HORIZONTAL MIXER-FEEDER

USER GUIDE

ALPLER

ATTENTION

DO NOT
OPERATE THE MACHINES
BEFORE READING THIS MANUEL!

INDEX

WARNING SIGNS & MEANINGS

CAUTION

This sign warms that the operations described could cause damage to machine, if they are not carried out correctly.

Lifting-hook

The danger areas!
Stay clear during the machine's operation cycle to prevent injury.

WARNING

This sign warms that the operations described could cause serious lesions or long term health risks, if they are not carried out correctly.

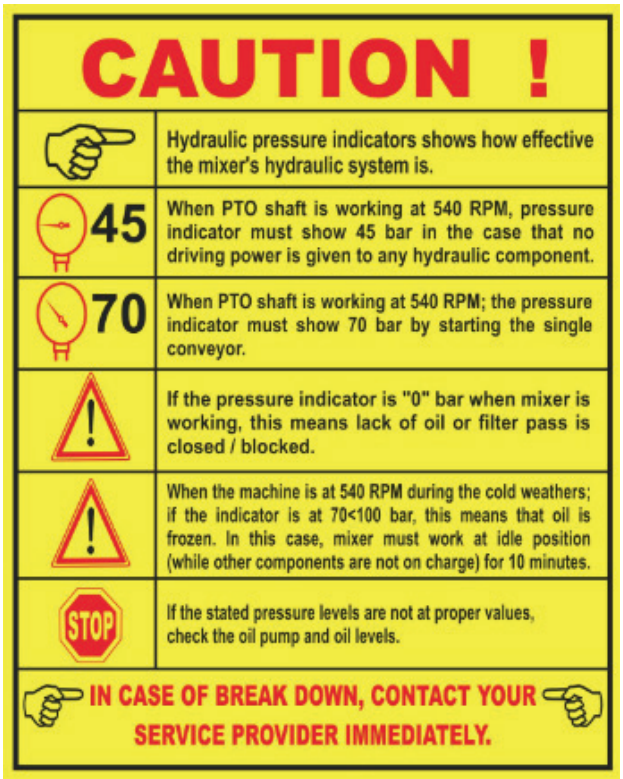
Before starting any kind of work on the hydraulics of the implement, lower the implement onto the ground, release the oil pressure and stop the engine!

Put the gearbox only no. 90 oil.

READ MANUAL FIRST

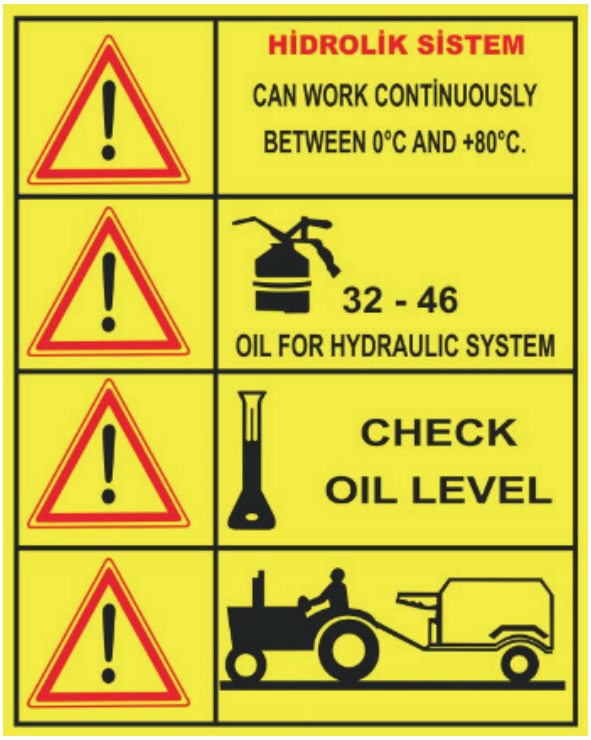
Read the "Operating and Maintenance Manual" carefully before first start and keep the manual nearest.

DO NOT allow anyone tor ide on or in the mixer vagon!
Failure to head this warning may result in personal injury or death!



WARNING SIGNS & MEANINGS

Keep hands clear of mowing parts.



Do not step on the loading platform while the P.T.O. Shaft is connected to the tractor and the engine is running!

ROTATING AUGERS INSIDE THIS UNIT!

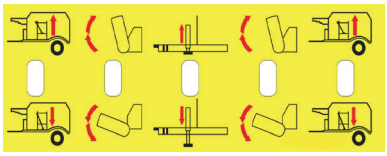
Never ever put arms or feet inside nor climb on or in this unite!

After the first operating and then after every 10 operating hours, tighten the wheel nuts and check the tire pressure.

Shut off engine and remove key before performing maintenance or repair work!

Stop the machine in case of blockage

WARNING SIGNS & MEANINGS



P.T.O. Shaft rotation

The danger areas!
Stay clear during the machine's operation cycle to prevent injury.

ROTATING AUGERS INSIDE THIS UNIT!

Never ever put arms or feet inside nor climb on or in this unite!

Before starting any kind of work on the hydraulics of the implement, lower the implement onto the ground, release the oil pressure and stop the engine!

Use only no. 140 oil for gears.

Keep feet clear of lift while lowering!

Keep hands clear of rotating augers!

Do not stay under of swinging area of the implement!

1. INTRODUCTION

Dear Farmer,

Firstly, we congratulate you for your correct preference on the way to efficiency by selecting the brand “ALPLER”. As your agricultural partner, we offer you our product in which we combined high quality, low operational cost and effective after-sale service concept.

All of “ALPLER” products are designed for the most efficient and the safest use and tested accordingly in cooperation with the relevant university departments, agricultural establishments and farmers. We request you to read the user manual before the first operation in order to use our product in a more effective manner as well as for product and your own safety. The failures that may result from using the product beyond the instructions for use specified in this manual are not covered by “ALPLER” warranty. “ALPLER” products are manufactured for agricultural utilization purposes only, and our company does not assume any liability against the conditions arising from misuse. Maintenance, repair and operation of our products must be carried out by those who were informed on the relevant and possible dangers.

Enjoy your new product and we wish you productive and fruitful years.

We hope to serve you for a long time...

CAUTION

If the product owner changes in the future, please submit this manual to the new owner of the product and inform on safety measures.

2. INSTRUCTIONS FOR SAFE WORK

This first information is no substitute for present instructions for use.

Present instructions for use, informs you most detailed about every single action which must be taken, from first start of the machine itself, proper and safe use, over to the maintenance.

Instructions are divided in single chapters with text and illustrations, explaning practical course of every single step during use of machine. Due to upper facts please read carefully these instructions, before you start using the machine and take into consideration all security regulations.

Important!

To avoid accidents and for acheiving optimal working – capacities of the machine, any kind of tecnical changes without strict concordance from the side of producer is strictly forbidden. In such a manner also the machine must be used exsclusively according to from ALPLER prescribed conditions.

This symbol should attract your attention at security informations contained in these instructions for use.

This symbol is to be found on different spots in these informations, showing at special procedure informations which must be specially considered during the use of machine.

- Before starting the machine, read carefully this instructions for use, maintenance and safety instructions.
- This instructions booklet is part of the machine itself and must always with the machine. Also in the case that machine is sold to another owner.

2.1. REGULAR USE IN AGRICULTURE

Alpler Horizontal Mixer-Feeder has been designed strictly for regular use in agriculture.

If the machine is used for any other purpose, and get damaged during this, the manufacturer is not liable for the damage caused to the machine. It is the user himself who bears the risk.

All conditions for work and maintenance, prescribed by the manufacturer, should strictly be considered.

The machine may only be used, handled and repaired by persons who are appointed to do this and who are familiar with the instructions for safe work, with settings and with maintenance of the machine.

All relevant safety regulations as well as all generally used safety tehnical, working-medical and traffic regulations should be considered during the work with the machine.

2. INSTRUCTIONS FOR SAFE WORK

• The manufacturer is not liable for damages, caused to the machine which has been rebuilt by the user, if damages had occured as a result of the rebuilding.

2.2. ACCIDENT PREVENTION AND SAFETY INSTRUCTIONS

When the Mixer-Feeder is in operation it has many moving parts which could cause severe injury or death to persons coming in contact with these parts. To help avoid serious accidents, the following guidelines should always be followed:

• Be sure all safety shields are in place before operating, including tractor PTO driveline shields.

• NEVER put arms or feet inside unit, power chute, or discharge door opening, nor climb on or in the mixer while it is running. NEVER allow anyone to position themselves over or near the top of the mixer while it is running. Augers, shafts, and material can grab clothing or create pinch points which can cause severe injury or death to the operator or bystanders. Always stop engine and remove the P.T.O. Shaft so that the mixer cannot be accidentally turned on while inspecting, servicing, repairing, or cleaning mixer.

• Never hand feed materials into mixer while it is running. Augers inside mixer may not be visible From the loading point, and may cut or grab hands, clothing, or material being loaded, causing severe injury. Always stop engine before hand loading materials.

• Never attempt to release jammed materials or clean materials from any area of the mixer or discharge chute without stopping engine and removing driveline first. Moving parts can be hidden by materials, and stopped parts can start unexpectedly, causing severe injury. Always stop engine and remove PTO driveline before attempting to remove jammed material or to clean.

• Do not allow operation of this unit by inexperienced and unqualified people. Keep all unqualified people away from mixer during loading and operation. Operators of this unit must be alert and use good judgement at all times.

• Operator should not climb on ladder or any part of the mixer when loading, mixing or discharging material.

• Do not wear loose or floppy clothing while operating this unit. Loose clothing may become entangled in moving parts. Clothes should fit tight to the user's body.

• Be sure the inside of the mixer is clear of any obstructions and that all shields are in place before operating. Repair or replace any damaged or missing shielding. Exposed shafting due to missing shielding can grab hands and clothing and cause severe injury or death.

• Should a problem occur during operation of mixer, always stop engine and remove PTO driveline before investigating problem. If power source has not been disconnected, the mixer may start unexpectedly, causing severe injury or death.

• Use caution when working around the discharge area. The slide tray and/or power discharge chutes are controlled from the tractor and could operate without warning creating pinch points which could cause severe injury or death. Always turn off tractor engine and remove PTO driveline before working close to the discharge area.

• Besides the instructions from this booklet take into consideration all generally used safety and accident regulations!

• Safety and warning decals, placed on the machine, give important instructions for safe work. Take them into consideration for your safety!

• Make sure you get familiar with all devices and elements for handling and with the functions, before starting with the work!

• To avoid danger of fire, keep the machine clean!

• Before switching on the machine and driving off, make sure there is noone near the machine (children). Make sure your visibility is sufficient!

• It is prohibited to drive persons on the machine!

• It is prohibited to be in the working and dangerous area of the machine!

• Stay away from the area of swinging and turning of the machine!

