



NIP PL-966-159-29-76
tel. (+48) (85) 664 70 31
fax (+48) (85) 664 70 41
e-mail: samasz@samasz.pl
www.samasz.pl

OPERATOR'S MANUAL



BALE WRAPPER

Spin

Serial No:

IN115USA001
2015.10.28
EDITION NO 1

Original instructions



WARNING:

Always turn off the engine and remove the ignition key before entering or servicing the machine, lifting side guards, setting rotor sensors or discharging unwrapped bales. It is forbidden to mount the machine during operation.



WARNING:

Operating bale wrapper without having previously familiarized with its manual as well as by unauthorized personnel, particularly by children, is strictly forbidden.

NOTE:

The operator is responsible for installation and maintenance of road lights as well as labeling the machine according to local traffic rules and regulations.

NOTE:

Keep this manual for future reference.

Comprehensively tested construction and proper choice of materials ensure high reliability and durability of our products.

Table of contents	page
1. IDENTIFYING THE MACHINE	2
2. INTRODUCTION	2
3. TECHNICAL DESCRIPTION	3
3.1. Technical data	3
3.2. Wrapping machine construction	4
3.3. Intended use	4
3.4. Standard equipment and spare parts	5
4. SAFETY PRECAUTIONS	5
4.2. Hazards	6
4.3. Transport	7
4.4. Driving on public roads	8
4.5. Warning signs and their meanings	8
5. DRIVE OPERATION	11
5.1. Drive coupling	11
5.2. Disconnecting the drive	11
6. COMMISSIONING	11
6.1. Commissioning of the counter	12
7. CONTROLS AND ONGOING ADJUSTMENT	12
7.1. Location of the controls	12
7.2. Location of ongoing adjustment points	13
8. WRAPPING MACHINE OPERATION	14
8.1. Installing the film	14
8.2. Hydraulic system	15
8.3. Wrap counter	15
8.4. Wrapping	17
8.5. Unloading the wrapped bale	18
8.6. Drive chain adjustment	19
8.7. Finishing work	19
9. REGULAR INSPECTION	20
9.1. User inspection	20
9.2. Service checks	20
10. AUTHORIZED SERVICE	20
10.1. Warranty service	20
10.2. Ongoing maintenance	20
10.3. Ordering replacement parts	21
11. STORAGE	21
12. MALFUNCTIONS AND THEIR REPAIR	21
13. DISASSEMBLY AND WITHDRAWAL FROM USE	21
14. WARRANTY CARD	22
15. WARRANTY CONDITIONS	22
15.1. Warranty claims procedures	22
15.2. Warranty repairs record	23

1. IDENTIFYING THE MACHINE

Data plate (**Fig. 2**) is mounted to the bale wrapping machine's frame in place shown below in **Fig. 1**.

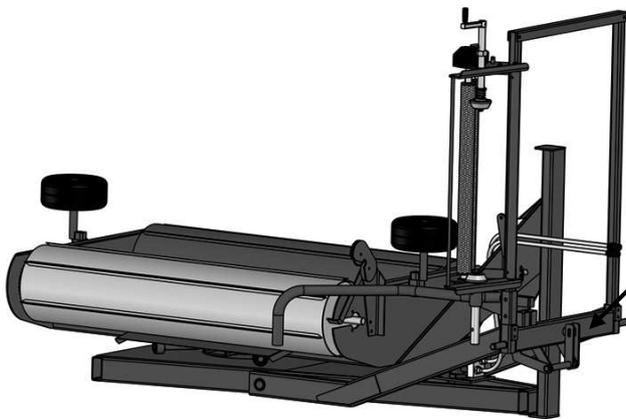


Fig. 1. Data plate location



Fig. 2. Data plate

Data plate includes:

- | | |
|--|---|
| <ul style="list-style-type: none"> A. name of the manufacturer, B. serial number, C. machine's type, D. machine's version, E. manufacturing year, F. machine's weight, | <ul style="list-style-type: none"> G. quality management sign, H. CE mark I. MADE IN POLAND sign, J. barcode. |
|--|---|

2. INTRODUCTION

- This operator's manual is essential for safe and proper use of this wrapping machine and should be read before anyone operates this wrapping machine. It should be kept near the wrapping machine for future use. If the wrapping machine is used by another operator, it should be in working condition and include this operator's manual and all other basic equipment.
- Operator's manual is attached to every machine in order that the operator can familiarize himself with design, working principles, service and adjustment of the wrapping machine. The operator should be familiar with common safety rules and procedures.
- The wrapping machine is manufactured according to international safety rules.
- Compliance with the safety precautions in this operator's manual will help to enable safe operation.
- Please contact your dealer if you have any queries relating to the operation and service of the wrapping machine.

3. TECHNICAL DESCRIPTION

3.1. Technical data

Tab. 1. Specification of bale wrapping machine

Designation	Unit	Spin
Coupling with the tractor	-	Suspended
Overall dimensions Length/Width/Height	ft. in	8' 8"/4' 8"/5' 5"
Machine weight	lbs	204.12
Maximum bale weight	lbs	362.87
Wrapped bale dimension Length Diameter	ft. in	3' 11" 3' 3"-3' 11"
Maximum transport speed	mph	12
Coupling with tractor through :	-	Three point hitch
Tractor class	-	0.9
Minimum tractor power output	kW	30
Required pressure in the tractor power hydraulics system	MPa	14
Recommended tractor pump output	l/min	22
Wrapping machine drive	-	Hydraulic, from the tractor's power hydraulics system
Rotary frame drive	-	Hydraulic motor
Maximum rotation speed of the rotary frame	rpm	35
Bale loading method	-	Lift with a lifting capacity of at least 1000 kg
Bale unloading method	-	Automatic, with a tilting frame
Film width	ft. in	1' 8"; 2' 6"
Number of rotary frame revolutions using film : 1' 8" 2' 6"	rpm	24 16
Bale wrapping time	min	~2
Number of operators	-	1 (tractor driver)
Wrap counter	-	Electronic, type L-01
Electrical system voltage	V	12
Machine lighting - optional	-	Following the requirements of the road code

3.2 Wrapping machine construction

Wrapper SPIN comprises the following assemblies (**Fig. 3**):

