MASSEY FERGUSON

Product Marketing Bulletin

MF RB4160 & RB4180

Date:	November 8, 2021
Bulletin:	MF21-25PMB
Subject:	MF RB4160V / RB4180V Field Ready Guide

Subject: Content

- Specification’s
- Loose Parts
- Tractor Drawbar and PTO Shaft Settings
- Hydraulic Connections and Requirements
- Tailgate Hyd Lock & Tension Rack Lock Out
- Leveling Baler
- Connecting Electrical to Tractor
- Remove Shipping Brackets from Bale Chamber
- E-Link Pro Monitor Setup and Operation
- Net Roll Installation
- Net Bake
- Header Setup
- Installing & Removing Knifes
- Bale Ramp Setup
- Lubrication Maintenance

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Product Marketing Bulletin

MF 4160 & 4180

Subject: Specifications

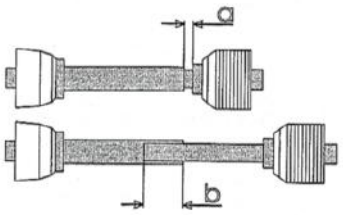
	RB4160	RB4180
Recommended PTO HP	min. 80hp / Rec 110hp	min. 90hp / Rec 120hp
Empty Machine Weight	8,680 lbs.	8,840 lbs.
Bale Chamber Width	48" Wide	48" Wide
Variable - Bale Chamber Height	Min 39.6" – Max 62.4"	Min 39.6 – Max 72"
Pickup Width	**Flare-to-flare **89"** Tine-to-Tine 84"	**Flare-to-flare **89"** Tine-to-Tine 84"
Net Wrap	Std Feature, No twine Opt 48"-51" width / up to 14764' Length	Std Feature, No twine Opt 48"-51" width / up to 14764' Length
Electronics	Std Equip – ISOBUS & E-Link Monitor	Std Equip – ISOBUS & E-Link Monitor
Hydraulic Requirements	1 DA Valve & 1 SA Valve w/ Float & LP Return	1 DA Valve & 1 SA Valve w/ Float & LP Return
Feeder House Floor	Floating & Hydraulic Actuated Drop Floor	Floating & Hydraulic Actuated Drop Floor
Knife Cutter Bank STD.	0,8,9,17 Electric over Hyd controlled Via Monitor	0,8,9,17 Electric over Hyd controlled Via Monitor
Variable Density	STD Via Monitor	STD Via Monitor
Bale Shape Sensors	STD	STD
Auto Chain Oiler	STD	STD
Soft Core	STD	STD

Subject: Loose Parts from Shipping

- Cardboard box containing
  - E-Link Control Monitor
  - 3 piece Ram Mount with Hardware
  - Monitor Bracket with 1 package hardware
  - Cinch strap
- Operators Manual, shipped in Ops Manual box located on front of baler
- 13/17mm Combo wrench, shipped in plastic bag with Ops Manual.
  *Used for adjusting Net Brake System and Changing Sensors.
- Driveline, shipped stored on Feed Channel floor.
- Knife Blanks, storage position behind shield on Right side of Baler.
- Spindle Extension Cone & M8x70mm bolt, Shipped bagged & fastened to baler platform.
- Wire Harness Coiled and Fastened to Platform
  - ISOBUS extension/monitor connection harness with built in DC power connector
  - Lighting Harness

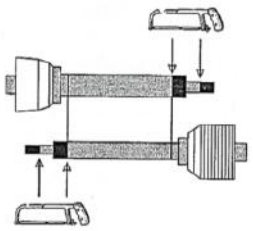
Subject: Drawbar & Hitch Height

- Ensure Tractor Drawbar is pinned in proper hole setting for the 540rpm pto shaft resulting in 14" from end of tractor shaft to hitch pin as referenced below as measurement A. Cutting the Baler Driveline should not be necessary yet is it always good practice to ensure enough free travel of the overlapping tubes.



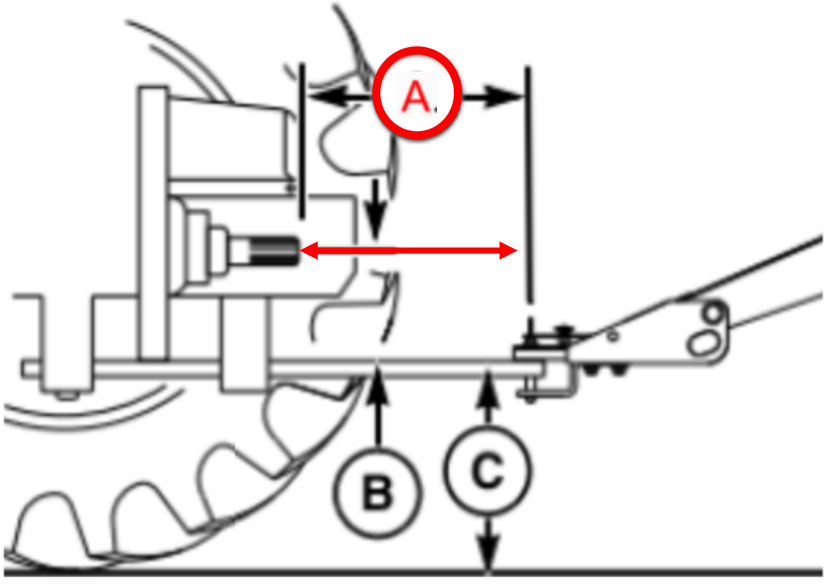
- Once the machine has been attached to the tractor, the PTO shaft must be adjusted.

a = at least 4 cm
b = normal overlap = 2/3
As a minimum, overlap = briefly 1/3
In accordance with the manufacturer's specification



Drawbar adjusted for 540 PTO

A. 14 inches from end of PTO shaft to center of the hitch pin hole
B. 6 inches to 12 inches from center of the PTO shaft to top of the drawbar
C. 13 inches to 22 inches from top of the drawbar to the ground



Subject: Connect Hydraulic to Tractor

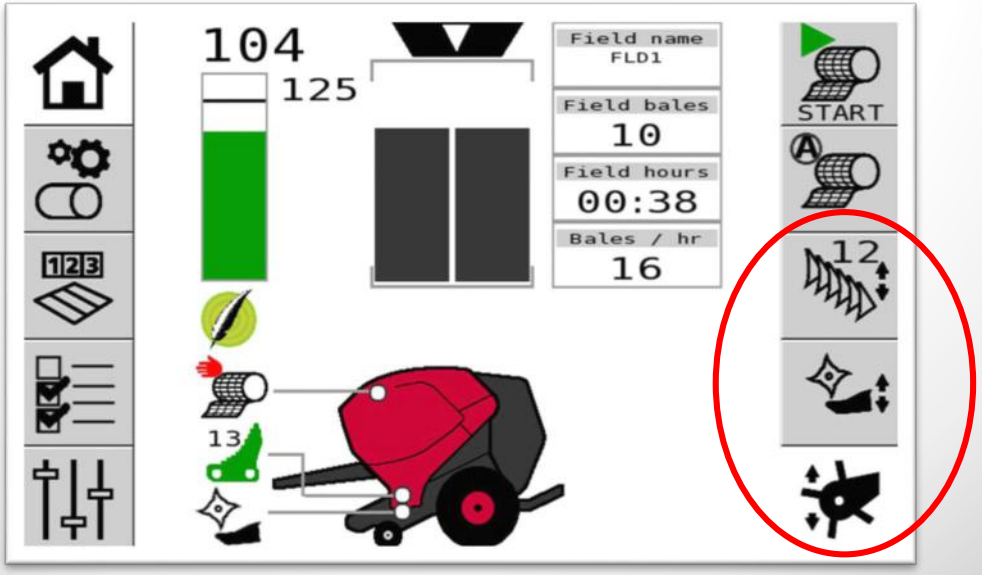
Hydraulic Requirements

1 Single Acting w/ Float

1 Double Acting

- **YELLOW** marked hydraulic line, Single Acting and Float (float is Required).
- **RED** marked hydraulic lines Require Double Acting and Float

- The Yellow SA remote used to operate the tailgate must be in Float while the baler is in operation for the Net System operate correctly.
- The Red DA remote operates the pickup/header, feed channel floor, and the knife bank. The pickup/header is defaulted operational via the E-Link Terminal, in order to assign the DA remote to operate the Feed Channel Floor or Knife Bank that function must be chosen via the E-Link Terminal. *Float position is used when taking baler out of service releasing hyd pressure from system for extended periods of time.



Subject: Placing Tailgate & Tension Rack in Service

- Balers are shipped with belt tension rack in service mode. Remove the Wire from the Hook as in the illustration and cycle tailgate fully open then closed which will allow the tension rack to tighten the belts. In some cases the monitor will need to be powered on in order to allow oil pressure to escape the tension rack cylinders enabling the service lock mechanism to engage or disengage.
- The wire and hook is also used to in order to align grease zerk service points as referenced in the operators manual under the Maintenance & Lubrication Section

***Note** – Monitor must be Connected and Powered on in order for the service function to properly function, Hyd cylinder will not extend fully allowing the lock mechanism to engage or disengage when cycling the tailgate.

****Note** - DO NOT operate the Knife bank until the belts have been taken out of Service Mode, belt damage can occur.

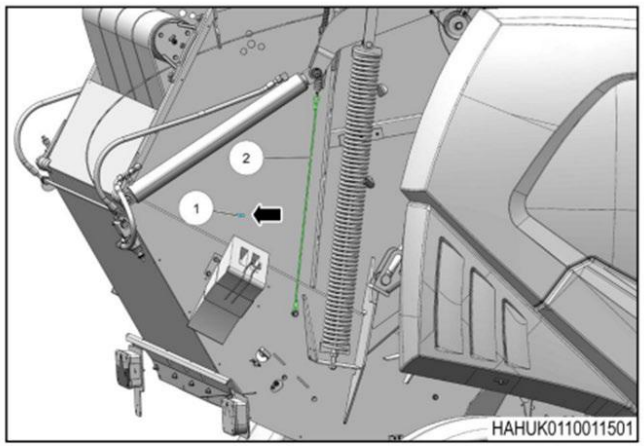
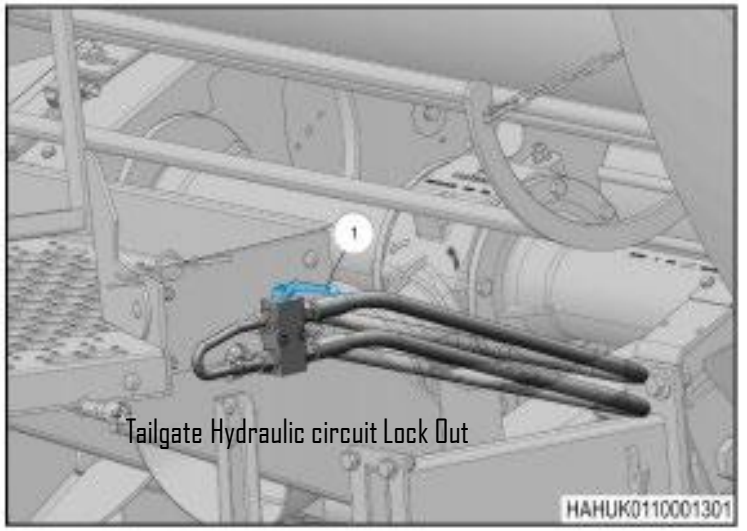


Fig. 31
(1) Wire.
(2) Hook.



