

65 YEARS

100%
MADE IN
NZ



BALE BUGGY

Operation & Parts Manual



Disclaimer

Although every endeavour has been made to compile as near to complete records as possible for the machine described, it is possible some information is incomplete or missing.

Giltrap Engineering request that you treat this book as a guide only and offer any assistance necessary to procure the information or part you may require.

For parts or service enquiries, please contact the applicable numbers on the previous page.

QR Codes



Produced January 2022

Copyright © 2022 by Giltrap Engineering Ltd.
Printed in New Zealand

All rights reserved. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited.

Table of Contents

Disclaimer	2
QR Codes	2
Introduction	4
Warranty	5
Serial Number Identification.....	6
Description of Machine	7
Specification	7
Safety - General.....	8
Safety – Machine Specific	15
Installation	16
Operation	17
Maintenance	18
Mechanical Adjustments	20
Storage	20
Parts Section	22

Introduction

Thank you for purchasing a Giltrap product. *Giltrap Engineering Ltd* has enjoyed a long-standing success with their machinery. We would like you to enjoy the benefits of owning a Giltrap too. By following the guidelines laid out in this book, you will ensure trouble free, low maintenance operating for years.

Giltrap Engineering Ltd is a progressive company which continually strives to satisfy your needs, so we welcome any feedback which you can provide to help us improve our products and services and to ensure that they perform to your expectations. Any constructive comments about this operator’s manual are also welcome.

Your machine has been designed to perform its task efficiently and with a minimum of maintenance. This handbook provides safety guidelines, instructions, maintenance requirements and parts listings. We recommend that you read the entire handbook, before operating the machine as this will enable you to take full advantage of your new machine’s considerable potential.

Manual Evaluation

We update our operating manuals regularly. Your suggestions for improvement help us to create even more user-friendly manuals. Send your suggestions by email to admin@giltrapag.co.nz.

Delivery and Warranty

Before you begin to use your machine, please check it to make sure there is no delivery damage. If damage is evident, contact the dealer who supplied the machine so that they can make the appropriate claims.

If you have any other queries, please contact your dealer or *Giltrap Engineering Ltd* (0800 80 GILTRAP).

All Giltrap products are covered by a 24-month warranty on parts and labour, subject to normal use.

Please fill in the details below for future reference.

Model:
Serial No:
Delivery Date:
Dealer:

Warranty

The Goods specified in the Price List as designed and supplied by Giltrap Engineering Ltd are warranted against faulty workmanship and defective materials for a period of 24 months from the date of purchase. In addition to the primary 24-month warranty for Giltrap products, there is a further 12 month structural warranty for the goods, against faulty workmanship and/or defective materials for structural items only. The structural warranty does not apply to electronics or component parts.

Such warranty is subject to the following conditions:

1. This warranty covers the repair or replacement of parts or machinery sold by the manufacturer and damaged as a result of the faulty workmanship or materials in such parts or machinery. It does not extend to any other loss or damage including consequential loss or damage or loss to other property or persons.
2. Without limiting the generality of paragraph 1 above, this warranty does not cover the following:
 - (a) Travel expenses.
 - (b) Damaged caused by accident, misuse or abuse.
 - (c) Damage to any goods which have been altered or modified by someone other than the manufacturer or its authorised agent.
 - (d) Damage or loss to the goods due to their unsuitability for any particular use or for using with any particular tractor except where such use or tractor had been specifically approved by the manufacturer.
 - (e) Damage or loss where the fitting and installation of the goods were not carried out by the manufacturer or its authorised dealer.
3. Procedure for recovery under warranty.
No loss or damage will be covered by this warranty unless the loss or damage is reported immediately to the dealer (who will contact the distributor who will advise whether it is covered by the warranty and undertake the necessary action).

No warranty repair work is to be undertaken prior to an order number being obtained.

This warranty shall be interpreted according to the laws of New Zealand and the parties agree to submit to the jurisdiction of the Courts of New Zealand.

Warranty Claims

If you wish to make a claim under warranty:

- Immediately stop using the machine.
- List details of the machine and damaged item including serial numbers and date of purchase.
- Consult with your Giltrap dealer (supplier) and have him forward your claim and the damaged item to Giltrap Engineering Ltd.

No warranty to be undertaken unless an order number is obtained from the Seller (Giltrap Engineering Ltd) prior to any work being done.

Serial Number Identification

Before ordering any parts, check the serial number and the delivery date of the machine and include this information with all orders.



Tel +64 7 873 4199
www.giltrapag.co.nz
7 Main North Road
Otorohanga
New Zealand

DRAWBAR VERTICAL RATING (kg):	GROSS LADEN MASS (kg):
SERIAL No:	MODEL No:

This plate is provided in compliance with the NZ Land Transport Heavy Vehicles 2004 rule, section 4.2. It is the operator's responsibility to ensure that this unit is fully compliant with all current legislation when it is used on public roads. **Removal of this plate invalidates certificate.**

Description of Machine

The Giltrap Bale Buggy is a rear feeding, single bale ATV feeder. It is designed to handle all types of round bales. The buggy is ground driven and is designed to feed without making mud in the pasture because the unit does not need to be towed by a tractor.

Working Principle

The machine is self-loading by means of a winch and bale hooks (no hydraulics). It can be towed by an ATV, four-wheel-drive farm ute or any other form of farm vehicle to suit the terrain or conditions.

Features

- Feeds out the rear, giving the advantage of preventing material blockage in the chains.
- Handles all types of round bales.
- 8 mm high-tensile link feed chains.
- Geared three times slower than ground speed, which gives the advantage of not leaving a continuous mat of feed. This also prevents the ground drive wheel from slipping in the mud.
- The bale’s weight is always forced forward in the machine when feeding, for two reasons:
 1. To keep weight on the drawbar for traction on an ATV.
 2. When going up a hill it eliminates the risk of the bale falling off the back.

Specification

Dimensions & Capacities

Bale Size (Max):	1800 mm dia. x 1350 mm
Weight (unladen):	310 kg
Weight (Maximum Laden):	1300 kg
Height:	1520 mm
Length:	3400 mm
Width:	2150 mm

Safety - General

This section of the manual offers general guidelines for the safe operation of machinery.

It does not replace local safety regulations. These guidelines were current at the time of publication but may be superseded by later regulations.

Giltrap Engineering has made every effort to highlight all risks to personnel or property. Owners and operators have a responsibility to exercise care and safe work practices at all times in the vicinity of the machine.

Owners are advised to keep up to date on safety issues and to communicate these to all users of the machine.

