

## 85 SX

Art. no. 3213592en



The KTM logo, consisting of the letters 'KTM' in a bold, italicized, sans-serif font, is centered within an orange rectangular box.



The work described in these setup instructions must be performed before the vehicle is delivered to the customer.

Read the setup instructions in their entirety before beginning work.

These setup instructions were written to correspond to the latest state of this series. We reserve the right to make changes in the interest of technical advancement without at the same time updating this manual.

We shall not provide a description of general workshop methods. Likewise, safety rules that apply in a workshop are not specified here. It is assumed that the work will be performed by a fully trained mechanic.

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Issued by: TÜV Management Service

REG.NO. 12 100 6061

KTM Sportmotorcycle GmbH

5230 Mattighofen, Austria

This document is valid for the following models:

85 SX 19/16 (F6001Q9)

85 SX 17/14 (F6001Q8)



## 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).



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.



Denotes a voltage measurement.



Denotes a current measurement.



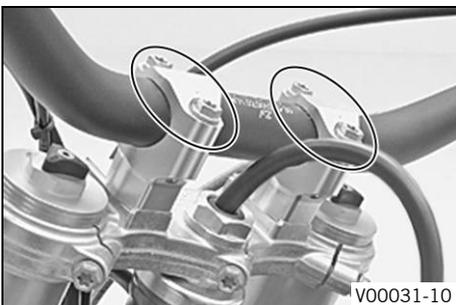
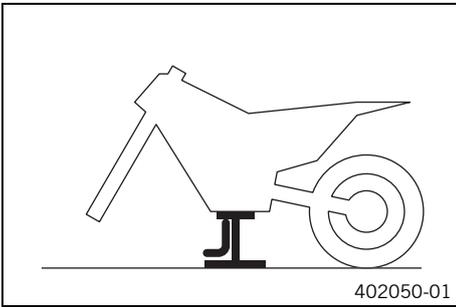
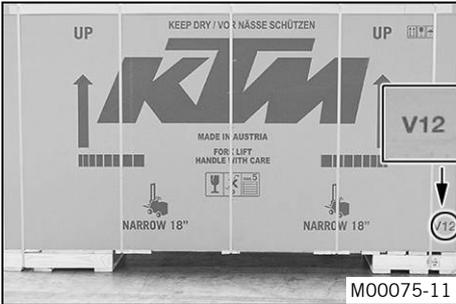
Denotes a resistance measurement.

## 1.2 Formats used

The typographical formats used in this document are explained below.

<b>Proprietary name</b>	Identifies a proprietary name.
<b>Name<sup>®</sup></b>	Identifies a protected name.
<b>Brand<sup>™</sup></b>	Identifies a trademark.
<b><u>Underlined terms</u></b>	Refer to technical details of the vehicle or indicate technical terms, which are explained in the glossary.

## 2.1 Unpacking and setting up the vehicle



- Remove the box and the plastic packaging.

**i Info**

An assistant prevents the motorcycle from falling over. To avoid damaging the motorcycle during the setup, leave the protective film on the vehicle until you have finished.

- Remove the separate enclosure and unpack it. Check that the scope of supply is complete on the basis of the enclosed packing list.

- Have a lift stand available.

Lift stand (78929955100)

- Together with an assistant, take the vehicle off the palette.
- Position the vehicle on a lift stand.
- Check the vehicle for transport damage.

- Remove the tension belt.

✓ The fork rebounds.

- Remove screw ① and wheel spindle. Lift the front wheel into the fork, position it, and insert the wheel spindle.
- Mount and tighten the screw of the wheel spindle.

Guideline

Screw, front wheel spindle	M20x1.5	35 Nm (25.8 lbf ft)
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- Position the fender. Mount and tighten the screws.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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- Unpack the shock absorber.

- Position the shock absorber. Mount and tighten the screws.

Guideline

Screw, top shock absorber	M12	60 Nm (44.3 lbf ft)	<b>Loctite® 2701™</b>
Screw, bottom shock absorber	M12	60 Nm (44.3 lbf ft)	<b>Loctite® 2701™</b>

✓ The longer screw is used at the bottom.

- Position the handlebar.

