ABBEY MACHINERY since 1947

Vertical Auger

TUB FEEDER

CE

Maintenance, Operating Instructions and Spare Parts Lists

ABBEY MACHINERY since 1947

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Abbey Tub Feeder P.D.I Chart

This Dealer pre-delivery inspection chart is to be completed and signed by the dealer or their representative before the machine is supplied to the customer.

Model_____Date_____Serial No_____

Tick box below after item is checked.

All Models

- ☐ Check all hydraulic connections.
- ☐ Check opening and closing of the door and conveyor operation.
- ☐ Check all gearbox Oil Levels.
- ☐ Check wheel studs are torqued correctly, axle bolts and check function of hand brake.
- ☐ Check play on wheel bearings by rocking the wheels and check tyre pressures (refer to page 7).
- ☐ Check bolt on hitch bolts after adjusting the hitch to level the machine.
- ☐ Check all lighting is working correctly.
- ☐ Check all safety guarding and devices are fitted, and in good working order.
- ☐ Check all lubrication points and grease.
- ☐ Check that knifes are fitted securely, KEEP CLEAR OF SHARP EDGES
- ☐ Check and ensure the right PTO shaft is cut to the correct length (recommended shear-bolt should be fitted.)
- ☐ Visually check the driveline and check the conveyor chain tension
- ☐ Check machine running and vertical auger is rotating smoothly.
- ☐ Check electronic weighing system is weighing correct weight and customer understands how to work it.
- ☐ Check the machine overall visually and that a copy of the instruction manual is being supplied to the customer with the machine.

Sign below after working through the above check list, and log on to www.abbeymachinery.com dealer section to register this machine.

N.B. Machine must be registered for warranty purposes.

Signature:_____

INSTRUCTION MANUAL CONTENTS

***IMPORTANT NOTE ***

1. Drawings in this manual are not to scale.
2. While every care is taken to ensure that all information in this manual is correct, the manufacturer cannot be held responsible for any errors or omissions therein.
3. When ordering parts ensure you have the correct reference number and also the serial number of the Tub Feeder.

MODEL No	Suggested Max Load Weights
	tonnes

TUB FEEDER

SINGLE AUGER MODELS

VF 850	3
VF 950 /VF1000	3.5
VF 1050	4
VF 1250	4.5
VF 1450	4.8

TWIN AUGER MODELS

VF 1500 TWIN	5
VF 1650	6.2
VF 1850	7.2
VF 2100	8.2
VF 2250	9.4
VF 2450	10.2
VF 2650	11
VF 2850	11.8

The above are the recommended max Load weights not to be exceeded by feeder operators. In many applications these weights will not be achieved particularly if the feeder is used to process High dry matter feedstuffs.
The raised top retaining ring offered on feeder models is intended as an overflow ring for use with high dry matter material. The raised top retaining ring is not intended and must not be used to increase machine capacity above the max Load weights stated.

The Range of Abbey Diet Feeders includes

100 CD, 145 GD

The Range of Abbey Vertical Augur Tub Feeders includes

VF Single 750, 800, 1000, 1050, 1250, 1450,

VF Twin 1500, 1650, 1850. 2050. 2250, 2450, 2650, 2850

6.0 THE FUNCTION OF THE TUB FEEDER

The Abbey Tub Feeder is a trailed machine which is capable of independently mixing, transporting and feeding set weights of ingredients to make a complete diet for cattle. It could be also used as a processing unit to produce rations for other animals (i.e. pigs, sheep, or poultry). The Tub Feeder has been solely designed for agricultural use, but may in certain circumstances be used to produce mixed rations for other purposes (it must be noted that the standard Abbey Tub Feeder (unladen) has not been designed to travel at speeds over 25km/h).

The principle of the standard Abbey Tub Feeder is to be loaded with set weights of ingredients which are mixed as they are loaded into the machine. The Abbey Tub Feeder uses a central vertical auger to chop and mix the material with the door of the machine closed, and to feed out the material with the door of the machine open. The ingredients are weighed by the feeder weighing system as they are loaded and unloaded. A range of functions on the digital scales allows a number of formulae for each ration to be stored.

The feeder can be fitted with one of three systems for feeding out the ration. The standard system is a conveyor used to transfer the ration to the feed passage. The second optional system is an elevator, and is used to feed the material into walled troughs or over barriers. The elevator's height can also be controlled from the tractor cab and can be set to suit the operator's needs. The third optional system allows the machine to be used in blind passages by feeding out through two rear doors. The Abbey Tub Feeder was solely built for this function and should be operated within the limit of the instruction manual. The above descriptions of the functions of each Tub Feeder, are provided to show how each Tub Feeder can be used. Further detail on the Tub Feeder and their variations can be found on the relevant leaflets.

* IMPORTANT *

READ INSTRUCTIONS CAREFULLY BEFORE

OPERATING THIS MACHINE

* The entire manual must be read and understood before operating

this machine, If there is confusion about the safe operation

of any part of the machine, contact your dealer

before operating it.

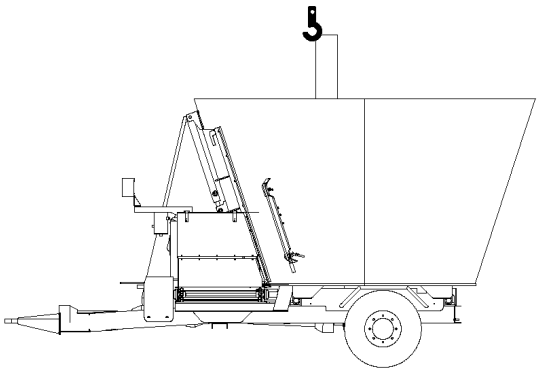
Abbey Tub Feeders

2.0 SAFETY WARNING

1. Always ensure that before operating the machine both the feeder guards and PTO shield are in place.PTO shields and feeder covers should be properly maintained and must always be replaced after carrying out adjustments or repairs.
2. Before making adjustments or carrying out any maintenance work it is important that:
   (6) The tractor engine is stopped
   (ii) The PTO shaft and the hydraulic hoses are disconnected.
3. Operators should not wear loose, flapping clothing when working near PTO driven machinery. Dangling chains and torn clothing could get caught up in moving parts.
4. Care should be taken while carrying out maintenance inside the feeder, because the barrel of the feeder can be extremely slippy.
5. Do not distract people who are using machines.
6. Do not leave the feeder loaded overnight.
7. Keep clear of all moving or rotating parts while the machine is operating. Rotating knifes and fodder (i.e. round bales) inside the machine may cause injury. Keep clear of tub top edge while machine is working.
8. Always check the machine is in good working order before starting it.
9. Non-standard Abbey parts should not be used on the feeder especially not on the weighing system.
10. Under no circumstances should anyone climb the ladder while the machine is operating or be transported on the machine ladder.
11. The operator must ensure that all persons are standing clear both of the door and of the conveyor before starting the machine. They will risk being injured if they come in contact with the machine.
12. The accompanying shaft instruction manual must be consulted before operating or maintaining the PTO shaft.
13. Standard points on the machine must be used if the Feeder is required to be lifted (drawing A).

Warning:
Standard lifting points if the machine is to be lifted for transport, use the relevant holes located at the top of the mixing tub

Drawing A: Lifting positions for Diet Feeder



Caution: Four Lifting points most be used.

Abbey Tub Feeders

2.0 SAFETY WARNING (cont'd)

14. The PTO shaft of the machine is to be left on the stand provided, when the machine is not in use to prevent the shaft guard from being damaged.
15. If you have any doubt as to the safe operation or maintenance of your Tub Feeder contact your local dealer.
16. The operator must work the feeder in a safe manner and must obey the road regulations of that person's country
17. Persons unfamiliar with the Tub Feeder must be supervised until the required level of competence is gained in operating and maintaining the machine safely
18. Care must be taken when operating the hydraulic systems of the feeder. Particular attention must be given to the safe operation of the conveyor and the machine door.
19. The ladder must only be used as a means of access to the machine only when it is unsafe to enter by the door of the machine.
20. Extreme care must be taken to prevent touching the sharp edges of the blades in the feeder if you are required to enter the machine.
21. Do not stand over or above the machine when loading it (e.g. for manual loading). All baled fodder should be opened on the ground before loading it into the machine. Extreme care should be taken when loading the feeder manually
22. Never work PTO shafts which are not fully engaged on their mating 6 spline shafts or nor fully guarded.
23. Never use the Tub Feeder to mix products other than those normally used to feed live stock.
24. Never leave the feeder unattended whilst it is working.
25. The machine should not be transported while it is working or fully loaded at speeds exceeding 8 km/hr. Transporting up to speeds of 25 km/hr should only be done with the machine empty. Excessive speed may cause a risk of overturning the machine.
26. Extreme care should be taken when operating the Counter Blades in or out. Beware of possible back lash when gripping the Counter Blade handle, keep thumbs clear.

Diet Feeder Noise Levels

Continuous A-weighted sound level at workstations noise levels exceeds 70 db (a).

Peak C-weighted instantaneous sound pressure exceeds 63 pa.

Caution

The necessary protective devices should be worn when operating the machine.

Abbey Tub Feeders

6.0 SETTING UP FOR USE

1. Connect the Tub Feeder to the tractor pick-up hitch or drawbar. If connected to the tractor drawbar the optional necessary hitch eye reducer bush must be used. Measure the P1'O shaft of the machine and ensure that it is fitted according to its instructions.
2. Set the hitch eye of the feeder so that the machine is level when hooked to the tractor.
3. Ensure all guards are in place before operating the machine.
4. Connect hydraulic hoses to the tractor. Check that the hydraulic brakes on the machine are working correctly. Check that all the required functions on the machine are operating correctly. Connect and check the lights of the machine. Ensure that the digital scale of the machine is functioning correctly before filling the machine. Also read through and understand the accompanying digital scales manual before operating the feeder.
5. Check that the wheel nuts are tight and hubs are greased Check Tyre Pressures:

    - 235/75 R17.5 7 bar

    - 30/l1.5x14.SHD 8.0 bar

    - 400/60-15.5 4.7 bar

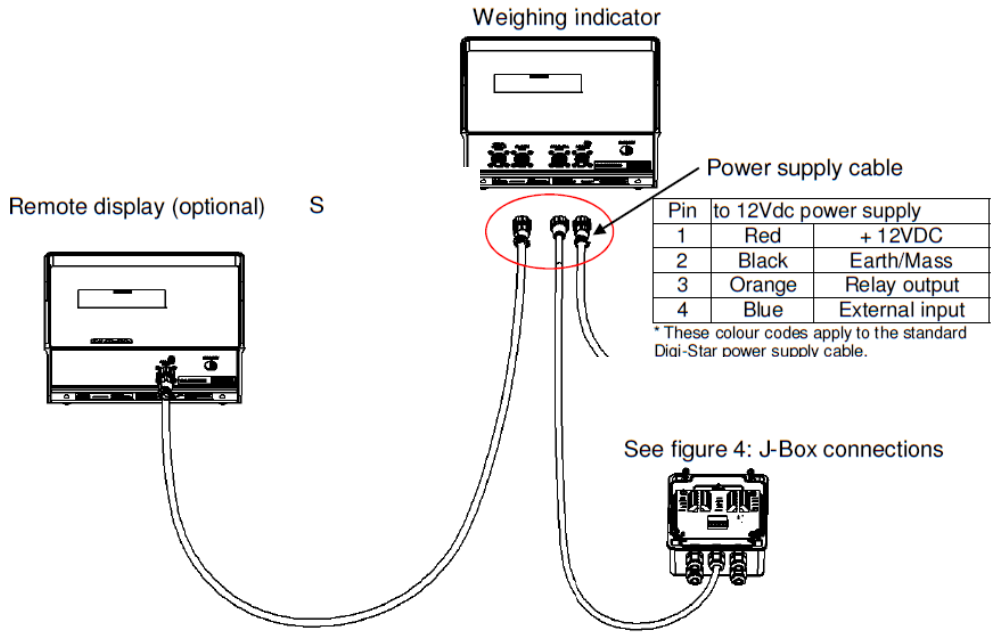
    - 405/60 -15.5 7.1 bar

    - 435/50 x 19.5 8 bar

6. Ensure all persons are aware that the machine is about to start. Run the feeder for a short time to ensure it is working correctly. This will also allow the gearbox oil warm up and its working parts lubricate.
7. On a new machine start-up torque and power requirements may seem high. These will reduce after the painted wall has been polished by the mixing action of the feed .Three quarters of a full load should be mixed for the first few loads to allow mixing feed polish the barrel and prevent premature shear bolt failures.
8. The feeder should never be run at a higher speed than 540 r.p.m.

6.0 SETTING UP FOR USE– Wiring

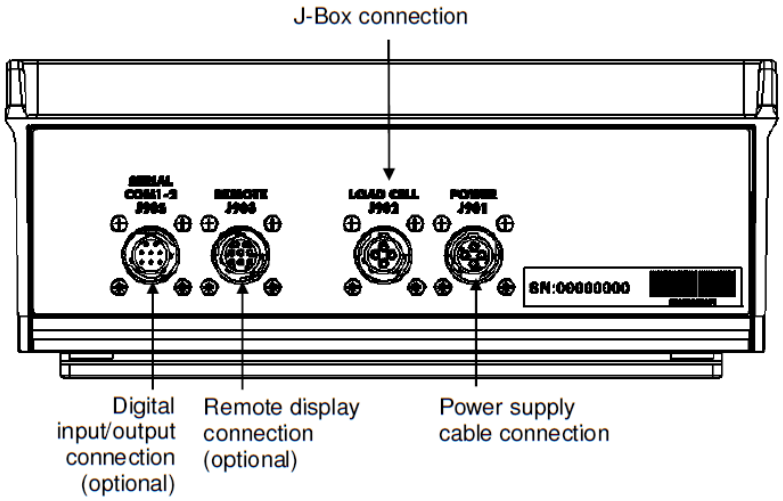
Connecting the cables



Pin	to 12Vdc power supply	
1	Red	+ 12VDC
2	Black	Earth/Mass
3	Orange	Relay output
4	Blue	External input

* These colour codes apply to the standard Digi-Star power supply cable.

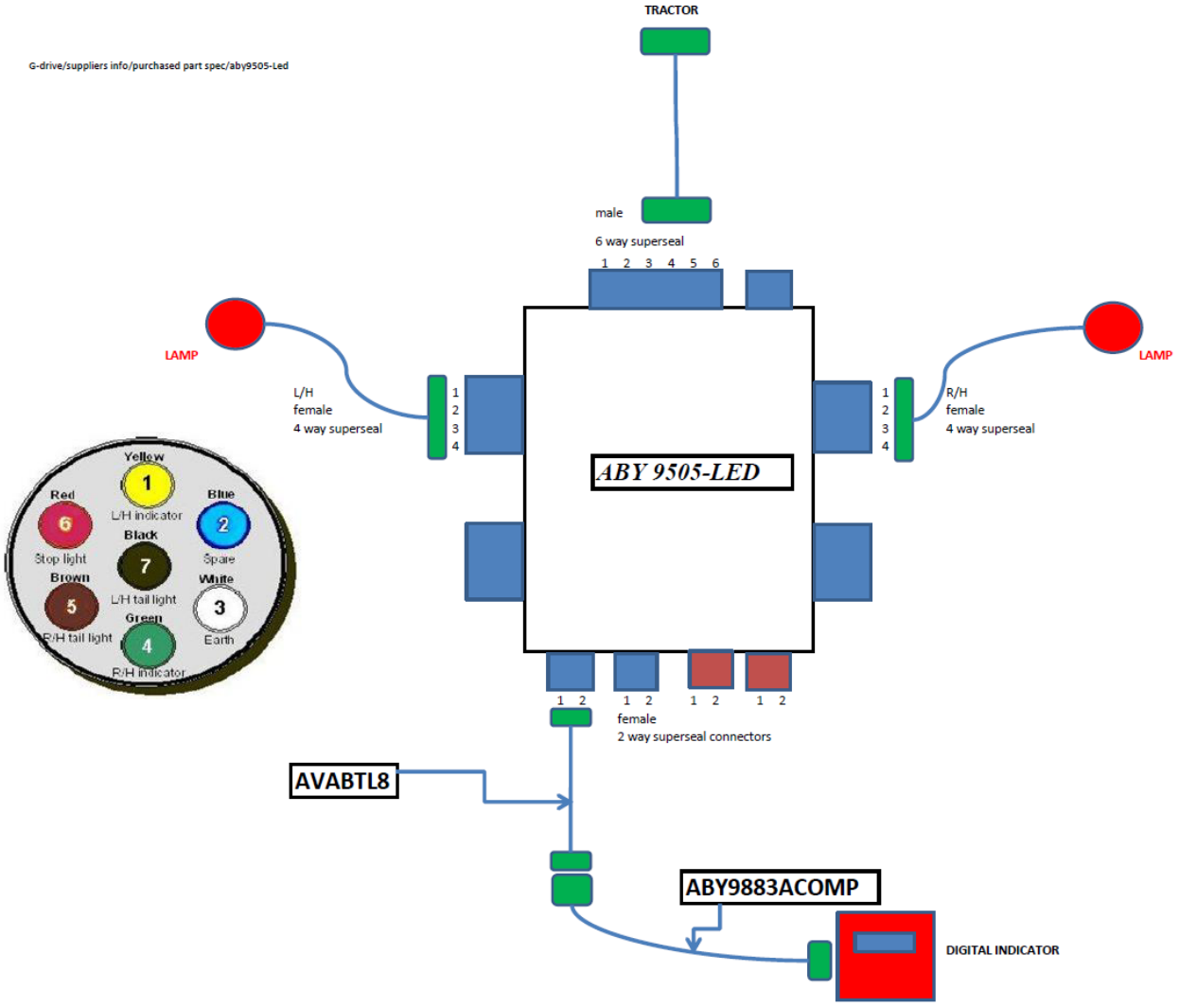
Indicator connection diagram



Abbey Tub Feeders

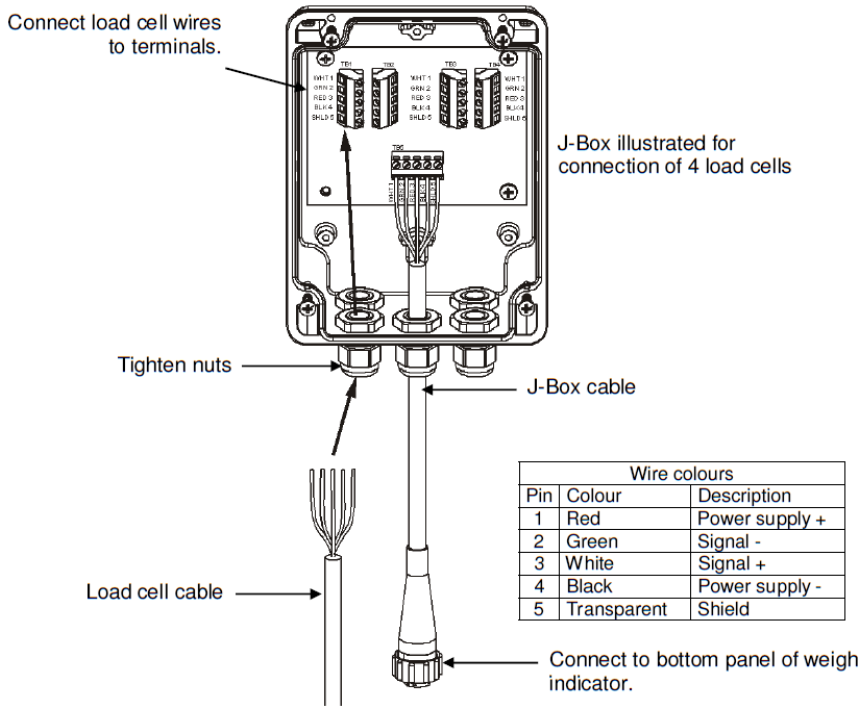
6.0 SETTING UP FOR USE– Wiring

We wire the indicator clock up to the lights junction box on the machine. Below is the Wiring diagram. Once side lights are turned on, there is power to the indicator.



