
Too little engine oil or poor-quality engine oil results in premature wear to the engine. The engine may be damaged if the engine oil level is too high.

### **Condition**

The engine is at operating temperature.

### **Preparatory work**

- Stand the motorcycle upright on a horizontal surface.
- Check the engine oil level. (📖 p. 195)



## Main work

- Remove screw plug ❶.



- Add engine oil to upper marking ❷ on the engine oil level viewer.

## Condition

Outside temperature:  $\geq 0\text{ }^{\circ}\text{C}$  ( $\geq 32\text{ }^{\circ}\text{F}$ )

Engine oil (SAE 10W/50) (📖 p. 230)

## Condition

Outside temperature:  $< 0\text{ }^{\circ}\text{C}$  ( $< 32\text{ }^{\circ}\text{F}$ )

Engine oil (SAE 5W/40) (📖 p. 230)



## 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**

- Check the engine oil level. (📖 p. 195)

## 20.1 Cleaning the 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

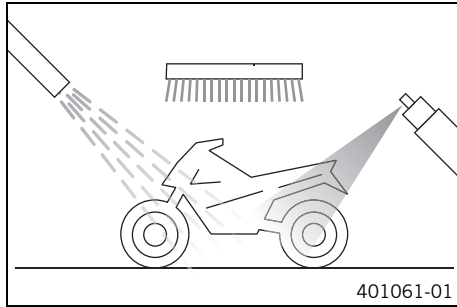
**Environmental hazard** Hazardous substances cause environmental damage.

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



### Info

To maintain the value and appearance of the motorcycle over a long period, clean it regularly. Avoid direct sunshine when cleaning the motorcycle.



- Close off the exhaust system to keep water from entering.
- Remove loose dirt first with a soft jet of water.
- Spray dirty parts with a normal commercial engine cleaner and then brush off with a soft brush.

Motorcycle cleaner (🗨️ p. 232)

### **i** 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.

### **i** Info

The heat produced causes water at inaccessible locations in the engine and on the brake system to evaporate.

- After the motorcycle has cooled off, lubricate all moving parts and bearings.
- Clean the chain. (🗨️ p. 134)

- Treat bare metal (except for brake discs and the exhaust system) with a corrosion inhibitor.

Preserving materials for paints, metal and rubber (📖 p. 233)

- Treat the painted parts with a mild paint polish.

Perfect Finish and high gloss polish for paints (📖 p. 233)



### Info

Do not polish parts that were matte when delivered as this would strongly 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. 233)

- Oil steering lock and seat lock.

Universal oil spray (📖 p. 233)

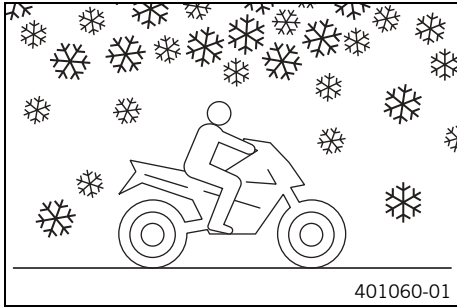
## 20.2 Checks and maintenance steps for winter operation



### 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.



- Clean the motorcycle. (📖 p. 203)
  - Clean the brakes.
- 

**i** **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.
- 

**i** **Info**

Corrosion inhibitor must not come into contact with the brake discs. This would severely lower the braking effect.

---

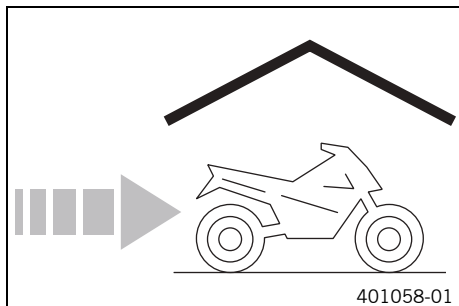
- Clean the chain. (📖 p. 134)



## 21.1 Storage

### **i** 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. 232)
--------------------------

- Refuel. (📖 p. 106)
- Clean the motorcycle. (📖 p. 203)
- Change the engine oil and oil filter and clean the oil screens. 🛠️ (📖 p. 196)
- Check the coolant fill level and antifreeze. 🛠️
- Check the tire air pressure. (📖 p. 165)
- Remove the battery. 🛠️ (📖 p. 168)

#### Guideline

Storage temperature of battery without direct sunshine	0... 35 °C (32... 95 °F)
--	--------------------------

- Recharge the battery. 🛠️ (📖 p. 173)
- Store the vehicle in a dry location that is not subject to large fluctuations in temperature.

### **i** Info

KTM recommends jacking up the motorcycle.

- Lift the motorcycle with the rear lifting gear. (📖 p. 123)

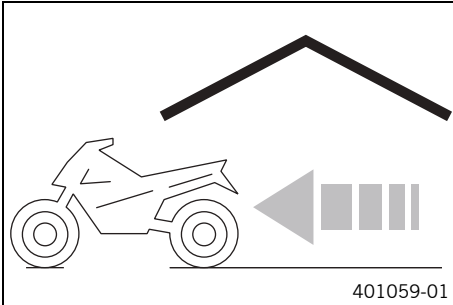
- Lift the motorcycle with the front lifting gear. (📖 p. 124)
- Cover the vehicle with a tarp or similar cover that is permeable to air.

