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OPERATOR'S MANUAL



BALE WRAPPER

Spin

Serial No:

IN115EN001
2015.10.28
EDITION NO 1

Original manual



NOTE:

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.



NOTE:

Operating bale wrapper without previous familiarizing with its contents as well as by unauthorized personnel, particularly by children, is strictly forbidden.



NOTE:

The operator is responsible for fitting and maintenance of road lights as well as labeling the machine in compliance with traffic rules and regulations.



WARNING:

Keep this manual for future reference.

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

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1. IDENTIFYING THE MACHINE

Data plate (Fig. 2) bale wrapper mounted on the frame in place shown below on Fig. 1.

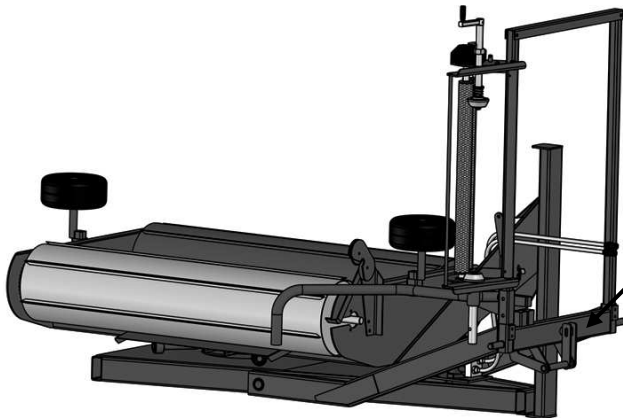


Fig. 1. Data plate placement



Fig. 2. Data plate

Data plate includes:

- | | |
|--|---|
| A. full name of the manufacturer, | G. quality check sign, |
| B. id number, | H. CE marking means, that produce conforms with Directive 2006/42/EC and harmonized standards, |
| C. machine symbol, | I. country of manufacture, |
| D. machine version, | J. bar code. |
| E. production year, | |
| F. machine weight,, | |



NOTE:

In case the operator's manual is unclear or illegible all necessary information can be obtained from manufacturer or the dealer.



NOTE:

It is forbidden to drive the wrapping machine on public roads without its nameplate or with an illegible data plate.

2. INTRODUCTION

General information

- ❑ Prior to operating the machine its user must familiarize himself with this manual as well as common work safety rules.
- ❑ The machine is manufactured in compliance with European safety standards.
- ❑ Respecting recommendations herein shall ensure full operation safety.
- ❑ If you have any questions concerning commission and operation of the machine, please contact the manufacturer.
- ❑ Operator's manual remains an integral part of the machine's equipment.
- ❑ Never overload the machine. If there are any doubts regarding safety issues, please stop working immediately and consult to a dealer.
- ❑ If the machine is sold to another user, it must be supplied with the operating manual. It is advised that the supplier has a confirmation stating that the manual was transferred together with the machine, signed by the buyer and archived.



GENERAL PRECAUTION

When operating the machine, warnings and safety rules marked with this sign herein should be respected.

3. TECHNICAL DESCRIPTION

3.1. Technical data

Tab. 1. Technical data

Designation	Unit	Spin
Coupling with the tractor	-	Suspended
Overall dimensions Lenght/Width/Height	mm	2650/1430/1660
Machine weight	kg	450
Maximum bale weight	kg	800
Wrapped bale dimensio Length Diameter	mm	1200 1000-1200
Maximum transport speed	km/h	20
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	mm	500; 750
Number of rotary frame revolutions using film : 500 mm 750 mm	revs.	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**):

