



Flexible Harrow Cart

Instruction Manual and Parts List



**Use this manual for safety instructions and operating instructions.
Make sure everyone who operates this machine has read this manual completely!
Save for future use.**

Specifications are subject to change without prior notice

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1029R1018**



FLEXIBLE HARROW CART

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Introduction

The Flexible Harrow Cart has been engineered and built for ease of operation and long service life. The Flexible Harrow Cart has been designed to transport and operate with 7/16" x 8', 1/2" x 8' or 5/8" x 6' Flex Tine Harrow Sections.

It is important that you thoroughly understand the operation of the Harrow Cart before use. Read through this manual completely, watching especially for safety symbols (see illustration below) which will alert you to possible safety hazards. This safety alert symbol is used throughout this manual to identify possible safety hazards. It is the user's responsibility to read the operator's manual and comply with all the instructions pertaining to operation and maintenance. It is also the user's responsibility to inspect the machine at regular intervals and repair or replace worn or damaged parts when continued use would cause damage or excessive wear to other parts.



The word **"Note"** will alert you to special information such as specifications, techniques, reference information and other supplementary information. The word **"Important"** is used to point out a note which is of an immediate and urgent nature.

The manufacturer reserves the right to make improvements, discontinue or change specifications, models or design without notice and without incurring obligation.

When ordering parts for your Harrow Cart, please specify the part number and the part description as shown in the parts listing in this manual. Please give the serial number of the Harrow Cart in all correspondence when referring to the Harrow Cart. Record the serial number and purchase date here for future use.

Serial Number _____

Model _____ **Purchase date** _____

Dealer _____

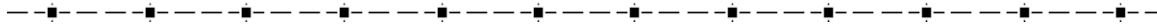
Address _____

IMPORTANT: When this machine is traded or sold, make sure this manual accompanies the machine so future operators will have complete operating instructions and safety warnings available to them.

Flexible Harrow Cart Specifications

Cart Size	Min. Working Width	Center Section Width	Wing Width	Sections Req.		
				10'	6'	4'
16'	15' 0"	8'	4'	0	0	4
18'	17' 3"	10'	4'	1	0	2
20'	19' 6"	8'	6'	0	2	2
22'	21' 9"	10'	6'	1	2	0
24'	22' 6"	8'	8'	0	0	6
26'	24' 9"	10'	8'	1	0	4
28'	27' 0"	8'	10'	2	0	2
30'	29' 3"	10'	10'	3	0	0
32'	31' 6"	8'	12'	0	4	2
34'	33' 9"	10'	12'	1	4	0
36'	36' 0"	12'	12'	0	6	0
38'	37' 6"	14'	12'	1	4	1
42'	40' 6"	14'	14'	3	0	3
38' & 42' Carts have Dual Wheel Mounts on the Center Section (6 Tires Req.)						

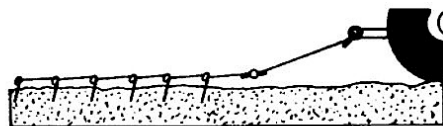
Recommended tire sizes according to rim size
P195 or P205 x 14" – P195 or P205 x 15"



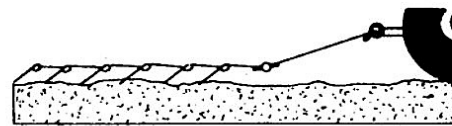
Choose the degree of penetration

Depending on the direction in which the Harrow Section is pulled, the Tines can become passive or aggressive. The Front and Rear Sections are independently adjustable allowing you to choose the degree of penetration.

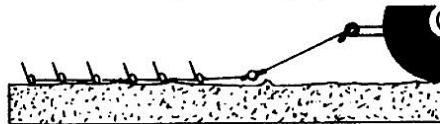
ADJUSTABLE PENETRATION FOR GREATER VERSATILITY



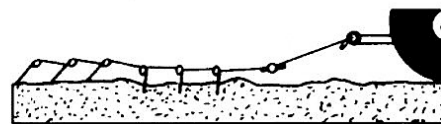
MAXIMUM PENETRATION
Tines down, pointed slightly back.



LIGHT PENETRATION
Tines down, pointed further back.



SMOOTHING, FLOATING
Tines up, pull in either direction.



TWO JOBS IN ONE PASS
Front section — maximum penetration.
Rear section — light penetration or floating.

Safety Instructions



CAUTION: This machine should never be operated by anyone who is not familiar with the product and has not read the instruction manual. Do not allow children to operate the Harrow Cart.

All persons operating this machine should read and understand the Instruction Manual.

Read and understand all safety decals located on the machine.

Keep Safety Decals clean and legible at all times.

Replace Safety Decals that are missing or become illegible.

Do not allow anyone to ride on the machine.

Be sure machine is attached securely to the tractor before operating or transporting.

Inspect the Harrow Cart daily. Lubricate and repair or replace parts as needed.

Maintain and keep all Safety Shields in place.

Make sure Wings are locked whenever they are in the folded position before working around the machine or for transporting.

Before operating the machine inspect for loose or damaged bolts or parts and make necessary repairs before starting.

All bystanders should be a safe distance from the machine when in operation.

High-pressure oil leaks can penetrate skin causing serious injury. Do not use your finger or other skin to check for leaks.

Apply parking brake and stop tractor engine before dismounting tractor.

Keep hands, feet and clothing away from moving parts.

Never transport faster than surface conditions allow.

Display the SMV Emblem when transporting with a tractor.

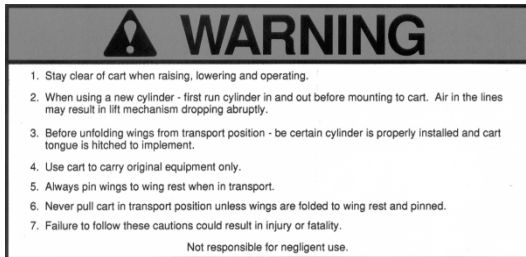
Make sure you are in compliance with all local regulations regarding transporting agriculture equipment on public roads and highways. Consult your local law enforcement agency for further details.

Ensure that the Slow Moving Emblem (SMV) and all reflectors and lights required by the local highway and transport authorities are in place and are clean and visible by overtaking and oncoming traffic.

Decals

Important: The following decals or similar decals are located on your Flexible Harrow Cart. Before you operate the Flexible Harrow Cart, read and understand the purpose for each decal. Replace any damaged decals. Keep all decals clear and readable.

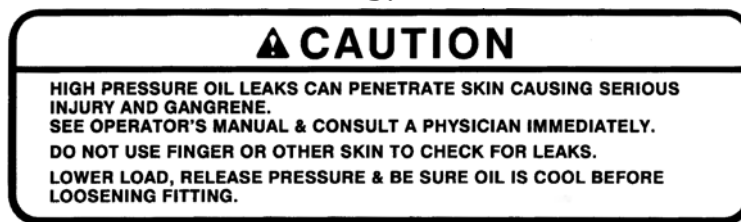
1.



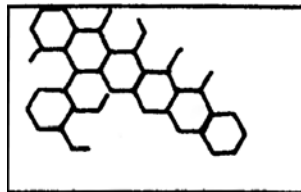
2.



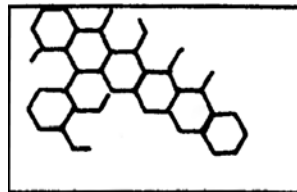
3.



4.



5.

