

# PRO 1800-3200 **OPERATORS AND PARTS MANUAL**



Shelbourne Reynolds Engineering Ltd Stanton **Bury St Edmunds** Suffolk **IP31 2AR England** 

Telephone: 01359 250415 Stores Direct: 01359 251231 01359 250464 Stores Direct: 01359 252031 Fax:

> 08/09/2016 Issue 16









## **ORDERING SPARE PARTS**

#### **IMPORTANT**

Your Powerspread is a made up of a Machine assembly number (common parts), specific sub assemblies and also customer optional build kits. The machine, sub assemblies and optional kit numbers are listed in the front pages of your Operators manual, part no. MAN-06210.

If you do not have these numbers please contact Shelbourne Reynolds Parts Department direct on (telephone) 01359 251231.

To ensure that you order the correct part from your SRE dealer please use the following procedure.

## ALWAYS QUOTE THE MACHINE AND SERIAL NUMBERS WHEN ORDERING.

Refer to the Parts Manuals front page/s, listing the machine assemblies. Select the correct machine assembly number which is printed in the top left corner of the page (starting with 6099\_\_ 01), This machine number can also be taken off the Powerspread identification plate located on the front of the main chassis beam.

On this page you will find the parts listing for the common parts for every configuration of that machine assembly number.

You will find the corresponding drawing by either looking at the facing page or progressing through the manual to the next drawing.

The drawings indicate the components by item numbers, which you will find, are repeated in the left-hand side of your parts listing, and therefore referring to the correct part.

Note all parts will not be found listed below the machine number. Other parts will be from specific sub assemblies and optional kits. These sub assemblies and kits will be found in numerical order further through the manual.

Sub assemblies start with 6090\_\_ 01 and kits start with KIT-\_\_\_\_.

## Dealer Pre-delivery / Installation check and warranty registration - Powerspread

#### PLEASE TICK APPROPRIATE COLUMN FOR EACH ITEM UNDERTAKEN

Dealer Pre Customer Delivery / Installation / Commissioning	Checks OK	Adjusted
Check the PTO shaft length is compatible with the tractor.		
Rotate the auger & check there are no unusual scratching or knocking sounds.		
Ensure the chain-oiler system (Contractor only) is working correctly, & the chains		
are pre-greased.		
Check chains are tensioned correctly.		
Rotate the impeller, check it rotates freely, and is clear of the door and drip tray. Adjust impeller blades (Dairy) or impeller adjuster studs (Contractor) as required.		
Ensure the hoses are not taught when connected to the tractor.		
Check operation of all hydraulic services.		
Check hydraulic system for leaks.		
Check brake ram operation & adjustment.		
Check braking system for oil leaks.		
Check tyre pressures.		
Check wheel nuts for correct torque setting.		
Check operation of handbrake.		
Lubricate all grease points.		
Check in general that nuts & bolts are tight.		
Check paintwork & finish.		
Ensure that all safety guards & decals are fitted.		
Ensure that an operator's manual is supplied with the machine.		
Additional Comments:		
Dealer Representative's Name:	Date:	

Customer Instruction		Actioned
Explain the correct setting & operation of the machine to the customer.		
Ensure the machine is correctly attached to the customer's tractor.		
Ensure the maintenance schedule is explained to the customer.		
Ensure the lubrication & grease points are indicated to the customer.		
Ensure all safety precautions & warning decals are explained to the customer.		
Ensure the warranty policy is explained to the customer.		
Ensure that the operators manual is handed to the customer.		
Additional Comments:		
Dealer Representative's Name:	Date:	

For specific details please refer to the operator's manual.



Issue 1 21/03/2016

## Dealer's pre-delivery/installation check IMPORTANT

All items listed on the left must be checked, and adjusted if necessary. The person conducting the inspection should tick each item in the space provided, indicating whether or not adjustments were required. In the event of additional work being needed, details should be given in the additional work / discrepancy box, located at the bottom of this sheet, or on a separate sheet if required. When the inspection is complete, THIS FORM MUST BE COPIED & RETURNED TO:- Shelbourne Reynolds within 30 days of delivery to customer, otherwise the invoice date to the dealer will be deemed to be the start date for the warranty period.

Dealer Name:		
Address:		
	Post / Zip code:	
Dealer Salesman Name:		
Customer Name:		
Business Name (if different from above):		
Address:		
	Post / Zip code:	
Email Address:		
Tel No. Home / Office:	Cell / Mobile:	
	MACHINE NUMBER:	
MODEL:		
Print Name:	Date:	
Customer's Signature:		
Print Name:	Date:	
The customer's signature certifies that the machine was delivered in a satisfactory condition and that adequate instruction was received as to its correct operation, safety requirements, and maintenance as stated in the operator's manual, and that the customer has read.		

and that adequate instruction was received as to its correct operation, safety requirements, and maintenance as stated in the operator's manual, and that the customer has read, understood, and agrees to the Terms and Conditions of Sale and Warranty (including the disclaimers and limitations) contained in Section 1.5 of the operator's manual.

Additional work / discrepancies:

This page must be faxed or e-mailed to Shelbourne Reynolds Engineering ltd. Fax No: - +44 (0)1359 250464. E-mail: - warranty@shelbourne.com

## **EC Declaration of conformity for machinery**

(Machinery Directive 2006/42/EC, Annex II., sub. A) Manufacturer: Shelbourne Reynolds Engineering Ltd. Address: Shepherds Grove Industrial estate, Stanton, Bury St Edmunds, Suffolk. England. **IP31 2AR** Name and address of the person (established in the European Community/EEA) authorised to compile the technical file (to the authorities on request): Name: Mr. Neil Smith Address: As stated above. Herewith we declare that: **DESIGNATION:** MANURE SPREADER MODEL: TYPE: MACHINE No.: SERIAL No.: is in conformity with the relevant provisions of the Machinery Directive (2006/42/EC) **Neil Smith** Director

Date:

Stanton, England.

Place:

## **CONTENTS PAGE**

Section 1	INTRODUCTION
1.1 1.2 1.3 1.4 1.5	Foreword. Improvements and changes. Service Parts. Machine Identification. Standard warranty policy
Section 2	SAFETY PROCEDURES
2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 2.10 2.11 2.12 2.13 2.14 2.15 2.16 2.17	Accident prevention before starting the machine. Accident prevention when coupling & uncoupling to the tractor. Accident prevention when using the hydraulic system. Accident prevent when fitting the power supply. Accident prevention when operating the machine. Accident prevention when removing a foreign object from the machine. Accident prevention when leaving the machine. Accident prevention when using the PTO shaft. Accident prevention when servicing or working on the machine. Accident prevention when cleaning & storing the machine. Accident prevention when taking on public roads. Accident prevention when changing a wheel. Noise emissions. Proper use. No liability for consequential damage.
Section 3	SPECIFICATION AND DESCRIPTION
3.1 3.2 3.3 3.4	Description. Intended use. Features & benefits. Technical specifications.
Section 4	HANDLING &TRANSPORTATION
4.1 4.2	Handling Transportation
Section 5	PREPARATION FOR USE
5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9	Adjusting the drawbar height. Raising the detachable parking foot. Adjusting the PTO drive shaft length. Coupling & uncoupling Connecting the hydraulic supply Connecting the power supply Using the handbrake Raising & lowering the ladder extension Check before use.

Section 6	FIELD OPERATION AND SPREADING
6.1 6.2 6.3 6.4 6.5 6.6 6.7 6.8 6.9 6.10 6.11 6.12 6.13	General weights of different materials. Loading the machine Discharge rate Door opening settings Setting the spreading deflector. Procedure for spreading Operating the Anti-bridge arm Removing foreign objects from the machine. Shearbolt protection Auger reversing facility. Lowering the impeller. Shearbolt protected auger paddles Operating the steering axle
Section 7	ADJUSTMENTS AND MAINTENANCE
7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11 7.12 7.13 7.14	Impeller blade adjustment Drive chain tensioning Check / tightening wheel nuts. Electrical wiring diagrams Tyre pressures. Maintaining the hydraulic system Recommended torque for fasteners Checking the axle hubcaps. Checking the wheel bearings. Checking brake clearance & wear. Maintenance of the steering axle Maintenance of the Bogie suspension Changing a wheel. Storage & cleaning.
Section 8	LUBRICATION

Section 9 PARTS LISTING

## **SECTION 1**

## **INTRODUCTION**

## 1.1 FOREWORD

This manual will assist the operator to set, operate and service the Shelbourne Reynolds Powerspread Pro, to give safe, efficient and optimum spreading throughputs. It should be read carefully before putting the machine to work. Later sections illustrate and list all relevant spare parts.

The range consists of 4 models, sized from 8m<sup>3</sup> to 14.5m<sup>3</sup>. They are designed to spread different types of material from slurry, to the heaviest farmyard manure.

As with all machinery, routine maintenance is a necessary condition for long life and it will repay the operator to read this manual and to follow the operating and maintenance instructions carefully.



## 1.2 IMPROVEMENTS AND CHANGES

Shelbourne Reynolds Engineering are continually improving their products to meet the farmers needs and therefore reserve the right to make improvements and changes when practical to do so, without incurring any obligation to make changes and additions to equipment which has been sold previously.

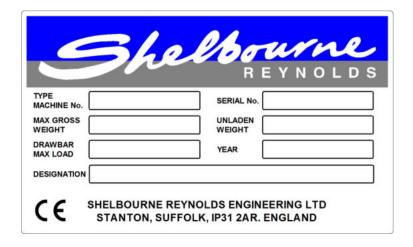
## 1.3 SERVICE PARTS

Use guaranteed and genuine Shelbourne Reynolds Engineering service parts on Shelbourne Reynolds machinery to ensure maximum life and best performance. These are available through your Shelbourne Reynolds Engineering dealer.

When ordering service parts always quote the model, serial number and machine number.

## 1.4 MACHINE IDENTIFICATION

The serial and machine numbers of the Powerspread Pro spreaders are printed on a plate located on the left hand side of the machine.



## 1.5 STANDARD WARRANTY POLICY

## **NEW MACHINE WARRANTY**

All new machines supplied by **Shelbourne Reynolds Engineering Ltd**. ("**Shelbourne**"), are warranted to the original purchaser, under normal use and service, to be free from defects in material and workmanship for a period of 12 months from the date of delivery to the original purchaser. This limited warranty gives you specific legal rights and is in addition to any statutory rights to which you may be entitled. Your statutory rights are not affected by this warranty.

To qualify for the full benefit of this warranty, the dealer must ensure that the warranty registration details have been returned to Shelbourne within 30 days from the date of delivery. Using the machine implies the knowledge and acceptance of these instructions and the limitations contained here in this Manual. Shelbourne reserves the right to suspend the operation of these warranty conditions unless and until the purchaser has paid in full for the goods or parts in question.

#### LIMITATIONS AND EXCLUSIONS

Shelbourne and the authorised Shelbourne dealer shall not be liable to the original purchaser under any circumstance for injuries, death, property damage or damages of any kind whatsoever directly, consequential or contingent to any person or property. Furthermore, the warranty shall not extend or apply to temporary repairs or in respect of loss or any expense incurred for labour, additional or substitute machinery, rental or for any other reason or purpose.

Shelbourne will not be liable under this warranty for any repairs carried out without its prior consent to the work being done. Any fault should be reported to an authorised Shelbourne dealer as soon as discovered. Continued use of the machine could cause further failures for which Shelbourne cannot be held liable and may also have safety implications.

Authorisation must be given by Shelbourne Service personnel – no other employee, dealer or other person is authorised to give any warranties on behalf of Shelbourne.

Subject to the conditions and exclusions noted in this limited warranty, Shelbourne shall repair or replace free of charge any warranted parts which in our opinion show evidence of such defect provided that any such parts are returned within 30 days by the authorised Shelbourne dealer from whom the purchase was made.

Any parts on which warranty is allowed becomes the property of and must be returned to Shelbourne if Shelbourne so requests. All claims must be submitted to Shelbourne by an authorised Shelbourne dealer within 15 days of the date of the repair on a Shelbourne Warranty Claim Form. The submission of a claim is not a guarantee of payment. Any decision reached by Shelbourne is final.

This limited warranty by Shelbourne does not cover:-

- 1) Damage or depreciation caused by normal wear and tear. Any parts which have been subjected to alteration, modification or fitment of non-genuine Shelbourne parts, wilful or accidental damage, damage caused by foreign objects (e.g. stones, metals and any materials other than those suitable for the machines intended use).
- 2) Damage or depreciation caused by neglect or failure to carry out proper maintenance as recommended in the Shelbourne Operators Manual.
- 3) Damage or depreciation caused by abnormal or in-proper use in accordance with Shelbourne recommendations and/or as per the Operating Instructions.
- 4) Items not covered also include chains, bearings or any other items which are considered to be a normal wearing or consumable item.
- 5) Items not manufactured by Shelbourne such as trade accessories e.g. tyres, belts, hydraulic motors, hydraulic valves, PTO shafts etc. are warranted by their respective manufacturer. The original purchaser shall only be entitled to the benefit of any such warranty given by them.
- 6) Environmental Damage.

### TRANSFER OF WARRANTY

Shelbourne may at its sole discretion allow this warranty to be transferred to a subsequent owner of the machinery for the balance of the warranty period, subject to all of the warranty conditions being met and only with Shelbourne giving prior written consent.

## **WARRANTY ON PARTS**

Shelbourne warrants that any part or components supplied by Shelbourne in accordance with this limited warranty are free from defects in material or workmanship from the date of sale to the original purchaser for 6 months. Shelbourne will at its option, either repair or replace the defective part free of charge. Original Purchaser shall be responsible for labour and all freight charges to and from the place where the warranty work is performed.

Shelbourne Reynolds Engineering Ltd. cannot be held responsible for any failures or safety implications arising from the use of non-genuine parts. Use of non-genuine parts may seriously affect the machine's performance and safety.

## SECTION 2: SAFETY PROCEDURES

## 2.1 ACCIDENT PREVENTION

The following safety instructions are applicable for all chapters of this manual.

Accident programmes can only prevent accidents with the co-operation of the persons responsible for the operation of the equipment.

For safety of yourself and others, operate equipment with care and do not take unnecessary risks, which could cause an accident.

Please read all safety instructions contained in this operating manual with the utmost care and also observe all safety signs attached to the Powerspread. Follow these instructions to prevent accidents. These instructions must also be made available to all other users. You are advised to refrain from any working methods, which may be hazardous.

All relevant accident prevention regulations governing the operation of agricultural machinery, as well as other generally acknowledged health and safety regulations and road traffic regulations must be strictly observed.

The tractor's manufacturer's operator's manual, safety precautions should also be adhered to when using the Powerspread.

The 'Safe stop' procedure is mention throughout this manual. It is extremely dangerous to carry out any work on a machine while it is under power. The most important safety measure is to follow the Safe Stop procedure before carrying out any maintenance or adjustments, including dealing with a blockage or other problem:

The procedure is as follows:

- Put the handbrake on.
- Make sure the controls are in neutral (equipment made safe).
- Stop the engine (or turn off the power).
- Remove the key (or lock-off the power supply).

## CAUTION



This symbol will appear throughout this manual whenever your safety, the safety of others or the machinery, is involved.

#### 2.2 **SAFETY SIGNS**

The following safety signs appear on the machine, they provide important instructions for safe work. – Take them into consideration for your safety and the safety of others Ensure that you identify each symbol and understand its warning.



These safety signs must be kept in a legible condition and must be replaced if missing or damaged. This is especially the case when whole sections are replaced when making repairs. Replacement safety signs are available as spare parts through your dealer or importer.

## **SAFETY SIGNS**

#### TNF-0011

Stop the engine and remove the key from the tractor's ignition before carrying out any work on the

#### **TNF-0011**

Carefully read the operating manual before handling the machine.

#### 590479 01

Beware of rotating auger. Do not reach or lean into tub. Do not attempt to clear blockage when the tractor engine is running. Serious injury may result from falling into the tub with auger rotating.

#### 614962 01

Hydraulic oil is dangerous when under pressure and can be injected into the body. Always ensure the hoses are in good order before operating.

#### 260060 01

Risk of crushing torso. Do not stand between Powerspread and tractor when hitching to tractor.











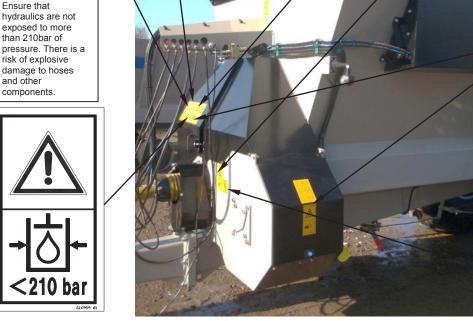


### 193392 01

Do not open or remove safety guard while engine is running. There is a risk of hand entanglement.



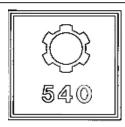






#### 590475 01

The rotational speed of the PTO Drive shaft must not be greater than the speed stated.



#### 590477 01

Ensure that there are no persons standing in the vicinity of the machine when the tractor engine is running. Serious injury may result from rotating parts and flying objects.



Do not use safety rail on the impeller s a step. Serious injury may result from sipping or falling into the impeller.

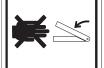












### 800215 01

There is a crushing hazard, between the frame of the impeller and the door frame of the tub when hydraulically raising the impeller assembly.





## 590479 01

Beware of rotating auger. Do not reach or lean into tub. Do not attempt to clear blockage when the tractor engine is running. Serious injury may result from falling into the tub with auger rotating.

## 2.3 ACCIDENT PREVENTION BEFORE STARTING THE MACHINE.

Read the manual thoroughly.

If moving the Powerspread by overhead lifting, use the designated lifting points. (See section 4.1). Ensure that the slings / chains are rated accordingly, and that the angle of the slings / chains is set in accordance to lifting regulations.

Ensure bystanders are at a safe distance when the Powerspread is being suspended above the ground while lifting and unloading.

Pay particular attention to the width of the machine while unloading the machine from the delivery trailer. A portion of the tyre may overhang the bed of the trailer, so care must be taken to keep the machine central, whilst moving.

Ensure bystanders are at a safe distance while moving the Powerspread from the delivery trailer using a tractor.

Ensure the hydraulic brakes are attached to the tractor before attempting to move the Powerspread.

Ensure a suitably sized tractor is used to move the Powerspread.

Ensure the tractor is fitted with Mirrors to guarantee the lateral visibility on both sides of the machine.

Ensure the machine is parked on a firm & level site and the handbrake is applied.

Do not carry out any PDI work without appropriate protective clothing and long hair tied back. (Gloves, safety boots, close fitting clothing etc.)

Review the PDI checklist, printed at the start of this manual. Double check the items listed. Pay particular attention to checking wheel nuts & tyre pressures, along with checking the hydraulics and braking systems.

Before adjusting the position of the tow eye ensure the machine is parked on a firm & level site, the 'safe stop' procedure is followed, and the machine is sitting securely on the parking foot. The tow eye weighs 35kg, therefor suitable lifting apparatus is advisable to take the weight while the fixing bolts are removed

If the length of the PTO shaft needs adjusting always follow relevant workshop & power tool health and safety procedures / guidelines.

Follow appropriate manual handling procedures, when lifting PTO shaft.

Check no one is near to or on the machine before attempting to start or transport the machine. Ensure your visibility is kept clear at all times

Check there are no foreign objects inside the machine.

Ensure that no person is working on or inside the machine.

Always perform an internal inspection before loading or starting.

The Powerspread may be used only if all safety devices, e.g. detachable guards, are fitted and in proper working order.

Familiarise yourself with the controls and functions of the machine and practice them in a safe location before attempting to start work.

# 2.4 ACCIDENT PREVENTION WHEN COUPLING AND UNCOUPLING TO THE TRACTOR.

The work of coupling and uncoupling the Powerspread involves a high risk of injury Follow the procedure described in section 5.4 for further information.

Ensure the pickup hitch of the tractor has been licensed for the corresponding tongue and towed load, and that it matches the drawbar eye of the Powerspread.

Ensure the max permissible rear axle load of the tractor will not be exceeded by the weight of the Powerspread.

Ensure the machine is parked on a firm level site for attaching and detaching, ensure the handbrake of the Powerpsread is applied.

Check that all observers are clear of the Powerspread and tractor. Warn bystanders by sounding the horn of the tractor several times.

Slowly drive the tractor towards the Powerspread – always ensure that there are no other persons in the vicinity or between the machine and the tractor.

Connect the Powerspread to the tractor hitch using only the method recommended in the tractor's operator manual.

Ensure there is sufficient clearance between the PTO shaft and the draw bar when turning on undulating ground.

Ensure the machine is parked on a firm & level site, and the 'safe stop' procedure is followed before raising / lowering the parking foot. This is to ensure that the unit does not unexpectedly move while the operator or person is in close proximity to the machine

Be aware of the pinch point between the parking foot and the drawbar while raising the parking foot.

Never leave the driver seat whilst the tractor or machine is running.

#### 2.5 ACCIDENT PREVENTION WHEN USING THE HYDRAULIC SYSTEM

Ensure the machine is parked on a firm & level site, and the 'safe stop' procedure is followed before connecting / disconnecting the hydraulic couplings. This is to ensure that the unit does not unexpectedly move while the operator or person is in close proximity to the machine.

Do not connect to tractor's hydraulic system if it can deliver more than 210 bar.

Due to the possibility of oil contamination on your hands / contact with hot or pressurised oil it is recommended to use PPE (Personnel Protective Equipment), when handling hydraulic hoses & connectors.

Do not connect the hydraulic hoses to the tractor's hydraulic system until you have made sure that the system is at zero pressure on both the tractor and the Powerspread.

Do not check the hydraulic system for leaks unless the system is at zero pressure.

Hydraulic systems can generate extremely high pressures. Use proper and thorough means of searching for leakage (do not use your hands), and repair all damage immediately. Spurting hydraulic oil can cause injuries and fires. Seek medical advice immediately in the event of injury.

Hydraulic systems can generate heat within its components, be aware if touching / servicing components directly after use.

In order to exclude the possibility of incorrect connection, all mating plugs and sockets belonging to the hydraulic connections between the tractor and the Powerspread should be marked with matching colours.

Always ensure the hydraulic hoses & fittings are in good order before operating.

## 2.6 ACCIDENT PREVENTION WHEN FITTING THE POWER SUPPLY

Ensure the machine is parked on a firm & level site, and the 'safe stop' procedure is followed before checking the operation of the rear road lights and before connecting / disconnecting the power supply. This is to ensure that the unit does not unexpectedly move while the operator or person is in close proximity to the machine.

## 2.7 ACCIDENT PREVENTION WHEN OPERATING THE MACHINE

The Powerspread must not be put into operation until the user has been given proper initial instructions either by the dealer or by one of Shelbourne Reynolds' representatives or employees.

PPE (Personnel Protective Equipment) is recommended while spreading certain materials due to skin irritation and inhalation of fine particles. In this case wear face / dust mask, goggles, gloves and overalls. Keep the tractor, handler or loader windows and doors closed while loading and spreading.

If the windows of the tractor are open while spreading, it is recommended that personnel hearing protectors are used due to the noise levels involved.

The control of noise at work regulations 2005 state 85 decibels and above before hearing protectors are required.

Operators of agricultural machinery are at high risk of being exposed to whole body vibration syndrome (WBV). High exposures over many months or years can lead to permanent damage and back pain.

One person should use the machine only. When the operator identifies someone in the loading / spreading area, the operator shall not operate the starting control.

If another person is involved in loading the Powerspread, ensure the work has been planned and a system of communication has been agreed on.

Ensure the discharge door is closed prior to loading. Material may surge from the door opening which may result in injury.

Ensure that no person is working on or inside the machine.

Always perform an internal inspection before loading or starting.

When performing an internal inspection, climb the inspection ladder with caution, the steps will be slippery and there is a risk of slipping / falling.

Inspect manure before loading to ensure it does not contain any foreign objects.

Only load the machine with a suitable device.

Only use the Powerspread on a tractor that is capable of taking its weight. Use weights or ballast as required ensuring stability of the unit.

Do not overload the Powerspread. Ensure the load is evenly distributed in the hopper to prevent the machine becoming unstable.

Where practical load the heavier manure first to increase the machines stability.

Do not load the machine on a slopping / slippery site.

Check the field for changes in the stability of the ground, and plan your path to avoid excessive undulations.

Ensure that all obstacles are cleared from the intended path of the machine.

Where practical always spread on level ground and avoid traversing slopes to ensure stability of the machine.

If spreading on undulating ground ensure the machine is not overloaded. The load must not be heaped above the upper rim of the hopper.

Always operate the machine at a maximum 540rpm PTO speed.

Be aware that small stones and other similar hard objects can be thrown further than manure. Care should be taken when working near highways, public footpaths, buildings, etc.

Be aware that when the load is almost empty stones and hard object may be ejected from the top of the hopper while the impeller is rotating.

No person may be allowed to ride or climb on the Powerspread when it is operating.

Never leave the driver seat whilst the tractor or machine is running.

Always adjust the driving speed to suit the driving conditions. Avoid fast turning when driving uphill, downhill or across a slope.

In the event of a malfunction, immediately cease operation. Malfunctions must be eliminated immediately. Always use the 'Safe stop' procedure before removing or opening any guards or clearing a blockage in the spreader.

Always replace all guards after making any adjustments or lubricating the machine. Replace or repair any damaged or missing guards immediately.

Keep hands away from moving parts i.e. Impeller, door, drive chains, PTO shafts.

Do not reach into the tub due to a risk of entanglement by the auger.

Be aware that the drive line may overrun for a short time after the PTO has disengaged.

Keep a safe distance from the impeller assembly when it is being lowered or raised, as there is a risk of impact / crushing.

Ensure the machine is parked on a firm & level site, and the 'safe stop' procedure is followed before adjusting the spreading deflector. Approach the machine only when the impeller has stopped rotating.

While adjusting the spreading deflector, be aware of the pinch point when retracting the retaining pin and re-positioning.

Ensure the machine is parked on a firm & level site, and the 'safe stop' procedure is

followed before raising / lowering the Ladder extension. This is to ensure that the unit does not unexpectedly move while the operator or person is in close proximity to the machine

While raising / lowering the ladder extension, be aware of the pinch point when retracting the retaining pin and re-positioning.

Keep children away from the machine at all times.

# 2.8 ACCIDENT PREVENTION WHEN REMOVING A FOREIGN OBJECT FROM THE MACHINE.

Do not attempt to remove a foreign object from the machine unless you are wearing appropriate protective clothing (PPE). (Gloves & safety boots etc.)

Ensure the impeller has stopped rotating before you approach the machine.

Ensure the impeller lift cylinder is primed with oil before lowering the impeller, as air in the system may cause the impeller to suddenly fall.

Before proceeding to clear a blockage from the door area or removing / replacing the impeller fixing nuts, firstly follow the safe stop procedure and ensure the machine is parked on a firm / level site.

Ensure there is no one in the vicinity of the spreader while the impeller is hydraulically lowered via the hydraulic service.

Chock the discharge door, to prevent the door from inadvertently dropping, while the blockage is being cleared.

Caution must be taken while digging manure from the door area. Disturbing the manure may make the load unstable and cause it to unexpectedly flood from the door area.

The offending object may be heavy, approach lifting the object from the machine with care, if in doubt use lifting apparatus.

Be aware that energy in the form of tension will be stored in the drive chains after a sudden stop. Hence the auger or impeller may suddenly rotate after a blockage is removed.

Ensure there are no bystanders near the machine when the impeller is hydraulically raised to its working position, as there is a danger of finger / hand entrapment.

Once the impeller has been raised and secured by the retaining nuts, rotate the impeller by hand to ensure it spins freely. Always wear PPE while undertaking this task as the impeller blades may be sharp and there is a risk of finger / hand entrapment between the rotating impeller and drip tray.

If the blockage is not accessible from the door area, it may be necessary to remove it from inside the tub. Before entering the tub follow the 'safe stop' procedure and as an extra precaution disconnect the PTO shaft & hydraulic services from the tractor. Enter the tub only via the rear inspection ladder provided. Climb the inspection ladder and enter the tub with caution, the steps will be slippery and there is a risk of slipping / falling.

Assess the stability of the muck before climbing into the tub as there is a danger of the material collapsing around you or sinking. If in doubt do not enter the tub.

Do not enter the tub if it contains slurry or semi-solid material as there is a risk of drowning / suffocation.

There is a risk of musculoskeletal injury (MSI) caused by the overexertion and repetitive motion of manual digging manure to remove a blockage.

Before using the auger reversing facility to remove a blockage, Ensure there are no bystanders in the vicinity of the machine, as there is a risk of material being ejected from the top of the tub.

Do not approach or stand in the vicinity of the machine while running the auger in reverse as there is a risk of impact from flying objects, due to the impeller rotating.

Do not stand in the vicinity of the machine while running the auger in reverse as there is a risk of entanglement from the rotating impeller / PTO shaft

## 2.9 ACCIDENT PREVENTION WHEN LEAVING THE MACHINE

Never leave the driver seat whilst the tractor or machine is running.

Park the machine on a firm and level site.

Apply the tractors parking brake.

Stop the tractor's engine and remove the ignition key before leaving the cab. If being left unattended lock the tractor cab.

When unhooking the Powerspread, apply the machines parking brake before moving the tractor away.

Do not leave the machine adjacent to a building, hay stack or the like, where persons could climb and fall into the tub.

Store the PTO shaft on the stand provided, and locate the hydraulic hoses in the hose parking station at the front of the machine.

Even when the machine is not running, certain components can be moved or rotated by hand, causing injury to fingers or hands due to trapping. Wherever possible secure components during storage to prevent accidental injuries

## 2.10 ACCIDENT PREVENTION WHEN USING THE PTO SHAFT

In conjunction with the following safety measures, always refer to the safety manual supplied separately with the PTO shaft.

Ensure the machine is parked on a firm & level site and the 'SAFE STOP' procedure is followed before proceeding to fit / remove or grease the PTO shaft. This is to ensure that the unit does not unexpectedly move / start up while the operator or person is in close proximity to the machine.

Be aware that the drive line may overrun for a short time after the PTO has disengaged.

Keep the PTO shaft horizontal during handling to prevent the halves from sliding apart, which could cause injury or damage the guarding. Use suitable means to move heavy PTO shafts.

Use only the PTO shaft, which is supplied with the Powerspread and is intended for use with the Powerspread.

Ensure that it is fitted with the prescribed protective equipment (protective tube and funnel-shaped PTO shaft guard must be fitted).

Be aware of the risk of pinching your fingers / hand between the guard and the end yoke of the PTO shaft

Make sure that the tubes overlap by the prescribed distance in both straight-ahead and in turning positions and are secured in such a way that they cannot rotate with the shaft. Ensure the PTO guard safety chains are fitted and secure.

Before starting work ensure the PTO end yokes are properly engaged.

Be absolutely sure there is nobody standing in dangerous proximity to the Powerspread when you switch on the PTO shaft. Contact can cause death;

Do not wear loose clothing, jewellery, or hair that could become entangled with the driveline.

The PTO shaft speed of the tractor must correspond with the maximum permissible rotational speed of the Powerspread.

The angle of attachment will depend on the type of PTO shaft and on the type of tractor hitch. Always switch off the PTO shaft if the angle of divergence is excessive or whenever the PTO shaft is not required.

Make sure that the drawbar of the Powerspread does not interfere with the PTO guard.

# 2.11 ACCIDENT PREVENTION WHEN SERVICING OR WORKING ONTHE MACHINE

Ensure the machine is parked on a firm & level site and the 'SAFE STOP' procedure is followed before servicing or working on the machine. This is to ensure that the unit does not unexpectedly move or start up while the operator or person is in close proximity to the machine

The Powerspread must be used, maintained and repaired only by persons who are familiar with its working and have been made fully conversant with the risks involved. Any malfunctions or defects, which might affect the safe operation of the Powerspread, must be immediately eliminated.

Do not carry out any work without appropriate protective clothing and long hair tied back. (Gloves, safety boots, close fitting clothing etc.)

Do not climb on machine to access grease points as parts of the machine will be extremely slippery. Always use suitable climbing apparatus.

While loosening / tightening nuts & bolts avoid overreaching yourself and consider the consequences of the spanner slipping, or the fastener suddenly breaking or coming loose. If the result is likely to involve a fall, or the removal of flesh from your knuckles, then reconsider your approach.

When replacing the auger shearbolt be aware of a pinch point between free running sprocket and auger shearbolt hub, when aligning the shearing faces.

Always tighten wheel nuts and other components to the stated recommended torque. Ensure open drive guards are correctly secured before tensioning the drive chains.

Be aware that the drive line will overrun for a short time after the PTO has disengaged.

When entering the tub to remove a build-up of foreign material such as plastic baling twine from the auger tube, or to replace the auger paddle shearbolt, firstly follow the

'safe stop' procedure. As an extra precaution disconnect the PTO shaft & hydraulic services from the tractor. Enter the tub only via the rear inspection ladder provided. Climb the inspection ladder and enter the tub with caution, the steps will be slippery and there is a risk of slipping / falling.

Ensure there is plenty of ventilation in the workshop. Never operate the engine of the towing vehicle in a closed building. The exhaust fumes may cause aphyxiartion.

When removing a build-up of foreign material from the auger core / impeller assembly always follow relevant workshop & power tool health and safety procedures / guidelines

It may be necessary to rotate the auger to gain access to the auger paddle shearbolt. If the machine cannot be started via the tractor PTO, manually rotating the impeller assembly by hand will in turn rotate the auger. It will require approximately 50 turns of the impeller to turn the auger 1 revolution.

When rotating the impeller take care not to pinch or trap your hands / fingers between the drip tray and the impeller assembly.

When replacing the auger paddle shearbolt, consider the weight of the paddle assembly and, and the potential pinch point as it pivots.

Beware when replacing / turning over the impeller blades as the corners / edges may have worn to a sharp edge.

Chock the impeller to stop it from spinning while replacing / turning the impeller blades, as there is a risk of hand / finger entrapment.

Ensure the impeller blade fixing nuts are tightened to the correct torque. (See section 7.1)

Never work underneath or next to the machine unless the Powerspread is perfectly stable, the handbrake applied and the ground is firm.

Never work underneath or near the Powerspread if it has been raised using only a jack. Always make sure the jack is used in conjunction with stands or other effective supports, and that the jack & stands used can bear the weight.

Some parts such as brake drums may become extremely hot in use.

Perform an inspection of the tyre before inflation. Check for any defects and wear which may reduce its capacity to withstand its stated inflation pressure.

The tyre should be inflated to its correct pressure, according to the tyre manufacturer's load/inflation specifications. Always stand to the side when inflating a tyre. An inflation cage should be used when inflating large tyres

Replace all guards after servicing.

Respect the environment and do not dump oil & grease. They should be disposed of in accordance with the regulations at a waste collection point, waste disposal centre or recycling centre.

OEM replacement parts and accessories from Shelbourne Reynolds have been specially designed for use with the Shelbourne Reynolds Powerspread. Any replacement parts and accessories not supplied by Shelbourne Reynolds have not been tested and approved by us. The installation and/or the use of non-Shelbourne Reynolds products may under certain circumstances have a negative influence on the given

design features of your Powerspread and may therefore adversely affect it's safe and reliable operation and your safety. Shelbourne Reynolds cannot therefore be held liable for damage or injury caused by the use of non-OEM replacement parts or accessories.

## 2.12 ACCIDENT PREVENTION WHEN CLEANING AND STORING THE MACHINE

If the Powerspread is connected to a tractor while cleaning, ensure the 'safe stop' procedure is followed and the machine is parked on a firm level site. This is to ensure that the unit does not unexpectedly move / start up while the operator or person is in close proximity to the machine

Do not clean the machine without appropriate protective clothing and long hair tied back. (dust mask, goggles, Gloves, safety boots, close fitting clothing etc.)

When unhooking the Powerspread, apply the machines handbrake before moving the tractor away.

Do not leave the machine adjacent to a building, hay stack or the like, where persons could climb and fall into the tub.

Store the PTO shaft on the stand provided and locate the hydraulic hoses in the hose parking station at the front of the machine

Do not run the machine while cleaning.

If the need arises to rotate the impeller by hand during cleaning, always wear PPE as the impeller blades may be sharp and there is a risk of finger / hand entrapment between the rotating impeller and drip tray.

If cleaning machine using a steam cleaner or pressure washer, follow the recommended precautions given by the washing equipment manufacturer.

When entering the tub, to clean the machine, firstly follow the 'safe stop' procedure. As an extra precaution disconnect the PTO shaft & hydraulic services from the tractor. Enter the tub only via the rear inspection ladder provided. Climb the inspection ladder and enter the tub with caution, the steps will be slippery and there is a risk of slipping / falling.

Do not climb on or over parked / stored machine, due to a risk of falling in or off.

Even when the machine is unattached, certain components can be moved or rotated by hand, causing injury to fingers or hands due to trapping. Wherever possible secure components during storage to prevent accidental injuries

### 2.13 ACCIDENT PREVENTION WHEN TAKING ON PUBLIC ROADS

UK road traffic regulations must be observed when towing the Powerspread on the public highway.

The Powerspread must be in a road-worthy condition.

Check the tyre pressures regularly. Incorrect tyre pressure will reduce the carrying capacity of the tyre as well as the life of the tyre.

Regularly check & tighten wheel nuts to the recommended torque.

Only use the Powerspread on a tractor that is capable of taking its weight. Use weights or ballast as required ensuring stability of the unit.

Observe the maximum permissible width for road transport and fit all necessary rear lights, warning signs and guards. Disconnect the electrical supply when fitting.

Disconnect the PTO driveshaft and all hydraulic connections (excluding braking service) from the Powerspread during road transport so it cannot be inadvertently operated.

Ensure that all braking systems and lighting systems are in full working order and that the vehicle towing the Powerspread can fully and correctly operate them.

Ensure the rear road lights are free of debris and are clearly visible.

Do not overload the machine. Observe the maximum permissible axle loads, the load bearing capacity of the tyres and the maximum total weights in order to ensure adequate steering and braking. Attached implements also influence the behaviour of the tractor.

When transporting slurry and semi-solid material, allow sufficient room at the front of the spreader to prevent "forward surge" and consequent over-spill if emergency braking should be employed.

No person may be allowed to ride on the Powerspread.

Always adjust the driving speed to suit the driving conditions. Avoid fast turning when driving uphill, downhill or across a slope. Braking performance and turning ability will be affected when implements are connected to the tractor.

Be aware of the width, height and length of the when transporting on the public highway or near obstructions.

## 2.14 ACCIDENT PREVENTION WHEN CHANGING A WHEEL

Position the machine on a flat hard standing surface that can withstand the loading of jacking. Where possible avoid changing a wheel near live traffic

Wear High visibility clothing and position warning signs / cones if a wheel needs to be changed near live traffic.

Before jacking ensure the wheels are chocked and the machine is hitched to the tractor with its parking brake effectively engaged.

Be aware that small movements in a liquid load may cause the machine to become unstable.

Know the load and only use adequately rated equipment for the load.

Always use heavy duty trolley jacks that can extend high enough to reach the jacking point.

Never rely on the hydraulics of any lifting equipment, always use heavy duty axle stands as props.

Stay clear of the danger zone / crush area if the machine were to collapse off its temporary supports.

Use mechanical aids to lift / position wheels

Ensure the wheels are safely replaced, the wheel nuts are correctly torqued, and the repair site is cleared.

Do not attempt to change a wheel unless you have the proper equipment and experience to do the job. If in doubt use a skilled professional. The cost is minimal compared to the costs associated with the serious consequences if something goes wrong.

## 2.15 NOISE EMISSIONS

Sound pressure	Tractor window closed.	68 dB(A)	
level measured	(full operating speed)	Tractor window open.	72 dB(A)
at operator's seat in tractor cab.  Tractor and Powerspread running. (full operating speed)	Tractor window closed.	68 dB(A)	
	Tractor window open.	90 dB(A)	

Sound pressure levels measured all around the tractor and Powerspread at a distance away of 1 metre and a height of 1.6 metres, ranged from 84 - 96 dB(A).

(The above test results were obtained using a randomly selected / modern tractor)

If the windows of the tractor are open while operating, it is recommended that personnel hearing protectors are used due to the noise levels involved.

The control of noise at work regulations 2005 state 85 decibels and above before hearing protectors are required.

## 2.16 PROPER USE

**Shelbourne Reynolds Powerspreads** are based on state-of-the-art technology and are manufactured in accordance with recognised safety requirements. Nevertheless the use of the Powerspread does not preclude the risk of injury to the user or third parties and/or the risk of damage to the Powerspread itself or to other materials or items of equipment.

Always make sure that the Powerspread is in a technically perfect condition and that it is used properly and for its intended purpose and entirely in accordance with the instructions given in this manual. Any malfunctions or defects, which might affect the safe operation or the Powerspread, must be immediately eliminated.

The Powerspread must be used, maintained and repaired only by persons who are familiar with its working and have been made fully conversant with the risks involved.

OEM replacement parts and accessories from Shelbourne Reynolds have been specially designed for use with the Shelbourne Reynolds Powerspread. Any replacement parts and accessories not supplied by Shelbourne Reynolds have not been tested and approved by us. The installation and/or the use of non-Shelbourne Reynolds products may under certain circumstances have a negative influence on the given design features of your Powerspread and may therefore adversely affect it's safe and reliable operation and your safety. Shelbourne Reynolds cannot therefore be held liable for damage or injury caused by the use of non-OEM replacement parts or accessories. The Shelbourne Reynolds Powerspread is intended for use on typical farms and to be employed in spreading many types of manure from thin slurry to heavy farmyard manure. Any uses other than those for which the Powerspread is intended, such as

transportation, will automatically exempt Shelbourne Reynolds or the supplier from its/his liability in respect of ensuing damage. Such cases of improper use will therefore be entirely at the user's own risk.

All relevant accident prevention regulations, as well as other generally acknowledged health and safety regulations and road traffic regulations must be strictly observed.

Improper use also comprises failure to observe the instructions given in this operating manual and the manufacturer's maintenance and servicing requirements.

## 2.17 NO LIABILITY FOR CONSEQUENTIAL DAMAGE

Even though your Shelbourne Reynolds Powerspread has been manufactured with the utmost care and you are using it properly, fluctuations and interruptions in spread rate may still occur.

It is the duty of the operator/user to ensure that foreign objects, e.g. rocks and tyres etc. are not allowed to enter the machine. Failure to observe this may result in damage to the Powerspread and/or injury to the operator.

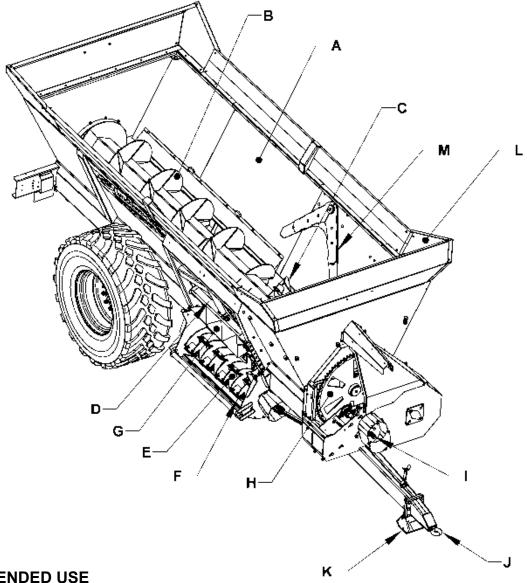
Any claims for damages not directly incurred by the Powerspread cannot be accepted. By the same token, Shelbourne Reynolds cannot be held liable for any consequential damage resulting from incorrect use of the Powerspread.

## **SECTION 3**

## SPECIFICATION AND DESCRIPTION

#### 3.1 **DESCRIPTION**

The machine consists of a tapered tub (A), with a central horizontal auger (B). Fitted to the auger are shearbolt protected auger paddles (C). On the RH side of the machine is a hydraulically operated door (D), and a discharge impeller (E). Hardox blades (F) are bolted to the impeller. Above the impeller there is an adjustable spreading deflector (G). The auger and impeller are driven via a heavy-duty chain drive (H), which is powered by a PTO shaft (I). Bolted at the front of the drawbar is a UK tow eye (J) & pivoting parking foot (K). As an option the machine may be fitted with slurry / extension sides (L), and a anti-bridging kit (M).



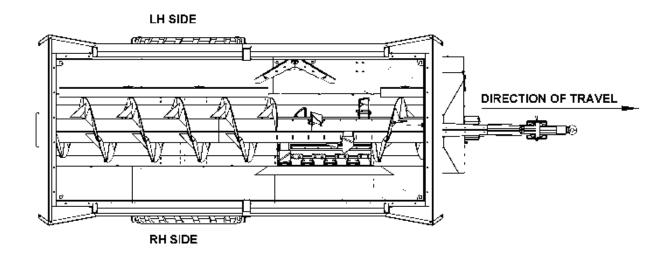
#### 3.2 **INTENDED USE**

The machine is intended to be used on typical farms or by contract spreading companies. It is employed for loading and spreading varying types of manure. Typical manure types include slurry, compost, chicken muck, fibrous farmyard manure & sewage sludge.

