

LANRB21378

Installation Instructions

Lankota Net Wrap Lift Assist for Case New Holland Balers

(New Holland: Roll Belt 450)

(Case IH: RB455)

LANKOTA®

270 West Park Avenue

Huron, SD 57350

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Numerical Parts List

Part Numbers	Description	Qty
LANRB060	Boom Pivot Base (4' Baler)	1
LANRB021	Boom Stage 1	1
LANRB021M	Boom Stage 1 Opposite	1
LANRB022	Boom Stage 2	1
LANRB022M	Boom Stage 2 Opposite	1
LANRB023	Pivot Washer	1
LANRB024	Winch Cover	2
LANRB026	Winch Stow Bracket	1
LANRB027	Pivot Stop	2
LANRB028	Winch Mounting Plate	1
LANRB030	Net Wrap Guide Bracket	1
LANRB031	Net Wrap Guide Bushing	1
LANRB032	Boom Pivot	1
LANRB033	Boom Spacer	3
LANRB004	Net Wrap Lifting Hook	1
LANRB008	Switch Magnet Plate	1
LANMCHN40	1.5" Magnet	2
LANRBWH1	Wiring Harness - Tractor Battery to Rear of Tractor	1
LANRBWH2	Wiring Harness - Winch to Front of Baler	1
LAN101025	Warn VRX-25 Winch	1
LANRB061	Mounting Washer	1
LANRB19274BH	Bag of Hardware	1
LAN1133	5/16" Flat Washer	1
LAN1616	5/16" Nyloc Nut	1
LAN18A00	3/8" x 1" Hex Bolt	10
LANF3043T634	3/8" x 2" I.D. U-Bolt	1
LAN3718	3/8" Serrated Flange Nut	2
LAN8863T14	1/2" Loop Clamp	5
LAN8863T28	5/8" Loop Clamp	1



Numerical Parts List

Part Numbers	Description	Qty
LANRB19274BH Continued...	Bag of Hardware	1
LANF0DNU	#10 Nyloc Nut	3
LANFOEL2	#10 SAE Flat Washer	3
LANF29PT	#10 x 1/2" Self Tapping Screw	4
LANF93474A235	M12 x 50 Gr. 10.9 Flange Head Bolt	1
LANFB103	1/4" x 3/4" Hex Bolt	6
LANFB214	5/16" x 3 1/2" Hex Bolt	2
LANFB312	3/8" x 3" Hex Bolt	2
LANFB314	3/8" x 3 1/2" Hex Bolt	3
LANFB414	7/16" x 3 1/2" Hex Bolt	2
LANFH1H2M	#10 x 7/8" Flat Head Screw	3
LANFNAS1	1/4" Serrated Flange Nut	6
LANFWS52	5/16" SAE Flat Washer	4
LANFWS53	3/8" SAE Flat Washer	30
LANFWU54	7/16" Flat Washer	4
LANH201028	5/16" x 3/4" Torx Pan Head Bolt	1
REDODTT	3/8" Top Lock Nut	14
RED4GD0	7/16" Top Lock Nut	2
REDB102	1/4" x 1/2" Hex Bolt	8
REDB308	3/8" x 2" Hex Bolt	2
REDKRJ8	5/16" Top Lock Nut	2
REDWU51	1/4" Flat Washer	9
LAN44302	11" Zip Tie	12
LAN3208	5/16" Ring Terminal (8 ga.)	1
LANPRVW	1/4" x 3/4" Thread Forming Bolt	1
LAN19M7785	10 x 25 x 1.5 MM Hex Bolt	1
LANF93474A235	12 x 50 x 1.75 MM Hex Bolt	2
LANFC507	1/2" x 1 3/4" Hex Bolt	1
LANFWS55	1/2" SAE Flat Washer	2
RED1F30	1/2" Top Lock Nut	1

Pictorial Parts List

 LANRB060 (1)	 LANRB021 (1)	 LANRB021M (1)	 LANRB022 (1)	 LANRB022M (1)	 LANRB023 (1)
 LANRB024 (2)	 LANRB026 (1)	 LANRB027 (2)	 LANRB028 (1)	 LANRB030 (1)	 LANRB031 (1)
 LANRB032 (1)	 LANRB033 (3)	 LANRB004 (1)	 LANRB008 (1)	 LANMCHN40 (3)	 LANRBWH1 (1)
 LANRBWH2 (1)	 LAN101025 (1)	 LANRB061 (1)	 LAN1133 (1)	 LAN1616 (1)	 LAN18A00 (10)

Pictorial Parts List

					
LANF3043T634 (1)	LAN3718 (2)	LAN8863T14 (5)	LAN8863T28 (1)	LANF0DNU (3)	LANF0EL2 (3)
					
LANF29PT (4)	LANF93474A235 (1)	LANFB103 (6)	LANFB214 (2)	LANFB312 (2)	LANFB314 (3)
					
LANFB414 (2)	LANFH1H2M (3)	LANFNAS1 (6)	LANFWS52 (4)	LANFWS53 (30)	LANFWU54 (4)
					
LANH201028 (1)	RED0DTT (9)	RED4GD0 (2)	REDB102 (8)	REDB308 (2)	REDKRJ8 (2)

Pictorial Parts List

Attention: Some winch vendor hardware provided in winch box will be used but is not listed above.

