



Sahlins

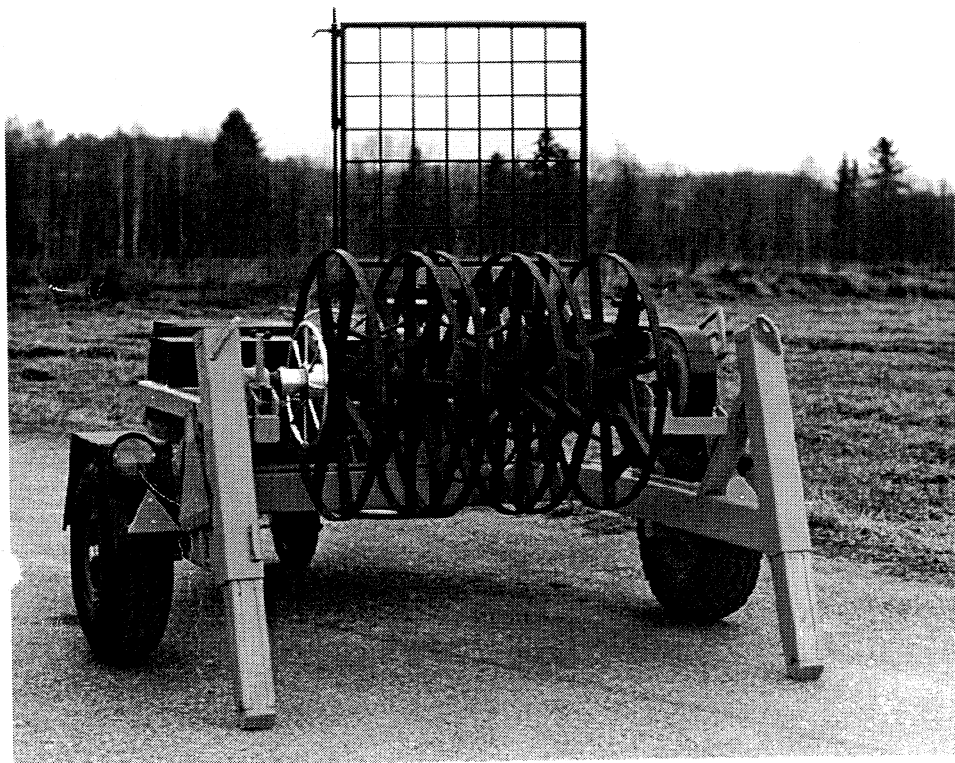
Maskin AB

Box 2103 S-511 02 Skene, Sweden

Tel. +46 320 31080. Fax. +46 320 31938

Overhead Line Winch Model 900

Description, Instruction and maintenance.



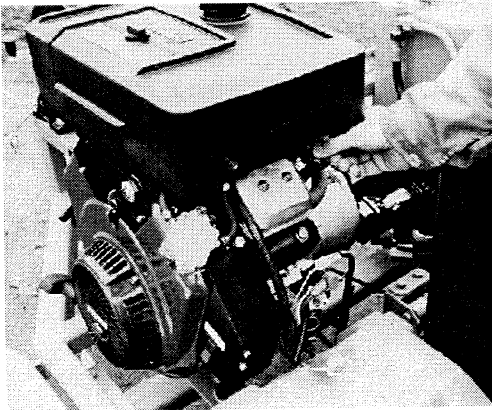
TECHNICAL DATA:

Engine:	4-stroke aircooled petrol engine, 12,5 hp
Valve clearance	
- inlet valve:	0,10 - 0,15 mm (with valve spring mounted).
- exhaust valve:	0,10 - 0,22 mm
Engine oil:	SAE 10W-30 (1,4 lit.)
Hydraulic oil:	Tankvolume 60 lit. ex. OK Delta Oil 32, Esso Nuto HP, Shell Tellus 127,133, Donax T-6, Gulf hydraulic oil, Special 5w20.
Drumshaft:	<ul style="list-style-type: none">- Diam. 70 mm. A "negative" automatic brake is built in to lock the drumshaft.- For 3 pilot rope drums with 1500 m 8 mm Rope on each drum, for new conductor installation.- For wooden drums max 1200 mm diam, for reconductoring.- For 1 steeldrum with 1700 mm 14 mm polypropylene pilot rope.- For single or 3-parts split drum for scrap conductors,- for reconductoring.
Wheel track:	2170 mm (to outside wheel)
Pulling force:	Max. 2000 kp (20 kN) measured on drumdiam.250mm. Infinitely variable with an overflow valve.
Speed:	Infinitely variable between 0 - 100 m/min by a hydraulic pump with variable displacement.
Drum weight:	Max 1500 kg. By transport max. 400 kg.
Drum sizes:	Max. diam. 1200 mm. Max. width 950 mm.