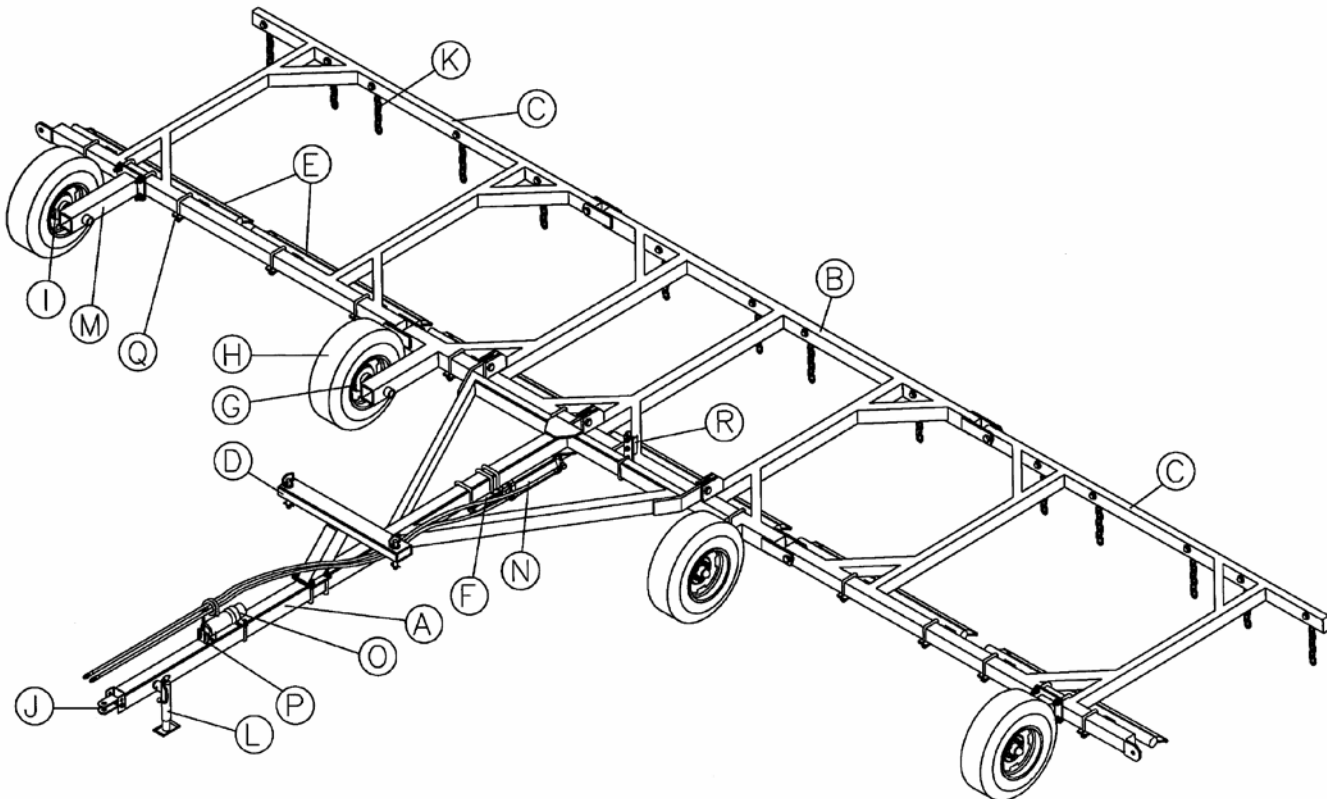


Flexible Harrow Cart Decal Parts List

Item No.	Part No.	Description	Qty.
1	0-52	Decal, Warning Operating	1
2	0-70	Decal, Caution Stay Clear	2
3	0-82	Decal, Hydraulic Caution	1
4	0-71	Decal, Red Reflector	2
5	B489A	Decal, Amber Reflector	2

Assembly Diagram

ID Letter	Description	Sizes
A	Standard Tongue Long Tongue HD Long Tongue	16'-32' Carts 34'-38" Carts 38'-42' Carts
B	Center Section	8', 8HD, 10', 12', or 14' widths
C	Wing Section	4', 6', 8', 10', 12', or 14' widths
D	Wing Rest	16'-18' Carts, 2 piece 20'-22' Carts, 2 piece 24'-26' Carts 28' 36' Carts 38'-42' Carts
E	Pull Bars	4' and 6'
F	Cylinder Bracket HD Cylinder Bracket	16'-36' Carts 38'-42' Carts
G	Center Section Hub & Spindle Assembly Center Section Dual Hub & Spindle Assembly	16'-36' Carts 38' & 42' Carts
H	Center Section Wheel	Same on all Carts
I	Wing Hub & Spindle Assembly	Same on all Carts
J	Tongue Clevis	Same on all Carts
K	Lift Chain	Same on all Carts
L	Tongue Jack	Same on all Carts
M	Wing Wheel Assembly HD Wing Wheel Assembly	16'-36' Carts 42' Cart
N	Hydraulic Cylinder, 3"x 16" Hydraulic Cylinder, 3 1/2"x 16"	16'-36' Carts 38'-42' Carts
O	Manual Canister	Same on all Carts
P	Hydraulic Tip Holder	Same on all Carts
Q	Pull Bar Mounting Bracket HD Pull Bar Mounting Bracket	16'-36' Carts 14' Center only
R	SMV Mounting Bracket	Same on all Carts



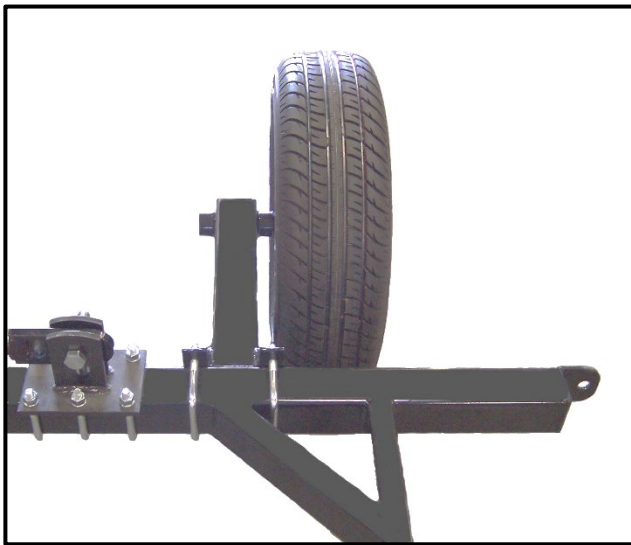
ASSEMBLY INSTRUCTIONS

CAUTION!

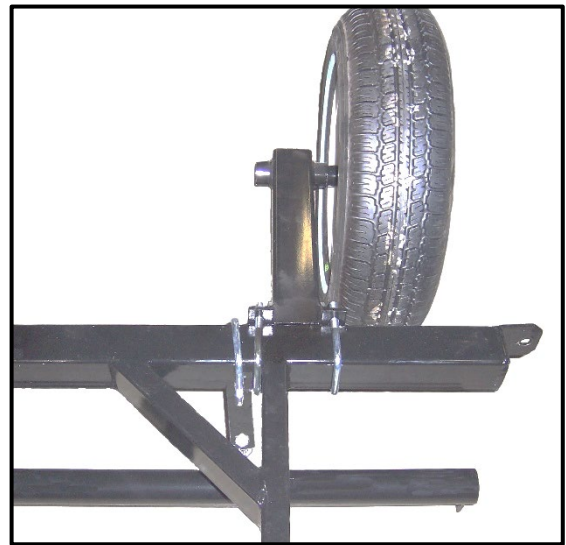


Wear proper protective equipment such as safety glasses and protective shoes when assembling.

1. Place Center Section (B) with welded Cylinder Bracket on the bottom side, closest to the ground.
2. Bolt Wing Sections (C) to Center Section (B) using 5/8"x 5" Capscrews on the front bar and 5/8" x 3 1/2" capscrews on the backbar with nylock nuts.
3. Slide Hub and Spindles (G) into Center Section (B) Spindle Mounts. Tighten 1/2" Set Screws into divot on Spindle and tighten locking nut. For Harrow Cart sizes 20' to 42' slide Wing Section Spindles (I) into Wing Wheel Assemblies (M). Tighten 1/2" Set Screw into divot on Spindle and tighten Locking Nut. For 20' Carts and larger Mount Wing Wheel Assemblies (M) onto Wing Sections (C). Wing Wheel Assemblies usually can be mounted so they straddle the outside tube of the Wing Section except on the 20' Cart. (See picture below) Mount all Rims (H) with Tires, P195-75 or P205-75, and mount to Spindle Hubs.



