

Operator's manual
Rider Pro 15 Pro 18
Pro 18 AWD

Please read these instructions carefully and make sure
you understand them before using the machine.



English

CONTENTS

Operator's manual for Rider Pro 15, Pro 18 and Pro 18 AWD

Introduction	2	Replacing the air filter Pro 15	29
Driving and transport on public roads	2	Replacing the air filter Pro 18	30
Towing	2	Checking the engine's cooling air intake	31
Use	2	Cleaning the engine and muffler	31
Serial Number	3	Checking the Battery Acid Level	32
Explanation of symbols	4	Ignition system	32
Safety instructions	5	Checking the safety system	33
General Use	5	Replacing the light bulbs	34
Driving on Slopes	7	Fuses	35
Children	8	Checking the Tyre Pressures	35
Maintenance	8	Replacing the rear drive belt Pro 15 and Pro 18	36
Transport	10	Replacing the hydraulic pump's drive belt Pro 18 AWD	38
Presentation	11	Replacing the front belt Pro 15, Pro 18	41
Accelerator	11	Replacing the front belt Pro 18 AWD	41
Cutting Unit	12	Fitting the cutting unit	43
Placement of Controls	12	Removing the Cutting Unit	44
Throttle control	13	Checking and Adjusting the Cutting Unit's Ground Pressure	45
Choke Lever	13	Cutting height	45
Chronometer	13	Checking the parallelism of the cutting unit ...	46
Lifting lever for the cutting unit	14	Adjusting the parallelism of the cutting unit ...	46
Cutting Height Adjustment Lever	14	Replacing the Cutting Unit's Belts	47
Parking Brake	15	The Cutting Unit's Service Position	48
Seat	15	Placing in the Service Position	48
Refuelling	15	Inspecting the blades	51
Lights and power outlet	15	Removing the BioClip plug (Combi)	52
Driving	16	Lubrication	53
Mowing Tips	16	Lubrication chart Pro 15	53
Clutch control	17	Lubrication chart Pro 18	54
Before Starting	18	Lubrication chart Pro 18 AWD	55
Starting the engine	18	General	56
Driving the Rider	20	Lubricating the cables	56
Braking	20	Lubrication instructions according to the schedule	56
Stopping the Engine	21	Trouble shooting chart	64
Maintenance	22	Storage	65
Maintenance schedule	22	Winter Storage	65
Dismantling the Rider covers	24	Guard	65
Checking and Adjusting the Steering Cables ..	25	Service	65
Adjusting the parking brake	26	Wiring diagram	66
Checking and Adjusting the Throttle Cable ...	27	Technical data	69
Checking and Adjusting the Choke Cable	27	EU Declaration of Conformity	71
Inspecting the muffler	27	Service Journal	72
Replacing the Fuel Filter	28		
Checking the Fuel Pump's Air Filter	28		
Air supply exhaust pipe	28		
Checking the Transmission Air Intake	28		

IMPORTANT INFORMATION

Read carefully through the Operator's manual so that you know how to use and maintain the Rider before you use it.

For service measures other than those described in this manual, please contact an authorised dealer that provides parts and service.

INTRODUCTION

Congratulations

Thank you for purchasing a Husqvarna Rider. Husqvarna Riders have been designed according to a unique concept with a front mounted cutting unit and patented rear wheel steering. The Rider is built to give maximum efficiency even in small and confined areas. Collected controls and a hydrostatic transmission controlled by pedals also contribute to the machine's performance.

This Operator's Manual is a valuable document. Following the instructions (use, service, maintenance, etc.) can considerably increase the life span of your machine and even increase its resale value.

When you sell your Rider, make sure to give the operator's manual to the new owner.

The final chapter of this operator's manual comprises a Service Journal. Ensure that service and repair work is documented. A well-kept service journal reduces service costs for the season-based maintenance and affects the machine's resale value. Take the operator's manual along when the Rider is left to the workshop for service.

Driving and Transport on Public Roads

Check applicable road traffic regulations before driving and transport on public roads. You should always use approved fasteners during transport and ensure that the machine is well secured.

Towing

Your machine is equipped with a hydrostatic transmission and, if necessary, you should only tow the machine over short distances and at a low speed, otherwise there is a risk of damaging the transmission. The power transmission must be disengaged when towing, see Clutch Control.

Use

This machine has been designed to mow grass on lawns and other open and level ground surfaces without obstacles such as stones, tree stumps, etc., even when the machine is equipped with special accessories provided by the manufacturer, for which the operating instructions are enclosed with the delivery. All other types of use are incorrect. The manufacturer's instructions with regard to driving, maintenance, and repair must be followed precisely.

The machine may only be operated, maintained, and repaired by persons that are fully conversant with the machine's special characteristics and safety regulations.

Accident prevention regulations, other general safety regulations, occupational safety rules, and traffic regulations must be observed.

Unauthorised modifications to the design of the machine may absolve the manufacturer from liability for any resulting personal injury or property damage.

INTRODUCTION

Proper Service

Husqvarna's products are sold all over the world and only by specialised retail traders offering complete service. This ensures that you as a customer receive only the best support and service. Before the product is delivered, the machine has, for example, been inspected and adjusted by your retailer, see the certificate in the Service Journal in this operator's manual.

When you need spare parts or support in questions about service, warranty issues, etc., please consult the following professional:

This operator's manual belongs to the machine bearing serial number:	Engine	Transmission

Serial Number

The serial number can be found on the printed plate attached to the front, left-hand side under the seat. Stated on the plate, from the top, are:

- The machine's type designation.
- The manufacturer's type number.
- The machine's serial number.

Please state the type designation and serial number when ordering spare parts.

The engine's serial number is found on a barcode sticker. This is placed on the left side of the crankcase, in front of the starter. The sticker states:

- The engine's serial number (E/NO).
- Code.

Please state these when ordering spare parts.

The transmission's serial number is stated on the barcode decal located on the front of the housing on the left-hand drive axle:

- The type designation is stated above the barcode and starts with the letter K.
- The serial number is stated above the barcode and has the prefix s/n.
- The manufacturer's type number is stated under the barcode and has the prefix p/n.

Please state the type designation and serial number when ordering spare parts.

KEY TO SYMBOLS

These symbols can be found on the Rider and in the operator's manual. Study them carefully so you understand their significance.



Read the operator's manual.



Neutral



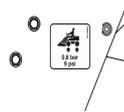
Fast



Slow



Engine off



Tyre pressures



Choke



Fuel



Oil level



Cutting height



Reversing



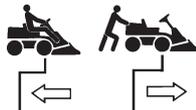
Forward



Ignition



Use hearing protection



Hydrostatic free wheeling



Parking brake



Warning



Noise emission to surroundings in accordance with the directive of the European Community. The machine's emission is indicated in the TECHNICAL DATA chapter and on the decal.



WARNING! Rotating blades



WARNING! Risk of the Rider overturning



Never drive directly across a slope



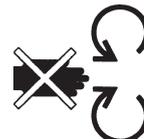
CE conformity marking



Never use the Rider if persons, especially children or pets, are in the immediate vicinity.



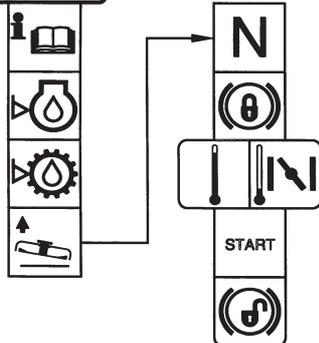
Never carry passengers on the Rider or on its tools



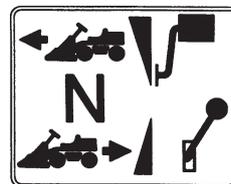
Do not insert your hands or feet under the cover when the engine is running



Drive very slowly without the cutting unit



Starting instructions
 Read the operator's manual
 Checking the engine oil level
 Check the oil level in the hydrostat
 Lift up the cutting unit
 Hydrostat pedals in the neutral position
 Apply the parking brake.
 Use the choke if the engine is cold.
 Starting the engine
 Disengage the parking brake before driving



Accelerator pedal forward

Neutral position

Accelerator pedal reversing



Switch off the engine and remove the ignition cable before carrying out repairs or maintenance

SAFETY INSTRUCTIONS

Safety Instructions

These instructions are for your safety. Read them carefully.



WARNING!

The inserted symbol means that important safety instructions need to be observed. It applies to your safety.

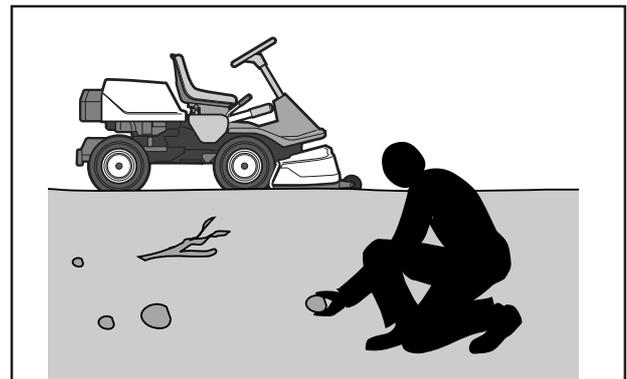
General Use

- Read all the instructions in this operator's manual and on the machine before you start it. Ensure you understand them and then observe them.
- Learn how to use the machine and its controls safely and learn to how to stop quickly. Also learn to recognise the safety decals.
- Only allow the machine to be used by adults who are familiar with its use.
- Make sure nobody else is in the vicinity of the machine when you start the engine, engage the drive or drive off.
- Make sure animals and people maintain a safe distance from the machine.
- Stop the machine if any one enters the working area.
- Clear the area of objects such as stones, toys, wires, etc. that may become caught in blades and be thrown out.
- Look out for the ejector and do not direct it towards anyone.
- Stop the engine and prevent it from starting before you clean the cutting unit.
- Remember the operator is responsibility for danger or accidents.
- Never carry passengers. The machine is only intended to be used by one person.
- Always look downwards and backwards before and while reversing. Keep watch for both large and small obstacles.
- Slow before cornering.
- Switch off the blades when you are not mowing.



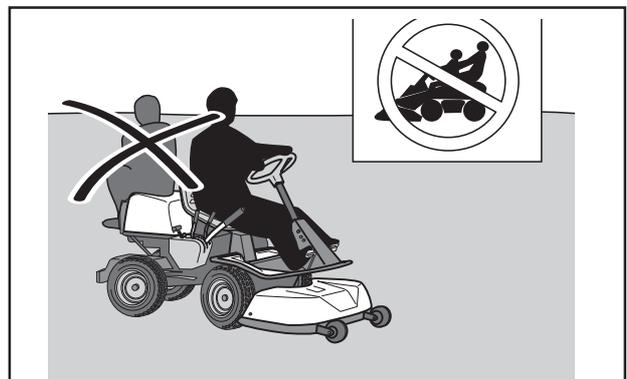
8010-047

Read the operator's manual before starting the machine



6003-002

Clear the area of objects before mowing



8010-052

Never take passengers



WARNING!

This machine can sever hands and feet as well as throw objects. Failure to observe the safety instructions can result in serious injuries.

SAFETY INSTRUCTIONS

- Take care when rounding a fixed object, so that the blades do not hit it. Never run the machine over foreign objects.
- Only use the machine in daylight or in other well-lit conditions. Keep the machine at a safe distance from holes or other irregularities in the ground. Pay attention to other possible risks.
- Never use the machine if you are tired, if you have consumed alcohol, or if you are taking other drugs or medication that can affect your vision, judgment or co-ordination.
- Keep an eye on the traffic when working close to a road or when crossing it.
- Never leave the machine unsupervised with the engine running. Always stop the blades, apply the parking brake, stop the engine and remove the keys before leaving the machine.
- Never allow children or other persons not trained in the use of the machine to use or service it. Local laws may regulate the age of the user.



WARNING!

Engine exhaust, some of its constituents and certain vehicle components contain or emit chemicals considered to cause cancer, birth defects or other reproductive impairment. The engine emits carbon monoxide, which is a colourless, poisonous gas. Do not use the machine in enclosed spaces.



Keep children away from the work area

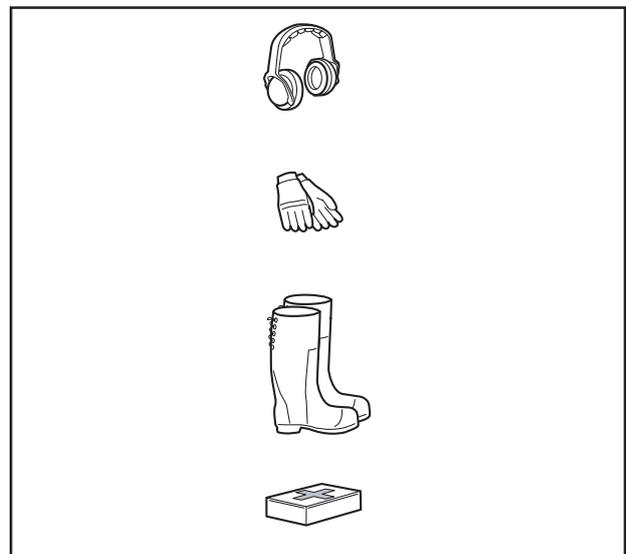
6003-006



WARNING!

You must use approved personal protective equipment whenever you use the machine. Personal protective equipment cannot eliminate the risk of injury but it will reduce the degree of injury if an accident does happen. Ask your dealer for help in choosing the right equipment.

- Use hearing protection to minimise the risk of hearing impairment.
- Wear approved protective glasses or full-face visor during assembly and when operating.
- Never wear loose fitting clothes that can catch in moving parts.
- Never use the machine when barefoot. Always wear protective shoes or protective boots, preferably with steel toes.
- Make sure that you have first aid equipment close at hand when using the machine.



Personal protective equipment

8011-292

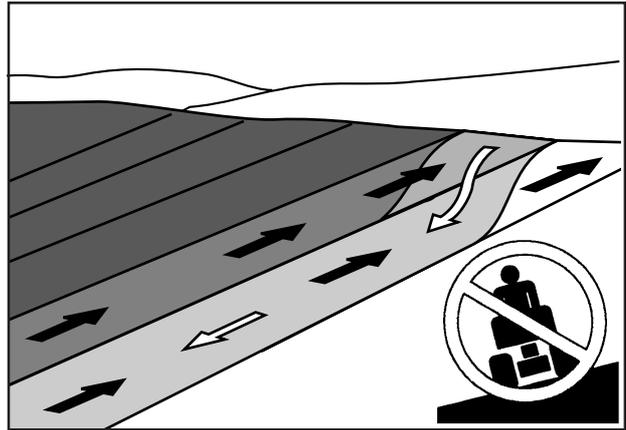
SAFETY INSTRUCTIONS

Driving on Slopes

Driving on slopes is one of the operations where the risk of the driver losing control of the machine or of it overturning is the greatest; this can result in serious injury or death. All slopes demand extra care. If you cannot reverse up a slope or if you feel unsure, do not mow it.

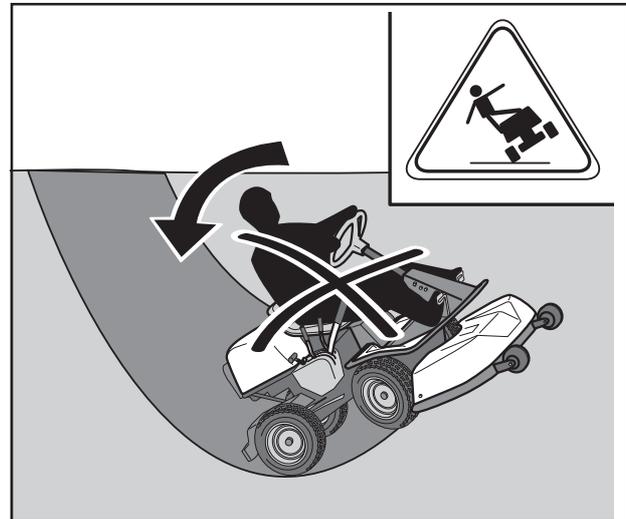
Proceed as follows:

- Remove obstacles such as stones, branches, etc.
- Mow upwards and downwards, not sideways.
- Do not use the machine on ground that slopes more than 15°.
- Avoid starting or stopping on a slope. If the tyres start to slip, stop the blades and drive slowly down the slope.
- Always drive smoothly and slowly on slopes.
- Do not make any sudden changes in speed or direction.
- Avoid unnecessary turns on slopes, if necessary, turn slowly and gradually downwards if possible.
- Watch out for and avoid driving over furrows, holes and bumps. It is easier for the machine to overturn on uneven ground. Tall grass can hide obstacles.
- Drive slowly. Do not turn the wheel sharply. The machine engine-brakes better in low gear.
- Take extra care if any attachments are fitted that can change the stability of the machine.
- Do not mow too close to edges, ditches or banks. The machine can suddenly overturn if one wheel comes over the edge of a steep slope or a ditch, or if an edge gives way.
- Do not mow wet grass. It is slippery, and tyres can lose their grip so that the machine skids.
- Do not try to stabilize the machine by putting your foot on the ground.
- When cleaning under the machine, it may never be driven near verges or ditches.
- Follow the manufacturer's recommendations regarding wheel weights or counterbalance weights to increase stability.



6003-004

Mow upwards and downwards on slopes, not sideways.



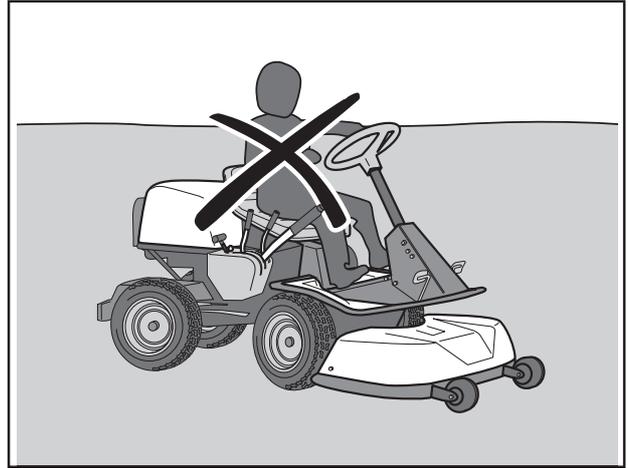
8010-054

Be extra cautious when driving on slopes

SAFETY INSTRUCTIONS

Children

- Serious accidents may occur if you fail to be on your guard for children in the vicinity of the machine. Children are often attracted to the machine and mowing. Never assume that children will stay put where you last saw them.
- Keep children away from the area to be mowed and under close supervision by another adult.
- Keep an eye out and shut off the machine if children enter the work area.
- Before and during reversing procedures, look behind you and down for small children.
- Never allow children to ride along. They can fall off and seriously injure themselves or be in the way for safe manoeuvring of the machine.
- Never allow children to operate the machine.
- Be particularly careful near corners, bushes, trees or other objects that block your view.



8010-057

Never allow children to operate the machine

Maintenance

- Stopping the engine. Prevent the engine from starting by removing the spark plug cables from the spark plugs or by removing the ignition key before making any adjustments or performing maintenance.
- Never fill the fuel tank indoors.
- Petrol and petrol fumes are poisonous and extremely flammable. Be especially careful when handling petrol, as carelessness can result in personal injury or fire.
- Only store fuel in containers approved for the purpose.
- Never remove the fuel cap and fill the petrol tank while the engine is running.
- Allow the engine to cool before refuelling. Do not smoke. Do not fill petrol in the vicinity of sparks or naked flames.
- Handle oil, oil filters, fuel and the battery carefully, of environmental considerations. Follow the local recycling requirements.
- Electrical shocks can cause injuries. Do not touch cables when the engine is running. Do not test the ignition system with your fingers.
- Sparking can occur when working with the battery and the thick cables in the starter motor circuit.

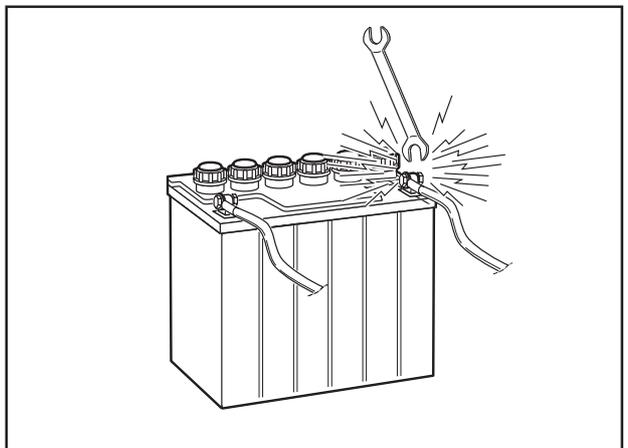
This can cause the battery to explode, fire or eye injuries.

Sparking in the circuit can not occur once the battery's power connection cable (usually the black negative cable) has been disconnected.



8010-058

Never fill the fuel tank indoors



8009-728

Risk of sparking

SAFETY INSTRUCTIONS

IMPORTANT INFORMATION

Avoid sparking and its consequences by:

- Wearing protective glasses.
- Make sure that the fuel cap is fitted and that no flammable liquids are stored in an open container.
- Do not work on the starter motor circuit in the vicinity of spilled fuel.
- Disconnect the battery's power connection cable (usually the black negative cable) first and connect it last.
- Exercise care with tools so that short circuiting does not occur.
- Do not short circuit across the starter relay's connections to run the starter motor.
- If leaks arise in the fuel system, the engine must not be started until the problem has been resolved.
- Store the machine and fuel in such a way that there is no risk that leaking fuel or fumes can cause any damage.
- Check the fuel level before each use and leave space for the fuel to expand, because the heat from the engine and the sun may otherwise cause the fuel to expand and overflow.
- Avoid overfilling. If you spill petrol on the machine, wipe up the spill and wait until it has evaporated before starting the engine. If you spill petrol on your clothing, change your clothing.
- Allow the machine to cool before performing and actions in the engine compartment.
- Be especially careful when handling battery acid. Acid on the skin can cause serious corrosive injuries. In the event of spillage on the skin wash immediately with water.
- Acid in the eyes can cause blindness, contact a doctor immediately.
- Take care with battery maintenance. Explosive gases form in the battery. Never perform maintenance on the battery while smoking or in the vicinity of open flames or sparks. This can cause the battery to explode and cause serious injuries.
- Make sure all nuts and bolts are tightened correctly and that the equipment is in good condition.
- Do not modify safety equipment. Check regularly to be sure it works properly. The machine must not be driven if protective plates, protective covers, safety switches or other protective devices are not fitted or are defective.



WARNING!

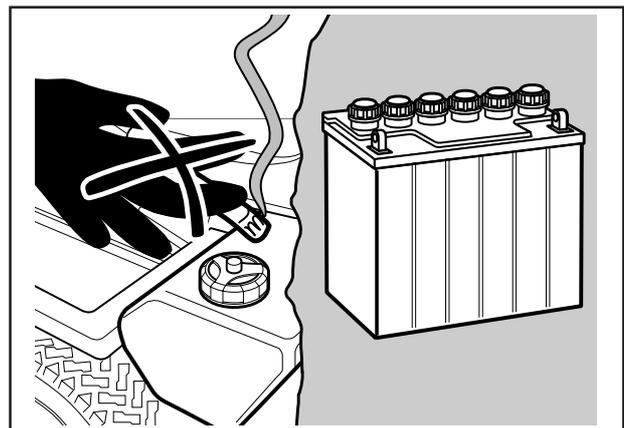
The engine and the exhaust system become very hot during operation.

Risk of burn injuries if touched.



WARNING!

The battery contains lead and lead pollutants, chemicals that are considered to cause cancer, birth defects or other reproductive impairment. Wash your hands after touching the battery.

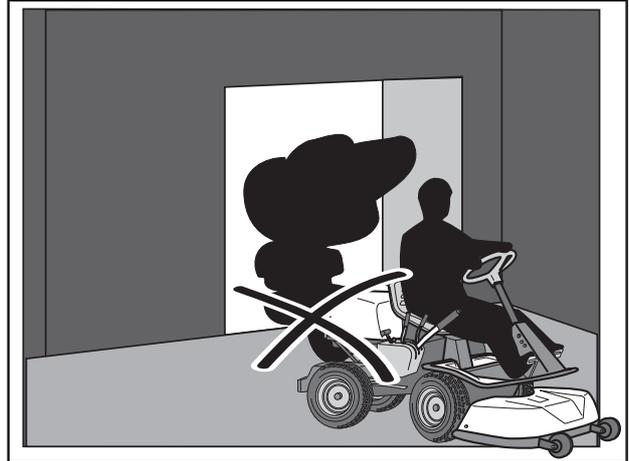


Do not smoke when carrying out maintenance

6003-009

SAFETY INSTRUCTIONS

- Do not change the setting of governors and avoid running the engine at excessively high revs. If you run too fast, you risk damaging the machine components.
- Observe the risk of injury caused by moving or hot parts if the engine is started with the engine cover open or protective cowlings removed.
- Never use the machine indoors or in spaces lacking proper ventilation. Exhaust fumes contain carbon monoxide, an odourless, poisonous and highly dangerous gas.
- Stop and inspect the equipment if you run over or into anything. If necessary, make repairs before starting.
- Never make adjustments with the engine running.
- The machine is tested and approved only with the equipment originally provided or recommended by the manufacturer.
- The blades are sharp and can cause cuts. Wrap the blades or wear protective gloves when handling them.
- Check regularly that the parking brake works. Adjust and maintain as required.
- The mulching unit should only be used where better quality mowing is required and in known areas.
- Reduce the risk of fire by removing grass, leaves and other debris that may have fastened on the machine. Allow the machine to cool before putting it in storage.



8009-467

Never drive the machine in an enclosed space



8010-061

Regularly clean grass, leaves and other debris from the machine

Transport

- The machine is heavy and can cause serious crush injuries. Be especially careful when it is loaded in or out of a car or on and off of a trailer.
- Use an approved trailer to transport the machine. Activate the parking brake and secure the machine using approved fasteners, such as straps, chains or ropes when transporting.
- Check and observe local road traffic regulations before transporting or driving the machine on roads.

IMPORTANT INFORMATION

The parking brake is not sufficient to lock the machine during transport. Ensure you secure the machine firmly to the transporting vehicle.

PRESENTATION

Presentation

Congratulations on your choice of an exceptionally high quality product. This operator's manual describes Rider Pro 15, Pro 18 and Pro 18 AWD.

The machines are equipped with a four-stroke V-Twin engine from Kawasaki. The figures denote the amount of horse power.

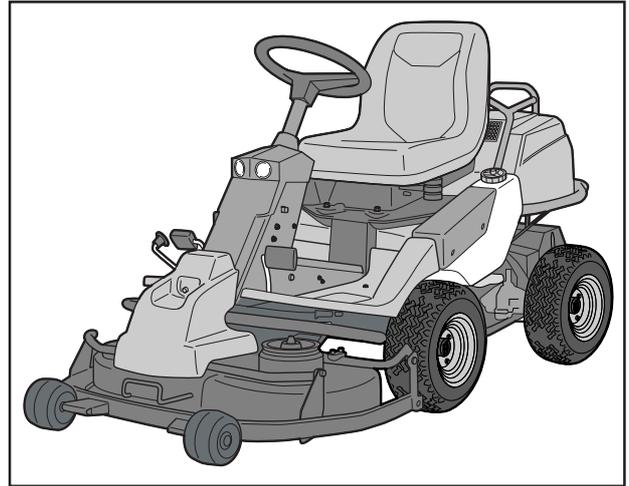
The power transmission from the engine is handled by a hydrostatic gearbox, which allows variable variation of the speed by using the pedals.

One pedal to drive forwards and one pedal to reverse.

Pro 15 is the smallest professional machine in the Rider series.

Pro 18 is equipped with power steering.

Pro 18 AWD is equipped with power steering and all wheel drive.



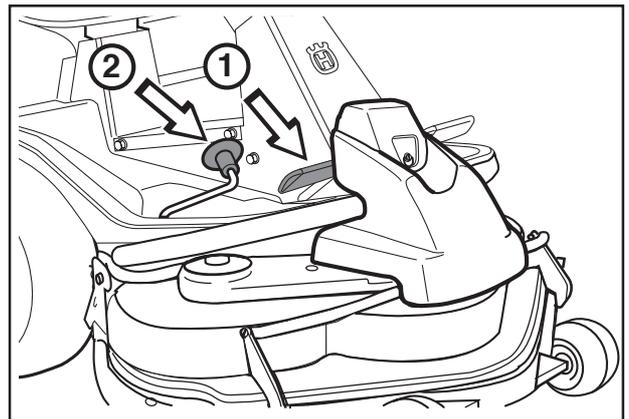
8009-482

Accelerator

The speed of the machine is variably controlled using two pedals. Pedal (1) is used to travel forwards and pedal (2) to reverse.



WARNING!
Make sure that no branches can interfere with the pedals when mowing under bushes.
Risk for unintentional manoeuvring.



6017-229

PRESENTATION

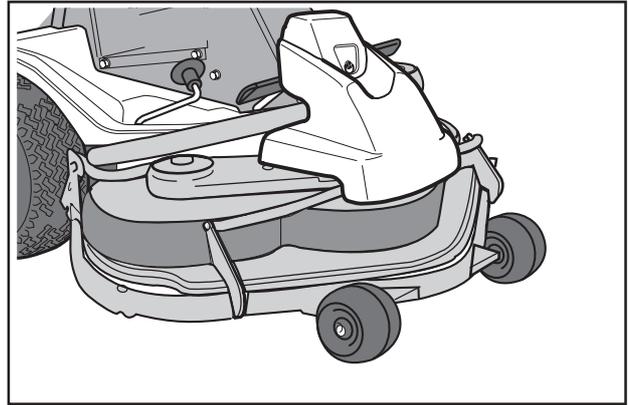
Cutting Unit

The machines can be equipped with numerous attachments.

The BioClip unit finely chops the grass several times before returning it to the lawn as fertiliser.