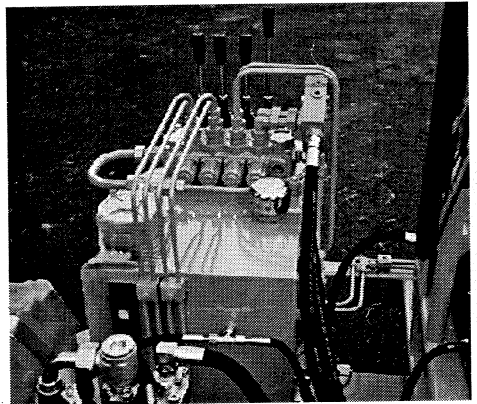
BEFORE STARTING:

Check the oil level (with the machine in a horizontal position).

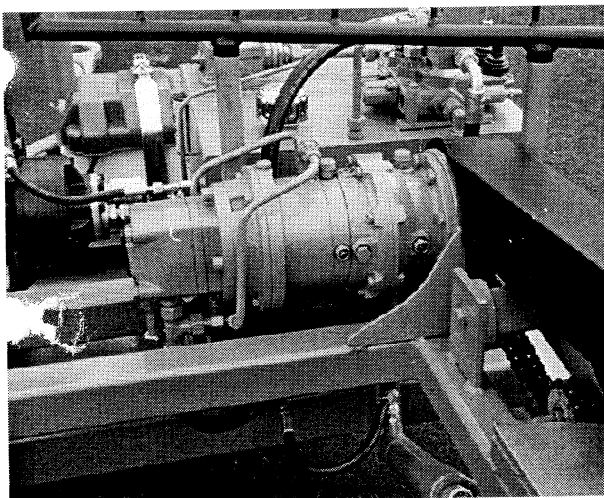
- **Engine:** Fill slowly to the "full" mark on the dipstick (1). The dipstick must be pushed entirely to the bottom when the engine is running.
- **Hydraulic oiltank:** The oil level must be between the min. and max. marks on the level(2) guage.
- **Planetary gear and negative brake:** Oil level up to the level guage (3).



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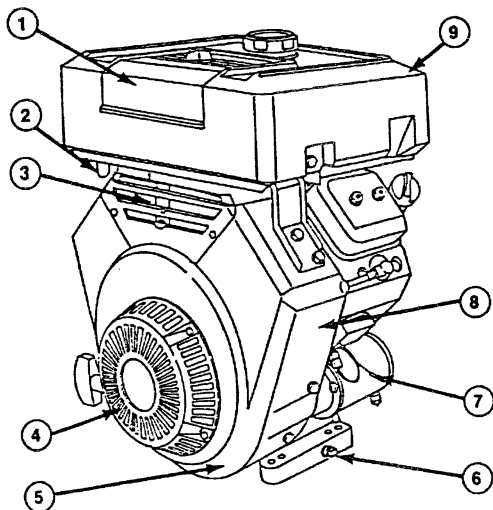


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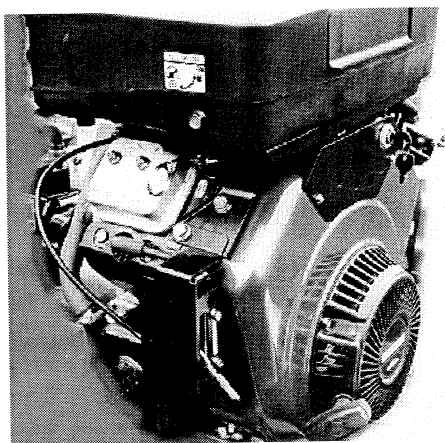
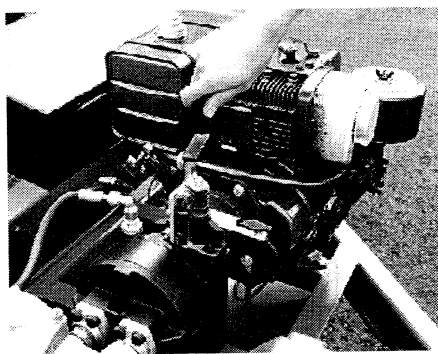
STARTING AND STOPPING THE MACHINE:



- | | |
|-----------------------|------------------------------|
| 1 Air Cleaner | 7 12V Electric Starter Motor |
| 2 Fuel Shut-Off Valve | 8 Model, Type & Code Numbers |
| 3 Carburetor | 9 Fuel Tank (Optional) |
| 4 Rewind Starter | |
| 5 Blower Housing | |
| 6 Oil Drain Plug | |

- Fill up with fuel - 95 octane leadfree or 96 octane.

- Turn the pump displacement lever clockwise to the bottom.



