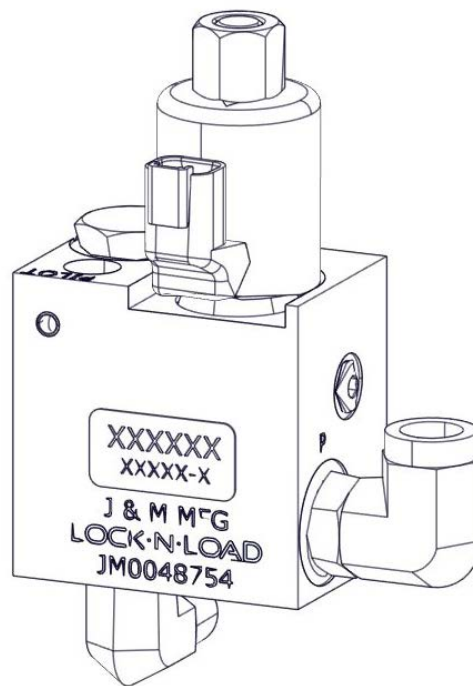




Manual

GRAIN CART OPERATOR'S MANUAL

Lock & Load Retro-Fit Kit



Rev. 3.5.2024

J&M Manufacturing Co, Inc

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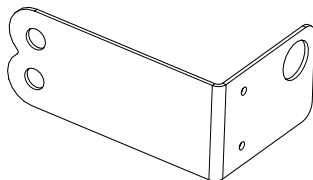
www.jm-inc.com

Parts Included in Kit

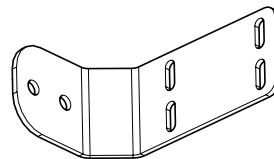
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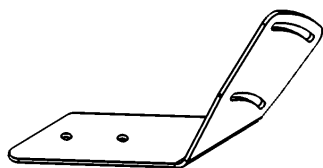
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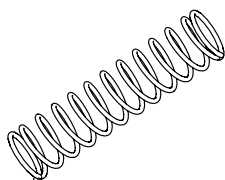
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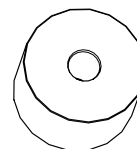
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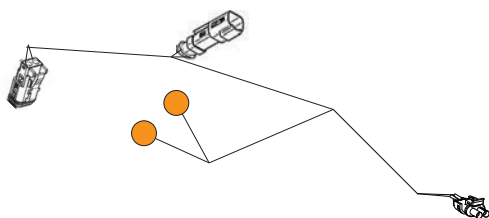
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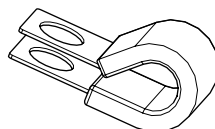
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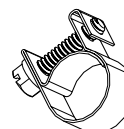
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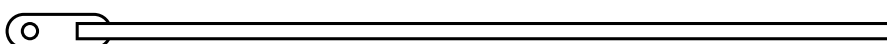
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9



10



#	Description	Part. No.	Qty.
1	Lock and Load Assembly	JM0048754	1
2	Bolt on Lock and Load Light Panel	JM0045008	1
3a	Gate Limit Switch Mounting Bracket for Grain Storm Carts (Standard Auger Only)	JM0044628	1
3b	X-Tended Reach Lock and Load Switch Bracket (X-Tended Reach Auger Only)	JM0044940	1
4	0.72OD, 3" Free Length, 0.059 Wire Compression Spring	JM0045011	1
5	Lock and Load Switch Trigger	JM0044793	1
6	Lock and Load Harness	JM0044755	1
7	3/8" Wire Loom	JM0020450	1
8	0.53125 to 0.59375 Bolt Hose Clamp	JM0046697	1
9	Limit Switch for Lock and Load - 72" Long Cable	JM0046717	1
10	97" Indicator Rod (750 and 875 Models Only)	JM0022171	1
10	80" Indicator Rod (812 Model Only)	JM0027871	1
10	112" Indicator Rod (1012, 1112, 1122, 1222 Models Only)	JM0027917	1
10	127-1/2" Indicator Rod (1312, 1412, 1522 Models Only)	JM0044964	1
10	133-1/2" Indicator Rod (1325, 1326, 1400, 1401 Models Only)	JM0019394	1
11	1/4"-20 x 1" Gr5 Z Hex Bolt	JM0002095	5
12	1/4"-20 Gr5 Z Flange Nut	JM0001499	5
12	M5-0.8 x 10 Gr8.8 Z Hex Bolt	JM0046708	4

Bolt on Lock and Load Light Panel Locations

875 & 750

Align the light panel approximately 8" from the gusset to the bottom of the plate. When mounted it should be set 1-1/4" in from the front of the leg so that the harness and grommet can fit through the hole on the back side of the panel.