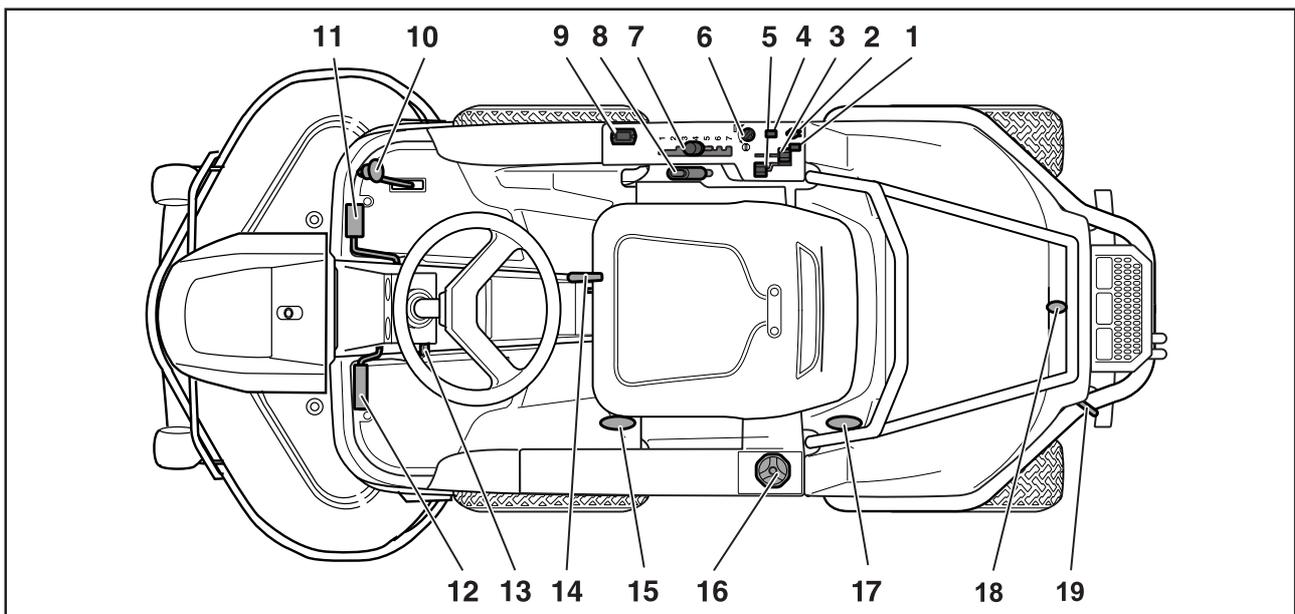
The Combi unit functions as a BioClip unit when a BioClip plug is fitted, but can be reset to rear ejection by removing the BioClip plug.

See "Maintenance \ Checking the Blades" for identification of the cutting unit.



6017-230

Placement of Controls



8009-698

1. Switch for the power outlet
2. Power outlet
3. Throttle - regulates the engine speed
4. Switch for the lights
5. Choke Lever
6. Ignition key
7. Cutting height adjustment lever
8. Lifting lever for the cutting unit with lock button
9. Hour meter
10. Accelerator for reversing
11. Accelerator for driving forwards
12. Parking brake
13. Lock button for parking brake
14. Lever for adjusting the seat
15. Lever to disengage the driving front axle AWD
16. Fuel cap
17. Lever to disengage the driving rear axle AWD
18. Hood lock
19. Lever to disengage the drive on Pro 15, Pro 18

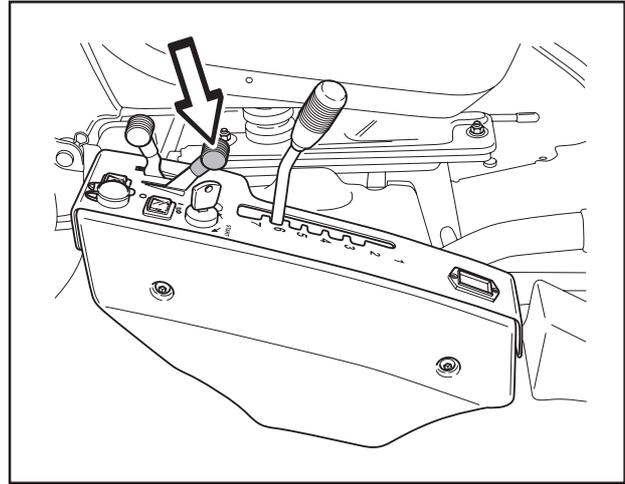
PRESENTATION

Throttle Control

The throttle is used to control the speed of the engine and thereby also the rotation speed of the blades.

In order to increase or decrease the engine speed, the control is moved forwards or backwards respectively.

Avoid idling the engine for long periods, as there is a risk of carbon build-up on the spark plugs.

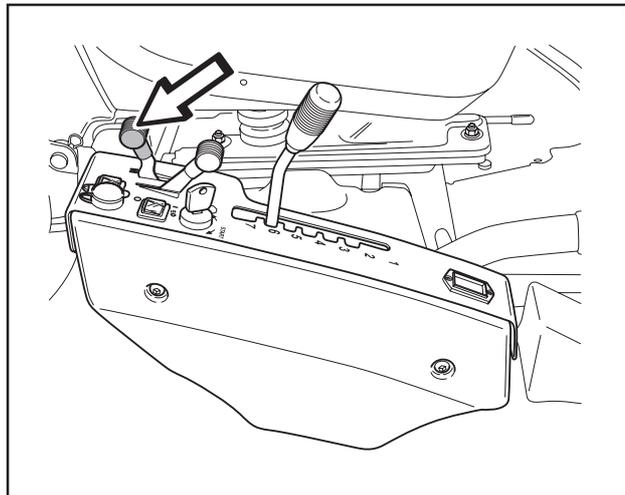


8009-484

Choke Lever

The choke lever is used for cold starts in order to provide the engine with a richer fuel mixture.

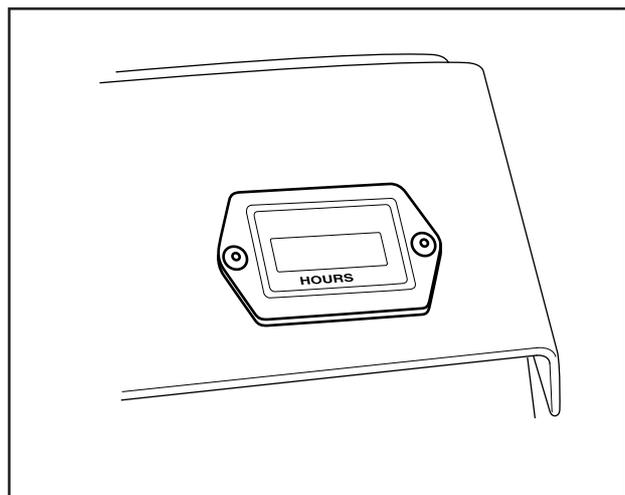
For cold starts, the lever shall be moved backwards to its endpoint.



8009-485

Chronometer

The chronometer shows how many hours the engine has been running. Any time when the engine is not running but the ignition is switched on is not registered. The last digit shows tenths of an hour (6 minutes).



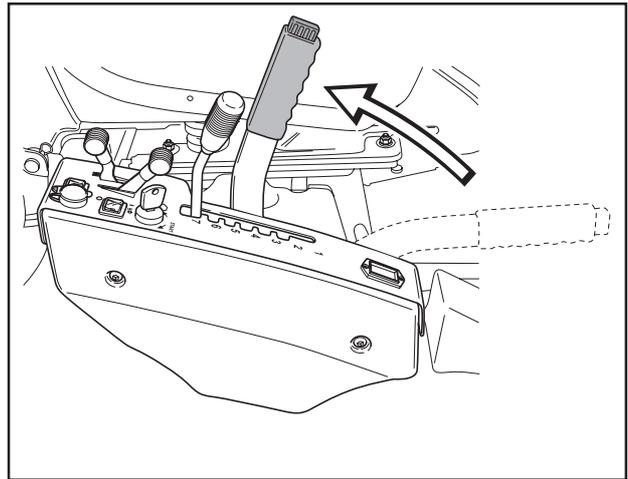
8009-498

PRESENTATION

Lifting Lever for the Cutting Unit

The lifting lever is used to put the cutting unit in either the transport or mowing positions.

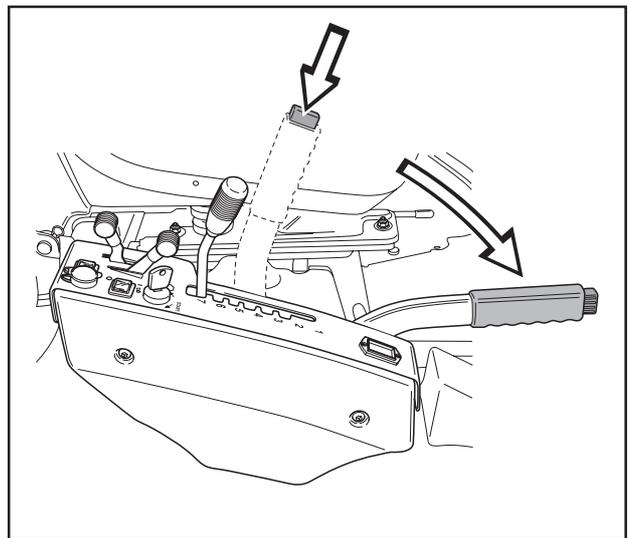
1. Pull the lever backwards to the locked position to engage the transport position.
The unit is raised and the blades stop rotating.



8009-486

Raising the cutting unit

2. Depress the lock button and move the lever forwards to engage the mowing position.
The unit is lowered and the blades begin to rotate.
3. The lever can also be used to temporarily adjust the cutting height, for example, with a small mound in the lawn.



8009-487

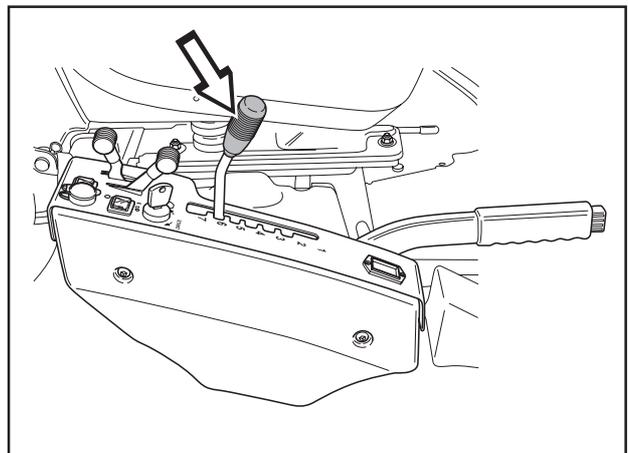
Lowering the cutting unit

Cutting Height Adjustment Lever

Using the lever, the cutting height can be adjusted in 7 different positions.

Combi 94	30-90 mm (1 3/16" - 3 1/2")
Combi 103-unit	40-80 mm (1 9/16" - 3 1/8")
Combi 112	40-100 mm (1 9/16" - 3 7/8")

It is important that the air pressure in both front wheels is equal, 60 kPa / 0.6 bar / 9 PSI, to produce an even cutting height.



8009-488

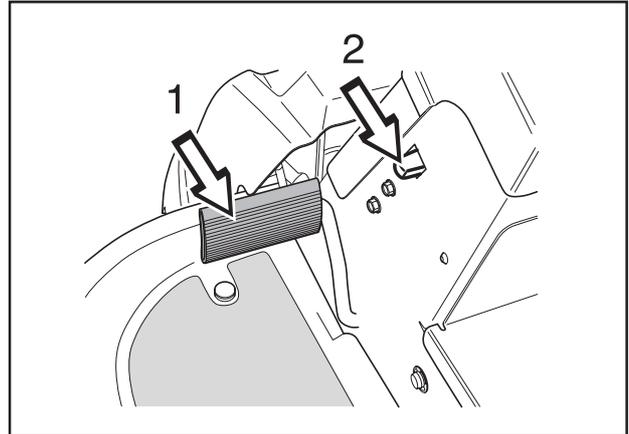
PRESENTATION

Parking Brake

The parking brake is activated as follows:

1. Press down the parking brake pedal (1).
2. Press the lock button on the steering column (2) in fully.
3. Release the parking brake pedal while keeping the button pressed in.

The parking brake lock is automatically disengaged when the brake pedal is pressed down.



8009-490

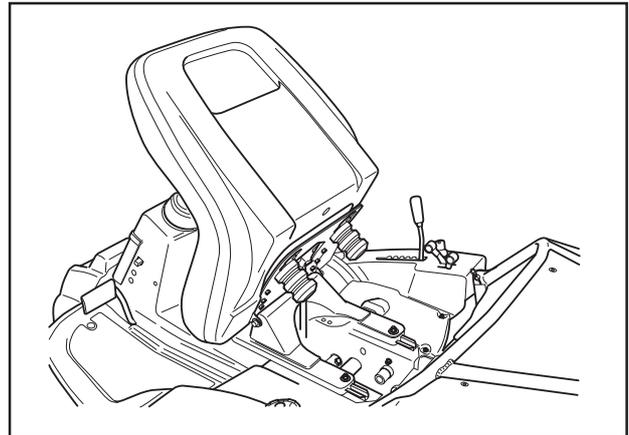
Seat

The seat has a hinged mounting on the front edge and can be folded forwards.

The seat can also be adjusted lengthways.

When making adjustments, the lever under the front edge of the seat is moved to the left, after which the seat can be moved backwards or forwards to the desired position.

The seat springs can be adjusted by moving the rubber blocks in their brackets on the underside of the seat. Set both blocks in the front, centre or rear positions.



8009-330

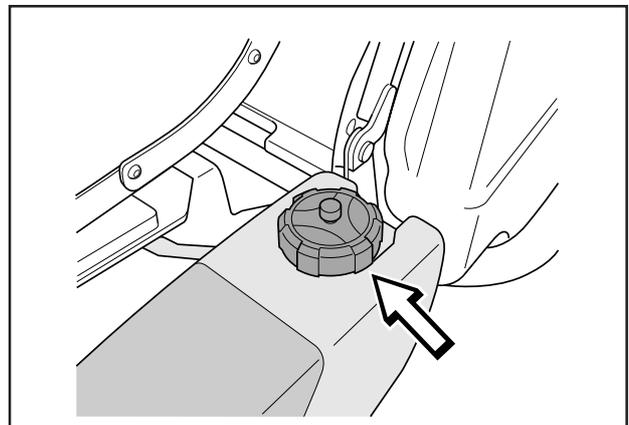
Refuelling

The engine should be run on a minimum of 87-octane unleaded petrol (not mixed with oil). It can be beneficial to use environmentally adapted alkylate petrol. See also "Technical Data" concerning methanol and ethanol fuels.

Do not fill the tank completely, leave an expansion area of at least 2.5 cm (1").



WARNING!
Petrol is highly flammable.
Observe caution and fill the tank outdoors
(see the safety instructions).

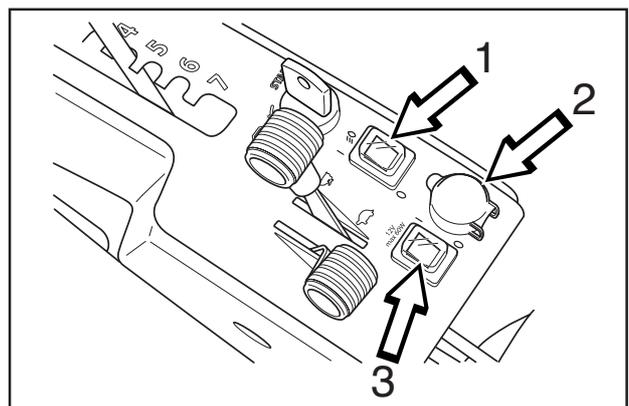


8009-330

Lights and Power Outlet

The lights are switched on and off using the switch (1) on the control panel.

A seat heater or mobile phone charger are examples of articles that can be connected to the power socket (2). The power outlet is switched on and off using power switch (3) on the control panel. The voltage is 12V. The electrical outlet socket is fuse protected by its own fuse.

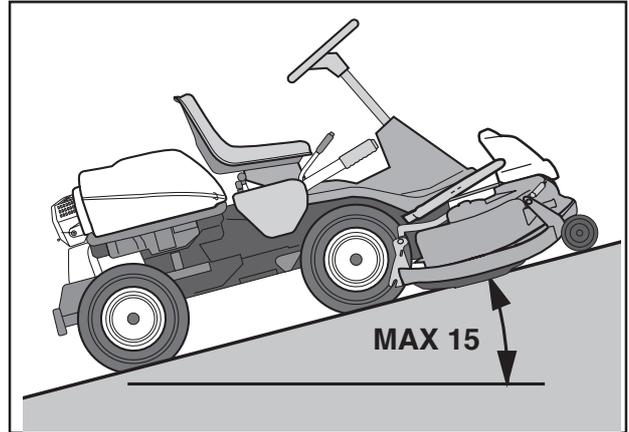


8009-546

DRIVING



WARNING!
Do not use the Rider on ground that slopes more than 15°. Mow upwards and downwards on slopes, never sideways. Avoid sudden directional changes.



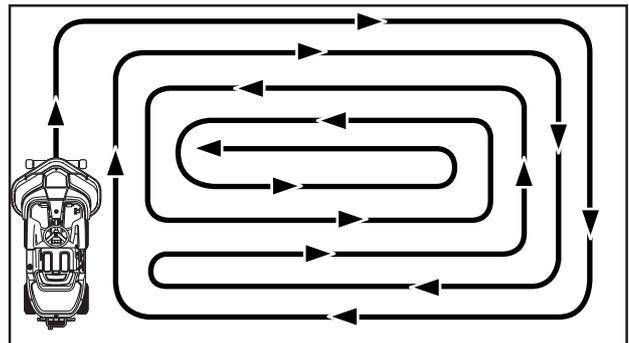
6017-236

Mowing Tips

- Find and mark out any stones and other fixed objects to avoid colliding with them.
- Start with a high cutting height and reduce it until the desired mowing result is obtained.
- The best mowing result is achieved with high engine revs (the blades rotate quickly) and low speed (the Rider moves slowly).
If the grass is not too long and thick the driving speed can be increased without significantly impairing the mowing result.
- The finest lawns are obtained if they are mown frequently. Mowing will be more even and the clippings will be more evenly distributed across the area.
The overall mowing time will not be longer as higher driving speeds can be selected without impairing the mowing result.
- Avoid mowing wet lawns. The mowing result will be poorer as the wheels will sink into the soft lawn.
- Rinse off the underside of the cutting unit after use with water, do not use a high pressure washer. When cleaning, the cutting unit shall be moved into the service position.
- It is important to mow frequently when mowing with the mulching function.



WARNING!
Clear the lawn of stones and other objects that can be thrown out by the blades.



6007-212

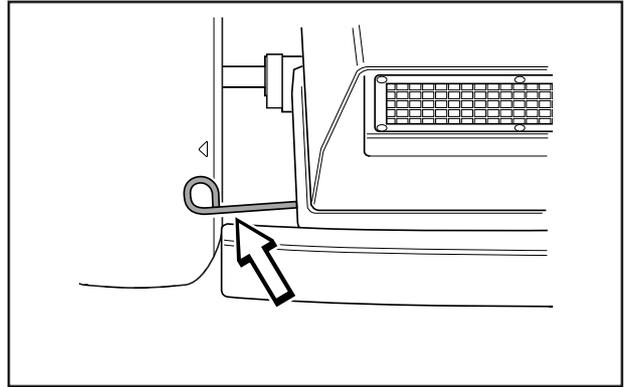
Mowing patterns

DRIVING

Clutch Control

The clutch control must be pulled out in order for the Rider to be moved when the engine is shut off.

The figure shows the clutch control pulled out.



Pro 15, Pro 18

8009-142

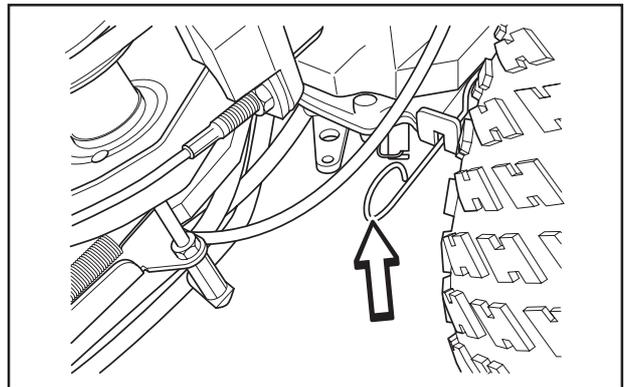
Pro 18 AWD has one control for the front axle and one control for the rear axle.

Pull the controls to their end positions. Do not use an intermediate position.

Rear Axle

The control is positioned on the inside of the left rear wheel.

- Forward control (pulled out), drive system disengaged.
- Rear control (pushed in), drive system engaged.



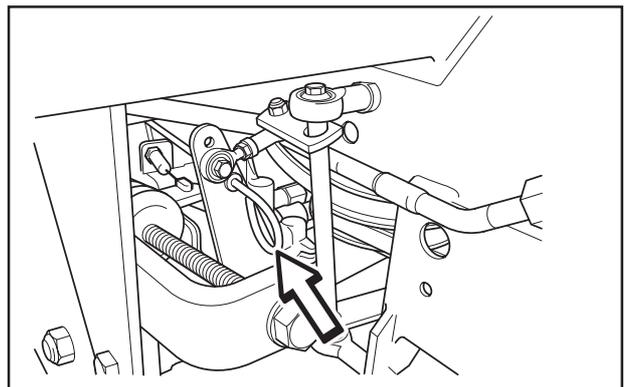
Pro 18 AWD rear

8009-690

Front Axle

The control is positioned on the inside of the left front wheel.

- Rear control (pulled out), drive system disengaged.
- Front control (pushed in), drive system engaged.



Pro 18 AWD front

8009-700

DRIVING

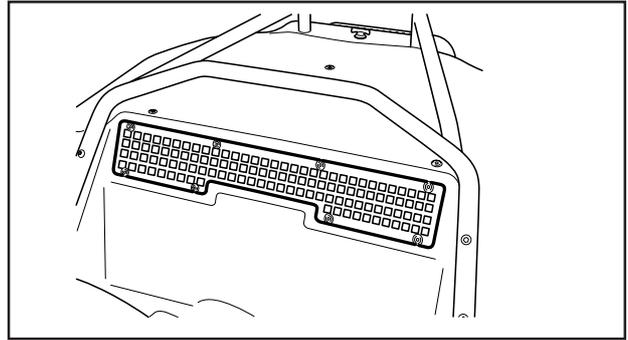
Before Starting

IMPORTANT INFORMATION

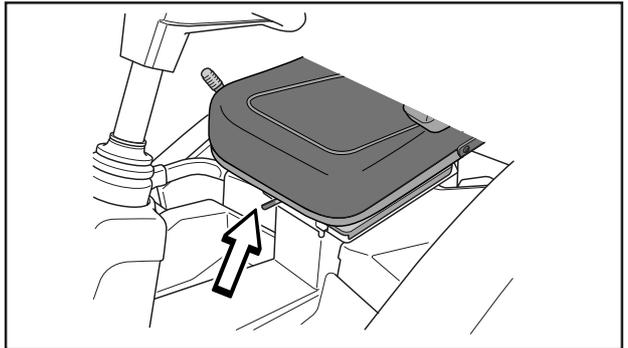
The air intake grille in the engine cover behind the driver's seat must not be blocked by, for example, clothing, leaves, grass or dirt.

Impaired cooling of the engine. Risk of major engine damage.

- Read the safety instructions and the presentation of the Rider before starting.
- Perform the daily maintenance before starting, see "Maintenance\Maintenance schedule".
- Adjust the seat to the desired position.



8009-489

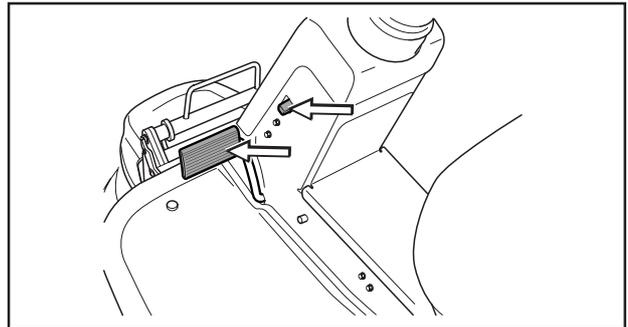


8009-602

Starting the Engine

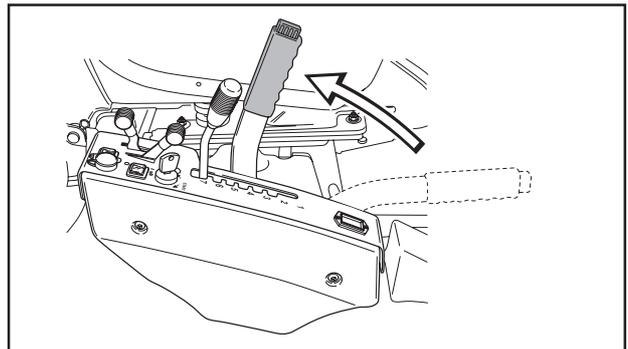
1. Activate the parking brake by pressing down the pedal. Press in the release button if necessary.

The engine can not be started if the parking brake is not pressed down.



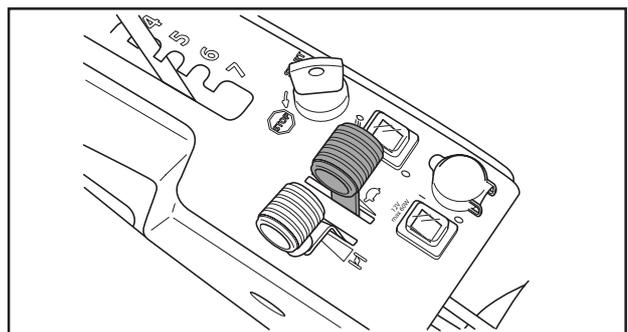
8009-328

2. Raise the cutting unit by pulling the lever backwards to the locked position (transport position) and apply the parking brake.



8009-486

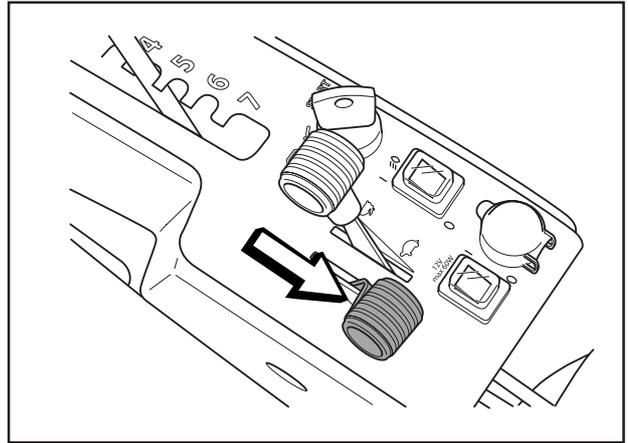
3. Move the throttle to the middle position.



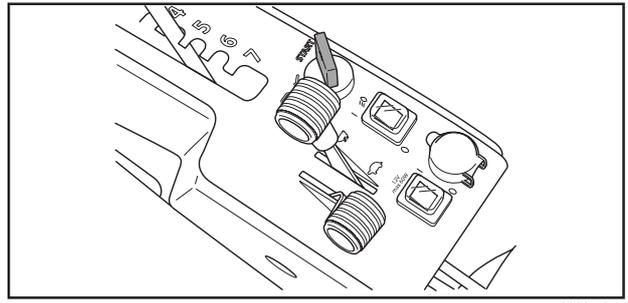
8009-492

DRIVING

- If the engine is cold, the choke control shall be moved backwards to its end position.



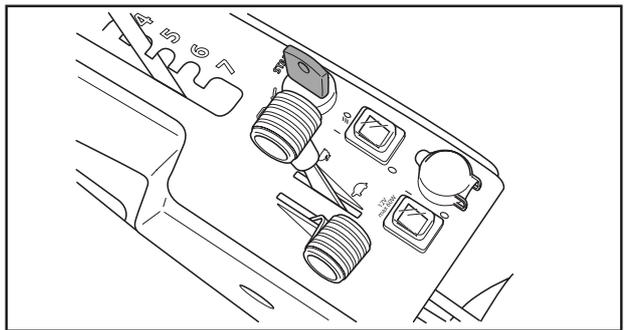
- Turn the ignition key to the start position.



- When the engine starts, immediately release the ignition key so that it returns to the neutral position.

IMPORTANT INFORMATION

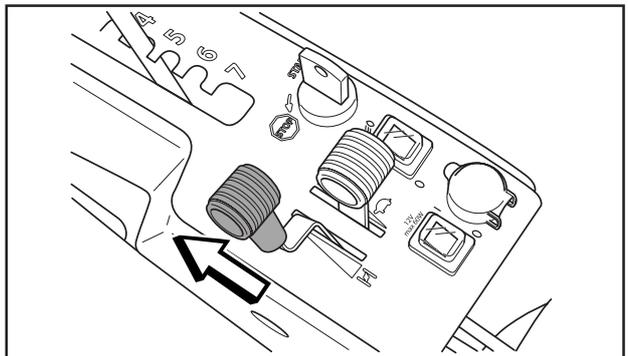
Do not run the starter motor for more than 5 seconds at a time. If the engine does not start, wait about 15 seconds before trying again.



- Move the choke lever gradually forward once the engine has started.
- Set the desired engine speed with the throttle.

Allow the engine to run at a moderate speed, "half throttle", for 3–5 minutes before loading it too heavily.

When mowing, use 3/4 to full throttle.

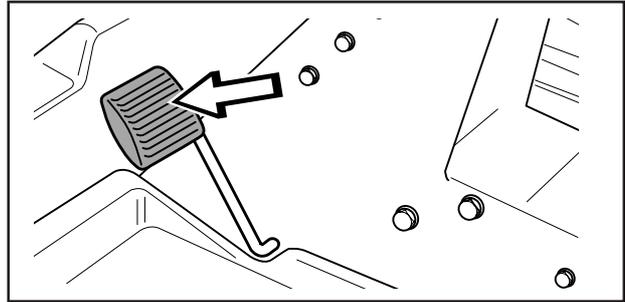


WARNING!
Never run the engine indoors, in enclosed or badly ventilated areas. Engine exhaust fumes contain poisonous carbon monoxide

DRIVING

Driving the Rider

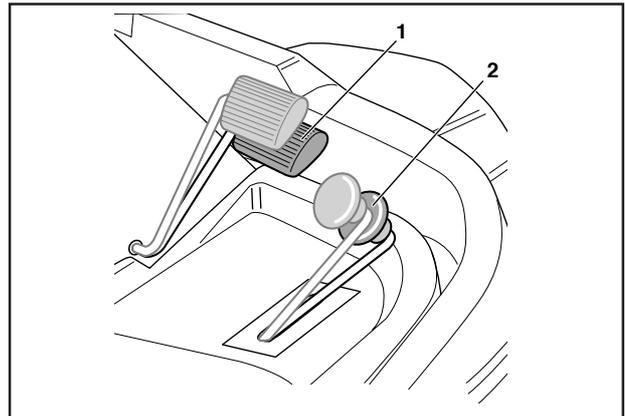
1. Release the parking brake by first pressing down the parking brake pedal and then releasing the brake pedal.



