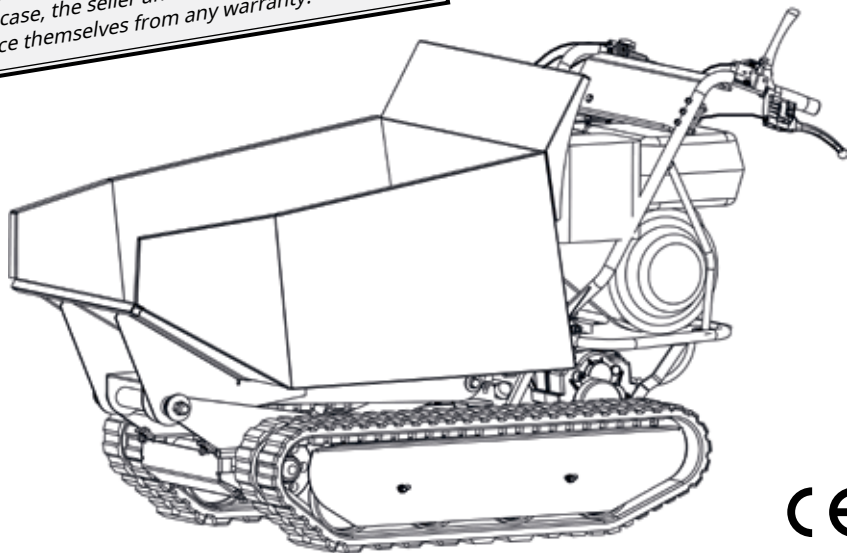




## MD-500H

**DANGER!**

*The engine oil and hydraulic oil were drained for shipping. The engine oil and hydraulic oil must be topped up before the first use! Incorrect oil filling can lead to irreparable damage to the engine and the hydraulic system.  
In this case, the seller and manufacturer distance themselves from any warranty.*



Art.No. MD500H

D

original operating instructions

**Mini crawler dumper MD-500H, hydraulically tiltable**

**DANGER!**

Before assembling and using the device, read the entire text of the operating instructions. Use these instructions to familiarize yourself with the device, its correct use and the safety instructions. Keep them in a safe place so that you can refer to the information at any time.

If you hand the device over to other people, please also hand over the complete manual.

**A NOTICE**

*According to the applicable product liability law, the manufacturer of this device is not liable for damages caused to or by this device in the following cases:*

- improper handling,*
- Failure to follow the operating instructions,*
- Repair by third parties, unauthorized specialists,*
- Installation and replacement of non-original spare parts,*
- improper use. The risk is borne solely by the user.*

Graphics, images, texts and layouts created by LUMAG GmbH are subject to copyright and the laws protecting intellectual property. Reproduction or use of such graphics, images, texts and layouts in other electronic or printed publications is not permitted without the express consent of LUMAG GmbH.

*Type and design subject to change.*

- 1. Introduction**
- 2. Intended use**
- 3. Safety instructions**
  - 3.1 General safety rules
  - 3.2 Work area
  - 3.3 Personal safety
  - 3.4 Fuel safety
  - 3.5 Machine use and maintenance
  - 3.6 Maintenance
  - 3.7 Special safety rules
- 4. Warning and information symbols used**
- 5th delivery**
  - 5.1 Engine oil
  - 5.2 Hydraulic oil
- 6. Functions and controls**
- 7th operation**
  - 7.1 Filling with fuel
  - 7.2 Starting the engine
  - 7.3 Idle
  - 7.4 Stopping the engine
- 8. Maintenance**
  - 8.1 Preventive maintenance
  - 8.2 Adjusting the clutch
  - 8.3 Adjusting the steering
  - 8.4 Lubrication
  - 8.5 Tightening the chains
  - 8.6 Replacing the chains
  - 8.7 Engine maintenance
  - 8.8 Changing the hydraulic oil
- 9. Storage**
- 10. Transport**
- 11. Troubleshooting**
- 12. Technical data**
- 13. Warranty / Guarantee / Customer Service**
- 14. EC Declaration of Conformity**
- 15. Components of the machine / hydraulics**

## 1. INTRODUCTION

This manual contains information and procedures for the safe operation and maintenance of this model. For your own safety and to prevent injury, carefully read, understand, and follow the safety instructions in this manual at all times.

You will find the mini dumper easy and safe to use, and with proper care it will give you many years of reliable service.

## 2. INTENDED USE

The mini dumper is a motorized wheelbarrow, hand-held and has a four-speed gearbox, three forward and one reverse. Thanks to its efficient reduction gear, the device is able to move in any situation and under any load. The device is suitable for small loading and transport tasks in gardening, landscaping and agriculture, taking into account the specifications and safety instructions listed in this manual.

Only loads up to 500 kg may be moved. The permitted inclination in the direction of travel of 10° and transverse to the direction of travel of 8° must not be exceeded.

The mini dumper is equipped with a chain and a tipping container as standard. Unlocking and tipping is done hydraulically.

The mini dumper is not approved for transporting people.

Any use that does not comply with the above specifications is deemed to be improper. LUMAG GmbH will indemnify itself against the consequences of any claims resulting from non-compliance with these provisions.

### **DANGER!**

**Persons who are not familiar with the operating instructions, children, young people and persons under the influence of alcohol, drugs or medication are not permitted to operate the device.**

## 3. SAFETY INSTRUCTIONS

When using the mini dumper, the following basic safety measures must be observed to protect against the risk of injury, fire and property damage.

Read all these instructions before using this appliance and keep them


## SAFETY INSTRUCTIONS

Keep safety instructions safe. **Inadequately informed operators can endanger themselves and others through improper use.**

The information concerning your personal safety is highlighted by a warning triangle; information concerning property damage alone is provided without a warning triangle.

 **GEFAHR**

Failure to follow these instructions may result in serious danger to life or death.

 **WARNUNG**

Failure to follow these instructions may result in death or serious injury.

 **CAUTION**

Failure to follow these instructions may result in minor to moderate injury.

**A NOTICE**

*Failure to follow these instructions may result in damage to the engine or other property.*

In addition, the operating instructions contain other important text passages marked with the word **DANGER** are marked.

### 3.1 General safety rules

 **WARNUNG**

**Instructions on hazards, warnings and precautions must be strictly observed to minimize the risk of personal injury, property damage and improper servicing.**

1. Read and observe the operating instructions and the symbols and signs on the machine. Learn their use and limitations as well as their potential sources of danger.
2. Familiarize yourself with the operation and proper use. You should know how to stop the machine and quickly switch off the control.
3. Do not attempt to operate the machine until you fully understand how to properly operate and maintain the engine and how to avoid accidental injury and/or property damage.

### 3.2 Work area



**Internal combustion engines pose a particular danger during operation and when refueling. Always read and observe the warnings and the additional safety instructions listed further down in this manual. Failure to observe these instructions could result in serious or even fatal injuries.**

1. Do not start or run the engine indoors, in a garage or in an enclosed area. The engine exhaust contains poisonous carbon monoxide. Exposure to carbon monoxide can lead to unconsciousness and death. Only operate the device in a well-ventilated outdoor area.
2. Only operate the machine in good visibility and lighting conditions.
3. Adjust the working speed to the current conditions.
4. When reversing, use extreme caution to avoid slipping or falling.

