

# **26-GAATV BACKHOE DIGGER**



# **Kellfri**

Read this manual carefully  
before using the product!  
Translated from the original

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## INTRODUCTION

Thank you for choosing a product from Kellfri AB. By following the general safety information and the instruction manual and by using common sense, you will have a great and safety use of your Kellfri product for many years. Kellfri designs and delivers effective, affordable machinery and components for forest, agriculture, construction and gardening in Sweden, other Nordic countries and Europe.

## PRODUCT INFORMATION

Compact and well-constructed backhoe digger with its own power source in the form of a 9 hp petrol motor. Digger bucket, 23 cm wide as standard. Levelling or ditch bucket available as extras. Solid quality material thickness in construction and buckets, e.g. 8 mm steel in bucket. Operator seat 90 cm high with good work overview. Two-lever hydraulic valve for simple and flexible excavation work, wheels for pulling behind ATV or car using 50 mm ball coupling. When the machine has to be moved, the wheels are fitted to the back making it easy to transport; when excavating, the wheels are fitted at the front with the stabilisers at the back and the machine is then moved by dragging it backwards or forwards using the first boom and outer boom.

The product has to be assembled.

TECHNICAL SPECIFICATION	26-GAATV PETROL MOTOR
Motor	9 hp /Engine speed 3600 rpm
Reach	2 560 mm
Excavation depth	2040 mm
Digging range	120°
Maximum height of the backhoe with load	1400 mm
Width of the outrigger when mounted	2000 mm
Total width	2000 mm
Wheels	16"
Ball coupling	50 mm
Weight	466 kg
Packing size	224 cm x 99cm x 84cm
Bucket	250 mm
Oil capacity	14.6L
Cylinder	4 pcs - Cylinder Diameter & Stroke: Ø63x300mm
System pressure	16 Mpa
Operating temperature range	-20°C to +30°C

## INTENDED USE:

Only for excavation. Very versatile machine for all types of groundwork both for home users or contractors working in confined spaces. Kellfri power in compact design.

## FOR YOUR SAFETY

Before using the product, please read the safety information and instruction manual and understand its contents for your own and others' safety. Always keep the safety information and instruction manual easily accessible to the user of the product. Remember that it may be good for your own and others' safety to read the safety information every now and then. If the instructions manual is damaged or otherwise unusable, please contact your retailer and order a new one

The general safety instruction is also available from Kellfri's website: [www.kellfri.com](http://www.kellfri.com)

Do not use this equipment if you are feeling sick, tired or in influence of alcohol. Nor if you are under the influence of strong medications or drugs, suffering from strong depression or severe mental illness. Always follow the general traffic rules and regulations and the rules of the Animal Welfare Act. Persons under 15 years old and people with mental illness may not use this product.



## Warning!

The product must not in any circumstances be modified without permission from the manufacturer. Unauthorized modification of the machine and/or accessories can cause fatal injuries or death to operator or others.

## IN CASE OF EMERGENCIES

In case of an emergency please dial 112.

Keep cell phone or emergency phone available specially when working alone. First aid kit and fire extinguishers must be kept easily accessible during all work, maintenance and service.

## PERSONAL PROTECTION

Always wear suitable clothing and footwear. Do not wear loose clothing or jewelry when using the machine. Remember to put up long hair when operating rotating machines. Wear protective gloves, to prevent risking burns on contact with hot surfaces such as exhaust system, and to avoid oil and gasoline on the skin. Hearing protection should be used when the engine is running. Eye protection and protection mask should be use when necessary.



## PRODUCT SAFETY INFORMATION

- Always read the instructions carefully before using the backhoe!
- Never leave the equipment whilst the motor is running. Turn off the motor when you leave the equipment - even for a short while.
- Always disconnect the equipment before performing service or maintenance work.
- Only you who are operating may be in the vicinity of the machine during work.
- Do not use the equipment without all guards are mounted correctly
- Keep the work area free of bystanders and animals and make sure you always have enough elbow room for the unit.
- Always operate from the operating position
- Use the backhoe only for the work it is intended for. Do not use the machine to draw things, as a battering ram or lifting assembly. Do not mount ropes, chains, etc. on the device.
- Never dig too close to the outriggers. The ground can collapse underneath the backhoe.
- Never overload the equipment and / or exceed digging capacity.
- When working on slopes, dig with the unit towards the uphill and avoid turning the unit towards the downhill side. Avoid digging on slopes that could cause the towing vehicle to tip over.
- Reduce speed when driving on uneven terrain, slopes or when turning to prevent the towing vehicle to tip over.
- Do not adjust the valve settings. Wrong adjustment may result in damage to the machine and / or injury.
- Upon disembarking from the unit, lower the unit's bucket and support legs to the ground. Turn off the engine
- The operator nor other person must never be underneath any suspended load
- The equipment must not be parked with loaded bucket with the bucket up lifted.
- Due to the backhoe is not equipped with a lighting device, use the backhoe during day light.
- During transport on public roads a Slow Moving Vehicle sign (SMV- sign) must be attached to the rig.
- Never allow children or any unexperienced person use the machine.
- Never allow anybody to ride on the backhoe during transport!
- Never transport any load on the backhoe during transport.
- Never use the machine with faulty safety details.
- Shut down the machine and release all pressure from the system before you leave it or before starting maintenance or service.
- Please contact relevant authorities when digging near buried pipelines or electric lines. Never dig on the ground without thoroughly examining the area.
- Don't allow anybody to climb on top of the backhoe!
- Start the motor only on well ventilated area and never leave the machine whilst the motor is running.
- Never top up the engine with fuel when the engine is still hot. Let the engine cool down for a couple of minutes before refueling.










## Warning!

For safety, this product should only be used in the manner described in this manual. The user is responsible for the instruction to be read through and followed.

## WARNING SIGNS AND LABELS

Ensure that warning labels are always visible and clean. Clean the warning labels as required. Do not rinse using pressure washer directly on the warning labels. Any damage/ broken stickers should be replaced. Order new stickers from your supplier.

SYMBOL	EXPLANATION
	<p>Read the operating manual! Before carrying out work</p> <p>Warning! Before maintenance, servicing, connecting and disconnecting the machine, the motor must be switch off and the ignition key removed.</p>
	<p>Danger zone 25 m</p> <p>Warning! Accident risk for children!</p> <p>Children are not allowed in the vicinity of the machine.</p>
	<p>Warning electric cable!</p> <p>Risk of crushing hands</p> <p>Risk of crushing feet</p>
	<p>Warning! Never stand under suspended load.</p>
	<p>Warning! Escaping oil from hydraulic hoses under pressure can penetrate skin!</p> <p>Warning! Rotating parts! Risk of crushing.</p>
 <p>Smörjning efter 10 tim. i drift</p> <p>Efterdrag samtliga skruvar och kopplingar</p>	<p>Greasing after 10 hours of operation.</p> <p>Always use stabilisers when digging.</p> <p>Tighten all bolts and connections.</p>
	<p>The product is CE-marked.</p>

## SURROUNDINGS

Make sure your working area is clear from people, children and objects before installing and using the machine. Risk of serious injuries can occur during operation. Take an extra caution when children are in the area where the equipment/ product is being use or stored. Check the area for low hanging electrical wires. Be careful when working on slopes and near ditches. Always work alone with single - purpose tools/products. Never have junk lying in your area. Keep working areas clean. Always respect the risk zone.



### **DANGER!**

Children in the area should be supervised.

## SAFETY MEASURES BEFORE OPERATING

Read the safety information and instruction manual carefully. Be sure you understand the safety measures, instruction manual and warning labels. Use common sense when operating the machine and use appropriate personal protective equipment.

Always check the performance and the machine combination that are used. It's highly important these matches in a satisfactory manner. This is to ensure the product or the function and most important yours and others safety.

Do visual inspection of equipment or product before use. Fix or replace damaged or worn parts immediately to reduce the risk of injury. Lubricate moving parts and check that all screw-nuts and bolts are tightened.

