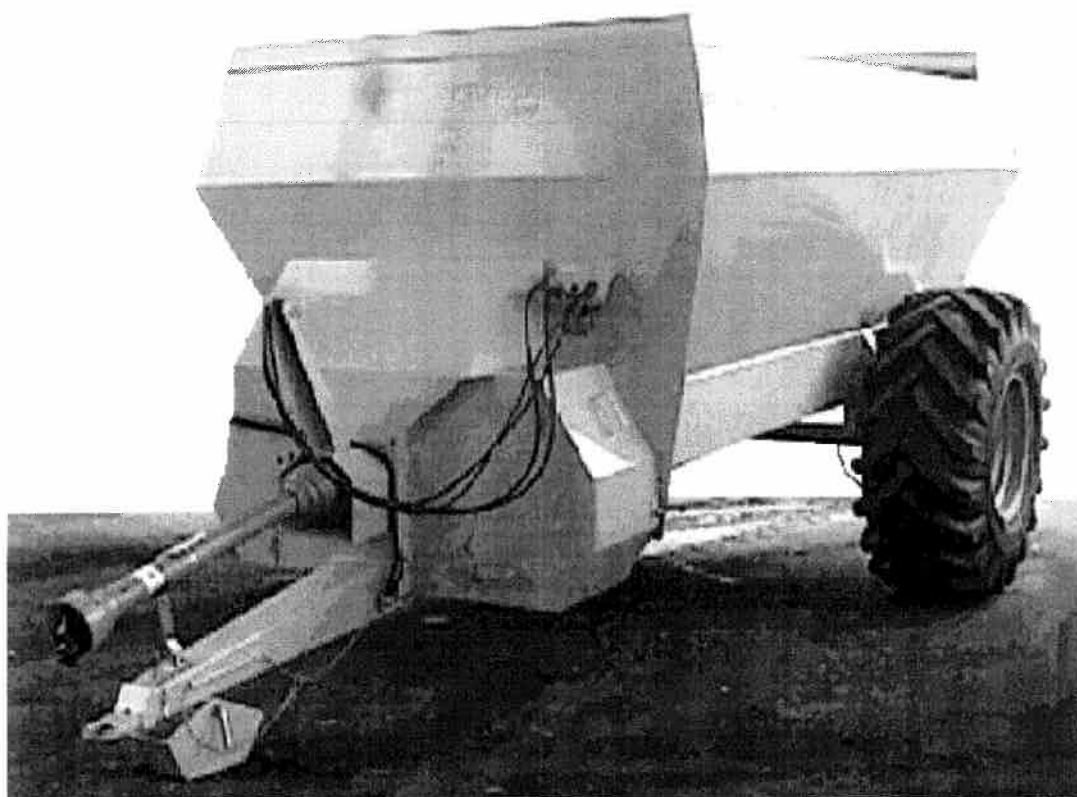


# **powerspread** *Dairy*

## **OPERATORS MANUAL & PARTS LISTING**

**"Original instructions"**



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

Telephone: (01359) 250415  
Fax: (01359) 250464

(Stores direct (01359) 251231)  
(Stores direct (01359) 252031)

ISSUE 16  
18.08.2010

visit our website [www.shelbourne.com](http://www.shelbourne.com)

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

PLEASE INITIAL APPROPRIATE COLUMN FOR EACH ITEM UNDERTAKEN

### Machines assembly

|   | Checks OK | Adjusted |
|---|-----------|----------|
| Check in general that nuts & bolts are tight. |           |          |
| Check paintwork & finish.                     |           |          |

### Drive line

|  |  |  |
|--|--|--|
| Check chains are tensioned correctly.  |  |  |
| Check the PTO shaft length is compatible with the tractor.                   |  |  |
| Rotate the auger & check there are no unusual scratching or knocking sounds. |  |  |

### Lubrication

|   |  |  |
|---|--|--|
| Ensure the chain-oiler system (Contractor only) is working correctly, & the chains are pre-greased. |  |  |
| Lubricate all grease points.  |  |  |

### Adjustments

|   |  |  |
|---|--|--|
| 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. |  |  |
|---|--|--|

### Hydraulics

|   |  |  |
|---|--|--|
| Check hydraulic system for leaks.                             |  |  |
| Check operation of all hydraulic services.                    |  |  |
| Ensure the hoses are not taugt when connected to the tractor. |  |  |

### Wheel & tyres

|  |  |  |
|--|--|--|
| Check tyre pressures.                        |  |  |
| Check wheel nuts for correct torque setting. |  |  |

### Braking system

|   |  |  |
|---|--|--|
| Check brake ram operation & adjustment. |  |  |
| Check operation of handbrake.           |  |  |
| Check braking system for oil leaks.     |  |  |

### Safety

|  |  |  |
|--|--|--|
| Ensure that all safety guards & decals are fitted. |  |  |
|--|--|--|

### Manual

|  |  |  |
|--|--|--|
| Ensure that an operator's manual is supplied with the machine. |  |  |
|--|--|--|

### Customer Instruction

|   |  |  |
|---|--|--|
| 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.                   |  |  |

For specific details please refer to the operators manual.



**Shelbourne**  
REYNOLDS

## 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 initial each item in the space provided, indicating whether or not adjustments were required. In 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 COPIED & RETURNED TO:- Shelbourne Reynolds Engineering within 21 days of the sale, otherwise the invoice date to the dealer will be

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

Address: \_\_\_\_\_

Post / Zip code: \_\_\_\_\_

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

Customer Name: \_\_\_\_\_

Address: \_\_\_\_\_

Post / Zip code: \_\_\_\_\_

Tel No, Home / Office: \_\_\_\_\_ Mobile: \_\_\_\_\_

SERIAL NUMBER: \_\_\_\_\_ MACHINE NUMBER: \_\_\_\_\_

MODEL: \_\_\_\_\_

Dealer signature: \_\_\_\_\_

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

Customer's Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

The purchasers 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 operators 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 :

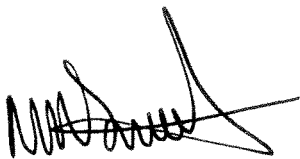
Make :

**Powerspread Dairy**

Model :

Serial No.:

- is in conformity with the relevant provisions of the Machinery Directive (2006/42/EC)



Neil Smith  
Director

Place : **Stanton, England.**

Date :



# OPERATORS/PARTS MANUAL

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|                  |  |
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## SECTION 1:

## INTRODUCTION

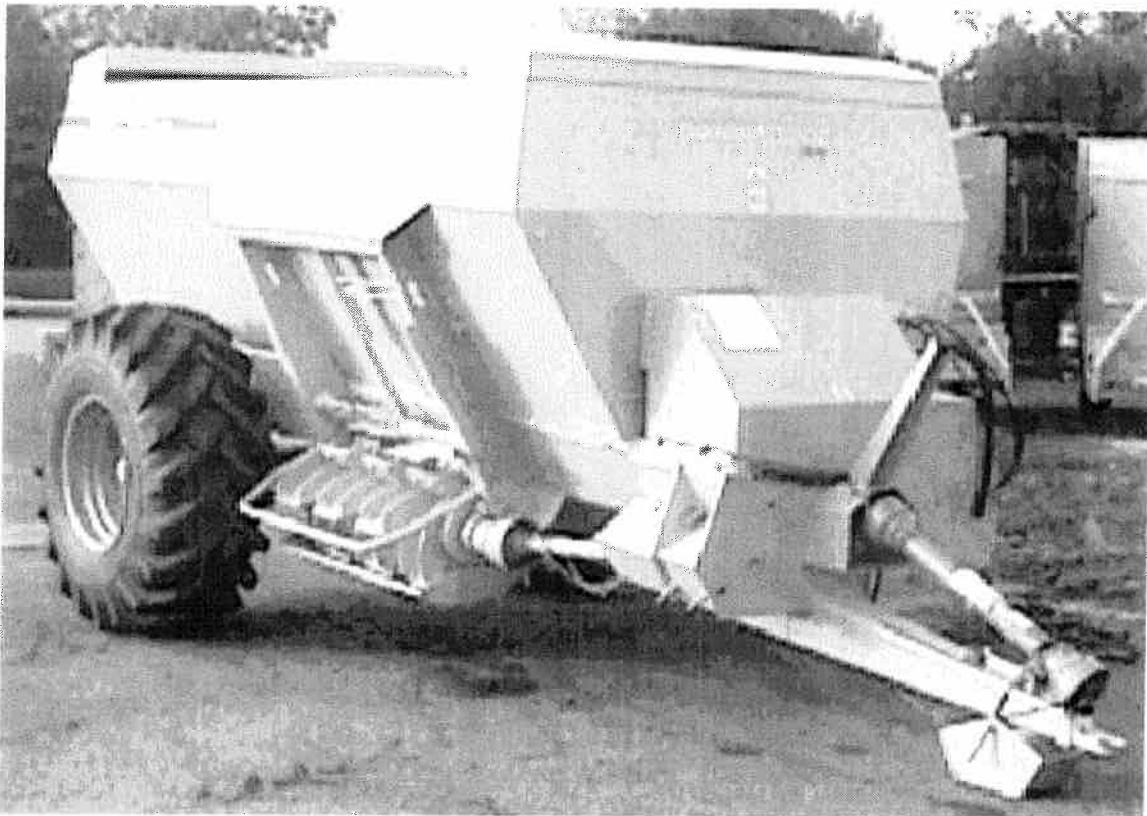
### 1.1 FOREWORD

This manual will assist the operator to set, operate and service the Shelbourne Reynolds Powerspread Dairy 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 Powerspread Dairy manure spreader has a capacity dependent on material of 7250 litres/1600 gallons.

The machine has been designed to spread all types of material from thin 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 Dairy spreaders are printed on a plate located on the left hand side of the main drawbar beam.

| <i>Shelbourne</i><br>REYNOLDS   |  |                |                                 |
|---|--|----------------|---------------------------------|
| MACHINE No.   | <input type="text"/>   | SERIAL No.     | <input type="text"/>            |
| MAX GROSS WEIGHT  | <input type="text" value="Kg"/>  | UNLADEN WEIGHT | <input type="text" value="Kg"/> |
| DRAWBAR MAX LOAD  | <input type="text" value="Kg"/>  | YEAR           | <input type="text"/>            |
|  | SHELBOURNE REYNOLDS ENGINEERING LTD<br>STANTON, SUFFOLK, IP31 2AR, ENGLAND |                |                                 |



## **1.5 SHELBOURNE REYNOLDS ENGINEERING LTD - WARRANTY TERMS AND CONDITIONS TO THE PURCHASER**

### **GENERAL**

1. This warranty will become available to you when you have paid for the equipment and returned, duly completed, the delivery and warranty registration forms. It will expire on the anniversary of purchase from the dealer. After that date Shelbourne Reynolds will have no further liability under this warranty to you except in respect of claims already notified. This warranty is not transferable and is available only to the original purchaser from our dealer. In the case of purchasers having leasing or similar arrangements the first user shall be deemed the original purchaser and you shall be deemed to have paid for the equipment.

### **USE AND MAINTENANCE**

2. To maintain the benefit of the warranty throughout the twelve-month period you must have the machine serviced in accordance with our recommendations and use the machine properly. If on inspection the machine appears to have been either misused, overloaded, improperly operated, neglected, not properly maintained, altered or repaired without our consent this will invalidate the warranty. We shall have no further liability under it to you at all. (If you require any guidance as to use you should contact the dealer.)
3. Our liability under this warranty is dependent upon your making the equipment and facilities available, for inspection and testing.
4. In this warranty the expression, "defective product" means any part of the equipment you have purchased which shows evidence of a defect in the materials, design (due regard being given for the state of the art at the time we designed it) or Shelbourne Reynolds' workmanship.

Wearing parts, such as chain tension blocks, are excluded. Parts not manufactured by Shelbourne Reynolds, for example wheels and tyres, are also excluded.

### **OUR OBLIGATIONS**

5. If you discover a defective product you should contact the dealer from whom your machine was purchased. The dealer will notify us of your claim. Our obligation will then be to either replace, or if we consider it appropriate, repair the defective product. Alternatively, we may arrange for our dealer to carry out this work. **YOU MUST NOTIFY THE DEALER OF THE DEFECT WITHIN SEVEN DAYS OF THE DAY ON WHICH IT IS DISCOVERED AND YOU MUST NOT USE THE EQUIPMENT AFTER DISCOVERY. FAILURE TO OBSERVE EITHER OF THESE OBLIGATIONS WILL INVALIDATE THE WARRANTY AS IS APPLIES TO THAT DEFECT.** Any defective products replaced must be returned to SRE for inspection.

## **NO ADMISSION**

6. On occasions we may, to preserve goodwill, replace parts even though they are not in our opinion defective. Accordingly, our agreeing to repair or replace a part cannot in any circumstance be deemed an admission that it was defective.

## **LIMITATIONS**

7. This warranty shall not apply to products made up in accordance with customer originated designs.
8. No warranty, condition or other term implied by statute or common law as to the merchantability or fitness for a particular purpose, is intended or given by this warranty. All such warranties which may apply between Shelbourne Reynolds and yourself are excluded to the fullest extent permitted by law.
9. In any case, except in respect of death or personal injury caused by our negligence, we shall not be liable to you by reason of any representation or implied warranty, condition or other term, or any duty at, law or under the express terms of any contract, for the consequential loss or damage (whether for loss or profit or otherwise and including delay in field work, expense incurred for labour, additional or substitute material, rental whatsoever and whether caused by our negligence, the negligence of our employees or agents or otherwise) which arises out of or in connection with the use of the goods by you.
10. Time of repair is not of the essence.
11. No person or persons are authorised to alter, modify or enlarge this warranty on behalf of Shelbourne Reynolds.  
Shelbourne Reynolds shall not be liable for any failure to comply with any part of the warranty where such failure is due to circumstances beyond their reasonable control, including difficulty in obtaining materials or replacement parts.

## **CALL OUT CHARGES**

13. Shelbourne Reynolds and all dealers reserve the right to make a reasonable charge for call outs made at your request which do not turn out to relate to defective products.

## **IMPORTANT NOTES**

14. The chassis and wheel equipment are designed to carry the maximum load of the model of Powerspread supplied; as stated on the specification plate. The fitting of "greedy boards" around the top of the hopper which enable weight loadings in excess of those specified will invalidate the warranty and Shelbourne Reynolds liability.

**YOUR STATUTORY RIGHTS ARE UNAFFECTED.**

## SECTION 2:

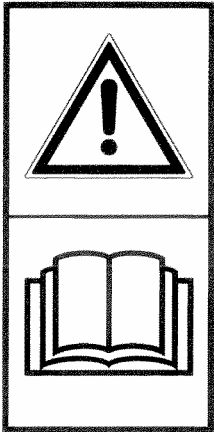
## SAFETY PROCEDURES

### 2.1 ACCIDENT PREVENTION

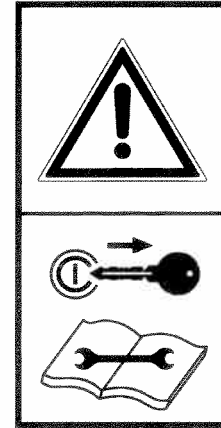
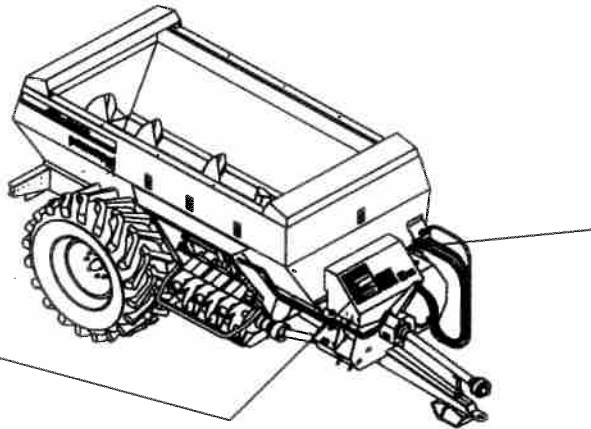
The following safety instructions are applicable for all chapters of this manual.

#### DANGER SYMBOLS

On the machine - the following symbols appear on the machine and are for your safety and the safety of other people. Ensure that you identify each symbol and understand it's warning



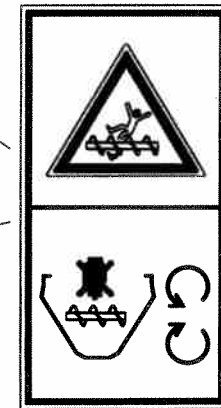
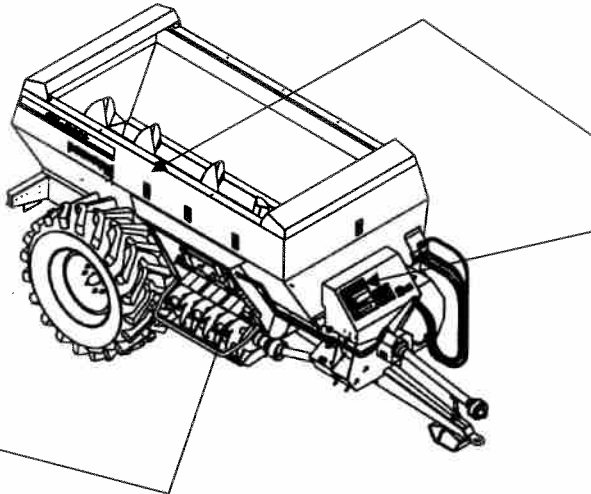
Carefully read the operating manual before handling the machine.



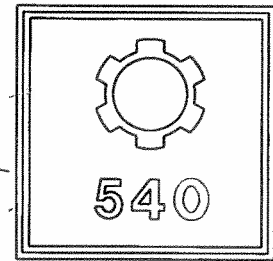
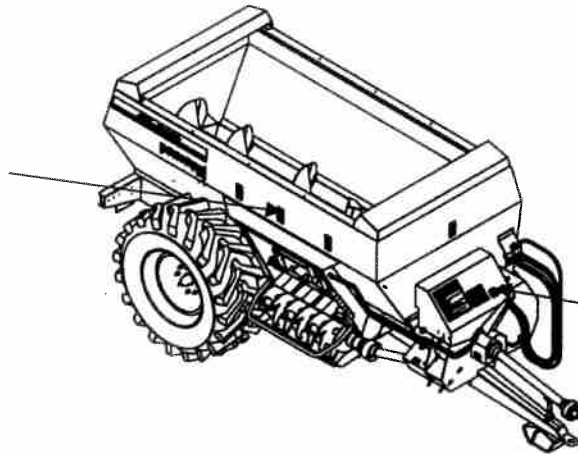
Stop the engine and remove the key from the tractor before carrying-out any work on the machine.



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



Beware of rotating auger. Do not reach standing Or lean into tub. Do not attempt to clear a blockage when the tractor engine is Serious running. Serious injury may result from rotating parts



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

The rotational speed of the PTO drive shaft must not be greater Than 540 revolutions per minute.

## PRECAUTIONS

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

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

The tractor manufacturers operator manual safety precautions should be adhered to along with the following additional safety precautions listed when using a **Shelbourne Reynolds Powerspread**.

## CAUTION



In addition to the following list, this symbol will appear throughout this manual whenever your safety, the safety of others or the machinery, is involved.

Please read all safety instructions contained in this operating manual with the utmost care and also observe all warning signs attached to the Powerspread. These warning 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. Warning signs are available from your dealer or importer.

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.

## **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 its 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.

## **OPERATIONAL SAFETY**

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.

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

Nuts and bolts should be checked at regular intervals and tightened if necessary.

Tyre pressures must also be checked regularly.

In the event of a malfunction, immediately cease operation and secure the Powerspread in its stationary position. Malfunctions must be eliminated immediately.

## **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 feed rate may still occur.

It is the duty of the operator/user to ensure that foreign objects, e.g. stones, metal objects etc. are not allowed to enter the machine and are not allowed to be discharged by the impeller. The Powerspread impeller propels the muck at high speed to obtain its spread pattern. Failure to observe this may result in damage to the Powerspread and/or injury to the operator/user and/or damage to property.

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.

## **ROAD SAFETY**

UK road traffic regulations must be observed when towing the Powerspread on roads, paths and other public places. (Relevant areas are stated overleaf).

The Powerspread must be in a road-worthy condition.

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 all hydraulic connections and the PTO driveshaft from the Powerspread so that it cannot be inadvertently operated.

Ensure that all braking systems and lighting systems are in full working order and that they can be fully and correctly operated by the vehicle towing the Powerspread.

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. The behaviour of the tractor is also influenced by attached implements. Take the width and the towing hitch weight into consideration, especially on sharp bends.

No person may be allowed to ride on the Powerspread.

## **ACCIDENT PREVENTION**

Careful heed must be paid not only to the safety instructions contained in this operating manual but also to the accident prevention regulations governing the operation of agricultural machinery.

### **When coupling the Powerspread to the tractor**

The work of coupling and uncoupling the Powerspread involves a high risk of injury. The following instructions must therefore be carefully observed:

- Secure the Powerspread in such a way that it is on level ground and cannot roll forwards or backwards.
- Slowly reverse the tractor towards the Powerspread - always ensure that there are no other persons in the vicinity of the Powerspread or the tractor.
- Connect the Powerspread to the tractor hitch using only the method recommended in the tractor's operators manual.

### **When using the PTO shaft**

Use only the universal joint 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). Make sure that the tractor engine and the PTO shaft are switched off before proceeding to fit the universal joint 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.

Be absolutely sure that there is nobody standing in dangerous proximity to the Powerspread when you switch on the PTO shaft.

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.

### **When using the hydraulic system**

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 equipment

The hydraulic system generates extremely high pressures. All piping, hoses and connections must therefore be checked regularly for leakage and visible external damage. Use proper and thorough means of searching for leakage and repair all damage immediately. Spurting hydraulic oil can cause injuries and fires. Call a doctor immediately in the event of injury.

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.

## **2.2 BEFORE STARTING THE MACHINE**

1. Read the manuals thoroughly.
2. Check that all guards are properly secured.
3. Ensure that no person is working on or inside the machine.
4. Check that all observers are clear of the machine.

## **2.3 THE MACHINE IN THE FIELD**

5. Do not permit anyone to ride on the Powerspread or climb on the machine when the spreader is in operation.
6. Always stop the engine and apply the handbrake on the tractor before removing or opening any guards or clearing a blockage in the spreader.
7. NEVER allow anyone to walk alongside the right hand side of the machine whilst operating as injury from flying objects may occur.
8. 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...
9. Always replace all guards after making any adjustments or lubricating the machine. Replace or repair any damaged or missing guards immediately.
10. Do not work around the machine in loose clothing that might get caught in moving parts.
11. Keep hands away from moving parts.
12. Keep children away from and off the machine at all times.

## **2.4 LEAVING THE MACHINE**

13. Park the machine on reasonably level ground.
14. Apply the tractor's parking brake.
15. Stop the tractor's engine before leaving the cab.
16. When unhooking the spreader apply the machine's parking brake before moving the tractor away.
17. Position the PTO shaft on the stand provided and locate the hydraulic hoses in the hose parking station on the front of the machine.

## **2.5 SERVICING THE POWERSPREAD**

17. Stop tractor engine and apply handbrake before performing any adjustments or lubrication and before opening or removing any guard.
18. Always re-install all safety guards on completion of servicing.

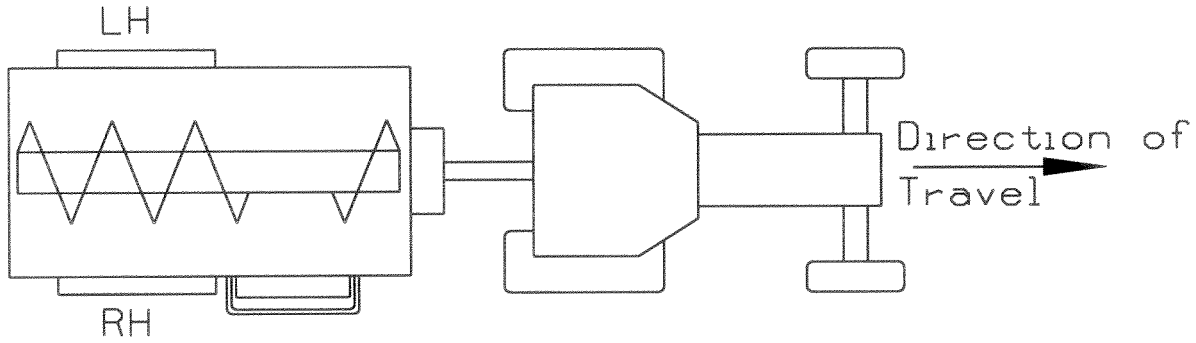
## **2.6 SPREADER ATTACHMENT AND TRANSPORTATION**

19. Follow the procedure described further through this manual for spreader attachment and detachment.
20. Follow the section on loading the Powerspread and ENSURE THAT THE MACHINE IS NOT OVERLOADED. The specification plate on the left hand side of the machine will state the safe maximum working weights and loads.
21. When towing the loaded Shelbourne Reynolds Powerspread on the highway, ensure that material cannot over-flow or spill out of the hopper.
22. When towing the machine, ensure that the P.T.O. shaft and hydraulic hoses are attached correctly, and do not interfere with the ground or foul any moving parts



**SECTION 3: SPECIFICATION AND DESCRIPTION**

RIGHT AND LEFT HAND OF THE MACHINE AS TERMED IN THE MANUAL IS AS VIEWED WHEN IN THE DRIVERS SEAT.



**THE SHELBOURNE REYNOLDS POWERSPREAD Dairy**

**FEATURES**

Patented centre discharge auger causes minimum movement of manure.

Contra feeding auger provides Boiling action.

Six paddles every revolution of auger.

Vertical centre lift door. door setting utilising the total impeller

Overshot impeller. to 18 metres.

Slurry deflectors.

Shear bolts fitted.

Varying pitch auger flights. to be spread.

**BENEFITS**

High rates of discharge.

Material well broken in hopper

Provides an even feed to the impeller.

Allows an even discharge of manure at any width.

Provides a fine even spread at widths of up

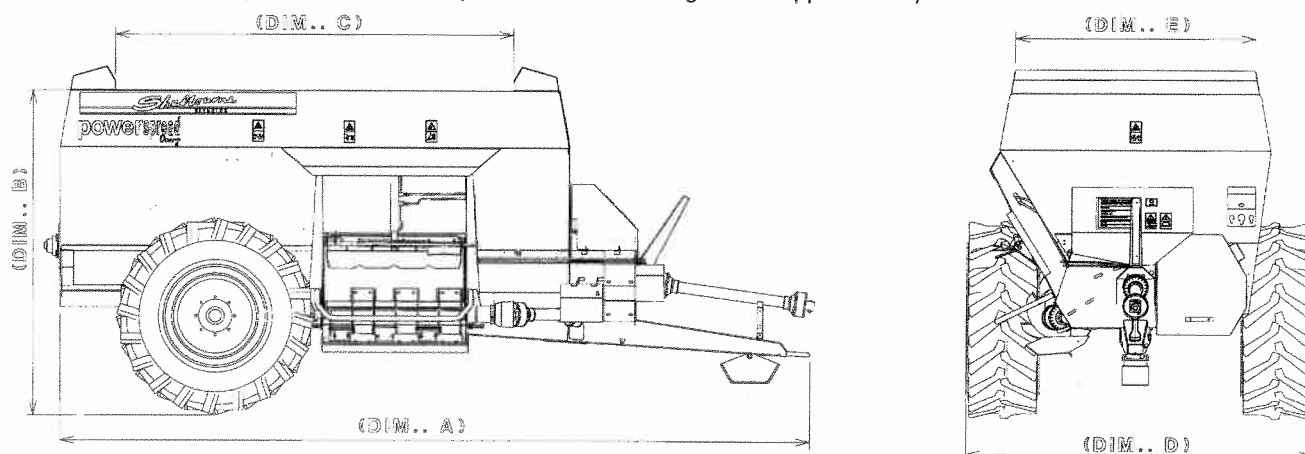
Gives an even slurry spread pattern.

For maximum protection of the drives.