20' Cart



Most Carts

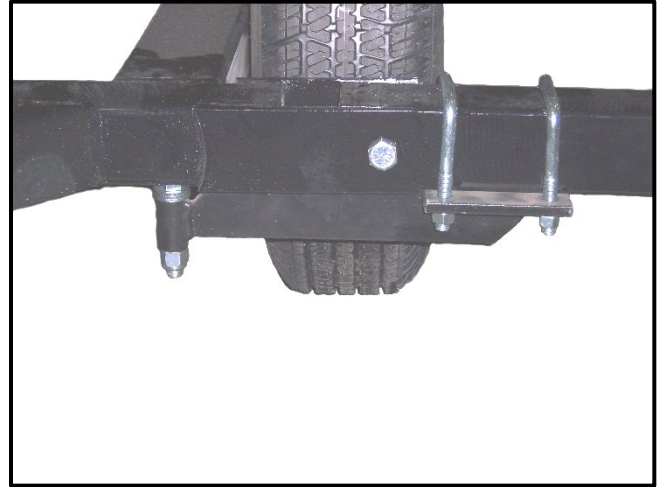
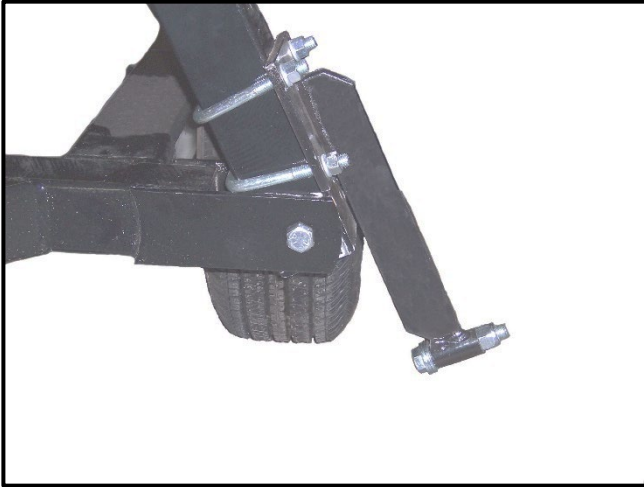
Wing Wheel Assembly location



Note: Be sure to tighten setscrew and jam nut

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4. 16' and 18' Harrow Carts Wing Support Brackets are supplied since these carts do not have wheels on the wings. Attach these Brackets to the bottom side of the Wing Section (C) at the front hinge point. These Brackets extend under the Center Section (B) and will support the Wing in the working position. (See pictures below)

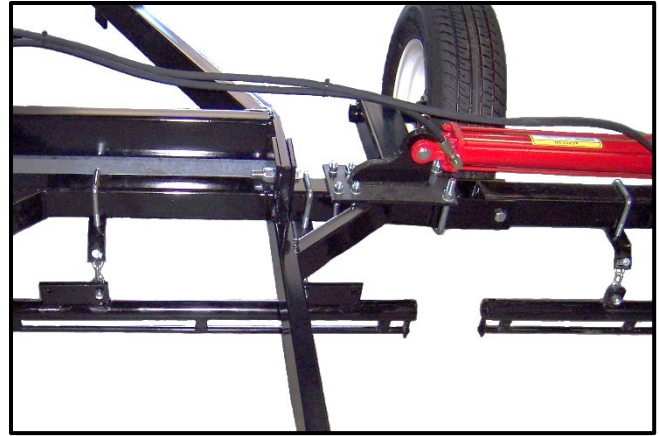
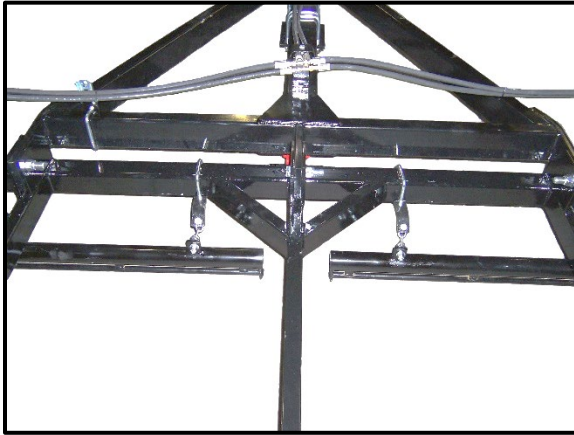


Wing Support Brackets for 16' & 18' Carts

5. Attach Tongue (A) onto Center Section (B) with $\frac{3}{4}$ " x 3 $\frac{1}{2}$ " Capscrews and Locknuts. Attach Jack (L) to Tongue (A) and secure with Locking Pin. Attach Tongue Clevis (J) to Tongue using $\frac{3}{4}$ " x 5" Capscrew and Nylock nut.

6. Attach the Pull Bars (E) to the Mounting Brackets (Q) using $\frac{1}{2}$ " Capscrews, Flatwashers and Nylock Nuts. (See picture below) Attach Pull Bar Mount to the bottom side of the Center and Wing Sections using $\frac{1}{2}$ " U Bolts, Lockwashers and Nuts. Start by installing the Pull Bars on the Center Section first. Install the Pull Bars in the middle first and keep the end of the Pull Bars approximately 7" from each other OR 3 $\frac{1}{2}$ " off of center. Use the correct number of 4' and 6' Pull Bars according to the size of Center or Wing. Mount 1 – 4' on a 4' section, 1 – 6' on a 6' section, 2 – 4' Pull Bars on an 8' section, 1 – 4' and 1 – 6' on a 10' section, 2 – 6' on a 12' section and 2 – 4', 1 – 6' on a 14' section.. Allow a 7" space, depending on the hook spacing of the Harrow Section, between the ends of the Pull Bars.

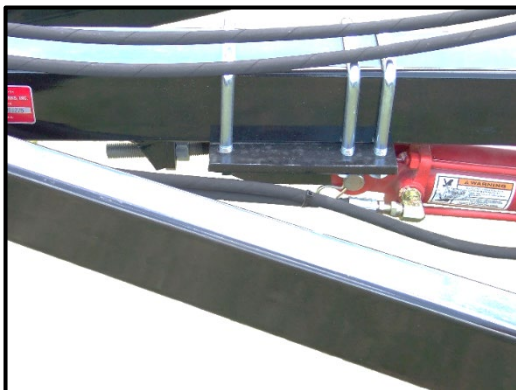




Note: When mounting 1 – 4' and 1 – 6' Pull Bar on a Wing Section, always mount the 6' Pull Bar to the outside. When mounting 1 – 4' and 1 – 6' Pull Bar on the Center Section always mount the 6' Pull Bar on the RH side standing behind the Cart and looking toward the tractor. In this scenario, the Pull Bars will not meet up in the middle of the center section. You want to make sure to keep the same spacing on each side from the end of the Pull Bar to the end of the center section. When mounting the Pull Bars on a 14' Center Section use HD Pull Bar Mounting Brackets and 5/8" U Bolts, Lockwashers and Nuts. Attach the HD Pull Bar Mounting Bracket to the backside of the tube and install in the vertical position. Mount the 6' Pull Bar in the Center with a 4' Pull Bar on each side of it. When mounting the Pull Bars on a 14' Wing the 6' Pull Bar should be on the outside and the 4' Pull Bars in the center and on the inside.

6. Attach Cylinder Mounting Bracket (F) to the Tongue (A) with (3) 5/8" U Bolts, Lockwashers and Nuts. Before installing, thread (1) 3/4" Nut to the threaded rod on the Cylinder Mounting Bracket. Next, place threaded rod on Cylinder Mounting Bracket through the welded ear on the bottom side of the tongue. Now, install (1) 3/4" nut on the threaded rod to hold the Cylinder Mounting Bracket in place. Start with the welded ear on the bottom side of the tongue in the center of the threaded rod. The Cylinder Mounting Bracket will need adjusted using the 3/4" nuts on the rod after cart is folded up so that the wings sit about 1/2" above the Wing Rests.

Install the Flow Restrictor on the tractor end of one of the Hydraulic Hoses. Attach Hydraulic Couplers to the Hydraulic Hoses and attach to the Hydraulic Cylinder (N). **Important:** Attach the Hoses to a Tractor and run the Hydraulic Cylinder in and out several times on the ground before installing to purge the air out of the system. Failure to purge the air may result in the Harrow Cart dropping rapidly which can cause serious injury and or DEATH.



CAUTION!

Do not exceed the manufacturers' maximum hydraulic system pressure of 2500 psi.

WARNING!

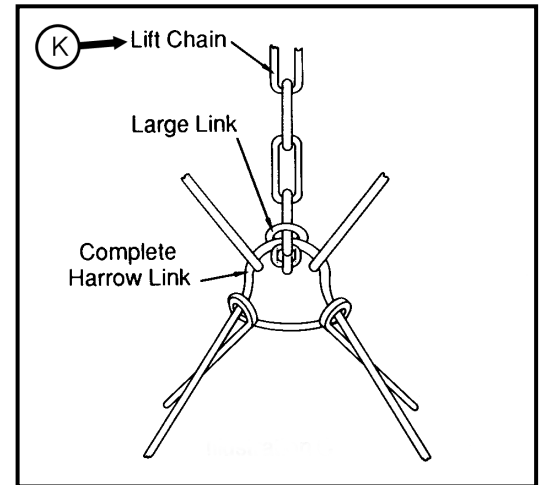
Always wear protective eye goggles and use a magnifying glass or hold a piece of wood on suspected leaks. Pinhole hydraulic leaks can penetrate skin. Do not touch.

