

**50** MINI ADVENTURE, **50** JUNIOR ADVENTURE, **50** SENIOR ADVENTURE

**KTM**  
SPORTMOTORCYCLES

## BEDIENUNGSANLEITUNG

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

**2003**



Art.Nr. 3.210.45 4/2002

## IMPORTANT

PLEASE READ THIS MANUAL THOROUGHLY BEFORE LETTING YOUR YOUNGSTER RIDE THE MOTORCYCLE FOR THE FIRST TIME. THIS MANUAL CONTAINS IMPORTANT INFORMATION AND RECOMMENDATIONS THAT WILL HELP YOU AND YOUR YOUNGSTER TO OPERATE AND HANDLE THE MOTORCYCLE PROPERLY.

IN THE INTEREST OF EVERYBODY INVOLVED, WE URGE YOU TO PAY PARTICULAR ATTENTION TO INSTRUCTIONS AND INFORMATION MARKED AS FOLLOWS:

---

**⚠ WARNING ⚠**

---

**IGNORING THESE INSTRUCTIONS CAN BE DANGEROUS TO LIFE AND LIMB.**

---

---

**! CAUTION !**

---

**IGNORING THESE INSTRUCTIONS MAY DAMAGE PARTS OF THE MOTORCYCLE OR IMPAIR THE MOTORCYCLE'S TRAFFIC SAFETY.**

---

Please insert the serial numbers of the motorcycle below

Chassis number

Engine number

Stamp of dealer

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 PRIOR NOTICE 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

Now you own a modern motorcycle that you and your youngster will certainly enjoy, provided that you service and maintain it properly. This manual contains important information on the operation and maintenance of your new KTM motorcycle. It went to press describing your model's latest state of development. Nevertheless, the descriptions may deviate slightly from the current design as our motorcycles are permanently improved. The Owner's Manual is an integral part of the motorcycle and must be handed over to the new owner when the motorcycle is sold.

We expressly point out that work marked with an asterisk in the chapter "Maintenance work on the chassis and engine" must be performed by a KTM workshop. If maintenance work should become necessary during a competition, it must be performed by a trained mechanic.

Please strictly observe the prescribed running-in periods and inspection and maintenance intervals. Compliance with these instructions will significantly prolong the life of your motorcycle.

Be sure to have the maintenance work carried out by a KTM workshop to avoid losing your right to claim under the warranty.

**For the safety of your child, only use spare parts and accessories approved by KTM. KTM shall not assume any liability for other products or consequential damage resulting from the use of such products.**

When special needs arise, please contact a KTM dealer, who will seek the assistance of the KTM importer if necessary.

PARENTS SHOULD KEEP IN MIND that the safety of their youngsters always depends on the efforts made by the parents to ensure that the motorcycle is kept in good working order and only used on safe terrains. Nevertheless, driving the motorcycle, like driving any other vehicle, involves a potential risk. Therefore, please make sure that all fundamental precautions are taken. Please also read the „INFORMATION ON SAFE DRIVING FOR PARENTS“ on page 4.

Riding an off-highway motorcycle is a wonderful form of outdoor recreation and we certainly hope that you and your youngsters will enjoy it to the full. However, this enjoyable outdoor activity can cause environmental problems or lead to conflicts with other people. Responsible use of the motorcycle will prevent such problems and conflicts. You can contribute to securing the future of motorcycling by making sure that you and your youngsters only use the motorcycle within the limits established by the applicable laws, making environmental protection one of your top priorities and never violating other people's rights.

In this spirit, we hope that you and your youngsters will always safely enjoy your motorcycle!

KTM SPORTMOTORCYCLE AG  
5230 MATTIGHOFEN, AUSTRIA

Attachments: 1 spare parts manual chassis & engine

ALL RIGHTS RESERVED TO MAKE ALTERATIONS TO DESIGN AND MODEL.

© by KTM SPORTMOTORCYCLE AG, AUSTRIA All rights reserved

# IMPORTANT WARRANTY AND GUARANTEE INFORMATION

KTM mini-sports motorcycles are 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.

Observance of the service, maintenance and tuning instructions for the engine and chassis specified in the Owner's Manual is a prerequisite for faultless operation and the avoidance of premature wear. An improperly tuned chassis can lead to damage and breakage of the chassis components (see chapter on checking the basic chassis setting).

The service work specified in the "Lubrication and Maintenance Schedule" must be performed by a KTM workshop and recorded in the service manual otherwise claims under the warranty shall become void.

The fuels and lubricants specified in the Owner's Manual or automotive fluids with equivalent specifications must be used in accordance with the maintenance schedule.

No claims can be filed under the warranty for damage or 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.



REG.NO. 12 100 6061

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



KTM mini motorcycles are off-road motorcycles designed for one person only. They are not allowed on public roads.

The vehicle dimensions and components are designed for children from 4 to 6 years of age with a maximum weight of 35 kg (78 lbs) and a maximum height of 130 cm (51 in).

- Have your youngster wear proper protective gear whenever he or she rides the motorcycle: helmet, eye protection, chest, back, arm and leg protectors, gloves and boots. To set a good example, be sure to wear protective gear yourself whenever riding a motorcycle!
- Before your youngster takes his or her first ride, explain how each of the controls works and check if your youngster has understood what you explained. We recommend to review the entire owner's manual with your youngster item by item, paying particular attention to the specially marked warnings and pointing out the danger of injury.
- Instruct your youngster about riding and falling techniques, explain how the motorcycle will respond to shifting of the rider's weight, etc.
- Before starting the motorcycle for the first time check whether the basic fork and shock absorber settings are suitable for your child's weight (see chapter on checking the basic chassis setting).
- Before using the motorcycle you should always check all components for proper operation (see maintenance schedule). Have your youngster perform these technical checks himself / herself as well.
- Whenever you go for a ride with your youngster, keep in mind that the speed should be adjusted to your youngster and not the other way around.
- Your youngster must understand that all instructions he or she receives from you or any other supervising adult must be followed.
- Your child must be physically ready to ride a motorcycle. This means that he or she must at least be able to ride a bicycle. Being good at sports that require fast reactions is an additional advantage. Your youngster should be strong enough to pick up the motorcycle after a fall.
- Never demand too much of your youngster. Give him or her time to get used to the motorcycle and to improve his / her riding skills. Do not even consider letting your youngster participate in a race before his / her physical condition, riding skills and motivation have sufficiently developed.
- Explain to your youngster that he / she should always adjust his / her riding speed to the local conditions as well as to his / her own riding skills and that excessive speed can cause falls and severe injuries. Always keep in mind that youngsters tend to underestimate dangers or fail to recognize them altogether. The riding speed must be reduced, in particular, on unknown terrain.
- Never let your youngster ride the motorcycle without supervision. An adult should always be present.
- The motorcycle is designed for one rider only. Your youngster is not allowed to transport a passenger.
- When you go for a ride, somebody at home should always know where you are going and when you will be back. This makes it easier to send you help, should problems occur.

## TABLE OF CONTENTS

	Page
IMPORTANT WARRANTY AND GUARANTEE INFORMATION.....	3
IMPORTANT INFORMATION ON SAFE DRIVING FOR PARENTS .....	4
SERIAL NUMBER LOCATIONS .....	6
Chassis number .....	6
Engine number, engine type.....	6
OPERATION INSTRUMENTS .....	6
Throttle grip .....	6
Right hand brake lever .....	6
Short circuit button.....	7
Left hand brake lever .....	7
Filler cap .....	7
Fuel tap .....	7
Choke.....	7
Kickstarter .....	8
Side stand.....	8
GENERAL TIPS AND WARNINGS FOR STARTING THE MOTORCYCLE.....	9
DRIVING INSTRUCTIONS.....	10
What you should check before each start.....	10
Starting when engine is cold.....	11
Starting when engine is warm .....	11
What to do when the engine is "flooded" .....	11
Starting off.....	11
Driving .....	11
Braking.....	12
Stopping.....	12
Refuelling, fuel/oil (mixture lubrication) .....	12
Refuelling, fuel/oil (separate lubrication) .....	13
PERIODIC MAINTENANCE SCHEDULE .....	14
MAINTENANCE WORK ON CHASSIS AND ENGINE .....	16
Checking and adjusting the steering head bearing .....	16
Cleaning the dust scrubbers of the telescopic fork .....	16
Basic suspension setup for the weight of the driver .....	17
Telescopic fork maintenance.....	18
Changing the telescopic fork oil .....	18
How to change the handlebar position.....	19
Check chain tension .....	19
Correct chain tension.....	19
Chain maintenance.....	19
Adjusting the front wheel brake cable .....	20
Checking the front brake linings for wear.....	20
Adjusting the rear wheel brake cable.....	20
Checking the rear brake linings for wear .....	20
Drum brake maintenance .....	20
Removing and mounting the front wheel.....	21
Removing and mounting the rear wheel .....	21
Tires, air pressure.....	21
Checking spoke tension.....	21
Removing the seat.....	22
Cleaning the air filter .....	22
Exhaust system.....	22
Adjusting the throttle cable .....	23
Adjusting the idle speed .....	23
Checking the gear oil level .....	23
Changing the gear oil.....	23
Changing spring preloading of the shock absorber.....	24
Changing the seat hight .....	24
TROUBLE SHOOTING .....	25
CLEANING / STORAGE .....	27
TECHNICAL DATA - ENGINE.....	28
TECHNICAL DATA - CHASSIS.....	29
HEAD WORD INDEX.....	30



## SERIAL NUMBER LOCATIONS

### Chassis number

The chassis number is located on the type plate on the steering head. Enter this number in the field on page no 1.



### Engine number

The engine number is stamped into the right half of the engine case next to the kickstarter. Enter this number in the relevant field on page 1.

### Engine typ

50 MCA



## OPERATION INSTRUMENTS

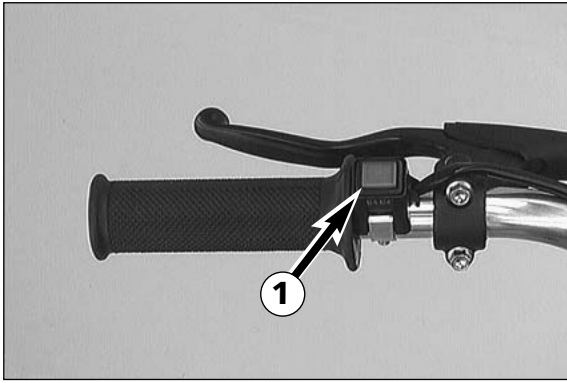
### Throttle grip

The throttle grip is located on the right side of the handlebars. It is used to reduce the engine speed and, thus, the driving speed.



### Right hand brake lever

The right hand brake lever is used to operate the front wheel brake via a control cable.



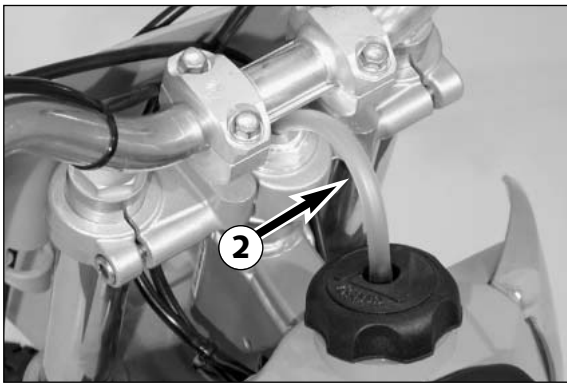
### Short circuit button

The short circuit button ❶ turns off the engine. When pressing this button, the ignition circuit is short-circuited.



### Left hand brake lever

The left hand brake lever is used to operate the rear wheel brake via a control cable.