6.0 SETTING UP FOR USE– Wiring

Connecting load cells to J-Box



Wire colours		
Pin	Colour	Description
1	Red	Power supply +
2	Green	Signal -
3	White	Signal +
4	Black	Power supply -
5	Transparent	Shield

AbbeyTub Feeders

4.0 OPERATING INSTRUCTIONS

Before operating the Tub Feeder ensure that you and all operators of the machine are familiar with the safety warnings in this manual.

Connect all the necessary hydraulic hoses and electrical plugs to the tractor. If you are not familiar with the electronic weighing system of the feeder please read the accompanying Digi-Star Electronics operators manual. Ensure that the parking lights of the machine are switched on to supply power to the digital scales. Once the digital scales has been programmed the operation of the feeder can begin. Before operating the machine make sure the barrel of the feeder is clean and that all other persons around the machine are aware that it is about to be started up.

Before loading the feeder run it at low r.p.m. for a number of minutes so that the gearbox oil can warm up and all working parts are lubricated. Increase this time during winter.

LOADING:

1. Before filling the machine ensure that the interior of the feeder is clear, the feeding out door is fully closed, and all other persons around the machine are aware it is about to be started up.
2. If necessary zero the scales first and then select a pre-programmed recipe if required. Once the correct recipe for the particular animals has been selected loading of the feeder can begin.
3. Start the engine running at low tractor r.p.m. i.e. 1800 - 2000 r.p.m. for mixing.
4. The following sequence should be used to load the machine for best mixing results.
    a. Round baled hay & straw and baled silage
    b. Meals, grain or concentrates
    c. Pit silage
    d. Molasses or other liquids
5. Remove all plastic, twines and net wrap from big round bales before loading. Always fill the machine and avoid touching the central auger during loading.
6. Push in the Counter Blades to the correct position. Beware of back lash when operating counter blades. Keep thumbs clear.
7. Check that large bales (i.e. round) have been chopped to the desired length. If so pull out the counter blades and continue loading other ingredients.
8. Once the required total weight has been loaded into the machine reduce the r.p rn. Of the feeder to allow the ingredients mix.
9. The mix is then complete and ready for unloading.

PROLONGED MIXING TIMES

Further increasing mixing time may not improve the mix but may have the following negative effects:

-Finer chopping of the ingredients.

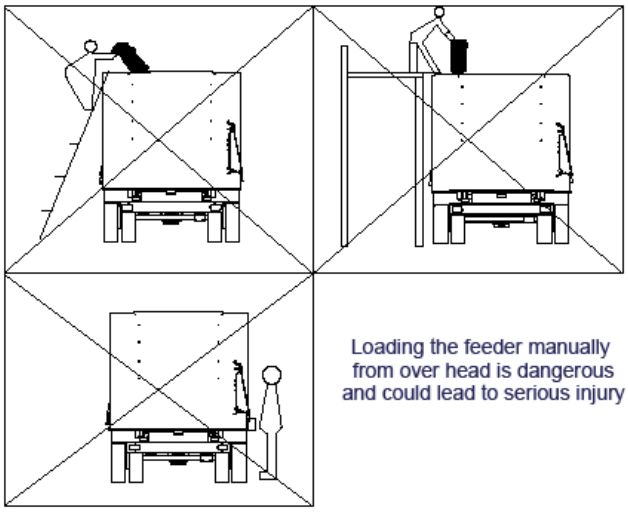
-Higher horsepower requirements.

Abbey Tub Feeders

4.0 OPERATING INSTRUCTIONS (Contd).

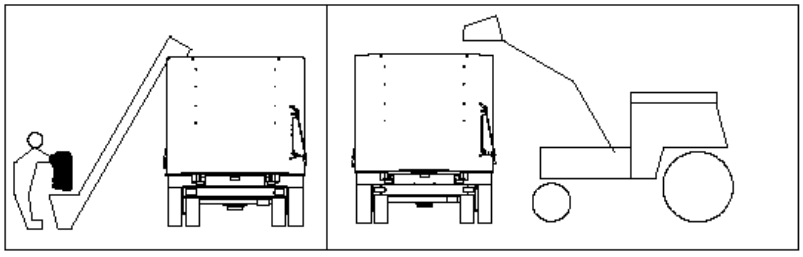
UNLOADING

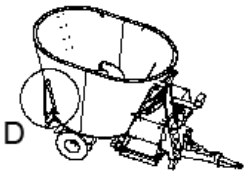
1. Select the desired unloading program.
2. Lower the elevator (if fitted) to the correct unloading height and start the conveyor & elevator running in the correct direction.
3. Adjust the speed of the conveyor and open the door of the feeder the required amount as indicated by the scale on the door. The door can only be fully closed when the machine is empty Never close the dour more than 12 inches from the fully open position when the machine is unloading.
4. Start the PTO and keep the tractor r.p.m. between 1900 - 2100 r.p.m. The unloading rate of the feed can be controlled by the forward speed of the tractor. It can also be controlled by the amount that the unloading door is open and the speed of the conveyor.
5. The feed can be unloaded once the above variables are set.
6. As the machine nears empty, the unloading door can be opened fully to allow the remaining material to be quickly removed.
7. The feeder can then be refilled with another mix of material.

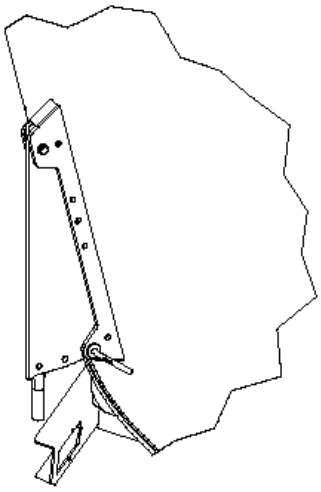


Loading the feeder manually from over head is dangerous and could lead to serious injury

Safe loading of the Tub Feeder







(D)
Counter Blade
Push in to increase
the speed of chopping

4.0 OPERATING INSTRUCTIONS (Cont'd).

USEFUL ADVICE ON TUB FEEDERS

Chopping baled silage to a length of 5-10cm or shorter will give the best mix and unloading performance. Check that no foreign objects have been allowed into the mix, these may cause damage to livestock or machinery.

Well chopped pit silage has a higher density than comparable baled silage. A Tub feeder load will feed more animals if there is less long fibrous ingredients (i.e. round bales) used in the mix.

ADDITIONAL FD Sliding PVC Conveyor Model

The front door machine is supplied in a fixed and sliding conveyor model. With the Sliding conveyor version the reach achieve with some versions is considerable, while the fixed version conveyor works within the machine width (depending on model).

In addition to the normal operation of the machine the following pints should be considered before operating the machine. Three hydraulic services are required operate the front door machine. The following is a suggested method of feeding out the mixed load using the conveyor after your feeder is in position in front of the feeding area is,

1. Gradually open the door to the predetermined position. A low setting for materials that flow easily and a higher setting for more high fiber dry mixes.
2. Slide the conveyor out to the correct side and by the amount required. Its position can be changed during conveyor belt use but depending on the tractor it may cause intermittent belt operation.
3. Belt speed is controlled by a simple flow control unit on the motor hydraulic line. Initially set this at a low setting and increase accordingly to match your requirements.
4. Start the conveyor belt operating, then the tractor PTO and drive forward at a consistent speed to discharge the load.

A rubber discharge flap on the right hand side of the front door is provided and should be lowered to retain material on the belt when almost maximum reach is required to discharge to the left hand side of the machine.

Finally always make a habit of sliding the conveyor back to its central position to avoid accidental collision with builds on the farm and minimize the transport width.

Abbey Tub Feeders

5.0 CARE AND MAINTENANCE

1. Grease should be applied to all grease points at regular intervals during the working season on the machine. (A suggested interval would be every 7 days).
2. Before maintaining any part under the machine always support the machine mixing tub with suitable stands. Only when the machine is stable and safe should maintenance be carried out.
3. Check the tension on the conveyor on a regular basis. A light coat of oil on the chain regularly is necessary.
4. Check wheel nuts are tight and grease wheel bearings regularly.
5. Check the hydraulic hose connection on a regular basis during the working season of the machine and replace defective or worn parts with genuine Abbey parts only.
6. When travelling over long distances the scales of the feeder should be reversed so that the front of the digital scales faces the feeder cover to prevent it from being damaged by stone/dirt.
7. Parts of the weighing system that require replacing should be replaced with genuine Abbey parts Only.
8. The feeder should be cleaned down at the end of each feeding season, and care should be taken if any form of power washer is used. Avoid high pressure power-washing any part of the weighing system to prevent water ingress causing dampness problems.
9. **Warning**: Maintaining or adjusting the conveyor must only be made by obeying safety warning No.2.
10. **Warning**: If the operator is required to enter the feeder, ensure that the machine cannot be started unintentionally by obeying safety warning No. 2 (particularly if cleaning the feeder is required).
11. Check gearbox oil reservoir levels daily. Gearbox Top 85W 140 with Ep aditive should be used. Please refer to the table for correct Qty's
12. **Warning:** When the machine is empty and internal maintenance is required, ensure that the rotor of the machine cannot turn. By wedging the rotor in one position it will prevent it from turning and causing injury to the person who is maintaining or cleaning the machine.
13. Checking the following bolts for tightness on the machine at regular intervals during working season is important. The gearbox to floor bolts, the auger to gearbox studs and the knife bolts should be tightened fully prior to using the machine and during the feeding season. Ref Page 21 for correct procedure for Gearbox Bolt Assembly.

Tub Feeder Gearbox Oil			**Oil qty Min**	***Oil Type***	**Extra Oil qty front reservoir**
Gearbox no.	***Typical Tub Model***	***Description***	***Litre***		***Litre***
5717.004.8543.c	VF1850,2250 or 2450	Large T box twin tubs	23	85W140	4 Per reservoir
5717.004.8581.c	VF1000,1250 or 2250	Large Std. box all tubs	15.5	85W140	4 Per reservoir
5367.005.013	VF2250 or Optional	C3A 2 Speed box	10	EP90	none
57170008571	VF1500	Small T box	10	85W140	4 Per reservoir

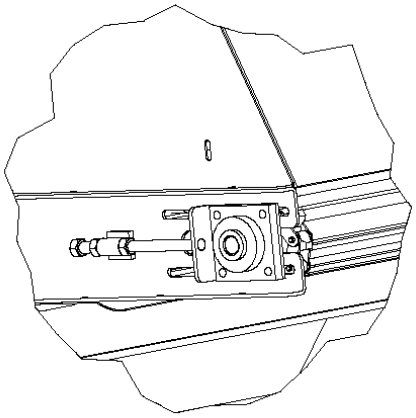
Abbey Tub Feeders

5.0 CARE AND MAINTENANCE (Contd)

Check after the first 10 hours of use:
- Weigh bar and chassis bolts are tight.
- Wheel nuts and bearings are tight.

Check Monthly:
- Conveyor chain tension and adjust if necessary
- All grease points.
- PTO shaft condition (refer to its leaflet)
- Oil levels in gear box reservoirs and top up if necessary.
- Auger Gearbox Bolt are tight (torque setting Ref Page 20).

Unloading Conveyor: tensioners and bearing



Maintenance on Conveyers:

Slat and chain

- Lubricate chain with a light oil or chain grease throughout the operational season and grease up chain before putting into storage.
- Check tightness of chain after first few hours and regularly throughout the working season. Deflection on center of chain for standard side door elevator is 5-7mm and on front door elevators will be 20-30mm.

PVC Type Elevator

It is vital that the side skirts of the elevator and the rollers remains clean form material at all times.

The following is normal operational maintenance on the belt conveyer throughout the operational season:

- Wash down elevator
- Grease bearings
- Check flange bearing bolts are tight.
- Check that tensioner bolts are tight and rollers are all square.
- It is vital that side skirts don't get damaged to let material get under the belt. Never let material knowing get under the belt.
- Check that the cage rollers are not building up with material, if so. See instructions over leaf.
- Once the machine has done 300hrs service the belt. See instructions over leaf.
- If the belt starts to slip it is best to service the belt and follow the instructions overleaf.

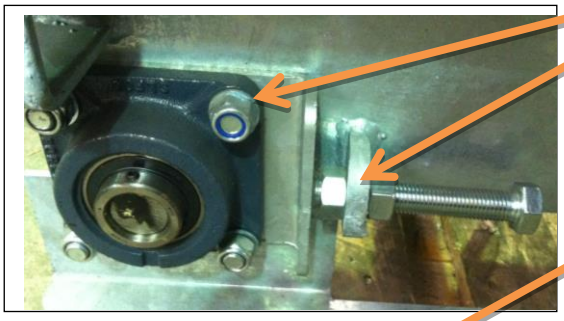
Conveyor belt alignment and adjustment is the responsibility of the purchaser and we recommend that the elevator be completely stripped down at least once every season. We recommend this to be done every 300hrs of feeder use.

Please note that this maintenance is necessary to prolong the life of the belt. Slat and chain, PVC belts and related components are a wearing part and as such normally not subject to warranty.

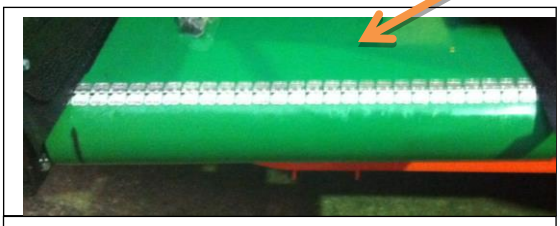
Abbey Tub Feeders

5.0 CARE AND MAINTENANCE (Contd)

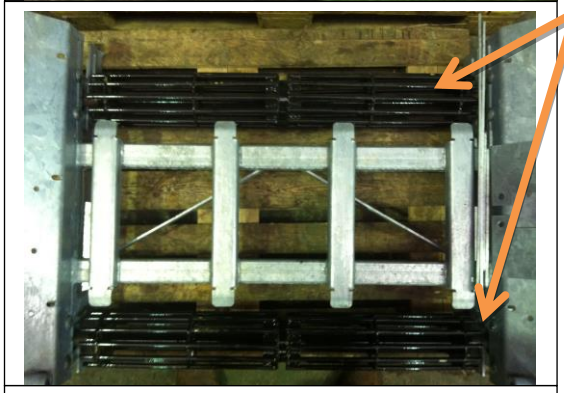
Instructions on dismantling a belt Elevator



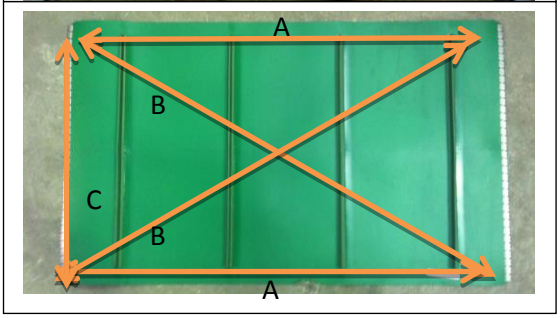
- Loosen flange bearing bolts on both rollers. Four in total
- Loosen tensioner bolts so the roller is free to slide up and down on both sides.



- Remove belt joiner cable and remove belt from the elevator



- Clean out cage rollers completely with a bush and air gun.
- Clean bearings completely and grease.
- Check rollers and shaft are straight.

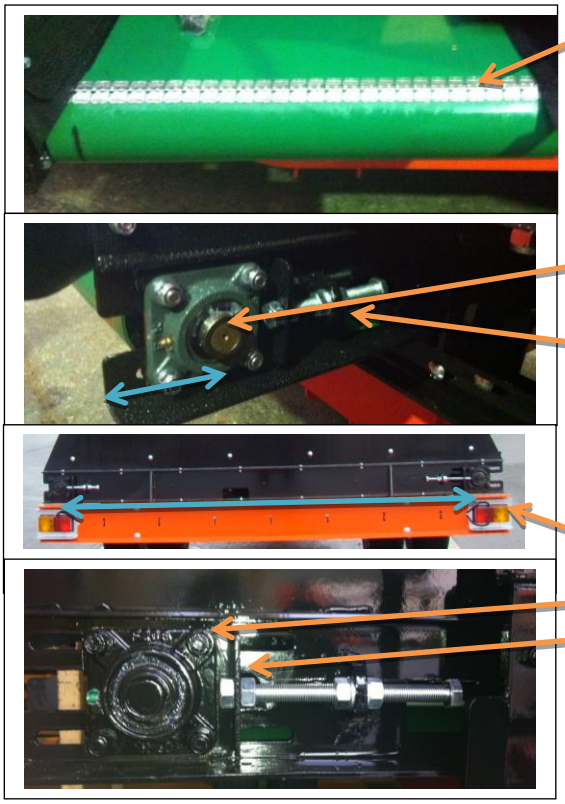


- Place belt flat on the ground and measure the long sides. Check that they are even. (A) and the width C is consistent from one end to the other.
- Measure the diagonal corers and check that they are even and belt is still square. (B)

Abbey Tub Feeders

5.0 CARE AND MAINTENANCE (Contd)

Instructions on assembling the belt



- Place belt around both rollers and match up joiners
- Fit new belt joiner cable.
- Square up rollers on frame.
- Tension both roller tensioners on each roller (Note: rollers should only be tightened until the roller starts to turn the belt. Any more will over tighten the belt, tension all four evenly).
- Check that both rollers are the same distance away from each other.
- Tighten up bolts on flange bearings.
- When using the tensioners make sure that the pressure of the bolt is not on the bearing itself but the slider plate it sits on as shown.
- Double check position of rollers.
- Run elevator.

Instructions for Slat and Chain Elevators

With Slat and chain elevators the procedure is slightly different. There is no need to remove the chain but to loosen the chain by slacking either one or two of the rollers so it is easier to clean the underside of the slats and around the sprockets. Make sure the chain is well lubricated and replace any slats that may get damaged during the season. Use the same procedure as above to tighten and square the rollers.

Elevator Speeds

Recommended that only the hydraulic motor supplied with the machine be used to discharge fodder. It is advised that the oil flow rate of 30-40 ltr/min be used when discharging.

Fitting a smaller motor to increase the speed of the belt will result in warranty being voided.

