

**JAY•LOR**<sup>®</sup> *BECAUSE  
SIMPLICITY  
MATTERS.*<sup>®</sup>

# OWNER MANUAL



H1650  
H1850  
H1950

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## 1. INTRODUCTION

Congratulations on your choice of a Jaylor mixer to complement your operation. At Jaylor we want our customers to have access to leading nutritionists and information. You can visit the Nutrition Section of our website for articles, advice and upcoming events, or just browse our Social Media sites to see what other farmers are saying.

[www.facebook.com/jaylor](http://www.facebook.com/jaylor) **OR** [www.twitter.com/myjaylor](http://www.twitter.com/myjaylor)

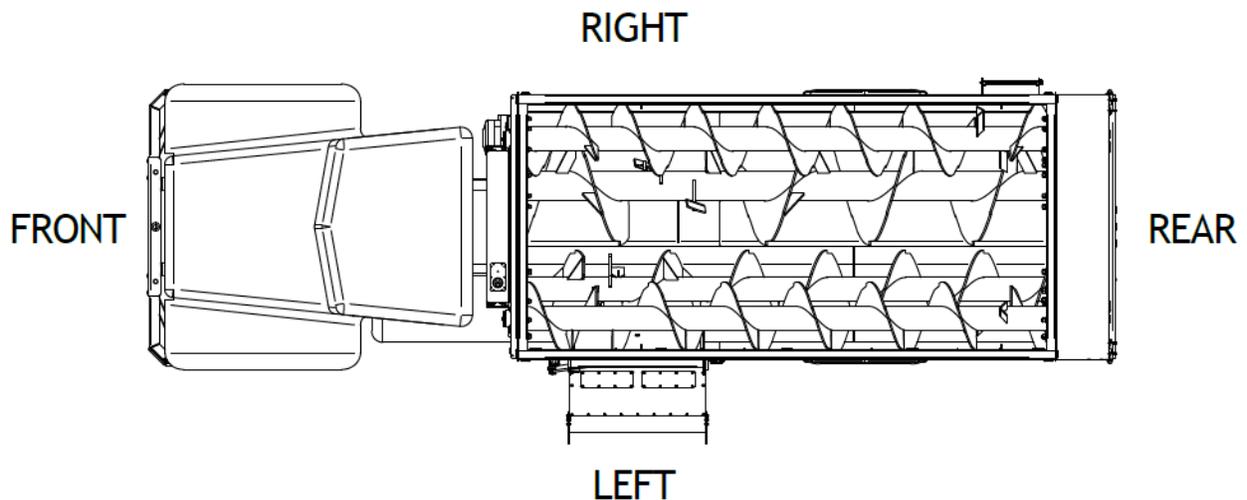
Our team of nutritionists are also available by phone to answer any questions or concerns you might have.

Safe, efficient and trouble-free operation of your mixer requires that you and anyone else who will be operating or maintaining the machine, reads and understands the safety, operating, maintenance and troubleshooting information contained within this manual.

This manual covers the Horizontal Truck Mount models manufactured by Jaylor. Keep this manual readily available for reference and be sure to pass it on to new operators or owners. Contact your nearest Jaylor dealer or distributor if you need assistance or information.

This equipment has been designed and manufactured for efficient mixing and feeding of ingredients destined exclusively for animal consumption.

**OPERATOR ORIENTATION** - The directions left, right, front, and rear, as mentioned throughout the manual, are as seen from the driver's seat and facing forward.



**Figure 1 - Operator Orientation**

## 2. POLICY STATEMENT

It is the policy of Jaylor to improve its products where it is possible and practical to do so. Jaylor reserves the right to make changes or improvements in design and construction at any time, without incurring the obligation to make these changes on previously manufactured units.

## 3. OWNER/OPERATOR'S RESPONSIBILITY

It is the Owner/Operator's responsibility to read the **Owner Manual**, to operate, lubricate, maintain, and store the product in accordance with all instructions and safety procedures. Failure of the Owner/Operator to read the **Owner Manual** is a misuse of this equipment.

Like all mechanical products, Jaylor products will require cleaning and upkeep. It is the Owner/Operator's responsibility to inspect the product and to have any part(s) and/or assemblies repaired or replaced when continued operation would cause damage or excessive wear to other components or cause a safety hazard.

It is the Owner/Operator's responsibility to deliver the product to the authorized Jaylor Dealer or Distributor, from whom it was purchased, for service or replacement of defective parts which are covered by warranty (**see Section 4 for full warranty information**). Repairs to be submitted for warranty consideration must be made within **thirty (30) days** of the failure. It is the Owner/Operator's responsibility to cover any cost incurred by the Dealer for traveling to the site or transporting the product for the purpose of performing a warranty obligation or inspection.

#### 4. LIMITED WARRANTY

JAYLOR (the Seller) warrants the articles and units sold to be free from defects in material and workmanship and to conform to applicable specifications. These express warranties are the sole warranties of the Seller, and any other warranties, express, implied in law or implied in fact, are hereby specifically excluded. Refer to the **Owner Manual** content for any applicable warranties expressed otherwise.

The Seller's sole obligation under its warranties will be, at its option, to repair or replace any article or part thereof which is proved to be other than warranted. Obligation under this warranty will be limited to replacement or repair of parts found, upon Seller's inspection, to be defective. All warranties shall expire **12 (twelve) months** from the date the unit or article is placed in service, or **12 (twelve) months** from the date the article or unit is delivered by the Seller, whichever expires first.

**NO ALLOWANCES WILL BE MADE TO THE BUYER FOR ANY TRANSPORTATION, LABOUR CHARGES, PARTS ADJUSTMENTS OR REPAIRS, OR ANY OTHER WORK, UNLESS THESE CHARGES ARE AUTHORIZED IN ADVANCE BY THE SELLER.**

The Seller shall in no event be liable for special or consequential damages. If an article is claimed to be defective in material or workmanship, or does not conform to specifications, the Seller, upon notice promptly given, will either examine the article or unit at its site, or issue shipping instructions to return to the Seller. The warranties shall not extend to any articles, units, or parts thereof which have been installed, used, or serviced, otherwise than in conformance with the Seller's applicable instructions, manuals, service bulletins, or, if none, which shall have been articles, units, parts thereof furnished by the Buyer or acquired from others at the Buyer's request and/or Buyer's specifications.

The warranties are not applicable for expenses, either direct or consequential, that may arise from the use or inability to use the articles and units sold by the Seller. The Seller shall in no event be responsible for and will not be held liable for losses, injury, or damage caused to persons or property by reason of operation of Seller's products or their failure.

**No warranty is extended to regular wear items such as fluid, paint, tires, knives, PTOs, crosses and the like.**

The engine and scale system are covered by separate warranties by their respective manufacturers.

This warranty pertains to components manufactured or installed by Jaylor only. This hereby excludes any warranties offered separately such as those offered by the truck manufacturer. In this event, please refer to the appropriate Warranty Statements offered by the separate manufacturer.

All claims for warranty must be directed to your dealer or distributor.

**WARRANTY VOID IF NOT REGISTERED**

## 5. CONTACT INFORMATION

Contact Jaylor at:



071213 10<sup>th</sup> Line

East Garafraxa, ON

Canada

L9W 6Z9

**Phone:** (519) 787-9353

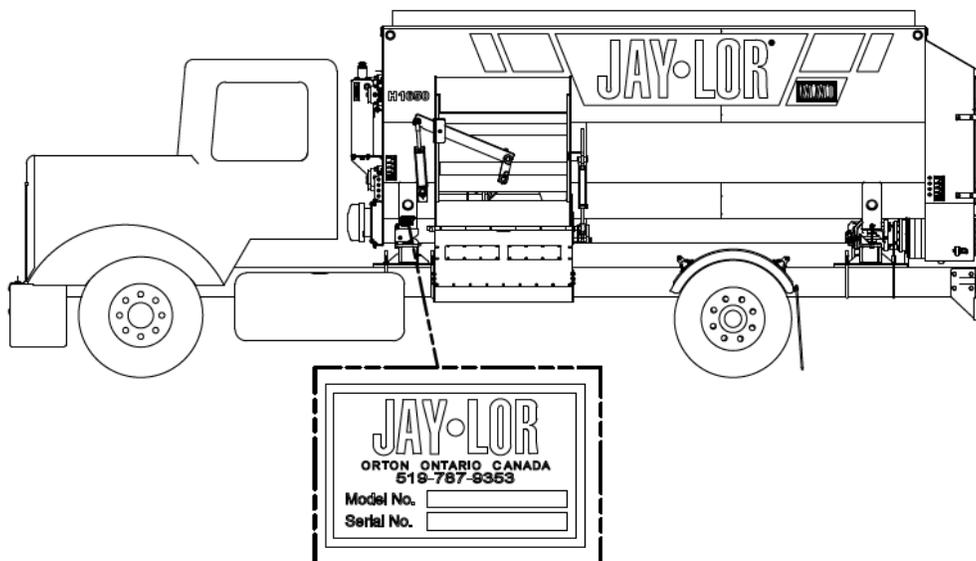
**Fax:** (519) 787-7053

**E-mail:** [jaylor@jaylor.com](mailto:jaylor@jaylor.com)

**On the web:** [www.jaylor.com](http://www.jaylor.com)

## 6. SERIAL NUMBER LOCATION

Always give your dealer the Model Number and Serial Number of your Jaylor when ordering parts or requesting service or other information. Depending on the type of service, the Serial Numbers of individual components and/or assemblies will be required. The Serial Number location for your Jaylor Product is shown in **Figure 2**. For easy reference, please write this information in **Section 7**.



**Figure 2 - Serial Number Location**

7. CUSTOMER REFERENCE INFORMATION

Jaylor Model Number: \_\_\_\_\_

Jaylor Serial Number: \_\_\_\_\_

Date Purchased: \_\_\_\_\_

Dealer Name: \_\_\_\_\_

Dealer Phone: \_\_\_\_\_

Scale Indicator Model Number: \_\_\_\_\_

Scale Indicator Serial Number: \_\_\_\_\_

Other Main Components: \_\_\_\_\_  
(e.g. Gearboxes, Hydraulic Motors, etc.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 8. SAFETY

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed the implement to be used with all its safety equipment properly attached to minimize the chance of accidents.

BEFORE YOU START!

**Read the safety messages on the implement and shown in your manual.  
Observe the rules of safety and common sense!**

### 8.1 Safety Alert Symbol

This Safety Alert Symbol means:

- **ATTENTION!**
- **BECOME ALERT!**
- **YOUR SAFETY IS INVOLVED!**



The Safety Alert Symbol identifies important safety messages on your Jaylor mixer and in this manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

### 8.2 Understand Signal Words

Note the use of the signal words **DANGER**, **WARNING**, and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guidelines:

- **DANGER** – Indicates an imminently hazardous situation that, if not avoided, will result in death or severe injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.
- **WARNING** – Indicates a potentially hazardous situation that, if not avoided, could result in death or severe injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.
- **CAUTION** – Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have any questions not answered in this manual, require additional copies or the manual is damaged, please contact your dealer or manufacturer directly.

### 8.3 Safety Guidelines

**YOU** are responsible for the **SAFE** operation and maintenance of your Jaylor mixer. **YOU** must ensure that **YOU** and **ANYONE** else who is going to operate, maintain, or work around the Jaylor mixer be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alert you to safety practices that should be adhered to while operating the machine.

Remember, **YOU** are the key to **SAFETY**. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. All accidents can be avoided. Do not risk injury or death by ignoring good safety practices.

- Horizontal mixer owners **MUST** give operating instructions to operators or employees before allowing them to operate the machine, and at least annually thereafter.

- The most important safety device on this equipment is a **SAFE OPERATOR**. It is the operator's responsibility to read and understand **ALL** safety and operating instructions in this manual and to **FOLLOW THEM**.
- Jaylor feels that a person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible severe injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function, safety, and life of the equipment as well as possibly voiding the warranty.

**Think SAFETY! Work SAFELY!**

#### **8.4 General Safety**

-  Read and understand this manual and all safety signs before operating, servicing, maintaining or adjusting the horizontal mixer.
-  Only trained competent persons shall operate the horizontal mixer. An untrained operator is not qualified to operate the machine.
-  Have a first-aid kit available for use should the need arise and know how to use it.
-  Provide a fire extinguisher for use in case of fire. Store in a highly visible place.
-  Do not allow riders on the horizontal mixer.
-  Wear protective gear such as hearing protection, footwear with slip resistant soles, and the like.
-  Place controls in neutral, stop engine, disengage power source, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
-  Do not operate this machinery under the influence of any alcohol, drugs or medication.
-  Review safety related items annually with all personnel who will be operating or maintaining the horizontal mixer.

#### **8.5 Operating Safety**

-  Read and understand this manual and all safety signs before using the horizontal mixer.
-  Place controls in neutral, stop engine, disengage power source, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
-  Stay away from discharge door when unloading or moving.
-  Do not operate when guards are damaged or removed. Install and secure guards before starting.
-  Keep hands, feet, clothing and hair away from moving and/or rotating parts.
-  Do not allow riders on the machine during operation or transporting.