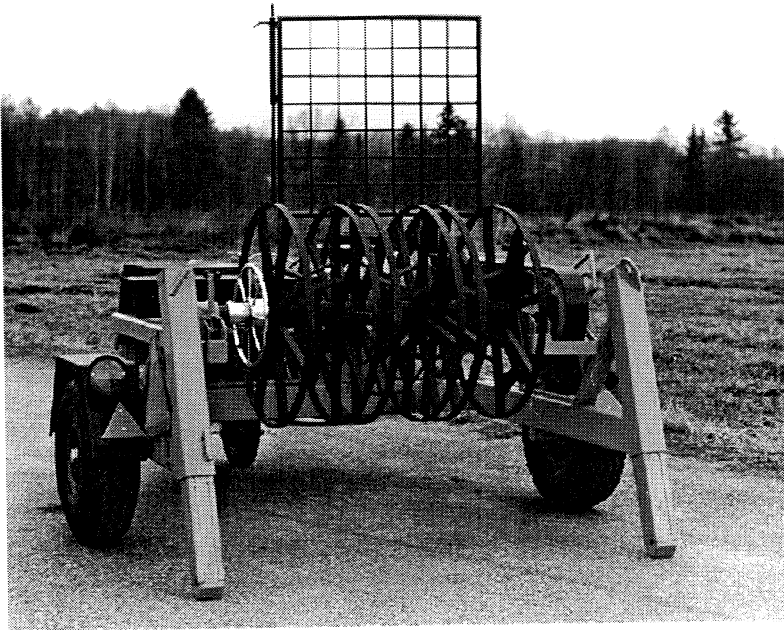
- Open the petrol cock. Pull out the choke control. Open engine throttle slightly. Start the engine by turning the ignition key to the "ON" position. As soon as the engine starts, move the choke control back gradually. Always start a warm engine without any choke. Run the engine to working temperature (5-10 minutes). When stopping the engine, push the engine throttle to slow speed and turn the ignition key to the "OFF" position.

OPERATION:

Speed control forward and reverse, support legs and drumlift are by levers on the hydraulic tank. The operator has a good view from his position and is protected behind the steel safety guard.

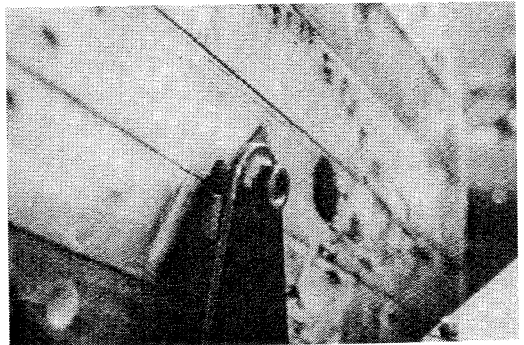
Placing of the machine in working position:

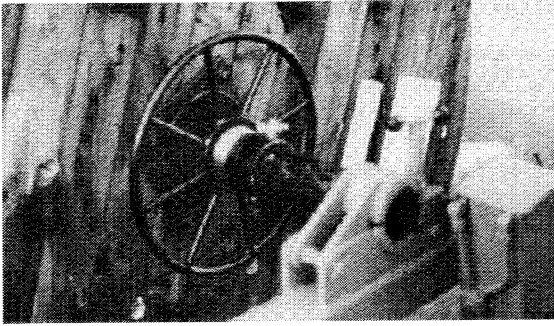
After starting the engine set the pump displacement lever approx. at the middle position. Then drive the support legs into the ground, allow them to extend their entire length. When pulling with big force the machine must also be anchored with a steel wire rope connected to the towing eyelet.



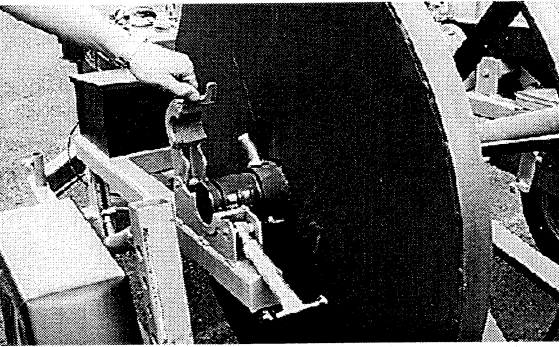
Mounting the drumshaft:

Make sure that the drive coupling comes on the right side. When mounting a wooden drum, mark and drill 2 holes diam. 27 mm for the drive bolt on the drumshaft wings.

