

BEPS-AGF Ditch Bank Flail

OPERATION & PARTS MANUAL



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819-350-5543 L-V 8-30am-5pm
1776 161 ROAD ST VALERE

Specifications subject to change without notice

ASSEMBLY INSTRUCTION

AGF-n160 Assembly Instructions

Step # 0: Removing Unit from Shipping Frame

Tools Needed



Angle Grinder or Metal cutting tool



AGF-n160 Assembly Instructions

Step # 1: Assembling the Hydraulic Cylinder

Tools Needed



Large Diameter Wrench

AGF-n160 Assembly Instructions

Step # 1: Assembling the Hydraulic Cylinder

Parts Needed



3 Point Hoop Attachment & Hydraulic Arm



ASSEMBLY INSTRUCTION



AGF-n 160 Assembly Instructions

Step# 2: Assembling Swing Arms

0

Tools Needed



AGF-n 160 Assembly Instructions

Step# 2: Assembling Swing arms

Parts Needed



ASSEMBLY INSTRUCTION



ASSEMBLY INSTRUCTION



AGF- 160 Assembly Instructions

Step# 3: install Hose Holders

Tools Needed



AGF-160 Assembly Instructions

Step# 3: install Hose Holders

Parts Needed



ASSEMBLY INSTRUCTION

AGF-n 160 Assembly Instructions

Step # 4: installing Hoses

0

Tools Needed

22mm wrench

AGF160 Assembly Instructions

Step # 4: Installing Hoses

Parts Needed



ASSEMBLY INSTRUCTION



ASSEMBLY INSTRUCTION

ETSTC

AGF-n160 Assembly Instructions

Step # 6: Installing PTO Guard

Tools Needed



13mm Socket

ETSTC

AGF-n160 Assembly Instructions

Step # 6: Installing PTO Guard

Parts Needed



PTO Guard



AGF-n160 Assembly Instructions

Step # 7: Fill Gear Box with Oil

Tools Needed
80w90 Gear oil



80 90 Weight Gear Oil

ASSEMBLY INSTRUCTION



AGF-n160 Assembly Instructions

Step # 8: Lube Grease Zerks

Tools Needed



Greas-e Gun



ASSEMBLY INSTRUCTION



AGF-n160 Assembly Instructions

Step # 9: Lube PTO Shaft

Tools Needed



Grease Gun

AGF-n160 Assembly Instructions

Step # 9: Lube PTO Shaft

Parts Needed



PTO Shaft



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Revision 12-18-2023

Value-Leader Brand LIMITED WARRANTY

Unless otherwise stated on purchase invoice, Machinerie DB warrants to original Purchaser that Value-Leader products are free from major defects in material under normal use and service for a period of Two (2) Years from the date the product is purchased or shipped, whichever is later. Commercial use 180 days. Use at address that is not yours, is considered commercial use. Consumable, Expendable, Wear Items (Examples: Rubber & plastic parts, hydraulic hoses, belts, tires, cables, blades, tines, wedges, teeth, tips, chains, pins, brushes, filters, etc.) and cracked hydraulic pumps, bent or broken cylinder rods are not covered under this warranty. Warranty does not cover items that have been modified, damaged by abuse or usage not in accordance with design or maintenance.

Machinerie DB obligation under this warranty is to repair or replace defective product upon approval by; Machinerie DB, 1776 161 road St Valere. Product shall be returned upon request of Machinerie DB. Transportation charges to be prepaid by buyer. **Gasoline or diesel engines used to power Value-Leader products are**

covered by the warranty of the appropriate engine manufacture and Purchaser must look to the engine manufacture for all issues relating to engine operation.

Machinerie DB assumes no responsibility for outside / labor.

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THIS IS THE SOLE AND ONLY WARRANTY OF Value-Leader PRODUCTS. NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESSED OR IMPLIED, IN FACTOR BY LAW,

This warranty shall not be interpreted to render Machinerie DB, or any authorized agent liable for injury or damages of any kind or nature, direct, consequential, or contingent, to person or property.

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Machinerie DB reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligations to owners of units previously sold.

No one is authorized to alter, modify, or enlarge this warranty nor the exclusions, limitations, and reservation thereof.

1.0 GUARANTEE

1.0.2 GUARANTEE CERTIFICATE (purchaser's copy)

Purchaser's data		Type of machine	
Last name:		Madel:	
Name:		Code:	
Address:		Serial Number:	
Date of compilation:		Date of delivery:	
Purchaser's signature:			

GUARANTEE CERTIFICATE (copy for the manufacturer)

Purchaser's data		Type of machine	
Last name:		Madel:	
Name:		Code:	
Address:		Serial number:	
Date of compilation:		Date of delivery:	
Purchaser's signature:			

2.0 Introduction

2.1 FOREWORD

This manual describes all instructions for operating and maintaining the machine in question as well as accident prevention standards.

We recommend reading it with care and attentively complying with all the procedures described in it before starting up, using or maintaining the machine because:



THE MANUFACTURER DECLINES ALL RESPONSIBILITY FOR DAMAGE CAUSED BY FAILURE TO COMPLY WITH THE STANDARDS AND GUIDELINES CONTAINED IN THIS MANUAL .

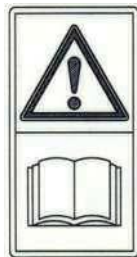


A series of pictographs are given in the manual to make it easier to read and to quickly attract the reader's attention to hazard situations and guidelines that cannot be avoided or sufficiently limited through use of technical protection systems or work organization measures and methods.

These pictographs, in other words, give information on objects and situations that may represent a specific danger.



WARNING:



The machine, during its use, can present dangerous situations: read this manual with care before using the machine.

What is described regards your safety and the safety of all employees and persons who may find themselves in the vicinity of this machine.

Whenever the machine is used by more than one person it is absolutely necessary for each user to examine this manual prior to using the machine.



WARNING:

It is dangerous to bring your hands or feet near the tool when the rotor is in movement wait until the rotor has completely stopped before working on the machine! Always remember that the high inertia of the rotor means that it needs a few minutes before it stops.

2.0 Introduction

**WARNING:**

In certain work situations the machine may project shredded material: always respect safety distances and make sure they are respected!

**CODIFICATION SYSTEM:**

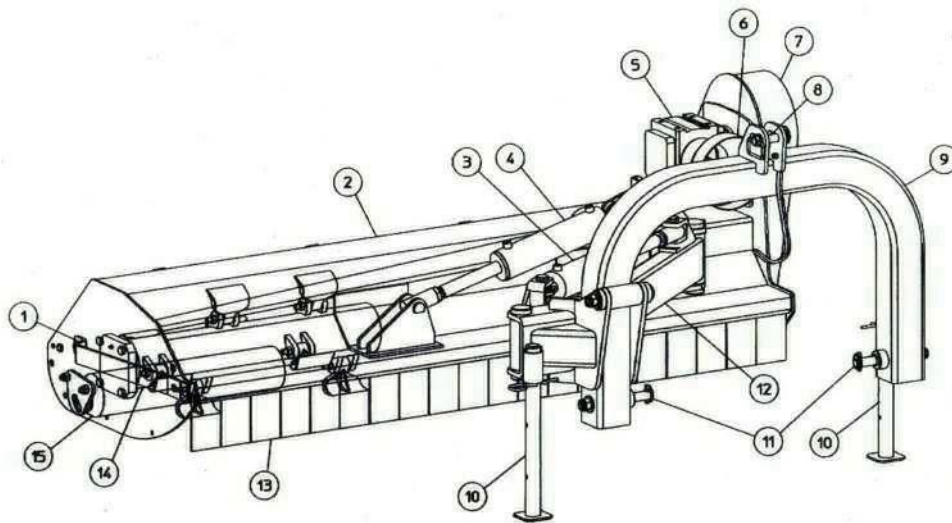
This manual has an identification code for each machine component..

THIS IDENTIFICATION CODE MUST BE USED FOR:

- 1 - ORDERING THE MACHINE ITSELF
- 2 - ORDERING SPARE PARTS
- 3 - REQUESTING TECHNICAL INFORMATION

3.0 Machine model and basic components

3.1 MACHINE BASIC COMPONENTS



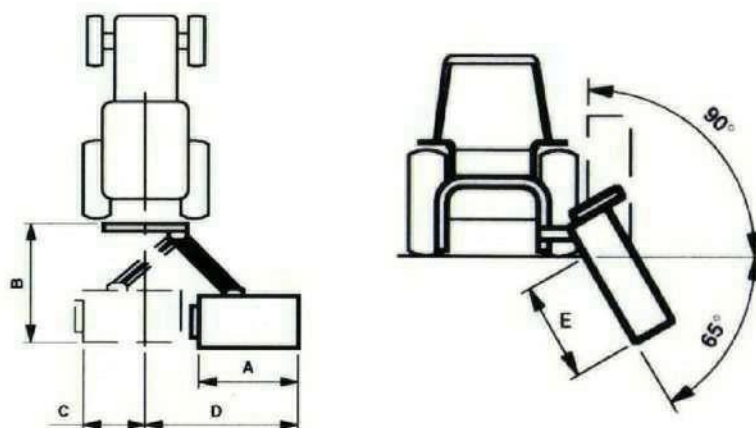
NAME OF MARKED PARTS

Pos.	Name
	Side guard
2	Frame
3	Side shift cylinder
4	Articulation cylinder
5	Gearbox
6	Universal joint housing
7	Transmission cover
8	Upper link pin
9	Drawbar
10	Foot
11	Parallel hitch pins
12	Parallelogram
13	Flaps
14	Rotor
15	Levelling roller

3.0 Machine model and basic components

3.2 FUNCTIONAL CHARACTERISTICS OF THE MACHINE

The machine can work behind the tractor or on the side of the tractor, mowing the banks of ditches inclined upwards or downwards. The following illustration and table indicate the machine's range of action



Mod.	A	B	C	D	E
	inches	inches	inches	inches	inches
AGF.N 140	55	67	24-6	85-102	71-57
AGF.N 160	63	67	24-6	91-108	57-63
AGF.N 180	71	67	24-6	98-116	65-71
AGF.N 200	79	67	24-6	106-124	73-79
AGF.N 220	87	67	24-6	114-132	81-87
AGF.N 240	94	67	24	122	86

- A. Working width of the machine
- B. The distance from the tractor pto to the rear of the machine
- C. Far left of the machines working width, to the PTO while side shifted fully left
- D. Distance PTO to the farthest working width right, while fully shifted right
- E. Tilt depth distance from horizon

3.0 Machine model and basic components

3.3 STANDARD TOOLS

Original tools are the results of in-depth research and lengthy experience. They are made out of high quality steel and parts subject to thermal treatments are extremely tough and wear-resistant. Weights and dimensions are rigorously monitored and the rotor does not require to be newly dynamically balanced in case of partial or total tool replacement.

