

ALR400-KZ

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OPERATORS MANUAL

Safety, use and maintenance



WARRANTY

Terms and conditions

In this document, “the Company” refers to Industrie Aulari Inc.

- 1) New applicators manufactured by the Company, free of manufacturing defects (labor and parts) are warranted for one (1) season of use from the date of delivery.
- 2) If the applicator or components thereof does not meet the terms of warranty presented in clause 1, the Company must solve the problem and put the applicator in operation conditions, at his option:
 - a) Repair defective parts or components;
 - b) Replace parts or defective components with new parts.
- 3) This warranty releases the Company from any liability for loss of profit or other consequences resulting from a defect of the applicator.
- 4) All warranty claims must be written to the Company within 14 days of the defect, only these written claims will be considered by the Company.
- 5) All warranty claims must be made by the original purchaser of the applicator.
- 6) The warranty will become void if:
 - a) Parts which are not manufactured by, provided by or approved by the Company are installed and used on the applicator;
 - b) Repairs, non-approved by the company, are made on the applicator;
 - c) Custom modification on the applicator are made without the written approval of the Company;
 - d) The applicator is damaged in an accident;
 - e) The applicator is misused, overloaded or used for any application other than seeding and fertilization. Specifications and capacities in this manual represent the acceptable limits for the use of the applicator (refer to the Specifications section of this manual);
 - f) The maintenance is not done according to the recommendations and intervals specified in this manual.

PRODUCT IDENTIFICATION

Please complete the information below upon receipt of your applicator. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. Also file this information in a secure place off the machine.

Serial number	
Model	
Number of rows	
Year of manufacture	
Delivery date	
Date of first use	
Accessories included	

Dealer information (if applicable)

Name _____

Address _____

City/ Province/ Country _____

Phone _____

Fax _____

Email _____

Manufacturer information

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INTRODUCTION

This operator manual contains all the information needed to make the adjustment and maintenance on your Aulari pneumatic precision applicator.

This manual should be considered as a permanent part of your machine and should remain with the machine when you sell it.

Please read this manual before using the applicator and be sure to follow the operating and maintenance instructions. Also, make sure that all operators of the applicator have read this operating manual. So, this way, you can prevent accidents, reduce repair costs and downtime. In addition, you will increase the productivity and longevity of your applicator. Always comply with all safety instructions present in this manual!

Industrie Aulari Inc. will not accept liability for any damage or consequence resulting from non-respect with the guidelines in this operator's manual.

The operating instructions will guide you for a better control of your machine and will guide you to make better use and optimal maintenance.

The operator manual must be read by anyone who works with this applicator, whether for:

- ☞ the operation of the applicator (adjustments in the field)
- ☞ daily or seasonal maintenance

The period of warranty coverage begins upon delivery of the distributor. A representative of the Company or the dealer will provide the adjustment instructions, maintenance and security for the first using of the applicator.

Industrie Aulari inc. reserves the right to modify technical data and illustrations in this document in order to improve the product.

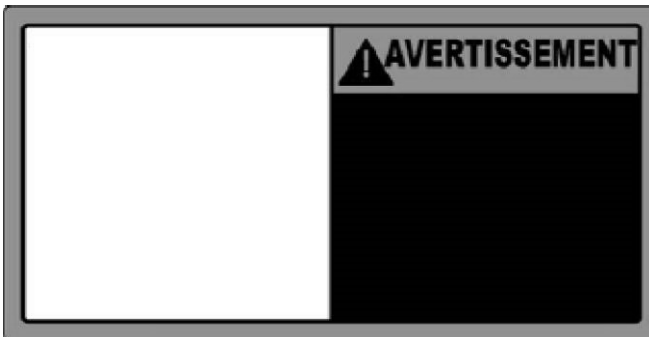
SAFETY

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good conditions. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your dealer or manufacturer.

