SPORTMOTORCYCLES

BEDIENUNGSANLEITUNG

OWNER'S MANUAL
MANUALE D'USO
MANUEL D'UTILISATION
MANUAL DE INSTRUCCIONES

2003



IMPORTANT

WE STRONGLY SUGGEST THAT YOU READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE GOING ON YOUR FIRST RIDE. IT CONTAINS A GREAT DEAL OF INFORMATION AND ADVICE WHICH WILL HELP YOU USE AND HANDLE YOUR BIKE PROPERLY. IN YOUR OWN INTEREST, PLEASE PAY PARTICULAR ATTENTION TO NOTICES THAT ARE MARKED AS FOLLOWS:

| Δ | WARNING | Δ | |
|---------------------------------|------------------------|-------------|--------|
| IGNORING THESE BODY AND YOUR | INSTRUCTIONS, CALLIFE. | N ENDANGER | YOUR |
| ! | CAUTION | · · | |
| IGNORING THESE | INSTRUCTIONS COULD | CAUSE DAMA | AGE TO |
| PARTS OF YOUR A | MOTORCYCLE OR THA | T THE MOTOR | -CYCLE |
| IS NOT ROAD-SAF | E ANYMORE. | | |

Please insert the serial numbers of your motorcycle in the boxes below

| Frame number | |
|-----------------|--|
| Engine number | |
| Key number | |
| Stamp of dealer | |
| | |

COMSUMER INFORMATION FOR AUSTRALIA ONLY

Tampering with noise control system prohibited

Owners are warned that the law may prohibit:

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

KTM Sportmotorcycle AG reserves the right to modify any equipment, technical specifications, colors, materials, services offered and rendered, and the like so as to adapt them to local conditions without previous announcement and without giving reasons, or to cancel any of the above items without substituting them with others. It shall be acceptable to stop manufacturing a certain model without previous announcement. In the event of such modifications, please ask your local KTM dealer for information.

Introduction

We would like to congratulate you on your purchase of a KTM motorcycle.

You are now the owner of a state-of-the-art sport motorcycle that guarantees to bring you lots of fun and enjoyment, provided that you clean and maintain it appropriately. Before you go for your first ride, be sure to read this manual carefully and thoroughly in order to familiarize yourself with how to operate your new motorcycle and with its characteristics, even if this means that you will have to dedicate some of your valuable time to this task. Only by doing so will you learn how to tune your motorcycle to your specific needs and how to protect yourself against injury. Besides, this manual contains important information on motorcycle maintenance. At the time this manual was typeset, it was up-to-date with the latest state of this production series. It cannot be completely ruled out, however, that minor discrepancies may exist resulting from further design upgrades of these motorcycles. This manual is an important part of your motorcycle and should be passed on to any subsequent owner in case you decide to sell it.

We expressly point out that work marked with an asterisk in the chapter "Maintenance work on the chassis and engine" must be performed. If maintenance work should become necessary during a competition it should be performed by a trained mechanic. KTM strongly recommends that all service work to your KTM should be performed by a qualified KTM dealer.

For your own safety, use KTM-approved parts and accessories only. KTM is not liable for damage that arises in connection with the use of other products.

Take special care to follow the recommended run in, inspection, and maintenance intervals. Heeding these guidelines will significantly increase the life of your motorcycle. To ensure that all work to your KTM is performed properly and to avoid warranty conflicts, KTM recommends that you always have your KTM serviced by a recognized and qualified KTM dealer.

Off-road motorcycle driving is a wonderful sport and we hope that you will be able to enjoy it to the full. It may, however, involve potential problems for the environment or lead to conflicts with others. These problems or conflicts can be avoided if the motorcycle is used responsibly. To safeguard the future of motorcycle sports, make sure that you use the motorcycle in accordance with the law, show that you are environmentally conscious and respect the rights of others.

We wish you a lot of fun when driving!

KTM SPORTMOTORCYCLE AG 5230 MATTIGHOFEN, AUSTRIA

Attachments: Spare parts manual chassis & engine

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IMPORTANT LIMITED WARRANTY AND LIMITED GUARANTEE INFORMATION

The KTM 660 SMC is designed and constructed to resist the usual wear and tear of normal use in competitions.

The motorcycles comply with the regulations and categories currently in effect with the leading international motorcycle associations.

The service, care and operating instructions for the engine and chassis specified in the owner's manual must be observed to ensure that the bike runs smoothly and to avoid premature wear. An improperly tuned chassis can lead to damage and breakage of the chassis components.

The service work specified in the "Lubrication and Maintenance Schedule" must be performed and service records must be kept for warranty documentation. Lack of proper service and maintenance records or documentation could void warranty.

The fuels and lubricants specified in the owner's manual or those of an equal quality must be used in accordance with the maintenance schedule.

The warranty or guarantee shall become void for damage and consequential damage caused by manipulations or conversions to the motorcycle.

The use of the motorcycle under extreme conditions, e.g. on extremely muddy and wet terrain, can lead to higher than average wear on components such as the drive train or the brakes. In this case it may become necessary to service or replace wear parts before the service limit specified in the maintenance schedule has been reached.

The SMC models are only allowed on public roads in the original homologated (throttled) version. Without this performance restriction (i.e. dethrottled), these models are only allowed to be driven in Supermoto competitions but <u>not</u> on public roads.

No warranty will be assumed if the bike is used in races or competitions.



In accordance with the international quality management ISO 9001 standard, KTM uses quality assurance processes that lead to the highest possible product quality.

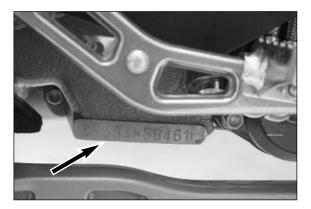
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SERIAL NUMBER LOCATIONS

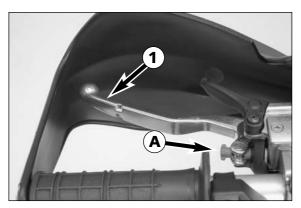
Chassis number

The chassis number is stamped on the right side of the steering head tube. Write this number into the relevant area on page 1.



Engine number, engine type

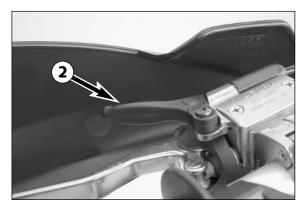
The engine number and engine type are stamped on the right hand side of the engine below the chain sprocket. Write this number into the relevant area on page 1.



OPERATION INSTRUMENTS

Clutch lever

The clutch lever **1** is located on the left side of the handlebar. The adjusting screw **4** is used to change the original position of the clutch lever (see maintenance work on chassis and engine).



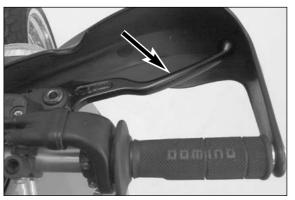
Hand decompression lever

The hand decompression lever 2 is only used in two special cases: a) When the engine stalled.

It is possible that the starter motor is not able to crank the engine on the next attempt. This is due to the fact that the automatic decompressor doesn't work properly. If this happens, pull the manual decompression lever and start again. Afterwards normal starting will be possible.

b) When you want to push the motorcycle.

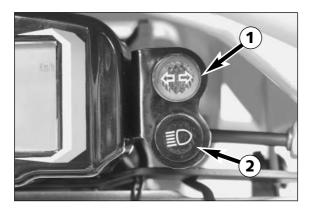
While pushing, pull the hand decompression lever to make it easier to get the engine going.



Hand brake lever

The hand brake lever is mounted on the right side of the handle bar and actuates the front wheel brake.

The standard position of the hand brake lever can be adjusted with the adjusting screw (see maintenance work).



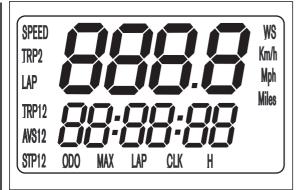
Indicator lamps



The green control lamp **1** flashes when the indicator is working in the same rhythm as the flashing indicator.



The blue control lamp 2 lights up when the high beam is on.



Electronic speedometer

The electronic speedometer display is activated as soon as the engine is switched on and the motorcycle starts to move.

The engine must be started in order for the speedometer to be supplied with electricity from the generator. The display is not activated until the front wheel has made 1 revolution (impulse for speedometer).

TEST

All of the display elements will light up for 1 second for the function test.



WS (wheel size)

The display will change and briefly show the diameter of the front wheel in millimeters.

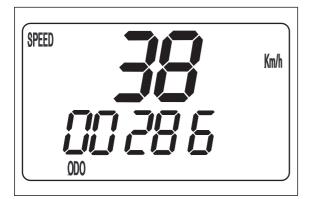
If the front wheel does not turn, the display will automatically change to the SPEED/H mode.

If the front wheel turns, the display will automatically change to the SPEED /ODO mode.



SPEED/H (hours) display mode

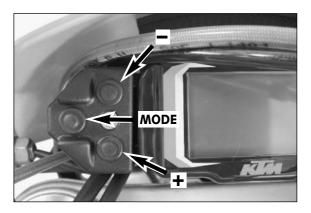
When you stop driving and no impulses are sent from the wheel sensor, the display mode will automatically change from SPEED/ODO to SPEED/H. H shows the operating hours. The operating hour counter starts to count as soon as you start the engine. The displayed figure cannot be cleared. Service intervals are indicated in operating hours for some KTM offroad motorcycles, making the operating hour counter a very practical function.



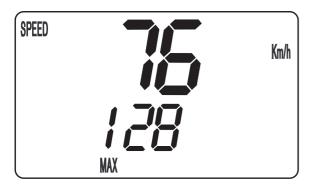
SPEED/ODO display mode

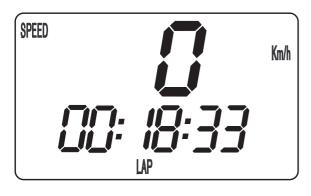
The SPEED/ODO mode shows the speed and the total kilometers traveled. When the front wheel stops turning, the display will automatically change to the SPEED/H mode.

The information will disappear in the display when the front wheel stops turning for 1 minute.



SPEED Km/h







Tripmaster switch

The switch has 3 buttons: MODE, + (plus) and - (minus).

The switch can also be mounted on the outer end of the handlebar with a clamp (SP.NO. 583.14.069.350).



DO NOT TRY TO CHANGE THE MODE OR READ THE SETTINGS WHILE DRIVING. YOUR ATTENTION WILL BE DISTRACTED FROM THE TRAFFIC WHICH CAN EASILY LEAD TO AN ACCIDENT.

Electronic speedometer functions provided by the Tripmaster switch

The display modes on the electronic speedometer will change in the following order. If not, please read the chapter "ACTIVATING AND DEACTIVATING THE DISPLAY MODE."

SPEED/ODO display mode

SPEED displays the speed in KPH or MPH. The displayed figure cannot be cleared.

ODO displays the kilometers or miles traveled. The displayed figure cannot be cleared.

- + BUTTON no function
- BUTTON no function

press the MODE BUTTON to change to the next mode

press and hold the MODE BUTTON 3 SECONDS to change to the next mode

SPEED/MAX display mode

MAX displays the maximum speed. It is always active.

- + BUTTON no function
- BUTTON no function

press the MODE BUTTON to change to the next mode

press and hold the MODE BUTTON 3 SECONDS to reset the MAX figure to 0

SPEED/LAP display mode

LAP displays the stopped lap time in hours, minutes and seconds.

- + BUTTON Starts and stops the stop watch. The lap time is not reset to 0.
- BUTTON Stops the running stop watch, stores the lap time and restarts the stop watch. The time is reset to 0. A total of 10 lap times can be stored and read in the SPEED/LAP display mode. To clear all of the stored lap times, hold the MODE button for 3

seconds in the SPEED/LAP mode.

press the MODE BUTTON to change to the next mode

If no lap time is stored or the motorcycle is driving, the LAP/LAP mode will be skipped.

press and hold the MODE BUTTON 3 SECONDS to reset the LAP figure and all stored lap times to 0

LAP/LAP display mode

The lap number is shown at the top and the lap time in hours, minutes and seconds at the bottom of the display.

If no lap time is stored or the motorcycle is driving, the LAP/LAP mode will be skipped.

Hold the MODE button for 3 seconds in the SPEED/LAP mode to clear the stored lap times.

- + BUTTON changes to the next lap time.
- BUTTON no function

press the MODE BUTTON to change to the next mode

press and hold the MODE BUTTON 3 SECONDS to change to the next mode



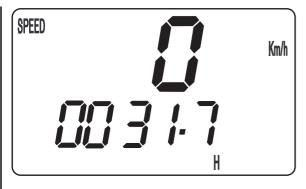
SPEED/CLK (clock) display mode

CLK will display time in hours, minutes and seconds.

+ BUTTON no function - BUTTON no function

press the MODE BUTTON to change to the next mode.

press and hold the MODE BUTTON 3 SECONDS to set the time in the menu (see SETTING THE CLOCK)



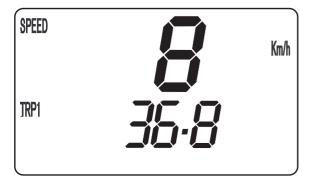
SPEED/H (hours) display mode

When you stop driving and no impulses are sent from the wheel sensor, the display mode will automatically change from SPEED/ODO to SPEED/H. H shows the operating hours. The operating hour counter starts to count as soon as you start the engine. The displayed figure cannot be cleared. Service intervals are indicated in operating hours for some KTM offroad motorcycles, making the operating hour counter a very practical function.

- + BUTTON no function
- BUTTON no function

press the MODE BUTTON to change to the next mode

press and hold the MODE BUTTON 3 SECONDS to change to the SETUP mode (see REVEALING/CONCEALING functions).



SPEED/TRP1 (trip 1) display mode

The TRP1 trip meter is always active and counts to 999.9. It is used to measure the length of a trip or the distance between 2 refueling stops.

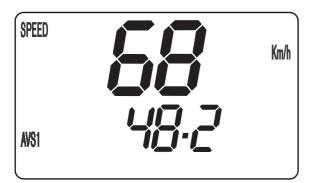
TRP1 is linked to AVS1 and STP1. The calculation of these figures is activated by the first impulse received from the wheel sensor (when the front wheel starts to turn) and stops 3 seconds after the last impulse is received (when the front wheel has stopped).

The TRP1, AVS1 and STP1 figures are automatically reset to 0 after passing 999.9

- + BUTTON no function
- BUTTON no function

press the MODE BUTTON to change to the next mode.

press and hold the MODE BUTTON 3 SECONDS to automatically reset the TRP1, AVS1 and STP1 figures to 0.



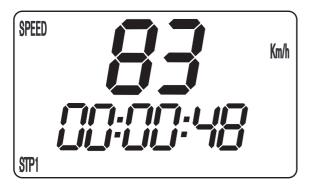
SPEED/AVS1 (average speed 1) display mode

AVS1 is always active and shows the average speed based on the TRP1 and STP1 figures. The calculation of this figure is activated by the first impulse received from the wheel sensor and stops 3 seconds after the last impulse is received.

- + BUTTON no function
- BUTTON no function

press the MODE BUTTON to change to the next mode

press and hold the MODE BUTTON 3 SECONDS to reset the TRP1, AVS1 and STP1 figures to 0.



SPEED/STP1 (stop 1) display mode

STP1 shows the traveling time based on TRP1 and continues to count whenever it receives impulses from the wheel sensor. The calculation of this figure is activated by the first impulse received from the wheel sensor and stops 3 seconds after the last impulse is received.

- + BUTTON no function
- BUTTON no function

press the MODE BUTTON to change to the next mode

press and hold the MODE ${\tt BUTTON}$ 3 seconds to reset the TRP1, AVS1 and STP1 figures to 0.



SPEED/TRP2 (trip 2) display mode

The TRP2 trip meter is always active and counts to 999.9. Contrary to TRP1, the displayed figure can be changed using the + and - buttons. This is a very useful function for trips taken according to a roadbook.

TRP2 is activated by the first impulse received from the wheel sensor and stops automatically 3 seconds after the last impulse is received.

+ BUTTON increases the TRP2 figure - BUTTON decreases the TRP2 figure press the MODE BUTTON to change to the next mode press and hold the MODE BUTTON 3 SECONDS to reset TRP2 to 0



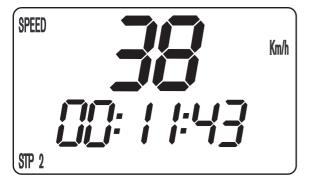
SPEED/AVS2 (average speed 2) display mode

AVS2 shows the average speed based on the TRP2 and STP2 figures. The calculation of this figure is activated by the first impulse received from the wheel sensor and stops 3 seconds after the last impulse is received.

The displayed figure will deviate from the actual average speed if TRP2 was changed manually or if STP2 was not stopped after the trip.

- + BUTTON no function
- BUTTON no function

press the MODE BUTTON to change to the next mode press and hold the MODE BUTTON 3 SECONDS to change to the next mode



SPEED/STP2 (stop 2) display mode

STP2 is a manual stop watch. Start the stop watch by pressing the + but-

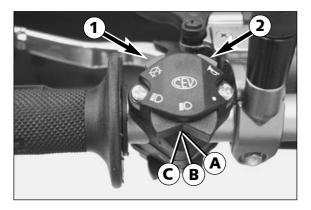
ton, press again to hold. Press again to continue timing.

Press the MODE button to change to the next mode. The STP2 display will blink in the other modes if STP2 continues to run in the background. To stop STP2, return to the SPEED/STP2 mode and press the + button.

