

## CleenSweep® Pneumatic - CSP

KEITH Manufacturing Co. www.KeithWalkingFloor.com World Headquarters

Toll-Free: 800-547-6161 Phone: +1-541-475-3802







# INSTALLATION MANUAL & PARTS CATALOG

**Original Instructions** 

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Released: 2024-04-17 DOC06947 Rev. C

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#### Introduction

This manual explains procedures for installing and operating the KEITH® Pneumatic CleenSweep® Tarp System. Many variables affect the installation, but the general process remains constant. Details of the installation vary, according to trailer features and installer preferences.

An efficient installation requires appropriate tools and accessible materials that are not supplied with this kit. (This kit does not include any hoses.) A list of needed tools and required materials is supplied.

It is strongly recommended that the installers and operators read this entire manual before beginning the installation or operating of the system.

Please direct any questions to KEITH Manufacturing Co., one of our international offices listed in the contact information section of this manual, or on our website.

MARNING: Always disconnect pneumatic, hydraulic and electric power to the trailer and follow lock out/tag out safety procedures before entering the trailer or working on the CleenSweep® Tarp System components. Failure to do so may result in serious injury or death due to the large forces involved with the CleenSweep® Tarp System.

**IMPORTANT:** Installing the CleenSweep® Tarp System requires some alterations to your trailer. Changes made without the approval of the trailer manufacturer may void the trailer's warranty.

### CleenSweep® Tarp System Limited Warranty

This CleenSweep® Tarp System is warranted to the original purchaser to be free from defects in material and workmanship under normal use for a period of **one year** from the date of purchase. During the warranty period, and upon proof of purchase, the CleenSweep® Tarp System will be repaired or replaced with the same or similar model.

IT IS EXPRESSLY AGREED THAT THIS SHALL BE THE SOLE AND EXCLUSIVE REMEDY OF THE BUYER. UNDER NO CIRCUMSTANCES SHALL KEITH MANUFACTURING CO. BE LIABLE FOR ANY COSTS, LOSS, EXPENSE, DAMAGE, SPECIAL DAMAGES, INCIDENTAL DAMAGES, OR CONSEQUENTIAL DAMAGES ARISING DIRECTLY OR INDIRECTLY FROM THE USE OF THE CLEENSWEEP TARP SYSTEM. WHETHER BASED UPON WARRANTY, CONTRACT NEGLIGENCE OR STRICT LIABILITY.

THE WARRANTY AND LIMITS OF LIABILITY CONTAINED HEREIN ARE IN PLACE OF ALL OTHER WARRANTIES AND LIABILITIES, EXPRESSED OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED BY KEITH MANUFACTURING CO. AND EXCLUDED FROM THIS WARRANTY. FURTHER, KEITH MANUFACTURING CO. DOES NOT WARRANT THAT THE CLEENSWEEP TARP SYSTEM COMPLIES WITH LOCAL, MUNICIPAL, STATE OR FEDERAL CODES, IF ANY AND THE BUYER ALONE IS RESPONSIBLE FOR ANY KNOWLEDGE OF ANY COMPLIANCE WITH ANY SUCH CODES.

This warranty shall not apply to any parts that; (a) have been repaired or altered outside of the CleenSweep® Tarp System; (b) have been subjected to misuse, negligence or accident; or (c) have been used or installed in a manner contrary to CleenSweep® Tarp System instructions.

In certain circumstances some states do not allow the exclusion or limitation of incidental damages, some or all of the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights that vary from state to state.

If this warranty violates law: To the extent any provision of this warranty contravenes the law of any jurisdiction, that provision shall be inapplicable in such jurisdiction and the remainder of the warranty shall not be affected thereby.

Notice: To validate all warranties, a warranty registration card must be completed and returned to KEITH Manufacturing Co. within ten days of purchase. If you did not receive a warranty registration card, contact your dealer immediately.

## **Warranty Registration Card**

Note: To validate the warranty, the registration information must be filled out completely and returned to KEITH within ten (10) days of purchase and/or installation.

Please fill out the Warranty Registration form on our website at www.KeithWalkingFloor.com or fill out the Warranty Registration Card below and mail or email it to:

KEITH Manufacturing Co. 401 NW Adler St. Madras, OR 97741		
TechDept@KeithWalkingFloor.com		
		at KEITH in order for the warranty period to the beginning of the warranty will automatically
Name / Company Name:		
Address:		
City, State / Prov.:		Postal Code:
Country:		
Phone:		
E-Mail:		
SYSTEM DATA:		
Date of Purchase:		
Model / Serial Number:		
Purchased From:		
Type of Material Loaded/Unloade	ed:	
I have fully read the KEITH Manuterms of the warranty.	ufacturing Co. warranty inforn	nation and fully understand and agree to the
Name:	Date:	Signature:

KEITI	1
MANUFACTURING	co CleenSweep⊚⟨
MODEL: CSF	·
SERIAL # :	
D.O.M.:	
MAX PRESSURE: 100	psi / 7 bar
WINCH WEIGHT: 25 I	bs / 11 kg
KEITH Manufacturing Co. World Headquarters 401 NW Adler St. Madras, OR 97741 USA	KEITH WALKING FLOOR Europe Harselaarseweg 113 3771 MA Barneveld The Netherlands
WALKING FLOOR and KEITH are regis	stered trademarks of KEITH Manufacturing Co.
www.KeithWa	lkingFloor.com