Enables a wide range of manure and slurry

## TECHNICAL SPECIFICATION

Sizes and weights are as follows: (all dimensions & weights are approximate)



| Dairy                          | 1400  | 1600   | 1800  | 2000   |
|--------------------------------|---|--|---|--|
| Capacity<br>Gallons            | 6350 litres /<br>1400 gallons<br>1700 gallons | 7250 litres /<br>1600 gallons<br>1900 gallons    | 8000 litres /<br>1800 gallons<br>2100 gallons     | 9000 litres /<br>2000 gallons<br>2400 gallons  |
| Volume                         | 6.35 m <sup>3</sup> (244 ft <sup>3</sup> )    | 7.25 m <sup>3</sup> (256 ft <sup>3</sup> )       | 8.00 m <sup>3</sup> (283 ft <sup>3</sup> )        | 9.00 m <sup>3</sup> (318 ft <sup>3</sup> )     |
| Length (A)                     | 5410mm (213")                                 | 5410mm (213")                                    | 5410mm (213")                                     | 5410mm (213")                                  |
| Width (D)                      | 2540mm (100")                                 | 2540mm (100")                                    | 2540mm (100")                                     | 2540mm (100")                                  |
| Loading height (B)             | 2025mm (80")                                  | 2293mm (90")                                     | 22445mm (96")                                     | 2597mm (102")                                  |
| Opening length (C)             | 2835mm (112")                                 | 2900mm (114")                                    | 2690mm (106")                                     | 2690mm (106")                                  |
| Opening width (E)              | 1550mm (61")                                  | 1550mm (61")                                     | 1550mm (61")                                      | 1550mm (61")                                   |
| Tyre size                      | 21.3-R24                                      | 21.3-R24   | 21.3-R24  | 21.3-R24                                       |
| PTO speed                      | 540rpm  | 540rpm   | 540rpm  | 540rpm   |
| Recommended size<br>of tractor | 60-80 hp                                      | 70-90 hp   | 70-90 hp  | 90- hp Upwards                                 |
| Unladen weight                 | 2841kg (6264 lbs)                             | 2900kg (6395 lbs)                                | 2945kg (6494 lbs)                                 | 3000kg (6615 lbs)                              |
| Gross weight                   | <b>9541kg (21038 lbs)</b><br>*As Above        | <b>9600kg (21168 lbs)</b><br>*9900kg (21830 lbs) | <b>9645kg (21267 lbs)</b><br>*10595kg (23362 lbs) | <b>9700kg(21389 lbs)</b><br>*11500kg(25358lbs) |
| Unladen drawbar<br>Weight      | 672kg (1482 lbs)                              | 684kg (1508 lbs)                                 | 693kg (1528 lbs)                                  | 703kg (1550 lbs)                               |
| Max axle weight                | <b>7589kg (16734 lbs)</b><br>*As Above        | <b>7636kg (16837 lbs)</b><br>*7879kg (17373 lbs) | <b>7672kg (16917 lbs)</b><br>*8441kg (18612 lbs)  | <b>7717kg(17016 lbs)</b><br>*9173kg(20226lbs)  |
| Max drawbar weight             | <b>1952kg (4304 lbs)</b><br>*As Above         | <b>1964kgs (4331 lbs)</b><br>*2021kg (4456 lbs)  | <b>1973kg (4350 lbs)</b><br>*2154kg (4750 lbs)    | <b>1983kg (4373 lbs)</b><br>*2327kg (5131 lbs) |
| Spread width                   | up to 18m                                     | up to 18m  | up to 18m   | up to 18m                                      |
| Door size                      | 955mm   | 955mm  | 955mm   | 955mm  |
| Door operation                 | Double acting<br>hydraulic ram                | Double acting<br>hydraulic ram                   | Double acting<br>hydraulic ram                    | Double acting<br>hydraulic ram                 |
| Max road speed                 | 20mph (32km/h)                                | 20mph (32km/h)                                   | 20mph (32km/h)                                    | 20mph (32km/h)                                 |

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 derived due to the maximum carrying capacity of the tyres at 20mph (32km/h).**
- 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 850kg/m<sup>3</sup>).

### **Optional Extras on Powerspread Dairy;**

-Brake relief kit (for use when brakes are not connected direct to tractor brake line i.e. when brakes are connected into tractor spool valves) See section 4.4

## **SECTION 4: TRANSPORT AND ATTACHMENT**

### **4.1 ATTACHING SPREADER TO TRACTOR**

The Powerspread can be supplied with a US, flat continental or UK drawbar hitch. It is recommended though, due to the high drawbar loading, that the machine should only be used on the automatic pick up hitch of the tractor.

An option of a parking jack or a detachable shoe, fitted to the underside of the drawbar is supplied with the machine. This enables the automatic pick up hitch hook to easily move under the drawbar lug when attaching the spreader.

The PTO is equipped with a standard 1 3/8" six spline suitable for all 540rpm tractor PTO shafts. The length of shaft may have to be adjusted to cater for your particular tractor/Powerspread combination.

With the Powerspread attached to the tractor and parked in the straight-ahead position, slide the PTO shaft apart and connect the respective ends to the tractor / Powerspread.

Lay the shafts side by side and make sure they have at least 150mm of distance between the end of the shaft and the adjacent joint.

Shaft lengths can be adjusted by sawing off equally a proportion of tube from the inner and outer PTO tube together with a corresponding amount off the plastic protection tubes. The tubes should always have at least 300mm overlap whilst operating.

If necessary check the length of the shafts by steering the tractor into a full lock in one direction and seeing that the shafts do not "bottom."

Make sure the correct tractor P.T.O. speed is selected at all times.  
Ensure that the tractor link arms do not foul the P.T.O.

### **4.2 CONNECTING THE DOOR RAM HYDRAULIC HOSES**

The hydraulic hoses are fitted with 1/2" quick release coupling ends as standard, and the Powerspread requires a double acting supply to raise and lower the discharge door.

If couplings are not compatible, change to suitable connections 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.

### **4.3 CONNECTING THE BRAKE HYDRAULIC HOSE**

The Powerspread flexible hydraulic brake pipe is fitted with a quick release female coupling to suit the ISO standard tractor brake system.

Having pushed the hose end into the tractor spool valve, ensure that the hose does not hang down and obstruct the tractor lift arms or any moving parts.

#### **4.4 THE POWERSPREAD BRAKING SYSTEM AND HANDBRAKE**

In order to comply with the Health & Safety Executive code of practice on trailer braking together with the Construction and Use Regulations, the Powerspread is fitted with brakes, which must be coupled to the tractor when travelling.

Ideally the spreader should be connected directly to the tractor braking system, as will be the case on all modern tractors. However, earlier tractors without this facility can be fitted with a trailer braking kit, which enables this direct connection to be made. This ensures that when the tractor brakes are applied, the brakes on the Powerspread are also brought into operation, usually slightly in advance of the tractor brakes.

#### **IMPORTANT NOTE**

A Shelbourne Reynolds brake relief kit must be used if the brakes are to be operated through the spool valves at the rear of the tractor due to the excessive pressures released by the valves.

(The part number of this kit is KIT-02602)

**AT ALL TIMES WHEN THE MACHINE IS IN MOTION, EITHER TRAVELLING OR WORKING, THE HYDRAULIC BRAKE LINE MUST BE CONNECTED.**

The parking brake is applied by pulling the lever towards the tractor. **WHEN THE MACHINE IS TO BE DISCONNECTED FROM THE TRACTOR THE PARKING BRAKE MUST BE APPLIED BEFORE DISCONNECTION, EVEN ON LEVEL GROUND.** The parking brake must be released prior to towing the machine, after re-connection to the tractor.

When the machine is attached to the tractor the cable must be connected between the tractor and the parking brake lever such that, should the machine become inadvertently detached from the tractor, the spreader brakes would be automatically applied.

Similarly, when detaching from the tractor, ensure that the brake hose and other hydraulic hoses are pushed into the hose parking station. Also, make sure the PTO is supported on the stand provided on the drawbar.

## **SECTION 5:**

## **FIELD OPERATION AND SPREADING**

### **OPERATING THE SHELBOURNE REYNOLDS POWERSPREAD.**

Read this manual carefully before operating the spreader in the field.

To get optimum performance from your Shelbourne Reynolds Powerspread the operator should keep to the following procedures of operation.

#### **5.1 GENERAL**

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

#### **5.2 LOADING THE POWERSPREAD**

Always close the door before loading the Powerspread.

All free flowing muck/slurry must not be overfilled or the material will be discharged over the side during transport.

If thin slurries are to be spread, then the correct setting of the discharge deflectors above the door is required. (See settings for deflector paddles - Section 5.11)

When travelling on the highway the Powerspread should not be overloaded and when carrying thin slurries allow sufficient room at the front of the spreader to prevent "forward surge" and consequent over-spill if emergency braking should be required.

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 directly onto the top of the auger as this may cause bridging and will prevent an even spread pattern.

When clearing stockyards the areas around the feed troughs will be compacted and so breaking up the manure with the loader forks will speed up the discharge rates.

In order to achieve higher discharge rates when spreading unrotted, compressed material, the material should be broken up when loading into the machine. The use of grab-buckets should be avoided; always use manure forks.

#### **5.3 DISCHARGE RATE**

The machine is designed with a single speed auger so that with the door wide open a reasonably fast discharge rate can be obtained. This is particularly useful when large loads are being spread and therefore the quicker the unloading time the better.

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

## **IMPORTANT NOTE**

Some manure types are not suited to this method, especially if they are already tightly packed or layered before loading. In these cases the door should be opened wide to allow fast ejection and the forward speed of the tractor increased to achieve a suitable spread rate on the field.

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 recommended that the standard PTO speed of 540 rpm is used 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).

### **5.4 FOREIGN OBJECTS**

If during the 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. Open the discharge door wide to allow the object to be thrown out. If the object is not cleared immediately then stop the machine, stop the tractor and investigate.

### **5.5 DOOR OPENING**

As a general rule it is better in heavy straw manure to open the door wide when starting the machine running, and then closing the door to give the desired spread rate and shredding capabilities.

The opposite applies with thin slurry, as a very small door opening will be required (possibly as low as 25mm / 1").

When spreading slurry the machine should be running at the correct 540 rpm PTO speed before the door is opened. The door should be opened slowly, watching the door indicator and the spread width to gauge a satisfactory spread rate.

The door opening will depend completely on the type and consistency of the material being spread and the spread rate desired by the operator.

## **5.6 SPREADING SEMI-SOLID MATERIALS / LAGOON SCRAPINGS**

Start with discharge door closed, engage PTO gently at low engine rpm and gradually and positively bring up to 540 rpm. At the same time move forward at the required speed and then immediately open the hydraulic door to the required position on the indicator. This position will depend on the type of consistency of the material being spread, and the operator's judgement of spread rate and pattern.

It may be that this type of material will cause partial blockage of the discharge door, (also 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.

See notes in section 5.10 on spread pattern for adjustment of deflector paddles.

## **5.7 SPREADING SOLID MATERIALS**

When spreading solid material open the hydraulic door to the required position on the indicator. This position will depend completely on the type and consistency of the material being spread, and the operator's judgement of spread rate and pattern.

Then engage the PTO gently at lower engine rpm, gradually and positively bring up to 540 rpm and at the same time move forward at the required speed.

In order to achieve higher discharge rates when spreading unrotted, compressed material, the material should be broken up when loading into the machine. The use of 4 in 1 buckets should be avoided; always use manure forks.

When clearing stockyards the areas around the feed troughs will be compacted and so breaking up the manure with the loader forks will speed up the spreader discharge rates.

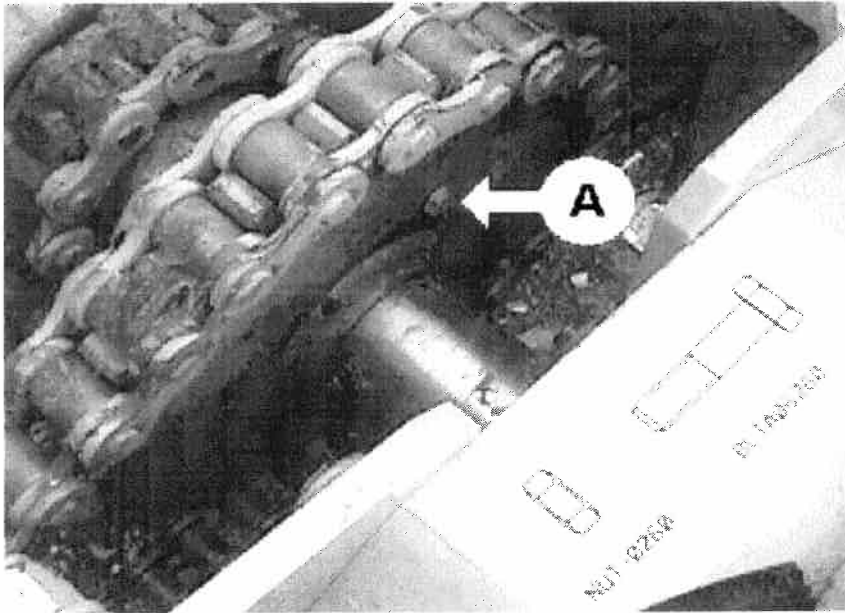


## 5.8 SHEAR BOLT PROTECTION

To prevent damage to the Powerspread by foreign objects, a shear bolt protection is provided on both the impeller and auger drives. If the machine encounters an obstruction and shears a bolt, stop the tractor and the machine immediately.

Attempt to remove the object by (a) opening the door fully and trying to locate the foreign object or (b) by looking in from the top of the hopper and locating the object in the auger.

Fig.1



To change the auger drive shear bolt, (item A as shown in Fig.1), stop the engine on the tractor, manually reverse the drive by turning the impeller round in a reverse direction until the shear bolt holes are aligned, then insert a new shear bolt. Continue reversing to dislodge the foreign object caught up in the Powerspread auger.

The shear bolts on the Powerspread are made from special material. Normal commercially available bolts are not strong enough.

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.

Powerspread auger shear bolt  
Powerspread impeller shear bolt

BLTA06264  
605123 01

Occasionally check the machine for build up of foreign materials such as plastic baling twine wrapped around the auger core. Normally this causes no problems but should not be allowed to build up too much as it will impair the performance of the auger. From time to time cut the twine and remove it.

Always keep the side of the hopper clean, never allow a build up of material or this will obstruct the feed of material to the auger.

The Powerspread impeller is equipped with replaceable wear plates. Being double serrated edged, when one edge is worn the blades can be reversed.

## 5.9 SPREAD PATTERN

The patented adjustable impeller flights or deflectors, have been designed to give you the optimum spread pattern to suit your conditions when spreading slurry.

Each flight can be adjusted separately along the pivoting bar by loosening the coach bolts and rotating the flight on the bar. The flights are then adjustable together by operating the spring lever into any one of three positions; the lower two positions are for spreading slurry and the top position for spreading manures.

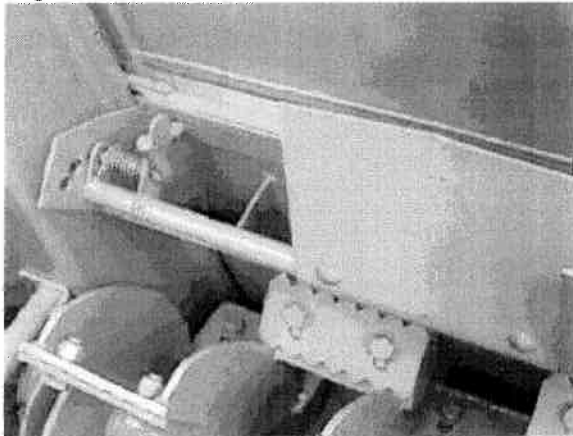
### **IMPORTANT NOTE**

After adjusting the flights to a suitable place, care should be taken so when the spring lever is in its top position, the deflector flights do not obstruct the door ram when the door is raised and lowered.

See Fig.3 and Fig.4 which show the Powerspread discharge door with flights in the top position and flights in the middle position.

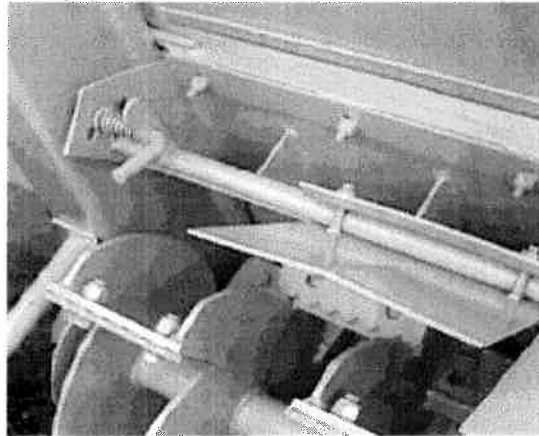
Fig.5 shows a suitable spread pattern for spreading slurry which is obtained by adjusting the deflector flights as described.

Fig.3



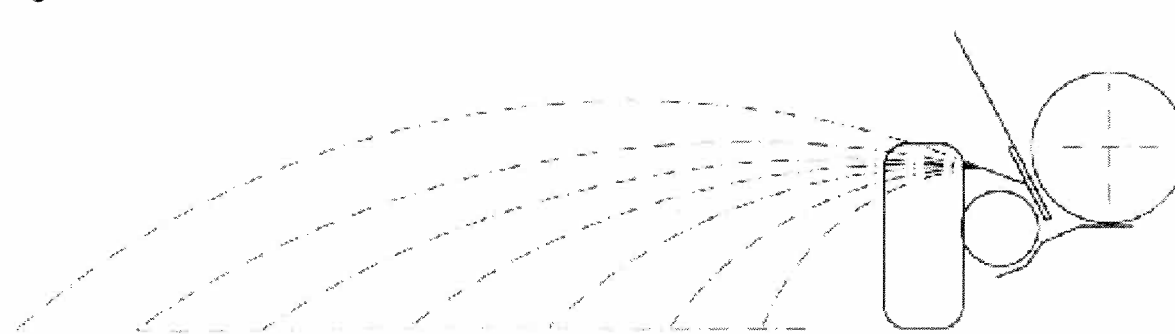
Flights in the top position

Fig.4



Flights in the centre position

Fig.5



Flights set to give a good band of spread when using slurry

## SECTION 6:

## ADJUSTMENTS AND MAINTENANCE

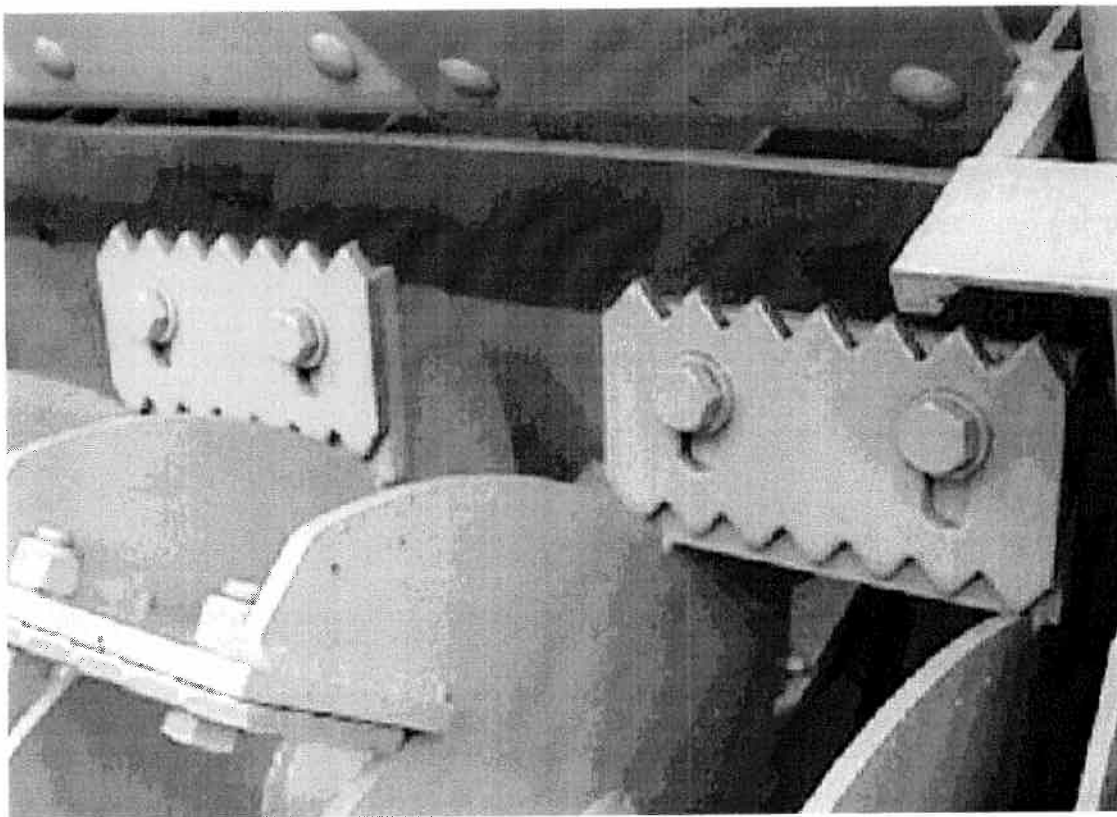


**NEVER CARRY OUT ANY ADJUSTMENTS OR MAINTENANCE WHEN THE TRACTOR ENGINE IS RUNNING AND NEVER USE THE SPREADER UNLESS ALL GUARDS ARE SECURELY FITTED.**

### 6.1 IMPELLER BLADE ADJUSTMENT

Impeller blades are attached to the impeller through an adjustable slot and the blades should be adjusted to give approximately 5mm (3/16") clearance between the tip of the blades and the outside face of the discharge door when closed. Fig.6 shows the impeller blades bolted to the discharge rotor section.

Fig.6



The smooth blades should protrude approximately 2mm (5/64") further than the teeth on the serrated blades.

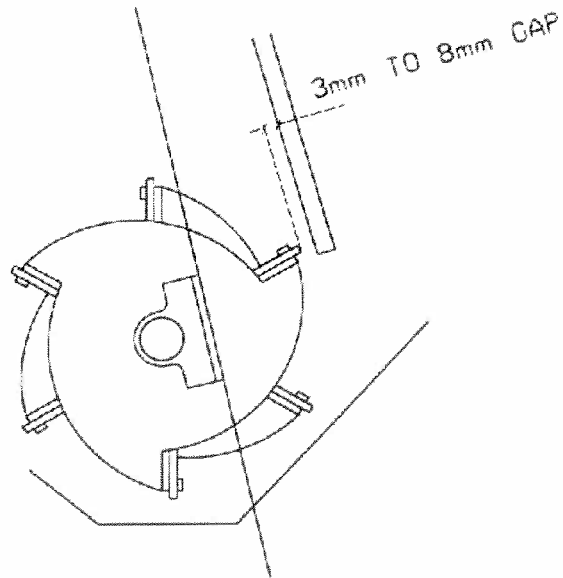
As the impeller blades wear they can be adjusted outwards so as to maintain spreading capability.

When correctly adjusted there should be a 3mm to 8mm gap between the top of the blades and the door (at their closest point). This can best be checked with the door partially open (see Fig.7).

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 blades on a regular basis will impair the performance of the Powerspread.

Fig.7



## 6.2 DRIVE CHAIN TENSIONING

All three chains in the drive system are equipped with tension adjusting facilities. Adjust the chains periodically so as to receive good performance and life from the Powerspread chain drive system.

Fig.8

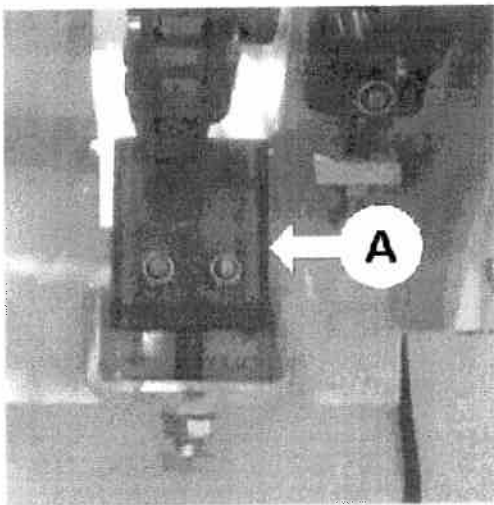
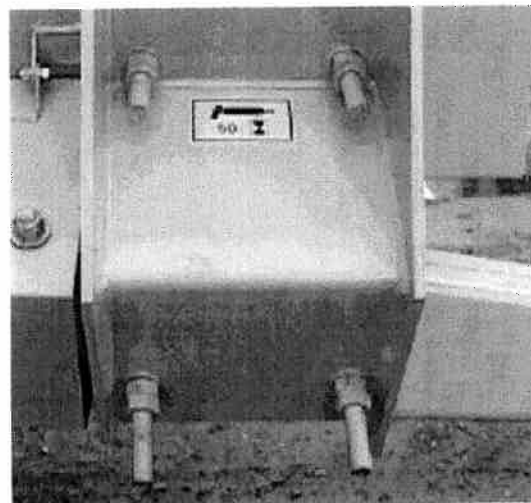


Fig.9



Tensioning of the other 2 chains is done using the adjustment screws on the right hand side of the machine, (see Fig. 9).

Ensure after adjustment that sprockets are in line and parallel to each other; this can be checked using a straight edge across one sprocket onto the next.

### 6.3 SHEAR BOLTS

Shear bolts are provided on the impeller and auger drive; always ensure that these bolts are kept tight.

Make sure the shear bolt bushes are in good condition and free from wear, as this can affect the safety of the Powerspread.

### 6.4 WASHING INSTRUCTIONS

Wash down the Powerspread frequently. Protect the body by touching up damaged paintwork immediately.

If storing the Powerspread for a length of time ensure all drive chains and wearing parts are well lubricated.

### 6.5 TYRE PRESSURES

Check tyre pressures occasionally :

| <u>Tyre make</u> | <u>Tyre size</u>   | <u>Pressure</u>  |
|------------------|--------------------|------------------|
| Kama             | 21.3 / R24 10 pr   | 37 psi (2.5 bar) |
| Dneproshina      | 21.3 / R24 12 pr   | 46 psi (3.2 bar) |
| Dneproshina      | 540 / 70 R24 12 pr | 46 psi (3.2 bar) |
| Dneproshina      | 23.1 / R26 12 pr   | 32 psi (2.2 bar) |
| Starmaxx         | 23.1 / R26 12 pr   | 30 psi (2.1 bar) |
| Starmaxx         | 23.1 / R26 14 pr   | 35 psi (2.4 bar) |

### 6.6 HARDWARE AND FIXINGS

Check all hardware and fixings after the first 10 hours of work, then after every 50 hours work. Pay particular attention to wheel nuts and bolts securing bearings.

| <b>Number of studs, stud size and nut type</b>               | <b>Torque (Nm)</b> | <b>Torque (lb/ft)</b> | <b>Socket size</b> |
|--|--------------------|-----------------------|--------------------|
| 8 studs, M20 x 1.5mm pitch, "Plain nut & split coned washer" | 350                | 260                   | 30mm               |
| 8 studs, M18 x 1.5mm pitch, "Bec" taper cone nut             | 270                | 200                   | 29mm               |

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.

**SECTION 7:****LUBRICATION**

- a) Lubricate sliding tubes of P.T.O. shaft every 25 hours with good quality moly-disulphide grease.
- b) Grease nipples on P.T.O. shaft every 10 hours.
- c) Grease every 50 hours or once a working week.
  - 1. rotor rear bearing.
  - 2. Rotor front bearing.
  - 3. Impeller rear bearing.
  - 4. Impeller front bearing.
  - 5. P.T.O. drive shaft bearing front.
  - 6. P.T.O. drive shaft bearing rear.
- d) Lubricate all chains with thick grease or chain lubricant (Rocol chain and drive spray) as and when necessary.
- e) Oil ram pivot pins.  
Oil guard latches and hinges
- f) Pack wheel hubs with grease once a year.

**SECTION 8:**

**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

---

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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 KIT NUMBERS FOR POWERSPREAD DAIRY

|               |   |
|---------------|---|
| 1. 609903 01  | POWERSPREAD DAIRY ASSEMBLY                  |
| 2. 609903 02  | POWERSPREAD DAIRY 1400 GALLON ASSEMBLY      |
| 3. 609000 01  | AXLE SUB ASSY                               |
| 4. 609001 01  | HANDBRAKE SUB ASSY                          |
| 5. 609002 01  | DISCHARGE ROTOR SUB ASSEMBLY                |
| 6. 609003 01  | DISCHARGE DOOR SUB ASSEMBLY                 |
| 7. 609007 01  | DOOR RAM HYDRAULICS SUB ASSEMBLY            |
| 8. 609011 01  | BRAKE RAM HYDRAULIC SUB ASSEMBLY            |
| 9. 609021 01  | LIGHTS SUB ASSEMBLY                         |
| 10. 609028 01 | MAIN BODY SUB ASSY                          |
| 11. 609029 01 | AUGER AND AUGER FIXING KIT                  |
| 12. 609030 01 | DRIVE SUB ASSEMBLY                          |
| 13. 609031 01 | FIXTURES AND GUARDS SUB ASSEMBLY            |
| 14. 609044 01 | AXLE SUB ASSEMBLY                           |
| 15. 609047 01 | DOOR RAM HYDRAULICS                         |
| 16. 609048 01 | BRAKE RAM HYDRAULICS                        |
| 17. KIT-03230 | SLURRY CANOPY KIT                           |
| 18. KIT-03248 | GERMAN PARTS KIT                            |
| 19. KIT-03249 | UK PARTS KIT                                |
| 20. KIT-03250 | EUROPEAN PARTS KIT                          |
| 21. KIT-03251 | USA PARTS KIT                               |
| 22. KIT-03264 | 6" WOODEN EXTENSION TOP (1600-1800 GALLON)  |
| 23. KIT-03275 | WIDE ANGLE PTO SHAFT                        |
| 24. KIT-03276 | STANDARD PTO SHAFT                          |
| 25. KIT-03309 | 12" WOODEN EXTENSION TOP (1600-2000 GALLON) |
| 26. KIT-03551 | ANTI-BRIDGING KIT 1600 DAIRY/CONTRACTOR     |
| 27. KIT-03553 | ANTI-BRIDGING MANUAL HYDRAULICS KIT         |
| 28. KIT-03554 | ANTI-BRIDGING AUTO HYDRAULICS KIT           |
| 29. KIT-03625 | ANTI-BRIDGING KIT DOUBLE ARM 1600           |
| 30. KIT-03738 | ANTI-BRIDGING KIT DOUBLE ARM 1600           |
| 31. KIT-03772 | WHEEL AND TYRE KIT (23.1-26 ALLIANCE)       |

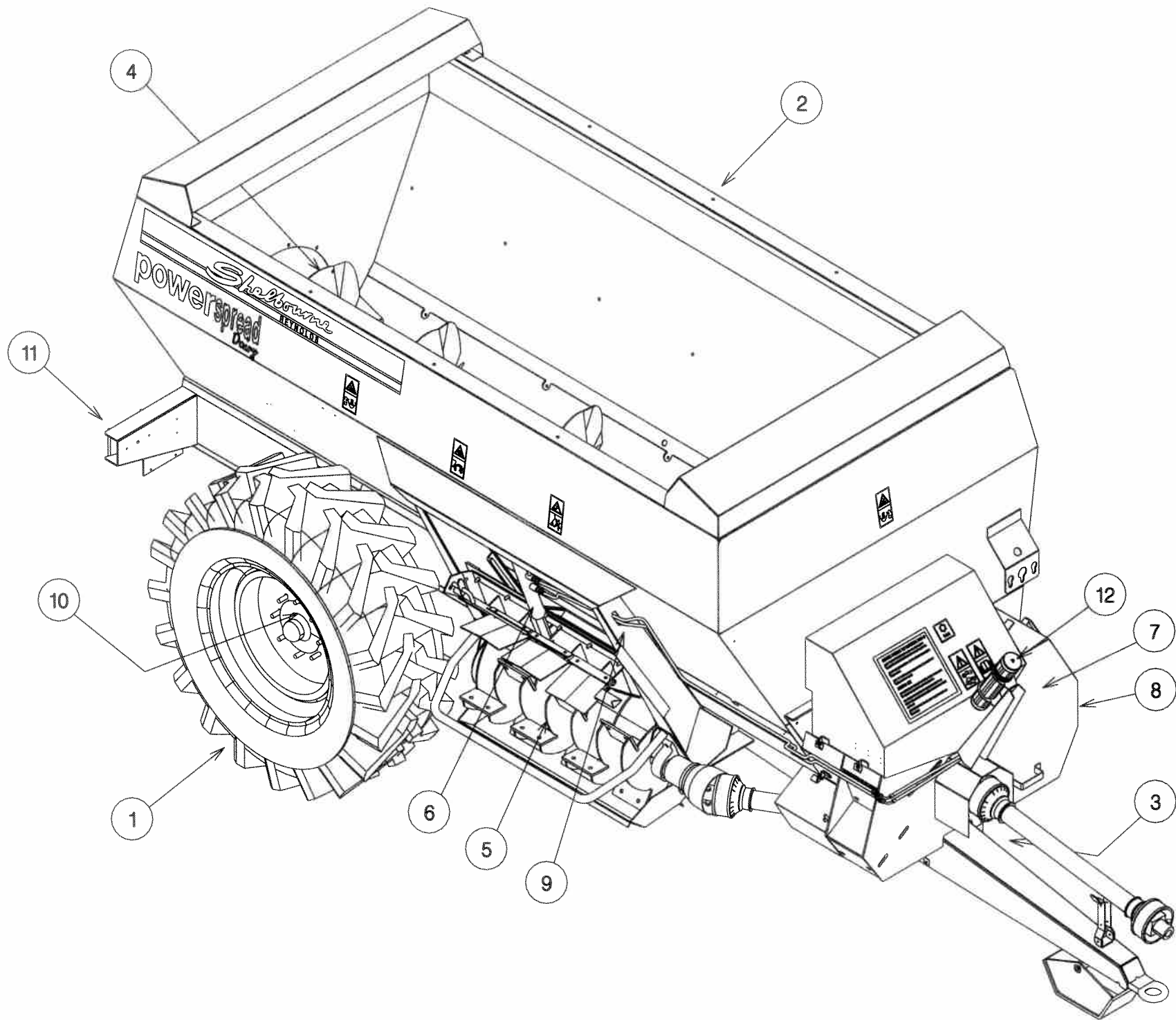


**Shelbourne Reynolds Engineering Limited**

| ASSY NUMBER: |            | 609903 01   |     | ASSY DESCRIPTION: |         | POWERSPREAD DAIRY ASSY |     |
|--------------|------------|---|-----|-------------------|---------|------------------------|-----|
| ITEM         | PART NO    | DESCRIPTION   | QTY | ITEM              | PART NO | DESCRIPTION            | QTY |
| 1            | 609000 01  | AXLE & WHEELS SUB ASSY (FAD) 1<br>(UP TO SERIAL No 116102)<br>EPDFB1        | 1   |                   |         |                        |     |
| OR           | 609044 01  | AXLE & WHEELS SUB ASSY (ADR)<br>(SERIAL No 117102 ONWAR)<br>EPDFB1          |     |                   |         |                        |     |
| 2            | 609028 01  | BODY & FRAME SUB ASSY<br>EPDFB1   | 1   |                   |         |                        |     |
| 3            | 609001 01  | HANDBRAKE SUB ASSY<br>EPDFB1  | 1   |                   |         |                        |     |
| 4            | 609029 01  | AUGER FIXING KIT SUB ASSY<br>EPDFB2   | 1   |                   |         |                        |     |
| 5            | 609002 01  | IMPELLER SUB ASSY<br>EPDFB2   | 1   |                   |         |                        |     |
| 6            | 609003 01  | DOOR & RAM SUB ASSY<br>EPDFB2   | 1   |                   |         |                        |     |
| 7            | 609030 01  | MAIN DRIVES SUB ASSY<br>EPDFB2  | 1   |                   |         |                        |     |
| 8            | 609031 01  | GUARDS & FIXTURES SUB ASSY<br>EPDFB3  | 1   |                   |         |                        |     |
| 9            | 609047 01  | DOOR HYDRAULICS SUB ASSY<br>(SERIAL 127102 ONWARDS)                         | 1   |                   |         |                        |     |
| OR           | 609007 01  | DOOR HYDRAULICS SUB ASSY<br>EPDFB3 (UP TO & INCLUDING<br>SERIAL NO 126102)  | 1   |                   |         |                        |     |
| 10           | 609048 01  | BRAKE HYDRAULICS SUB ASSY<br>(SERIAL NO 127102 ONWARDS)                     | 1   |                   |         |                        |     |
| OR           | 609011 01  | BRAKE HYDRAULICS SUB ASSY<br>EPDFB3 (UP TO & INCLUDING<br>SERIAL NO 126102) | 1   |                   |         |                        |     |
| 11           | 609021 01  | LIGHTING SUB ASSY<br>EPDFB3   | 1   |                   |         |                        |     |
| 12           | SPREDPACK1 | POWERSPREAD DAIRY PACK KIT  | 1   |                   |         |                        |     |

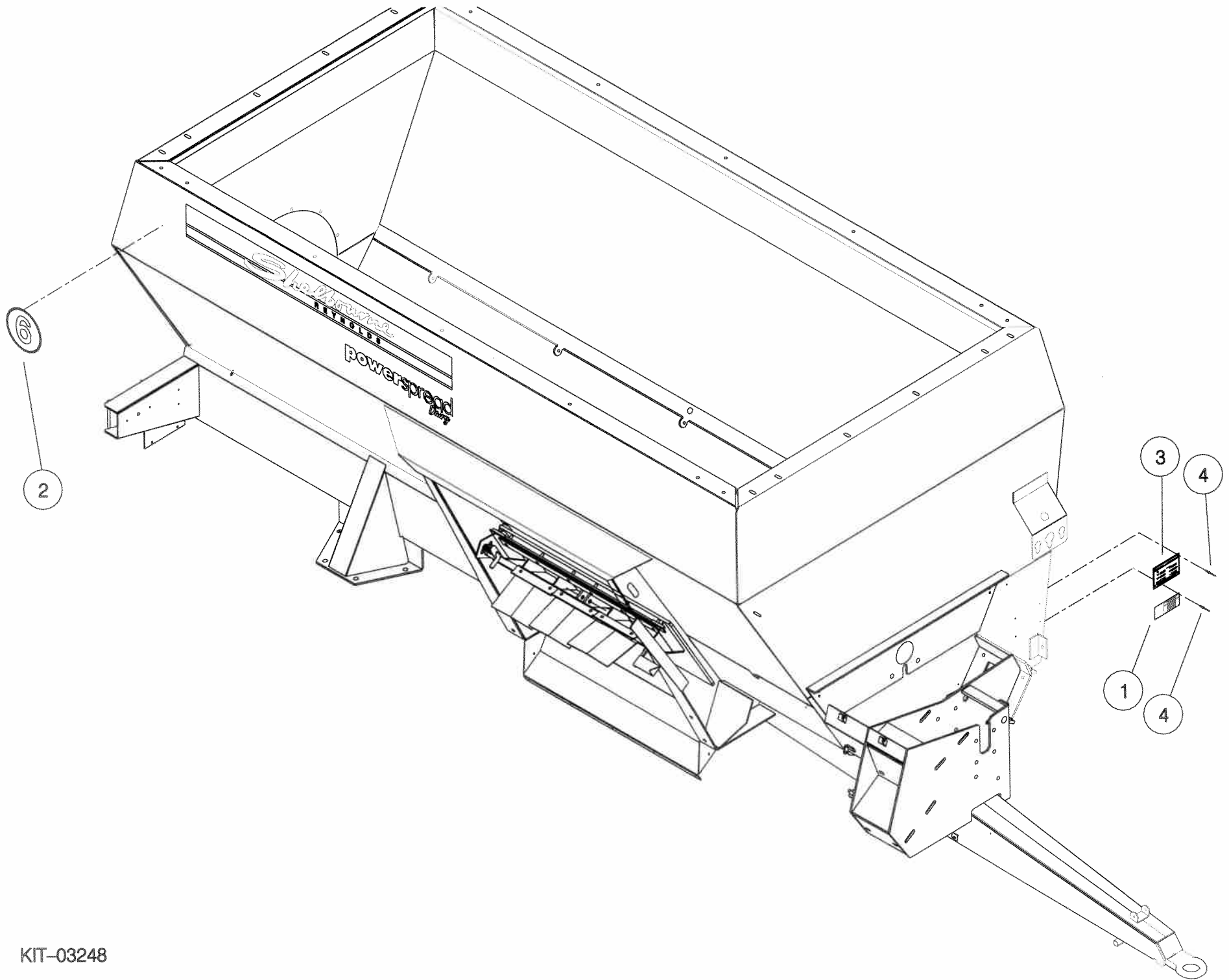
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| ASSY NUMBER: |            | 609903 02                               |     | ASSY DESCRIPTION: POWERSPREAD DAIRY 1400 GALLON ASSY |         |             |     |
|--------------|------------|---|-----|--|---------|-------------|-----|
| ITEM         | PART NO    | DESCRIPTION                             | QTY | ITEM   | PART NO | DESCRIPTION | QTY |
| 1            | 609044 01  | AXLE & WHEELS SUB ASSY (ADR)<br>EPDFB1A |     |  |         |             |     |
| 2            | 609028 02  | BODY & FRAME SUB ASSY<br>EPDFB1A        | 1   |  |         |             |     |
| 3            | 609001 01  | HANDBRAKE SUB ASSY<br>EPDFB1A           | 1   |  |         |             |     |
| 4            | 609029 01  | AUGER FIXING KIT SUB ASSY<br>EPDFB2     | 1   |  |         |             |     |
| 5            | 609002 01  | IMPELLER SUB ASSY<br>EPDFB2             | 1   |  |         |             |     |
| 6            | 609003 01  | DOOR & RAM SUB ASSY<br>EPDFB2           | 1   |  |         |             |     |
| 7            | 609030 01  | MAIN DRIVES SUB ASSY<br>EPDFB2          | 1   |  |         |             |     |
| 8            | 609031 01  | GUARDS & FIXTURES SUB ASSY<br>EPDFB3    | 1   |  |         |             |     |
| 9            | 609047 01  | DOOR HYDRAULICS SUB ASSY                | 1   |  |         |             |     |
| 10           | 609048 01  | BRAKE HYDRAULICS SUB ASSY               | 1   |  |         |             |     |
| 11           | 609021 01  | LIGHTING SUB ASSY<br>EPDFB3             | 1   |  |         |             |     |
| 12           | SPREDPACK1 | POWERSPREAD DAIRY PACK KIT              | 1   |  |         |             |     |



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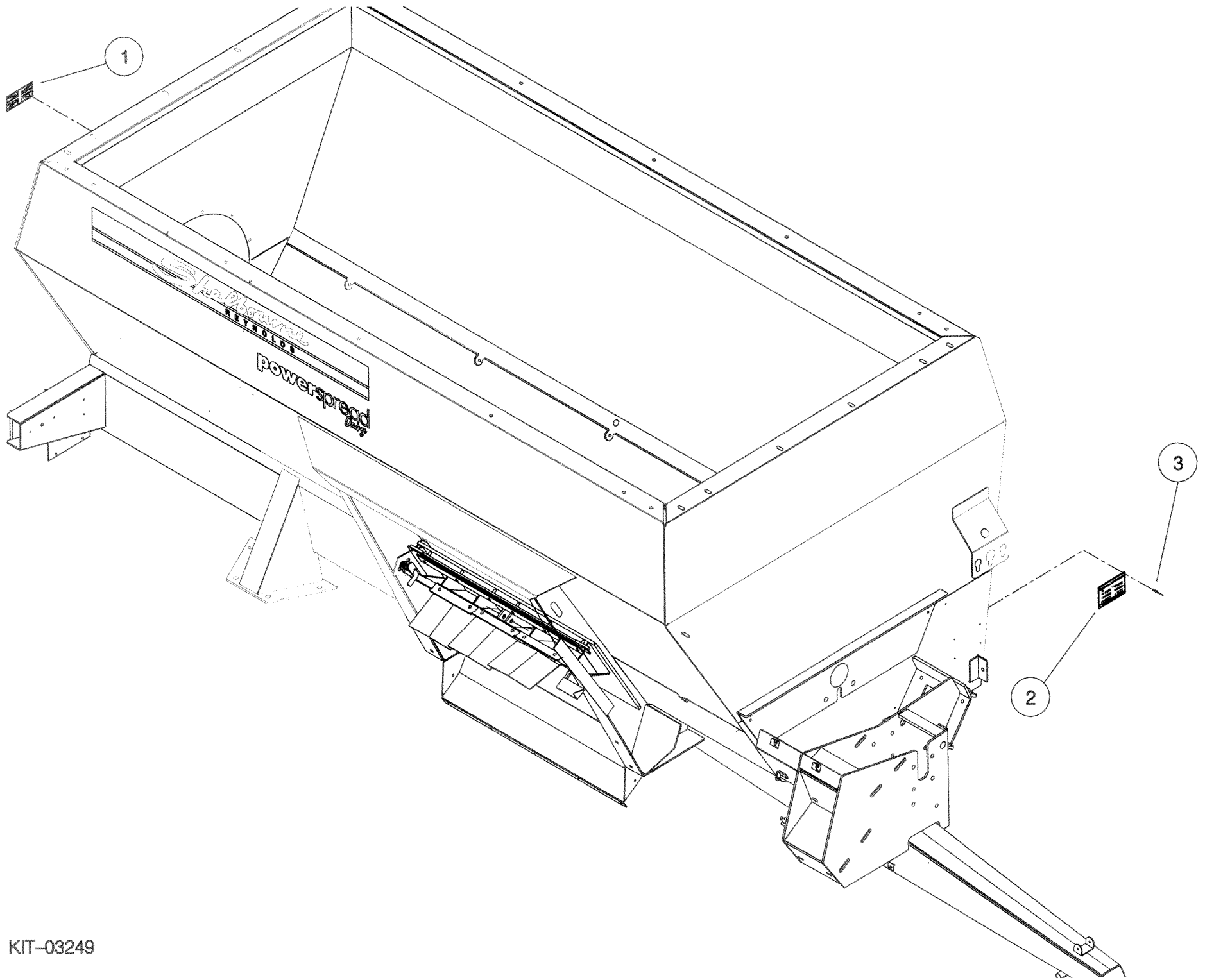
| ASSY NUMBER: |           | KIT-03248                   |     | ASSY DESCRIPTION:GERMAN PARTS KIT |         |             |     |
|--------------|-----------|-----------------------------|-----|-----------------------------------|---------|-------------|-----|
| ITEM         | PART NO   | DESCRIPTION                 | QTY | ITEM                              | PART NO | DESCRIPTION | QTY |
| 1            | TNF-0201  | GERMAN IDENTIFICATION PLATE | 1   |                                   |         |             |     |
| 2            | 612610 01 | 6Km/h TRANSFER              | 3   |                                   |         |             |     |
| 3            | 590145 01 | UK IDENTIFICATION PLATE     | 1   |                                   |         |             |     |
| 4            | POP-0006  | POP RIVET                   | 8   |                                   |         |             |     |



KIT-03248

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| ASSY NUMBER: |           | KIT-03249               |     | ASSY DESCRIPTION:UK PARTS KIT |         |             |     |
|--------------|-----------|-------------------------|-----|-------------------------------|---------|-------------|-----|
| ITEM         | PART NO   | DESCRIPTION             | QTY | ITEM                          | PART NO | DESCRIPTION | QTY |
| 1            | 610563 01 | UNION JACK TRANSFER     | 1   |                               |         |             |     |
| 2            | 590145 01 | UK IDENTIFICATION PLATE | 1   |                               |         |             |     |
| 3            | POP-0006  | POP RIVET               | 4   |                               |         |             |     |

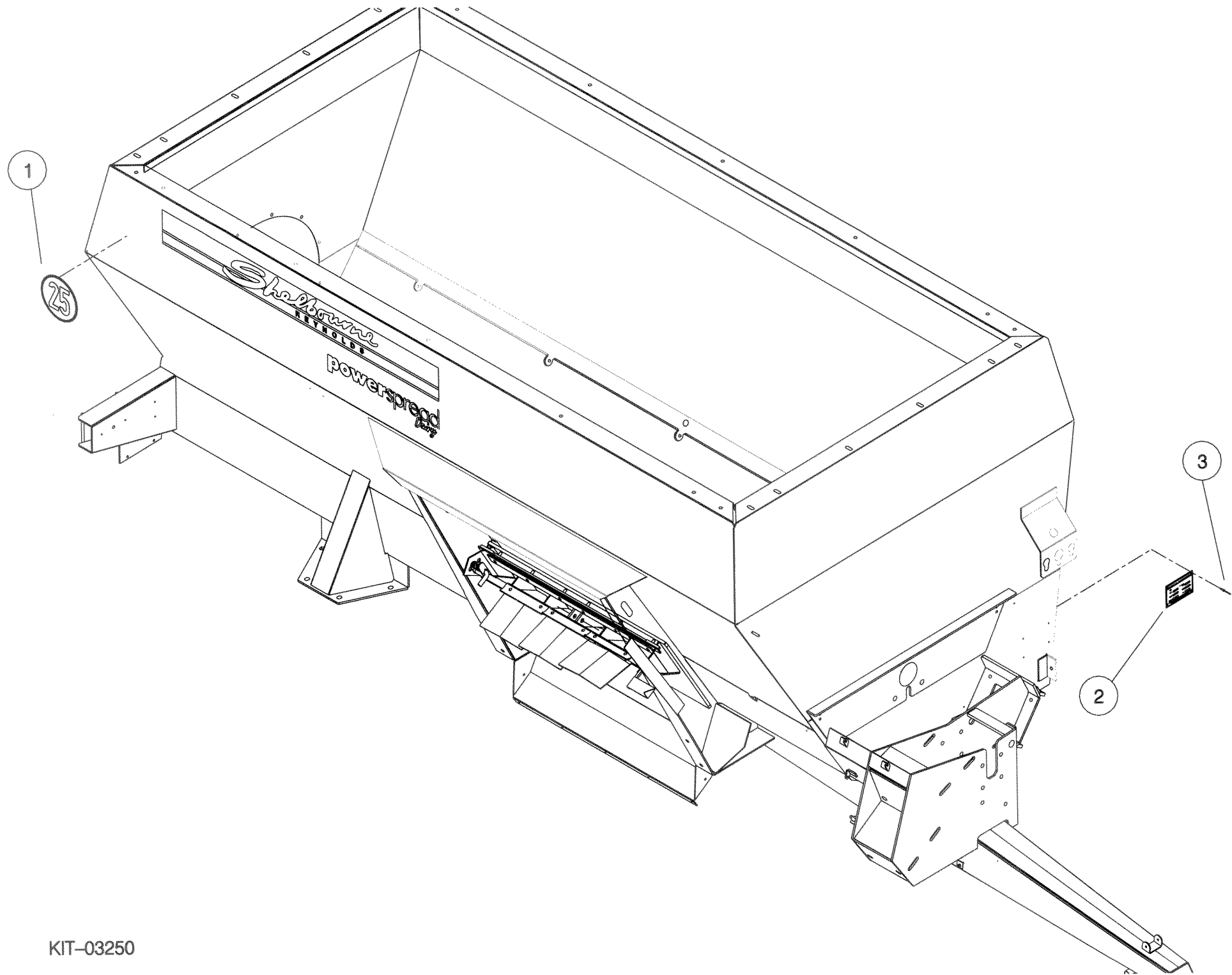


KIT-03249

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| ASSY NUMBER : |           | KIT-03250               |     | ASSY DESCRIPTION:EUROPEAN PARTS KIT |         |             |     |
|---------------|-----------|-------------------------|-----|-------------------------------------|---------|-------------|-----|
| ITEM          | PART NO   | DESCRIPTION             | QTY | ITEM                                | PART NO | DESCRIPTION | QTY |
| 1             | 611033 01 | 25Km/h TRANSFER         | 3   |                                     |         |             |     |
| 2             | 590145 01 | UK IDENTIFICATION PLATE | 1   |                                     |         |             |     |
| 3             | POP-0006  | POP RIVET               | 4   |                                     |         |             |     |

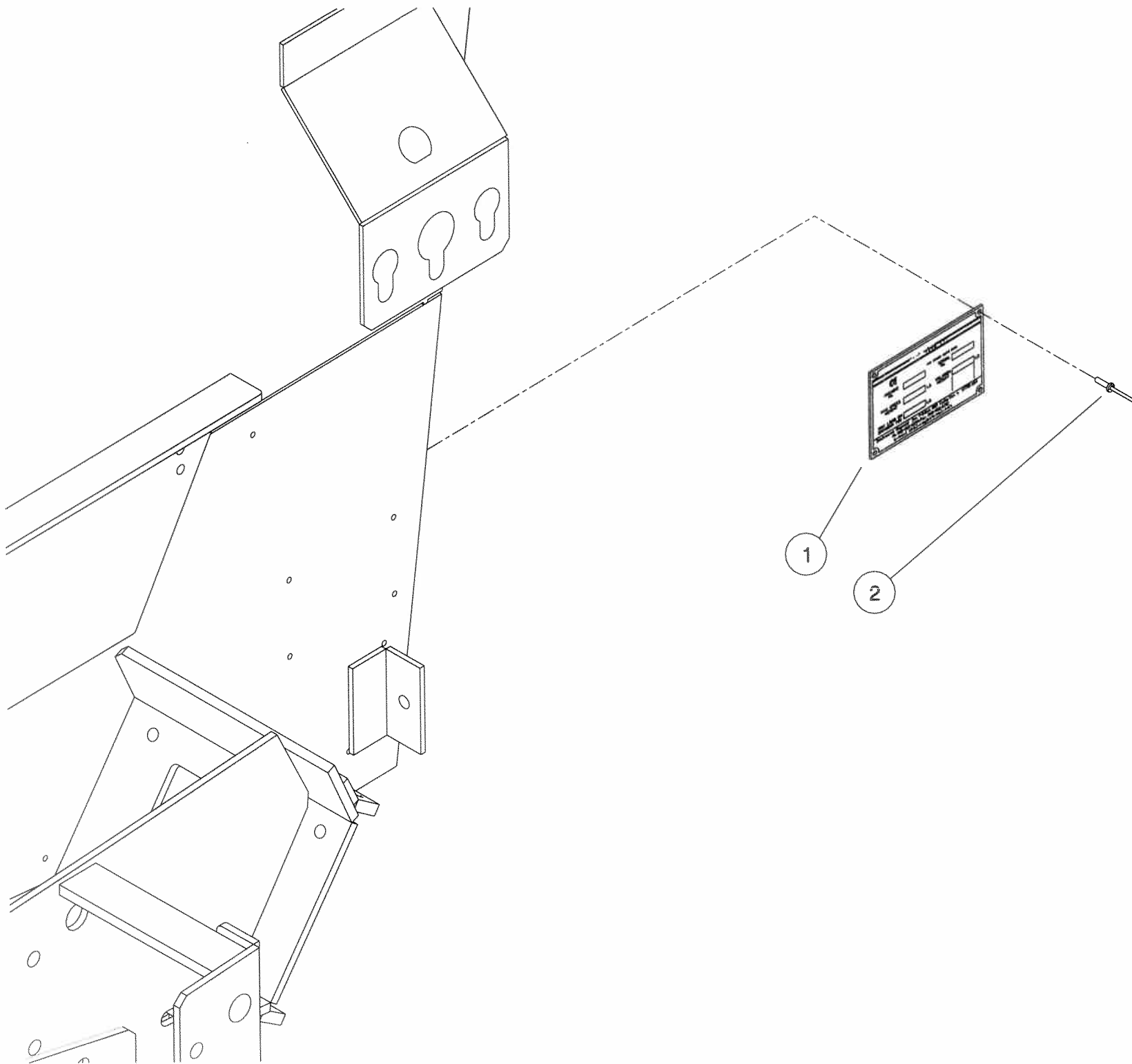




KIT-03250

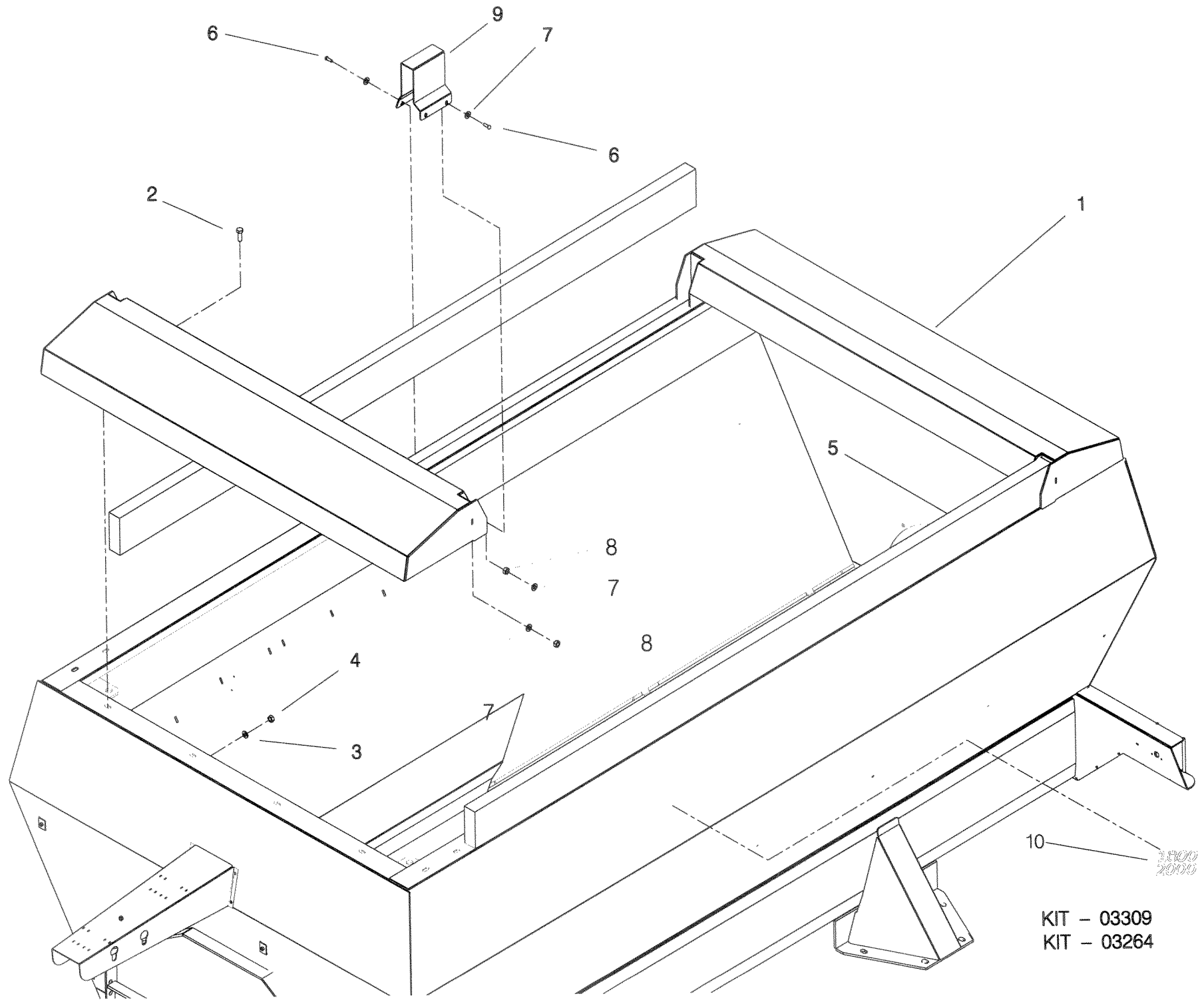
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| ASSY NUMBER : |           | KIT-03251                |     | ASSY DESCRIPTION:USA PARTS KIT |         |             |     |
|---------------|-----------|--------------------------|-----|--------------------------------|---------|-------------|-----|
| ITEM          | PART NO   | DESCRIPTION              | QTY | ITEM                           | PART NO | DESCRIPTION | QTY |
| 1             | 612269 01 | USA IDENTIFICATION PLATE | 1   |                                |         |             |     |
| 2             | POP-0006  | POP RIVET                | 4   |                                |         |             |     |



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| ASSY NUMBER: |           | KIT-03264                |     | ASSY DESCRIPTION:6'' WOODEN EXT TOP (1600-1800 GALLON) |         |             |     |
|--------------|-----------|--------------------------|-----|--|---------|-------------|-----|
| ITEM         | PART NO   | DESCRIPTION              | QTY | ITEM   | PART NO | DESCRIPTION | QTY |
| 1            | 590943 01 | SLURRY CANOPY W/A        | 2   |  |         |             |     |
| 2            | HSS-0238  | SET SCREW                | 20  |  |         |             |     |
| 3            | WSH-0018  | WASHER                   | 36  |  |         |             |     |
| 4            | NUT-0269  | NUT                      | 28  |  |         |             |     |
| 5            | WOO-0016  | WOODEN PLANK             | 2   |  |         |             |     |
| 6            | HSS-0238  | SETSCREW                 | 8   |  |         |             |     |
| 7            | 590953 01 | SMALL EXTN SIDE BRKT W/A | 2   |  |         |             |     |
| 8            | 591007 03 | TRANSFER (1800)          | 2   |  |         |             |     |