6007-208

2. Carefully press down one of the pedals until the required speed is attained.

Pedal (1) is pressed down to travel forwards and pedal (2) to reverse.



6004-206

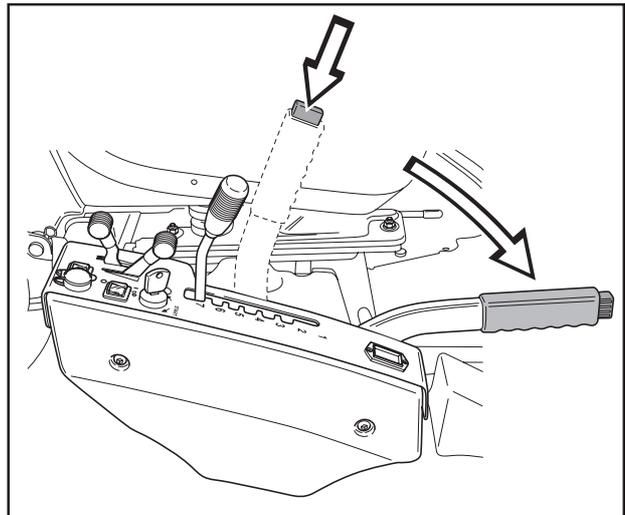
3. Press in the lock button on the lifting lever and lower the cutting deck.



WARNING!
Make sure that no branches can interfere with the pedals when mowing under bushes.
Risk for unintentional manoeuvring.

IMPORTANT INFORMATION

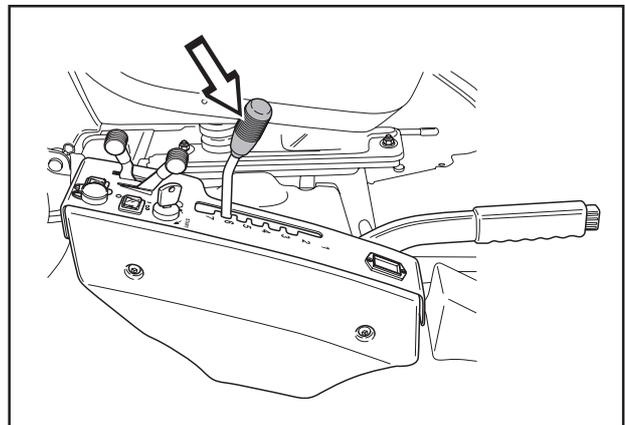
The life span of the drive belts is increased significantly if the engine runs at a low speed when the blades are engaged. Therefore apply full throttle first when the cutting unit has been moved to the mowing position.



8009-487

4. Select the required cutting height (1-7) using the cutting height lever.

It is important that the air pressure in both front wheels is equal, 060 kPa / 0.6 bar / 9 PSI, to produce an even cutting height.



8009-488

Braking

Release the drive pedals. The machine slows and is stopped by the drive system. Do not use the parking brake as the drive brake.

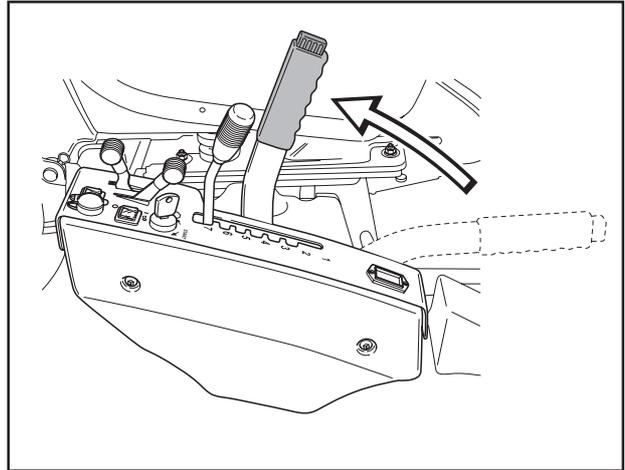
Quicker braking is possible if you press down the drive pedal for the opposite direction.

DRIVING

Stopping the Engine

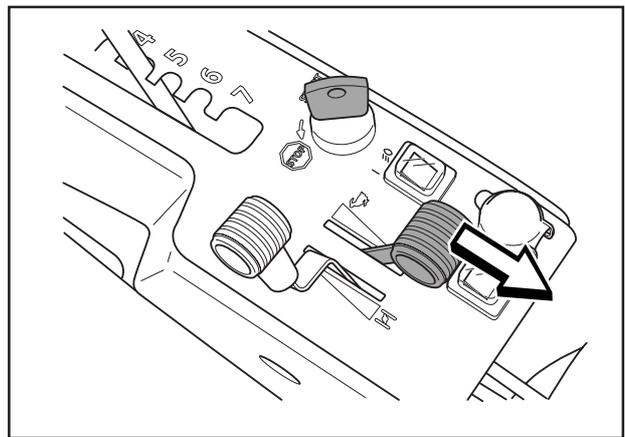
If the engine has been worked hard, it is preferable to let the engine idle for a minute so it is running at its normal working temperature when it is stopped. Avoid idling the engine for long periods, as there is a risk of carbon build-up on the spark plugs.

1. Lift up the cutting unit by pulling the lever backwards to its locked position.



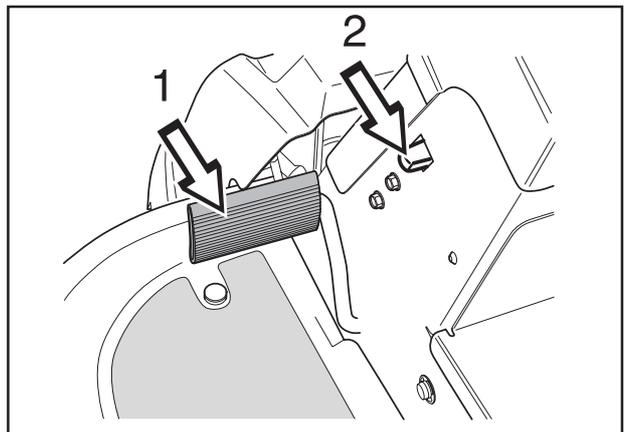
8009-486

2. Move the throttle control to the "MIN" position". Turn the ignition key to "STOP".



8009-497

3. When the Rider is at a standstill, hold down the parking brake (1) and press in the lock button (2).



8009-490

MAINTENANCE

Maintenance Schedule

The following is a list of maintenance procedures that must be performed on the rider. For points marked with footnote number 4, turn to an authorised service representative.

● = Described in this operator's manual. ○ = Not described in this operator's manual.

Maintenance	Page	Daily main-tenance		Weekly ³⁾ main-tenance	At least once a year	Maintenance interval hours			
		before	after			25	50	100	300
Check for fuel and oil leaks	-	○							
Check the parking brake	15	●							
Check the engine's oil level (every refuelling)	59	●							
Check the fuel pump's air filter	28	●				●			
Check the safety switch, seat	33	●							
Check the safety switch, lifting lever	33	●							
Check the safety switch, pedal system	33	●							
Check/clean the engine's cooling air intake.	31		●			●			
Check the cutting unit:	45		●						
• mounting of blades	51		●						
• condition of the blades (sharpness, shape, etc)	51		●						
Check the steering cables (any play, etc.)	25		●						
Check fastenings (screws, nuts, etc.)	-		○						
Start the engine and blades, listen for abnormal sounds	-		○						
Clean under the cutting unit	48		●						
Clean the transmission's cooling air intake	28		●			●			
Inspecting the muffler	27					●			
Check the battery's acid level	31			●					
Check the transmission oil level	61			●					
Check the condition of belts, belt pulleys, etc.	-			○					
Check for damage	-			○					
Check the tyre pressures (60 kPa / 9 PSI)	35			●					
Check to ensure that the cable holder in the middle is undamaged	-			○					
Clean thoroughly around the engine	31			●					
Clean carefully around the muffler	31			●					
Clean thoroughly around the transmission (s)	28			●					
Clean around all belts, belt pulleys, etc.	-			●					
Lubricate the belt tensioner (nipple)	59			●					
Lubricate the three-point link	58			●					
Lubricate the driver seat	58			●					
Lubricate all cables	56			●					
Lubricate links in the cutting unit	56			●					
Clean the frame tunnel	-			○					
Lubricate the pedal mechanism in the frame tunnel	57			●					
Lubricate the hydrostatic cable with linkage	60			●					
Lubricate the parking brake cable	61+63			●					
Lubricate the throttle	58			●					
Lubricate the choke control	58			●					
Lubricate the guide chain in the frame tunnel	57			●					
Check the steering cables in the frame tunnel	25			●					

MAINTENANCE

Maintenance	Page	Daily main- tenance before	Daily main- tenance after	Weekly ³⁾ main- tenance	At least once a year	Maintenance interval hours			
						25	50	100	300
Lubricate the right, rear axle bearing Pro 18 AWD	63			●					
Clean the engine's cooling air intake	31				●	●			
Clean the air filter's pre-cleaner (foamed plastic)	29+30				●	●			
Change the engine oil ¹⁾	60				●		● ¹⁾	● ¹⁾	
Clean the air filter's filter cartridge ²⁾ (paper filter)	29+30				●		●		
Check/adjust the cutting height	45				●		●		
Check/adjust the parking brake	26				●		●		
Inspect the flame proofing/spark arrestor (extra equipment)	-				○		○		
Replace the engine oil filter (every 200 hours)	62				●			●	
Replace the hydraulic oil filter (every 200 hours) ⁵⁾	62				●			●	
Clean/replace the spark plugs	32				●			●	
Change the inline fuel filter	28				●			●	
Clean the pulse air filter	28				●			●	
Clean the cooling fins	28				●			●	
Check the play in the engine valves ⁴⁾	-				○				○
Check the need of an oil change ⁴⁾ and filter replacement ⁵⁾ in the gearbox/hydraulic system (every 200 ⁶⁾ /500 hours)	-				○			○	
Replace the suction filter in the hydraulic tank (every 200 hours) ⁶⁾	-				○			○	
Replace the air filter's pre-cleaner (foamed plastic) ²⁾	29+30				●				●
Replace the air filter (paper filter) ²⁾ (every 200 hours)	29+30				●			●	
Perform the 300-hour service ⁴⁾	-				○				○

¹⁾ First change after 8 hours. When operating with a heavy load or at high ambient temperatures, replace every 50 hours. ²⁾ Maintenance and replacement are required more often in dusty conditions. ³⁾ With daily use, the Rider should be lubricated twice weekly. ⁴⁾ Performed by an authorised service workshop.

⁵⁾ Pro 18 only. ⁶⁾ Pro 18 AWD only. Replace first after 50 hours.

● = Described in this operator's manual.

○ = Not described in this manual.



WARNING!

No service operations may be performed on the engine or cutting unit unless:

- The engine has been stopped.
- The ignition key has been removed.
- The ignition cables have been removed from the spark plugs.
- The parking brake is on.
- The cutting unit is disengaged.

MAINTENANCE

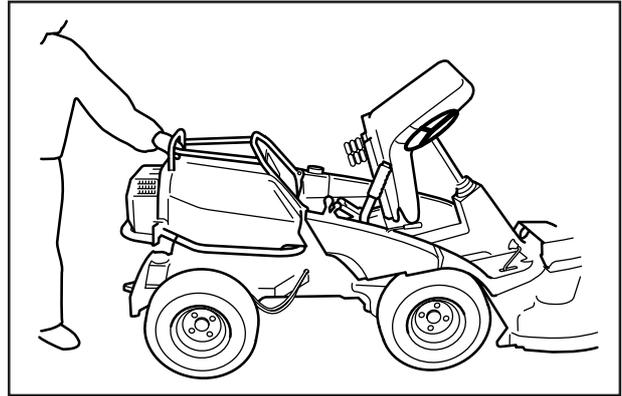
Dismantling the Rider Covers

The engine becomes accessible for service when the engine cover is opened.

Engine Cover

1. Pull the seat forward to its foremost position.
2. Fold up the seat.
3. Turn the cover lock on the top of the engine cover anti-clockwise a 1/4 turn.
4. Open the engine cover forwards.

If necessary the engine cover can be lifted off by removing the hinge pins.



8009-509

Front Cover

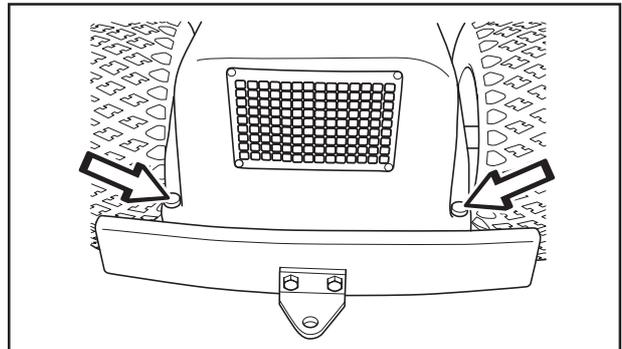
Loosen the snap-in lock and lift off front cover.



6017-219

Transmission Cover

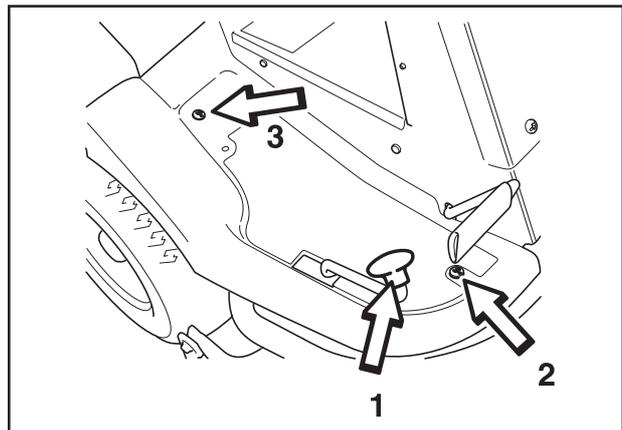
Loosen both screws (one on each side) and lift off the transmission cover.



8009-603

Right-hand Wing Cover

Remove the knob (1), the screws (2 and 3) and lift off the cover.

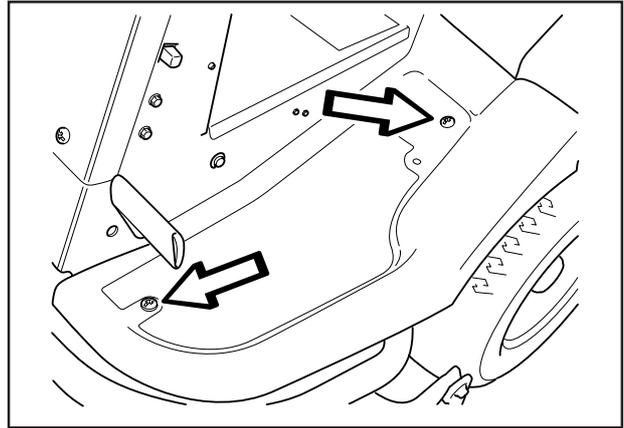


8009-499

MAINTENANCE

Left-hand Wing Cover

Loosen the screws (2) and lift off the cover.



8009-501

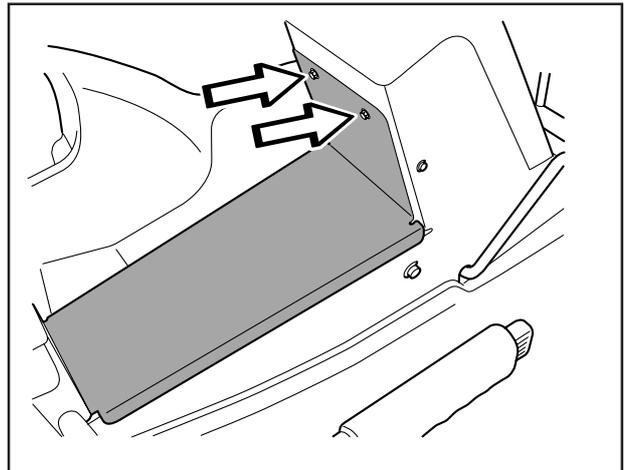
Checking and Adjusting the Steering Cables

The steering is governed by means of cables.

After a period of use these can become stretched, which means the steering setting may have changed.

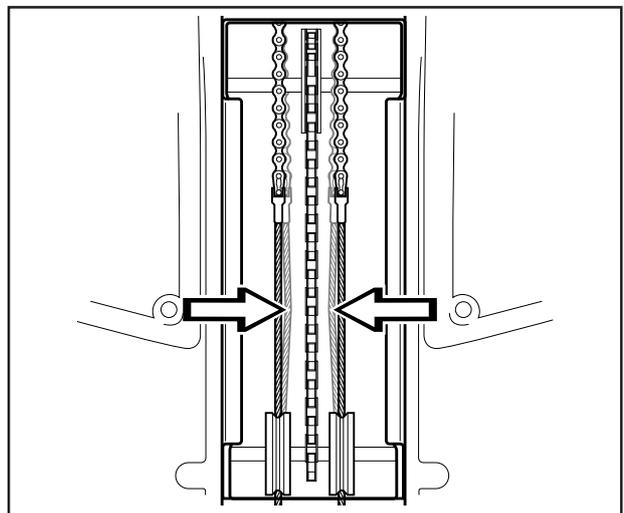
Steering is checked and adjusted as follows:

1. Remove the frame plate by loosening the screws.



8009-505

2. Check the tension of the steering cables by squeezing the cables together (at the arrows). It should be possible to squeeze the cables so that the distance between them is half the size, without using too much force.



6008-212

MAINTENANCE

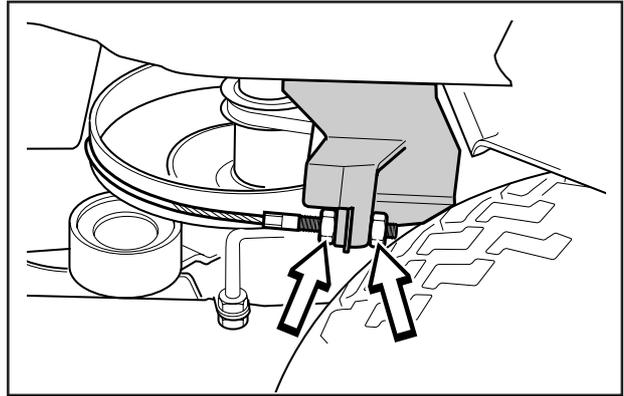
3. If necessary, the wires can be adjusted by tightening the adjuster nuts on each side of the steering collar.

Do not tension the cables too much, they should only *be tightened* against the steering collar.

Hold the wire so it does not twist.

If you only tension one side the steering wheel's centre position may change.

Check the wire tension as set out in point 2 after you have made the adjustment.

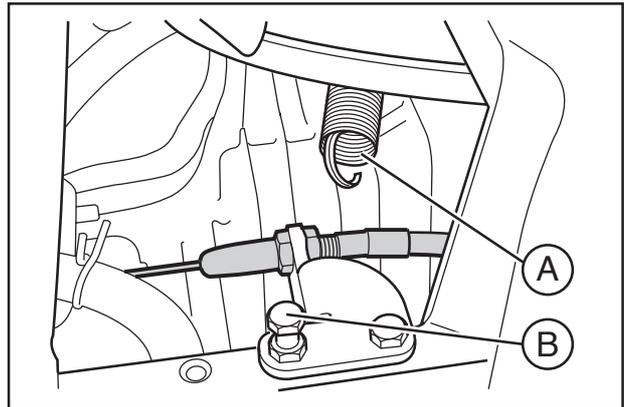


6008-010

Adjusting the Parking Brake Pro 15, Pro 18

The parking brake is adjusted as follows:

1. Remove the transmission cover.
2. Unhook the spring (A) from the screw (B).
3. Check that the parking brake is not on.
4. Adjust the play between the casing and the adjustment screw to 1 mm when one pulls the casing.
Adjust with the nuts on the adjustment screw.
5. Tighten the nuts moderately to avoid damaging the threads.
6. Replace the spring (A).
7. Check that the parking brake works.

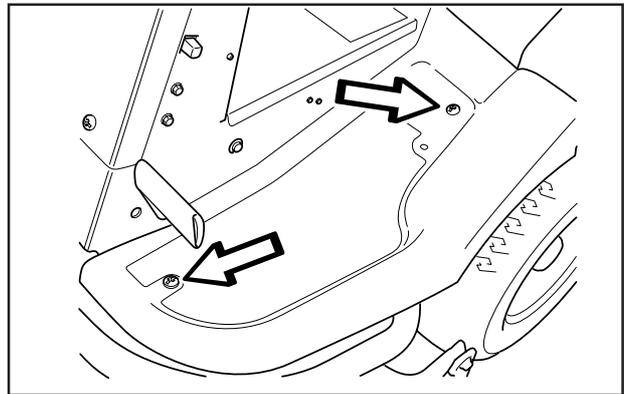


6020-005

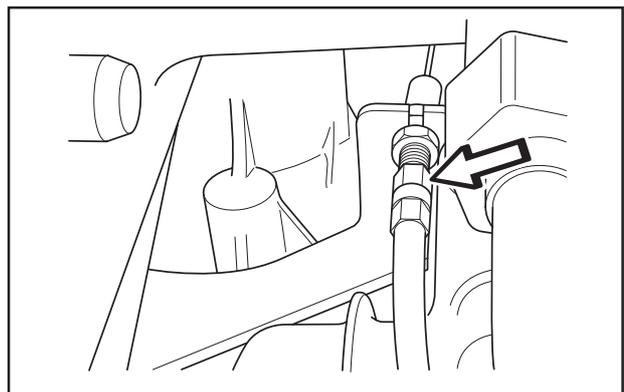
Adjusting the Parking Brake Pro 18 AWD

Check that the parking brake is adjusted correctly by placing the machine on a slope with the front and rear axles disengaged. Apply and lock the parking brake. When the machine does not stand still, the parking brake should be adjusted according to the following.

1. Remove the left-hand wing cover.
2. Check that the parking brake is not on.
3. Adjust the play between the casing and the adjustment screw to 1 mm (0.040") when one pulls the casing. This gives play on the pedal of approximately 40 mm (1.5"). Adjust using the nuts on the adjustment screw.
4. Tighten the nuts moderately to avoid damaging the threads.
5. Check that the parking brake works.
6. Assemble the left-hand wing cover.



8009-501



8009-688



WARNING!
A poorly adjusted parking brake can result in reduced braking ability.

MAINTENANCE

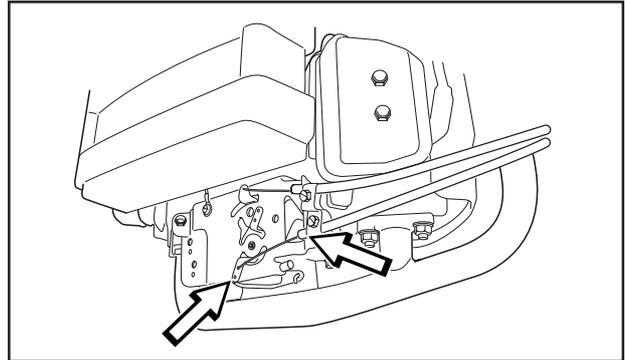
Checking and Adjusting the Throttle Cable

Check that the engine responds to throttle increases and that a good engine speed is attained at full throttle.

If doubts arise, contact your service representative.

If adjustments are necessary, they can be made as follows for the lower cable:

1. Loosen the clamping screw for the cable's outer casing and move the throttle to the full throttle position.
2. Check that the throttle cable is mounted in the correct hole in the lower lever, see illustration.
3. Push the throttle cable's outer casing as far to the left as possible and tighten the clamping screw.



8009-144

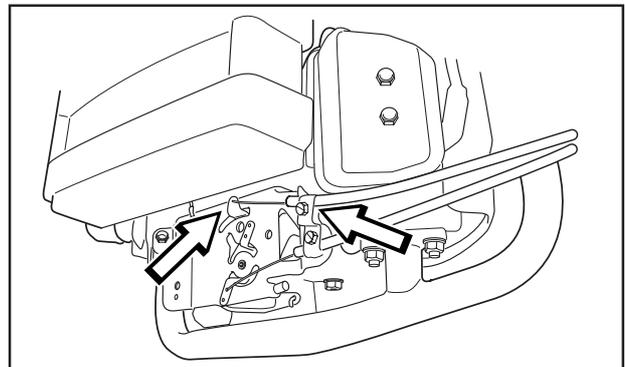
Checking and Adjusting the Choke Cable

If the engine produces black smoke or is difficult to start, this can be because the choke cable is incorrectly adjusted (upper cable).

If doubts arise, contact your service representative.

If adjustments are necessary, they can be made as follows:

1. Loosen the clamping screw for the cable's outer casing and move the choke lever to the full choke position.
2. Check that the choke cable is mounted in the upper lever, see illustration.
3. Pull the choke cable's outer casing as far to the right as possible and tighten the clamping screw.



8009-145

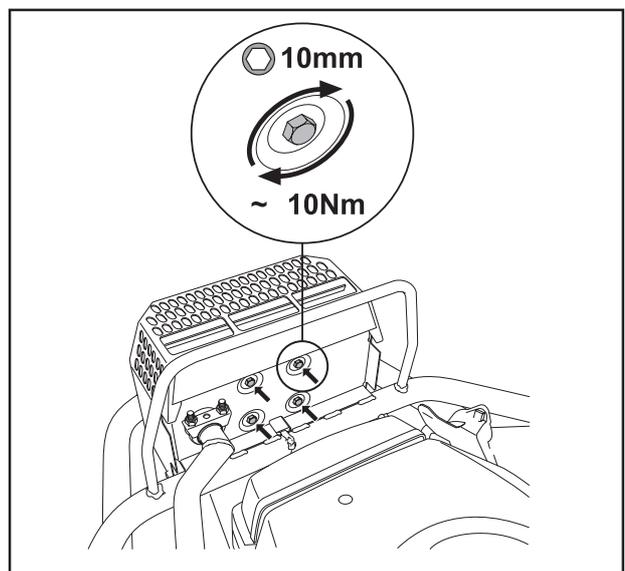
Inspecting the Muffler

Check regularly that the muffler is complete and secured correctly.

Temperature variations and vibrations can mean that the tightening torque for the screws drops. The screws should be checked when servicing to guarantee the correct torque. The tightening torque should be about 10 Nm. Never use a defective muffler.



WARNING!
The muffler gets very hot in use and remains so for a short time afterwards. Contact can result in burns. Remember the risk of fire.



8009-683

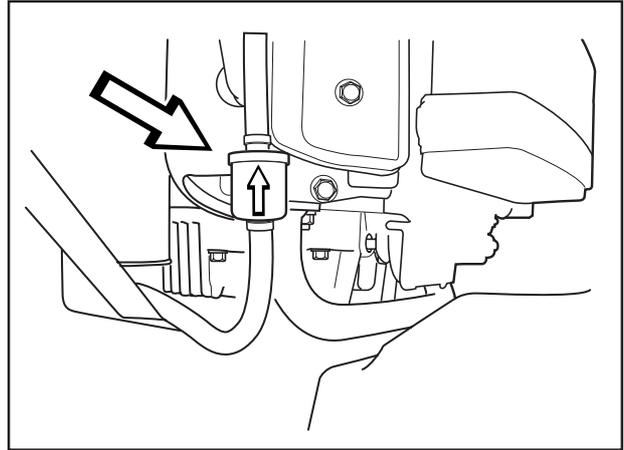
MAINTENANCE

Replacing the Fuel Filter

Replace the fuel filter mounted on the supply line after every 100 hours (once per season) or more frequently if it is clogged.

Replace the filter as follows:

1. Open the engine cover.
2. Move the hose clamps away from the filter. Use a pair of flat pliers.
3. Pull the filter loose from the hose ends.
4. Push the new filter into the hose ends. Position the filter with the "FLOW" arrow pointing up towards the fuel pump. If necessary, a soap solution can be applied to the ends of the filter to simplify assembly.
5. Move the hose clamps back toward the filter.



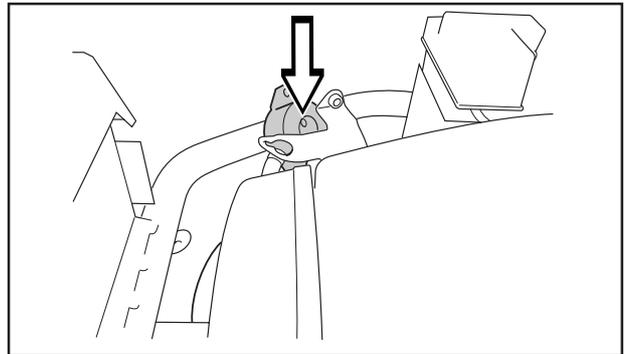
8009-146

Checking the Fuel Pump's Air Filter

Check regularly that the fuel pump's air filter is not clogged by dirt.

The filter can be cleaned using a brush, if necessary.

1. Remove the two screws holding the fuel pump.
2. Move the pump to one side without loosening the hoses and brush clean the filter.
3. Replace the fuel pump.

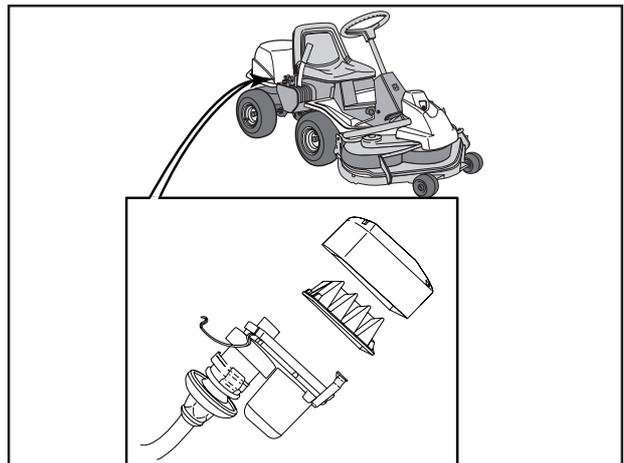


8009-147

Air Supply Exhaust Pipe

Cleaning the Pulse Air Filter

1. Fold up the engine cover.
2. Loosen the four snap catches, remove the cover, and remove the filter.
3. Blow the filter clean with compressed air.
Replace the filter if it is damaged or cannot be blown clean.
4. Place the filter back in the cover and fasten the cover with the snap catches. Replace the engine cover.



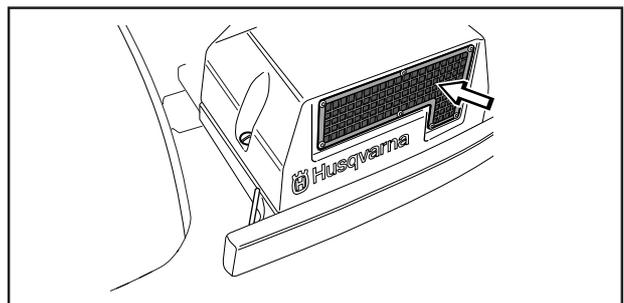
6017-235

Checking the Transmission Air Intake

Check to ensure that the transmission's air intake in the transmission cover is not clogged.