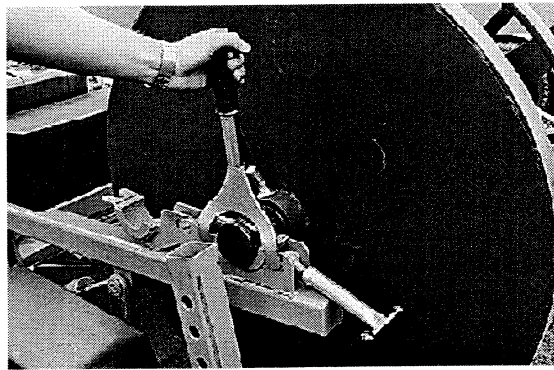




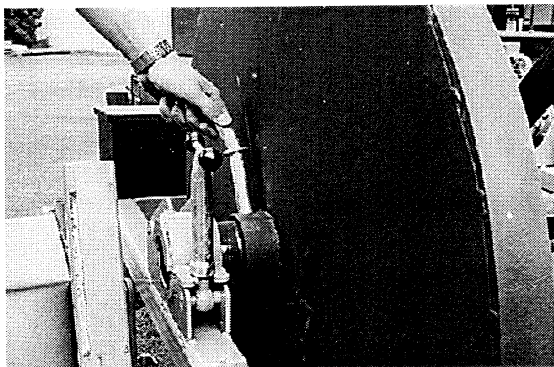
Secure the drum with tensioning device.



Open the shaft bearings.



Lower the drumlift so that the shaft with the drum can be rolled in to the bearings. Lift the drum and close the bearings. Engage the drive bolts with the special tool.



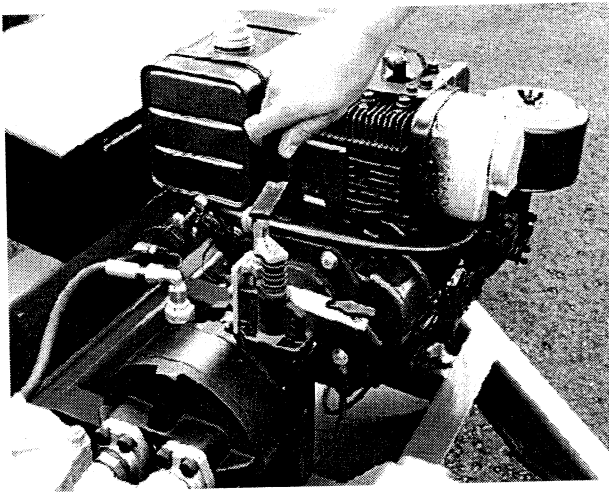
When 3 pilot rope drums are being used each drum can be individually engaged or disengaged.

Control of pulling force and speed (pump displacement):

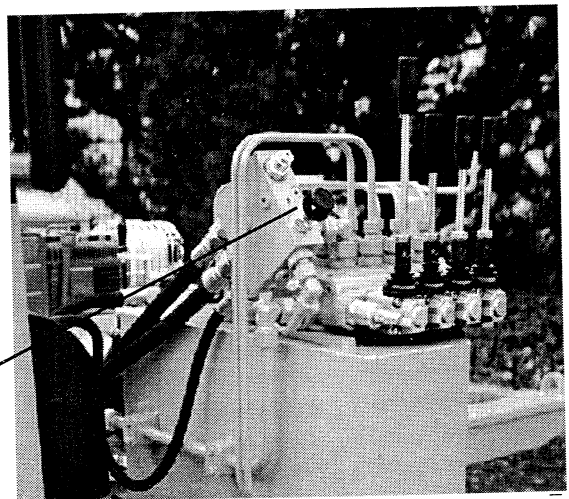
The hydraulic pump displacement is set according to the speed pulling force required (high speed = low pulling force) (8). Turn down (clockwise) the lever to the bottom. Start the drums and turn displacement lever anti-clockwise until the speed is sufficient. (The engine should run with full throttle). Max. pump displacement and max throttle give appr. 40 rpm on the drumshaft.

The max. pulling force is regulated by a by-pass valve (9). turn it out anti-clockwise until the drumshaft stops, then screw it down again appr. 1-1,5 turn. This is also a safety valve, if the rope for some reason catches, the pressure suddenly becomes higher and the drum stops. Damage to poles, lines and people can be prevented. The by-pass valve must be adjusted now and then as the pulling force becomes higher during the pulling. If there is a tendency that the engine has not

power enough, turn down the pump displacement to get higher pulling force and lower speed. To stop the pulling just release the control lever and the negative brake will hold the tension. Max. hydraulic pressure is 210 Bars.