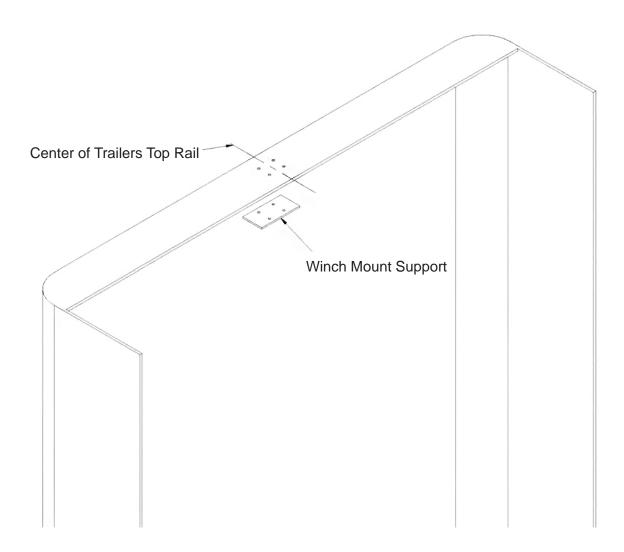
## 1.0 Specifications

CleenSweep® Pneumatic		
Dimensions 12"W x 10.75"H x 9.75"D [305 mm x 273 mm x 248 mm]		
Weight	25 lbs [11 kg]	

#### 2.0 Installation

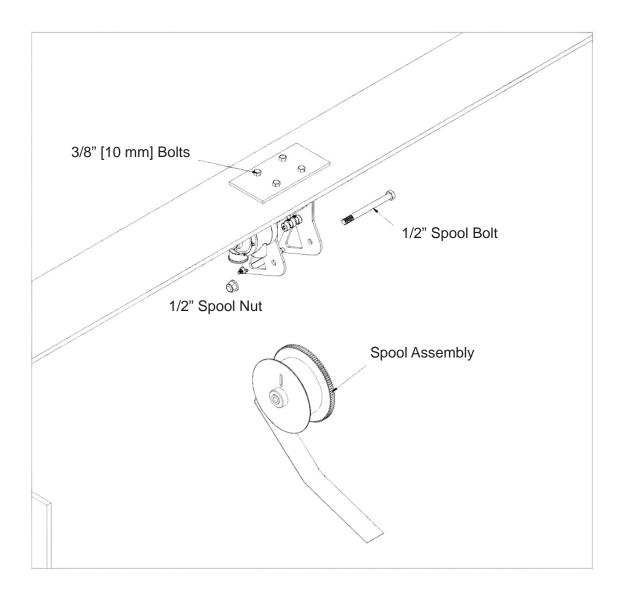
#### Step 1:

- A. Mount winch frame to the underside of the top rail channel at the front of the trailer. If trailer does not have a top rail, a mounting box will need to be constructed and attached to the trailer.
- B. Locate the center of the top rail. Please note that it is crucial that the winch is mounted in the absolute center of the trailer and at a 90 degree angle. If the winch is not mounted square, it will put uneven pressure on the tarp strap.
- C. Measure 1-1/4" [32 mm] back from the front bulkhead and use the winch mount support as a template to drill bolt holes.



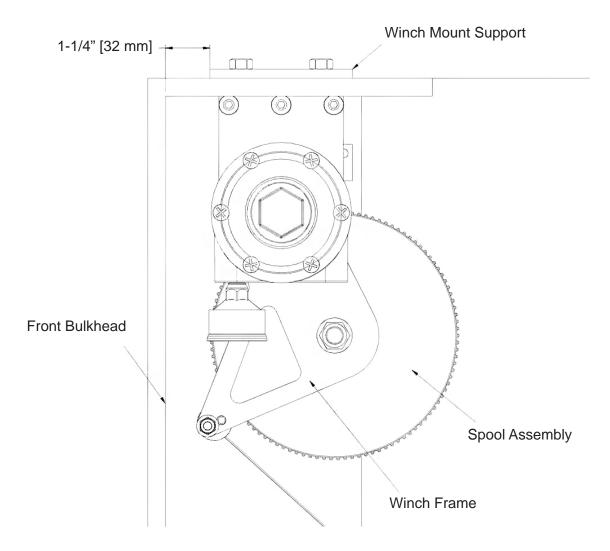
#### Step 2:

- A. Bolt winch to winch mount support using the 3/8" [10 mm] bolts, double checking that it is centered and square in the trailer. Washers are not needed because both the winch mount support and winch frame are steel.
- B. Use a 3/4" wrench to remove strap spool, providing access to tighten mounting bolts with socket wrench.