### 3.3 Personal safety



**Familiarize yourself with the machine. Proper training is a prerequisite for working safely with this device. Incorrect operation or operation by untrained personnel can be dangerous. Read the operating instructions for this device carefully and familiarize yourself with the controls and their functions. Above all, learn how to stop the engine quickly and safely in an emergency.**

#### **DANGER!**

**Persons who are not familiar with the operating instructions, children, young people under the age of 18 and persons under the influence of alcohol, drugs or medication are not permitted to operate the device.**

1. Dress properly. Wear long trousers, non-slip shoes or boots and gloves. Do not wear loose clothing, shorts or any kind of jewellery. Protect long hair by tying it back at shoulder height. Keep your hair, clothing and gloves away from moving parts. Loose clothing, jewelry or long hair can become caught in moving parts.
2. Always wear personal protective equipment (PPE).
  - Hearing protection to reduce the risk of hearing loss.
  - Eye protection to reduce the risk of eye damage.
  - Sturdy work gloves, leather gloves offer good protection.
  - Sturdy shoes or boots with non-slip soles.
  - Wear a protective helmet to protect against flying debris, depending on the work environment.
3. Check your machine before starting it up. Make sure that all safety devices are in place and functioning properly and in the protective position.

## SAFETY INSTRUCTIONS

- Make sure all nuts, bolts, etc. are tightly tightened.
4. Damaged protective devices and covers must be repaired or replaced as intended by an approved specialist workshop, unless otherwise stated in the operating instructions.
  5. Moving parts must function properly and must not bind. All parts must be correctly fitted and meet all conditions to ensure the correct operation of the power tool.
  6. Use only approved parts. This machine complies with the relevant safety regulations. Repairs must only be carried out by an approved service center or our service team using original spare parts; otherwise, accidents may occur to the user.
  7. Never remove or tamper with the safety device. Check regularly that it is working properly.
  8. Do not operate the machine if the engine switch does not turn it on or off. All gasoline-powered machines that cannot be controlled by the engine switch are dangerous and must be replaced. Defective switches must be replaced at a service center.
  9. Make it a habit to check that all keys and spanners are removed from the machine area before operating the machine. Tools or spanners left near a moving part of the machine can cause injury.
  10. Be alert. Pay attention to what you are doing and use common sense when operating the machine.
  11. Do not overestimate yourself. Do not operate the machine barefoot, in sandals or similar light footwear. Wear safety shoes that protect your feet and give you grip on slippery surfaces. Make sure you have a firm footing and always keep your balance. This will allow you to better control the machine in unexpected situations.
  12. Avoid accidental starting. Make sure the engine is turned off before transporting the machine or performing any maintenance or servicing on it. Transporting or servicing a running machine can lead to accidents.

### 3.4 Fuel safety



**Internal combustion engines pose a particular danger during operation and when refueling. Always read and observe the warnings and the additional safety instructions listed further down in this manual. Failure to observe these instructions could result in serious or even fatal injuries.**

1. When refilling or emptying the fuel tank, use an approved fuel container in a clean, well-ventilated outdoor area. Do not smoke, avoid sparks, open flames or other sources of ignition while refueling or operating the machine. Never fill fuel tanks indoors.

2. Keep grounded, conductive objects, such as tools, away from exposed live parts and connections to avoid sparks and arcing. These events could ignite smoke or fumes.
3. Always stop the engine and allow it to cool before adding fuel. Never remove the fuel tank cap or add fuel when the engine is hot or running. Never operate the machine with known leaks in the fuel system.
4. Slowly loosen the fuel cap to release any pressure from the tank.
5. Never overfill the fuel tank. Do not fill the tank more than 1 1/2 cm below the bottom of the filler neck to allow enough room for expansion as the heat of the engine can cause the fuel to expand.
6. Replace all fuel tank and container caps securely and wipe up any spilled fuel. Never operate the unit without the fuel tank cap securely in place.
7. Avoid creating sources of ignition in the event of fuel spillage. If fuel is spilled, do not attempt to start the engine. Move the machine away from the area and avoid creating any sources of ignition until the fuel vapors have dissipated.
8. Store fuel in containers specially designed and approved for this purpose. Store fuel in a cool, well-ventilated area, away from sparks, open flames or other sources of ignition.
9. Never store fuel or a fueled appliance in an area where fuel vapors can come into contact with sparks, open flames or other ignition sources such as a kettle, stove, clothes dryer, etc. Allow the engine to cool before storing it in an enclosed area.

### **3.5 Machine use and maintenance**

1. Position the machine so that it cannot move during maintenance, cleaning, adjustment, assembly of accessories or individual parts, or during storage.
2. Do not force the machine. Use the machine that is right for your needs. A properly adjusted machine will do its job better and more safely at the speed for which it was designed.
3. Do not change the engine control settings or over-rev the engine. The speed controller regulates the maximum allowable operating speed of the engine.
4. Do not run the engine at high speed when not working.
5. Never place hands or feet near rotating parts.
6. Avoid contact with hot fuel, oil, exhaust fumes and hot surfaces. Do not touch the engine or muffler. These parts become extremely hot during operation. They remain hot for a short time after the machine is turned off. Allow the engine to cool before attempting any maintenance or adjustment.
7. If the machine starts to make an unusual noise or vibration, stop the engine immediately, disconnect the spark plug cable and look for the cause. Unusual noises or vibrations are usually warning signs of problems.



## SAFETY INSTRUCTIONS

8. Use only attachments and accessories approved by the manufacturer. Failure to do so may result in injury.
9. Maintain the machine. Make sure that all moving and fixed parts are in the correct position, that there are no broken parts or other defects that could affect the smooth operation of the machine. If the machine is damaged, repair it before using it. Many accidents are caused by poorly maintained equipment.
10. Keep the engine and exhaust free of grass, leaves, excessive grease or carbon deposits to reduce the risk of fire hazard.
11. Never pour water or other liquids onto the device. Keep the handles dry, clean and free from dirt. Clean the device after each use.
12. Follow proper disposal laws and regulations for gas, oil, etc. to protect the environment.
13. Store the machine properly when not in use. Secure the machine against rolling away. Choose a safe location so that the machine cannot be started by unauthorized persons. Do not store the machine outdoors or in a damp environment.

## 3.6 Maintenance

**⚠ WARNING**

**Improper maintenance or failure to observe or resolve a problem can become a source of danger during operation. Only operate machines that have been regularly and correctly maintained. This is the only way you can be sure that you will operate your device safely, economically and without problems. And for a long time to come.**

1. Before cleaning, repairing or inspecting the machine, make sure that the engine is stopped and all moving parts are stopped.
2. Disconnect the spark plug wire and keep it away from the spark plug to prevent accidental starting of the engine.
3. Have your machine repaired only by qualified personnel and only with original spare parts. This will ensure the safety of the machine.