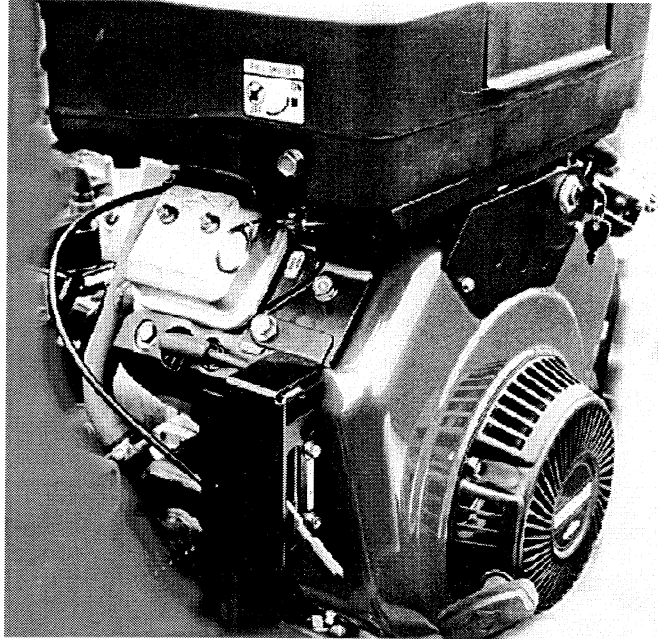
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MAINTENANCE:

Engine:



Oil change/checking:

- You should check the oil level after every 5 hours of operation.
- You should change the oil after the first eight hours of operation. and then after every 50 hours of operation. Remove the drain plug and allow the oil to run out while it is still warm. Put the plug back into place and fill up with new oil, making sure it is of the right type.

Motor oil: SAE 10 W-30, 10 W-40

Oil capacity: 1,4 litres without filter replacement, and 1,6 litres with filter replacement.

Oil filter replacement:

The engine's oil filter should be replaced after every 100 hours of operation. Before fitting a new filter, you should oil its gasket lightly with pure motor oil. Screw in the filter by hand until the gasket is flush with the filter adapter. Then tighten another 1/4 turn. Start the engine, allow it to run for 30 seconds, and then stop it. Check the oil level again and top up if necessary. Start the engine again and check the tightness.

Servicing the filter insert:

1. Remove the casing.
2.
 - a. Remove the filter element by slackening the locking screw and removing the washer plate.
 - b. Remove the coarse filter from the insert.
 - c. Clean the insert by tapping it carefully against a flat surface.
 - d. If the insert is very dirty it should be washed and cleaned in washing liquid and luke-warm water. Rinse thoroughly in clean water from the inside until clean water starts to trickle through the filter. Allow the insert to air-dry until it is completely dry before it is refitted.
3. Put the coarse filter back in position on the insert and fit the locking screw and washer plate.
4. Refit the air cleaner casing.

WARNING !

Petroleum-based solvents, such as paraffin, must not be used for cleaning the element as it could easily damage the material. DO NOT OIL THE ELEMENT. NEVER USE COMPRESSED AIR FOR CLEANING OR DRYING.

Hydraulic system:

The hydraulic oil shall be analyzed or changed min once a year. The tank must be cleaned if the oil gives a dirtprecipitation. Change all filters when the oil is changed.

Hydraulic oil filter:

The filter should be exchanged twice a year, or when the oil is exchanged.

1. Remove the cover and take out the filter unit.
2. Unscrew the turret nut.
3. Remove the cartridge.
4. Unscrew the magnetic nut.
5. Remove the magnet from its pin.

Clean with rug and blow with compressed air.

Papper cartridges must not be liquid cleaned. Always change to a new cartridge. Do not take apart the magnetic bar. Inspect all controls, valves and couplings and tighten ev. leaks.

Frame-transmission:

Check the chain transmission and adjust the chain tension if necessary. Lubricate the chain and other lubrication points. Check the drive coupling bolts so the drum shaft is correctly engaged. Check the pilot ropes and change them if necessary.

Battery:

Check and fill with distilled water if necessary. Clean and grease the battery poles and connections. Keep the battery fully charged, especially in winter.

Capacity: 12 V , 60 Ah.

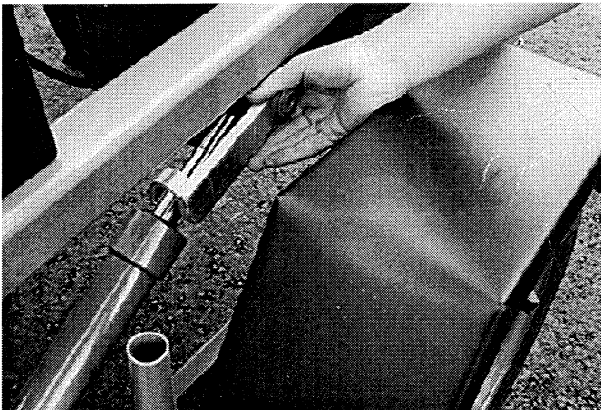
General:

Petrol tank: 6.8 liter

Tyres: 185-14

Max. drum weight by transport: 650 kg

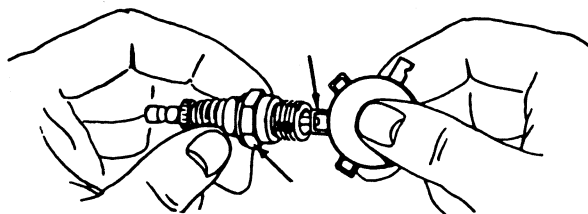
Important: Lock the drumlift cylinders with the special locking irons when the machine is being transported (see picture).



