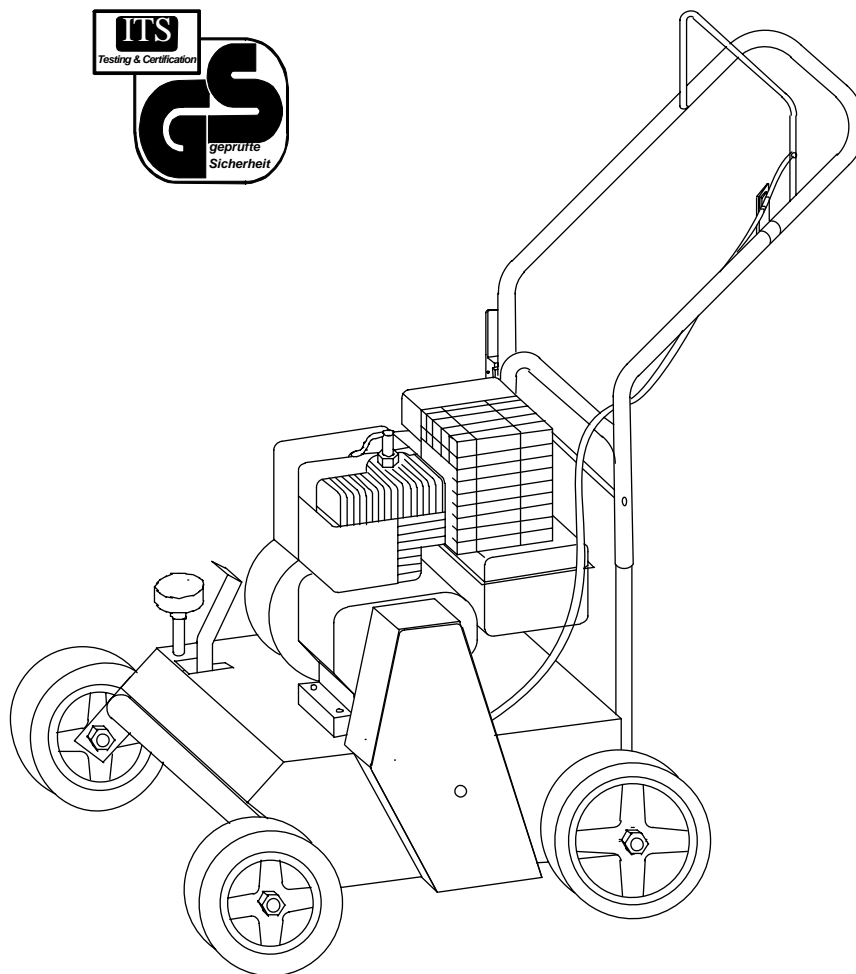


Instruktion  
Käyttöohjeet  
Gebrauchsanweisung  
Operating Instructions  
Bruksanvisning  
Brugsanvisning

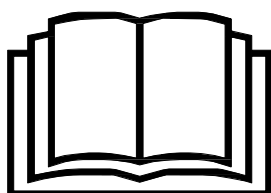
MOSSRIVARE/VERTIKALSKÄRRE  
SAMMALEENPOISTAJA/ILMAAJA  
ENTMOOSER/VERTIKUTIERER  
SACRIFIER/LAWN RAKE  
MOSERIVER/VERTIKALSKJÆRE  
MOSRIVE/VERTIKALSKÆRER



MADE IN FINLAND BY KOVA

**Type: VBF 40**

**Art. No: 26-2211-17**



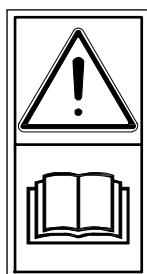
**STIGA**

TRANÅS - SWEDEN

10102  
1319-1740-01



- (S) SÄKERHETSFÖRESKRIFTER**
- (FIN) TURVALLISUUSOHJEITA**
- (DK) SIKKERHEDSFORSKRIFTER**
- (N) SIKKERHETSFORSKRIFTER**
- (D) SICHERHEITSVORSCHRIFTEN**
- (GB) SAFETY REGULATIONS**



- (S)** Studera och förstå bruksanvisningen före användning.
- (FIN)** Lue ohjekirjaa kunnes ymmärrät siinä olevat ohjeet.
- (DK)** Læs og forstå brugsanvisningen inden brug.
- (N)** Studer og forstå bruksanvisningen før bruk.
- (D)** Vor der Anwendung die Gebrauchsanweisung genau durchlesen.
- (GB)** Read and understand the Operating Instruction before use.



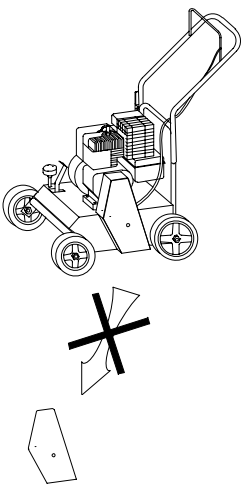
- (S)** Håll händer och fötter borta från roterande delar.
- (FIN)** Pidä kädet ja jalat etäällä pyörivistä osista.
- (DK)** Hold hænder og fødder borte fra roterende dele.
- (N)** Hold hender og føtter borte fra roterende deler.
- (D)** Stets einen Sicherheitsabstand von rotierenden Teilen einhalten.
- (GB)** Keep your hands and feet away from rotating parts.



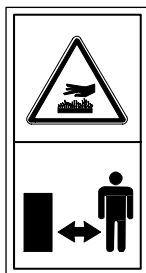
- (S)** Håll fötterna på ett säkert avstånd från maskinen. Var försiktig, att inte falla omkull på halkig gräset
- (FIN)** Pidä jalat riittävän etäällä koneesta. Varo kaatumasta liukkaalla nurmikolla.
- (DK)** Hold fødderne på sikker afstand fra maskinen. Pas på ikke at falde på det glatte græs.
- (N)** Hold føttene på sikker avstand fra maskinen. Vær forsiktig! Unngå å skli på gresset.
- (D)** Nicht zu nah an das Gerät herangehen. Stets vorsichtig arbeiten, auf glattem Rasen besteht Rutschgefahr.
- (GB)** Keep your feet a safe distance from the sacrificier. Be careful not to slip on the slippery lawn.



