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STIGA PARK 4WD

PRO 25

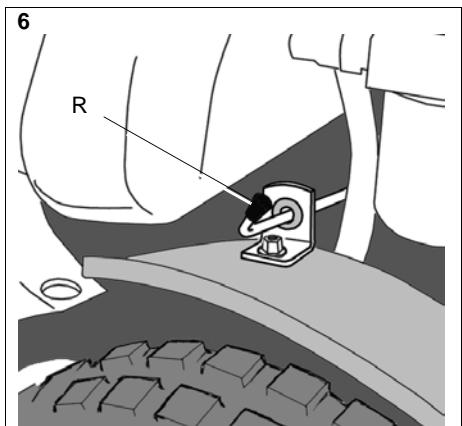
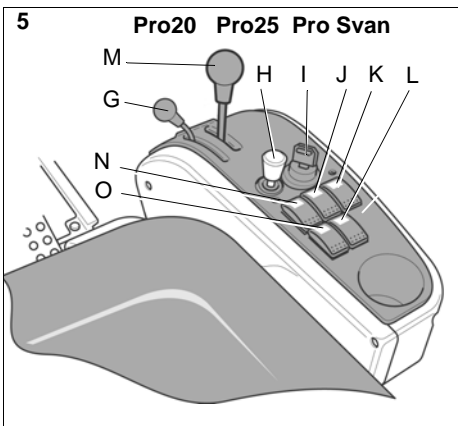
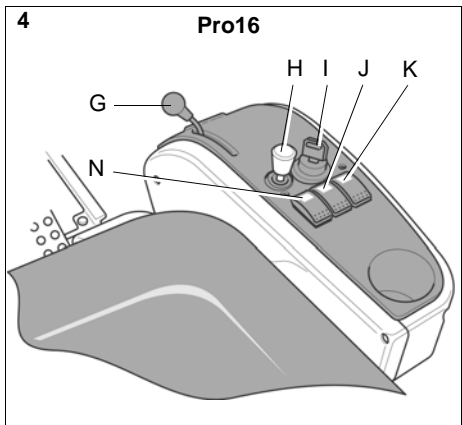
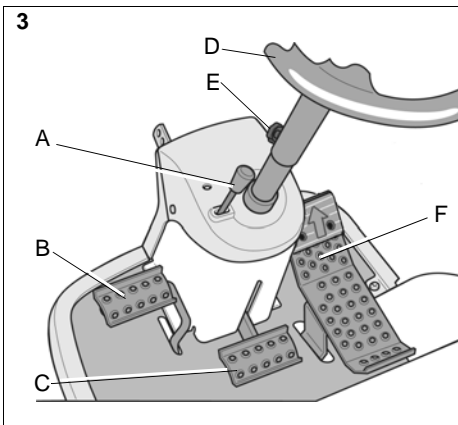
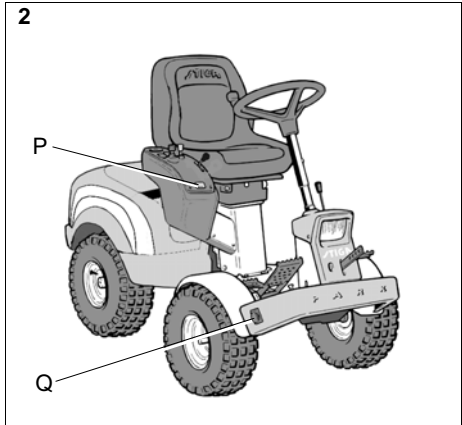
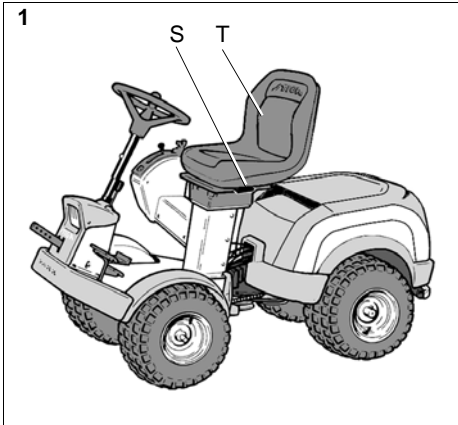
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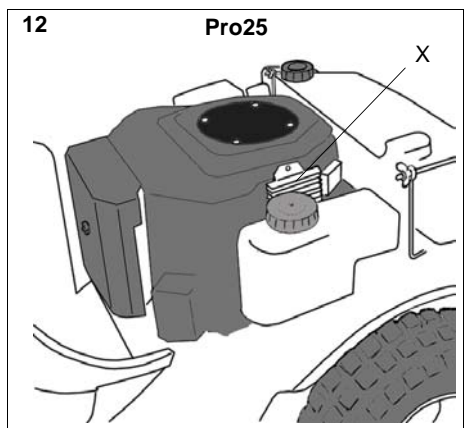
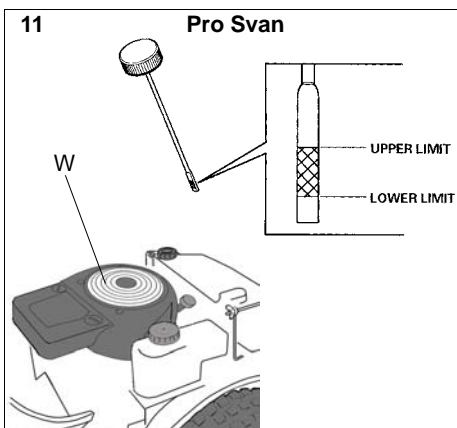
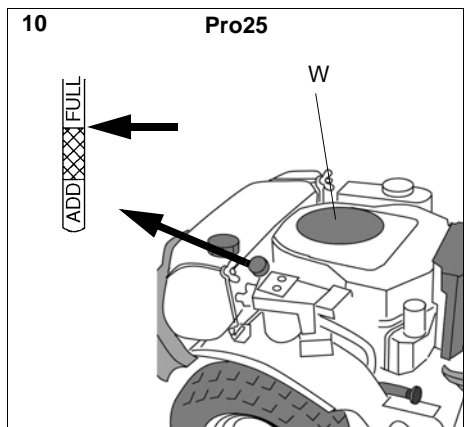
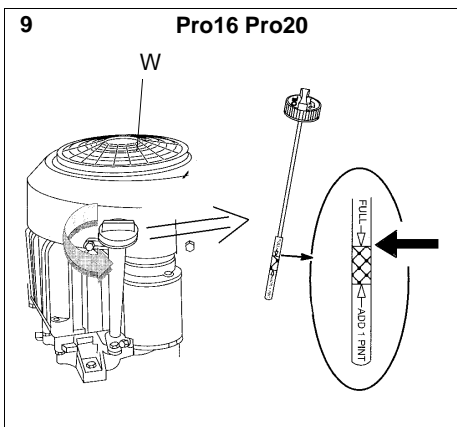
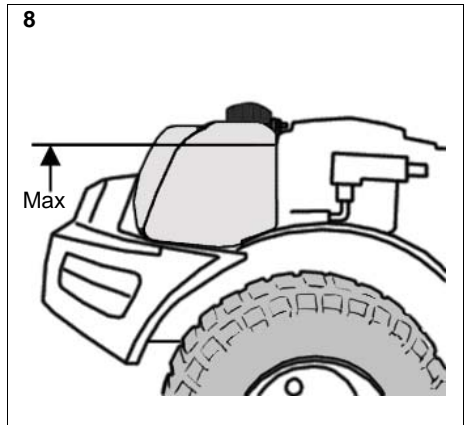
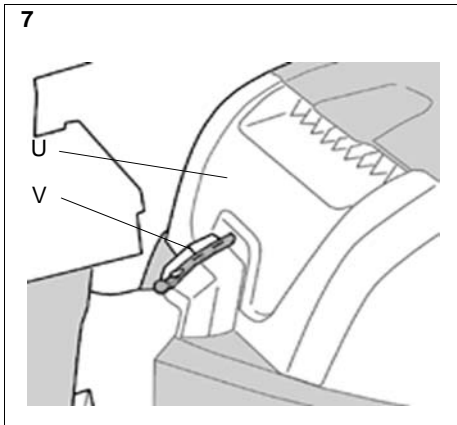