Contact the Occupational Safety and Health Service (OSH) for further information about general safety aspects. If you have safety concerns specifically related to this machine, contact your dealer immediately.

Operator Safety

Read this manual carefully before operating new equipment. Learn how to use this machine safely. Be thoroughly familiar with the controls and the proper use of the equipment before using it. Take careful note of all safety instructions both in this manual and on the machine itself. Failure to comply with instructions could result in personal injury and/or damage to the machine. Replace missing or damaged safety signs on the machine and ensure that these remain clearly visible.

It is the owner's responsibility to ensure that anyone who operates, adjusts, lubricates, maintains, cleans or uses the machine in any way has had suitable instruction and is familiar with the information in this manual (particularly with regard to safety aspects). Operators and other users of the machine should be aware of potential hazards and operating limitations.

Be Prepared for Emergencies

Keep a first aid kit and fire extinguisher handy. Keep emergency numbers for doctors, ambulance, hospital and fire department near your telephone.

Appropriate Dress

Wear close fitting clothing and avoid rings or other forms of jewellery which could become caught in the machinery.

People with long hair must have it securely fixed and confined close to the head. Refer to local safety standards for protective clothing and recommended safety equipment.

Adequate protection, such as a face mask, should be worn if operating this machine in dry and dusty conditions.

Transport This Machine Safely

Ensure that all linkage pins and security clips are fitted correctly.

With trailing machines tow with the drawbar only, as this is the only safe towing point on the machine. Always check that bystanders (especially children) are well clear (front and rear) before starting and moving the tractor and the machine.

Plan safe routes of travel, and be aware of power lines and other roadside hazards.

Take particular care when towing implements on hillsides.

Do not ride or allow passengers on the machine

This machine is not designed to carry passengers, and no riders are permitted.

Road transport

On public roads,

- A speed of 40km/h must not be exceeded.
- Do not operate during the hours of darkness unless standard lights are fitted and clearly visible. (This also applies when visibility is limited, e.g., in foggy conditions.)

See the guidelines in the *Vehicle Dimensions and Mass Rule* issued by the Land & Transport Safety Authority.

Avoid tip-overs

Avoid holes, ditches and obstructions which may cause the machine to tip over, especially on hillsides. Never drive near the edge of a gully or steep embankment - it might cave in. Slow down for hillsides, rough ground and sharp turns.

Handle Agricultural Chemicals Safely

All farm chemicals should be stored, used, handled and disposed of safely and in accordance with the supplier’s/manufacturer’s recommendations.

Read the product label before using, noting any warnings or special cautions, including any protective clothing or equipment that may be required, i.e. respirator.

Do not eat or smoke while handling sprays, fertilisers, coated seeds, etc. Afterwards, always wash your hands and face before you eat, drink, smoke, or use the toilet.

Store sprays, fertilisers, coated seeds, etc. out of reach of children and pets, and away from food and animal feeds.

Any symptoms of illness during or after using chemicals should be treated according to the supplier’s/manufacturer’s recommendations. If severe, **call a physician or get the patient to hospital immediately**. Keep the container and/or label for reference.

Avoid High Pressure Fluids

Avoid any contact with fluids leaking under pressure, because the fluids can penetrate the skin surface.

Any fluid which penetrates the skin will need to be **removed immediately by a medical expert**. Seek specialist advice on this type of injury.

Relieve the pressure before disconnecting any hydraulic or other lines. Make all repairs and tighten all fittings before re-connection to pressurised fluid.

Keep your hands and body away from any pinholes or high pressure jets. Search for leaks with a piece of cardboard instead of using your hand directly.

Safe Work Practices

All farm machinery is potentially dangerous and should be treated with caution and respect.

Before starting the machine, ensure that all controls are placed in neutral and that bystanders are well clear. Check that the guards have been securely fitted and that any adjustments have been made correctly.

Where possible, disconnect or isolate the drive mechanism to the implement. Lower the machine onto the ground when not in use.

Do not operate this equipment when severe weather conditions appear imminent.

Practice Safe Maintenance

Keep the machine in safe working condition. Routine maintenance and regular servicing will help reduce risks and prolong the life of the machine.

Safety during General Maintenance

Accidents occur most frequently during servicing and repair. The following general rules must be followed when maintaining or working with machinery:

- All operating and maintenance manuals must be read before and referred to while using or servicing any piece of equipment.
- Turn off all machinery power sources and isolate the machine before making adjustments, doing lubrication, repairs or any other maintenance on the machine.
- Ensure that the machine hydraulics are disconnected from the power source.
- Wear gloves when handling components with cutting edges, such as any ground cutting components.
- Beware of hazards created by springs under tension or compression when dismantling or maintaining the machine.
- It is recommended that you clean the machine with a water blaster or similar apparatus before commencing maintenance.

Make Sure the Machine is Well Supported

When machinery is fitted with hydraulics, do not rely on the hydraulics to support the machine. During maintenance or while making adjustments under the machine, always

lock the hydraulics and support the machine securely. Place blocks or other stable supports under elevated parts before working on these.

Electrical Maintenance

Disconnect the electrical supply from the tractor before doing any electrical maintenance.

Welding

With electronic equipment in modern tractors it is advisable to disconnect the machine from the tractor, or at least disconnect the alternator and battery before attempting any welding.

Use Only Genuine Spare Parts

Unauthorised modifications or non-genuine spare parts may be hazardous and impair the safe operation and working life of the machine.

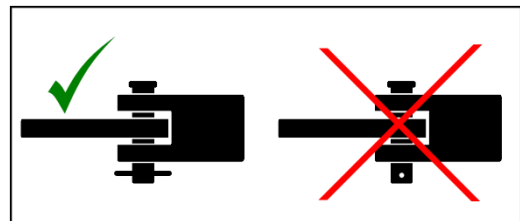
Excess lubricants must be disposed of safely so as not to become a hazard.

Safety Signs

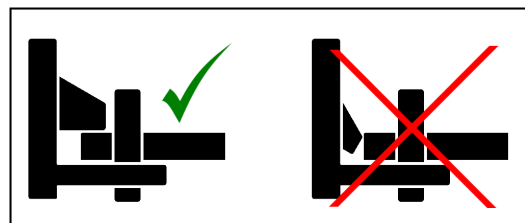
Do not ride on or allow passengers on the machine.