1000

Align the top of the Light Panel 5" from the top of the front leg. When mounted, the light panel should be set 1/2" in from the front of the leg so that the harness and grommet can fit through the hole on the back side of the panel.



812

Align the Light Panel approximately 3" from the cart to the top of the Light Panel. When mounted, the light panel should be set 1/2" in from the front of the leg so that the harness and grommet can fit through the hole on the back side of the panel.



All Other Models 1,000 Bushels and Greater

Align the Light Panel at the bottom of the gusset as pictured below. When mounted, the light panel should be set 1/2" in from the front of the leg so that the harness and grommet can fit through the hole on the back side of the panel.



Mounting the Bolt on Lock and Load Light Panel

- Once the light panel is aligned, mark the two holes with a paint maker.
- Drill two holes through the front leg with a 1/4" drill bit.
- Use the 1/4" bolt and 1/4" serrated flange nut to secure it to the cart.
- Apply decal to light panel.

Mounting the Lock and Load Switch for Standard Carts

- For 750, 875, 1325, 1326, 1400, and 1401 models, begin by replacing the indicator rod. To remove the indicator rod, simply remove the bolt on the interior of the tank, take out the old rod, replace with the new rod, and replace the bolt and nut.
- Bolt the limit switch to the standard switch mounting bracket by using the M5 x 10 bolts provided.
- Hold the mount on the left side of the indicator rod. Make sure the switch is very close the indicator rod without touching. Mark the holes with a marker. (See Figure 1)
- Drill holes with a 1/4" drill bit.
- Use 1/4" bolt and 1/4" serrated flange nut to secure the bracket to the cart.
- Make sure the cord takes a path that goes above and away from the moving parts.
- Place wire loom an inch away from the edge and centered vertically. (See Figure 2)
- Drill a 1/4" hole where you want the wire loom to go.
- Ensure wire is fed through the loom before bolting to the cart using the 1/4" bolt and flange nut.
- Take indicator rod cap off and slide lock and load switch trigger, compression spring, bolt hose clamp and finally put your cap back on.
- Make sure the doghouse gate is completely closed.
- Compress the spring to its halfway point (1-1/2") and tighten the clamp. (See Figure 3)



