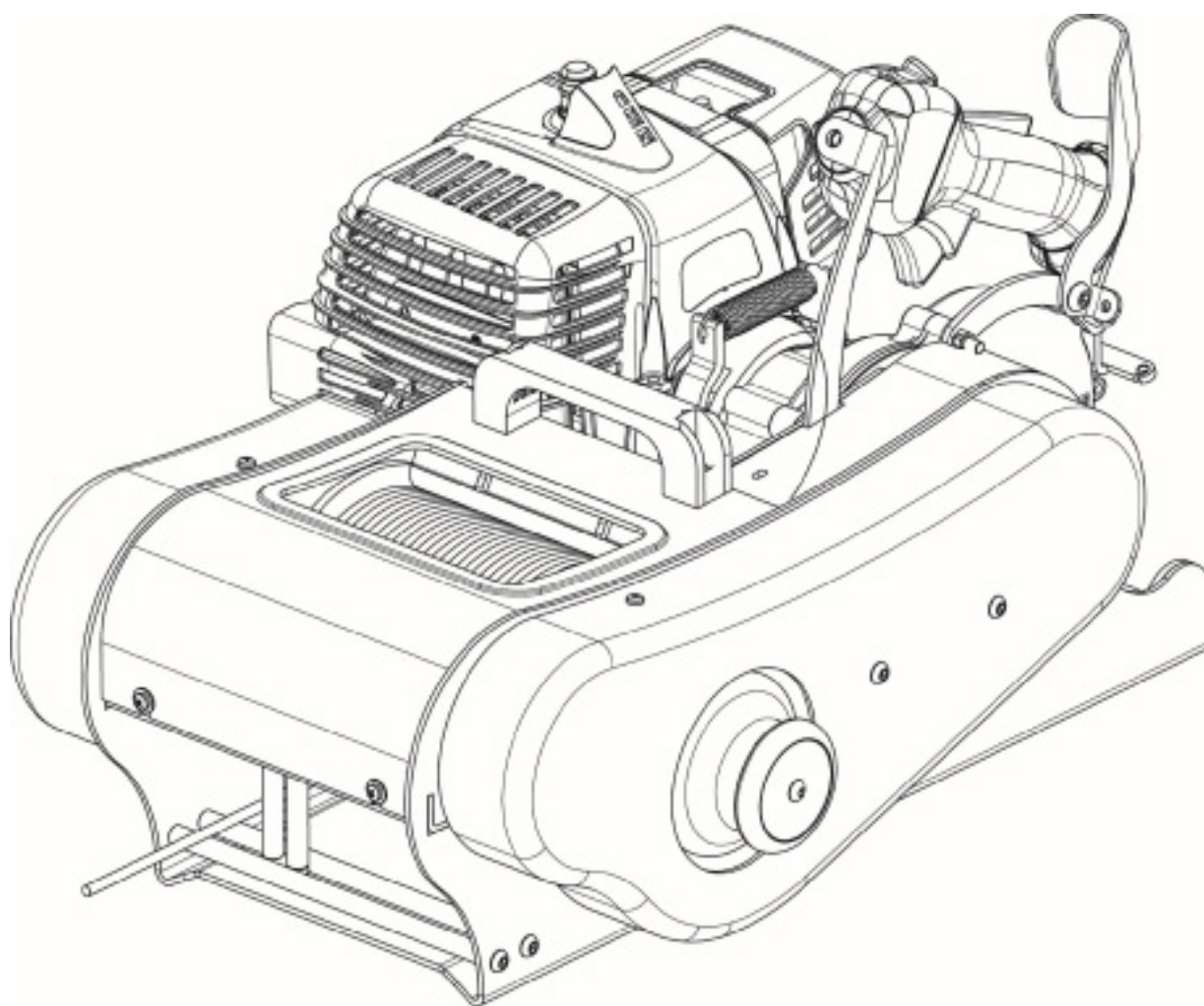




WINCH

FW 1610 STK – FW 1610 ST



Operator's manual

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1. PRESENTATION

1.1. INTRODUCTION

Blue Bird Industries would like to thank you for purchasing the portable winch. This user manual is intended to help you use your new winch safely and optimally. **READ THE USER MANUAL CAREFULLY BEFORE USING THE WINCH.** For any problems or doubts, please contact an authorized Blue Bird Industries representative or contact us directly. For this purpose, in addition to the Presentation and General Warnings, a Subject Index has been prepared, which should be referred to in detail for information search.

The topics are accompanied by diagrams showing details and overviews of the device; for clarity, the diagrams have been made omitting the protective devices, which must still be used during normal operation.

Keeping the user manual is necessary for future reference until the device is dismantled; in fact, the operations requiring specifically trained personnel have been highlighted.

- The Manufacturer reminds the user of the device of the obligation to comply with specific legislation regarding workplaces, emphasizing that their adequacy and compliance with current regulations are essential conditions for its proper use.

- Our machines, devices, and accessories are subject to continuous updates and ongoing development to improve performance; we reserve the right to change their data, weights, construction, and any equipment at any time without notice. This manual reflects the state of the art existing at the time the device was marketed and should not be considered inadequate just because it is later updated based on new experiences.

- For the above reasons, the Manufacturer points out the possibility that there may not be a perfect correspondence between the manual and the device supplied. The Manufacturer reserves the right to make updates to the device and the instruction manual, without this constituting an obligation to update machines and/or manuals of previous production. However, for users who request it, the Manufacturer is always available to provide any further information that may be necessary and will be pleased to receive any suggestions for improvement of this manual or the device.

- This manual is the exclusive property of the Manufacturer. Therefore, reproduction, even partial, of texts or drawings and any use other than intended is prohibited, unless authorized in writing by the Manufacturer, who is available to provide additional copies of this manual.

1.2. GENERAL WARNINGS

This manual contains the information for:

1. correct installation;
2. correct use of the device;
3. effective maintenance.

The winch was created with the aim of reducing the pulling effort required to drag loads. Generally, it can be used in locations where it is not possible to reach with electric power or in inaccessible or remote places.

Blue Bird Industries portable winches for forestry use are designed solely for dragging non-rotating objects, usually at angles of about 45 degrees from the horizontal plane.

The winch MUST NOT be used for lifting operations!

The machine must not be used for any purpose other than the intended one.

The features of lightness and compactness make this device **a useful aid for those working in the forestry sector.**

The use of a traction device involves serious risks to people's safety, damage to property, or death. **Do not underestimate its potential danger.**

Personal safety and that of those around you is very important. This manual includes important safety warnings.