## 3.7 Special safety rules

**⚠ WARNING**

**Instructions on hazards, warnings and precautions must be strictly observed to minimize the risk of personal injury, property damage and improper servicing.**

1. Check the work area carefully and keep it clean and free of dirt to avoid tripping hazards. Work on level ground.
2. Never stay in areas where your body could be exposed to the elements in case of movement during assembly, installation and commissioning, maintenance, repair or

- would jeopardize the transfer.
3. Keep spectators, children and animals at least 22 meters away. If they approach, switch off the device immediately.
  4. Do not climb onto the tipping container or transport anyone with it.
  5. Never place the machine, especially when loaded, on unstable ground that could give way.
  6. Disengage the clutch before starting the engine.
  7. Start the engine carefully according to the instructions, keeping your feet well away from all moving parts.
  8. Never leave the operating position when the engine is running.
  9. Always hold the machine with both hands when operating it. Grasp the handlebars firmly. Be aware that the machine may unexpectedly jump up or forward if it hits buried obstacles such as large stones.
  10. Walk! Never run with the machine.
  11. Do not overload the machine capacity. Operate at a safe speed, adjusting it to the terrain gradient, road conditions and load to be transported.
  12. Use extreme caution when reversing or pulling the machine toward you.
  13. Always use extreme caution when crossing or driving on dirt roads, gravel paths or country lanes. Stay alert for hidden dangers or traffic.
  14. On soft ground, drive in first forward/reverse gear. Do not accelerate quickly, make sharp turns or stop.
  15. Be extremely careful when working on frozen ground as the machine may slip.
  16. If possible, avoid driving on gravelly riverbeds, gravel terrain, reinforced concrete, stony fields, tree trunks as these operations may cause serious damage or shorten the life of the tracks.
  17. Do not operate the machine in a confined space where there is a risk that the operator could be crushed between the machine and other objects.
  18. Do not operate the machine on slopes with an angle greater than 15°.
  19. When travelling up a slope, whether forward or backward, always make sure that your weight is evenly distributed. Always move in the direction parallel to the slope (up or down). To avoid danger, do not change gears on a slope.
  20. When tipping the load from the tipper, the centre of gravity of the load changes constantly and the ground conditions will be decisive for the stability of the machine. There are particular risks for tracked dumpers operating on soft ground and their Load such as clay sticks to the vehicle body.

## SYMBOLS USED

## 4. WARNING AND NOTE SYMBOLS USED

Symbols are attached to the machine. These represent important information about the product or instructions for use.

**DANGER!**

This is about your safety. This symbol indicates a danger, warning or caution.



Before commissioning, read and observe the operating instructions and safety information carefully.



Before cleaning, maintenance or repair work, switch off the engine and disconnect the spark plug connector.

**GEFAHR**

## Health and explosion hazards from combustion engines



- **The engine exhaust contains poisonous carbon monoxide. Being in an atmosphere containing carbon monoxide can lead to unconsciousness and death. Do not run the engine in an enclosed area.**



- **Before commissioning, read and observe the operating instructions and safety information carefully.**



- **Keep the engine away from heat, sparks and flames. Do not smoke near the mini dumper!**



- **Petrol is extremely flammable and explosive. Before refueling, turn off the engine and let it cool down.**



- **Use unleaded fuel RON95.**

**MANDATORY SIGNS**

Before commissioning, read and follow the operating instructions and safety instructions carefully. Otherwise, the risk of injury to the operator and other persons increases.



Always wear hearing and eye protection when operating the machine. Wear a safety helmet appropriate to the work environment.



Wear protective gloves.



Wear safety shoes.



**RISK OF TOLLING!**

If the maximum permitted incline is exceeded, there is a risk of tipping over. Under no circumstances should the maximum slope of 10% be exceeded.



Never tip the container on soft ground or at an angle.



**WARNING! Danger of flying objects.**

Bystanders, pets and livestock must never stand in front of or next to the moving mini dumper. When the engine is running, keep a sufficient safety distance of at least 22 meters.



Keep bystanders away.



**Warning of hot surface!**

Contact can cause burns. Only carry out maintenance, servicing and cleaning work when the engine has cooled down.



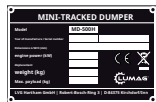
**WARNING! Keep hands and feet away from rotating parts.** Only touch machine parts when they have come to a complete standstill. Never open or remove protective devices when the engine is running. Danger from rotating parts such as chains or drive belts.



Protection and safety devices must not be removed or modified.



sound power level LWA



**NAMEPLATE**

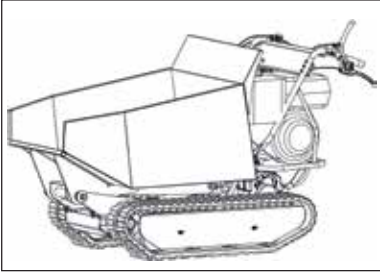
Equipped with model name, year of manufacture and serial number. Please always state this information when ordering spare parts or for service information.



Old electrical/motor devices are recyclable materials and therefore do not belong in household waste! Please dispose of the components in an environmentally friendly manner.

## 5. SCOPE OF DELIVERY

Mini tracked dumper with tipping container (hydraulically tiltable forward) and petrol engine.



Pre-assembled device unit

### 5.1 Engine oil

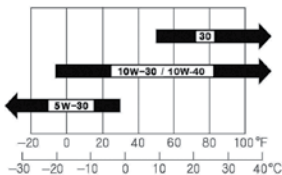
#### A NOTICE

*The machine is delivered without engine oil. The first thing to do before using it for the first time is to fill it with engine oil. Failure to do so can lead to irreparable damage to the engine.*

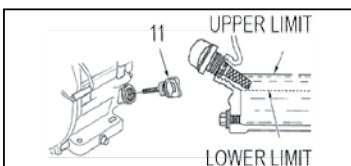
Engine oil must be topped up before first use!



**The engine oil was drained for shipping. Incorrect oil filling can lead to irreparable damage to the engine. In this case, the seller and manufacturer distance themselves from any warranty.**



Use commercially available engine oil with the specification 10W-30 or 10W-40.



Remove the engine filler plug on the engine and fill in engine oil until it is visible in the thread of the filler opening (= lower edge of the oil filler opening).