## **i** 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



- Take the motorcycle from the front lifting gear. (📖 p. 125)
- Remove the rear of the motorcycle from the lifting gear. (📖 p. 123)
- Install the battery. 🛠️ (📖 p. 170)

## **i** Info

If the battery has been removed, the time and date must be set.

- Perform checks and maintenance measures when preparing for use. (📖 p. 91)
- Take a test ride.

Faults	Possible cause	Action
The combination instrument shows nothing on the display	Fuse 1 is blown	– Change the fuses in the fuse box. (📖 p. 181)
	The main fuse is blown	– Change the main fuse. (📖 p. 178)
	The battery is discharged	– Recharge the battery. 🛡️ (📖 p. 173) – Check the open-circuit current. 🛡️
The engine does not turn if the emergency OFF switch/electric starter button is pressed into the lower position	Operating error	– Carry out the start procedure. (📖 p. 92)
	The battery is discharged	– Recharge the battery. 🛡️ (📖 p. 173) – Check the open-circuit current. 🛡️
	The 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. 🛡️
The engine only turns if the clutch lever is drawn	The vehicle is in gear	– Shift the transmission to idle <b>N</b> .
	The safety start system is faulty	– Read out the fault memory using the KTM diagnostics tool. 🛡️
The engine turns although a gear is engaged	The safety start system is faulty	– Read out the fault memory using the KTM diagnostics tool. 🛡️
The engine turns but does not start	The coupling of the fuel hose connection is not connected	– Reconnect the coupling of the fuel hose connection.
	Defect in the fuel injection system	– Read out the fault memory using the KTM diagnostics tool. 🛡️
	The fuel quality is insufficient	– Add suitable fuel.
The engine dies during the trip	Lack of fuel	– Refuel. (📖 p. 106)
	Defect in the fuel injection system	– Read out the fault memory using the KTM diagnostics tool. 🛡️
Malfunction indicator lamp lights up or flashes	Defect in the fuel injection system	– Read out the fault memory using the KTM diagnostics tool. 🛡️

Faults	Possible cause	Action
The ABS indicator lamp lights up	The ABS fuse is blown	– Change the fuses in the fuse box. (📖 p. 181)
	Large difference in wheel speeds of the front and rear wheels	– Stop the vehicle, switch off the ignition, and start it again.
	Malfunction in ABS	– Read out the fault memory using the KTM diagnostics tool. 🛠️
High oil consumption	The engine oil level is too high	– Check the engine oil level. (📖 p. 195)
	The engine oil is too thin (low viscosity)	– Change the engine oil and oil filter and clean the oil screens. 🛠️ (📖 p. 196)
The battery is discharged	The hazard warning flasher is switched on	– Switch off the hazard warning flasher. – Recharge the battery. 🛠️ (📖 p. 173)
	The battery is not being charged by the alternator	– Check the charging voltage. 🛠️
	The ignition was not switched off while the vehicle was parked	– Recharge the battery. 🛠️ (📖 p. 173)

## 23.1 Engine

Design	2-cylinder 4-stroke Otto engine, 75° V arrangement, water-cooled
Displacement	1,301 cm <sup>3</sup> (79.39 cu in)
Stroke	71 mm (2.8 in)
Bore	108 mm (4.25 in)
Compression ratio	13.6:1
Idle speed	1,400... 1,600 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	Dry sump lubrication system with three rotor 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	27:26
Mixture preparation	Electronically controlled fuel injection
Ignition system	Contactless controlled fully electronic ignition with digital ignition adjustment
Alternator	12 V, 450 W
Spark plug	
Inside spark plug	NGK LKAR9BI-10
Outside spark plug	NGK LMAR7DI-10
Electrode gap, spark plug	1 mm (0.04 in)
Cooling	Water cooling, permanent circulation of coolant by water pump
Cold start device	Electric starter

## 23.2 Engine tightening torques

Screw, damping plate	<b>EJOT Altracs®</b> M6x14	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Screw, retaining bracket, valve cover, rear	<b>EJOT Altracs®</b> 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)	<b>Loctite® 243™</b>
Remaining engine screws	M5	6 Nm (4.4 lbf ft)	–
Screw, bearing retainer	M5	6 Nm (4.4 lbf ft)	<b>Loctite® 243™</b>