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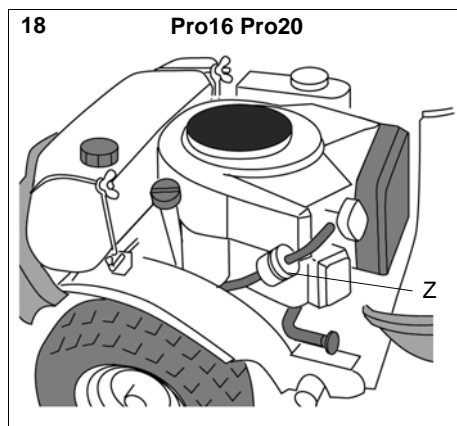
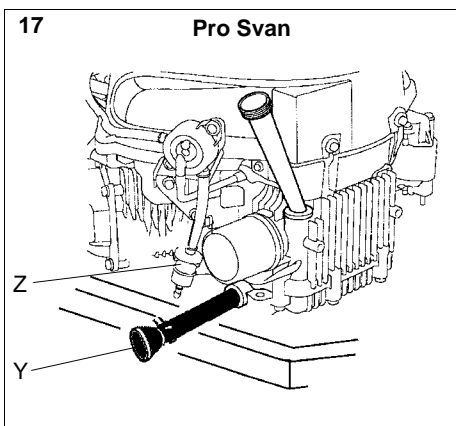
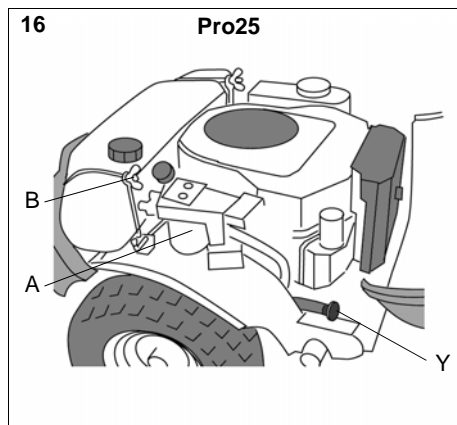
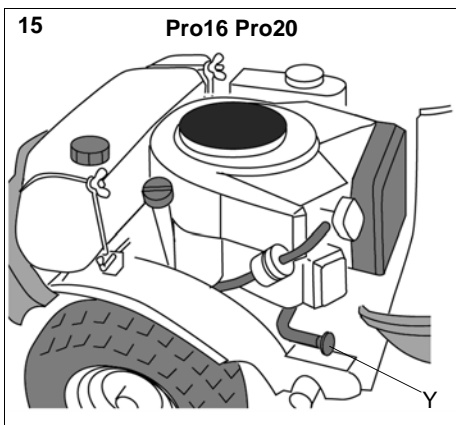
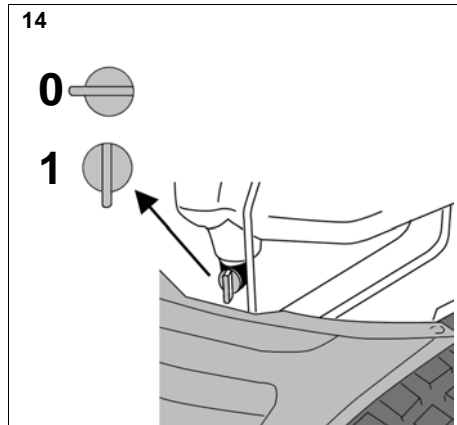
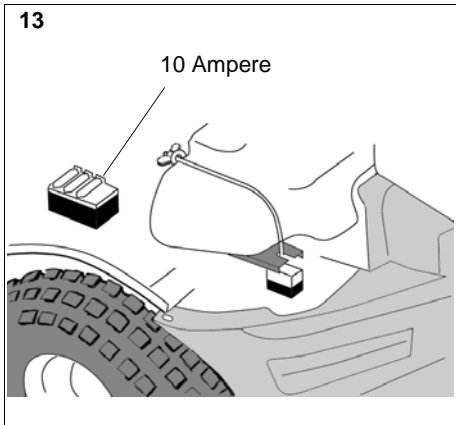
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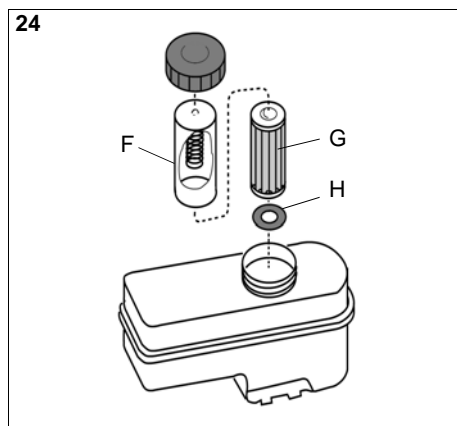
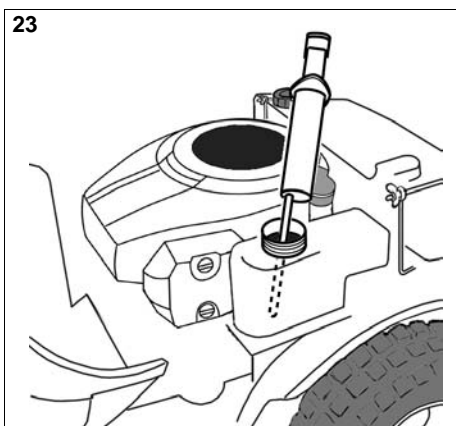
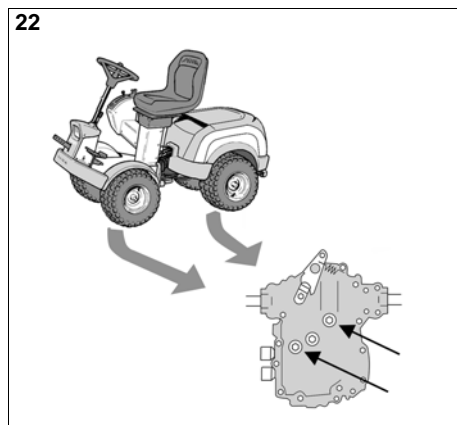
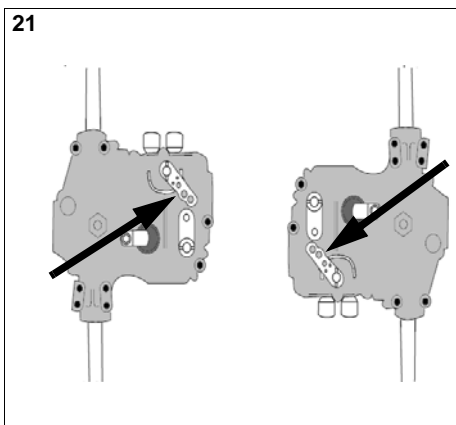
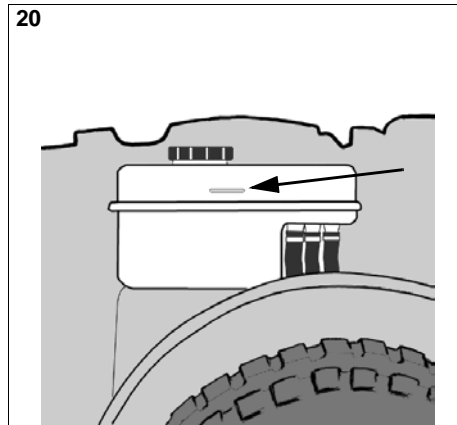
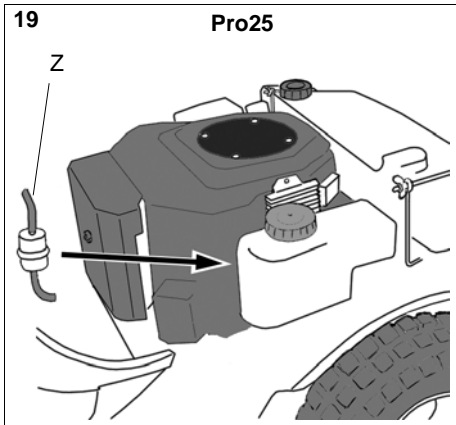
