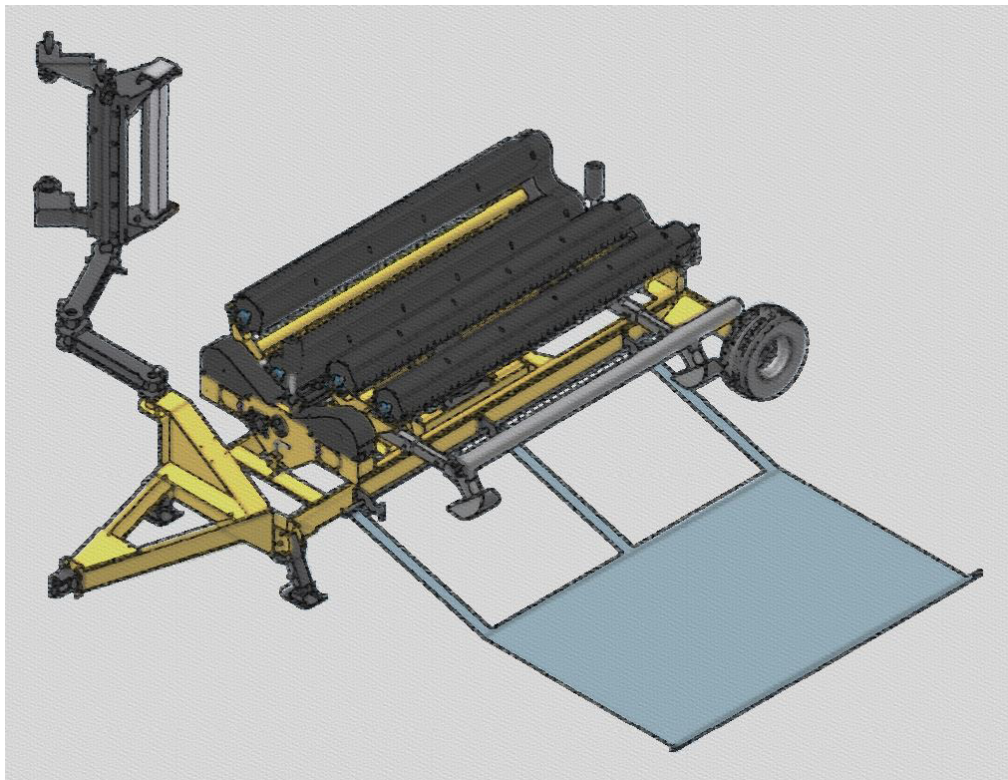


Tube-Line Individual Bale Wrapper **TL1700SR**



Operator's Manual

Thank you for choosing the Tubeline TL1700SR Individual Bale Wrapper. Our hope is that it will give you many years of productive service. This machine is designed to wrap round bales in a film of plastic.

Please read and understand this manual and the machine before operation.

Warranty and Limitation of Liability

All equipment is sold subject to mutual agreement that it is warranted by the company to be free from defects of materials and workmanship. But the company shall not be liable for special, indirect or consequential, damages of any kind under this contract or otherwise. The company's liability shall be limited exclusively to replacing or repairing without charge, at its factory or elsewhere, at its discretion.

Any material, or workmanship defects which become apparent within one year from the date on which the equipment was purchased, and the company shall have no liability for damages of any kind. The buyer by the acceptance of the equipment will assume all liability for any damages, which may result from the use or misuse by his employees or others.

Warranty coverage is null and void unless Warranty Registration form has been completely filled in and is on file at Tube-Line Manufacturing Ltd.

Serial # Decal

The implement serial number is located on the front of the frame. This number helps us to track changes and improvements and must be mentioned when ordering parts or requesting service. For your convenience, a space has been provided inside the front cover of this manual to record the serial number, model number, purchase date, and dealer name.

Model # : _____

Serial # : _____

Date Purchased : _____

Dealer Name : _____

Table of Contents

Operator's Manual	II
Warranty and Limitation of Liability	II
Serial # Decal	II
Section 1: Safety	1-1
Safety Guidelines	1-2
Storage & Maintenance	1-2
Specifications	1-2
Safety Decal Location	1-3
Safety Decals	1-4
Before Operation	1-7
Bale Size	1-7
Round Bales	1-7
Square Bales	1-7
Section 2: Initial Setup	2-1
Electrical Connection	2-2
Section 3: Operating Procedure	3-1
To Install Plastic Wrap Film	3-1
Trouble Shooting Plastic Installation	3-2
To Wrap Bales	3-3
First Bale	3-3
Continuous Wrapping & Unloading	3-3
Section 4: Bale Wrap Computer Operation	4-1
Section 5: Parts Lists & Breakdowns	5-1
Turntable	5-2
Rollers	5-4
Guide Rollers	5-6
Plastic Cutter	5-8
Dump Frame	5-10
Trailer Feet & Hitch	5-12
Film Tensioner	5-14
Roll Off Bumper	5-18
Roll Off Tarp	5-20
Hydraulic Schematic	5-22
Electrical Diagram	5-24
Torque Values - Imperial	V
Torque Values - Metric	VI

Section 1: Safety

Take note! This safety alert symbol is found throughout this manual to call your attention to instructions involving yourself and others working around the machine.

Failure to follow these instructions can result in injury or death!



This symbol means

**- Attention!
Become Alert!
Your Safety is involved!**

Signal Words are used in this book.

Caution: Indicates a potentially hazardous situation that may result in injury.

Warning: Indicates a potentially hazardous situation that could result in serious injury or death.

Danger: Indicates a hazardous situation that needs to be avoided. It is you the operator that needs to be aware of these dangers.

If you have any questions not answered in this manual, please contact your dealer or Tubeline Manufacturing Ltd.

6455 Reid Woods Drive,
R. R. #4 Elmira
Ontario, Canada
N3B 2Z3

Email : sales@tubeline.ca

Fax : (519)-669-5808

Tel : (519)-669-9488

Safety Guidelines

Safety of the operator is one of our main concerns, however we do hear of some accidents that could have been avoided if some precautions had been taken. To avoid personal injury study the following precautions and insist those working with you or for you, follow them.

In most cases the pictures will have the shielding in place, in some they may be removed, only to show a view behind the shield. Keep all the shields, safety doors in place. If they become faulty and fail to work replace them. They are for your safety, do not operate the equipment with them removed.

Replace any decals that may be missing or that are not readable. Location of the decals is indicated in this manual.

Do not operate this machine while under the influence of drugs or alcohol.

Review the safety instructions with all users annually.

This equipment should not be operated by children, nor those unfamiliar with the operation of the machine. Do not allow persons to operate this machine until they have read this manual and/or were instructed by a qualified person.

Do not paint over, remove or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice the instructions on them.

Storage & Maintenance

With regular upkeep and careful storage this machine should serve you well for many years. Store the machine in a cool dry place. It is recommended that you tighten the drive chains after the first day of use every year. Also grease the drive chains before storing the TL1700SR, replace any removed shields.

Specifications

Length: 192"

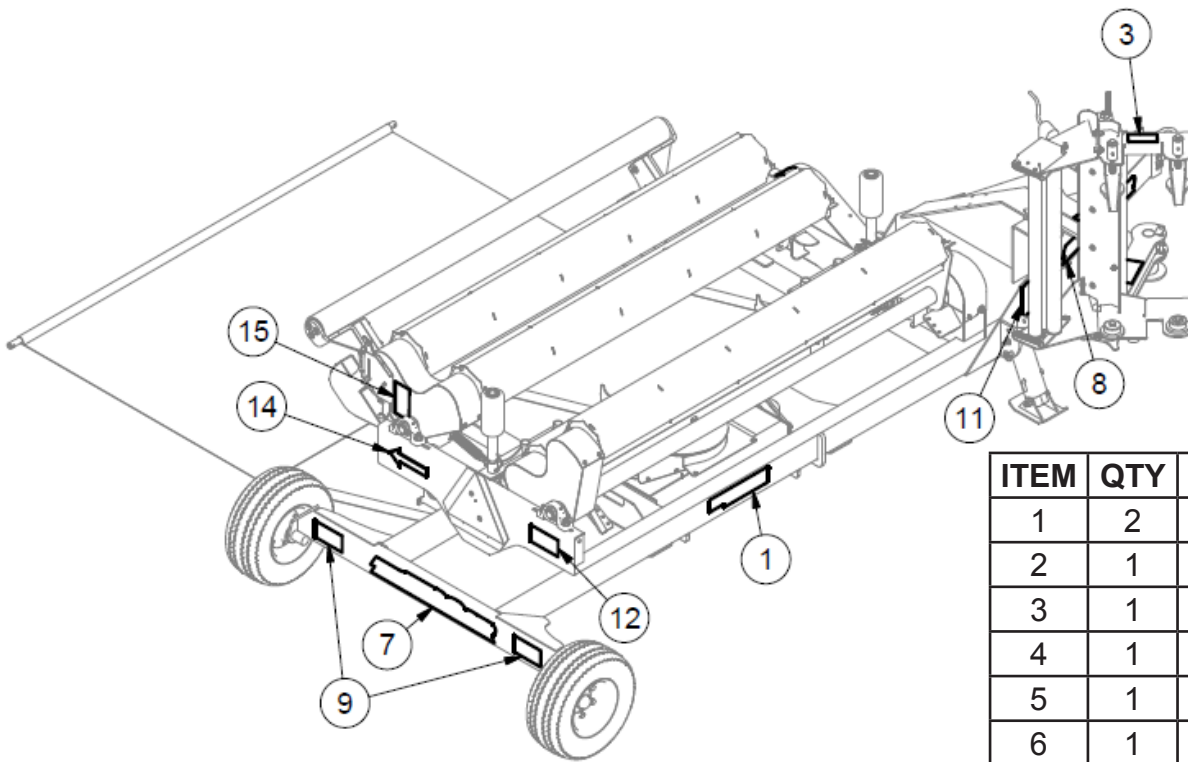
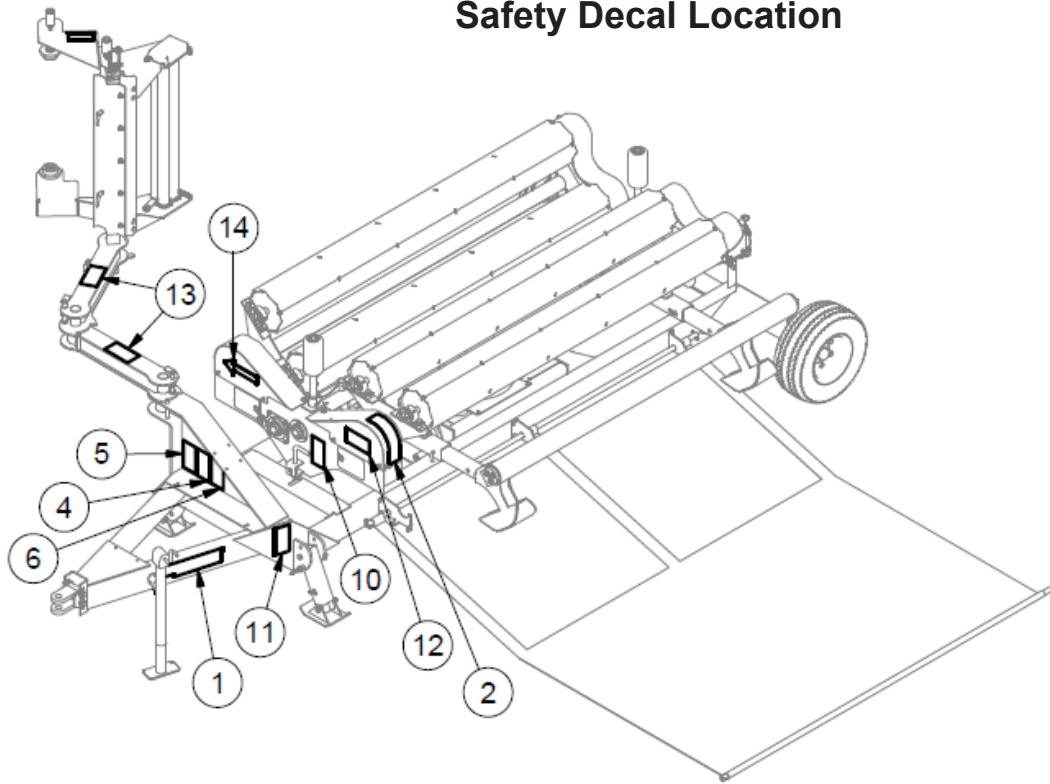
Width: 82"

Height: 95"

Weight: 2865 lbs

Required Horse Power: 30 hp

Safety Decal Location



ITEM	QTY	PART NUMBER
1	2	DE28146
2	1	DE36080
3	1	DE41915
4	1	DE41713
5	1	DE41714
6	1	DE41715
7	1	DE41732
8	1	DE41733
9	2	DE41899
10	1	DE41900
11	2	DE41901
12	2	DE41902
13	2	DE41905
14	2	DE41912
15	1	DE41913

Safety Decals

Item 14 on [pg. 1-3](#)

Part # : DE41912 - Ends of Turntable

Visual arrows display warning to stay clear of operating Turntable.



Item 2 on [pg. 1-3](#)

Part # : DE36080 - Front Left of Turntable

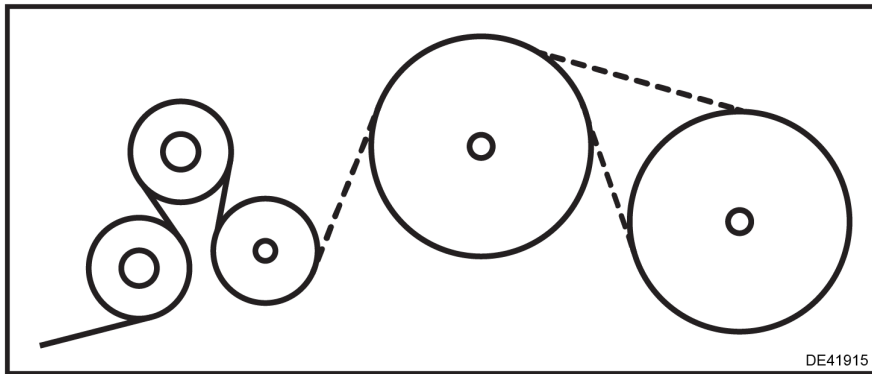
Marks side the wrapper turntable ejects bale off of.



Item 3 on [pg. 1-3](#)

Part # : DE41915 - Top of Tensioner

See [pg. 3-2](#) for detailed instruction on routing plastic film through tensioner.



Item 7 on [pg. 1-3](#)

Part # : DE41732 - Rear Cross Beam of Trailer Base
Large Model Decal

Item 8 on [pg. 1-3](#)

Part # : DE41733 - Right Side of Tongue
Small Model Decal



Safety Decals

Item 4 on [pg. 1-3](#)

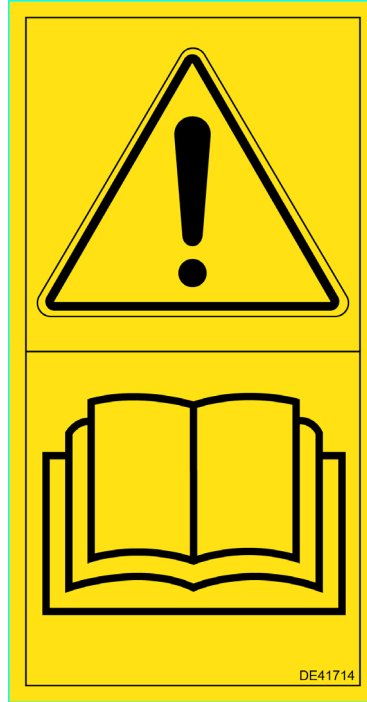
Part #: DE41713 - Front Left of Trailer Base



Do not use hand to check for hydraulic leaks, refer to operators manual for maintenance instructions.

