



LC10 System

Soft Hose Caddy



OPERATOR'S and MAINTENANCE MANUAL 2013 Edition

TR-MAN-LC10



Title	TR-MAN-LC10 Operator's Manual - LC10	Creation	07-OCT-2013 by Brandon Packer	Revision	
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LC10 Soft Hose Caddy

We would like to thank you for purchasing your new **Cadman LC10 Soft Hose Caddy**. You have purchased a product of superior quality that will serve your needs for a long time provided you follow this manual and safety procedures.



Figure 1 – LC10 Soft Hose Caddy

img-00578

BEFORE operating your **Cadman LC10 Soft Hose Caddy**, inspect the machine for any damage or parts which may have come loose during shipping. **REPORT ANY DAMAGE TO CADMAN POWER EQUIPMENT LIMITED OR YOUR LOCAL DEALER IMMEDIATELY!**



Warranty Policy

CADMAN POWER EQUIPMENT LIMITED warrants that each machine it manufactures shall be free from defects in materials and workmanship. The terms of this warranty are as follows:

- All components manufactured by **CADMAN POWER EQUIPMENT LIMITED** shall be warranted for a period of one (1) year from the date of delivery, except the frame and hose drum structures which shall be warranted for a period of three (3) years.
- **CADMAN POWER EQUIPMENT LIMITED** makes no warranty whatsoever in regard to tires, engines, and other trade accessories used on its equipment. The customer shall rely solely on the warranties offered (if any) by the respective manufacturer of these trade accessories.

The sole obligation to **CADMAN POWER EQUIPMENT LIMITED** under this warranty is limited to the repair or replacement of any part it manufactured, which, in the judgment of **CADMAN POWER EQUIPMENT LIMITED**, failed under normal and proper use and maintenance due to defective materials or workmanship. All freight charges incurred shall be the sole responsibility of the customer.

CADMAN POWER EQUIPMENT LIMITED and its dealers (**who are neither authorized nor qualified to undertake any obligations on behalf of CADMAN POWER EQUIPMENT LIMITED**) **DO NOT**, under any circumstances, accept any responsibility for any losses or costs incurred due to parts failure and/or delays during the parts replacement process.

This warranty will be considered void if any alterations or modifications have been made to the machine without the express written consent of **CADMAN POWER EQUIPMENT LIMITED** outlining the nature and the extent of such modifications.

CADMAN POWER EQUIPMENT LIMITED, whose policy is one of continuous improvement, reserves the right to change specifications and designs without notice or incurring obligation.

The warranties expressed herein are non-transferable and replace any other warranties, either written or verbal, which may have been given or implied.

When Applying Liquid Manure

Environmental concerns seem to be driving legislative agendas in many agricultural areas across the continent. Current and pending laws in many agricultural regions of North America are changing the ways in which the agricultural community is expected to manage their liquid animal waste products.

The changes in legislation typically target two main issues; run-off prevention during and after application and soil nutrient loading.

Run-off seems to be the largest concern with nutrient application. Run-off may result from several different factors, most of which are controllable. These factors include; exceeding the soil intake rate; nutrient application on steep grades; high application amounts; leaking mainline fittings and seals; sudden rainfall during or immediately after application; ground frost; etc. Constant watch must be kept and immediate action taken when necessary to prevent run-off from occurring.

Soil nutrient loading depends on many variables. Some of these variables (but certainly not all) are soil type, type of crop being grown in the irrigated area, application timing, nutrient value of the material being applied (nutrient value should be assessed at the time of application as it can change throughout the year), etc.

Soil type will determine the intake rate at which liquid may be applied. Cultivation of the field just prior to application can improve the intake rate of some soils.

Great potential benefit lies in using the nutritional value of the manure being applied to replace some or all of the traditional chemical fertilizer used. Application timing and amount are important considerations. Soil analysis taken prior to planting and during the growth periods of the crop will help determine if there is room for further application amounts to be added prior to crop maturity. A total management plan should include provisions to end the crop season without surplus nutrients left as residual. These excess nutrients typically end up in the ground water supply. Local colleges, universities and agricultural extension services are usually a good source of information. They can usually help you determine an application program that prevents soil nutrient overload due to excess application.

Cadman Power Equipment Limited cannot possibly provide up-to-date recommendations with regard to the legal obligations you must deal with in your particular area. However, as a manufacturer of equipment used in nutrient application (liquid manure, milk house run-off, etc.), we feel it necessary to make you aware that the municipal, regional and state governing bodies in your area may have recently enacted new legislation or revised existing legislation with regard to nutrient handling practices and procedures.

It is your responsibility to make yourself aware of and abide by the current legislation in your area. Please take the time to contact your local agricultural representative to obtain the latest information regarding legal handling and application of manure.

Safety Precautions



Please take the time to read and **understand** this manual so that unnecessary errors and risks are avoided. If you have any questions or concerns, please contact **Cadman Power Equipment Limited** or your local dealer/distributor.

- **DO NOT** move or operate this machine until you have read and understand these instructions in this manual.
- **NEVER** allow untrained persons to operate this machine.
- **DO NOT** attempt to service this machine while it is in operation.
- **MAKE CERTAIN** all mechanical and hydraulic tension has been released before attempting any service on the machine.
- **CHECK** all fasteners (nuts and bolts) regularly for tightness.
- **PERFORM REQUIRED MAINTENANCE** as prescribed or as necessary to keep this machine in safe operating condition.
- **KEEP ALL SPECTATORS** at a safe distance.
- **STAY CLEAR** of high pressure supply lines, especially when first pressurizing the system.
- **DO NOT** remove or alter any shielding on this machine.
- **BE CERTAIN** that the machine is securely anchored (using a tractor) before unwinding the hose.
- **KEEP CLEAR** of all moving parts.
- **NEVER** tow this machine at speeds greater than **55 mph [90 km/h]** and be certain the tow vehicle has adequate braking capacity to maintain safe control at all times.
- **NEVER** tow this machine with the hose loaded with fluid.
- **BE AWARE** of any obstacles (i.e. mail boxes, fence posts, and other equipment) that you may encounter when transporting the machine.
- **REGULAR INSPECTION** of your pipe/hose couplings, tubing and gaskets should be a part of your regular set-up routine. Any defective parts **MUST** be replaced or repaired before the machine is put into service.

OPERATOR NOTE

Safety is just a word until put into practice.

Safety must be the first thing on your mind when operating any piece of machinery.

Failure to follow all safety instructions can result in serious injury or death to you and/or any spectators.

**THINK
SAFETY
FIRST**



This symbol, the **safety-alert symbol**, indicates a hazard. When you come across the safety-alert symbol in this manual, make certain you fully understand and abide by the given instructions or warnings.

Safety Decals

Cadman Power Equipment Limited has determined the potential hazards and has labeled the machine accordingly. The safety decals on this machine are intended to warn the operator of potential hazards.



Figure 2 - Signal Word Panels

img-00340

Each safety decal on this machine contains a Signal Word Panel which indicates the degree of hazard. Definitions of the Signal Words are as noted below...

- **DANGER** - an imminently hazardous situation that, if not avoided, **WILL** result in death or serious injury.
- **WARNING** - a potentially hazardous situation that, if not avoided, could result in death or serious injury, and include hazards that are exposed when guards are removed.
- **CAUTION** - a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

It is important that these decals are properly maintained.

- keep all safety decals legible (remove dirt or debris)
- replace any damaged or illegible decals
- replace any missing decals
- if applicable, install the current safety decal specified by **Cadman Power Equipment Limited** on any components installed during repair

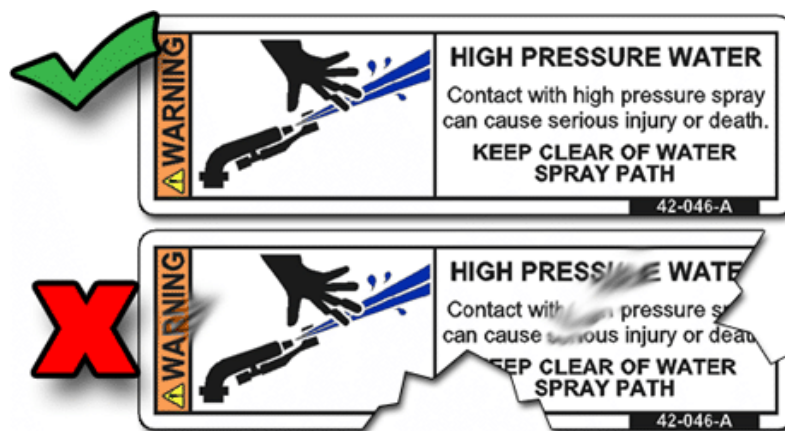


Figure 3 – Replace Decal

img-00131-A

Location of Safety Decals

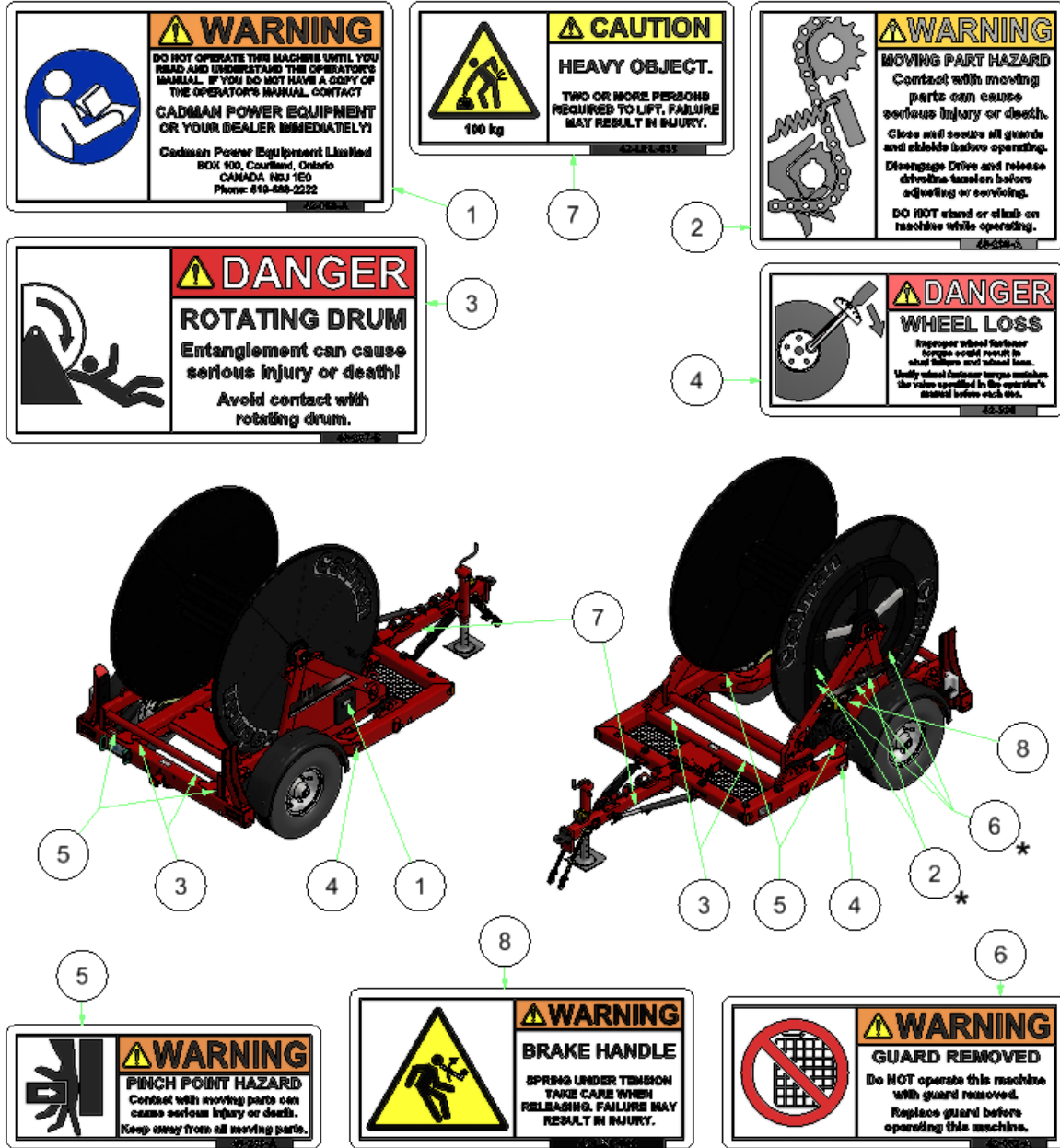


Figure 4 - Safety Label Location (*Behind Shield)

img-00577

To obtain the required replacement safety decals contact **Cadman Power Equipment Limited** or your **Local Dealer**. Re-install all decals in the proper location on the machine. For part numbers please see page 30.

Location of Safety Lights

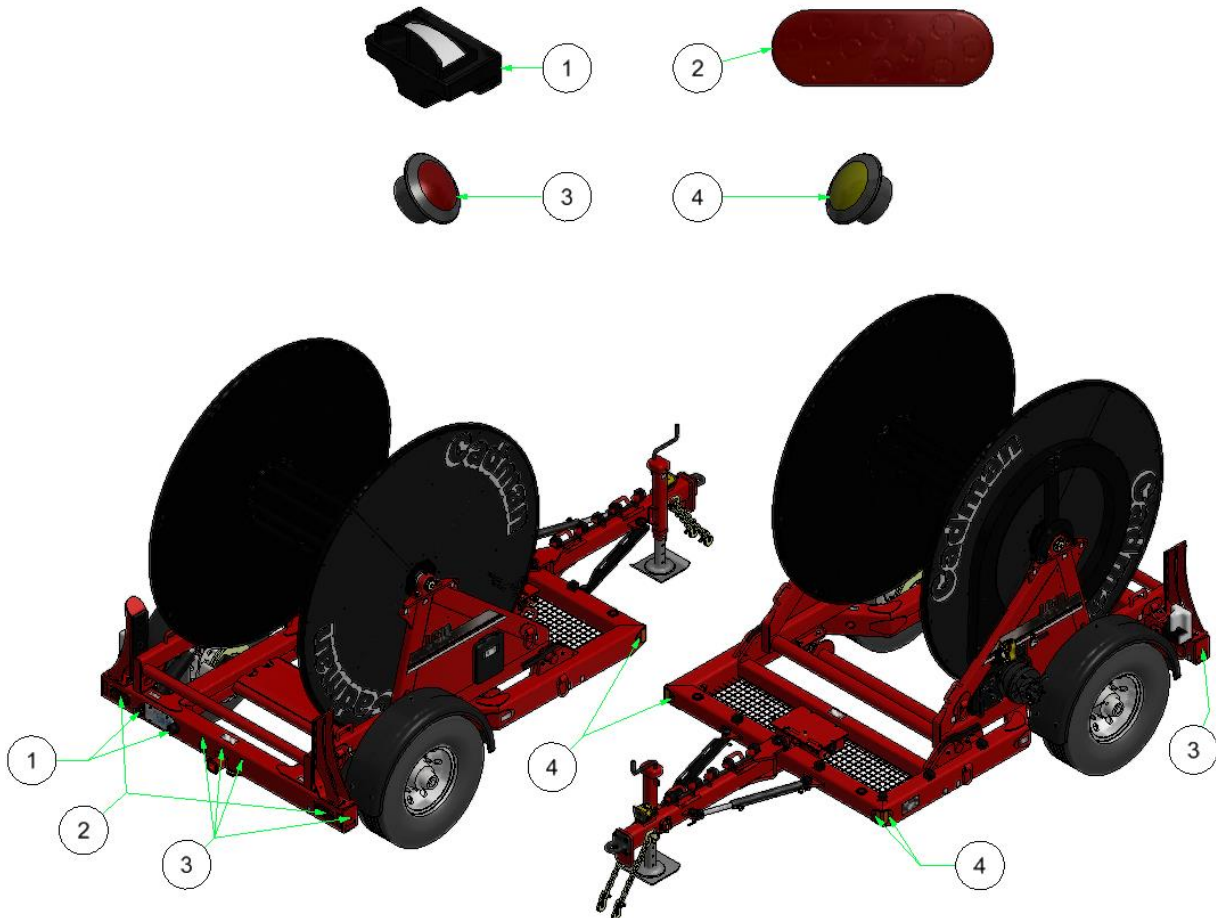


Figure 5 - Safety Light Location

img-00576

Item	Description	Part Number	Qty
1	LED - LICENSE PLATE LIGHT	42-ELC-008	2
2	LED - BRAKE LIGHT	42-ELC-006	2
3	LED - SAFETY LIGHT RED	42-ELC-007RED	4
4	LED - SAFETY LIGHT AMBER	42-ELC-007AMB	4

To obtain the required replacement safety lights contact **Cadman Power Equipment Limited** or your **Local Dealer**. Re-install all damaged or burnt out lights in the proper location on the machine.

Location of Safety Shields

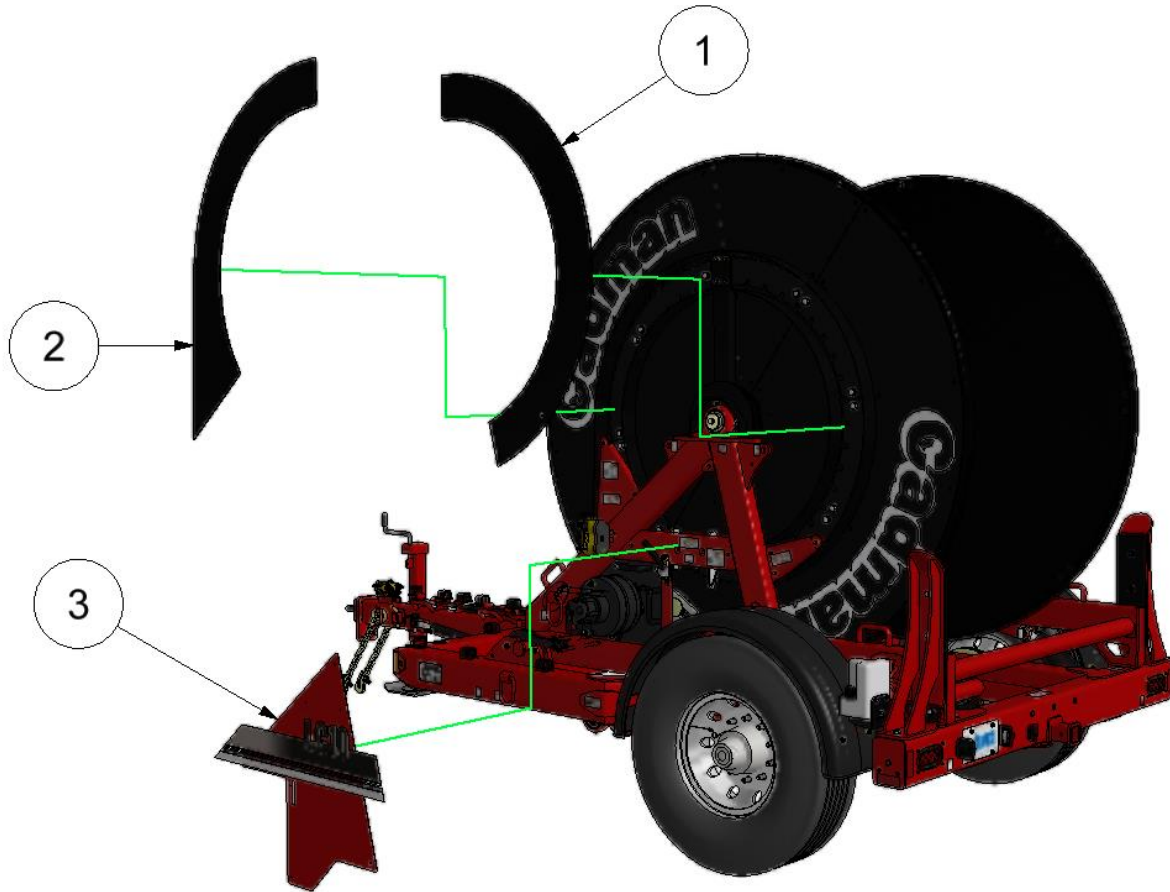


Figure 6 - Safety Shields Location

img-00580

Item	Description	Part Number	Qty
1	SHIELD - FRONT CHAIN GAURD	64-710-A	1
2	SHIELD - BACK CHAIN GAURD	64-713-A	1
3	SHIELD - TENSIONER PLATE GRAUD	64-610	1

To obtain the required replacement safety shields contact **Cadman Power Equipment Limited or your Local Dealer**. Re-install all shields in the proper location on the machine before any operation.

Hydraulic Connections

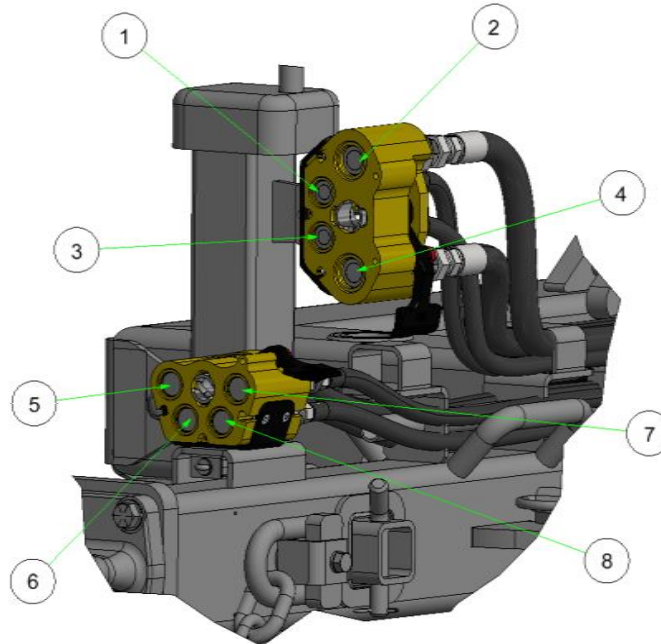


Figure 7 – Hydraulic Connection Locations

img-00590

Item	Description	Qty
1	DRUM MOTOR – BRAKE LINE	1
2	DRUM MOTOR - REVERSE LINE	1
3	DRUM MOTOR - CASE DRAIN	1
4	DRUM MOTOR - FORWARD LINE	1
5	TRAILER TONGUE - RETRACT	1
6	TRAILER TONGUE - EXTAND	1
7	CRADLE LIFT - EXTAND	1
8	CRADLE LIFT - RETRACT	1



Connection and disconnection of hydraulic hoses must **ONLY** be done when the machine is shut down and is in a non-loaded condition. This means that all mechanical and hydraulic pressure has been released. Make sure to carefully clean all surfaces of contact before connection of hydraulic hoses or the multi-port take place. Replace all multi-port dust caps when not in use. When coupling the female and male multiport units together watch that you do not catch your fingers or other object between the connection.

Connecting the Multi-port units



Figure 8 – Removal of Dust Caps
img-00593 & img-00597



Figure 9 –Unlocking the Multi-port
img-00593 & img-00594



Figure 10 – Connection of Multi-port
img-00595



Figure 11 – Locking the Multi-port
img-00596

Step 1

Remove dust caps and make sure surfaces are clean before connection of the multi-port.

Step 2

Press the lock button on the lever and turn it to the vertical position.

Step 3

Push the multi-port units together as far as possible.



Take caution not to get any objects or your fingers caught between the plates

Step 4

Push the lever to the lowered position to lock the multi-port together.

Disconnecting the multi-port connection units



Turn off and depressurize the hydraulic system before disconnection. Pressure left in the hoses can result in a recoil effect during disconnection. Be sure to grip the lever firmly.



Figure 12 – Releasing the Lock

img-00593 & img-00597

Step 1

Press the lock button and push the lever to a vertical position



Figure 13 – Separating the Multi-port

img-00598

Step 2

Pull the multi-port connection apart.



Figure 14 – Replace Dust Caps

img-00599 & img-00600

Step 3

Make sure the surfaces are clean and replace the dust caps.



Position the male/moving plate so that it does not risk being damaged.

Connecting/Disconnecting Hoses to the multi-port Unit



Turn off and depressurize the hydraulic system before disconnection. Pressure left in the hoses can result in a recoil effect during disconnection. Be sure to grip the lever and hose firmly.

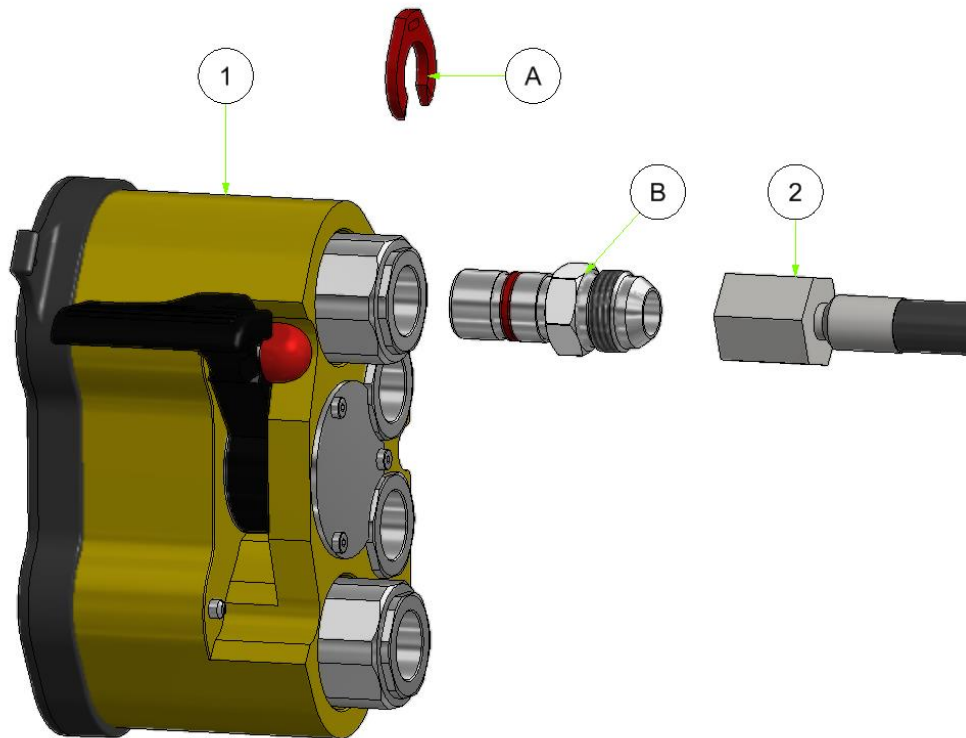


Figure 15 – Hydraulic Hose Connection

img-00634

Item	Description	Qty
A	MULTI-PORT - WEO ASSEMBLY STOP CLIP	1
B	MULTI-PORT - WEO NIPPLE	1
1	CEJN – MULTI-PORT 12.5/19	1
2	HYDRAULIC HOSE - 3/8" HOSE	1



Be sure to clean all connecting ends of hydraulic hose and multi-port units before contact to eliminate contamination of the hydraulic system..

Complete this section to disconnect/connect hydraulic hoses to your multi-port.

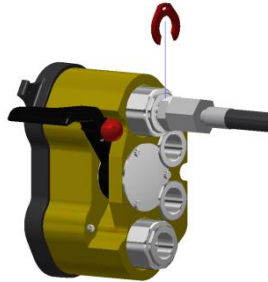


Figure 16 – Remove Assembly Stop Clip
img-00635

Step 1

Remove the assembly stop clip.

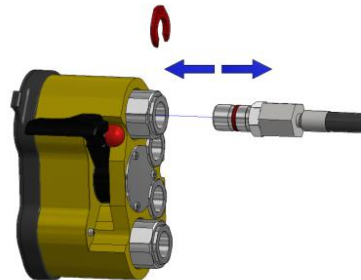


Figure 17 – Disconnect the WEO Hose
img-00636

Step 2

Push the WEO nipple hose connection all the way in then pull out to disconnect.

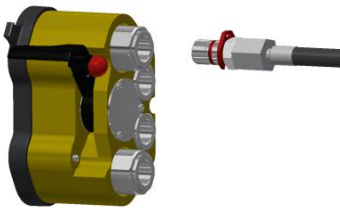


Figure 18 – Replace Assembly Stop Clip
img-00637

Step 3

To connect the hose to the multi-port place the assembly stop clip back on the WEO Nipple.

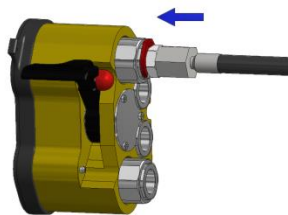


Figure 19 – Connecting the WEO
img-00638

Step 4

Push the WEO in as far as it goes to connect the hose to the multi-port. Pull gently on the hose to confirm connection.

Changing Tongue Positions of Your Caddy



Prior to changing the LC10 hose caddy trailer tongue position the machine must be shut down and in a non-loaded condition. This means that all mechanical and hydraulic tension has been released from the hydraulic hose system.



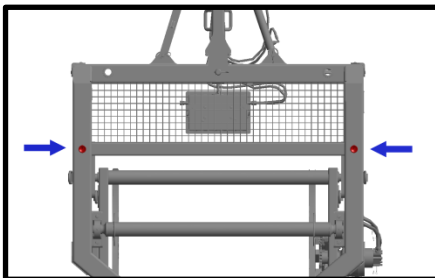
Figure 20 – Different Tongue Positions Right through Left

img-00614 & img-00615 & img-00616

Right Tongue Position

Complete this section to change the tongue location to the right on your caddy.

Step 1



Place jacks in the left and right jack point positions of the caddy.

Figure 21 – Jack locations (Bottom View)

img-00617

Step 2

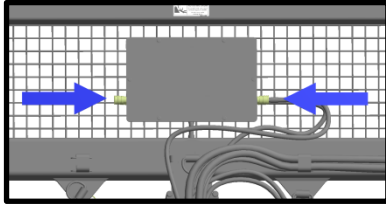


Figure 22 – Move Hydraulic Hoses

img-00618

Unhook and move the two hydraulic hoses from the one side of the box to the other side.

Step 3

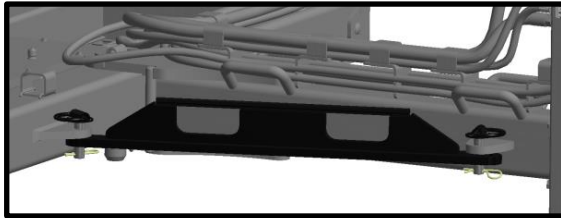


Figure 23 – Remove Brace

img-00619

Remove the tongue brace.

Step 4

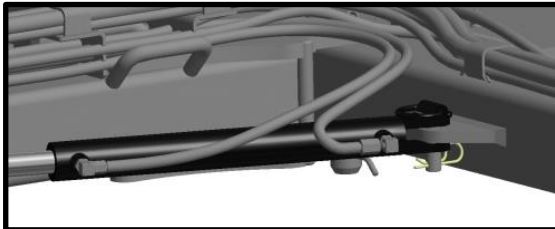


Figure 24 – Remove Cylinder Pin

img-00620

Remove the pin from the cylinder on the side attached to the trailer.