Tools that are broken or excessively worn can cause the machine to vibrate. In this case you must immediately stop working and start working again only after replacing the tools.

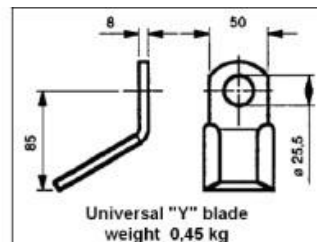
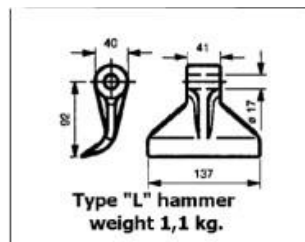
If the machine still vibrates after the tools are replaced then the rotor must be dynamically balanced.

The high strength 10.9 (UNI 3740) fastening screw guarantees a sure connection and duration that corresponds to the duration of the tools.



WARNING:
INSTALL ONLY ORIGINAL TOOLS ON THE ROTOR!!

TYPES OF TOOLS



4.0 Drive Shaft

4.1 D SHAFT SPECIFICATIONS

The drive shaft is the drive component that powers the shredder; it must be selected based on specific criteria that define its dimensions and length.

Model TA –TA/S machines come standard with drive shafts. The following table gives the size of the drive shaft which is much larger than the power that is absorbed during mowing.

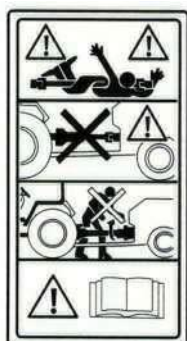
This design choice guarantees maximum drive shaft strength during maximum extension.

DIMENSION OF THE DRIVE SHAFT

Model	Max. power absorbed		Power that can be transmitted by the Drive shaft	
	kw	HP	kw	HP
AGF.N 140	18 – 22	25 – 30	48	65
AGF.N 160	22 – 26	30 – 35	48	65
AGF.N 180	26 – 29	35 – 40	48	65
AGF.N 200	29 – 33	40 – 45	48	65
AGF.N 220	33 – 37	45 – 50	48	65
AGF.N 240	40 – 44	55 – 60	48	65



WARNING:



The Drive shaft, when it operates, can create hazardous and dangerous situations.

Machine operators must:

- read and preserve the operating and maintenance booklet attached with the drive shaft;
- check that the drive shaft is suitable for transmitting the required power;
- use exclusively the drive shaft supplied with the machine;
- check that guards are properly installed, whole and effective;
- replace worn, broken or missing guards;

turn the tractor motor off before working on the drive shaft or on the machine itself;
never let children or extraneous persons come near the machine when it is in use and/or undergoing maintenance.
set the drive shaft on its specific support when it is not in use;
wear suitable garments (that cannot be caught by the machine or pulled into it), especially close-fitting garments (such as work overalls with safety wrists and ankles);

5.0 Installing the machine

5.1 ASSEMBLY OF THE PARTLY-DISMANTLED MACHINE

In some cases the machine is delivered partly dismantled to reduce shipping bulk. In this case it must be reassembled in order to work..



WARNING:
THE PROCEDURES DESCRIBED BELOW CAN CREATE DANGEROUS SITUATIONS. IN ADDITION THE SIZES AND WEIGHTS OF THE MACHINE'S COMPONENTS MAKE IT NECESSARY TO WORK WITH THE HELP OF A HOIST



Set the machine firmly on a flat surface;

Remove the three-point drawbar from the packing and set it on the ground;

Move the parallel arms with care and attention until they are centered on their connection holes;

Move the jack and fasten it in place with its pin.



5.0 Installing the machine

5.2 CONNECTION TO THE THREE-POINT HITCH



WARNING:

THESE PROCEDURES ARE VERY HAZARDOUS:

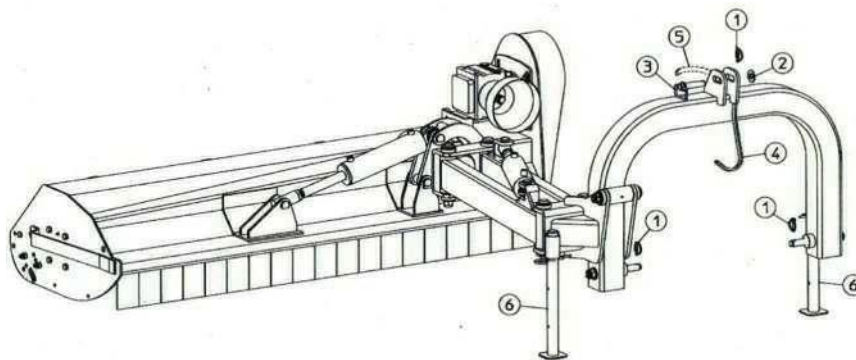
AVOID STANDING IN FRONT OF **THE** MACHINE WHEN IT IS APPROACHED BY **THE** TRACTOR.

AVOID THE PRESENCE OF EXTRANEIOUS PERSONS.

THE P.T.O. MUST BE DISENGAGED DURING THESE INSTALLATION PROCEDURES.

Before installing the machine make sure it is in perfect condition, resting on the ground and level and that lubricants are at proper levels and all components subject to wear and/or deterioration are perfectly efficient.

Also check that the size and weight of the tractor is suitable for carrying the machine.



Proceed as follows after making these checks:

- 1) remove the safety pins (1), pull out washer (2) and pin (3);
- 2) carefully bring the tractor near until you center the lower connection pins and thread the connection arms of the lift; reinsert the safety pins (1);
- 3) brake the tractor and turn it off;
- 4) adjust the arm tie-rods in order to prevent the machine from swinging to the right and left;
- 5) install the drive shaft making sure that the push-buttons are properly inserted in their slots (see

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- paragraph 5.4);
- 6) turn the support (4) up to the position 5;
 - 7) install the third point tie-rod, insert the pin supplied with the machine (3), the washer (2) and the related safety pin (1);
 - 8) adjust the length of the third point so that the pin is approximately in the center of the slot;
 - 9) clamp the third point tie-rod;
 - 10) slightly lift the machine off the ground and lift the parking stand (6);
 - 11) connect the cylinder drive hoses;

5.0 Installing the machine

5.3 INSTALLING THE DRIVE SHAFT

THE MANUFACTURER GUARANTEES THAT THE DRIVE SHAFT, SUPPLIED WITH THE MACHINE, IS SUITABLE



FOR SAFELY SUPPORTING POWER ABSORPTION LEVELS DURING WORK PROCESSES AS LONG AS ALL OPERATING AND USE CONDITIONS ARE COMPLIED WITH.

WHEN THE DRIVE SHAFT IS REPLACED IT CAN BE REPLACED BY ANOTHER THAT MEETS EC STANDARDS AND

THAT IS SUITABLE FOR TRANSMITTING THE POWER RATINGS INDICATED IN THE TABLE AT PARAGRAPH 4.1.

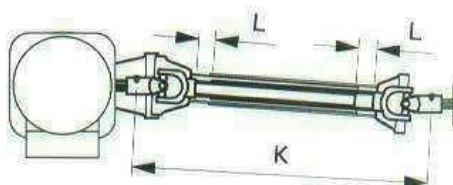
CAREFULLY READ THE INSTRUCTION BOOKLET THAT COMES WITH THE DRIVE SHAFT BEFORE PERFORMING THESE PROCEDURES.



WHEN FIRST INSTALLING THE DRIVE

SHAFT: Measure the distance "K" between the races of the P.T.O. push-buttons with the machine rested on the ground and level and with the over gear axially aligned with the tractor's P.T.O.: if the length of the drive shaft that is supplied needs to be

modified make sure that the telescoping tubes overlap for a length that permits between 40 and 50 mm of play "L" at their ends.



IMPORTANT:



THIS PROCEDURE MUST BE DONE THE FIRST TIME THE SHAFT IS INSTALLED, EVERY TIME IT IS REPLACED AND EVERY TIME THE MACHINE IS INSTALLED ON ANOTHER TRACTOR.

WARNING

AFTER INSTALLING THE DRIVE SHAFT FASTEN ITS GUARD FROM BOTH SIDES WITH THE SPECIFIC CHAINS.

When the machine is put away for storage always set the drive shaft on its specific support bracket "S" provided on the three-point drawbar to avoid build-up of dirt or deformation or breakage of the protective guard.



IMPORTANT:
 GREASE THE DRIVE SHAFT ACCORDING TO THE RECOMMENDATIONS GIVEN
 IN THE DRIVE SHAFT'S
 MANUAL.
IMPORTANT:
 NEVER WORK WITH DRIVE SHAFTS WITHOUT THEIR SAFETY GUARDS
 READ THE INSTRUCTION BOOKLET THAT COMES WITH THE DRIVE SHAFT
 WITH CARE.

5.0 Installing the machine

5.4 DISCONNECTING THE MACHINE



WARNING
 THE PROCEDURES DESCRIBED BELOW CAN CREATE DANGEROUS
 SITUATIONS:
 KEEP EXTRANEEOUS PERSONS
 AWAY FROM WHERE THE MACHINE WILL BE POSITIONED AND FROM ITS
 IMMEDIATE VICINITY.

Comply rigorously with the following instructions in order to unhook the machine from the tractor. For greater clarity you can also consult paragraph 5.2 "INSTALLING THE MACHINE".
 For disconnecting, proceed as follows:

1. Disengage the P.T.O.;
2. Rest the machine on the levelling roller;
3. Put the tractor's brakes on;
4. Lower the parking stand (6);
5. Completely rest the machine on the ground and turn the tractor off;
6. Disconnect the third point tie-rod;
7. Disconnect the Drive shaft from the tractor and rest it on the bracket;
8. Disconnect the parallel hitches;
9. Disconnect the jack supply hoses

Put the connection pins and safety clip pins back in their housings on the drawbar so you will be sure to find them when you use the machine again.