Remove the transmission cover and clean any grass cuttings from the transmission's cooling fins if necessary.

Cooling is impaired if the air intake is blocked or the transmission housing is dirty, this can result in damage to the transmission.



6017-106

MAINTENANCE

Replacing the Air Filter Pro 15

If the engine seems weak or runs unevenly, the air filter may be clogged. If run with a soiled air filter, carbon can build-up on the spark plugs and lead to malfunction.

Consequently, it is important to periodically replace the air filter (see "Maintenance \ Maintenance Schedule" for the correct service interval).



WARNING!
Allow the exhaust system to cool before servicing. Risk of burns.

Replacing the air filter is carried out as follows:

1. Remove the air filter unit by pressing the catches with your fingers.

IMPORTANT INFORMATION

Never run the engine when the air filter has been removed.

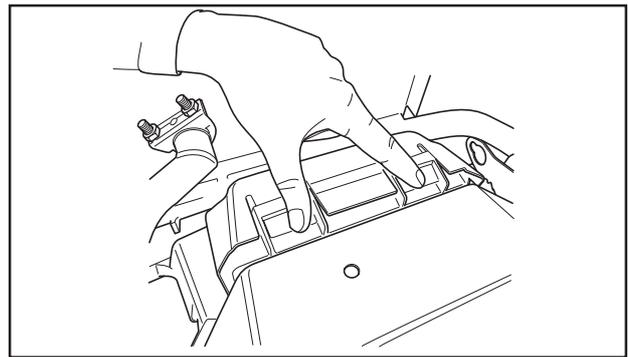
Do not use compressed air to clean the paper filter. Do not wash the paper filter.

Filters should not be oiled. They should be assembled dry.

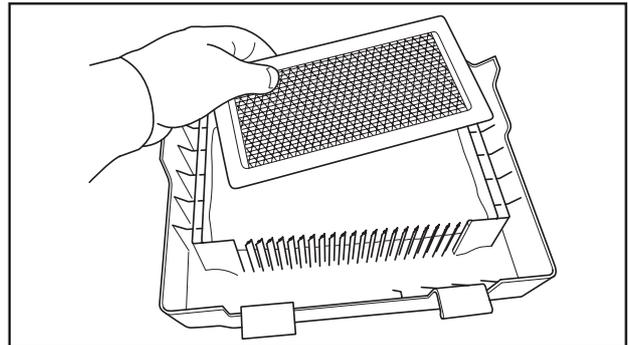
2. Take the prefilter and the paper filter out of the air filter unit.
3. Clean the prefilter by washing with water and a cleaning agent.
4. Dry the prefilter well.
5. Tap the paper filter against a solid surface to remove dust. If the paper filter is still dirty, it must be replaced with a new filter.

Always replace the paper filter after every 200 hours.

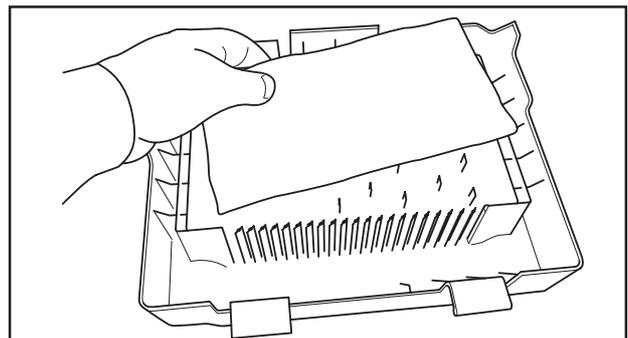
6. Refit the prefilter and the paper filter in the air filter unit.
7. Refit the air filter unit by first pressing in the lugs at the bottom of the unit and then pushing so that the catches lock.



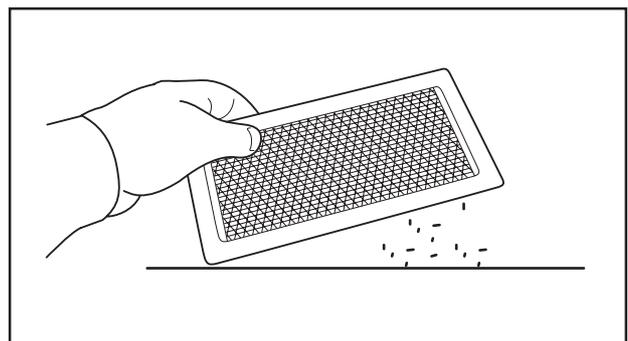
8009-446



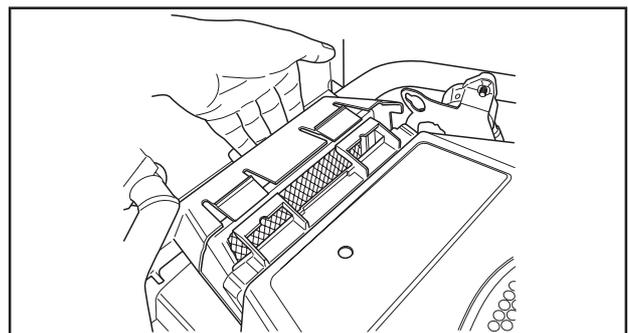
8009-447



8009-448



8009-450



8009-452

MAINTENANCE

Replacing the Air Filter Pro 18

If the engine seems weak or runs unevenly, the air filter may be clogged. If run with a soiled air filter, carbon can build-up on the spark plugs and lead to malfunction.

Consequently, it is important to periodically replace the air filter (see "Maintenance \ Maintenance Schedule" for the correct service interval).



WARNING!
Allow the exhaust system to cool before servicing. Risk of burns.

Cleaning/replacement of the air filter is carried out as follows:

1. Loosen the rubber strap under the seat and open the engine cover.
2. Steer fully in one direction (AWD)

IMPORTANT INFORMATION

Never run the engine when the air filter has been removed.

Do not use compressed air to clean the paper filter. Do not wash the paper filter.

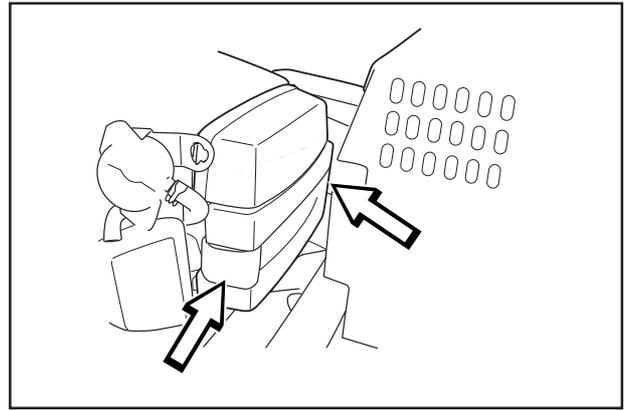
Filters should not be oiled. They should be assembled dry.

3. Undo both of the snap catches and lift off the cover on the air filter housing.
4. Remove the foam rubber pre-filter and clean using a mild detergent.
Squeeze it dry with a clean cloth.
5. Remove the wing nut in the air filter and remove the paper filter. Tap the paper filter against a solid surface to remove dust. If the paper filter is still dirty, it must be replaced.

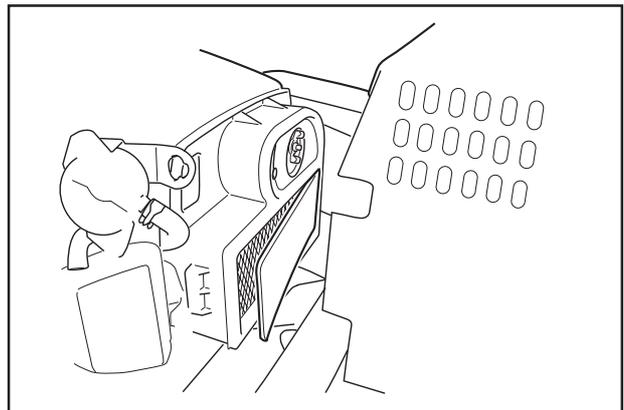
6. Refit the air filter as follows:

Mount the paper filter in the air filter housing and tighten the wing nut.

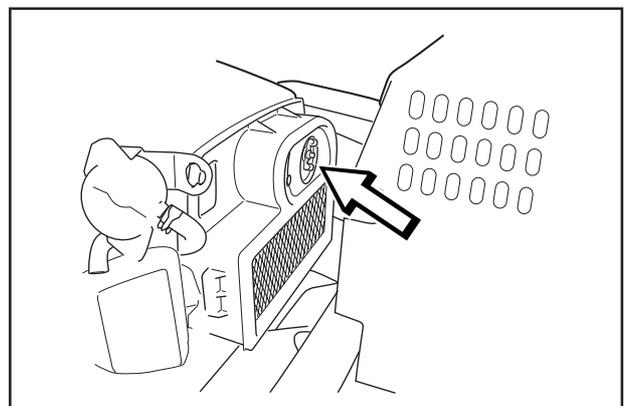
7. Insert the prefilter on the rectangular part of the paper filter.
8. Replace the cover over the air filter housing. Move the cover up from below and ensure that the prefilter does not fall out of position. Secure with both snap catches.



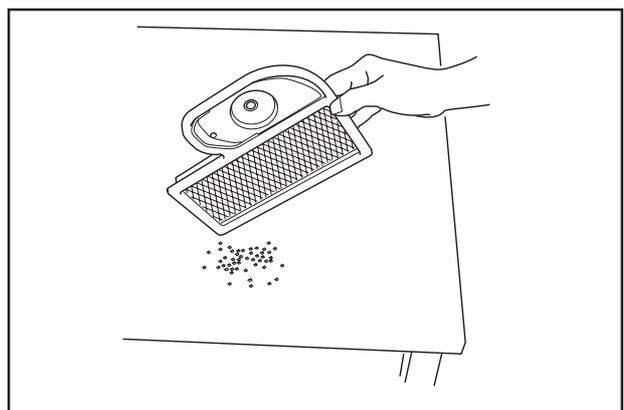
8009-148



8009-149



8009-150



8009-151

MAINTENANCE

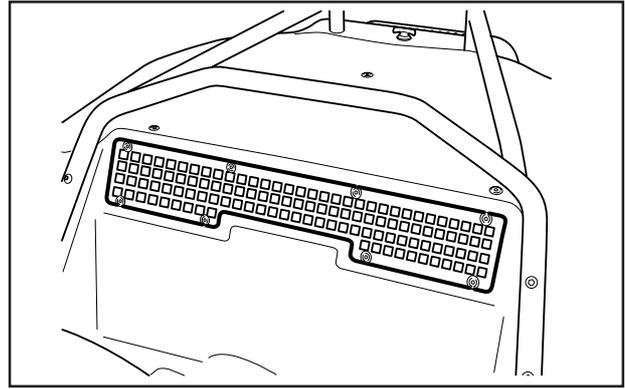
Checking the Engine's Cooling Air Intake

Clean the air intake grille in the engine cover behind the driver's seat.

Open the engine cover.



WARNING!
The cooling air intake rotates when the engine is running. Watch your fingers.



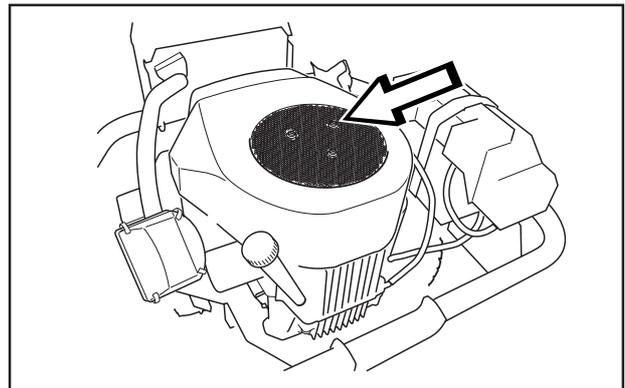
8009-489

Air intake grille

Check that the engine cooling air intake is free of leaves, grass, and dirt.

Check the air duct, located on the inside of the engine cover, ensure it is clean and does not rub against the cooling air intake.

A clogged air intake grille, air duct or cooling air intake impairs the cooling of the engine, which may result in engine damage.



8009-152

Cooling air intake

Cleaning the Engine and Muffler

Keep the engine and muffler free from grass cuttings and dirt. Grass cuttings steeped in petrol or oil on the engine can increase the fire risk and impair cooling.

Allow the engine to cool before cleaning. If the dirt is mixed with oil, remove it using a degreasing agent otherwise just water and a brush.

Grass cuttings around the muffler dry quickly and constitute a fire risk. Brush or wash them off when the muffler is cold.

MAINTENANCE

Checking the Acid Level in the Battery

Check that the acid level in the battery lies between the markings. When refilling, only distilled water may be used to fill the cells.



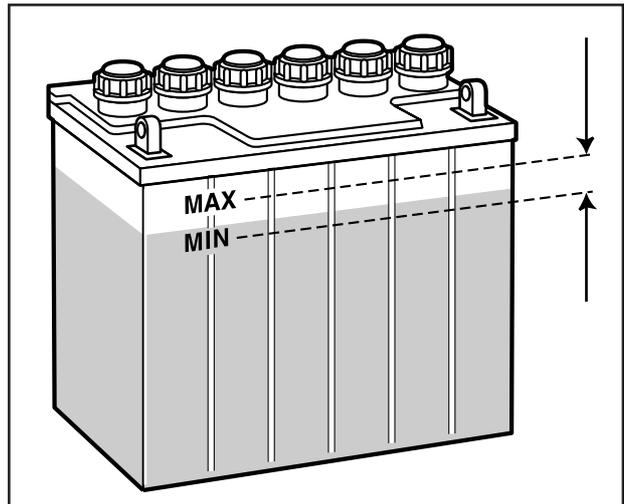
WARNING! **Actions with acid contact**

External: Rinse thoroughly with water.

Internal: Drink large quantities of water or milk. Contact a doctor as soon as possible.

Eyes: Rinse thoroughly with water. Contact a doctor as soon as possible.

The battery emits explosive gases. Sparks, flames, and cigarettes must not be present in the vicinity of the battery.



6008-216

Ignition System

The engine is equipped with an electronic ignition system. Only the spark plugs require maintenance.

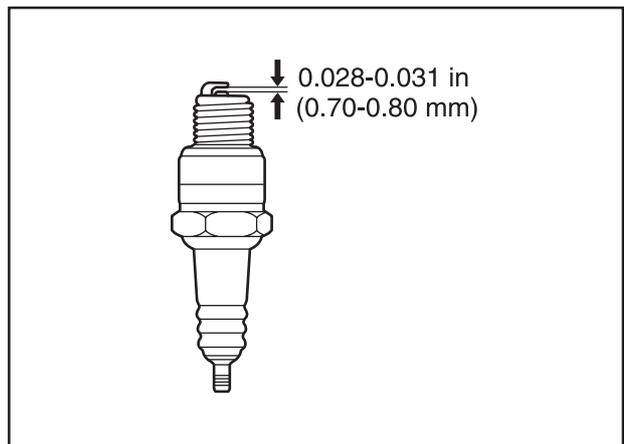
For the recommended spark plug, see Technical data.

IMPORTANT INFORMATION

Fitting the wrong spark plug type can damage the engine.

Replacing the Spark Plug

1. Remove the ignition cable shoe and clean around the spark plug.
2. Remove the spark plug with a 3/4" (19 mm) spark plug socket wrench.
3. Check the spark plug. Replace the spark plug if the electrodes are burned or if the insulation is cracked or damaged. Clean the spark plug with a wire brush if it is to be reused.
4. Measure the electrode gap with a gapping tool. The gap should be 0.75 mm / 0.030". Adjust as necessary by bending the side electrode.
5. Reinsert the spark plug, turning by hand to avoid damaging the threads.
6. After the spark plug is seated, tighten it using a spark plug wrench so that the washer is compressed. A used spark plug should be turned 1/8 of a turn from the seated position. A new spark plug should be turned 1/4 a turn from the seated position.
7. Replace the ignition cable shoe.



8011-054

IMPORTANT INFORMATION

Inadequately tightened spark plugs can cause overheating and damage the engine. Tightening the spark plug too much can damage the threads in the cylinder head.

MAINTENANCE

Checking the Safety System

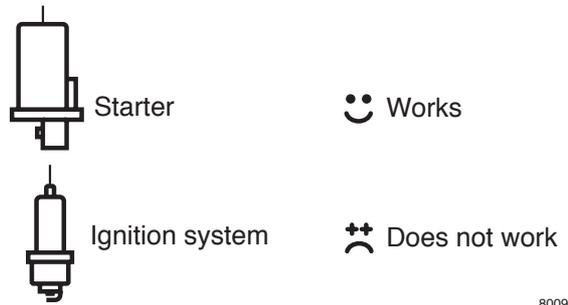
The Rider is equipped with a safety system that prevents starting or driving under the following conditions.

The engine should only be possible to start when the cutting unit is in its raised position and the parking brake is applied.

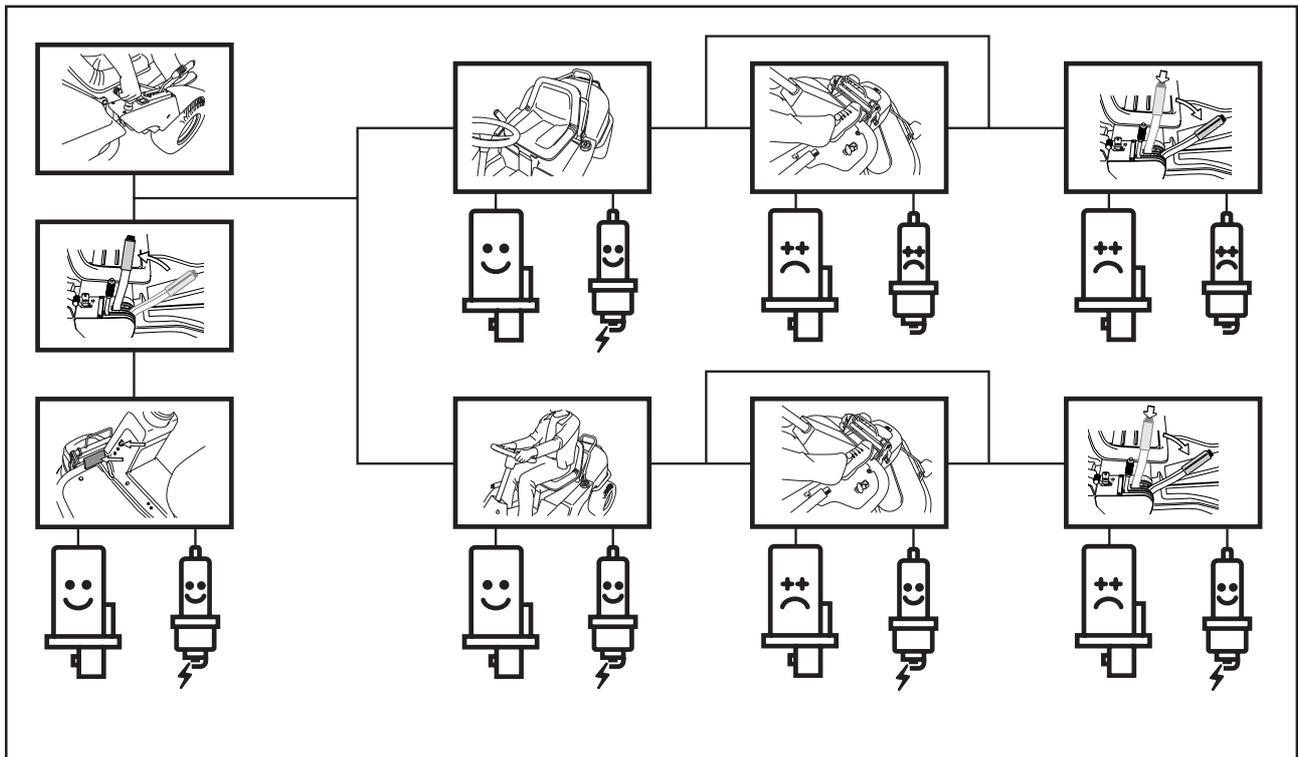
The driver does not need to be seated in the driver's seat.

Make daily inspections to ensure that the safety system works by attempting to start the engine when one of the conditions is not met. Change the conditions and try again.

Check that the engine stops if you temporarily move out of the driver's seat while the cutting unit is lowered or the hydrostat pedals are not in the neutral position.



8009-433
8009-434
8009-436
8009-435



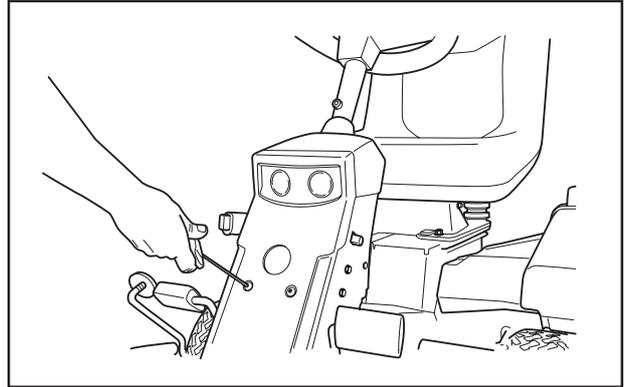
8009-153

MAINTENANCE

Replacing the Light Bulbs

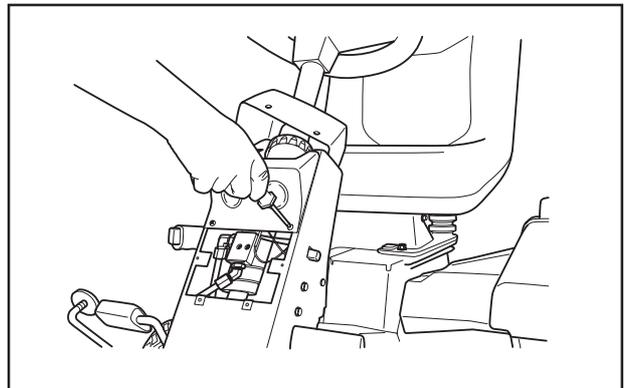
For information about the bulb type, see "Technical Data".

1. Unscrew the two screws holding the cover on the power steering housing.
Lift up the cover and turn it around the steering shaft.



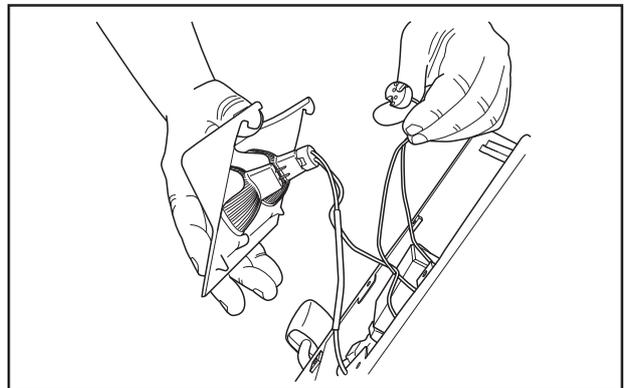
8009-511

2. Unscrew the two screws holding the lamp insert.
Lift out the lamp insert.



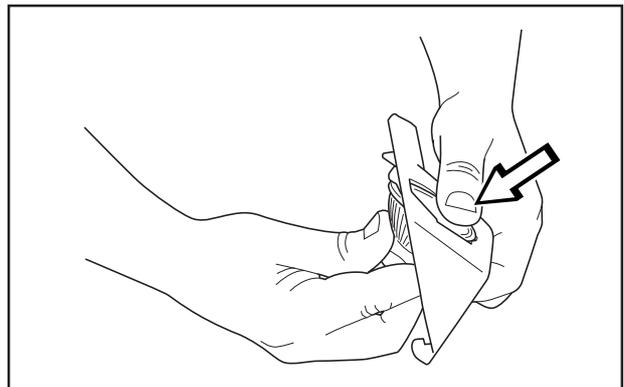
8009-512

3. Disconnect the cables from the bulbs.
4. Lift out the bulbs from the insert.



8009-513

5. Insert the new bulbs. Make sure you use your thumb to support the front.
6. Refit the cables, lamp insert and the cover on the power servo housing.



8009-522

MAINTENANCE

Fuses

The main fuse is placed in a detachable holder under the battery case's cover, in front of the battery.

Type: Flat pin, 15 A.

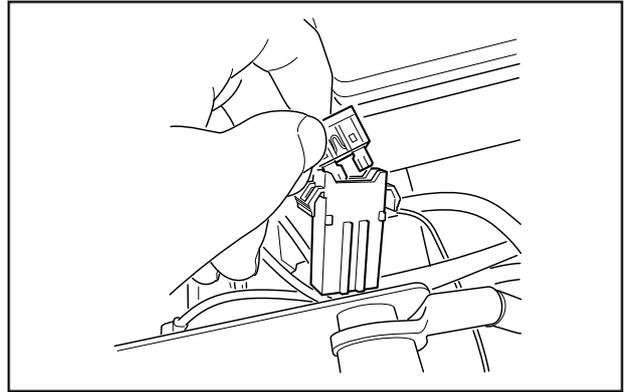
The fuse for the power outlet is placed under the ignition switch, behind the side plate on the control panel.

Type: Flat pin, 7.5 A.

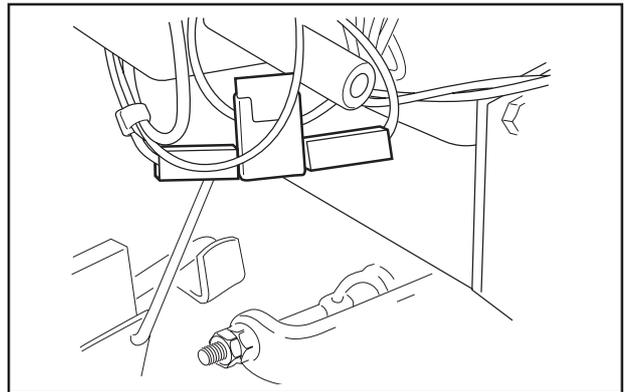
Do not use any other type of fuse when replacing.

A blown fuse indicates that the mounting has burnt off. Pull the fuse from the holder when replacing.

The fuse is there to protect the electrical system. If it blows again shortly after replacement, it is due to a short circuit, which must be fixed before the machine can be put into operation again.



8009-370



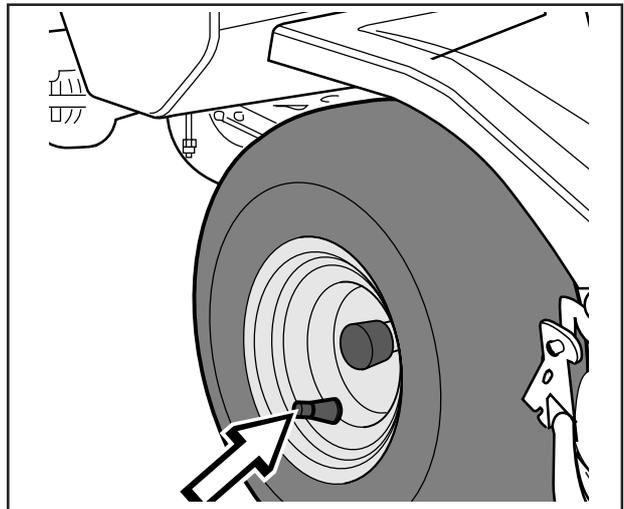
8009-586

Checking the Tyre Pressures

The tyre pressure should be 60 kPa / 0.6 bar / 9 PSI on all wheels. The highest permitted pressure is 100 kPa / 1.0 kPa/cm² / 14 PSI).

IMPORTANT INFORMATION

Different air pressure in the front tyres will result in the blades mowing the grass at different heights.



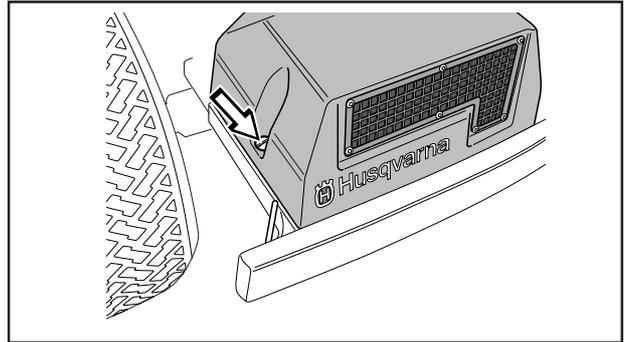
6017-100

MAINTENANCE

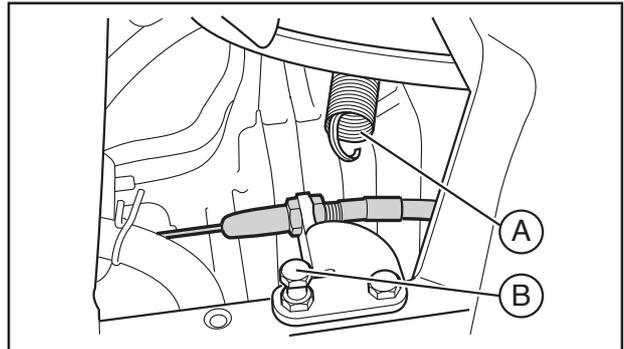
Replacing the Rear Drive Belt Pro 15 and Pro 18:

Removal

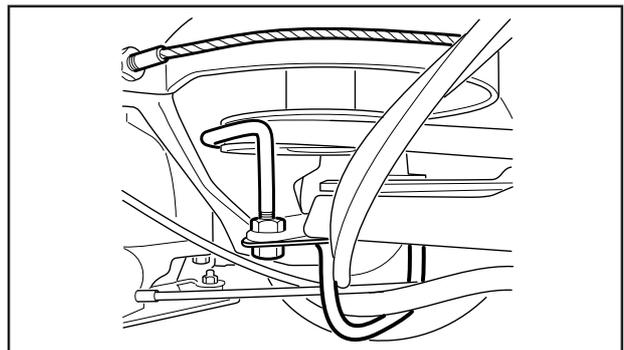
1. Remove the transmission cover.
2. Unhook the spring on the belt tensioner (A).
3. Remove the hose clip on the middle and the belt guide for the centre belt.
4. Pull off the centre belt from the engine's pulley and pull out the rear section. A used belt can be pulled downwards. When the belt is new, the centre belt must be pulled off of its front pulley whereupon it can be moved downwards from the engine pulley so that the rear part can be pulled out.
5. Remove the cooling fan (2).
6. Pull the belt off of the hydrostatic transmission's pulley.