Tailgate Hydraulic circuit Lock Out

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Product Marketing Bulletin

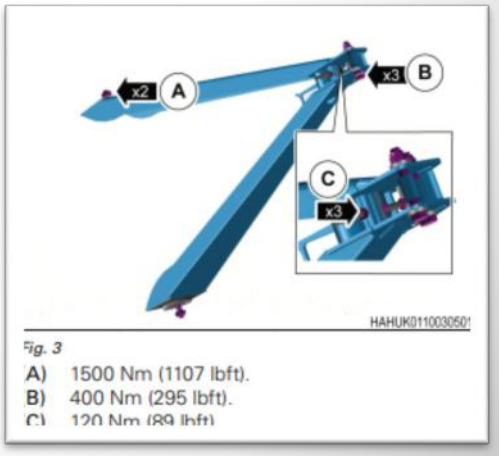
MF 4160 & 4180

Subject: Leveling Baler

- In order to optimize baler performance adjust baler hitch in relation to tractor drawbar height resulting in the platform floor being parallel with the ground. After leveling platform adjust the draw bar head so that it lies flat on the tractor drawbar. See operators manual for step by step instructions.

***Note**

46mm Socket Used for Fastener A referenced below



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Product Marketing Bulletin

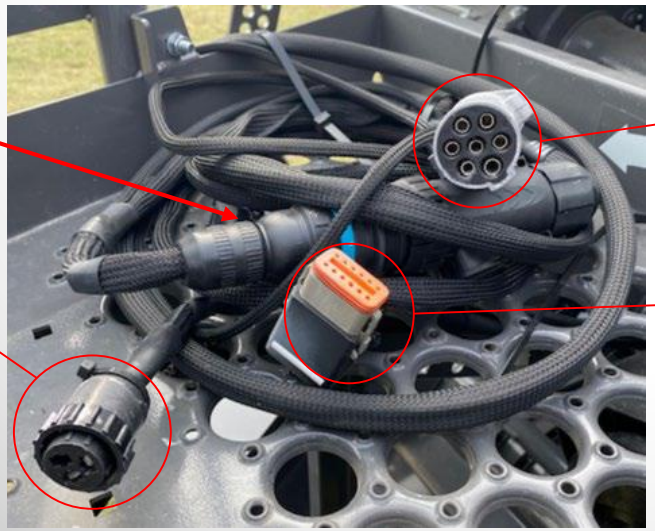
MF 4160 & 4180

Subject: Connect Electronics to Tractor

- Massey Ferguson RB4100 Series Balers are full ISOBUS thus the baler can be ran via a Tractor OEM ISOBUS monitor.
- To use the Tractor ISOBUS monitor disconnect the stand alone harness from the baler harness and connect baler harness directly to the ISOBUS connector on the rear of the tractor. Open the VT screen in the tractor monitor and confirm functionality of functions within.
- The Stand alone monitor harness with DC power connector used with the provide E-Link Pro monitor is shipped coupled to the baler harness secured to the baler platform. Simply route the harness into the tractor cab and connect the Round 3 blade power plug to the 12v power supply and insert the rectangular connector to the rear of the E-Link Pro monitor.
- Connect the Round 7 pin lighting plug to the tractor.

ISOBUS Connector

DC Power Plug



Round 7 Pin Light Plug

E-Link Pro Monitor Connector

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Product Marketing Bulletin

MF 4160 & 4180

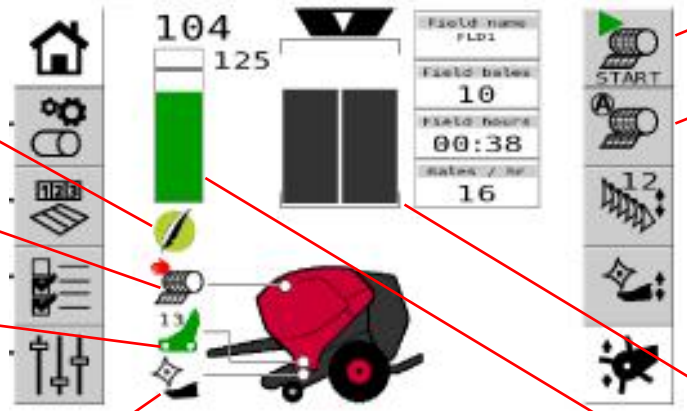
Subject: Shipping Bracket Removal

Applicable to **RB4180** only

- Plate brackets are located on inside bale the chamber on both Left & Right sides and should be removed before operating the baler. Plates maybe scrapped upon removal, no need in returning or holding onto them for the manufacturer. **Failure to remove these brackets will lead to belt damage

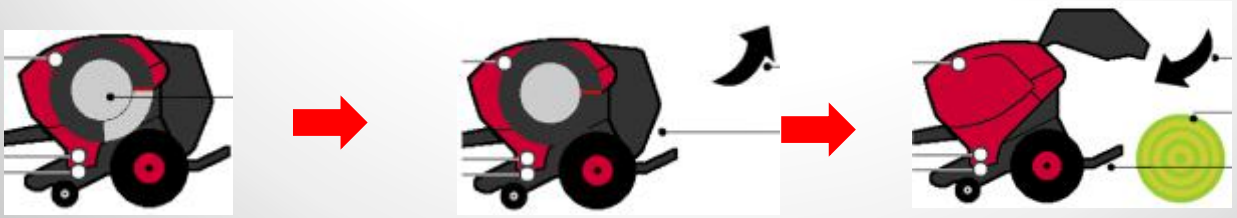
Subject: E-Link Pro- Home Page

- Soft Core Active
- Tie Mode:
  Red Hand =Manual
  Black A = Auto Tie
- Number of knives chosen and when Icon is GREEN the Knives are UP in cutting position
- Drop Floor/ Cutter Bed
  Black = Closed
  Red = Open



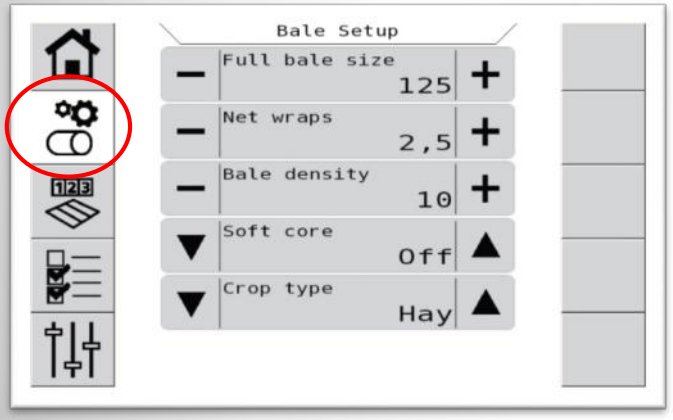
- Manually Start Tie Cycle
- Select to activate Auto Tie cycle mode. will appear by n on left side in place of red hand. Must be selected with each power cycle
- Bale Shape indicator Graph
- Desired bale Diameter and actual bale diameter displayed. Bar graph will turn Yellow when at set inches prior to full and Red when full is reached

- Icon will change showing the % of completion of wrap process
- Indicate with arrow to raise gate
- Indicate bale has moved off the Ramp at which time gate is ready to close. Audible beeps will sound also.



Subject: E-Link Pro Bale Adjustment Page

- Recommended to make the first bale several inches shorter than the Max bale diameter in order to confirm/perform bale size calibration. Build a bale over the max diameter can cause the baler to fail mechanically. Bale size Calibration found under the Task Menu.
- Recommend starting bale density @ 8 and observe the Manual Pressure Gauge on front of the baler while baling, not ideal to run in the Red continually while baling.
- Soft Core will reduce pressure for set percentage of bale diameter. This aids in spearing the bale and in certain crop conditions will reduce material from climbing the belts.
- Crop Type is a preset programmed pressure variation in the bale density system. In North America the tendency is to roll Dry Hay at 15%-18% equates closer to a STRAW . Recommend setting the Hay Type to Straw when baling dry hay in NA.



You can use the + and − buttons or the ▲ and ▼ buttons and to make adjustments.

2 Seconds after you stopped making adjustments, they will be saved automatically.

Setting	Unit	Minimum - Maximum	Default/Advised cm(in)
Full bale size RB 4160 V	cm (in)	90-160 (35-63)	125 (49)
Full bale size RB 4180 V	cm (in)	90-180 (35-71)	125 (49)
The target diameter of the bale. When the bale reaches this diameter, the warning sound tells you to stop the tractor and automatic wrapping starts. (When the wrapping is set to manual you must push the start button.)			

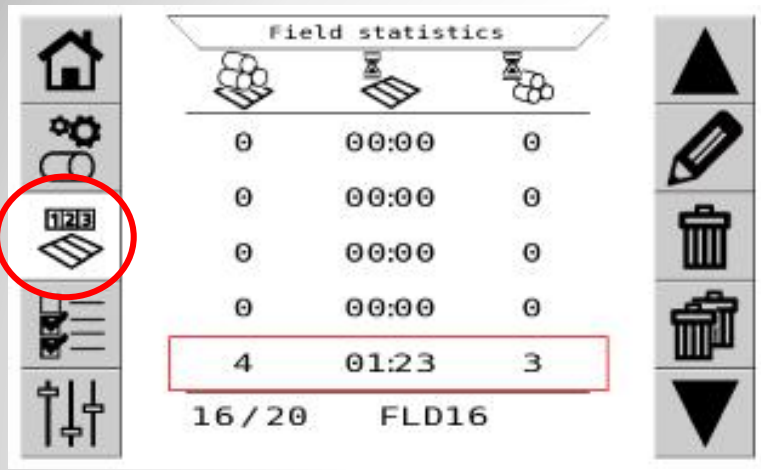
Setting	Unit	Minimum - Maximum	Default/Advised cm(in)
Net wraps	Number	1.5-10.0	2.5 (0.98)
The number of wraps around the bale.			

Setting	Unit	Minimum - Maximum	Default/Advised cm(in)
Bale density	Level	0-10	10 (3.94)
The level that indicates if the bale must be more dense or less dense.			