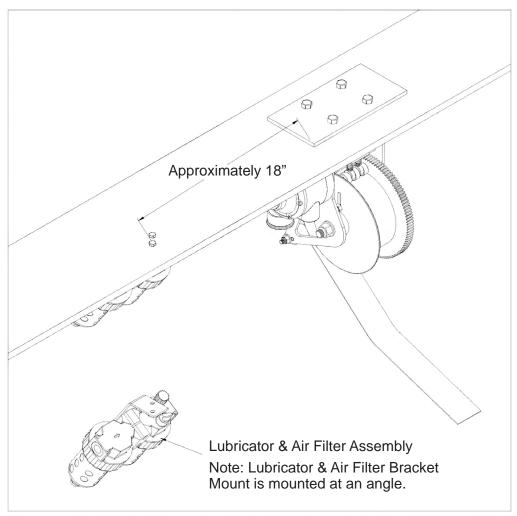
#### Step 3:

- A. Bolt winch to winch mount support using the 3/8" [10 mm] bolts, double checking that it is centered and square in the trailer. Washers are not needed because both the winch mount support and winch frame are steel.
- B. Use a 3/4" wrench to remove strap spool, providing access to tighten mounting bolts with socket wrench.



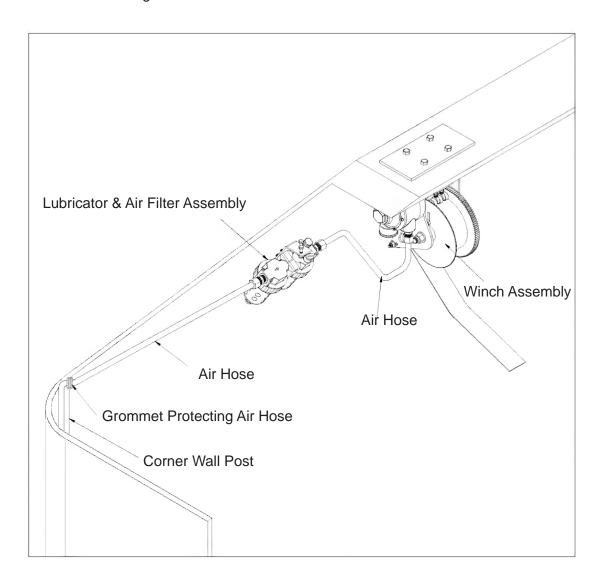
#### Step 4:

- A. Install bracket mount to the top rail or mounting box approximately 18" [457 mm] to the left of the CleenSweep® winch. Make sure the air hose will still be easily accessible. Note that the bracket design is tilted for easy filling of lubricator.
- B. Drill a 3/4" hole in the top portion of the trailer wall near the bracket mount. If the trailer has front ribs, it is easiest to drill the hole in one of the ribs and thread the air hose through to the bottom of the trailer. If trailer walls do not have ribs, run the air hose through one of the corner braces and attach with hose clamps.
- C. Install grommet into hole in trailer wall to protect air hose. Feed air hose through hole leaving approximately 18" [457 mm] remaining at top.
- D. Decide at what angle you want the air fittings for the air hose. Note that it is easier to tighten the fittings before mounting the lubricator and air filter assembly. Fill lubricator with the lubricant supplied before mounting. Lubricant typically lasts 6 to 8 months, depending upon use. Always regularly check the lubricant and use ATL004 or equivalent.
- E. Bolt lubricator and air filter assembly to bracket mount, making sure that the bottom of the lubricator is not lower than the winch. Also make sure that lubricator and air filter assembly is not installed more than four-feet away from the winch's air motor to ensure proper lubrication.
- F. Set lubricant regulator by opening the lubricator valve completely (3-1/2 to 4-1/2 turns counterclockwise.) The valve is located on the top of the lubricator. See image on Step 9.



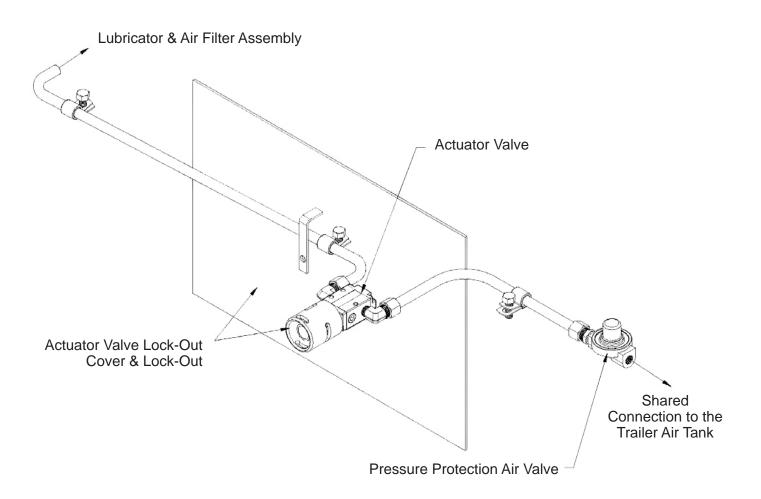
#### Step 5:

- A. Cut air hose and attach it to inlet side of the air filter.
- B. Measure area between fitting on lubricator and fitting on the winch's air motor. Cut air hose to the appropriate length. Place approximately 20-30 drops of lubricant into the air hose. Attach the air hose to the fittings from the lubricator to the air motor.