Learn and remember the correct working methods. Beginners should always keep a low speed, use extreme caution before routine and product knowledge is achieved. The user/customer is responsible to handle the situation correctly. The product should not be taken into use unless it can be done in a safe way for the user.

- Ensure that all nuts, bolts and fittings are securely attached, that all packing / shipping supplies such as tape, steel tape, rope, etc. are removed.
- Make sure that the oil level in the engine is correct.
- Ensure that all guards are in place and can not come off before use.
- Before starting the operation, check that the backhoe digger is on operating mode
- Make sure that the backhoe digger is placed on stable ground



### **Warning!**

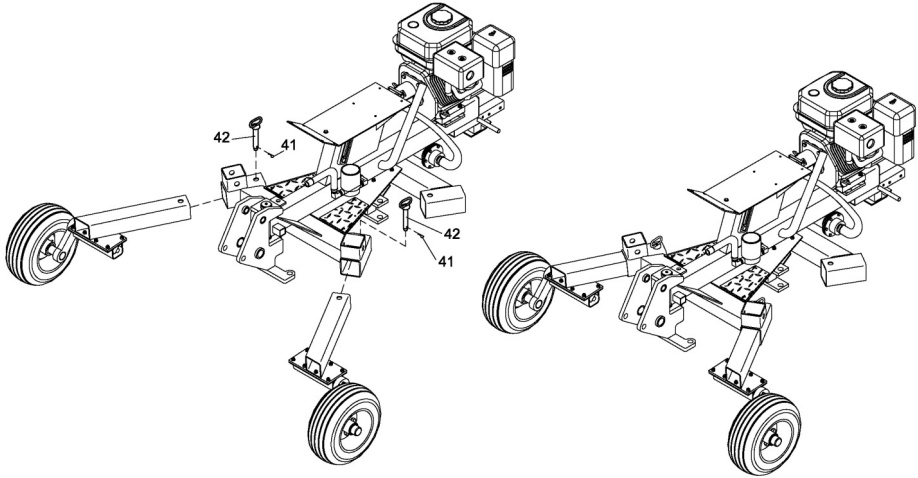
Never use faulty safety equipments!

## ASSEMBLY INSTRUCTIONS

Because of the weight of the machine, it is recommended that the unpacking and assembly are carried out by two people. The following instructions describes the assembly of the backhoe.

### STEP 1: Assemble the Wheel Leg.

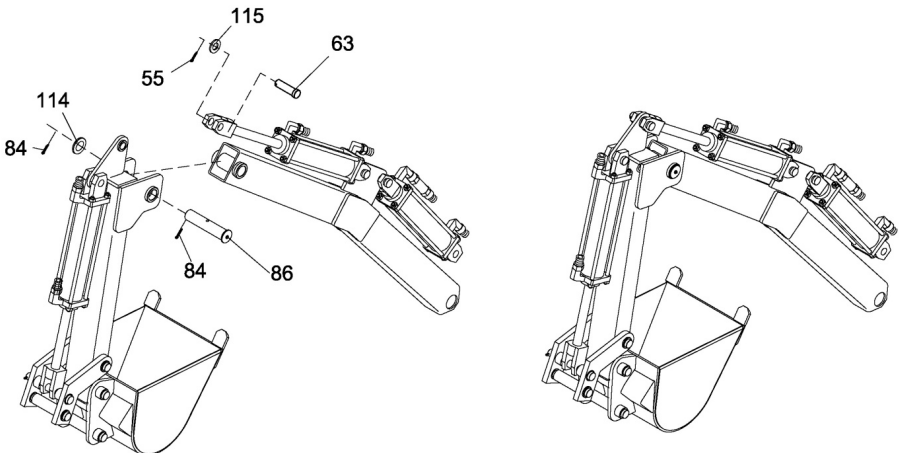
a. Insert the wheel leg into the Backhoe Frame, insert the Safety pin (#42) then lock with R Pin (#41).



### STEP 2: Assemble the Arm.

a. Connect the Short Arm assembly with Long Arm Assembly by using Axis Pin (#86), Washer Ø38 (#114) and lock with Cotter Pin (#84).

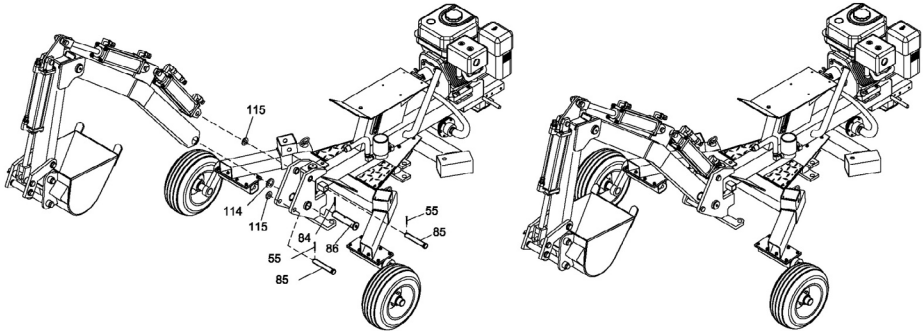
b. Connect the cylinder on the long boom to the short boom by using Short Pin Ø30x97 (#63), Flat Washer Ø24, and lock with Cotter Pin Ø4x50 (#55).





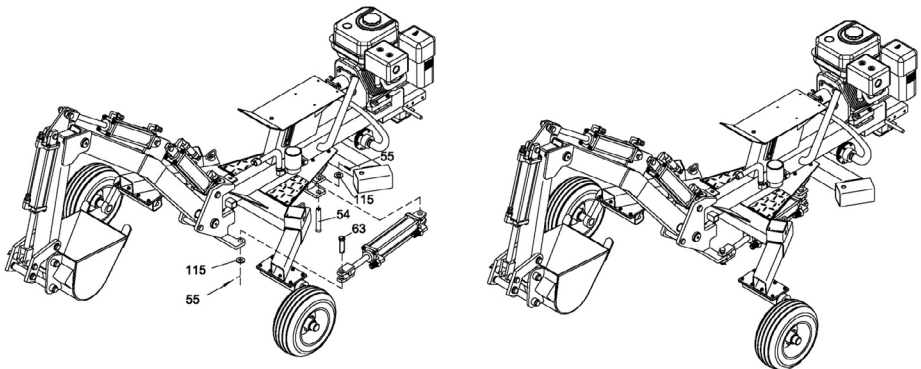
- c. Attach the Long Arm to the Swivel Bracket Assembly by using Axis Pin(#86),Washer Ø38 (#114) and lock with Cotter Pin (#84).
- d. Put the Arm to the Backhoe Frame by using Long PinØ30x170 (#85),Flat Washer Ø24 (#115), and lock with Cotter Pin Ø4x50 (#55).

Note: The Pin (#85) is a safety Pin. Remove it before using the machine and insert it when you want remove.



### STEP 3: Assemble the Swivel Cylinder.

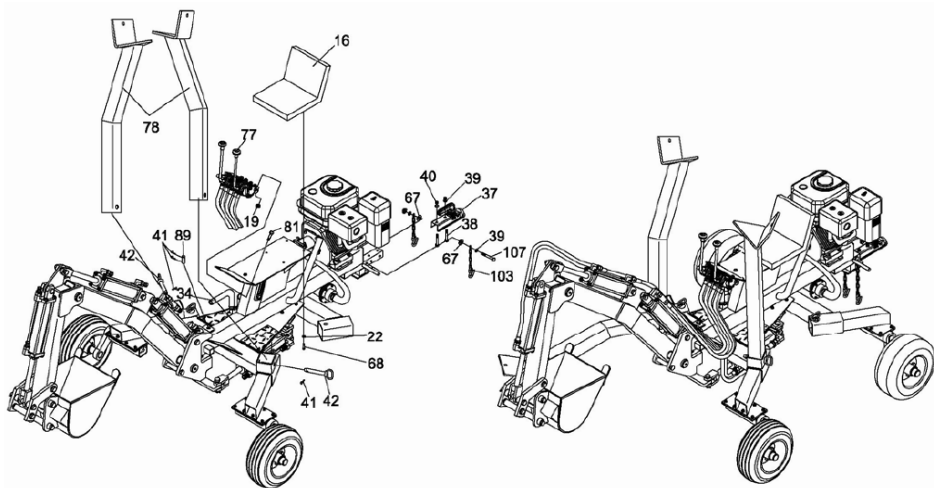
- a. Attach the Cylinder (#59) to the Swivel Cylinder Base by using the Pin Ø30x124 (#54),Flat Washer Ø24 (#115),then lock with Cotter Pin Ø4x50(#55).
- b. Connect the Cylinder (#59) to the Swivel Bracket Assembly by using Short PinØ30x97 (#63),Flat Washer Ø24 (#115),then lock with Cotter Pin Ø4x50 (#55).