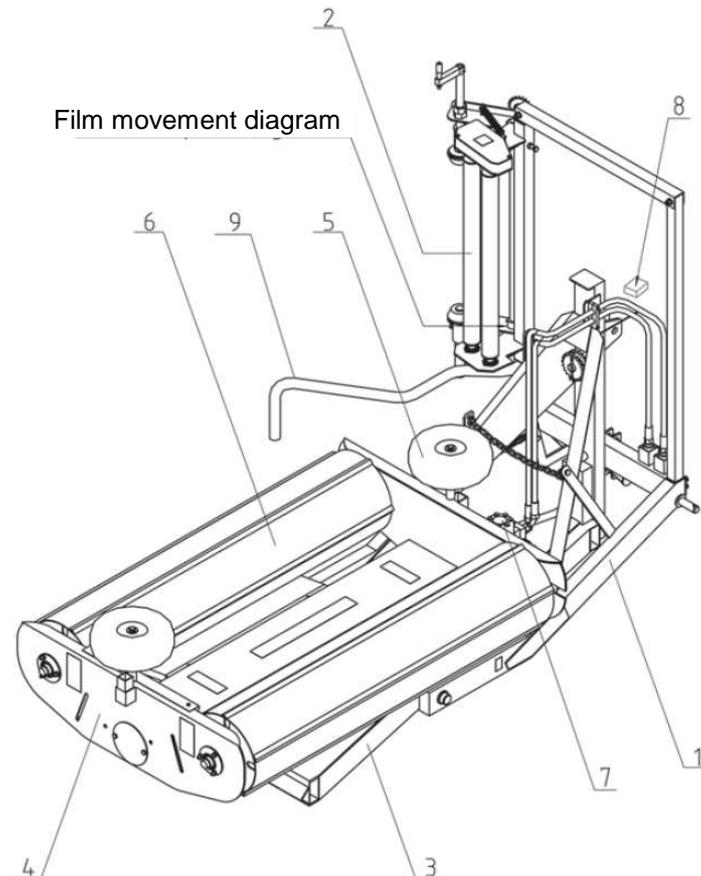


Fig. 3. Wrapping machine design

- | | |
|-------------------------|--------------------|
| 1. Main frame | 5. Side wheels |
| 2. Wrapping film feeder | 6. Rotary drums |
| 3. Main frame | 7. Hydraulic motor |
| 4. Rotary frame | 8. Wrap counter |
| | 9. Guard rail |

3.3. Intended use

The wrapping machine shall be operated according to its intended use by coupling it with a tractor with nominal power exceeding 30kW and traction class of at least 0.9.

The Spin bale wrapping machine is designed for wrapping hay and grass bales and other plants with a humidity of approx. 60% rolled into bales using collecting and wrapping presses. Grass and other papilionaceous plants prepared for souring and wrapping should be mowed in the early phase of heading (best done in the afternoon). On the next day, after a few hours of drying, the mowed material should be gathered using the wrapping presses. Maximum bale compression must be maintained. The bale wrapping process should be conducted on the field or in the storage yard practically immediately after the bales have been rolled. The rolled bales should be stacked in up to two layers on a dry level surface, making sure the wrapping film is not torn

The fermentation process must continue for two months in positive temperatures. Thus provided silage is fit for use as a wholesome feed for animals



WARNING:

Do not use the machine for purposes other than abovementioned.

3.4. Standard equipment and spare parts

The user may purchase the following optional and additional equipment a tan authorized reseller or directly from the manufacturer:

- ❑ Spare parts catalogue,
- ❑ Bale vertical positioning system,
- ❑ Integrated lights required for travelling on public roads,
- ❑ Warning triangles for slow-running vehicles,
- ❑ Locking pin release handle,
- ❑ Paint touch-up kit.

4. SAFETY PRECAUTIONS

 **WARNING** The following precautions are for your safety. They must be read carefully and followed by every person who operates or maintains the machine. Failure to follow these safety precautions could result in serious injury or death to the operator, maintenance person or bystanders and property damage to the machine and surrounding property.

Safety Signal Words

This manual and the safety labels attached to this equipment utilize signal words that signify safety hazards with different levels of severity. Below are the words used and the definitions for these words:

- **DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury
- **WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury
- **CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury
- **NOTICE** is used to address practices not related to physical injury



The following descriptions are for your safety: They must therefore be read carefully and applied every time you use the machine.

- ❑ The machine has been designed for use by one single operator.
- ❑ When using, servicing, repairing, moving or storing the machine, the operator must wear safety footwear, safety gloves plus ear protection and dusk mask if necessary.
- ❑ During use, the machine may give rise to dust, especially if the soil is dry. You are advised to use a tractor with a cab fitted with filters in the ventilation system. Failing this, wear a dust mask with filter to protect your respiratory tract.
- ❑ Front axis of the tractor should be weighted to keep the balance. If need be, use front wheel weights.
- ❑ In order to keep steering conditions, impact on front axis should be at least 20% of the complete tractor.
- ❑ Be extremely careful whenever using hydraulic lift lever or buttons. Any operation with hydraulic lift lever should be done from operator's seat; DO NOT move the lever from outside of a tractor.
- ❑ In case of tractors equipped with EHR, operating with hydraulic lift is done by the buttons mounted outside the tractor's cabin. When operating be extremely careful.
- ❑ When attaching the mower to a tractor, the operator should wear protective gloves.

- ❑ DO NOT operate the wrapping machine unless all safety guards are in place and operational. In addition, any damaged protective aprons should be replaced with new ones
- ❑ No person (except operator) should stand within danger area which is a minimum of 164' 1" from any operating part, especially when operating near roads and in areas with stones and other debris. Be certain that children and animals are at a safe distance away from the machine.

IMPORTANT: Maintenance and adjustment should ONLY be done after the following has occurred:

- ❑ tractor's engine has been stopped and ignition key has been taken out,
- ❑ all rotating parts have come to complete standstill,
- ❑ Never tamper with or remove safety devices on the machine or make them inoperable.
- ❑ Before starting work and periodically thereafter, replace any damaged, missing and/or worn parts.
- ❑ When driving on public roads always comply with local traffic regulations, especially those concerning warning lights.
- ❑ When the wrapping machine is lifted for repair, it should be secured against falling by mechanical support or by chain.
- ❑ The bolts and other fasteners have to be periodically checked and, if necessary, tightened or replaced. DO NOT work with damaged or worn fasteners.
- ❑ Never lift the wrapping machine on tractor linkage when the drive is operating and the cutting discs are rotating.
- ❑ When operating the wrapping machine, the tractor should always be equipped with operator protection that is required by laws and regulations.
- ❑ Before you start the tractor make sure that all drives are turned off and the levers that turn the hydraulics are in neutral position.
- ❑ Never leave tractor's engine running without supervision. Before you leave the tractor, turn off the engine and remove the key from tractor's ignition.
- ❑ DO NOT operate the wrapping machine when driving the tractor backwards.
- ❑ Permissible inclination of the wrapping machine on a slope when working and during transport is 8°. Exceeding this incline can result in machine tipover.
- ❑ Never stand between tractor and wrapping machine unless tractor and wrapping machine are secured against moving by the tractor's brake.
- ❑ If any maintenance must be done under an elevated wrapping machine, it must be blocked or otherwise secured against falling.
- ❑ The wrapping machine should be stored under a roof and in a way as to not be hazardous to people or animals.
- ❑ In the event of an accident involving this wrapping machine in a field or on a road, follow all applicable first aid procedures and contact SaMASZ technical service.
- ❑ Wrapping machine should be kept clean, so as to avoid danger of fire.