-  Clear the area of bystanders, especially small children, before starting.
-  Stay out of the mixing chamber and away from the auger when engine is running. Keep others away.
-  Stay away from overhead power lines when loading. Electrocutation can occur without contact.
-  Clean reflectors, lights and SMV signs, before transporting.
-  Follow all local laws and regulations when transporting the machine on public roads and highways.
-  Before applying pressure to the hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.
-  Review safety instructions with all personnel annually.

## 8.6 Maintenance and Repair Safety

-  Follow ALL operating, maintenance, and safety information in the manual.
-  Only properly trained personnel should maintain and repair this equipment.
-  Support the machine with blocks or safety stands when changing tires or working beneath.
-  Follow good shop practices:
  -  Keep service areas clean and dry.
  -  Be sure electrical outlets and tools are properly grounded.
  -  Use adequate lighting for the job at hand.
-  Use only tools, lifting equipment, and safety stands of sufficient capacity for the job.
-  Place controls in neutral, stop engine, set park brake, remove ignition key, and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
-  Relieve pressure from the hydraulic circuit before servicing.
-  Make sure all guards are in place and properly secured when maintenance work is completed.
-  Before applying pressure to a hydraulic system, make sure all lines, fittings, and couplers are tight and in good condition.
-  Keep hands, feet, hair, and clothing away from moving and/or rotating parts.
-  Maintain fasteners in running gear systems at their specified torque.
-  Clear the area of bystanders, especially children, when carrying out maintenance, repairs or adjustments.
-  Do not allow grease or oil to build up on the machine.

## 8.7 Hydraulic Safety

-  Make sure all components in the hydraulic system are kept in good condition and are clean.
-  Replace worn, cut, abraded or flattened hoses or metal lines immediately.
-  Relieve pressure before working on hydraulic systems.
-  Do not attempt any makeshift repairs to hydraulic fittings or hoses. The hydraulic system operates under extremely high pressure. Such repairs will fail suddenly and create a hazardous and unsafe condition.
-  Wear proper hand and eye protection when searching for a high-pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.
-  If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid piercing the skin.
-  Before applying pressure to the system, make sure all components are tight and that lines, hoses, and couplings are not damaged.

## 8.8 Tire Safety

-  Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion, which may result in severe injury or death.
-  Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
-  Have a qualified tire dealer or repair service perform required tire maintenance.

## 8.9 Transport Safety

-  Follow all local regulations regarding transporting equipment on public roads and highways.
-  Make sure all the lights and reflectors required by local highway and transport authorities are in place, are clean and can be seen clearly by overtaking and oncoming traffic.
-  Do not allow anyone to ride on the machine. Any passenger must be safely secured with a working seat belt inside the cab.
-  Drive carefully and defensively, especially when negotiating uneven or hilly terrain.
-  Watch for overhead obstructions. Stay away from power lines and low tree branches.

### 8.10 Storage Safety

-  Store unit in an area away from human activity.
-  Do not permit children to play on or around the stored machine.
-  Store the unit in a dry, level area. Support the machine with planks if required.

### 8.11 Safety Signs

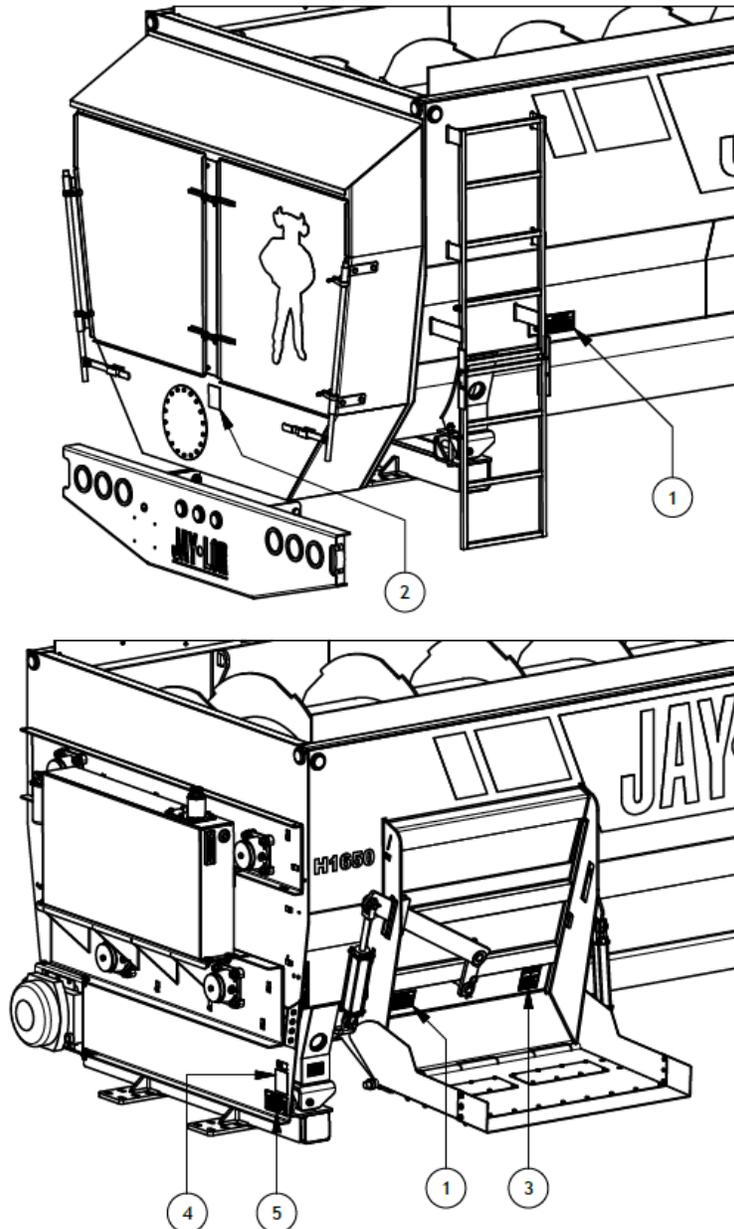
-  Keep safety signs clean and legible.
-  Replace safety signs that are missing or have become illegible.
-  Safety signs are available from your dealer, distributor, or the factory.



## 10. SAFETY SIGN LOCATIONS

The types of safety signs and typical locations on the equipment are illustrated in the figures that follow. Good safety requires that you familiarize yourself with the various safety signs, the type of warning and the area of function related to that warning which requires your **SAFETY AWARENESS**.

**Think SAFETY! Work SAFELY!**



**Figure 3 - Standard Safety Sign Locations**

1. 'Danger' Rotating Auger Hazard (Figure 4)
2. 'Warning' Rotating Part Hazard (Figure 5)
3. 'Warning' Pinch Point Hazard (Figure 6)
4. 'Warning' High Pressure Fluid Hazard (Figure 7)
5. 'Warning' Decal (Figure 8)

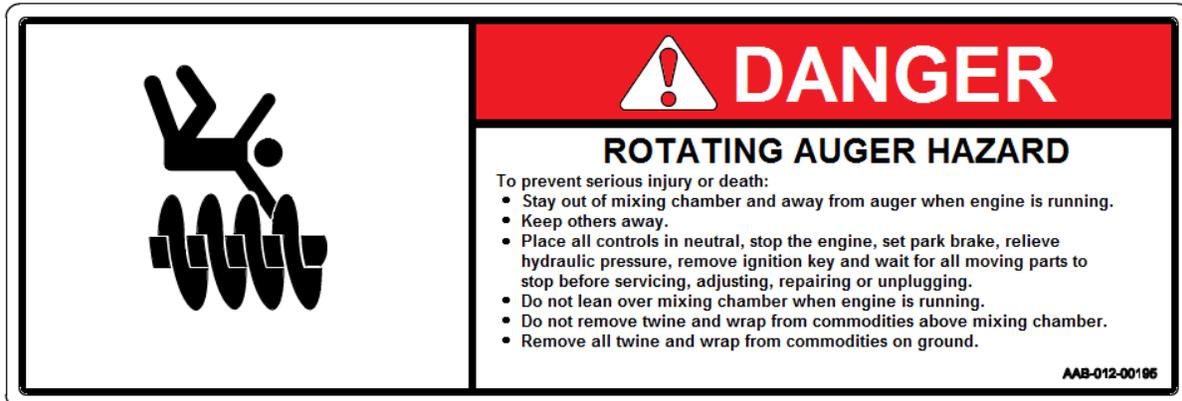


Figure 4 - 'Danger' Rotating Auger Hazard



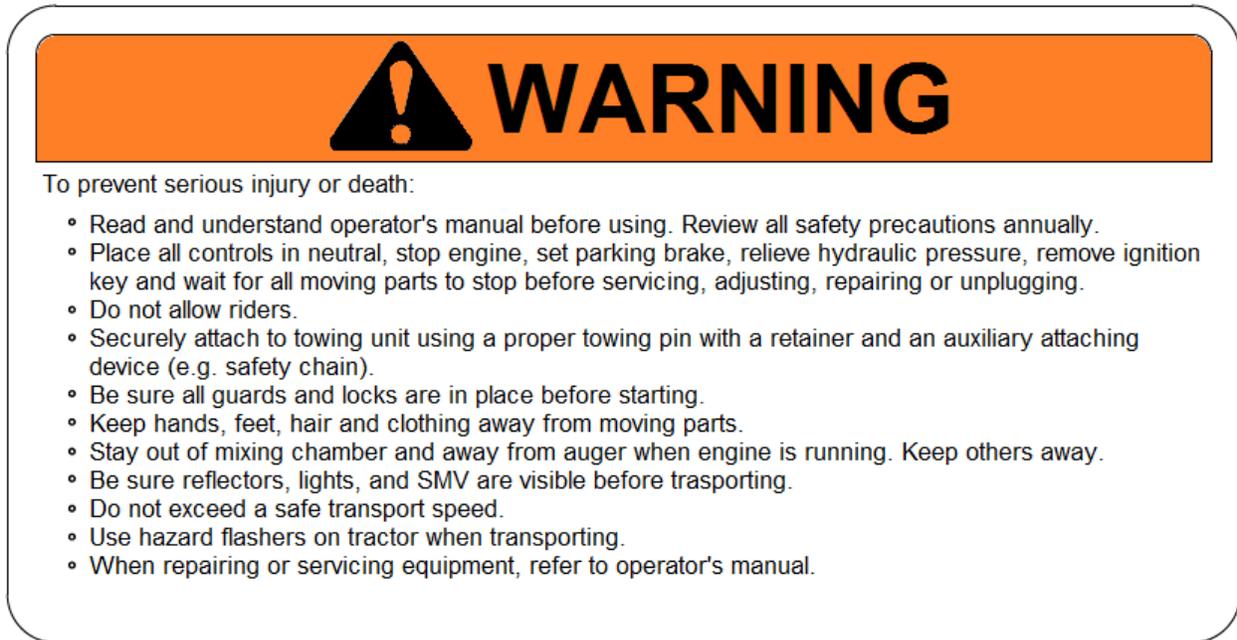
Figure 5 - 'Warning' Rotating Part Hazard



