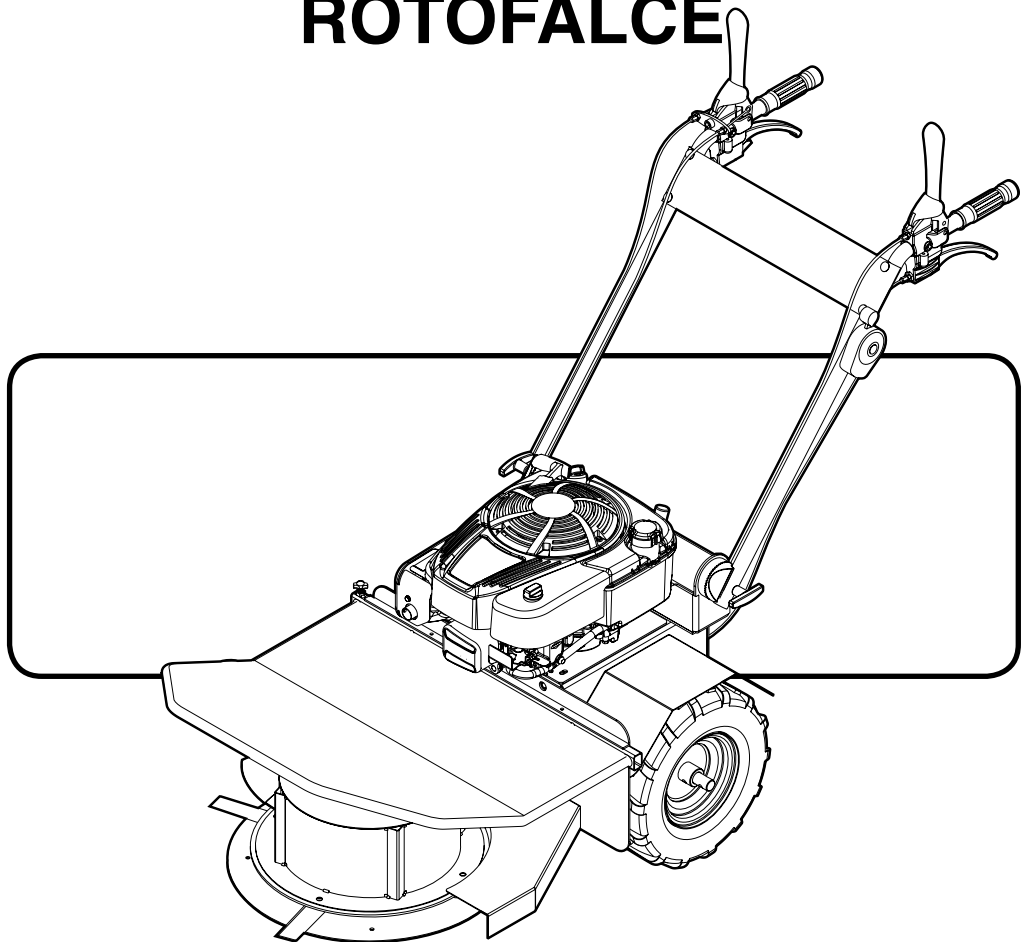


FORT[®]

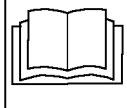
ROTOFALCE



CE

IT USO E MANUTENZIONE

EN OPERATING AND MAINTENANCE



Prima di iniziare ad operare con la macchina, leggere attentamente le istruzioni per l'uso.

Before starting to work with the machine, operation read the instructions for use.

ISTRUZIONI ORIGINALI
con traduzioni delle istruzioni originali

	MODELLO - MODEL ROTOFALCE	FORT S.r.l. Unipersonale Via Seccalegno, 29 36040 SOSSANO (VI) ITALIA Tel. +39 0444 788000 Fax +39 0444 788020 Cod. Fisc. /P.I.: 02565660244
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<p>Dichiarazione CE di conformità</p> <p>La ditta FORT S.r.l. Unipersonale dichiara sotto la propria responsabilità che la macchina sottoindicata è conforme alle seguenti disposizioni legislative:</p> <ul style="list-style-type: none"> - Direttiva 2006/42/CE & smi - Direttiva 2004/108/CE <p>Riferimenti normativi utilizzati: UNI EN 12100, EN 13857, EN 1033, EN 709+ A4.</p>	<p>Declaración CE de conformidad</p> <p>La empresa FORT S.r.l. Unipersonale declara bajo su exclusiva responsabilidad que la máquina abajo indicada es conforme a las siguientes disposiciones legislativas:</p> <ul style="list-style-type: none"> - Directiva 2006/42/CE & smi - Directiva 2004/108/CE <p>Se han utilizado los siguientes documentos normativos: UNI EN 12100, EN 13857, EN 1033, EN 709+ A4</p>
<p>EC Declaration of conformity</p> <p>The company FORT S.r.l. Unipersonale declares on its own responsibility that the machine below listed complies with following regulations:</p> <ul style="list-style-type: none"> - Regulation 2006/42/CE & smi - Regulation 2004/108/CE <p>The following standards were complied with: UNI EN 12100, EN 13857, EN 1033, EN 709+ A4.</p>	<p>Declaração CE de conformidade</p> <p>A firma FORT S.r.l. Unipersonale declara sob a sua própria responsabilidade que a máquina abaixo indicada está conforme as seguintes disposições legislativas:</p> <ul style="list-style-type: none"> - Directiva 2006/42/CE & smi - Directiva 2004/108/CE <p>Referências normativas utilizadas: UNI EN 12100, EN 13857, EN 1033, EN 709+ A4.</p>
<p>Déclaration CE de conformité</p> <p>La société FORT S.r.l. Unipersonale déclare sous sa propre responsabilité que la machine sous indiquée est conforme aux dispositions législatives:</p> <ul style="list-style-type: none"> - Directive 2006/42/CE & smi - Directive 2004/108/CE <p>Les suivants documents normatives ont été utilisés: UNI EN 12100, EN 13857, EN 1033, EN 709+ A4.</p>	<p>EF - overensstemmelseerklæring</p> <p>Firmaet FORT S.r.l. Unipersonale deklarerer under eget ansvar at nedenstaaende maskine er i overensstemmelse med fig. bestemmelser:</p> <ul style="list-style-type: none"> - Direktiv 2006/42/CE & smi - Direktiv 2004/108/CE <p>Anvendt referat: UNI EN 12100, EN 13857, EN 1033, EN 709+ A4.</p>
<p>EG - Konformitätserklärung</p> <p>Die Firma Fort S.r.l. Unipersonale erklärt aus eigener und alleinige Verantwortung dass die unten genannte Maschine mit der Bezeichnung mit den folgenden gesetzlichen Bestimmungen übereinstimmt:</p> <ul style="list-style-type: none"> - Richtlinie 2006/42/CE & smi - Richtlinie 2004/108/CE <p>Es wurden die folgenden normativen Unterlagen verwendet: UNI EN 12100, EN 13857, EN 1033, EN 709+ A4.</p>	<p>ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ ΕΚ</p> <p>Η εταιρεία FORT S.r.l. Unipersonale Δηλώνει υπ' ευθύνη της, ότι το μηχάνημα που βρίσκεται παρακάτω, συμμορφώνεται με τους ακόλουθους κανονισμούς:</p> <ul style="list-style-type: none"> - Κανονισμός 2006/42/CE & smi - Κανονισμός 2004/108/CE <p>Τα ακόλουθα πρότυπα συμμορφώθηκαν με: UNI EN 12100, EN 13857, EN 1033, EN 709+ A4.</p>

Modello / Model

Matricola / Serial nr.

