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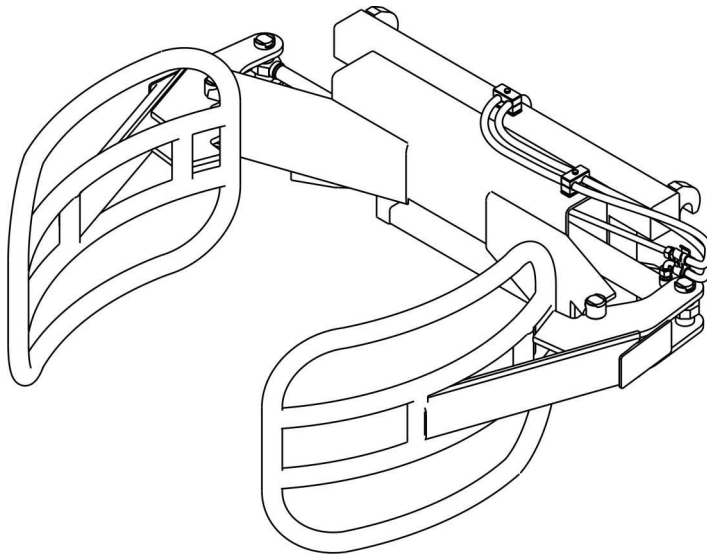
OPERATOR'S MANUAL

FRONT LOADER IMPLEMENTS

TYPE OF ATTACHMENT: LC-1650; EURO

ROUND BALE GRAPPLE PRONAR 35CB / 35CB1

TRANSLATION OF THE ORIGINAL COPY OF THE MANUAL



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FRONT LOADER IMPLEMENTS
TYPE OF ATTACHMENT: LC-1650; EURO

ROUND BALE GRAPPLE

MACHINE IDENTIFICATION

TYPE:

SERIAL NUMBER:

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INTRODUCTION

Information contained herein is current at date of publication. As a result of improvements, some numerical values and illustrations contained in this publication may not correspond to the factual specification of the machine supplied to the user. The manufacturer reserves the right to introduce design changes in machines produced that facilitate operation and improve the quality of their work, without making minor amendments to this Operator's Manual.

This Operator's Manual is an integral part of the machine's documentation. Before using the machine, the user must carefully read this Operator's Manual and observe all recommendations. This guarantees safe operation and ensures malfunction free work of the machine. The machine is designed to meet obligatory standards, documents and legal regulations currently in force.

The manual describes the basic safety rules and operation of the implement. If the information contained in the Operator's Manual needs clarification then the user should refer for assistance to the sale point where the machine was purchased or to the Manufacturer.

MANUFACTURER'S ADDRESS:

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SYMBOLS APPEARING IN THIS OPERATOR'S MANUAL

Information, descriptions of danger and precautions and also recommendations and prohibitions associated with user safety instructions are marked:



and also preceded by the word "**DANGER**". Failure to observe the instructions may endanger the machine operator's or other person's health or life.

Particularly important information and instructions, the observance of which is essential, are distinguished in the text by the sign:



and also preceded by the word "**ATTENTION**". Failure to observe the instructions may lead to damage to the machine as a result of improper operation, adjustment or use.

In order to focus the user's attention on the need to perform maintenance, the relevant section of the Operator's Manual is marked with the pictogram:



Additional tips and advice for machine operation are marked:



and also preceded by the word "**TIP**".

DIRECTIONS USED IN THIS OPERATOR'S MANUAL

Left side – side to the left hand of the operator facing in the direction of machine's forward travel.

Right side – side to the right hand of the operator facing in the direction of machine's forward travel.



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EC DECLARATION OF CONFORMITY OF THE MACHINERY

PRONAR Sp. z o.o. declares with full responsibility, that the machine:

Description and identification of the machinery			
Generic denomination and function:	Round bale grapple		
Type:	35CB	35CB1	35CB2
Model:	—	—	—
Serial number:			
Commercial name:	Round bale grapple PRONAR 35CB Round bale grapple PRONAR 35CB1 Round bale grapple PRONAR 35CB2		

to which this declaration relates, fulfills all the relevant provisions of the Directive **2006/42/EC** of The European Parliament and of The Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (Official Journal of the EU, L 157/24 of 09.06.2006).