4.2. Hazards

Description of residual risks

Despite the fact that SaMASZ Białystok, the manufacturer of the wrapping machine, has taken great care in the design and manufacturing of the wrapping machine, certain risks during wrapping machine operation and maintenance are unavoidable. A major source of risk that could result in serious injury or death can occur during the performance of these operations.

Major source of risk follows performance of these operations:

- ❑ installation of the wrapping machine on tractors which do not meet the required minimum criteria stated in this manual,

- ❑ standing below raised lifting components of the machine,
- ❑ standing in the machine's working area,
- ❑ maintenance or repairs conducted with the tractor engine on,
- ❑ use of damaged hydraulic lines,
- ❑ machine operation by an operator standing outside the tractor's cabin,
- ❑ operating a wrapping machine which is damaged or without protective covers in place,
- ❑ operating the wrapping machine on slopes with an inclination exceeding 8°,
- ❑ transporting bales of silage on the wrapping machine,
- ❑ remaining on (aboard) the machine when it is working or during transport,
- ❑ misuse of the wrapping machine,
- ❑ leaving the wrapping machine unsecured on inclined terrain,
- ❑ standing between the tractor and the machine while the engine is running.

With the aforementioned residual risks, the bale wrapping machine is regarded as a machine which has been designed and built according to the current state of technology.

Residual risk assessment

Residual risk occurs from not complying with the instructions and safety precautions. Such risk can be minimized by doing the following:

- ❑ Read and understand the operating manual,
- ❑ Do not stand below the raised lifting components of the machine,
- ❑ Do not stand in the machine's working area,
- ❑ The maintenance and repairs of the wrapping machine should be performed at authorized service workshops,
- ❑ The machine should be used by trained and authorized operators, Protect the wrapping machine from access by children and bystanders.



NOTICE:

The residual risks are present when the aforementioned manufacturer's rules and indications are not followed.

During operation, the operator is not subject to noise which may cause the loss of hearing, as the noise level of the machine does not exceed 70 dB and the operator works inside the tractor's cabin.

During the operation, the operator is not subject to harmful vibration as the vibration level transferred to the upper limbs does not exceed 2.5 m/s², and the vibration level transferred to the body is lower than 0.5 m/s² and the operator is positioned in the tractor's cabin.

4.3. Transport

The wrapping machine is suitable for road and rail transport using carriers with appropriate load bearing capacity.

For loading on a means of road transport, use lifting devices with lifting capacity appropriate for the machine's weight including a loaded roll of film. It is forbidden to load the wrapping machine with a bale of swat or silage on it. The transported wrapping machine must be securely fastened to the carrier vehicle. It is forbidden to transport the wrapping machine with a bale of silage or swath loaded on it.

The lifting device should be operated by experienced operators with appropriate qualifications.

4.4. Driving on public roads

For transporting the machine on public roads, tractors equipped with a three point hitch with a rated power not lower than 30kW and traction class not lower than 0.9 equipped with a transport hitch may be used.

Before entering a public road:

- ❑ Place the rotary frame in its transport position so that the drums are locked parallel to the wrapping machine's axle,
- ❑ Disconnect and properly secure the hydraulic cables,
- ❑ Place the red and white warning symbols equipped with integrated lights, connect them to the tractor's electric system and check their operation,
- ❑ Place the triangle denoting slow-running vehicles in the stand in the rear.

Before starting the wrapping machine and before entering public roads, check the attachment of the machine to the tractor.



WARNING:

It is forbidden to carry bales of silage on the rotary table.

Before entering public roads, check if the tractor is fully steerable. With the wrapping machine raised, the load on the front axle must be at least 20% of the tractor's own weight. If this condition is not met, additional weight is required on the front axle.

While driving on public roads, the speed should be appropriate to the current conditions and not exceeding 20 mph.

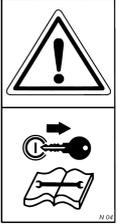
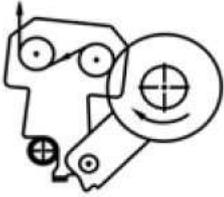
Follow the traffic code regulations and the manufacturer's recommendations when transporting the wrapping machine on public roads. If an emergency requires the driver to stop the tractor with the wrapping machine in tow on a public road, the tractor driver should:

- ❑ stop the vehicle without causing any danger to the road users and without blocking traffic,
- ❑ stop the vehicle as close to the road edge as possible and parallel to the road axis,
- ❑ turn off the engine, remove the ignition key, engage the parking brake and place wedges under the wrapping machine's wheels,
- ❑ outside a built-up area, the warning triangle should be placed 98' 5" - 164' behind the vehicle and the emergency lights must be activated,
- ❑ while driving in a built-up area, turn on the emergency lights and place the warning triangle in the stand on the rear of the machine. Make sure that the triangle is visible to other road users,
- ❑ in the event of a breakdown, take the required precautions to ensure safety in the area.

4.5. Warning signs and their meanings

NOTE:

- a) all warning decals (labels) should be clean and legible,
- b) lost or damaged decals (labels) must be replaced with new ones,
- c) new decals (labels) may be ordered at the manufacturer.

 <p>1. Refer to the operating manual before performing this action</p>	 <p>2. Turn off the engine and remove the ignition key before servicing or repairs</p>	 <p>3. Do not approach the lifting arm's strands during the wrapping machine's operation</p>
 <p>4. Do not open or remove the safety covers during machine operation</p>	 <p>5. Dangerous location</p>	<p>WARNING! ROTATING ELEMENTS</p> <p>6. Warning on the threat caused by rotating elements of the working machine</p>
 <p>7. Proper rotation direction of the working elements</p>	<p>KEEP A DISTANCE OF AT LEAST 3' 3" FROM THE OPERATING MACHINE</p> <p>8. Do not approach the working machine</p>	 <p>9. Proper location of the bale counter sensor below the magnet</p>
 <p>10. Film movement diagram</p>	 <p>11. CE marking</p>	

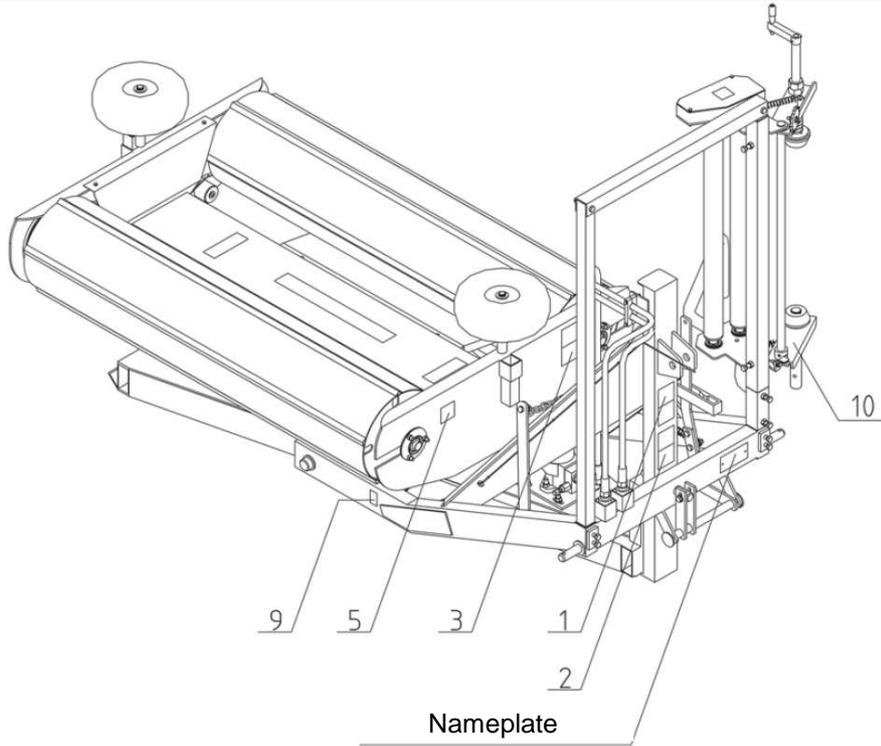


Fig. 4. Symbol placement – right side

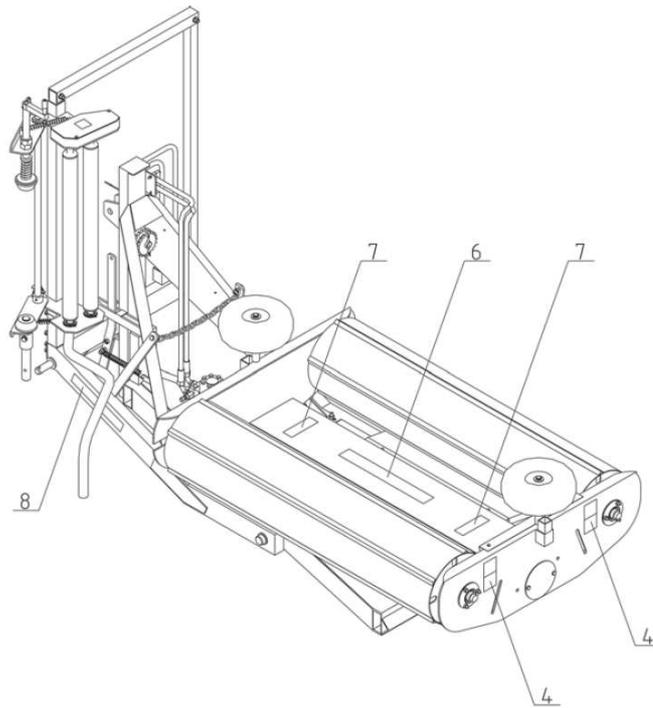


Fig. 5. Symbol placement – left side

5. DRIVE OPERATION

5.1. Drive coupling

The bale wrapping machine should be coupled with tractors with rated power not lower than 30kW and traction class 0.9 equipped with a three point hitch.

It is advised to couple the wrapping machine with tractors equipped with a front axle ballast.

**WARNING!**

Make sure that there are no bystanders especially children, in the coupling area.

During coupling the equipment to the tractor, place the machine in the tractor's axis on flat, level ground. Engage the tractor's parking brake. Couple the machine with a three point hitch.

**WARNING!**

Check if the coupling is properly connected and secured against accident disconnection.

**WARNING!**

Make sure that the tractor's hydraulic system is sealed.

Connect the electric power source. Check if the electric and signaling systems work properly.

Load the first bale and make sure that the vertical load on the tractor's front axle is larger than 20% of the tractor's weight. The tractor should remain fully steerable.

5.2. Disconnecting the drive

**NOTE!**

Make sure that there are no bystanders, especially children, in the wrapping machine's storage area and its vicinity.

- Place the raised wrapping machine over the supports prepared earlier.
- Using the tractor's three point hitch gently lower the wrapping machine on the supports.
- Make sure that the machine will not move accidentally.
- Disconnect the electric power supply and the hydraulic system.
- Disconnect the wrapping machine from the three point hitch.

6. COMMISSIONING

The commissioning of a newly purchased bale wrapping machine should be performed under the supervision of an experienced operator or a dealer's service representative.

**NOTE!**

Before commissioning, familiarize yourself with the following manual, paying special attention to the fragments regarding the safety of the operator and bystanders.

6.1. Commissioning of the counter

Connect the counter to the revolution sensor using the attached cables. Lightly press and hold (for about 4 second) the C button. The button needs only to be pressed with the tip of the finger. The counter button is placed under an elastic membrane.

When turned on, the counter indicates "0". Lightly press and hold (for no longer than 3 seconds) the ON button. The number 16 will appear, denoting the number of bale wraps. Release the button. The indication tops blinking.

Press the button again (hold for not longer than 3 seconds) to change the number of wraps. Holding the button longer with the set number of wraps until the display shows "0" will result in recording the set number of wraps by the counter. The counter is ready to work.

Lightly press and hold (for about 4 seconds) the C button. The counter will be turned off after about 6 minutes of inactivity, i.e. when it no longer receives impulses from the sensor and any signals from the C button.