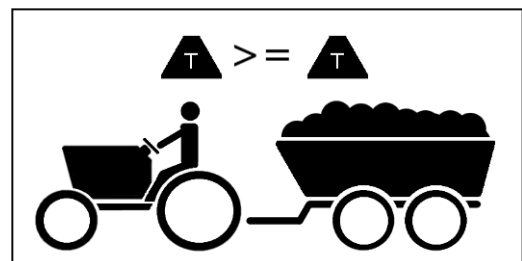
Always use a recognised hitch pin with a safety clip to hook trailed implements on behind the towing vehicle.



Always ensure when using a quick hitch that the locking tab has come out and is in the locked position before moving.



When pulling trailed implements or loads, be sure to use a tow vehicle of greater or equal weight than the combined weight of the load and trailer.



Carry a suitable fire extinguisher.

A fire can ignite under certain conditions, so please take the following precautions:

After running your machine for a short time, check for defective bearings. A faulty bearing can become very hot, eventually discolouring, requiring immediate replacement.

Do not allow combustible material to accumulate inside guards or around rollers and other moving parts.

If your machine becomes blocked, stop immediately and remove the obstruction.

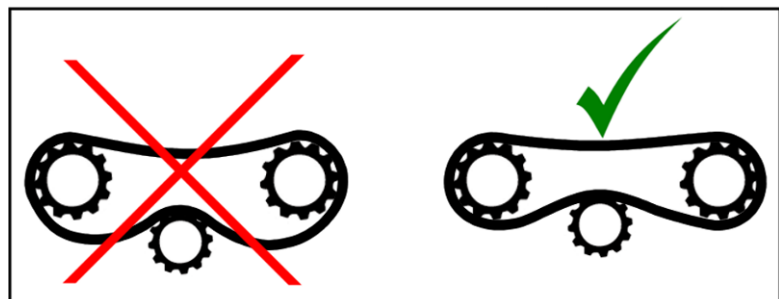
Be careful when operating in hot or dry conditions or on extreme fire risk days.



Never operate your machine without the safety guards in place.



All chains should be properly adjusted and replaced when necessary.



Release all hydraulic pressure from implements before commencing service work. Never look for suspected oil leaks with your hands or body - use a piece of cardboard instead. Any fluid that penetrates the skin will have to be removed immediately by a medical expert. Seek specialist advice on this type of injury.



Never attempt to unblock equipment while it is still operating. Always disengage power take-off, hydraulics and shut down engine before removing materials, checking or servicing. Failure to follow these precautions is likely to result in serious injury.



Wear proper protective clothing. Loose attire can easily be snagged by rotating machinery resulting in serious injury or death.



Safety – Machine Specific

The lists below are not all-inclusive and serve only to highlight the more obvious areas of risk.

The labels attached to the machine are a general reminder that there are hazardous areas on the machine, rather than specifically highlighting all possible hazards.

The machines have been supplied with the following warning labels. It is the user’s responsibility to keep them in visible condition.

<p>Pinch Points/Moving Parts Hazardous areas include:</p> <ul style="list-style-type: none"> • Lifting and lowering of Drive mechanism • Cradle dropping on to ground • Cradle dropping on to chassis 	
<p>Keep Clear Hazardous areas include:</p> <ul style="list-style-type: none"> • Area between machine and tow vehicle • General area around the machine while it is operating • Keep off machine while it is moving 	
<p>Rotating Chains & Bars • Beware of moving parts • Beware of sharp points</p>	
<p>When Loading • Ensure Winch ratchet is engaged as shown, to prevent the handle from rotating out of control</p>	
<p>Transport • Ensure tow ball is correct size • Ensure hitch is fitted correctly to ball, and that safety catch is engaged • It is recommended an R-clip or lynch pin is fitted in the safety catch retaining lug</p>	

Installation

1. Grease/check items as per Maintenance section
2. Select an appropriate tow vehicle.
 - The vehicle must not hit the Bale Buggy when cornering
 - The tow vehicle must be of sufficient weight to safely control the loaded Bale Buggy in the expected terrain.
3. Connect tow eye and fit safety chain
4. Ensure Bale Buggy cradle is retained securely by strop
5. Raise jack and rotate to lock out of the way
6. Proceed to loading up

Operation

Loading Instructions

1. Cut the end of the wrap away so that you can see which way the bale has been made. If you want a heavy feed trail, load the way it was baled; if you require a light feed trail, then load the opposite way.

2. When you have the bale the way you require it, back up to within a foot of it. notCut away the wrap and webbing or strings, and remove as much as possible from the bale. Release the strop at the winch and pull it and the carriage over. (Fig 1)



Fig. 1

3. Pull the strop over to the far side of the bale and set the two bale hooks as far down as possible at both sides of the bale. Attach the strop in the middle of the connecting chain. Ensure the bale hooks are fully embedded in the bale (Fig 2).



Fig. 2

4. Check that the open feeding chain is in its plastic idlers at the bottom of the carriage and that the chains are in line. You cannot feed a bale with these unaligned.

5. Winch the bale and carriage into the feeding position. When the carriage is down, remove the strop and hooks from the bale. Wind in the strop until tight and ensure the winch is locked with the ratchet (refer P10) to prevent the carriage from tipping backwards during transport or when the bale is fed out.

You may now move safely to where you are going to feed out.