Item 5 on [pg. 1-3](#)

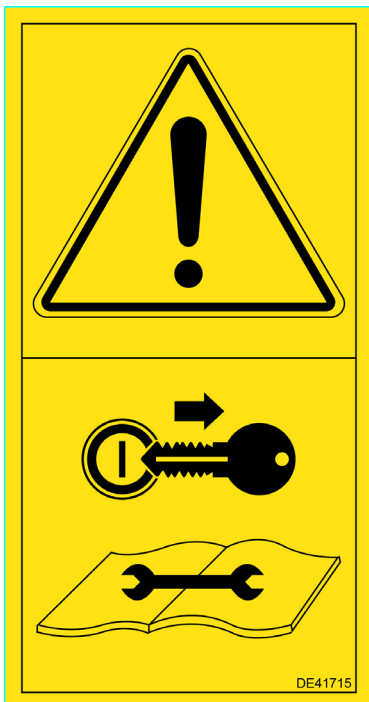
Part #: DE41714 - Front Left of Trailer Base



Read and understand manual before operating machine.

Item 6 on [pg. 1-3](#)

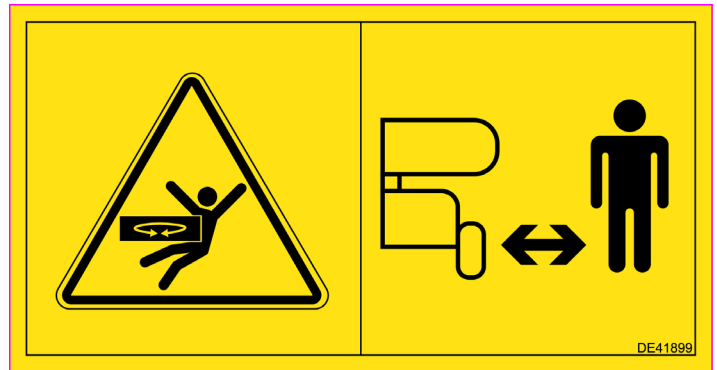
Part #: DE41715 - Front Left of Trailer Base



Remove key from power unit before attempting any maintenance on this machine.

Item 9 on [pg. 1-3](#)

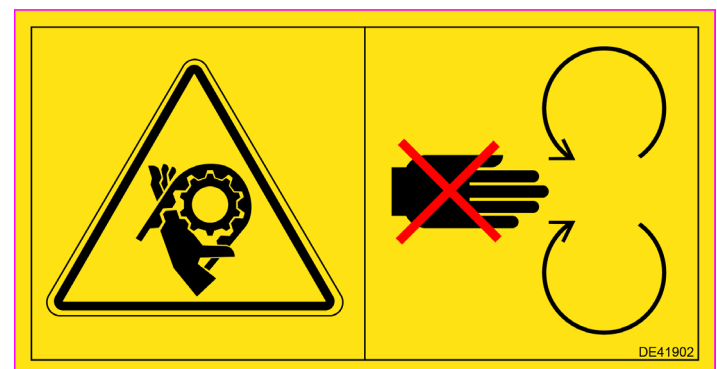
Part #: DE41899 - Rear Cross Beam of Trailer Base
Stand clear of wrapper while turntable is spinning.



Item 12 on [pg. 1-3](#)

Part #: DE41902 - Ends of Turntable

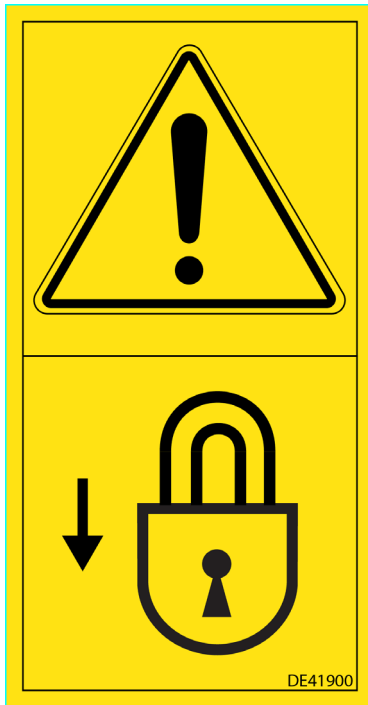
Do not remove shields before drive components have completely stopped. Keep hands away while machine is in operation.



Safety Decals

Item 10 on [pg. 1-3](#)

Part # : DE41900 - Middle front end of Turntable
Lock wrapper Turntable with spring pin before
transporting to avoid wear of drive system.



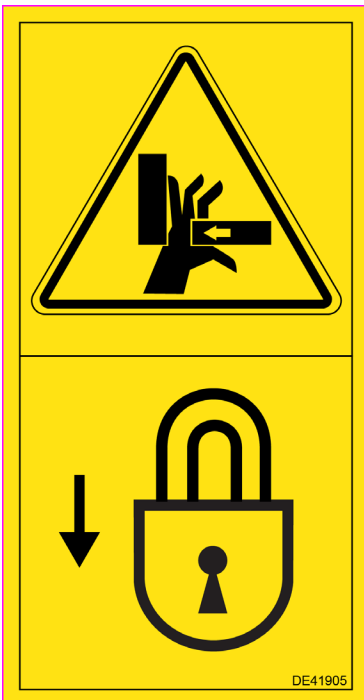
Item 11 on [pg. 1-3](#)

Part # : DE41901- Both back sides of Tongue
Raise legs and lock into position before
transporting machine.



Item 13 on [pg. 1-3](#)

Part # : DE41905 - Tops of Tensioner arms
To prevent pinching from swinging Tensioner
arms make sure arm lock pins are in locked
down position before operating wrapper.



Item 15 on [pg. 1-3](#)

Part # : DE41913 - Back Left Roller Shield
Wait until all machine components have
stopped moving before touching.





Remember

Your best assurance against accidents or damage to the machine is to know how it operates. If you do not understand a portion of the manual or a function of the wrapper, please contact your dealer or an experienced operator.



Before Operation

- Carefully study and understand the manual or be trained by an experienced operator.
- Do not wear loose clothing that may get caught in moving parts.
- Visually inspect the machine to make sure no parts are loose or missing.
- Be sure that no tools are left on the machine.
- Do not hurry the learning process. Be familiar with one part before trying the next part.
- Practice by running the machine through its paces without a bale on the machine until you are comfortable and familiar with the operation.

Bale Size

Round Bales

The TL1700SR will wrap bales from a 4' diameter to 5' x 5 ½'.

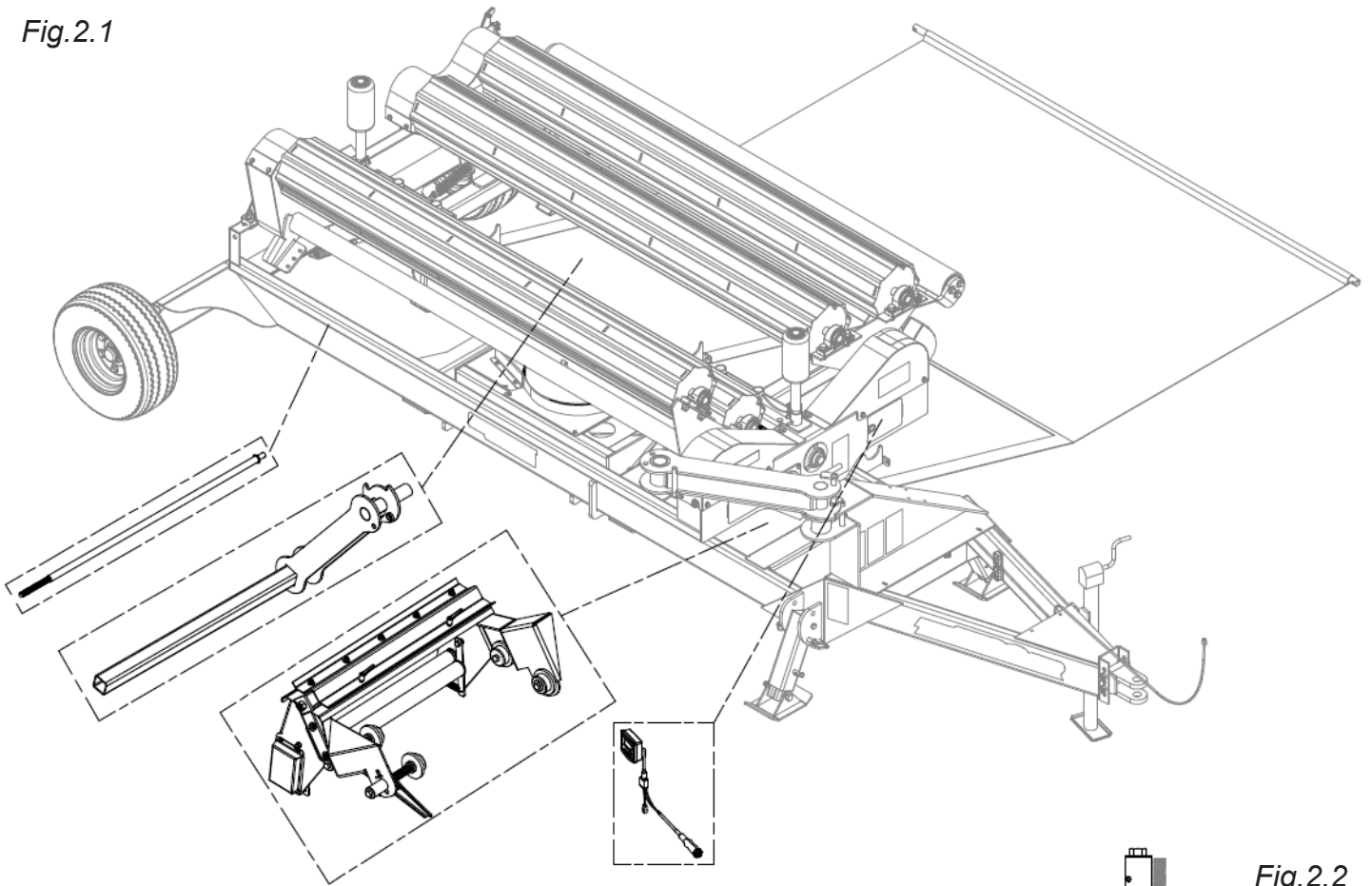
Square Bales

The TL1700SR will wrap square bales up to 3' x 3' x 7'.

Intentionally Left Blank

Section 2: Initial Setup

Fig.2.1



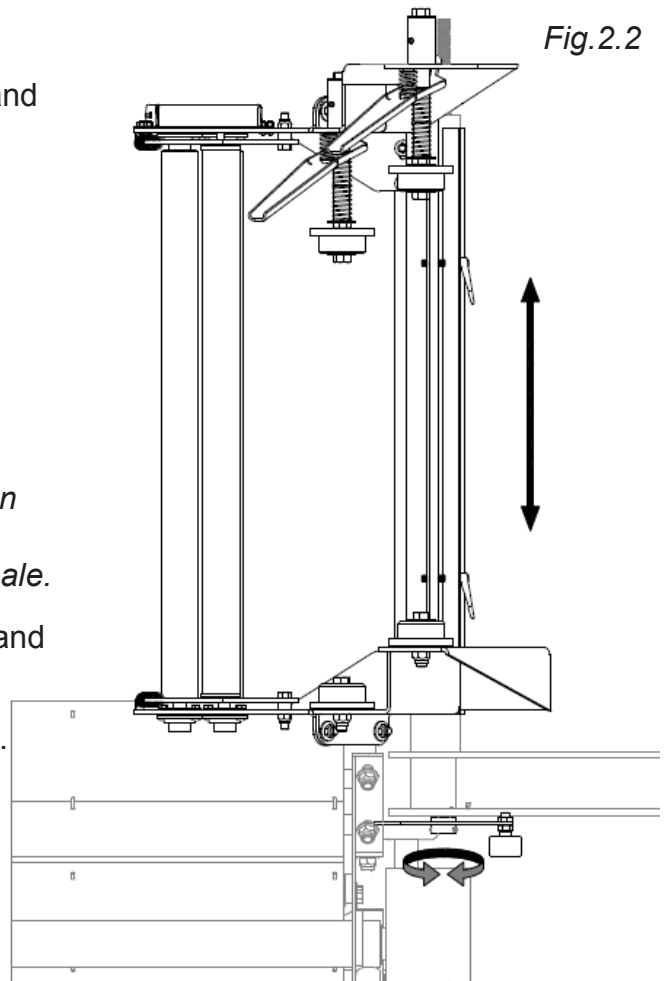
- Remove all parts banded and wired to main frame and set aside. (Fig.2.1.)
- Remove monitor, wiring harness and manuals from shipping location behind end shield.
- Mount film tensioner arm to swing arm. See parts illustration for proper positioning (pg.5-14).
- Mount tensioner to tensioner arm with clamps. See parts illustration (pg.5-14)

Note: Adjust tensioner up or down by turning roller on bottom of tensioner mount arm. (Fig.2.2)

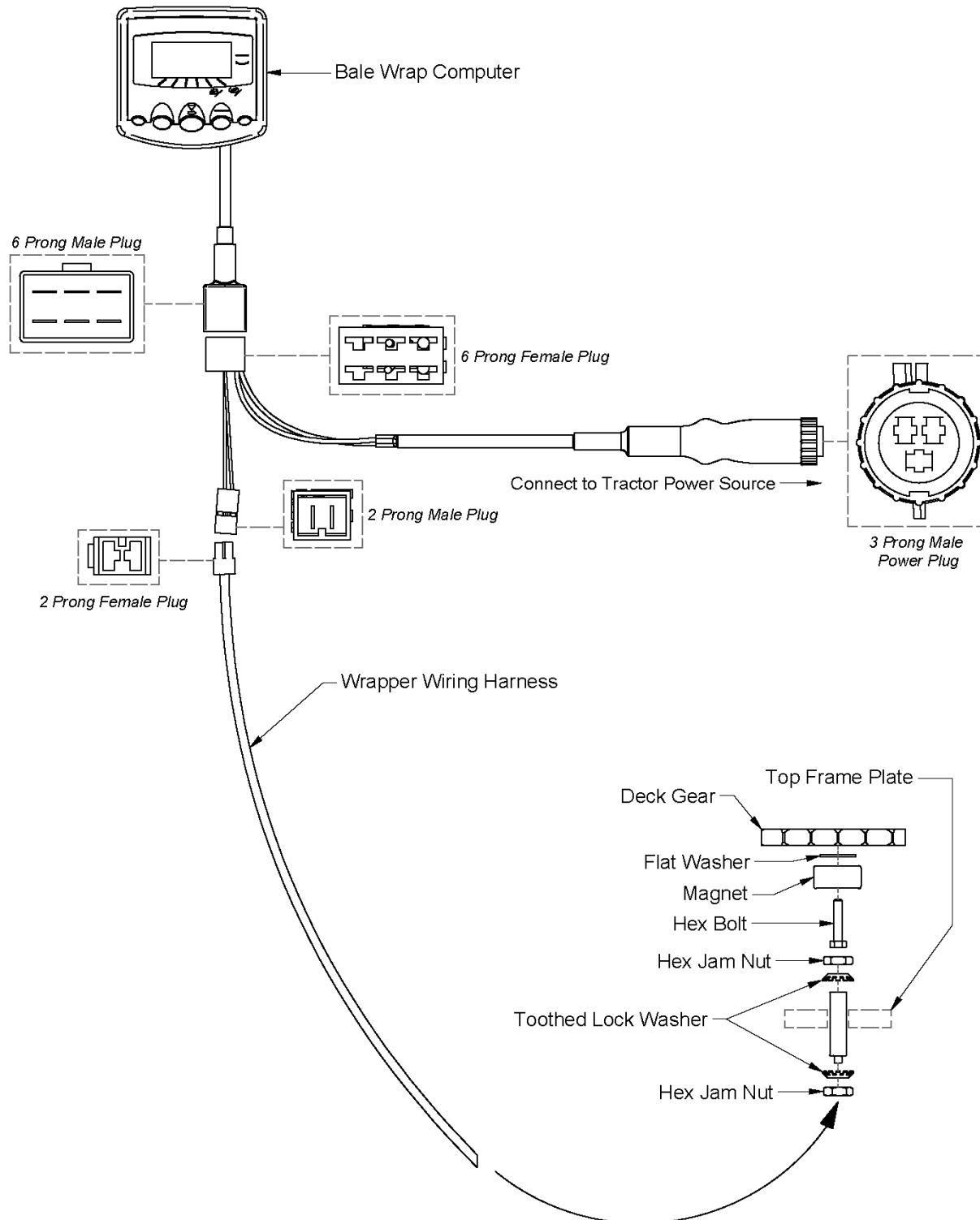
Wrap should be applied across the mid section of the bale.