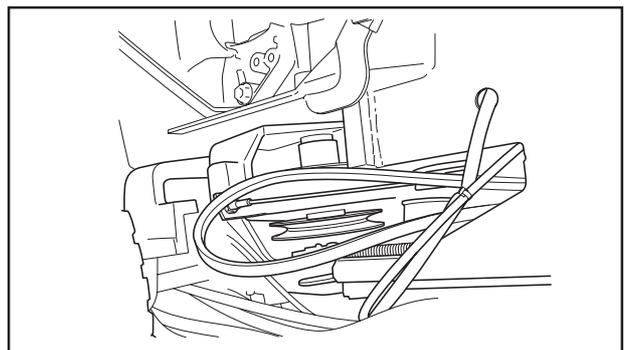
6008-209



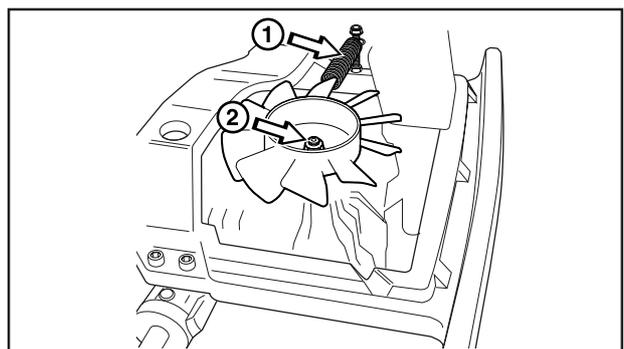
6020-005



8009-364



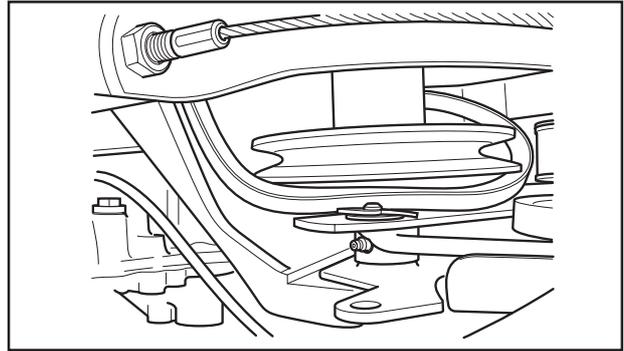
8009-638



6012-036

MAINTENANCE

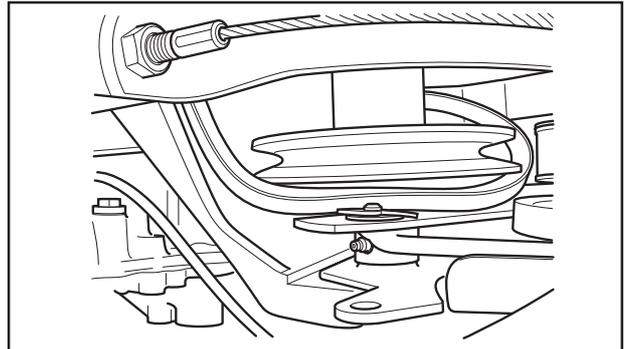
7. Pull the pump belt off of the engine's pulley and move it under the engine belt pulleys.
8. Pull out the pump belt through the opening under the pivot bearing and past the belt tensioner's disc.



8009-640

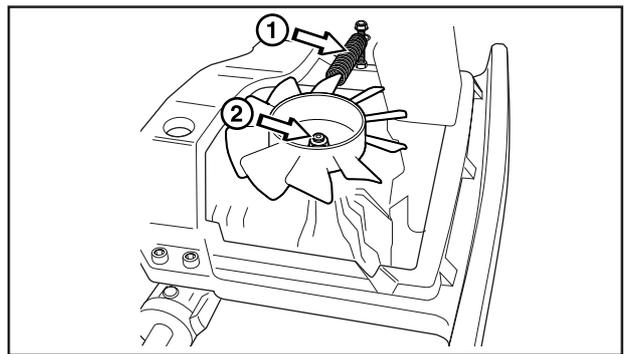
Assembly

1. Pull the pump belt through the opening under the pivot bearing and on the outside past the belt tensioner's disc.
2. Fit the pump belt on the engine's pulley, move it under the engine belt pulleys.
3. Fit the belt on the hydrostatic transmission's pulley.
4. Fit the cooling fan.
5. Tighten the cooling fan nut (2).
6. Check that the centre belt is fitted correctly on its front pulley and fit the centre belt on the engine's pulley.



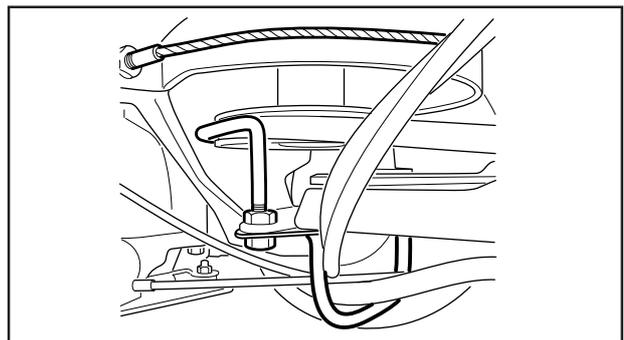
8009-640

7. Fit the hose clip on the middle and the belt guide for the centre belt.



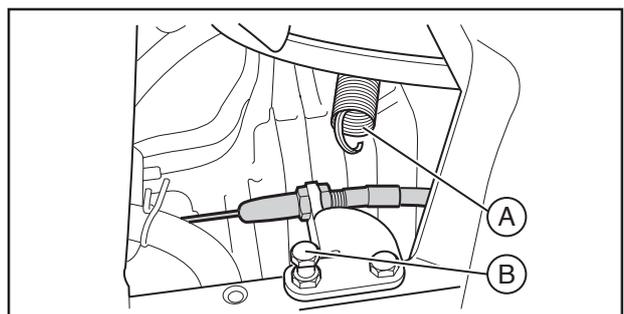
6012-036

7. Fit the hose clip on the middle and the belt guide for the centre belt.



8009-364

8. Hook the spring on the belt tensioner (A) on the screw (B).



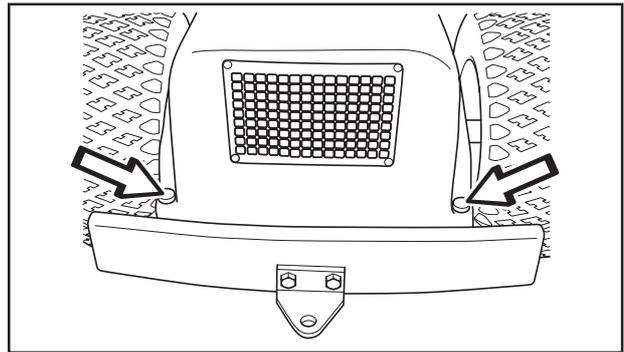
6020-005

MAINTENANCE

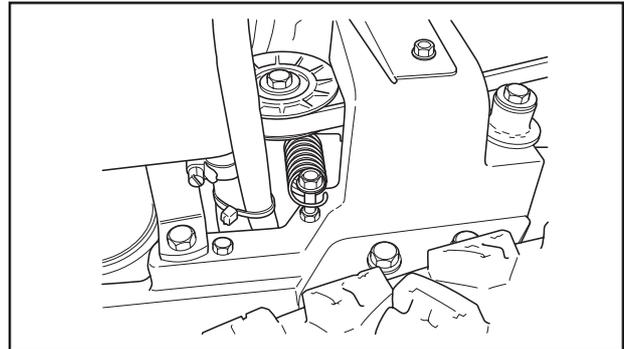
Replacing the Hydraulic Pump's Drive Belt Pro 18 AWD

Removal

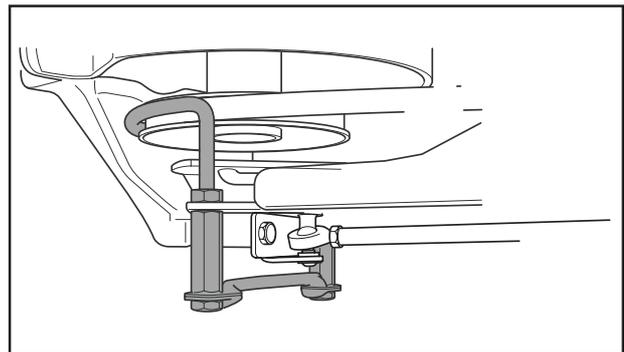
1. Remove the transmission cover.



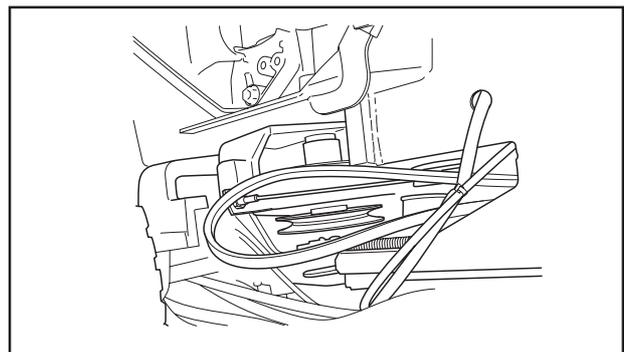
2. Unhook the spring on the belt tensioner.



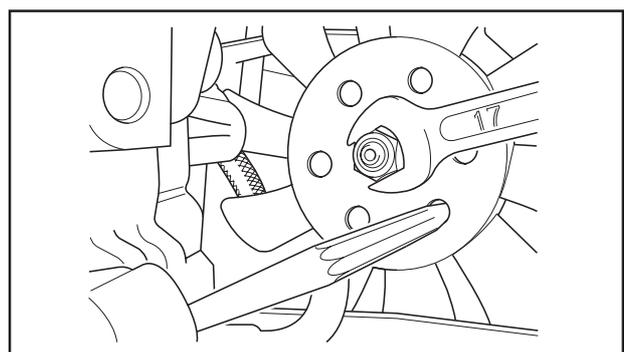
3. Remove the belt guide for the centre belt.



4. Pull off the centre belt from the engine's pulley and pull out the rear section. A used belt can be pulled downwards. When the belt is new, the centre belt must be pulled off of its front pulley whereupon it can be moved downwards from the engine pulley so that the rear part can be pulled out.

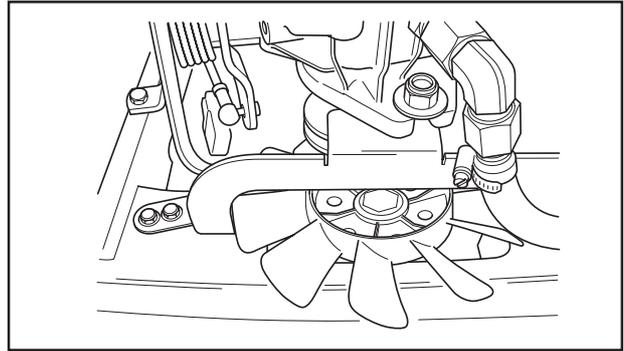


5. Remove the nut on the cooling fan. Counter hold using a punch in one of the holes on the underside of the fan when the nut is loosened.

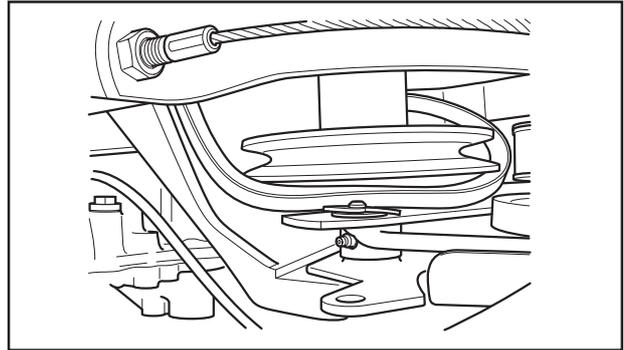


MAINTENANCE

6. Remove the clamp on the hydraulic pipes, located under the fan. Loosen the pipe connections from the pump slightly, bend the hydraulic pipes down and pull the cooling fan out backwards.
7. Pull the belt off of the pump's pulley.

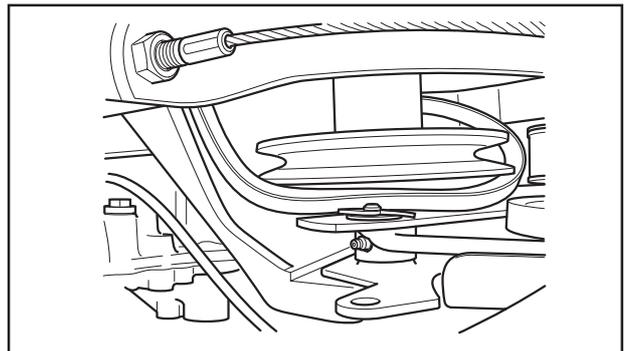


8. Pull the pump belt off of the engine's pulley and move it under the engine belt pulleys.
9. Pull out the pump belt through the opening under the pivot bearing and past the belt tensioner's disc.

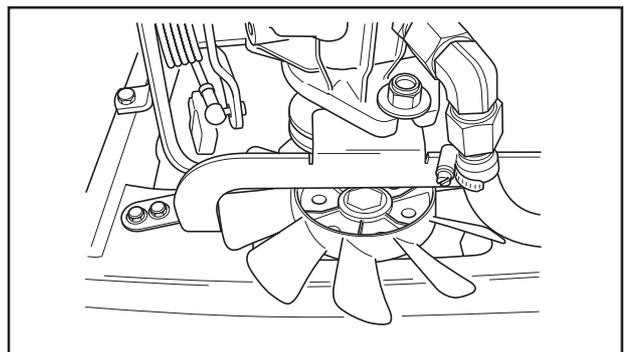


Assembly

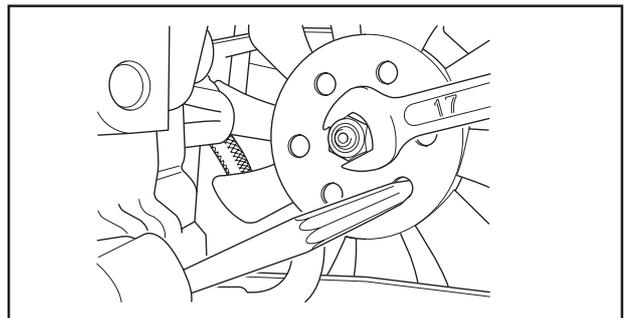
10. Pull the pump belt through the opening under the pivot bearing and on the outside past the belt tensioner's disc.
11. Fit the pump belt on the engine's pulley, move it under the engine belt pulleys.



12. Fit the belt on the pump's pulley.
13. Fit the cooling fan.

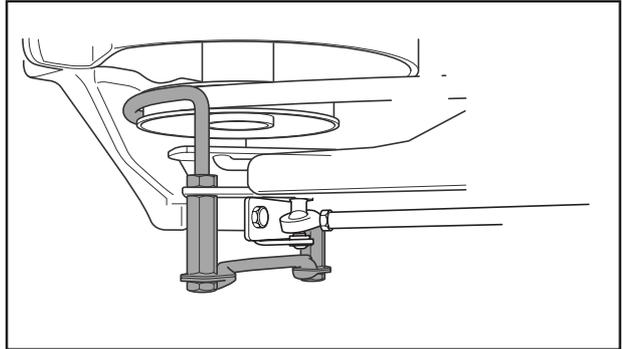


14. Tighten the cooling fan nut. Counter hold using a punch in one of the holes on the underside of the fan when the nut is tightened.
15. Refit the clamp on the hydraulic pipes, located under the fan. Tighten the pipe connections on the pump.
16. Check that the centre belt is fitted correctly on its front pulley and fit the centre belt on the engine's pulley.



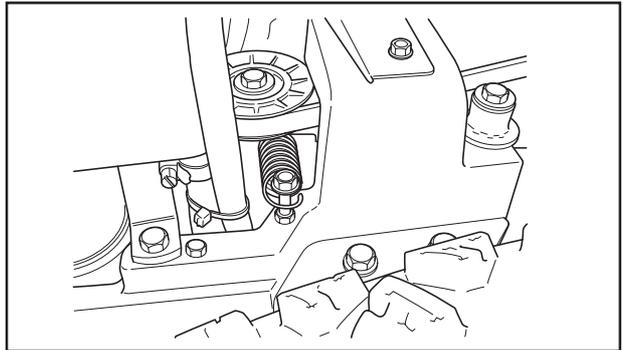
MAINTENANCE

17. Fit the belt guide for the centre belt.



8009-727

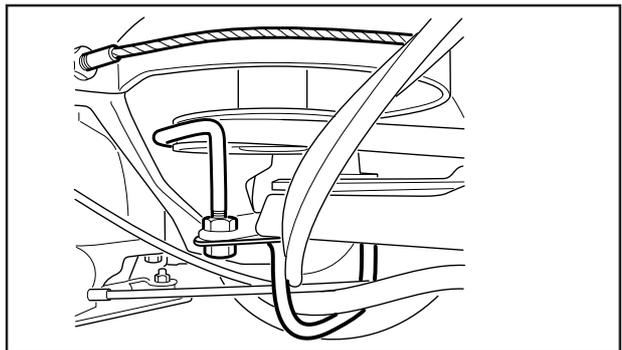
18. Hook the spring on the belt tensioner.



8009-637

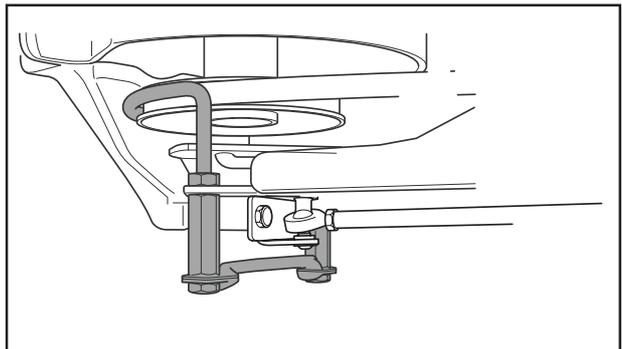
Replacing the Centre Belt

1. Remove the hose clip in the middle (Pro 15, Pro 18) and the rear belt guide for the centre belt (all machines).
2. Remove the centre belt and fit a new belt.



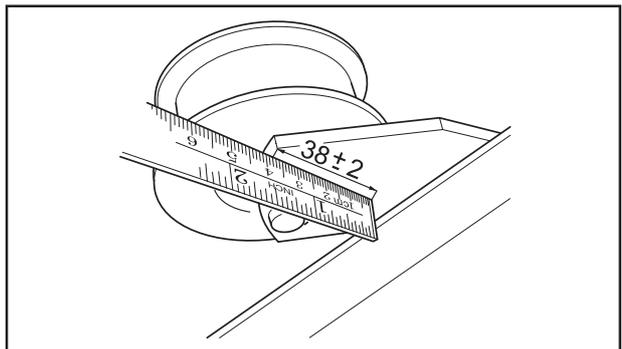
8009-364

3. Fit and adjust the belt guide with the lower belt on the engine belt pulley. On Pro 15, Pro 18 also fit the hose clip in the middle as in the figure above.



8009-727

4. Check and adjust the belt tensioner. This is especially important when fitting a new belt, since stretching of the old belt may have been compensated for by changing the setting of the belt adjuster.



8009-401

MAINTENANCE

Replacing the Front Belt Pro 15, Pro 18

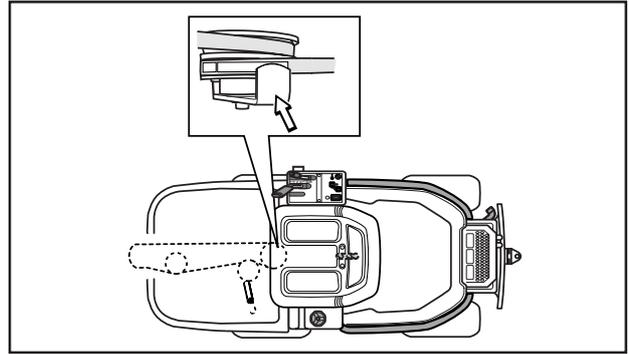
Dismantling

The entire belt is removed according to the following when a snow blade is to be attached to the machine.

1. Remove the cutting unit.
2. Loosen the belt guides and the support pulley.
3. Loosen the wheel on the belt tensioner.
4. Ease off the belt from the middle pulley and remove the belt.

Assembly

1. Fit the belt on the centre pulley.
2. Move the belt into position and fit the belt on the belt tensioner.
3. Position the belt on the support pulley and tighten the belt guide.
4. Fit the cutting equipment.



8009-227

Replacing the Front Belt Pro 18 AWD

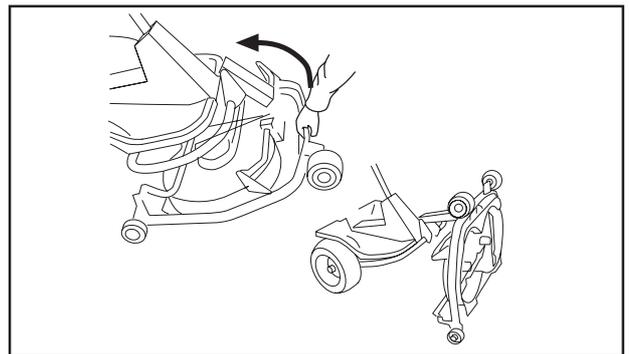
Dismantling

The entire belt is removed according to the following when a snow blade is to be attached to the machine.

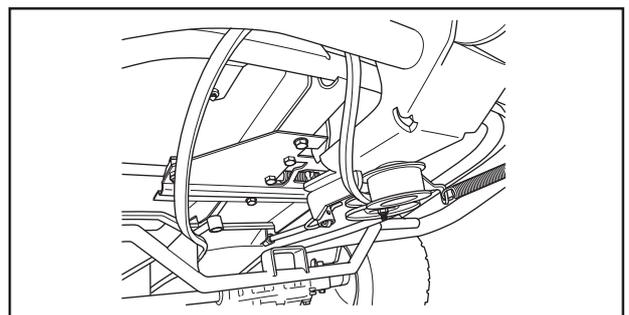
1. Put the cutting unit in the service position.
2. Pull the centre belt off of the centre pulley. The belt becomes slack when the cutting unit is lifted.
3. Take off the front belt from the centre pulley and remove the belt.

Assembly

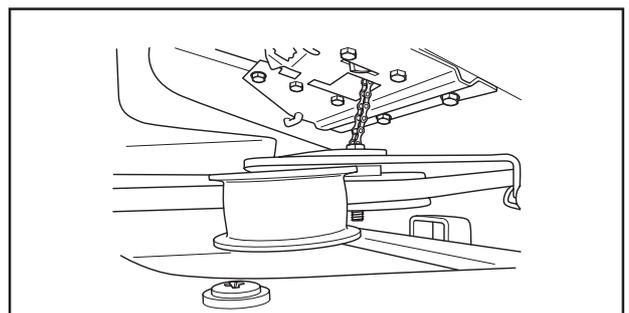
1. Position the belt from the front. Pull the belt on the outside of the runner pulley and on the inside of the adjuster pulley.



6017-227



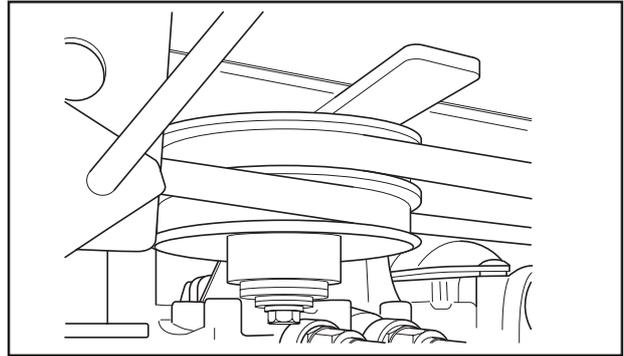
8009-684



8009-596

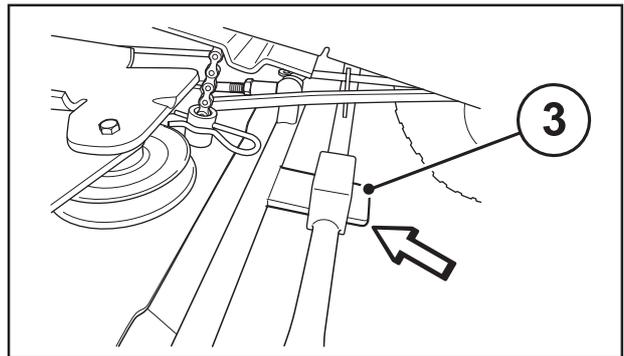
MAINTENANCE

2. Fit the centre belt in position on the centre pulley.



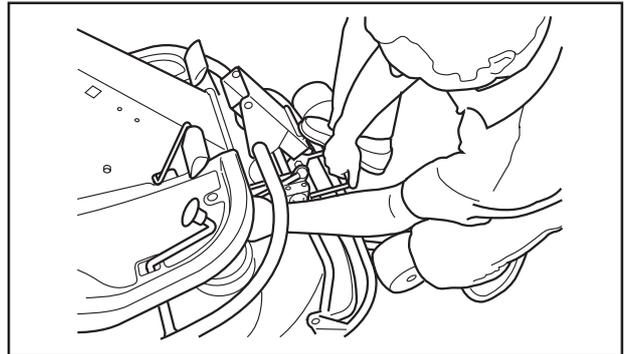
8009-695

3. Reset the cutting unit in the mowing position. Make sure that the tongue (3) mates with the loop on the underside of the machine.



8009-595

4. The belt is fitted on the cutting unit's drive pulley once the unit has been pushed back into its rear position.



8009-122

MAINTENANCE

Fitting the Cutting Unit



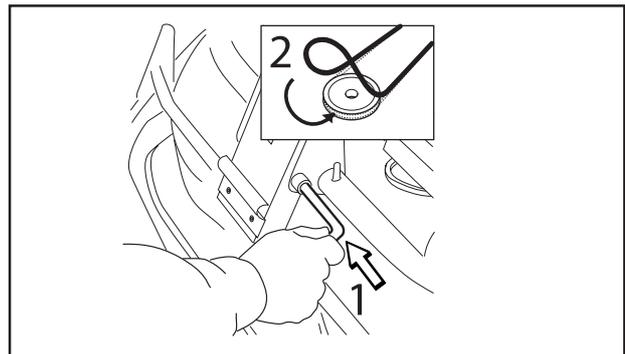
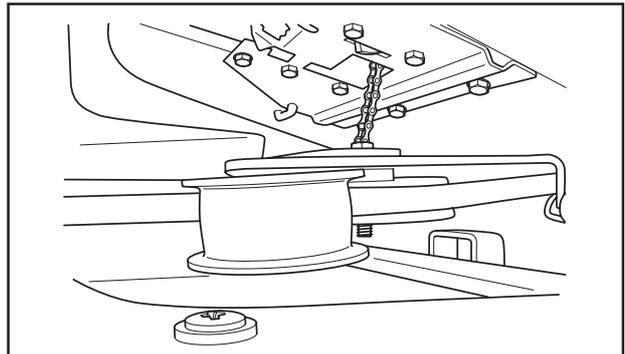
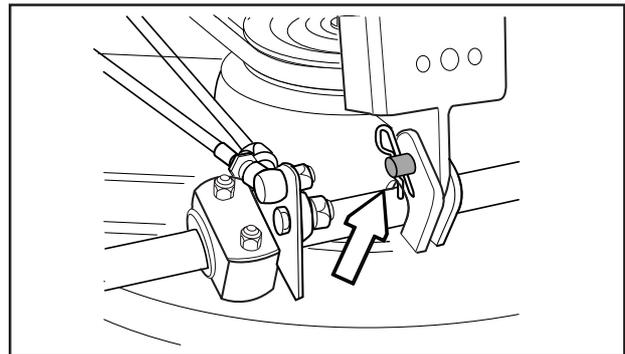
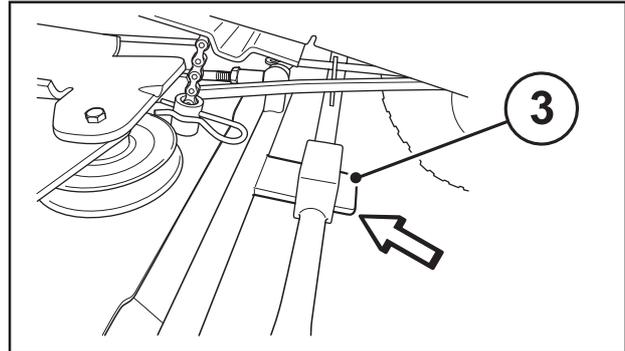
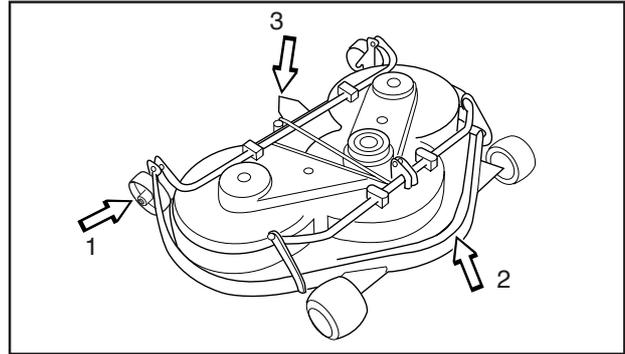
WARNING!
Wear protective glasses when assembling the cutting unit. The spring that tensions the belt can fly off and cause personal injury.

1. Place the Rider on a flat surface and apply the parking brake. Check that the lever for setting the cutting height is in the lowest position.
Ensure the anti-scalp roller is fitted on the cutting unit (1).
2. Grasp the handle on the front of cutting unit's frame (2) and push the unit in under the Rider.
Make sure the tongue (3) on the unit mates correctly.
3. Fit the screw and secure with a locking pin.



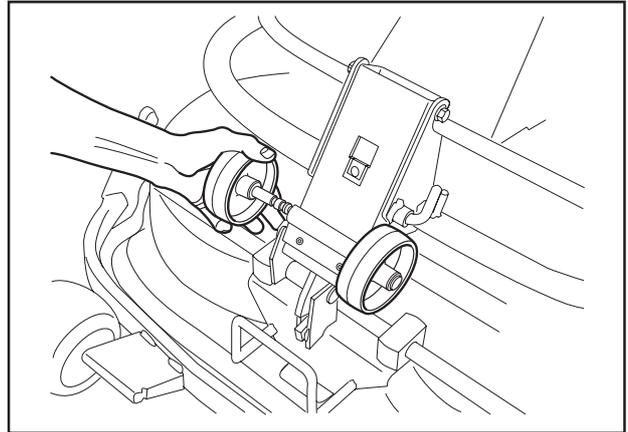
WARNING!
Observe caution to avoid trapping your hand.