**Filling capacity approx. 1.1 liters.** Do not overfill!

## 5.2 Hydraulic oil

### A NOTICE

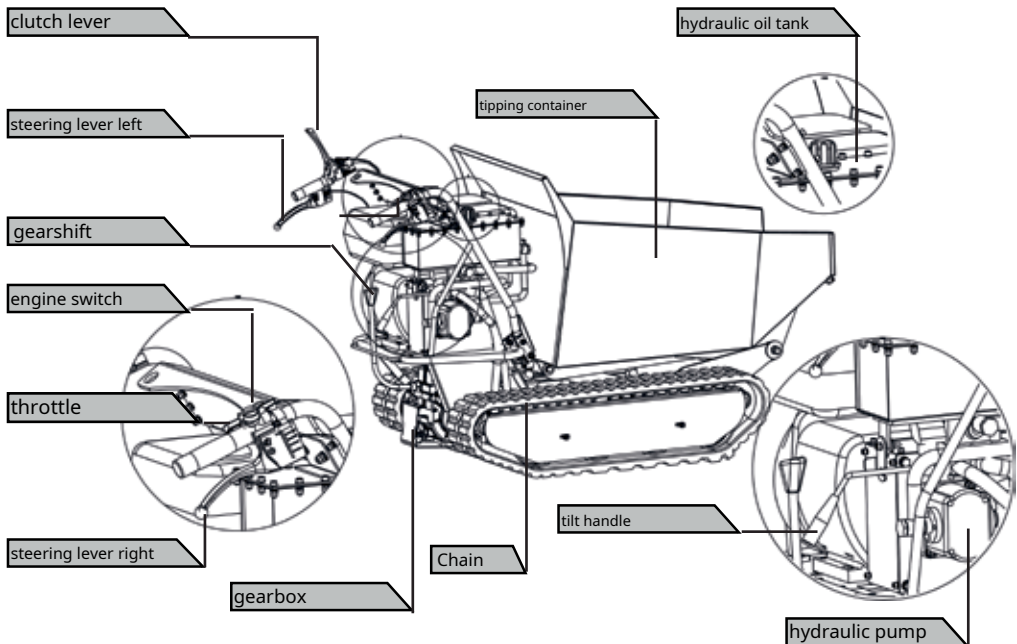
*The machine is delivered without hydraulic oil. Before first use, hydraulic oil must be filled into the hydraulic tank. Failure to do so may result in damage to the hydraulic system. In this case, the seller and manufacturer will not provide any warranty.*

**Hydraulic oil capacity: max. 3.0 liters.** Do not overfill!

### Recommended hydraulic oil

Commercially available hydraulic oils such as SHELL Tellus 10-46, Esso Nuto H46, DEA HD B46 are suitable for the mini tracked dumper. Alternatively, any other equivalent hydraulic oil of viscosity class HLP 46 is suitable. This oil is available from agricultural machinery dealers.

## 6. FUNCTIONS AND CONTROLS



**engine switch**

The engine switch turns the ignition system on and off.

The engine switch must be in the ON position for the engine to run. Turning the engine switch to the OFF position will turn the engine off.

**clutch lever**

The clutch is disengaged by pressing the clutch lever. To engage the clutch, release the lever.

**throttle**

The throttle lever controls the engine speed. By operating the throttle lever accordingly, the engine runs faster or slower.

**Left steering lever**

This lever is operated to move to the left.

**right steering lever**

This lever is operated to move to the right.

**gearshift**

This lever controls the forward and backward movements of the machine.

**tilt handle**

This lever makes emptying the container easy. Operate the lever to release the lock and lift the container. Then pull the lever back to its original position. When the container is back in this position and lowered, the mechanism locks again. To check that the tipping container is securely hooked and locked, try lifting the container without operating the lever.

## 7. OPERATION

**DANGER!**

You may only carry out the work described in this chapter after you have read and understood chapters 3.**safety instructions** read and understood. It concerns your personal safety!

**A NOTICE**

*Before first use, **engine oil** Incorrect oil filling can lead to irreparable damage to the engine. In this case, the seller and manufacturer distance themselves from any warranty.*

- Use commercially available engine oil with the specification 10W-30 or 10W-40.
- Remove the engine oil filler plug on the engine.
- Fill in engine oil until it is visible in the thread of the filler opening (= lower edge of the oil filler opening).

**A NOTICE**

Before first use, **hydraulic oil** To ensure the proper operation of the hydraulic system, the device should be operated idle for a while at low temperatures so that the hydraulic oil can warm up.

The hydraulic system is a closed system and consists of an oil tank, oil pump and control valves. An oil level that is too low can damage the pump.

- Use commercially available hydraulic oil with viscosity class HLP 46.
- Remove the hydraulic oil filler screw on the hydraulic tank.
- Fill in a maximum of 3.0 liters of hydraulic oil. This level should not be exceeded so that the contents have room to expand.
- Hydraulic oil must be refilled to half the level at the latest to ensure safe use of the machine.
- Before each start-up, check whether there is sufficient hydraulic oil in the tank.
- The connections and screw joints must be checked regularly for leaks and tightened if necessary.
- Make sure that the device and the work area are clean and free of oil stains. **Risk of slipping and fire!**
- Never operate the equipment if there is a risk of hydraulic fluid.

**7.1 Filling with fuel**

Fill the fuel tank according to the instructions in the separate engine manual supplied with the machine.

**CAUTION**

**Engine damage!** Risk of engine damage due to incorrect gasoline.



- **Danger of engine damage due to incorrect petrol. Only fill up with ROZ95 petrol. Under no circumstances should you fill up the mini dumper with a 2-stroke mixture.**

This engine requires only unleaded gasoline with a research octane rating of 95. Use only fresh, clean fuel. Water or impurities in the gasoline will damage the fuel system.

**A NOTICE**

Only fill the tank up to 1 1/2 cm below the lower edge of the filler neck so that the contents have room to expand.

**7.2 Starting the engine**

A detailed description of engine operation and all related warnings and actions can be found in the separate engine manual supplied with the mini dumper. For cold starts, follow the procedure below:



1. Place the gearshift lever in the transmission to neutral.
2. Move the choke lever on the machine to the full choke position.
3. Turn the ignition switch to "ON"
4. Pull the starter rope several times to allow the petrol to flow into the engine's carburetor.  
Then hold the starter handle firmly and pull the rope out briefly until you feel resistance.  
Then pull the rope out gently and quickly and let it run back gently. Do not let the rope snap back. If necessary, pull the rope several times until the engine starts.
5. Let the engine run for a few seconds to warm it up. Then gradually move the choke lever to the "OPEN" position.

Restarting an engine that is already warm from previous operation does not normally require a choke.

1. Turn on the machine's engine.
2. Hold the starter handle and pull the rope out briefly until you feel resistance.
3. Then pull the rope out gently and quickly and let it run back gently. Do not let the rope snap back.
4. After the engine has warmed up briefly, slowly move the clutch lever and engage the desired gear. If the desired gear cannot be engaged immediately, slowly release the clutch lever and repeat the process. In this way, the mini dumper will move. Pull the throttle to adjust the speed accordingly.
5. The mini dumper has steering levers on the handles, making it easy to steer. To turn right or left, simply use the right or left steering lever.

- Steering sensitivity increases in proportion to the speed and load of the machine: if the machine is unloaded, a light pressure on the lever is sufficient to produce a steering movement. If the machine is loaded, a slightly higher pressure is required.
- The mini dumper has a maximum capacity of 500 kg. However, it is recommended to measure and adjust the load according to the ground on which the machine will be used.
- It is therefore recommended to drive in a low gear and with particular caution on difficult routes. In such situations, the machine should be driven in a low gear for the entire route.
- Avoid sharp turns and frequent changes of direction when driving on the road, especially on rough, hard terrain that has many sharp, uneven spots and causes high friction.
- Although the machine is equipped with rubber tracks, please remember to be careful when operating in adverse weather conditions (ice, heavy rain and snow) or on surfaces where the mini dumper may become unstable.
- Please note that this machine is a tracked vehicle and will tilt considerably when driving over bumps, holes and steps.
- When the clutch lever is released, the machine stops and brakes automatically.
- If the machine is stopped on steep slopes, one of the chains must be secured with a wedge.