Motore / Engine

Anno di fabbricazione: Sossano (VI)

Detentore documentazione tecnica
Luigi MOLINARO c/o Fort S.r.l. Unipersonale
Responsabile Tecnico

Rappresentante Legale
Fort S.r.l. Unipersonale
Amministratore Delegato

FORTFORT Srl Unipersonale
SOSSANO (Vicenza) ITALIA - 36040 Via Seccalegno, 29
Tel. 0039 444 788000 - 0039 444 885085MOD.
ANNO
POTENZA kW
MASSA Kg MATRICOLA
SERIEN NR.
SERIAL No
MATRICULE

XXXXXX

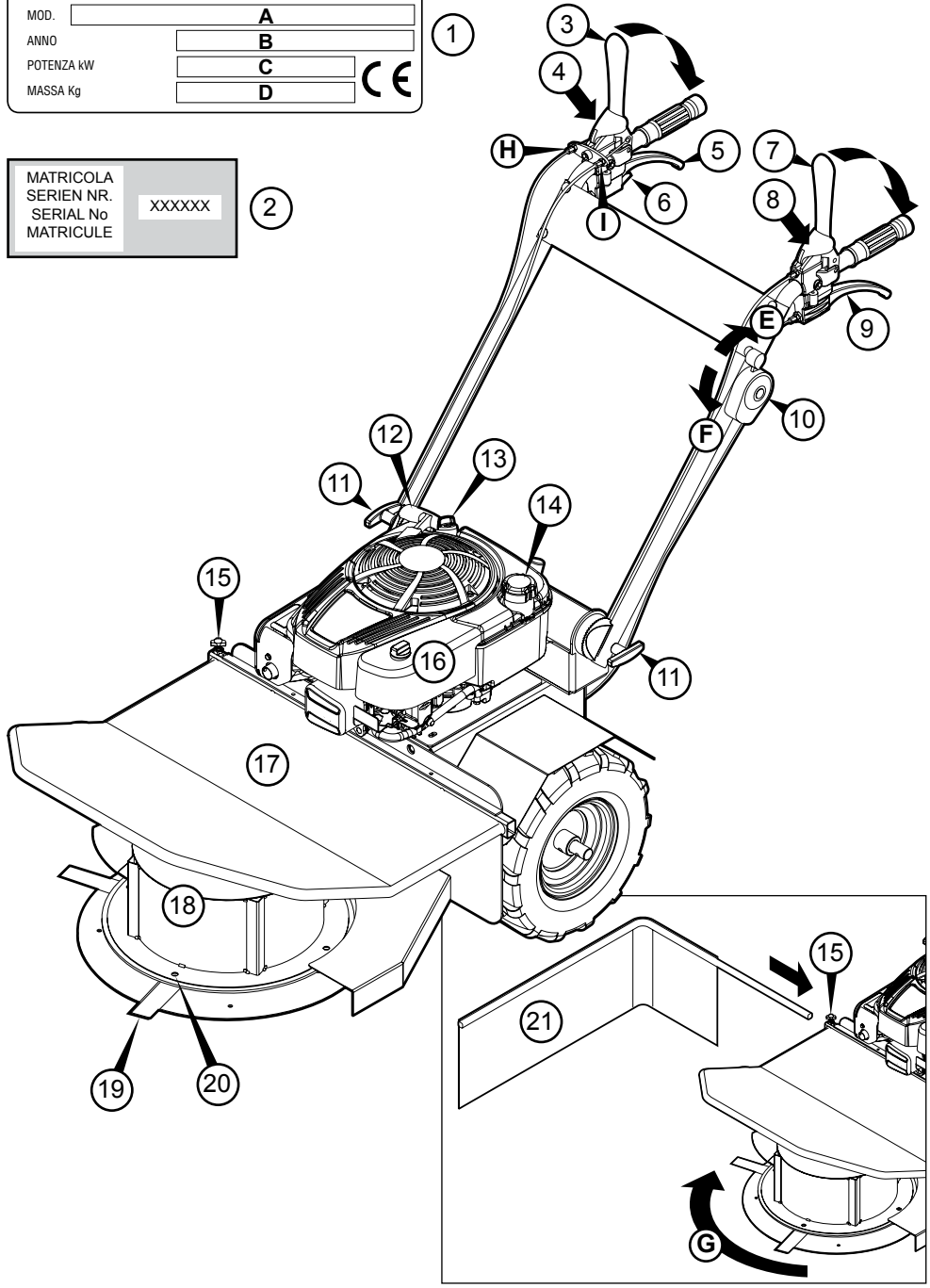
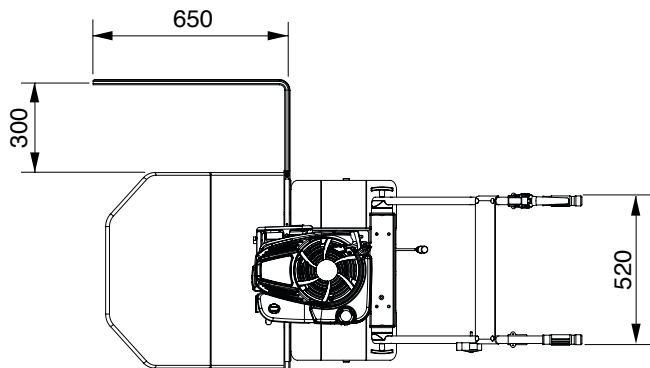
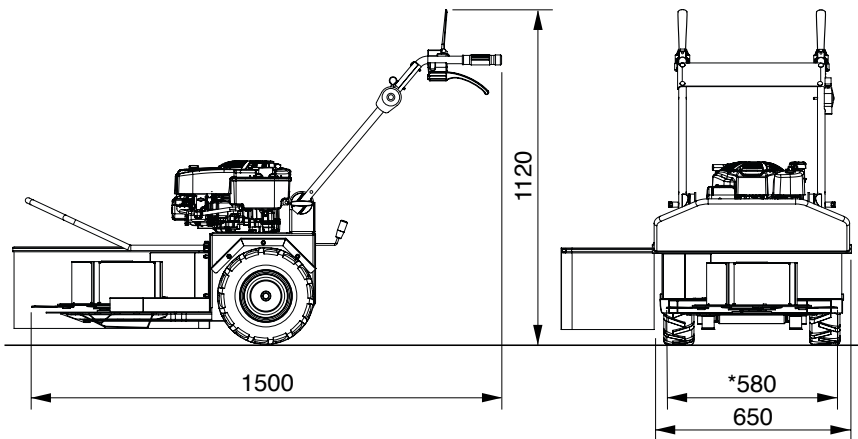