Feeding Out

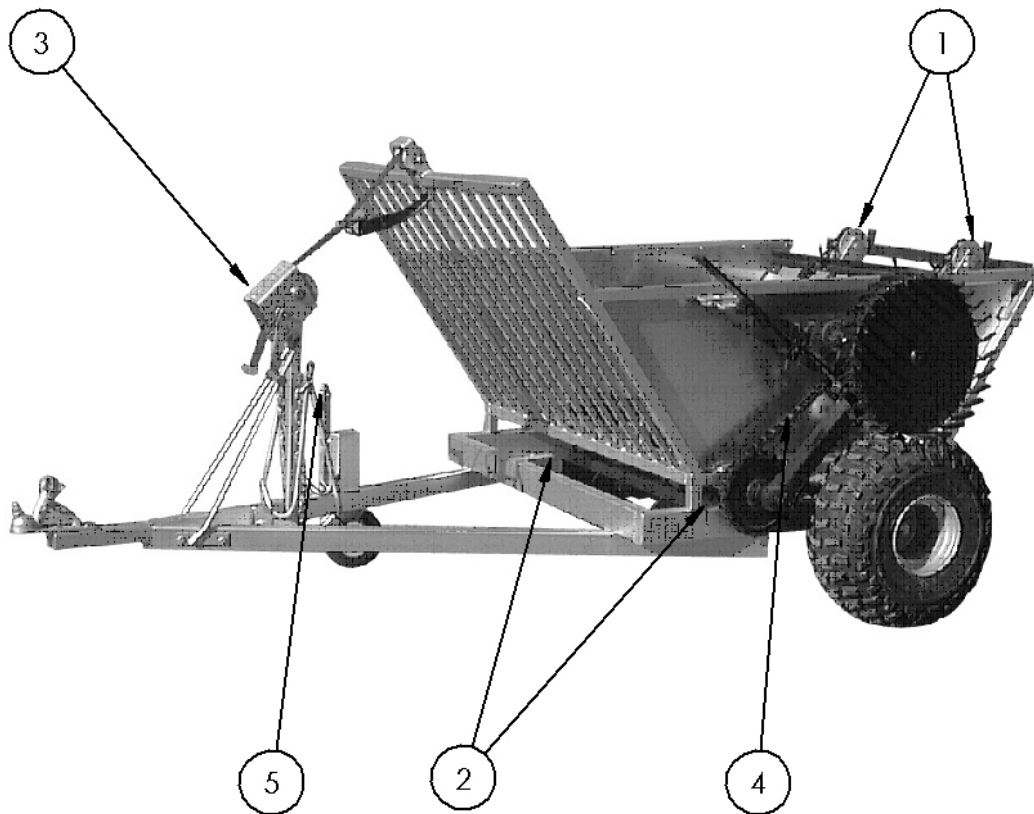
1 To connect the drive, simply unlock the drive lever assembly, let it drop down to the ground wheel, then pull firmly down until it locks in the drive position. Now you are ready to feed out your bale. **Do not** reverse when the drive is engaged.

2 To feed out the bale simply drive forward and the bale will feed out behind the unit.

Maintenance

Greasing

There are 7 greasing points on the unit.



Item	Components	Lubricant	Number
1	Floor Chain Idler Sprockets	Grease	2
2	Floor Chain Drive Shaft Bearings	Grease	2
3	Winch (Gears)	Grease	1
4	Drive Chain	Suitable Roller Chain Lubricant	1
5	Jockey Wheel	Grease	1

Frequency

The required greasing frequency is dependent on the extent of use, climate and conditions.

In any situation the drive wheel should turn freely and if it does not the relevant lubrication points should be greased. This applies to the winch and jockey wheel also.

Note: The drive chain needs lubricating with a suitable chain lubricant prior to the start of the season.

Strops

Worn strops should be checked and replaced, as wear can cause breakage under strain. It is recommended that strops have a weekly and pre-season check.

Tyres

Tyre pressure should be maintained at 12 psi. It is recommended that tyres, as a minimum, should be inspected for damage and have the pressure checked as part of a pre-season check.

Fasteners

Check fasteners regularly to minimise likelihood of equipment damage or accident resulting from fasteners loosening.

Check as recommended in the table below:

Item	Frequency
Tow coupling	Weekly & pre-season check
Wheel Nuts	Weekly & pre-season check
Winch	Weekly & pre-season check
Jockey Wheel	Weekly & pre-season check
All Others	Pre-season check

Mechanical Adjustments

Drive Chain Adjustment

The drive chain tension can be adjusted by releasing the chain tensioner retaining bolt and sliding the tensioner down or up in the groove to take up the slack in the chain. Tighten the retaining bolt when the chain is adjusted (Fig. 3).

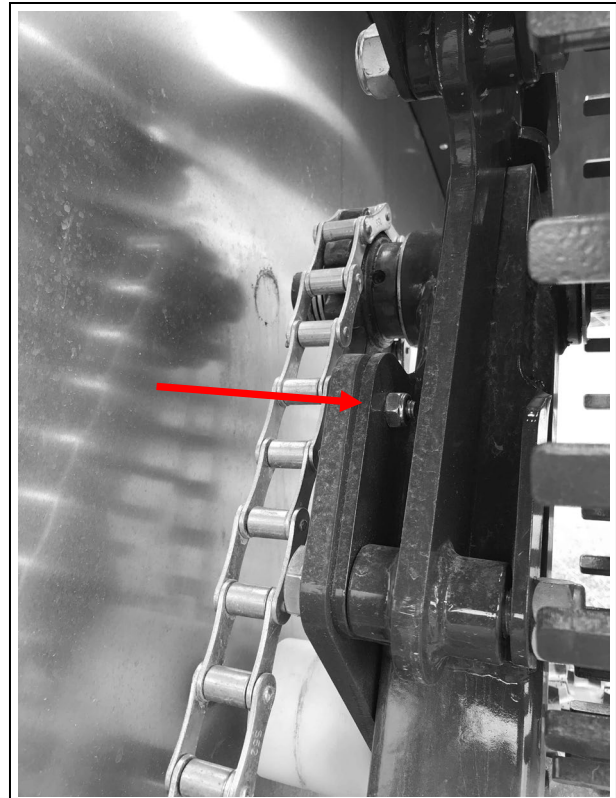


Fig. 3

Floor Chain Adjustment

To increase the floor chain tension, undo the M24 nyloc nuts and do up the M24 plain nuts until the desired tension is reached. Tighten up the M24 nyloc nuts to lock and secure the chain tensioner assemblies (Fig. 4).

Drive Wheel Adjustment

To compensate for wear on the ground tyre, the pressure can be adjusted by releasing the arm pivot retaining bolts and aligning the plates to an alternative set of holes. Secure the retaining bolts when the adjustment has been made (Fig. 5).