- Before transporting, check tire pressure, raise legs and jackstand.
- Connect hoses to power unit if planning to a dry run.

Fig.2.2



Electrical Connection



- Remove wrapper wiring harness from frame (shown in previous image).
- Connect to two prong plug in wiring harness.
- Mount Wrap Computer to suitable location on tractor with mounting hardware provided.
- Connect 6 pin plug from computer to wiring harness.
- Connect 3 prong male plug to power source in tractor. If tractor is not equipped with a matching female plug, one will need to be obtained and installed. Contact your local parts dealer.

Section 3: Operating Procedure

The following method dictates how to operate the TL1700SR Tubeline Individual Wrapper.

Before wrapping bales you will need to attach the wrapper to the drawbar on your tractor. Plastic film rolls must also be installed to wrap your bales with. **Note:** Use high quality plastic film only.

To Install Plastic Wrap Film

1. Raise spring loaded plastic holders.
2. Lift plastic rolls onto lower plastic holders.
3. Guide top of plastic rolls under spring loaded plastic holders.
4. Lift handles to snap spring loaded plastic holders into tops of plastic rolls, this will hold them in place while in use. (*Fig.3.1*)

Plastic from the factory has a natural tack on the inside. In the event of the plastic being stored for an extended period of time the tack may migrate to the opposite side. To test for tacky side fold plastic inside to inside and pull apart. Fold opposite way (top to top) to determine tackier side.

The rolls of plastic should be installed with the tack on the inside of the plastic film next to the bale silage. The plastic then passes over the plastic roller and is threaded through the two aluminum rollers on the Tensioner as shown in the diagram (*Fig.3.3*). The two aluminum rollers rotate at different speeds, causing the plastic to be stretched. It is very important that the plastic goes over the slow roller first and the faster roll second. If there is any question, which is the faster roller:

Turn one roller by hand and watch the speed of the other roller, this should help you determine which is the fast and slow roller. When the plastic is installed correctly, it should stretch tight on the bale to form a smooth wrapped bale. **Note:** Plastic rolls have a 4" overlap to provide better sealing (*Fig.3.2*).

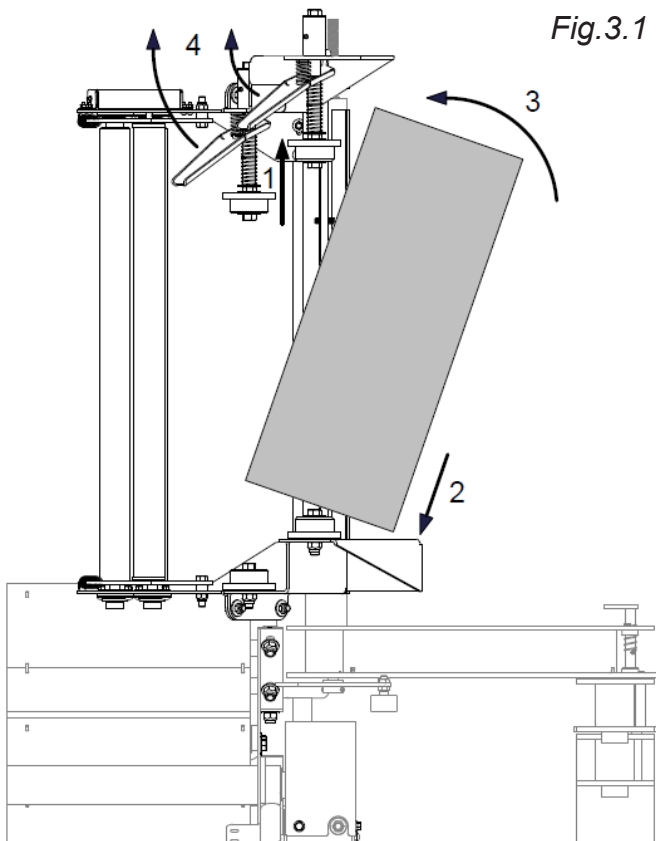


Fig.3.1

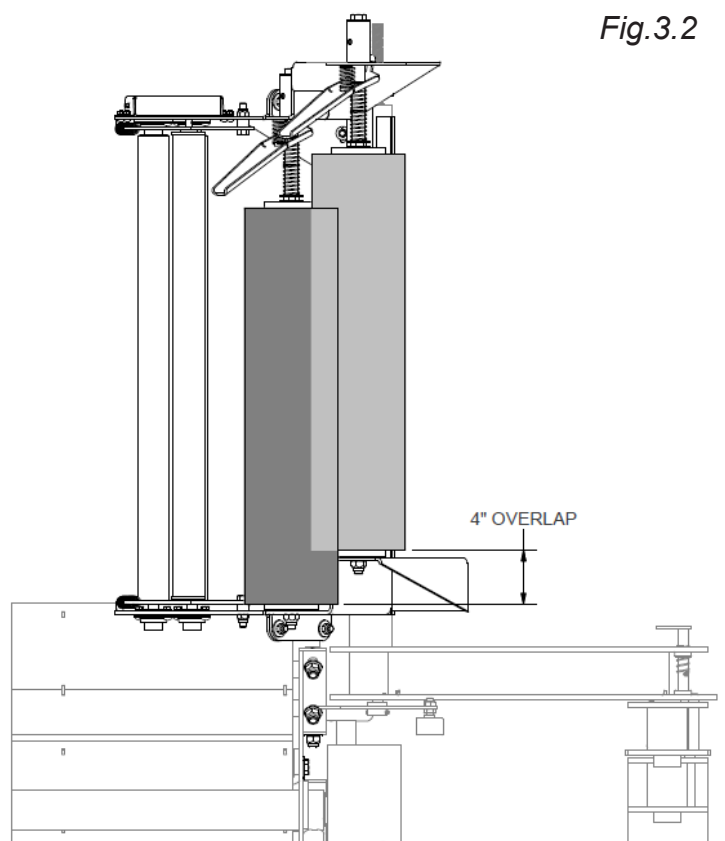
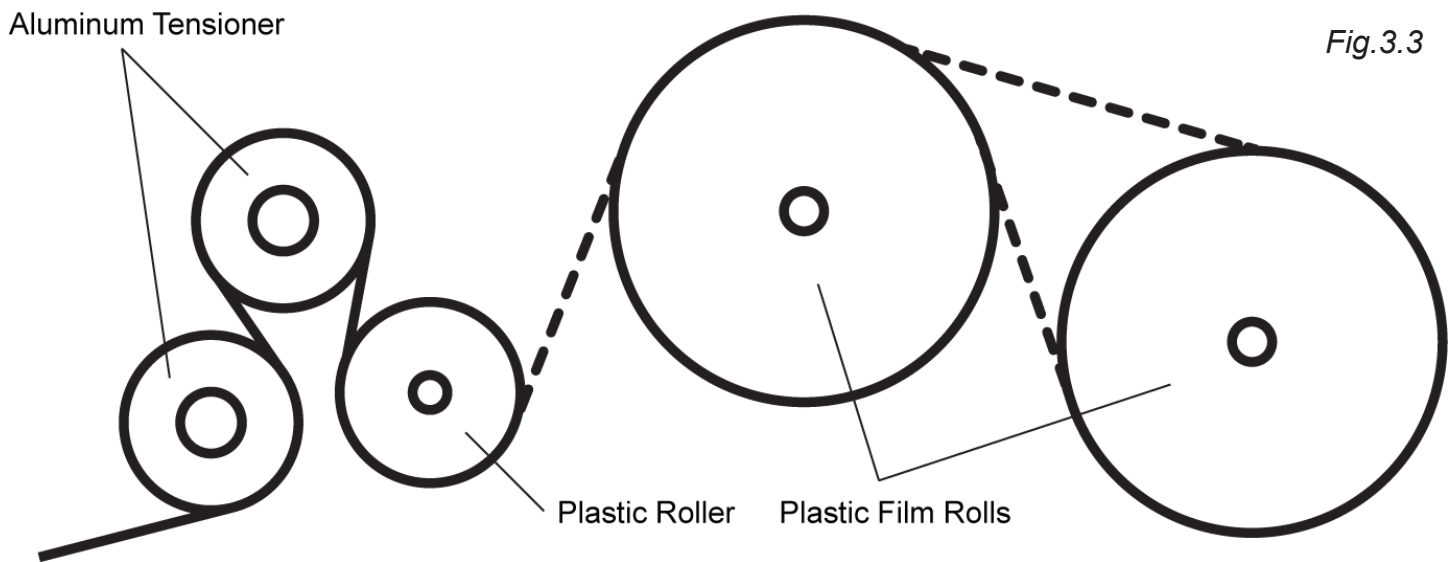


Fig.3.2



Trouble Shooting Plastic Installation

Wrinkles in the plastic with seams between layers easily visible.

Check to determine if the plastic is properly routed through the Tensioner rollers.

Plastic tears between the Tensioner and the bale.

Film spool holders: not turning freely. Lubricate and turn by hand until free. Plastic roller not turning freely. Lubricate and turn by hand until free.

Tensioner rolls not turning freely : Loosen the bolts holding the bearing and check if this makes a difference. It may be that the bearings have too much end pressure, in this case re-tighten the bearings and loosen the locking collar on the roller shaft this will allow the shaft to slide in the bearing; re-tighten the bearing collar. The gears can also be meshed too tight; this can be fixed by slightly loosening one set of bearing bolts. Using a hammer and punch, lightly tap the bearing away from the other roller.

Caution - Do not use a hammer on the aluminum stretcher rolls.

Poor quality plastic : Use a brand with good tear resistance.

Tack build up on the rollers: Particularly in hot weather. Clean the Tensioner with warm soapy water
 Plastic roll is too hot : In very hot weather the plastic can become soft if left in the sun for long periods of time. In these conditions, the spare rolls should be kept in the shade. After the rolls have been installed on the machine one can be parked on the bottom and a cover can be placed on the top one. Rolls of plastic may catch on the bottom of the bale. If bales are misshaped the roll of plastic may drag on the bottom of the bale, causing the plastic to break.

To Wrap Bales

Choose a suitable wrapping site, preferably somewhere flat, and close to where you are planning to store your wrapped bales. Before placing the first bale onto the rollers make sure the wrapper stabilizer legs are lowered to the ground. The rollers should be parallel to the wrapper frame, however this is not mandatory, unless you are dumping a bale. You are ready to wrap if you see the unload arrow decal ([DE36080, page 1-5](#)) on the front left corner of the rollers. Remove the transport lock and connect the hydraulic hoses to your tractor ports.

Adjust the bale guide rollers to the proper position for the length or width of the bales. Position rollers so that bale is centered between them.

The film tensioner ([see page 5-14 for illustration](#)) should be adjusted so that the wrap is applied to the middle of the bale. If wrap is applied too high or low adjust tensioner by loosening clamps. Adjust tensioner as needed until wrap crosses the bale at its midpoint. As a guide, for a 4' or 4.5' diameter bale, the lower clamp ([Item 2 on page 5-15](#)) will be just below the cross bar under the tensioner.

First Bale

After placing the first bale onto the wrapper you will need to tie the plastic film edge to the netting/twine of the bale. Keep the tractor at a steady RPM while engaging the hydraulic motor on the wrapper to allow a smooth wrapping job. We recommend 6-8 layers of wrap per bale. Tractor oil flow controls cycle speed of turntable. If the tractor is equipped with a flow control, set it to achieve the desired RPM. In a tractor without a flow control, the operator will need to control the flow manually with the hydraulic lever and/or engine RPM. A poorly shaped bale, also a very large bale, will require a slower table speed. A smaller, firm, well shaped bale may be able to be wrapped at a faster RPM. However faster speeds may cause the bale to be thrown off the wrapper. Bystanders should always keep a safe distance from the wrapper during operation.

Continuous Wrapping & Unloading

Bales unload of the wrapper (with the rolls parallel to the frame). To unload the first bale, make sure unload arrow decal on the front left corner of the turntable is **POINTING TOWARDS THE LEFT SIDE** of the frame. Next, operate the tilt function slowly using the hydraulic control. The turntable tilts up, allowing the bale on the turntable to roll softly and safely to the ground. Bale bumper can be adjusted so that bale rolls a sufficient distance to allow the table to turn without interference. This machine has a feature that takes away the need to cut the plastic film after each bale is ejected from the turntable.

When you load the next bale it will be sitting on top of plastic film stretched across rollers. Table can be turned to allow loading bales over left wheel, from left side, or the rear. As you start wrapping each bale after the initial bale, a knife edge located on the rear left of the turntable will cleanly cut the wrap between unloaded bale and wrapper.



WARNING! Do **NOT** transport with bale on rollers.

Intentionally Left Blank

Section 4: Bale Wrap Computer Operation

Please follow these instructions when operating the Bale Wrap Computer

Bale Wrap Computer

1. Introduction

The *Bale Wrap Computer* has 6 channel functions with an illuminated 4 digit LCD display, 3 switches to control all functions and an internal alarm. An external alarm is optional.

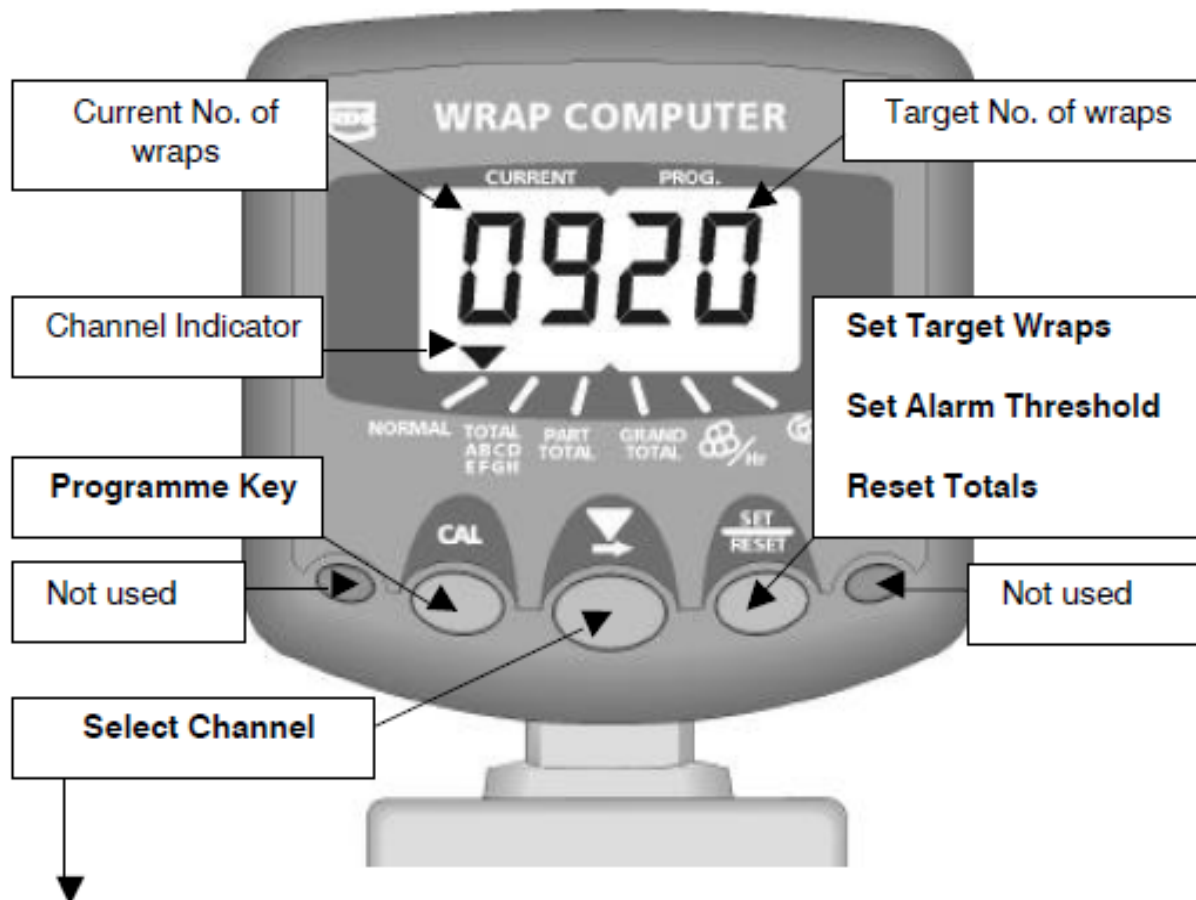
The instrument is normally powered on via the vehicle ignition circuit and recalls the function displayed when the instrument was last used.