#### STEP 4: Assemble the Seat, Control Valve and Coupler

- a. Attach the Seat (#16) to the Frame by using Hex Bolt 5-16"-3/4" (#68), Flat Washer Ø8 (#21), Lock Washer Ø8 (#22).
- b. Attach the assembled of control valve to the valve plate by using Bolt M10x20 (#81) and Nylon Lock Nut M10 (#19).
- c. Insert the Outrigger (#78) to the square tube, then insert the Pin (#42) and lock with R Pin Ø3x55 (#41).
- d. Insert the Fixed Pin Ø19x50 (#89) into the Backhoe Frame, lock with R pin (#41).
- e. Attach the coupler (#37) to the tow bar by using Hex Bolt M12x80 (#38), Flat Washer Ø12 (#39) and Nylon Lock Nut M12 (#40).
- f. Attach the two chains (#103) to the tow bar by using Hex Bolt M12x90 (#107), Flat Washer Ø12 (#39), Nylon Lock Nut M12 (#40) and Thick Flat Washer Ø12 (#67).

Note: The Pin (#89) is a safety Pin. Remove it before using the machine and insert it when you want remove.



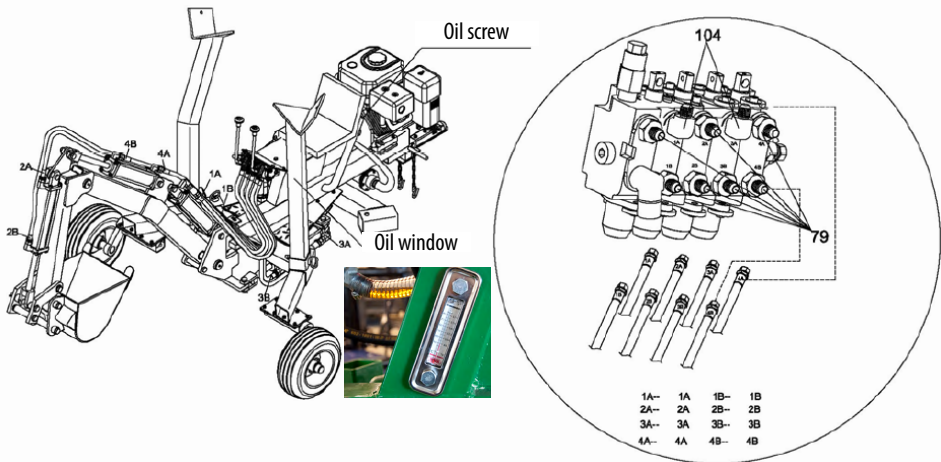
**STEP 5: Connect the Hydraulic Hose.**

- a. Attach the Hydraulic hose 1A to the Connector of Valve 1A (as the label).
- b. Attach the Hydraulic hose 1B to the Connector of Valve 1B(as the label).
- c. Assemble others as above.

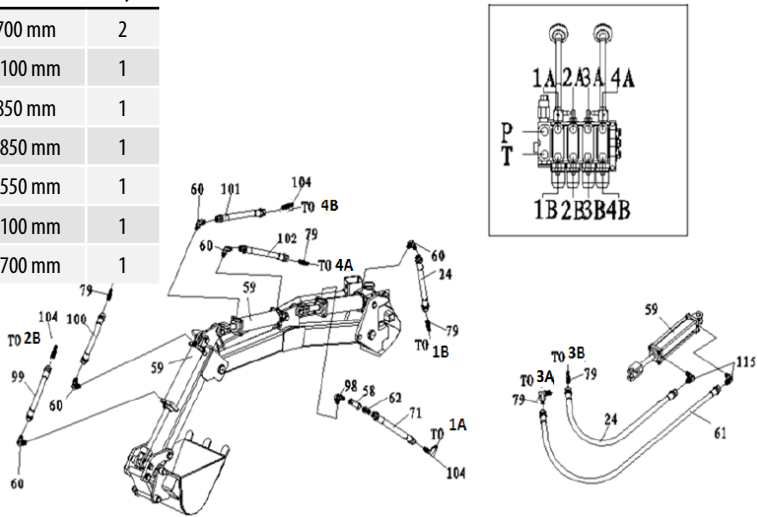
Note: HYDRAULIC HOSE LINE: Attach the Hydraulic Hose 1A & 1B at the right side of Arm, use the Clamp Clip to lock it. Attach other Hydraulic Hoses at the left side of Arm, use the Clamp Clip to lock the hydraulic hose of 2A & 2B.

**When filling up the tank with hydraulic oil for the first time:**

Fill the tank with oil between red and black lines. Start the engine, operate the control valve levers and run all function to let the oil flow into the system and the cylinders get filled with oil, then refill the tank with oil to between red and black lines.



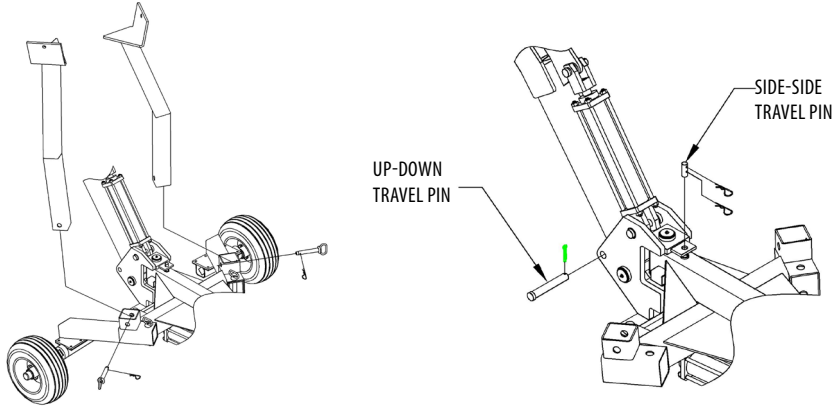
No.	Description	Qty.
24	Hydraulic hose 700 mm	2
61	Hydraulic hose 1100 mm	1
71	Hydraulic hose 850 mm	1
99	Hydraulic hose 2850 mm	1
100	Hydraulic hose 2550 mm	1
101	Hydraulic hose 2100 mm	1
102	Hydraulic hose 1700 mm	1



## DIGGING MODE

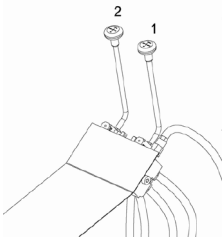
After towing the backhoe to the desired location, follow these set-up instructions. Do not sit on the backhoe while setting it up.

1. Remove outriggers from the attachment and set them aside. This reduces weight. Outriggers are heavy, use lifting device when lifting.
2. Be sure to remove the up-down and side-to side travel pins. Keep these two pins to re-insert for towing.