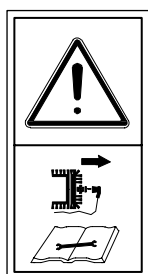
- S** Arbeta aldrig:  
I sidled i en sluttning som luta lutar mer än 5°.  
Uppför i en sluttning som lutar mer än 10°.  
Nedför i en sluttning som lutar mer än 15°.
- FIN** Älä työskentele sammaleenpoistajalla, jos kaltevuuskulma on suurempi kuin:  
5 astetta sivuttain.  
10 astetta ylöspäin.  
15 astetta alaspäin.
- DK** Arbejd aldrig:  
på tværs af skråninger større en 5°  
opad skråninger på mere end 10°  
nedad skråninger på mere end 15°
- N** Kjør ikke maskinen i mer enn:  
5° sidehelling  
10° stigning  
15° helning nedover
- D** Bearbeiten Sie niemals:  
einen Abhang mit einer Steigung von mehr als 5 in seitlicher Richtung;  
einen Abhang mit einer Steigung von mehr als 10 aufwärtsfahrend;  
einen Abhang mit einer Steigung von mehr als 15 abwärtsfahrend.
- GB** Never use the sacrifier:  
Sideways on slopes with an incline greater than 5 degrees.  
Upwards on slopes with an incline greater than 10 degrees.  
Downwards on slopes with an incline greater than 15 degrees.



- S** Använd aldrig mossrivare med bristfälliga skydd eller utan att säkerhetsanordningarna finns på plats.
- FIN** Ennen sammaleenpoistajan käyttöä tarkista, että kaikki koneeseen kuuluvat suojat ovat aisanmukaisesti paikoillaan.
- DK** Brug aldrig moseriver med utilstrækkelig beskyttelse eller uden at sikkerhedsanordningerne er på plads.
- N** Moseriver må aldri brukes med mangelfull avskjerming eller uten at sikkerhetsinnretningene er på plass.
- D** Den Entmooser niemals mit defekten Schutzvorrichtungen oder fehlenden Sicherheitsanordnungen benutzen.
- GB** Never use the sacrifier with defective guards or when safety equipment is not fitted.



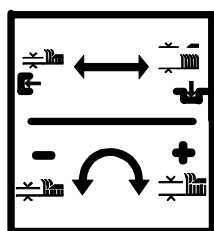
- S** Motorn kan vara mycket varm omedelbart efter stopp. Vidrör inte ljuddämpare, cylinder eller kylflänsar. Detta kan orsaka brännskador. Håll motor, ljuddämpare, bensintank fria från gräs, löv och överkottsfett så att risken för brand minimeras. Låt motorn svalna innan du packar ned redskapet i en låda eller kartong.
- FIN** Moottorissa on kuumia pintoja. Pidä riittävä etäisyys moottorin äänenvaimentimeen, sylinteriin ja jäähdytysripiihin. Pidä palovaaran rajoittamiseksi moottori, äänenvaimennin ja polttoainesäiliön alue puhtaana ruhosta, lehdistä ja liiasta rasvasta. Anna moottorin jäähtyä ennen kuin siirrät laitteen suljettuun säilytystilaan.
- DK** Motoren kan være meget varm specielt lige efter brug. Rør ikke lydæmpere, cylinder eller køleribber. Dette kan forårsage brandskader. Hold motor, lydæmper og benzintank fri for græs, løv og overskudsfedt for at undgå brand. Motoren skal være kold, inden maskinen pakkes væk eller påfyldes benzin.
- N** Motoren er normalt meget varm, også rett etter at den har stoppet. Berør ikke eksospotte, sylinder eller kjøleribber, da dette kan forårsake brannskader. Hold motor, eksospotte og bensintank fri for gress, løv og oljesøl, slik at risikoen for brann minimeres. La motoren bli helt kald, hvis maskinen skal pakkes ned i en kasse eller kartong.
- D** Direkt nach dem Abstellen kann der Motor sehr heiß sein. Schalldämpfer, Zylinder oder Kühlfansche nicht berühren, es besteht Verletzungsgefahr. Motor, Schalldämpfer und Benzintank frei von Gras, Laub und überschüssigem Fett halten, damit die Feuergefahr minimal ist. Den Motor abkühlen lassen, bevor das Gerät in eine Kiste oder einen Karton gepackt wird.
- GB** The engine can become extremely hot especially after use. Do not touch the silencer, cylinder or cooling fins, otherwise this may cause burns. Keep the engine, silencer and fuel tank free from grass, leaves and excess grease to reduce the risk of fire. Let the engine cool before storing the machine in an enclosed area.



- S** Stäng av motorn och lossa tändstiftskabeln innan underhåll, rengöring eller reparation.
- FIN** Sammuta moottori ja irroita sytytystulppa ennen puhdistus-, korjaus- tai huoltotyötä.
- DK** Sluk motoren og løsne tændrørskablet før vedligeholdelse, rengøring eller reparation.
- N** Stopp motoren og ta av pluggledningen før du rengjør, reparerer eller utfører vedlikehold.
- D** Vor der Wartung, Reinigung oder Reparatur den Motor abstellen und das Zündkerzenkabel abziehen.
- GB** Switch off the engine and remove the spark plug before carrying out maintenance or repair work.