What can it do ?

- ?? Continuously displays the current number of wraps around the bale alongside the desired (Target) number of wraps preset by the operator.
- ?? Sounds an alarm at a preset number of wraps before the target number is reached.
- ?? Automatically senses when the bale wrap sequence ends and records it to each of these memory registers:
 - (i) Grand Total
 - (ii) Part Total
 - (iii) One of eight selectable Store Totals
- ?? Displays the number of bales wrapped per hour, within any desired time period.
- ?? Displays bale wrapping speed in r.p.m. and sounds an alarm when a preset speed is exceeded.

2. The Control Switches

There are **three** switches on the front panel used individually or in combination to programme, set/reset or select a function.



Channel 1	NORMAL	'Normal' display (Current/Target no. of Wraps)
Channel 2	TOTAL ABCD EFGH	Store Totals (A – H)
Channel 3	PART TOTAL	Part Total
Channel 4	GRAND TOTAL	Grand Total
Channel 5	 /Hr	Bale Wrapping Rate
Channel 6	 /min	Bale Wrapping Speed

3. Using the Instrument

3.1 Channel 1 - Current/Target Wraps Display _____

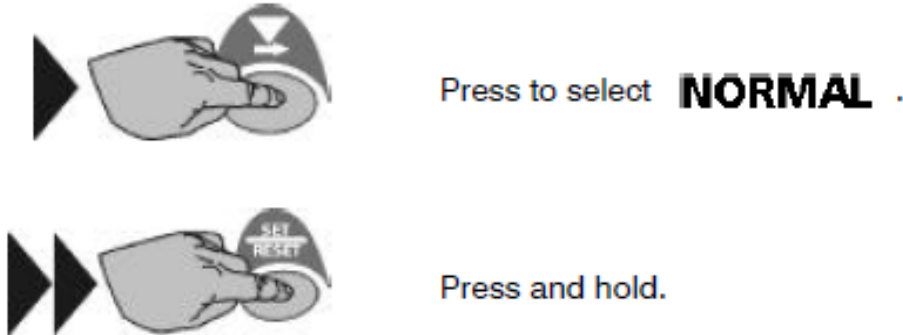


The left hand section shows the current number of wraps and the right hand section shows the target number.

When the current number = Target number, the alarm will sound for 2 seconds and the display will flash. (If set, the early warning alarm sounds beforehand).

Automatic reset of current number to zero normally occurs 3 seconds after the Target number is reached. If additional wraps are added after the Target number is reached, the current number will continue to advance.

3.1.1 Manually reset Current No. of Wraps to Zero



3.1.2 Programme the Target Wraps



Press to select **NORMAL**.



Hold continuously.



The third digit flashes.



Hold to cycle to the required digit then release, otherwise press once...



The fourth digit flashes.



Hold to cycle to the required digit.

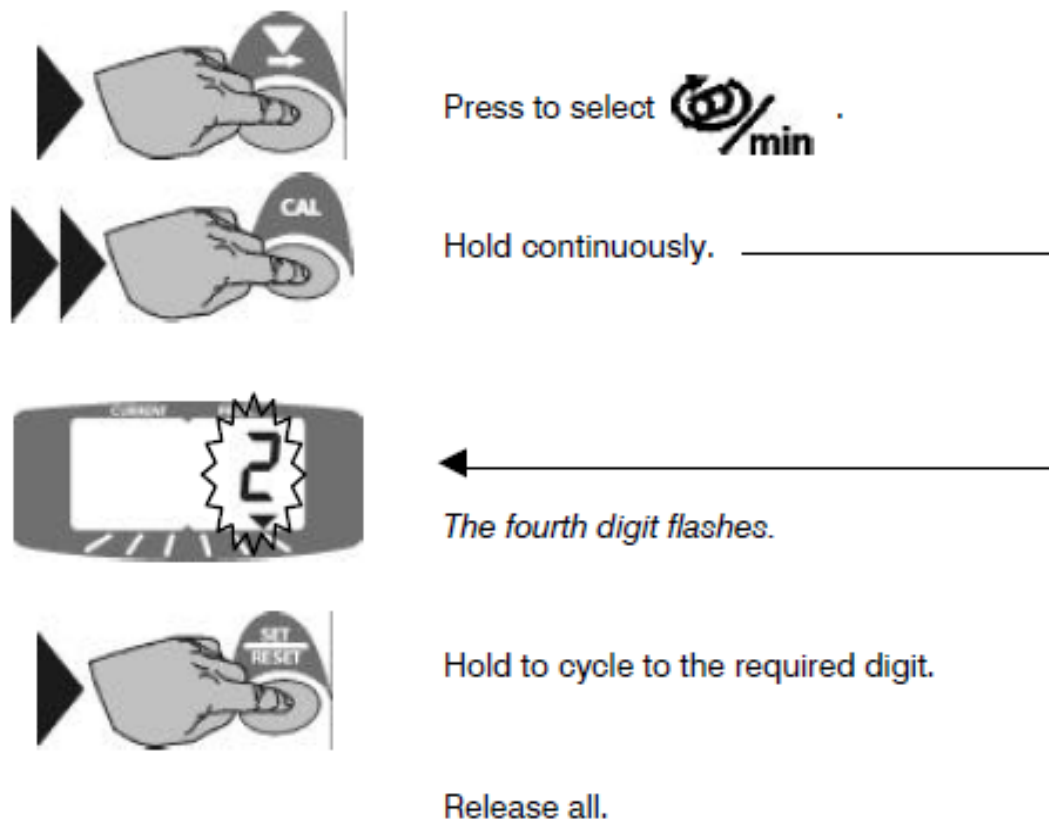
Release all.

3.1.3 Programme Early Warning Alarm

An early warning alarm can be programmed to sound from 1 to 9 wraps before the target number is reached. Depending on the setting, the alarm will sound long beeps for up to 8 wraps, short beeps for the final wrap, and then a continuous beep for three seconds.

For example, if the bale requires 22 wraps and you want an alarm at 20 wraps, then set the number to 2.

To effectively disable the alarm, set the number to 0.



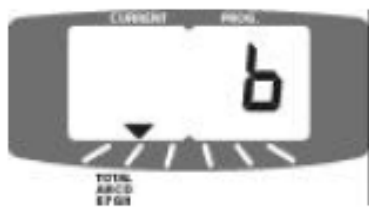
3.2 Channel 2 - Store Totals

When bale wrap is complete, one of eight pre-selected memory store totals **A, b, C, d, E, F, G,** or **H**, is automatically advanced by 1. Store totals can be reset individually.

3.2.1 Display a Store Total



Press to select **TOTAL
ABCD .
EFGH**



The fourth digit displays the current store designation for 2 seconds.



The current total for that store then displays for five seconds, then defaults to channel 1.

3.2.2 Select a Store Total



Press to select **TOTAL
ABCD .
EFGH**

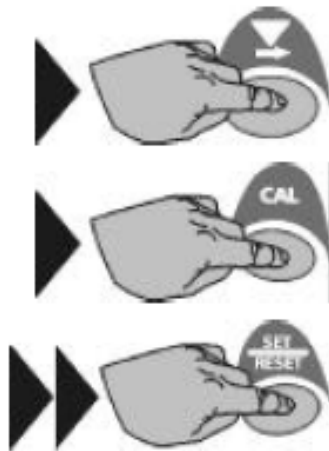


Select the desired store total (A – H).



This is now the default store, and subsequent bale counts are stored there until another store is selected.

3.2.3 Reset a Store Total



Press to select **TOTAL**
ABCD
EFGH

Select the desired store total (A – H).

Press and hold.

3.3 Channel 3 – Part Total

When the bale wrap is complete, the part total is automatically advanced by 1. The part total can be reset at any time

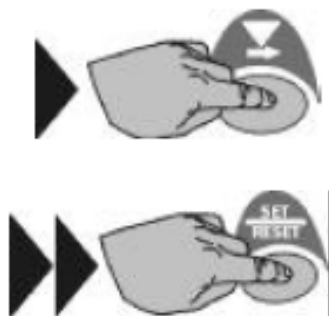
3.3.1 Display Part Total



Press to select **PART**
TOTAL

Part total displays for 5 seconds then defaults to channel 1.

3.3.2 Reset Part Total



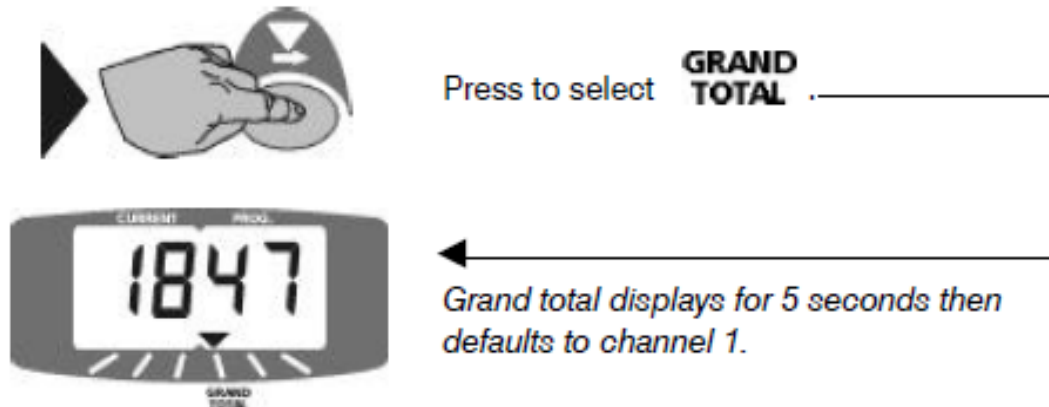
Press to select **PART**
TOTAL

Press and hold.

3.4 Channel 4 - Grand Total _____

When the bale wrap is complete, the grand total is automatically advanced by 1. The grand total cannot be reset.

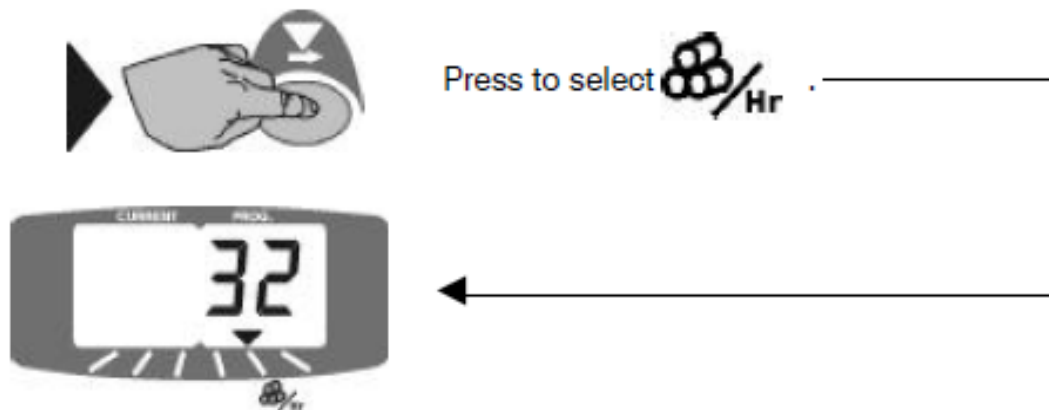
3.4.1 Display Grand Total



3.5 Channel 5 - Bale Wrapping Rate _____


Displays number of bales wrapped per hour. The time period over which the rate is averaged may be re-started at any time.

3.5.1 Display Bale Wrapping Rate



3.5.2 Reset Timing Period



Press to select  .




Press and hold.

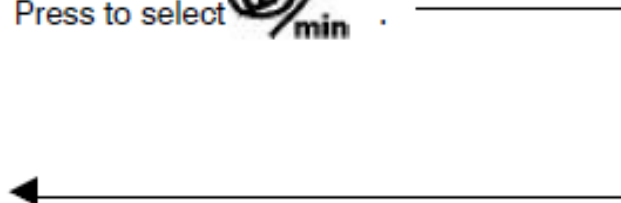
3.6 Channel 6 - Bale Wrapping Speed

Displays instantaneous r.p.m. of the bale wrapper at 3 second intervals in the range 10-99 r.p.m. An overspeed alarm will sound if the r.p.m. exceeds a pre-programmable limit. The display will default to this channel and flash for the duration of the overspeeding, subsequently reverting to the 'current/target wraps' display.

3.6.1 Display Bale Wrapping Speed



Press to select  .



3.6.2 Programme the Overspeed Alarm



Switch power on while pressed.



Release.



The third digit flashes.



Hold to cycle to the desired digit, then release, otherwise press once...



The fourth digit flashes.



Hold to cycle to the required digit.

Release all.

3.7 Total Reset

If for some reason the data in the instrument is corrupted or the display shows '**PrOg**' then the instrument must be totally reset.

- . Switch power off.
- . Press and hold all 3 control switches.
- . Switch power on.
- . Release all switches.

All instrument settings should be returned to the factory-set values. If the display shows '**PrOg**' again, the instrument may be faulty and must be returned to the manufacturer for inspection and repair.

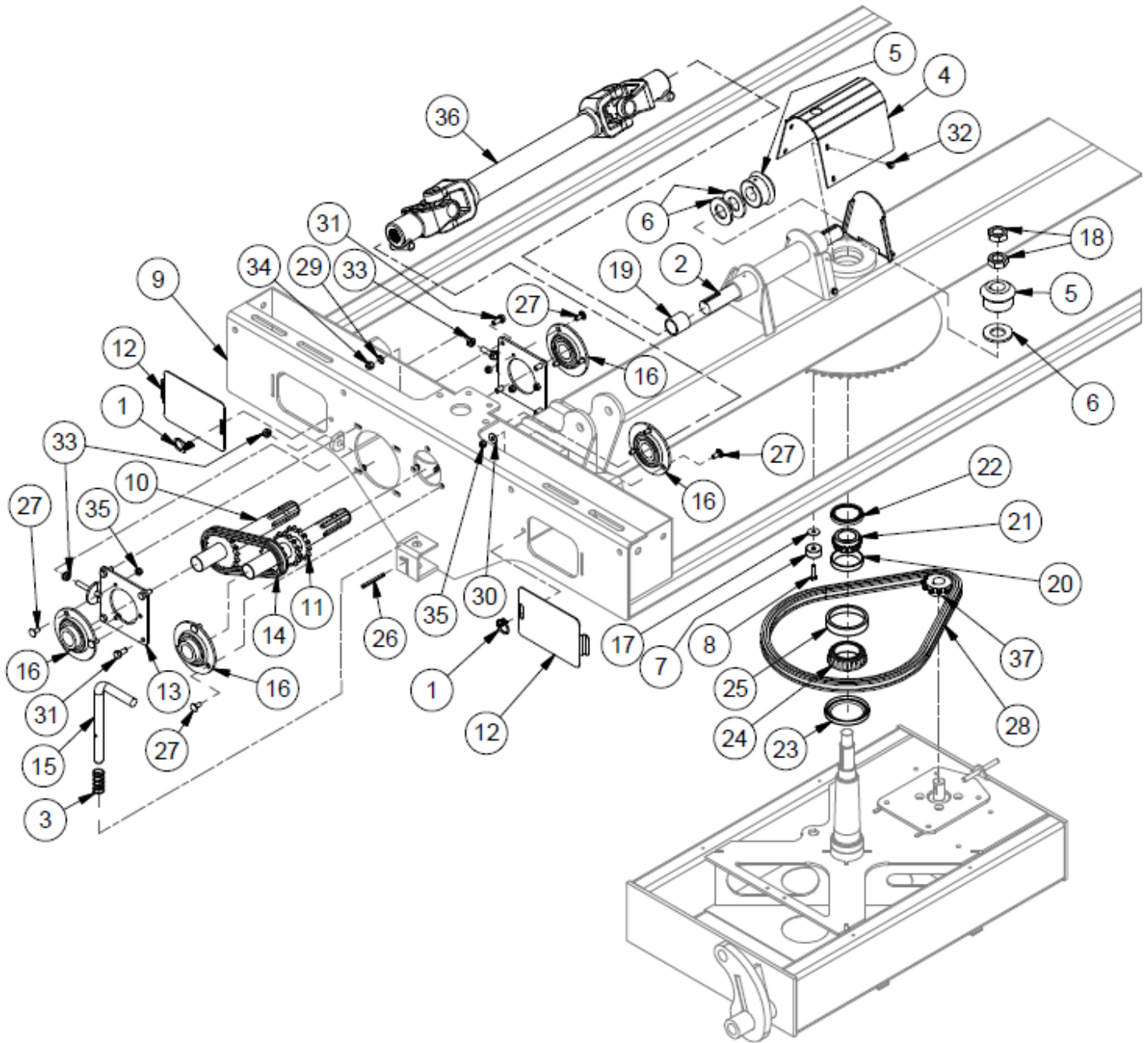
NOTE : *These instructions are provided solely for informative purposes only. Used with permission from Digi-Star International.*

Intentionally Left Blank

Section 5: Parts Lists & Breakdowns

Actual parts may vary slightly from illustrations shown.