Note: Not all winch vendor hardware will be used.

					
REDWU51 (9)	LAN44302 (12)	LAN3208 (1)	LANPRVW (1)	LAN19M7785 (1)	LANF93474A235 (2)
					
LANFC507 (1)	LANFWS55 (2)	RED1F30 (1)			



Boom Installation

Refer to Figures 1 & 2.

1. Connect boom stage 1 (LANRB021) to boom stage 2 (LANRB022) using 3/8" x 1" bolts (LAN18A00), 3/8" SAE washers (LANFWS53) and 3/8" top lock nuts (RED0DTT). Connect the opposite boom side (LANRB021M & LANRB022M) in the same manner.
2. Leave the driver side baler door closed. At the top hinge point of the driver side baler door, locate and remove the two factory M12 bolts shown in Figure 2 (the nuts will be reused later). Place the boom pivot base (LANRB060) on the top right side of the baler to be attached.

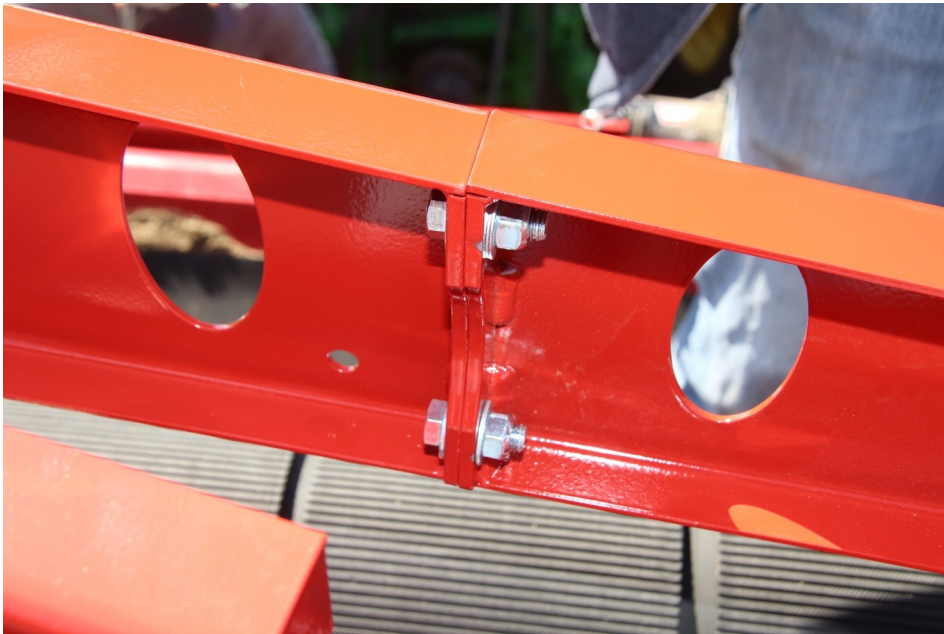


Figure 1



Figure 2

Boom Installation

Refer to Figures 3 & 4.

3. Secure the boom pivot base (LANRB060) with the M10 x 25 (LAN19M7785) flange bolt into the tapped hole in the baler frame and bolt through the hinge bracket with the two M12 x 50 (LANF93474A235) hex bolts while reusing the nuts. Do not tighten at this time.
4. Bolt through the baler lifting eye with the mounting washer (LANRB061) on the inside. Attach using the 1/2" x 1 3/4" bolt (LANFC507), two 1/2" washers (LANFWS55), and a 1/2" top lock nut (RED1F30).