Figure 6 - 'Warning' Pinch Point Hazard



Figure 7 - 'Warning' High Pressure Fluid Hazard



**Figure 8 - 'Warning' Decal**

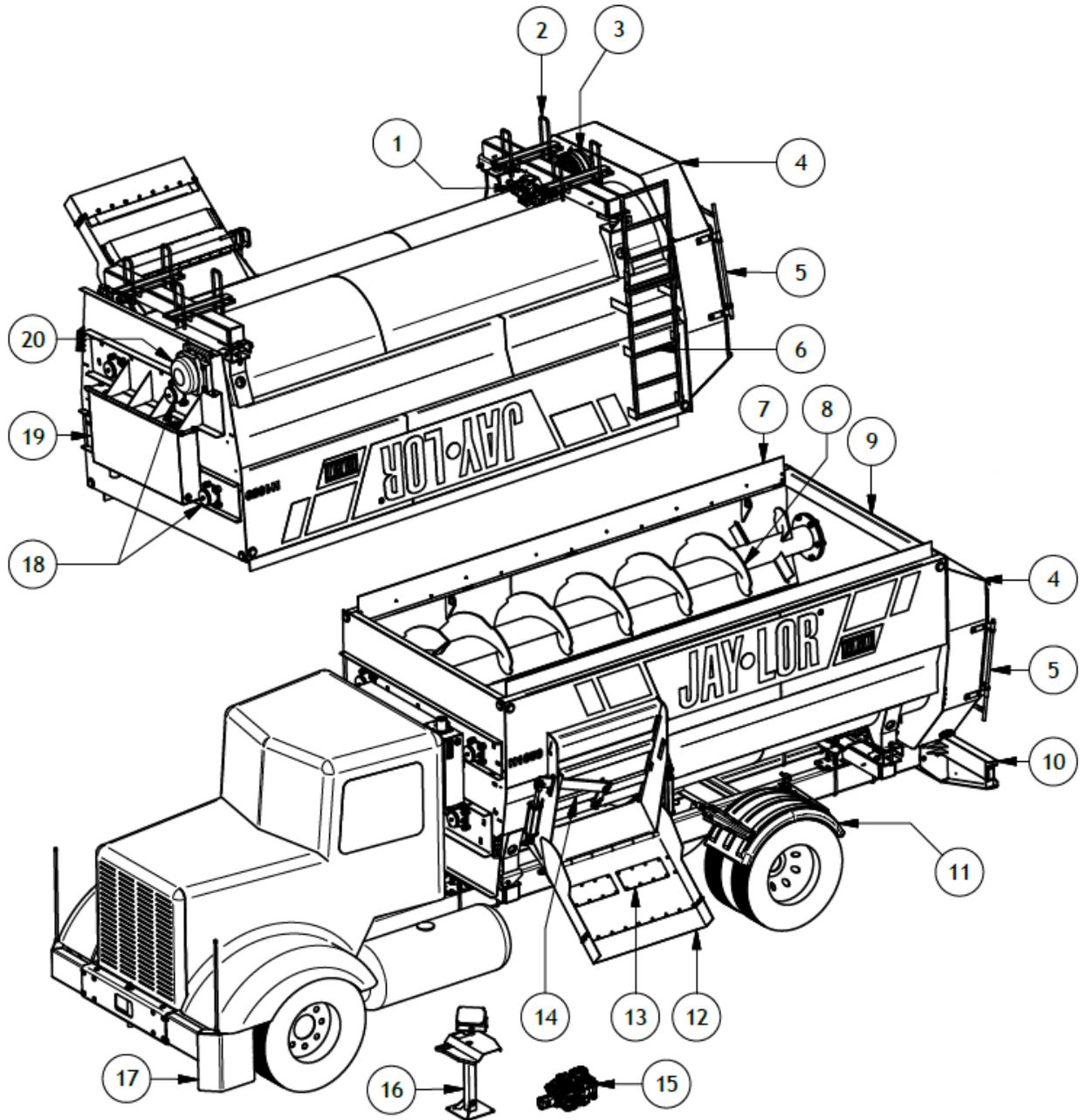
**REMEMBER** – If Safety Signs have been damaged, removed, become illegible, or parts were replaced without signs, new signs must be applied. New signs are available from your authorized dealer or distributor.

#### **How to Install Safety Signs**

- Be sure that the installation area is clean, dry and is above 10°C (50°F).
- Remove the smallest portion of the split backing paper.
- Align the sign over the specified area and press the small sticky portion in place.
- Peel back the remaining paper and smooth the remaining portion of the sign in place.

## 11. MACHINE COMPONENTS

The main machine components horizontal truck mounted mixers are illustrated below:



**Figure 9 - Main Machine Components**

\*NOTE – hydraulic hoses are not illustrated

1. **Hydraulic Motor** – Converts hydraulic pressure to turn augers at an optimal speed for mixing
2. **Truck Frame Mounting Brackets** – Secure the mixer drum to the truck
3. **Auger Gearbox** – Converts hydraulic pressure to turn augers at an optimal speed for mixing
4. **Oil Bath Housing** – Contains oil which lubricates the sprockets and chains
5. **Oil Bath Access Door** – Allow access to sprockets and chains for maintenance and adjustment
6. **Ladder** – Safe viewing platform to see into the mixer drum
7. **Rubber Drum Extension** – Prevents feed spillage
8. **Horizontal Auger** – Mixes the feed within the mixer drum and discharges the feed through the unloading door
9. **Mixer Drum** – Contains the feed while it is mixed by the horizontal augers
10. **Galvanized Bumper** – Heavy duty design houses lights to keep truck compliant with local traffic laws
11. **Galvanized Fender** – Keeps mixer clean and helps to protect internal components from debris
12. **Retractable Discharge Chute** – Guides feed away from the truck as it discharges from the mixer drum. Can be retracted hydraulically
13. **Chute Magnet (optional)** – Traps metallic particles as feed passes over the discharge chute
14. **Unloading Door** – Opens hydraulically to allow feed to be discharged
15. **Proportional Hydraulic Pump** – Mounted on the truck frame. Pressurizes hydraulic oil to power mixer components at a user controlled speed
16. **In-Cab Console** – Installed in the truck cab, this console allows the operator full control of the mixer
17. **Front Bumper (optional)** – Skid plate prevents damage from accidental contact with feed bunks
18. **Auger Shafts** – Rotating part; keep away when mixer is operating
19. **Hydraulic Oil Reservoir** – Holds excess hydraulic oil used to run pumps and auxiliary components
20. **Hydraulic Oil Cooler** – Keeps hydraulic oil at a suitable temperature for operation

## 12. OPERATION

The Jaylor mixer is specifically designed to mix feed ingredients into a total mixed ration (TMR). Read this manual carefully to learn how to operate the machine safely and how to adjust it to provide maximum efficiency. Following the operating instructions with a proper maintenance program will extend the life of your machinery.

### 12.1 General

The operation of your Jaylor mixer will differ greatly with the various feeds and climatic conditions. Loading sequence and mixing speed are dependent on the types of commodities which make up the feed mix. In general, the heaviest commodities should be added first.

Follow these guidelines when selecting your feed commodities:

1. At least 75% of material is 1-1/2" or shorter in length.
2. Less than 20% of material is between 1-1/2" and 2-1/2" in length.
3. Maximum fiber length does not exceed 4".

### **ANY ATTEMPT TO MIX MATERIAL OUTSIDE OF THESE GUIDELINES WILL VOID ANY EXISTING WARRANTY**

It is recommended that commodities are added to the mixing chamber while the augers are running for maximum mix efficiency. When adding ingredients, watch the numbers on the scale indicator to monitor the weight of each ingredient as it is added. Normal mixing time will range from 1.5 to 5 minutes after the last ingredient has been added, depending on ration composition; overmixing reduces quality of the feed and shortens the life of the mixer. We highly recommend the use of a feed nutritionist when planning your ration composition.

 **DANGER:** *Never enter the mixing chamber unless the mixer is parked on a flat, level surface, all controls are in neutral, parking brake is applied, engine is stopped, ignition key is removed, and all moving parts have stopped. Failure to follow these safety precautions can result in severe injury or death.*

 **DANGER:** *Never stand on the mixer ladder while the drum is being loaded. Stay out of reach of the loading equipment.*

 **DANGER:** *Never park or load the mixer in a location where you or any person could fall into the mixing chamber as severe injury or death could result.*

 **WARNING:** *While loading the machine, be certain that no bucket or loading device contacts the rotating auger inside the mixing chamber. This may cause injury or death to the operator and severe damage to the mixer and/or loader.*

 **CAUTION:** *It is recommended that commodities are added to the mixing chamber while the auger is turning for maximum mix efficiency. Starting the augers from a standstill with a full load in the mixing chamber places additional stress on the machine and may decrease mix quality.*

 **CAUTION:** *Never load anything into the mixing chamber that could cause damage to the machine (i.e. lumber, branches, stones, tires, etc.). Before mixing any materials other than suitable animal feed stuffs, written permission must be obtained from the manufacturer!*

## 12.2 Pre-Operation Checklist

Efficient and safe operation of the Jaylor mixer requires that each operator reads and understands all the operating procedures and related safety precautions outlined in this section. A pre-operation checklist is provided for the operator. Photocopy and use this checklist before every use of your Jaylor mixer. It is important for both personal safety and maintaining the good mechanical condition of the machine that this checklist is followed.

### Before operating the machine:

- Lubricate the machine as outlined in **Section 21.2**.
- Check the oil level in the oil bath. Top up with oil if necessary.
- Check the hydraulic reservoir oil level. Top up with oil if necessary.
- Ensure the condition of the oil bath and hydraulic oil is within normal operation limits.
- Ensure the machine is securely attached to the truck chassis.
- Check that the valves at the oil reservoir outlets are fully open.
- Inspect all hydraulic lines, hoses, fittings, and couplers for tightness. Be sure there are no leaks in the system including the reservoir, fittings, couplers, valves and lines. Correct all leaks before continuing.
- Check that no hoses are pinched, rubbing, or crimped. Re-align as required.
- Cycle the discharge door several times to fully charge the hydraulic system with oil.
- Check that augers and sprockets rotate freely. Remove all entangled material or obstructions.
- Close and secure all guards and safety devices (oil bath doors, PTO covers, discharge door, etc.).
- Check that the machine is clean and free of debris.

### 12.3 Breaking-In

Although there are no operational restrictions for the machine when used for the first time, it is recommended that the following items be checked prior to first use:

#### Before Starting:

- Follow the pre-operation checklist (**Section 12**).
- Follow any break-in guidelines as recommended by the truck manufacturer.

#### After Operating for ½ hour:

- Park mixer\*
- Check that all bolts and fasteners are tightened properly as indicated in **Section 21.1**.
- Check that augers and sprockets rotate freely. Remove all entangled material or obstructions.
- Check that no hoses are pinched, rubbing, or crimped. Re-align as required.
- Check for oil leaks. Stop leaks before continuing.
- Lubricate all grease fittings.

#### After operating for 5 hours and 10 hours:

- Park mixer\*
- Re-torque all fasteners and hardware.
- Check that augers and sprockets rotate freely. Remove all entangled material or obstructions.
- Proceed with normal servicing and maintenance as described in **Section 21**.



**IMPORTANT:** Check the truck frame mounting bracket torque daily during the break-in period.



**\*IMPORTANT:** When parking the mixer, place on a flat, level surface, put controls in neutral, apply parking brake, stop engine, remove ignition key, and wait for all moving parts to stop. Be sure to let engine and hydraulic system cool to a safe temperature before servicing, adjusting or repairing any of these components.

## 12.4 Mixing Procedure

Follow this procedure when using the machine:

1. Follow the pre-operation checklist (**Section 12**).
2. Transport the machine to the feed storage area.
3. Starting the Mixer:
  - a. Start the engine and run at low speed.
  - b. Engage the hydraulic pumps to start the augers. To engage the pumps, use the PTO on/off switch on the in-cab console, hold the joystick trigger and slowly move the joystick forward.
  - c. Increase engine speed until the desired RPM is reached. A PTO speed of 1000-1500RPM is recommended for mixing.
  - d. Proceed with loading of the ration.
4. Loading Feed Rations:
  - a. Make sure the loading machine has clear and easy access to the mixer.
  - b. Begin adding ingredients to the mixing chamber. **Caution: Do not contact the augers with the loading machine.**
  - c. When adding ingredients, watch the numbers on the scale indicator to monitor the weight of each ingredient as they are added. In general, the heaviest commodities should be added first and water should be added last.
  - d. Mixing time may vary depending on the ingredients being mixed. Typically, a total mixed ration is achieved in 1.5 to 5 minutes beginning after the last ingredient is added.
5. Stopping the Mixer:
  - a. Slow engine to low idle.
  - b. Disengage hydraulic pumps. To disengage pumps, pull back on the joystick and release the joystick trigger, then use the PTO on/off switch on the in-cab console.
  - c. Stop engine if required.



**DANGER:** *Never enter the mixing chamber unless all controls are in neutral, engine stopped, park brake set, ignition key removed and all moving parts have stopped. Failure to follow these safety precautions can result in severe injury or death.*



**IMPORTANT:** *If an emergency should arise, turn hydraulics off, stop forward motion and stop engine immediately.*



**IMPORTANT:** *Rapid engagement under a heavy load can cause damage. Engage slowly for the best results.*



**IMPORTANT:** *Always remove twine, string, and wrapping material from commodities before loading into the mixer. Failure to follow these requirements can cause damage to the machine.*

## 12.5 Unloading Procedure

Follow these guidelines when unloading the machine:

1. Transport the machine to the feeding area.
2. Engage the hydraulic pumps to start auger rotation. To engage the pumps, use the PTO on/off switch on the in-cab console, hold the joystick trigger and slowly move the joystick forward.
3. Increase engine speed until the desired RPM is reached. A PTO speed of 1000-1500RPM is recommended for discharging.
4. Lower the retractable discharge chute/conveyor using the joystick buttons.
5. Use a combination of opening the unloading door and ground speed to distribute the feed mixture to the desired areas. Follow this order:
  - i. Raise the unloading door
  - ii. Start the auger (if not already moving)
  - iii. Begin driving along feeding area to unload the feed mixture
6. Monitor scale indicator readings to evaluate ration distribution to unloading areas.
7. Continue unloading until mixing chamber is empty or desired amount of mixed ration has been unloaded.
8. Close the discharge door and raise the retractable discharge chute/conveyor using the joystick buttons.
9. Stopping the Mixer:
  - a. Slow engine to low idle.
  - b. Disengage hydraulic pumps. To disengage pumps, pull back on the joystick and release the joystick trigger, then use the PTO on/off switch on the in-cab console.
  - c. Stop engine if required.