Figure 1

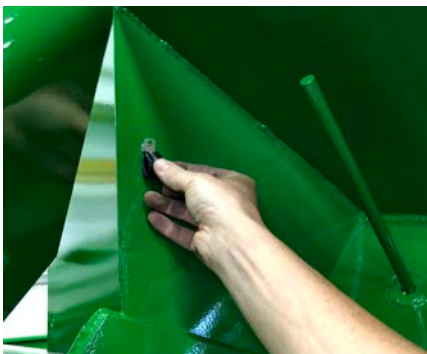
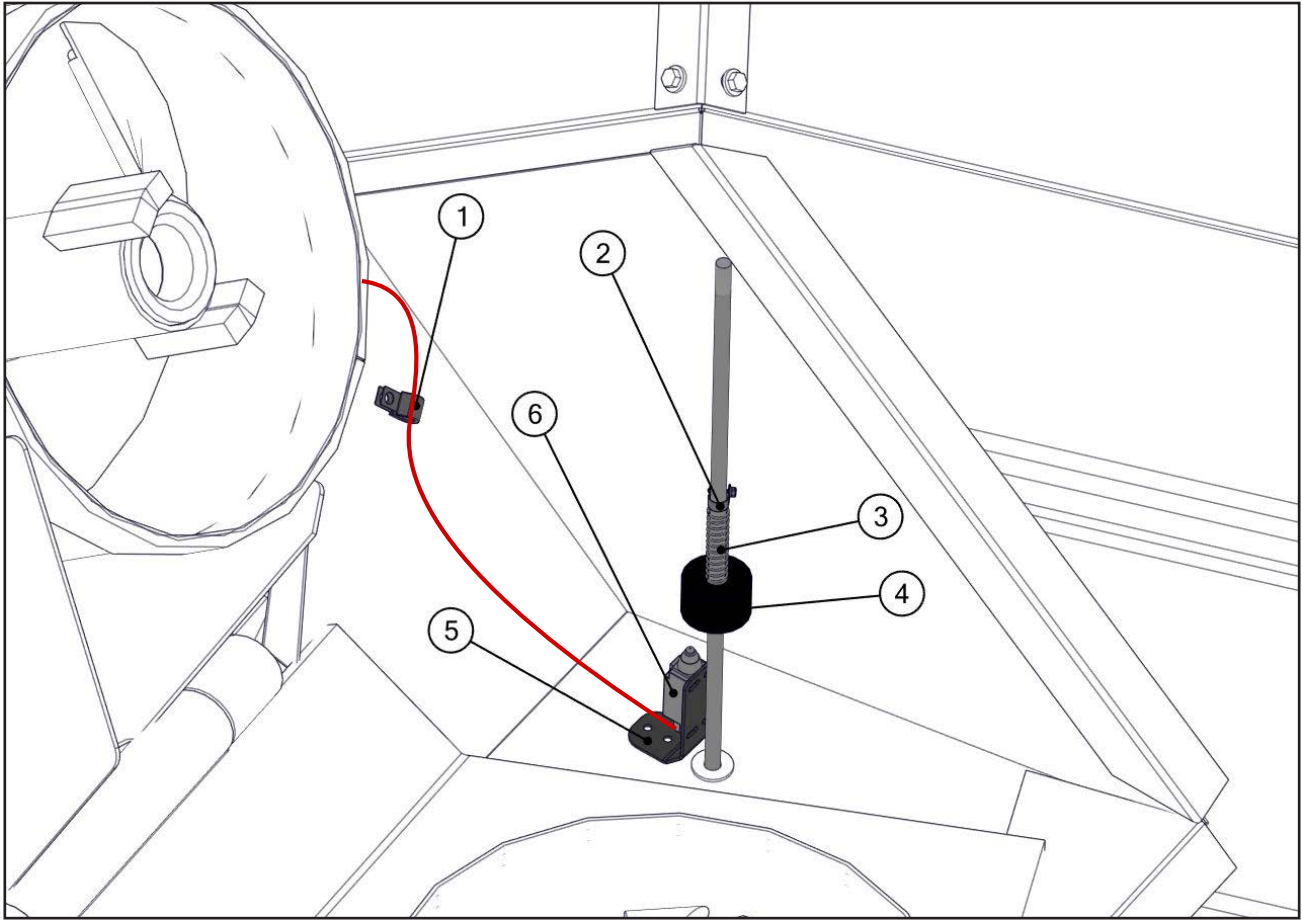


Figure 2



Figure 3

Standard Auger Parts



#	Description	Part. No.
1	3/8" Wire Loom	JM0020450
2	0.53125 to 0.59375 Bolt Hose Clamp	JM0046697
3	0.72OD, 3.0 Free Length, 0.059 Wire Compression Spring	JM0045011
4	Lock and Load Switch Trigger	JM0044793
5	Gate Limit Switch Mounting Bracket for Grain Storm Carts	JM0044628
6	Limit Switch for Lock and Load - 72" Long Cable	JM0046717

Mounting the Lock and Load Switch for X-Tended Reach Carts

- Begin by replacing the indicator rod. To remove the indicator rod, simply remove the bolt on the interior of the tank, take out the old rod, replace with the new rod, and replace the bolt and nut.
- Bolt the limit switch to the X-Tended Reach switch mounting bracket by using the M5 x 10 bolts provided.
- The holes are slotted so you can play with where the switch will sit best.
- Hold the mount on the left side of the indicator rod. Make sure the switch is very close to the indicator rod without touching. Mark the holes with a marker.
- Drill holes with a 1/4" drill bit.
- Use 1/4" bolt and 1/4" serrated flange nut to secure the bracket to the cart.
- Take off the cap on the end of the indicator rod and slide the lock and load switch trigger, compression spring, and bolt hose clamp on to the rod. Return the cap to the end of the indicator rod.
- It may be necessary to cut away a portion of the lock and load switch trigger on some models. (As shown in Figure 2)
- Make sure the doghouse gate is completely closed.
- Compress the spring to its halfway point (1-1/2") and tighten the clamp.