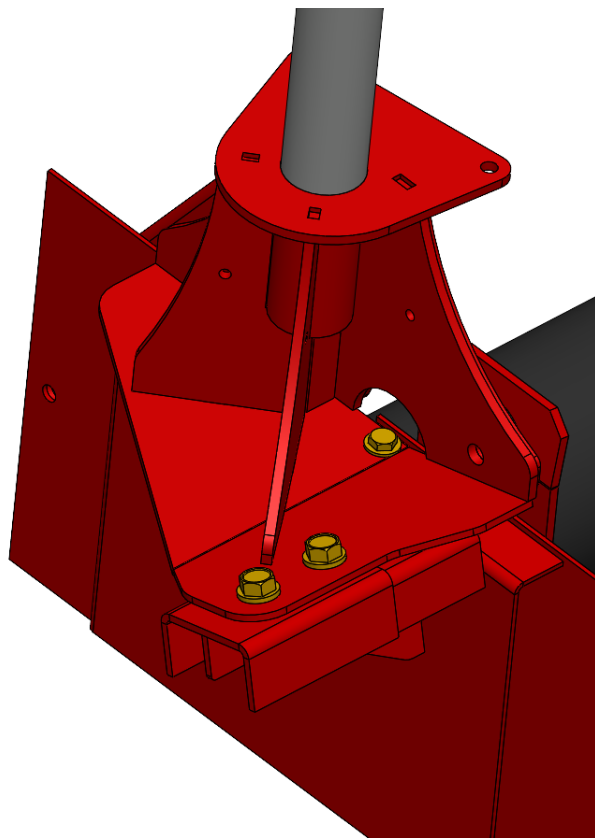


Figure 3

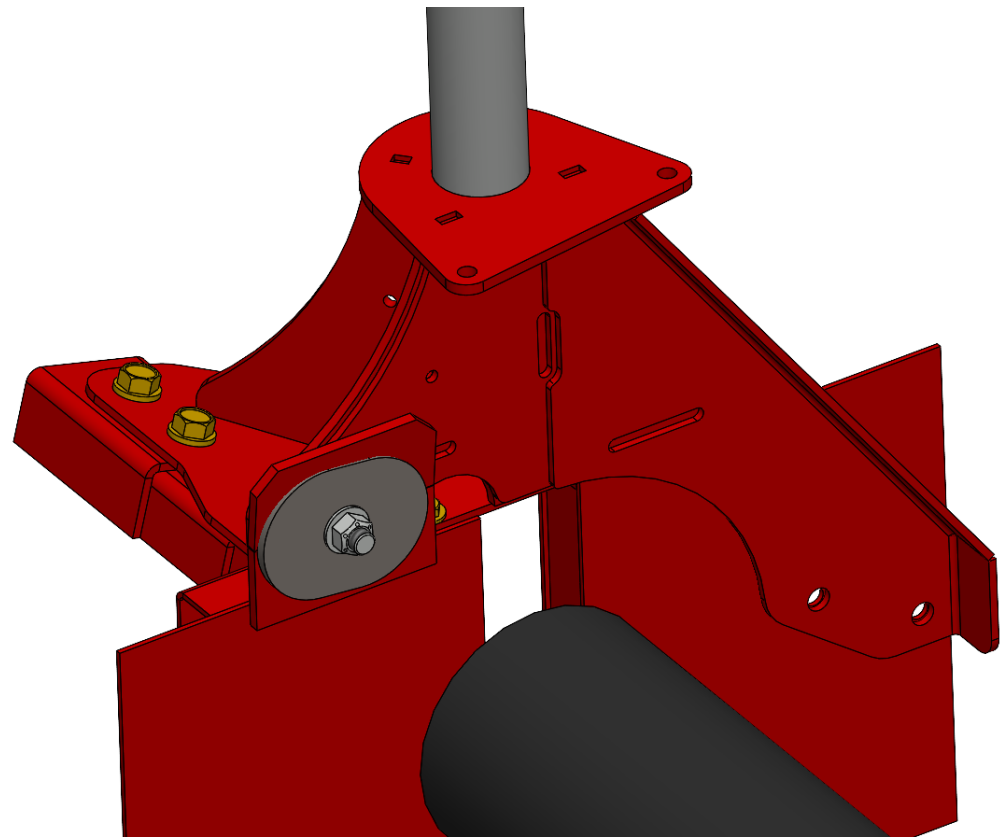


Figure 4

Boom Installation

Refer to Figures 5 & 6.

5. Bolt through the front flange of the boom pivot base and the baler side wall with two 3/8" x 1" hex bolts (LAN18A00), four 3/8" SAE flat washers (LANFWS53), and two 3/8" top lock nuts (RED0DTT).
6. Tighten all hardware on the boom pivot base.
7. Slide the boom pivot (LANRB032) over the vertical shaft on the boom pivot base.