To lift the winch use the special lifting eye at the front and the upper holes in the support legs. Total weight without drums is 750 kg. Drumshaft with 3 drums without pilot rope, 430 kg. Pilot rope weight, see pilot rope specification.

It is recommended that you enter on to a service agreement to provide "Sahlins Care" for your machine.

Spark plug: Autolite 3924, Champion RC12YG
Clean the electrodes and adjust the gap to 0,76 mm after every 100 hours of operation.



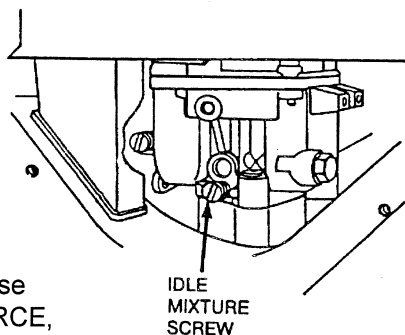
Fuel filter: Replace the hose filter or clean the strainer and bowl once a year.

Carburettor adjustment:

Before adjusting clean the airfilter.

Basic adjustment:

Turn the mixing valve for idling speed clockwise until it is shut off precisely. **DO NOT USE FORCE**, otherwise the valve will become damage. Then turn it 1 - 1 1/4 turn counter-clockwise. This basic adjustment enables the engine to run. For more accurate adjustment, contact Sahlins Maskin AB, Sahlins Clydesdale Ltd or an authorised Briggs & Stratton workshop.

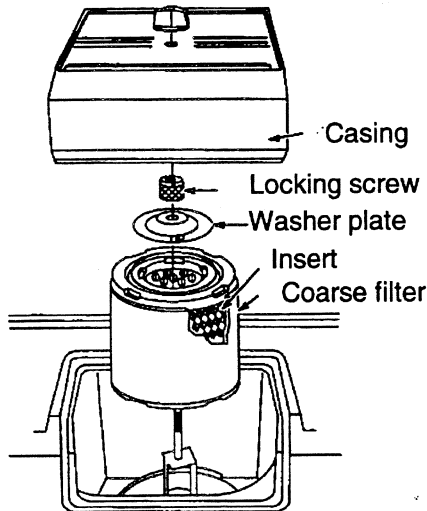


Cooling system:

Grass and other litter can easily clog the cooling system after operation over a long period. Remove the fan shroud once a year or after every 100 hours of operation and clean it to prevent the engine from overheating and overspeeding. Always keep the silencer and the area immediately around it free from grass dirt and litter. The cooling fins and channels kept clean to make sure that the cooling air can circulate properly around the cylinder.

Air cleaner:

Remove and clean the coarse cleaner made of foam material every three months or after every 25 hours of operation. The paper element should be cleaned once a year or after every 100 hours of operation. Clean more often when operating in dusty conditions.



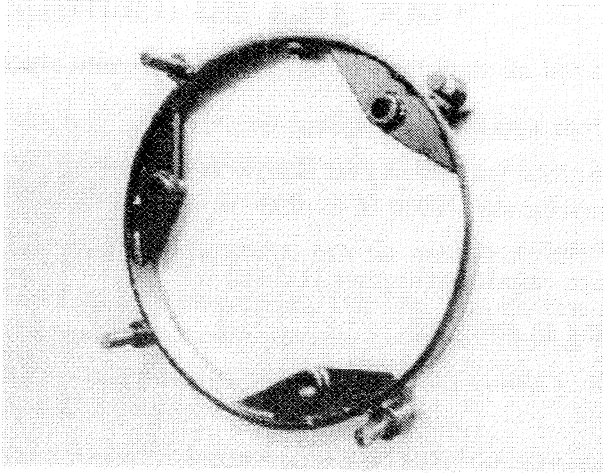
Service the coarse filter:

1. Remove the casing
2. a. Remove the coarse filter from the cartridge.
b. Clean the coarse filter in water and washing liquid.
c. Squeeze the water from the filter into a clean rag.
d. Saturate the coarse filter with motor oil. Squeeze it to remove surplus oil.
e. Fit the coarse filter on the insert.
3. Refit the air cleaner casing.