- starts and stops the stop watch
- BUTTON no function

press the MODE BUTTON to change to the next mode press and hold the MODE BUTTON 3 SECONDS to reset STP2 figures to 0

| Standing motorcycle | OVERVIEW OF TRIPMASTER FUNCTION Display Press + Press - Press MODE | | | | NS | |
|---------------------|---|-------------------------------------|--|--|-------------------|------------------------------------|
| Stan | Driv | Display | Press + | Press - | Press MODE | Hold MODE for 3 sec |
| | x | SPEED / ODO | no function | no function | next display mode | no function |
| x | X | SPEED / MAX | no function | no function | next display mode | resets MAX to 0 |
| × | X | SPEED / LAP | starts / stops LAP figure LAP remains | stops LAP, stores LAP figure, resets LAP to 0 | next display mode | clears all LAP figures |
| X | | LAP / LAP | next figure | no function | next display mode | next display mode |
| X | X | SPEED / CLK no function no function | | next display mode | set clock menu | |
| x | | SPEED / H | no function | no function | next display mode | display setup menu |
| × | X SPEED / TRP1 no function no function | | next display mode | resets TRP1, STP1 and AVS1 to 0 | | |
| × | X | SPEED / AVS1 | no function | no function | next display mode | resets TRP1, STP1 and AVS1 to 0 |
| Х | х | SPEED / STP1 | no function | no function | next display mode | resets TRP1, STP1 and AVS1 to 0 |
| Х | X | SPEED / TRP2 | increases TRP2 figure | decreases TRP2 figure | next display mode | resets TRP2 to 0 |
| × | x | SPEED / AVS2 | no function | no function | next display mode | next display mode |
| x | x | SPEED / STP2 | starts / stops STP2 | no function | next display mode | sets STP2 to 0 |

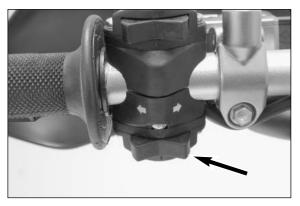


Combination switch

The light switch has 3 switch positions.

- **a** = Light off
- **B** = Low beam light
- High beam light

The red short circuit button **1** serves to switch off the engine. Leave the switch pressed, until the engine stops. With the button **2** the horn will sound.



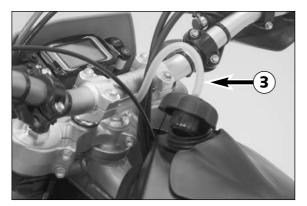
Flasher switch

The flasher switch is a separate unit and is mounted on the left portion of the handlebar.

The wire harness is designed in a way that whenever you want to use your bike off-road, you can dismount the entire turn indicator system without affecting the function of the remaining electrical system.



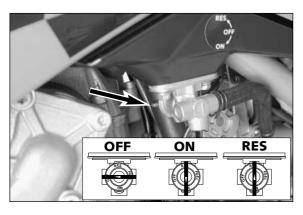
Flasher right



Filler cap

To open filler cap: Turn the filler cap counter-clockwise. **To close filler cap:** Screw on the filler cap clockwise.

Install tank breather hose 3 without kinks.

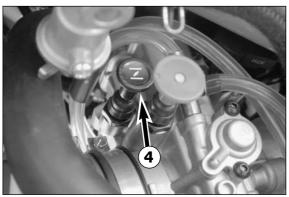


Fuel tap

OFF In this position the fuel tap is closed. No fuel may flow to the carburetor.

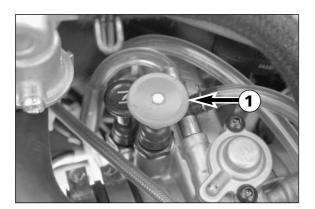
ON When using the motorcycle, the rotating handle must be set to the ON position. Now fuel may flow to carburetor. In this position the tank empties down to the fuel reserve of approx. 2,5 liters.

RES The reserve tank, approximately 2,5 liters, cannot be tapped until the rotating handle is turned to the RES position. Fill the tank as soon as possible and remember to turn the rotating handle back to the ON position so that you will have backup fuel next time, too.



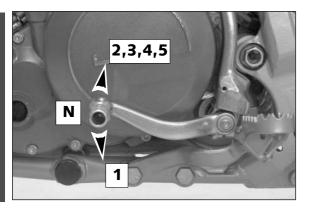
Choke

If you pull the choke button **4** out as far as possible, a bore in the carburetor will be opened through which the engine may take in additional fuel. The result is a "fat" fuel-air mixture of the type needed for cold starts. To deactivate the choke, push the choke button back into its basic position.



Hot start device

If you pull the hot start device \bullet out as far as possible, a bore in the carburetor will be opened through which the engine may take in additional air. The result is a "lean" fuel-air mixture of the type needed for hot starts. To deactivate the hot start device, push the hot start button back into its basic position.



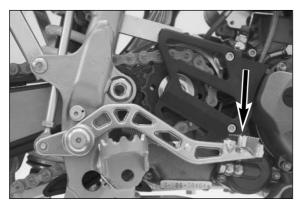
Shift lever

The shift lever is mounted on the left side of the engine. The position of the gears is shown in the illustration. Neutral position is located between first and second gear.



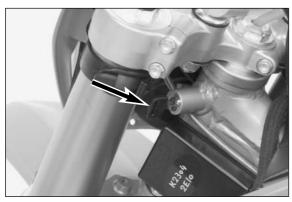
Kickstarter

The kickstarter is mounted on the left side of the engine. Its upper part can be swivelled.



Foot brake pedal

The foot brake pedal is located in front of the right foot rest. Its basic position can be adjusted to your seat position (see maintenance work).

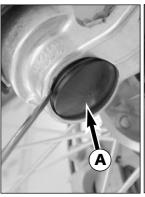


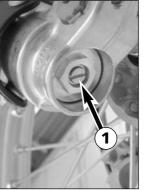
Handlebar lock

The handlebar can be locked by means of the lock located on the control head. Fully turn handlebar to right to lock, insert key, turn to left, press in, turn to right and withdraw.



Never leave the key inserted in the lock. If you turn the steering to the left the key could get damaged.





Compression damping of fork

The compression damping is to be set at the lower end of the fork tubes. It only regulates the degree of damping during compression. Remove closing cap **4**. By using the knob **1** (COM), the degree of damping of the compression can be adjusted. Turn the knob clockwise to increase damping, turn it counterclockwise to reduce damping during compression.

STANDARD ADJUSTMENT:

- turn adjusting screw clockwise as far as it will go
- turn it back by as many clicks as are specified for the relevant type of fork WP 1418X738 20 clicks



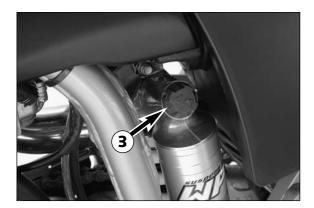


Rebound damping of fork

Hydraulic rebound damping determines the reaction when the fork is rebound. By turning the knob 2, the degree of damping of the rebound can be adjusted. Turn the knob clockwise to increase damping, turn it counterclockwise to reduce damping during rebounding.

STANDARD ADJUSTMENT:

- turn adjusting screw clockwise as far as it will go
- turn it back by as many clicks as are specified for the relevant type of fork WP 1418X738 15 clicks

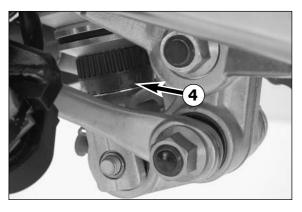


Compression damping of shock absorber

With the knob 1 the degree of damping of the compression can be adjusted. Turn the knob counterclockwise to increase damping, turn it clockwise to reduce damping during rebounding.

STANDARD ADJUSTMENT:

WP 0118X730 position 4



Rebound damping of shock absorber

With the setting wheel 4 the degree of damping of the rebound can be adjusted. Turn the knob to the left side to increase damping, turn it to the right side to reduce damping during rebounding.

STANDARD ADJUSTMENT:

WP 0118X730 position 8

ENGLISH

GENERAL TIPS AND WARNINGS FOR STARTING THE MOTORCYCLE

Instructions for initial operation

- Verify that your KTM dealer performed the PREPARATION OF VEHICLE jobs (see Customer Service Manual).
- Read these operating instructions carefully before your first ride.
- Enter the chassis, engine and key numbers on page 1.
- Familiarize yourself with the operating elements.
- Adjust the hand brake lever and foot brake lever to your most comfortable position.
- Get used to handling the motorcycle on an empty parking lot or open space, before starting on a longer drive. Also try to drive as slowly as possible and in standing position, to improve your feeling for the vehicle.
- Do not drive along off-road tracks which go beyond your abitily and experience.
- Hold the handlebars with both hands and leave your feet on the foot rests while driving.
- Remove your foot from the foot brake lever when you are not braking. If the foot brake lever is not released the brake pads rub continuously and the braking system is overheated.
- Do not make any alterations to the motorcycle and always use ORIGINAL KTM SPARE PARTS. Spare parts from other manufacturers can impair the safety of the motorcycle.
- Motorcycles are sensitive to alterations in the distribution of weight. If you are taking luggage with you, this should be secured as close as possible to the middle of the vehicle; distribute the weight evenly between the front and rear wheel. Never exceed the maximum permissible laden weight and the axle weights. The maximum permissible laden weight is made up of the following components:
 - Motorcycle ready for operation and tank full
 - Luggage
 - Driver with protective clothing and helmet.
- Pay attention to running-in procedure.

Running in the LC4 models

Even very precisely machined sections of engine components have rougher surfaces than components which have been sliding against one another for quite some time. Therefore, every engine needs to be broken in. For this reason, during its first 1000 kilometers (620 miles) the engine must not be revved up to its performance limits. The engine speed of 4800 r.p.m. must not be exceeded during the first 1000 kilometers (620 miles). During this break-in time, you should ride your motorcycle in different conditions (roads, easy off-road terrain). The following table shows you the maximum velocity values in the different gears at 4800 r.p.m. as based on the rear wheel transmission ratio of your motorcycle.

| ratio gear | 660 SMC 16:38 Z |
|---------------|--------------------|
| 1. G | 35 kmh |
| 2. G | 55 kmh |
| 3. G | 80 kmh |
| 4. G | 95 kmh |
| 5. G | 110 kmh |

NOTE:

During the stage of running the engine in, that is the first $1000\ \text{KM}$ ($620\ \text{miles}$), the engine oil used should be of a mineral oil formula. This also applies if the engine has been repaired.

∆ WARNING

- WEAR SUITABLE CLOTHING WHEN DRIVING A MOTORCYCLE. CLEVER KTM DRIVERS ALWAYS WEAR A HELMET, BOOTS, GLOVES AND A JACKET, REGARDLESS OF WHETHER DRIVING ALL DAY OR JUST FOR A SHORT TRIP. THE PROTECTIVE CLOTHING SHOULD BE BRIGHTLY COLORED SO THAT OTHER VEHICLE CAN SEE YOU AS EARLY AS POSSIBLE. YOUR PASSENGER WILL ALSO NEED SUITABLE PROTECTIVE CLOTHING.
- DO NOT DRIVE AFTER HAVING CONSUMED ALCOHOL.
- ALWAYS TURN ON THE LIGHT TO MAKE SURE THAT OTHER DRIVERS BECOME AWARE OF YOU AS EARLY AS POSSIBLE.
- ONLY USE ACCESSORIES THAT HAVE BEEN RELEASED BY KTM. FOR EXAMPLE, FRONT PANELLING CAN IMPAIR THE DRIVING PROPERTIES OF THE MOTORCYCLE. CASES, EXTRA TANKS ETC. CAN ALTER THE WEIGHT DISTRIBUTION AND THUS ALSO IMPAIR THE VEHICLES DRIVING PROPERTIES.
- THE FRONT AND REAR WHEEL ARE ALLOWED TO BE FITTED ONLY WITH TIRES THAT HAVE THE SAME PROFILE TYPE.
- OBSERVE THE TRAFFIC REGULATIONS, DRIVE DEFENSIVELY AND TRYING TO LOOK AHEAD AS FAR AS POSSIBLE SO THAT ANY HAZARDS CAN BE RECOGNIZED AS EARLY AS POSSIBLE.
- CHOOSE YOUR DRIVING SPEED ACCORDING TO THE CONDITIONS AND YOUR DRIVING SKILLS.
- Drive Carefully on Unknown roads or on Unfamiliar Trials.
- RENEW THE VIZOR ON YOUR HELMET OR THE GLASS OF YOUR GOGGLES ON TIME SO AS TO ENSURE OPTIMUM VISION IN ANY SITUATION. WHEN LIGHT SHINES DIRECTLY ON SCRATCHED VISOR OR GOGGLES, THE OPERATOR WILL BE BLINDED.
- NEVER LEAVE YOUR MOTORCYCLE WITHOUT SUPERVISION IF THE ENGINE IS RUNNING.
- These models were designed and built for one person only no additional passenger allowed!
- WHEN RIDING YOUR MOTORCYCLE, PLEASE BEAR IN MIND THAT OTHER PEOPLE MAY FEEL MOLESTED BY EXCESSIVE NOISE.

HSIJDN₃

DRIVING INSTRUCTIONS







Check the following before each start

When you start, the motorcycle must be in perfect mechanical condition. For safety reasons, you should make a habit of performing an overall check of your motorcycle before each start.

The following checks should be performed:

1 CHECK OIL LEVEL Insufficient oil results in premature wear and consequently to engine damage.

2 FUEL

Check that there is sufficient fuel in the tank; when closing the filler cap, check that the tank venting hose is free of kinks.

3 CHAIN

A loose chain can fall from the chain wheels; an extremely worn chain can tear, and insufficient lubrication can result in unnecessary wear of chain and chain wheels.

4 TIRES

Check for damaged tires. Tires showing cuts or dents must be replaced. The tread depth must comply with the legal regulations. Also check the air pressure. Insufficient tread and incorrect air pressure deteriorate the driving performance.

5 BRAKES

Check correct functioning of the braking system. Check for sufficient brake fluid in the reservoir. The reservoirs have been designed in such a way that brake fluid does not need to be refilled even when the brake pads are worn. If the level of brake fluid falls below the minimum value, this indicates a leak in the braking system or completely worn out brake pads. Arrange for the braking system to be checked by a KTM specialist, as complete failure of the braking system can be avoided.

Also check the state of the brake hose and the thickness of the brake linings.

Check free travel at hand brake lever and foot brake lever.

6 CABLES

Check correct setting and smooth operation of all control cables.

7 COOLING FLUID

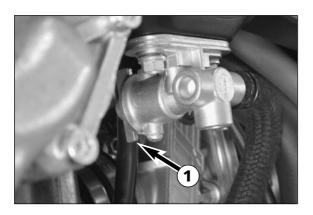
Check the level of cooling fluid when the engine is cold.

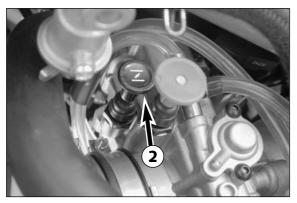
8 ELECTRICAL SYSTEM

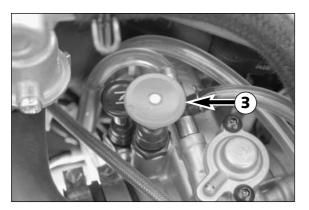
Check correct operation of headlamps, tail-lights, brake lights, indicators, control lamps and horn while the engine is running.

9 LUGGAGE

If you are taking luggage with you, check that this is securely fastened.







Starting when the engine is cold

- 1 Open the fuel tap
- 2 Swing up the side stand
- 3 Put the gear in neutral
- 4 Operate the choke 2
- 5 Go to the left of your motorbike. DO NOT open the throttle, and briskly kick the kickstarter ALL THE WAY.

WARNING

- IF YOU WANT TO START THE ENGINE, MAKE SURE THAT YOU ALWAYS PUT ON STURDY
 MOTORCYCLE BOOTS IN ORDER TO AVOID INJURIES. YOU MIGHT SLIP OFF THE
 KICKSTARTER, OR THE ENGINE MAY KICK BACK AND PUSH YOUR FOOT UPWARD WITH
 GREAT VEHEMENCE.
- ALWAYS KICK KICKSTARTER BRISKLY ALL THE WAY WITHOUT OPENING THE THROTTLE.
 KICKING THE KICKSTARTER WITH LESS ENOUGH FORCE AND AN OPENED THROTTLE INCREASE THE KICK-BACK HAZARD.
- DO NOT START THE ENGINE AND ALLOW IT TO IDLE IN A CLOSED AREA. EXHAUST
 FUMES ARE POISONOUS AND CAN CAUSE LOSS OF CONSCIOUSNESS AND DEATH.
 ALWAYS PROVIDE ADEQUATE VENTILATION WHILE THE ENGINE IS RUNNING.

CAUTION

- BEFORE YOU ACTUATE THE KICKSTARTER, BE SURE TO KICK UP THE SIDE STAND.
- DON'T RIDE YOUR MOTORCYCLE WITH FULL LOAD AND HIGH REVS WHEN ENGINE IS COLD. BECAUSE THE PISTON IS WARMING UP FASTER THAN THE WATER COOLED CYLINDER, IT CAN CAUSE ENGINE DAMAGE.

NOTE:

This motorcycle is equipped with a safety starter system.

If you put in a gear with the side stand in its swung-out position, and if you let go of the clutch lever, the engine will stop.