5.0 CARE AND MAINTENCE (Contd).

Service Intervals

	Daily	Weekly	First 100hr's	300hrs/ Season	1000hrs/ Season
Grease universal joints on each end of P.T.O. shaft.	√				
Check Gearbox Oil level.	√				
Change Gearbox oil			√		√
Check tightness of gearbox bolts. Ref Page 21.		√			
Tighten wheel nuts		√			
Check tyre pressure and grease wheel hubs.		√			
Check bolts on knives		√			
Check bolts between auger and gearbox		√			
Ensure any additional components are operating correctly i.e. elevator, hydraulic counter knives and electric controls.		√			
Completely Strip down belt elevator and clean down cage rollers and bearing				√	
Check Sharpness of knives and replace if required				√	
Wash down Feeder fully.		√			
Brake cam levers pulling evenly		√			

Abbey Tub Feeders

5.0 CARE AND MAINTENCE (Contd).

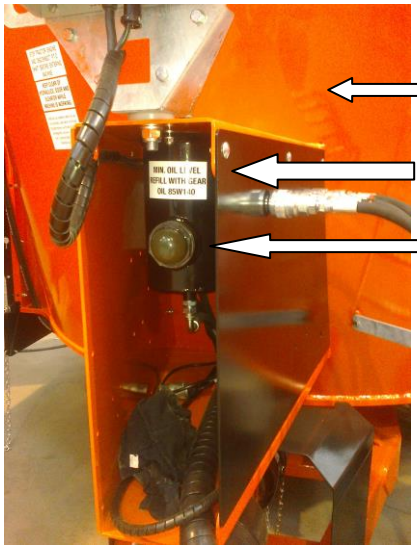
Changing the Gearbox Oil (Planetary Gearbox)

Period First at 100 hours

Thereafter, every 1000 working hours or at least once per season.

***Oil type and quantity: 85 W140 and 18 litres minimum for each planetary gearbox*.**

1. Remove bottom drain plug and drain all the oil into a suitable container, remove the breather plug from the oil reservoir to assist oil Flow.
2. Always drain the gear oil while it is warm to avoid the deposit of sludge's. Clean the drain plug prior to refilling the oil.
3. Refit the drain cap. Remove the top hose from the reservoir, allowing the top hose act as a breather while filling. The opposite end of this hose connection to the top of the planetary box (access to this connection is through a flange on the side of the auger tube).
4. Refill the Oil into the gearbox via the bottom hose on reservoir. Pumping the oil into the gearbox (using e.g. a barrel pump) will reduce the filling times. A planetary gearbox requires a minimum of 18 litres of oil.
5. Reconnect the hose to the reservoir after oil consistently flows through it and top up the oil to the sight glass on the reservoir.



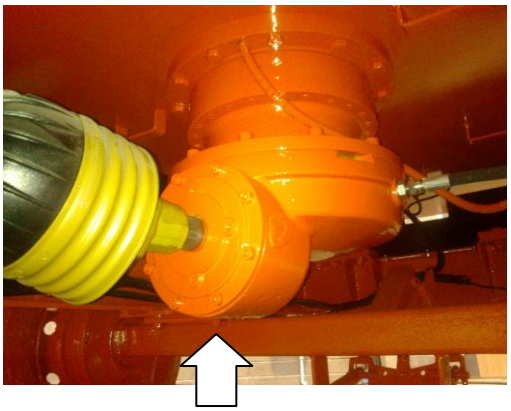
Oil reservoir is housed on machine front

Top hose connection to reservoir

Gearbox Oil Level eye glass, Oil is to be kept up to this level at all times.

Please note: It is normal for the planetary gearbox to be filled to this level with oil.

Planetary gearbox oil drain plug



Access to top connection on gearbox is via an access flange on the auger tube.

5.0 CARE AND MAINTENCE (Contd).

Procedure on changing wheel:

1. Call a tyre company to fix/replace the wheel. (These companies are professionals with proper lifting equipment and can have the wheel replaced or fixed on site)

If this is not possible:

2. Pull up to a level area and apply the handbrake (if fitted) on the trailed machine away from any major road and Insert wheel jocks on both sides of the inflated wheel.
3. Remove all contents in the trailed machine.
4. Loosening the wheel nuts before jacking the machine up.
5. Use proper lifting equipment.
6. Place jack under chassis close to the side of the axle you wish to raise.
7. When raising the machine always use an axle stand as an safety device. Put under axle before lifting takes place and raise stand every few inches or whenever possible. Do not attempt to lift the machine unless you have a secondary device to support its weight other than the lifting jack.

Note: Before removing the wheel (if the wheel is over 25kg's) it is recommended that you have another capable body to give you a helping hand and not to attempt to remove on your own.

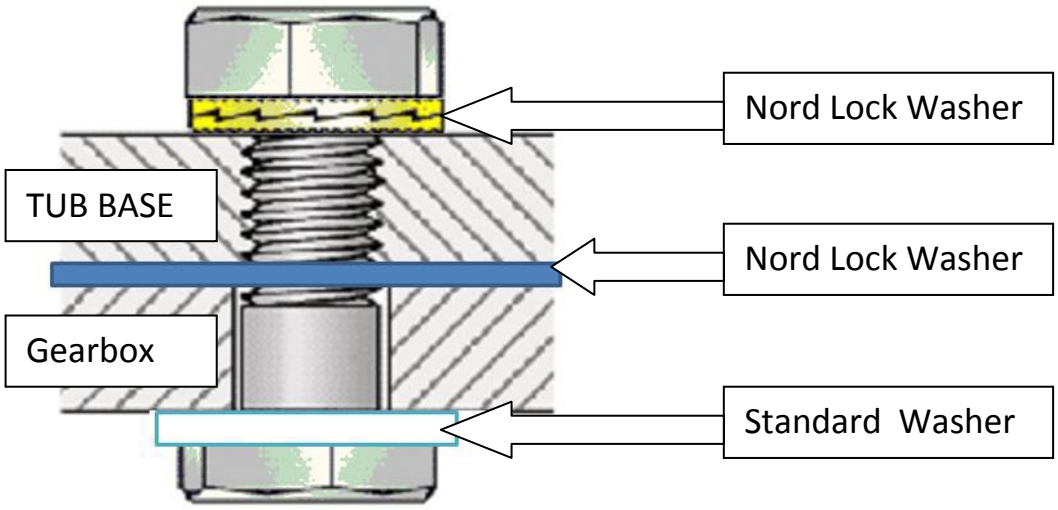
8. Remove and replace wheel. When tightening wheel nuts use the proper torque settings and every second nut always move to the opposite side of the wheel.
9. Double check each nut when finished.

Suggested torque settings are shown below:

	Torque (duNm=Kpm)
M14 x 1.4	13
M16 x 1.5	20
M18 x 1.5	27
M20 x 1.5	35
M22 x 1.5	45
M22 x 2	43
M24 x 1.5	55

VF TUBS

GEARBOX BOLT ASSEMBLY PROCEDURE



VF800 and VF1500

- **M14 x 180s - Grade 12.9 Bolts, M14 Washers, Gasket ABY-VF1201.213 and M14 - Grade 10 Nuts.**
- The bolt head goes underneath the machine and the nut and nord lock washer are on top inside the barrel.
- Torque the bolts to **210 N/M**.

VF1000, VF1050, VF1250, VF1850, VF2250, VF2850

- **M16 x 75s - Grade 12.9 Bolts,M16 Washer,Gasket ABY-VF1201.212, M16 Nord Lock Washers M16 - Grade 12 Nuts.**
- The bolt head goes underneath the machine and the nut and nord lock washer are on top inside the barrel.
- Torque the bolts to **320 N/M**.

Abbey Tub Feeders

5.1 PRE SEASON ABBEY TUB FEEDER MAINTENANCE

Grease all points on the machine at regular intervals throughout the Season (a suggested period is once every 7 days). Grease the PTO shafts as recommended on their respective instruction booklets. If a conveyor is fitted to the machine grease all points and oil the conveyor chain well for the best performance.

For an efficient cutting action to be produced by the feeder ensure all auger knifes have a good edge. Replace worn knifes with genuine parts only.

The following bolts should be checked and tightened prior to using the machine.

- Gearbox to floor connecting bolts(Ref Page 21:210N/M for VF800 and VF1500) (320N/M for all other models).
- Gearbox to auger connecting studs.
- Knife bolts.
- The M20 weigh bar bolts only should be tightened.

Check the weighing system prior to loading the machine to ensure the system is working and weighing accurately. Optimum performance and effective feeding can only be produced with consistent loads, always ensure the weighing system is working properly.

Oil for Planetary Gearboxes

The planetary gearbox oil should be changed after the first 100hrs of work and subsequent changes should be

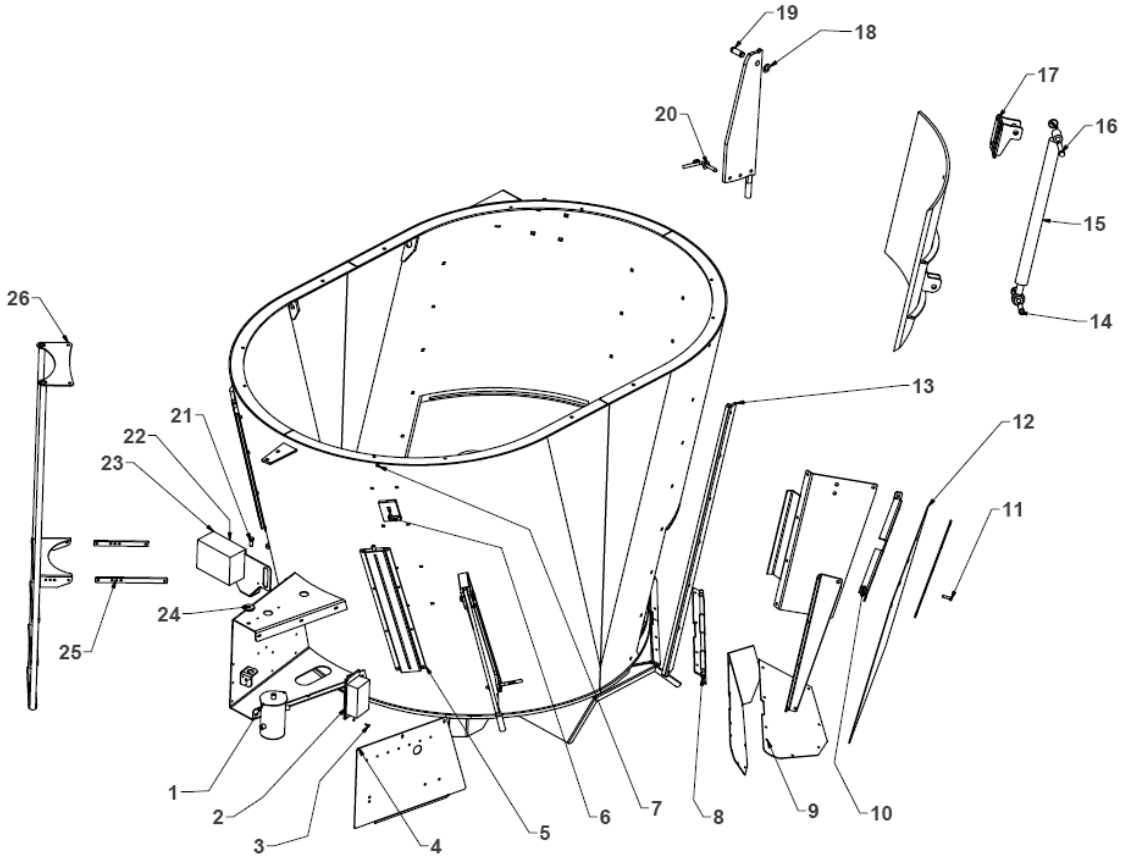
after 1000 working hours or at least once a season.

At least once a season change the planetary gearbox oil. See instruction manual, page 9 maintenance section 5.0. Always drain the gear oil while it is warm to avoid the deposit of sludge's. Clean the drain plug prior to refilling the oil.

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

TWIN DOOR TUB - AM PARTS

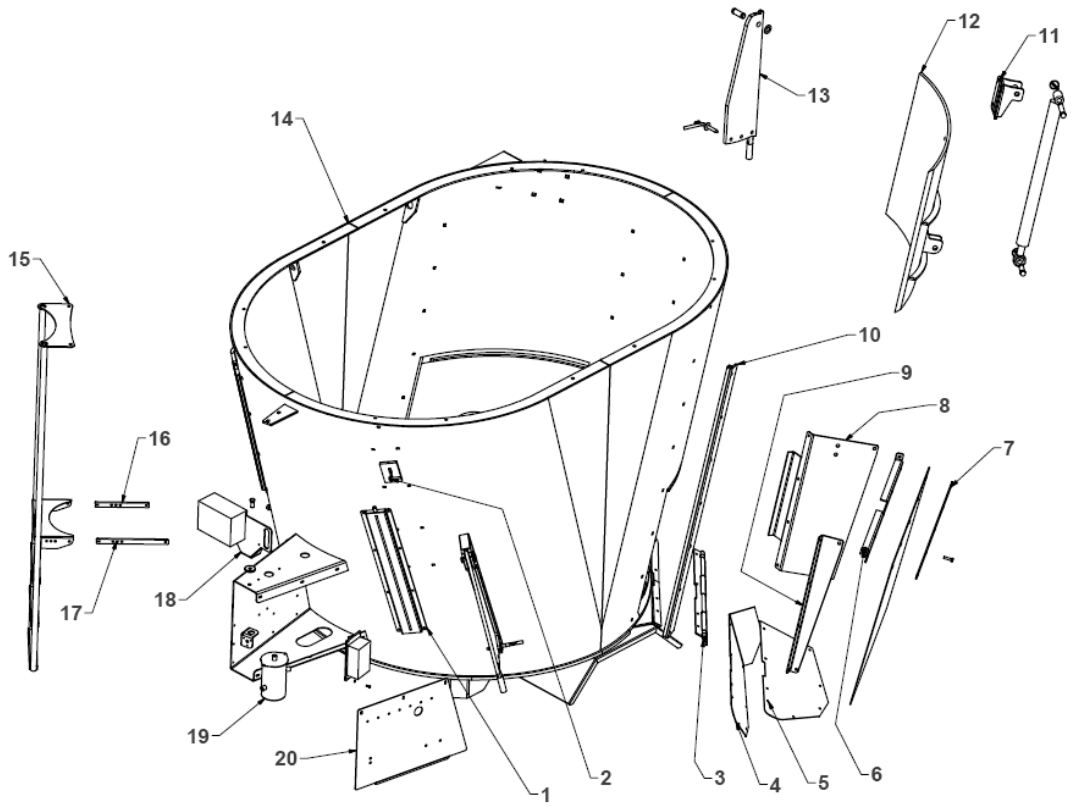


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	M8X20 Bolt + L-Nut	2	DIN933-M8X20	14	PIN 1" X 4"+ Linch Pin	2	ABY9145
2	Junction Box	1	ABY9881 A	15	Door Ram	2	ABY4927
3	M6x20 + L-Nuts + Flat Washer	4	Din933-M6x20	16	PIN 1" X 6"+ Linch Pin	2	ABY9194
4	M10X25+L-Nut + Washer	2	DIN933-M10X25	17	M16X60 + L-Nut + Washer	8	Din4.6-M16 X 60
5	M10X25+L-Nut + Washer	8	DIN933-M10X25	18	Circlip	4	CLP 28mm-E
6	M10X60+L-Nut + Washer	2	DIN933-M10X60	19	Counter Blade Hinge Pin	2	ABY 9809
7	Door Cable 2.5 (3360mm)	2	ABY 9937	20	Counter Blade Locking Pin	2	ABY 9811
8	R-Clip 4mm	1	CLP 3553	21	M16X40 + L-nut + Washer	1	Din933-M16x40
9	M8X20 Cuphead Bolt + L-Nut	16	Din4.6-M8 X 20	21A	Spring	1	ABY 9789
10	M16X40 + L-NUT + Washer	2	Din933-M16x40	22	M6x20	2	Din933-M6x20
11	M12x30 Cuphead Bolt +L-Nut	10	Din4.6-M12 X 30	23	Digital Indicator	1	ABY9880 A
12	Door Rubber	2	ABY 9855	24	Nylon Washer	1	ABY9877S
13	M12x60 Cuphead Bolt +L-Nut	28	Din4.6-M12 X 60	25	M10X30+L-Nut+ Washer	6	Din933-M10x30
				26	M12x30+L-Nut	2	Din933-M12x30

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

TWIN REAR DOOR TUB - AF PARTS

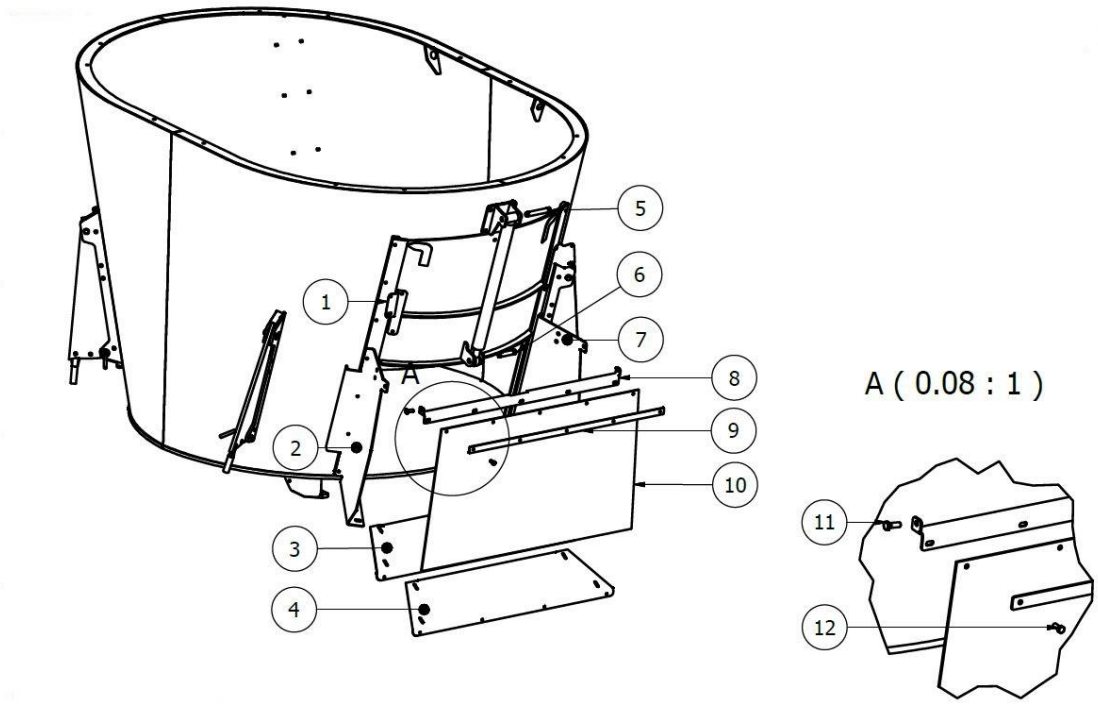


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	Door Indicator Channel	2	ABY 9969	14	Tub Main Body	1	ABY9812
2	Door Indicator	2	ABY 9970	15	Std Ladder	1	ABY9813
3	Piano Hinge	2	ABY 9876	15a	Twin Tub Ladder	1	ABY9813T
4	Rear Door Tray L/R	2	ABY 9801 – L/R	16	Ladder Short Stay Bar	1	ABY9877ST
5	Stainless Tray Cover	2	ABY 9802	16a	Twin Tub Lad Short S-Bar	1	ABY9877S
6	Door Rubber Hinge Angle	2	ABY9805 – L/R	17	Ladder Long Stay Bar	1	ABY9877L
7	Door Rubber Retaining Bar	2	ABY 9804	17a	Twin Tub Lad Long S-Bar	1	ABY9877LT
8	Rear Door Large Side Panel	2	ABY9806 – L/R	18	Digital Ind. Mount Bracket	1	ABY9880 A
9	Rear Door Small Side Panel	2	ABY9803 – L/R	19	Oil Reservoir	1	ABY 9815
10	Door Rails	2	ABY9800	20	Front Side Panel	1	ABY 9816
11	Bolt on Ram Brackets	2	ABY 9807				
12	Rear Door	2	ABY9808-L/R				
13	Counter Blade (Please note 1250RD has smaller counter Blade)	2	ABY9810				