• Pay special attention while cleaning the Mixer-Feeder. The machine must be switched off, PTO Shaft must be disconnected from the machine. It is forbidden to step on the machine while it is connected to the tractor; there is danger of being pulled between the augers.
Loader dipper, discharge unit etc. May be put in action only when no one is in the swinging area!
• On all parts of the machine, which are mecanically or hydraulically driven, there is danger of shear and squeeze!
• Secure the implement before leaving the tractor. Lower the implement completely.
• Switch off the engine and pull out the ignition key!
• Nobody is allowed to be between the tractor and the implement if the vehicle is not secured against movement by a brake or/and by a wedge!

2.3. SAFETY PRECAUTIONS FOR TRANSPORTING

• Before entering on public traffic roads and before each starting of the machine and tractor, check all traffic and working safety devices!

• Do not allow anyone to ride on or in the mixer-feeder.
• Never leave the driver seat during driving!
• When transporting a loaded mixer, use reduced speed and be sure the tractor has adequate weight and brakes to tow and stop the mixer.

The weight of the tractor should be as follows:

• The tractor weight should be 2/3 or more of the loaded mixer weight.
The implement should never be towed over 20 mph (32,18 km/h). (*See tractor setup section for more information.*)
• Do not exceed 20 mph (32,18 km/h) when traveling over smooth dry areas, and reduce speed when traveling loaded and/or over rough, soft, or wet terrain. Exercise caution on side slopes and when turning corners.
• Always place the charging weights according to the instructions on the provided fastening points!
• Respect prescribed pay load, axle load and transport dimensions!
• Transport equipment on machine and tractor is to be tested for traffic safety before each use: lights, protections etc!
• Strating devices for remote control (discharge unit, footstand, etc.) should be secured in a way, that they can not be unintentionally released during transport or work.
• For driving on the road, prepare and secure the machine according to the manufacturers instructions!
• Travel speed should always be adapted according to the terrain and surface conditions! Avoid quick turns when driving uphill, downhill or perpendicular to the slope!
• The performance during driving and the ability of turning is changed, when there are implements connected or mounted to the tractor. Pay attention to sufficient ability of turning and braking!
• In turnings, take into consideration the load which is outside the centre of gravity and/or constant weight of the implement!
• Avoid operating the mixer when making sharp turns or crossing gullies or ditches.
• When working on slopes or inclines, travel uphill or downhill. Keep the tractor transmission in gear when going uphill or downhill. Avoid driving on loose fill, rocks, severe inclines, ditches, and holes.
• Always park the machine on level ground and block the tires.
• When towing the Mixer with a tractor on a public road, always use the tractor's FLASHING AMBER LIGHTS. If the tractor's flashing lights or taillights are obscured from the rear by the mixer, then the Lightsincluded with the mixer must be used.
• The Horizontal Mixer-Feeder can be transformed into a trailer by removing the augers or similar apps. We do not recommend you to transport especially person and animal, sand, soil, stones, etc.

2.4. TRAILED IMPLEMENTS

- Secure the implements against rolling off.
- Take into consideration maximal permitted charge on the hook of attaching coupling, pulling hook or hitch.
- If the implement is connected by a draw bar, be careful about the sufficient flexibility in the connecting point.
- Special attention is needed when you are connecting or disconnecting the machine to the tractor!
- When disconnecting the machine from the tractor, place it on the flat ground and use support devices!
- Implements should be connected according to the instructions, all prescribed devices fastened to the prescribed spots and secured!

2.5. P.T.O SHAFT DRIVE (Only for implements driven by a P.T.O Shaft)

- Use only P.T.O. Shafts prescribed by the manufacturer!
- PTO shaft-protection tubes and protection pots, driveshaft protection on the tractor, and on inlet shaft on the machine must be on their places and in good condition!
- Take care about the prescribed P.T.O. Shaft tube overlap in transport and working position!
- P.T.O. Shaft can only be mounted when the P.T.O. Shaft connection and engine are switched off and the ignition key is pulled out!

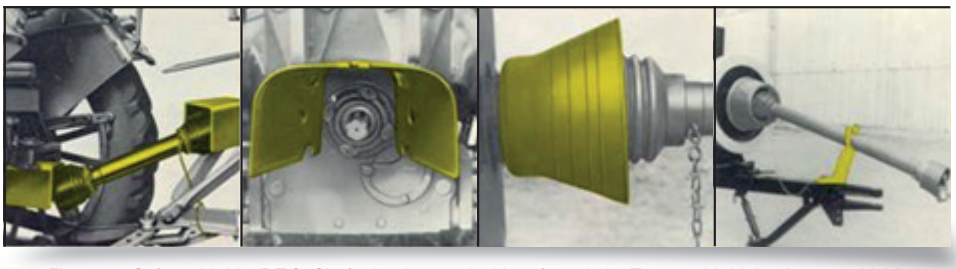


Figure 1- Safety shields (P.T.O. Shaft plastic guard with safety chain, Tractor shield, Implement shield)

- When using the P.T.O. Shafts with overload and/or free-wheel clutch, which are not covered by a protection on the tractor, put the overload or the free wheel clutch on the machine side!
- Always pay your best attention to proper mounting and securing of the P.T.O. Shaft!
- Secure the P.T.O. Shaft protection against rotating by a chain!
- Before switching on the P.T.O. Shaft make sure, that the selected RPM and rotating direction of the tractor connection match with the allowed RPM and rotating direction of the machine!

When using two-way PTO shaft take into consideration that RPM depend of driving speed and rotation direction at reverse drive Invert!

- Make sure that nobody is in the area of danger of the machine before switching on the P.T.O. Shaft!
- Never switch on the P.T.O. Shaft when the engine is switched off!
- When working with the P.T.O. Shaft nobody is allowed to be in the area of rotating P.T.O. Shaft.
- Always switch off the P.T.O. Shaft when the angle deviation gets too big or when you do not need it!
- **Attention!** After having switched off the P.T.O. Shaft the danger of rotating heavier parts remains. Do not get close to the machine untill it comes to a complete standstill. You can start to work only when the rotation is completely stopped.
- Cleaning, lubrication or adjusting of the machines, driven by the P.T.O. Shaft, or a P.T.O. Shaft itself, can be done when the e engine is switched off and the ignition key is pulled out!

- Disconnected P.T.O. Shaft is to be put onto provided holder!
- When PTO Shaft pulled from the tractor, push the protection cap back on the drive shaft of the tractor!
- Repair all damages of the P.T.O. Shaft before using the machine!

2.6. HYDRAULICS

- Hydraulics is under high pressure!
- When connecting the oil pump, oil tank, hydraulic cylinders and hydraulic motors, take care about the correct connection of hydraulic hoses.
- When connecting the hydraulic hoses, make sure that the hydraulics on the implement are not under pressure!
- Before starting any kind of work on the hydraulics of the implement, lower the implement onto the ground, release the oil pressure and stop the engine!
- When looking for leaking spots use suitable tools to avoid injuries!
- At hydraulic connections of the functions, between the mean of pulling and the implement, it is of vital importance that the clamps and the jack are marked, in order to avoid wrong performance. In case the connections are switched there is a danger of inverse working (lifting/ lowering). Danger of injoury!
- Control regulary the hoses and replace them if they get damaged or old. Replaced hoses must correspond to the technical demands of the manufacturer of the implement!
- Liquids under high pressure (hydraulic oil) when leaking can penetrate the skin and cause heavy injuries! In case of injury get medical help immediately. Danger of infection!
- Never try to dismount a hydraulic pipe or any other of the hydraulic installation as long as this one is under high pressure. Before you start up the hydraulic system make sure that the installation is safe.
- Help yourself with a piece of cardboard when trying to find the place of leakage. Protect your hands and body by means of gloves and protective clothing if you are handling a high pressure hydraulic system.

2.7. MAINTENANCE

- Maintenance, repairs, cleaning and disturbance removing may only be executed when the drive and the engine are switched off and the ignition key is pulled out!
- Check nuts and screws regularly to be sure that they are tightened enough. If not tighten them!
- If you perform any maintenance on the lifted implement, always secure the implement by a suitable holder.
- Use adequate tools and gloves when replacing machine parts with sharp edges!
- Store properly oils and greases!
- Before repairs on electrical equipment are started, switch off the electrical current – remove the fuse!
- If safety devices succumb to usage, must be checked regularly and replaced in due time!
- When welding on the tractor or on machine which is mounted on the tractor, disconnect the cable from battery and from generator!
- Use only genuine spare parts, they guarantee long lifetime of the machine!

3. INTRODUCING OF MACHINE

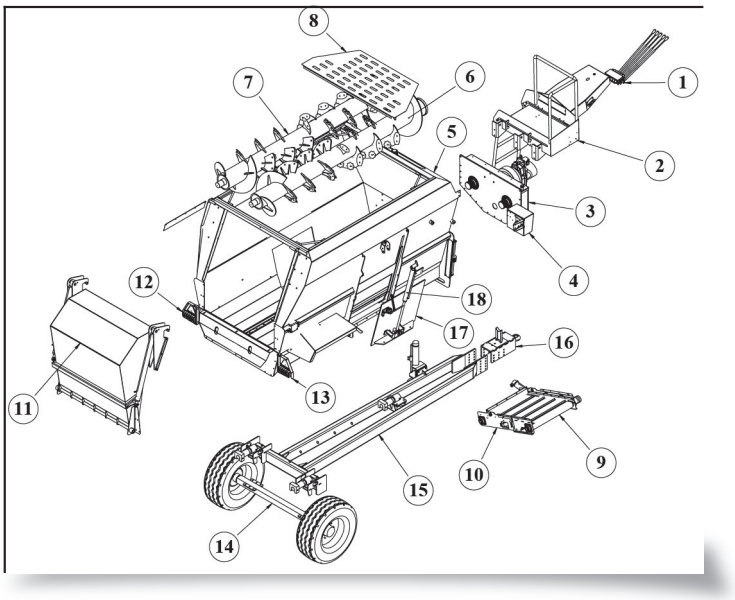


Figure 2- The main parts of the machine

1- Control lever board
2- Balcony railing and stairs
3- Gearbox
4- Weighing display box
5- Feed mixing boiler
6- Right Auger
7- Left Auger
8- Safety device
9- Conveyor
10- Discharge unit
11- Loader dipper
12- Lights
13- Lights
14- Axle
15- Main frame/ Chassis
16- Hitch
17- Discharge cover
18- Discharge piston

3.1. BASIC DESCRIPTION OF HORIZONTAL MIXER-FEEDER

ALPLER; presents the experiances about live stock production to the farmers by the modern equipments like Horizontal Mixer-Feeder. The machines are designed to bring various animal feed into a homogenous mixture and to distribute this mixture to the animals with its robust, strong and reliable structure and easy use. All options of horizontal feed mixers of appropriate capacity for all kinds of small, medium and large scaled enterprises are available with quality and privilege of Alpler.

Horizontal feed mixers are moved by a tractor via an articulated shaft. They are connected to the tractor and carried with a drawbar. The movement is transmitted to the augers by gears located at the front side of the machine as to rotate reversely.

When the machine is in stable status, various materials loaded in the reservoir by a dipper located at the back are mixed with augers.