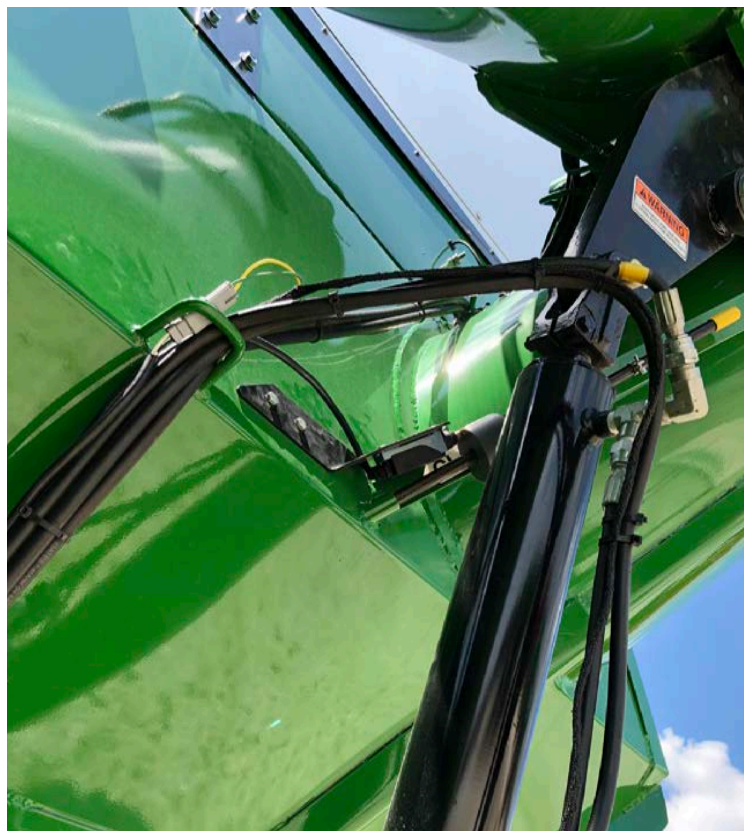


Figure 1