Note: If fluid penetrates the skin, it must be surgically removed within a few hours by a doctor familiar with the form of injury or gangrene may result. Make sure the weight of the machine has been taken off of the hydraulic cylinder before disconnecting the hydraulic hoses.

7. When installing the Harrow Sections start on the center section first. Keep the sections as close together as possible. Install the front Harrow Section Hooks over the rod on the back of the Pull Bars. Connect Rear Harrow Section to Front Harrow Section. Total length of ½" Harrow Section will be approximately 1 ½' longer than Harrow Cart Frame. When using 5/8" Harrow Sections the Harrow Sections will extend just slightly past the Harrow Frame. Before attaching Rear Lift Chain, make sure to pull the Harrow tight to the back of the cart. Now you can install the Rear Lift Chain (K) (*See picture below*) around a Harrow Link approximately 1 ½' from the end (straight down from the hole on the back of the frame) Then attach the Rear Lift Chain to the Harrow Cart Frame using a 3/8"x 2 ½" Carriage Bolt, Lockwasher and Nut. One link on the end of each Rear Lift Chain is slightly smashed so that you can loop it around the Harrow Link, and back through itself. After installing all of the Harrow Sections the hooks can be squeezed shut to prevent them from coming loose.

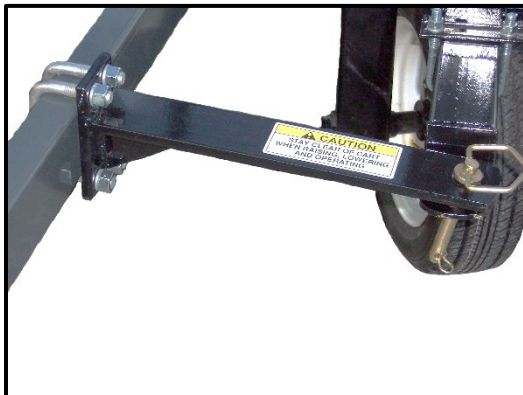


½" Harrow

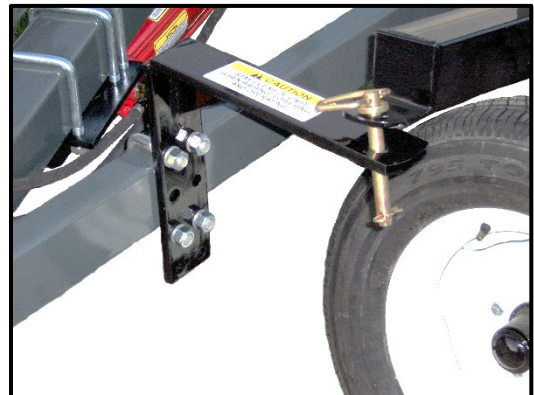


5/8" Harrow

8. Install Wing Rest (D) onto Tongue (A) using 5/8" U Bolts, Lockwashers and Nuts. Fold up the Harrow Cart using the Hydraulic Cylinder and bring the Wings forward to set Wing Rest (D). After the Wing Rest (D) proper location is determined tighten U Bolts. Adjust Cylinder Bracket location using the threaded rod (F) for proper Wing to Wing Rest positioning. Tighten all Bolts and Nuts. Wing Rests for 16' – 22' Carts are 2 piece and bolt to the tongue. *(See pictures below)*



Wing Rest for 16' & 18' Carts



Wing Rest for 20' & 22' Carts



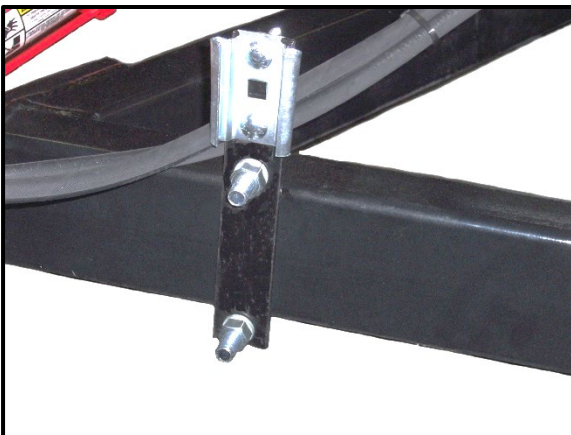
24' – 42' Wing Rest

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9. Attach Manual Holder Canister (O) to the tongue as shown below using a 3/8" x 1" Hex Capscrew and the Hose Holder. The Hose Holder goes through the Hydraulic Tip Holder (P) and the Manual Holder Canister before screwing into the Tongue. Tighten jam nut to secure Hose Holder.

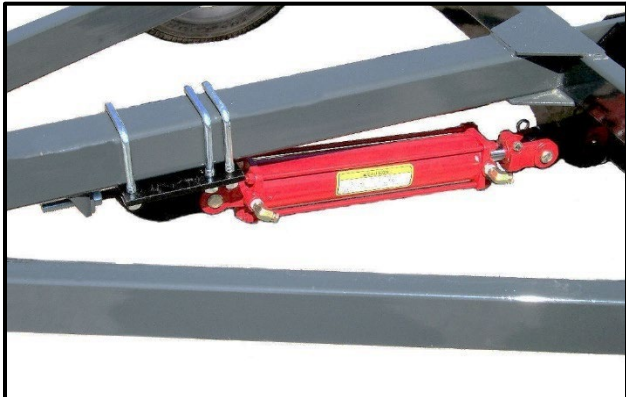


10. Install SMV Mounting Bracket (R) on rear cross brace of the Tongue facing rearward as shown below using 1/2" U Bolt, Lockwashers and Nuts. (See pictures below)



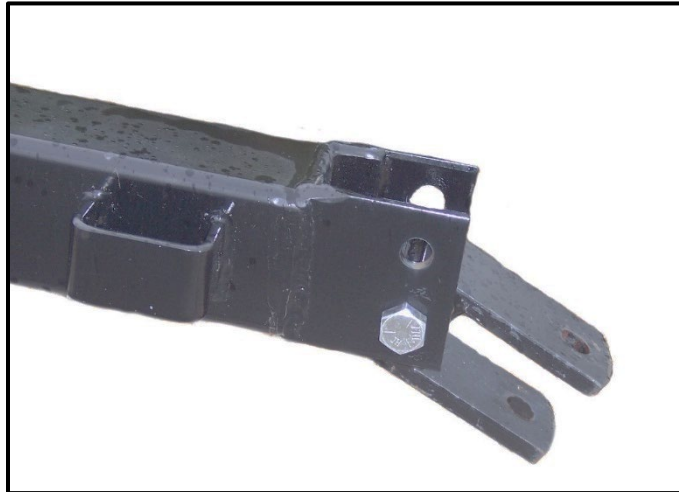
Hydraulic Cylinder Adjustment

Install one 3/4" nut on threaded rod on Cylinder Mount Bracket. Insert into bracket welded to tongue and install 3/4" nut on threaded rod. Secure Bracket with U bolts, lockwashers and nuts. Slide Cylinder Bracket (F) on Tongue (A) to set Cylinder position for Wings to set on or slightly above the Wing Rest (D). Loosen U Bolts and adjust nuts on threaded rod to move Bracket.



Tongue Clevis Adjustment

The Tongue has an adjustable Clevis which has 2 position settings to accommodate different tractor Drawbar heights. *(See picture below)* After adjusting the Clevis be sure to tighten bolts and nuts before using the Harrow Cart.



Adjustable Clevis

Before using the Harrow Cart Check the Following

Check and retighten all bolts and nuts, including lug bolts.

Check Hydraulic System for leaks before using.

Purge air from Hydraulic System before lowering or if equipped with Hydraulic Wing Fold before opening the wings.

Operation

Important: Before operation, the operator should be familiar with these operation instructions and the operation of the tractor. Do not allow an unqualified person or one under the influence of medication or intoxicating substances to operate the tractor.

1. Connect the Harrow Cart to the tractor tongue using a $\frac{3}{4}$ " hitch pin with retaining clip. The adjustable jack will allow the tongue to be raised or lowered during hook up. After hook up to the tractor store the jack in the horizontal position.
2. Connect the hydraulic hoses to the tractor hydraulic system.

CAUTION!



Make sure a restrictor is installed in one of the hydraulic lines. Failure to use a restrictor will allow the machine to raise and lower rapidly and could result in damage to the machine and injury to bystanders.