Adjusting the door height, spreading deflector & ground speed can vary the application rate, to ensure optimum results, whether spreading is undertaken on grass or arable land.

## 3.3 FEATURES & BENEFITS

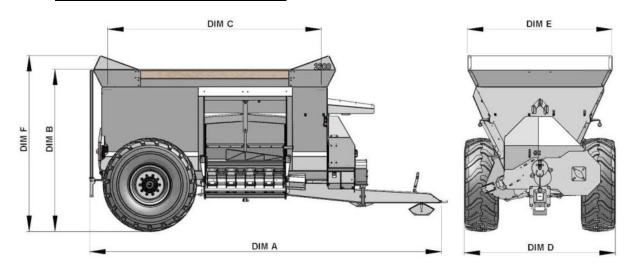
RIGHT AND LEFT HAND OF THE MACHINE AS TERMED IN THIS MANUAL IS FOR AN OPERATOR SITTING IN THE TRACTOR SEAT LOOKING FORWARD.



## THE SHELBOURNE REYNOLDS POWERSPREAD PRO

FEATURES	BENEFITS
Shearbolt protected chain drive	For maximum protection of the drives.
Patented centre discharge auger provides boiling movement of manure.	High rates of discharge and material well broken up in hopper.
Shearbolt protected auger paddles	Maximum protection against stones and foreign objects.
Wider vertical centre lift door.	Allows an even discharge of manure at any door setting, utilising the total impeller width.
Wider overshot impeller.	Provides a fine even spread at widths of up to 18 metres.
Impeller can hydraulically pivot away From the door.	Allows full access to door opening for easy Removal of stones & obstructions.

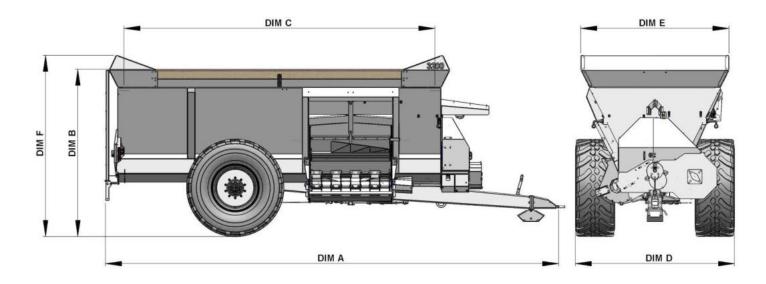
## 3.4 <u>TECHNICAL SPECIFICATIONS</u>



Model	1800	2300	
Capacity/ Level	8000 litres 1800 gallons (UK) 2200 gallons (US)	10500 litres 2300 gallons (UK) 2800 gallons (US)	
Volume / Level	8 m <sup>3</sup> (283 ft <sup>3</sup> )	10.5 m <sup>3</sup> (371 ft <sup>3</sup> )	
Overall Length (A)	6091mm (20')	6091mm (20')	
Width over tyres (D)	2600mm (8'6")	2600mm (8'6")	
Loading height (B)	2444mm (8')	2720mm (8'11")	
Opening length (C)	3658mm (12')	3658mm (12')	
Width at top of tub (E)	2275mm (7'6")	2477mm (8'2")	
Overall height (F)	2614mm (8'7")	2958mm (9'8")	
Tyre size	620/75R26	620/75R26	
PTO speed	540rpm	540rpm	
Recommended size of tractor	120hp UPWARDS	120hp UPWARDS	
Unladen weight	4150kg (9150 lbs)	4380kg (9658 lbs)	
Gross weight	11350kg (25027 lbs) *same as above	<b>13280kg (29282 lbs)</b> *13830kg (30495 lbs)	
Unladen Drawbar weight	1104kg (2434lbs)	1166kg (2571 lbs)	
Max Axle weight	8663kg (19102 lbs) * same as above	<b>10157kg (22396 lbs)</b> *10586kg (23342 lbs)	
Max Drawbar weight	2687kg (5925 lbs) * same as above	<b>3123kg (6886 lbs)</b> *3244kg (7153 lbs)	
Spread width	up to 18 m	up to 18 m	
Door size (width)	1320mm	1320mm	
Door operation	Double acting hydraulic ram	Double acting hydraulic ram	
Max road speed	20mph (32km/h)	20mph (32km/h)	
Note: All weights & other data are approximate			

Note: All weights & other data are approximate.

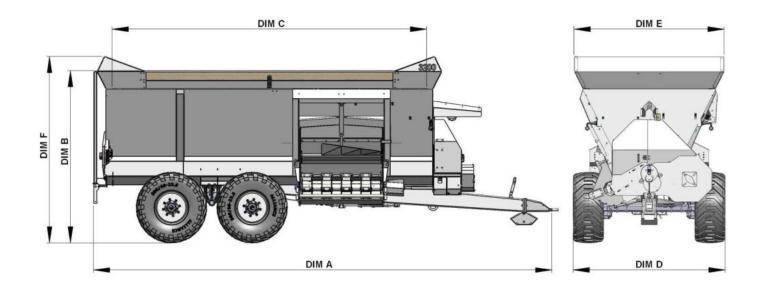
- Weights in bold text and a 20mph (32km/h)-speed limit must not be exceeded if the machines are to be taken on public roads. These weights are based on UK road regulations stating that the weight at the wheels must not exceed 10170kg on a single axle.
- \*Increased weights are for field use only (max speed 10km/h). They are derived from the maximum weights you can physically put into the machine, (figures based on manure being no heavier than 900kg/m³).



Model	2400	3200	
Capacity/ Level	11000 litres 2400 gallons (UK) 2900 gallons (US)	14500 litres 3200 gallons (UK) 3850 gallons (US)	
Volume / Level	11 m <sup>3</sup> (388 ft <sup>3</sup> )	14.5 m <sup>3</sup> (512 ft <sup>3</sup> )	
Overall Length (A)	7650mm (25')	7650mm (25')	
Width over tyres (D)	2650mm (8'8")	2650mm (8'8")	
Loading height (B)	2466mm (8'1")	2742mm (9')	
Opening length (C)	5200mm (17'1")	5200mm (17'1")	
Width at top of tub (E)	2275mm (7'6")	2477mm (8'2")	
Overall height (F)	2636mm (8'8")	2980mm (9'9")	
Tyre size	650/65R30.5	650/65R30.5	
PTO speed	540rpm	540rpm	
Recommended size of tractor	120hp UPWARDS	120hp UPWARDS	
Unladen weight	5050kg (11135 lbs)	5310kg (11709 lbs)	
Gross weight	11850kg (26129 lbs) *15050kg (33185lbs)	<b>12110kg (26703 lbs)</b> *18310kg (40374 lbs)	
Unladen Drawbar weight	1014kg (2236lbs)	1049kg (2313 lbs)	
Max Axle weight	9912kg (21856 lbs) *12677kg (27953 lbs)	<b>10137kg (22352 lbs)</b> *15495kg (34166 lbs)	
Max Drawbar weight	<b>1938kg (4773 lbs)</b> *2373kg (5232 lbs)	<b>1973kg (4350 lbs)</b> *2815kg (6207 lbs)	
Spread width	up to 18 m	up to 18 m	
Door size (width)	1320mm	1320mm	
Door operation	Double acting hydraulic ram	Double acting hydraulic ram	
Max road speed	20mph (32km/h)	20mph (32km/h)	
Note: All weights & other data are approximate			

Note: All weights & other data are approximate.

- Weights in bold text and a 20mph (32km/h)-speed limit must not be exceeded if the machines are to be taken on public roads. These weights are based on UK road regulations stating that the weight at the wheels must not exceed 10170kg on a single axle.
- \*Increased weights are for field use only (max speed 10km/h). They are derived from the maximum weights you can physically put into the machine, (figures based on manure being no heavier than 900kg/m³).



Model	2400	3200
Capacity/ Level	11000 litres 2400 gallons (UK) 2900 gallons (US)	14500 litres 3200 gallons (UK) 3850 gallons (US)
Volume / Level	11 m <sup>3</sup> (388 ft <sup>3</sup> )	14.5 m <sup>3</sup> (512 ft <sup>3</sup> )
Overall Length (A)	7650mm (25')	7650mm (25')
Width over tyres (D)	2500mm (8'2")	2500mm (8'2")
Loading height (B)	2547mm (8'4")	2823mm (9'3")
Opening length (C)	5200mm (17'1")	5200mm (17'1")
Width at top of tub (E)	2275mm (7'6")	2477mm (8'2")
Overall height (F)	2717mm (8'11")	3060mm (10')
Tyre size	560/60R22.5	560/60R22.5
PTO speed	540rpm	540rpm
Recommended size of tractor	120hp UPWARDS	120hp UPWARDS
Unladen weight	5770kg (12723 lbs)	6030kg (13296 lbs)
Gross weight	18290kg (40329 lbs)	18290kg (40329 lbs)
Unladen Drawbar weight	1139kg (2511lbs)	1190kg (2624 lbs)
Max Axle weight	15046kg (33176 lbs)	15039kg (33161 lbs)
Max Drawbar weight	3244kg (7153 lbs)	3251kg (7169 lbs)
Spread width	up to 18 m	up to 18 m
Door size (width)	1320mm	1320mm
Door operation	Double acting hydraulic ram	Double acting hydraulic ram
Max road speed	20mph (32km/h)	20mph (32km/h)

The tandem axle model can be towed loaded on the public highway up to a gross weight of 18290kg, but a 20mph (32km/h)-speed limit must not be exceeded as the machine is not equipped with ABS. These weights are based on UK road regulations stating that the gross weight of an unbalanced tandem axle trailer must be limited to 18290kg. (Inclusive of the weight imposed on the towing vehicle

## **SECTION 4**

## **HANDLING & TRANSPORTATION**



Refer to section 2 for safety procedures.

## 4.1 HANDLING



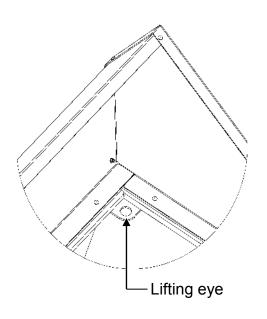
Refer to section 2.3 – Accident prevention before starting the machine for safety procedures.

The Powerspread should only be moved by one of the following methods:

- 1. By the use a crane type-lifting device (Tele-handler, jib / gantry crane)
- 2. Attaching to a tractor / towing vehicle

If using method 1, firstly attach an appropriate overhead lifting device, with sufficiently rated slings / chains. Next connect the slings / chains to the machines lifting eyes which are positioned in each corner at the top of tub. When all bystanders are clear of the danger / crush zone, slowly lift the Powerspread from the ground / Delivery trailer. Ensure the machine lifts level, it may be necessary to lower the machine to the ground and adjust the sling / chain lengths to accomplish this.

Once the machine is raised and hanging level, carefully and gently move it to lessen swinging, and lower it to the ground as soon as possible.





The centre of gravity of the machine is approximately 1.8m from the inside of the front panel of the tub for 1800-2300 models & 2.3m from the inside of the front panel of the tub for 2400-3200 gallon models.

(Please note, these dimensions are only approximate and fine adjustments may be required to ensure, the machine lifts level)

If method 2 (attaching to a tractor / towing vehicle) is chosen to move the Powerspread, ensure the below procedure is followed:



Refer to section 2.4 – Accident prevention when coupling & uncoupling to a tractor for safety procedures

- 1. Secure the Powerspread against rolling by applying the handbrake / positioning wheel chocks.
- 2. Reverse the tractor slowly towards the Tow eye of the Powerspread, ensure there are no bystanders positioned in the danger / crush zone
- 3. Lower the pick-up hitch, and manoeuvre the tractor, so the pickup hitch is directly underneath the tow eye of the Powerspread.
- 4. Raise the pick-up hitch, ensuring the tow eye of the Powerspread is engaged, and locked in position.
- 5. Switch off the tractor, apply the tractors handbrake and pull out the ignition key.
- 6 Connect the braking coupling.
- 7. Disengage the handbrake of the Powerspread.
- 8. Slowly manoeuvre the Powerspread. If removing from / loading a delivery vehicle pay particular attention to the width of the machine as a portion of the tyre may overhang the bed of the lorry, so care must be taken to keep the machine central.

## 4.2 TRANSPORTATION



Refer to section 2.13 – Accident prevention when taking on public roads for safety procedures.



Refer to section 2.3 – Accident prevention before starting the machine for safety procedures

Transporting on delivery vehicle:

Ensure the Powerspread is securely fastened to the deck of the lorry. Use adequately rated ratchet straps which are in good order and use the transport eyes located on the axle and the underside of the drawbar for securing. Finally block the wheels and activate the handbrake.

Transporting on public highway:

UK road traffic regulations state that the maximum weight bearing down on a single axle must be limited to 10170kg. On the tandem axle model, road traffic regulations state that the maximum gross weight of the towed vehicle must not exceed 18290kg. (Inclusive of the weight imposed on the towing vehicle), and the maximum permitted axle weight must not exceed 18000kg. – The weights stamped on the machines identification plate will ensure this figure is not exceeded, and must be adhered to if the machine is to be taken on public roads.

The Powerspread must not be towed on the public highway at a speed greater than 20 mph. UK road traffic regulations state that a speed of 20mph must not be exceeded if the towed vehicle weighs more than 3500kg and does not have all axle suspension, and ABS brakes fitted, or if it's overall width is between 2.55 & 3m. (The Powerspread falls into both categories)

UK road traffic regulations also state that brakes controlled by the tractor / drawing vehicle should be fitted to a towed vehicle weighing more than 3500kg. Standard lighting and hydraulic brake coupling connections are provided with the Powerspread, and must be connected when towing the machine on the public highway.

## SECTION 5 PREPARATIONS FOR USE



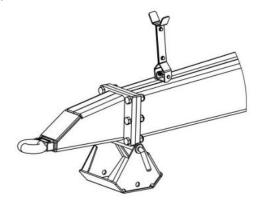
Refer to section 2 for safety procedures.

## 5.1 ADJUSTING THE DRAWBAR HEIGHT

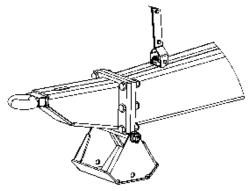


Refer to section 2.3 – Accident prevention before starting the machine for safety procedures.

Due to differences in height of tractor pick up hitches, it may be necessary to rotate the front tow eye section through 180 degrees (1800-2300 models only). This is to ensure the Powerspread is sitting level when attached to the tractor. Measure the height of the tractor pick up hitch from the ground and select the closer of the two alternative positions as shown below:







High position Tow eye height from ground = 600mm

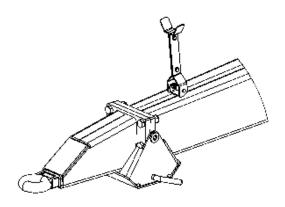
After adjustment replace the 6 off M20 x 80mm bolts ensuring they are tightened to 435Nm (321lb-ft).

## 5.2 RAISING THE DETACHABLE PARKING FOOT



Refer to section 2.4 – Accident prevention when coupling and uncoupling to the tractor for safety procedures.

Once the Powerspread has been attached to the tractor, the detachable parking foot must be moved to the raised position. Simply remove the securing pin, raise the foot and insert the pin through the lower hole in the foot. Re-fit the lynch pin to secure. (See detail left)



Note: This is advisable to gain extra ground clearance.

## 5.3 ADJUSTING THE PTO DRIVE SHAFT LENGTH



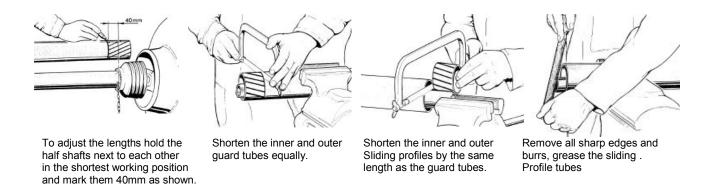
Refer to section 2.3 – Accident prevention before starting the machine for safety procedures.



Refer to section 2.10 – Accident prevention when using the PTO shaft for safety procedures.

The correct length of the PTO drive shaft may vary depending on the tractor in use. It may be necessary to shorten the PTO drive shaft.

The length adjustment is to be carried out as follows:





Grease the profile tubes before they are assembled, as they will otherwise be exposed to high friction forces.



Ensure the inner and outer PTO shafts are overlapped by at least 250mm when the tractor and machine are straight. Check that the PTO shaft will not run out of slide travel before the tractor reaches its full articulation as this will damage to the shaft and Injury may result.



Ensure the lift links do not foul on the machine or PTO shaft when turning.



Make sure the tractors 540-rpm PTO speed is selected at all times.

## 5.4 COUPLING & UNCOUPLING



Refer to section 2.4 – Accident prevention when coupling & uncoupling to the tractor for safety procedures.

The Powerspread is supplied with a 50mm diameter heavy-duty UK type tow eye, as the drawbar loading is too high for use on a tractor drawbar. The machine should only be used on the automatic pick up hitch of the tractor

A parking jack is not supplied with the spreader; instead a pivoting parking foot is positioned to the underside of the drawbar. This enables the automatic pick up hitch hook to easily move under the tow eye when attaching the spreader.

## **COUPLING OF TRACTOR**

- 6. Secure the Powerspread against rolling by applying the parking brake.
- 7. Reverse the tractor slowly towards the Tow eye of the Powerspread.
- 8. Lower the pick-up hitch, and manoeuvre the tractor, so the pickup hitch is directly underneath the tow eye of the Powerspread.
- 9. Raise the pick-up hitch, ensuring the tow eye of the Powerspread is engaged, and locked in position.
- 10. Ensure all tractors hydraulic spool valves are in their neutral position. Switch off the tractor and pull out the ignition key.
- 6. Connect the PTO shaft, ensuring that the overrun clutch, is mounted on the Powerspread side.
- 7. Connect and secure the PTO guard safety chains.
- 8. Connect the Lighting socket.
- 9. Connect the braking coupling.
- 10. Connect the door / anti-bridge / drop down impeller hydraulic services
- 11. Move the detachable foot to the raised position (see section 5.2).
- 12. Disengage handbrake.

## **UNCOUPLING OF TRACTOR**

- 1. Ensure all tractors hydraulic spool valves are in their neutral position, switch off the tractor and pull out the ignition key.
- 2. Ensure the handbrake is engaged.
- 3. Ensure the detachable foot is secured in its lower position.
- 3. Disconnect the door / anti-bridge / drop down impeller hydraulic services.
- 4. Disconnect the braking coupling.
- 11. Disconnect the Lighting socket.
- 12. Locate the hydraulic hoses & lighting cable in the hose parking station at the front of the machine.
- 8. Disconnect the PTO guard safety chains, remove the PTO from the Powerspread and park the PTO shaft on the parking stand.
- 9. Start the tractor, and lower the pick-up hitch until the detachable foot sits firmly on the ground.
- 10. Manoeuvre the tractor away from the Powerspread.
- 11. Switch off the tractor and pull out the ignition key.

#### 5.5 CONNECTING THE HYDRAULIC SUPPLY



Refer to section 2.5 – Accident prevention when using the hydraulic system for safety procedures.

With a clean cloth wipe any dirt from the couplings before connecting to the tractors hydraulic system.

Proceed to connect the hydraulic brake coupling and the auxiliary hydraulic couplings to the tractor via the 1/2 BSP male Quick release couplings provided.

The Powerspread requires a double acting supply to raise and lower the discharge door & a single / double acting supply to operate the drop down impeller function.

If the machine is equipped with an optional anti-bridge kit, a further double acting supply is required.

If the quick release couplings are not compatible with the tractor, change to suitable connectors for the required application. If the tractor is fitted with a flow control valve, adjust to minimum flow rate.

Having pushed the hose ends into the tractor spool valves, ensure that the hoses do not hang down and obstruct the tractor lift arms or any moving parts.



Ensure the hydraulic hoses are long enough, to suit the tractor, and are not taught

#### 5.6 CONNECTING THE POWER SUPPLY



Refer to section 2.6 – Accident prevention when fitting the power supply for safety procedures.

The electrical connection for the lighting system is a standard 7-pin plug for a 12 V service.

Ensure the 7-pin plug is clean, and proceed to fit it to the mating socket located on the tractor.

#### 5.7 USING THE HANDBRAKE



Refer to section 2.7 – Accident prevention when operating the machine, for safety procedures.

Two handbrake types have been supplied with the Powerpsread. A multi-stroke ratchet type and a rotary spindle type.

Multi stroke ratchet type (See right) To apply the handbrake, give the handle short clockwise thrusts until resistance and subsequent tightening of the cable occurs.

To release the handbrake rotate the handle sharply in an ant-clockwise direction to disengage the ratchet mechanism.



**Rotary spindle type** (See below – crank handle shown in resting position)
To apply the handbrake swivel the crank handle from its resting position by 180° and then rotate the handle clockwise to tighten the cable which in turn will activate the brake. (The tightening force required to apply the handbrake is approximately 165N)

To release the handbrake turn the crank handle anti-clockwise until the cable goes slack, swivel the handle 180° and place back in its resting position.



#### 5.8 RAISING & LOWERING THE LADDER EXTENSION



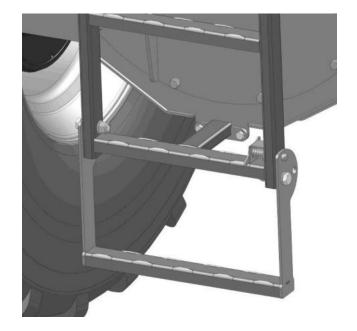
Refer to section 2.7 – Accident prevention when operating the machine, for safety procedures.

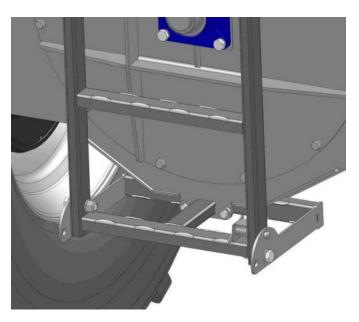
The Powerspread is supplied with a rear ladder. This should be used to gain access to the inside of the tub to change the auger paddle shearbolts, and to view the load to be spread.



Do no climb the ladder or enter the tub before following the 'safe stop' procedure.

The lower portion of the ladder can be raised to gain extra ground clearance during spreading by simply retracting the sprung loaded pin and rotating the ladder extension in an anti-clockwise direction. (See Below)





#### 5. CHECK BEFORE USE



Refer to section 2 for safety procedures.

Your dealer should have undertaken all assembly work and pre delivery checks. As a precaution before you use your new Powerspread, please do the following:

- 1. Read the operators manual carefully.
- 2. Check that the Powerspread is mounted correctly and that it is undamaged.
- 3. Check the movements of the PTO drive shaft, and that the safety chains on the safety guards have been secured correctly.
- 4. Check that the hydraulic hoses are correctly mounted & long enough.
- 5. Check that the electrical connection is correct.
- 6. Check that the tow eye is positioned at the correct height in relation to the tractor.
- 7. Re-tighten the wheel nuts.
- 8. Check tyre pressures.
- 9. Check there are no foreign objects inside the tub.
- 10. Ensure 540 rpm PTO speed is selected.
- 11. Ensure there are no observers in or around of the machine before starting the machine.

The Powerspread has been tested and declared error-free at the factory. However, you should do as follows before using the machine:

Start the machine at low rpm. Listen for any unusual knocking sounds, if there are no unusual sounds increase the of PTO rpm. If there is any doubt stop the tractor & Powerspread immediately, check the machine visually to find possible fault, and then seek authorised advice.

#### **SECTION 6**

#### FIELD OPERATION AND SPREADING



Refer to section 2 – Accident prevention for safety procedures.

The machine is designed to run at 540rpm PTO speed. Spreading should be done in straight-line bouts. Avoid spreading while turning corners, as this will cause vibration in the PTO drive.

#### 6.1 GENERAL WEIGHTS OF DIFFERENT MATERIALS

MATERIAL	APPROXIMATE WEIGHT (kg/m <sup>3</sup> )
Cattle manure, fresh	600-800
Cattle manure, rotten	800-1000
Dry Poultry muck	400-600
Pig Manure	700-900
Sludge	900-1100
Slurry	800-1000
Compost	400-600



Use the above chart as a guide. Ensure you do not overload the Powerspread.

#### 6.2 LOADING THE MACHINE



Refer to section 2.7 – Accident prevention when operating the machine, for safety procedures.

Always close the door before loading the Powerspread.

While loading dry straw or clamp manure precautions should be taken if large slabs or lumps, particularly from the front of feeding troughs, are encountered. Always endeavour to slide these down the side into the hopper and do not position them

Always endeavour to slide these down the side into the hopper and do not position them directly onto the top of the auger as this may cause bridging and will prevent an even spread pattern. The use of grab-buckets should be avoided; always use manure forks.

To prevent over-spill at the front of the machine while spreading it is advisable to heap more material at the rear of the machine than the front. Material will be transported to front of the machine, quicker than the back due to the door position & auger design. Please note this is the opposite of how a rear beater manure spreader is loaded, where more material is generally heaped at the front.



Do not overload the Powerspread as this will result in material spilling from the front / sides of the machine during spreading.

#### 6.3 DISCHARGE RATE

The machine is designed with a single auger speed of 13rpm. This optimum auger speed coupled with the 1.32m wide means a high discharge rate can be achieved.

For a finely shredded spread with a low discharge rate the door opening will be small. However the auger will still transport the manure to the discharge door at the same speed resulting in a "bottle-neck" of material which causes a "boiling up" effect. This helps break down the manure further before it is finally ejected onto the impeller blades and discharged.

The discharge or spread rate of the Powerspread depends very much on the type of material being spread. For a given material it will be found that there is an ideal door position for maximum throw of the material and maximum shredding of the manure. It is essential that the standard PTO speed of 540 rpm is maintained at all times and the discharge rate varied according to the door opening and the forward speed of the tractor. A further variant is the amount of overlap between each run which, in most cases, will average 6m (20ft).

#### 6.4 DOOR OPENING SETTINGS

These are approximate guide settings, and may vary for certain conditions i.e. grassland or arable land (see chart below).

DOOR HEIGHT	MANURE TYPE		
7-8	Only used to clear blockage		
6	Used for high discharge rates		
4-5	Fresh muck		
4-5	Rotten muck		
3-4	Dry chicken muck / Compost		
2-3	Sludge		
1-2	Slurry		
1	Door closed		

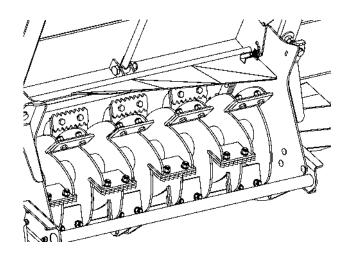
#### 6.5 SETTING THE SPREADING DEFLECTOR

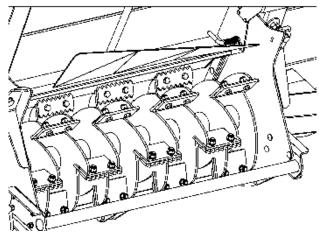


Refer to section 2.7 – Accident prevention when operating the machine, for safety procedures.

The adjustable spreading deflector has been designed to give you the optimum spread pattern when spreading slurry.

By operating the spring lever & rotating the assembly, the spreading deflector can be set in any one of three positions. The lower two positions are for spreading slurry and the top position is for spreading general manure.





SPREADING DEFELCTOR SET FOR SLURRY

SPREADING DEFLECTOR SET FOR GENERAL MANURE.

#### 6.6 PROCEDURE FOR SPREADING



Refer to section 2.7 – Accident prevention when operating the machine, for safety procedures.

As a general rule, for all material except slurry, open the door to position 3 before engaging the PTO. For slurry, start with the door closed, and ensure the machine is running at full 540rpm PTO speed before the door is opened.

Ensure the PTO is engaged gently at low engine rpm's and gradually and positively bring up to 540rpm PTO speed. At the same time move forward at the required speed and then immediately adjust the hydraulic door to the required position on the indicator. This position will depend on the type and consistency of the material being spread, the position of the spreading deflector, and the operator's judgement of spread rate and pattern.

Some materials will cause partial blockage of the discharge door, (when the auger flights are not fully covered the discharge rate will reduce), therefore it may be necessary to increase the door opening for the last part of the load.

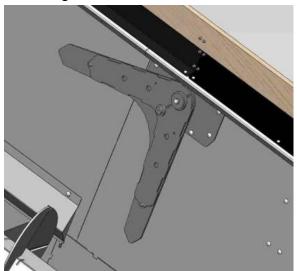
#### 6.7 OPERATING THE ANTI-BRIDGING ARM

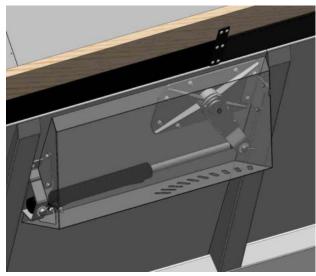


Refer to section 2.7 – Accident prevention when operating the machine, for safety procedures.

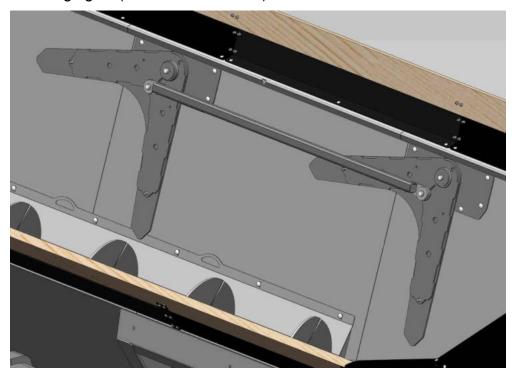
An anti-bridging kit can be fitted to this machine as an option. Some manure types which contain a high straw content, are prone to bridging, when this occurrence happens it greatly reduces the machines ability to produce a consistent discharge rate.

This device is designed to dislodge material from the side wall of the tub by reciprocating backwards and forwards, which in turn prevents the bridging effect from occurring.





Above - Anti-bridging kit (Part No: KIT-03744)



Above – An optional rear pivot is available to reduce extreme bridging conditions.

Part No: KIT-03762A - 1800-2300 models

KIT-03762 - 2400-3200 models

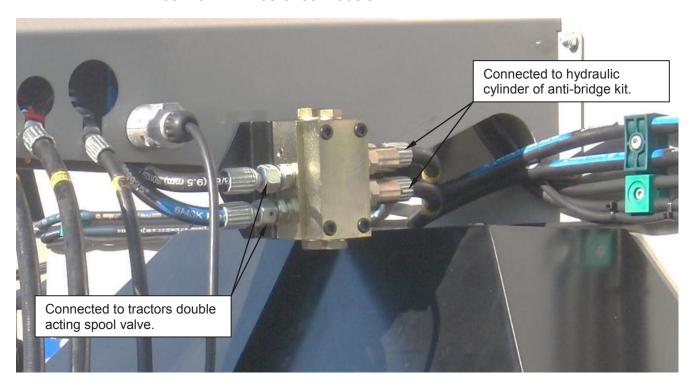
### Anti-bridge kit hydraulic options:

The anti-bridging arm can be operated manually by engaging the tractors double acting spool valve or it can be operated via a reciprocating valve, which enables the anti-bridging arm to continually move backwards and forwards during spreading

Automatic hydraulic option containing the reciprocating valve

Part No: KIT-03748A - 1800-2300 models

KIT-03748 - 2400-3200 models



The manual hydraulic option simply connects 2 hydraulic couplings to the hydraulic cylinder of the anti-bridge kit, and is operated by a double acting spool valve on the tractor.

Part No: KIT-03758A - 1800-2300 models

KIT-03758 - 2400-3200 models

#### 6.8 REMOVING FOREIGN OBJECTS FROM THE MACHINE



Refer to section 2.8 – Accident prevention when removing a blockage from the machine for safety procedures.

If during spreading a knocking sound is heard or sparks are seen coming from the impeller, then there will be a foreign object such as a stone in the machine. If this happens open the discharge door wide to allow the object to be thrown out. If the object is not cleared immediately, follow the 'safe stop procedure and investigate.

The safest method of removing an obstruction is via the discharge door. Open the door fully and then follow the 'safe stop' procedure. Carefully inspect the area surrounding the impeller to see if the obstruction is visible. Remove the offending object if there is sufficient clearance between the impeller and door.

If there is not sufficient clearance or the foreign object is still not visible, the next step is to hydraulically lower the impeller to gain further access (see section 6.10). As a precaution, chock the discharge door to prevent it from inadvertently dropping, and proceed to dig material from the door opening until the foreign object is visible and can be removed safely. Caution must be taken while digging manure from the door area as disturbing the manure may make the load unstable and cause it to unexpectedly flood from the opening.

If the foreign object is still not accessible, the next step is to reverse the auger for approximately 10 seconds with the door open (see section 6.9). After reversing follow the 'safe stop' procedure and once again examine the area surrounding the impeller to see if the obstruction is now evident. Also look inside the tub via the inspection ladder to see if the reversing action has lifted the foreign object to the top of the load.

If the above procedures do not work, it may be necessary to remove the foreign object from inside the tub. Before entering the tub, follow the 'safe stop' procedure and wait for all moving parts to stop. As a precaution, disconnect the PTO shaft & hydraulic services from the tractor to ensure the machine is not inadvertently operated. Enter the tub only via the rear inspection ladder provided. Assess the stability of the muck before climbing into the tub as there is a danger of the material collapsing around you or sinking. If you are not 100% confident in the stability of the load do not enter the tub.

Do not under any circumstances enter the tub if it contains slurry or semi-solid material as there is a risk of drowning / suffocation.

#### 6.9 SHEARBOLT PROTECTION



Refer to section 2.7 – Accident prevention when operating the machine, for safety procedures.



Refer to section 2.10 – Accident prevention when using the PTO shaft for safety procedures.

To prevent damage to the Powerspread by foreign objects, a shear bolt protection is provided on the impeller drive and on the auger drive.

Additional shearbolts are also fitted to the discharge paddles

#### **IMPELLER SHEARBOLT**

The shearbolt to protect the Impeller drive is positioned at the drive end of the impeller PTO shaft.

If the impeller encounters an obstruction and shears a bolt, follow the procedure as described below::

- 1. Stop the tractor PTO immediately and close the discharge door
- 2. Follow the 'safe stop, procedure.
- 3. Visible check the impeller area, try rotating the impeller by hand, if the impeller rotates freely then replace the shearbolt.
- 4. If the Impeller does not rotate by hand, try to locate the obstruction. It may be necessary to raise the discharge door, or hydraulically lower the impeller to gain access. (See section 6.10)
- 5. Remove the obstruction.
- 6. Replace the shearbolt and re-fit the guard and safety chain before continuing to spread.

The impeller shearbolt is made from special material. Normal commercially available bolts are not suitable.

The shearbolt must be genuine Shelbourne Reynolds service parts. If not, the company will not consider any claim made under the warranty and no liability shall be attached to the company.

Impeller Shearbolt part number. BLTA10380 Nut part number NUT-0265

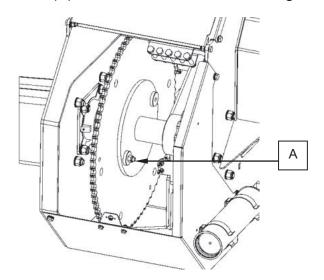
#### **AUGER SHEAR BOLT**



Refer to section 2.7 – Accident prevention when operating the machine, for safety procedures.

If the main auger encounters an obstruction, then the shearbolt system will disengage the drive to the auger. The drive will still rotate the impeller but the auger rotation will stop.

The auger shearbolt (A) is located under the LH drive guard (see sketch below):



Follow this procedure when changing the auger shearbolt:

- 1. Stop the tractor PTO immediately and close the discharge door
- 2. Follow the 'safe stop, procedure.
- 3. Open the LH guards by undoing the M12 locking fastener.
- 4. Remove all pieces of the broken shear bolt from the shearbolt bush in the drive sprocket & shearbolt hub.
- 5. Align one of the holes in the shearbolt hub to the hole in the drive sprocket by rotating the drive sprocket by hand.
- 6. Replace the shearbolt.
- 7. Close the guard and lock by tightening the M12 fastener.

It is likely the cause of the shearbolt breakage will still be present inside the tub. Hence, it is advisable to use the reverse facility to try and dislodge the foreign object before restarting the machine to reduce the chances of another shearbolt breakage. (See section 6.9)

The Auger shearbolt is made from special material. Normal commercially available bolts are not suitable.

The shearbolt must be genuine Shelbourne Reynolds service parts. If not, the company will not consider any claim made under the warranty and no liability shall be attached to the company.

Auger shearbolt part number. BLTA12440
Nut part number NUT-0269

#### 6.10 AUGER REVERSING FACILITY



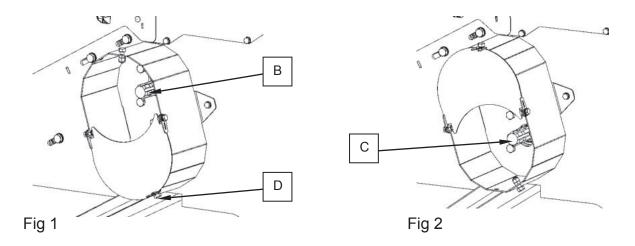
Refer to section 2.10 – Accident prevention when using the PTO shaft for safety procedures



Refer to section 2.8 – Accident prevention when removing a blockage from the machine for safety procedures.

If an obstruction is encountered which is large enough to continuously shear the auger shearbolt, you can reverse the drive simply by moving the PTO shaft from the main drive shaft (B) to the reverser shaft (C).

Reversing the auger will create a cushioned start-up for the tractor, as the auger is allowed to build up momentum before it encounters the obstacle which initially broke the shear bolt.



To gain access to the reverser shaft, simply slacken the locking screw (D), and rotate the front guard through 180 degrees, as shown in fig 2.



Reverse the auger for a maximum of only 10 seconds. Then return the PTO shaft to drive shaft (B). Ensure the front drive guard is locked via screw (D) and the safety chains are fitted and secure before engaging the PTO.

#### 6.11 LOWERING THE IMPELLER

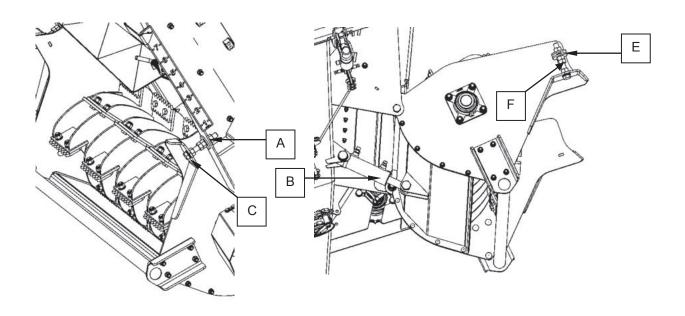


Refer to section 2.8 – Accident prevention when clearing a blockage from the machine for safety procedures.

The impeller can be hydraulically lowered to gain more access when removing a foreign object from the door opening.

To lower the impeller follow the below procedure:

- 1. Follow the 'safe stop, procedure.
- 2. Slacken the 2 nuts (A) on both sides of the impeller until the nut is level with the end of the setscrew (C).
- 3. Connect the hydraulic hose to a spool on the tractor to operate the lift ram (B).
- 4. Operate the spool to extend the lift ram, to ensure the ram is primed with oil.
- 5. Follow the 'safe stop, procedure.
- 6. Remove the 2 nuts (A) & the washer (E) on both sides of the impeller. The impeller will slowly drop as the oil disperses from the lift ram.
- 7. Do not adjust the 2 nuts (F), as these together with the washer acts as a stop to set the impeller position.
- 8. Raise the impeller by operating the hydraulic spool of the tractor to extend the lift ram (B).
- 9. Follow the 'safe stop, procedure.
- 10. Re-fit the 2 nuts (A) & the washer (E) on both sides of the impeller, tighten until they hit the stop washer.
- 11. Turn the impeller by hand to ensure it runs freely.



#### 6.12 SHEARBOLT PROTECTED AUGER PADDLES



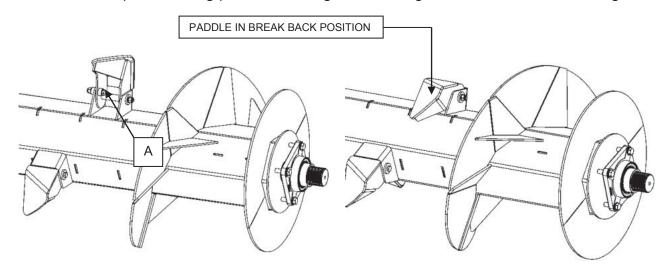
Refer to section 2.10 – Accident prevention when using the PTO shaft for safety procedures..



Refer to section 2.11 – Accident prevention when servicing and working on the machine for safety procedures.

The Powerspread is fitted with 6 shearbolt protected auger paddles on its auger. These are designed to feed material to the door opening.

If a large obstruction is encountered, the paddle will try and push it round with the auger, as it rotates. If the blockage is too large to move then the shearbolt (A); will break, this will result in the paddle being pushed back against the auger core to avoid the blockage.



If the spread pattern becomes erratic or excessive noise is present then the machine should be stopped and investigated after the discharge of the current load, possible cause maybe the shearbolt(s) have broken on the auger paddles, or the obstruction is too large for the machine to dislodge.



The ability of the paddle to break back once the force exceeds the shearbolt rating reduces the risk of damage to the body, door or impeller.

Under **NO** circumstances should the "spring-back" paddles be welded solidly and the shearbolt removed as this will invalidate the warranty of the Powerspread.

The shear bolts must be genuine Shelbourne Reynolds service parts. If not, the company will not consider any claim made under the warranty and no liability shall be attached to the company.

Auger paddle Shearbolt part no. SCCA16533 Nut part no. NUT-0271

If the auger paddle shearbolts need to be changed follow this procedure:

- 1. Follow the 'safe stop, procedure.
- 2. Disconnect the PTO shaft and hydraulic services from the machine.
- 3. You will need 2 off 24mm spanners, replacement shearbolts and nuts and a pry bar to remove any access manure from around the paddle.
- 4. Enter the tub only via the rear inspection ladder provided. Pay particular caution while standing on the auger core, as the surface will be slippery.
- 5. Re reconnect the PTO shaft and safety chain before continuing to spread.

#### 6.13 OPERATING THE STEERING AXLE

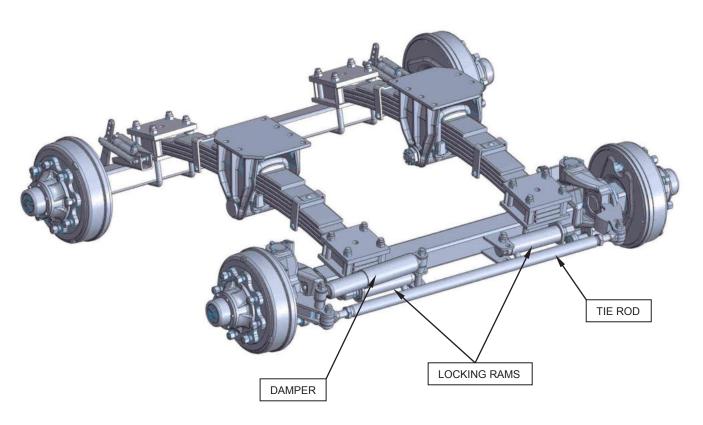


Refer to section 2.7 – Accident prevention when operating the machine, for safety procedures.

The Powerspread can be specified with a tandem bogie assembly which incorporates a steering rear axle. Steering axles contain two spindles which swivel about a kingpin. This can considerably reduce tyre wear, improve the manoeuvrability of the machine and significantly reduce parasitic forces on the chassis and wheels. The wheel alignment is finely controlled by a tie rod which is adjusted by turning the tie rod with a left-hand thread at one end and a right-hand thread at the other There is a damper to reduce oscillations and also stabilises the mechanism, and two

There is a damper to reduce oscillations and also stabilises the mechanism, and two locking rams are used to straighten the wheels just before reversing. The Locking rams can also be activated while manoeuvring on steep cambers or on particularly rough surfaces (bumps, potholes, etc.).

The locking rams are activated via the hydraulic service connected to a spool valve of the tractor.



# SECTION 7 ADJUSTMENTS AND MAINTENANCE



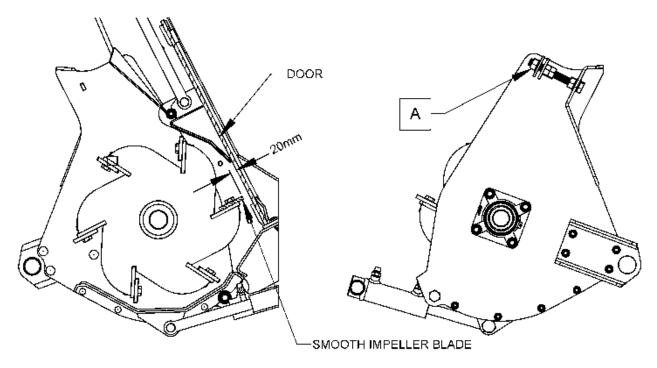
Refer to section 2.11 – Accident prevention when servicing & working on the machine for safety procedures.