#### Step 6:

- A. Determine location of actuator valve. Installation is recommended at one of two locations:
  - i. It can be installed on the driver's side, near the front of the trailer. If this location is chosen, it is a good idea to have a sight hole so that you can see the CleenSweep® system as it works to ensure it is properly set.
  - ii. It can be installed at rear of trailer, allowing you to watch the CleenSweep® system properly retract to the ready-position before closing the trailer door
- C. Drill 3/4" hole to accommodate the actuator valve. If it is located at the front of the trailer, drill the hole under the slope shield. Install the lock-out system over the threads before installing the nut. The lock-out system prevents anyone from activating the actuator button when conducting maintenance on the winch system. Make sure the horizontal slot on the actuator valve lock-out is located at the top of the button to ensure the lock-out does not fall out.



- D. Locate the trailer air tanks. If there is an outlet without a valve, you can plumb into it. If not, you will have to create an outlet, using a T-fitting. Outlet must be a "live" outlet, meaning it will have air pressure at all times.
- E. Attach the pressure protection air valve to the outlet. Note that it may be necessary to reduce the outlet to accommodate the 1/4" fitting of the pressure protection air valve. Properly attach all plumbing valves using Teflon tape.
- F. Begin threading air hose under trailer frame from actuator valve to air tank. Attach air hose to pressure protection air valve.
- G. Secure air hose to the trailer frame with zip ties.
- H. If actuator valve is installed near the front of the trailer, run the air hose under slope shield. Make sure all air hoses are clear of the floor slats when they are in the forward most position.
- I. Attach air hose from tank to the inlet on the actuator valve. Attach air hose from tank to the inlet on the actuator valve. Attach the air hose from the air filter to the actuator valve outlet.

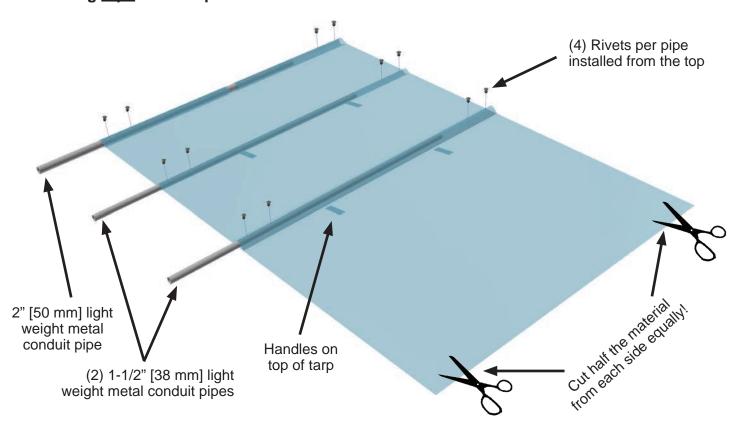
#### Step 7: Tarp Assembly, Installation & Adjustment

Please note that pipes, strips and fasteners are not supplied by KEITH Manufacturing Co. For the top pocket, located at the top of the tarp when fully retracted and hanging, (1) 2" [50 mm] diameter lightweight metal conduit pipe is recommended. For all other pockets, use 1-1/2" [40 mm] diameter lightweight metal conduit pipes or 1/4" x 3" [6 mm x 76 mm] UHMW plastic strips.

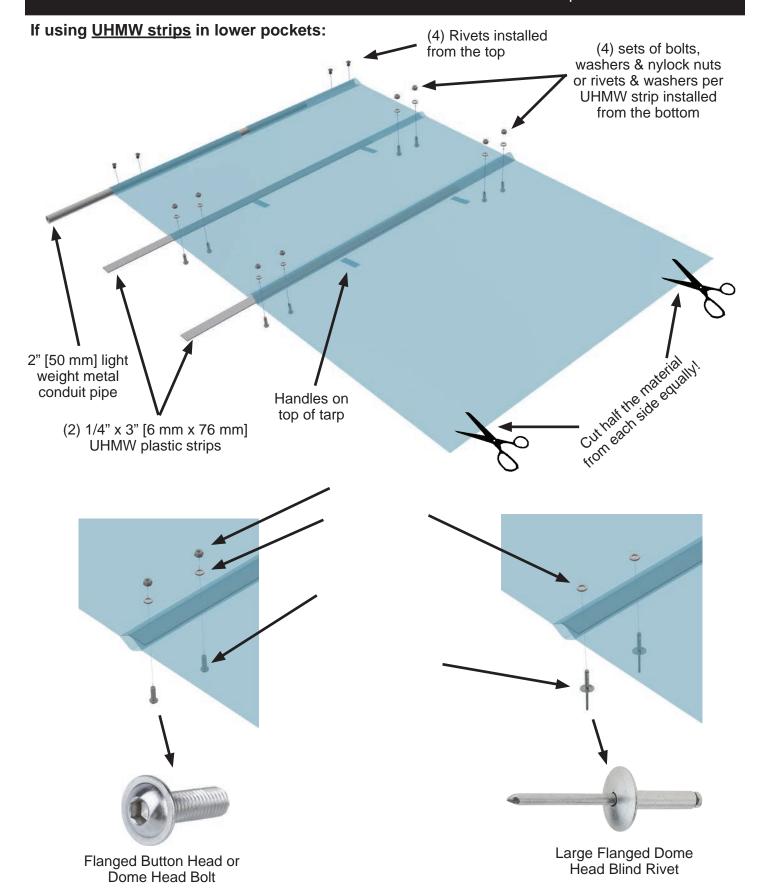
- A. Cut the pipes/strips approximately 2" [50 mm] shorter than the inside width of the trailer. Take this measurement just above the trailer floor, at the trailer's narrowest point.
- B. If the tarp is wider than the width of the trailer, cut the tarp to the same width as the inside of the trailer. Remove half of the material from each side of the tarp.