5.5 TRANSPORT ON ROAD



WARNING:
 ON-ROAD TRANSPORT MUST BE DONE WITH MAXIMUM CARE AND ATTENTION
 TO AVOID DANGER TO
 PERSONS AND VEHICLES IN TRANSIT.

Before performing on-road travel make sure that all the machine's parts are whole and in good conditions.

Then proceed as follows:

1. disengage the P.T.O.



- the movement jack to close
the machine behind the
tractor;
- 3. lift the machine off the ground
enough so that it can be
rotated vertical;
- 4. turn the machine vertical using
the distributor that controls the
joint jack;
- 5. if necessary lift the machine
higher so that drive
components do not touch the
ground:

6.0 Operating instruction

6.1 GENERAL REGULATIONS

The model AGF is designed and manufactured exclusively for shredding grass, shrubs, pruning and branches of up to 3 cm. in diameter

It can be used:

- hitched to the rear of the tractor
- on the side of the tractor, hinged upwards or downwards depending on the position required by the job.

The table given in paragraph 3.2 illustrates the maximum limits that the machine can work within.

It is prohibited to use them:

- if they are coupled with undersized tractors
- if there are loose stones on the surface of the terrain
- if terrains do not permit stable tractor operation, such as steep rising or descending slopes, the vicinity of ditches or cliffs, very uneven terrain, etc.

- To cut down trees and bushes
- in situations that require sharp turns
- in backwards direction



IMPORTANT:
REMEMBER THAT YOUR OWN VISIBILITY AND THAT OF OTHER
VEHICLES MAY BE IMPAIRED WHEN
WORKING ON DUSTY TERRAIN.

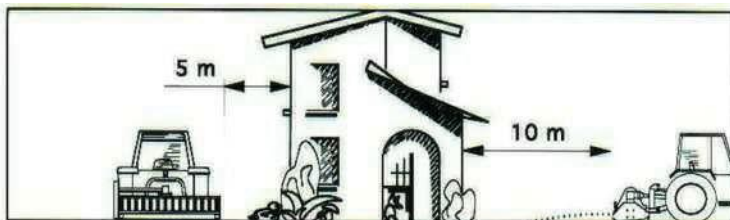
6.2 INSTRUCTIONS FOR USE ON FIELD



This paragraph provides instructions for safely using the machine in its work area:

- a. carefully check that the machine operates properly before using it for the first time in the field: do this by rotating the rotor for a few minutes without any load, applying the instructions illustrated in paragraph 7.6. Perform this same check every time you start using the machine again;
- b. whenever turning around when working always disengage the tractor's P.T.O., wait until the rotor stops, lift the machine and then reverse your direction of operation;

- c. always make sure, when working, that nobody is present in the machine's residual risk zone;
- d. disengage the P.T.O. before lifting the machine, do not operate the machine while it is lifted and always stop the machine before descending from the tractor;
- e. respect safe distances when working near houses or roads:
5 meters on the side;
10 meters to the rear;

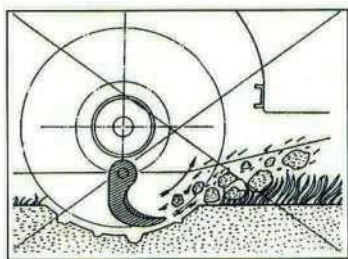


6.0 Operating instruction

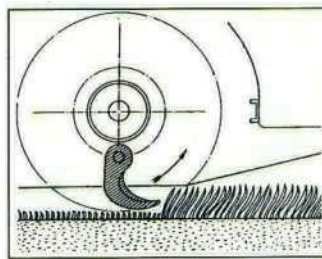
6.3 USE ON FIELD

Hitch the machine correctly to the tractor, move to the work zone and then proceed as follows:

1. use the distributor that controls the joint jack to turn the machine and bring it horizontal;
2. use the distributor that controls the movement jack to move the machine until it is in the work zone;
3. use the lift controls to lower the machine until its roller rests on the ground;
4. engage the P.T.O. and gradually accelerate the tractor until you reach a 540 RPM rotation speed;
5. engage 1st gear and start to work;
6. If necessary use the lift to adjust working height, preventing cutting tools (hammers or blades) from coming in contact with the ground:



NO



YES

7. If necessary adapt the tractor's forward speed to the job (paragraph 6.4 gives several recommended guideline speeds);
8. Adjust the position of the roller to increase or decrease cutting height with respect to the ground (minimum cutting height 30 mm). See the instructions in paragraphs 8.1, in order to make these adjustments.



ALWAYS MAKE SURE, WHEN YOU HAVE FINISHED WORKING WITH THE MACHINE, THAT THE ROTOR IS STOPPED BEFORE CLOSING THE MACHINE.

6.4 FORWARD SPEED



Remember that the forward speed of the tractor must adapt to the type and quantity of material being shredded. EXCESS SPEEDS put excessive stresses on drive components, wearing them out ahead of time.

This will produce poor-quality shredded material, the possible expulsion of large pieces of material which, because of their higher inertia may be projected beyond forecast safety limits.

The following table contains speeds we recommend to get maximum performance from the machine:

RECOMMENDED FORWARD SPEED (km/h)															
TYPE OF MATERIAL	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8
Thin grass															
Wild grass															
Fibrous, wild grass uncultivated since years															
Pruning in general															
Branches and heavy shrubs															

7.0 Machine maintenance

7.1 IMPORTANT WARNINGS AND OPERATING INSTRUCTIONS



The structure, design and efficiency of this machine may cause operators to underestimate risks that can arise during maintenance and/or repair procedures.

Scrupulously comply with the guidelines described in this manual for all maintenance and/or repair procedures in order to avoid any risks inherent to these tasks.

Here we list a few general precautions:

- read the operating and maintenance manual with care;
- perform all maintenance and/or repair in suitable work sites;
- prepare a suitable storage site for the machine;
- collect recovered oil in specific disposal containers;
- use suitable tools with the proper skill;
- employ personal protection devices (DPI).



READ THIS MANUAL WITH CARE.

This manual must be read with care in order to prevent all risks when performing specific operations, whether when working with the machine or during maintenance and/or repair.

WARNING:

IT IS VERY DANGEROUS TO WORK ON THE MACHINE WITHOUT SUFFICIENT INFORMATION ON WORK PROCEDURES.



PERFORM MAINTENANCE AND/OR REPAIR IN SUITABLE WORK SITES.

Suitable work sites include a flat, paved and well illuminated support surface that is sufficiently large and, if possible, located inside a building. It must always be possible, when working on the machine, to keep it in a stable position. It may, if necessary, be sustained by special support devices designed to guarantee stability even when the machine is subjected to stresses.



PREPARE A SUITABLE STORAGE SITE FOR THE MACHINE.

Store the machine in a covered area. Remember that:

- the machine must be safely positioned so that it will not fall over and so that hook-up and release procedures are simple and easy;
- entryways must permit easy passage;
- the tractor engine must only operate inside the storage site the amount of time necessary for entering and exiting and for maneuvering; avoid build-up of exhaust gases;
- keep the storage site orderly to make machine movements as easy as possible.



COLLECT RECOVERED OIL IN SPECIFIC DISPOSAL CONTAINERS.

Used oil is harmful to the environment and to health. Use all necessary precautions when disposing of used oils. Comply with currently valid legislation in your own county regarding environmental protection and waste disposal legislation.

It is good practice, when changing oil, to wear protective gloves. Carefully wash body parts of the skin comes in contact with the used oil.

7.0 Machine maintenance

7.1 IMPORTANT WARNINGS AND OPERATING INSTRUCTIONS

USE SUITABLE TOOLS WITH PROPER SKILL



Appropriate tools must be used even for the simplest tasks: improper use or incorrect tools can cause serious risks and hazards for persons. In this regard you should also use personal protection devices (DPI).

It is also good practice to keep tools in good shape and transport them with care



EMPLOY PERSONAL PROTECTION DEVICES (DPI).

Personal protection devices must be used in accordance with current standards in your own country and depending on the type of task being performed. We give all the relative specifications on the "Working in Safe Conditions" chapter.

7.2 PREVENTIVE GUIDELINES

Follow these guidelines to best use and maintain the machine:

- a. After the first 4 work hours and subsequently at 50 hour work intervals:



1. check that all bolts are tight;
2. check the tension of drive belts;
3. check lubricant levels;



- b. If the machine will be inactive for a long time period:

1. clean the machine with care;
2. check its condition and take all necessary measures so it will be ready for prompt use;

3. keep the machine indoors during the winter where temperatures do not drop much below 0°C (zero degree Centigrade)

- c. The first time the machine is used again:

1. grease all bearings;
2. check lubricant levels;
3. check the condition of the transmission;
4. before reinstalling the drive shaft make sure it is the one supplied with the machine

and that all protective devices are complete and in proper operating order.

- d. Periodically check the state of all protective devices: replace those that are deformed, broken or missing.

7.3 ROUTINE MAINTENANCE



Moving parts must be protected according to current law to prevent the hazards of contact,

catching, pulling and crushing of body parts. Always check that:

- a) moving parts are protected and that their protective devices are sound and efficient;
- b) protective devices are always put back in position whenever they are removed in order to perform maintenance;
- c) always wear suitable clothing according to specified personal protection measures.



WARNING:

THE P.T.O. MUST BE DISENGAGED AND THE TRACTOR OFF AND PROPERLY BRAKED OR DISCONNECTED BEFORE BEGINNING ANY MAINTENANCE PROCEDURES

7.0 Machine maintenance

7.3.1 GREASING AND LUBRICATION

Systematic and periodic machine greasing and lubrication keeps it performing well and prolongs its working life

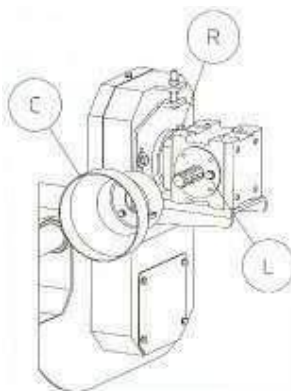
LUBRICATING THE TRANSMISSION SYSTEM

Carefully clean components around plugs before working on transmission systems: this prevents dirt from penetrating into these systems.