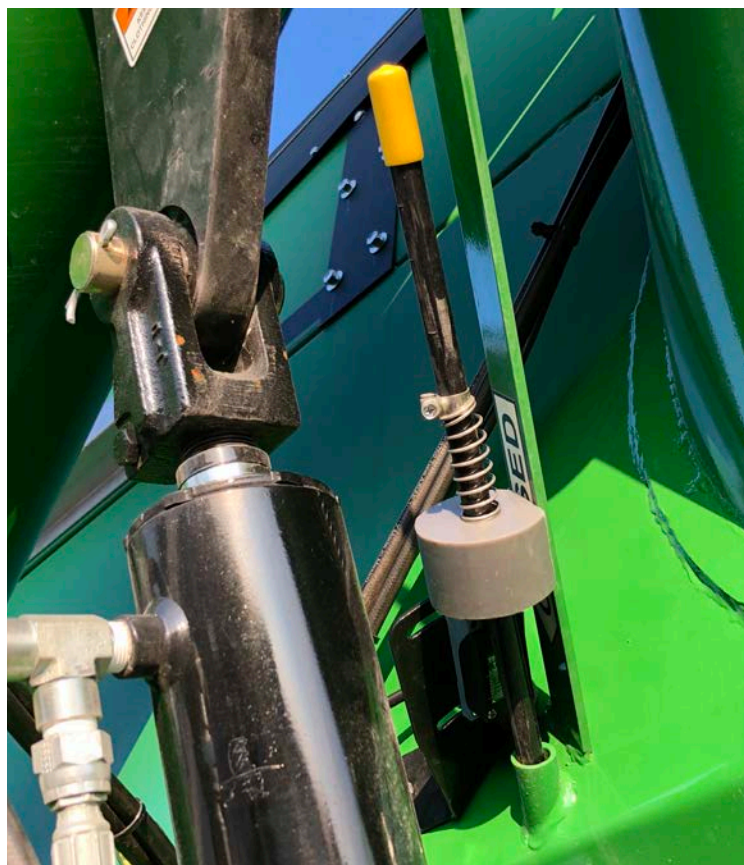
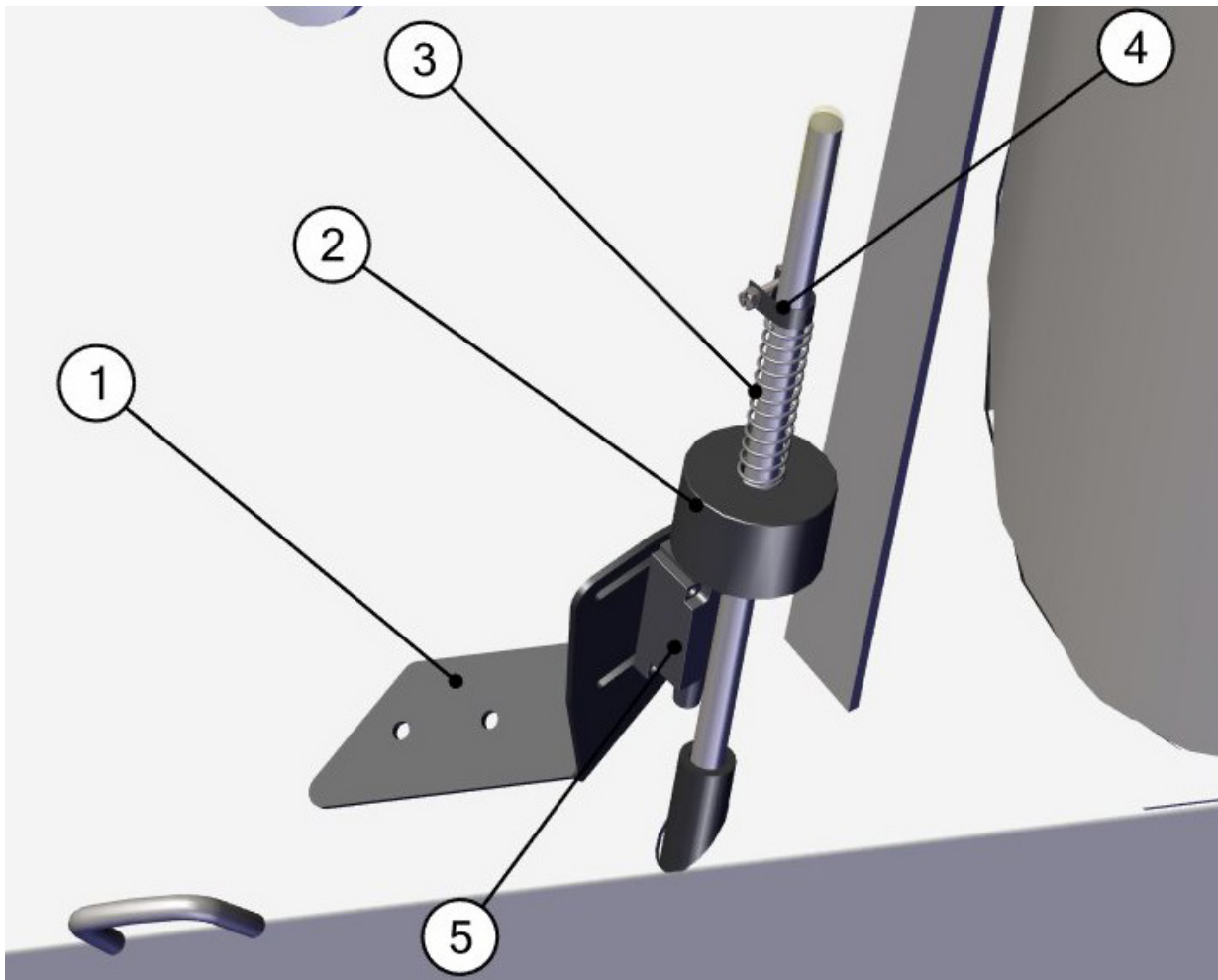