- (S) Vistas ej inom maskinens arbetsområde. Kontrollera att den gräsyta som skall bearbetas är fri från stenar, kvistar och annat skräp. Sådana föremål kan kastas ut ur maskinen och förorsaka person- eller maskinskador. Undvik att köra över grusgångar etc.
- (FIN) Pidä riittävä suojaetäisyys sammaleenpoistajaan. Varmista, että nurmikolla ei ole kiviä, oksia tai muuta roskaa. Sammaleenpoistaja / ilmaaja saattaa singota tällaiset esineet suurella nopeudella ja aiheuttaa vammoja tai laitevaurioita. Vältä ajamasta sorakäytävien yms. yli.
- (DK) Kontroller at det område der skal bearbejdes er fri for sten, kviste og andet affald. Sådanne kan kastes ud af maskinen og forårsage person- eller maskinskader. Undgå at køre over grusstier osv.
- (N) Du må ikke ferdes innenfor maskinens arbeidsområde. Kontrollér at underlaget som skal bearbejdes er fri for stener, kvister og annet. Slikt vil kunne kastes ut fra maskinen og føre til skade på person og maskin. Unngå å kjøre over grusganger etc.
- (D) Den Arbeitsbereich des Geräts nicht betreten. Die Rasenfläche, die bearbeitet werden soll, muß frei von Steinen, Zweigen und dergleichen sein, die hochgeschleudert werden und Verletzungen verursachen können. Nicht über Kieswege u. dgl. fahren.
- (GB) Do not stand in the machine's working area. Make sure there are no stones, twigs and other rubbish on the lawn. This type of object can be thrown by the machine and cause personal injury or damage to the machine. Avoid driving over gravel paths, etc.



- (S) Framhjulen höjs och sänks med hjälp av höjdställningsspaken. Med hjälp av justerratten kan man bestämma hur mycket framhjulen skall höjas.
- (FIN) Etupyörät nousevat ja laskevat korkeudensäätökahvan avulla. Korkeudensäätönupista voidaan säätää koneen työskentelykorkeus.
- (DK) Forhjulene løftes og sænkes ved hjælp af højdeindstillingshåndtaget. Ved hjælp af justeringshåndtaget kan man bestemme, hvor meget forhjulene skal løftes.
- (N) Framhjulene heves og senkes ved hjelp av høydeinnstillingspaken. Ved hjelp av justeringsrattet kan man bestemme hvor mye framhjulene skal heves.
- (D) Die Vorderräder werden mit Hilfe des Höheneinstellhebels in der Höhe verstellt. Am Einstelldrehknopf läßt sich die richtige Höhe einstellen.
- (GB) The front wheels are raised and lowered by means of the height setting lever. You can determine how much the front wheels should be raised by using the adjusting handle.



- (S) Koppla in rotorn genom att föra spaken bakåt nedåt.
- (FIN) Kytke leikkuuyksikkö päälle vetämällä kytentäkahvaa ohjaintankoa vasten.
- (DK) Koble rotoren ind ved at føre indkoblingsbøjlen med til håndtaget.
- (N) Koble inn rotoren ved å føre spaken bakover nedover.
- (D) Den Rotor einkuppeln - dazu den Hebel nach hinten und unten führen.
- (GB) Engage the rotors by moving the lever backwards and down.



## GENERAL

1. Never allow children or persons not conversant with these instructions to use the machine. Local regulations can have restrictions regarding the age of the driver.
2. Never use the machine if other persons, especially children or animals, are in the immediate vicinity.
3. Bear in mind that the driver is responsible for accidents involving other people or their property.

## PREPARATIONS

- w Wear heavy-duty footwear and long trousers when working. Do not drive the machine in bare feet or when wearing sandals.

- w Warning - Petrol is extremely inflammable.

Store fuel in a container intended for this purpose.

Only fill the machine with fuel outdoors and do not smoke while filling.

Fill with fuel before starting the engine. Never remove the fuel cap or fill while the engine is running or still warm.

If you should spill any fuel, do not try to start the engine without first moving the machine from the area where you spilled the fuel. Avoid all types of sparks, etc. until the fuel has evaporated.

- w Replace the silencer if defective.
- w Before use: always check that the blades and fastening equipment are not worn or damaged. Replace worn or damaged parts in sets so that the machine's balance is maintained. Use only original spare parts.

## OPERATING

- w Do not run the engine in confined areas where dangerous carbon monoxide fumes can collect.
- w Only work in daylight or in good lighting.
- w Take care on slopes. Never drive straight across a slope. Drive upwards and down; downwards and up.
- w Watch out for hidden holes in the ground and any other hazards.
- w Do not change the engine's regulator settings and do not over rev the engine. There is a danger of personal injury when the engine runs at too high revs.
- w Do not leave the driving position without first switching off the engine.
- w Switch off the engine and remove the spark plug cable:
  - to remove twigs or rubbish that has jammed.
  - to check, clean or service the machine.
  - to check whether damage has occurred after colliding with another object.
  - to check the machine if it starts to vibrate more than normal. (Check immediately).

- w Stop the engine:
  - before filling with fuel.
  - before adjusting the height setting.
- w Reduce the throttle when stopping the engine. If the engine is equipped with a fuel tap this should be closed when work has been completed.

## MAINTENANCE AND STORAGE

- w Tighten all nuts and bolts so that the machine is in good working order.
- w Never store the machine with petrol in the fuel tank in buildings where fumes can come into contact with naked flames or sparks.
- w For reasons of safety, replace worn or damaged parts. Use only original spare parts.

## INTRODUCTION

The machine is available in two designs:

### 1. Sacrifier (fig. 1)

The rotors are fitted with blades (KOVA 60245) which make parallel cuts in the ground. The cuts allow water, air and nourishment to penetrate to the grass roots.

### 2. Lawn rake (fig. 2)

The rotors are fitted with independent, suspended heads (KOVA 60212) that rake up moss and dead grass from the lawn.

## USING THE MACHINE

### BEFORE STARTING

- w Loosen the oil plug (fig. 3D) and check the oil level in the engine's crankcase.
  - The oil, at the right level, just reaches the edge of the hole. If necessary top up the oil using SAE 10W-30.
- w Fill the fuel tank with unleaded petrol. Do not mix oil with the petrol.
  - NOTE! Bear in mind that normal unleaded petrol is perishable, do not buy more fuel than you can use within 30 days.
  - Only fill the machine with fuel outdoors and do not smoke while filling. Fill before starting the engine. Never remove the fuel cap or fill while the engine is running or still warm.