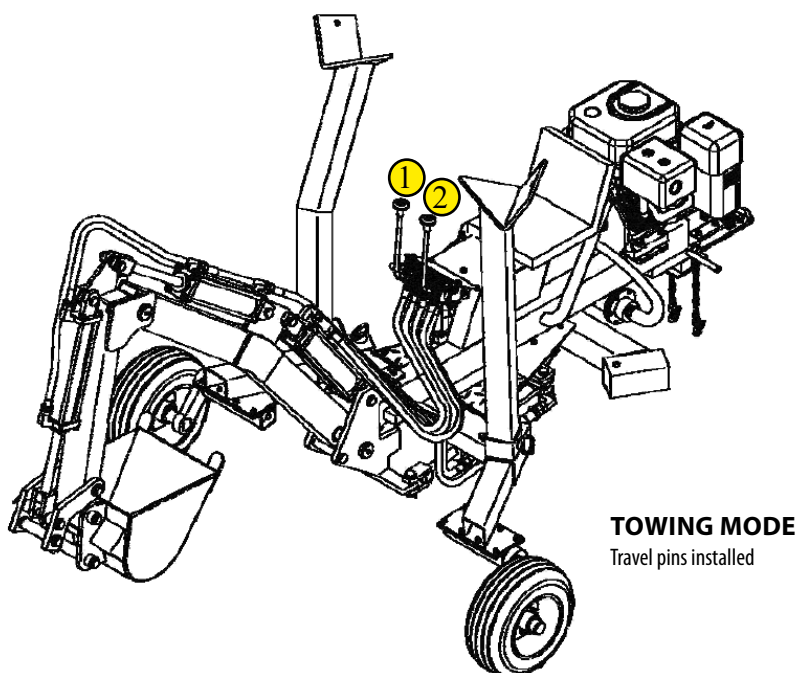
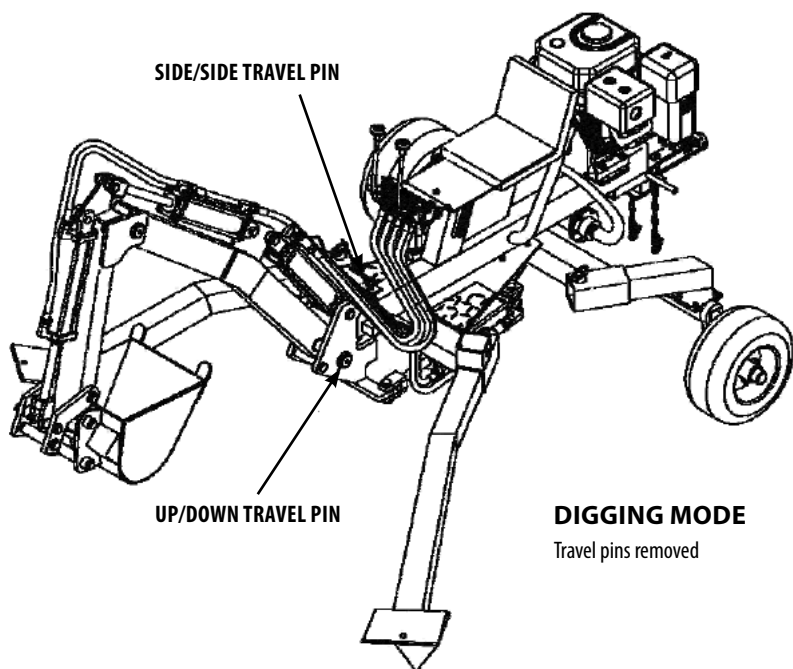
Disconnect the backhoe from the towing vehicle

3. Pull lever #2 towards left until wheels elevate off the ground 4-5 inches.
4. Remove wheels. Looking at until as if you were sitting is operator seat, put outrigger in front left slot, secure with pin and put front wheel by rear right slot. Install other outrigger in front right slot, secure with pin and put front right wheel by rear left slot. Lower wheels by pushing lever #2 right.
5. Position bucket next to the right side outrigger. Elevate the right side of the unit by pulling lever #2 left until right side balances enough to install back-right wheel into slot. The right outrigger should be about 2feet of the ground .Install back right wheel into slot and secure with pin.



- 6) Lower right side of until by pushing lever #2 right to where the outrigger is touching the ground and the flat part of the bucket is flush to the ground .Insert the back-left wheel into the slot and secure with pin. If needed, move bucket next to the left outrigger and elevate the left side to allow wheel to be inserted in to slot. Make sure all pins are secure.

***The backhoe is now in digging mode. Read the entire manual before attempting to operate the backhoe. Like any industrial tool, proper training and preparation are needed to safely and efficiently operate the backhoe.***

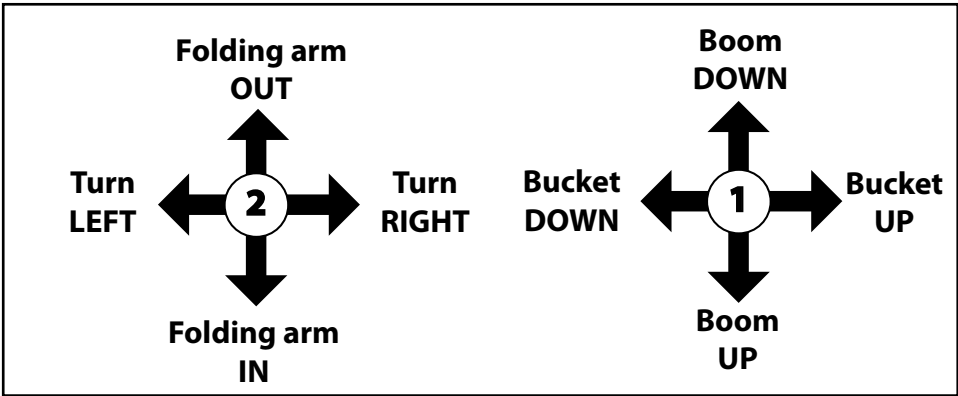


**OPERATING THE MACHINE**

Only people who understand the safety information and instructions in this manual may operate the equipment. Be alert and careful when working with the machine and only use the tool or product in the manner described in this manual. When working with equipment that has moving parts, there is always the risk of injury. Be careful when working with equipment equipped with hydraulic hoses ,oil under pressure can penetrate the skin. Seek medical attention immediately if this occurs. Always work alone with the tools that are defined as single porpose tools. Respect the equipment’s danger zone.

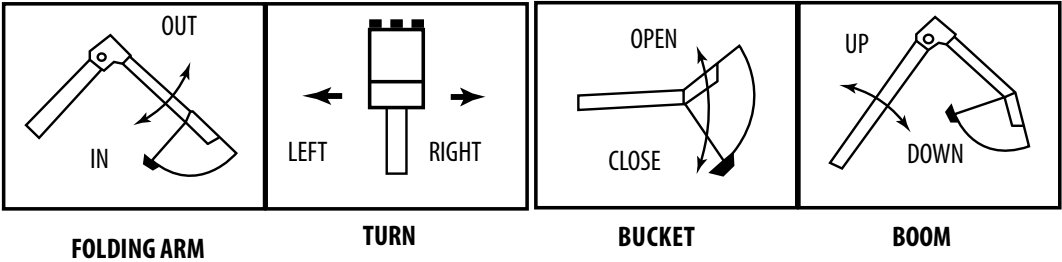
NEVER drive or move the towing vehicle /ATV when someone is sitting on the operating position!

The excavator has two control levers (see picture below). Read the safety precaution in the manual before using the machine. Remember: Left and Right are determined by the position of the operator sitting on the deck and steering toward the bucket.



**LEVER 2**

**LEVER 1**



## BEFORE OPERATING

Before digging, it is good to plan the work. There are certain things one must take into account. The operator should inspect the area of operation and control potential hazards in the area. The operator should have a complete understanding of the work that will be performed.

Having familiarized with the work, it is time to plan the digging. Position the backhoe in a way you do not need to reposition the machine throughout the digging and to maximize the efficiency of the machine.

Before starting the operation, dig carefully in the area where object/objects are expected to be. If you feel that the bucket come into contact with any object, stop digging and examine the ground.