Setting	Unit	Minimum - Maximum	Default/Advised cm(in)
Soft core		On/Off	Off
Selection for making bales with a soft core or not.			

Setting	Unit	Minimum - Maximum	Default/Advised
Crop type		Straw/Hay/Silage	Hay
The type of crop the bale is made from. The density the baler uses to build up the bale is according to this selection			

Subject: E-Link Pro - Task Page & Knife Selection

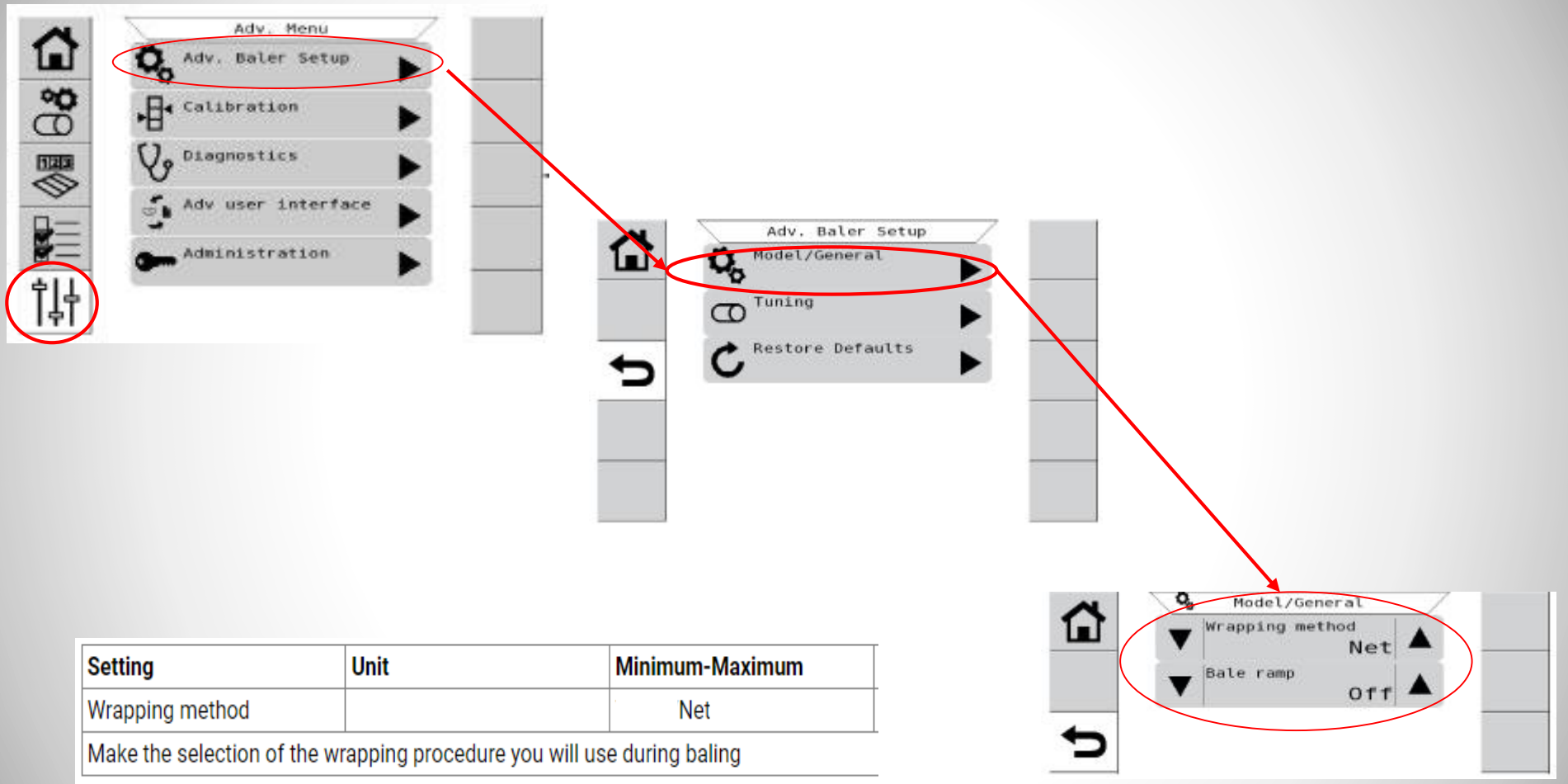


- This page shows data on the number of bales and hours of work done in the field. The last row (below the line) shows selected field and its name; the data is marked red. You can keep the data to a maximum of 20 fields. Set the name of the field on this Field Data Page.

With this function you can change the number of knives used during baling.

- Push to start the wizard.
- The num ▶ of knives in use is highlighted (Red). Choose the knife group desired on the screen then use the double acting valve in the tractor to cycle the knives Down then back UP.
- The icon "Engage" starts to flash after the knives are in the lower position.
- When "Status: Engaged" and a Green knife symbol shows you can leave the task page then raise or lower a the knife group via the DA remote.

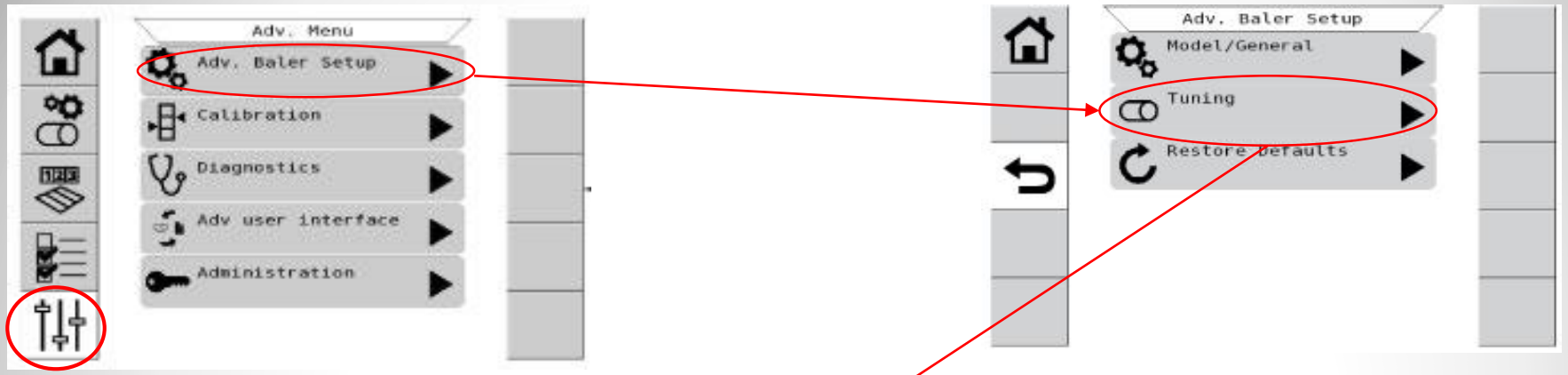
Subject: E-Link Pro – Advance Baler Setup



Setting	Unit	Minimum-Maximum
Wrapping method		Net
Make the selection of the wrapping procedure you will use during baling		

Setting	Unit	Minimum-Maximum
Bale ramp		On/Off
Use real bale ramp evaluation (On) or use virtual ramp (Off)		

Subject: E-Link Pro – Advance Baler Setup



Setting	Unit	Minimum-Maximum	Default value
Near full alert	cm (in)	Off/0-50 (Off/0-20)	5 (2)
Units of size before full bale size is reached. The display will show the bale size indication graphic in yellow. Make the selection of Off if you do not want to see the bale indicator change from green to yellow.			

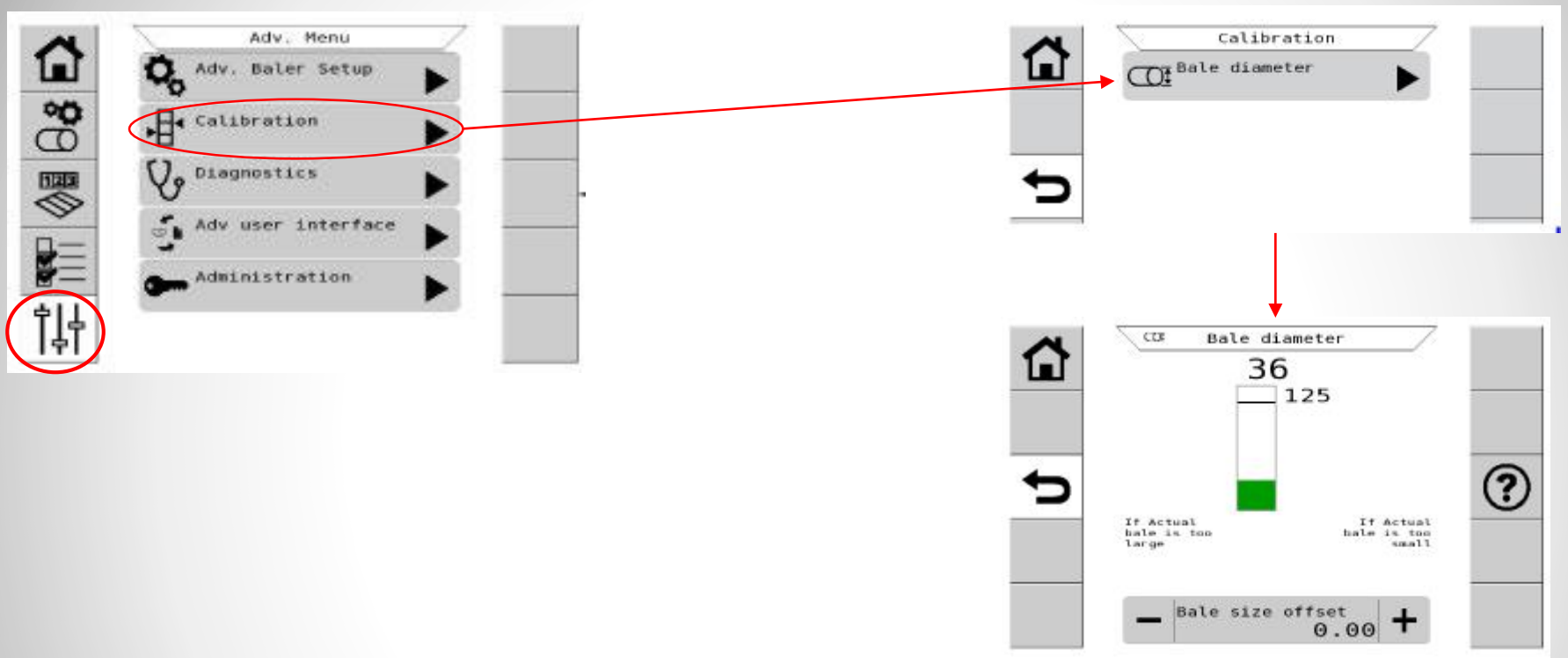
Setting	Unit	Minimum-Maximum	
Soft core stop at bale size %	%	0-100	64
Size of the soft core, this is a percentage of the of the normal bale. Switch the soft core on or off on the page: Bale settings			

Setting	Unit	Minimum-Maximum	
Net delay	Seconds	0.0-5.0	1.5
Interval time for the net to start wrapping automatically after you get the correct bale dimension.			