Step 5

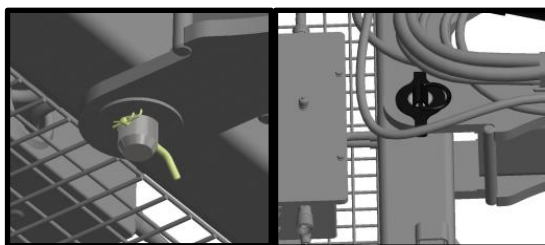
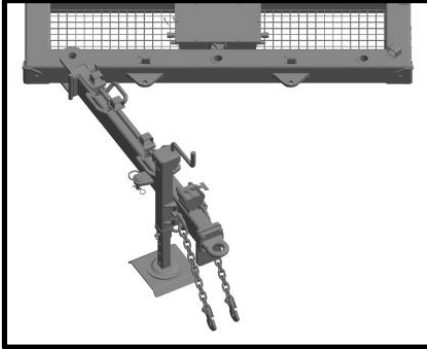


Figure 25 – Remove Main Pin

img-00621 & img-00622

Remove the main locating pin from the tongue of the trailer.

Step 6



You now can move the tongue to the right location with another able bodied person.

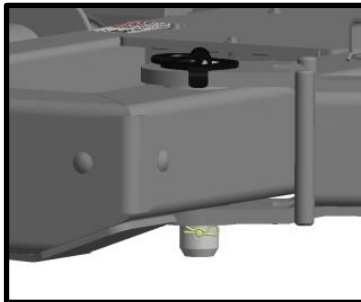


If you're not physically fit you should **NOT** assist in moving the tongue of the trailer to avoid injury. The trailer tongue weights approximately 410lbs (185 kg)

Figure 26 – Move Tongue Positions

img-00623

Step 7

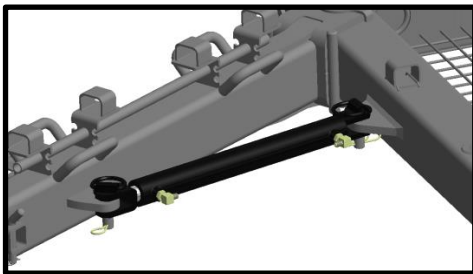


Replace the main locating pin for the tongue of the trailer.

Figure 27 – Replace Main Tongue Pin

img-00624

Step 8



Replace the hydraulic cylinder of the trailer tongue and the locating pins.

Figure 28 – Replace Hydraulic Cylinder

img-00625

Step 9

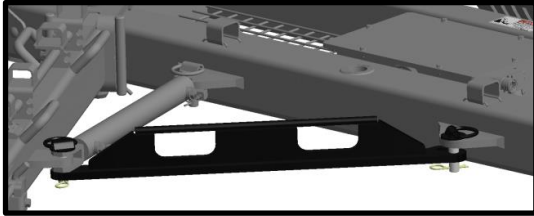


Figure 29 – Replace Tongue Brace

img-00626

Replace the tongue brace of the trailer as shown for the tongue in the right side position.

Step 10



Figure 30 – Right Tongue Position

img-00627

Once all pins are in place and everything is connected, you can remove the jacks. The trailer is now setup in the right tongue position and is ready for transportation. To move the tongue back to the center location follow these set of steps backwards.

Left Tongue Position

Complete this section to change the tongue location to the left on your caddy.

Step 1

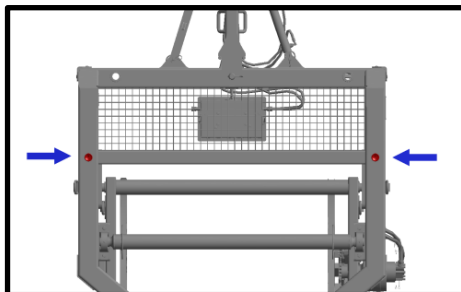


Figure 31 – Jack locations (Bottom view)

img-00617

Starting from the center position, place jacks in the left and right jack point positions of the caddy.

Step 2

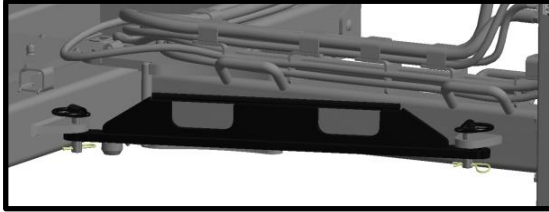


Figure 32 – Remove Brace

img-00619

Remove the tongue brace and set aside.

Step 3

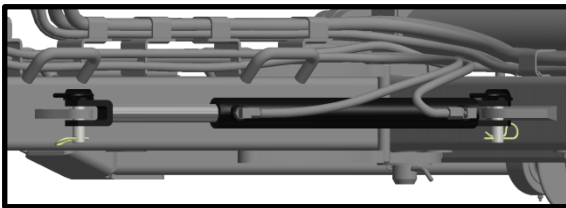


Figure 33 – Remove Cylinder Pins

img-00628

Remove both pins from the cylinder and set the cylinder aside.

Step 4

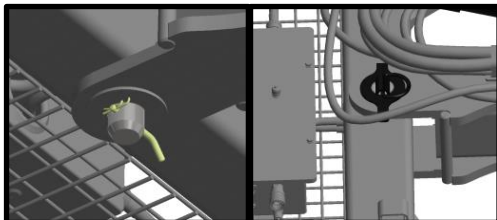


Figure 34 – Remove Main Locator Pin

img-00621 & img-00622

Remove the main locating pin from the tongue of the trailer.

Step 5

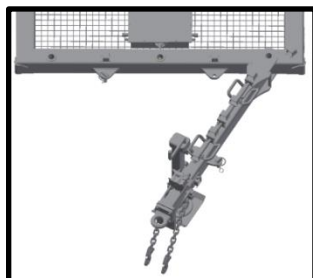


Figure 35 – Move Tongue Positions

img-00629

You now can move the tongue to the left location with another able bodied person.



If you're not physically fit you should NOT assist in moving the tongue of the trailer to avoid injury.

Step 6

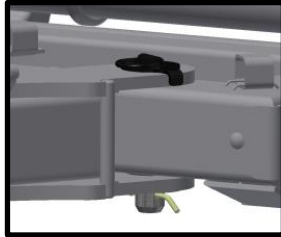


Figure 36 – Replace Tongue Pin

img-00630

Replace the main locating pin for the tongue of the trailer.

Step 7

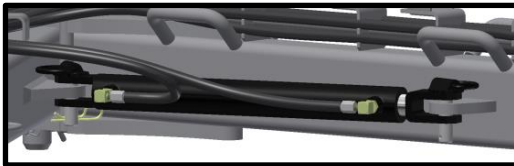


Figure 37 – Replace Hydraulic Cylinder

img-00631

When you attach the hydraulic cylinder on the right side of the tongue for the left side tongue setup the cylinder must be rotated 180° so the hydraulic connections face away from the tongue so they will not get damaged.

Step 8

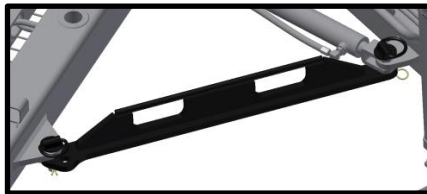


Figure 38 – Replace Tongue Brace

img-00632

Replace the tongue brace of the trailer as shown for the tongue in the left side position.

Step 9

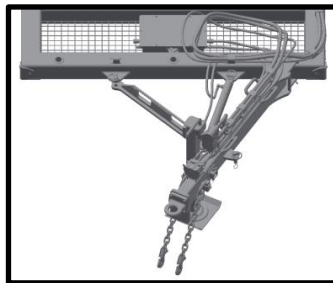


Figure 39 – Left Tongue Position

img-00633

Once all pins are in place and everything is connected, you can remove the jacks. The trailer is now setup in the left tongue position and is ready for transportation. To move the tongue back to the center location follow these set of steps backwards.

Unloading Your Hose Caddy

Complete the following instructions to unload your LC10 Soft Hose Caddy...

Step 1

Connect the hydraulic multi-port 12.5/19 (Female) of the caddy to the primary hydraulic multi-port 12.5/19 (Male) of the Power Pak. Review your tractor's operator's manual or contact your tractor dealer for the location of this port. Connect the remaining cylinder hose pair.



It is important to ensure that the case drain hose is connected to a restriction free drain port on the vehicle. This port MUST not exceed a working pressure of 100 psi [6.9 bar]. Connecting the case drain line to a pressurized port WILL result in motor and/or machine damage.

Step 2

Connect the break-away cable and lock prior to moving your **LC10 Soft Hose Caddy**.

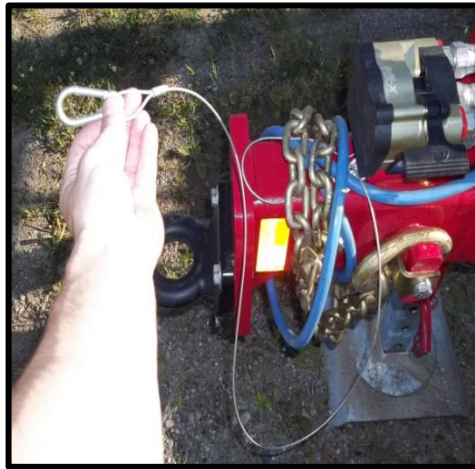


Figure 40 – Connect Break-Away Cable and Lock Prior to Transport

img-00581 & img-00582



It is important to verify that the break-away cable is connected to the back of the vehicle and the lock is engaged prior to moving your LC10 Soft Hose Caddy. Failure to do so can result in equipment damage.

Step 3

Ensure the tongue brace is in the locked position.

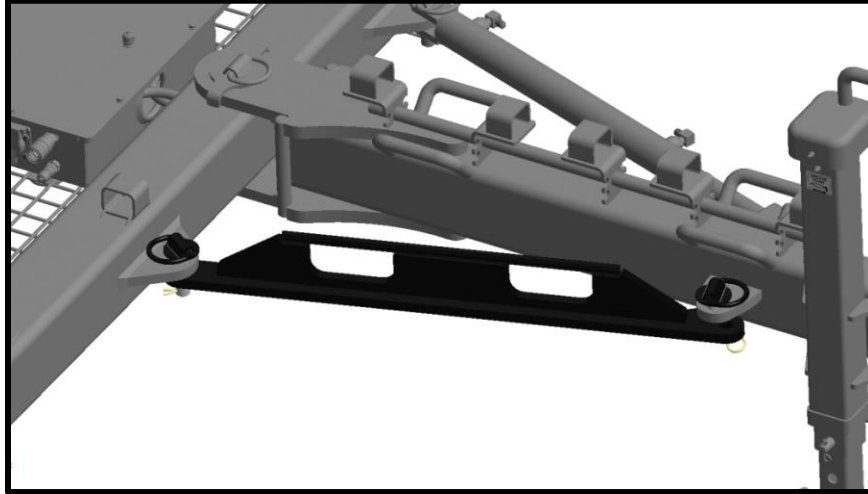


Figure 41 - Tongue Brace in locked Position

img-00584

Step 4

Once at the required site, disengage the drum lock.



Figure 42 - Disengage Drum Lock

img-00583

Step 5

Engage the vehicle hydraulics so the drum rotates towards the vehicle. This will allow the soft hose to unreel. To put the drum into neutral (*free wheel*) shift the vehicles hydraulic controls into the float position.

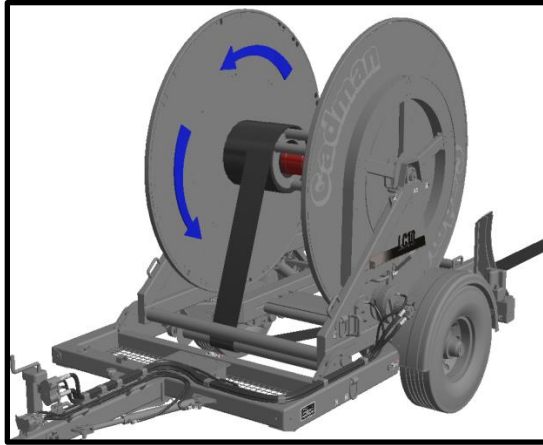


Figure 43 - Unreel Direction

img-00607

As you unreel soft hose, drive the vehicle and hose caddy (at a low rate of speed) along the required hose path.

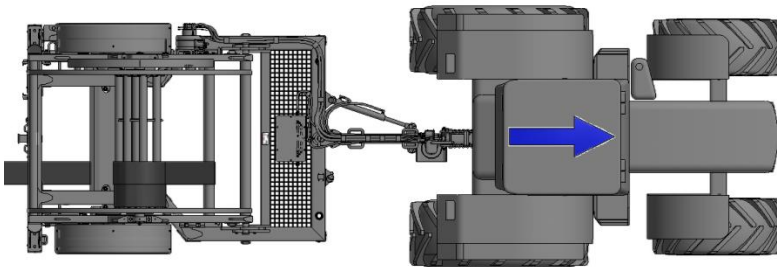


Figure 44 - Unreel Hose Slowly

img-00602

Step 6

When the soft hose is nearing the last wrap stop the tractor and disengage the hydraulics. Slowly rotate the drum so that the hose end fitting can be easily removed manually.



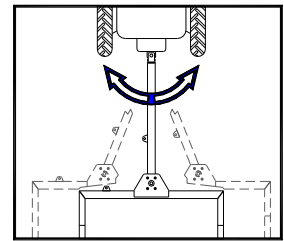
Failure to remove the hose end manually from the Soft Hose Caddy can result in hose, coupler or drum damage.

OPERATOR NOTE



Where field conditions permit, always attempt to pull the hose either up or down sloping terrain instead of operating across a side hill.

The **Cadman Soft Hose Caddy** allows the operator to offset the tracking of the unit. This allows the hose caddy to be towed to either side of center while unloading the hose. You **MUST** disengage the tongue brace prior to attempting offset tracking.



img-00187

When towing the hose caddy in the offset position be aware of obstacles in your path.



Temporary Hose Repair

In some cases your hose may become punctured during regular usage in the field. If this occurs complete the following steps to temporarily repair your hose.

Step 1

Stop pumping fluid through the hose. Wait until all line pressure has dissipated. Or use a pair of hose pinchers to isolate the damaged hose



A hose with a puncture may burst. Stay clear of a hose that is under pressure. Failure to stay clear may result in serious injury.

Step 2

Clean the area with water.

Step 3

Slide the temporary repair sleeve (*optionally equipped on Cadman Supply Hose*) to the damaged area of hose.



Figure 45 - Pull Repair Sleeve

img-00444

Step 4

Pressurize the line.

Step 5

Once you have completed pumping, repair the hose using a hose mender.

Loading Your Hose Caddy from Rear



Prior to loading the LC10 Soft Hose Caddy, Cadman Power Equipment Limited requires that you clean the hoses with a proper clean-out procedure (*i.e. clean-out ball launcher or water flushing*). Failure to do so **WILL** result in gas build up in the hoses creating a great deal of pressure. This can cause equipment failure which could result in serious injury and/or death.

Complete the following instructions to load your Soft Hose Caddy from the rear of the caddy...

Step 1

Position the Soft Hose Caddy relatively straight to the hose end. Disconnect a section of the soft hose by uncoupling the clamp at either end of the section of hose you wish to pick up.



Never pull more than one (1) empty hose at one time. A large amount of damage WILL result to your Hose Caddy.

Step 2

Position the Soft Hose Caddy with the vehicle so that one end of the soft hose can be looped under the front roller then inserted and place parallel with the center of the hub in the hose drum.