Operate the machine only seated on the operating station by the levers. Maneuvering the backhoe using another method can cause injuries or even death.



## **DANGER!**

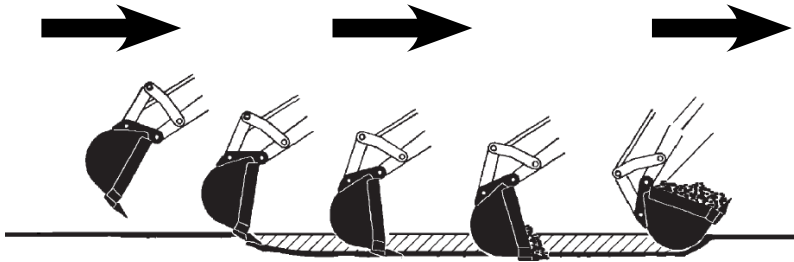
**CAUTION! Never allow anyone unexperienced drive / operate the machine.**

- Before starting the operation, make sure that the outriggers and wheels are firmly placed on the ground. The ground should not be inclined more than 10°. When the backhoe is in position, mount the outriggers on the ground. Take the time needed to learn the function of the levers. Description of the levers, which lever controls which movement are illustrated on the cover plate. By learning the movements and training correct method means safer work and more efficient driving.
- Position the bucket perpendicular to the ground.
- Stretch the arm, lower the boom until you feel the resistance on the ground. Be careful not to lower the boom too much so that the outrigger lifts from the ground.
- To start digging bend the bucket, if any movement causes the outriggers to move lift the digging arms a little bit to allow the outriggers feet to sink into the ground.
- When the digging process is finished, bend the bucket inwards. Lift the digging arm and move aside and empty the bucket.

## BASIC DIGGING METHODS

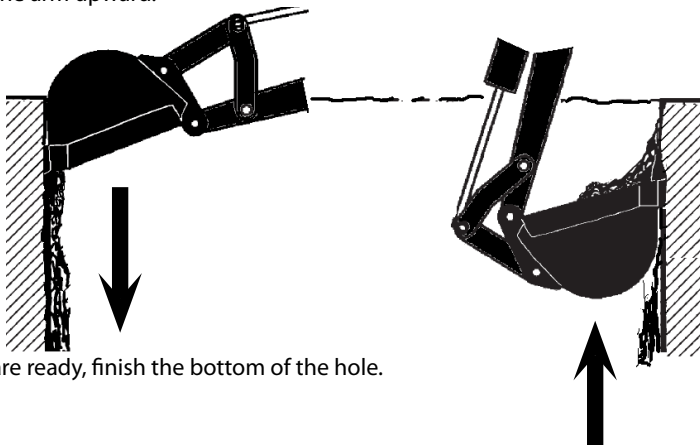
When you start digging, always start the first cut thoroughly and be sure to follow the contour. The reason for this is to minimize the damage on the ground and the bucket. The first cut is also important because this will serve as a template for the remaining cut, following the first cut carefully will make future digging more precise.

## WORKING DIRECTION



During digging with the backhoe, extend the arm away from the operator. Lower the arm and the bucket and start digging. The bucket's teeth should be 30° to 45° towards the ground. When the digging begins, bend the bucket until the teeth is horizontal to the ground. Pull the bucket toward the operator and operate with the lever to hold the bucket at the right level. While the bucket moves towards the operator, adjust the arm to maintain an even cutting level. At the end of the digging cycle, bend the bucket completely inwards while lifting the arm from the excavation. Turn the arm to the side and tip the bucket's contents on the place you want it to be. Start tipping the bucket before approaching the pile. When the bucket is empty, turn back the arm and position the bucket for the next digging process. The entire digging process should be smooth until the excavation is complete.

When the digging is almost finished, at about 15 cm remaining to dig. Clear and press the sides of the excavated hole. Use the flat side of the bucket to scrape any high spots. Clear stones that stand out if they seem to be loose. To finish walls, dig the far wall by bending the bucket outward and lower the arm downward. To finish the nearest wall, bend the bucket inwards and lift the arm upward.



When the walls are ready, finish the bottom of the hole.



## **AFTER USE**

Parking is not allowed with the cargo above ground, but is done with the equipment resting on the ground. Rinse the tool with water if necessary.

## **TRANSPORT AND STORING**

Make sure there are no people, children and foreign objects around the area before transporting the machine. Always take an extra caution during the transport. Ensure that the product is well secured and that transport brackets are mounted. Always place the load as low as possible. Respect the danger zone even during transport. When lifting the equipment, never go underneath suspended loads. Trailer used for transport should have working brakes.

Always store the machine in a dry place preferably underneath a cover when not in use. Ensure that the product is stable and not likely to tip over. Never let children play where the machine is being stored. Always keep in mind the risk of tipping!

## **TRANSPORT**

- Before transportation; ensure that the arm and the swing arm is locked to prevent uncontrolled movements. Raise the boom and bucket to transport position. Mount the transport safety devices. Raise the support legs.
- Ensure that the backhoe is correctly mounted on the towing vehicle before towing
- Drive slowly on uneven terrain, do not drive too close to slopes and pits.

## **STORAGE**

Before storage, ensure that the machine is clean, wash away all the dirt from the backhoe. Lubricate the exposed cylinder rods. Lubricate all the joints, make sure that the hydraulic system is sealed against contamination. When storing, place the machine in a dry place and cover it if possible.

- Clean the machine to help detect damage
- Check all hoses and couplings before connecting the unit to the power outlet. Check for leaks after the connection.
- Check joints so that they have sufficient lubrication for smoother work,
- Check and tighten bolts if necessary. Kraftuttaget. Kontrollera efter läckage efter tillkopplingen

## MAINTENANCE AND SERVICE

Ensure that the unit is stable and cannot tip over during maintenance and service. Replace damaged or worn parts immediately to reduce the risk of abrasion. Always perform maintenance, service and inspection, as recommended. Use only original replacement parts or spare parts with equivalent performance to reduce the risk of damage. All repairs and connections with electricity must be performed by a qualified person. Check all nuts and bolts are tightened after performing maintenance and service. Always test the machine before using it.

- Regularly check the condition of the machine before a crash is a fact. If cracks, twisting, bending, glitches or exhaustion are discovered then stop work and fix the problem.
- Tighten all screws and nuts after a few hours of work, and after that every day when working with the machine.
- Disconnect the equipment from the towing vehicle when any malfunction being repaired.
- Never perform reparation of the hydraulic system without first ensuring that there is no pressure in the system.
- Never work underneath suspended loads.
- Check all bolts and nuts are tightened after maintenance and service. Always test the machine before work is started.
- Turn off the engine and move the hydraulic levers in every direction to release pressure that may be present in the oil hoses and tubes before work with them or the hydraulic cylinders is started.
- Clean the filter in the suction line after 10 hours of work.
- Check all parts for wear and tighten bolts, nuts or screws, if necessary.
- Immediately replace hydraulic hoses if cracks or wear occurs.
- Check that the hoses do not touch sharp edges, correct if necessary.
- Lubricate all lubricating points before and after each use.
- If leaks occur, retightened the leaking joints. Do not tighten the couplings more than needed. In case of overload they may be destroyed.

**Always work alone with single - purpose tools/products. Never have junk lying in your area. Keep working areas clean. Always respect the risk zone.**

Due to a hydraulic system is never 100% tight, a hydraulic system control should be performed before the equipment is operated. Leakage can occur due to internal leakage in the tractor's valve, internal leakage in the equipment's hydraulic cylinder etc. Check the extent of the leak by running the equipment's cylinder in end position and keep up the pressure for 1 min. If the cylinder begins to "wander" in the other direction then there is a leakage in the gasket. Gasket or cylinder must be replaced.



### **DANGER!**

Be careful when working with equipment that has hydraulic hoses because the oil under pressure can penetrate the skin. Never use the hands when searching for leakages. Use a piece of cardboard.

