

**690 Duke EU
690 Duke CN
690 Duke R EU
690 Duke R AU
690 Duke R MY**

Art. no. 3213317en



KTM

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.

Print out the current **PDI** form found on the **KTM Dealer.net**.

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.

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

© 2015 KTM Sportmotorcycle GmbH, Mattighofen Austria

All rights reserved

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



ISO 9001(12 100 6061)

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

Issued by: TÜV Management Service

REG.NO. 12 100 6061

KTM Sportmotorcycle GmbH
5230 Mattighofen, Austria

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.

Proprietary name	Identifies a proprietary name.
Name[®]	Identifies a protected name.
Brand[™]	Identifies a trademark.
<u>Underlined terms</u>	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.



Info

To avoid damaging the motorcycle while mounting the handlebar, leave the film on the fuel tank until all of the work on the motorcycle has been finished.



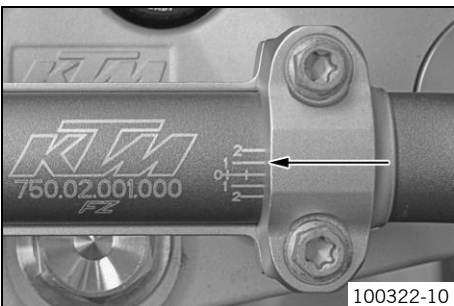
- Check the vehicle for transport damage.
- Unpack the separate enclosure and check its contents on the basis of the enclosure list.
- Remove the controls from the transport holder. Remove the screws and handlebar clamps. Remove the transport holder.



- Remove the right-hand handlebar weight.
- Position the controls on the right half of the handlebar. Tighten the screws.

Guideline

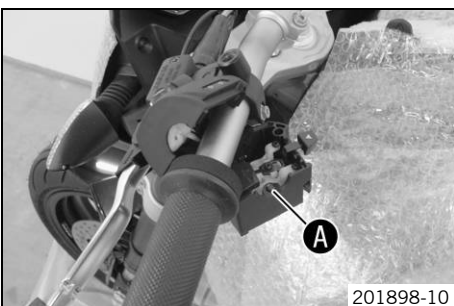
Screw, throttle grip	M5	3.5 Nm (2.58 lbf ft)
----------------------	----	-------------------------



- Position the handlebar.
 - ✓ Marking 1 on the scale on the handlebar is situated in the middle of the handlebar clamp.
- Position the handlebar clamps. Tighten the screws evenly.

Guideline

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



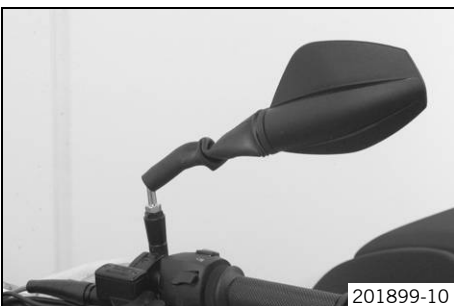
- Mount and tighten the right handlebar weight.
- Check the throttle grip for smooth operation.
- Position the controls on the left half of the handlebar.



Info

Position holding lug **A** in the drill hole of the handlebar.

- Position all controls in their exact positions on the handlebar. Tighten all screws.

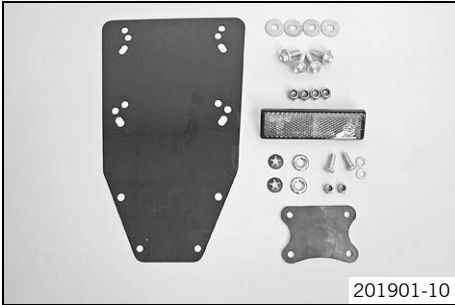


- Mount and tighten the rear mirror adapter and rear mirror on both sides.



- Mount the footrests with the springs and pins. Secure the pins with the lock rings.

Pliers for footrest spring (58429083000)



- Mount the reflector.
- Remove the protective plastic.
- Carefully loosen and remove the tensioning belt over the swingarm.

i Info

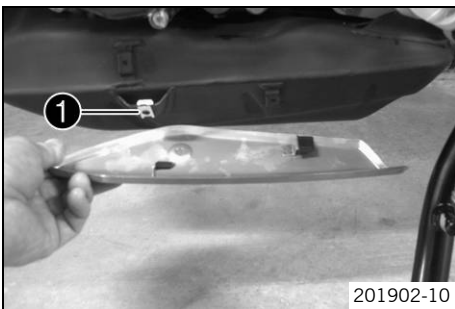
An assistant prevents the motorcycle from falling over.

- Carefully loosen and remove the tension belts around the lower triple clamp.
 - ✓ The vehicle is released at the front.
- Together with an assistant, take the vehicle off the palette.
- Mount clip-in nut ① on both sides. Hook the holdings lugs of the covers into the tabs. Mount and tighten screw.

⚠ Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

- Keep batteries out of the reach of children.
- Wear suitable protective clothing and goggles.
- Avoid contact with battery acid and battery gases.
- Keep sparks and open flames away from the battery. Only charge in well-ventilated rooms.
- In the event of skin contact, rinse with large amounts of water. If battery acid gets in the eyes, rinse with water for at least 15 minutes and contact a physician.



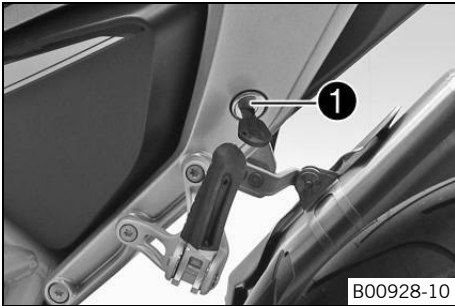
- Fill the battery.

i Info

Read the notes in the battery package.

- Recharge the battery. (☛ p. 5)
- Install the battery. (☛ p. 6)
- Refuel. (☛ p. 7)
- Print out the current **PDI**form found on the **KTM Dealer.net** and perform the pre-delivery inspection.
- Set kilometers or miles. (☛ p. 7)

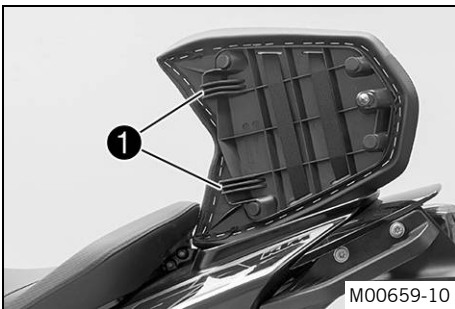
3.1 Removing the passenger seat



B00928-10

- Insert the ignition key in seat lock ❶ and turn it clockwise.
- Raise the rear of the passenger seat, push it towards the rear, and remove it upward.
- Remove the ignition key from the seat lock.

3.2 Mounting the passenger seat



M00659-10

- Hook catches ❶ of the passenger seat onto the storage compartment, lower the rear, and simultaneously push forward.
- Press down the passenger seat until it clicks into place.



Warning

Danger of accidents The passenger seat can come loose from the anchoring if it is not mounted correctly.

- After mounting the passenger seat, check that it is locked correctly by pulling up.

- Finally, check that the passenger seat is correctly mounted.

3.3 Recharging the battery



Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

- Keep batteries out of the reach of children.
- Wear suitable protective clothing and goggles.
- Avoid contact with battery acid and battery gases.
- Keep sparks and open flames away from the battery. Only charge in well-ventilated rooms.
- In the event of skin contact, rinse with large amounts of water. If battery acid gets in the eyes, rinse with water for at least 15 minutes and contact a physician.



Warning

Environmental hazard The battery contains elements that are harmful to the environment.

- Do not dispose of batteries with the household waste. Dispose of a defective battery in an environmentally friendly manner. Give the battery to your authorized KTM dealer or dispose of it at a collection point for used batteries.



Warning

Environmental hazard Hazardous substances cause environmental damage.

- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.



Info

Even when there is no load on the battery, it discharges steadily.

The charging level and the method of charging are very important for the service life of the battery.

Rapid recharging with a high charging current shortens the battery's service life.

If the charging current, charging voltage, or charging time is exceeded, electrolyte escapes through the safety valves. This reduces the battery capacity.

If the battery is depleted from starting the vehicle repeatedly, the battery must be charged immediately.

If the battery is left in a discharged state for an extended period, it will become over-discharged and sulfate, destroying the battery.

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

Preparatory work

- Switch off all power consumers and switch off the engine.
- Remove the passenger seat. (🔧 p. 5)



- Disconnect the negative cable of the battery to avoid damage to the onboard electronics.

Main work

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

Battery charger (58429074000)

You can also use the battery charger to test the rest potential and start potential of the battery, and to test the alternator. With this device, you cannot overcharge the battery.

i Info

Never remove lid ①.

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

Guideline

The charge current, charge voltage, and charge time must not be exceeded.

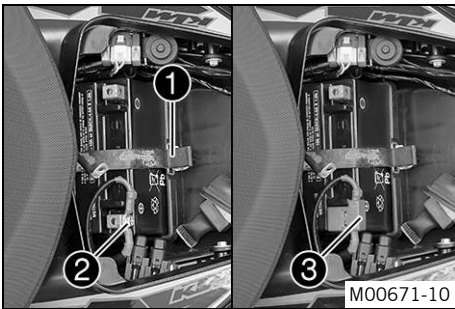
Charge the battery regularly when the motorcycle is not in use	3 months
--	----------

- Connect the negative cable with the battery.

Finishing work

- Mount the passenger seat. (☛ p. 5)
- Set the clock. (☛ p. 7)

3.4 Installing the battery



Main work

- Position the battery in the battery holder.

Battery (CBTX9-BS)

✓ The battery terminals face in the direction of travel.

- Attach rubber band ①.
- Connect positive cable ② to the battery.

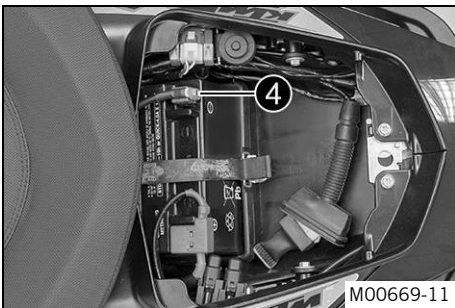
Guideline

Screw, battery terminal	M6	2 Nm (1.5 lbf ft)
-------------------------	----	-------------------

- Mount positive terminal cover ③.
- Connect negative cable ④ to the battery.

Guideline

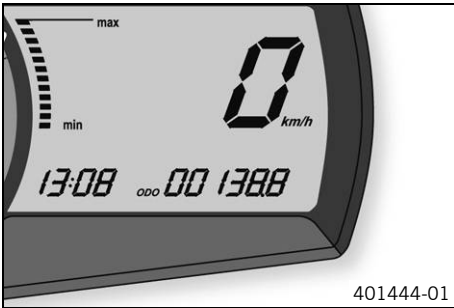
Screw, battery terminal	M6	2 Nm (1.5 lbf ft)
-------------------------	----	-------------------



Finishing work

- Mount the passenger seat. (☛ p. 5)
- Set the clock. (☛ p. 7)

3.5 Setting the clock



Condition

The motorcycle is stationary.

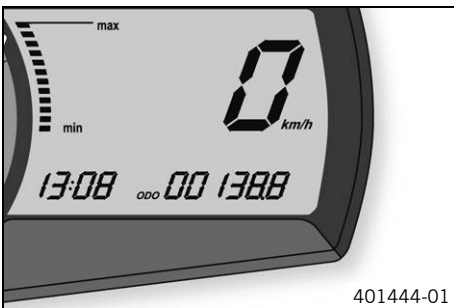
- Switch on the ignition by turning the ignition key to the position \odot .
- Press the **MODE** button repeatedly until the **ODO** mode is active.
- Keep the **MODE** button and the **SET** button pressed simultaneously.
 - ✓ The time display begins to flash.
- Press the **MODE** button to set the hour.
- Press the **SET** button to set the minute.
- Keep the **MODE** button and the **SET** button pressed simultaneously.
 - ✓ The time is set.

3.6 Setting kilometers or miles



Info

If you change the unit, the value **ODO** is retained and converted accordingly. Making the setting according to the country.



Condition

The motorcycle is stationary.

- Switch on the ignition by turning the ignition key to the position \odot .
- Press the **MODE** button repeatedly until the **ODO** mode is active.
- Keep the **MODE** button pressed until the display mode changes from **km/h** to **mph** or from **mph** to **km/h**.

3.7 Refueling



Danger

Fire hazard Fuel is highly flammable.

- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- The fuel in the fuel tank expands when warm and may emerge if overfilled. Follow the instructions on refueling.



Warning

Danger of poisoning Fuel is poisonous and a health hazard.

- Fuel must not come into contact with the skin, eyes, or clothing. Do not breathe in the fuel vapors. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that is contaminated with fuel.

Note

Material damage Premature clogging of the fuel filter.

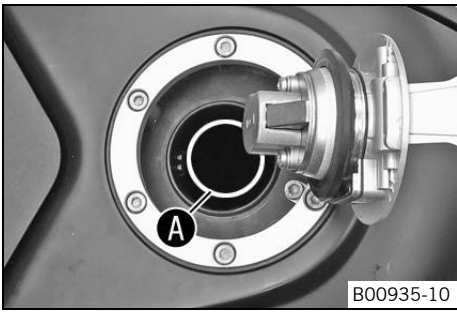
- In some countries and regions, the available fuel quality and cleanliness may not be sufficient. This will result in problems with the fuel system.
- Only refuel with clean fuel that meets the specified standards.



Warning

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

- Do not allow fuel to get into the ground water, the ground, or the sewage system.

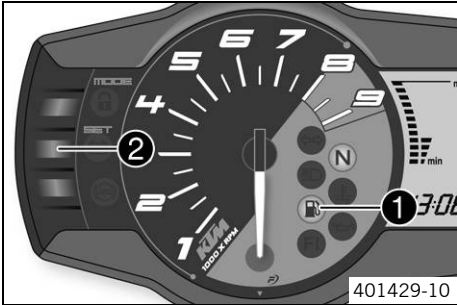


B00935-10

- Switch off the engine.
- Open the filler cap. (☛ p. 8)
- Fill the fuel tank with fuel up to the lower edge **A** of the filler neck.

Total fuel tank capacity, approx.	14 l (3.7 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (☛ p. 12)
-----------------------------------	-------------------	---

- Close the filler cap. (☛ p. 8)



401429-10

- Press the **SET** button **2** for two seconds.
- ✓ The low fuel warning lamp **1** switches off. **TRIP F** is set to 0 and the previous display mode appears.

i Info
If you do not press the **SET** button **2**, the reset takes place automatically after about three minutes.

3.8 Opening the filler cap

! Danger
Fire hazard Fuel is highly flammable.

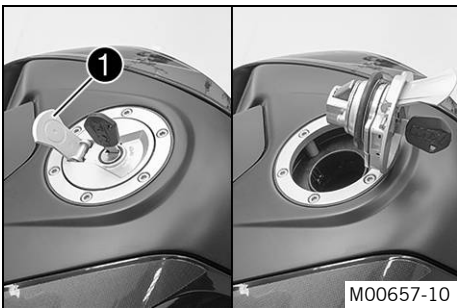
- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- The fuel in the fuel tank expands when warm and may emerge if overfilled. Follow the instructions on refueling.

! Warning
Danger of poisoning Fuel is poisonous and a health hazard.

- Fuel must not come into contact with the skin, eyes, or clothing. Do not breathe in the fuel vapors. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that has been contaminated with fuel. Store fuel properly in a suitable canister and keep away from children.

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

- Do not allow fuel to get into the ground water, the ground, or the sewage system.



M00657-10

- Lift cover **1** of the filler cap and insert the ignition key in the lock.

Note
Danger of damage Ignition key breakage.

- To take pressure off of the ignition key, push down on the filler cap. Damaged ignition keys must be replaced.
- Turn the ignition key 90° clockwise.
- Open the filler cap.

3.9 Closing the filler cap



M00658-01

- Fold down the filler cap.
- Turn the ignition key 90° clockwise.
- Push down the filler cap and turn the ignition key counterclockwise until the lock closes.



Warning

Fire hazard Fuel is highly flammable, poisonous and harmful to your health.

- After closing the filler cap, ensure that it is locked properly. Change clothing that has been contaminated with fuel. Immediately clean contaminated areas on the skin with soap and water.
-
- Remove the ignition key and close the cover.

4 TECHNICAL DATA - TIGHTENING TORQUES FOR CHASSIS

Screw, combination instrument	EJOT	1 Nm (0.7 lbf ft)	–
Screw, headlight	EJOT	2 Nm (1.5 lbf ft)	–
Screw, headlight mask	EJOT	1 Nm (0.7 lbf ft)	–
Screw, side stand switch	M4	2 Nm (1.5 lbf ft)	Loctite® 243™
Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)	–
Retaining clamp, brake line	M5	3 Nm (2.2 lbf ft)	–
Screw, air filter box	M5	3 Nm (2.2 lbf ft)	–
Screw, cable on starter motor	M5	3 Nm (2.2 lbf ft)	–
Screw, foot brake lever stub (Duke)	M5	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, fuel level sensor	M5	3 Nm (2.2 lbf ft)	–
Screw, fuel pump	M5	4 Nm (3 lbf ft)	–
Screw, heat guard (Duke)	M5	5 Nm (3.7 lbf ft)	Loctite® 243™
Screw, light switch mount and emergency OFF switch	M5	3.5 Nm (2.58 lbf ft)	–
Screw, plastic clamp of brake line on fork leg	M5	2 Nm (1.5 lbf ft)	–
Screw, pressure regulator	M5	4 Nm (3 lbf ft)	–
Chain guard	M6	4 Nm (3 lbf ft)	Loctite® 243™
Double-sided grub screw	M6	6 Nm (4.4 lbf ft)	Loctite® 243™
Nut, push rod, foot brake lever (Duke R)	M6	6 Nm (4.4 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)	Loctite® 243™
Screw, battery terminal	M6	2 Nm (1.5 lbf ft)	–
Screw, brake fluid reservoir of rear brake	M6	5 Nm (3.7 lbf ft)	–
Screw, chain sliding guard	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, control unit holder	M6	3 Nm (2.2 lbf ft)	–
Screw, exhaust pipe clamp	M6	8 Nm (5.9 lbf ft)	Copper paste
Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, foot brake lever stub (Duke R)	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, fuel spoiler	M6	3 Nm (2.2 lbf ft)	–
Screw, lower radiator bracket	M6	5 Nm (3.7 lbf ft)	–
Screw, magnetic holder on side stand	M6	5 Nm (3.7 lbf ft)	Loctite® 243™
Screw, seat lock	M6	10 Nm (7.4 lbf ft)	Loctite® 222™
Screw, tail light cover	M6	8 Nm (5.9 lbf ft)	–
Screw, voltage regulator	M6	8 Nm (5.9 lbf ft)	–
Shift rods, nut (Duke R)	M6	6 Nm (4.4 lbf ft)	–
Shift rods, nut (Duke R)	M6LH	6 Nm (4.4 lbf ft)	–
Main silencer holder (Duke R)	M8x40	25 Nm (18.4 lbf ft)	–
Main silencer holder (Duke R)	M8x60	25 Nm (18.4 lbf ft)	–
Nut, manifold on cylinder head	M8	20 Nm (14.8 lbf ft)	Copper paste
Nut, rear sprocket screw	M8	35 Nm (25.8 lbf ft)	Loctite® 2701™
Remaining nuts, chassis	M8	25 Nm (18.4 lbf ft)	–
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)	–
Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)	–
Screw, exhaust system	M8	25 Nm (18.4 lbf ft)	–
Screw, footrest bracket, rear	M8x30	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, footrest bracket, rear	M8x50	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, footrest bracket, rear (Duke R)	M8x20	Countersunk screw 25 Nm (18.4 lbf ft)	Loctite® 243™

4 TECHNICAL DATA - TIGHTENING TORQUES FOR CHASSIS

Screw, footrest bracket, rear (Duke R)	M8x45	Countersunk screw 25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, fork stub	M8	15 Nm (11.1 lbf ft)	–
Screw, front brake disc	M8	30 Nm (22.1 lbf ft)	Loctite® 2701™
Screw, front footrest bracket	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	–
Screw, handrail	M8x30	Countersunk screw 18 Nm (13.3 lbf ft)	Loctite® 243™
Screw, handrail, cover	M8x20	18 Nm (13.3 lbf ft)	Loctite® 243™
Screw, ignition lock (tamper-proof screw)	M8		Loctite® 243™
Screw, license plate holder	M8	18 Nm (13.3 lbf ft)	Loctite® 243™
Screw, linkage bracket, front engine fixing arm	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, main silencer clamp (Duke R)	M8	15 Nm (11.1 lbf ft)	–
Screw, main silencer fixation	M8	25 Nm (18.4 lbf ft)	–
Screw, rear brake disc	M8	30 Nm (22.1 lbf ft)	Loctite® 2701™
Screw, side stand bracket	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, spring holder on side stand bracket	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)	–
Engine carrying screw	M10	45 Nm (33.2 lbf ft)	Loctite® 243™
Remaining nuts, chassis	M10	45 Nm (33.2 lbf ft)	–
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)	–
Screw, foot brake lever (Duke)	M10	25 Nm (18.4 lbf ft)	–
Screw, handlebar support	M10	20 Nm (14.8 lbf ft)	–
Screw, side stand	M10	35 Nm (25.8 lbf ft)	Loctite® 243™
Screw, subframe	M10	45 Nm (33.2 lbf ft)	Loctite® 243™
Banjo bolt, brake line	M10x1	25 Nm (18.4 lbf ft)	–
Banjo bolt, pressure modulator	M10x1	25 Nm (18.4 lbf ft)	–
Screw, bottom shock absorber	M10x1.25	50 Nm (36.9 lbf ft)	Loctite® 243™
Screw, front brake caliper	M10x1.25	45 Nm (33.2 lbf ft)	Loctite® 243™
Screw, top shock absorber	M10x1.25	50 Nm (36.9 lbf ft)	Loctite® 243™
Lambda sensor	M12x1.25	25 Nm (18.4 lbf ft)	–
Nut, frame to linkage lever	M14x1.5	100 Nm (73.8 lbf ft)	–
Nut, linkage lever on swingarm	M14x1.5	100 Nm (73.8 lbf ft)	–
Nut, linkage lever to rocker arm	M14x1.5	100 Nm (73.8 lbf ft)	–
Nut, swingarm pivot	M16x1.5	100 Nm (73.8 lbf ft)	–
Screw, steering head	M20x1.5	40 Nm (29.5 lbf ft)	–
Adjusting ring of swingarm bearing	M24x1.5	25 Nm (18.4 lbf ft)	–
Screw, front wheel spindle	M24x1.5	45 Nm (33.2 lbf ft)	–
Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)	–
Nut, steering head	M28x1	12 Nm (8.9 lbf ft)	–

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).



3213317en

04/2015