Protect the counter against humidity, excessive vibration and hitting the cabin elements and especially against falling on a hard surface. The meter can be fixed using its back surface catch.

If the counter is fouled, clean it using a damp cloth with a mild detergent. Do not use organic solvents for cleaning (acetone, gasoline, "nitro" solvent etc.) as the counter's casing may be damaged.

NOTE!

Protect the meter from water, chemical agents, direct atmospheric precipitation frost, high temperature in excess of 50°C and direct exposure to sunlight.

7. CONTROLS AND ONGOING ADJUSTMENT

7.1. Location of the controls

NOTE!

Operate the machine from inside the tractor's cabin using the tractor's hydraulic controls.

The location of the hydraulic controls is specified in the tractor operating manual.

7.2. Location of ongoing adjustment points

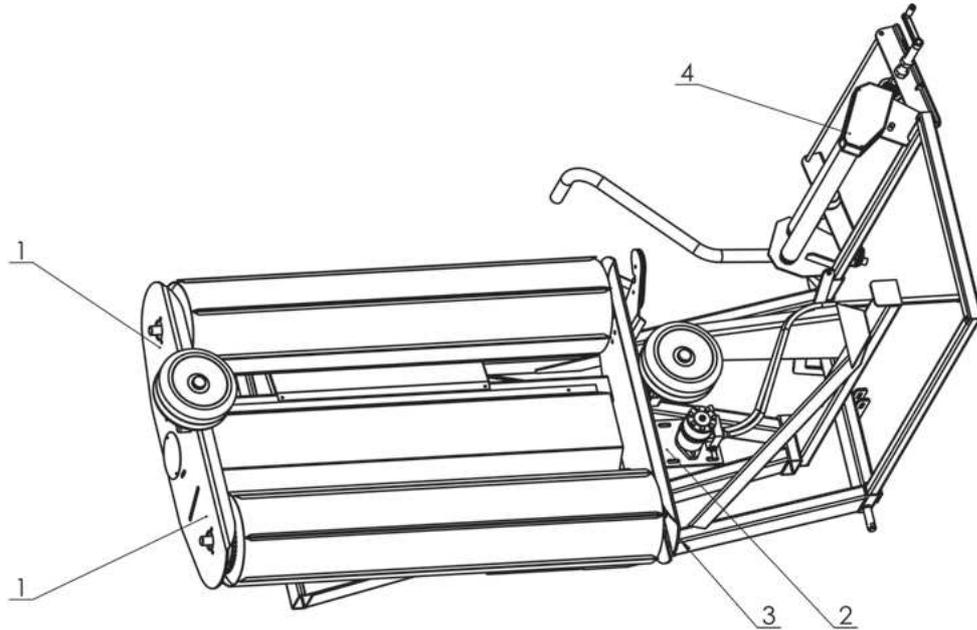


Fig. 6. Location of ongoing adjustment points

1- Drum chain tightening, 2- Drive chain tightening, 3-Revolutions sensor, 4-Foil pressure element

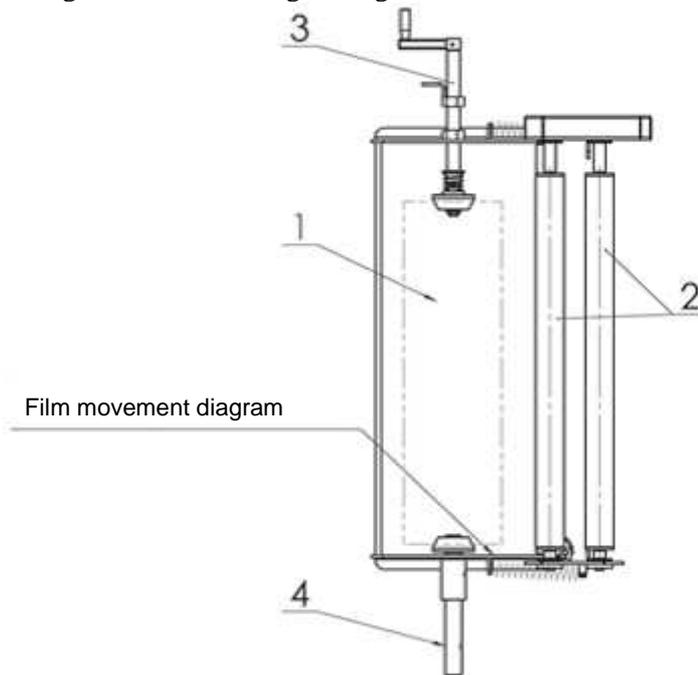


Fig. 7. Wrapping film feeder

With each revolution of the rotating frame, the bale and film rotate by a certain angle around the horizontal axis, which causes the consecutive layers of film to be wrapped tightly around the bale.

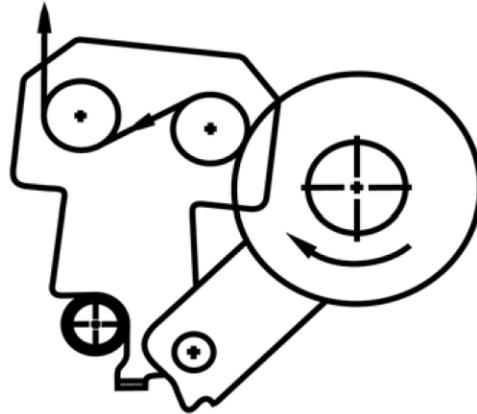


Fig. 8. Film movement diagram

8. WRAPPING MACHINE OPERATION

8.1. Installing the film

Place the film roll on the feeder pin in the following order (see diagram):

- ❑ Deflect the support with the metal rollers and secure it using the hook attached to the wrapping assembly.
- ❑ Using a lever (crank) undo the upper pin pressing the film upwards.
- ❑ Set the height of the lower pin in position appropriate for the film roll width (1' 8" or 2' 6").
- ❑ Place the film roll on the lower conic pin.
- ❑ Clamp the roll by turning the lever (crank) on the upper pin so that the roll is securely held in the vertical position.
- ❑ Protect the roll from unscrewing using the nut on the crank screw.
- ❑ When installing the roll of film, place its internal sticky side towards the bale axis.
- ❑ Properly set the initial tightening of the film.
- ❑ Pull the film through the rubber rollers as indicated on the diagram located on the gear cover.
- ❑ Pull the end of the film so that it may be easily handled in the machine.

