DEAR KTM CUSTOMER

Congratulations on your decision to purchase a KTM motorcycle. You are now the owner of a state-of-the-art sports vehicle that will continue to give you and your child pleasure for a long time if you maintain it properly.

We hope your child has many safe and enjoyable rides!

Enter the serial numbers of your vehicle below.

<table>
<thead>
<tr>
<th>Vehicle identification number (p. 12)</th>
<th>Dealer’s stamp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine number (p. 12)</td>
<td></td>
</tr>
</tbody>
</table>

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.

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ISO 9001(12 100 6061)
KTM applies quality assurance processes that lead to the highest possible product quality as defined in the ISO 9001 international quality management standard.
Issued by: TÜV Management Service

KTM Sportmotorcycle GmbH
Stallhofnerstraße 3
5230 Mattighofen, Austria

This document is valid for the following models:
65 SX (F6001U6)
# TABLE OF CONTENTS

## 1 MEANS OF REPRESENTATION
- 1.1 Symbols used .................................. 5
- 1.2 Formats used .................................. 5

## 2 SAFETY ADVICE
- 2.1 Use definition – intended use ............... 6
- 2.2 Misuse ........................................... 6
- 2.3 Safety advice .................................... 6
- 2.4 Degrees of risk and symbols ................. 6
- 2.5 Tampering warning ............................ 7
- 2.6 Safe operation .................................. 7
- 2.7 Protective clothing ............................. 7
- 2.8 Work rules ...................................... 8
- 2.9 Environment .................................... 8
- 2.10 Owner's Manual ............................... 8

## 3 IMPORTANT NOTES
- 3.1 Manufacturer warranty, implied warranty .. 9
- 3.2 Fuel, auxiliary substances ................. 9
- 3.3 Spare parts, accessories .................... 9
- 3.4 Service ......................................... 9
- 3.5 Figures ........................................ 9
- 3.6 Customer service .............................. 9

## 4 VIEW OF VEHICLE
- 4.1 View of vehicle, front left (example) ...... 10
- 4.2 View of vehicle, rear right (example) ..... 11

## 5 SERIAL NUMBERS
- 5.1 Vehicle identification number ............ 12
- 5.2 Type label .................................... 12
- 5.3 Engine number ................................ 12
- 5.4 Fork article number ......................... 12
- 5.5 Shock absorber article number .......... 13

## 6 CONTROLS
- 6.1 Clutch lever ................................... 14
- 6.2 Hand brake lever ............................ 14
- 6.3 Throttle grip .................................. 14
- 6.4 Switch-off button ......................... 14
- 6.5 Opening the fuel tank filler cap ....... 15
- 6.6 Closing the fuel tank filler cap .. 15
- 6.7 Fuel tap .................................... 16
- 6.8 Choke ....................................... 16
- 6.9 Shift lever .................................. 16
- 6.10 Kick starter lever ......................... 17
- 6.11 Foot brake lever ......................... 17
- 6.12 Plug-in stand ............................. 17
- 6.13 Service hour counter ................ 17

## 7 PREPARING FOR USE
- 7.1 Advice on preparing for first use ........ 18

## 8 RIDING INSTRUCTIONS
- 8.1 Checks and maintenance measures when preparing for use ............... 21
- 8.2 Starting the vehicle ......................... 21
- 8.3 Starting off .................................. 22
- 8.4 Shifting, riding ............................. 22
- 8.5 Applying the brakes ....................... 23
- 8.6 Stopping, parking ......................... 23
- 8.7 Transporting ............................... 24
- 8.8 Refueling .................................. 24

## 9 SERVICE SCHEDULE
- 9.1 Additional information .................... 26
- 9.2 Required work ............................. 26
- 9.3 Recommended work ....................... 27

## 10 TUNING THE CHASSIS
- 10.1 Checking the basic chassis setting with rider's weight ................. 28
- 10.2 Air suspension XACT 5235 .......... 28
- 10.3 Compression damping of the shock absorber ......................... 29
- 10.4 Adjusting the low-speed compression damping of the shock absorber .. 29
- 10.5 Adjusting the high-speed compression damping of the shock absorber .. 30
- 10.6 Adjusting the rebound damping of the shock absorber ............... 30
- 10.7 Measuring the dimension of the unloaded rear wheel ............. 31
- 10.8 Checking the static sag of the shock absorber ........................ 32
- 10.9 Checking the riding sag of the shock absorber ...................... 32
- 10.10 Adjusting the spring preload of the shock absorber .............. 33
- 10.11 Adjusting the riding sag .......... 33
- 10.12 Checking the basic setting of the fork .......................... 34
- 10.13 Adjusting the fork air pressure .......... 34
- 10.14 Adjusting the rebound damping of the fork .......................... 36
- 10.15 Handlebar position .......... 36
- 10.16 Adjusting the handlebar position .... 36

## 11 SERVICE WORK ON THE CHASSIS
- 11.1 Raising the motorcycle with a lift stand .................. 38
- 11.2 Removing the motorcycle from the lift stand .................. 38
- 11.3 Bleeding the fork legs .................. 38
11.4 Cleaning the dust boots of the fork legs .................................. 39
11.5 Removing the fork protector ............................................. 39
11.6 Installing the fork protector .................................. 40
11.7 Removing the fork legs ............................................. 40
11.8 Installing the fork legs ............................................. 41
11.9 Removing the lower triple clamp .................................. 42
11.10 Installing the lower triple clamp ................................. 43
11.11 Checking the steering head bearing play ......................... 45
11.12 Adjusting the steering head bearing play ......................... 45
11.13 Lubricating the steering head bearing ................................ 46
11.14 Removing the start number plate .................................. 46
11.15 Installing the start number plate ................................ 47
11.16 Removing front fender ............................................... 47
11.17 Installing front fender ............................................... 47
11.18 Removing the shock absorber .................................... 48
11.19 Installing the shock absorber .................................... 48
11.20 Removing the seat ................................................... 48
11.21 Mounting the seat ................................................... 49
11.22 Removing the air filter ............................................. 49
11.23 Installing the air filter ............................................... 50
11.24 Cleaning the air filter and air filter box ......................... 50
11.25 Removing the main silencer ...................................... 51
11.26 Installing the main silencer ...................................... 51
11.27 Changing the glass fiber yarn filling of the main silencer ...... 52
11.28 Removing the fuel tank ............................................. 52
11.29 Installing the fuel tank ............................................... 54
11.30 Checking the chain for dirt ......................................... 55
11.31 Cleaning the chain .................................................... 55
11.32 Checking the chain tension ....................................... 56
11.33 Adjusting the chain tension ....................................... 57
11.34 Checking the chain, rear sprocket, engine sprocket, and chain guide .... 57
11.35 Checking the frame .................................................... 60
11.36 Checking the link fork .................................................. 60
11.37 Checking the throttle cable routing ................................. 60
11.38 Checking the rubber grip ........................................... 61
11.39 Additionally securing the rubber grip ........................... 61
11.40 Adjusting the basic position of the clutch lever .................. 61
11.41 Checking the fluid level of the hydraulic clutch ................. 61
11.42 Correcting the fluid level of the hydraulic clutch ............... 61
11.43 Changing the hydraulic clutch fluid ................................ 63
12 BRAKE SYSTEM .................................................. 65
12.1 Checking the free travel of the hand brake lever ................. 65
12.2 Adjusting the basic position of the hand brake lever ............ 65
12.3 Checking the brake discs ............................................ 65
12.4 Checking the front brake fluid level ................................ 66
12.5 Adding the front brake fluid ....................................... 67
12.6 Checking the front brake linings ................................... 68
12.7 Changing the brake linings of the front brake ....................... 69
12.8 Checking the free travel of the foot brake lever .................... 71
12.9 Adjusting the free travel of the foot brake lever ................. 72
12.10 Adjusting the basic position of the foot brake lever .......... 72
12.11 Checking the rear brake fluid level ................................ 73
12.12 Adding rear brake fluid ............................................ 73
12.13 Checking the rear brake linings ................................... 75
12.14 Changing the rear brake linings ................................... 75
13 WHEELS, TIRES ........................................... 79
13.1 Removing the front wheel ........................................... 79
13.2 Installing the front wheel ........................................... 79
13.3 Removing the rear wheel ............................................ 80
13.4 Installing the rear wheel ............................................ 81
13.5 Checking the tire condition ......................................... 82
13.6 Checking tire pressure ............................................... 83
13.7 Checking spoke tension ............................................... 84
14 COOLING SYSTEM ........................................... 85
14.1 Cooling system ......................................................... 85
14.2 Checking the antifreeze and coolant level ......................... 85
14.3 Checking the coolant level ........................................... 86
14.4 Draining the coolant ................................................... 86
14.5 Refilling with coolant ............................................... 87
14.6 Changing the coolant ............................................... 88
15 TUNING THE ENGINE ........................................ 90
15.1 Checking throttle cable play ......................................... 90
15.2 Adjusting the throttle cable play ................................... 90
15.3 Carburettor – idle speed ............................................ 91
15.4 Carburetor – adjusting the idle speed ............................... 91
15.5 Emptying the carburetor float chamber ............................. 92
16 SERVICE WORK ON THE ENGINE .......................... 94
16.1 Checking the gear oil level ........................................... 94
16.2 Changing the gear oil ............................................... 94
16.3 Adding the gear oil .................................................... 95
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>CLEANING, CARE</td>
<td>97</td>
</tr>
<tr>
<td>17.1</td>
<td>Cleaning the motorcycle</td>
<td>97</td>
</tr>
<tr>
<td>18</td>
<td>STORAGE</td>
<td>99</td>
</tr>
<tr>
<td>18.1</td>
<td>Storage</td>
<td>99</td>
</tr>
<tr>
<td>18.2</td>
<td>Preparing for use after storage</td>
<td>100</td>
</tr>
<tr>
<td>19</td>
<td>TROUBLESHOOTING</td>
<td>101</td>
</tr>
<tr>
<td>20</td>
<td>TECHNICAL DATA</td>
<td>103</td>
</tr>
<tr>
<td>20.1</td>
<td>Engine</td>
<td>103</td>
</tr>
<tr>
<td>20.2</td>
<td>Engine tightening torques</td>
<td>103</td>
</tr>
<tr>
<td>20.3</td>
<td>Carburetor</td>
<td>105</td>
</tr>
<tr>
<td>20.3.1</td>
<td>Carburetor tuning</td>
<td>105</td>
</tr>
<tr>
<td>20.4</td>
<td>Capacities</td>
<td>106</td>
</tr>
<tr>
<td>20.4.1</td>
<td>Gear oil</td>
<td>106</td>
</tr>
<tr>
<td>20.4.2</td>
<td>Coolant</td>
<td>106</td>
</tr>
<tr>
<td>20.4.3</td>
<td>Fuel</td>
<td>106</td>
</tr>
<tr>
<td>20.5</td>
<td>Fork</td>
<td>106</td>
</tr>
<tr>
<td>20.6</td>
<td>Shock absorber</td>
<td>106</td>
</tr>
<tr>
<td>20.7</td>
<td>Chassis</td>
<td>107</td>
</tr>
<tr>
<td>20.8</td>
<td>Tires</td>
<td>108</td>
</tr>
<tr>
<td>20.9</td>
<td>Chassis tightening torques</td>
<td>108</td>
</tr>
<tr>
<td>21</td>
<td>SUBSTANCES</td>
<td>110</td>
</tr>
<tr>
<td>22</td>
<td>AUXILIARY SUBSTANCES</td>
<td>112</td>
</tr>
<tr>
<td>23</td>
<td>STANDARDS</td>
<td>114</td>
</tr>
<tr>
<td>24</td>
<td>LIST OF ABBREVIATIONS</td>
<td>115</td>
</tr>
<tr>
<td>INDEX</td>
<td></td>
<td>116</td>
</tr>
</tbody>
</table>
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 the safety of your child, have these jobs performed in an authorized KTM workshop. Your motorcycle will be optimally cared for there by specially trained experts using the special 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.

- ◄: Indicates the end of an activity, including potential reworking.

- V: Indicates a voltage measurement.

- A: Indicates a current measurement.

1.2 Formats used

The typographical formats used in this document are explained below.

<table>
<thead>
<tr>
<th>Proprietary name</th>
<th>Indicates a proprietary name.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name®</td>
<td>Indicates a protected name.</td>
</tr>
<tr>
<td>Brand™</td>
<td>Indicates a brand available on the open market.</td>
</tr>
<tr>
<td>Underlined terms</td>
<td>Refer to technical details of the vehicle or indicate technical terms, which are explained in the glossary.</td>
</tr>
</tbody>
</table>
2.1 **Use definition – intended use**

This vehicle has been designed and built to withstand the normal stresses and strains of racing. This vehicle complies with the currently valid regulations and categories of the top international motorsports organizations.

**Info**

Only operate this vehicle in closed-off areas remote from public road traffic.

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 product described safely. Therefore read this instruction and all further instructions included carefully. The safety instructions are highlighted in the text and are referred to at the relevant passages.

**Info**

Various information and warning labels are attached in prominent locations on the product described. Do not remove any information or 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**

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

**Warning**

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

**Caution**

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

**Note**

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

**Note**

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 servicing, 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 silencers, 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 parts of the vehicle, or parts of the exhaust system 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 effective exhaust extraction 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.

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

Adhere to the information and warning labels on the vehicle.
2 SAFETY ADVICE

2.7 Protective clothing

**Warning**

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

- Ensure your child wears appropriate protective clothing such as helmet, boots, gloves as well as trousers and a jacket with protectors on all rides.
- Always use protective clothing for your child that is in good condition and meets the legal requirements.
- When you ride a motorcycle, set an example for your child and wear suitable protective clothing.

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

2.8 Work rules

Unless specified otherwise, the ignition must be turned off during all work (models with ignition lock, models with remote key) or the engine must be at a standstill (models without ignition lock or remote key). Special tools are necessary for certain tasks. The tools are not a component of the vehicle, but can be ordered using the number in parentheses. Example: bearing puller (15112017000)

During assembly, use new parts to replace parts which cannot be reused (e.g. self-locking screws and nuts, expansion screws, seals, sealing rings, O-rings, pins, and lock washers).

In the case of certain screws, a screw adhesive (e.g. Loctite®) is required. Observe the manufacturer's instructions.

If thread locker (e.g., Precote®) has already been applied to a new part, do not apply any additional thread locker. After disassembly, clean the parts that are to be reused and check them for damage and wear. Change damaged or worn parts.

After completing a 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 your child makes his or her first trip. The Owner's Manual contains useful information and many tips for you and your child on how to operate, handle, and service your motorcycle. This is the only way for you to find out how to ideally tune the vehicle and how to protect your child 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.

The Owner's Manual is also available for download from your authorized KTM dealer and on the KTM website.

International KTM Website: http://www.ktm.com
3.1 Manufacturer warranty, implied warranty

The work prescribed in the service schedule must only be carried out in an authorized KTM workshop and confirmed in the KTM Dealer.net, as otherwise all warranty claims will be void. Damage or secondary damage caused by tampering with and/or conversions on the vehicle are not covered by the manufacturer warranty.

3.2 Fuel, auxiliary substances

**Note**

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 fuels and auxiliary substances in accordance with the Owner's Manual and specification.

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. An incorrect suspension setting can lead to damage and breakage of chassis components.

Use of the vehicle under difficult conditions, such as on sand or on wet and muddy surfaces, can result in significantly increased 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.

The relevant mileage or time interval is whichever occurs first.

3.5 Figures

The figures contained in the manual may depict special equipment.

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

3.6 Customer service

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

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

International KTM Website: http://www.ktm.com
4.1 View of vehicle, front left (example)

1. Hand brake lever (p. 14)
2. Valve for fork airpump
3. Clutch lever (p. 14)
4. Quick release for seat lock
5. Shock absorber rebound adjustment
6. Choke (p. 16)
7. Shift lever (p. 16)
8. Fuel tap (p. 16)
4.2 View of vehicle, rear right (example)

1. Fuel tank filler cap
2. Switch-off button (p. 14)
3. Fork rebound adjustment
4. Throttle grip (p. 14)
5. Vehicle identification number (p. 12)
6. Kick starter lever (p. 17)
7. Foot brake lever (p. 17)
8. Shock absorber compression adjustment
9. Level viewer for brake fluid, rear
5 SERIAL NUMBERS

5.1 Vehicle identification number
The vehicle identification number 1 is stamped on the right side of the steering head.

5.2 Type label
The type label 1 is located on the front frame tube.

5.3 Engine number
The engine number 1 is located on the left side of the engine under the engine sprocket.

5.4 Fork article number
The fork article number 1 is stamped on the outside of the axle clamp.
5.5 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 left-hand side.
6.1 Clutch lever

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

6.2 Hand brake lever

Hand brake lever ① is fitted on the right side of the handlebar. The hand brake lever is used to activate the front brake.