Fig. 1



*) Diametro taglio
Cutting diameter

Fig. 2

Solo / Only: WM 600 BR

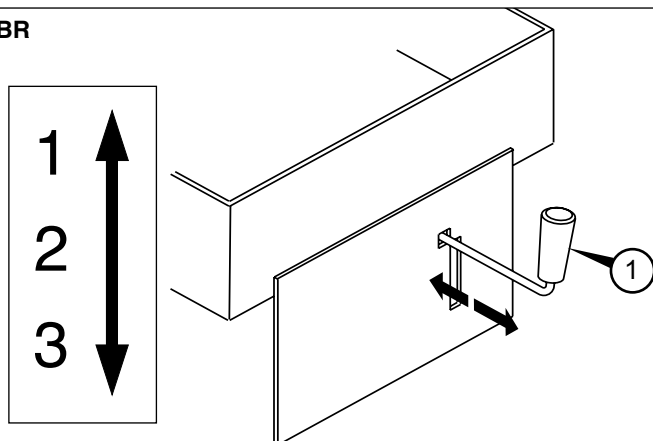


Fig. 3

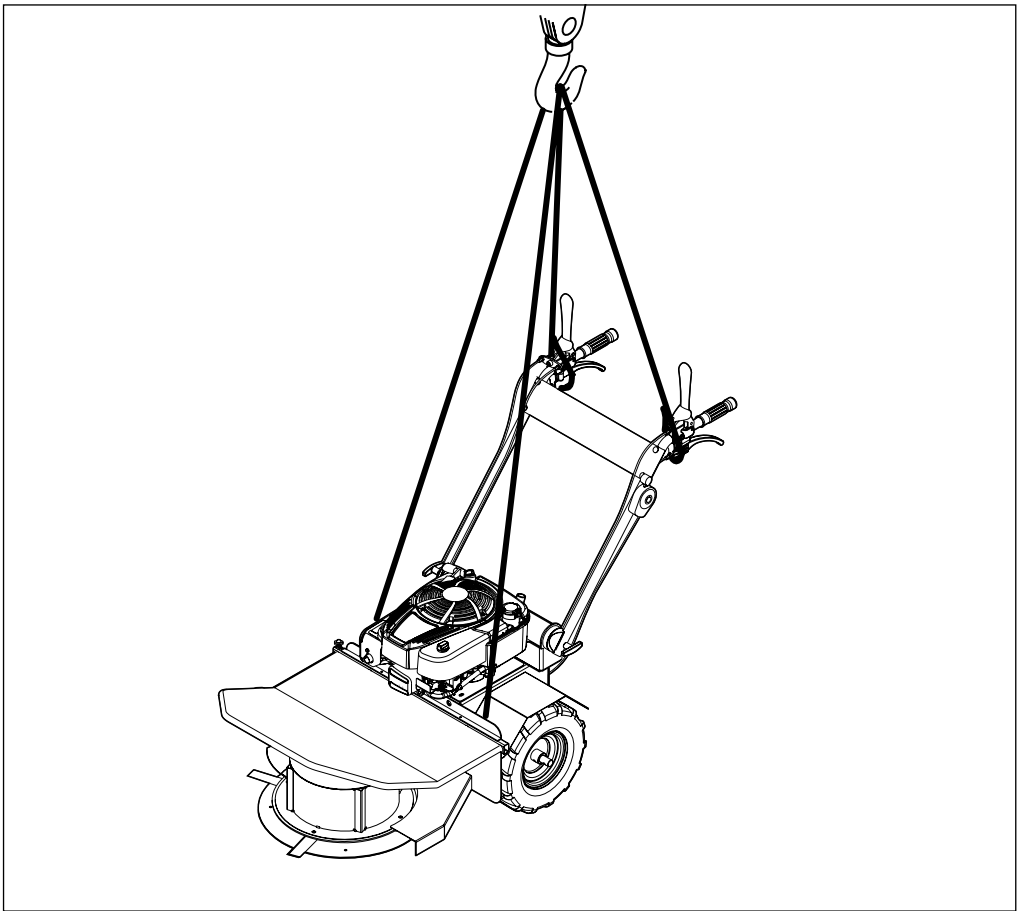


Fig. 4

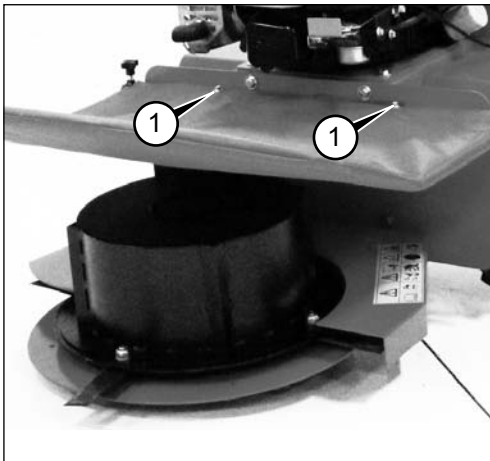


Fig. 5

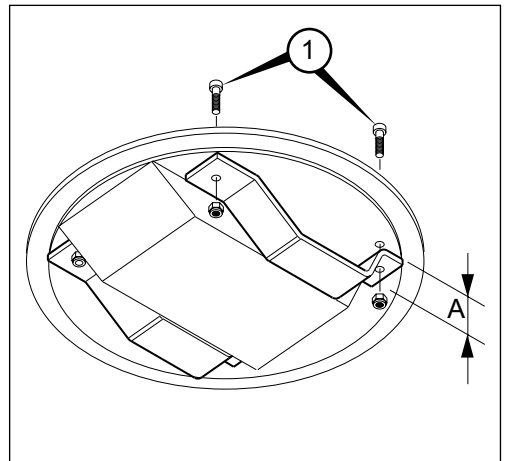


Fig. 6

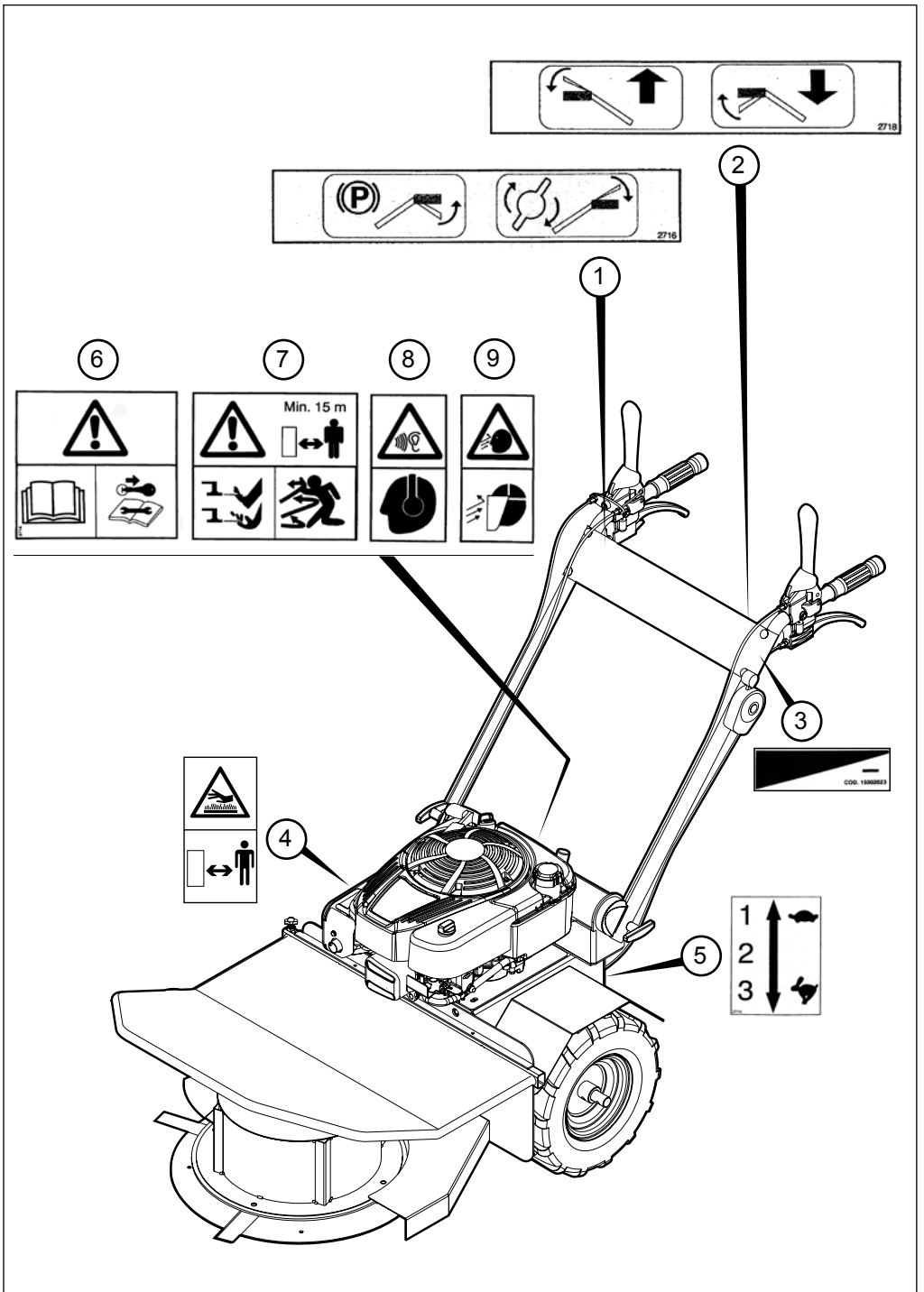


Fig. 7

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DESCRIPTION OF FIGURES

Fig. 1 - Overview of the machine.

