AMERICAN TARP

A TITAN MFG COMPANY

2025

OPERATION/ INSTALLATION MANUAL

AMERICAN TARP

A TITAN MFG COMPANY

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Contents

Specifications

Installed Weight: 1020 lbs.

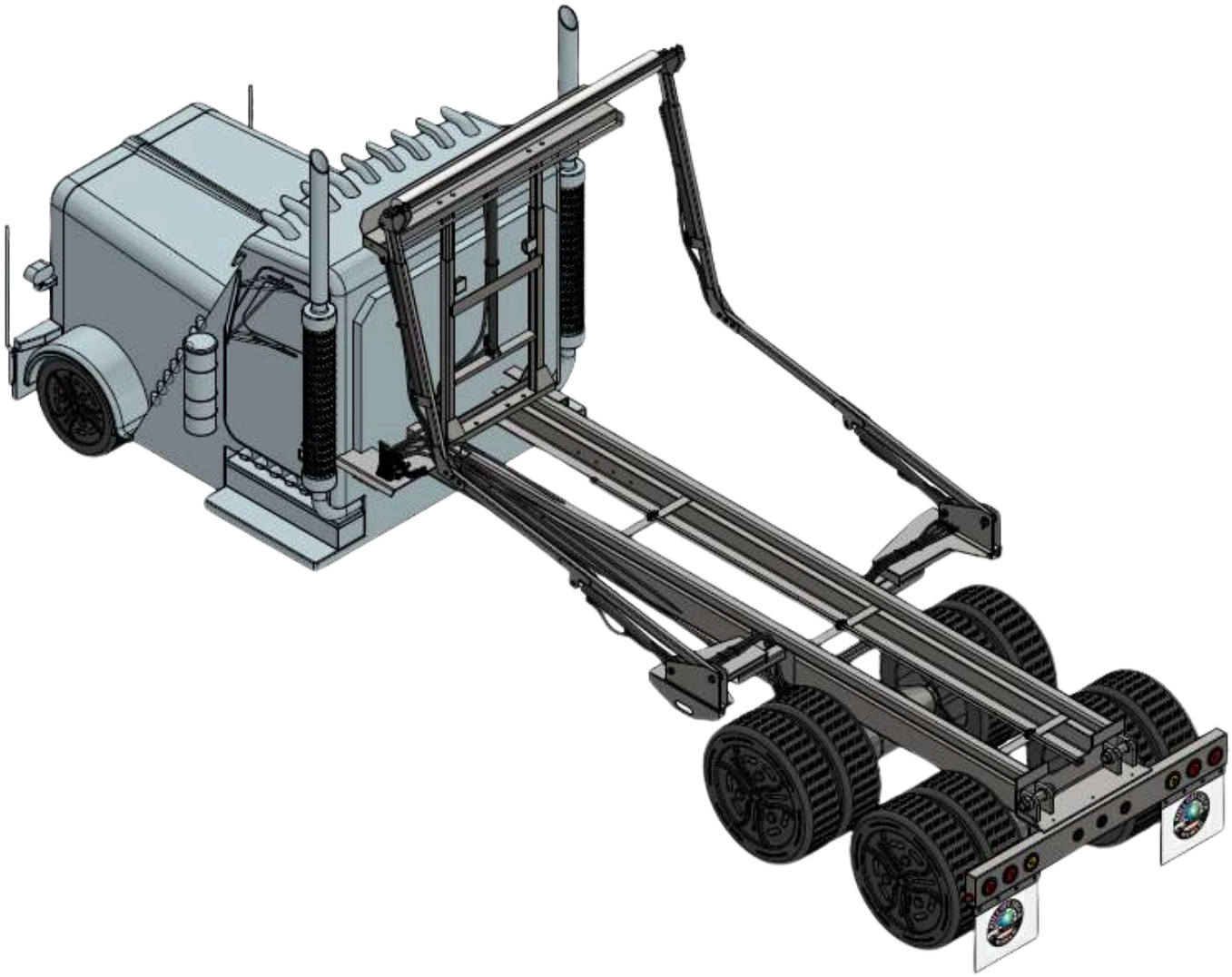
Width: 108 inches

Maximum Container Length: 24’

Hydraulic System:

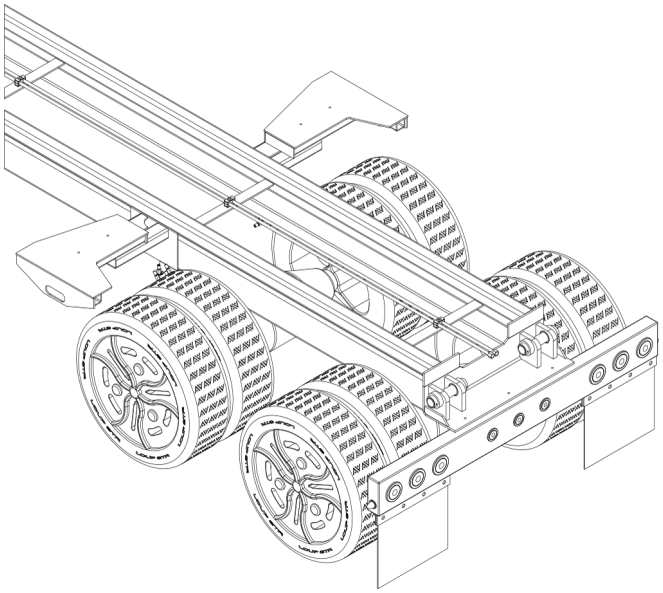
Pressure: 1600-2000 psi

Flow: 2-3 GPM

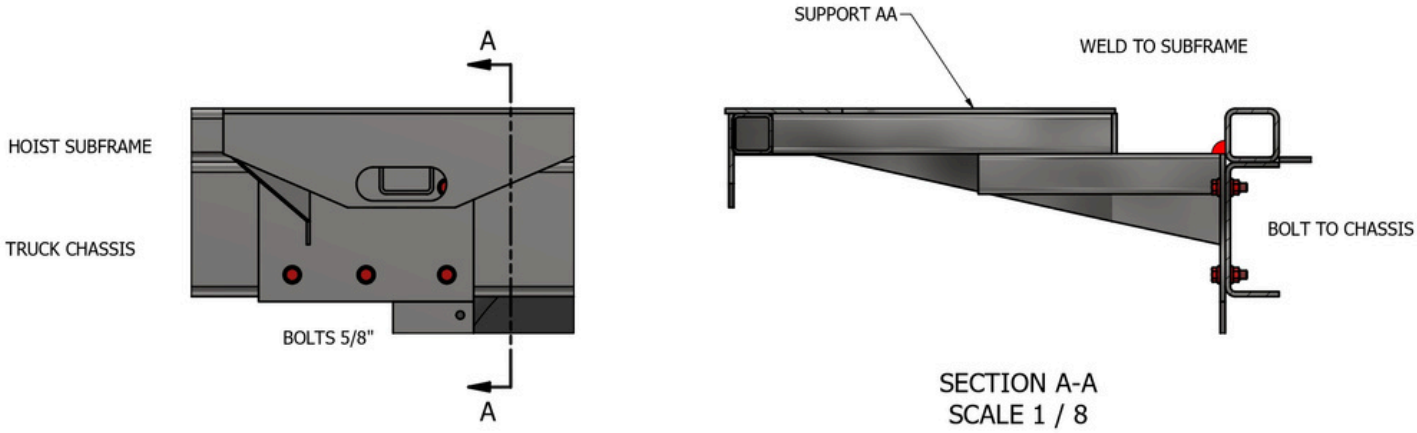


Installation

Step 1: The tarp is installed by positioning the rear supports above the rear axles. Use the plates provided by the hoist to weld the horizontal tubing. A minimum of 4 bolts 5/8" must be used to ancle the plate to the frame. These brackets bolt the hoist subframe to the truck chassis. There is one positioned between the rear axles and one in front of the axles.