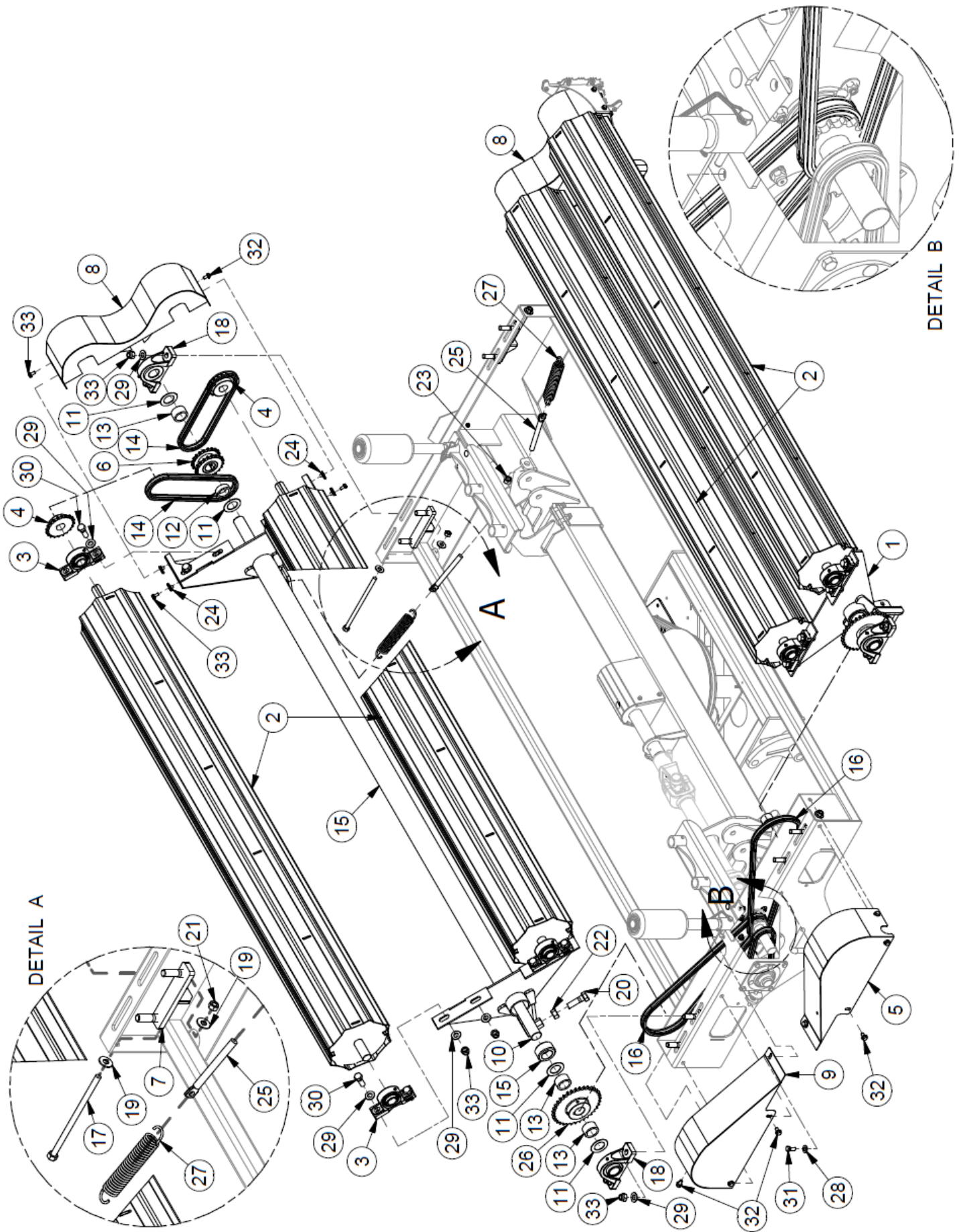
Turntable



Turntable

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	36268	Cam Lock
2	1	37034	Turn Table Cross Shaft
3	1	27566	Spring Compression for Wrappers .97 OD x 2.0 Long
4	1	35092	Gear Shield
5	2	35714	Tapered Gear- 24 Tooth - 8 Pitch
6	3	35785	Miter Gear Spacer
7	1	36254	DigiStar Magnet
8	1	36255	DigiStar M6 Stainless Bolt
9	1	37012	Turntable Frame
10	1	40616	Drive Shaft
11	1	40733	Drive Shaft
12	2	40734	Access Cover
13	2	40761	Chain Tightener
14	1	40965	Middle Drive Chain
15	1	41708	Transport Lock Pin
16	4	BEA SA207-22-P5Z	Bearing - BEA Sa207-22 Plated Flange Bearing
17	1	FW 1/4	Flatwasher - 1/4" Zinc Plated USS
18	2	HN 1.0 JAM	Hex Nut - 1-14 Zinc Plated Hex Jam Nut
19	2	INS150125150B	Insert Bushing (Bronze) 1.50 OD x 1.25 ID x 1.50 Long
20	1	LA-11-1009	Cup 13620
21	1	LA-11-1010	Cone 13686
22	1	LA-11-1011	Seal CR20952
23	1	LA-11-1124	Seal CR27361 for HUB8000
24	1	LA-11-1125	Inner Cone JLM506849
25	1	LA-11-1126	Inner Cup JLM506810
26	1	RP 1/4X2.1/2	Pin - Roll Pin 1/4 x 2 1/2" (Slotted Spring Pin)
27	12	CB 5/16-18X 3/4 Z5	Carriage Bolt - 5/16-18 x 3/4" Zinc Plated Grade 5
28	1	CHAIN 50 ROLLER	5' #50 Chain + Sprocket
29	4	FW 3/8	Flatwasher Plated, 3/8" Zinc Plated USS
30	5	FW 5/16	Flatwasher - 5/16" Zinc Plated USS
31	8	HB 3/8-16X1.0 Z5	Hex Bolt 3/8-16 x 1" Grade 5 Zinc Plated Hex Cap Screw NC
32	4	HBC14X12	Hex Bolt 1/4-20 x 1/2 Grade 8.2 Zinc Flange Bolt SAE
33	4	HNC38	Hex Nut Cerrated
34	24	LN 3/8 N	Locknuts - 3/8-16 Zinc Plated Nylon Insert Lock Nut
35	13	LN 5/16 N	Locknut - 5/16-18 Type NE Zinc Plated Nylon Insert
36	1	PP-00837	5# 1 3/8 -19 spline both ends,30 to 36"
37	1	SPR60B11	60B11 Sprocket w/1 Bore 1/4 kwy 2 5/16 SS

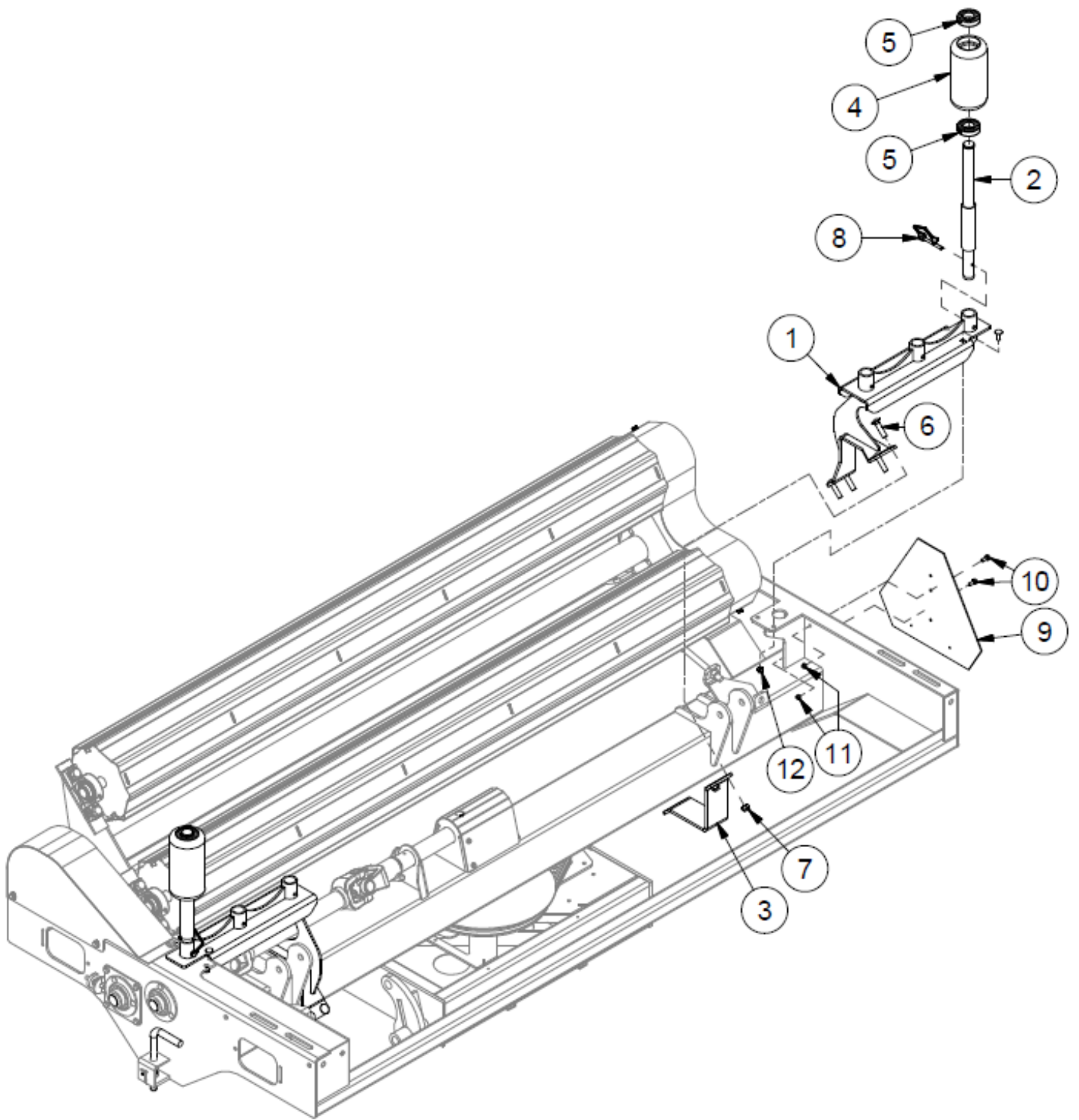
Rollers



Rollers

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	37001	Oscillating Frame
2	4	37010	Roller (Weldment)
3	4	BEA UCP207-20NTL	Bearing 1.25 Pillow Block Bearing (BS208137)
4	4	SPR50B201.25	Sprocket 50B20 1.25 Bore .25 Key
5	1	37009	Chain Guard (Weldment)
6	2	37014	Double Sprocket (Weldment)
7	4	37015	Bearing Tensioner
8	2	37016	Twin Roller Shield (Weldment)
9	1	37019	Chain Guard Weldment
10	2	37026	Twin Roller Pivot Shaft
11	8	37029	Shim Washer 1.531 ID X 2.5 OD
12	3	37030	Sprocket Spacer
13	4	37031	Sprocket Spacer
14	4	39888	Roller Chain
15	1	40731	Oscillating Frame
16	2	40964	Roller Chain
17	4	41704	Chain Adjuster
18	4	BEA UCP208-24R3	Bearing -Triple Seal- Ductile Iron
19	8	FW 1/2	Flatwasher - 1/2" Zinc Plated USS
20	2	HB 3/4-10X2.1/2 Z5	Hex Bolt - 3/4-10 x 2 1/2" Grade 5 Zinc Plated Hex Cap Screw NC
21	4	HN 1/2	Hex Nut 1/2"-13 Grade 5 Zinc Plated Finished NC
22	2	HN 3/4	Hex Nut - 3/4"-10 Grade 5 Zinc Plated Finished NC
23	2	HN 5/8	*Hex Nut - 5/8"-11 Grade 5 Zinc Plated Finished NC
24	12	HNP 5/16	Panel Nut - 5/16" U-Type Spring
25	2	PP00051	Flat Eye Bolt 5/8 x 7.0
26	2	SPR50B351.5	Sprocket 50B35 1.50 Bore .38 Key
27	2	TL500-101-231	Tensioner Spring
28	2	FW 1/2	Flatwasher - 1/2" Zinc Plated USS
29	16	FW 5/8	Flatwasher - 5/8" Zinc Plated USS
30	16	HB 5/8-11X2.0 Z5	Hex Bolt 5/8-11 x 2 Grade 5 Zinc Plated Hex Cap Screw NC
31	2	HB 7/16-14X1.0 Z5	Hex Bolt Plated Gr. 5 NC
32	14	HBC38X34	Hex Bolt - 3/8-16 x 3/4 Grade 8.2 Zinc Flange Bolt Serrated SAE
33	16	LN 5/8 N	Locknut - 5/8-11 Zinc Plated Nylon Insert Lock Nut

