

Translation of the original manual for 2-wheel tractor

Kompakt Easy = CE-2
CE6-2 / CE9-2 Snow / CE10-2



The basis for working with the **KÖPPEL** 2-wheel tractor is that you read, understand and follow this operating manual and that for the **KÖPPEL** attachments as well as the engine manufacturer's operating manual. You may not commence with the operation before having done so. It is forbidden to start work without observing this manual!



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Retain for future reference!



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Foreword



Before putting the **Köppel** Kompakt Easy 2-wheel tractor into operation, it is absolutely essential **to read and follow the instructions regarding appropriate use, the operating manual and the safety instructions!**

The guarantee only applies in the case of proper operation!

Dear customer, You have made the right choice!

Although the available choice is large, you have decided on a **Köppel 2-wheel tractor**. We are particularly pleased about that. We will do our best to satisfy you for many years to come.

We hope you will be our best advertisement from now on.

The following points distinguish our product:

- The appliance is very well balanced, you can work without effort.
- It is equipped with an outstanding engine.
- Maintenance costs are hence very low.
- The operation is simple and effective.
- The supply of spare parts is guaranteed and takes place promptly.
- Optimum customer service is at your disposal at all times.
- Easy turning with wheel deactivation.

The **Köppel** Kompakt Easy 2-wheel tractor is the result of decades of experience and can therefore be used practically and continuously.

The Köppel company is constantly working on the further development of all of its machines and appliances. We therefore reserve the right to make changes to the form, technology, weight and equipment of the scope of supply. Please understand that no claims can be derived from the specifications and illustrations contained in this manual.

IF YOU HAVE ANY REQUESTS FOR IMPROVEMENT, PLEASE LET US KNOW!

Appropriate use



The **Köppel 2-wheel tractor** type Kompakt Easy, in conjunction with the **original Köppel attached device**, is designed exclusively for normal use and work in agriculture and forestry, such as the mowing of grass and meadows:

- **for snow hoeing, snow clearing, sweeping and mowing**

- The conditions specified in the quotation and in ‘appropriate use’ are decisive. Any other use is construed as being inappropriate. The manufacturer shall not be liable for any damages resulting from this; the user alone bears the risk.
- This work is permitted only if the engine sizes, wheel sizes and environmental conditions are suitable.
- The **Köppel 2-wheel tractor** may be used, maintained and repaired only by persons who are familiar with this work and who have been instructed about the hazards.
- The **Köppel 2-wheel tractor** may not be used on steep slopes.
- Unauthorised conversions and alterations to the **Köppel 2-wheel tractor** are forbidden for safety reasons!
- Relevant regulations governing the prevention of accidents as well as the generally accepted regulations governing health and safety at work and road traffic rules must be complied with.



Important!

The **operating, service and maintenance conditions for the Köppel 2-wheel tractor specified in this operating manual are prerequisites for appropriate use and must be strictly adhered to.**



Warning!

If the machine is used for any other purpose than that stated above or is driven with a higher power than is permitted, this can result in:

- dangerous situations for people and
- damage to property.



Warning!

The manufacturer is not aware of any inappropriate or prohibited uses of the machine. The improper attachment of additional devices or the attachment of additional devices and parts not purchased from the Köppel company exclude liability for any resulting damage.

General safety instructions

1. Possible hazards in dealing with the Köppel 2-wheel tractor



In the case of **incorrect operation** or **misuse**, there is a **danger** of

- injury to or death of the operator,
- damage to the **Köppel 2-wheel tractor** and other property belonging to the user,
- impairment of efficient working with the **Köppel 2-wheel tractor**.

All persons who are involved with the start-up, operation, service and maintenance of the **Köppel 2-wheel tractor** must

- be appropriately qualified and
- observe and follow this operating manual precisely!

It's your safety that is at stake!

2. Safety instructions and tips

The following symbols are used in this operating manual:



Warning!

This symbol indicates important safety information in this operating manual.

If you see this symbol, beware of the possible risks of injury. Read the following instructions carefully and also inform other operating personnel.



Caution!

This symbol indicates a possibly dangerous situation.

Slight injuries may result from failing to follow the instructions.

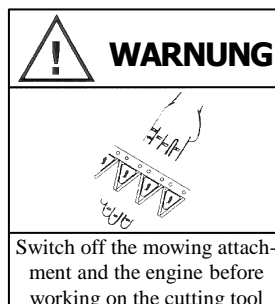


Information!

This symbol denotes safety tips and other useful information.



Warning of a hot surface



Switch off the mowing attachment and the engine before working on the cutting tool



Wear safety glasses



Wear protective gloves



Wear safety shoes



Wear ear protectors



Read and follow the operating manual and safety instructions before putting into operation!



Switch off the engine and remove the spark plug cap before repair, maintenance and cleaning!



Never reach into the crushing danger zone if parts can still move there!

Snow hoe warning notices

Snow hoe KM61



**Verstopfung
nur nach Stillstand der
Fräswalzen oder Schleuderräder
und nur mit den dafür
vorgesehenen Hilfsmitteln
beseitigen**



Eliminate blockages only after the rotary grinder and chopper wheels have come to a standstill and only with the aids provided.
Danger of being caught up, wound in, drawn in or trapped.
Keep a safe distance.

Read the operating manual before putting into operation.

Keep your distance when the engine is running.

Wear ear protectors.
Danger due to rotating tools.
Switch the engine off and wait until the tools come to a halt.

Snow hoe SFK31/60

Read the operating manual before putting into operation.

Never reach inside the flue with your hands. Eliminate blockages only after the rotary grinder and chopper wheels have come to a standstill and only with the aids provided.

Keep a safe distance to the rotating auger.



Keep your distance when the engine is running.

Danger due to rotating tools.
Switch the engine off and wait until the tools come to a halt.

Danger due to rotating tools.
Switch the engine off and wait until the tools come to a halt.

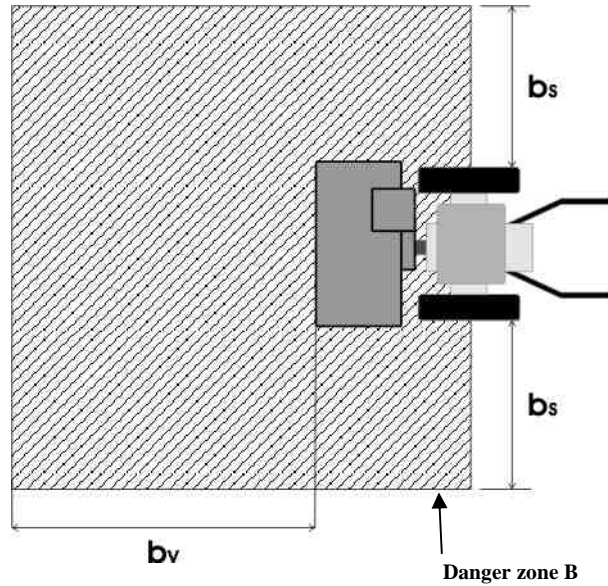
**Verstopfung
nur nach Stillstand der
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und nur mit den dafür
vorgesehenen Hilfsmitteln
beseitigen**

Eliminate blockages only after the rotary grinder and chopper wheels have come to a standstill and only with the aids provided.

3. Hazards due to accessories



Attached devices, mowing devices and any other additional devices used **must not disable the safety devices of the Köppel 2-wheel tractor.**



Where

- | | | |
|---------------------|------------------------|----------------------|
| • Snow hoe | $b_s = 25.0 \text{ m}$ | $b_v = 25 \text{ m}$ |
| • Snow plough blade | $b_s = 0.5 \text{ m}$ | $b_v = 2 \text{ m}$ |
| • Sweeping machine | $b_s = 2.0 \text{ m}$ | $b_v = 5 \text{ m}$ |
| • Mowing bars | $b_s = 1.0 \text{ m}$ | $b_v = 2 \text{ m}$ |

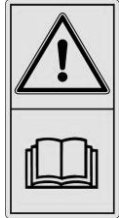
Also refer to the operating manuals for the respective attached devices!

4. Noise / vibration values



Caution!

Long periods of exposure to noise and vibrations lead to damage to health. Wear ear protectors and adapt your working hours.



Noise information (sound power level EN ISO 3744) - *emissions*
Noise information (sound pressure level EN ISO 11201) - *immissions*
Vibrations (hand/arm vibrations DIN 45675 Part 8) - *immissions*

The **A-weighted sound power level** and the **A-weighted emission sound pressure level** of the **Köppel 2-wheel tractor, without additional devices**, at the operator's ear are

Version	Sound power level [dB(A)]/[rpm]	Sound pressure level [dB(A)]/[rpm]	Vibrations [m/s ²]
CE6	100.1	89.4	4.0
CE10	98.5	88.2	4.4



- Wear ear protectors

Emissions of a noise level can lead to disturbances of acoustic signals. Other vehicles may not be noticed – particular caution is required!