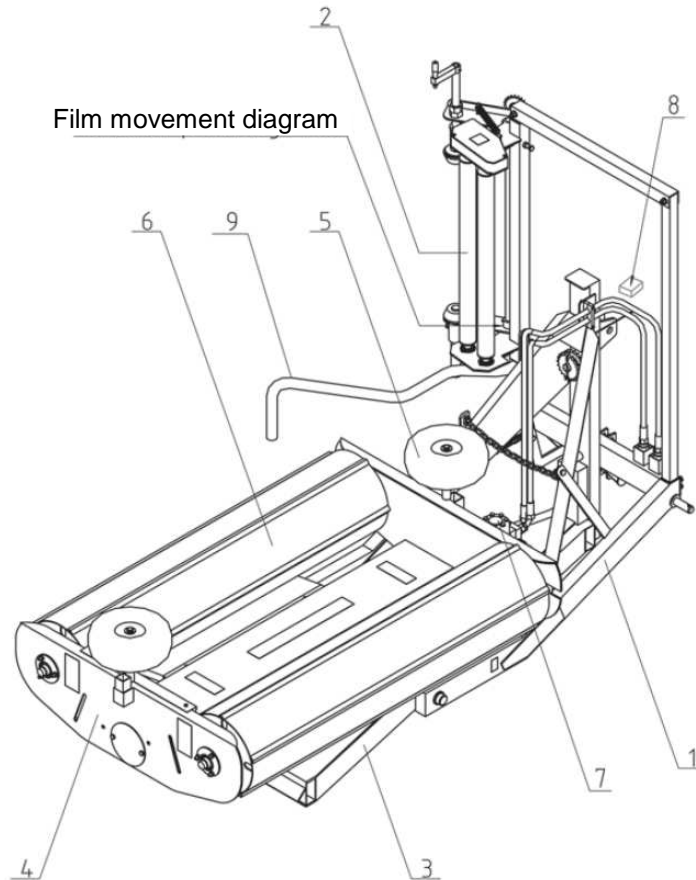


Fig. 3. Wrapper design

- | | |
|-------------------------|--------------------|
| 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



WARNIG:

Do not use the machine for purposes other than abovementioned.

3.4. 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 CONDITIONS

- ❑ During operation and repair of the wrapping machine, the farming health and safety regulations contained in the Regulation the Minister of Agriculture and Food Economy of 12 January 1998 must be complied with.
- ❑ Only an adult with a valid farming tractor driver's license and familiarized with the occupational health and safety regulations regarding the farming equipment and the following manual may operate this machine.
- ❑ The following manual must be read and adhered to, paying special attention to directions regarding the safe operation of the wrapping machine.
- ❑ The manual indicates the machine parts which pose a potential threat. Hazardous areas are marked with yellow stickers with warning symbols. Pay special attention to the hazardous areas and strictly adhere to the rules.
- ❑ The operator must familiarize themselves with the meaning of warning symbols.
- ❑ It is forbidden to operate the wrapping machine without the safety guards installed on moving components.
- ❑ Every time before the wrapping machine s started, check the condition and completeness of the machine and positioning of its safety guards.
- ❑ Before starting the wrapping machine and before entering public roads, check the attachment of the machine to the tractor.
- ❑ All adjustment, repair and maintenance works shall be conducted with the tractor engine turned off and making sure that the machine is secured against accidental activation.
- ❑ Before commencing loading and during this process, make sure that where are no bystanders, especially children, nearby.
- ❑ Exercise extreme caution when working on an inclined terrain. Note that the bales may roll down slopes.
- ❑ It is forbidden to operate the wrapping machine with any of the assemblies lifted.
- ❑ Do not stand between the wrapping machine and the tractor when the tractor engine is running.
- ❑ Exercise extreme caution when coupling and uncoupling the wrapping machine with/from the tractor. The machine should be coupled with the tractor equipped with a three point hitch able to withstand the vertical load larger than the weight of the wrapping machine. (point 3.1.).
- ❑ During operation, use appropriate protective clothing and shoes with anti-skid soles.
- ❑ While loading the wrapping film, the tractor engine must be turned off and protected against accidental activation (ignition key removed, parking brake on).
- ❑ It is forbidden to operate damaged hydraulic lines. The damaged lines must be immediately replaced with new ones. During the replacement of hydraulic lines, use impermeable protective clothing.
- ❑ The machine's hydraulic system shall only be operated from inside the tractor's cabin using the hydraulic control levers installed in the tractor's cabin.
- ❑ Follow the traffic code regulations and the manufacturer's recommendations when travelling on public roads (point 4.3.).
- ❑ Before entering public roads, perform a visual inspection of the transported machine.
- ❑ It is forbidden to remain on the wrapping machine during transport.