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

REAR MEAL DOOR

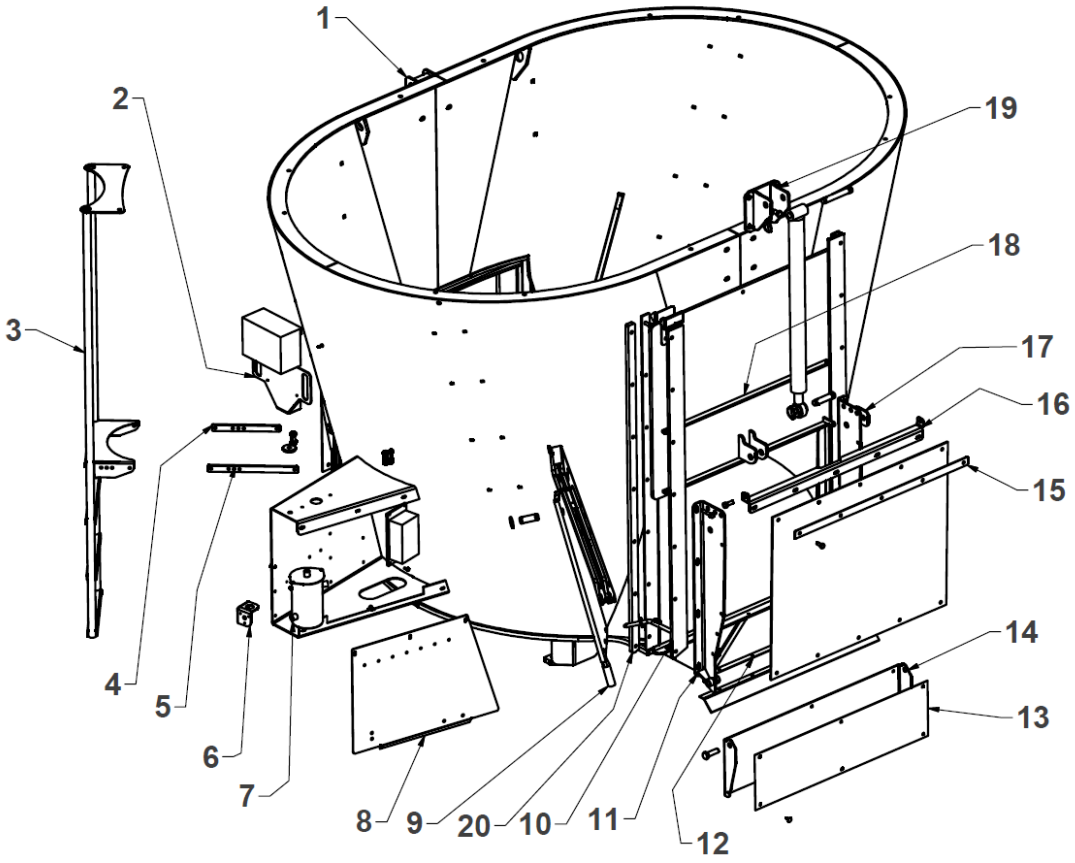


Pos	Description	QTY	Part No
1	Rear Door light Bracket Left and Right	2	ABY9504
2	Rear Door Left Side Panel left	1	ABY9806-L-MD
3	Rear Door Tray	1	ABY9801-MD
4	Rear Door Stainless	1	ABY9802-MD
5	Top Ram Pin	1	ABY 9194
6	Bottom Ram Pin	1	ABY 9145
7	Rear Door Right Side Panel Right	1	ABY9806-R-MD
8	Rear Door Rubber Hinge	1	ABY 9874
9	Door Rubber Retainer	1	ABY 9862
10	Door Rubber	1	ABY 9998
11	M14 x 40mm	2	DIN933-M14X40
12	M12 x 30mm	5	DIN4.6-M12X30

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

SIDE DOOR TUB – AF PARTS

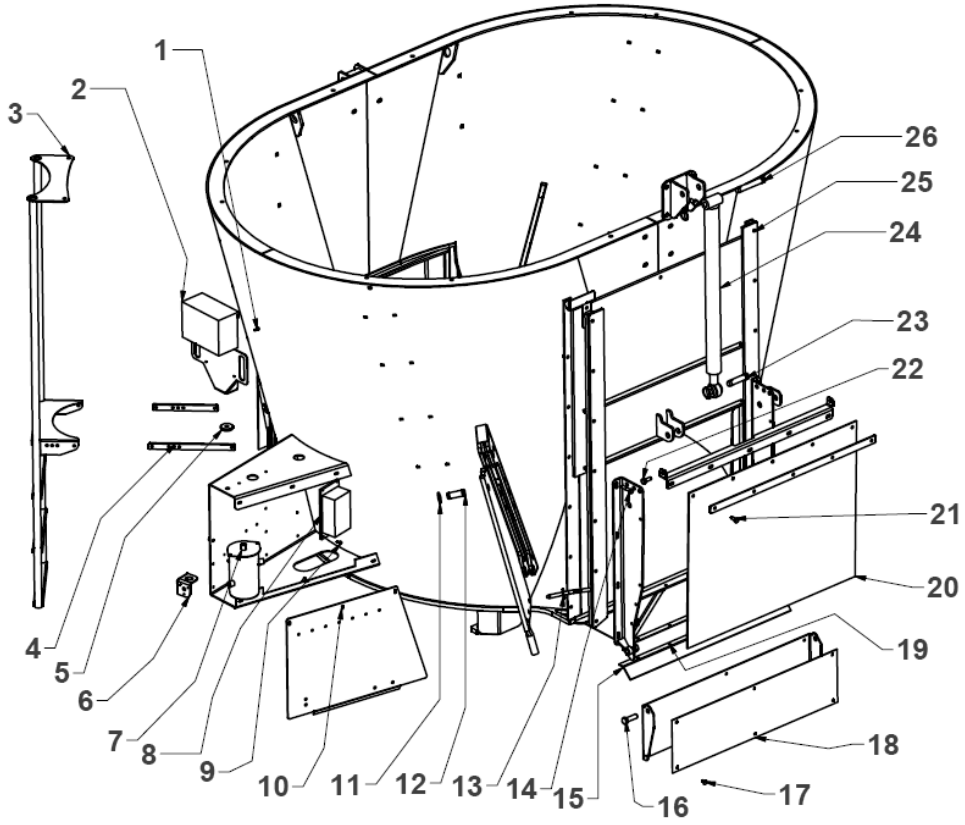


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	Tub Main Body	1	ABY9812	9	Counter Blade	2	ABY9810
2	Digital Indicator Mt Bracket	1	ABY 9971	10	Door Rails	2	ABY9800
3	Ladder	1	ABY9813	11	Tray Hinge Angle Left	1	ABY 9850-L
3A	Twin Tub Ladder	1	ABY9813T	12	Lip Door Rubber Retainer	1	ABY 9854
4	Ladder Short Stay Bar	1	ABY9877ST	13	Side Door Tray Stainless	2	ABY 9852
4A	Twin Tub Lad Short S-Bar	1	ABY9877S	14	Side Door Tray	2	ABY 9851
5	Ladder Long Stay Bar	1	ABY9877L	15	Side Door Rubber Retainer	2	ABY 9856
5A	Twin Tub Lad Long S-Bar	1	ABY9877LT	16	Side Door Rubber Hinge	2	ABY 9874
6	Light Socket Position	1	ABY 9510	17	Tray Hinge Angle Right	1	ABY 9850-R
7	Oil Reservoir	1	ABY 9815	18	Side Door	2	ABY 9859
8A	Front Side Panel VF10	1	ABY 9816	19	Bolt on Ram Bracket	2	ABY 4927-B
8B	Front Side Panel VF12	1	ABY 9816-12	20	Door Rail Spacer	2	ABY9800-SP

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

SIDE DOOR TUB – AM PARTS

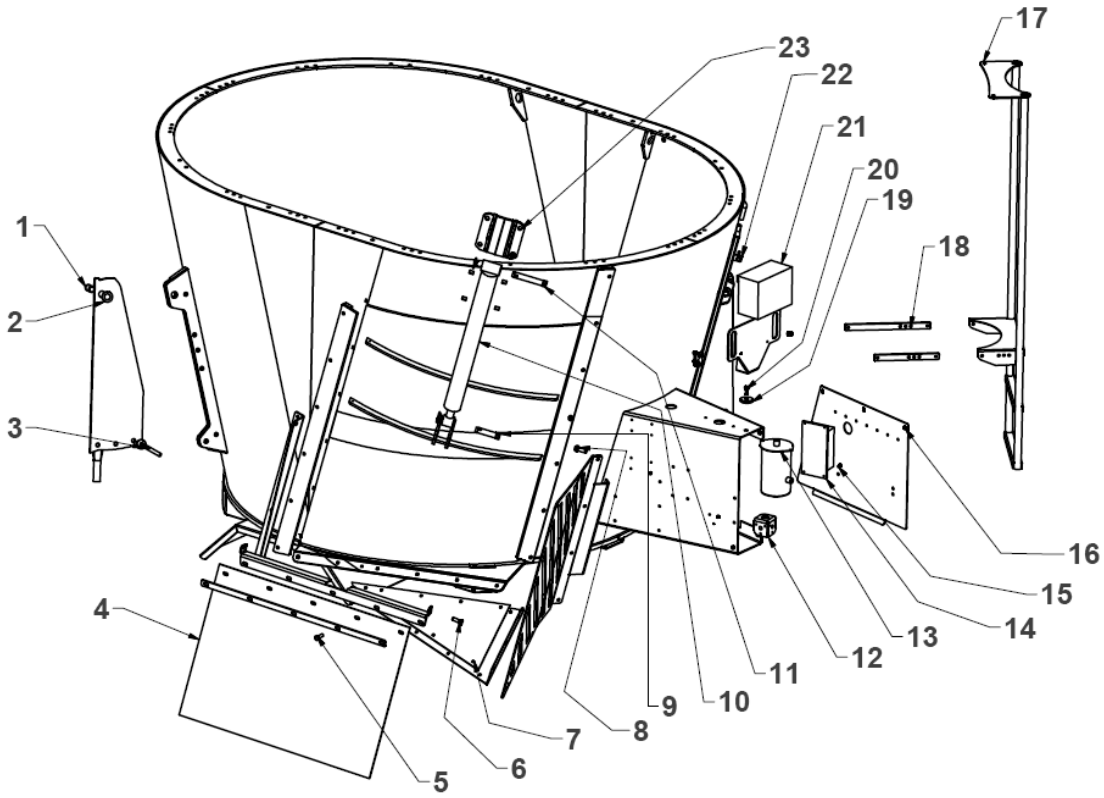


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	M6x20	2	Din933-M6x20	14	M12x60 Cuphead+L-Nut	28	DIN4.6-M12X60
2	Digital Indicator	1	ABY9880 A	15	M10x25 Cuphead+L-Nut	10	DIN4.6-M10X25
3	M12x30+L-Nut	2	Din933-M12x30	16	M16x50 + L-Nut	4	Din933-M16X50
4	M10X30+L-Nut+ Washer	6	Din933-M10x30	17	M8x20 Cuphead+L-Nut	6	DIN4.6-M8X20
5	Nylon Washer	1	ABY 9878	18	Side Door Stainless	2	ABY 9852
5A	Spring	1	ABY 9789	19	Side Door Lip Rubber	2	ABY 9999
6	M6x20 + L-Nut + Washer	2	Din933-M6x20	20	Side Door Rubber	2	ABY 9998
7	M8 x 20 + L-Nut	3	Din933-M8X20	21	M12 x 30 Cuphead + L-Nut	10	DIN4.6-M12X30
8	Junction Box	1	ABY9881 A	22	M12x30+L-Nut	4	Din933-M12x30
9	M6x20 + L-Nuts + Flat Washer	4	Din933-M6x20	23	PIN 1” X 4”+ Linch Pin	2	ABY9145
10	M10X25+L-Nut + Washer	2	DIN933-M10X25	24	Door Ram	2	ABY4927
11	Circlip	4	CLP 28mm-E	25	PIN 1” X 6”+ Linch Pin	2	ABY9194
12	Counter Blade Hinge Pin	2	ABY 9809	26	M16X60 + L-Nut + Washer	8	Din4.6-M16 X 60
13	Counter Blade Locking Pin	2	ABY 9811				

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

DIAGONAL DOOR TUB – AM PARTS

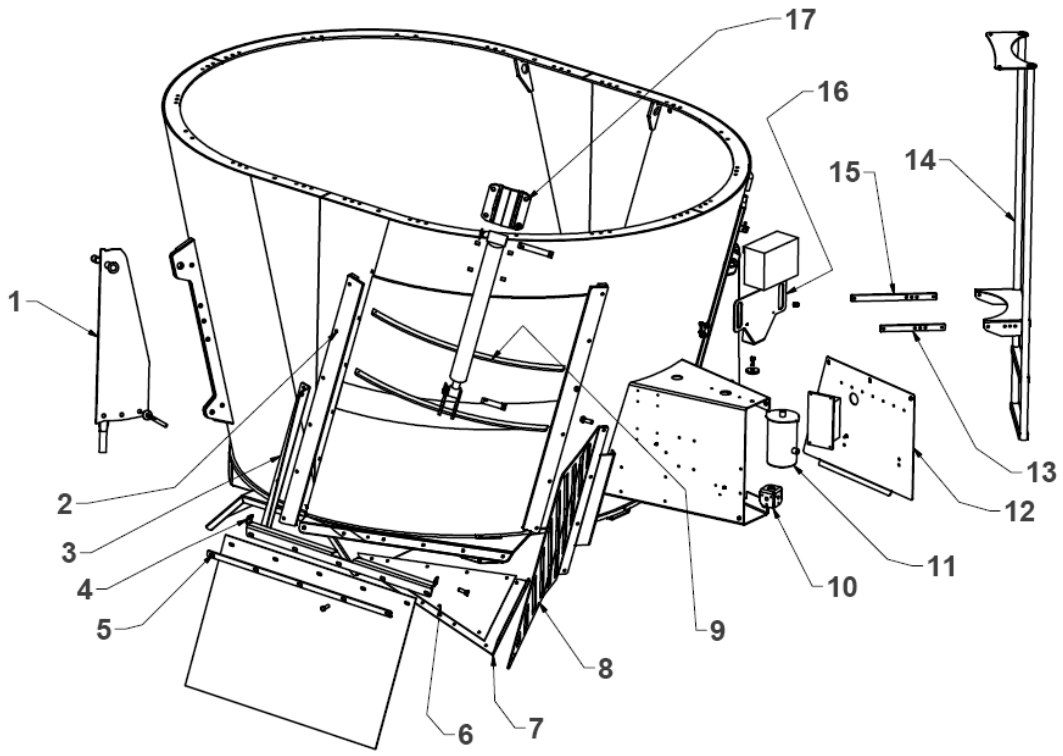


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	Circlip	4	CLP 28mm-E	13	M8 x 20 + L-Nut	3	Din933-M8X20
2	Counter Blade Hinge Pin	2	ABY 9809	14	Junction Box	1	ABY9881 A
3	Counter Blade Locking Pin	2	ABY 9811	15	M6x20 + L-Nuts + Washer	4	Din933-M6x20
4	Door Rubber VF8	1	ABY 4926	16	M10X25+L-Nut + Washer	2	DIN933-M10X25
5	M12 x 30 Cuphead + L-Nut	5	DIN4.6-M12X30	17	M12x30+L-Nut	2	Din933-M12x30
6	M12x30+L-Nut	4	Din933-M12x30	18	M10X30+L-Nut+ Washer	6	Din933-M10x30
7	M8x20 Cuphead+L-Nut	12	DIN4.6-M8X20	19	Nylon Washer	1	ABY 9878
8	M12x60 Cuphead+L-Nut	28	DIN4.6-M12X60	20	M16X40 + L-nut + Washer	1	Din933-M16x40
9	PIN 1” X 4”+ Linch Pin	2	ABY9145	20A	Spring	1	ABY 9789
10	Door Ram	2	ABY4926	21	M6x20	2	Din933-M6x20
11	PIN 1” X 6”+ Linch Pin	2	ABY9194	22	Digital Indicator	1	ABY9880 A
12	M6x20 + L-Nut + Washer	2	Din933-M6x20	23	M16X60 + L-Nut + Washer	4	Din4.6-M16 X 60

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

DIAGONAL DOOR TUB – AF PARTS

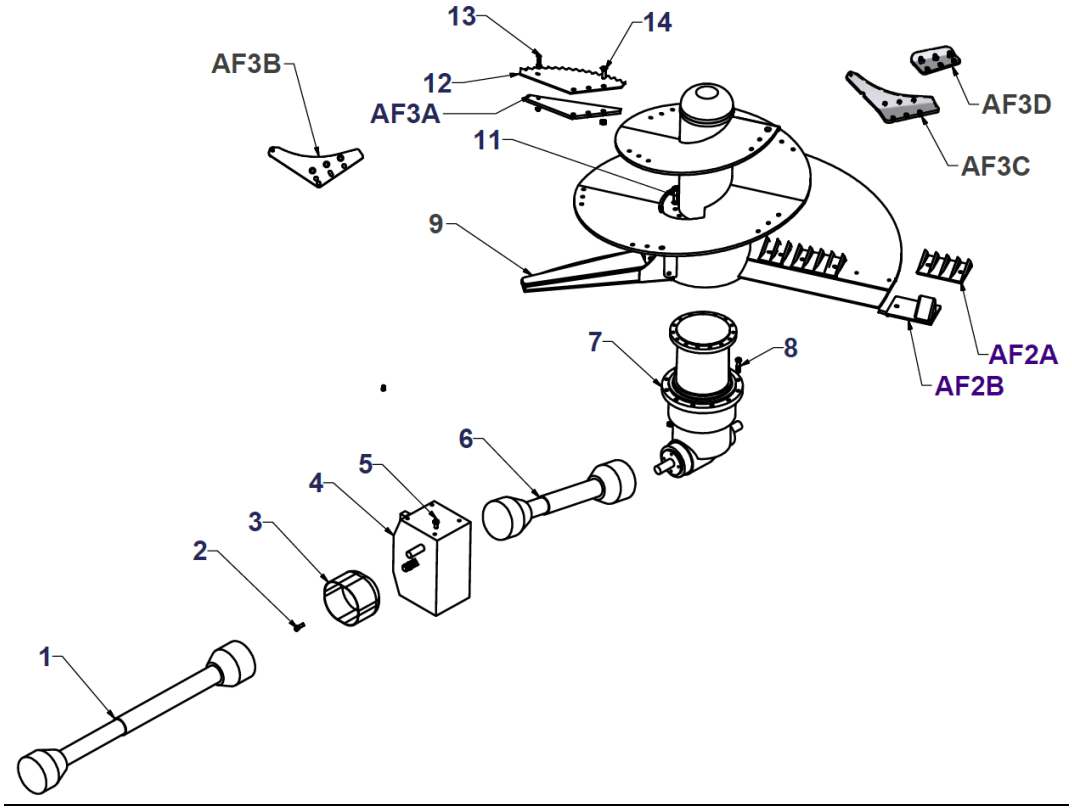


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	Counter Blade	2	ABY 9810	11	Oil Reservoir	1	ABY 9815
2	Door Rails	2	ABY 9800	12	Front Side Panel VF10	1	ABY 9816
3	Door Rubber Hinge Angle	1	ABY 9803	13	Ladder Short Stay Bar	1	ABY 9877S
4	Door Rubber Hinge VF8	1	ABY 9861	14	Ladder VF8	1	ABY9813
5	Door Rubber Retainer Bar	1	ABY 9862	15	Ladder Long Stay Bar	1	ABY 9877L
6	Stainless for Vf8 Tray	1	ABY 9852-8	16	Digital Indicator Mt Bracket	1	ABY 9971
7	VF8 Tray	1	ABY 9860	17	Bolt on Ram Bracket	2	ABY 4926-B
8	Slotted Door Angle	1	ABY 9863				
9	VF8 Door	1	ABY 9851-8				
10	Light Socket Position	1	ABY 9510				

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

2 SPEED TUB FEEDER DRIVE LINE

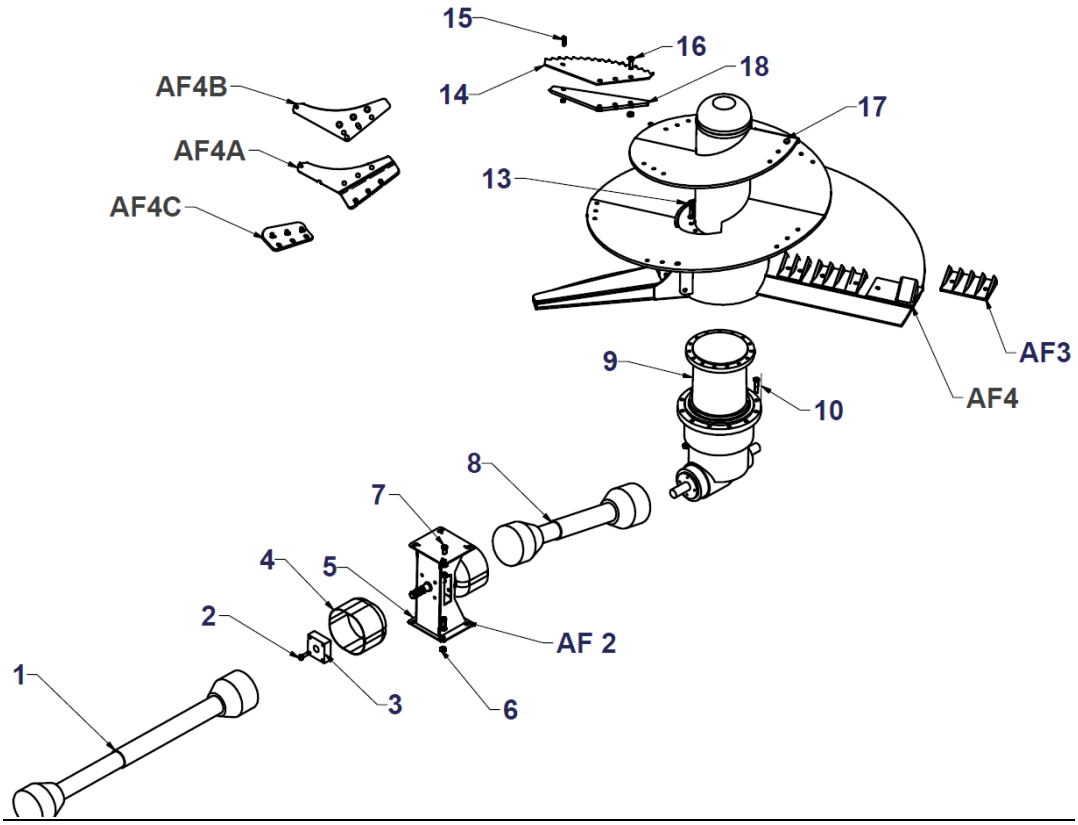


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	T60 PTO Shaft	1	COM0763311610	11	M16 x 70 + F-Washer	12	Din 933-M16 x 70
2	M8X25 + F-Washer	8	Din 933-M8 x 25	12	Auger Knifes	8	ABY 9949
3	Shaft Guard	2	ABY 7160	13	M10 x 40+L-Nut+Washers	8	Din 933-M10x40
4	2 Speed Gearbox C3A	1	COM5367005013	14	M16x60+L-Nut	24	Din 933-M16 x 60
5	M16 x 30	8	Din 933-M16X30				
6	T60 PTO Shaft	1	COM0762329610		Optional		
7	Som Gearbox (21:1)	1	COM57175040536	AF2A	Beet Knifes	1	ABY 9826
8a	M16 x 70 + L-Nut	15	M16X70S FT	AF2B	Auger Wing	1	ABY9894
8b	M14X180 + L-Nut	16	DIN912-M14X180	AF3A	Knife Backing Plates Std.	8	ABY 9827
9a	Extra Feed Out Arm	1	ABY 9825-12	AF3B	Backing Blade Knife Exten.	1	ABY 9891
9b	M16x25	4	DIN 933-M16 x 25	AF3C	Raise top knife Bracket	1	ABY 9893
9c	M16x40 + L-Nut	2	Din 933-M16 x 40	AF3D	Clamp used with ABY9893	1	ABY 9827SP

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

SINGLE SPEED TUB FEEDER DRIVE LINE

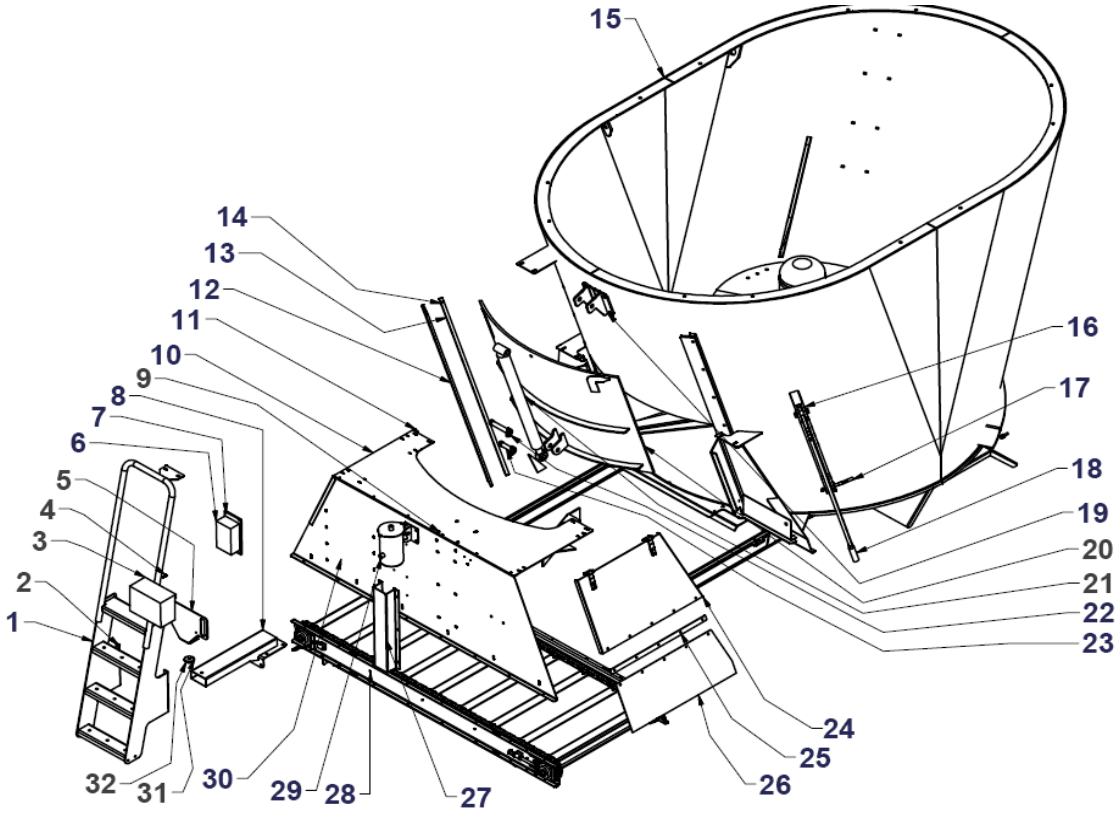


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	T60 PTO Shaft	1	COM0763310710	14	Auger Knifes	8	ABY 9949
2	M14X40 + F-Washer	8	Din 933-M14 x 40	15	M10 x 40+L-Nut+Washers	8	Din 933-M10x40
3	35MM Flange Bearing	2	BRNUCF 207E	16	M16x60+L-Nut	24	Din 933-M16 x 60
4	Shaft Guard	2	ABY 7160	17a	Tub Auger VF7	1	ABY9864
5	Mid Shaft	1	COM311300400	17b	Tub Auger VF10	1	ABY 6861
6	M16x40 + L-Nut + Washers	2	Din 933-M16 x 40	17c	Tub Auger VF12	1	ABY6862
7	M16x30 + L-Nut + Washers	2	Din 933-M16 x 30	18	M12x40 + L-Nut	6	Din 931-M12 x 40
8	T60 PTO Shaft	1	COM0762327310		Optional		
9a	Som Gearbox (21:1)	1	COM57175040536	AF2	Mid-Shaft Housing	1	ABY 563-H
9b	Som Gearbox (21:1) (T-Box)	1	COM57170008543	AF3	Beet Knifes	1	ABY 9826
9c	Som Gearbox (20:1) (T-Box)	1	COM57170008571	AF4	Auger Wing	1	ABY9894
10a	M16 x 70 + L-Nut	15	M16X70S FT	AF4A	Raise top knife Bracket	1	ABY 9893
10b	M14X180 + L-Nut	16	DIN912-M14X180	AF4B	Backing Blade Knife Exten	1	ABY 9891
13	M16 x 70 + F-Washer	12	Din 933-M16 x 70	AF4C	Clamp used with ABY9893	1	ABY9827SP

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

VF12 TUB PART – AF & AM PARTS

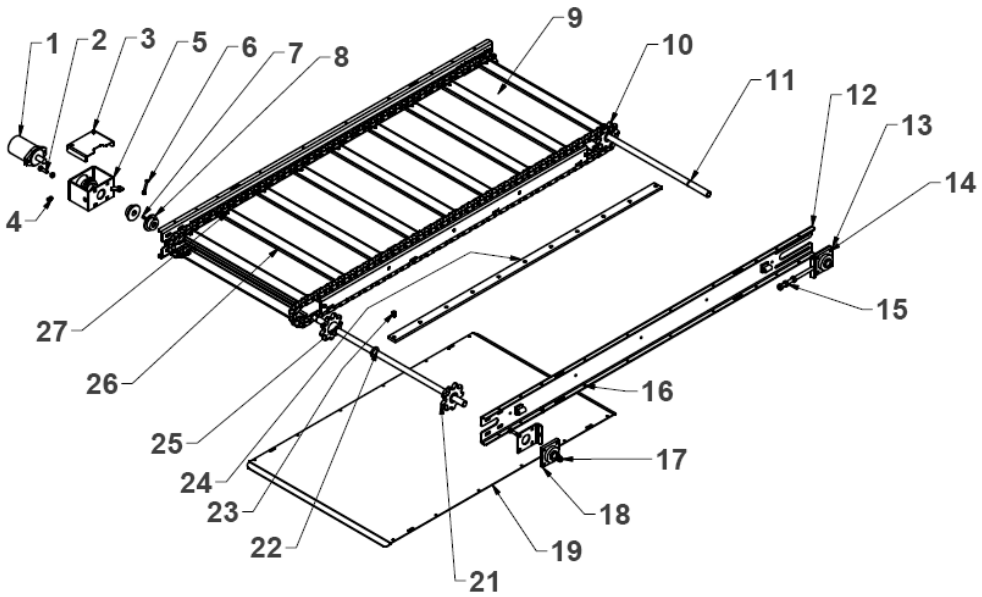


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	VF12 Ladder	1	ABY 9814	17	Counter Blade Locking Pin	2	ABY 9811
2	M8x20 + L-Nut	6	Din933-M8 x 20	18	Counter Blade	2	ABY 9810
3	Digital Indicator	1	ABY9880 A	19	VF12 Door Ram Bracket	1	ABY 9831
4	M6x20	2	Din933-M6x20	20	VF12 Front Door	1	ABY 9832
5	Digital Indicator Mounting Plate	1	ABY 9971	21	Door Ram	1	ABY 4927
6	Junction Box	1	ABY9881 A	22	Pin 1”x4” + Linch Pin	1	ABY 9145
7	M6x20 + L-Nuts + Flat Washer	4	Din933-M6x20	23	Pin 1”x6” + Linch Pin	1	ABY 9194
8	Top Hose Channel	1	ABY 9828	24	Hinged Panel Left/Right	1	ABY 9833-L/R
9	M12X30+ L-Nut	6	Din933-M12 x 30	25	Rubber Retaining Bar	1	ABY 9834
10	Conveyor Top Panel	1	ABY 9829	26	Hinged Panel Rubber	1	ABY 9835
11	M8x20 + L-Nut	4	Din933-M8 x 20	27	Front Hose Channel	1	ABY 9836
12	Outer Door Rail	2	ABY9800	28	M8x20 + L-Nut	6	Din933-M8 x 20
13	Inner Door Rail	2	ABY9800	29	Oil Reservoir	1	ABY 9815
14	M12X60 + L-Nut + Washer	14	Din933-M12X60	30	Conveyor Front Panel	1	ABY 9837
15	VF12 Tub Barrel	1	ABY 9830	31	M16X40 + L-NUT + Washer	1	Din933-M16x40
16	Circlip	4	CLP 28mm-E	31A	Spring	1	ABY 9789
				32	Nylon Washer	1	ABY9877S

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

CONVEYOR PARTS – AF & AM PARTS

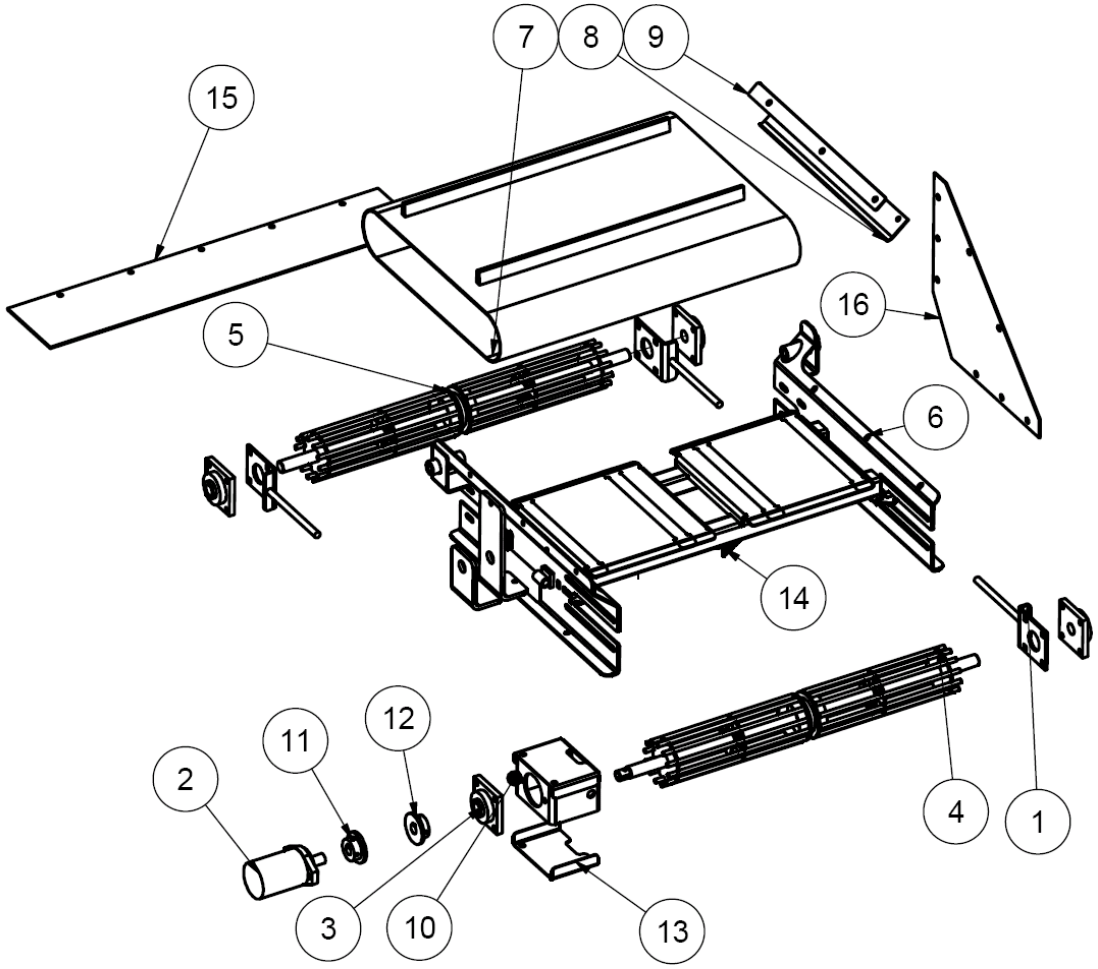


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	Hydraulic Motor	1	ABY 6998	14	1 1/8" Flange Bearing	2	BRNUCF206E-18
2	M12x40 + L-Nut	2	Din933-M12x40	15	M16 Threaded Tensioner	2	Din 975-M16B8
3	Motor Mounting Cover	1	ABY 6997	16	M8 x 20 + L-Nut	12	Din933-M8x20
4	M8 x 20 + L-Nut	4	Din933-M8X20	17	M12 x 40 Cup Head Bolt	16	Din4.6-M12 x 40
5	Motor Mounting	1	ABY 6996	18	Flange Bearing	2	BRNUCF206E-18
6	M8 x 65 + L-Nut	1	Din933 – M8x65	19	Lower Panel	1	ABY 9838
7	7 x 8 x 25 Parallel Key	2	Keysk 8 x7 x 25	20	Conveyor Chain Sprocket	4	ABY 1043
8	Motor to Shaft Connector	1	ABY 9840	21	Tub Conveyor Drive Shaft	1	ABY 16592/S
9	Conveyor Centre Panel	1	ABY 9842	22	Circlip Ext. 1 1/8"	4	CLP 28mm-E
10	Conv. Chain 108 Link incl Joiner	2	ABY 1050	23	M8 x 25 Counter Sunk Bolt	22	DIN7991-M8X25
11	Tub Conveyor Idler Shaft	1	ABY 16590/S	24	Teak Wear Strip	2	ABY 9843
12	Conveyor Side	2	ABY9839	25	7 x8 x 40 Parallel Key	4	KEYSK 8x7x40
13	Conveyor Tension Plate	1	ABY9841	26	Channel Shaped Slats	18	ABY9844
				27	M8X20 Cuphead Bolt	36	Din4.6-M8 X 20