4. Place the belt over the runner pulley and behind the adjuster pulley.
5. Press down the frame and secure with the split pin. Fit the drive belt around the unit's drive pulley.
6. Hook in the height adjustment stay.



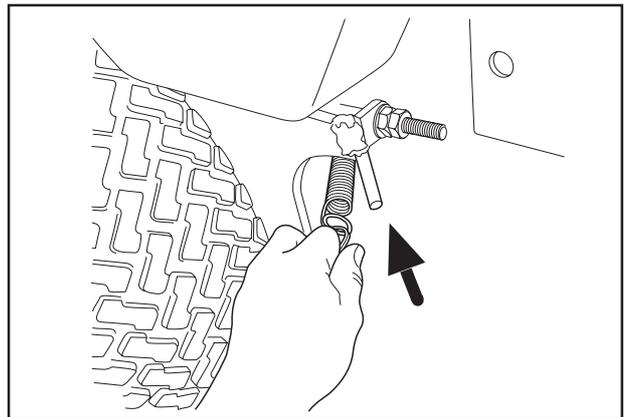
MAINTENANCE

7. Fit the anti-scalp rollers in position
8. Fit the front cover.

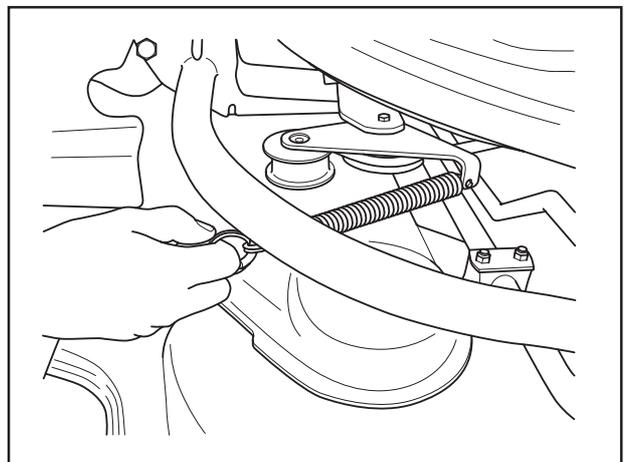


8009-439

9. Secure the springs on the adjuster pulley.
There are two designs, see the figures.



8009-440



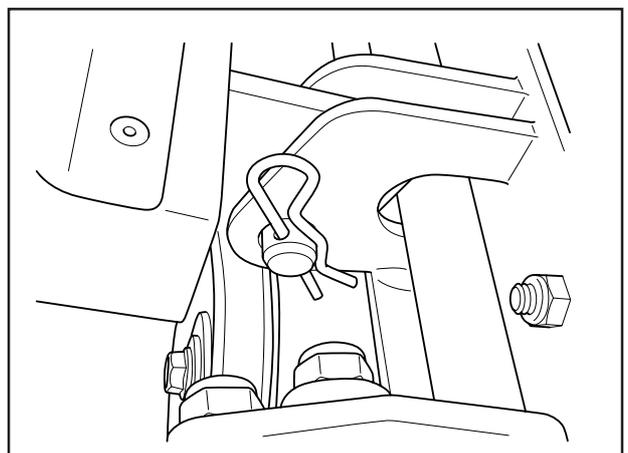
8009-598

Removing the Cutting Unit



WARNING!
Wear protective glasses when dismantling the cutting unit. The springs that tension the belt can fly off and cause personal injury.

1. Follow "The Cutting Unit's Service Position", points 1-9 to put the cutting unit in the service position.
2. Remove the bolt (3) and lift off the cutting unit.



8009-674

MAINTENANCE

Checking and Adjusting the Cutting Unit's Ground Pressure

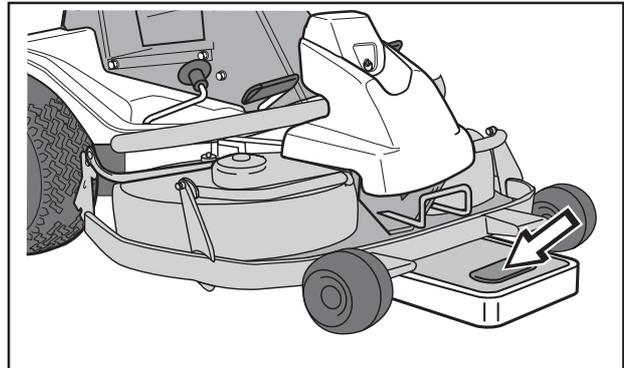
In order to achieve the best mowing result the cutting unit should follow the ground without touching it too heavily. The pressure is adjusted using a screw on each side of the Rider.

1. Check the air pressure in the tyres 60 kPa / 0.6 bar / 9 PSI.
2. Place the Rider on a flat surface.
3. Put the lifting lever in the mowing position.
4. Place a set of bathroom scales under the cutting unit's frame (on the front edge) so that the unit rests on the scales. If necessary a block can be placed between the frame and the scales so that the anti-scalp rollers do not support any weight.
5. Adjust the cutting unit's ground pressure by screwing the adjuster screws, which are located behind the front wheels on both sides, in or out.

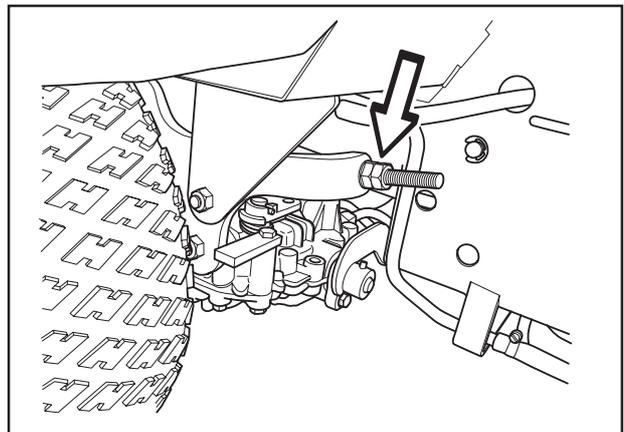
The ground pressure should be between 12 and 15 kg (26.5-33 lb).

IMPORTANT INFORMATION

When changing the cutting unit, you must readjust the parallelism and cutting height.



8017-216



8009-597

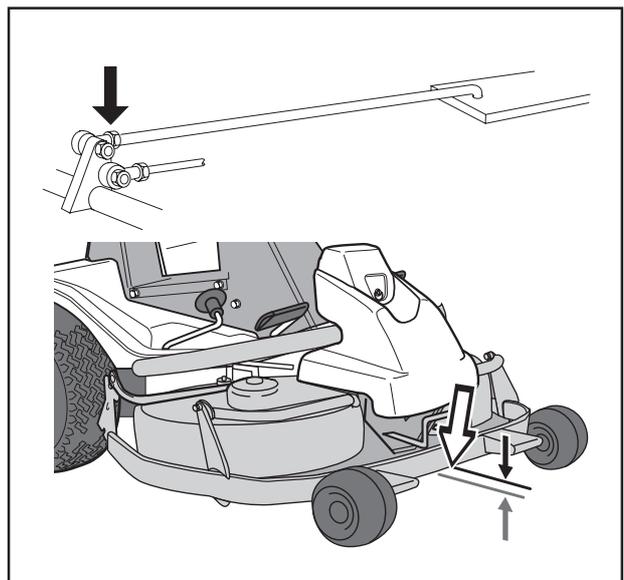
Cutting Height

1. Place the Rider on a flat surface.
2. Loosen the nut on the height adjustment strut.
3. Measure the distance between the ground and cutting unit's edge at the front of the cover. The cutting unit should have a slight slant, with the rear edge 2-4 mm (1/8") higher than the front edge.

The distance between the front edge and the ground should be:

- 40 mm for Combi 94 and Combi 103
- 35 mm for Combi 112.

4. Tighten the nut.
5. Check that the parallelism has not changed. If so, the parallelism must be readjusted.
6. Check and if necessary adjust the cutting unit's ground pressure.
7. Fit the front cover.



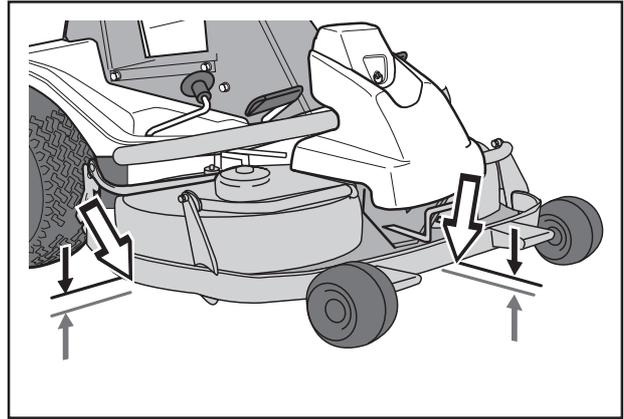
8009-028
8009-564

MAINTENANCE

Checking the Parallelism of the Cutting Unit

Check the cutting unit's parallelism as follows:

1. Check the air pressure in the tyres
60 kPa / 0.6 bar / 9 PSI.
2. Place the Rider on a flat surface.
3. Put the lifting lever in the mowing position.
4. Measure the distance between the ground and the front and back edges of the unit's cover.
The cutting unit should have a slight slant, with the rear edge 2–4 mm (1/8") higher than the front edge.



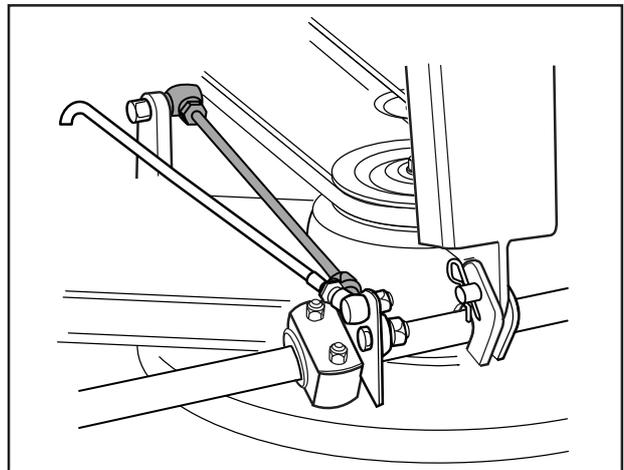
6017-217

Adjusting the Parallelism of the Cutting Unit

1. Remove the front cover and the right-hand wing cover.
2. Loosen the nuts on the parallel strut.
3. Screw out (extend) the strut to raise the rear edge of the cover.

Screw in (shorten) the strut to lower the rear edge of the cover.

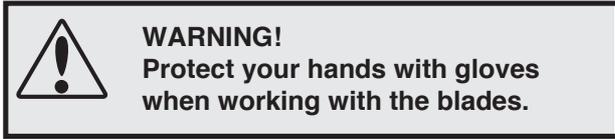
4. Tighten the nuts after adjustment.
5. The parallelism of the cutting unit should be checked again after the adjustment has been made.
6. Fit the right-hand wing cover and the front cover.



6017-018

MAINTENANCE

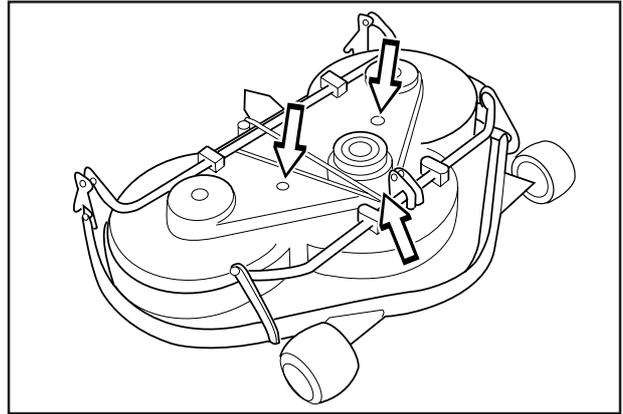
Changing the Belt on the Combi 94 and Combi 112



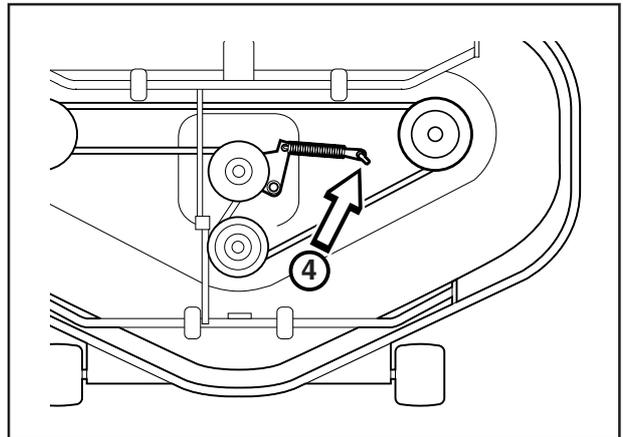
On cutting units with "collision-proof" blades, the blades are driven by a V-belt. Do as follows to replace the V-belt:

1. Dismantle the cutting unit.
2. Loosen the bolt to the parallel strut and the two screws on the cover. Lift off the cutting unit cover.
3. Loosen the spring (4) that tensions the V-belt and pull the belt off.

Attach a new belt in the reverse order.



8009-287



6012-080

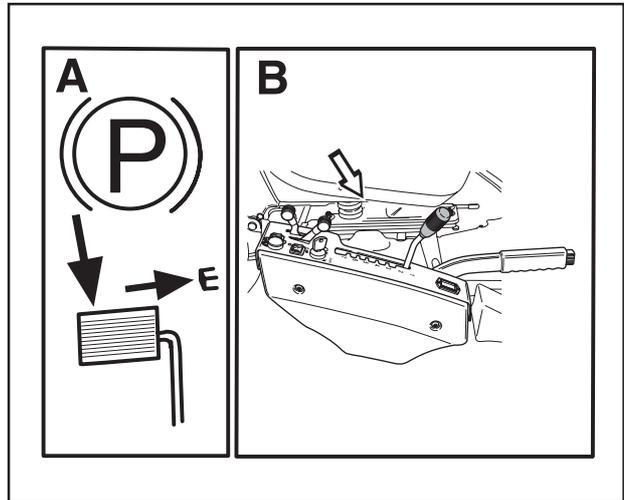
MAINTENANCE

The Cutting Unit's Service Position

In order to provide good accessibility for cleaning, repair and servicing, the unit can be set in the service position. The service position means that the unit is raised and locked in the vertical position.

Placing in the Service Position

1. Place the machine so it is flat. Activate the parking brake (A). Set the cutting deck to the lowest cutting height and lower the cutting unit (B).



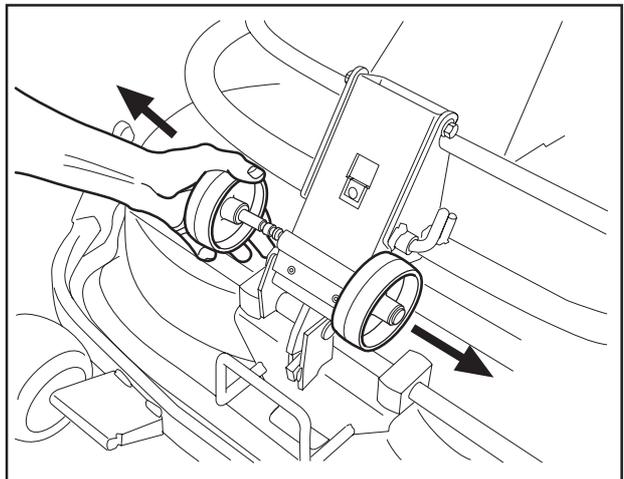
8009-587

2. Remove the front cover by loosening the split pin. (Complete instructions for the service position can be found on the inside of the front cover).



6017-219

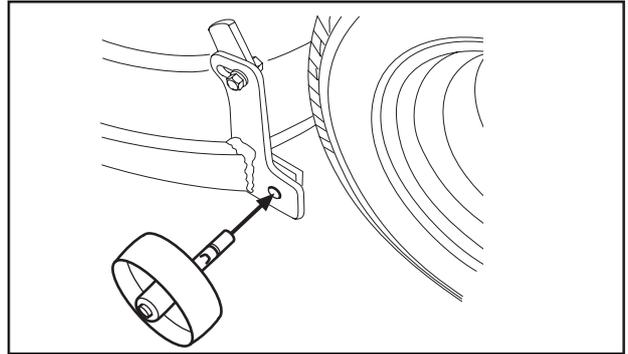
3. Loosen the two anti-scalp rollers, located under the front cover.



6017-220

MAINTENANCE

4. Fit the two anti-scalp rollers on each side of the cutting unit's rear section.

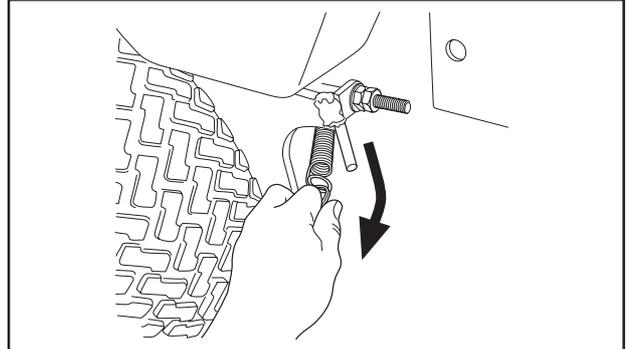


6017-221

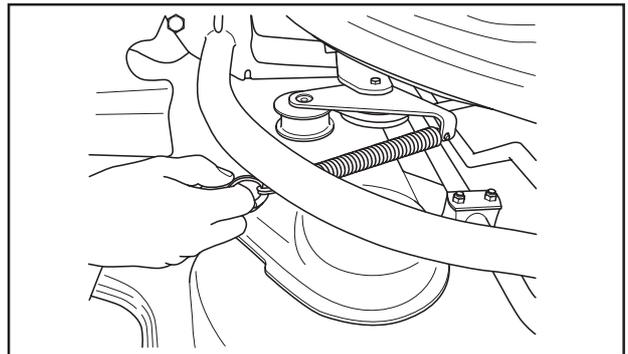


WARNING!
Wear protective glasses when dismantling the cutting unit. The springs that tension the belt can fly off and cause personal injury.

5. Loosen the spring on the drive belt's belt idler. There are two designs, see the figures.

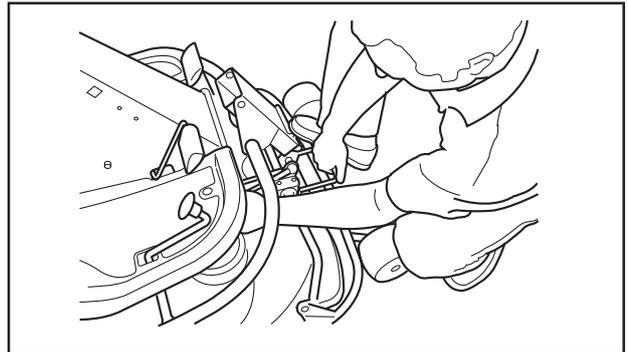


6017-222



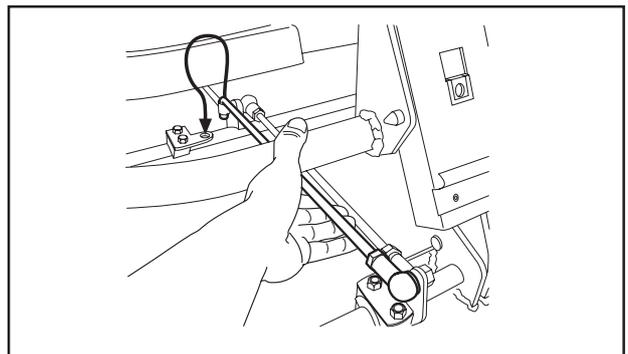
8009-598

6. Put your foot on the front edge of the cutting unit next to the wheel and lift the cutting unit's front edge to make it easier to loosen the height adjustment stay.



8009-122

7. Secure the stay in the holder.



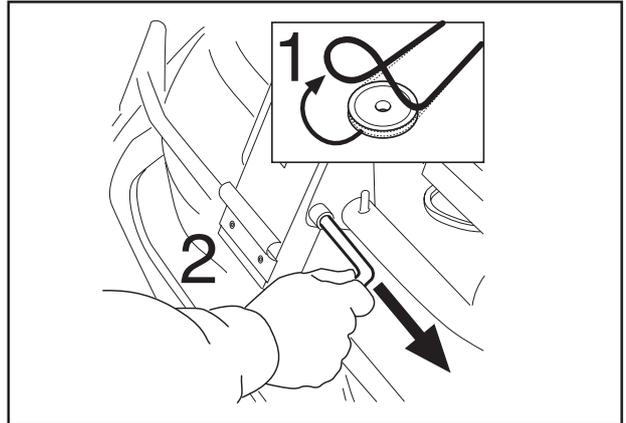
6017-223

MAINTENANCE



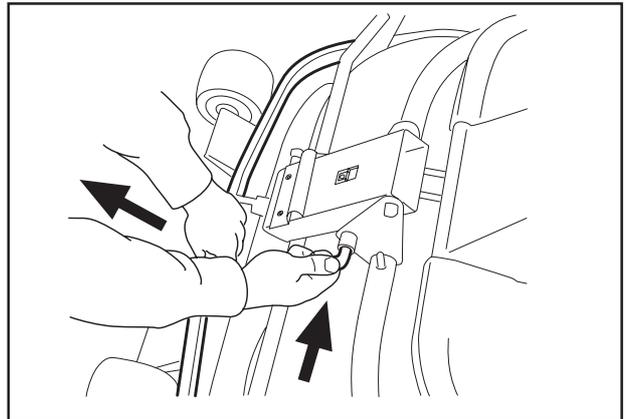
WARNING!
Observe caution to avoid trapping
your hand.

8. Lift off the drive belt (1). Now pull out the split pin (2).



6017-225

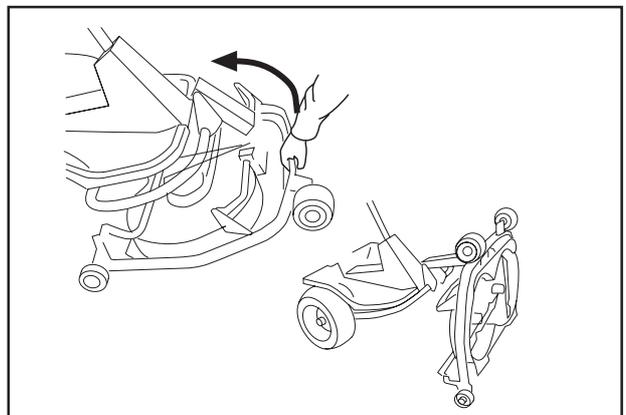
9. Pull the frame forwards and refit the pin.



6017-226

10. Grasp the cutting unit's front edge, pull out and lift up into the service position.

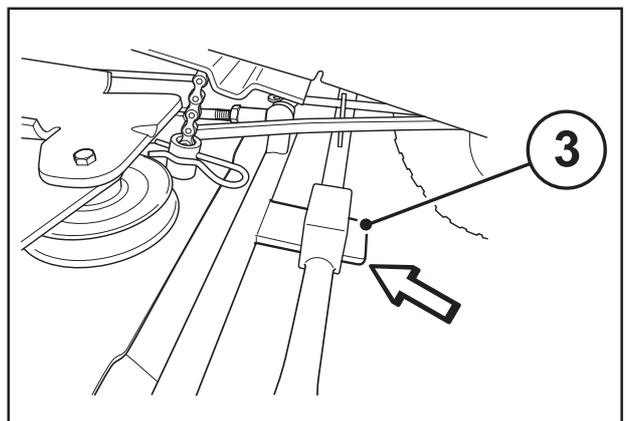
If the cylindrical bolt, which is now holding the cutting unit is removed, the cutting unit can be lifted off.



6017-227

Releasing the Service Position

To leave the service position, reverse the procedures set out in "Placing in the Service Position". Make sure that the cutting unit's tongue (3) enters the loop correctly on the underside of the machine.



8009-595

MAINTENANCE

Inspecting the Blades

It is important that the blades are undamaged and well-ground to give the best mowing result.

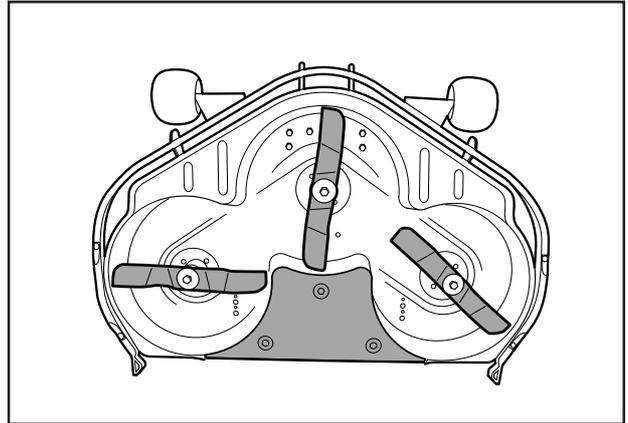
Check that the blades' mounting bolts are tightened.

IMPORTANT INFORMATION

Replacement or sharpening of the blades should be carried out by an authorised service representative.

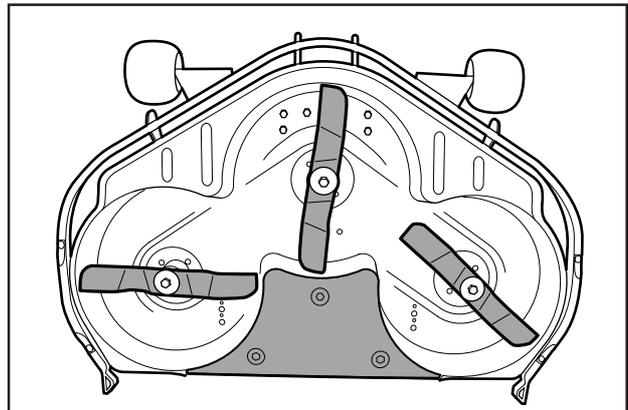
The blades should be balanced after sharpening.

Damaged blades should be replaced when hitting obstacles that result in a breakdown. Let the servicing dealer judge whether the blade can be repaired/ground or must be discarded.



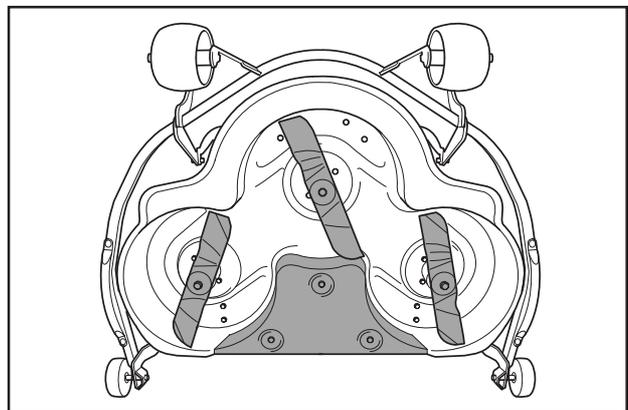
8009-288

Combi 103



8009-288

Combi 112



8009-601

Combi 94

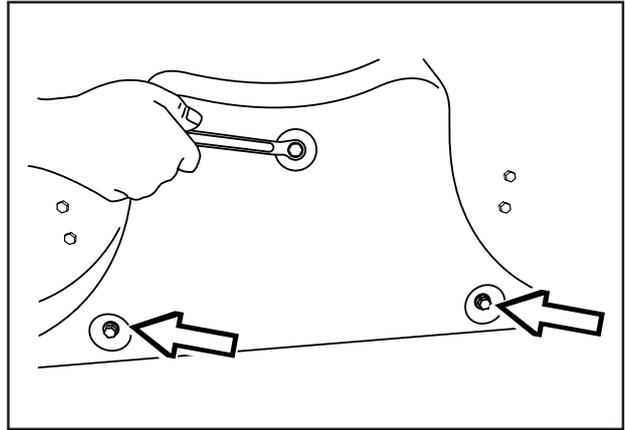
MAINTENANCE

Removing the BioClip Plug (Combi)

To change a Combi unit from the BioClip function to a cutting unit with rear ejection, remove the BioClip plug, which is located under the unit, attached with three screws.

1. Put the unit in the service position, see "Placing in the Service Position".
2. Remove the three screws holding the BioClip plug, and remove the plug.
3. Tip: Fit three full-thread screws M8x15 mm in the screw holes to protect the threads.
4. Return the unit to the normal position.

Fit the BioClip plug in the reverse order.

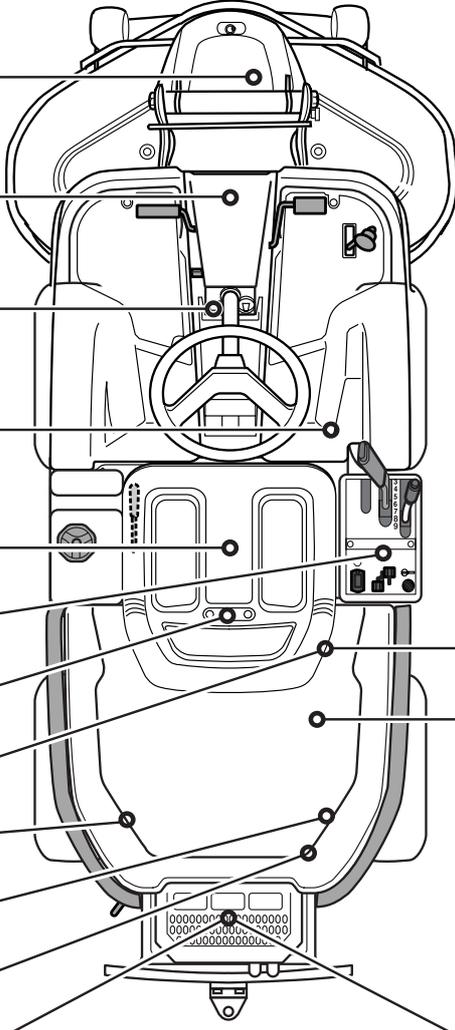


8009-289

Removal of BioClip plug

LUBRICATION

Lubrication Chart Pro 15

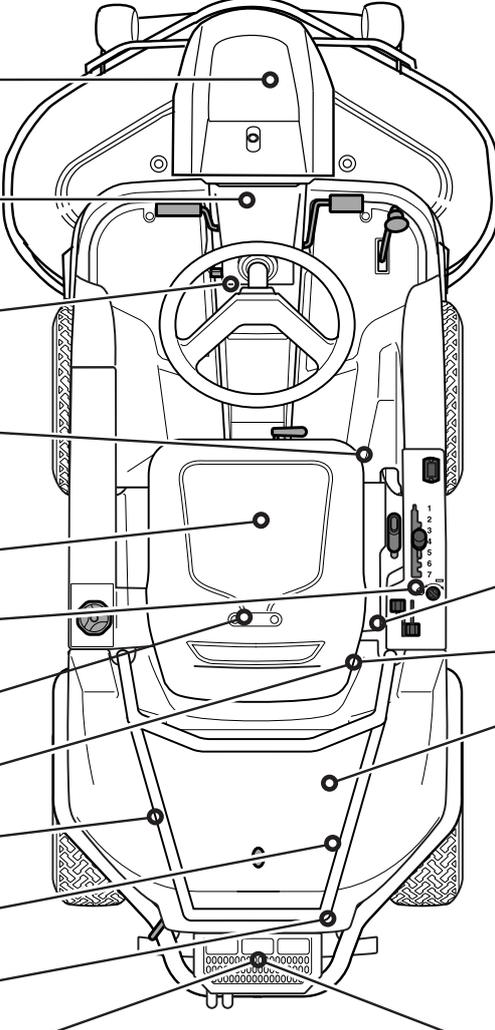
12/12	1/12	1/52	1/365	Rider Pro 15		25h	100h	200h	500h
						(1/52)			
				1					
				2					
				3					
				4					
				5					
				6					
				7					
				8					
				9					
				10					
				11					
				12					
				8					
				12					

8009-589

The position numbers for the lubrication points refer to the lubrication instructions on the following pages.