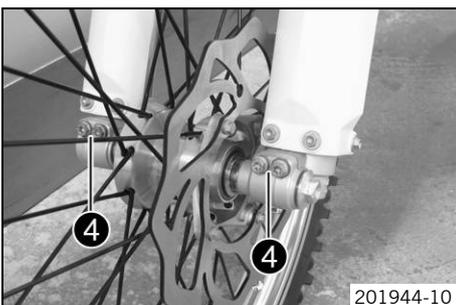
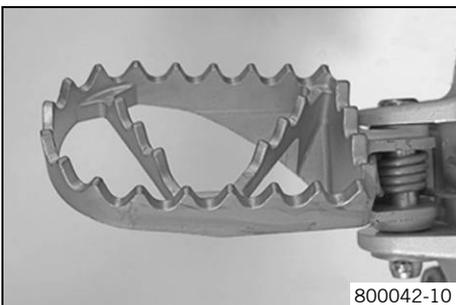
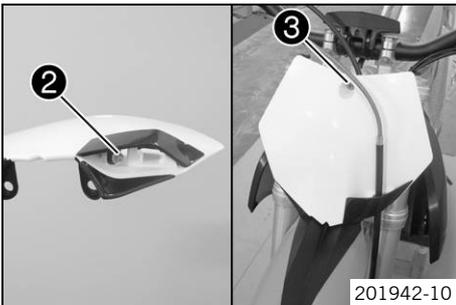
**i Info**

Make sure the cables and wiring are positioned correctly.

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

Guideline

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

The markings on the handlebar should be at the center of the handlebar clamps.  
Keep the gap widths equal when tightening.

- Position the handlebar cushion and secure with cable ties.

- Remove screw ② with the guide from the start number plate.
- Position the start number plate. Mount and tighten screw ③.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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**i Info**

Ensure the holding lugs engage in the fender.

- Position the brake line and guide. Mount and tighten screw ②.
- Connect the fuel line to the fuel tap.

- Mount the footrests with the springs and pins. Secure the pins using the washers and cotter pins.

Pliers for footrest spring (58429083000)

- Take the vehicle off the work stand.
- Operate the hand brake lever several times until the brake linings are seated correctly against the brake disc.
- Activate the front brake and compress the fork a number of times forcefully to align the fork legs.
- Tighten screws ④.

Guideline

Screw, fork stub	M8	15 Nm (11.1 lbf ft)
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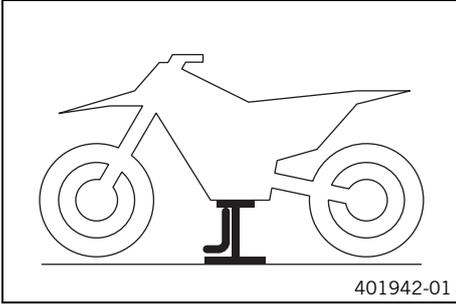
- Refuel. (📖 p. 7)
- Prepare the vehicle according to the specifications in the **KTM Dealer.net** for hand-over to the customer.

## 3.1 Raising the motorcycle with 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.



- Raise the motorcycle at the frame underneath the engine.

Lift stand (78929955100)

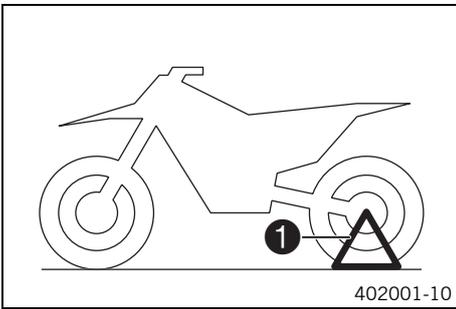
- ✓ Neither wheel is in contact with the ground.
- Secure the motorcycle against falling over.

## 3.2 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 ❶ into the left side of the wheel spindle.



**Info**

Remove the plug-in stand before riding.

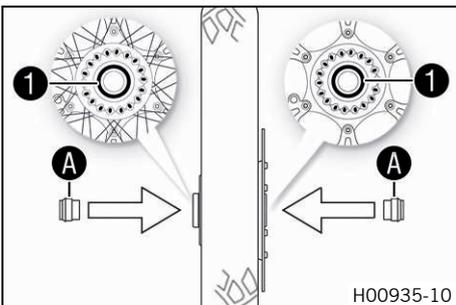
## 3.3 Installing the front wheel



**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.

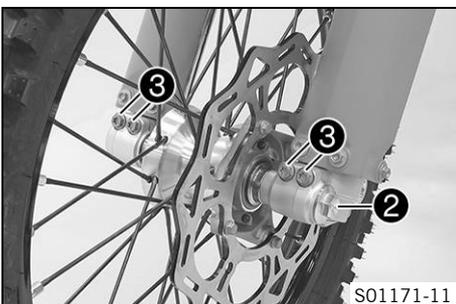


**Main work**

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

Long-life grease (📖 p. 11)

- Insert the spacers.