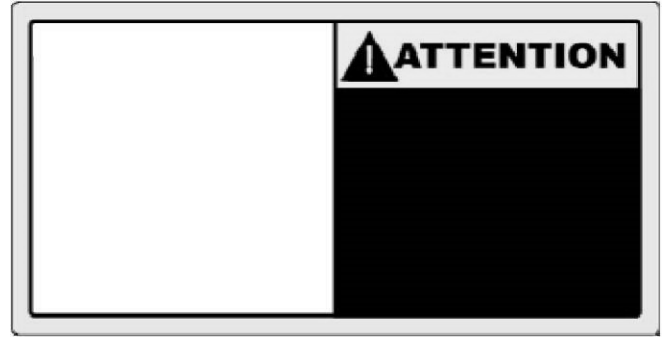
The following hazard and safety symbols are present in this manual and on your applicator.



A signal word - DANGER identifies the most serious hazards which can result in serious physical injury or death.



A signal word - WARNING indicates a potentially hazardous situation (e.g. security guard removed or unsafe practices) that can result in serious physical injury or death.



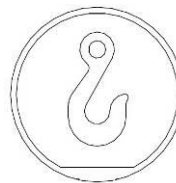
A signal word - CAUTION indicates a potentially hazardous situation, unsafe practice which could result in minor or moderate injury.

The safety decals on the applicator should never be hidden or damaged. For replacement stickers, contact Industry Aulari.

SAFETY SYMBOL ON THE APPLICATOR



Read the operator and maintenance manual before using the applicator.



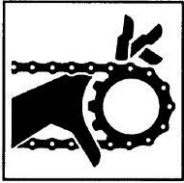
Use anchor points identified on the applicator for securing the carriage.



Beware of under pressure escaping fluid. Always release the pressure from hydraulic lines before making repairs.



No passenger allowed on the applicator when in operation.



Keep your hand off the chain drives when in operation.



Never use belt drive without the security guard in place. Before adjusting or repairing the applicator, disengage the PTO and stop the tractor.



Never use the PTO without the security guard in place. Before adjusting or repairing the applicator, disengage the PTO and stop the tractor.



Do not stand under the step when lower down.



Never get in the hopper when the applicator is in operation



This is a safety-alert symbol. When you see this symbol on your applicator or in this manual, be alert to the potential for personal injury. Follow recommended precautions and safe operating practices.

TRANSPORTING

Transport safety



When it is necessary to travel on public roads, it is important to always follow the road safety rules in force.

- ☞ Always use headlights, flashing warning lights, day and night, when transporting on a public roadway. Keep lighting and marking clean and visible to operators and other vehicles.
- ☞ Replace or repair any defective lighting or marking that has been damaged or lost.
- ☞ Never pull the planter on the road with a hopper filled more than 50% of its capacity.
- ☞ In regards to warning lamps, maximum permissible transport widths and weights, check local governmental regulations.
- ☞ Serious injury or death can result from contact with electric lines. Use care when moving or operating this applicator near electric lines to avoid contact.

ACCIDENT PREVENTION

In addition to all the instructions, it is necessary to take special precautions to prevent accidents.

During service

- ☞ Understand service procedure before doing work. Keep area clean and dry.
- ☞ Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the

ground. Stop engine. Remove the key. Allow machine to cool.

- ☞ Securely support any machine elements that must be raised for service work.
- ☞ To avoid the risk of falling, never climb on rotatable parts (discs, gauge wheels, etc.).
- ☞ Observe the maintenance intervals specified in this operator's manual.

Hydraulic system

- ☞ Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.
- ☞ The hydraulic system of the applicator operates at high pressure. To prevent incidents search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.
- ☞ Hydraulic hoses can fail due to physical damage, kinks, age and exposure. Check hoses regularly. Replace damaged hoses.



To protect the operator and the other person which have to move around the applicator, always lower equipment to the ground and put the safety lock provided.

During operation

- ☞ Before starting, make sure that nobody is near the planter.
- ☞ All protective devices (guards and shields) must be in place at all times during the use of the applicator.
- ☞ Nobody should get into the hopper during operation of the applicator. It could cause suffocation.