## 12.6 Mixing Tips

- Place smaller, denser ingredients into the machine first. Always place water into the machine last.
- Long, uncured grasses and hay bales require processing before use in the mixer. No fiber length can exceed 4".
- Shake the bucket on the loader to control the amount of material being added to the machine. Watch the weight indicator to know exactly how much of each ingredient you are adding.
- Operate the augers for 1.5 to 5 minutes after the last ingredient has been added and before unloading to ensure a uniform mixture. Mixing times will vary depending on the type of ingredients being mixed. Visually monitor the mixture to ensure that mixing is complete.
- Consult with a feed nutritionist to determine the best combination of ingredients for your requirements. Following their recommendations will ensure the best results with your total mixed ration (TMR). This translates into maximum efficiency of your Jaylor investment.

## 12.7 General Mixing Issues

The following are some problems which the operator may be faced with at some point during mixing. Remember, when performing any work on the mixer always park it on a flat, level surface, put controls in neutral, apply the parking brake, stop the engine, remove the ignition key, and wait for all moving parts to stop. Once it has completely stopped follow the below recommendations to remedy the problem.

**Think SAFETY! Work SAFELY!**

### ***Feed Clogging***

The most common place for feed to clog is at the discharge door. If this should happen, open the door as wide as possible and proceed with manual clean out.

### ***Entangled Material***

Twine, string, and wrapping material that is not removed from commodities can get tangled on the augers. If this material is not removed from the augers, it can cause damage to mixer components as well as decreased mixing ability. Action to remedy this should be taken as soon as it is noticed. To remove the material the door must be secured in an open position with a pair of locking pliers locked just below the door on the drum wall. Once the mixer door is secured in the open position and the auger is fully stopped with the truck off and parked the mixer can be entered to remove the material.



**DANGER:** *Never enter the mixing chamber unless all controls are in neutral, engine stopped, park brake set, ignition key removed and all moving parts have stopped. Failure to follow these safety precautions can result in severe injury or death.*

## 13. TRANSPORTING

The machine is designed to be easily and conveniently moved from one location to another. The following outlines the procedure for securing and transporting these models:

**Think SAFETY! Work SAFELY!**

1. Always comply with the rules and regulations governing the transporting of agricultural equipment on highways.
2. Make sure all bystanders are clear of the machine and that there are no riders on the machine.
3. Make sure all lights and reflectors required by the local highway and transport authorities are in place, clean, and visible by all overtaking and oncoming traffic.
4. Make sure the discharge chute is fully retracted before transporting.
5. Do not transport the machine for long distances when the mixing chamber is fully loaded. Transporting will compact the mixture, making startup difficult.
6. Never transport faster than the road or terrain conditions will allow you to do safely.
7. **Do not allow riders on the machine.**

## 14. STORAGE

Should the machine be stored for an extended period, it 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:

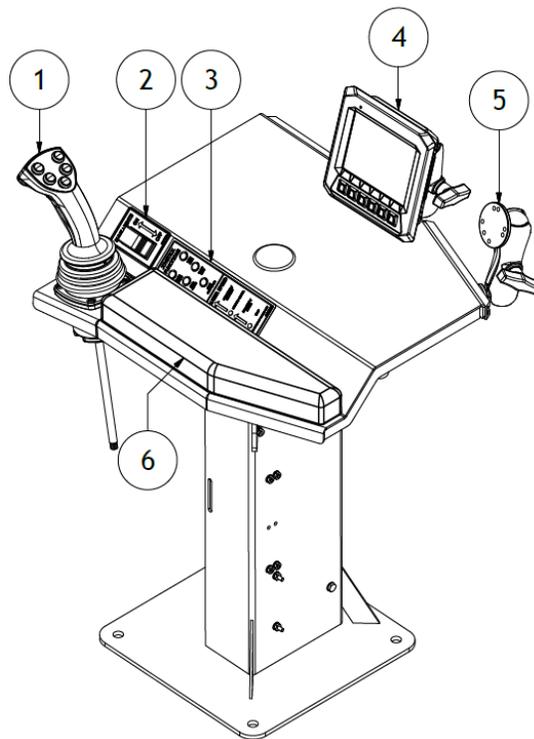
1. Wash the entire machine thoroughly using a water hose or pressure washer to remove all dirt, mud, debris, or residue.
2. Inspect all drives and moving parts. Remove any string, twine, or other material that has become entangled in the augers, axles, hubs, or shafts. Be sure the components are clean and move freely.
3. Inspect all hydraulic hoses, fittings, lines, and valves. Tighten any loose fittings. Replace any hose that is cut, nicked, abraded, or separating from the crimped fitting.
4. Inspect auger and bearings 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 left from washing.
6. Apply grease to the discharge door and discharge chute cylinder rams.
7. Touch up all paint nicks and scratches to prevent rusting.
8. Move the machine to its storage position. Select an area that is dry, level, and free of debris.
9. Block the wheels on the machine.
10. If the machine is not to be used for an extended period, consider removing the scale indicator from the machine and place it 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.



**DANGER:** Before removing material, 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 severe injury or death.

## 15. CONTROL CONSOLE

- The scale system on all models includes 4 weigh-bars; one on each ‘foot’ of the mixer. The weigh-bars electronically measure the amount of ration inside the mixing chamber.
- There are various scale indicators available for use on your Jaylor however the mounting assembly for most scale indicators is the same. When attaching the indicator to the in-cab console, be sure that it is securely fastened.
- On the bottom of the indicator are outlets for attaching the weigh-bar cables. These should not be confused with the power supply, which will not attach in the same outlet. The weigh-bar cables are pushed in and then the tightening ring is threaded into place. Make sure the plugs are free of moisture or other contaminants as this will affect the performance of the weighing system.
- The power cord is run to a power connection in the cab from the vehicle’s electrical system. This should be a 12-Volt negative grounded power supply.
- The hydraulic functions of the machine (auger, door and conveyor operation) are controlled via the console joystick. Button functions are indicated on the console decals as illustrated in **Figure 11**.

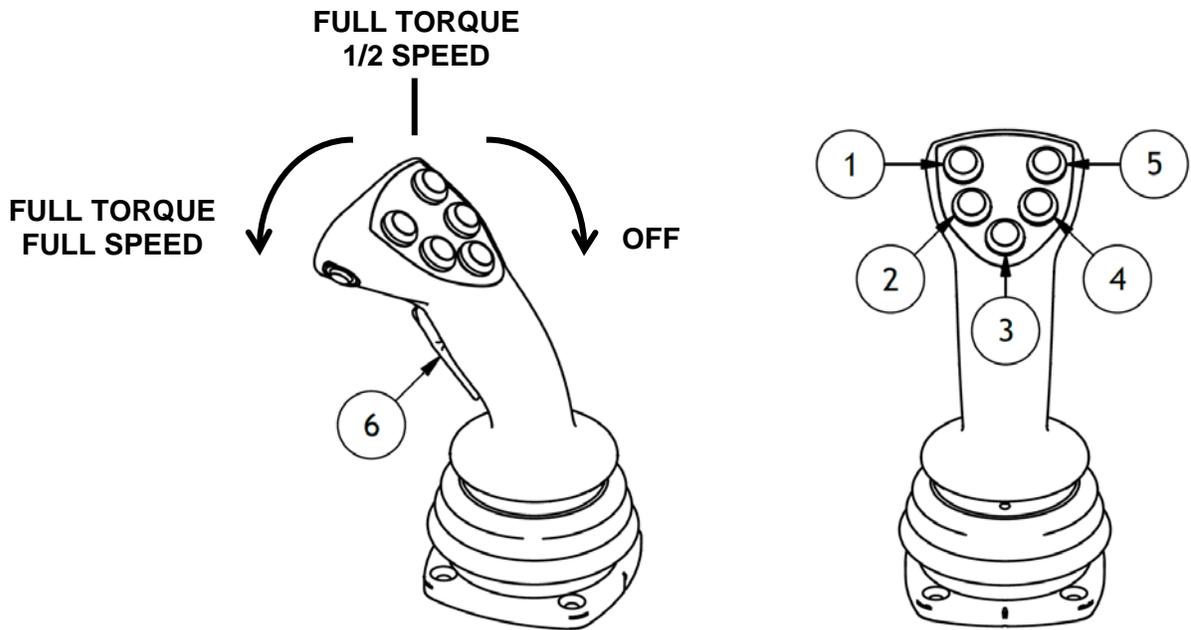


**Figure 10 - Control Console Components**

1. Joystick – see **Figure 11**
2. Rocker Switch – Bunk Lights On/Off
3. Joystick Operation Decal
4. System Monitor
5. Scale Indicator Mount
6. Arm Rest

**Note:**

- *The scale will be programmed to display weight in either kilograms (kg) or pounds (lbs). If your scale is not programmed to your preferred units of measurement, or for any other settings, please see the scale system manual which has been provided by the scale system manufacturer.*



**Figure 11 - Joystick Controls\***

1. Chute Up (closed)
2. Chute Down (open)
3. Gate Auto-Close
4. Gate Down (closed)
5. Gate Up (open)
6. Joystick Trigger – must be activated for joystick to function

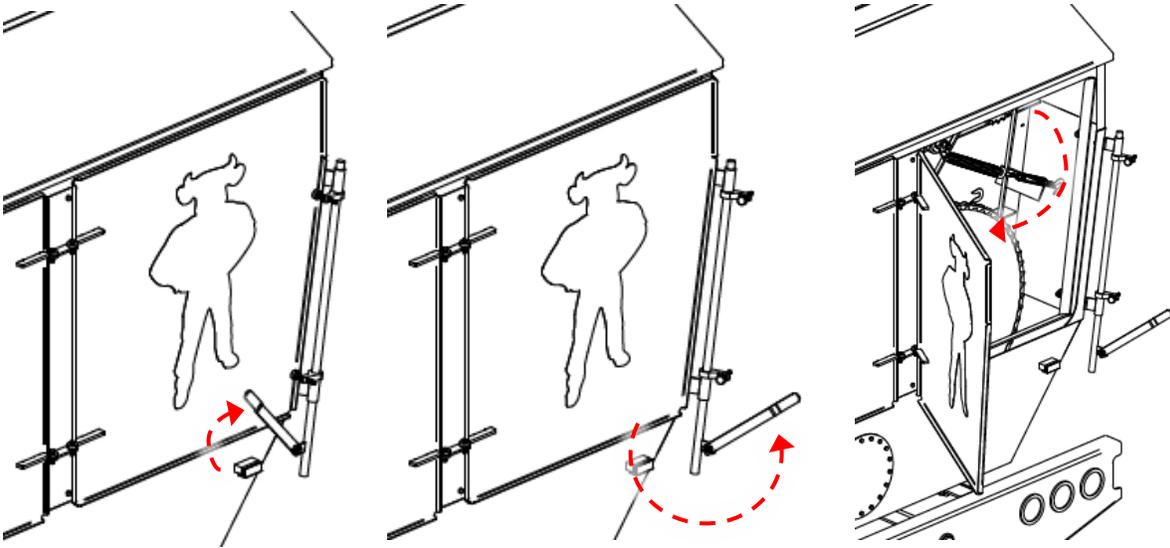
\*Typical button functions; individual models may differ

## 16. OIL BATH ACCESS

Follow these steps to operate the oil bath access doors:

1. Pull up on the door handle
2. Use the door handle to rotate the hinge rod which holds the rubber feet
3. Open the access door

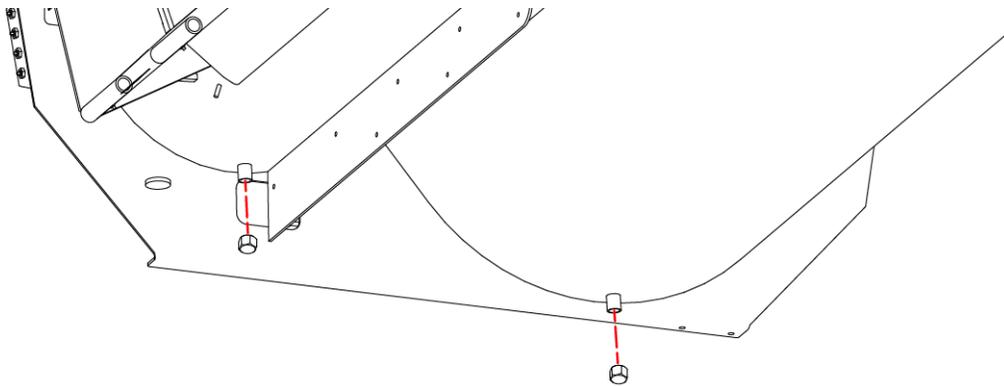
To secure the oil bath access doors, follow the same steps in reverse.



**Figure 12 - Oil Bath Door Operation**

## 17. TROUGH DRAINS

Never allow water or liquids to remain in the mixer after use. Prolonged contact with liquids will damage the mixer walls. To clear water or liquids from inside the mixer remove trough drain plugs and allow the mixer to drain. Make sure plugs are in place before operating the mixer.



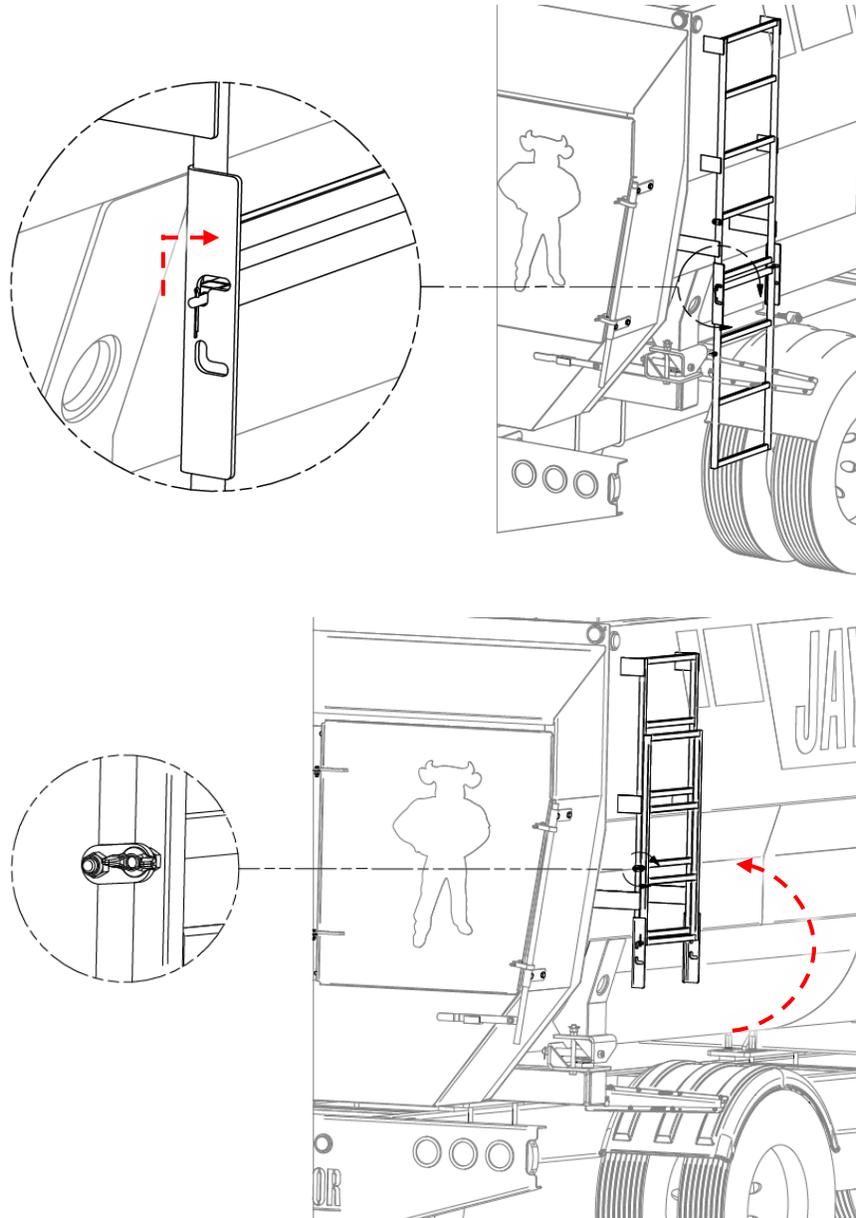
**Figure 13 - Trough Drains**

## 18. LADDER OPERATION

Follow these steps to fold the ladder when not in use:

1. Pull the lower portion of the ladder up and away from the mixer drum
2. Fold the lower portion of the ladder upwards
3. Place the latch piece over the studs of the upper and lower portions of the ladder
4. Secure latch piece with lock nuts or wing nuts

To un-fold ladder for use, follow the same steps in reverse.



**Figure 14 - Ladder Operation**

## 19. HYDRAULIC SYSTEM

### 19.1 Hydraulic Pump (Hydrostat)

The augers are powered by a hydraulic pump which is powered by a single driveshaft from the engine. The pump is usually mounted behind the truck engine. The pump is actuated by an electric solenoid which is switched from the in-cab console.

The pump is equipped with a spin-on filter. Refer to **Section 21** for filter replacement type and general maintenance schedule.

### 19.2 Auxiliary Pump

Located on the end of the hydraulic pump is an auxiliary hydraulic gear pump. This pump is powered by the main driveline for the machine which ensures hydraulic power is always available, provided the truck engine is running.

The pump provides hydraulic fluid power to components such as the unloading door and discharge chute.

The auxiliary pump is designed for minimal maintenance and service. Refer to **Section 21.5.1** for instructions on servicing the auxiliary pump system.

### 19.3 Hydraulic Reservoir

The hydraulic pump system on your Jaylor uses hydraulic oil for operation. A hydraulic oil reservoir is located at the front of the machine behind the truck cab. Always keep the reservoir at least  $\frac{3}{4}$  full. At no time is the fluid level to be lower than the minimum recommended level, as damage to the hydraulic system will occur. If the fluid level is higher than the maximum level, fluid may overflow the reservoir. Check the fluid level in the reservoir daily and replace with recommended oil as needed (see **Section 21.4**).

The reservoir has a breather cap assembly located on top of the unit. The breather must be installed in the reservoir at all times other than servicing. This breather is removable, to allow filling of the reservoir. Replace the breather **every 6 months** or earlier if the replacement indicator LED is blinking. See **Section 21.6** for replacement instructions.

The reservoir outlet lines are equipped with external shutoff valves. This is a service feature and can be closed or shut-off so that items such as filters can be serviced without draining all hydraulic system oil.

### 19.4 Electric Solenoid Hydraulic Valve Controls

Located underneath the front of the drum, usually on the driver's side, are the electric solenoid valve controls. Depending on options equipped with the machine, there may be 2 or 3 electric solenoid hydraulic valves banked onto an aluminum block manifold. Hydraulic fluid power supplied by the auxiliary pump enters the aluminum block manifold. The hydraulic flow is divided to the different circuits found on the machine. The valves are controlled electrically from the control console located in the truck cab.

## 20. STANDARD MODEL SPECIFICATIONS

## 20.1 H1650 Horizontal Truck Mount Mixer

<b>Main Component</b>	<b>Detail</b>	<b>Specification</b>
Mixing Chamber	Struck Capacity	650cu.ft. (18.4 m <sup>3</sup> )
	Ration Capacity	19500 lbs. (8850 kg)
	Box Weight	16000 lbs. (7250 kg)
	Box Height	76 in (193 cm)
	Box Length	209 in (531 cm)
	Box Width	94 in (239 cm)
	Discharge Height*	52 in (132 cm) *on typical truck
	Discharge Door Width	48 in (122 cm)
Augers	Features	4 horizontal augers
	Auger Speed	Variable, 4–26 RPM
Drivetrain	Horsepower Requirement	260 HP
	Driveshaft	PTO specific to truck model
	Rear Axle Requirement	32000 lbs. (14500 kg)
	Front Axle Requirement	11000 lbs. (5000 kg)

\* - Due to continual product development, specifications are subject to change without notice.

## 20.2 H1850 Horizontal Truck Mount Mixer

<b>Main Component</b>	<b>Detail</b>	<b>Specification</b>
Mixing Chamber	Struck Capacity	850cu.ft. (24.1 m <sup>3</sup> )
	Ration Capacity	24500 lbs. (11100 kg)
	Box Weight	19500 lbs. (8850 kg)
	Box Height	82 in (208 cm)
	Box Length	233 in (592 cm)
	Box Width	94 in (239 cm)
	Discharge Height	52 in (132 cm) *on typical truck
	Discharge Door Width	48 in (122 cm)
Augers	Features	4 horizontal augers
	Auger Speed	Variable, 4–26 RPM
Drivetrain	Horsepower Requirement	300 HP
	Driveshaft	PTO specific to truck model
	Rear Axle Requirement	40000 lbs. (18100 kg)
	Front Axle Requirement	12500 lbs. (5700 kg)

\* - Due to continual product development, specifications are subject to change without notice.

**20.3 H1950 Horizontal Truck Mount Mixer**

<b>Main Component</b>	<b>Detail</b>	<b>Specification</b>
Mixing Chamber	Struck Capacity	950cu.ft. (26.9 m <sup>3</sup> )
	Ration Capacity	28000 lbs. (12700 kg)
	Box Weight	22000 lbs. (10000 kg)
	Box Height	88 in (224 cm)
	Box Length	233 in (592 cm)
	Box Width	102 in (259 cm)
	Discharge Height	52 in (132 cm) *on typical truck
	Discharge Door Width	48 in (122 cm)
Augers	Features	4 horizontal augers
	Auger Speed	Variable, 4–26 RPM
Drivetrain	Horsepower Requirement	360 HP
	Driveshaft	PTO specific to truck model
	Rear Axle Requirement	44000 lbs. (20000 kg)
	Front Axle Requirement	14000 lbs. (6400 kg)

\* - Due to continual product development, specifications are subject to change without notice.

## 21. MAINTENANCE AND SERVICE INFORMATION

This section covers the maintenance required for your Jaylor mixer. It is essential that your Jaylor receives this maintenance to retain the safety, dependability, and performance originally built into the product. By following a careful service and maintenance program for your machine you should enjoy many years of trouble-free service. In some cases, the maintenance required may necessitate the assistance of qualified service personnel. Please consult with your dealer or distributor for assistance with such services.

Always keep this manual, and leave it with the machine when sold. The maintenance record, plus maintenance receipts, may be needed for warranty repairs. It is suggested that receipts be kept with this section. A convenient log for recording maintenance performed is provided in **Section 23**.

### Note:

- *All information provided in this section is for maintenance and service of your Jaylor mixer. Maintenance on the truck should be accounted for when creating your maintenance schedule. For truck maintenance guidelines consult the manual provided by your truck manufacturer.*

### Maintenance Safety



#### SAFETY FIRST:

1. Follow ALL the operating, maintenance and safety information in the manual.
2. Support the machine with blocks or safety stands when changing tires or working beneath.
3. Follow good shop practices.
4. Use only tools, jacks and hoists of sufficient capacity for the job.
5. When parking mixer, place on a flat, level surface, put controls in neutral, apply parking brake, stop engine, remove ignition key, and wait for all moving parts to stop. Be sure to let engine and hydraulic system cool to a safe temperature before servicing, adjusting or repairing any of these components.
6. Make sure all guards are in place and properly secured when maintenance work is completed.
7. Before applying pressure to a hydraulic system, make sure all lines, fittings, and couplers are tight and in good condition.
8. Keep hands, feet, hair, and clothing away from all moving and/or rotating parts.
9. Clear area of bystanders (especially small children), when carrying out any maintenance, repairs, adjustments or testing.

### Model and Serial Number

Always give your dealer/distributor the model number and serial number of your Jaylor mixer when ordering parts or requesting service or other information. See **Section 6** for where to find the serial number. Depending on the type of service, the serial numbers of individual components will be required.

### Following an Effective Maintenance Schedule

It is the owner/operator's responsibility to operate, lubricate, maintain, and store the machine in accordance with all instructions and safety procedures.

Remember to incorporate truck maintenance into the schedule. Please refer to the maintenance and service manual provided by the truck manufacturer for direction when creating the schedule.

Remember, the guidelines established in this manual are general. All maintenance and service work is **NOT** limited to these guidelines. If you have any questions or concerns, please contact your Jaylor Dealer or Distributor.

### 21.1 Bolt Torque

The tables shown below give correct torque values for various bolts and cap screws. Tighten all bolts to the torque specified in the chart unless otherwise noted. Check tightness of bolts periodically, using the bolt torque chart as a guide. Replace hardware with the same strength bolt.