**A NOTICE**

*The mini tracked dumper is not approved for use on public roads.*

**7.3 Idle**

To protect the engine when not working, move the throttle to the "SLOW" position. Shifting the engine down to idle extends engine life, saves fuel and reduces the noise level of the machine.

**7.4 Stopping the engine**

To stop the engine in an emergency, release the clutch lever and turn the switch on the engine to the "OFF" position. Under normal conditions, proceed as follows.

1. Move the throttle lever to the SLOW position.
2. Let the engine idle for 1-2 minutes.
3. Turn the ignition switch to "OFF".
4. Turn the fuel valve lever to OFF.

**A NOTICE**

*Do not set the choke lever to CHOKE to stop the engine. Danger of backfiring or damage to the engine!*

**8. MAINTENANCE****⚠ WARNING**

**Improper maintenance or failure to observe or resolve a problem can become a source of danger during operation. Only operate machines that have been regularly and correctly maintained. This is the only way you can be sure that you will operate your device safely, economically and without problems. And for a long time to come.**

All persons carrying out maintenance work on the mini dumper must be technically qualified and appropriately trained. They must be aware of all dangers and risks associated with the device. Any further work not described in this manual may only be carried out by a qualified specialist workshop.

To keep the machine in good working condition, it must be properly maintained and lubricated.

### 8.1 Preventive maintenance

Turn off the engine and release all control levers. The engine must be cold.

Check the overall condition of the device. Check for loose screws, misalignment or blockage of moving parts and other conditions that could affect safe operation.

Remove all dirt and other substances from the chain and the machine. Clean after each use. Then lubricate all moving parts with a light, high-quality lubricator.

#### A NOTICE

*Never use a high-pressure cleaner to clean the device. Water can penetrate into sealed areas of the machine and gearbox and damage shafts, gears, bearings or the motor. The use of high-pressure cleaners shortens the service life and reduces the operational suitability of the machine.*

### 8.2 Adjusting the clutch

As the clutch wears, the lever in question may open further and become inconvenient to operate. In this case, the cable must be adjusted to return the clutch lever to its original position so that it can once again act on the adjuster and the lock nut.

### 8.3 Adjusting the steering

If the machine is difficult to steer, the steering levers must be adjusted using the special adjustment devices.

1. Loosen the lock nut and screw on the adjusters to eliminate any slack in the cable that may occur during initial operation or due to normal wear. **DANGER!** Do not screw the adjustment devices too far, otherwise another problem could arise: loss of traction.
2. At the end of the adjustment process, do not forget to tighten the lock nut again.

### 8.4 Lubrication

The gearbox is filled and sealed with 80W90 gear oil at the factory.

Check the oil level every 50 hours of operation. To do this, carefully loosen the inspection screw on the left side of the gearbox block. The machine must be in a horizontal position. If no oil comes out when you loosen the inspection screw, fill the gearbox block with 80W90 gear oil and tighten the inspection screw again.

### 8.5 Tightening the chains

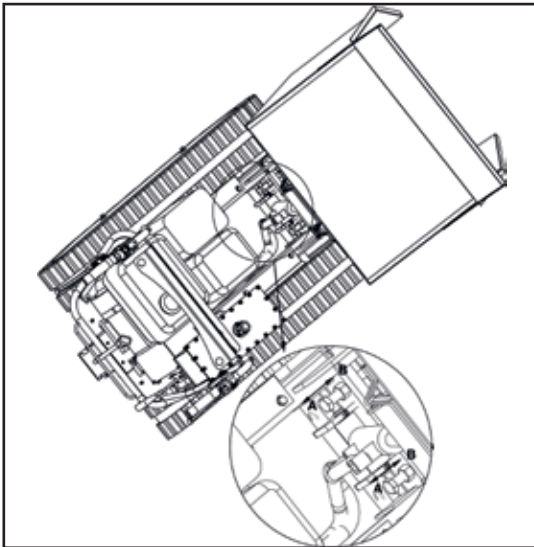
With use, chains can become loose. Operating with loose chains can cause them to slip over the drive sprocket and cause them to jump out of its housing or stop working safely, potentially damaging the housing.

To check that the chains are secure, proceed as follows:

1. Place the machine on a level surface with compact ground, preferably asphalt or stone floor.
2. Now you can check how much the upper part of the chain sags.
3. Measure the center line of the chain to the horizontal. The distance must not be greater than 10 to 15 mm.

If the distance is greater, proceed as follows:

1. Operate the tipping handle to tip the tipping container and place it on blocks or supports that can support the container weight.



2. Loosen lock nut B.
3. Tighten screw A until the correct tension is restored.
4. Secure screw A by carefully tightening lock nut B.

#### **WARNUNG**

**Adjusting the chains affects the brakes. Please proceed with great caution as an over-tightened chain will result in a loss of braking effect.**

**A NOTICE**

*If the adjustment screw no longer allows further adjustment, the chains should be replaced.*

- Return the tipping container to its original position.

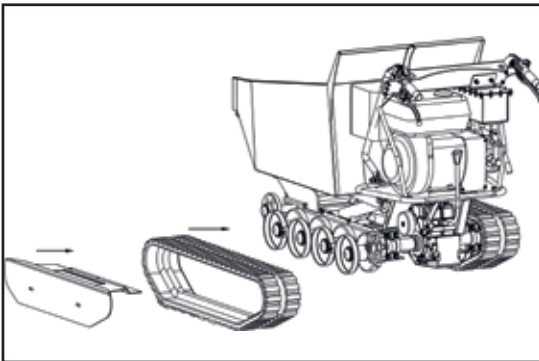
**8.6 Replacing the chains**

Check the condition of the chains regularly. If a chain has broken or become fibrous, it should be replaced as soon as possible.

**⚠ WARNING****Danger of crushing!**

**When removing or installing the chains, be careful not to trap your fingers between the chain and the wheel.**

- Remove the protective cover from the wheels.
- Loosen lock nut B and screw A (as described in section 8.5) to sufficiently loosen the chains.



- Remove the old chains and install the new chains.
- Adjust screw A to create the correct tension.
- Secure screw A by carefully tightening lock nut B.
- Replace the protective cover.

**8.7 Engine maintenance**

For information on engine maintenance, refer to the Engine Manual provided with your unit. This Engine Manual provides you with detailed information and a maintenance schedule to help you perform the appropriate tasks.

### 8.8 Changing the hydraulic oil

First oil change after 50 operating hours and then every 350 operating hours.