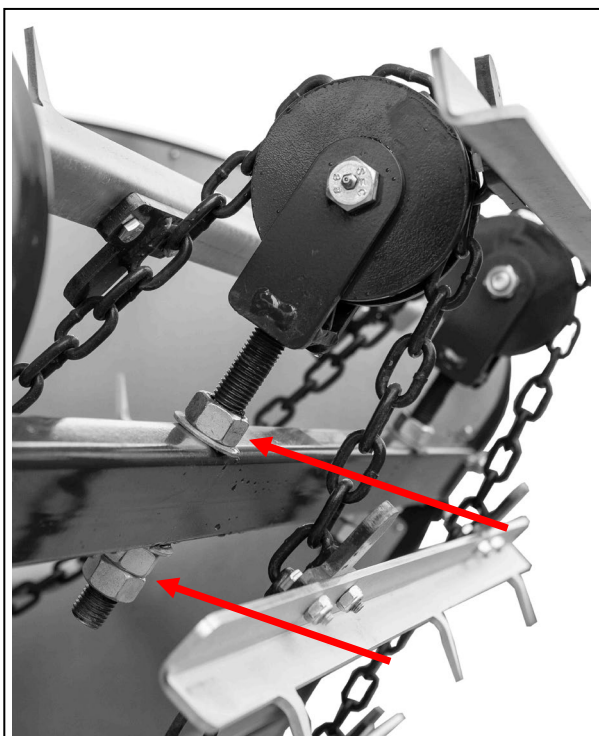


Fig. 4

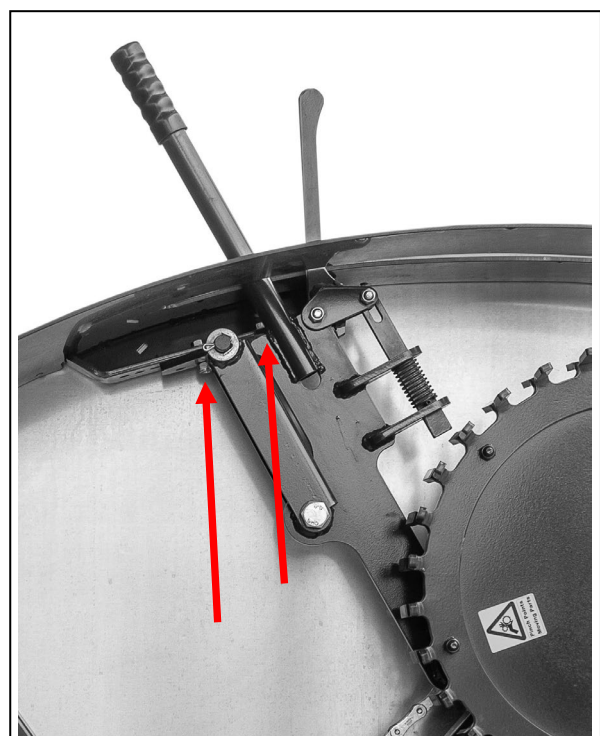


Fig. 5

Storage

General Cleaning

Before storage water blast the machine and remove mud and excess feed which may have accumulated during the season.

Warning: Keep well clear of the drives and floor chains while running the machine.

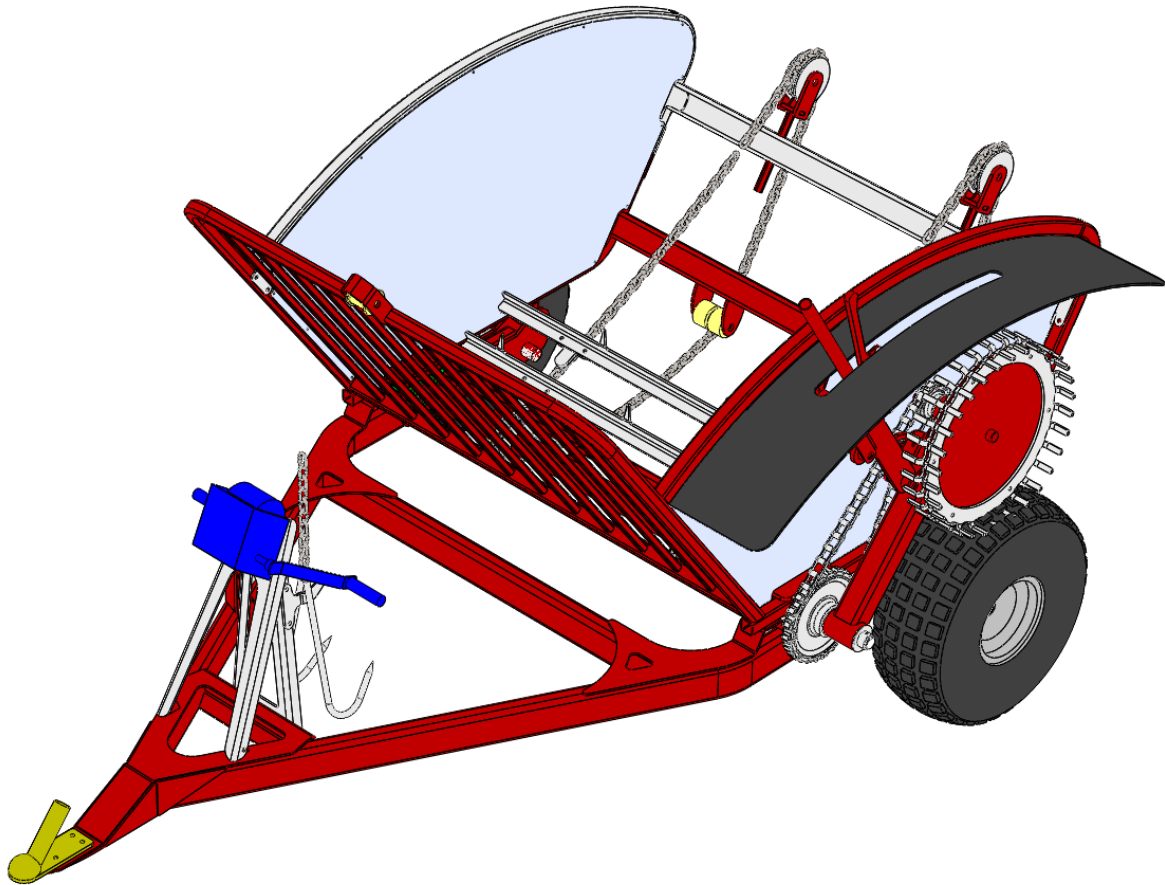
Lubrication

To preserve drive chains over the off-season:

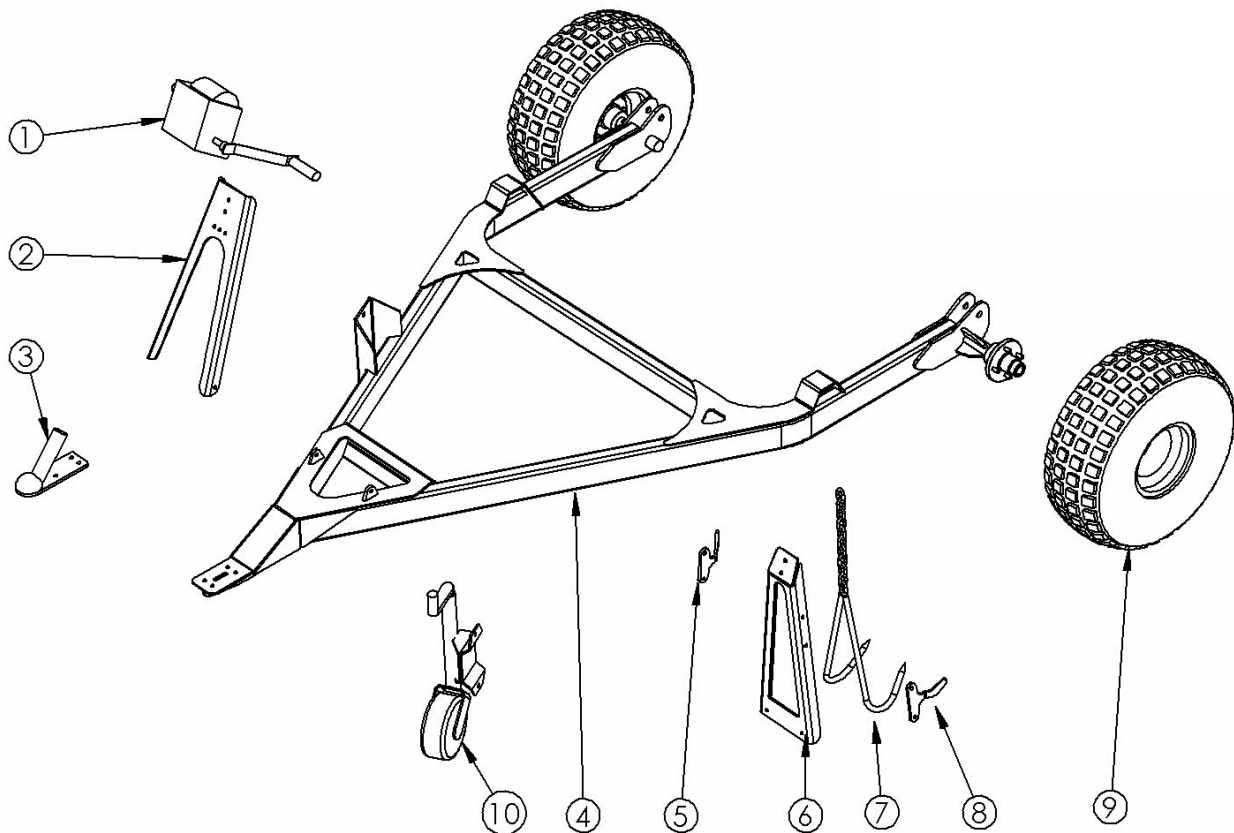
1. Flush any contaminants from the chains. Used hydraulic or transmission oil is ideal for this purpose. This should be carried out after the machine has been water blasted.
2. Apply an excess amount of oil to the drive chains. Run the machine slowly and repeat this operation until the chains are well lubricated. Remove excess oil.

Prior to the start of the season, the drive chain needs lubricating with a suitable chain lubricant. Refer Maintenance section.