Depending on the attached device, an increase in the sound pressure level of up to 4.5 dB(A) is to be expected - exact data is given in the respective operating manual; this also applies to the items below.

- Measurements took place on grass in the open air, based on EN 12733.
- The measuring instrument used, Norsonic type 116, complies with the DIN IEC 651 class 1, DIN IEC 804 class 1 and DIN 45657 class 1 standards.
- Engine speed = highest engine operating speed.
- Radius of the semicircular measurement area = 4 m.

2. Vibration measurements took place in accordance with EN 1033



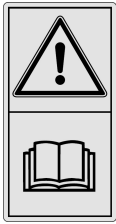
Measuring devices

- Measuring device – CASTEL, GA-2003
- Vibration recorder - MONITRAN LTD, MTN / P100T-10, S/N 103988

Operating conditions

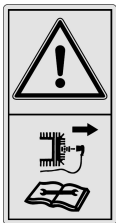
- Fuel tank approx. 50 % full.
- Steering shaft adjusted to the body height of the operator.
- Appliance run-in and at operating temperature.
- Measured on the steering shaft in accordance with EN 12733.
- Engine speed = highest engine operating speed

5. Sources of danger



The **Köppel 2-wheel tractor may be used on both commercial and private properties.**

- Check that the unit is safe to operate and to be used in traffic each time before putting it into operation!
- Observe the generally applicable regulations for safety and the prevention of accidents in addition to the instructions in this operating manual.
- When using the **Köppel 2-wheel tractor** on public roads, the stipulations of the respective national road traffic laws (in Germany: StVZO) in their current versions apply.
- Familiarise yourself with all devices and controls as well as their functions before starting work. Make sure that all protective devices have been attached properly! Doing so during the work assignment is too late!
- The user is responsible for the safety of third parties in the working area!
- It is forbidden to enter or remain in the working and danger area of the **Köppel 2-wheel tractor**!
- Before starting up, check the immediate vicinity - children!
- Ensure that the work area is sufficiently well illuminated!
- The driver should wear tight-fitting clothes. Avoid loose-fitting clothes. Wear sturdy shoes!
- Do not leave the engine running in closed rooms – the exhaust gases are harmful to health and may under certain circumstances lead to death!
- Be careful when handling fuel – increased risk of fire! Never refill the fuel tank in the proximity of open flames, igniting sparks and hot engine parts. Do not smoke when refuelling!
- Before refuelling, switch off the engine and remove the ignition key (if one exists). Do not refuel in closed rooms – risk of explosion!
- Use a suitable pouring aid (e.g. a funnel). If possible, refuel only in the open air with the engine switched off and cold.
- Do not spill fuel – risk of fire!
- If you have spilt fuel, clean all parts and push the motor mower away from this place before starting it.
- Do not inhale petrol vapours – risk of cancer due to benzene content; use lead-free and benzene-free petrol if possible – refer also to the engine manufacturer's operating manual!
- In order to avoid the risk of fire, keep the tractor clean!
- Be careful when handling brake fluids and battery acid – they are toxic and caustic!
- Switch off the engine and pull off the spark plug cap before performing maintenance and cleaning work.
- Observe permissible axle loads, overall weights and transport dimensions!
- Particular caution is necessary when coupling or uncoupling attached tools to or from the tractor!
- Make sure that all protective devices have been attached properly!



6. Lighting devices on single-axle tractors if these are used on public roads.



Distinction must be made here as to whether the single-axis tractor

- is guided by a pedestrian via the steering shafts or,
- is driven from a sulky (single-track trailer) or
- is driven from a trailer.

In the dark, or when necessitated by the weather, single-axle tractors guided **by pedestrians via the steering shafts** require at least a single, non-dazzling **lamp with a white light**, which must

be affixed **to the left-hand side** (UK: right-hand side) or carried by hand so that its light is clearly visible to oncoming traffic (from the front) or overtaking traffic (from the rear) (Article 50, paragraph 2, German Highway Code and Article 17, paragraph 5, German Highway Code). If a single-axle tractor with a trailer is transported on a public road, no operating permit is required up to a design-related top speed of 6 km/h. The name and place of residence of the keeper of the vehicle must be displayed by a sign on the trailer. A driving licence is not required, however. The driver of the vehicle must be qualified to drive it. Lighting devices etc. must be present.

7. Operator position



The operator position on the **Köppel** 2-wheel tractor is located at the two steering shafts (controls) in front of the **Köppel** 2-wheel tractor.

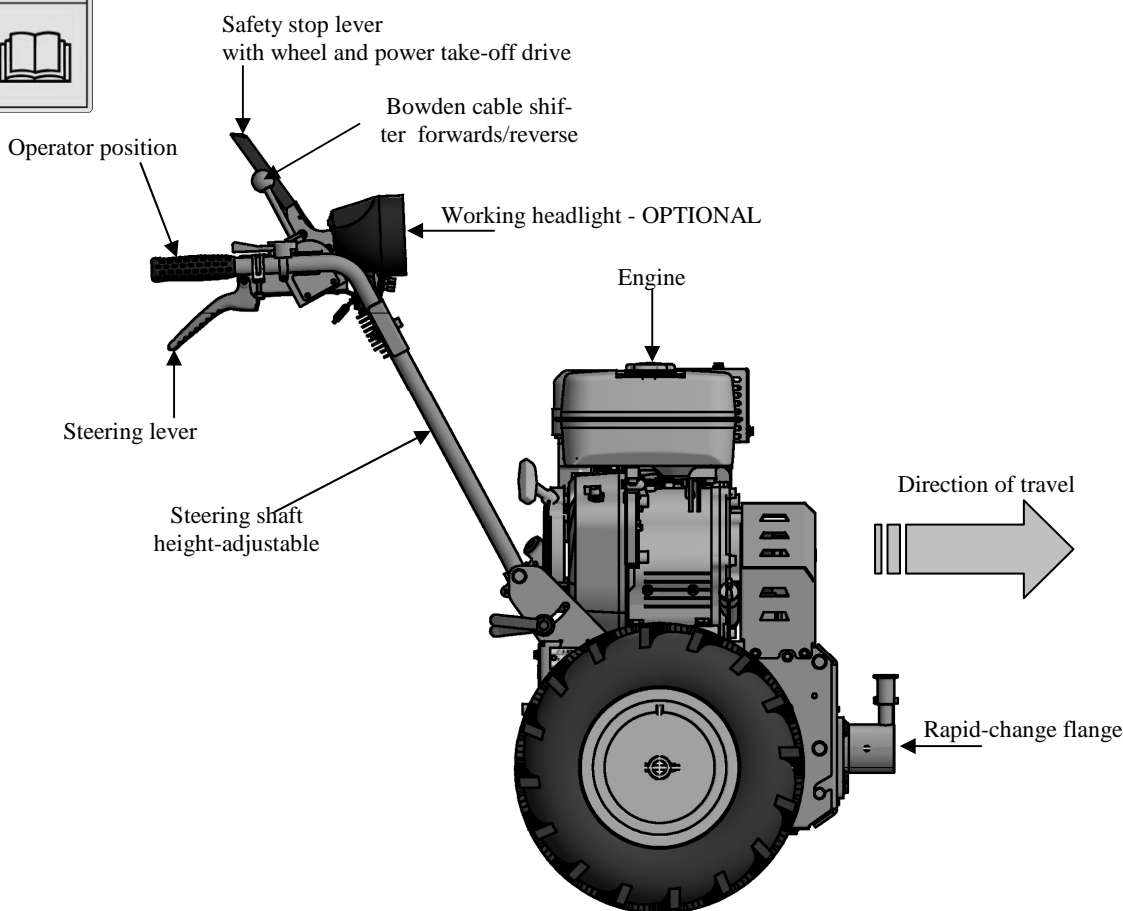


Fig. 1. Operator position.

8. Authorised operators



Only authorised persons may work with the **Köppel** 2-wheel tractor type Kompakt Easy. The minimum age for operators is 16 years. No operating permit and no driving licence is required for single-axle traction and working machines guided by pedestrians via steering shafts.

The operator is responsible for the safety of third parties in the working area.

The responsibilities for different activities on and with the **Köppel** 2-wheel tractor must be clearly defined and adhered to. Unclear competences are a safety risk.

The user must:

- make the operating manual available to the operator and
- ensure that the operator has read and understood it.

9. Personal protective equipment



For operation:

Wear type S2 safety shoes,
wear work clothes that offer sufficient protection against the sun.



For cleaning:

Wear sturdy safety gloves (leather) to protect against sharp objects (attached devices).



You should wear suitable ear protectors when working.