Fundamental:

- carefully read this manual before proceeding with starting, using, maintaining, or performing any other operations on the device.
- For all information regarding the engine, refer to the specifically dedicated manual supplied.
- The device must only be used by responsible persons who have been instructed on its operation.
- Improper use of the device, personnel not properly trained, lack of maintenance, unauthorized modifications or interventions, etc. may pose a risk to the health of operators and those working nearby.
- It is therefore advisable to be aware of these dangers in order to take all hygienic, sanitary, and technical precautions to prevent the onset of occupational diseases.
- In designing this device, everything has been done to make your work safer. Caution is nevertheless irreplaceable and there is no better rule to prevent accidents.
- During the operation phase of the device, it is forbidden to clean, oil, or grease the various components by hand, and all repair and adjustment operations of the various parts are also prohibited. In case of clogging or blockage of any part, turn off the device before freeing it.
- Ensure that all moving parts are equipped with the appropriate protections and carefully reinstall any that may have been removed during maintenance or repair phases.
- Do not modify any parts in an attempt to change the performance of the device. Use only original accessories and spare parts that ensure its maintenance and safety.

The manufacturer considers itself exempt in the case of:

- use contrary to current regulations on accident prevention and workplace safety.
- Use of non-original or non-specific spare parts for the model.
- Total or partial non-compliance with the instructions.
- Exceptional events, etc..
- Damage to persons or property resulting from failure to comply with these instructions, tampering, or failure to check the functionality of the protections and safety devices installed on the device and/or improper use of the same.

1.3. SAFETY SIGNAGE

The following warnings indicate potential dangers of personal injury to yourself and others. Each warning is preceded by the hazard warning symbol and may be followed by one of the following terms: DANGER, CAUTION, or WARNING.



DANGER: Failure to follow the instructions will cause SERIOUS INJURY or DEATH.



CAUTION: Failure to follow the instructions could cause SERIOUS INJURY or DEATH.



WARNING: Failure to follow the instructions could cause INJURY.



Guaranteed sound power level LWA in accordance with Directive 2000/14/EC + 2005/88/EC.



Risk of poisoning



Risk of fire or explosion



Read the documentation and safety instructions related to the product shown in the manual

Before starting work or carrying out any maintenance operation, read, understand, and follow all the precautions and warnings listed below.



WARNING: IT MUST ONLY BE USED BY ADULTS AND TRAINED PERSONS OR BY A QUALIFIED SUPERVISOR ON THE CORRECT OPERATION. DO NOT ALLOW CHILDREN TO USE THE BB-1610X PORTABLE WINCH. KEEP CHILDREN AND ANIMALS AWAY FROM THE WORK AREA.



WARNING: NEVER ALLOW UNAUTHORIZED PERSONS TO USE THE FW 1610 PORTABLE WINCH. YOU OPERATORS ARE RESPONSIBLE FOR THIRD PARTIES AND PROPERTY WITHIN THE OPERATING RANGE OF THE MACHINE. ALWAYS KEEP UNAUTHORIZED PERSONNEL AWAY FROM THE WORK AREA.



WARNING: ENSURE THAT THE USER IS AWARE OF THE SAFETY AND OPERATING PROCEDURES AND HAS READ THIS MANUAL AND THE BLUE BIRD ENGINE USER MANUAL.



WARNING: WHEN WORKING, ALWAYS BE IN GOOD PHYSICAL CONDITION, RESTED, AND FREE FROM THE INFLUENCE OF ALCOHOL, DRUGS, OR MEDICATIONS. WORK ONLY IN CONDITIONS OF GOOD VISIBILITY AND NATURAL LIGHT.



WARNING:

FAMILIARIZE YOURSELF WITH THE PRODUCT AND SAFETY GUIDELINES BEFORE OPERATING THE FW 1610 PORTABLE WINCH.



WARNING:

ENSURE THAT THE CLOTHING WORN DOES NOT GET CAUGHT IN THE MOVING PARTS OF THE FW 1610 PORTABLE WINCH. THEREFORE, DO NOT WEAR CLOTHES, SCARVES, TIES, OR JEWELRY THAT COULD GET CAUGHT IN THE DEVICE OR IN THE MATERIALS TO BE PULLED. WEAR SUITABLE CLOTHING AND ADEQUATE PROTECTIVE EQUIPMENT: CLOSE-FITTING WORK SUITS, HEAVY SHOES, GLOVES, PROTECTIVE HELMET, WORK GOGGLES, EAR MUFFS, ETC. TIE UP LONG HAIR.



WARNING:

EXHAUST GASES CONTAIN CARBON MONOXIDE, WHICH IS TOXIC. DO NOT OPERATE THE ENGINE IN AN ENCLOSED AREA WITHOUT ADEQUATE VENTILATION.



WARNING:

REPLACE ANY WARNING LABEL THAT IS DAMAGED, ILLEGIBLE, OR MISSING.



WARNING:

NEVER PLACE YOUR HANDS ON THE CABLE DRUM OR NEAR THE CABLE GUIDE WHEN THE ENGINE IS RUNNING.



WARNING:

PAY ATTENTION TO THE EFFECTS OF VIBRATIONS. FREQUENTLY INTERRUPT WORK WITH REST BREAKS.



DANGER:

NEVER PULL ROTATING OBJECTS. THEY COULD GET OUT OF CONTROL.



DANGER:

THE PORTABLE WINCH BB-1610X IS NOT DESIGNED, NOR SHOULD IT EVER BE USED, FOR LIFTING OPERATIONS.



WARNING:

NEVER USE THE PORTABLE WINCH FW 1610 TO LIFT PEOPLE.



WARNING:

IT IS NECESSARY TO KEEP EASILY FLAMMABLE MATERIALS SUCH AS DRY GRASS, WOOD CHIPS, BARK, AND FUEL AWAY FROM THE EXHAUST GAS FLOW AND THE HOT SURFACE OF THE MUFFLER.



WARNING:

Carefully read the instructions regarding clothing and appropriate protective equipment as described below:

always wear the appropriate personal protective equipment (PPE). In particular, wear safety shoes with non-slip soles and steel toes. Wear a helmet (preferably with a chin strap), and personalized hearing protection (e.g. earmuffs). Use sturdy gloves. Before use, check the condition of the PPE and replace any damaged parts. Furthermore, clothing should be close-fitting and not get in the way; it is preferable to use a two-piece suit with cut-resistant inserts, avoiding a smock. People who help and/or assist must also wear the same PPE.