Parts Section

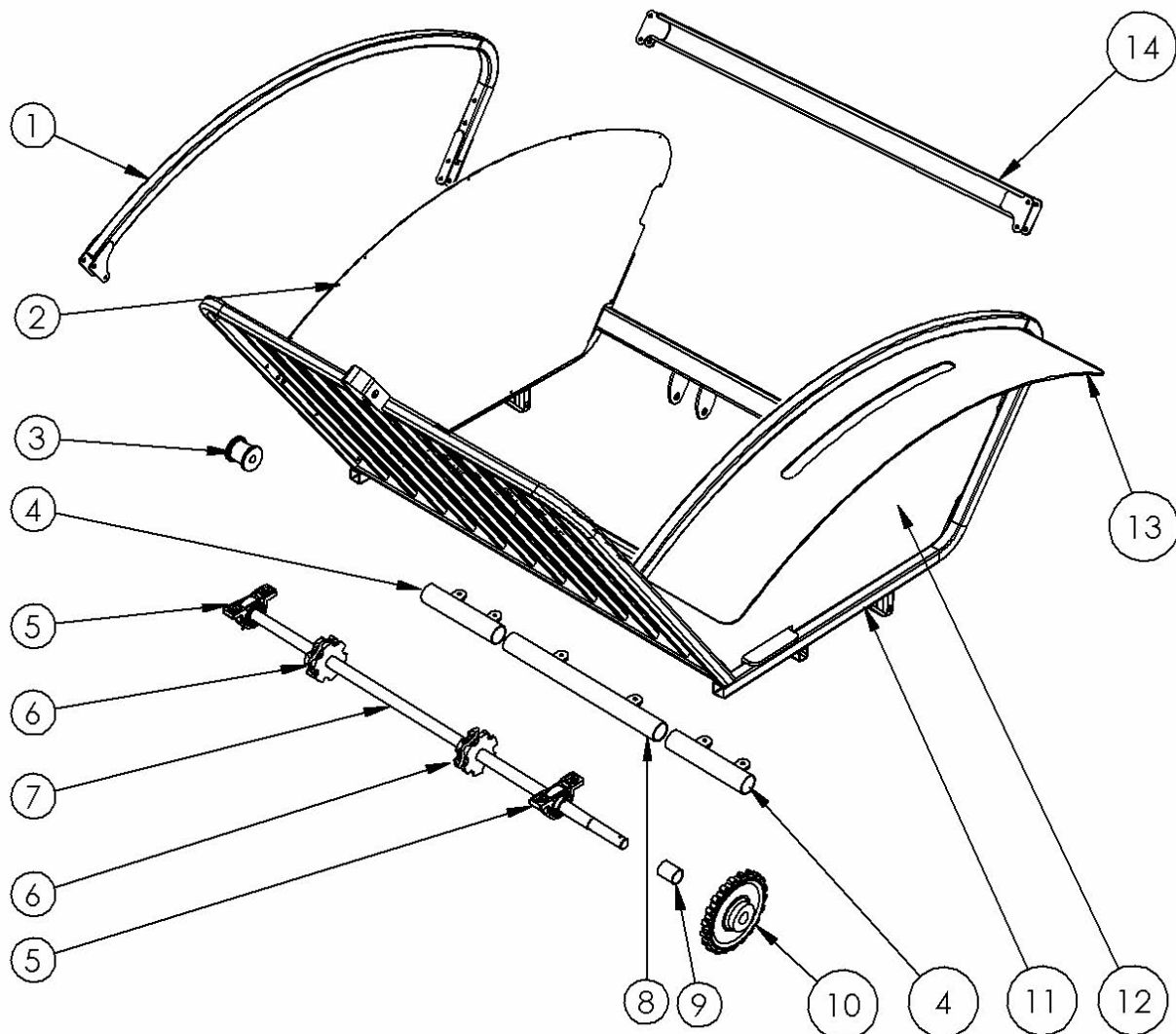


Chassis



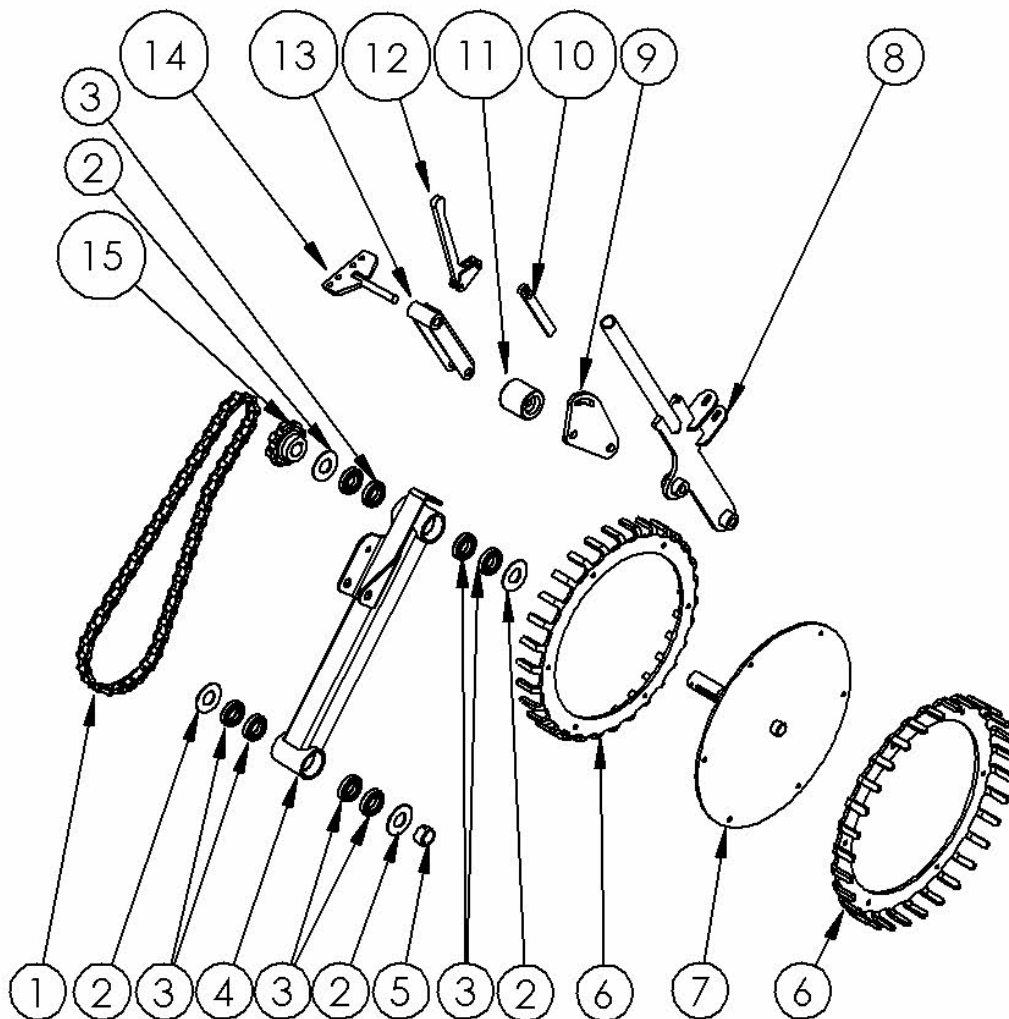
Item No.	Part Number	Description	Quantity
1	43741	Winch	1
2	12912	Winch Support diagonal	1
3	43743	Trailer Coupling	1
4	12850	Bale buggy chassis	1
5	12914 (RH)	Grappling hook hanger	1
6	12911	Winch support vertical	1
7	27095	Hook Assembly	1
8	12914 (LH)	Grappling hook hanger	1
9	25x12.00-9	Bale buggy tyre	2
10	43740	Jockey Wheel 9Jw14sn-TPSI	1

Cradle



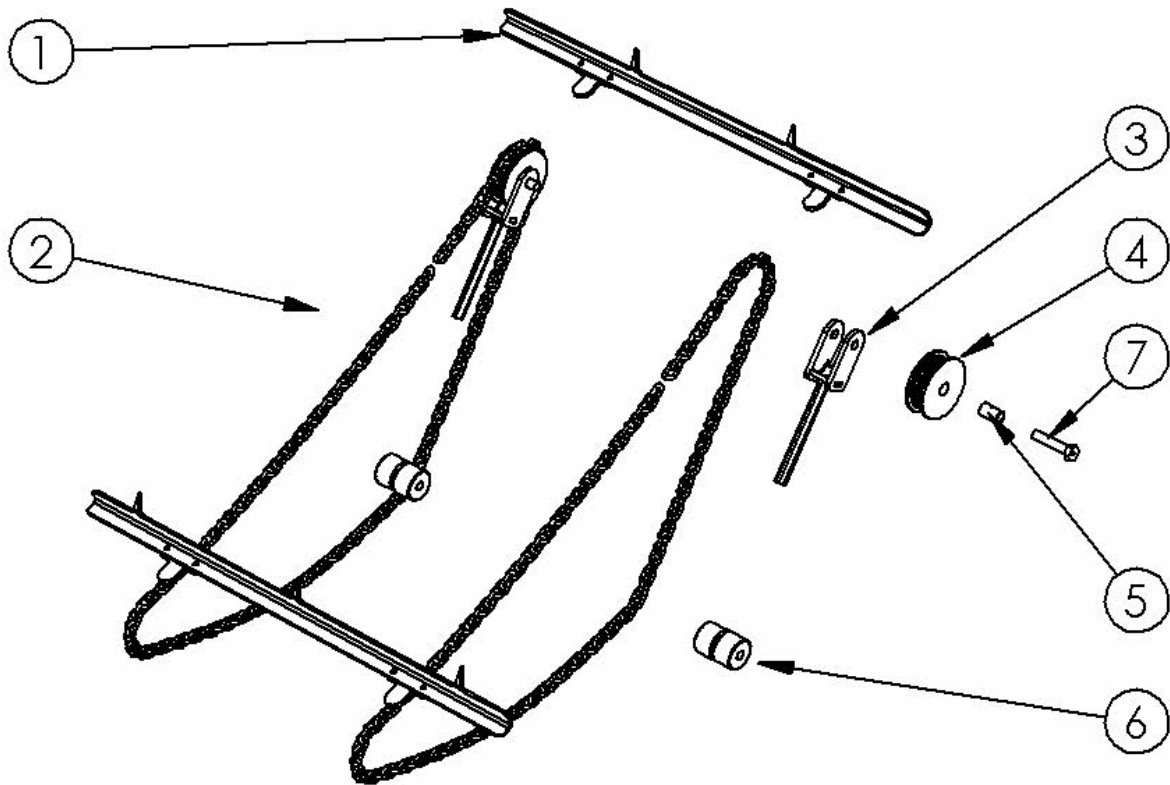
Item No.	Part Number	Description	Quantity
1	13437	Right side top brace	1
2	13440	Ally Side panel (RH)	1
3	27127	Strop roller	1
4	12933	Anti wrap outer assm	2
5	43755	Bearing and housing	2
6	27125	Floor chain drive sprocket	2
7	12959	Floor chain drive shaft	1
8	12934	Anti wrap centre assm	1
9	12962	Pipe spacer	1
10	27123	21T Drive sprocket	1
11	12859	Carriage assembly	1
12	12907	Ally Side panel (LH)	1
13	12916	Plastic guard	1
14	13438	Idler support bar	1