KIT - 03309  
KIT - 03264



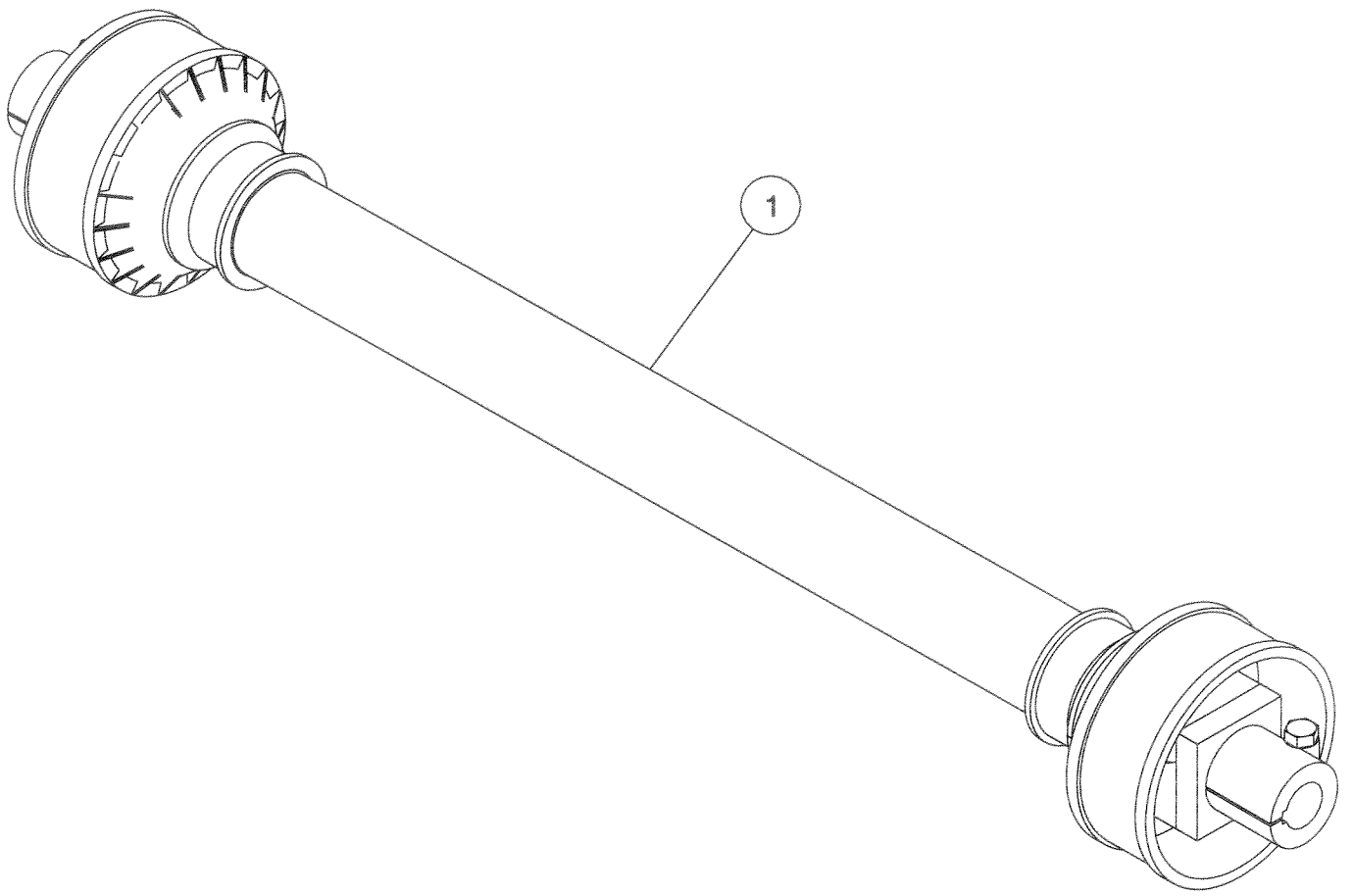
**Shelbourne Reynolds Engineering Limited**

| ASSY NUMBER:  |            | KIT-03275                       |     | ASSY DESCRIPTION: WIDE ANGLE PTO SHAFT (DAIRY) |         |             |  |
|---------------|------------|---------------------------------|-----|--|---------|-------------|--|
| ITEM          | PART NO    | DESCRIPTION                     | QTY | ITEM   | PART NO | DESCRIPTION |  |
| 1<br>OR<br>1a | PTO-25100W | PTO SHAFT<br>(s/n ????? AND ON) | 1   |  |         |             |  |
|               | PTO-25100  | PTO SHAFT<br>(UP TO s/n ?????)  | 1   |  |         |             |  |

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| ASSY NUMBER: KIT-03276 |            | ASSY DESCRIPTION: STANDARD PTO SHAFT (DAIRY) |     |      |         |             |
|------------------------|------------|--|-----|------|---------|-------------|
| ITEM                   | PART NO    | DESCRIPTION                                  | QTY | ITEM | PART NO | DESCRIPTION |
| 1                      | PTO-13001W | PTO SHAFT<br>(s/n ????? AND ON)              | 1   |      |         |             |
| OR<br>1a               | PTO-13001  | PTO SHAFT<br>(UP TO s/n ?????)               | 1   |      |         |             |

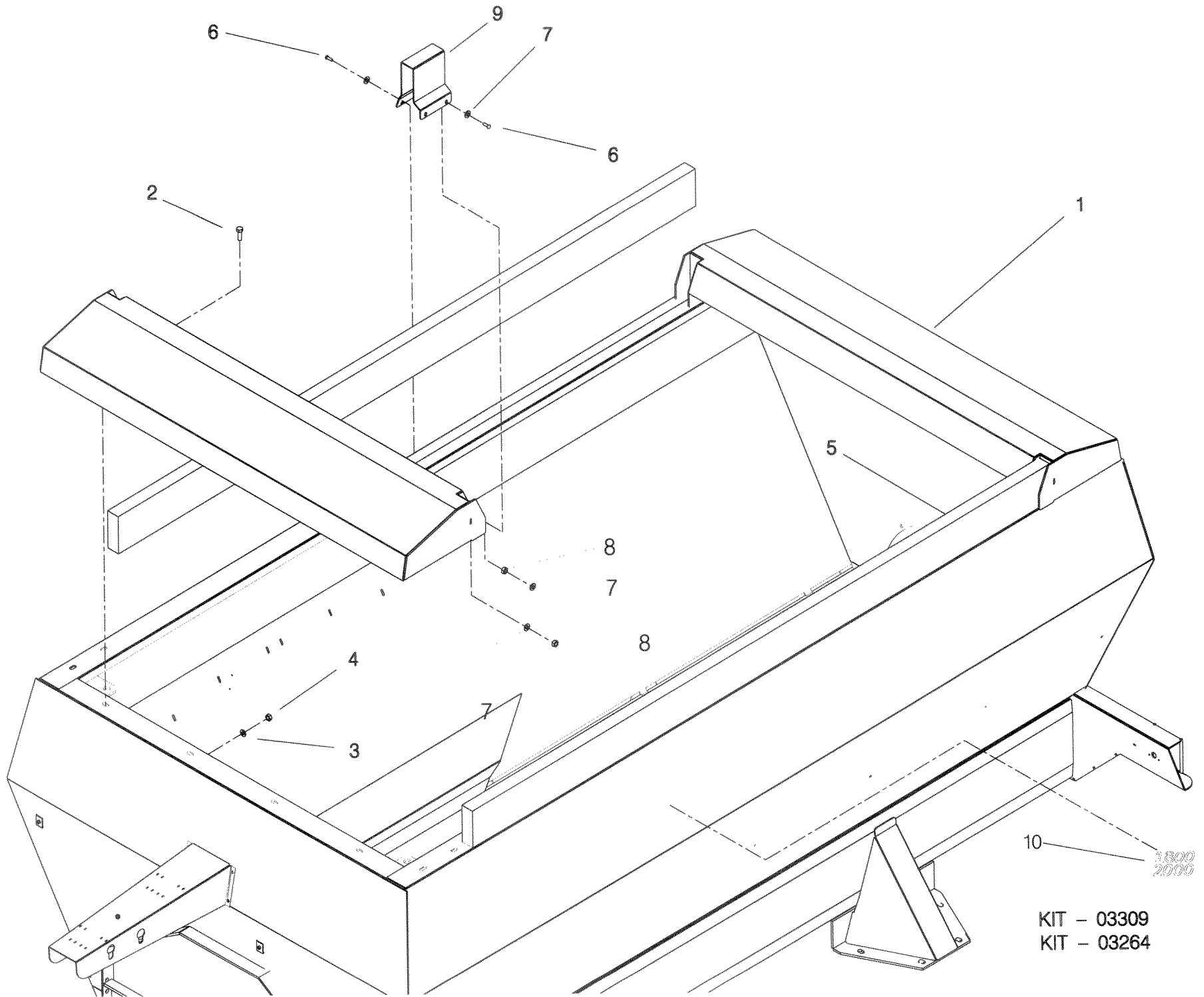




KIT-03275  
KIT-03276

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| ASSY NUMBER: |           | KIT-03309                |     | ASSY DESCRIPTION:12''WOODEN EXT TOP KIT(1600-2000 GALLON) |         |             |     |
|--------------|-----------|--------------------------|-----|---|---------|-------------|-----|
| ITEM         | PART NO   | DESCRIPTION              | QTY | ITEM  | PART NO | DESCRIPTION | QTY |
| 1            | 590944 01 | SLURRY CANOPY W/A        | 2   |   |         |             |     |
| 2            | HSS-0238  | SET SCREW                | 20  |   |         |             |     |
| 3            | WSH-0018  | WASHER                   | 20  |   |         |             |     |
| 4            | NUT-0269  | NUT                      | 20  |   |         |             |     |
| 5            | WOO-0016  | WOODEN PLANK             | 4   |   |         |             |     |
| 6            | HSS-0191  | SETSCREW                 | 8   |   |         |             |     |
| 7            | WSH-0015  | WASHER                   | 16  |   |         |             |     |
| 8            | NUT-0265  | NUT                      | 8   |   |         |             |     |
| 9            | 590949 01 | LARGE EXTN SIDE BRKT W/A | 2   |   |         |             |     |
| 10           | 591007 04 | TRANSFER (2000)          | 2   |   |         |             |     |

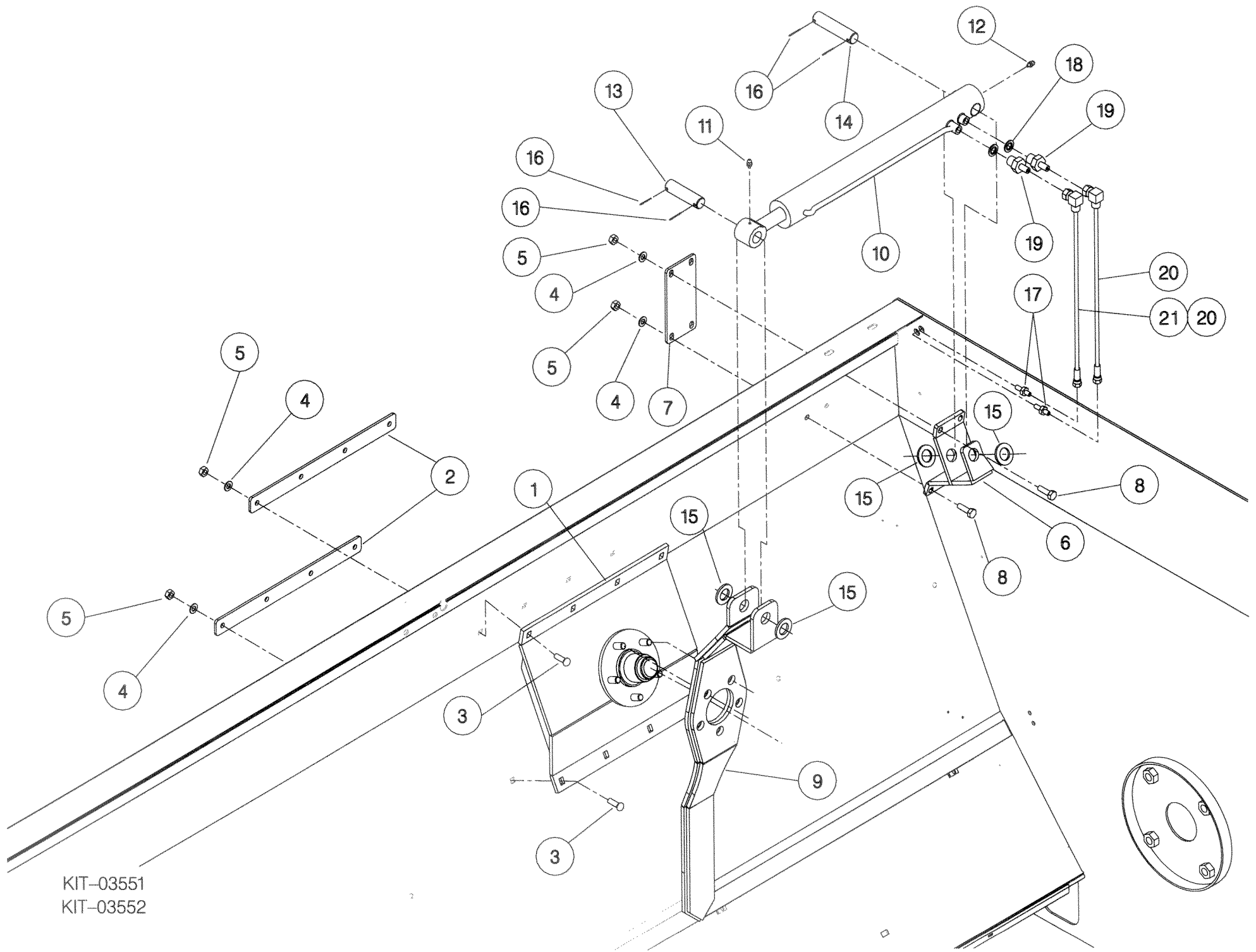


KIT - 03309  
KIT - 03264

1800  
2000

**Shelbourne Reynolds Engineering Limited**

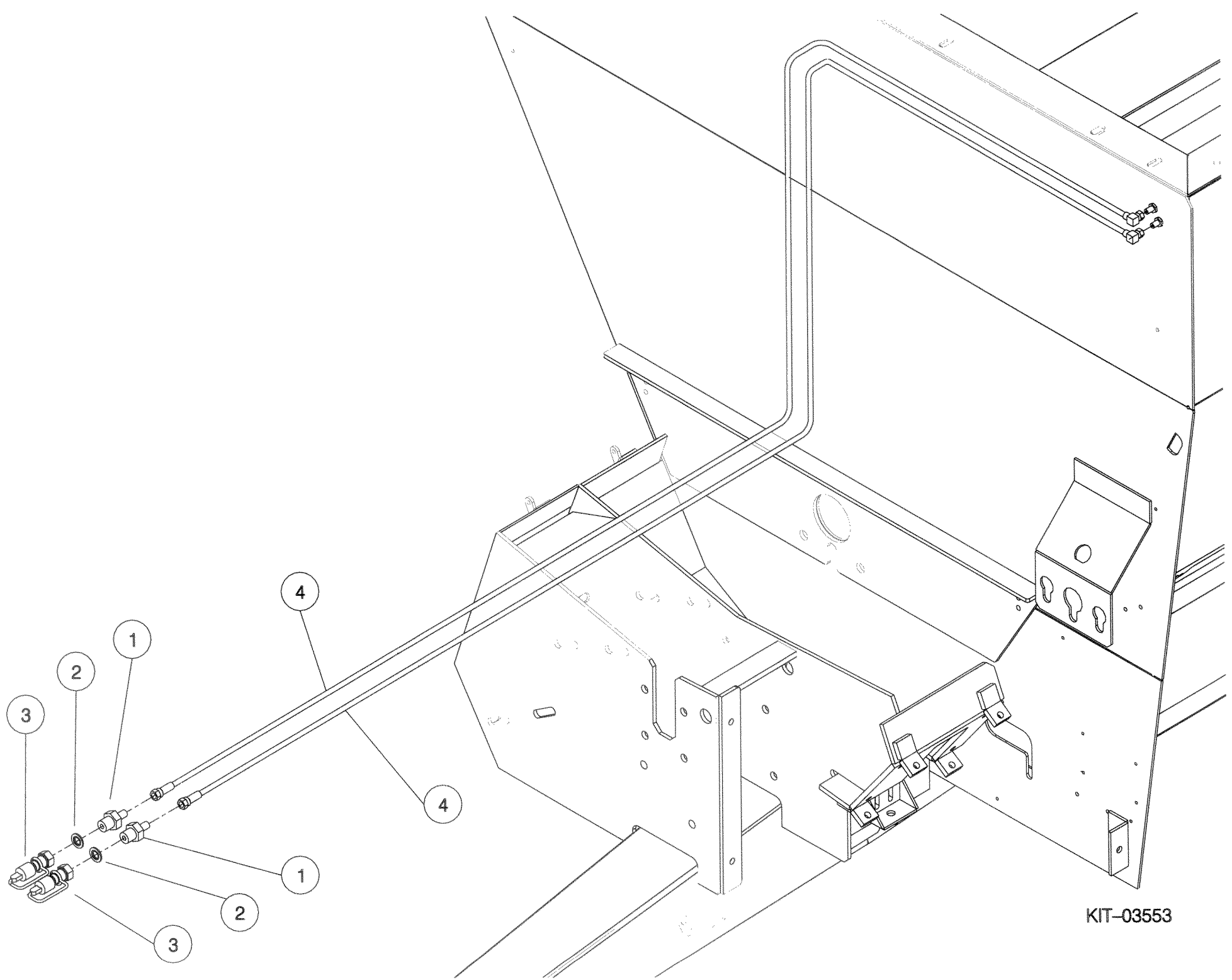
| ASSY NUMBER: |           | KIT-03551          |     | ASSY DESCRIPTION: ANTI-BRIDGING KIT 1600DAIRY/CONTRACTOR |         |  |     |
|--------------|-----------|--------------------|-----|--|---------|--|-----|
| ITEM         | PART NO   | DESCRIPTION        | QTY | ITEM   | PART NO |  | QTY |
| 1            | 591049 01 | ARM MOUNTING HUB   | 1   |  |         |  |     |
| 2            | 591030 01 | STRENGTHENER BAR   | 2   |  |         |  |     |
| 3            | BLT-3800  | COACHBOLT          | 8   |  |         |  |     |
| 4            | WSH-0018  | WASHER             | 12  |  |         |  |     |
| 5            | NUT-0269  | NUT                | 12  |  |         |  |     |
| 6            | 591042 01 | RAM BRACKET        | 1   |  |         |  |     |
| 7            | 591031 01 | STRENGTHENER PLATE | 1   |  |         |  |     |
| 8            | HSS-0250  | BOLT               | 4   |  |         |  |     |
| 9            | 591045 01 | PENDULUM ARM       | 1   |  |         |  |     |
| 10           | 800083 01 | HYDRAULIC RAM      | 1   |  |         |  |     |
| 10a          | RMSK04032 | RAM SEAL KIT       | 1   |  |         |  |     |
| 11           | NIP-00600 | GREASE NIPPLE      | 1   |  |         |  |     |
| 12           | NIP-00605 | GREASE NIPPLE      | 1   |  |         |  |     |
| 13           | 591055 01 | PIVOT PIN          | 1   |  |         |  |     |
| 14           | 591055 02 | PIVOT PIN          | 1   |  |         |  |     |
| 15           | WSH-1545  | WASHER             | 4   |  |         |  |     |
| 16           | PIN-20629 | SPLIT PIN          | 4   |  |         |  |     |
| 17           | HBK-0012  | BULKHEAD FITTING   | 2   |  |         |  |     |
| 18           | WSH-1005  | DOWTY WASHER       | 2   |  |         |  |     |
| 19           | FIT-0025  | HYD ADAPT          | 2   |  |         |  |     |
| 20           | HHCE03005 | HYD HOSE ASSY      | 1   |  |         |  |     |
| 21           | HHCE03405 | HYD HOSE ASSY      | 1   |  |         |  |     |



KIT-03551  
KIT-03552

**Shelbourne Reynolds Engineering Limited**

| ASSY NUMBER: KIT-03553 |           | ASSY DESCRIPTION: ANTI-BRIDGING MANUAL HYDRAULICS KI                |     |      |         |  |     |
|------------------------|-----------|---|-----|------|---------|--|-----|
| ITEM                   | PART NO   | DESCRIPTION   | QTY | ITEM | PART NO |  | QTY |
| 1                      | HMA-0065  | ADAPTOR   | 2   |      |         |  |     |
| 2                      | WSH-1015  | DOWTY WASHER  | 2   |      |         |  |     |
| 3                      | COU-0162  | QR COUPLING   | 2   |      |         |  |     |
| 4                      | HHCE60005 | HYD HOSE ASSY<br>(HFAI72005 x1)<br>(HF72005 x1)<br>(HOS104050 x 6m) | 2   |      |         |  |     |

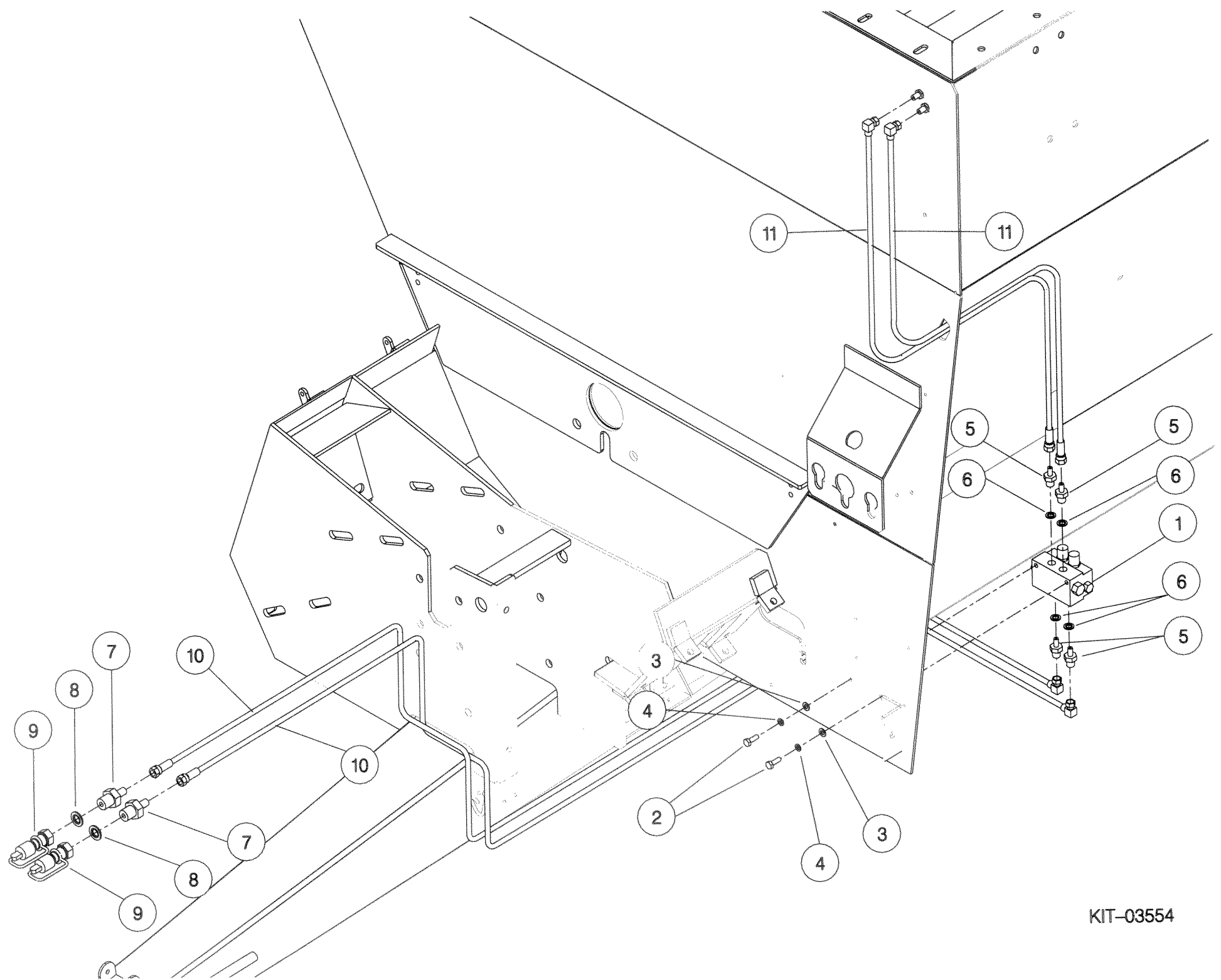


KIT-03553

**Shelbourne Reynolds Engineering Limited**

| ASSY NUMBER: |           | KIT-03554  |     | ASSY DESCRIPTION: ANTI-BRIDGING AUTO HYDRAULICS KI |         |  |     |
|--------------|-----------|--|-----|--|---------|--|-----|
| ITEM         | PART NO   | DESCRIPTION  | QTY | ITEM   | PART NO |  | QTY |
| 1            | HVB-25500 | RECIPROCATING VALVE  | 1   |  |         |  |     |
| 2            | HSS-0145  | SETSCREW   | 2   |  |         |  |     |
| 3            | WSH-0012  | WASHER   | 2   |  |         |  |     |
| 4            | WSH-0058  | WASHER   | 2   |  |         |  |     |
| 5            | HMA-0057  | ADAPTOR  | 4   |  |         |  |     |
| 6            | WSH-1010  | DOWTY WASHER   | 4   |  |         |  |     |
| 7            | HMA-0065  | ADAPTOR  | 2   |  |         |  |     |
| 8            | WSH-1015  | DOWTY WASHER   | 2   |  |         |  |     |
| 9            | COU-0162  | QR COUPLING  | 2   |  |         |  |     |
| 10           | HHCE48005 | HYD HOSE ASSY<br>(HFAI72005 x 1)<br>(HFAF72005 x 1)<br>(HOSI04050 x 4.8) | 2   |  |         |  |     |
| 11           | HHCE13605 | HYD HOSE ASSY<br>(HFAI72005 x1)<br>(HFAF72005 x1)<br>(HOS104050 x 1.36m) | 2   |  |         |  |     |