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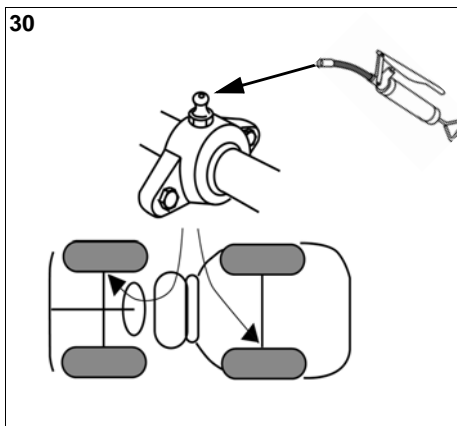
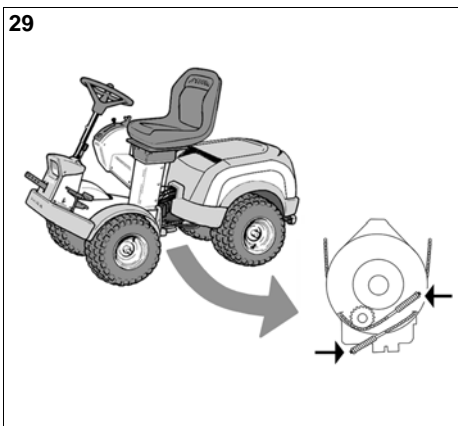
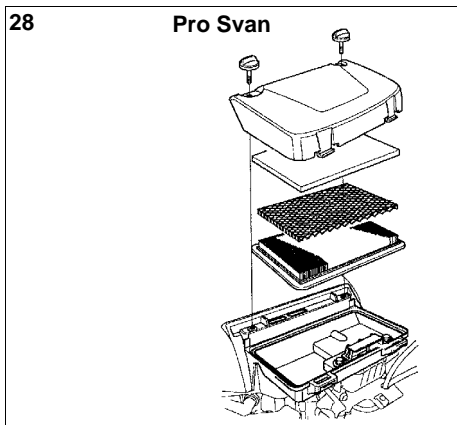
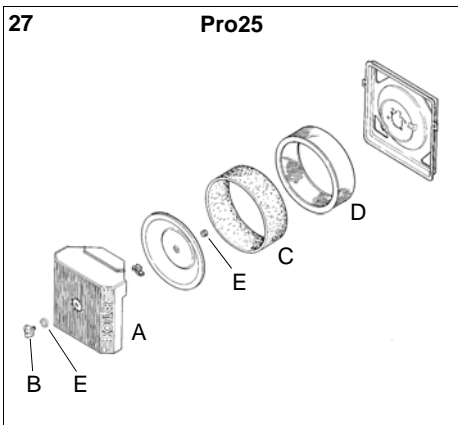
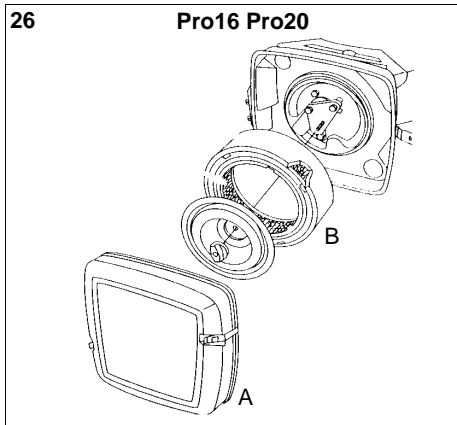
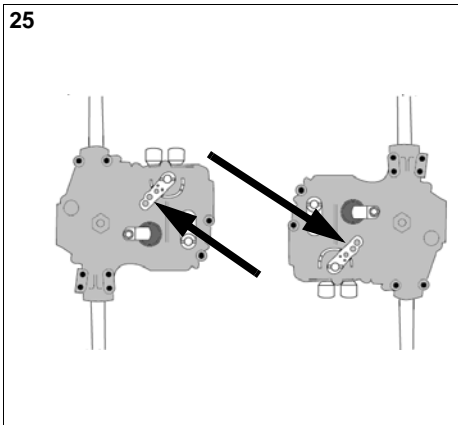
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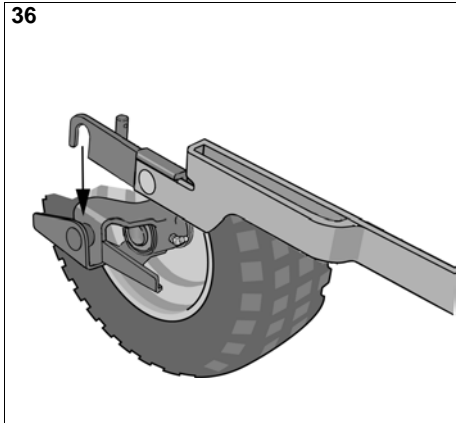
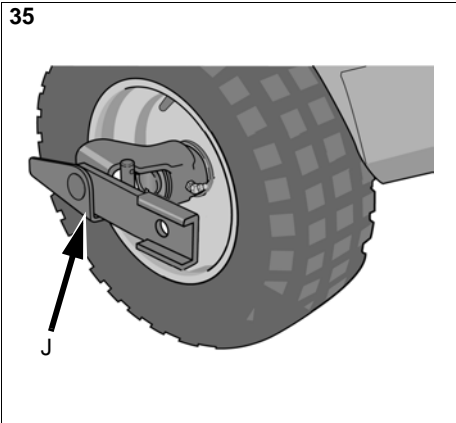
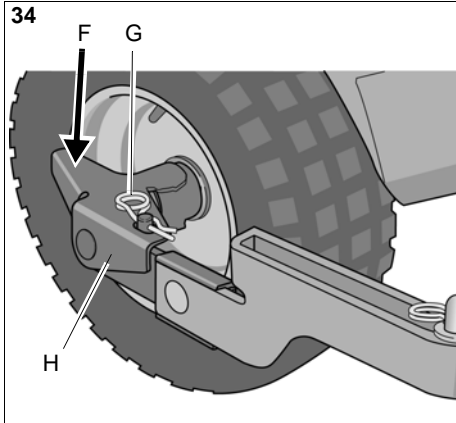
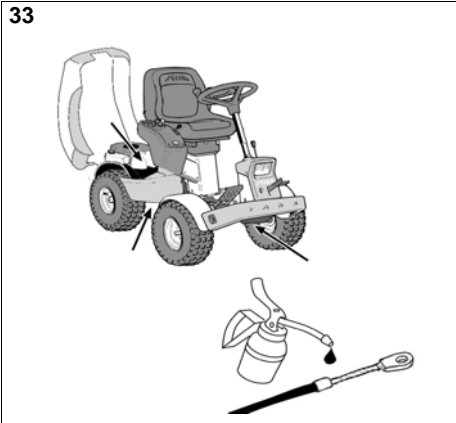
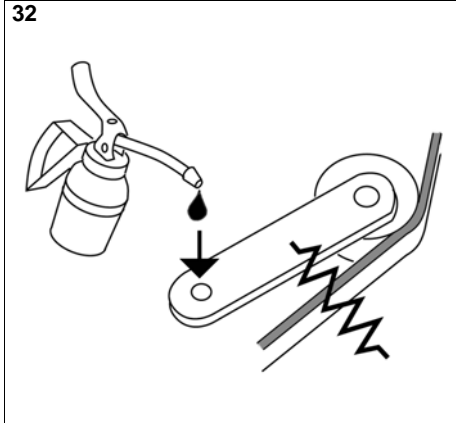
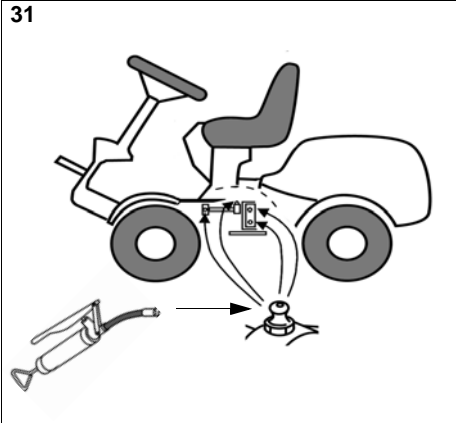