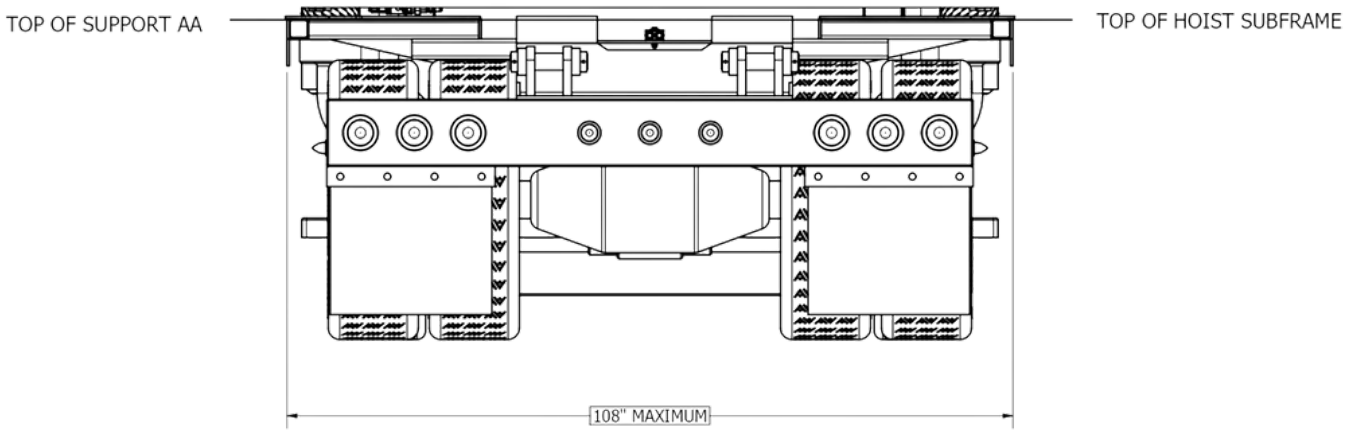


Note: If plates are not provided or available from the hoist, suitable plates can be manufactured shown below to match the other mounting plates. Use correct thickness to ensure strength of the system. These plates must be BOLTED to the chassis, cannot be welded.



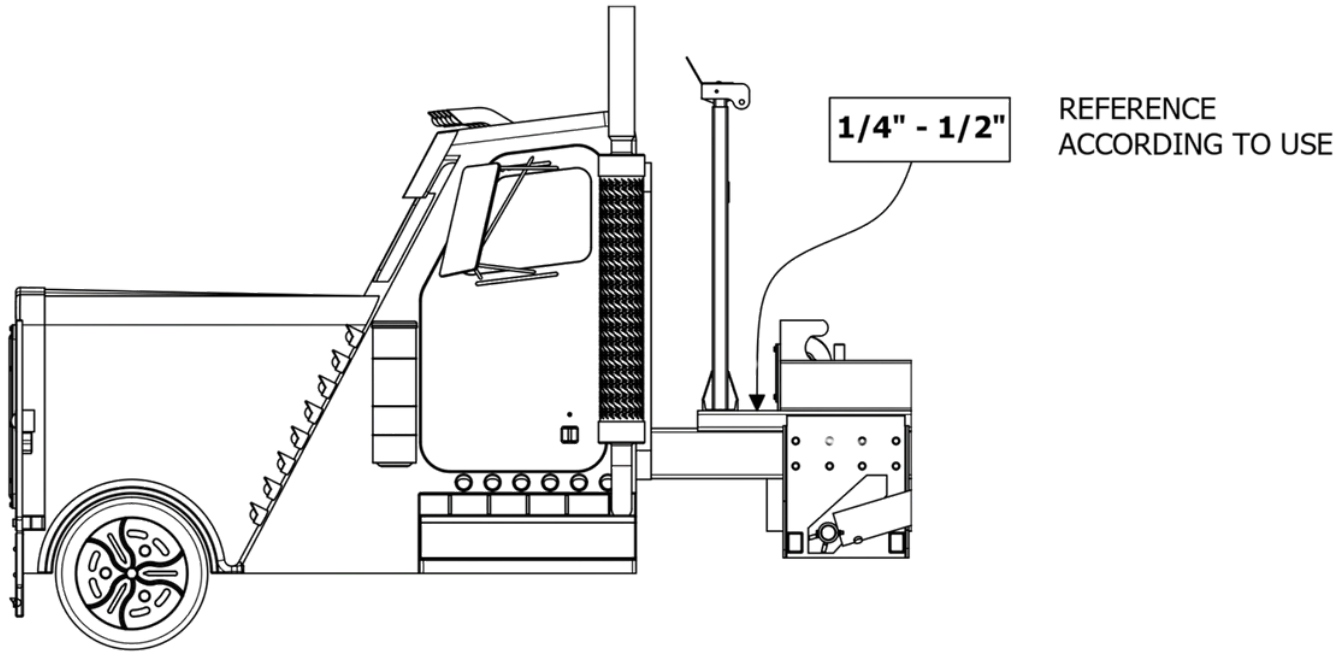
Step 2: Adjust the height of the arm square tubing by cutting the four vertical 4” square tubing pieces to length. Run a straight edge across the hoist rails over the rear axles. The top of the square tubing should match. Try to get the tube level in all directions. Use a laser level to ensure the four posts are all symmetrical.

Note: It may be necessary to cut the horizontal arms shorter to achieve the 107.250” maximum width.

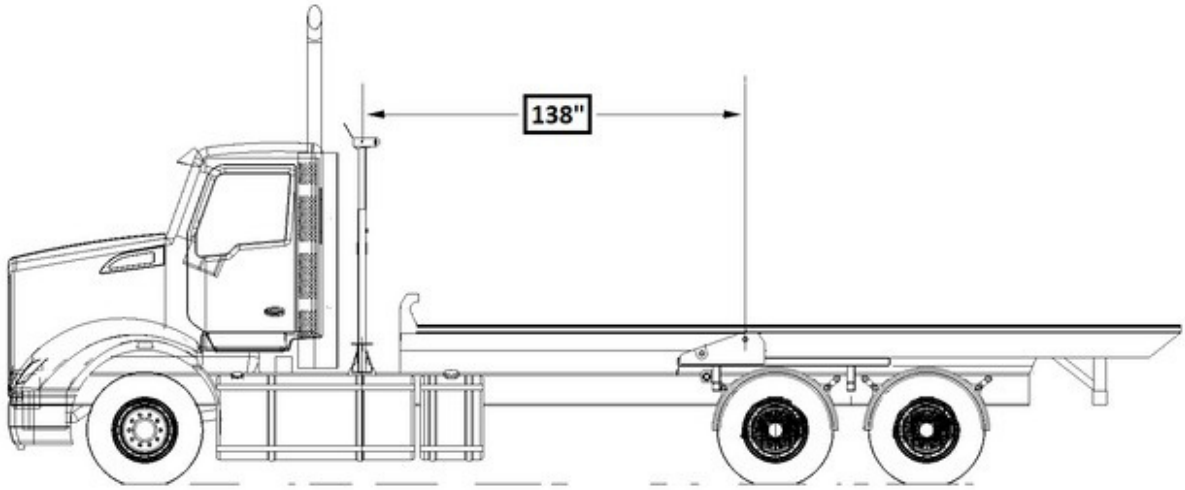


107.250”