**Regular maintenance is the key to long life of the machine and safe operation. It is important that the maintenance function is made and followed.**

**EVERY 8 HOUR OF OPERATION:**

**WARNING:** The engine must be switched off BEFORE LUBRICATION IS IMPLEMENTED  
Lubricate moving parts carefully (arm and the end of all cylinders). Unnecessary wear and mechanical damage may be a result from insufficient lubrication. Use the universal lubricant.  
**IMPORTANT!** Avoid lubricating too much. Dirt is collected in exposed grease and leads to increased wear. After greasing, wipe off excess grease from the fittings.

**EVERY 40 HOUR OF OPERATION: :**

Check Hydraulic oil level. If the oil level is low, check for leaks in the hydraulic system.

**IMPORTANT!** Checking the oil level should be done with the backhoe in transport position. Check for wear on all pins, bushings, cotter pins, bolts, nuts, etc. tighten all bolts and replace if necessary.

**MAINTENANCE BEFORE STORING THE MACHINE**

When performing maintenance work the machine must be in maintenance mode

1. Turn off the engine.
2. Move the levers back and forth when the engine is turned off to release the pressure on the hydraulic system.
3. Set the machine on the ground.
4. Remove the spark plug cap.
5. Clean the machine from dirt. If the machine is equipped with a spark arrestor, check its conditions and replace if damaged.
6. Check all bolts and nuts are tightened to make sure that the machine is functioning as it should.
7. Check the intake filter.

**When storing for a longer period time:**

Before the storage, be sure to follow the instructions below

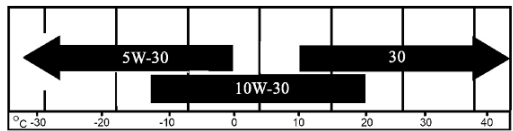
- Drain the engine from fuel or add stabilizer to the fuel to prevent fuel from thickening
- If you have added stabilizer, run the engine for about 5 minutes
- Turn off the engine
- Pull the lever back and forth to release the hydraulic pressure
- Remove the spark plug
- Replace the spark plug
- Never store the product where there is a risk of fire. Allow the engine to cool down before storing it

**CHANGING MOTOR OIL**

Use the correct type of oil depending on temperature conditions.

Use SAE 5W-30 or SAE-30.

See table:



SERVICE	INTERVAL	MEASURE
Tires	<ul style="list-style-type: none"> <li>Before each run</li> </ul>	<ul style="list-style-type: none"> <li>Check the pressure, recommended tire pressure is written on the tire</li> </ul>
Hoses	<ul style="list-style-type: none"> <li>At each use</li> </ul>	<ul style="list-style-type: none"> <li>Check for damage and leaks. Replace damaged and broken hoses before use</li> </ul>
Hydraulic Couplings	<ul style="list-style-type: none"> <li>At each use</li> </ul>	<ul style="list-style-type: none"> <li>Check for damage. Replace broken or damaged, if necessary</li> </ul>
Nuts and Bolts	<ul style="list-style-type: none"> <li>At each use</li> </ul>	<ul style="list-style-type: none"> <li>Check, tighten if necessary</li> </ul>
Hydraulic oil	<ul style="list-style-type: none"> <li>At each use</li> </ul>	<ul style="list-style-type: none"> <li>Check the level and top up if necessary. Change oil regularly.</li> </ul>
Mounting Pin	<ul style="list-style-type: none"> <li>At each use</li> </ul>	<ul style="list-style-type: none"> <li>Check, lubricate</li> </ul>
Inlet filter	<ul style="list-style-type: none"> <li>Regularly</li> </ul>	<ul style="list-style-type: none"> <li>Change</li> </ul>

## RECYCLING

Disposal of the product, disassemble and transport to the municipality's recycling station. Contact your local authority for further information

ERROR	REASON	MEASURE
The backhoe arm can not lift or swing	<ul style="list-style-type: none"> <li>Low oil level</li> <li>Turn speed control valve is closed or not properly connected</li> <li>broken hydraulic hose</li> <li>Arm joint is blocked</li> <li>Broken / bad cylinder</li> </ul>	<ul style="list-style-type: none"> <li>Refill oil</li> <li>Open / connect valve</li> <li>Check for leaks in the system</li> <li>Remove objects blocking the joint</li> <li>Replace cylinder</li> </ul>
The backhoe lifts / swings slowly	<ul style="list-style-type: none"> <li>The oil is cold</li> <li>The engine haven't come up on the right speed</li> <li>Leaking cylinders</li> <li>Dirty filter</li> <li>Congestion / broken valve</li> </ul>	<ul style="list-style-type: none"> <li>Wait until the oil comes up to the right temperature</li> <li>Check engine and higher up the speed</li> <li>Replace cylinder gaskets</li> <li>Clean or replace</li> <li>Check the valves and replace if necessary</li> </ul>
The oil gets overheated	<ul style="list-style-type: none"> <li>Dirty oil</li> <li>The inlet filter is clogged</li> <li>Safety valve is incorrectly set.</li> <li>Engine runs too fast.</li> <li>Bad driving, causes excessive oil flow on the valves.</li> <li>Broken oil pipeline.</li> <li>Wrong type of oil in hot weather</li> </ul>	<ul style="list-style-type: none"> <li>Change the oil and oil filter</li> <li>Cleaning the filter element</li> <li>adjust the valve</li> <li>Decrease the speed</li> <li>Learn correct and smooth driving</li> <li>Replace broken pipes</li> <li>Use recommended oil</li> </ul>



Grease fittings

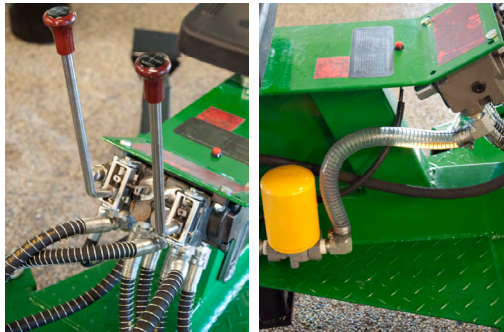
## HYDRAULIC OIL

### Add the Hydraulic Oil

1. There is a Oil cap behind the seat, screw off the Oil cap. Fill the tank slowly with 10wt hydraulic oil while checking the oil sight gauge. Once the tank is full, stop and check the level, fill up if necessary and screw the Oil cap back on the tank.

***When filling up with hydraulic oil for the first time, the oil should be between the black and red line on the oil window. Start the engine, move the control handle, stretch out all cylinders and draw back, to let the cylinder get filled with oil. Fill up the tank with more oil between the black and red line for the second time.***