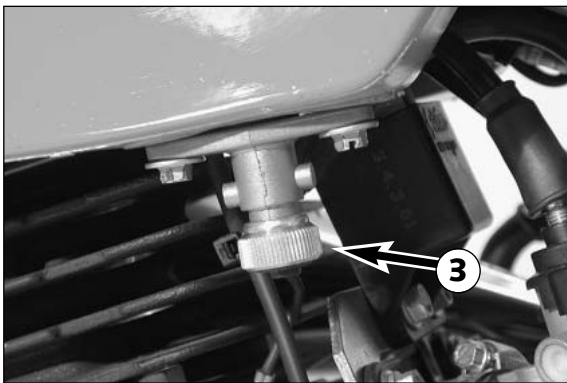


### Filler cap

**To open it:** Turn filler cap counter-clockwise.

**To close it:** Put filler cap back on and tighten it by turning it clockwise.

Install tank breather hose ❷ without kinks.



### Fuel tap

The fuel tap ❸ is located at the front of the motorcycle on the left side of the tank.

**Opening the fuel tap:** Turn the knob all the way to the left.

**Closing the fuel tap:** Turn the knob all the way to the right.

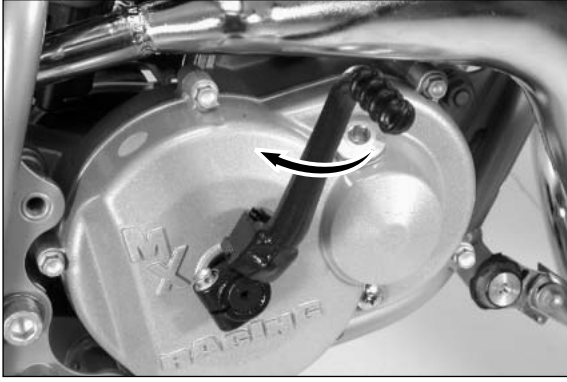


### Choke

The choke lever ❹ is located on the right side of the carburetor. When pulling the choke lever fully towards the top, a bore is opened in the carburetor. Through this bore the engine can take in additional fuel. This results in a rich fuel-air mixture that is needed for a cold start.

When pressing the choke lever downward in the carburetor, the bore is closed again.





### **Kickstarter**

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

NOTE: an accessory kit for kickstarter backwards operation is available.



### **Side stand**

Use your foot to swing the side stand forwards to the stop. Make sure it rests securely on solid ground.

# GENERAL TIPS AND WARNINGS FOR STARTING THE MOTORCYCLE



## Instructions for the first ride

- Verify that your KTM dealer performed the PREPARATION OF VEHICLE jobs (see Customer Service Manual).
- Please note that this model (50 MINI ADVENTURE) has SEPARATE LUBRICATION (see page 13)
- Before your youngster takes his or her first ride, explain how each of the controls works and check if your youngster has understood what you explained. We recommend to review the entire owner's manual with your youngster item by item, paying particular attention to the specially marked warnings and pointing out the danger of injury.
- Adjust the basic hand brake lever position to your youngster's hand size. Your youngster should, of course, wear gloves!
- To prevent injury, teach your youngster the basic riding skills on soft ground, e.g. on a meadow or in the garden. Be sure that there is room enough to maneuver, and that no other riders are close.
- To ensure that your youngster gets the feel of the brakes, have your youngster operate the brakes while you push the motorcycle. Do not start the engine before your youngster has learned to apply both brakes with appropriate pressure.
- Now your youngster must get the feel of the throttle. Start the engine, hold the motorcycle and have your youngster slowly open the throttle. Then, your youngster can take his/her first ride. Initially, your youngster should ride back and forth between two persons who help the young rider to stop the motorcycle. However, you should also teach your youngster how to stop the motorcycle himself/herself.
- To improve his/her riding skills, your youngster should practise riding the motorcycle standing on the footpegs or riding at the slowest possible speed. Additionally, you can arrange a series of obstacles and have your youngster drive around them, etc.  
Tell your youngster to look 3-10 m ahead, depending on the speed, to recognize and avoid obstacles. When riding through curves, the rider should also look far ahead into the curve.
- Pay attention to running-in procedure.

## Running in

- EVEN VERY PRECISELY MACHINED SECTIONS OF ENGINE COMPONENTS HAVE ROUGHER SURFACES THAN COMPONENTS WHICH HAVE BEEN SLIDING ACROSS ONE ANOTHER FOR QUITE SOME TIME. THEREFORE, EVERY ENGINE NEEDS TO BE BROKEN IN. FOR THIS REASON, DURING ITS FIRST 5 HOURS THE ENGINE MUST NOT BE REVVED UP TO ITS PERFORMANCE LIMITS.
- APPLY LOW BUT CHANGING LOADS FOR RUNNING-IN.
- DO NOT DRIVE AT FULL LOAD FOR THE FIRST 5 HOURS!

## ⚠ WARNING ⚠

- HAVE YOUR YOUNGSTER WEAR PROPER PROTECTIVE GEAR WHENEVER HE OR SHE RIDES THE MOTORCYCLE: HELMET, EYE PROTECTION, CHEST, BACK, ARM AND LEG PROTECTORS, GLOVES AND BOOTS. TO SET A GOOD EXAMPLE, BE SURE TO WEAR PROTECTIVE GEAR YOURSELF WHENEVER RIDING A MOTORCYCLE!
- THE MOTORCYCLE HAS A CENTRIFUGAL CLUTCH. THE MOTORCYCLE BEGINS TO MOVE AS SOON AS THE THROTTLE IS OPENED.
- ALWAYS APPLY THE FRONT BRAKE WHEN STARTING THE ENGINE AND RELEASE THE BRAKE SLOWLY WHEN THE ENGINE IS RUNNING. AN ACTIVATED CHOKE INCREASES THE IDLE SPEED OF THE ENGINE, THE CENTRIFUGAL CLUTCH THUS BEGINNING TO ENGAGE. THEREFORE, THE MOTORCYCLE CAN BEGIN TO MOVE WHEN THE BRAKE LEVERS ARE RELEASED.
- WHEN THE ENGINE SPEED DROPS TO THE LEVEL AT WHICH THE CENTRIFUGAL CLUTCH DISENGAGES, BRAKING WITH THE ENGINE IS NO LONGER POSSIBLE AND THE MOTORCYCLE CAN ONLY BE SLOWED DOWN USING THE BRAKES.
- YOUR CHILD SHOULD NEVER DRIVE FASTER THAN ITS SKILLS AND THE TERRAIN PERMIT.
- NEVER LET YOUR CHILD DRIVE ITS MOTORCYCLE UNCHAPERONED.
- REPLACE THE HELMET VISOR OR GOGGLE GLASSES EARLY ENOUGH. WHEN LIGHT SHINES DIRECTLY ON A SCRATCHED VISOR OR GOGGLES, YOU WILL BE PRACTICALLY BLIND.
- ONLY USE ACCESSORY PARTS RECOMMENDED BY KTM.
- NEVER LEAVE YOUR MOTORCYCLE WITHOUT SUPERVISION AS LONG AS THE ENGINE IS RUNNING.

## ⚠ WARNING ⚠

- KTM MINI MODELS ARE DESIGNED FOR ONE PERSON ONLY. PASSENGERS ARE NOT ALLOWED.
- THESE MODELS DO NOT COMPLY WITH THE REGULATIONS AND SAFETY STANDARDS ESTABLISHED BY THE LAW. THEREFORE, THEY ARE NOT PERMITTED ON PUBLIC ROADS.
- ALWAYS KEEP IN MIND THAT OTHER PEOPLE FEEL MOLESTED BY EXCESSIVE NOISE.

# DRIVING INSTRUCTIONS



## What you should check before each start

When you start off, the motorcycle must be in a perfect technical condition. For safety reasons, you should make it a habit to perform an overall check of your motorcycle before each start.

The following checks should be performed:

### 1 CHECK TRANSMISSION OIL LEVEL

A lack of gear oil leads to premature wear and finally results in destruction of the gear wheels.

### 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 will fall off the chain wheels; an extremely worn chain may tear, and insufficient lubrication may result in unnecessary wear of the chain and chain wheels.

### 4 TIRES

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



### 5 THROTTLE CABLE

Check the throttle cable for proper adjustment and smooth operation.

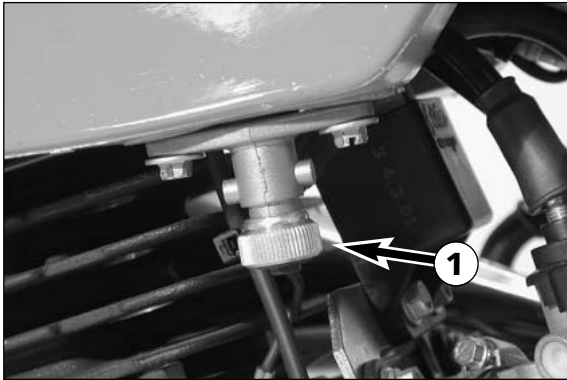
### 6 BRAKES

Check the brakes for proper adjustment and correct operation.



### 7 OIL TANK (FOR SEPARATE LUBRICATION ONLY)

Check the oil level in the tank. A shortage of two-stroke engine oil will lead to engine damage.



### Starting when the engine is cold

- 1 Open fuel tap ❶.
- 2 Operate the choke ❷.
- 3 Swing the side stand all the way up.
- 4 Squeeze both brake levers.
- 5 Operate the kickstarter, depressing it all the way, without opening the throttle.



#### **WARNING**



- WHEN STARTING THE ENGINE, PUT ON MOTORCYCLE BOOTS IN ORDER TO AVOID INJURIES. YOU MAY SLIP OFF THE KICKSTARTER, OR THE ENGINE MAY KICK BACK IF YOU DO NOT KICK HARD ENOUGH.
- 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.
- NEVER TILT THE MOTORCYCLE OVER THE SIDE STAND TO WARM UP THE ENGINE. THE SIDE STAND COULD FOLD AWAY AND THE MOTORCYCLE RUN OUT OF CONTROL.



#### **CAUTION**



DRIVING A COLD ENGINE AT HIGH SPEED WILL REDUCE THE LIFE OF THE ENGINE. WE RECOMMEND TO WARM THE ENGINE UP AT A MEDIUM ENGINE SPEED FOR SEVERAL MINUTES BEFORE SWITCHING TO FULL LOAD.

### Starting when the engine is warm

- 1 Open fuel tap ❶.
- 2 Swing the side stand all the way up.
- 3 Squeeze both brake levers.
- 4 Operate the kickstarter, depressing it all the way, without opening the throttle.

### What to do when the engine is "flooded"

- 1 Close fuel tap ❶.
- 2 Squeeze both brake levers.
- 3 Start engine with full throttle. If necessary, unscrew spark plug and dry it.
- 4 Once the engine is running, open fuel tap again.

### Starting off

Slowly release the brake lever while simultaneously opening the throttle.



#### **WARNING**



ALWAYS MAKE SURE THE SIDE STAND IS KICKED ALL THE WAY UP BEFORE YOU LET YOUR CHILD DRIVE OFF. IF THE STAND DRAGS ON THE FLOOR, YOU MAY LOSE CONTROL OF YOUR MOTORCYCLE.

### Driving

The engine speed, and thus the driving speed, are regulated by the throttle grip.

The choke must always be deactivated as soon as the engine has warmed up.



#### **CAUTION**



- IN THE EVENT THAT, WHILE YOUR CHILD IS RIDING ON THE MOTORCYCLE, YOU NOTICE ANY UNUSUAL OPERATION-RELATED NOISE, YOUR CHILD SHOULD STOP IMMEDIATELY, TURN THE ENGINE OFF, AND CONTACT AN AUTHORIZED KTM DEALER.
- AFTER FALLING WITH THE MOTORCYCLE, CHECK ALL ITS FUNCTIONS THOROUGHLY BEFORE USING IT AGAIN.
- A BENT HANDLEBAR MUST ALWAYS BE REPLACED. NEVER TRY TO STRAIGHTEN THE HANDLEBAR BECAUSE THIS WILL CAUSE IT TO LOSE ITS STABILITY.



### Braking

Close the throttle and squeeze both brake levers simultaneously. On sandy, wet or slippery terrain the rear wheel brake should be preferred. The brakes should always be operated carefully as locking wheels can cause skidding or falls.