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

Belt Conveyor – AF & AM PARTS

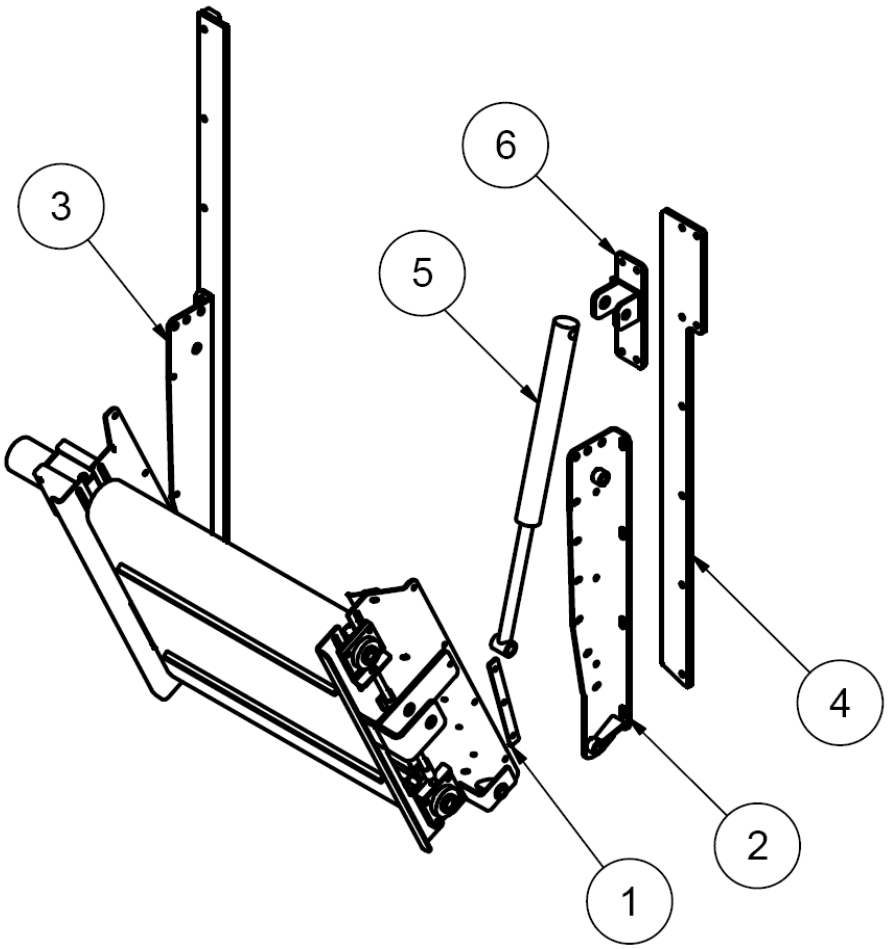


Pos.	Description	Qty.	Part No.
1	Tensioner Plate	3	ABY 9841
2	Motor	1	ABY 7003
3	Bearings	4	BRNUCF206E-18
4	Front Roller	1	ABY 143
5	Back Roller	1	ABY 144
6	Chassis (740mm)	1	ABY 140
7	Belt (1425mm)	1	ABY-21-11
8	Side Skirt Brush	2	ABY-4-26-600
9	Side Skirt Rubber Retainer Bar	2	ABY 142
10	Motor Housing	1	ABY 6996
11	Motor Coupling	2	ABY 6946
12	Motor Coupling Chain	1	ABY 6945
13	Motor Housing Cover	2	ABY 6997
14	Belt Cleaner Bush	2	ABY-4-26
15	Rubber Conveyer Lip	1	ABY9999C
16	Conveyer Side Canvas	2	ABY9990

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

Belt Conveyor Mounting Parts – AM PARTS

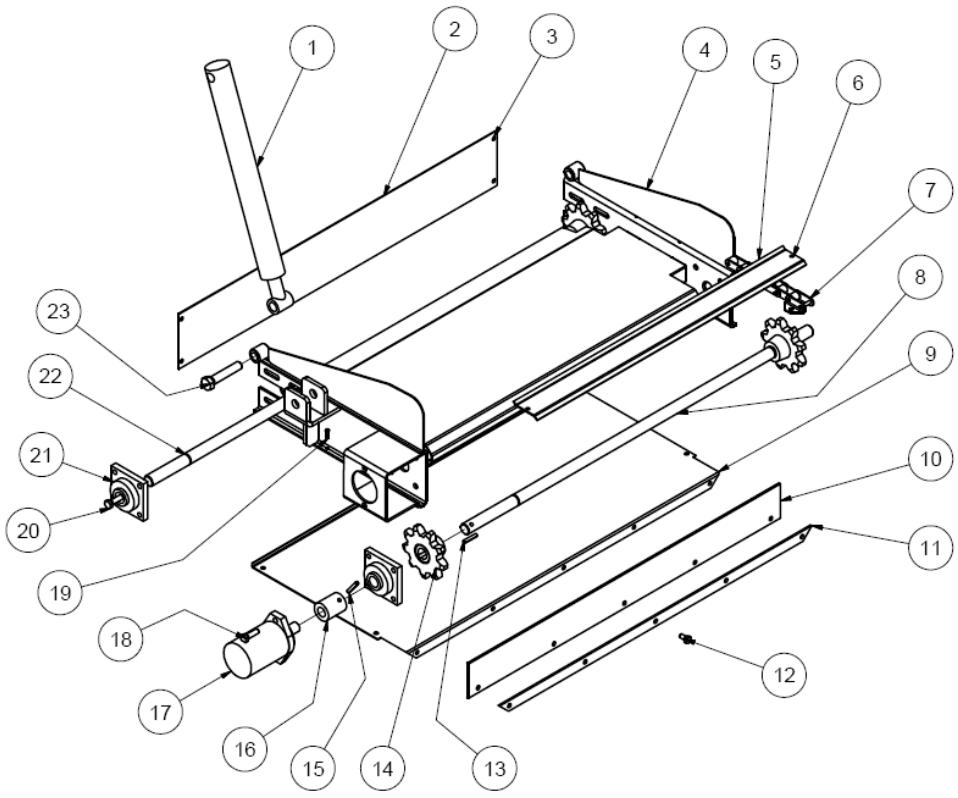


Pos.	Description	Qty.	Part No.
1	3-Hole Retaining Bar	4	ABY 6947
2	Elevator Hinge Angle Left	1	ABY 6950-R
3	Elevator Hinge Angle Right	1	ABY 6950-L
4	PVC Elevator Ram Mounting Rail	1	ABY 6948
5	Hydraulic Ram	1	ABY 9768
6	PVC Elevator Upper Ram Mounting Pad	1	ABY 6949

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

Slat & Chain Conveyor – AF & AM PARTS

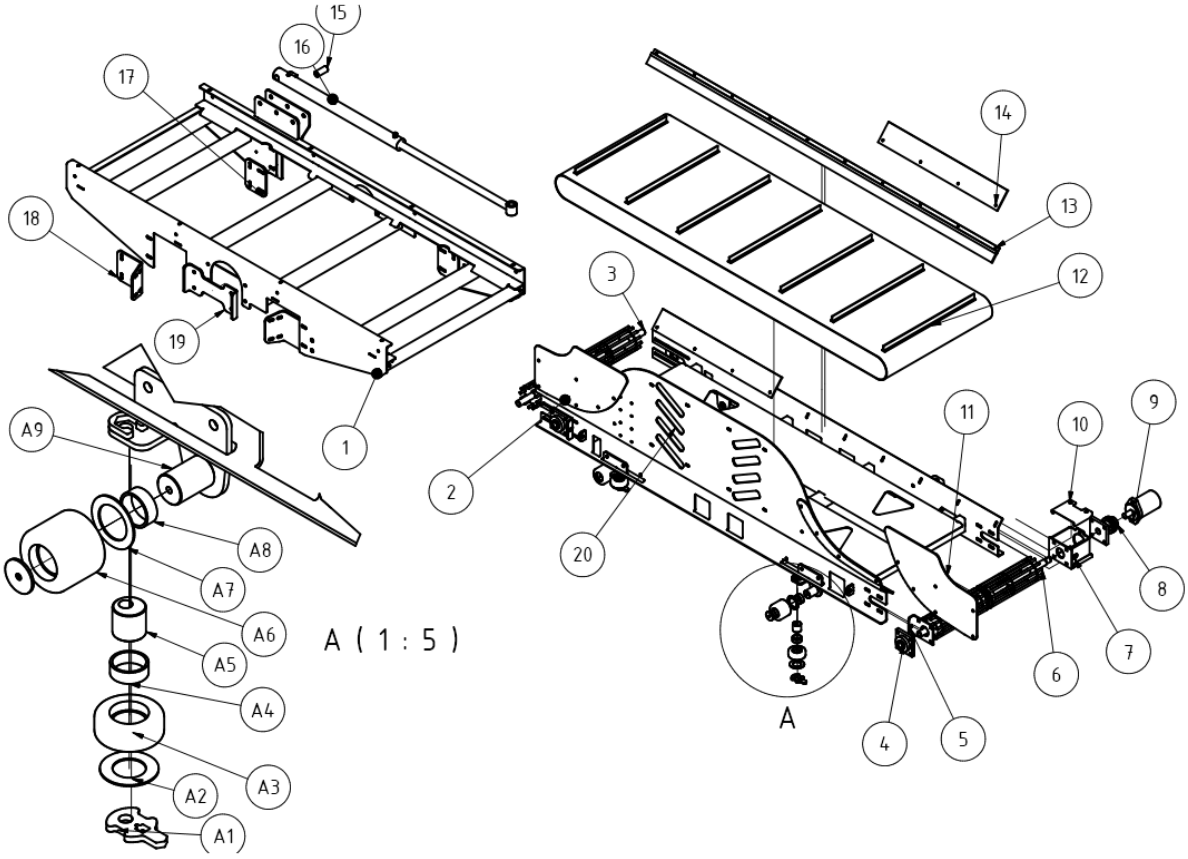


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	Lift and Lower Ram	1	ABY 4929	13	Keys 8 x 7 x 40	4	KEYSK8X7X40
2	Conveyor Tray Backing	1	ABY1049	14	Conveyor Chain Sprocket	4	ABY 1043
3	M8x15 + L-Nut	4	DIN933-M8X15	15	Roll Pin 8x50	1	PIN9908
4	Conveyor Main Frame	1	ABY1041	16	Motor to Shaft Coupling	1	ABY1046
5	Conveyor Slat	7	ABY9920Z	17	MF80 Hydraulic Motor	1	ABY7003
6	M8X20 Cuphead Bolt	14	DIN 4.6-M8 X 20	18	M12 x 40 Bolt + L/Nut	2	DIN933-M12x40
7	Conveyor Chain	2	ABY 1045C	19	M6 x 20 + L/Nut+ Washer	6	DIN933-M6X20
8	1 1/8” Driver Shaft	1	ABY 16592	20	M12 x 40 Bolt + L/Nut	16	DIN933-M12x40
9	Conveyor Tray	1	ABY 9873	21	Bearing	4	BRNUCF206E-18
10	Cleaner Rubber	1	ABY9906	22	1 1/8” Rear Shaft	1	ABY 16593
11	Rubber Retaining Bar	1	ABY1045	23	M20x100+ L/Nut	2	Din933-M20x100
12	M10x20 + L-Nut	5	DIN933-M10X20				

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

FD sliding PVC Conveyor – AF & AM PARTS



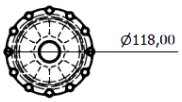
Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	Fixed frame SC	1	ABYPVCSC0001	15	Hollow Pin Sliding Ram	1	PIN28.5X65
2	Sliding Conveyor Frame	1	ABYPVCSC0002	16	Sliding conveyor Ram	1	ABY9768
3	Idler Roller SC PVC	1	ABYPVCSC0003	17	Rear Mounting flange	2	ABYPVCSC0007
4	1 1/8" 4 hole flange bearing	4	BRNUCF206E-18	18	Front Mounting Flange	2	ABYPVCSC0008
5	Adjustable tensioner Plate	3	ABY9841	19	Front flange	1	ABYPVCSC0009
6	Drive Roller SC PVC	1	ABYPVCSC0004	A1	Flange to Adj Horiz wheel	4	ABYPVCSC0012
7	Motor mounting	1	ABY6996	A2	Shim for Horizontal wheel	4	ABYPVCSC0013
8	Duplex chain	1	ABY6945	A3	Polyamide Horiz Wheels	4	ABYPHW83X33
9	Hydraulic Motor	1	ABY6998	A4	Tubular shim 46X16	4	ABYSHIM46X16
10	Motor housing cover	2	ABY6997	A5	Pin 40x38 axle horiz roller	4	PIN40MMX38MM
11	Removable panel	2	ABYPVCSC0005	A6	Polyamide wheel	4	142435-KN82/66/(4K)
12	Green PVC belt	1	ABY-21-11-B	A7	Shim for Vertical Roller	4	ABYPVCSC0010
13	Side Brush 2320	2	ABY-4-26-2320mm	A8	Tubular Shim 46X16 long	4	ABYSHIM46X16
14	Slide conveyor rear Rubber	2	ABYPVCSC0006	A9	Stub axle and Flange Vertical Roller	4	ABYPVCSC0011

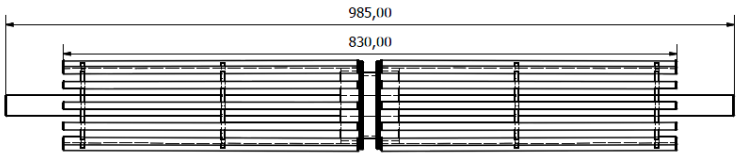
Abbey Tub Feeders

6.0 REPLACEMENT PARTS

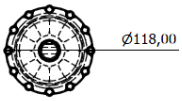
Rollers AM Parts

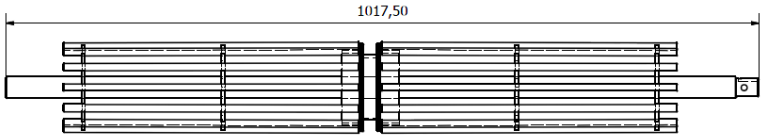
ABY144- Idler Roller



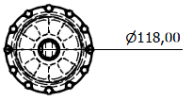


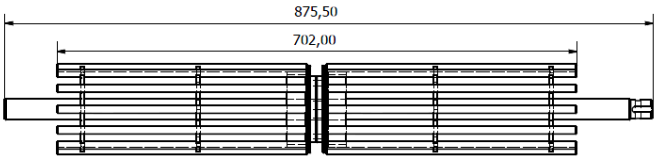
ABY143-Drive Roller



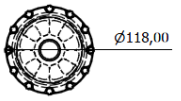


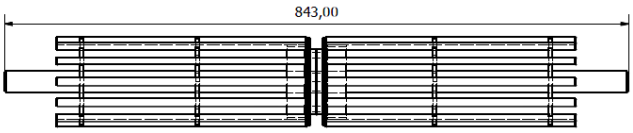
ABYPVCSC0004- Drive Roller





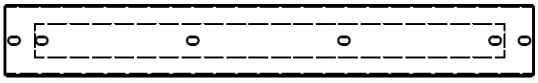
ABYPVCSC0003- Idler Roller





Slats AM Parts

S-Shape



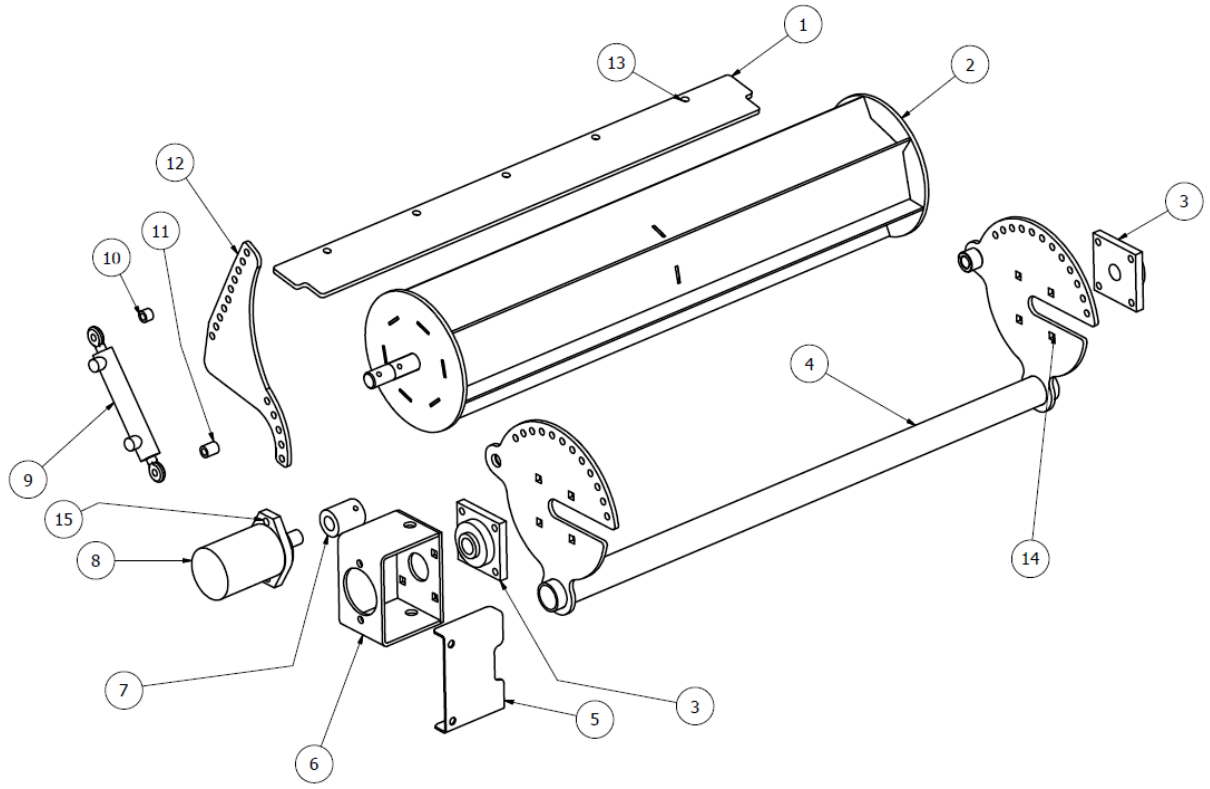
U-Shape

	Slat Length	Type	Part Number
Side Door (Current)	905	S	ABY9920Z
Side Door (Old)	905	U	ABY9920U
Fixed Front Door	770	U	ABY9844
Sliding Front Door	625	U	ABY9844-S