In addition, thanks to numerous knives located on the augers grinding process is performed. Mixed materials are discharged in the animal feeders at the desired quantity from the side of the machine by means of a pallet transmitter moved by a hydraulic motor.

3. INTRODUCING OF MACHINE

Superior Properties:

• Bi-lateral discharge: one being manually and the other by means of a belt. Thus one will have the advantage of bilateral discharging and cleaning will be easier.

• Volume of the oil sump is large so that the oil is prevented from heating up.

• A pressure gauge (barometer) is used so that the operator may observe the pressure in the system. Thus, if the pressure rises up for any reason whatsoever, it may be easily detected by the operator and any necessary adjustments made without causing any failure.

• A ladder which has a length in conformity with the standards in order to be able to observe the mixture being made.

• Italian-made wheel chocks are supplied so that the trailer shall not move when it is in parking position.

• All the warning labels and tags which are in conformity with the standards are in place.

• As no sticking shall occur in the front and in the back thanks to the special design and omega structure in the centre of the mixing and dispensing trailer, both the power needed reduces and a homogenous mixture is obtained.

• Thanks to the special structure of the helix (axe type) and the wrought Italian blades on it and the counter blades located in the central omega, it provides:

a clear shearing cut without crushing,

a cut in ideal size,

a short cutting time,

a short mixing time, and less energy consumption by the operator (less diesel oil costs).

• As a larger surface contacts with the product thanks to large inner and outer diameters of the helixes, mixing time is shorter as compared to its equals.

• A system comprised of single sheets which is both more costly and more difficult to manufacture is used instead of a single sheet helix which is much easier and more cost-effective to manufacture. As the helixes are individually installed in parts, the risk of thrown-in green grass entangling the helixes is especially eliminated. As there is no entangling, the helixes run very easily and the amount of power required for the helixes to rotate reduces.

• Moving ball bearings are used in the helix supports in order to be able to compensate for the lateral loads.

• All hoses used in the system are of R2 quality and double-wired.

• All hydraulic cylinders used in the system are of double-acting. (Example: the cover will not open with its own weight when it opens downward.)

• Special sealing fluids are used on all the joints (on fitting materials) of the hoses and pipes of the hydraulic system.

• Best paints are applied so that the coating on the mixing and dispensing trailer shall last but shall not discolour for a longer time (undercoat-putty filler-acrylic paint-protective varnish application).

• A mudguard is mounted over the wheel for protection purposes.

• Digital programmable weighing system is offered as a standard.

3.2. TECHNICAL DATA

MODEL	**A-HMF 6**	**A-HMF 8**	**A-HMF 10**	**A-HMF 12**
Volume (m^3)	6	8	10	12
Transmission System	Planet Gearbox	Planet Gearbox	Planet Gearbox	Planet Gearbox
Auger System	Double on the Base	Double on the Base	Double on the Base	Double on the Base
Bucket Width (mm)	1700	2000	2000	2000
Bucket Height (mm)	1800	1850	1850	1850
Bucket Length (mm)	3000	3000	4000	4500
Total Width (mm)	2100	2100	2110	2110
Total Height (mm)	2300	2500	2550	2550
Total Length (mm)	5000	5000	6150	6650
Hydraulic System	Standard	Standard	Standard	Standard
Dipper System	Standard	Standard	Standard	Standard
Weighing System	Optional	Optional	Optional	Optional
Double Sided Discharge	Optional	Optional	Optional	Optional
The thickness of the sheet metal of frame (mm)	10	10	10	10
The thickness of the sheet metal of auger (mm)	16	16	16	16
Number of knives on the auger	56	48	72	80
Number of coulter knives on the auger	30	26	38	42
Wheels	10/75-15,3	12,5/80-15,3	400/60-15,5	400/60-15,5
Unladen Weight (Kg)	3100	3850	4600	5200
P.T.O. Shaft Rotations (max)(min-1)	540	540	540	540
Required Tractor Power (KW/HP)	40	50	60	70

3.3. SAFETY DECALS

ALPLER machines are equipped with all the necessary safety elements. However, it is impossible to secure all the dangerous locations on the machine and keep its unrestricted functionality at the same time.

The machine is equipped with corresponding warnings (yellowblack symbols) drawing attention to other dangers. See the following note for the position of those symbols and their meaning:

Read carefully text of safety decals, check on the machine where are they to be found, because there are danger areas. (Look at page 2-4)

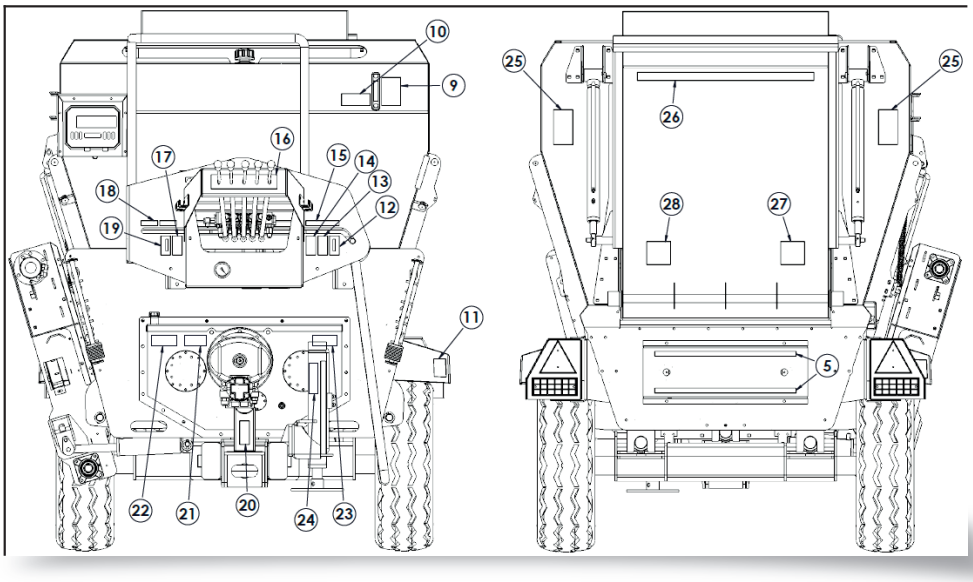


Figure 3.1- Position of safety decals with warning text on the machine (drawing)

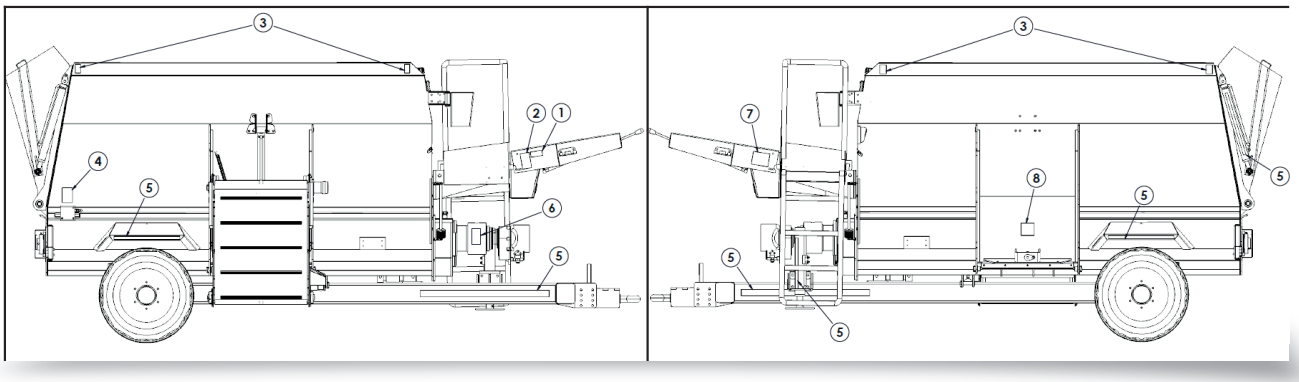


Figure 3.2- Position of safety decals with warning text on the machine

- Be sure everyone who operates the mixer understands all the information, warning, caution and danger decals.
- Keep The Decals Clean so they are readable. This applies to all caution, warning, and danger decals. It is the OWNER'S RESPONSIBILITY to provide information for safe operation of this machine.
- Replace any damaged or worn decal. Once any part of a decal becomes non readable, it should be replaced.

4. PREPARING FOR OPERATION

• **READ ALL WARNINGS AND INSTRUCTIONS IN THIS MANUAL BEFORE PREPARING OR OPERATING THE ALPLER MIXER-FEEDER!** It is the responsibility of the owner to make sure the mixer is set up properly. The following recommendations should be helpful.

• Directional indications such as “left”, “right”, “front” and “rear” are to be interpreted when facing in direction of travel, with the mixer feeder attached to the rear of the tractor.

4.1. TRACTOR REQUIREMENTS

4.1.1. TRACTOR WEIGHT REQUIREMENTS

Types	Empty unit wt. + Load wt. = Gross wt	Tractor wt. at up to 20 mph
A-HFM6	3,100 kg (6,820 pound) + Load wt. = Gross wt	2/3 of Gross wt. = Tractor wt.
A-HFM8	3,850 kg (8,470 pound) + Load wt. = Gross wt	2/3 of Gross wt. = Tractor wt.
A-HFM10	4,600 kg (10,120 pound) + Load wt. = Gross wt	2/3 of Gross wt. = Tractor wt.
A-HFM12	5,200 kg (11,440 pound) + Load wt. = Gross wt	2/3 of Gross wt. = Tractor wt.

Table 4- Calculating required tractor weight * 20 mph=32,18 km/h * 1 kg = 2,20 pound (lbs)

A tractor with the above recommended weight for your unit is normally adequate for towing the loaded mixer under average conditions. Unit weights include tires & power chute.

4.1.2. TRACTOR P.T.O HORSEPOWER REQUIREMENTS

Types	PTO Horsepower
A-HFM6	40-75 HP 540 RPM
A-HFM8	50-85 HP 540 RPM
A-HFM10	60-95 HP 540 RPM
A-HFM12	70-110 HP 540 RPM

Table 5- Required tractor power

PTO horsepower requirements are based on most normal dairy or beef rations. Horsepower requirements may vary depending on the ration or material to be mixed.

The PTO horsepower requirements shown may not reflect adequate tractor size for towing the mixer, refer to tractor weight requirements for these recommendations and transporting safety precautions for additional tractor and towing requirements.

4.1.3. TRACTOR ELECTRICITY REQUIREMENTS

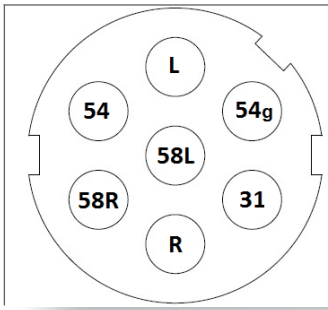
ALPLER modern Horizontal Mixer-Feeders come equipped with many features which need electrical power.

The lighting and weighing systems need electrical power.