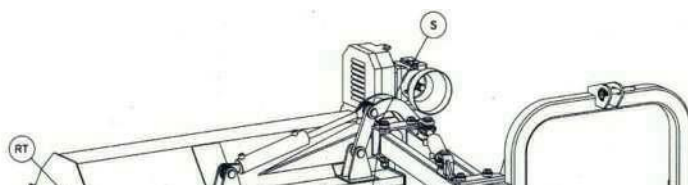
Transmission systems require the following checks:

- 1- check the oil level in the gearbox during the first 20 work hours: oil must come up to the level hole. Add oil as required. Perform the next oil level checks at 50 hour intervals.
- 2- totally replace the oil in the gearbox after the first 40 work hours. Then repeat this every 250 work hours;

Oil is introduced into the gearbox through the hole closed by plug R. The oil level is indicated by the hole closed with plug L. Remove protective cone C in order to access plug L.



GENERAL GREASING



RL - levelling roller: grease every 8 work hours on both ends of the roller, pumping in grease until it comes out.

RT - rotor: grease every 8 work hours, pumping a maximum of 1-2 times to avoid harm to the internal bearing seals;

The rotor is lubricated from the pulley side using the grease nipple placed on the tube that exits from the transmission casing.

S - joint: grease every 20 work hours.

P - parallelogram: grease every 20 work hours.

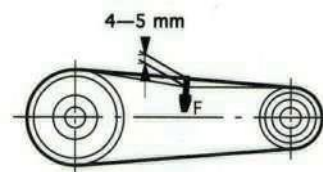
7.0 Machine maintenance

7.4 BELT TENSIONS

Belts are properly stretched when they deflect about 4-5 mm when an approximate 4-5 Kg. Force F is applied in the center between the two pulleys.

It is very important to check belt tension: make all necessary adjustments so that deflection agrees with the above-indicated value.

Check and adjustment must be done after the first 4 work hours and subsequently at 50-hour intervals.



MODEL AGF.N



WARNING:

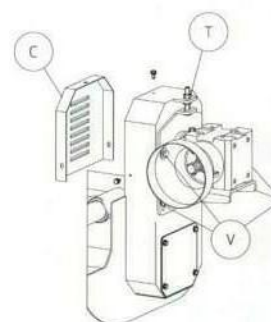
MAKE SURE THE P.T.O. IS DISENGAGED. THE MACHINE MUST BE OPEN IN ITS WORK POSITION. THE TRACTOR MUST BE BRAKED AND OFF OR DISCONNECTED FROM THE MACHINE WHEN PERFORMING THESE PROCEDURES

Proceed as follows to make adjustments: 9- remove the belt cover C;

10- loose the screws V located on the support plate of the gearbox; 11- tighten the belts by operating on the tightening screws T;

12- clamp the screws T;

13- tighten screws V;



14- reinstall the cover and fasten them with screws.



WARNING:
DO NOT WORK WITHOUT THE BELT COVER

7.0 Machine maintenance

REPLACING TOOLS

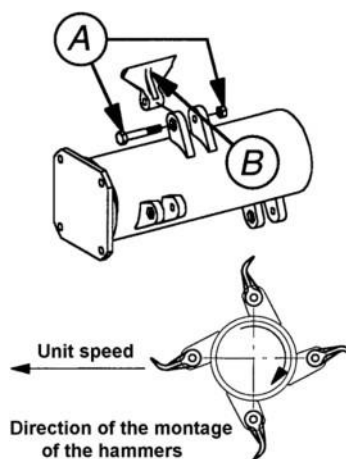
7.5.1 REPLACING HAMMERS



WARNING:
TO PERFORM THESE PROCEDURES MAKE SURE THE P.T.O. IS
DISENGAGED.

Proceed as follows:

- 1)set the machine on the flat;
- 2)disconnect it from the tractor;
- 3)use a suitable hoist (see the weight indicated in paragraph 3.2) hooked to a suitably large beam. Hook up the machine and turn it over;
- 4)thoroughly unscrew and remove bolt A;
- 5)replace hammer B and install a new bolt, being sure to insert the head of the screw into the hexagon machined on the support. Tighten strongly;
- 6)turn the machine back into its normal operating position.



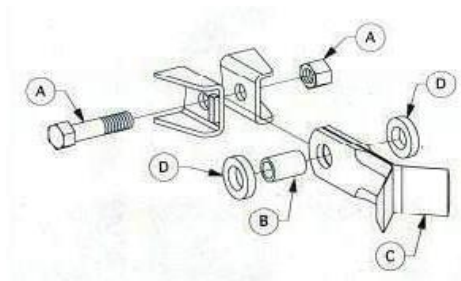
7.5.2 REPLACING BLADES



WARNING:
TO PERFORM THESE PROCEDURES MAKE SURE THE P.T.O. IS DISENGAGED.

Proceed as follows:

set the machine on the flat; disconnect it from the tractor; use a suitable hoist (see the weight indicated in paragraph 3.2) hooked to a suitably large beam. Hook up the machine and turn it over; thoroughly unscrew and remove bolt A; replace blades C and install a new bolt, being sure to insert the head of the screw into the hexagon machined on the support. Tighten strongly. Pay



attention to the positions of bush B and spacers D when doing these procedures: they must be positioned exactly in the same places they were prior to replacement; turn the machine back into normal operating position.



OUR ORIGINAL SPARE PARTS GUARANTEE COMPLETE AND CORRECT MACHINE OPERATION.

7.0 Machine maintenance

7.6 OPERATING TEST AFTER MAINTENANCE

It is good practice to test the machine to make sure it operates properly and that work was done properly after performing any maintenance and/or repairs on the machine.

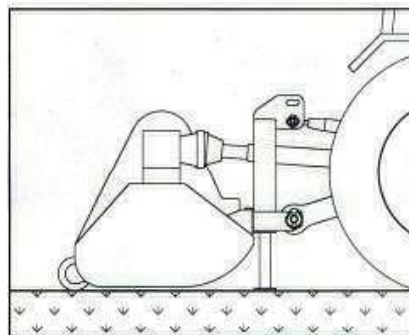
Proceed as follows:

- 1) connect the machine to the tractor if necessary (see paragraphs 5.2 and 5.4);
- 2) make sure the machine is resting on the levelling roller but is high enough so that the tools do not touch the ground;
- 3) Check that there are no extraneous persons within a 10 m range of the machine;
- 4) Engage the P.T.O. and gradually accelerate until you reach the 540 RPM operating speed;

Check the tools if the machine vibrates during the test (see paragraphs 7.5.1 and 7.5.2).

The rotor will need to be dynamically balanced if the machine vibrates after the tools are checked or replaced.

In this case call BETSTCO PRODUCTS



8.0 Safety work conditions

8.1 GENERAL PRECAUTIONS

1. Check that the machine has not been damaged during shipment. immediately notify the manufacturer or the retailer if this is the case.
2. Make sure, before using the machine, that all protective devices are properly in place and in good condition. Replace protective devices immediately whenever they are broken or damaged.
3. Check the tightness of all bolts prior to use.
4. Never use the machine without its safety devices.
5. Keep the machine clean, eliminating all foreign matter that could damage operation or cause harm to the machine operator.
6. Always brake the tractor and turn its engine off before working on the machine's moving parts.
7. Be sure you are on flat terrain when disconnecting the machine from the tractor. Make sure the machine rests firmly on the ground.
8. Avoid jolts and blows that could jeopardize the stability of the machine when it is being installed.
9. Permit only authorized persons with driver's licenses for the tractor to use the machine.
10. Make sure there are not extraneous persons in the work and maneuvering areas.
11. It is prohibited to stand within the working range of the machine when it is operating. Keep at a safe distance as indicated in this operating and maintenance manual.
12. Never transport persons, animals or property on the machine.
13. Use only original spare parts.
14. WARNING: Never wear garments that could get caught in moving parts.
15. Always turn to the manufacturer or to authorized retailers for all clarifications you may require on operating and maintaining the machine.

8.2 SAFE OPERATION AND MAINTENANCE OF THE MACHINE

All due precautionary measures have been taken during design and manufacture of this machine to

eliminate all risks for the machine operator. Residual risks, hazards and dangers may remain regarding operation, use and maintenance and/or repair.

The following section gives all the instructions and information that is necessary or must be adopted to prevent the main risks connected with use of the machine in accordance with current safety regulations.

These regard, in particular:

- connection between tractor and operating machine;
- protection of moving drive parts;
- projection of materials;
- noise;
- personal protection devices (DPI);
- stability.

8.0 Safety work conditions

8.2.1 CONNECTION BETWEEN TRACTOR AND OPERATING MACHINE

A common cause of injury regards procedures for hooking-up and releasing the machine from the tractor. Injuries are mainly caused by crushing or torn or injured muscles caused by exerting excess forces.

It is necessary for:

- all adjustments to be done with the machine on the level, the PTO disengaged and with the tractor braked and off;
- always make sure the machine is securely blocked and positioned in place when it is disconnected: this will prevent accidental movements or tipping over which can have serious consequences for persons or property in the vicinity of the machine;
- the tractor operator and the ground-level operator must coordinate their connection and release procedures;
- it is best to employ quick-connection systems or use a specific connection jack.



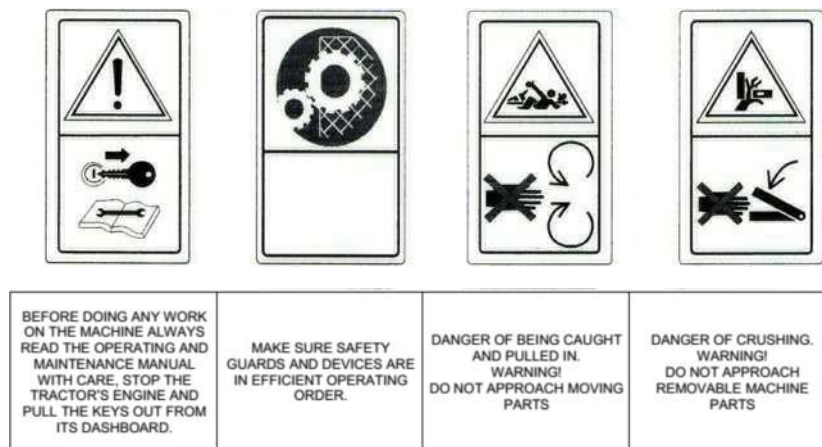
8.2.2 PROTECTION OF MOVING DRIVE PARTS

Injuries caused by being caught and pulled by moving drive parts are often very severe. They are caused both by inefficient protection due to broken or worn safety devices or by wearing unsuitable garments.