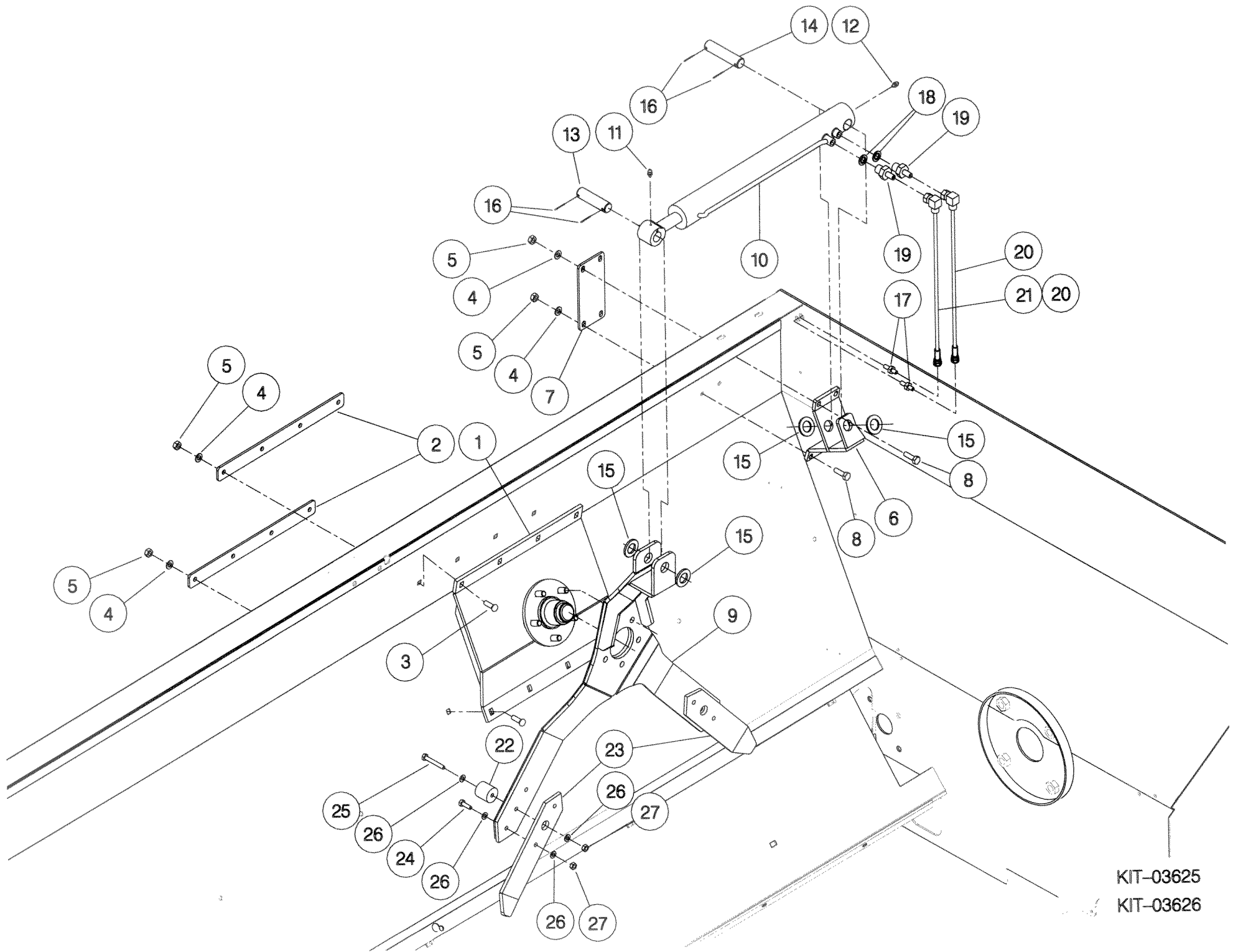




KIT-03554

**Shelbourne Reynolds Engineering Limited**

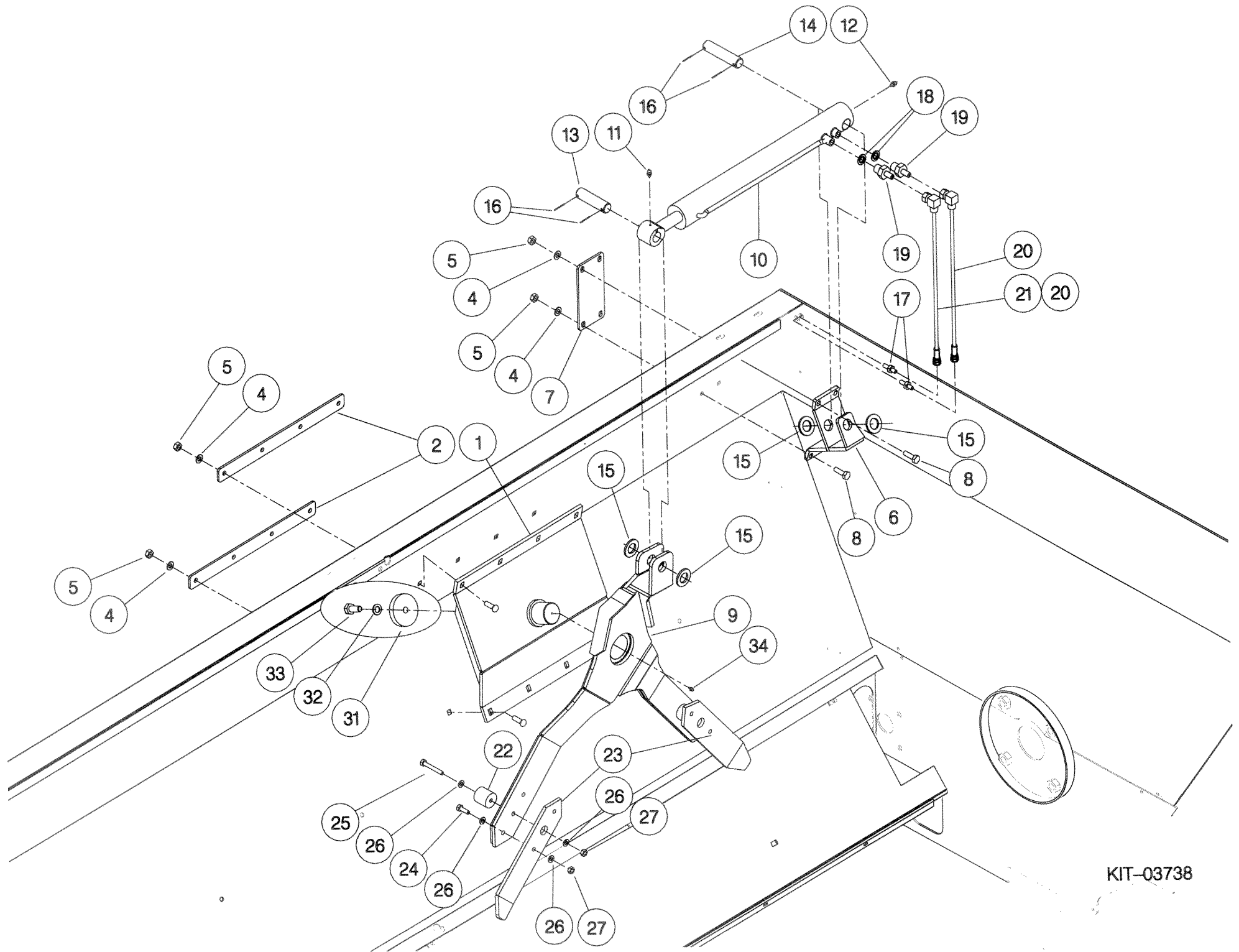
| ASSY NUMBER: |           | KIT-03625               |     | ASSY DESCRIPTION: ANTI-BRIDGING KIT DOUBLE ARM 1600<br>DAIRY/CONTRACTOR |         |  |     |
|--------------|-----------|-------------------------|-----|---|---------|--|-----|
| ITEM         | PART NO   | DESCRIPTION             | QTY | ITEM  | PART NO |  | QTY |
| 1            | 591049 01 | ARM MOUNTING HUB        | 1   |   |         |  |     |
| 2            | 591030 01 | STRENGTHENER BAR        | 2   |   |         |  |     |
| 3            | BLT-3800  | COACHBOLT               | 8   |   |         |  |     |
| 4            | WSH-0018  | WASHER                  | 12  |   |         |  |     |
| 5            | NUT-0269  | NUT                     | 12  |   |         |  |     |
| 6            | 591042 01 | RAM BRACKET             | 1   |   |         |  |     |
| 7            | 591031 01 | STRENGTHENER PLATE      | 1   |   |         |  |     |
| 8            | HSS-0250  | BOLT                    | 4   |   |         |  |     |
| 9            | 591073 01 | PENDULUM DOUBLE ARM     | 1   |   |         |  |     |
| 10           | 801236 01 | HYDRAULIC RAM, 35mm ROD | 1   |   |         |  |     |
| OR           | 800083 01 | HYDRAULIC RAM, 32mm ROD | 1   |   |         |  |     |
| 10a          | RMSK00320 | RAM SEAL KIT, 35mm ROD  |     |   |         |  |     |
| OR           | RMSK00290 | RAM SEAL KIT, 32mm ROD  |     |   |         |  |     |
| OR           | RMSK04032 | RAM SEAL KIT, 32mm ROD  |     |   |         |  |     |
| 11           | NIP-00600 | GREASE NIPPLE           | 1   |   |         |  |     |
| 12           | NIP-00605 | GREASE NIPPLE           | 1   |   |         |  |     |
| 13           | 591055 01 | PIVOT PIN               | 1   |   |         |  |     |
| 14           | 591055 02 | PIVOT PIN               | 1   |   |         |  |     |
| 15           | WSH-1545  | WASHER                  | 4   |   |         |  |     |
| 16           | PIN-20629 | SPLIT PIN               | 4   |   |         |  |     |
| 17           | HBK-0012  | BULKHEAD FITTING        | 2   |   |         |  |     |
| 18           | WSH-1005  | DOWTY WASHER            | 2   |   |         |  |     |
| 19           | FIT-0025  | HYD ADAPT               | 2   |   |         |  |     |
| 20           | HHCE03005 | HYD HOSE ASSY           | 1   |   |         |  |     |
| 21           | HHCE03405 | HYD HOSE ASSY           | 1   |   |         |  |     |
| 22           | 591072 01 | NYLON SUPPORT           | 2   |   |         |  |     |
| 23           | 591071 01 | ARM EXTENTION           | 2   |   |         |  |     |
| 24           | HSS-0202  | SETSCREW                | 4   |   |         |  |     |
| 25           | HSSA10440 | SETSCREW                | 2   |   |         |  |     |
| 26           | WSH-0015  | PLAIN WASHER            | 12  |   |         |  |     |
| 27           | NUT-0265  | NUT NYLOCK              | 6   |   |         |  |     |



KIT-03625  
KIT-03626

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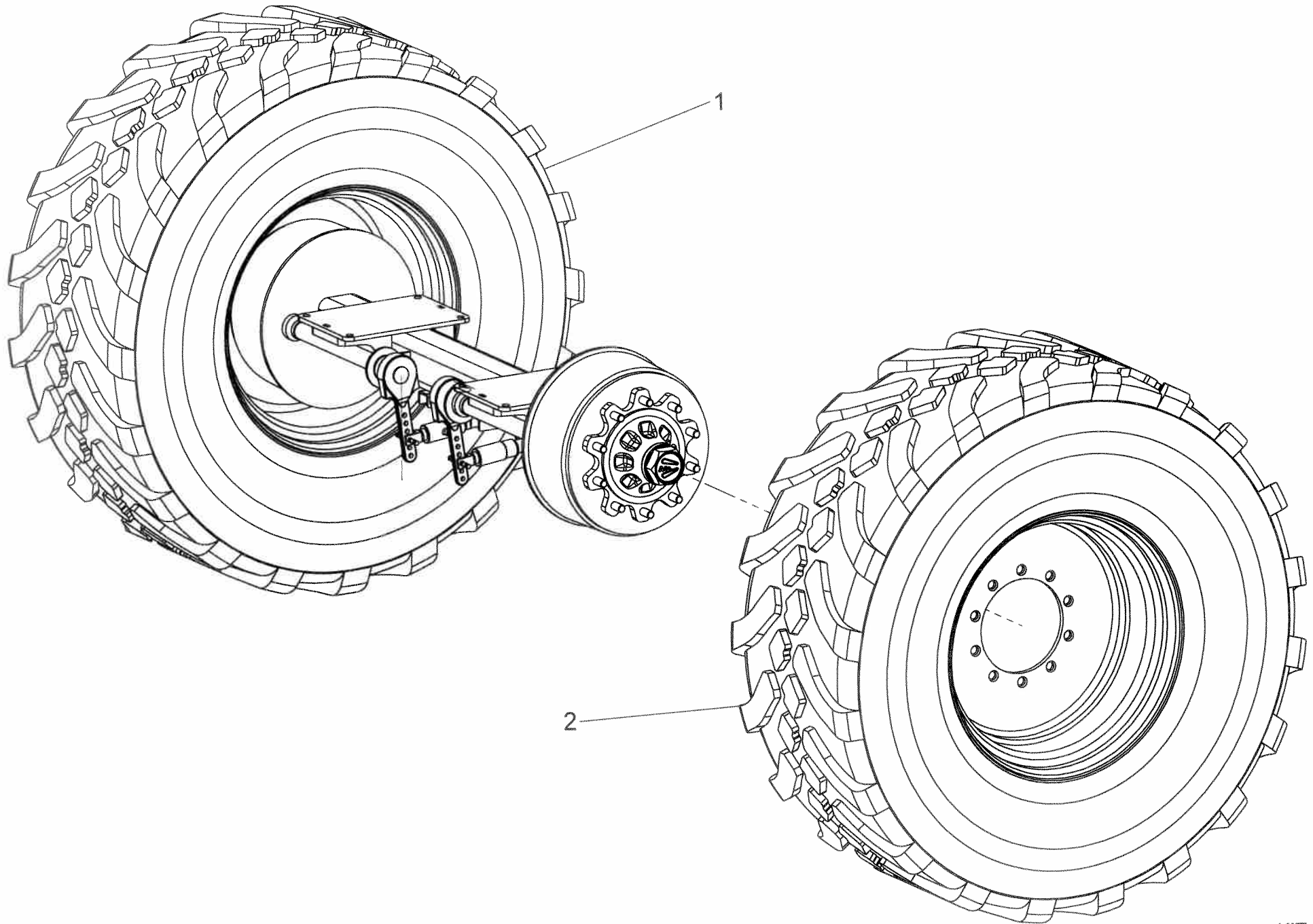
| ASSY NUMBER: |           | KIT-03738                     |     | ASSY DESCRIPTION: ANTI-BRIDGING KIT DOUBLE ARM 1600<br>DAIRY/CONTRACTOR |         |  |     |
|--------------|-----------|-------------------------------|-----|---|---------|--|-----|
| ITEM         | PART NO   | DESCRIPTION                   | QTY | ITEM  | PART NO |  | QTY |
| 1            | 591121 01 | BRIDGE ARM MTG PLATE W/A      | 1   |   |         |  |     |
| 2            | 591030 01 | STRENGTHENER BAR              | 2   |   |         |  |     |
| 3            | BLT-3800  | COACHBOLT                     | 8   |   |         |  |     |
| 4            | WSH-0018  | WASHER                        | 12  |   |         |  |     |
| 5            | NUT-0269  | NUT                           | 12  |   |         |  |     |
| 6            | 591042 01 | RAM BRACKET                   | 1   |   |         |  |     |
| 7            | 591031 01 | STRENGTHENER PLATE            | 1   |   |         |  |     |
| 8            | HSS-0250  | BOLT                          | 4   |   |         |  |     |
| 9            | 591134 01 | PENDULUM DOUBLE ARM           | 1   |   |         |  |     |
| 10           | 801236 01 | HYDRAULIC RAM, 35mm ROD       | 1   |   |         |  |     |
| 10a          | RMSK00320 | RAM SEAL KIT, 35mm ROD        |     |   |         |  |     |
| 11           | NIP-00600 | GREASE NIPPLE                 | 1   |   |         |  |     |
| 12           | NIP-00605 | GREASE NIPPLE                 | 1   |   |         |  |     |
| 13           | 591055 01 | PIVOT PIN                     | 1   |   |         |  |     |
| 14           | 591055 02 | PIVOT PIN                     | 1   |   |         |  |     |
| 15           | WSH-1545  | WASHER                        | 4   |   |         |  |     |
| 16           | PIN-20629 | SPLIT PIN                     | 4   |   |         |  |     |
| 17           | HBK-0012  | BULKHEAD FITTING              | 2   |   |         |  |     |
| 18           | WSH-1005  | DOWTY WASHER                  | 2   |   |         |  |     |
| 19           | FIT-0025  | HYD ADAPT                     | 2   |   |         |  |     |
| 20           | HHCE03005 | HYD HOSE ASSY                 | 1   |   |         |  |     |
| 21           | HHCE03405 | HYD HOSE ASSY                 | 1   |   |         |  |     |
| 22           | 591072 01 | NYLON SUPPORT                 | 2   |   |         |  |     |
| 23           | 591071 01 | ARM EXTENTION                 | 2   |   |         |  |     |
| 24           | HSS-0202  | SETSCREW                      | 4   |   |         |  |     |
| 25           | HSSA10440 | SETSCREW                      | 2   |   |         |  |     |
| 26           | WSH-0015  | PLAIN WASHER                  | 12  |   |         |  |     |
| 27           | NUT-0265  | NUT NYLOCK                    | 6   |   |         |  |     |
| 28           | BSHA06565 | BUSH                          | 1   |   |         |  |     |
| 29           |           |                               |     |   |         |  |     |
| 30           | NUT-0271  | NUT (M16 NYLOC)               | 1   |   |         |  |     |
| 31           | 190548 72 | WASHER (17 I/Dx90 O/Dx10 THK) | 1   |   |         |  |     |
| 32           | WSHA30161 | LOCKWASHER (M16)              | 1   |   |         |  |     |
| 33           | HSSA16200 | SETSCREW (M16x30)             | 1   |   |         |  |     |
| 34           | NIP-00600 | GREASE NIPPLE (M6)            | 1   |   |         |  |     |



KIT-03738

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| ASSY NUMBER: |           | SUB ASSY DESCRIPTION:WHEEL & TYRE KIT(23.1-26 ALLIANCE) |     |      |         |             |     |
|--------------|-----------|---|-----|------|---------|-------------|-----|
| ITEM         | PART NO   | DESCRIPTION   | QTY | ITEM | PART NO | DESCRIPTION | QTY |
| 1            | WHL-02618 | LH WHEEL & TYRE ASSY(8 STD)                             | 1   |      |         |             |     |
| 2            | WHL-03619 | RH WHEEL & TYRE ASSY(8 STD)                             | 1   |      |         |             |     |



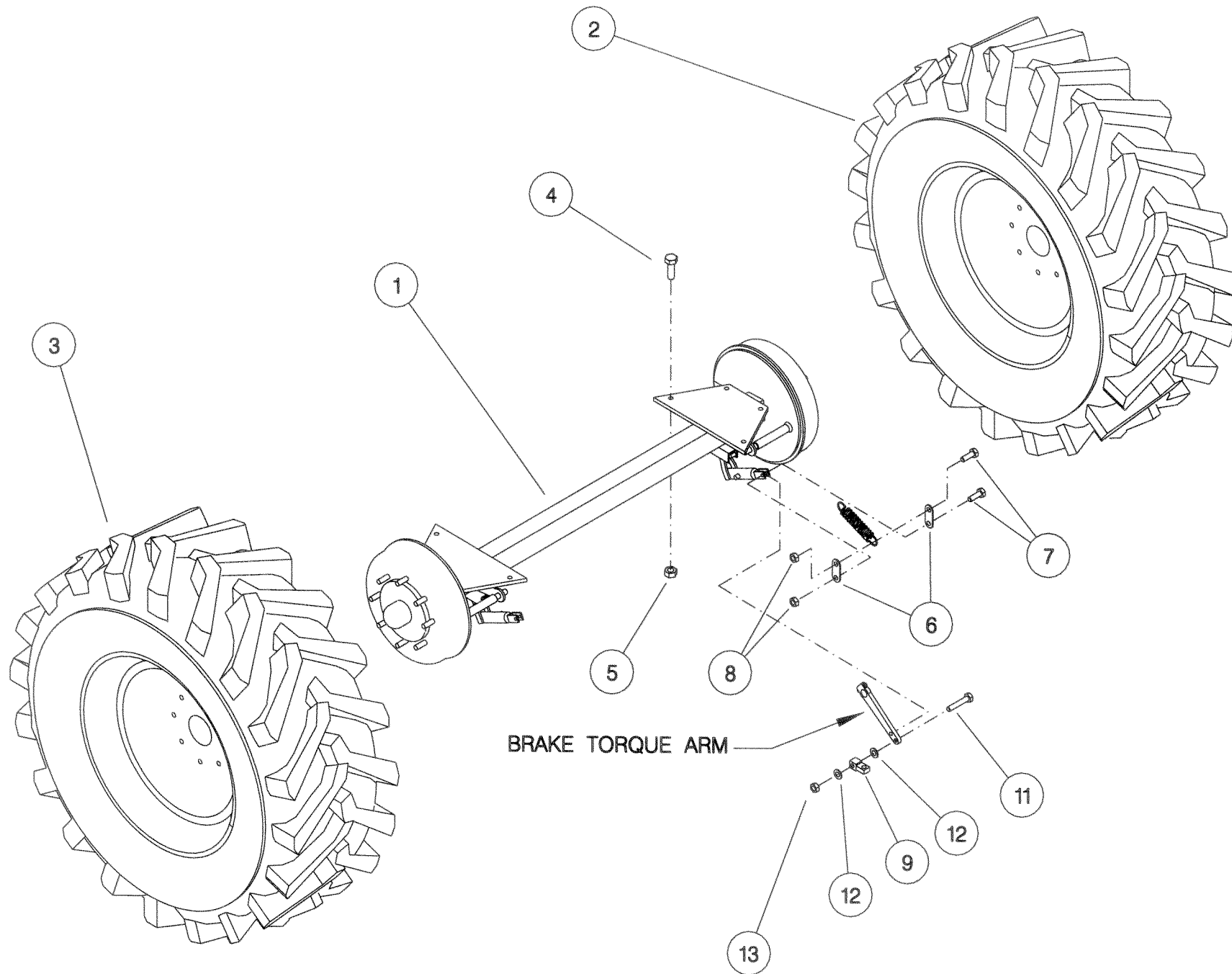
KIT-03772



**Shelbourne Reynolds Engineering Limited**

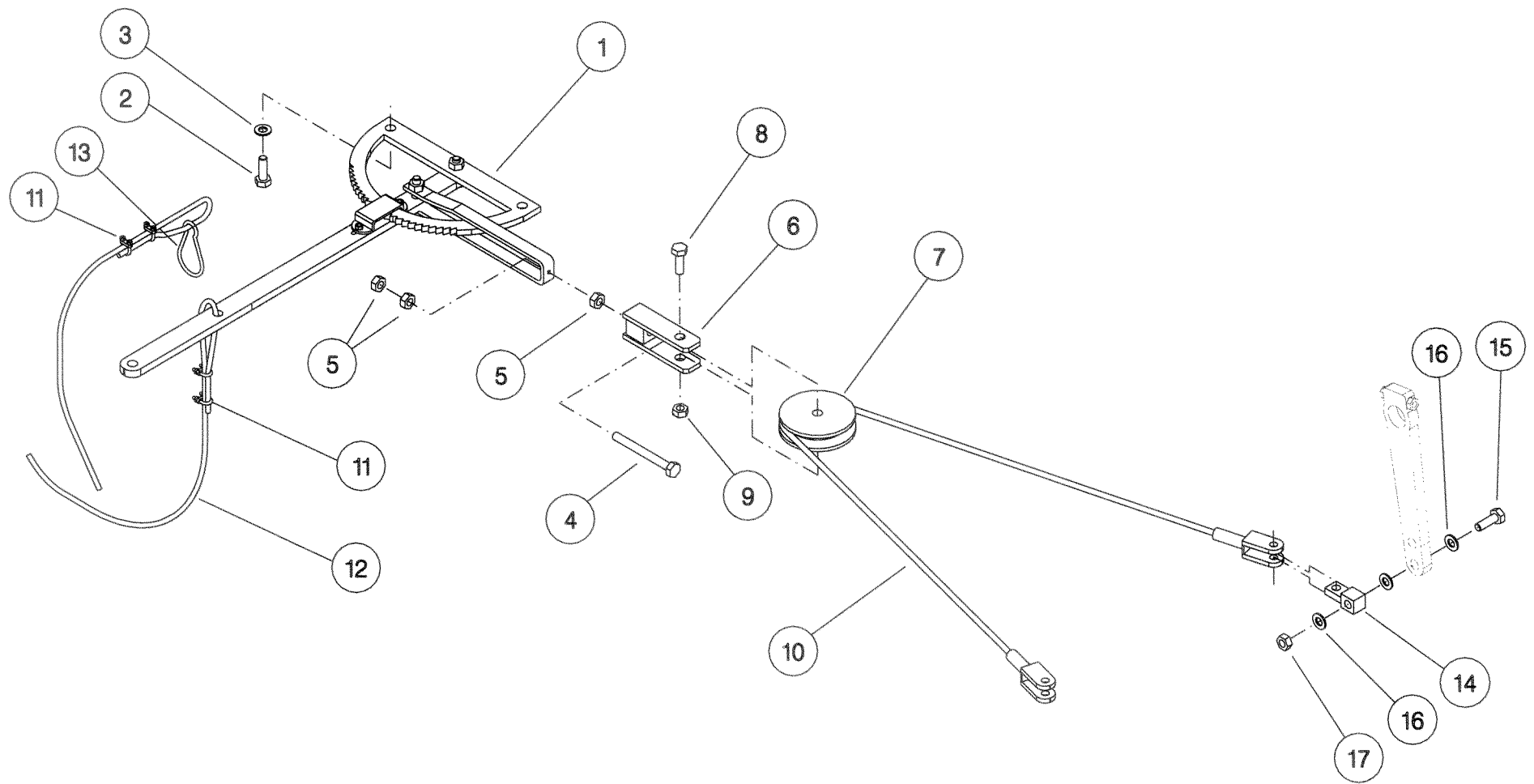
| ASSY NUMBER: 609000 01 |            |                                |     | ASSY DESCRIPTION: AXLE SUB ASSY-POWERSPREAD |         |                                       |     |
|------------------------|------------|--------------------------------|-----|---|---------|---------------------------------------|-----|
| ITEM                   | PART NO    | DESCRIPTION                    | QTY | ITEM  | PART NO | DESCRIPTION                           | QTY |
| 1                      | 607037 01  | AXLE WELD ASSY                 | 1   |   |         |                                       |     |
| OR                     |            | (FOR SERIAL No.88103 & DOWN)   |     |   |         |                                       |     |
| 1a                     | 590445 01  | AXLE WELD ASSY                 | 1   |   |         |                                       |     |
|                        |            | (FOR SERIAL No.88104 & UP)     |     |   |         |                                       |     |
| 2a                     | WHL-02801  | L.H.WHEEL & TYRE 630 ONLY      | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB1) |     |
|                        |            | 16.5/85-28(10PLY,M18x8,275pcd) |     |   |         |                                       |     |
| 2b                     | WHL-02601  | L.H.WHEEL & TYRE 18.4-26       | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB2) |     |
|                        |            | 12PLY RAD.M18x8 ON 275pcd)     |     |   |         |                                       |     |
| 2c                     | WHL-02402  | L.H WHEEL & TYRE 21.3-24       | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB3) |     |
|                        |            | 12PLY RAD.M18x8 ON 275pcd)     |     |   |         |                                       |     |
| 2d                     | WHL-02612  | L.H WHEEL TYRE 600.55-26.5     | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB4) |     |
|                        |            | 12PLY RAD.M18x8 ON 275pcd)     |     |   |         |                                       |     |
| 2e                     | WHL-02616  | L.H WHEEL & TYRE 23.1-26       | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB5) |     |
|                        |            | 12PLY RAD.M18x8 DNEPROSHINA    |     |   |         |                                       |     |
| 2f                     | WHL-02616a | L.H WHEEL & TYRE 23.1-26       | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB6) |     |
|                        |            | 14PLY RAD.M18x8 STARMAXX       |     |   |         |                                       |     |
| 3a                     | WHL-02800  | R.H.WHEEL & TYRE 630 ONLY      | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB1) |     |
|                        |            | 16.5/85-28(10PLY,M18x8,275pcd) |     |   |         |                                       |     |
| 3b                     | WHL-02600  | R.H.WHEEL & TYRE 18.4-26       | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB2) |     |
|                        |            | 12PLY RAD.M18x8 ON 275pcd)     |     |   |         |                                       |     |
| 3c                     | WHL-02403  | R.H.WHEEL & TYRE 21.3-24       | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB3) |     |
|                        |            | 12PLY RAD.M18x8 ON 275pcd)     |     |   |         |                                       |     |
| 3d                     | WHL-02613  | R.H WHEEL & TYRE 600.55-26.5   | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB4) |     |
|                        |            | 12PLY RAD.M18x8 ON 275pcd)     |     |   |         |                                       |     |
| 3e                     | WHL-02617  | R.H WHEEL & TYRE 23.1-26       | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB5) |     |
|                        |            | 12PLY RAD.M18x8 DNEPROSHINA    |     |   |         |                                       |     |
| 3f                     | WHL-02617a | R.H WHEEL & TYRE 23.1-26       | 1   |   |         | WHEEL & TYRE SUB ASSY -(609000 01SB6) |     |
|                        |            | 14PLY RAD.M18x8 STARMAXX       |     |   |         |                                       |     |
| 4                      | HSS-0318   | BOLT(M16x50)                   | 8   |   |         |                                       |     |
| 5                      | NUT-0271   | NUT(M16 NYLOC)                 | 8   |   |         |                                       |     |
| 6                      | 590153 01  | BRAKE RAM PLATE                | 4   |   |         |                                       |     |
| 7                      | HSS-0265   | SETSCREW(M12x55)               | 4   |   |         |                                       |     |
| 8                      | NUT-0269   | NUT(M12 NYLOC)                 | 4   |   |         |                                       |     |
| 9                      | 590062 01  | BRAKE LINK PIVOT               | 2   |   |         |                                       |     |
| 10                     |            |                                |     |   |         |                                       |     |
| 11                     | HSS-0210   | SETSCREW(M10x50)               | 2   |   |         |                                       |     |
| 12                     | WSH-0015   | WASHER(M10 PLAIN)              | 4   |   |         |                                       |     |
| 13                     | NUT-0265   | NUT(M10 NYLOC)                 | 2   |   |         |                                       |     |