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

Feed Roller AM+AF Parts

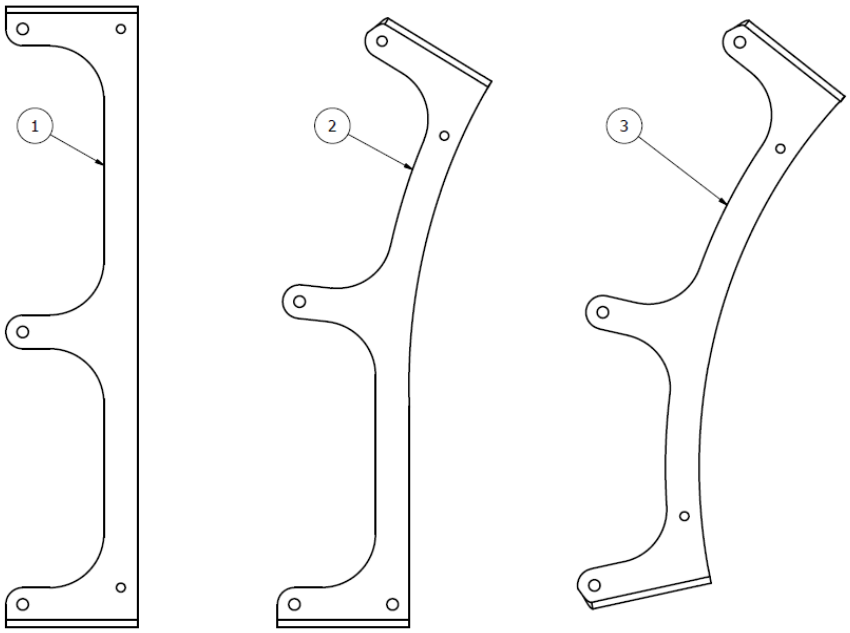


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	Door Lip Plate	1	ABY 6952	8	MF80 Hydraulic Motor	1	ABY 7003
2	10” Feed Roller	1	ABY 6953	9	Hydraulic Ram	1	ABY 9577
3	Bearing	2	BRUNCF206E-18	10	15mm Bushing	1	ABY6955
4	Feed Roller Housing	1	ABY 6954	11	25mm Bushing	1	ABY6956
5	Motor Housing Cover	2	ABY 6997	12	Option- Positional bracket	1	ABY6957
6	Motor Housing	1	ABY 6996	13	M12x30 + L/N	5	DIN933-M12X30
7	Motor to shaft Coupling	1	ABY 1046	14	M12x40 Cuphead + L/N	8	DIN4.6-M12x40
				15	M12x40 bolt +L/N	1	DIN933-M12X40

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

Flat Top Rings AM Parts



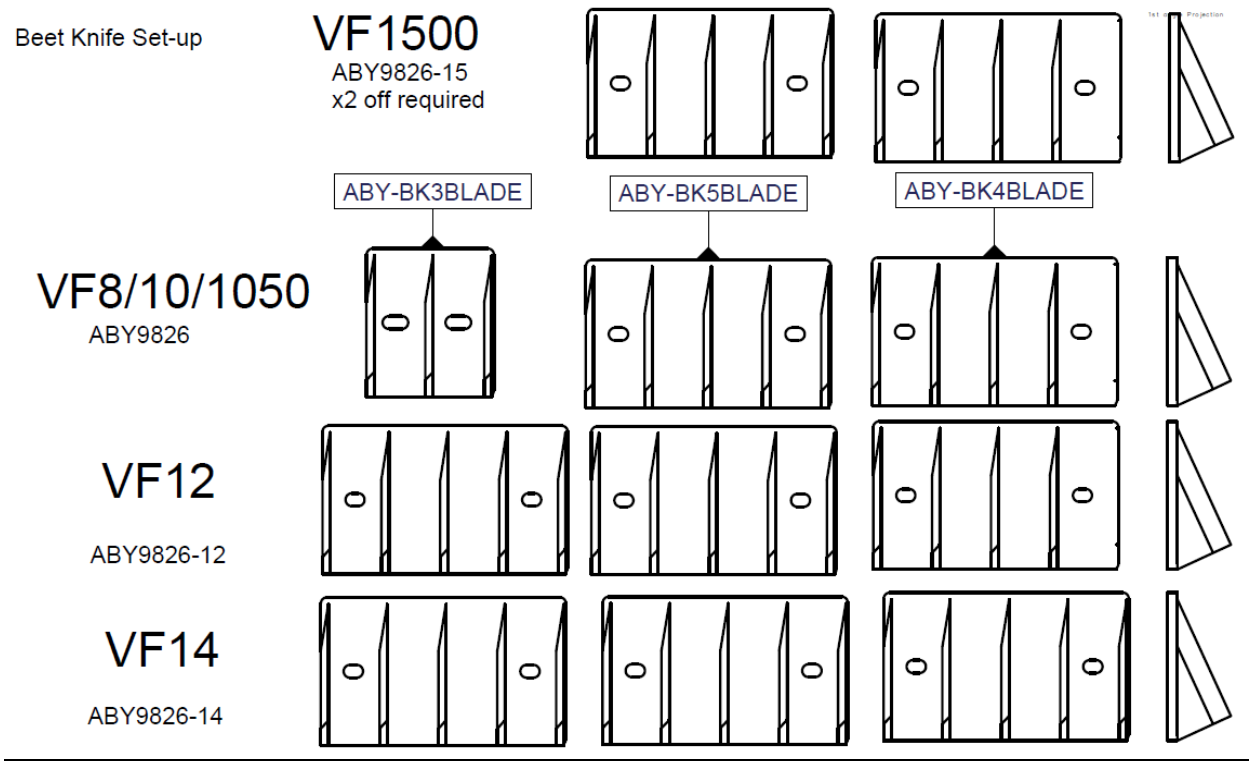
Pos.	Description	Qty.	Part No.
1	Flat Top Retaining Ring Straight	1	ABY 6959
2	Flat Top retaining Ring Straight/Curve	1	ABY 6960
3	Flat Top Retaining Ring Curve	1	ABY 6961

	ABY6959	ABY6960	ABY6961
Single Auger Set	0	4	4
Twin Auger Set	4	4	4

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

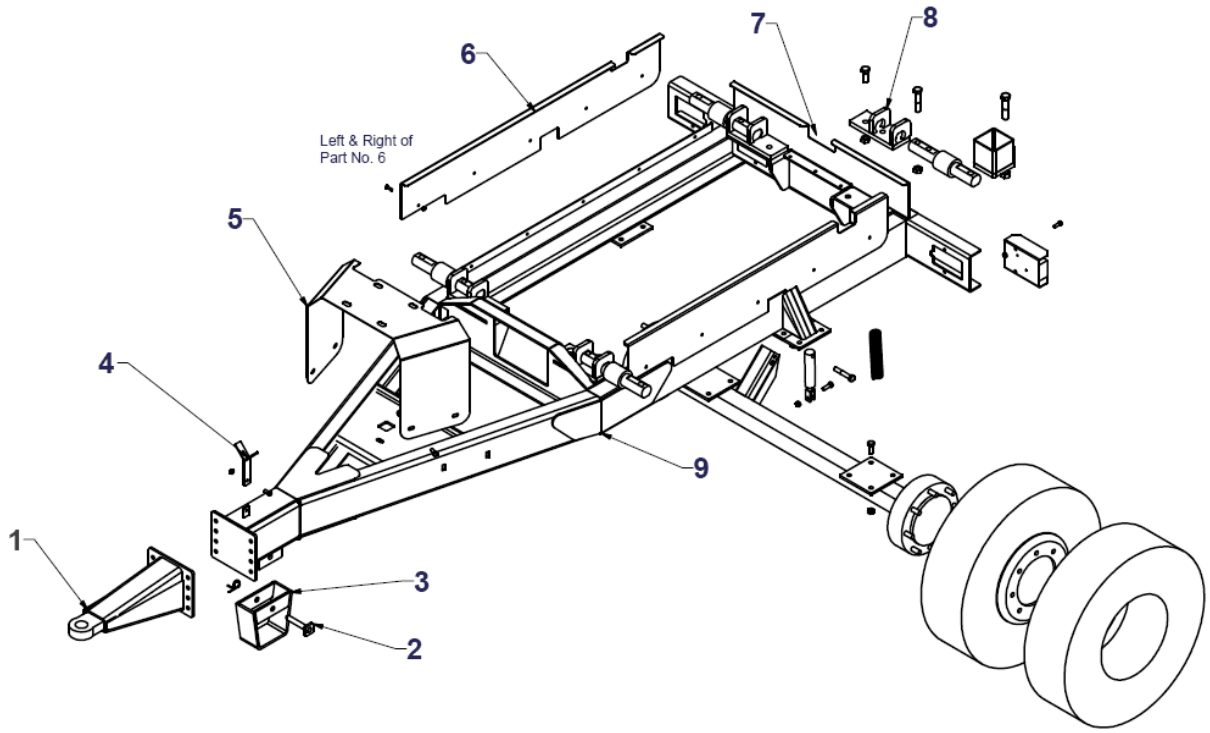
Beet Knives AM Parts



Abbey Tub Feeders

6.0 REPLACEMENT PARTS

TUB CHASSIS ASSEMBLY - AF PARTS

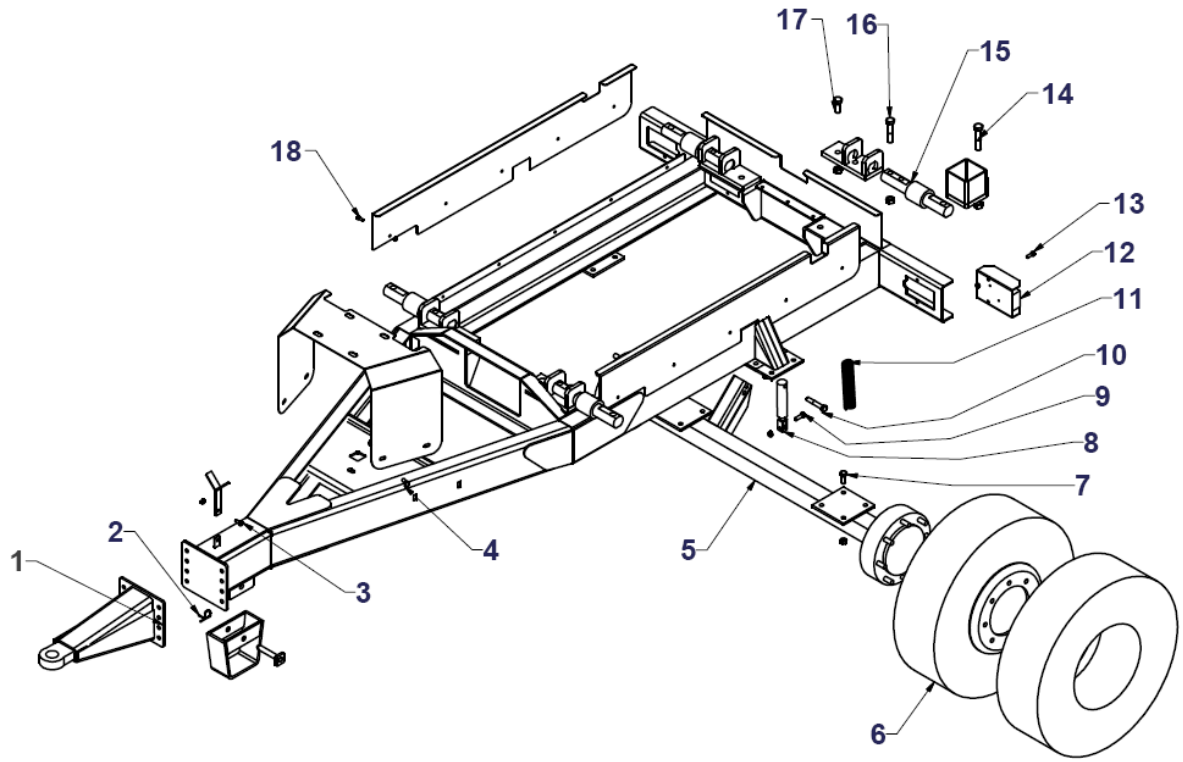


Pos.	Description	Qty.	Part No.
1	Bolt-on Hitch	1	ABY 1003
2	Stand Pin	1	ABY 1004
3	Stand	1	ABY 3507
4	Y-Bar	1	ABY 9819
5	Gearbox Cover	1	ABY 9820
6a	Side Panel - Left	1	ABY 9821 - L
6b	Side Panel- Right	1	ABY 9821 - R
7	Chassis Rear Panel	1	ABY 9822
8	Load Cell Mounting Bracket	4	ABY 9823
9	Chassis	1	ABY 9824

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

TUB CHASSIS ASSEMBLY - AM PARTS

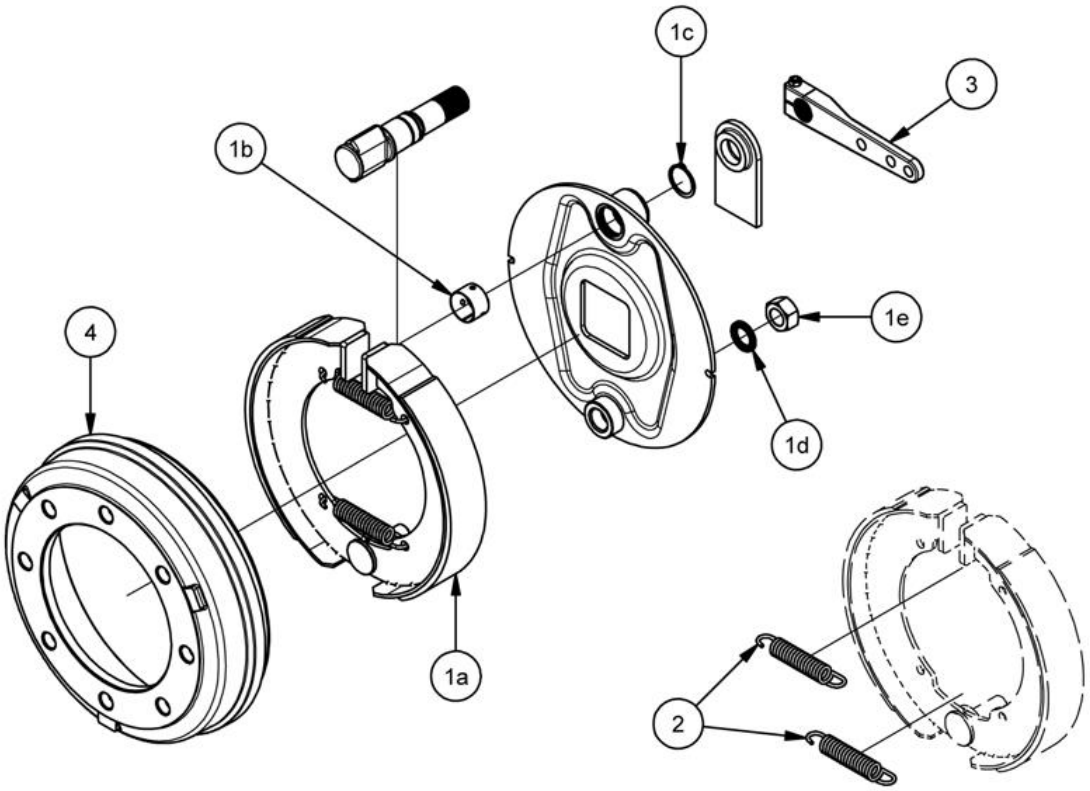


Pos.	Description	Qty.	Part No.	Pos.	Description	Qty.	Part No.
1	M16 x 40 + L-Nut	6	Din 933-M16 x 40				
2	R-Clip 4mm	1	CLP 3553	7	M16 x 40 + L-Nut	8	Din 933-M16x40
3	M10 x 25 + L-Nut	1	DIN 933-M10x25	8	Brake Ram	1	ABY4900
4	M12x30 + L-Nut	4	DIN 933-M12X30	9	M12 x 40 + L-Nut	1	DIN 933-M12X40
5a	Axle 700/800/1000 (unbraked)	1	ABY3830	10	M16x90 + L-Nut	1	Din 931-M16 x 90
5b	Axle VF1050/1250	1	ABY 3814	11	Spring	2	ABY 4942
5c	Axle VF1450	1	ABY3845C	12	Light Set (Cable,Lights,Sockets)	1	ABY 9500
5d	Axle VF1500	1	ABY3812	13	M10x30+L-Nut	4	DIN 933-M10x30
5e	Axle VF1650/1850/2050	1	ABY3845	14	M22x110 + L-Nut	4	Din 933-M22x110
5f	Axle VF2250/2450	2	ABY3845	15a	Load Cell (Weigh Bar)(2 1/8”)	4	ABY 9983A
5g	Axle VF2650/2850	2	ABY3817-GR	15b	Load Cell (Weigh Bar)(2 1/2”)	4	ABY 9984
6a	235/75RX17.5 8 STUD	4	ABT4520	16	M20x100 + L-Nut(Grade10.9)	8	Din 931-M20x100
6b	400/60X15.5 6 STUD	2	ABY4355	17	M20 x 50 + L-Nut	4	DIN 933-M20x50
6c	435/50 X 19.5 8 STUD	2	ABY4475	18	M8 x 25 + L-Nut + F-Washer	13	DIN 933-M8x25

Abbey Tub Feeders

6.0 REPLACEMENT PARTS

Axle 350X60 & 300X60 Braked - AF PARTS

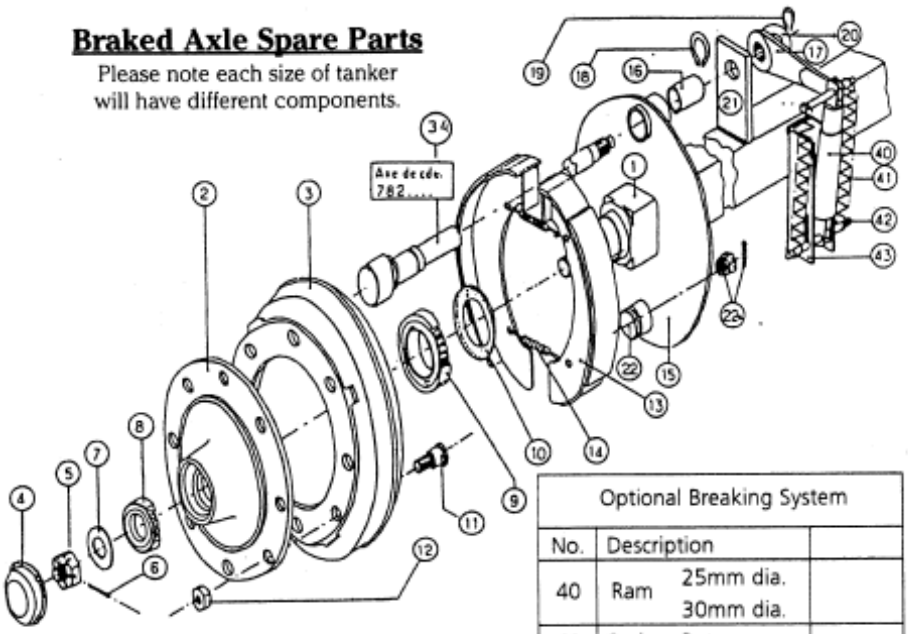


Item No:	Description	Part No: 350X60	Part No: 300X50
1a	Brake Assembly	ADR9RE0014	ADR99R0008
1b	Camshaft	ADR9RE0014	ADR99R0008
1c	Retaining Ring	ADR9RE0014	ADR99R0008
1d	Washer	ADR9RE0014	ADR99R0008
1e	M24x1,5	ADR9RE0014	ADR99R0008
2	Spring	ADR9RK0004	ADR99R0008
3	Lever	ADR9RQ0001	ADR9RQ0001
4	Drum 8 Holes	ADR66LNF0804	

Tandem Bogie

Braked Axle Spare Parts

Please note each size of tanker will have different components.