Setting	Unit	Minimum-Maximum	
Net clutch time	Seconds	3.0-8.0	4.0
Active time for the net clutch.			

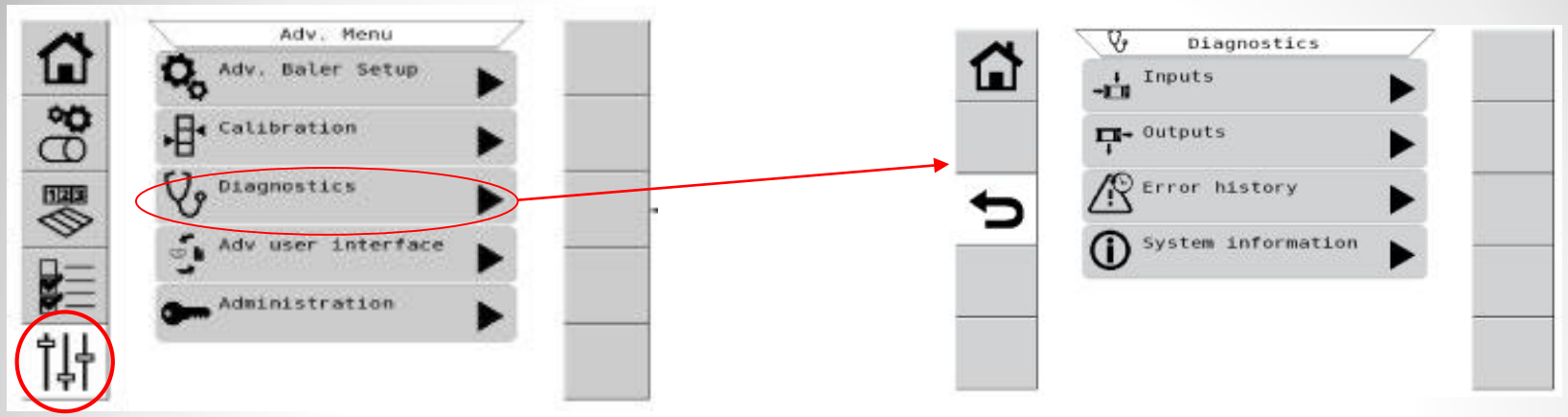
Setting	Unit	Minimum-Maximum	
Net roller delay	Seconds	0.0-5.0	2.0
Time how long the movable net roller is on, before the net clutch is on.			

Subject: E-Link Pro – Advance Menu - Calibrations



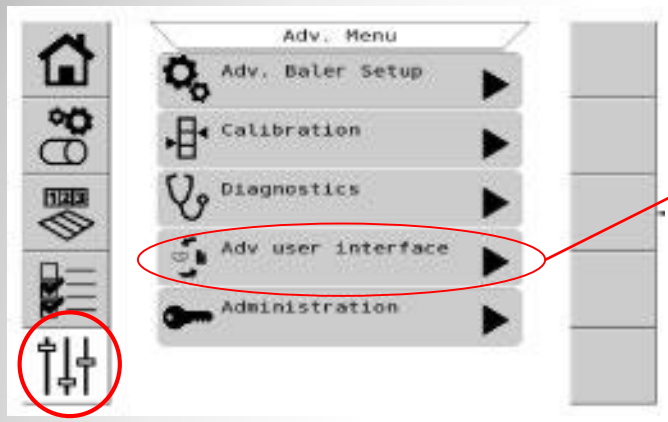
- Bale Diameter – Roll a Bale then measure physical size of bale then enter offset.
  *Never build a full size bale in the chamber until operator has confirmed bale diameter calibration.
- Bale Shape will need to be Activated/Turned On via the Administration Tab if not appearing. Confirm the bale shape sensors are installed and plugged in. Clean bale shape sensor wheels turn on PTO with Empty chamber and select Calibrate.

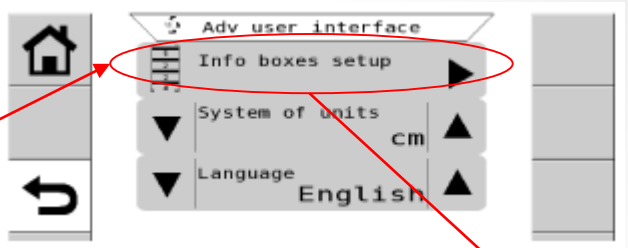
Subject: E-Link Pro – Advance Menu – Diagnostics

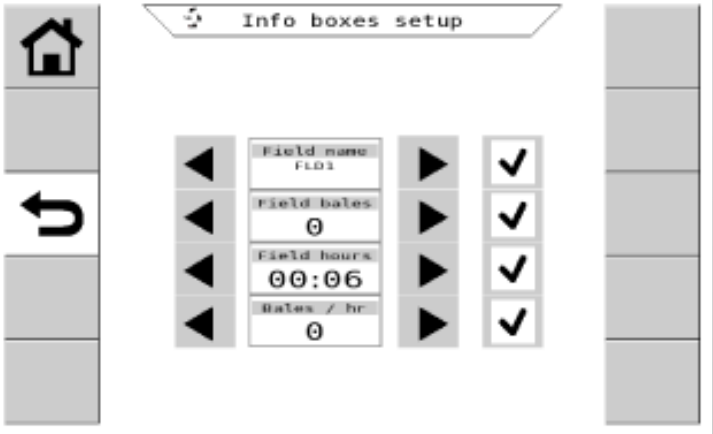


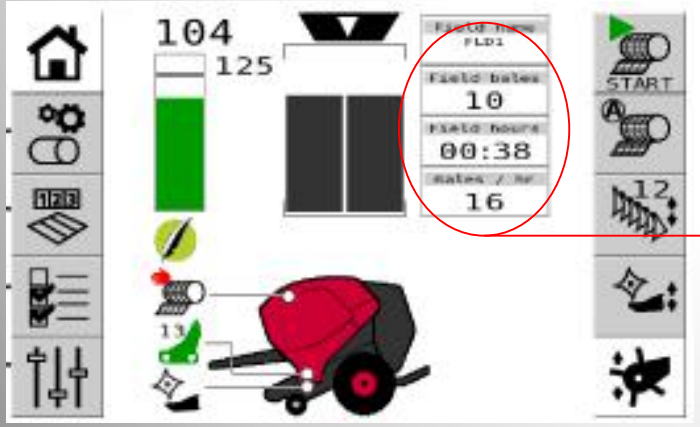
- "Inputs": Shows the input signal.
- "Outputs": Shows the output signal.
- "Error history": Shows the error messages that occurred and the number of times they occurred.
- "System information": Shows the software version, VT software version, the model, serial number and the total number of bales and hours.

Subject: E-Link Pro – Advance Menu – User Interface





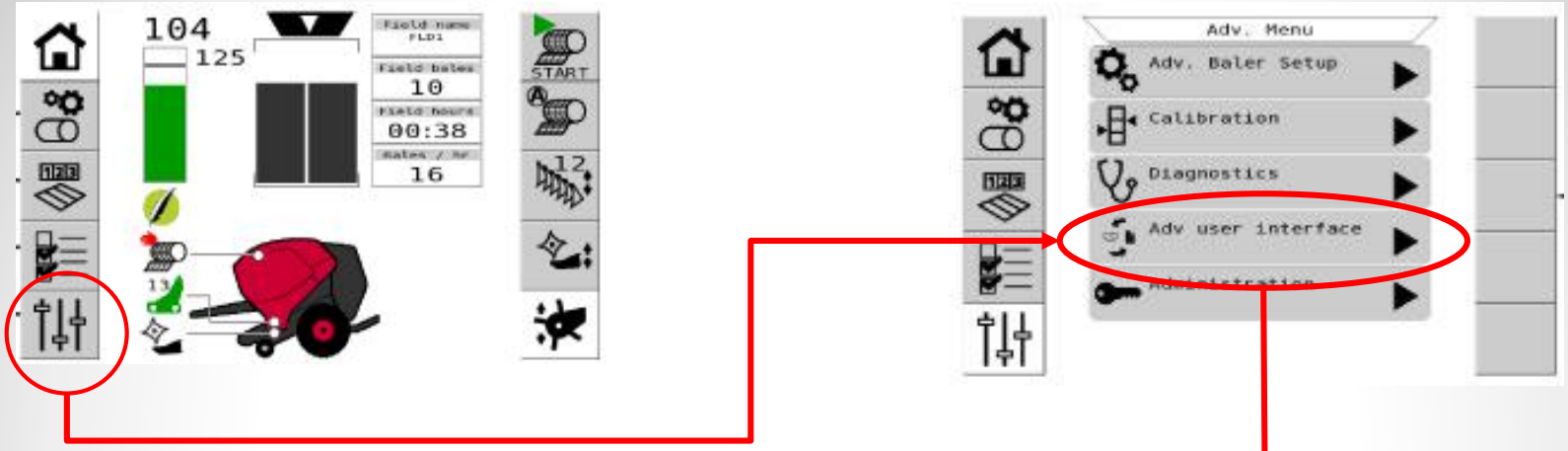




- On this page you can change the shown data on the Home page as follows: See Home Page View to Left

- Operators may disable views to eliminate clutter on screen.

Subject: E-Link Pro- Advance Menu - Changing Numerical Form to Imperial (inches)

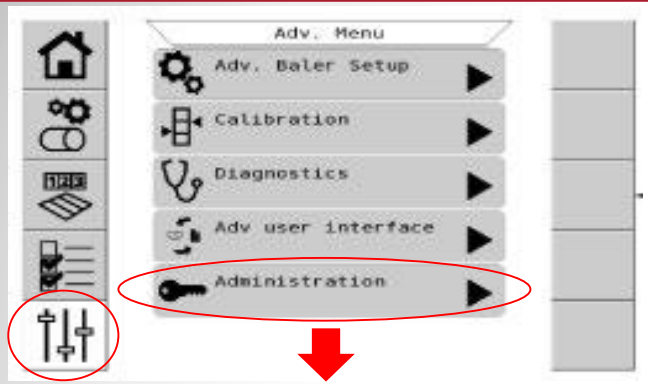


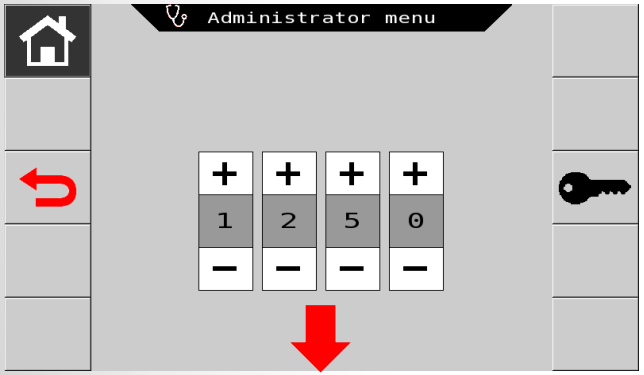
Changing Numerical Form Displayed in Baler Terminal.

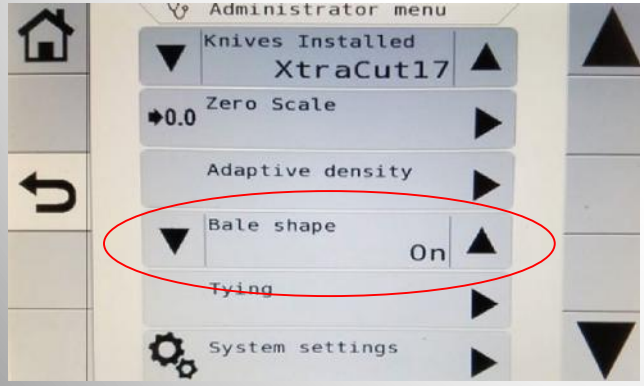
The E-Link Pro Monitor can be used via Touch Screen or the Soft Keys corresponding with the Icons on the sides of the screen.

- Select the TASK MENU Icon
- Select the ADV USER INTERFACE Icon
- Use the Arrows to Toggle through the Numerical Options

Subject: E-Link Pro- Advance Menu – Administration





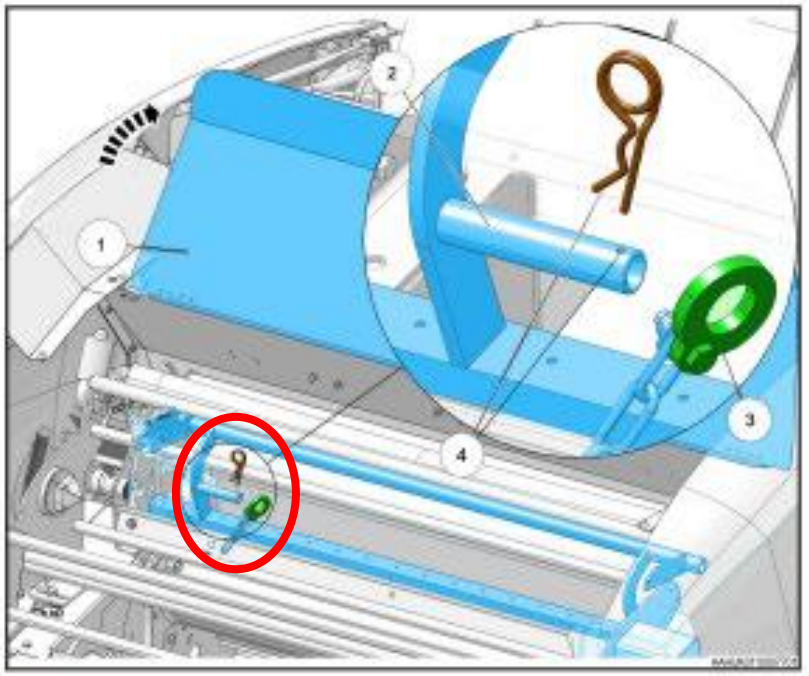


- Check to make sure the bale shape sensors are activated.
- **Admin Codes are For Dealer Personnel do not pass along to customers**

Subject: Loading Net Wrap

***Injury Can Occur**

Always Attached Safety Chain to Net knife Carrier Before Loading net or working on the Net System



MASSEY FERGUSON

Product Marketing Bulletin

MF 4160 & 4180

Subject: Loading Net Wrap

- Dependent on the width of Mesh the operator chooses to run the Mesh Roll Rack will need to be moved in order to center the mesh to the bale chamber. To adjust loosen the 4 bolts total, 2 per side as seen below in **figure #1**.
- If using 48" or smaller mesh wrap the Cone shaped Extension stored under the crank assembly will need to be added the end of the crank before installing the net roll.

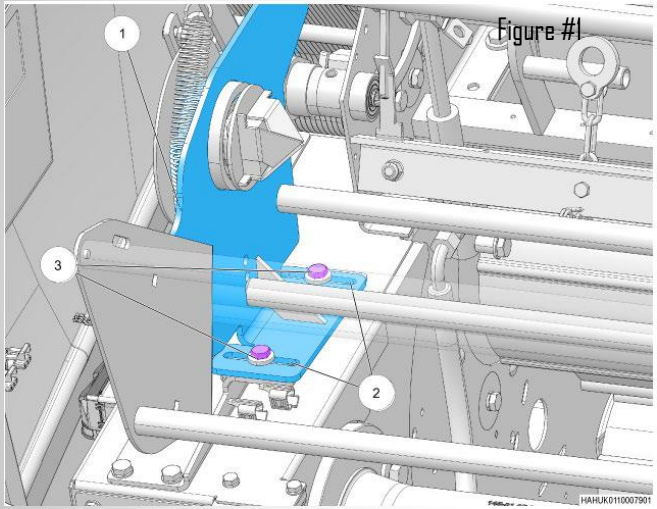
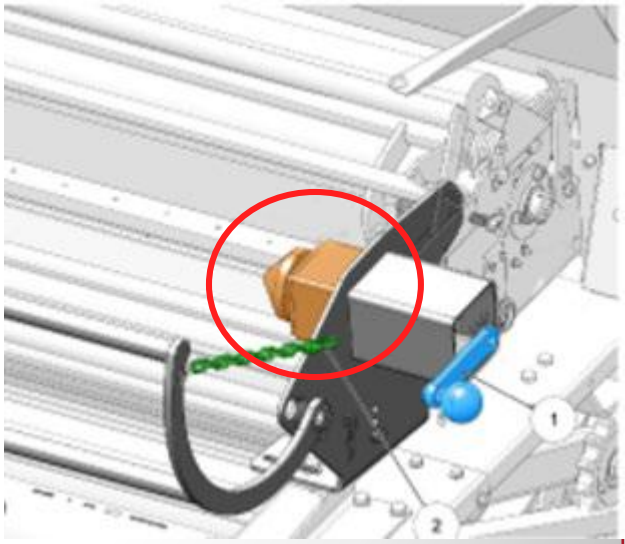


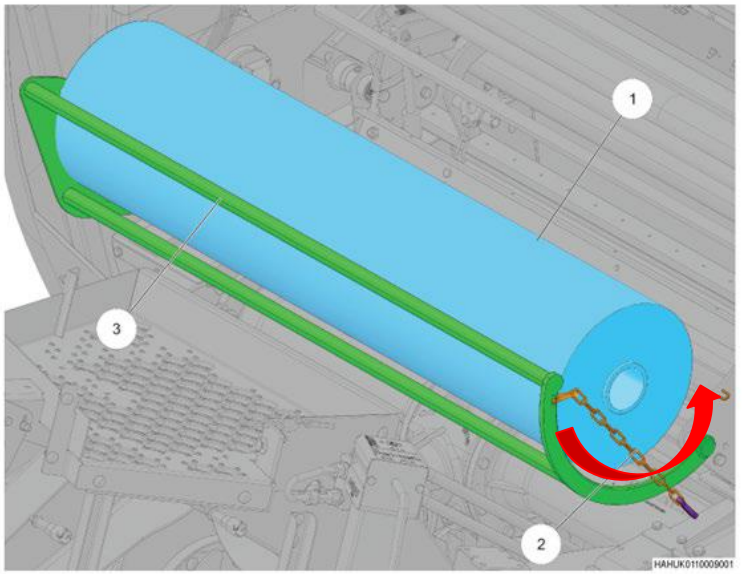
Figure #1



Subject: Loading Net Wrap

- Prior to loading remove any inserts the net manufacturer may have place in the center tube of the net.
- Place Net roll in Transfer Cradle with the loose tail coming out the underside of the roll towards the rear. Utilizing the easy load Transfer cradle tilt the cradle rearward dumping the roll into the net frame.
- The Rods referred to below can be moved to better accommodate differing net roll diameters which make centering the net on the cones effortless.

3. Tilt the holder *3* and net into the net roll holder.

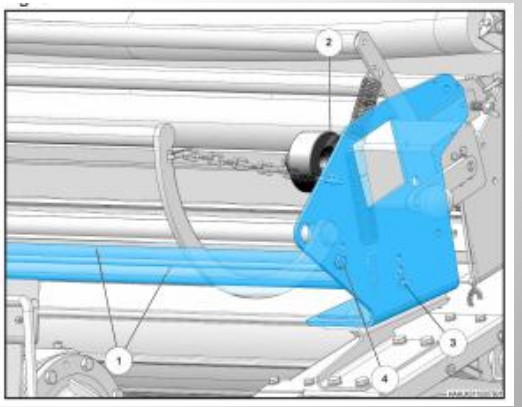


4. If you use a net length of 2000 m (6562 ft) do the subsequent steps on the two sides:

   1. Remove the rods (1) from the bottom position.

   2. Put the rods in the top position holes (3 and 4).

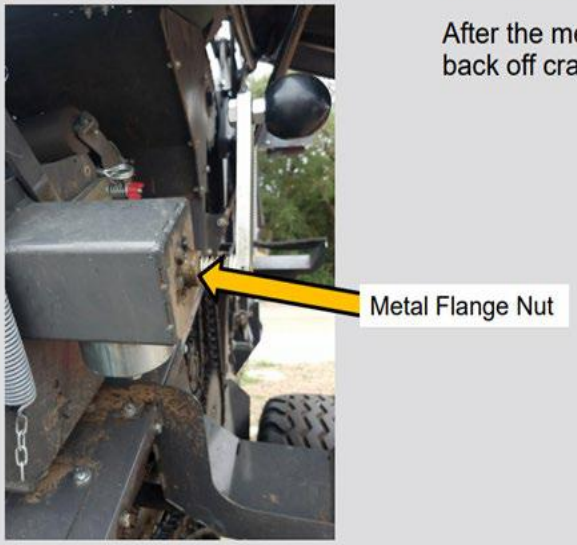
5. If you use a net roll with a width of more than 1.23 m (4.0 ft) remove the extension spindle (2), for a net roll smaller than 1.23 m (4.0 ft), make sure that the extension spindle is in position.



Subject: Loading Net Wrap

- **See Operators manual for fine Tuning Net Brake system.**
- There should be no backlash in the net roll after the cut & tie process.
- The net brake adjustment effects how tightly the net is applied to outside of the bale.

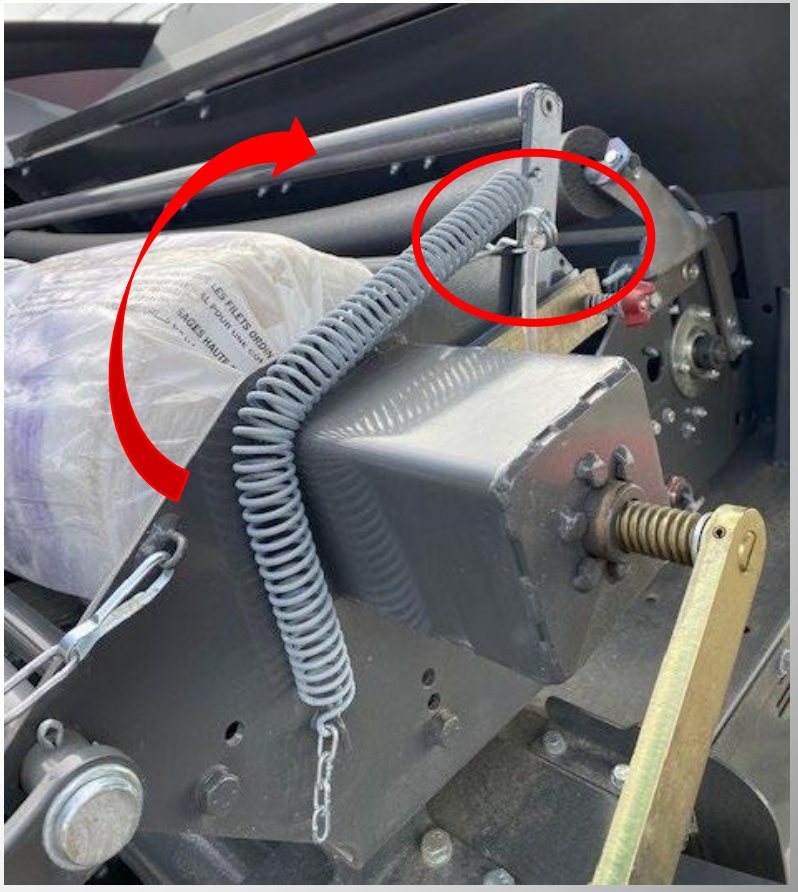
Mesh Roll Hand Crank



When installing a roll of mesh, the **hand crank** should be tightened until the **metal flange nut** stops protruding from the hand crank frame.

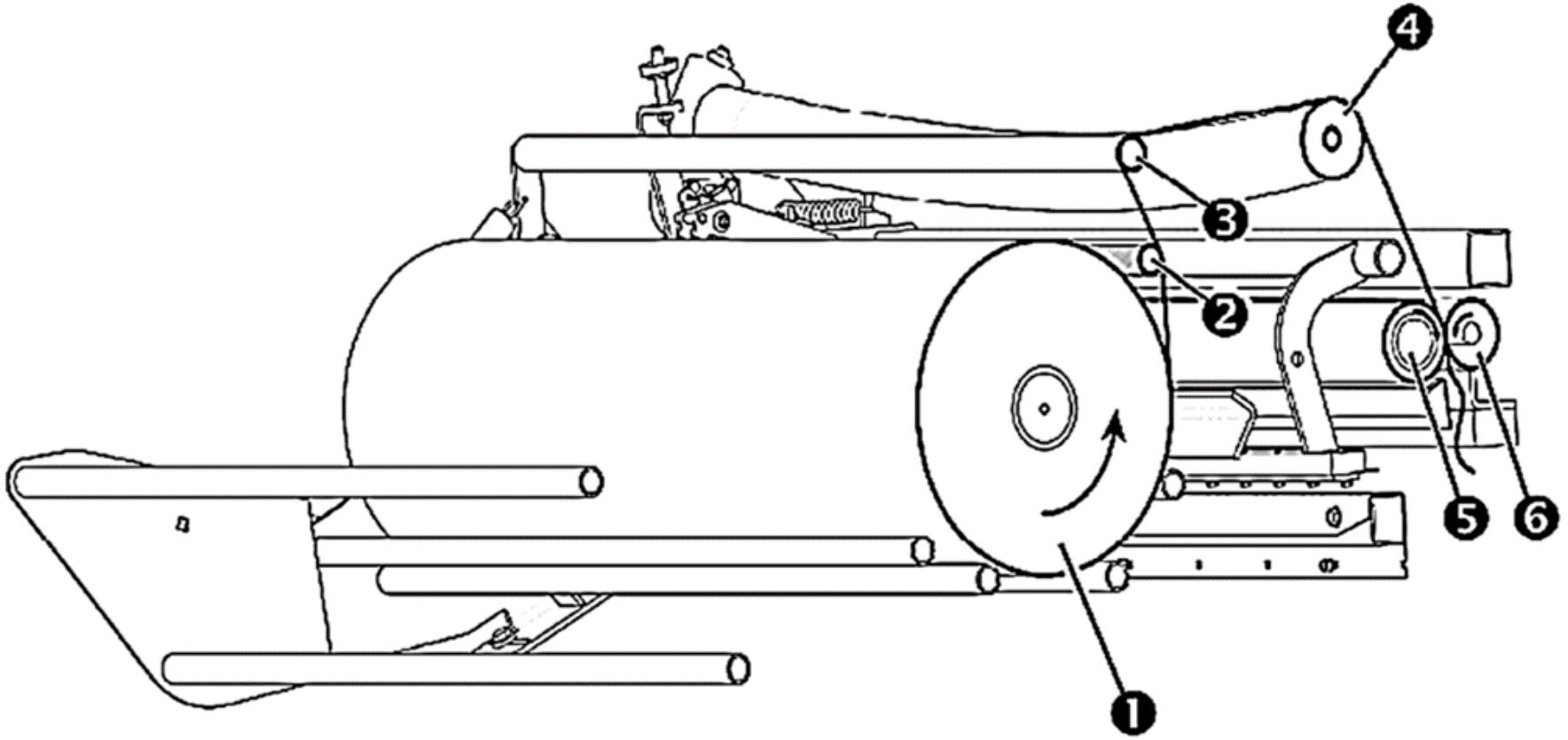
After the metal flange nut stops protruding, back off crank 1/8 turn.

Place the Brake Arm Bar into the far rear position and hold it in place utilizing the R pin as seen in the below picture. Now your ready to Route the net into place.



Subject: Loading Net Wrap

- Route the net as shown, Place the net between the #5 rubber roll and #6 steel roller placing the tail of the net between the 2 rollers and using your hand to turn the rubber roller CW engaging the net between the 2 rollers. Ensure 4-6 inches of the net is through the roller. Remove the R pin holding the Brake Arm Bar in place and the Net Knife Safety chain, at this point the net loading process is complete.



MASSEY FERGUSON

Product Marketing Bulletin

MF 4160 & 4180

Subject: Net Wrap Quality

- Using Quality Net wrap is Key to optimizing any baler net system.
- Using marginal quality wrap is the fastest way to make any baler wrapping system look inferior and a demo or customer experience fail.
- The MF RB4100 net system when adjusted properly will apply the net very tightly and can roll a bale extremely tight that will require a high quality net with a high tensile strength. AGCO recommends using at minimum the ADVANCED in dry hay conditions and the ADVANCE MAX in Dry Hay and All Silage Applications

NET WRAP

PROFESSIONAL™

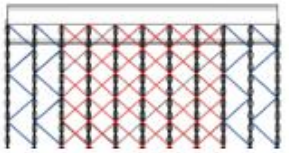
- Minimum length guaranteed
- ISO 9001 Certified
- Red end warning stripe
- UV stabilized

PROFESSIONAL

SIZE	PART NO.	WHITE WITH PURPLE
48 x 6200	79034039	
48 x 9840	79034032	
48 x 11800	79034041	
51 x 9840	79034049	
51 x 11800	79034045	
64 x 7000	79034029	
64 x 8800	79034042	
67 x 7000	79034034	
67 x 8000	79033924	

* For Canadian orders please see back page of this catalog.

ADVANCED™



- Weft lines are reinforced in an "X" pattern instead of the traditional "Z"
- Reinforced net wrap that gives extra strength in the middle of the bale
- Perfect choice for **tough to bale crops** (i.e. corn stalks)
- Increased water-shedding capabilities
- Red end of roll warning stripe on last 250 feet of the roll

ADVANCED

SIZE	PART NO.	GRAY AND ORANGE
48 x 9840	79034058	
48 x 11800	ACP0491300	
51 x 9840	79034059	
51 x 11800	ACP0491310	
64 x 7000	79034060	
64 x 8800	ACP0491320	
67 x 7000	79034061	
67 x 8000	ACP0491330	

* For Canadian orders please see back page of this catalog.

ADVANCED MAX™

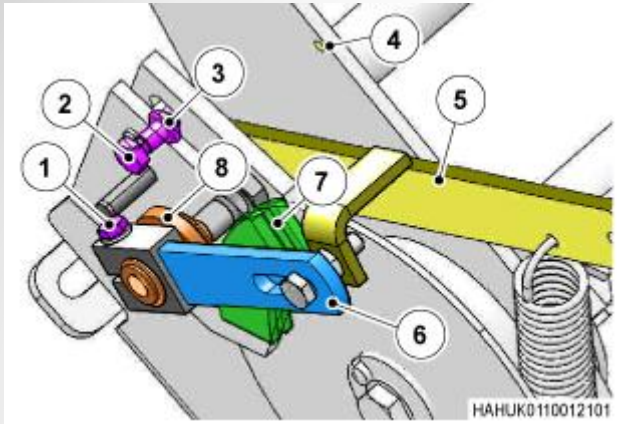
- **15% greater strength** is ideal for baling heavier, denser, and larger hay bales
- Maximum spreadability with enhanced side-to-side coverage
- High visibility striping pattern
- Available in extended lengths = more time baling

ADVANCED MAX

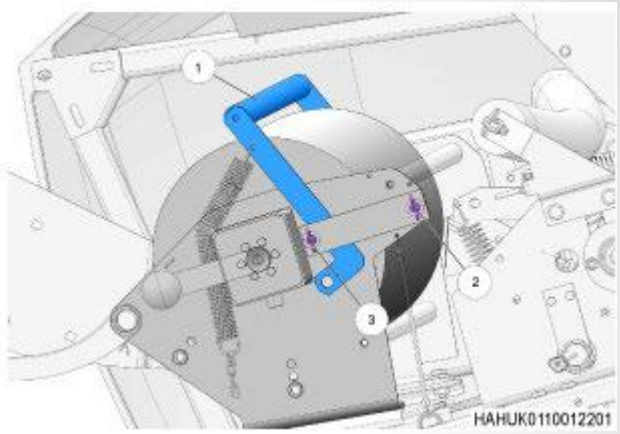
SIZE	PART NO.	PURPLE STRIPES
48 x 9840	ACP0491340	
48 x 12500	ACP0491350	
51 x 9840	ACP0491390	
51 x 12500	ACP0491360	
64 x 7000	ACP0491400	
64 x 9000	ACP0491370	
67 x 7000	ACP0491410	
67 x 9000	ACP0491380	

* For Canadian orders please see back page of this catalog.

Subject: Net Brake Adjustments



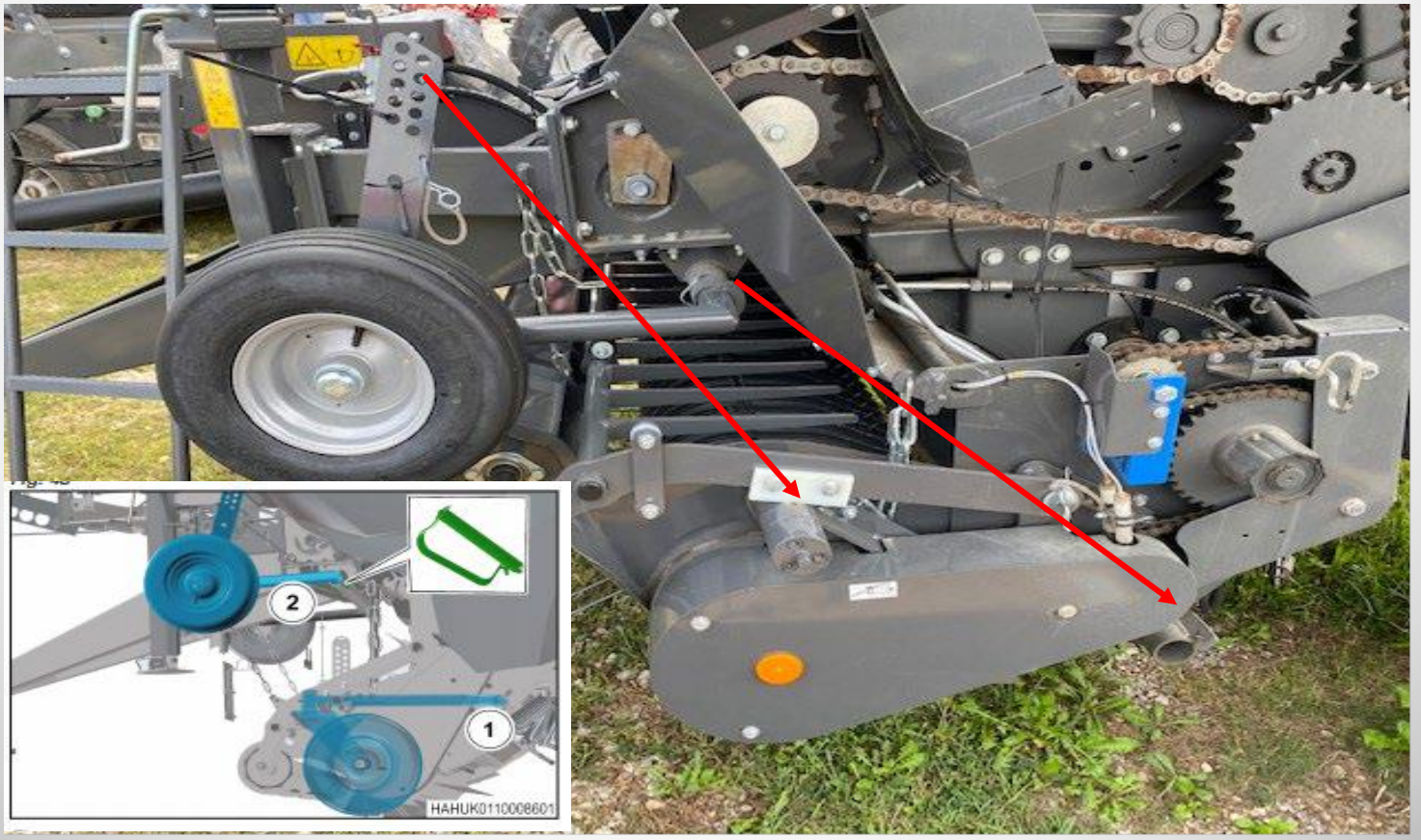
- To prevent unwanted unroll of the net roll you must adjust the disk brake. With the lever in the up position it must not be possible to turn the roll by hand.
- Make sure that the machine is Off refer to the shut down procedure for maintenance. Take the machine out of operation
- Tighten the net tensioner bar *5* and lock it with an R-clip in the hole *4*.
- Adjust the milled nut *8* until the brake linings *7* are in full contact with the brake disk. If there is wear to the brake linings *7* on one side:
  - Loosen the locknut *3*.
  - Turn in a small distance the screw *2* until the brake linings *7* are parallel again.
  - Tighten the locknut *3*.
- Adjust the milled nut *8* until the brake disk stops to move freely, when you turn the brake disk by hand.
- Tighten the bolt *1* on the lever.
- Remove the R-clip from the hole *4* and release the net tensioner bar *5*.



- Ensure the machine is Off, refer to the shut down procedure for maintenance. Take the machine out of operation
- Move the net tensioner 1 to the top end position and hold it.
- Tighten by hand the two wing nuts 2 and 3.
- Move the net tensioner to the lower end position, at this time by hand, but with some force. It must be possible to move the net tensioner. If the net tensioner moves easily or you cannot move it by hand, adjust the two wing nuts.

Subject: Guide Wheel placement Field Mode

- Move the Guide Wheel from the upper storage position down into the field position. The hydraulic header lift circuit is single acting thus the chains and guide wheels will determine pickup operating height.
- The Single acting Hydraulic cylinder used to raise the header uses a coil spring to dampen the downward movement of the header and reduce the overall weight on the chains and guide wheels. The spring preload can be adjusted help dampen shock load. See Service manual.



MASSEY FERGUSON

Product Marketing Bulletin

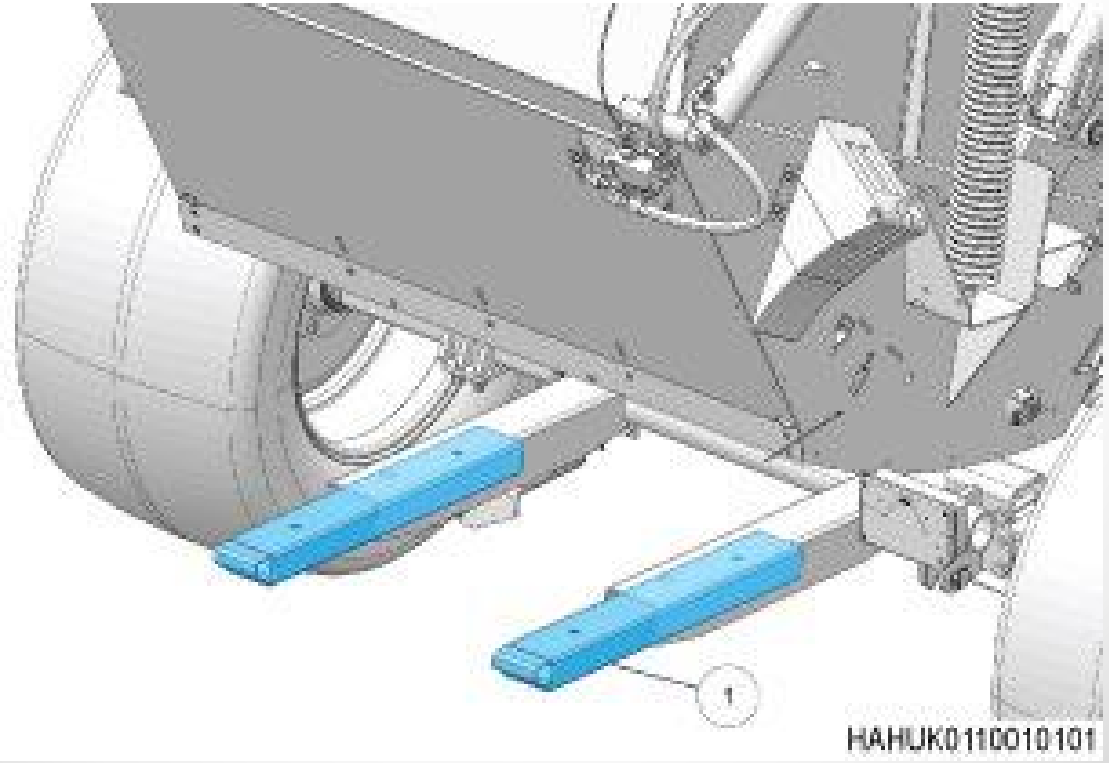
MF 4160 & 4180

Subject: Cutter/ Knife Bank

- During PDI ensure the Knife Lock Lever is in the raised locked position and has a positive engagement on the tab which hold the lever in place. If the knife locking lever become disengaged will baling there can be substantial damage occur.
- Recommend removing the knives and installing blanks if not using the knives for an extended time because the knife tip extends above the feed channel floor about an inch even when fully retracted which leads to premature wear.
  - To remove the knives fully raise both the feed channel floor and knives via the DA remote then lower the floor ½ to ¾ way down which will leave the knives in the raised position.
  - Fully raise the tailgate and LOCK OUT the Hydraulic Safety valve preventing accidental movement
  - Fully lower the Knife Locking Lever
  - The knives are held in place via a magnet at this point, pull the knife rearward then upward tp remove
  - Install the Blanks which are stored on the right side of baler, knives will be stored on the same bracket as the blanks when removed
  - Fully Raise the Knife Locking lever and Ensure Positive Engagement of the locking system on the knives and Positive engagement of the tab holding the lever in place.
  - Use DA remote to fully raise the floor and Knives back into place.

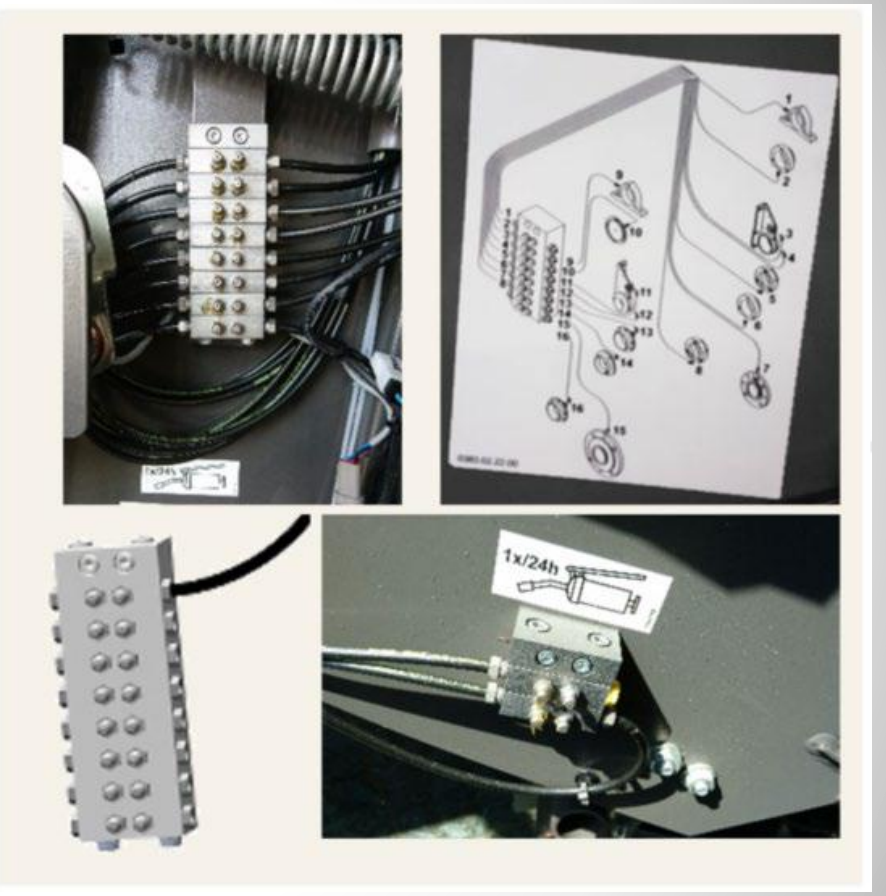
Subject: Bale Ramp

- Remove pin and telescope the ramp out fully for field position
- The ramp cycling will also perform bale count



Subject: Greasing/Lubrication

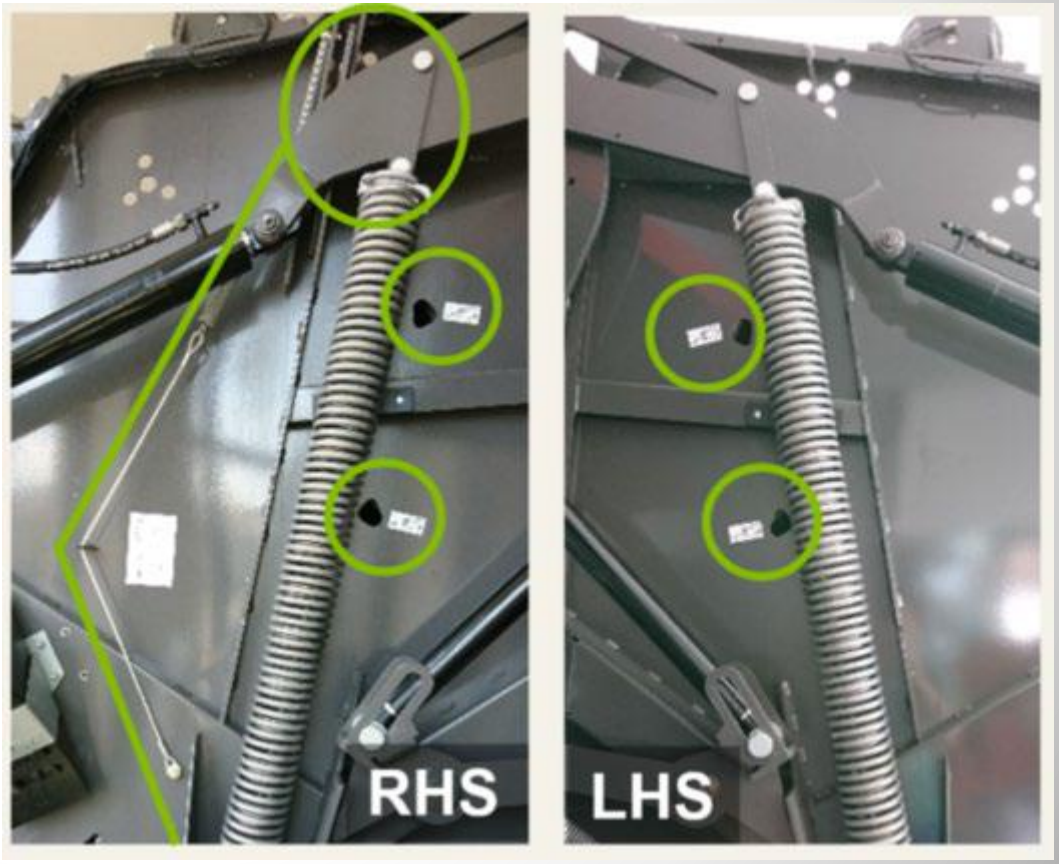
- Centralized banks to reach all 24hr/Daily greasable bearings with minimal effort and loss of time
- DO NOT over grease bearings
- Recommendation is 2 pumps.
- Excessive amounts of grease at one time will push seals out and cause bearings to run hot leading to premature failure.



Subject: Greasing/Lubrication

Greasing Density Arm Rollers

- Baler Monitor must be powered for service locks to fully engage.
- Hook Wire Rope on Right rear of baler into maintenance position as shown
- Fully open tailgate then lower back to ¼ open at which time the grease zerks will be visible through the chamber wall on both left and right side of the baler.
- Bottom Roller on the tailgate can also be reached with ease while the tailgate is partially up.
- After greasing, remove the wire rope from the hook and fully cycle tailgate up to remove from service position



MASSEY FERGUSON

Product Marketing Bulletin

MF 4160 & 4180

Subject:

Do Not Over Grease during each service. Recommended 2 pumps per zerk.

GREEN

- Daily Service
- 2 Pumps
- Fill Chain Lubricant Reservoir

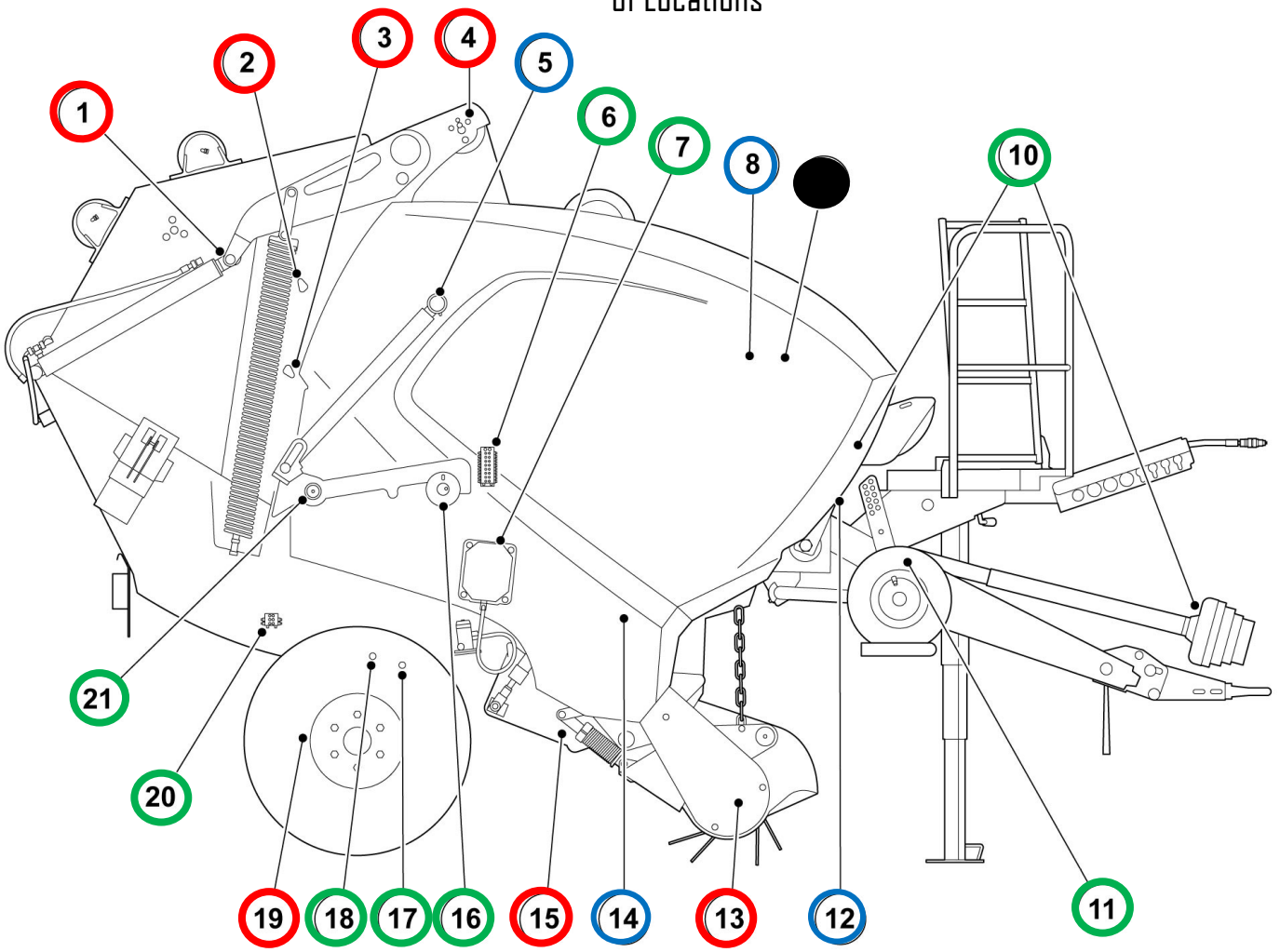
RED

- Weekly
- These zerks are not on a bank or grouped
- Recommend daily greasing when in dry hay conditions
- 2 Pumps

BLUE

- Seasonally
- #12 is oil in gear box

Refer to Operators Manual for further description's of Locations



HAHUK0110011101

Subject: Greasing/Lubrication

- All chains and Sprockets are Auto lubricated via the onboard system
- DO NOT run oiler pump dry, damage will occur to the pump
- Oil meeting ISO VG 68 – ISO VG 220 standard are acceptable, BAR & CHAIN OIL is recommended for most NA conditions. A lower viscosity oil that flows easier may need to be substituted when baling in cool weather conditions (<35 degrees)
- Bleeding the pump during PDI or if the reservoir runs empty.
  - Fill the Reservoir, Disconnect all lines except the oil intake line from the pump and run the PTO for approx. 20 seconds at rated speed to remove all air bubbles. Reattached the lines and clean any spilled oil.
  - Oiler lines will purge themselves of air while baling after the pump is primed and bled of air.