3. To lower the Harrow Cart to the working position, remove the transport pin for each wing and manually open the wings or if the Cart is equipped with Hydraulic Wing Fold Cylinders, use the tractor hydraulics to open the wings.

CAUTION!



**Make sure area around Harrow Cart is clear before lowering.
Do not lower when people or pets are near.**

CAUTION!



**Operate the cylinders through the cycle a few times to expel air from the system.
Failure to fully charge the hydraulic system could result in injury when the
Cart or Wings fall abruptly to the ground.**

CAUTION!



**The Hydraulic Wing fold system should only be used when the Harrow Cart is
in the raised transport position.**

4. Working speed is normally 5 to 10 mph. Speed varies with different conditions or terrain.

5. Use Hydraulic Cylinder Stop Blocks or an adjustable screw stop type Hydraulic Cylinder to set the field operating position. When in field operating position the frame should be level or slightly higher in the rear.
Note: Do not operate the Harrow Cart with the rear frame dragging on top of the harrow.



Transporting

To transport, raise the Harrow Cart using the Hydraulic Lift Cylinder. Manually walk the Wings forward towards the Tongue and Wing Rest or use the Hydraulic Wing Fold Cylinders if equipped. Secure the Wings in place with the Transport Lock Pins and hairpin cotter pins.



CAUTION!



When towing on public roads, a slow moving vehicle (SMV) sign should be installed so it is visible to vehicles following. Warning lights should also be installed on the tractor and or Harrow Cart so they are visible to other motorists. Comply with state and local safety requirements at all times.

CAUTION!



Never transport the Harrow Cart without locking pins in place. Never transport faster than road surface conditions allow.

Maintenance

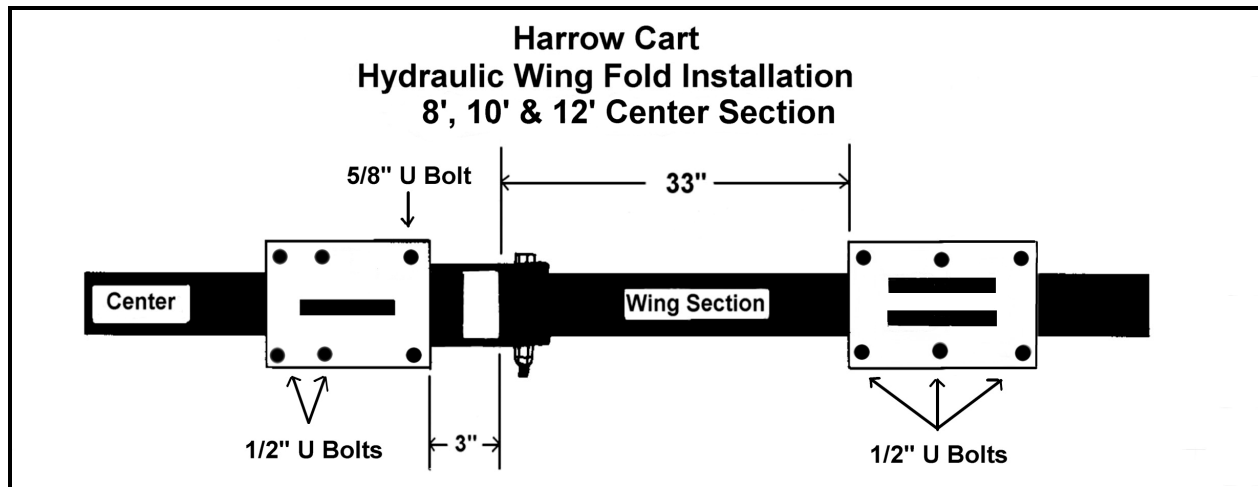
1. Check hydraulic hoses periodically for cracks, abrasions or leaks. Replace defective hose immediately. Replace worn or broken hoses and fittings with factory replacement parts only.
2. To extend the life of the cylinder and hoses, store the Harrow Cart under cover. If cover is not available, remove the cylinder and hoses and store under cover.
3. Check tightness of lug bolts and spindle setscrews after one hour of operation and every six months thereafter. Check tire pressure whenever maintenance is performed.
4. Lubricate hinge points as needed.
5. Repack wheel bearings every six months.

HYDRAULIC WING FOLD KIT

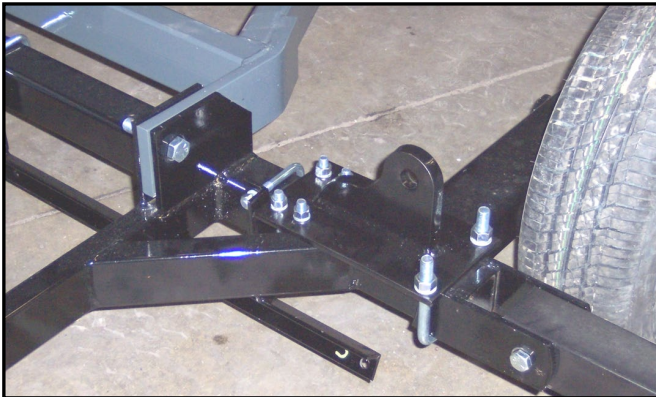
8', 10', & 12' Center

Note: The Hydraulic Wing Fold Kit is designed to fold the wings in after the Harrow Cart has been raised to the transport position.

The Hydraulic Wing Fold Kit should be installed on the Harrow Cart with the Cart lowered to the ground or in the working position. Install the Mounting Brackets on the Center Section and Wing Sections according to the diagram on this page. Mount the Hydraulic Cylinders on the Brackets with the ports to the rear. The ram end of the Cylinder with the slotted bracket will attach to the mounting bracket on the Wing using a $\frac{3}{4}$ " x $3\frac{1}{2}$ " capscrew and nylock nut. Do not tighten the capscrew completely. The slotted bracket on the ram must be able to move. When assembling the Hoses install the Flow Restrictor in the tractor end of one of the Hoses. Prior to installing operate the Hydraulic Cylinders in and out several times to purge the air out of the system. Failure to do so may result in the Wings dropping abruptly. The Hoses should be secured to the frame so they do not become entangled or come in contact with the tires.



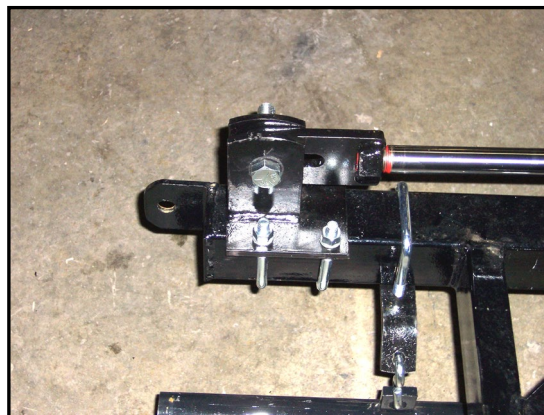
Center Section Cylinder Mounting Bracket