- 1) Nameplate.
- 2) Serial number.
- 3) Release lever safety brake and insertion cutting apparatus.
- 4) Device for locking/unlocking lever (3). Only when pressed in the direction indicated by the arrow, allows the actuation of the lever with the consequent release of the safety brake and drive of the cutting; the release, the lever (3) automatically returns in a vertical position by removing traction to the transmission belt and activating the braking system of the cutting. **H) Control cable rotating knives. I) Cable insertion brake.**
- 5) Parking brake lever (only version WM 600 BR).
- 6) System lock brake (only version WM 600 BR).
- 7) Lever insertion forward.
- 8) A device locking/unlocking lever insertion forward. Only when pressed in the direction indicated by the arrow, allows the operation of the lever, and activate the forward run of the machine; the lever is released, the machine stops and the lever remains in a vertical position.
- 9) Lever inserting reverse; (only on version WM 600 BR). The levers 8 and 9, can't be operated simultaneously.
- 10) Throttle Lever: **E = stop position of the engine. F = position of maximum engine rpm.**
- 11) Hand lever handlebar height adjustment (n. 2).
- 12) Hand lever manual motor controllers.
- 13) Plug with engine oil dipstick.
- 14) Fuel tank cap.
- 15) Hand lever mounting bracket towel rake.
- 16) Engine air filter.
- 17) Shelter in canvas with metal frame.
- 18) Cylinder scatter grass and support cutting knives.
- 19) No 4 floating knives for cutting grass. **G = direction of rotation cutting apparatus.**
- 20) Screw fixing the knife float.
- 21) Towel rake adjustable width.

Fig. 2 - Overall dimensions of the machine.

Fig. 3 - Rod marches. Push forward all fits 1st gear, halfway back you insert the second, the whole back third.

Fig. 4 - Anchor points for lifting the machine.

Fig. 5 - 1) Fixing screws shelter in canvas.

Fig. 6 - Slide cutting height adjustment. 1) Screw fixing slides. - A) Height of the slide.

Fig. 7 - Safety signs and their location on the machine (for their description see section 2.2 Safety signs).

SECTION 1

Description and specifications of the machine

1.1 FOREWORD

This manual lists the information, the instructions, and what it is thought necessary for the knowledge, the correct use, and the ordinary maintenance of the ROTARY MOWER conduct by hand model WM 600 BR (change at 3 vel. + reverse) and model 600 WM B (mono march forward only), hereinafter also called machine or vehicle, manufactured by «**FORT**» from Sossano (Vicenza), Italy, hereinafter also referred to as Manufacturer.

What is herewith written is neither a complete description of the several members nor a detailed explanation of their operation, but the user may find what is normally useful to know for a safe use and a correct storage of the machine. The ordinary operation, the life and the operational economics of the machine itself depend on the compliance with what is written in this manual.



WARNING

Failure to comply with what is described in this manual, the operational carelessness, the improper use of the machine and the performing of unauthorized modifications, cause the voidance of the machine warranty by the Manufacturer.

The Manufacturer also declines and shall not be held responsible for direct and indirect damages caused by the above-mentioned reasons and by the non-fulfillment of what is written in this manual.

In case of repairs or overhauls involving particularly difficult operations, you must contact the authorized Service Centers that employ skilled personnel or directly the Manufacturer who is, anyway, at your complete disposal in order to grant an immediate and careful technical service and everything necessary for restoring the machine full efficiency.



DANGER

This manual is an integral part of the machine and must always be attached to it in case of transfer or sale. It shall be kept in a safe place known by the

authorized personnel.

The personnel shall keep it integrally so to be able to consult it during the whole life of the machine itself. In case it is damaged or lost, you must require a copy of it to the Manufacturer immediately.

1.2 WARRANTY

The Manufacturer warrants his new manufactured products for a period of twelve (12) months from the date of purchase.

The engine is warranted in compliance with the terms and conditions established by the Manufacturer himself.

We suggest checking the integrity of the machine when you receive it.

Any claim shall be made in writing within 8 (eight) days after receiving the machine itself.

The warranty includes only the repair or the replacement free of charge of those parts which, after a careful examination by the Manufacturer, are found faulty (excluding electrical parts, work tools and consumable materials)

Any return shall be previously agreed about with the Manufacturer and shall be shipped ex works.

The replacements or the repairs of the parts under warranty shall not, however, extend the terms of the warranty itself.

The transport costs, the lubricants, the VAT and the customs duties, if any, shall be to the charge of the purchaser.

The purchaser shall, anyhow, enforce his claims only if he has complied with the additional terms concerning the validity of the warranty listed also in the supply contract.

In case both parties do not intend to submit the disputes arising out of the supply contract to the arbitrators' judgment, or in any other case, when the judgment of a body of the ordinary Court is required, only the Court of Vicenza shall be the competent court.

1.2.1 WARRANTY EXCLUSIONS

The warranty shall not be valid (besides what is mentioned in the supply contract):

- in case a handling mistake and/or crash attributable to the operator takes place;
- in case the max. permissible power limit it is exceeded;
- in case the damage is attributable to a poor maintenance;
- if accessories or applications not delivered or tested by the Manufacturer were assembled on the

- machine;
- in case, further to repairs carried out by the user without the Manufacturer's permission or in case, due to the assembly of non-genuine spare parts, the machine undergoes changes and the damage is attributable to such changes:
- in case the instructions listed in this manual are not complied with;
- if some exceptional events should happen.

Moreover, the warranty does not include the damages resulting from negligence, carelessness, bad use and misuse of the machine.



WARNING

The tampering of the safety devices on the machine shall automatically void the warranty and the Manufacturer's responsibility.

1.3 IDENTIFICATION OF THE MACHINE

ENGINE. To identify the engine it is necessary to consult the instructions manual of the specific engine, by comparing the data on the nameplate of the engine Manufacturer.

MACHINE. Each machine is equipped with serial number (2 Fig. 1) and an identification plate (1 Fig. 1), listing:

- Name and address of the **Manufacturer**;
- «**EC**» marking;
- **A)** Model;
- **B)** Year of manufacture;
- **C)** Installed power in kW.
- **D)** Mass in Kg.

The data reported on the identification plate, in addition to the serial number applied on a special aluminum plate, which identify the machine, must always be quoted for any spare parts requirement and/or assistance.

The machine in the two standard versions is equipped with:

- instructions manual for operating and maintaining the machine;
- instructions manual for operating and maintaining the engine;
- «**EC**» declaration of conformity;

Kit including:

- Wrench for hex head screws from 10-13;
- Wrench for hex head screws from 13-17;
- Allen key size 6;
- Key 16 for sparking plug;
- Screwdriver;

- 2 pairs of slides for cutting height adjustment;
- 2 pairs of tubes grass protection for shaft wheels (2 are of different lengths, for use as a function of the roadway with which you want to equip the machine).

Both above mentioned manuals are to be considered an integral part of the machine and they must be carefully read before carrying out any intervention or before using it (even before unpacking it).

1.4 DESCRIPTION OF THE MACHINE AND AUTHORIZED USE

The rotary mower model WM 600 and BR 600 WM B are machines «**EC**» marked in compliance with the regulations of the European Union listed in the Directive 2006/42/EC, 2004/108/EC, as described in the declaration of conformity attached to each machine.

1.4.1 USE OF THE MACHINE

It is an agricultural machine designed to be controlled by a single operator on foot and intended for cutting grass in the field of agriculture in general. The machine only works with commands such as "deadman".



DANGER

The operator shall be skilled and able to read and understand what is written in this manual. The operator, moreover, shall use the machine by keeping in mind the regulations in force for the accident prevention, the conditions of use and the specifications of the machine itself.

1.4.2 UNAUTHORIZED USE OF THE MACHINE



DANGER

- **THE MACHINE SHALL NOT BE USED IN ENVIRONMENTS WHERE VAPORS OR EXPLOSIVE FLAMMABLE GAS MIXTURES MAY DEVELOP**
- **IT SHALL NOT BE USED IN CLOSED OR POORLY VENTILATED ROOMS**

IT IS ABSOLUTELY FORBIDDEN TO USE THE MACHINE IN FLAMMABLE OR EXPLOSIVE ATMOSPHERE AND/OR WITHIN CLOSED ENVIRONMENTS
The machine was not designed to be used on public roads.

Moreover, the machine is not equipped with night-lights and for this reason it must not be used at night-time.

**DANGER**

IT IS ABSOLUTELY FORBIDDEN TO TRANSPORT PEOPLE ON THE MACHINE.

THE MANUFACTURER SHALL NOT BE HELD RESPONSIBLE FOR DAMAGES TO PERSONS, ANIMALS OR THINGS DERIVING FROM A USE OF THE MACHINE DIFFERENT FROM THE ONE MENTIONED IN THIS MANUAL.