Starting when the engine is warm or hot

- 1 Open the fuel tap 1
- 2 Swing up the side stand
- 3 Put the gear in neutral
- 4 Push the hot start button **3**
- 5 Go to the left of your motorbike. DO NOT open the throttle, and briskly kick the kickstarter ALL THE WAY.

What to do when the engine is "flooded"

The throttle must be fully opened when starting. If necessary change sparkplug.

Starting off

Pull the clutch lever. Put the engine into first gear, slowly release the clutch lever and open throttle at the same time.



Shifting/Riding

You are now in first gear, refered to as the drive or uphill gear. Depending on the conditions (traffic, hill size, etc.), you can shift to a higher gear. Close throttle, at the same time pull clutch lever in and shift to the next higher gear. Let clutch lever go again and open throttle. If you turned on the choke, make sure you turn it off again as soon as engine is warm.

When you reach full speed through opening the throttle all the way, turn throttle back to ³/4; the speed will not decreases but the engine will use less fuel.

Only give as much throttle as the engine can handle. Through quick and high reving of throttle, the fuel consumption increases. When shifting down, use the brakes if necessary and close throttle at the same time. Pull clutch lever and shift down to the next gear. Let clutch lever go slowely and open throttle or shift down again.

∆ WARNING

 AVOID ABRUPT LOAD CHANGES WHILE RIDING AROUND BENDS AND ON WET OR SLIPPERY GROUND. OTHERWISE YOU MIGHT EASILY LOSE CONTROL OF YOUR MOTORCYCLE.

Λ

- WHEN DRIVING OFF-ROAD, ALWAYS HAVE A FRIEND ON A SECOND MOTORCYCLE TO KEEP YOU COMPANY, SO THAT YOU CAN HELP EACH OTHER SHOULD DIFFICULTIES ARISE.
- AFTER FALLING WITH THE MOTORCYCLE, CHECK ALL FUNCTIONS THOROUGHLY BEFORE STARTING UP OPERATIONS AGAIN.
- A BENT HANDLEBAR MUST ALWAYS BE REPLACED. NEVER TRY TO STRAIGHTEN THE HANDLEBAR BECAUSE THIS WILL CAUSE IT TO LOSE ITS STARILITY.

! CAUTION

- HIGH RPM RATES WHEN THE ENGINE IS COLD HAVE AN ADVERSE EFFECT ON THE LIFE OF YOUR ENGINE. WE RECOMMEND YOU RUN THE ENGINE IN A MODERATE RPM RANGE FOR A FEW MILES TO WARM UP. AFTER THAT NO FURTHER PRECAUTIONS IN THIS RESPECT NEED BE TAKEN. THE ENGINE HAS REACHED ITS OPERATING TEMPERATURE AS SOON AS THE RADIATORS BECOME WARM.
- NEVER HAVE THE THROTTLE WIDE OPEN WHEN CHANGING DOWN TO A LOWER GEAR. THE ENGINE WILL OVER-REV, DAMAGING THE VALVES.
 IN ADDITION, THE REAR WHEEL LOCKS SO THAT THE MOTORCYCLE CAN EASILY GET OUT OF CONTROL.
- LONG WHEELIES LEAD TO A DROP IN THE OIL PRESSURE WHICH CAN LEAD TO MOTOR DAMAGE.
- IF ANY ABNORMAL VIBRATIONS OCCUR WHILE DRIVING, CHECK THAT THE ENGINE FASTENING BOLTS ARE TIGHT.
- In the event that, while riding on your motorcycle, you notice any unusual operation-related noise, stop immediately, turn the engine off, and contact an authorized KTM dealer.

Braking

Close throttle and apply the hand and foot brakes at the same time. When driving on sandy, wet or slippery ground use mainly the rear wheel brake. Always brake with care, blocking wheels can cause you to skid or fall. Also change down to lower gears depending on your speed.

When driving down hill, use the braking effect of the engine. Change down one or two gears but do not overspeed the engine. In this way, you will not need to brake so much and the brakes will not overheat.

\triangle WARNING \triangle

- WHEN YOU BRAKE, THE BRAKE DISCS, BRAKE PADS, BRAKE CALIPER AND BRAKE FLUID HEAT UP. THE HOTTER THESE PARTS GET, THE WEAKER THE BREAKING EFFECT. IN EXTREME CASES, THE ENTIRE BRAKING SYSTEM CAN FAIL.
- IN CASE OF RAIN, AFTER WASHING THE MOTORCYCLE, AFTER RIDES THROUGH WATER AND IN CASE OF RIDES ON WET OFF-ROAD TRACKS, HUMID OR DIRTY BRAKE DISCS CAN DELAY THE BRAKING EFFECT. THE BRAKES MUST BE PULLED UNTIL THEY ARE DRY OR CLEAN.
- RIDES ON SALT-STREWED OR DIRTY ROADS CAN ALSO DELAY THE BRAKING EFFECT. THE BRAKES MUST BE PULLED UNTIL THEY ARE CLEAN.
- DIRTY BRAKE DISCS CAUSE INCREASED TEAR OF BRAKE PADS AND BRAKE DISCS.

Stopping and parking

Apply the brakes fully and put the engine into neutral. To stop the engine, switch off the ignition or pull the short circuit button when the engine is idling, until the engine stops. Turn the fuel tap to the OFF position, park on an area with firm ground, and lock the motorcycle.

△ WARNING **△**

- ALWAYS PARK YOUR MOTORBIKE ON A SOLID AND HORIZONTAL SURFACE.
- MOTORCYCLE ENGINES PRODUCE A GREAT AMOUNT OF HEAT WHILE RUNNING. THE ENGINE, EXHAUST PIPE, MUFFLER, BRAKE ROTORS, AND SHOCK ABSORBERS CAN BECOME VERY HOT. DO NOT TOUCH ANY OF THESE PARTS AFTER OPERATING THE MOTORCYCLE, AND TAKE CARE TO PARK IT WHERE PEDESTRIANS ARE NOT LIKELY TO TOUCH IT AND GET BURNED.

CAUTION

- CLOSE THE FUEL TAP WHEN LEAVING YOUR VEHICLE. OTHERWISE THE CARBURETTOR CAN FLOOD AND FUEL WILL ENTER THE ENGINE.
- NEVER PARK YOUR MOTORCYCLE IN FIRE HAZARDOUS PLACES DUE TO DRY GRASS OR OTHER EASILY FLAMMABLE MATERIALS.



INFORMATION ABOUT THE SIDE STAND:

Use your foot to push the side stand forward as far as possible, and lean your motorcycle to the side. Make sure that your motorcycle is standing safely on solid ground. Just in case, you can also put in a gear.

CAUTION

The side stand is dimensioned for the weight of the motorcycle only. If you are sitting on the motorbike and thus apply an additional load onto the side stand, you may cause damage to the side stand or the frame, and your motorbike may fall over.

Fuel

The LC4 engine needs premium gasoline with an octane number of 95 or higher.

CAUTION

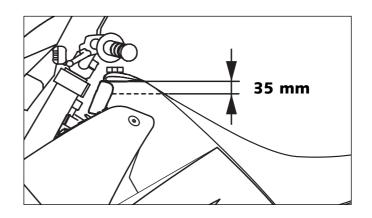
Use leaded or unleaded premium grade gasoline (95 octanes). Never use any gasoline having less than 95 octanes because it may damage the engine.

∆ WARNING

Α.

Gasoline is highly flammable and poisonous. Extreme caution should be used when handling gasoline. Do not refuel the motorcycle near open flames or burning cigarettes. Always switch off the engine before refuelling. Be careful not to spill gasoline on the engine or exhaust pipe while the engine is hot. Wipe up spills promptly. If gasoline is swallowed or splashed in the eyes, seek a doctor's advice immediately.

Fuel expands when its temperature rises. Therefore do not fill the tank to the top (see fig.).





| 22 | PERIODIC MAINTENANCE SCHE | DULE 200 | 03 | 660 SMC |
|--------------|--|---|--|---|
| | A washed motorcycle can be checked more quickly which saves money! | 1. Service after 1000 km or 10 hours | after / every 2500 km or 25 hours | after / every 5000 km or once a year |
| | Change engine oil, oil filter, and micro-filter | • | • | • |
| | Clean oil screens and magnet of drain plug | • | • | • |
| 빌 | | • | | • |
| ENGINE | Check and adjust spark plug, replace every 10,000 km | | | • |
| EN | Check and adjust valve clearance | • | | • |
| | Check engine fastening screws for tight fit | • | | • |
| | Make sure all engine screws accessible from the outside are screwed tight | • | | • |
| OR | | | | • |
| CARBURATOR | Check idle setting | • | | • |
| ARBI | Check bleeder hoses for damage and kink-free arrangement | • | | • |
| | Check cooling system for leaks, antifreeze protection | • | | • |
| | Check exhaust system for leaks and suspension | • | | • |
| S | | • | | • |
| ADD-ON-PARTS | arrangement, adjust and lubricate | | | |
| ŀΡ | Clean air filter and air filter box | | | • |
| ΙŻ | Check cables for damage and kink-less arrangement | | | |
| ١X | Check headlamp adjustment | | | |
| Į | Check electrical system for function; (low/high beams, stop light, turn indicators, | | | |
| 1 | tell-tale lamps, horn, emergency-off switch) | | | |
| | | | | |
| - | Make sure all screws and nuts are tight Check brake fluid level, lining thickness, and brake discs | | | |
| ES | Check brake lines for damage and leaks | | | |
| BRAKES | Check/adjust smooth operation, free travel of handbrake/footbrake levers | | | |
| BR | Check covers of brake system for tight fit | • | | |
| | Check screws of brake system for tight fit | • | | |
| | Check suspension strut and fork for leaks and proper function | • | | |
| | Check O-ring of suspension strut for wear | | | • |
| S | Clean dust sleeves | | | • |
| CHASSIS | Bleed fork legs | • | | • |
| 4 | Check swinging-fork pivot | | | • |
| \Box | | • | | • |
| | Lubricate reversing lever | | | • |
| | Check all chassis screws for tight fit (fork plates, fork leg, axle nuts/screws, | • | | • |
| | swinging-fork pivot, reversing lever, suspension strut) | | | _ |
| | Check spoke tension and rim join | • | | • |
| S | Check tire condition and inflation pressure | • | | • |
| WHEEL | Check chain and chain guides for wear, force fit and tension | • | | • |
| ∣⋠ | Check screws on pinion and chain sprocket for locking devices and a tight fit | • | | • |
| _ | Lubricate chain | • | | • |
| | Check wheel bearings and jerk damper for play | | | • |
| IN | IPORTANT RECOMMENDED MAINTENANCE PROCEDURES TO BE PERFORMED BA | ASED ON A SEPA | RATE SUPPLEM | ENTARY ORDER |
| | | every 2500 km or 25 hours | at least once a year | every 2 years or 20000 km |
| Pe | rform complete fork maintenance | | • | |
| | rform complete suspension strut maintenance | | | • |
| | erform complete reversing lever maintenance | | | • |
| | eplace glass-fiber yarn packing of main silencer | • | | |
| | ean and lubricate steering-head bearing and sealing elements | | • | |
| | ean and adjust the carburetor | | • | |
| | eat the electrical contacts and switches with contact spray | | • | |
| | nange brake fluid | | • | |

| | before each start | after every cleaning | for cross country use | once a year |
|--|----------------------|----------------------|--------------------------|-------------|
| Check oil level | • | | - | |
| Check brake fluid level | • | | | |
| Check brake pads for wear | • | | | |
| Check lighting system for proper operation | • | | | |
| Check horn for proper operation | • | | | |
| Lubricate and adjust actuating cables and nipples | | • | | |
| Bleed fork legs in regular intervals | | | • | |
| Remove and clean dust sleeves in regular intervals | | | • | |
| Clean and lubricate chain as necessary | | • | • | |
| Check chain tension | • | • | • | |
| Clean air filter and filter box (depending on the dirt accumulation) | | | • | |
| Check tire pressure and wear | • | | | |
| Check coolant level | • | | | |
| Check fuel lines for leaks | • | | | |
| Drain float chamber | | • | | |
| Verify smooth operation of all controls | • | | | |
| Check brake performance | • | • | | |
| Treat exposed metal components (except for the braking and exhaust | | • | | |
| systems) with wax-based anti-corrosion agents | | | | |
| Treat steering lock and light switch with contact spray | | • | | |
| Check all screws, nuts, and hose clamps for tight fit | | | | • |

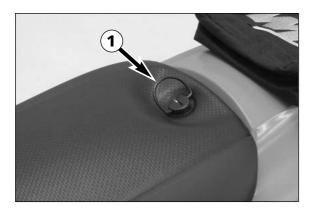
MAINTENANCE WORK ON CHASSIS AND ENGINE

∆ WARNING **∆**

ALL MAINTENANCE AND ADJUSTEMENT OPERATIONS THAT ARE MARKED WITH A * REQUIRE SPECIALIST KNOWLEDGE. FOR YOUR OWN SECURITY, LET THESE TASKS BE CARRIED OUT BY A KTM-DEALER. AT KTM YOUR MOTORCYCLE WILL RECIEVE OPTIMAL SERVICING BY SPECIALLY TRAINED MECHANICS.

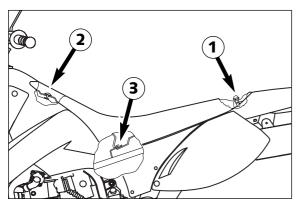
! CAUTION

- When cleaning the motorcycle, do not use a high pressure cleaning unit if possible, otherwise water will penetrate the bearings, carburetor, electric connectors etc.
- When transporting your KTM, ensure that it is held upright with restraining straps or other mechanical fastening devices and that
 the fuel tap is in the OFF position if the motorcycle should fall down, be aware of any leaking fuel from the carburetor or
 fuel tank
- Do not use toothed washers or spring rings with the engine fastening screws, as these work into the frame parts and keep working loose. Instead, use self-locking nuts.
- LET YOUR MOTORCYCLE COOL DOWN BEFORE BEGINNING ANY MAINTENANCE WORK IN ORDER TO AVOID GETTING BURNED.
- REMOVE OILS, FATTY MATTERS, FILTERS, FUELS, WASHING DETERGENTS ETC. ORDERLY.
- Under no circumstances may used oil be disposed of in the sewage system or in the open countryside. 1 liter used oil contaminates 1.000.000 liters water.
- IF YOU UNFASTEN SELF-LOCKING NUTS, YOU HAVE TO REPLACE THEM BY NEW ONES.
- IF YOU UNFASTEN SCREWS AND NUTS SECURED BY LOCTITE, YOU HAVE TO REATTACH AND SECURE THEM IN THE SAME WAY. SEE TECHNICAL SPECIFICATIONS FASTENING TORQUES ON PAGE 49.



Removal of seat

By using the quick-release fastener **1**, the seat can be removed without using tools. Turn the quick-release fastener about 180° counter clockwise and lift up the rear of the seat. Pull the seat backwards and unhook it from the front fastener screw **2**.

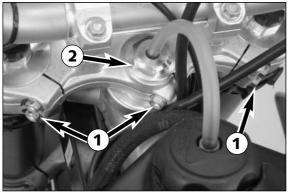


When installing the seat, be sure to insert the rear portion of the seat into the metal clasp **3**.



Tool set

The tool set 4 is located in the tool compartment behind the seat.



Check and adjust steering head bearing *

Check steering head bearing for play periodically. To check this put motorcycle on a stand so that the front wheel is off the ground. Now try to move the fork forward and backward. To adjust, loosen the five pinch bolts ① of the top triple clamp and turn steering stem bolt ② clockwise until there is no more play. Don't tighten the steering stem bolt all the way, otherwise the bearings will be damaged. With a plastic hammer, lightly tap on the triple clamp to release tension. Retight the five pinch bolts with 20 Nm.

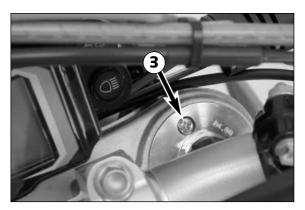
△ WARNING

IF THE STEERING HEAD BEARING IS NOT ADJUSTED TO BE FREE OF PLAY, THE MOTOR-CYCLE WILL SHOW AN UNSTEADY DRIVING PERFORMANCE AND CAN GET OUT OF CONTROL

CAUTION

IF YOU DRIVE WITH PLAY OF STEERING HEAD BEARING FOR LONGER PERIODS, FIRST THE BEARINGS AND THEN THE BEARING SEATS IN THE FRAME WILL BE DESTROYED.

At least once a year, the steering head bearings should be smeared with waterproof grease (Motorex Long Term 2000).

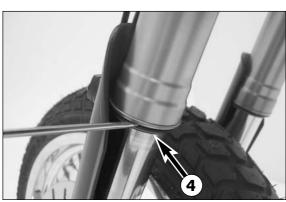


Breather plug front fork

After every 5 hours of use for competitive racing, slacken the breather plugs ② a few turns in order to relieve excess pressure from the inside of the fork. To do this, place the motorcycle on a stand with the front wheel lifted off the ground. When riding the motorcycle mainly on street, it will be enough to have this job performed in the course of the periodical maintenance service.

CAUTION

Excessive pressure in the interior of the fork can cause leaks in the fork. If your fork is leaking, it is recommended to open the breather plugs before having the seals replaced.



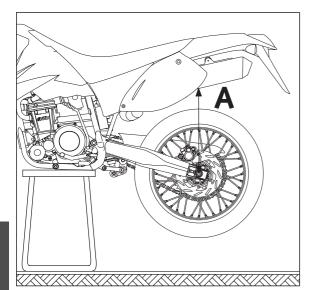
Cleaning the dust sleeves of the telescopic fork

The dust-protection bellows ② are to remove dust and coarse dirt particles from the fork tube. However, after some time, dirt may also get in behind the dust-protection bellows. If this dirt is not removed, the oil sealing rings located behind it may start to leak.