#### 7.1 IMPELLER BLADE ADJUSTMENT

It is important to set the impeller a certain distance from the door to maintain a good spread pattern, and to prevent impact damage between the impeller or door assemblies. Each Impeller blade is attached to the impeller by two bolts. The impeller should be adjusted to give 20mm (3/4") clearance between the tip of the smooth blades and the outside face of the discharge door when closed (see diagram below). The smooth blades should protrude approximately 2mm (5/64") further than the teeth on the serrated blades.



The M16 impeller blade fasteners should be tightened to 210Nm (155lb-ft).



As the impeller blades wear, the whole impeller can be adjusted inwards. The distance can be easily adjusted by slackening or tightening the 4 nuts (A) located on each side of the impeller assembly.

Once adjusted to the required distance from the door, all nuts should be tightened.

When blades are fully worn on one edge they can be turned over and the second edge can be used. Failure to adjust the impeller position on a regular basis will impair the performance of the Powerspread.



Do not set the impeller closer than 20mm from the door as impact & subsequent damage to the impeller will occur.

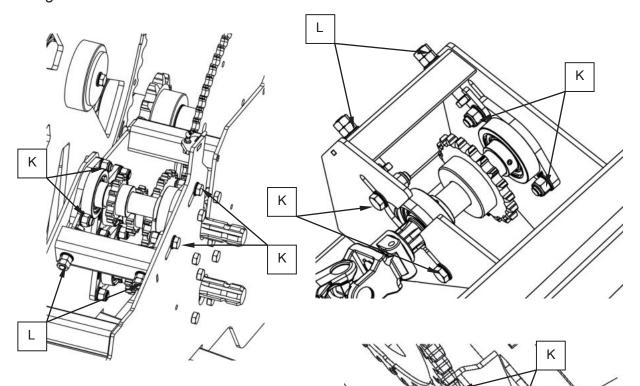
#### 7.2 DRIVE CHAIN TENSIONING



Refer to section 2.11 – Accident prevention when servicing and working on the machine for safety procedures

The Powerspread is fitted with 3 simplex chains of various sizes to drive the auger and impeller. All chains are fitted with a tension adjuster (see diagrams below). The correct chain tension will have been set at the factory but it should be regularly checked during field use. Failure to regularly adjust the chain tensions will severely reduce the life of the chain and greatly increase the chances of breaking a shearbolt on start up.

To tension the chain, firstly slacken bolts (K), then adjust the plain nuts (L) to move the sprocket up or down to the required position, and finally tighten bolts (K) to lock the whole assembly in position. Make sure the chain is physically felt and checked as it is tightened.



Follow the method as described below to ensure the chain tensions are set correctly.

The total slack in the chain can be determined by counter rotating the sprockets so one strand is taut, and then measuring the total sag between the chain and a straight edge midway between the sprockets

The sag should be 1-2% of the centre distance. (See Fig 3.- Shown overleaf, for approximate dimensions).

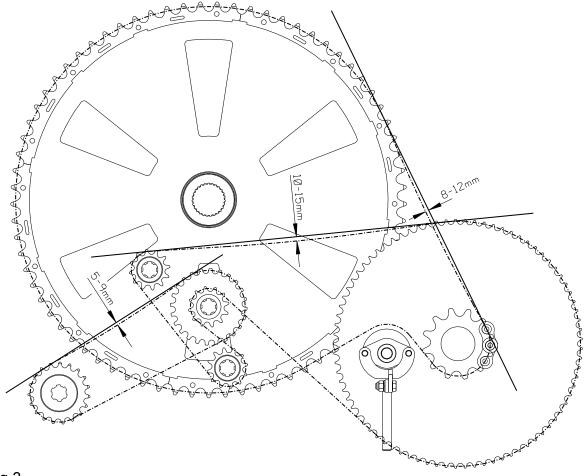


Fig 3.

#### 7.3 CHECKING / TIGHTENING OF WHEEL NUTS



Refer to section 2.11 – Accident prevention when servicing and working on the machine for safety procedures.

Number of studs, stud size and nut type	Torque (Nm)	Torque (lb/ft)	Socket size
10 studs, M22 x 1.5mm pitch, "Bec" taper cone nut	450	332	32mm
8 studs, M20 x 1.5mm pitch, "Plain nut & split coned washer"	350	260	30mm

The wheel nuts must be tightened diagonally using the appropriate sized socket to the torque stated using a torque wrench.

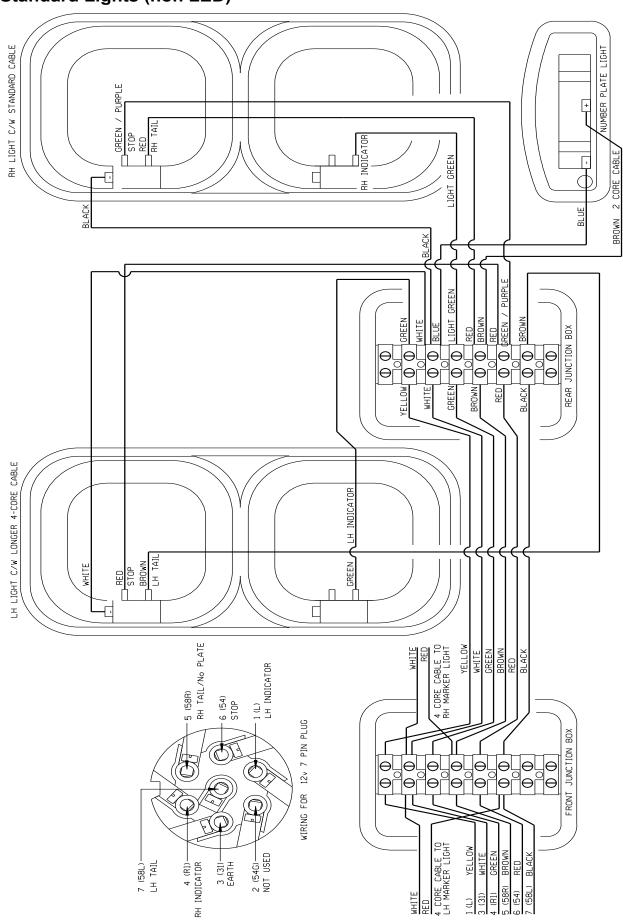
It is recommended that wheel nuts should be checked / tightened :

- Before use at Pre Delivery Inspection stage.
- After the first use / laden journey.
- After the first day of use. Depending if the wheel nuts have become loose then repeat check / tighten daily until no loosening occurs.
- After the first week of use. Depending if the wheel nuts have become loose then repeat check / tighten weekly until no loosening occurs.
- Regularly during use onwards.

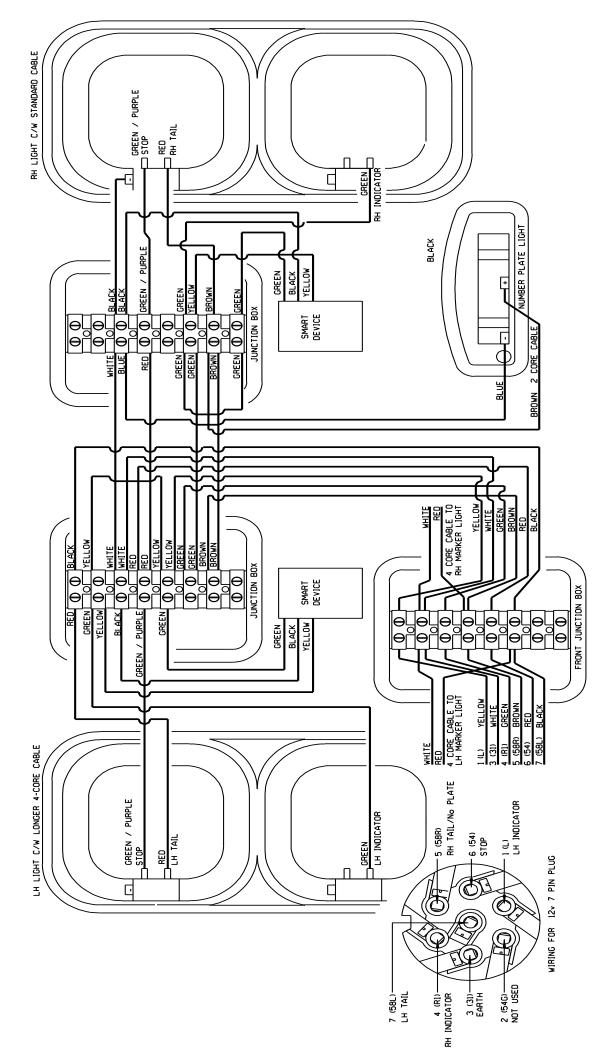
Repeat every time the wheels are changed or removed.

## 7.4 ELECTRICAL WIRING DIAGRAMS

# **Standard Lights (non LED)**



# **LED lights**



#### 7.5 TYRE PRESSURES



Refer to section 2.11 – Accident prevention when servicing and working on the machine for safety procedures.

To ensure maximum tyre life and performance, it is advisable to check the tyre pressure every 2 weeks. If the machine has not been used for a long period, check the tyre pressures before putting the machine back into operation. Ensure there are dust caps on the valves.

The Powerpsread is supplied with the following wheel & tyre assemblies:

1800-2300	23.1-26 16PR Crossply Alliance	Inflate to 2.3 bar (33 psi)
1800-2300	23.1-26 18PR Crossply Starmaxx	Inflate to 2.41 bar (35 psi)
2400-3200	650/65-R30.5 Trelleborg Twin Radial	Inflate to 3.0 bar (44 psi)
2400-3200 (Tandem)	500/60-22.5 16PR Crossply Starmaxx	Inflate to 2.8 bar (41 psi)

#### 7.6 MAINTAINING THE HYDRAULIC SYSTEM



Refer to section 2.6 - Accident prevention when using the hydraulic system for safety procedures.

Do not operate the machine at a pressure higher than 210bar.

Check the hose ends and other hydraulic connections daily to ensure there are no leaks.

Check the hoses themselves regularly to ensure there is no damage to the sheathing. If the steel braiding has been exposed it should be covered with self-adhesive tape to protect it from rust. If the braiding itself has become damaged then the hose should be replaced, as there is a danger it could burst.

Ensure that a replacement hose is of the same pressure rating as the hose it replaces. Always use 2 spanners when tightening hoses.

Recommended torque settings for hose nuts:

SIZE (BSP)	NUT TO	RQUE SETTI	NG		
	Min	Min			
	Nm	lbf-ft	Nm	lbf-ft	
1/4"	15	11	18	13	
3/8"	26	19	31	23	
1/2"	41	30	49	36	
5/8"	50	37	60	44	
3/4"	70	52	80	59	
1"	105	77	125	92	

#### 7.7 RECOMMENDED TORQUE FOR FASTNERS



Refer to section 2.11 - Accident prevention when servicing and working on the machine for safety procedures

The table shown below provides the correct torque values for various fasteners.

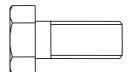
- Tighten all fasteners to the torques specified in the chart unless otherwise stated in this manual.
- Check tightness of fasteners periodically, using torque chart as a guide.
- Replace hardware with the same strength fastener.
- Torque figures are valid for non-greased or oiled threads unless otherwise specified.
- Do not grease or oil fasteners unless specified. When using locking elements, increase torque values by 5%.

THREAD	WDENCH	BOLT TORQUE / GRADE*					
DIAMETER.	WRENCH SIZE (mm)		8.8	10	).9		
DIAMETER.	SIZE (IIIII)	lbf-ft	Nm	lbf-ft	Nm		
M5	8	4	6	7	9		
M6	10	7	10	11	15		
M8	13	18	25	26	35		
M10	17	37	50	52	70		
M12	19	66	90	92	125		
M14	22	103	140	148	200		
M16	24	166	225	229	310		
M20	30	321	435	450	610		
M24	36	553	750	774	1050		

<sup>\*</sup> Torque categories for fasteners are identified by their head markings







#### 7.8 CHECKING THE AXLE HUBCAPS



Refer to section 2.11 for accident prevention when servicing and working on the machine for safety procedures

Check that the hubcaps are in place and in perfect condition.

Missing or damaged hubcaps must be replaced immediately, to avoid dirt penetrating into the hub, and consequently damaging the wheel bearings.

For press fit hubcaps, check visually that they are fully home.

For hubcaps attached using screws, fit a new gasket if the hubcap is removed, and tighten the screws regularly (Every 3 months).

#### 7.9 CHECKING THE WHEEL BEARINGS



Refer to section 2.11 - Accident prevention when servicing and working on the machine for safety procedures.

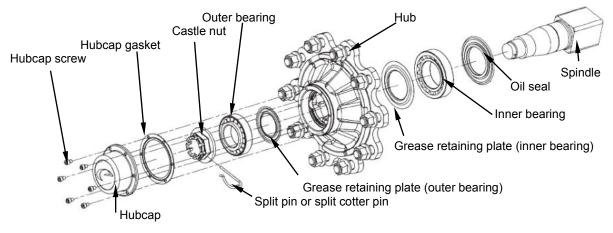
Wheel bearings are subject to wear; their lifetime depends on the operating conditions, the load, speed, adjustment and lubrication.

They should be checked after the first 1000km, before intensive use or every 3 months or 5,000km.

To check for play in the wheel bearings, raise the axle until the wheel is no longer resting on the ground.

Release the brake, and grip the wheel at the top and the bottom, and check the play by trying to tilt it.

If you can feel any play, adjust the wheel bearing, as described below



- 1. Remove the hubcap.
- 2. Remove the cotter pin or hairpin clip from the spindle.
- 3. Tighten the castle nut (Right hand thread) to take up the internal play, (the spherical roller bearings should then be firmly held between the hub seating, the pressure ring spindle and castle nut
- 4. The rotation of the hub should feel to be slightly stiff, slacken the castle nut until there is no friction between the castle nut and the outer bearing, and the hole for the pin is aligned with a notch in the castle nut.
- 5. Tap the hub gently using a mallet to shake down the assembly.
- 6. Check that the hub rotates more freely, it is best to be too free rather than too tight.
- 7. When the hub has been adjusted, fit a new split cotter pin.
- 8. Refit the Hubcap, and tighten the hubcap screws.
- 9. When the wheel has been re-fitted, turn it slightly. It should come to rest with a slow rocking movement due to the imbalance

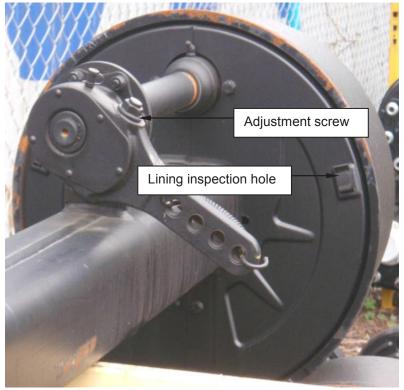
In normal operating conditions, lubricate the bearings every 2 years or every 40,000km, or when the brake shoes are replaced.

The axle hubs will need to be disassembled in order to lubricate the wheel bearings, this work should be carried out in a clean environment with appropriate tools as any contamination can damage the bearings or even the spindle.

#### 7.10 CHECKING BRAKE CLEARANCE & WEAR



Refer to section 2.11 - Accident prevention when servicing and working on the machine for safety procedures.



Check and test the brakes before intensive use and every 3 months.

Check the brake wear, and the clearance between the brake linings and the drum visually, by looking through the lining inspection hole.

It is probable that the linings are worn when the hydraulic cylinder travel has increased significantly.

The brake shoes should be replaced if the minimum lining thickness of 5mm is reached.

When replacing the brake shoes, always re-pack the bearings with grease.

The brake levers may need adjusting when the brake shoes begin to wear. This is done by taking up the slack when the hydraulic brake cylinder reaches about two thirds of its maximum travel. To take up the slack, turn the adjustment screw on the lever to move the brake lever (shown above).

The brake operating levers contain several holes. Always mount the hydraulic cylinder and the handbrake cable in the original holes, as this will alter the machines braking efficiency.

If in doubt please consult your dealer to carry out this work.

#### 7.11 MAINTENANCE OF THE STEERING AXLE



Refer to section 2.11 - Accident prevention when servicing and working on the machine for safety procedures.

Steering axles should be maintained identically to standard axles, as described previously in sections 7.8, 7.9 & 7.10. However they do require extra maintenance and adjustments as described below.

Before intensive use and every 3 months:

- Lubricate the kingpins.
- Tighten the screws and nuts and all parts mounted on the axle (chambers, cylinders and mountings, locking, cylinders, damper, tie rod, etc).
- Check that the tie rod has not been accidentally bent as this adversely affects the steer axle, in particular the wheel alignment.
- Check the full-lock angle limit screws on the axle.
- If the steer axle oscillates, check the damper. Oil traces do not indicate that the damper is unserviceable but a major oil loss will result in its failing. Uncouple it at one end and push it in and out by hand for the whole travel. If there is little resistance, replace the damper. Also replace the damper if it is badly dented.
- Ensure that the damper is mounted the right way round. A new damper should have the label at the top.
- Look for and correct any leaks of air or hydraulic fluid from the chambers, cylinders and damper.

Checking and adjusting the wheel alignment:

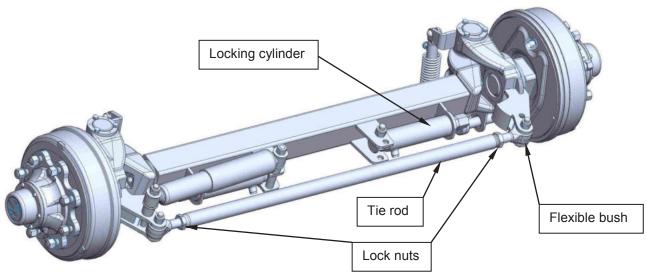
Before adjusting the wheel alignment, check that the flexible bushings at the ends of the tie rod are in good condition and replace them if necessary.

Align the wheels with the vehicle on a smooth, level surface.

The wheel alignment must be adjusted with the locking cylinder pistons retracted. Measure the distance between the rims at the front and at the back of the wheels: the distance should be the same.

If the wheel alignment is not perfect, adjust it as follows, with the locking cylinder pistons still retracted

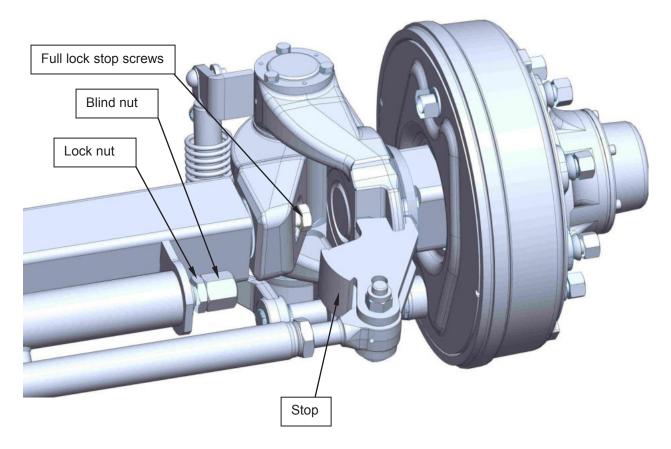
- Slacken the 2 lock nuts on the end of the tie rod.
- Turn the tie rod to pull or push the wheels until the distances are the same. The wheels may be set to have a slight toe in (distance at the front less than the distance behind) of no more than about 4 mm but never adjust with toe out.
- Lock the lock nuts when the tie rod has been adjusted and then adjust the locking cylinders



#### Adjusting the locking cylinders:

- Move the lock nuts and the blind nuts as close as possible to the body of the cylinder.
- Without operating the locking rams, align the steer axle and the vehicle on a smooth, level surface.
- Pressurise the rams and maintain the pressure.
- Screw the blind nuts to contact the stops without forcing
- Screw the lock nuts to contact the blind nuts.
- Tighten the lock nuts firmly
- Check that the wheels are still aligned.

The only maintenance required for the locking rams is to keep them perfectly clean, in particular the surface of the ram rod. If the seals are leaking, they can be replaced.



#### Adjusting the full lock stop screws

Check the full-lock angle regularly by turning fully to the right and to the left and checking that the tyres do not touch the trailer or suspension as this might wear or damage the tyres. Adjust the full-lock stop screws, if appropriate and tighten the lock nuts.

#### 7.12 MAINTENANCE OF THE BOGIE SUSPENSION



Refer to section 2.11 - Accident prevention when servicing and working on the machine for safety procedures.

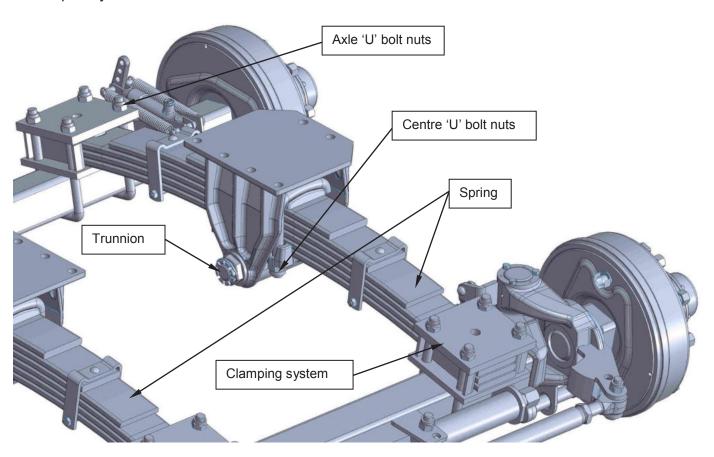
After the first laden journey, before intensive use and every 6 months:

- Tighten the axle U-bolt nuts diagonally to a torque of 440Nm
- Tighten the centre U-bolt nuts diagonally to a torque of 590Nm
- Tighten the bolts that connect the Bogie suspension to the tub of the Powerspread to a torque of 435Nm.
- Lubricate the central trunnion.

#### Every year

- Check the play between the bushings and the trunnions and, if there is excessive play, replace the worn parts.
- Check the general condition of the springs: clean them thoroughly and brush the sides of the springs to check for cracks.
- If there is any play between the spring and the axle, check the whole of the clamping system (the rubber pad, the clamping box and plate and the alignment pin.

Under harsh or intensive operating conditions, maintenance should be carried out more frequently.



#### 7.13 CHANGING A WHEEL



Refer to section 2.14 - accident prevention when changing a wheel for safety procedures.

Firstly park the machine on a flat hard standing surface capable of withstanding the loading of a jack. Ensure the wheels are chocked and the machine is hitched to the tractor with its parking brake engaged.

Locate the heavy duty trolley jack in a position to maintain maximum stability and ensure it can extend high enough to reach the jacking point

Use heavy duty axle stands as props, never rely on the hydraulics of any lifting equipment.

Finally use a mechanical lifting aid to position and secure the wheels. Once lowered ensure the wheel nuts are tightened to the correct torque.

The symbol shown below is displayed on the machine and is there to identify the locations on the machine where a trolley jack or support device can be used.





Do not attempt to change a wheel unless you have the proper equipment and experience to do the job. If in doubt use a skilled professional. The cost is minimal compared to the costs associated with the serious consequences if something goes wrong.

#### 7.14 STORAGE & CLEANING



Refer to section 2.12 for accident prevention when cleaning and storing the machine for safety procedures.

Clean the machine thoroughly, making sure that high-pressure water does not contact bearings, seals or electrical components. Avoid washing paintwork at very close range or at very high pressure.

The machine should be stored undercover, to protect it from the effects of sun and rain. Make any necessary repairs and then apply grease to all grease points until fresh grease shows. Also, apply a layer of grease to all unprotected surfaces that are prone to corrosion, in particular any exposed hydraulic cylinder rods. (This grease should be carefully removed prior to the next use of the machine, as it will contain sufficient dirt to damage the cylinder seals.

If the machine is to be kept outside, it should be parked with the door open to prevent water sitting in the bottom of the tub, and to prevent the doors hydraulic cylinder from rusting.

Park the hydraulic hoses and 7-pin plug in the parking station as shown below to prevent damage during storage:

When the Powerspread is not in use stow the PTO shaft as shown below to prevent damage:

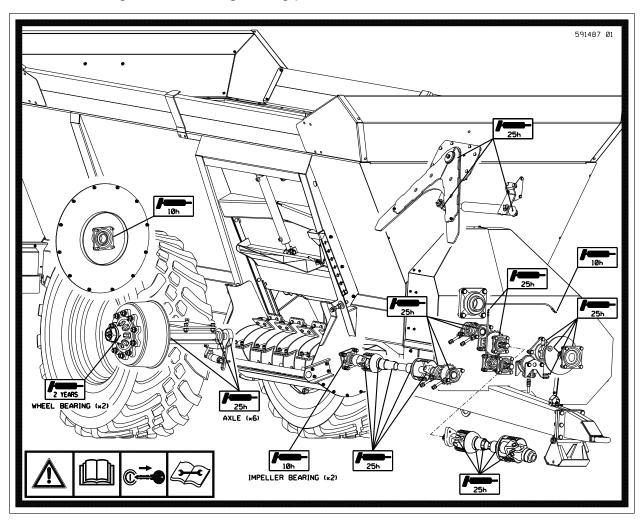




#### **SECTION 8**

## **LUBRICATION**

Refer to the diagram below for greasing points:



#### **GREASE EVERY 10 HOURS**

Grease the front & rear impeller bearings. Grease the front & rear auger bearings. Oil the drive chains.

#### **GREASE EVERY 25 HOURS.**

Grease the universal joints & guard bearings of the impeller & input PTO shafts Grease remaining front drive bearings (x10). Grease brake cam rods & levers on axle (x6).

Grease the pivot pins on the anti-bridge assembly

Grease the pivot bush on the anti-bridge assembly

#### **GREASE EVERY 2 YEARS**

Check & grease wheel bearings.

SECTION 9:	PARTS LISTING

#### **POWERSPREAD PARTS MANUAL**

#### Machine Identification

The Powerspread machine and serial identification numbers are engraved on a plate on the left hand side of the drawbar beam.

Record serial, machine and any kit option numbers in the space below;

POWERSPREAD SERIAL NUMBER

POWERSPREAD MACHINE NUMBER

OTHER KIT OPTIONS

OTHER KIT OPTIONS

## **Ordering Spare Parts**

To ensure that you order the correct part from your SRE dealer please use the following procedure.

#### ALWAYS QUOTE THE MACHINE AND SERIAL NUMBERS WHEN ORDERING.

Refer to the first page of this parts list section (machine assemblies), listing all the sub assemblies.

The appropriate assemblies part number (in the top left corner) will match the machine number from the Powerspread identification plate.

Use the following sub assembly numbers and descriptions to find the area of the machine that your part is required, i.e. if you need a part which is fitted to the impeller, your part will be in the discharge rotor assembly parts list.

Having decided which sub-assembly your part should be under, use the number beside that sub-assembly description, (which will begin with 6090\_\_\_\_), to find the parts listing of the sub-assembly further on in the manual. The number will be printed in the top left hand corner, the sub-assemblies are in numerical order.

Having found the correct parts list, you will find the corresponding drawing by either looking at the facing page or progressing through the manual to the next drawing. The drawings indicate the components by item numbers which you will find are repeated in the left hand side of your parts listing, and therefore referring to the correct part.

# List Of Kits For Powerspread Pro 1800-3200

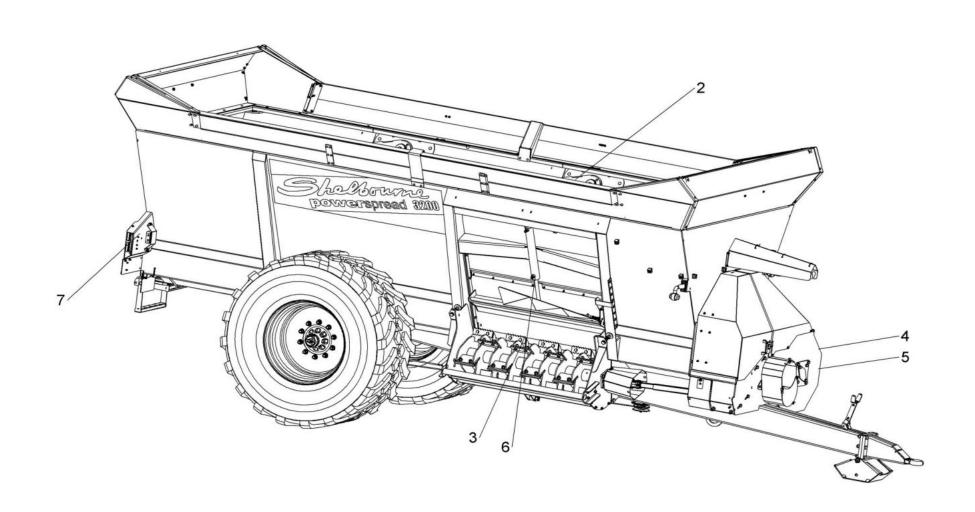
609905 01	Powerspread Pro 2400-3200	70
609905 02	Powerspread Pro 1800	72
609049 01	Auger And Auger Fixing Kit	74
609049 02	Auger And Auger Fixing Kit	76
609050 01	Impeller Sub Assembly	78
609051 01	Drives Sub Assembly	81
609051 02	Drives Sub Assembly	85
609052 01	Door Hydraulics Sub Assembly	88
609053 01	Guards Sub Assembly	90
609054 01	Tub And Door Sub Assembly	92
609054 02	Tub And Door Sub Assembly	94
609066 01	Guards Sub Assembly	96
609068 01	Auger Fixing Sub Assembly	98
609068 02	Auger Fixing Sub Assembly	100
609069 01	Tub And Door Sub Assembly	102
609069 02	Tub And Door Sub Assembly	104
609070 01	Impeller Sub Assembly	106
609071 01	Door Hydraulics Sub Assembly	108
KIT-03249	UK Parts Kit	110
KIT-03643	Wheel And Tyre Kit	112
KIT-03692	PTO Shaft Kit	114
KIT-03692a	PTO Shaft Kit	116
KIT-03742	UK Heavy Drawbar Kit	118
KIT-03744	Anti Bridge Kit	120
KIT-03745	Straw Plate Kit	122
KIT-03746	Axle With Hydraulic Brakes	124
KIT-03747	Lighting Kit	126
KIT-03747a	Lighting Kit	128
KIT-03748	Anti-Bridge Automatic Hydraulics Kit	130
KIT-03748a	Anti-Bridge Automatic Hydraulics Kit	132
KIT-03749	Powerspread Transfers Kit	134
KIT-03755	3200 Extension Top Kit	136
KIT-03758	Anti-Bridge Manual Hydraulic Kit	138
KIT-03758a	Anti-Bridge Manual Hydraulic Kit	140
KIT-03762	Rear Anti Bridge Kit	142
KIT-03762a	1800g Rear Anti-Bridge Kit	144
KIT-03763	Hydraulic Axle Kit	146

KIT-03764	UK Drawbar Kit	148
KIT-03770	Blanking Plate Kit	150
KIT-03771	Blanking Plate Kit	152
KIT-03771a	Blanking Plate Kit	154
KIT-03773	Wheel And Tyre Kit	156
KIT-03773a	Wheel And Tyre Kit	158
KIT-03781	2300 Extension Top Kit	160
KIT-03784	1800 & 2400 Slurry Canopy Kit	162
KIT-03799	Wide Angle PTO Shaft Kit	164
KIT-03806	Single Hydraulic Axle Kit	166
KIT-03807	Tandem Hydraulic Axle Kit	168
KIT-03807a	Tandem Axle Kit	170
KIT-03808	Hydraulic Axle Kit	172
KIT-03810	Tandem Wheel And Tyre Kit	174
KIT-03812	Wheel And Tyre Kit	176
KIT-03823	Anti Bridge Kit	178
KIT-03823a	Anti Bridge Kit	180
KIT-03824	Auto Hydraulics Kit	182
KIT-03825	Manual Hydraulics Kit	184
KIT-03835	Extension Top Kit	186
KIT-03836	Extension Top Kit	188
KIT-03850	Jack Kit	190
KIT-03855	Extension Top Kit	192
KIT-03856	Extension Top Kit	194
KIT-03874	Rear Drawbar Kit	196
KIT-03875	Rear Drawbar Kit	198
KIT-03883	Tandem Wheel And Tyre Kit	200
KIT-03891	2300 Extennsion Top Kit	202
KIT-03893	Lighting Kit	204
KIT-03893a	Lighting Kit	206
KIT-03909	Air Brake Conversion Kit	208
KIT-03911	3200 Extension Side Kit	210
KIT-03913	Tandem Hydraulic/Air Axle Kit	212
KIT-03914	Tandem Wheel Kit	216
KIT-03915	Wheel And Tyre Kit	218

# Shelbourne Reynolds Engineering Limited

ASSY	ASSY NUMBER: 609905 01			ASSY D	ESCRIPTION: 300	O GALLON POWERSPREAD	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	609054 01	TUB & DOOR SUB ASSY	1				
2	609068 01	AUGER FIXING SUB ASSY	1				
		PSP24130330 & ON					
OR	609049 01	AUGER FIXING SUB ASSY	1				
2	600050 01	UP TO & INC PSP24120239	1				
3	609050 01 609051 01	IMPELLER SUB ASSY	1 1				
4 5	609066 01	DRIVES SUB ASSY GUARDS SUB ASSY	1				
3	009000 01	PSP24130330 & ON	1				
OR	609053 01	GUARDS SUB ASSY	1				
010	003033 01	UP TO & INC PSP24120239					
6	609052 01	DOOR HYDRAULICS SUB ASSY	1				
7	KIT-03747	LIGHTING KIT	1				

# Shelbourne Reynolds Engineering Limited

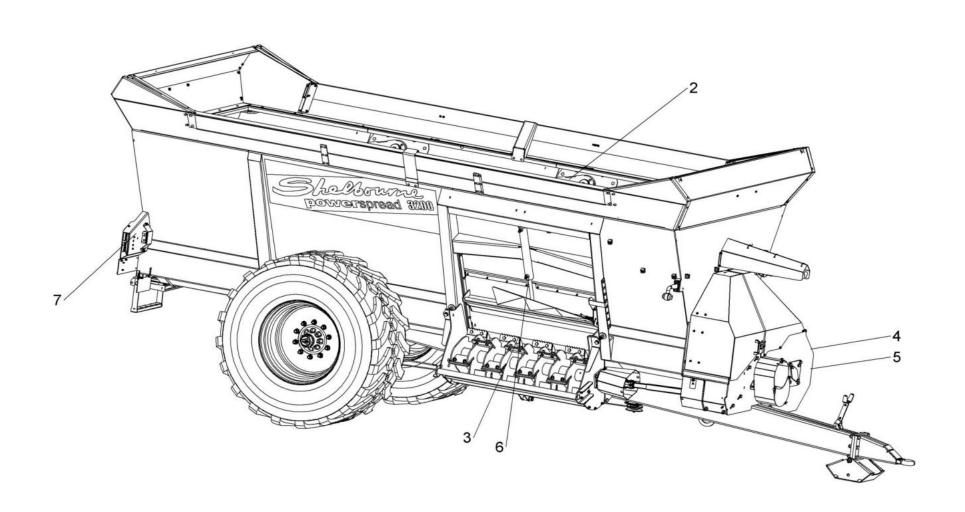


609905 01 609905 02

REYNOLDS

# Shelbourne Reynolds Engineering Limited

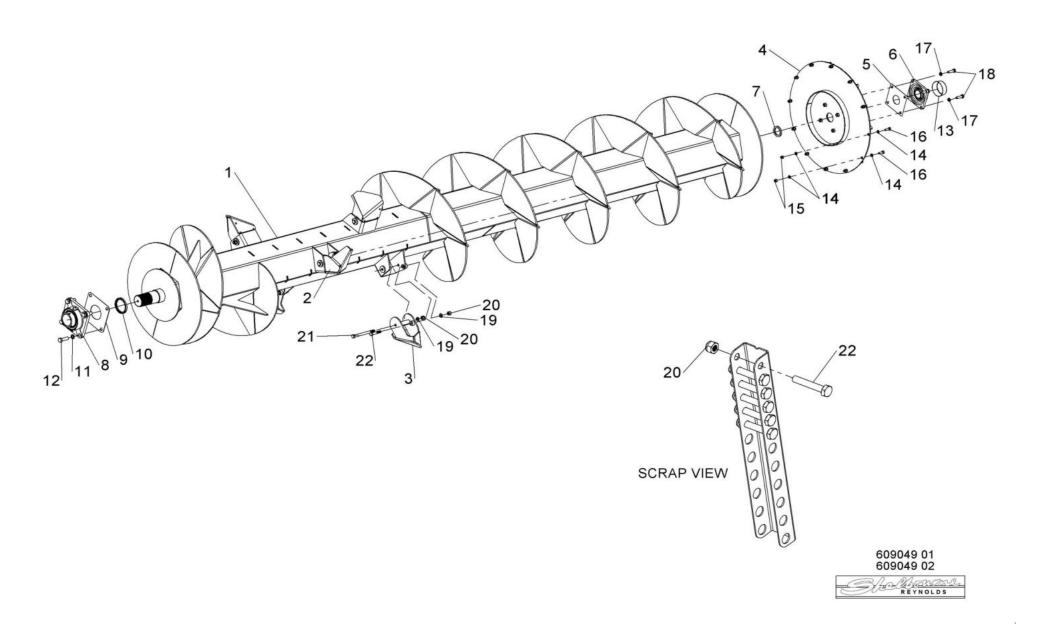
ASSY NUMBER: 609905 02			ASSY DE	SCRIPTION: POWERSE	PREAD PRO 1800 TOP LEVEL		
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	609069 01	TUB & DOOR SUB ASSY PSP18160523 & ON	1				
OR	609054 02	TUB & DOOR SUB ASSY UP TO & INC PSP18150516	1				
2	609068 02	AUGER & AUGER FIXING KIT SER No PSP18140345 & ON	1				
OR	609049 02	AUGER & AUGER FIXING KIT UP TO & INC PSP18130311	1				
3	609070 01	IMPELLER SUB ASSY PSP18160523 & ON	1				
OR	609050 01	IMPELLER SUB ASSY UP TO & INC PSP18150516	1				
4	609051 02	DRIVES SUB ASSY	1				
5	609066 01	GUARDS SUB ASSY PSP18120258 & ON	1				
OR	609053 01	GUARDS SUB ASSY UP TO & IN PSP24120248	1				
6	609071 01	DOOR HYDRAULICS SUB ASSY PSP18160523 & ON	1				
OR	609052 01	DOOR HYDRAULICS SUB ASSY UP TO & INC PSP18150516	1				
7	KIT-03747a	LIGHTING KIT UP TO & INC PSP18150516	1				
OR	KIT-03893	LIGHTING KIT PSP18160523 & ON	1				



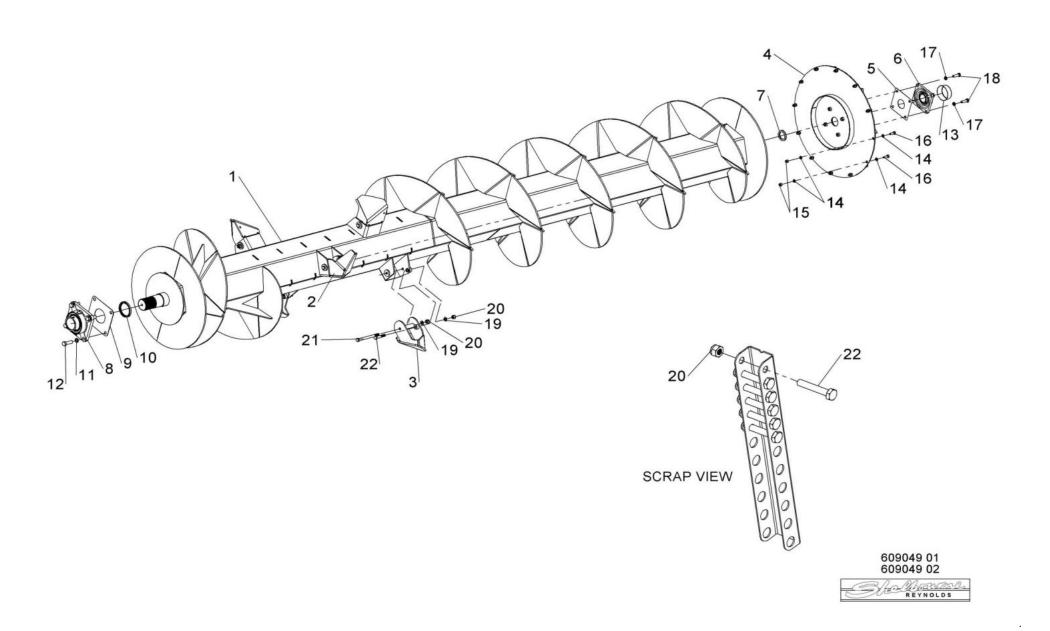
609905 01 609905 02

REYNOLDS

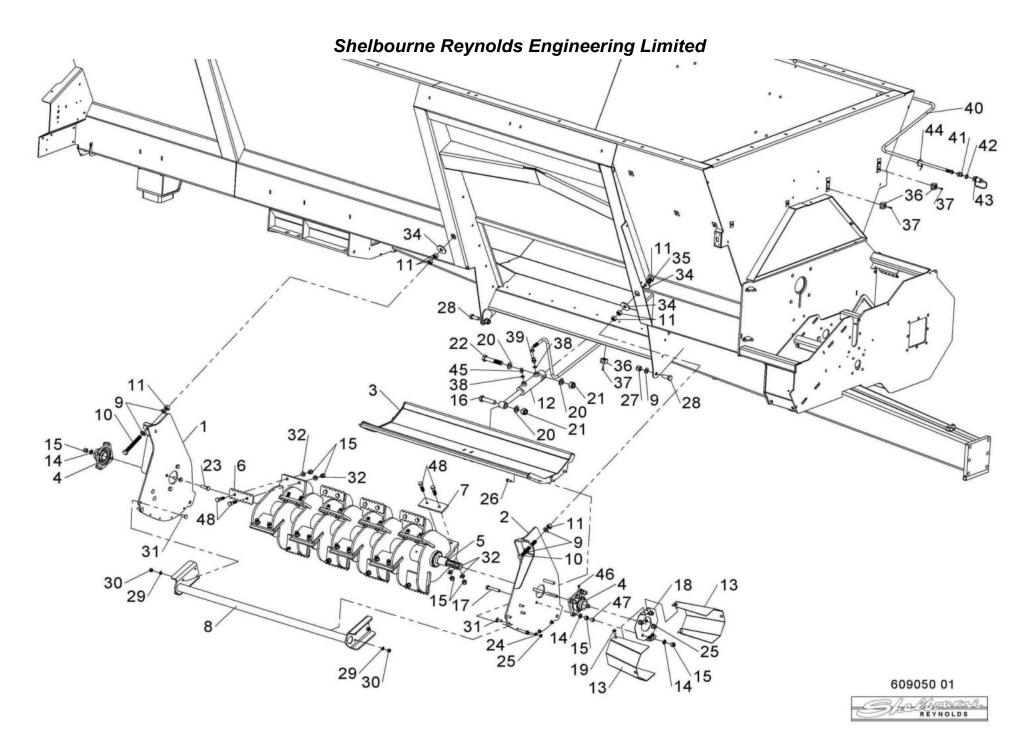
ASSY	NUMBER: 609049	01		ASSY D	ESCRIPTION: AUGE	ER & AUGER FIXING KIT	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591209 01	2400 GALLON AUGER W/ASSY	1				
2	591224 01	LH DISCHARGE PADDLE W/ASSY	3				
3	591224 02	RH DISCHARGE PADDLE W/ASSY	3				
4	591233 01	AUGER MOUNTING PLATE W/ASSY	1				
5	590615 01	SPACING DISC	1				
6	BRG-26040	SUPPORT	1				
7	SEAF06000	SHAFT SEAL	1				
8	BRG-29040	BEARING	1				
9	591702 01	BEARING SPACER	1				
10	SEAB10000	RADIAL SHAFT SEAL	1				
11	WSH-0075	SPRING WASHER	4				
12	HSSA20410	HEX HEAD SET SCREW	4				
13	BRG-96000	SELF LUBE PROTECTOR CAP	1				
14	WSH-0018	PLAIN WASHER	24				
15	NUT-0269	NUT	12				
16	HSS-0241	BOLT	12				
17	WSH-0070	SPRING WASHER	4				
18	HSS-0318	SETSCREW	4				
19	WSH-0024	PLAIN WASHER	12				
20	NUT-0271	NYLOC NUT	18				
21	SCCA16832	SOC HEAD SCREW	6				
22	SCCA16533	SOC HEAD SCREW	12				