1 GENERAL



This symbol indicates **WARNING**. Serious personal injury and/or damage to property may result if the instructions are not followed carefully.



You must read these instructions for use and the accompanying pamphlet “SAFETY INSTRUCTIONS” carefully, before starting up the machine.

1.1 SYMBOLS

The following symbols appear on the machine. They are there to remind you of the care and attention required during use and maintenance.

This is what the symbols mean:



Warning!
Read the instruction manual and the safety manual before using the machine.



Warning!
Watch out for discarded objects. Keep on-lookers away.



Warning!
Always wear hearing protectors.



Warning!
This machine is not designed to be driven on public roads.



Warning!
The machine, equipped with original accessories, must not be driven in any direction on slopes with a gradient greater than 10°.



Warning!
Risk of crushing injuries. Keep hands and feet well away from the articulated steering joint.



Warning!
Risk of burn injuries. Do not touch the silencer/catalytic converter.

1.2 References

1.2.1 Figures

The figures in these instructions for use are numbered 1, 2, 3, etc. Components shown in the figures are marked A, B, C, etc.

A reference to component C in figure 2 is written “2:C”.

1.2.2 Headings

The headings in these instructions for use are numbered in accordance with the following example:

“1.3.1 General safety check” is a subheading to “1.3 Safety checks” and is included under this heading.

When referring to headings, only the number of the heading is normally specified. E.g. “See 1.3.1”.

2 DESCRIPTION

2.1 Drive

The machine has 4-wheel drive. The power from the engine to the drive wheels is transferred hydraulically. The engine drives an oil pump, which pumps oil through the rear and front axle drives.

The front axle and rear axle are connected in series, which means that the front wheels and rear wheels are forced to rotate at the same speed.

To make turning easier, both axles are equipped with differential.

Front-mounted implements are powered via drive belts.

2.2 Steering

The machine is articulated. This means that the chassis is divided into a front and a rear section, which can be turned in relation to each other.

The articulated steering means that the machine can turn around trees and other obstacles with an extremely small turning radius.

2.3 Safety system

The machine is equipped with an electrical safety system. The safety system interrupts certain activities that can entail a danger of incorrect manoeuvres. For example, the engine cannot be started if the clutch-parking brake pedal is depressed.



The operation of the safety system must always be checked every time before use.

2.4 Controls

2.4.1 Implement lifter, mechanical (3:C) (Pro16)

To switch between working position and transport position:

1. Depress the pedal fully.
2. Release the pedal slowly.

2.4.2 Implement lifter, hydraulic (5:M) (Pro20, Pro25, Pro Svan)

The hydraulic implement lifter only works when the engine is running and the clutch pedal and parking brake pedal are not depressed. The implement lifter is controlled using the lever (5:M).

The lever has the following four positions:



Floating position. Move the lever to its front position, where it locks. The implement is now lowered to its floating position.

In the floating position, the implement always rests against the ground at the same pressure and can follow the contours of the ground.

Use the floating position when carrying out work.



Lowering. The implement lowers regardless of its weight.



Locking in the transport position. The lever has returned to the neutral position after raising and lowering. The implement is locked in the transport position.



Raising. Move the lever to the rear position until the implement is in the highest position (transport position). Then release the lever to lock in the transport position.

2.4.3 Clutch-parking brake (3:B)



Never press the pedal while driving. There is a risk of overheating in the power transmission.



The pedal (3:B) has the following three positions:

- **Released.** The clutch is not activated. The parking brake is not activated.
- **Depressed halfway.** Forward drive disengaged. The parking brake is not activated.
- **Fully depressed.** Forward drive disengaged. The parking brake is fully activated but not locked. This position is also used as emergency brake.

2.4.4 Inhibitor, parking brake (3:A)



The inhibitor locks the "clutch-brake" pedal in the depressed position. This function is used to lock the machine on slopes, during transport, etc., when the engine is not running.

Locking:

1. Depress the pedal (3:B) fully.
2. Move the inhibitor (3:A) to the right.
3. Release the pedal (3:B).
4. Release the inhibitor (3:A).

Unlocking:

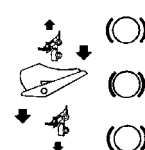
Press and release the pedal (3:B).