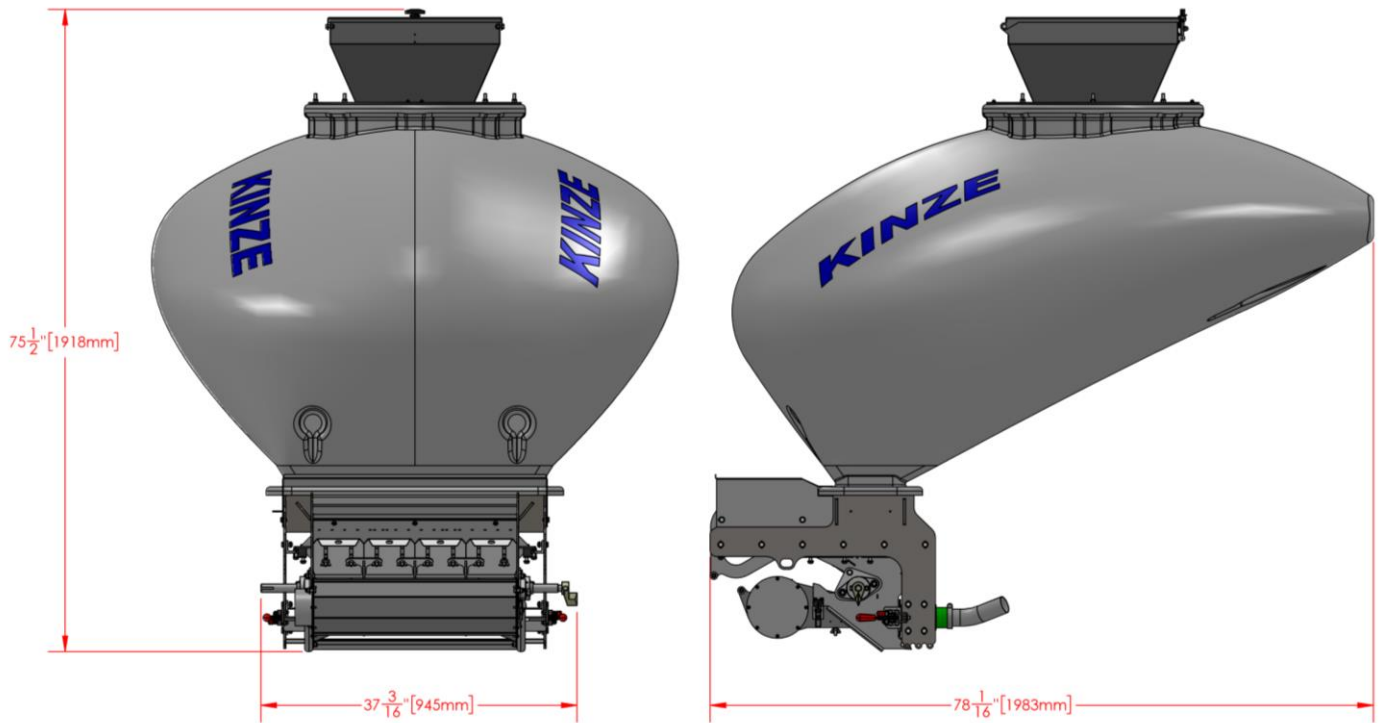
TECHNICAL DATA – ALR400-KZ

Working width *

12 rows at 70 cm / 8.4 m / 27.5 ft

16 rows at 70 cm / 11.2 m / 36 ft

Dimensions



Total empty weight

525 Kg / 1157 lbs

START-UP PROCEDURE (IN FIELD)

Carefully take the time to follow all instructions listed in this section in order to benefit from optimal performance from your applicator.

1. Adjust the speed of transmission of the distribution system. Use crank [Figure 1, **A**] for adjusting the indicator rule to the desired position.
2. The optimum operating zone of the variable transmission is between 3 and 18 on the indicator rule [Figure 1A].

☞ Refer to CALIBRATION PROCEDURE section for the calibration procedure of the applicator.