Use a screwdriver to lever the dust-protection bellows out of the outer tubes and slide them downward.



Clean dust-protection bellows, outer tubes, and fork tubes thoroughly, and oil them thoroughly with silicone spray. Then, push dust-protection bellows into the outer tubes by hand.

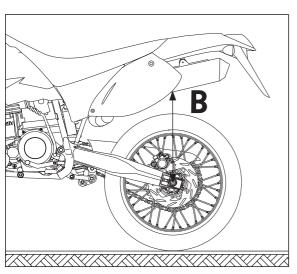


Basic suspension setup for the weight of the driver

To achieve maximum handling performance and to prevent the fork, shock absorber, swing arm and frame from being damaged, the basic setup of the suspension components must be suitable for your weight. At delivery, KTM's offroad motorcycles are set to accommodate a driver weighing 70 - 80 kg (wearing full protective clothing). If your weight exceeds or falls short of this range, you will need to adjust the basic setup for the suspension components accordingly. Minor deviations in weight can be compensated by adjusting the spring preload. Different springs must be installed for larger deviations.

Checking the shock absorber and spring

You can establish whether or not the shock absorber spring is suitable for your weight by checking the riding sag. The static slag must be correctly adjusted before the riding sag can be determined.



Determining the static sag of the shock absorber

The static sag should be approx. 20 mm. Deviations of more than 5 mm can strongly influence the motorcycle's performance.

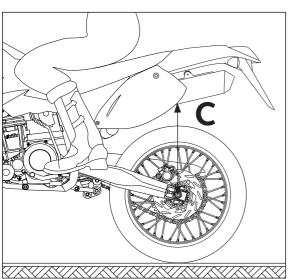
Procedure:

- Jack up the motorcycle until the rear wheel no longer touches the ground.
- Measure the vertical distance between the rear wheel axle and a fixed point (e.g. a mark on the side cover) and write it down as dimension A.
- Place the motorcycle on the ground again.
- Ask a helper to hold the motorcycle in vertical position.
- Measure the distance between the rear axle and the fixed point again to establish dimension B.
- The static sag is the difference between dimensions A and B.

EXAMPLE:

| Motorcycle jacked up (dimension A) | 600 mm |
|--|-----------------|
| Motorcycle on ground, unloaded (dimension B) | – <u>580 mm</u> |
| Static sag | |

If the static sag is lower, the spring preload of the shock absorber must be reduced, if the static sag is higher, the spring preload must be increased. See chapter "Changing the spring preload of the shock absorber."



Determining the riding sag of the shock absorber

- Have a helper hold the motorcycle while you sit on the bike in a normal seating position (feet on the footrests) wearing full protective clothing and bounce up and down a few times to allow the rear wheel suspension to become level.
- Stay on the bike and have another person measure the distance between the same two points and write it down as dimension C.
- $\,-\,$ The riding sag is the difference between dimensions A and C.

EXAMPLE:

| Motorcycle jacked up (dimension A) | 600 mm |
|--|--------|
| Motorcycle on ground, loaded (dimension C) | |
| Riding sag | |

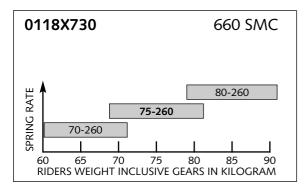
The riding sag should lie between 90 and 100 mm.

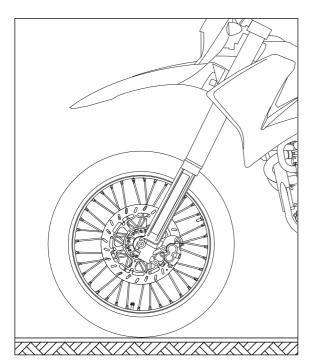
If the riding sag is less than 90 mm, the spring is too hard (the spring rate is too high). If the riding sag is more than 100 mm, the spring is too soft (the spring rate is too low).

The spring rate is written on the outside of the spring (e.g. 75-260). The type number of the shock absorber is embossed on the bottom of the tank. The illustrations show which spring should be installed. The standard spring is shown in bold print.

After installing a different spring, readjust the static sag to 20 mm (± 5 mm).

According to our experience, the damping rate of the compression stage can remain unchanged. The damping rate of the rebound stage can be reduced by a few clicks for a softer spring or increased by a few clicks for a harder spring.





1418X738 660 SMC 4,6 N/mm 4,2 N/mm 4,2 N/mm 4,2 N/mm 60 65 70 75 80 85 90 RIDERS WEIGHT INCLUSIVE GEARS IN KILOGRAM

Checking the basic setup of the telescopic fork

The precise riding sag of the telescopic fork cannot be determined for various reasons. Similar to the shock absorber, smaller deviations in your weight can be compensated by adjusting the spring preload. However, if your telescopic fork bumps frequently (hard end stop during compression), you should install harder fork springs to avoid damaging the telescopic fork and frame.

Changing the spring preload on the telescopic fork

The telescopic forks for these models must be partly disassembled to adjust the spring preload (see WP manual). Pretension spacers are available in heights of 1.5, 2.5 and 5 mm (see spare parts catalog).

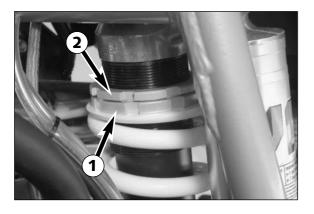
NOTE:

WP precisely adjusts the spring pressure by inserting pretension spacers. Fluctuations in production are compensated with pretension spacers in various heights. This can cause the fork springs in the fork legs to have different degrees of pretension. Fork springs and pretension spacers should always stay together.

Replacing fork springs

If you weigh less than 70 kg or more than 80 kg, you should install the respective fork springs. The correct spring rate is shown in the illustrations. The standard spring is shown in bold print. The type number of the telescopic fork is embossed on the caps on the top of the telescopic fork. If you are uncertain which spring to use, contact your KTM workshop.

According to our experience, the damping rate of the compression stage can remain unchanged. The damping rate of the rebound stage can be reduced by a few clicks for a softer spring or increased by a few clicks for a harder spring.



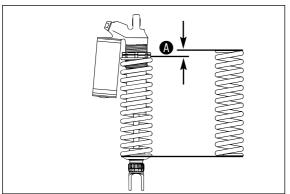
Changing the spring preloading of the shock absorber

KTM sets the shock absorber for a driver with a weight of approximately 75 kg (165 lb). If the weight of the driver is more or less than 75 kg (165 lb), you should change the spring preloading accordingly. This is easily done.

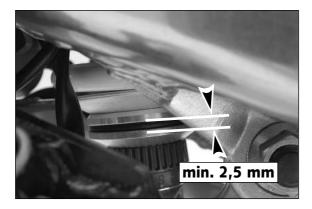
NOTE:

- Before changing the spring preload note the basic setting, e.g. how many threads are visible above the adjusting ring.
- One rotation of the adjusting ring
 • changes the spring pretension by approximately 1,75 mm (0,07 in).

Loosen the locking ring ② with the hook spanner from the tool set. Change the spring preload with the adjusting ring ① and re-tighten the locking ring.



BASIC SETTING – SPRING PRELOAD: WP 0118X730...... A = 22 mm



Checking rubber ring on the WP rear shock absorber

A rubber ring mounted on the rear shock absorber serves as a vibration damper. This ring gets pressed together with time and loses its shock absorbing function.

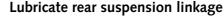
Measure the distance between the two discs at various points around their circumferences. The space should be at least 2.5 mm (0,1 in) wide. Have the rubber ring replaced by an KTM dealer when compaction due to wear has exceeded this lower limit.



NOT REPLACING THE RUBBER RING IN TIME CAN RESULT IN DAMAGE TO THE REAR SHOCK ABSORBER.



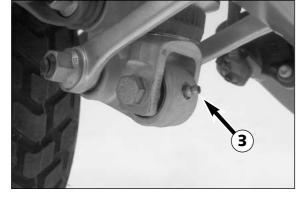
The damping unit of the shock absorber is filled with high compressed nitrogen. Never try to take the shock absorber apart or to do any maintenance work yourself. Severe injuries could be the result.



The bearings in the link lever must be greased in regular intervals. For this purpose, a lubricating nipple **3** is mounted on the link lever.

. CAUTION

AFTER EACH TIME THE MOTORCYCLE IS WASHED, IT IS ESPECIALY IMPORTANT TO GREASE THE LUBRICATING NIPPLE TO PUSH ANY WATER OUT OF THE BEARINGS.



Checking chain tension

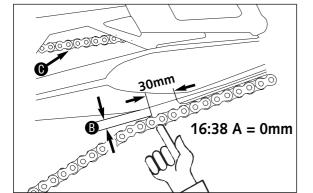
To check, place the motorcycle on the side stand.

Switch transmission to neutral.

Push the chain upwards appr. 30 mm (1,2 in) from the end of the chain sliding component until the upper part of the chain is tensioned (see illustration)

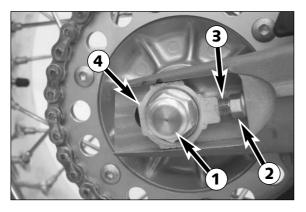
Now, the distance **9** between chain and swingarm should be 0 mm. The upper part of the chain **9** must be tight (see illustration).

Correct chain tension, if necessary!



∆ WARNING

- IF CHAIN TENSION IS TOO HIGH, PARTS WITHIN THE SECONDARY TRANSMISSION (CHAIN, SPROCKETS, DRIVE ASSEMBLY AND REAR WHEEL BEARINGS) WILL BE SUBJECTED TO UNNECESSARY STRESS, RESULTING IN PREMATURE WEAR AND EVEN CHAIN BREAKAGE.
- TOO MUCH SLACK IN THE CHAIN, ON THE OTHER HAND, CAN RESULT IN THE CHAIN
 JUMPING OFF THE SPROCKETS. IF THIS HAPPENS, THE CHAIN COULD ALSO BLOCK THE
 REAR WHEEL OR DAMAGE THE ENGINE.
- IN EITHER CASE THE OPERATOR IS LIKELY TO LOSE CONTROL OF THE MOTORCYCLE.



Correct chain tension

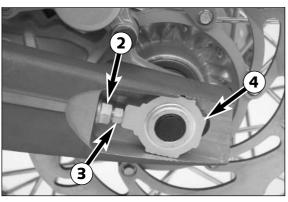
Loosen collar nut **1**, loosen lock nuts **2**, and turn right and left adjusting screws **3** equally far. Tighten lock nuts **2**.

Before tightening the collar nut, verify that the chain adjusters **4** are sitting close to the adjusting screws and that the rear wheel has been aligned with the front wheel.

Tighten collar nut 1 with 80 Nm.

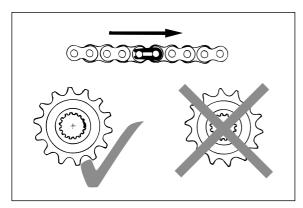


IF YOU DON'T HAPPEN TO HAVE A TORQUE WRENCH AT HAND, MAKE SURE YOU HAVE THE TIGHTENING TORQUE CORRECTED BY A KTM DEALER AS SOON AS POSSIBLE. A LOOSE AXLE MAY LEAD TO AN UNSTABLE DRIVING BEHAVIOR OF YOUR MOTORCYCLE.



NOTE:

The large adjusting range of the chain adjusters (32mm) allows you to use different secondary ratios in combination with the same chain length. The chain adjusters **4** can be rotated by 180°.



Chain maintenance

For long chain life, good maintenance is very important. X-ring chains require only modest maintenance. The best way is to use lots of water, but never use brushes or solvents. After letting the chain dry, you can use a special X-ring chain spray (Motorex Chainlube Racing).

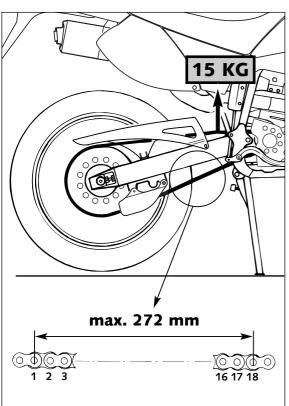
∆ WARNING

NO LUBRICATION IS ALLOWED TO REACH THE REAR TIRE OR THE BRAKE DISK, EITHERWISE THE ROAD ADHERENCE AND THE REAR WHEEL BRAKING EFFECTS WOULD BE STRONGLY REDUCED AND THE MOTORCYCLE COULD EASILY GET OUT OF CONTROL.

CAUTION !

When mounting the chain joint, the closed side of the safety device must point in running direction.

Also check sprockets and chain guides for wear, and replace if necessary.

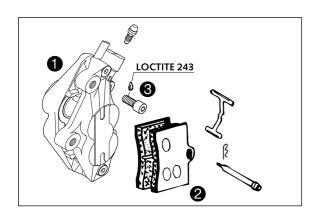


Chain wear

In order to check the chain wear, regard the following indications: Shift the gear into idling and pull the upper chain strand with approx. 10-15 kilogram (33 lb) upwards (see figure). Now one can measure a space of 18 chain reels at the lower chain strand. The chain should be replaced at the latest when a space of 272 mm (10.70 in) is measured. Chains do not always wear off evenly, therefore repeat the measurement at different places on the chain.

NOTE:

If you mount a new chain, the sprockets should also be replaced. New chains wear faster if used on old used sprockets.



General information about KTM disc brakes

BRAKE CALIPERS:

The front brake caliper ① has 4 brake pistons and is rigidly connected to the fork leg. The rear brake caliper has one brake piston and "floats", which means that it is not rigidly connected to the brake caliper support. The resulting lateral adjustment ensures that the brake pads ② optimally rest against the brake disk at any time. Secure the screws ③ of the caliper support with Loctite 243 and tighten to 40 Nm.

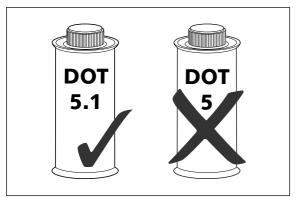


BRAKE PADS:

The motorcycle is equipped with organic brake linings. The thinnest point of the lining must not be thinner than 1 mm.



Brake shoes available in the accessory trade are often not authorized for operation of your KTM motorcycle in road traffic. The brake shoe's design and friction factor and therefore the braking power can deviate significantly from original KTM brake shoes. If you use different brake shoes than those provided with the original equipment, it cannot be warranted that they are authorized for use in road traffic. Your motorcycle will not longer comply with the regulations authorizing the use of vehicles for road traffic and the warranty will be void.



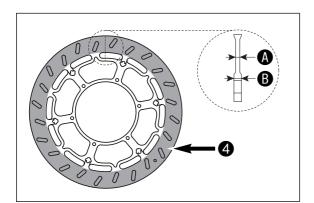
BRAKE FLUID RESERVOIRS:

The brake fluid reservoirs on the front and rear wheel brakes have been designed in such a way that even if the brake pads are worn it is not necessary to top up the brake fluid. If the brake fluid level drops below the minimum either the brake system has a leak or the brake pads are completely worn down. In this case, consult an authorized KTM dealer immediately.

BRAKE FLUID:

KTM fills the brake systems with "Motorex Brake Fluid DOT 5.1" brake fluid, one of the best brake fluids that is currently available. We recommend that you continue to use it. DOT 5.1 brake fluid is based on glycol ether and of an amber color. If you do not have any DOT 5.1 for refilling, you may use DOT 4 brake fluid. However, you should replace it as soon as possible by DOT 5.1.

Never use DOT 5 braking fluid. It is based on silicone oil and has a purple color. Gaskets and brake hoses are not compatible with it.

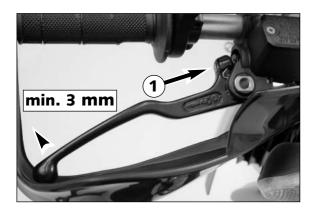


BRAKE DISCS:

Wear reduces the thickness of the brake disc in the area of contact • with the brake pads. At its thinnest spot •, the brake disc must not be more than 0.4mm thinner than its nominal dimension •. The nominal dimension can be gaged in a location beyond the area of contact with the brake pads. Check wear in several spots.

∆ WARNING ∆

- Brake discs suffering from Wear greater than 0.4 mm constitute a safety hazard. Have the brake disc replaced immediately as soon as it reaches its wear limit.
- As a matter of principle, have any repair of the brake system carried out by a licensed KTM mechanic.



Adjusting of free travel at the hand brake lever

Free travel at the hand brake lever may be readjusted by using adjustment screw ①. In this way, the position of the point of pressure (i.e., the resistance you feel on the hand brake lever when the brake pads are pressed against the brake disc) can be adjusted for any hand size.

! CAUTION

At the hand brake lever, free travel must at least be 3 mm. Only then may the piston in the hand brake cylinder be moved (to be recognized by the greater resistance of the hand brake lever). If this free travel is not provided, pressure will build up in the braking system, and the front wheel brake may fail due to overheating.

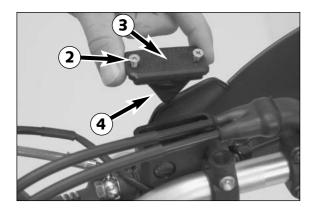


Checking of brake fluid level - front brake

The brake fluid reservoir is linked with the hand brake cylinder at the handlebar and the reservoir is provided with an inspection glass. With the reservoir in a horizontal position, the brake fluid level should not drop below the middle of the glass. The reservoir should be kept completely full at all times for best performance.