- **Used hydraulic oil must be disposed of in an environmentally friendly manner. Take used oil to a public collection point or comply with the relevant country regulations in which the mini crawler dumper is used. Do not dispose of the oil in drains, on the ground or in any type of water.**

### Recommended hydraulic oil

Commercially available hydraulic oils such as SHELL Tellus 10-46, Esso Nuto H46, DEA HD B46 are suitable for the mini tracked dumper. Alternatively, any other equivalent hydraulic oil of viscosity class HLP 46 is suitable. This oil is available from agricultural machinery dealers.

## 9. STORAGE



**Do not store the machine with fuel in an unventilated area where fuel vapors can come into contact with flames, sparks, pilot lights, or other sources of ignition.**

If the mini dumper is not used for more than 30 days, the following steps must be followed to store the device:

1. Completely drain the fuel tank. Fuel containing ethanol or MTBE can go stale during a 30-day storage period. Old fuel has a high gum content and can clog the carburetor and restrict fuel flow.
2. Start the engine and let it run until it stops running. This will ensure that no fuel remains in the carburetor. Let the engine run until it stops running. This will prevent gum buildup in the carburetor and possible engine damage.
3. While the engine is still warm, drain the oil from the engine. Fill with new oil of the quality recommended in the engine manual.
4. Use clean cloths to clean the outside surfaces of the machine and keep the air openings clear.
5. Check for loose or damaged parts. Repair or replace any damaged parts and tighten any loose screws, nuts and bolts.
6. Store the equipment on level ground in a clean, dry, well-ventilated building.

### A NOTICE

*Do not use aggressive or petroleum-based cleaning agents to clean plastic parts. Such chemicals can damage plastic parts.*

## 10. TRANSPORT

### **WARNUNG**

Before transporting the machine or storing it indoors, switch off the engine and allow it to cool down to avoid burns and to eliminate the risk of fire. Furthermore, make sure that people are not endangered by the machine tipping over or slipping or by machine parts flying up or down.

**The mini dumper is heavy and must not be lifted alone. Get help or use the appropriate equipment to lift the machine.**

- Always switch off the engine during transport!
- Make sure that the loading area and side walls are secured.
- Transport the device in a horizontal position to avoid fuel or oil leakage.
  
- When transporting over long distances, the fuel tank must be completely emptied.
- Use the lifting points when lifting.
- Attach suitable hooks to the anchor point and pull up carefully to avoid injury.
  
- Secure the machine on the transport vehicle against rolling, slipping or tipping over and also lash it in suitable places.

### **A NOTICE**

*Before lifting, make sure that the lifting device is capable of safely supporting the weight of the machine (see "Technical data").  
Loading ramps must be load-bearing and stable.*

**11. TROUBLESHOOTING**

Disturbance	Caused	remedy
Engine won't start.	Spark plug cable not connected.	Spark plug cable on the Fasten the spark plug.
	Lack of fuel or old fuel.	Fill with clean, fresh gasoline.
	Choke not in open position.	For cold starting, move the throttle lever to the choke position.
	Fuel line blocked.	Clean the fuel line.
	Spark plug dirty.	Clean, adjust clearance or replace.
	Engine flooded.	Wait a few minutes, start again, but without fuel intake.
Engine runs irregularly.	Spark plug cable loose.	Connect and tighten the spark plug cable.
	Device operates in CHOKE position.	Set the choke lever to OFF.
	Fuel line blocked or old fuel.	Clean the fuel line. Fill the tank with clean, fresh gasoline.
	Close the ventilation opening.	Clear the ventilation opening.
	Water or dirt in the fuel system.	Empty the fuel tank. Fill with fresh fuel.
	Air filter dirty.	Clean or replace air filter.
	Carburettor not adjusted correctly.	See engine manual.
Engine overheats.	Engine oil level too low.	Fill the engine housing with the correct oil.
	Air filter dirty.	Clean the air filter.
	Air flow is obstructed.	Remove the housing and clean.
	Carburettor not adjusted correctly.	See engine manual.
One of the two chains is blocked.	Foreign objects have gotten between the chain and the frame.	Remove foreign bodies.
Machine does not move even though the engine is running.	Gear not engaged correctly.	Make sure the gearshift lever is not between two gears.
	Drive chains not tight enough.	Tighten drive chains.



## TECHNICAL DATA

## 12. TECHNICAL DATA

Model	MD-500H
drive motor	1 cylinder 4-stroke OHV engine
engine power (P / P <sub>2</sub> )	6.8 kW / 5.8 kW (at 3,600 rpm)
displacement	270 cm <sup>3</sup>
working speed	gear 1 forward - 1.1 km/h gear 2 forward - 2.1 km/h gear 3 forward - 2.6 km/h Gear 1 reverse - 0.8 km/h
starting device	recoil starter
drive	gear transmission
steering	steering brake
tipping container	length 1000 mm width 700 mm depth 450 mm
tilting device	Hydraulic, tiltable forward
hydraulic pump	12 l/min (at 3,000 rpm)
Working pressure max.	200 bar
dead weight	275 kg
load capacity max.	500 kg
<i>emissions values idling</i>	
sound pressure level LpA	92 dB(A)
sound power level LpA	103 dB(A)
hand and arm vibration	not more than 2.5 m/s <sup>2</sup>
whole-body vibration	not more than 0.8 m/s <sup>2</sup>
transmission oil	80W90
engine oil	SAE 10W-30 or 10W-40 / 0.6L
hydraulic oil	HLP 46 / 3.0 l
fuel	unleaded gasoline RON95

The values given are emission values and do not necessarily represent safe workplace values. Although there is a correlation between emission and immission levels, this cannot be used to reliably determine whether or not additional precautionary measures are necessary. Factors that influence the current immission level at the workplace include the nature of the work area, other noise sources, e.g. the number of machines and other adjacent work processes. The permissible workplace values can also vary from country to country. However, this information is intended to enable the user to make a better assessment of hazard and risk.

### 13. WARRANTY / GUARANTEE / CUSTOMER SERVICE

#### WARRANTY

The statutory warranty period applies to the device. Any defects that can be proven to be due to material or assembly errors must be reported to the seller immediately. Proof of purchase of the device must be provided by presenting the invoice and receipt when making a warranty claim.

The warranty is excluded with regard to parts if defects have arisen due to natural wear and tear, temperature or weather influences or due to defects resulting from negligent assembly, faulty connection, incorrect fuel/fuel mixture, installation, operation, maintenance, lubrication or force.

Furthermore, no warranty is provided for damage caused by inappropriate or improper use of the machine, such as improper modifications or repair work carried out by the owner or third parties, or intentional overloading of the machine. Wear parts with a limited service life (e.g. V-belts, clutch, throttle cable, spark plug, air filter, battery, blades, hoses, wheels, tools and other aids) as well as all setting and adjustment work are excluded from the warranty.

#### GUARANTEE

LUMAG guarantees impeccable quality and, without prejudice to the statutory warranty, provides a guarantee in the event of material or manufacturing defects. The guarantee for LUMAG products is 24 months for exclusively private use, and 12 months for commercial or professional use or rental, from the date of delivery.

The buyer must always prove warranty claims by providing the original purchase receipt. A copy of this must be enclosed with the warranty application. The buyer's address and machine type must be clearly identifiable for professional or commercial use. Without the original purchase receipt, we can only carry out the repair for a fee.