Figure 1

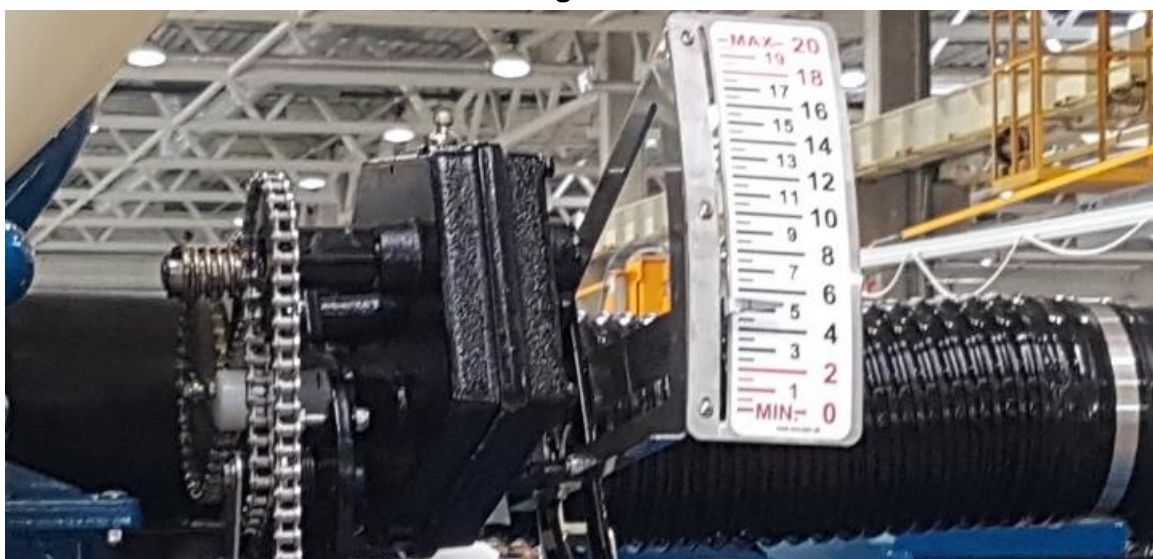



Figure 1A

3. Before initial filling of the hopper, you must ensure that hopper screens are install in the hopper and that no objects or debris are on hopper screen.

START-UP OF THE APPLICATOR

Once all of the adjustments in the field were made, the applicator is ready for use.

1. Start-up the tractor.
2. Activate the fan corresponding hydraulic outlets. If the fan doesn't start, refer to "ATTACHING PROCEDURE" in this manual.
3. Reduce the oil flow rate to the minimum, and then gradually increase the flow rate to reach the recommended operating speeds listed below

 Always turn the fan with the minimum required oil in the fan motor to prevent overheating of the tractor hydraulics.



Immediately repair any oil leaks; the high pressure could cause injury! Repair any damaged hoses and fittings with original parts.

4. Lower down planter to the ground.



Always make sure there is enough space around the planter to perform various operations.

5. Start planting, the pressure indicated on the pressure gauge [Figure 2] should be between 23 and 28 inch of water.



Figure 2

6. Always make sure there is no blockage or obstruction in the fertilizer distribution system.
7. Stop to verify the depth of the fertilizer and its positioning relative to the seed.
8. Make regular visual inspection of the distribution system, metering shaft and air box. Clean the metering roll splines, if necessary, with the scraper designed for this purpose [Figure 3].

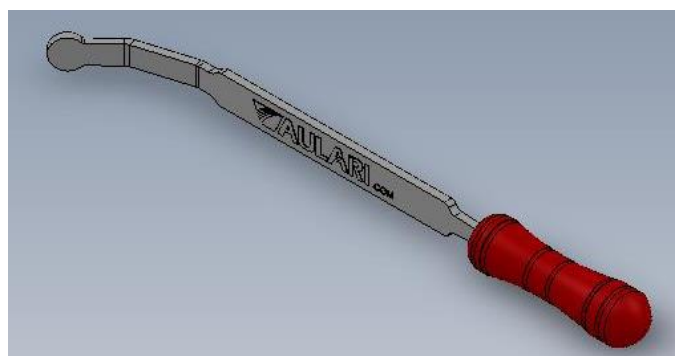


Figure 3

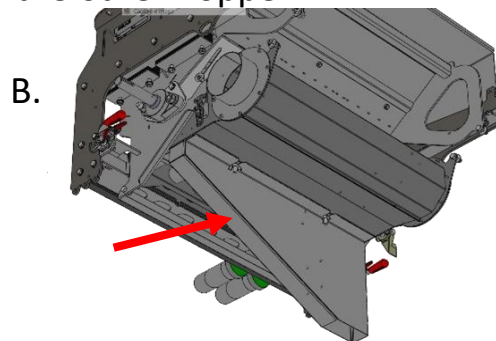


Always keep hopper screens in place for a good functioning of the distribution system.

Calibration Procedure Europe Kinze 3600

Contact wheel diameter: 41 cm (Tire 4.00-8)

1. A.) Open all shut off gates underneath one (1) hopper and remove the panel.
 B.) Install the funnel and a pan under the metering shaft.
 C.) Then close all the sections shut off gates on the other hopper.



2. Turn the fertilizer contact wheel constantly for full rotation

Or use the hand crank and turn for

full rotation

3. Weight the amount of fertilizer collected in the pan:

If you are using kg/ha,
Make sure that your scale is in kg.

If you are using lb/acre,
Make sure that your scale is in lb.



4. Multiply the weight of the fertilizer by the calibration factor depending of your working width:

Working width (meter)	8,400	(12 row)	11,200	(16 row)
Factor kg/Ha	154		116	
Working width (feet)	27,559	(12row)	36,745	(16 row)
Factor lb/acre	62		46	

5. Adjust the transmission and if necessary repeat steps 2 to 5.

SERVICE ON THE APPLICATOR



Always follow the warning sign and maintenance instruction applicable to the applicator.

The applicator was quality control at the factory. It is warranted to be free from defects and technical service.

However, to ensure efficient use without failure and / or premature wear, it is imperative to strictly follow maintenance procedures; maintenance and cleaning are included in this manual, and that, at recommended intervals.

Practice Safe Maintenance

- ☞ Understand service procedure before doing work. Keep area clean and dry.
- ☞ Never lubricate, service, or adjust machine while it is moving. Keep hand, feet, and clothing from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.
- ☞ Securely support any machine elements that must be raised for service work.
- ☞ Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any build-up of grease, oil, or debris.
- ☞ Disconnect wiring harnesses from tractor before servicing electrical system components or welding on machine.

Cleaning of the applicator

We recommend a deep cleaning of the hopper to maximize its lifetime.

Perform high pressure cleaning work regularly, either after the spring and/or subsequent use. Do not leave deposits of fertilizers accumulate at the bottom of the distribution system and/or the frame of the applicator.

For ease of maintenance, open the stainless steel manifold, allowing you to clean inside. Be careful **not to move** the plastic caps inside the box [figure 4, A].



Figure 4

Keep the flutes of the metering roller clean of residue during use [Figure 4B]. The accumulation of fertilizer on the flutes will effectively reduce the amount of fertilizer applied to the field. Use scraper provides for this purpose for maintenance [Figure 3].



Figure 4B

Service/Prior to operation every season

Make a complete inspection of the applicator each beginning of season. Clean dirt and grease accumulated on the moving parts, gears and chains; this will prevent the abrasive action of the dust.

Storage and service at the end of season

When the season of use is over, completely clean the applicator to remove residual fertilizer, dirt and debris that hold moisture and cause rust.

Lubricate grease points as explained in the LUBRICATION section.

Check that there isn't any missing, damaged or worn part. Consult your dealer to obtain the wear parts and/or other replacement parts.

Lubricants and capacities

- ☞ To make lubrication on the applicator, use multipurpose grease EP2.
- ☞ The variable transmission [Figure 5] which drives the distribution system uses clear trans-hydraulic oil. Capacity: 1.75 liters.
- ☞ The oil reservoir [Figure 5A] of the metering drive system uses Dextron III oil. Capacity 8 liters.



Pay special attention to the fan bearings. A failure thereof may cause a major breakdown of the components of the fan.

- ☞ **Attention:** An excess of grease in the bearing can cause damage to the seal.

Variable transmission oil

Change the oil in the variable transmission at the beginning of each planting season or application. The temperature changes during the offseason can cause condensation on insides of the transmission, thus reducing the efficiency of the lubrication.

To drain the oil; remove the drain plug [Figure 5, **A**] at the bottom of the transmission housing. To facilitate the flow, remove the filler plug [Figure 5, **B**]. Reinstall the drain plug and fill the transmission with clear trans-hydraulic oil to recommended level. A window indicates the oil level [Figure 5, **C**]. Check the oil level every day, fill as needed.