#### WARNING



- BRAKE DRUM AND LININGS HEAT UP DURING BRAKE OPERATION, THUS REDUCING THE EFFECT OF THE BRAKES.
- WET BRAKES HAVE REDUCED BRAKE PERFORMANCE, THEREFORE BE SURE TO BRAKE THEM DRY AFTER CLEANING.
- IF THE RESISTANCE OF THE HAND BRAKE LEVER FEELS UNRESPONSIVE, SOMETHING IS WRONG WITH THE BRAKE SYSTEM. HAVE THE BRAKE SYSTEM CHECKED AT A KTM WORKSHOP BEFORE YOU LET YOUR CHILD DRIVE THE MOTORCYCLE.



### Stopping

Reduce the speed. Immediately before the motorcycle comes to a stop, put the left foot down. To turn off the engine, press the short circuit button until the engine stops. Close the fuel tap.



#### WARNING



MOTORCYCLES PRODUCE GREAT HEAT DURING OPERATION. THEREFORE, KEEP IN MIND THAT THE ENGINE, THE EXHAUST SYSTEM AND THE BRAKES CAN HEAT UP CONSIDERABLY. MAKE SURE THAT THESE PARTS ARE NOT TOUCHED AND ALWAYS TAKE CARE, WHEN PARKING THE MOTORCYCLE, THAT OTHER PERSONS WILL NOT BURN THEMSELVES.



#### CAUTION



- CLOSE THE FUEL TAP WHEN LEAVING THE MOTORCYCLE. OTHERWISE THE CARBURETOR MAY GET FLOODED AND FUEL WILL ENTER THE ENGINE.
- THE SIDE STAND IS ONLY DESIGNED FOR THE WEIGHT OF THE MOTORCYCLE. IF YOU GET ON THE MOTORCYCLE AND THUS PUT ADDITIONAL WEIGHT ON THE SIDE STAND, THE SIDE STAND OR THE FRAME CAN BE DAMAGED AND THE MOTORCYCLE MAY FALL ON THE SIDE.



### Refuelling, fuel/oil (mixture lubrication)

Models (50 JUNIOR / SENIOR ADVENTURE) have mixture lubrication. Oil (high-grade two-stroke engine oil) must be mixed with the fuel (ROZ 95) at a mixing ratio of 1:40.



#### WARNING



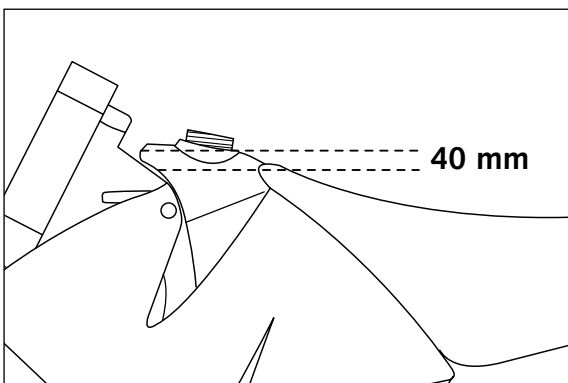
GASOLINE IS HIGHLY FLAMMABLE AND POISONOUS. EXTREME CAUTION SHOULD BE USED WHEN HANDLING GASOLINE. NEVER REFUEL THE MOTORCYCLE NEAR OPEN FLAMES OR BURNING CIGARETTES. ALWAYS SWITCH OFF THE ENGINE BEFORE REFUELING. BE CAREFUL NOT TO SPILL GASOLINE ON THE ENGINE OR EXHAUST PIPE WHILE THE ENGINE IS HOT. WIPE UP SPILLS PROMPTLY. IF GASOLINE IS SWALLOWED OR SPLASHED IN THE EYES, SEEK A DOCTOR'S ADVICE IMMEDIATELY.

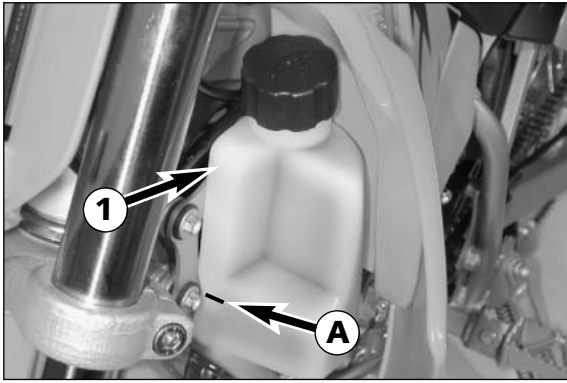


#### CAUTION



- ONLY USE PREMIUM-GRADE GASOLINE ROZ 95 MIXED WITH HIGH-GRADE TWO-STROKE ENGINE OIL. OTHER TYPES OF GASOLINE CAN CAUSE ENGINE FAILURE.
- ONLY USE KNOWN BRANDS OF HIGH-GRADE 2-STROKE ENGINE OIL.
- NOT ENOUGH OIL OR LOW-GRADE OIL CAN CAUSE EROSION OF THE PISTON. WHEN USING TOO MUCH OIL, THE ENGINE MAY START SMOKING AND FOUL THE SPARK PLUG.
- FUEL EXPANDS WHEN ITS TEMPERATURE RISES. THEREFORE DO NOT FILL THE TANK TO THE TOP. (SEE FIG.)





## Refuelling, fuel/oil (separate lubrication)

### FUEL:

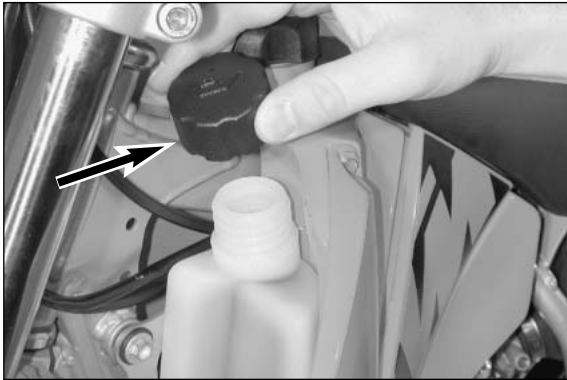
Refuel with pure fuel (ROZ 95) for separate lubrication.

### OIL:

The oil tank ① is mounted on the left side in front of the fuel tank. Here, the two-stroke oil for separate lubrication of the engine must be filled in. The oil level can easily be checked through the transparent material of the oil tank.

### Engine oil:

**2-stroke engine oil suitable for separate lubrication**  
**KTM recommends SHELL ADVANCE Ultra 2**



**To open it:** turn closure cap counterclockwise.

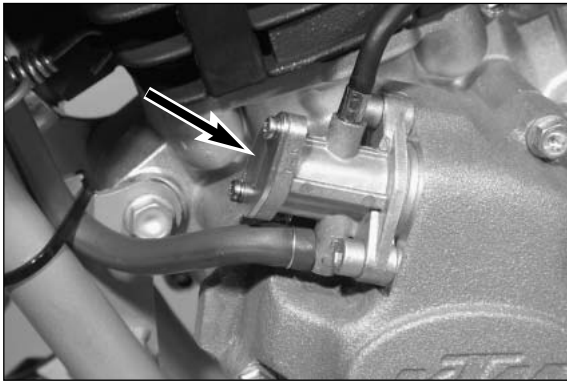
**To close it:** apply closure cap and turn it clockwise.

Tank volume: 0.3 liters

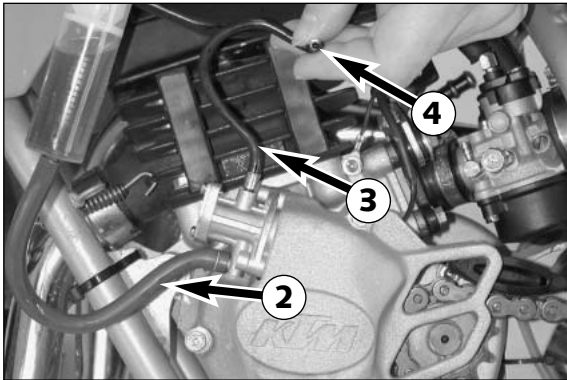
### ! CAUTION !

ONCE THERE IS NO TWO-STROKE OIL IN THE OIL TANK, THE ENGINE IS BOUND TO BREAK DOWN.

When you refuel, the oil in fresh-oil tank ① should reach up to the A mark. This amount of oil is enough for a full fuel tank.



The oil pump is mounted on the ignition cover and is powered by the crankshaft.



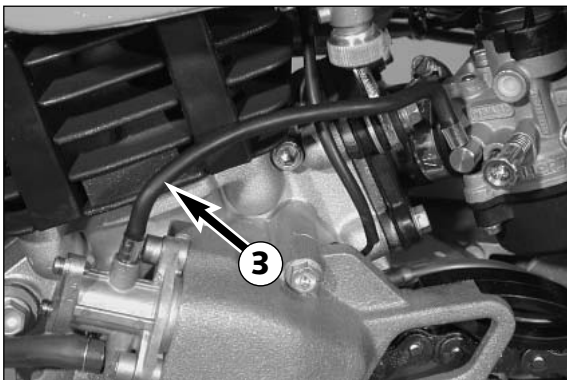
If the oil tank is empty and has caused air to get into the oil system, the oil pump must be bled. To bleed, clamp oil lines ② and ③ as shown.

Add oil with a syringe until the bubble-free oil starts to leak out of the hole ④.

After bleeding the oil pump, mount both oil lines and fill the oil tank with 2-stroke engine oil.

### ! CAUTION !

HOSE ③ LEADING FROM THE OIL PUMP TO THE CARBURETOR MUST BE INSTALLED WITHOUT KINKS.



A clean motorcycle can be checked more quickly which saves money!

Service  
every  
5 hours

Service  
every  
20 hours

ENGINE	Check engine for leaks	●	
	Change transmission oil	●	
	Check spark plug, change it if necessary, set electrode gap		●
CARBURETOR	Check carburetor for tight fit at intake flange		●
	Check intake flange for cracks		●
	Check idle setting when engine is warm		●
ADD-ON-PARTS	Check exhaust system for leaks and suspension		●
	Check actuating cables for damage, smooth operation, and kinkless arrangement, adjust and lubricate	●	
	Clean air filter and air filter box	●	
BRAKES	Check brake cables for damage		●
	Check/function adjust smooth operation, free travel of hand levers	●	
	Check screws of brake system for a tight fit	●	
CHASSIS	Check suspension strut and fork for leaks and a proper function		●
	Check swinging-fork pivot		●
	Check/adjust steering-head bearing		●
	Check all chassis screws for a tight fit (fork plates, axle nuts, swinging-fork pivot, suspension strut)		●
WHEELS	Check spoke tension and rim joint	●	
	Check tire condition and inflation pressure		●
	Check chain, chain joint, chain wheels, chain wheel guides for wear, a tight fit, and tension	●	
	Lubricate chain	●	
	Check wheel bearings for play	●	

### IMPORTANT RECOMMENDED MAINTENANCE PROCEDURES TO BE PERFORMED BASED ON A SEPARATE SUPPLEMENTARY ORDER

	once a year
Drain and clean the carburetor's float chamber	●
Perform complete fork maintenance	●
Clean and lubricate the swinging-arm bearing	●
Clean and lubricate the steering-head bearing and sealing elements	●

MAINTENANCE WORK DONE BY KTM AUTHORISED WORKSHOPS IS NOT A SUBSTITUTE FOR CARE AND CHECKS DONE BY THE RIDER!