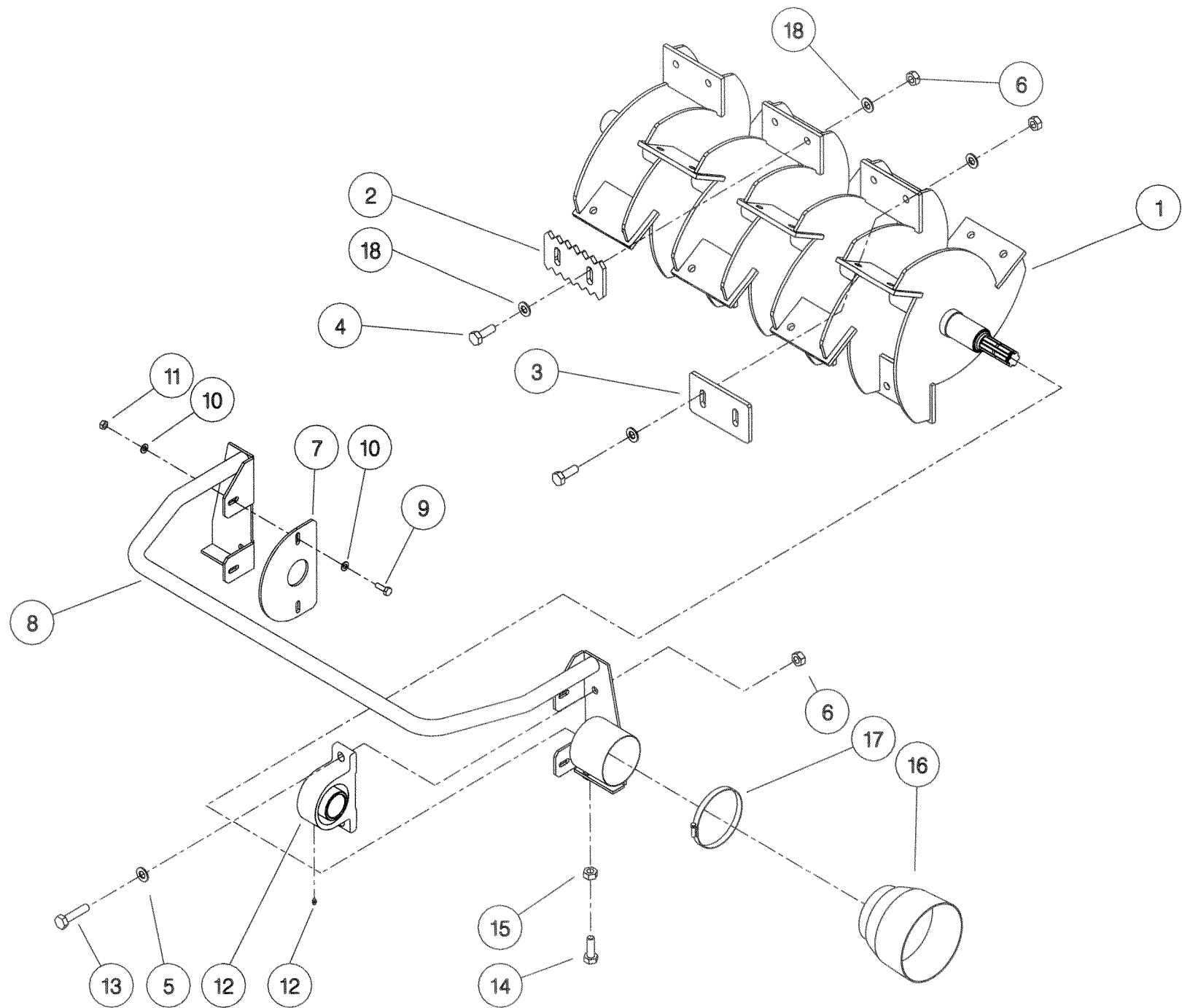
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| ASSY NUMBER: |           | 609001 01            |      | ASSY DESCRIPTION: |         | HANDBRAKE SUB ASSY |     |
|--------------|-----------|----------------------|------|-------------------|---------|--------------------|-----|
| ITEM         | PART NO   | DESCRIPTION          | QTY  | ITEM              | PART NO | DESCRIPTION        | QTY |
| 1            | 590222 01 | HANDBRAKE LEVER ASSY | 1    |                   |         |                    |     |
| 2            | HSS-0238  | SETSCREW             | 2    |                   |         |                    |     |
| 3            | WSH-0065  | WASHER               | 2    |                   |         |                    |     |
| 4            | HSSA10740 | SETSCREW             | 1    |                   |         |                    |     |
| 5            | NUT-0167  | NUT                  | 3    |                   |         |                    |     |
| 6            | 590060 01 | PULLEY CLEVIS W/ASSY | 1    |                   |         |                    |     |
| 7            | 590101 01 | NYLON PULLEY         | 1    |                   |         |                    |     |
| 8            | BLT-2252  | BOLT                 | 1    |                   |         |                    |     |
| 9            | NUT-0269  | NUT                  | 1    |                   |         |                    |     |
| 10           | 590072 01 | CABLE ASSY           | 1    |                   |         |                    |     |
| 11           | WRP-02040 | WIRE ROPE CLAMPS     | 4    |                   |         |                    |     |
| 12           | WRP-00040 | CABLE                | 4.6m |                   |         |                    |     |
| 13           | WRP-03000 | SNAP HOOK            | 1    |                   |         |                    |     |
| 14           | 590062 01 | BRAKE LINK PIVOT     | 2    |                   |         |                    |     |
| 15           | HSS-0210  | SETSCREW             | 2    |                   |         |                    |     |
| 16           | WSH-0015  | WASHER               | 6    |                   |         |                    |     |
| 17           | NUT-0265  | NUT                  | 2    |                   |         |                    |     |



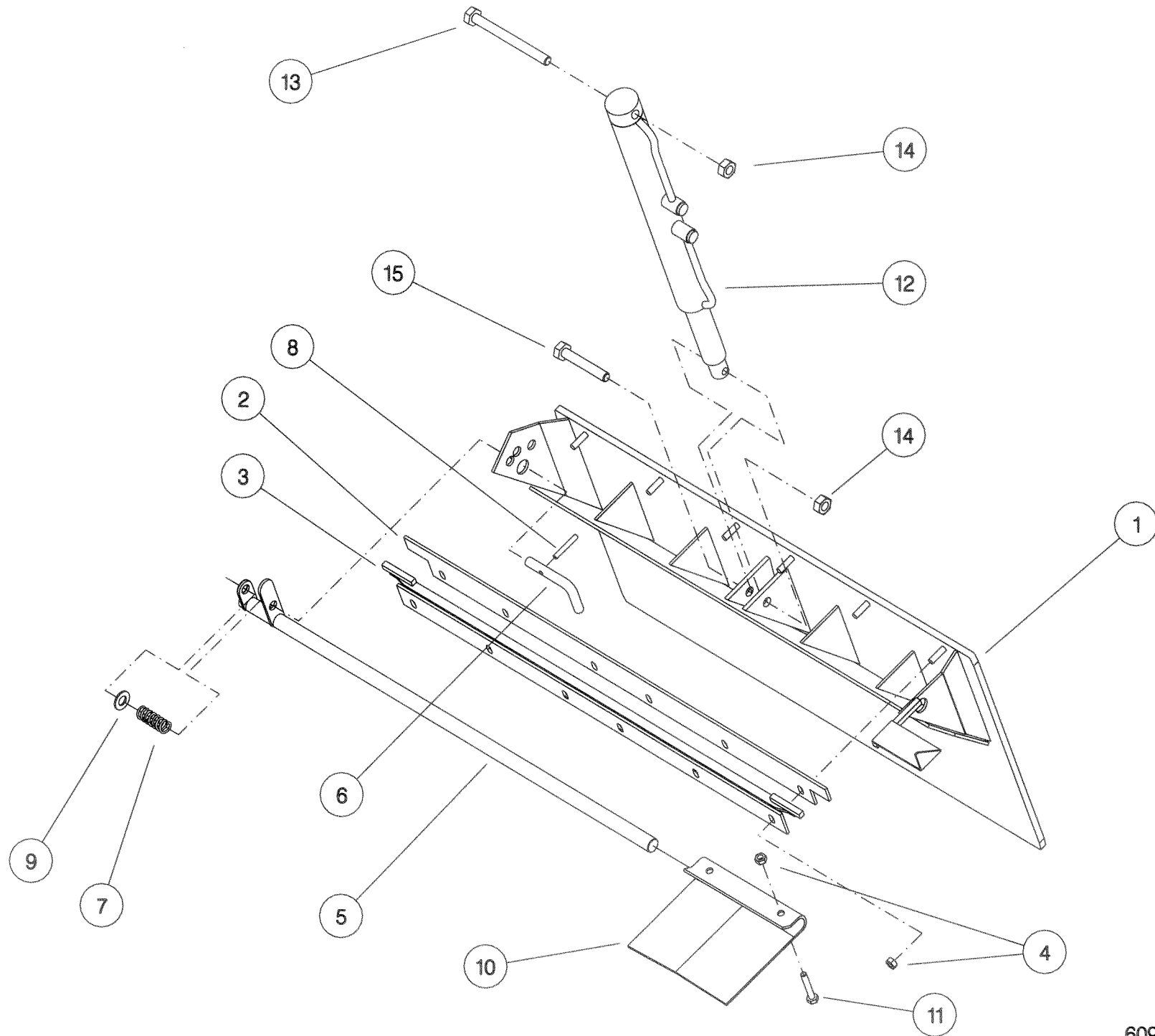
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| ASSY NUMBER: |           | 609002 01                |     | ASSY DESCRIPTION: |          | DISCHARGE ROTOR SUB ASSY |     |
|--------------|-----------|--------------------------|-----|-------------------|----------|--------------------------|-----|
| ITEM         | PART NO   | DESCRIPTION              | QTY | ITEM              | PART NO  | DESCRIPTION              | QTY |
| 1            | 604984 01 | IMPELLER WELD ASSY       | 1   |                   | E604984  |                          |     |
| 2            | 604682 01 | IMPELLER BLADE           | 12  |                   | E604682  |                          |     |
| 3            | 590152 01 | IMPELLER BLADE           | 6   |                   |          |                          |     |
| 4            | HSS-0318  | SETSCREW                 | 36  |                   |          |                          |     |
| 5            | WSH-0024  | WASHER                   | 4   |                   |          |                          |     |
| 6            | NUT-0271  | NUT(M16 NYLOC)           | 40  |                   |          |                          |     |
| 7            | 590165 01 | BEARING PROTECTION PLATE | 2   |                   |          |                          |     |
| 8            | 601861 01 | IMPELLER GUARD W/ASSY    | 1   |                   | E601861  |                          |     |
| 9            | HSS-0194  | SETSCREW                 | 4   |                   |          |                          |     |
| 10           | WSH-0015  | WASHER                   | 8   |                   |          |                          |     |
| 11           | NUT-0265  | NUT                      | 4   |                   |          |                          |     |
| 12           | BRG-25540 | BEARING                  | 2   |                   | EBP 0124 |                          |     |
| 13           | BLT-2314  | BOLT                     | 4   |                   |          |                          |     |
| 14           | HSS-0320  | SETSCREW                 | 2   |                   |          |                          |     |
| 15           | NUT-0380  | NUT                      | 2   |                   |          |                          |     |
| 16           | PTO-00901 | PLASTIC CONE SHROUD      | 1   |                   | EST 2577 |                          |     |
| 17           | CLP-00585 | JUBILEE CLIP             | 1   |                   | EFJ 0310 |                          |     |
| 18           | WSHA30161 | WASHER                   | 72  |                   |          |                          |     |
| 19           | NIP-0001  | GREASE NIPPLE            | 2   |                   |          |                          |     |



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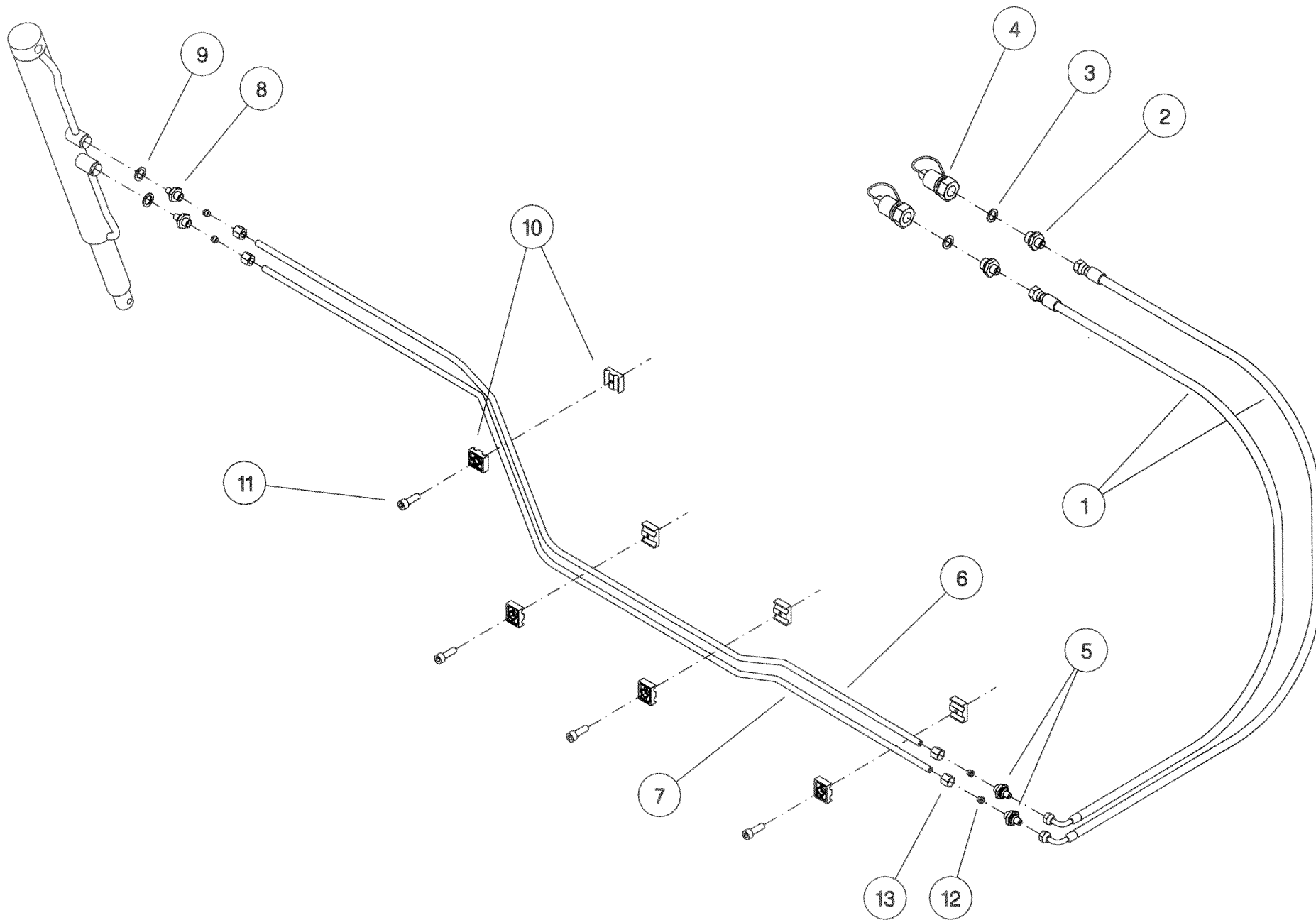
| ASSY NUMBER: |           | 609003 01   |     | ASSY DESCRIPTION: |           | DISCHARGE DOOR SUB ASSY |     |
|--------------|-----------|---|-----|-------------------|-----------|-------------------------|-----|
| ITEM         | PART NO   | DESCRIPTION   | QTY | ITEM              | PART NO   | DESCRIPTION             | QTY |
| 1            | 601802 01 | DISCHARGE DOOR W/ASSY                                   | 1   |                   | E601802   |                         |     |
| 2            | 606545 01 | TOP DOOR SEAL   | 1   |                   | E606545   |                         |     |
| 3            | 601829 01 | SEAL CLAMP PLATE  | 1   |                   | E601829   |                         |     |
| 4            | NUT-0265  | NUT(M10 NYLOC)  | 12  |                   |           |                         |     |
| 5            | 604992 01 | DOOR LEVER  | 1   |                   | E604992   |                         |     |
| 6            | 605085 01 | HANDLE  | 1   |                   | E605085   |                         |     |
| 7            | SPGC32021 | SPRING  | 1   |                   | EFS 0094  |                         |     |
| 8            | PIN-1775  | ROLL PIN  | 1   |                   | EPB06020  |                         |     |
| 9            | WSH-0024  | WASHER(M16 PLAIN)                                       | 1   |                   |           |                         |     |
| 10           | 605018 01 | DEFLECTOR PADDLE  | 3   |                   | E605018   |                         |     |
| 11           | BLTF10323 | COACH BOLT(M10x50)                                      | 6   |                   | EBCV10050 |                         |     |
| 12           | 590114 01 | DOOR RAM(GES HYDRAULICS<br>REF.08HR 0620-DOUBLE ACTING) | 1   |                   | EHR 0620  |                         |     |
| 13           | BLT-2325  | BOLT(M16x110)   | 1   |                   |           |                         |     |
| 14           | NUT-0271  | NUT(M16 NYLOC)  | 2   |                   |           |                         |     |
| 15           | BLT-2316  | BOLT(M16x80)  | 1   |                   |           |                         |     |



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| ASSY NUMBER: |           | 609007 01   |     | ASSY DESCRIPTION: |         | DOOR RAM HYDRAULICS SUB ASSY |     |
|--------------|-----------|---|-----|-------------------|---------|------------------------------|-----|
| ITEM         | PART NO   | DESCRIPTION   | QTY | ITEM              | PART NO | DESCRIPTION                  | QTY |
| 1            | HHBC30005 | FLEX HOSE (1/4" Bx1/4" STRGHT<br>BSP/1/4" SWEPT 90 BSPx3m LONG) | 2   |                   |         |                              |     |
| 2            | HMA-0055  | ADAPTOR (1/4"-1/2" BSP.M/M)                                     | 2   |                   |         |                              |     |
| 3            | WSH-1015  | WASHER (1/2" DOWTY)   | 2   |                   |         |                              |     |
| 4            | COU-0162  | Q-R COUPLING (1/2" BSP)   | 2   |                   |         |                              |     |
| 5            | FIT-0047  | STUD COUPLING (1/4" BSPx10mm<br>O.D. TUBE)                      | 2   |                   |         |                              |     |
| 6            | 590139 01 | TUBE (10mm DIA STEELx2.1m)                                      | 1   |                   |         |                              |     |
| 7            | 590139 02 | TUBE (10mm DIA STEELx2.1m)                                      | 1   |                   |         |                              |     |
| 8            | HPTD01005 | STUD COUPLING (3/8" BSPx10mm<br>O.D. TUBE)                      | 2   |                   |         |                              |     |
| 9            | WSH-1010  | WASHER (3/8" DOWTY)   | 2   |                   |         |                              |     |
| 10           | HCPD01000 | HYD. PIPE CLAMP (2x10mm)  | 4   |                   |         |                              |     |
| 11           | SCW-0083  | SCREW (CAP HD.M6x20mm)  | 4   |                   |         |                              |     |
| 12           | FIT-0056  | OLIVE (10mm DIA TUBE)   | 4   |                   |         |                              |     |
| 13           | FIT-0051  | NUT (10mm DIA TUBE)   | 4   |                   |         |                              |     |

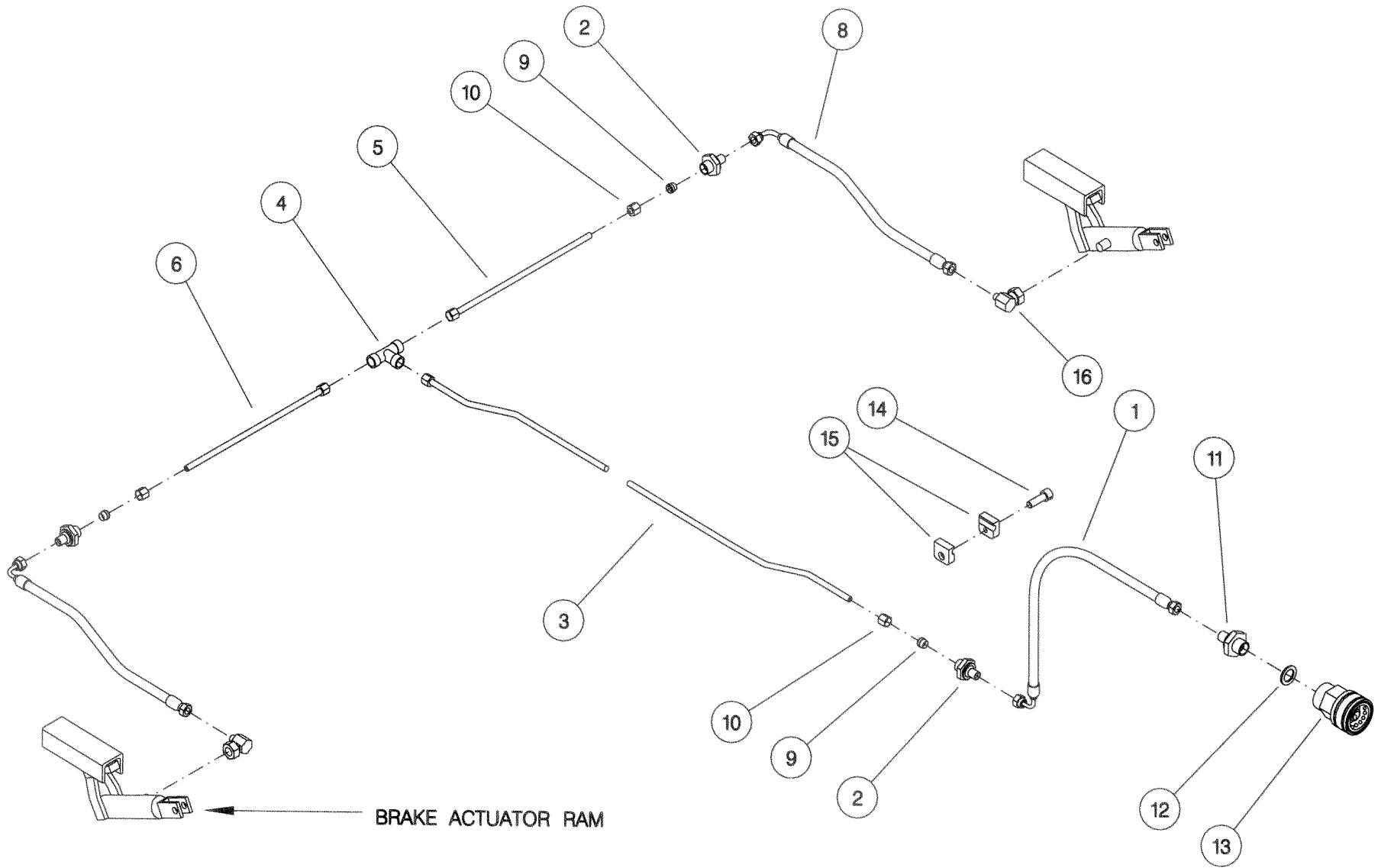




609007 01

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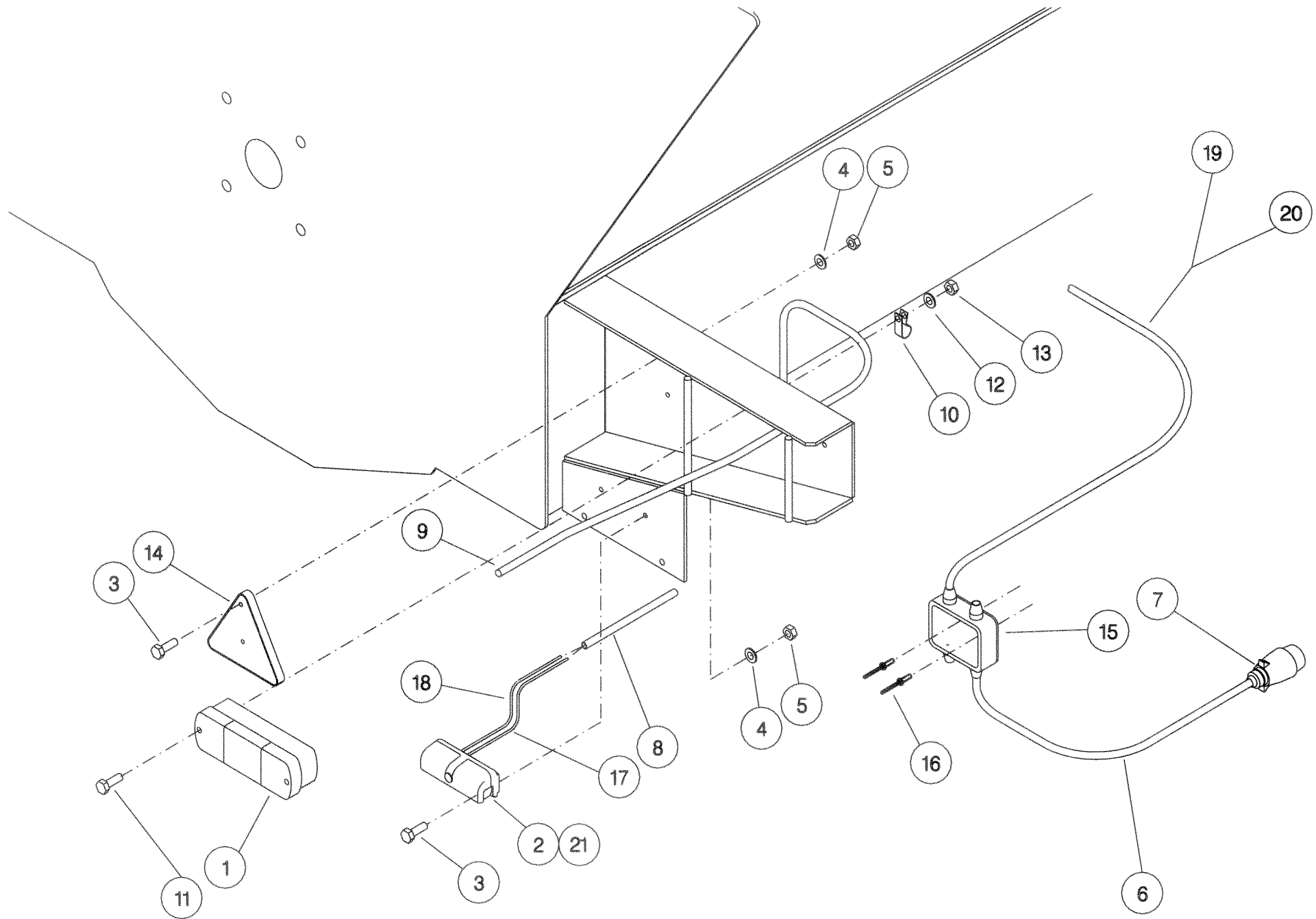
| ASSY NUMBER: |           | 609011 01   |     | ASSY DESCRIPTION: |         | BRAKE RAMS HYDRAULIC SUB ASSY |     |
|--------------|-----------|---|-----|-------------------|---------|-------------------------------|-----|
| ITEM         | PART NO   | DESCRIPTION   | QTY | ITEM              | PART NO | DESCRIPTION                   | QTY |
| 1            | HHBC32005 | FLEX HOSE (1/4"Bx1/4"STRGHT<br>BSP/1/4"SWEPT 90 BSPx3.2m) | 1   |                   |         |                               |     |
| 2            | FIT-0047  | STUD COUPLING (1/4"BSPx10mm<br>O.D. TUBE)                 | 3   |                   |         |                               |     |
| 3            | 590140 01 | TUBE (10mmDIA STEELx2.9m)                                 | 1   |                   |         |                               |     |
| 4            | FIT-0060  | TEE FITTING (ALL ROUND ENDS<br>TO SUIT 10mm STEEL TUBE)   | 1   |                   |         |                               |     |
| 5            | RP-100330 | TUBE (10mmDIA STEELx0.33m)                                | 1   |                   |         |                               |     |
| 6            | RP-100610 | TUBE (10mmDIA STEELx0.61m)                                | 1   |                   |         |                               |     |
| 7            |           |   |     |                   |         |                               |     |
| 8            | HHBC03005 | FLEX HOSE (1/4"Bx1/4"STRGHT<br>BSP/1/4"SWEPT 90 BSPx0.3M) | 2   |                   |         |                               |     |
| 9            | FIT-0056  | OLIVE (FOR 10mm O.D. PIPE)                                | 6   |                   |         |                               |     |
| 10           | FIT-0051  | NUT (10mm CLAMPING NUT)                                   | 6   |                   |         |                               |     |
| 11           | HMA-0055  | ADAPTOR (1/4"x1/2"BSP M/M)                                | 1   |                   |         |                               |     |
| 12           | WSH-1015  | DOWTY WASHER (1/2"BSP)                                    | 1   |                   |         |                               |     |
| 13           | HQR-10007 | HYD.Q.R.COUPLING (BRAKE)                                  | 1   |                   |         |                               |     |
| 14           | FIT-1000  | HYD.PIPE CLAMP (1x10mm)                                   | 2   |                   |         |                               |     |
| 15           | SCW-0083  | SCREW (CAP HD.M6x20mm)                                    | 2   |                   |         |                               |     |
| 16           | HALAA0305 | HYDRAULIC ELBOW (1/4"BSPM<br>3/8"BSPF 90DEG.COMPACT)      | 2   |                   |         |                               |     |



BRAKE ACTUATOR RAM

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| ASSY NUMBER: 609021 01 (PHANTOM) |           |                       |      | ASSY DESCRIPTION: LIGHTS SUB ASSY |         |             |     |
|----------------------------------|-----------|-----------------------|------|-----------------------------------|---------|-------------|-----|
| ITEM                             | PART NO   | DESCRIPTION           | QTY  | ITEM                              | PART NO | DESCRIPTION | QTY |
| 1                                | LMP-0007  | REAR LIGHT CLUSTERS   | 2    |                                   |         |             |     |
| 2                                | LMP-0009  | No. PLATE LIGHT       | 1    |                                   |         |             |     |
| 3                                | HSS-0065  | SETSCREW              | 6    |                                   |         |             |     |
| 4                                | WSH-0006  | WASHER                | 6    |                                   |         |             |     |
| 5                                | NUT-0258  | NUT                   | 6    |                                   |         |             |     |
| 6                                | CBL-03530 | CABLE                 | 8m   |                                   |         |             |     |
| 7                                | PLG-0005  | 7 PIN MALE PLUG       | 1    |                                   |         |             |     |
| 8                                | SLV-00010 | SLEEVING              | 0.7m |                                   |         |             |     |
| 9                                | ETM-00130 | SPADE TERMINAL FEMALE | 10   |                                   |         |             |     |
| 10                               | CLP-0030  | "P" CLIP              | 8    |                                   |         |             |     |
| 11                               | HSS-0086  | SETSCREW              | 12   |                                   |         |             |     |
| 12                               | WSH-0009  | WASHER                | 12   |                                   |         |             |     |
| 13                               | NUT-0260  | NUT                   | 12   |                                   |         |             |     |
| 14                               | REF-0030  | REFLECTOR TRI-ANGLE   | 2    |                                   |         |             |     |
| 15                               | JNC-00000 | JUNCTION BOX          | 1    |                                   |         |             |     |
| 16                               | POP-0007  | POP RIVET)            | 2    |                                   |         |             |     |
| 17                               | CBL-00325 | CABLE                 | 0.7m |                                   |         |             |     |
| 18                               | CBL-00125 | CABLE                 | 0.7m |                                   |         |             |     |
| 19                               | CBL-03210 | CABLE                 | 0.8m |                                   |         |             |     |
| 20                               | CBL-03210 | CABLE                 | 2m   |                                   |         |             |     |
| 21                               | ETM-00560 | ELEC BULLET TERMINAL  | 2    |                                   |         |             |     |