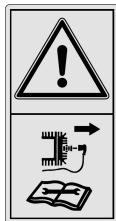
For grinding the mowing blades:

Wear safety goggles

10. Safety measures at the place of work



- When starting the engine, the traction and attached device drives must be disengaged (i.e. the safety stop lever is not depressed; see *fig. 2*, page 12).
- The driving speed must be always adapted to the environmental conditions. Avoid sudden turns when driving up, down or across a slope. Never disengage the clutch and/or shift gear on slopes.
- Couple trailers and attached devices according to the regulations.
- The driving, steering, braking capability and tipping behaviour will be affected by attached devices. Therefore make sure that steering and braking capabilities are sufficient and adapt your working speed to the respective environmental conditions!
- Driving downhill in freewheeling mode (steering levers on the left and right pulled simultaneously) is forbidden! The tractor could roll away under its own weight. Persons fitted with a cardiac pacemaker must not touch electrically conducting parts of the ignition system when the engine is running.
- Before starting to drive, check the brakes and their function.
- Remove objects from the work area (e.g. planks, cables, stones etc.).
- Keep hands and feet away from moving parts during operation.
- Ensure that the work area is sufficiently well illuminated.
- Drive at a right angle to the slope, never up or down the slope!
- Be particularly careful when changing direction on the slope.
- Never disengage the clutch and/or shift gear on slopes.
- Never leave the operator position during work.
- Danger due to forced posture over long periods when working in difficult terrain – take sufficient breaks!
- Do not alter or repair supporting and safety-relevant parts (frame, axles etc.).



- In the case of damage to the appliance, switch it off immediately. Remove the spark plug cap and have the damage repaired!
- If the appliance is to be used for mowing crops that are classified as foodstuffs, parts which come into contact with the foodstuffs must not be lubricated with machine oil or grease or protected against rust.
- If there is a danger of slipping on a sloping terrain, an accompanying person must hold the **KÖPPEL** 2-wheel tractor with a rod or a rope. The accompanying person must remain above the vehicle at a safe distance from the working tools.

11. Protective devices

The **KÖPPEL** 2-wheel tractor is equipped with a **safety stop lever** on the steering shaft (left), which disengages the traction drive or power take-off drive when released – i.e. the engine continues to run, but the machine and the attached device stop (for stop position see *fig 2*). The engine can be turned off only by the ignition switch.



Warning!
The engine runs on due to the centrifugal mass!
Tools running on – danger of injury!

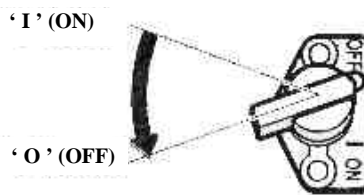


- In order to start the machine, the Bowden cable shifter must be placed in the 0 position and the safety stop lever must be placed in the stop position - see *fig. 2*.
- During operation of the **KÖPPEL 2-wheel tractor** the **safety stop lever** must be **depressed** – operating position.
- It is forbidden by **KÖPPEL** to leave the safety stop lever/ V-belt tensioning lever in the operating position when the machine is to be cleaned, maintained or left – e.g. in order to clean the snow hoe. First bring the machine to a halt, switch off the engine and then clean the tool.

**Do not tie the safety stop lever / tensioning lever down
 or bind it with adhesive tape!**



Fig. 2. Safety stop lever – stop position.



Robin EX17 / EX27 engine
Ignition switch

Fig 3. Switching the engine off.



The protective devices

- have been installed for the safety of the operator and
- must not under any circumstances be modified, removed or circumvented by means of modifications to the **Köppel** 2-wheel tractor.

The safety stop lever serves as an EMERGENCY-OFF switch which is to be released in dangerous situations where fast switch-off/stopping is required. It then returns automatically to the 'STOP' position.

12. Leaving the Köppel 2-wheel tractor



- Set the **Köppel** 2-wheel tractor down on the ground, switch off the engine and remove the ignition key (if there is one).
- When leaving the **Köppel** 2-wheel tractor, secure it against rolling away and use by unauthorised persons by means of wheel chocks.
- Never leave the **Köppel** 2-wheel tractor unattended if the engine is still running.
- Never leave the operator position at the steering shaft when driving.
- Close the petrol tap when parking the **Köppel** 2-wheel tractor!

13. Safety of attached devices



Fundamental rule:

Check that the unit is safe to operate and to be used in traffic each time before putting it into operation!

- There is a risk of injury when coupling attached devices. Be especially careful. Connect attached devices according to the regulations.
- Couple the attached devices according to regulations only with the engine and power take-off switched off and fasten them only to the prescribed fittings.
- Persons must not stand between the **Köppel** tractor and the attached device if the tractor is not secured against rolling away by means of wheel chocks.
- Observe the generally applicable regulations for safety and the prevention of accidents in addition to the instructions in this operating manual.
- The mating surfaces of the rapid-change flange on the basic device and on the attached device must be clean; they must be cleaned if necessary.
- The mating surfaces must be greased with special long-life grease (see appendix).
- It is not permitted to ride on the attached device of the **Köppel** tractor during work or transport.
- Observe permissible axle loads, overall weights and transport dimensions!
- Check and attach transport equipment (lighting, warning devices, protective devices).

- If protective devices and working tools are subject to wear they should be inspected at regular intervals and replaced if necessary!
- There are crushing and cutting zones on externally powered parts (e.g. hydraulics).
- It is forbidden to enter or remain in the working, rotating and swivelling area!
Keep a safe distance!
- Before starting work, remove all foreign bodies from the area to be worked. Beware of foreign bodies during operation!
- Be careful of working tools that run on! Repair work is only permitted at a complete standstill and with the engine switched off (spark plug cap removed).
- Only work if the light and visibility conditions are good.
- Place protective and safety devices in the protective position again after the repair work is completed. Only then is operation allowed again. Check the protective devices and working devices for wear.
- Disengage the device drive (power take-off) when driving outside the working area. The **Köppel** 2-wheel tractor must be raised into the transport position.
- Be particularly careful when working on steep paths and on slopes – danger of tipping over!
Drive at a right angle to the slope if possible.

14. Brakes



- Check the function of the brakes – if they exist – each time before driving!
- The brake system must be subjected to regular thorough checks.
- Adjustments and repairs to the brake system may be carried out only by specialist workshops or recognised brake service companies.

15. Engine



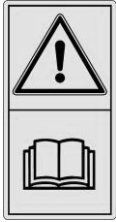
- Do not leave the engine running in a closed room – danger of poisoning!
- Always switch the ignition off and close the petrol tap when turning the engine off!

16. Tyres, screwed connections



- When working on the wheels, ensure that the tractor is parked safely and secured against rolling away!
- Repairs to the tyres may be carried out by specialists using suitable mounting tools!
- There is a risk of explosion if the tyres are over-inflated!
- Check the tyre pressures regularly!

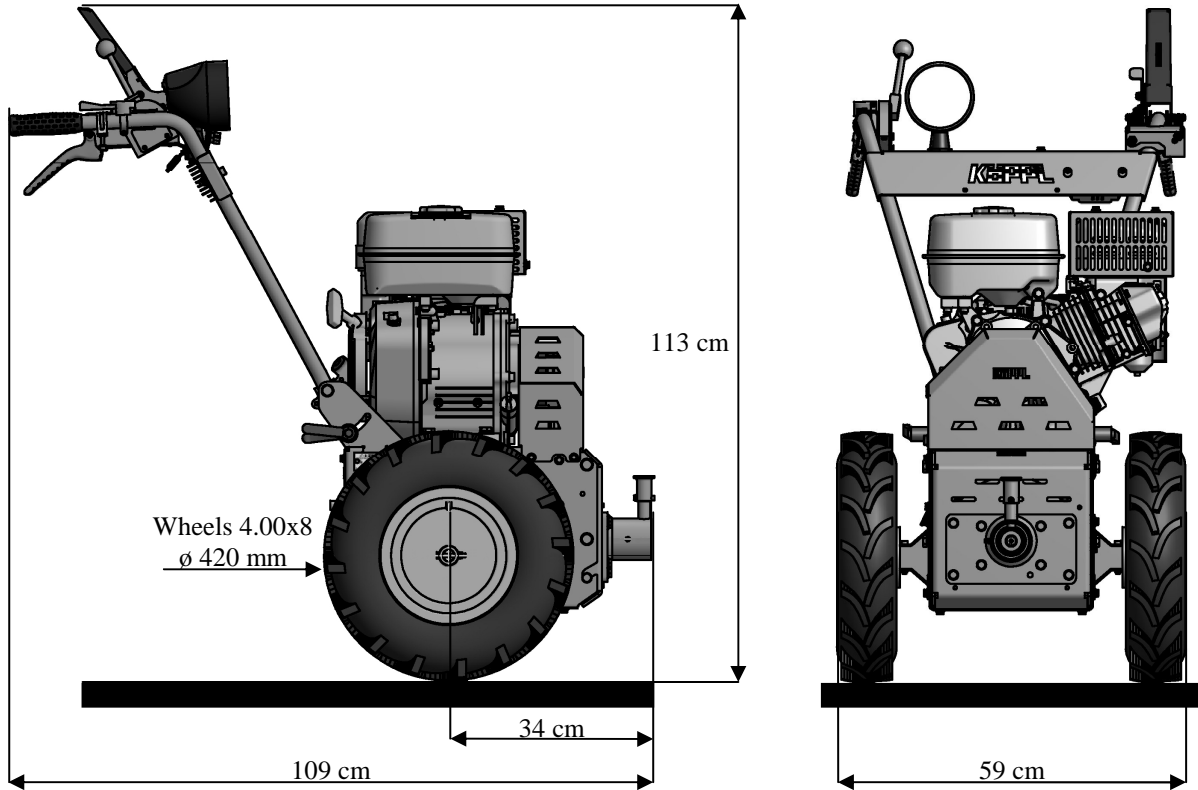
17. Operating devices



- Check the function of the brakes before starting to drive!
- Shift down in good time before driving downhill!
- Switch off the tractor immediately if malfunctions occur in the steering or brakes. Have malfunctions rectified immediately!