### START

1. Move the stop control to the "ON" position (fig. 4). Move the choke lever to the "CHOKE" position.
2. Note. A warm engine requires no (little) choke.
3. Grip the starter handle and pull slowly until the starter unit engages.
4. Start the engine by swiftly pulling the starter handle.
5. When the engine starts, open the choke gradually.



6. Make sure no one is standing close to the machine when starting or working.
7. Engage the rotors by moving the lever backwards and down (fig. 5).
8. Lift the height setting lever (fig. 6) so that the blades/heads lower to the working position.

#### HEIGHT SETTING

- w The front wheels are raised and lowered by means of the height setting lever (fig. 11).
- w You can determine how much the front wheels should be raised by using the adjusting handle (fig. 6).

#### OPERATING TIPS

- w Always cut the lawn before using the lawn rake. Collect the grass cuttings or rake them up.
- w After cutting or raking, it is appropriate to dress and fertilize the lawn.

##### Sacrifier

- w A sacrifier cuts shallow, parallel cuts in the ground. The earth is aired, the roots' breathing is improved, water and nourishment can penetrate into the cuts. The cuts should not be deeper than 6 - 8 mm.

##### Lawn rake

- w A lawn rake is used to remove moss and dead grass from the lawn. While working the lawn rake's heads should not touch the ground.

#### STOPPING

- w Move the stop lever to the "OFF" position (fig 4).
- w If the machine is left unattended remove the spark plug cable from the spark plug.

#### CLEANING

- w The machine should be cleaned after use. It is especially important to clean under the cover. Rinse off using a garden hose. In doing so, the machine will last longer and work better.
- w The engine is air cooled. A blocked cooling system will damage the engine. The engine should be cleaned annually or after 100 working hours.

Remove the fan cover. Clean the cylinder's cooling fins, the fan and the rotating protection grille. Clean more often during dry conditions (fig. 7).

The fuel contains lead and petrol. Never use fuel for cleaning purposes when carrying out repairs or cleaning. Use another suitable cleaning agent instead.

## MAINTENANCE

### OIL CHANGE

- w Change the oil for the first time after 5 working hours, and then after every 50 working hours. Change the oil when the engine is hot.  
     Engine oil can be very hot if it is drained directly after stopping. Therefore let the engine cool for a few minutes before draining the oil.
- w Remove the drainage plug (fig 3E) and let the oil run out into a container. Replace the drainage plug.
- w Fill with new oil - SAE 10W-30, approx. 0.6 litres.

### AIR FILTER

- w A dirty or blocked air filter reduces engine power and increases wear.
- w Wash the filter every third month or after every 25 working hours, whichever occurs first.  
     Carefully remove the filter insert. If the insert is extremely dirty it should be replaced or cleaned (fig. 8).  
     Wash the insert in detergent and warm water. Rinse under running water. Let the insert air dry completely before refitting. The insert must not be oiled. Do not use compressed air to clean the insert.

### SPARK PLUG

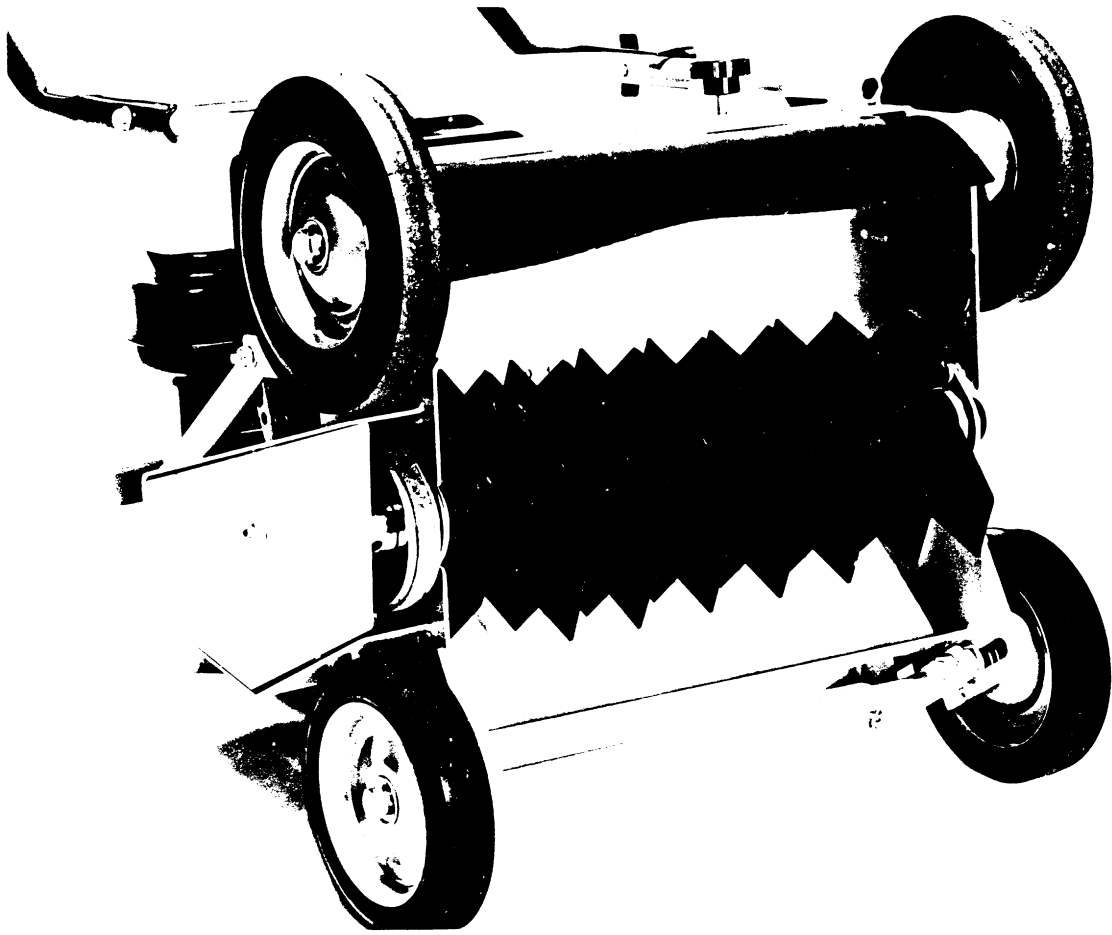
- w Clean the spark plug periodically (after every 100 working hours). Use a wire brush to clean. Set the correct electrode gap (fig. 9).
- w Change the spark plug if the electrode is too burnt or if the spark plug is damaged. The engine manufacturer makes the following recommendations:  
     For Briggs & Stratton engines a Champion J19LM ought to be used. Electrode gap 0.75 mm.