Accessories:

Wooden drum drive ring:

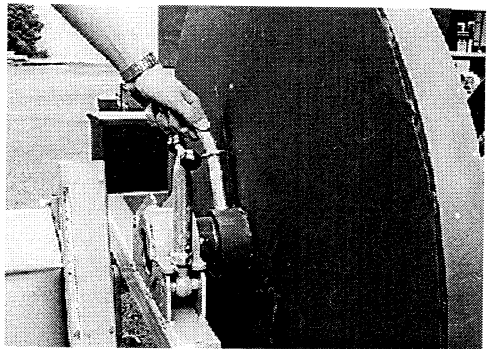
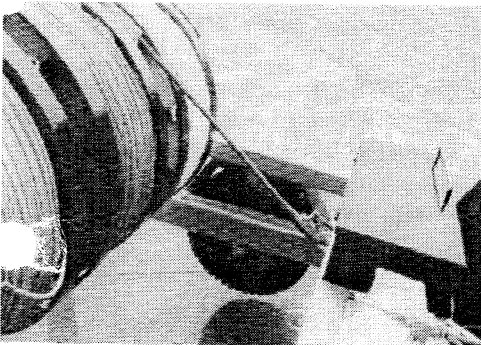
To be mounted between the drumshaft drive and the wooden drum when the drive bolts on the drumshaft wings do not fit on the wooden drum.



Hook to lock a drum when the drum is disengaged and the other drums are rotating :

1. Mount the hook and reverse the drum until stop, make sure the hook is gripping

2. Disengage the drum from the drumshaft and pull with the othe



Hydraulic line spreader:

To be used for all kinds of work. It can be used for wooden drum, for pilot rope drums (1-3 pcs) and for split "scrap" cable drums.



Line spreader:

Assembly instructions for line spreader on overhead line vinsch model 900:

Mount the cylinder attachment (under the tools box) and the line-spreader attachment on the drum lift frame. The holes are drilled and threaded, use screw M8x20 mm. Mount the line spreader arm and secure with a locking pin. Mount the hydraulic cylinder acc. to the drawing and secure with locking pins in bolt ends. Connect the hydraulic hoses with reducing hose coupler and sealing ring against the cylinder. Dismantle the hydraulic tube leading to the right hydraulic cylinder on the drum lift frame and replace it with the two shorter tubes acc. to the drawing. Connect the hydraulic hose from these tubes to the bottom connection on the line spreader-cylinder acc. to the drawing.

Unscrew the plug on the upper side of the control valve and replace it with a reducing tube coupler and a banjo fitting. Connect the new tube and fix it with a tube holder on the existing holder on the side of the hydraulic oil tank. Connect the hose between the tube and the upper connection on the hydraulic cylinder.

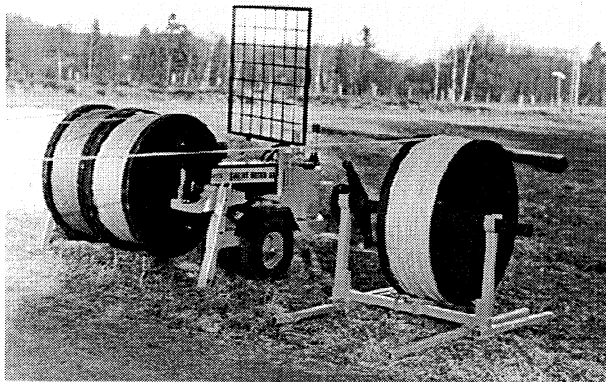
Important: All couplings must be correctly mounted. The tube must be pushed as much as possible into the coupling before it is tightened up.

The line spreader is operated by the same lever as the drum lift.

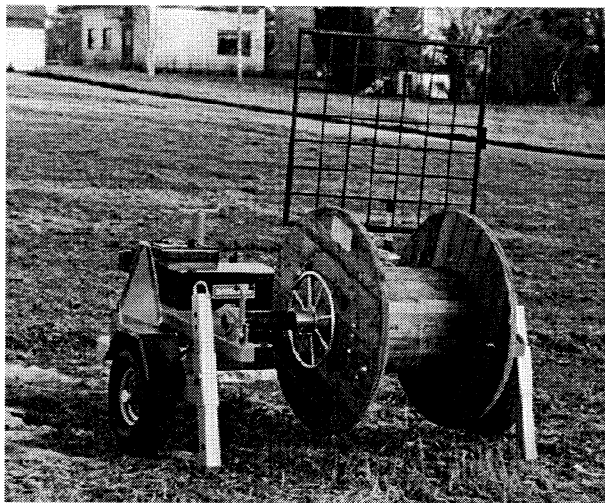
Important: The hydraulic drum lift must be locked with the steel locking devices

OVERHEAD LINE WINCH MODEL 900

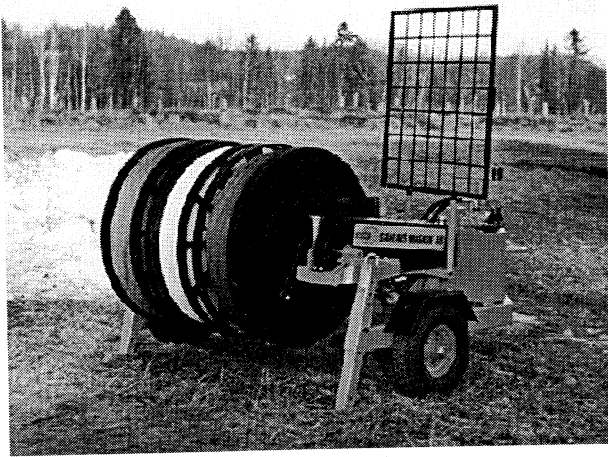
Overhead line winch, model 900, can be used for new construction works when 1,2 or 3 guide lines are pulled at the same time or for cable replacement and wire rewinding.