Please do not send any devices back to us without a SERVICE NUMBER that you have received from our service department. If we receive devices unsolicited, we cannot accept and process them. To request a SERVICE NUMBER, please contact our service team at: [info@lumag-maschinen.de](mailto:info@lumag-maschinen.de)

Please clearly label the shipping box with the SERVICE NUMBER to ensure quick identification.

Warranty work is carried out exclusively by our LUMAG service workshop. Defects that occur within the warranty period due to material or manufacturing defects must be remedied by repair if they have occurred despite proper use and care of the device. We reserve the right to make two repairs if the same defect occurs. If repair fails or is impossible, the device can be exchanged for an equivalent device. If the exchange is also unsuccessful or impossible, there is the option of a replacement.

Normal wear and tear, natural aging, improper use, and cleaning, maintenance and adjustment work are generally not covered by the guarantee (e.g. cutting device, air and fuel filters, spark plugs and recoil starters, drive belts, etc.). Due to operation and use, some components are subject to normal wear and tear, even when used as intended, and may need to be replaced in good time.

#### CUSTOMER SERVICE

If you have any technical questions, information about our products or would like to order spare parts, our service team is available as follows:

Service time: Monday to Thursday from 7.30 a.m. to 12 p.m. and 1 p.m. to 5 p.m.,  
Friday from 7.30 a.m. to 12:30 p.m.  
Phone: 0049 / (0)8571 / 92 556-0  
Fax: 0049 / (0)8571 / 92 556-19  
E-mail: [info@lumag-maschinen.de](mailto:info@lumag-maschinen.de)

## EC DECLARATION OF CONFORMITY

**14. EC DECLARATION OF CONFORMITY**

In accordance with the provisions of the EC directives

- Machinery Directive 2006/42/EC
- Electromagnetic Compatibility 2004/108/EC

the company explains:

LUMAG GmbH  
 Robert-Bosch-Ring 3  
 D-84375 Kirchdorf/Inn  
 Phone: 0049 / (0)8571 / 92 556-0  
 Fax: 0049 / (0)8571 / 92 556-19

that the product

Device type: mini tracked dumper  
 Device type: MD-500H

meets the essential protection requirements of the above-mentioned EC directives. Authorized representative for the compilation of the technical documentation: Gabriele Denk

The declaration of conformity refers only to the machinery in the condition in which it was placed on the market; it does not take into account any parts and/or interventions subsequently fitted by the end user.

