

TUBE•LINE™

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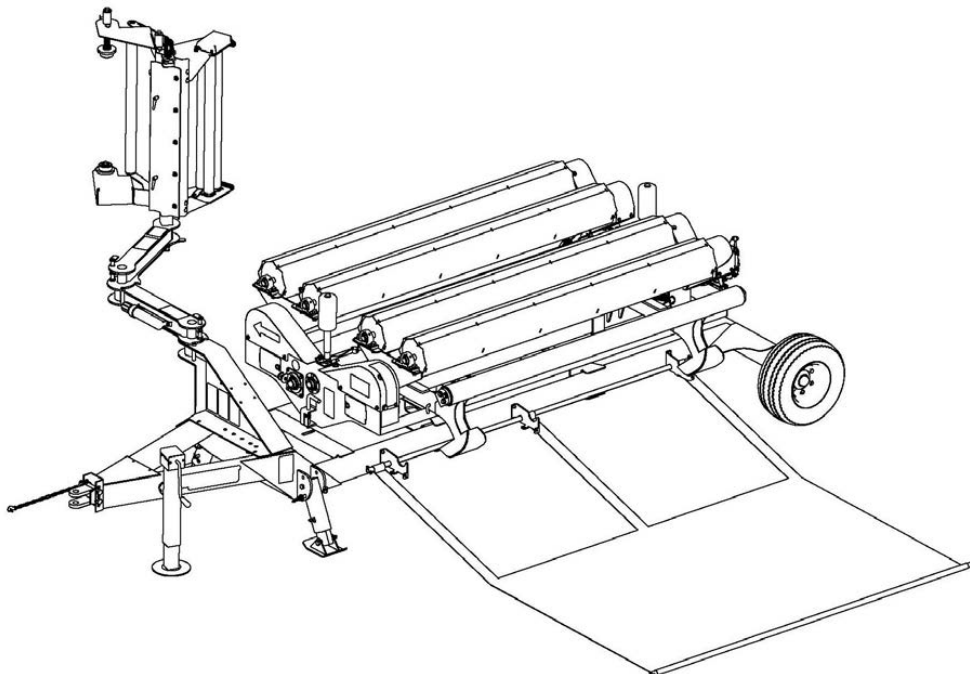
Operator's Manual

Keep this manual with the machine at all times.

TL1700SR

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.

NOTICE: 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 Number 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 No: _____

Serial No: _____

Date Purchased: _____

Dealer Name: _____

TUBE•LINE™
MANUFACTURING LTD

6455 REID WOODS DRIVE, ELMIRA, ON, N3B 2Z3

MODEL NO. _____
SERIAL NO. _____

Made in Canada

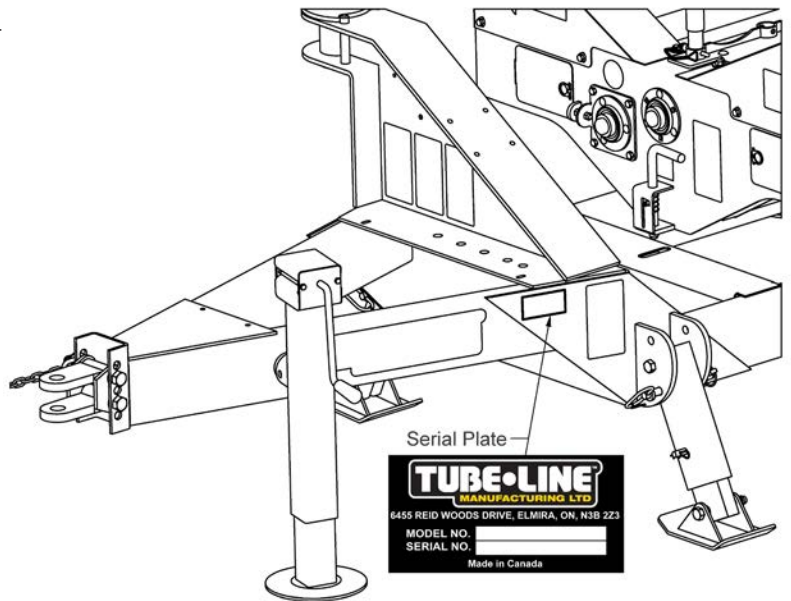


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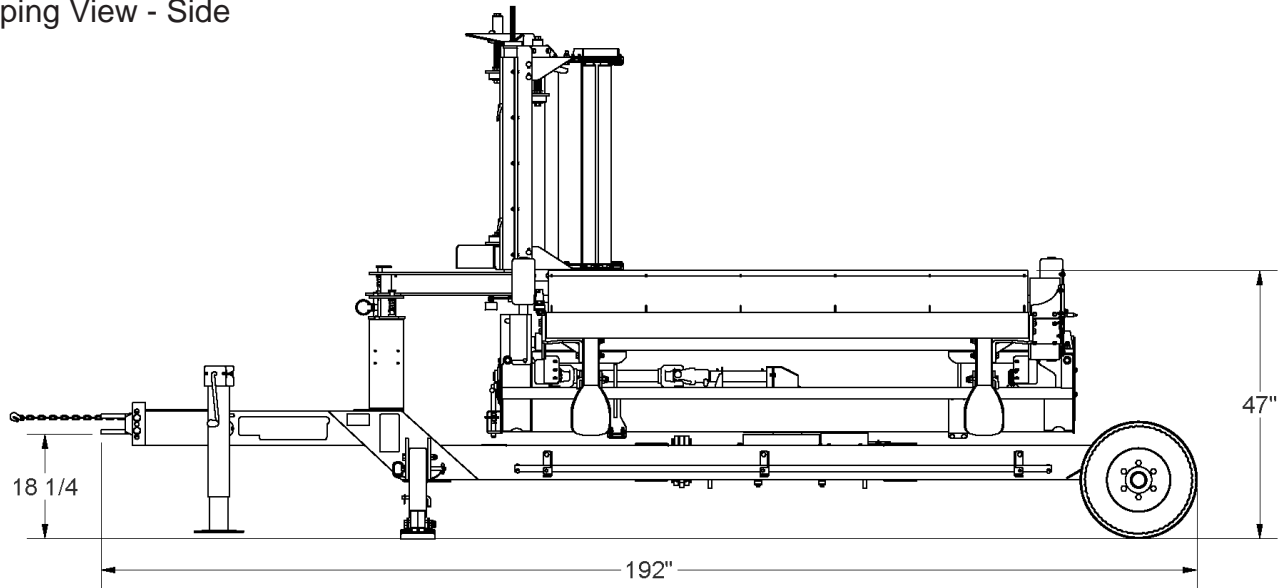
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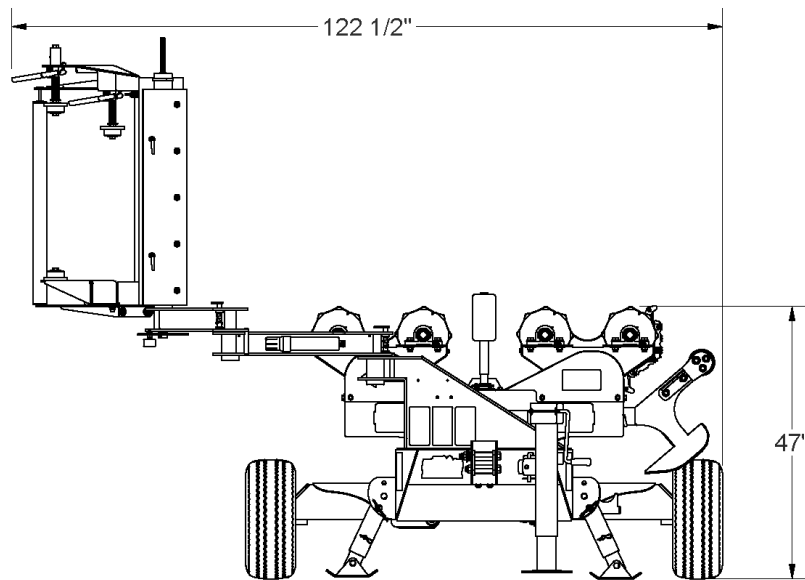
Section 1: General Information

Dimensions

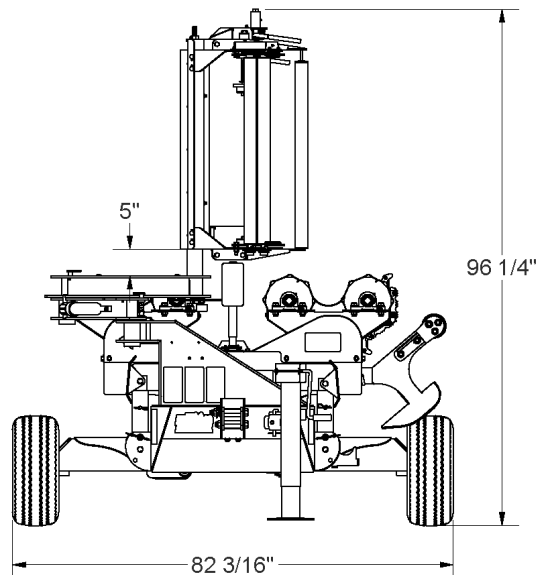
Wrapping View - Side



Wrapping View - Front

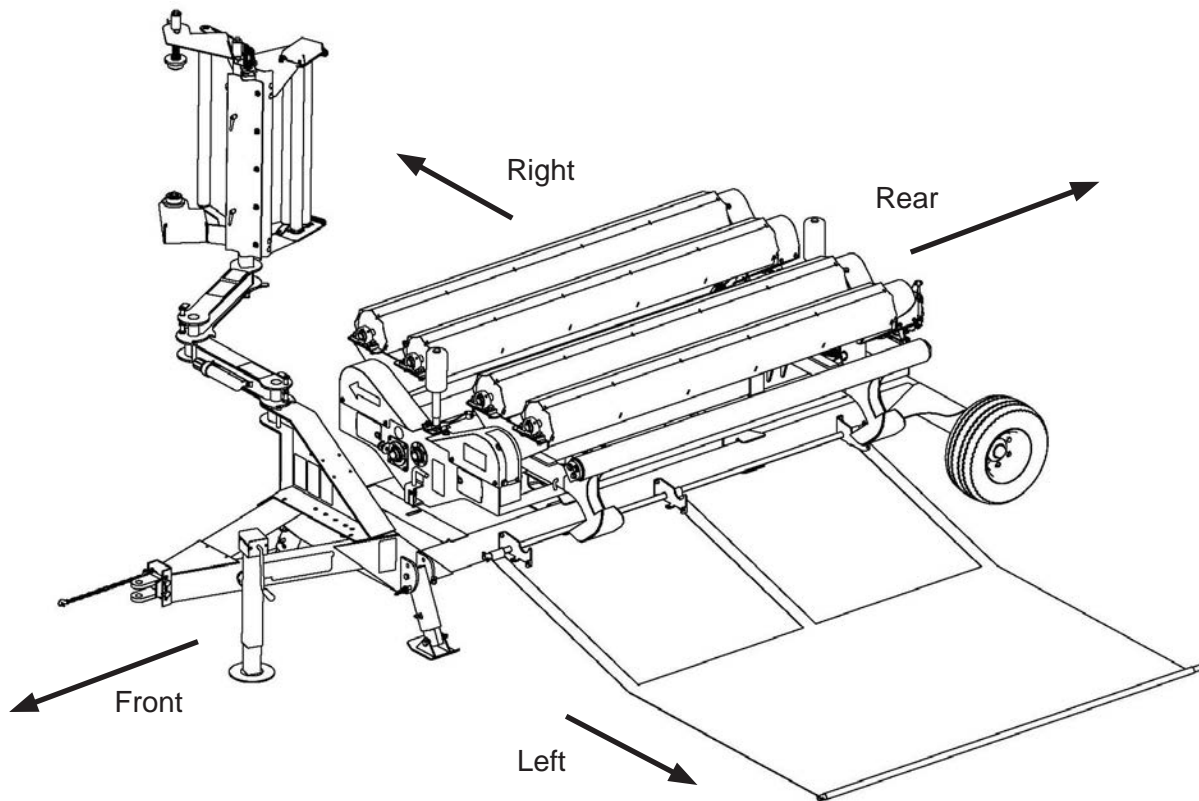


Transport View - Front



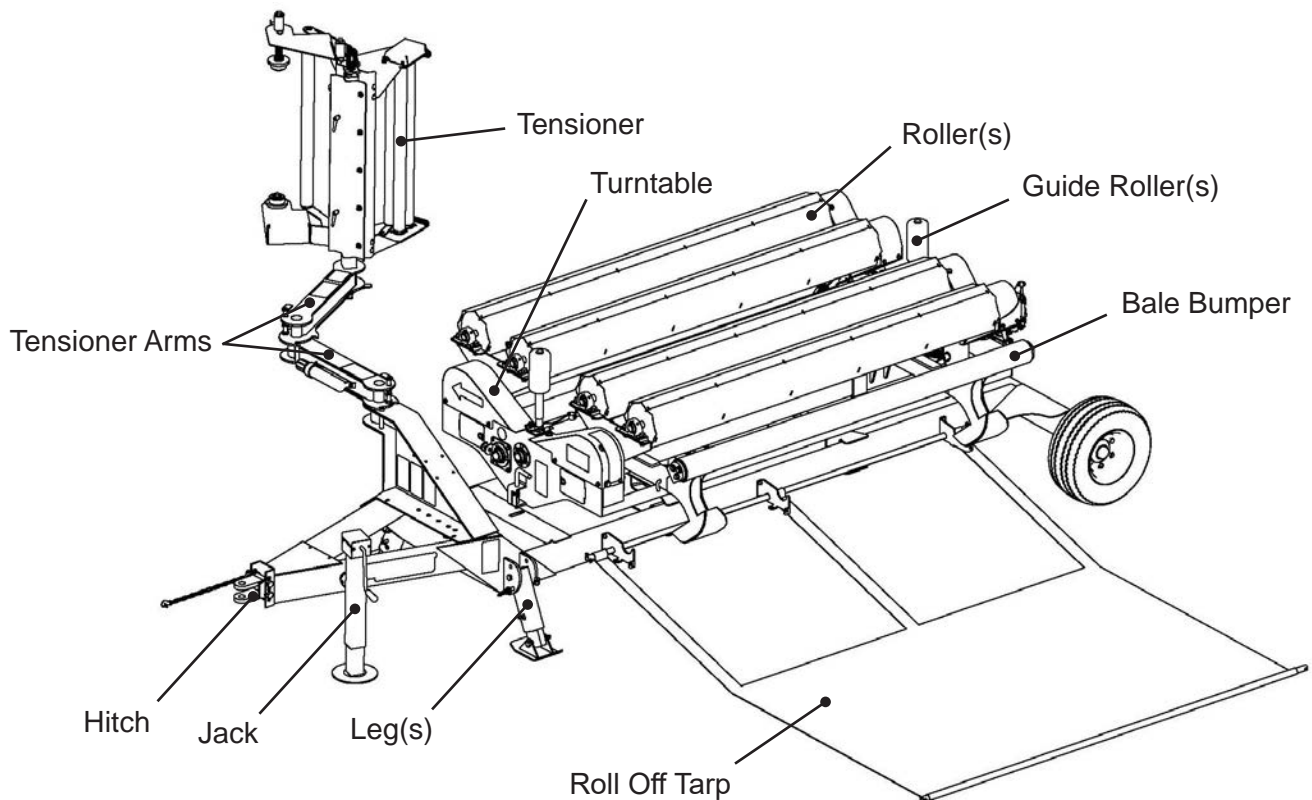
Orientation

Directional references in this manual are dependant on the operator's position from a forward pointed position while towing this machine.



Terminology

Common terms used in this manual.



Suitable Wrapping Timeframe

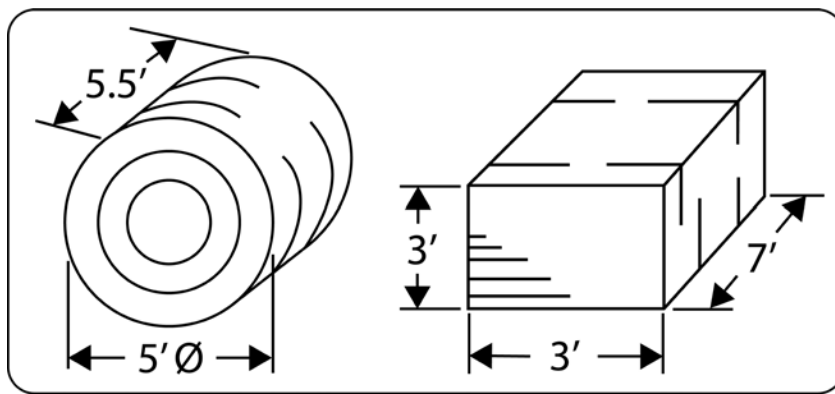
Use a hard-core baler to make the well-shaped and firm bales necessary for successful wrapping. Bales are best wrapped as soon as possible after baling. If bales are left unwrapped they will sag and lose shape. Heating will start soon after baling and protein quality will be lost. It is desirable to wrap within four hours. In an emergency, the bales can be left 12 to 16 hours.

The Tubeline wrapper makes timely harvest possible by reducing the dependence on the weather. It is much easier to get to wilt silage than to make dry hay. This also extends the working day, as the correct moisture to bale extends earlier and later in the day.

For more information visit <http://tubeline.ca/silage.php>

Bale Sizes

The TL1700SR will wrap round bales **up to 5'** in diameter and 5.5' long. It will wrap square bales 3' wide x 3' height x 7' long.



Specifications

Machine Length	192"
Machine Width	82"
Machine Height	95"
Machine Weight	2865 lbs
Required Horse Power	30 hp minimum

Section 2: 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.

Safety Guidelines

Safety of the operator is paramount. 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.

Before Operation

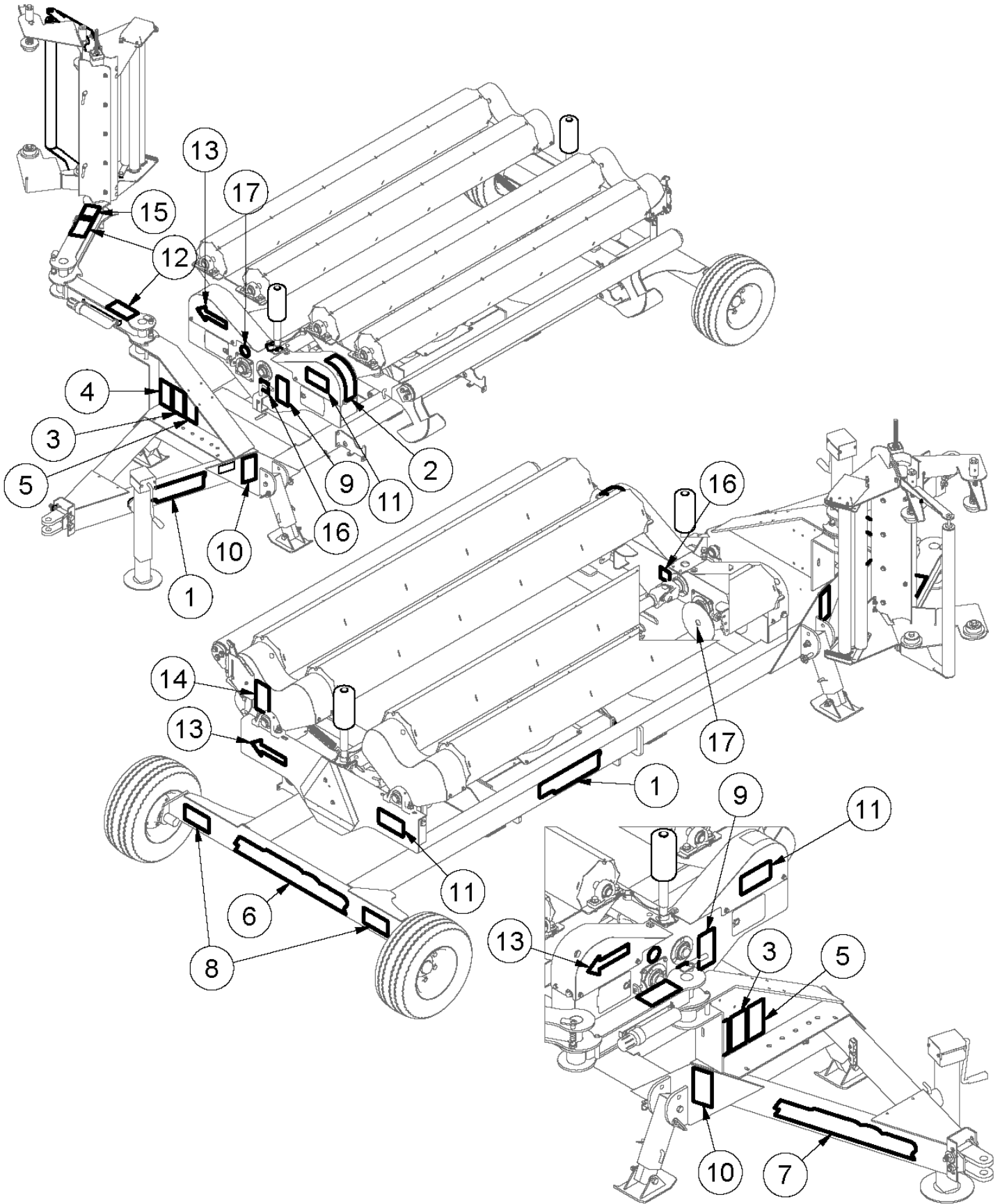
- Carefully study and understand the manual or be trained by an experienced operator.
- Do not wear loose clothing that may get caught in moving parts.
- Visually inspect the machine to make sure no parts are loose or missing.
- Be sure that no tools are left on the machine.
- Do not hurry the learning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

Storage & Maintenance

With regular upkeep and careful storage this machine will 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.

Safety Decal Location



Safety Decal Location

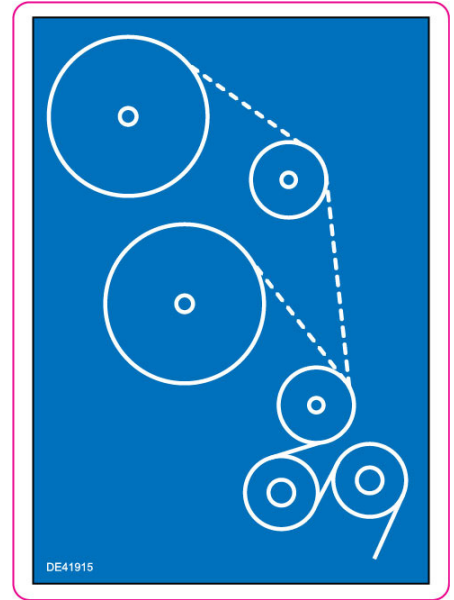
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	DE28146	Tubeline Decal 4" x 16"
2	1	DE36080	Decal for TL1000R-Unload
3	1	DE41713	ISO Decal - High Pressure Fluid
4	1	DE41714	ISO Decal - Read Operator's Manual
5	1	DE41715	ISO Decal - Remove Key Before Repair
6	1	DE41732	Decal Model Number TL1700SR Large
7	1	DE41733	Decal Model Number TL1700SR Small
8	2	DE41899	ISO Decal - Stand Clear of Indi Wrapper
9	1	DE41900	ISO Decal - Lock
10	2	DE41901	ISO Decal - Raise Legs
11	2	DE41902	ISO Decal - Chain Entanglement
12	2	DE41905	ISO Decal - Lock Arm
13	2	DE41912	Decal - Stand Clear
14	1	DE41913	ISO Decal - Cutting Hazard
15	1	DE41915	TL1700SR Film Routing Decal
16	2	DE42788	ISO Decal - Square Bale
17	2	DE42789	ISO Decal - Round Bale

Safety Decals

Item 13 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 15 on [pg. 1-3](#)

Part No: DE41915 - Tensioner Arm

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

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

Part No: DE28146 - Rear Cross Beam of Trailer Base

Tubeline MFG LTD Decal



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

Part No: DE41732 - Rear Cross Beam of Trailer Base

Large Model Decal

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

Part No: DE41733 - Right Side of Tongue

Small Model Decal



Safety Decals

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

Part No: DE41713 - Front Left of Trailer Base



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

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

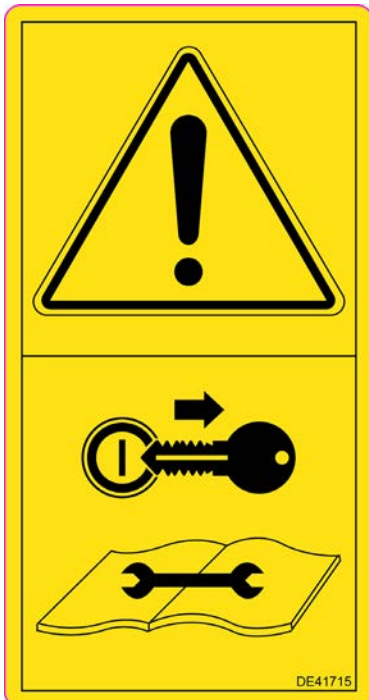
Part No: DE41714 - Front Left of Trailer Base



Read and understand manual before operating machine.

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

Part No: DE41715 - Front Left of Trailer Base

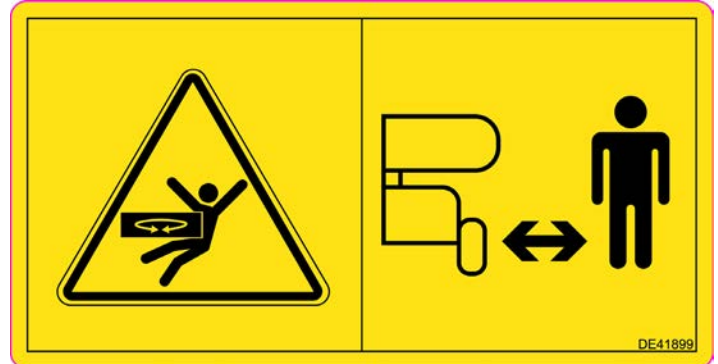


Remove key from power unit before attempting any maintenance on this machine.

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

Part No: DE41899 - Rear Cross Beam of Trailer Base

Stand clear of wrapper while turntable is spinning.



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

Part No: 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 9 on [pg.1-3](#)

Part No: DE41900 - Middle front end of Turntable
Lock wrapper Turntable with spring pin before
transporting to avoid wear of drive system.



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

Part No: DE41901- Both back sides of Tongue
Raise legs and lock into position before
transporting machine.



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

Part No: 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 14 on [pg.1-3](#)

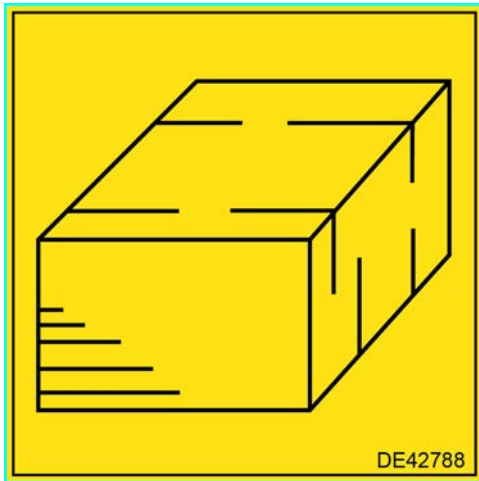
Part No: DE41913 - Back Left Roller Shield
Wait until all machine components have stopped
moving before touching.



Safety Decals

Item 16 on [pg. 1-3](#)

Part No: DE42788 - Attach driveline to this stub shaft to wrap square bales.



Item 17 on [pg. 1-3](#)

Part No: DE42789 - Attach driveline to this stub shaft to wrap round bales.



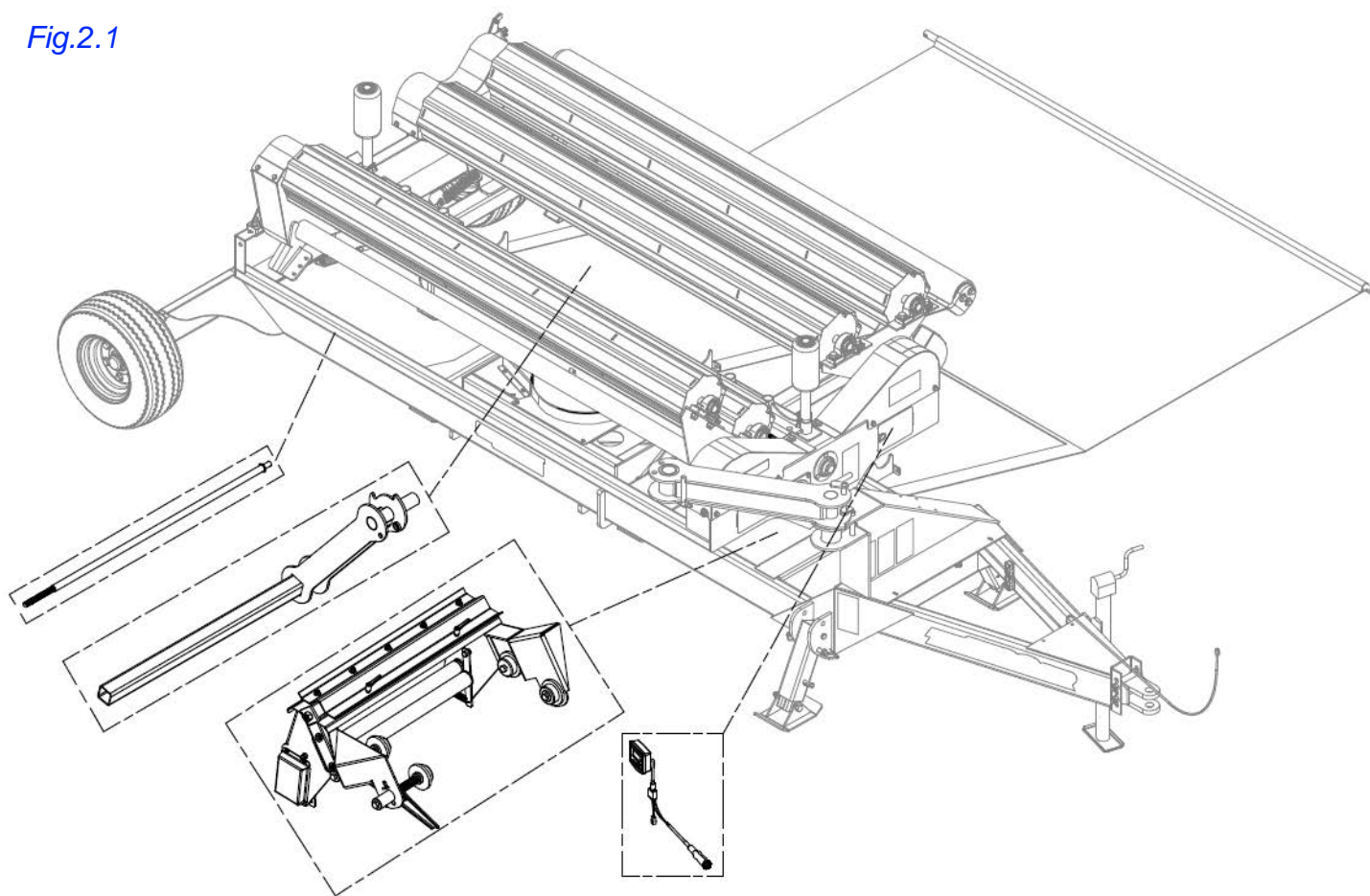
Remember

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.

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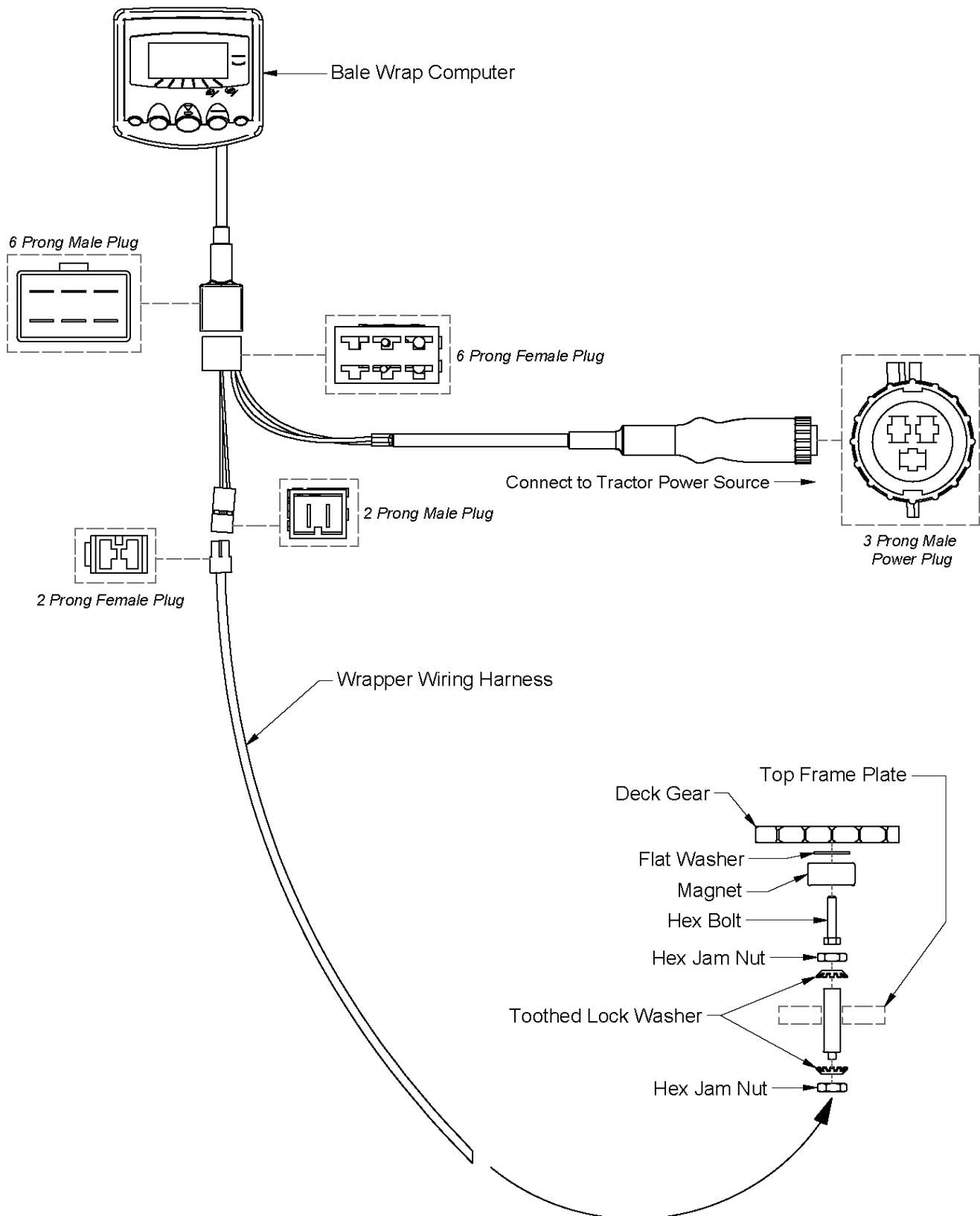
Section 3: Initial Setup

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](#))
- Before transporting, check tire pressure, raise legs and jack stand.
- Connect hoses to power unit if planning to a dry run.
- Remove wrapper wiring harness from frame (shown in previous image).

Electrical Connection



- 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 4: Adjustments and Repairs

Miter Gear Replacement

- Remove cover, pulling off the silicon seal.
- Remove gears by taking nuts off of upright gear, sliding horizontal driveshaft towards driveline to allow horizontal bevel gear to slide off shaft.
- Install new miter gear(s) by tightening nuts on upright gear, then holding horizontal gear in position while sliding drive shaft back through it.
- Gears should mesh together so that they are 2 3/4" from bottom to center and do not bind. Front faces are 90° to each other. (*Fig.3.1*)
- Apply gear oil before reattaching shield, making sure to reseal with silicon to avoid contamination and leak.
- Refill grease box with outer grease zerk, checking level by removing cap. Reinsert cap.

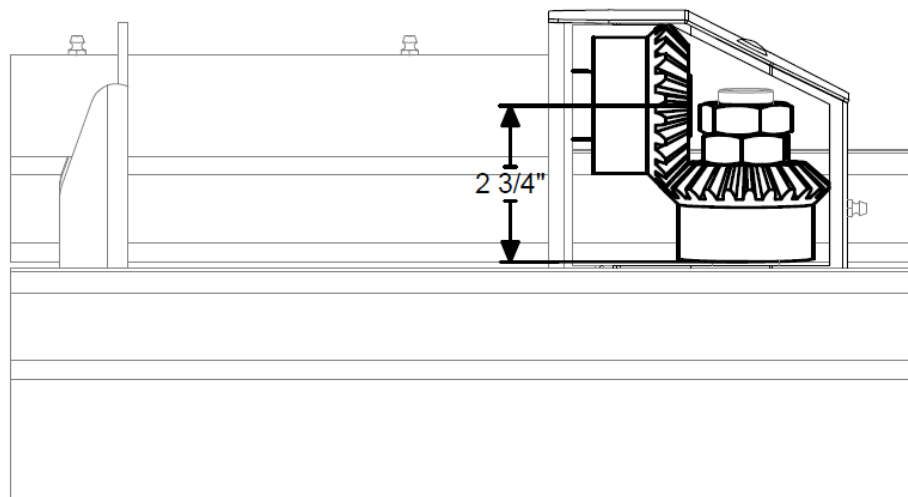


Fig.3.1

Driveline Switch

See *Fig.3.2.* and DE42788 / DE42789 decals on *pg.1-7.* Shutdown machine before driveline switch.

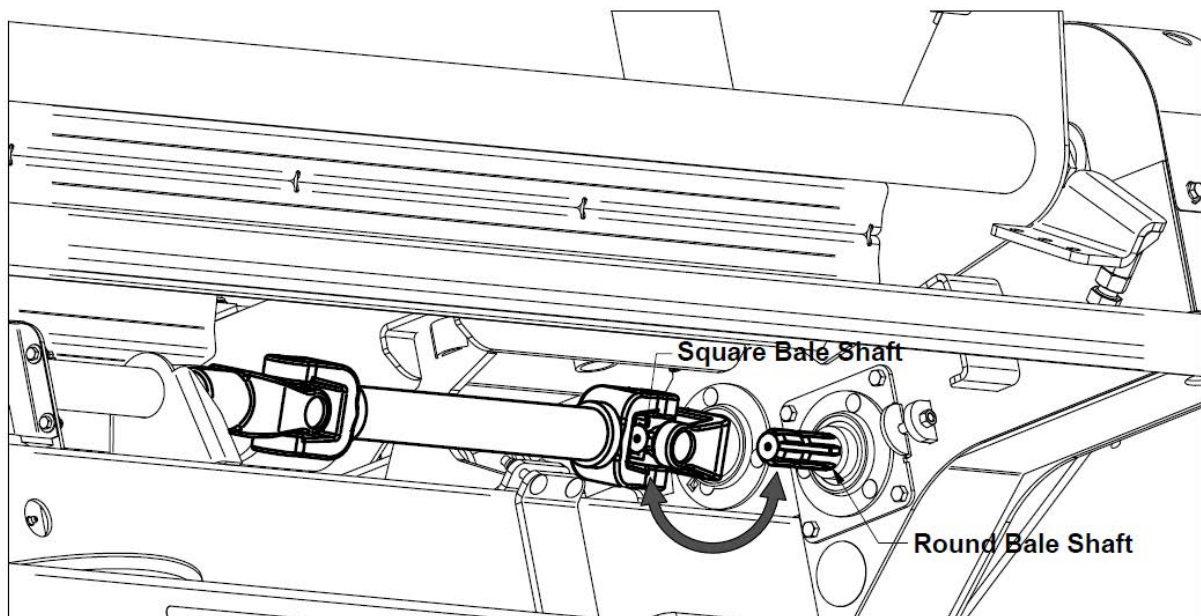


Fig.3.2

Tensioner Adjustment

Adjust tensioner up or down by turning roller on bottom of tensioner mount arm (*Fig.3.3*), wrap should be applied across the mid section of the bale.

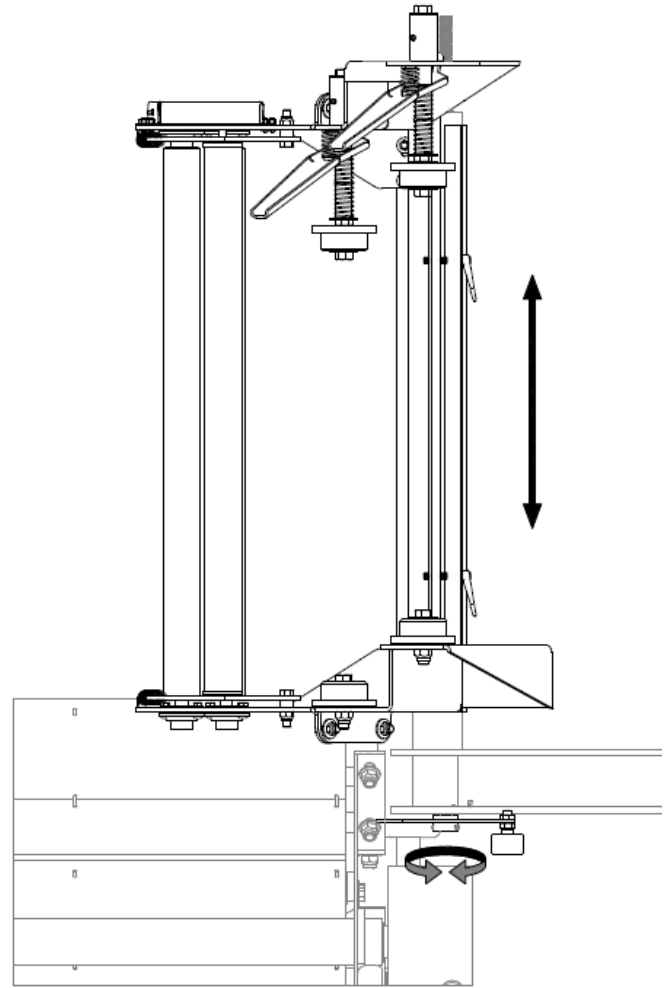


Fig.3.3

Knife Adjustment

The plastic knife on the end of one of the rollers is used to cut the plastic after the bale has been wrapped. It can be raised or lowered to match where the plastic falls depending on bale size/type.

In general, round bales need the knife raised higher than round bales.

Avoid damaging knife by checking tensioner clearance **BEFORE** operating turntable at full speed.



To adjust knife see *Fig.3.4*:

- Turn handle to loosen.
- Push handle up or down to adjust accordingly.
- Tighten handle to lock knife to desired height.

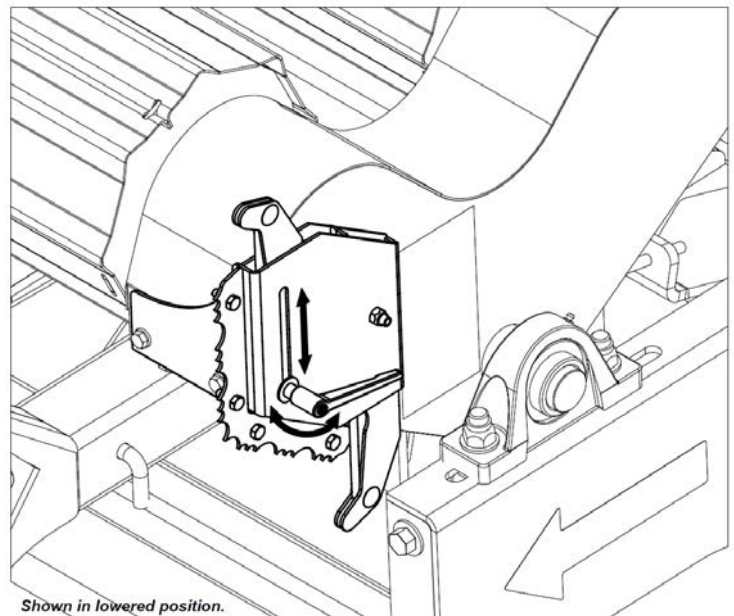


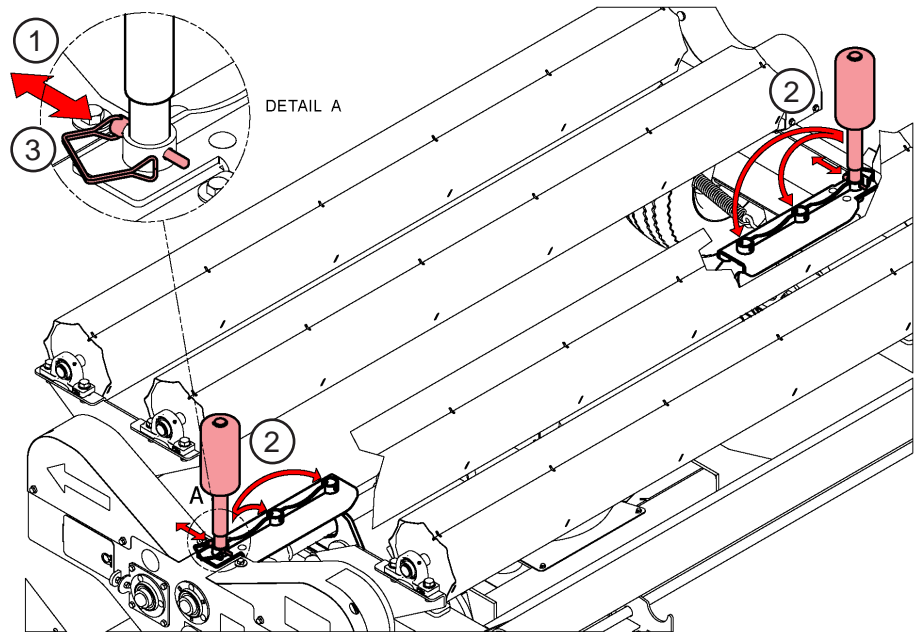
Fig.3.4

Shown in lowered position.

Guide Roller Adjustment

Bale guide rollers may need to be adjusted to match bale size. Both guide rollers should be placed in the same slot to keep the bale centered on the turntable rollers.

1. Remove lock pins from guide roller mounts.
2. Pull up guide roller shafts and place in desired position.
3. Reinsert lock pins.

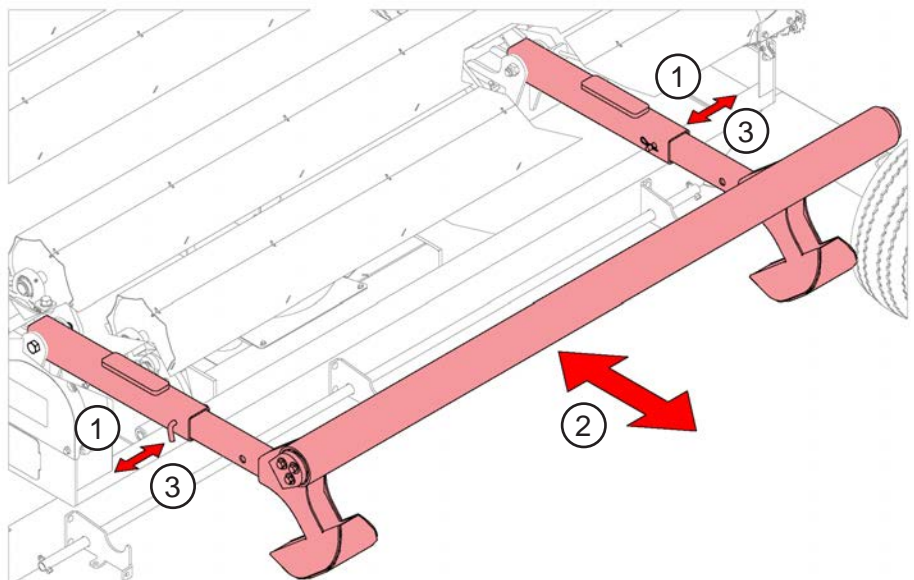


Bale Bumper Adjustment

The bale bumper can be adjusted if you find that bales are unloading too heavily or are not rolling far enough from the balewrapper. This may be the case for larger, heavier bales, or if the ground is soft. Using the roll-off tarp also dampens the force of an unloading bale.

To adjust the bale bumper:

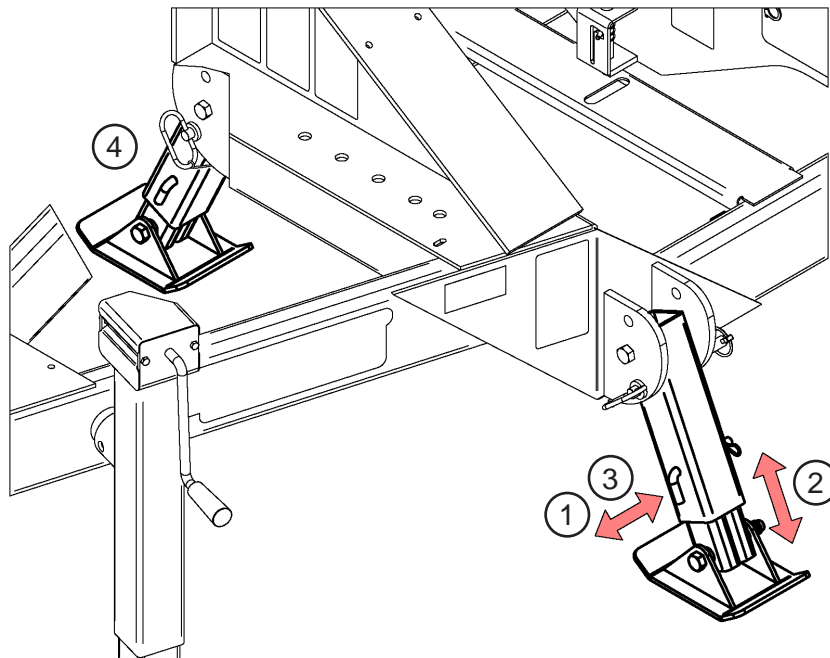
1. Remove hairpins from pins and slide them out of outer tubes.
2. Pull or push roller tube to adjust the distance the leading edge of an unloading bale will contact it.
3. Lock roller tube in position with pins and secure hairpins.



Leg Adjustment

While a level area is best for wrapping bales, small changes in terrain can be offset by adjusting the front legs of the balewrapper. Make sure the balewrapper is level after adjusting before attempting wrap operation.

1. Remove hairpin and bent pin.
2. Pull lower leg tube out of top leg tube to desired position.
3. Secure position with bent and hairpin.
4. Repeat on other side if necessary.



Section 5: 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.

Plastic Wrap Requirements

It is recommended that a **minimum of six (6)** layers of film are applied to the bale. If the material being wrapped is of a hard or stemmy nature it may be necessary to apply **eight (8)** layers to ensure a good airtight package. The operator needs to ensure that the bale is properly corrected.

It is good practice to periodically check the bales after being wrapped for any torn, split, or punctured plastic film. If the stubble in a particular field has a tendency to puncture the plastic film, it is strongly advised to wrap the bales at the stack, where there may be more control over the ground conditions.

To determine the number of table rotations required to wrap a bale carry out the following procedure:

1. Count the number of table revolutions to cover the bale completely with plastic film.
2. Add 1 to this number.
3. Multiply this amount by 3 (for 6 film layers) or 4 (for 8 film layers).

Example: Number of rotations to cover bales: 8

Number of rotations to apply 8 layers of film = $(8+1) \times 4 = 36$ rotations

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.4.1](#))

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.4.3](#)). 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.4.2](#)).

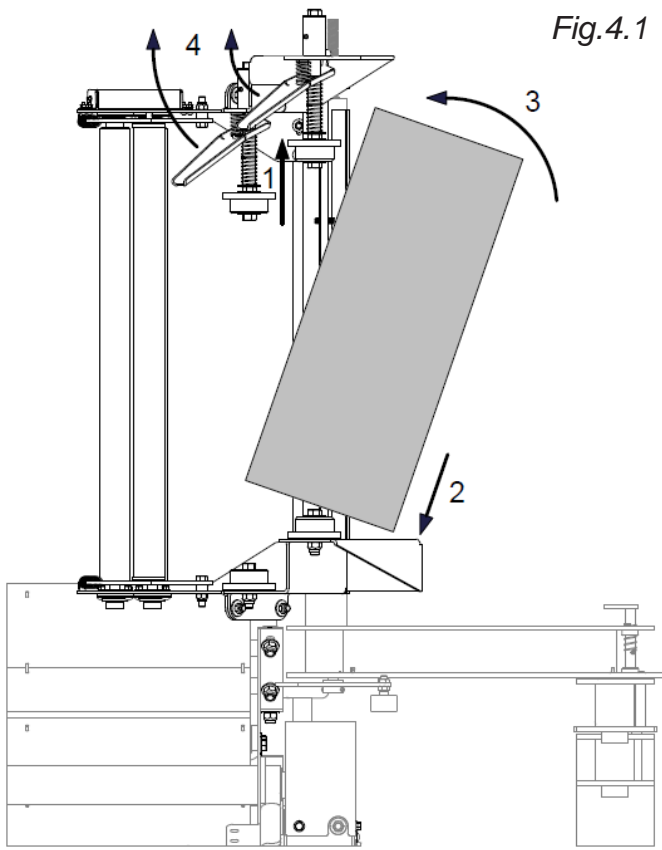


Fig.4.1

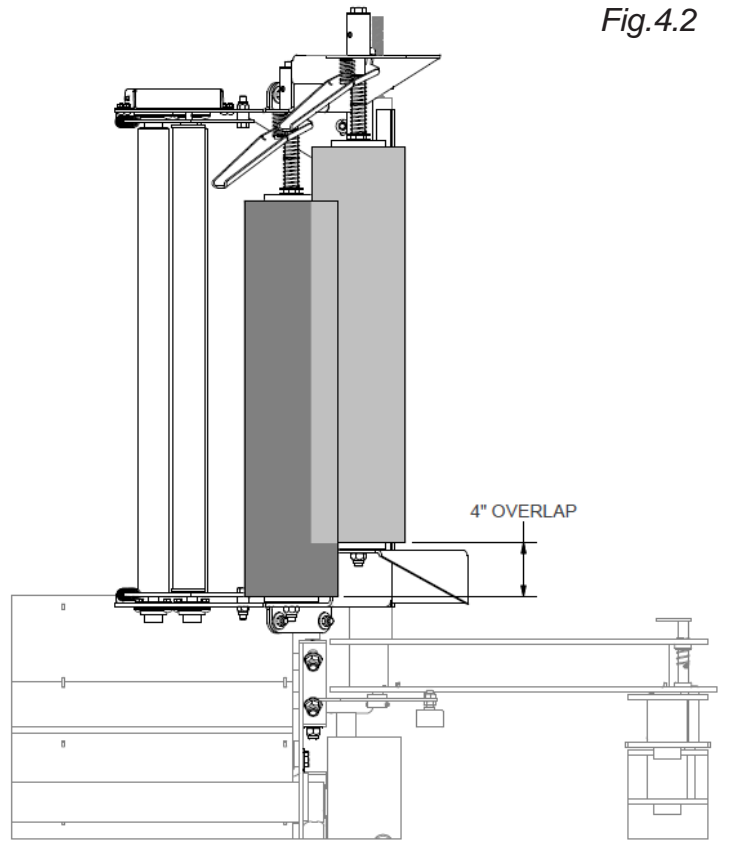


Fig.4.2

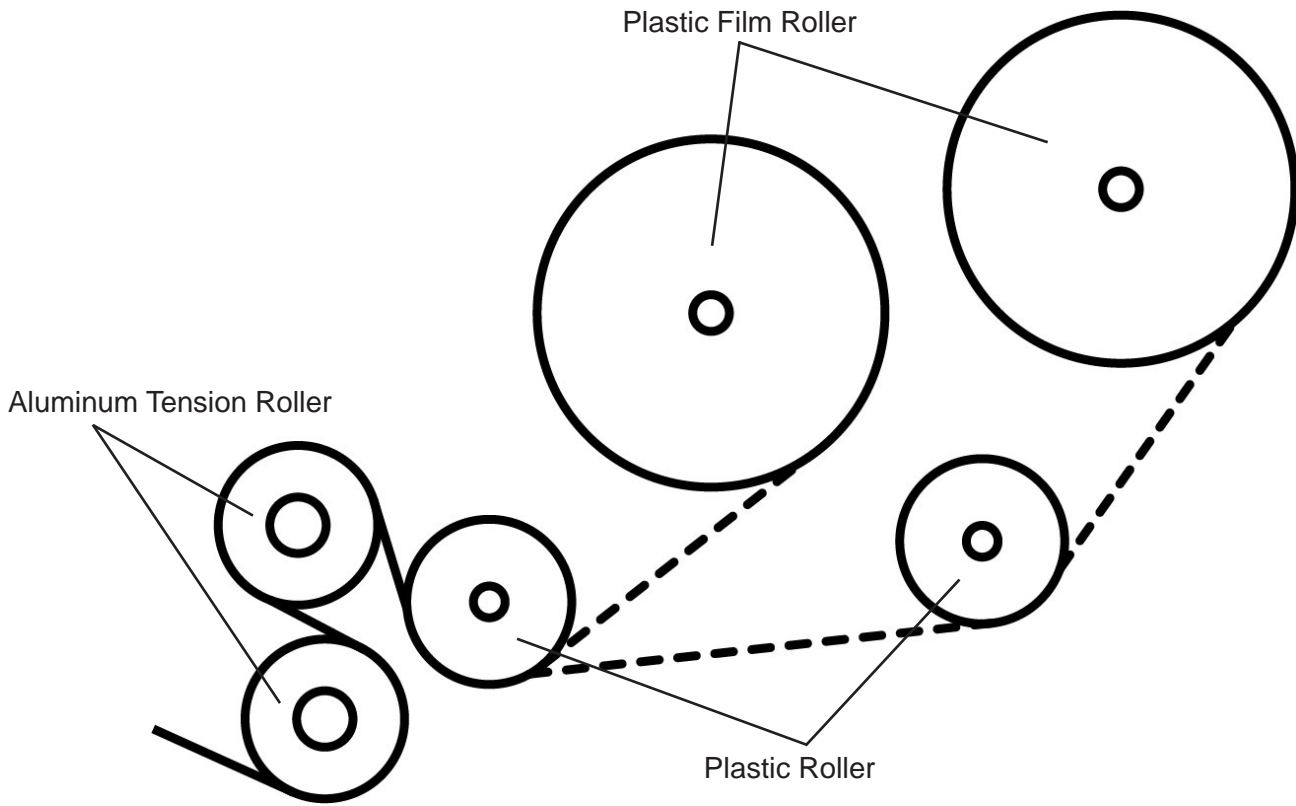


Fig.4.3

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.

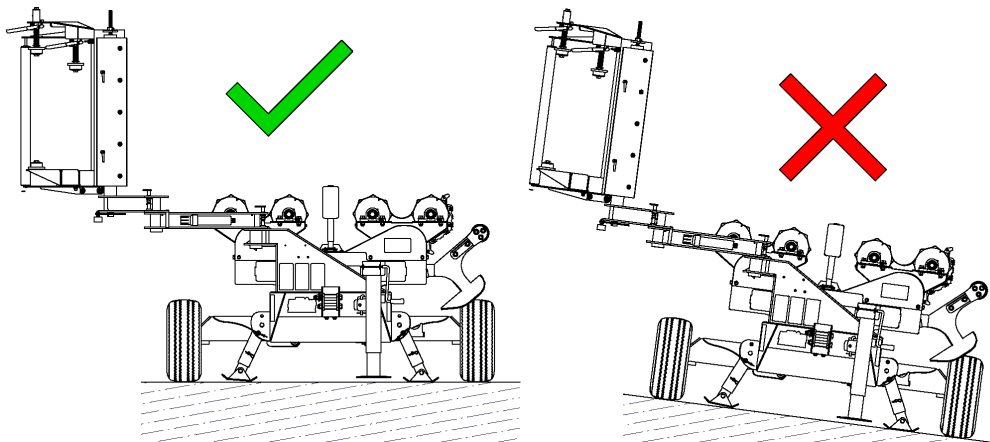
Tack build up on the rollers: Particularly in hot weather. Clean the Tensioner with warm soapy water Plastic roll is too hot : In very hot weather the plastic can become soft if left in the sun for long periods of time. In these conditions, the spare rolls should be kept in the shade. After the rolls 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.

Wrap Operation Setup



WARNING: Bystanders should always keep a safe distance from the wrapper during operation.

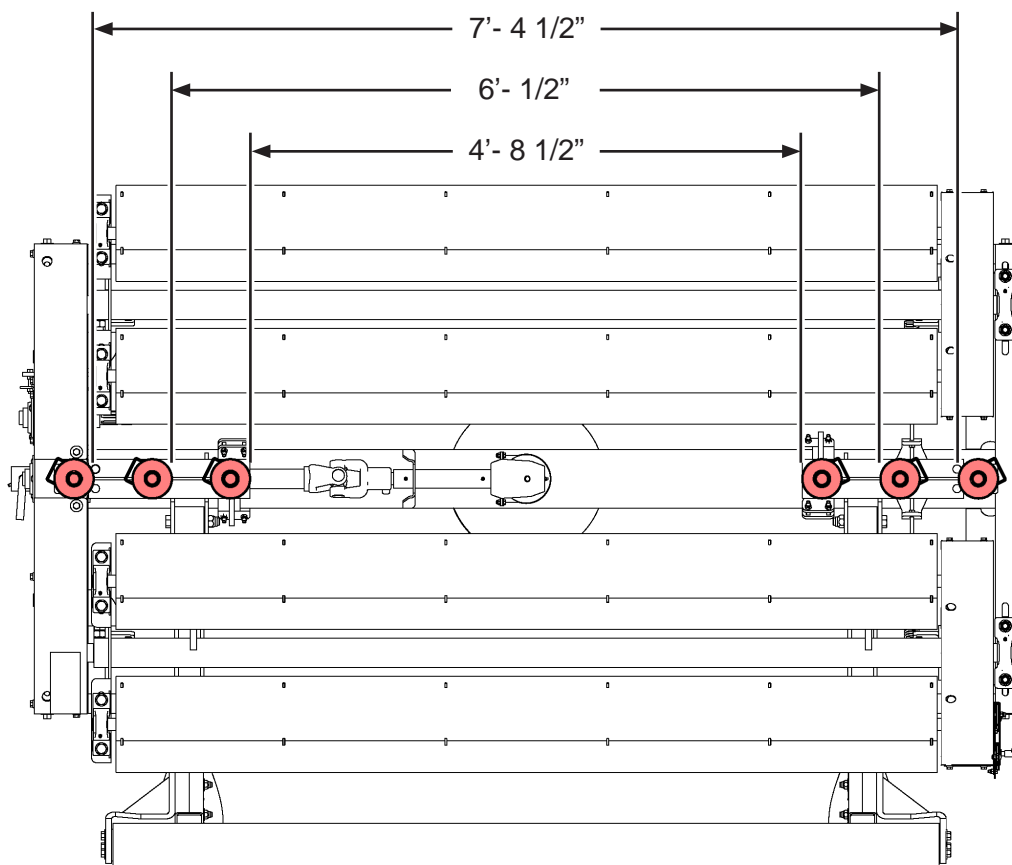
Choose a suitable wrapping site, preferably somewhere flat, and close to where you are planning to store your wrapped bales.



Remove the transport lock (see [Transportation, pg.5-8](#)) and connect the hydraulic hoses to your tractor ports.

Ensure the balewrapper stabilizer legs are lowered to the ground. The wrapper should be level. See [Leg Adjustment, pg.4-4](#).

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. See [Guide Roller Adjustment, pg.4-3](#).



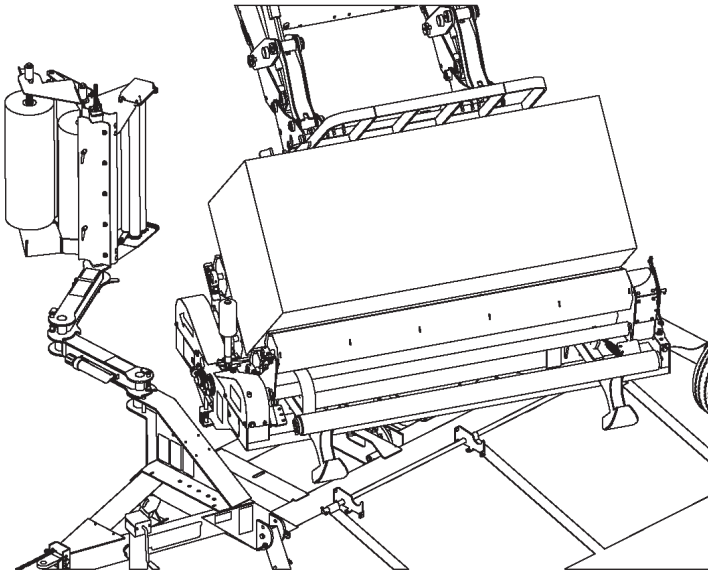
Loading Bales

Load bales over rear right wheel 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.

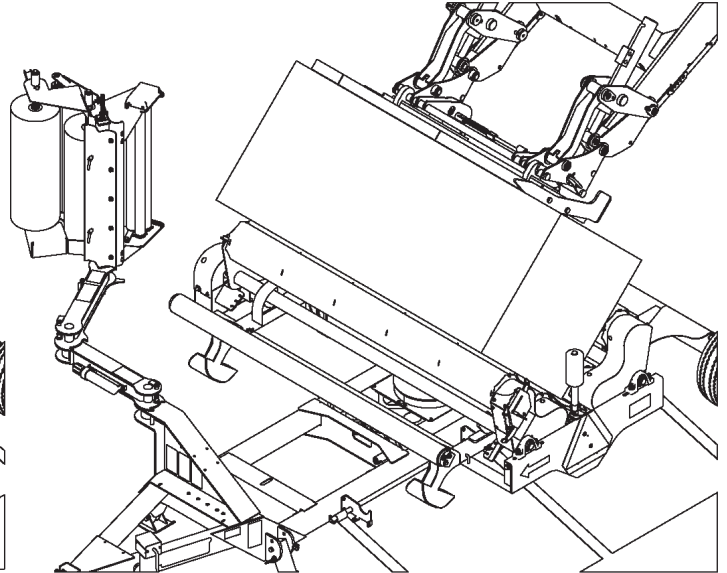
NOTE: Attempting to load bales directly from right side will cause bale to contact the tensioner, potentially damaging it.

NOTE: Using a bale grapple will remove the need to patch bale spear holes in wrapped bales.

Right Side Loading

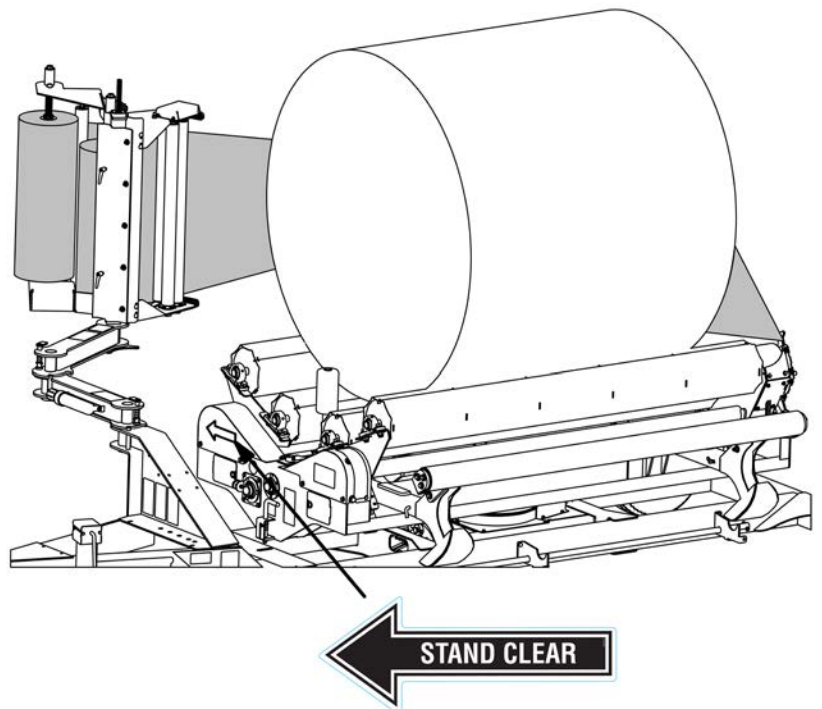


Rear Side Loading



Bale Wrapping

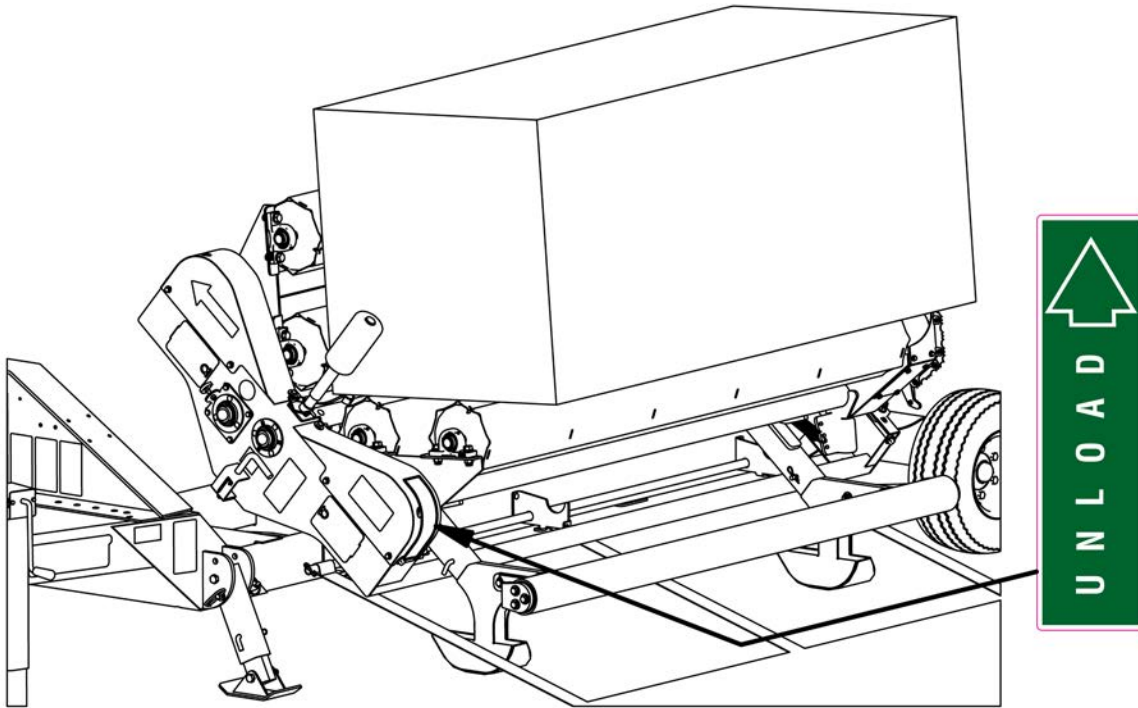
After placing the first bale onto the wrapper you will need to tie the plastic film edge to the netting/twine of the bale. Keep the tractor at a steady RPM while engaging the hydraulic motor on the wrapper to allow a smooth wrapping job. We recommend 6-8 layers of wrap per bale. Tractor oil flow controls 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.



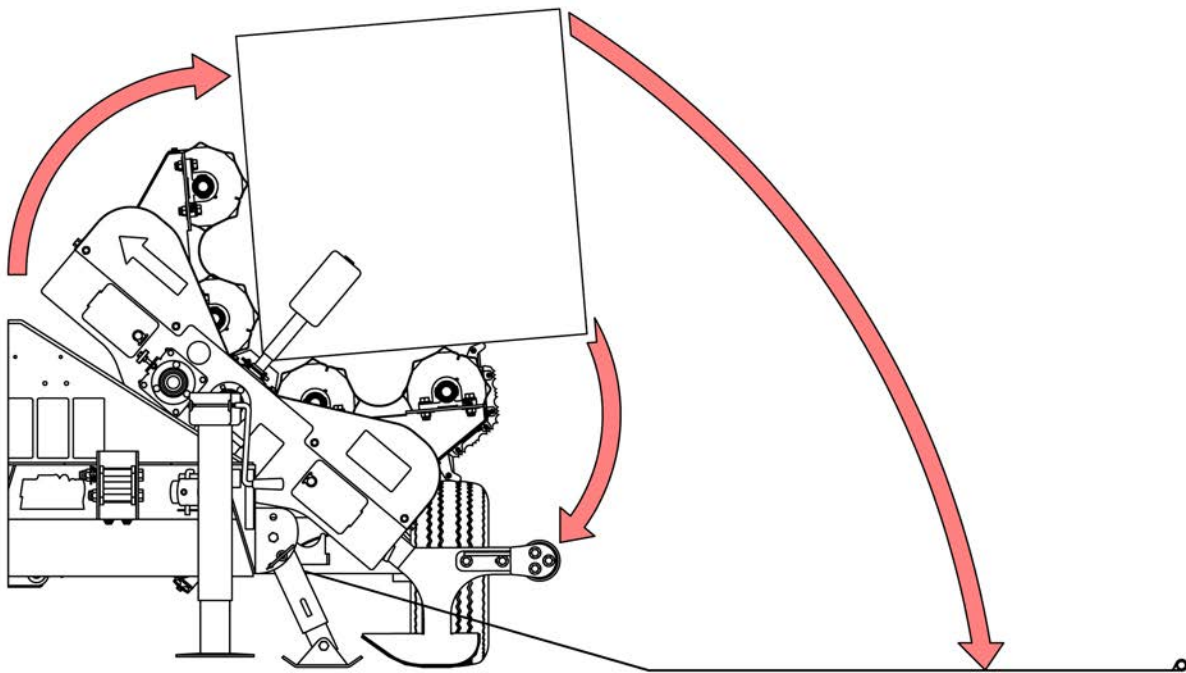
The film tensioner ([see pg.4-2 for illustration](#)) should be adjusted so that the wrap is applied to the middle of the bale. If wrap is applied too high or low adjust tensioner by loosening clamps. Adjust tensioner as needed until wrap crosses the bale at its midpoint. As a guide, for a 4' or 4.5'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

Unloading Bales

You are ready to unload if you see the unload arrow decal ([DE36080, page 2-5](#)) on the front left corner of the rollers. Bales unload of the wrapper (with the rolls parallel to the frame).



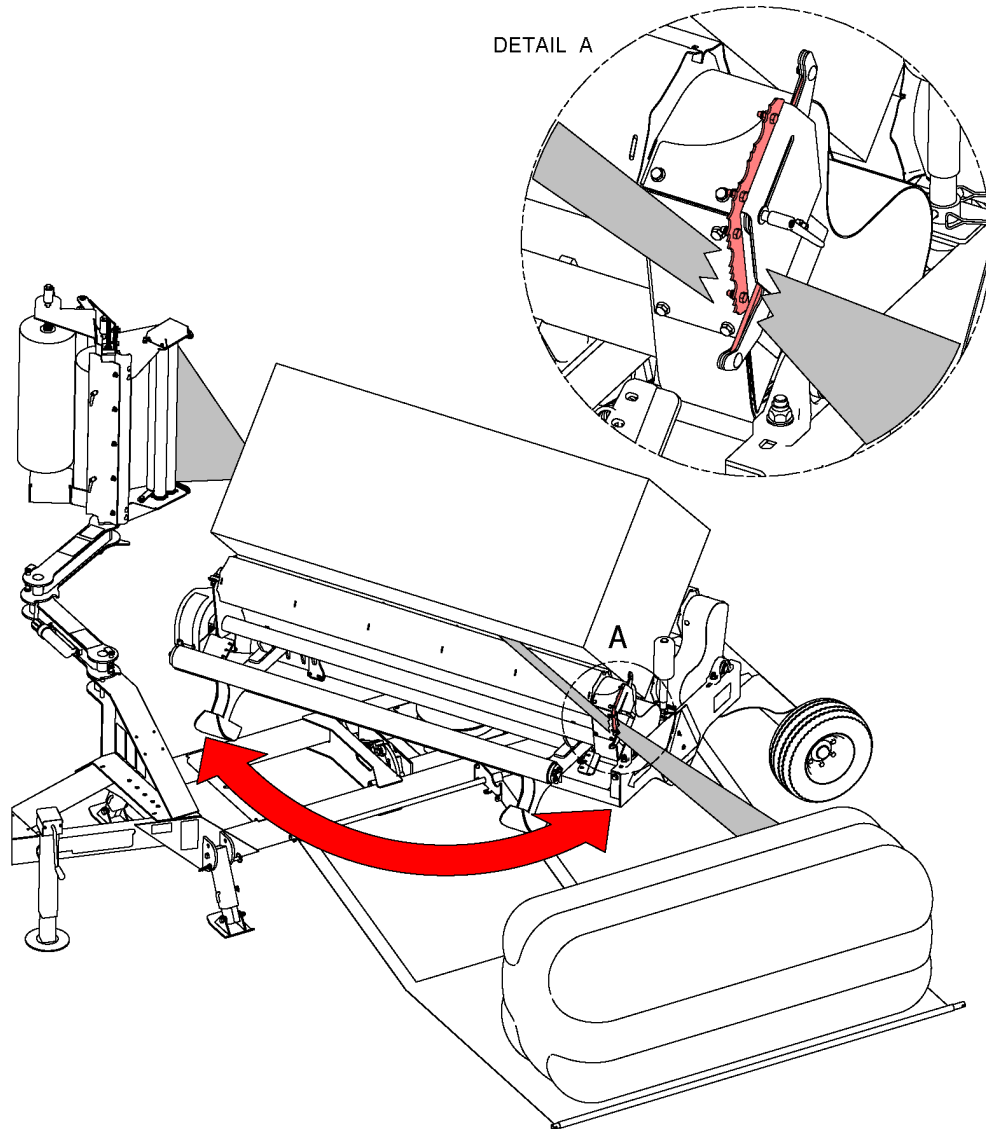
To unload a bale, make sure unload arrow decal on the front left corner of the turntable is **POINTING TOWARDS THE LEFT SIDE** of the frame. Next, operate the tilt function slowly using the hydraulic control. The turntable tilts up, allowing the bale on the turntable to roll softly and safely to the ground. Bale bumper can be adjusted so that bale rolls a sufficient distance to allow the table to turn without interference.



Bale Wrap Cut

This machine uses a serrated knife blade to cut plastic film after each bale is ejected from the turntable.

- Load next bale in the same manner as first bale to create tension on trailing plastic film from tensioner to unloaded bale.
- Rotate turntable to begin wrapping next bale. As the table turns, the plastic film should stretch across the serrated knife and separate from the unloaded bale.



Transportation



WARNING! Do NOT transport with bale on rollers.

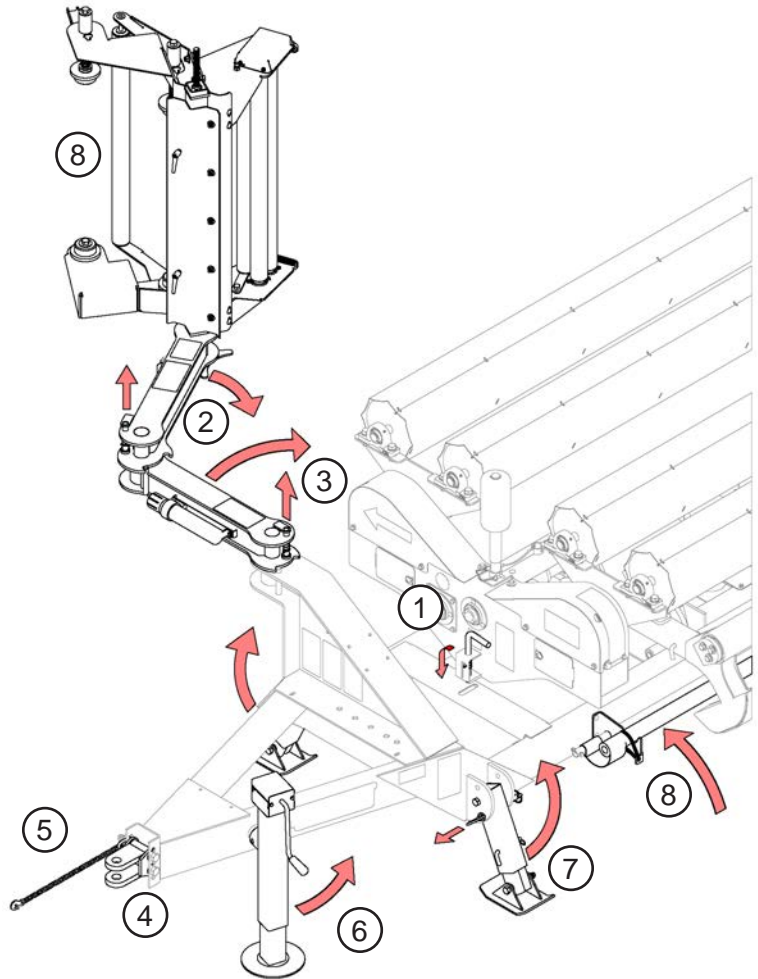
Follow instructions below to prepare the machine for safe transport.

1. Lock turntable by turning and lowering transport lock pin. **NOTE:** The turntable needs to be parallel with the frame, with the SMV towards the rear of the machine.
2. Raise outer tensioner arm spring lock pin, pivot arm in towards turntable. Release spring lock pin to secure arm.



CAUTION: The outer arm must be moved first to avoid it hitting the rollers. The tensioner also must be raised at least 5" to avoid interference.

3. Raise inner tensioner arm spring lock pin, pivot arm in towards turntable. Release spring lock pin to secure arm.
4. Back towing vehicle to hitch and pin to drawbar.
5. Secure safety chain.
6. Remove pin, pivot jack stand back 90° and refasten pin.
7. Remove pins from both legs and raise them upwards. Resecure the pins in the upper holes of leg mounts.
8. To avoid unravelling, secure plastic rolls on tensioner and the roll off tarp.

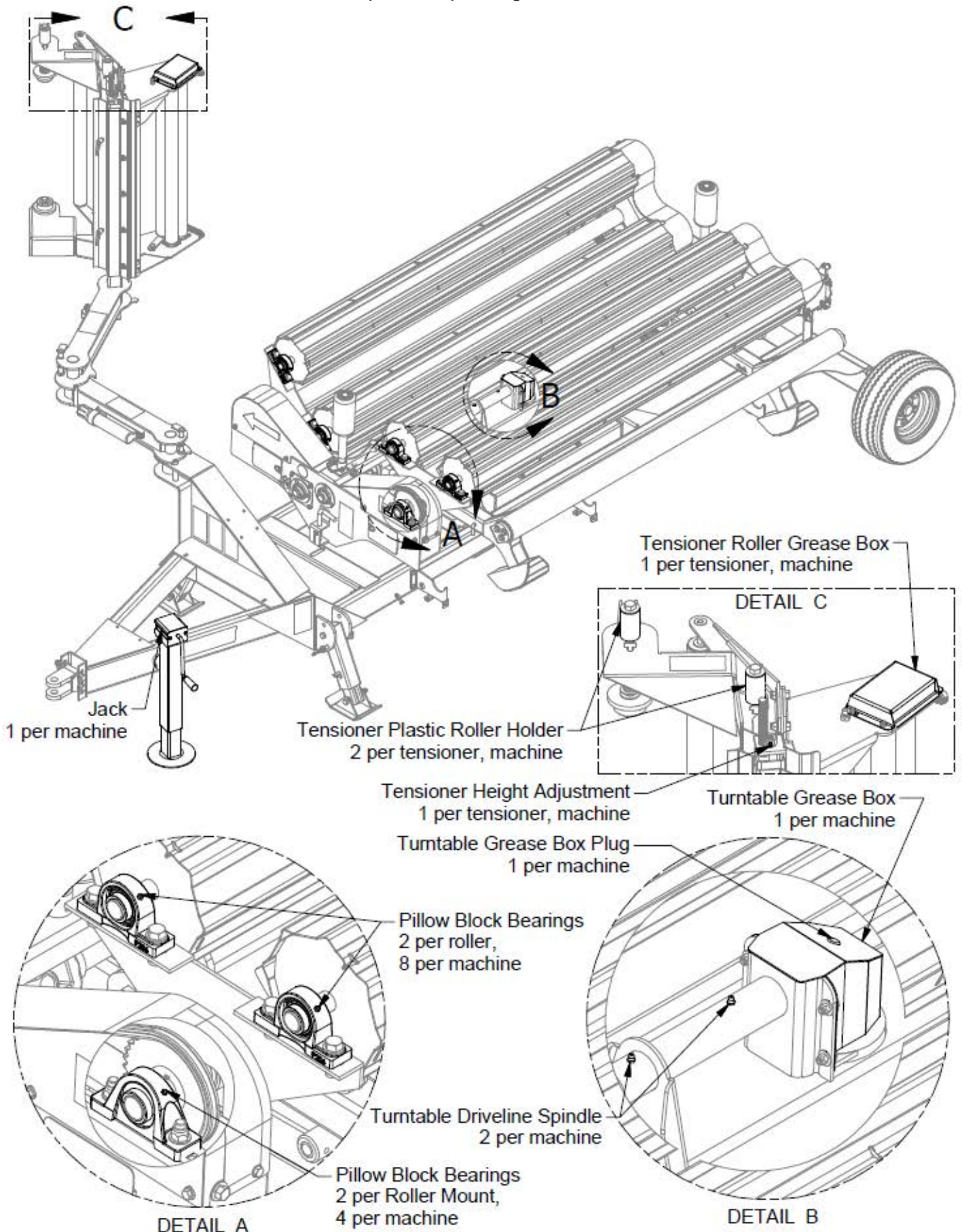


Transport Speed Limit

This machine is rated for a maximum tow speed of 35km/h (20mph).

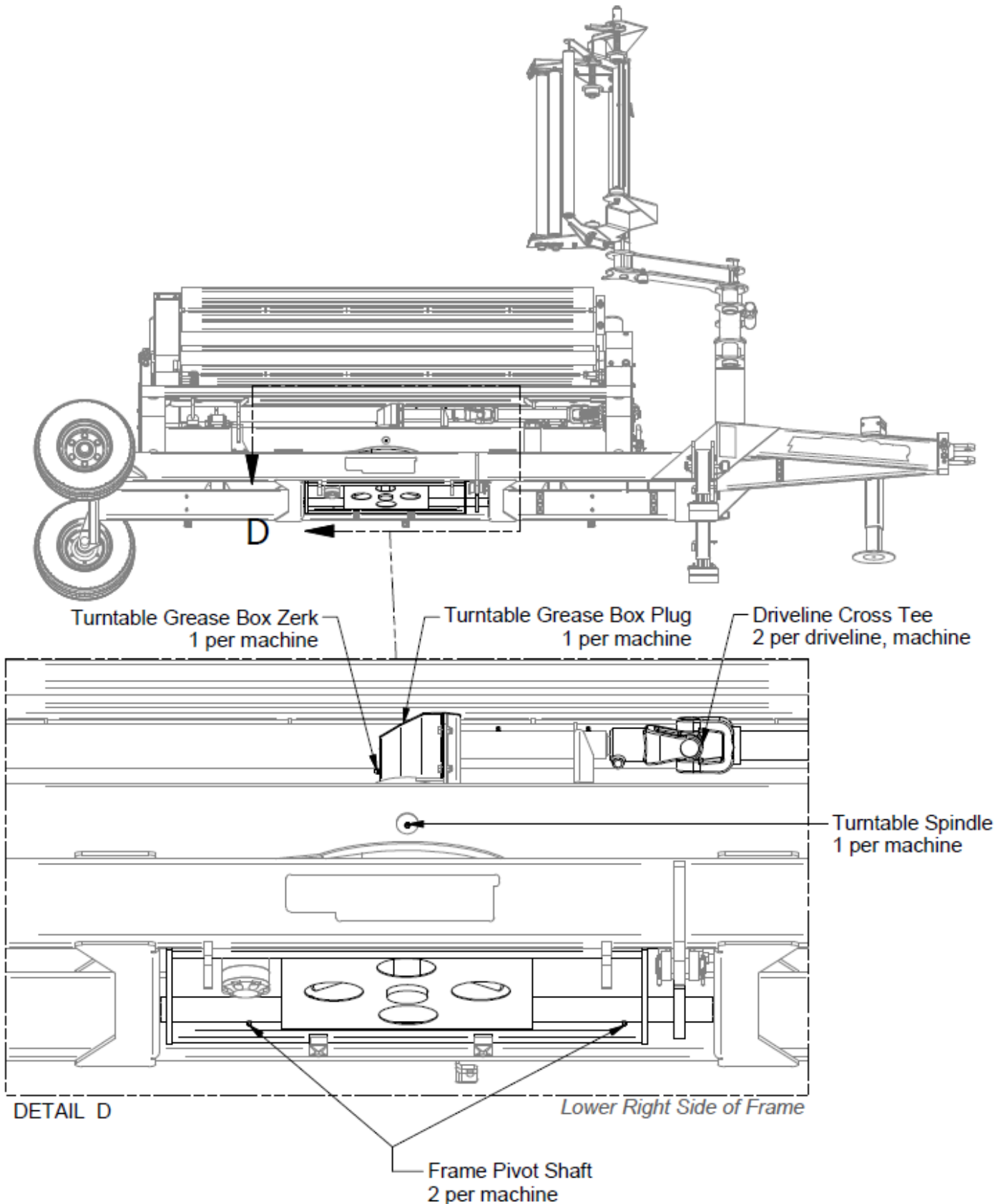
Section 6: Grease Points

Grease these areas before operating season, and monthly during operational season to keep machine in optimum operating condition.



When refilling turntable grease box (*DETAIL B*)

- Remove plug from top of gear box cover to see grease level as it is being filled.
- Fill grease box completely using grease zerk on rear side of shield.
- Reattach plug.



Section 7: 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.

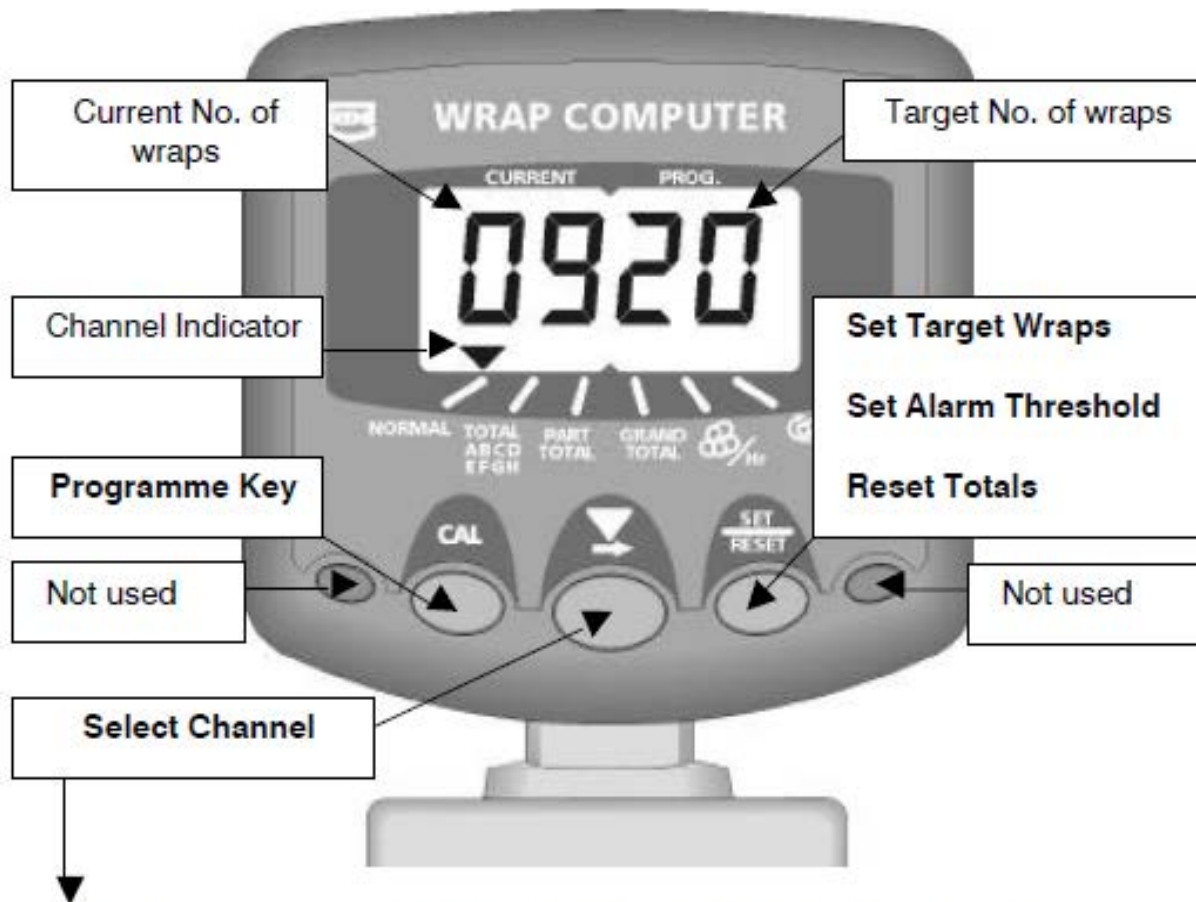
The instrument is normally powered on via the vehicle ignition circuit and recalls the function displayed when the instrument was last used.



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 A B C D E F G H	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**.



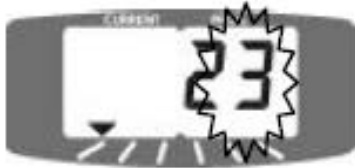
Hold continuously.



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.

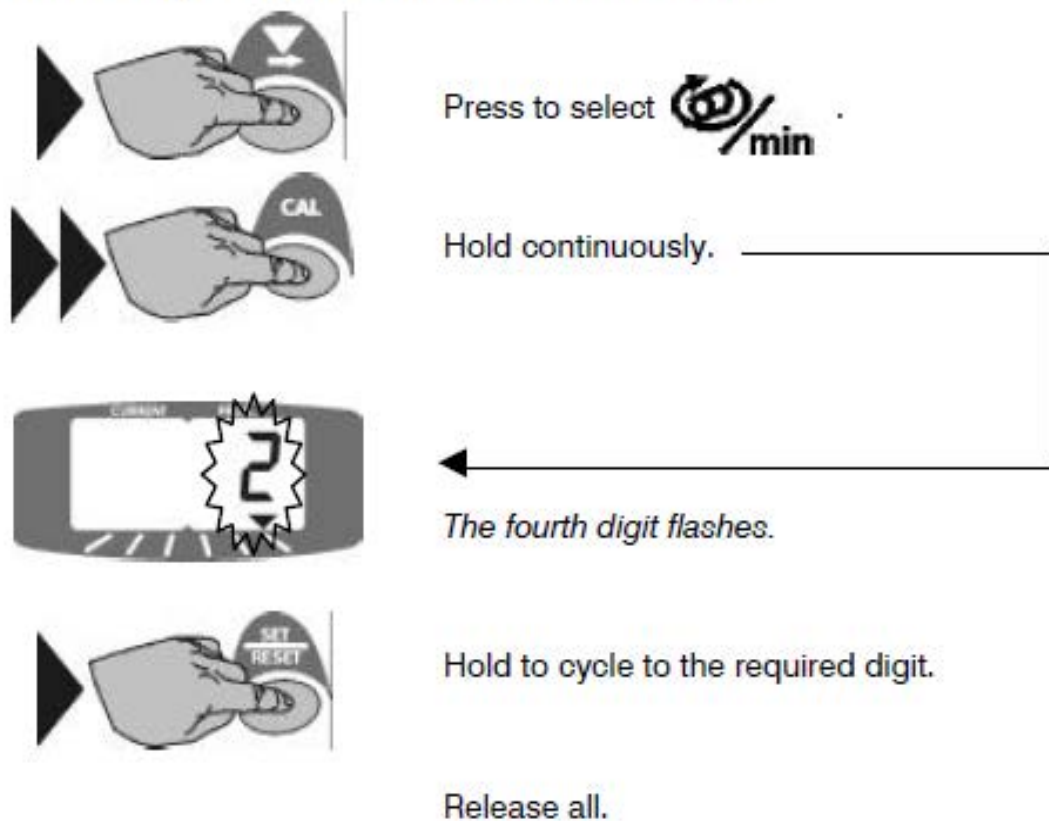
Release all.

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

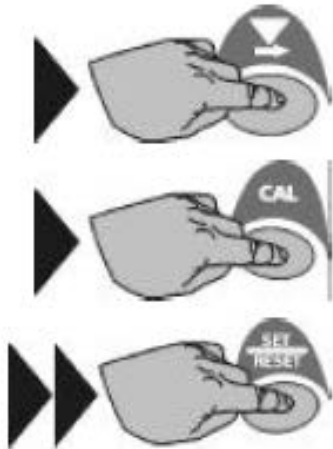


Select the desired store total (A – H).



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

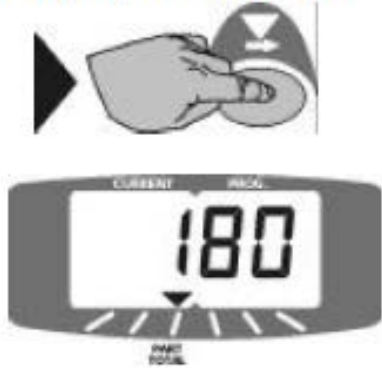
Select the desired store total (A – H).

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

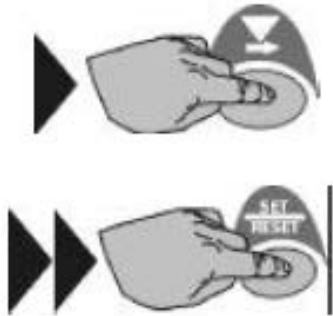
3.3.1 Display Part Total



Press to select **PART**
TOTAL

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

3.3.2 Reset Part Total



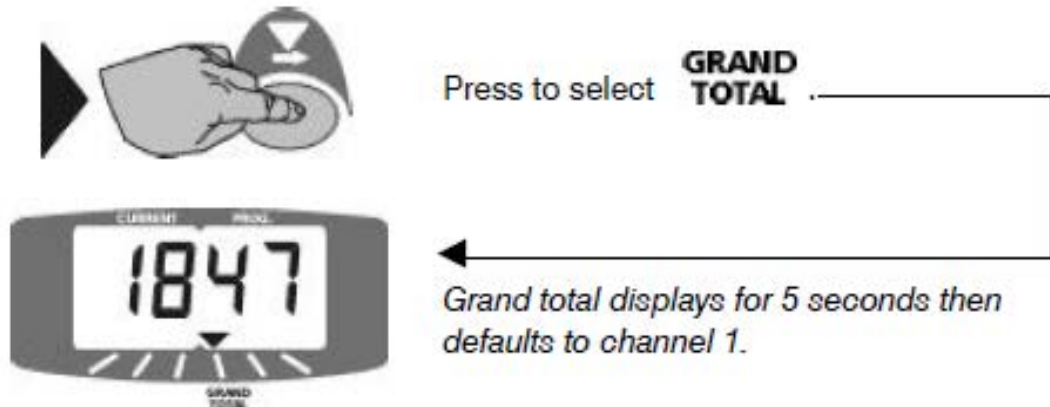
Press to select **PART**
TOTAL

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.

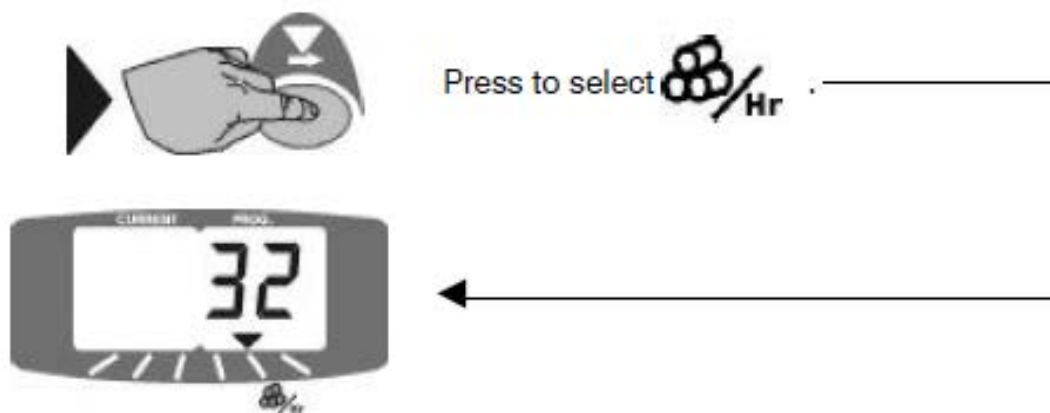
3.4.1 Display Grand Total



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.*

Section 8: Hydraulic Control Power Pack Option

Operation

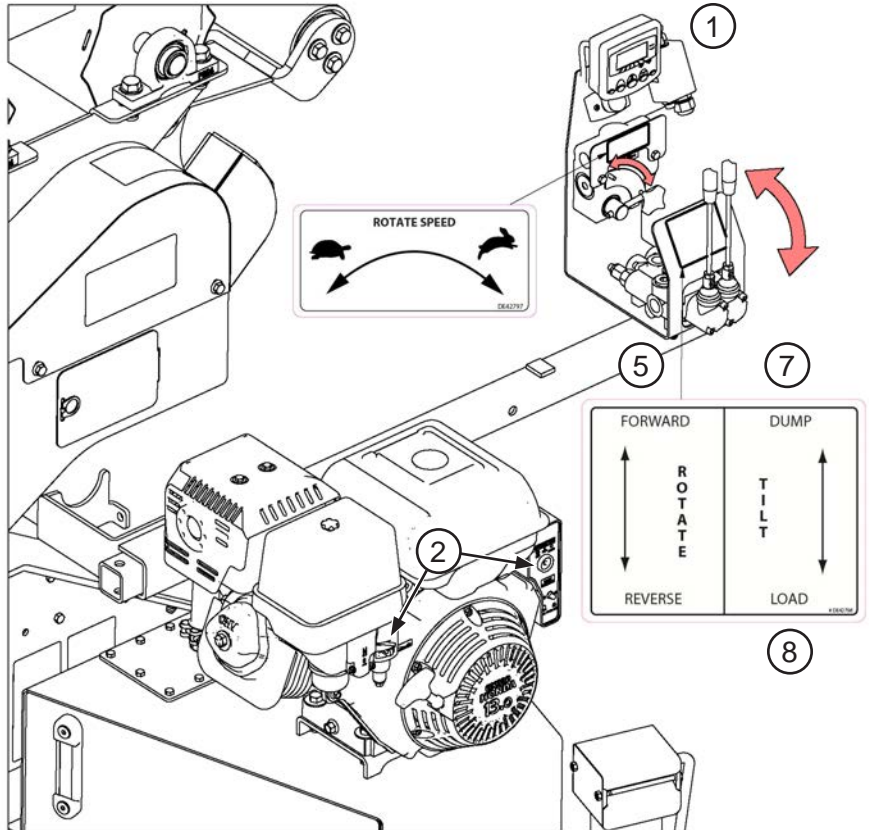
The TL1700SR-P includes an onboard powerpack and hydraulic controls to operate it. The operating sequence remains the same as a standard TL1700SR but is operated from the bale wrapper rather than from a connected power unit.

To operate:

1. Power on the bale wrap computer with the toggle switch. See [Section 7](#) for Bale Wrap Computer Operation.
2. Start the onboard powerpack engine, choke throttle as needed. Your wrapper is now circulating hydraulic pressure through the machine. See engine manual for further details.
3. Load bale as described on [pg.5-5](#).
4. Tie plastic film to bale twine or netting.
5. Wrap the bale by pushing the ROTATE hydraulic lever FORWARD to rotate the turntable clockwise.



NOTE: REVERSE ROTATE should not be used to wrap bales.



6. After applying wrap layers, rotate the table so the green UNLOAD decal is clearly seen from the operator's position. The turntable should parallel with the frame. Refer to [Unloading Bales, pg.5-6](#).
7. Push the TILT hydraulic lever to DUMP to unload the bale off the left side of the machine. This is the right side when standing at the hydraulic levers.



DANGER: Only operate the hydraulic levers when standing in front of the controls! Unloading bale may roll causing lifethreatening injuries or even death.

8. Pull TILT handle to LOAD position to return turntable to level position before loading next bale.
9. Load next bale.
10. Rotate turntable to begin wrapping bale and to cut the plastic film from the unloaded bale.

Section 9: Auto Control Option

Power Method

The TL1700SR-A is powered by a power unit with hydraulic hookup. The TL1700SR-PA is powered by an onboard powerpack. Both are operated with a digital control screen and handheld remote.

To power the TL1700SR-A, connect the 2 hydraulic hoses with quick couplers to your tractor ports.

To power the TL1700SR-PA, start the onboard powerpack engine, choke throttle as needed. Your wrapper is now circulating hydraulic pressure through the machine. See engine manual for further details.

Display Screen Functions

Power on the Auto Bale Wrap Display with the control box toggle switch **(A)**.

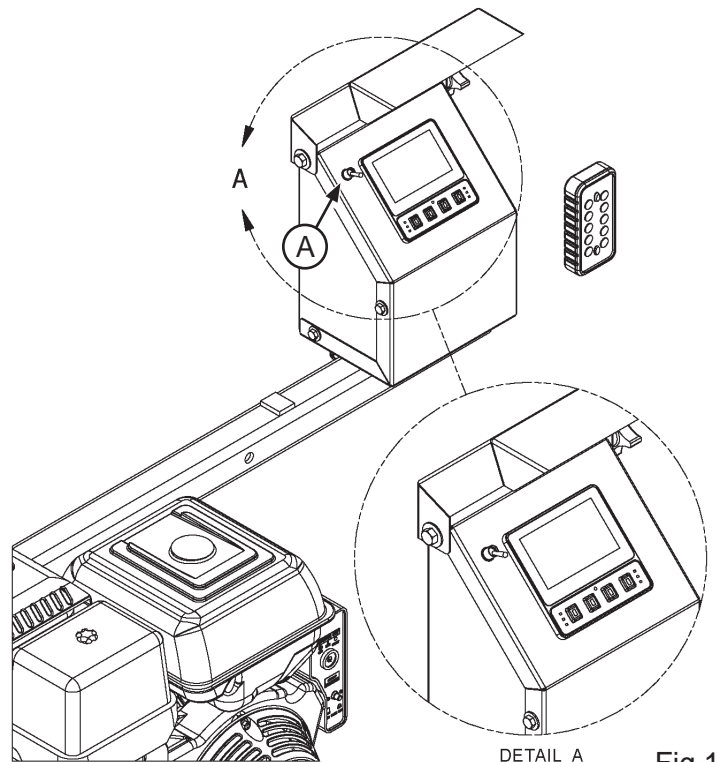


Fig.1

There are 4 buttons on the front of the display screen, see [Fig.2](#):

B1 - SELECT: Press to highlight first field. Press again to move to next field without changing value.

B2 - UP ARROW: Press to increase value of selected field.

B3 - DOWN ARROW: Press to decrease value of selected field.

B4 - RETURN: Confirms value of adjusted field and allows B1 to select next field.

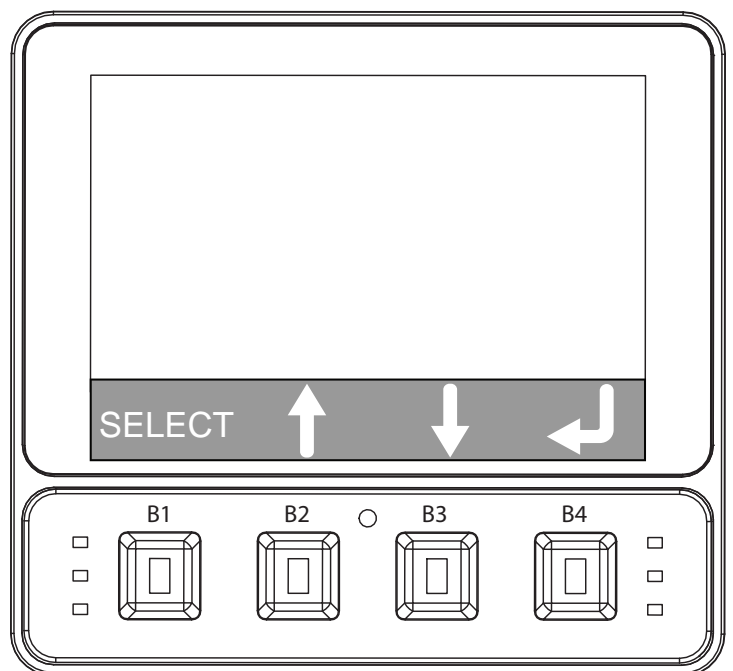


Fig.2

Auto Wrap Mode Display Adjustments

There are 2 auto wrap modes, **AUTO FROM HOME** and **AUTO FROM LOAD POSITION**. Screen powers on to last used mode and settings.

AUTO FROM HOME is the main menu i.e. home screen. See Fig.3. This mode is used when loading first bale and when using a long reach loading machine such as a loader tractor or telehandler.

AUTO FROM LOAD POSITION, Fig.4 is used when using a short arm loading machine such as a skidsteer.

The only difference between the 2 modes is the turntable position when loading bales.

Press B1 - SELECT button to select **MODE** field, using B2 or B3 to change mode to **AUTO FROM LOAD** or **MANUAL**. If no change required press B1 button again to move selection to next field.

Select **ROTATIONS** field and use B2 or B3 button to set desired amount based on the value determined by using the formula specified in [Plastic Film Requirements, pg.5-1](#).

Select **TIP MODE** to change between **AUTO** and **MANUAL**.

MODE		
AUTO FROM HOME		
ROTATIONS		
0 OF 0		
TIP MODE	BALE COUNT	HOME / LOAD
AUTO	0	0.00 SEC
TIP HOLD	PRE SLOW DOWN	
0.00 SEC	0.00 SEC	
SELECT ↑ ↓ ↶		

Fig.3

MODE		
AUTO FROM LOAD POSITION		
ROTATIONS		
0 OF 0		
TIP MODE	BALE COUNT	HOME / LOAD
AUTO	0	0.00 SEC
TIP HOLD	PRE SLOW DOWN	
0.00 SEC	0.00 SEC	
SELECT ↑ ↓ ↶		

Fig.4

- **AUTO** tip allows machine to unload bale when the desired rotations are reached and the turntable magnet aligns with the proximity sensor mounted to the frame.
- **MANUAL** tip mode requires the user to press and hold the **TIP DOWN** button on the remote control to unload a wrapped bale.

Select **BALE COUNT** and use B2 or B3 buttons to reset, increase or decrease the bale count of the current bale wrapping job.

Select **HOME / LOAD** field to modify where the turntable rotates to when using the **AUTO FROM LOAD POSITION** mode. By default this is set to 2.75 seconds, which rotates the turntable roughly 60° from the HOME position. This allows skidsteers to load bales over the rear left wheel. Use B2 or B3 buttons to change the time value, increasing time increases angle and vice versa.

Select **TIP HOLD** field to adjust the amount of time it takes to fully tip and raise the turntable when unloading bales. Decrease this value if turntable stays tipped well after bale has unloaded.

Select **PRE SLOW DOWN** field to adjust the time the last rotation will take to complete. This ramp down speed smooths the transition of hydraulic flow from turntable rotation motor to unloading cylinder.

Remote Control

The provided remote control is used in both manual or automatic wrapping and greatly increases productivity in one man operations. It has a direct line of sight range of 1000 ft (300m).

ON: Press to wake remote from inactive state.

OFF: Press to power off remote. Remote automatically deactivates after 3 minutes of inactivity.

TIP DOWN: Press and hold for 3 seconds to manually tip the turntable down to unload wrapped bale. Only required in **MANUAL TIP MODE**.

TIP UP: Press and hold to raise the turntable back to its level wrapping position. If the turntable will not raise, press the **TIP DOWN** button for 3 seconds. Only required in **MANUAL TIP MODE**.

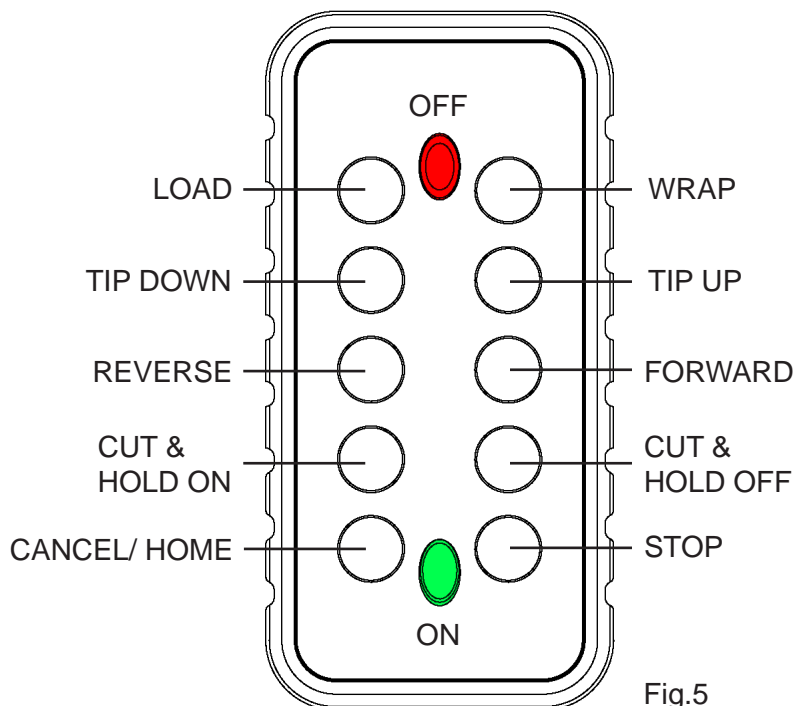


Fig.5

LOAD: Press to rotate turntable to preset loading position **AUTO FROM LOAD POSITION**.

WRAP: Press to start auto wrap cycle. The lit LED below this button shows the current wrapping mode.

RVS (Reverse): Press to manually run turntable counterclockwise. This feature can be used in auto modes to interrupt cycle.

FWD (Forward): Press to manually run turntable clockwise. This feature can be used in auto modes to interrupt cycle.

CUT & HOLD ON/OFF: Not available at time of print.

CANCEL/HOME: Stops wrapping cycle in place.

STOP: Stops wrapping cycle in place.

Auto Wrap Mode Operation

Follow these instructions for best wrapping results.

1. Turn on display screen with toggle switch.
2. Press remote control **ON** (green) button to wake remote if it is inactive.
3. Pull plastic film from tensioner across the bed to rear right corner, leaving enough over hang to tie end of plastic to loaded bale.
4. Set display screen **MODE** to **LOAD FROM HOME** if loading first bale from left side which is the home position, shown in [Fig.6](#) or if using a skidsteer, set display screen **MODE** field to **AUTO FROM LOAD POSITION**, [Fig.4](#) on [pg.9-2](#), and press **LOAD** button on remote control to rotate turntable to load position, [Fig.7](#), before loading bale.
5. When loading machine is clear of the bale wrapper, press the **WRAP** button on the remote control to completely wrap bale.
6. After bale is wrapped the turntable will automatically slow down on the last rotation and stop at the home position. This is the only acceptable position to unload a bale in.

NOTE: If the turntable is not parallel to the frame, press and hold the **RVS** or **FWD** button on the remote control until it is. This overrides the Auto cycle. Rotation will stop as soon as the button is released.

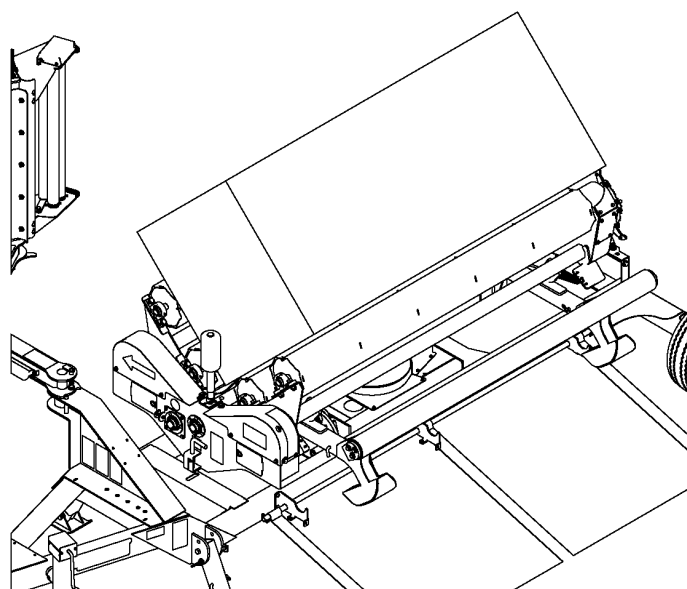


Fig.6 - Home Position

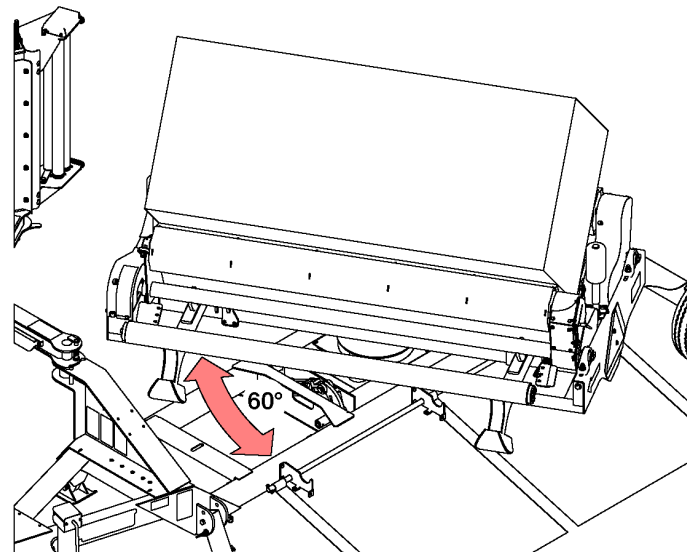


Fig.7 - Load Position

7. If display screen field **TIP MODE** is set to **AUTO** the turntable will tip as soon as last rotation is complete and turntable magnet activates frame proxy sensor. Refer to [Unloading Bales, pg.5-6](#) for proper bale unloading and [Bale Bumper Adjustment, pg.4-3](#) if bale is not unloading clear of the machine.

NOTE: If **TIP MODE** set to **MANUAL**, press the **TIP DOWN** remote control button for 3 seconds to unload bale and then press the **TIP UP** button to fully raise the turntable.

8. If loading bales from home position load next bale over wrapped bale before repeating wrap operation. Press **LOAD** remote control button if loading bales from angled position before repeating wrap operation.
9. Inspect wrapped bales and patch any holes and/or tears with heavy duty tape.
10. Turn off display screen and remote control before transporting or leaving work site.

See [Auto Wrap Mode Display Adjustments, pg.9-2](#) to adjust functions to preferred settings.












Manual Wrap Mode

To wrap in **MANUAL MODE**:

1. Set display screen **MODE** field to **MANUAL**, see [pg.9-2](#).
2. Load bale onto wrapper turntable.
3. Press and hold **FWD** remote control button until desired amount of wrap is applied to bale.
4. Release **FWD** button when turntable is parallel with the frame and **UNLOAD** decal is located at the front left corner.
5. When turntable has stopped rotating, press **TIP DOWN** for 3 seconds to unload the wrapped bale.
6. After wrapped bale is unloaded clear of the bale wrapper, press TIP IP remote control button until the turntable is fully raised and level.
7. Repeat steps 2 to 7 until wrap job complete.
8. Inspect wrapped bales and patch any holes and/or tears with heavy duty tape.
9. Turn off display screen and remote control before transporting or leaving work site.

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 					

TST162 -19-04M4/09

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.

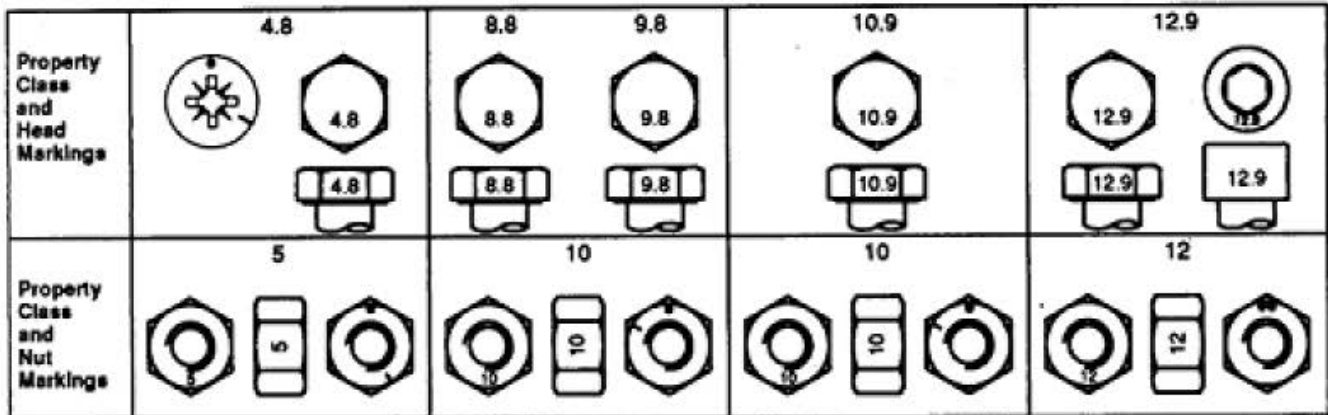
Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

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.

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WARNING

The engine exhaust from this product contains chemicals known in the state of California to cause cancer, birth defects, or other reproductive harm.

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