Figure 2

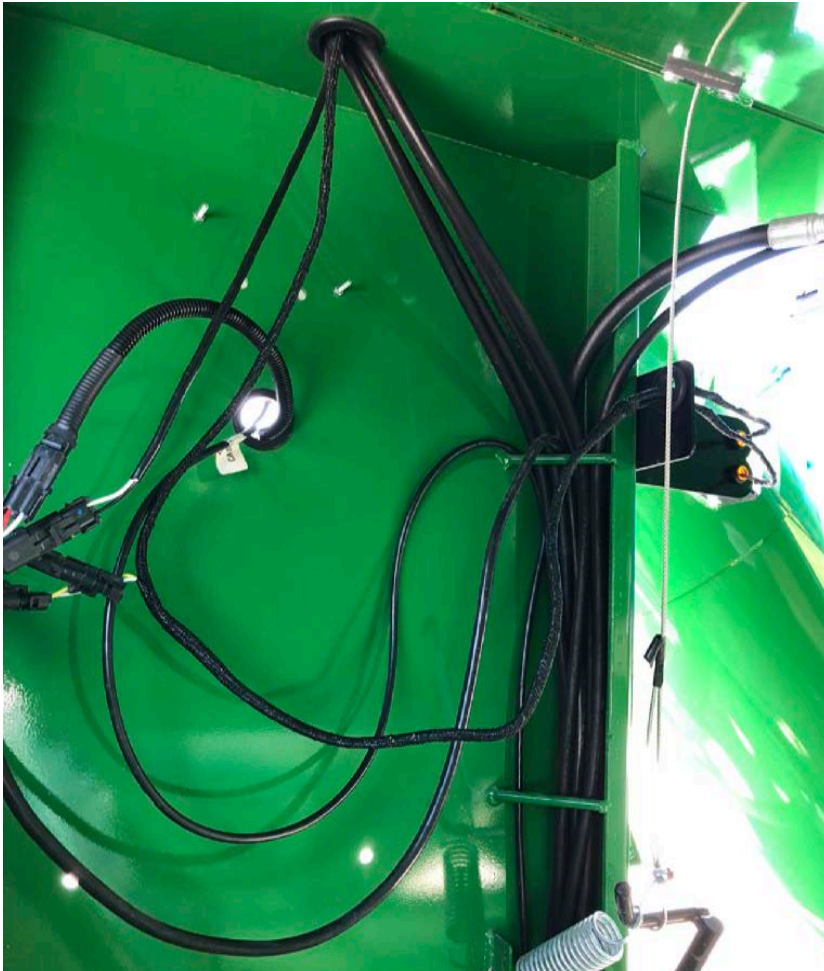
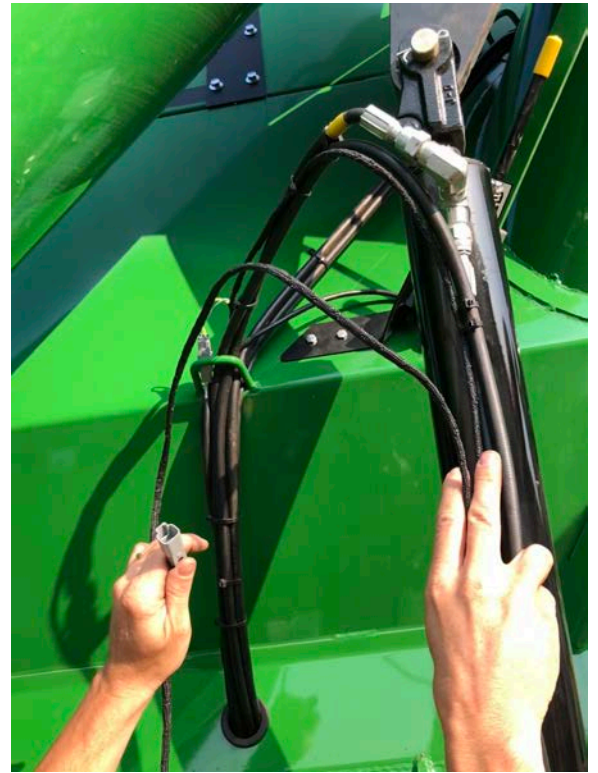
X-Tended Reach Diagram