It is necessary for the P.T.O., Drive shaft, and all moving parts:

- to check the presence and condition of all safety guards and devices;
- to replace worn and/or broken safety devices;
- to avoid working in the vicinity of moving parts;

- ta turn the tractor engine off before working on the transmission and the machine;
- ta always prevent children or extraneous persons from approaching the machine when it is in use;
- ta wear suitable close-fitting garments;



8.0 Safety work conditions

8.2.3 PROJECTION OF MATERIALS



Materials can be projected by the machine in certain work situations. Pay particular attention ta:

- make sure machine tool guards are efficient;
- perform proper routine cleaning and maintenance on the machine;
- Make sure there are no persons, animals or property which could be damaged within the working range of the machine.

8.2.4 NOISE



Protect your hearing from the noise generated when working with the machine: wear earmuffs or earplugs.

9.2.5 PERSONAL PROTECTION DEVICES



Persona! protection devices that comply with current standards in your country must be used in function of the type of job being performed.

A Persona! Protection Device is any equipment destined ta be worn or held by the operator in order ta protect him against one or more risks. Keep in mind, when selecting persona! protection devices, that:

- Persona! Protection Devices must be suited for the work conditions;
- they must not generate risks that are greater !than the risk they should prevent;
- they must take the worker's ergonomic and physiological needs into account;
- they must adapt ta the needs of each single user;
- if multiple Persona! Protection Devices must be used al the same lime because of the

presence of multiple risks then they must be used in such a way that they are compatible with each other.

It is always good practice, when using operating machines, to wear suitable work garments. Avoid any garments that are loose or flappy.

Use the following Personal Protection Devices when performing routine or extraordinary maintenance and/or repairs:

glasses or visors protecting against projection of splinters or objects.

leather safety gloves protecting against punctures, cuts, burns, etc.;

reinforced leather aprons ;

safety shoes;



MANDATORY
EYE



MANDATORY
PROTECTION



MANDATORY



MANDATORY
BODY
PROTECTION



MANDATORY
PROTECTION



MANDATORY
FACE

HEARING

PROTECTION
SAFETY SHOES SAFETY GLOVES

8.0 Safety work conditions

8.2.6 STABILITY



Machines for processing terrain are generally large and massive and have irregular shapes. They can, as a consequence, have stability problems both when they are alone and when they are connected to the tractor.

Stability problems can be avoided by carefully positioning them on flat surfaces and leaving sufficient room around them to perform all necessary maneuvers.

When the machine is coupled to a tractor and becomes an integral part of it from the road circulation point of view it can alter the stability of the tractor or cause driving and working problems.

Remember, to work safely, that the formula given in the highway code to check vehicle stability is also applicable to the tractor/machine combination when it is at work.

$$M \times s \leq 0,2 T \times i + Z (d+i)$$

M :50,3 (prudential value)

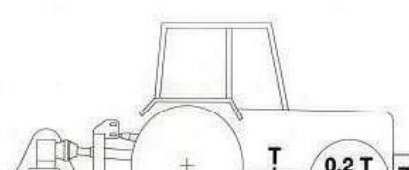
(Mxs) - (0,2Txi)

Z 2----- (to calculate the ballast) (d+i)

where:

i = tractor wheel c/c distance (m)

d = distance of the front axle from the front ballasts (m)
s = equipment overhang from the rear axle (m)



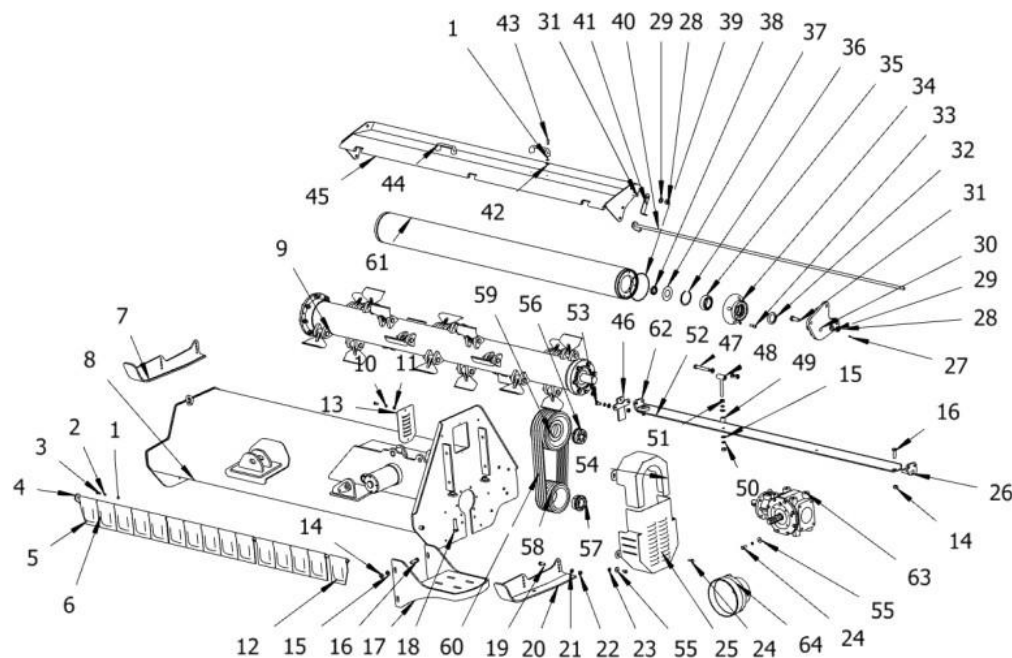
T = tractor mass (kg) (art. 275 D.P.R. 495/92) Z = ballast mass (kg)

M = equipment mass (kg)

At least 20% of the total tractor operating machine mass must bear on the front axle of the tractor when it is in working order.

9.0 Parts list

9.1 AGF.N ASSEMBLY



Item	Parts No.	ERP No.	Name	ICID1
1	GB97.1-8	506010055	Plain washer 8	
2	GB93-8	506030035	Spring washer 8	8

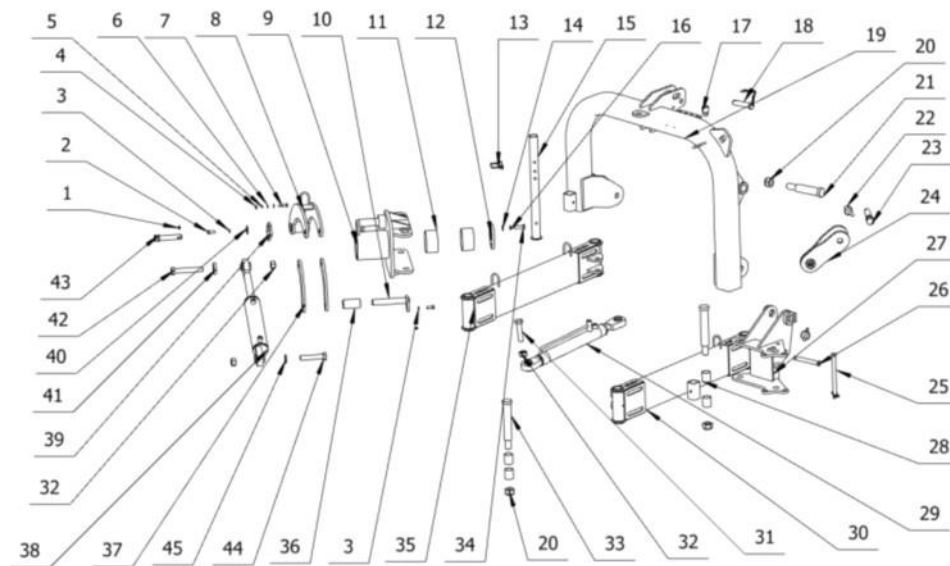
3	GB5783-M8x20	501011099	Screw bolt M8x20	4
4	EFAGF200.030-N	809820049	Board rod weldment(L=2040)	1
5	EFAG140.111B	709950010	Wide board (left corner out)	1
6	EFAG140.111	702480127	Wide board	13
7	EFAGF200.032-N	809820051	Right pedestal weldment	1
8-1	EFAGF140.015-N	809950013	Hood weldment(140N)	1
8-2	EFAGF160.015-N	809960011	Hood weldment (160N)	1
8-3	EFAGF180.015-N	809970011	Hood weldment (180N)	1
8-4	EFAGF200.015-N	809820008	Hood weldment (200N)	1
8-5	EFAGF220.015-N	809920007	Hood weldment (220N)	1
8-6	EFAGF240.015-N	809990007	Hood weldment (240N)	1
9-1	VM140.017A	809950002	Blade shaft (140)(L=1325)	1
9-2	VM160.017A	809960002	Blade shaft (160)(L=1525)	1
Item	Parts No.	ERP No.	Name	QTY
9-3	VM180.017A	809970002	Blade shaft (180)(L=1725)	1
9-4	VM200.017A	808190007	Blade shaft (200)(L=1925)	1
9-5	VM220.017A	807690025	Blade shaft (220)(L=2125)	1
9-6	VM240.017A	809990013	Blade shaft (240) (L=2325)	1
10	GB93-10	506030036	Spring washer10	10
11	GB97.1-10	506010056	Plain washer 10	5
12	EFAG140.111C	709950011	Wide board Right corner out)	1
13	AGFR245-0000-03	709880003	Sealing caver plate 1	1
14	DIN985-M14	503010764	Hexagonal locking thin nut M14	11
15	GB97.1-14	506010058	Plain washer 14	14
16	GB5783-M14X45	501011143	Screw bolt M14X45	10
17	AGFR245-1900-00	809880100	Gear box soleplate1	1
18	GB5786-M16X1.5 X60	501011907	Fin thread screw bolt M16X1.5X60	2
19	GB5783-M12X30	501011126	Screw bolt M12X30	11
20	EFAGF200.031-N	809820050	Left pedestal weldment	1
21	GB97.1-12	506010057	Plain washer12	20
22	DIN985-M12	503010763	Hexagonal locking thin nut M12	14
23	DIN985-M10	503010762	Hexagonal locking thin nut M10	2
24	GB5783-M10X25	501011112	Screw bolt M10X25	2
25	AGFR245-2200-00	809880109	Belt pulley below caver weldment	1
26	EFAGF200.029-N	809820022	Right scraper hanger weldment	1
27	GB1152-M6	509010007	Grease zerk M6	2
28	DIN985-M16	503010765	Hexagonal locking thin nut M16	24
29	GB97.1-16	506010059	Plain washer 16	6
30	EFAG200.020-N	809820026	Left roller hanger weldment	1
31	GB5783-M16x45	501011159	Screw boit M16X45	6
32	CFW-50x65x8	510020443	FB oil seal 50X65X8	2
33	GB70.1-M10x30	505011430	Hexagonal socket cap screws	8