Screw, engine oil level viewer	M5	4 Nm (3 lbf ft)	–
Screw, gear sensor	M5	6 Nm (4.4 lbf ft)	<b>Loctite® 243™</b>
Screw, pulse generator	M5	6 Nm (4.4 lbf ft)	<b>Loctite® 243™</b>
Screw, resonator	M5	8 Nm (5.9 lbf ft)	<b>Loctite® 243™</b>
Bleeder screw, water pump cover	M6	10 Nm (7.4 lbf ft)	–
Coolant connection screw on the cylinder head	M6	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Freewheel ring bolt	M6 – 10.9	15 Nm (11.1 lbf ft)	<b>Loctite® 648™</b>
Nut, cylinder head	M6	9 Nm (6.6 lbf ft)	–
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, 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)	<b>Loctite® 243™</b>
Screw, locking lever	M6	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Screw, oil pump cover	M6	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Screw, shift drum locating	M6	18 Nm (13.3 lbf ft)	<b>Loctite® 243™</b>
Screw, shift lever	M6	15 Nm (11.1 lbf ft)	<b>Loctite® 243™</b>
Screw, starter motor	M6	10 Nm (7.4 lbf ft)	–
Screw, stator	M6	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Screw, valve cover	M6	10 Nm (7.4 lbf ft)	–
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)	–

## 23 TECHNICAL DATA

Screw, water pump wheel	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Stud, chain shaft	M6	8 Nm (5.9 lbf ft)	–
Vacuum connection	M6	5 Nm (3.7 lbf ft)	Loctite® 243™
Nozzle 100	M6x0.75	4 Nm (3 lbf ft)	Loctite® 243™
Plug, crankshaft retainer	M8	15 Nm (11.1 lbf ft)	–
Screw, camshaft bearing support	M8 – 10.9	Step 1 10 Nm (7.4 lbf ft) Step 2 18 Nm (13.3 lbf ft)	–
Screw, camshaft bearing support	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)
Screw, engine case	M8	18 Nm (13.3 lbf ft)	–
Screw, timing chain guide rail	M8	15 Nm (11.1 lbf ft)	Loctite® 243™
Stud, exhaust flange	M8	10 Nm (7.4 lbf ft)	–
Timing chain tensioning rail screw	M8	15 Nm (11.1 lbf ft)	Loctite® 243™
Screw, engine bearer	M10	45 Nm (33.2 lbf ft)	–
Oil pressure sensor	M10x1	10 Nm (7.4 lbf ft)	–
Plug, cam lever axis	M10x1	15 Nm (11.1 lbf ft)	–
Plug, clutch lubrication	M10x1	10 Nm (7.4 lbf ft)	–
Screw plug, spreading transmission lock	M10x1	12 Nm (8.9 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)	<b>Loctite® 243™</b>
Oil drain plug	M20x1.5	20 Nm (14.8 lbf ft)	–
Nut, inner clutch hub	M22x1.5	120 Nm (88.5 lbf ft)	<b>Loctite® 243™</b>
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)	<b>Loctite® 243™</b>

## 23.3 Capacities

### 23.3.1 Engine oil

Engine oil	3.50 l (3.7 qt.)	Outside temperature: $\geq 0$ °C ( $\geq 32$ °F)	Engine oil (SAE 10W/50) (📖 p. 230)
		Outside temperature: $< 0$ °C ( $< 32$ °F)	Engine oil (SAE 5W/40) (📖 p. 230)

### 23.3.2 Coolant

Coolant	3.20 l (3.38 qt.)	Coolant (📖 p. 229)
---------	-------------------	--------------------

### 23.3.3 Fuel

Total fuel tank capacity, approx.	18 l (4.8 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (📖 p. 231)
Fuel reserve, approx.	3.6 l (3.8 qt.)	

## 23.4 Chassis

Frame	Lattice frame made of chrome molybdenum steel tubing, powder-coated	
Fork	<b>WP Performance Systems</b> 4860 ROTA SPLIT	
Shock absorber	<b>WP Performance Systems</b> 4618 BAVP DCC	
Suspension travel		
Front	125 mm (4.92 in)	
Rear	156 mm (6.14 in)	
Brake system		

Front	Double disc brake with radially mounted four-pot brake calipers, floating brake discs
Rear	Single disc brake with dual-piston brake caliper, fixed brake disc
Brake discs - diameter	
Front	320 mm (12.6 in)
Rear	240 mm (9.45 in)
Brake discs - wear limit	
front	4.5 mm (0.177 in)
rear	4.5 mm (0.177 in)
Tire air pressure, solo	
front: with cold tires	2.5 bar (36 psi)
rear: with cold tires	2.5 bar (36 psi)
Secondary drive ratio	17:38
Chain	5/8 x 5/16" (525) X-ring
Steering head angle	65.1°
Wheelbase	1,482 mm (58.35 in)
Seat height unloaded	835 mm (32.87 in)
Ground clearance unloaded	141 mm (5.55 in)
Weight without fuel approx.	203 kg (448 lb.)
Maximum permissible front axle load	160 kg (353 lb.)
Maximum permissible rear axle load	260 kg (573 lb.)
Maximum permissible overall weight	418 kg (922 lb.)