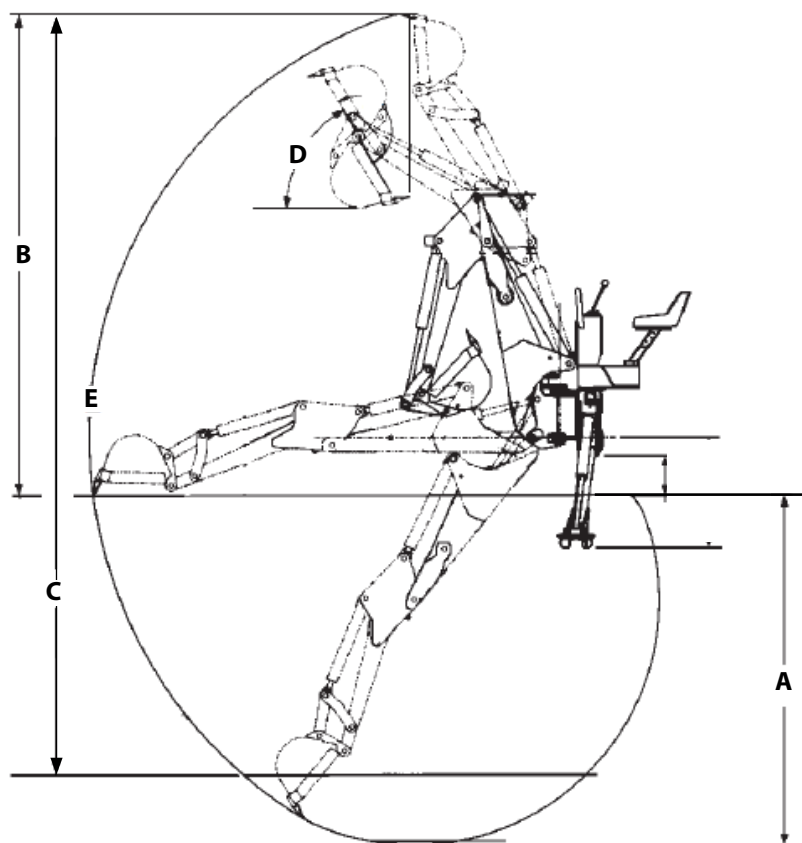
2. Start the engine and run at slow idle
3. Push and pull lever back and forth 6-8 times to remove air from the hydraulic lines. While moving the lever#1, watch the clear hose. If there is a stream of bubbles, that is normal. If a foamy solution is moving through the tube, air is still in the oil. Keep pushing a pulling the lever until the stream of bubbles appears. After lever is completed, do the same with lever#2. Watch the oil levers. Once all levers are done, fill the tank up to the black line on the oil sight gauge in the hydraulic tank. The whole hydraulic system contains about 14,6L of oil.



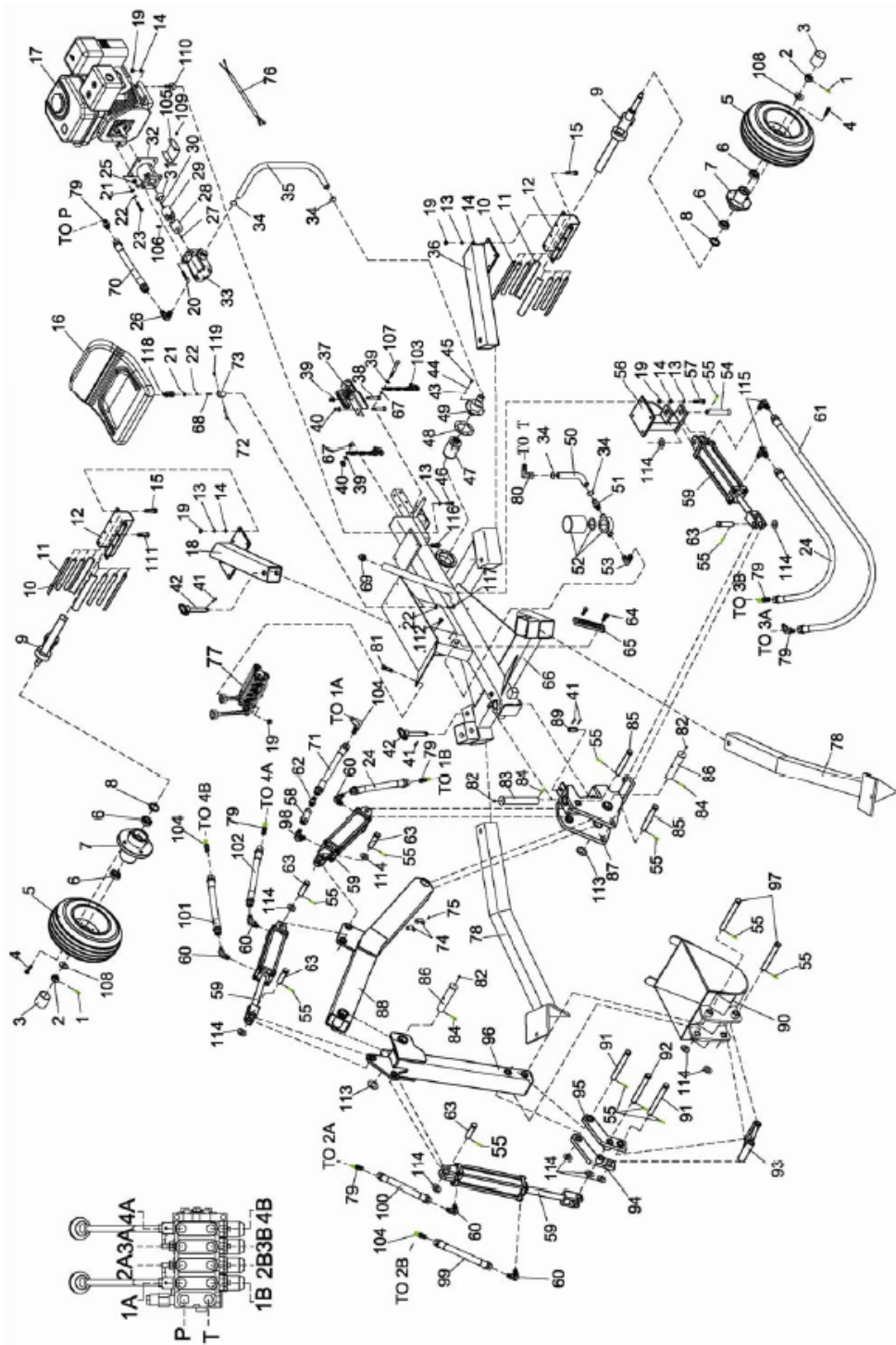
4. Shut off the engine, screw the Oil Screw back on the tank.

### Changing the Hydraulic Oil

1. Remove the Inlet Filter on the bottom part of the frame below the engine. Once the old hydraulic oil is removed, tighten the Filter back onto the tank. Be sure to properly dispose of the old hydraulic oil.
2. Screw off the Oil cap behind the seat. Fill the tank with hydraulic oil. While checking the oil level on the sight gauge. Screw the Oil Screw back onto the tank.
3. Remove the up-down travel pin and the side-to-side travel pin.
4. Start the engine and run at slow idle. Check for any air in the system, vent the system if necessary by following the instruction above.
5. Reattach the up-down and side-to-side traveling pins.