**Note:** If you are installing the tarp into a trailer with a V-Floor® system or into a bullnose trailer, the tarp will need to be wider than the inside of the trailer because the tarp will conform to the ridges on the floor or the nose of the trailer.

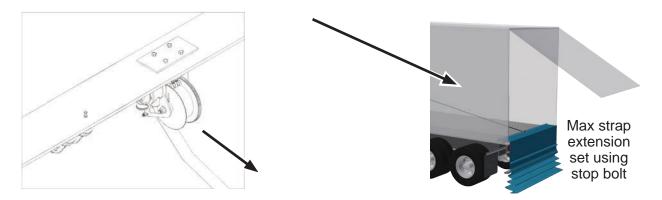
#### If using Pipe in lower pockets:



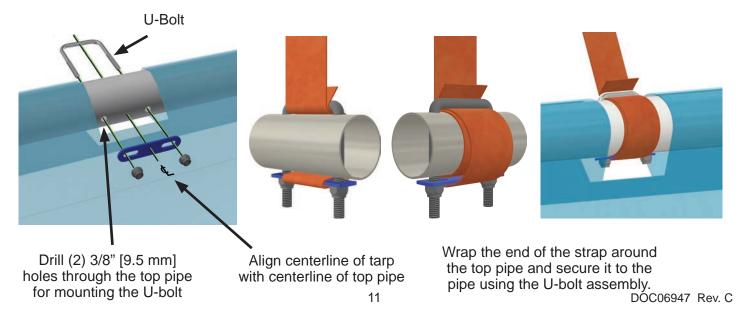
- i. With the tarp laying down on the floor of the trailer, center the 2" [50 mm] pipe in the top pocket of the tarp which has the notch cut out in the center. On the top side of the pipe drill (4) holes through the tarp and pipe and install rivets (not supplied) to hold the pipe in place.
- ii. Center the smaller diameter pipes in the lower pockets of the tarp. On the top side of the pipes drill (4) holes through the tarp and pipes and install rivets (not included) to hold the pipes in place.



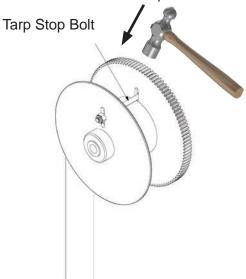
- i. With the tarp laying down on the floor of the trailer, center the 2" [50 mm] pipe in the top pocket of the tarp which has the notch cut out in the center. On the top side of the pipe drill (4) holes through the tarp and pipe and install rivets (not supplied) to hold the pipe in place.
- ii. Center the UHMW strips in the lower pockets of the tarp. Drill (4) holes completely through the tarp and UHMW strips. Use bolts with washers and nylock nuts (not supplied) or use rivets with washers (not supplied) to keep the UHMW strips in place. Bolts or Rivets should be installed from the bottom so nothing sharp scrapes or catches on the floor.
- C. Find the center of the top pipe when the tarp is in the hanging position. Drill (2) 3/8" [9.5 mm] holes, evenly spaced, through the top pipe to attach the U-bolt. It must be centered and installed so that when the tarp is hanging from the winch, the threads of the U-bolt are facing downward. If necessary, you can make the notch in the tarp wider in the middle to accommodate the U-bolt.
- D. Retract all slats to the front of the trailer. Lay the tarp in the rear of the trailer, with the handles on top of the tarp and the 2" [50 mm] top pipe resting inside of the trailer just before the end of the slats. This will be where the tarp stops during unloading with the rest of the tarp hanging off the back of the trailer.
- E. Release the winch strap brake and thread the strap through the strap guide on the winch, through the slot in the front shield (if winch is low-mounted) and through the strap roller. Pull the strap to the end of the trailer, making sure that the strap is not twisted.



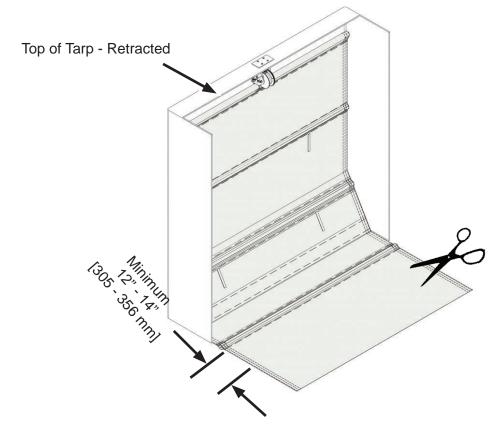
F. Wrap the strap loosely under the u-bolt, around the top pipe, around the u-bolt plate and back up under the u-bolt. Pull tight and tighten the U-bolt to hold the strap securely in place. This will keep the top pipe of the tarp from falling out of the trailer when the strap is fully extended.