## 23.5 Electrical system

Battery	YTX14-BS	Battery voltage: 12 V Nominal capacity: 12 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

Low beam/high beam	LED
Daytime running light/position light	LED
Instrument lights and indicator lamps	LED
Turn signal	LED
Tail light	LED
Brake light	LED
License plate lamp	LED

## 23.6 Tires

Front tires	Rear tires
<b>120/70 ZR 17 M/C (58W) TL</b> Metzeler Sportec M7 RR	<b>190/55 ZR 17 M/C (75W) TL</b> Metzeler Sportec M7 RR

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.22	
Fork	<b>WP Performance Systems 4860 ROTA SPLIT</b>	
Compression damping		
Comfort	15 clicks	
Standard	12 clicks	
Sport	9 clicks	
Full payload	9 clicks	
Rebound damping		
Comfort	15 clicks	
Standard	12 clicks	
Sport	9 clicks	
Full payload	9 clicks	
Spring length with preload spacer(s)	255 mm (10.04 in)	
Spring rate		
Medium (standard)	10 N/mm (57 lb/in)	
Fork length	776 mm (30.55 in)	
Air chamber length	110 <sup>+10</sup> / <sub>30</sub> mm (4.33 <sup>+0.39</sup> / <sub>-1.18</sub> in)	
Fork oil per fork leg	680 ml (22.99 fl. oz.)	Fork oil (SAE 4) (48601166S1) (📖 p. 231)

## 23.8 Shock absorber

Shock absorber article number	15.18.7Q.22
Shock absorber	<b>WP Performance Systems</b> 4618 BAVP DCC
Compression damping, low-speed	
Comfort	20 clicks
Standard	15 clicks
Sport	12 clicks
Full payload	12 clicks
Compression damping, high-speed	
Comfort	1.5 turns
Standard	1.5 turns
Sport	1.5 turns
Full payload	1 turn
Rebound damping	
Comfort	15 clicks
Standard	12 clicks
Sport	10 clicks
Full payload	10 clicks
Spring preload	
Comfort	8 mm (0.31 in)
Standard	8 mm (0.31 in)
Sport	8 mm (0.31 in)
Full payload	9 mm (0.35 in)
Spring rate	

Medium (standard)	170 N/mm (971 lb/in)
Spring length	185 mm (7.28 in)
Gas pressure	10 bar (145 psi)
Static sag	
Standard	20 mm (0.79 in)
Race track mode	14 mm (0.55 in)
Fitted length	384 mm (15.12 in)
Shock absorber fluid (🔊 p. 231)	SAE 2.5

## 23.9 Chassis tightening torques

Remaining screws, chassis	<b>EJOT PT®</b> K50x12	1 Nm (0.7 lbf ft)	–
Remaining screws, chassis	<b>EJOT PT®</b> K50x14	1 Nm (0.7 lbf ft)	–
Remaining screws, chassis	<b>EJOT PT®</b> K50x16	2 Nm (1.5 lbf ft)	–
Remaining screws, chassis	<b>EJOT PT®</b> K50x18	2 Nm (1.5 lbf ft)	–
Remaining screws, chassis	<b>EJOT PT®</b> K45x12	1 Nm (0.7 lbf ft)	–
Screw, air filter box lid	<b>EJOT PT®</b> K60	2 Nm (1.5 lbf ft)	–
Screw, combination switch, left		5 Nm (3.7 lbf ft)	–
Screw, fastening, flue exhaust valve cover	<b>EJOT SF®</b> M4x6-K	4 Nm (3 lbf ft)	–
Screw, fuel tank cover, quick connect nipple	<b>EJOT PT®</b> K60	2 Nm (1.5 lbf ft)	–
Screw, tail light	<b>EJOT PT®</b> K50x14	2.5 Nm (1.84 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 nuts, chassis	M5	5 Nm (3.7 lbf ft)	–

## 23 TECHNICAL DATA

Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)	–
Screw for throttle grip	M5	3.5 Nm (2.58 lbf ft)	–
Screw, cable channel	M5	5 Nm (3.7 lbf ft)	–
Screw, chain sliding guard	M5	5 Nm (3.7 lbf ft)	–
Screw, combination switch, right	M5	5 Nm (3.7 lbf ft)	–
Screw, filler cap	M5	3 Nm (2.2 lbf ft)	–
Screw, front turn signal bracket	M5	3 Nm (2.2 lbf ft)	–
Screw, fuel level indicator	M5	3 Nm (2.2 lbf ft)	–
Screw, rear turn signal bracket	M5	3 Nm (2.2 lbf ft)	–
Screw, shock absorber adjusting ring	M5	5 Nm (3.7 lbf ft)	–
Screw, trim	M5x12	3.5 Nm (2.58 lbf ft)	–
Cable disk nut, exhaust valve control unit	M6	14 Nm (10.3 lbf ft)	–
Ground fitting on frame	M6	10 Nm (7.4 lbf ft)	–
Nut, cable on starter motor	M6	4 Nm (3 lbf ft)	–
Remaining nuts, chassis	M6	10 Nm (7.4 lbf ft)	–
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)	–
Screw, ABS unit fastening	M6	5 Nm (3.7 lbf ft)	–
Screw, ball joint of push rod on foot brake cylinder	M6	5 Nm (3.7 lbf ft)	<b>Loctite® 243™</b>
Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)	–
Screw, clutch assembly	M6	5 Nm (3.7 lbf ft)	<b>Loctite® 243™</b>
Screw, connecting piece, rear brake line	M6	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Screw, cooler retaining bracket	M6	7 Nm (5.2 lbf ft)	–
Screw, exhaust clamp on main silencer	M6	8 Nm (5.9 lbf ft)	–