Transport

1. Dimensions of the KöPPL 2-wheel tractor



Kompakt Easy = CE.

Tyres	Track width [cm]		
4.00 x 8 Lamella tyres	59		
4.00 x 8 AS	59		
16 x 6.50 x 8 AS	65		
16 x 6.50 x 8 Lamella tyres	65		

Steering shaft width = 60.0 cm.

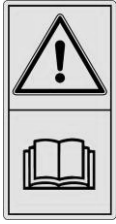
2. Technical data

	CE6-2	CE10-2	CE9-2 Snow
Driving speed Forwards Reverse <i>Wheels 4.00 x 8 - lamella tyres</i>	0 – 6 km/h 0 - 3 km/h	0 – 6 km/h 0 - 3 km/h	0 – 6 km/h 0 - 3 km/h
No. of gears/ Settings	Infinite forward/reverse	Infinite forward/reverse	Infinite forward/reverse
Power take-off speed, max.	approx. 1,180 rpm	approx. 1,180 rpm	approx. 1,180 rpm
Power take-off engagement /disengagement	yes	yes	yes
Rapid-change device flange	Standard	Standard	Standard
Engine	Robin <i>Petrol</i> EX17 4.2 kW 5.7 HP	Robin <i>Petrol</i> EX27 6.6 kW 9.0 HP	Rato <i>Petrol</i> R270-2 6.3 kW 8.5 HP
Wheel freewheeling/turn free-wheeling	Standard	Standard	Standard
Wheels 4.00 x 8	Standard	Standard	Standard
Iron slope wheels	if required	if required	if required
Steering shaft height adjustment	Standard	Standard	Standard
Weight [kg] without tyres and without attached device	66	73	78

Tyre type	Tyre size	Pressure
Field tyres	4.00 x 8 AS	1.5 bar
Lamella tyres Snow tyres	4.00 x 8 16 x 6.50 x 8	1.5 bar
Wide tyres	16 x 6.50 x 8 AS	1.5 bar

	Filling quantities
Internal combustion engine	see operating instructions
Gearbox	25 cl Shell Alvania GL00

3. Transport



The **Köppel 2-wheel tractor** is delivered ready for operation.

Unpacking

- Remove the cardboard box and the film.

The generally recognised and applicable regulations for safety and the prevention of accidents must be adhered to when transporting the Köppel 2-wheel tractor!

- Ensure that all protective devices are properly attached.
- Ensure that no protective devices have been damaged or rendered inoperable during transport.
- Check and attach transport equipment (lighting, warning devices, protective devices).
- If protective devices and working tools are subject to wear they should be inspected at regular intervals and replaced if necessary!
- Place protective and safety devices in the protective position again after transport. Only then is operation allowed again.
- Check the protective devices and working devices for wear.



Fig. 4. Kompakt Easy CE.

Operation



You must have read and understood:

- the engine manufacturer's operating manual,
 - the operating manual for the respective attached device and
 - the operating manual for the **Köppel** 2-wheel tractor,
- in particular chapter 1, 'Safety and protective devices'.

You may not operate the Köppel 2-wheel tractor before having done so.

1. Commissioning



The following items must be checked **before putting into operation for the first time**:

- Check the engine oil – see the engine manufacturer's operating manual.
- Check whether there is sufficient fuel in the fuel tank.
- Check that all screws, bolts and control parts on the **Köppel** 2-wheel tractor and the attached device are tight!



Warning!

Exhaust gases contain carbon monoxide!
 They are highly toxic if inhaled and can lead to death.



Important!

At temperatures under + 0° C you must allow the hydraulic drive to warm up for approx. 3 minutes at a low engine speed so that the oil can reach operating temperature and the drive can function without problems. During this time

- the 'direction of travel' shift lever must be in the 0 position and the safety stop lever (without power take-off drive) must be depressed.

The oil pump is driven and the oil warms up.

During the first 20 hours of operation (the running-in period) the engine should not be operated up to its performance limit.

After about 3 hours of operation, check that all screws, bolts and control parts on the basic machine and attached devices are tight.



Important!

Engine

The air filter is installed as standard in the engines. In the winter it advantageous to remove the air filter to prevent icing up, **but please remember to install the air filter again following winter operation.**

2. Steering shaft adjustment

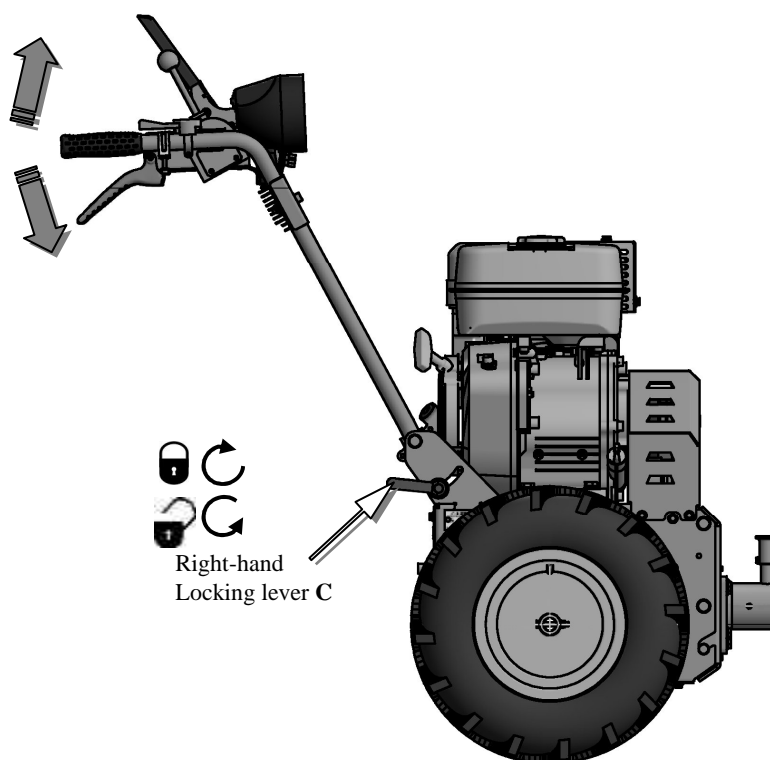


Fig. 5. Steering shaft height adjustment.



In order to be able to work optimally, you must adjust the steering shaft to suit your body size. This adjustment is child's play:

- Stand in front of the **Köppel** 2-wheel tractor.
- You should be able to stand in a relaxed position in front of the **Köppel** 2-wheel tractor with slightly bent elbows. If that is not the case the steering shaft needs to be adjusted.

Adjusting the steering shaft: (See *fig. 5*).

- Release **both locking levers C** at left and right.
- Adjust the shaft to the desired height.
- Firmly tighten **both locking levers C**.
- You are now finished with the adjustment of the steering shaft.

3. Starting the KöPPL 2-wheel tractor



Warning!

Traction and device drive engaged!

The appliance can run you over and cause severe injuries.

The traction and device drive must be disengaged when starting the engine.

Do not stand with your feet near the attached working device.



To start the engine:

Follow the respective **engine manufacturer's operating manual** when starting the engine – start it according to the engine manufacturer's operating manual.

Starting the KöPPL 2-wheel tractor:

- Before starting the machine, the Bowden cable shifter must be placed in the 0 position and the safety stop lever must be placed in the start position - see *fig. 6*.
- Turn the ignition switch to ON.
- With most engine types (depending on the manufacturer) the shock lever must be closed when the engine is cold – see the engine manufacturer's operating manual.
- The engine can now be started with the aid of the recoil starter.
- The throttle should be opened about halfway for the start procedure.
- Once the engine is running, bring the throttle lever slowly to the ¼ position and allow the engine to warm up for a short time. Push the choke knob slowly back to the operating position if it has been pulled out. **Also refer to the engine manufacturer's operating manual regarding this point.**
- At temperatures under + 0° C you must allow the hydraulic drive to warm up for approx. 3 minutes at a low engine speed so that the oil can reach operating temperature and the drive can function without problems.