Bolt Diameter "A"	Imperial Bolt Torque*					
	SAE 2		SAE 5		SAE 8	
	(N.m.)	(lb.-ft.)	(N.m.)	(lb.-ft.)	(N.m.)	(lb.-ft.)
1/4"	8	6	12	9	17	12
5/16"	13	10	25	19	36	27
3/8"	27	20	45	33	63	45
7/16"	41	30	72	53	100	75
1/2"	61	45	110	80	155	115
9/16"	95	60	155	115	220	165
5/8"	128	95	215	160	305	220
3/4"	225	165	390	290	540	400
7/8"	230	170	570	420	880	650
1"	345	225	850	630	1320	970

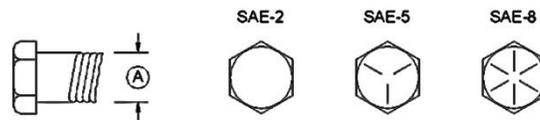


Figure 15 - Imperial Bolt Specifications

Bolt Diameter "A"	Metric Bolt Torque*			
	8.8		10.9	
	(N.m.)	(lb.-ft.)	(N.m.)	(lb.-ft.)
M3	0.5	0.4	1.8	1.3
M4	3	2.2	4.5	3.3
M5	6	4	9	7
M6	10	7	15	11
M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	225	166	310	229
M20	435	321	610	450
M24	750	553	1050	774
M30	1495	1103	2100	1550
M36	2600	1917	3675	2710



Figure 16 - Metric Bolt Specifications

The torque figures indicated above are valid for non-greased, non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or cap screws unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

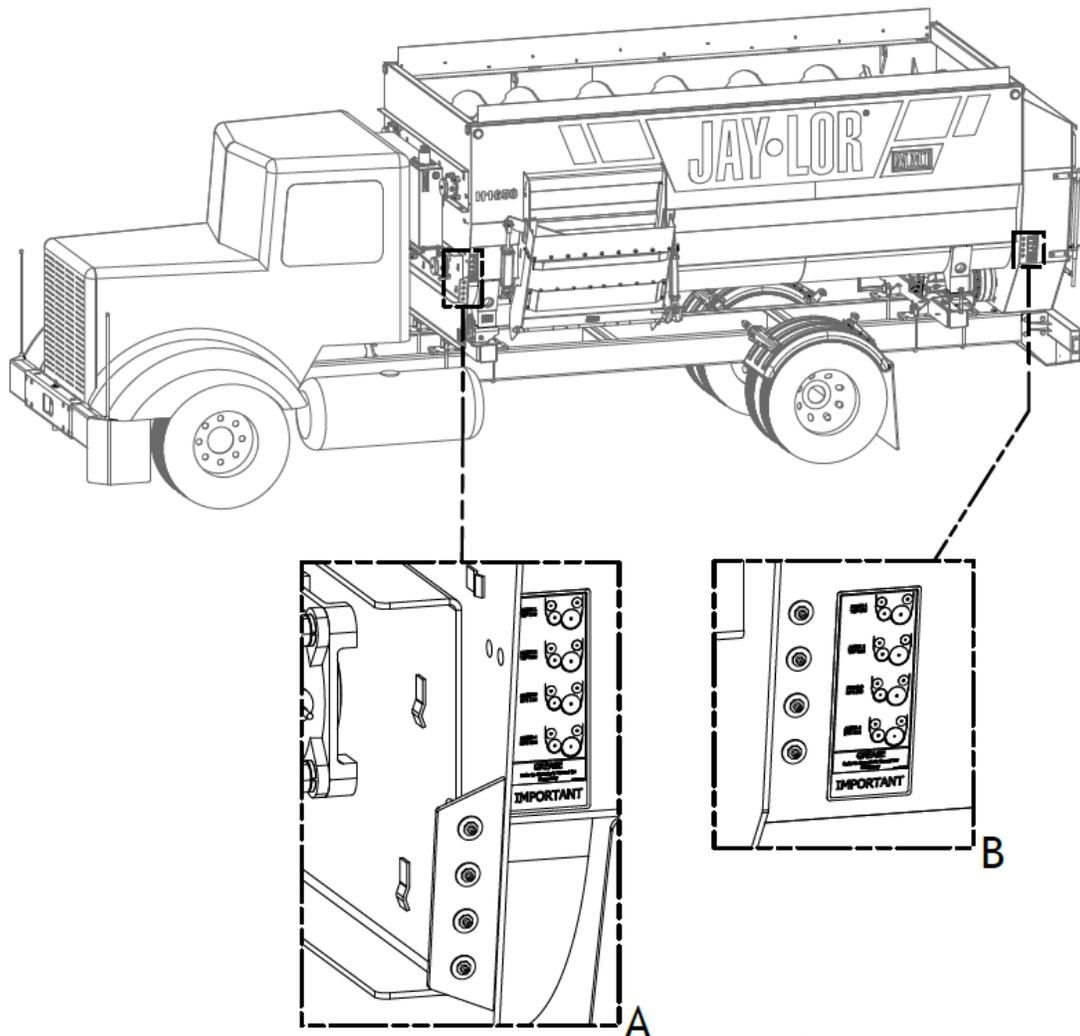
\* Torque value for bolts and cap screws are identified by their head markings.

## 21.2 Grease

Unless specified otherwise, components should have one pump of grease after every 16 loads or 50 hours. Use SAE multi-purpose high temperature grease with extreme pressure (EP) characteristics on all areas requiring grease lubrication.

Follow these steps when applying grease to the location indicated in **Figure 17**, **Figure 18** & **Figure 19**:

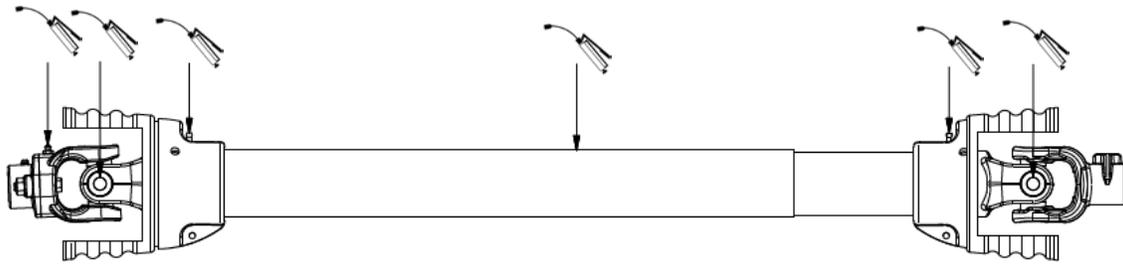
- Wipe grease fitting clean before greasing, to avoid injecting dirt and grit.
- Replace and repair broken fittings immediately.
- If fittings will not take grease, replace immediately.



**Figure 17 - Bearing Grease Locations**

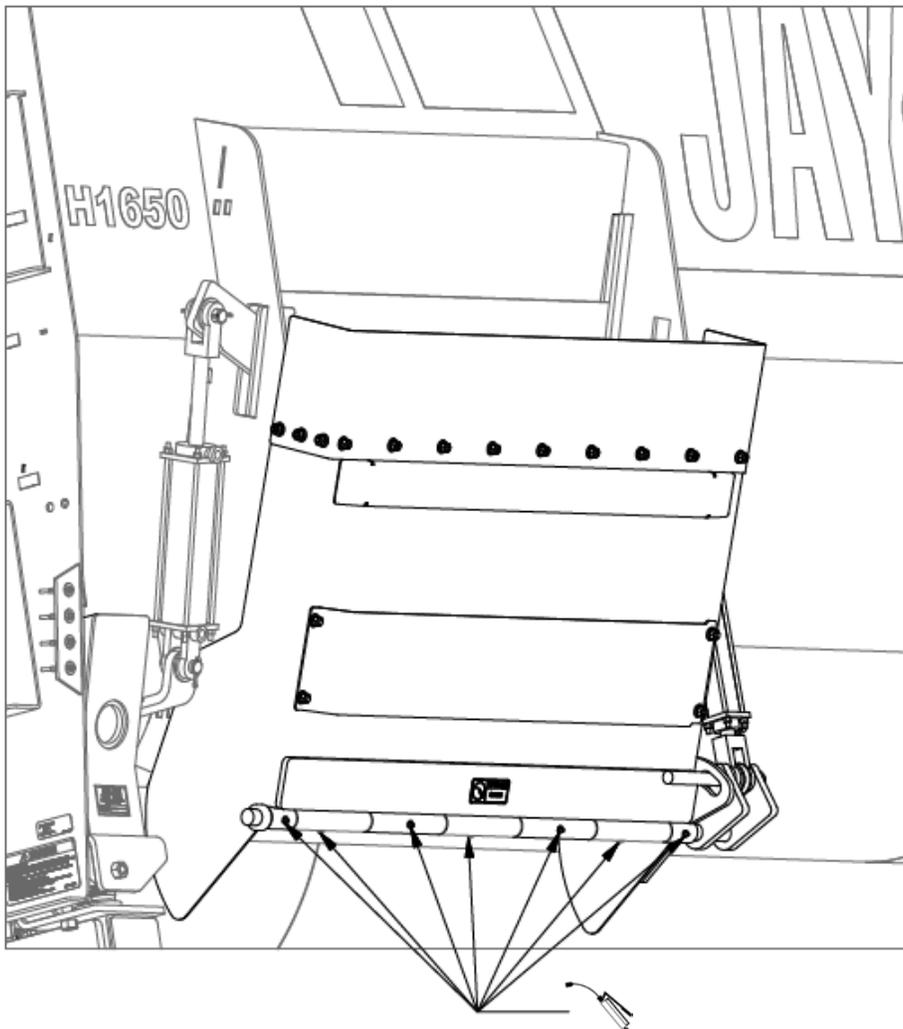
**A** – front auger bearing grease bank: 1 pump every 8 hours of operation or daily

**B** – rear auger bearing grease bank: 1 pump every 8 hours of operation or daily



**Figure 18 - Driveshaft Grease Locations**

1 pump every 8 hours of operation or daily



**Figure 19 - Discharge Chute Grease Locations**

1 pump every 40 hours of operation or weekly

### 21.3 Gearbox Oil

The gearbox requires **fully synthetic industrial gear oil**. Prior to adding oil to the gearbox ensure the oil is PAO (polyalphaolefin) based and **NOT** PAG (polyalkylene) based. Mixing fully synthetic oils is acceptable as long as both oils are PAO based. The following is a list of equivalent brand name oils that are suitable for use in the gearbox on your mixer.

#### Enduratex Synthetic EP 150 Gear Oil

Exxon Spartan Synthetic Ep 150 (*Mobile*)

Shell Omala S4 GX 150 (*Shell*)

Mobil SHC Gear 150 (*Mobile*)

Check gearbox oil level **daily**. Check oil level when the mixer is parked on a flat, level surface when the oil is cool (before operation). Inspect oil condition for cloudiness and/or impurities.

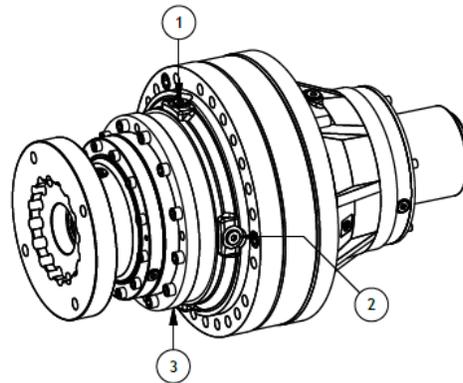


Figure 20 - Gearbox

1. **Fill plug**
2. **Oil level sight**
3. **Drain plug**

To maintain the gearbox, follow this procedure:

1. Clear the area of bystanders, especially small children.
2. Stop the engine, wait for all moving parts to stop, and disconnect the drive shaft between the truck and mixer before servicing.
3. Check the oil level. Each gearbox is equipped with an oil level sight. The oil level must be checked daily when the gearbox is cold and the machine is level. Add oil through the fill plug as required to maintain the required oil level.
4. Refilling the gearbox:  
The oil in the gearbox should be changed at least **yearly**. However, if there is a leak, so much oil may be lost that the gearbox may need to be refilled. When refilling or changing oil, follow this procedure:
  - a. Place a pan or pail of at least 8L (2.1 US gallons) capacity under the drain plug.
  - b. Remove drain plug and allow sufficient time for the gearbox to drain.
  - c. Dispose of the used oil in an environmentally friendly manner.
  - d. Clean the drain plug and reinstall. Tighten plug to its specified torque.
  - e. Clean around the fill plug. Remove the fill plug.
  - f. Pump **7 – 8 Liters (1.8 – 2.1 US gallons)** of oil directly into gearbox through the fill plug port.
  - g. Clean the fill plug, reinstall and tighten to its specified torque.

## 21.4 Hydraulic Oil

The hydraulic system on your horizontal mixer will require hydraulic oil having this specification:

### ISO 46W HYDRAULIC OIL

The type of hydraulic oil specified is recommended for all heavy-duty hydraulic applications requiring excellent wear protection. This oil has excellent thermal stability and oxidation life, which extends drain intervals and protects against corrosion and varnish.

Check the hydraulic oil reservoir oil level **daily**. Check the oil level when the mixer is parked on a flat, level surface when the oil is cool (before operation). Inspect the oil condition for cloudiness and/or impurities.

The hydraulic oil must be replaced **yearly or after every 1000 hours** of operation, (or sooner, if the oil quality has degraded). If the fluid becomes black, this is a sign of overheating. If the fluid appears to be milky, this is a sign of water contamination.