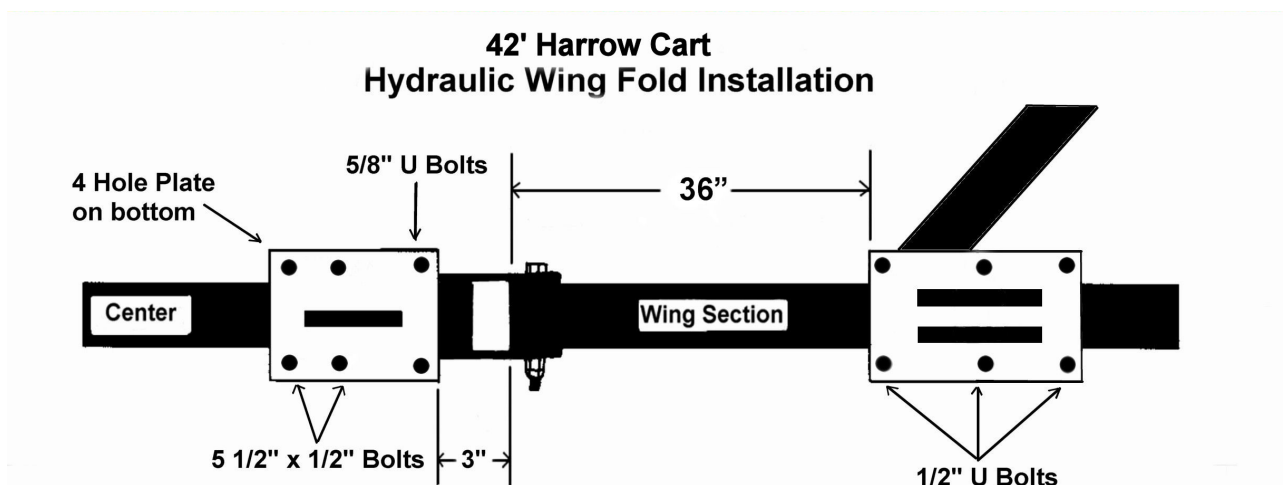
Typical Wing Bracket installation



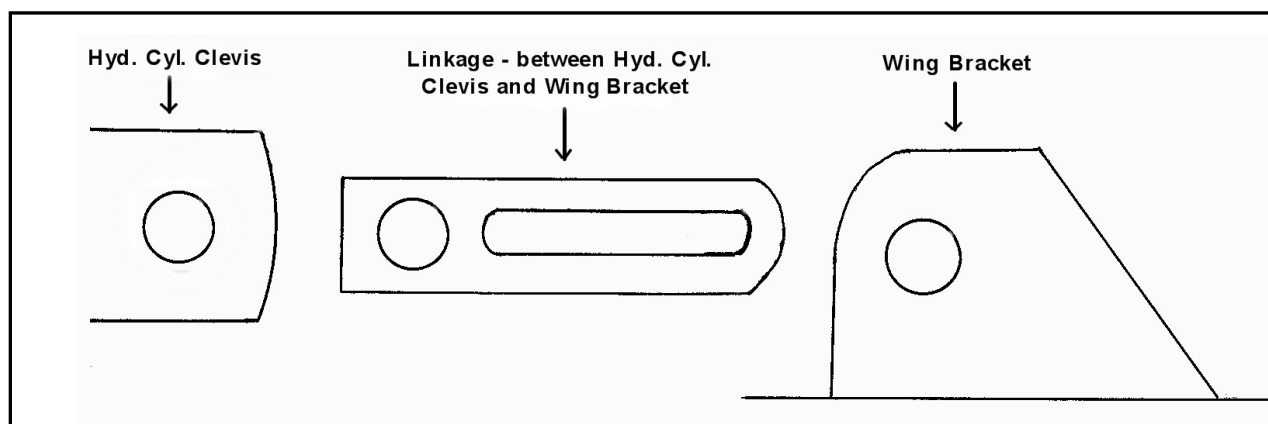
4' Wing Bracket installation



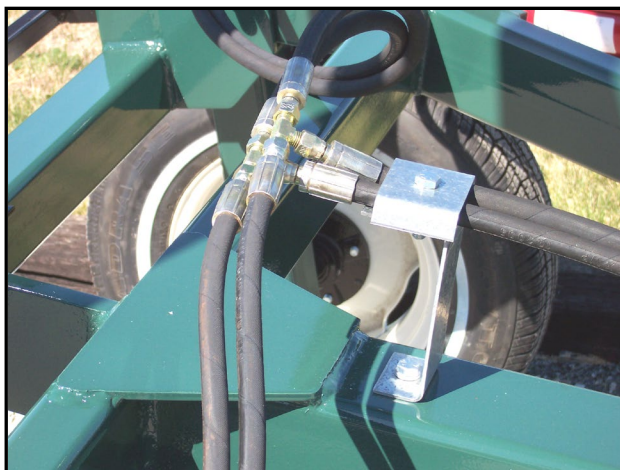
Note: The Hydraulic Wing Fold Kit is designed to fold the wings in after the Harrow Cart has been raised to the transport position.

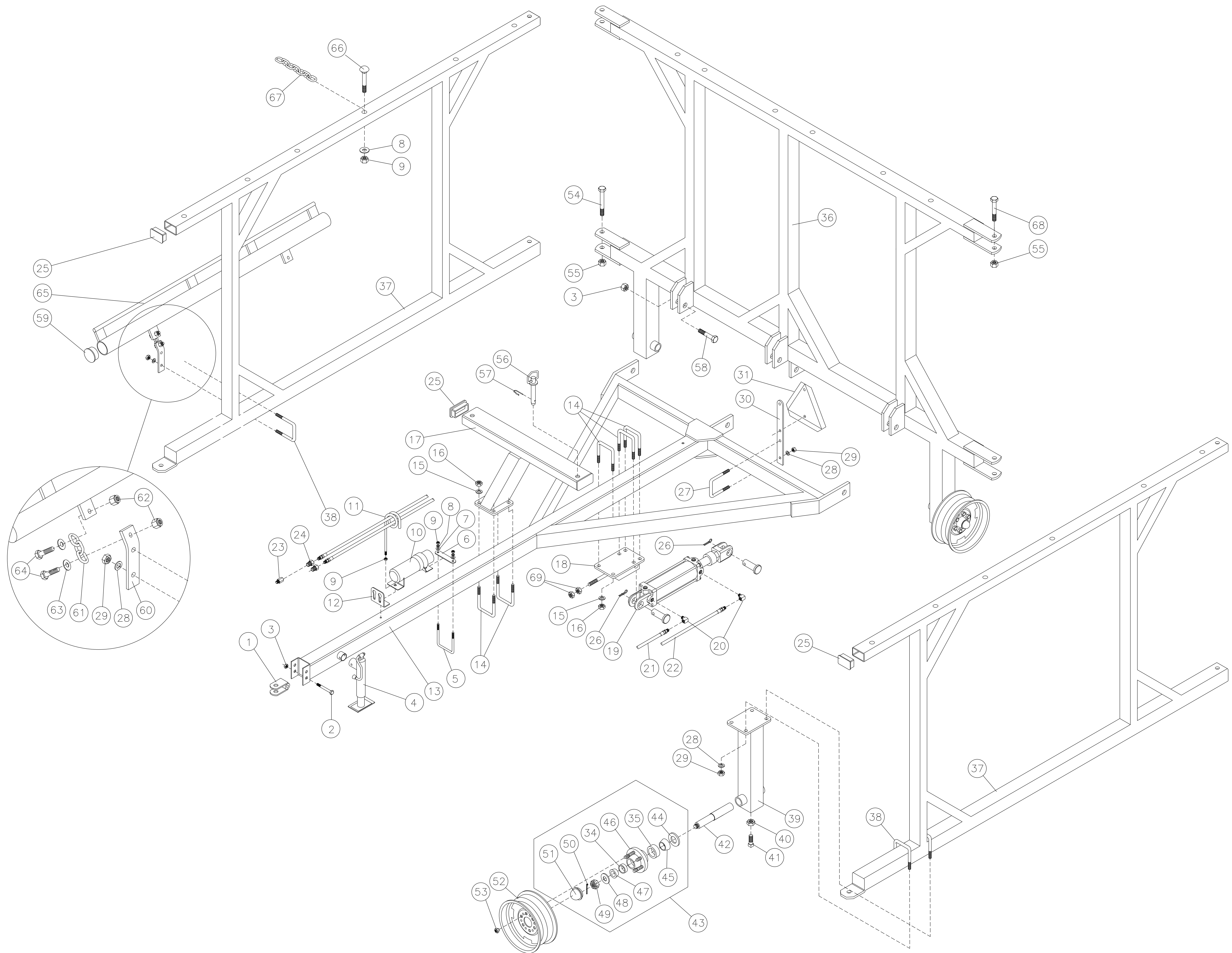


When installing the Hydraulic Cylinder follow diagram below. Attach the Clevis on the Cylinder Rod to the Linkage using the Cylinder Pin. Then attach the Linkage to the Wing Bracket using a $\frac{3}{4}$ " x 4" Capscrew and Nylock Nut. Do not tighten the capscrew completely. The Linkage must be able to move.