**VITAL CHECKS AND CARE PROCEDURES TO BE CONDUCTED BY THE OWNER OR THE MECHANIC**

	before each start	after every cleaning	for cross country use	once a year
Check transmission oil level	●			
Check brake pads for wear	●			
Check brake performance	●	●		
Lubricate and adjust actuating cables and nipples		●		
Remove and clean dust sleeves of telescopic fork at regular intervals			●	
Clean and lubricate chain, check tension and readjust it if necessary		●	●	
Clean air filter and filter box			●	
Check tire inflation pressure and wear	●			
Check fuel line for leaks	●			
Drain and clean float chamber		●		
Check oil lines for cracks or kinks (for separate lubrication only)	●			
Verify smooth operation of all controls	●			
Treat exposed metal components (except for the brake and exhaust systems) with wax-based anti-corrosion agents		●		
Check all screws, nuts, and hose clamps for their tight fit at regular intervals				●

**RECOMMENDED INSPECTION OF THE MINI AC ENGINE BY YOUR KTM WORKSHOP (ADDITIONAL ORDER FOR THE KTM WORKSHOP)**

	30 hours	45 hours	60 hours	90 hours	120 hours	135 hours
Check the reed-type intake valve for wear	●	●	●	●	●	●
Check the clutch shoes for wear	●	●	●	●	●	●
Check the length of the clutch springs	●	●	●	●	●	●
Check the clutch drum for wear	●	●	●	●	●	●
Check the cylinder and piston for wear	●	●	●	●	●	●
Check the oil pump (only separate lubrication)	●	●	●	●	●	●
Check the eccentricity of the crankshaft journal	●	●	●	●	●	●
Check the radial clearance of the conrod bearings	●		●		●	
Check the radial clearance of the piston pin main bearing	●		●		●	
Check the crankshaft main bearing for wear	●		●		●	
Replace the crankshaft bearings and conrod bearings		●		●		●
Check the entire transmission including bearings for wear		●		●		●

NOTE: IF THE INSPECTION ESTABLISHES THAT PERMISSIBLE TOLERANCES ARE EXCEEDED, THE RESPECTIVE COMPONENTS MUST BE REPLACED.



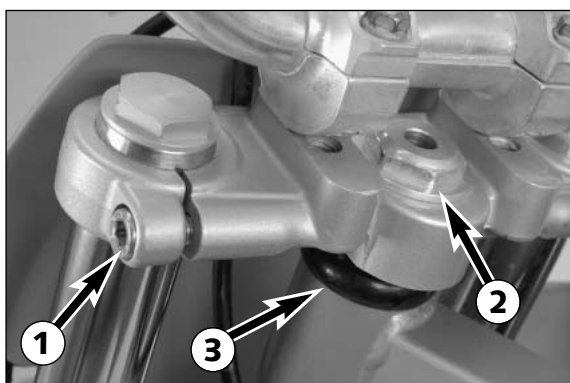
# MAINTENANCE WORK ON CHASSIS AND ENGINE

## WARNING

MAINTENANCE WORK AND ADJUSTMENTS MARKED WITH AN ASTERISK (\*) MUST BE PERFORMED BY AN EXPERT. TO PROTECT YOUR YOUNGSTER, ALWAYS HAVE SUCH WORK PERFORMED BY A SPECIALIZED KTM DEALER WHERE YOUR MOTORCYCLE WILL BE OPTIMALLY SERVICED BY APPROPRIATELY QUALIFIED, SKILLED STAFF.

## CAUTION

- WHEN CLEANING THE MOTORCYCLE, DO NOT USE A HIGH PRESSURE CLEANING UNIT IF POSSIBLE, OTHERWISE WATER WILL PENETRATE THE BEARINGS, CARBURETOR, ELECTRIC CONNECTORS, DRUM BRAKES, ETC.
- BEFORE CLEANING WITH WATER, PLUG THE EXHAUST PIPE TO PREVENT WATER INGRESS
- WHEN TRANSPORTING YOUR MOTORCYCLE, SECURE IT WITH ELASTIC STRAPS OR OTHER MECHANICAL DEVICES IN AN UPRIGHT POSITION. BE SURE THAT THE FUEL TAP IS CLOSED. IF THE MOTORCYCLE TOPPLES OVER, FUEL CAN FLOW OUT OF 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.
- DISPOSE OF OILS, FATTY MATTERS, FILTERS, FUELS, WASHING DETERGENTS ETC. PROPERLY.
- UNDER NO CIRCUMSTANCES MAY USED OIL BE DISPOSED OF IN THE SEWAGE SYSTEM OR IN THE OPEN COUNTRYSIDE. 1 LITER OF USED OIL CONTAMINATES 1,000,000 LITERS OF WATER.



### Checking and adjusting the steering head bearing \*

The steering head bearing should be checked regularly for play. For this purpose, jack up the motorcycle by the frame so that the front wheel is in the air. Now try to move the fork forward and backward. There should be no clearance. For readjustment, release the two clamp screws ① of the top triple clamp and the counternut ②. Turn the adjusting nut ③ until almost no play is left. Do not tighten the adjusting nut! Tightening the adjusting nut can damage the bearings! Keep in mind that tightening the counternut ② reduces the play of the bearing. Slightly tap the top triple clamp with a rubber hammer to prevent jamming. Then tighten the 2 clamp screws with 15 Nm.

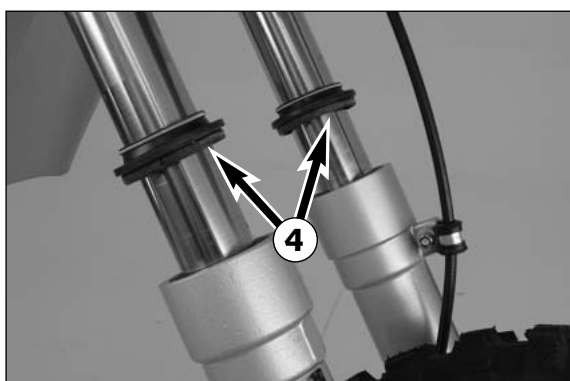
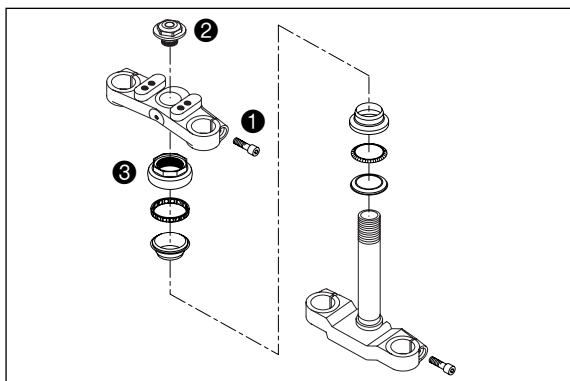
## WARNING

IF THE STEERING HEAD BEARING IS NOT ADJUSTED TO BE FREE OF CLEARANCE, THE MOTORCYCLE WILL EXHIBIT UNSTEADY DRIVING CHARACTERISTICS AND CAN GET OUT OF CONTROL.

## CAUTION

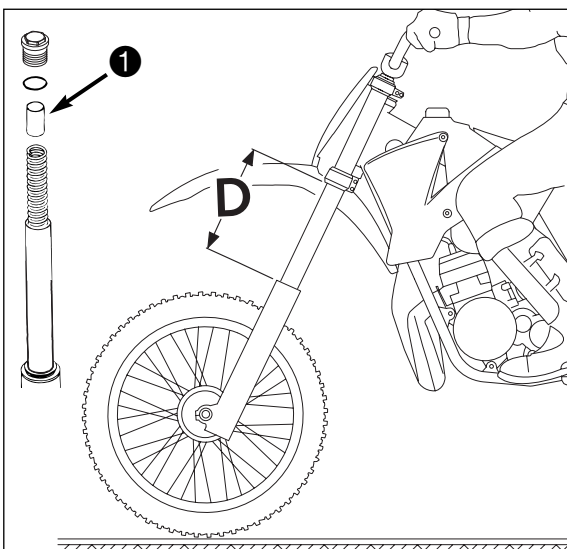
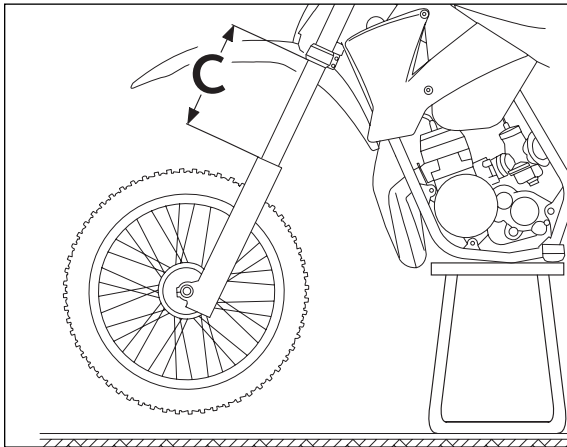
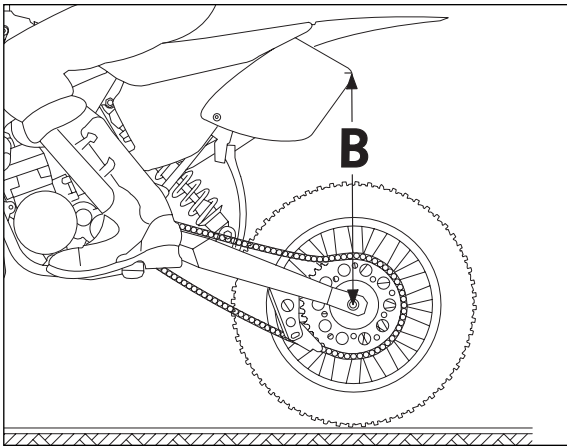
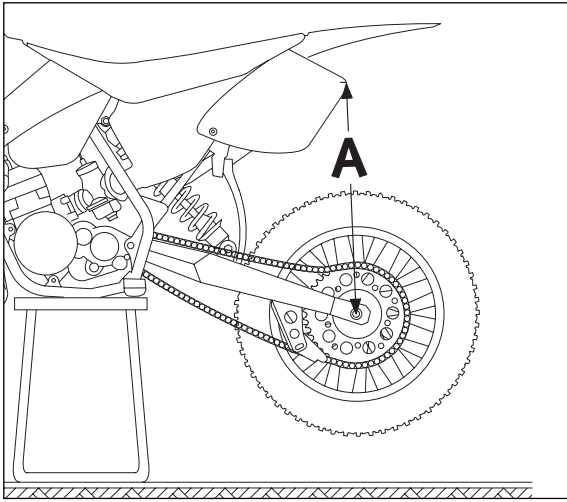
- THE HANDLEBAR MUST MOVE EASILY. OTHERWISE THE BEARINGS WILL BE DAMAGED.
- IF YOU DRIVE WITH PLAY IN THE STEERING HEAD BEARING FOR LONGER PERIODS, THE BEARINGS AND SUBSEQUENTLY THE BEARING SEATS IN THE FRAME WILL BE DESTROYED.

At least once a year, the steering head bearings should be smeared with waterproof grease.



### Cleaning the dust scrubbers of the telescopic fork

The dust scrubbers ④ should be cleaned on a regular basis. For this purpose, use a screwdriver to lift the dust scrubbers out of the slider tubes, clean them thoroughly with compressed air, spray the fork tubes and dust scrubbers with silicon oil and press the scrubbers back into the slider tubes.



### Basic suspension setup for the weight of the driver

(50 Junior Adventure, 50 Senior Adventure)

To achieve maximum handling performance and to prevent the telescopic fork and shock absorber from being damaged, the basic setup of the suspension components must be suitable for your child's weight. At delivery, KTM's mini motorcycles are set to accommodate a driver weighing 25 - 30 kg (wearing full protective clothing). If your child's weight exceeds or falls short of this range, you will need to adjust the spring preload for the telescopic fork and shock absorber accordingly.

To adjust, check the sag of the shock absorber and telescopic fork. The motorcycle should be filled up and your child should be wearing full protective clothing.

#### To determine the sag of the shock absorber

- 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.
- Have your child sit on the motorcycle 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.
- Holding your child and the bike, have another person measure the distance between the same two points with the load on the motorcycle to establish dimension B.
- The sag is the difference between dimensions A and B.