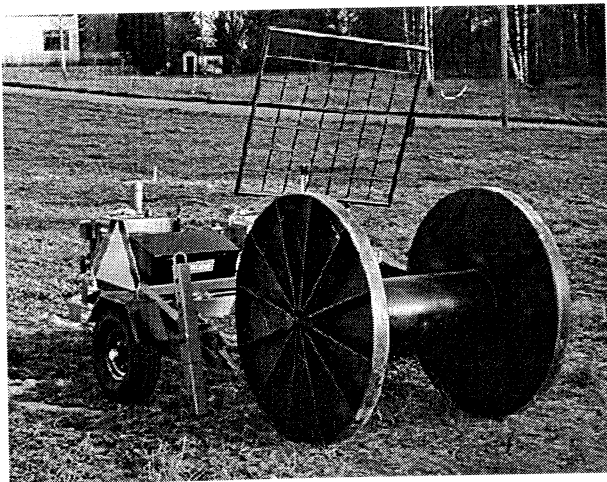
Guide line drums with 8 mm 2500 m of rope, 2 in the machine each drum disconnectable.



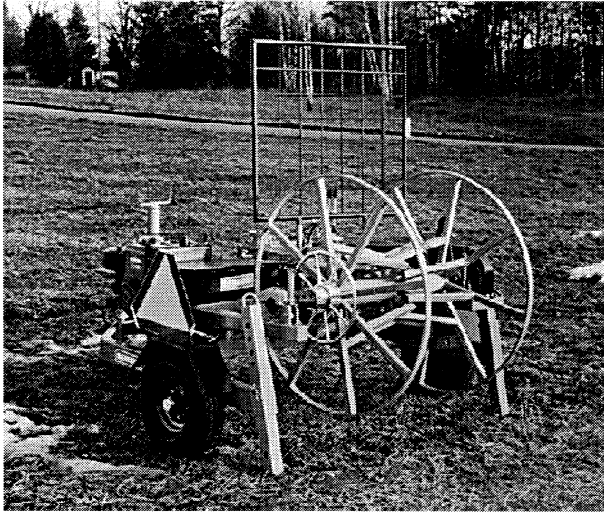
Wooden drum (max diam. 1100 mm) for line redruming.



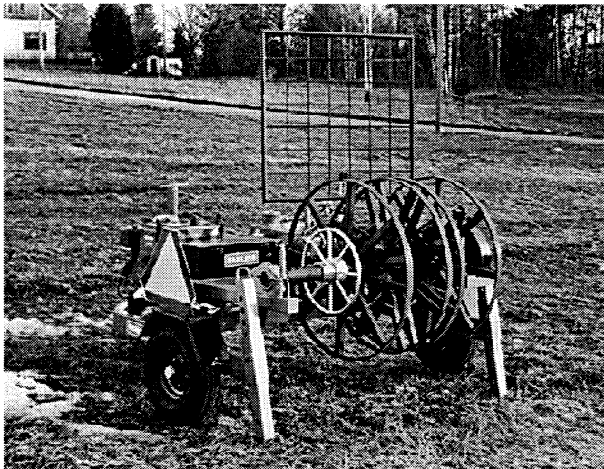
Guide line drums with 1500 m rope, 3 in the machine each drum disconnectable.



Steeldrum for heavier guide line e.g. 12 mm 2000 m rope.



Divisible drum for old "scrap" line. 1 section.



Divisible drum for old "scrap" line, 1,2 alt.3 sections.

This image shows a full page of primary-ruled paper. It features approximately 20 horizontal rows, each consisting of two parallel dotted lines. The paper is otherwise blank, with no margins, text, or other markings.

Sahlins Maskin AB offer
complete service and stocks of parts



Sahlins Maskin AB

Box 2103

S-511 02 Skene Tel. +46 320-310 80

Sweden Fax. +46 320-319 38

Sahlins Clydesdale Ltd

Instal house, 3 Sunbeam Rd. Woburn Rd. Tel. 01234-85 49 44

Ind.Est Kempston. Beds, MK 42 7BZ UK Fax. 01234-85 68 45