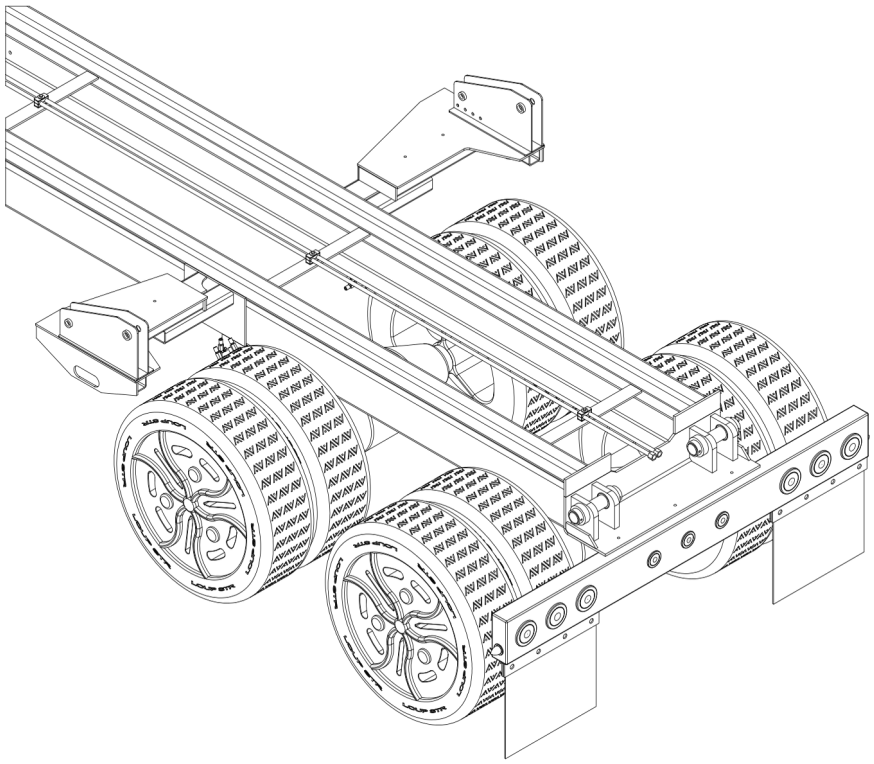
Step 3: Place the gantry in front of the hoist as close as possible. This ensures the arms can extend fully to cover a long or tall container. Drill four holes on each plate for 5/8” bolts to secure the side plates to the chassis, using existing holes if possible. Weld these plates to the channel to secure the gantry. Ensure the gantry is square with the truck frame. Install the gantry cylinder to ensure it is in the correct position for the placement of the arms in the next steps. Refer to Appendix D for hardware.



Step 4: Measure the distance from the gantry center to a point near the forward rear axle. The distance should be 138" (+/- 1"). This is the position of the main pivot pin from the center of the gantry. It is critical to get both pivot points to match otherwise the arms will be offset when the tarp is collapsed or extended.



STEP 5: Weld the square tubing of the top rail in position after squaring it up with the gantry. Measure from the driver side of the gantry center to the center of the main pivot on both sides. This should match within ¼". Measure diagonal across the truck to the same positions. This value should match within ½". Make any adjustments needed to square the arms to the gantry. Otherwise during operation, the arms may not extend correctly.



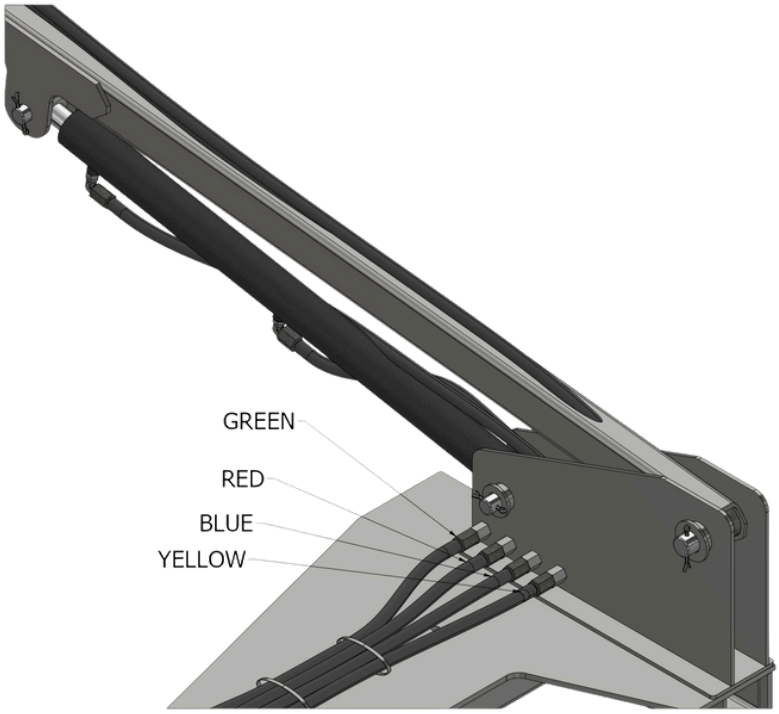
Step 6: Install the arms by inserting the pins and washers. The main pivot pin can be greased before installation. Refer to Appendix A to help identify hardware.

Step 7: Install the tarp roller and crash bar to join the driver and passenger arms. Refer to Appendix B for assistance in identifying correct hardware.

Step 8: Allow the roller to rest on the gantry top plate with no tarp on the roller. This allows the roller to be in its natural position when the arms are “down” and the gantry is all the way collapsed.

Note the position of the lower cylinder front pin within the slot. It should be 1/16” from the front of the slot. The pin should be loose by hand and not in a bind. This ensures the weight of the roller and arms are resting on the gantry, not the cylinder and pin.

Note: Both driver and passenger side should match. If they don’t, troubleshoot to find where the misalignment is coming from.



Step 9: Connect and route the hydraulic hoses according to the diagram in Appendix C.

Step 10: Bleed the air from the system with the following process:

- **CAUTION! The system may move suddenly with air contained in the cylinders and hoses. When first moving the arms move them as slowly as possible to avoid damage to the system, personal injury, or death.**
  - Close the flow control valves* all the way, and open 1 turn.
  - Cycle the arms through their half the range of motion 2 to 3 times.
  - Cycle the arms through their full range of motion 2 to 3 times.
  - Continue to cycle through full motion until the arms work smoothly.

NOTE: It is advised to adjust the flow control valves to allow the operator to use the full lever position when covering the container. Ensure the tarp motion is slow and controlled. Avoid increased speed as this will cause damage and shorten the life of the tarp system. The arms should not jump or suddenly move at any point in the operation.

***refer to Appendix E – Hydraulic System for location of flow control valves**

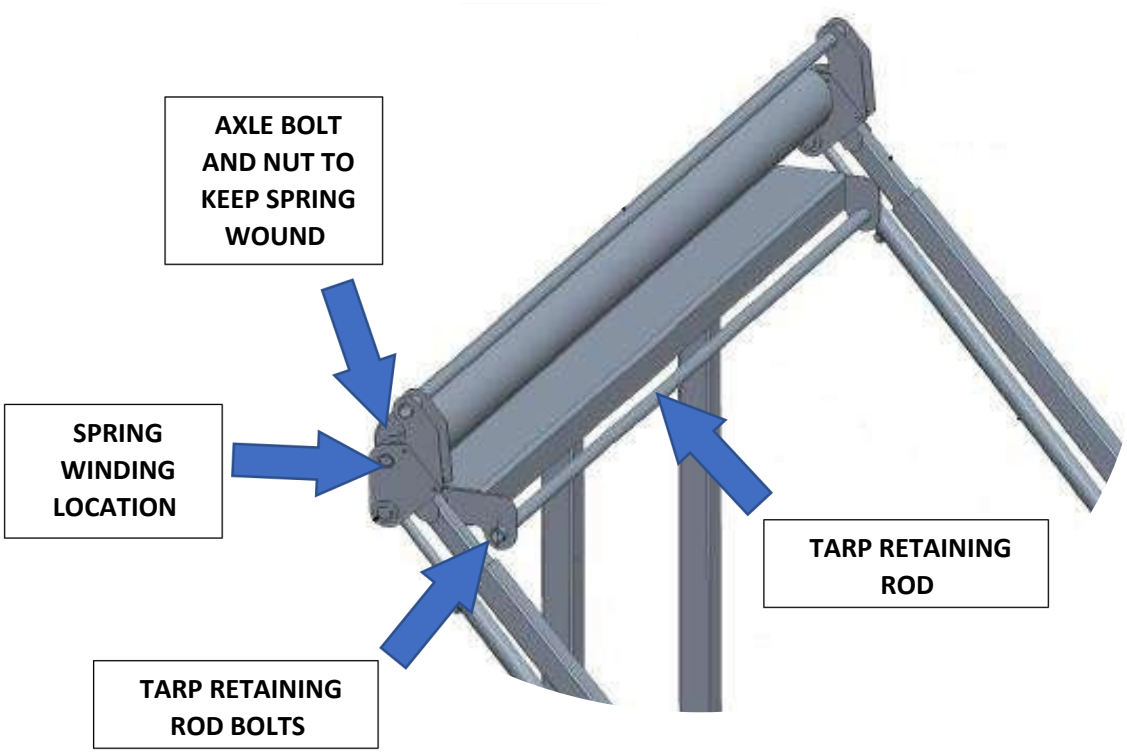
Step 11: Once the tarp can cycle through its entire range of motion with no air in the system, adjust the flow control valves to 3 turns out and ensure this is the desired speed for the arms. Adjust as needed.