∆ WARNING

If the brake fluid level drops below the minimum either the brake system has a leak or the brake pads are completely worn. In this case, consult an authorized KTM dealer immediately.



Refilling the front brake fluid reservoir *

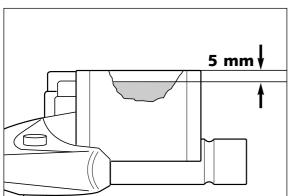
When the brake fluid falls to the middle of the inspection glass, new brake fluid has to be added.

Loosen screws 2 and remove lid 3 and membrane 4.

Place hand brake cylinder in a horizontal position and fill the brake fluid reservoir to 5 mm (0,2 in) below the rim with clean brake fluid DOT 5.1 (Motorex Brake Fluid DOT 5.1). Replace membrane and lid, tighten screws. Rinse off spilled or overflowing brake fluid with water.

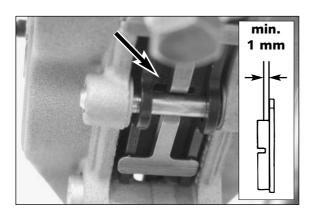
∆ WARNING △

- Never use DOT5 brake fluid! It is based on silicone oil and of a purple color. Seals and brake hoses must be especially adapted to it.
- STORE BRAKE FLUID OUT OF REACH OF CHILDREN.
- BRAKE FLUID CAN CAUSE SKIN IRRITATION. AVOID CONTACT WITH SKIN AND EYES.
 IF YOU GET BRAKE FLUID IN YOUR EYES, RINSE WITH PLENTY OF WATER AND CONSULT A DOCTOR.



CAUTION

- DON'T LET BRAKE FLUID GET IN CONTACT WITH PAINT, IT IS AN EFFECTIVE PAINT REMOVER.
- Use only clean brake fluid taken from a tightly sealed container.



Checking the front brake pads

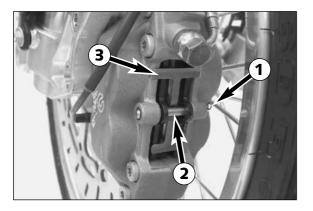
The brake pads can be inspected from below. The linings nust be at least 1 mm (0,04 in) thick.

△ WARNING △

AT THEIR MOST WORN POINT BRAKE PAD LININGS SHOULD NOT BE THINNER THAN 1 MM, OTHERWISE THEY COULD LEAD TO BRAKE FAILURE. FOR YOUR OWN SAFETY DON'T PUT OFF HAVING YOUR BRAKE PADS CHANGED.

CAUTION

IF THE BRAKE PADS ARE REPLACED TOO LATE SO THAT THE LINING IS PARTLY OR ENTIRELY WORN, THE STEEL COMPONENTS OF THE BRAKE PAD WILL RUB AGAINST THE BRAKE DISC, THEREBY IMPARING THE BRAKING EFFECT AND DESTROYING THE BRAKE DISC.

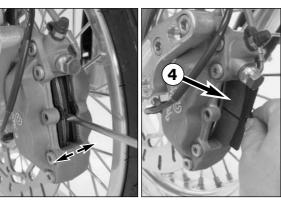


Replacing front brake pads *

Remove the retainer **1**, pull out the bolt **2** and detach the locating spring **3**.

Carefully press against the brake pads with a screwdriver to move the brake pistons into their basic position.

Remove the brake pads **4** from the brake caliper and clean the brake caliper with compressed air.



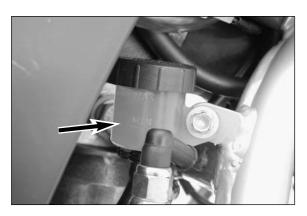
Mount both brake pads and position the locating spring. Push the bolt all the way in and mount the retainer.

Make sure the brake pads and the locating spring are properly mounted.

WARNING

Λ

- It is very important to keep the brake disk free from oil and fatty matters.
 Otherwise, the braking effect would be strongly reduced.
- AFTER ASSEMBLY, CHECK IF CIRCLIPS HAVE BEEN FITTED CORRECTLY.
- HAVING PERFORMED ANY WORK ON THE BRAKING SYSTEM, ONE MUST ALWAYS
 ACTUATE THE HAND BRAKE LEVER OR FOOT BRAKE LEVER, RESPECTIVELY SO AS TO
 ENSURE THAT THE BRAKE PADS WILL LIE AGAINST THE BRAKE DISK AND THE PRESSURE
 POINT IS ESTABLISHED.

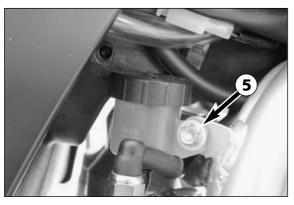


Check the rear brake fluid level

The reservoir for the rear disc brake is located above the main brake cylinder. The level of brake fluid may not fall below the "MIN" mark when the vehicle has been left standing upright

∆ WARNING

If the brake fluid level drops below the minimum either the brake system has a leak or the brake pads are completely worn. In this case, consult an authorized KTM dealer immediately.



Refilling the rear brake fluid reservoir *

When the brake fluid level has dropped to the MIN mark, you need to refill the brake fluid reservoir.

For easier access to the brake fluid reservoir it is recommended to remove the hexagon screw **3**. Then move the container outwards as indicated in the illustration. Remove plug **3** with rubber boot **3** and add brake fluid DOT 5.1 (Motorex Brake Fluid DOT 5.1) up to the "MAX" mark. Replace rubber boot and plug. Overflown or spilled brake liquid must be rinsed off with water. Mount the screw and fix the brake fluid reservoir to the frame, always making sure to prevent kinks in the connecting hose.

∆ WARNING

⚠

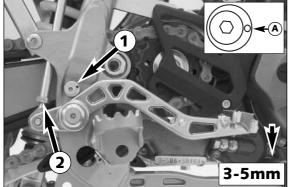
- NEVER USE DOT5 BRAKE FLUID! IT IS BASED ON SILICONE OIL AND OF A PURPLE COLOR. SEALS AND BRAKE HOSES MUST BE ESPECIALLY ADAPTED TO IT.
- STORE BRAKE FLUID OUT OF REACH OF CHILDREN.
- Brake fluid can cause skin irritation. Avoid contact with skin and eyes. If you get brake fluid in your eyes, rinse with plenty of water and consult a doctor.



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- DON'T LET BRAKE FLUID GET IN CONTACT WITH PAINT, IT IS AN EFFECTIVE PAINT REMOVER.
- Use only clean brake fluid taken from a tightly sealed container.





Changing the basic position of the brake pedal *

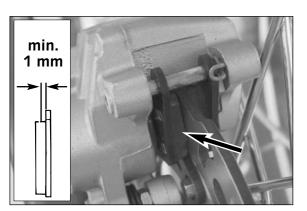
The basic setting of the foot brake pedal can be changed by turning the end stop roller **1**. Using the push rod **2**, the free play on the foot brake pedal must be set.

Measured on the outside, the foot brake pedal must have 3-5 mm of free play, before the push rod can move the piston in the brake cylinder (to be recognised from the resistance on the foot brake pedal).

To keep the stop roller from turning while tightening, insert a hexagon wrench in bore **4**.

CAUTION

IF THIS CLEARANCE IS MISSING, PRESSURE ACCUMULATES IN THE BRAKING SYSTEM AND THE BRAKE PADS BEGIN TO RUB. THE BRAKING SYSTEM OVERHEATS AND CAN FAIL COMPLETELY IN EXTREME CASES.



Checking the rear brake pads

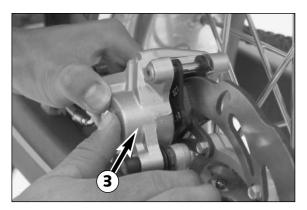
The brake pads can be inspected from the rear. The thickness of the linings may not be less than 1 mm (0.04 in).

WARNING

AT THEIR MOST WORN POINT BRAKE PAD LININGS SHOULD NOT BE THINNER THAN 1 MM, OTHERWISE THEY COULD LEAD TO BRAKE FAILURE. FOR YOUR OWN SAFETY DON'T PUT OFF HAVING YOUR BRAKE PADS CHANGED.

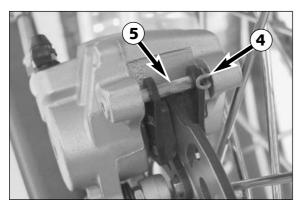
CAUTION

IF THE BRAKE PADS ARE REPLACED TOO LATE SO THAT THE LINING IS PARTLY OR ENTIRELY WORN, THE STEEL COMPONENTS OF THE BRAKE PAD WILL RUB AGAINST THE BRAKE DISC, THEREBY IMPARING THE BRAKING EFFECT AND DESTROYING THE BRAKE DISC.



Replacing the rear brake pads *

Press brake caliper 3 in direction of chain wheel for the brake piston to reach its basic position. Remove safety device 4, knock out the guide pin 5 from the brake caliper with a drift towards the chain wheel and remove brake pads. Carefully clean the brake caliper with compressed air and check sleeves of the guide pins for damage.



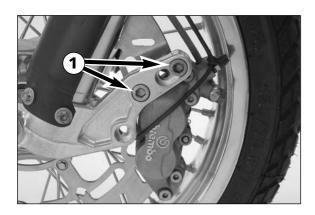
Slide left brake pad into the brake caliper and fix it with the pin. Slide in the right brake pad and knock the bolt in as far as it will go. Mount safety device 4.

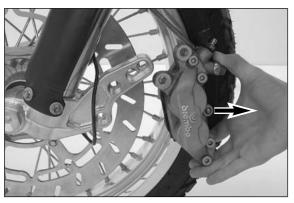


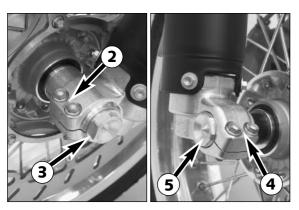
WARNING

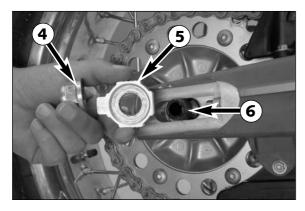
- IT IS VERY IMPORTANT TO KEEP THE BRAKE DISK FREE FROM OIL AND FATTY MATTERS. OTHERWISE, THE BRAKING EFFECT WOULD BE STRONGLY REDUCED.
- AFTER ASSEMBLY, CHECK IF CIRCLIPS HAVE BEEN FITTED CORRECTLY.
- HAVING PERFORMED ANY WORK ON THE BRAKING SYSTEM, ONE MUST ALWAYS ACTUATE THE HAND BRAKE LEVER OR FOOT BRAKE LEVER, RESPECTIVELY SO AS TO ENSURE THAT THE BRAKE PADS WILL LIE AGAINST THE BRAKE DISK AND THE PRESSURE POINT IS ESTABLISHED.













Dismounting and mounting the front wheel

To remove the front wheel, jack the motorcycle up on its frame so that the front wheel no longer touches the ground.

To remove the front brake caliper, remove both screws **1** and pull the caliper backwards from the brake disc.

Loosen both clamp screws 2 on the left fork leg.

Then loosen the collar nuts **3** before loosening the clamp screws **4** on the right fork leg.

Hold the front wheel and withdraw the wheel spindle **6**.

NOTE: The wheel spindle can be easily removed if you slightly revolve it with a ring spanner (SW 27 mm).

Carefully remove the front wheel from the fork.

CAUTION

- DO NOT OPERATE THE HAND BRAKE WHEN THE FRONT WHEEL HAS BEEN DISMOUNTED.
- ALWAYS PLACE THE WHEEL ON THE GROUND WITH THE BRAKE DISC POINTING UPWARDS. OTHERWISE THE BRAKE DISC MAY BE DAMAGED.

To install the front wheel, lift it into the fork, position and mount the axle shaft. Mount the collar nut ③, tighten the clamping screws ④ on the right fork leg axle passage to prevent the axle shaft from turning and tighten the collar nut to 40 Nm.

After mounting the front wheel, slide the brake caliper to the brake disc. Remove the grease from the threads of both screws • and apply Loctite 243. Tighten the screws with 40 Nm.

Loosen the clamp screws on the right fork leg. Take the motorcycle down from its stand. Press the front wheel brakes and push down on the fork a few times vigorously so that the fork legs come into alignment.

Only after this has been accomplished, tighten the clamp screws on both fork legs with 10 Nm.

∆ WARNING

- If you don't happen to have a torque wrench at hand, make sure you
 have the tightening torque corrected by a KTM dealer as soon as
 possible. A loose axle may lead to an unstable driving behavior of your
 motorcycle.
- AFTER MOUNTING THE FRONT WHEEL, KEEP OPERATING THE HAND BRAKE UNTIL THE PRESSURE POINT RETURNS.
- IT IS VERY IMPORTANT TO KEEP THE BRAKE DISK FREE FROM OIL AND FATTY MATTERS,
 EITHERWISE THE BRAKING EFFECTS WOULD BE STRONGLY REDUCED.
- The screws 1 must be secured with Loctite 243.

Dismounting and mounting the rear wheel

To remove the rear wheel, jack the motorcycle up on its frame so that the rear wheel no longer touches the ground.

Loosen the collar nut **4**, remove chain tensioner **5**, hold the rear wheel and pull out the wheel spindle **6** until the rear wheel is free but the brake caliper support is still held. Push the rear wheel as far forward as possible, take the chain from the rear sprocket and carefully take the rear wheel out of the swingarm.

CAUTION

- DO NOT OPERATE THE REAR BRAKE WHEN THE REAR WHEEL HAS BEEN DISMOUNTED.
- ALWAYS PLACE THE WHEEL ON THE GROUND WITH THE BRAKE DISC POINTING UPWARDS. OTHERWISE THE BRAKE DISC MAY BE DAMAGED.
- IF THE AXLE IS DISMOUNTED, CLEAN THE THREAD OF THE WHEEL SPINDLE AND COLLAR NUT THOROUGHLY AND APPLY A NEW COAT OF GREASE (SHELL ADVANCE GREASE) TO PREVENT THE THREAD FROM JAMMING.

The rear wheel is remounted in reverse order. Before tightening the collar nut to 80 Nm, push the rear wheel forwards so that the chain tensioners lie on the tension screws.

MARNING

- IF YOU DON'T HAPPEN TO HAVE A TORQUE WRENCH AT HAND, MAKE SURE YOU HAVE THE TIGHTENING TORQUE CORRECTED BY A KTM DEALER AS SOON AS POSSIBLE. A LOOSE AXLE MAY LEAD TO AN UNSTABLE DRIVING BEHAVIOR OF YOUR MOTORCYCLE.
- AFTER MOUNTING THE REAR WHEEL, KEEP OPERATING THE REAR BRAKE UNTIL THE PRESSURE POINT RETURNS.
- IT IS VERY IMPORTANT TO KEEP THE BRAKE DISK FREE FROM OIL AND FATTY MATTERS,
 EITHERWISE THE BRAKING EFFECTS WOULD BE STRONGLY REDUCED.





| TIRES-AIR PRESSURE | | |
|--------------------|---------|---------|
| | front | rear |
| road | 2,0 bar | 2,2 bar |

Tires, air pressure

Tire type, tire condition, and air pressure level affect the way your motorcycle rides, and they must therefore be checked whenever you are getting ready to go anywhere on your motorcycle.

Tire size can be found in the technical specifications and in their homologation certificate

Tire condition has to be checked every time you want to ride your motorcycle. Before leaving, check tires for punctures and nails or other sharp objects that might have become embedded in them.

Refer to the specific regulations in your country for minimum tire tread requirements. We recommend you replace the tires at the latest when the tread is down to 2 mm.

Tire pressure should be checked regularly on a "cold" tire. Proper pressure ensures optimum driving comfort and extends the life of your tires.

| | Δ | WARNING | Δ |
|---|-----------------|----------------------------------|------------------------|
| _ | Do иот моинт | TIRES WHICH HAVE NOT BEEN APPROV | ED BY KTM. OTHER TIRES |
| | COULD HAVE ADVE | RSE FEFECTS ON THE WAY YOUR MOTO | RCYCLE REHAVES |

- FRONT AND REAR WHEELS MAY ONLY BE FITTED WITH TIRES HAVING THE SAME TREAD
- LAYOUT. USE HOMOLOGATED TIRES.
- FOR YOUR OWN SAFETY REPLACE DAMAGED TIRES IMMEDIATELY.
- Worn tires can have a negative effect on how your motorcycle PERFORMS, ESPECIALLY ON WET SURFACES.
- If air pressure is too low, abnormal wear and overheating of the tire

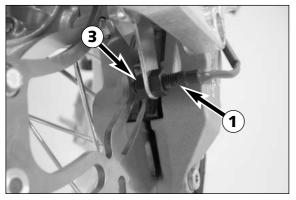


Checking spoke tension

The correct spoke tension is very important for the stability of the wheels and thus for riding safety. A loose spoke causes the wheel to become unbalanced and before long other spokes will have come loose. Check spoke tension, especially on a new motorcycle, in regular intervals. For checking, tap on each spoke with the blade of a screwdriver (see photo). A clear tone must be the result. Dull tones are indicators of loose spokes. If necessary, have the spokes retightened and the wheel centered by a KTM dealer.