2.4.5 Driving-service brake (3:F)



If the machine does not brake as expected when the pedal is released, the left pedal (1:B) should be used as an emergency brake.

The pedal (3:F) determines the gearing ratio between the engine and the drive wheels (= the speed). When the pedal is released, the service brake is activated.



1. Press the pedal forward – the machine moves forward.
2. No load on the pedal – the machine is stationary.
3. Press the pedal backward – the machine reverses.
4. Reduce the pressure on the pedal – the machine brakes.

There is an adjustment plate on the upper section of the pedal. The adjustment plate can be adjusted to three (3) positions to suit the driver's foot.

2.4.6 Steering wheel (3:D)

The height of the steering wheel is infinitely adjustable. Undo the adjustment knob (3:E) on the steering column and raise or lower the steering wheel to the desired position. Tighten.



Do not adjust the steering wheel during operation.



Never turn the steering wheel when the machine is stationary with a lowered implement. There is a risk of abnormal loads on the servo and steering mechanisms.

2.4.7 Throttle control (4,5:G)

Control for setting the engine's revs.



1. Full throttle – when the machine is in operation, full throttle should always be used.



2. Idling.

2.4.8 Choke control (4,5:H)

A pull-type control to choke the engine when starting from cold.



1. Control fully pulled out – choke valve in carburettor closed. For starting cold engine.

2. Control pushed in – choke valve open. For starting warm engine and when operating the machine.

Never operate the machine with the choke pulled out when the engine is warm.

2.4.9 Ignition lock/headlight (4,5:I)

The ignition lock is used for starting and stopping the engine. The ignition lock is also the switch for the headlight.



Do not leave the machine with the key in position 2 or 3. There is a fire risk, fuel can run into the engine through the carburettor, and there is a risk of the battery being discharged and damaged.

Four positions:



1. Stop position – the engine is short-circuited. The key can be removed.



2. Operating position – headlight activated.



3. Operating position – headlight not activated.



4. Start position – the electric start motor is activated when the key is turned to the spring-loaded start position. Once the engine has started, let the key return to operating position 3.

Turn the key to position 2 to light the headlight.

2.4.10 Power take-off (4,5:K)

Switch for engaging/disengaging the electromagnetic power take-off for operating front-mounted accessories. Two positions:



1. Press the front part of the switch – the power take-off is engaged. The symbol will light up.

2. Press the rear part of the switch – the power take-off is disengaged.

2.4.11 Hour meter (2:P)

Indicates the number of working hours. Only works when the engine is running.

2.4.12 Cruise control (4, 5:N)

A switch for activating the cruise control. The cruise control locks the pedal (3:F) in the desired position.



1. Press down the pedal (3:F) until the desired speed is obtained. Then press the front part of the switch to activate the cruise control. The symbol will light up.

2. Disengage the cruise control by releasing it with the pedal (3:B) or pressing the rear part of the switch.

2.4.13 Cutting height adjustment (4,5:J)

The machine is equipped with a control for using the cutting deck with electrical cutting height adjustment.



The switch is used to adjust the cutting height in continuously variable positions.

The cutting deck is connected to the contact (2:Q).

2.4.14 Rear Rake (5:L) (Pro20, Pro25, Pro Svan)

The machine is fitted with a control for electrical adjustment of a rear rake (available as an accessory).



The switch is used to raise and lower the rear rake.



Cables for connecting the rear rake are found at the rear of the machine, to the left of the upper side of the bumper.

2.4.15 Sand spreader (6:O) (Pro20, Pro25, Pro Svan)

The machine has been designed for electrical adjustment of a sand spreader (accessory).

12V The switch is used to start and stop the spreader.

Cables for connecting the sand spreader are at the rear of the machine.

2.4.16 Clutch release lever (6:R)

A lever for disengaging the variable transmission. Enables the machine to be moved by hand without the help of the engine.



The disengagement lever must never be between the outer and inner positions. This overheats and damages the transmission.

Two positions:



1. Lever out – transmission engaged for normal operation. There is an audible click when the lever locks in the outer position.

2. Lever in – transmission disengaged. The machine can be moved by hand.

The machine may not be towed over long distances or at high speeds. The transmission could be damaged.

2.4.17 Seat (1:T)

The seat can be folded and adjusted front-rear. The seat can be adjusted as follows:

1. Move the control lever (1:T) upwards.
2. Set the seat to the desired position.
3. Release the control lever (1:S) to lock the seat.

The seat is equipped with a safety switch that is connected to the machine's safety system. This means that certain dangerous activities are not possible when there is nobody sitting on the seat. Also see 4.3.2.

2.4.18 Engine casing (7:U)

In order to access the fuel cock, battery and engine, the machine has an engine casing that can be opened. The engine casing is locked with a rubber strap.

The engine casing is opened as follows:

1. Undo the rubber strap (7:V) at the front edge of the casing.
2. Carefully lift the engine casing back.

Close in the reverse order.



The machine may not be operated unless the engine casing is closed and locked. Risk of burns and crushing injuries.

2.4.19 Quick-release mounting (34:H)

The quick connections can be separated, which makes it very easy to shift between the different implements.

The quick connections allow the deck to be moved easily between the two positions:

- Normal position with fully tensioned belt.
- 4 cm behind the normal position with slackened belt so that the deck gets closer to the base machine.

As the belt idler is released from the belt, the quick connections simplify belt and deck replacement, and also make shifting to the washing position and service positions easier.

Releasing the belt tension:

1. Remove the locking pins (34:G) from both sides.
2. Open the quick connections by depressing their rear sections with your heel. See (34:F).



When the quick connections are opened, the deck arms rest loosely in the shaft sections. The deck must never be set to the service position or washing position without relocking the quick connections after unhooking the deck belt.

3. Carry out the necessary corrective action, e.g.:
 - Unhook the belt.
 - Replace the deck by unhooking the deck arms. See fig. 36.

Tensioning the belt:

First tension one side and then the other according to the instructions below.



Do not turn the lever using your hands. Risk of crushing injuries.

1. Place your foot on the lever (34:J) and carefully turn a half turn forwards.
2. Install the locking pin (34:G).
3. Carry out the above on the other side.

3 AREAS OF USE

The machine may only be used for the following tasks using the genuine STIGA accessories stated.

Work	Accessories, STIGA genuine
Mowing	Using mowing decks: 95C, 95C El, 105C, 105C El, 110 Combi Pro, 110 Combi Pro El, 125 Combi Pro, 125 Combi Pro El and with flail mower.
Sweeping	Using brush unit or collector brush unit. The use of a dust guard is recommended with the first option.
Snow clearance	Using snow blade or snow thrower. Snow chains are recommended.
Grass clipping and leaf collection	Using towed collector 30" or 42".
Grass and leaf transport	Using dump cart Standard, Maxi or Combi.
Sand spreading	Using sand spreader. Can also be used for spreading salt. Snow chains are recommended.
Weeding on gravel paths	Using front-mounted hoe.
Lawn edge trimming	Using edge trimmer.
Moss scarification	Using moss scarifier.

The maximum vertical load on the towing hitch must not exceed 100 N.

The maximum over-run load on the towing hitch from towed accessories must not exceed 500 N.

NOTE! Before using a trailer – contact your insurance company.