Step 12: Install the tarp:

Step 12a: Start by inserting the tarp onto the tarp retaining rod at the gantry. Use the bolt and nut on each end to keep the rod in position (102-27 and 102-28). Rotate the arms to the back of the truck.

Step 12b: Stretch the tarp towards the back of the truck and secure it to a roller. Be sure to use the correct bolts and washers and center the tarp on the roller (QTY 5, 100-18A and 100-18B). Insert the roller shaft into the arms without the bolt which prevents rotation. **Step 12c:** Return the arms to the gantry with 6 inches space underneath the roller. Roll the tarp by hand ensuring the tarp is neatly rolled and straight. Take up all the slack using pipe wrenches if needed. **Step 12d:** Using a socket on the end of the roller axle, wind the spring 7 turns. When 7 turns is obtained, insert the bolt and nut through the axle and bar to lock the rotation (109-4A and 109-4B).

NOTE: The number of turns should be 7. Adding more turns can damage the spring. Too few turns can result in a loose tarp unable to roll itself up.



Step 13: Retract the arms and ensure the tarp rolls correctly and is stored neatly on the gantry top rest. The tarp system is now ready for operation.

Operation

The tarp is operated by using the two hydraulic levers located behind the driver's compartment. These are positioned roughly chest height. Begin by engaging the PTO to provide hydraulic power to the hoist and the gantry, as they share a supply. The assignment of levers may not be universal, proceed with caution when utilizing an unfamiliar tarp system until the correct lever assignments are understood. Refer to the hydraulic schematic for typical lever assignments.

Covering a container

With a container on the hoist, raise the arms to roll the tarp over the container.

If the tarp roller will hit the front of the container, the arms should be extended. Use the middle lever to extend the arms until the roller clears the front corner of the container.

With the tarp free to clear the container, continue rotating the arms until the crash bar contacts the top rail of the container. It may be necessary to approach this point slowly to avoid heavy impact.

Extend the arms until the crash bar is almost at the rear edge of the container. Do not let the tarp touch the rear edge of the container as this will tear it.

If desired the front gantry can be lowered to bring the tarp into contact with the front of the container if not already.

The tarp is now fully covering the load and is ready for transport.

Uncovering a container and storing tarp

The tarp can be stored by first retracting the arms fully. This drags the crash bar across the top of the tarp. The arms should be retracted to make the raise/lower function easier.

Next the arms should be rotated back towards the driver's cab. Be careful when approaching the gantry as the arms may land forcefully.

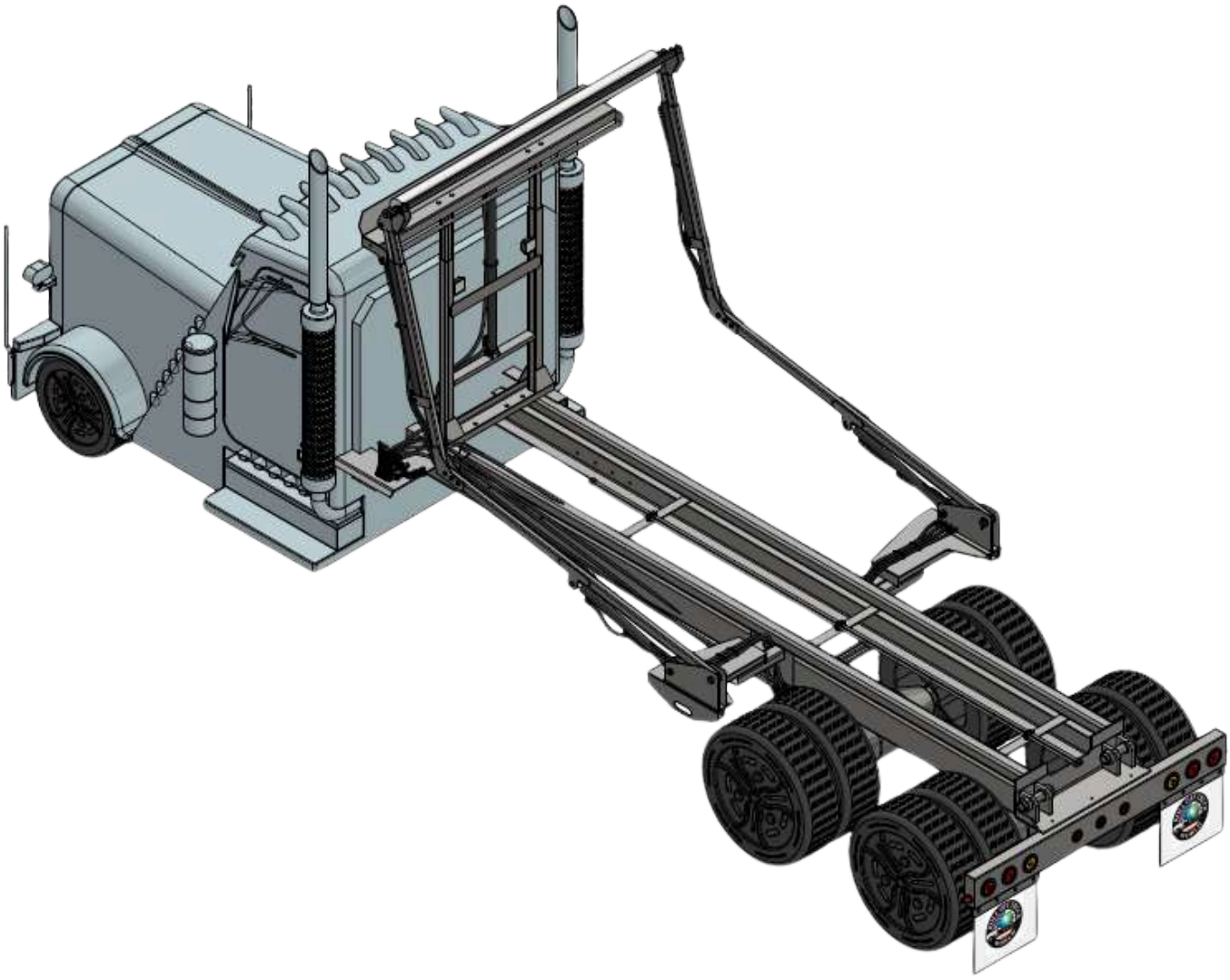
As the roller approaches the top edge of the container, stop and make adjustments to the gantry and the arm extension. The roller should clear the front edge of the container and come to rest in the middle of the gantry saddle.

The system can be left in this position for transport to the next job site. If many containers of this size are to be covered, a paint line may be placed on both the gantry and the arm extensions to provide quick reference to placement.

The raise/lower function should be used to simply rest the tarp roller onto the gantry. Continuing to power the arms down may damage or stress the system.

Spare Parts

Spare parts are available for your tarp system. Use the diagram below to locate the portion to be replaced or corrected. The detailed exploded views are available in an appendix at the end of this user manual. Refer to the correct Appendix to locate detailed information on the parts.