Kirchdorf, February 12, 2014

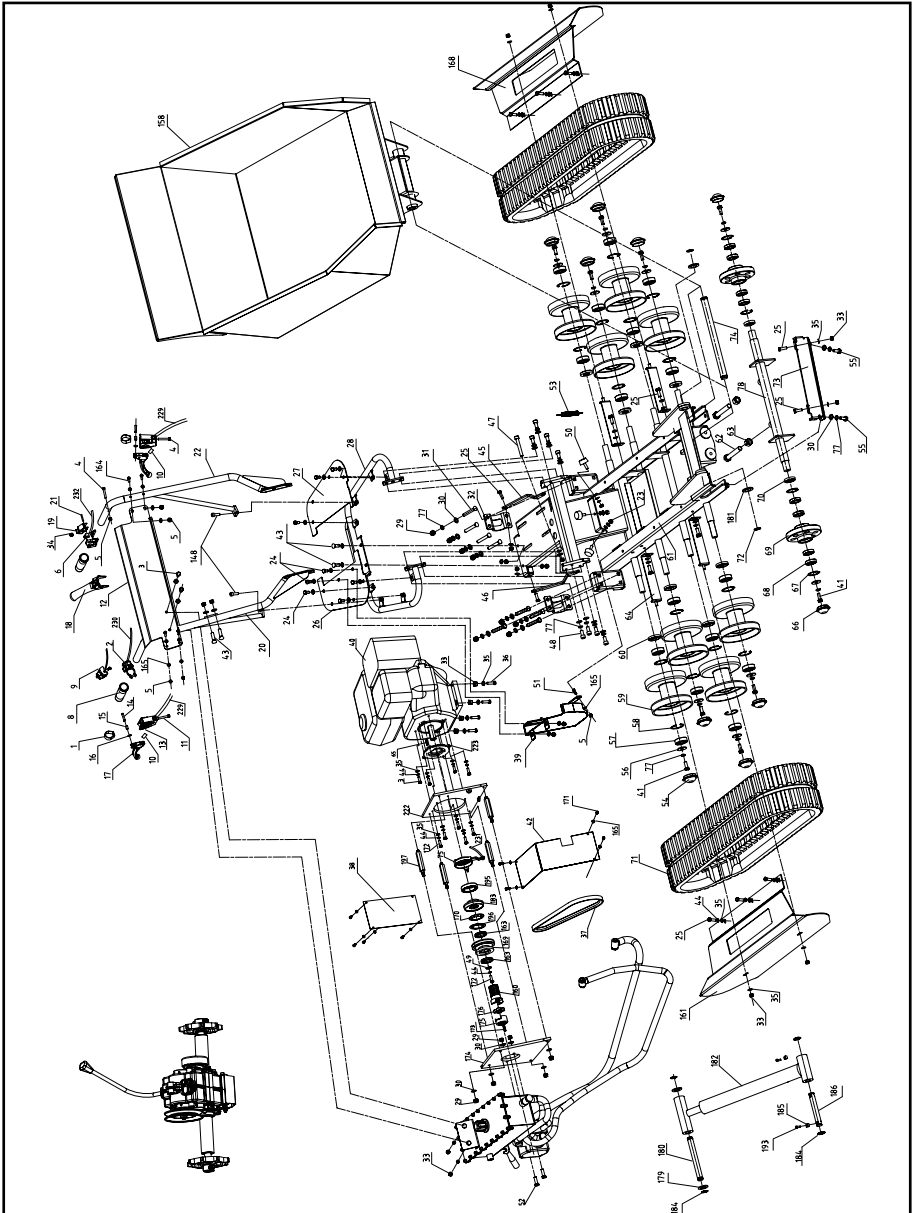
Manfred Weißenhorner, Managing Director

Place, date

distributor, authorized representative

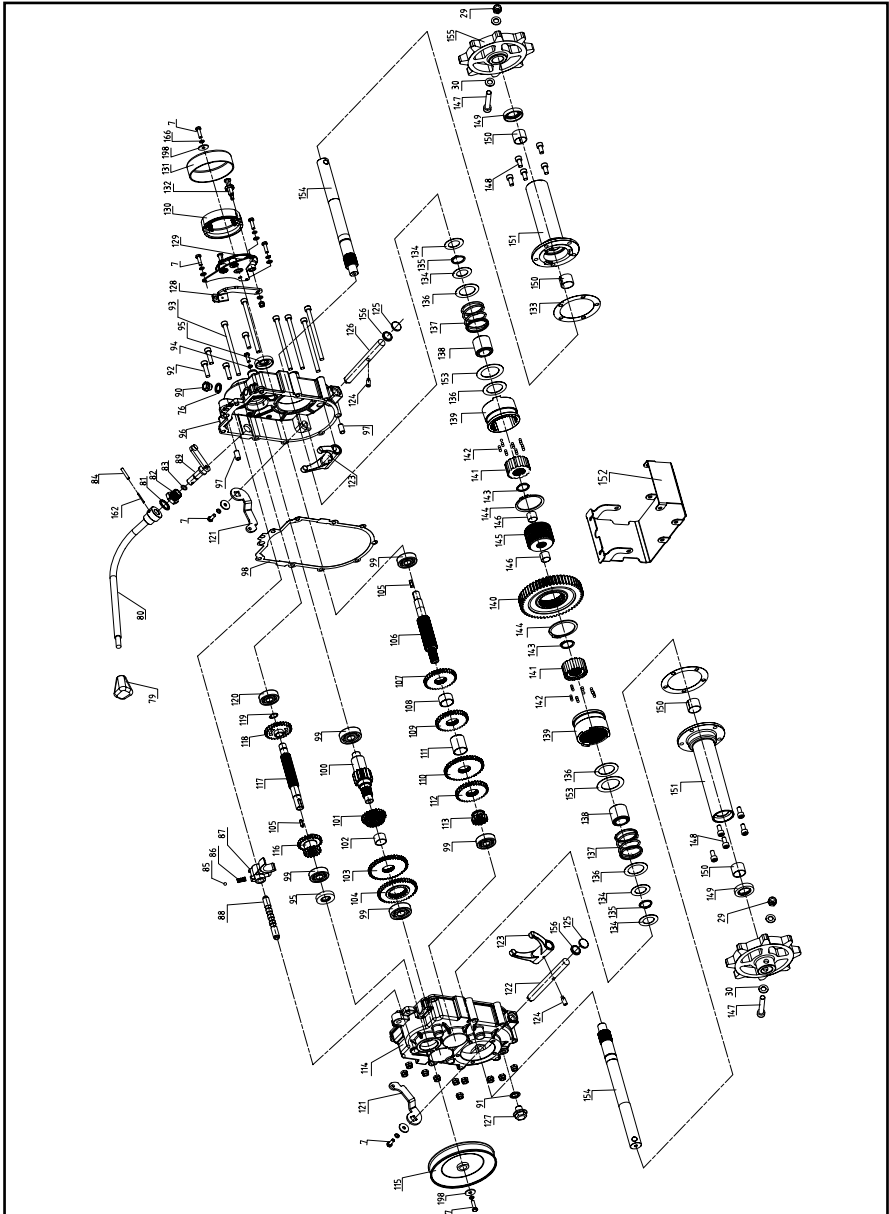


15. COMPONENTS OF THE MACHINE



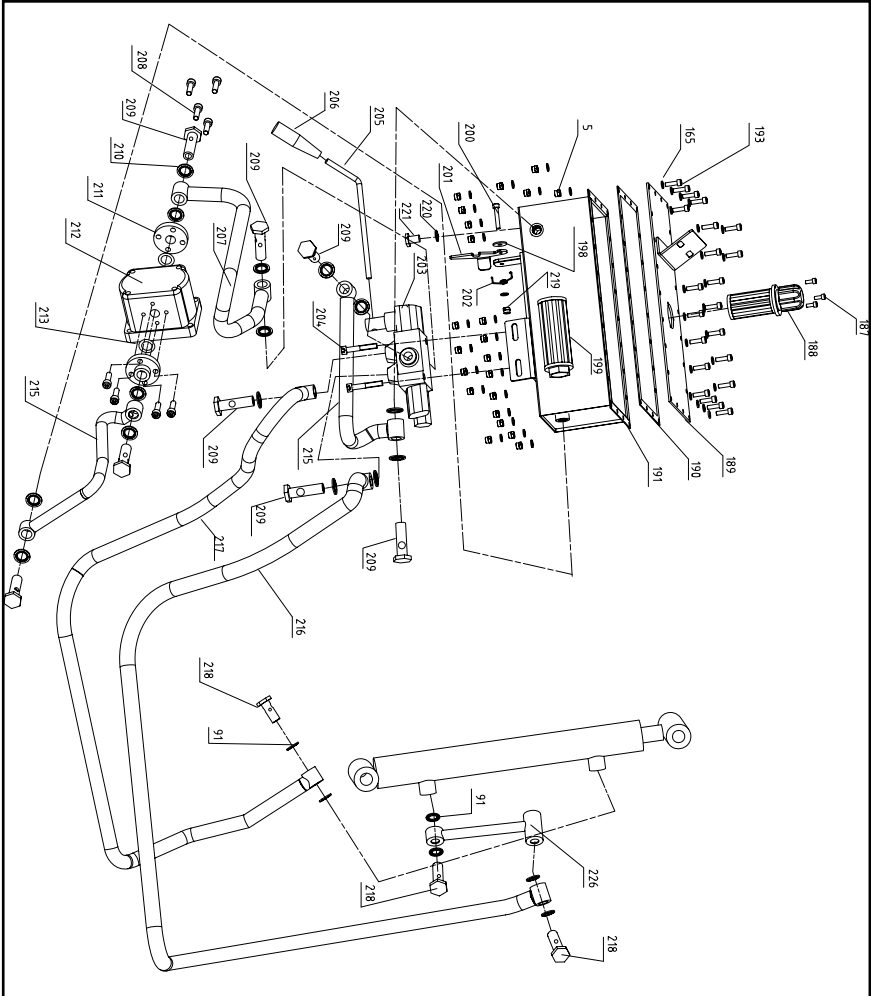
COMPONENTS OF THE MACHINE

gearbox



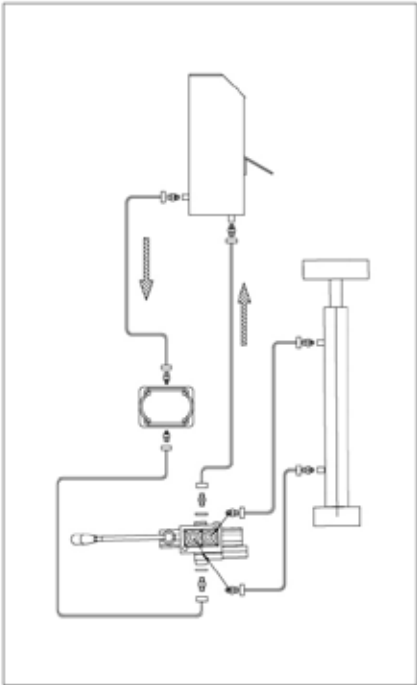
COMPONENTS OF THE MACHINE

hydraulic system



COMPONENTS OF THE MACHINE

hydraulic diagram





**LUMAG GmbH**

Robert-Bosch-Ring 3  
D-84375 Kirchdorf am Inn

Phone: + 49 (0)85 71 / 92 556 - 0  
Fax: + 49 (0)85 71 / 92 556 - 19  
[www.lumag-maschinen.de](http://www.lumag-maschinen.de)

Status: 02/2014 - MD500Hv2