NOTE! This machine is not intended to be driven on public roads.

4 STARTING AND OPERATION



The machine may not be operated unless the engine casing is closed and locked. Risk of burns and crushing injuries.

4.1 Filling with petrol

Always use lead-free petrol. You must never use 2-stroke petrol mixed with oil.

The tank holds 14 litres. The level can easily be read through the transparent tank.

NOTE! Ordinary lead-free petrol is a perishable and must not be stored for more than 30 days. Environmental petrol can be used, i.e. alkylate petrol. This type of petrol has a composition that is less harmful for people and nature.



Petrol is highly inflammable. Always store fuel in containers that are made especially for this purpose.




Only fill or top up with petrol outdoors, and never smoke when filling or topping up. Fill up with fuel before starting the engine. Never remove the filler cap or fill with petrol while the engine is running or still warm.

Never completely fill the petrol tank. Leave an empty space (= at least the entire filler tube plus 1 - 2 cm at the top of the tank) to allow the petrol to expand when it warms up without overflowing. See fig. 8.

4.2 Checking the engine oil level

On delivery, the crankcase is filled with SAE 10W-40 oil.

Check the oil level every time before using to ensure it is correct. The machine should be standing on level ground.

 Wipe around the dipstick. Unscrew and pull it up. Wipe the dipstick.

Pro 16, Pro 20, Pro25:

Push the dipstick down completely *and screw into place*.

Unscrew and pull the dipstick up again. Read off the oil level.

Pro Svan:

Push the dipstick down completely *without screwing it into place*. Pull it up again and read off the oil level.

Top up with oil to the "FULL" mark if the oil level is below this mark. See fig. 9-11.

The oil level must never exceed the "FULL" mark. This results in the engine overheating. If the oil level exceeds the "FULL" mark, the oil must be drained until the correct level is achieved.

4.3 Safety checks

Check that the results of the safety checks below are achieved when testing the machine in question.



The safety checks must always be carried out every time before use.



If any of the results below is not achieved, the machine must not be used! Take the machine to a service workshop for repair.

4.3.1 General safety check

Object	Result
Fuel lines and connections.	No leaks.
Electrical cables.	All insulation intact. No mechanical damage.
Exhaust system.	No leaks at connections. All screws tightened.
Oil lines	No leaks. No damage.
Drive the machine forwards/backwards and release the driving-service brake pedal.	The machine will stop.
Test driving	No abnormal vibrations. No abnormal sound.

4.3.2

4.3.3 Electrical safety check



The operation of the safety system should always be checked every time before use.

Status	Action	Result
The clutch-brake pedal is not depressed. The power take-off is not activated.	Try to start.	The engine will not start.
The clutch-brake pedal is depressed. The power take-off is activated.	The driver gets up from the seat.	The engine will not start.
Engine running. The power take-off is activated.	The driver gets up from the seat.	The power take-off will be disengaged.
Engine running.	Remove fuse 10 A. See fig. 13.	The engine will stop.
Cruise control activated.	The driver gets up from the seat.	The cruise control will be disengaged.

Status	Action	Result
Cruise control activated.	The clutch-brake pedal is depressed.	The cruise control will be disengaged.
The switch for the implement lifter is in neutral position. (not Pro16)	Try to engage the power take-off.	It will not be possible to engage the power take-off.

4.4 Start

1. Open the fuel cock. See 14.
2. Check that the spark plug cable(s) is/are installed on the spark plug(s).
3. Check to make sure that the power take-off is disengaged.
4. Do not keep your foot on the drive pedal (3:F).
5. Put the throttle control at full throttle.
Starting cold engine – pull the choke control out fully.
Starting warm engine – the choke control should be pressed in.
6. Depress the clutch-brake pedal (3:B) fully.
7. Turn the ignition key and start the engine.
8. Once the engine has started, push the choke control in gradually if it has been used.
9. When starting from cold, do not make the machine work under load immediately, but let the engine run for a few minutes first. This will allow the oil to warm up.

When the machine is in operation, full throttle should always be used.

4.5 Power assisted steering (Pro20, Pro25, Pro Svan)

Power assisted steering means that power from the machine's hydraulic system is supplied to the steering wheel movements. This makes the machine very easy to steer when the engine is operating at working revs (full throttle).

The servo effect is reduced as the engine speed drops.

4.6 Operating tips

Always check that there is the correct volume of oil in the engine. This is particularly important when operating on slopes. See 4.2.



Be careful when driving on slopes. No sudden starting or stopping when driving up or down a slope. Never drive across a slope. Move from the top down or from the bottom to the top.



The machine may not be driven on slopes greater than 10° in any direction.



Reduce the speed on slopes and when making sharp turns in order to retain control and reduce the risk of tipping over.



Do not turn the steering wheel to full lock when driving in top gear and at full throttle. The machine can easily topple over.



Keep hands and fingers well away from articulated steering joint and seat bracket. Risk of crushing injuries. Never drive with the engine casing open.

4.7 Stop

Disengage the power take-off. Apply the parking brake.

Allow the engine to idle 1-2 mins. Stop the engine by turning off the ignition key.

Shut off the petrol cock. This is particularly important if the machine is to be transported on a trailer for example.



If the machine is left unattended, remove the spark plug cable(s) and remove the ignition key.



The engine may be very warm immediately after it is shut off. Do not touch the silencer, cylinder or cooling fins. This can cause burn injuries.

4.8 Cleaning



To reduce the risk of fire, keep the engine, silencer, battery and fuel tank free from grass, leaves and oil.



To reduce the risk of fire, regularly check the machine for oil and/or fuel leakage.

Clean the machine after each use. The following instructions apply for cleaning:

- When washing the machine with water under high pressure, do not point the jet directly at axle seals, electrical components or hydraulic valves.
- Do not spray water directly at the engine.
- Clean the engine with a brush and/or compressed air.
- Clean the engine's cooling air intake (9-11:W).
- Only Pro25: Clean the oil cooler (12:X).

5 MAINTENANCE

5.1 Service programme

In order to keep the machine in good condition as regards reliability and operational safety as well as from an environmental perspective, STIGA's Service programme should be followed.

The contents of this programme can be found in the attached service log.

Basic service must always be carried out by an authorised workshop.

First service and intermediate service should be carried out by an authorised workshop, but can also be carried out by the user. The content of this can be found in the service log and the actions are described under "4 STARTING AND OPERATION" as well as below.

Servicing carried out at an authorised workshop guarantees professional work using genuine spare parts.

At each basic service and intermediate service carried out at an authorised workshop, the service log is stamped. A service log presenting these services is a valuable document that improves the machine's second-hand value.

5.2 Preparation

All service and all maintenance must be carried out on a stationary machine with the engine switched off.



Prevent the machine from rolling by always applying the parking brake.



Stop the engine.



Prevent unintentional starting of the engine by disconnecting the spark plug cable(s) from the spark plug(s) and removing the ignition key.

5.3 Tyre pressure

Adjust the air pressure in the tyres as follows:

Front: 0.6 bar (9 psi).

Rear: 0.4 bar (6 psi).

5.4 Changing engine oil, filter

This section contains tables covering the different engines that are included in STIGA's Pro range. To facilitate reading, mark the data that applies to the relevant machine/engine.