G. Use the winch to pull the slack out of the strap, then install the strap anchor bolt tightly up against the wound strap. This will keep the top pipe of the tarp from falling out of the trailer when the strap is fully extended. Use a hammer to indent the bolt into the wound strap. It's important that the bolt not leave a bulge in the strap which could affect the operation of the brake.



H. Retract the tarp assembly completely so that the U-bolt is back to the strap roller. Cut the tarp to length leaving a minimum of 12"-14" [305-356 mm] of tarp on the floor covering the slats. Too much tarp on the floor and the tarp will get caught in the unloaded material and be difficult to remove. Too little tarp on the floor and it won't move along with the load and sweep cleanly. Additional tarp on the floor (36"-48" [914-1219 mm]) may be needed if the material being unloaded is very light weight (low density).



#### **Step 8: Tarp Catch Hooks (Optional)**

Installing catch hooks on the end of the trailer will catch and hold the tarp and make sure that it doesn't get buried in the load.



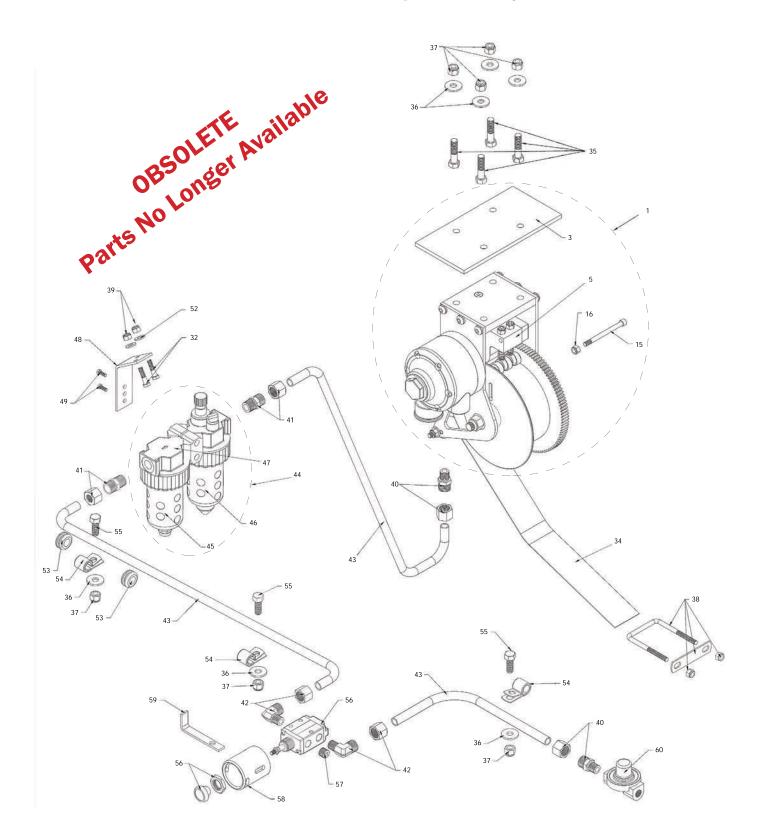


- A. Check that the lubricant bottle has been filled and that the regulator has been fully opened. Refer to instructions Step 4.
- B. To ensure the motor is well lubricated before starting normal operation. Pull the tarp out to the back of the trailer and retract several times by pushing and holding the valve actuator button.