The wrapping machine is pre-set to use 1' 8" film. To use 2' 6" film, the chain wheel must be replaced (**Fig. 9**). To do so, it is required to:

- ❑ Unscrew the 2 bolts 6 and remove the cover protecting the main shaft,
- ❑ Loosen the M12 screw on the chain tightening mechanism,
- ❑ Remove the chain from the Z11 chain wheel installed on the main shaft,
- ❑ Remove the Z11 chain wheel from the shaft (using an appropriate tool),
- ❑ Replace it with a Z16 chain wheel,
- ❑ Secure the Z16 wheel repeating the above procedure in the reverse order.

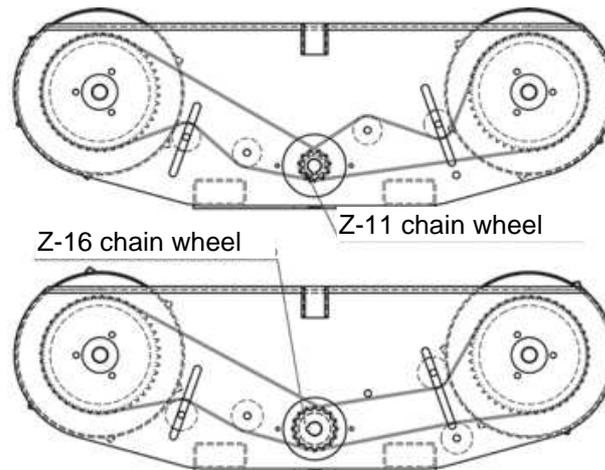


Fig. 9. Chain wheel replacement

8.2. Hydraulic system

The wrapping machine's hydraulic system is powered from the tractor's hydraulic system. To connect the machine to the tractor's hydraulic system, the attachment cables are connected to the machine's hydraulic motor.

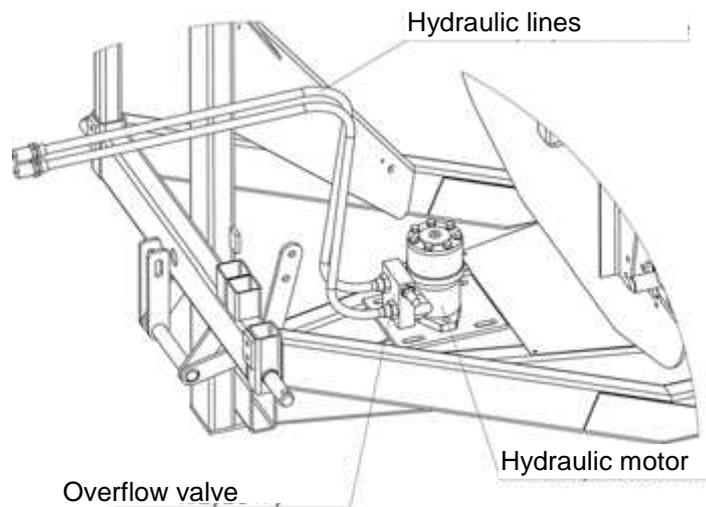


Fig. 10. Hydraulic system

The hydraulic motor powers the drums with the loaded silage bales by means of the chain transmission.

The control over the engine and hydraulic cylinders is performed using the control levers located in the tractor's cabin.

8.3. Wrap counter

8.3.1. Wrap counter system

Wrap counter L-01

The wrap counter is an electronic device used for counting the wraps on a bale and may be used on all types of wrapping machines. The wrap counter should be installed in the tractor's cabin in a place where it is visible and accessible to the operator.

The counter kit comprises of:

- 1) pre-programmed counter in a plastic casing,
- 2) revolution sensor,
- 3) bundle of wires,
- 4) multi-contact connection.



Fig. 11. Wrap counter L-01

Protect the counter against humidity, excessive vibration and hitting the cabin elements, and especially against falling on a hard surface. The counter can be fixed using its back surface catch.



NOTE!

Protect the counter from water, chemical agents, direct atmospheric precipitation, frost, high in excess 50°C and direct exposure to sunlight.

The revolution counter attached to an unmoving part of the wrapping machine operates in conjunction with a magnet attaches to the rotary table which passes impulses to the revolution counter. Each rotation of the bale counted and displayed on the revolution counter display. When the programmed number of revolutions is performed, the counter signals the completion of the wrapping with a blinking light and a sound signal. The counter may be programmed to a required number of revolutions between 16 and 24.

Revolution sensor

Connect the counter to the revolution sensor using the attached bundle of cables.



NOTE!

Protect the wires connecting the sensor with the revolution counter against accidental mechanical damage.



NOTE!

Protect the connections of the wires with the revolution counter against accidental uncoupling.

8.3.2. Switching the system on and off

Press and hold (for about 4 seconds) the ON button.

When turned on, the counter indicates '0'. The device is turned off in a similar manner. Lightly press and hold (for about 4 seconds) the OFF button. The counter will automatically turn off after about 6 minutes off after.

Turning off the counter will not change the programmed numbers of wraps. The programmed number of wraps is remembered by the counter until it is reprogrammed or until the battery is removed from the device.

**NOTE!**

Control panel push-buttons need to be pressed with the tip of the finger only, using sharp objects may damage an elastic membrane!

8.3.3. Working with the counter in counting mode

Setting the wrap number

Lightly press and hold the ON button. The display will blink and display the last programmed setting (16 or 24 wraps). Release the button. The indication stops blinking.

Press the button again (hold for not longer than 3 seconds) to change the number of wraps. Holding the button longer with the set number of wraps until the display shows '0' will result in recording of the set number of wraps by the counter.

The programmed number of wraps is remembered the counter until it is reprogrammed or until the battery is removed from the device. Turning off the counter will not change the programmed number of wraps.

Battery replacement

Use a new battery for every field work season. Replace the battery for a new one when the previous one is depleted.

When the battery becomes depleted, the numbers on the counter will fade, the contrast will be low, etc.

Remove the battery box cover to replace the batteries. Remove the battery and disconnect the power supply cable. Connect the new battery, paying attention to the polarity of the power supply (the lock on the battery will only fit in one position), place the battery in the battery box and close the lid. Check the operation of the counter by turning it on. Use a standard 6F22 9V battery or a 6LR61 alkaline battery.

8.4. Wrapping

Warning: Before commencing work, check:

- whether the wrapping machine is properly attached to the tractor's three point hitch,
- whether the wrapping machine is properly lifted by the tractor's three point hitch,
- smoothness and direction of the rotary frame and drums movement - the rotary frame should rotate counterclockwise.

The bales should be wrapped only in positive temperatures.