- Clean and grease wheel spindle.

Long-life grease (📖 p. 11)

- Position the front wheel.
  - ✓ The brake linings are correctly positioned.
- Insert wheel spindle.
- Mount and tighten screw ❷.

Guideline

Screw, front wheel spindle	M20x1.5	35 Nm (25.8 lbf ft)
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- Operate the hand brake lever several times until the brake linings are seated correctly against the brake disc.
- Remove the motorcycle from the lift stand. (📖 p. 5)
- Operate the front brake and compress the fork a few times firmly.
  - ✓ The fork legs straighten.
- Tighten screws ③.

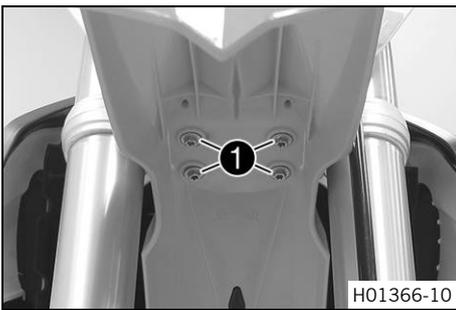
Guideline

Screw, fork stub	M8	15 Nm (11.1 lbf ft)
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**Finishing work**

- Remove the motorcycle from the lift stand. (📖 p. 5)

### 3.4 Installing the front fender



- Position the front fender. Mount and tighten screws ①.

Guideline

Screw, front fender	M6	10 Nm (7.4 lbf ft)
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- ✓ The holding lugs on the fender engage in the start number plate.

### 3.5 Installing the start number plate



- Position the start number plate. Mount and tighten screw ①.

Guideline

Start number plate screw	M6	4 Nm (3 lbf ft)
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- ✓ The holding lugs on the fender engage in the start number plate.
- Position the brake line and clamp. Mount and tighten screw ②.

### 3.6 Opening the filler cap



**Danger**

**Fire hazard** Fuel is highly flammable.

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

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

**Warning**

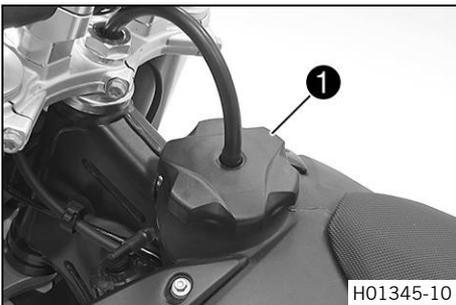
**Danger of poisoning** Fuel is poisonous and a health hazard.

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

**Warning**

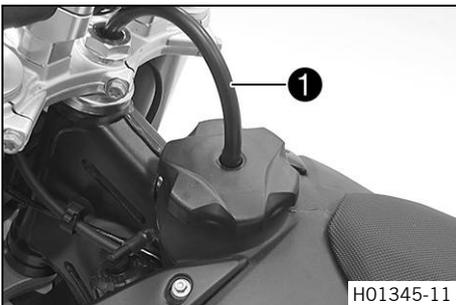
**Environmental hazard** Improper handling of fuel is a danger to the environment.

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



- Turn filler cap ① counterclockwise and lift it off.

### 3.7 Closing the filler cap



- Mount filler cap and turn it clockwise until the fuel tank is tightly closed.

**Info**

Run fuel tank breather hose ① without kinks.

### 3.8 Refueling

**Danger**

**Fire hazard** Fuel is highly flammable.

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

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

**Warning**

**Danger of poisoning** Fuel is poisonous and a health hazard.

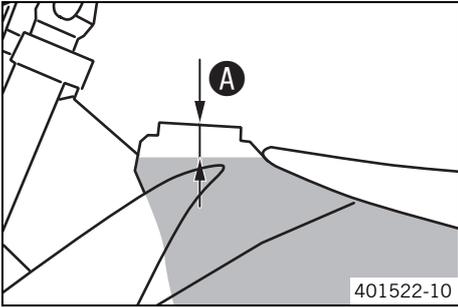
- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.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



**Warning**

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

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



- Switch off the engine.
- Open the filler cap. (📖 p. 6)
- Fill the fuel tank with fuel up to measurement **A**.