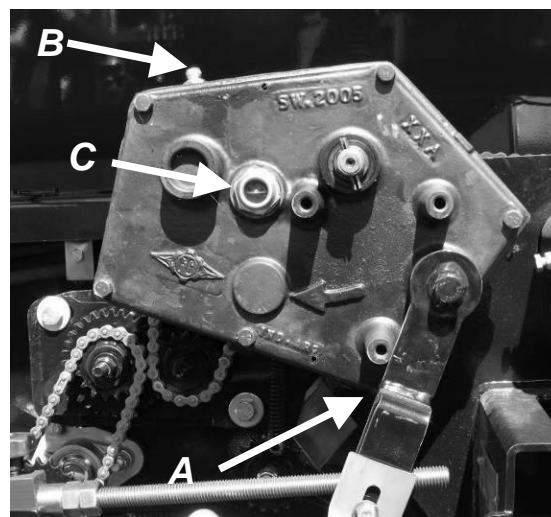


Figure 5

Oil reservoir (Distribution)

Change the oil and filter from the small tank [Figure 5A] of the distribution system at the beginning of each planting season or application. The temperature changes during the offseason and can cause condensation insides of the transmission, thus reducing the efficiency of the lubrication.

To drain the oil, remove the drain plug [Figure 5A, **A**] at the bottom of the tank. To facilitate the flow, remove the filler cap [Figure 5A, **B**] and filter [Figure 5A, **C**]. Reinstall the drain plug and a new filter, then fill the tank with Dextron III oil to the recommended level, approximately 8 liters. A window indicates the oil level [Figure 5A, **D**]. Check the oil level every day, fill as needed.

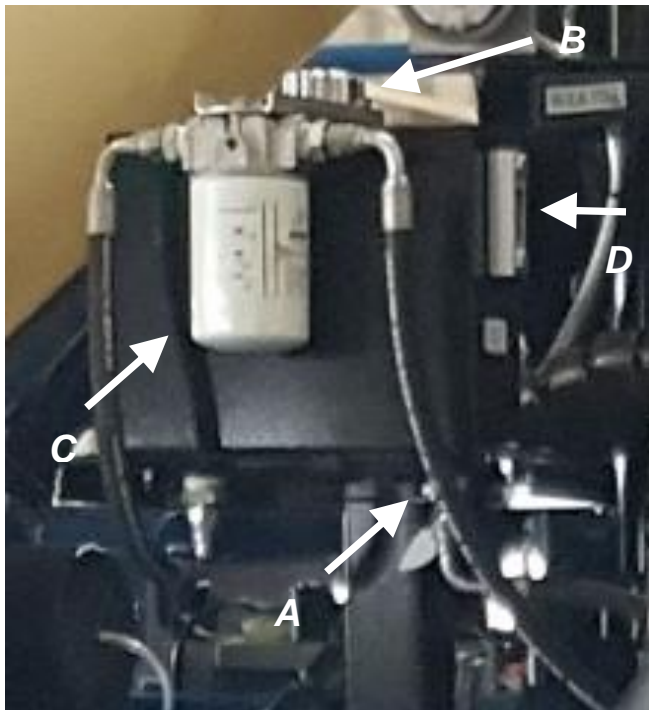


Figure 5A



Pay special attention to the fan bearings. A failure thereof may cause a major breakdown of the components of the fan.

Attention : An excess of grease in the bearing can cause damage to the seal.

Contact Wheel

These applicators are equipped with a drive arm with an inner chain [Figure 6, **A**]. The stainless steel chain can be adjusted. Simply rotate the plastic tensioner on itself to reach the ideal tension.

☞ Do not over tighten the chains. Excessive tension will cause a premature wear and stretching of the chains.