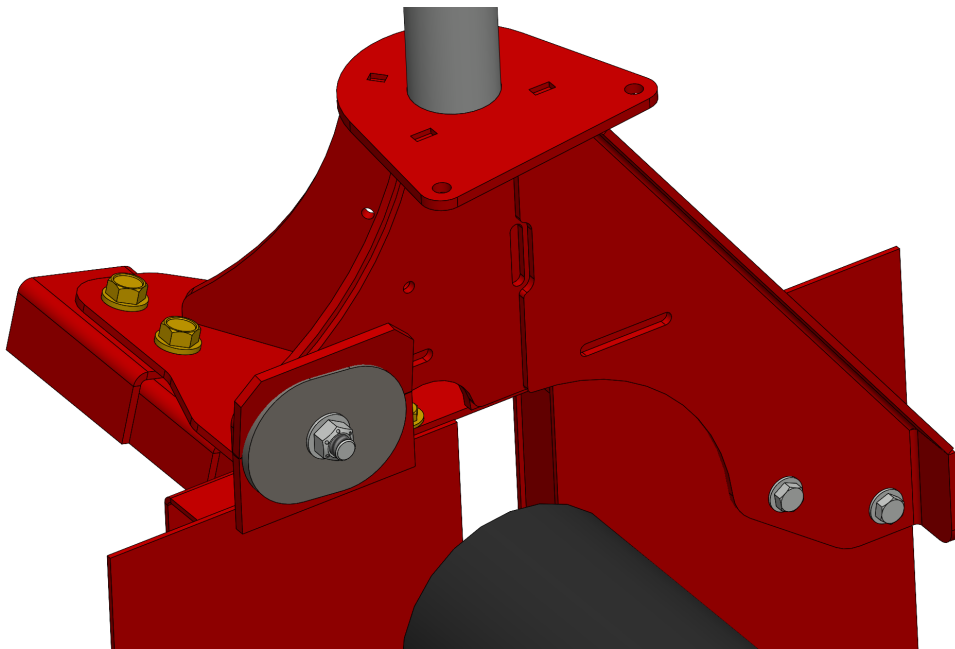


Figure 5



Figure 6

Boom Installation

Refer to Figures 7 & 8.

8. Loosely attach the boom halves to the boom pivot (LANRB032) using 7/16" x 3 1/2" bolts (LANF414), 7/16" washers (LANFWU54), and 7/16" top lock nuts (RED4GD0).
9. Loosely attach the winch mounting plate (LANRB028) through the boom using 5/16" x 3 1/2" bolts (LANFB214), 5/16" washers (LANFWS52), and 5/16" top lock nuts (REDKRJ8).



Figure 7



Figure 8

Winch Installation

Refer to Figures 9 & 10.

10. Attach the winch to the winch mounting plate (LANRB026) using the M8 x 20 bolts and lock washers provided in the winch hardware bag (P/N: 100666). Be sure the cable is spooling off the bottom of the drum with the winch electrical posts on the near side of the beam.
11. NOTE: *To get slack in the cable, free spool the winch drum with the hub lock on the side of the winch. Be sure to re-lock the hub before operation.* Remove the cotter pin and winch hook from the winch cable and pull the winch roller fairlead off of the cable (this can be done without removing any individual rollers, but pulling the cable end through the rollers). This will allow the cable to be routed down the boom.
12. Route the cable down the bottom center of the beam. Near the center beam slice joint, loosely bolt two beam spacers (LANRB033) inside the beam using 3/8" x 3 1/2" bolts (LANFB314), 3/8" SAE washer (LANFWS53) and 3/8" top lock nuts (RED0DTT). Route the cable over the lower beam spacer.



Figure 9



Figure 10

Winch Installation

Refer to Figures 11 & 12.

13. Continue to the end of the beam and loosely bolt the last beam spacer (LANRB033) inside the beam as before with the winch cable routed over the top.
14. Re-install the roller fairlead over the cable and attach it the end of the beam with two 3/8" x 1" bolts (LAN18A00), 3/8" SAE washer (LANFWS53) and 3/8" serrated flange nuts (LAN3718).
15. Re-install the winch cable hook on the cable with the pin and cotter pin.
16. **Tighten and check all hardware along the boom to ensure everything is tight.**

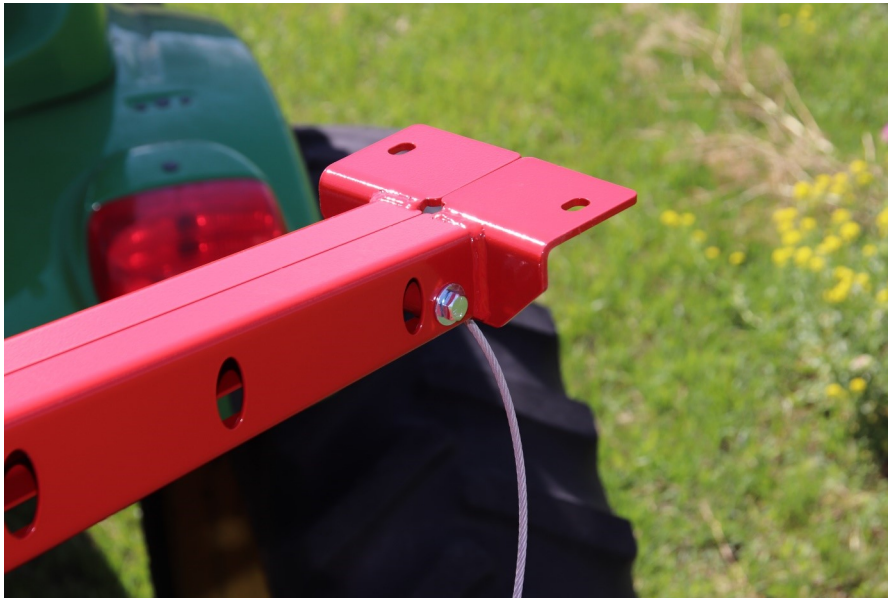


Figure 11



Figure 12

Boom Installation

Refer to Figures 13 & 14.