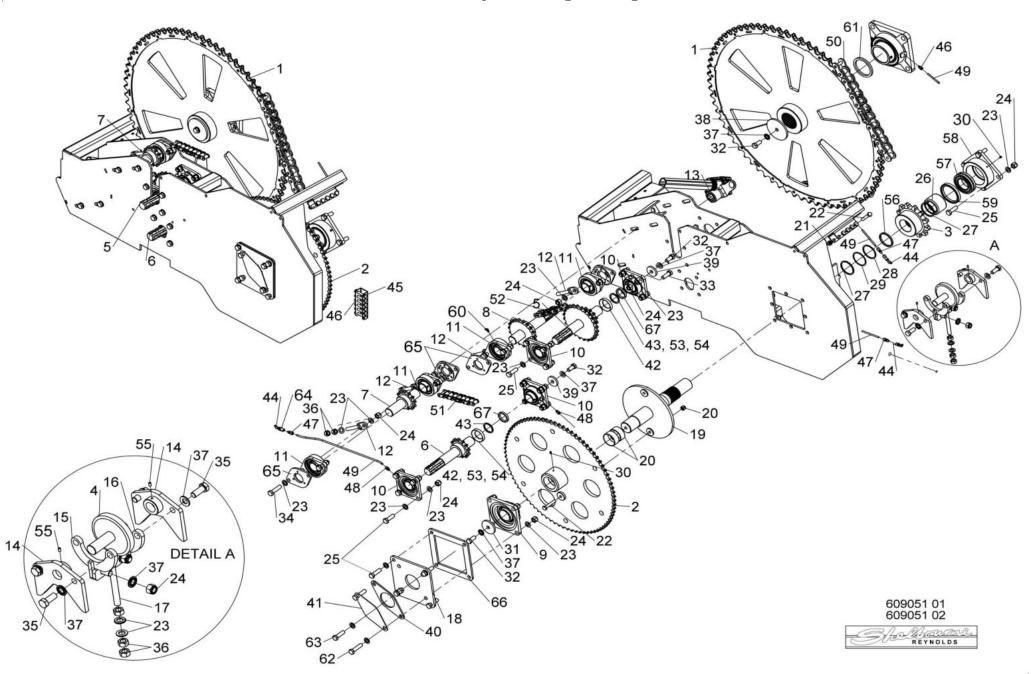
ASSY	NUMBER: 609049	02		ASSY DE	ESCRIPTION: AUGER	R & AUGER FIXING KIT	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591516 01	1800 GALLON AUGER W/A	1				
2	591224 01	LH DISCHARGE PADDLE W/ASSY	3				
3	591224 02	RH DISCHARGE PADDLE W/ASSY	3				
4	591233 01	AUGER MOUNTING PLATE W/ASSY	1				
5	590615 01	SPACING DISC	1				
6	BRG-26040	SUPPORT	1				
7	SEAF06000	SHAFT SEAL	1				
8	BRG-29040	BEARING	1				
9	591702 01	BEARING SPACER	1				
10	SEAB10000	RADIAL SHAFT SEAL	1				
11	WSH-0075	SPRING WASHER	4				
12	HSSA20410	HEX HEAD SET SCREW	4				
13	BRG-96000	SELF LUBE PROTECTOR CAP	1				
14	WSH-0018	PLAIN WASHER	24				
15	NUT-0269	NUT	12				
16	HSS-0241	BOLT	12				
17	WSH-0070	SPRING WASHER	4				
18	HSS-0318	SETSCREW	4				
19	WSH-0024	PLAIN WASHER	12				
20	NUT-0271	NYLOC NUT	18				
21	SCCA16832	SOC HD SCREW	6				
22	SCCA16533	SOC HD SCREW	12				



ASSY	NUMBER: 609050	01		ASSY DE	SCRIPTION: IM	IPELLER SUB ASSY	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591457 01	LH IMPELLER SIDE PLATE W/ASSY	1	41	HMA-0055	ADAPTOR MALE/MALE	1
2	591457 02	RH IMPELLER SIDE PLATE W/ASSY	1	42	WSH-1015	DOWTY WASHER 1/2"	1
3	591167 01	DRIP TRAY W/ASSY	1	43	COU-0162	QUICK RELEASE COUPLING	1
4	BRG-25040	BEARING	2	44	TIE-0004	TIE WRAPS (MED)	8
5	591953 01	IMPELLER W/A	1	45	FIT-0218	G/B BREATHER	1
6	591366 01	SERRATED IMPELLER BLADE	16	46	NIP-0050	1/4" BSF 45 NIPPLE	1
7	591367 01	PLAIN IMPELLER BLADE	8	47	591393 01	SPACER	4
8	591456 01	GUARD RAIL W/ASSY	1	48	BLT-2312	BOLT	48
9	WSH-0030	PLAIN WASHER	6				
10	HSSA20740	HEX HEAD SETSCREW	2				
11	NUT-0185	PLAIN NUT	8				
12	RAM-0015	HYDRAULIC RAM	1				
13	591454 01	PTO GUARD	2				
14	WSH-0024	PLAIN WASHER	12				
15	NUT-0271	NYLOC NUT	60				
16	BLTA24560	HEX HEAD BOLT	1				
17	HSS-0330	SETSCREW	4				
18	591452 01	GUARD FIXING PLATE /WASSY	1				
19	HSSG10204	SETSCREW	4				
20	WSH-0036	PLAIN WASHER FORM A	3				
21	NUT-0275	NYLOC NUT	2				
22	BLTA24650	HEX HEAD BOLT	1				
23	HSS-0318	SET SCREW	4				
24	WSH-0015	PLAIN WASHER	8				
25	NUT-0265	NYLOC NUT	12				
26	BLT-3750	BOLT	8				
27	NUTA02200	NYLOC NUT	2				
28	HSS-0355	SETSCREW	2				
29	WSH-0018	PLAIN WASHER	8				
30	NUT-0269	NUT	8				
31	BLTF12233	COACHBOLT	8				
32	WSHA30161	WASHER	48				
33							
34	190548 83	WASHER	4				
35	WSH-0075	SPRING WASHER	2				
36	HCPD01200	HYD.PIPE CLAMP	7				
37	SCW-0083	CAP HEAD SCREW	7				
38	WSH-1010	DOWTY WASHER 3/8"	2				
39	FIT-0025	1/4"BSP X 3/8"BSP	1				
40	HHBC82505	HYD HOSE ASSEMBLY	1				

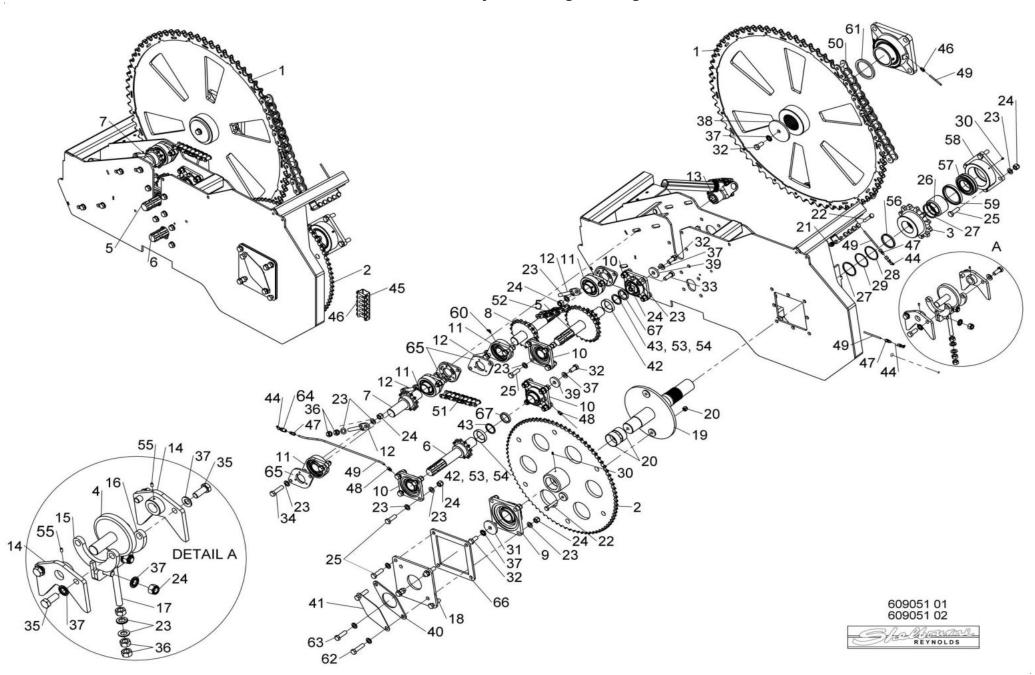


ASSY	NUMBER: 609051	01		ASSY D	ESCRIPTION: DR	IVES SUB ASSY (2400-3200)	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591238 01	73T SPROCKET W/ASSY	1	33	HSS-0317	SET SCREW	8
2	591248 01	83T 1" PITCH SHEARBOLT SPROCKE	1	34	HSS-0320	HEX HEAD SETSCREW	4
3	591246 01	12T x 1 3/4" SPROCKET	1	35	HSS-0316	SETSCREW	4
4	591264 01	TENSIONER W/ASSY	1	36	NUT-0180	PLAIN NUT PLATED	11
5	591254 01	INPUT SHAFT W/ASSY	1	37	WSHA30161	WASHER	10
6	591253 01	REVERSER SHAFT W/ASSY	1	38	590491 01	PIVOT BAR DISC	1
7	591191 01	TENSIONER SHAFT W/ASSY	1	39	190548 90	WASHER	2
8	591259 01	IMPELLER SHAFT W/ASSY	1	40	591368 01	SPACER PLATE	1
9	BRG-26040	SUPPORT	1	41	591370 01	COVER PLATE	1
10	BRG-24541	SUPPORT	4	42	591371 01	SPACER	2
11	BRG-24542	SUPPORT	4	43	190548 89	WASHER	2
12	592033 01	STUD ADJUSTER W/ASSY	4	44	LUB-00036	BULKHEAD ADAPTOR	3
		SER NO PSP24160??? & ON		45	BLTA10380	SHEARBOLT	7
	591265 01	STUD ADJUSTER W/ASSY	4			SER No PSP120258 & ON)	
		UP TO & INC PSP24150498		OR	BLTA10384	SHEARBOLT	7
13	PTO-29019WE	IMPELLER PTO SHAFT (WEAS)	1			UPTO & INC SER No PSP120239	
		SER NO PSP24150458 & ON		46	NUT-0265	NYLOC NUT	7
OR	PTO-29019	IMPELLAR PTO SHAFT (WALT)	1	47	LUB-00045	1/8"BSP STRAIGHT ADAPTOR	3
		PSP24130330 TO PSP24140433		48	LUB-00046	1/4"UNF STRAIGHT ADAPTOR	3
OR	PTO-29016	IMPELLAR PTO SHAFT	1	49	LUB-00044	6mm POLYAMIDE TUBE	2.2
		UPTO & INC SER No PSP24120239		50	CHN-04486	CHAIN 1 3/4" PITCH ANSI SINGLE	1
14	590905 01	DUMMY BEARING W/A	2			SER No PSP0225 & ON	
15	591275 01	LH BEARING MTG PLT W/ASSY	1	OR	CHN-04485	CHAIN (1 ¾" 84LINKS)	1
16	591275 02	RH BEARING MTG PLT W/ASSY	1			UPTO & INC SER No PSP0215	
17	591273 01	ADJUSTER W/ASSY	1	51	CHN-02590	CHAIN 1" PITCH SINGLE STRAND	1
18	591332 01	BEARING MOUNTING PLATE	1	52	CHN-02595	CHAIN 1" PITCH SINGLE STRAND	1
19	591243 01	SHEARBOLT HUB DRIVE SHAFT W/A	1	53	190548 88	WASHER	2
20	591476 01	GLACIER BUSH (MODIFIED)	2	54	190548 92	WASHER	2
21	NUT-0269	NUT	6	55	SCW-4530	GRUBSCREW	2
22	BLTA12440	HEX.HEAD BOLT	6	56	198800 01	WASHER	1
23	WSH-0024	PLAIN WASHER FORM A	66	57	BRG-16085	SPHERICAL ROLLER BEARING	1
24	NUT-0271	NYLOC NUT	38	58	591590 01	BEARING HOUSING W/A	1
25	HSS-0318	SET SCREW	12	59	SEAB09020	SHAFT SEAL	1
26	591591 01	SPACER TUBE	1	60	NIP-0050	1/4" BSF 45 NIPPLE	1
27	190548 86	WASHER	2	61	198800 28	WASHER	1
28	190548 85	WASHER	1	62	HSS-0322	HEX HEAD SETSCREW	6
29	190548 84	WASHER	1	63	HSS-0319	SET SCREW	10
30	NIP-00600	GREASE NIPPLE	2	64	190119 52	WASHER	1
31	190548 87	WASHER	1	65	592036 01	BEARING SUPPORT PLATE W/A	4
32	HSS-0315	SET SCREW	4			(SER NO PSP24160??? & ON)	]

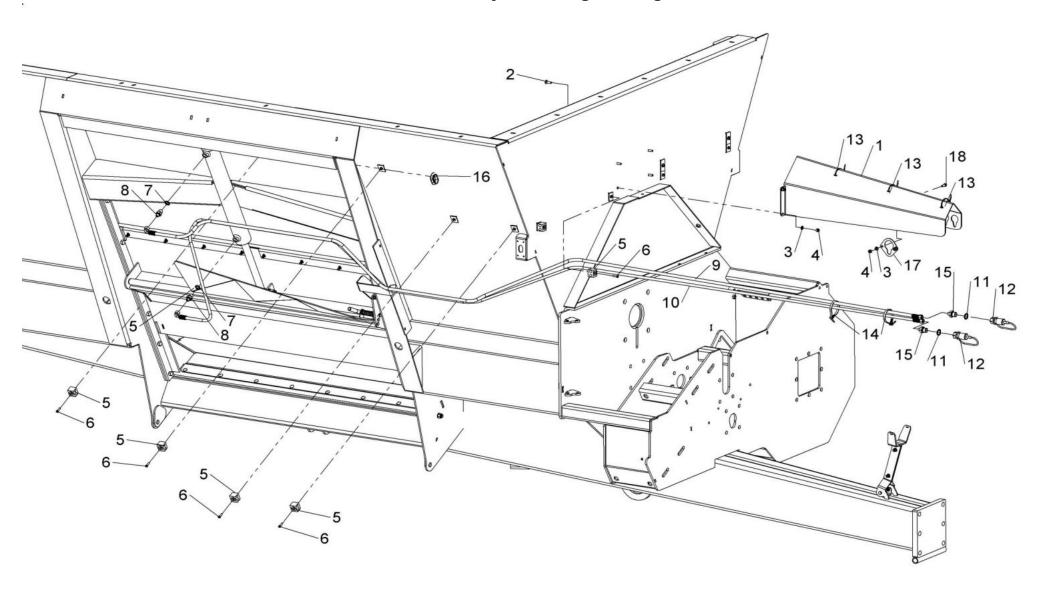


ASSY	NUMBER: 609051	02		ASSY DI	ESCRIPTION: DR	IVES SUB ASSY (1800-2300)	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591238 01	73T SPROCKET W/ASSY	1	33	HSS-0317	SET SCREW	8
2	591248 01	83T 1" PITCH SHEARBOLT SPROCKE	1	34	HSS-0320	HEX HEAD SETSCREW	4
3	591246 01	12T x 1 3/4" SPROCKET	1	35	HSS-0316	SETSCREW	4
4	591264 01	TENSIONER W/ASSY	1	36	NUT-0180	PLAIN NUT PLATED	11
5	591254 01	INPUT SHAFT W/ASSY	1	37	WSHA30161	WASHER	10
6	591253 01	REVERSER SHAFT W/ASSY	1	38	590491 01	PIVOT BAR DISC	1
7	591191 01	TENSIONER SHAFT W/ASSY	1	39	190548 90	WASHER	2
8	591259 01	IMPELLER SHAFT W/ASSY	1	40	591368 01	SPACER PLATE	1
9	BRG-26040	SUPPORT	1	41	591370 01	COVER PLATE	1
10	BRG-24541	SUPPORT	4	42	591371 01	SPACER	2
11	BRG-24542	SUPPORT	4	43	190548 89	WASHER	2
12	592033 01	STUD ADJUSTER W/ASSY	4	44	LUB-00036	BULKHEAD ADAPTOR	3
		SER NO PSP24160??? & ON		45	BLTA10380	SHEARBOLT	7
	591265 01	STUD ADJUSTER W/ASSY	4			SER No PSP120258 & ON)	
		UP TO & INC PSP24150498		OR	BLTA10384	SHEARBOLT	7
13	PTO-29020WE	IMPELLER PTO SHAFT (WEAS)	1			UPTO & INC SER No PSP120239	
		SER NO PSP18140420 & ON		46	NUT-0265	NYLOC NUT	7
OR	PTO-29020	IMPELLAR PTO SHAFT (WALT)	1	47	LUB-00045	1/8"BSP STRAIGHT ADAPTOR	3
		PSP18120358 TO PSP18140401		48	LUB-00046	1/4"UNF STRAIGHT ADAPTOR	3
OR	PTO-29018	IMPELLAR PTO SHAFT	1	49	LUB-00044	6mm POLYAMIDE TUBE	2.2
		UPTO & INC SER No PSP18120248		50	CHN-04486	CHAIN 1 3/4" PITCH ANSI SINGLE	1
14	590905 01	DUMMY BEARING W/A	2			SER No PSP0225 & ON	
15	591275 01	LH BEARING MTG PLT W/ASSY	1	OR	CHN-04485	CHAIN (1 ¾" 84LINKS)	1
16	591275 02	RH BEARING MTG PLT W/ASSY	1			UPTO & INC SER No PSP0215	
17	591273 01	ADJUSTER W/ASSY	1	51	CHN-02590	CHAIN 1" PITCH SINGLE STRAND	1
18	591332 01	BEARING MOUNTING PLATE	1	52	CHN-02595	CHAIN 1" PITCH SINGLE STRAND	1
19	591243 01	SHEARBOLT HUB DRIVE SHAFT W/A	1	53	190548 88	WASHER	2
20	591476 01	GLACIER BUSH (MODIFIED)	2	54	190548 92	WASHER	2
21	NUT-0269	NUT	6	55	SCW-4530	GRUBSCREW	2
22	BLTA12440	HEX.HEAD BOLT	6	56	198800 01	WASHER	1
23	WSH-0024	PLAIN WASHER FORM A	66	57	BRG-16085	SPHERICAL ROLLER BEARING	1
24	NUT-0271	NYLOC NUT	38	58	591590 01	BEARING HOUSING W/A	1
25	HSS-0318	SET SCREW	12	59	SEAB09020	SHAFT SEAL	1
26	591591 01	SPACER TUBE	1	60	NIP-0050	1/4" BSF 45 NIPPLE	1
27	190548 86	WASHER	2	61	198800 28	WASHER	1
28	190548 85	WASHER	1	62	HSS-0322	HEX HEAD SETSCREW	6
29	190548 84	WASHER	1	63	HSS-0319	SET SCREW	10
30	NIP-00600	GREASE NIPPLE	2	64	190119 52	WASHER	1
31	190548 87	WASHER	1	65	592036 01	BEARING SUPPORT PLATE W/A	4
32	HSS-0315	SET SCREW	4			(SER NO PSP24160??? & ON)	

ASSY I	NUMBER: 609051	02		ASSY DE	SCRIPTION: DRI	VES SUB ASSY (1800-2300)	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
66 67	592189 01 198800 57	BEARING MTG PLATE WASHER (46 ID x 56 OD x 8 THK)	1 2				



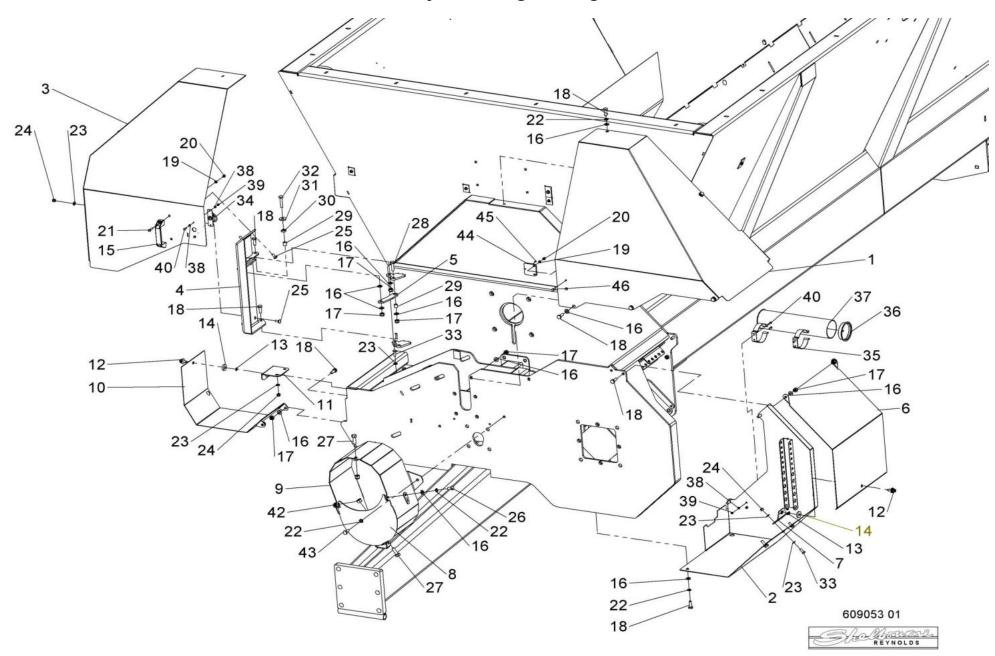
ASSY	NUMBER: 609052	01		ASSY DESCRIPTION: DOOR HYDRAULICS SUB ASSY				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	591455 01	HOSE PARKING STATION	1					
2	BLTF08173	COACH BOLT	4					
3	WSH-0012	PLAIN WASHER	6					
4	NUT-0263	NYLOC NUT	6					
5	HCPD01200	HYD.PIPE CLAMP	6					
6	SCW-0083	CAP HEAD SCREW	6					
7	WSH-1010	DOWTY WASHER	2					
8	FIT-0025	M/M ADAPTOR	2					
9	HHBC60005	HYDRAULIC HOSE ASSY	1					
10	HHBC65005	HYD HOSE ASSY	1					
11	WSH-1015	DOWTY WASHER	2					
12	COU-0162	QUICK RELEASE COUPLING	2					
13	TIE-0004	TIE WRAPS (MED)	8					
14	TIE-0012	TIE WRAPS (EX.LARGE)	4					
15	HMA-0055	M/M ADAPTOR	2					
16	EDS-11400	PVC EDGING STRIP	0.25					
17	591891 01	HOSE STORAGE PLATE	1					
18	HSS-0140	SETSCREW	2					



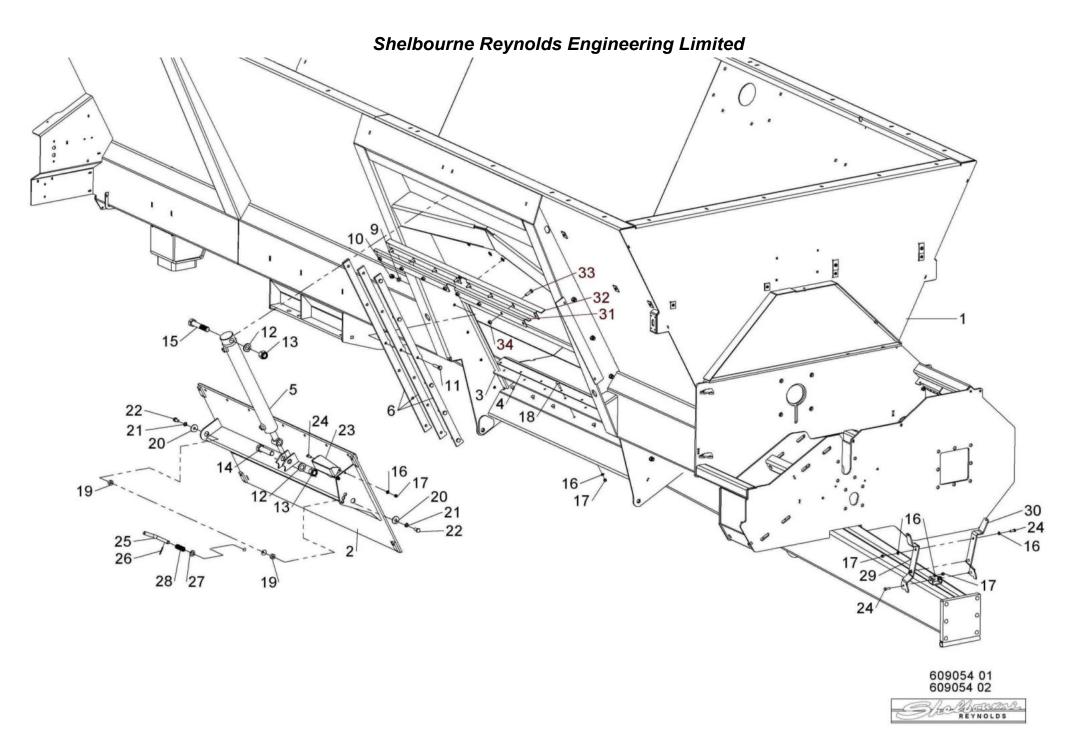
609052 01

REYNOLDS

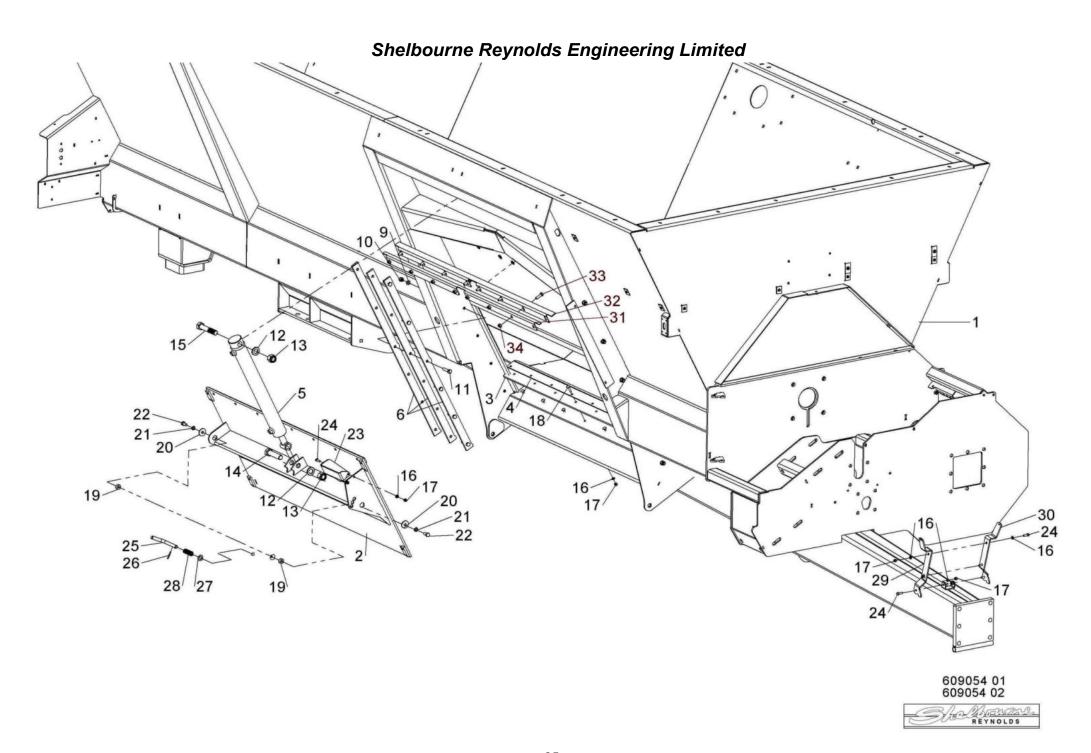
ASSY	NUMBER: 609053	01		ASSY DE	SCRIPTION: GU	ARDS SUB ASSY	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591277 01	LH TOP GUARD	1	42	NUT-0269	NUT	2
2	591447 01	LOWER LH GUARD W/A	1	43	HSS-0191	SET SCREW	2
3	591699 01	RH TOP GUARD W/ASSY	1	44	591796 01	LATCH PLATE	1
4	591442 01	HINGE BRKT W/A	1	45	PIN-40505	ROLL PIN	1
5	591286 01	STAY LINK PLATE	1	46	HSS-0086	SET SCREW	2
6	591444 01	LH GUARD	1				
7	591446 01	LOCKING BRKT W/A	1				
8	591449 01	LID W/A	1				
9	591295 01	FRONT DRIVE GUARD	1				
10	591299 01	IMPRLLER PTO GUARD	1				
11	591303 01	FASTNER PLATE W/A	1				
12	LTC-0010	HEX, HEAD RELEASE, STEEL	2				
13	LTC-0012	RETAINING WASHER	2				
14	590776 01	FASTENER SPACER	2				
15	HND-0000	BLACK PLASTIC HANDLE	1				
16	WSH-0015	PLAIN WASHER	22				
17	NUT-0265	NYLOC NUT	10				
18	HSS-0194	BOLT	16				
19	WSH-0009	PLAIN WASHER FORM A	4				
20	NUT-0260	NYLOC NUT	4				
21	HSS-0088	SET SCREW	2				
22	WSH-0061	SPRING WASHER	12				
23	WSH-0012	PLAIN WASHER FORM A	16				
24	NUT-0263	NYLOC NUT	12				
25	BLT-4710	COACH BOLT	8				
26	HSS-0188	SET SCREW	2				
27	HSS-0241	BOLT	2				
28	HSS-0202	SET SCREW	1				
29	590768 04	HINGE PIVOT TUBE	2				
30	190119 79	WASHER (11*22*6)	1				
31	190119 75	WASHER 30x11x4	1				
32	HSS-0210	SET SCREW	1				
33	HSS-0145	BOLT	4				
34	LTC-00045	COMPRESSION LATCH	1				
35	21725019	SPRING CLIP	2				
36	21709163	PLASTIC END CAP	2				
37	39800004	MANUAL HOLDER TUBE	1				
38	WSH-0006	PLAIN WSH FORM A	8				
39	NUT-0258	NYLOC NUT	6				
40	HSS-0058	M5 X 16 SET SCREW	6				



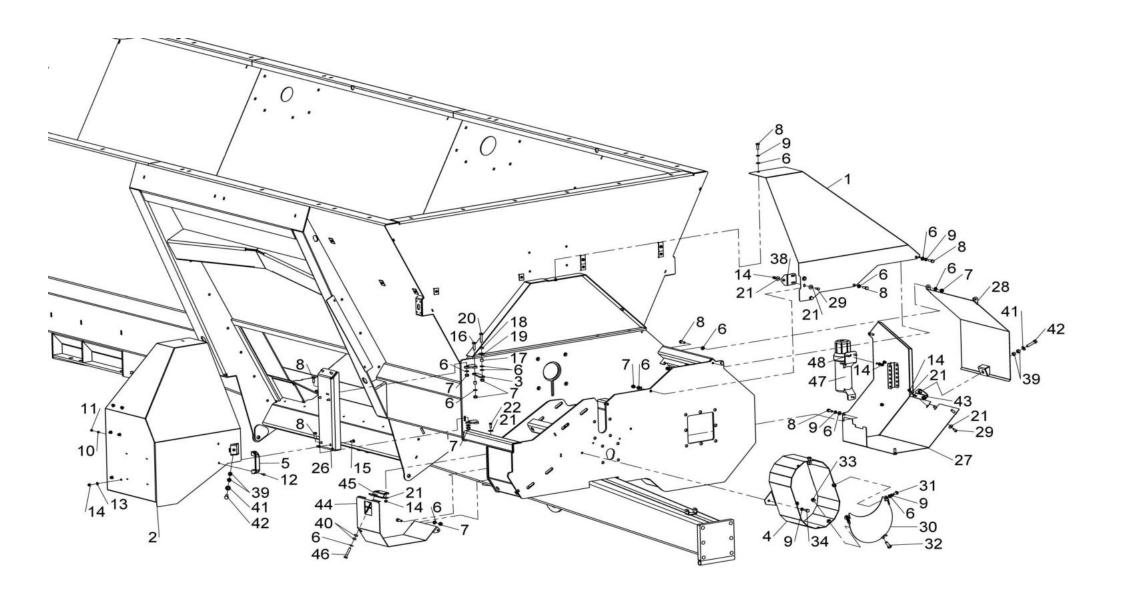
ASSY	NUMBER: 609054	01		ASSY DI	ESCRIPTION: TUB & I	DOOR SUB ASSY	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591403 01	2400 GALLON TUB W/ASSY	1				
2	591177 01	DOOR W/ASSY	1				
3	591180 01	BOTTOM DOOR SEAL	1				
4	591181 01	BOTTOM SEAL CLAMP PLATE	1				
5	RAM-0014	HYDRAULIC RAM	1				
6	591197 01	DOOR KEEP PLATE	6				
7	591199 01	DEFLECTOR PLATE W/ASSY	1				
9	WSH-0018	WASHER	19				
10	NUT-0269	NYLOC NUT	11				
11	HSS-0260	SET SCREW	12				
12	WSH-0036	WASHER	2				
13	NUT-0275	NYLOC NUT	2				
14	BLTA24560	HEX HEAD BOLT	1				
15	BLTA24650	HEX HEAD BOLT	1				
16	WSH-0012	PLAIN WASHER	16				
17	NUT-0263	NYLOC NUT	14				
18	BLT-2730	COACHBOLT	8				
19	190548 81	WASHER	2				
20	190548 44	WASHER (PLATED)	2				
21	WSH-0065	SPRING WASHER	2				
22	HSS-0235	SET SCREW	2				
23	591375 01	HEIGHT INDICATOR POINTER	1				
24	HSS-0145	BOLT	6				
25	591402 01	LOCKING HANDLE	1				
26	PIN-1775	ROLL PIN	1				
27	WSH-0024	WASHER	1				
28	SPGC32021	COMPRESSION SPRING	1				
29	591378 01	PTO STAND LH	1				
30	591378 02	PTO STAND RH	1				
31	591979 01	CLAMP STRIP	1				
32	591767 01	RUBBER SEAL STRIP	1				
33	HSS-0198	BOLT	8				
34	NUT-0265	NUT	8				



ASSY	NUMBER: 609054	02		ASSY D	ESCRIPTION: TUB &	DOOR SUB ASSY	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591508 01	1800 GALLON TUB W/ASSY	1				
2	591177 01	DOOR W/ASSY	1				
3	591180 01	BOTTOM DOOR SEAL	1				
4	591181 01	BOTTOM SEAL CLAMP PLATE	1				
5	RAM-0014	HYDRAULIC RAM	1				
6	591197 01	DOOR KEEP PLATE	6				
7	591199 01	DEFLECTOR PLATE W/ASSY	1				
8							
9	WSH-0018	PLAIN WASHER	11				
10	NUT-0269	NYLOC NUT	11				
11	HSS-0260	SET SCREW	12				
12	WSH-0036	PLAIN WASHER FORM A	2				
13	NUT-0275	NYLOC NUT	2				
14	BLTA24560	HEX HEAD BOLT	1				
15	BLTA24650	HEX HEAD BOLT	1				
16	WSH-0012	PLAIN WASHER	10				
17	NUT-0263	NYLOC NUT	10				
18	BLT-2730	COACHBOLT	8				
19	190548 81	WASHER	2				
20	190548 44	WASHER (PLATED)	2				
21	WSH-0065	SPRING WASHER	2				
22	HSS-0235	SET SCREW	2				
23	591375 01	HEIGHT INDICATOR POINTER	1				
24	HSS-0145	BOLT	1				
25	591402 01	LOCKING HANDLE	2				
26	PIN-1775	ROLL PIN	1				
27	WSH-0024	PLAIN WASHER FORM A	1				
28	SPGC32021	COMPRESSION SPRING	1				
29							
30							
31	591979 01	CLAMP STRIP	1				
32	591767 01	RUBBER SEAL STRIP	1				
33	HSS-0198	BOLT	8				
34	NUT-0265	NUT	8				

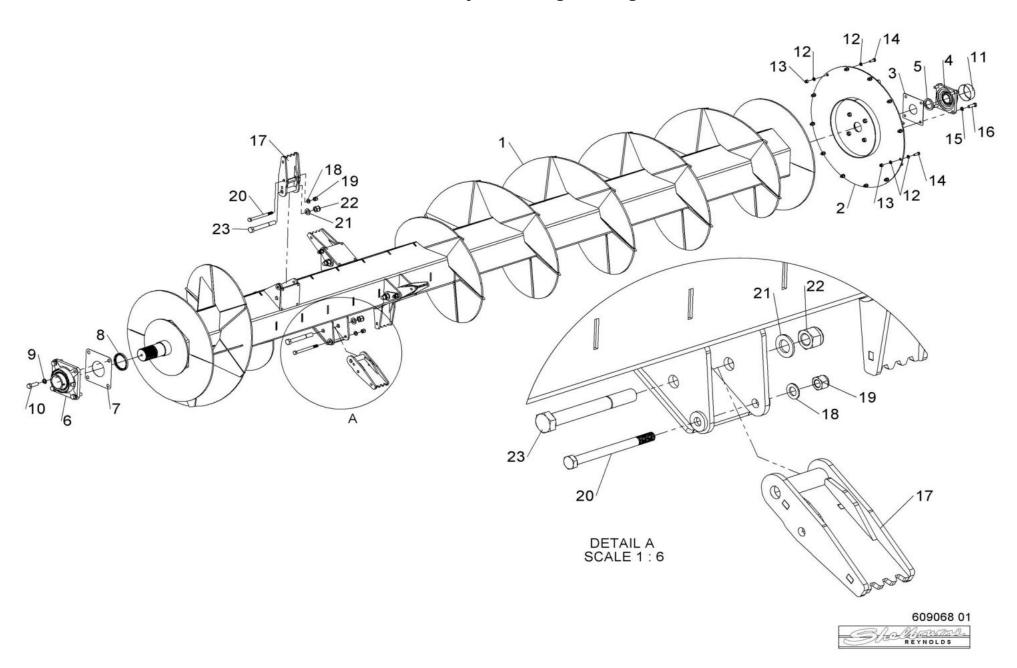


ASSY	NUMBER: 609066	5 01		ASSY DE	SCRIPTION: GU	ARDS SUB ASSY	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591865 01	LH TOP GUARD	1	41	WSHA30121	WASHER	2
2	591854 01	RH TOP GUARD W/A	1	42	HSS-0265	SET SCREW	2
3	591286 01	STAY LINK PLATE	1	43	591866 01	FIXING BRKT W/A	1
4	591295 01	FRONT DRIVE GUARD	1	44	591868 01	IMPELLER PTO GUARD W/A	1
5	HND-0000	BLACK PLASTIC HANDLE	1	45	591870 01	FIXING BRKT W/A	1
6	WSH-0015	PLAIN WASHER	25	46	HSSA10380	HEX.HEAD SET SCREW	1
7	NUT-0265	NYLOC NUT	10	47	PCN-00100	MANUAL CANNISTER	1
8	HSS-0194	BOLT	16	48	HSS-0145	SET SCREW	3
9	WSH-0061	SPRING WASHER	12				
10	WSH-0009	PLAIN WASHER	2				
11	NUT-0260	NYLOC NUT	2				
12	HSS-0086	SET SCREW	2				
13	WSH-0012	PLAIN WASHER	9				
14	NUT-0263	NYLOC NUT	15				
15	BLT-4710	COACH BOLT	6				
16	HSS-0202	SET SCREW	1				
17	590768 04	HINGE PIVOT TUBE	2				
18	190119 79	WASHER (11*22*6)	1				
19	190119 75	WASHER 30x11x4	1				
20	HSS-0210	SET SCREW	1				
21	WSH-1038	PENNY WASHER	12				
22	HSS-0145	BOLT	2				
23	PCN-00100	MANUAL CANNISTER	1				
24	HSS-0145	SETSCREW (M8x45)	3				
25		·					
26	591442 01	HINGE BRKT W/A	1				
27	591447 01	LOWER LH GUARD W/A	1				
28	591863 01	SIDE GUARD W/A	1				
29	HSS-0140	BOLT	4				
30	591449 01	LID W/A	1				
31	HSS-0188	SET SCREW	2				
32	HSS-0241	BOLT	2				
33	NUT-0269	NUT	2				
34	HSS-0191	SET SCREW	2				
35							
36							
37							
38	591858 01	LOCKING PLATE W/A	1				
39	NUT-0170	PLAIN NUT M12	4				
40	NUT-0167	PLAIN NUT PLATED	2				

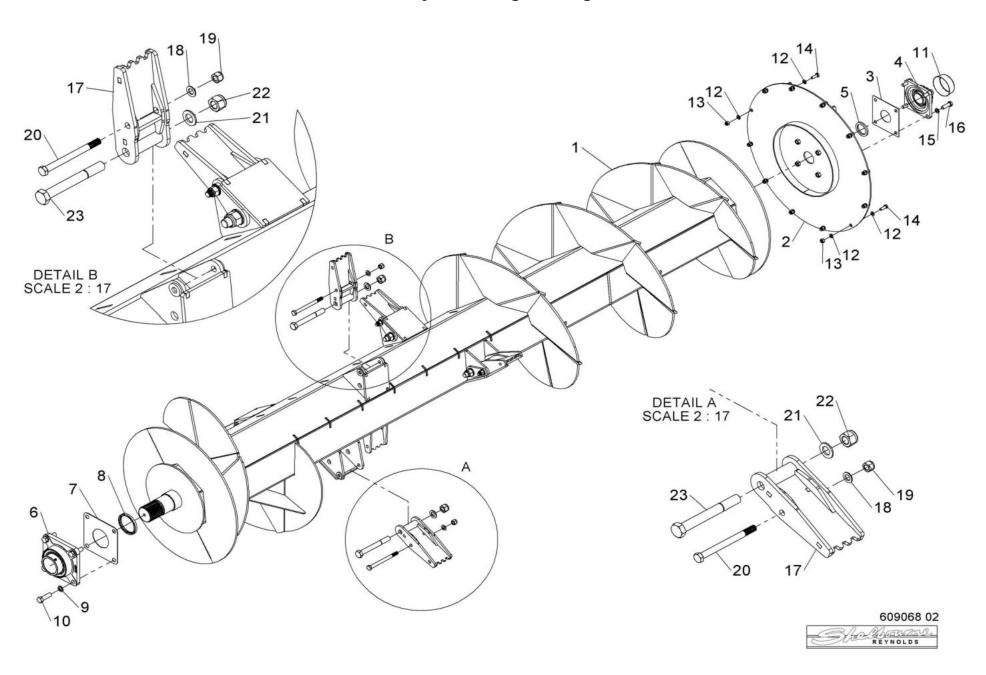




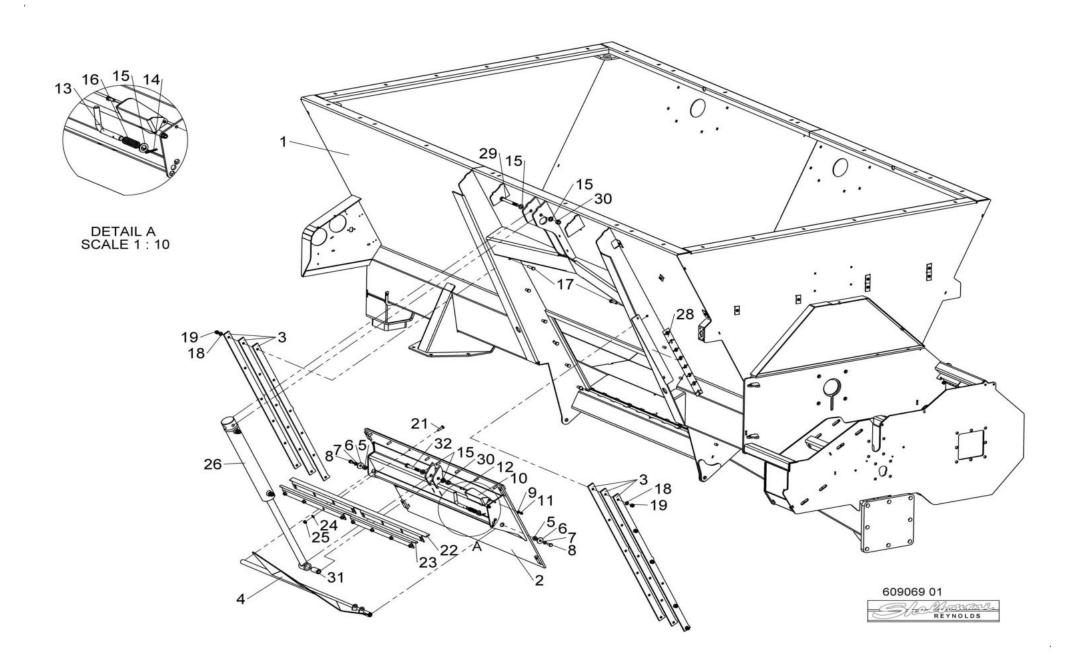
	ASSY NUMBER: 609068 01				ASSY DESCRIPTION: AUGER FIXING SUB ASSY (PSP24130330 & ON)			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	PART NO  591914 01 591233 01 590615 01 BRG-26040 SEAF06000 BRG-29040 591702 01 SEAB10000 WSH-0075 HSSA20410 BRG-96000 WSH-0018 NUT-0269 HSS-0241 WSH-0070 HSS-0318 591915 01 WSH-0024 NUT-0271 BLTA16810 WSH-0036 NUT-0275 BLTA24830		QTY  1 1 1 1 1 1 1 1 1 1 24 1 12 12 12 12 6 6 6 6				<u> </u>	