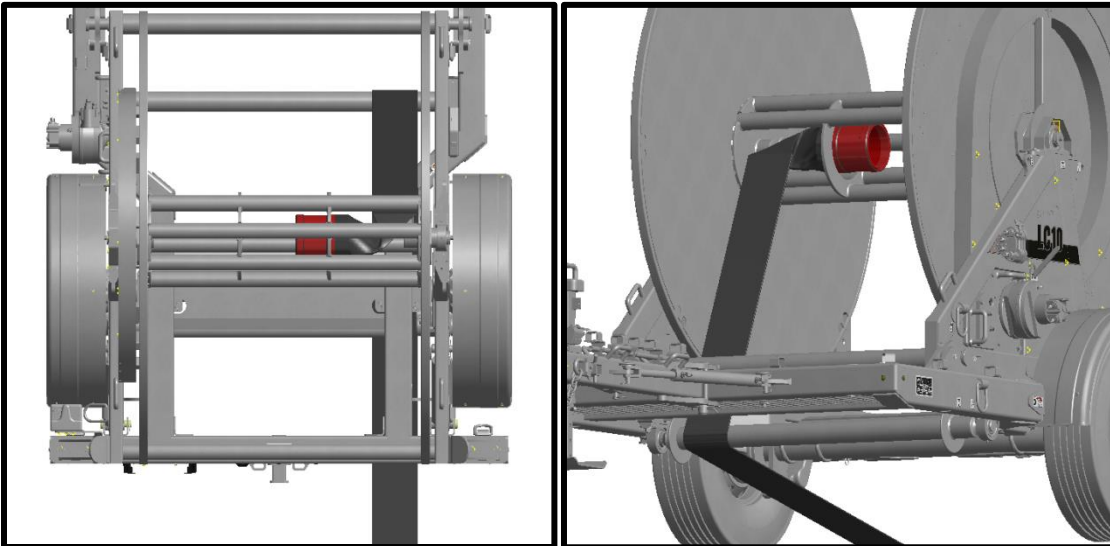


Figure 46 - Insert Hose into Reel and Place Parallel with Hub

img-00587 & img-00588

Step 3

With one end of the hose inserted into the center of the drum, remove the tongue brace and engage the vehicle hydraulics so that the drum rotates away from the vehicle. The soft hose should reel in on the topside of the drum when pulling the hose from the back of the hose caddy to keep tension on the hose.

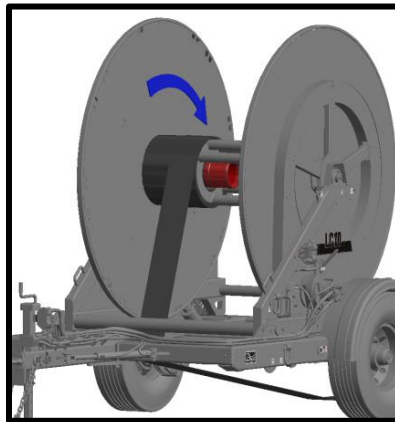


Figure 47 - Reel Direction

img-00589

Step 4

Guide the hose so that it is evenly distributed over the entire reel. Use the cylinder control to index the Soft Hose Caddy left and right to aid in the distribution of the hose.

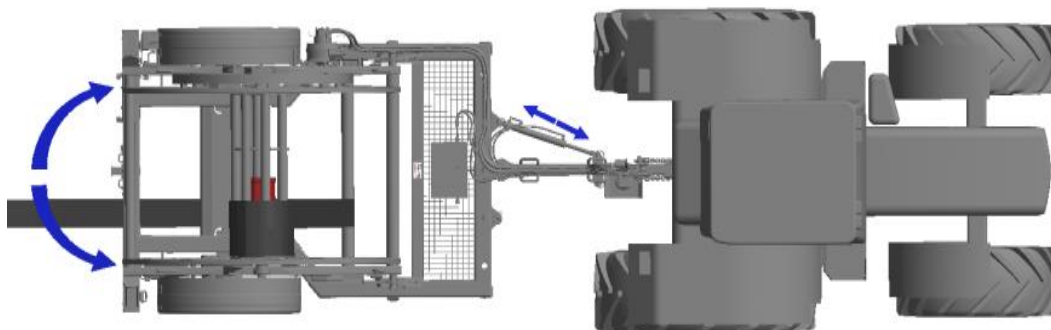


Figure 48 - Index Hose Caddy

img-00601



Do not index the LC10 Soft Hose Caddy with rapid motion. Use small movements to adjust hose distribution. Keep spectators at a safe distance to prevent injury.

Step 5

When the first hose has been retrieved, return to Step 1 for the remaining hoses.

Loading Your Hose Caddy from Front



Prior to loading the LC10 Soft Hose Caddy, Cadman Power Equipment Limited requires that you clean the hoses with a proper clean-out procedure (*i.e. clean-out ball launcher or water flushing*). Failure to do so **WILL** result in gas build up in the hoses creating a great deal of pressure. This can cause equipment failure which could result in serious injury and/or death.

Complete the following instructions to load your Soft Hose Caddy from the front of the caddy...

Step 1

Position the Soft Hose Caddy relatively straight to the hose end. Loading from the front of the caddy you may load as many hoses as you would like at one time without dragging any of the hoses

Step 2

Position the Soft Hose Caddy with the vehicle so that one end of the soft hose can be looped under the front roller then inserted and place parallel with the center of the hub in the hose drum.

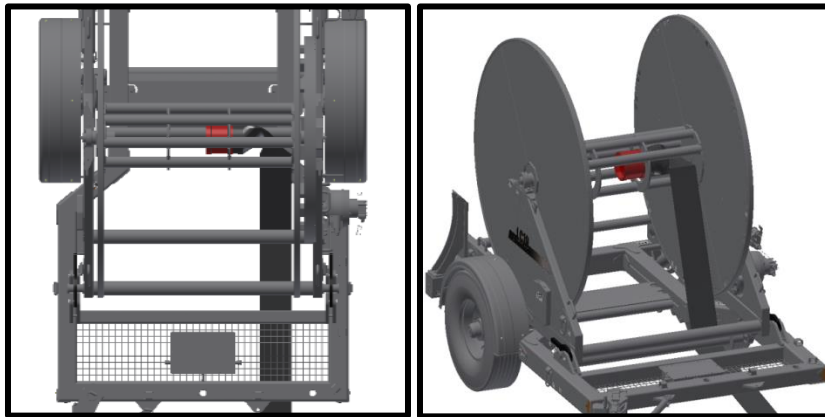


Figure 49 - Insert Hose into Reel and Place Parallel with Hub

img-00604 & img-00605

Step 3

With one end of the hose inserted into the center of drum, remove the tongue brace and engage the vehicle hydraulics so that the drum rotates away from the vehicle. The soft hose should always be reeled in on the topside of the drum. When wrapping the hose put the vehicle in drive and maintain wrap speed do NOT exceed wrap speed or the hose will not wrap properly.



Figure 50 - Reel Direction

img-00606

Step 4

Guide the hose so that it is evenly distributed over the entire reel. Use the cylinder control to index the Soft Hose Caddy left and right to aid in the distribution of the hose.

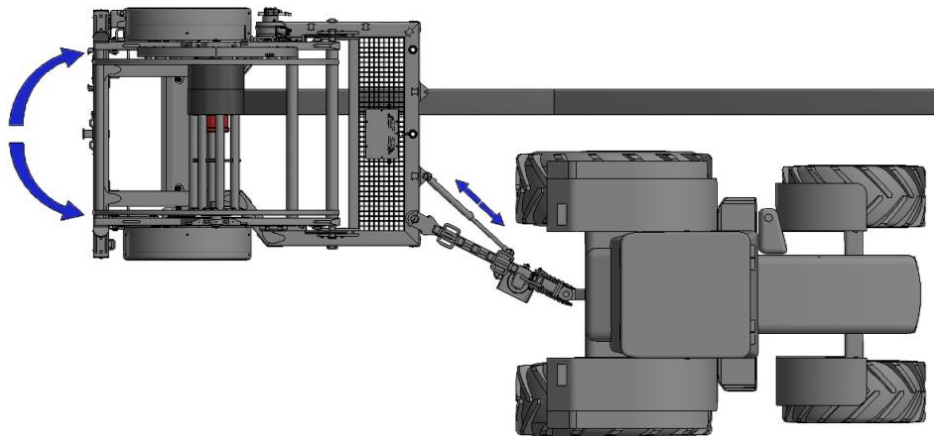


Figure 51 - Index Hose Caddy

img-00603



Do not index the LC10 Soft Hose Caddy with rapid motion. Use small movements to adjust hose distribution. Keep spectators at a safe distance to prevent injury.

Step 5

When the first hose has been retrieved, return to Step 1 for the remaining hoses.

Parts Section

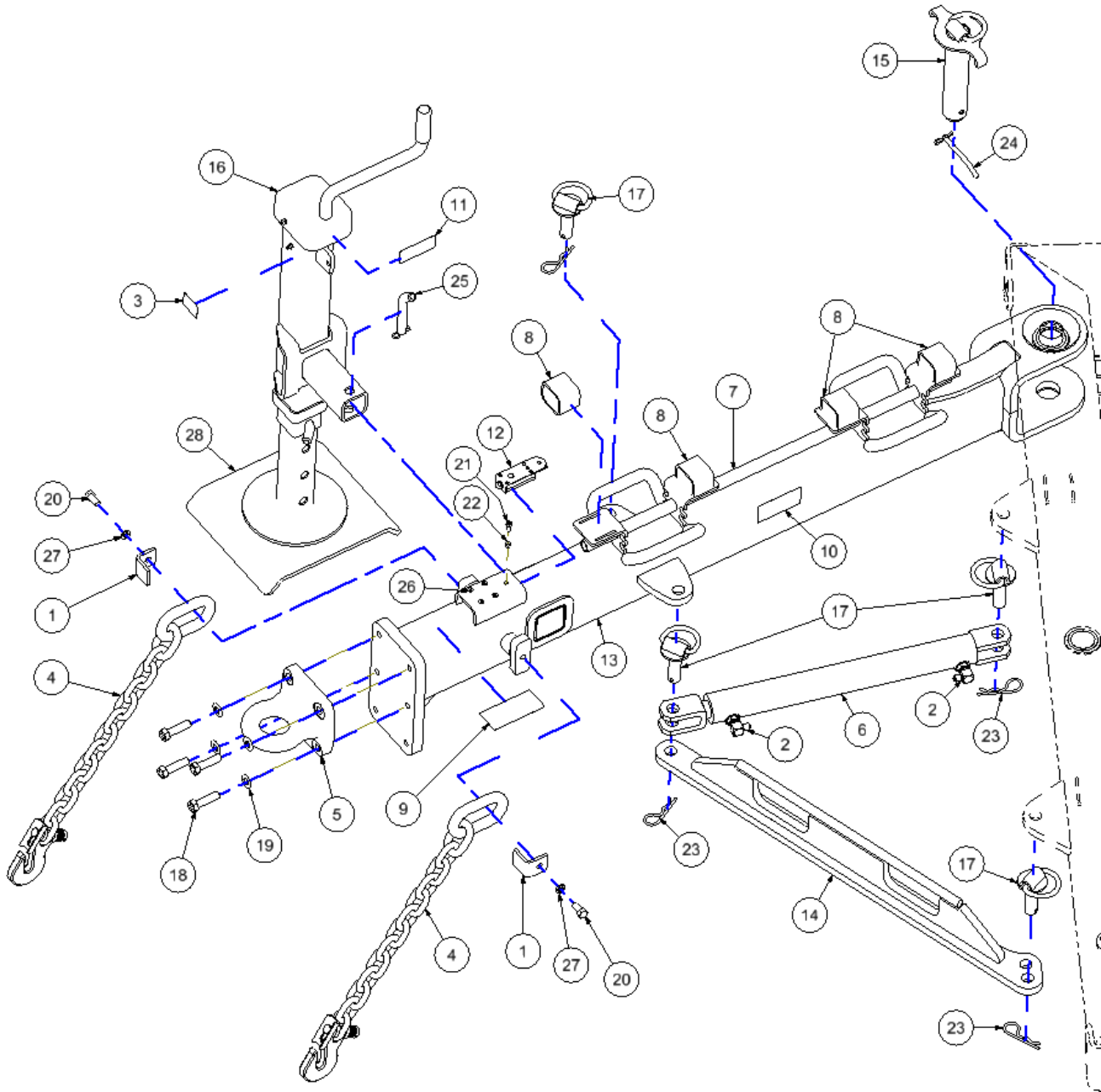
From Serial Number:
0131405LC10

Tongue Assembly.....	32
Trailer Frame Assembly.....	34
Drum Cartridge Caddy Assembly	37
Drum Assembly	39
Drive Assembly.....	41
Shield/Drum Lock Assembly	44
Caddy Hydraulic Assembly	46
Trailer Hydraulic Assembly	48
Label Assembly	50

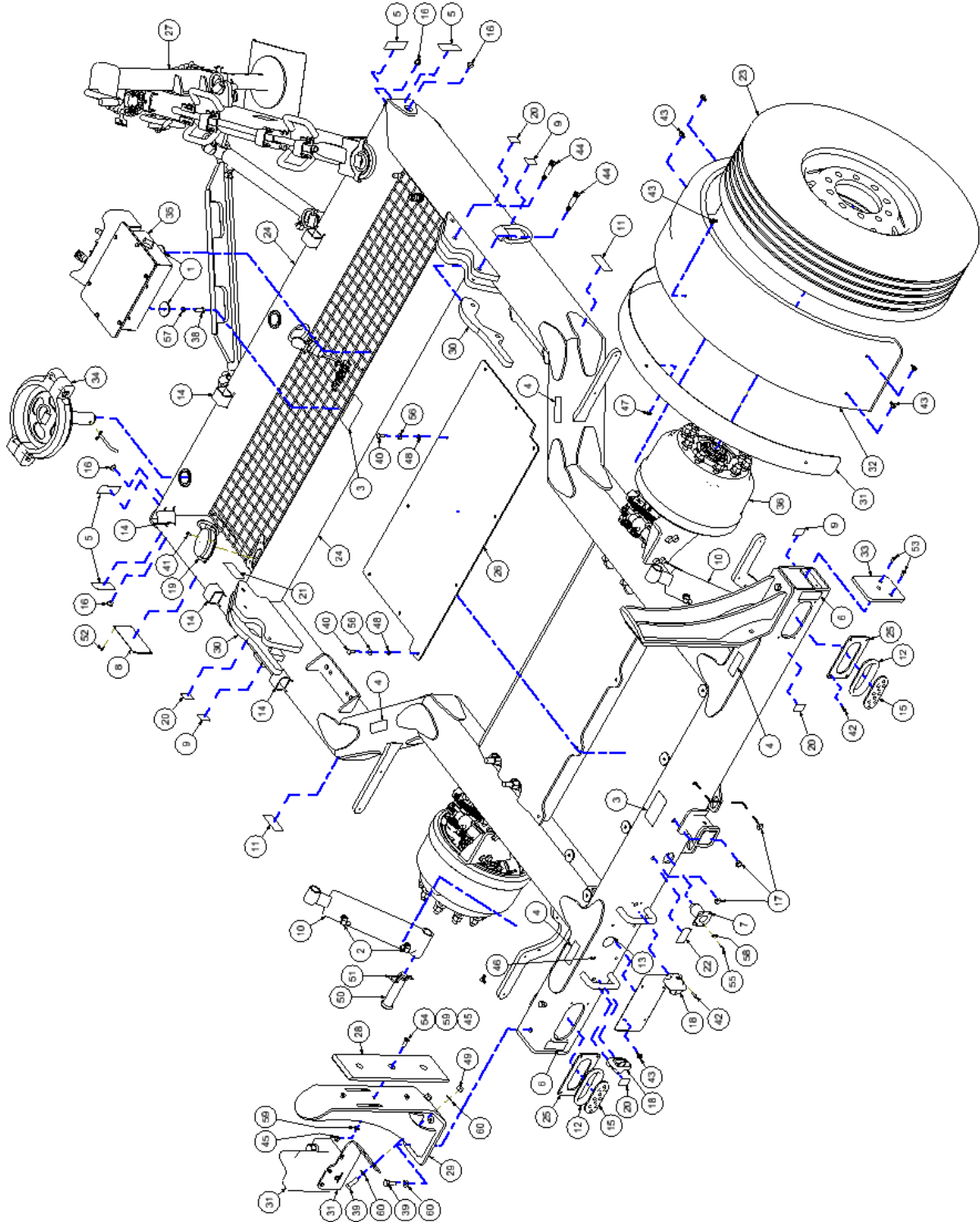
Symbol Legend

↪	Model Variations
•	Standard Equipment
○	Optional Equipment
◆	Complete Assembly
AR	As Required
N/A	Not Available