PPE



Obligation to use the indicated protective devices.

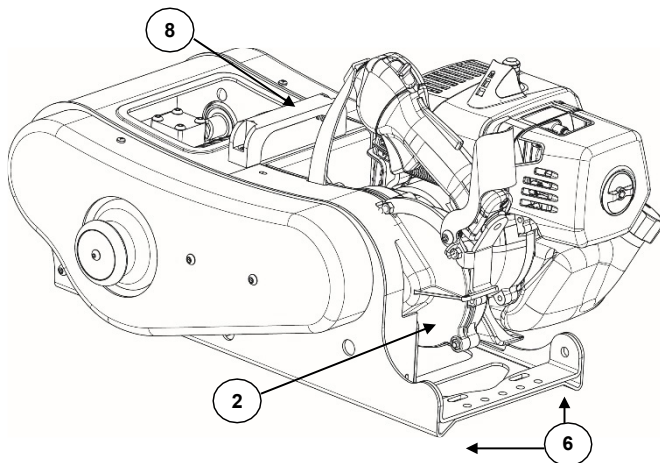
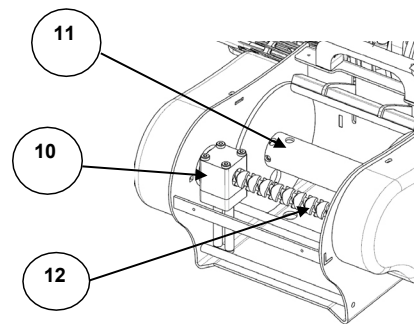
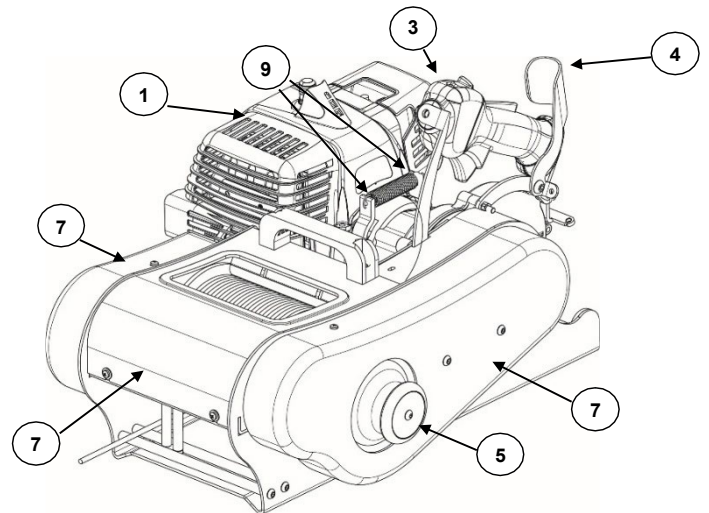
The safety signage consists of warning and danger plates applied to the device and accompanied or represented by pictograms designed to draw the operator's attention to possible hazards. Personnel responsible for use and maintenance must be thoroughly familiar with the symbols contained therein.

Check the perfect preservation of the colors and writings on the plates. In case of wear or loss of the plates, replace them immediately.

2. DEVICE CHARACTERISTICS

Main parts

1. Motor
2. Gear reducer (grease lubrication).
3. Throttle control knob
4. Brake lever
5. Quick release flange
6. Omega shackle for anchoring
7. Protective cover
8. Anchoring handle
9. Brake jaws
10. Cable guide trolley
11. Cable winding drum
12. Cross-grooved shaft



2.1. TECHNICAL CHARACTERISTICS

Winch model		FW 1610 STK / FW 1610ST
Blue Bird engine		2-stroke combustion
Type		N 61E ST
Fuel		Gasoline/oil mixture
Displacement:	cc	57.9
Maximum power:	kW	2.8 kW@7000 rpm
Reducer	Ratio reduction	1:40
Gears	Lubrication	Grease
Sound pressure level (LpA av) in accordance with EN ISO 3744 [dB]		94
Sound power level (LWA av) in accordance with EN ISO 3744 [dB]		114
Operating temperature:	°C	-10 ÷ 55
Operating relative humidity:	%	20 ÷ 90
Storage temperature:	°C	-10 ÷ 55
Width:	mm	400
Total height:	mm	350
Length:	mm	550
Weight (with rope):	kg	28/35
Rope (complete with eye, thimble, swivel hook at one end and other end free)	Type	Kevlar rope Ø5mm 80 meters / steel rope Ø5mm 80 meters
Direct pulling capacity:	kg/N	1300/13000
Double pulling capacity:	kg/N	2600/26000

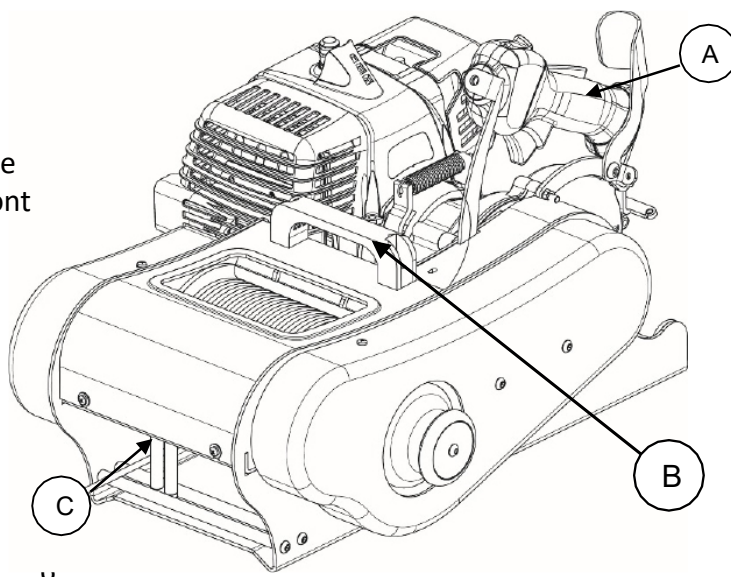
3. USE OF THE WINCH

Although the winch has passed the internal production testing phase, avoid exceeding the pulling effort duration the first time, to allow the gear assembly to break in.