17. Install the pivot washer (LANRB023) over the top of the vertical shaft on the boom pivot base and secure with a 3/8" x 3" bolt (LANFB312), 3/8" SAE washers (LANFWS53), and 3/8" top lock nut (REDODTT).
18. Install the boom pivot stops (LANRB027) at the base of the boom pivot with 3/8" x 2" bolts (REDB308), 3/8" SAE washer, and 3/8" top lock nuts.



Figure 13



Figure 14

Wiring Installation

Refer to Figures 15 & 16.

19. Slide the 1/2" split loom over the 4' yellow and blue wires, route them in behind the winch as shown and attach them to the yellow and blue winch electrical posts, respectively. Use the nuts provided in the winch hardware bag (P/N: 100666), and the protective rubber boots.
20. With the boom pointing towards the front of the tractor, route the yellow/blue harness as shown and attach it to the base with the 5/8" loop clamp (LAN8863T28), 1/4" x 3/4" bolt (LANFB103) and 1/4" serrated flange bolt.
21. Route the eye terminals of harness LANRBWH2 and the yellow/blue wire harness down beside the baler main pivot and into the (driver's) side baler door.



Figure 15



Figure 16

Covers & Net Wrap Guide Installation

Refer to Figures 17 & 18.

22. Install the winch covers (LANRB024) on each side of the boom with 1/4" x 1/2" bolts (REDB102) and 1/4" washers (REDWU51).
23. Move to the front of the baler, under the net wrap door and hold the net wrap guide (LANRB030) against the front edge of the extra net wrap storage bay as shown. Be sure the edge of the net wrap guide is back slightly from the edge so the net wrap door can still close. Mark the underside of the net wrap bay shelf through the hole in the net wrap guide.



Figure 17

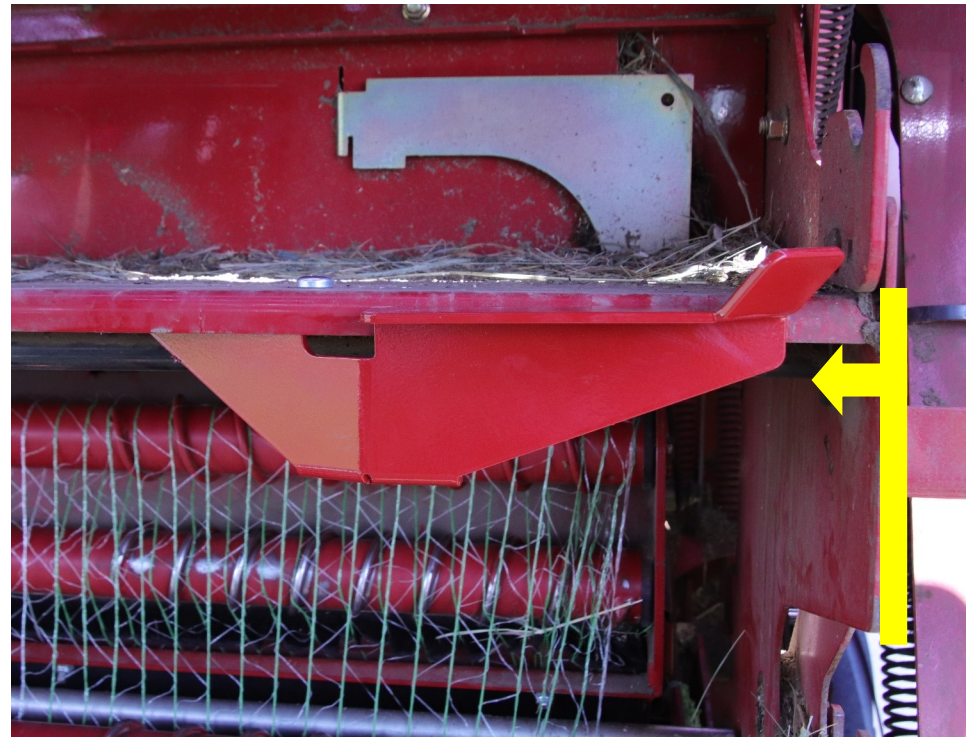


Figure 18

Net Wrap Guide Installation

Refer to Figures 19 - 21.

24. Drill a hole through the center of the marked hole with a 3/8" drill bit.
25. Attach the net wrap guide (LANRB030) to the net wrap bay shelf with the net wrap guide bushing (LANRB031), 5/16" x 3/4" torx bolt (LANH201028), 5/16" washer (LAN1133), and 5/16" nyloc nut (LAN1616).