5.4.1 Change intervals

The table below states hours of operation and calendar months. Carry out the relevant action at whichever occurs first.

Machine	1st time	Then at intervals of
Pro16 Pro20 (B&S)	Hours of operation/Calendar months	
Changing the oil	5 hours	50 hours/ 12 months
Replacing the filter.	-	100 hours
Pro25 (Kohler)	Hours of operation/Calendar months	
Changing the oil	-	100 hours
Replacing the filter.	-	200 hours
Pro Svan (Honda)	Hours of operation/Calendar months	
Changing the oil	20 hours/ 1 month	100 hours/ 6 months
Replacing the filter.	-	100 hours/ 6 months

Change the oil more frequently if the engine has to operate in demanding conditions or if the ambient temperature is high.

5.4.2 Engine Oil

Use synthetic oil according to the table below.

Oil	SAE 10W-40
Service class	SJ or higher

Use oil without any additives.

Do not fill with too much oil. This can cause the engine to overheat.

Change oil when the engine is warm.



The engine oil may be very hot if it is drained off directly after the engine is shut off. Therefore allow the engine to cool a few minutes before draining the oil.

1. Attach the clamp on the oil drainage hose. Use a polygrip or similar. See fig. 15-17:Y.
2. Move the clamp up 3-4 cm on the oil drainage hose and pull out the plug.
3. Collect the oil in a collection vessel.
NOTE! Do not spill any oil on the drive belts.
4. Hand in the oil for disposal in accordance with local provisions.
5. Install the oil drainage plug and move the clamp back so that it clamps above the plug.
6. If the oil filter is to be replaced, see 5.4.3 below before continuing.
7. Remove the dipstick and fill with new oil.

Oil quantity:

Machine	Oil quantity, approximately	
	No filter replacement	Filter replacement
Pro16, Pro20	1.6 litres	1.7 litres
Pro25	2.0 litres	2.1 litres
Pro Svan	0.9 litres	1.05 litres

- After filling up the oil, start the engine and idle for 30 seconds.
- Check to see if there is any oil leakage.
- Stop the engine. Wait for 30 seconds and then check the oil level in accordance with 4.2.

5.4.3 Oil filter

First drain the engine oil and install the oil drainage plug as described above. Then replace the oil filter as follows:

Pro 16, Pro 20, Pro Svan:

- Clean the area around the filter and dismantle the filter.
- Moisten the new filter's gasket with oil.
- Install the filter. First screw in the filter so that the gasket comes into contact with the engine. Then screw in the filter a further 1/2-3/4 turn.
- Continue with point 7 in accordance with 5.4.2 Engine Oil above.

Pro 25:

- Clean the area around the filter and dismantle the filter.
- Place the new filter with the hole facing upwards in a vessel.
- Fill up with the new engine oil through the hole in the filter until the level reaches the bottom of the thread.
- Wait 1-2 minutes so that the oil is absorbed by the filter material.
- Moisten the filter's gasket with oil.
- Install the filter. First screw in the filter so that the gasket comes into contact with the engine. Then screw in the filter a further 2/3-1 turn.
- Continue with point 7 in accordance with 5.4.2 Engine Oil above.

5.5 Fuel filter

Pro 16, Pro 20 (Briggs & Stratton) and Pro Svan (Honda)

Replace the fuel filter every season. See fig. 17-18:Z.

Pro 25 (Kohler)

Replace the fuel filter after 1,500 hours of operation. See fig. 19:Z.

Check for fuel leaks once the new filter has been installed.

5.6 Transmission, oil filter

The oil and the filter in the hydraulic power transmission must be checked/adjusted or replaced at intervals according to the table below.

Action	1st time	Then at interval
	Hours of operation	
Check – adjusting level.	-	50
Changing oil. Changing tank filter.	5	200

Oil type: Synthetic oil 5W-50.

Oil volume at change: approx. 4.2 litres.

5.6.1 Check – adjustment

- Place the machine on a flat surface.
- Read off the oil level in the reservoir. See fig. 20. The level should be level with the line.
- If necessary, top up with more oil.

5.6.2 Draining

- Operate the machine at varying speeds for 10-20 minutes in order to warm up the transmission oil.
- Open the drive shafts' valves in accordance with fig. 21.
- Place one collection trough under the rear axle and one under the front axle.
- Remove 2 drainage plugs from each axle. Use a 12 mm socket wrench. See fig. 22.
- Remove the filler cap from the oil tank.
- Allow all the oil to run out into the collection trough.
- Draw out the oil from the deeper section of the reservoir using an oil extractor. See fig. 20.
- Hand in the oil for disposal in accordance with local provisions.

5.6.3 Replacing the oil filter in the tank

- Depress the filter sleeve (21:F) in the upper section of the tank and move the sleeve forward to the hole.
- Grasp the filter sleeve and spring.
- Pull the filter (24:G) from the sleeve.
- Check that the rubber gasket (21:H) at the bottom of the filter is intact.
- Install the new filter and the spring in the sleeve. Insert the filter until it snaps into place in the sleeve.
- Reinstall the unit in the tank. The upper section of the filter must click securely into the recess in the upper section of the tank.

5.6.4 Filling

1. Check that the gaskets on the 4 drainage plugs are intact. See fig. 22. Reinstall the plugs. Tightening torque: 15-17 Nm.
2. Only applies to Pro20, Pro25 and Pro Svan: Moisten the new filter's gasket with oil and install the filter. See fig. 16:A.
3. Fill the oil reservoir with the new oil.
4. Check that the clutch release lever (6:R) is in the outer position (drive position).



If the engine is to be run indoors, an exhaust extraction device must be connected to the engine's exhaust pipe.

5. Prepare a suitable vessel with the new oil.
NOTE! The oil is sucked into the system very quickly. The reservoir must always be kept topped up. Under no circumstances may air be sucked in.
6. Fill the oil reservoir with new oil.
7. Start the engine and allow it to idle. Gradually top up the oil in the reservoir so that the level constantly reaches the mark.
8. Reinstall the oil filler cap and close the engine casing.
9. Reset the drive shafts' valves in accordance with fig. 25.
10. Drive the machine 8-10 metres forwards and 8-10 metres backwards. If the machine has hydraulic power assisted steering, apply full steering lock at the same time.
11. If the machine has a hydraulic implement lifter, raise and lower the lifter 3-4 times.
12. Adjust the oil level in the reservoir.

5.7 Belt transmissions

After 5 hours of operation, check that all the belts are intact and undamaged.

5.8 Steering

The steering must be checked/adjusted after 5 hours of operation and thereafter after 100 hours of operation.

5.8.1 Checks

Briefly turn the steering wheel back and forth. There must be no mechanical clearance in the steering chains.

5.8.2 Adjustment

Adjust the steering chains if required as follows:

1. Put the machine in the straight-ahead position.
2. Adjust the steering chains with the two nuts, located under the central point. See fig. 29.
3. Adjust both nuts by the same amount until there is no clearance.
4. Test drive the machine straight forwards and check that the steering wheel is not off centre.

5. If the steering wheel is off centre, undo one nut and tighten the other.

Do not over-tighten the steering chains. This will cause the steering to become heavy and will increase wear on the steering chains.