1.4.3 EQUIPMENT INTERCHANGEABLE ON DEMAND

- milling unit from 25 cm to 17 cm reducible;
- milling unit from 45 cm to 37 cm reducible;
- milling unit from 60 cm to 52 cm reducible;
- lister adjustable full usable together with the cutter;
- wheel iron cage.

1.4.4 CONTROL AND DRIVING POSITION

The control position of the mower, which is described in this manual, is with both hands put on the handlebars.

1.5 PROTECTIONS AND SAFETY DEVICES

**DANGER**

The machine was designed in order to be safety

used by protecting the movable parts with fixed guards, with movable guards and with safety devices.

The Manufacturer, therefore, declines any responsibility in case of damages resulting from the tampering of the protections and safety devices.

1.5.1 NOISE LEVEL

The machine is equipped with B&S 850 engine.

The noise level (airborne noise) was detected with the engine running at full speed and load, according to EN ISO 3744/1997 and found the following levels:

ENGINE	Sound pressure level at the driver's seat LpA (dB)	Sound power level LWA (dB) based on 2000/14/EC
WR 600 BR B&S Serie 850	89	101
WR 600 B&S Serie 750	88	100

1.5.2 VIBRATIONS LEVEL

The vibration level was detected with machine with cutter, in motion, vacuum, and with the motor running at 85% of rated speed declared by the manufacturer of the same, the measured values are equal to: 3,5 m/s².

1.6 TECHNICAL SPECIFICATIONS

TECHNICAL DATA		Mod. WM 600 BR	Mod. WM 600 B
Engine		B&S serie 850	B&S serie 750
Displacement	cc.	190	161
Maximum torque	Nm	11,6 a 2600 RPM	10.1 a 2600 RPM
Maximum speed	RPM	3300	3300
Fuel		Green gasoline	Green gasoline
Tank capacity	literr	1,1	1,0
Engine oil capacity	liters	0.6	0.6
Start		Recoil	Recoil
Accelerator		At lever on the handles	At lever on the handles
Transmission		Mechanical gearbox + straps	Mechanical gearbox + straps
Marches		3 forward + 1 reverse	1 forward
Speed forward	Km/h	1.22--2.3--3.4 RM 2.80	3.00
Wheels		310x100 solid tires	310x100 solid tires
Cutting system		Using 4 cutters floating	Using 4 cutters floating
Speed of rotation of knives	RPM	2750	2750
Direction of rotation		Clockwise see from above	Clockwise see from above
Cutting width	cm	60	60
Cutting height	mm	40 or 60	40 or 60
Weight machine	Kg	93	88

Safety devices:

- Braking system of the cutting which intervenes to the release of the control lever (3 Fig. 1) and stops the rotation of the knives a few seconds.
- Engagement lever cutting apparatus (3 Fig. 1), feed lever machine (7 Fig. 1) and reverse lever (9 Fig. 1) type "deadman" that in case of release, even in emergency conditions, automatically lock the machine in all its functions.
- Locking system control levers rotor and feed machine (4 and 8 Fig. 1) to prevent any accidental insertions of the same.
- Protective cover to the throwing of the material in the direction of the operator (17 Fig. 1).

Handlebars: adjustable in height.

Dimensions: See figure 2.

Working width: from 17 at 60 cm.

Supplies: the type of fuel to be used is green gasoline; do however refer to the instruction manual of the engine by checking the identification data on the rating plate of the same.

The fuel tank and the cap are placed on the motor (14 Fig. 1).

SECTION 2

Safety and prevention

2.1 SAFETY

The personnel shall be instructed on the risks resulting from accidents on the devices arranged for the operator's safety and on the general accident prevention regulations provided for by the legislation of the Country where the machine is being used.

While designing the machine, all the potential dangerous situations were foreseen and consequently the proper protections were adopted. Anyhow, the level of accidents caused by the careless and improper use of the machine is still high.

The carelessness, the irresponsibility and the too much familiarity are too often the cause of accidents as well as tiredness and sleepiness.

You shall read this manual very carefully and in particular the section concerning the safety regulations.



DANGER

The Manufacturer shall not be held responsible for the non-compliance with the safety and accident prevention regulations provided for by the laws

and for the non-compliance with what is provided for in this manual.



DANGER

Pay attention to this symbol in the instructions manual.

It shows a possible hazard.

2.1.1 WORDS USED

Words of people and of specific situations that may involve directly the machine an/or the persons in contact with the machine itself are here below listed.

- **USER:** The user is the person, the body or the company who has purchased or rented the machine and who intends to use it for the designed purposes. He shall be responsible for the machine and for the training of all those working with it.
- **DANGEROUS AREA:** Any area within and/or near the machine where the presence of an exposed person implies a hazard for the safety and the health of the same.
- **EXPOSED PERSON:** Any person who is completely or in part near a dangerous area.
- **OPERATOR:** A person who is able to operate, to carry out the maintenance, to clean and to transport the machine.
- **AUTHORIZED SERVICE CENTER:** The authorized service center is the structure legally authorized by the Manufacturer that has skilled personnel able to perform all the service, maintenance and repair operations, also the most difficult ones, which are necessary for perfectly maintaining the machine.

2.1.2 GENERAL SAFETY REGULATIONS



WARNING

The non-compliance with what is written in «Section 2 - Safety and prevention» and the tampering of the safety devices, if any, relieve the Manufacturer from any responsibility in case of accidents or malfunctions of the machine.

General warning:

- The user commits himself to leave the machine only with personnel that have been trained and qualified to this purpose.
- The user shall take all the precautionary measures so that unauthorized personnel do not use the machine.

- The user commits himself to properly instruct his own personnel on the application and the compliance with the safety requirements
- The user shall inform the Manufacturer in case he finds defects or malfunctions of the accident prevention systems, as well as of any situation of alleged hazard.
- The operator shall always use the personal protection devices provided for by the laws and he shall perform what is mentioned in this manual.
- The operator shall comply with the instructions as regards danger and warning pointed out on the machine.
- The operator shall not perform on his own initiative operations or interventions that are not up to him.
- The machine has been tested only with the supplied accessories. The assembly of equipment of other brands or any repair may alter the specifications of the machine and therefore compromises the operative safety
- The machine shall not be operated with the guards that are disassembled or partly damaged.

2.2 SAFETY SIGNALS

The machine was designed by adopting all possible solutions for the safeguard and safety of the operator. Notwithstanding this, the machine may show some residual hazards; that is those hazards that were not possible to eliminate completely under certain conditions of use.

These potential hazards are indicated on the machined with adhesives (pictograms) that briefly point out the several unsafe and dangerous situations.



WARNING

Keep the adhesive signs clean and replace them immediately when they are detached or damaged.

Referring to Figure 7, please read what is described below and store its meaning.

- 1) This plate indicates that the lower lever shall be used to actuate the parking brake (on WB 600 BR versions only) and that the upper lever shall be used to operate the cutting device.
- 2) This plate indicates that the upper lever shall be used to operate the forward gear and that the lower lever shall be used to operate the reverse gear (on WB 600 BR versions only).
- 3) Nameplate indicating how to operate the lever to increase or decrease the engine speed.

- 4) Risk of burns; avoid touching or approaching any hot parts of the engine.
- 5) Nameplate indicating the position of the three forward gears (on WB 600 BR versions only).
- 6) Before performing any maintenance, stop the machine and read the instruction manual.
- 7) Be careful when the machine is working as there is a danger of injury to the lower limbs and a danger related to the throwing of blunt objects; visitors should keep to a minimum distance of 15 m from the machine.
- 8) Risk of noise: during operation, it is compulsory to use protective systems for the hearing.
- 9) When working, it is required to wear a protective mask on the face and eyes because of the danger of throwing blunt objects.