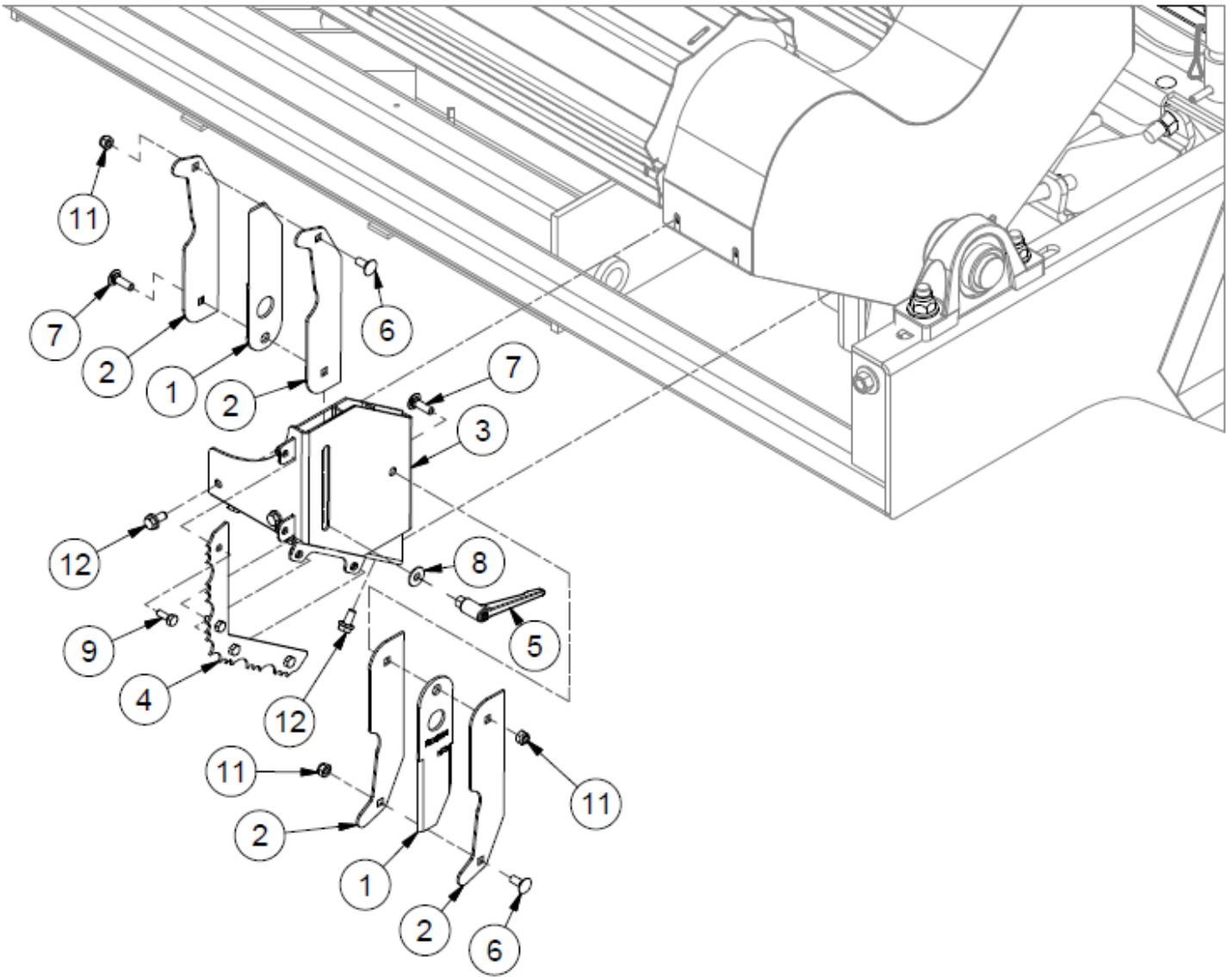
Guide Rollers



Guide Rollers

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	40756	Guide Roller Holder
2	2	40773	Guide Roller Shaft
3	2	41597	Guide Roller Half Bottom Bracket
4	2	41608	Guide Roller 4"
5	4	BEA 25716	Bearing for Guide Rollers- 1.25"
6	8	CB 1/2-13X2.0 Z5	Carriage Bolt - 1/2-13 x 2" Grade 5 Zinc
7	8	LN 1/2 N	Locknuts - 1/2-13 Zinc Plated Nylon Insert Lock Nut
8	2	LP B1997	Pin - Lock Pin 5/16 x 2 1/2
9	1	DESMV	Slow Moving Vehicle Sign (High Quality Reflective Strips)
10	2	HB 5/16-18X 3/4 Z5	Hex Bolt - 5/16"-18 x 3/4" Grade 5 Zinc Plated Hex Cap Screw NC
11	4	LN 1/4 N	Locknuts - 1/4-20 Zinc Plated Nylon Insert
12	24	LN 3/8 N	Locknuts - 3/8-16 Zinc Plated Nylon Insert Lock Nut

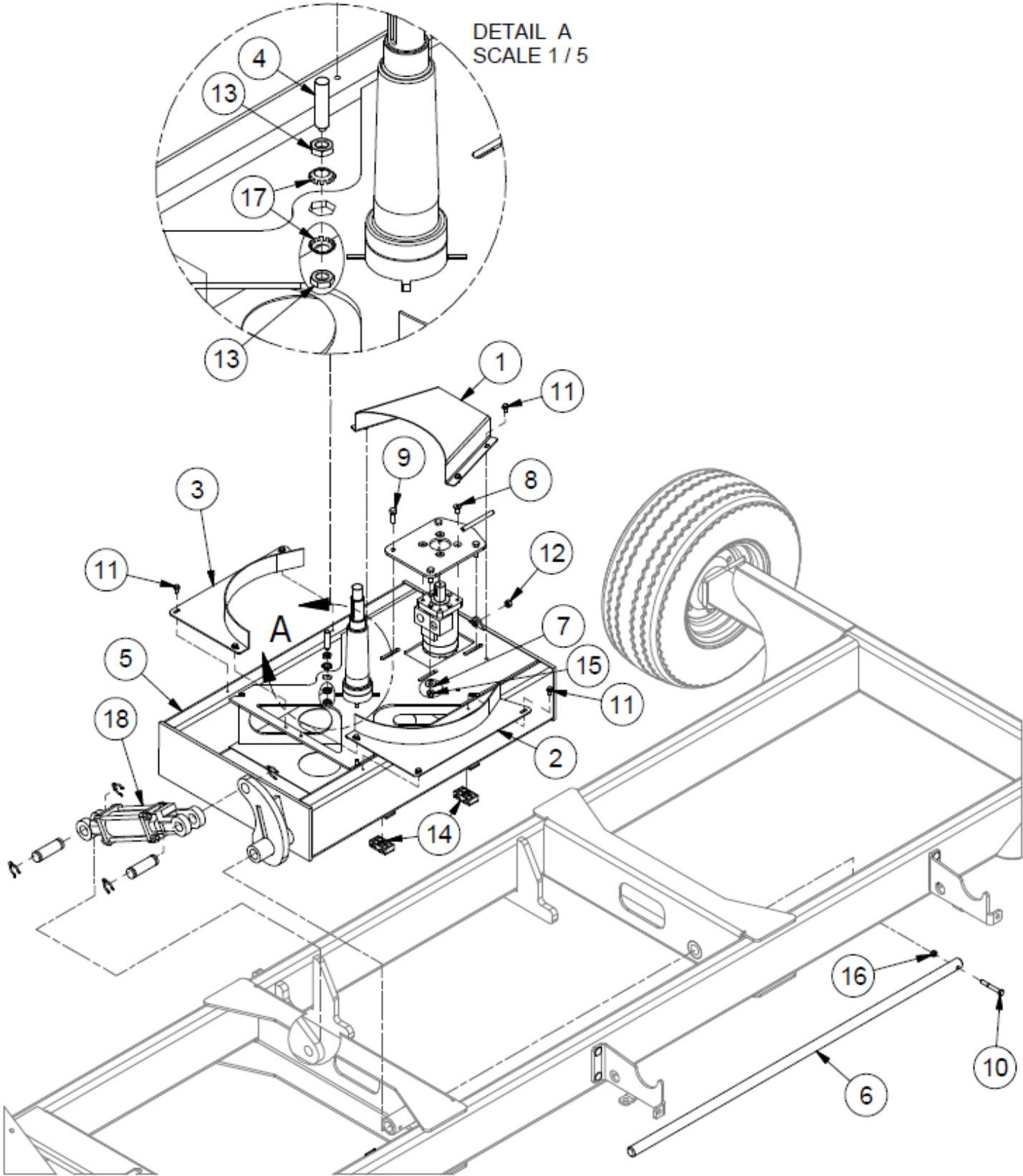
Plastic Cutter



Plastic Cutter

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	40774	Modified Knife
2	4	40786	Knife Guard
3	1	40788	Knife Holder
4	1	40790	Serrated Knife
5	1	41889	Adjustable Handle
6	2	CB 5/16-18X 3/4 Z5	Carriage Bolt - 5/16-18 x 3/4" Zinc Plated Grade 5
7	2	CB 5/16-18X1.0 Z5	Carriage Bolt - 5/16-18 x 1" Zinc Plated Grade 5
8	1	FW 5/16	Flatwasher - 5/16" Zinc Plated USS
9	4	HB 1/4-20X 3/4 Z5	Hex Bolt - 1/4"-20 x 3/4" Grade 5 Zinc Plated Hex Cap Screw NC
10	4	LN 1/4 N	Locknuts - 1/4-20 Zinc Plated Nylon Insert
11	3	LN 5/16 N	Locknut - 5/16-18 Type NE Zinc Plated Nylon Insert
12	6	HBC516X34	Hex Bolt Cerrated

Dump Frame

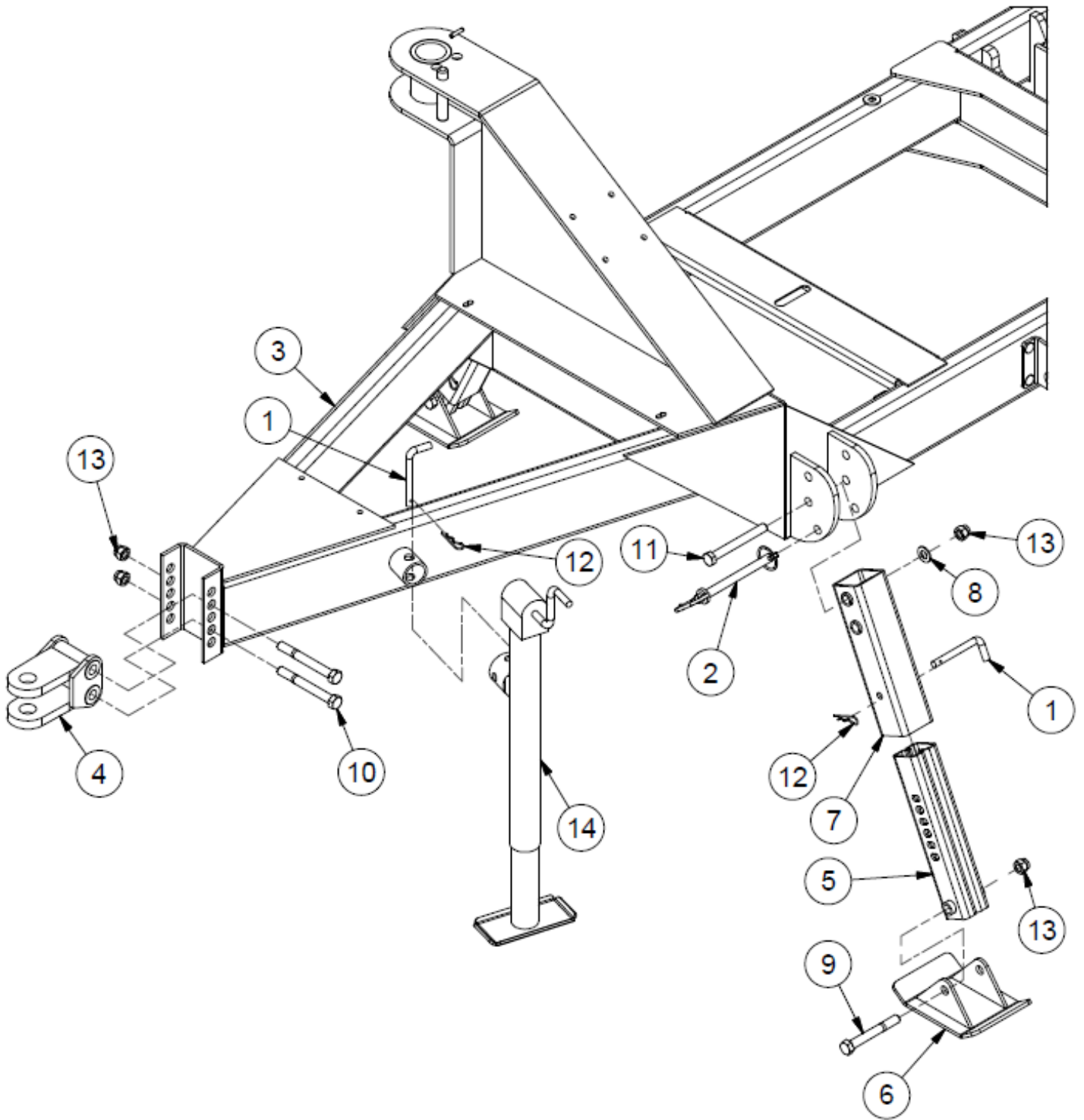


DETAIL A
SCALE 1/5

Dump Frame

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	35046	Turntable Drive Chain Cover
2	1	35084	Left Sprocket Shield
3	1	35084M	Right Sprocket Shield
4	1	36253	Proximity Sensor
5	1	40631	Turntable Tilt Frame
6	1	40646	Turntable Tilt Frame Pin
7	4	FW 3/8	Flatwasher Plated, 3/8" Zinc Plated USS
8	4	HB 3/8-16X 3/4 BHSCS	Hex Bolt - 3/8-16 x 3/4 Button Head Socket Cap Screw
9	4	HB 3/8-16X1.1/4 Z5	Hex Bolt 3/8-16 x 1 1/4" Grade 5 Zinc Plated Hex Cap Screw NC
10	1	HB 5/16-18X2.1/2 Z5	Hex Bolt 5/16-18 x 2 1/2" Grade 5 Zinc Plated Hex Cap Screw NC
11	10	HBC14X12	Hex Bolt 1/4-20 x 1/2 Grade 8.2 Zinc Flange Bolt SAE
12	2	HN 3/8	Hex Nut 3/8"-16 Grade 5 Zinc Plated Finished NC
13	2	HNMM12	Hex Nut M12-1.75
14	8	LA-HOSE CLAMP	Twin Hose Clamp
15	24	LN 3/8 N	Locknuts - 3/8-16 Zinc Plated Nylon Insert Lock Nut
16	13	LN 5/16 N	Locknut - 5/16-18 Type NE Zinc Plated Nylon Insert
17	2	LW12MM	M12 Toothed Lock Washer
18	1	TL500-100-082	Hydraulic Cylinder (HYS25SPE08-2176) (c/w pins & clips)