In the design and construction of the device, the requirements, recommendations, and useful guidelines provided by current regulations have been followed, thus considering the result achieved to be widely acceptable from a safety perspective. In any case, it was necessary to accept the persistence of a residual risk due to the need not to excessively limit the functionality and speed of use by the operator. To keep such residual risk limited, it is essential to train the personnel required to use the device, meaning by training an educational and informational path that includes reading and understanding what is presented in this manual.

3.1. MANUAL TRANSPORT

For transport, use both hands, gripping the winch with your right hand on the throttle knob (A); while with your left hand, grasp the handle (B) or the front reinforcement bracket (C) fig.1



3.2. WINCH ANCHORING

The winch must be anchored using a ring sling or a sling with eyes, with a capacity of no less than 2 tons. Referring to figure 2, the attachment points on the winch are the two omega shackles at the rear (A), or directly in the central part of the frame (B) (avoid foreign objects coming between the anchor hook and the pulling strap). Anchoring to the two omega shackles is preferable to the central part of the frame, as the winch is more balanced and there is less risk of it tipping over. Proper anchoring is done by wrapping the sling around half of the anchoring point and connecting the ends of the sling to the omega shackles. Failure to comply with this provision will void the warranty.



NEVER USE IRON HOOKS ON TREES.



In the case of anchoring with a nylon sling (harness see fig.3), follow these warnings:

- avoid installing the harness on sharp edges that could damage it. If using a pole, tree, or stump, always install the harness near the anchoring base.
- Using a stump as an anchoring point requires particular attention to prevent the harness from slipping over it.
- Make sure that the anchoring point is strong enough to withstand the pull without breaking or being damaged.
- Check that the strap does not show obvious signs of wear such as cuts and fraying.
- Make sure there are no foreign objects between the anchor hook and the pulling strap.
- Absolutely avoid wrapping the sling completely around the anchoring point, as this operation could result in incorrect alignment of the winch with consequent uneven distribution of force between the two ends of the sling

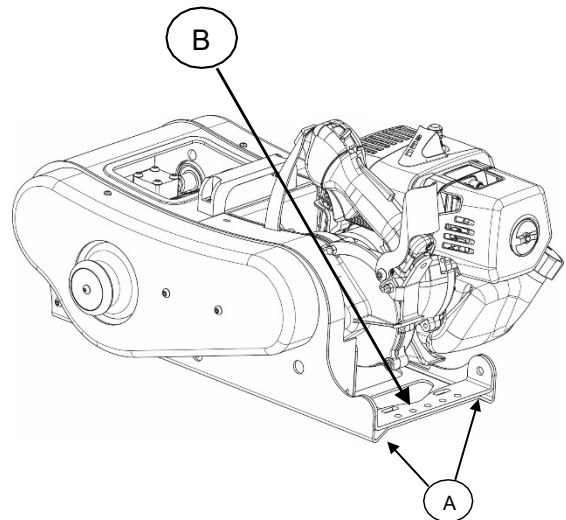


Figure 2: Winch anchoring



Figure 3: harness

Position the winch in line with the load. When the winch is under tension, it will align with the load. Friction of the harness against the anchoring point could prevent proper alignment. In this case, release the tension on the rope and adjust the position of the harness on the anchoring point so that the tension is distributed evenly.

3.3. ROPE

Quality has a cost, in every field of activity. But when the safety of people and the durability of products and equipment are as important as in the field of hauling and handling materials, it can be extremely dangerous and, ultimately, uneconomical to save indiscriminately. The towing rope must be certified and have all the quality and safety features required by current regulations.

The winch is prepared and designed to mount a rope with a diameter of Ø5 mm, maximum length 80m, with a swivel eye hook at the end.

The rope must not be damaged, worn, crushed, or have broken strands: in these cases, replace it immediately.

Furthermore, it must not be worn or dirty (soil, sawdust, fragments of leaves).

A dirty or worn rope can cause improper winding, forcing the operator to stop the engine to free it from the drum. It is therefore recommended to always keep it raised from the ground by means of a pulley: this precaution will protect it from wear and cuts, preserving it for a long time.

Furthermore:



Make sure that the rope is not damaged and offers adequate resistance for pulling the load.
STRETCHING MEANS DANGER!



The use of the towing rope for slinging the load is prohibited.



It is forbidden, once under tension, to grab or touch the rope during load handling operations, especially near the rope guide rollers.



DANGER: when purchasing the rope, make sure it has a breaking load 50% higher than the maximum towing load of your winch!



Using inadequate or damaged ropes is foolish and dangerous: it can cause serious harm to people or objects in the immediate vicinity of the area where the winch is being used.

3.3.1. Rope Maintenance

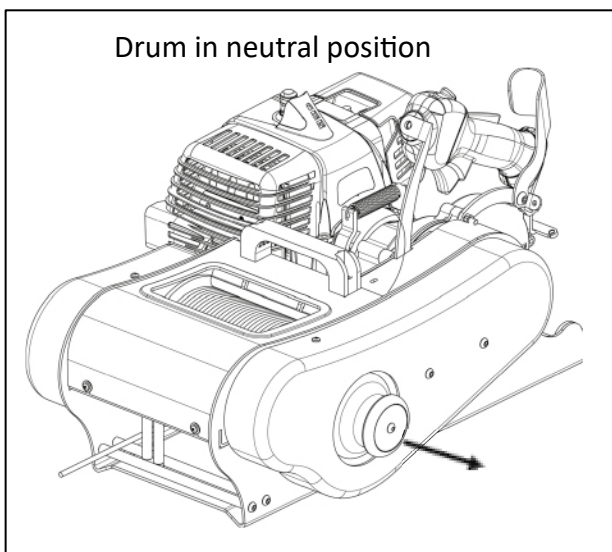


Visually inspect the rope before each use: if there are signs of deterioration (cut strands, excessive abrasion, crushing), replace it.