2.3 SAFETY WHILE OPERATING AND MAINTAINING THE MACHINE



WARNING

- Use suitable clothes. Do not wear large or loose clothes: they may get entangled in the rotating parts. Long hair must be tied. Moreover, the operator shall not carry out sharp tools in his pockets.
- During the maintenance and repair operations, the operator shall wear protective clothes, cut proof gloves, non slip and anti-crash shoes.
- Comply with the laws of the Country where the machine is being used, concerning the use and the disposal of the products employed for cleaning and maintenance. Dispose all waste, if any, through the special companies authorized to this purpose with the issuing of the receipt for the goods disposal.
- It is absolutely forbidden to operate or have the machine operated by someone who has not read and understood what is written in this manual, or by unskilled personnel or by personnel in poor psychophysical conditions and, anyhow, by persons less than 18 years old.
- Before starting the machine, check that the safety devices are perfectly intact.
- Before starting to work for the first time, know and be familiar with the control devices and their functions.
- The area where the machine is used is to be considered «dangerous area», above all for the people that are not trained to use the machine itself. Before starting the machine, make sure that all around the working area there are not persons or animals or

- impediments of any kind.
- The operator must immediately release the levers that actuate the machine if a person or an animal access the danger of the machine and wait, before resuming the work, that the area is completely free.
 - Never leave the machine in motion especially for long periods; in this way, you also avoid that the belt that rotates the cutting device can damage.
 - When a person is exposed, that is within the «dangerous area», the operator shall immediately intervene and stop the machine to send away the above person.
 - Never leave the machine while it is running.
 - Periodically check the integrity of the machine on the whole and the protection devices.
 - Before carrying out any repair or maintenance operation on the machine, stop the machine and shut the engine off.
 - In case the guards were removed, make sure to fix them in place before using the machine again.
 - Comply with the suggested oils. Keep the lubricants away from children. Carefully read the warnings and the precautions listed in the lubricant containers. After using them, wash your hands thoroughly. Dispose of the used lubricants according to the antipollution regulations.
 - At the end of the maintenance and repair operations, make sure that all operations are completed, that the safety devices and the guards are back in place before starting the machine again.
 - The spare parts must correspond to the needs established by the Manufacturer. Use only genuine spare parts
 - When working on yielding grounds, near slopes, ditches or steep grounds, operate with the utmost care at low speed to prevent the machine from overturning; it is moreover suggested, in these cases, to arrange the load as further down as possible to give the machine more balance
 - In case the machine is meant to work on raised grounds or near precipices, before starting to work, it is compulsory to suitably put barriers around all tracts that may involve the fall of the machine from above due to a possible wrong maneuver by the operator.
 - It is forbidden to transport loads weighing higher than the machine max. carrying capacity.
 - Avoid, if possible, to cut the grass when it is wet; becomes high danger of slipping especially when working on steep slopes.
- It is absolutely forbidden to touch the running parts or to come between them. (in particular the crawlers) by keeping at a safety distance.
 - It is absolutely forbidden to have foreign persons stand within the machine working area.
 - Avoid parking the machine on a slope. If necessary, block the machine with logs or suitable stones to be placed between the ground and the crawlers.
 - During the maintenance operations, do not operate the machine in poorly ventilated rooms: the exhaust gases are harmful to the health.
 - Periodically check the tightening of the screws, nuts and couplings, if any.
 - It is absolutely forbidden to remove or tamper the safety devices.
 - The maintenance of the machine shall be performed by skilled personnel only after shutting the engine off, by following the instructions of this manual and of the engine manual
 - Before refueling or topping up with oil, stop the engine and to let it cool down. While refueling, do not smoke and do not get near free flames. Be sure to thoroughly wipe the spilled gasoline before starting the engine.
 - If any part clogs or stops, stop the engine and then remove the foreign body.
 - Before turning, disengage the differential lock (for machines that are equipped).
 - **THE BRAKING SYSTEM OF THE CUTTING DEVICE, CONTROLLED BY LEVER 3 IN FIG. 1, STOPS THE ROTOR WITH THE KNIVES IN A FEW SECONDS BUT NOT IMMEDIATELY. WHEN YOU RELEASED THE LEVER, YOU SHOULD, THEREFORE, LEAVE THE DRIVING SEAT ONLY AFTER THAT THE CUTTING DEVICE IS PERFECTLY STOPPED.**
 - **APPROACH THE CUTTING DEVICE ONLY WHEN THE ENGINE IS OFF AND WHEN ALL THE ITEMS ARE PERFECTLY STOPPED.**

SECTION 3

Transport

3.1 TRANSPORT

The machine is packed in cartons. In case it is stored, we suggest not to put more than three cartons of the same type one on the other (1+2).

Do not put a load of more than 200 kg (with base support not less than that of the packaging itself) on one single carton.

Remember that the packaging materials are recyclable

and therefore, after use, must be delivered to a collection site in accordance with the laws in force in the country of use of the machine.

If the machine needs to be lifted, this must only be done using the right kind of belt, sudden movements must be avoided and balance has to be kept through the handlebars as shown in Fig. 4.

In case it is necessary to transport the machine on a long route, this may be loaded onto trucks or other suitable means of transport.

In order to load the machine onto the means of transport (if there is not a lifting device with suitable lifting straps), it is necessary to have one special loading ramps. These ramps shall have a capacity of at least Kg. 200, a width of at least cm 50, the edges about cm 5 high and such a length so that the inclination does not exceed the 15°/20° with respect to the horizon line; they must be also equipped with a hooking system to the means of transport.



DANGER

The loading operations can be very dangerous if not done with care.

Before loading, therefore, send away the unauthorized personnel; clear and limit the transfer area and check the integrity and the suitability of the means of transport.

Check also the correct distance between the ramps. You must make sure that this area is clear and that there is a sufficient «escape area», that is a free and safe area where it is possible to move quickly in case the load falls.

Before loading, make sure that the body of the means of transport is large enough to transport the machine



DANGER

The area where you intend to load the machine shall be a firm level surface to avoid load shift, if any.

- **The means of transport shall have the engine shut off, the gear and the parking brake on.**
 - **The loading and the unloading shall be always performed with an empty machine (with no load).**
 - **Load the machine by walking at a low travel speed (1st speed or reverse speed and engine at the minimum rpm), by being careful to correctly enter the ramps and to walk on the ramps safely.**
- Once the machine is loaded onto the means of transport, make sure it is well locked in its position.**

Tighten securely the machine onto the platform with ropes or well-tightened chains to prevent it from moving,

After transporting it and before untying the machine, check that the shape and the position of the machine are not a hazard.

Then remove all ropes and chains and unload it with the same means and procedures used for loading.

SECTION 4

Use

4.1 BEFORE USING THE MACHINE



WARNING

Before operating the machine, the operator must have read and understood all the sections of this manual (as well as the manual of the engine) and, in particular, «Section 2» on security.

Before starting the work, also check that the machine is OK and that all its items subject to wear are fully efficient.

4.1.1 UNPACKING THE MACHINE

Usually, unless exceptional cases, the machine is delivered packed in cardboard boxes and with some components removed.

In this case, after freeing or removing the machine from the box, taking care not to damage the transmission cables, it is recommended to deposit it on a flat floor and proceed to complete its assembly. It is recommended that 2 people perform the operations described below with the aid of a suitable lifting.

4.1.2 INSTALLING THE WHEELS

To mount the wheels, you need:

- Raise one side of the machine of about 30 cm.
- Insert one of the four plastic tubes supplied onto the wheels shaft; choose the short one if you want to get a close track of the machine, mount instead the longer one if you want to mount the machine with wide track.
- Then insert the wheel with the coupling hole facing outward, being careful that the arrow stamped on the sides corresponds to the direction of advance of the machine (on each package, there are a right wheel and a left wheel).
- Bring the wheel in contact with the plastic tube,

- and align the coupling hole with that of the shaft.
- Insert the screw M8 and secure it with the self-locking nut.
- Place the machine on the ground and lift the other side to mount the second wheel by repeating the same steps described above; it is recommended to use even on this side the plastic tubw of the same length used on the previous side.

4.1.3 ADJUSTING THE HANDLEBARS

When the machine is delivered packed, the handlebars are folded and laid on top of the engine.

To place them correctly, depending on the height of the operator, you must loose, without disassembling, the two items for the lock/unlock of the handlebars (11 in Fig. 1); brig the handlebars to the desired position and retighten the two items (11 in Fig. 1) holding the handlebars.

It is recommended to fully tighten the two items to lock the handlebars and prevent them from moving during the operation of the machine.