Tongue Assembly



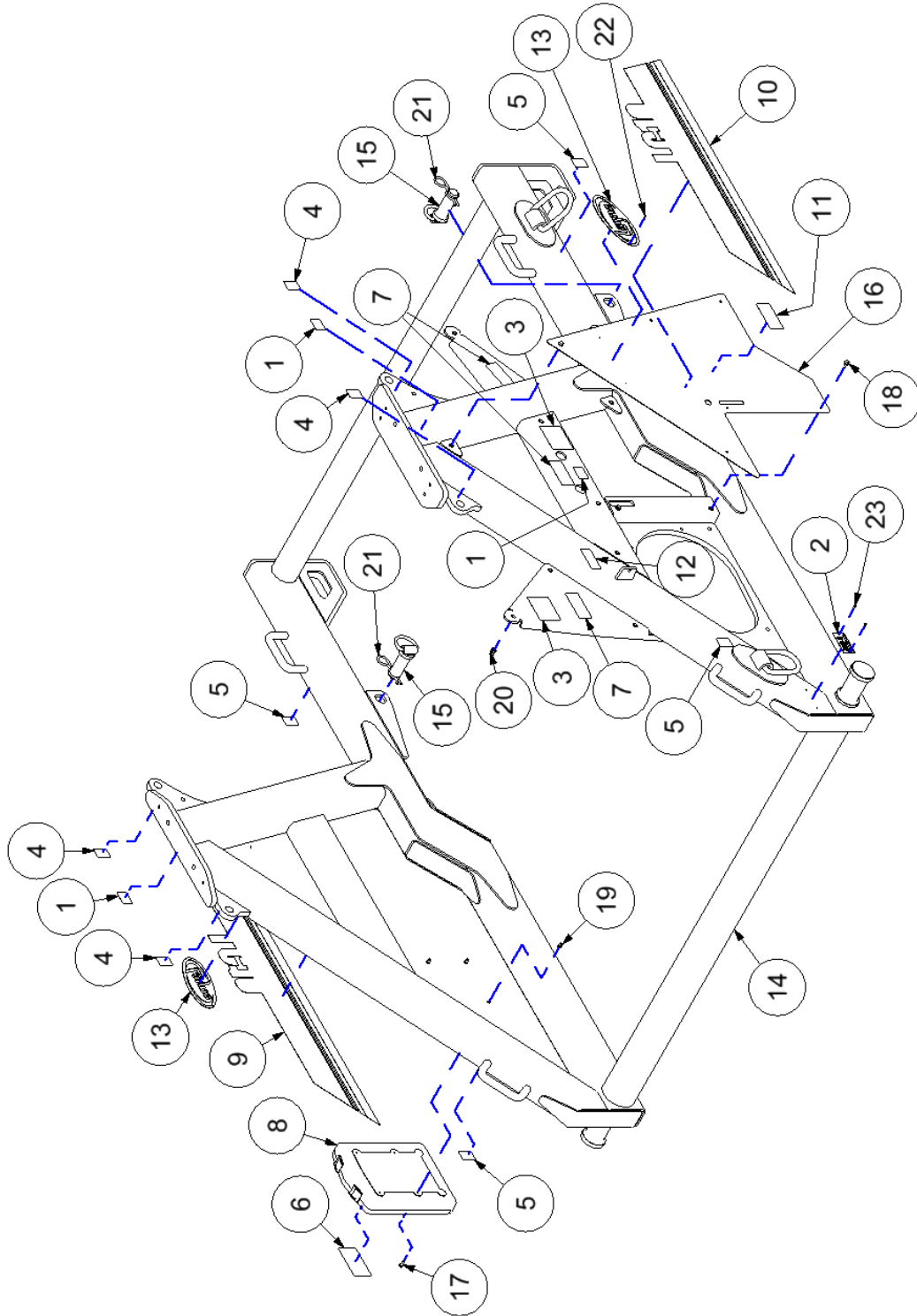
Trailer Frame Assembly



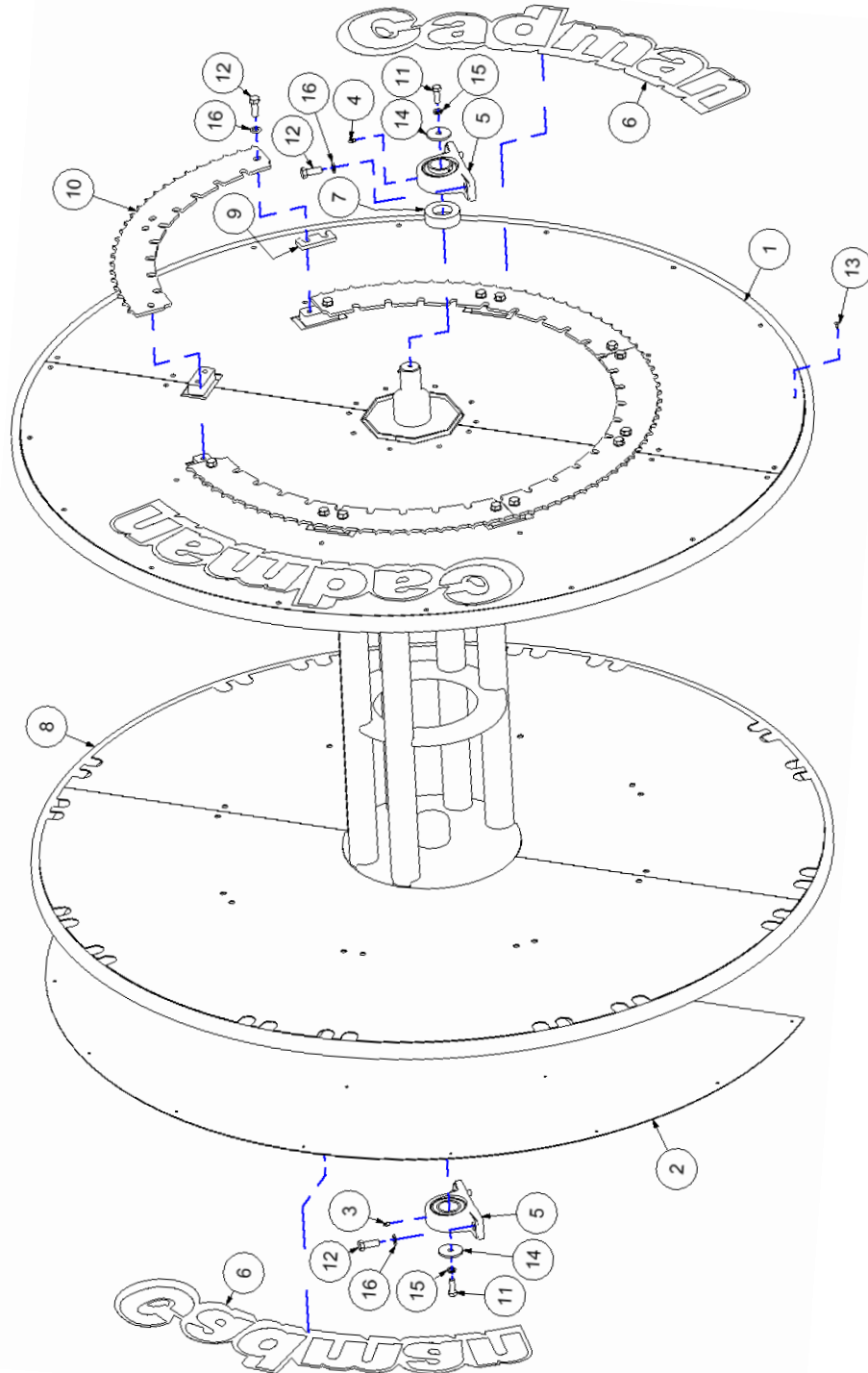
Trailer Frame Assembly

Item	Description	Part Number	Qty
1	SPROCKET RETAINING PLATE	01-314-B	2
2	ELBOW - #6 JIC-M X #8 SAE X 90 DEG.	25-WHD-5515X6X8	4
3	LABEL - ROTATING DRUM	40-287-B	2
4	LABEL - PINCH POINT	40-289-A	4
5	DECAL - AMBER REFLECTIVE	40-598	4
6	DECAL - RED REFLECTIVE	40-599	2
7	PLUG - 7-WAY BLADE	40-866	1
8	TAG - TRAILER SERIAL NUMBER	40-881	1
9	LABEL - TIE DOWN POINT	40-947	4
10	CYLINDER ASSY - Ø4" X 10"	40-HYD-CYL002	2
11	LABEL - TORQUE WHEELS	42-035	2
12	GROMMET - OVAL LENSE	42-142	2
13	PLUG - 2" PANEL	42-283	1
14	STRAP - 2" X 12" VELCRO	42-517	5
15	TAIL LIGHT - RED OVAL	42-ELC-006	2
16	MARKER LIGHT - AMBER LED MICRO DOT	42-ELC-007AMB	4
17	MARKER LIGHT - RED LED MICRO DOT	42-ELC-007RED	3
18	LED LICENSE LAMP	42-ELC-008	2
19	GROTE - DOCUMENT HOLDER	42-ELC-012	1
20	LABEL - JACK POINT	42-LBL-021	4
21	LABEL - TRAILER DOCUMENTS	42-LBL-025	1
22	LABEL - TRAILER PLUG	42-LBL-037	1
23	WHEEL ASSY - 315/80R 22.5	55-169	2
24	CARTRIDGE TRAILER WELDMENT	64-100-B	1
25	MOUNT - OVAL TAILLIGHT	64-102	2
26	GUARD PLATE	64-104	1
27	TONGUE ASSEMBLY - LC10T	64-200	1
28	SKID PLATE - HOSE CADDY	64-308	2
29	SKID MOUNT SUPPORT WELDMENT	64-652	2
30	LOCK - CADDY PIVOT	64-654-B	2
31	SUPPORT - FENDER	64-660-A	2
32	FENDER - HALF	64-661-A	2
33	END CAP - BUMPER	64-667-A	2
34	COUPLING DOCK ASSEMBLY - Ø10" HOSE	64-668-1000	1
35	KIT - CONTROL DISTRIBUTION BOX	64-KIT-003	1
36	AXLE ASSEMBLY - HYD BRAKES	64-KIT-006	1