During this time

- the Bowden cable shifter for forward/reverse driving must be in the 0 position and the safety stop lever (without power take-off drive) must be depressed.

The gearbox drive runs with the engine and the oil warms up.

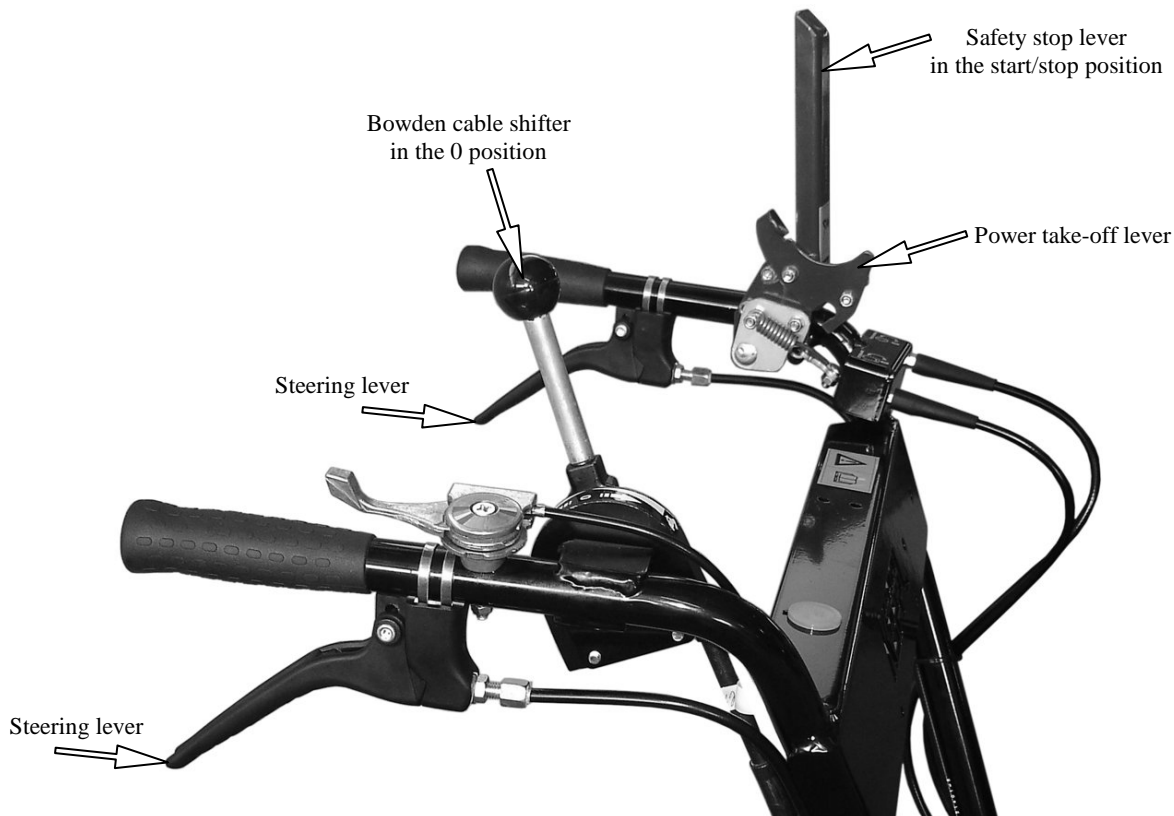


Fig. 6. Bowden cable shifter for forward/reverse shifting.

4. **F/R shifter**



Warning!

Place the Bowden cable shifter in the 0 position before starting – particular danger due to fast starting when actuating the safety stop lever!



Warning!

When driving in reverse there is a danger of being crushed at narrow points or when turning (around trees).



With the **KÖPPL** Kompakt Easy, forward and reverse driving (F/R shifter) with infinitely adjustable speeds and neutral are possible.

Forward gear

Push the Bowden cable shifter slowly forward, as shown in *fig. 7*.

Reverse gear

Pull the Bowden cable shifter slowly to the rear, as shown in *fig. 7*.

Neutral position

Place the Bowden cable shifter in the 0 position. The machine stops, as if fully applying the brakes.

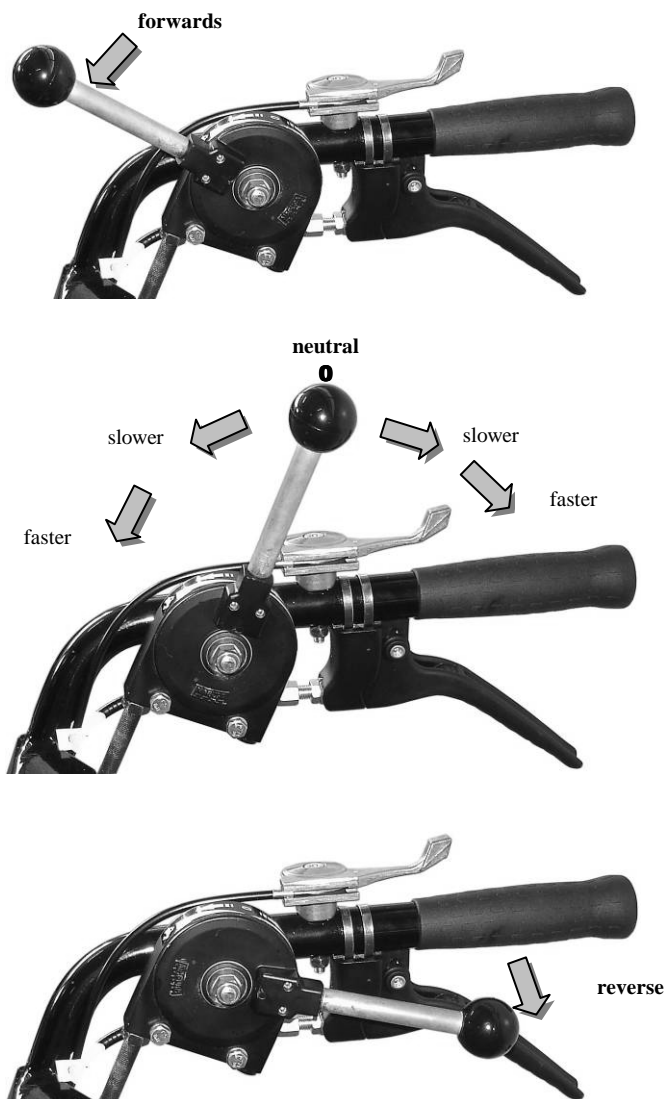


Fig. 7. Shifter positions – Bowden cable shifter.

5. Steering



Caution!

Driving downhill in wheel freewheeling mode (steering levers at left and right simultaneously pulled) is forbidden! The appliance can roll away under its own weight. The appliance can be damaged and people can be injured!



The **Köppel CE-2 2-wheel tractor** is equipped with a **steering lever** actuated at the left or right for steering and turning.

Both **steering levers** (fastened to the steering shaft on the left and right) are used for this – see *fig. 8*.

- To turn **to the right**, the right-hand steering lever must be pulled. This disengages the drive to the right-hand wheel and the **Köppel 2-wheel tractor** turns to the right if a forward gear is engaged.
- To turn **to the left**, the left-hand steering lever must be pulled. This disengages the drive to the left-hand wheel and the **Köppel 2-wheel tractor** turns to the left if a forward gear is engaged.



Pushing the Köppel 2-wheel tractor (without drive) / F/R shifter in 0 position

- Pull the left and right-hand steering levers simultaneously.