- ❑ While travelling on public roads, it is forbidden to transport wrapped swat or silage on the wrapping machine.
- ❑ It is forbidden to operate the wrapping machine under influence of alcohol.
- ❑ It is forbidden to operate the wrapping machine while under influence of drugs or medicines with similar effects.
- ❑ It is forbidden to operate the wrapping machine while under influence of medicines which affect the ability to drive vehicles or reduce psychophysical health or cause concentration disorders and increase reaction time.
- ❑ It is forbidden to drive the wrapping machine near sources of open flame.
- ❑ It is required to strictly adhere to the fire protection regulations and to immediately extinguish any fire which may occur during the wrapping machine use or at its standstill.

**NOTE:**

Failure to comply with above instructions may lead to serious injury or death.

4.2. Hazards

Description of residual risks

Residual risk results from incorrect actions of the wrapping machine's operator. The greatest hazards occur during the following forbidden actions:

- ❑ 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.

Assessment of residual risks

Follow these guidelines:

- ❑ 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.

**NOTE:**

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 $2,5 \text{ m/s}^2$, and the vibration level transferred to the body is lower than $0,5 \text{ m/s}^2$ 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.



NOTE:

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 existing 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 30 - 50 meters 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.



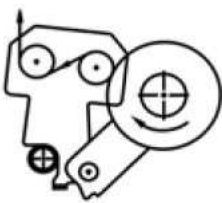

4.5. Warning signs and their meanings

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 firection of the working elements</p>	<p>KEEP A DISTANCE OF ST LEAT 1 M 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>	