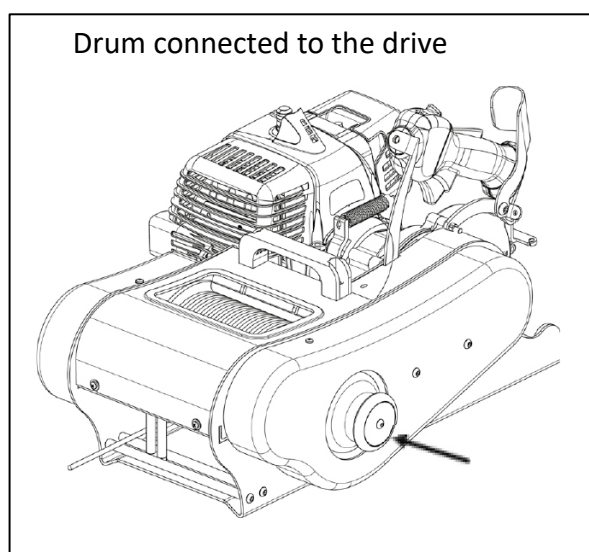
3.4. USE OF THE QUICK RELEASE FLANGE

The rope drum is connected via a chain drive to the engine-gearbox system. To facilitate unwinding the rope to reach the object to be pulled, the winch is equipped with a sliding quick release flange that allows the drum to be freed by putting it in neutral. With the engine off, pull the flange outward until it reaches the end of its travel: the flange remains fixed in position and the drum is disengaged from the engine-gearbox system. To re-engage the drive, push the quick release flange towards the crown until it engages with two of the four holes on the crown. Make sure that the flange is fully and correctly engaged.

Drum in neutral position



Drum connected to the drive

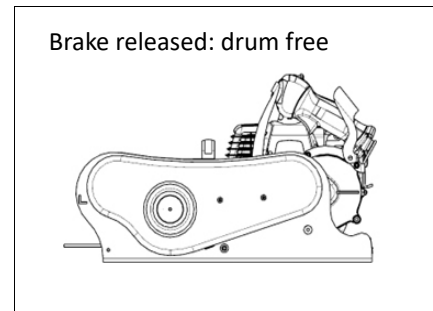
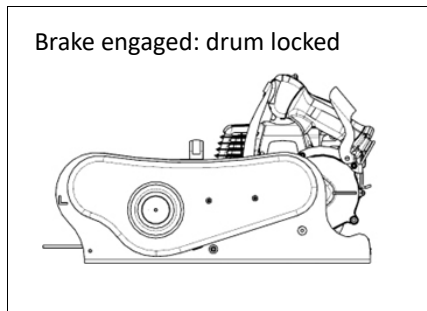


The quick release system has been designed so that, when the winch is under load, it is impossible to move the flange by hand. To free the drum, you must hold down the brake lever until the rope tension is released: only then can you unlock the flange and put the drum in neutral.

3.5. USE OF THE SAFETY BRAKE

The winch is equipped with an automatic safety brake to stop the dragging of the load in any dangerous situations. Incorrect use of the brake will damage the winch components and void the warranty.

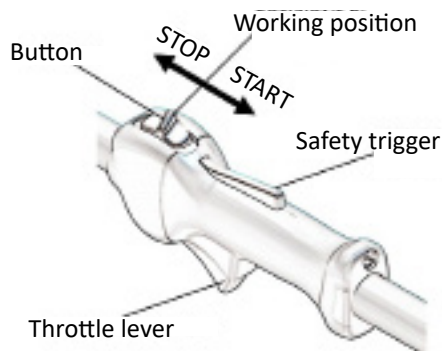
The inclination of the brake lever has been designed so that it cannot be bypassed: before operating the throttle control knob, you must fully press the brake lever to release the clutch bell and allow the engine to function normally. In case of emergency, immediately remove your hand from the throttle control knob: in this way, the engine will automatically return to idle and at the same time the brake lever will return to its original position, locking the clutch bell. In this way, the load will be blocked with no possibility of descending a slope. The operator, by pressing only the brake lever without accelerating, can slowly lower the load if necessary.



The two brake pads mounted on the braking system are subject to wear. Before starting to use the winch, check the effectiveness of the braking system. If the brake does not brake sufficiently, proceed by adjusting the two adjusters on the cable.

3.6. USE OF THE THROTTLE CONTROL KNOB

For correct use of the knob (Fig. 17), you need to know its functions; in this way, you can start the machine and control its working speed.



1) SEMI-ACCELERATION FOR STARTING

- grip the knob by pressing the red safety trigger located on the top of the knob with the palm of your hand.
- press the throttle lever to the end of its travel.
- set the red button to the START position, then release the lever.
- now you are ready to start the machine. The safety trigger is essential to prevent dangerous accelerations due to careless or accidental maneuvers. In fact, if it is not gripped and pressed, it does not allow the use of the throttle lever.

Note: Once the engine is started, at the first acceleration, the button automatically returns to the central position.

2) ACCELERATION WITH MACHINE ON

- grip the handle while pressing the safety trigger.
- press the throttle lever according to the speed you want to use.

3) STOP (to turn off the engine)

- release the lever and the trigger. Move the button to the STOP position.
- to restart the machine, it is essential to move the red button to the CENTRAL position, then perform the various semi-acceleration and acceleration operations as previously explained.

3.7. ENGINE START-UP



Fig. 1

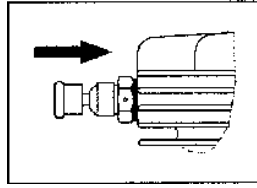


Fig.2

To start the engine, proceed as described below:

- 1) after carefully performing all preparation and refueling operations, place the throttle control lever and the red button in the START position (see point 3.6).
- 2) With a cold engine, press the primer 5-6 times until the mixture comes out of the special exhaust tube (so as to completely fill all the carburetor chambers).
- 3) The engine is equipped with a decompressor that facilitates starting by reducing the effort required on the starter cord when starting the machine. To start, press the decompressor button (Fig.1) located on the cylinder on the starting side.
- 4) Put the air cover lever in the CLOSE position.
- 5) Pull the starter cord (fig.2) 1 to 2 times at most until the first sputters are heard. Never pull to the end of the stroke to avoid damaging the engagement mechanism. Even if you do not hear the sputters, move the lever on the cover to the OPEN position.
- 6) Pull the starter cord again until the engine starts. If the engine does not start after the fourth pull, repeat the operations from the first point.

If, despite repeated starting attempts, the engine does not start, it means the combustion chamber is flooded. In this case, unscrew and dry the spark plug and pull the starter cord several times without the spark plug to clean and ventilate the combustion chamber.

IMPORTANT: with a warm engine, it is not necessary to perform the above operations, but with the button in the central position, simply pull the starter cord until it starts.

