

TUBE•LINE™

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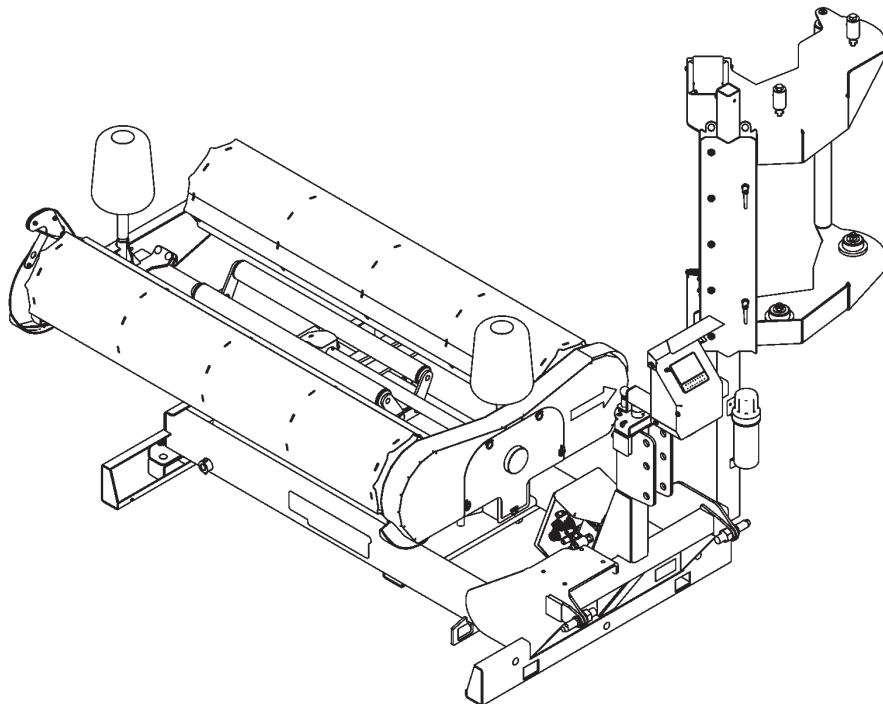
Operator's Manual

Keep this manual with the machine at all times.

TL1100R

Balewrapper

TL1100R



Operator's Manual

Thank you for choosing the Tubeline TL1100R Individual Round 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. The latest manual version can be found at www.tubeline.ca/support.php.

NOTE: 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 (1) 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

The implement serial number is located on the front right corner of the frame. (See below) 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: _____ TL1100R-A(P)

Serial No: _____

Date Purchased: _____

Dealer Name: _____

Dealer Contact: _____

TL1100R-AP Model **Only**:

Engine Model No: _____

Engine Serial No: _____

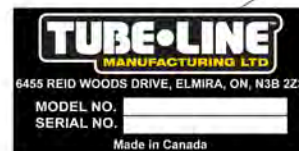
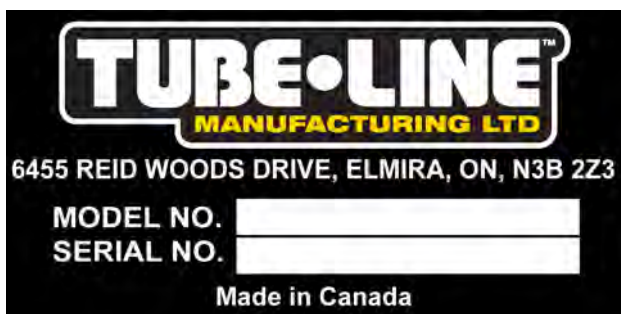
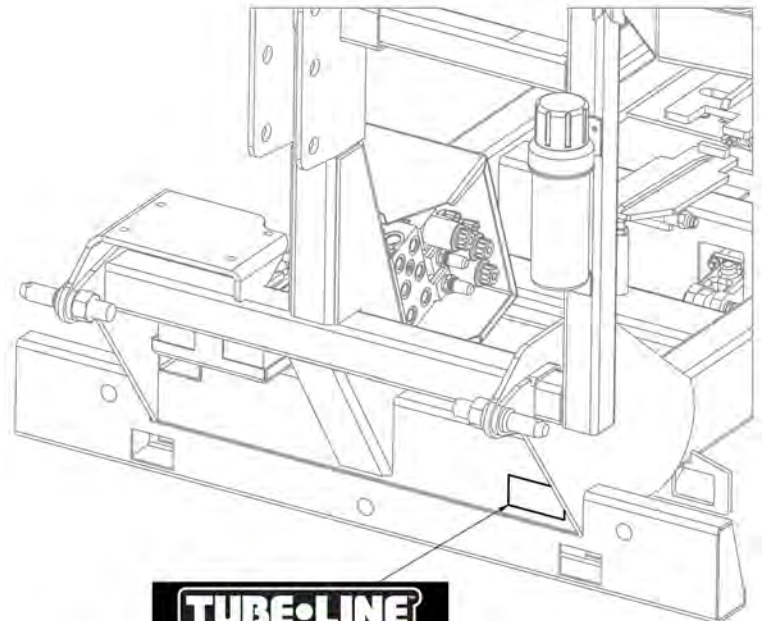


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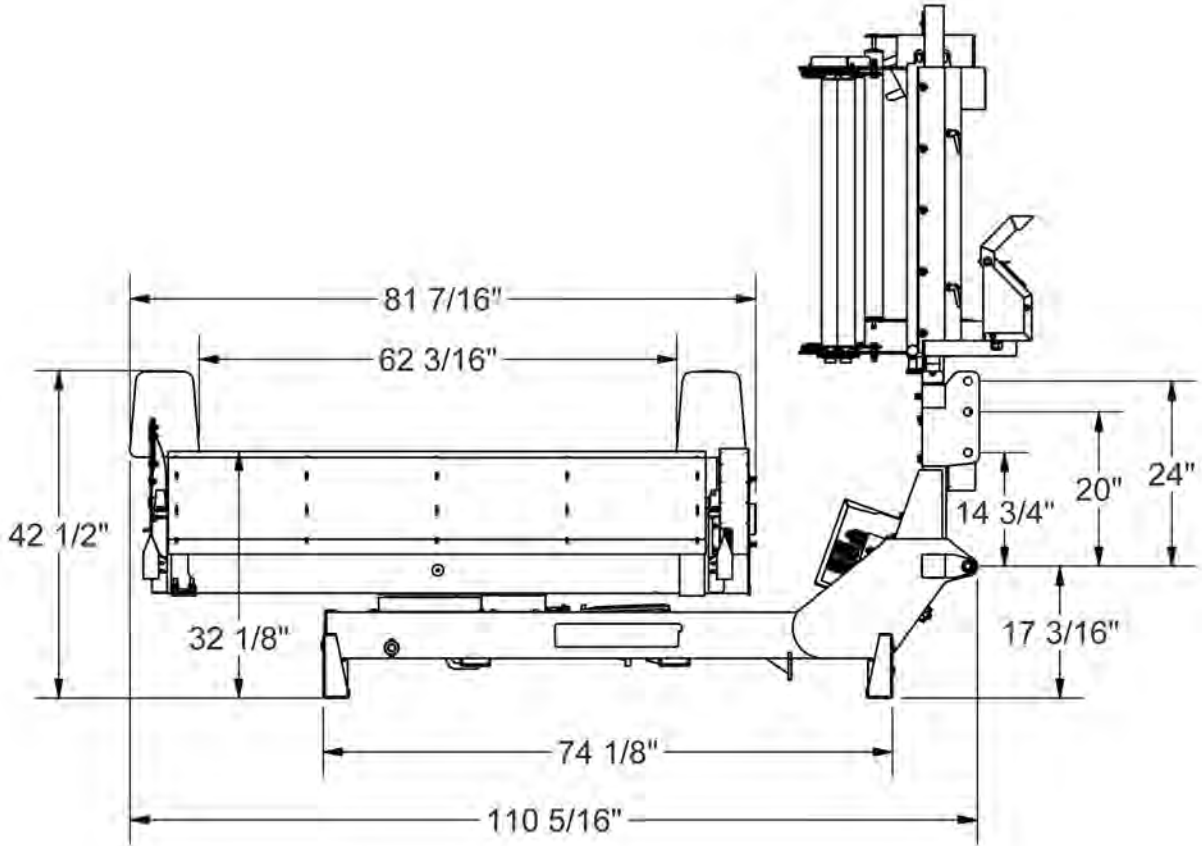
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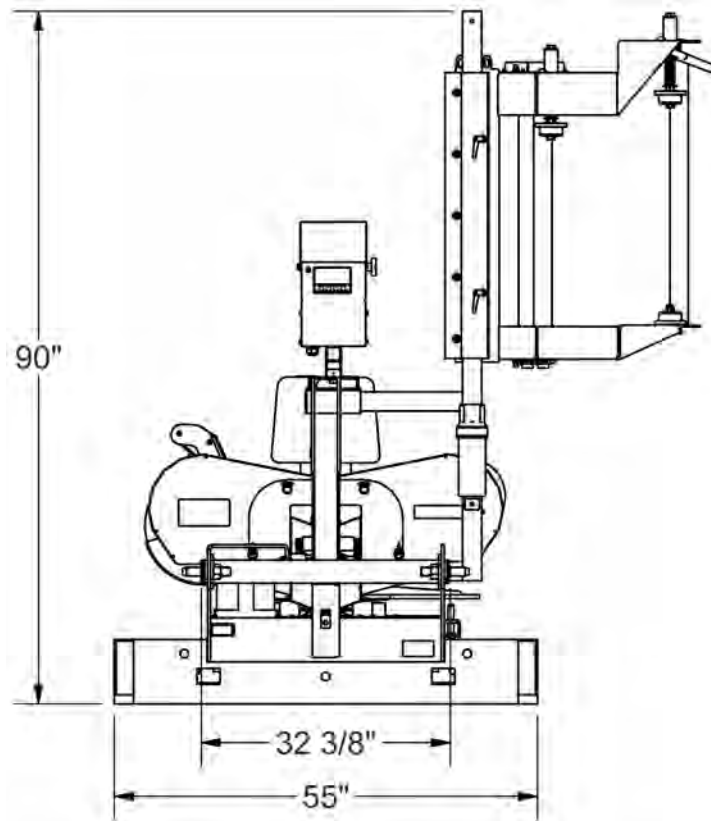
Section 1: General Information

Dimensions

Side

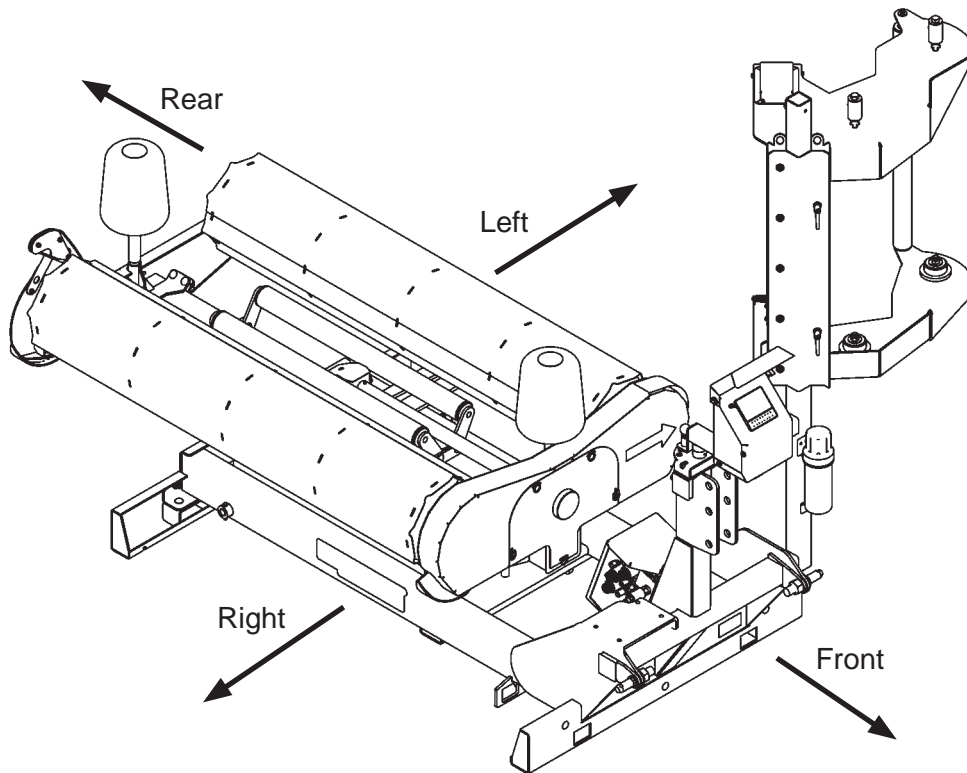


Front



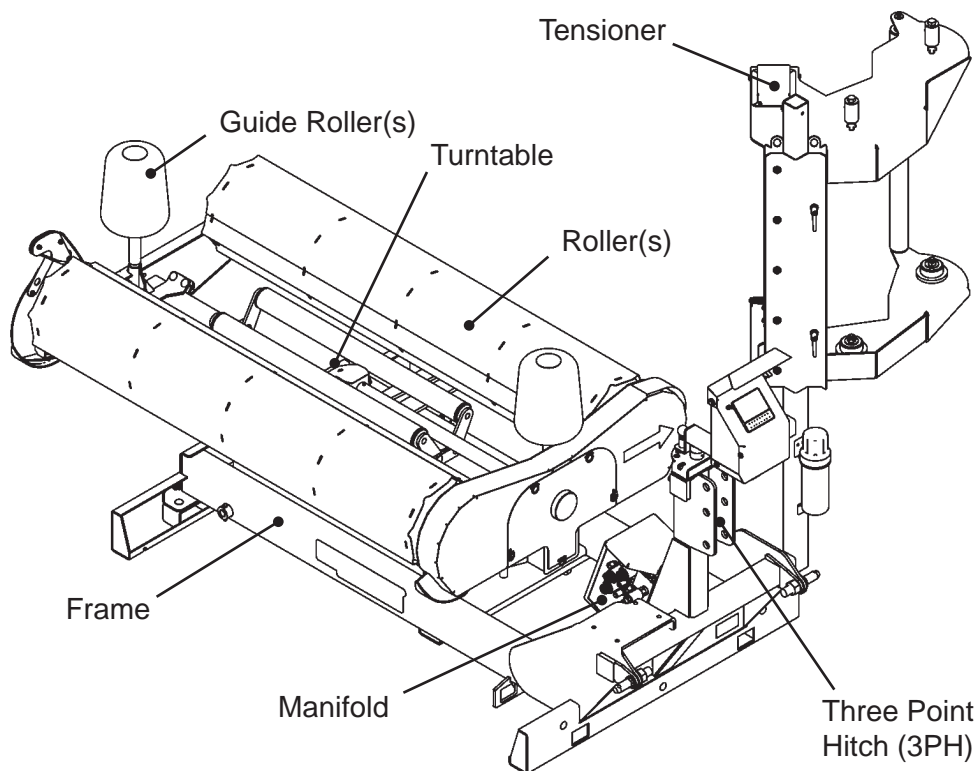
Orientation

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



Terminology

Common terms used in this manual.



Suitable Wrapping Timeframe

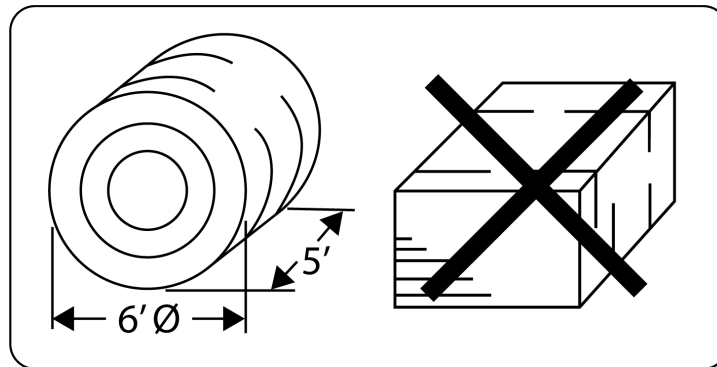
Use a hard-core baler to make the well-shaped and firm bales necessary for successful wrapping. Bales are best wrapped as soon as possible after baling. If bales are left unwrapped they will sag and lose shape. Heating will start soon after baling and protein quality will be lost. It is desirable to 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 TL1100R will wrap round bales **up to** 6' in diameter and 5' long. It will **NOT** wrap square bales.



Specifications

Machine Length	118"
Machine Width	79"
Machine Height	88"
Machine Weight	1550 lbs (incl. Powerpack)
Drive Type	Hydraulic
Minimum Hydraulic Flow	5 GPM @ 2500 PSI
Hitch Type	Category II 3 Point Hitch
Film Width	30" (x2)
Offset Twin Wrap	Fixed 4"
Bale Guides	Adjustable (4'-5')
Powerpack	Optional

Section 2: Safety

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

WARNING: 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 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

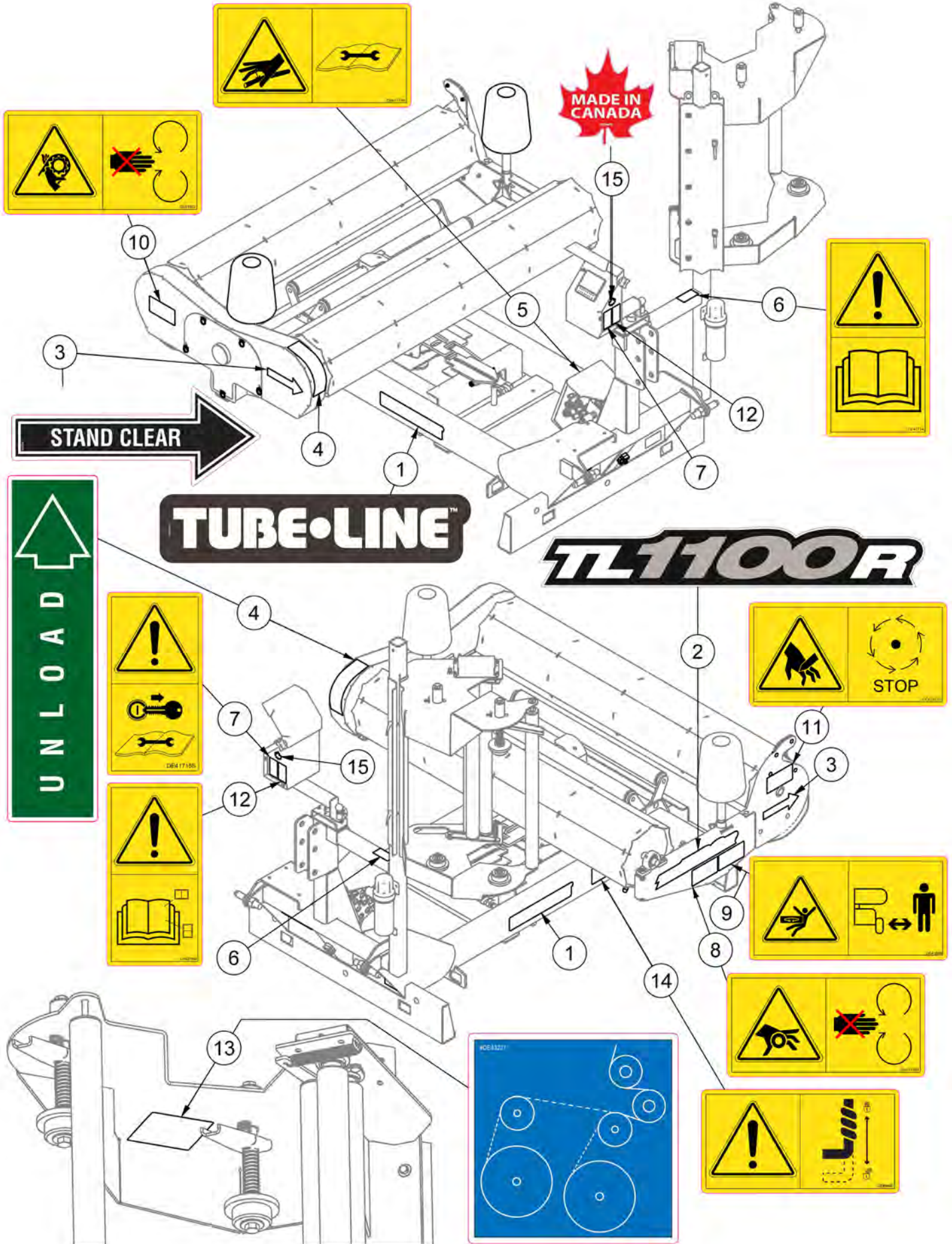
- Carefully study and understand the manual or be trained by an experienced operator.
- Do not wear loose clothing that may get caught in moving parts.
- Visually inspect the machine to make sure no parts are loose or missing.
- Be sure that no tools are left on the machine.
- Do not hurry the learning 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 TL1100R, replace any removed shields.

Safety Decal Location



Safety Decal Location

ITEM	QTY	PART NUMBER	DESCRIPTION	NOTE
1	2	DE28146	Tubeline Decal 4" x 16"	
2	1	DE48523	TL1100R Decal	
	1	DE48489	TL1100R-A Safety Decal Kit	Items 3-14
3	2	DE36075	Decal for TL1000R - Stand Clear RH	
4	1	DE36080	Decal for TL1000R - Unload	
5	1	DE41713H	ISO Decal - High Pressure Fluid Horizontal	
6	1	DE41714S	ISO Decal - Read Operator's Manual	
7	1	DE41715S	ISO Decal - Remove Key Before Repair	
8	1	DE41716H	ISO Decal - Shaft Entanglement Horizontal	
9	1	DE41899	ISO Decal - Stand Clear of Indi Wrapper	
10	1	DE41902	ISO Decal - Chain Entanglement	
11	1	DE41913H	ISO Decal - Stop Moving Parts Before Handling	
12	1	DE42784S	ISO Decal - Read OM Decal Section	
13	1	DE43227	TL1000R Tensioner Wrap Decal	
14	1	DE49488	ISO Decal - Vertical Lock	
15	1	DECANADA	Decal Made In Canada	

Safety Decals

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

Part No: DE28146 - Side Tubes of Frame
Tubeline Decal



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

Part No: DE48532 - Rear Cross Beam of Turntable
Model Decal



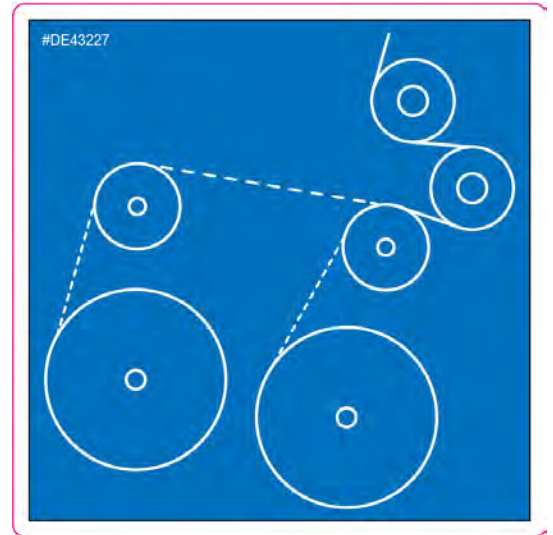
Item 3 on [pg.2-3](#)

Part No: DE36075 - Ends of Turntable
Visual arrows display warning to stay clear of operating Turntable.



Item 13 on [pg.2-3](#)

Part No: DE43227 - Tensioner Arm
See [pg.5-3](#) for detailed instruction
on routing plastic film through
tensioner.



Item 4 on [pg.2-3](#)

Part No: DE36080 - Front Left of Turntable
Marks side the wrapper turntable ejects bale off of.



Safety Decals

Item 5 on [pg.2-3](#)

Part No: DE41713H - Manifold Cover

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



Item 7 on [pg.2-3](#)

Part No: DE41715S - Control Panel Side

Remove key from tractor and read manual before attempting repairs.



Item 9 on [pg.2-3](#)

Part No: DE41899 - Rear Cross Beam of Trailer Base
Stand clear of wrapper while turntable is spinning.



Item 6 on [pg.2-3](#)

Part No: DE41714S - Top of Tensioner Mount Tube

Read and understand manual before operating machine.



Item 8 on [pg.2-3](#)

Part No: DE41716H - End of Turntable.

Keep hands away from revolving shafts.



Item 10 on [pg.2-3](#)

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 11 on [pg.2-3](#)

Part No: DE41913H - Back Left Roller Shield

Wait until all machine components have stopped moving before touching.



Item 14 on [pg.2-3](#)

Part No: DE49488 - Left Frame Side Tube

Lock turntable with spring pin BEFORE transportation.



Item 12 on [pg.2-3](#)

Part No: DE42784S - Control Panel Side

Read the manual and understand the meaning of the safety decals before operating this machine.



Item 15 on [pg.2-3](#)

Part No: DECANADA - Control Panel Side

Manufacturing country of origin.

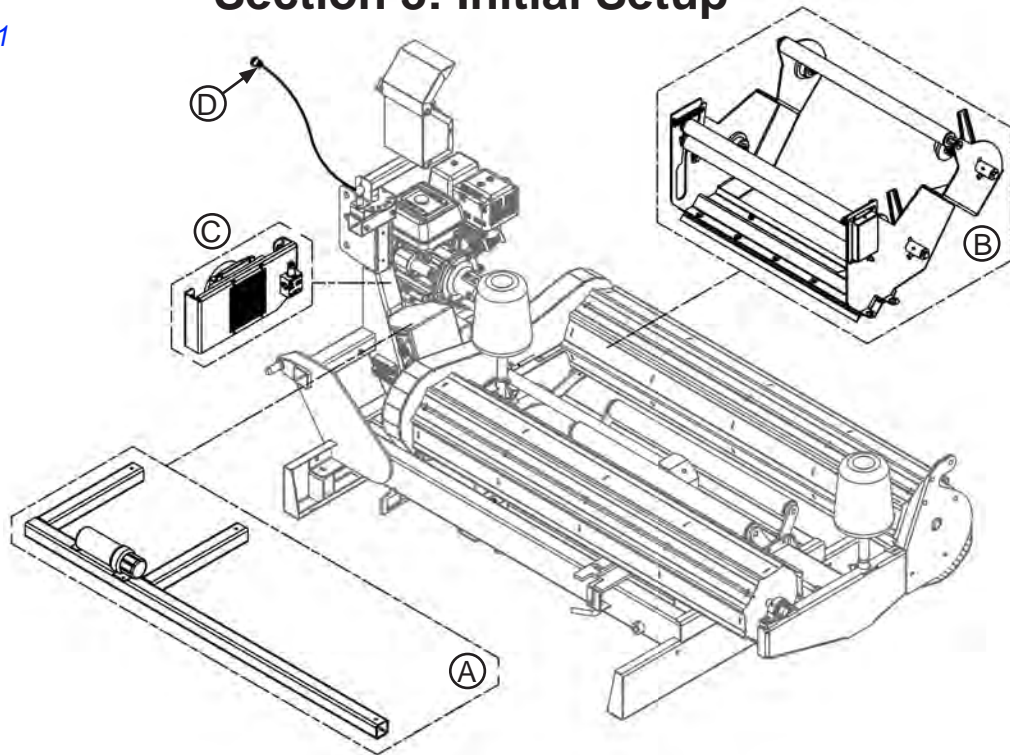


Remember

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.

Section 3: Initial Setup

Fig.3.1



- Remove all parts banded to the machine, see [Fig.3.1](#).
- Slide tensioner mount **(A)** into frame pockets. Lock in place with hex bolt and hex nut.
- Mount tensioner **(B)** to tensioner mount with clamps, [Fig.3.2](#).
- Connect hoses ([Fig.3.3](#)) to power unit OR if equipped with optional powerpack, bolt cooler assembly **(C)** to tensioner mount and frame. Check fuel and hydraulic oil reservoir levels.
- Remove wrapper wiring harness from frame and connect 3 prong male plug **(D)** to power source in tractor, OR for optional TL1100R-AP powerpack model, attach battery cables to battery terminals.

NOTE: If tractor is not equipped with a matching female plug, one will need to be obtained and installed. Contact your local parts dealer.

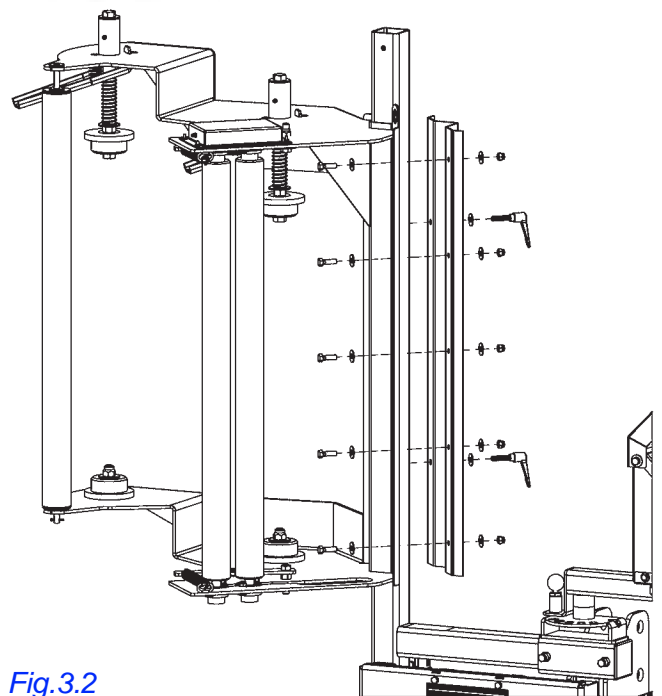


Fig.3.2

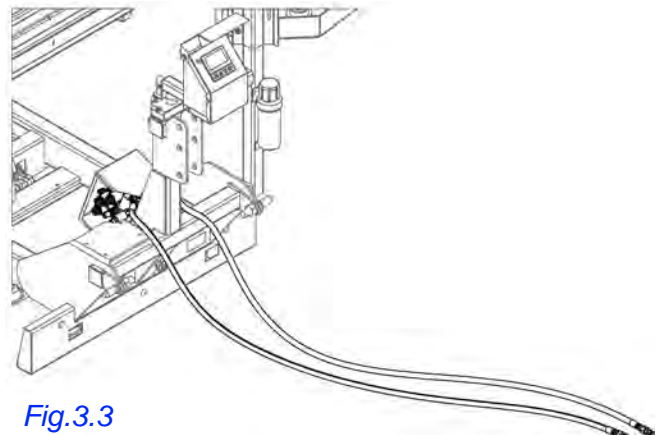
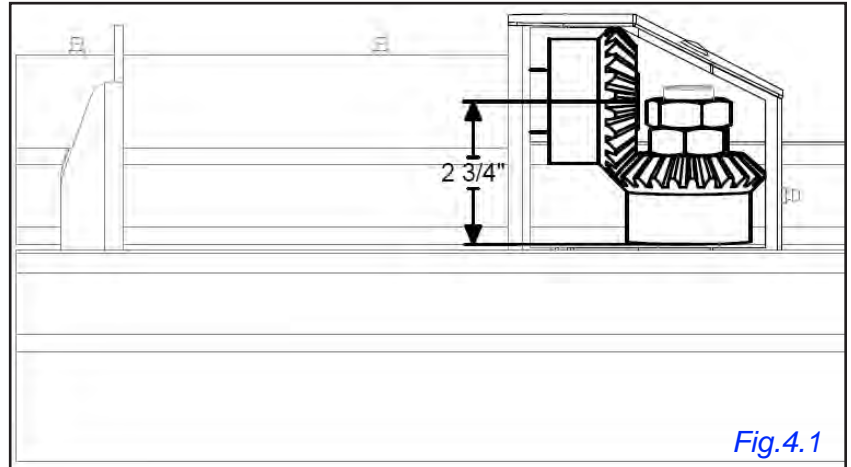


Fig.3.3

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



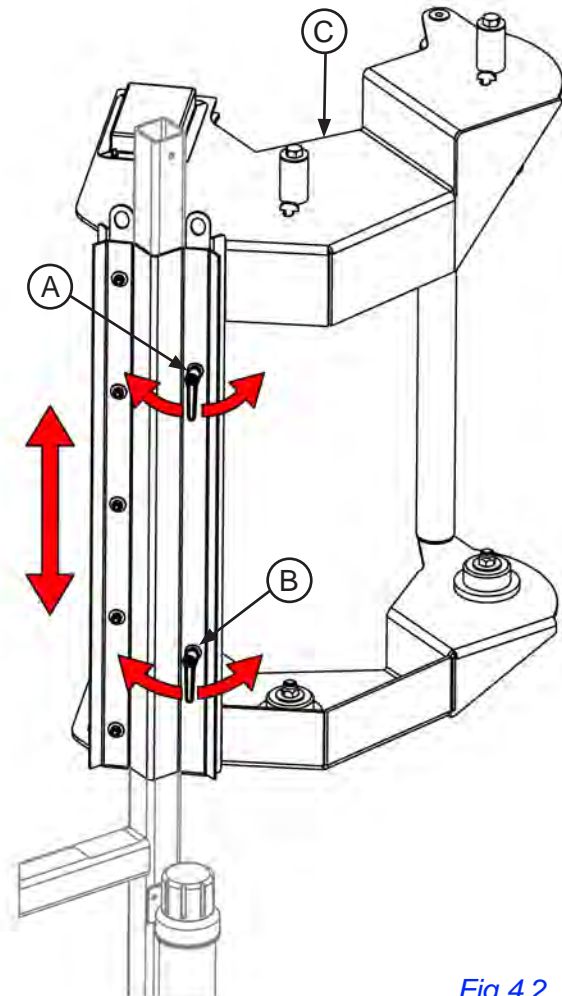
not bind. Front faces are 90° to each other. (Fig.4.1)

- Apply gear oil before reattaching shield, making sure to reseal with silicon to avoid contamination and leak.
- Refill grease box with outer grease zerck, checking level by removing cap. Reinsert cap.

Tensioner Adjustment

NOTE: It is much easier to change the tensioner height when there are no plastic rolls installed. Use a jack if it is too difficult to lift.

1. Turn the top locking handle **(A)** clockwise to loosen.
2. Loosen the bottom locking handle **(B)** slowly, just enough that the tensioner will move.
3. Raise or lower the tensioner **(C)** so that plastic film will be applied to the middle of the bale.
4. Retighten both handles to lock tensioner to its desired height. (Fig.4.2)



Guide Roller Adjustment

Bale guide rollers (**B**) may need to be adjusted to match bale size. Both guide rollers should be moved the same distance to keep the bale centered on the turntable rollers.

5. Loosen 4 nuts (**C**) locking the clamps in place.
6. Move roller assembly to desired position.
7. Tighten nuts again to lock in new position.

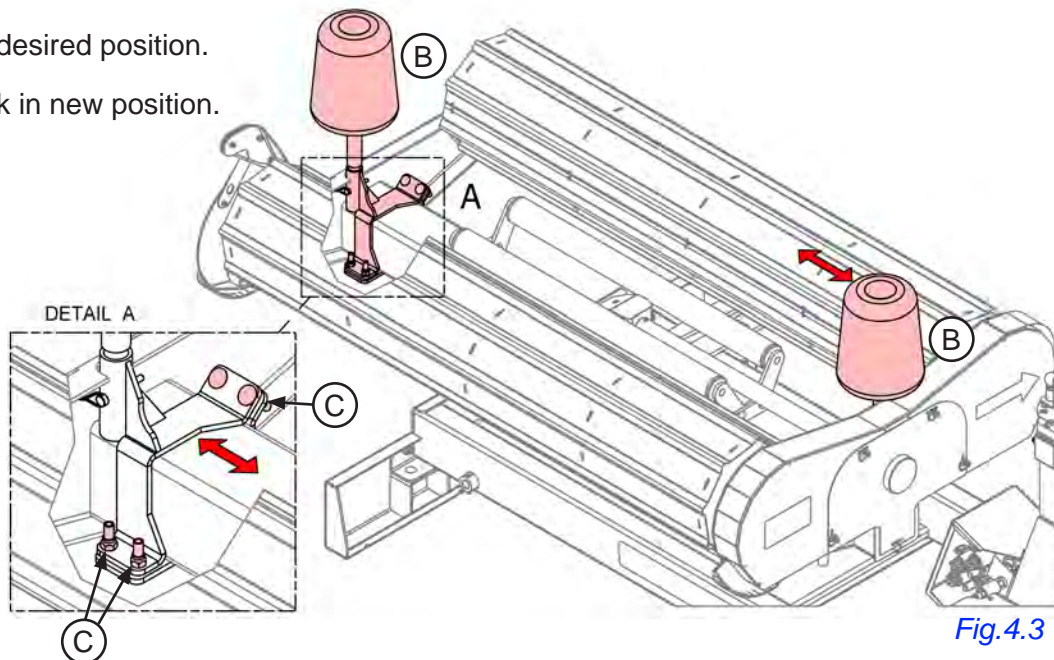


Fig.4.3

Roller Chain Adjustment

It is common over time for the main roller chains to develop slack, resulting in the main rollers not turning smoothly. To extend the life of the chains and continue wrapping smoothly, move the idler sprockets further into the chain to take up the slack.

1. Lift twist lock tabs (**A**) and remove 35088 - Chain Cover (**B**).
2. Loosen the nut (**C**) of the top and or bottom idler sprocket assembly.
3. Move the sprocket assembly along its curved track to tighten, or loosen the roller chains (**D**).
4. Tighten nut (**C**) to lock sprocket assembly in its new position.
5. Replace Chain Cover and fasten with twist lock tabs.

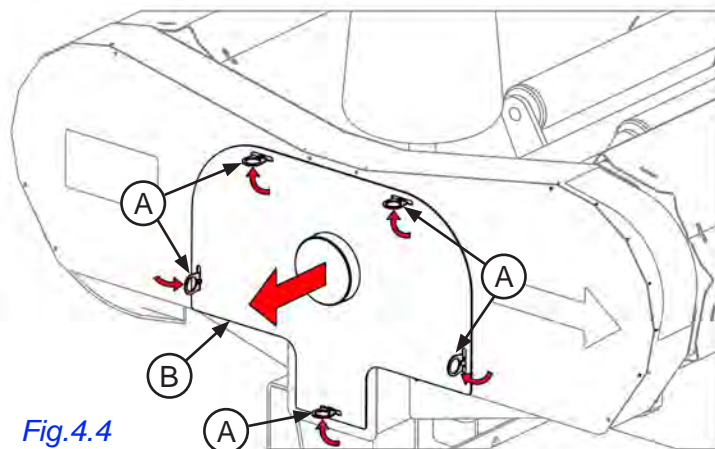


Fig.4.4

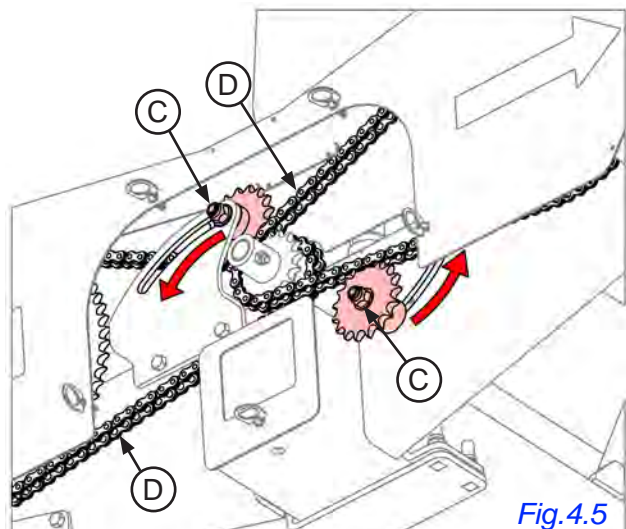


Fig.4.5

Flow Regulator Adjustment

After setting tractor hydraulic flow rate to 6 GPM, the wrapper table rotation speed can be further refined with the flow regulator. To adjust the wrapper table rotation speed, Loosen the jam nut **(A)** with a wrench. Use an allen key to turn the set screw **(B)** as needed. Turn clockwise for faster rotation, counterclockwise to slow the rotation.

After desired rotation speed is reached, retighten the jam nut.

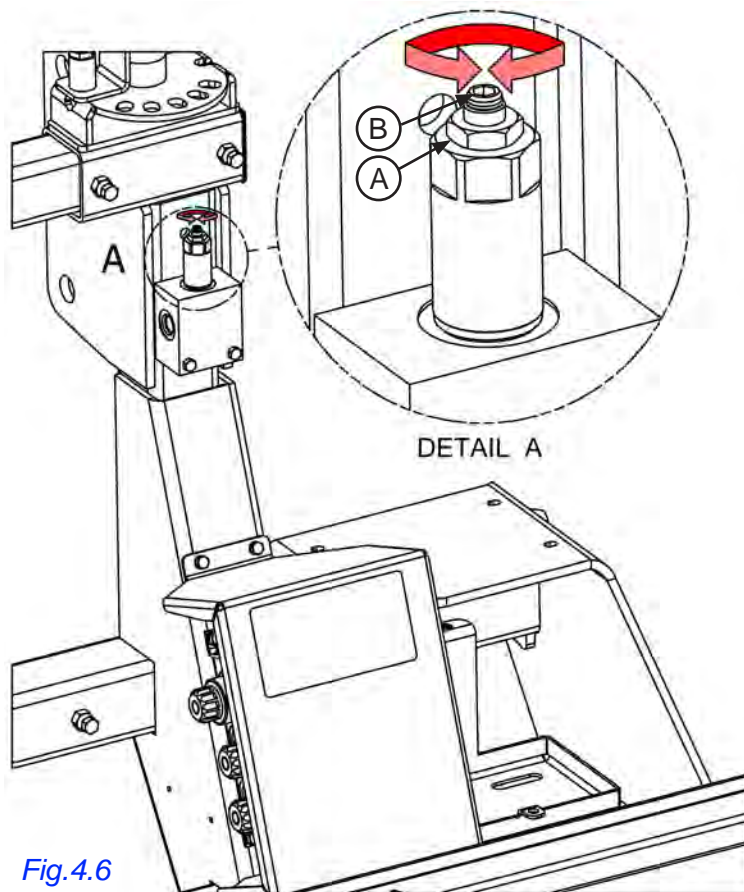


Fig.4.6

Section 5: Operating Procedure

The following method dictates how to operate the TL1100R Tubeline Individual Wrapper.

The TL1100R is designed to either wrap bales while mounted to a tractor three point hitch or independently while sitting on level ground. The TL1100R-A standard model is powered via two hydraulic hoses connected to a power unit. The optional TL1100R-AP model includes an on-board powerpack, allowing truly independent one person operation. Both are controlled by remote control and on-board LCD screen.

Plastic film rolls must be installed to wrap your bales. **Note:** Use high quality plastic film only.

Tractor Hookup

To hookup the TL1100R to a tractor:

1. Connect 3 point hitch arms to pins on front of wrapper.
2. Connect hydraulic quick coupler on end of hose coming from bottom port on flow regulator to rear tractor hydraulic outlet port "Extend". See [Fig.5.2](#).
3. Connect hydraulic quick coupler on end of hose coming from top "T" port on manifold to rear tractor hydraulic outlet port "Retract".
4. Route 3 prong plug wire harness through rear of tractor window, connect it to matching power outlet or adaptor in tractor cab.
5. Set tractor auxiliary hydraulic flow rate to 6 GPM.

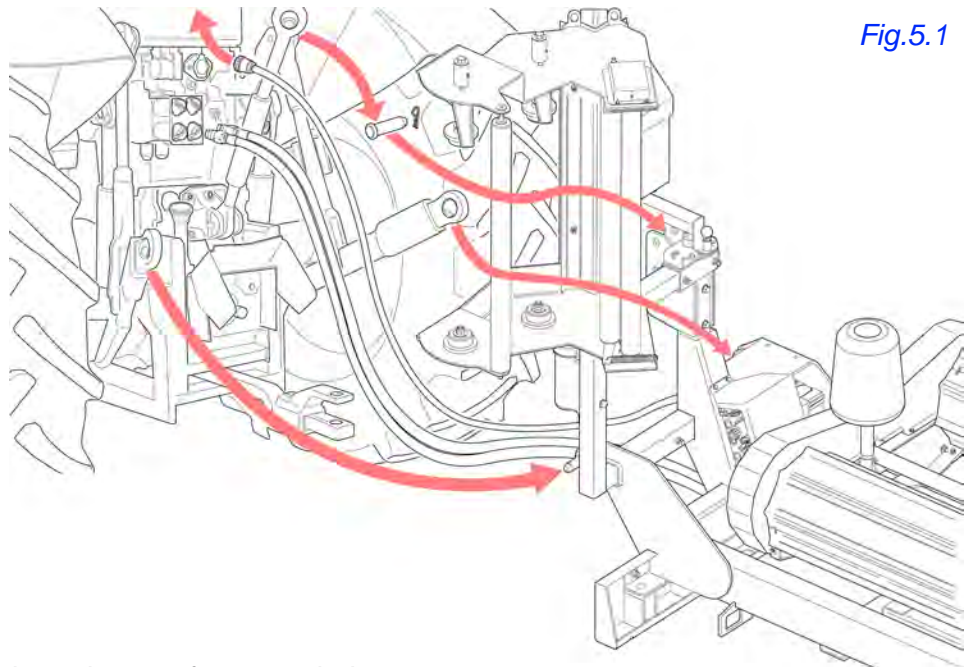


Fig.5.1

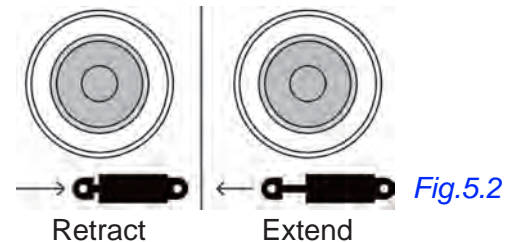


Fig.5.2

Wrap Operation Setup



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

Choose a flat wrapping site, lower the machine to the ground. Disconnect from 3 point hitch if using a TL1100R-AP power pack enabled machine.

Unlock the transport spring pin, see [Transportation, pg.5-9](#).

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.4-2](#).

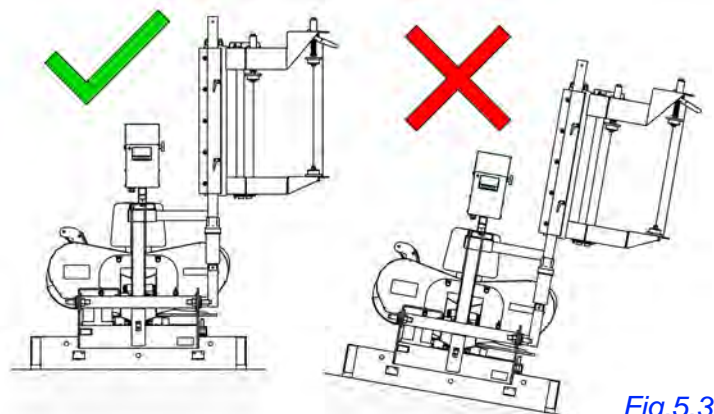


Fig.5.3

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.5.4*)

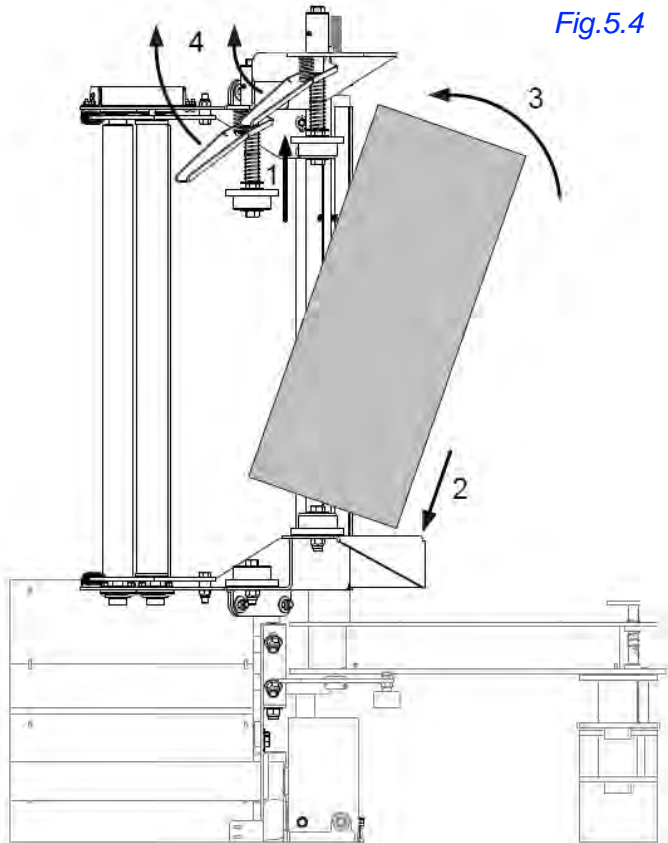


Fig.5.4

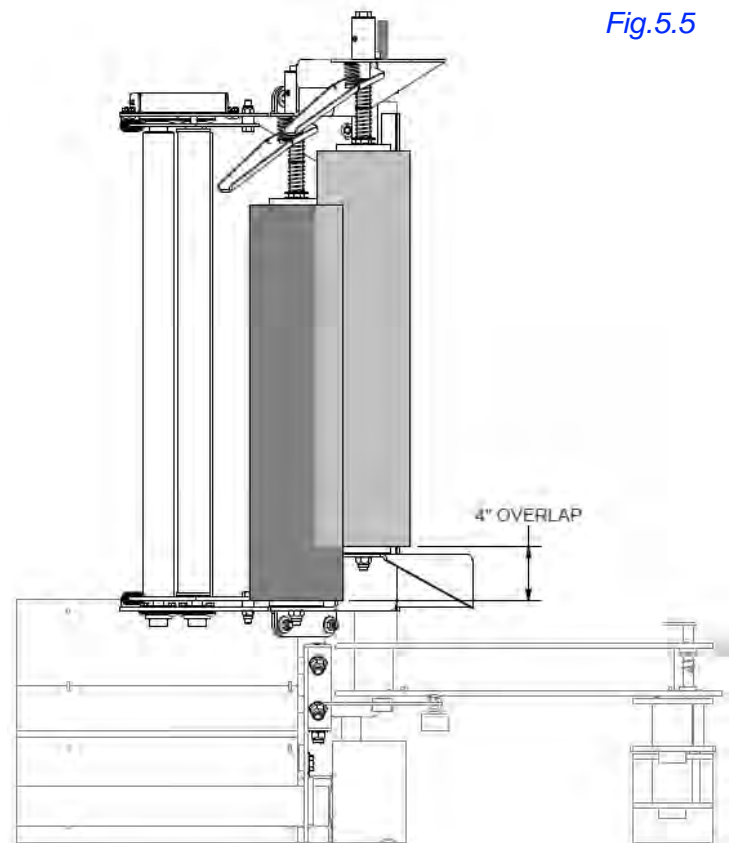


Fig.5.5

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 and smooth aluminum roller and is threaded through the two knurled aluminum rollers on the Tensioner as shown in the diagram (*Fig.5.6*). The two knurled 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.5.5*).

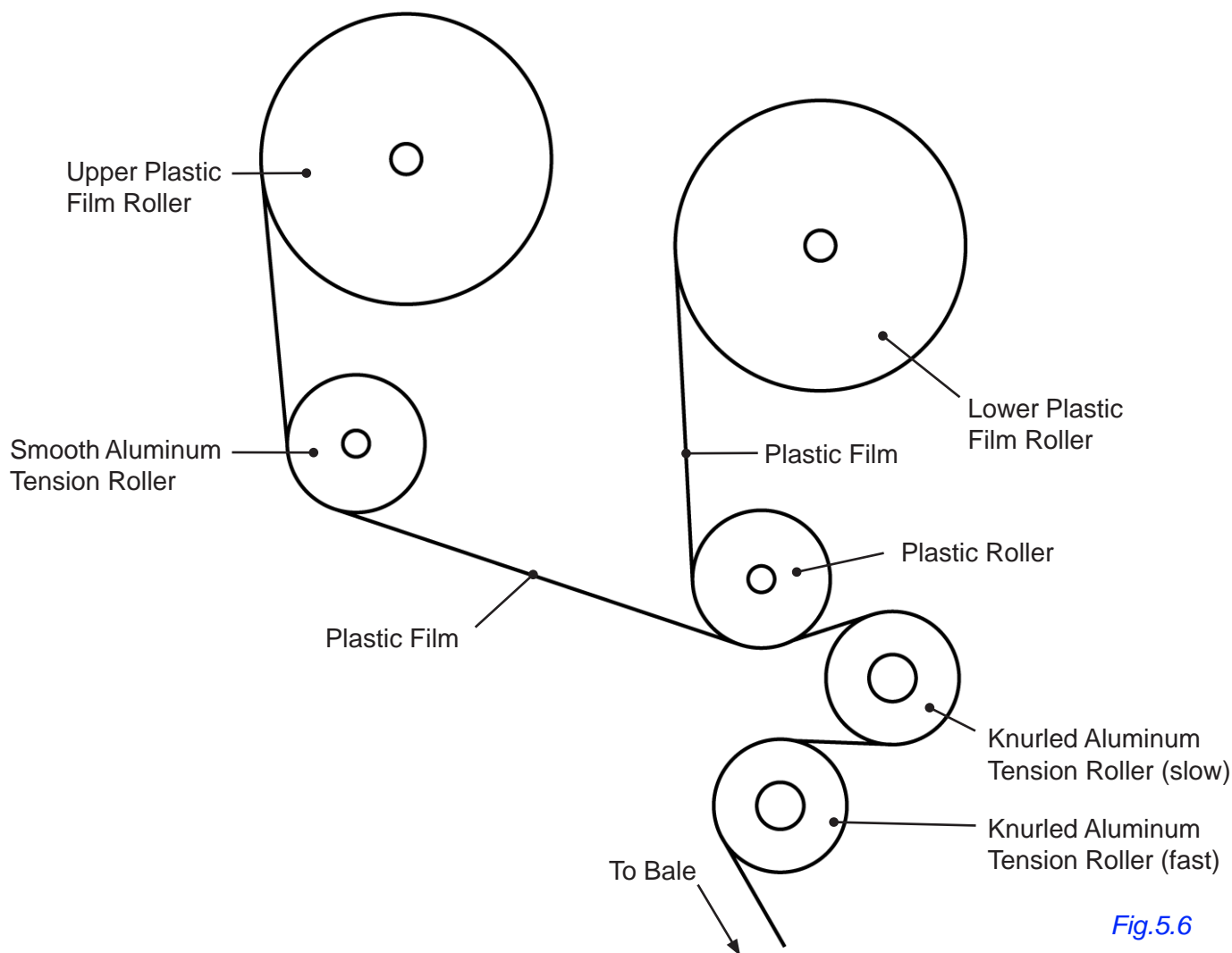


Fig.5.6

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.

Plastic Wrap Requirements

Before the bale wrapper can be used in **AUTO** wrap mode, the amount of turntable rotations to completely wrap a bale once must be known and set on the control screen **ROTATION** field.

Completely wrapping a bale once with a single plastic film roll results in 2 layers; two film rolls results in 4 layers. Thus, when using two rolls, the turntable rotates less, resulting in a faster wrap cycle.

NOTE: If desired number of wrap layers are not multiples of 4 a single roll must be used.

NOTE: 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 tends 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 find the correct **ROTATION** value for your bale size:

1. Find X by wrapping a bale in **MANUAL** wrap mode until it is completely covered once, counting the number of turntable rotations. Add 1 to this number.
2. Find Y by dividing desired number of layers by 2 for a single roll, or 4 for twin rolls. Example: Y = 3 (6 layers / 2) or Y = 2 (8 layers / 4). **NOTE: MUST BE A WHOLE NUMBER.**
3. Multiply X by Y to find Z. This is the ROTATION field value. $X (7+1) \times Y (6 / 2) = Z (24)$.

Control Screen Operation

Turn on control panel screen with control panel toggle switch.

NOTE: The screen will turn on to last used screen.

There are 4 buttons on the front of the display screen, [Fig.5.7](#):

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.

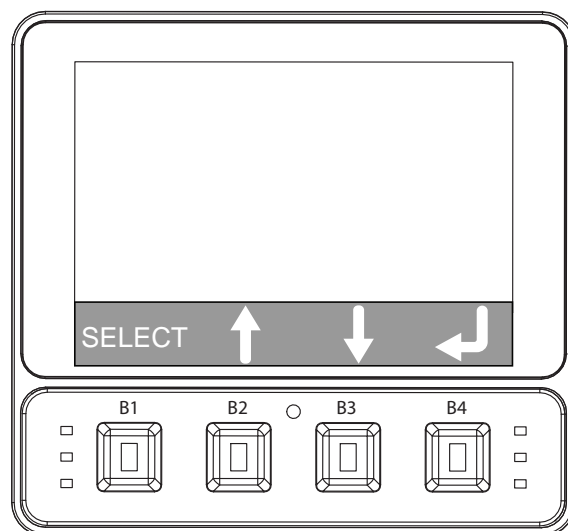
B3 - DOWN ARROW: Press to decrease value of selected field.

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

Choose preferred wrap mode:

AUTO FROM HOME POSITION or **AUTO FROM LOAD POSITION**

MANUAL MODE - REMOTE or **MANUAL MODE - CONTROL SCREEN**



[Fig.5.7](#)

Auto Wrap Mode Display Adjustments

There are 2 auto wrap modes, **AUTO FROM HOME** and **AUTO FROM LOAD POSITION**.

AUTO FROM HOME, [Fig.5.8](#), is the main menu i.e. home screen. This mode is the default, in which the wrapper turntable is loaded directly from the rear (90° to base frame).

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

[Fig.5.8](#)

AUTO FROM LOAD POSITION, is only used when the wrapper table cannot be loaded from the default rear position as it can be adjusted to load from the left or right of the machine. See [Fig.5.9](#).

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 Wrap Requirements, pg.5-4](#).

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

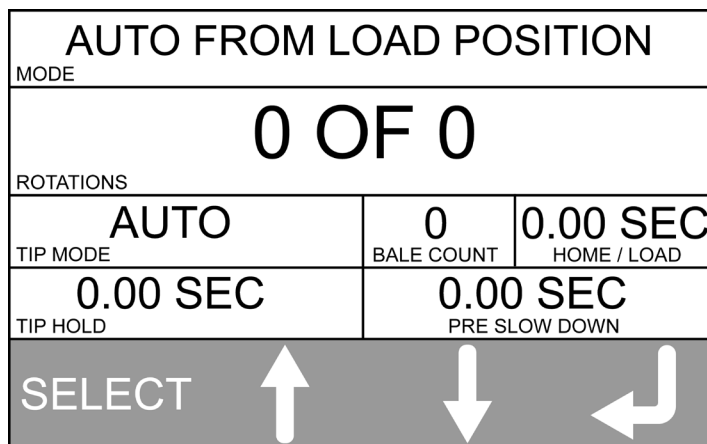
- **AUTO** tip allows machine to unload bale when the desired rotations are reached and the turntable magnet aligns with the proximity sensor mounted to the frame.
- **MANUAL** tip mode requires the user to press and hold the **TIP DOWN** button on the remote control to unload a wrapped bale.

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. 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.



[Fig.5.9](#)

Remote Control Operation

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).

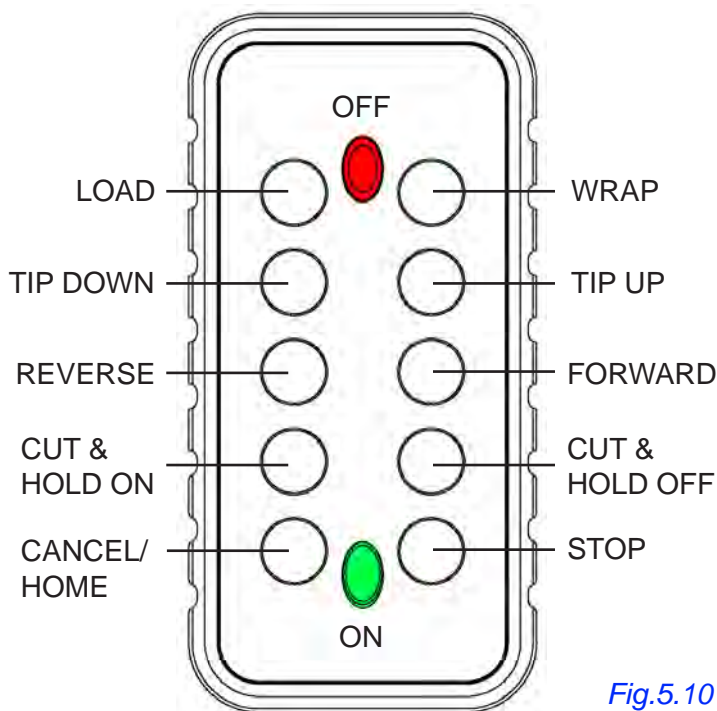
ON: Press to wake remote from inactive state.

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**.

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



[Fig.5.10](#)

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.

Load Bales

If using **AUTO FROM LOAD POSITION** press **LOAD** button on remote control to rotate turntable to set load position.

Load bales over the rear (default position), left, or right of the wrapper. **NOTE:** Attempting to load bales directly from the front will cause bale to contact the tensioner, potentially damaging it.

Initial Bale

After placing the first bale onto the wrapper, tie the plastic film edge to the netting/twine of the bale. See [Fig.5.8](#). A poorly shaped bale or 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 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, [refer to pg.4-1](#).

Auto Wrap Mode Operation

Follow these instructions if using one of the two Auto Wrap Modes.

1. Press remote control **ON** (green) button to wake remote if it is inactive.
2. When loading machine is clear of the bale wrapper, press the remote control **WRAP** button to completely wrap the bale.
3. 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.

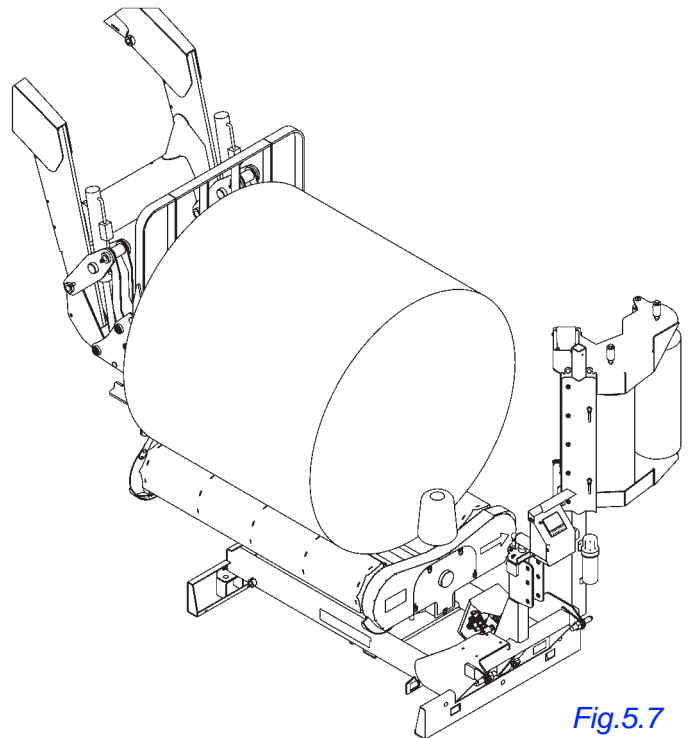


Fig.5.7

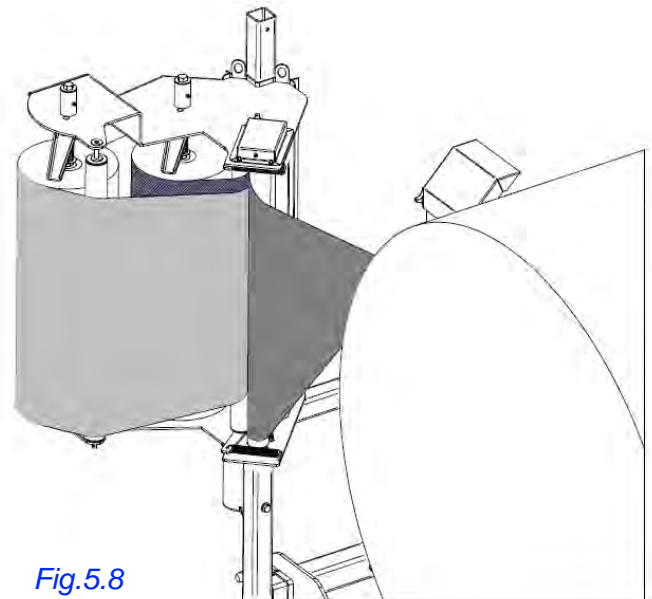


Fig.5.8

Tip Mode - Auto

If control 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.

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 Wrap cycle. Rotation will stop as soon as the button is released.

Manual Wrap Mode - Remote

This mode is completely used with the remote control.

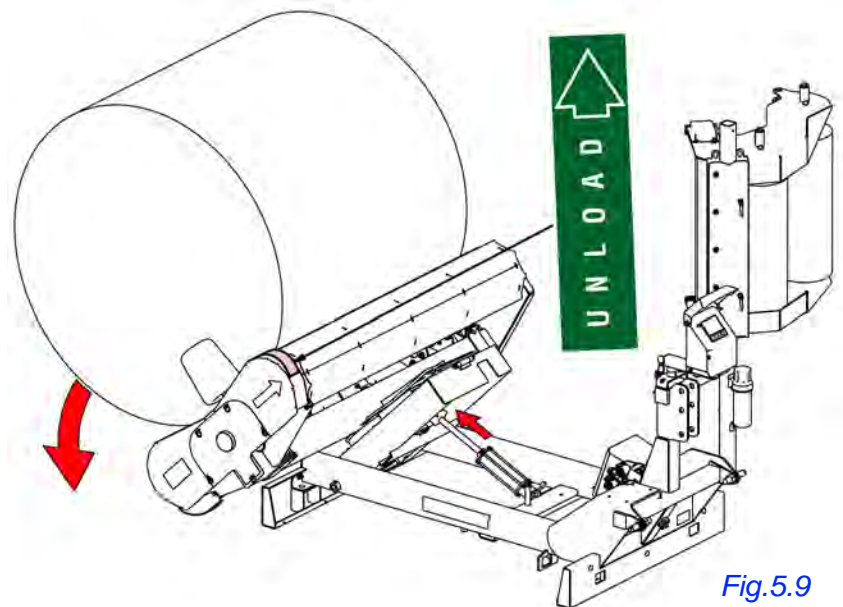
To wrap in **MANUAL MODE**:

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. See [Fig.5.9](#).

Manual Tip Mode

You are ready to unload when you see the unload arrow decal on the front right corner of the rollers. **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.

1. When turntable has stopped rotating, press remote control **TIP DOWN** button for 3 seconds to unload the wrapped bale.
2. After wrapped bale is unloaded clear of the bale wrapper, press **TIP UP** remote control button until the turntable is fully raised and level.



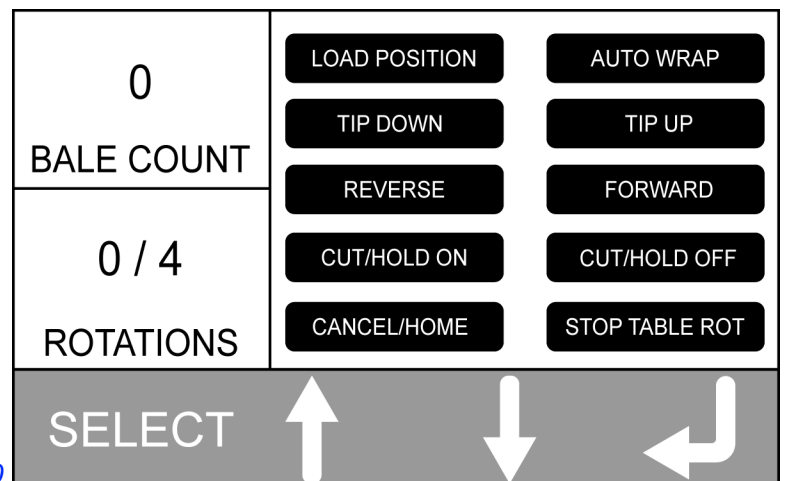
[Fig.5.9](#)

Manual Wrap Mode - Control Screen

Press and hold control screen's B2,B3,B4 buttons for 5 seconds to activate Manual Wrap screen ([Fig.5.10](#)). Press B2 and B3 buttons to return to Home screen.

Use arrows to move to desired function, pressing B4 button to start the function.

The functions and operating procedure are identical to those of the remote control.

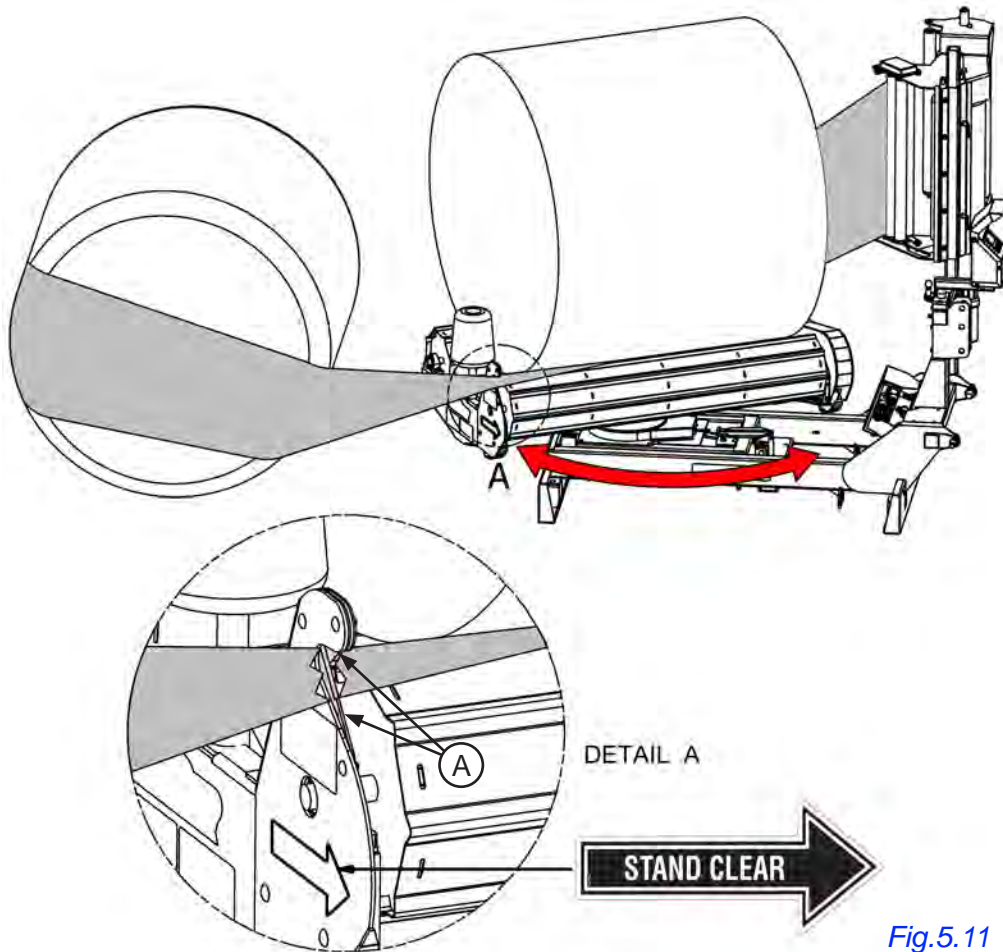


[Fig.5.10](#)

Continuous Wrapping & Bale Wrap Cut

With the first bale fully wrapped and unloaded continuous wrapping can now start without having to tie plastic wrap to each bale. To achieve this:

1. Place the next bale onto the wrapper turntable over top of the plastic stretching from the unloaded bale. See [Fig.5.11](#).
2. Press **WRAP** button on remote control if using **Auto From Home** mode, **LOAD** followed by **WRAP** for **Auto From Load**, or press and hold **FWD** button in **MANUAL** mode to start rotating the turntable and wrapping the loaded bale. As the table turns, the plastic film will stretch across the knife edges (**A**) and separate from the unloaded bale.



NOTE: Inspect wrapped bales and patch any holes and/or tears with heavy duty tape. Using a bale grapple will remove the need to patch bale spear holes after moving wrapped bales.

3. Turn off display screen and remote control before transporting or leaving work site.

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 raising transport lock pin. **NOTE:** The turntable needs to be in its home position, parallel with the frame.
2. To avoid unravelling, secure plastic rolls on tensioner.
3. Raise wrapper off ground with 3 pint hitch.
4. Know and follow your local road laws and speed limits when transporting.

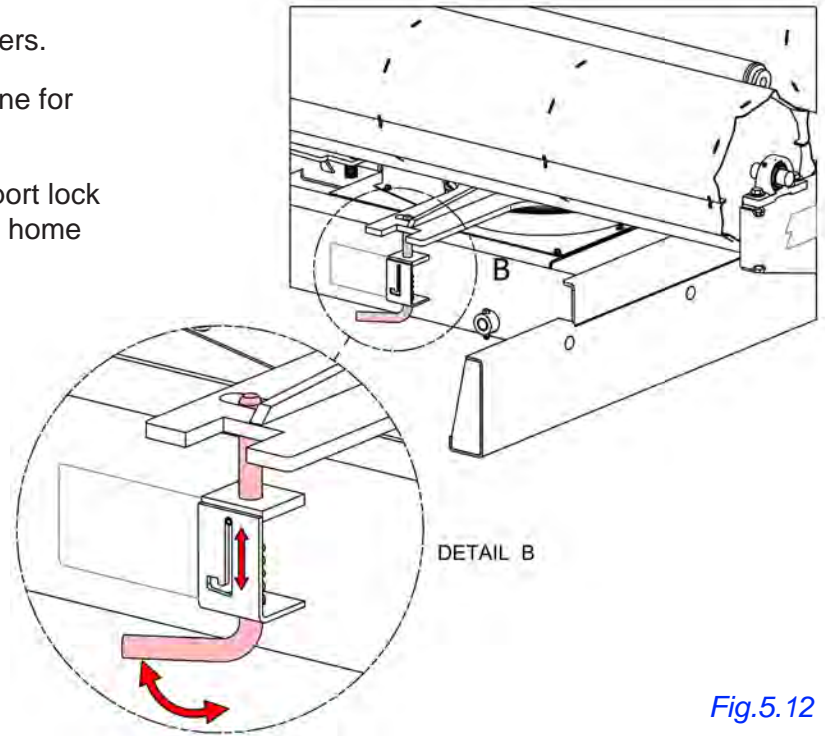


Fig.5.12

Section 6: TL1100R-AP Power Pack Option

Standard Model Disassembly

Follow these instructions to upgrade your machine from a TL1100R-A to a TL1100R-AP. This will allow one person wrapping operation .

NOTE: Turntable must be rotated perpendicular to the frame to allow hydraulic oil tank installation.

1. Disconnect 3 prong plug (A) from tractor.
2. Remove control panel back cover.
3. Inside control panel box, disconnect black wire (B) from toggle switch and white ground wire (C).
4. Pull 3 prong plug wire harness free from wire coil. It is not used for the power pack option.
5. Disconnect 3 hoses (D) from flow regulator (E). It is not used for the power pack option.
6. Disconnect quick coupler hose (F) from top T port of manifold. It is not used for the power pack option.
7. Loosen bolts (G) and remove flow regulator from frame tube.

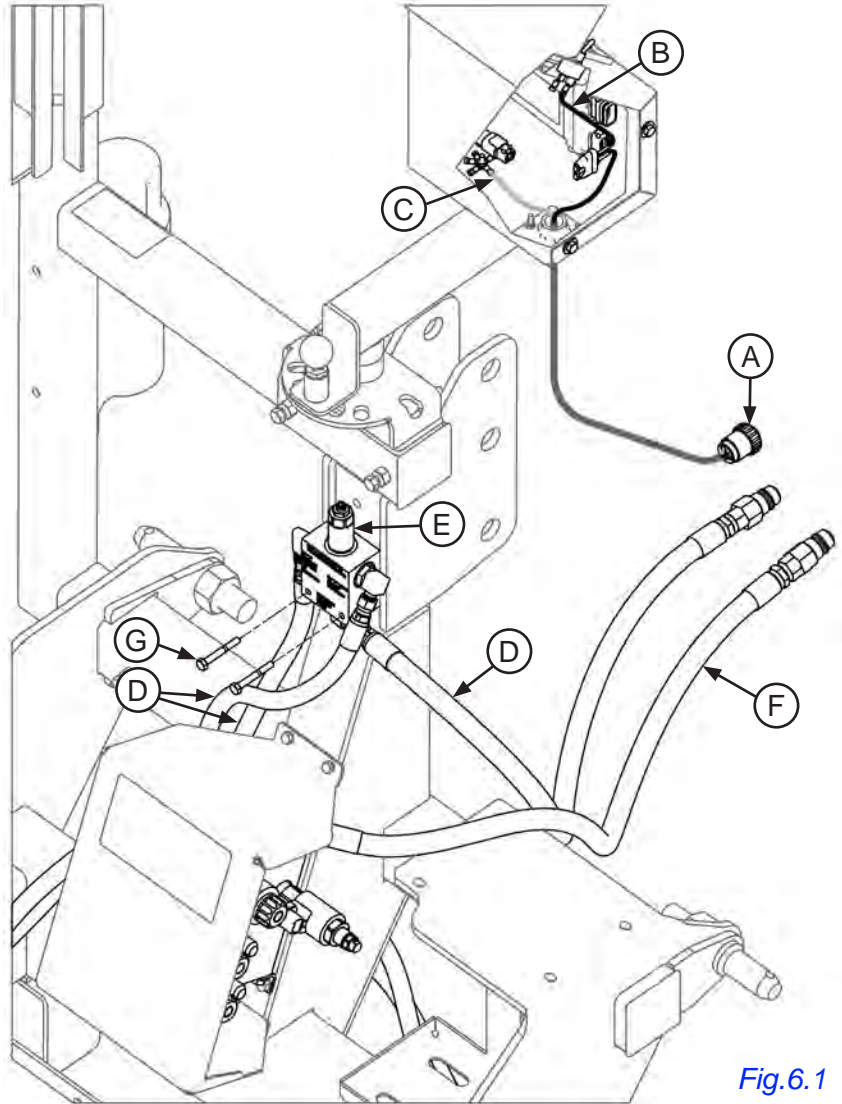


Fig.6.1

Cooler Assembly & Installation

1. Fasten flow regulator assembly **(A)** to matching holes in the cooler assembly **(B)** with provided 2 hex 1/4" x 2-1/2" bolts and 2 1/4" lock nuts **(C)**.
2. Fasten the cooler assembly to the bale wrapper frame and tensioner mount with 4 1/2" x 3/4" hex bolts and 4 1/2" washers **(D)**. See [Fig.6.2](#).

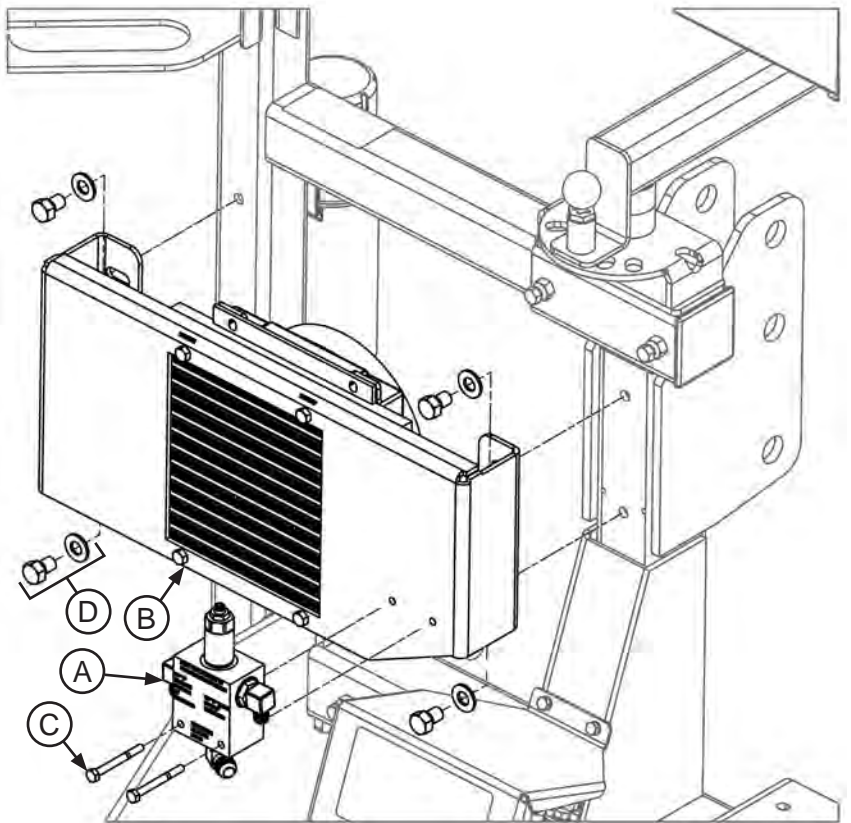


Fig.6.2

Battery Installation

1. Set provided SP-40 battery **(A)** into it's matching mount plate **(B)** on the front right corner of the frame, behind and below the front right 3 point hitch pin.
2. Fasten with 49506 battery bracket **(C)** and 2 3/8" x 3/4" hex bolts **(D)** and 3/8" lock nut **(E)**.

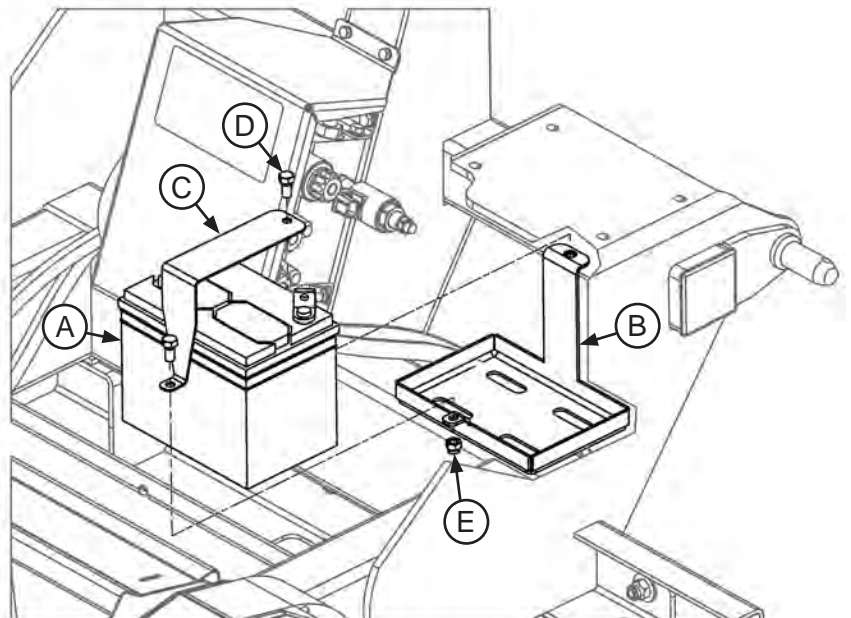


Fig.6.3

Oil Tank Installation

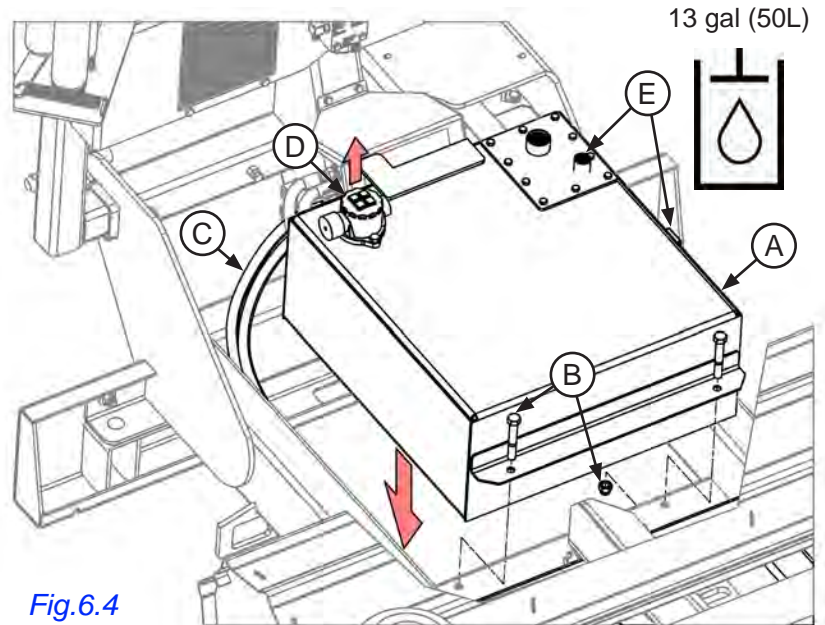
1. Place EMPTY hydraulic oil tank (A) into front area of frame, underneath the manifold.
2. Fasten oil tank in place with provided 2 1/2" x 3-1/4" hex bolts and 2 1/2" lock nuts (B).



WARNING: Take care to not damage tip cylinder hoses (C) when placing oil tank.

3. Remove filter cap (D) from front left corner of oil tank. Fill oil tank with 13 gal (50L) of AW32 hydraulic oil. Confirm level with sight glass or dipstick (E). Do not overfill, an air gap is needed for proper operation. Replace filter cap.

Fig.6.4



Engine Installation

4. Lift powerpack engine (A) onto its mount on the bale wrapper front right corner, above the right three point hitch pin. Fasten into place with 4 3/8" x 2-1/4" hex bolts, 4 3/8" flat washers (B), 4 3/8" lock washers and 3/8" lock nuts (C). See Fig.6.5.
5. Mount rectifier (D) to matching threaded holes on left side of center frame tube using 2 1/4" x 1" hex bolts (E). Clip plug to matching plug on engine. See Fig.6.6.
6. Attach red (power) battery cable to positive (+) battery terminal to engine starter (F).
7. Attach black (ground) battery cable from negative (-) battery terminal to engine bolt (G).
8. Route provided power pack wiring harness into control panel through the bottom cable strain relief connector, connecting black wire ring terminal (with fuse holder) to toggle switch and grounding white wire to the control panel box. See Fig.6.1.
9. Fasten other end of wiring harness to the battery. The red tipped ring terminal connects to the positive terminal. The black tipped ring terminal connects to the negative ground terminal.
10. Refer to [page 4-4](#) in the TL1100R Parts Manual to attach powerpack hydraulic hoses and fittings.
11. After tightening all fittings and hose ends, start the engine and check for any leaks.

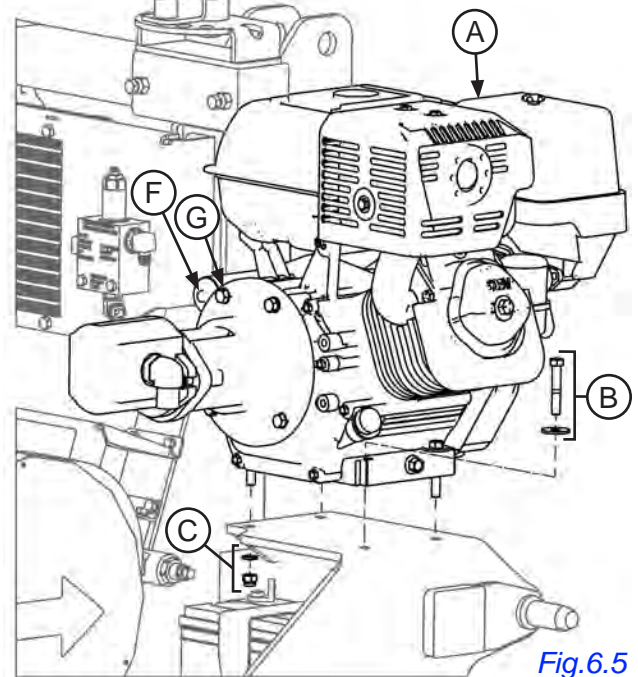


Fig.6.5

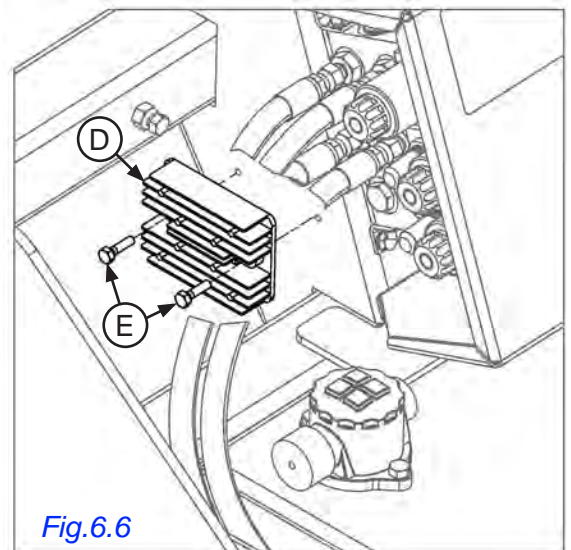


Fig.6.6



WARNING: Do not use hands to check for leaks. If there is a suspected leak, spread soap over area. If bubbles appear the leak has been confirmed and fitting or hose end needs to be tightened. Alternatively, use a piece of cardboard over a suspected leak area.

Auto Powerpack Operation

The TL1100R-AP operating sequence remains the same as a standard TL1100R-A but is powered by an onboard engine rather than from a connected power unit. To operate:

1. Power on the bale wrapper control screen with the toggle switch **(A)**.
2. Choose Wrap and Tip Mode on control screen.
3. Start the onboard powerpack engine **(B)**.
4. Set throttle **(C)** to half for bale wrapping. Your wrapper is now circulating hydraulic pressure through the machine. See engine manual for further details.
5. Load bale as described on [pg.5-6](#).
6. Tie plastic film to initial bale twine or netting. For next bales, use method described on [pg.5-8](#).
7. Wrap the bale using the method described in the Wrap and Tip modes in [Section 5](#).

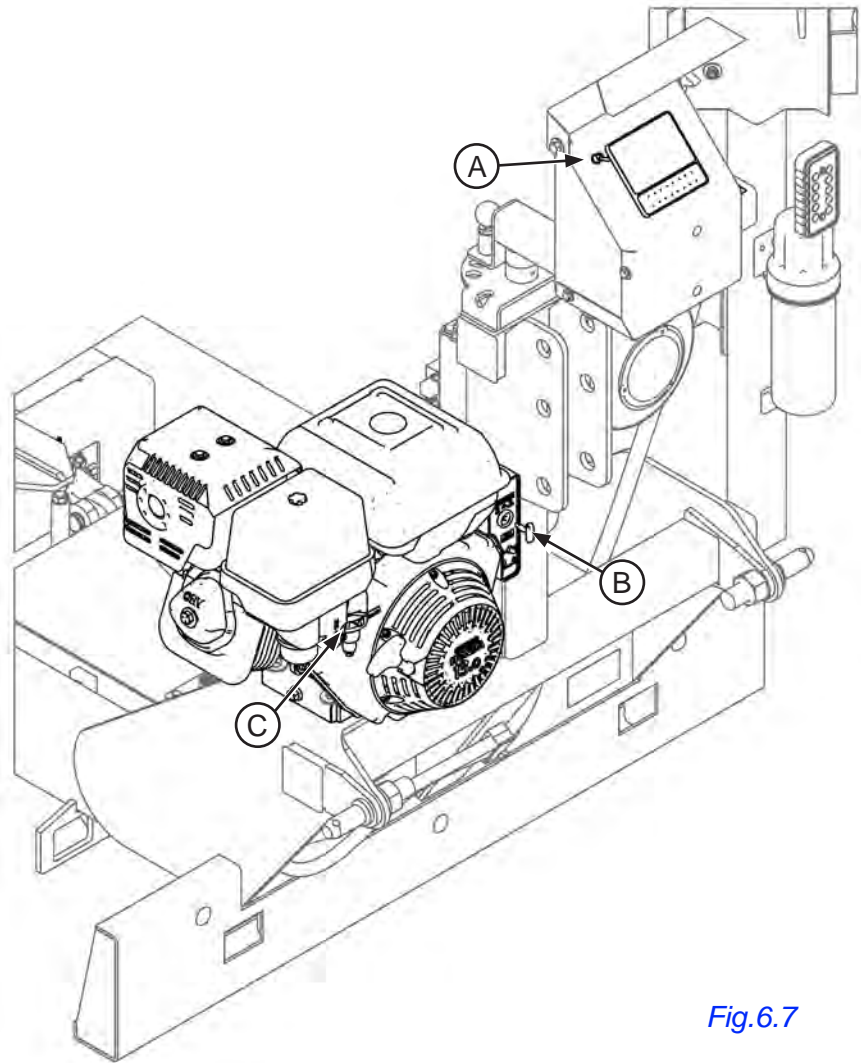


Fig.6.7

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

8. If using Manual Wrap Mode, press the Tip Down button on remote to unload bale.
9. Load next bale.
10. Rotate turntable manually or press WRAP on remote to begin wrapping bale and to cut the plastic film from the unloaded bale.

Section 7: Grease Points

Grease Gun

Use a grease gun to lubricate these areas with a #2 grade all purpose lithium grease before operating season, and monthly during operational season to keep machine in optimum operating condition.

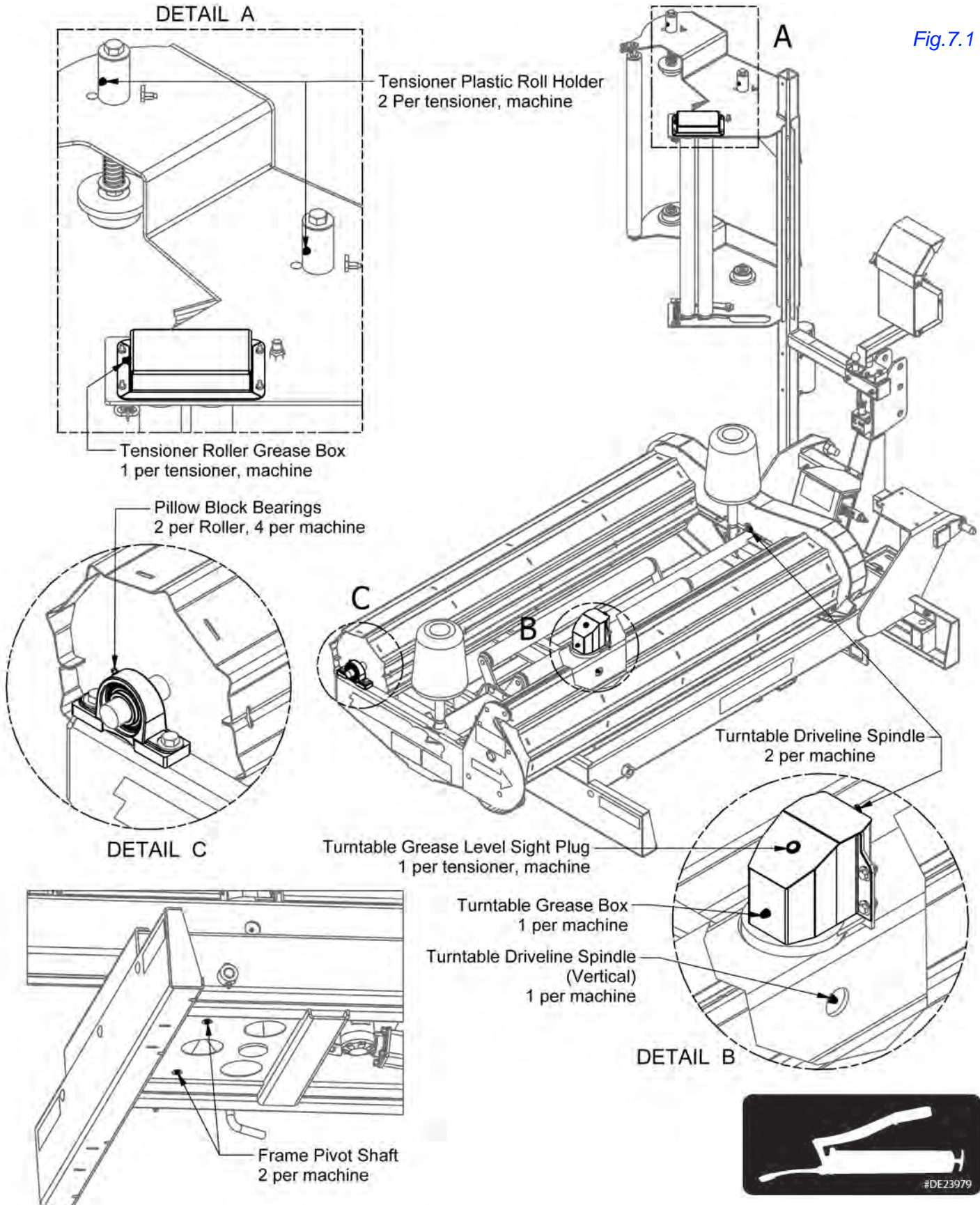


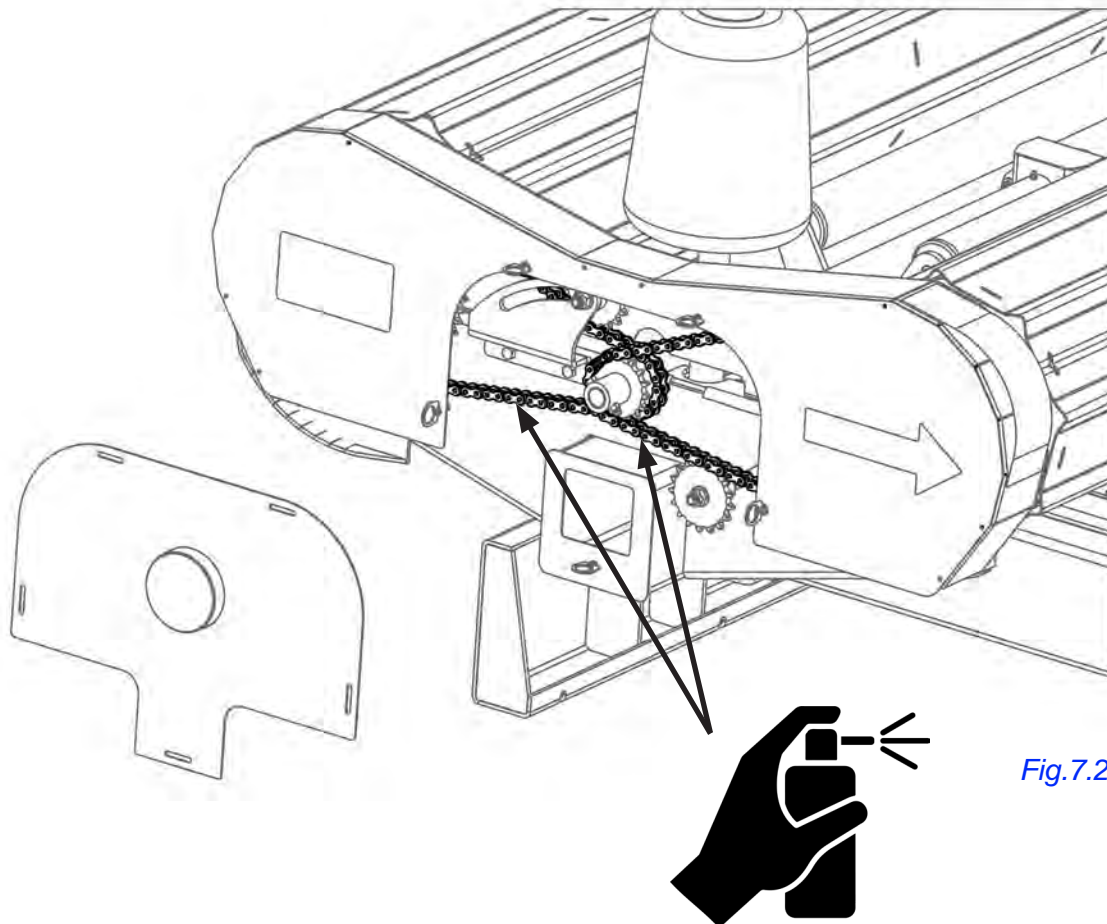
Fig.7.1

When refilling turntable grease box (*Fig. 7.1 - 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.

Aerosol Grease

Use a #2 grade penetrating white grease in aerosol form to lubricate the roller chains (*Fig.7.2*) before and after each operating season. Spray chains monthly during regular operational use.



Torque Values - Imperial

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					

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.

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

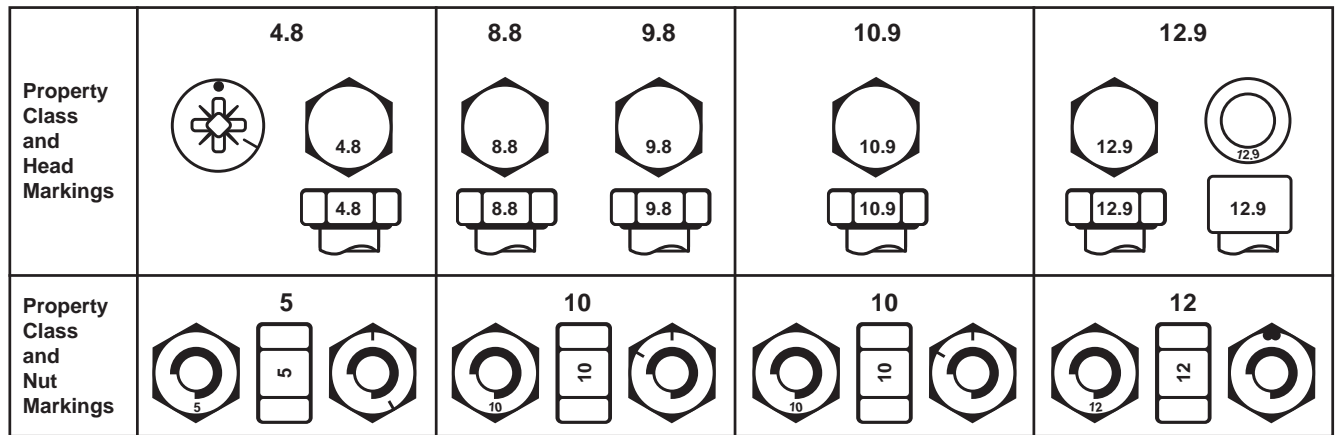
them from failing when tightening.

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.

^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.

Torque Values - Metric



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.

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.

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.

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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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