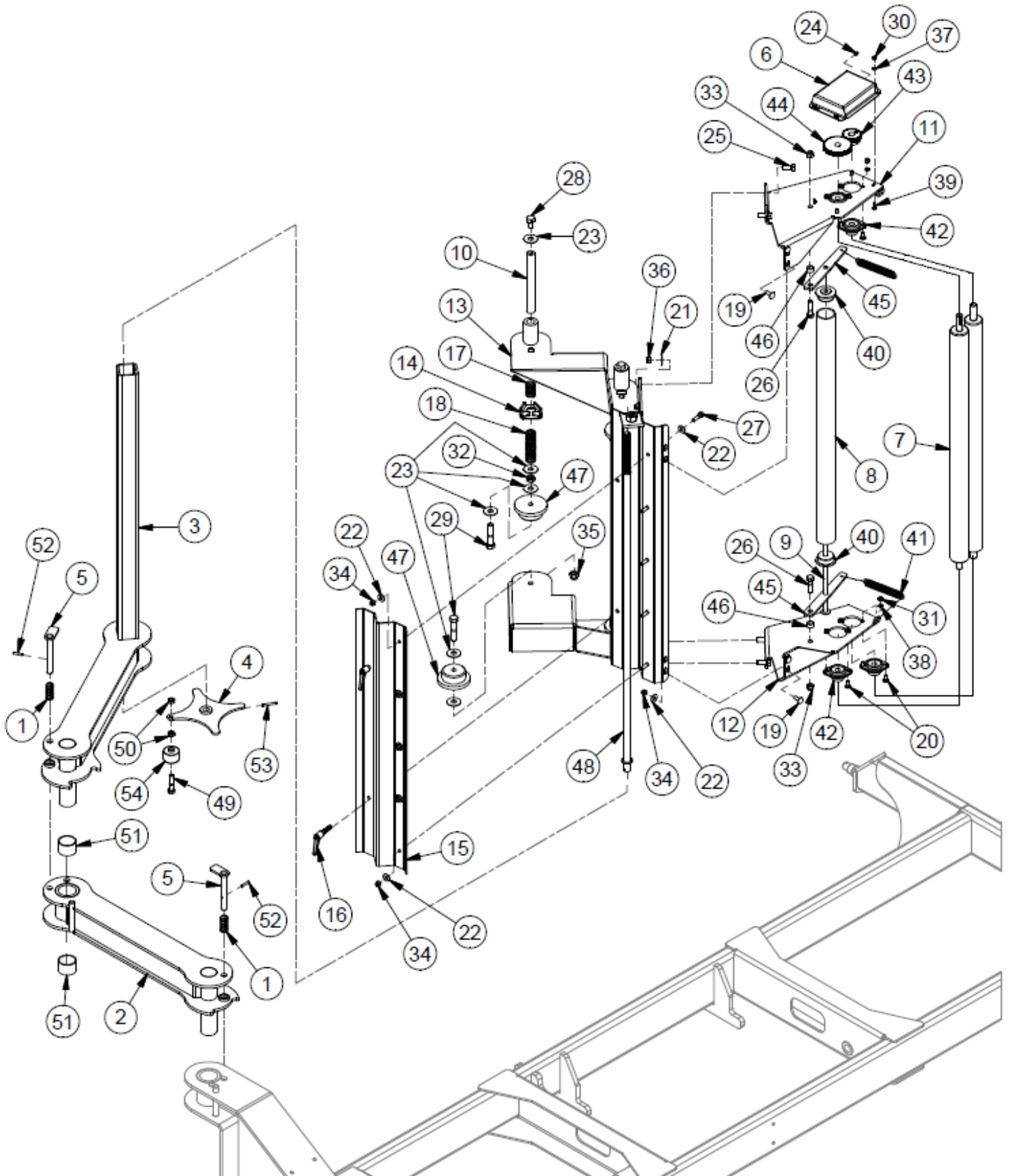
Trailer Feet & Hitch



Trailer Feet & hitch

ITEM	QTY	PART NUMBER	DESCRIPTION
1	3	21021	1/2 x 4.5 Bent Pin
2	2	25522	Hitch Pin 5/8 x 6.5
3	1	40636	Trailer Frame
4	1	40649	Hitch
5	2	41738	Bottem ADJ. Leg For SQ. Wrapper
6	2	41739	Foot For SQ Bale Wrapper
7	2	41741	Top Leg Tube
8	1	FW 5/8	Flatwasher - 5/8" Zinc Plated USS
9	2	HB 5/8-11X5.0 Z5	Hex Bolt - 5/8"-11 x 5" Grade 5 Zinc Plated Hex Cap Screw NC
10	2	HB 5/8-11X5.1/2 Z5	Hex Bolt - 5/8"-11 x 5-1/2" Grade 5 Zinc Plated Hex Cap Screw NC
11	1	HB 5/8-11X5.1/2 Z5	Hex Bolt - 5/8"-11 x 5-1/2" Grade 5 Zinc Plated Hex Cap Screw NC
12	3	HP .125X1.5	Pin Hitch
13	6	LN 5/8 N	Locknut - 5/8-11 Zinc Plated Nylon Insert Lock Nut
14	1	PP00302	Implement Jack - 15"

Film Tensioner



Film Tensioner

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	27566	Spring Compression .97 OD x 2.0 Long
2	1	40725	Tensioner Mount First Arm
3	1	40740	Tensioner Mount Second Arm
4	1	41450	Tensioner Adjuster Wheel
5	2	41455	Tensioner Mount Arm Pin
6	1	36682	Grease Box
7	2	39916	Extended Tensioner Roller
8	1	39917	Extended Plastic Roller
9	1	39918	Slave Roller Axle Shaft
10	2	41584	Top Wrap Holder Pin
11	1	41751	Top of Tensioner Bracket
12	1	41753	Bottom of Tensioner Bracket
13	1	41758	Main Tensioner Weldment
14	2	41829	Rod Spool Clamp Holder
15	1	41843	Tensioner Back Plate
16	2	41844	TL1700SR ADJ. Handle
17	2	41882	Short Spring
18	2	41883	Long Spring
19	4	CB 3/8-16X1.0 Z5	Carriage Bolt - 3/8-16 x 1" Grade 5 Zinc
20	8	CB 5/16-18 UNC - 0.75	Carriage Bolt - 5/16-18 x 3/4" Zinc Plated Grade 5
21	4	FW 1/2	Flatwasher - 1/2" Zinc Plated USS
22	14	FW 3/8	Flatwasher Plated, 3/8" Zinc Plated USS
23	9	FW 5/8	Flatwasher - 5/8" Zinc Plated USS
24	1	GR 1/4 X 28	Grease Fitting 1/4-28 Strght-Standrd Zerk
25	4	HB 1/2-13X1.1/4 Z5	Hex Bolt 1/2-13 x 1 1/4" Grade 5 Zinc Plated Hex Cap Screw NC
26	2	HB 1/2-13X2.0 Z5	Hex Bolt 1/2-13 x 2" Grade 5 Zinc Plated Hex Cap Screw NC
27	5	HB 3/8-16X1.1/2 Z5	Hex Bolt - 3/8-16 x 1 1/2" Grade 5 Zinc Plated Hex Cap Screw NC
28	2	HB 5/8-11X1.0 Z5	Hex Bolt Plated Gr. 5 NC
29	4	HB 5/8-11X3.0 Z5	Hex Bolt 5/8-11 x 3" Grade 5 Zinc Plated Hex Cap Screw NC
30	4	HN 1/4	Hex Nut 1/4"-20 Grade 5 Zinc Plated Finished NC
31	8	HN 5/16	Hex Nut 5/16"-18 Grade 5 Zinc Plated Finished Hex Nut NC
32	2	HN 5/8	Hex Nut - 5/8"-11 Grade 5 Zinc Plated Finished NC
33	2	LN 1/2 N	Locknuts - 1/2-13 Zinc Plated Nylon Insert Lock Nut
34	9	LN 3/8 N	Locknuts - 3/8-16 Zinc Plated Nylon Insert Lock Nut
35	2	LN 5/8 N	Locknut - 5/8-11 Zinc Plated Nylon Insert Lock Nut

Continued

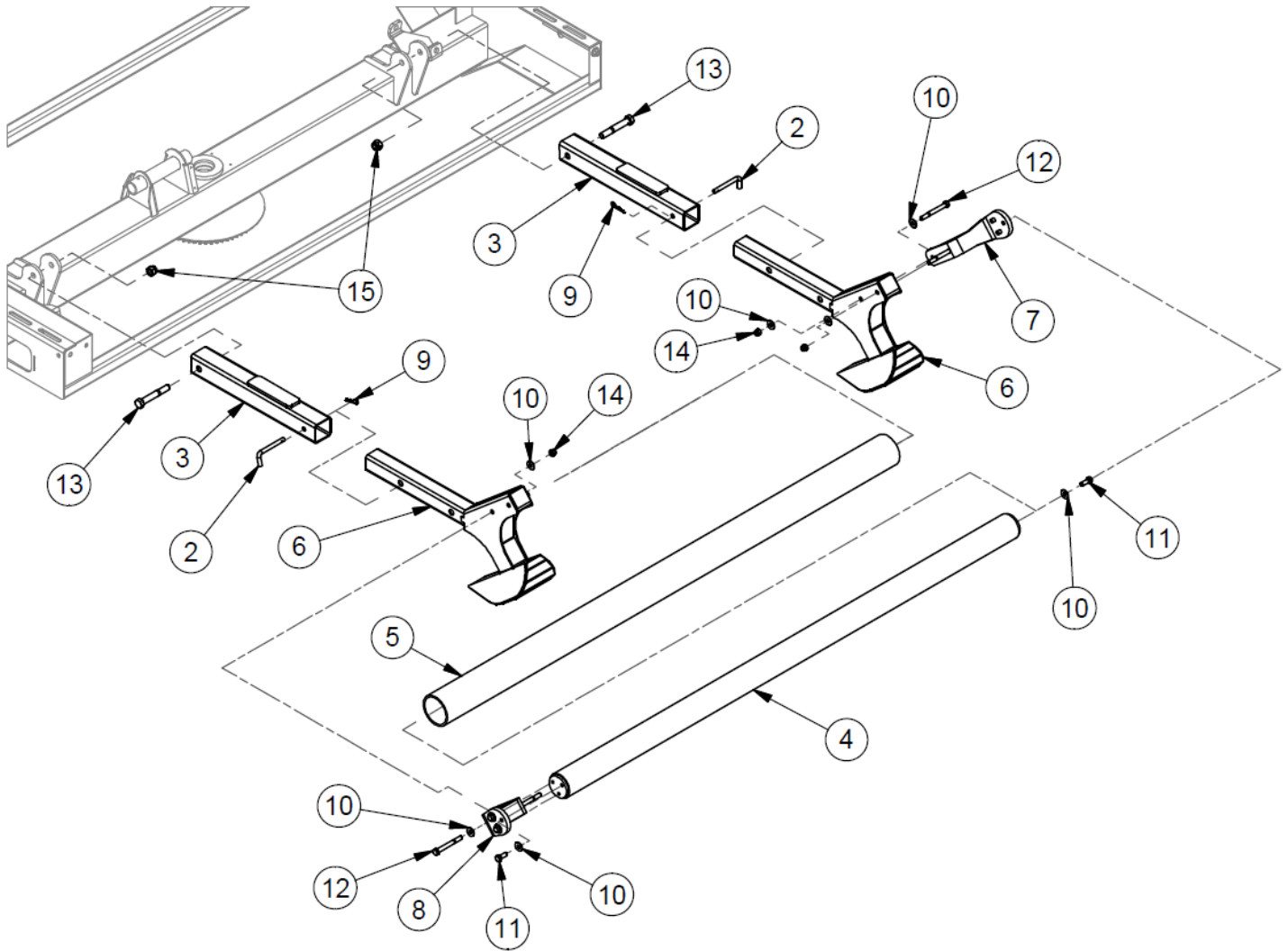
Film Tensioner

Continued

36	4	LN 7/16	Center Locknuts - 7/16-14 Top Lock Nut
37	4	LW 1/4	Lockwasher - 1/4" Zinc Plated Medium Split
38	8	LW 5/16	Lockwasher - 5/16" Zinc Plated Medium Split
39	4	MS 10X34	Machine Screw 10-24x3/4
40	2	TL500-100-021	HMWPVC Bearing - Plastic End Cap
41	2	TL500-100-135	Spring - Tensioner
42	4	TL550-100-007	Flange Bearing, 3/4" (2 Flanges & Bearing)
43	1	TL550-100-008	Small Gear - 3/4 Bore, KW, SS, 14 1/2 deg, 2.25 P.D.
44	1	TL550-100-009	Large Gear - 3/4 Bore, KW, SS, 14 1/2 deg, 3.50 P.D.
45	2	TL550-100-016	Slave Roller Mount Bracket
46	2	TL550-100-017	Spacer
47	4	TL550-200-012	Plastic Wrap Spool
48	1	41898	Tensioner Adjustment Rod
49	1	HB 1/2-13X2.1/4 Z5	Hex Bolt - 1/2"-13 x 2 1/4"
50	2	HN 1/2 JAM	Hex Nut - 1/2-13 Zinc Plated Hex Jam Nut (Half Thickness Nut)
51	2	INS225200150	Insert Bushing 2.25 OD x 2.00 ID x 1.5 Long
52	2	RP 1/4X1.1/4	Pin - Roll Pin 1/4 x 1 1/4
53	1	RP 1/4X1.7/8	Pin - Roll Pin 1/4 x 1 7/8
54	1	TL559906	Wheel

Intentionally Left Blank

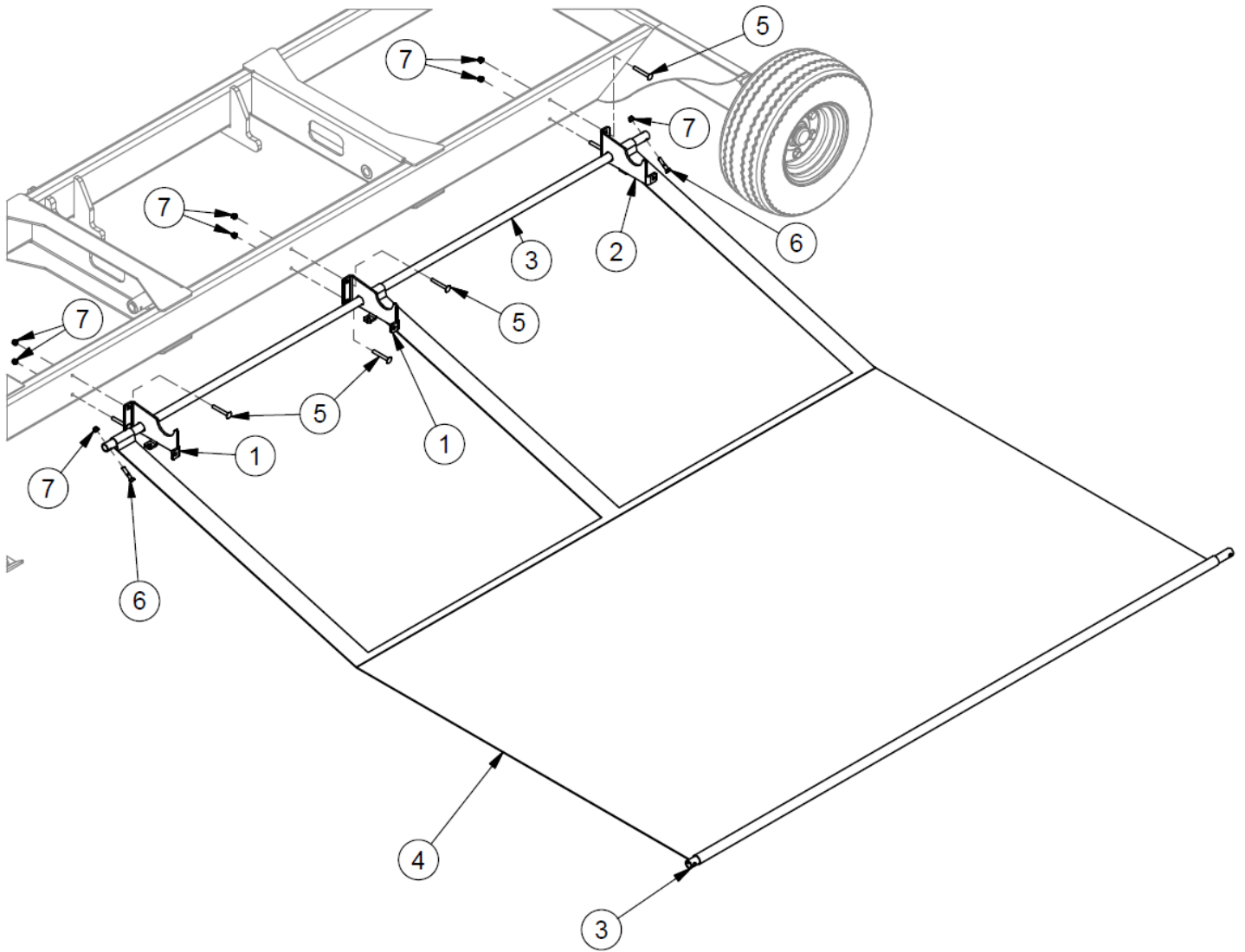
Roll Off Bumper



Roll Off Bumper

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	39990	Tumbler Arm
2	2	21021	1/2 x 4.5 Bent Pin
3	2	39984	Tumbler Arm Asm
4	1	39987	Inner Roller Mount
5	1	39991	TL1000SQ Tumbler ABS pipe
6	2	40766	Tumbler Support Foot
7	1	41557	Right Tumbler Bracket
8	1	41558	Left Tumbler Bracket
9	2	HP .125X1.5	Pin Hitch
10	17	FW 1/2	Flatwasher - 1/2" Zinc Plated USS
11	6	HB 1/2-13X1.1/4 Z5	Hex Bolt 1/2-13 x 1 1/4" Grade 5 Zinc Plated Hex Cap Screw NC
12	4	HB 1/2-13X4.1/2 Z5	Hex Bolt 1/2-13 x 4 1/2" Grade 5 Zinc Plated Hex Cap Screw NC
13	2	HB 3/4-10X5.0 Z5	Hex Bolt - 3/4"-10 x 5" Grade 5 Zinc Plated Hex Cap Screw NC
14	5	LN 1/2 N	Locknuts - 1/2-13 Zinc Plated Nylon Insert Lock Nut
15	2	LN 3/4 N	Locknuts - 3/4-10 Zinc Plated Nylon Insert