The lighting system provided is intended for agricultural tractor transport only. If the mixer will be transported on a public roadway, be sure the lights are in good working order. When attaching to a towing vehicle other than a tractor, always check for proper operation, as wiring may vary.

A highly accurate weighing system helps guarantee efficient management of fodder stocks and rational feeding. The electronic weighing system supplied as standard on the ALPLER mixer range lets you know exactly how much fodder is loaded into the machine and ingested by your animals.

Electric connection must match the following scheme of the socket.



Type	Wire colour
1/L	Blue
2/54G	-
3/31	Black
4/R	Green
5/58R	-
6/54	Brown
7/58L	Yellow

Figure 4/ Table 6- Required electrical connection (12V socket for lighting equipment)

Electric connector covers should be in place to keep out dust, dirt, grease, and moisture. Clean connections keep systems working without delays.

4.1.4. TRACTOR HYDRAULIC REQUIREMENTS

Tractor hydraulic outlets are NOT required for operating any devices!
There are oil tank and oil pump on the unit for operating loader dipper, conveyor, discharge cover and footstand.

4.2. ATTACHING TO THE TRACTOR

Follow these steps for hitching to a drawbar:

- Place the tractor and the mixer feeder on flat ground.

4. PREPARING FOR OPERATION

• Position the tractor to align the hole in the drawbar with the hole in the mixer-feeder hitch. This is called spotting. You may need to practice this skill. (Figure 5)

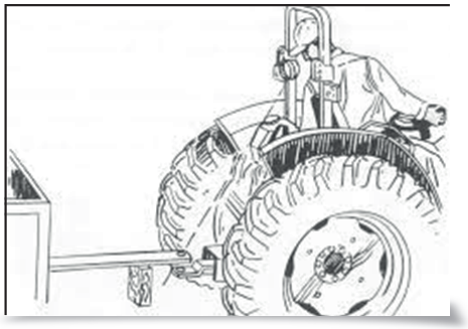


Figure 5- Spotting the hitch to the drawbar.

• Backing a tractor in reverse to connect an mixer feeder can be an easy and safe task. Figure 6 shows how to spot the hitch to the drawbar. The caption explains how “spotting” to the drawbar can create a hazard.

• Stop the engine, securely park the tractor, and set the brakes.

• ALPLER Horizontal Mixer-Feeder can be equipped with swivel hitch. The drawbar on the front of the mixer can be adjusted for height. Mount the drawbar so that the mixer is as level as possible when connected to the tractor.

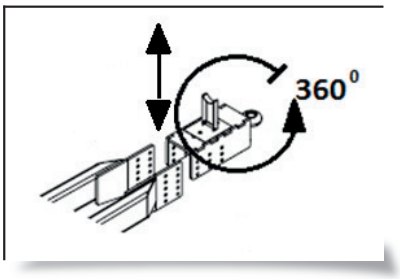


Figure 6- The Mixer-Feeder swivel hitch.

• The drawbar is adjustable vertically on all models and drawbar eye can be rotated 360° to allow for maximum adjustment. (Figure 6)

• Attach the mixer-feeder’s drawbar eye into tractor’s tow jaw which must be superior of the tractor’s drive shaft and in corrisponding height.

• Adjust tractor drawbar and/or the mixer drawbar hitch so that the mixer is approximately level. The top of the drawbar should be 8-12.5” below the tractor PTO shaft. Adjust the drawbar horizontally so that the hitch pin hole is (14”-20”) 14” for 540 RPM 1-3” DIA. 20 spline behind the tractor PTO and drawbar is centered and locked into place.

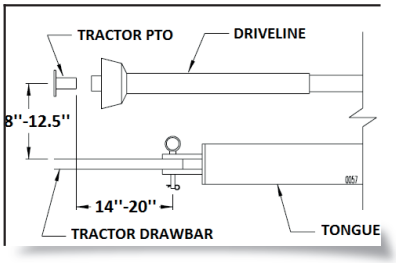


Figure 7- The measurements and relationships at points B and D above for Alpler Horizontal Mixer-Feeder.

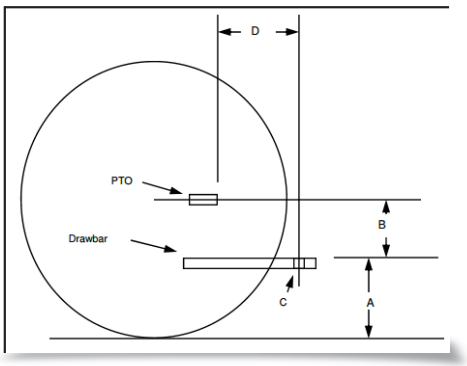


Figure 8- The tractor power take-off and drawbar position

The tractor power take-off and drawbar position are designed with specific measurements for the size and horsepower rating of the tractor. (Figure 8)

The operator should not make changes to these design standards by changing the hitch point. Table 8 lists the measurements and relationships at points A, B, C, and D above for each range of tractor size.

4. PREPARING FOR OPERATION

Drawbar Hitch Category				
Tractor Category	I	II	III	IV
Tractor HP	20-45	40-100	80-275	180-400
Drawbar Height above ground (A)	15”+/-2”	15”+/-2”	19”+/-2”	19”+/-2”
Drawbar to PTO (B)	8”-12”	8”-12.5”	8.5” -14”	10” -14”
Hitch-Pin Hole Size (C)	1.1”	1.3”	1.7”	2.1”
Nominal Hitch Pin Size	1.0”	1.2”	1.6”	2.0”
Drawbar Dimensions (Thickness x width)	1-3/16”x2.0”	1-9/16”x2.5”	2”x 3-3/16”	2-3/8”x 4-7/8”
Regular Size PTO Stub Shaft to Drawbar Hitch Hole (D)	14-20”	14-20”	14-20”	14-20”

Table 7- Drawbar Sizing and Positioning Standards

** The measurement has been rounded to the nearest 1/10 (0.1) inch.*
Hitch pins must fit the hitch-pin hole without excessive movement.

• Attach the implement using the proper-sized hitch pin and security clip. (Table 7)

• A bolt laying around the farm shop is not a substitute hitch pin! Hitch pins are designed for specific drawbar loads and power ratings and must fit the drawbar hole.

Connect the P.T.O. shaft. DO NO use upper output shaft to operating machine! (Figure 9)

Figure 9- P.T.O. Shaft connection

• Upper output shaft must use ONLY by authorized service provider in case of blockage!

4. PREPARING FOR OPERATION

• When mounting the PTO Shaft for the first time control its length and shorten it if necessary according to the enclosed instructions of the PTO Shaft manufacturer.
• Fasten the PTO Shaft protection to the towing holder by chain.
• Be sure that the PTO driveline does not contact the mixer feeder drawbar during normal operation or transport.
• Connect also the electric plug for the lights and weighing system.
• Make sure that all the lights on the machine work in accordance with the tractor lights.

Figure 10- An example of safe hitching.

• Hitch to the drawbar only! Hitching anywhere else can result in rear turnover and death.

4.3. P.T.O. SHAFT LENGTH ADJUSTMENT

The PTO shaft that transfers the movement from the output shaft of the tractor to the transmission of the machine is equipped with a joint that has a shear bolt type safety coupling (The P.T.O shaft provided with the machine and recommended in the future when necessary: SPT (Star Power Transmission) P.T.O Shaft, Series 5, shear bolt type safety coupling, with a length of 1200 mm when the joint is closed) (Figure 11).

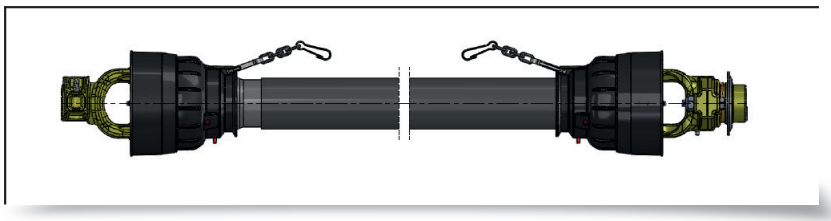


Figure 11- P.T.O Shaft

• BEFORE connecting or disconnecting PTO shaft: STOP TRACTOR ENGINE, place transmission into park, engage parking brake and remove key!
• Always pay your best attention to proper mounting and securing of the P.T.O. Shaft!
• Cleaning, lubrication or adjusting of the PTO shaft can be done when the engine is switched off and the ignition key is pulled out!
• Repair all damages of the PTO shaft before using the machine!
• Before switching on the PTO shaft make sure, that the selected RPM and rotating direction of the tractor connection match with the allowed RPM and rotating direction of the machine!
• CHECK driveline for proper length between PTO shaft and machine gearbox shaft before the operation.

4. PREPARING FOR OPERATION

The adjustment of the PTO shaft is necessary for different tractors. To find out the right length:

- Connect the machine to the tractor. (See section 3.2.)
- Pull out the PTO shaft entirely and connect each separate half of the shaft to the tractor and to the machine and then compare them with each other. (Figure 12)
- Make sure that the PTO shaft tubes cover each other for at least 200 mm when in maximal turning. When the tractor and the mixer feeder are in line with regard to each other the PTO shaft must not touch the block. (There must be at least 50 mm of space left).
- In case you need to shorten the PTO shaft, make sure you shorten both shafts and protection tubes for exactly the same length.

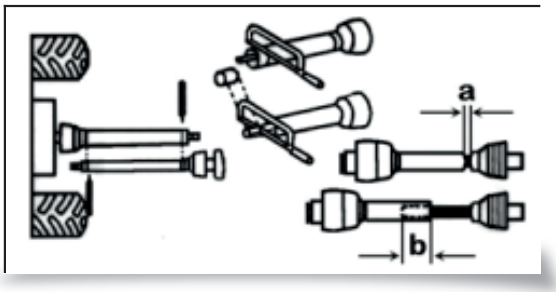


Figure 12- Adjusting the PTO shaft to a suitable length.

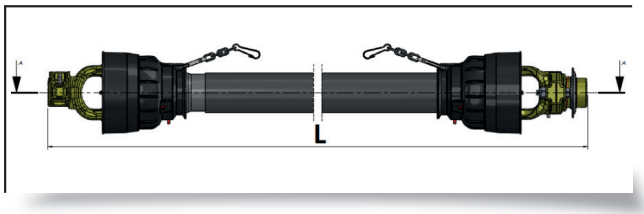


Figure 13- Overall length of PTO shaft in closed position.

For example; if the distance between PTO shaft and machine gearbox is 1100 mm, and the distance (L) between the right and left pin of the P.T.O. shaft is 1200 mm (See Figure 13); the amount to be cut from both halves of the P.T.O shaft is 100 mm. (Do not forget that this may seem like the shaft has been shortened by 20 mm, but when the two halves are put back together this becomes 100 mm! (Figure 14.A, 14.B and 14.C.)

Figure 14.A

Figure 14.B

Figure 14.C - The shortening of the PTO shaft.

- File away the end of the tube, remove the remaining of filing and lubricate gliding spots well.
- Ensure the closed and extended length of the guard and the drive shaft are right for the tractor and machine. The guard tubes should be slightly shorter than the appropriate drive shaft telescopic halves by not more than 25 mm, so that they will not separate at its longest length or 'bottom' at its shortest.
- Ensure the guard's bearings are secure in the correct position on the drive shaft grooves, and a restraining device, eg a rope or chain, is in place to prevent the guard rotating with the shaft.

4. PREPARING FOR OPERATION

• Attach restraining devices at suitable points. At the machine end they should be attached near the power input connection guard, and at the tractor end they should be coupled to a hole in the PTO master shield. Make sure there are no restrictions to allow for vertical and side movement.

• Clean the sliding inner and outer surfaces of the guard daily and lubricate the guard bearings weekly (or more frequently if the manufacturer recommends it) with a lithium-based grease. Similarly, grease the sliding drive shaft halves and the grease nipples at universal joints in accordance with the manufacturer's operating and maintenance instructions (normally before starting work and after every eight hours of use).

• Ensure the spring-loaded plunger of the quick release yoke is adequately lubricated. Again, a lithium-based grease is best.

• Check that wide-angle joints are not exposed at tractor/implement turning angles.

• Both the tractor PTO shield and the power input connection guard must overlap the PTO drive shaft guard by at least 50 mm.

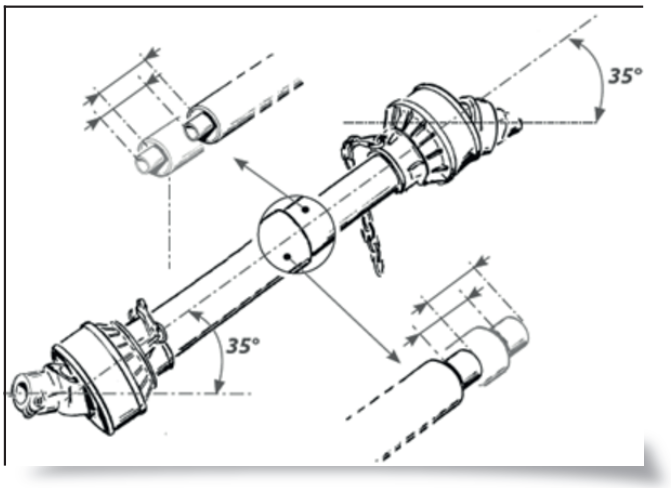


Figure 15- An example of a maximum drive line angle.

• To keep PTO shaft in good working order, make sure that the working positions do not exceed the maximum drive angle of 35° for standard transmissions and 80° for wide angle transmissions. (Figure 15)

• Small chains are supplied with the driveline. They must be attached to the inner and outer driveline shields and to the tiller and tractor to restrict shield rotation. (Figure 16)

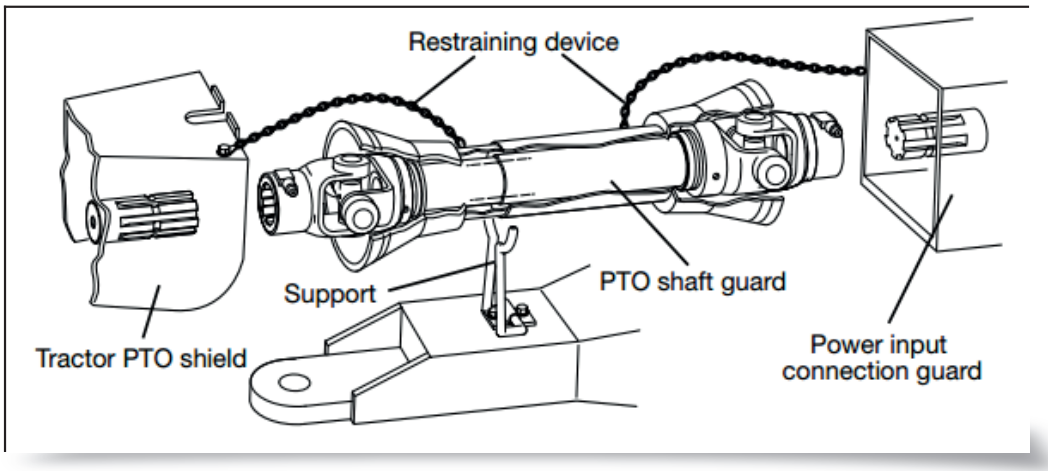


Figure 16- PTO shaft safety chain connection.

4. PREPARING FOR OPERATION

4.4. BEFORE THE HORIZONTAL MIXER-FEEDER RUN-IN

If any of these items are not running as indicated, immediately repair or contact your authorised service provider and sales representative or directly with our firm. Always refer to operating safety precautions before operating or servicing the mixer.

1. Check for proper assembly, adjustment, and lubrication. Check to see that there is adequate oil in the gearboxes and bull gear oil bath. If unit is equipped with a discharge chute, oil the roller chains and check to be sure all bolts and set screws are tight. Review Operating Safety Precautions and Lubrication Instructions before operating the mixer.
2. Be sure all shields are properly in place.
3. Check for and remove any foreign objects in the mixer hopper and discharge opening.
4. Check to see that the door is closed.
5. Be sure no one is inside the mixer.
6. Test run the mixer.
    a. Make sure mixer is empty, then start the mixer.
    b. Run mixer for at least five minutes at 3/4 of rated PTO RPM.
    c. If unit is equipped with power chute, run discharge for 1 hour with no load for proper motor break in.
    d. Raise and lower the door and the chute or slide tray several times.
    e. Disengage the mixer, turn off the tractor engine, and remove driveline.
    f. Check the mixer drive components to be sure they are not abnormally hot.

• Always refer to Accident Prevention and Safety Instructions and Safety Decal sections of this manual before operating this mixer.

• When the mixer is in operation, it has moving parts which could cause severe injury or death to persons coming in contact with these parts. To help avoid serious accidents, the following precautions should always be followed:

• NEVER hand feed materials into mixer while it is running, always stop engine and remove ignition key before hand loading materials. Rotating augers inside mixer may not be visible from the loading point, and may cut or grab hands, clothing, or material being loaded, causing severe injury.

• NEVER put hands, arms or feet inside unit, nor climb on or in the mixer while it is running. Never allow anyone to position themselves near the mixer or over or near the top of the mixer while it is running. Rotating augers can grab clothing or create pinch points which can cause severe injury or death to the operator or bystanders. Always stop engine and remove the ignition key so that the mixer cannot be accidentally turned on while inspecting, servicing, repairing, or cleaning.

5. PREPARING FOR OPERATION

5.1. OPERATOR QUALIFICATIONS

Operation of this mixer feeder shall be limited to competent and experienced persons. In addition, anyone who will operate or work around a mixer feeder must use good common sense.
In order to be qualified, he or she must also know and meet all other qualifications, such as:

1. Some regulations specify that no one under the age of 16 may operate power machinery. It is your responsibility to know what these regulations are in your area or situation.
2. Current OSHA (Occupational Safety and Health Administration) regulations state in part:
At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation an servicing of all equipment with which the employee is, or will be involved instruction on the safe work practices and operating rules.
3. Unqualified persons are to STAY OUT OF THE WORK AREA.
4. A person who has not read and understood all operating and safety instructions is not qualified to operate the machinery.

FAILURE TO READ THIS MIXER / FEEDER MANUAL AND ITS SAFETY INSTRUCTIONS IS A MISUSE OF THE EQUIPMENT

5.2. WORKING WITH THE ALPLER HORIZONTAL MIXER-FEEDER

In the section below, the control functions of the machine is explained.

There are oil tank and oil pump on the unit for operating loader dipper, discharge unit and footstand. To activate the hydraulic system of the machine, open the valve shown in figure 17.
In front of the mixer feeder, 4 control levers and on the rear right side, 1 control lever can be found to operate the machine. The function of every control lever is indicated with symbols on the decal near themselves. (Figure 18.A, 18.B)

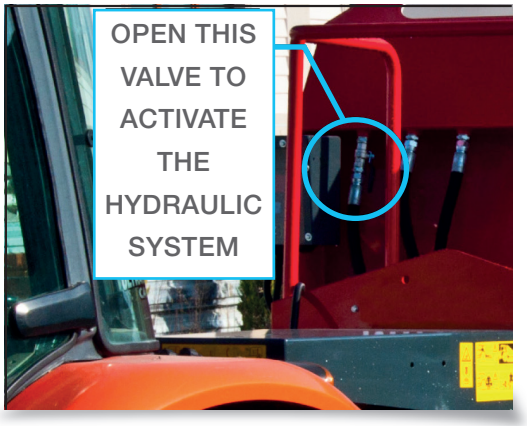


Figure 17 - Hydraulic system valve

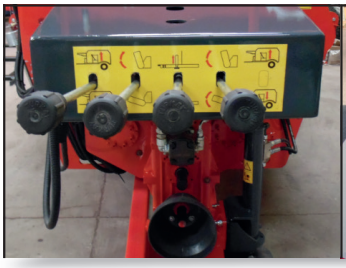


Figure 18.A- Front Control board

Figure 18.B- The rear right control lever

5. PREPARING FOR OPERATION

The discharge unit (discharge cover and discharge conveyor), footstand loader dipper are regulated by the hydraulic system of machine. (Figure 19)

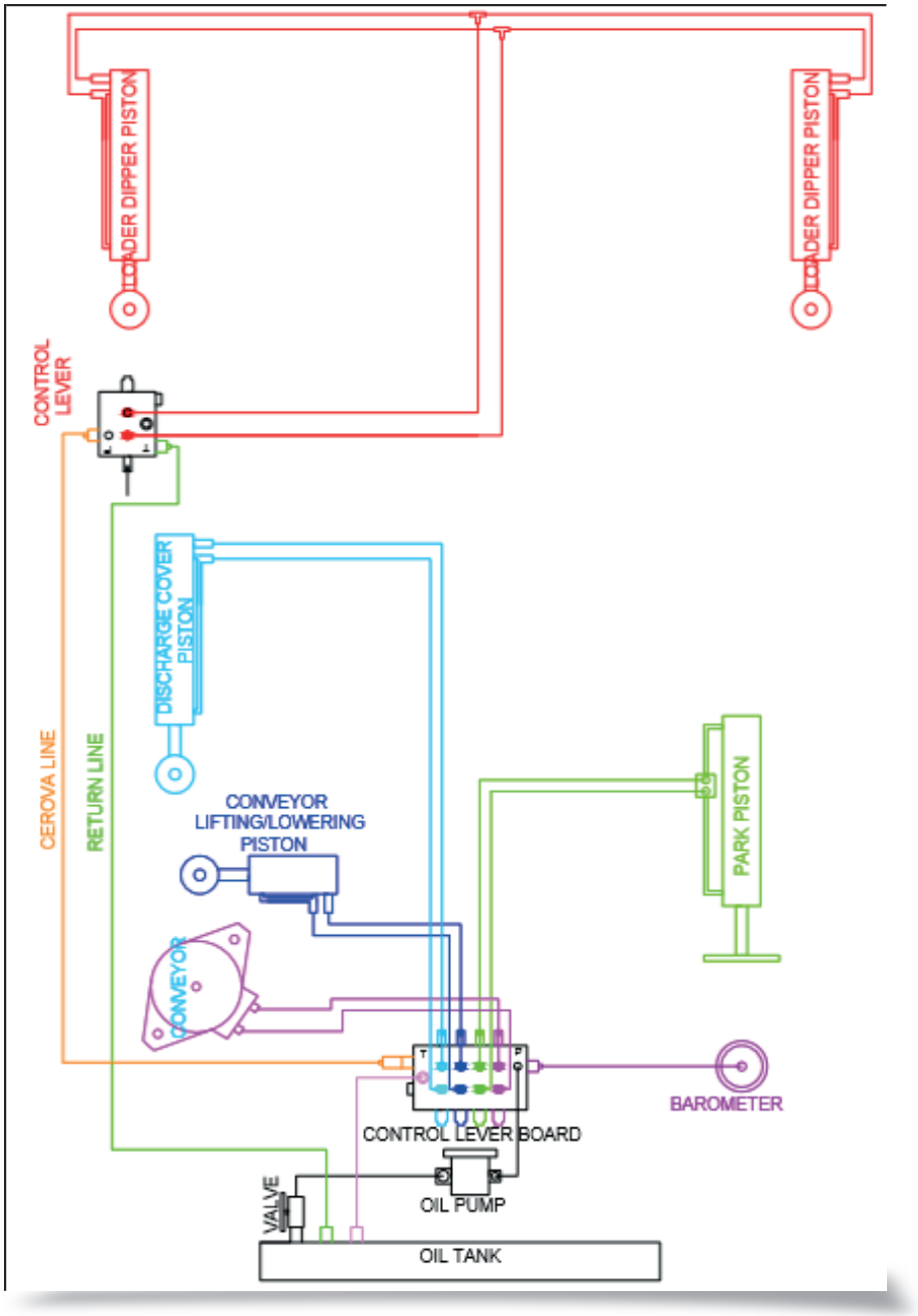


Figure 19 - Hydraulic System Sheme

If you have a mixer feeder with weighing installation, plug the feeding cable of the weighing installation in the socket of the tractor. For explanation about the weighing installation, consult the manual about the weighing installation specifically.

The auger is put into operation by switching on the p.t.o. (540 rpm). By means of changing the r.p.m. of the tractor, you can adjust the speed of the auger.

5.3. MIXING INSTRUCTIONS & PRECAUTIONS

There are some basic concepts that must be understood to achieve top mixing performance with the Alpler Horizontal Mixer-Feeder.

A new machine will need an initial run-in period to polish the augers and mixer sides to achieve correct material movement inside the mixer. Until the unit is polished inside, one may experience material spillage, dead spots, or increased horsepower requirements. The load size may need to be reduced until the unit is polished inside.

Mixing a ration in a Horizontal mixer generally involves three steps; processing, mixing, and unloading. The sequence and timing of these steps is very important, and is different for every operator because of variations in materials and conditions. There is some experimentation that must be done to work out the best equipment, sequence, and timing for your particular operation.

Following are some general suggestions to achieve good results.

5.3.1. STEP 1 (PROCESSING)

Materials

Some feed materials will first need to be processed alone in the mixer feeder before they can be efficiently mixed with other feedstuffs in the mixer feeder.

These materials include;

1. Large square or round bales of alfalfa
2. Large square or round bales of high moisture “Baleage”
3. Large square or round bales of long mixed grasses, wheat or oat hay and crop residue bales (straw or soybean stubble)
4. Very light and bulky feedstuffs

- Always remove twine from bales before loading into the mixer.

Mixer Setup

1. Be sure that mixer is sitting level front to back and side to side. This will ensure a level and even mix of feed.
2. Be sure tractor is sitting straight in line with the mixer. This will prevent premature wear to the driveline and gearboxes.
3. Completely close discharge cover.

Loading

1. With the tractor running at approximately 3/4 of rated PTO speed, load baled hay into center of mixer.
2. Allow mixer enough time to process bale before adding other ingredients (4 to 10 minutes) If you need to inspect progress of the processing/mixing, always shut off mixer and tractor before climbing the ladder to inspect the load.
3. Processing of long stem forages will continue as other materials are added and mixed. Be careful not to over process these materials before adding other ingredients.

Adjustments

When processing materials, there may be spillage over the side of the mixer.

Following are some steps to reduce this;

1. Reduce load size
2. Reduce tractor/mixer RPM
3. Be sure mixer is level
4. Be sure augers and hoppers are polished so feed moves well inside mixer.
5. Removing knives will decrease the aggressive cutting action on the stem length of the ration and may also reduce horse power requirements.
6. Replace all knives, if both semicircle become worn and rounded on the leading edge.

- NEVER attempt to release to release jammed materials or clean materials from any area of the mixer or discharge chute without stopping engine and removing driveline first. Moving parts and knives can be hidden by materials, and stopped parts can start unexpectedly, causing severe injury. Always stop engine and remove ignition key before attempting to remove jammed material or clean.
- DO NOT allow operation of this unit by inexperienced and unqualified people. Keep all unqualified people away from mixer during loading and operation. Operators of this unit must be alert and use good judgement at all times. Operator SHOULD NOT climb on ladder or any part of the mixer when loading, mixing or dischargingmaterial.
- Keep in mind the overall size of the mixer to allow clearance through doorways, make sure the chute is in the up position and there is adequate side and top clearance through doorway.

5.3.2. STEP 2 (MIXING)

Materials

The Alpler Horizontal Mixer-Feeder is designed to mix a wide variety of feedstuffs efficiently and quickly. After the long stem forages are coarsely cut in the processing step, other materials such as silage, grains, haylage, and commodities can be added and mixed.

Loading Sequence

With mixer running at approximately 3/4 of rated PTO RPM, and the long stem material processed to a desirable length, the loading of remaining ingredients can begin.

The sequence of loading materials will depend on the loading methods and their location relative to the mixer, but a typical loading sequence would be;

1. Load haylage and corn silage
2. Load minerals, proteins, and other small quantity ingredients. (Note- in some cases it may be preferable to load these between the silage's if possible)
3. Load grains, wet and dry commodities, etc.
4. Load all liquid fats, water, and other liquids. Always load liquids at the center of the mixing chamber.

- Never load long stem bales last. They will not be processed or mixed into the ration, and may cause unloading or spillage difficulties. Processing of long stem forages will continue as other materials are added and mixed. Be careful not to over process these materials before adding other ingredients.

Load all ingredients as quickly as possible, and allow a final mix time of 3 to 7 minutes, or whenever the load looks consistently mixed.

Adjustments

A few loads will need to be tried to establish the best loading sequence, PTO RPM, mix time, and hay stop position for your particular situation. Adjustments may need to be made if you see the following;

1. Spillage - refer to the adjustments listed in the processing steps.
2. High horsepower
    a. Reduce load size
    b. Be sure mixer sides and augers are “polished” to insure correct feed movement inside mixer.
    c. Modify the knife setting quantity or placement
3. Forage is cut too short
    a. Reduce the initial processing time
    b. Reduce the total loading time
    c. Reduce the mixer RPM to limit aggressiveness in processing
    d. Modify the knife quantity or placement

5.3.3. STEP 3 (DISCHARGING)

Try to discharge the mixed ration within a short time after mixing. A fully loaded mixer which is bounced over rough terrain or allowed to settle will require more horsepower during start-up.

1. Position the mixer in a straight line with the tractor, to reduce the stress on the PTO shaft.
2. Lower and start the discharge conveyor.
3. Start the mixer and partially open the discharge cover.
4. Adjust the discharge unit height for the desired flow of feed, while moving forward along the discharge path.
5. After load begins to discharge, increase tractor RPM to full PTO to insure fast and thorough cleanout.

5.3.4. OTHER MIXING RECOMMENDATIONS

- Visually inspect mixer before each load and check to see that no obstructions are present in the mixer feeder prior to start up.
- Before loading, run the mixer empty and check all operations.
- Do not overload the mixer, as the mixing efficiency maybe reduced and unit damage may occur.
- Run tractor at 3/4 of rated tractor RPM (no more) while processing to help reduce HP and/or spillage of hay.
- Do not overload the mixer. Mixer capacity can be reached by weight, but is usually reached by volume. An overloaded mixer will not mix correctly, and will pull harder, which could damage your tractor.
- Load hay first with machine running in:

1. Low gear with very rough, course hay that needs to be cut shorter to increase palatability.
2. High gear with normal to very tender hay.

NOTE: Gear selection can be determined by varying tractor throttle. Adjust restrictor plates (counter knives) to fine tune length of cut. Always start with one knife, preferably the left hand rear, engaged one hole and increase until length if cut is correct.

NOTE: Engaging knives an excessive amount will cause mix quality to deteriorate.

Add balance of grain and/or commodities, keeping more fragile ingredients towards the end of the loading sequence. For best results, add concentrates or other dry ingredients of small quantity as close to the middle of the loading sequence as possible.

- Load silage, green chop and/or other high moisture products.
- Load molasses, animal fat, and/or other liquid supplements last.
- Allow mixer three to four minutes to complete mixing after last ingredient is added.

NOTE: This time will vary, and could be longer depending on size of machine and under certain conditions.

- View mixing operation only from observation platform of mixer. Never allow more than two (2) people on platform at one time.
- For best results, off load mixed feed at as high RPM as possible, and with the door as open as possible. The load must be fed off in high gear at high RPM, to ensure even feed flow & clean out.
- Be sure all shields are in place before operation.
- Use common sense when operating.

5.4. KNIFE ADJUSTMENT

The Alpler Horizontal Mixer-Feeder is designed and intended for processing and mixing rations that include long stem forages. In most cases, the knives that come standard on the mixer are placed to work well in most rations. However, some rations may require adding or removing knives to obtain the desired result.

Removing Knives

Individual knives may be removed from the auger if the ration does not include hay, or includes very small amounts of small square bale hay or tub ground hay.

Removing knives will decrease the aggressive cutting action on the stem length of the ration and may also reduce horse power requirements.

Rotating Knives

When knives become worn and rounded on the leading edge, their efficiency is greatly reduced, resulting in longer processing times and increased HP requirements. In this case, firstly the notched and coulter knives must be inverted. When one half cutting edge is worn out rotate the blade and use the other half cutting edge. (Figure 20)

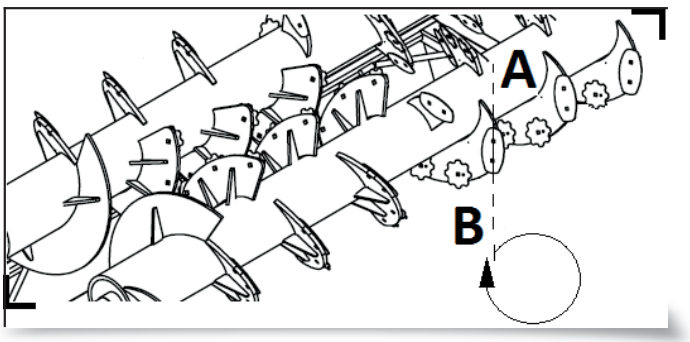


Figure 20- The inversion of the knife.