4.1.4 INSTALLING THE SKIDS FOR THE ADJUSTMENT OF THE CUTTING HEIGHT

To maintain a constant cutting height of the grass, the machine is equipped with two pairs of slides of different height (A in Fig. 6) that are supplied disassembled; these slides shall be applied under the cutting device and, to mount them on the machine, after deciding at what height you plan to cut the grass, do the following:

- Curbe the wheels of the machine through the parking brake by pulling the lever (5 in Fig. 1) and lock it in that position by the locking system (6 in Fig. 1).
- Lift the machine from the cutting device until the levers of the handlebars touch the floor and lock it in that position by something that is substantial and resistant (a wood or a stool).
- Then mount the two slides selected and of the same height as shown in Fig. 6 and secure them with the screws provided (1 in Fig. 6).
- Remove then the object holding up the machine and place it on the ground.

4.1.5 INSTALLING A CANVAS SHELTER

The shelter in canvas (Fig. 5) of the machine comes mounted on its metal frame, but removed from the machine for reasons of space.

To install it on the machine:

- put it in place and match the two holes of the metal

frame with those on the machine.

- Insert the M 8 screws supplied (1 in Fig. 5) in the two holes.
- Install the washers and two self-locking nuts and secure them.

4.1.6 INSTALLING THE CANVAS OF THE SWATH TURNER (21 in Fig. 1)

The machine also has a towel with a special metal frame (21 in Fig. 1) that can be used if, when mowing, it is intended to have the grass cut in rows to facilitate its collection.

To mount this accessory on the machine, just insert the metal support frame, consisting of a square tube, inside the pipe that composes the frame of the shelter in canvas and lock it with the appropriate knob (15 in Fig. 1) in the desired position.

4.1.7 SUPPLIES

Now you should refuel the machine engine with oil and gasoline in the amount described under item Technical specifications in chapter 1.6.

4.1.8 FURTHER PRELIMINARY CHECKS

Before starting work:

- Using the dipstick (13 in Fig. 1), verify that the motor is supplied with oil and that it is at the right level.
- Check that the fuel tank (14 in Fig. 1) contains sufficient gasoline (at the first start-up, it is recommended to fill the tank).
- The machine in its rest position and before starting must have the two levers (3 and 7 in Fig. 1) in a vertical position as shown in Figure 1.
- Check the tightness of all screws.
- Check the engine air filter is clean.



WARNING

The engine is devoid of lubricant and fuel. Before starting the engine, the first time it is necessary to consult its instruction booklet and put oil and gasoline of the type and in the amount specified by the manufacturer

4.2 START-UP



DANGER

Do not refuel the machine in the presence of sparks,

lit cigarettes and fireworks whatsoever. Always stop the engine before removing the filler cap (14 in Fig. 1) and wait until it is sufficiently cold. Before restarting the engine, check that there is no leakage of oil or gasoline, in which case, thoroughly clean and dry. If you have spilled fuel on machine parts, then dry them. The tank should never be filled to the maximum level to prevent fuel leakage.

After placing the machine on a flat surface and have removed any visitors within range, proceed with the start-up, operating as follows:

- 1) Make sure that the two levers (3 and 7 in Fig. 1) are in a vertical position as shown in Figure 1.
- 2) Place the throttle lever to the bottom of its stroke (10 in Fig 1 pos. F) to also enter "the air".
- 3) Hold the hand lever of the starter cord of the engine (12 in Fig. 1) and pull slowly until there is some resistance. Now pull a strong and decisive tear.
- 4) Release the cord while you rewind it. In the case where the engine fails to start, repeat the operation.



ATTENTION

If after several attempts the engine does not start, call the Customer Service.

During the work, firmly grasp the handlebars to avoid that the machine can get out of hand and constantly check that all around the work area there are no people or animals.

4.3 PROGRESS - ENGAGEMENT OF THE GEARS (for WM 600 BR model only)

The engagement of the gears (3 forward + 1 reverse) and the feed are obtained in the following way:

- 1) After starting the engine, take it to the minimum speed and select one of the three available speeds depending on the work to be done (with high grass, use the first speed accordingly).
- 2) Now to forward with the machine, place the palm of the left hand on the tip of the forward control lever (7 in Fig. 1), which is still in the vertical position, and with the fingers press its locking/unlocking device (8 in Fig. 1).

With the palm of the hand, then slowly bring down the control lever (7 in Fig. 1) until it rests on the knob of the handlebar and hold it for as long as you need; now, the lawn trimmer advances with the speed selected that can vary only by

acting on the accelerator; to change gear, release the lever (7 in Fig. 1) and, when the machine is stopped, select another gear; to advance again press the lever (7 in Fig. 1) with the same procedure described above.

REVERSE GEAR

To advance into reverse instead, just pull the lever (9 in Fig.1) and hold it for as long as you need; the reverse gear is unique and works independently from the forward gear selected.

For the WM 600 B model (single forward gear only) to advance, just operate the lever (7 in Fig. 1) always with the same procedure described above.



ATTENTION

The feed lever (7 in Fig.1) and that of the reverse gear (9 in Fig. 1) cannot be operated simultaneously; there is a mechanical lock to prevent that this is possible.

4.4 DURING OPERATION

- When you cross slippery or sinking grounds, drive slowly.



WARNING

- It is forbidden to walk on soft ground where the machine could tip; being careful not to trip over obstacles; if that happens immediately leave the controls and the machine stops automatically.
- The obstacles must be passed at reduced speed and any driving reaction must be controlled.
- Do not start the machine abruptly
- Do not transport persons or animals in the machine.

4.4.1 USE OF THE MACHINES ON SLOPES

- When running on slopes, use only slow travel speeds by driving at the minimum.
- Never cross more than 30% steep slopes; never cross slopes with disengaged clutch or gearbox in neutral, use the braking effect of the engine.
- Park on slopes only if there is no other option. In this case, always make sure that the machine is stopped in a correct and safe way.
- Do not move on long and steep side slopes; the maximum side slopes it is safe to work on is 20%.
- Avoid rapid turns on slopes; they can make the

machine overturn.

- Pay a lot of attention when crossing obstacles on slopes, because the barycentre moving from one side to the other can cause jolts to the machine, compromising its balance.

4.4.2 PARKING



WARNING

Do not park the machine near yielding grounds, near slopes, ditches or steep grounds.

Never leave unattended half during stops. is forbidden to leave the machine with the engine running.

When the machine is at rest should always be entered the parking brake by depressing the lever (5 Fig. 1) and lock it in place with the latch (6 Fig. 1). On the restart, press the lever and the latch automatically unlocks.

4.5 STOPPING OF THE ENGINE

You must anyhow shut the engine off on a flat ground and not on yielding grounds, near slopes, ditches or steep grounds.

In order to stop the engine, carry out the following operations:

- Release the lever forward (7 Fig. 1) or reverse (9 Fig. 1).
- Release the lever rotation (3 Fig. 1).
- Move the throttle lever (10 Fig. 1) to position "E". At this point, the machine stops.
- Insert the parking brake to prevent accidental movement of the machine.

4.6 AFTER USE

After using the machine, park it on a flat ground inside and clean it thoroughly.

A clean and well-maintained machine will always work at its max. capacity.

When the machine is at rest must always be supported from the axle support flyer (4 Fig. 5).

SECTION 5

Routine maintenance

5.1 GENERAL INFORMATION

As it was designed, the machine does not need special

maintenance. Anyhow, in order to have the machine work at its max. capacity and in order to constantly have a perfectly efficient machine, some precautions must be followed.

We here below list some operations of ordinary maintenance. It is important to keep in mind that lower operating cost and the utmost durability of the machine depend on the procedure and constant compliance with these rules.

For whatever problem or explanation, contact the area dealer of the Manufacturer's technical department.



DANGER

The several maintenance and adjustment operations shall be performed with the engine shut off and with the machine well locked on a firm level ground.

5.2 ENGINE MAINTENANCE

As for the engine maintenance, make reference to the specific engine instructions manual. Approximately, every 8 working hours: check and top the engine oil level up, if necessary.

Check, moreover, the engine air filter and clean it if necessary. Replace if clogged.

Every 50 working hours, replace the engine oil.