## 23 TECHNICAL DATA

Screw, exhaust clamp on manifold	M6	8 Nm (5.9 lbf ft)	–
Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Screw, fuel pump	M6	6 Nm (4.4 lbf ft)	–
Screw, instrument support	M6	2 Nm (1.5 lbf ft)	–
Screw, license plate holder on lower rear panel	M6	12 Nm (8.9 lbf ft)	–
Screw, radiator hose clip	M6	3 Nm (2.2 lbf ft)	–
Screw, sensor box	M6	6 Nm (4.4 lbf ft)	<b>Loctite® 243™</b>
Screw, shift lever stub	M6	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Screw, shift rod	M6	5 Nm (3.7 lbf ft)	<b>Loctite® 243™</b>
Screw, shift shaft deflector on shift shaft	M6	18 Nm (13.3 lbf ft)	<b>Loctite® 243™</b>
Screw, side stand stub	M6	6 Nm (4.4 lbf ft)	<b>Loctite® 243™</b>
Screw, steering damper, holder, on frame	M6	8 Nm (5.9 lbf ft)	<b>Loctite® 243™</b>
Screw, step plate for foot brake lever	M6	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Screw, wheel speed sensor, front	M6	4 Nm (3 lbf ft)	–
Screw, wheel speed sensor, rear	M6	4 Nm (3 lbf ft)	–
Nut, exhaust valve throttle cable	M6x1	5 Nm (3.7 lbf ft)	–
Cable disk nut, exhaust valve	M8	7 Nm (5.2 lbf ft)	–
Nut, manifold on cylinder head	M8	Tightening sequence: Tighten the nuts evenly. Do not warp the metal plate. 25 Nm (18.4 lbf ft)	–
Nut, rear sprocket	M8	36 Nm (26.6 lbf ft)	–
Nut, shift rod	M8	12 Nm (8.9 lbf ft)	–

## 23 TECHNICAL DATA

Nut, valve (Super Duke R JP)	M8	4 Nm (3 lbf ft)	–
Nut, valve (Super Duke R EU/AU)	M8	6 Nm (4.4 lbf ft)	–
Remaining nuts, chassis	M8	25 Nm (18.4 lbf ft)	–
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)	–
Screw, axle clamp	M8	15 Nm (11.1 lbf ft)	–
Screw, bottom triple clamp	M8	15 Nm (11.1 lbf ft)	–
Screw, foot brake lever	M8	20 Nm (14.8 lbf ft)	<b>Loctite® 243™</b>
Screw, front brake disc	M8	30 Nm (22.1 lbf ft)	<b>Loctite® 2701™</b>
Screw, front rider footrest bracket	M8	25 Nm (18.4 lbf ft)	<b>Loctite® 243™</b>
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	–
Screw, ignition lock (tamper-proof screw)	M8	25 Nm (18.4 lbf ft)	–
Screw, rear brake caliper	M8	25 Nm (18.4 lbf ft)	<b>Loctite® 2701™</b>
Screw, rear brake disc	M8	30 Nm (22.1 lbf ft)	<b>Loctite® 243™</b>
Screw, shift lever on footrest bracket	M8	20 Nm (14.8 lbf ft)	<b>Loctite® 243™</b>
Screw, shift shaft deflector on frame	M8	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Screw, side stand bracket	M8	25 Nm (18.4 lbf ft)	<b>Loctite® 243™</b>
Screw, side stand spring	M8	15 Nm (11.1 lbf ft)	<b>Loctite® 2701™</b>
Screw, steering damper on holder	M8	8 Nm (5.9 lbf ft)	<b>Loctite® 243™</b>
Screw, steering damper on triple clamp	M8	8 Nm (5.9 lbf ft)	<b>Loctite® 243™</b>
Screw, steering stem clamp	M8	20 Nm (14.8 lbf ft)	<b>Loctite® 243™</b>
Screw, top triple clamp	M8	18 Nm (13.3 lbf ft)	–
Remaining nuts, chassis	M10	45 Nm (33.2 lbf ft)	–
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)	–
Screw, engine bearer	M10	45 Nm (33.2 lbf ft)	<b>Loctite® 243™</b>