**EXAMPLE:**

Motorcycle jacked up (dimension A) . . . . .	.330 mm
<u>Motorcycle on ground with driver seated (dimension B)</u> . . . . .	- 285 mm
Sag . . . . .	.45 mm

50 Junior Adventure shock absorber sag . . . . .	40 mm (± 5 mm)
50 Senior Adventure shock absorber sag . . . . .	50 mm (± 5 mm)

If the sag is lower, the spring preload of the shock absorber must be reduced, if the sag is higher, the spring preload must be increased.

#### To determine the sag of the telescopic fork

(50 Junior Adventure, 50 Senior Adventure)

- Jack up the motorcycle until the rear wheel no longer touches the ground.
- Measure the distance between the upper edge of the slider tube and the triple clamp and write it down as dimension C.
- Have your child sit on the motorcycle in a normal seating position (feet on the footrests) wearing full protective clothing, and bounce up and down a few times to allow the telescopic fork to become level.
- Holding your child and the bike, have another person measure the distance between the same two points with the load on the motorcycle to establish dimension D.
- The sag is the difference between dimensions C and D.

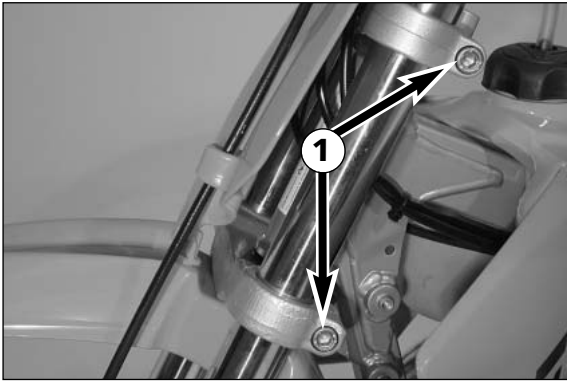
**EXAMPLE:**

Motorcycle jacked up (dimension C) . . . . .	.200 mm
<u>Motorcycle on ground with driver seated (dimension D)</u> . . . . .	- 160 mm
Sag . . . . .	.40 mm

50 Junior Adventure telescopic fork sag . . . . .	35 mm (± 5 mm)
50 Senior Adventure telescopic fork sag . . . . .	40 mm (± 5 mm)

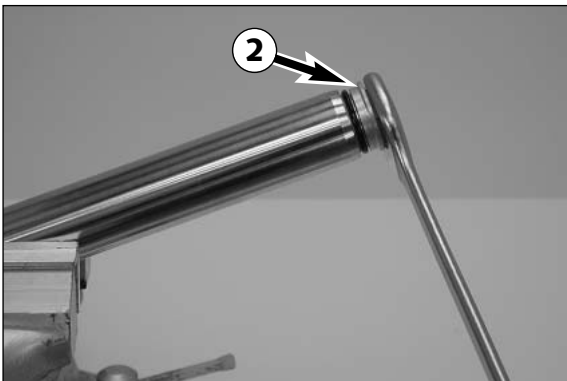
If the sag is lower, the spring preload of the telescopic fork must be reduced, if the sag is higher, the spring preload must be increased.

The preload on the fork spring is determined by the length of preload spacer ❶. If an adjustment is necessary, demount the fork legs, remove the plugs and shorten the pretensioning sleeves or replace with longer ones (see maintenance of telescopic fork). Harder fork springs are also available for both models (see spare parts catalog).



### Telescopic fork maintenance \*

The telescopic fork must be serviced at least once a year:  
 Jack up the motorcycle by the frame to take the weight off the front wheel.  
 Remove the front wheel and the brake cable guide.  
 Measure the projection of the fork legs at the upper fork stabilizer and make a note of the measurement.  
 Release the clamp screws ❶ at the triple clamps and pull the fork legs downwards out of the triple clamps.



Clamp the fork leg into a vise (use protective jaws) and remove the plugs ❷.  
 Take the preload spacer and the spring out of the fork tube.  
 Remove screws ❸ at the underside of the slider tubes and pull the fork tubes out of the slider tubes.  
 Remove the dust scrabbers ❹.

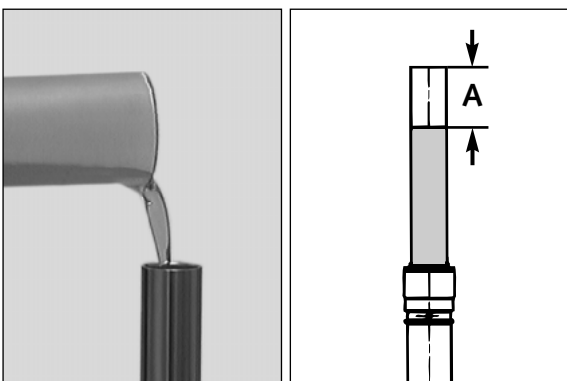


Thoroughly clean all parts and check for wear.  
 Grease gaskets and springs and reassemble the telescopic fork.  
 Tighten the screws at the underside of the slider tubes to 30 Nm.  
 Fill in fork oil and assemble the fork (see below).  
 Insert the fork legs into the triple clamps (tprojection as previously noted) and tighten the clamp screws to 15 Nm.  
 Mount the front wheel (see chapter: mounting the front wheel).

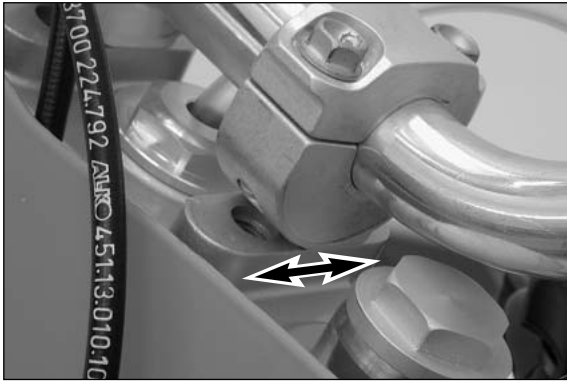


### Changing the telescopic fork oil \*

Remove front wheel and fork legs (see above).  
 Remove plugs, preload spacers and springs.  
 Drain the fork oil into an appropriate container.  
 Clean the dust scrabbers.

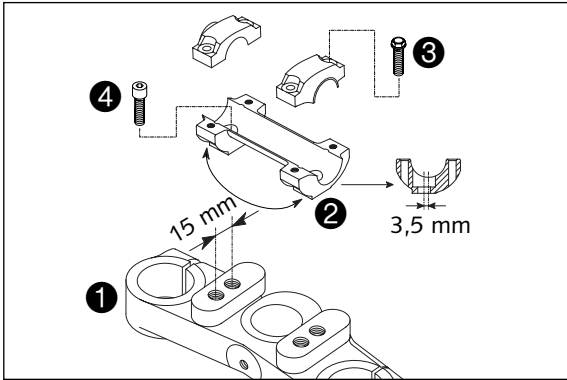


Pour 170 cm<sup>3</sup> SAE 7.5 fork oil into each fork tube.  
 Slide the fork tube all the way into the slider tube.  
 Adjust the air-chamber length A to 110 mm (4.5 in) by extracting or adding fork oil.  
 Insert springs and pretensioning sleeves into the fork tube.  
 Check O-rings, grease and mount plugs.  
 Mount fork legs and front wheel (see above).  
 Mount brake control cable and brake cable guide.  
 Adjust the cable control on the front brake.



## How to change the handlebar position

The handlebar position can be readjusted by 22 mm (0.9 in). The upper triple clamp ① includes 2 bores arranged at a distance of 15 mm (0.6 in) from one another. The bores at the handlebar support ② are offset from the center by 3.5 mm (0.13 in). Accordingly, you can mount the handlebar in 4 different positions.



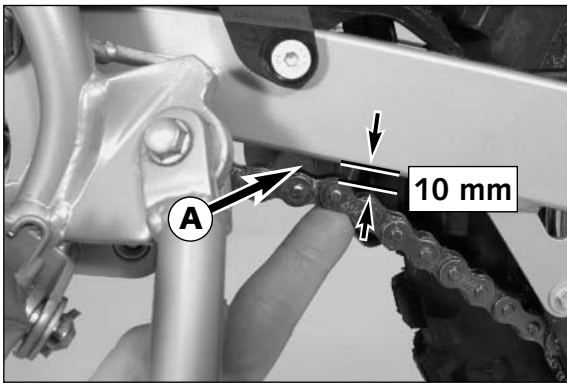
For this purpose, remove screws ③ of the handlebar clamps and screws ④ of the handlebar support. Position handlebar support, and tighten screws ④ to 40 Nm. Mount handlebar and handlebar clamps, and tighten screws ③ to 20 Nm. The gap between the handlebar support and handlebar clamps should be the same size in the front and in the rear.



### WARNING



THE SCREWS ④ MUST BE SECURED WITH LOCTITE 243.



## Check chain tension

Put the motorcycle on the sidestand.

Chain tension has to be checked close to the lower rear shock mounting A. When pushing the chain upwards, the distance to the swingarm has to be 10 mm (0.4 in).

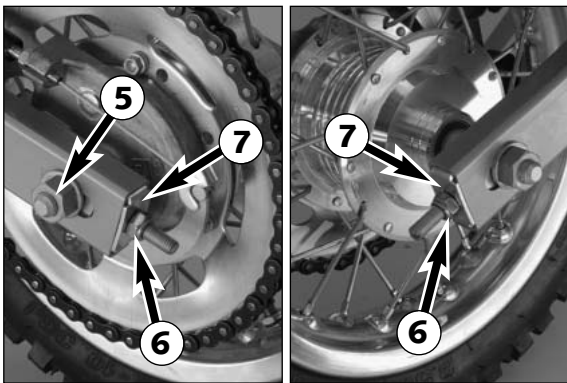
If necessary, correct chain tension.



### WARNING



- IF CHAIN TENSION IS TOO GREAT, PARTS WITHIN THE SECONDARY TRANSMISSION (CHAIN, CHAIN WHEELS, GEAR BOX 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 CHAIN WHEELS. 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

Release the hexagon nut of the wheel spindle ⑤ and turn the left and the right hexagon nut ⑥ equally far.

Before tightening the hexagon nut of the wheel spindle to 30 Nm, ensure that the supporting plates ⑦ are resting against the swing arm. Additionally, check that the rear wheel is aligned with the front wheel.

## Chain maintenance

For long chain life, good maintenance is very important. Chains without O-rings should be cleaned in fireproof solvent regularly and afterwards treated with hot grease or chain spray (Shell Advance Bio Chain).



### WARNING



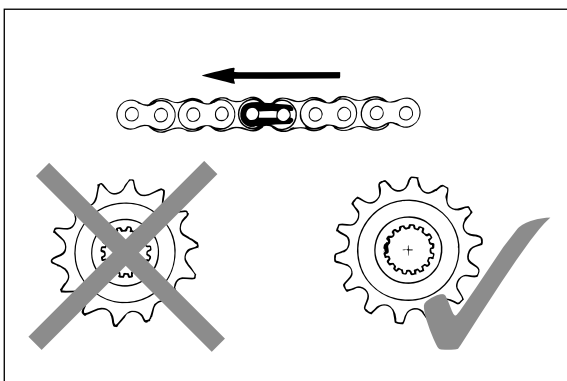
KEEP THE REAR WHEEL FREE OF GREASE! GREASE ON THE REAR WHEEL WILL SIGNIFICANTLY REDUCE THE GRIP OF THE REAR TIRE AND THE MOTORCYCLE COULD EASILY GET OUT OF CONTROL.



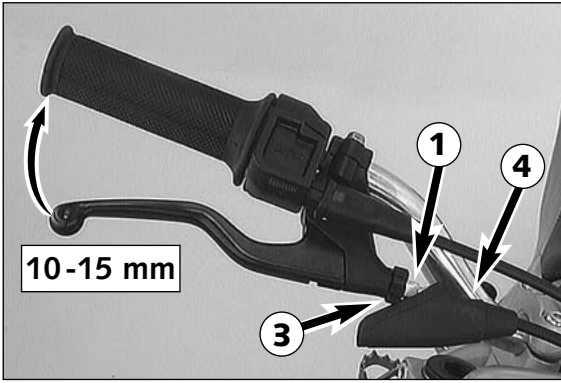
### CAUTION



WHEN MOUNTING THE CHAIN MASTERLINK CLIP, THE CLOSED SIDE OF THE MASTERLINK CLIP MUST POINT IN RUNNING DIRECTION.