Every two years it is advisable to replace the spark plug engine.

5.3 MACHINE MAINTENANCE

Periodically wash the machine and clean thoroughly each part. If a high pressure washing system is used, check that the fuel does not get wet and that no part is damaged.

After each washing, it is necessary to lubricate all parts subject to friction.

The oil in the gearbox is of special type and can not be replaced.

5.3.1 MAINTENANCE OF THE CHAIN AND THE DRIVE BELT TO THE WHEELS

The advancement of the machine occurs through a belt and a mesh chain that are located inside the machine body; to access the inside of the machine body, you must remove the rear cover (2 in Fig. 3) and the 4 screws.

The advancement of the machine occurs through a belt and a mesh chain that are located inside the machine body; to access the inside of the machine body, you must remove the rear cover (2 in Fig. 3)

and the 4 screws.

CHAIN

Every 100 hours of work, lubricate the chain with grease and inspect it for any excessive gap; if necessary, minimize the gap by means of screws that lock the wheel supports (loosen the nuts and pull down the axis of the wheels, and then firmly tighten the previously loosened nuts).

FEED BELT

In addition to lubricate the chain, it is recommended to verify the correct tension of the drive belt; if it was little tense, you have to correct its tension by pulling back the gearbox support ; to do this, act on the 4 screws that secure it to the frame (during this operation do not loosen the screws holding the gearbox to the support).

5.3.2 BELT OF THE CUTTING DEVICE

If the belt that rotates the the device for cutting the grass would tend to slip (emanating smell of burning rubber), it is recommended to increase the tension by loosening a few turns the cable adjuster B in Fig.1. If, however, the problem persists, it means that the belt is to be replaced and do this work in the following way:

- Lift the machine, with a secure means, so as to make accessible the bottom cover of the cutterbar;
- Remove the screws securing the cover and remove it;
- Replace the worn belt with a new one;
- Adjust the belt tension acting on the cable adjuster B in Fig. 1; the adjustment is correct when the lever 3 in Fig. 1 resting on the knob of the handlebar, the belt is tight and must be loose when the lever 3 in Fig. 1 is free in the vertical position.

5.3.3 SAFETY BRAKE

Frequently check the proper operation of the safety brake: it must stop in a very short time the rotation of the cutting system upon the release of the control lever (3 in Fig. 1) and it must unlock immediately, as soon as you pull the same lever; unlocking has to occur when the tip of the control lever has a stroke greater than 20 mm (in this way, you avoid prematurely damaging the drive belt).

5.3.4 CHECKING THE CABLES

- Cable of the parking brake: if the parking bra-

ke does not hold firmly the machine, act on the adjuster placed in front of the lever (5 in Fig. 1) unscrewing it a few turns (for WM 600 BR model only).

- Control feed cable: if the machine does not proceed regularly, partly unscrew the adjuster placed in front of the lever (7 in Fig. 1) to increase the load on the clutch of the gearbox.
- Control reverse gear cable if the machine does not stop, partly unscrew the adjuster placed in front of the lever (7 in Fig. 1) to increase the load on the specific clutch of the reverse gear placed inside the gearbox (for WM 600 BR model only).

5.3.5 REPLACING THE CANVAS SHELTER

If it becomes necessary to replace the shelter in canvas (17 in Fig. 1), proceed as follows:

- Remove the two screws (1 in Fig. 5) that secure the towel to its frame and also remove the reinforcement rod.
- Remove the towel to be replaced, mount the new towel on the frame, enter the rod into the reinforcement rod and secure the assembly with the two screws (1 in Fig. 5).

5.3.6 REPLACING THE KNIVES

If after a long use of the machine, it should be necessary to replace the floating knives (19 in Fig. 1), proceed as follows:

- Lift the machine in such a position as to make it comfortable working on the cutting device.
- Unscrew the self-locking nut (20 in Fig. 1) with a wrench of 17 and remove the nut from below as well as the special bush that holds the knife;
- Then laterally remove the knife, the washer and the anti-noise rubber ring;
- Fit the new knife, (with the sharp edge facing toward the ground on which you will operate), with the washer above and the outer rubber ring outside;
- Insert the bolt through the hole of the frame with the special bush, making sure to center the hole of the knife, and that everything else remains in the order described.
- Screw the self-locking nut - it is recommended that is new - and secure it with force.

Repeat these steps for the other knives of the cutting rotor.

When the knives have dents on the cutting edge or high wear, they can topple upside thus exploiting the other edge on the knife. It is recommended in this

case to replace the knives in the same hole where they were before being dismantled



DANGER

When for some reason you have to replace a single knife, you must replace all the other knives to prevent that the rotating assembly causes imbalances and strong vibrations resulting in serious dysfunction of the machine.

5.4 EXTRAORDINARY MAINTENANCE

The operations of extraordinary maintenance are not mentioned in this manual: however, they shall be performed only by the Manufacturer or by skilled personnel authorized by the Manufacturer himself.

5.5 SETTING AT REST

In case you foresee a long period of inactivity for the machine, it is necessary:

- To clean thoroughly all dirt on the machine.
- To check the correct tightening of the screws.
- To check and replace, if necessary, the damaged or worn parts.
- To coat the ruined or abraded parts with an antitrust varnish.
- To lubricate/grease all parts subject to wear.
- To cover the machine with a cloth and put it inside, away from bad weathers, freezing and humidity.

5.6 MACHINE DISMANTLING

In case you decide to dismantle the machine, you shall separate its components in equal parts which must be disposed one by one in compliance with the local regulations concerning waste disposal.

Dispose the exhausted lubricants and the several detergents, according to their different structure.



WARNING

FOR THE DISPOSAL OF THE SEVERAL COMPONENTS, CONTACT EXCLUSIVELY LEGALLY AUTHORIZED COMPANIES THAT MAY ISSUE A REGULAR RECEIPT OF THE DISPOSAL.

5.7 SPARE PARTS

The spare parts of the engine unit must be directly requested to the engine manufacturer or its dealer.

In order to request the spare parts of the machine,

contact the local Dealer of the Manufacturer.

We finally remind you that the Manufacturer is always at your disposal in case you need after-sale service and/or spare parts.

5.8 TROUBLESHOOTING

A) The engine does not start at all: check what follows:

- 1) the fuel level reaches at least the half of the fuel tank;
- 2) that the fuel valve is open and that the kill switch is in the "ON" (if it is present in the engine);
- 3) the accelerator is in START position (end of stroke), the control cable is not released or broken and the rich mixture control is working («air» - primer);
- 4) that the electrical cable placed in the accelerator to shut off the motor is not grounded, even when the lever is in position;
- 5) the fuel reaches the carburetor or the injector;
- 6) the vent on the fuel cap is not clogged;
- 7) the filter on the carburetor inlet is clean (if any);
- 8) the carburetor jet is clean. In order to check it, unscrew it and if dirty, clean it by means of an air jet;
- 9) the spark plug makes sparks (gasoline engines). In order to carry out this check, disassemble the plug, connect it again to the current cable, lean the metallic ground part and pull slowly the rope of the engine recoil starter, as if you wanted to start it. If there is no spark between the two electrodes, try to check the connections between the spark plug cable and if the current does not arrive yet, replace the spark plug. If also this gives no results, the problem concerns the electric system, and at this point we advice you to contact the closest service center or a specialized repair shop.

B) The engine has no power:

- 1) **check that the air filter is clean; possibly remove the dirt using compressed air;**
- 2) **replace the filter if it is soiled with oil, especially during transport.**
- 3) **replace the spark plug.**

C) The machine struggles to advance forward or in reverse:

- 1) **increase the load on the forward or reverse gear clutch using the register placed in front of the control lever (unscrew it a few turns)**

2) check or replace the feed belt as described in paragraph 5.3.1.

D The machine does not go forward or backward

- 1) check the feed belt;
- 2) check the feed chain;
- 3) check the spring pin of the sprocket;
- 4) check the fixing screws of the wheels.

E) The engine stops when you pull the control lever of the cutting device

- 1) wait that the engine warms up;
- 2) operate the lever more slowly (3 in Fig. 1);
- 3) check that the rotor did not caught some objects;
- 4) check that the automatic brake unlocks and at the right time.



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