Screw, front brake caliper	M10	45 Nm (33.2 lbf ft)	<b>Loctite® 243™</b>
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	<b>Loctite® 243™</b>
Screw, side stand	M10	35 Nm (25.8 lbf ft)	<b>Loctite® 243™</b>
Screw, side stand bracket	M10	45 Nm (33.2 lbf ft)	<b>Loctite® 243™</b>
Screw, side stand retaining plate	M10	45 Nm (33.2 lbf ft)	<b>Loctite® 243™</b>
Banjo bolt, brake line	M10x1	25 Nm (18.4 lbf ft)	–
Banjo bolt, brake line, connecting piece, rear	M10x1	15 Nm (11.1 lbf ft)	–
Nut, rear hub shock absorber carrier	M10x1.25	45 Nm (33.2 lbf ft)	<b>Loctite® 243™</b>
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
Screw, eccentric	M16	70 Nm (51.6 lbf ft)	–
Nut, swingarm pivot	M19x1.5	130 Nm (95.9 lbf ft)	Thread greased
Nut, seat lock	M22x1.5	6 Nm (4.4 lbf ft)	–
Bolt, front axle	M25x1.5	45 Nm (33.2 lbf ft)	Thread greased
Screw, steering head, top	M25x1.5	18 Nm (13.3 lbf ft)	–
Nut, rear axle, shock absorber side	M35x1.5	200 Nm (147.5 lbf ft)	<b>Loctite® 262™</b> /lock the locking wire with locking varnish
Nut, rear axle	M50x1.5	250 Nm (184.4 lbf ft)	Thread greased/lock locking wire with locking varnish

## 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 SpA** hereby 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>

**JNS Instruments Ltd.** hereby declares that **210M1100** 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/210m1100>

**KTM AG** hereby 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 AG** hereby declares that the **LC8 DASHBOARD** 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/lc8-dashboard>

**Schrader Electronics Ltd** hereby declares that **Tyre Pressure Monitoring System** 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>

## 24.2 FCC declaration of conformity



### Info

The functional and equipment scope is model-dependent and may not include all wireless systems referred to.

# 24 DECLARATIONS OF CONFORMITY

## **210M1100**

FCC ID: 2AKR7-210M1100

IC: 22291-210M1100

## **BT-ROUTER**

FCC ID: Z64-2564N

IC: 4511-2564N

## **KTM RACE ON system - Active Key**

FCC ID: VFZKLGKZADIO1

IC: 22239-KLGKZADIO1

## **KTM RACE ON system - Main Unit**

FCC ID: VFZKLGKZADIO1

IC: 22239-KLGMZADIO1

## **LC8 DASHBOARD**

FCC ID: 2AKP9-LC8CLUSTER1

IC: 22273-LC8CLUSTER1

## **Tyre Pressure Monitoring System - Receiver "MC34MA4"**

FCC ID: MRXMC34MA4

IC: 2546A-MC34MA4

## **Tyre Pressure Monitoring System - Sensor "BC5A4"**

FCC ID: MRXBC5A4

IC: 2546A-BC5A4

## **Tyre Pressure Monitoring System - Sensor "RDC3"**

FCC ID: MRXRDC3

IC: 2546A-RDC3

## **Warning**

This device complies with article 15 of the FCC regulations.

Operation is subject to the following two conditions:

# 24 DECLARATIONS OF CONFORMITY

- 1 This device must not cause harmful interference.
- 2 This device must be able to absorb any received interference, including interference that potentially causes undesirable operation.

This equipment has been tested and complies with the limits for Class B digital devices, in accordance with article 15 of the FCC regulations. These limits are designed to provide satisfactory protection against harmful interference in residential areas. Devices of this type generate and use high frequencies and can also emit these. Therefore, if they are not installed and operated in accordance with the instructions, they may cause harmful interference to radio reception. However, there is no guarantee that interference will not occur in certain cases of application. Should this device cause harmful interference to radio or television reception, (check this by switching the device on and off), you can potentially eliminate this interference as follows:

- Re-align the receiving antenna.
- Increase the distance between device and radio receiver.
- Connect the device and the radio receiver to separate electric circuits.
- Consult your dealer or a radio/TV technician.

Alterations and modifications not expressly approved by the relevant authority may result in the user being prohibited from operating the equipment.

## 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.

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

- JASO T903 MA (📖 p. 234)
- SAE (📖 p. 234) (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

- JASO T903 MA (📖 p. 234)
- SAE (📖 p. 234) (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



## Recommended supplier

Motorex®

- Power Synt 4T

## Fork oil (SAE 4) (48601166S1)

### Standard/classification

- SAE (📖 p. 234) (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

- SAE (📖 p. 234) (SAE 2.5)

### 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

## 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
	KTM MY RIDE	System for wireless communication with appropriate cellphones and headsets for telephony and audio
	KTM RACE ON	System which releases ignition, steering lock and filler cap via a remote key with transponder
	Launch Control	Vehicles electronics functions for achieving the best possible acceleration from a standing position
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 that reduces engine torque with spinning rear wheel
	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

## 29 LIST OF ABBREVIATIONS

Art. no.	Article number
ca.	circa
cf.	compare
e.g.	for example
etc.	et cetera
i.a.	inter alia
no.	number
poss.	possibly






## 30.1 Red symbols

Red symbols indicate an error condition that requires immediate intervention.