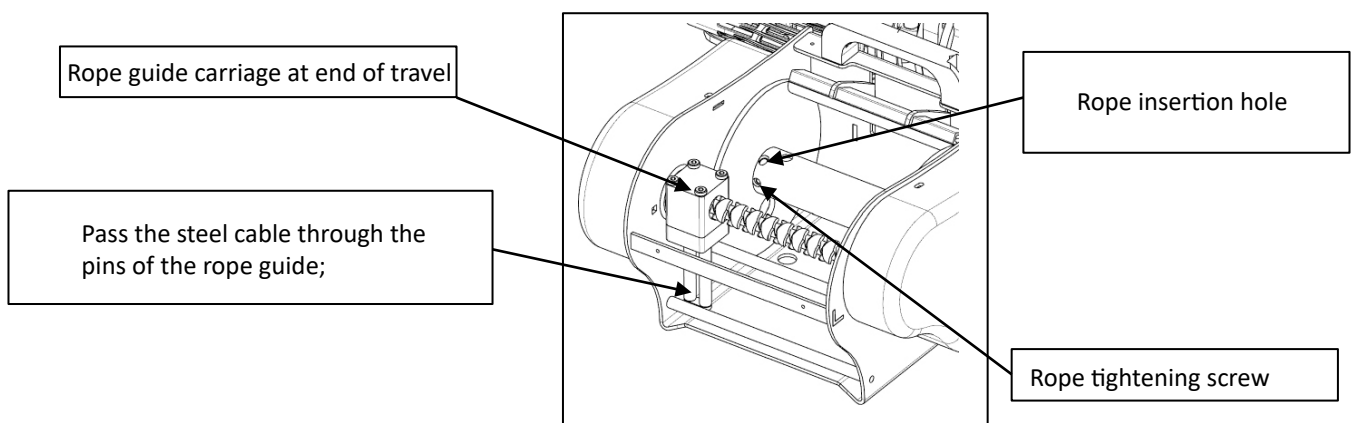
For any other information regarding the engine, refer to the dedicated section.

3.8. WINDING THE ROPE ON THE DRUM AND REPLACEMENT

The winches are sold with the rope already pre-installed. Winding the rope on the drum is a very important operation for the lifespan of the rope itself.

In case of rope replacement due to wear, follow these instructions:

1. with the engine off, place the winch on a flat surface so that the rope can wind evenly over the entire surface of the drum.
2. With the drum in neutral, unwind all the rope from the drum by rotating it until you see the rope locking screw. Loosen the screw and remove the rope.
3. After making sure that the rope guide carriage is at the end of its travel on the right side of the structure, take the end of the rope and pass it through the two pins of the rope guide.



4. Then insert the rope into the hole on the right side of the drum until the end of the rope rests in place.
5. Tighten well the screw located under the entry hole.
6. Still with the drum in neutral, manually turn the quick-release flange until you make 5 turns of rope on the drum, keeping the rope taut. It is important that the first coils are wound correctly, otherwise the automatic winding mechanism will be compromised.
7. Engage the quick-release flange to the drum.
8. Start the engine and retrieve the rope without load. **It is absolutely necessary that the operator keeps the rope under tension by hand, obviously using the necessary gloves for this type of work.**

3.9. USE OF THE WINCH UNDER LOAD

During pulling operations, position yourself behind the winch so as to keep both the winch and the load under control. The winch must be positioned so that the entire work area can be observed without blind spots and, if possible, on a flat surface. Check that there are no obstacles in the pulling area. During work, it is forbidden to stand or remain inside the pulling angle formed by the rope: in case of breakage, the rope could lash out to the sides. Make sure there are no people in the work area and that they maintain a sufficient safety distance.

For your safety, always perform the work accompanied by a second operator.

Once the object to be pulled has been identified and the winch has been properly secured, position the quick-release flange completely out to put the drum in neutral. Unwind the rope from the drum until you reach the object to be pulled: **it is essential to leave at least 10 turns on the drum, do not unwind it completely!!!!** Once the object is hooked, return to the winch and engage the quick-release flange. Stand behind the winch and start the engine, lower the brake lever and begin to accelerate. In the initial stages of acceleration, keep the rope taut with your left hand, paying close attention and using the appropriate glove required for this type of work. The rope, when the load is under tension, will automatically tighten: release the rope and accelerate. The rope guide carriage will automatically wind the rope onto the drum without it overlapping.



Warning! During this initial acceleration phase, the winch automatically aligns with the load. Always monitor the position of the winch, the condition of the rope, the solidity of the anchor point, knots, carabiners or traction rings to avoid injury or material damage. Do not wrap the rope around your hands or body!

IMPORTANT!

- For greater safety during recovery, it is recommended to pass the steel rope through a pulley and connect it to a tree using a sling (do not use metal hooks on trees): in this way, during the recovery of the object, a deviation of the rope is created so that, if it breaks and snaps back, the direction is towards the tree where the deviation was made.
- Another key aspect is the height at which the pulley is positioned: the higher it is, the less the trunk will touch the ground and the less effort the winch will require.

It is also recommended to:

- avoid overloading.
- Heavier loads should only be pulled using a return pulley with indirect and double rope pull: in this way, the winch will develop twice the force compared to a direct pull. (Fig.14).

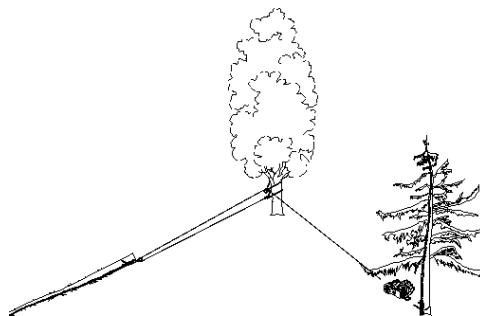
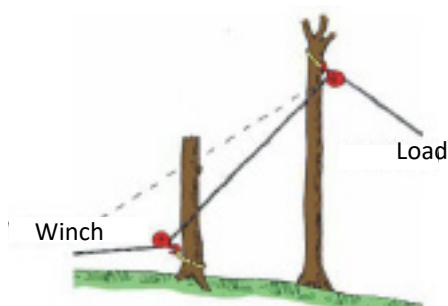
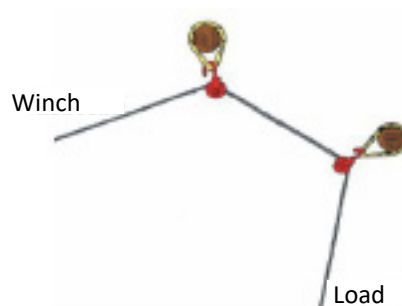


Fig.14

- Carefully observe the drum during operation and make sure that the rope does not cross over it. If this happens, release the tension on the rope and stop the engine before untangling the crossing.
- Agree in advance on clear signals between the operator using the winch and the assistant to prevent dangerous situations.
- In the event that a load is pulled on a road or public access way, the area must be clearly cordoned off in advance to eliminate any danger to people or property.
- **Use with pulleys.**



Lowering pulley, to prevent the winch from tipping up under load; it protects the rope from dirt on the ground, and prevents snagging of the load on the ground, which increases the pulling effort.

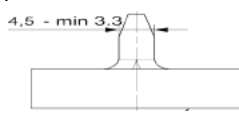


Lowering pulley, to prevent the winch from tipping up under load; it protects the rope from dirt on the ground, and prevents snagging of the load on the ground, which increases the pulling effort.

N.B. The Manufacturer declines all responsibility for damage to persons or property resulting from failure to comply with the above conditions.

4. TROUBLESHOOTING

For troubleshooting certain faults and the related actions, refer to the table below.

MALFUNCTION	CAUSE	ACTION
The engine does not turn off	Interruption of the electrical connection	Check the integrity of the faston and the electrical wire; if broken, replace it completely
The brake in the locked position does not hold the load	Worn brake pads	Replace the brake pads
	Loose cable	Adjust the two adjusters
When pressing the accelerator, the rope drum does not turn	Engine clutch intervention due to excessive load to be pulled	Pull lighter weights or use double pull
	Drum in neutral	Check the position of the quick-release flange
	Possible gearbox failure (abnormal noises)	Call the service center
After replacing the rope, the rope guide carriage does not follow the rope perfectly	Incorrect positioning of the rope guide carriage at the time of rope replacement	When replacing the rope, make sure that the rope guide carriage is at the end of its travel
	Worn slider	Disassemble the slider and check the thickness of the pad; if it is less than 3.3 mm, replace it with a new one (4.5 mm) 
A leakage of grease from the gearbox is detected	Gearbox housing screws loosened	Tighten the screws and check for the presence of grease in the gearbox
	Breakage of the gearbox gasket	Call the service center
The engine does not start	No fuel, switch in position "O"	Add fuel, press "I",
The engine has difficulty starting	Wet or worn spark plug	Remove the spark plug and dry it or replace it

For anomalies or faults other than those described, or if the previously examined ones persist even after taking the indicated measures, contact your trusted dealer.

5. SAFETY INFORMATION

Emergency situations

Proper use of the device prevents emergency situations from occurring during operation or during cleaning and maintenance, unless the latter are not carried out as prescribed in this instruction manual.



In case of imminent mechanical danger, stop the engine and turn it off. A thorough search for the fault or anomaly that caused the danger must be carried out and, once identified, proceed to restore the functionality of the device. If the search is unsuccessful, have your trusted dealer intervene.

- 1) Immediately carry out all necessary repairs, avoiding operating with the device in disarray.
- 2) Do not remove or modify the safety devices if present.

If the gearbox housing is excessively hot, turn off the engine and let the winch cool down.

Do not oil, clean, or grease moving parts and elements by hand.

Do not carry out any repair or adjustment operations on moving parts.

6. MAINTENANCE

For correct operation and maximum device lifespan, follow the maintenance schedule (ordinary and extraordinary) and the checks listed below.

6.1. Ordinary maintenance schedule

The operations and checks listed below, due to their simplicity, can be performed by the operator themselves, following the instructions given below.

BEFORE EACH USE.

- Check the general condition and efficiency of the device.

AFTER EACH WORK SHIFT:

- Replace any worn and/or partially out-of-service parts if necessary.
- Do not wet the gearbox assembly with water, but use detergents or diesel fuel for external cleaning (do not use pressure jets for cleaning).
- Check the fastening of the gearbox screws (See photo 9)
- Check the general condition and the fastening of the gearbox screws to the frame.

6.2. Engine maintenance schedule

ELEMENT	ACTION	FREQUENCY
Screws and nuts	Check/fasten	At each use
Air filter	Clean	At each use
	Replace	Every 3 months or 25 hours
Spark plug	Clean/Adjust	Every 3 months or 25 hours
	Replace	Every 2 years
Clutch	Check	Every 6 months or 50 hours
Fuel filter	Replace	Every 6 months or 50 hours
Tank	Clean	Every year or 100 hours
Fuel hoses	Check	Every 2 years or 200 hours
Combustion chamber	Clean	After 200 hours

- The intervention times are indicative. In case of intensive use of the machine, or use in dusty areas, the time intervals should be reduced.
- For the procedures for carrying out engine maintenance operations, refer to the engine instruction manual attached to this document.

6.3. Extraordinary interventions

Extraordinary maintenance operations and modifications to the device, due to their delicacy and complexity, require intervention by the Manufacturer or personnel authorized by it.

In case of replacements, original components must be used.

The replacement of worn parts is reserved for personnel of the Manufacturer or Authorized Service Centers.

7. WARRANTY CONDITIONS

LIMITED WARRANTY OF BLUE-BIRD INDUSTRIES – ZANÈ FOR WINCHES

- a) Our company guarantees the correct and proper functioning of all agricultural and industrial machines we market for a period of 24 months (12 months for professional use) from the time of sale. For the purposes of the product warranty validity period, the sales receipt and/or the purchase invoice of the product itself shall be considered valid.
- b) This warranty consists in the free replacement of various mechanical and electrical components that become unusable due to manufacturing or material defects, ascertained by our Company.
- c) Technical staff will intervene as soon as possible, within the time limits allowed by organizational needs, to properly restore the product.
- d) The warranty is limited to the pure and simple replacement of defective and/or faulty parts after they have been received by us within two months from the date the defect was discovered.
- e) Except for original and/or manufacturing defects, all parts whose wear is due to normal use are excluded from the warranty. These, for example, are: cutting discs, cutting sections, circular saws, knives, milling cutters, chain saws, chainsaw bars, spark plugs, etc.
- f) All components recognized by us as defective and replaced free of charge under warranty will be retained by us.
- g) Any free replacement of components, even if recognized by us as defective, will not, under any circumstances, be a reason or pretext to extend or suspend the payment terms previously agreed upon.
- h) During the entire warranty period, machines covered by the aforementioned warranty may not be permanently transferred for use, resold, or exported, under penalty of forfeiture of the warranty itself.
- i) Our Company declines all responsibility for damages to persons or property resulting from improper use of the machines we manufacture, even if such damages are caused by machines still under warranty.
- j) The warranty does not cover tuning and maintenance interventions that may be required during the warranty period.
- k) The warranty excludes product update and/or improvement interventions.
- l) The warranty is void in case of:
 - clear lack of maintenance;
 - improper use of the product or tampering;
 - use of unsuitable lubricants or fuels;
 - use of non-original spare parts or accessories;
 - interventions carried out by unauthorized personnel.
- m) For engines of other brands (Kawasaki, Honda, Briggs & Stratton, etc.) installed on our machines, the warranty granted by the engine manufacturers applies.

BLUE BIRD INDUSTRIES

EC DECLARATION OF CONFORMITY - HERSTELLERERKLÄRUNG - DECLARATION 'CE' DE CONFORMITE - DECLARACION DE CONFORMIDAD - DICHIARAZIONE DI CONFORMITA' EUROPEA - GELIJKVORMIGHEIDSVERKLARING - EC DEKLARATION I OVERENSSTEMMELSE - DECLARAÇÃO CE DE CONFORMIDADE - EY ILMOITUS - FORSAKRAN OM OVERENSSTAMMELSE - BEKREFTENDE EU ERKLÆRING - ΔΗΛΩΣΗ ΕΚ ΣΥΜΜΟΡΦΩΣΗΣ - EUROPEJSKA DEKLARACJA ZGODNOSCI

1) MANUFACTURER – HERSTELLER – FABRICANT – FABRICANTE – COSTRUTTORE – CONSTRUCTEUR – PRODUCT – FABRICANTE – VALMISTAJA – TILLVERKARE – FABRIKANT – Κατασκευαστής – PRODUCENT:

BLUE BIRD INDUSTRIES Fabbrica Motori srl

Via Due Camini 19, 36010 Zanè(VI), Italia

2) DESCRIPTION OF THE MACHINERY – BESCHREIBUNG DER MASCHINE – DESCRIPTION DE LA MACHINE – DESCRIPCION DE LA MAQUINARIA – DESCRIZIONE DELLA MACCHINA – BESCHRIJVING VAN DE MACHINE – BESKRIVELSE AF MASKINEN – DESCRIÇÃO DA MAQUINA – KONEEN NIMITYS – MATERIELSLAG – BESKRIVELSE AV MASKINERIE – ΠΕΡΙΓΡΑΦΗ ΤΩΝ ΜΗΧΑΝΩΝ – OPIS MASZYN:

VERRICELLO - WINCH

a) MAKE – FABRIKAT – MARQUE – MARCA – MARCA – MERK – MÆRKE – MARCA – MERKKI – FABRIKAT – FABRIKANT – MAPKA – MARKA:

BLUE BIRD INDUSTRIES Fabbrica Motori srl

Via Due Camini 19, Zanè, Italia

b) TYPE / TYP / TYPE / TIPO / TIPO / TYPE / TYPE / TIPO / MALLI / TYPBE / TYPE / Πληκτρολογήστε / TYP:

FW 1610 STK – FW 1610 ST

2000/14/EC (2005/88/EC) – Livelli di potenza sonora come da allegato V – Sound Power Levels performed per annex V		
TIPO TYPE	Livello di potenza sonora misurato/Livello di potenza sonora garantito Measured Sound Power Level/Guaranteed Sound Power Level LWA (dB)	Potenza netta installata Net Power Installed (kW)
FW 1610 STK – FW 1610 ST	94/114	2.80

c) Il prodotto è conforme alle direttive - The product complies with the directives - Das Produkt entspricht den Richtlinien - Le produit est conforme aux directives - El producto cumple con las directivas :

- 2006/42/EC – 2014/30/EU – 2000/14/EC (2005/88/EC) – 2011/65/EU

d) SERIAL NUMBER / SERIENNUMMER / NUMERO DE SERIE / NUMERO DE SERIE / NUMERO DI SERIE / SERIENUMMER / SERIENUMMER / NUMERO DE SERIE / SARJANUMERO / SERIENUMMER / SERIE NUMBER / ΑΡΙΘΜΟΣ ΠΑΙΣΙΟΥ / NUMER SERYJNY:

AA19AA000000001 - ZZ23ZZ999999999

e) REFERENCE TO STANDARDS/HARMONIZED STANDARDS - VERWEIS AUF NORMEN/HARMONISIERTE NORMEN - REFERENCE AUX NORMES/NORMES HARMONISEES - REFERENCIA A ESTANDARES/ESTANDARES ARMONIZADOS - RIFERIMENTO ALLE NORME/NORME ARMONIZZATE - REFERENTIE NAAR STANDAARDEN/GEHARMONISEERDE STANDAARDEN - REFERENCE TIL STANDARDER/HARMONISEREDER STANDARDER - REFERENCIA AS NORMAS/NORMAS HARMONIZADAS - VITTAUS STANDARDEIHIN/YHTEISIIN STANDARDEIHIN - REFERERANDE TILL STANDARDER/HARMONISERADE STANDARDER - HENVISNING TIL STANDARD/FELLES STANDARD - ΑΝΑΦΟΡΑ ΣΕ ΠΡΟΤΥΠΑ/ΕΝΑΡΜΟΝΙΣΜΕΝΑ ΠΡΟΤΥΠΑ - ODNIESIENIE DO NORM/NORM ZHARMONIZOWANYCH:

EN ISO 12100:2010



BLUE BIRD INDUSTRIES – FABBRICA MOTORI s.r.l.

ZANÈ (VI) – ITALIA

23-02-2017

The chairman – Der vorsitzender – Le président – El presidente – Il presidente – De voorzitter – Daglig leder – O presidente – Toimitusjohtaja – Verkställande direktör – Administrerende direktør – Ο ΠΡΟΕΔΡΟΣ - Prezes

VANDA VITELLA

(GB) Technical documentation maintained by
(F) Documentation technique maintenue par
(I) Documentazione tecnica conservata da
(DK) Teknisk dokumentation tilhåndhælden af
(FI) Teknisten asiakirjojen ylläpitäjä
(NO) Teknisk dokumentasjon vedlikeholdt av

(D) Technische Dokumentation aktualisiert durch
(E) Documentacion tecnica mantenida por
(NL) Technische documentatie onderhouden door
(P) Documentação tecnica mantida por
(SE) Teknisk dokumentation tilhåndhælden av
(GR) τεχνικό φάκελο που τηρείται από

BLUE BIRD INDUSTRIES – FABBRICA MOTORI s.r.l.

VANDA VITELLA



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