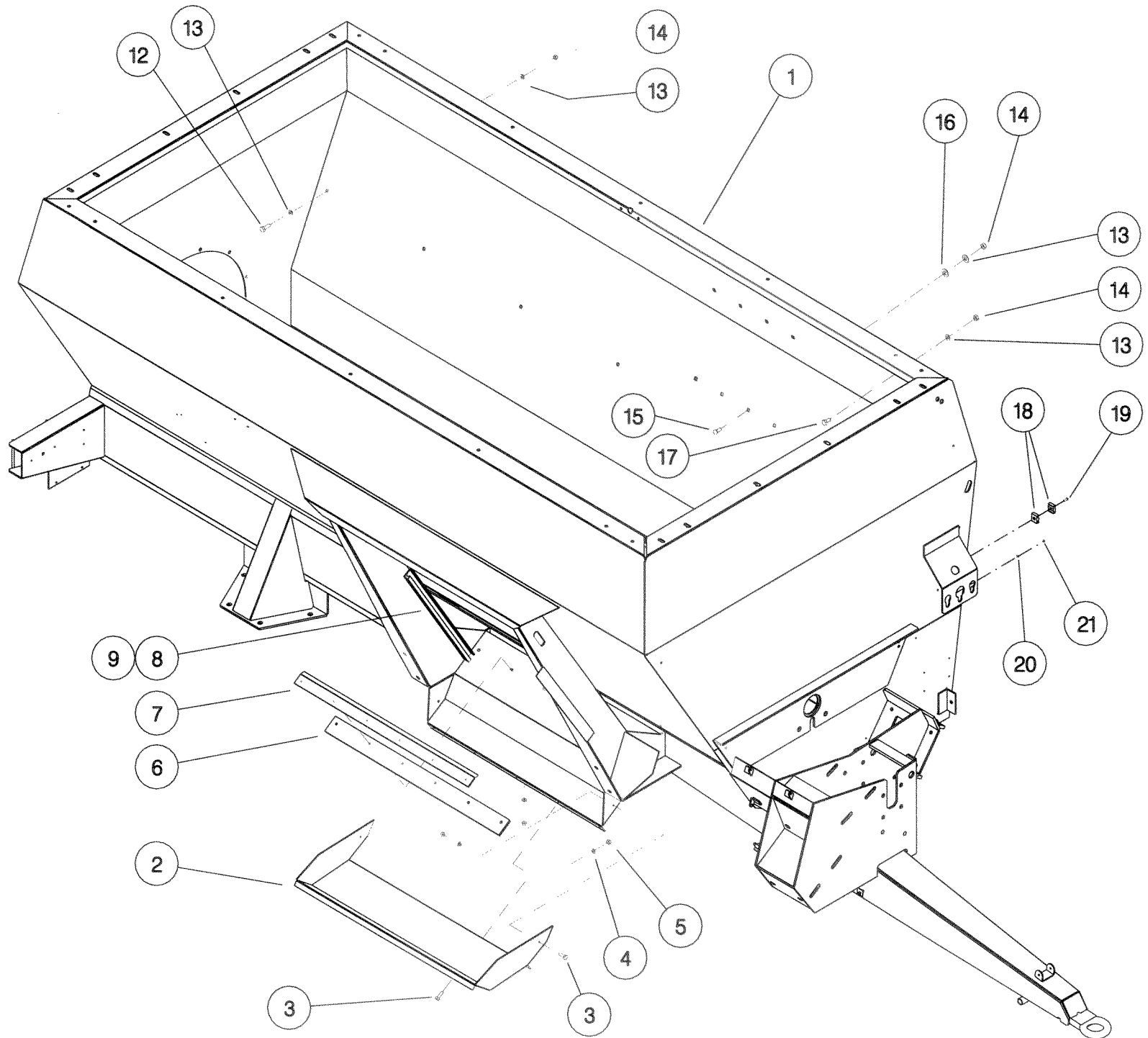
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| ASSY NUMBER: |           | 609028 01             |      | ASSY DESCRIPTION: |         | MAIN BODY SUB ASSY(DAIRY) |     |
|--------------|-----------|-----------------------|------|-------------------|---------|---------------------------|-----|
| ITEM         | PART NO   | DESCRIPTION           | QTY  | ITEM              | PART NO | DESCRIPTION               | QTY |
| 1            | 590569 01 | POWERSPREAD WELD ASSY | 1    |                   |         |                           |     |
| 2            | 605298 01 | ANTI-DRIP TRAY        | 1    |                   |         |                           |     |
| 3            | HSS-0145  | SETSCREW              | 7    |                   |         |                           |     |
| 4            | WSH-0012  | WASHER                | 13   |                   |         |                           |     |
| 5            | NUT-0263  | NUT                   | 13   |                   |         |                           |     |
| 6            | 605328 01 | BOTTOM DOOR SEAL      | 1    |                   |         |                           |     |
| 7            | 605336 01 | DOOR SEAL KEEP PLATE  | 1    |                   |         |                           |     |
| 8            | ER50-132  | RUBBER SEALING STRIP  | 0.8m |                   |         |                           |     |
| 9            | ER50-132  | RUBBER SEALING STRIP  | 0.8m |                   |         |                           |     |
| 10           |           |                       |      |                   |         |                           |     |
| 11           |           |                       |      |                   |         |                           |     |
| 12           | HSS-0238  | SETSCREW              | 6    |                   |         |                           |     |
| 13           | WSH-0018  | WASHER                | 24   |                   |         |                           |     |
| 14           | NUT-0269  | NUT                   | 18   |                   |         |                           |     |
| 15           | BLT-3790  | COACHBOLT             | 8    |                   |         |                           |     |
| 16           | WSH-0024  | WASHER                | 8    |                   |         |                           |     |
| 17           | HSS-0235  | SETSCREW              | 4    |                   |         |                           |     |
| 18           | HCPD01200 | HYD.PIPES CLAMP       | 1    |                   |         |                           |     |
| 19           | SCW-0089  | SCREW                 | 1    |                   |         |                           |     |
| 20           | WSH-0009  | WASHER                | 1    |                   |         |                           |     |
| 21           | NUT-0260  | NUT                   | 1    |                   |         |                           |     |

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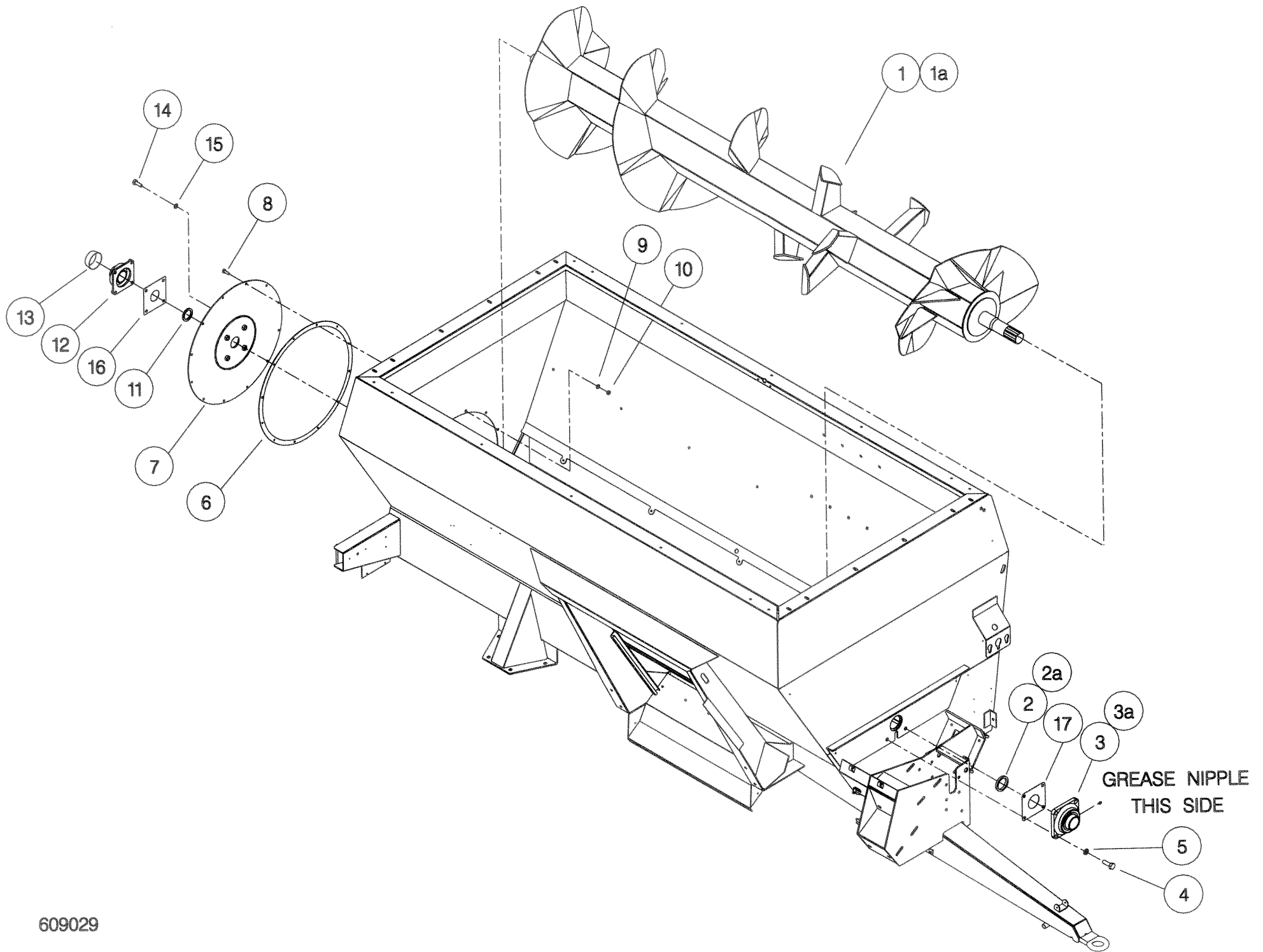
| ASSY NUMBER: |           | 609028 02             |      | ASSY DESCRIPTION: |         | MAIN BODY SUB ASSY(1400 DAIRY) |     |
|--------------|-----------|-----------------------|------|-------------------|---------|--------------------------------|-----|
| ITEM         | PART NO   | DESCRIPTION           | QTY  | ITEM              | PART NO | DESCRIPTION                    | QTY |
| 1            | 590960 01 | POWERSPREAD WELD ASSY | 1    |                   |         |                                |     |
| 2            | 605298 01 | ANTI-DRIP TRAY        | 1    |                   |         |                                |     |
| 3            | HSS-0145  | SETSCREW              | 7    |                   |         |                                |     |
| 4            | WSH-0012  | WASHER                | 13   |                   |         |                                |     |
| 5            | NUT-0263  | NUT                   | 13   |                   |         |                                |     |
| 6            | 605328 01 | BOTTOM DOOR SEAL      | 1    |                   |         |                                |     |
| 7            | 605336 01 | DOOR SEAL KEEP PLATE  | 1    |                   |         |                                |     |
| 8            | ER50-132  | RUBBER SEALING STRIP  | 0.7m |                   |         |                                |     |
| 9            | ER50-132  | RUBBER SEALING STRIP  | 0.7m |                   |         |                                |     |
| 10           |           |                       |      |                   |         |                                |     |
| 11           |           |                       |      |                   |         |                                |     |
| 12           | HSS-0238  | SETSCREW              | 6    |                   |         |                                |     |
| 13           | WSH-0018  | WASHER                | 12   |                   |         |                                |     |
| 14           | NUT-0269  | NUT                   | 6    |                   |         |                                |     |





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| ASSY NUMBER: |           | 609029 01                    |     | ASSY DESCRIPTION: |         | AUGER & AUGER FIXING KIT (DAIRY) |     |
|--------------|-----------|------------------------------|-----|-------------------|---------|----------------------------------|-----|
| ITEM         | PART NO   | DESCRIPTION                  | QTY | ITEM              | PART NO | DESCRIPTION                      | QTY |
| 1            | 590646 01 | AUGER ASSY (129100 & UP)     | 1   |                   |         |                                  |     |
| OR           |           |                              |     |                   |         |                                  |     |
| 1a           | 590559 01 | AUGER ASSY (128100 & DOWN)   | 1   |                   |         |                                  |     |
| 2            | SEAB09020 | SHAFT SEAL                   | 1   |                   |         |                                  |     |
| OR           |           | (No 129100 & UP)             |     |                   |         |                                  |     |
| 2a           | SEAF07500 | SHAFT SEAL                   | 1   |                   |         |                                  |     |
|              |           | (No 128100 & DOWN)           |     |                   |         |                                  |     |
| 3            | BRG-29040 | FRONT END BEARING            | 1   |                   |         |                                  |     |
| OR           |           |                              |     |                   |         |                                  |     |
| 3a           | BRG-27540 | FRONT-END BEARING            | 1   |                   |         |                                  |     |
| 4            | BLT-2366  | BOLT                         | 4   |                   |         |                                  |     |
| 5            | WSH-0075  | SPRING WASHER                | 4   |                   |         |                                  |     |
| 6            | 604852 01 | AUGER PLATE GASKET           | 1   |                   |         |                                  |     |
| 7            | 590575 01 | AUGER REAR PLATE             | 1   |                   |         |                                  |     |
| 8            | HSS-0241  | SETSCREW                     | 12  |                   |         |                                  |     |
| 9            | WSH-0018  | PLAIN WASHER                 | 12  |                   |         |                                  |     |
| 10           | NUT-0269  | NYLOC NUT                    | 12  |                   |         |                                  |     |
| 11           | SEAF06000 | SHAFT SEAL                   | 1   |                   |         |                                  |     |
| 12           | BRG-26040 | REAR-END BEARING             | 1   |                   |         |                                  |     |
| 13           | BRG-96000 | BEARING CAP                  | 1   |                   |         |                                  |     |
| 14           | HSS-0318  | SETSCREW                     | 4   |                   |         |                                  |     |
| 15           | WSH-0070  | SPRING WASHER                | 4   |                   |         |                                  |     |
| 16           | 590615 01 | SPACING DISC                 | 1   |                   |         |                                  |     |
| 17           | 590645 01 | BEARING SPACER (129100 & UP) | 1   |                   |         |                                  |     |



609029

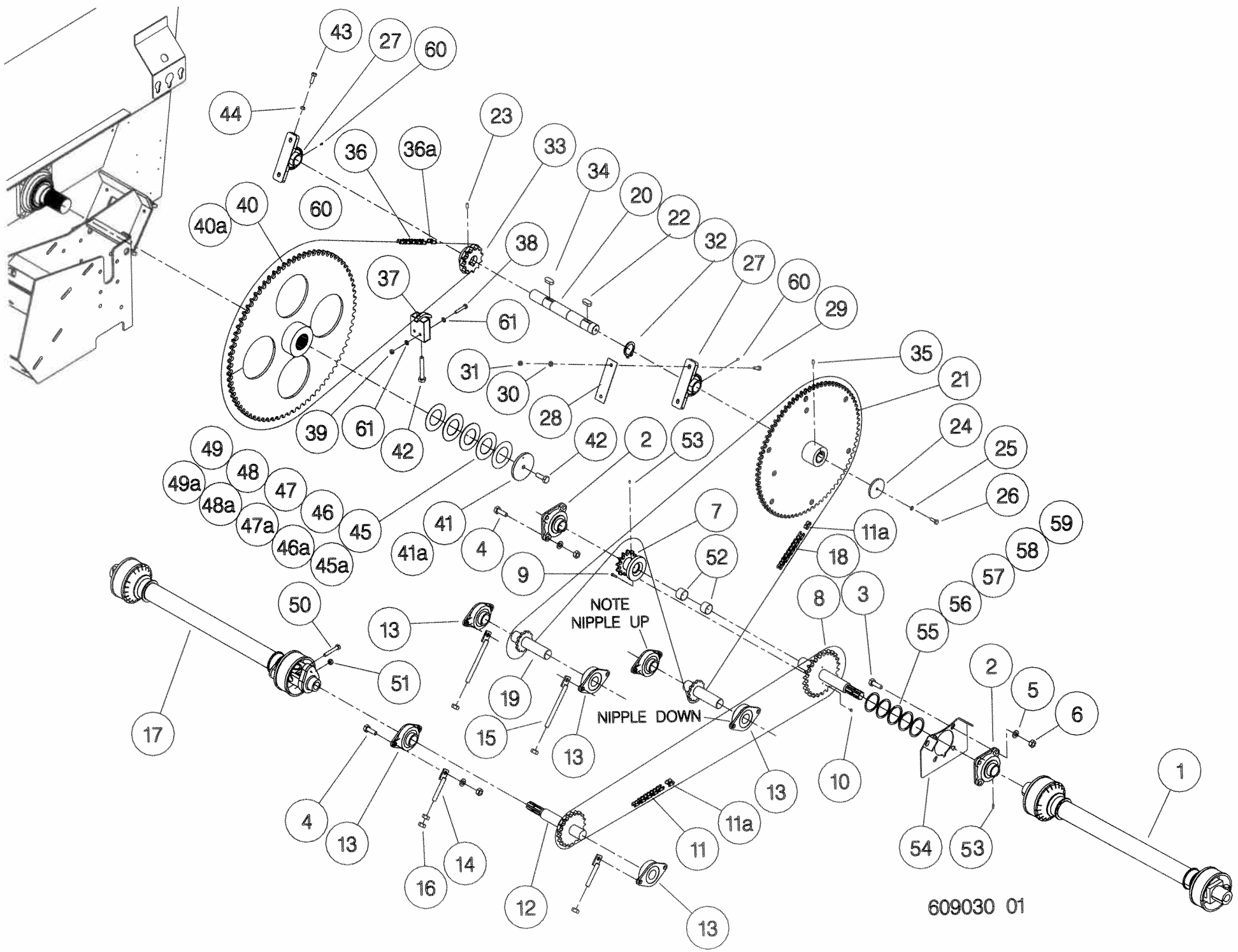


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| ASSY NUMBER: |            | 609030 01              |     | ASSY DESCRIPTION: |           | DRIVE SUB ASSY (DAIRY)        |     |
|--------------|------------|------------------------|-----|-------------------|-----------|-------------------------------|-----|
| ITEM         | PART NO    | DESCRIPTION            | QTY | ITEM              | PART NO   | DESCRIPTION                   | QTY |
| 1            |            |                        |     | 29                | BLTA12380 | BOLT                          | 4   |
| 2            | BRG-24541  | BEARING                | 2   | 30                | WSH-0018  | WASHER                        | 4   |
|              |            |                        |     | 31                | NUT-0269  | NUT                           | 4   |
| 3            | HSS-0319   | BOLT                   | 4   | 32                | CIR-0450  | CIRCLIP                       | 1   |
|              |            |                        |     | 33                | 604895 01 | SPROCKET                      | 1   |
| 4            | HSS-0318   | BOLT                   | 16  |                   |           |                               |     |
| 5            | WSH-0024   | WASHER                 | 24  | 34                | KEYA21260 | KEYS/No 120103                | 1   |
| 6            | NUT-0271   | NUT                    | 20  | OR                | K1212045  | KEYUPTO INC S/No119103        | 1   |
| 7            | 590585 01  | DRIVE HUB SPROCKET     | 1   | 35                | SCW-4602  | GRUBSCREW                     | 2   |
| 8            | 590584 01  | INPUT SHAFT W/A        | 1   | 36                | CHN-03280 | CHAIN                         | 1   |
| 9            | BLTA06264  | SHEARBOLT              | 6   |                   |           |                               |     |
| 10           | NUT-0260   | NYLOC NUT              | 6   | 36a               | CHN-03200 | CONNECTING LINK               | 1   |
| 11           | CHN-02580  | CHAIN                  | 1   | 37                | 590203 01 | CHAIN TENSION BLOCK           | 1   |
|              |            |                        |     | 38                | BLTA10440 | BOLT                          | 2   |
| 11a          | CHN-02500  | CONNECTING LINK        | 2   | 39                | NUT-0265  | NUT                           | 2   |
| 12           | 604712 01  | IMPELLER LAY SHAFT     | 1   | 40                | 590649 01 | SPROCKET (No.129100 & UP)     | 1   |
| 13           | BRG-24542  | BEARING                | 6   | OR                |           |                               |     |
|              |            |                        |     | 40a               | 590577 01 | SPROCKET (No.128100 & DOWN)   | 1   |
| 14           | 604771 01  | TENSION ADJUSTER-SHORT | 2   |                   |           |                               |     |
| 15           | 604771 02  | TENSION ADJUSTER LONG  | 2   | 41                | 590650 01 | RETAINING WASHER(129100 & UP) | 1   |
| 16           | NUT-0180   | PLAIN NUT              | 8   | OR                |           |                               |     |
| 17           | PTO-14001W | PTO SHAFT              | 1   | 41a               | 601489 01 | AUGER ENDCAP (128100 & DOWN)  | 1   |
| OR           |            | (s/n ?????? AND ON)    |     | 42                | HSS-0322  | SETSCREW                      | 2   |
| 17a          | PTO-14001  | PTO SHAFT              | 1   | 43                | HSS-0265  | ADJUSTER SETSCREW             | 4   |
|              |            | (UP TO s/n ??????)     |     | 44                | NUT-0170  | NUT                           | 4   |
| 18           | CHN-02581  | CHAIN                  | 1   | 45                | 590651 01 | SHIM(No.129100 & UP)          | 2   |
|              |            |                        |     | 45a               | 590616 01 | SHIM(No.128100 & DOWN)        | 2   |
| 19           | 590572 01  | LAY SHAFT              | 2   | 46                | 590651 02 | SHIM(No.129100 & UP)          | 2   |
| 20           | 604747 01  | AUGER DRIVE LAY SHAFT  | 1   | 46a               | 590616 02 | SHIM(No.128100 & DOWN)        | 2   |
| 21           | 590581 01  | SPROCKET               | 1   | 47                | 590651 03 | SHIM(No.129100 & UP)          | 2   |
| 22           | K1220045   | KEY                    | 1   | 47a               | 590616 03 | SHIM(No.128100 & DOWN)        | 2   |
| 23           | SCW-4600   | GRUB SCREW             | 2   | 48                | 590651 04 | SHIM(No.129100 & UP)          | 2   |
| 24           | 604917 01  | RETAINING WASHER       | 1   | 48a               | 590616 04 | SHIM(No.128100 & DOWN)        | 2   |
| 25           | WSH-0061   | WASHER                 | 1   | 49                | 590651 05 | SHIM(No.129100 & UP)          | 2   |
| 26           | HSS-0194   | SETSCREW               | 1   | 49a               | 590616 05 | SHIM(No.128100 & DOWN)        | 2   |
| 27           | BRG-24543  | BEARING                | 2   | 50                | 605123 01 | IMPELLER DRIVE SHEAR BOLT     | 6   |
| 28           | 607010 01  | SHIM PLATE             | 2   | 51                | NUT-0263  | NUT                           | 6   |

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| ASSY NUMBER: |           | 609030 01 (cont...) |     | ASSY DESCRIPTION: |         | DRIVE SUB ASSY (DAIRY) |     |
|--------------|-----------|---------------------|-----|-------------------|---------|------------------------|-----|
| ITEM         | PART NO   | DESCRIPTION         | QTY | ITEM              | PART NO | DESCRIPTION            | QTY |
| 52           | BSH-3019  | BUSH                | 2   |                   |         |                        |     |
| 53           | NIP-00610 | GREASE NIPPLE       | 1   |                   |         |                        |     |
| 54           | 590460 01 | GUARD MOUNT PLATE   | 1   |                   |         |                        |     |
| 55           | 590652 01 | INPUT SHAFT SHIM    | 2   |                   |         |                        |     |
| 56           | 590652 02 | INPUT SHAFT SHIM    | 2   |                   |         |                        |     |
| 57           | 590652 03 | INPUT SHAFT SHIM    | 2   |                   |         |                        |     |
| 58           | 590652 04 | INPUT SHAFT SHIM    | 2   |                   |         |                        |     |
| 59           | 590652 05 | INPUT SHAFT SHIM    | 2   |                   |         |                        |     |
| 60           | NIP-0001  | GREASE NIPPLE       | 2   |                   |         |                        |     |
| 61           | WSH-0015  | PLAIN WASHER        | 4   |                   |         |                        |     |

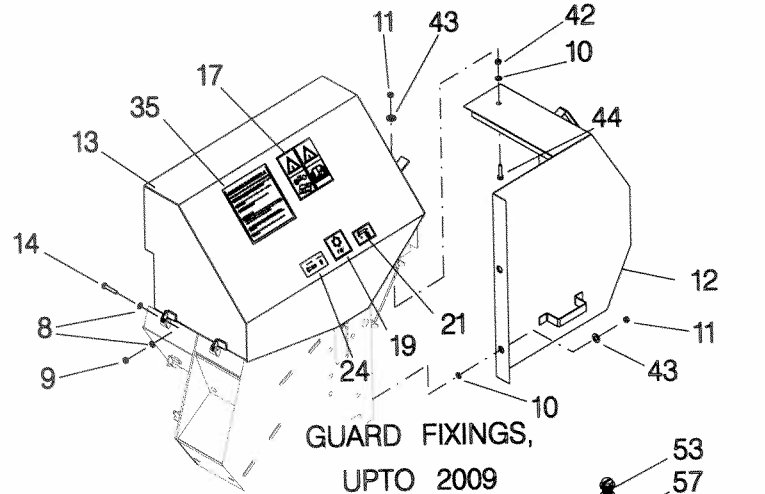
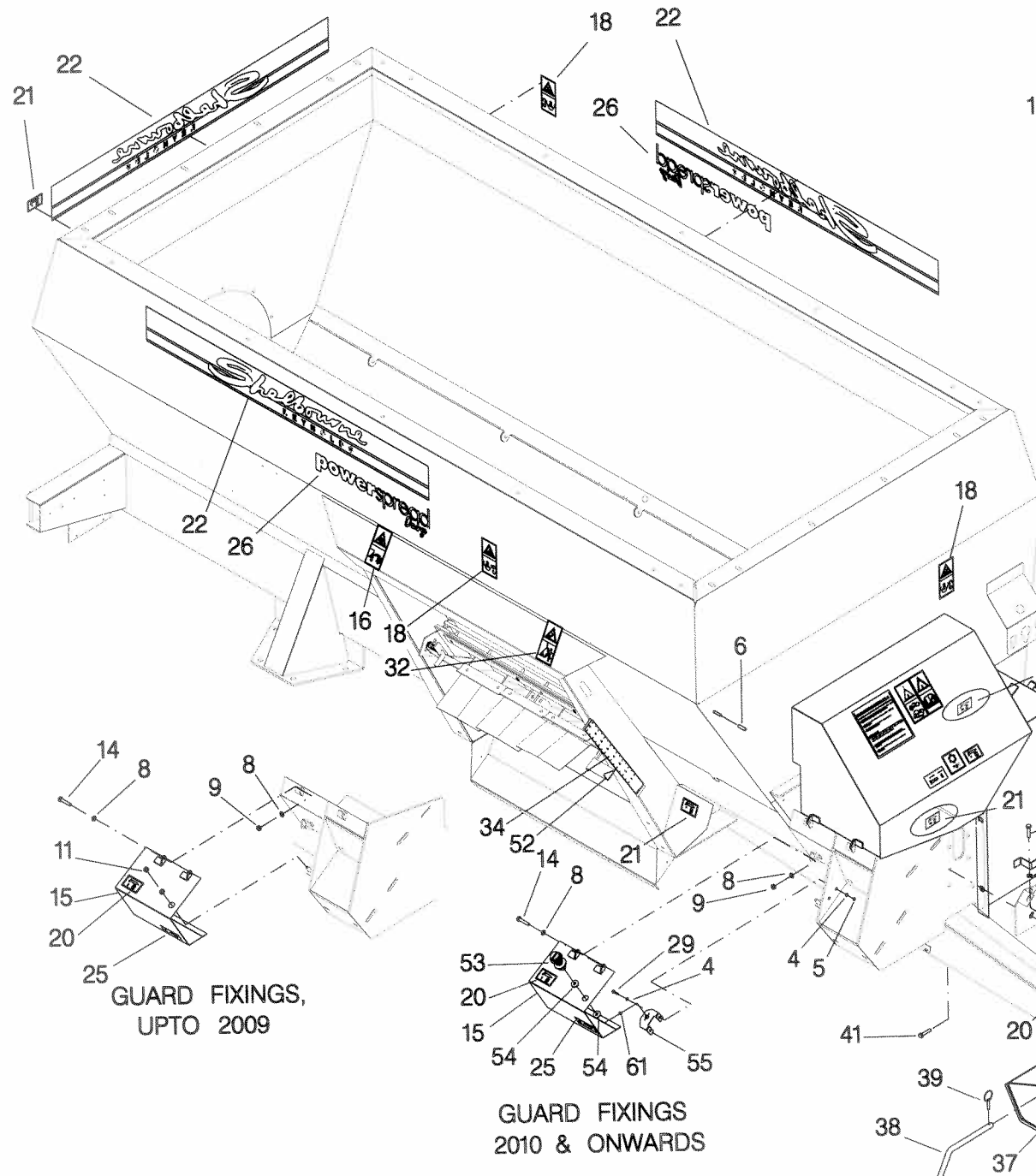