			M10X30	
34	VM190.112	702740057	Roller bearing seat	2
35	GB276-62208-Z	511025360	Deep groove ball bearing	2
36	GB893.1-80	506060191	A check ring	2
37	VM190.107	702740052	Adjusting pad(80X41)	2
38	GB812-M35X1.5	503020073	Round nut M35X1.5	2
39	GB3452.1-G-150X 3.55	510013277	O ring seal	2
40-1	AGZ-140.017-N	809950006	Pole weldment (140N)	1
40-2	AGZ-160.017-N	809960006	Pole weldment (160N)	1
40-3	AGZ-180.017-N	809970006	Pole weldment (180N)	1
40-4	AGZ-200.017-N	809820031	Pole weldment (200N)	1
40-5	AGZ-220.017-N	809920002	Pole weldment (220N)	1
Item	Parts No.	ERP No.	Name	QTY
40-6	AGZ-240.017-N	809990002	Pole weldment (240N)	1
41	EFAG140.142-AG MZ	702650044	Grease zerk seat	1
42	DIN985-M8	503010761	Hexagonal locking thin nut MS	4
43	GB70.1-M8X20	505011415	Hexagonal socket cap screw M8X20	4
44	RKH120-BS	705290212	handle	2
45-1	AGZ-140.012-N	809950005	Back shield weldment C140N)	1
45-2	AGZ-160.012-N	809960005	Back shield weldment C160N)	1
45-3	AGZ-180.012-N	809970005	Back shield weldment C180N)	1
45-4	AGZ-200.012-N	809820029	Back shield weldment (200N)	1
45-5	AGZ-220.012-N	809920001	Back shield weldment (220N)	1
45-6	AGZ-240.012-N	809990001	Back shield weldment (240N)	
46	AGMZ-200.017-N	809820033	Rabbet board weldment	1
47	GB5782-M14X100	501010773	Half thread screw boit M14X100	
48	EFAGF200.033-N	809820052	Scraper studd	1
49	EFAGF200.230-N	709820059	Spacer bushing	1
50	GB93-14	506030038	Spring washer 14	2
51	GB6170-M14	503010048	Hexagonal nut M14	4
52-1	EFAGF140.219-N	709950015	Scraper (140N)	1
52-2	EFAGF160.219-N	709960013	Scraper (160N)	1
52-3	EFAGF180.219-N	709970013	Scraper (180N)	1
52-4	EFAGF200.219-N	709820038	Scraper (200N)	1
52-5	EFAGF220.219-N	709920009	Scraper (220N)	1
52-6	EFAGF240.219-N	709990009	Scraper (240N)	1
53	GB70.3-M12x30	505011750		
54	AGFR245-2000-00	809880103	Belt pulley upper shield weldment 1	1
55	GB96.1-10	506010036	Extra large plain washer	4

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56	REACH15-33X80	515010004	Power lock 33X80	1
57	REACH15-45X80	515010011	Power lock 45X80	1
58	AGFR245-0000-15	709880016	Small belt pulley	1
59	AGFR245-0000-16	709880017	Big belt pulley	1
60-1	17X1270	514010005	Toothed belt(140N, 160N, 180N)	4
60-2	17X1270	514010005	Toothed belt (200N, 220N, 240N)	5
61-1	VM140.015	809950001	Roiler weldment(140)(L=1220)	1
61-2	VM160.015	809960001	Rollerweldment (160)(L=1420)	1
61-3	VM180.015	809970001	Roller weldment (180)(L=1620)	1
61-4	VM200.015	806050022	Roller weldment(200)(L=1820)	1
61-5	VM220.015	806060022	Roller weldment (220)(L=2020)	1
61-6	VM240.015	806070022	Roller weldment (240)(L=2220)	1
62	EFAGF200.028-N	809820019	Left scraper hanger weldment	1
Item	Parts No.	ERP No.	Name	QTY
63-1	XH50.300Z.03W	802480145	AGF885 gear box (AGFN140-180)	1
63-2	AGFR245-0300-00	809880059	AGFR245 gear box (AGFN200-240)	1
64	FM120.00.199C	703400202	Transmission shaft caver	1

9.2 AGF.N SWING ARM



Item	Parts No.	ERP No.	Name	QTY
1	GB1152-M10X1	509010009	Grease zerk M10X1	7
2	GB5783-M12x30	501011126	Screw boit M12x30	2
3	GB93-12	506030037	Spring washer 12	2
4	GB6170-M10	503010046	Hexagonal nut M10	2

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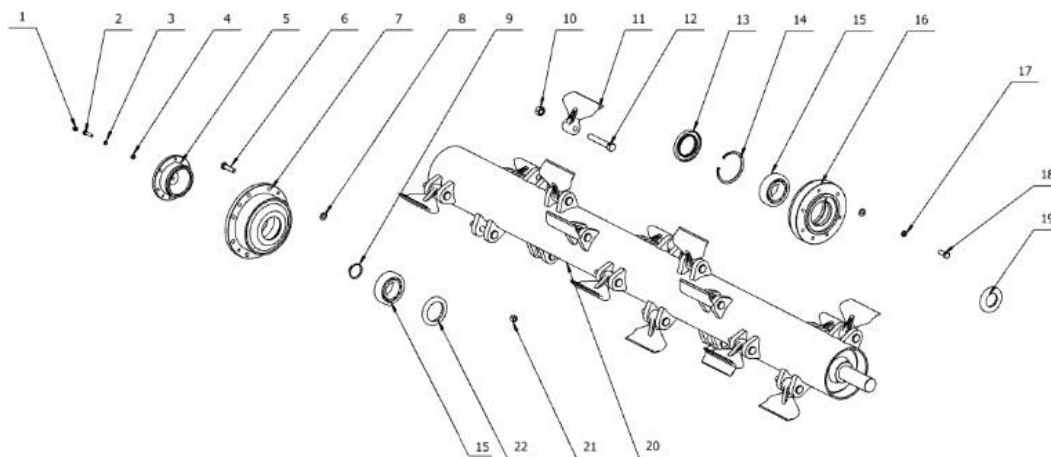
5	GB93-10	506030036	Spring washer10	2
6	GB97.1-10	506010056	Plain washer10	4
7	GB5783-M10x40	501011115	Screw bolt-M10x40	2
8-1	EFAGF140.027	802680109	Moon plate weldment(140N, 160N, 180N)	
8-2	AGFR245-1100-0	809880084	Moon plate weldment (200N, 220N, 240N)	1
9-1	EFAGF140.025J	809450009	Horizontal spindle weldment (140N, 160N, 180N)	1
9-2	AGFR245-2300-0	809880112	Horizontal spindle weldment (200N, 220N, 240N)	1
10	EFAGF200.034-N	809820068	Push plate weldment	
11	SF-2-110X115X60	511050224	Self-lubricating bearing	2
Item	Parts No.	ERP No.	Name	QTY
12	EFAGF140.105	702680004	End cap	
13	EF100.00.111A	800920101	D square cotter	2
14	GB97.1-14	506010058	Plain washer 14	4
	AGFR245-0400-0	809880062	short supporting leg weldment	2
16	GB93-14	506030038	Spring washer14	4
17	AGFR245-2500-0	809820065	Fixing sleeve parts	4
18	1G-180-00-019	805760001	Upper suspension pin	1
19	AGFR245-0100-0	809880022	Suspension bracket weldment	1
20	DIN985-M30X2	503010749	Hexagonal fin thread locking thin nut	5
21	EFAGF140.106	702680005	Short pin	1
22	200.56.011	700080010	Lynch pin(AG200/220/250)	5
24	EFAGF140.030	802680113	active suspension bracket	1
25	EFAGF200.218-N	709820037	Safety pin	1
26	AGFR245-0000-1	709880015	Install suspension pin 1	1
27	AGFR245-0500-0	809880064	Horizontal swing seat weldment	1
28	SF-2-40X44X50	511050223	Self-lubricating bearing	8
29	EFAGF140.021-N	809880122	Translation cylinder	1
30	AGFR245-0600-0	809880069	Swing arm weldment 2	
31	GB5782-M24x100	501010438	Half thread bolt-M24x100	
32	DIN985-M24	503010769	Hexagonal locking thin nut M24	3

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33	EFAGF140.101	702680001	Long pin weldment	4
34	GB5783-M14x45	501011143	Screw bolt-M14x45	4
35	AGFR245-1200-0	809880085	Swing arm weldment1	1
36	EFAGF200.236-N	709820072	Pushing plate spacer bush	1
37	EFAGF140.107A	707690024	Pushing plate	2
38	EFAGF140.024	802680095	Side swing cylinder	1
39	EFAGF140.102A	707690022	locking plate	1
40	EFAGF140.103A	707690023	Gasket	1
41	EFAGF200.235-N	709820071	Cylinder spacer cushion	1
42	GB5782-M24x150	501010836	Half thread boit M24x150	1
43	AGFR245-0000-0	709880002	Transportation steady pin 1	1
Item	Parts No.	ERP No.	Name	QTY
44	GB5782-M24X120	501010833	Half thread boit M24	1
45	GB97.1-24	506010063	Plain washer 24	1

9.3 AGF.N BLADE AXLE



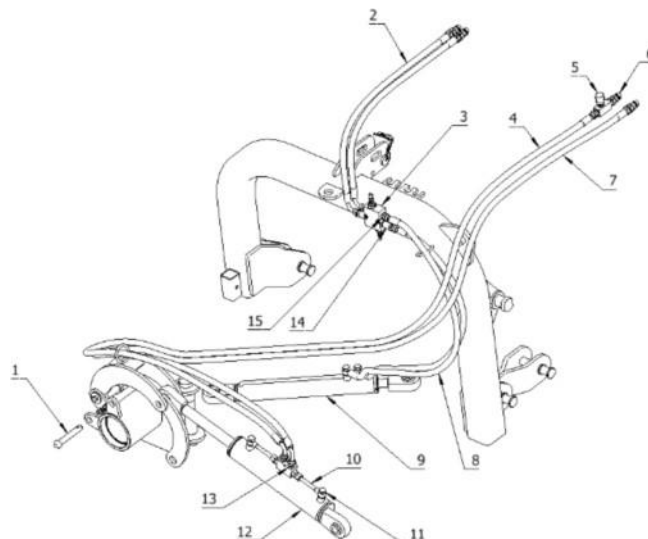
Item	Patrs No.	ERP No.	Name	QTY
1	GB1152-M10X1	509010009	Grease zerk M10X1	1
2	GB5783-M8x30	501011101	Screw boit M8x30	6
3	GB93-8	506030035	Spring washer 8	6
4	GB97.1-8	506010055	Plain washer 8	6
5	VM190.163-N	709880021	Bearing seat grease zerk cap	1
6	GB5783-M12x45	501011129	Screw boit M12x45	8
7	AGFR245-0000-11	709880011	Left bearing seat	1