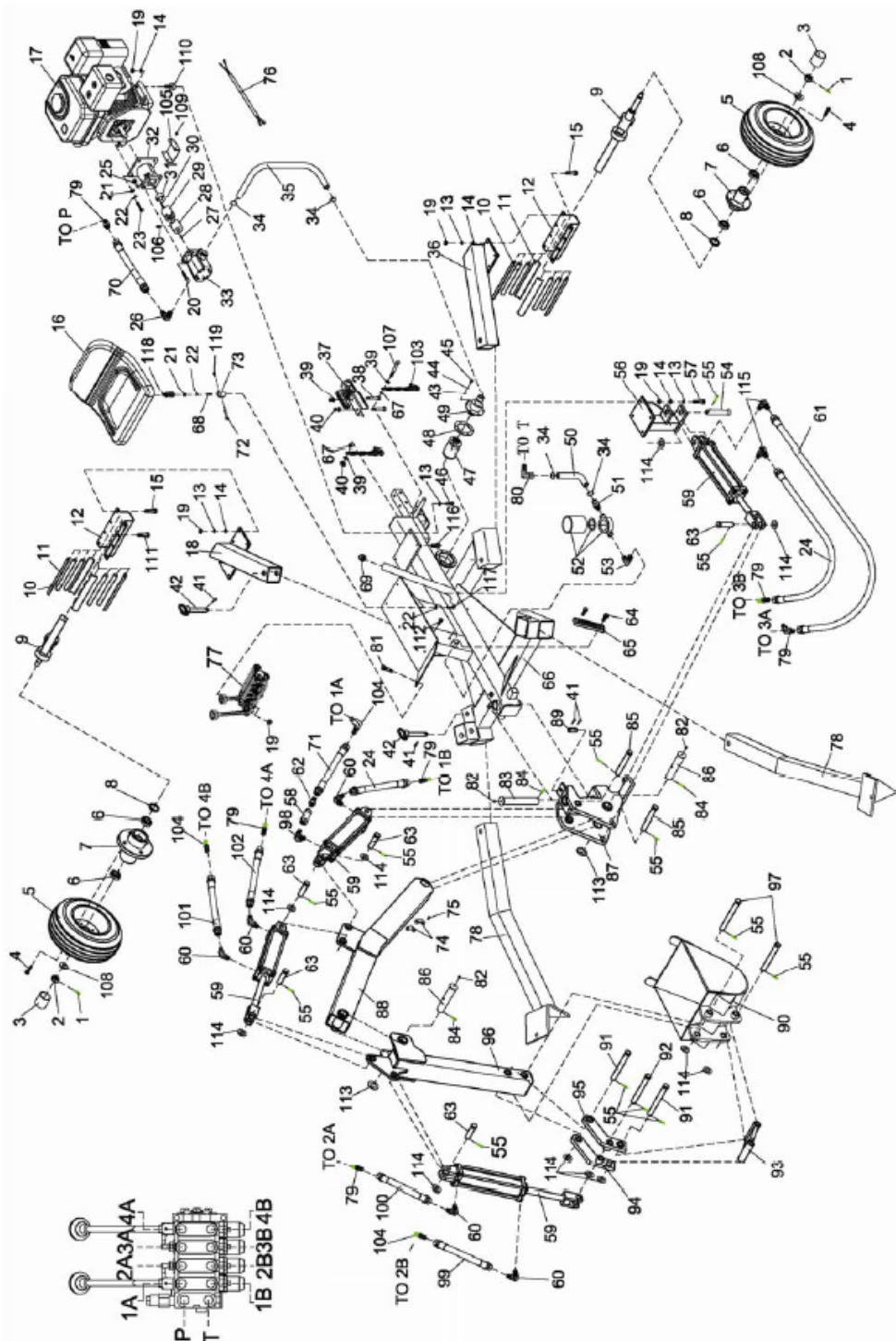
A	maximum digging depth	2 040 mm
B	maximum dig height on plain ground	2 560 mm
C	maximum dig height	1 400 mm
D	bucket turn angle	120°
E	turn angle	150°





NO.	DECIPTION	QTY
1	Cotter Pin 4x30	2
2	Slotted Nut M20x1.5	2
3	Wheel Axle Cap	2
4	Lug Bolt	8
5	Wheel	2
6	Taper Roller Bearing	4
7	Flange	2
8	Oil Seal	2
9	Axle Assembly	2
10	Rubber Rod	8
11	Rubber Skateboard	8
12	Square Axle Base	2
13	Lock WasherØ10	24
14	Flat Washer Ø10	24
15	Hex Bolt M10x30	12
16	Seat	1
17	Engine	1
18	Wheel Frame Connector Tube (Right)	1
19	Nylon Lock Nut M10	28
20	Hex Bolt M8x30	4
21	Flat Washer Ø8	8
22	Lock Washer Ø8	16
23	Hex Bolt M8x25	4
24	Hydraulic Hose 700	2
25	Nylon Lock Nut M8	4
26	Outlet Connector of Pump	1
27	Semicircular Key	1
28	Gear Pump Connector	1
29	Engine Connector	1
30	Flat Key Ø8x30	1
31	Bushing Ø25x30	1
32	Gear Pump Stand	1
33	Gear Pump	1
34	Clamp	4
35	Gear Pump Oil Pipe 500	1
36	Wheel Frame Connector Tube (Left)	1
37	50mm Coupler	1
38	Hex Bolt M12x80	2

NO.	DECIPTION	QTY
39	Flat Washer Ø12	4
40	Nylon Lock Nut M12	3
41	R Pin Ø3x55	6
42	Safety Pin	4
43	Flat Washer Ø6	6
44	Lock Washer Ø6	6
45	Hex Bolt M6x20	6
46	Hex Bolt M10X25	4
47	Inlet Filter	1
48	Rubber Washer	1
49	Filter Fix Plate	1
50	Valve Return Oil Hose 370	1
51	Inlet Connector of Filter	1
52	Outlet Filter	1
53	Outlet Connector of Filter	1
54	Pin Ø30X134	1
55	Cotter Pin Ø4x50	13
56	Swivel Cylinder Base	1
57	Hex Bolt M10x45	4
58	Single Throttling Valve	1
59	Cylinder	4
60	Right Angle Connector	5
61	Hydraulic Hose 1100	1
62	Connector of Throttling Valve	1
63	Short Pin Ø30x97	5
64	Hex Bolt M12x30	2
65	Gauge	1
66	Frame Weldment	1
67	Thick Flat WasherØ12	2
68	Hex Bolt M5/16"-1"	4
69	Oil Screw ZG1	1
70	Hydraulic Hose 700	1
71	Hydraulic Hose 850	1
72	Antiskid Plate 2	1
73	Antiskid Plate 1	1
74	Rivet 4x15	12
75	Half-round Screw M5x10	12
76	Switch Wire for Engine	1



NO.	DECEIPTION	QTY
77	Control Valve	1
78	Outrigger	2
79	Connector of Valve	5
80	Outlet Connector of Valve	1
81	Hex Bolt M10x30	4
82	Oil Cup M6	3
83	Axis Pin of Swivel Bracket	1
84	Cotter Pin 4x60	3
85	Long Pin Ø30x170	2
86	Axis Pin of Swivel Arm Ø48x185	2
87	Swivel Bracket Weldment	1
88	Long Arm Weldment	1
89	Fixed Pin Ø19x50	1
90	Bucket	1
91	Long Pin Ø30x210	2
92	Short Pin Ø30x200	1
93	Bucket Linkage	1
94	Arm Linkage I	1
95	Arm Linkage II	1
96	Short Arm Weldment	1
97	Pin of Bucket Ø30x212	2
98	Angle Connector of Cylinder	1

NO.	DECEIPTION	QTY
99	Hydraulic Hose 2850	1
100	Hydraulic Hose 2550	1
101	Hydraulic Hose 2100	1
102	Hydraulic Hose 1700	1
103	Safety Chain	2
104	Inlet Connector of Valve	4
105	Coupling Guard	1
106	Screw M6x10	1
107	Hex Bolt M12X90	1
108	Flat Washer Ø20	2
109	Hex Bolt M5x10	4
110	Block	4
111	Hex Bolt M10x35	4
113	Plug Screw	1
113	Washer Ø38	2
114	Flat Washer Ø24	13
115	Angle Connector of Swivel cylinder III	2
116	Oil Plug	1
117	Hex Bolt M8x20	4
118	Spring of seat	4
119	Nylon Lock Nut M6	4

## WARRANTY TERMS AND CONDITIONS

Validity of the warranty	- Kellfri's Warranty is valid 12 months from the date of purchase.
This warranty replaces	- Compensation for spare parts after acknowledgment that the fault lies on the material or manufacturing defects.
This guarantee do not cover	<ul style="list-style-type: none"><li>• Labour costs</li><li>• Travel expenses</li><li>• Any modification that the buyer himself has/had made.</li><li>• Any consequential damages that occurred due to damage to the machine.</li><li>• Damage due to normal deterioration of the machine, inadequate: service, user inexperience or use of spare parts which are not original.</li><li>• Wear parts such as hoses, seals, oils, and mechanical belts</li></ul>

## EC-DECLARATION OF CONFORMITY, ORIGINAL



According to 2006/42/EC, Annex 2A  
Kellfri AB  
Munkatorpsgratan 6  
532 37 Skara, Sweden

Declares that the machine

Name: 26-GAATV

Type: Backhoe Digger

Complies with all applicable provisions of the Machinery Directive 2006/42/EC.  
Other equipment must meet the hardware requirements of the Directive.

Kjell Johansson  
Product Development Manager

## CUSTOMER SERVICE

*You are always welcome to give your feedbacks, reviews or ask us about our equipment and products.  
Kellfri AB is constantly working on further developing their products and therefore reserves the right to modify, among other things the design and appearance without further notice.*