609030 01

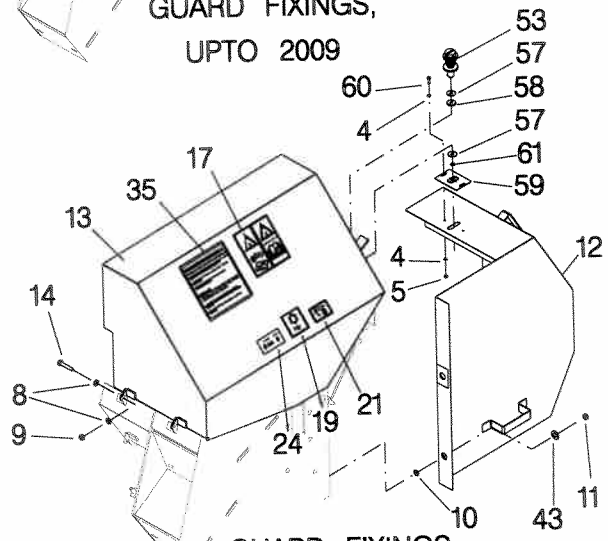
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| ASSY NUMBER: |           | 609031 01  |      | ASSY DESCRIPTION: FIXTURES & GUARDS SUB ASSY (DAIRY) |           |                            |      |
|--------------|-----------|--|------|--|-----------|----------------------------|------|
| ITEM         | PART NO   | DESCRIPTION  | QTY  | ITEM   | PART NO   | DESCRIPTION                | QTY  |
| 1            | 590461 01 | HOSE SUPPORT/PTO GUARD                               | 1    | 33   | 590145 01 | IDENTIFICATION PLATE (U.K) | 1    |
| 2            | 607029 01 | PIPE CLAMP   | 2    | OR   | TNF-0201  | IDENTIFICATION PLATE (GER) | 1    |
| 3            | HSS-0096  | SETSCREW   | 2    | OR   | 612269 01 | IDENTIFICATION PLATE (USA) | 1    |
| 4            | WSH-0009  | WASHER   | 14   | 34   | 604968 01 | EMBLEM-DOOR CALIBRATION    | 1    |
| 5            | NUT-0260  | NUT  | 10   | 35   | 590188 01 | EMBLEM-OPERATION PROC.     | 1    |
| 6            | HOS-1000  | PLASTIC SLEEVE                                       | 0.03 | 36   |           |                            |      |
| 7            |           |  |      | 37   | 590463 01 | DETACHABLE SKID            | 1    |
| 8            | WSH-0012  | WASHER   | 4    | 38   | 590466 01 | LOCKING HANDLE             | 1    |
| 9            | NUT-0263  | NUT  | 4    | 39   | PIN-01950 | LYNCH PIN                  | 1    |
| 10           | WSH-0018  | WASHER   | 6    | 40   |           |                            |      |
| 11           | NUT-0269  | NUT  | 6    | 41   | HSS-0250  | SETSCREW                   | 3    |
| 12           | 601853 01 | LOWER CHAIN GUARD                                    | 1    | 42   | NUT-0370  | HALFNUT                    | 1    |
| 13           | 590600 01 | UPPER CHAIN GUARD                                    | 1    | 43   | 190119 04 | SPACER DISC                | 3    |
| 14           | HSS-0145  | BOLT   | 4    | 44   | HSS-0238  | SETSCREW                   | 2    |
| 15           | 605026 01 | IMPELLER PTO GUARD                                   | 1    | 45   |           |                            |      |
| 16           | 590477 01 | EMBLEM-WARNING(RISK OF FLYING OBJECTS)               | 1    | 46   |           |                            |      |
| 17           | TNF-0011  | TRANSFER BLOCK                                       | 1    | 47   |           |                            |      |
|              |           |  |      | 48   | WDA-00025 | MANUAL CANISTER            | 1    |
| 18           | 590479 01 | EMBLEM-DO NOT ENTER...                               | 3    | 49   | CHN-0145  | CHAIN                      | .17  |
| 19           | 590475 01 | EMBLEM-MAX'PTO SPEED...                              | 1    | 50   | CLP-00103 | R CLIP                     | 1    |
| 20           | 127075 12 | EMBLEM-10 HOURS GREASE                               | 2    | 51   |           |                            |      |
| 21           | 127075 16 | EMBLEM-50 HOURS GREASE                               | 6    | 52   | TPE-00251 | REFLECTIVE TAPE            | .05M |
| 22           | 191981 01 | EMBLEM-SHELBOURNE 3 CLR                              | 3    | 53   | LTC-0010  | HEX HD RELEASE LOCK        | 2    |
| 23           |           |  |      | 54   | 590776 02 | FASTENER SPACER            | 2    |
| 24           | 591626 01 | EMBLEM-SHEAR BOLTS-AUGER<br>SER No: PSD16110125 & ON | 1    | 55   | 591429 01 | GUARD FIXING LOCK          | 1    |
| OR           | 590961 01 | EMBLEM-SHEAR BOLTS-AUGER<br>UP TO & INC PSD16110124  | 1    | 56   |           |                            |      |
| 25           | 590474 01 | EMBLEM-SHEAR BOLTS-IMPELLER                          | 1    | 57   | 590776 03 | FASTENER SPACER            | 2    |
| 26           | 590603 01 | POWERSPREAD DAIRY EMBLEM                             | 2    | 58   | 590776 04 | FASTENER SPACER            | 1    |
| 27           | 590594 01 | PTO REST LH  | 1    | 59   | 591427 01 | GUARD FIXING ASSY          | 1    |
| 28           | 590594 02 | PTO REST RH  | 1    | 60   | HSS-0084  | SET SCREW                  | 2    |
| 29           | HSS-0088  | SETSCREW   | 6    | 61   | LTC-0012  | RETAINING WASHER           | 2    |
| 30           |           |  |      |  |           |                            |      |
| 31           |           |  |      |  |           |                            |      |
| 32           | 590476 01 | EMBLEM-NO STEP                                       | 1    |  |           |                            |      |

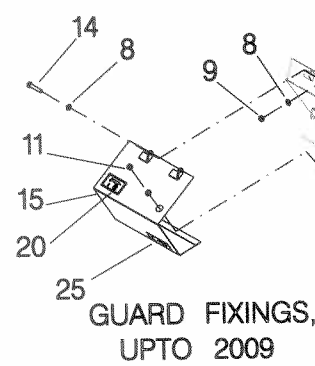




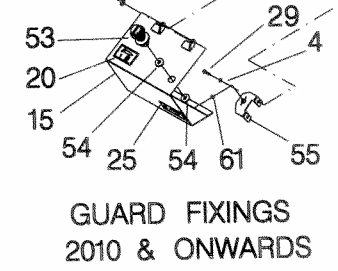
GUARD FIXINGS,  
UPTO 2009



GUARD FIXINGS,  
2010 & ONWARDS



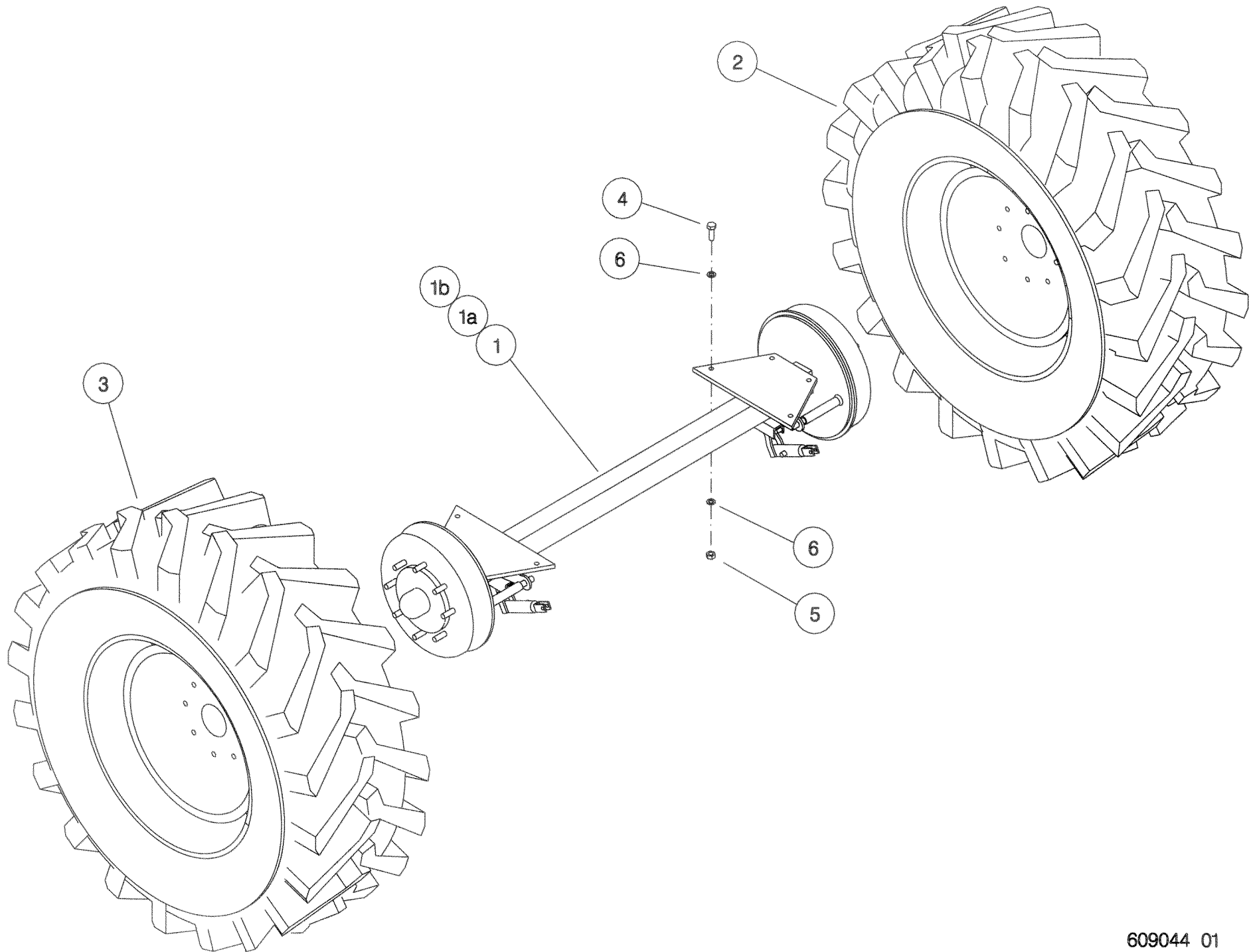
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UPTO 2009



GUARD FIXINGS  
2010 & ONWARDS

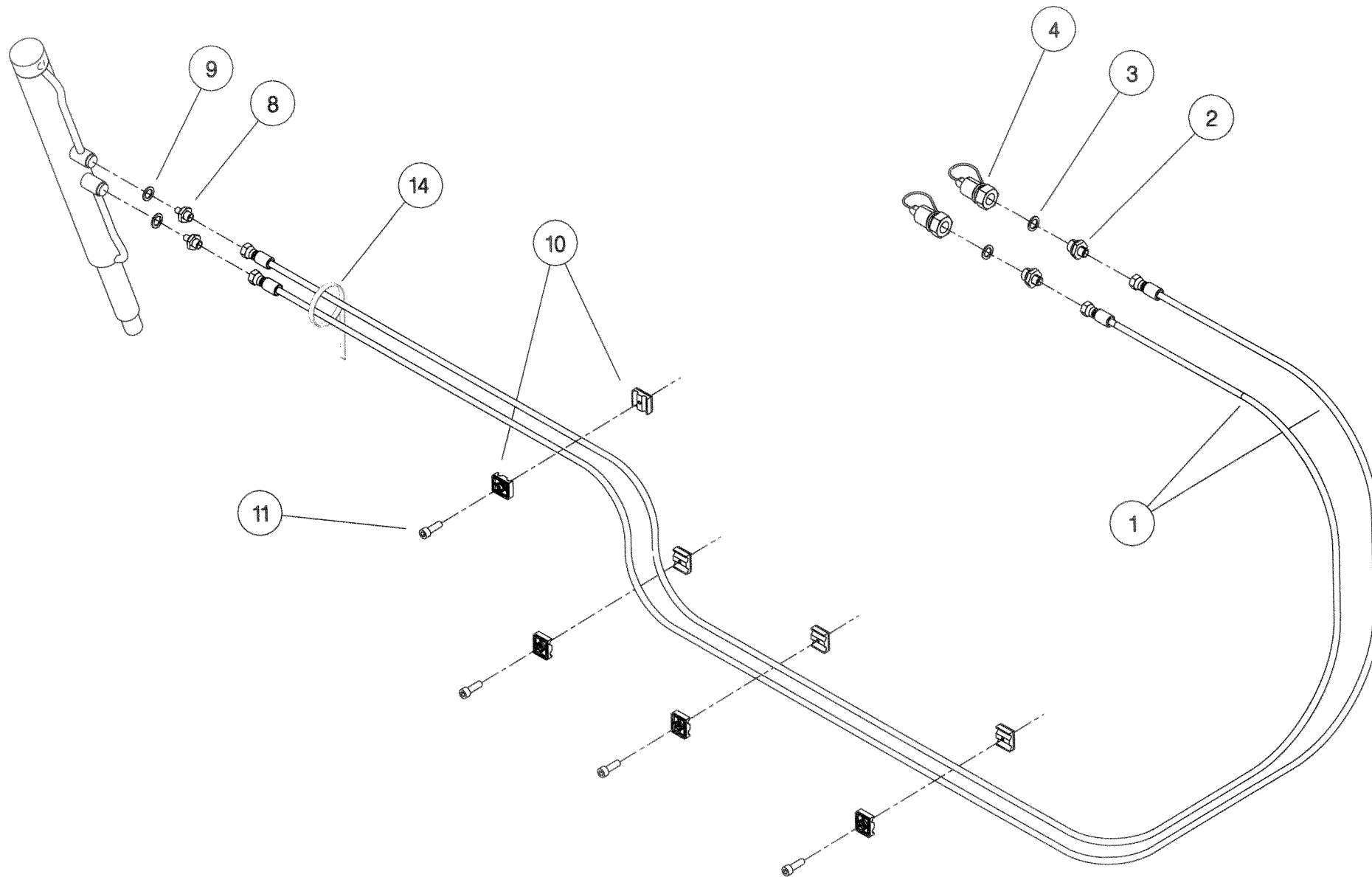
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| ASSY NUMBER: |            | 609044 01   |     | ASSY DESCRIPTION:AXLE SUB ASSY (DAIRY) |         |                                       |     |
|--------------|------------|---|-----|--|---------|---------------------------------------|-----|
| ITEM         | PART NO    | DESCRIPTION   | QTY | ITEM                                   | PART NO | DESCRIPTION                           | QTY |
| 1            | 590888 08  | AXLE W/A(ADR)<br>(SERIAL No 129104 ONWARDS)                 | 1   |  |         |                                       |     |
| OR           | 590888 01  | AXLE W/A(ADR)<br>(UP TO SERIAL No 128104)                   | 1   |  |         |                                       |     |
| 1a           | NUTF20200  | WHEEL NUT   | 16  |  |         |                                       |     |
| 1b           | AXL-15000  | WASHER  | 16  |  |         |                                       |     |
| 2a           | WHL-02801  | L.H.WHEEL & TYRE 630 ONLY<br>16.5/85-28(10PLY,M18x8,275pcd) | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB1) |     |
| 2b           | WHL-02601  | L.H.WHEEL & TYRE 18.4-26<br>12PLY RAD.M18x8 ON 275pcd)      | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB2) |     |
| 2c           | WHL-02402  | L.H WHEEL & TYRE 21.3-24<br>12PLY RAD.M18x8 ON 275pcd)      | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB3) |     |
| 2d           | WHL-02612  | L.H WHEEL TYRE 600.55-26.5<br>12PLY RAD.M18x8 ON 275pcd)    | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB4) |     |
| 2e           | WHL-02616  | L.H WHEEL & TYRE 23.1-26<br>12PLY RAD.M18x8 DNEPROSHINA     | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB5) |     |
| 2f           | WHL-02616a | L.H WHEEL & TYRE 23.1-26<br>14PLY RAD.M18x8 STARMAXX        | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB6) |     |
| 3a           | WHL-02800  | R.H.WHEEL & TYRE 630 ONLY<br>16.5/85-28(10PLY,M18x8,275pcd) | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB1) |     |
| 3b           | WHL-02600  | R.H.WHEEL & TYRE 18.4-26<br>12PLY RAD.M18x8 ON 275pcd)      | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB2) |     |
| 3c           | WHL-02403  | R.H.WHEEL & TYRE 21.3-24<br>12PLY RAD.M18x8 ON 275pcd)      | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB3) |     |
| 3d           | WHL-02613  | R.H WHEEL & TYRE 600.55-26.5<br>12PLY RAD.M18x8 ON 275pcd)  | 51  |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB4) |     |
| 3e           | WHL-02617  | R.H WHEEL & TYRE 23.1-26<br>12PLY RAD.M18x8 DNEPROSHINA     | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB5) |     |
| 3f           | WHL-02617a | R.H WHEEL & TYRE 23.1-26<br>14PLY RAD.M18x8 STARMAXX        | 1   |  |         | WHEEL & TYRE SUB ASSY -(609000 01SB6) |     |
| 4            | HSS-0318   | BOLT  | 8   |  |         |                                       |     |
| 5            | NUT-0271   | NUT   | 8   |  |         |                                       |     |
| 6            | WSH-0024   | WASHER  | 16  |  |         |                                       |     |



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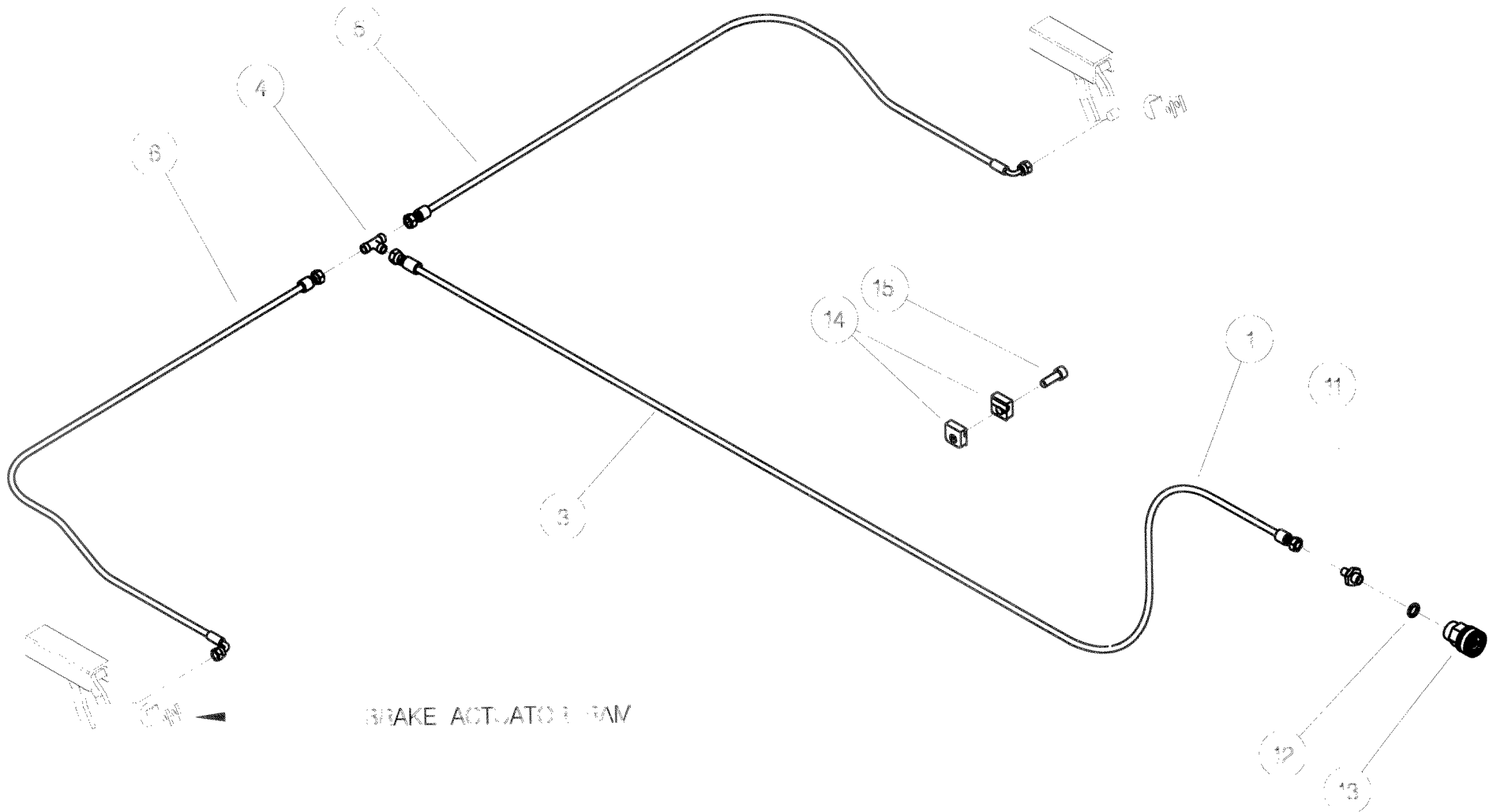
| ASSY NUMBER: 609047 01 |           | ASSY DESCRIPTION: DOOR RAM HYDRAULICS |     |      |         |  |     |
|------------------------|-----------|---------------------------------------|-----|------|---------|--|-----|
| ITEM                   | PART NO   | DESCRIPTION                           | QTY | ITEM | PART NO | DESCRIPTION  | QTY |
| 1                      | HHAC51005 | HOSE ASSY                             | 2   |      |         |  |     |
| 2                      | HMA-0055  | ADAPTOR                               | 2   |      |         | PLEASE NOTE FOR MACHINES<br>(SERIAL 127102- ONWARDS) |     |
| 3                      | WSH-1015  | WASHER                                | 2   |      |         |  |     |
| 4                      | COU-0162  | Q-R COUPLING                          | 2   |      |         |  |     |
| 5                      |           |                                       |     |      |         |  |     |
| 6                      |           |                                       |     |      |         |  |     |
| 7                      |           |                                       |     |      |         |  |     |
| 8                      | FIT-0025  | M/M ADAPTOR                           | 2   |      |         |  |     |
| 9                      | WSH-1010  | WASHER                                | 2   |      |         |  |     |
| 10                     | HCPD01200 | HYD. PIPE CLAMP                       | 4   |      |         |  |     |
| 11                     | SCW-0083  | SCREW                                 | 4   |      |         |  |     |
| 12                     |           |                                       |     |      |         |  |     |
| 13                     |           |                                       |     |      |         |  |     |
| 14                     | TIE-0006  | CABLE TIE                             | A/R |      |         |  |     |



609047 01

**Shelbourne Reynolds Engineering Limited**

| ASSY NUMBER: 609048 01 |           | ASSY DESCRIPTION: BRAKE RAMS HYDRAULIC |     |      |         |  |     |
|------------------------|-----------|--|-----|------|---------|--|-----|
| ITEM                   | PART NO   | DESCRIPTION                            | QTY | ITEM | PART NO | DESCRIPTION  | QTY |
| 1                      | HHAC61005 | HOSE ASSY                              | 1   |      |         |  |     |
| 2                      |           |  |     |      |         |  |     |
| 3                      |           |  |     |      |         |  |     |
| 4                      | HMT-0010  | TEE FITTING                            | 1   |      |         |  |     |
| 5                      | HHBC06305 | HOSE ASSY                              | 1   |      |         | PLEASE NOTE FOR MACHINES<br>(SERIAL 127102- ONWARDS) |     |
| 6                      | HHBC09105 | HOSE ASSY                              | 1   |      |         |  |     |
| 7                      |           |  |     |      |         |  |     |
| 8                      |           |  |     |      |         |  |     |
| 9                      |           |  |     |      |         |  |     |
| 10                     |           |  |     |      |         |  |     |
| 11                     | HMA-0055  | ADAPTOR                                | 1   |      |         |  |     |
| 12                     | WSH-1015  | DOWTY WASHER                           | 1   |      |         |  |     |
| 13                     | HQR-10007 | HYD.Q.R.COUPLING                       | 1   |      |         |  |     |
| 14                     | HCPD01200 | HYD.PIPE CLAMP                         | 5   |      |         |  |     |
| 15                     | SCW-0083  | SCREW                                  | 5   |      |         |  |     |
| 16                     |           |  |     |      |         |  |     |

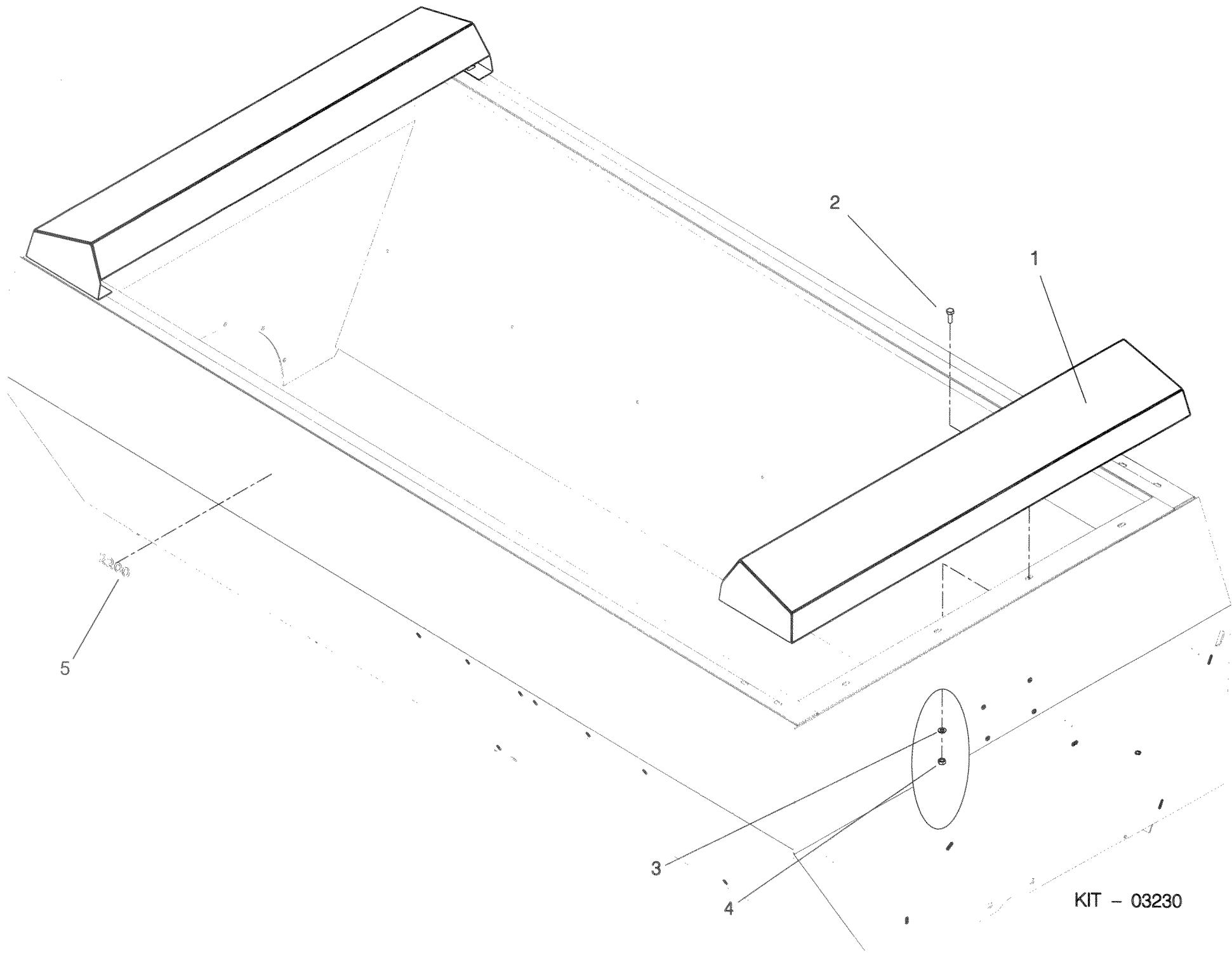


BRAKE ACTUATOR LINE

**Shelbourne Reynolds Engineering Limited**

| ASSY NUMBER: |           | KIT-03230         |     | ASSY DESCRIPTION: SLURRY CANOPY KIT |         |             |     |
|--------------|-----------|-------------------|-----|-------------------------------------|---------|-------------|-----|
| ITEM         | PART NO   | DESCRIPTION       | QTY | ITEM                                | PART NO | DESCRIPTION | QTY |
| 1            | 590619 01 | SLURRY CANOPY W/A | 2   |                                     |         |             |     |
| 2            | HSS-0238  | SET SCREW         | 16  |                                     |         |             |     |
| 3            | WSH-0018  | WASHER            | 16  |                                     |         |             |     |
| 4            | NUT-0269  | NUT               | 16  |                                     |         |             |     |
| 5A           | 591007 01 | TRANSFER (1400)   | 2   |                                     |         |             |     |
| OR           |           | 1400 MODEL ONLY   |     |                                     |         |             |     |
| 5B           | 591007 02 | TRANSFER (1600)   | 2   |                                     |         |             |     |
| OR           |           | 1600 MODEL ONLY   |     |                                     |         |             |     |
| 5C           | 591007 05 | TRANSFER (2200)   | 2   |                                     |         |             |     |
|              |           | 2200 MODEL ONLY   |     |                                     |         |             |     |





KIT - 03230