### ROTOR

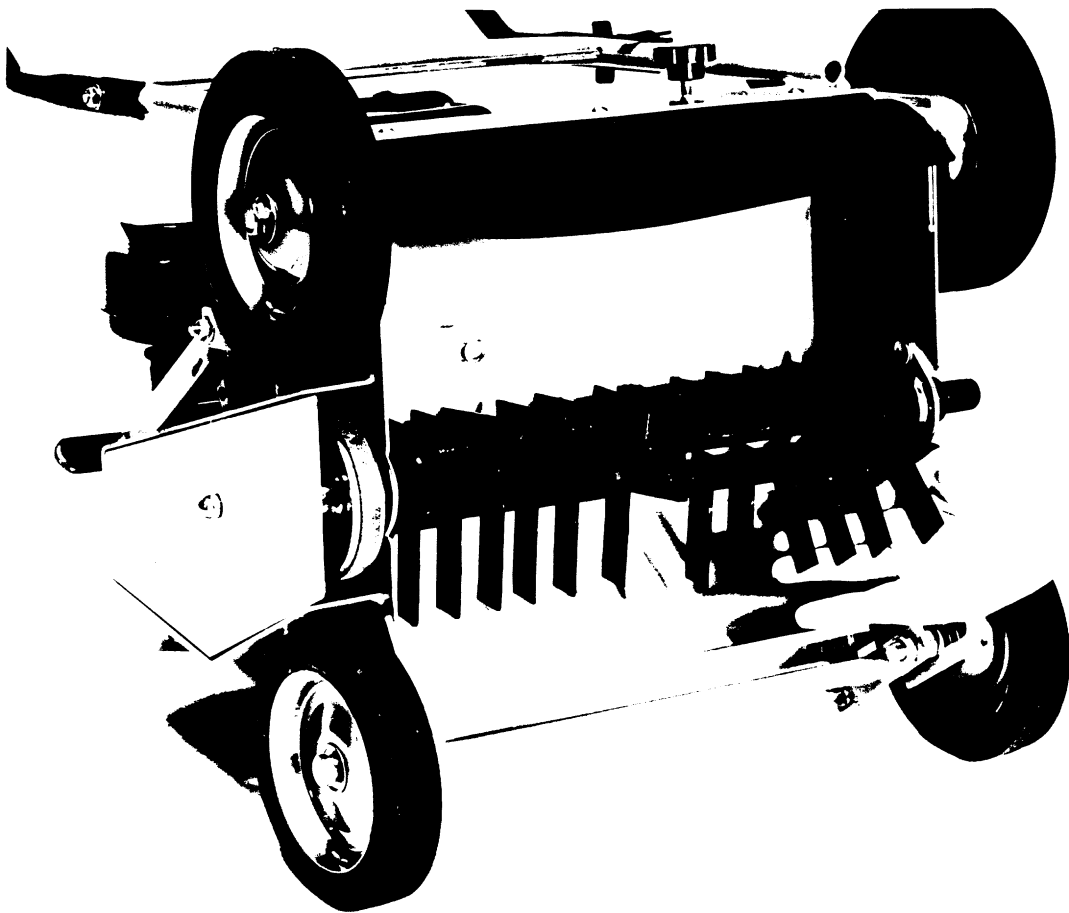
#### Lawn rake

- w After a period of time the blades/heads become worn on the side that first enters the lawn (fig. 10).
- w Loosen the entire rotor unit from the machine and swing axle. When refitting the rotor unit the blades/heads can be reversed (fig. 12).
- w However, when both sides have been worn new wear parts should be fitted.

Spare parts number:	Blades for lawn rake	KOVA 60212
	Heads for Sacrifier	KOVA 60245

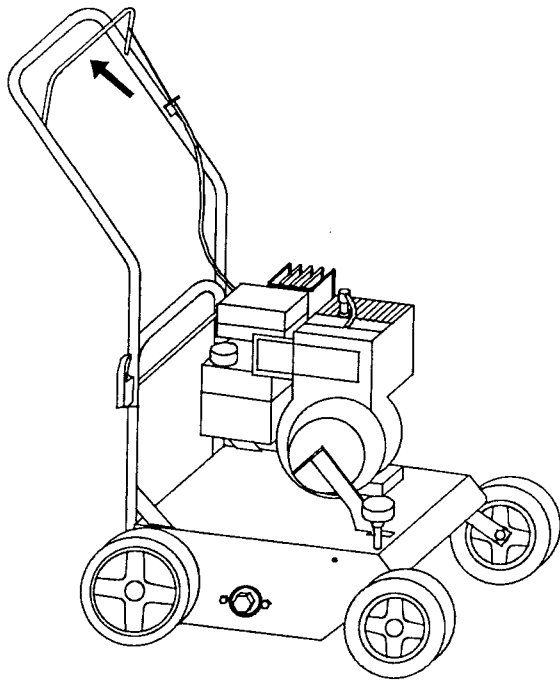


1.