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



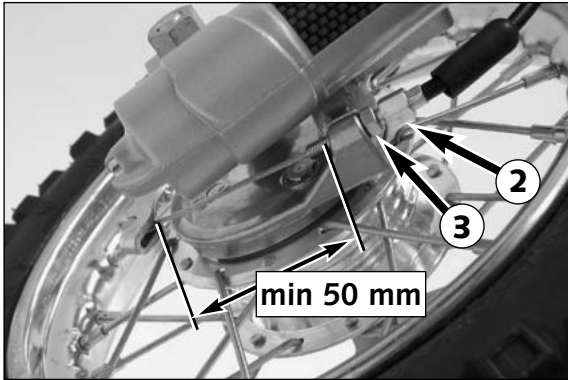
### Adjusting the front wheel brake cable

The hand brake lever should travel between 10 and 15 mm (0.4-0.6 in) before the front wheel is actually slowed down.

To adjust the brake control cable, use either the adjusting screw ① at the hand brake lever or the adjusting screw ② at the brake backing plate. Before commencing to adjust the cable, always release the counternut ③. Afterwards, the counternut must be retightened. Properly remount the rubber protection piece ④ pulled back earlier.

! **CAUTION** !

AFTER ADJUSTING THE CABLE, ALWAYS CHECK IF THE WHEEL TURNS SMOOTHLY.

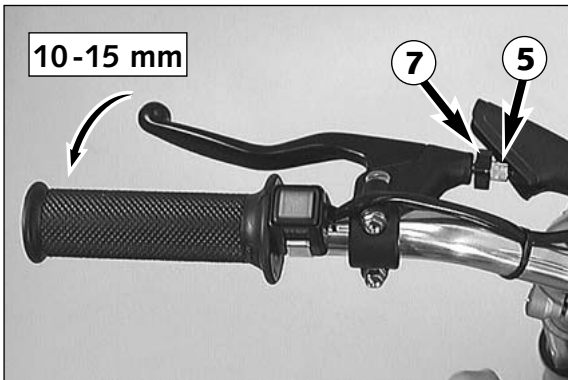


### Checking the front brake linings for wear

The brake linings must be replaced when the distance between the hub brake lever and the cable support, measured with the brake lever squeezed, is less than 50 mm (2 in) (see illustration).

! **CAUTION** !

IF THE BRAKE LININGS ARE REPLACED TOO LATE, I.E. WHEN THE LINING IS PARTLY OR FULLY WORN AWAY, THE METAL SHOES WILL RUB AGAINST THE BRAKE DRUM, THUS REDUCING THE BRAKING EFFECT AND DESTROYING THE BRAKE DRUM.



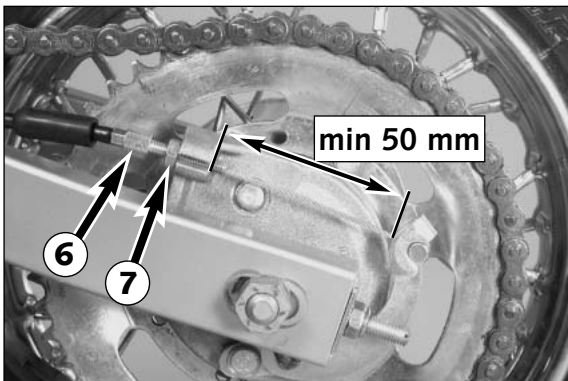
### Adjusting the rear wheel brake cable

The hand brake lever should travel between 10 and 15 mm (0.4-0.6 in) before the rear wheel is actually slowed down.

To adjust the brake control cable, use either the adjusting screw ⑤ at the hand brake lever or the adjusting screw ⑥ at the brake backing plate. Before commencing to adjust the cable, always release the counternut ⑦. Afterwards, the counternut must be retightened. Regarding the rubber protection piece, proceed as for the front-wheel brake.

! **CAUTION** !

AFTER ADJUSTING THE CABLE, ALWAYS CHECK IF THE WHEEL TURNS SMOOTHLY.

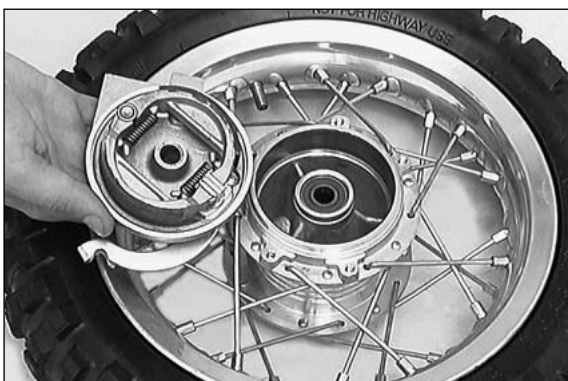


### Checking the rear brake linings for wear

The brake linings must be replaced when the distance between the hub brake lever and the cable support, measured with the brake lever squeezed, is less than 50 mm (2 in) (see illustration).

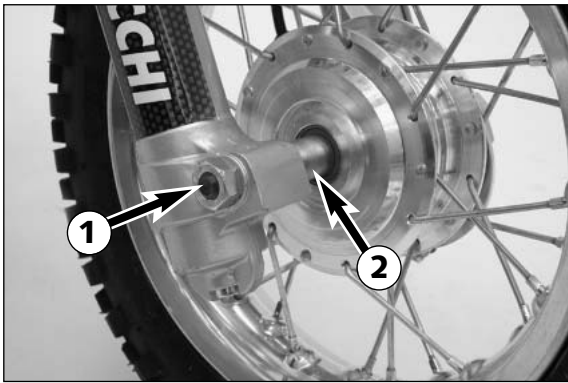
! **CAUTION** !

IF THE BRAKE LININGS ARE REPLACED TOO LATE, I.E. WHEN THE LINING IS PARTLY OR FULLY WORN AWAY, THE METAL SHOES WILL RUB AGAINST THE BRAKE DRUM, THUS REDUCING THE BRAKING EFFECT AND DESTROYING THE BRAKE DRUM.



### Drum brake maintenance

Drum brake maintenance is limited to occasional blowing out of brake drum and brake shoes. Brake drum and brake linings can be slightly roughened with an abrasive tape.



### Removing and mounting the front wheel

Jack up the motorcycle by the frame.

Remove the right hexagon nut of the wheel spindle ❶ together with the washer.

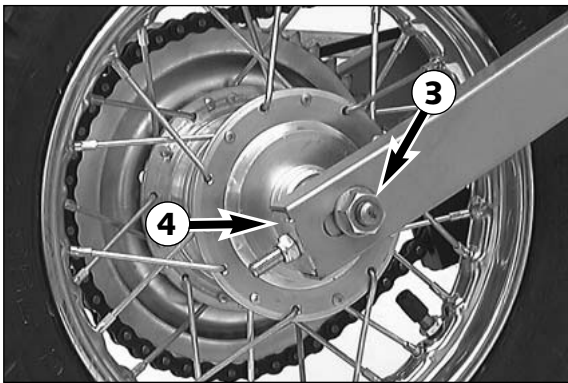
Pull the wheel spindle halfway out and remove the spacer ❷.

Now pull out the wheel spindle out until the wheel is free but not so far that the brake backing plate comes off.

Turn both wheel and fork slider tube to the left and remove wheel.

To mount the wheel reverse the procedure described above.

Tighten the hexagon nut to 30 Nm.



### Removing and mounting the rear wheel

Prop up the motorcycle under the frame.

Remove the right hexagon nut of the wheel spindle ❸ together with the washer.

Hold the rear wheel and remove the wheel spindle.

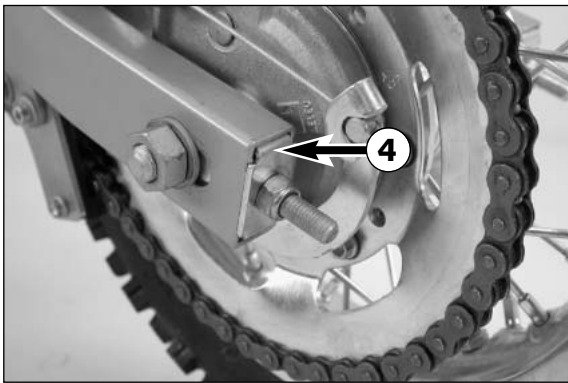
Move the rear wheel forwards, remove chain, lift the rear wheel out of the swinging fork and remove the brake anchor.

To mount the wheel reverse the procedure described above.

Always hook the brake backing plate into the swing arm support.

Before tightening the hexagon nut of the wheel spindle, ensure that the supporting plates ❹ are resting against the swing arm. Additionally, check that the rear wheel is aligned with the front wheel.

Tighten the hexagon nut to 30 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.



### 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.
- 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.
- Regularly check the "cold" tire pressure. Correct tire pressure (1.0 bar / 14 psi) guarantees optimum grip and maximum tire life.



#### WARNING



- DAMAGED TIRES MUST BE REPLACED IMMEDIATELY TO PROTECT YOUR YOUNGSTER.
- WORN TIRES CAN HAVE A NEGATIVE EFFECT ON HOW THE MOTORCYCLE PERFORMS, ESPECIALLY ON WET SURFACES
- TIRE PRESSURE BELOW THE NORMAL LEVEL WILL LEAD TO PREMATURE TIRE WEAR.



### Checking spoke tension

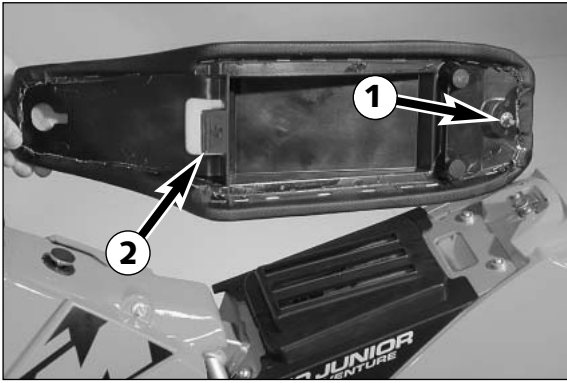
The correct spoke tension is very important for the stability of the wheels and thus for riding safety. A loose spoke causes the wheel to become unbalanced and before long other spokes will have come loose. Check spoke tension, especially on a new motorcycle, in regular intervals. If necessary, have the spokes retightened and the wheel centered by a KTM dealer.



#### WARNING

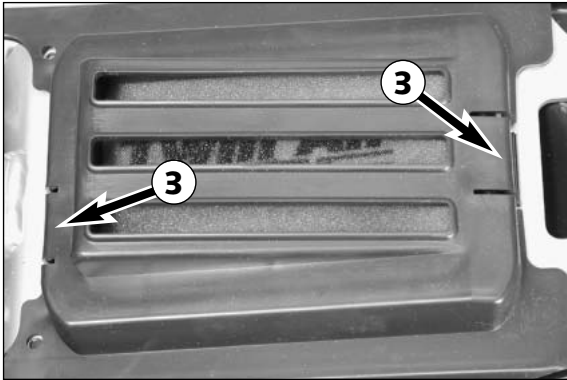


- SPOKES CAN TEAR IF YOU CONTINUE TO RIDE WITH THEM LOOSE. THIS MAY LEAD TO AN UNSTABLE HANDLING OF YOUR MOTORCYCLE.
- EXCESSIVELY TENSIONED SPOKES MAY RUPTURE DUE TO LOCAL OVERLOADING. THE SPOKES MUST BE TENSIONED TO 2,5 - 3 NM.



### Removing the seat

The quick-release mechanism ❶ allows removal of the seat without tools. Turn the quick-release device approximately 180° counter clockwise, lift the rear portion of the seat and pull the seat off backwards. When mounting the seat ensure that the hook ❷ engages at the tank.