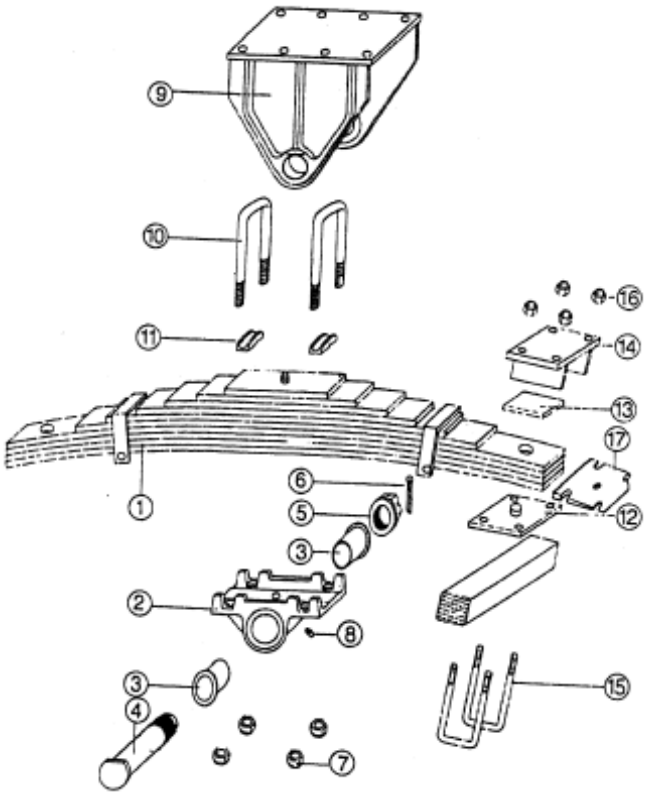


No.	Description
1	Axle
2	Hub, Steel
3	Brake Drum, Cast
4	Hub Cap
5	Castellated Nut
6	"R" Clip
7	Washer
8	Bearing, Outer
9	Bearing, Inner
10	Grease Seal
11	Wheel Stud
12	Wheel Nut
13	Brake Shoe
14	Springs, Return
15	Back Plate
16	Bush
17	Cam Lever
18	Circlip
19	Bolt or Circlip
20	Washer
21	Support Arm

Optional Breaking System		
No.	Description	
40	Ram 25mm dia. 30mm dia.	
41	Spring, Return	
42	Pin	
43	Support Bracket	

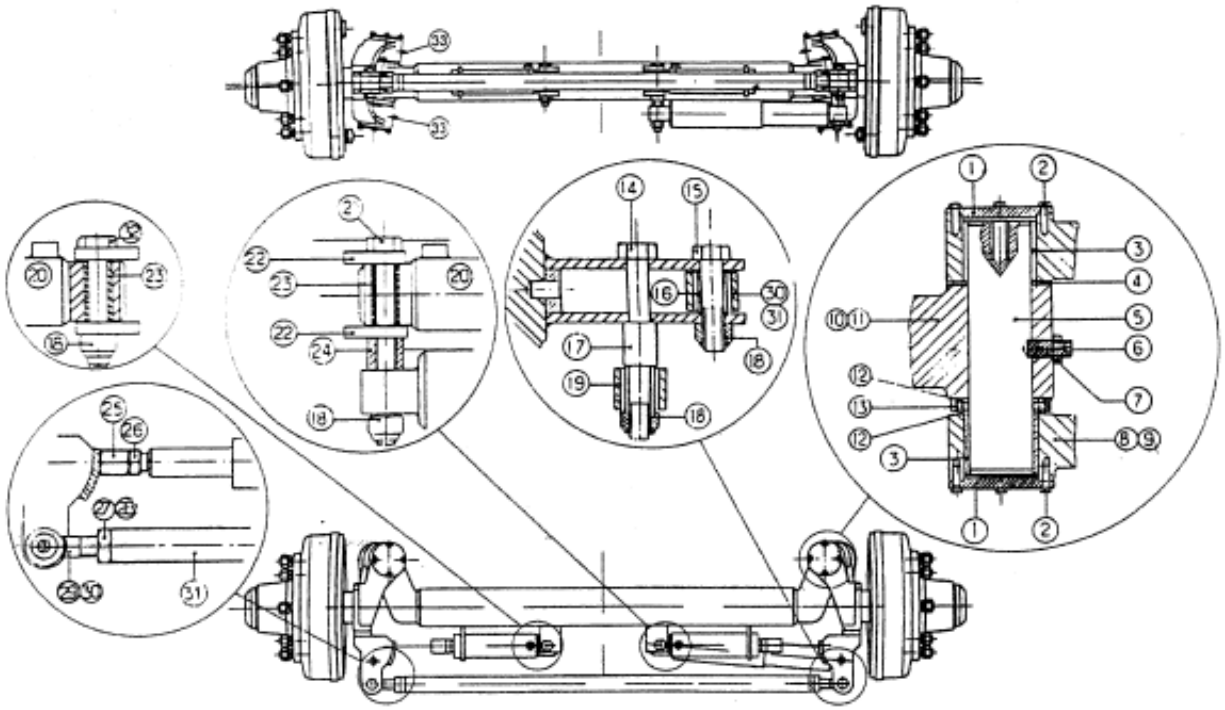
Tandem Axle Bogie

No.	Description
	Suspension
1	Spring
	Axle Centres
	Capacity
2	Central Rocker
3	Bush (Shouldered)
4	Pin
5	Nut (Castellated)
6	Split Pin
7	Nut
8	Grease Nipple
9	Central Hanger
10	U Bolt
11	Saddle
	Axle
12	Plate (Bottom)
13	Plate (Rubber)
14	Plate (Box)
15	U Boltr
16	Nut
17	Wedge



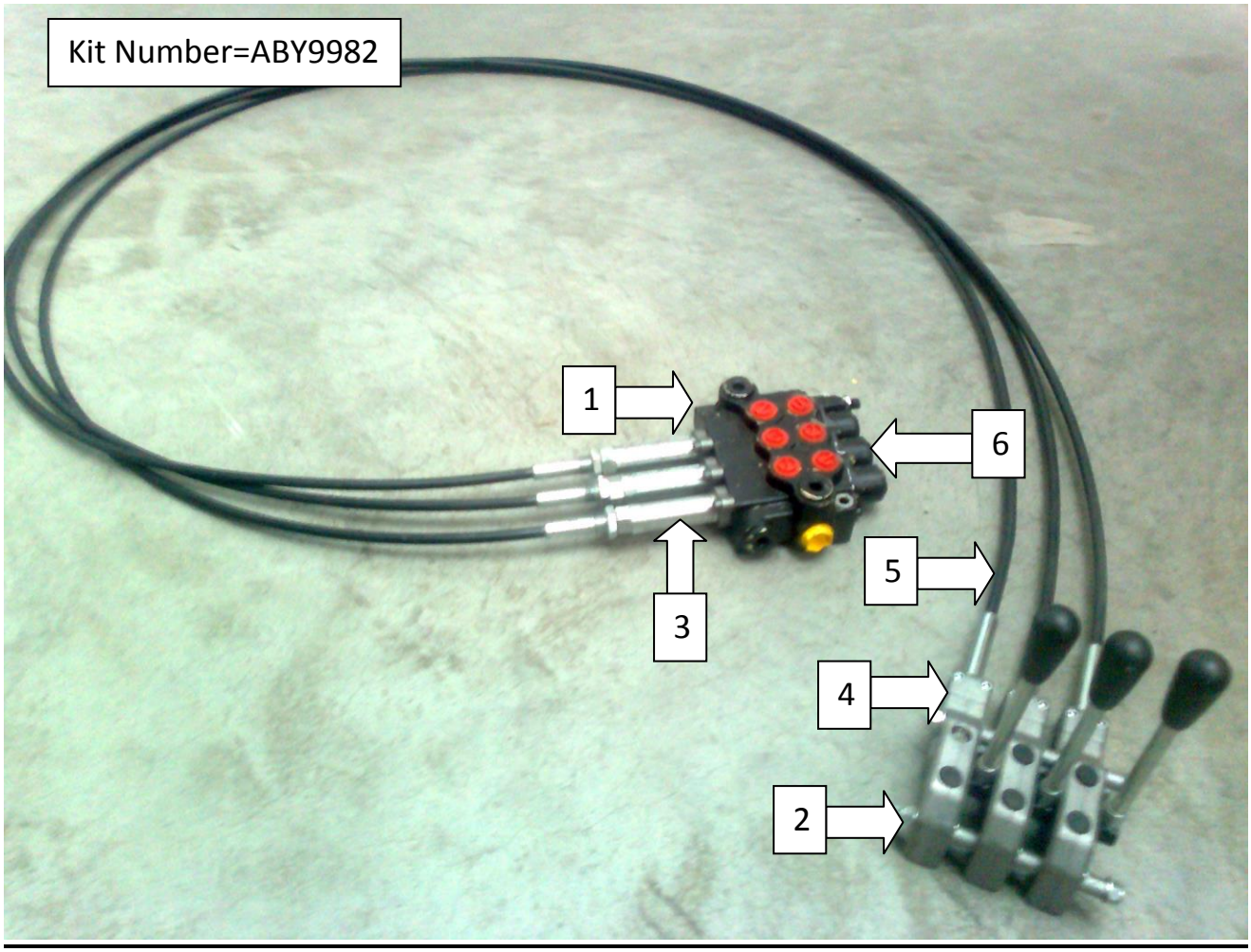
ABBEY MACHINERY since 1947

Tandem Axle Steering Boggie



No.	Quantity	Description
1	4	Caps
2	16	Cap Bolt
3	4	Bronze Bush D60 B70 G60
4	2	Washer DN61 D100 H4.5
5	2	King Pin
6	2	Locating Screw HC CUV-16-45 T 8.8
7	2	Lock Nut HM, M16 T8
8	1	Steering Arm (Right)
9	1	Steering Arm (Left)
10	1	Pivot (Right)
11	1	Pivot (Left)
12	4	Washer WS81112
13	2	Washer (Shim) LFX ZN60 D85 H7.5
14	1	Bolt H, M20-180 T 8.8
15	2	Bolt H, M20-100 T 8.8
16	2	Flexibloc
17	1	Distance Piece D36 x 20. 5 Lg 40
18	6	Nut Nylock H M 20 T 8
19	1	Hydraulic Damper 238
20	2	Hydraulic Ram D40 100mm Stroke
21	1	Bolt H 20-190 T 8.8
22	4	Bracket for Damper and Ram
23	3	Bush
24	1	Distance Piece D36 x 20. 5 Lg 33
25	2	Nut (Adjusting)
26	2	Lock Nut
27	1	Lock Nut HM, M30 T, 8 Right
28	1	Lock Nut HM, M30 T, 8 Left
29	1	Track Rod End Right
30	1	Track Rod End Left
31	1	Track Rod
32	2	Bolt H M20-120 T, 8
33	4	Grease Nipple

Cable Controls



No.	Qty.	Part No.	Description
1	1	H-03P40A1X3GKZ1	3/8” 3 Bank Valve Chest
2	1	FB-0099.21.24.02	3 Section Actuator kit
3	3	FB-0099.30.36.51	P40 Fitting Kit3/8”Badestnost
4	3	FB-1501-1003	Single Actuator for cables
5	3	FB-971630-03000	3m Cable
6	1	H-P40-8	Detent Kit

Notes

Notes

Abbey Tub Feeders

7.0 WARRANTY

The following warranty terms relate to parts only.

Abbey Machinery LTD will not accept claims for labour or mileage.

1. This Tub Feeder is covered by the manufactures warranty for twelve months or one season.
2. Tub Feeders used by agricultural contractors is covered by manufactures warranty for six months from the date of purchase.
3. Tub Feeders hired out to and operated by third parties is not covered by manufacturer's warranty.
4. Manufactures warranty does not cover wearing parts, e.g. Knifes, shafts, etc.
5. Under no circumstances will warranty claims be accepted for any damage caused by failing to adhere to the operating instructions or maintenance requirements as outlined in this manual.
6. Warranty claims will only be assessed when all alleged faulty parts have been returned to the manufacturer. All parts dispatched to replace damaged parts under warranty consideration are chargeable, pending decision on claim.
7. For general warranty consideration please see terms and conditions of sale set out overleaf.

EC Declaration of Conformity
for machinery
according to Machinery Directive 2006/42/EC; Annex II A

Manufacturer: Abbey Machinery
Clonalea
Toomevara
Nenagh
Tipperary
Ireland

We declare that this delivery of the following machine is complete and conforms to the essential safety requirements of Machinery Directive 2006/42/EC.

Product Model No: _____
Type of machine: Vertical Feeder
Serial number: From 14000 onwards

All basic health and safety requirements according to Annex I of the above-mentioned directive are applied and observed.

Signature:_____

Dermot Monaghan
Operations Manager

Abbey Tub Feeders

8.0 Terms and Conditions of Sale

General Consideration:

- Abbey Machinery Ltd, shall hereinafter be referred to as "the Company".
- All products and/or components or whatever kind and all services sold by the company shall be sold subject to these Terms & Conditions of Sale and shall hereinafter be referred to as "the Goods".
- The buyer of the goods shall hereinafter be referred to as "the Purchaser".
- The Conditions of Sale shall be deemed to be incorporated in all tenders, quotations, delivery dockets, invoices, credit notes, and other documents of a similar nature submitted by the company for the supply of the goods.
- Any terms or conditions in the purchaser's order which are inconsistent with these Terms & Conditions of sale shall not form part of any contract between the company and the purchaser unless accepted in writing.
- Unless previously withdrawn, offers by the company shall remain open for acceptance for a period of 30 (thirty) days or such longer period as the company may agree in writing.
- Each and every provision of these conditions of sale and reservation of title clause and every part of every such provision shall be deemed to be separate and severable, and enforceable accordingly.
- The law of the Republic of Ireland shall govern the operation and interpretation of these conditions of sale and reservation of title clause, but the company may sue for monies on foot of any sale in any jurisdiction.

Purchaser's Rights

Nothing contained herein or in any other document in relation to any contracts is intended to affect or prejudice nor will affect or prejudice the contractual rights enjoyed by the purchaser by virtue of the Sale of Goods Act 1893 and 1980 and in particular, of sections 12,13,14 and 15 of the said Act of 1893 as amended or where goods are sold outside the jurisdiction of the Republic of Ireland, the statutory rights of a Purchaser who is a Consumer as hereinafter defined.

Conditions and Warranties

- Where the purchaser deals as a consumer within the meaning of the Sale of Goods and Supply of Services Act 1980, the goods are sold subject to any conditions and warranties implied by the Sale of Goods Acts, 1893 and 1980 or any amending statute.
- Save in the case where the purchaser deals with as a consumer as hereinbefore defined, all statements, representations and conditions or warranties as to the quality of the goods or their fitness for any particular purpose whether expressed or implied by law or otherwise are hereby expressly excluded.
- Whilst every care is taken that the goods are in accordance with specifications and of good material standard and workmanship, the Company shall not be liable for any loss or injury arising directly or indirectly from the use of the Goods or any component thereof whether manufactured or supplied by them or otherwise.
- In the case of products manufactured by the company, as our manufacturing policy is one continuous improvement, the company reserves the right to amend specifications, without notice.
- Except where the purchaser of the goods is a consumer as hereinbefore defined, all terms and conditions as implied by statute or common law in the case of contracts for the supply of goods and services are hereby expressly excluded.

Repairs and Alterations

Any products accepted for repair or alterations by the Company shall be held by the Company and repaired and altered by it entirely at Customer's own risk.

Force Majeure

If circumstances occur which could not have been foreseen at the time the contract was concluded and which are beyond the control of the company and directly or indirectly prevent, hinder or make more difficult the full or partial performance of the contract, such circumstances being, inter alia war, threat of war, civil war, natural disasters, riots, strikes, lockouts, fire, breakdowns in the Company's factory, delayed or incorrect deliveries by the Company's suppliers, government measures, blockages, the Company shall have the right without incurring further liability either to suspend performance of the contract wholly or in any part or to treat the contract as cancelled and thereupon all amounts due to the company by the purchaser by virtue of the contract become immediately payable but without prejudice to the right of the Company to claim full compensation including compensation for loss of profit. The company shall have similar rights in relation to the contract in the event of the purchaser committing an act of bankruptcy, suspending payment of its debts., entering into an agreement with its creditors, closing its business or in the case of a limited company having a Receiver or Liquidator appointed over it or its assets (Liquidation for the purpose of restructuring excepted).

Prices and Terms of Payment

- All prices are subject to alteration without notice and prices charged for goods and services are those ruling on the date of dispatch. This clause also applies to backorders. All prices are exclusive of V.A.T. and the same, together with carriage when charged, shall be borne by the Purchaser.
- The Company must be paid in full without deduction in respect of alleged or counterclaims in accordance with the terms specified by the company from time to time and if no date for payment has been specified, by the last day of the month following month of invoice.
- If part only of an order shall be supplied, the terms of payment shall apply to the goods actually delivered, notwithstanding the shortfall.

Damage in Transit and Shortages

On delivery, the goods must be checked against the delivery note which shall be signed by or on behalf of the purchaser. Such signature is an acknowledgement that the goods have been received in good condition and order. The Company will accept no responsibility for damage in transit or shortages unless same are noted on the Delivery Note, before signature. In any event all claims must be received by the Company within 7 (seven) days of the receipt of the Goods by the Purchaser.

Risks and Reservation Title

- No property in any of the goods the subject matter of this Contract shall pass the Purchaser until the invoice covering same has been paid in full.
- The goods shall be at the Purchaser's risk from the date of delivery until they are paid for in full and during this same time the purchaser shall store the Goods so as clearly to show them to be the property of the company.
- The personnel of the Company its servants or agents will be allowed free access to the Goods and place of storage at all reasonable times with the intention that such personnel may remove such Goods in exercise of any provisions in this clause. Any expense incurred in so doing shall be borne by the Purchaser.