Appendices

A – Tarp System

B - Arm Parts

C– Roller and Crash Bar

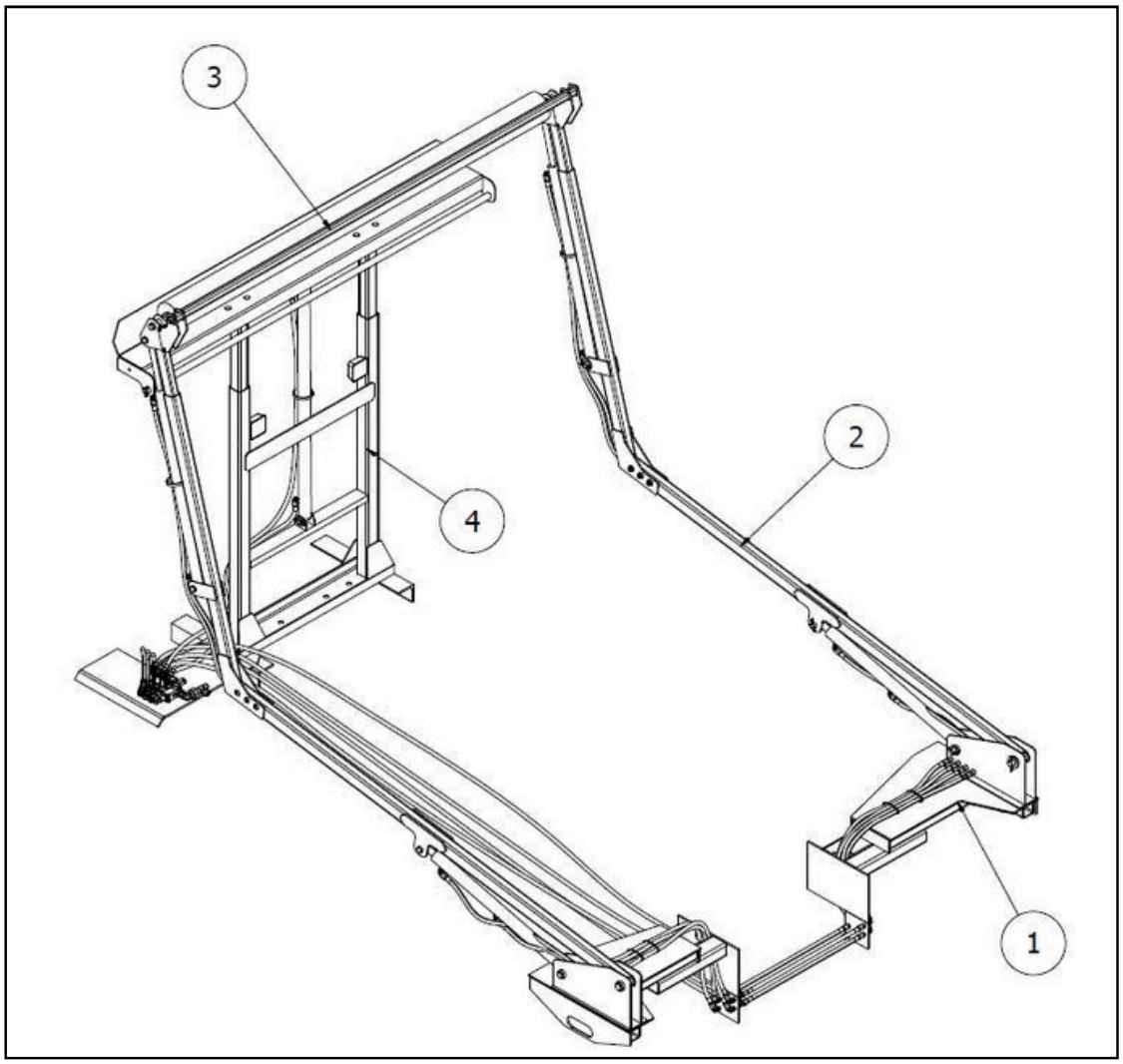
D – Gantry Spare Parts

E – Hydraulic Schematic

F – Maintenance

Appendix A

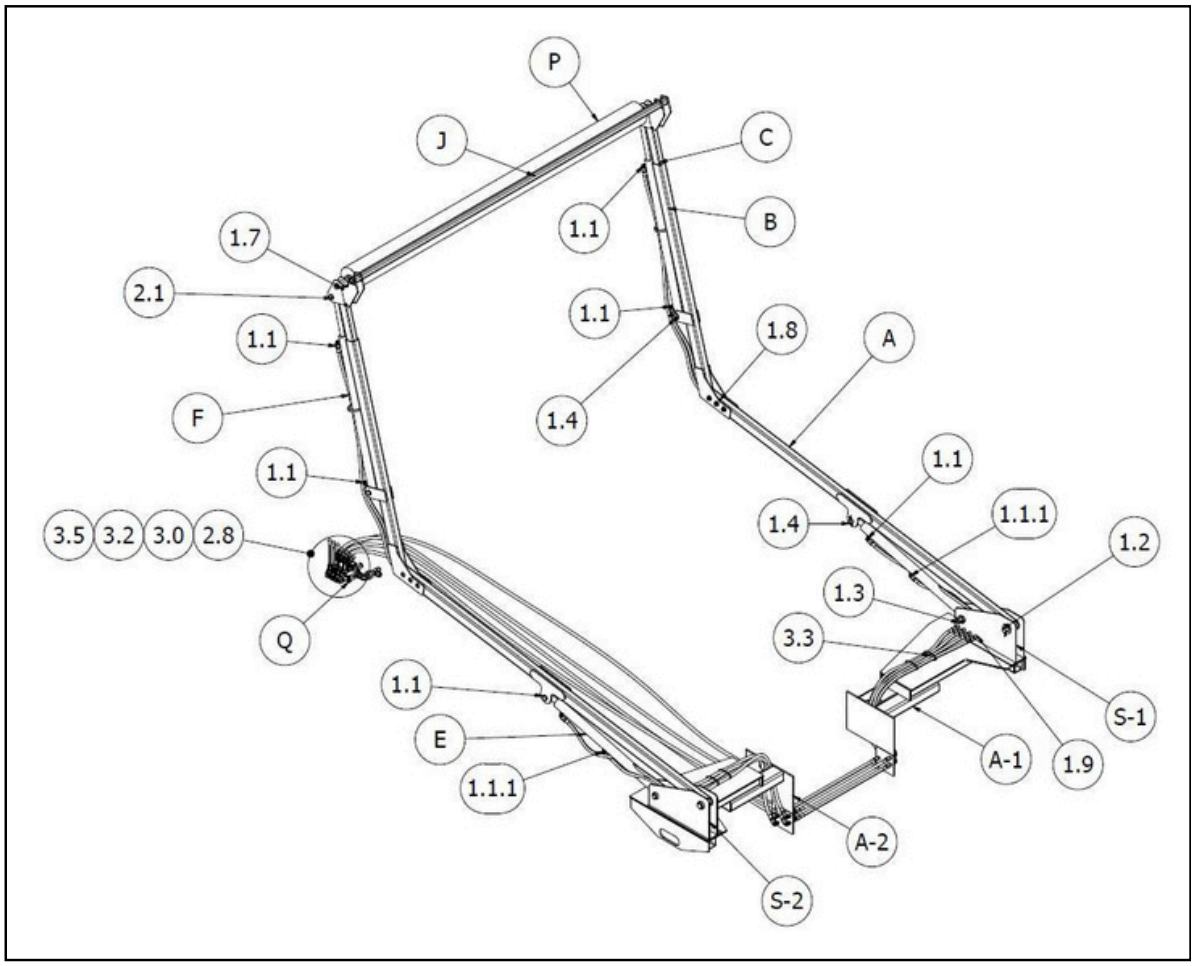
Spare Parts



TARP SYSTEM SPARE PARTS		
ITEM	APPENDIX A	DESCRIPTION
1	A	PIVOT AND SUPPORT
2	B	ARMS
3	C	TARP, ROLLER, CRASH BAR
4	D	GANTRY