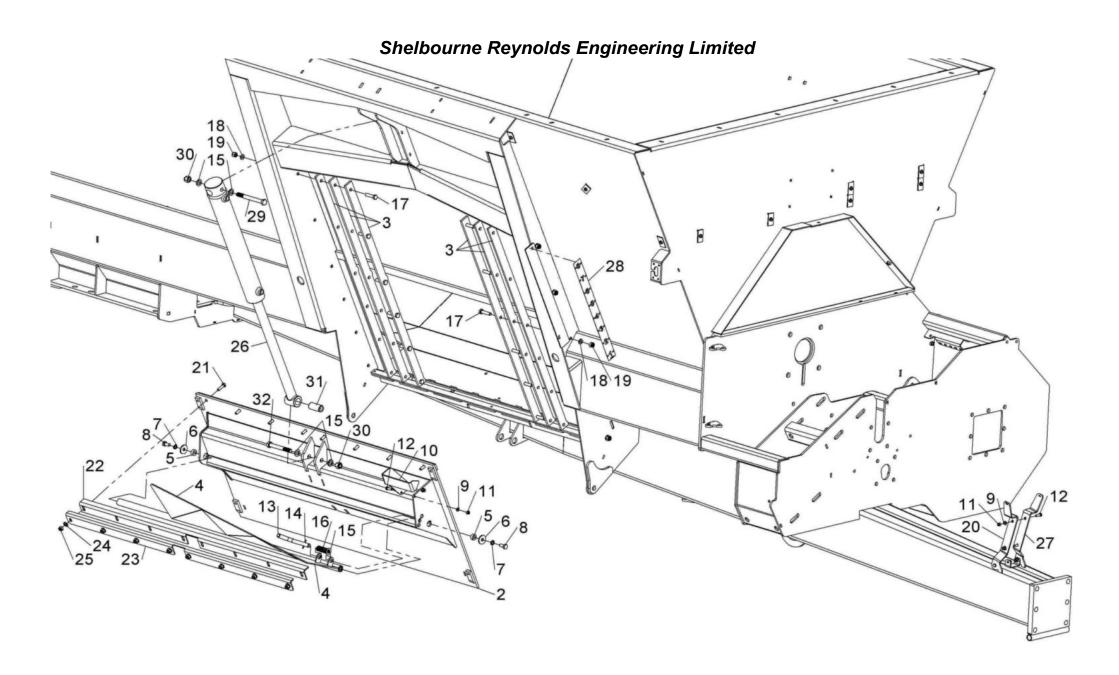
ASSY NUMBER: 609068 02			ASSY DESCRIPTION: AUGER FIXING SUB ASSY (PSP18140360 & ON)				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591929 01	1800 GALLON AUGER W/ASSY	1				
2	591233 01	AUGER MOUNTING PLATE W/ASSY	1				
3	590615 01	SPACING DISC	1				
4	BRG-26040	SUPPORT	1				
5	SEAF06000	SHAFT SEAL	1				
6	BRG-29040	BEARING	1				
7	591702 01	BEARING SPACER	1				
8	SEAB10000	RADIAL SHAFT SEAL	1				
9	WSH-0075	SPRING WASHER	4				
10	HSSA20410	HEX HD SETSCREW	4				
11	BRG-96000	SELF LUBE PROTECTOR CAP	1				
12	WSH-0018	PLAIN WASHER	24				
13	NUT-0269	NUT	12				
14	HSS-0241	BOLT	12				
15	WSH-0070	SPRING WASHER	4				
16	HSS-0318	SETSCREW	4				
17	591915 01	AUGER PADDLE W/A	6				
18	WSH-0024	WASHER	12				
19	NUT-0271	NUT	12				
20	BLTA16810	BOLT	12				
21	WSH-0036	WASHER	6				
22	NUT-0275	NUT	6				
23	BLTA24830	BOLT	6				



ASSY	ASSY NUMBER: 609069 01				ASSY DESCRIPTION: TUB AND DOOR SUB ASSY				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY		
1	592043 01	1800 GALLON TUB W/A	1						
2	592058 01	DOOR W/ASSY	1						
3	592073 01	DOOR KEEP PLATE	6						
4	591199 01	DEFLECTOR PLATE W/ASSY	1						
5	190548 81	WASHER (250/Dx13 I/Dx10mm THK)	2						
6	190548 44	WASHER (40 O/Dx13 I/Dx4mm THK)	2						
7	WSH-0065	WASHER	2						
8	HSS-0235	SETSCREW	2						
9	WSH-0012	WASHER	2						
10	591375 01	HEIGHT INDICATOR POINTER	1						
11	NUT-0263	NUT	2						
12	HSS-0145	SETSCREW	2						
13	591402 01	LOCKING HANDLE	1						
14	PIN-1775	ROLL PIN	1						
15	WSH-0024	WASHER	6						
16	SPGC32021	COMPRESSION SPRING	1						
17	HSS-0260	SETSCREW	12						
18	WSH-0018	WASHER	10						
19	NUT-0269	NUT	10						
20									
21	HSS-0198	SETSCREW	8						
22	591767 01	RUBBER SEAL STRIP	1						
23	591979 01	CLAMP STRIP	1						
24	WSH-0015	WASHER	8						
25	NUT-0265	NUT	8						
26	592104 01	DOOR CYLINDER	1						
27									
28									
29	BLTA16710	BOLT	1						
30	NUT-0271	NUT	2						
31	592098 01	SPACER TUBE	1						
32	BLT-2330	BOLT	1						

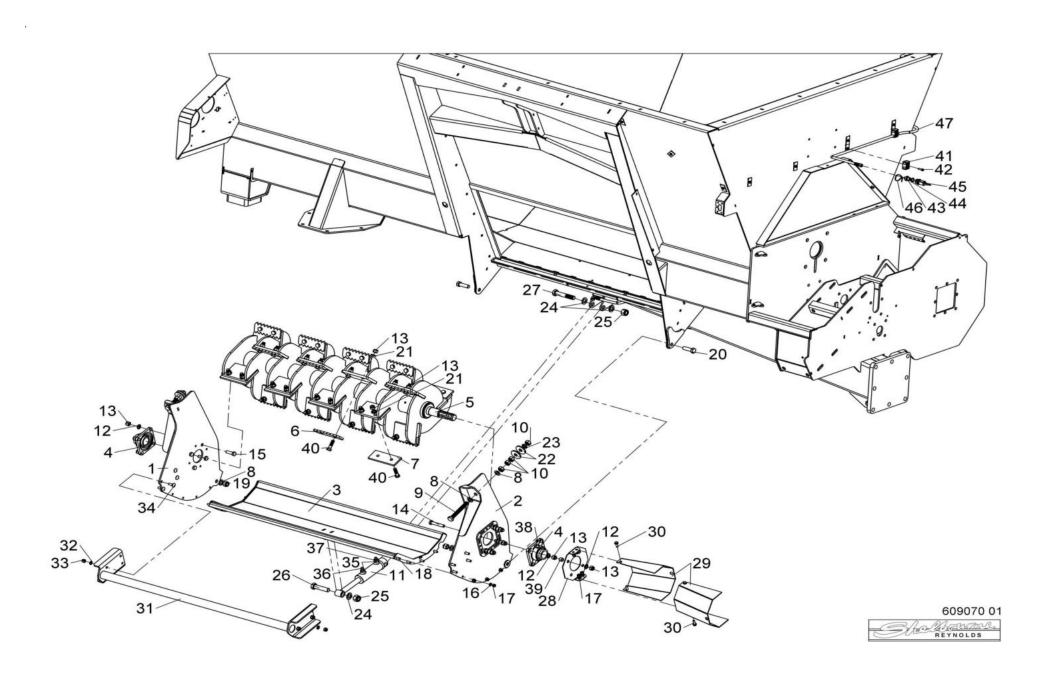


ASSY	ASSY NUMBER: 609069 02			ASSY DESCRIPTION: TUB AND DOOR SUB ASSY (2400-3200)			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	592146 01	2400 GALLON TUB W/A	1				
2	592058 01	DOOR W/ASSY	1				
3	592073 01	DOOR KEEP PLATE	6				
4	591199 01	DEFLECTOR PLATE W/ASSY	1				
5	190548 81	WASHER (250/Dx13 I/Dx10mm THK)	2				
6	190548 44	WASHER (40 O/Dx13 I/Dx4mm THK)	2				
7	WSH-0065	WASHER	2				
8	HSS-0235	SETSCREW	2				
9	WSH-0012	WASHER	8				
10	591375 01	HEIGHT INDICATOR POINTER	1				
11	NUT-0263	NUT	6				
12	HSS-0145	SETSCREW	6				
13	591402 01	LOCKING HANDLE	1				
14	PIN-1775	ROLL PIN	1				
15	WSH-0024	WASHER	6				
16	SPGC32021	COMPRESSION SPRING	1				
17	HSS-0260	SETSCREW	12				
18	WSH-0018	WASHER	10				
19	NUT-0269	NUT	10				
20	591378 01	PTO STAND LH	1				
21	HSS-0198	SETSCREW	8				
22	591767 01	RUBBER SEAL STRIP	1				
23	591979 01	CLAMP STRIP	1				
24	WSH-0015	WASHER	8				
25	NUT-0265	NUT	8				
26	592104 01	DOOR CYLINDER	1				
27	591378 02	PTO STAND RH	1				
28							
29	BLTA16710	BOLT	1				
30	NUT-0271	NUT	2				
31	592098 01	SPACER TUBE	1				
32	BLT-2330	BOLT	1				

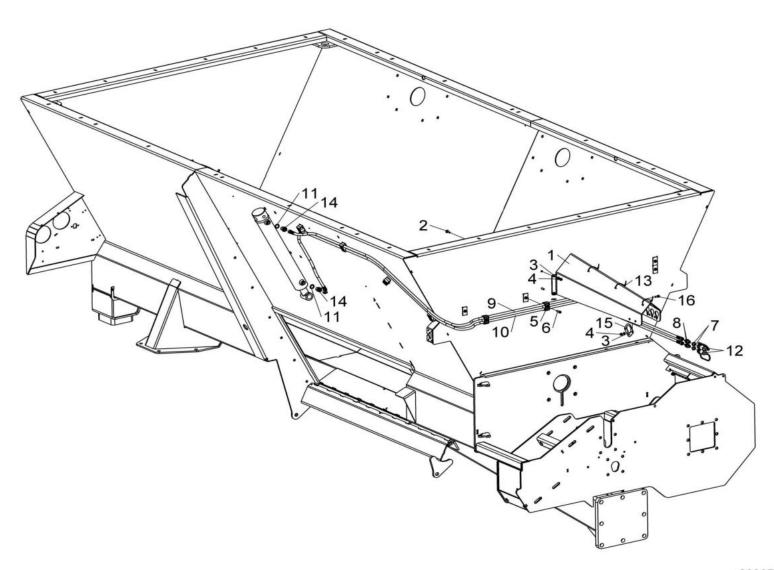




ASSY	ASSY NUMBER: 609070 01				ASSY DESCRIPTION: IMPELLER SUB ASSY			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	592095 01	LH IMPELLER SIDE PLATE W/A	1	41	HCPD01400	HYDRAULIC PIPE CLAMP	9	
2	592095 02	RH IMPELLER SIDE PLATE W/A	1	42	SCW-0133	CP HD SCREW	9	
3	591167 01	DRIP TRAY W/A	1	43	HMA-0055	M/M ADAPTOR	1	
4	BRG-25040	4 BOLT FLANGE BEARING	2	44	WSH-1015	DOWTY WASHER	1	
5	591953 01	IMPELLER W/A	1	45	COU-0162	QUICK RELEASE COUPLING	1	
6	591366 01	SERRATED IMPELLER BLADE	16	46	TIE-0004	TIE WRAP	10	
7	591367 01	PLAIN IMPELLER BLADE	8	47	HHBC82605	HYD HOSE ASSY	1	
8	WSH-0030	WASHER	6					
9	HSSA20830	SETSCREW	2					
10	NUT-0185	NUT	8					
11	RAM-0015	HYDRAULIC RAM	1					
12	WSH-0024	WASHER	12					
13	NUT-0271	NUT	60					
14	HSS-0330	SETSCREW )	4					
15	HSS-0318	SETSCREW	4					
16	WSH-0015	WASHER	8					
17	NUT-0265	NUT	12					
18	BLT-3750	COACHBOLT	8					
19	NUTA02200	NUT	2					
20	HSSA20410	SETSCREW	2					
21	WSHA30161	LOCKWASHER	48					
22	190548 83	WASHER	4					
23	WSH-0075	WASHER	2					
24	WSH-0036	WASHER	3					
25	NUT-0275	NUT	2					
26	BLTA24560	BOLT	1					
27	BLTA24650	BOLT	1					
28	591452 01	GUARD FIXING PLATE W/A	1					
29	591454 01	PTO GUARD	2					
30	HSSG10204	TENSILOCK BOLT (M10x30) PLATED	4					
31	591456 01	GUARD RAIL W/A	1					
32	WSH-0018	WASHER	8					
33	NUT-0269	NUT	8					
34	BLTF12233	COACH BOLT	8					
35	WSH-1010	DOWTY WASHER	2					
36	FIT-0218	BREATHER	1					
37	FIT-0025	M/M ADAPTER	1					
38	NIP-0050	GREASE NIPPLE	1					
39	591393 01	PIVOT TUBE	4					
40	BLT-2312	BOLT	48					

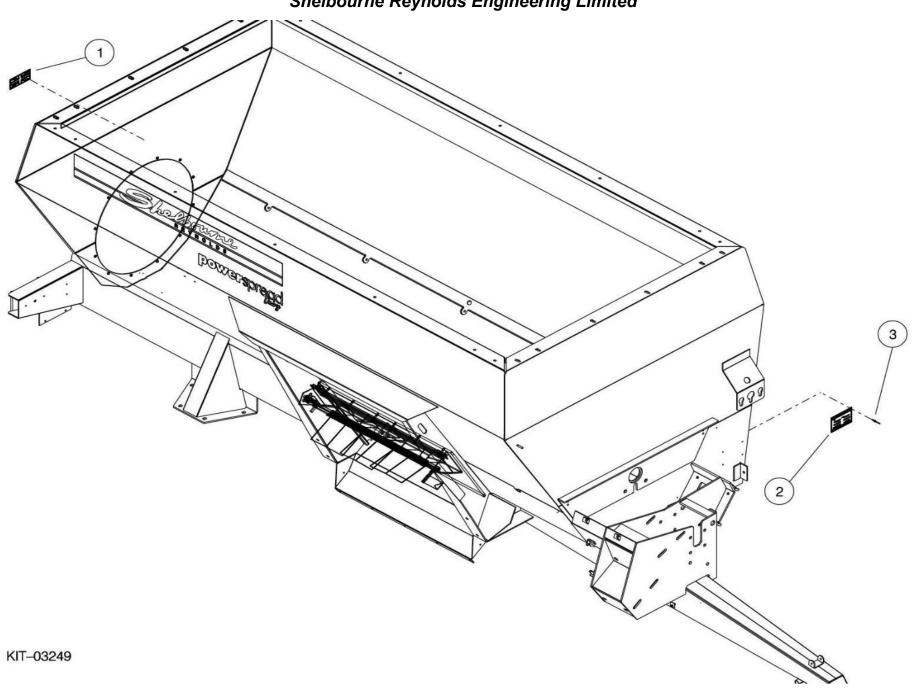


ASSY	ASSY NUMBER: 609071 01				ASSY DESCRIPTION: DOOR HYDRAULICS SUB ASSY			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	591455 01	HOSE PARKING STATION	1					
2	BLTF08173	COACH BOLT	4					
3	WSH-0012	WASHER	6					
4	NUT-0263	NYLOC NUT	6					
5	HCPD01400	HYD.PIPE CLAMP	6					
6	SCW-0133	CAP HEAD SCREW (	6					
7	WSH-1010	DOWTY WASHER (	2					
8	FIT-0025	M/M ADAPTOR (	2					
9	HHBC60105	HYDRAULIC HOSE ASSY	1					
10	HHBC65105	HYD HOSE ASSY	1					
11	WSH-1015	DOWTY WASHER (	2					
12	COU-0162	QUICK RELEASE COUPLING	2					
13	TIE-0004	TIE WRAPS (MED)	12					
14	HMA-0055	M/M ADAPTOR (	2					
15	591891 01	HOSE STORAGE PLATE	1					
16	HSS-0140	SETSCREW	2					

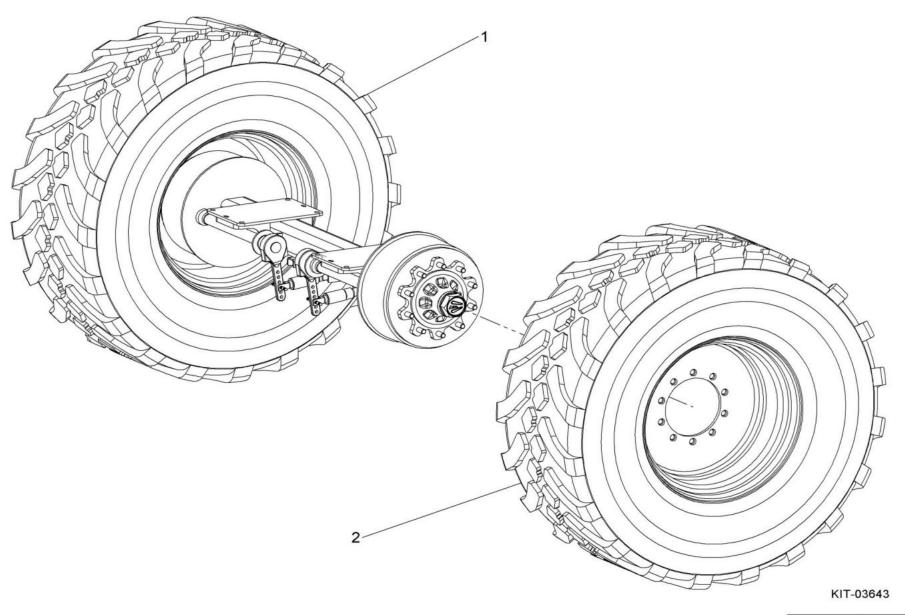


609071 01

ASSY	NUMBER: KIT-032	249		ASSY DI	ESCRIPTION: UK E	PARTS KIT	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
			QTY  1 1 4	+		T	QTY

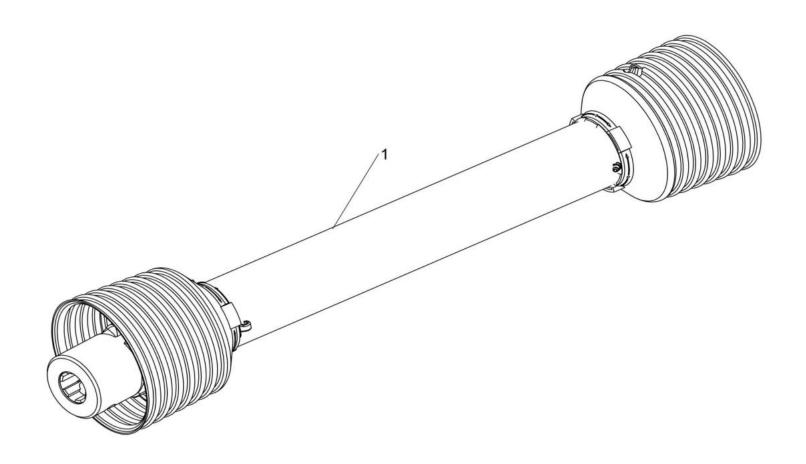


ASSY	NUMBER: KIT-036	543		ASSY DE	ESCRIPTION: WHEE	L & TYRE KIT	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
-			QTY 1 1				QTY



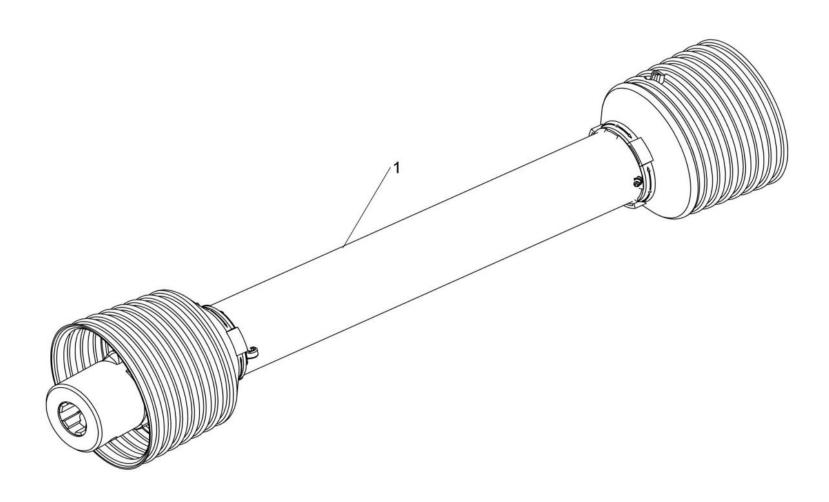


ITEM PART NO DESCRIPTION QTY ITEM PART NO DESCRIPTION QUE ITEM PART NO DES	KIT-03692 ASSY DESCRIPTION: PTO SHAFT KIT (NON WIDE ANGLE-EXP TWIN)	1)
1 PTO-29014 PTO SHAFT ASSY 1	NO DESCRIPTION QTY ITEM PART NO DESCRIPTION Q	QTY
		QTY



KIT-03692 & KIT-3692A

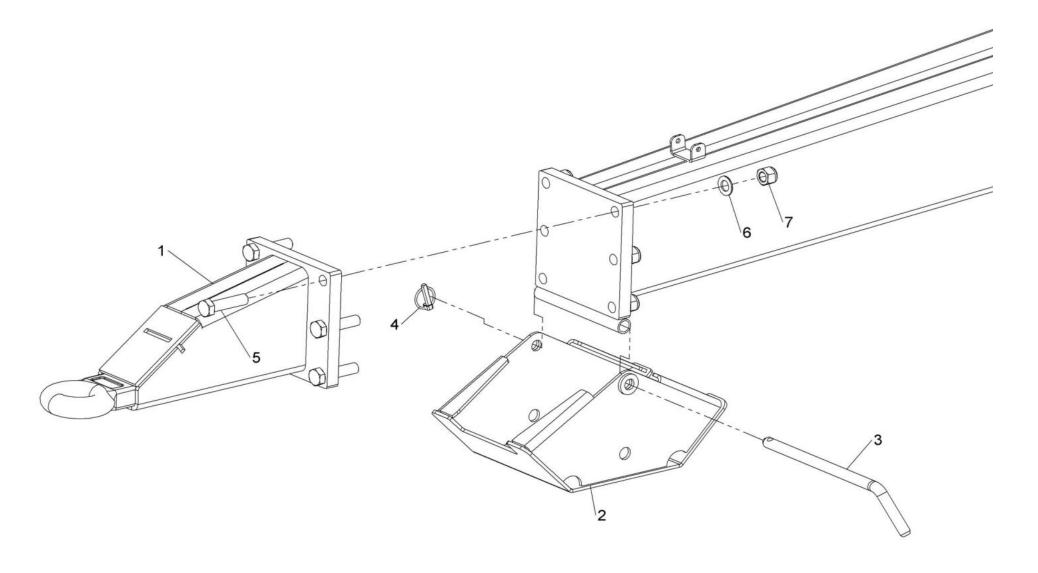
ITEM PART NO DESCRIPTION QTY ITEM PART NO DESCRIPTION	
	QTY
1 PTO-29017 PTO SHAFT ASSY 1	QTY



KIT-03692 & KIT-3692A

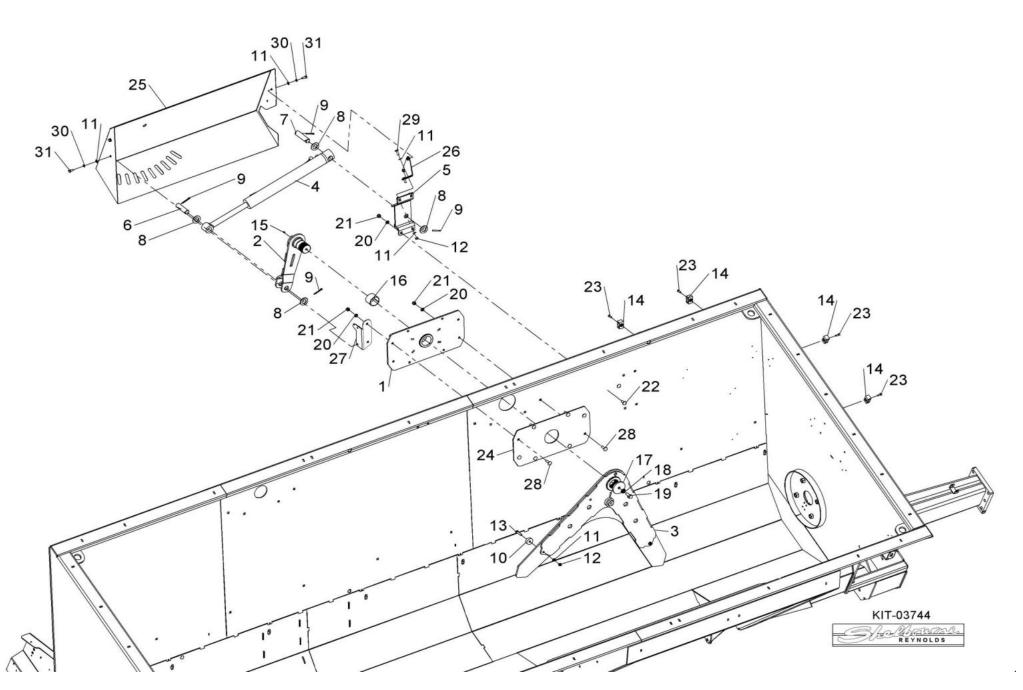


ASSY	NUMBER: KIT-03	742		ASSY DESCRIPTION: UK HEAVY DUTY DRAWBAR KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1 2 3 4 5 6 7	591356 01 591358 01 591212 01 PIN-01950 BLTA20500 WSH-0030 NUTA02200	HEAVY DUTY UK TOW EYE W./ASSY FOOT W/ASSY LOCKING PIN LYNCH PIN HEX HEAD BOLT PLAIN WASHER NYLOC NUT	1 1 1 6 6 6 6		TART NO	DESCRIPTION	Q11	

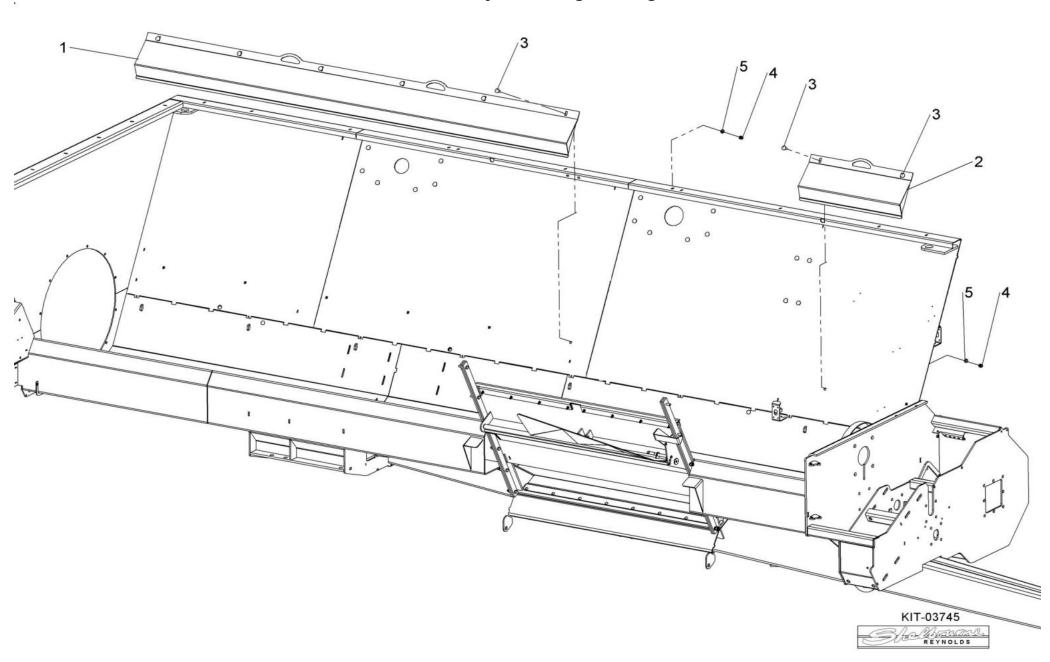




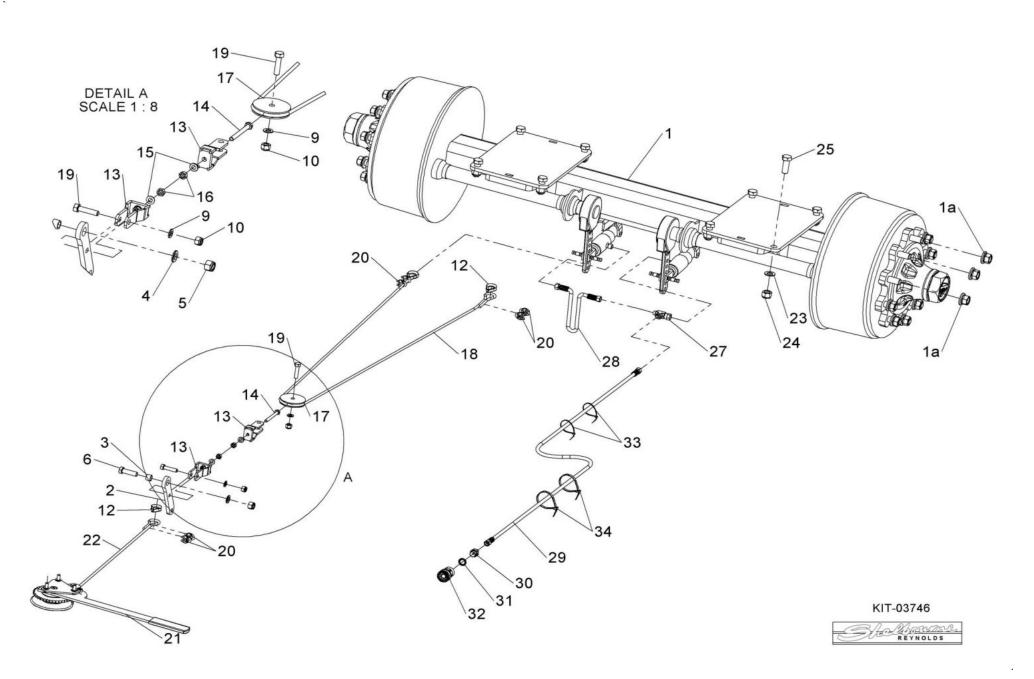
ASSY	NUMBER: KIT-03	744		ASSY DI	ESCRIPTION: ANTI B	BRIDGE KIT	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591337 01	HUB MTG PLATE W/ASSY	1				
2	591339 01	PIVOT SHAFT W/ASSY	1				
3	591341 01	BRIDGE ARM W/ASSY	1				
4	801236 01	CYLINDER, HEAD ANGLING	1				
5	591350 01	RAM MOUNTING BRACKET W/ASSY	1				
6	591055 02	PIN	1				
7	591055 01	PIN	1				
8	WSH-1545	PLAIN WASHER FORM A	4				
9	PIN-20629	SPLIT PIN	4				
10	591353 01	NYLON BUFFER	2				
11	WSH-0015	PLAIN WASHER	12				
12	NUT-0265	NYLOC NUT	4				
13	BLTA10290	HEX.HEAD BOLT	2				
14	HCPD01600	HYDRAULIC PIPE CLAMP	4				
15	NIP-00600	GREASE NIPPLE	1				
16	BSHA06565	BUSH	1				
17	190548 72	WASHER	1				
18	WSHA30161	WASHER	1				
19	HSS-0315	SETSCREW	1				
20	WSH-0018	PLAIN WASHER	12				
21	NUT-0269	NUT	12				
22	BLT-3790	COACH BOLT	4				
23	SCW-0133	CAP HEAD SCREW	4				
24	591462 01	LAMINATE PLATE	1				
25	591463 01	GUARD	1				
26	591466 01	REAR GUARD BRKT W/A	1				
27	591468 01	FRONT GUARD BRKT W/A	1				
28	BLT-3800	COACH BOLT	8				
29	HSS-0194	BOLT	2				
30	WSH-0061	SPRING WASHER	4				
31	HSS-0191	SET SCREW	4				
32	EDS-11400	EDGING STRIP	0.25m				



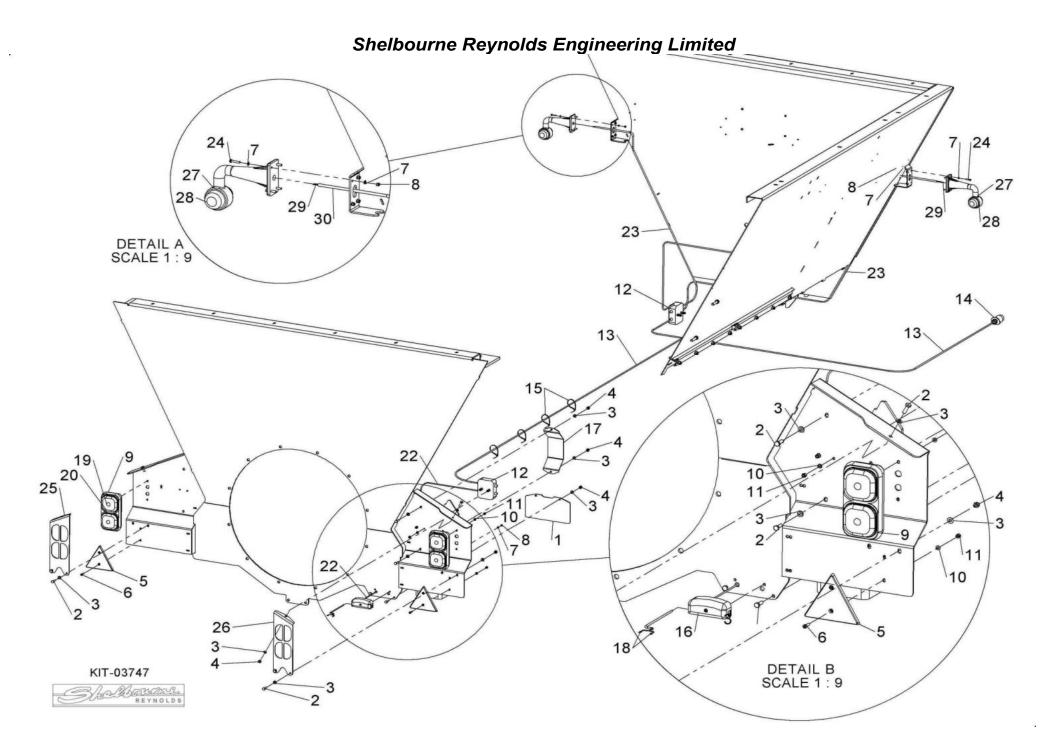
ASSY N	UMBER: KIT-03	745		ASSY DESCRIPTION: STRAW PLATE KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1 2 3 4 5 5	PART NO 591343 01 591347 01 BLT-3790 NUT-0269 WSH-0018	LONG STRAW PLATE W/ASSY SHORT STRAW PLATE W/ASSY COACH BOLT NUT WASHER	QTY  1 1 8 8 8 8	ITEM	PART NO	DESCRIPTION	QTY	



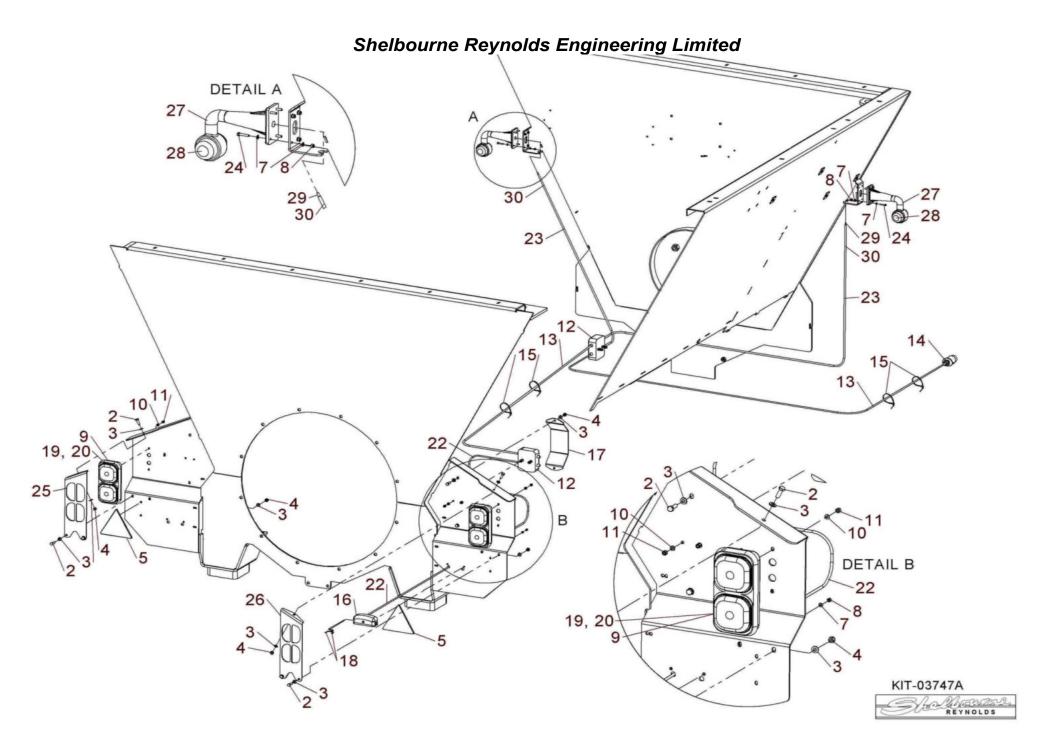
ASSY	NUMBER: KIT-03	746		ASSY DE	SCRIPTION: AXLE WI	TH HYD BRAKES (3000 GAL	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591387 01	HYDRAULIC AXLE	1				
2	591392 01	HANDBRAKE LEVER	1				
3	591393 01	PIVOT TUBE	1				
4	WSH-0024	PLAIN WASHER FORM A	1				
5	NUT-0271	NYLOC NUT	1				
6	HSS-0319	SET SCREW	1				
9	WSH-0018	PLAIN WASHER	2				
10	NUT-0269	NUT	2				
11	HSS-0275	SET SCREW	2				
12	WRP-01050	WIRE ROPE THIMBLE	3				
13	591397 01	BRAKE CLEVIS W/A	2				
14	HSSA10500	SET SCREW	1				
15	WSH-0015	PLAIN WASHER	3				
16	NUT-0167	PLAIN NUT PLATED	3				
17	591399 01	CABLE PULLEY	1				
18	591400 04	HANDBRAKE CABLE	1				
19	HSS-0260	SETSCREW	2				
20	WRP-02080	WIRE CABLE CLAMP	6				
21	LVR-00020	HANDBRAKE ASSY	1				
22	591400 02	HANDBRAKE CABLE	1				
23	WSH-0030	PLAIN WASHER	8				
24	NUTA02200	NYLOC NUT	8				
25	BLT-2365	BOLT	8				
27	FITA10410	HYDRAULIC TEE FITTING	1				
28	HHAC01305	HYDRAULIC HOSE ASSY	1				
29	HHAC99505	HYDRAULIC HOSE ASSY	1				
30	HMA-0065	ADAPTOR MALE/MALE	1				
31	WSH-1015	DOWTY WASHER 1/2"	1				
32	HQR-10007	HYD.QUICK RELEASE COUP.	1				
33	TIE-0004	TIE WRAPS (MED)	14				
34	TIE-0012	TIE WRAP (EX.LARGE)	4				

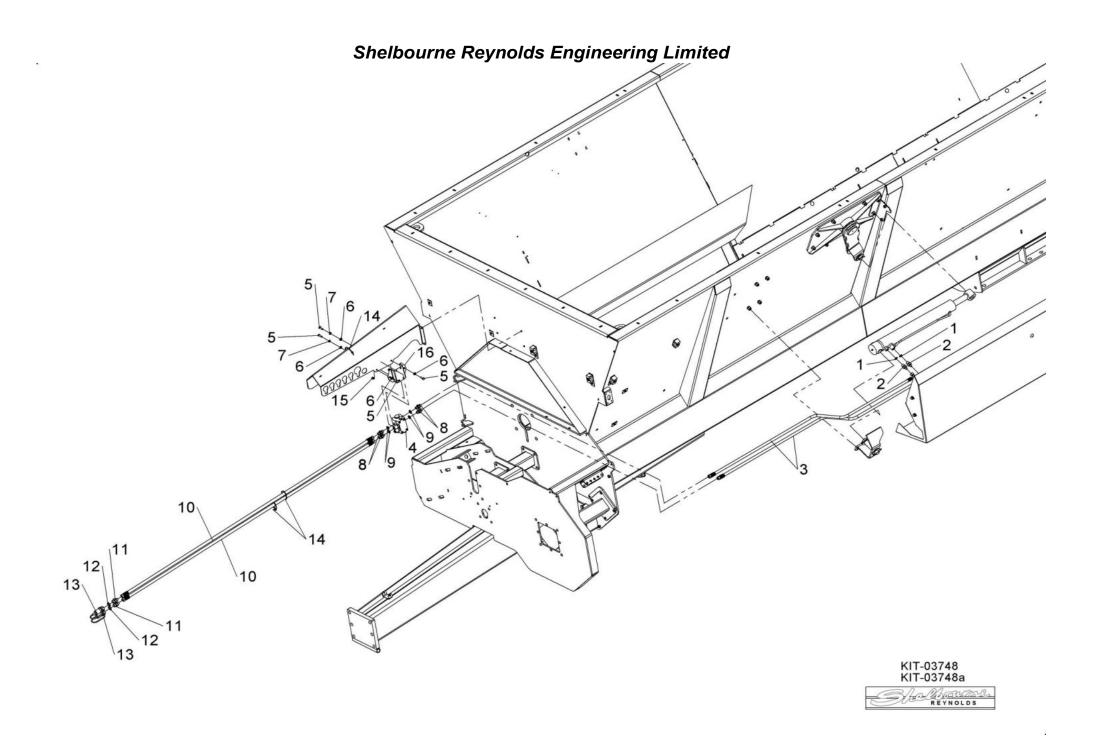


ASSY 1	NUMBER: KIT-03	3747		ASSY DE	SCRIPTION: LI	GHTING KIT	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591564 01	NUMBER PLATE BRACKET	1	29	ETM-00630	FEMALE BULLET TERMINAL	4
		SER No PSP0115 & ON		30	SLV-00060	SLEEVING	0.6m
OR	591405 01	NUMBER PLATE BRACKET	1				
		UP TO SER No PSP0114					
2	HSS-0140	SETSCREW	2				
3	WSH-0012	PLAIN WASHER	16				
4	NUT-0263	NYLOC NUT	10				
5	REF-0035	TRIANGULAR REFLECTOR	2				
6	SCW-0083	CAP HEAD SCREW	4				
7	WSH-0006	PLAIN WASHER	18				
8	NUT-0258	NYLOC NUT	12				
9	LMP-10404	REAR COMBINATION LAMP	2				
10	WSH-0009	PLAIN WASHER	12				
11	NUT-0260	NYLOC NUT	10				
12	JNC-00000	JUNCTION BOX	2				
13	CBL-03530	7 CORE CABLE	15				
14	PLG-0005	7 PIN PLUG	1				
15	TIE-0004	TIE WRAPS	50				
16	LMP-0009	NUMBER PLATE LIGHT	1				
17	591563 01	JUNCTION BOX GUARD	1				
		SER No PSP0114					
OR	591473 01	COVER PLATE	1				
		UP TO & INC PSP0114					
18	ETM-00560	MALE BULLET TERMINAL	2				
19	ETM-00150	6mm FEMALE SPADE CONNECTOR	1				
20	ETM-01255	3mm FEMALE SPADE CONNECTOR	3				
21							
22	CBL-03010	2 CORE CABLE	0.5				
23	CBL-03210	4 CORE CABLE	7				
24	HSS-0070	SETSCREW	8				
25	591578 01	LIGHT GUARD LH	1				
		SER No PSP0139 & ON					
OR	591507 01	LIGHT GUARD LH	1				
		UP TO & INC SER No PSP0138					
26	591578 02	LIGHT GUARD RH	1				
		SER No PSP0139 & ON					
OR	591507 02	LIGHT GUARD RH	1				
		UP TO & INC SER No PSP0138					
27	LMP-10503	MARKER LAMP	2				
28	BLB-0080	BULB	2				