	The oil pressure warning lamp lights up red – Engine oil pressure is too low.
--	---





## 30.2 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.

	Malfunction indicator lamp lights up/flashes yellow – The engine electronics has detected a fault.
	ABS indicator lamp lights up/flashes yellow – The ABS is not activated on one or both wheels. The ABS indicator lamp also lights up if an error is detected.
	TC indicator lamp lights up/flashes yellow – Traction control is not enabled or is currently intervening. The TC Indicator lamp also lights up if an error is detected. The TC indicator lamp flashes if the launch control (optional) is activated.
	Race-on indicator lamp lights up/flashes yellow/orange/red – Status or error messages relating to Race-on system/alarm system.
	The general warning lamp lights up yellow – An operating safety (warning) message was detected. This is also shown on the combination instrument.

## 30.3 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 idle indicator lamp lights up green – The transmission is in idle.
	The right turn signal indicator lamp flashes green with a steady rhythmic flash – The right turn signal is switched on.
	The high beam indicator lamp lights up blue – The high beam is switched on.



<b>A</b>	
<b>ABS</b> .....	145
<b>ACC1</b>	
front .....	187
rear .....	188
<b>ACC2</b>	
front .....	187
rear .....	188
<b>Accessories</b> .....	15
<b>Antilock braking system</b> .....	145
<b>Applying the brakes</b> .....	102
<b>Auxiliary substances</b> .....	15
<b>B</b>	
<b>Baggage lugs</b> .....	39
<b>Battery</b>	
installing .....	170
recharging .....	173
removing .....	168
<b>Brake discs</b>	
checking .....	147
<b>Brake fluid</b>	
adding rear brake fluid .....	153
front brake, adding .....	149
<b>Brake fluid level</b>	
front brake, checking .....	148
rear brake, checking .....	152

<b>Brake linings</b>	
front brake, checking .....	151
rear brake, checking .....	154
<b>Brake system</b> .....	145-155
<b>Brakes</b> .....	102
<b>C</b>	
<b>Capacity</b>	
Coolant .....	216
engine oil .....	199, 216
fuel .....	108, 216
<b>Chain</b>	
checking .....	139
cleaning .....	134
dirt, checking for .....	134
<b>Chain guide</b>	
checking .....	139
<b>Chain tension</b>	
adjusting .....	137
checking .....	136
<b>Chassis number</b> .....	22
<b>Clutch</b>	
fluid level, checking/correcting .....	143
<b>Clutch lever</b> .....	<b>26</b>
basic position, adjusting .....	79
<b>Combination instrument</b> .....	<b>45-76</b>
<b>ABS</b> .....	66

activation and test	45	<b>Quick Selector 1</b>	63
adjusting tilt	84	<b>Quick Selector 2</b>	64
<b>Anti Wheelie Mode</b>	71	<b>Ride Mode</b>	67, 193
<b>Audio</b>	75	<b>Service</b>	61
<b>Bluetooth®</b>	72	<b>Set Favorites</b>	56
<b>Clock/Date</b>	61	<b>Settings</b>	57
coolant temperature indicator	53	shift warning light	52
cruise control indicator	54	<b>Shift Light</b>	62
day-night mode	46	slip adjustment	194
display	50	telephony	76
<b>Distance</b>	59	<b>Temp</b>	60
<b>DRL</b>	62	<b>Throttle Response</b>	194
<b>Extra Functions</b>	65	time	53
<b>Favorites</b>	55	<b>TPMS</b>	68
fuel level display	52	<b>Track</b>	70
<b>Fuel Cons</b>	59	trip distance counter	54
<b>General Info</b>	65	<b>Trip 1</b>	56
<b>Heated grips</b>	69	<b>Trip 2</b>	57
<b>Heating</b>	69	<b>Unit settings</b>	58
indicator lamps	48	<b>Warning</b>	66
<b>KTM MY RIDE</b>	72	warning notes	47
<b>Language</b>	58	<b>Combination switch</b>	
<b>Launch Control</b>	71	left side	27
menu	55	right	32
<b>MTC</b>	66	<b>Coolant level</b>	
overview	45	compensating tank, checking	189
<b>Pairing</b>	73	correcting in the compensating tank	190
<b>Pressure</b>	60		
Quick Shift +	70		

# INDEX

241

<b>Cruise control system</b>	
operation	30
<b>Customer service</b>	16
<b>D</b>	
<b>Daytime running light</b>	167
<b>Declarations of conformity</b>	<b>226-228</b>
EU	226
FCC	226
<b>Diagnostics connector</b>	187
<b>DRL</b>	167
<b>E</b>	
<b>Electric starter button</b>	33
<b>Emergency OFF switch</b>	33
<b>Engine</b>	
running in	88
<b>Engine braking control</b>	101
<b>Engine number</b>	24
<b>Engine oil</b>	
adding	200
changing	196
<b>Engine oil level</b>	
checking	195
<b>Engine sprocket</b>	
checking	139
<b>Environment</b>	13