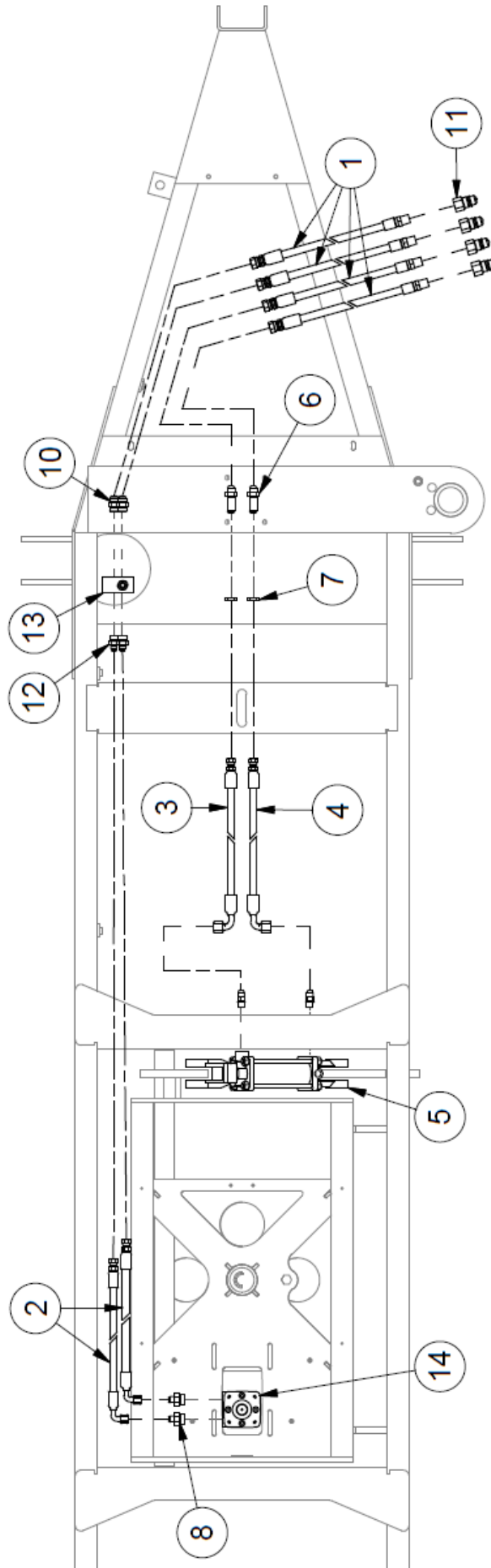
Roll Off Tarp



Roll Off Tarp

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	41560	Tarp Holder Arm (Left)
2	1	41561	Tarp Holder Arm (Right)
3	2	41562	Tarp Holding Tube
4	1	41566	Square Bale Wrapper Tarp
5	6	CB 3/8-16X2.3/4 Z5	Carriage Bolt - 3/8"-16 x 2-1/4" Zinc Finish SAE J429 Grade 5 Round Head
6	2	HB 3/8-16X1.3/4 Z5	Hex Bolt - 3/8-16 x 1 3/4" Grade 5 Zinc Plated Hex Cap Screw NC
7	24	LN 3/8 N	Locknuts - 3/8-16 Zinc Plated Nylon Insert Lock Nut

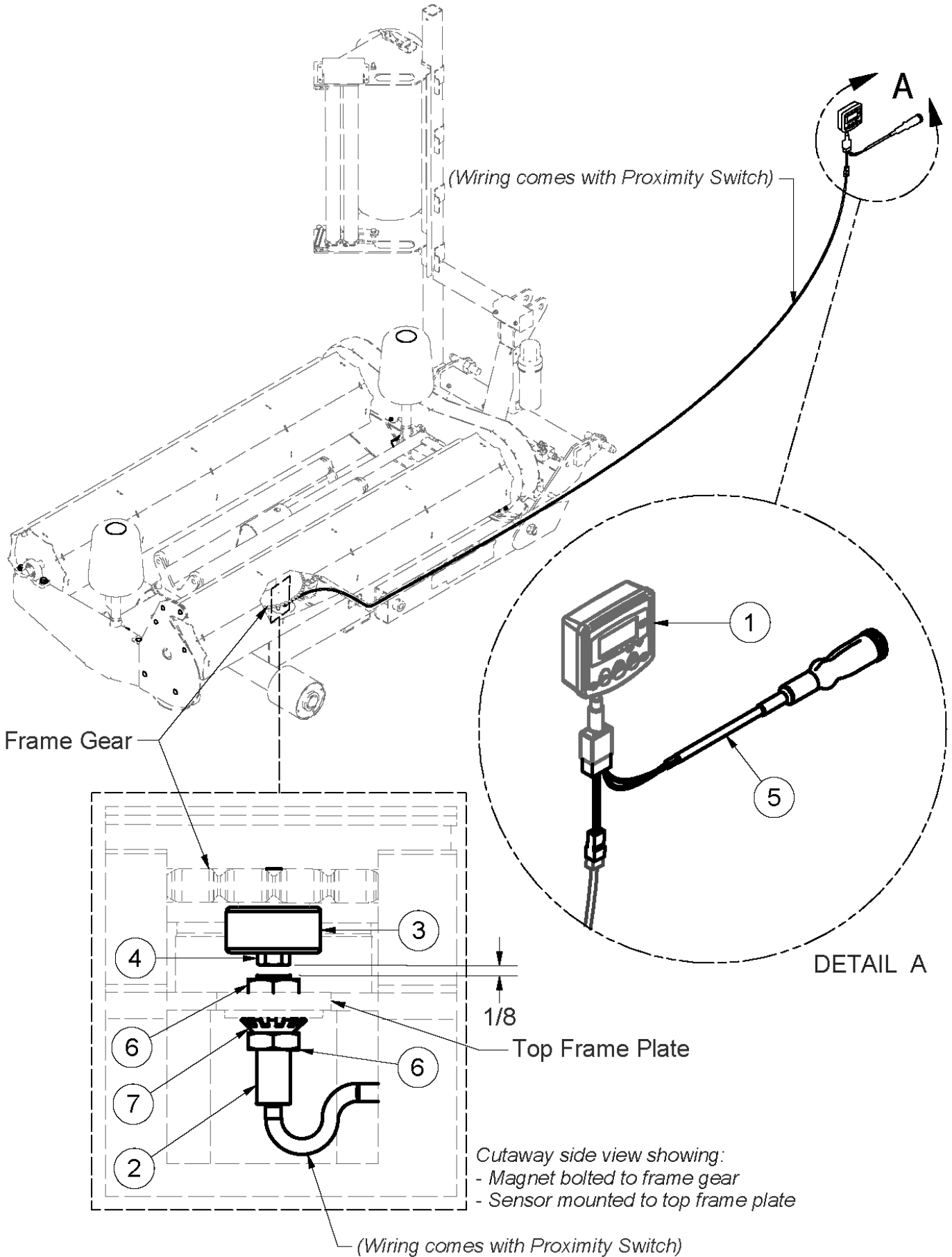
Hydraulic Schematic



Hydraulic Schematic

ITEM	QTY	PART NUMBER	DESCRIPTION
1	4	23136	HH96 - 6ATI(8FJXH,8MP) HCL 96"
2	2	41850	HH89" - 6ATI(6FJX-6FJX90S)89"HCL
3	1	41851	HH68" - 6ATI(6FJX-8FJX90S) HCL 68"
4	1	41852	HH78" - 6ATI(6FJX-8FJX90S) HCL 78"
5	1	CYL HYS20AGU04-10	Hydraulic Cylinder 2" x 4"
6	2	HF 2700LN-08-08	Hyd Fitting MJIC to MJIC
7	2	HF 306-8	Hyd Fitting 1/2 Adjustable Locknut
8	2	HF 6400-6-10	Hyd Fitting - Male JIC - Male ORB
9	2	HF 6400-6-6	Hyd Fitting - Male JIC - Male ORB
10	2	HF 6400-8-8	Hyd. Fitting O-Ring to JIC Adapter
11	4	HF 8010-4	Quickcoupler 1/2" Male Tip
12	2	HF6400-6-8	Hyd Fitting - Male JIC - Male ORB
13	1	LA-SB2000RV	Relief Valve
14	1	VAL 1005	Motor, 101-1005-009 Charlynn/Eaton Hydraulic Motor

Electrical Diagram














Electrical Diagram

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	36252	Bale Wrap Computer
2	1	36253	Proximity Sensor
3	1	36254	Magnet
4	1	36255	M6 x 1 x 30 Metric Hex Bolt
5	1	36970	Power Supply Wiring Harness
6	2	HNMM12	HJN M12 x 1.75 Hex Jam Nut
7	1	LW 12MM	M12 Toothed Lock Washer

Torque Values - Imperial

UNIFIED INCH BOLT AND CAP SCREW TORQUE VALUES

SAE Grade and Head Markings	1 or 2 ^b	5	5.1	5.2	8	8.2
	NO MARK 					
SAE Grade and Nut Markings	2	5		8		
	NO MARK 					

T81162 -19-04M41091

Size	Grade 1				Grade 2 ^b				Grade 5, 5.1, or 5.2				Grade 8 or 8.2			
	Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a	
	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft
1/4	3.7	2.8	4.7	3.5	6	4.5	7.5	5.5	9.5	7	12	9	13.5	10	17	12.5
5/16	7.7	5.5	10	7	12	9	15	11	20	15	25	18	28	21	35	26
3/8	14	10	17	13	22	16	27	20	35	26	44	33	50	36	63	46
7/16	22	16	28	20	35	26	44	32	55	41	70	52	80	58	100	75
1/2	33	25	42	31	53	39	67	50	85	63	110	80	120	90	150	115
9/16	48	36	60	45	75	56	95	70	125	90	155	115	175	130	225	160
5/8	67	50	85	62	105	78	135	100	170	125	215	160	240	175	300	225
3/4	120	87	150	110	190	140	240	175	300	225	375	280	425	310	550	400
7/8	190	140	240	175	190	140	240	175	490	360	625	450	700	500	875	650
1	290	210	360	270	290	210	360	270	725	540	925	675	1050	750	1300	975
1-1/8	400	300	510	375	400	300	510	375	900	675	1150	850	1450	1075	1850	1350
1-1/4	570	425	725	530	570	425	725	530	1300	950	1650	1200	2050	1500	2600	1950
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2150	1550	2700	2000	3400	2550
1-1/2	1000	725	1250	925	990	725	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

^a "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without any lubrication.

^b Grade 2 applies for hex cap screws (not hex bolts) up to 152 mm (6-in.) long. Grade 1 applies for hex cap screws over 152 mm (6-in.) long, and for all other types of bolts and screws of any length.

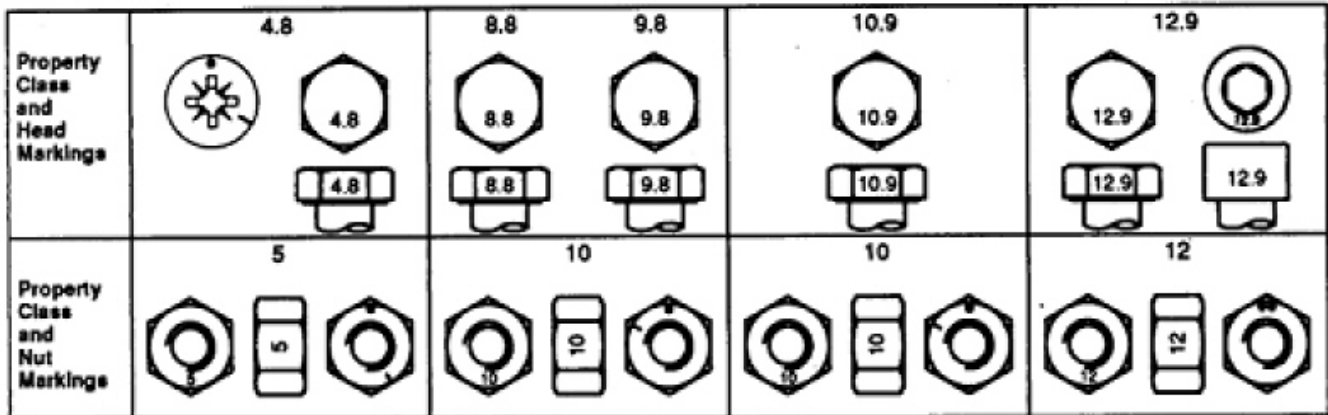
Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

Make sure fasteners threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

Torque Values - Metric

METRIC BOLT AND CAP SCREW TORQUE VALUES



Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a	
	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft
M6	4.8	3.5	6	4.5	9	6.5	11	8.5	13	9.5	17	12	15	11.5	19	14.5
M8	12	8.5	15	11	22	16	28	20	32	24	40	30	37	28	47	35
M10	23	17	29	21	43	32	55	40	63	47	80	60	75	55	95	70
M12	40	29	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	47	80	60	120	88	150	110	175	130	225	165	205	150	260	190
M16	100	73	125	92	190	140	240	175	275	200	350	255	320	240	400	300
M18	135	100	175	125	260	195	330	250	375	275	475	350	440	325	560	410
M20	190	140	240	180	375	275	475	350	530	400	675	500	625	460	800	580
M22	260	190	330	250	510	375	650	475	725	540	925	675	850	625	1075	800
M24	330	250	425	310	650	475	825	600	925	675	1150	850	1075	800	1350	1000
M27	490	360	625	450	950	700	1200	875	1350	1000	1700	1250	1600	1150	2000	1500
M30	675	490	850	625	1300	950	1650	1200	1850	1350	2300	1700	2150	1600	2700	2000
M33	900	675	1150	850	1750	1300	2200	1650	2500	1850	3150	2350	2900	2150	3700	2750
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2750	4750	3500

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class.

Fasteners should be replaced with the same or higher property class. If higher property class fasteners are used, these should only be tightened to the strength of the original.

^a "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without any lubrication.

Make sure fasteners threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

Index

Bale Size . . . . .	. 1-7
Before Operation . . . . .	. 1-7
Continuous Wrapping & Unloading . . . . .	. 3-3
Dump Frame	5-10
Electrical Connection . . . . .	. 2-2
Electrical Diagram	5-24
Film Tensioner.	5-14
First Bale . . . . .	. 3-3
Guide Rollers . . . . .	. 5-6
Hydraulic Schematic	5-22
Operator's Manual . . . . .	. II
Plastic Cutter . . . . .	. 5-8
Rollers . . . . .	. 5-4
Roll Off Bumper	5-18
Roll Off Tarp	5-20
Round Bales . . . . .	. 1-7
Safety Decal Location . . . . .	. 1-3
Safety Decals . . . . .	. 1-4
Safety Guidelines. . . . .	. 1-2
Section 1: Safety . . . . .	. 1-1
Section 2: Initial Setup . . . . .	. 2-1
Section 3: Operating Procedure . . . . .	. 3-1
Section 4: Bale Wrap Computer Operation . . . . .	. 4-1
Section 5: Parts Lists & Breakdowns. . . . .	. 5-1
Serial # Decal . . . . .	. II
Specifications . . . . .	. 1-2
Square Bales . . . . .	. 1-7
Storage & Maintenance . . . . .	. 1-2
To Install Plastic Wrap Film. . . . .	. 3-1
Torque Values - Imperial . . . . .	. V
Torque Values - Metric . . . . .	. VI
To Wrap Bales. . . . .	. 3-3
Trailer Feet & Hitch	5-12
Trouble Shooting Plastic Installation . . . . .	. 3-2
Turntable . . . . .	. 5-2
Warranty and Limitation of Liability . . . . .	. II

TUBE•LINE™
MANUFACTURING LTD