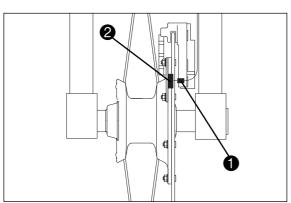
- Spokes can tear if you continue to ride with them loose. This may lead to AN UNSTABLE HANDLING OF YOUR MOTORCYCLE.
- EXCESSIVELY TENSIONED SPOKES MAY RUPTURE DUE TO LOCAL OVERLOADING. THE SPOKES MUST BE TENSIONED TO 4 Nm.

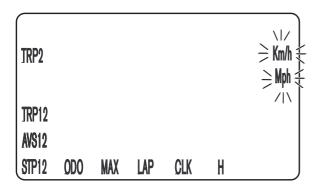


Check/set distance of the magnetic sensor

The distance between the sensor 1 and the magnet 2 must be between 2 and 4 mm. If not, this could cause the speedometer to malfunction.

Loosen the counter nut 3 and correct the clearance by screwing the sensor • in or out.





Kilometers or miles

The unit (kilometers or miles) can also be changed. The ODO figure will be retained and converted accordingly. The TRP1, AVS1, STP1, TRP2 and AVS2 figures will be cleared.

To select the unit, select the SPEED/H mode and hold the MODE button for 3 seconds to access the SETUP menu. Press the MODE button 10 times until the KMH/MPH function blinks. Press the + button to move to the options. Press the + button for KMH or the – button for MPH. If no button is pressed for 20 seconds, the setting will be stored automatically and the display will return to the SPEED/H mode.

The setting can be stored immediately by holding the MODE button for a few seconds until the display returns to the SPEED/H mode.

+ BUTTON to access the menu

to activate the KMH setting

- BUTTON to activate the MPH setting

press the MODE BUTTON to change to the next mode

press and hold the MODE BUTTON 3 SECONDS to store the setting and return to the SETUP menu



Setting the clock

To set the clock, switch the ignition off and select the SPEED/CLK mode. Press and hold the MODE button for 3 seconds. The blinking digits can be changed using the + and – buttons. Press the MODE button to move to the next digit.

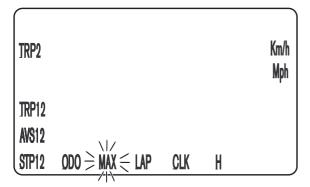
If no button is pressed for 20 seconds, the settings will be stored automatically and the display will return to the SPEED/CLK mode.

+ BUTTON time +

– виттом time –

press the MODE BUTTON to change to the next digit

press and hold the MODE BUTTON 3 SECONDS to store the time and return to the SPEED/CLK mode



Activating/deactivating the display modes

It may not be necessary to display all of the display modes (functions) at the same time. It is possible to conceal any information not currently required. By deactivating certain functions, the MODE button will only allow you to select from the activated modes.

In the SPEED/H mode, press and hold the MODE button for 3 seconds to access the SETUP menu. The blinking function can be activated by pressing the + button and deactivated by pressing the – button.

the + button and deactivated by pressing the – button.

If no button is pressed for 20 seconds, the setting will be stored automatically and the display will return to the SPEED/H mode.

+ BUTTON activates the blinking display

- BUTTON deactivates the blinking display

press the MODE BUTTON to change to the next display without changing any settings

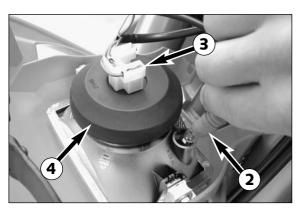
press and hold the MODE BUTTON 3 SECONDS to store the settings and change to the SPEED/H mode



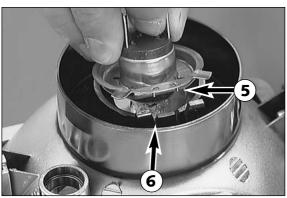


Replacing headlight lamp/parking light lamp

Loosen both rubber bands • and tilt headlight mask to the front.

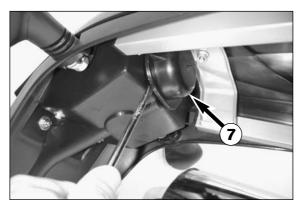


Pull the parking light lamp with holder 2 carefully out of the reflector. Pull connector **3** off the headlamp and remove rubber cap **4**. Disengage retaining clip and take bulb out of reflector. When changing the parkinglight lamp, simply pull it out of the holder.



Insert the new lamp such that the noses **6** engage in the recesses **6** .When doing so, do not touch the glass body of the lamp so that it remains free from fat. Engage retaining clip, mount rubber cap and connector. If the parking-light lamp is to be replaced, simply insert it in the holder. Reinsert the parking-light lamp together with the holder.

Engage the bottom end of the headlamp mask at the retaining pins and fix the mask by means of the rubber bands.



Exchanging the brake light and tail light bulb

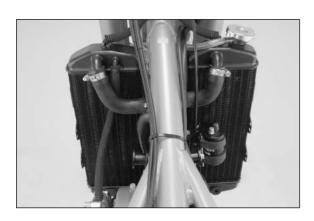
Remove the cap **1** on the underside of the license plate retainer.

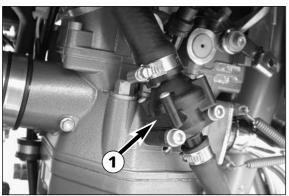


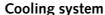
Turn the lamp socket 3 approximately 30° counterclockwise and pull it out of the tail light housing.

Slightly depress the bulb, turn it approx. 30° counterclockwise and pull it out of the socket.

To mount the lamp reverse the worksteps indicated above.







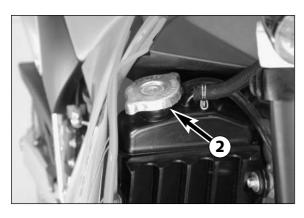
Coolant is circulated by a water pump located in the engine. When the engine is cold the coolant circulates only through the cylinder and the cylinder head. After the engine has reached its operating temperature (about 70°C, 158°F), the thermostat ① opens and the coolant is also pumped through both aluminum radiators.

Air blowing in through the radiators cools the coolant. The slower the speed of the motorcycle, the less the coolant is cooled down. Dirty radiators also reduce the cooling efficiency.

Pressure induced by heating of the coolant in the system is controlled by a valve in the radiator cap ②; a water temperature rising up to 120° C (248° F) is admissible, without fear of problems.

∆ WARNING

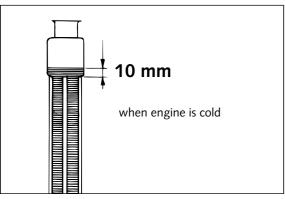
- IF POSSIBLE, ALWAYS CHECK LEVEL OF COOLING LIQUID WHEN ENGINE IS COLD. IF YOU
 HAVE TO OPEN THE RADIATOR CAP WHEN THE ENGINE IS HOT, USE A RAG TO COVER
 THE CAP AND OPEN SLOWLY TO RELEASE PRESSURE. CAUTION SCALDING HAZARD!
- DO NOT DETACH ANY RADIATOR HOSES WHILE THE ENGINE IS HOT. THE ESCAPING HOT COOLANT AND THE STEAM MAY CAUSE SERIOUS BURNS.
- In case you get burnt, hold the affected part of your body under running cold water right away!
- COOLANT IS TOXIC. KEEP THE COOLANT OUT OF THE REACH OF CHILDREN!
- In case coolant is ingested, go see a doctor immediately!
- IF COOLANT GETS INTO YOUR EYES, RINSE THEM OUT WITH WATER IMMEDIATELY AND GO SEE A DOCTOR!



A mixture of 60% anti freeze liquid and 40% water is used as coolant. However, the anti-freeze protection must be at least -25° C (-13° F). This mixture offers anti-freeze protection but also good corrosion protection and should therefore not be replaced by pure water.

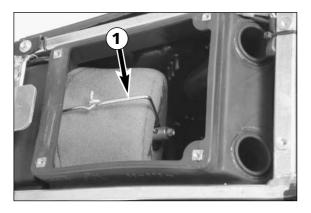
CAUTION

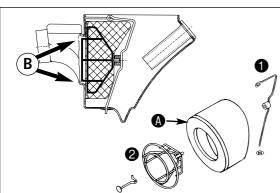
For the cooling system, use only with high-grade antifreeze (Motorex Anti-Freeze). Using lower-grade antifreeze agents, can cause corrosion and coolant foaming.

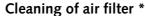


Checking the coolant level

The coolant should be 10 mm (0,4 in) above the radiator fins when the engine is cold (see illustr.). In the event of the coolant being drained, always fill and bleed the system.







To do this, remove the seat and the air filter cover from the air filter box. Unclap the filter holder ①, swing back and remove air filter plus filter carrier from the filter box.

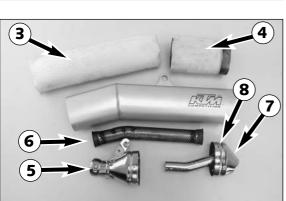
Thoroughly wash the air filter in special cleaning fluid and allow to dry well. Only press out the filter, do not wring out under any circumstances. Oil the dry air filter with a high grade filter oil. Also clean the air filter box. Check carburetor collar for damage and that it is fitted correctly.

Mount the air filter on the filter support ②. Grease the front side ③ of the filter, to improve the seal. Mount the air filter and the filter support in the filter box. Make sure they are centered ⑤, and lock into place with the filter holder ⑥.

CAUTION

- DO NOT CLEAN AIR FILTER WITH FUEL OR PETROLEUM SINCE THESE DAMAGE THE FOAM. KTM RECOMMENDS THE PRODUCTS OF THE COMPANY "TWIN AIR" FOR AIR FILTER MAINTENANCE.
- NEVER OPERATE YOUR MOTORCYCLE WITHOUT AIR FILTER. OTHERWISE, DUST AND DIRT MAY GET INTO THE ENGINE AND LEAD TO INCREASED WEAR.
- HAVING MOUNTED THE AIR FILTER, CHECK IT FOR CORRECT FIT. THE FRONT END
 MUST ABOUT THE AIR FILTER BOX. OTHERWISE, DUST AND DIRT MAY GET INTO THE
 ENGINE AND LEAD TO INCREASED WEAR.





Exhaust system *

Aluminium silencers are filled with glass fiber yarn. If exposed to heat for longer periods of time, however, the glass fiber yarn pack will come unravelled, which can reduce both overall performance and the performance of the silencer. Experience has shown that the front glass fiber pack ③ must be replaced more often than the rear pack ④.

To replace the front glass fiber yarn pack, remove the silencer. Remove the front cap **6**, pull the front glass fiber yarn pack out of the silencer, mount a new pack on the internal exhaust pipe, insert the internal exhaust pipe **6** into the silencer and replace the cap.

To replace the rear glass fiber yarn pack, drill the rivets open and remove the rear cap **3**.

NOTE:

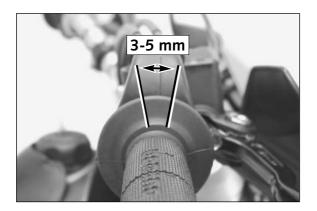
Always renew the O-rings 8.

Glass fiber yarn packs are available in your KTM store.

∆ WARNING

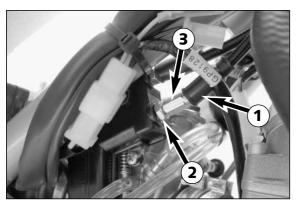
The exhaust system becomes very hot while the motorcycle is running. To avoid burns Do not start work on the exhaust system until it has properly cooled down.





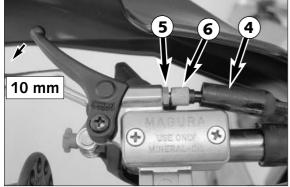
Adjusting the throttle cable *

The throttle grip should always provide for a backlash of 3-5 mm (0,12-0,20 in). Besides, with the engine running, the idling speed must not change if you turn the handlebar all the way to the left or right.



To adjust the throttle cables, dismount the seat and the tank together with spoilers. Slide back the protection cover 1. Loosen the counter nut 2 and turn the adjusting screw 3 accordingly. Turning the adjusting screw counterclockwise will reduce the backlash, turning the adjusting screw clockwise will increase the backlash.

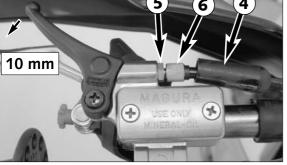
Tighten the counter nut and check whether the throttle grip can be actuated smoothly. Mount tank and seat.



Checking the adjustment of the hand decompression cable *

To check, set piston at compression, so that the valves are closed. While doing this, slowly operate the kickstarter through its stroke until the clicking sound (disengaging) of the automatic decompression can be heard. Now the decompression lever must be operated 10 mm until resistance is felt (the exhaust valves begin to open).

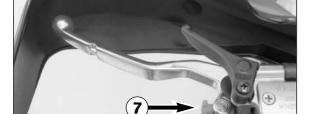
To adjust, move back the protective cover 4, loosen the counter nut 5 and correct the adjustment screw @ accordingly. Tighten counter nut and push back protective cover.



CAUTION

The setting of the decompression cable should be checked regulary. If there IS NO PLAY IN THE DEKO-LEVER, THIS CAN RESULT IN ENGINE DAMAGE.

No adjustment need be made to the automatic decompressor.



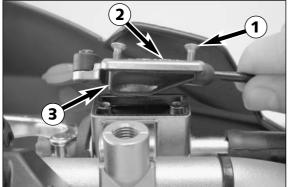
Changing the original position of the clutch lever

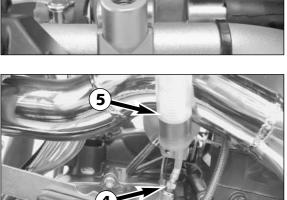
The adjusting screw **o** can be used for individual adjustment of the original position of the clutch lever, thus allowing adjustment to an optimal position for every hand size.

Turning the adjusting screw clockwise reduces the distance between the clutch lever and the handlebar. Turning the adjusting screw counterclockwise increases the distance between the clutch lever and the handlebar.

CAUTION

ADJUSTMENT OF THE CLUTCH LEVER POSITION IS ONLY POSSIBLE WITHIN CERTAIN LIMITS. ONLY TURN THE ADJUSTING SCREW MANUALLY AND NEVER APPLY EXCESSIVE FORCE.







To check the oil level in the master cylinder of the clutch remove the cover. For this purpose, remove screws 1 and cover 2 together with the rubber boot 3. The oil level in the horizontal-standing master cylinder should be 4 mm below the upper edge.

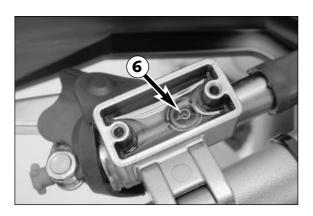
If necessary, fill up with biodegradable hydraulic oil SAE 10 (e.g. Shell Naturelle HF-E15). Biodegradable hydraulic oil is available from your KTM dealer (50ml).

CAUTION

- KTM USES BIODEGRADABLE HYDRAULIC OIL FOR THE HYDRAULIC CLUTCH CONTROL. NEVER MIX BIODEGRADABLE HYDRAULIC OILS WITH MINERAL OILS.
- ALWAYS USE BIODEGRADABLE HYDRAULIC OIL SAE 10 TO FILL UP THE MASTER CYLINDER. NEVER REFILL WITH MINERAL HYDRAULIC OIL OR BRAKE FLUID.

Bleeding of the hydraulic clutch

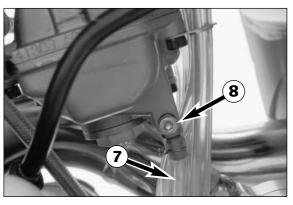
To bleed, the cover of the master cylinder of the clutch needs to be removed. For this purpose, remove screws • and take off cover • together with rubber bellows 3. At the slave cylinder of the clutch, remove the bleeder nipple 4. In its place, mount the bleeder syringe 5 which is filled with SAE 10 hydraulic oil. Refill oil until oil is discharged from the bore 6 of the master cylinder in a bubble-free state. Make sure that the oil does not overflow. The bleeder syringe can be purchased from your KTM dealer.



Having completed the bleeding procedure, you have to verify that the oil level in the master cylinder is correct. If necessary, fill up with biodegradable hydraulic oil SAE 10 (e.g. Shell Naturelle HF-E15). Biodegradable hydraulic oil is available from your KTM dealer (50ml).

CAUTION

- KTM uses biodegradable hydraulic oil for the hydraulic clutch control. NEVER MIX BIODEGRADABLE HYDRAULIC OILS WITH MINERAL OILS.
- ALWAYS USE BIODEGRADABLE HYDRAULIC OIL SAE 10 TO FILL UP THE MASTER CYLINDER. NEVER REFILL WITH MINERAL HYDRAULIC OIL OR BRAKE FLUID.



Draining the float chamber of the carburetor

Following every wet cleaning procedure, the float chamber of the carburetor should be drained in order to remove any water that may have penetrated into it. Water in the float chamber causes malfunctioning. Perform this task on a cold engine.

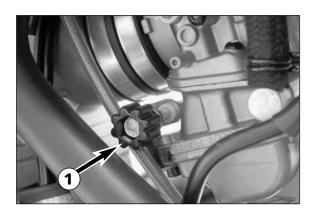
Close the fuel tap and put one end of the hose on into a collecting vessel. Open the drain plug (turning it counterclockwise) by serval turns, and drain the fuel from the float chamber.

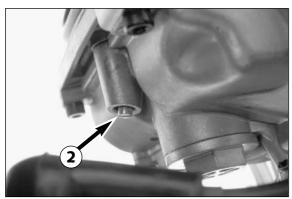
Then, retighten the drain plug and open the fuel tap.

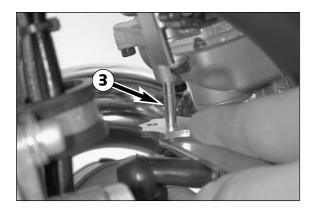
WARNING

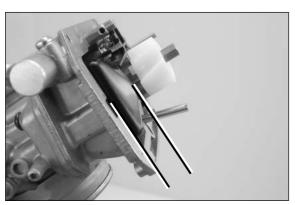
- FUEL IS EASILY FLAMMABLE AND TOXIC. WHEN HANDLING FUEL, BE SURE TO EXERCISE THE UTMOST CAUTION. NEVER PERFORM ANY WORK ON THE FUEL SYSTEM IN THE PROXIMITY OF OPEN FLAMES OR BURNING CIGARETTES.
- ALWAYS ALLOW THE ENGINE TO COOL OFF FIRST. IMMEDIATELY CLEAN UP ANY FUEL WHICH MAY HAVE BEEN SPILLED. MATERIALS SATURATED WITH FUEL ARE ALSO EASILY FLAMMABLE. IN CASE YOU INGESTED FUEL OR FUEL SPLASHED INTO YOUR EYES, CONSULT A DOCTOR IMMEDIATELY.
- DISPOSE THE FUEL PROPERLY!

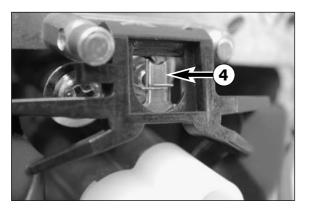












CARBURETOR - Adjust idling (Keihin-FCRMX 41) *

Idling adjustment of the carburetor strongly affects the engine's starting behavior. That is, an engine whose idling speed is adjusted correctly will be easier to start than one whose idling speed has not been adjusted correctly.

The idle speed is controlled by means of the adjusting wheel • and the mixture control screw •. The adjusting wheel is used to adjust the basic setting of the slide. The mixture control screw is used to control the idle mixture which arrives at the engine by way of the idle system. Clockwise turning reduces the fuel quantity (lean mixture), counterclockwise turning increases the fuel quantity (rich mixture).

TO ADJUST IDLING CORRECTLY, PROCEED AS FOLLOWS:

- 1 Turn in mixture control screw 2 up to the stop, and turn it back out to the basic position (see technical date-engine)
- 2 Warm up the engine
- 3 Use the adjusting wheel **1** to set the normal idle speed (1400 1500 rpm).
- 4 Turn mixture control screw slowly clockwise until idling speed starts to decrease. Memorize this position, and turn mixture control screw slowly counterclockwise until the idling speed decreases again. Adjust the point of the highest idling speed between these two positions. If, in the course of this procedure, the speed undergoes a relatively high increase, reduce the idle speed to a normal level and repeat the procedure specified in 4. Serious competitive racers will choose a setting approx. 1/4 turn (clockwise) leaner than this ideal value because their engine will heat up more when used in competitions.

NOTE: If you fail to obtain a satisfying result by following the procedure described above, an incorrectly dimensioned idling nozzle may be the cause. If:

- a) the mixture control screw has been screwed in up to the stop without causing any change in rotational speed, a smaller idling jet has to be installed;
- b) the engine dies when the mixture control screw is still open by 2 turns, a larger idling jet needs to be selected.
- Naturally, in cases of jet changes, you have to start your adjusting work from the beginning.
- 5 Then, use the adjusting wheel to set the desired idle speed.
- 6 In cases of greater changes in the outside temperature and extremely different altitudes, the idling speed should be readjusted.

Basic information on carburetor wear

As a result of engine vibrations, the throttle valve, jet needle, and needle jet are subjected to increased wear. This wear may cause the carburetor to malfunction (e.g., overly rich mixture). Therefore, these parts should be replaced after 200 hours.

Adjusting the mixture control screw *

Introduce the special tool on the mixture control screw 2 at the carburetor bottom. Press the tool slightly upward and turn the adjusting wheel 3 until the tool engages the slot of the mixture control screw.

Now, you can go about adjusting the screw. Marks were provided on the adjusting wheel, making it easier to keep track of the turns.

Checking the float level (float height) *

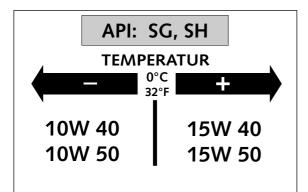
For this purpose, dismount the carburetor and remove the float chamber. Hold the carburetor in a slanted position such that the float will abut the float needle valve but not compress it.

In this position, the edge of the float should be parallel with the float chamber sealing surface (see illustration).

If the float height does not correspond to the desired value, check the float needle valve and, if necessary, replace it.

If the float needle valve is o.k., you can adjust the float height by bending the float lever **4**.

Mount the float chamber, install the carburetor, and adjust the idle speed.

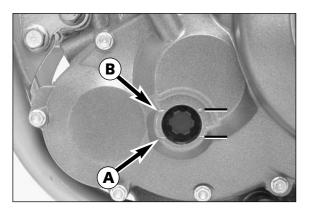


Engine oil

Only use synthetic high-quality oils (Motorex Power Synt 4T) meeting or surpassing the quality requirements of API classes SG, or SH (for specifications see containers).

! CAUTION !

Insufficient oil or poor quality oil results in premature wear of the engine.



Checking the engine oil level

The engine oil level can be checked when the engine is cold or warm. To check, place the motorcycle in an upright position on a level surface.

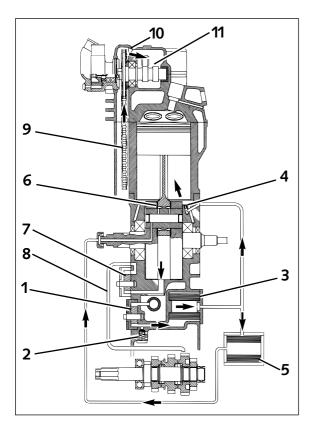
If the engine is cold, the oil level should be visible at the lower edge **(4)** of the inspection glass.

If the engine is warm, the oil level should be visible at the upper edge **1** of the inspection glass.

Add engine oil if necessary.

! CAUTION

- Insufficient amounts of or low-grade engine oil lead to premature wear in the engine.
- DO NOT OVERFILL THE ENGINE CASE.
- DO NOT UNDERFILL THE ENGINE CASE.

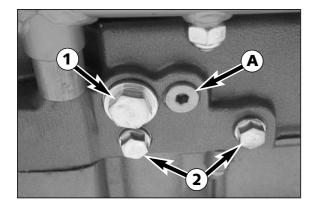


Oil circuit

The oil pump ① pumps the engine oil past the by-pass valve ② through the oil filter ③. After the oil filter, an oil lead branches off to a jet ④ which sprays engine oil onto the piston pin bearing and piston head. The second oil lead takes the main flow of oil to the microfilter ⑤, which filters out even the finest impurities.

The cleaned engine oil is pumped through the oil lead and the clutch cover into the crankshaft to the connecting rod bearing ③ and drips into the crankcase. An additional oil pump ④ sucks the engine oil out of the crankcase and pumps it through the oil line ③ to the gear wheels of the 4th and 5th gear.

Via the gear wheels, the engine oil reaches the oil sump. The timing chain ② runs through the oil sump and transports the engine oil upwards to the cylinder head. Through the bore ① the oil reaches the camshaft ① and the valves.



Changing the engine oil *

The engine oil change is to be carried out when the engine is still warm.

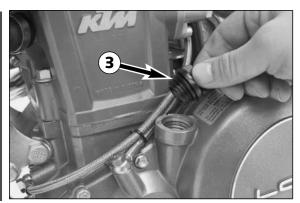
| | | | | NG | | | | <u> </u> | | | | | | |
|---|--------|------|-----|-------|-----|-----|--------|----------|------|-------|------|-----|---|----|
| Ε | HAVING | BEEN | RUN | WARM. | AND | THE | ENGINE | OIL | IN I | T ARE | VERY | НОТ | _ | DO |

An engine having been run warm, and the engine oil in it are very hot - do not burn yourself.

Place the motorbike on a horizontal surface. Remove the plugs (lacktriangleta and lacktriangleta, and drain oil into a container.

| ! | CAUTION | ! |
|---|---------|---|
| | | |

THE SCREW PLUG **4** MUST NOT BE REMOVED, THIS IS PART OF THE BY-PASS VALVE.

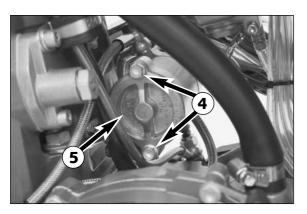


Clean the plugs thoroughly with a fireproof solvent and compressed air, in order to remove the metal abrasion. After all the oil has drained through, clean raised and flat faces and install plugs with seals. Tighten plug • with 30 Nm and plugs • with 20 Nm.

Remove screw connection **6** on the clutch cover and add 1.5 liters of engine oil (e.g. Motorex Power Synt 4T).

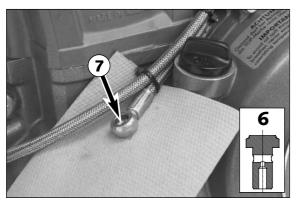
Start the engine and check all screw connections and the oil filter cover for leakage.

Check the engine oil level and correct if necessary.

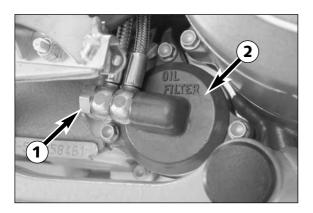


Changing and bleeding the microfilter *

Replace the microfilter while changing the engine oil. To do so, remove hexagon screws ② and take off the microfilter cover ⑤. Remove the microfilter, clean its parts and check the O-ring on the microfilter lid for signs of damage. Before installing the new micro filter, soak it in clean engine oil. Place a new microfilter in the filter housing, apply a thin layer of grease to the O-ring and mount the microfilter cover.

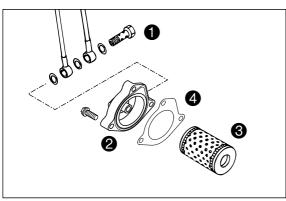


It is necessary to bleed the micro filter so that all friction areas can be quickly supplied with engine oil. To do this, fill with oil and remove the jet screw from the oil line on the clutch cover. Start the engine and close off the oil filler hole on the clutch cover with a rag. Allow the engine to run at idle until oil runs out of the oil line Turn the engine off. Install seal rings and the jet screw. Torque the jet screw to 10 Nm and check for leaks.



Changing oil filter *

Replace the oil filter when changing the engine oil. Press the foot brake pedal and place a screwdriver or similar between foot brake pedal and stopper roll so that the oil filter cover is more accessible. Remove banjo bolt and the three screws. Remove oil filter cover and oil filter. Clean the filter case, oil filter cover and sealing areas. Make sure the oil duct in the oil filter cover is not clogged.



Place the new oil filter ③ on the connection in the oil filter cover and mount together with a new seal ④. Tighten the 3 screws in the filter cover to 5 Nm. Tighten the hollow screw with seals and tighten to 15 Nm. Finally, start the engine and check the oil system for leakage.

TROUBLE SHOOTING

If you let the specified maintenance work on your motorcycle be carried out, disturbances can hardly be expected. Should an error occur nevertheless, we advise you to use the trouble shooting chart in order to find the cause of error.

We would like to point out that many operations cannot be performed by oneself. In case of uncertainty, please contact a KTM-dealer.

| TROUBLE | CAUSE | REMEDY |
|--------------------------|---|--|
| Engine will not start | Operating error | Switch on ignition, switch on emergency OFF switch, open fuel tap, tank fuel, do not use choke. Pay attention to starting off information (see driving instructions). |
| | The motorcycle has been out of operation for a longer period of time. Therefore old fuel has accumulated in the float chamber | |
| | Fuel supply interrupted | Close fuel tap, loosen fuel hose at carburettor, lead into a basin and open fuel tap, – if fuel leaks out, clean carburetor – if no fuel leaks out, check tank ventilation, i.e. clean fuel tap |
| | Flooded engine | In order to "pump the engine free", pull the hand decompression lever, fully rev up the engine, actuate the kickstarter 5 to 10 times. Then, start the engine as described above. If the engine fails to start, unscrew the spark plug and dry it. |
| | Sooty or wet spark plug | Clean or replace spark plug |
| | Electrode gap too large | Adjust spark plug electrode gap to 0,9 mm |
| | Spark plug connector or spark plug faulty | Dismount spark plug, connect ignition cable, hold to ground (blank place on engine) and actuate kickstarter, a strong spark must be produced at the spark plug – If no spark is produced, loosen spark plug cap from ignition cable, hold about 5 mm from ground and actuate kickstarter – If a spark now occurs, replace spark plug cap – If no spark is produced, control ignition system |
| | If connector oxidates from generator to ignition coil | Remove fuel tank, clean connector and treat with contact spray |
| | Short circuit cable scored in wiring harness, ignition lock, emergency OFF switch or short circuit button faulty | Remove fuel tank, draw off black/yellow cable from cable of ignition coil and check spark. — If a spark is produced, seek fault in short circuit current |
| | Water in short emergency OFF switch | Remove 2-pole connector located underneath the headlight mask, treat emergency OFF switch with contact spray |
| | The plug connection of the CDI- unit, the pulse generator or the ignition coil has oxydized | Remove the seat and the fuel tank. Clean the plug connection and treat it with contact spray |
| | Water in carburetor or jets blocked | Dismount and clean carburetor |
| | Carburetor does not fit in properly at intake flange | Check if carburetor is fitted in correctly |
| | Idling jet blocked | Dismount carburetor and clean jets |
| Engine will not idle | Adjusting screws on carburetor uncorrect adjusted | Adjust carburettor |
| | Ignition system faulty | Have ignition system checked |
| Engine does not rev high | Carburetor fuel level too high because float needle valve is dirty or worn out | Dismount carburetor and check if worn out |

| TROUBLE | CAUSE | REMEDY |
|---|---|---|
| Engine does not rev high | Loose carburetor jets | Tighten jets |
| | Electronical ignition timing faulty | Have ignition system checked |
| Engine will not reach full power | Fuel supply partically interrupted or carburetor dirty | Clean and check fuel system as well as carburetor |
| | float is not tight | replace the float |
| | Air filter very dirty | Clean or replace air filter |
| | Exhaust system is not tight, deformed, or the silencer contains not enough glass fiber yarn | Check if exhaust is damaged, replace glas fibre yarn in exhaust silencer |
| | Valve gap to small | Adjust valve gap |
| | Loss of compression because hand decompressor has no play | Check setting of the hand decompression cable |
| | Electronical ignition timing faulty | Have ignition system checked |
| Engine stops or splutters in carburetor | Insuffient fuel | Clean and check fuel system and carburetor |
| Carburetor | Engine takes air out of control | Check intake flange and carburetor if firmly setted |
| Engine gets too hot | Insufficient cooling liquid | Refill cooling liquid (see maintenance work), check cooling system for leaks |
| | Not enough air stream | Drive on briskly |
| | Radiators very dirty | Clean radiators with water jet |
| | Foam formation in cooling system | Replace cooling liquid, use anti freeze liquid with brand name |
| | Bent cooling hose | Shorten or replace cooling hose |
| | Thermostat defective | Dismount and check thermostat (opening temperature 70°C, (158°F) or replace it |
| High oil consumption | Buckling gearing ventilation hose | Dislocate i.e. replace non-buckling ventilation hose |
| | Engine oil level too high | Check engine oil level when the engine is warm; correct if necessary |
| | Motor oil too thin (viscosity) | Use thicker engine oil; see chapter "Engine oil" |
| All switched on lamps blown out | Capacitor or voltage regulator faulty | Remove right side cover and control connections. Have capacitor and voltage regulator checked |
| | | |

CLEANING

Clean your motorcycle regularly in order to maintain the beauty of its plastic surfaces.

The best manner would be to use warm water that has been mixed with a normal trade washing detergent and a sponge. The hard dirt can be removed before with the help of a soft water jet.

CAUTION

1.0

Never clean your motorcycle with a high-pressured cleaner or a high-pressured water jet. The water could otherwise run into the electrical components, connectors, sheathed cables, bearings, carburetor etc. and cause disturbings or lead to a premature destruction of these parts.

- You should use normal trade-mark detergents to clean the engine. Strongly dirted parts should be cleaned additionally with the help of a paint brush.
- After the motorcycle has been rinsed with a soft water jet, it should be dried by air pressure and a cloth. Then take a short drive until the engine has reached the working temperature and also use the brakes. Due to the heat, the water also evaporates at the unapproachable parts of the engine and the brakes.
- Slide back the protective covers on the handlebar-mounted instruments so that any water that may have seeped into this part of the motorcycle is allowed to evaporate.
- After the motorcycle has cooled down, oil and grease all sliding and pivot points. Treat the chain with a chain spray too.
- To prevent failures in the electric system, you should treat the ignition lock, the emergency OFF switch, light switch and the socket connectors with contact spray.

CONSERVATION FOR WINTER OPERATION

In the event that the motorcycle is also used in winter and on roads where one has to expect salt spraying, you will have to take precautions against the aggressive road salt.

- clean motorcycle thoroughly and let it dry
- treat engine, carburetor, swing arm, and all other bare or galvanized parts (except for brake discs) with a wax-based anti-corrosion agent.

 \triangle WARNING \triangle

KEEP ANTI-CORROSION AGENT FROM GETTING INTO CONTACT WITH THE BRAKE DISCS, FOR OTHERWISE THIS WILL SIGNIFICANTLY REDUCE THE BRAKING POWER.

! CAUTION !

AFTER RIDES ON SALTED ROADS, CLEAN MOTORCYCLE THOROUGHLY WITH COLD WATER AND LET IT DRY WELL!

STORAGE

Should you desire to make a pause over a longer space of time, please observe the following instructions:

- Clean motorcycle thoroughly (see chapter: CLEANING)
- Change engine oil, oil filter and fine screen filter (old engine oil contains aggressive contaminations).
- Check antifreezer and amount of cooling liquid.
- Warm up the engine once again, close the fuel cock and wait until the engine dies. Then open the drain plug of the float chamber to remove the remaining fuel.
- Remove spark plug and fill in approx. 5 ccm of engine oil into the cylinder through the opening. Actuate kick-starter 10 times in order to distribute the oil onto the cylinder walls and mount the spark plug.
- Set piston to compression so that the valves will be closed (slowly operate the kickstarter, until you can hear the automatic decompressor click (release)
- Let fuel flow out of tank into an appropriate container.
- Correct tire pressure.
- Lubricate pivot points of the control levers, foot rests, etc. as well as the chain.
- Service the shock absorber linkage
- The storage place should be dry and not subject to excessive temperature fluctuations.
- Cover the motorcycle with an air permeated tarpaulin or blanket. Do not use non air permeable materials as a possible humidity might not be able to escape and could cause corrosion.

! CAUTION

It would be very bad to let the engine run for a short time during the storage period. The engine would not get warmed up enough and the thus developed steam would condense during the combustion process and cause the valves and exhaust to rust.

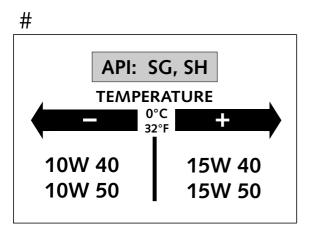
RE-INITIATION AFTER TIME OF STORAGE

- Fill up tank with fresh fuel.
- Check motorcycle as before each start (see driving instructions).
- Take a short, careful test ride first.

NOTE: Before you put your motorcycle away for the winter, you have to check all parts for their function and wear. Should any service jobs, repairs, or any refitting be necessary, you should have them carried out during the off-season (lower workload at mechanics' shops). This way, you can avoid the long waiting times at your mechanic at the beginning of the next biking season.

TECHNICAL SPECIFICATIONS - ENGINE 660 SMC 2003

| Engine | 660 SMC | | | | |
|------------------------|--|--|--|--|--|
| Design | Liquid-cooled single cylinder 4-stroke engine with balancer shaft | | | | |
| Displacement | 653 ccm | | | | |
| Bore / Stroke | 102 / 80 mm | | | | |
| Ratio | 11,5 : 1 | | | | |
| Fuel | unleaded premium gasoline with a least RON 95 | | | | |
| Valve timing | 4 valves over rocker arm and 1 overhead camshaft, camshaft drive through single chain | | | | |
| Camshaft | 586-V039 | | | | |
| Valve diameter | Intake: 36 mm Exhaust: 32 mm | | | | |
| Valve clearence cold | Intake: 0,15 mm Exhaust: 0,15 mm | | | | |
| Crank shaft bearing | 2 cylinder roller bearing | | | | |
| Connecting rod bearing | needle bearing | | | | |
| Top end bearing | bronze bushing | | | | |
| Piston | forged aluminium alloy | | | | |
| Piston rings | 1 compression ring, 1 taper face ring, 1 oil scraper ring | | | | |
| Engine lubrication | two Eaton-oilpumps | | | | |
| Engine oil see table # | | | | | |
| Engine oil quantity | 1,6 liters (0,42 US gallons) | | | | |
| Primary ratio | straight geared spur wheels 31 : 79 teeth | | | | |
| Clutch | multi disc clutch in oil bath | | | | |
| Transmission | 5-speed claw shifted | | | | |
| Gear ratio | 1st 14:35 | | | | |
| | 2nd 15:24 | | | | |
| | 3rd 18:21 | | | | |
| | 4th 20:19 | | | | |
| | 5th 22:18 | | | | |
| Ignition system | contactless DC-CDI ignition with digital advanced system type KOKUSAN | | | | |
| Ignition timing | adjustment to max. 38 ° BTDC at 6000 rpm | | | | |
| Generator | 12V 200W | | | | |
| Spark plug | NGK DCPR8 E | | | | |
| Spark plug gap | 0,9 mm | | | | |
| Cooling system | liquid cooled, permanent rotation of cooling liquid through mechanic driven water pump | | | | |
| Cooling liquid | at least –25°C (–13°F) | | | | |
| Starting equipment | kickstarter | | | | |



Engine oil

Use only synthetic oil brands, which meet quality requirements (Motorex Power Synt 4T) of API-classes SG or SH (informations on bottles) or higher.

POOR OIL QUALITY OR MINOR QUANTITY EFFECT EARLY ENGINE-WEAR.

! CAUTION !

| BASIC CARBURATOR SETTING | | | |
|----------------------------|------------------|--|--|
| | 660 SMC | | |
| | | | |
| Туре | Keihin FCR-MX 41 | | |
| Carburator-setting number | 4138A | | |
| Main jet | 165 | | |
| Jet needle | OBDVT | | |
| Idling jet | 42 | | |
| Main air jet | 200 | | |
| Idling air jet | 100 | | |
| Needle position | 5. rd from top | | |
| Starting jet | 85 | | |
| Mixture control screw open | 2 | | |
| Slide | 15 | | |
| Performance restrictor | Slide stop | | |
| Stop pump membrane | 858 / 2,15 mm | | |
| Hot start device | 3,8 mm | | |

TECHNICAL SPECIFICATIONS - CHASSIS 660 SMC 2003

| | 660 SMC | | |
|--------------------------|--|--|--|
| Frame | Central chrome-moly-steel frame | | |
| Fork | White Power 4860 MXMA | | |
| Wheel travel front/rear | 265 / 310 mm (10,6 / 12,4 in) | | |
| Rear suspension | Central shock absorber (WP BAVP4681) with PRO-LEVER linkage to rear- swing-arm with needle bearing | | |
| Front brake | Disc brake with carbon-steel brake disc, and 4 piston brake caliper | | |
| Front brake disc | Ø 320 mm (12,8 in) | | |
| Rear brake | Disc brake with carbon-steel brake disc Ø 220 mm (8.8 in), brake caliper floated | | |
| Tyres front | 120/70-17 | | |
| Air press. | 2 bar (29 psi) | | |
| Tyres rear | 160/60-17 | | |
| Air press. | 2,2 bar (31 psi) | | |
| Fuel tank capacity | 9 liter (2,3 US gallons), 2.5 liter (0,6 US gallons) reserve | | |
| Final drive ratio | 16:38 | | |
| Chain | X – Ring 5/8 x 1/4" | | |
| Bulps | headlight | | |
| | parking light12V 5W (socket W2,1x9,5d) | | |
| | indicator lamps12V 1,2W (socket W2x4,6d) | | |
| | brake – rear light 12V 21/5 W (socket BaY15d) | | |
| | flasher light | | |
| | license plate illmination 12V 5W (socket W2,1x9,5 d) | | |
| Steering angle | 63 ° | | |
| Wheel base | 1510 ± 10 mm (59.4 ± 0.4 in) | | |
| Seat high | 910 mm (36,4 in) | | |
| Ground clearance | 290 mm (11,6 in) | | |
| Dead weight without fuel | 131 kg (289 lbs) | | |

| STANDARD ADJUSTMENT - FORK | | | |
|----------------------------|-------------|--|--|
| | 660 SMC | | |
| | WP 1418X738 | | |
| Compression adjuster | 20 | | |
| Rebound adjuster | 15 | | |
| Spring | 4,4 N/mm | | |
| Spring preload | 28 mm | | |
| Air chamber length | 110 mm | | |
| Fork oil | SAE 5 | | |

| STANDARD-ADJUSTMENT-SHOCK ABSORBER | | | |
|------------------------------------|------------------------|--|--|
| | 660 SMC WP 0118X730 | | |
| Compression adjuster | 4 | | |
| Rebound adjuster | 8 | | |
| Spring | 70 / 260 | | |
| Spring preload | 22 mm | | |

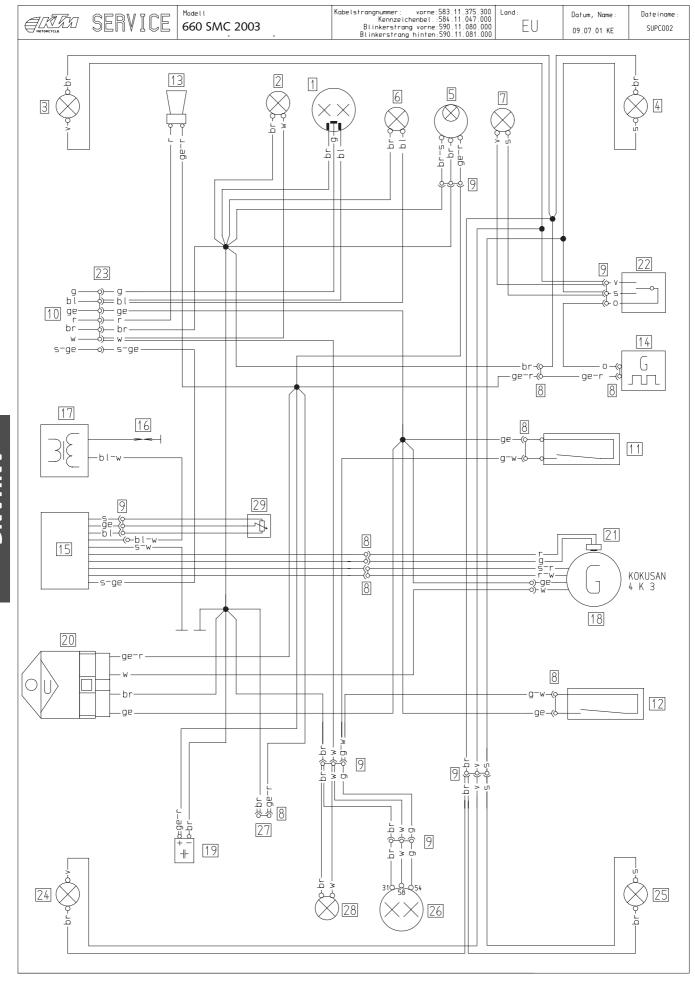
| TIGHTENING TORQUES - CHASSIS 660 SMC 2003 | | | | |
|---|------------|---------------------|--|--|
| Collar nut front axle | M24x1,5 | 40 Nm | | |
| Collar nut rear axle | M20x1,5 | 80 Nm | | |
| Shock absorber top | M10 (10.9) | 45 Nm | | |
| Shock absorber bottom | M10 (10.9) | 45 Nm | | |
| Collar screws brake disk front | M6 (10.9) | Loctite 243 + 10Nm | | |
| Collar screws brake disk rear | M6 (10.9) | Loctite 243 + 10Nm | | |
| Allan head screw brake caliper front | M10 | Loctite 243 + 40 Nm | | |
| Bearing bolt linkage arm/frame | M12 | 60 Nm | | |
| Collar nuts rocker arm bolts | M14x1,5 | 100 Nm | | |
| Engine mounting screw | M10 | 45 Nm | | |
| Ball joint for push rod | M8 | Loctite 243 + 25 Nm | | |
| Sprocket screws on nuts | M8 | Loctite 243 + 35 Nm | | |
| Collar nut swingarm bolt | M14x1,5 | 100 Nm | | |
| Clamping screws top triple clamp | M8 | 20 Nm | | |
| Clamping screws bottom triple clamp | M8 | 15 Nm | | |
| Clamping screws fork stubs | M8 | 10 Nm | | |
| Screws handlebar clamp | M8 | 20 Nm | | |
| Allan head screw handle bar support | M10 | Loctite 243 + 20 Nm | | |
| Spoke nipple | M4 | 4 Nm | | |
| Other screws/collar nuts on chassis | M6 | 10 Nm/15 Nm | | |
| | M8 | 25 Nm/30 Nm | | |
| | M10 | 45 Nm/50 Nm | | |

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KTM 660 SMC 2003

| Deutsch | Englisch | Italienisch | Französisch |
|-------------------------|-------------------------|--------------------------|-------------------------|
| 1 Scheinwerfer | 1 headlight | 1 faro | 1 phare |
| 2 Standlicht | 2 position light | 2 luce di posizione | 2 feu de position |
| 3 Blinker li vo | 3 turn indic left fr | 3 lampegg.ant.sn. | 3 clignoteur av gauche |
| 4 Blinker re vo | 4 turn indic right fr | 4 lampegg ant dx | 4 clignoteur av droit |
| 5 Tacho | 5 speedometer | 5 tachimetro | 5 compteur de vitesse |
| 6 Fernlichtkontrolle | 6 high beam indicator | 6 spia abbagliante | 6 temoin feu route |
| 7 Blinkerkontrolle | 7 turn indicator | 7 spia lampeggiatori | 7 temoin de clignoteur |
| 8 2-pol Stecker | 8 multip.cont.plug (2) | 8 connettore a 2 poli | 8 connect multiple (2) |
| 9 3-pol.Stecker | 9 multip.cont.plug (3) | 9 connettore a 3 poli | 9 connect.multiple (3) |
| 10 zum Kombischalter | 10 to combinat, switch | 10 multicomando | 10 commodo |
| 11 Bremslichtsch. vo | 11 stoplight switch f. | 11 int luce arresto ant | 11 contact de stop av. |
| 12 Bremslichtsch. hi | 12 stoplight switch r | 12 int luce arresto post | 12 contact Harr de stop |
| 13 Horn | 13 horn | 13 clacson | 13 klaxon |
| 14 Blinkgeber | 14 turn indicator | 14 trasmett di lampeg | 14 centrale clignot |
| 15 CDI | 15 CDI | 15 CDI | 15 CDI |
| 16 Zündkerze | 16 spark plug | 16 candela | 16 bougie |
| 17 Zündspule | 17 ignition coil | 17 bobina d'accens | 17 bobine d'allumage |
| 18 Generator | 18 generator | 18 dinamo | 18 generateur |
| 19 Kondensator | 19 capacitor | 19 condensatore | 19 condensateur |
| 20 Spannungsregler | 20 voltage regulator | 20 regol. di tens | 20 regulateur |
| 21 Impulsgeber | 21 pulser coil | 21 trasmett d'impulsi | 21 generateur d'impuls |
| 22 Blinkerschalter | 22 blink switch | 22 int. lampeggiatori | 22 contact d clignateur |
| 23 6-pol.Stecker | 23 multip cont plug (6) | 23 connettore a 6 poli | 23 connect multiple (6) |
| 24 Blinker li hi | 24 blinker left rear | 24 lampegg.post.sn | 24 clign arr gauche |
| 25 Blinker re hi | 25 blinker right rear | 25 lampegg.post.dx. | 25 clign arr droite |
| 26 Brems-Schlußlicht | 26 rear-stoplight | 26 fanal post di freno | 26 feu arr et de stop |
| 27 Lüfteranschluss | 27 fan connection | 27 connett. ventilatore | 27 connect.ventilateur |
| 28 Kennzeichenbeleucht. | 28 licence plt.lighting | 28 illuminat.de.targa. | 28 ecliplaque d'immati |
| 29 Vergaserpotentiomet | 29 carburetor potentiom | 29 carburatore potent. | 29 carburateur potenti. |

| De | eutsch | En | glisch | Ita | lienisch | Fra | nzösisch | Spc | nisch |
|----------|--|----------|---|----------|---|-----|--|----------|--|
| br ge | blau braun gelb grau grün orange rot | br ge | blue brown yellow grey green orange red | br ge | blu marrone giallo grigio verde arancione rosso | br | bleu brun jaune gris vert orange rouge | br ge | azul marron amarillo gris verde naranja rojo |
| 5 | schwarz | 5 | black | 5 | nero | 5 | noir | 5 | negro |
| V | violett | ٧ | violet | ٧ | violetto | v | violet | v | violeta |
| w | weiß | w | white | w | bianco | w | blanc | w | blanco |

Kontaktbelegung — Lichtschalter (Typ CEV 9610)

| | g | bl | ge | w | ge /s | ۲ | br |
|--------------|---|----|----|---|----------|---|----|
| Lights ● | | | | | | | |
| LO beam | • | | • | • | | | |
| Hi beam ≣⊃ | | • | • | • | | | |
| Horn 🔀 | | | | | | • | • |
| Engine off 💢 | | | | | • | | • |
| | 5 | 2 | 1 | 3 | 6 | 4 | |

| Blinkerschalt |
|---------------|
|---------------|

| 5 | 0 | ٧ |
|----|---|-----|
| | | |
| | • | • |
| •- | • | |
| | 5 | 5 0 |

1 faro 2 luz de posicion 3 interm. izquierdo delantero 4 intermitente derecho delantero 5 tacometro 6 lampara aviso luces largas 7 lampara aviso intermitentes 8 conector multiple (2) 9 conector multiple (3) 10 interruptor combinado 11 interr luz de freno del. 12 interr. luz. de fren tras. 13 claxon 14 conjunto del intermintente 15 CDI 16 bujia 17 bobina de encendido 18 generador 19 condensador 20 regulador de tension 21 generado de impulsos 22 interuptor clignoteur 23 conector multiple (6) 24 intermitente izquierdo trasero 25 intermitente derecho trasero 26 luz de freno trasero 27 conector ventilador 28 luz plaza de matricula 29 carburador poteciometro

Spanisch