5. PREPARING FOR OPERATION

Replacement of Knives

Auger knives should be replaced if the both semicircle of knives become worn and rounded on the leading edge, the long stem material is no longer sufficiently broke up, and there is a noticeable increase in processing time and HP requirement.

Refer to your spare parts manual and contact your Alpler Horizontal Mixer-Feeder authorised sales representative for replacement part ordering.

- Only manufacturer's knives suit the quality requirements and safety of the kneading machine functioning!
- Use adequate tools and protective gloves during removing or replacing knives.

6. PERIODIC MAINTENANCE AND REPAIR

- DO NOT maintain or repair machine until you have read and fully understood all instructions for safe work.

The Alpler Horizontal Mixer-Feeder has been designed to require minimum maintenance. However, in order to periodic maintain its optimum performance, protect its warranty, increase its lifetime and enhance its resale value, it is important for the vehicle to be maintained in line with the manufacturer's recommendations.

The machine may only be maintained and repaired by persons who are appointed to do this and who are familiar with the instructions for safe work, with settings and with maintenance of the machine.

All conditions for maintenance and repair, prescribed by the manufacturer, should strictly be considered. The following recommendations should be helpful:

- Maintenance and repairs may only be executed when the drive and the engine are switched off and the ignition key is pulled out.
- When repairing the mixer feeder use adequate tools and original Alpler spare parts only. The precision and high-quality construction of each original Alpler spare part guarantees that all components in your mixer feeder work together perfectly for optimum performance and maximum safety and longevity.
- If you perform any maintenance on the lifted implement, always secure the implement by a suitable holder.
- When welding on the tractor or on machine which is mounted on the tractor, disconnect the cable from battery and from generator!
- Use adequate tools and protective gloves during maintenance and repairs.
- Store properly oils and greases.

6. PERIODIC MAINTENANCE AND REPAIR

6.1. CHECKING THE TIGHTNESS OF BOLTS AND NUTS

Being sure bolts and nuts on mixer feeder are tight and properly torqued is an important responsibility that machine owners and users need to be familiar with and practise.

The first few hours after the first run in check the tightness of bolts and nuts, tighten them if needed.

Control the bolts and nuts regularly to see if they are tightened enough. (Check up approx. every 50 hours.)

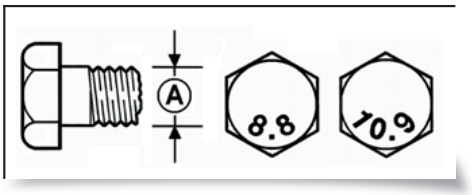


Figure 21- Size of coil (A)

A Ø	8.8	10.9	12.9
	M_A (N_m)		
M 4	3,0	4,4	5,1
M 5	5,9	8,7	10
M 6	10	15	18
M 8	25	36	43
M 10	49	72	84
M 12	85	125	145
M 14	135	200	235
M14x1,5	145	215	255
M 16	210	310	365
M 16x1,5	225	330	390
M 20	425	610	710
M 24	730	1050	1220
M 24x2	800	1150	1350
M 27	1100	1550	1800
M 27x2	1150	1650	1950
M 30	1450	2100	2450

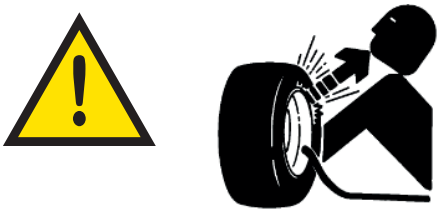
Table 8- Bolts and nuts tightening moment M_A
A= size of coil

6.2. CHECKING TIRE PRESSURE

After the first operating and then after every 10 operating hours, tighten the wheel nuts and check the tire pressure.
Tires must be inflated to proper pressure as indicated below.

MODEL	TIRE DIMENSIONS	Pressure (bar/PSI)
A-HFM6	10/75-15,3	2 / 29
A-HFM8	12,5/80-15,3	3,6 / 52
A-HFM10	400/60-15,5	4.7 / 70
A-HFM12	400/60-15,5	4.7 / 70

Table 9- Tyre Pressure Inflation Chart



- Explosive separation of a tire and rim parts can cause serious injury or death.
- Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.
- Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.
- When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

6.3. LUBRICATION

One of the most important things an operator can do for mixer feeder is to make sure it is properly lubricated.
So a lubricant is a substance that reduces friction, heat, and wear when introduced as a film between solid surfaces. Using the correct lubricant helps maximize the life of your bearings and machinery, therefore saving money, time, and manpower, thus making operations more efficient and more reliable.
When lubricating, follow the instructions from the lubrication scheme. Marked lubricating points should be lubricated with organic based grease.

6. PERIODIC MAINTENANCE AND REPAIR

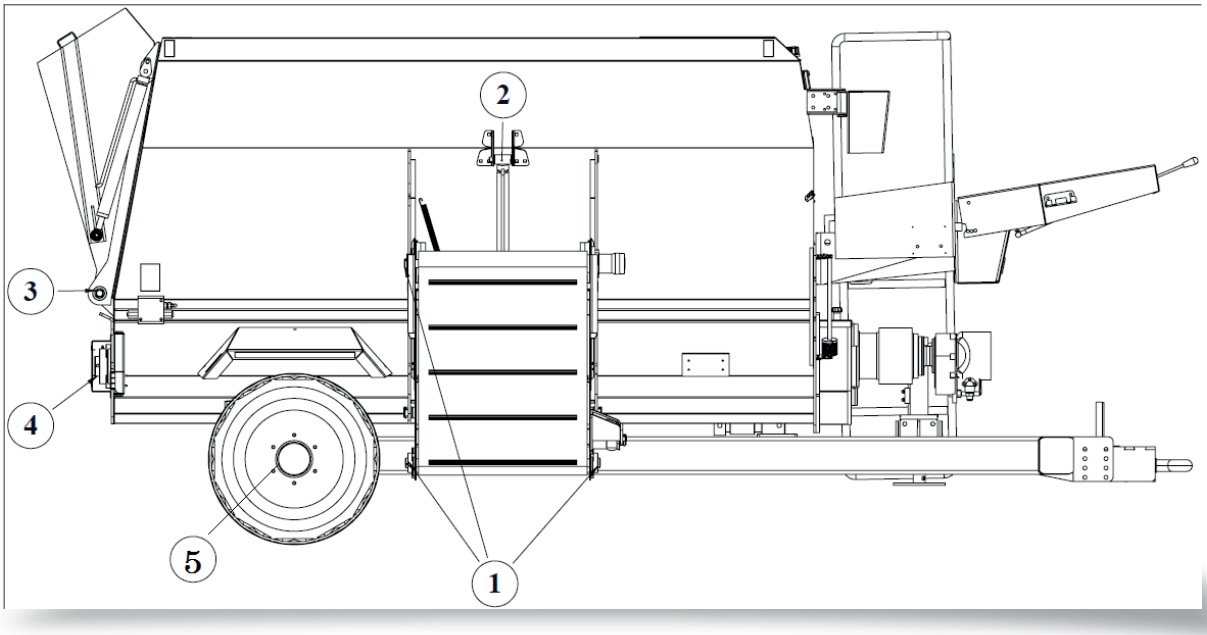


Figure 22- The Lubrication Points

- Always disengage the P.T.O. Shaft before lubricating the machine.
- Take care to use organic based grease.

The Lubrication Points		Greasing Interval
No	Description	
1	Discharge conveyor bearings	Grese evrery 20 hours.
2	Discharge cover piston bushing	Grese evrery 20 hours.
3	Loader dipper central bushing	Grese evrery 20 hours.
4	Left/Right Auger bearings	Grease every 8 hours.
5	Wheel bearings	Grease every 80 hours.

Table 10- The lubrication scheme/ The lubrication points and greasing interval on the machine.

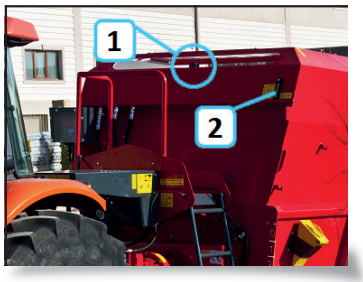


Figure 23- The Oil bath

Oil bath: Daily check oil level in oil bath. The oil level must always be visible in sight gauge. If needed, fill the oil bath with HYDRAULIC OIL ISO 32-46 from the place which is shown in figure 23 with number one (1) to centre of sight gauge, number two (2).

6. PERIODIC MAINTENANCE AND REPAIR

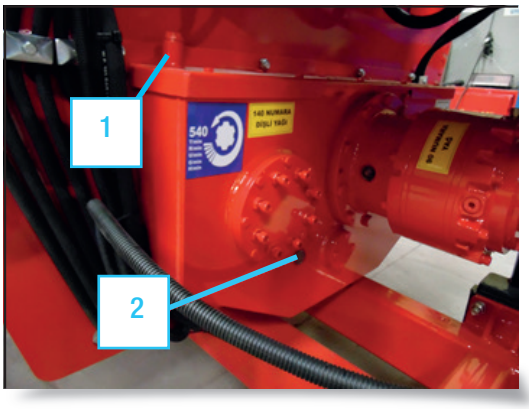


Figure 24- The Gear case

Gear case: After the first 50 hours of operation, drain initial oil, preferably warm. To drain the oil remove the drain plug located on the bottom of the gear case. Flush out the gear case with an approved non-flammable, non toxic solvent and refill with GEAR OIL SAE140EP/3.5 from the place which is shown in figure 24 with number one (1) to level of the sight plug, number two (2).

Planetary Gearbox: As for the gear case, after the first 50 hours of operation, drain initial oil, preferably warm. To drain the oil remove the drain plug located on the bottom of the gearbox. Flush out the gearbox with an approved non-flammable, non toxic solvent and refill with GEAR OIL SAE90EP/5.8 from the place which is shown in figure 25 with number one (1) to level of the sight plug, number two(2).