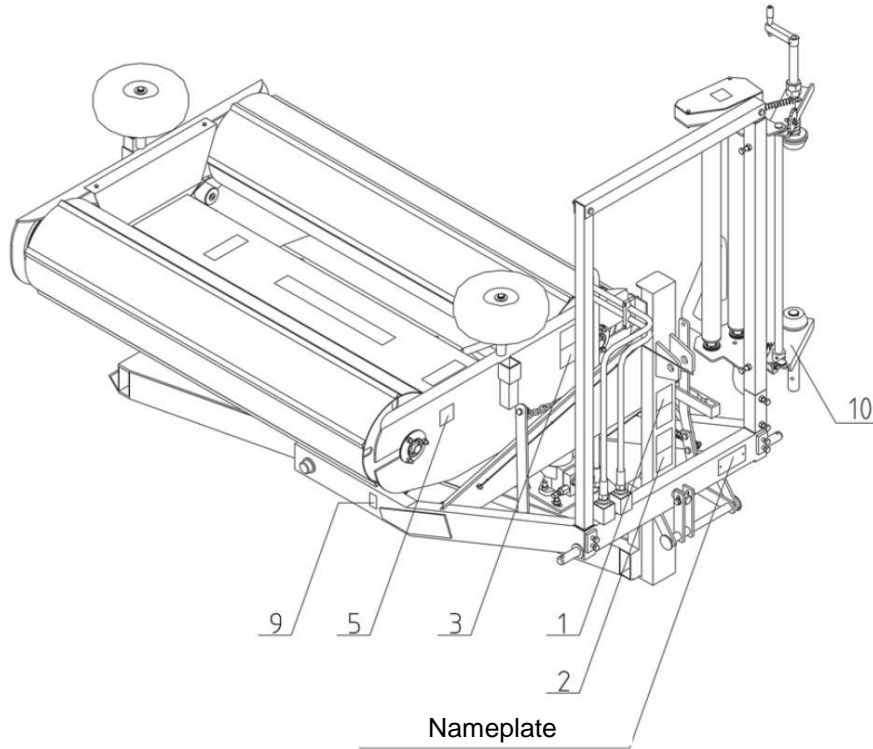


Fig. 4. Symbol placement – right side

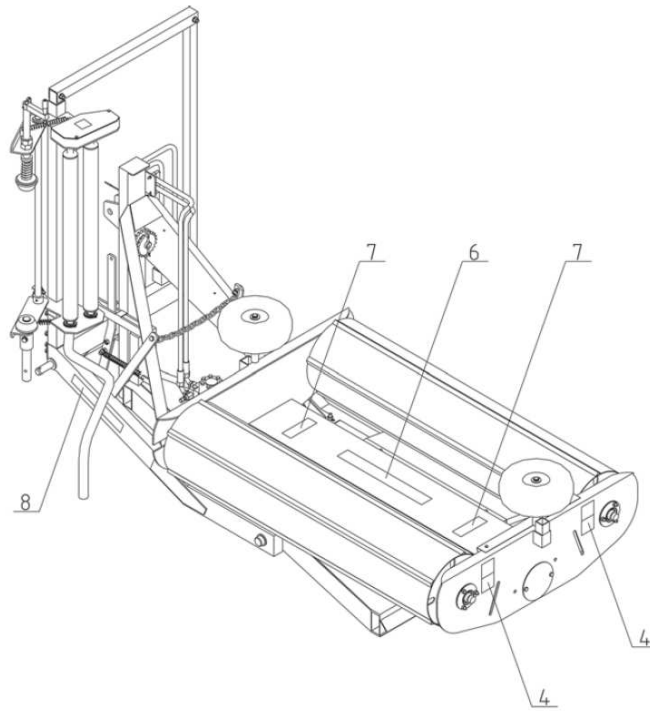


Fig. 5. Symbol placement – left side

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.



WARNIG!

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



WARNIG!

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!

The machine should be operated 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

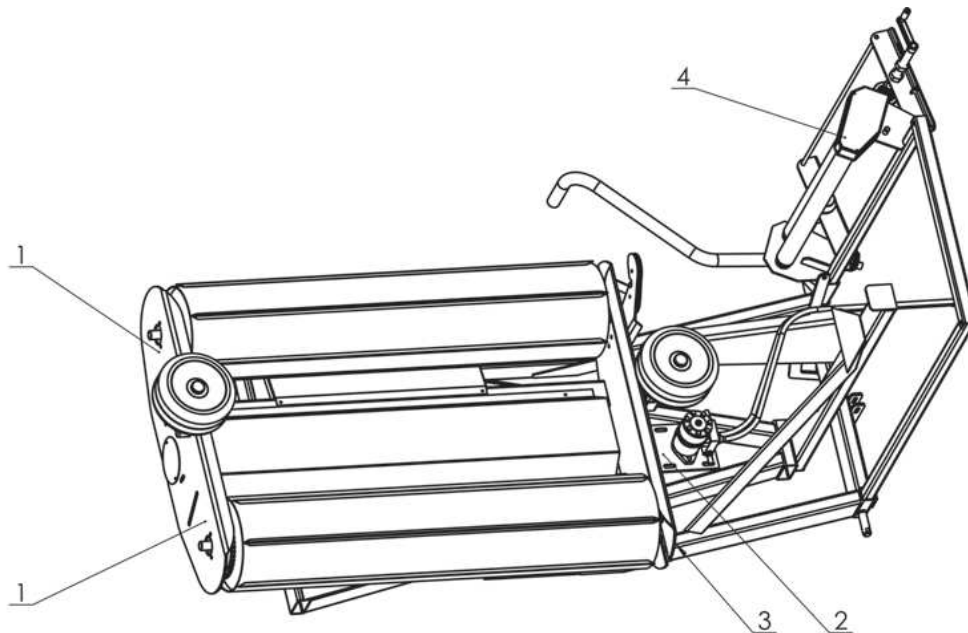


Fig. 6. Location of ongoing adjustment points

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

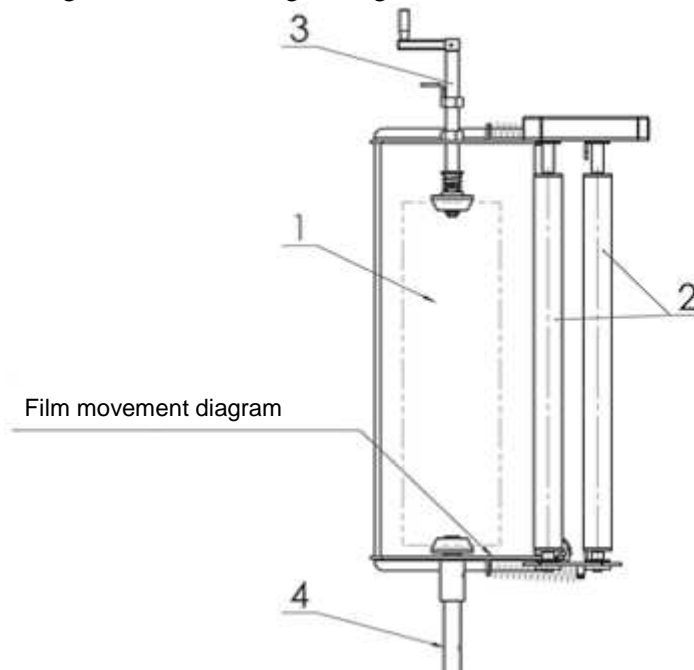


Fig. 7. Wrapping film feeder

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.