6.3 Throttle grip

Throttle grip ① is fitted on the right side of the handlebar.

6.4 Switch-off button

Switch-off button ① is fitted on the left side of the handlebar.

Possible states
- The switch-off button is in the basic position – In this position, the ignition circuit is closed and the engine can be started.
- The switch-off button is pressed – In this position, the ignition circuit is interrupted, a running engine stops, and a non-running engine will not start.
6.5 Opening the fuel tank 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 fuel 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.

**Note**

**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.

- Press release button 1, turn the fuel tank filler cap counterclockwise, and lift it off.

6.6 Closing the fuel tank filler cap

- Mount the fuel tank filler cap and turn it clockwise until release button 1 engages.

**Info**

Route fuel tank breather hose 2 without kinks.
6 CONTROLS

6.7 Fuel tap

Fuel tap 1 is on the left of the fuel tank.

**Possible states**
- Fuel tap is closed – The knurled screw is turned all the way clockwise. Fuel cannot flow out of the fuel tank.
- Fuel tap is open – The knurled screw is turned all the way counterclockwise. Fuel can flow out of the fuel tank.

6.8 Choke

Choke lever 1 is fitted on the left side of the carburetor. Activating the choke function frees a drill hole in the carburetor through which the engine can draw extra fuel. This results in a richer fuel-air mixture, which is needed for a cold start.

**Info**
If the engine is warm, the choke function must be deactivated.

**Possible states**
- Choke function activated – The choke lever is pushed down all the way to the stop.
- Choke function deactivated – The choke lever is pushed up all the way to the stop.

6.9 Shift lever

Shift lever 1 is mounted on the left of the engine.

The gear positions can be seen in the figure. The neutral or idle position N is between the first and second gear.
6.10 Kick starter lever

Kick starter lever 1 is fitted on the right side of the engine. The kick starter lever can be swiveled.

<table>
<thead>
<tr>
<th>Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before riding, swing the kick starter lever inwards towards the engine.</td>
</tr>
</tbody>
</table>

6.11 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.

6.12 Plug-in stand

The fixture for plug-in stand 1 is located on the frame on the left side of the vehicle. The plug-in stand is used to park the motorcycle.

<table>
<thead>
<tr>
<th>Info</th>
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</thead>
<tbody>
<tr>
<td>Remove the plug-in stand before riding.</td>
</tr>
</tbody>
</table>

6.13 Service hour counter

The service hour counter 1 is fitted on the right side of the frame. It shows the total number of service hours of the engine. The service hour counter begins counting when the engine is started and stops when the engine is switched off.

<table>
<thead>
<tr>
<th>Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>The value indicated by the service hour counter cannot be cleared or adjusted.</td>
</tr>
</tbody>
</table>
7 PREPARING FOR USE

7.1 Advice on preparing for first use

**Warning**

**Danger of accidents**  A lack of physical and mental readiness on the part of the child poses a major risk. Children often underestimate or fail to recognize dangerous situations.

- Your child must already be able to ride a bicycle.
- Your child must be able to put the vehicle upright independently after a fall.
- Your child must understand that regulations and instructions from you or from other guardians must be followed.
- Make it clear to your child that he or she should not, under any circumstances, operate the vehicle without supervision.
- Make it clear to your child that he or she may only drive at speeds commensurate with the child's riding abilities and the road conditions.
- Do not ask too much of your child.
- Do not consider participation in competitive activities until your child's stamina, riding techniques and motivation are at the necessary levels.
- Only let your child ride on the vehicle if he or she is physically and mentally ready.

**Warning**

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

- Ensure your child wears appropriate protective clothing such as helmet, boots, gloves as well as trousers and a jacket with protectors on all rides.
- Always use protective clothing for your child that is in good condition and meets the legal requirements.
- When you ride a motorcycle, set an example for your child and wear suitable protective clothing.

**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**  An unadapted riding style constitutes a major risk.

- Ensure that your child adapts the riding speed to the road conditions and to his or her riding abilities.

**Warning**

**Danger of accidents**  The vehicle is not designed to carry passengers.

- Do not ride with a passenger.

**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.

- Ensure that your child raises his or her foot from the foot brake lever if he or she does not want to brake.

**Warning**

**Danger of accidents**  The suspension components will become damaged or destroyed if overloaded.

- Do not exceed the maximum permissible weight of the rider.
Warning
Risk of misappropriation  People who act without authorization endanger themselves and others.

- Do not leave the vehicle unattended if the engine is running.
- Protect the vehicle against access by unauthorized persons.

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

- Make sure that the pre-sales inspection work has been carried out by an authorized KTM workshop.
  - You will receive a delivery certificate when the vehicle is handed over.
- Carefully read the entire Owner’s Manual together with your child before going for the first ride.

Info
Pay particular attention to the safety instructions and risks of injury.
Explain to your child the techniques of riding and falling, e.g. how shifting weight can influence handling characteristics.

- Familiarize your child with the controls.
- Adjust the basic position of the clutch lever. (p. 61)
- Adjust the basic position of the hand brake lever. (p. 65)
- Adjust the basic position of the foot brake lever. (p. 72)
- Before using the vehicle for the first time, ensure that the basic settings of the chassis are suitable for the weight of your child.
- Allow your child to become accustomed to the handling of the motorcycle on suitable terrain, preferably on a large, open meadow.

Info
To give your child a feeling for the brake system, you should push your child at first. Do not start the engine until your child is able to apply the necessary front brake pressure.
Initially, let your child ride to another person who can help your child stop and turn.

- Erect obstacles for your child to navigate around to accustom your child to handling the vehicle.
- Your child should also try to ride as slowly as possible and in a standing position to get a better feeling for the motorcycle.
- Do not let your child ride on terrain that exceeds your child’s capabilities and experience.
- Your child should hold the handlebar firmly with both hands and keep his or her feet on the footrests when riding.
- Make sure the maximum permissible weight of the rider is not exceeded.

<table>
<thead>
<tr>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum rider weight</td>
</tr>
<tr>
<td>50 kg (110 lb.)</td>
</tr>
</tbody>
</table>

- Check the spoke tension. (p. 84)

Info
The spoke tension must be checked after half an hour of operation.

- Run the engine in. (p. 20)
7.2 Running in the engine

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

  Guideline

<table>
<thead>
<tr>
<th>Maximum engine performance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>During the first 3 operating hours</td>
<td>&lt; 70 %</td>
</tr>
<tr>
<td>During the first 5 operating hours</td>
<td>&lt; 100 %</td>
</tr>
</tbody>
</table>

- Avoid fully opening the throttle!
8.1 Checks and maintenance measures when preparing for use

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

- Check the gear oil level. (94 p.)
- Check the front brake fluid level. (66 p.)
- Check the rear brake fluid level. (73 p.)
- Check the front brake linings. (68 p.)
- Check the rear brake linings. (75 p.)
- Check that the brake system is functioning properly.
- Check the coolant level. (86 p.)
- Check the chain for dirt. (55 p.)
- Check the chain, rear sprocket, engine sprocket, and chain guide. (57 p.)
- Check the chain tension. (56 p.)
- Check the tire condition. (82 p.)
- Check tire pressure. (83 p.)
- Check the spoke tension. (84 p.)

Info
The spoke tension must be checked regularly as incorrect spoke tension will strongly impair riding safety.

- Clean the dust boots of the fork legs. (39 p.)
- Bleed the fork legs. (38 p.)
- Check the air filter.
- Check the settings of all controls and ensure that they can be operated smoothly.
- Check all screws, nuts, and hose clamps regularly for tightness.
- Check the fuel level.

8.2 Starting the vehicle

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 effective exhaust extraction when starting or running the engine in an enclosed space.

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.
If the motorcycle is unwilling to start, the cause can be old fuel in the float chamber. The flammable elements of the fuel evaporate after a long time of standing.
If the float chamber is filled with fresh fuel, the engine starts immediately.

The motorcycle has been out of use for more than 1 week
- Empty the carburetor float chamber. (p. 92)
- Turn the knurled screw on the fuel tap all the way counterclockwise.
  ✔ Fuel can flow from the fuel tank to the carburetor.
- Remove the motorcycle from the stand.
- Shift the transmission into neutral.

The engine is cold
- Push down the choke lever all the way to the stop.
- Press the kick starter lever robustly through its full range.

Info
- Do not open the throttle.

8.3 Starting off

Info
- The plug-in stand must be removed prior to riding.

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

8.4 Shifting, riding

Warning
Danger of accidents
If you change down at high engine speed, the rear wheel blocks and the engine races.
- Make it clear to your child that he or she must not change into a low gear at high engine speed.

Info
- If unusual noises occur while riding, stop immediately, switch off the engine and contact an authorized KTM workshop.
  First-gear is used for starting off and for steep inclines.

- When conditions allow (incline, road situation, etc.), your child can shift into a higher gear. To do so, release the throttle while simultaneously pulling the clutch lever, shift into the next gear, release the clutch lever and open the throttle.
- If the choke function was activated, deactivate it after the engine has warmed up.
- After reaching maximum speed by fully opening the throttle grip, turn the throttle back so it is ¾ open. This will barely reduce the speed, but fuel consumption will be considerably lower.
- Your child should always open the throttle only as much as the engine can handle – abruptly opening the throttle increases fuel consumption.
- To shift down, apply the brakes and close the throttle at the same time.
Pull the clutch lever and shift into a lower gear, release the clutch lever slowly, and either open the throttle or shift again.

Your child should switch off the engine if prolonged operation at idle speed or while stationary is imminent.

Guideline

- 2 min

Your child should avoid frequent or extended slipping of the clutch. This heats the engine oil, the engine, and the cooling system.

Insist that your child ride with a low rpm instead of with a high rpm and a slipping clutch.

### 8.5 Applying the brakes

**Warning**

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

- Explain to your child that he or she must adapt the braking to the traffic situation and the road conditions.

**Warning**

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

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

**Warning**

**Danger of accidents** Moisture and dirt impair the brake system.

- Explain to your child that he or she must brake carefully several times to dry out and remove dirt from the brake linings and the brake discs.

On sandy, wet, or slippery surfaces, use the rear brake.

Always finish braking before you go into a bend. Your child should change down to a lower gear appropriate to the road speed.

Insist that your child take advantage of the braking action of the engine when riding on long downhills. To do so, shift back one or two gears, but do not overrev the engine. Your child will need to apply the brakes far less often and the brake system will not overheat.

### 8.6 Stopping, parking

**Warning**

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

- Do not leave the vehicle unattended if the engine is running.
- Protect the vehicle against access by unauthorized persons.

**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 into neutral.
- Press and hold the switch-off button \( \mathcal{O} \) while the engine is idling until the engine stops.
- Turn the knurled screw on the fuel tap all the way clockwise.
- Park the motorcycle on firm ground.

### 8.7 Transporting

**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 falling over or rolling away.

### 8.8 Refueling

**Danger** Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.
- Do not fuel 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**  
**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 fuel tank filler cap. (p. 15)
- Fill the fuel tank with fuel up to measurement \( \text{A} \).

**Guideline**

<table>
<thead>
<tr>
<th>Measurement of ( \text{A} )</th>
<th>( 35 \text{ mm (1.38 in)} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tank capacity, approx.</td>
<td>( 3.5 \text{ l (3.7 qt.)} )</td>
</tr>
<tr>
<td>Engine oil, 2-stroke (p. 110)</td>
<td></td>
</tr>
</tbody>
</table>
- Close the fuel tank filler cap. (p. 15)
# SERVICE SCHEDULE

## 9.1 Additional information

Any further work that results from the compulsory 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. Individual service intervals and scopes may change in the course of technical developments. The most up-to-date service schedule can always be found on KTM Dealer.net. Your authorized KTM dealer will be happy to advise you.

## 9.2 Required work

<table>
<thead>
<tr>
<th>Every 80 operating hours</th>
<th>Every 40 operating hours</th>
<th>Every 20 operating hours</th>
<th>After 10 operating hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check the front brake linings. (p. 68)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the rear brake linings. (p. 75)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the brake discs. (p. 65)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the brake lines for damage and leakage.</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change the foot brake cylinder sealing cup.</td>
<td>● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the rear brake fluid level. (p. 73)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the free travel of the foot brake lever. (p. 71)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the frame. (p. 60)</td>
<td>● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the link fork. (p. 60)</td>
<td>● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the fork bearing for play.</td>
<td>● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checking the shock absorber heim joint for play.</td>
<td>● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the tire condition. (p. 82)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check tire pressure. (p. 83)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the wheel bearing for play.</td>
<td>● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the wheel hubs.</td>
<td>● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the rim run-out.</td>
<td>● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the spoke tension. (p. 84)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the chain, rear sprocket, engine sprocket, and chain guide. (p. 57)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the chain tension. (p. 56)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grease all moving parts (e.g., hand lever, chain, ...) and check for smooth operation.</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the fluid level of the hydraulic clutch. (p. 61)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the front brake fluid level. (p. 66)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the free travel of the hand brake lever. (p. 65)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the steering head bearing play. (p. 45)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change the spark plug and spark plug connector.</td>
<td>● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change the gear oil. (p. 94)</td>
<td>○ ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the gear oil level. (p. 94)</td>
<td></td>
<td>● ●</td>
<td></td>
</tr>
<tr>
<td>Check the clutch.</td>
<td></td>
<td>● ●</td>
<td></td>
</tr>
<tr>
<td>Check all hoses (e.g. fuel, cooling, bleeder, drainage, etc.) and sleeves for cracking, leaks, and incorrect routing.</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the antifreeze and coolant level. (p. 85)</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the cables for damage and routing without sharp bends.</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check that the throttle cables are undamaged, routed without sharp bends, and set correctly.</td>
<td>○ ● ● ●</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Service Schedule

<table>
<thead>
<tr>
<th>Operation</th>
<th>Frequency</th>
<th>Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean the air filter and air filter box.</td>
<td>Every 80 hours</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Change the glass fiber yarn filling of the main silencer.</td>
<td>Every 40 hours</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Service the fork.</td>
<td>Every 20 hours</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Perform the shock absorber service.</td>
<td>After 10 hours</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Check the tightness of the easily accessible, safety-relevant screws and nuts.</td>
<td></td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Check the idle speed.</td>
<td></td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Final check: Check the vehicle for safe operation and take a test ride.</td>
<td></td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Make a service entry in the KTM Dealer.net.</td>
<td></td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
</tbody>
</table>

- ○ One-time interval
- ● Periodic interval

### 9.3 Recommended Work

<table>
<thead>
<tr>
<th>Operation</th>
<th>Frequency</th>
<th>Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change the front brake fluid.</td>
<td>Every 80 hours</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Change the rear brake fluid.</td>
<td>Every 40 hours</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Change the hydraulic clutch fluid.</td>
<td>Every 20 hours</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Lubricate the steering head bearing.</td>
<td>After 20 hours / Every 20 hours</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Service the fork.</td>
<td>Every 10 hours</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Perform the shock absorber service.</td>
<td>After 48 months</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Check/adjust the carburetor components.</td>
<td>After 12 months</td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Change the coolant.</td>
<td></td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Perform minor engine service.</td>
<td></td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Perform major engine service including removing and installing the engine. (Change the spring of the exhaust control. Change the piston. Change the connecting rod, conrod bearing and crank pin. Change the crankshaft bearing. Check the transmission and shift mechanism. Change all engine bearings.)</td>
<td></td>
<td>○ ○ ○ ○ ○ ○ ○</td>
</tr>
</tbody>
</table>

- ○ One-time interval
- ● Periodic interval
10.1 Checking the basic chassis setting with rider's weight

**Info**
When adjusting the basic chassis setting, first adjust the shock absorber and then the fork.

- For optimal motorcycle riding characteristics and to avoid damage to forks, shock absorbers, link fork and frame, the basic settings of the suspension components must match the rider's weight.
- In the delivered condition, this vehicle is adjusted for an average rider's weight (with full protective clothing).