The bales should be wrapped in their storage area. By avoiding unnecessary transport of bales, the risk of the wrapping film being damaged is minimized. Conduct the service and maintenance following the manufacturer's recommendations. Pay particular attention to the initial tensioning of the film (65-80%) Mark two vertical lines on the film roll in a distance of about 4' from each other. The distance between the lines of 7' after tensioning represent 70% initial film tension. The width of the film measured at the end of the bale may not be lower than 1' 4" when using 1' 8" film and not lower than 1' 12" when using 2' 6" film. A worn or unlubricated tensioning mechanism may cause the film to be wrapped too tightly. The film tensioning level must not exceed 70%.

8.4.1. Supplying the bales

**NOTE!**

To load the bales, only use lifting devices with lifting capacity appropriate to the weight of the rolled material.

Place the frame with the drums along the tractor – wrapping machine axis placing the white roller on the tractor wrapping machine axis placing the white roller on the right side. Load the bale through the white roller. Adjust the bale placement in relation to the side wheels. Place the roller catch so that the centers of the rollers and the bale were at the same height.

Pull the film at first bale as far as possible from the feeder and attach it using the string binding the bale. Smoothly turn on the hydraulic motor of the wrapping machine. Maintain the engine revolutions at 1500 RPM while wrapping. Wrap at least 4 layers of film so that each of them is overlapped in 50%.

We advise to finish the wrapping after about 24 revolutions of the frame while using 1' 8" film or 16 revolutions while using 2' 6" film. A properly wrapped bale has four layers of the wrapping film around it.

**NOTE!**

Before turning on the rotary frame drive, make sure that there are no bystanders in the working area.

Maintaining the Rolls in good condition, especially their edges, minimizes the risk of the film breaking while wrapping.

**NOTE!**

Do not wrap bales during precipitation.

If the bale is wrapped too tightly, halt the wrapping process. Establish the cause of excessive film tension. Set the proper film tension. Resume the wrapping process.

Use the bales within 12 months from their wrapping date.

8.5. Unloading the wrapped bale

Stop the rotary frame placing the drum axes perpendicular to the tractor-machine axis with the white roller in the rear. By pulling the handle release the locking pin and unlock the lower frame (to unlock the lower frame, the operator must use the pin release handle which is available as a part of the optional equipment).

Using the three point hitch, lift the wrapping machine causing the tilting of the lower frame and unload the bale at the same time tightening the film.

Lower the wrapping machine to its working position and lock the frame. Rotate the rotary frame with the drums to its initial position, as during the first loading (white roller on the right). Do not cut the film. Load another bale on the wrapping machine with the film tightened. Start the wrapping process.

8.5.1. Bale vertical positioning system – additional equipment

The bale vertical positioning system allows to place the rolled bale vertically during the unloading, minimizing the risk of damaging the wrapping film. The vertical positioning system should be attached to the tilting frame as shown on the **Fig. 12**.

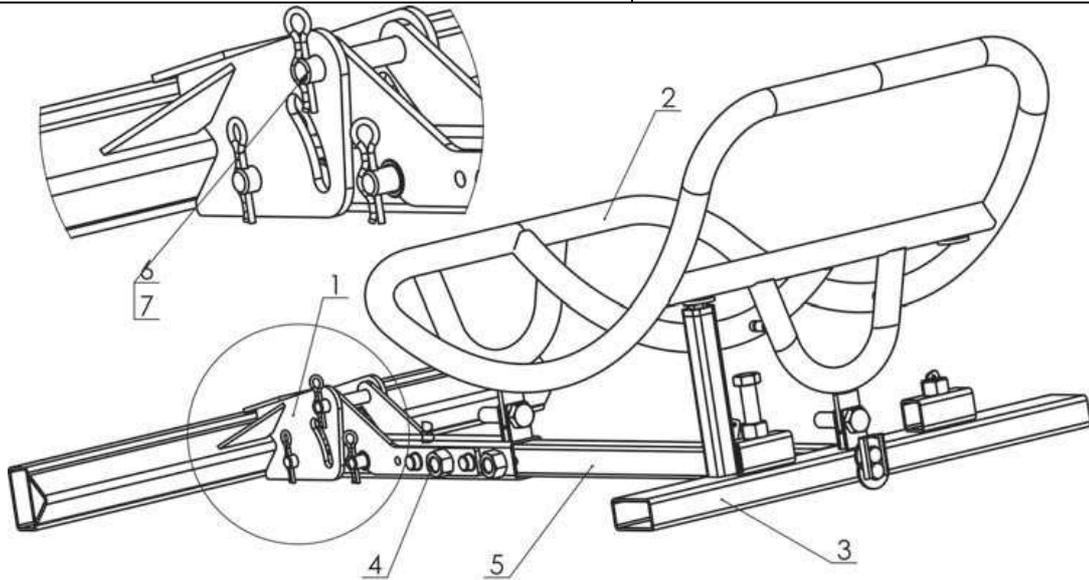


Fig. 12. Bale vertical positioning system

8.6. Drive chain adjustment

Two chain transmissions are used in the bale wrapping machine. After wrapping the first 10 bales, the tensioning of the drive chains needs to be adjusted:

- ❑ remove the chain cover (1),
- ❑ Loosen the 4 M12 nuts (3),
- ❑ Turn the M12 screw in the chain tightening mechanism so that the chain has a .79" slack after tightening,
- ❑ tighten the 4 M12 screws (2),
- ❑ Install the chain cover.

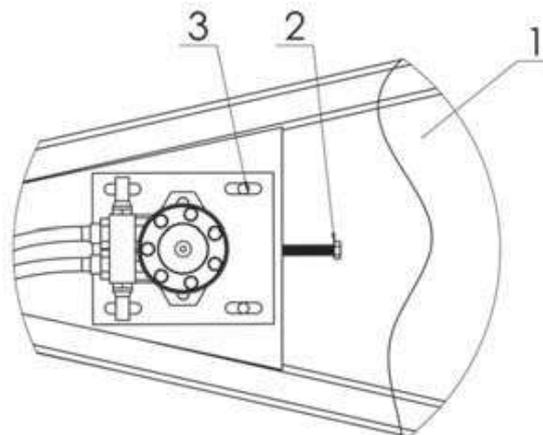


Fig. 13. Drive chain adjustment

Check the tightening and chain condition periodically after wrapping every 120 bales.

8.7. Finishing work

After the work is complete, disconnect the revolution counter, remove the battery and secure the revolution sensor against humidity. Before storing the wrapping machine for a longer period, disassemble and place the impulse sensor in a dry storage room. Secure a space free of bystanders, especially children in the storage area.