Guideline

Measurement of <b>A</b>	35 mm (1.38 in)	
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Fuel tank capacity, approx.	5.0 l (1.32 US gal)	Super unleaded (98 octane) mixed with 2-stroke engine oil (1:40) (📖 p. 10)
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Engine oil, 2-stroke (📖 p. 10)		
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- Close the filler cap. (📖 p. 7)

## 4.1 chassis tightening torques

Spoke nipple	M4.5	5 Nm (3.7 lbf ft)	–
Pin, front brake	M6	8 Nm (5.9 lbf ft)	–
Pin, rear brake	M6	4 Nm (3 lbf ft)	–
Remaining nuts, chassis	M6	10 Nm (7.4 lbf ft)	–
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)	–
Screw, ball joint of push rod on foot brake cylinder	M6	10 Nm (7.4 lbf ft)	–
Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)	–
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	<b>Loctite® 243™</b>
Screw, front fender	M6	10 Nm (7.4 lbf ft)	–
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	<b>Loctite® 243™</b>
Screw, throttle grip	M6	4.5 Nm (3.32 lbf ft)	–
Start number plate screw	M6	4 Nm (3 lbf ft)	–
Nut, rim lock	M8	10 Nm (7.4 lbf ft)	–
Remaining nuts, chassis	M8	25 Nm (18.4 lbf ft)	–
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)	–
Screw of brake caliper	M8	25 Nm (18.4 lbf ft)	<b>Loctite® 243™</b>
Screw, bottom triple clamp	M8	15 Nm (11.1 lbf ft)	–
Screw, fork stub	M8	15 Nm (11.1 lbf ft)	–
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	–
Screw, rear sprocket	M8	35 Nm (25.8 lbf ft)	<b>Loctite® 243™</b>
Screw, subframe	M8	30 Nm (22.1 lbf ft)	–
Screw, top triple clamp	M8	20 Nm (14.8 lbf ft)	–
Engine carrying screw	M10	45 Nm (33.2 lbf ft)	–
Remaining nuts, chassis	M10	45 Nm (33.2 lbf ft)	–
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)	–
Screw, foot brake lever	M10	45 Nm (33.2 lbf ft)	<b>Loctite® 243™</b>
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	<b>Loctite® 243™</b>
Screw, bottom shock absorber	M12	60 Nm (44.3 lbf ft)	<b>Loctite® 2701™</b>
Screw, top shock absorber	M12	60 Nm (44.3 lbf ft)	<b>Loctite® 2701™</b>
Nut, seat fixing	M12x1	20 Nm (14.8 lbf ft)	–
Nut, swingarm pivot	M14x1.5	75 Nm (55.3 lbf ft)	–
Nut, rear wheel spindle	M20x1.5	80 Nm (59 lbf ft)	–
Nut, steering stem	M20x1.5	10 Nm (7.4 lbf ft)	–
Screw, front wheel spindle	M20x1.5	35 Nm (25.8 lbf ft)	–

## Engine oil, 2-stroke

**Standard/classification**

- JASO FD (📖 p. 12)

**Guideline**

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

Fully synthetic
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**Recommended supplier****Motorex®**

- Cross Power 2T

## Super unleaded (ROZ 98 / RON 98 / PON 94)

**Standard/classification**

- DIN EN 228 (ROZ 98 / RON 98 / PON 94)

## Super unleaded (98 octane) mixed with 2-stroke engine oil (1:40)

**Standard/classification**

- DIN EN 228
- JASO FD (📖 p. 12) (1:40)

**Mixture ratio**

1:40	Engine oil, 2-stroke (📖 p. 10) Super unleaded (ROZ 98 / RON 98 / PON 94) (📖 p. 10)
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**Recommended supplier****Motorex®**

- Cross Power 2T

### Long-life grease

Recommended supplier

Motorex®

– Bike Grease 2000

## 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.

**READY TO RACE**

>> [www.ktm.com](http://www.ktm.com)



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