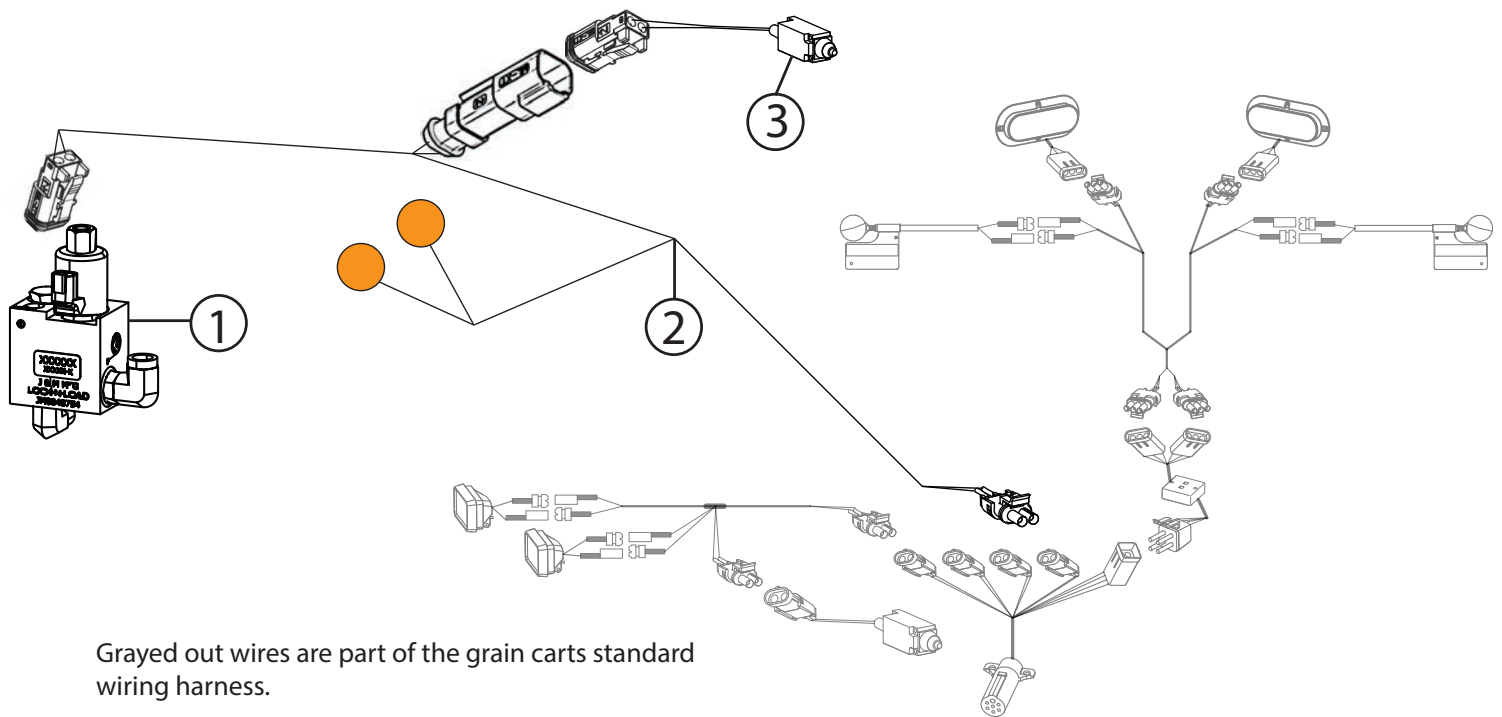
#	Description	Part. No.
1	3/8" Wire Loom	JM0020450
2	0.53125 to 0.59375 Bolt Hose Clamp	JM0046697
3	0.72OD, 3.0 Free Length, 0.059 Wire Compression Spring	JM0045011
4	Lock and Load Switch Trigger	JM0044793
5	Gate Limit Switch Mounting Bracket for Grain Storm Carts	JM0044628
6	Limit Switch for Lock and Load - 72" Long Cable	JM0046717

Wiring for Lock and Load

- Run harness end with a male butt end through the hole in the back of the light panel.
- Plug the two prong male connector to the accessory plug in the carts wiring harness. The light that illuminates is the "12 Volt Active" light.
- Put corresponding light through the back side first then force grommet through hole.
- Push light into grommet.
- Run the male butt end connector up through the hole where other cords are going.
- Thread the male butt end connector through the hole in the front of the cart. It may be easier if you first remove the grommet from the outside hole.
- Have your harness follow the hydraulic hoses until you reach the base of the cylinder and plug in the male butt end into the lock and load valve.
- You can now plug in the male butt end from the indicator rod switch into the female offshoot from the harness.
- Zip tie the cords so none of them get pinched or pulled by moving parts.



Wiring Schematic



Grayed out wires are part of the grain carts standard wiring harness.

#	Description	Part. No.
1	Lock and Load Assembly	JM0048754
2	Lock and Load Harness	JM0044755
3	Limit Switch for Lock and Load - 72" Long Cable	JM0046717