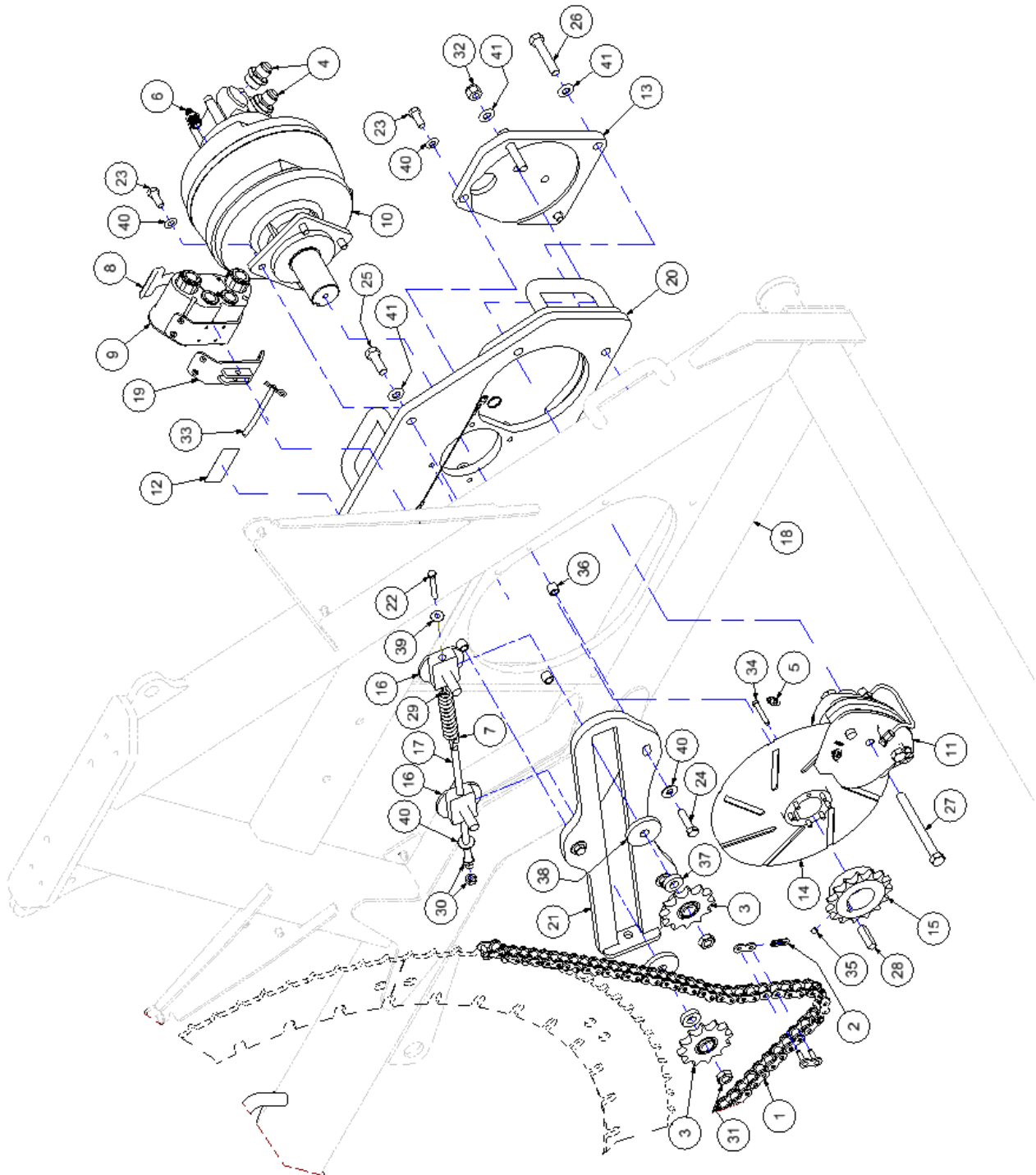
Drum Cartridge Caddy Assembly



Drum Assembly



Drive Assembly





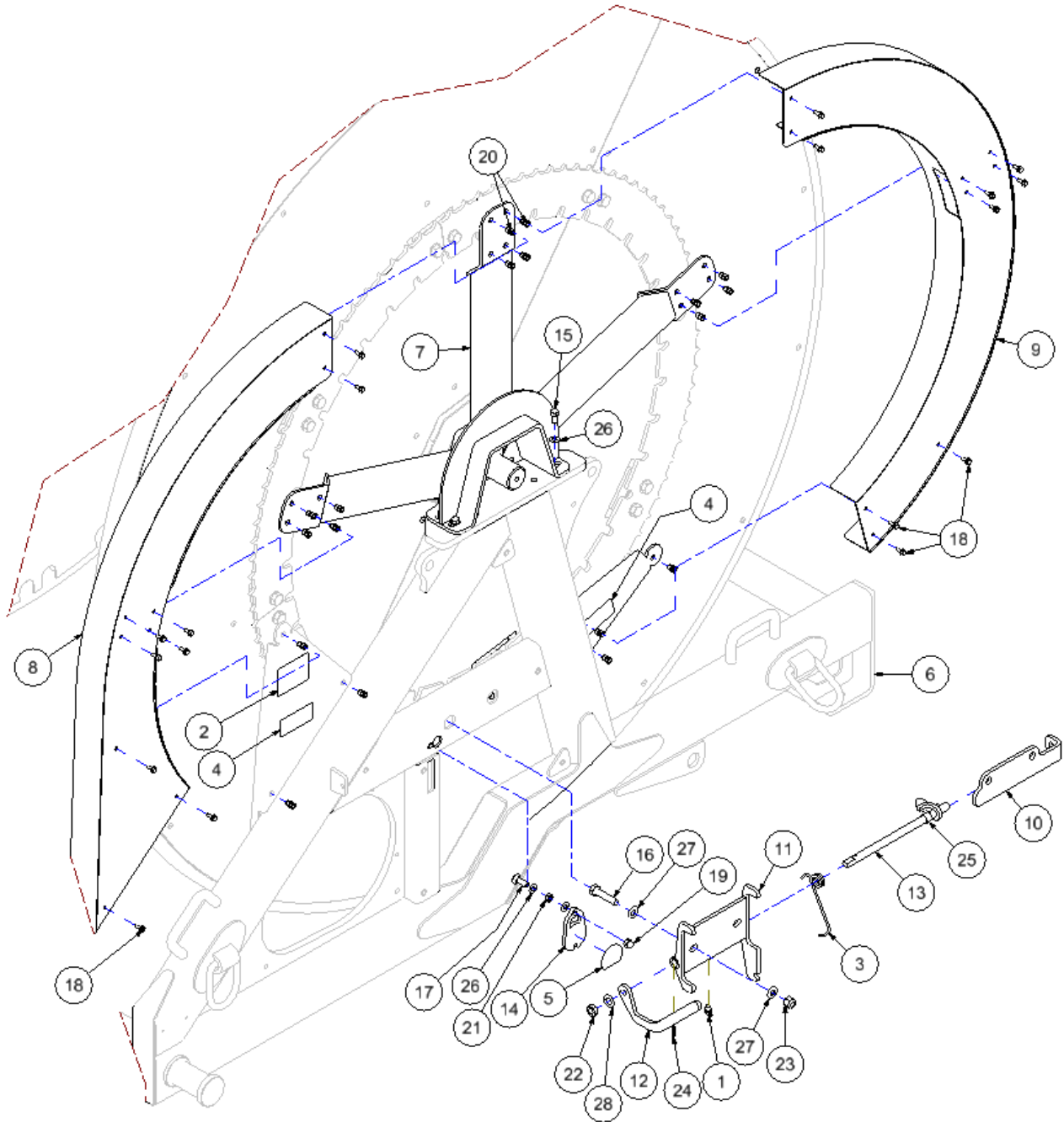
Drive Assembly

Item	Description	Part Number	Qty
1	ROLLER CHAIN - #80 RIVETED	10-CHN-80-1RIV	207
2	LINK - #80 CONNECTING	10-LNK-80CONN	1
3	SPROCKET - #80-12 X 3/4 IDLER	10-SPT-80-12IDLER-KN	2
4	ADAPTER - #12 JIC-M X #16 SAE-M	25-WHD-5315X12X16	2
5	ADAPTER - #4 JIC-M X #4 SAE-M	25-WHD-6400X4X4	1
6	ADAPTER - #6 JIC-M X #8 BPS	25-WHD-9002X06X08	1
7	SPRING - 1 3/4 X 5 EXT. (IDLER)	40-056-B	1
8	MULTI-PORT CONNECTOR - 12.5/19 FEMALE	40-HYD-CEJN002F	1
9	DUST COVER - MULTI-PORT 12.5/19 FEMALE	40-HYD-CEJN006	1
10	HYDRALIC MOTOR	40-HYD-M380CC	1
11	BRAKE CALIPER	42-470	1
12	LABEL - HYDRAULIC DOCKING STATION	42-LBL-043	1
13	MOUNT PLATE - CALIPER	64-303-D	1
14	BRAKE DISC	64-304	1
15	SPROCKET - 80B15X225 MACHINED	64-305-A	1
16	GUIDE - CHAIN IDLER THRU HOLE	64-314-A	2
17	SPRING ADJ. ROD - 9 IN. PLATED	64-315-A	1
18	CARTRIDGE CADDY ASSEMBLY	64-400	1
19	MOUNT - MULTI-PORT CONNECTOR	64-612	1
20	MOTOR MOUNT - CARTRIDGE CADDY	64-651-A	1
21	CHAIN IDLER WELDMENT	64-656-B	1
22	BOLT - 3/8-16 X 2 3/4	90-BLT-03816X275	1
23	BOLT - 1/2-13 X 1 1/4	90-BLT-05013X125	6
24	BOLT - 1/2-13 X 2.00	90-BLT-05013X200	3
25	BOLT - 5/8-11 X 1 3/4	90-BLT-06311X175	3
26	BOLT-5/8-11 X 3.25	90-BLT-06311X325	2
27	BOLT - 5/6-11 X 6 1/2	90-BLT-06311X650	2
28	KEY - 1/2 SQ.	90-KEY-SQ050X200	1
29	NUT EYE - 3/8-16UNC	90-NUT-EYE038-16	1
30	NUT JAM - 1/2-13	90-NUT-JAM050-13	2
31	NUT JAM - 3/4-10	90-NUT-JAM075-10	2
32	NUT LOCK - 5/8-11	90-NUT-LOC063-11	2
33	HITCH PIN - 3/8 X 3.00	90-PIN-HT038X300	1
34	SCREW SOCKET CAP - 5/16-18 X 2.00	90-SCR-SH03118X200	7
35	SET SCREW - 3/8-16 X 3/8	90-SCR-STO3816X038	1
36	SPACER - 0.051" I.D. X 3/4" O.D. X 5/8" LG.	90-SPR-051X075X063	3

Drive Assembly

37	SPACER - 3/4" I.D. X 1 1/2" O.D. X 3/8" LG.	90-SPR-075X150X038	2
38	SPACER - 3/4" I.D. X 2 3/4" O.D. X 3/8" LG.	90-SPR-075X275X038	2
39	WASHER FLAT - 3/8"	90-WSR-FLT038	1
40	WASHER SAE - 1/2"	90-WSR-SAE050	10
41	WASHER SAE - 5/8	90-WSR-SAE063	7

Shield/Drum Lock Assembly

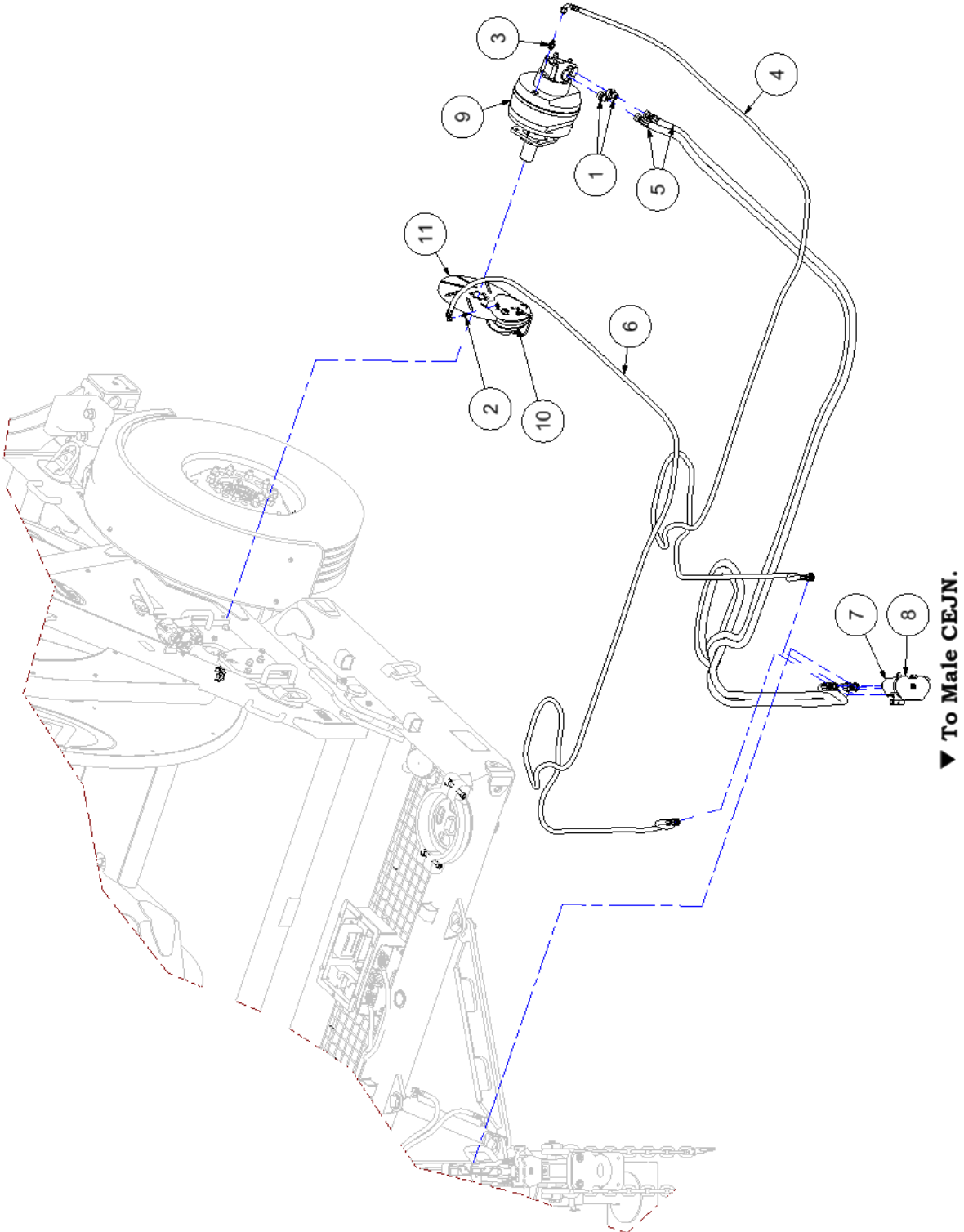




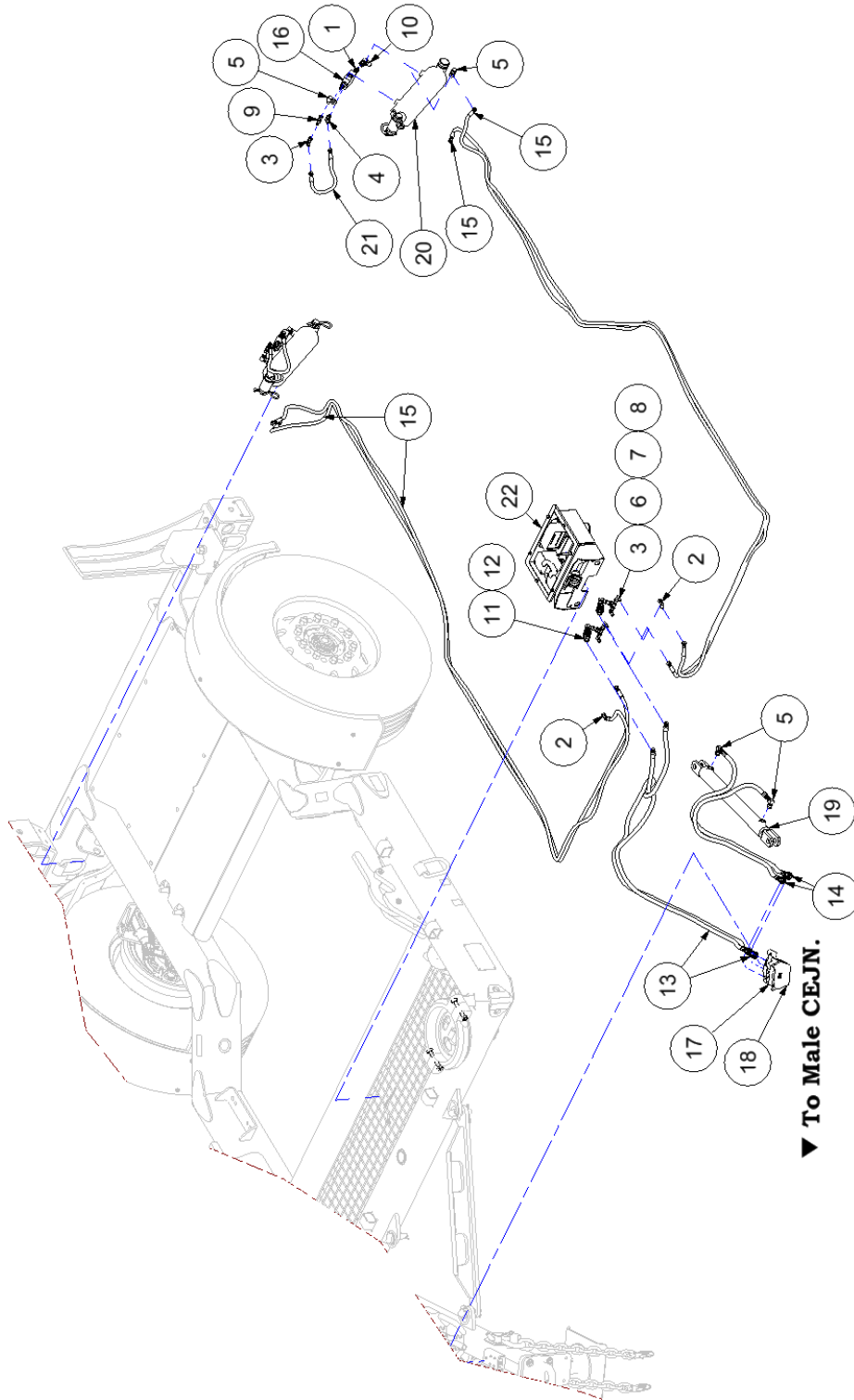
Shield/Drum Lock Assembly

Item	Description	Part Number	Qty
1	GREASE FITTING - 1/8 NPT - 45°	40-001-45	1
2	LABEL - MOVING PARTS HAZARD	40-290-A	1
3	SPRING	42-006	1
4	LABEL - GRUAD REMOVED	42-052-A	2
5	LABEL - DRUM LOCK	42-LBL-022	1
6	CARTRIDGE CADDY ASSEMBLY	64-400	1
7	CHAIN GUARD MOUNT WELDMENT	64-601-A	1
8	CHAIN GUARD FRONT WELDMENT	64-602-A	1
9	CHAIN GUARD REAR WELDMENT	64-603-A	1
10	SUPPORT - DRUM LOCK	64-613	1
11	DRUM LOCK BODY WELDMENT	64-662	1
12	HANDLE - DRUM LOCK	64-663-A	1
13	DRUM LOCK WELDMENT	64-664-B	1
14	LOCKOUT BRACKET - DRUM LOCK	64-665-A	1
15	BOLT - 1/2-13 X 1.00	90-BLT-05013X100	4
16	BOLT - 5/8-11 X 2 3/4	90-BLT-06311X275	2
17	BOLT CARRIAGE - 1/2-13 X 1 1/2	90-BLT-CG05013X150	1
18	BOLT FLANGE HEAD - 5/16-18UNC X 3/4	90-BLT-F03118X075	18
19	NUT ACORN - 1/2"-13 ZINC	90-NUT-ACN050-13	1
20	THREADED INSERT - 5/16-18 LONG	90-NUT-HTR03118L	18
21	NUT JAM - 1/2-13	90-NUT-JAM050-13	1
22	NUT JAM - 3/4-10	90-NUT-JAM075-10	1
23	NUT LOCK - 5/8-11	90-NUT-LOC063-11	2
24	PIN ROLL - 1/4 X 1 1/4	90-PIN-RL025X125	1
25	SPACER - 0.080" ID X 15/16" OD X 11/16" LG	90-SPR-080X094X069	1
26	WASHER SAE - 1/2	90-WSR-SAE050	6
27	WASHER SAE - 5/8	90-WSR-SAE063	4
28	WASHER SAE - 3/4	90-WSR-SAE075	1

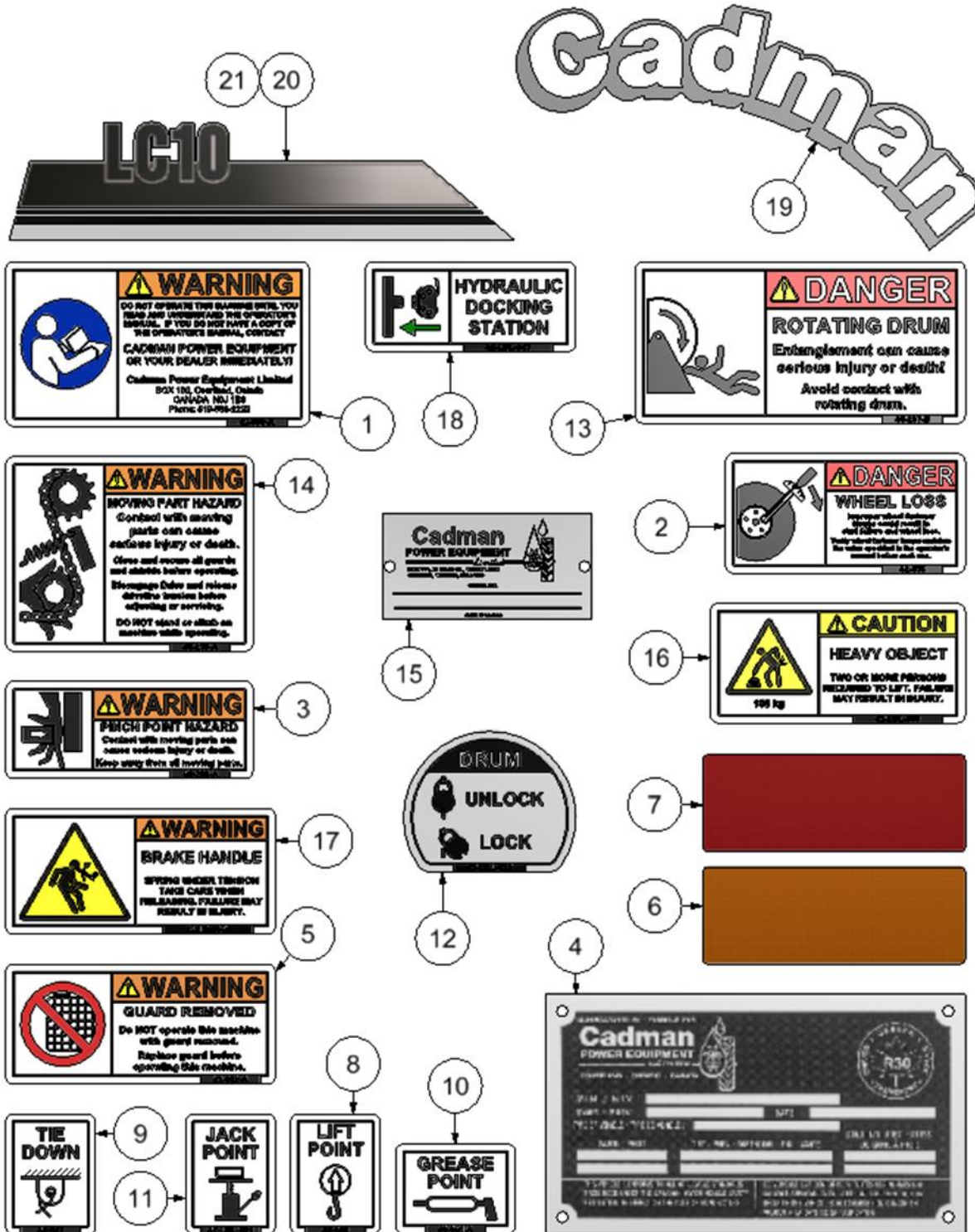
Caddy Hydraulic Assembly



Trailer Hydraulic Assembly



Label Assembly



Label Assembly

Item	Description	Part Number	Qty
1	LABEL - OPERATOR MANUAL	42-050-A	1
2	LABEL - WHEEL LOSS	40-035	2
3	LABEL - PINCH POINT	40-289-A	4
4	PLATE - CADMAN SERIAL NUMBER TAG	40-881	1
5	LABEL - GUARD REMOVED	42-052-A	3
6	DECAL - AMBER REFLECTIVE	40-598	4
7	DECAL - RED REFLECTIVE	40-599	4
8	LABEL - LIFT POINT	40-933	4
9	LABEL - TIE DOWN POINT	40-947	8
10	LABEL - GREASE POINT	40-041-A	5
11	LABEL - JACK POINT	42-LBL-021	4
12	LABEL - DRUM LOCK	42-LBL-022	1
13	LABEL - ROTATING DRUM	40-287-B	2
14	LABEL - MOVING PARTS HAZARD	40-290-A	2
15	PLATE - SMALL CADMAN SERIAL NUMBER	40-238	1
16	LABEL - HEAVY OBJECT	42-LBL-038	2
17	LABEL - BRAKE HANDLE	42-LBL-040	1
18	LABEL - DOCKING STATION	42-LBL-043	1

Required Maintenance

Prevention of mechanical failure is the goal of any good maintenance schedule. The secret to preventing unwanted down time is to adhere to a maintenance schedule suited to the way you use the equipment. Your maintenance schedule should include the following minimum requirements:



Maintenance must be done ONLY when the machine is shut down and is in a non-loaded condition. This means that all mechanical and hydraulic tension has been released from the hose rewind system.

Each Use


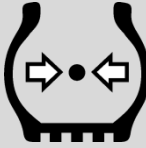


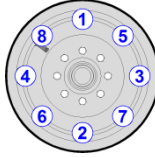
Maintenance Item	Figure	Procedure
Visually inspect equipment		Walk around the unit and inspect for loose, missing or damaged items. Check the condition of tongue pivot pin, chain and connecting links. Replace missing or damaged items and tighten loosened items.
Maintain the tire pressure at <u>Standard 44x18x20 Tire</u> Follow instructions on the wall of the tire. <u>Heavy Duty Option 385/65R22.5</u> Follow instructions on the wall of the tire.		Using a tire pressure gauge, check the pressure of each tire and add or remove air to achieve the desired pressure.  DO NOT LOWER TIRE PRESSURE BELOW THE RECOMMENDED LEVEL. A lower pressure than the recommended pressure will result in the tire separating from the rim.  DO NOT OVER INFLATE TIRE. Pressure higher than recommended will result in wheel failure which could result in serious injury and/or death.
Tighten all wheel bolts	 <small>img-00132</small>	Before moving the unit, verify that the wheel bolts are tight. When tightening the Grade 8 lug nuts use the star pattern with your torque wrench set at 450-500 ft/lbs [610-678 N.m] lubricated and 600-670 [813 – 908 N.m] dry.
Adjust, if necessary, the alignment and tension of the drive chains	Figure 52	The drive chain (around the drum) is properly tensioned when it has no visible slack and is setting properly onto the drive sprocket when the drum rotates. Adjustments are made by turning the locknut (3/4" wrench) on the spring adjustment rod.
Lubricate all grease fittings and check axel oil level	Figure 53	Using a grease gun, lubricate each grease fitting with an appropriate amount of acceptable grease. (See Lubricants)
Check electrical connection	Figure 54	Check the main electrical connection before operating to make sure it is fully connected. Failure to do so will result in the emergency brake system not functioning. Lubricate with dielectric grease

Table 1 - Required Maintenance - Each Use

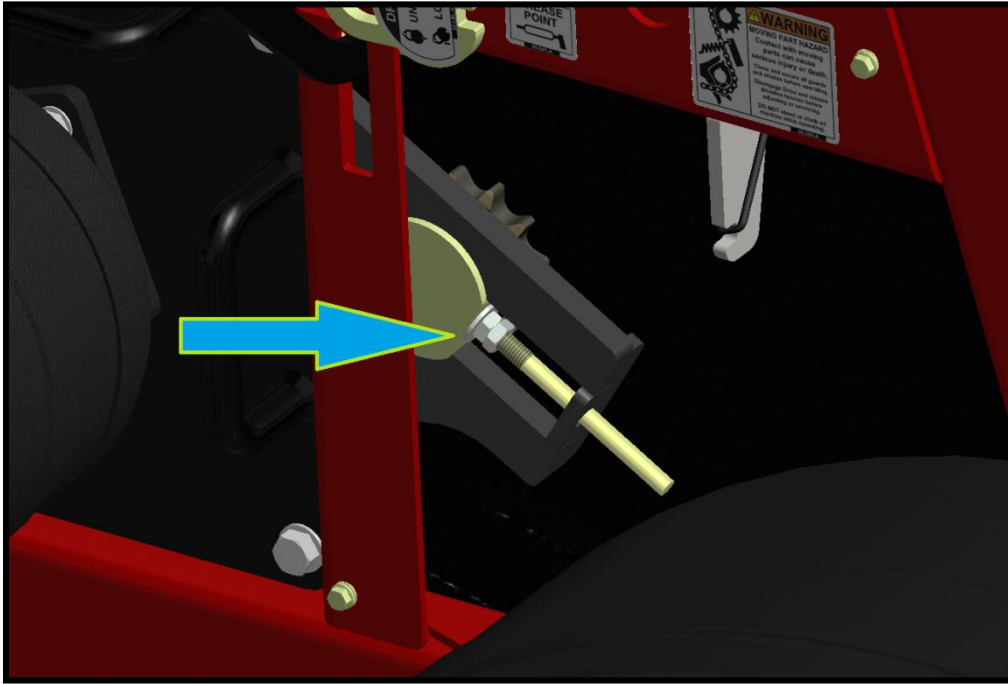


Figure 52 - Drive Chain Adjuster (Drive side inside frame)

img-00585

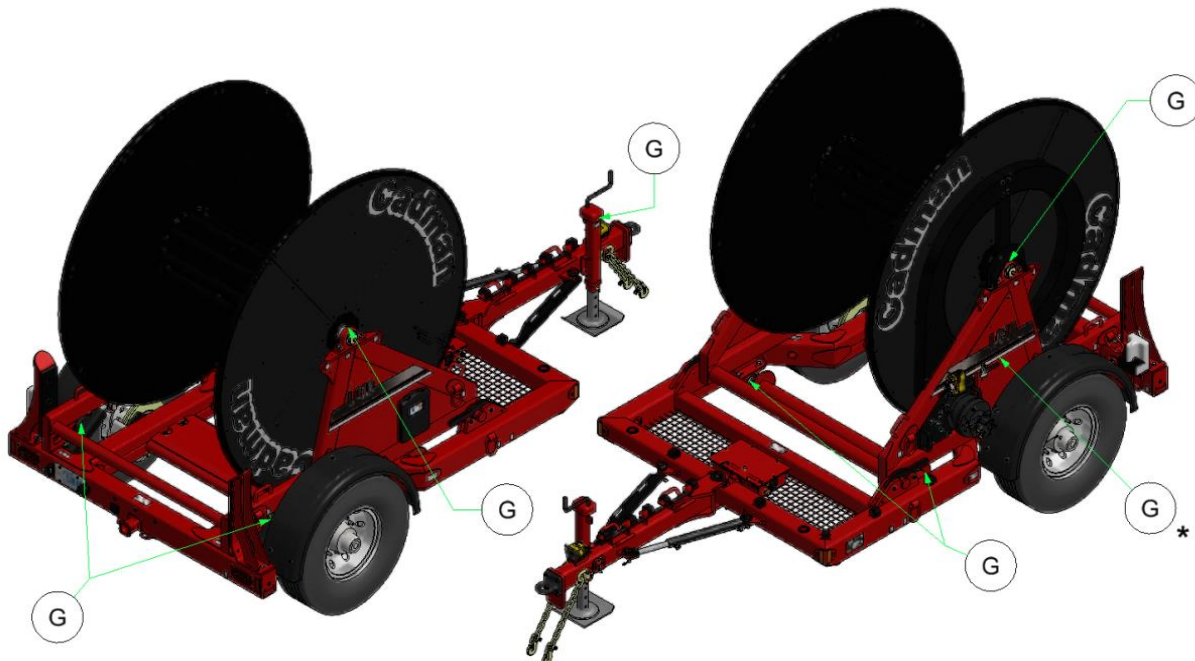


Figure 53 - Grease Points (*Behind Shield)

img-00571



Prior to moving the LC10 Soft Hose Caddy, Cadman Power Equipment Limited requires that you hook up the electrical connection at the hydraulic box as well as the break-away cable to the vehicle. Failure to do so **WILL** result in the emergency brakes not to come on in the event of trailer break-away. This can cause damage to the equipment and/or could result in serious injury and/or death.

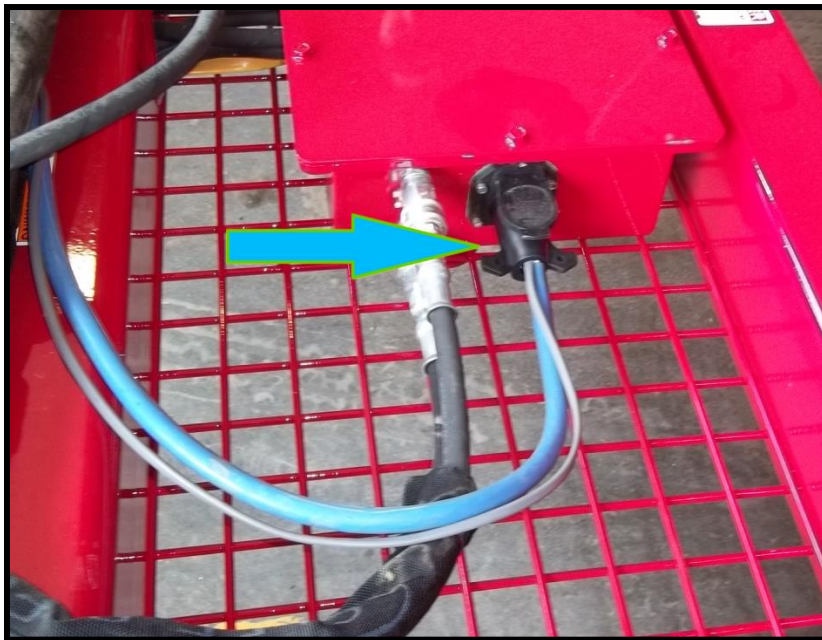


Figure 54 – Electrical Connection

img-00586

Before Storing



Prior to storing the **Soft Hose Caddy**, Cadman Power Equipment Limited requires that you clean the hoses with a proper clean-out procedure (i.e. clean-out ball launcher or water flushing). Failure to do so **WILL** result in gas build up in the hoses creating a great deal of pressure. This can cause equipment failure which could result in serious injury and/or death.

Maintenance Item	Figure	Procedure
Drain and clean out the hose.	N / A	Use a clean-out ball (sold separately) following the instructions provided with the unit. OR Flush with water (minimum of 2000 gallons [7600 liters]) to completely purge the hose.
Clean, inspect and repack the main chassis wheel bearing.	N / A	Replace the seals as required
Lubricate all grease points.	Figure 53	Using a grease gun, lubricate each grease fitting with an appropriate amount of acceptable grease. (See Lubricants)
Lubricate all chains	N / A	Brush each chain with acceptable grease. (see "Lubricants")

Table 2 – Required Maintenance - Before Storing

Before Start Up (After long term storage)


Maintenance Item	Figure	Procedure
Review Operator's manual		Review this manual to refresh your memory regarding the proper operation of this machine. This will reduce the potential for equipment damage and user injury.
Complete each use maintenance	Table 1	Complete all the maintenance procedures as prescribed in the Each Use maintenance table.