<b>F</b>	
<b>Figures</b>	16
<b>Filler cap</b>	
closing	38
opening	36
<b>Foot brake lever</b>	<b>43</b>
basic position, adjusting	80
Setting the step plate	81
<b>Fork</b>	<b>113</b>
compression damping, adjusting	113
rebound, adjusting	114
<b>Fork legs</b>	
dust boots, cleaning	128
<b>Fork part number</b>	24
<b>Front rider's seat</b>	
mounting	130
removing	130
<b>Front wheel</b>	
installing	157
removing	156
<b>Fuses</b>	
in fuse box, changing	181
<b>H</b>	
<b>Hand brake lever</b>	<b>26</b>
basic position, adjusting	79

<b>Handlebar position</b> .....	77
adjusting .....	77
<b>Hazard warning flasher</b> .....	33
<b>Hazard warning flasher switch</b> .....	33
<b>Headlight</b>	
daytime running light .....	167
range, adjusting .....	185
<b>Headlight adjustment</b>	
checking .....	185
<b>Helmet lock</b> .....	41
mounting on the vehicle .....	131
<b>Horn button</b> .....	30
<b>I</b>	
<b>Immobilizer</b> .....	35
<b>Implied warranty</b> .....	15
<b>Intended use</b> .....	10
<b>K</b>	
<b>Key number</b> .....	23
<b>L</b>	
<b>Launch Control</b> .....	94
<b>Light switch</b> .....	28
<b>Luggage</b> .....	89
<b>M</b>	
<b>Main fuse</b>	
changing .....	178

<b>Main silencer</b>	
installing .....	133
removing .....	131
<b>Menu switch</b> .....	28
<b>Misuse</b> .....	10
<b>Motorcycle</b>	
cleaning .....	203
lifting with front lifting gear .....	124
lifting with rear lifting gear .....	123
raising with work stand (inserted) .....	125
removing from the work stand (inserted) .....	126
removing the rear from the lifting gear .....	123
taking from the front lifting gear .....	125
<b>Motorcycle traction control</b> .....	193
<b>MSR</b> .....	101
<b>MTC</b> .....	193
<b>O</b>	
<b>Oil filter</b>	
changing .....	196
<b>Oil screens</b>	
cleaning .....	196
<b>Operating substances</b> .....	15
<b>Owner's Manual</b> .....	14
<b>P</b>	
<b>Parking</b> .....	104
<b>Passenger footrests</b> .....	42

# INDEX

243

<b>Passenger seat</b>	
mounting	129
removing	129
<b>Preparing for use</b>	
advice on first use	87
after storage	208
checks and maintenance measures when preparing for use	91
<b>Protective clothing</b>	13
<b>Q</b>	
<b>Quickshifter+</b>	96
<b>R</b>	
<b>Race-on button</b>	34
<b>Race-on key</b>	35
battery, changing	177
<b>Rear sprocket</b>	
checking	139
<b>Rear wheel</b>	
installing	161
removing	160
<b>Refueling</b>	
fuel	106
<b>Riding</b>	96
starting off	94
starting off with launch control	94
<b>S</b>	
<b>Safe operation</b>	12
<b>Seat lock</b>	38
<b>Service</b>	16
<b>Service schedule</b>	109-112
<b>Shift lever</b>	42
basic position, adjusting	82
basic position, checking	81
<b>Shift lever stub</b>	
setting	83
<b>Shifting</b>	96
<b>Shock absorber</b>	113
compression damping, general	115
high-speed compression damping, adjusting	117
low-speed compression damping, adjusting	116
rebound damping, adjusting	118
spring pretension, adjusting	120
static sag, checking	120
<b>Shock absorber article number</b>	25
<b>Side stand</b>	44
<b>Slip adjustment</b>	194
<b>Spare parts</b>	15
<b>Starting</b>	92
<b>Steering damper article number</b>	25
<b>Steering lock</b>	34
<b>Stopping</b>	104
<b>Storage</b>	207
<b>Storage compartment</b>	
closing	40

opening	40
<b>Supporting strap</b>	41
<b>Suspension setting</b>	113-122

## T

### Technical data

capacities	216
chassis	216
chassis tightening torques	221
electrical system	218
engine	211
engine tightening torques	212
fork	219
shock absorber	220
tires	218

<b>Throttle grip</b>	27
----------------------	----

### Tire air pressure

checking	165
----------	-----

### Tire condition

checking	163
----------	-----

<b>Tool set</b>	39
-----------------	----

<b>Transport</b>	105
------------------	-----

<b>Troubleshooting</b>	209-210
------------------------	---------

<b>Turn signal switch</b>	29
---------------------------	----

<b>Type label</b>	22
-------------------	----

## U

<b>Use definition</b>	10
-----------------------	----

## V

### Vehicle

loading	89
---------	----

### View of vehicle

front left	18
rear right	20

## W

<b>Warranty</b>	15
-----------------	----

### Winter operation

checks and maintenance steps	205
------------------------------	-----

<b>Work rules</b>	13
-------------------	----

**READY TO RACE**

[»www.ktm.com](http://www.ktm.com)



3213534en

04/2017

The KTM logo, consisting of the letters 'KTM' in a bold, italicized, sans-serif font, set against an orange background.

**KTM Sportmotorcycle GmbH**  
3230 Mattighofen/Austria  
<http://www.ktm.com>



Photo: Mitterbauer/KTM