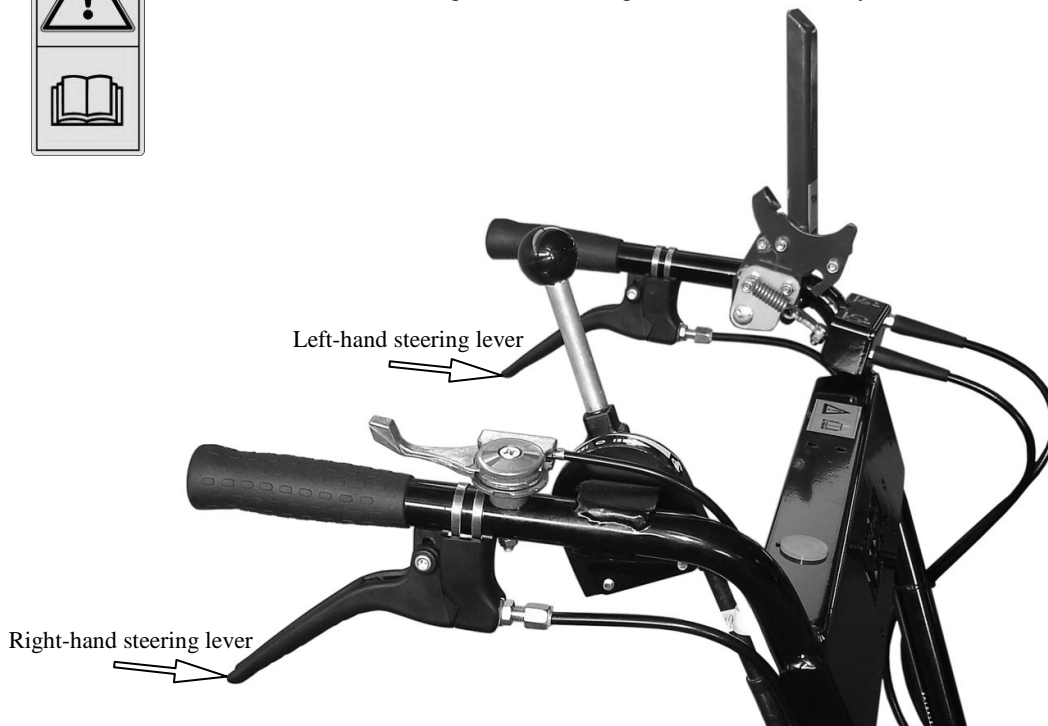


Fig. 8. Steering.

6. Power take-off engagement/disengagement



Warning!

Working devices are dangerous when switched on!

Make sure you keep a safe distance!

Engage the power take-off only when an accessory is attached.



Never reach into the crushing danger zone if parts can still move there.

The power take-off is engaged and disengaged using the power take-off lever (see fig. 9 - A). The power take-off reaches approx. 1,180 rpm at the maximum engine speed. If the safety stop lever is in the 'Stop' position, the power take-off lever is pushed into the 'Power take-off OFF' position by a spring (see fig. 9 - A).

This function is very important from the point of view of safety and must always work!

The power take-off V-belt is tensioned by pushing the power take-off lever forwards (the safety stop lever/clutch lever must be in the 'start/stop' position – fig. 9 - B) and depressing the safety stop lever, and it then drives the power take-off. When released, the V-belt relaxes and the power take-off V-belt pulley comes to a halt within 7 seconds.

If the attached device takes longer than 7 seconds to come to a halt, it is essential that you have the device checked at the nearest **KÖPPL** workshop, as otherwise the safety requirements are no longer met.



If you wish to engage the power take-off, you must first place the Bowden cable shifter in the 0 position and then place the safety stop lever in the stop position. Push the power take-off tensioning lever forwards until it latches. Now by depressing the safety stop lever you activate the power take-off and the traction drive at the same time.

To disengage the power take-off, proceed in the reverse order or unlatch the power take-off tensioning lever while driving – see fig. 9 - D.

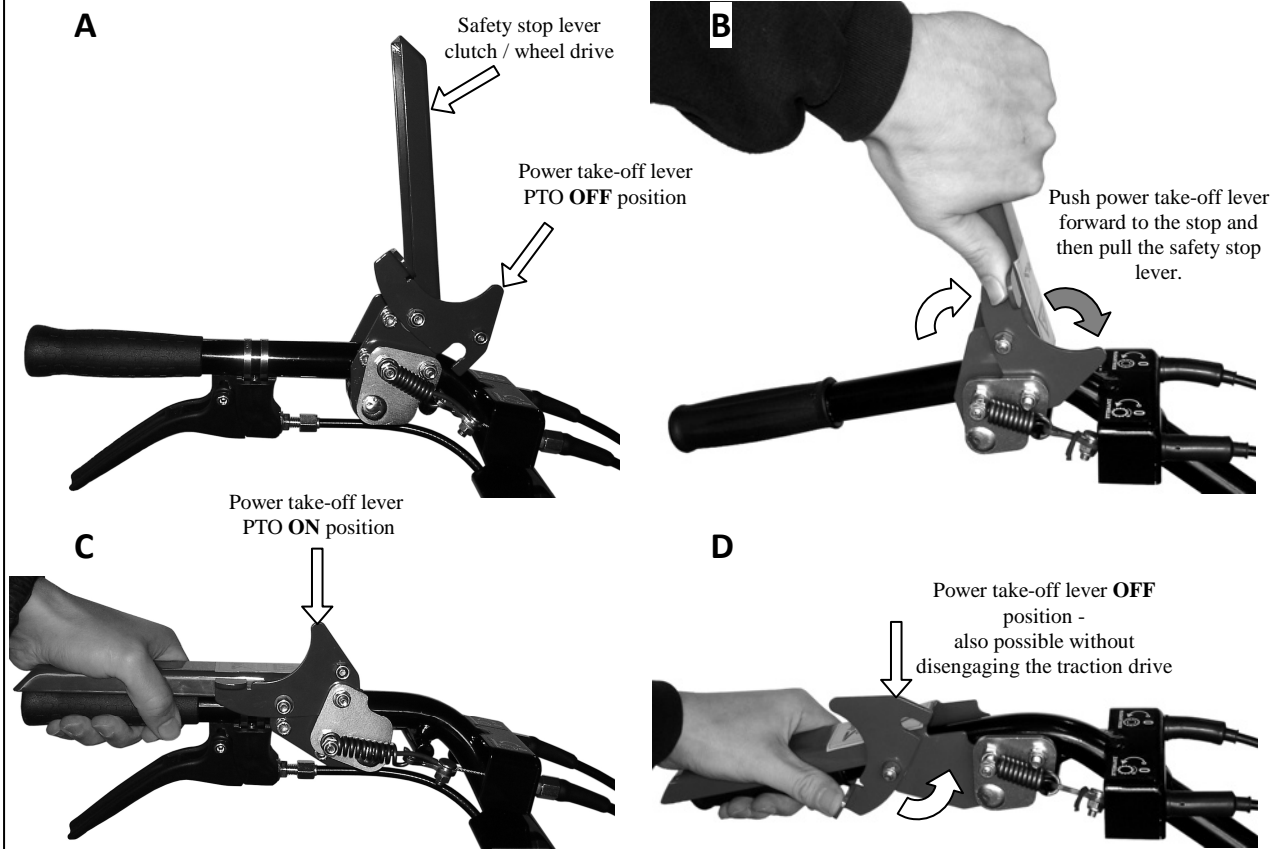


Fig. 9. Shifter positions – power take-off shifter.

7. Engine



Caution!

It is essential to pay attention to the engine manufacturer's operating manual. Check the engine oil level before starting. Top up the engine oil if necessary! Always switch the engine off for cleaning!

8. Throttle lever



The **throttle lever** is located on the right-hand steering shaft – see *fig. 10*.

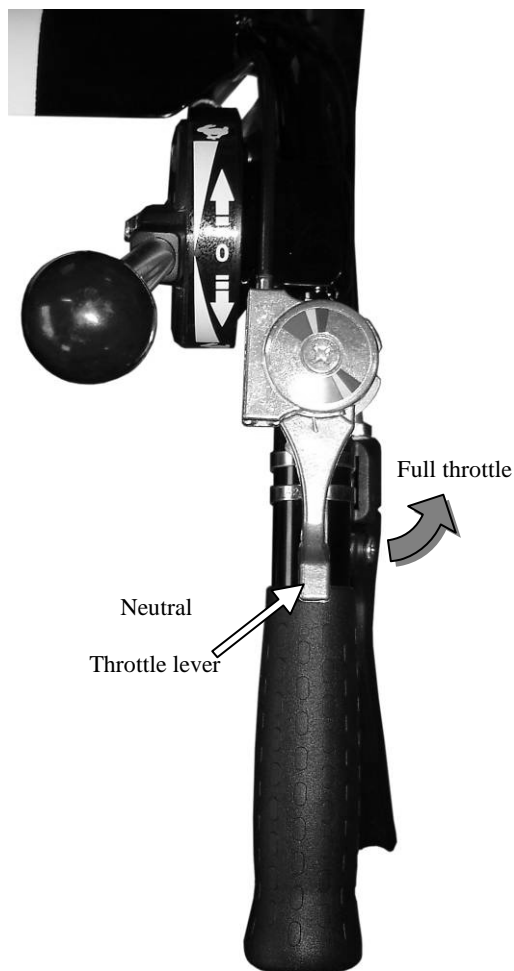


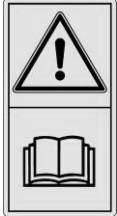
Fig. 10. Throttle lever.

9. Rapid-change device flange



Warning!

Please ensure that the locking pin is always correctly engaged!



A rapid-change flange is fitted for the fast and simple exchange of the attached devices. You can attach and detach the desired **KÖPPL** attached devices without tools using the locking pin. The mating surfaces of the rapid-change flange on the basic device and on the attached device must be clean; they must be cleaned if necessary.

The mating surfaces must be greased on the inside with special long-life grease (see appendix).