Figure 20



Figure 19

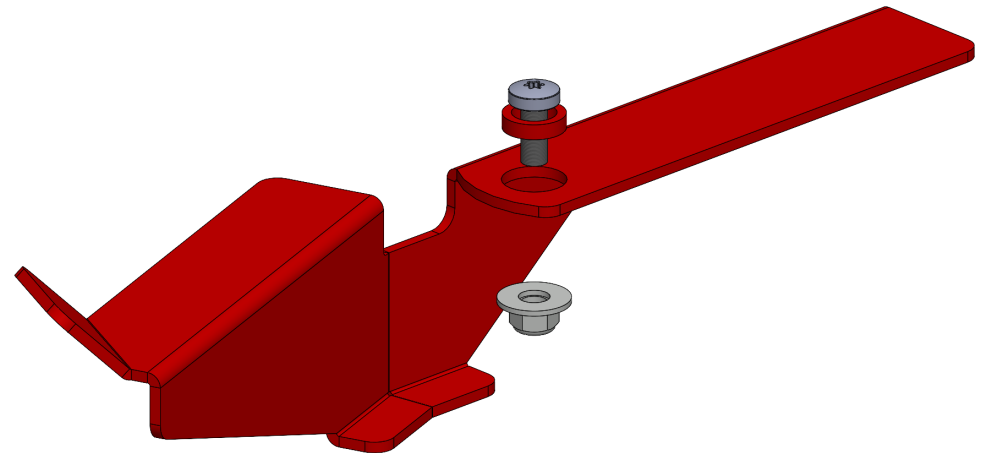


Figure 21

Net Wrap Guide Installation

Refer to Figures 22 & 23.

26. The net wrap guide can be swung out to assist with loading net wrap into the top storage bay (shown in Figure 24), and swung back in to close the net wrap door (shown in Figure 25).



Figure 22



Figure 23

Cable Stowage Installation

Refer to Figures 24 & 25.

27. Remove the nut and washer on the left side of the net wrap door latch bolt.
28. With the net wrap door open, drill a 7/16" hole 1 3/4" above the latch bolt. The hole can also be marked by laying the winch stow bracket (LANRBO26) over the latch bolt where it will be installed.
29. Attach the winch stow bracket by replacing the original nut and washer, and bolting through the top hole with a 3/8" x 1" bolt (LAN18A00), 3/8" SAE washers (LANFWS53), and 3/8" top lock nut (RED0DTT).

NOTE: For baler models (BR7090, BR780, etc.) without this net wrap door latching system, mount the winch stow bracket on the front of the net wrap door in a desired location by drilling two 7/16" holes and using two sets up hardware named above. Once in operation, the winch cable hook should be attached to the stow bracket and lightly winched in to keep the boom tight against the stop and prevent it from moving. Over tightening of the winch cable can cause equipment damage.



Figure 24



Figure 25

Lifting Hook Stowage Installation

Refer to Figures 26 & 27.

30. On the driver side, front of the net wrap storage box, measure down 5" and 18 3/8" and drill a 1/4" hole. Check inside the net wrap box for desired bolting location.
31. Attach a magnet (LANMCHN40) at each hole with a #10 x 7/8" countersink bolt (LANFH1H2M), #10 SAE washer (LANFOEL2), and #10 nyloc nut (LANFODNU).
32. Place the net wrap lifting hook (LANRB004) on the magnets for storage when not in use.



Figure 26

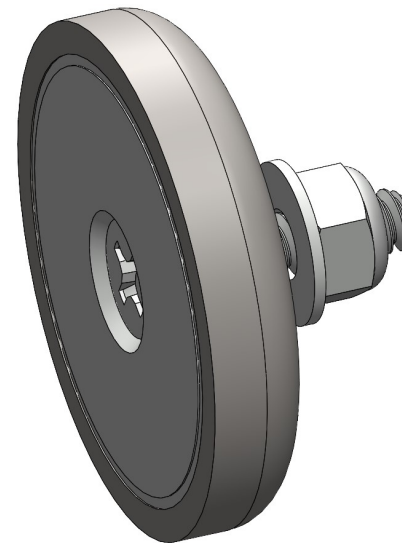


Figure 27

Rocker Switch Stowage Installation

Refer to Figures 28 & 29.

33. Install the last magnet (LANMCHN40) on the winch stow bracket (LANRB026) as shown with the previously named hardware in Step 23.
34. Attach plate LANRB008 to the winch rocker switch using the two small screws provided in the winch hardware bag (P/N: 74373).
35. See **LANRB20323 Installation Instructions** for proper extension and assembly of the winch rocker switch. NOTE: If a wireless remote kit (**LANRB19297**) has been purchased, the winch rocker switch does not need to be extended or routed down the boom in the following steps, but can be coiled underneath the driver's side baler door for backup operation.