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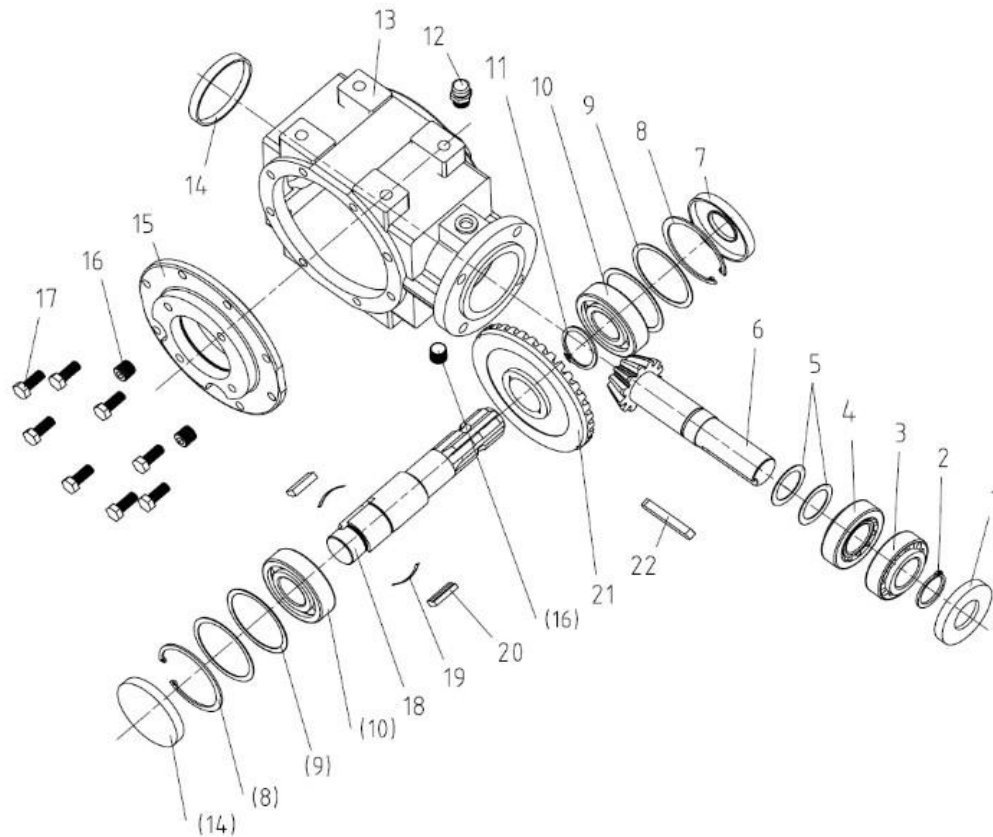
	VM190.110-N-LS	709820039	Left bearing seat (2016.12 batch)	1
8	GB97.1-12	506010057	Plain washer 12	15
9	GB894.1-45	506060323	A checking ring	1
10	DIN985-M16	503010765	Hexagonal locking thin nut M16	20
11	EFAG140.103	702480120	Hammer	20
12	GB5782-M16x90	501010783	Half screw boit M16x90	20
13	CFW-65X100X10	510020439	FB oil seal	1
14	GB893.1-100	506060199	A checking ring	1
15	GB281-1309	511024245	Self-aligning ball bearing	2
16	VM190.111-N	709820040	Right bearing seat	1
17	GB93-12	506030037	Spring washer 12	7
Item	Parts No.	ERP No.	Name	QTY
18	GB5783-M12x30	501011126	Screw boit M12x30	7
19	CFW-45X80X8	510020444	FB oil sealing	1
20-1	VM140.017A	809950002	Blade shaft (140)(L=1325)	1
20-2	VM160.017A	809960002	Blade shaft (160)(L=1525)	1
20-3	VM180.017A	809970002	Blade shaft (180)(L=1725)	1
20-4	VM200.017A	808190007	Blade shaft (200)(L=1925)	1
20-5	VM220.017A	807690025	Blade shaft (220)(L=2125)	1
20-6	VM240.017A	809990013	Blade shaft (240) (L=2325)	1
21	DIN985-M12	503010763	Hexagonal locking thin nut M12	8
22	CFW-65X90X10	510020626	FB oil seal	1

9.3 AGF.N HYDRAULIC ASSEMBLY



Item	Parts No.	ERP No.	Name	QTY
1	AGFR245-0000-02	709880002	Transportation steady pin 1	1
2	EFAGF140.022A	702680118	Pipeline(L=2000)	2
3	HM-ZYF-0	802710112	AGF overload valve	1
4	EFAGF140.023J	702680133	Pipeline(L=3600)	1
Item	Parts No.	ERP No.	Name	QTY
5	FV10-1-10/2-G3/8	706590117	Flow control valve(3/8)	1
6	QUICK-COUPPLING-G 1/2-G	703820055	Quick change pin end G1/2	4
7	EFAGF140.023A	702680116	Pipeline(L=3600)	1
8	EFAGF140.020A	702680119	Short oil tube(L=1300)	2
9	EFAGF140.021	802680092	Translation cylinder	1
10	AGF140.089	807690035	AGF steel tube (RL-12/NL-18&12)	2
11	GB3541-M16X1.5	501014708	Hinge joint bolt	4
12	EFAGF140.024	802680095	Side swing cylinder	1
13	HM-2S01-K8-0	702710109	double way hydraulic lock	1
14	LSP-18T-205	702710111	valve oil outlet long connector	2
15	1CB-18-06WD	700250036	Joint M18X1.5-G3/8	2

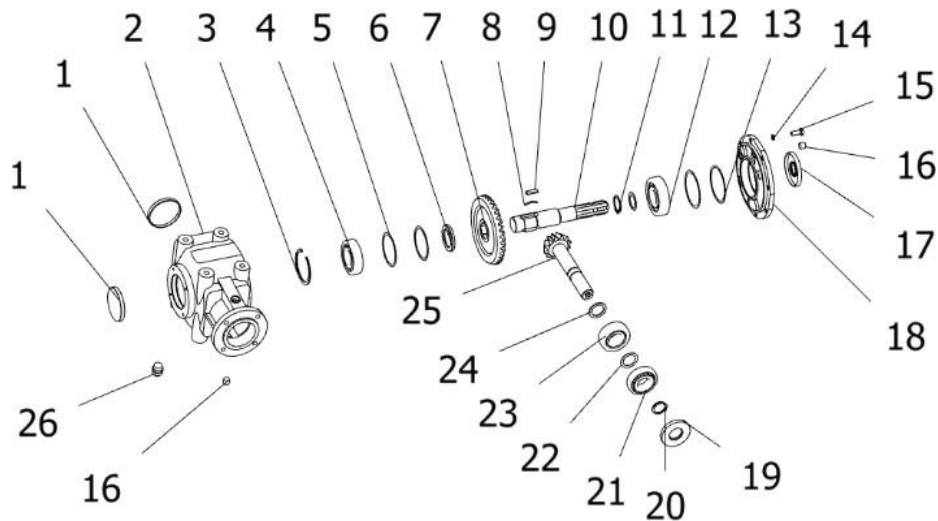
9.4 AGF.N GEARBOX ASSEMBLY(Mod.140-180)



Item	Parts No.	ERP No.	Name	QTY
1	CFW-35X72X10	510020398	FB oil seal 35X72X10	
2	JB4342-35	506060515	Thickened shaft check ring 35	
3	GB297-30207	511016411	Conical roller bearing 30207	
4	GB297-32207	511016440	Conical roller bearing 32207	
5	TZDP-48-35-1	701240035	Adjusting shim 48X35X1	2
6	AG14.01.C01	702480001	Output shaft gear	
7	CFW-35X80X10	510020399	FB oil seal 35X80X10	
8	GB893.1-80	506060191	Check ring 80	2
9	TZDP-80-70-1	703340009	Adjusting shim 80X70X1	4
10	GB276-6307	511022654	Deep groove ball bearing 6307	2
11	GB894.1-42	506060322	Check ring 42	
12	CBW-00-011 B	705290211	ZG3/8 air plug	
13	AG14.01.C02-884	702480002	311 shell	
14	NFG-RCA-80X10	703340013	Blank cap 80X10	2
15	AG14.01.C03	702480003	311 shell cap	
16	ZBT32001.3-ZG3/8-19"	516010003	Hexagonal socket tapered plug	3
Item	Parts No.	ERP No.	Name	QTY
17	GB5783-M10X25	501011112	Screw boit M10X25	8
18	GF140.01.C04	702480147	Input shaft	

19	AG14.01.C07	702480007	Leaf spring	2
20	AG14.01.C06	702480006	key	2
21	AG14.01.C05A	702480148	Big gears	

9.4 AGF.N GEARBOX ASSEMBLY(Mod.200-240)



Item	Parts No.	ERP No.	Name	QTY
	NFG-RCA-90X10	702650043	Blanking cap 90X10	2
2	AG20.01.C02	702480151	311 shell	1
3	GB893.1-90	506060195	Check ring 90	1
4	GB276-6308	511022655	Deep groove ball bearing6308	1
5	TZDP-90-79-0.4	702650041	Adjusting shim 90X79X0.4	2
6	1J-180-053.02	706460023	Gasket 56X42X3	1
7	AGFR245-0300-02	709880061	bevel gear wheel	1
8	AG14.01.CO?	702480007	Leaf spring	3
9	AG14.01.C06	702480006	key	3
10	AGFR245-0300-01	709880060	Spline shaft1	1
11	GB894.1-42	506060322	Check ring 42	1
12	GB276-6407	511022680	Deep groove ball bearing6407	1
Item	Parts No.	ERP No.	Name	QTY
13	TZDP-100-89-0.4	702650042	Adjusting shim100X89X0.4	2
14	GB93-10	506030036	Spring washer10	8
15	GB5783-M10X25	501011112	Screw boit	8
16	ZBT32001.3-ZG3/8-19"	516010003	Hexagonal socket tapered plug	3
17	CFW-35X90X10	510020438	FB oil seal 35X90X10	1