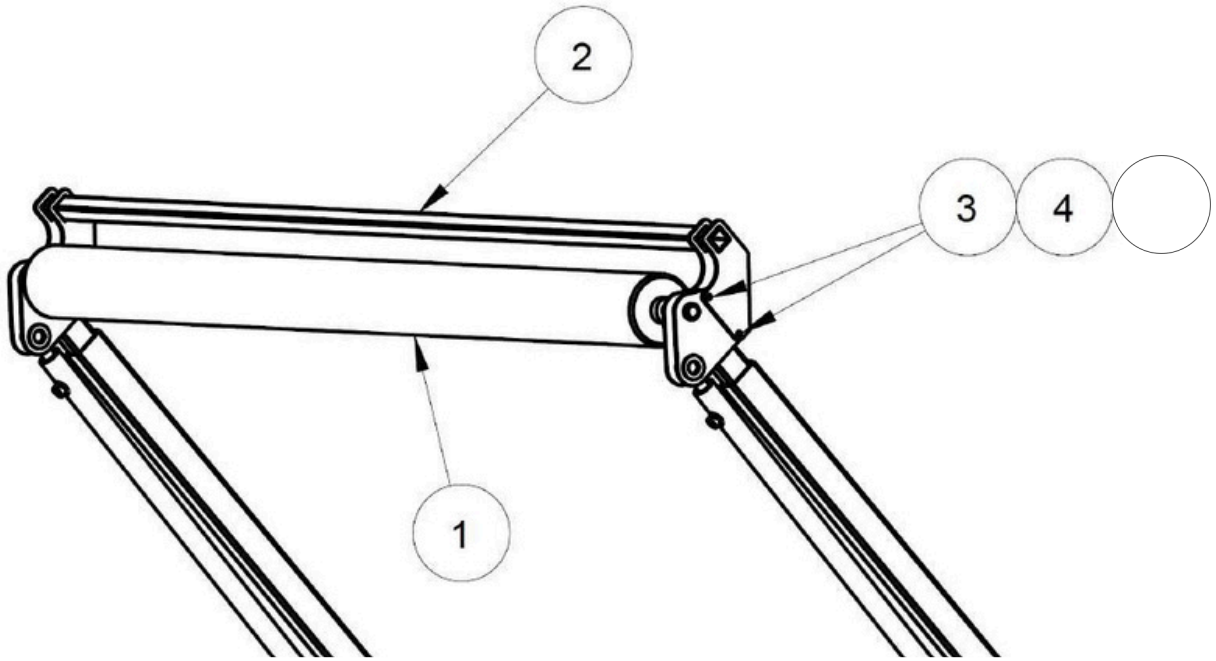
Appendix B

Arms - Pivots



LEFT AND RIGHT ARM			
ITEM	PART NUMBER	QTY	DECSRIPTION
1.1	#6801	6	NPT fitting ORN-JIC M6-M6
1.1.1	#6500	2	NPT fitting male, female F6-M6
1.2	P.1-1/4X5	2	Pin with washer and safety clip
1.3	P. 1X5	2	Pin, washer, safety clip and clamp
1.4	P.1 X 3 1/4	4	Pin with washer and safety clip
2.1	P.1 X 3	2	Pin with washer and safety clip
1.5	Cl#28	2	Clamp with screw and nut
1.6	Cl#40	2	Clamp with screw and nut
1.7	SN-3/8X1	8	Screw with lock nut
1.8	SN 1/2" X 3"	6	Black Screw with lock nut
1.9	#2705LN	8	Fitting MJ-FP 06-06

Appendix C – Roller and Crash Bar



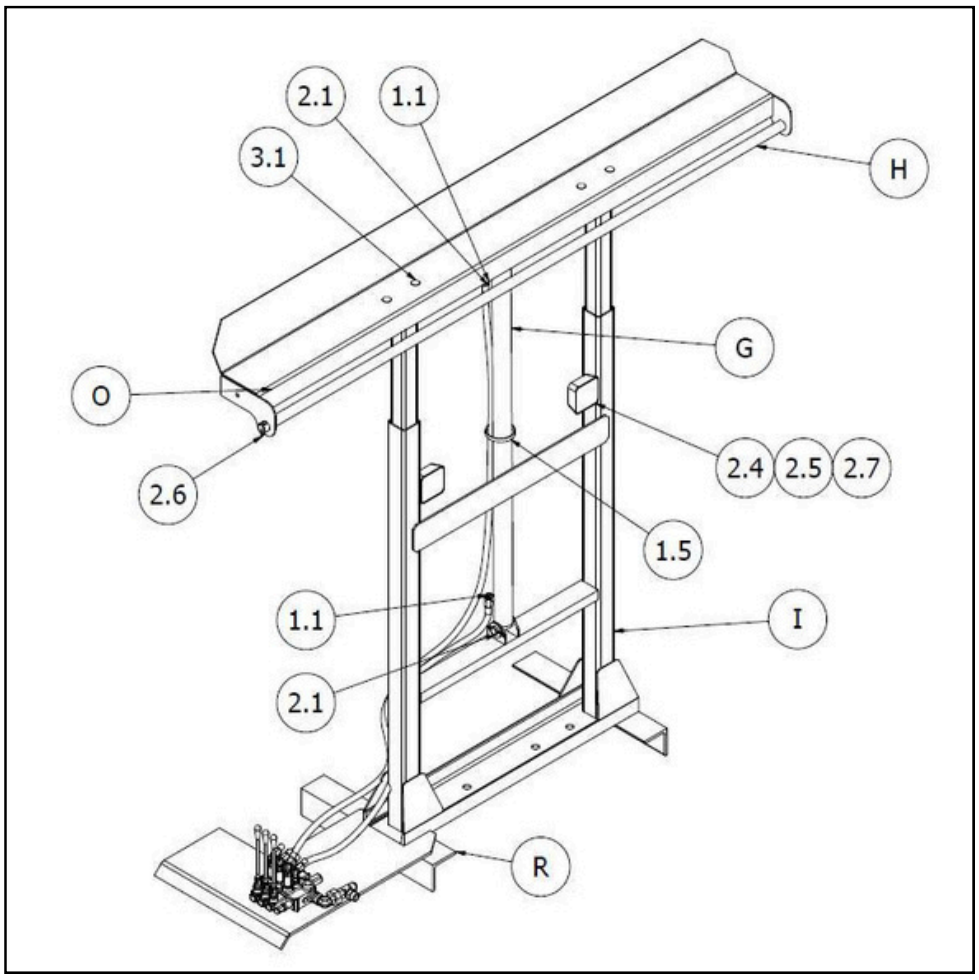
SPARE PARTS FOR ROLLER AND CRASH BAR

ITEM	PART NUMBER	QUANTITY	DESCRIPTION
1	100-18	1	ROLLER WITH TARP
2	111	1	CRASH BAR WELDMENT
3	103-7	8	BOLT, 3/8” X 1” LG*
4	103-8	8	NUT, 3/8”*
5	103-9	8	LOCK WASHER, 3/8”*

***Spare Parts Bag #6**

Appendix D

Gantry



GANTRY			
ITEM	PART NUMBER	QTY	DESCRIPTION
1.1	#6801	2	NPT fitting ORIN-JIC M6-M6
1.5	Cl#28	2	Clamp with screw and nut
2.1	P. 1x3"	2	Pin with washer and safety clip
2.2	SN-3/8X3/4	1	Screw with locknut roller
2.3	SC-5/16X2	2	Screw with lock nut side roller
2.4	WLH	2	Work light nutd and bolts
2.5	SC-1/4X3/4	6	Screw guide
2.6	SC-1/4X2	2	Screw external for crossover tube
2.7	Cl#5	6	Work light cable clamp
3.1	SN1/2"X1 1/2	4	Screw with lock nut plate gantry
3.8	SC3/8x3/4	5	Screw with washer

Appendix Parts

STEEL TARP			
ITEM	APPENDIX B	QTY	DESCRIPTION
1	A-1	1	SUPPORT AA LH
2	A-2	1	SUPPORT AA RH
3	B	2	ARM A
4	C	2	ARM B
5	D	2	ARM C
6	E	2	CYLINDER ARMS A
7	F	2	CYLINDER ARMS B
8	G	1	CYLINDER TARP
9	J	1	CROSS TUBE
10	H	1	CROSS BAR
11	I	1	GANTRY
12	O	1	GANTRY COVER
13	P	1	TARP ROLLER
14	Q	1	MANIFOLD
15	R	1	ANGLES
16	S-1	1	BASE AA LH
17	S-2	1	BASE AA RH

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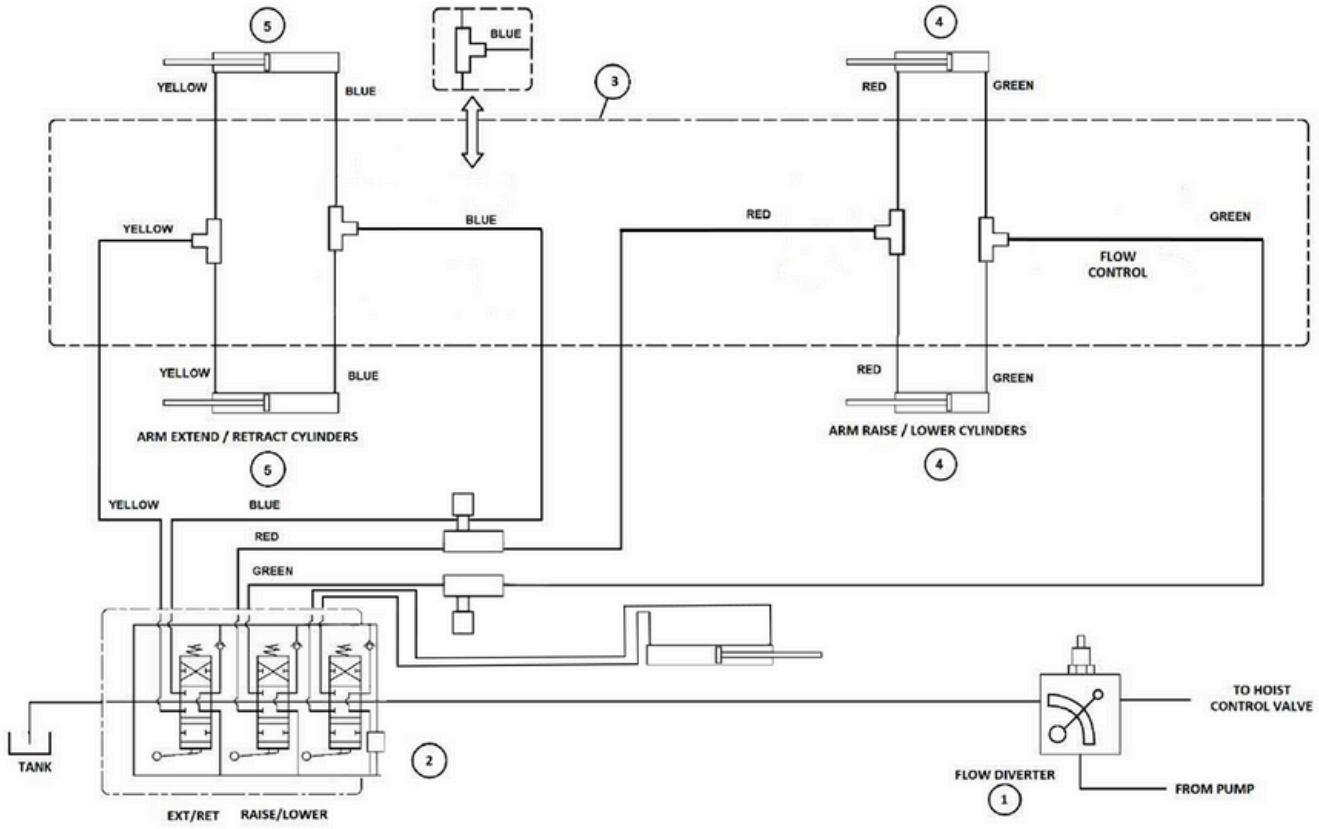
Central & Optional Parts

CENTRAL PART			
ITEM	PART NUMBER	QTY	DESCRIPTION
2.8	#6600	4	Fitting T M6-F6
2.9	Cf	2	Control Flow 1/4 2K PSI
3.0	#2404	2	Fitting NPT-JIG M6-M6
3.2	#2700LN	4	Fitting M6-M6
3.3	Cl#20	4	Clamp with screw and nut
3.4	HK	1	Hose set (Driver, Passenger, Chassis, Gantry, Manifold)
3.5	#6500	2	Fitting F6-M6

BOX (OPTIONAL)			
ITEM	PART NUMBER	QTY	DESCRIPTION
1.9	#2705LN	6	Fitting MJ-FP 06-06
3.0	#2404	8	Fitting NPT-JIC M6-M10
3.6	SP3	1	3 Spool valve hydraulic
3.7	DV	1	Diverter
1.1.1	#6500	8	Fitting MJ-FP 08-08

Appendix E – Hydraulic System



HYDRAULIC PARTS LIST

ITEM	PART NUMBER	DESCRIPTION	QTY
1	107-12	FLOW DIVERTER, 0-30 GPM	1
2	107-14	2 SPOOL VALVE	1
3A	107-100	HYDRAULIC ASSEMBLY	-
3B	107-102	HYDRAULIC ASSEMBLY OPTIONAL DIVIDER	-
4	100-23	CYLINDER, 2.5” X 30”	2
5	100-16	CYLINDER, 1.5” X 36”	2

Appendix F – Maintenance

Every Use:

System pressure between 1600 psi and 2000 psi

Oil Level in reservoir

Smooth operation

Alignment / proper range of motion

Tarp tension/roll up

Every Two Weeks

It is recommended to grease all points every two weeks. The main pivot pin has a grease fitting at the rear, and every cylinder has one at its pivot point. Refer to Appendix E for detailed locations.

Extend gantry fully and grease inner tube surfaces.

Extend upper arms fully and grease inner tube exposed surfaces.

Every Four to Five Weeks (Monthly)

Check for missing cotter pins once per month.

Hydraulic hoses should be checked for abrasion in areas they move or bend the most.

Tighten any fittings that are leaking oil, and note if they are becoming loose from hose movement. If possible, re-route or adjust hoses to avoid loosening in the future.

Clear drain holes in gantry lower cross member.

Check bolt tightness on gantry frame mounting plates.