**Guideline**

| Standard rider weight | 35 ... 45 kg (77 ... 99 lb.) |

- If the rider's weight is above or below this range, the basic setting of the suspension components must be adjusted accordingly.
- Small weight differences can be compensated by adjusting the spring preload, but in the case of large weight differences, the springs must be replaced.

10.2 Air suspension XACT 5235

Air suspension **WP XACT 5235** is used in the fork.
In this system, suspension is located in the left fork leg and damping in the right fork leg.
As fork springs are no longer required, a significant weight advantage is achieved when compared to conventional forks. The response on slightly uneven surfaces is significantly improved.
In normal driving mode, suspension is provided exclusively by an air cushion. A steel spring is located in the left fork leg as an end stop.

**Info**
If the fork is frequently overloaded, then the air pressure in the fork must be increased to avoid damage to the fork and frame.

The air pressure in the fork can be quickly adjusted to the rider's weight, surface conditions and the rider's preference using a fork airpump. The fork does not have to be dismantled. The time consuming mounting of harder or softer fork springs is not required.
If the air chamber loses air due to a damaged seal, the fork will still not sag. In this case the air is retained in the fork. The suspension travel is maintained as far as possible. The damping becomes harder and the riding comfort reduces.
The rebound damping can be adjusted.
The rebound adjustment is located at the upper end of the right fork leg.
10.3 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 compression adjuster has an effect, for example, when landing after a jump: the rear wheel suspension compresses quickly. The low-speed compression adjuster has an effect, for example, 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, modifications in the high-speed range affect the compression damping in the low-speed range and vice versa.

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

**Caution**  
**Risk of injury**  
Parts of the shock absorber will move around if the shock absorber is detached 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 compression adjuster can be seen in slow to normal compression of the shock absorber.

- Turn adjusting screw 1 clockwise with a screwdriver as far as the last perceptible click.

**Info**  
Do not loosen fitting 2!

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

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Low-speed compression damping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comfort</td>
<td>18 clicks</td>
</tr>
<tr>
<td>Standard</td>
<td>15 clicks</td>
</tr>
<tr>
<td>Sport</td>
<td>12 clicks</td>
</tr>
</tbody>
</table>

**Info**  
Turn clockwise to increase damping; turn counterclockwise to reduce damping.
10.5 Adjusting the high-speed compression damping of the shock absorber

Caution
Risk of injury  Parts of the shock absorber will move around if the shock absorber is detached 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 compression adjuster 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

<table>
<thead>
<tr>
<th>High-speed compression damping</th>
<th>Comfort</th>
<th>2.5 turns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard</td>
<td>2 turns</td>
</tr>
<tr>
<td></td>
<td>Sport</td>
<td>1.5 turns</td>
</tr>
</tbody>
</table>

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

10.6 Adjusting the rebound damping of the shock absorber

Caution
Risk of injury  Parts of the shock absorber will move around if the shock absorber is detached 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 1 clockwise up to the last perceptible click.
– Turn counterclockwise by the number of clicks corresponding to the shock absorber type.
Guideline

<table>
<thead>
<tr>
<th>Rebound damping</th>
<th>Comfort</th>
<th>18 clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard</td>
<td>15 clicks</td>
</tr>
<tr>
<td></td>
<td>Sport</td>
<td>12 clicks</td>
</tr>
</tbody>
</table>
10.7 Measuring the dimension of the unloaded rear wheel

Preparatory work
– Raise the motorcycle with a lift stand. (p. 38)

Main work
– Position the sag gage in the rear axle and measure the distance to marking SAG on the rear fender.

<table>
<thead>
<tr>
<th>Sag gauge (00029090000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sag gage pin (00029990010)</td>
</tr>
</tbody>
</table>

– Note the value as dimension A.

Finishing work
– Remove the motorcycle from the lift stand. (p. 38)
10.8 Checking the static sag of the shock absorber

- Measure dimension A of rear wheel unloaded. (p. 31)
- Hold the motorcycle upright with aid of an assistant.
- Measure the distance again between the rear axle and marking SAG on the rear fender using the sag gage.
- Note the value as dimension B.

**Info**

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

- Check the static sag.

| Static sag | 30 mm (1.18 in) |

» If the static sag is less or more than the specified value:
  - Adjust the spring preload of the shock absorber. (p. 33)

10.9 Checking the riding sag of the shock absorber

- Measure dimension A of rear wheel unloaded. (p. 31)
- With another person holding the motorcycle, the rider, wearing full protective clothing, sits on the seat in a normal sitting position (feet on footrests) and bounces up and down a few times.
  - The rear wheel suspension levels out.
- Another person again measures the distance between the rear axle and marking SAG on the rear fender using the sag gage.
- Note the value as dimension C.

**Info**

The riding sag is the difference between measurements A and C.

- Check riding sag.

| Riding sag | 70 mm (2.76 in) |

» If the riding sag differs from the specified measurement:
  - Adjust the riding sag. (p. 33)
10.10 Adjusting the spring preload of the shock absorber

Caution
Risk of injury  Parts of the shock absorber will move around if the shock absorber is detached incorrectly. The shock absorber is filled with highly compressed nitrogen.
– Please follow the description provided. (Your authorized KTM workshop will be glad to help.)

Preparatory work
– Raise the motorcycle with a lift stand. (p. 38)
– Remove the shock absorber. (p. 48)
– After removing the shock absorber, clean it thoroughly.

Main work
– Measure the full spring length while it is under tension and note down the value.
– Loosen retaining ring 1.
– Turn adjusting ring 2 until the spring is no longer under tension.

| Combination wrench (50329080000) |
| Hook wrench (T106S) |
– Measure the total spring length while the spring is not under tension.
– Tighten the spring by turning adjusting ring 2 to the specified dimension A.

Guideline
Spring preload 5 mm (0.2 in)

Info
The spring preload is the difference between the relaxed spring length and the tensioned spring length. Depending on the static sag and/or the riding sag, it may be necessary to increase or decrease the spring preload.
– Tighten retaining ring 1.

Finishing work
– Install the shock absorber. (p. 48)
– Remove the motorcycle from the lift stand. (p. 38)

10.11 Adjusting the riding sag

Preparatory work
– Raise the motorcycle with a lift stand. (p. 38)
– Remove the shock absorber. (p. 48)
– After removing the shock absorber, clean it thoroughly.
10 TUNING THE CHASSIS

Main work
– Choose and mount a suitable spring.

Guideline

<table>
<thead>
<tr>
<th>Weight of rider</th>
<th>Spring rate</th>
<th>35 N/mm (200 lb/in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 kg (77 lb)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 kg (88 lb)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 kg (99 lb)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Info

The spring rate is shown on the outside of the spring. Smaller weight differences can be compensated by changing the spring preload.

Finishing work
– Install the shock absorber. (p. 48)
– Remove the motorcycle from the lift stand. (p. 38)
– Check the static sag of the shock absorber. (p. 32)
– Check the riding sag of the shock absorber. (p. 32)
– Adjust the rebound damping of the shock absorber. (p. 30)

10.12 Checking the basic setting of the fork

Info

For various reasons, no exact riding sag can be determined for the fork.

– Smaller differences in the rider's weight can be compensated for by the fork air pressure.
– However, if the fork frequently bottoms out (hard end stop on compression), the fork air pressure must be increased, within the specified values, to avoid damage to the fork and frame.

10.13 Adjusting the fork air pressure

Warning
Danger of accidents
Modifications to the suspension setting may seriously alter the handling characteristic.
Extreme modifications to the suspension setting may cause a serious deterioration in the handling characteristic and overload components.
– Only make adjustments within the recommended range.
– Make sure your child rides slowly to start with after making adjustments in order that he or she can assess the new handling characteristic.
Check or adjust the air pressure under the same conditions at the earliest 5 minutes after switching off the engine. The air suspension is located in the left fork leg. The rebound damping is located in the right fork leg.

**Preparatory work**
- Raise the motorcycle with a lift stand. (p. 38)

**Main work**
- Remove protection cap 1.
- Push together fork airpump 2 fully.

Fork airpump (79412966100)

**Info**
- The fork airpump is included as part of the motorcycle's accessory pack.

- Connect the fork airpump to the left fork leg. 
  - The fork airpump switches on automatically.
  - A little air escapes from the fork leg when connecting.

**Info**
- This is due to the volume of the hose and not due to a defect in the fork airpump or the fork.
  - Read the accompanying KTM PowerParts instructions.

- Adjust the air pressure as specified.

<table>
<thead>
<tr>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air pressure</td>
</tr>
<tr>
<td>Gradual changing of the air pressure in steps of</td>
</tr>
<tr>
<td>Minimum air pressure</td>
</tr>
<tr>
<td>Maximum air pressure</td>
</tr>
</tbody>
</table>

**Info**
- Never adjust the air pressure to a value outside the stated range.

- Disconnect the fork airpump from the left fork leg. 
  - When disconnecting, excess pressure will escape from the hose – the fork leg does not lose any air.
  - The fork pump airpump switches off automatically after 80 seconds.

- Mount the protection cap.

**Info**
- Only mount the protection cap by hand.

**Finishing work**
- Remove the motorcycle from the lift stand. (p. 38)
10.14 Adjusting the rebound damping of the fork

**Info**
The hydraulic rebound damping determines the fork suspension behavior.

- Turn adjuster 1 clockwise all the way.

**Info**
Adjuster 1 is located at the upper end of the right fork leg.

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

**Guideline**

<table>
<thead>
<tr>
<th>Rebound damping</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Comfort</td>
<td>15 clicks</td>
</tr>
<tr>
<td>Standard</td>
<td>12 clicks</td>
</tr>
<tr>
<td>Sport</td>
<td>10 clicks</td>
</tr>
</tbody>
</table>

**Info**
Turn clockwise to increase the damping; turn counterclockwise to reduce damping when the shock absorber rebounds.

10.15 Handlebar position

On the upper triple clamp, there are 2 holes at a distance of A to each other.

<table>
<thead>
<tr>
<th>Hole distance A</th>
<th>15 mm (0.59 in)</th>
</tr>
</thead>
</table>

The holes on the handlebar supports are placed at a distance of B from the center.

<table>
<thead>
<tr>
<th>Hole distance B</th>
<th>3.5 mm (0.138 in)</th>
</tr>
</thead>
</table>

The handlebar supports can be mounted in four different positions. This allows the handlebar to be mounted in the most comfortable position for the rider.

10.16 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.
- Remove screws 1. Take off the handlebar clamps. Remove the handlebar and lay it to one side.

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

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

**Guideline**

<table>
<thead>
<tr>
<th>Screw, handlebar support</th>
<th>M10</th>
<th>40 Nm (29.5 lbf ft)</th>
</tr>
</thead>
</table>

Loctite® 243™

- Position the handlebar.

**Info**
Make sure the cables and wiring are positioned correctly.

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

**Guideline**

<table>
<thead>
<tr>
<th>Screw, handlebar clamp</th>
<th>M8</th>
<th>20 Nm (14.8 lbf ft)</th>
</tr>
</thead>
</table>

**Info**
Make sure the installed gaps are even.
11 SERVICE WORK ON THE CHASSIS

11.1 Raising the motorcycle with a lift stand

**Note**
**Danger of damage** The parked vehicle can roll away or fall over.
– Park the vehicle on a firm and level surface.

- Raise the motorcycle at the frame underneath the engine.
- Lift stand (789299955100)
  - Neither wheel is in contact with the ground.
  - Secure the motorcycle against falling over.

![Image](image1)

11.2 Removing the motorcycle from the lift stand

**Note**
**Danger of damage** The parked vehicle can roll away or fall over.
– Park the vehicle on a firm and level surface.

- Remove the motorcycle from the lift stand.
- Remove the lift stand.
- To park the motorcycle, insert plug-in stand 1 into the plug-in stand bracket on the left side of the vehicle.

**Info**
Remove the plug-in stand before riding.

![Image](image2)

11.3 Bleeding the fork legs

**Preparatory work**
- Raise the motorcycle with a lift stand. (p. 38)

**Main work**
- Release bleeder screws 1.
  - Any excess pressure escapes from the interior of the fork.
- Tighten the bleeder screws.

**Finishing work**
- Remove the motorcycle from the lift stand. (p. 38)

![Image](image3)
11.4 Cleaning the dust boots of the fork legs

**Preparatory work**
- Raise the motorcycle with a lift stand. (p. 38)
- Remove the fork protector. (p. 39)

**Main work**
- Push dust boots ① of both fork legs downward.

**Info**
The dust boots remove dust and coarse dirt particles from the inside 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. 113)

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

**Finishing work**
- Install the fork protector. (p. 40)
- Remove the motorcycle from the lift stand. (p. 38)

11.5 Removing the fork protector

- Remove screws ① and take off the clamp.
- Remove screws ② on the left fork leg. Take off the fork protector.
11 SERVICE WORK ON THE CHASSIS

11.6 Installing the fork protector

- Position fork protector on the right fork leg. Mount and tighten screws 1.
  Guideline
  Remaining screws, chassis | M6 | 10 Nm (7.4 lbf ft)

- Position fork protector on left fork leg. Mount and tighten screws 2.
  Guideline
  Remaining screws, chassis | M6 | 10 Nm (7.4 lbf ft)

- Position the brake line and the clamp. Mount and tighten screws 3.
  Guideline
  Screw, brake line bracket | EJOT | 1.7 Nm (1.25 lbf ft)

11.7 Removing the fork legs

Preparatory work
- Raise the motorcycle with a lift stand. (☞ p. 38)
- Remove the front wheel. (☞ p. 79)

Main work
- Remove screws 1 and take off the clamp.
- Remove screws 2 and take off the brake caliper.
- Allow the brake caliper and brake line to hang loosely to the side.

Info
- Do not kink the brake line.
11.8 Installing the fork legs

Main work
- Position the fork legs.
  ✓ Bleeder screws 1 are positioned toward the rear.

Info
The second milled groove (from the top) must be flush with the upper edge of the upper triple clamp.

- Tighten screws 2.
  Guideline
  | Screw, top triple clamp | M8 | 20 Nm (14.8 lbf ft) |

- Tighten screws 3.
  Guideline
  | Screw, bottom triple clamp | M8 | 15 Nm (11.1 lbf ft) |

- Position the brake caliper, and mount and tighten screws 4.
  Guideline
  | Screw, front brake caliper | M8 | 20 Nm (14.8 lbf ft) | Loctite® 243™ |

- Position the brake line and the clamp. Mount and tighten screws 5.
  Guideline
  | Screw, brake line bracket | EJOT | 1.7 Nm (1.25 lbf ft) |

Finishing work
- Install the front wheel. (p. 79)
11.9 Removing the lower triple clamp

Preparatory work
– Raise the motorcycle with a lift stand. (p. 38)
– Remove the front wheel. (p. 79)
– Remove the fork legs. (p. 40)
– Remove the start number plate. (p. 46)
– Remove front fender. (p. 47)

Main work
– Remove fuel tank breather 1.
– Remove nut 2.
– Remove screw 3, take off the upper triple clamp with the handlebar and set it aside.

Info
Cover the components to protect them against damage. Do not kink the cables and lines.
– Remove protective ring 4.
– Remove the lower triple clamp with the steering stem.
– Remove the upper steering head bearing.
11.10 Installing the lower triple clamp

Main work
- Clean the bearing and sealing elements, check for damage, and grease.
  High viscosity grease (p. 112)
- Insert the lower triple clamp with the steering stem. Mount upper steering head bearing 1.
- Check whether upper steering head seal 2 is correctly positioned.
- Push on protective ring 3.

- Position the upper triple clamp with the handlebar.
- Mount nut 4, but do not tighten yet.
  Guideline
  Nut, steering head M20x1.5 10 Nm (7.4 lbf ft)

- Position the fork legs.
  Bleeder screws 5 are positioned toward the rear.