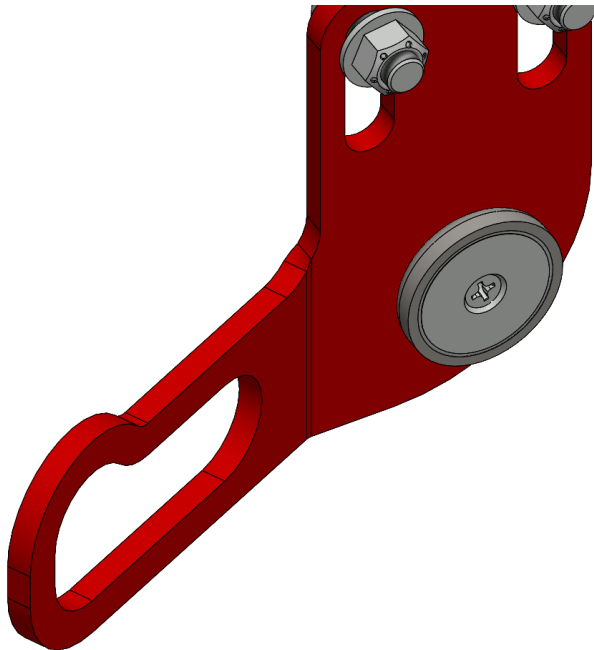


Figure 28



Figure 29

Rocker Switch Routing & Installation

Refer to Figures 30 & 31.

36. Place the switch on the magnet and route the rocker switch harness up beside the winch cable to the beam.
37. Attach the rocker switch harness to the beam five times with a 1/2" loop clamp (LAN8863T140), 1/4" x 3/4" bolts (LANFB103), and 1/4" serrated flange nuts (LANFNAS1).
38. Route the harness back to the beam pivot point and down along side the other wiring harnesses into the baler door. Swing the boom around completely from stop to stop to ensure proper wire slack and clearance. Adjust the wire slack if necessary and secure all wiring harnesses with zip ties.



Figure 30

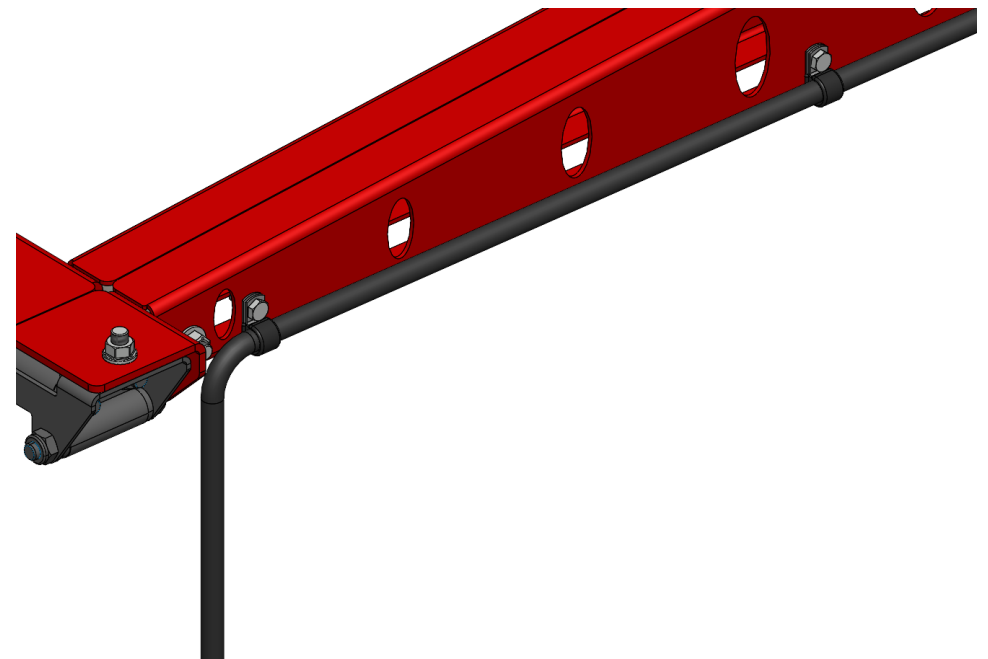


Figure 31

Relay Wiring & Installation

Refer to Figures 32 & 33.

39. Under the drivers side baler door, mount the winch relay, using the #10 x 1/2" self tapping screws (LANF29PT), to be reach by the previously routed wiring harnesses.

40. Attach the end of the 4' black secondary grounding wire to the baler by one of the following methods.

A. Shorten the wire and crimp and heat the 5/16" ring terminal (LAN3208) on the wire. Attach one eye of the wire under one of the winch relay mounting screws.

B. Attach the wire to an available bolt with bare steel exposed, within reach of the winch relay.

C. Attach the wire to the baler by drilling a 3/16" hole within reach of the winch relay. Use the 1/4" thread forming bolt (LANPRVW) to attach one of the eyes of the wire to the baler.