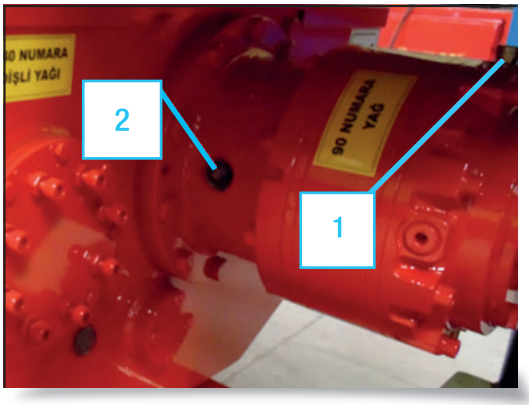


Figure 25- The Planetary gearbox

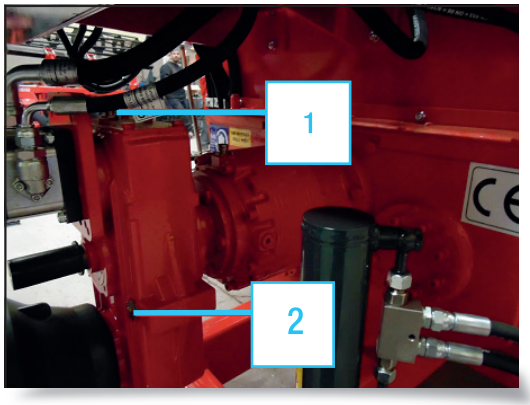


Figure 26- The PTO reduction gearbox

PTO Reduction Gearbox: After the first 50 hours of operation, drain initial oil, preferably warm. To drain the oil remove the drain plug located on the bottom of the gearbox. Flush out the gearbox with an approved non-flammable, non toxic solvent and refill with GEAR OIL SAE90EP/5.8 from the place which is shown in figure 26 with number one (1) to level of the sight plug, number two (2).

6. PERIODIC MAINTENANCE AND REPAIR

Daily check oil levels in gear case and planetary gearbox and PTO gearbox. If needed, add appropriate oil until it reaches the level of the sight plug. Thereafter oil should be changed every 2000 hours or 12 months, whichever comes first. If machine usage is severe or more than 10 loads per day it is advisable to change the oil every 1000 hours or 6 months. Inspect and wash oil reservoir breather cap as needed. Air dry before reinstalling.

THE LUBRICANT OIL MUST ALWAYS BE OF THE SAME QUALITY AND THE SAME BRAND.

6.4. THE PERIODIC MAINTENANCE OF THE P.T.O. SHAFT

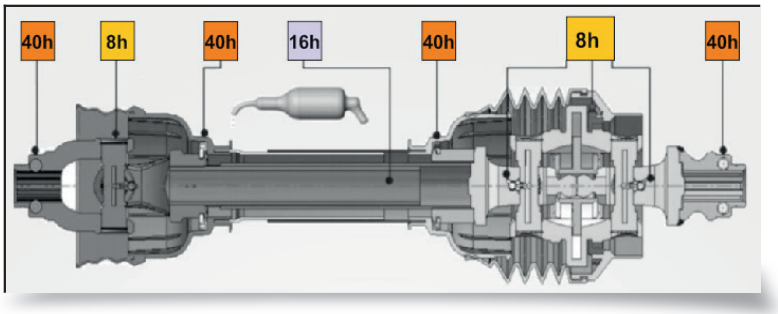


Figure 27- The lubrication points

The PTO Shaft is to be maintained according to the manufacturer's instructions.

- Clean the inner and outer sliding surfaces of the telescopic section of the guard daily or more frequently if the manufacturer recommends it. Do not lubricate the sliding section of the guard with grease unless the manufacturer recommends it.
- Regularly remove the guard and clean the shaft with penetrating oil
- Lubricate the sliding metal PTO drive shafts as recommended by the manufacturer (usually before starting work and after every eight hours of use).

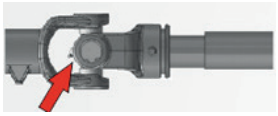
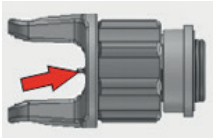
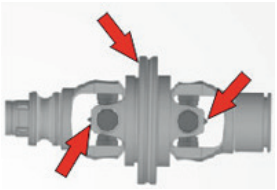
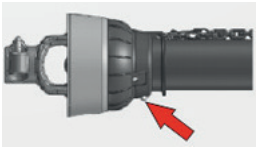
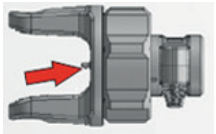
8h	40h	16h
 Cross kit	 Push pin	 Ratchet torque limiter
 Wide angle CV joint 80°		 Shield cones
 Overruning clutch		

Table 11- The lubrication points and greasing interval

6. PERIODIC MAINTENANCE AND REPAIR

6.5. CLEANING & WASHING

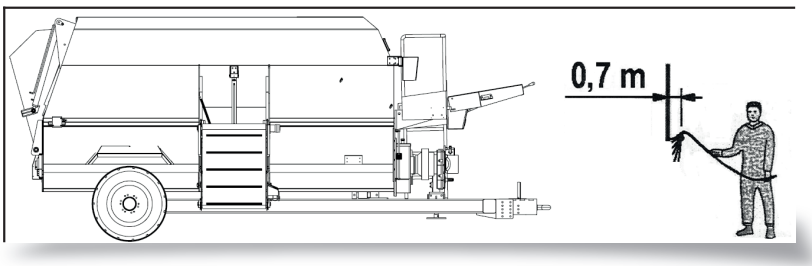


Figure 28- A Safety distance between jet of water and mixer feeder.

Regular cleaning of the mixer feeder is also very important for the life time of the machine. Components of forage cause rusting of metal parts and other mechanical damages. Therefore clean and wash the mixer feeder after every use and lubricate it carefully.

If you wash mixer feeder with high pressure of water, distance between jet of water and mixer feeder must be min. 0,7 m. (See figure 28)

The machine should be washed, immediately after each use!

7. STORAGE

Should the machine be stored for a period of time, the machine should be thoroughly inspected and prepared for storage. Repair or replace any worn or damaged components to prevent any unnecessary down time the next time the machine is to be used.

Recommended procedure:

1. Wash the entire machine thoroughly using a water hose or pressure washer to remove all dirt, mud, debris, or residue.
2. Inspect all drives and moving parts. Remove any string, twine, or other material that has become entangled in the auger knives, axles, or shafts. Be sure the components are clean and move freely.

• Always place controls in neutral, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before removing material. Failure to follow these safety precautions can result in serious injury or death.

3. Inspect all hydraulic hoses, fittings, lines, couplers, and valves. Tighten any loose fittings. Replace any hose that is cut, nicked, or abraded, separating from the crimped fitting.
4. Inspect auger and knives for damaged or broken components. Repair or replace components as required.
5. Lubricate all grease points. Make sure all grease cavities have been filled with grease to remove any water residue from washing.
6. Raise the conveyor to its maximum height and install the lock channel.
7. Apply grease to the exposed cylinder rams. This includes the discharge door cylinder and the conveyor lift cylinder, if equipped.
8. Touch up all paint nicks and scratches to prevent rusting.
9. Move the machine to its storage position.
10. Select an area that is dry, level, and free of debris.
11. Place planks under the jack for added support if required.
12. Unhook the machine from the tractor.
13. Block the wheels on the machine.
14. If the machine is not to be used for an extended period, consider removing the scale indicator from the machine and place in a clean and dry environment. Use the original packaging if available. Place all weigh bars and power cords so that they will not be exposed to weathering and/or damage.

8. TROUBLESHOOTING

General Troubleshooting

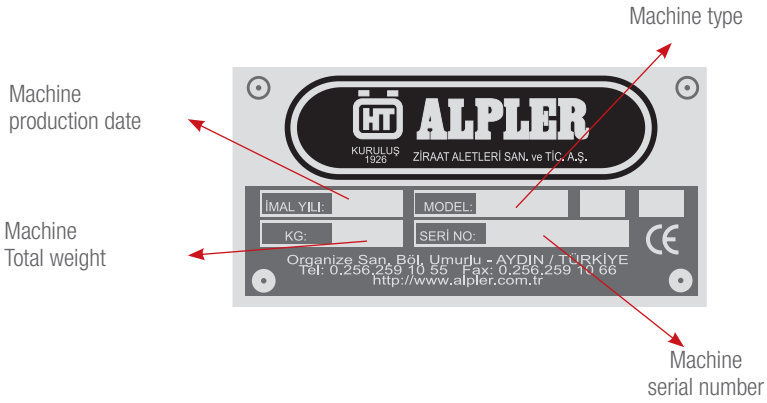
Your Alpler Horizontal Mixer-Feeder is designed to receive a variety of feed material in its mixing chamber to cut and mix prior to unloading. It is a simple and reliable system that requires minimal maintenance.

The following section lists common problems, causes, and solutions to the problems you may encounter with your mixer feeder. Should any maintenance and service be required as a result of troubleshooting, refer to the “Periodic Maintenance and Repair” section for assistance.

If you encounter a problem that is difficult to solve, even after having read through this troubleshooting section, please call your dealer or distributor. Before you call, please have this introducing & operating manuel and the serial number of your machine.

PROBLEM	CAUSE	SOLUTION
Material wraps around knives.	- Knives dull or worn out.	- Check auger, remove entangled material. - Check knife condition. Replace any worn, bent, and/or damaged knives.
Conveyor doesn’t move.	- Insufficient oil flow. - Cold temperatures - Conveyor unit frozen. - Conveyor jammed.	- Increase oil flow at tractor or flow divider. - Warm machine before operating. - Check oil level in tractor reservoir. Add as required. - Clear material out of slat pathway underneath the conveyor assembly.
Shear bolt failure.	- Auger doesn’t turn freely. - PTO engaged too quickly.	- Determine the cause of hard turning. Auger must turn freely. - Remove entangled material from auger and knives. - Replace shear bolt. - Engage PTO slowly. See tractor Operator’s Manual.
“Dead Spot” during mixing	- Material will not mix in certain locations inside the mixing chamber, commonly the front and back areas of the mixing chamber.	- Make sure the machine is level when mixing. - Check knife condition. Replace accordingly. - Check angling blade condition. Replace accordingly

9. WARRANTY



Use original spare parts in ALPLER branded products. The customer will be responsible for the problems that occur due to not using original spare parts. The Horizontal Mixer-Feeder will not covered by the warranty when non-original parts are installed on the machine, additional equipment is attached on the machine or it is used after removing standard parts.

While ordering spare parts, for the codes beginning with '0', machine serial number together with the part code should be provided. For other codes, it is not necessary to provide the Horizontal Mixer-Feeder serial number.

Label information are important for identifying the machine and for spare part orders. As a measure against the illegibility of the label due to deformation or its loss, label information on the machine should be written literally in the corresponding fields of the following label picture, and it should be retained.

Our Horizontal Mixer-Feeders are **warranted for 2 years** for faults that may occur due to material, workmanship and mounting errors.

Faults resulting from improper use are not covered by the warranty. The average lifetime is 10 years.

9. WARRANTY

WARRANTY CERTIFICATE

Warranted by ALPLER for a period of two years

BRAND: ALPLER
PRODUCT TYPE:
MODEL:
SERIAL NUMBER:
DATE OF PRODUCTION:

Seller's

Title:.....
Address:.....
Phone:.....
Fax:.....
Invoice Date:.....

Signature & Seal

NOTES

Exports to 75 countries on 5 continents.

ALPLER

Manufacturer: Alpler Agricultural Machinery Organize Sanayi Bölgesi, Umurlu - AYDIN / TURKEY
UK Quarter: Units 2, Poplars Farm Forshaw Heath Road, Earlswood Solihull, B94 5JX / UNITED KINGDOM

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