If you are unsure of the condition of your hydraulic oil, contact your authorized Jaylor dealer and/or distributor or your local hydraulic service center. A sample of the hydraulic oil can be tested with the correct testing equipment. Good condition hydraulic oil must meet the following minimum requirements:

1. Water Content in Hydraulic Oil < 100 Parts/Million
2. Viscosity of Hydraulic Oil  $\pm$  10% of Original Specification
3. ISO Oil Cleanliness Standard of 18/13

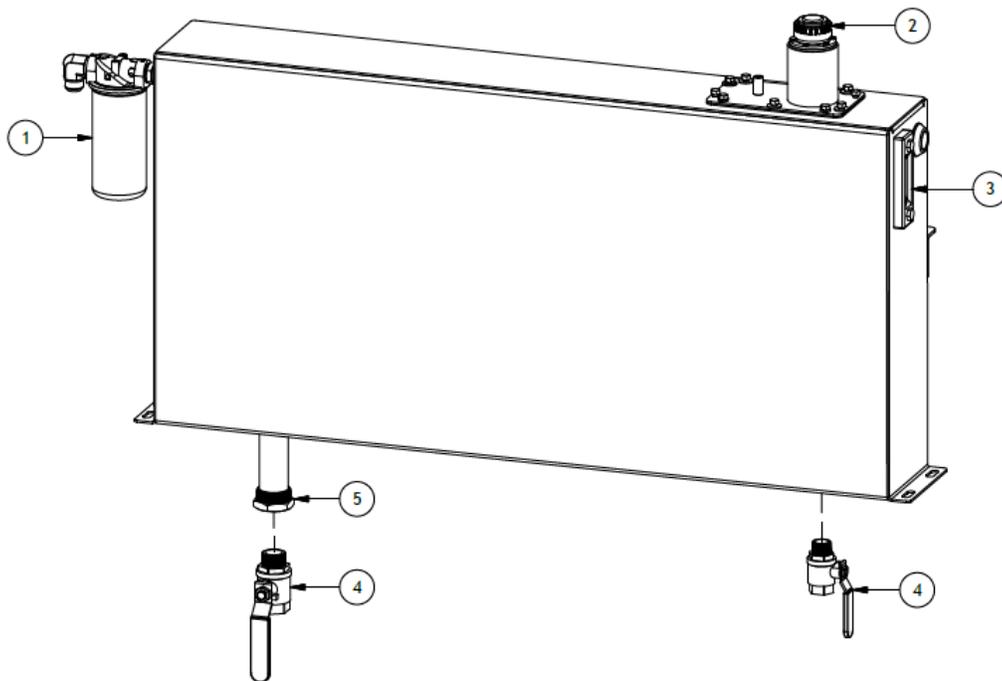


Figure 21 - Hydraulic Oil Reservoir

- |                                    |                         |
|------------------------------------|-------------------------|
| 1. Return Line Filter              | 4. Shut-off Valves      |
| 2. Filler/Breather Cap             | 5. Supply Line Strainer |
| 3. Oil Level and Temperature Gauge |                         |

The following steps should be followed to change the hydraulic fluid and clean the reservoir:

1. Position a large capacity catch container under the reservoir below the drain plug. The reservoir can hold 100 gal. (378 L) of fluid; make sure the catch container is large enough for this service.
2. Remove the drain plug and allow oil to drain.
3. Dispose of used oil in an environmentally safe manner.
4. Remove and inspect the reservoir supply strainers:
  - a. Disconnect the supply lines from the shutoff valve.
  - b. Remove any further fittings to permit access to the supply line strainers.
  - c. Remove the strainers by turning the large hexagonal flange on the bottom of the unit counterclockwise until it is free from the reservoir.
  - d. Thoroughly inspect the strainers for foreign matter and/or damage.
  - e. If the strainers are undamaged, clean them with a degreasing solution and a brush. If there are any signs of damage, replace with a new unit (see **Section 21.5.3**).
  - f. Reinstall the strainer, supply line, and necessary fittings. Use an appropriate pipe thread sealant on all threaded connections.
5. Reinstall the drain plug. Use an appropriate pipe thread sealant on the threads of the drain plug.
6. Remove the hydraulic oil reservoir breather cap.
7. Add new, filtered hydraulic oil of the appropriate specification to the hydraulic oil reservoir. Add oil slowly and carefully to avoid spillage. Continue filling the reservoir until the oil level gauge on the side of the reservoir indicates that it is full.
8. Turn the supply line shutoff valves to the closed position.
9. Loosen the supply line hose fittings at the charge pump inlets and at the auxiliary pump inlet.
10. Allow fluid to run out of these connections into a suitable container. Have an assistant open and close the shutoff valve to control the flow of hydraulic oil.
11. Tighten the supply line hose fittings at the charge pump inlets and at the auxiliary pump inlet.
12. Ensure that reservoir shutoff valves and reservoir inlet line shutoff valves (if equipped) are completely open.
13. Add additional hydraulic oil to the reservoir until the oil level gauge on the side of the reservoir indicates that it is full.
14. Start the truck engine and allow the pumps to operate in neutral for 5 minutes to allow the system to fill with oil and purge any air in the system.
15. Engage the pumps after 5 minutes. Check for hydraulic leaks and verify proper operation of the machine.



**IMPORTANT:** Monitor the oil level closely during the first few hours of use. Refill the reservoir as required to maintain the proper level.



**IMPORTANT:** When spraying water to clean the mixer, protect the breather and reservoir to avoid contamination.



**IMPORTANT:** If it is necessary to add oil frequently to maintain the required oil level, this indicates a leak in the system. Determine the source of the leak and correct it before continuing to operate the machine. Contact your Jaylor dealer or distributor should you require assistance.



**IMPORTANT:** Presence of debris or contaminants in the reservoir indicates a potential failure or deterioration of a system component. Contact your Jaylor dealer or distributor immediately.



**IMPORTANT:** Excessive amounts of air in the hydraulic system can cause instability and cavitation of the hydraulic system.

## 21.5 Hydraulic Oil Filters

The hydraulic drive system on your Jaylor requires proper filtration and regular service to sustain the duty life of the system. **Use only the correct replacement hydraulic filters** when servicing.

### Filter Replacement Instructions:

1. Close oil tank outlet valves.
2. Make sure the filter housing and filter exterior are free of any debris and/or contaminants.
3. Make sure the replacement filter is the correct type for the application.
4. Place a large catch container underneath the filter housing.
5. Using a filter wrench, remove the filter by turning the filter body counterclockwise until it is free from the housing.
6. Allow sufficient time for any oil in the surrounding hoses to drain into the catch container. Allow oil to drain out of the filter itself.
7. Visually inspect the condition of the filter. Determine if any further servicing of the hydraulic system is required.
8. Dispose of the used oil in an environmentally safe manner.
9. Lubricate the top O-ring seal of the replacement filter with oil to ensure a smooth and tight seal upon contact with the filter housing.
10. To assist in preventing air locks in the hydraulic system, fill the filter with hydraulic oil, prior to attaching to the housing. This will also lubricate the filtering media inside the filter.
11. Turn the filter body onto the housing clockwise until it is hand-tight on the housing.
12. Top up the hydraulic oil reservoir with oil.
13. Start the truck engine and run the hydraulic system for 5 minutes. Check for and repair any leaks that may arise.



**IMPORTANT:** When replacing, inspect the filter for excessive contamination. Often, a severely contaminated filter indicates required servicing of the hydraulic system.

### 21.5.1 Return Line Filter

Located on the return line near the top left corner of the hydraulic tank. This filter is a 'spin-on' type of filter that will need replacement. **Replace this filter element after 50 hours of break-in use and every 500 hours thereafter.**

The replacement return line filter for the hydraulic system is as follows:

#### Donaldson P550250

This part can be ordered using JAY•LOR® Part Number # AAB-209-00642

Cross-reference Chart for Equivalent Replacement Return Line Filters	
Brand:	Part Number:
Zinga	LE3
Hydac	0180MA003P
LHA	SPE603

### 21.5.2 Hydrostat Filter

The Hydrostat includes an integrated filter. This filter is a 'spin-on' type of filter that will need replacement. **Replace this filter element after 50 hours of break-in use and every 250 hours thereafter.**

The replacement hydrostat filter for the hydraulic system is as follows:

#### **Sauer-Danfoss – 11004919**

This part can be ordered using Jaylor Part Number #AAB-209-00011

<b>Cross-reference Chart for Equivalent Replacement Hydrostat Filter</b>	
<b>Brand:</b>	<b>Part Number:</b>
Luber-Finer	LFH4990

### 21.5.3 Hydraulic Reservoir Strainer

The replacement strainer for the hydraulic system is as follows:

#### **LENZ – LTM-25-R5-100**

This part can be ordered using Jaylor Part Number # AAB-209-00008

## 21.6 Hydraulic Reservoir Breather

Each hydraulic oil reservoir is designed with a breather assembly at the fill location of the reservoir, to vent internal system pressure to atmosphere. It must be kept clean and free of contaminants to function properly. Remove any debris that falls on the breather to ensure proper functioning. Replace the breather **every 6 months** or earlier if the replacement indicator LED is blinking.

To activate a new breather, follow this procedure:

1. Remove the breather from the box and turn it upside down – with neck and thread up.
2. Insert your finger into the neck and press on the plastic screen until the LED begins to flash. The light will flash three times with a short-flash followed by a long-flash and then another short-flash.
3. Release pressure from the plastic screen immediately after the light begins flashing.
4. Thread the breather into the fitting on top of the hydraulic tank.

A replacement breather cap can be ordered using Jaylor Part Number #AAB-209-00785



**IMPORTANT:** *When spraying water to clean the mixer, protect the breather and reservoir to avoid contamination.*



**IMPORTANT:** *Hydraulic oil is added to the hydraulic system through the breather port. Always clean around the breather prior to removing it and adding oil.*

## 21.7 Hydraulic Oil Cooler

The Hydraulic Oil Cooler is located on the mixing drum, behind the cab of the truck. The cooler uses a heat exchanging radiator with an electrically powered fan for maximum cooling efficiency. Note the hydraulic oil flow directions in and out of the cooling system before servicing the cooler. It is important to maintain this flow configuration should any of the circuits be disconnected for service.

Care must be taken to reduce or eliminate dirt and debris from blocking the cooling surfaces as overheating can result. Clean the cooling fan and radiators daily. Use compressed air with a blow gun attachment to clean out accumulated dirt, dust, and other debris from the cooling fins on the radiator. Inspect the cooling fan and make sure that it turns freely.

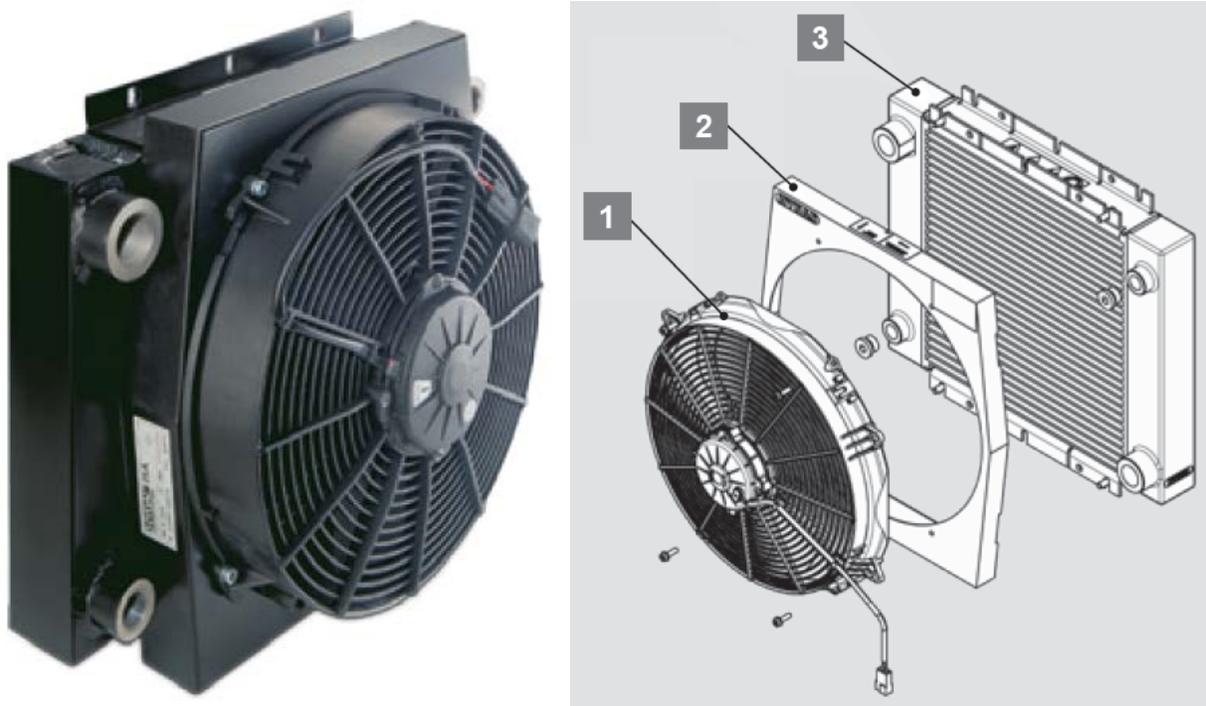


Figure 22 - Hydraulic Oil Cooler

1. Fan
2. Fan Housing
3. Radiators

## 21.8 Hydraulic Hoses and Electrical Wiring

Hydraulic hoses and electrical wiring have a finite service life. The actual service life of a given hose is dependent on many factors such as operating pressures, temperatures, and conditions.

Your dealer will be able to provide specifications on the construction of the hydraulic and electrical circuits. Your dealer will also be able to provide instructions on how to replace these components and inform of any safety precautions.