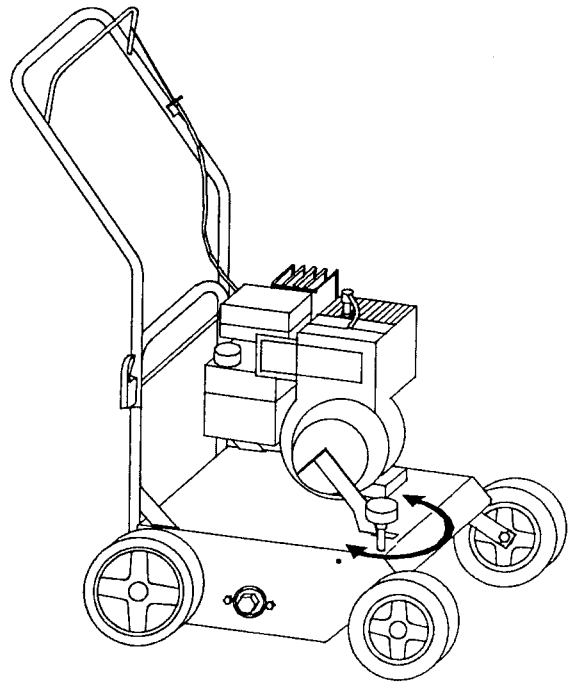


2.

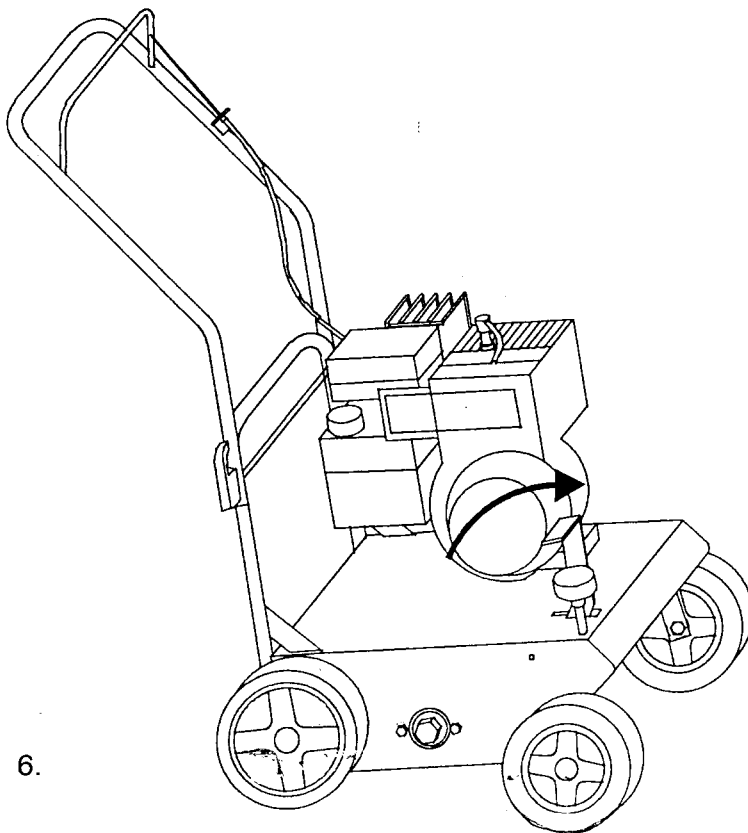
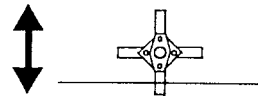




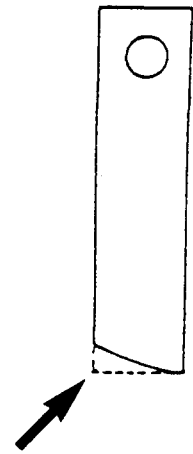
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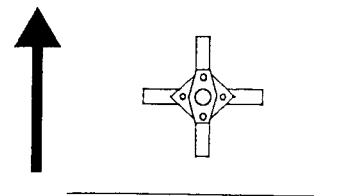
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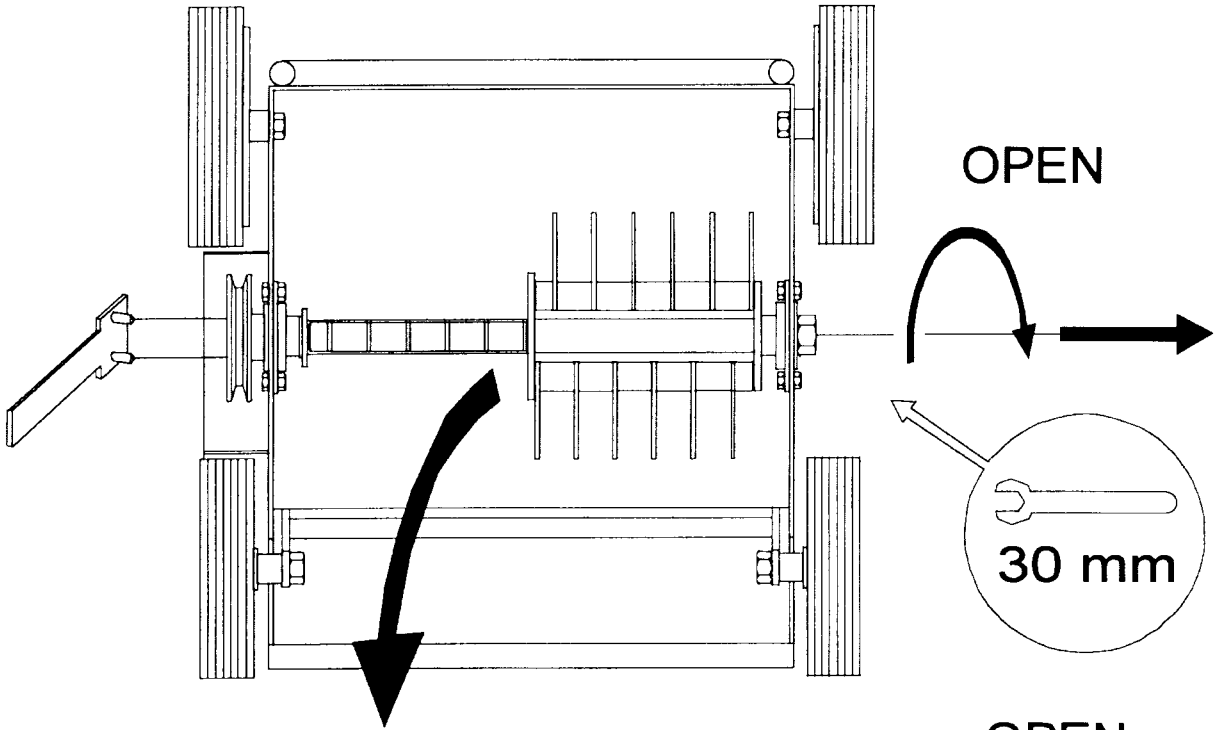