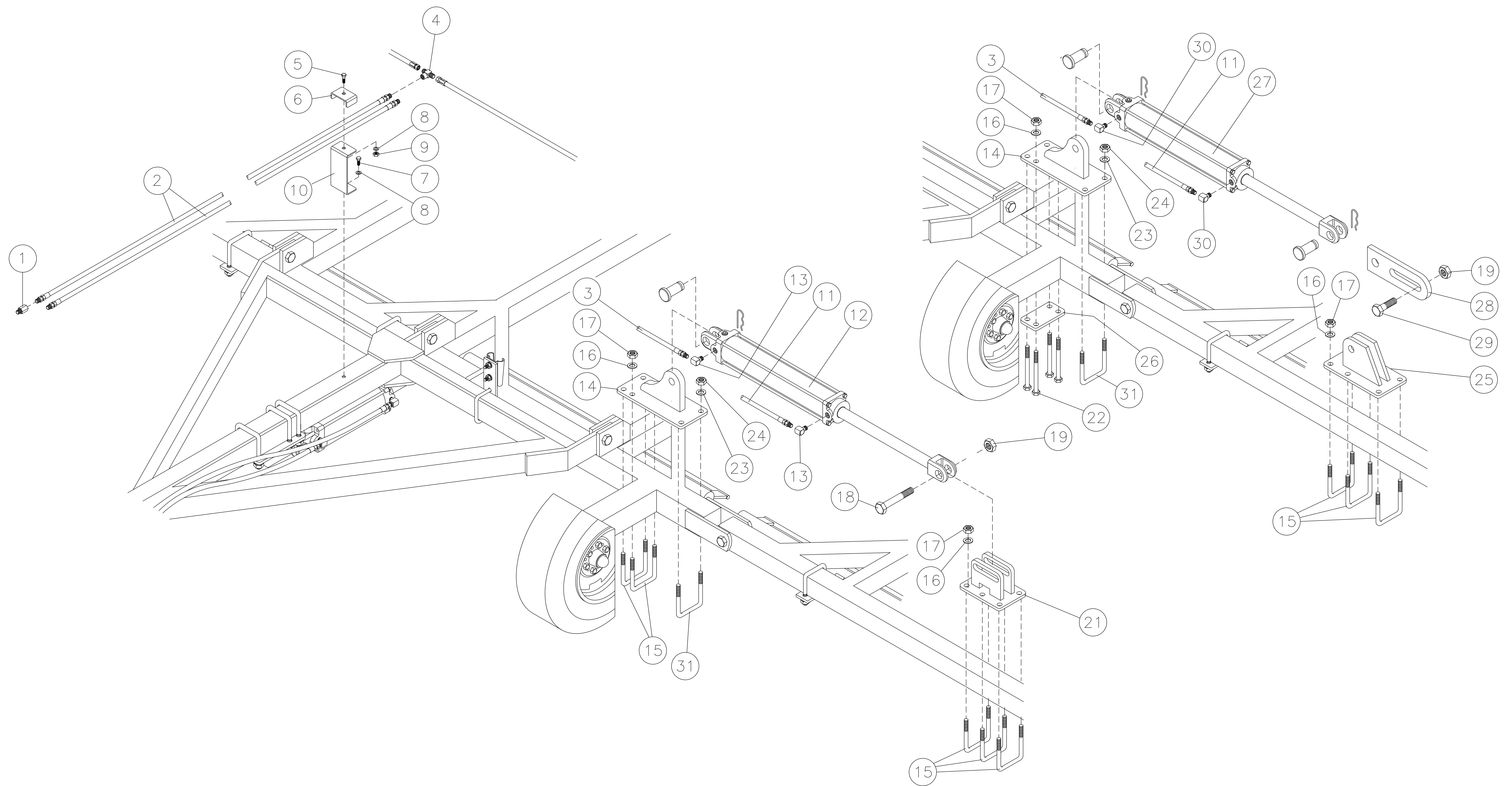
Install the Hose Holder for the Hydraulic Wing Fold Kit as shown below. It may be necessary to drill and tap a hole in the tongue for the Hose Holder. Drill a $\frac{5}{16}$ " hole and use a $\frac{3}{8}$ " NC tap. Attach Hose Holder with a $\frac{3}{8}$ " x 1" capscrew and lockwasher.





Parts List

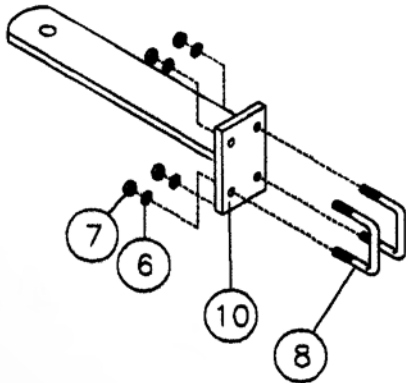
Item No.	Part No.	Description	Qty.	Item No.	Part No.	Part No.	Qty.	Item No.	Part No.	Part No.	Qty.
1	CH	Clevis Hitch	1	24	8MP-4FP	Bushing, 8MP-4FP	2	47	910253	Outer Cone	as req.
2	OV-184	Capscrew, 3/4" x 5"	1	25	CAP153	Plastic Insert	4	48	951801	Flatwasher	as req.
3	OV-185	Nylock Nut, 3/4"	4	26	CP31625	Cotter Pin, 3/16" x 2 1/2"	2	49	953005	Hex Castle Nut	as req.
4	0-51	Tongue Jack	1	27	UB24350	U Bolt, 1/2"x 4.06" x 3 1/2"	1	50	905936	Cotter Pin	as req.
5	0-181	Hex Capscrew, 3/8" x 1"	1	28	0-173	Lockwasher, 1/2"	as req.	51	909900	Dust Cap	as req.
8	0-158	Lockwasher, 3/8"	as req.	29	0-153	Hex Nut, 1/2"	as req.	52	HR133	Wheel	as req.
9	0-159	Hex Nut, 3/8"	as req.	30	SMV-1	SMV Mounting Bracket	1	53	0-72	Lug Bolt, 1/2"-20 x 1", GR5	as req.
10	MH	Manual Canister	1	31	SMVS	SMV Sign	1	54	HCS585	Capscrew, 5/8" x 5"	2
11	0-53	Hose Holder	1	36	C8	8' Center Section	1	55	OC-76	Nylock Nut, 5/8"	4
12	HCTH	Tip Holder	1		C8HD	8' HD Center Section	1	56	HC586H	Locking Pin, 5/8" x 6"	2
13	STT	Std Tongue, 2013 & prior	1		C10	10' Center Section Weldment	1	57	0-56	Hairpin Clip	2
	LT	Std. Tongue, 2014 & after	1		C12	12' Center Section Weldment	1	58	0-168	Capscrew, 3/4"-10 x 3 1/2"	3
	HDT	HD Long Tongue, 38'-42'	1		C14	14' Center Section Weldment	1	59	PBCAP	Plastic Insert, Round	as req.
14	0-67	U Bolt, 5/8" x 4" x 5 1/4"	as req.	37	W4	4' Wing Weldment	2	60	PBMB	Pull Bar Mounting Bracket	as req.
15	OE-155	Lockwasher, 5/8"	as req.		W6	6' Wing Weldment	2		PBMB14	Pull Bar Mt. Bracket, 14' Center	6
16	OE-154	Hex Nut, 5/8"	as req.		W8	8' Wing Weldment	2	61	HCPC	Chain, 8mm, 3 links	as req.
17	WR-A	Wing Rest, 24'-26'	1		W10	10' Wing Weldment	2	62	0-161	Nylock Nut, 1/2"	as req.
	WR-B	Wing Rest, 28'-36'	1		W12	12' Wing Weldment	2	63	K-322	Flatwasher, 1/2"	as req.
	WR-C	Wing Rest, 16'-18'	2		W14	14' Wing Weldment	2	64	HHC2175	Capscrew, 1/2" x 1 3/4"	as req.
	WR-DRH	RH Wing Rest, 20'-22'	1	38	U BOLT	U Bolt, 1/2" x 3.06" x 4 1/4"	as req.	65	HD4	Pull Bar, 4'	as req.
	WR-DLH	LH Wing Rest, 20'-22'	1		0-67	U Bolt, 5/8" x 4" x 5 1/4", 38'-42'	6		HD6	Pull Bar, 6'	as req.
	WR-E	Wing Rest, 38'-42'	1	39	WWA5	Wing Wheel Mount 5 Bolt	2	66	CB38250	Carriage Bolt, 3/8" x 2 1/2"	as req.
18	CMB	Cylinder Bracket	1		WWAHD5	Wing Wheel Mount, 14' Wing	2		CB383	Carriage Bolt, 3/8"x3", 38'-42'	10
	HDCMB	HD Cyl. Bracket, 38'-42'	1	40	0-179	Jam Nut, 1/2"	as req.	67	HCLC	Lift Chain	as req.
19	HCCYL	Hyd. Cyl., 3"x 16", 16'-36'	1	41	0-178	Setscrew 1/2" x 1 1/4"	as req.	68	K-327	Capscrew, 5/8" x 3 1/2"	2
	HDCYL	Hyd. Cyl., 3 1/2"x 16", 38'-42'	1	42	286929L14	Spindle	as req.		HCS584	Capscrew, 5/8" x 4", 38'-42'	2
20	8MP-4FPX90	Hyd. Elbow, 8MP-4FPX90	2	43	283545L14	Hub / Spindle Assembly	as req.	69	0-170	Hex Nut, 3/4"	2
21	HS187	Hyd. Hose, 235"	1	44	906281	Grease Seal	as req.	not shown	HE4	48" Hose Extension	2
22	HS204	Hyd. Hose, 252"	1	45	910252	Inner Cone	as req.	not shown	8FP-8FP	8FP Coupler	2
23	0-57	Restrictor, 1/2" NPT, 1/32"	1	46	280090	Hub Complete	as req.				