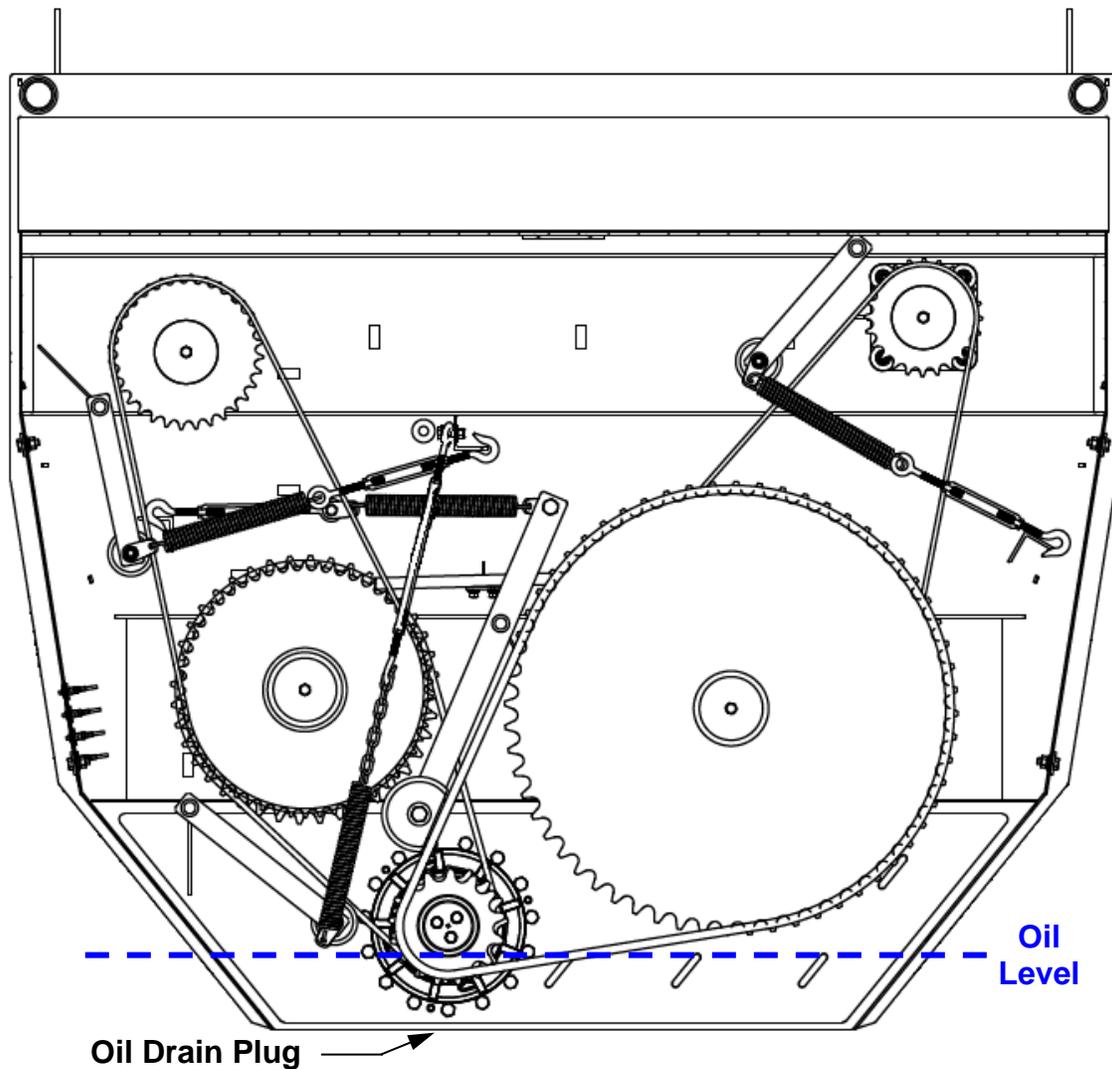
**IMPORTANT:** Hoses in service should be inspected frequently for leakage, kinks, corrosion, abrasion, or any other signs of wear or damage. Hoses that are worn or damaged should be removed from service and replaced immediately!

## 21.9 Oil Bath

The auger sprockets and chains are lubricated via an oil bath. The oil in the oil bath should be kept deep enough to submerge the lowest drive chains (see **Figure 23**). Check the oil level in the oil bath **daily**. Be sure to keep the oil and the inside of the oil bath as clean as possible. Dirt and contaminants in the oil bath will greatly reduce the lifespan of the chains and sprockets. If the oil has become contaminated, drain the oil using the drain plug located on the bottom of the oil bath housing and refill the bath with the oil type specified below.

The oil bath will require oil having this specification:

**30-70 MINERAL OIL**



**Figure 23 - Oil Bath Fill Level**

### 21.10 Chain Tensioning

To keep the chains and sprockets running smoothly, the chain tension may need to be adjusted periodically. When inspecting the chains, a general rule is that the tensioner spring coils should have spaces the thickness of a nickel between them. To tighten a chain, tighten the set screw on the end of the spring.

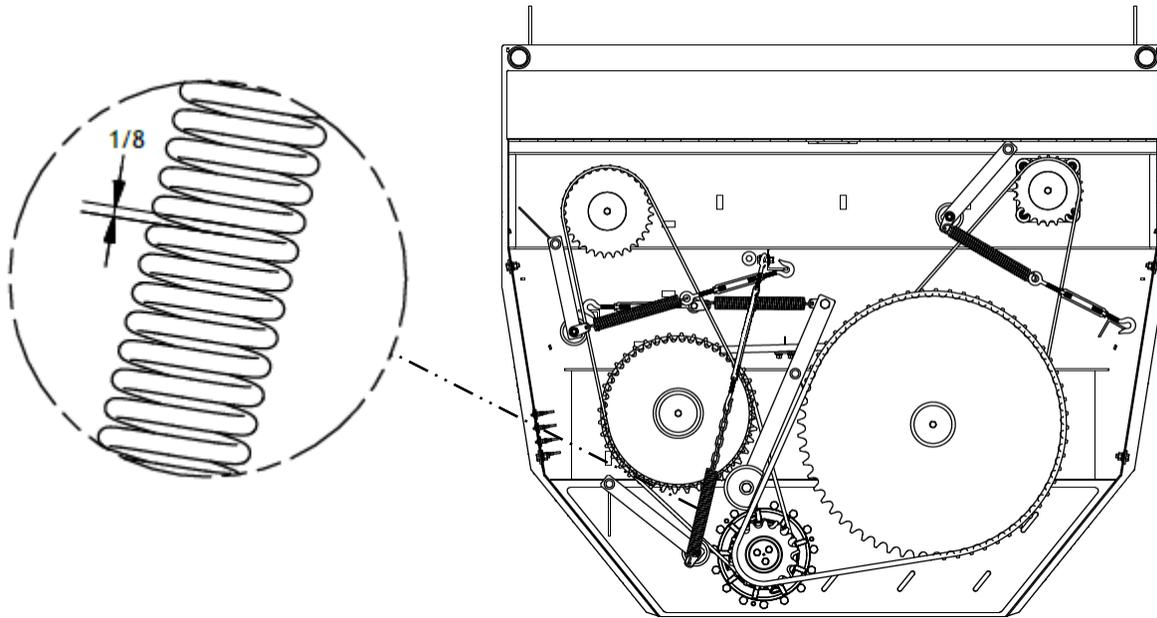


Figure 24 - Spring Tension

## 21.11 Machine Mounts

It is important to ensure that the machine and its components are securely attached to the truck platform. The machine and its components are attached to the truck chassis through a series of clamps and/or 'U' bolts. The hardware used in the clamping assemblies should be tightened to and maintain a torque of 100 ft.-lbs. for safe operation of the machine.

**Note:**

- Check the clamp/U-bolt torque **daily** during the break-in period of the machine. Check the torque **monthly** thereafter.

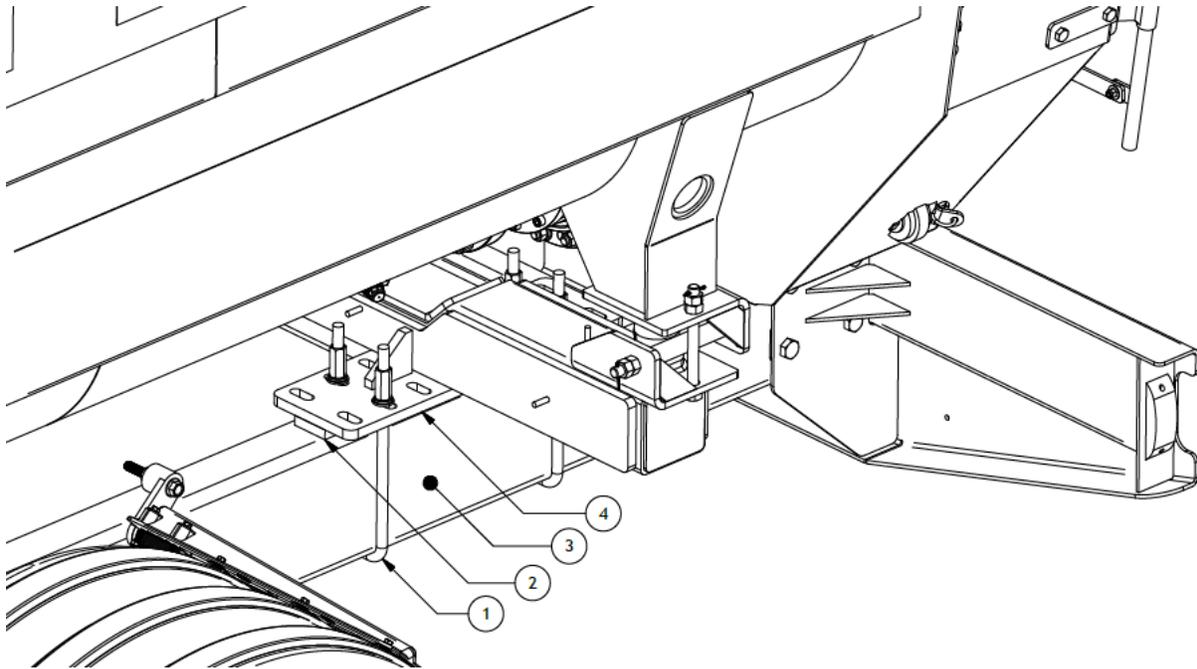


Figure 25 - Mixer Mounting

1. 3/4" U-Bolt
2. Hardwood Spacer
3. Truck Frame
4. Mixer Mounting Foot



**IMPORTANT:** Ensure the machine is securely attached to the truck frame. Variables such as machine operation, machine break-in, flex of the truck chassis, and operating conditions can loosen the machine mounts.

## 22. TROUBLESHOOTING

Your Jaylor mixer is designed to receive a variety of feed material in its mixing chamber. It is a simple and reliable system that requires minimal maintenance.

The following section lists possible problems, causes, and solutions to the problems you may encounter with your Jaylor mixer. Should any maintenance and service be required after troubleshooting, see **Section 21** 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 manual and the serial number from your machine ready.

PROBLEM	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
'Dead Spot' during mixing	<ul style="list-style-type: none"> <li>- Mixer is not level</li> </ul>	<ul style="list-style-type: none"> <li>- Make sure the machine is level when mixing</li> </ul>
Auger stops rotating during mixing	<ul style="list-style-type: none"> <li>- Auger jammed</li> </ul>	<ul style="list-style-type: none"> <li>- Clear packed material and resume mixing</li> </ul>
Visible deformation, wear or failure of driveline	<ul style="list-style-type: none"> <li>- Extreme load</li> <li>- Contaminants (sand, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>- Replace damaged components with Jaylor recommended parts</li> </ul>
Augers will not engage	<ul style="list-style-type: none"> <li>- Truck PTO not engaged</li> <li>- Truck PTO inoperable</li> <li>- Gear box malfunction</li> <li>- Electrical wiring fault</li> <li>- Hydraulic system failure</li> </ul>	<ul style="list-style-type: none"> <li>- Engage truck PTO</li> <li>- Replace truck PTO</li> <li>- Repair gearbox</li> <li>- Test electrical connections and voltage</li> <li>- Pressure test hydraulic system</li> </ul>
Excessive power requirement on normal loads	<ul style="list-style-type: none"> <li>- Worn bearing in gear drives</li> </ul>	<ul style="list-style-type: none"> <li>- Replace bearing</li> </ul>
Excessive vibration or unusual noise	<ul style="list-style-type: none"> <li>- PTO bolts loose</li> <li>- Bent drive line</li> <li>- Worn gearbox bearing</li> <li>- Bent auger tube</li> </ul>	<ul style="list-style-type: none"> <li>- Tighten PTO bolts</li> <li>- Replace drive line</li> <li>- Replace gearbox bearing</li> <li>- Replace auger tube</li> </ul>



## 24. SAFETY SIGN



The Safe Operation of a Jaylor Horizontal mixer is a **Must!**

- #1 **ALL TWINE MUST BE REMOVED** from bales while the bale is on the ground and before the bale is placed into the mixer.
  
- #2 The **OPERATOR VIEWING STAND IS NOT** to be used in any way for the removal of twine.
  
- #3 **POST THIS NOTICE** in a prominent location and advise all mixer operators accordingly.

# PUT SAFETY FIRST!