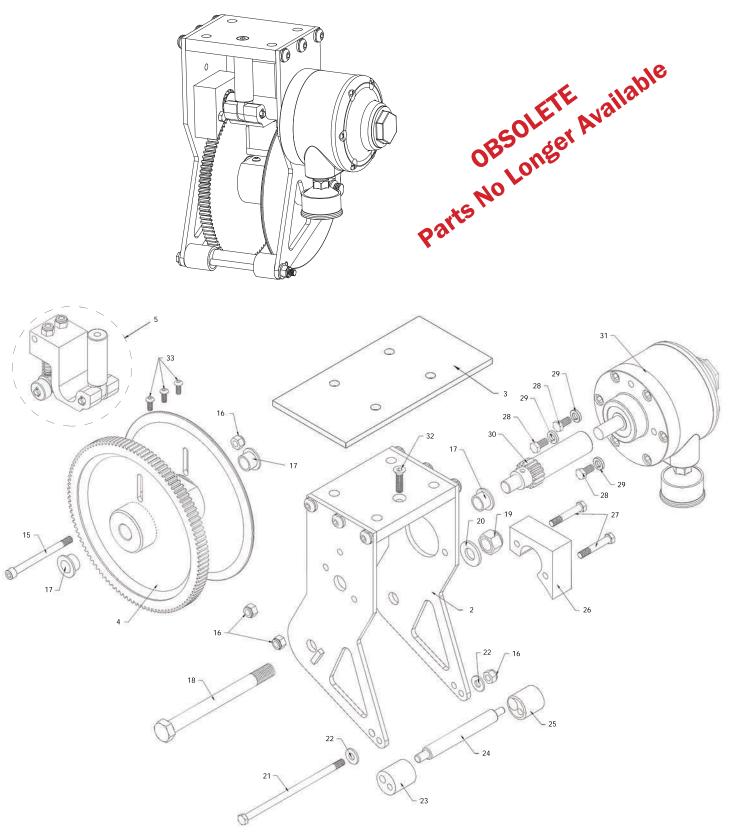


#### 3.0 Parts Catalog

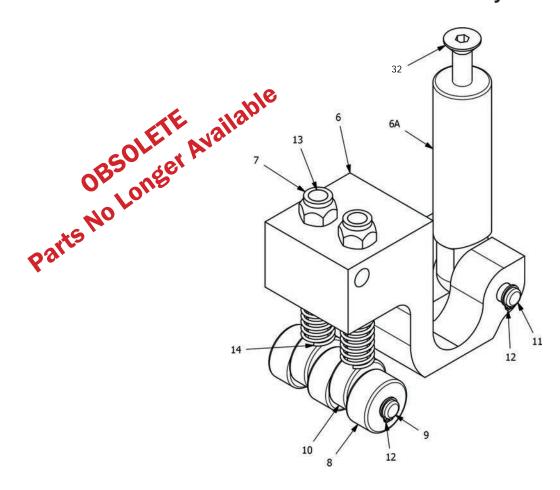
## CleenSweep® Assembly



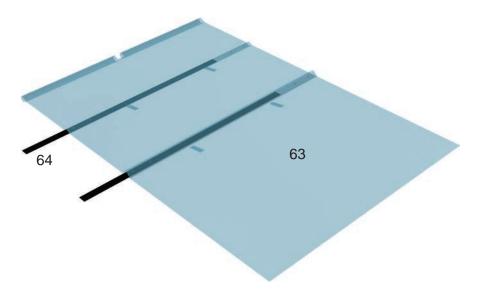
## **Winch Assembly**



## **Friction Brake Assembly**



**Tarp Assembly** 



IN	NSTAL	LATION MA	NUAL & PARTS CATALOG	CleenSweep® Pneumatic - CSP
ID#	Qty	Part #		Description
1	-	05214401	Winch Assembly -SAE (Include	es items 2-37)
2	1	05214601	Winch Frame	
3	1	05215001	Winch Mount Support	
4	1	05215501	Spool Modification	
5	1	05214501	Friction Brake Assembly (Ir	ncludes items 6-14, (1) 32)
6	1	05216501	Friction Brake	
6A	1	05985701	Brake Mounting Lug	
7	2	86626000	Nut Hex 1/4" Nylock	
8	3	05216701	Brake Roller	
9	1	05216801	Brake Roller Pin	
10	2	05216901	Eccentric Set Coller	
11	1	05217001	Hinge Pin Brake	
12	4	84800422	Retaining Ring EXTL 1/4	Snap ZN
13	2	05217101	Sliding Shaft Brake	c able
14	2	84451900	Spring 520	ETE alla
15	1	86421010	Bolt Socket GR5 1/4"x3"	coll, Av
16	4	86626000	Nut Hex 1/4" Nylock	OBS AGE.
17	3	85811020	Bushing 1/2" ID Sintered	Snap ZN  OBSOLETE Available  Parts No Longer Available
18	1	05216401	Axle Bolt 1/2" (modified)	<b>4</b> 0 .
19	1	86629500	Nut 1/2" Hex Nylock	, 45 °
20	1	86556500	Washer Flat 1/2"	ba,
21	1	86424500	Bolt Hex GR5 1/4"x5"	
22	2	86551000	Washer Flat 1/4"	
23	1	05230101	Bumper Gear-Side	
24	1	05215201	Roller	
25	1	05215101	Bumper Non Gear-Side	
26	1	05217601	Gear Guard Small	
27	2	86416500	Bolt Hex GR5 1/4"x1-1/2"	
28	3	86409500	Bolt Hex GR5 1/4"x1/2"	
29	3	86551500	Washer Lock 1/4"	
30	1	05215901	Shaft Drive/Brake Assembly	
31	1	85819901	Air Motor	
32	3	87400100	Bolt Flat Head GR8 1/4" X 1"	ZINC
33	3	86404300	Screw Button #10-32x3/8"	
34	1	85811075	Strap Polyester 2" X 75' (+/- 1	0")
-	-	06214301	CSP Mounting Kit - SAE (In	cludes items 3 & 35-37)

Bolt Hex GR5 3/7"x1-3/4"

Washer Flat 3/8"

Nut Hex Nylock 3/8"