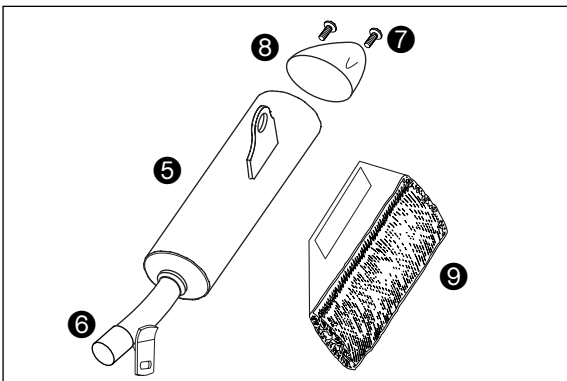
### Cleaning the air filter \*

The air filter must be cleaned at intervals depending on the amount of dust accumulated. To clean the air filter, first remove the seat. Then press both retaining clips ❸, remove the filter holder and the air filter ❹. The air filter consists of a foam rubber insert soaked with filter oil.

- ! CAUTION !**
- DO NOT CLEAN THE FOAM FILTER WITH FUEL OR PETROLEUM SINCE THESE WILL DAMAGE THE FOAM. KTM RECOMMENDS THE PRODUCTS MADE BY TWIN AIR FOR AIR FILTER MAINTENANCE.
  - NEVER OPERATE YOUR MOTORCYCLE WITHOUT AN AIR FILTER. OTHERWISE, DUST AND DIRT MAY GET INTO THE ENGINE AND LEAD TO INCREASED WEAR.
  - THE HOLDER MUST RETAIN THE AIR FILTER THROUGHOUT ITS ENTIRE CIRCUMFERENCE. IF THE FILTER HAS BEEN MOUNTED INCORRECTLY, THE ENGINE WILL TAKE IN UNFILTERED AIR, THEREBY CAUSING INCREASED ENGINE WEAR.



Thoroughly wash the foam filter in special cleaning fluid and allow it to dry well. Only press out the filter, do not wring it out under any circumstances. Oil the dry foam filter with a high-grade filter oil. Also clean the air filter box. Check carburetor collar for damage and that it is filled correctly. Insert the air filter in the opening and fasten it with the filter holder. Then mount the seat.



### Exhaust system \*

The silencer is filled with glass-fiber yarn for damping. When in use, the glass-fiber yarn becomes loose or coked with oil carbon. This can lead to a power loss and a reduction of the silencer damping. The glass-fiber yarn packing can be replaced in a few easy steps.

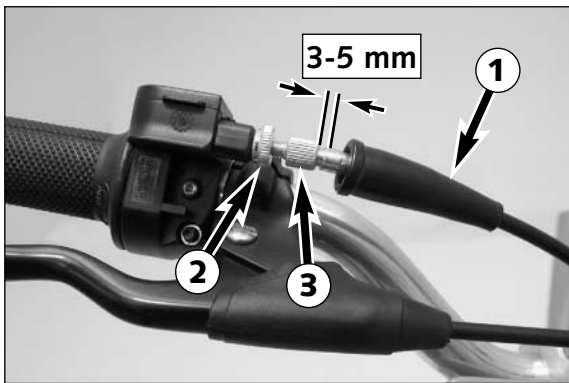
To replace, remove the silencer from the vehicle and mark the position of the outer tube ❺ to the inner tube ❻. Remove screws ❼ and the end cap ❽. Pull off the outer tube and remove the old glass-fiber yarn packing ❾ from the inner tube. Thoroughly clean all parts.

To assemble, mount a new glass-fiber yarn packing onto the inner tube (see illustration) and slide into the outer tube. Mount end cap and fix with screws ❼. Before tightening the screws, turn the outer tube until they match the positions you marked. Mount the silencer and check the exhaust system for tightness.



NOTE: Glass - fiber yarn packages are offered by your licensed KTM dealer.

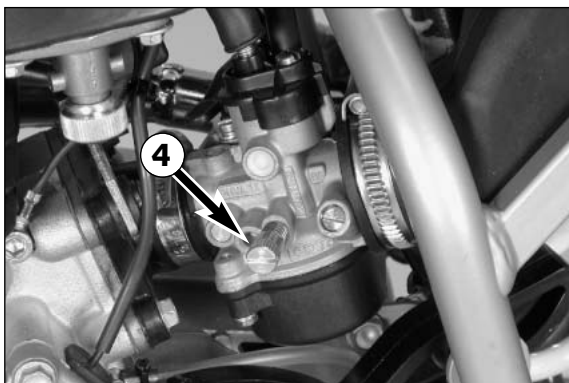
- ! WARNING !**
- THE EXHAUST SYSTEM BECOMES VERY HOT WHILE THE MOTORCYCLE IS RUNNING. TO AVOID BURNS DO NOT START WORK ON THE EXHAUST SYSTEM UNTIL IT HAS PROPERLY COOLED DOWN.



### Adjusting the throttle cable \*

There must always be a 3 to 5 mm (0.1 to 0.2 in) play in the throttle cable. To check this, move back the protective cover ① on the throttle grip. You must be able to lift the outer covering of the cable 3-5 mm from the adjusting screw ③, until resistance is felt.

To adjust, loosen the counter nut ② and turn the adjusting screw accordingly. Finally tighten counter nut and slide the protective cover back on.

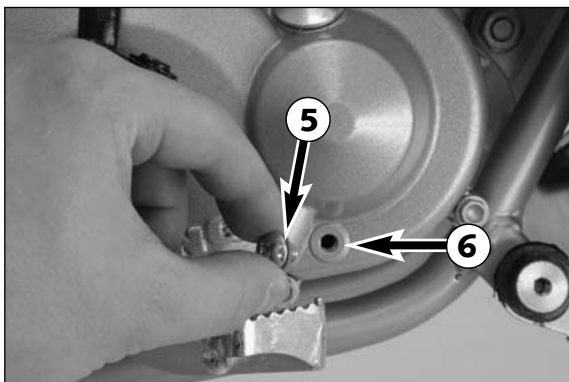


### Adjusting the idle speed \*

The idle speed can be adjusted with throttle stop screw ④.

Turning in clockwise direction will increase the idle speed.

Turning in counterclockwise direction will reduce the idle speed.

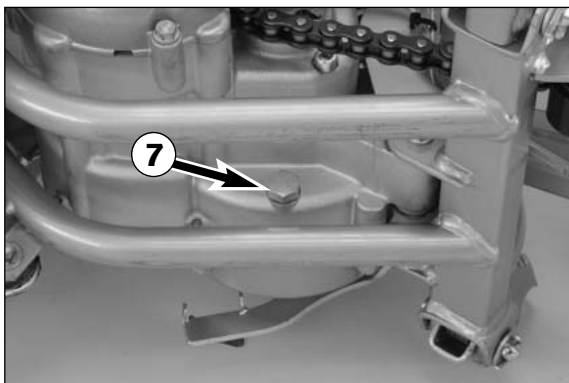


### Checking the gear oil level

To check the gear oil level, first remove the plug ⑤. With the motorcycle parked in an upright position, a small quantity of oil should flow out of the indicator opening ⑥. If oil must be added, tilt the motorcycle and pour gear oil ( Shell Donax TA) into the bore.

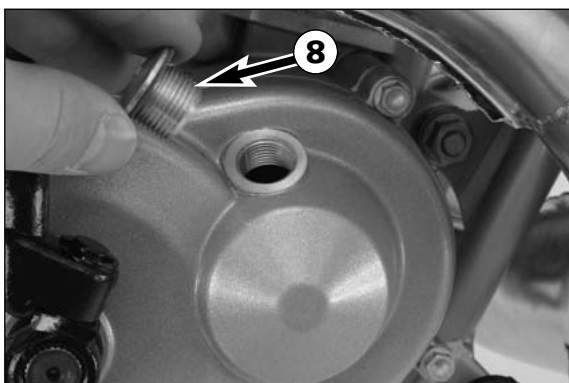
**! CAUTION !**

LESS OIL OR A POOR OIL QUALITY LEAD TO PREMATURE TRANSMISSION WEAR. THEREFORE, ONLY USE BRANDED PRODUCTS (SHELL Donax TA).



### Changing gear oil \*

The engine must be warmed up before changing the gear oil. Park the motorcycle on a horizontal surface, remove the oil drain plug ⑦ and drain the used oil into an appropriate container. Clean the sealing surface, mount the oil drain plug together with the gasket and tighten to 15 Nm.

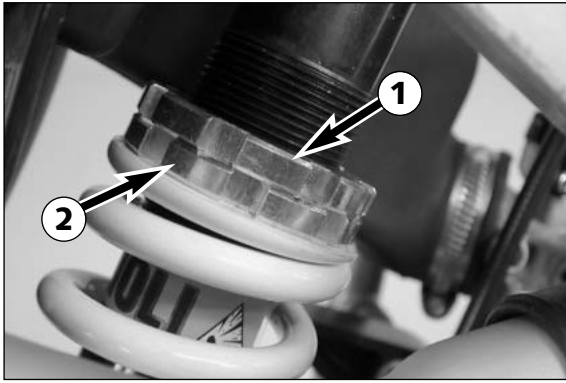


Remove stopper ⑧ and fill in 0.15 liters of automatic gear oil (Shell Donax TA). Mount the stopper and check the engine for tightness.

**! CAUTION !**

LESS OIL OR A POOR OIL QUALITY LEAD TO PREMATURE TRANSMISSION WEAR. THEREFORE, ONLY USE BRANDED PRODUCTS (SHELL Donax TA).





## Changing spring preloading of the shock absorber

This is easily done.

NOTE: Before changing the spring preload note down the basic setting, e.g. how many threads are visible above the adjusting ring.

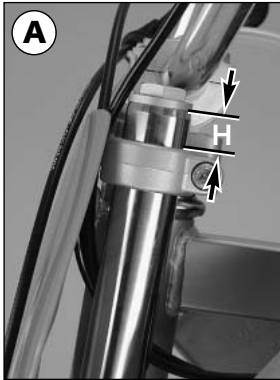
Remove the right side cover.

Loosen the locking ring ❶ with the hook spanner. Change the spring preload with the adjusting ring ❷ and re-tighten the locking ring ❶.

### BASIC SETTING – SPRING PRELOAD:

50 AC JUNIOR 8 mm (0,32 in)

50 AC SENIOR 12 mm (0,48 in)



## Changing the seat height

The seats on some mini models can easily be raised by 25 mm (1 in). This allows you to adjust the seat as your child grows.

Figures A and B show the fork and shock absorber positions for a low seat position. The fork tubes extend approx. 17 mm (0.7 in) (H) above the top triple clamp. The shock absorber is attached to the upper hole in the frame. Tighten the clamp screws on the fork stabilizers to 15 Nm, the bold on the shock absorber to 45 Nm.

Figures A and B: low seat position

Figures C and D: high seat position



Figures C and D show the fork and shock absorber positions for a high seat position. Fork tubes are flush with top of top triple clamp. (Bold cap (Aluminium) protrudes from the top of the top triple clamp)

The shock absorber is attached to the lower hole in the frame. Tighten the clamp screws on the triple clamp to 15 Nm, the bold on the shock absorber to 45 Nm.



### WARNING



THE FORK TUBES MAY NOT BE LOWERED ANY FURTHER THAN AS DESCRIBED ABOVE, OTHERWISE THE CLAMPING ON THE TOP TRIPLE CLAMP WILL NO LONGER BE ADEQUATE.