If tarp rolls to one side

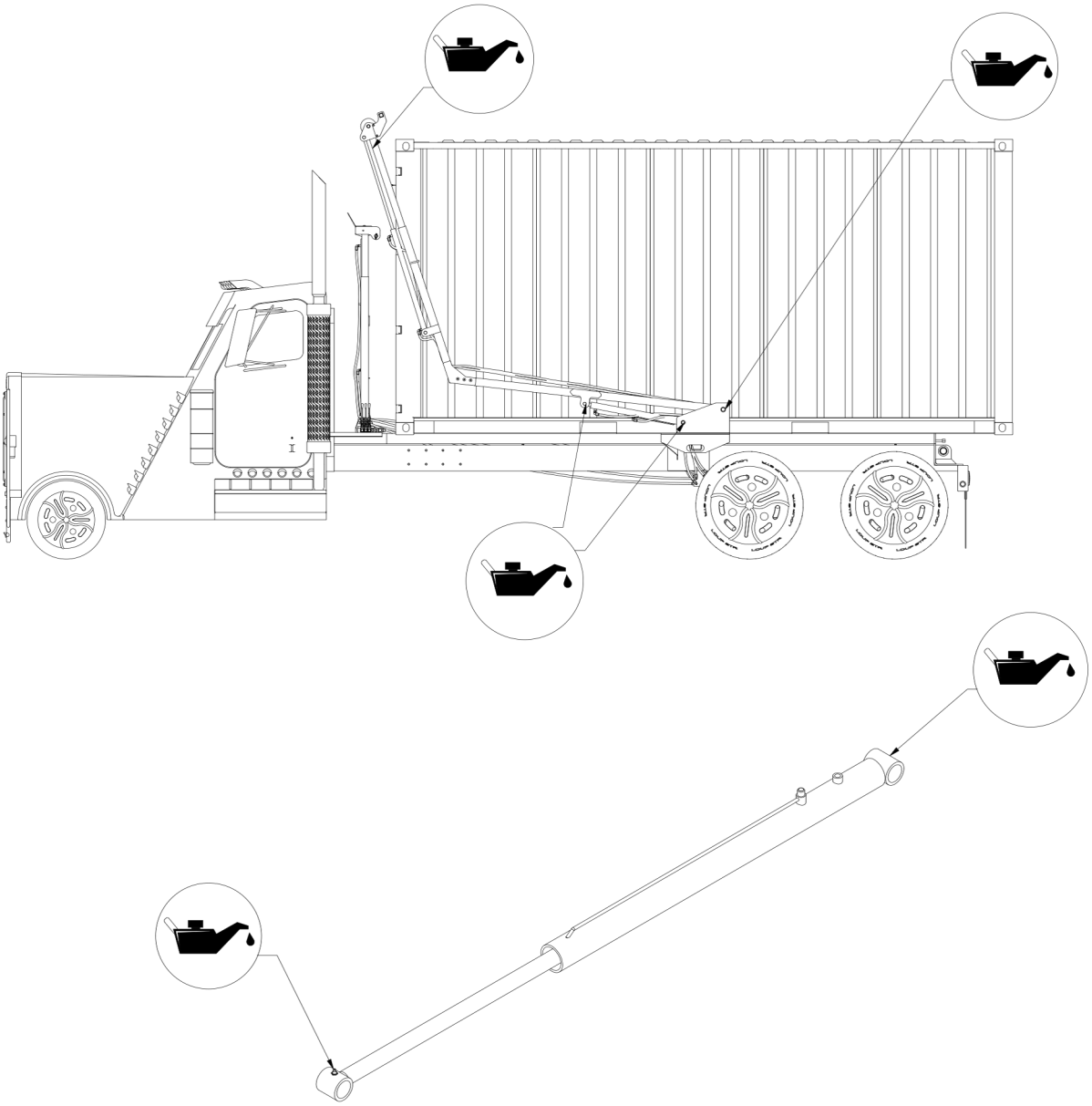
Check mesh tarp for damage

Arms bent – Check square with a measuring tape

Cylinder bypassing – rebuild or replace with new ones

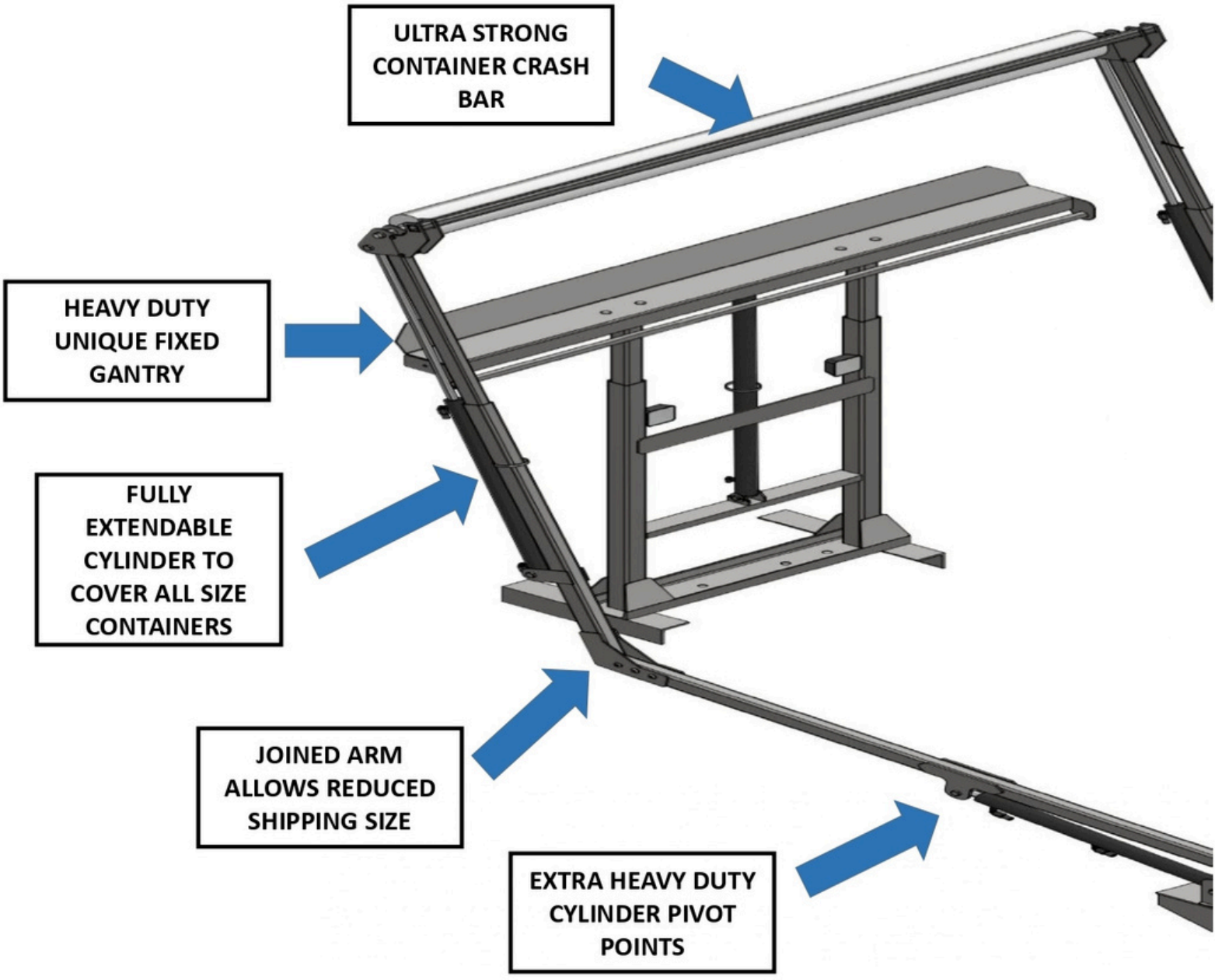
Air in hydraulic raise cylinders – check for leaking fittings or bleed air from system

Flow Control valves adjustment – open or close to allow flow divider to operate effectively

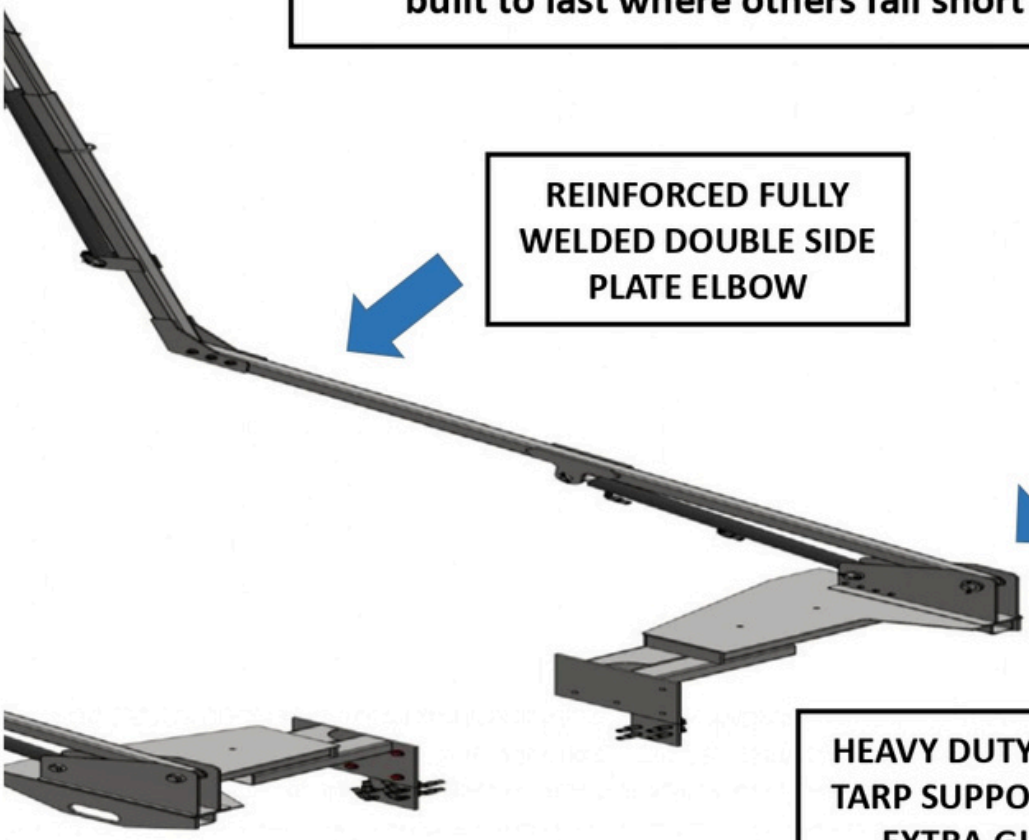


Typical Cylinder grease fitting locations on cylinders.

NOTE: It may be necessary to operate the arm to position the grease fitting in an easier to access orientation. Use extreme caution when performing this activity to prevent maintenance personnel from becoming trapped or injured.


ULTRA STRONG CONTAINER CRASH BAR
HEAVY DUTY UNIQUE FIXED GANTRY
FULLY EXTENDABLE CYLINDER TO COVER ALL SIZE CONTAINERS
JOINED ARM ALLOWS REDUCED SHIPPING SIZE
EXTRA HEAVY DUTY CYLINDER PIVOT POINTS

AMERICAN TARP has been designed to be the strongest tarp system on the market. With heavy duty arm pivots, cyliner brackets, and the critical “elbow” joint, this tarp tarp is built to last where others fall short



American Tarps are made in Texas, USA using local labor, materials, and facilities.

KEEP AMERICA STRONG, AND BUY AMERICAN!