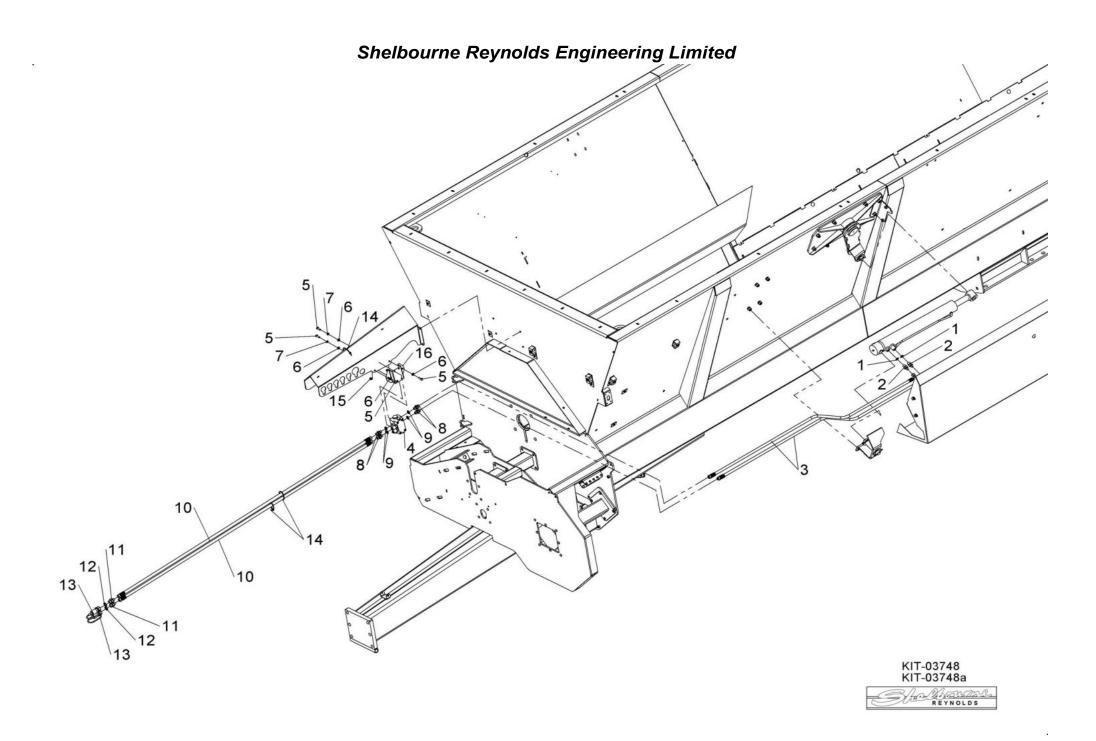


ASSY	NUMBER: KIT-03	747a		ASSY DI	ESCRIPTION: LIGH	HTING KIT	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1							
2	HSS-0145	SETSCREW	16				
3	WSH-0012	WASHER	16				
4	NUT-0263	NUT	8				
5	REF-0035	TRIANGULAR REFLECTOR	2				
6			4				
7	WSH-0006	WASHER	18				
8	NUT-0258	NUT	12				
9	LMP-10404	REAR COMBINATION LAMP	2				
10	WSH-0009	WASHER	12				
11	NUT-0260	NUT	10				
12	JNC-00000	ELECTRIC JUNCTION BOX	2				
13	CBL-03530	7 CORE ELECTRICAL CABLE	13.5				
14	PLG-0005	7 PIN PLUG	1				
15	TIE-0004	TIE WRAPS (MED)	50				
16	LMP-0009	NO PLATE LIGHT	1				
17	591563 01	JUNCTION BOX GUARD	1				
18	ETM-00560	ELEC BULLET TERMINAL	2				
19	ETM-00150	ELEC SPADE CNCTR FEM	3				
20	ETM-01255	3mm ELEC FEMALE SPADE	3				
21							
22	CBL-03010	2 CORE ELECTRICAL CABLE	0.5				
23	CBL-03210	4 CORE ELECTRICAL CABLE	7				
24	HSS-0070	SETSCREW	8				
25	591578 01	LIGHT GUARD LH	1				
26	591578 02	LIGHT GUARD RH	1				
27	LMP-10503	END OUTLINE MARKER LAMP	2				
28	BLB-0080	BULB 12v	2				
29	ETM-00630	ELECTRIC BUTT TERM	4				
30	SLV-00060	ELECTRIC HEAT SHRINK SLEEVING	0.6				

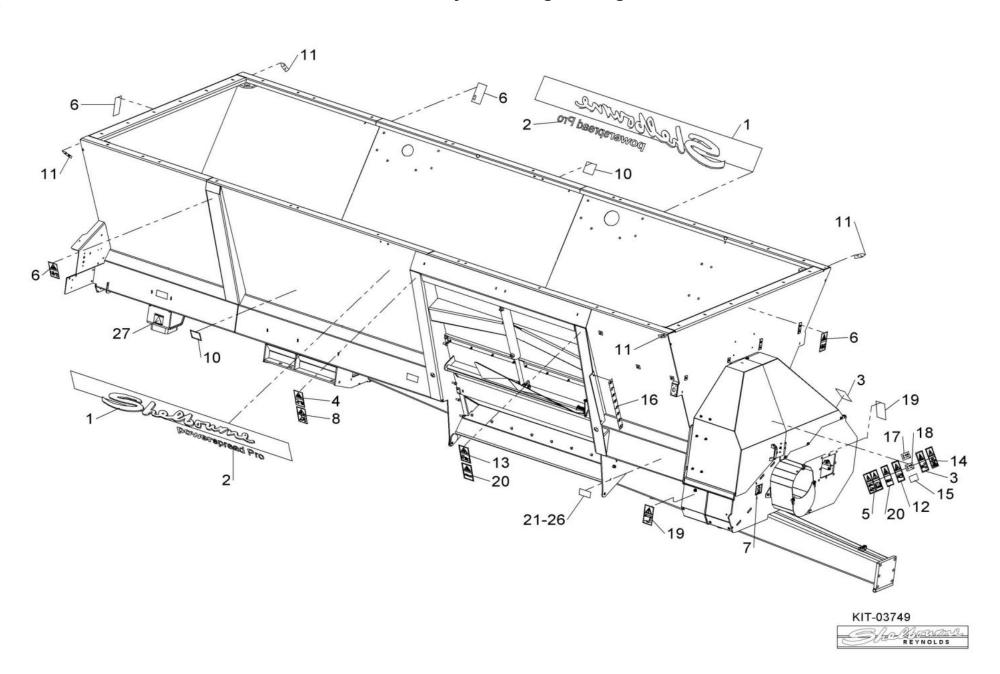




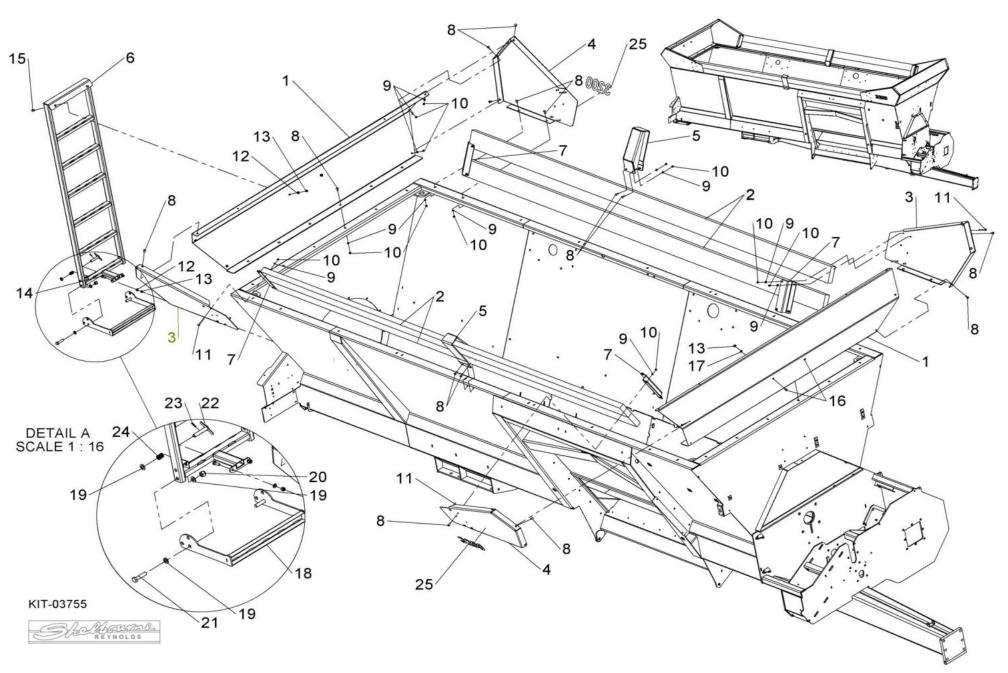
ASSY	NUMBER: KIT-03	748a		ASSY DI	ESCRIPTION: ANT-E	BRIDGE AUTO HYD KIT	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
			QTY  2 2 1 4 4 2 2 2 2 1 1 1 1 1 1	1			QTY



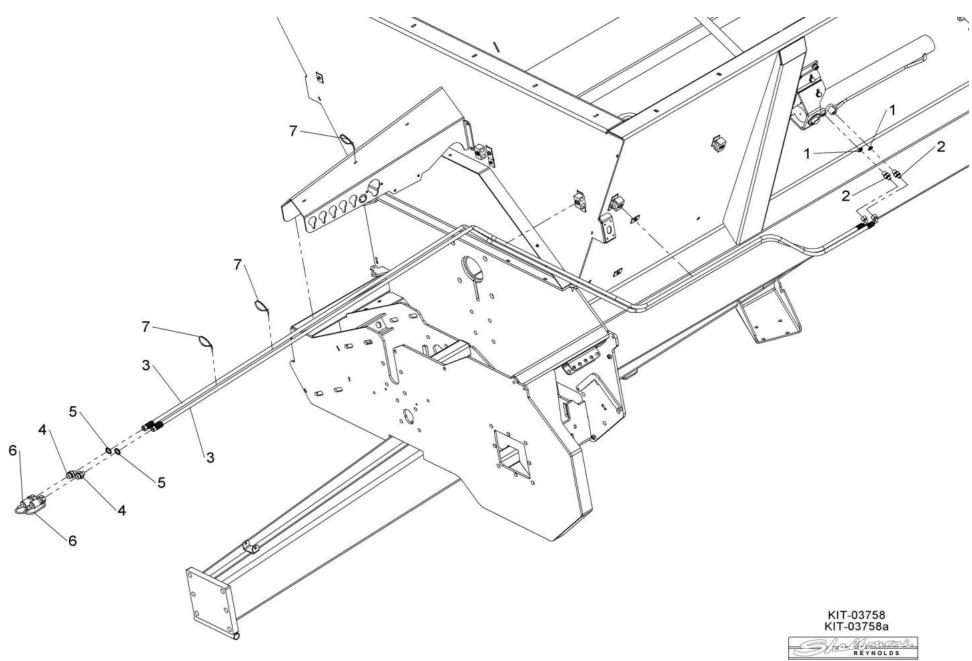
ASSY	ASSY NUMBER: KIT-03749			ASSY DESCRIPTION: POWERSPREAD TRANSFERS KIT (2400-3200)				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	591582 01	SHELBOURNE TRANSFER	2					
2	591586 01	POWERSPREAD PRO TARNSFER	2					
3	193392 01	STOP ENG TRANSFER	2					
4	590477 01	FLYING OBJECTS TRANSFER	1					
5	TNF-0011	TRANSFER BLOCK	1					
6	590479 01	DONT ENTER TUB.TRANSFER	4					
7	590475 01	MAX PTO SPEED TRANSFER	1					
8	590476 01	NO STEP TRANSFER	1					
9								
10	590788 01	WHEEL NUTS TRANSFER	2					
11	190702 04	SLING POINT TRANSFER	4					
12	800221 01	HIGH PRESSURE FLUID TRANSFER	1					
13	260060 01	TRANSFER-STAY CLEAR	1					
14	614959 01	MAX. HYD. PRESSURE TRANSFER	1					
15	195391 01	SHEARBOLT TRANSFER IMPELLAR	1					
		PSP18120258 & ON						
OR	613205 01	SHEARBOLT TRANSFER IMPELLAR	1					
		UPTO & INC PSP24120248						
16	591376 01	HEIGHT INDICATOR EMBLEM	1					
17	591593 01	SHEARBOLT TRANSFER AUGER	1					
18	591928 01	SHEARBOLT EMBLEM PADDLE	1					
		PSP24130330 & ON						
OR	591627 01	SHEARBOLT EMBLEM PADDLE	1					
		UP TO & INCLUDING PSP24120239						
19	193391 01	PTO GUARD TRANSFER	2					
20	800215 01	CRUSHING HAZARD TRANSFER	2					
21	TPE-00250	REFLECTIVE TAPE - YELLOW	0.1m					
22	TPE-00250	REFLECTIVE TAPE - YELLOW	0.1m					
23	TPE-00250	REFLECTIVE TAPE - YELLOW	0.1m					
24	TPE-00250	REFLECTIVE TAPE - YELLOW	0.1m					
25	TPE-00250	REFLECTIVE TAPE - YELLOW	0.1m					
26	TPE-00250	REFLECTIVE TAPE - YELLOW	0.1m					
27	591927 01	JACKING POINT SIGN	2					



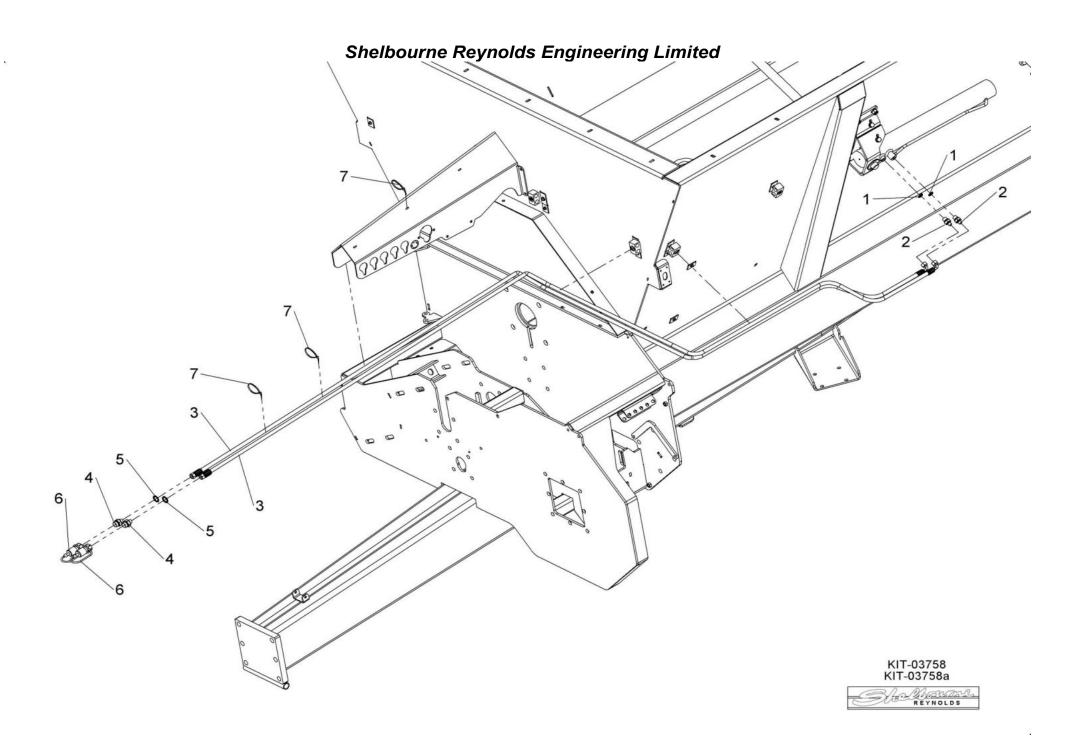
ASSY	ASSY NUMBER: KIT-03755			ASSY DESCRIPTION: 3200 EXTENSION TOP KIT			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591483 01	SLURRY PLATE	2				
2	591485 01	TREATED SOFTWOOD (GREEN)	4				
3	591482 01	LH END PANEL	2				
4	591482 02	RH END PANEL	2				
5	591480 01	MID BRACE W/ASSY	2				
6	591305 01	LADDER W/A	1				
7	591481 01	KEEP PLATE	4				
8	BLTF08173	COACH BOLT	48				
9	WSH-0012	WASHER	58				
10	NUT-0263	NUT	56				
11	BLTF08470	COACHBOLT	8				
12	WSH-0015	WASHER	4				
13	NUT-0265	NUT	6				
14	HSS-0194	BOLT	2				
15	BLT-3745	COACHBOLT	2				
16	BLT-3740	COACH BOLT	2				
17	WSH-0018	WASHER	2				
18	591496 01	LADDER EXT W/A	1				
19	WSH-0024	WASHER	5				
20	NUT-0271	NUT	2				
21	HSS-0322	HEX HEAD SETSCREW	2				
22	591495 01	LOCKING PIN W/A	1				
23	PIN-1620	ROLL PIN	1				
24	SPGC22015	COMPRESSION SPRING	1				
25	591581 01	3200 TRANSFER	2				



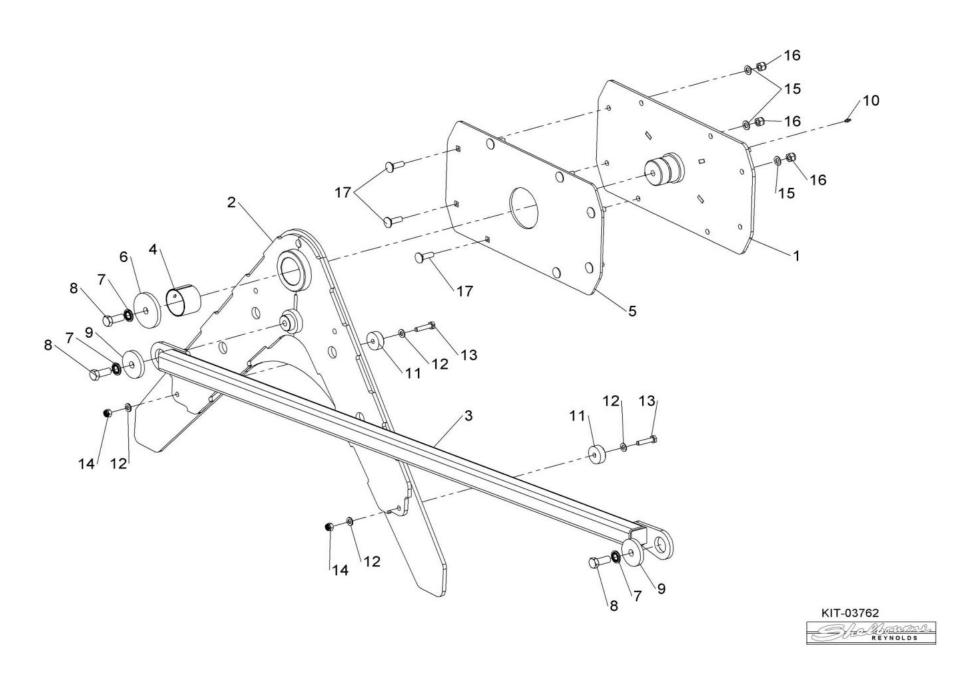
ASSY NUMBER: KIT-03758			ASSY DESCRIPTION: ANTI BRIDGE MAN HYD KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1 2 3 4 5 6 7	WSH-1005 FIT-0025 HHCE52005 HMA-0065 WSH-1015 COU-0162 TIE-0004	DOWTY WASHER ADAPTOR HYDRAULIC HOSE ADAPTOR DOWTY WASHER QUICK RELEASE COUPLING TIE WRAPS (MED)	2 2 2 2 2 2 8 8				VII.



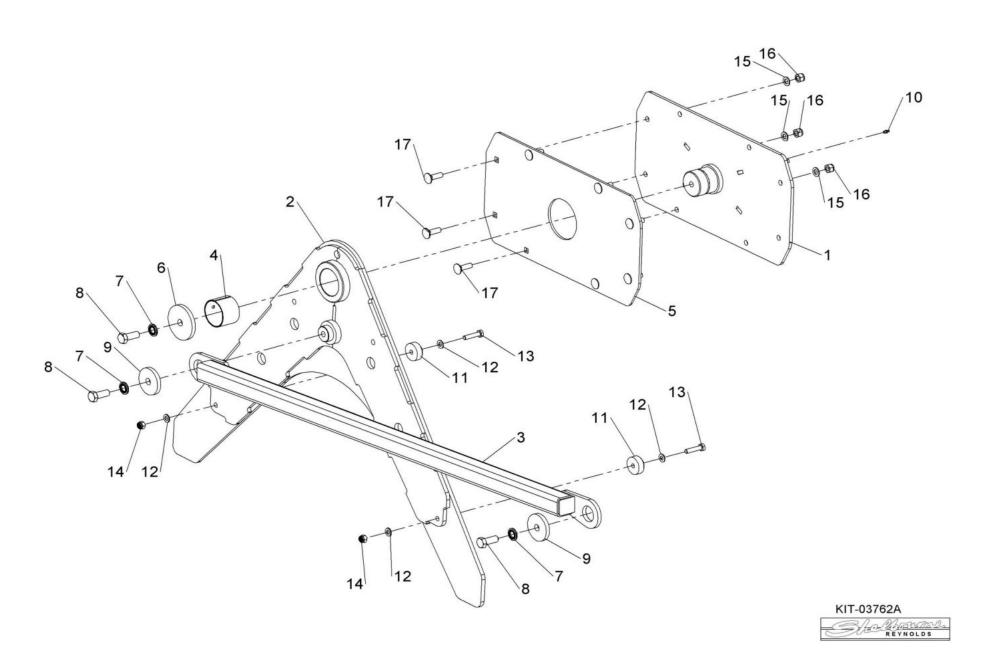
ASSY NUMBER: KIT-03758a			ASSY DESCRIPTION: ANT-BRIDGE MAN HYD KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1 2 3 4 5 6 7	WSH-1005 FIT-0025 HHCE48005 HMA-0065 WSH-1015 COU-0162 TIE-0004	DOWTY WASHER ADAPTOR HYD HOSE ASSY ADAPTOR DOWTY WASHER QUICK RELEASE COUPLING TIE WRAPS (MED)	2 2 2 2 2 2 8 8			DESCRIPTION	VII.



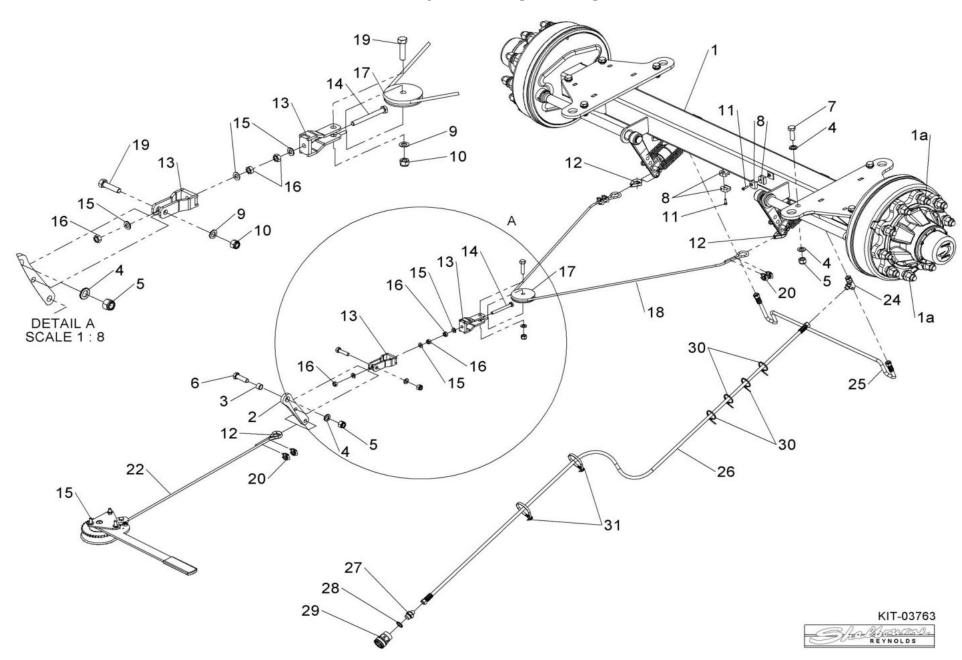
ASSY NUMBER: KIT-03762			ASSY DESCRIPTION: REAR ANTI BRIDGE KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591530 01	MOUNTING BRACKET W/ASSY	1				
2	591527 01	BRIDGE ARM W/ASSY	1				
3	591533 01	CONNECTING BAR W/ASSY	1				
4	BSHA06565	BUSH	1				
5	591462 01	LAMINATE PLATE	1				
6	190548 72	WASHER	1				
7	WSHA30161	WASHER	3				
8	HSS-0316	SETSCREW	3				
9	198800 02	WASHER	2				
9	NIP-00600	GREASE NIPPLE	1				
11	591353 01	NYLON BUFFER	2				
12	WSH-0015	PLAIN WASHER	4				
13	BLTA10290	HEX.HEAD BOLT	2				
14	NUT-0265	NYLOC NUT	2				
15	WSH-0018	PLAIN WASHER	8				
16	NUT-0269	NUT	8				
17	BLT-3800	COACH BOLT	8				



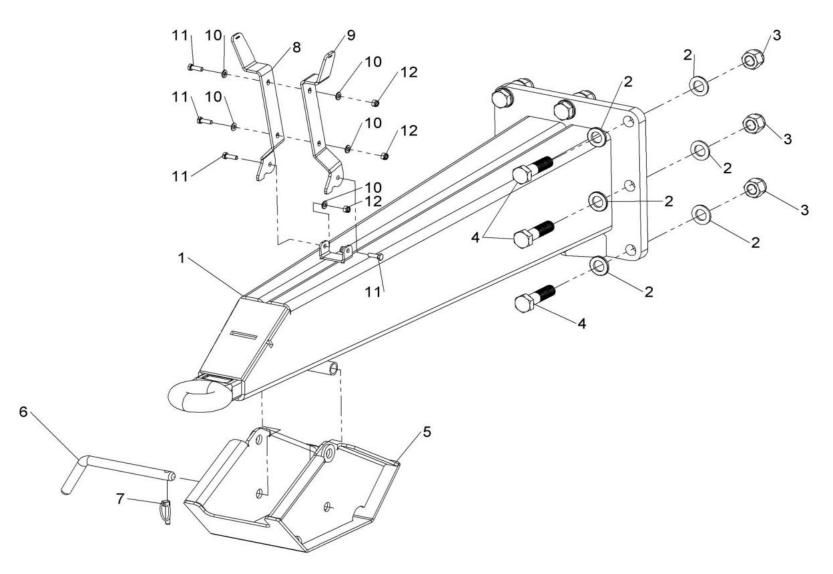
ITEM	ASSY NUMBER: KIT-03762A			ASSY DESCRIPTION: 1800G REAR ANTI-BRIDGING KIT			
	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	PART NO  591530 01 591527 01 591876 01 BSHA06565 591462 01 190548 72 WSHA30161 HSS-0316 198800 02 NIP-00600 591353 01 WSH-0015 BLTA10290 NUT-0265 WSH-0018 NUT-0269 BLT-3800		QTY  1 1 1 1 1 1 2 4 2 2 8 8 8 8				QTY



ASSY	NUMBER: KIT-03	763		ASSY DI	ESCRIPTION: HYD AXL	ASSY DESCRIPTION: HYD AXLE KIT (UP TO & INC PSP18130293)				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY			
1	591537 01	HYDRAULIC AXLE W/A	1							
1A	AXL-12521	WHEEL NUT DOMED	20							
2	591392 01	HANDBRAKE LEVER	1							
3	591393 01	PIVOT TUBE	1							
4	WSH-0024	PLAIN WASHER	17							
5	NUT-0271	NYLOC NUT	9							
6	HSS-0319	SET SCREW	1							
7	HSS-0318	SET SCREW	8							
8	HCPA01200	HYDRAULIC PIPE CLAMP	2							
9	WSH-0018	PLAIN WASHER	2							
10	NUT-0269	NUT	2							
11	SCW-0083	CAP HEAD SCREW	2							
12	WRP-01050	WIRE ROPE THIMBLE	3							
13	591397 01	BRAKE CLEVIS W/A	2							
14	HSSA10500	SET SCREW	1							
15	WSH-0015	PLAIN WASHER	3							
16	NUT-0167	PLAIN NUT PLATED	3							
17	591399 01	CABLE PULLEY	1							
18	591400 03	HANDBRAKE CABLE	1							
19	HSS-0260	SETSCREW	2							
20	WRP-02080	WIRE CABLE CLAMP	6							
21	LVR-00020	HANDBRAKE ASSY	1							
22	591400 02	HANDBRAKE CABLE	1							
24	FITA10410	HYDRAULIC TEE FITTING	1							
25	HHAC06505	HYDARULIC HOSE ASSY	1							
26	HHAC95505	HYDRAULIC HOSE ASSY	1							
27	HMA-0065	ADAPTOR MALE/MALE	1							
28	WSH-1015	DOWTY WASHER	1							
29	HQR-10007	HYD.QUICK RELEASE COUP.	1							
30	TIE-0004	TIE WRAPS	14							
31	TIE-0012	TIE WRAPS	4							

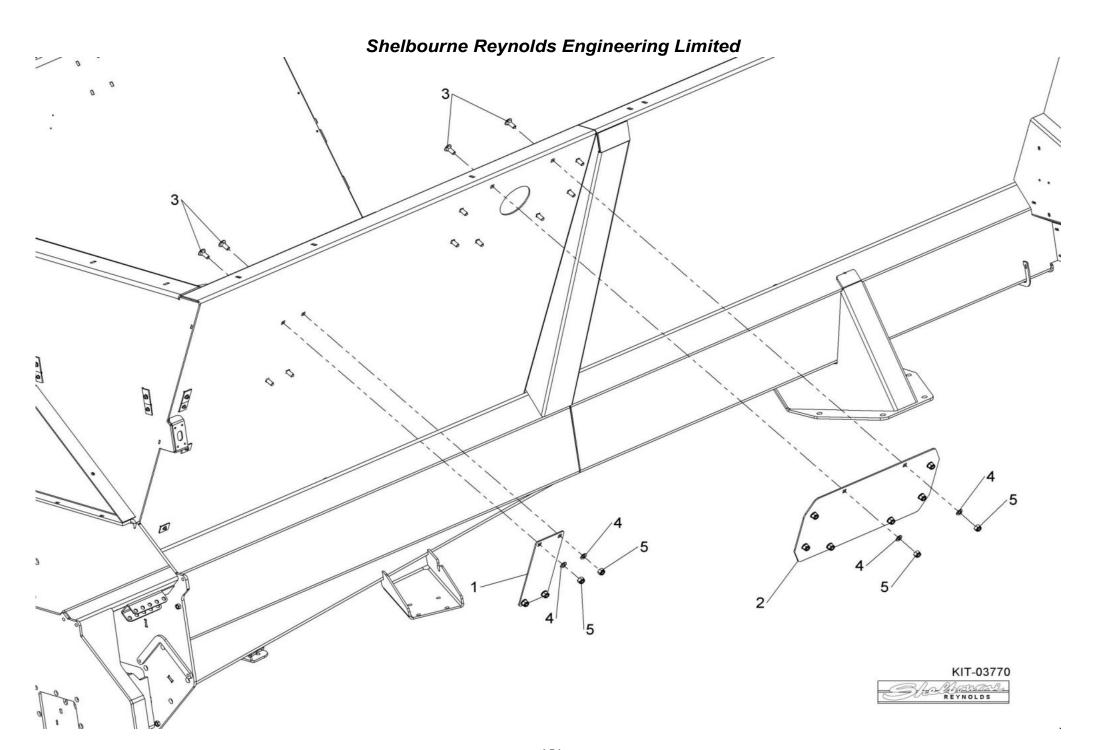


ASSY	NUMBER: KIT-03	764		ASSY DESCRIPTION: UK DRAWBAR KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	591561 01	UK DRAWBAR W/A	1					
2	WSH-0036	WASHER	16					
3	NUT-0275	NUT	8					
4	BLTA24530	HEX HEAD BOLT	8					
5	591683 01	FOOT W/A	1					
6	591567 01	LOCKING PIN	1					
7	PIN-01950	LYNCH PIN	1					
8	591378 01	PTO STAND LH	1					
9	591378 02	PTO STAND RH	1					
10	WSH-0012	WASHER	6					
11	HSS-0145	BOLT	4					
12	NUT-0263	NUT	4					

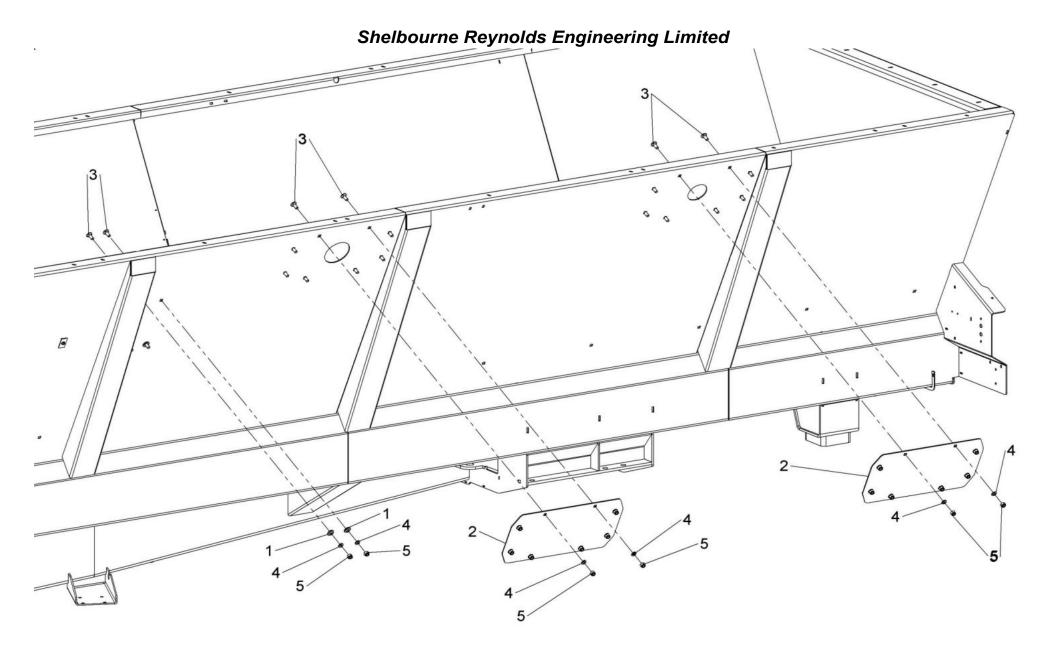




ASSY NU	MBER: KIT-037	70		ASSY DESCRIPTION: BLANKING PLATE KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1 2 3 4 5 5	PART NO 591469 01 591467 01 BLT-3790 WSH-0018 NUT-0269	DESCRIPTION  SMALL BLANK PLATE LARGE COVER PLATE COACH BOLT WASHER NUT	QTY  1 1 12 12 12 12	ITEM	PART NO	DESCRIPTION	QTY	

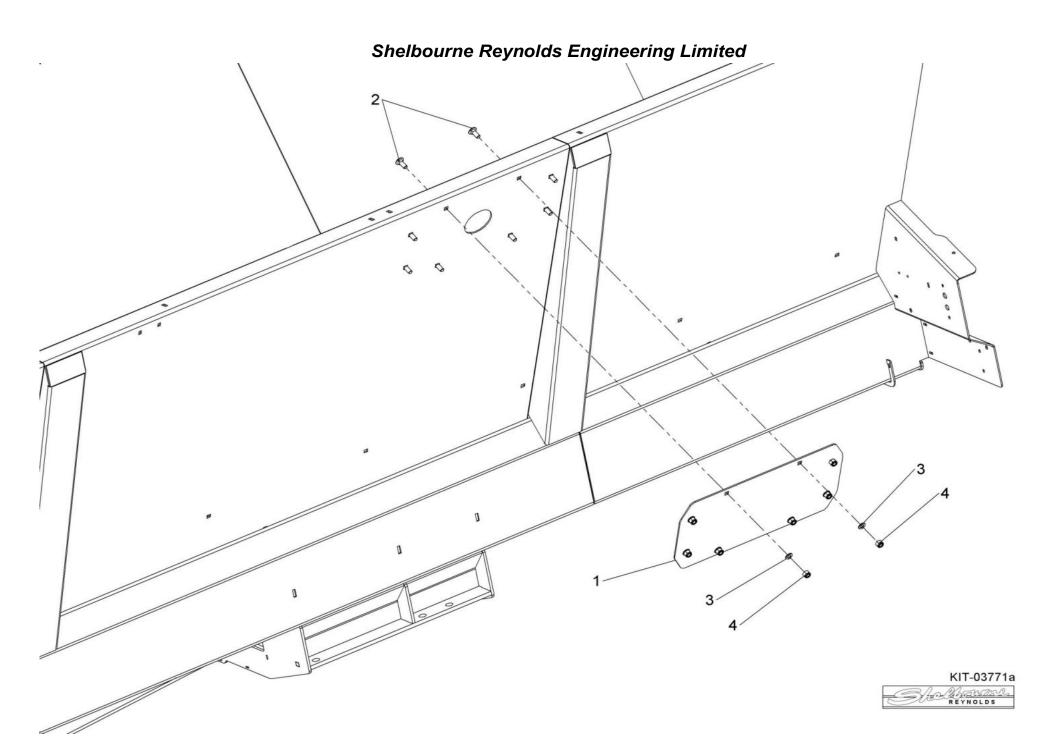


ASSY	NUMBER: KIT-03	771		ASSY DESCRIPTION: BLANKING PLATE KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1 2 3 4 5 5	PART NO WSH-0024 591467 01 BLT-3790 WSH-0018 NUT-0269	DESCRIPTION  WASHER LARGE COVER PLATE COACH BOLT WASHER NUT	QTY  4 2 20 20 20 20	ITEM	PART NO	DESCRIPTION	QTY	

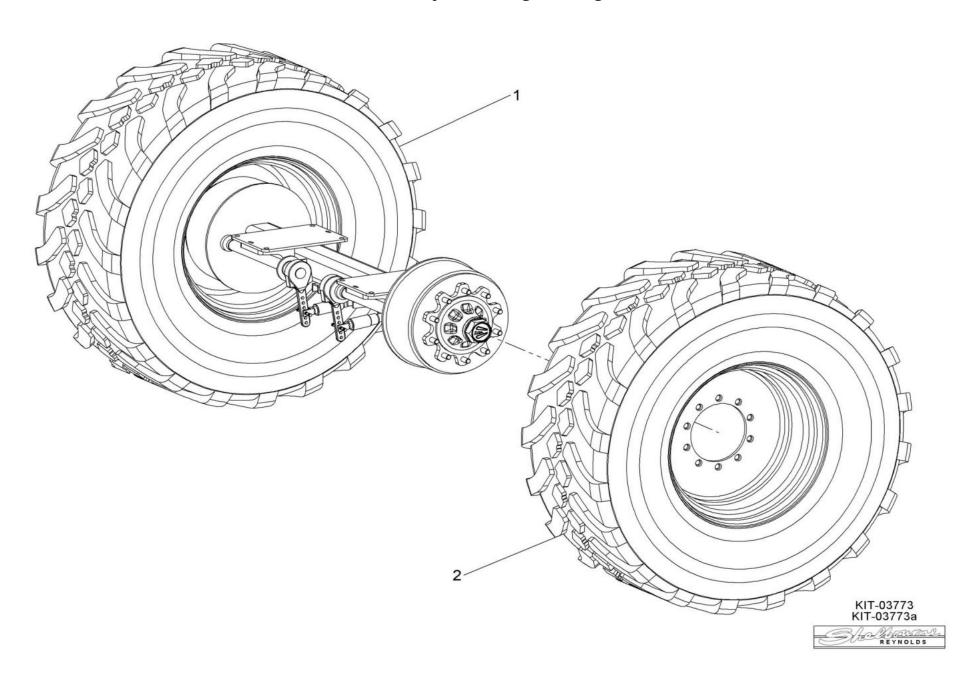




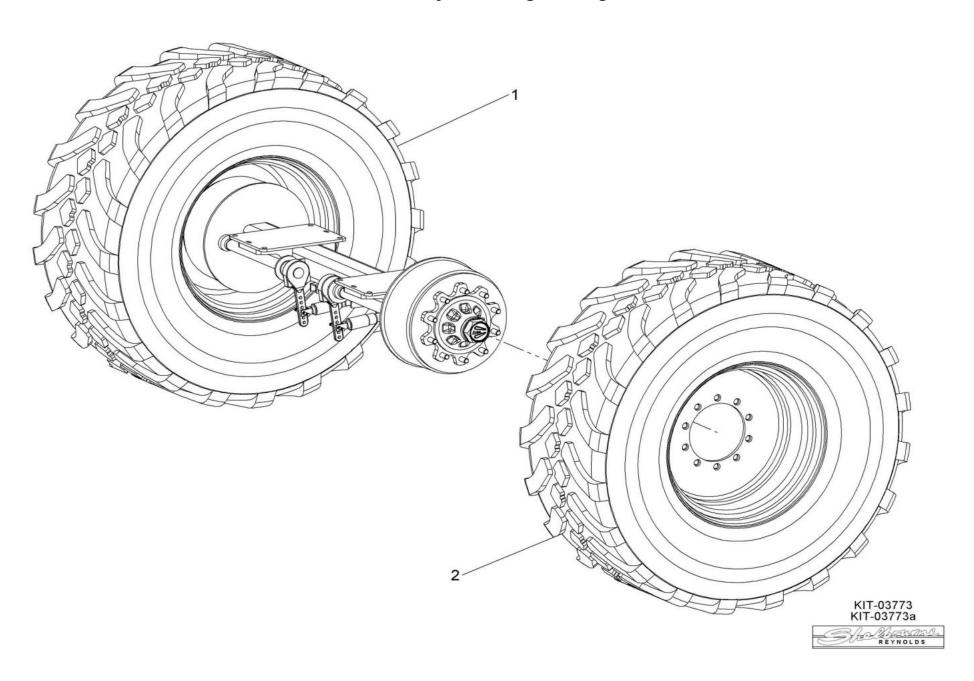
ASSY	NUMBER: KIT-03	771a		ASSY DE	SCRIPTION: BLANK	ASSY DESCRIPTION: BLANKING PLATE KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY			
-			QTY  1 8 8 8 8	<del>                                     </del>			QTY			



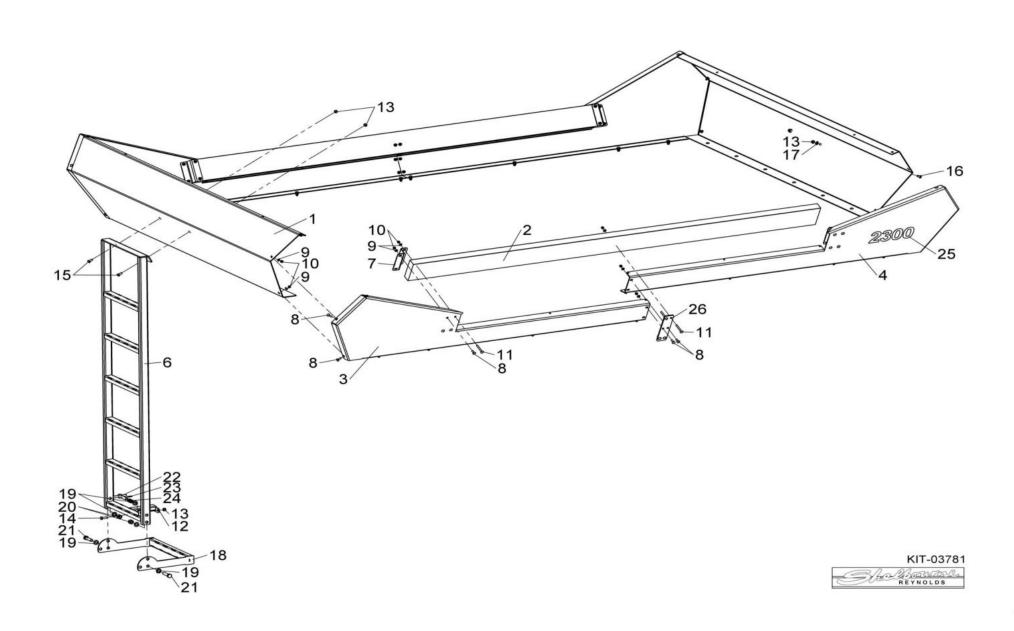
ASSY	NUMBER: KIT-03	773		ASSY DESCRIPTION: WHEEL & TYRE KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
			QTY 1 1	<del>                                     </del>			QTY	