Fig. 11. Rapid change flange.

Faults

1.

Faults and their remedy
Observe the safety instructions!

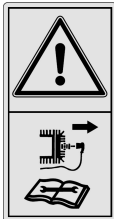
If faults occur in the tractor or the engine that require a greater degree of intervention, always have them rectified at your **Köppel** specialist workshop, since they have the necessary tools. Un-professional intervention can only cause damage.

Fault	Possible cause	Remedy
Engine		
Engine does not start	Spark plug cap is not attached. Choke is not pulled out. Ignition switch is set to 'OFF'. Fuel tank is empty or fuel is of a poor quality. Fuel line has a blockage. Spark plug is defective. Too much fuel in the engine - flooded. Excess air due to loose carburettor and suction line.	Attach the spark plug cap. Push the choke regulator lever to ON. Set the ignition switch to ON Fill up the fuel tank with fresh fuel. Clean the fuel line. Clean, adjust or replace the spark plug. Dry and clean the spark plug and start with FULL THROTTLE. Have the machine checked and repaired in the workshop.
Engine stutters	Engine is running in the choke range. Ignition cable is loose. Fuel line has a blockage. Ventilation aperture in the fuel tank cap is blocked. There is water or dirt in the fuel system. Air filter is dirty. Carburettor is incorrectly adjusted.	Push the choke regulator lever to the OFF position. Push the spark plug cap firmly onto the spark plug, clamp the ignition cable tightly. Clean the fuel line and fill up with fresh fuel. Replace the fuel tank cap. Drain off the fuel and fill up with fresh fuel. Clean the air filter. Have the carburettor adjusted.
Engine runs hot	Too little engine oil. Cooling air system is dirty. Air filter is dirty. Carburettor is not adjusted correctly.	Top up the engine oil immediately. Clean the fan grille, clean the interior cooling fins. Clean the air filter. Have the carburettor adjusted by a workshop.
Engine stutters at high revs., engine often stops in neutral	Ignition gap of the spark plug is too small. Neutral mixture is not adjusted correctly. Ignition gap too large, spark plug defective. Carburettor is not adjusted correctly. Air filter is dirty.	Adjust the spark plug. Have the carburettor adjusted by your Köppel workshop. Adjust the ignition gap and/or replace the spark plug. Have the carburettor adjusted by your Köppel workshop. Clean the air filter.
Engine works irregularly	Regulator linkage is dirty or sticks.	Clean the regulator linkage.
Engine doesn't switch	Engine stop cable is defective, no	Check and renew cable and plug con-



Fault	Possible cause	Remedy
off in the stop position	earth.	nector.
Engine has too little power	Cylinder head is loose or head gasket is damaged – too little compression	Have the engine checked by your KÖPPEL workshop.
Engine in winter operation		
Dry air filter iced up	Snow dust is being sucked in	Dry or exchange the filter element
	Altitude exceeds 1,000 m	Have a larger main jet installed
General		
V-belt tensioning lever has no effect	Tensioning lever is incorrectly adjusted V-belt is worn.	Adjust the tensioning lever Have the V-belt replaced in the workshop
Hydraulic drive		
Wheel drive no longer pulls	Tensioning lever is incorrectly adjusted V-belt is worn.	Adjust the tensioning lever Have the V-belt replaced in the workshop
Drive wheels pull unevenly	Incorrect tyre pressures	Check tyre pressures, correct if necessary

Maintenance



Besides complying with operating regulations applicable to the **Köppel** 2-wheel tractor, it is equally important to pay due attention to the following instructions for care and maintenance!

Caution!

Care and maintenance work may only be carried out when the engine is switched off and the spark plug cap has been pulled off!

Always change the engine oil promptly.



Important!

Protect the environment:

The handling and disposal of mineral oils are subject to legal regulations.

Take used oil to an authorised collection point.

Do not spill engine oil!

Take precautions to catch spilt oil – lay out an oilproof tarpaulin and use an oil collecting pan.

1. Hydrostatic gearbox



The gearbox consists of a monoblock, which does not require any maintenance. Check the housing regularly for leakages. These can be eliminated only by a workshop.

2. Power take-off drive



Never reach into the crushing danger zone if parts can still move there.

The power take-off drive of the **Köppel** 2-wheel tractor should never be cleaned with water or a high-pressure water jet cleaner. Dry cleaning is best.



The power-takeoff is driven by one or two V-belts, depending on the engine. These are very robust and only need to be exchanged if they are defective. The repair should be carried by an authorised **Köppel** workshop.



The correct tension can be set on the power take-off lever. If the V-belt slips or no longer grips, the tension can be adjusted using the adjusting screw – see also under point 3 Wheel drive. You must unscrew the adjusting screw until the power take-off works properly again.

If the adjustment is unsuccessful, you must take the machine to an authorised **Köppel** workshop.

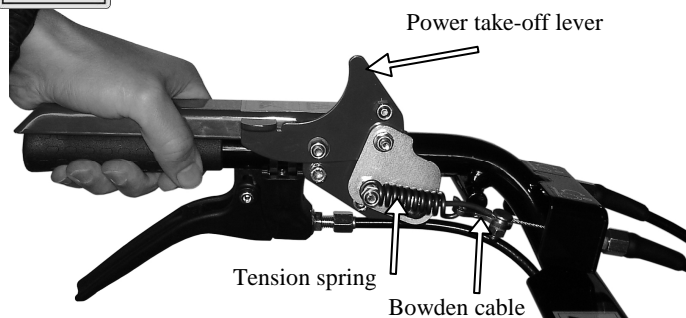


Fig. 12. Power take-off lever.

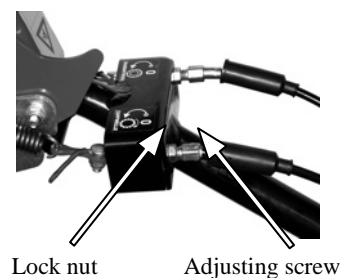


Fig. 13. Adjusting screw.

3. Wheel drive



Warning!

Secure the tractor against rolling away!

It causes crushing injuries.

Never reach into the crushing danger zone if parts can still move there.



The wheel drive is driven by a V-belt. This is very robust and only needs to be exchanged if it is defective. The repair should be carried by an authorised **KÖPPL** workshop. Each V-belt should be inspected after ½ hour and adjusted if necessary.

Tensioning the V-belt



Please note that new V-belts must first be run in and therefore is it necessary to readjust them following a short period of use.

To re-tension the V-belt:

- Switch off the engine – place the ignition switch in the ‘OFF’ position, remove the ignition key (if there is one) or pull off the spark plug cap.
- Secure the tractor against rolling away.
- Measure the length of the relaxed tension spring on the Bowden cable of the wheel drive.
- Now depress the tensioning lever and measure the length of the stretched tension spring - (see fig. 15).
- The difference in length between the relaxed and the stretched tension spring should be 5 - 8 mm.
- If this is not the case, you must change this distance with the help of the adjusting screw.
- Loosen the lock nut of the appropriate adjusting screw and turn it until the length of the tension spring is correct. The lock nut must be tightened again afterwards.

The correct tension can be adjusted on the wheel drive tensioning lever. If the V-belt slips or no longer grips, the tension can be adjusted using the adjusting screw. You must unscrew the adjusting screw until the wheel drive works properly again.

If the adjustment is unsuccessful, you must take the machine to an authorised **KÖPPL** workshop.

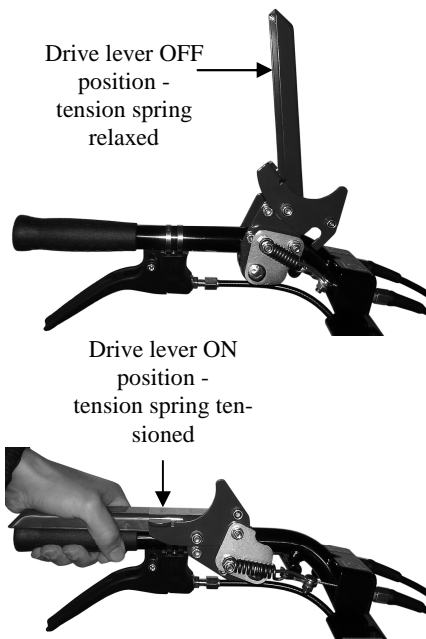


Fig. 14. Drive lever.