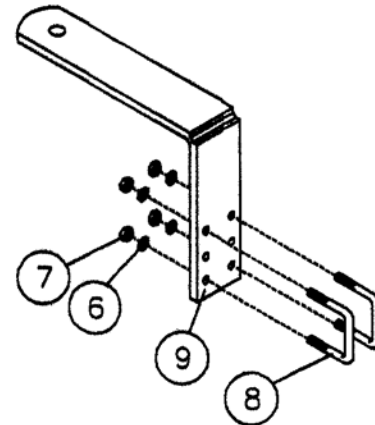
Hydraulic Wing Fold Parts List

Item No.	Part No.	Description	HYD8-16	HYD8	HYD10	HYD12	HYD14
1	0-57	Swivel Restrictor, 1/2"NPT, 1/32"	1	1	1	1	1
2	HF113	Hyd. Hose, 2013 & prior Tongue , 204" 1/2" MP x 1/4" JIC F	2	2	2	2	
	HF102	Hyd. Hose, 2014 & after Tongue , 252" 1/2" MP x 1/4" JIC F	2	2	2	2	2
3	HF104	48" Hyd. Hose, 1/4" JIC F x 1/4" JIC F	2	2			
	HF105	66" Hyd. Hose, 1/4" JIC F x 1/4" JIC F			2		
	HF106	78" Hyd. Hose, 1/4" JIC F x 1/4" JIC F				2	
	HF107	90" Hyd. Hose, 1/4" JIC F x 1/4" JIC F					2
4	HF103	1/4" JIC M Tee	2	2	2	2	2
5	0-157	Capscrew, 3/8" x 1 1/2" GR 5	1	1	1	1	1
6	0-302	Hose Holder Clip	1	1	1	1	1
7	0-181	Capscrew, 3/8" x 1"	1	1	1	1	1
8	0-158	Lockwasher, 3/8"	2	2	2	2	2
9	0-159	Hex Nut, 3/8"	1	1	1	1	1
10	0-303	Hose Holder, 3/8" Hole	1	1	1	1	1
11	HF105	66" Hyd. Hose, 1/4" JIC F x 1/4" JIC F	2	2			
	HF106	78" Hyd. Hose, 1/4" JIC F x 1/4" JIC F			2		
	HF107	94" Hyd. Hose, 1/4" JIC F x 1/4" JIC F				2	
	HF108	106" Hyd. Hose, 1/4" JIC x 1/4" JIC F					2
12	HYDCYL	Hydraulic Cylinder, 2 1/2" x 16"	2	2	2	2	
13	HF110	90 DG Elbow, 1/4" JIC M x 3/8" MP	4	4	4	4	
14	HF101	Mounting Bracket, Center Section	2	2	2	2	2
15	U BOLT	U Bolt, 3" x 4 1/4" x 1/2"	8	10	10	10	6
16	0-173	Lockwasher, 1/2"	16	20	20	20	20
17	0-153	Hex Nut, 1/2"	16	20	20	20	20
18	HRH150	Capscrew, 1" x 5"	2	2	2	2	
19	HRH10N	Nut, Nylock 1"	2	2	2	2	2
21	HF120	Bracket, Wing Mounting		2	2	2	
	HF100-16	Bracket, 4' Cart Wing Mounting	2				
22	HCS12512	Capscrew, 1/2" x 5 1/2"					8
23	OE-155	Lockwasher, 5/8"	4	4	4	4	4
24	OE-154	Hex Nut, 5/8"	4	4	4	4	4
25	HF100-14	Bracket, Wing Mounting					2
26	HF112	Backplate					2
27	HC CYL	Hydraulic Cylinder, 3" x 16"					2
28	CYLEND-14	Bracket, Slotted Cylinder Rod					2
29	HSC344	Hex Capscrew, 3/4" x 4"					2
30	HF109	90 DG Elbow, 1/4" JIC M x 1/2" MP					4
31	0-67	U Bolt, 4" x 5 1/4" x 5/8"	2	2	2	2	2

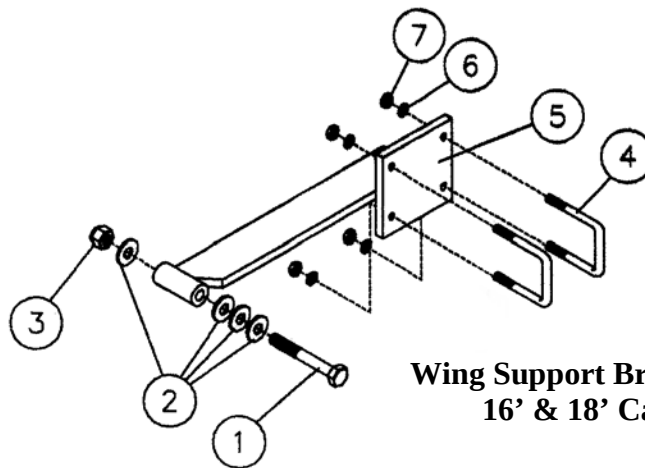
Wing Support Bracket and Wing Rest



Wing Rest, 16' & 18' Cart

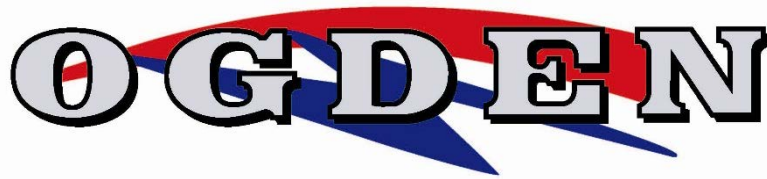


Wing Rest, 20' & 22' Cart



**Wing Support Bracket,
16' & 18' Cart**

Item No.	Part No.	Description	Qty.
1	K-327	Hex Capscrew, 5/8" x 3 1/2" GR5	2
2	FW58	Flatwasher, 5/8"	as req.
3	OC-76	Nylock Nut, 5/8"	2
4	U Bolt	U Bolt, 1/2" x 3.06" x 4 1/2"	4
5	WSB	Wing Support Bracket	2
6	0-173	Lockwasher, 1/2"	as req.
7	0-153	Hex Nut, 1/2"	as req.
8	UB24350	U Bolt, 1/2" x 4.06" x 3 1/2"	4
9	WR-DRH	RH Wing Rest, 20' & 22' Cart	1
	WR-DLH	LH Wing Rest, 20' & 22' Cart	1
10	WR-C	Wing Rest, 16' & 18' Cart	2



Warranty Policy

Ogden Metalworks, Inc. warrants this product to be free from defects in material and or workmanship under normal use and service, when set up and operated as intended and under normal service and conditions and in accordance with the instruction manual, for one year from the date of delivery by the dealer to the original purchaser. Ogden Metalworks, Inc.'s obligation under this warranty is limited to the replacement of any part or parts which are determined defective by Ogden Metalworks, Inc. due to factory workmanship and or material. This warranty does not cover common wear items. Credit for required labor will be issued at the company's discretion.

This warranty is void on any unit which has been modified or which has been subject to misuse, negligence or accident. Ogden Metalworks, Inc., reserves the right to request the return of any part in question to be sent to the factory for inspection. All returned parts must be sent to the factory freight prepaid.

This warranty is extended solely to the original purchaser and is not transferable. This warranty is not valid unless the warranty card has been returned to Ogden Metalworks, Inc. within 30 days from the date of purchase by the end user.

Ogden Metalworks, Inc.

Ogden Metalworks, Inc. reserves the right to change specifications and dimensions without notice.

Warranty will not be valid unless card is returned

Flexible Harrow Cart Warranty Card

Please print Purchased Date _____

Name _____

Address _____

Address _____

Serial Number _____ Model _____

Dealer _____

Address _____