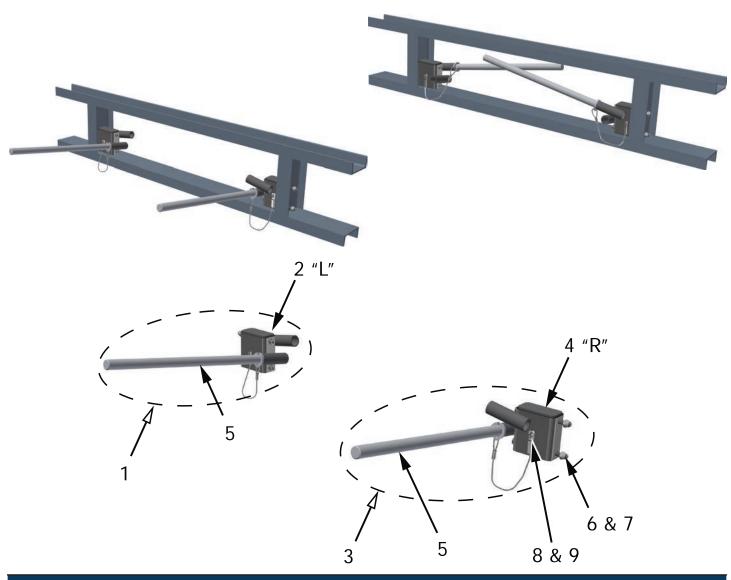
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11	NSTALI	LATION MA	NUAL & PARTS CATALOG CleenSweep® Pneumatic - CSP
ID#	Qty	Part #	Description
-	-	06214302	CSP Mounting Kit - Metric (Includes items 3 & 35-37)
35	4	87076000	WASHER FLAT 10MM
36	4	87102000	NUT HEX NYLOCK 10MM
37	4	87008525	BOLT HEX 10.9 10MM-1.50 X 45MM ZN
38	1	86671112	BOLT U SQ ASSY M8X2"IWX3"ILX1-1/2 THREAD
39	2	86626000	Nut Hex Nylock 1/4"
40	2	85115020	Air Fitting 1/4" Straight
41	2	85115060	Air Fitting 3/8" Straight
42	2	85115010	Air Fitting 1/4" 90° Elbow
43	100'	85115030	Air Hose 1/2"
44	1	85115030	Lubricator & Air Filter Assembly (Includes items 45-47)  Lubricator Air Parker  Air Filter Parker  Air Bracket Mount  Mount Bracket Lubricator & Air Filter  Bolt HWH ROLOCK #10-32x1/2"  Bolt Hex 6mmx16mm  Washer Flat 1/4"  Grommet 1/2" ID  Clamp Hydraulic Tube CL-9  Bolt Hex GR5 3/8"x3/4"
45	1	85811060	Lubricator Air Parker
46	1	84004030	Air Filter Parker
47	1	85612010	Air Bracket Mount
48	1	05217201	Mount Bracket Lubricator & Air Filter
49	2	86404510	Bolt HWH ROLOCK #10-32x1/2"
_50	1	87002480	Bolt Hex 6mmx16mm
_52	2	86551000	Washer Flat 1/4"
_53	2	83217520	Grommet 1/2" ID
54	3	84750244	Clamp Hydraulic Tube CL-9
55	3	86437000	Bolt Hex GR5 3/8"x3/4"
56	1	85114080	Actuator Valve
57	1	85114230	Muffler
58	1	05217301	Actuator Valve Lock-Out Cover
59	1	05217401	Actuator Valve Lock-Out
60	1	85115050	Pressure Protection Air Valve
61	1	87075500	Washer Lock 6mm
62	1	85811080	Air Tool Lubricant ATL004W (not shown)
63	1	09169001	TARP, 18 OZ. VINYL, STANDARD TRIM-TO-FIT
64	2	03540110	UHMW STRIP BLACK 1/4" X 2-7/8" X 102", NO HOLES

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## **Tarp Catcher**



ID#	Qty	Part #	Description
-	-	11520714	TARP CATCHER ASSY (Includes assemblies 1 & 3)
1	-	11520701	LEFT TARP CATCHER ASSY (Includes items 2, 5-9)
2	1	11520703	LEFT TARP CATCHER WELD ASSY
3	-	11520702	RIGHT TARP CATCHER ASSY (Includes items 4-9)
4	1	11520704	RIGHT TARP CATCHER WELD ASSY
5	1	11520709	BAR TARP CATCHER ASSY w/GALVANIZED LANYARD ASSY
6	2	87008580	BOLT SOCKET HEAD 10MM-1.5 X 130MM 12.9 ECOGUARD
7	2	87102000	NUT HEX NYLOCK 10MM
8	1	87075501	WASHER LOCK M6 EXTERNAL TOOTH
9	1	87009098	BOLT SOCKET HEAD 6MMX12MM ZN

#### 4.0 Technical Support

Please have the following information readily available before contacting KEITH Manufacturing Co. for support:

- Model Number (Located on the Serial Plate of the unit or engraved)
- Serial Number (Located on the Serial Plate on the unit or engraved)
- Vehicle make and unit installer

#### **KEITH Technical Support Contact Information:**

**Website:** www.KeithWalkingFloor.com **Email:** TechDept@KeithWalkingFloor.com

**Toll-Free**: 800-547-6161 **Phone**: +1-541-475-3802

#### 5.0 Contact Information - KEITH Manufacturing Co.

#### World Headquarters - USA

401 NW Adler St. Madras, OR 97741 Toll-Free: 800-547-6161 Phone: +1-541-475-3802

Email: Sales@KeithWalkingFloor.com

#### **Europe Headquarters**

Barneveld, The Netherlands Phone: +31-342-422007

Email: EuroSales@KeithWalkingFloor.com

#### Canada

Brantford, ON

Phone: +1-519-756-9178

Email: CanadaSales@KeithWalkingFloor.com

#### México

Guadalajara, Jal.

Phone: +52-333-616-5079

Email: KMC\_Mexico@KeithWalkingFloor.com

#### Australia

Waverley Gardens, VIC Phone: +61-3-9562-2190

Email: AUSales@KeithWalkingFloor.com