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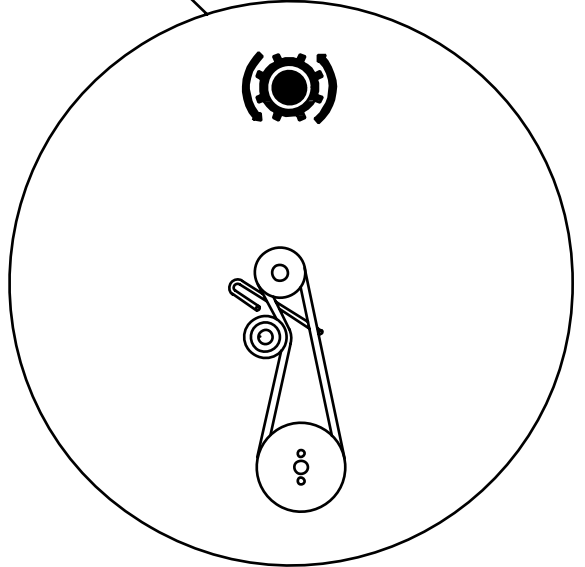
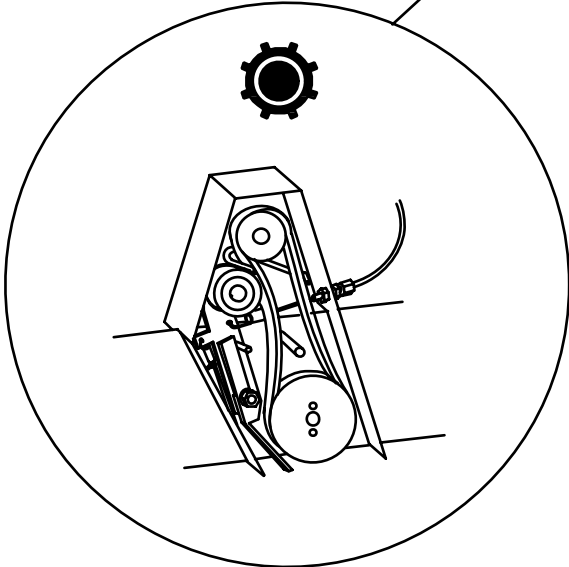
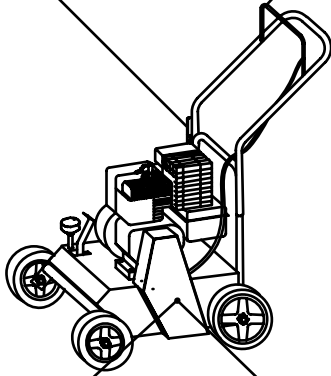
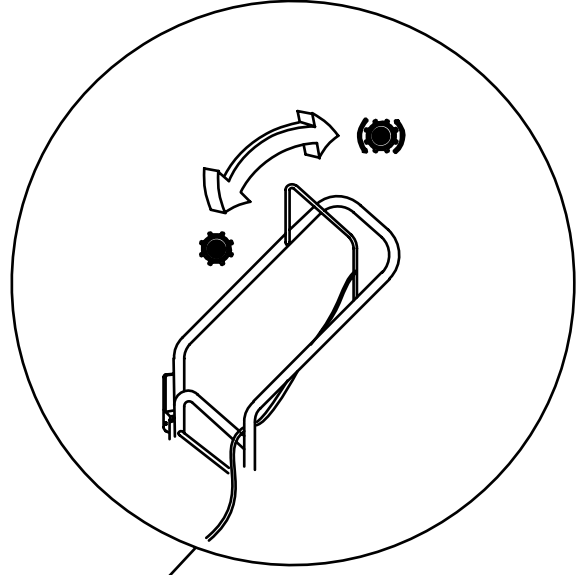
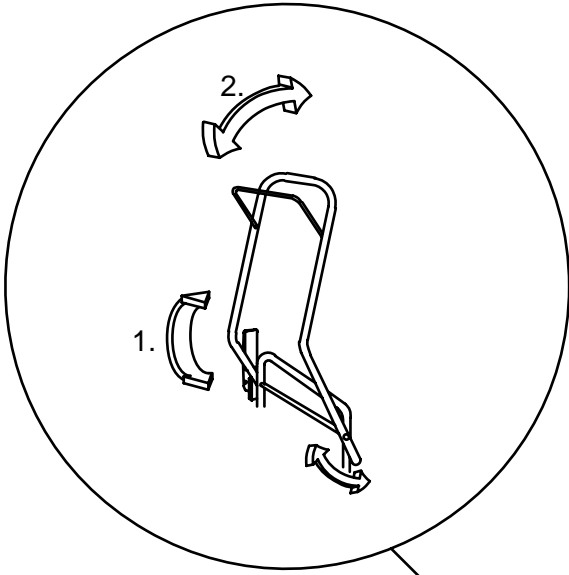