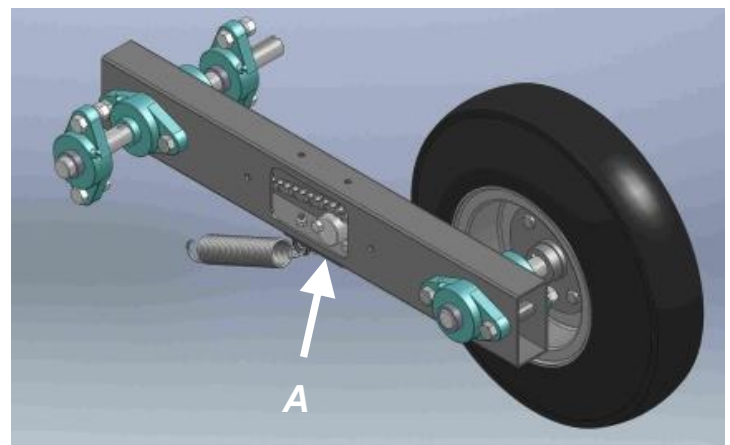


Figure 6

TABLE OF LUBRICATION (GREASE)

Zone	Lubrication zone	Number of grease fitting	Interval
1	Distribution system drive	5 (10 total)	100 hours

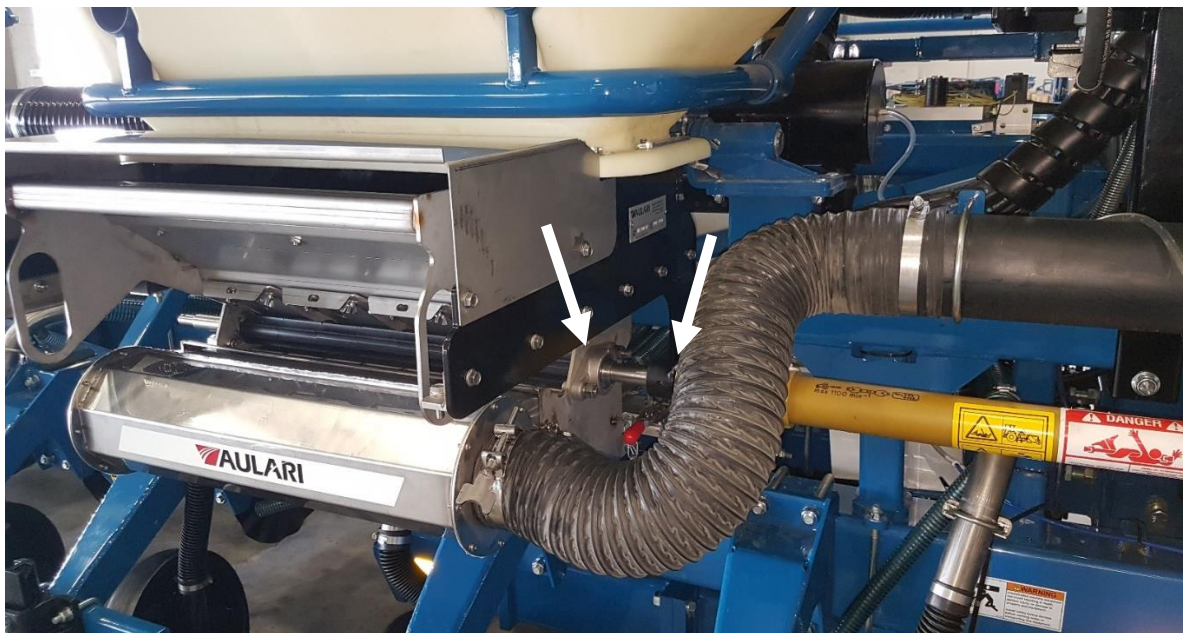
Use EP2 universal grease

Attention: An excess of grease in the bearings can cause damage to the seal.

- ZONE 1



Mechanical transmission side



PTO link side

TABLE OF LUBRICATION (OIL)

Lubrication parts	Lubricant type	Quantity	Interval
Variable transmission [figure 23]	Clear trans-hydraulic oil.	1.75 liters	Once per season Check level daily
Oil reservoir (Distribution system) [figure 23A]	Dextron III oil	8 liters	Once per season Check level daily

OTHER MAINTENANCE

Other maintenance or verification	Interval
Chains tension	Daily
Emptying of the water that accumulates in the fan	Beginning of season