Info
The upper milled groove in the fork leg must be flush with the upper edge of the upper triple clamp.
11 SERVICE WORK ON THE CHASSIS

- Tighten screws 6.
  Guideline
  
  | Screw, bottom triple clamp | M8 | 15 Nm (11.1 lbf ft) |

- Tighten nut 4.
  Guideline
  
  | Nut, steering head M20x1.5 | 10 Nm (7.4 lbf ft) |

- Mount and tighten screw 7.
  Guideline
  
  | Screw, steering stem M8 | 20 Nm (14.8 lbf ft) |

- Position the fuel tank breather 8 in the steering stem.
- Using a plastic hammer, tap lightly on the upper triple clamp to avoid stresses.

- Tighten screws 9.
  Guideline
  
  | Screw, top triple clamp M8 | 20 Nm (14.8 lbf ft) |

- Position the brake caliper, and mount and tighten screws 10.
  Guideline
  
  | Screw, front brake caliper M8 | 20 Nm (14.8 lbf ft) Loctite®243™ |

- Position the brake line and the clamp. Mount and tighten screws 11.
  Guideline
  
  | Screw, brake line bracket EJOT | 1.7 Nm (1.25 lbf ft) |

Finishing work
- Check that the wiring harness, throttle cable, and brake and clutch lines can move freely and are routed correctly.
- Install front fender. (p. 47)
– Install the start number plate. (p. 47)
– Install the front wheel. (p. 79)
– Check the steering head bearing play. (p. 45)
– Remove the motorcycle from the lift stand. (p. 38)

11.11 Checking the steering head bearing play

**Warning**

**Danger of accidents** Incorrect steering head bearing play impairs the handling characteristic and damages components.
– Correct incorrect steering head bearing play immediately. (Your authorized KTM workshop will be glad to help.)

**Info**

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

**Preparatory work**
– Raise the motorcycle with a lift stand. (p. 38)

**Main work**
– Move the handlebar to the straight-ahead position. Move the fork legs to and fro in the direction of travel.

> Play should not be detectable on the steering head bearing.

> If there is detectable play:
   – Adjust the steering head bearing play. (p. 45)
   – Move the handlebar to and fro over the entire steering range.

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

> If detent positions are detected:
   – Adjust the steering head bearing play. (p. 45)
   – Check the steering head bearing and replace if required.

**Finishing work**
– Remove the motorcycle from the lift stand. (p. 38)

11.12 Adjusting the steering head bearing play

**Preparatory work**
– Raise the motorcycle with a lift stand. (p. 38)
11 SERVICE WORK ON THE CHASSIS

Main work
- Remove fuel tank breather 1.
- Loosen screws 2.
- Loosen screw 3.
- Loosen and retighten nut 4.

Guideline

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nut, steering head</td>
<td>M20x1.5</td>
<td>10 Nm (7.4 lbf ft)</td>
</tr>
</tbody>
</table>

- Using a plastic hammer, tap lightly on the upper triple clamp to avoid stresses.
- Tighten screw 3.

Guideline

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screw, steering stem</td>
<td>M8</td>
<td>20 Nm (14.8 lbf ft)</td>
</tr>
</tbody>
</table>

- Tighten screws 2.

Guideline

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screw, top triple clamp</td>
<td>M8</td>
<td>20 Nm (14.8 lbf ft)</td>
</tr>
</tbody>
</table>

- Position fuel tank breather 1.

Finishing work
- Check the steering head bearing play. (p. 45)
- Remove the motorcycle from the lift stand. (p. 38)

11.13 Lubricating the steering head bearing

- Remove the lower triple clamp. (p. 42)
- Install the lower triple clamp. (p. 43)

Info

The steering head bearing is cleaned and lubricated in the course of removal and installation of the lower triple clamp.

11.14 Removing the start number plate

- Remove screw 1.
- Unhook the start number plate from the brake line and remove it.
11.15 Installing the start number plate

- Attach the start number plate to the brake line.
- Position the start number plate.
  ✔ Holding lugs 1 engage in the fender.

- Mount and tighten screw 2.
  Guideline
  | Start number plate screw | M6 | 4 Nm (3 lbf ft) |

11.16 Removing front fender

- Remove screws 1. Take off the front fender.

11.17 Installing front fender

- Position start number plate on the fender.
  ✔ The holding lugs of the start number plate engage in drill holes 1 of the fender.
11 SERVICE WORK ON THE CHASSIS

11.18 Removing the shock absorber

Preparatory work
- Raise the motorcycle with a lift stand. (p. 38)

Main work
- Remove screw 1 and lower the rear wheel with the link fork as far as possible without blocking the rear wheel. Secure the rear wheel in this position.
- Remove screw 2, push splash protector 3 to the side, and remove the shock absorber.

11.19 Installing the shock absorber

Main work
- Push splash protector 1 to the side and position the shock absorber. Mount and tighten screw 2.

Guideline

| Screw, top shock absorber | M10 | 45 Nm (33.2 lbf ft) Loctite®243™ |

- Mount and tighten screw 3.

Guideline

| Screw, bottom shock absorber | M10 | 45 Nm (33.2 lbf ft) Loctite®243™ |

Finishing work
- Remove the motorcycle from the lift stand. (p. 38)

11.20 Removing the seat

- Open quick release 1 and raise the rear of the seat.
- Pull back the seat and remove it.
11.21 Mounting the seat

- Hook seat onto screw 1 and lower the seat at the rear and push it forward.
  ✔ Holding lug 2 hooks into the fuel tank.

- Close quick release 3.

11.22 Removing the air filter

**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**

**Environmental hazard** Hazardous substances cause environmental damage.
- Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

**Preparatory work**
- Remove the seat. (p. 48)

**Main work**
- Detach air filter holding bracket 1 at the bottom and swing it to one side. Remove the air filter with the air filter support.
- Remove the air filter from the air filter support.
11.23 Installing the air filter

Main work
– Mount the clean air filter on the air filter support.
– Grease the air filter in area A.

Long-life grease (p. 112)

– Insert both parts together, position them, and secure them using air filter holding bracket 1.

Info
If the air filter is not mounted correctly, dust and dirt may enter the engine and result in damage.

Finishing work
– Mount the seat. (p. 49)

11.24 Cleaning the air filter and air filter box

Note
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
Do not clean the air filter with fuel or petroleum since these substances attack the foam.

Preparatory work
– Remove the seat. (p. 48)
– Remove the air filter. (p. 49)

Main work
– Wash the air filter thoroughly in special cleaning liquid and allow it to dry properly.

Air filter cleaner (p. 112)

Info
Only press the air filter to dry it, never wring it out.

– Oil the dry air filter with a high-grade air filter oil.

Oil for foam air filter (p. 112)

– Clean the air filter box.
– Check intake flange for damage and looseness.
Finishing work
– Install the air filter. （p. 50）
– Mount the seat. （p. 49）

11.25 Removing the main silencer

Warning
Danger of burns The exhaust system gets very hot when the vehicle is driven.
– Allow the exhaust system to cool down before performing any work on the vehicle.

- Remove screw 1.
- Pull off the main silencer from the manifold at exhaust sleeve 2.

11.26 Installing the main silencer

- Mount the main silencer with intake sleeve 1.
- Position wide collar bushing 2 and narrow collar bushing 3.

- Mount and tighten screw 4.
Guideline

| Remaining screws, chassis | M6       | 10 Nm (7.4 lbf ft) |
11.27 Changing the glass fiber yarn filling of the main silencer

**Warning**

**Danger of burns**  The exhaust system gets very hot when the vehicle is driven.
- Allow the exhaust system to cool down before performing any work on the vehicle.

**Info**

Over time, the fibers of the glass fiber yarn escape and the damper “burns” out. Not only is the noise level higher, the performance characteristic changes.

---

**Preparatory work**
- Remove main silencer. (p. 51)

**Main work**
- Remove screws with toothed washers 1 from the silencer cap 2.
- Remove end cap and outer tube 3.
- Remove glass fiber yarn filling 4 from the inner tube.
- Clean the parts that need to be reinstalled and check for damage.
- Mount the new glass fiber yarn filling on the inner tube.
- Slide the outer tube over the glass fiber yarn filling.
- Insert the end cap into the outer tube.
- Mount and tighten the screws with the toothed washers.

**Guideline**

<table>
<thead>
<tr>
<th>Remaining screws, chassis</th>
<th>M6</th>
<th>10 Nm (7.4 lbf ft)</th>
</tr>
</thead>
</table>

**Finishing work**
- Install the main silencer. (p. 51)

---

11.28 Removing the fuel tank

**Danger**

**Fire hazard**  Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.
- Do not fuel 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.

Preparatory work
- Remove the seat. (p. 48)
- Turn the knurled screw on the fuel tap all the way clockwise.

Main work
- Remove screw ①.
- Remove screws ②.
- Pull off fuel hose ③.

Info
Remaining fuel may flow out of the fuel hose.
- Pull fuel tank breather out of the steering stem.
- Pull both spoilers off laterally from the radiator bracket and lift off the fuel tank.
11.29 Installing the fuel tank

**Danger**

**Fire hazard**  Fuel is highly flammable.

- The fuel in the fuel tank expands when warm and can escape if overfilled.
- Do not fuel 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.

**Main work**

- Check the throttle cable routing. ([p. 60](#))
- Position the fuel tank and fit the two spoilers to the sides of the radiator mount.
- Make sure that no cables or throttle cables are trapped or damaged.
- Mount fuel hose \(1\).

- Mount and tighten screws \(2\).

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Screw, fuel tank spoiler on radiator</th>
<th>M6</th>
<th>6 Nm (4.4 lbf ft)</th>
</tr>
</thead>
</table>
– Mount and tighten screw ③.

Guideline

<table>
<thead>
<tr>
<th>Remaining screws, chassis</th>
<th>M6</th>
<th>10 Nm (7.4 lbf ft)</th>
</tr>
</thead>
</table>

– Position the fuel tank breather in the steering stem.

Finishing work
– Mount the seat. (p. 49)

11.30 Checking the chain for dirt

– Check the chain for coarse dirt accumulation.
  » If the chain is very dirty:
    – Clean the chain. (p. 55)

11.31 Cleaning the chain

**Warning**

*Danger of accidents* Lubricants on the tires reduces the road grip.
– Remove lubricants 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.

**Note**

*Environmental hazard* Hazardous substances cause environmental damage.
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

**Info**

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

Preparatory work
– Raise the motorcycle with a lift stand. (p. 38)
11 SERVICE WORK ON THE CHASSIS

11.32 Checking the chain tension

Warning

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

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

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

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

Preparatory work

– Raise the motorcycle with a lift stand. (p. 38)

Main work

– Press the chain upward at the end of the chain sliding piece and determine chain tension $A$.

Info

Top chain section 1 must be taut.

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

| Chain tension | 5 ... 8 mm (0.2 ... 0.31 in) |

If the chain tension does not meet the specification:

– Adjust the chain tension. (p. 57)

Finishing work

– Remove the motorcycle from the lift stand. (p. 38)
11.33 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**

– Raise the motorcycle with a lift stand. (p. 38)
– Check the chain tension. (p. 56)

**Main work**

– Loosen nut 1.
– Loosen nuts 2.
– Adjust the chain tension by turning adjusting screws 3 left and right.

**Guideline**

<table>
<thead>
<tr>
<th>Chain tension</th>
<th>5 … 8 mm (0.2 … 0.31 in)</th>
</tr>
</thead>
</table>
| Turn the adjusting screws 3 on the left and right so that the markings on the left and right chain adjusters are in the same position relative to the reference marks A. The rear wheel is then correctly aligned.
|   |   |
| – Tighten nuts 2. |
| – Make sure that chain adjusters 4 are fitted correctly on adjusting screws 3. |
| – Tighten nut 1. |

**Guideline**

| Nut, rear wheel spindle | M14x1.5 | 40 Nm (29.5 lbf ft) |

**Finishing work**

– Remove the motorcycle from the lift stand. (p. 38)

11.34 Checking the chain, rear sprocket, engine sprocket, and chain guide

**Preparatory work**

– Raise the motorcycle with a lift stand. (p. 38)
Main work
– Shift the transmission into neutral.
– Check the chain, rear sprocket, and engine sprocket for wear.
  » If the chain, rear sprocket or motor sprocket is worn:
    – Change the drivetrain kit.

Info
The engine sprocket, the rear sprocket, and the chain should always be replaced together.
When fitting the chain joint, always make sure that the closed side of the joint faces forward (riding direction).

– Check the engine sprocket cover for wear.
  » If the engine sprocket cover is worn through in the marked area A:
    – Change the engine sprocket cover.
– Check the engine sprocket cover for tightness.
  » If the engine sprocket cover is loose:
    – Tighten the engine sprocket cover.

Guideline

<table>
<thead>
<tr>
<th>Screw, engine sprocket cover</th>
<th>M6</th>
<th>10 Nm (7.4 lbf ft)</th>
</tr>
</thead>
</table>

– Check the chain sliding guard for wear.
  » If the lower edge of the chain pins is in line with, or below, 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 chain sliding guard.
– Check the chain sliding piece for wear.
  » If the lower edge of the chain pins 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 chain sliding piece.

Guideline

<table>
<thead>
<tr>
<th>Remaining screws, chassis</th>
<th>M8</th>
<th>25 Nm (18.4 lbf ft)</th>
</tr>
</thead>
</table>

– Check the chain guide for wear.

**Info**

Wear can be seen on the front of the chain guide.

» If the light part of the chain guide is worn:
  – Change the chain guide.

– Check that the chain guide is firmly seated.
  » If the chain guide is loose:
    – Tighten the chain guide.

Guideline

<table>
<thead>
<tr>
<th>Remaining screws, chassis</th>
<th>M6</th>
<th>10 Nm (7.4 lbf ft)</th>
</tr>
</thead>
</table>

**Finishing work**

– Remove the motorcycle from the lift stand. (p. 38)
11.35 Checking the frame

Check the frame for cracks and deformation.

- If the frame exhibits cracks or deformation due to a mechanical impact:
  - Change the frame.

**Info**
Always replace a frame that has been damaged due to a mechanical impact. Repair of the frame is not authorized by KTM.

11.36 Checking the link fork

Check the link fork for damage, cracking, and deformation.

- If the link fork shows signs of damage, cracking, or deformation:
  - Change the link fork.

**Info**
Always replace a damaged link fork. Repairing the link fork is not authorized by KTM.

11.37 Checking the throttle cable routing

**Warning**
Danger of accidents
The throttle cable may slip out of the guide if routed incorrectly. The throttle slide will then no longer be closed and the speed can no longer be controlled.

- Make sure that the throttle cable routing and the play in the throttle cable comply with the specification.

**Preparatory work**
- Remove the seat. (p. 48)
- Turn the knurled screw on the fuel tap all the way clockwise.
- Remove the fuel tank. (p. 52)

**Main work**
- Check the throttle cable routing.
  
  The throttle cable must be routed behind the handlebar, behind the coolant hose and on the left of the frame.

  - If the throttle cable routing is not as specified:
    - Correct the throttle cable routing.

**Finishing work**
- Install the fuel tank. (p. 54)
- Mount the seat. (p. 49)
11.38 Checking the rubber grip

- Check the rubber grips on the handlebar for damage, wear, and looseness.
  » If a rubber grip is damaged, worn, or loose:
    - Change the rubber grip.
      Rubber grip adhesive (00062030051) (p. 113)
    - Additionally secure the rubber grip. (p. 61)

11.39 Additionally securing the rubber grip

Preparatory work
- Check the rubber grip. (p. 61)

Main work
- Secure the rubber grip at two locations with the retaining wire.
  Securing wire (54812016000)
  Wire twister forceps (U6907854)

✓ The twisted wire ends face away from the palms and are bent in toward the rubber grip.

11.40 Adjusting the basic position of the clutch lever

- Adjust the basic position of the clutch lever to the size of the rider's hand using adjusting screw 1.

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.
  Turn the adjusting screw by hand only, and do not apply any force.
  Do not make any adjustments while riding.

11.41 Checking the fluid level of the hydraulic clutch

Info
  The fluid level rises with increasing wear of the clutch facing discs.
11.42 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.

**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 in viewer 1.
  - If the fluid has dropped below marking A in the level viewer:
    - Correct the fluid level of the hydraulic clutch.
      (p. 62)

Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.

- Remove screws 1.
- Remove cover 2 with membrane 3.
- Correct the fluid up to level A.