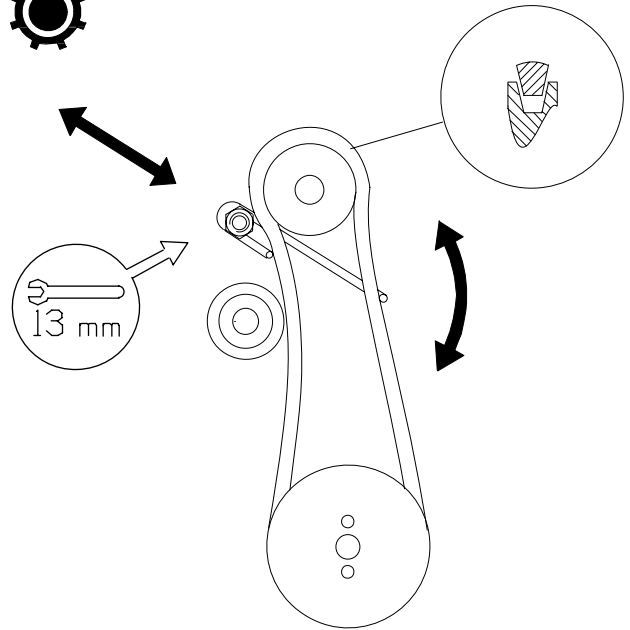
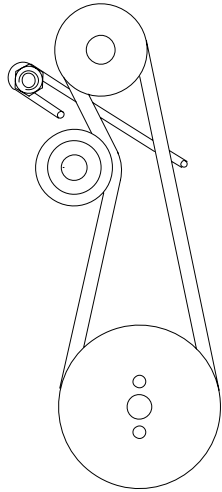
5.

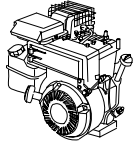

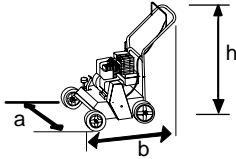
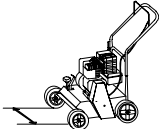
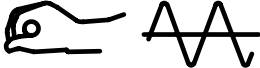
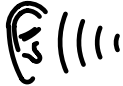




7.





	3200 rpm 4 kW
	46 kg
	$a=580$ mm $b=1030$ mm $h=950$ mm
	430 mm
	$9,8$ m/s <sup>2</sup>
	L <sub>WA</sub> 96 dBA

**INTYG****S**

Tillverkare: KONEPAJA A. VANNE, KOVA, Veistämöntie 16, FIN-24800 HALIKKO, FINLAND, försäkrar härmed att maskintyp M401 är i överensstämmelse med maskindirektivet 89/392/EEC, 91/368/EEC, 93/44/EEC med särskilda hänvisningar till direktivets Annex 1 om väsentliga hälso och säkerhetskrav i samband med konstruktion och tillverkning.

Utfärdat i Halikko 1995

**BESCHEINIGUNG****D**

Hersteller: KONEPAJA A. VANNE, KOVA, Veistämöntie 16, FIN-24800 HALIKKO, FINLAND, bestätigt hiermit, daß die Maschine vom Typ M401 mit den Maschinenrichtlinien 89/392/EEC, 91/368/EEC, 93/44/EEC unter besonderem Hinweis auf ANNEX 1 der Richtlinie über die wichtigsten Gesundheits- und Sicherheitsanforderungen im Zusammenhang mit Konstruktion und Herstellung, übereinstimmt.

Ausgestellt in Halikko 1995

**TODISTUS****FIN**

Valmistaja: KONEPAJA A. VANNE, KOVA, Veistämöntie 16, FIN-24800 HALIKKO, FINLAND, vakuuttaa, että kone tyyppi M401 on konedirektiivin 89/392/EEC, 91/368/EEC, 93/44/EEC mukainen huomioiden erityisesti oleelliset terveys- ja turvallisuusvaatimukset, jotka koskevat koneiden suunnittelua ja rakennetta.

Laadittu Halikossa 1995

**ATTESTATION****F**

Fabricant: KONEPAJA A. VANNE, KOVA, Veistämöntie 16, FIN-24800 HALIKKO, FINLAND, atteste par la présente que la machine de type M401 est conforme aux Directives Machines 89/392/EEC, 91/368/EEC, 93/44/EEC avec une référence particulière à l'Annexe 1 des directives, concernant les exigences principales en matière de santé et de sécurité au niveau de la construction et de la fabrication.

Fait à Halikko en 1995

**BEVIS****DK**

Fremstiller: KONEPAJA A. VANNE, KOVA, Veistämöntie 16, FIN-24800 HALIKKO, FINLAND, forsikrer hermed, at maskinen af type M401 er i overensstemmelse med Maskindirektiv 89/392/EEC, 91/368/EEC, 93/44/EEC med særlig henvisning til direktivets Annex 1 om væsentlige sundheds- og sikkerhedskrav i forbindelse med konstruktion og fremstilling.

Udfærdiget i Halikko 1995

**CERTIFICATE****GB**

Manufacturer: KONEPAJA A. VANNE, KOVA, Veistämöntie 16, FIN-24800 HALIKKO, FINLAND, hereby certifies that the machine of type M401 conforms to Machine Directive 89/392/EEC, 91/368/EEC, 93/44/EEC with special reference to Annex 1 of the directive concerning essential health and safety requirements in relation to design and manufacture.

Issued at Halikko 1995

**ATTEST****N**

Produsent: KONEPAJA A. VANNE, KOVA, Veistämöntie 16, FIN-24800 HALIKKO, FINLAND, forsikrer herved at maskinen av type M401 er i overensstemmelse med EUs Maskindirektiv 89/392/EEC, 91/368/EEC, 93/44/EEC med særskilt henvisning til direktivets vedlegg 1 om vesentlige helse- og sikkerhetskrav i forbindelse med konstruksjon og produksjon.

Utfærdiget i Halikko 1995



Ismo Forsström