The person authorized to compile the technical file is the Head of Research and Development Department at PRONAR Sp. z o.o., 17-210 Narew, ul. Mickiewicza 101A, Poland.

This declaration relates exclusively to the machinery in the state in which it was placed on the market, and excludes components which are added and/or operations carried out subsequently by the final user.

Narew, the 2010 -04- 07

Place and date

Z-CA DYREKTORA
d/s technicznych
członek zarządu
Roman Omelianiuk

Full name of the empowered person
position, signature

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SECTION

1

BASIC INFORMATION

IDENTIFICATION DATA

PROPER USE

EQUIPMENT



WARRANTY TERMS

TRANSPORT

ENVIRONMENTAL HAZARDS

WITHDRAWAL FROM USE

1.1 IDENTIFICATION DATA

		PRONAR Sp. z o.o. 17-210 Narew ul. Mickiewicza 101A			
Nazwa	<div>A</div>				
Typ	<div>B</div>	Nr seryjny	<div>C</div>		
Rok prod.	<div>D</div>	KJ		<div>F</div>	
Masa	<div>E</div>	kg			
<div>G</div>					

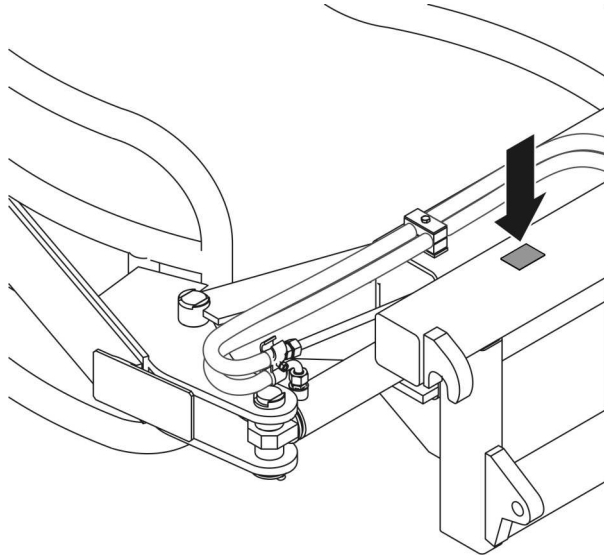


FIG. 1.1 A Location of the data plate

Meaning of data plate items (FIG. 1.1 A):

- A – machine name
- B – type,
- C – serial number
- D – year of manufacture
- E – machine tare weight [kg]
- F – Quality Control stamp
- G – Unfilled box or extension of name (box A)

The factory number is stamped into the data plate and on mounting base beside the data plate. The rating plate is located on the top bar of the frame. When buying optional equipment and fittings check that the serial numbers on optional equipment/fittings correspond to the number written in the *WARRANTY BOOK*, in the sales documents and in the *OPERATOR'S MANUAL*.

1.2 PROPER USE

Implement described in the manual is designed for LC-1650 front loaders (manufactured by Pronar) and loaders equipped with Euro mounting system (eg. Pronar LC3 loader). Equipment for LC-1650 loaders is not compatible with LC3 loader and vice versa because they are equipped with different mounting depending on the equipment model (see: "3.1 *TECHNICAL SPECIFICATION*")

Bale grab is used for loading and unloading round bales with a diameter of up to 1,200 mm. The above mentioned implement may only be used for loading and unloading work in agriculture, forestry and municipal services. Use for other purposes is not in accord with design.

1.3 EQUIPMENT

Front loader accessories include:

- Operator's Manual
- Warranty Book

1.4 WARRANTY TERMS

PRONAR Sp. z o.o., Narew guarantees the reliable operation of the machine when it is used according to its intended purpose as described in the *OPERATOR'S MANUAL*. Defects discovered during the warranty period will be removed by the Warranty Service. The repair period is specified in the *WARRANTY BOOK*.

The guarantee does not apply to parts and sub-assemblies of the machine, which are subject to wear in normal usage conditions before the expiry of the guarantee period and mechanical damage arising from inappropriate use, adjustment or maintenance.

The concept of "guarantee repair" does not include actions envisaged in the Operator's Manual, which the user is obliged to perform himself. Detailed guarantee regulations are contained in the Warranty Book attached to newly purchased product.

1.5 TRANSPORT

Implement is set up for sale as fully assembled and ready to use. The implement may be transported by any means, which comply with safety conditions during transport.

When being transported on a motor vehicle the implement shall be secured in accordance with the road transport safety requirements. It is recommended to transport the implement mounted on a wooden pallet.

When loading and unloading the implement, comply with the general principles of workplace health and safety for reloading work. Persons operating forklift trucks or cranes used for such work should have the required authorisations.



ATTENTION!

When lifting the implement, do not attach slings to hydraulic cylinders.



DANGER

Do not transport the implement hung on the front loader on public roads.

1.6 ENVIRONMENTAL HAZARDS

Environmental hazards include oil leaks from the hydraulic system. During use and storage of the implement, no oil leaks are permissible. Maintenance or repair work involving the danger of an oil leak shall be performed in rooms with an oil resistant floor surface. Oil that escapes from the hydraulic system shall be immediately collected and neutralised.

1.7 WITHDRAWAL FROM USE

Before proceeding to dismantle equipment oil shall be completely removed from hydraulic system.

Worn metal parts remaining after repairs and unsuited for regeneration shall be scrapped. Rubber and plastic elements should be taken to establishments undertaking the utilisation of such materials.

SECTION

2

SAFETY ADVICE

BASIC SAFETY RULES

DRIVING ON PUBLIC ROADS

DESCRIPTION OF MINIMAL RISK

INFORMATION AND WARNING DECALS

2.1 BASIC SAFETY RULES

- Before using the machine, the user must carefully read this operator's manual. When operating the machine, the operator must comply with all the recommendations included in the operator's manual.
- If the information contained in the Operator's Manual is difficult to understand, contact a seller, who runs an authorised technical service on behalf of the manufacturer, or contact the manufacturer directly.
- The machine must never be used by persons, who are not authorised to drive agricultural tractors, including children and people under the influence of alcohol or other drugs.
- The implement must not be used for purposes other than those for which it is intended. Anyone who uses the implement other than the way intended takes full responsibility for himself for any consequences of this use.
- Do not operate loader or the implement from any other position than driver in tractor cab.
- Any modification to the implement made by the user frees PRONAR from any responsibility for damage or detriment to health which may arise as a result.
- People or animals must not be carried in the equipment.
- Before using the implement always check its technical condition and if it is complete.
- In the event of any fault or damage whatsoever, do not use the implement until the fault has been fixed.
- Do NOT exceed the foreloader's maximum carrying capacity.
- Do not leave the loader with the implement in a raised position while immobilised. Before turning off the engine, arm with the implement must rest on the ground.
- Be particularly careful when connecting implement to the loader.
- When linking, there must be nobody between the loader and the implement.
- Before disconnecting the loader it is recommended that implement is closed and pressure reduced in the hydraulic system.
- Before commencing work acquaint yourself with the place of work and surroundings (e.g. hazards within the area of the work performed, presence of persons, load-bearing capacity of ground surface and substrate and secure site with regard to general access of road traffic).
- Once connected to the loader, check the implement mounting.
- Do not travel with the load raised upwards
- Do not transport or load and unload materials for which the implement is not designed.

- All travel back and forth during loading/unloading should be with working element lowered down so that working element does not obscure visibility, while not having any contact with the ground.
- The front loader and implement may not be fitted with lifting slings or used for loading, unloading and mounting work with such equipment, which does not guarantee the safety of employees in the vicinity of work.
- Keep a safe distance from overhead electric power lines during work with raised implement.
- Do not exceed the maximum working speed of 6 km/h.
- Do not raise load to extreme height on gradients or slopes. Take note of uneven terrain and its load bearing capacity.
- When driving with loads do not make sharp turns or brake suddenly.
- When driving with load, braking distance is increased, therefore be particularly careful when travelling on gradients or slippery surfaces.
- The equipment fitted with a hydraulic system, frequently check the condition of the system as oil leaks are unacceptable.
- Reduce pressure prior to disconnecting the hydraulic system.
- When connecting the hydraulic lines, make sure that the hydraulic system is not under pressure. Reduce system pressure before disconnecting.
- In the event of malfunction of the hydraulic system, do not use the implement until the malfunction is corrected.
- Repair, maintenance and cleaning work should be carried out with the tractor's engine switched off and the ignition key removed.
- Do not do service repair work under load or with raised and unsecured implement.
- During maintenance repair work wear protective gloves and use appropriate tools.
- Regularly check the condition of the bolt and nut connections.
- During the warranty period, any repairs may only be carried out by Warranty Service authorised by the manufacturer.
- Should it be necessary to change individual parts, use only original parts or those indicated by the Manufacturer. Non-adherence to these requirements may put the user and other people's health and life at risk, and also damage the implement.

2.2 DRIVING ON PUBLIC ROADS

- Travel on public roads may only take place after dismantling implement from front loader.

2.3 DESCRIPTION OF MINIMAL RISK

Pronar Sp. z o. o. in Narew has made every effort to eliminate the risk of accidents. There is, however, a certain minimal risk, which could lead to an accident, and this is connected mainly with the actions described below:

- using the machine for purposes other than those described in the Operator's Manual,
- being between the carrying vehicle and the implement while the engine is running
- operation of the machine by persons under the influence of alcohol
- being on the machine when it operates
- cleaning, maintenance and technical checks when engine is running,



The minimal risk may be kept to a minimum by following the recommendations below:

- prudent and unhurried operation of the machine,
- application of the remarks and recommendations stated in the Operator's Manual;
- maintaining safe distance from the danger zone
- a ban on being on the machine when it is operating
- carrying out repair and maintenance work in line with operating safety rules
- using suitable protective clothing
- ensuring unauthorised persons have no access to the machine, especially children.

2.4 INFORMATION AND WARNING DECALS

- All signs should always be legible and clean, visible to the operator and also to persons possibly being in the vicinity of the implement in operation.
- If any safety sign is lost or illegible, it should be replaced with a new one.
- All elements having safety signs replaced during repairs should be affixed with these signs.
- Safety signs and decals may be purchased from the Manufacturer.

TAB. 2.1 INFORMATION AND WARNING DECALS

SAFETY SYMBOL	PLACE OF APPLICATION	MEANING OF SYMBOL (SIGN)
	On the frame both on the right and left side	Keep a safe distance from raised ram or the implement. Danger of crushing.
	On the top beam of the bale grab frame on the right and left side.	Do not reach into crushing space because elements may move. Danger of crushing hands or fingers.

SECTION

3

DESIGN AND OPERATION

TECHNICAL SPECIFICATION
DESIGN AND OPERATION

3.1 TECHNICAL SPECIFICATION

Tab. 1. Basic technical specification of the implement

Name of implement	Round bale grab	
Model	35CB	35CB1
Opened width	2,270 mm	
Closed width	1,560 mm	
Bale diameter	up to 1,200 mm	
Height	670 mm	
Depth	1,370 mm	
Weight	235 kg	
Number of hydraulic cylinders	1	
Operation	Electro-hydraulic using the third section of the selective control valve	
Nominal pressure in the hydraulic system	18.5 MPa	
Mounting method	LC-1650	EURO

Noise level does not exceed 70 dB (A)

3.2 DESIGN AND OPERATION

Bale grab consists of a frame of welded steel components, with the hooks and brackets for attaching to the loader. Right and left arms are bolted to the frame. Bale grab arms are moved by the hydraulic cylinder inside the frame, whose ends are connected to the arms. Operator can control the opening and closing using the third section of the implement selective control valve.

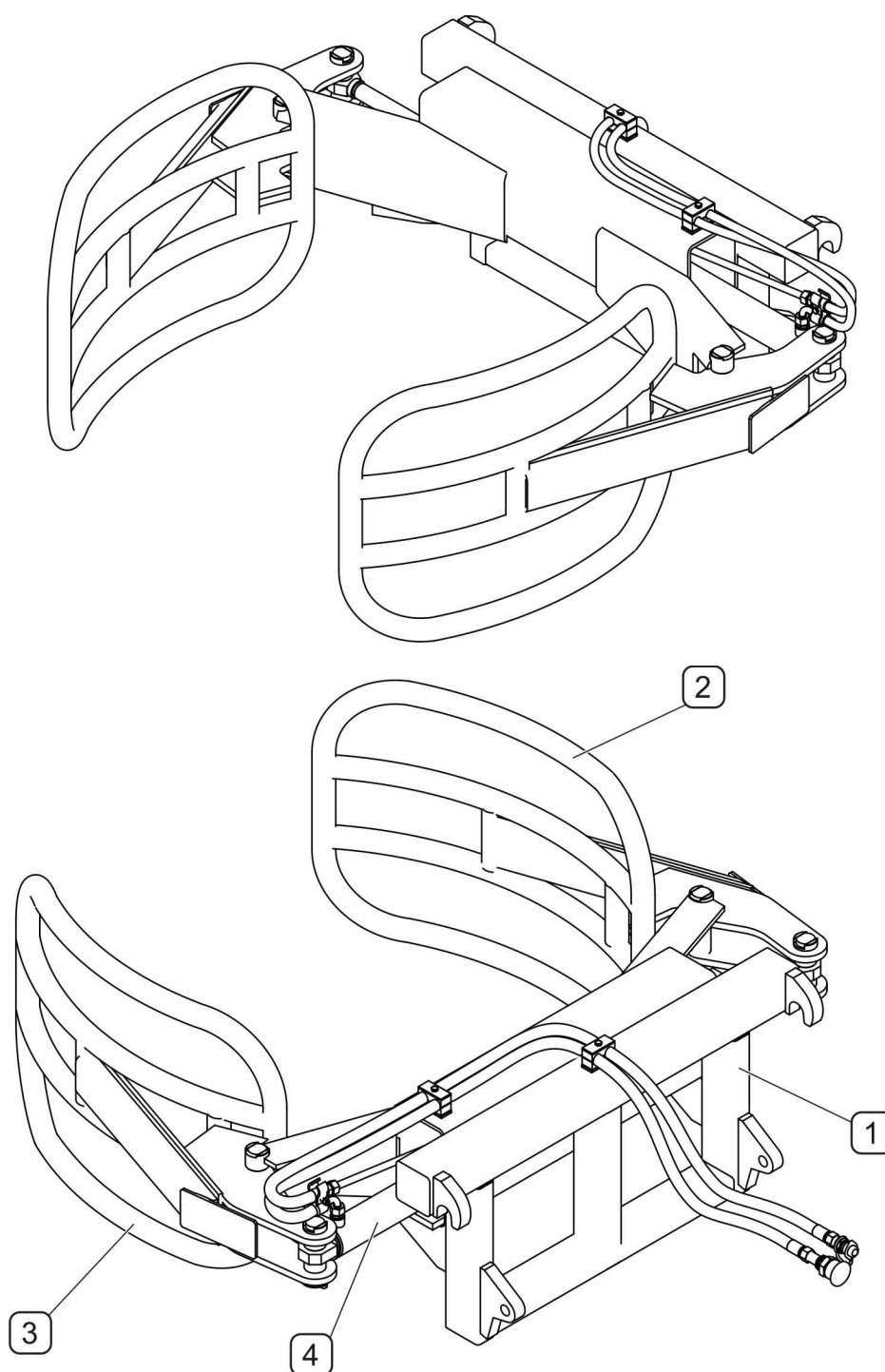


FIG. 3.1A General design

(1) – the frame (2) – right arm, (3) – left arm, (4) – hydraulic cylinder with conduits

SECTION

4

CORRECT USE

PREPARING FOR WORK

ATTACHING IMPLEMENT TO LOADER

OPERATING THE IMPLEMENT

DISCONNECTING THE EQUIPMENT FROM THE LOADER

TRANSPORTING THE MACHINE

4.1 PREPARING FOR WORK

Before first use acquaint oneself with the implement Operator's Manual and the manual of the compatible loader. Make certain that the front loader is able to work with the given implement.

Before commencing work using the implement, check:

- if the implement is fully assembled and complete;
- condition of nut and bolt connections, if necessary tighten,
- condition of elements securing implements on loader;
- hydraulic system operation

In the event of any fault or damage whatsoever, do not use the implement until the fault has been fixed.

4.2 ATTACHING IMPLEMENT TO LOADER

To attach the implement to loader:

- unlock quick securing mechanism in loader frame;
- lower arm and turn frame downwards so that mounting points on quick mounting frame are below the mounting points of the equipment;
- approach implement with loader so that points in quick mounting frame rods are directly below the securing hooks of the implement;
- raise loader introducing frame points into implement hooks;
- moving lever in cab tilt frame to the rear causing interlocking of quick mounting mechanism;
- check if mounting is secure;
- engage the quick securing mechanism (depending on loader type)
- turn off the engine, lower the implement until it rests on the ground and reduce the pressure in the hydraulic control circuit by moving the control joystick to the side while holding down the button activating the third section of the selective control valve;
- with the aid of quick couplers connect implement to loader hydraulic system.

4.3 OPERATING THE IMPLEMENT

When operating loader with implement, pay attention to the most beneficial positioning of means of transport (place of unloading) in relation to place of loading. The distance should be chosen so that manoeuvring the loader would be by the shortest route.

While gathering material and driving with loaded implement the maximum permitted speed is 6 km/h with the lowest possible working implement position.

Raising implement to the required height and completing work action may be made only at place of unloading.

When operating the implement it is recommended to use the implement level indicator (if fitted on the loader).



DANGER

People or animals must not be carried in implements.

Persons must not be present within range of operating implement.



ATTENTION!

Do not exceed permitted load of front loader, nor permitted loading of tractor front axle.



ATTENTION!

Do not exceed a maximum working speed of 6 km/h

Operating cycle of loader with bale grab is as follows:

- access the loading site, lower the bale grab and position perpendicular to the axis of the bale;
- open the bale grab arms, approach the bale so that it is in between the arms, closing the grab arms and lift;
- travel to the place of unloading with bale grab raised at the minimum height;
- lift the bale using the bale grab to the required height until unloading is possible and position the bale by controlling the deflection of the bale grab;
- unload the bale by opening the bale grab arms at the minimum height above the unloading site. Do not drop the bale from a height;
- reverse the tractor, lower the arm and close the bale grab arms;

- travel to the loading site;

4.4 DISCONNECTING THE IMPLEMENT FROM THE LOADER

Before disconnecting the implement it is recommended to close it. Implement should be disconnected and placed in such a place so that it is possible to connect it again. Before leaving implement on ground surface set it horizontally. Before leaving the tractor cab, immobilise tractor, switch of engine and apply parking brake.

To demount implement:

- take out pins on the loader quick mounting mechanism;
- turn off the engine, lower the implement until it rests on the ground and reduce the pressure in the hydraulic control circuit by moving the control joystick to the side while holding down the button activating the third section of the selective control valve;
- Disconnect the implement hydraulic lines from the loader hydraulic system;
- tip implement forwards and lower until fully supported on ground surface and emergence of frame rods from implement hooks, reverse loader away from implement.

After disconnection from loader the implement appliance should not be moved or carried using other appliance with the exception of pallet forks if the implement is secured to the pallet.

4.5 TRANSPORTING THE MACHINE

- When driving on public roads, comply with the road traffic regulations.
- Do not exceed maximum transport speed of 15 km/h (*i.e. travel speed without load*). Adjust speed to road conditions.
- When transporting the machine set loader in position so that it does not limit tractor driver's visibility.



ATTENTION!

Do NOT exceed the maximum transport speed of 15 km/h.



DANGER

Do not drive on public roads with appliance implements mounted on loader.

SECTION

5

MAINTENANCE

HYDRAULIC SYSTEM OPERATION

LUBRICATION

STORAGE

TROUBLESHOOTING

Each time after you have finished operating the implement, thoroughly clean it and wash with water jet.

During maintenance (every 25 hours of operation or once a month if the implement is not used), check:

- Legibility of information and warning signs.
- Implement's general technical condition.



DANGER

Repair, maintenance and cleaning can be carried out when the implement is removed from the loader. In the case of the implement suspended on the loader, fully lower the implement arm, turn off the engine and apply the parking brake.



DANGER

- Do not perform service or repair work under the loaded or raised implement.
- During maintenance repair work wear protective gloves and use appropriate tools.



ATTENTION!

Should it be necessary to change individual parts, use only original parts or those indicated by the Manufacturer. Non-adherence to these requirements may put the user and other people's health and life at risk, and also damage the implement.

5.1 HYDRAULIC SYSTEM OPERATION

Always adhere to the principle that the oil in the implement hydraulic system and in the loader hydraulic system are of the same type. Application of different types of oil is not permitted. The hydraulic system in a new implement is filled with HL32 hydraulic oil.

The hydraulic system should be completely tight sealed. In the event of confirmation of an oil leak on hydraulic line connections, tighten connections, and if this does not remedy faults then change line or connection elements. If oil leak occurs beyond connection, the leaking line system should be changed. Change of sub-assemblies is equally required in each instance of mechanical damage.

Inspect the seals when hydraulic ram cylinders are completely extended. In the event of confirmation of oil on hydraulic ram cylinder bodies ascertain origin of leak. Minimum leaks

are permissible with symptoms of "sweating", however in the event of noticing leaks in the form of "droplets" stop using the implement until faults are remedied.



ATTENTION!

The condition of hydraulic system should be inspected regularly while using the machine.

Replace the hydraulic lines with new ones every 4 years.

5.2 LUBRICATION

Lubrication at the appropriate time with application of the appropriate grease significantly reduces damage and premature wear of individual parts. Clean the implement before lubricating it.



Perform lubrication every 25 hours of work or after each interval of over 1 month. LT-42, LT-43 grease is recommended for lubrication.

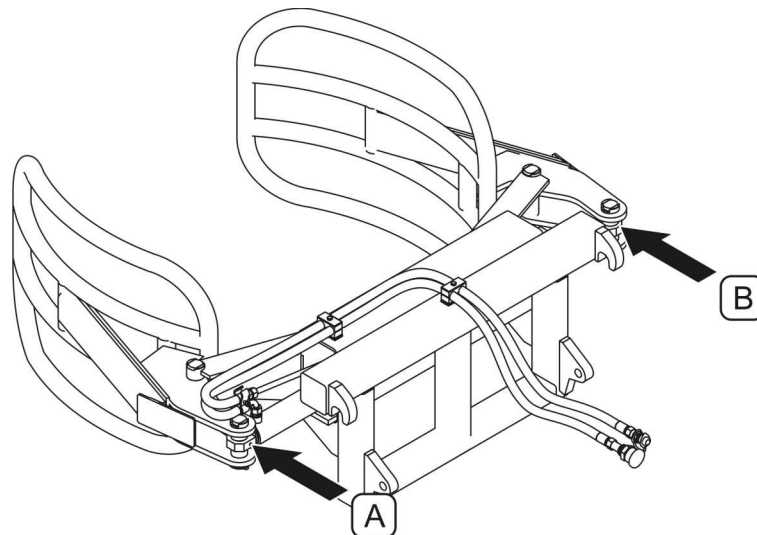


FIG. 5.1A **Lubrication points**

(A) – cylinder lug, (B) - rod lug

TAB. 5.1 LIST OF LUBRICATION POINTS

MARKING (FIG. 5.1A)	LUBRICATION POINTS	NUMBER OF LUBRICATION POINTS	LUBRICATION FREQUENCY
A	Cylinder lug	1	every 25 hours of work
B	Cylinder ram eye	1	every 25 hours of work

5.3 STORAGE

It is recommended to keep the implement in a closed or roofed building. Before longer outdoor storage, it is essential to protect the implement against adverse weather conditions, especially those causing corrosion. Implement should be placed on flat, hard and dry surface. Protect hydraulic connections against contamination All parts not protected by protective covering should be protected against corrosion by a coating of permanent grease. In the event of damage to the lacquer coating clean those places, degrease and then paint with paint maintaining uniform colour and even thickness of protective coating.

5.4 TROUBLESHOOTING

TAB. 5.2 TROUBLESHOOTING

Fault	Cause	Remedy
Bale grab cannot be opened or closed	– Implement hydraulic lines are not connected to the loader.	– Connect the hydraulic lines.
	– Implement hydraulic lines are incorrectly connected to the loader.	– Check connection. In the event of damage replace connector with a new one.
	– The front loader hydraulic system malfunctions.	– Diagnose and correct the fault.
	– Incorrectly connected or damaged loader electrical connection.	– Connect correctly, replace if damaged.
	– Burnt fuse in lighter socket plug.	– Change fuse
Bale grab does not maintain the closed position.	– Damaged hydraulic lines.	– Check condition of lines, replace if damaged.
	– Damage to the hydraulic cylinder seal or piston surface.	– Replace the seal or replace the hydraulic cylinder.

NOTES

[illegible]