5.9 Battery



If acid comes into contact with the eyes or skin, this can cause serious injuries. If any part of the body has come into contact with acid, rinse immediately with copious amounts of water and seek medical assistance as soon as possible.

The battery is a valve-regulated battery with 12 V nominal voltage. The battery fluid does not need to and cannot be checked or topped up. The only maintenance that is required is charging, for example after extended storage.



The battery must be fully charged before being used for the first time. The battery must always be stored fully charged. If the battery is stored while discharged, serious damage will occur.

5.9.1 Charging with the engine

The battery can be charged using the engine's generator as follows:

1. Install the battery in the machine as shown below.
2. Place the machine outdoors or install an extraction device for the exhaust fumes.
3. Start the engine according to the instructions in the user guide.
4. Allow the engine to run continuously for 45 minutes.
5. Stop the engine. The battery will now be fully charged.

5.9.2 Charging using battery charger

When charging using a battery charger, a battery charger with constant voltage must be used.

Contact your dealer to purchase a battery charger with constant voltage.

The battery can be damaged if a standard type battery charger is used.

5.9.3 Removal/Installation

The battery is placed under the tank. To access the battery, first dismantle the fuel tank as follows:

1. Open the engine casing.
2. Close the fuel cock, see 14.
3. Unscrew the two wing nuts (16:B) and remove the clamps.
4. Carefully lift up the petrol tank.

During removal/installation of the battery, the following applies regarding connection of the cables:

- During removal. First disconnect the black ca-

ble from the battery's negative terminal (-). Then disconnect the red cable from the battery's positive terminal (-).

- During installation. First connect the red cable to the battery's positive terminal (+). Then connect the black cable to the battery's negative terminal (-).



If the cables are disconnected/connected in the wrong order, there is a risk of a short-circuit and damage to the battery.



If the cables are interchanged, the generator and the battery will be damaged.



Tighten the cables securely. Loose cables can cause a fire.



The engine must never be driven with the battery disconnected. There is a risk of serious damage to the generator and the electrical system.

When the battery has been rectified, install the fuel tank as follows:



Check that the petrol hose is not clamped against the hydraulic pump and does not come into contact with this. The hydraulic pump becomes very hot during operation. Risk of fire.

1. Place the petrol tank on the brackets. Check that the petrol hose is not touching the hydraulic pump.
2. Install the clamps and tighten the wing nuts (16:B).

5.9.4 Cleaning

If the battery terminals are coated with oxide, they should be cleaned. Clean the battery terminals with a wire brush and lubricate them with terminal grease.

5.10 Air filter, engine

5.10.1 Air filter (Pro16, Pro20)

The pre-filter (foam filter) must be cleaned/replaced after 25 hours of operation.

The air filter (paper filter) must be cleaned/replaced after 100 hours of operation.

NOTE! The filters should be cleaned/replaced more often if the machine operates on dusty ground.

Remove/install the air filters as follows.

1. Clean carefully around the air filter cover.
2. Dismantle the air filter cover (26:A) by removing the two clamps.
3. Dismantle the filter assembly (26:B). The pre-filter is placed over the air filter. Make sure that no dirt gets into the carburettor. Clean the air filter housing.

4. Clean the paper filter by tapping it gently against a flat surface. If the filter is very dirty, replace it.
5. Clean the pre-filter. If the filter is very dirty, replace it.

6. Assemble in the reverse order.

Compressed air or petroleum-based solvents such as kerosene may not be used for cleaning the paper filter insert. This will damage the filter.

5.10.2 Air filter (Pro25)

The pre-filter (foam filter) must be cleaned after 25 hours of operation.

The air filter (paper filter) must be replaced after 100 hours of operation.

NOTE! The filters should be cleaned/replaced more often if the machine operates on dusty ground.

Remove/install the air filters as follows.

1. Clean carefully around the air filter cover.
2. Dismantle the air filter cover (27:A) by undoing its screw (27:B).
3. Dismantle the filters. The pre-filter (27:C) is placed over the air filter (27:D). Make sure that no dirt gets into the carburettor. Clean the air filter housing.
4. Wash the pre-filter (27:C) in liquid detergent and water. Squeeze dry. Pour a little oil on the filter and squeeze in the oil.
5. Assemble in the reverse order. Check that the rubber seal (27:E) is undamaged. Replace the seal if necessary.

5.10.3 Air filter (Pro Svan)

Clean the air filter every 3 months or after every 50 hours of operation, whichever comes first.

Clean the paper filter insert once a year or after every 200 hours of operation, whichever comes first.

Note! Both filters should be cleaned more often if the machine operates on dusty ground.

1. Remove the protective cover of the air filter (fig. 28).
2. Dismantle the paper filter insert and the foam pre-filter. Make sure that no dirt gets into the carburettor. Clean the air filter housing.
3. Wash the pre-filter in liquid detergent and water. Squeeze dry. Pour a little oil on the filter and squeeze in the oil.
4. Clean the paper filter insert as follows: Knock it lightly against a flat surface. If the filter is very dirty, change it.
5. Assemble in the reverse order. Petroleum-based solvents such as kerosene may not be used for cleaning the paper filter insert. These solvents can destroy the filter.

Do not use compressed air for cleaning the paper filter insert. The paper filter insert must not be oiled.

5.11 Spark plug

The spark plug(s) must be replaced every 200 hours of operation (=at every other basic service). Use the spark plug key supplied. Before disconnecting the spark plug, clean around its mounting.

Spark plug:

Pro16, Pro20, Pro25: Champion RC12YC or equivalent.

Pro Svan: NGK BPR5ES or DENSO W16EPR-U

Electrode distance: 0.75 mm.

5.12 Air intake

See 9-11:W. The engine is air-cooled. A blocked cooling system can damage the engine. Clean the engine's air intake after 50 hours of operation. More meticulous cleaning of the cooling system is carried out during each basic service.

5.13 Lubrication

All lubrication points in accordance with the table below must be lubricated every 50 hours of operation as well as after every wash.

Object	Action	Figure
Wheel bearing	2 grease nipples. Use a grease gun filled with universal grease. Pump until the grease emerges.	30
Centre point	4 grease nipples. Use a grease gun filled with universal grease. Pump until the grease emerges.	31
Steering chains	Brush the chains clean with a wire brush. Lubricate with universal chain spray.	-
Tensioning arms	Lubricate the bearing points with an oil can when each control is activated. Ideally carried out by two people.	32
Control cables	Lubricate the cable ends with an oil can when each control is activated. Must be carried out by two people.	33

5.14 Fuses

If any of the faults listed below occurs, replace the relevant fuse. See fig. 13.

Fault	Fuse
The engine does not start or starts and stops immediately. The battery is charged.	10 A
Sand spreader and electrical cutting height adjustment do not work.	20 A
All electrical functions are out of operation. The battery is charged.	30 A

6 PATENT - DESIGN REGISTRATION

This machine or parts thereof is covered by the following patent and design registration:
SE9901091-0, SE9901730-3, SE9401745-6,
US595 7497, FR772384, DE69520215.4,
GB772384, SE0301072-5, SE04/000239 (PCT),
SE0401554-1.

GGP reserves the right to make alterations to the product without prior notification.