## 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 fails to start	<p>Operating error</p> <p>Fuel supply interrupted</p> <p>Electrode distance too large</p> <p>Plug fouled by oil, wet or bridged</p> <p>Ignition wire or spark plug connector damaged</p> <p>Kill button wire or short-circuit switch faulty</p> <p>Loose ignition cable connectors</p> <p>Spark too weak</p> <p>Water in the carburetor and jets blocked</p>	<p>Open fuel tap, replenish fuel, do not use choke</p> <p>Close fuel tap, loosen fuel hose at carburettor, lead into a basin and open fuel tap, – if fuel leaks out, clean carburettor – if no fuel leaks out, check tank ventilation, i.e. clean fuel tap</p> <p>Reduce electrode distance (0.60 mm)</p> <p>Clean spark plug or renew</p> <p>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</p> <p>Disconnect black coloured cable from short circuit button at ignition coil and check ignition spark. If the spark is O.K. repair defective part of cable or ignition switch</p> <p>Inspect cable connectors</p> <p>Examine ignition system</p> <p>Dismantle and clean carburetor</p>
Engine without idle running	<p>Idle adjusting screw out of adjustment</p> <p>Ignition system damaged</p> <p>Wear</p>	<p>Readjust idle running or replace idle adjusting screw</p> <p>Examine ignition system</p> <p>Overhaul engine</p>
Less power of engine	<p>Air filter obstructed</p> <p>Fuel supply partly interrupted or blocked</p> <p>Loss of compression due to loose spark plug</p> <p>Exhaust system damaged</p> <p>Engine has not enough preignition</p> <p>Reed paddles tensionless or damaged, surface of reed valve housing damaged</p> <p>Wear</p>	<p>Clean or renew airfilter</p> <p>Blow through fuel pipe and clean carburetor</p> <p>Tighten spark plug</p> <p>Check exhaust system for damage</p> <p>Check and adjust ignition</p> <p>Replace reed paddles or reed valve housing</p> <p>Overhaul engine</p>

TROUBLE	CAUSE	REMEDY
Engine stalling or running with four stroke cycle	Carburetor overflows if level adjust too high, float needle seating is dirty or enlarged  Loose carburetor jets	Clean carburetor, if necessary replace float needle and adjust level  Tighten jets
High rpm misfiring	Incorrect heat range spark plug or low quality spark plug  Loose, corroded or non conductive ignition socket connector	Refer to technical data section  Check and seal with silicon
Engine splutters into the carburetor	Lack of fuel  Spark plug with incorrect heat value (Ignition by incandescence)  Engine takes air out of control	Clean fuel pipes, examine tank aeration and clean  Fit correct spark plug  Check intake flange and carburettor if firmly setted
Engine overheating	Incorrect ignition timing because of loose stator screws  Incorrect compression ratio  Cylinder head or O-ring of cylinder head gasket leaks	Readjust to correct ignition timing specifications, secure screws with Loctite 243  Measure and adjust compression ratio  Check cylinder head, replace O-ring
Excessive oil escapes from transmission breather tube	Excessive oil quantity in transmission	Correct transmission oil level

## CLEANING

Clean your motorcycle regularly in order to keep its painted finish looking shiny and new. The best manner would be to use warm water that has been mixed with a commercially available washing detergent and a sponge. The hard dirt can be removed before with the help of a soft water jet.

---

### ! CAUTION !

---

NEVER CLEAN YOUR MOTORCYCLE WITH A HIGH-PRESSURED CLEANER OR A HIGH-PRESSURED WATER JET, OTHERWISE THE WATER MIGHT RUN INTO THE ELECTRICAL COMPONENTS, CONNECTORS, SHEATHED CABLES, BEARINGS, CARBURETOR, ETC. AND CAUSE MALFUNCTIONS, I.E., LEAD TO THE PREMATURE DESTRUCTION OF THESE PARTS.

- You should use commercially available detergents to clean the motorcycle. Heavily soiled parts should also be cleaned with the help of a paint brush.
- Before cleaning with water, plug the exhaust pipe to prevent water ingress.
- 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 its operating temperature, and also operate the brakes. The heat also causes the water at the inaccessible parts of the engine and the brakes to evaporate.
- 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 the gliding bearing parts. Also treat the chain with a chain spray.
- To prevent failures in the electric system, you should treat the short circuit button with a contact spray.

## STORAGE

If you want to put your motorcycle away for longer periods of time, please observe the following instructions:

- Clean motorcycle thoroughly (see chapter: CLEANING)
- Change engine oil (old engine oil contains aggressive contaminations).
- Let the engine warm up again, close fuel tap and wait until the engine dies off by itself. In this way, the carburetor jets are prevented from becoming resin-clogged by the old fuel.
- Remove spark plug and fill in approx. 5 ccm of engine oil into the cylinder through the opening. Actuate kickstarter 10 times in order to distribute the oil onto the cylinder walls and mount the spark plug.
- Let fuel flow out of tank into an appropriate basin.
- Correct tire pressure.
- Lubricate bearing points of the control levers, footrests, etc. as well as the chain.
- The storage place should be dry and not be subjected to overly great temperature fluctuations.
- Cover the motorcycle with an air permeable tarpaulin or blanket. Do not use airtight materials, as possible humidity might not be able to escape and thereby 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 EXHAUST TO RUST.

### USE AFTER PERIOD 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 should 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 shop at the beginning of the next biking season.

## TECHNICAL DATA – ENGINE 50 AC 2003

Engine	50 AC (mixture lubrication)	50 AC (separate lubrication)
Design	single cylinder 2-stroke engine, with reed valve inlet	
Displacement	49.0 ccm	
Bore/Stroke	39.5 / 40 mm	
Fuel	Lead-free SUPER FUEL (ROZ 95), mixed with 2-stroke oil	Lead-free SUPER FUEL (ROZ 95)
Lubrication	mixture lubrication	separate lubrication
Oil/gasoline ratio	1 : 40	-
2-stroke oil	high-grade two-stroke oils for mixture lubrication (Shell Advance Racing X)	high-grade two-stroke oils for separate lubrication (Shell Advance Ultra 2)
Crankshaft bearing	2 grooved ball bearing	
Connecting rod bearing	needle bearing	
Piston pin bearing	needle bearing	
Piston rings	1 rectangular ring	
Primary drive	straight cut spur gears, 16 : 57 t	
Transmission oil	0.15-0.2 liter gear oil Dexron II (Shell Donax TA)	
Spark plug	NGK BR 8 ECM	
Electrode gap	0.6 mm	
Carburetor	Dell'Orto PHVA 14 DS	Dell'Orto PHVA 12 XS
Air filter	wet foam type air filter insert	

### BASIC CARBURETOR SETTING

Model	50 MINI ADVENTURE (SEPARATE LUBRICATION)	50 JUNIOR/SENIOR ADVENTURE
Type	Dell'Orto PHVA 12 XS	Dell'Orto PHVA 14 DS
Main jet	60	80 (70)
Needle jet	211 FA	211 FA
Idling jet	38	45
Jet needle	A10	A10
Needle position from top	4.	3.
Air/Mixture reg. screw open	4	3.5
Slide	40	40
Starting jet	60	60

### TIGHTENING TORQUES - ENGINE

Primary gear nut	M14x1,25	40 Nm
Hexagon nut ignition rotor	M10x1,25	20 Nm
Nut of clutch hub	M10x1,25	Loctite 243 + 35 Nm
Cylinder head screws	M7	15 Nm
Cylinder base nuts	M8	18 Nm
Allen head bolt -Stator	M5x25	Loctite 243 + 8 Nm
Oil plug	M16	5 Nm
Oil drain plug	M10	15 Nm
Other engine bolts	M5	7 Nm
	M6	10 Nm
	M8	30 Nm

## TECHNICAL SPECIFICATIONS - CHASSIS 50 MINI 2003

	50 MINI ADVENTURE	50 JUNIOR ADVENTURE	50 SENIOR ADVENTURE
Frame	single downtube, split-cradle		
Fork	Marzocchi Ø = 32 mm (1,26 in)		
Wheel travel front/rear	115/185 mm (4,5/7,3 in)	135/234 mm (5,3/9,2 in)	175/190 mm (6.9/7.5 in)
Rear suspension	Central shock absorber Paioli		
Front brake	Drum brake Ø 90 mm (3,5 in)		
Rear brake	Drumbrake Ø 90 mm (3,5 in)		
Tires	front/rear 2.50x10" VRM-140		
Tire pressure	front/rear: 1,0 bar / 1,0 bar		
Fuel tank capacity	1,8 Liter		
Final drive ratio	11 : 48		
Chain	1/2x3/16" 96 rolls		1/2x3/16" 104 rolls
Steering angle	62°	63°	64°
Wheel base	910 mm (35.8 in)	914 mm (36 in)	1030 mm (40 in)
Seat height, unloaded	590 mm (23.2 in)	615 mm (24.2 in)	650 or 675 mm (adjustable) (25.6 or 26.6 in)
Ground clearance	190 mm (7.5 in)	220 mm (8.6 in)	255 mm (10 in)
Rider's body height	max. 130 cm (51 in)		
Rider's body weight	max. 35 kg (78 lbs)		
Recommended age of rider	4 - 6 years		
Engine	50 AC		

TIGHTENING TORQUES		
Hexagon nuts front axle	M12x1	30 Nm
Hexagon nuts rear axle	M12x1	30 Nm
Hexagon nut swing arm bolt	M10	20 Nm
Clamping bolt top triple clamp	M8	15 Nm
Clamping bolt bottom triple clamp	M8	15 Nm
Screws handlebar clamp	M8	20 Nm
Shock absorber top / bottom	M10	45 Nm
Spoke nipple	M4	2,5 - 3 Nm
Other chassis screws	M5	6 Nm
	M6	10 Nm
	M8	25 Nm
	M10	45 Nm

STANDARD-ADJUSTMENT – FORK	
	50 AC
Spring	2.0 N/mm
Preload	10 mm (0.4 in)
Fork oil	SAE 7.5
Air chamber length	110 mm (4.3 in)

STANDARD ADJUSTMENT – SHOCK ABSORBER		
	50 AC Junior	50 AC Senior
Spring preload	8 mm	12 mm

## HEAD WORD INDEX

	Page
Adjusting the front wheel brake cable.....	20
Adjusting the idle speed.....	23
Adjusting the rear wheel brake cable.....	20
Adjusting the throttle cable.....	23
Basic suspension setup for the weight of the driver.....	17
Braking.....	12
Chain maintenance.....	19
Changing spring preloading of the shock absorber.....	24
Changing the gear oil.....	23
Changing the seat height.....	24
Changing the telescopic fork oil.....	18
Chassis number.....	6
Check chain tension.....	19
Checking and adjusting the steering head bearing.....	16
Checking spoke tension.....	21
Checking the front brake linings for wear.....	20
Checking the gear oil level.....	23
Checking the rear brake linings for wear.....	20
Choke.....	7
Cleaning / Storage.....	27
Cleaning the air filter.....	22
Cleaning the dust scrubbers of the telescopic fork.....	16
Correct chain tension.....	19
Driving.....	11
Driving instructions.....	10
Drum brake maintenance.....	20
Engine number, engine type.....	6
Exhaust system.....	22
Filler cap.....	7
Fuel tap.....	7
General tips and warnings for starting the motorcycle.....	9
How to change the handlebar position.....	19
Important information on safe driving for parents.....	4
Instructions for the first ride.....	9
Kickstarter.....	8
Left hand brake lever.....	7
Maintenance work on chassis and engine.....	16
Operation instruments.....	6
Periodic maintenance schedule.....	14
Refueling, fuel mixture lubrication.....	12
Refueling, fuel separate lubrication.....	13
Removing and mounting the front wheel.....	21
Removing and mounting the rear wheel.....	21
Removing the seat.....	22
Right hand brake lever.....	6
Running in.....	9
Serial number locations.....	6
Short circuit button.....	7
Side stand.....	8
Starting off.....	11
Starting when engine is cold.....	11
Starting when engine is warm.....	11
Stopping.....	12
Technical data - chassis.....	29
Technical data - engine.....	28
Telescopic fork maintenance.....	17
Throttle grip.....	6
Tires, air pressure.....	21
Trouble shooting.....	25
What to do when the engine is "flooded".....	11
What you should check before each start.....	10



**KTM SPORTMOTORCYCLE AG**

5230 Mattighofen  
Austria

Internet: [www.ktm.at](http://www.ktm.at)



321045