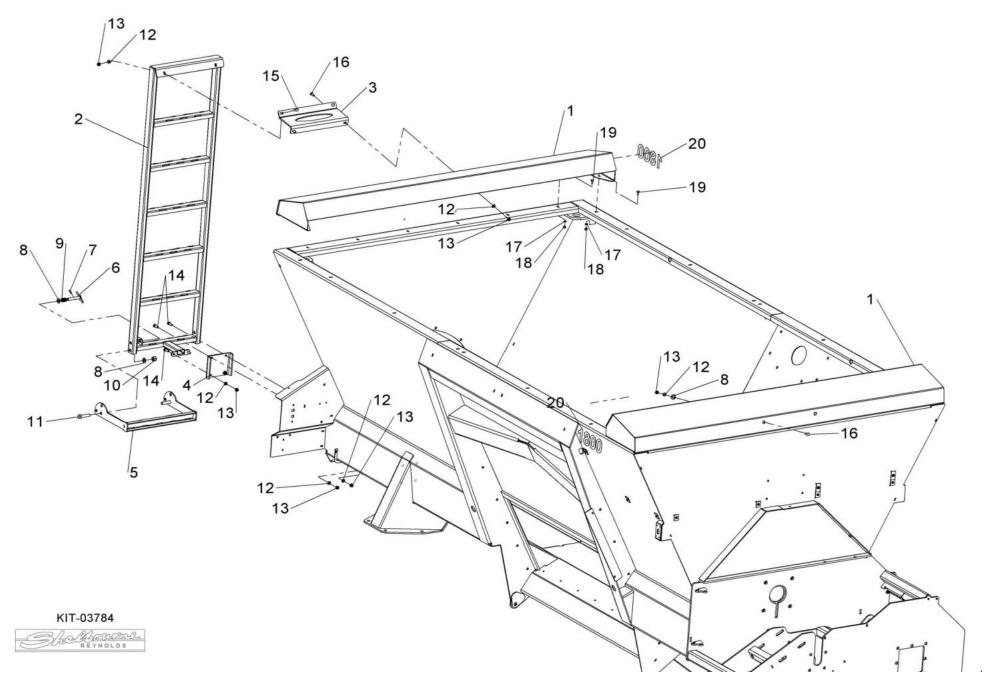
ASSY					ASSY DESCRIPTION: WHEEL & TYRE KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY		
1 2	WHL-02625 WHL-02624	LH WHEEL & TYRE ASSY RH WHEEL & TYRE ASSY	1 1	11311		DISCRIPTION	211		



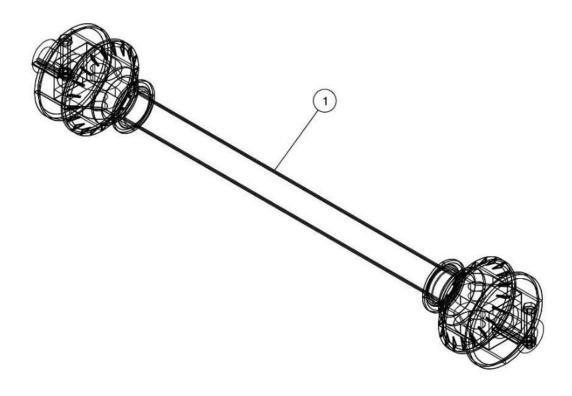
ASSY	NUMBER: KIT-03	781		ASSY DE	SCRIPTION: 2300 EX	XTENSION TOP KIT	·
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
			QTY  2 2 2 2 2 1 4 56 68 68 12 4 6 2 2 2 1 5 2 2 1 1 5 2 2 2 1 1 2 2 2	+			QTY



ASSY	NUMBER: KIT-03	784		ASSY D	ASSY DESCRIPTION: 1800 & 2400 SLURRY CANOPY KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY		
1	591760 01	SLURRY CANOPY W/A	2						
2	591305 01	LADDER W/A	1						
3	591762 01	UPPER FIXING BRKT	1						
4	591763 01	LOWER FIXING BRKT	1						
5	591496 01	LADDER EXT W/A	1						
6	591495 01	LOCKING PIN W/A	1						
7	PIN-1620	ROLL PIN	1						
8	WSH-0024	PLAIN WASHER FORM A	5						
9	SPGC22015	COMPRESSION SPRING	1						
10	NUT-0271	NYLOC NUT	2						
11	HSS-0322	HEX HEAD SETSCREW	2						
12	WSH-0015	PLAIN WASHER	10						
13	NUT-0265	NYLOC NUT	10						
14	HSS-0194	BOLT	4						
15	BLT-3750	BOLT	2						
16	BLT-3745	COACHBOLT	4						
17	WSH-0012	PLAIN WASHER FORM A	16						
18	NUT-0263	NYLOC NUT	16						
19	BLT-4710	COACH BOLT	16						
20	591757 01	1800 TRANSFER	2						

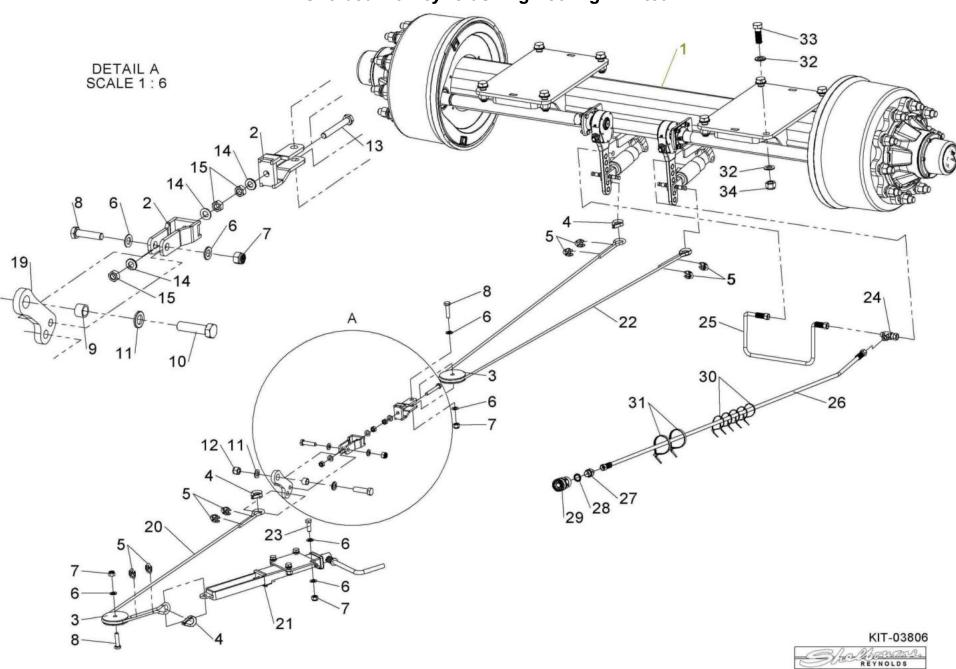


ASSY	NUMBER: KIT-037	99		ASSY DESCRIPTION: WIDE ANGLE PTO SHAFT KIT				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
		1	QTY 1	1			QTY	

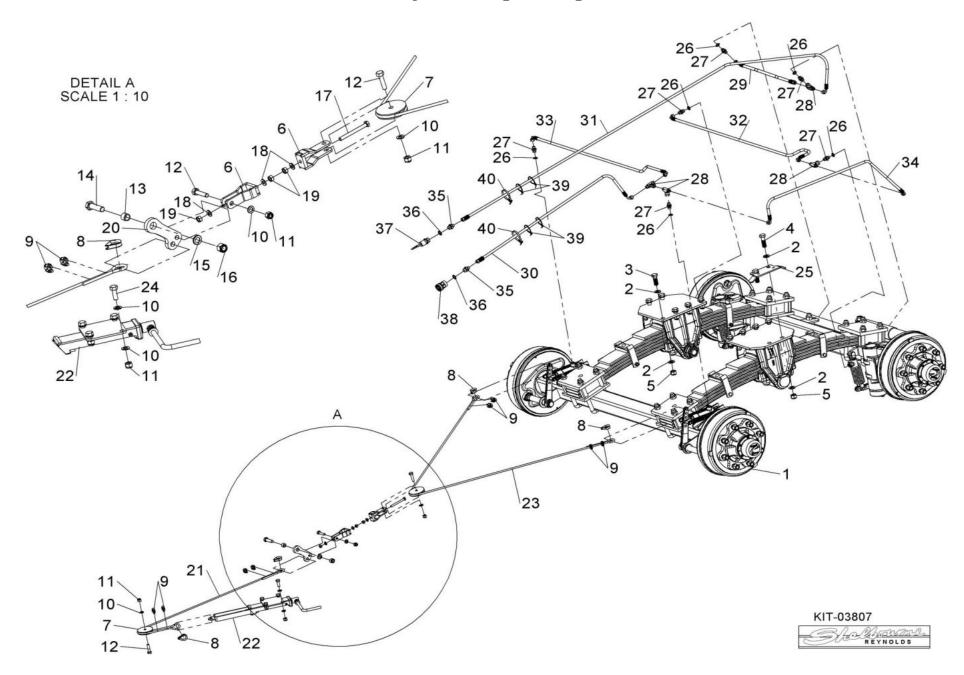


KIT-03799

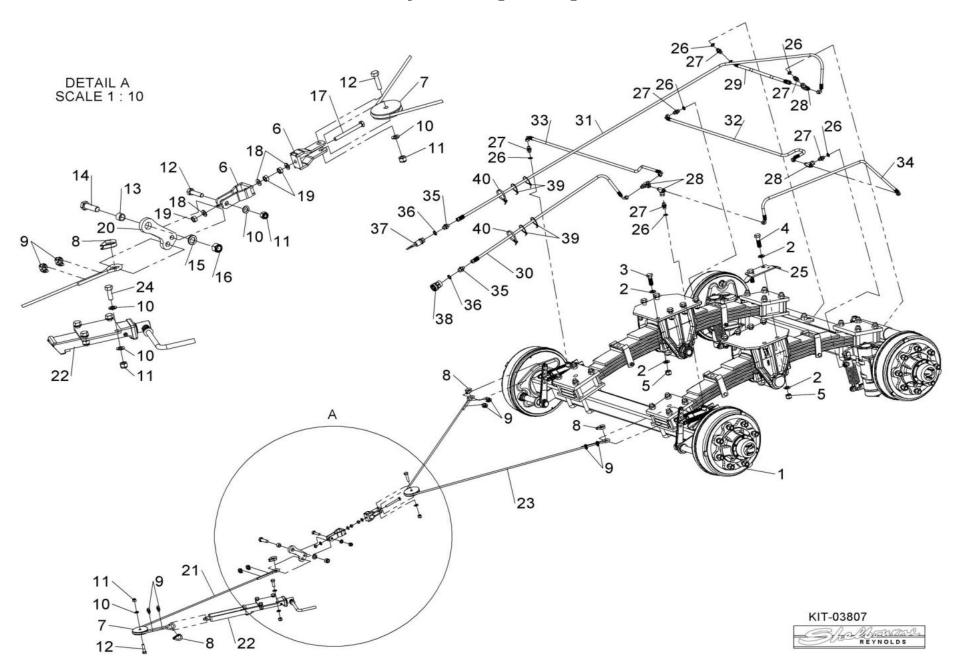
ASSY I	NUMBER: KIT-03	806		ASSY DE	SCRIPTION: SINGLE	HYDRAULIC AXLE KIT (2400-	-3200)
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591963 01	HYDRAULIC AXLE W/A	1				
		PSP24140429 & ON					
OR	591387 01	HYDRAULIC AXLE W/A	1				
		UP TO & INC PSP24140392					
1a	AXL-12521	WHEEL NUT	1				
2	591397 01	BRAKE CLEVIS W/A	2				
3	591399 01	CABLE PULLEY	2				
4	WRP-01050	WIRE ROPE THIMBLE	4				
5	WRP-02080	WIRE CABLE CLAMP	8				
6	WSH-0018	WASHER	11				
7	NUT-0269	NUT	7				
8	HSS-0260	SETSCREW	3				
9	591393 01	PIVOT TUBE	1				
10	HSS-0320	SETSCREW	1				
11	WSH-0024	WASHER	2				
12	NUT-0271	NUT	1				
13	HSSA10500	SETSCREW	1				
14	WSH-0015	WASHER	3				
15	NUT-0167	NUT	3				
16							
17							
18							
19	591879 01	LINK LEVER	1				
20	591400 05	HANDBRAKE CABLE	1				
21	591880 01	HANDBRAKE W/A	1				
22	591400 04	HANDBRAKE CABLE	1				
23	HSS-0241	SETSCREW	4				
24	FITA10410	HYDRAULIC TEE FITTING	1				
25	HHEC02705	HYDRAULIC HOSE ASSY	1				
26	HHAC95505	HYDRAULIC HOSE ASSY	1				
27	HMA-0065	ADAPTOR MALE/MALE	1				
28	WSH-1015	DOWTY WASHER	1				
29	HQR-10007	HYD.QUICK RELEASE COUP.	1				
30	TIE-0004	TIE WRAPS	14				
31	TIE-0012	TIE WRAPS	4				
32	WSH-0030	WASHER	16				
33	BLT-2366	BOLT )	8				
34	NUTA02200	NUT	8				
, [							



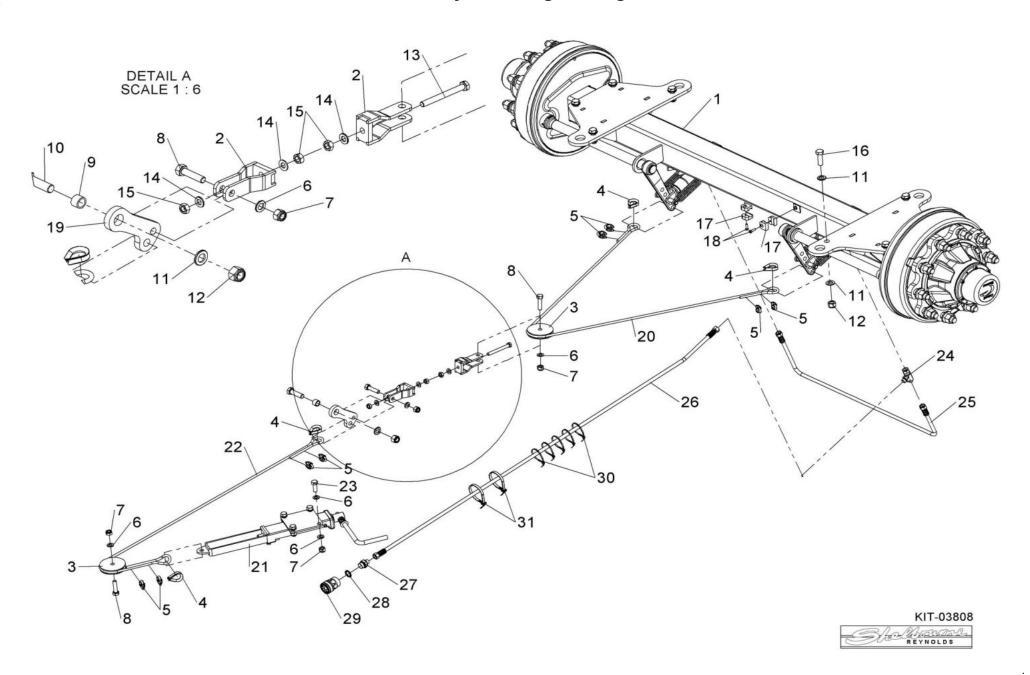
ASSY	NUMBER: KIT-03	807		ASSY D	ESCRIPTION: TAND	DEM HYDRAULIC AXLE KIT (2400-320	00)
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	AXL-00225	TANDEM STEERING AXLE ASSY					
2	WSH-0030	WASHER	24				
3	BLT-2366	BOLT	8				
4	BLT-2367	BOLT	4				
5	NUTA02200	NUT	12				
6	591397 01	BRAKE CLEVIS W/A	2				
7	591399 01	CABLE PULLEY	2				
8	WRP-01050	WIRE ROPE THIMBLE	4				
9	WRP-02080	WIRE CABLE CLAMP	8				
10	WSH-0018	WASHER	11				
11	NUT-0269	NUT	7				
12	HSS-0260	SETSCREW	3				
13	591393 01	PIVOT TUBE	1				
14	HSS-0319	SETSCREW	1				
15	WSH-0024	WASHER	1				
16	NUT-0271	NUT	1				
17	HSSA10500	SETSCREW	1				
18	WSH-0015	WASHER	3				
19	NUT-0167	NUT	3				
20	591879 01	LINK LEVER	1				
21	591400 05	HANDBRAKE CABLE	1				
22	591880 01	HANDBRAKE W/A	1				
23	591400 01	HANDBRAKE CABLE	1				
24	HSS-0241	SETSCREW	4				
25	591889 01	HOSE FIXING PLATE	1				
26	WSH-1010	DOWTY WASHER	6				
27	HMA-0057	HYD ADAPTOR	6				
28	FITA10410	HYDRAULIC TEE FITTING	4				
29	HHBE04705	HYD HOSE ASSY REVERSE PISTON)	1				
30	591890 01	HYD HOSE ASSY (BRAKE/TRA 11.5m)	1				
31	591890 02	HYD HOSE ASSY(REV/TRA 13m)	1				
32	HHEE16005	HYD HOSE ASSY (REAR RAMS 1.6m)	1				
33	HHEE13005	HYD HOSE ASSY(FRT RAMS 1.3m)	1				
34	HHEE11005	HYD HOSE ASSY (FRT/REAR 1.1m)	1				
35	HMA-0065	HYD ADAPTOR	2				
36	WSH-1015	DOWTY WASHER	2				
37	COU-0162	QUICK RELEASE COUPLING	1				
38	HQR-10007	QUICK RELEASE COUPLNG	1				
39	TIE-0004	TIE WRAPS	16				
40	TIE-0012	TIE WRAPS	4				



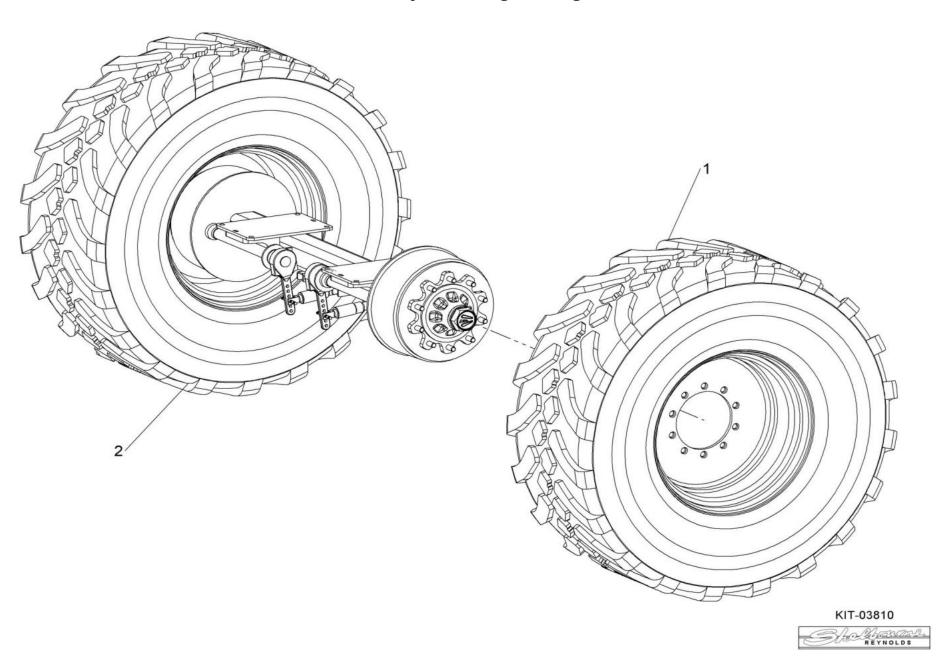
ASSY	ASSY NUMBER: KIT-03807A			ASSY DESCRIPTION: TANDEM HYDRAULIC AXLE KIT (2400-3200)			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	AXL-00240	TANDEM STEERING AXLE (1480mm)	1				
2	WSH-0030	WASHER	24				
3	BLT-2366	BOLT	10				
4	BLT-2367	BOLT	2				
5	NUTA02200	NUT	12				
6	591397 01	BRAKE CLEVIS W/A	2				
7	591399 01	CABLE PULLEY	2				
8	WRP-01050	WIRE ROPE THIMBLE	4				
9	WRP-02080	WIRE CABLE CLAMP	8				
10	WSH-0018	WASHER	11				
11	NUT-0269	NUT	7				
12	HSS-0260	SETSCREW	3				
13	591393 01	PIVOT TUBE	1				
14	HSS-0319	SETSCREW	1				
15	WSH-0024	WASHER	1				
16	NUT-0271	NUT	1				
17	HSSA10500	SETSCREW	1				
18	WSH-0015	WASHER	3				
19	NUT-0167	NUT	3				
20	591879 01	LINK LEVER	1				
21	591400 05	HANDBRAKE CABLE	1				
22	591880 01	HANDBRAKE W/A	1				
23	591400 01	HANDBRAKE CABLE	1				
24	HSS-0241	SETSCREW	4				
25	591889 01	HOSE FIXING PLATE	1				
26	WSH-1010	DOWTY WASHER	6				
27	HMA-0057	HYD ADAPTOR	6				
28	FITA10410	HYDRAULIC TEE FITTING	4				
29	HHBE04705	HYD HOSE ASSY REVERSE PISTON)	1				
30	HHBE92005	HYD HOSE ASSY(BRAKE/TRA 9.2m)	1				
31	591890 02	HYD HOSE ASSY(REV/TRA 10.9m)	1				
32	HHEE17005	HYD HOSE ASSY (REAR RAMS 1.7m)	1				
33	HHEE15005	HYD HOSE ASSY (FRT RAMS 1.5m)	1				
34	HHEE14005	HYD HOSE ASSY (FRT/REAR 1.4m)	1				
35	HMA-0065	HYD ADAPTOR	2				
36	WSH-1015	DOWTY WASHER	2				
37	COU-0162	QUICK RELEASE COUPLING	1				
38	HQR-10007	QUICK RELEASE COUPLNG	1				
39	TIE-0004	TIE WRAPS	16				
40	TIE-0012	TIE WRAPS	4				



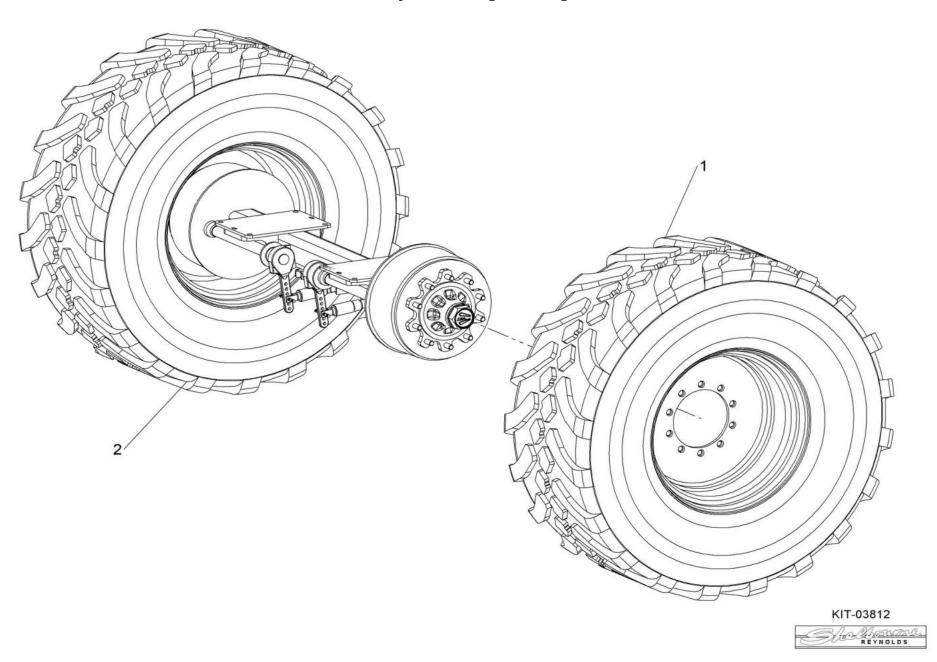
ASSY NUMBER: KIT-03808				ASSY DESCRIPTION: HYDRAULIC AXLE KIT(PSP18130303 & ON)			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	592164 01	HYDRAULIC AXLE W/A (130mm)	1				
1a	AXL-12521	WHEEL NUT	1				
		(SER No PSP18160562 & ON)					
OR	591537 01	HYDRAULIC AXLE W/A (110mm	1				
1a	AXL-12521	WHEEL NUT	1				
		(UP TO & INC PSP18160538)					
2	591397 01	BRAKE CLEVIS W/A	2				
3	591399 01	CABLE PULLEY	2				
4	WRP-01050	WIRE ROPE THIMBLE	4				
5	WRP-02080	WIRE CABLE CLAMP	8				
6	WSH-0018	WASHER	11				
7	NUT-0269	NUT	7				
8	HSS-0260	SETSCREW	3				
9	591393 01	PIVOT TUBE	1				
10	HSS-0319	SETSCREW	1				
11	WSH-0024	WASHER	17				
12	NUT-0271	NUT	9				
13	HSSA10500	SETSCREW	1				
14	WSH-0015	WASHER	3				
15	NUT-0167	NUT	3				
16	HSS-0318	SETSCREW	8				
17	HCPD01400	HYD PIPE CLAMP	2				
18	SCW-0136	CP HD SCREW	2				
19	591879 01	LINK LEVER	1				
20	591400 05	HANDBRAKE CABLE	1				
21	591880 01	HANDBRAKE W/A	1				
22	591400 02	HANDBRAKE CABLE	1				
23	HSS-0241	SETSCREW	4				
24	FITA10410	HYDRAULIC TEE FITTING	1				
25	HHAC06505	HYDARULIC HOSE ASSY	1				
26	HHAC95505	HYDRAULIC HOSE ASSY	1				
27	HMA-0065	ADAPTOR MALE/MALE	1				
28	WSH-1015	DOWTY WASHER	1				
29	HQR-10007	HYD.QUICK RELEASE COUP.	1				
30	TIE-0004	TIE WRAPS	14				
31	TIE-0012	TIE WRAPS	4				



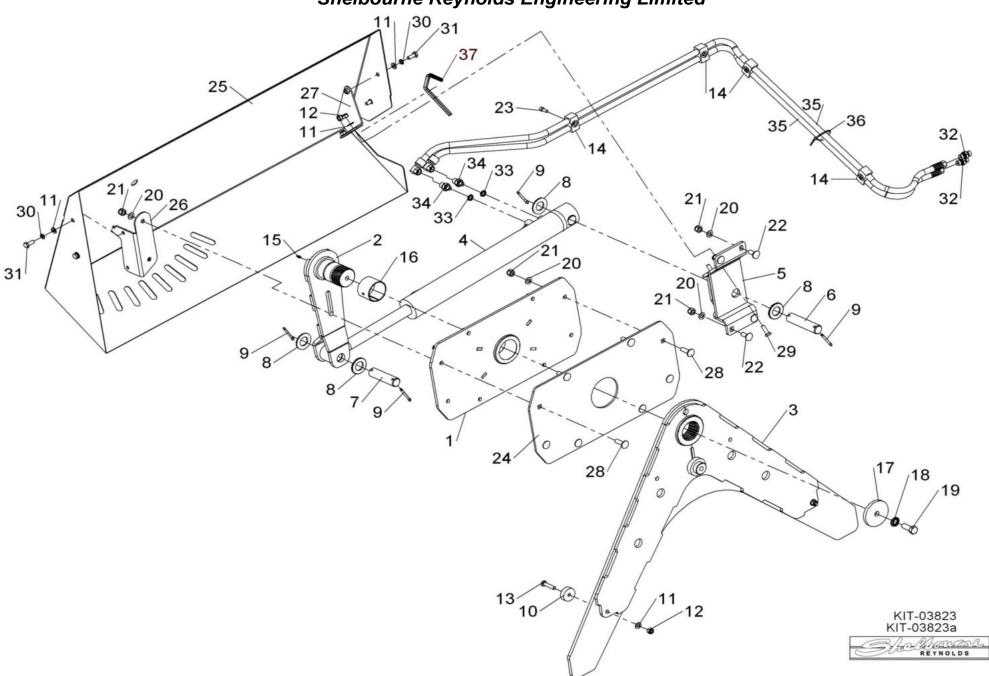
ASSY	ASSY NUMBER: KIT-03810			ASSY DESCRIPTION: TANDEM WHEEL & TYRE KIT (2400-3200)			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	WHL-02203	LH WHEEL & TYRE ASSY (500/60-22.5)	2				
	WHL-02204	LH WHEEL & TYRE ASSY (500/60-22.5) RH WHEEL & TYRE ASSY (500/60-22.5)					



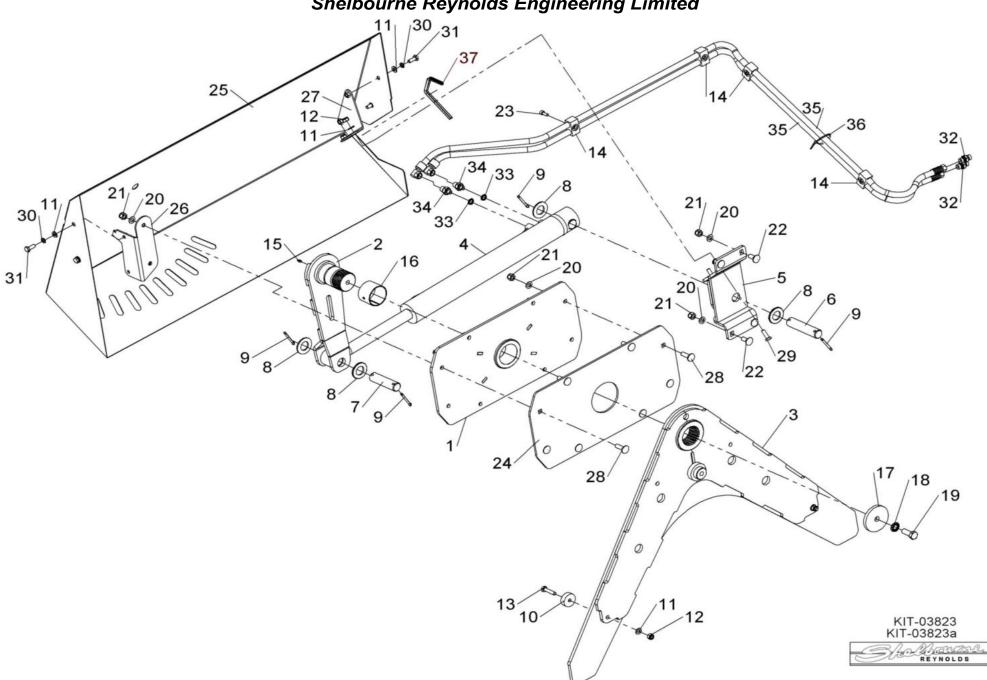
ASSY NUMBER: KIT-03812				ASSY DESCRIPTION: WHEEL & TYRE KIT (21.3-24 10 ST 50mm OFF)			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	WHL-02410	LH WHEEL & TYRE ASSY (23.1-24)	1				
2	WHL-02411						



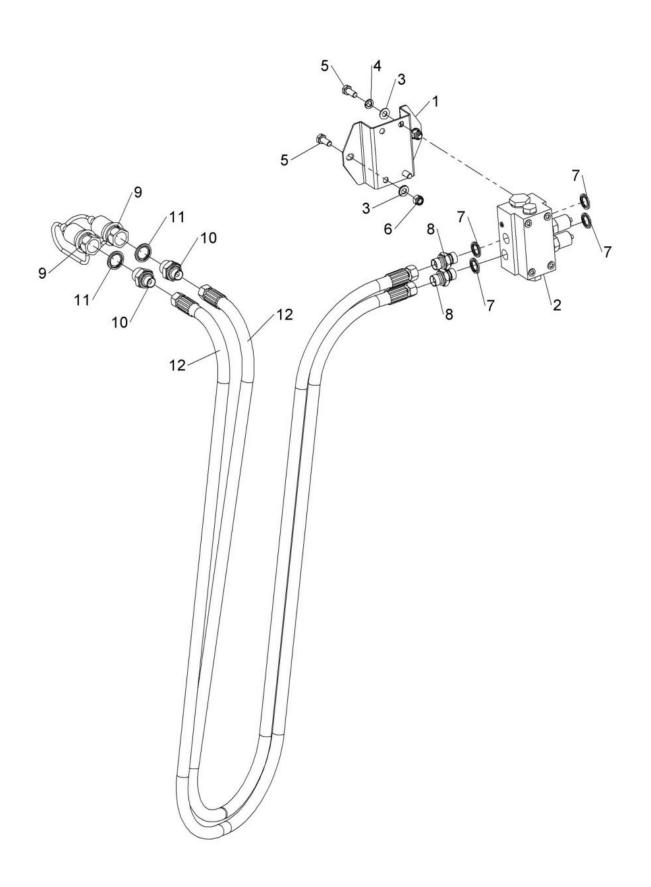
ASSY	ASSY NUMBER: KIT-03823				ASSY DESCRIPTION: ANTI BRIDGE KIT (2400-3200)			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	591337 01	HUB MTG PLATE W/ASSY	1					
2	591339 01	PIVOT SHAFT W/ASSY	1					
3	591341 01	BRIDGE ARM W/ASSY	1					
4	801236 01	CYLINDER, HEAD ANGLING	1					
5	591350 01	RAM MOUNTING BRACKET W/ASSY	1					
6	591055 02	PIN	1					
7	591055 01	PIN	1					
8	WSH-1545	PLAIN WASHER FORM A	4					
9	PIN-20629	SPLIT PIN	4					
10	591353 01	NYLON BUFFER	2					
11	WSH-0015	PLAIN WASHER	8					
12	NUT-0265	NYLOC NUT	4					
13	BLTA10290	HEX.HEAD BOLT	2					
14	HCPD01800	HYDRAULIC PIPE CLAMP	4					
15	NIP-00600	GREASE NIPPLE	1					
16	BSHA06565	BUSH	1					
17	190548 72	WASHER	1					
18	WSHA30161	WASHER	1					
19	HSS-0315	SETSCREW	1					
20	WSH-0018	PLAIN WASHER	12					
21	NUT-0269	NUT	12					
22	BLT-3790	COACH BOLT	4					
23	SCW-0133	CAP HEAD SCREW	4					
24	591462 01	LAMINATE PLATE	1					
25	591463 01	GUARD	1					
26	591466 01	REAR GUARD BRKT W/A	1					
27	591468 01	FRONT GUARD BRKT W/A	1					
28	BLT-3800	COACH BOLT	8					
29	HSS-0194	BOLT	2					
30	WSH-0061	SPRING WASHER	4					
31	HSS-0191	SET SCREW	4					
32	HMA-0057	M/M ADAPTOR	2					
33	WSH-1005	DOWTY WASHER	2					
34	FIT-0025	M/M ADAPTOR	2					
35	HHCE22005	HYD HOSE ASSY	2					
36	TIE-0004	TIE WRAP	3					
37	EDS-11400	EDGING STRIP	0.25m					



ASSY	ASSY NUMBER: KIT-03823a				ASSY DESCRIPTION: ANTI BRIDGE KIT (1800-2300)			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	591337 01	HUB MTG PLATE W/ASSY	1					
2	591339 01	PIVOT SHAFT W/ASSY	1					
3	591341 01	BRIDGE ARM W/ASSY	1					
4	801236 01	CYLINDER, HEAD ANGLING	1					
5	591350 01	RAM MOUNTING BRACKET W/ASSY	1					
6	591055 02	PIN	1					
7	591055 01	PIN	1					
8	WSH-1545	PLAIN WASHER FORM A	4					
9	PIN-20629	SPLIT PIN	4					
10	591353 01	NYLON BUFFER	2					
11	WSH-0015	PLAIN WASHER	8					
12	NUT-0265	NYLOC NUT	4					
13	BLTA10290	HEX.HEAD BOLT	2					
14	HCPD01800	HYDRAULIC PIPE CLAMP	4					
15	NIP-00600	GREASE NIPPLE	1					
16	BSHA06565	BUSH	1					
17	190548 72	WASHER	1					
18	WSHA30161	WASHER	1					
19	HSS-0315	SETSCREW	1					
20	WSH-0018	PLAIN WASHER	12					
21	NUT-0269	NUT	12					
22	BLT-3790	COACH BOLT	4					
23	SCW-0136	CAP HEAD SCREW	4					
24	591462 01	LAMINATE PLATE	1					
25	591463 01	GUARD	1					
26	591466 01	REAR GUARD BRKT W/A	1					
27	591468 01	FRONT GUARD BRKT W/A	1					
28	BLT-3800	COACH BOLT	8					
29	HSS-0194	BOLT	2					
30	WSH-0061	SPRING WASHER	4					
31	HSS-0191	SET SCREW	4					
32	HMA-0057	M/M ADAPTOR	2					
33	WSH-1005	DOWTY WAHER	2					
34	FIT-0025	M/M ADAPTOR	2					
35	HHCE16705	HYD HOSE ASSY	2					
36	TIE-0004	TIE WRAP	3					
37	EDS-11400	EDGING STRIP	0.25m					



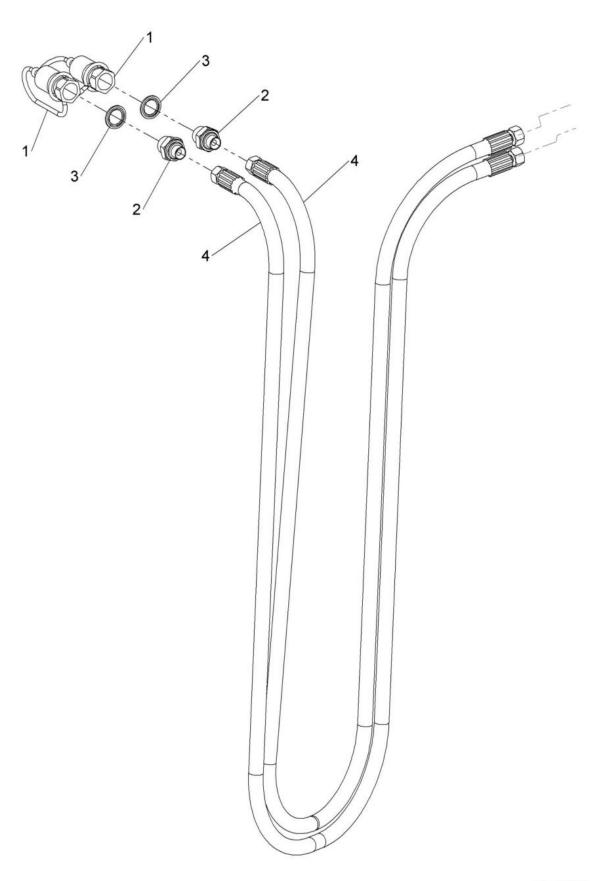
ASSY	NUMBER: KIT-03	824		ASSY DE	ESCRIPTION: AUTO H	HYDRAULICS KIT (ANTI-BRIDGE	Ξ)
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
		1	QTY  1 1 4 2 4 2 2 2 2 2 2 2 2	+		<u> </u>	



KII-U3824

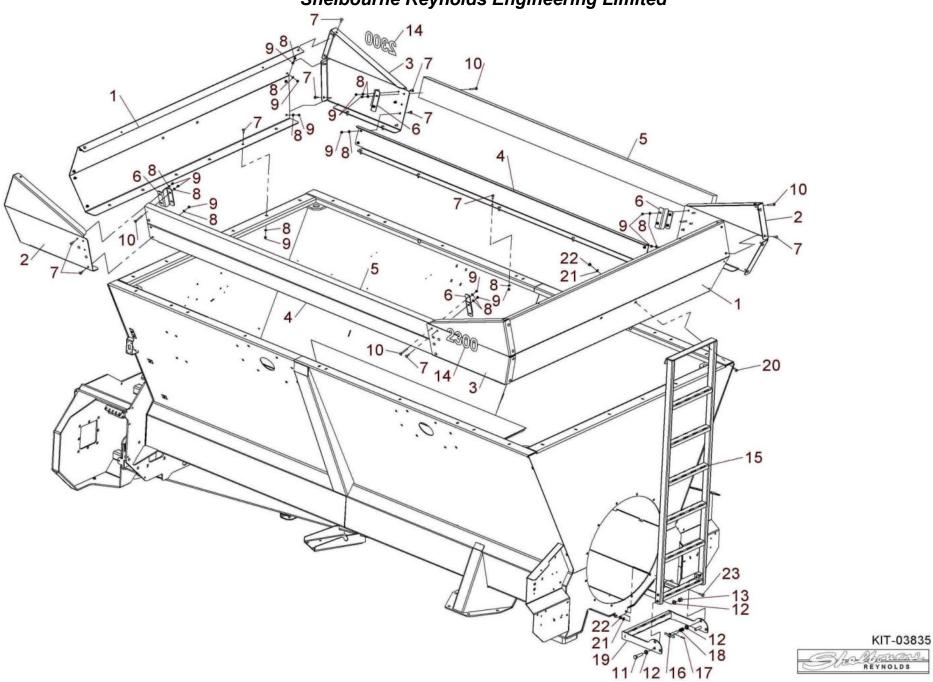
Shankara

ASSY N	NUMBER: KIT-03	825		ASSY DE	SCRIPTION: MANUAL	HYDRAULICS KIT (FOR ANTI	-BRIDGE)
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1 2 3 4 4	PART NO COU-0162 HMA-0065 WSH-1015 HHAE30005	QUICK RELEASE COUPLING M/M ADAPTOR DOWTY WASHER HYD HOSE ASSY	QTY 2 2 2 2 2 2 2	ITEM	PART NO	DESCRIPTION	QTY