18	AG20.01.C03	702480152	311 shell cap	1
19	CFW-35X80X10	510020399	FB oil seal 35X80X10	1
20	JB4342-35	506060515	Thickened shaft checking ring 35	1
21	GB297-30307	511016489	Tapered roller bearing 30307	1
22	TZDP-48-35-1	701240035	Adjusting shim 48X35X1	2
23	GB297-32307	511016538	Tapered roller bearing 32307	1
24	TZDP-48-35-2	701240036	Adjusting shim 48X35X2	1
25	AG20.01.C01	702480150	Output shaft	1
26	CBW-00-011B	705290211	ZG3/8 air plug	1

Parts Request Form
Phone# 819-350-5543

Address: _____

City State Zip: _____

Phone: _____

Model Number: _____

Serial Number: _____

Purchased From: _____

Purchase Date: _____

Item No.	Description	Qty	Price	Amount

Comments:

Value-Leader Brand 1 Year Warranty

Unless otherwise stated on purchase invoice, Machineire DB warrants to original Purchaser that Value-Leader products are free from major deffects in material under normal use and service for a period of 1 Year from the date the product is purchased or shipped, whichever is later. Commercial use 3 Months. Use at address that is not yours, is considered commercial use. Consumable, Expendable, Wear Items (Rubber plastic parts, hydraulic hoses, belts,cables, blades, knives, wedges, teeth, chains, pins,filters, etc) and cracked hydraulic pumps, bent or broken cylinder rods are not covered under this warranty. Warranty does not cover items that have been modified, damaged by abuse or usage not in accordance with design or maintenance.

Machinerie DB obligation under this warranty is to repair or replace defective upon approval by;Machinerie DB, 1776 route 161 St Valere. Product shall be returned upon request of Machinerie DB. Transportation charges to be prepaid by user.

Gasoline or diesel engines used to powered Value-Leader products are covered by the warranty of the appropriate engine manufacturer Purchaser must look to the engine manufacture for all issues relating to engine operation.

Machinerie DB assumes no responsibility for outside labor.

PERMISSABLE BY APPLICABLE LAW, MACHINERIE DB DISCLAIMS ALL WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, ANY IMPLIED WARRANTIES WITH RESPECT TO THE PRODUCT PURCHASED, WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, MACHINERIE DB EXPRESSLY DISCLAIMS ALL LIABILITY FOR PRODUCT DEFECT OR FAILURE, CLAIMS THAT ARE DUE TO NORMAL WEAR, PRODUCT MISUSE, ABUSE, PRODUCT MODIFICATION, IMPROPER PROD-UCT SELECTION, NON-COMPLIANCE WITH ANY CODES, OR MISAPPROPRIATION. MACHINERIE DB MAKES NO WARRANTIES TO THOSE DEFINED AS "CONSUMERS" IN THE MAGNUSON-MOSS WARRANTY FEDERAL TRADE COMMISION IMPROVEMENTS ACT. THE FOREGOING EXCLUSION OF IMPLIED WARRANTIES DO NOT APPLY TO THE EXTENT PROHIBITED BY LAW. PLEASE REFER TO YOUR LOCAL LAWS FOR ANY SUCH PROHIBITIONS.

THERE SHALL BE NO LIABILITY FOR PRODUCT LIABILITY OR LIABILITY ON THE PART OF MACHINERIE DB FOR ANY GENERAL SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE SALE OR USE OF ANY PRODUCTS SOLD BY MACHINERIE DB OR AN AGENT THEREOF, MACHINERIE DB MAKES NO WARRANTIES, EXPRESS OR IMPLIED, (INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS OF THE PRODUCTS FOR ANY PURPOSE) WITH RESPECT TO THE PRODUCTS COVERED BY THIS AGREEMENT EXCEPT AS IN THIS PARAGRAPH OTHERWISE EXPRESSLY PROVIDED.

THIS IS THE SOLE AND ONLY WARRANTY OF VALUE-LEADER PRODUCTS, NO OTHER WARRANTY IS APPLICABLE, EITHE EXPRESSED OR IMPLIED, IN FACT BY LAW.

This warranty shall not be interpreted to render MachinerieDB, or any authorized agent liable for injury or damages of any kind or nature, direct, consequential, or contingent, to a person or property.

The sole and only remedy in regard to any defective product shall be the repair or replacement thereof as herein provided, Machinerie DB, agent(s) of Machinerie DB shall not be liable for any consequential, special, incidental or punitive damages resulting from or caused by any such defects

Machinerie DB reserves the rights to make improvements in design or changes in specifications at any time, without incurring any obligations to owners of the units previously sold.

WARRANTY VOID IF REGISTRATION IS NOT RECEIVED OR RECORDED ONLINE WITHIN 30 DAYS OF PURCHASE DATE OR SHIP DATE, WHICHEVER IS LATER.

ITEM: _____

PURCHASED FROM: _____ **GIFT INV# ORDER#** _____

OWNER NAME: _____ **SERIAL #** _____

OWNER ADDRESS: _____

CITY: _____ **COUNTY:** _____ **ST:** _____ **ZIP:** _____

PHONE: _____ **EMAIL:** _____

ACCEPTANCE OF RESPONSIBILITY:

I (PURCHASER) HAVE READ OPERATORS MANUAL AND LIMITED WARRANTY OR SOMEONE HAS READ/AND EXPLAINED ALL INSTRUCTIONS TO ME. I UNDERSTAND THIS WARRANTY DOES NOT COVER ANY LABOR AND THAT ALL DISPUTES WILL BE SETTLED BY BINDING ARBITRATION. I ACKNOWLEDGE MY LIMITED WARRANTY IS VOID IF ANY ATTEMPT TO REPAIR OR REPLACE DEFECTIVE PARTS HAS BEEN MADE BY UNAUTHORIZED PERSONNEL. I ACKNOWLEDGE RECEIPT OF MY OPERATORS MANUAL AND HAVE READ THE SAFE OPERATION SECTION. I ACKNOWLEDGE UNDERSTANDING MAINTENANCE AND SAFE OPERATION REQUIREMENTS, ITEM SPECIFICATIONS, OPERATION, CONTROLS AND STORAGE REQUIREMENTS. **I UNDERSTAND THAT IS ALONE AM RESPONSIBLE FOR PROPER MAINTENANCE, CARE AND SAFE OPERATION OF THIS VALUE-LEADER ITEM**

I (PURCHASER) AGREE THAT PERSONS NOT FAMILIAR WITH THE OPERATION OF THIS ITEM SHOULD NOT BE ALLOWED TO USE IT. CHILDREN ESPECIALLY SHOULD NOT OPERATE OR BE NEAR POWER PRODUCTS WHEN IN USE. ANYONE OPERATING Machine DB PRODUCTS SHOULD HAVE READ OPERATIONS MANUALS AND SAFETY MANUALS.

OWNERS SIGNATURE: x _____ **DATE:** ____/____/____

YOU MUST SIGN THIS WARRANTY AND COMPLETE YOUR REGISTRATION ONLINE AT WWW.Machineriedb.COM. THIS WARRANTY IS NOT EFFECTIVE UNLESS PURCHASER COMPLETE REGISTRATION AND WARRANTY FOR WITHIN 30 DAYS OF PURCHASE OR SHIP DATE WHICHEVER IS LATER.

NOTE: WE MAY REFUSE WARRANTY OF ANY KIND UNLESS Machine DB, RECEIVES A COMPLETED, LEGIBLE AND SIGNED WARRANTY REGISTRATION. IT IS THE RESPONSIBILITY OF THE PURCHASER TO ASSURE THAT REGISTRATION DOCUMENT IS RECEIVED BY Machine DB

**1 YEAR EXTENDED WARRANTY & REGISTRATION
VALUE LEADER IMPLEMENTS
BRANDED PRODUCTS
1 YEAR EXTENDED WARRANTY**

1 Year Extended Warranty amends to original Recorded Warranty Registration the same period of described coverage. Extended Warranty does not apply to consumable and Expendable Item as described in Product Warranty Registration.

This amendment does not affect any other part of recorded Warranty Registration or policy.

No one is authorized to alter, modify, or enlarge this Amendment to original recorded Warranty Registration

**EXTENDED REGISTRATION & PAYMENT MUST BE RECEIVED
WITHIN 30 DAYS OF PURCHASE DATE**

EXTENDED WARRANTY REGISTRATION

PRODUCT & MODEL # _____

SERIAL # _____

OWNER NAME : _____

BETSTCO INVOICE # _____

ACCEPTANCE OF RESPONSIBILITY:

I (PURCHASER) HAVE READ AND UNDERSTAND THE EXTENDED WARRANTY OR SOMEONE HAS READ AND EXPLAINED ALL THE ABOVE TO ME. I UNDERSTAND THIS EXTENDED WARRANTY DOES NOT COVER ANY LABOR. I HAVE FILED MY ORIGINAL WARRANTY REGISTRATION AND FULLY UNDERSTAND MY REQUIREMENTS. ***I UNDERSTAND THAT I ALONE AM RESPONSIBLE FOR PROPER MAINTENANCE, CARE AND SAFE OPERATION OF THIS TRACTOR IMPLEMENT.***

OWNERS SIGNATURE: x _____ **DATE:** ____/____/____

YOU MUST SIGN THIS WARRANTY AND COMPLETE YOUR REGISTRATION ONLINE AT WWW.Machineriedb.COM. THIS WARRANTY IS NOT EFFECTIVE UNLESS PURCHASER COMPLETE REGISTRATION AND WARRANTY FOR WITHIN 30 DAYS OF PURCHASE OR SHIP DATE WHICHEVER IS LATER.

NOTE: WE MAY REFUSE WARRANTY OF ANY KIND UNLESS MachinerieDB, RECEIVES A COMPLETED, LEGIBLE AND SIGNED WARRANTY REGISTRATION. IT IS THE RESPONSIBILITY OF THE PURCHASER TO ASSURE THAT REGISTRATION DOCUMENT IS RECEIVED BY Machinerie DB