LUBRICATION

Lubrication Chart Pro 18

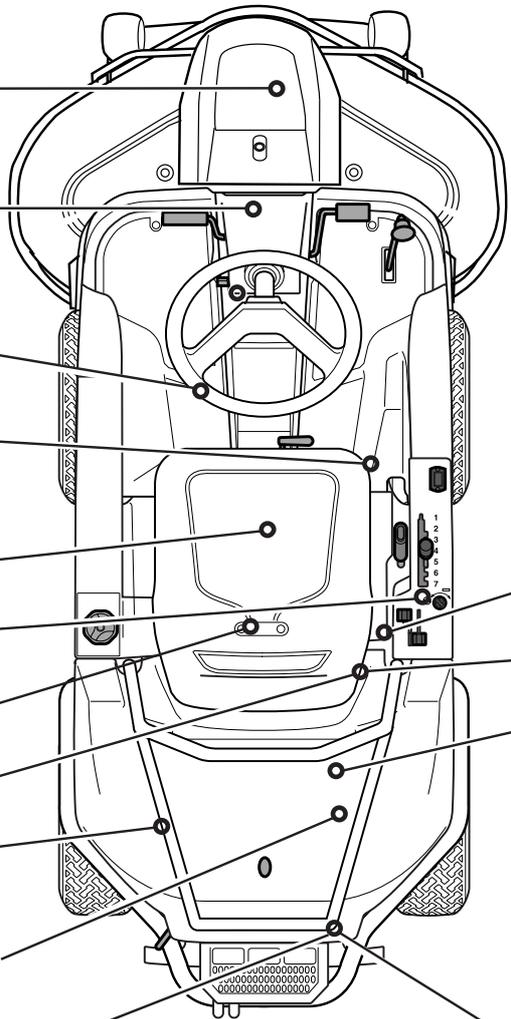
12/12	1/12	1/52	1/365	Rider Pro 18		25h	100h	200h	500h
						(1/52)			
				1					
				2					
				3					
				4					
				5					
				6		14			
				7		8			
				8		13			
				9					
				10					
				11					
				12		12			 

8009-504

The position numbers for the lubrication points refer to the lubrication instructions on the following pages.

LUBRICATION

Lubrication Chart Pro 18 AWD

12/12	1/12	1/52	1/365	Rider Pro 18 AWD		25h	100h	200h	500h
						(1/52)			
				1					
				2					
				3					
				15					
				4					
				5					
				6		14			
				7		8			
				8		13			
				9					
				16					
				12		12			 

8009-681

The position numbers for the lubrication points refer to the lubrication instructions on the following pages.

LUBRICATION

General

Remove the ignition key to prevent unintentional movements during lubrication.

When lubricating with an oilcan, it ought to be filled with engine oil.

When lubricating with grease, unless otherwise stated, grease 503 98 96-01 or another chassis or ball bearing grease offering good corrosion protection shall be used.

With daily use, the Rider should be lubricated twice weekly.

Wipe away excess grease after lubrication.

It is important to avoid getting lubricant on the belts or the drive surfaces on the belt pulleys. Should this happen, attempt to clean them with spirits. If the belt continues to slip after cleaning with spirits, it must be replaced. Petrol or other petroleum products must not be used to clean belts.

Lubricating the Cables

Grease both ends of the cables and move the controls to end stop positions when lubricating. Re-attach the rubber covers on the cables after lubrication. Cables with sheaths will jam if they are not lubricated regularly. Binding in a cable may cause malfunction such as partial braking.

If a cable binds, remove the cable and hang it vertically. Lubricate it with thin engine oil until the oil begins to escape from the bottom. Tip: Fill a small plastic bag with oil and tape it so that it seals against the casing and allow the cable to hang vertically from the bag overnight. If you do not succeed in lubricating the cable, it must be replaced.

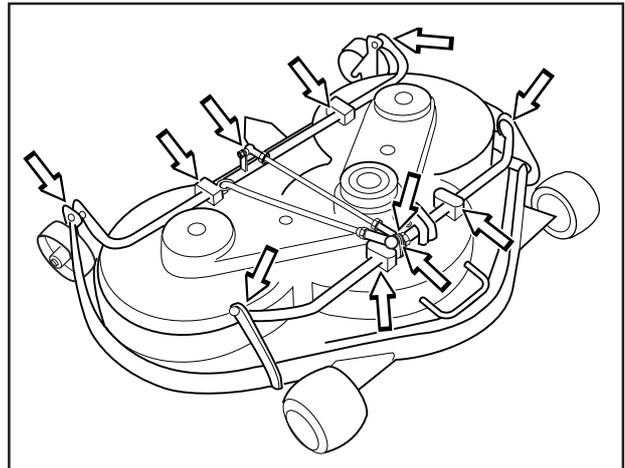
Lubrication Instructions According to the Schedule

1. Cutting Unit

Remove the nose cover.

Lubricate using an oilcan:

- Joints and bearings



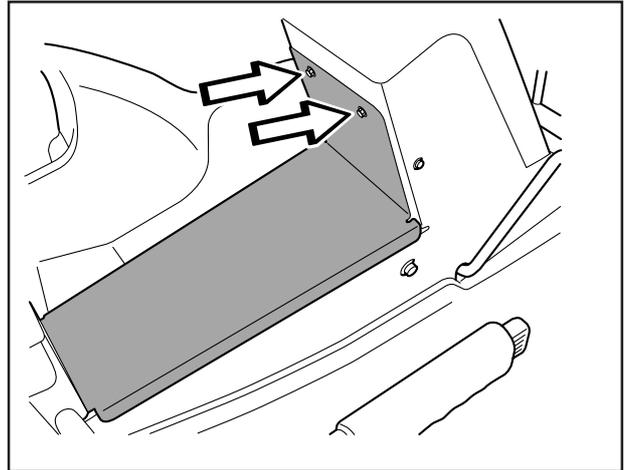
8009-154

LUBRICATION

2. Pedal Mechanism in Frame Tunnel

Lubricate the pedal mechanism in the frame tunnel.

Remove the cover of the frame tunnel by loosening the screws (two on the steering servo housing).

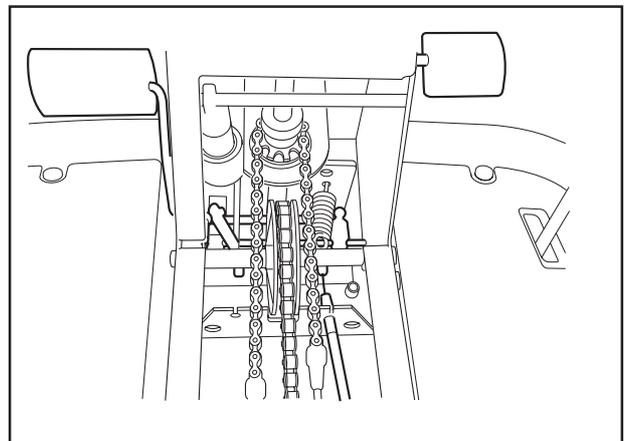


8009-505

Work the pedals and lubricate the moving parts with an oilcan.

Lubricate the cables to the brake and drive pedals with an oilcan.

Lubricate the point "Chains in the Frame Tunnel" before replacing the cover to the frame tunnel.



8009-345

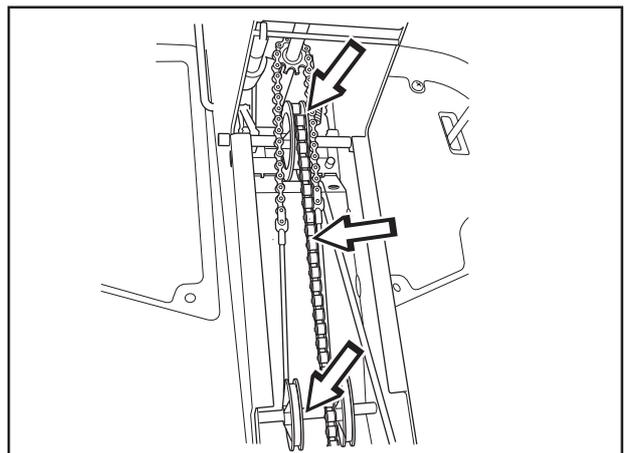
3. Chains in the Frame Tunnel

Remove the cover from the frame tunnel, see point 2.

Lubricate the chains in the frame tunnel with an oilcan or chain lubricant spray for motorcycles.

Lubricate the steering cable pulley axle with grease. Move the pulleys to one side and brush grease on the axle.

Replace the cover on the frame tunnel.



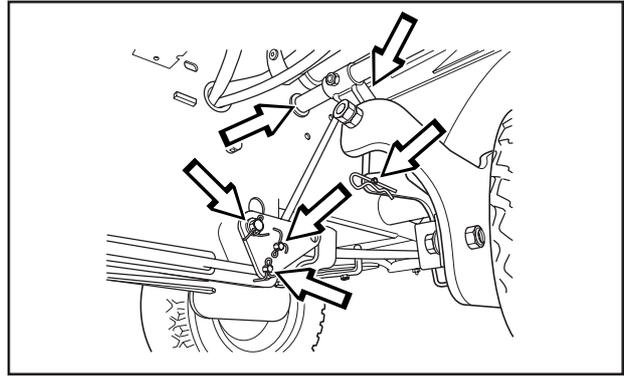
6020-022

LUBRICATION

4. Three-Point Link and Joints

Lubricate the three-point link and joints for cutting height setting stay behind the right, front wheel.

Lubricate using an oilcan.



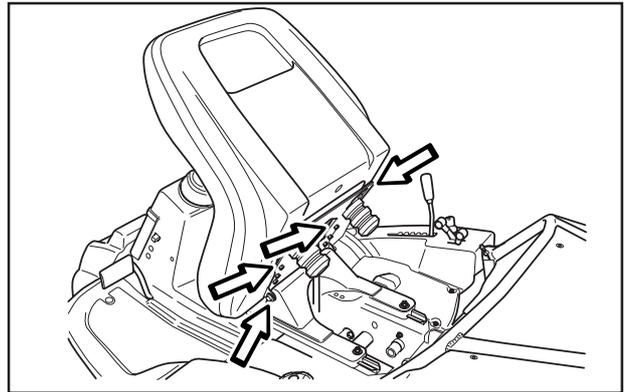
8009-155

5. Driver's Seat

Tilt the seat back.

Lubricate the lengthways adjustment mechanism with the oilcan.

Lubricate the lengthways adjustment runners with the oilcan.



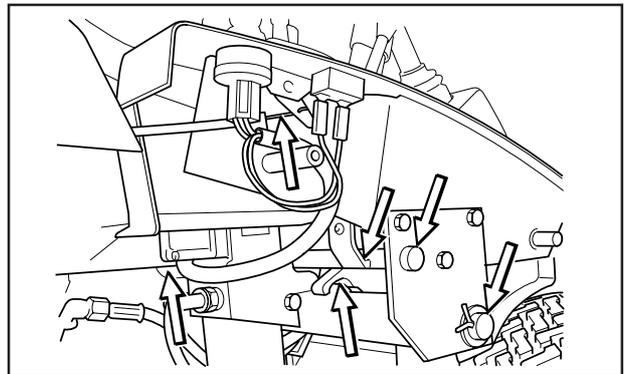
8009-521

6. Throttle and Choke Cables, Lever Bearings

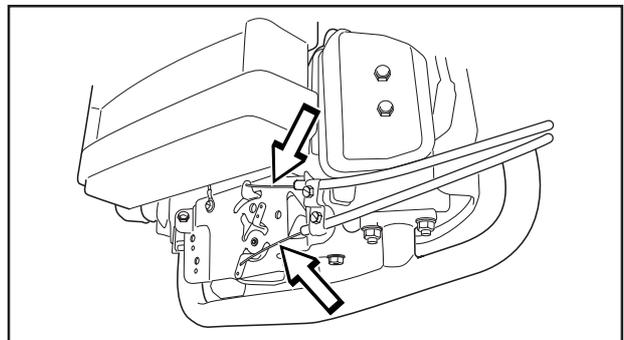
Remove the right side cover of the lever housing and open the engine cover. Lubricate the cables' free ends with the oil can, even those by the engine. Move the controls to the end points and lubricate again.

Lubricate the joints, catches, and bearings for the cutting unit's control levers with an oilcan.

Replace the lever housing's side cover.



8009-506



8009-157

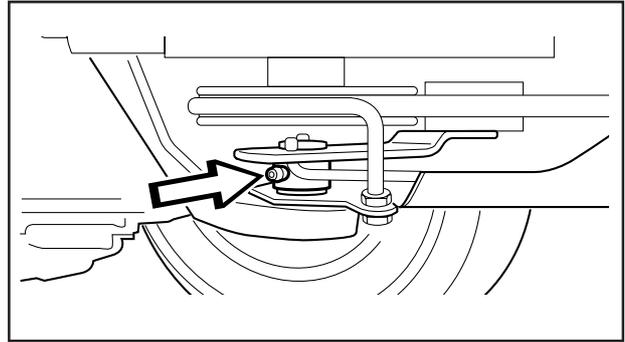
LUBRICATION

7. Belt Tensioner

Lubricate using a grease gun, 1 nipple from the right-hand side under the engine's lower belt pulley, until grease is forced out.

Use only good quality molybdenum disulphide grease.

Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.



6008-232

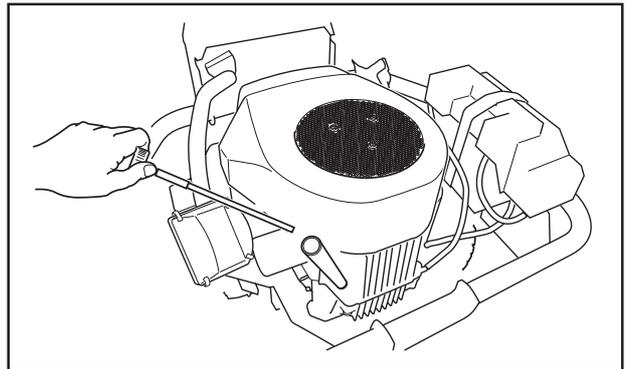
8. Engine Oil

Check the oil level in the engine when the Rider stands horizontal with the engine switched off.

Open the engine cover.

Remove the dipstick and wipe it clean. Now insert the dipstick again, **without tightening it**.

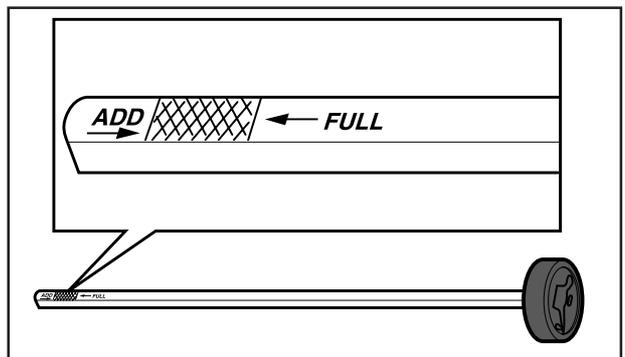
Take the dipstick out again and read the oil level.



8009-158

The oil level should be between the markings on the dipstick. If the level is approaching the "ADD" mark, top up the oil to the "FULL" mark on the dipstick.

Never fill above the "FULL" mark.



8009-159

The oil is topped up through the hole the dipstick sits in.

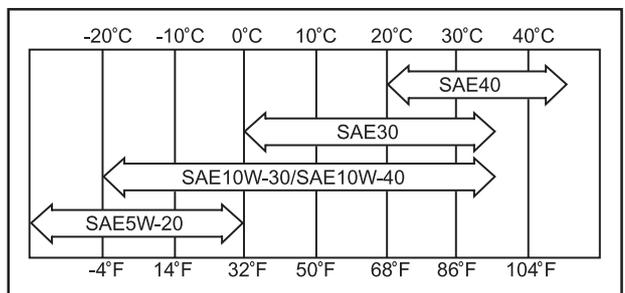
Use engine oil SAE 30, SAE 10W/30 or 10W/40, class SF-SJ (above 0 °C/+32 °F).

SAE 40 can be used above +20 °C/+68 °F.

Use engine oil SAE 5W/20, class SF-SJ (below 0 °C/+32 °F).

Fill the oil slowly. Tighten the dipstick correctly before starting the engine. Start and run the engine at idling speed for approx. 30 seconds. Turn off the engine. Wait 30 seconds and check oil level. If necessary fill so that the oil comes up to the "FULL" mark on the dipstick.

The engine holds 1.5 litres of oil excluding the filter and 1.7 litres including the filter.



8009-140

LUBRICATION

Changing the Engine Oil

The engine oil should be changed the first time after 8 hours running time. It should then be changed after every 100 hours of running time. When operating with a heavy load or at high ambient temperatures, replace every 50 hours.



WARNING!

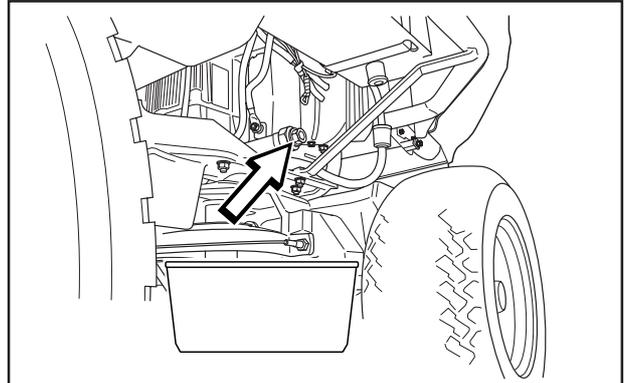
Engine oil can be very hot if it is drained directly after stopping the engine. Allow the engine to cool somewhat first.

1. Open the engine cover.
2. Place a container underneath the engine's left oil drain plug.
3. Remove the dipstick. Remove the drain plug from the engine's left side.
4. Let the oil run out into the container.
5. Then replace the oil drain plug and tighten it.
6. Replace the oil filter if necessary.
7. Fill with oil up to the FULL mark on the dipstick. Use engine oil as set out above.
8. Run the engine warm, then check that there is no leakage from the oil plug.
9. Check the oil level. Top up if necessary.

IMPORTANT INFORMATION

Used engine oil is a health hazard and must not be disposed of on the ground or in nature; it should always be disposed of at a workshop or appropriate disposal location.

Avoid skin contact; wash with soap and water in case of spills.



8009-529

9. Hydrostatic Cable with Linkage

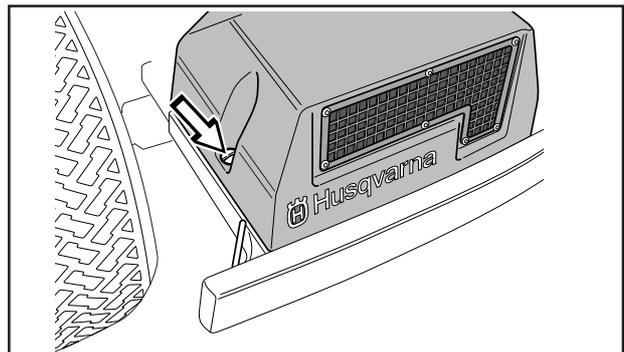
Remove the transmission cover, two screws.

Lubricate the joints and bearings on the left side with an oilcan.

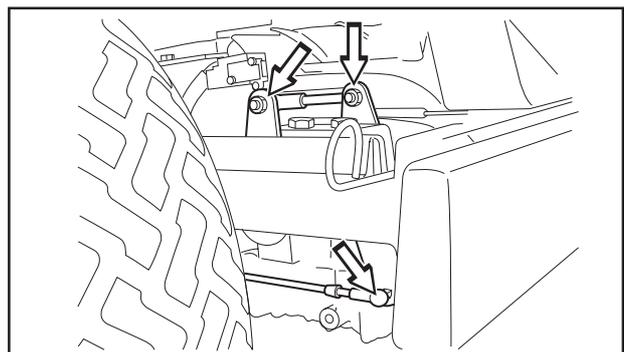
Remove the rubber casing and lubricate the hydrostatic transmission cable with an oil can. Press the pedal a few times and lubricate again.

Replace the rubber cover.

Replace the transmission cover.



6008-209



6020-024

LUBRICATION

10. Parking Brake Cable Pro 15, Pro 18

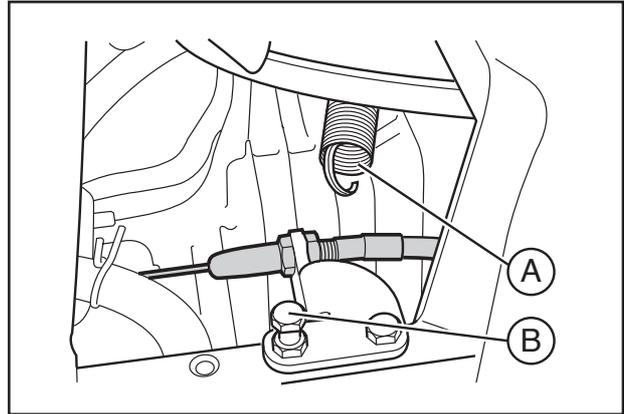
Remove the transmission cover, see "Gear Lever".

Unhook the spring (A) from the screw (B) if required (not AWD).

Remove the cable's rubber casing when lubricating.

Lubricate the cable with an oilcan, press the brake pedal a few times and lubricate again.

Replace the spring (A) and the transmission cover.



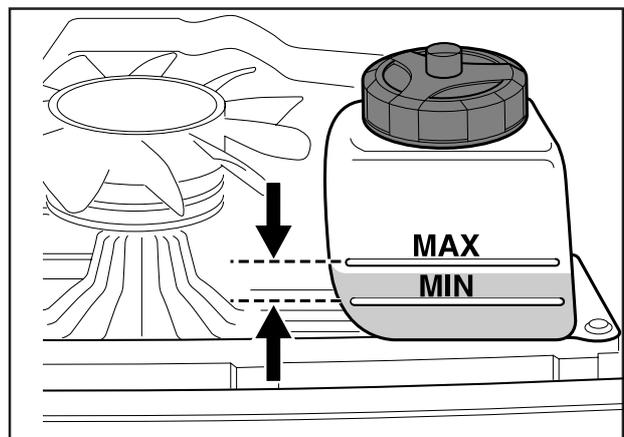
6020-005

11. Transmission Oil Level Pro 15, Pro 18

1. Check the oil level in the transmission by looking through the air intake mesh. The oil level shall be between the MIN and MAX markings on the oil container when at +20 °C.

If the oil needs to be filled, you must first remove the transmission cover.

2. Unscrew the oil container's cover and fill with SAE 10W/30 engine oil, class SF-CC, until the oil level reaches the MAX mark. Then screw the oil container's cap into place and attach the transmission cover.



6008-210

The oil should be changed by an authorised service workshop, and is described in the Workshop Manual.

Filter replacement on Pro 18 is done at the same time as changing the oil.

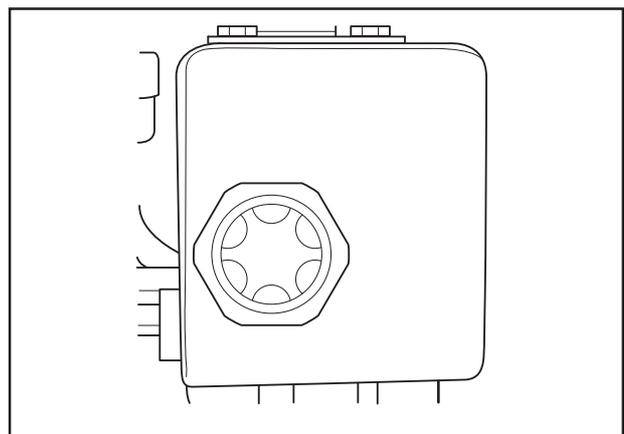
12. Hydraulic System and Transmission Oil level Pro 18 AWD

1. Remove the transmission cover.
2. Check the level, it should be visible in the sight glass at 20 °C when the machine stands flat.
3. Unscrew the oil container's cover and fill with SAE 10W/40 engine oil, class SF-CC, until the oil level is visible in the top of the sight glass. Then screw the oil container's cap into place and attach the transmission cover.

The oil should be changed by an authorised service workshop, and is described in the Workshop Manual.

The filter is replaced at the same time as changing the oil.

Work on the system entails particular demands on cleanliness and the system must be vented before the machine is used.



8009-702

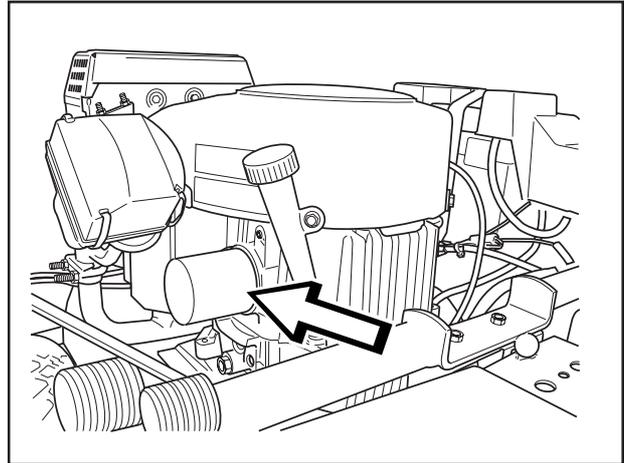
LUBRICATION

13. Oil Filter, Change



WARNING!
Engine oil can be very hot if it is drained directly after stopping the engine. Allow the engine to cool somewhat first.

1. Open the engine cover.
2. Remove the oil filter. If necessary, use a filter remover.
3. Wipe new, clean engine oil onto the seal for the new filter.
4. Fit the filter by hand with + 3/4 turn.
5. Run the engine warm, then check that there are no leaks around the oil filter seal.
6. Check the oil level in the engine, top up if necessary. The oil filter holds 0.2 litres of oil.



8009-161

IMPORTANT INFORMATION

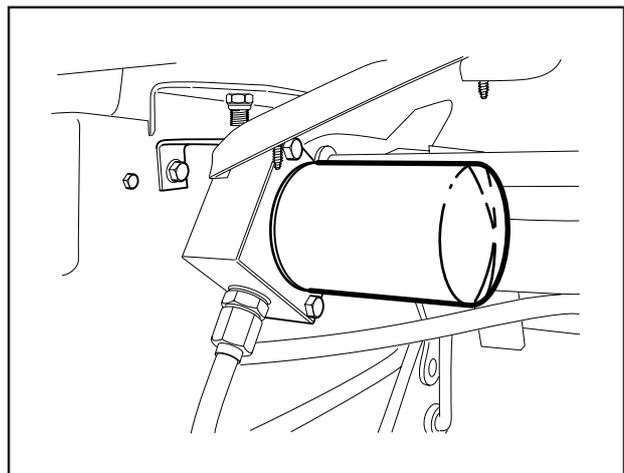
Used engine or transmission oil is health-impairing and must not be disposed of in the ground or in nature.

Replaced filters must be handed in to the workshop or other allotted place for disposal.

Avoid skin contact; wash with soap and water in case of spills.

14. Hydraulic Fluid Filter, Replacing Pro 18, Pro 18 AWD

1. Remove the oil filter. If necessary, use a filter remover.
2. Wipe new, clean engine oil onto the seal for the new filter.
3. Fit the filter by hand so it just touches + 3/4 turn.
4. Remove the transmission cover and fill the transmission's oil tank, about 0.3 l oil. See "11-12. Transmission Oil Level". Be observant when running the engine as described below and fill so that the tank is not emptied.
5. Run the engine warm, manipulate the servo steering, and then check that there are no leaks around the oil filter seal.
6. Check the oil level in the transmission, top up if necessary. The oil filter holds 0.3 litres of oil.
7. Replace the transmission cover.



8009-507

LUBRICATION

15. Parking Brake Cable Pro 18 AWD

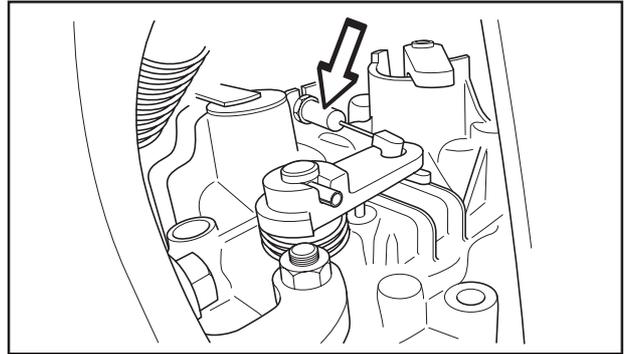
Remove the cover over the frame tunnel.

Lubricate both ends of the cable.

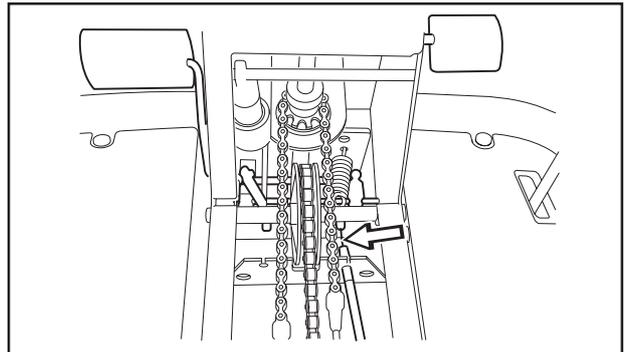
Remove the cable's rubber casing when lubricating.