Table 3 – Required Maintenance - After Long Term Storage

Lubricants

Grease: Any good grade multi-purpose, waterproof grease is compatible with the greasing requirements of your **Cadman Soft Hose Caddy**.

Oil axel: There are two types of oil you can use for the axel on your **Cadman Soft Hose Caddy**. One type is Mineral oil with a rating of 80W90 and the other type is Synthetic Oil with a rating of 75W90. The oil level of the axel can be viewed at each axel hub.

Technical Specifications

Approximate Soft Hose Caddy System Dimensions

IMPORTANT: The dimensions shown on the following pages are only approximate. Many varying factors affect these dimensions, for example tire option, hose type, tire inflation etc.

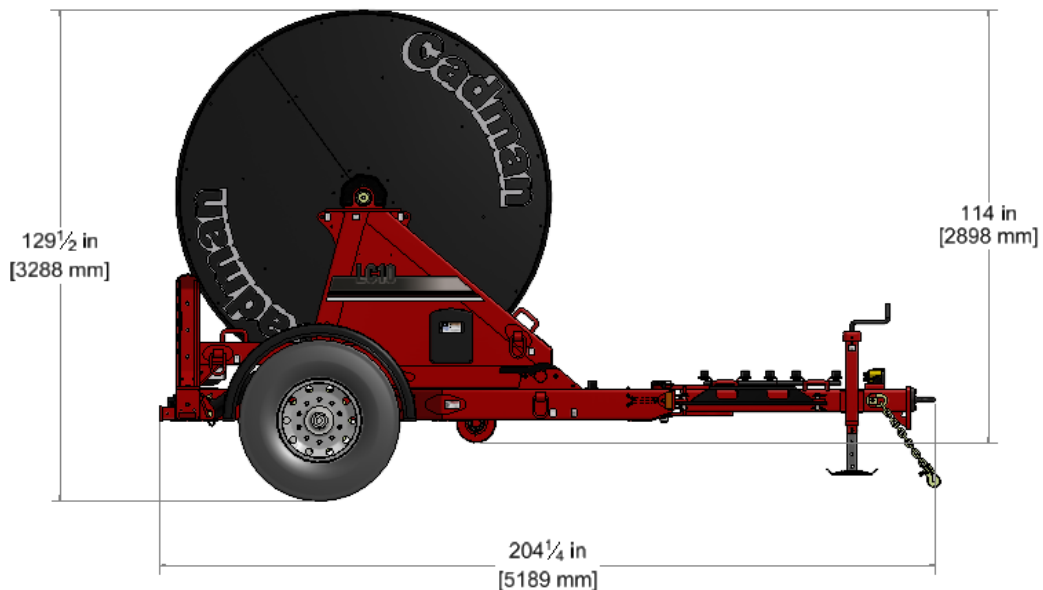
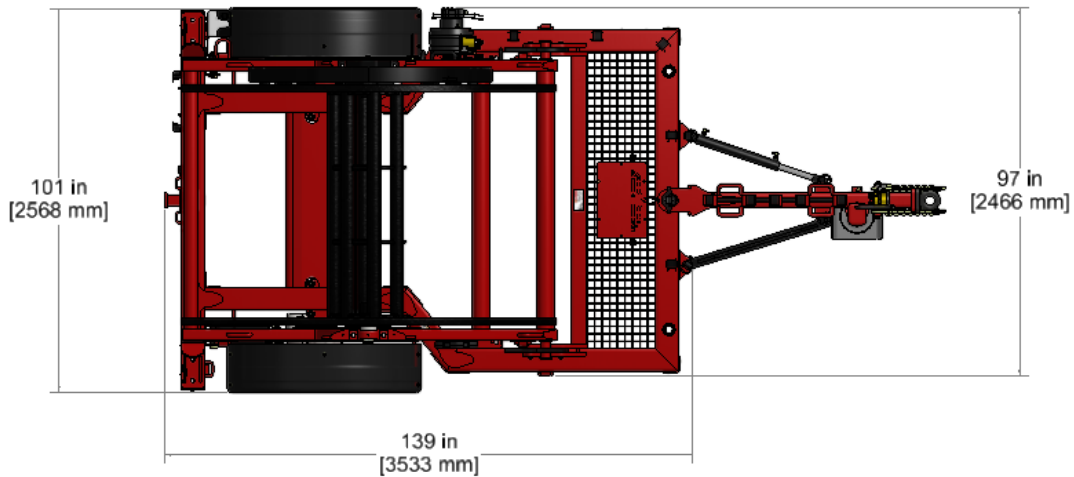


Figure 55 - Overall Dimensions

img-00572

The approximate weight for an empty Cadman LC10 Hose Caddy is 6,856 lbs [3,110 kg].

Approximate Caddy Trailer Dimensions

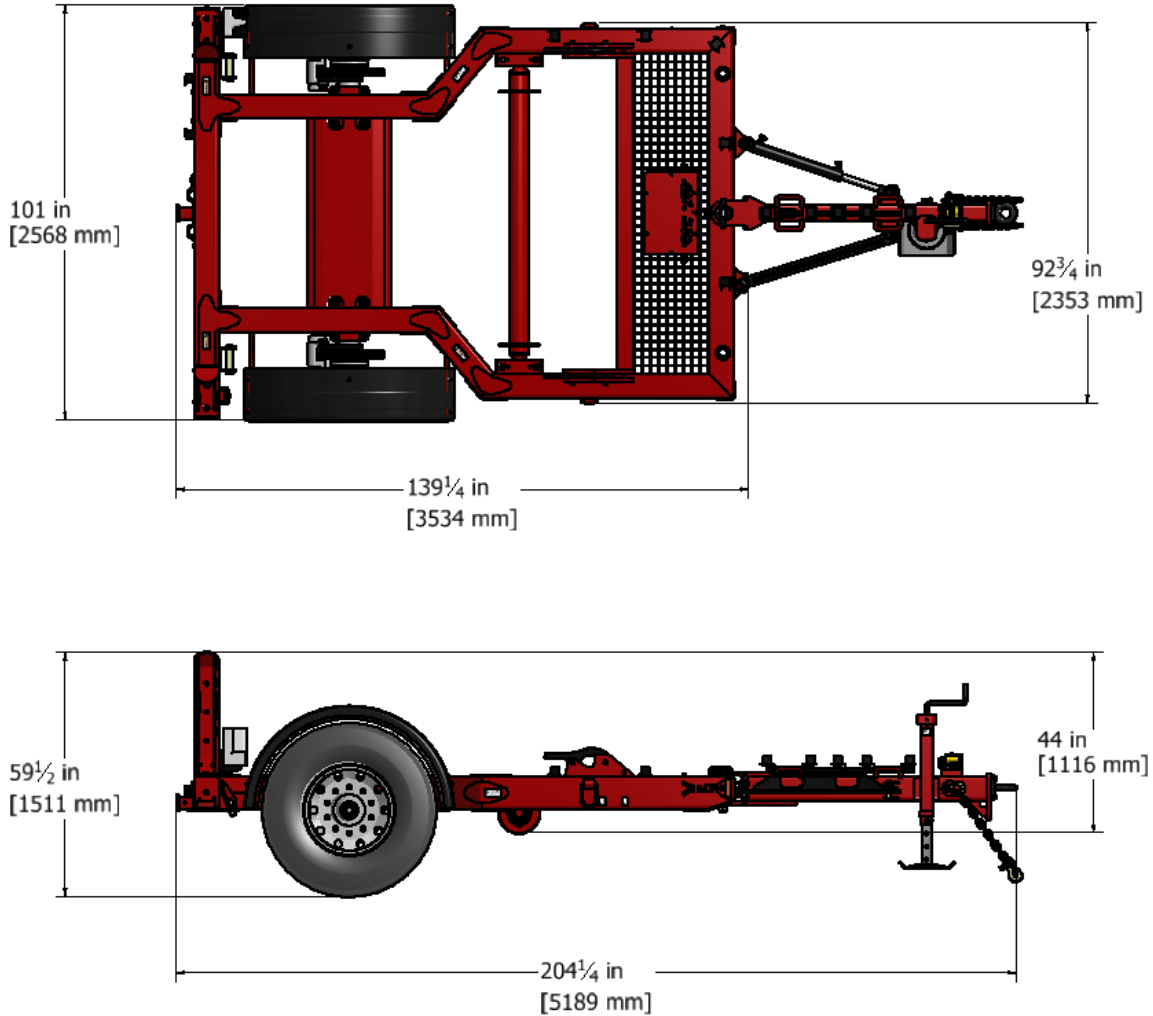


Figure 56 - Overall Trailer Dimensions

img-00573

The approximate weight for an empty Cadman LC10T Trailer is 3,780 lbs [1,714 kg].

Approximate Caddy Cartridge Dimensions

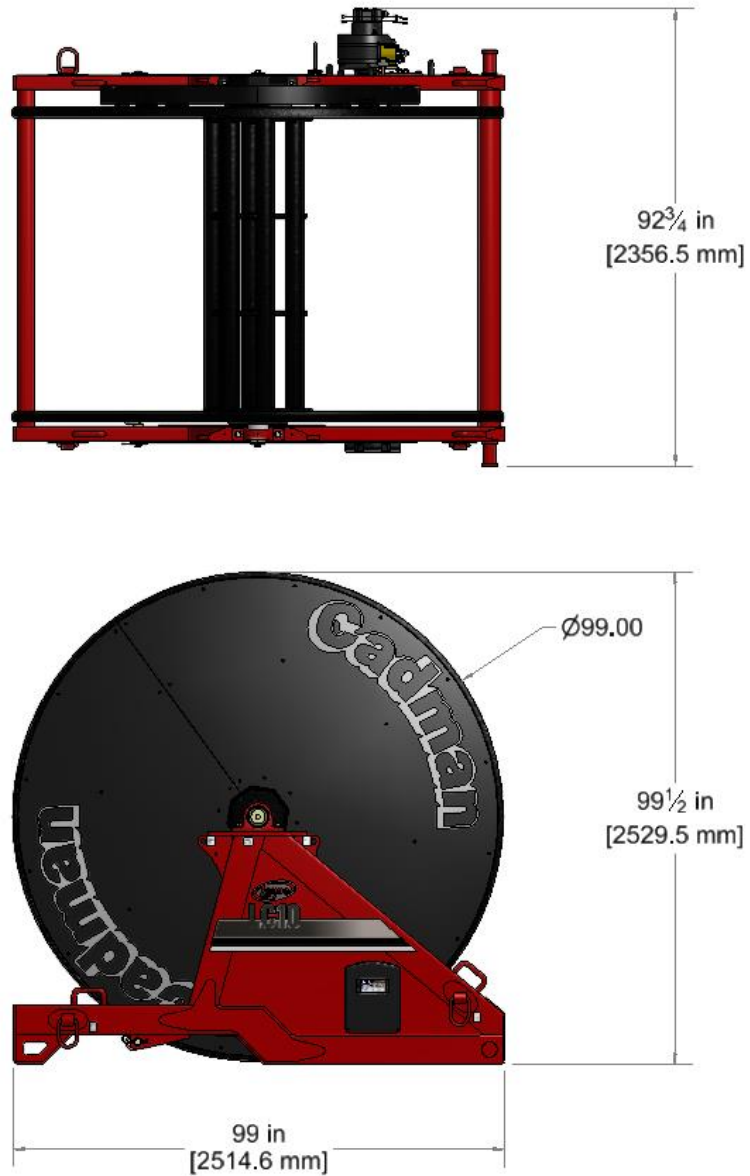


Figure 57 - Overall Cartridge Dimensions

img-00574

The approximate weight for an empty Cadman LC10 Cartridge is 3,078 lbs [1396 kg].

Different Tongue Trailer Positions



Prior to changing the LC10 hose caddy trailer tongue position the machine must be shut down and in a non-loaded condition. This means that all mechanical and hydraulic tension has been released from the hydraulic hose system.

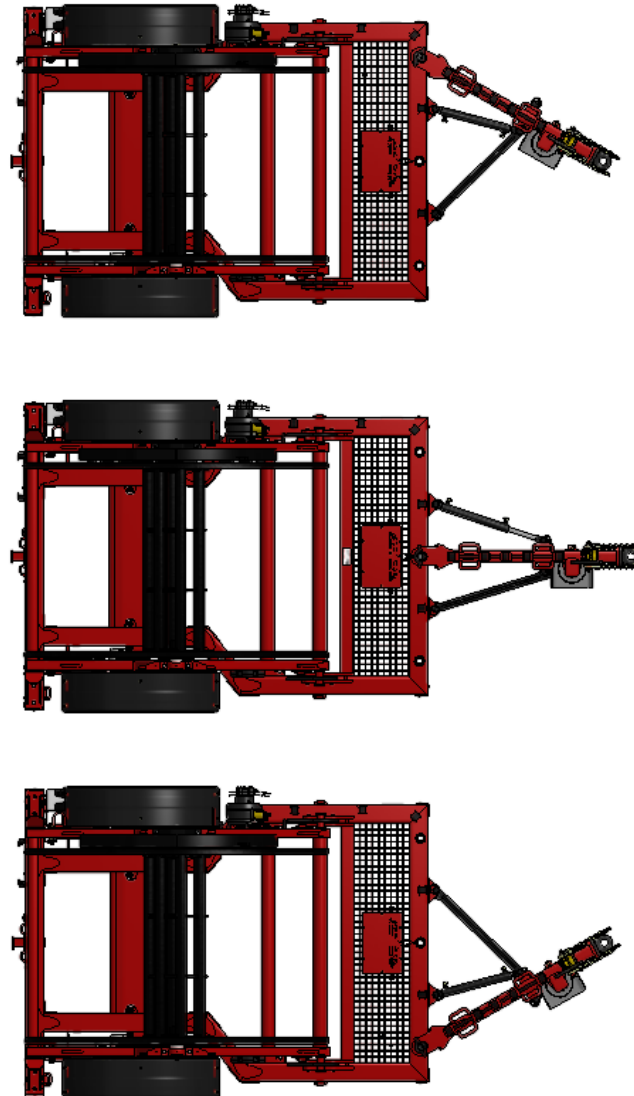


Figure 58 - Different Tongue Positions

img-00579



Useful Information

LENGTH

1 FOOT	= 12	Inches	1 METER	= 39.37	Inches
	= 0.3048	Meter		= 3.2808	Feet
1 ROD	= 198	Inches	1 MILE	= 5280	Feet
	= 16.5	Feet		= 1760	Yards
	= 5.5	Yards		= 320	Rods
	= 5.03	Meters		= 1609	Meters

AREA

1 SQUARE FOOT	= 144	Square Inches
	= 0.0929	Square Meters
1 SQUARE YARD	= 1296	Square Inches
	= 0.8361	Square Meters
1 SQUARE METER	= 1550	Square Inches
	= 10.764	Square Feet
1 ACRE	= 43560	Square Feet
	= 4047	Square Meters
	= 0.4047	Hectare
1 HECTARE	= 107639	Square Feet
	= 10000	Square Meters
	= 2.47105	Acres
1 SQUARE MILE	= 640	Acres
	= 259	Hectares

VOLUME

1 GALLON (US)	= 0.8327	Imperial Gallons
	= 231	Cubic Inches
	= 0.1337	Cubic Feet
	= 8.345	Pounds
1 CUBIC FOOT	= 1728	Cubic Inches
	= 7.48	Gallons (US)
	= 62.4	Pounds
	= 28.32	Liters
1 ACRE INCH	= 27154	Gallons (US)
	= 254	Cubic Meters / Hectare

AREA OF A CIRCLE = Diameter x Diameter x 0.7854

CYLINDER VOLUME (US GAL.) = Diameter (ft.) x Diameter (ft.) x Length (ft.) x 5.8748