Lower the machine onto supports placed on a hard, flat, level ground. Disconnect the hydraulic power source and the electric power supply. Disconnect the wrapping machine from the tractor's three point hitch.

**WARNING**

It is forbidden to disconnect the wrapping machine from the tractor when there is a bale on the rotary table..

Clean the machine and control its condition, paying special attention to the quality of the paint coat. If it is required to make some touch-ups, it is advised to use the paint repair kit supplied by the manufacturer. Protect the rubber elements, i.e. hydraulic lines, against direct sunlight.

9. REGULAR INSPECTION

9.1. User inspection

After every use of the wrapping machine, check:

- the condition and legibility of the data plate and symbols,
- condition of connection elements,
- hydraulic system leakproofness,
- drive chain of the rotary frame,
- drive chains of the rotary drums.

The nameplate must only be replaced at an authorized repair shop.

Replace the unintelligible symbols with new ones.

After the working season is over, grease the drive chain of the rotary frame and the drive chains of the rotary drums using the LT-43 grease.

Send the counter to an authorized service if the casing is damaged. Any attempt to repair the damaged counter will result in the warranty becoming null and void.

Replace the hydraulic lines every 5 years. Before every work season check (without a silage bale loaded) the operation of the transmission system by turning on the rotary table, raising and lowering the rotary table and raising and lowering the loading arm.

If the counter is fouled, clean it using a damp cloth with a mild detergent. Do not use organic solvents for cleaning (acetone, gasoline, "nitro" solvent etc.) as the counter's casing may be damaged.

9.2. Service checks

Periodical service checks shall be performed after every two working seasons of machine use.

It is advised to use original replacement parts which will help maintain the wrapping machine in good technical condition for a long time.

Conduct the service and maintenance following the manufacturer's recommendations.

10. AUTHORIZED SERVICE

10.1. Warranty service

The manufacturer issues a warranty on conditions described in the warranty card. During the period covered by the warranty, repairs shall be made at authorized service stations or at the manufacturer's service station.

10.2. Ongoing maintenance

After the period covered by the warranty it is advised to perform periodical inspections, adjustments and repairs at authorized service stations.

10.3. Ordering replacement parts

Spare parts should be ordered from resellers or directly from the manufacturer stating the name and surname of the user or company name and address, name, symbol, serial number and year of manufacture of the machine, catalogue name of the part, catalogue number, number of drawing or standard, number of ordered items and agreed terms of payment.

11. STORAGE

The wrap counter should be stored in a dry place with the electrical connections protected against fouling and humidity.

Store the wrapping machine on stands placed on hard, flat, level ground.

After the working season is over, clean the wrapping machine and check the condition of the protective paint coating. Touch up the damage to the paint coating at a service workshop. Check the condition and legibility of the nameplate. If the plate is damaged, notify the service station. Check the condition and legibility of the symbols. If they are damaged, replace them with new ones.

It is advised to store the wrapping machine in a dry location, protecting it against UV rays and other harmful agents.

12. MALFUNCTIONS AND THEIR REPAIR

No.	Defect	Reason	Repair
1.	The wrapping machine works too slowly.	Not enough oil in the tractor's hydraulic system.	Check the oil level in the tractor. Top up oil.
2.	Oil leaks.	Worn seal rings.	Replace seal rings.
3.	The rotary frame does not rotate.	Broken or slack chain.	Replace or tighten the chain.
		Hydraulic motor damaged.	Check the engine condition. Contact the service agent.
4.	The bale does not revolve around its axis.	Broken or slack drum chains.	Replace or tighten the drive chain.

13. DISASSEMBLY AND WITHDRAWAL FROM USE

If the wrapping machine cannot be repaired anymore, it should be withdrawn from use. To do so, oil from the wrapping machine components should be drained and delivered to a proper waste treatment company. Clean the wrapping machine parts, dismantle and dispose properly of all plastic parts. After that, the wrapping machine can be scrapped.

14. WARRANTY CARD

BALE WRAPPER

--

Serial number
Date of manufacture
Manufacturer's stamp
QC signature

--

Date of purchase
Dealer's stamp
Dealer's signature

This product has been checked and deemed fully serviceable and cleared for use.



NOTE:

The warranty card missing required seals or signatures or which has been corrected or is illegible **is void**.

15. WARRANTY CONDITIONS

15.1. Warranty claims procedures

1. The manufacturer provides a bale wrapping machine designed and built in compliance with the currently applicable standards. The manufacturer guarantees that the supplied bale wrapping machine is free of manufacturing defects.
2. The manufacturer provides warranty service for 12 months starting from the date of first sale, provided the wrapping machine is used for its intended purpose and the recommendations contained in the manual are followed.
3. The warranty card properly filled in at the Dealership is the confirmation of the manufacturer's warranty; the acceptance of the warranty conditions must be confirmed by the customer's signature.
4. The manufacturer guarantees its products against faults in materials or production.
5. The warranty does not cover the assemblies and parts which are subject to normal wear (e.g. tires, brake pads).
6. The warranty does not cover any mechanical damage or other damage resulting from improper use, improper maintenance or improper adjustment of the wrapping machine.
7. The warranty does not cover any damage resulting from improper storage of the machine.
8. Any tampering of the construction of the machine by the user will void the warranty.
9. The manufacturer shall not be held responsible for any loss, damage or destruction of the product resulting from causes other than defects of the supplied machine.
10. During the warranty period the manufacturer will repair any defects which occurred as a result of the manufacturer's negligence with the exception of defects listed in section 5 - 8.
11. The warranty repair shall be made within 14 working days of the notification/ supply of the machine to the designated service station or at other time agreed upon by the parties.

12. The warranty is extended by the time required to complete the repair.
13. During the warranty period all repairs which are not covered by the warranty are performed by the authorized service stations at full cost to the user. Before such repairs, the service station will inform the user of the suggested cost, time and scope of the repair.
14. The decision whether to commence a chargeable repair of the wrapping machine with a warranty valid at the time of repair is made by the Customer.

NOTE:

Please ask your dealer to complete and return the warranty card, otherwise you may lose your warranty rights.

The warranty card is valid only when it contains the following information: address, date and place of purchase, mower type and invoice number.

15.2. Warranty repairs record

Repairs description and changed spare parts:

Date, stamp and signature of repair shop.

Date, stamp and signature of repair shop.

Date, stamp and signature of repair shop.