**Guideline**

<table>
<thead>
<tr>
<th>Level A (fluid level below container rim)</th>
<th>4 mm (0.16 in)</th>
</tr>
</thead>
</table>

Brake fluid DOT 4 / DOT 5.1 (p. 110)

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

**Info**

Clean up overflowed or spilled brake fluid immediately with water.
11.43 Changing the hydraulic clutch fluid

**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.

**Note**

**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.
- Remove screws 1.
- Remove cover 2 with membrane 3.

- Fill bleeding syringe 4 with the appropriate hydraulic fluid.

```
Syringe (50329050000)
Brake fluid DOT 4 / DOT 5.1 (p. 110)
```

- On the slave cylinder, remove the bleeder screw and mount bleeding syringe 4.
Inject the liquid into the system only until it emerges from drill hole 5 of the master cylinder without bubbles.

Now and then, extract fluid from the master cylinder reservoir to prevent overflow.

Remove the bleeding syringe. Mount and tighten screws bleeder screw.

Correct the fluid level of the hydraulic clutch.

Guideline

| Fluid level below container rim | 4 mm (0.16 in) |

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

Info

Clean up overflowed or spilled brake fluid immediately with water.
12.1 Checking the free travel of the hand brake lever

**Warning**

**Danger of accidents**  The brake system fails in the event of overheating.
If there is no free travel on the hand brake lever, pressure builds up on the front brake circuit.
- Set the free travel on the hand brake lever in accordance with the specification.

- Push the hand brake lever forward and check free travel \( A \).

| Free travel of hand brake lever | ≥ 3 mm (≥ 0.12 in) |

» If the free travel does not match the specification:
- Adjust the basic position of the hand brake lever. (p. 65)

12.2 Adjusting the basic position of the hand brake lever

- Check the free travel of the hand brake lever. (p. 65)
- Adjust the basic position of the hand brake lever using adjusting screw \( i \).

**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.
Turn the adjusting screw by hand only, and do not apply any force.
Do not make any adjustments while riding.

12.3 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 front and rear brake disc thickness at multiple points for the dimension A.

**Info**
Wear reduces the thickness of the brake disc around the contact surface of the brake linings.

<table>
<thead>
<tr>
<th>Brake discs - wear limits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>front</td>
<td>2.5 mm (0.098 in)</td>
</tr>
<tr>
<td>rear</td>
<td>2.5 mm (0.098 in)</td>
</tr>
</tbody>
</table>

If the brake disc thickness is less than the specified value:
- Change the front brake disc.
- 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 disc.
- Change the rear brake disc.

---

### 12.4 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 specified marking or the specified value, 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.)

**Note**

**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.

Move the brake fluid reservoir mounted on the handlebar into a horizontal position.

- Remove screws 1.

- Take off cover 2 with membrane 3.

- Check the brake fluid level.

| Brake fluid level under top level of container | 5 mm (0.2 in) |

» If the brake fluid level does not meet specifications:
  - Add the front brake fluid. (p. 67)
  - Position the cover with the membrane. Mount and tighten the screws.

Info
Clean up the overflowed or spilled brake fluid immediately with water.

12.5 Adding the 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 specified marking or the specified value, 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.)
Note

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. 68)

Main work
- Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws 1.
- Take off cover 2 with membrane 3.

- Add brake fluid up to level A.

Guideline
Brake fluid level under top level of container 5 mm (0.2 in)
Brake fluid DOT 4 / DOT 5.1 (p. 110)
- Position the cover with the membrane. Mount and tighten the screws.

Info

Immediately clean up any brake fluid that has overflowed or spilled with water.

12.6 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.)
12.7 Changing the brake linings of the front brake

Warning
Danger of accidents Incorrect servicing will cause the brake system to fail.
− Ensure that service work and repairs are performed professionally. (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
Danger of accidents Brake linings which have not been approved alter the braking efficiency.
Not all brake linings are tested and approved for KTM motorcycles. The structure and friction coefficient of the brake linings, and thus their brake power, may vary greatly from that of original brake linings. If brake linings are used that differ from the original equipment, compliance with the original homologation is not guaranteed. In this case, the vehicle no longer corresponds to its condition at delivery and the manufacturer warranty shall be void.
− Only use brake linings approved and recommended by KTM.

Note
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.

Move the brake fluid reservoir mounted on the handlebar to a horizontal position.

- Remove screws 1.
- Take off cover 2 with membrane 3.

- Remove screw 4 and 5.
- Press back the brake linings by slightly tilting the brake caliper laterally on the brake disc. Carefully pull the brake caliper backward from the brake disc.
- Press the brake piston back into the basic position and ensure that brake fluid does not flow out of the brake fluid reservoir; extract some if necessary.

- Remove lock ring 6.
- Remove screw 7.
- Remove the brake linings.
- Clean the brake caliper.
- Position new brake linings.

Info

Always change the brake linings in pairs. Ensure that the brake linings are correctly positioned in the holding spring.

Mount and tighten screw 7.

Guideline

| Screw, front brake linings | M6 | 10 Nm (7.4 lbf ft) |

Mount lock ring 6.

Warning

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

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

- Check the brake discs. (☞ p. 65)
Position the brake caliper.

Mount screw 4 and 5 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. Secure the hand brake lever in the activated position.

✔ The brake caliper straightens.

Tighten screw 4 and 5.

**Guideline**

<table>
<thead>
<tr>
<th>Screw, front brake caliper</th>
<th>M8</th>
<th>20 Nm (14.8 lbf ft)</th>
<th>Loctite®243™</th>
</tr>
</thead>
</table>

Remove the locking piece of the hand brake lever.

Correct the brake fluid level.

**Guideline**

- Brake fluid level under top level of container: 5 mm (0.2 in)

- Brake fluid DOT 4 / DOT 5.1 (**p. 110**)

Position cover 2 with membrane 3.

Mount and tighten screws 1.

**Info**

Immediately clean up any brake fluid that has overflowed or spilled with water.

---

### 12.8 Checking the free travel of the foot brake lever

**Warning**

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

If there is no free travel on the foot brake lever, pressure builds up in the brake system on the rear brake.

- Set the free travel on the foot brake lever in accordance with the specification.

- Detach spring 1.

- Move the foot brake lever back and forth between the end stop and the contact to the foot brake cylinder piston and check free travel A.

**Guideline**

<table>
<thead>
<tr>
<th>Free travel of foot brake lever</th>
<th>3 … 5 mm (0.12 … 0.2 in)</th>
</tr>
</thead>
</table>

» If the free travel does not match the specification:

- Adjust the free travel of the hand brake lever. (**p. 72**)

- Attach spring 1.
12.9 Adjusting the free travel of the foot brake lever

**Warning**

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

If there is no free travel on the foot brake lever, pressure builds up in the brake system on the rear brake.

- Set the free travel on the foot brake lever in accordance with the specification.

- Detach the foot brake lever spring.
- Loosen nut 1.
- Turn push rod 2 accordingly until you have free travel A.
- Hold push rod 2 and tighten nut 1.
- Attach the foot brake lever spring.
- Check whether the basic position of the foot brake lever is suitable for the rider.
  > When the basic position of the foot brake lever needs to be adjusted:
    - Adjust the basic position of the foot brake lever. (p. 72)

12.10 Adjusting the basic position of the foot brake lever

**Warning**

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

If there is no free travel on the foot brake lever, pressure builds up in the brake system on the rear brake.

- Set the free travel on the foot brake lever in accordance with the specification.

- Detach the foot brake lever spring.
- Loosen nut 1.
- Turn back push rod 2.
- Loosen nut 3.
- To adjust the basic position of the foot brake lever, turn screw 4 accordingly.

**Info**

The range of adjustment is limited.

- Hold screw 4 and tighten nut 3.

**Guideline**

<table>
<thead>
<tr>
<th>Remaining nuts, chassis</th>
<th>M8</th>
<th>25 Nm (18.4 lbf ft)</th>
</tr>
</thead>
</table>
- Check the free travel of the foot brake lever. (p. 71)
Guideline

Free travel of foot brake lever  3 ... 5 mm (0.12 ... 0.2 in)

» If the free travel at the foot brake lever does not meet specifications:
  – Adjust the free travel of the hand brake lever. ◄ (p. 72)
  – Attach the foot brake lever spring.

12.11 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 specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

– Check the brake system and ensure that nobody drives the vehicle before 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.)

» If an air bubble is visible in viewer 1:
  – Add rear brake fluid. ◄ (p. 73)

12.12 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 specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

– Check the brake system and ensure that nobody drives the vehicle before 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.)

**Note**

**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**
- Raise the motorcycle with a lift stand. (p. 38)
- Check the rear brake linings. (p. 75)

**Main work**
- Remove screws 1.
- Take off cover 2 with washer 3 and membrane 4.

- Add brake fluid up to level A.

**Guideline**

<table>
<thead>
<tr>
<th>Level</th>
<th>(brake fluid level below reservoir rim)</th>
<th>10 mm (0.39 in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake fluid DOT 4 / DOT 5.1 (p. 110)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Position the cover with the washer and membrane.
- Mount and tighten the screws.
12.13 Checking the rear brake linings

**Warning**

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

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

– Check the brake linings for minimum thickness $A$.

<table>
<thead>
<tr>
<th>Minimum thickness $A$</th>
<th>$\geq 1\text{ mm} \equiv 0.04\text{ in}$</th>
</tr>
</thead>
</table>

» If the minimum thickness is less than specified:
  – Change the rear brake linings. (p. 75)
  – Check the brake linings for damage and cracking.

» If damage or wear is encountered:
  – Change the rear brake linings. (p. 75)

12.14 Changing the rear brake linings

**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**

**Danger of accidents**  Incorrect servicing will cause the brake system to fail.

– Ensure that service work and repairs are performed professionally. (Your authorized KTM workshop will be glad to help.)
**Note**

**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**
- Raise the motorcycle with a lift stand. (p. 38)

**Main work**
- Remove lock ring 1.
- Remove screw 2.

- Remove the brake linings.
- Remove screw 3.
- Remove screw 4 and take off the brake caliper.

**Info**

Cover the components to protect them against damage. Do not kink the brake line.

- Clean the brake caliper and the brake caliper bracket.
- Remove screws 5.
- Take off cover 6 with washer 7 and membrane 8.
- Press the brake piston back to its basic position and make sure that no brake fluid overflows from the brake fluid reservoir, extract brake fluid if necessary.
- Position the brake caliper.
- Mount and tighten screw 4.

**Guideline**

<table>
<thead>
<tr>
<th>Screw, rear brake caliper</th>
<th>M8x20</th>
<th>18 Nm (13.3 lbf ft) ( \text{Loctite}^\text{®} 243^\text{TM} )</th>
</tr>
</thead>
</table>

- Mount and tighten screw 6.

**Guideline**

| Screw, rear brake caliper | M8x40 | 18 Nm (13.3 lbf ft) \( \text{Loctite}^\text{®} 243^\text{TM} \) |
**Warning**

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

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

**Warning**

**Danger of accidents**  Brake linings which have not been approved alter the braking efficiency.

Not all brake linings are tested and approved for KTM motorcycles. The structure and friction coefficient of the brake linings, and thus their brake power, may vary greatly from that of original brake linings. If brake linings are used that differ from the original equipment, compliance with the original homologation is not guaranteed. In this case, the vehicle no longer corresponds to its condition at delivery and the manufacturer warranty shall be void.

- Only use brake linings approved and recommended by KTM.

- Position the new brake linings.

**Info**

Always change the brake linings in pairs.

Ensure that the brake linings are correctly positioned in the holding spring.

- Mount and tighten screw 2.

Guideline

| Screw, rear brake lining | M6 | 10 Nm (7.4 lbf ft) |

- Mount lock ring 1.
- Check the brake discs. (p. 65)
- Operate the foot brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point.

- Add brake fluid up to level A.

Guideline

| Level A (brake fluid level below reservoir rim) | 10 mm (0.39 in) |

Brake fluid DOT 4 / DOT 5.1 (p. 110)

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

**Info**

Immediately clean up any brake fluid that has overflowed or spilled with water.
Finishing work
- Remove the motorcycle from the lift stand. (p. 38)
13.1 Removing the front wheel

Preparatory work
- Raise the motorcycle with a lift stand. (p. 38)

Main work
- Remove screw 1.

- Loosen screws 2.

**Warning**

**Danger of accidents**
Damaged brake discs reduce the braking effect.
- Always lay the wheel down in such a way that the brake disc is not damaged.

- Hold the front wheel and pull out wheel spindle 3. Take the front wheel out of the fork.

**Info**

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

- Remove spacers 4.

13.2 Installing the front 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.
- Check the wheel bearing for damage and wear.
  - If the wheel bearing is damaged or worn:
    - Change front wheel bearing.
- Clean and grease shaft seal rings 1 and contact surfaces of the spacers.
  - Long-life grease (p. 112)
- Insert the spacers.
- Clean and grease wheel spindle 2.
  - Long-life grease (p. 112)
- Position the front wheel.
  - The brake linings are correctly positioned.
- Insert the wheel spindle.
- Tighten screws 3.
  Guideline
  - Screw, fork stub M6 10 Nm (7.4 lbf ft)
- Mount and tighten screw 4.
  Guideline
  - Screw, front wheel spindle M10 40 Nm (29.5 lbf ft) Loctite® 243™
- Remove the motorcycle from the lift stand. (p. 38)
- Operate the hand brake lever several times until the brake linings are seated correctly against the brake disc.
  - Loosen screws 3.
  - Operate the front brake and compress the fork a few times firmly.
  - The fork legs straighten.
  - Tighten screws 3.
  Guideline
  - Screw, fork stub M6 10 Nm (7.4 lbf ft)

13.3 Removing the rear wheel

Preparatory work
- Raise the motorcycle with a lift stand. (p. 38)
Main work
- Remove nut 1.
- Take off chain adjuster 2.

- Pull out wheel spindle 3 far enough to allow the rear wheel to be pushed forward.
- Push the rear wheel forward as far as possible. Remove the chain from the rear sprocket.

Info
Cover the components to protect them against damage.

Warning
Danger of accidents  Damaged brake discs reduce the braking effect.
- Always lay the wheel down in such a way that the brake disc is not damaged.

Info
Do not operate the foot brake lever when the rear wheel is removed.

- Remove spacers 4.

13.4 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 wheel bearing for damage and wear.
  - If the wheel bearing is damaged or worn:
    - Change the rear wheel bearing.
  - Clean and grease shaft seal rings 1 and contact surfaces A of the spacers.
    - Long-life grease (p. 112)
  - Insert the spacers.

- Clean and grease wheel spindle 2.
  - Long-life grease (p. 112)
- Position the rear wheel and insert wheel spindle.
  - The brake linings are correctly positioned.
- Mount the chain.
- Position chain adjuster 3 on both sides and push the wheel spindle in all the way.

- Mount nut 4, but do not tighten yet.
- Make sure that the chain adjusters are fitted correctly on the adjusting screws.
- Check the chain tension. (p. 56)
- Tighten nut 4.
  
Guideline

| Nut, rear wheel spindle | M14x1.5 | 40 Nm (29.5 lbf ft) |

- Operate the foot brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point.

Finishing work

- Remove the motorcycle from the lift stand. (p. 38)

---

13.5 Checking the tire condition

Info

Only mount tires approved and/or recommended by KTM.
Other tires could have a negative effect on handling characteristics.
The type, condition, and pressure of the tires all have a major impact on the handling characteristic of the motorcycle.
The tires mounted on the front and rear wheels must have a similar profile.
Worn tires have a negative effect on handling characteristics, especially on wet surfaces.
Check the front and rear tires for cuts, embedded objects, and other damage.
  » If the tires have cuts, run-in objects, or other damage:
    – 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 five years old:
    – Change the tires.

13.6 Checking tire pressure

Info
Low tire pressure leads to abnormal wear and overheating of the tire. Correct tire pressure ensures optimal riding comfort and maximum tire service life.

– Remove protection cap.
– Check tire pressure when the tires are cold.

<table>
<thead>
<tr>
<th>Offroad tire pressure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>front</td>
<td>1.0 bar (15 psi)</td>
</tr>
<tr>
<td>rear</td>
<td>1.0 bar (15 psi)</td>
</tr>
</tbody>
</table>

  » If the tire pressure does not meet specifications:
    – Correct tire pressure.
    – Mount the protection cap.
13.7 Checking spoke tension

**Warning**

_Danger of accidents_ Incorrectly tensioned spokes impair the handling characteristic and result in secondary damage.

The spokes break due to being overloaded if they are too tightly tensioned. If the tension in the spokes is too low, then lateral and radial run-out will form in the wheel. Other spokes will become looser as a result.

- Check spoke tension regularly, and in particular on a new vehicle. (Your authorized KTM workshop will be glad to help.)

---

- Strike each spoke briefly using a screwdriver blade.

**Info**

The frequency of the sound depends on the spoke length and spoke diameter. If you hear different tone frequencies from different spokes of equal length and diameter, this is an indication of different spoke tensions.

You should hear a high note.

- If the spoke tension differs:
  - Correct the spoke tension.

- Check the spoke torque.

**Guideline**

<table>
<thead>
<tr>
<th>Spoke nipple</th>
<th>M3.5</th>
<th>3 Nm (2.2 lbf ft)</th>
</tr>
</thead>
</table>

Torque wrench kit (58429094000)
14.1 Cooling system

The water pump 1 in the engine forces the coolant to flow. The pressure resulting from the warming of the cooling system is regulated by a valve in the radiator cap 2. This ensures that operating the vehicle at the specified coolant temperature will not result in a risk of malfunctions.

120 °C (248 °F)

Cooling is effected by the air stream. The lower the speed, the less the cooling effect. Dirty cooling fins also reduce the cooling effect.

14.2 Checking the antifreeze and coolant level

**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.

- Stand the motorcycle upright on a horizontal surface.
- Take off radiator cap 1.
- Check the antifreeze in the coolant.

\[-25 \ldots +45 °C (−13 \ldots +113 °F)\]

» If the antifreeze in the coolant does not match the specified value:

- Correct the antifreeze in the coolant.

- Check the coolant level in the radiator.

| Coolant level A above the radiator fins | 10 mm (0.39 in) |

» If the coolant level does not match the specified value:

- Correct the coolant level.

- Mount the radiator cap.

Coolant (\(\text{p. 110}\))
14.3 Checking the coolant level

**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.

- Stand the motorcycle upright on a horizontal surface.
- Remove the radiator cap.
- Check the coolant level in the radiator.

<table>
<thead>
<tr>
<th>Coolant level A above the radiator fins</th>
<th>10 mm (0.39 in)</th>
</tr>
</thead>
</table>

- If the coolant level does not match the specified value:
  - Correct the coolant level.

- Mount the radiator cap.

14.4 Draining the coolant

**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.
- Position the motorcycle upright.
- Place an appropriate container under the water pump cover.
- Remove screw 1. Take off the radiator cap.
- Completely drain the coolant.
- Mount and tighten screw 1 with a new seal ring.

### Guideline

| Drain plug, water pump cover | M6 | 6 Nm (4.4 lbf ft) |

### 14.5 Refilling with coolant

**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.

### Main work

- Make sure that screw 1 is tightened.
- Position the motorcycle upright.
- Add coolant to level A.

### Guideline

| Distance A above the radiator fins | 10 mm (0.39 in) |

| Coolant | 0.55 l (0.58 qt.) | Coolant (p. 110) |
Move the vehicle into the position shown and prevent it from rolling away. Height difference B must be reached.

**Guideline**

| Height difference | 50 cm (19.7 in) |

**Info**

For all of the air to be able to escape from the cooling system, the vehicle must be raised at the front. If the cooling system is poorly de-aerated, its cooling power will be reduced and the engine may overheat.

- Return the vehicle to the horizontal position.
- Add coolant to level A.
- Mount the radiator cap.

**Finishing work**

- Go for a short test ride.
- Check the cooling system for leaks.
- Check the coolant level. (p. 86)

### 14.6 Changing the coolant

**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.

- Position the motorcycle upright.
- Place an appropriate container under the water pump cover.
- Remove screw 1. Take off the radiator cap.
- Completely drain the coolant.
- Mount and tighten screw 1 with a new seal ring.
  
  Guideline
  
  | Drain plug, water pump cover | M6 | 6 Nm (4.4 lbf ft) |
  
- Make sure that screw 1 is tightened.
- Add coolant to level A.
  
  Guideline
  
  | Distance A above the radiator fins | 10 mm (0.39 in) |
  
  | Coolant | 0.55 l (0.58 qt.) | Coolant (☞ p. 110) |
  
- Move the vehicle into the position shown and secure it against rolling away. Height difference B must be reached.
  
  Guideline
  
  | Height difference B | 50 cm (19.7 in) |
  
  Info
  
  For all of the air to be able to escape from the cooling system, the vehicle must be raised at the front. If the cooling system is poorly de-aerated, its cooling power will be reduced and the engine may overheat.

- Return the vehicle to the horizontal position.
- Add coolant to level A.
- Mount the radiator cap.

Finishing work
- Go for a short test ride.
- Check the cooling system for leaks.
- Check the coolant level. (☞ p. 86)
15 TUNING THE ENGINE

15.1 Checking throttle cable play

- Check the throttle grip for smooth operation.
- Move the handlebar to the straight-ahead position. Turn the throttle grip back and forth slightly and determine the play in throttle cable A.

| Throttle cable play | 3 … 5 mm (0.12 … 0.2 in) |

- If the throttle cable play does not meet specifications:
  - Adjust the throttle cable play. (p. 90)

**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 effective exhaust extraction when starting or running the engine in an enclosed space.

- Start the engine and let it run at idle speed. Move the handlebar to and fro over the entire steering range.

| The idle speed must not change |

- If the idle speed changes:
  - Adjust the throttle cable play. (p. 90)

15.2 Adjusting the throttle cable play

**Preparatory work**
- Remove the seat. (p. 48)
- Turn the knurled screw on the fuel tap all the way clockwise.
- Remove the fuel tank. (p. 52)
- Check the throttle cable routing. (p. 60)

**Main work**
- Move the handlebar to the straight-ahead position.
- Push back sleeve 1.
- Ensure that the throttle cable sleeve is pushed all the way into barrel adjuster 2.
- Loosen nut 3.
15.3 Carburettor – idle speed

The idle setting of the carburetor has a major influence on the starting behavior, stable idle speed, and the response to throttle opening. This means that an engine with a correctly set idle speed will be easier to start than one with an incorrectly set idle speed.

**Info**
The carburetor and its components are subject to increased wear caused by engine vibration. Wear can result in malfunctioning.

The idle speed is adjusted with adjusting screw 1. The idle mixture is adjusted using the idle air adjusting screw 2.

15.4 Carburettor – adjusting the idle speed

- Screw in idle air adjusting screw 2 all the way and turn it to the specified basic setting.

**Guideline**

<table>
<thead>
<tr>
<th>Idle air adjusting screw</th>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>3.5 turns</td>
</tr>
</tbody>
</table>

- Run the engine until warm.

**Guideline**

<table>
<thead>
<tr>
<th>Warming-up phase</th>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 5 min</td>
<td></td>
</tr>
</tbody>
</table>

- Connect the special tool.

**Tachometer (45129075000)**

**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 effective exhaust extraction when starting or running the engine in an enclosed space.
15 TUNING THE ENGINE

15.5 Emptying the carburetor float chamber

**Danger**

*Fire hazard*  
Fuel is highly flammable.  
The fuel in the fuel tank expands when warm and can escape if overfilled.  
– Do not fuel 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.

– Adjust the idle speed with adjusting screw 1.

Guideline

<table>
<thead>
<tr>
<th>Choke function deactivated – The choke lever is pushed up all the way to the stop. (p. 16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idle speed</td>
</tr>
</tbody>
</table>

– Turn idle air adjusting screw 2 slowly in a clockwise direction until the idle speed begins to fall.
– Note the position and turn the idle air adjusting screw slowly counterclockwise until the idle speed again begins to fall.
– Adjust to the point between these two positions with the highest idle speed.

**Info**

If there is a big engine speed rise, reduce the idle speed to a normal level and repeat the above steps.  
If the procedure described here does not lead to satisfactory results, the cause may be a wrongly dimensioned idling jet.  
If you can turn the idle air adjusting screw to the end without any change of engine speed, mount a smaller idling jet.  
After changing the idling jet, start from the beginning with the adjusting steps.  
Following extreme air temperature or altitude changes, adjust the idle speed again.
Note
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.

Info
Carry out work with a cold engine.
Water in the float chamber results in malfunctioning.

Preparatory work
- Turn the knurled screw on the fuel tap all the way clockwise.
  ✓ No more fuel flows from the tank to the carburetor.

Main work
- Place a cloth under the carburetor to capture the draining fuel.
- Remove screw plug 1.
- Fully drain the fuel.
- Mount and tighten the screw plug.
16.1 Checking the gear oil level

**Condition**
The engine is cold.

**Preparatory work**
– Stand the motorcycle upright on a horizontal surface.

**Main work**
– Remove screw 1.
– Check the gear oil level.

A small quantity of gear oil must run out of the drilled hole.

» If no gear oil runs out:
  – Add the gear oil. ▼ (p. 95)

– Mount and tighten screw 1.

<table>
<thead>
<tr>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screw, gear oil level</td>
</tr>
<tr>
<td>monitoring</td>
</tr>
<tr>
<td>M6</td>
</tr>
<tr>
<td>6 Nm (4.4 lbf ft)</td>
</tr>
</tbody>
</table>

16.2 Changing the gear oil

**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.

**Note**
**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.

<table>
<thead>
<tr>
<th>Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drain gear oil with engine at operating temperature.</td>
</tr>
</tbody>
</table>

**Preparatory work**
– Stand the motorcycle on the plug-in stand on a horizontal surface.

**Main work**
– Position an appropriate container under the engine.
– Remove oil drain plug 1 with the magnet.
– Let the gear oil drain fully.
– Thoroughly clean the oil drain plug with magnet.
– Clean the sealing surface on the engine.
– Mount and tighten the oil drain plug with the magnet and new seal ring.

<table>
<thead>
<tr>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil drain plug with magnet</td>
</tr>
<tr>
<td>M12x1.5</td>
</tr>
<tr>
<td>20 Nm (14.8 lbf ft)</td>
</tr>
</tbody>
</table>
16.3 Adding the gear oil

Info
Too little gear oil or poor-quality gear oil results in premature wear to the transmission.

Preparatory work
- Stand the motorcycle upright on a horizontal surface.

Main work
- Remove screw 1.

- Remove filler plug 2 with the O-ring.
- Add gear oil until it flows out of the hole of the gear oil level plug.

| Engine oil (15W/50) (p. 110) |

- Mount and tighten screw 1.

Guideline

| Screw, gear oil level monitoring | M6 | 6 Nm (4.4 lbf ft) |

- Mount and tighten filler plug 2 with the O-ring.
**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 effective exhaust extraction when starting or running the engine in an enclosed space.

- Start the engine and check for leaks.
17.1 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)

**Note**

**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**

Clean the motorcycle regularly to maintain its value and appearance over a long period. Avoid direct sunshine when cleaning the motorcycle.

- Close off exhaust system to keep water from entering.
- Remove loose dirt first with a soft jet of water.
- Spray the heavily soiled parts with a normal commercial motorcycle cleaner and clean using a brush.

**Warning**

**Danger of accidents** Moisture and dirt impair the brake system.

- Explain to your child that he or she must brake carefully several times to dry out and remove dirt from the brake linings and the brake discs.

- After cleaning, your child should ride the vehicle a short distance until the engine warms up and until the brakes system has dried through careful application of the brakes.
The heat produced causes water at inaccessible locations in the engine and on the brake system to evaporate.

- Push back the protection caps on the handlebar controls to allow water to evaporate.
- After the motorcycle has cooled down, lubricate all moving parts and pivot points.
- Clean the chain. (p. 55)
- Treat bare metal (except for brake discs and the exhaust system) with a corrosion inhibitor.

<table>
<thead>
<tr>
<th>Preserving materials for paints, metal and rubber (p. 112)</th>
</tr>
</thead>
</table>

- Treat all plastic parts and powder-coated parts with a mild cleaning and care product.

<table>
<thead>
<tr>
<th>Special cleaner for glossy and matte paint finishes, metal and plastic surfaces (p. 113)</th>
</tr>
</thead>
</table>
18.1 Storage

**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.

---

**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. 112](#))

- Fill up with fuel. ([p. 24](#))
- Clean the motorcycle. ([p. 97](#))
- Change the gear oil. ([p. 94](#))
- Check the antifreeze and coolant level. ([p. 85](#))
- Empty the carburetor float chamber. ([p. 92](#))
- Check tire pressure. ([p. 83](#))
- Store the vehicle in a dry location that is not subject to large fluctuations in temperature.

---

**Info**
KTM recommends jacking up the motorcycle.

- Raise the motorcycle with a lift stand. ([p. 38](#))
- Cover the vehicle with a tarp or similar cover that is permeable to air.

---

**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. Because the engine will not warm up sufficiently, the water vapor produced during combustion will condense, causing engine parts and the exhaust system to rust.
18.2 Preparing for use after storage

- Remove the motorcycle from the lift stand. (p. 38)
- Perform checks and maintenance measures when preparing for use. (p. 21)
- Take a test ride.
<table>
<thead>
<tr>
<th>Faults</th>
<th>Possible cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine turns but does not start</td>
<td>Operating error</td>
<td>– Carry out the start procedure. <em>(p. 21)</em></td>
</tr>
<tr>
<td>Motorcycle was out of use for a long time and there is old fuel in the float chamber</td>
<td>– Empty the carburetor float chamber. <em>(p. 92)</em></td>
<td></td>
</tr>
<tr>
<td>Fuel feed interrupted</td>
<td>– Check the fuel tank breather. – Clean the fuel tap. – Check/set the carburetor components.</td>
<td></td>
</tr>
<tr>
<td>Spark plug oily or wet</td>
<td>– Clean and dry the spark plug, or change it if necessary.</td>
<td></td>
</tr>
<tr>
<td>Plug gap of spark plug too wide</td>
<td>– Adjust plug gap. <strong>Guideline</strong> Spark plug electrode gap 0.60 mm (0.0236 in)</td>
<td></td>
</tr>
<tr>
<td>Fault in ignition system</td>
<td>– Check the ignition system. – Adjust the ignition.</td>
<td></td>
</tr>
<tr>
<td>Short-circuit cable in wiring harness frayed, switch-off button faulty</td>
<td>– Check the switch-off button.</td>
<td></td>
</tr>
<tr>
<td>The connector or ignition coil is loose or oxidized</td>
<td>– Clean the plug-in connection and treat it with contact spray.</td>
<td></td>
</tr>
<tr>
<td>Water in carburetor or jets blocked</td>
<td>– Check/set the carburetor components.</td>
<td></td>
</tr>
<tr>
<td>Engine has no idle speed</td>
<td>Idling jet blocked</td>
<td>– Check/set the carburetor components.</td>
</tr>
<tr>
<td>Adusting screws on carburetor distorted</td>
<td>– Carburetor – adjust idle speed. <em>(p. 91)</em></td>
<td></td>
</tr>
<tr>
<td>Spark plug defective</td>
<td>– Change spark plug.</td>
<td></td>
</tr>
<tr>
<td>Ignition system defective</td>
<td>– Check the ignition coil. – Check the spark plug connector.</td>
<td></td>
</tr>
<tr>
<td>Engine does not speed up</td>
<td>Carburetor running over because float needle dirty or worn</td>
<td>– Check/set the carburetor components.</td>
</tr>
<tr>
<td>Loose carburetor jets</td>
<td>– Check/set the carburetor components.</td>
<td></td>
</tr>
<tr>
<td>Fault in ignition system</td>
<td>– Check the ignition system. – Adjust the ignition.</td>
<td></td>
</tr>
<tr>
<td>Engine has too little power</td>
<td>Fuel feed interrupted</td>
<td>– Check the fuel tank breather. – Clean the fuel tap. – Check/set the carburetor components.</td>
</tr>
<tr>
<td>Air filter very dirty</td>
<td>– Clean the air filter and air filter box. <em>(p. 50)</em></td>
<td></td>
</tr>
<tr>
<td>Exhaust system leaky, deformed or too little glass fiber yarn filling in main silencer</td>
<td>– Check exhaust system for damage. – Change the glass fiber yarn filling of the main silencer. <em>(p. 52)</em></td>
<td></td>
</tr>
<tr>
<td>Faults</td>
<td>Possible cause</td>
<td>Action</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Engine has too little power</td>
<td>Fault in ignition system</td>
<td>– Check the ignition system.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Adjust the ignition.</td>
</tr>
<tr>
<td>Diaphragm or reed valve housing</td>
<td>Damaged</td>
<td>– Check the diaphragm and reed valve housing.</td>
</tr>
<tr>
<td>Noticeable wear</td>
<td></td>
<td>– Overhaul the engine.</td>
</tr>
<tr>
<td>Engine stalls or is popping into</td>
<td>Lack of fuel</td>
<td>– Turn the knurled screw on the fuel tap all the way counterclockwise.</td>
</tr>
<tr>
<td>the carburetor</td>
<td></td>
<td>– Fill up with fuel. Fuelp. p. 24</td>
</tr>
<tr>
<td>Engine takes in bad air</td>
<td></td>
<td>– Check the intake flange and carburetor for tightness.</td>
</tr>
<tr>
<td>The connector or ignition coil is</td>
<td>loose or oxidized</td>
<td>– Clean the plug-in connection and treat it with contact spray.</td>
</tr>
<tr>
<td>Engine overheats</td>
<td>Too little coolant in cooling system</td>
<td>– Check the cooling system for leakage.</td>
</tr>
<tr>
<td></td>
<td>Too little air stream</td>
<td>– Switch off engine when standing.</td>
</tr>
<tr>
<td></td>
<td>Radiator fins very dirty</td>
<td>– Clean radiator fins.</td>
</tr>
<tr>
<td></td>
<td>Foam formation in cooling system</td>
<td>– Drain the coolant. Fuelp. p. 86</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Refill with coolant. Fuelp. p. 87</td>
</tr>
<tr>
<td></td>
<td>Damaged cylinder head or cylinder head gasket</td>
<td>– Check the cylinder head or cylinder head gasket.</td>
</tr>
<tr>
<td></td>
<td>Bent radiator hose</td>
<td>– Change the radiator hose.</td>
</tr>
<tr>
<td></td>
<td>Incorrect ignition point due to loose stator</td>
<td>– Adjust the ignition.</td>
</tr>
<tr>
<td>White smoke emission (steam in</td>
<td>Damaged cylinder head or cylinder head gasket</td>
<td>– Check the cylinder head or cylinder head gasket.</td>
</tr>
<tr>
<td>exhaust gas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gear oil exits at the vent hose</td>
<td>Too much gear oil added</td>
<td>– Check the gear oil level. Fuelp. p. 94</td>
</tr>
<tr>
<td>Water in the gear oil</td>
<td>Damaged radial shaft seal ring or water pump</td>
<td>– Check the radial shaft seal ring and the water pump.</td>
</tr>
</tbody>
</table>
## 20.1 Engine

<table>
<thead>
<tr>
<th>Design</th>
<th>1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement</td>
<td>64.85 cm³ (3.9574 cu in)</td>
</tr>
<tr>
<td>Stroke</td>
<td>40.8 mm (1.606 in)</td>
</tr>
<tr>
<td>Bore</td>
<td>45 mm (1.77 in)</td>
</tr>
<tr>
<td>Idle speed</td>
<td>1,400 ... 1,500 rpm</td>
</tr>
<tr>
<td>Control</td>
<td>Exhaust control PCEV (Pneumatic Controlled Exhaust Valve)</td>
</tr>
<tr>
<td>Crankshaft bearing</td>
<td>2 grooved ball bearings</td>
</tr>
<tr>
<td>Conrod bearing</td>
<td>Needle bearing</td>
</tr>
<tr>
<td>Piston pin bearing</td>
<td>Needle bearing</td>
</tr>
<tr>
<td>Pistons</td>
<td>Aluminum cast</td>
</tr>
<tr>
<td>Piston rings</td>
<td>1 rectangular ring</td>
</tr>
<tr>
<td>Engine lubrication</td>
<td>Mixed lubrication</td>
</tr>
<tr>
<td>Primary transmission</td>
<td>23:75 straight cut spur gear wheel drive</td>
</tr>
<tr>
<td>Clutch</td>
<td>Multidisc clutch in oil bath/hydraulically activated</td>
</tr>
<tr>
<td>Gearbox</td>
<td>6-gear transmission, claw shifted</td>
</tr>
</tbody>
</table>

### Transmission ratio

<table>
<thead>
<tr>
<th>Gear</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st gear</td>
<td>13:37</td>
</tr>
<tr>
<td>2nd gear</td>
<td>16:34</td>
</tr>
<tr>
<td>3rd gear</td>
<td>18:31</td>
</tr>
<tr>
<td>4th gear</td>
<td>21:30</td>
</tr>
<tr>
<td>5th gear</td>
<td>23:28</td>
</tr>
<tr>
<td>6th gear</td>
<td>24:26</td>
</tr>
</tbody>
</table>

| Ignition | Non-contact controlled fully electronic ignition system with digital ignition adjustment |
| Spark plug | NGK LR 8 B |
| Spark plug electrode gap | 0.60 mm (0.0236 in) |
| Cooling | Water-cooled |
| Starting aid | Kick starter lever |

## 20.2 Engine tightening torques

<table>
<thead>
<tr>
<th>Component</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower part of control valve</td>
<td>M4 4 Nm (3 lbf ft)</td>
</tr>
<tr>
<td>Nut, exhaust control diaphragm</td>
<td>M5 4 Nm (3 lbf ft)</td>
</tr>
<tr>
<td>Screw, clutch line holder</td>
<td>M5 5 Nm (3.7 lbf ft)</td>
</tr>
<tr>
<td>Screw, diaphragm cover of exhaust control</td>
<td>M5 4 Nm (3 lbf ft)</td>
</tr>
<tr>
<td>Screw, ignition system/stator</td>
<td>M5 5 Nm (3.7 lbf ft)</td>
</tr>
<tr>
<td>Screw, main shaft bearing retainer</td>
<td>M5 6 Nm (4.4 lbf ft)</td>
</tr>
<tr>
<td>Screw, reed valve housing of exhaust control</td>
<td>M5 5 Nm (3.7 lbf ft)</td>
</tr>
</tbody>
</table>

Loctite® 648™
Loctite® 222™
Loctite® 243™
<table>
<thead>
<tr>
<th>Hardware Item</th>
<th>Thread Size</th>
<th>Torque (Nm)</th>
<th>Torque (lbf ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screw, retaining bracket for return spring of shift shaft</td>
<td>M5</td>
<td>6</td>
<td>4.4</td>
</tr>
<tr>
<td>Screw, shift drum locating</td>
<td>M5</td>
<td>6</td>
<td>4.4</td>
</tr>
<tr>
<td>Screw, water pump impeller</td>
<td>M5</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Drain plug, water pump cover</td>
<td>M6</td>
<td>6</td>
<td>4.4</td>
</tr>
<tr>
<td>Screw, alternator cover</td>
<td>M6</td>
<td>8</td>
<td>5.9</td>
</tr>
<tr>
<td>Screw, clutch intermediate cover</td>
<td>M6</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Screw, clutch slave cylinder</td>
<td>M6</td>
<td>8</td>
<td>5.9</td>
</tr>
<tr>
<td>Screw, clutch springs</td>
<td>M6</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Screw, engine case</td>
<td>M6</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Screw, engine sprocket cover</td>
<td>M6</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Screw, exhaust flange</td>
<td>M6</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Screw, gear oil level monitoring</td>
<td>M6</td>
<td>6</td>
<td>4.4</td>
</tr>
<tr>
<td>Screw, intake flange</td>
<td>M6</td>
<td>6</td>
<td>4.4</td>
</tr>
<tr>
<td>Screw, kick starter lever stop piece</td>
<td>M6</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Screw, outer clutch cover</td>
<td>M6</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Screw, reed valve housing of exhaust control</td>
<td>M6</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Screw, shift drum bearing retainer</td>
<td>M6</td>
<td>5</td>
<td>3.7</td>
</tr>
<tr>
<td>Screw, shift drum locating</td>
<td>M6</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Screw, shift lever</td>
<td>M6</td>
<td>14</td>
<td>10.3</td>
</tr>
<tr>
<td>Screw, water pump cover</td>
<td>M6</td>
<td>8</td>
<td>5.9</td>
</tr>
<tr>
<td>Vacuum connection/vent connection</td>
<td>M6</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Screw, cylinder head</td>
<td>M7</td>
<td>18</td>
<td>13.3</td>
</tr>
<tr>
<td>Nuts, cylinder base</td>
<td>M8</td>
<td>20</td>
<td>14.8</td>
</tr>
<tr>
<td>Screw, kick starter lever</td>
<td>M8</td>
<td>20</td>
<td>14.8</td>
</tr>
<tr>
<td>Stud, cylinder base (left section of the engine case)</td>
<td>M8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stud, cylinder base (right section of the engine case)</td>
<td>M8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screw, inner clutch hub</td>
<td>M10</td>
<td>60</td>
<td>44.3</td>
</tr>
<tr>
<td>Spark plug</td>
<td>M10x1</td>
<td>10 ... 12</td>
<td>7.4 ... 8.9</td>
</tr>
<tr>
<td>Nut, rotor</td>
<td>M12x1</td>
<td>50</td>
<td>36.9</td>
</tr>
<tr>
<td>Oil drain plug with magnet</td>
<td>M12x1.5</td>
<td>20</td>
<td>14.8</td>
</tr>
</tbody>
</table>
20.3 Carburetor

<table>
<thead>
<tr>
<th>Carburetor type</th>
<th>MIKUNI TM 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needle position</td>
<td>2nd position from top</td>
</tr>
<tr>
<td>Idle air adjusting screw</td>
<td>Open 3.5 turns</td>
</tr>
<tr>
<td></td>
<td>Main jet 210</td>
</tr>
<tr>
<td></td>
<td>Jet needle 5IPL43 (5N17)</td>
</tr>
<tr>
<td></td>
<td>Idling jet 20</td>
</tr>
<tr>
<td></td>
<td>Needle jet Q-O (454)</td>
</tr>
<tr>
<td></td>
<td>Throttle slide 2.5</td>
</tr>
</tbody>
</table>

20.3.1 Carburetor tuning

<table>
<thead>
<tr>
<th>MIKUNI TM 24</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>ASL</th>
<th>TEMP</th>
<th>-20 ... -7 °C (−41 ... 19 °F)</th>
<th>-6 ... 5 °C (21 ... 41 °F)</th>
<th>6 ... 15 °C (43 ... 59 °F)</th>
<th>16 ... 24 °C (61 ... 75 °F)</th>
<th>25 ... 36 °C (77 ... 97 °F)</th>
<th>37 ... 49 °C (99 ... 120 °F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,301 ... 3,000 m (7,549 ... 9,843 ft)</td>
<td>ASO</td>
<td>3.5 20 5N17 3 210</td>
<td>3.5 20 5N17 2 210</td>
<td>3.5 15 5N17 2 205</td>
<td>2.5 15 5N17 1 200</td>
<td>2.5 15 5N17 1 200</td>
<td></td>
</tr>
<tr>
<td>1,501 ... 2,300 m (4,925 ... 7,546 ft)</td>
<td>ASO</td>
<td>3.5 20 5N17 3 210</td>
<td>3.5 20 5N17 2 210</td>
<td>3.5 15 5N17 2 205</td>
<td>3.5 15 5N17 2 205</td>
<td>3.5 15 5N17 2 205</td>
<td></td>
</tr>
<tr>
<td>751 ... 1,500 m (2,464 ... 4,921 ft)</td>
<td>ASO</td>
<td>3 25 5N17 3 210</td>
<td>3.5 20 5N17 3 210</td>
<td>3.5 15 5N17 2 205</td>
<td>3.5 15 5N17 2 205</td>
<td>3.5 15 5N17 2 205</td>
<td></td>
</tr>
<tr>
<td>301 ... 750 m (988 ... 2,461 ft)</td>
<td>ASO</td>
<td>3 30 5N17 3 220</td>
<td>3 25 5N17 3 215</td>
<td>3.5 20 5N17 3 210</td>
<td>3.5 20 5N17 2 210</td>
<td>3.5 20 5N17 2 210</td>
<td></td>
</tr>
<tr>
<td>0 ... 300 m (0 ... 984 ft)</td>
<td>ASO</td>
<td>3 30 5N17 3 225</td>
<td>3 25 5N17 3 215</td>
<td>3.5 20 5N17 3 210</td>
<td>3.5 20 5N17 2 210</td>
<td>3.5 20 5N17 2 210</td>
<td></td>
</tr>
</tbody>
</table>

ASL: Above sea level
TEMP: Temperature
ASO: Open (rotations) idle air adjusting screw
IJ: Idling jet
NDL: Jet needle
### 20.4 Capacities

#### 20.4.1 Gear oil

| Gear oil | 0.50 l (0.53 qt.) | Engine oil (15W/50) ([p. 110](#)) |

#### 20.4.2 Coolant

| Coolant | 0.55 l (0.58 qt.) | Coolant ([p. 110](#)) |

#### 20.4.3 Fuel

| Fuel tank capacity, approx. | 3.5 l (3.7 qt.) | Super unleaded (95 octane) mixed with 2-stroke engine oil (1:60) ([p. 111](#)) |

### 20.5 Fork

<table>
<thead>
<tr>
<th>Fork article number</th>
<th>07.18.6U.03</th>
</tr>
</thead>
</table>

- **Rebound damping**
  - Comfort: 15 clicks
  - Standard: 12 clicks
  - Sport: 10 clicks

- **Air pressure**: 3 bar (44 psi)

- **Fork length**: 735 mm (28.94 in)

- **Spring length with preload spacer(s)**: 377.5 mm (14.862 in)

<table>
<thead>
<tr>
<th>Oil capacity external mechanism left</th>
<th>40 : 10 ml (1.35 : 0.34 fl. oz.)</th>
<th>Fork oil (SAE 4) (48601166S1) (<a href="#">p. 111</a>)</th>
</tr>
</thead>
</table>

| Oil capacity, right cartridge | 240 ml (8.11 fl. oz.) | Fork oil (SAE 4) (48601166S1) ([p. 111](#)) |

| Grease capacity, left cartridge | 6 g (0.21 oz) | Special grease (00062010053) ([p. 113](#)) |

### 20.6 Shock absorber

<table>
<thead>
<tr>
<th>Shock absorber article number</th>
<th>03.18.7T.03</th>
</tr>
</thead>
</table>

- **Shock absorber**: WP XACT 5735

- **Low-speed compression damping**
  - Comfort: 18 clicks
  - Standard: 15 clicks
  - Sport: 12 clicks

- **High-speed compression damping**
  - Comfort: 2.5 turns
  - Standard: 2 turns
### Sport
- 1.5 turns

### Rebound damping
<table>
<thead>
<tr>
<th>Comfort</th>
<th>18 clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>15 clicks</td>
</tr>
<tr>
<td>Sport</td>
<td>12 clicks</td>
</tr>
</tbody>
</table>

### Spring preload
- 5 mm (0.2 in)

### Spring rate

| Weight of rider: 35 kg (77 lb.) | 35 N/mm (200 lb/in) |
| Weight of rider: 40 kg (88 lb.) | 40 N/mm (228 lb/in) |
| Weight of rider: 45 kg (99 lb.) | 45 N/mm (257 lb/in) |

### Spring length
- 210 mm (8.27 in)

### Gas pressure
- 10 bar (145 psi)

### Static sag
- 30 mm (1.18 in)

### Riding sag
- 70 mm (2.76 in)

### Fitted length
- 347 mm (13.66 in)

### Shock absorber fluid (p. 111)
- SAE 2.5

---

#### 20.7 Chassis

<table>
<thead>
<tr>
<th>Frame</th>
<th>Central tube frame of chrome molybdenum steel tubing, powder-coated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fork</td>
<td>WP XACT 5235</td>
</tr>
<tr>
<td>Shock absorber</td>
<td>WP XACT 5735</td>
</tr>
</tbody>
</table>

### Suspension travel

<table>
<thead>
<tr>
<th>Front</th>
<th>215 mm (8.46 in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear</td>
<td>270 mm (10.63 in)</td>
</tr>
</tbody>
</table>

### Fork offset
- 22 mm (0.87 in)

### Brake system

<table>
<thead>
<tr>
<th>Front</th>
<th>Disc brake with 4-piston brake caliper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear</td>
<td>Disc brake with 4-piston brake caliper</td>
</tr>
</tbody>
</table>

### Brake disc diameters

<table>
<thead>
<tr>
<th>Front</th>
<th>198 mm (7.8 in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear</td>
<td>160 mm (6.3 in)</td>
</tr>
</tbody>
</table>

### Brake discs - wear limits

<table>
<thead>
<tr>
<th>Front</th>
<th>2.5 mm (0.098 in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear</td>
<td>2.5 mm (0.098 in)</td>
</tr>
</tbody>
</table>

### Offroad tire pressure

<table>
<thead>
<tr>
<th>Front</th>
<th>1.0 bar (15 psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear</td>
<td>1.0 bar (15 psi)</td>
</tr>
</tbody>
</table>

### Secondary drive ratio
- 14:48

### Chain
- 1/2 x 1/4” O-ring

### Rear sprockets available
- 46, 48, 50

### Steering head angle
- 64.5°

### Wheelbase
- 1,137 mm (44.76 in)

### Seat height unloaded
- 750 mm (29.53 in)
### 20 TECHNICAL DATA

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground clearance unloaded</td>
<td>280 mm (11.02 in)</td>
</tr>
<tr>
<td>Weight without fuel approx.</td>
<td>53 kg (117 lb.)</td>
</tr>
<tr>
<td>Maximum rider weight</td>
<td>50 kg (110 lb.)</td>
</tr>
</tbody>
</table>

#### 20.8 Tires

<table>
<thead>
<tr>
<th>Tire Type</th>
<th>Model</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front tire</td>
<td>60/100 - 14 M/C 30M TT</td>
<td>60/100 - 14 M/C 30M TT</td>
</tr>
<tr>
<td>Rear tire</td>
<td>80/100 - 12 41M TT</td>
<td>80/100 - 12 41M TT</td>
</tr>
</tbody>
</table>

The tires specified represent one of the possible series production tires. Additional information is available in the Service section under: [http://www.ktm.com](http://www.ktm.com)

#### 20.9 Chassis tightening torques

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hose clip, carburetor</td>
<td>2.8 Nm (2.07 lbf ft)</td>
</tr>
<tr>
<td>Screw, brake line bracket</td>
<td>1.7 Nm (1.25 lbf ft)</td>
</tr>
<tr>
<td>Screw, switch-off button</td>
<td>0.4 Nm (0.3 lbf ft)</td>
</tr>
<tr>
<td>Spoke nipple</td>
<td>3 Nm (2.2 lbf ft)</td>
</tr>
<tr>
<td>Screw, throttle slide cover</td>
<td>2 Nm (1.5 lbf ft)</td>
</tr>
<tr>
<td>Remaining nuts, chassis</td>
<td>5 Nm (3.7 lbf ft)</td>
</tr>
<tr>
<td>Remaining screws, chassis</td>
<td>5 Nm (3.7 lbf ft)</td>
</tr>
<tr>
<td>Nut, push rod, foot brake lever</td>
<td>6 Nm (4.4 lbf ft)</td>
</tr>
<tr>
<td>Remaining nuts, chassis</td>
<td>10 Nm (7.4 lbf ft)</td>
</tr>
<tr>
<td>Remaining screws, chassis</td>
<td>10 Nm (7.4 lbf ft)</td>
</tr>
<tr>
<td>Screw, ball joint of push rod on</td>
<td>10 Nm (7.4 lbf ft)</td>
</tr>
<tr>
<td>foot brake cylinder</td>
<td></td>
</tr>
<tr>
<td>Screw, chain sliding guard</td>
<td>10 Nm (7.4 lbf ft)</td>
</tr>
<tr>
<td>Screw, clutch master cylinder</td>
<td>5 Nm (3.7 lbf ft)</td>
</tr>
<tr>
<td>Screw, fender</td>
<td>6 Nm (4.4 lbf ft)</td>
</tr>
<tr>
<td>Screw, foot brake cylinder</td>
<td>10 Nm (7.4 lbf ft)</td>
</tr>
<tr>
<td>Screw, fork stub</td>
<td>10 Nm (7.4 lbf ft)</td>
</tr>
<tr>
<td>Screw, front brake disc</td>
<td>14 Nm (10.3 lbf ft)</td>
</tr>
<tr>
<td>Screw, front brake linings</td>
<td>10 Nm (7.4 lbf ft)</td>
</tr>
<tr>
<td>Screw, fuel tank spoiler on radiator</td>
<td>6 Nm (4.4 lbf ft)</td>
</tr>
<tr>
<td>Screw, hand brake cylinder</td>
<td>5 Nm (3.7 lbf ft)</td>
</tr>
<tr>
<td>Screw, rear brake disc</td>
<td>14 Nm (10.3 lbf ft)</td>
</tr>
<tr>
<td>Screw, rear brake lining</td>
<td>10 Nm (7.4 lbf ft)</td>
</tr>
<tr>
<td>Screw, throttle grip</td>
<td>4.5 Nm (3.32 lbf ft)</td>
</tr>
<tr>
<td>Start number plate screw</td>
<td>4 Nm (3 lbf ft)</td>
</tr>
<tr>
<td>Fitting, engine mounting bracket</td>
<td>30 Nm (22.1 lbf ft)</td>
</tr>
<tr>
<td>Nut, foot brake lever stop</td>
<td>20 Nm (14.8 lbf ft)</td>
</tr>
<tr>
<td>Nut, rim lock</td>
<td>10 Nm (7.4 lbf ft)</td>
</tr>
<tr>
<td>Remaining nuts, chassis</td>
<td>25 Nm (18.4 lbf ft)</td>
</tr>
<tr>
<td>Remaining screws, chassis</td>
<td>25 Nm (18.4 lbf ft)</td>
</tr>
<tr>
<td>Screw, bottom triple clamp</td>
<td>15 Nm (11.1 lbf ft)</td>
</tr>
<tr>
<td>Component</td>
<td>Size</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Screw, engine bracket</td>
<td>M8</td>
</tr>
<tr>
<td>Screw, engine sprocket cover</td>
<td>M8</td>
</tr>
<tr>
<td>Screw, front brake caliper</td>
<td>M8</td>
</tr>
<tr>
<td>Screw, handlebar clamp</td>
<td>M8</td>
</tr>
<tr>
<td>Screw, rear brake caliper</td>
<td>M8</td>
</tr>
<tr>
<td>Screw, rear brake caliper</td>
<td>M8x20</td>
</tr>
<tr>
<td>Screw, rear brake caliper</td>
<td>M8x40</td>
</tr>
<tr>
<td>Screw, rear sprocket</td>
<td>M8</td>
</tr>
<tr>
<td>Screw, steering stem</td>
<td>M8</td>
</tr>
<tr>
<td>Screw, subframe</td>
<td>M8</td>
</tr>
<tr>
<td>Screw, top triple clamp</td>
<td>M8</td>
</tr>
<tr>
<td>Remaining nuts, chassis</td>
<td>M10</td>
</tr>
<tr>
<td>Remaining screws, chassis</td>
<td>M10</td>
</tr>
<tr>
<td>Screw, bottom shock absorber</td>
<td>M10</td>
</tr>
<tr>
<td>Screw, foot brake lever</td>
<td>M10</td>
</tr>
<tr>
<td>Screw, front wheel spindle</td>
<td>M10</td>
</tr>
<tr>
<td>Screw, handlebar support</td>
<td>M10</td>
</tr>
<tr>
<td>Screw, top shock absorber</td>
<td>M10</td>
</tr>
<tr>
<td>Nut, swingarm pivot</td>
<td>M12x1</td>
</tr>
<tr>
<td>Nut, rear wheel spindle</td>
<td>M14x1.5</td>
</tr>
<tr>
<td>Nut, steering head</td>
<td>M20x1.5</td>
</tr>
</tbody>
</table>
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 (15W/50)

Standard/classification
- JASO T903 MA2 (p. 114)
- SAE (p. 114) (15W/50)

Guideline
- Use only engine oils that comply with the specified standards (see specifications on the container) and that possess the corresponding properties.

Recommended supplier
MOTOREX®
- Top Speed 4T

Engine oil, 2-stroke

Standard/classification
- JASO FD (p. 114)

Guideline
- Only use high grade 2-stroke engine oil of a reputable brand.

Fully synthetic
**Recommended supplier**

**MOTOREX®**
- Cross Power 2T

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

**Standard/classification**
- SAE (p. 114) (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. 114) (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).

### Super unleaded (95 octane) mixed with 2-stroke engine oil (1:60)

**Standard/classification**
- DIN EN 228
- JASO FD (p. 114) (1:60)

**Mixture ratio**

| 1:60 | Engine oil, 2-stroke (p. 110) Super unleaded (ROZ 95/RON 95/PON 91) (p. 111) |

**Recommended supplier**

**MOTOREX®**
- Cross Power 2T
<table>
<thead>
<tr>
<th>Product Type</th>
<th>Supplier</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air filter cleaner</td>
<td>MOTOREX®</td>
<td>Racing Bio Dirt Remover</td>
</tr>
<tr>
<td>Chain cleaner</td>
<td>MOTOREX®</td>
<td>Chain Clean</td>
</tr>
<tr>
<td>Fuel additive</td>
<td>MOTOREX®</td>
<td>Fuel Stabilizer</td>
</tr>
<tr>
<td>High viscosity grease</td>
<td>SKF®</td>
<td>LGHB 2</td>
</tr>
<tr>
<td>Long-life grease</td>
<td>MOTOREX®</td>
<td>Bike Grease 2000</td>
</tr>
<tr>
<td>Motorcycle cleaner</td>
<td>MOTOREX®</td>
<td>Moto Clean</td>
</tr>
<tr>
<td>Off-road chain spray</td>
<td>MOTOREX®</td>
<td>Chainlube Offroad</td>
</tr>
<tr>
<td>Oil for foam air filter</td>
<td>MOTOREX®</td>
<td>Racing Bio Liquid Power</td>
</tr>
<tr>
<td>Preserving materials for paints, metal and rubber</td>
<td>MOTOREX®</td>
<td>Moto Protect</td>
</tr>
</tbody>
</table>
Rubber grip adhesive (00062030051)
Recommended supplier
KTM AG
- GRIP GLUE

Special cleaner for glossy and matte paint finishes, metal and plastic surfaces
Recommended supplier
MOTOREX®
- Quick Cleaner

Special grease (00062010053)
Recommended supplier
Klüber Lubrication®
- KLÜBERFOOD NH1 34-401

Universal oil spray
Recommended supplier
MOTOREX®
- Joker 440 Synthetic
**JASO T903 MA2**

Different technical development directions required a separate specification for motorcycles – the **JASO T903 MA2** standard.

Earlier, engine oils from the automobile industry were used for 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 clutch are lubricated with the same oil.

The **JASO T903 MA2** 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.

**JASO FD**

JASO FD is a classification for a 2-stroke engine oil that was specifically developed for the extreme demands of racing. Thanks to first-rate synthetic esters and specially designed additives, superb combustion is achieved even under extreme operating conditions.
<table>
<thead>
<tr>
<th>Art. no.</th>
<th>Article number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ca.</td>
<td>circa</td>
</tr>
<tr>
<td>cf.</td>
<td>compare</td>
</tr>
<tr>
<td>e.g.</td>
<td>for example</td>
</tr>
<tr>
<td>etc.</td>
<td>et cetera</td>
</tr>
<tr>
<td>i.a.</td>
<td>inter alia</td>
</tr>
<tr>
<td>no.</td>
<td>number</td>
</tr>
<tr>
<td>poss.</td>
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</tr>
<tr>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td><strong>Basic chassis setting</strong></td>
</tr>
<tr>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td><strong>Air filter</strong></td>
<td><strong>with rider's weight, checking</strong></td>
</tr>
<tr>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td><strong>Air filter box</strong></td>
<td><strong>Brake discs</strong></td>
</tr>
<tr>
<td>50</td>
<td>65</td>
</tr>
<tr>
<td><strong>Air suspension XACT 5235</strong></td>
<td><strong>Brake fluid</strong></td>
</tr>
<tr>
<td>28</td>
<td><strong>of front brake, adding</strong></td>
</tr>
<tr>
<td>67</td>
<td>73</td>
</tr>
<tr>
<td><strong>Antifreeze</strong></td>
<td><strong>rear brake, adding</strong></td>
</tr>
<tr>
<td>85</td>
<td>73</td>
</tr>
<tr>
<td><strong>Auxiliary substances</strong></td>
<td><strong>Brake fluid level</strong></td>
</tr>
<tr>
<td>9</td>
<td>66</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td><strong>front brake, checking</strong></td>
</tr>
<tr>
<td></td>
<td>73</td>
</tr>
<tr>
<td><strong>Clutch fluid level</strong></td>
<td><strong>rear brake, checking</strong></td>
</tr>
<tr>
<td>66</td>
<td>73</td>
</tr>
<tr>
<td><strong>Brake linings</strong></td>
<td><strong>Foot brake lever</strong></td>
</tr>
<tr>
<td>68</td>
<td><strong>basic position, adjusting</strong></td>
</tr>
<tr>
<td>69</td>
<td>72</td>
</tr>
<tr>
<td>75</td>
<td>72</td>
</tr>
<tr>
<td>75</td>
<td>71</td>
</tr>
<tr>
<td><strong>Clutch lever</strong></td>
<td><strong>free travel, adjusting</strong></td>
</tr>
<tr>
<td>14</td>
<td>72</td>
</tr>
<tr>
<td><strong>Coolant</strong></td>
<td><strong>free travel, checking</strong></td>
</tr>
<tr>
<td><strong>changing</strong></td>
<td><strong>Fork</strong></td>
</tr>
<tr>
<td>88</td>
<td><strong>air pressure, adjusting</strong></td>
</tr>
<tr>
<td><strong>draining</strong></td>
<td><strong>basic setting, checking</strong></td>
</tr>
<tr>
<td>86</td>
<td><strong>bleeding</strong></td>
</tr>
<tr>
<td><strong>refilling</strong></td>
<td><strong>dust boots, cleaning</strong></td>
</tr>
<tr>
<td>87</td>
<td><strong>installing</strong></td>
</tr>
<tr>
<td><strong>Coolant level</strong></td>
<td><strong>removing</strong></td>
</tr>
<tr>
<td><strong>checking</strong></td>
<td><strong>installing</strong></td>
</tr>
<tr>
<td>85-86</td>
<td><strong>removing</strong></td>
</tr>
<tr>
<td><strong>Cooling system</strong></td>
<td><strong>Frame</strong></td>
</tr>
<tr>
<td>85</td>
<td><strong>checking</strong></td>
</tr>
<tr>
<td><strong>Customer service</strong></td>
<td><strong>Front fender</strong></td>
</tr>
<tr>
<td>9</td>
<td><strong>installing</strong></td>
</tr>
<tr>
<td><strong>C</strong></td>
<td><strong>Front wheel</strong></td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td><strong>installing</strong></td>
</tr>
<tr>
<td></td>
<td><strong>removing</strong></td>
</tr>
<tr>
<td><strong>Clutch</strong></td>
<td><strong>Checking</strong></td>
</tr>
<tr>
<td></td>
<td><strong>removing</strong></td>
</tr>
<tr>
<td><strong>Foot brake lever</strong></td>
<td><strong>installing</strong></td>
</tr>
<tr>
<td></td>
<td><strong>removing</strong></td>
</tr>
<tr>
<td><strong>Fork</strong></td>
<td><strong>Checking</strong></td>
</tr>
<tr>
<td></td>
<td><strong>removing</strong></td>
</tr>
<tr>
<td>Index Item</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Removing</td>
<td>79</td>
</tr>
<tr>
<td>Fuel tank</td>
<td></td>
</tr>
<tr>
<td>Installing</td>
<td>54</td>
</tr>
<tr>
<td>Removing</td>
<td>52</td>
</tr>
<tr>
<td>Fuel tank filler cap</td>
<td></td>
</tr>
<tr>
<td>Closing</td>
<td>15</td>
</tr>
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<td>From lift stand, removing</td>
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<td>Lift stand, raising</td>
<td>38</td>
</tr>
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<td>Owner's Manual</td>
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