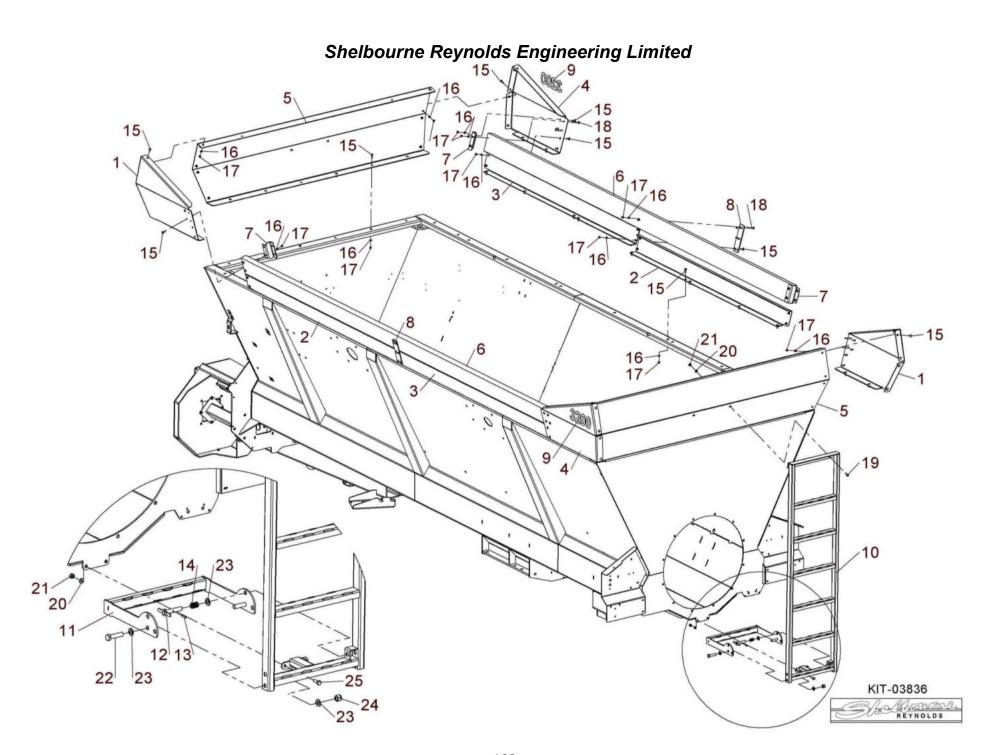




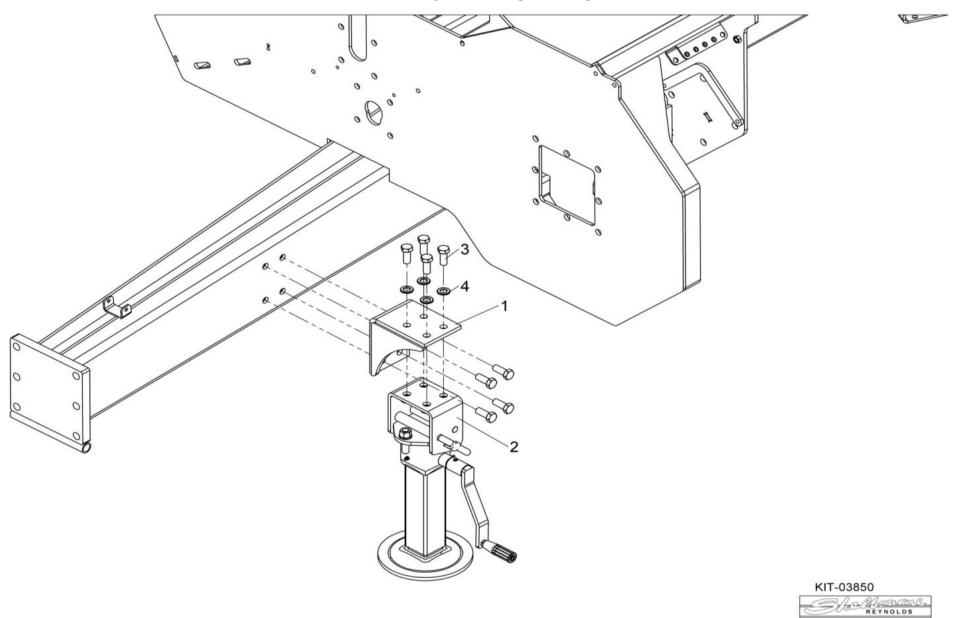
ASSY	NUMBER: KIT-03	835		ASSY DE	SCRIPTION: EXTENS:	ION TOP KIT	
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591954 01	FRONT/REAR EXTENSION	2				
2	591956 01	SIDE EXTENSION	2				
3	591956 02	SIDE EXTENSION	2				
4	591955 01	SIDE EXTENSION	2				
5	591485 02	WOODEN CANOPY	2				
6	591958 01	CLAMP PLATE	4				
7	BLTF08173	BOLT	68				
8	WSH-0012	WASHER	76				
9	NUT-0263	NUT	76				
10	BLTF08443	BOLT	8				
11	HSS-0322	SETSCREW	2				
12	WSH-0024	WASHER	5				
13	NUT-0271	NUT	2				
14	591583 01	TRANSFER 2300	2				
15	591959 01	LADDER W/A	1				
16	591495 01	LOCKING PIN W/A	1				
17	PIN-1620	ROLL PIN	1				
18	SPGC22015	COMPRESSION SPRING	1				
19	591496 01	LADDER EXTENSION W/A	1				
20	BLT-3745	BOLT	2				
21	WSH-0015	WASHER	4				
22	NUT-0265	NUT	4				
23	HSS-0194	BOLT	2				



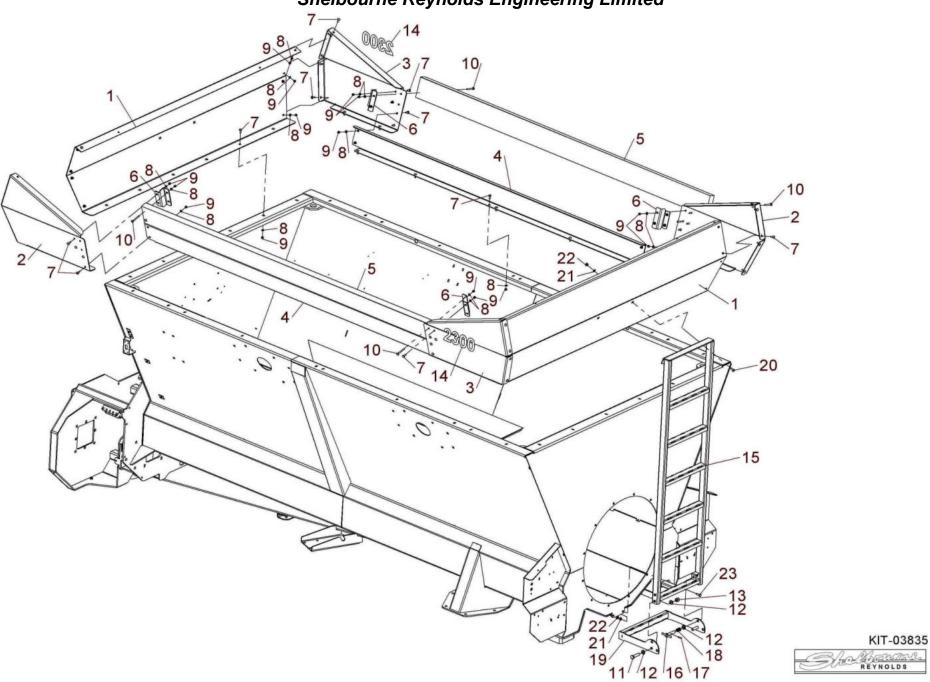
ASSY	NUMBER: KIT-03	836		ASSY DE	SCRIPTION: EXTENS	ION TOP KIT (LONG WHEEL BA	ASE)
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	591956 01	SIDE EXTENSION	2				
2	591962 01	SIDE PLATE	2				
3	591962 02	SIDE PLATE	2				
4	591956 02	SIDE EXTENSION	2				
5	591954 01	FRONT/REAR EXTENSION	2				
6	591485 01	WOODEN CANOPY	2				
7	591958 01	CLAMP PLATE	4				
8	591620 01	CLAMP PLATE	2				
9	591581 01	TRANSFER 3200	2				
10	591959 01	LADDER W/A	1				
11	591496 01	LADDER EXTENSION W/A	1				
12	591495 01	LOCKING PIN W/A	1				
13	PIN-1620	ROLL PIN	1				
14	SPGC22015	COMPRESSION SPRING	1				
15	BLTF08173	BOLT	82				
16	WSH-0012	WASHER	94				
17	NUT-0263	NUT	94				
18	BLTF08443	BOLT	12				
19	BLT-3745	BOLT	2				
20	WSH-0015	WASHER	4				
21	NUT-0265	NUT	4				
22	HSS-0322	SETSCREW	2				
23	WSH-0024	WASHER	5				
24	NUT-0271	NUT	2 2				
25	HSS-0194	BOLT	2				



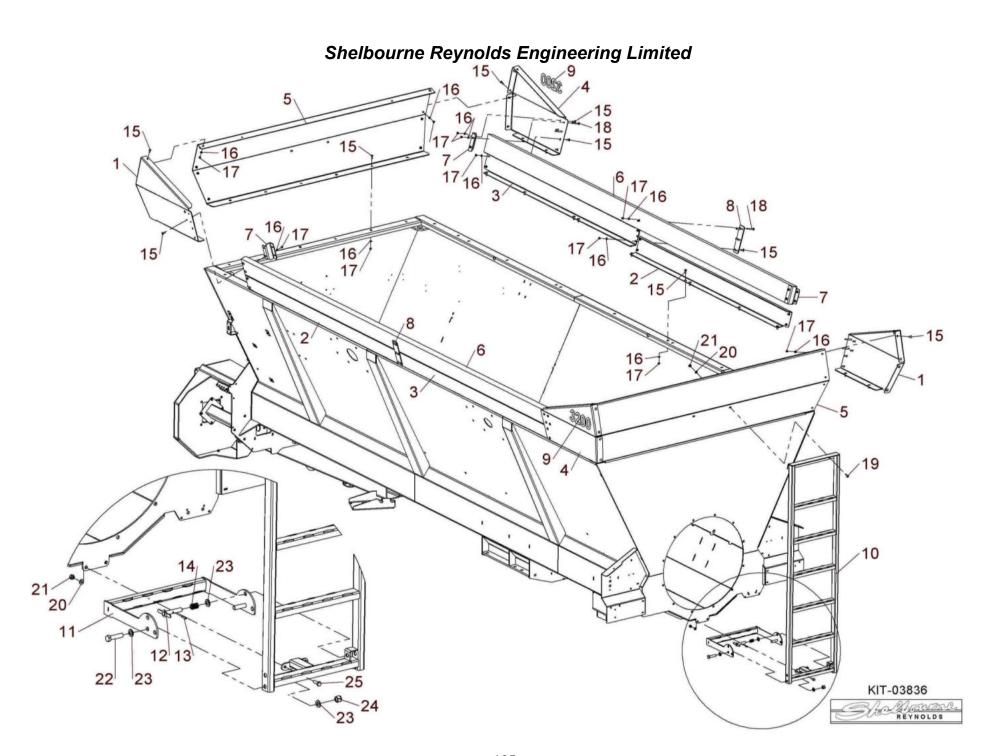
ASSY NUMBER: KIT-0	3850		ASSY DESCRIPTION: JACK KIT				
ITEM PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
		QTY  1 1 4 4				QT	



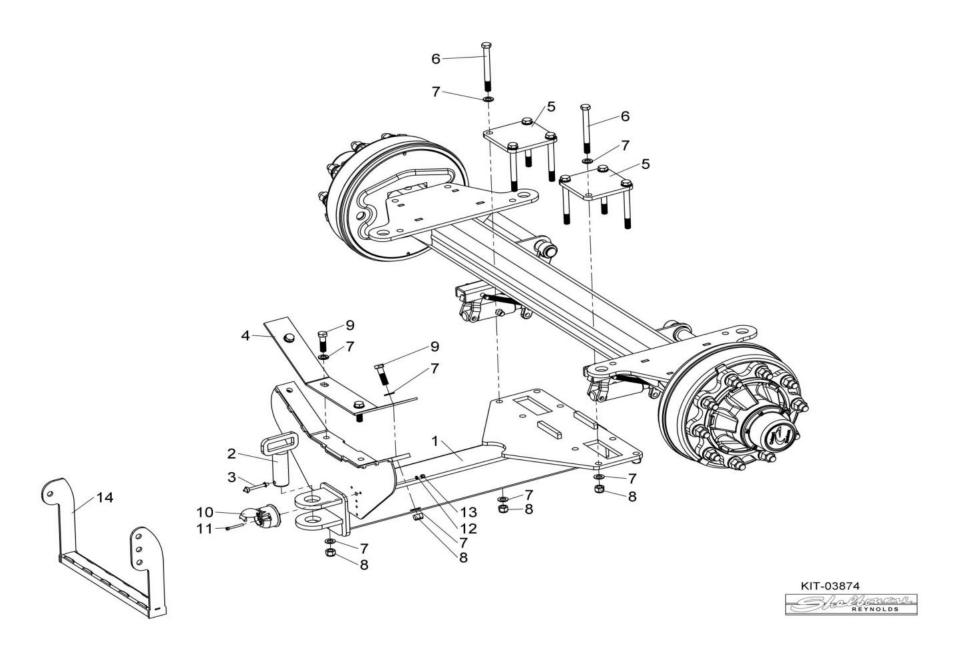
ASSY	NUMBER: KIT-03	855		ASSY DE	ESCRIPTION: EXTENS	ION TOP KIT (SHORT WHEEL E	BASE)
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	592011 01	FRONT/REAR EXTENSION	2				
2	592010 01	SIDE EXTENSION	2				
3	592010 02	SIDE EXTENSION	2				
4	591955 01	SIDE EXTENSION	2				
5	591485 02	WOODEN CANOPY	2				
6	591958 01	CLAMP PLATE	4				
7	BLTF08173	BOLT	68				
8	WSH-0012	WASHER	76				
9	NUT-0263	NUT	76				
10	BLTF08443	BOLT	8				
11	HSS-0322	SETSCREW	2				
12	WSH-0024	WASHER	5				
13	NUT-0271	NUT	2				
14	591583 01	TRANSFER 2300	2				
15	591959 01	LADDER W/A	1				
16	591495 01	LOCKING PIN W/A	1				
17	PIN-1620	ROLL PIN	1				
18	SPGC22015	COMPRESSION SPRING	1				
19	591496 01	LADDER EXTENSION W/A	1				
20	BLT-3745	BOLT	2				
21	WSH-0015	WASHER	4				
22	NUT-0265	NUT	4				
23	HSS-0194	BOLT	2				



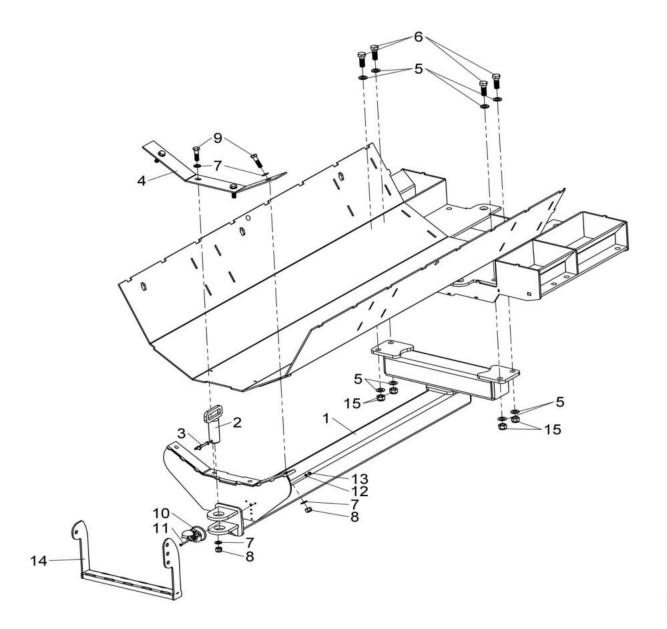
ASSY	NUMBER: KIT-03	856		ASSY DE	ESCRIPTION: EXTENS:	ION TOP KIT (LONG WHEEL BA	ASE)
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
1	592010 01	SIDE EXTENSION	2				
2	591962 01	SIDE PLATE	2				
3	591962 02	SIDE PLATE	2				
4	592010 02	SIDE EXTENSION	2				
5	592011 01	FRONT/REAR EXTENSION	2				
6	591485 01	WOODEN CANOPY	2				
7	591958 01	CLAMP PLATE	4				
8	591620 01	CLAMP PLATE	2				
9	591581 01	TRANSFER 3200	2				
10	591959 01	LADDER W/A	1				
11	591496 01	LADDER EXTENSION W/A	1				
12	591495 01	LOCKING PIN W/A	1				
13	PIN-1620	ROLL PIN	1				
14	SPGC22015	COMPRESSION SPRING	1				
15	BLTF08173	BOLT	82				
16	WSH-0012	WASHER	94				
17	NUT-0263	NUT	94				
18	BLTF08443	BOLT	12				
19	BLT-3745	BOLT	2				
20	WSH-0015	WASHER	4				
21	NUT-0265	NUT	4				
22	HSS-0322	SETSCREW	2				
23	WSH-0024	WASHER	5				
24	NUT-0271	NUT	2 2				
25	HSS-0194	BOLT	2				



ASSY	NUMBER: KIT-03	874		ASSY DESCRIPTION: POWERSPREAD PRO REAR DRAWBAR KIT (SWB) 45mm PIN					
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY		
1TEM 1 2 3 4 5 6 7 8 9 10 11 12 13 14	PART NO 592013 01 592016 01 PIN-1720 591814 01 591820 01 BLTA16750 WSH-0024 NUT-0271 BLT-2312 SOC-0140 SCW-0098 WSH-0009 NUT-0260 591819 01	DESCRIPTION  DRAWBAR W/A DRAWBAR PIN W/A SPRING PIN 'D' CLIP INSIDE TUB FIXING AXLE CLAMP PLATE BOLT WASHER NYLOC NUT BOLT 7 PIN SOCKET AAB 104 CAP HEAD SCREW PLAIN WASHER NYLOC LADDER EXTENSION KIT	QTY  1 1 1 1 2 8 24 12 4 1 3 3 3 1	ITEM			QTY		

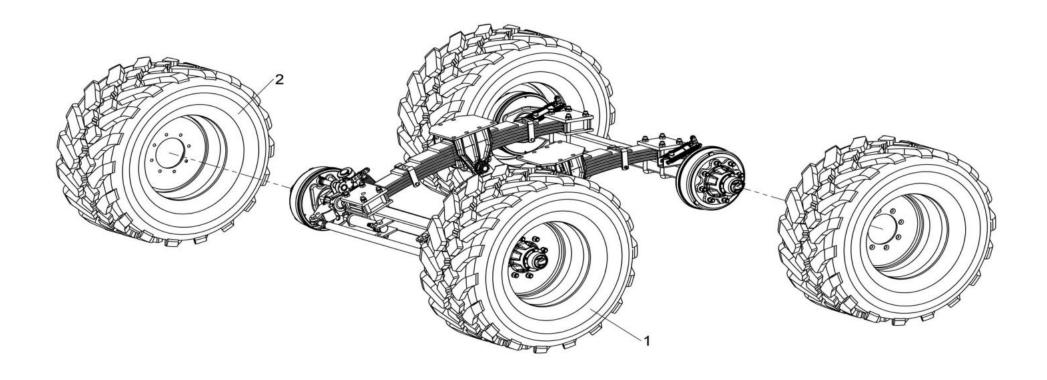


NUMBER: KIT-03	875		ASSY DE	SURIPHINI		KIT (LWB)	
PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
592018 01	DRAWBAR W/A	1					
592016 01	DRAWBAR PIN W/A	1					
PIN-1720	SPRING PIN 'D' CLIP	1					
591814 01	INSIDE TUB FIXING	1					
WSH-0030	WASHER	8					
BLT-2366	BOLT	4					
WSH-0024	WASHER	8					
NUT-0271	NYLOC NUT	4					
BLT-2312	BOLT	4					
SOC-0140	7 PIN SOCKET AAB 104	1					
SCW-0098	CAP HEAD SCREW	3					
WSH-0009	PLAIN WASHER	3					
NUT-0260	NYLOC	3					
591819 01	LADDER EXTENSION KIT	1					
NUTA02200	NYLOC NUT	4					
	PART NO 592018 01 592016 01 PIN-1720 591814 01 WSH-0030 BLT-2366 WSH-0024 NUT-0271 BLT-2312 SOC-0140 SCW-0098 WSH-0009 NUT-0260 591819 01	592018 01 DRAWBAR W/A 592016 01 DRAWBAR PIN W/A PIN-1720 SPRING PIN 'D' CLIP 591814 01 INSIDE TUB FIXING WSH-0030 WASHER BLT-2366 BOLT WSH-0024 WASHER NUT-0271 NYLOC NUT BLT-2312 BOLT SOC-0140 7 PIN SOCKET AAB 104 SCW-0098 CAP HEAD SCREW WSH-0009 PLAIN WASHER NUT-0260 NYLOC 591819 01 LADDER EXTENSION KIT	PART NO         DESCRIPTION         QTY           592018 01         DRAWBAR W/A         1           592016 01         DRAWBAR PIN W/A         1           PIN-1720         SPRING PIN 'D' CLIP         1           591814 01         INSIDE TUB FIXING         1           WSH-0030         WASHER         8           BLT-2366         BOLT         4           WSH-0024         WASHER         8           NUT-0271         NYLOC NUT         4           BLT-2312         BOLT         4           SOC-0140         7 PIN SOCKET AAB 104         1           SCW-0098         CAP HEAD SCREW         3           WSH-0009         PLAIN WASHER         3           NUT-0260         NYLOC         3           591819 01         LADDER EXTENSION KIT         1	PART NO         DESCRIPTION         QTY         ITEM           592018 01         DRAWBAR W/A         1           592016 01         DRAWBAR PIN W/A         1           PIN-1720         SPRING PIN 'D' CLIP         1           591814 01         INSIDE TUB FIXING         1           WSH-0030         WASHER         8           BLT-2366         BOLT         4           WSH-0024         WASHER         8           NUT-0271         NYLOC NUT         4           BLT-2312         BOLT         4           SOC-0140         7 PIN SOCKET AAB 104         1           SCW-0098         CAP HEAD SCREW         3           WSH-0009         PLAIN WASHER         3           NUT-0260         NYLOC         3           591819 01         LADDER EXTENSION KIT         1	PART NO   DESCRIPTION   QTY   ITEM   PART NO	PART NO DESCRIPTION QTY ITEM PART NO DESCRIPTION  592018 01 DRAWBAR W/A 1 592016 01 DRAWBAR PIN W/A 1 PIN-1720 SPRING PIN 'D' CLIP 1 591814 01 INSIDE TUB FIXING 1 WSH-0030 WASHER 8 BLT-2366 BOLT 4 WSH-0024 WASHER 8 NUT-0271 NYLOC NUT 4 BLT-2312 BOLT 4 SCC-0140 7 PIN SOCKET AAB 104 1 SCW-0098 CAP HEAD SCREW 3 WSH-0009 PLAIN WASHER 3 NUT-0260 NYLOC 3 591819 01 LADDER EXTENSION KIT 1	





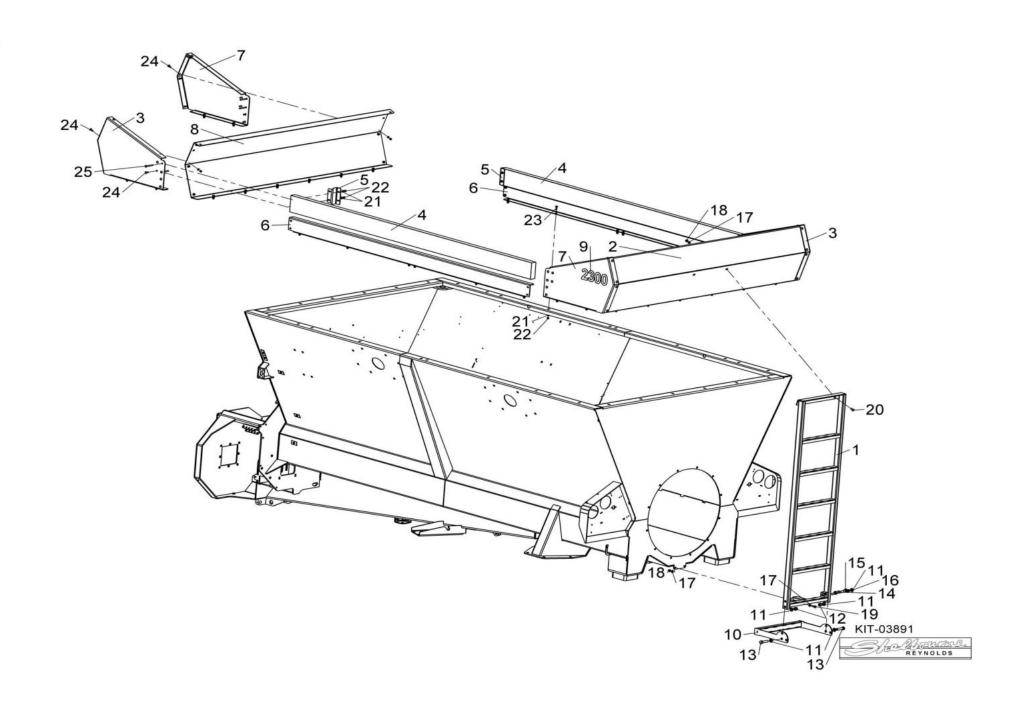
ASSY N	NUMBER: KIT-03	883		ASSY DESCRIPTION: TANDEM WHEEL & TYRE KIT (2400-3200)				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	WHL-02225	LH WHEEL & TYRE ASSY (560/60-22.5 ALLTANCE 885)	2					
2	WHL-02226	(560/60-22.5 ALLIANCE 885) RH WHEEL & TYRE ASSY (560/60-22.5 ALLIANCE 885)	2					



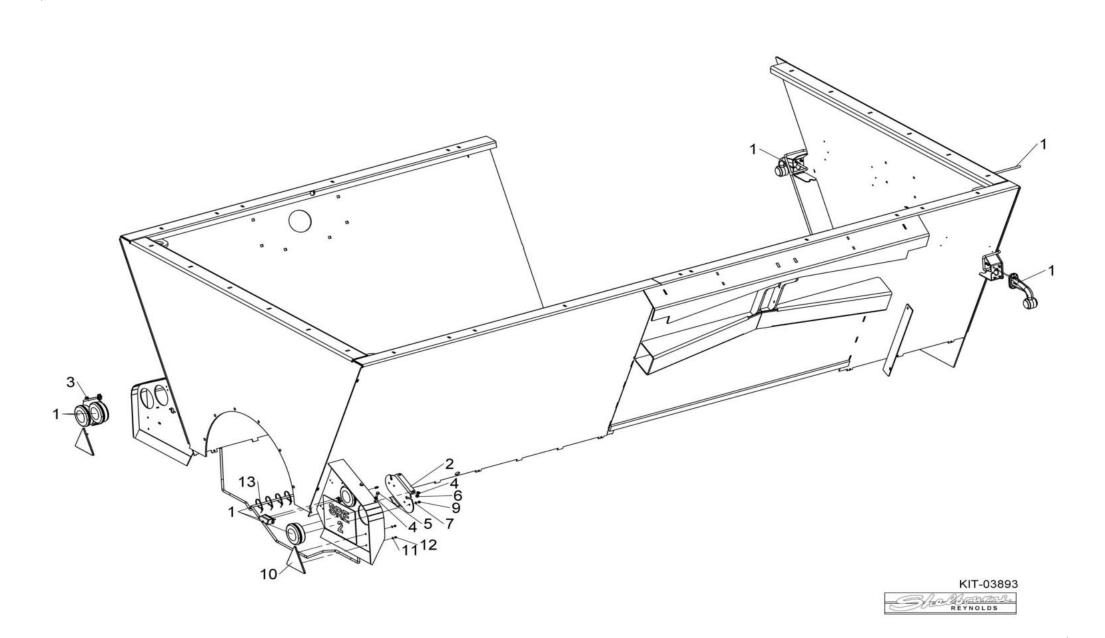
KIT-03883

REYNOLDS

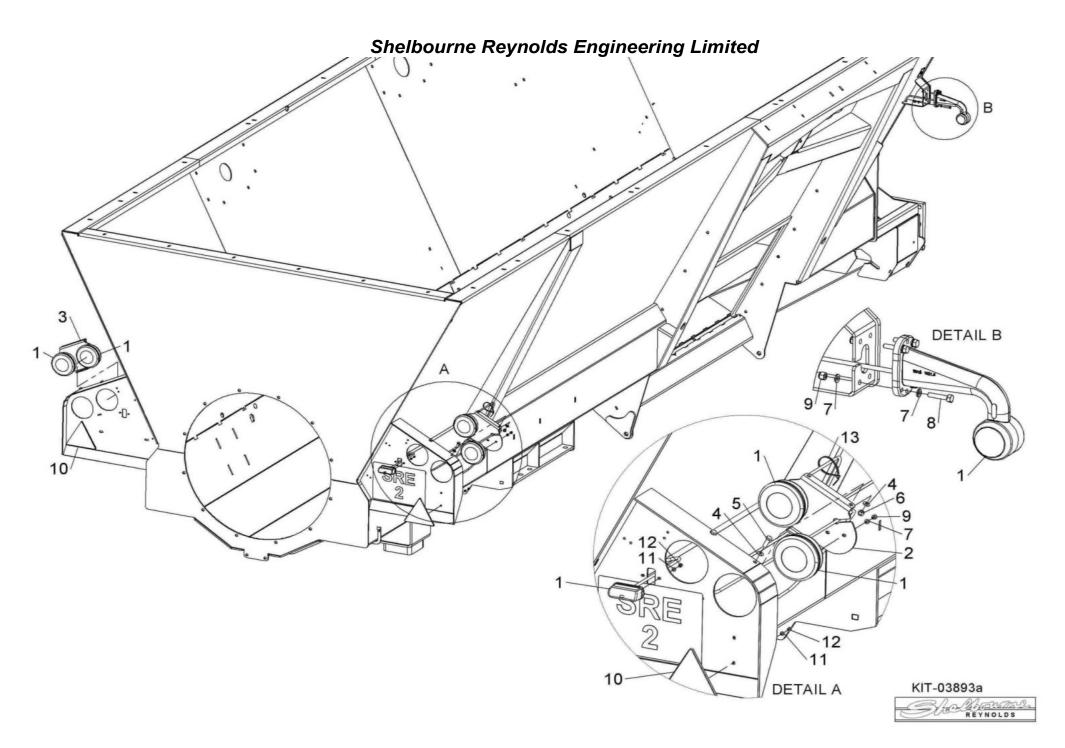
ASSY NUMBER: KIT-03891				ASSY DESCRIPTION: 2300 EXTENSION TOP KIT					
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY		
		<u> </u>	QTY  1 1 2 2 4 2 1 5 2 1 1 7 5 2 2 78 78 34 36 8				QTY		



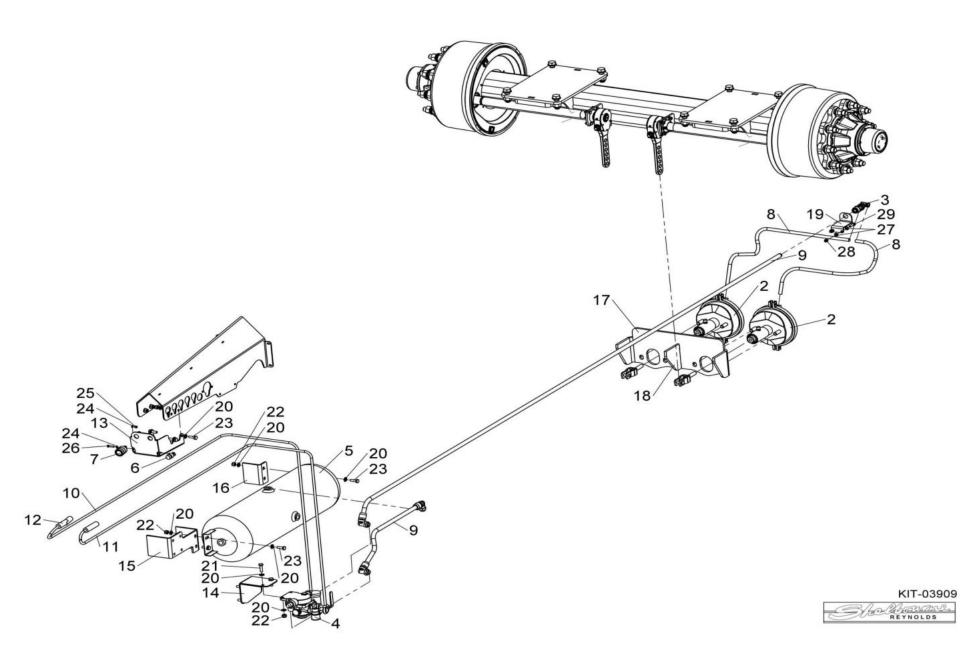
ASSY	NUMBER: KIT-038	393		ASSY DESCRIPTION: LIGHTING KIT (1800-2300 PRO)				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1 2 3 4 5 6 7 8 9 10 11 12 13	592113 01 592053 01 592053 02 WSH-0012 HSS-0145 NUT-0263 WSH-0009 HSS-0092 NUT-0260 REF-0035 WSH-0006 NUT-0258 TIE-0004	LIGHTING LOOM LIGHT BRKT LH LIGHT BRKT RH WASHER SETSCREW NUT WASHER SETSCREW NUT TRIANGULAR REFLECTOR WASHER NUT TIE WRAP (MED)	1 1 1 16 4 2 16 8 16 2 6 50					



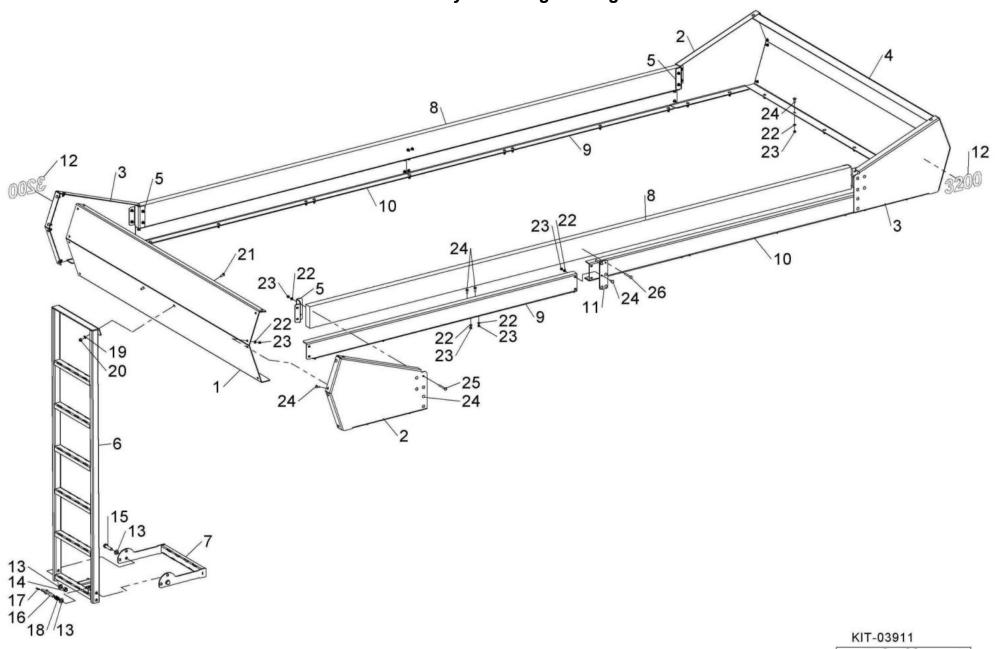
ASSY	ASSY NUMBER: KIT-03893A			ASSY DESCRIPTION: LIGHTING KIT (2400-3200 PRO)				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1 2 3 4 5 6 7 8 9 10 11 12 13	592163 01 592053 01 592053 02 WSH-0012 HSS-0145 NUT-0263 WSH-0009 HSS-0092 NUT-0260 REF-0035 WSH-0006 NUT-0258 TIE-0004	LIGHTING LOOM LIGHT BRKT LH LIGHT BRKT RH WASHER SETSCREW NUT WASHER SETSCREW NUT TRIANGULAR REFLECTOR WASHER NUT TIE WRAP (MED)	1 1 1 16 4 2 16 8 16 2 6 6 55	11EM	PART NO	DESCRIPTION	QII	



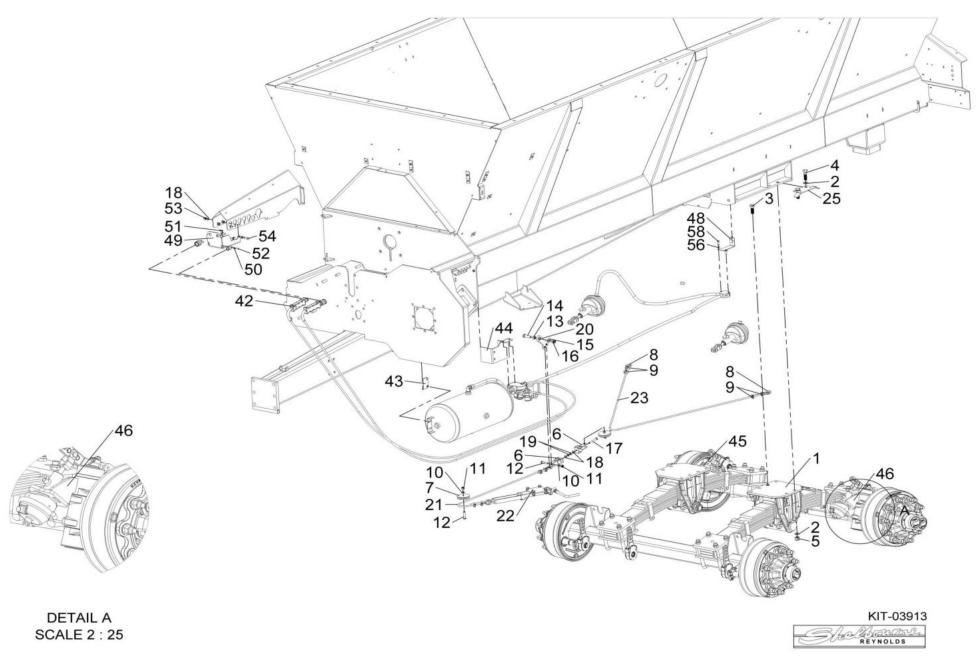
ASSY NUMBER: KIT-03909				ASSY DESCRIPTION: AIR BRAKE CONVERSION KIT (SINGLE AXLE)				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	BRA-07125	AIR BRAKE KIT	1					
2	BRA-07125a	T30-35 AIR/HYD ACTUATOR	2					
3	BRA-07125b	BULHEAD T-FITTING	1					
4	BRA-07125c	MANUAL LOAD SENSING VALVE	1					
5	BRA-07125e	38L AIR TANK	1					
6	BRA-07125f	COUPLING STORAGE FITTING	1					
7	BRA-07125g	COUPLING STORAGE FITTING	1					
8	BRA-07125i	850mm LG RUBBER HOSE	2					
9	BRA-07125j	18mm BLACK NYLON TUBE	?m					
10	BRA-07125k	10mm YELLOW NYLON TUBE	?m					
11	BRA-071251	10mm RED NYLON TUBE	?m					
12	BRA-07125m	COMMERCIAL SUSIE SET	1					
13	592139 01	AIR BRAKE PARKING STATION	1					
14	592140 01	VALVE MTG BRKT	1					
15	592141 01	AIR TANK MTG BRKT	1					
16	592142 01	AIR TANK MTG BRKT	1					
17	592144 01	ACTUATOR MTG BRKT	1					
18	592143 01	GUSSET	1					
19	592145 01	BULKHEAD MTG BRKT	1					
20	WSH-0015	WASHER	28					
21	HSS-0198	SETSCREW	2					
22	NUT-0265	NUT	14					
23	HSS-0194	SETSCREW	12					
24	WSH-0009	WASHER	4					
25	NUT-0260	NUT	2					
26	HSS-0088	SETSCREW	2					
27	WSH-0012	WASHER	4					
28	NUT-0263	NUT	2					
29	HSS-0150	SETSCREW	2					

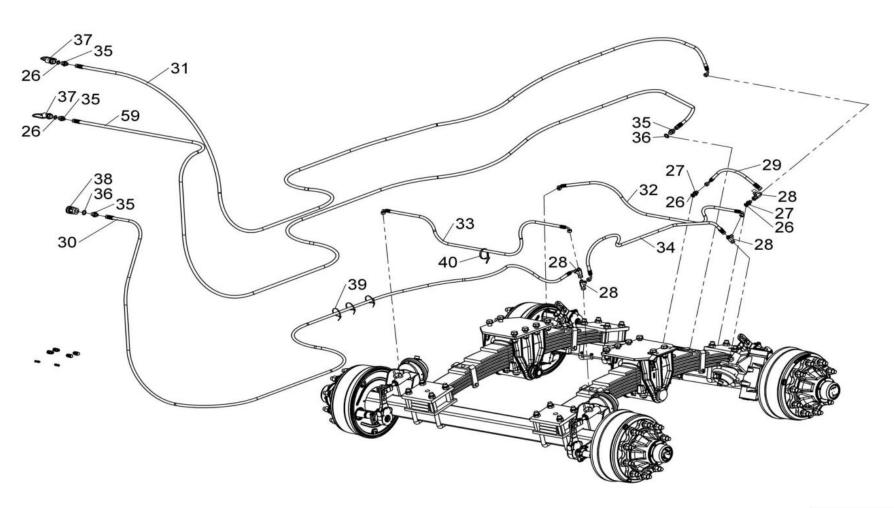


ASSY NUMBER: KIT-03911				ASSY DESCRIPTION: 3200 EXTENSION SIDE KIT (2016)				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	592100 01	END EXTENSION PLATE	1					
2	592101 01	END PLATE LH	2					
3	592101 02	END PLATE RH	2					
4	592103 01	FRONT EXTENSION PLATE	1					
5	591958 01	CLAMP PLATE	4					
6	591959 01	LADDER W/A	1					
7	591496 01	LADDER EXTENSION W/A	1					
8	591485 01	WOODEN CANOPY	2					
9	592161 01	SIDE EXTENSION PLATE LH	2					
10	592161 02	SIDE EXTENSION PLATE RH	2					
11	592162 01	CLAMP PLATE	2					
12	591581 01	3200 TRANSFER	2					
13	WSH-0024	WASHER	5					
14	NUT-0271	NUT	2					
15	HSS-0322	SETSCREW	2					
16	591495 01	LOCKING PIN W/A	1					
17	PIN-1620	ROLL PIN	1					
18	SPGC22015	COMPRESSION SPRING	1					
19	WSH-0015	WASHER	2					
20	NUT-0265	NUT	2					
21	BLT-3745	COACHBOLT	2					
22	WSH-0012	WASHER	94					
23	NUT-0263	NUT	94					
24	BLTF08173	COACHBOLT	82					
25	BLTF08470	COACHBOLT	8					
26	BLTF08443	COACHBOLT	4					



ASSY NUMBER: KIT-03913				ASSY DESCRIPTION: TANDEM HYD / AIR AXLE KIT (2400-3200)				
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY	
1	AXL-00245	TANDEM STEERING AXLE (1480mm)	1	41	SLV-00300	SPIRAL TUBING	2m	
2	WSH-0030	WASHER	24	42	BRA-07130	AIR/HYD BRAKE KIT	1	
3	BLT-2366	BOLT	10	43	592168 01	AIR TANK MTG BRKT	1	
4	BLT-2367	BOLT	2	44	592167 01	VALVE MTG BRKT	1	
5	NUTA02200	NUT	12	45	592178 01	LH AIR CHAMBER MTG BRKT W/A	1	
6	591397 01	BRAKE CLEVIS W/A	2	46	592178 02	RH AIR CHAMBER MTG BRKT W/A	1	
7	591399 01	CABLE PULLEY	2	47	592181 01	FRONT AIR CHAMBER MTG BRKT	2	
8	WRP-01050	WIRE ROPE THIMBLE	4	48	592182 01	MANIFOLD MTG BRKT	1	
9	WRP-02080	WIRE CABLE CLAMP	8	49	592139 01	AIR BRAKE PARKING STATION	1	
10	WSH-0018	WASHER	11	50	WSH-0009	WASHER	4	
11	NUT-0269	NUT	7	51	NUT-0260	NUT	2	
12	HSS-0260	SETSCREW	3	52	HSS-0088	SETSCREW	2	
13	591393 01	PIVOT TUBE	1	53	NUT-0265	NUT	10	
14	HSS-0319	SETSCREW	1	54	HSS-0194	SETSCREW	8	
15	WSH-0024	WASHER	1	55	HSS-0198	SETSCREW	2	
16	NUT-0271	NUT	1	56	WSH-0012	WASHER	4	
17	HSSA10500	SETSCREW	1	57	NUT-0263	NUT	2	
18	WSH-0015	WASHER	23	58	HSS-0150	SETSCREW	2	
19	NUT-0167	NUT	3	59	591890 03	HYD HOSE ASSY (REAR Q/COU 11m)	1	
20	591879 01	LINK LEVER	1					
21	591400 05	HANDBRAKE CABLE	1					
22	591880 01	HANDBRAKE W/A	1					
23	591400 01	HANDBRAKE CABLE	1					
24	HSS-0241	SETSCREW	4					
25	591889 01	HOSE FIXING PLATE	1					
26	WSH-1010	DOWTY WASHER	6					
27	HMA-0057	HYD ADAPTOR	6					
28	FITA10410	HYDRAULIC TEE FITTING	4					
29	HHBE04705	HYD HOSE ASSY REVERSE PISTON)	1					
30	HHBE92005	HYD HOSE ASSY (BRAKE/TRA 9.2m)	1					
31	591890 02	HYD HOSE ASSY (REV/TRA 10.9m)	1					
32	HHEE17005	HYD HOSE ASSY (REAR RAMS 1.7m)	1					
33	HHEE15005	HYD HOSE ASSY (FRT RAMS 1.5m)	1					
34	HHBE14005	HYD HOSE ASSY (FRT/REAR 1.4m)	1					
35	HMA-0065	HYD ADAPTOR	4					
36	WSH-1015	DOWTY WASHER	4					
37	COU-0162	QUICK RELEASE COUPLING	2					
38	HQR-10007	QUICK RELEASE COUPLING	1					
39	TIE-0004	TIE WRAPS	30					
40	TIE-0012	TIE WRAPS	4					







ASSY NUMBER: KIT-03914				ASSY DESCRIPTION: TANDEM WHEEL KIT (560/60R22.5 10 STUD)			
ITEM	PART NO	DESCRIPTION	QTY	ITEM	PART NO	DESCRIPTION	QTY
			QTY 2 2				