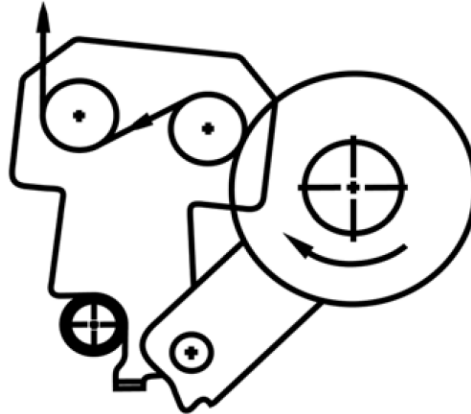


Fig. 8. Film movement diagram

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 (500mm or 750mm).
- ❑ 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 500 mm film. To use 750 mm 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.

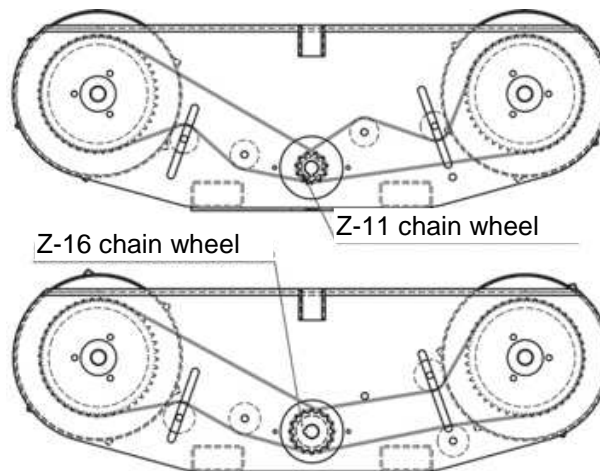


Fig. 9. Chain wheel replacement

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.

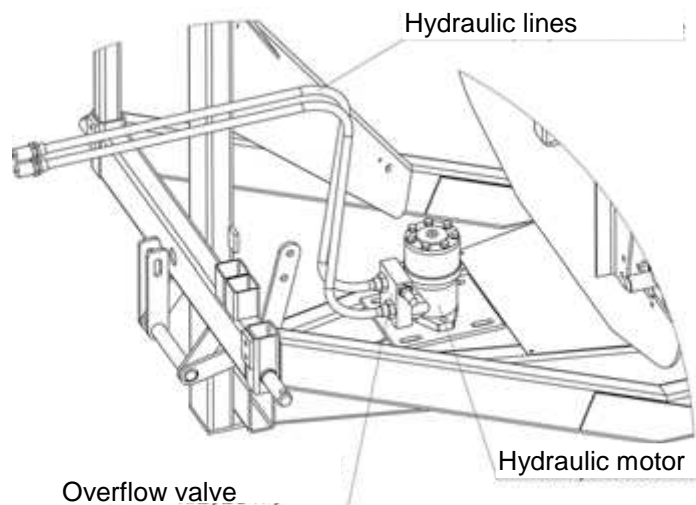


Fig. 10. Hydraulic system

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 10 cm from each other. The distance between the lines of 17 cm after tensioning represent 70% initial film tension. The width of the film measured at the end of the bale may not be lower than 400 mm when using 500 mm film and not lower than 600 mm when using 750 mm 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 centres 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 500 mm film or 16 revolutions while using 750 mm 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**.

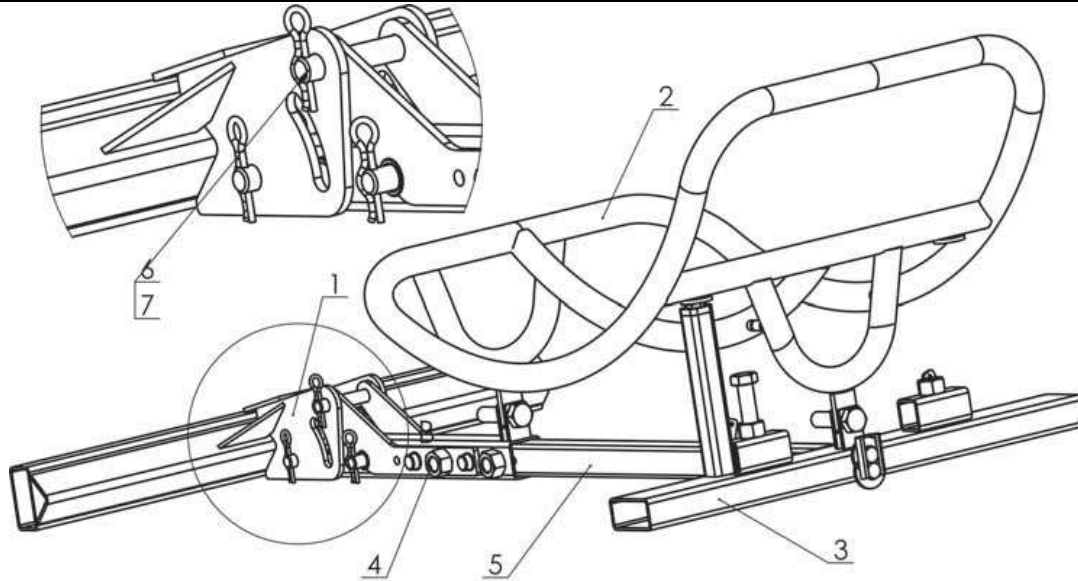


Fig. 12. Bale vertical positioning system

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 20 mm slack after tightening,
- ❑ tighten the 4 M12 screws (2),
- ❑ Install the chain cover.

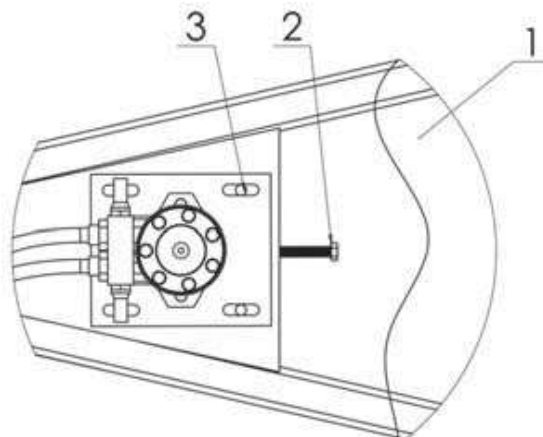


Fig. 13. Drive chain adjustment

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.



NOTE!

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. PROBLEMS AND THEIR REMEDIES

No.	Problem	Possible cause	Remedy
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. MOWER REPAIR AND DISPOSAL

Disassembly and disposal of the wrapping machine should be performed by specialized service stations familiarized with the construction and functioning of the machine. Only specialized service stations have a complete and up-to-date knowledge of the used materials and hazards related to their improper transport and storage. The authorized service stations offer both advice and complete machine disposal services.

The used oil must be stored in sealed containers. Immediately dispose of the oil at fuel stations which collect such materials.

Deliver the dismantled and segregated parts to appropriate collection points.

During the disassembly of the machine use proper protective clothing and shoes.

14. WARRANTY CARD

BALE WRAPPER

--

Serial number
Manufacture date
Guarantor seal
Controller signature

--

Date of sale
Seller seal

Seller 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 quality warranty covers the machine's defects caused by defective manufacturing, material defects and latent defects.
5. The warranty does not cover the assemblies and parts which are subject to normal wear (e.g. tyres, 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 unauthorised modifications in the construction of the machine introduced by the user will result in automatic termination of 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 paragraphs 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:

Upon the purchase of machine, request the vendor to carefully complete the warranty card. Date and place of the purchase as well as vendor stamp and signature is needed, otherwise may lead to the warranty loss.



NOTE:

Exact address, date and place of purchase, together with invoice number is needed for warranty claim to be processed.



NOTE:

Manufacturer reserves the right to change the specification or design of products without notice.

15.2. Record of warranty repairs

Repairs performed and parts replaced:

Date, seal and signature of person performing the repair.

Date, seal and signature of person performing the repair.

Date, seal and signature of person performing the repair.