The other end of the wire will be connected to the black post on the relay in the next steps.



Figure 32



Figure 33

Relay Wiring & Installation

Refer to Figures 34 - 35.

For the following steps, use hardware provided in the winch hardware bag (P/N: 100668).

41. Wire the winch relay as shown. **NOTE: Do not over tighten the nuts on the relay posts as this can cause damage to the relay.**
42. The ignition power wire for the winch rocker switch (shown with a red arrow in Figure 36) must be wired to the red stud on the winch relay, with the red wire from harness LANRBWH2 (shown in Figure 36).
43. The brown jumper wire must be wired to the black relay stud with the black wire from harness LANRBWH2 and the 4' black wire (shown in Figure 36 & 37).
44. Using the yellow/blue wire harness, connect the yellow winch stud to the yellow relay stud and the blue winch stud to the blue relay stud.
45. Ensure all nuts on the relay are secure and black rubber boots from the winch hardware bag (P/N:74543) are installed over the terminal ends. Ensure all of the wiring harnesses are secured with zip ties away from sharp or moving components.

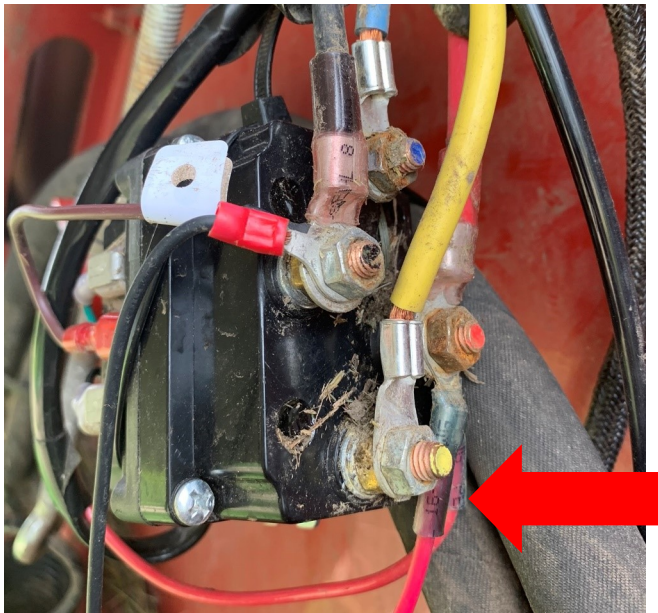


Figure 34

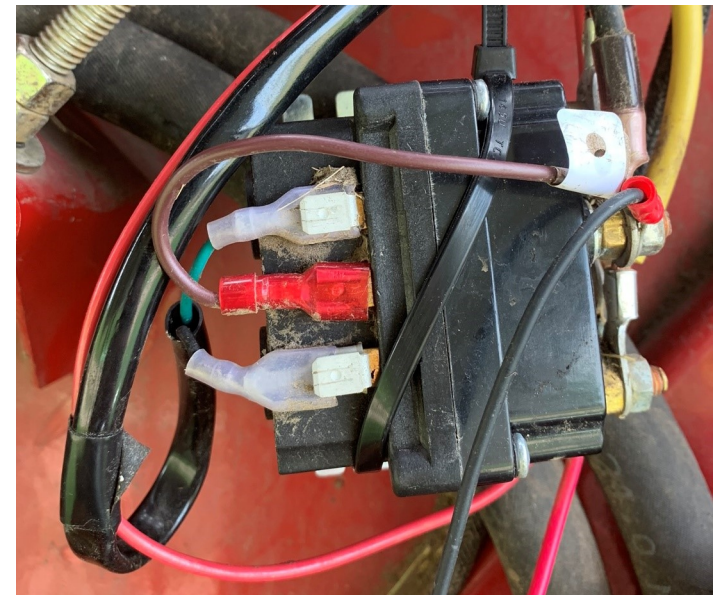


Figure 35

Wiring Routing

Refer to Figures 36 & 37.

46. Starting at the boom pivot, route and secure the wiring harness (LANRBWH2) across the round tube on the baler to the opposite (passenger) side of the baler.
47. Route the harness into the top side of the passenger side baler door towards the front of the baler.



Figure 36



Figure 37

Wiring Routing

Refer to Figures 38 - 40.

48. Continue routing the wiring harness across the side of the baler, down the front side of the door bay, across the tube above the pick up and down the center of the baler tongue.
49. Starting at the rear of the tractor with the connector end of LANRBWH1 at the desired location, route the wiring harness to the tractor battery and connect the ring terminals to the battery. Ensure the wiring harness is secured and clear of sharp or rotating components along the entire length. **Note: Extra tractor harnesses (LANRBWH1) are available if operator uses multiple tractors to operate baler with Net Wrap Lift Assist installed.**



Figure 38



Figure 39



Figure 40



For further technical assistance,

Call Lankota Inc. at:

1-866-526-5682