Lubricate the cable with an oilcan, press the brake pedal a few times and lubricate again.

Replace the cover on the frame tunnel.



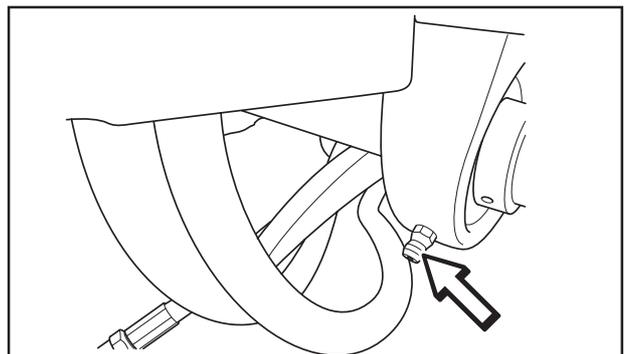
8009-691



8009-686

16. Right Rear Axle Bearing

Lubricate with a grease gun until grease appears on Pro AWD.



8009-654

TROUBLE SHOOTING GUIDE

Problem	Cause
The engine will not start	<ul style="list-style-type: none">• No fuel in the fuel tank• Faulty spark plugs (choke with a warm engine)• Faulty or interchanged spark plug connections• Dirt in the carburettor or fuel line, aged fuel
Starter does not turn the engine	<ul style="list-style-type: none">• Discharged battery• Poor contact on the battery terminal cable connectors• Lifting lever for the cutting unit in the wrong position• Main fuse blown. The fuse is placed in front of the battery, under the battery cover• Faulty ignition switch• Hydrostat pedals not in the neutral position• Faulty starter motor
The engine runs erratically	<ul style="list-style-type: none">• Faulty spark plugs• Incorrect carburettor setting• Clogged air filter• Blocked fuel tank ventilation• Incorrect ignition setting• Dirt in the carburettor or fuel line, aged fuel• Choking or incorrectly adjusted choke cable
The engine lacks power	<ul style="list-style-type: none">• Clogged air filter• Faulty spark plugs• Dirt in the carburettor or fuel line, aged fuel• Incorrect carburettor setting• Choking or incorrectly adjusted choke cable
Engine overheating	<ul style="list-style-type: none">• Engine overloaded• Partial braking (forgotten parking brake?)• Air intake or cooling fins clogged• Damaged fan• Too little or no oil in the engine• Faulty pre-ignition• Faulty spark plugs
Battery does not charge	<ul style="list-style-type: none">• One or more battery cells faulty• Poor contact on the battery terminal cable connectors
The Rider vibrates	<ul style="list-style-type: none">• The blades are loose• The engine is loose• Imbalance on one or more blades, due to damage or inferior balancing after grinding
Uneven mowing results	<ul style="list-style-type: none">• Blades dull• Cutting unit set incorrectly• Tall or wet grass• Grass build up under the cover• Different air pressure in the right and left-hand tyres• Driving speed too high• Engine speed too low• Drive belt slips

STORAGE

Winter Storage

At the end of the mowing season, the Rider should be readied for storage, likewise if it will not be in use for more than 30 days. Fuel allowed to stand for long periods of time (30 days or more) can leave sticky residues that can clog the carburettor and disrupt engine function.

Fuel stabilizers are an acceptable option as regards sticky residues during storage. If alkylate petrol is used, stabilisers are unnecessary because this fuel is stable. However, you should avoid switching between standard and alkylate petrol as sensitive rubber components can harden. Add stabiliser to the fuel in the tank or in the storage container. Always use the mixing ratios specified by the manufacturer of the stabiliser. Run the engine for at least 10 minutes after adding the stabiliser so that it reaches the carburettor. Do not empty the fuel tank and the carburettor if you have added stabiliser.



WARNING!

Never store an engine with fuel in the tank indoors or in poorly ventilated spaces where fuel vapour can come in contact with open flames, sparks or a pilot light such as in a boiler, hot water tank, clothes drier, etc. Handle the fuel with caution. It is very flammable and careless use can cause serious damage to person and property. Drain the fuel into an approved container outdoors and far away from open flames. Never use petrol for cleaning. Use a degreasing agent and warm water instead.

To ready the Rider for storage, follow these steps:

1. Clean the Rider carefully, especially under the cutting unit. Touch up damaged paint to prevent rust.
2. Inspect the Rider for worn or damaged parts and tighten any nuts or bolts that may have become loose.
3. Change the engine oil; dispose of properly.
4. Empty the fuel tank. Start the engine and let it run so that even the petrol in the carburettor is emptied.
5. Remove the spark plugs and pour about a tablespoon of engine oil into each cylinder. Turn over the engine so that the oil is evenly distributed and then refit the spark plugs.
6. Lubricate all grease nipples, joints, and shafts.
7. Remove the battery. Clean, charge, and store in a cool place.
8. Store the Rider in a clean, dry place and cover it for extra protection.

Cover

There is a cover to protect your machine during storage or transport. Contact your dealer for a demonstration.

Service

Low season is the most suitable time to perform a service or overhaul of the machine in order to ensure high functional safety during the high season.

When ordering spare parts, please specify the Rider's year of purchase, model, type, and serial number.

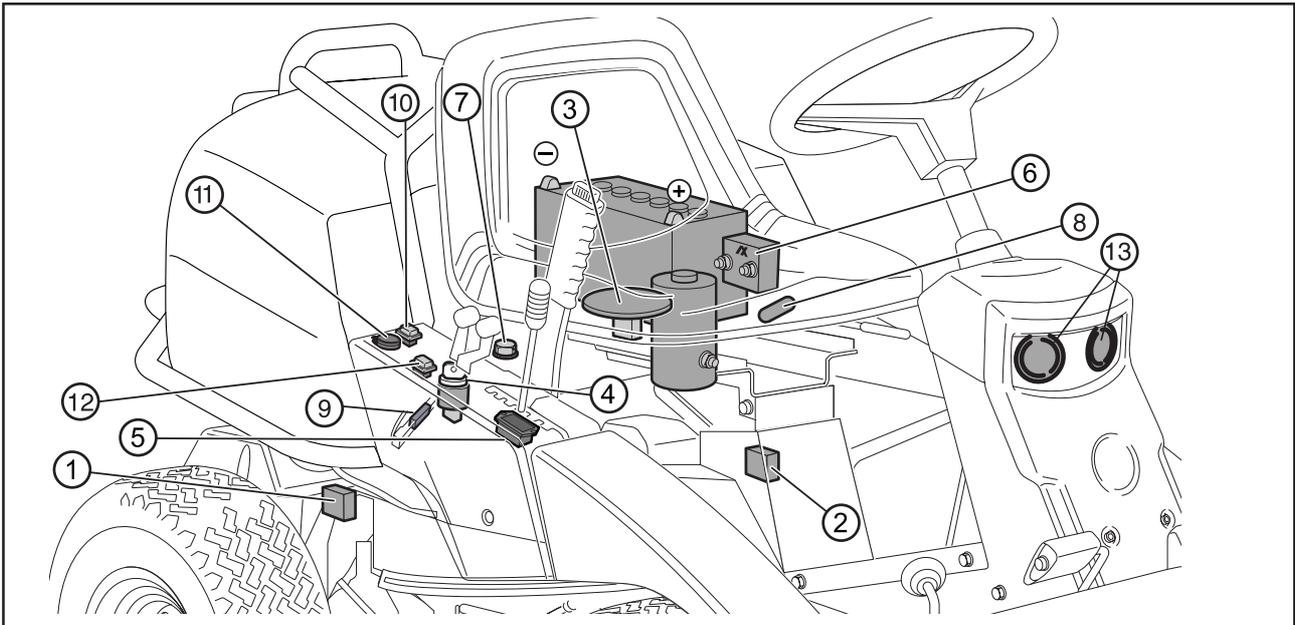
Always use genuine Husqvarna spare parts.



An annual check-up or trimming at an authorised service representative is a good way to ensure that your Rider performs at its best the following season.

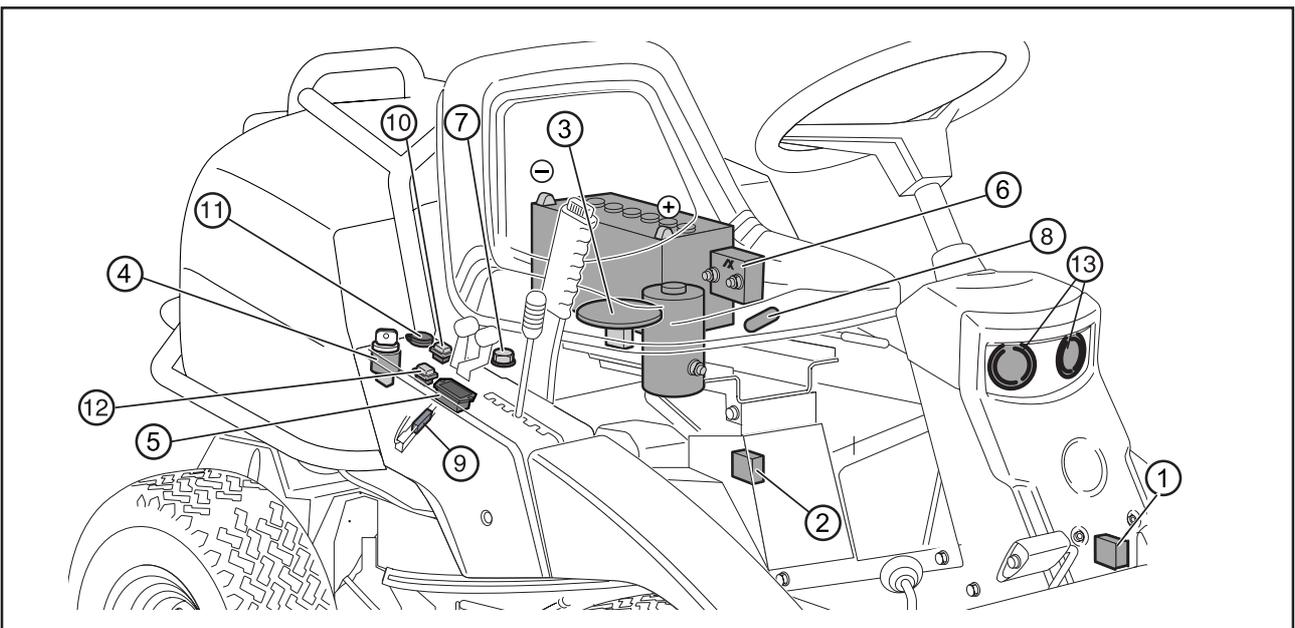
8009-481

WIRING DIAGRAM



8009-570

Rider Pro 15 -18



8009-678

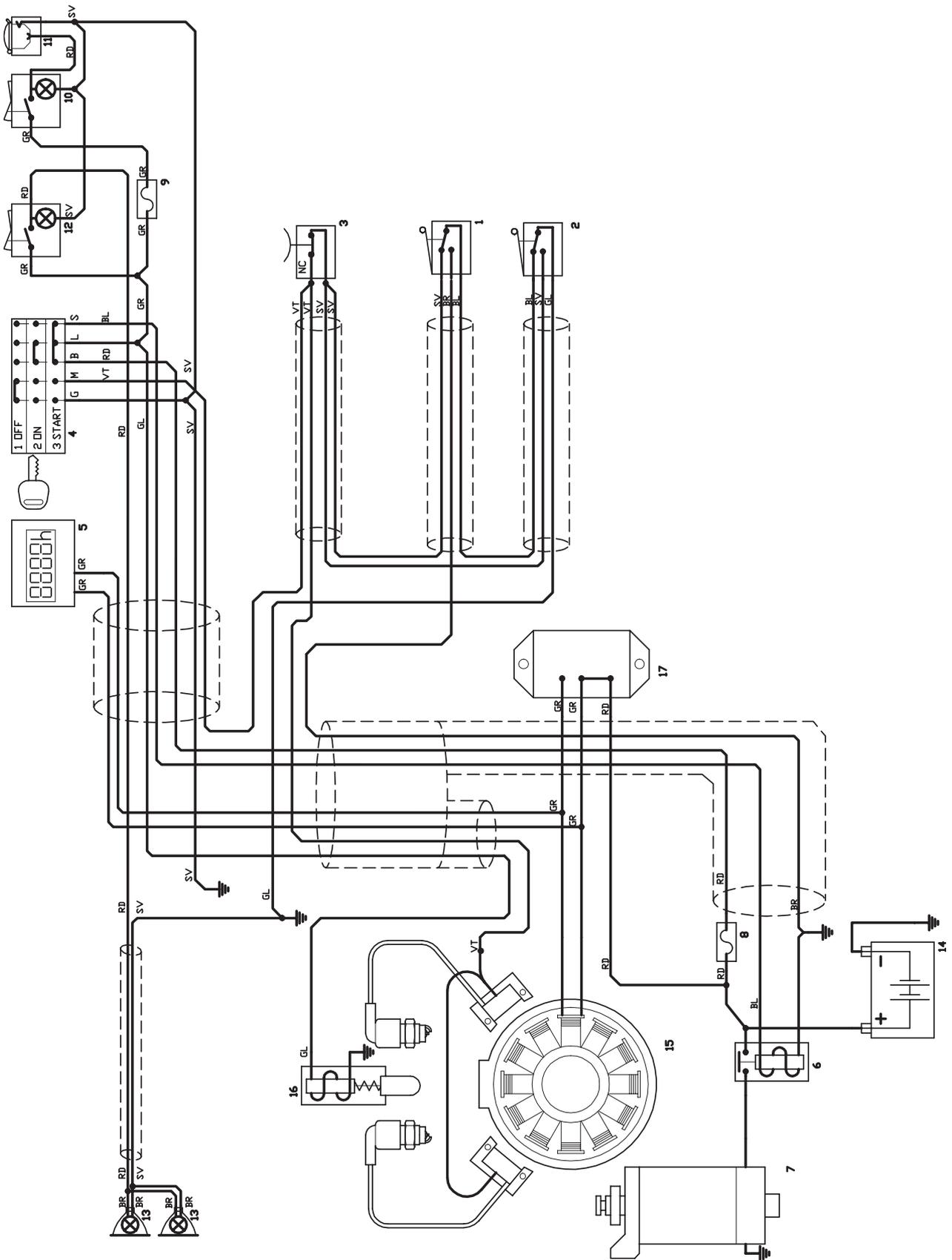
Rider Pro 18 AWD

1. Microswitch, hydrostatic transmission
2. Microswitch, cutting unit
3. Microswitch, seat
4. Ignition key
5. Chronometer
6. Start relay
7. Engine
8. Main fuse 15 A
9. Fuse 7.5 A
10. Switch for the power outlet
11. Power outlet
12. Switch for the lights
13. Lights

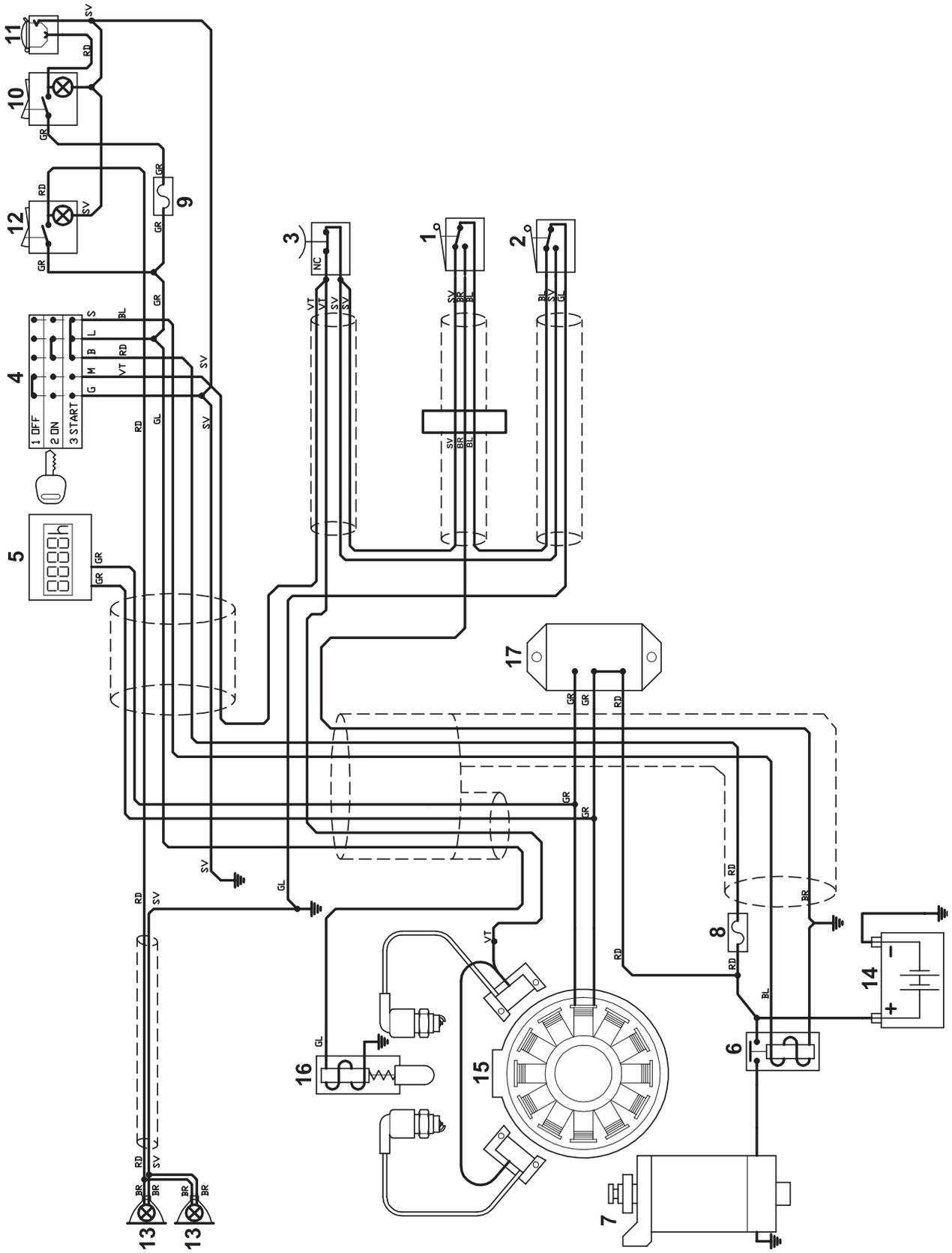
Colour Abbreviations:

- RD = Red
- BL = Blue
- VT = White
- SV = Black
- GL = Yellow
- BR = Brown
- GR = Green

WIRING DIAGRAM



WIRING DIAGRAM



Rider Pro 18 AWD

8009-679

TECHNICAL DATA

Dimensions	Rider Pro 15	Rider Pro 18	Rider Pro 18 AWD
Length without the cutting unit	2,030 mm / 6.65 ft	2,030 mm / 6.65 ft	2,030 mm / 6.65 ft
Width without the cutting unit	900 mm / 2.95 ft	900 mm / 2.95 ft	900 mm / 2.95 ft
Height	1,130 mm / 3.70 ft	1,130 mm / 3.70 ft	1,130 mm / 3.70 ft
Service weight without the cutting unit	245 kg / 540 lb	261 kg / 576 lb	284 kg / 626 lb
Distance between axles	873 mm / 2.86 ft	873 mm / 2.86 ft	873 mm / 2.86 ft
Tyre dimensions	165 / 60-8	165 / 60-8	165 / 60-8
Air pressure rear - front	60 kPa (0.6 kp/cm ²)	60 kPa (0.6 kp/cm ²)	60 kPa (0.6 kp/cm ²)
Max. permitted slope	15°	15°	15°
Engine			
Manufacturer	Kawasaki	Kawasaki	Kawasaki
Model	FH430V-BS50	FH531V-DS50	FH531V-DS50
Power	11 kW/15 hp	13.2 kW/18 hp	13.2 kW/18 hp
Displacement	431 cm ³ / 26.3 cu.in.	494 cm ³ / 30.1 cu.in.	494 cm ³ / 30.1 cu.in.
Fuel	at least 87 octane unleaded (Max. methanol 5 %, max ethanol 10 %, max MTBE 15 %)	at least 87 octane unleaded (Max. methanol 5 %, max ethanol 10 %, max MTBE 15 %)	at least 87 octane unleaded (Max. methanol 5 %, max ethanol 10 %, max MTBE 15 %)
Tank volume	14 litres	14 litres	14 litres
Oil	SAE 30, SAE 10W/30, SAE 10W/40 class SF - SJ	SAE 30, SAE 10W/30, SAE 10W/40 class SF - SJ	SAE 30, SAE 10W/30, SAE 10W/40 class SF - SJ
Oil volume	1.5 litres/1.6 US qt	1.5 litres/1.6 US qt	1.5 litres/1.6 US qt
Oil volume including filter	1.7 litres/1.8 US qt	1.7 litres/1.8 US qt	1.7 litres/1.8 US qt
Starting	Electric start	Electric start	Electric start
Noise emissions and mowing width			
Combi 94			
Measured sound power	99 dB(A)	99 dB(A)	99 dB(A)
Guaranteed noise level	99 dB(A)	99 dB(A)	99 dB(A)
Cutting width	940 mm	940 mm	940 mm
Noise emissions and mowing width			
Combi 103			
Measured sound power	100 dB(A)	100 dB(A)	100 dB(A)
Guaranteed noise level	100 dB(A)	100 dB(A)	100 dB(A)
Cutting width	1,030 mm	1,030 mm	1,030 mm
Noise emissions and mowing width			
Combi 112			
Measured sound power	99 dB(A)	99 dB(A)	99 dB(A)
Guaranteed noise level	100 dB(A)	100 dB(A)	100 dB(A)
Cutting width	1,120 mm	1,120 mm	1,120 mm
Electrical system			
Type	12 V, negative grounded	12 V, negative grounded	12 V, negative grounded
Battery	12 V, 24 Ah	12 V, 24 Ah	12 V, 24 Ah
Main fuse	Flat pin, 15 A	Flat pin, 15 A	Flat pin, 15 A
Power outlet fuse	Flat pin, 7.5 A	Flat pin, 7.5 A	Flat pin, 7.5 A
Spark plug	Champion RCJ8Y	Champion RCJ8Y	Champion RCJ8Y
Electrode gap	0.75 mm/0.030"	0.75 mm/0.030"	0.75 mm/0.030"
Bulbs, halogen	12V, 20W., 44860 WFL 38°	12V, 20W., 44860 WFL 38°	12V, 20W., 44860 WFL 38°
Transmission			
Manufacturer	Tuff Torq K 62F	Tuff Torq K 66M	Front Kanzaki VFMU KTM 10 Rear Kanzaki RMU KTM10
Hydraulic pump	-	Tuff Torq K 66M	Kanzaki KPL 10 ARH
Oil	SAE 10W/30, class SF-CC	SAE 10W/30, class SF-CC	SAE 10W/40, class SF-CC
Cutting Unit			
Number of cutting heights	7 positions	7 positions	7 positions

TECHNICAL DATA

Cutting unit	Combi 94	Combi 103	Combi 112
Mowing width	940 mm / 3.08 ft	1,030 mm / 3.38 ft	1,120 mm / 3.67 ft
Cutting heights	30 - 90 mm / 1 3/16"-3 1/2"	40 - 80 mm / 0.13-0.26 ft	40 - 100 mm / 1 9/16"-3 7/8"
Cutting height setting	40 mm / 1 9/16"	35 mm / 0.11 ft	35 mm / 0.11 ft
Blade diameter	360 mm / 14"	390 mm / 1.28 ft	420 mm / 1.37 ft
Weight	52 kg / 115 lb	46 kg / 101 lb	52 kg / 115 lb incl. nose link 2 kg / 4.41 lb

When this product is spent and is no longer used it should be returned to the dealer or other authority for recycling.

In order to introduce improvements the specification and design are subject to alteration without prior notice.

Note that no legal demands whatsoever can be made with the support of the information in this operator's manual.

Only use original spare parts with repairs. The use of other parts invalidates the warranty.

EU DECLARATION OF CONFORMITY

EU Declaration of Conformity (Only applies to Europe)

Husqvarna AB, SE-561 82 Huskvarna, Sweden, tel: +46-36-146500, declares under sole responsibility that **Rider Husqvarna Rider Pro 15, Pro 18 and Pro 18 AWD** dating from 2005 serial numbers and onwards (the year is clearly stated on the rating plate, followed by the serial number), complies with the requirements of the COUNCIL'S DIRECTIVE:

- of June 22, 1998 "relating to machinery" **98/37/EC, annex IIA.**
- of May 3, 1989 "relating to electromagnetic compatibility" **89/336/EEC**, and applicable supplements.
- of May 8, 2000 "relating to the emission of noise to surroundings" **2000/14/EC.**

Information regarding noise emissions and the mowing width, see the Technical Data.

The following harmonised standards have been applied: **EN292-2, EN836.**

Registered body **0404, SMP Svensk Maskinprovning AB**, Fyristorgsgatan 3, SE-754 50 Uppsala, Sweden has issued the report with number:

Pro 15: 01/901/005, 01/901/006 and 01/901/033

Pro 18: 01/901/023, 01/901/024 and 01/901/034

Pro 18 AWD: 01/901/035, 01/901/036 and 01/901/037

regarding the assessment of conformity according to annex VI to the COUNCIL'S DIRECTIVE of May 8, 2000 "relating to the emission of noise to surroundings" **2000/14/EC.**

Huskvarna January 3, 2005



Roger Andersson, Development Manager/Garden Products

SERVICE JOURNAL

Action	Date, mileage reading, stamp, signature
<p>25-Hour Service</p> <ol style="list-style-type: none">1. Clean the air filter's pre-cleaner (foam plastic filter). (Shorter intervals for dusty operating conditions.)2. Clean the engine's cooling air intake and the transmission's air intake.3. Clean the fuel pump's air filter. (in dusty operating conditions).4. Check the mounting bolts on the muffler.	

SERVICE JOURNAL

Action	Date, mileage reading, stamp, signature
<p>50-Hour Service</p> <ol style="list-style-type: none">1. Clean/Replace the air filter's pre-cleaner (foam plastic filter). (Shorter intervals for dusty operating conditions.)2. Clean the engine's cooling air intake and the transmission's air intake.3. Clean the air cleaner's paper filter.4. Clean the fuel pump's air filter.5. Check the mounting bolts on the muffler.6. Check/Adjust the cutting height.7. Check/Adjust the parking brake.8. Inspect the flame proofing/spark arrestor (extra equipment).	
<p>First after 50 hours</p> <p>Change the oil in the hydraulics and drive system on AWD.</p>	

SERVICE JOURNAL

Action	Date, mileage reading, stamp, signature
<p>100/200-Hour Service</p> <ol style="list-style-type: none"> 1. Change engine oil. Replace the oil filter every 200 hours. 2. Clean/Replace the air filter's pre-cleaner (foam plastic filter). 3. Clean the air cleaner's paper filter. Replace every 200 hours. (Shorter intervals for dusty operating conditions.) 4. Clean the engine's cooling air intake and the transmission's air intake. 5. Clean the cooling fins on the engine and transmissions. 6. Check the mounting bolts on the muffler. 7. Check/Adjust the cutting height. 8. Check/Adjust the parking brake. 9. Inspect the flame proofing/spark arrestor (extra equipment). 10. Clean/Replace the spark plugs. 11. Change the inline fuel filter. 12. Replace the hydraulic oil filter every 200 hours on Pro 18 and AWD. 13. Clean the fuel pump's air filter. 14. Clean the pulse air filter. 15. Check nuts and screws for tightness. 16. Replace the suction filter in the hydraulic tank every 200 hours on AWD. 17. Check whether the oil in the gearbox and hydraulic system needs changing (every 200/500 hours). On Pro 18 also filter replacement. 	

SERVICE JOURNAL

Action	Date, mileage reading, stamp, signature
<p>300-Hour Service</p> <ol style="list-style-type: none"> 1. Inspect the machine. Additional work? 2. Change engine oil. Replace the oil filter every 200 hours. 3. Replace the air filter (foam plastic filter). 4. Replace the air filter (paper filter). 5. Clean the engine's cooling air intake and the transmission's air intake. 6. Clean the cooling fins on the engine and transmissions. 7. Check the mounting bolts on the muffler. 8. Check/Adjust the cutting height. 9. Check/Adjust the parking brake. 10. Inspect the flame proofing/spark arrestor (extra equipment). 11. Clean/Replace the spark plugs. 12. Change the inline fuel filter. 13. Replace the hydraulic oil filter (every 200 hours) on Pro 18 and AWD. 14. Clean the fuel pump's air filter. 15. Clean the pulse air filter. 16. Check the play in the engine valves. 17. Check nuts and screws for tightness. 18. Replace the suction filter in the hydraulic tank every 200 hours on AWD. 19. Check whether the oil in the gearbox and hydraulic system needs changing (every 200/500 hours). On Pro 18 also filter replacement. 	

SERVICE JOURNAL

Action	Date, mileage reading, stamp, signature
<p>At Least Once Each Season</p> <ol style="list-style-type: none"> 1. Change the engine oil (100 hours). 2. Clean/Replace the air filter's pre-cleaner (foam plastic filter) (25 hours). (Shorter intervals for dusty operating conditions.) 3. Clean/Replace the air filter's paper filter (100 hours). (Shorter intervals for dusty operating conditions.) 4. Clean the fuel pump's air filter (50 hours). 5. Check the mounting bolts on the muffler. 6. Adjust the cutting height (50 hours). 7. Adjust the parking brake (50 hours). 8. Inspect the flame proofing/spark arrestor, extra equipment (50 hours). 9. Replace the engine oil filter (200 hours). 10. Clean/Replace the spark plugs (100 hours). 11. Change the inline fuel filter (100 hours). 12. Clean/Replace the pulse air filter (100 hours). 13. Clean the cooling fins (100 hours) on the engine and transmissions. (Shorter intervals for dusty operating conditions.) 14. Check the play in the engine valves (300 hours). 15. Replace the hydraulic oil filter (every 200 hours) on Pro 18 and AWD. 16. Replace the suction filter in the hydraulic tank every 200 hours on AWD. 17. Change the oil in the hydraulic system/gearbox (200/500 hours). On Pro 18 also filter replacement. 18. Perform the 300-hour service at an authorised service representative. 	

SERVICE JOURNAL

Action	Date, mileage reading, stamp, signature
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

115 00 07-26



2005W05