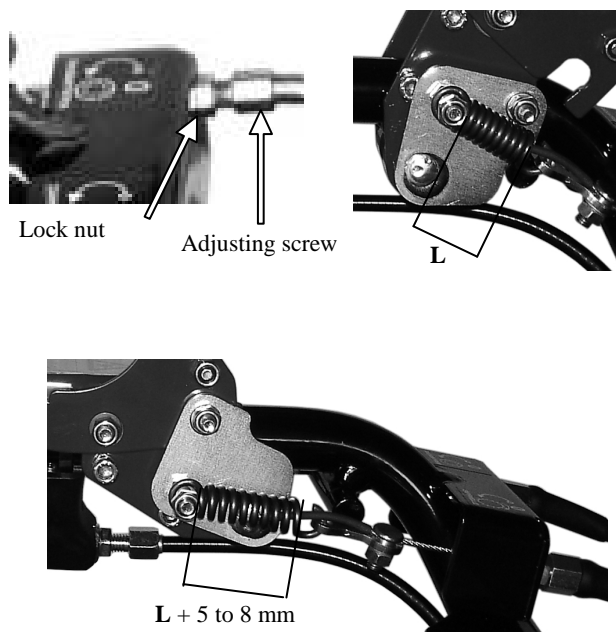


Fig. 15. Wheel drive tension spring.

4. Engine



Caution!

It is essential to pay attention to the engine manufacturer's operating manual.

- Do not leave the engine running in a closed room – danger of poisoning!
- Always close the petrol tap when the machine is parked and during transport and repairs.
- Do not carry out any maintenance with the engine running!
- Secure the parked **KÖPPL** 2-wheel tractor against rolling away and tipping over!
- Refuel only with the engine switched off – no smoking!
- Pay attention to the prescribed quality of oil and fuel and store both only in approved containers!
- Caution when draining off hot oil – danger of being burnt!
- Attach the safety devices again after maintenance work!



Caution!

During the **first 20 hours of operation** (the running-in period) the engine should not be operated up to its performance limit. The same basic principle also applies **after the running-in period**: The throttle should never be applied more than is absolutely necessary for carrying out the respective work.

Work in an environmentally-friendly, fuel-saving manner!



Caution!

High engine speeds can damage any engine and significantly shorten its service life. This particularly applies to no-load operation! Over-revving the engine can even lead to immediate damage. The engine is cooled by a fan. The cooling fins of the cylinder should therefore always be kept free of dirt and any vegetation that has been drawn in.



Information!

When operating the **KÖPPL** 2-wheel tractor in winter (snow hoeing), it is a good idea to remove the air filter element – the filter element is part of the scope of supply. For all other work it is essential that the air filter element be installed again.

Refer to the engine manufacturer's operating instructions!

5. Drive wheels



Warning!

Secure the tractor against rolling away!

It causes crushing injuries.

Replace the driving wheels only if the engine is switched off and the machine is at a standstill!



- The tyre pressures must be checked regularly.
- In particular, it must be ensured that the tyre pressures of both wheels are equal in order to guarantee effortless driving.
- In the case of new wheels or a new tractor, the wheel bolts or nuts must be checked after the first two hours of operation and if necessary retightened. Otherwise always during service work.
- The fitting of tyres requires sufficient knowledge and correct fitting tools!
- Mount the wheels with the tread arrows pointing in the driving direction (as seen from above the wheels); this produces the full traction power.

6. Attached devices



In the case of attached devices not covered by this operating manual, the instructions that came with the respective attached device must be followed.

7. General



Watch out for **fuel and oil leaks** and eliminate them if necessary.

Check the tightness of screws, nuts and bolts regularly and retighten them if necessary.

Lubricate all sliding and moving parts (e.g. shifter linkage, Bowden cables etc.) with grease or oil, especially after cleaning with a high-pressure water jet cleaner!

8. Safekeeping and storage

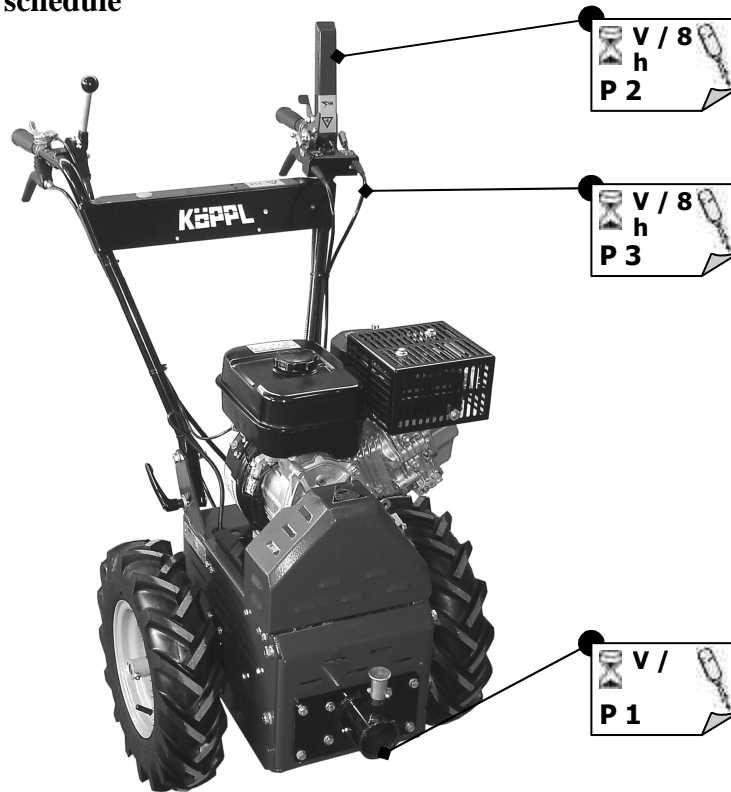


Do not park the **Köppel** 2-wheel tractor in **damp rooms**, in rooms in which artificial fertilisers are stored, in stables or in adjacent rooms, since this will cause lead to **severe corrosion**.

If the **Köppel** 2-wheel tractor is not to be used for a longer period of time:

- **clean the machine thoroughly**, repair any paint damage and spray bare parts with anti-corrosive oil.
- Jack up the **driving wheels** so that the tyres are not resting on the ground. Pneumatic tyres become unusable in a very short space of time if they are left under load without air in them.

9. Maintenance schedule



Inspection and maintenance overview

	P	S	8 [h]	25 [h]	50 [h]	100 [h]	at least annually	C	Page
Lubricate the rapid-change flange	1	O	O				O	O	
Check and lubricate shift levers	2	O	O				O	O	
Check, lubricate and adjust Bowden cables	3	O	O				O		
Safety stop lever Function check		O							
Lubricate all sliding parts			O				O	O	
Cleaning			O				O		
Check/tighten screws, bolts and operating parts		O	O				O		
Tyre pressures		O	O				O		17

◆ **Engine maintenance: refer to the respective engine manufacturer's operating manual** ◆

P = Position
S = before each start-up
O = checking and care work that can be carried out by operator
W = have the maintenance work carried out by a specialist workshop
C = after each cleaning, especially with a high-pressure cleaner
Page = Page in the operating manual

Appendix

1. Lubricants / adhesives



Use the prescribed lubricants for the engine and drive (see 'Technical data').

We recommend the use of anti-corrosion agents to conserve the **KÖPPEL** 2-wheel tractor. Do not use these on painted outer claddings. Anti-corrosion agents can be applied using a brush or a spray device.


When applying adhesives (for the locking of screws) and sealing compounds, both adhesive and sealing surfaces must be clean and free of grease.



Please read the note included in the package and take note of the manufacturer's safety instructions!

Order number	Lubricants	Size
EP2	Special long-life grease (lead-free, long-life grease with EP properties), <i>for rapid change flange</i>	400 g cartridge
SP-MO	Engine oil 15W40	1 litre bottle
Order number	Anti-corrosion agent	Size
028770	Rust remover	300 ml can
SW400	Protective wax	400 ml can
Order number		Size
Order number		Size

EU Conformity Declaration

<p>The manufacturer:</p>	 <p style="font-size: 2em; font-weight: bold; margin: 0;">KÖPPEL</p> <p style="font-weight: bold; margin: 0;">MOTORGERÄTEFABRIK 94163 ENTSCHENREUTH</p> <p style="font-size: 0.9em; margin: 0;">☎ (09907) 8910-0 · Fax (09907) 1042</p> <p style="font-weight: bold; margin: 0;">Made in Germany</p>
<p>declares that the machine described on the right:</p>	<p>KöPPEL2-wheel tractor</p> <p>Type: <input type="checkbox"/> CE6-2 <input type="checkbox"/> CE9-2 Snow <input type="checkbox"/> CE10-2</p>
<p>complies with the health and safety requirements contained in the following EU directives:</p>	<p>EU machine directive 2006/42/EC</p>

<p>Harmonised standards applied:</p>	<p>EN ISO 12100-1, EN ISO 12100-2, EN 12733, EN ISO 13857, EN ISO 14121-1, EN 349, EN 709</p>
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<p>National standards and technical specifications applied:</p>	
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Structural changes that affect the technical data specified in the operating manual and the appropriate use of the machine, i.e. changes that significantly alter the machine, will render this declaration of conformity invalid!

Entschenreuth, 17/11/11

 Managing Director
 Köppl, Karl senior