Drive Mechanism



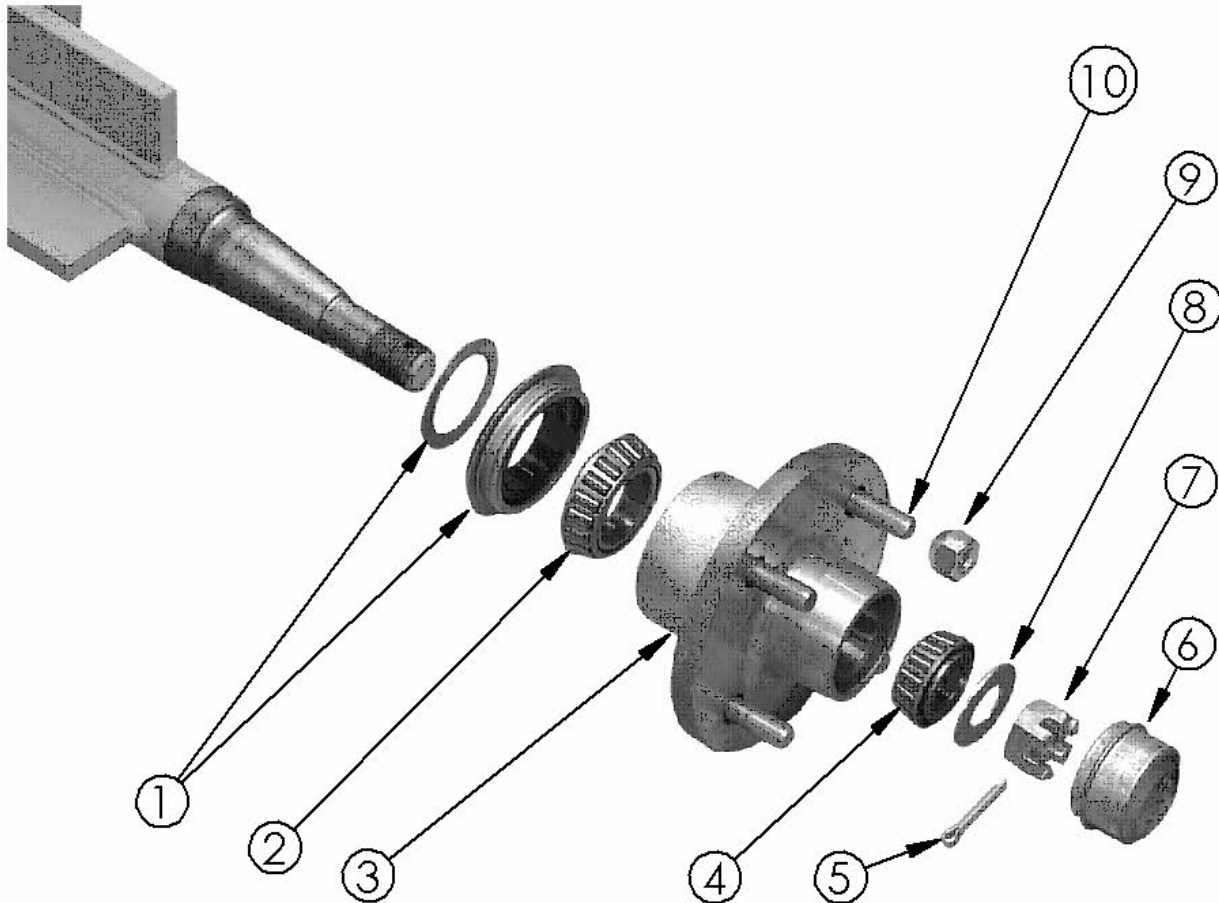
Item No.	Part Number	Description	Quantity
1	BB Drive Chain	Ground drive chain	1
2	13384	75mm-35mm washer	4
3	BRG6007	Bearing	8
4	12965	Drive arm assm	1
5	13385	Mainshaft Lockcap	1
6	12936	Drive wheel	2
7	12939	Drive wheel shaft and flange	1
8	12875	Drive engagement lever	1
9	12923	Roller Tensioner	1
10	12945	Latch pin	1
11	12967	Chain tensioner roller	1
12	12971	Hand lever	1
13	12926	Upper link assm	1
14	12929	Top pivot	1
15	27124	8T Drive sprocket	1

Chain View



Item No.	Part Number	Description	Quantity
1	12866-1	Two spike batten	12 per machine
2		Floor chain	2
3	12869	Chain tensioner assm	2
4	27126	Feed chain idler	2
5	12961	Idler sprocket sleeve	2
6	27128	Chain lower idler	2
7	27153	Idler bolt	2

Wheel Hub



Item No.	Part Number	Description	Quantity per side
1	43802	Seal	1
2	43412	Bearing, inner	1
3	43805	Hub	1
4	30348	Bearing, outer	1
5	45303	Split pin	1
6	43041	Dust cap	1
7	47506	$\frac{3}{4}$ " Axle nut	1
8	47460	Washer	1
9	43807	$\frac{7}{16}$ " UNF Wheel Nut	8
10	43806	$\frac{7}{16}$ " x $1 \frac{1}{4}$ " UNF Wheel stud	8
	43749	Hub & Stub set – includes items 1-10	1

Notes: