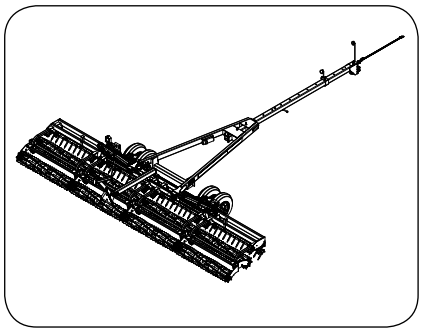


Seedbed Tillage

ROLLING HARROW® 1245/1245D

Soil Conditioner
12’ - 37’ Flat/Stack/Vertical-Fold Models

Serial # A64740100 & Higher

Part No. 77734

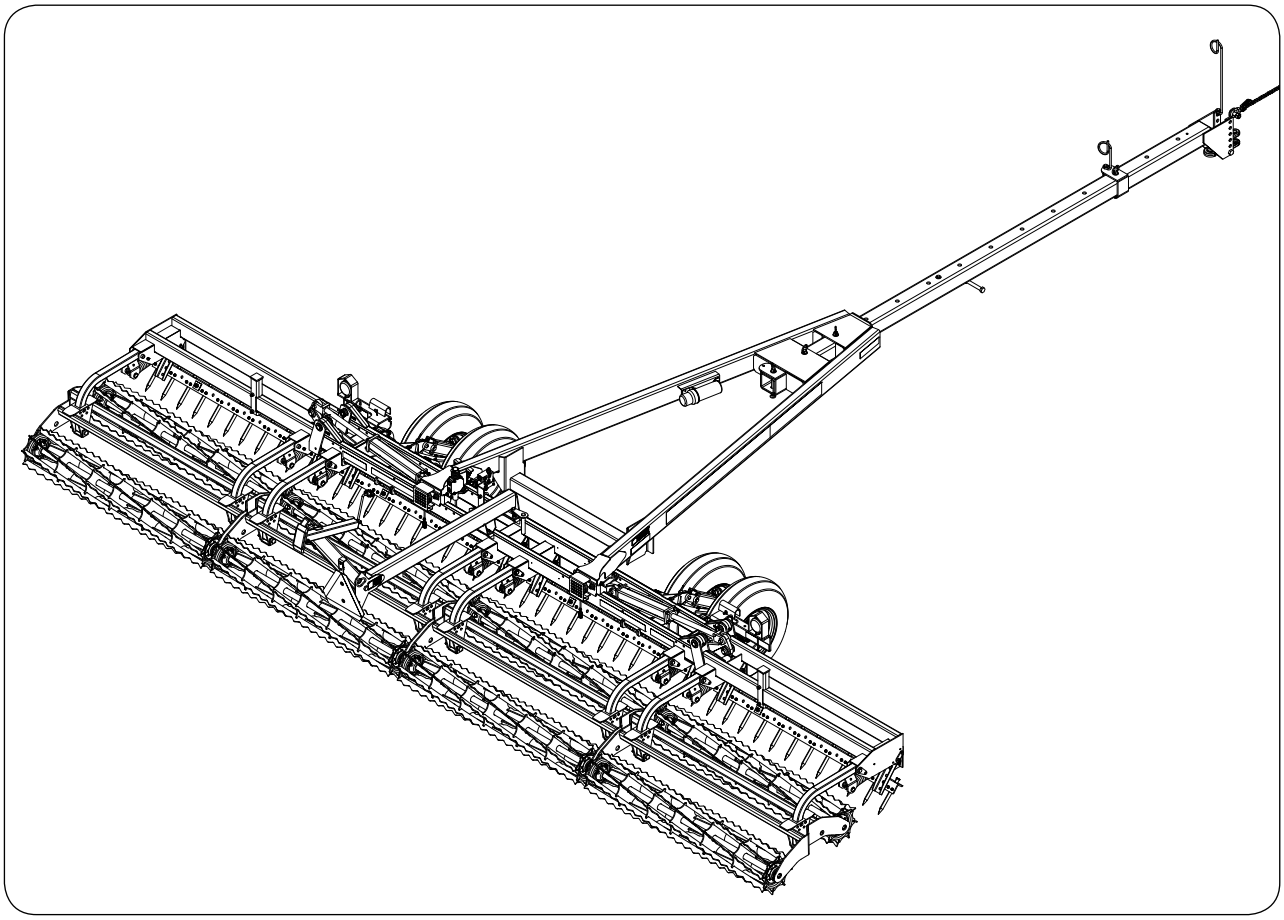
Foreword

This symbol identifies important safety messages. When you see it, read the message that follows and be alert to the possibility of personal injury.

Remember, safety instructions stated in this manual are for your protection. Read them carefully and follow them closely when working around or using this machine.

Read and study this manual completely before attempting to operate this implement. Take this manual to the field for handy reference when operating, adjusting, or servicing your machine.

When referenced, “Right-Hand” (RH) and “Left-Hand” (LH) side of the machine are determined by standing behind the machine and facing in the direction of travel.



Product Information

When ordering parts or when requesting further information or assistance, always give the following information:

- Machine name
- Serial number

All products manufactured by Unverferth Mfg. Co., Inc. are warranted to be free from material and workmanship defects for one full year from time of consumer delivery. Your local dealer will gladly assist you with any warranty questions.

Please fill out and retain this portion for your records. The serial number plate is located on the inside of the main frame on the left hand side of the machine (FIG. 1).

Purchase Date _____ Model _____Serial No._____

Dealer _____ City _____

Dealer Contact _____ Phone _____

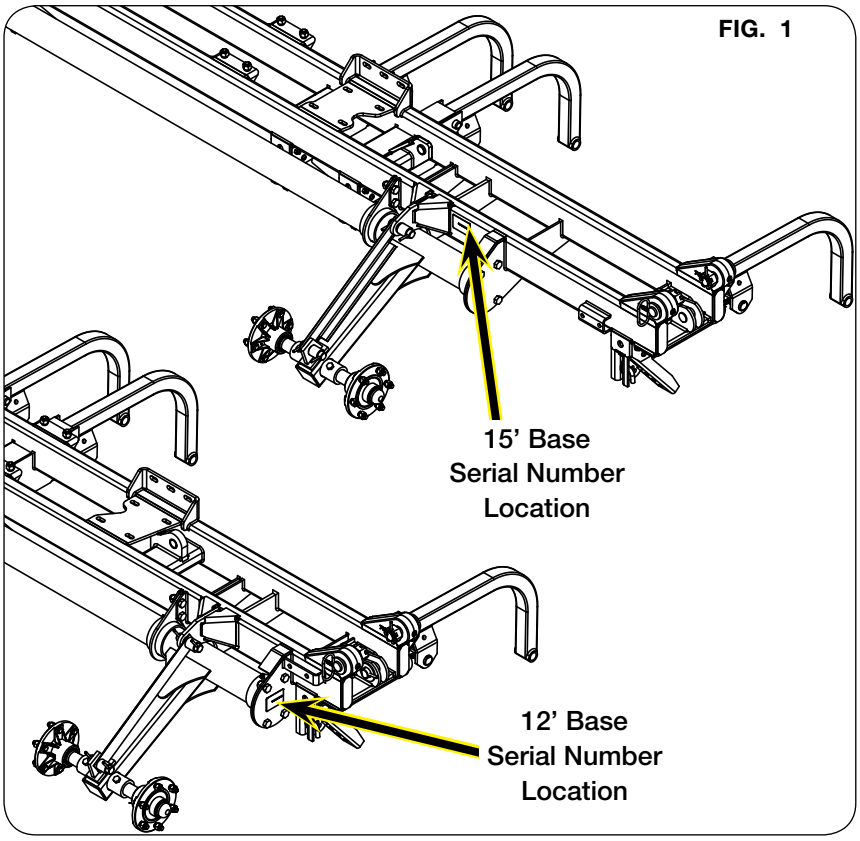


FIG. 1

IMPORTANT

The information, specifications, and illustrations in the manual are on the basis of information available at the time it was written. Due to continuing improvements in the design and manufacture of Unverferth products, all specifications and information contained herein are subject to change without notice.

Table of Contents

Table of Contents

SECTION II
Set Up

Table of Contents

SECTION III
Operation

Table of Contents

SECTION IV
Maintenance

Table of Contents

SECTION V
Parts

SECTION I
Safety

General Hazard Information

No accident-prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment.

A large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it be on the highway, in the field, or in the industrial plant, can be safer than the person who is at the controls. If accidents are to be prevented--and they can be prevented--it will be done by the operators who accept the full measure of their responsibility.

It is true that the designer, the manufacturer, and the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that, “the best kind of a safety device is a careful operator.” We, at Unverferth Mfg. Co., Inc. ask that you be that kind of operator.

REMEMBER:

THINK SAFETY

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT!

SIGNAL WORDS

DANGER

INDICATES AN EXTREMELY HAZARDOUS SITUATION OR ACTION THAT WILL RESULT IN SERIOUS INJURY OR DEATH.

WARNING

INDICATES A HAZARDOUS SITUATION OR ACTION THAT COULD RESULT IN SERIOUS INJURY OR DEATH.

CAUTION

INDICATES AN UNSAFE SITUATION OR ACTION THAT MAY RESULT IN PERSONAL INJURY.

IMPORTANT

Is used for instruction on operating, adjusting, or servicing a machine.

Safety Decals

WARNING

- **REPLACE LOST, DAMAGED, PAINTED, OR UNREADABLE DECALS IMMEDIATELY. IF PARTS THAT HAVE DECALS ARE REPLACED, ALSO MAKE SURE TO INSTALL NEW DECALS. THESE DECALS INFORM AND REMIND THE OPERATOR WITH OPERATIONAL INFORMATION AND SAFETY MESSAGES.**

PART NO. 901891

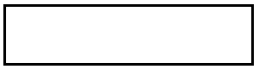
PART NO. 95605

PART NO. 95136

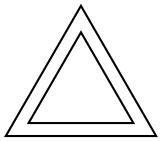
PART NO. 95445

PART NO. 94094

PART NO. 97961

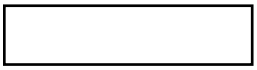


Part #9003127
Amber Reflector

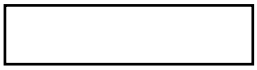


PART NO. 9829
SMV Emblem

PART NO. 97575



Part #9003125
Fluorescent Reflector



Part #9003126
Red Reflector

Following Safety Instructions

- Read and understand this operator's manual before operating.

- All machinery should be operated only by trained and authorized personnel.
- To prevent machine damage, use only attachments and service parts approved by the manufacturer.
- Always shut tractor engine off and remove key before servicing.

- Avoid personal attire such as loose fitting clothing, shoestrings, drawstrings, pants cuffs, long hair, etc., that may become entangled in moving parts.
- Do not allow anyone to ride on the implement. Make sure everyone is clear before operating machine or towing vehicle.

- Never attempt to operate implement unless you are in driver's seat.

Before Servicing or Operating

- Avoid working under an implement; however, if it becomes absolutely unavoidable, make sure the implement is safely blocked.

- Ensure that all applicable safety decals are installed and legible.
- When working around the implement, be careful not to be cut by sharp edges.
- Do not stand between towing vehicle and implement during hitching.
- Always make certain everyone and everything is clear of the machine before beginning operation.
- Verify that all safety shields are in place and properly secured.
- Explosive separation of a tire and rim can cause serious injury or death. Only properly trained personnel should attempt to service a tire and wheel assembly.

During Operation

- Regulate speed to working conditions. Maintain complete control at all times.
- Never service or lubricate equipment when in operation.
- Keep away from overhead power lines. Electrical shock can cause serious injury or death.

- Use extreme care when operating close to ditches, fences, or on hillsides.
- Do not leave towing vehicle unattended with engine running.

Before Transporting

- Secure transport chains to towing vehicle before transporting. DO NOT transport without chains.
- Install transport locks before transporting.
- Check for proper function of all available transport lights. Make sure that all reflectors are clean and in place on machine. Make sure that the SMV emblem and SIS decal are visible to approaching traffic.
- This implement may not be equipped with brakes. Ensure that the towing vehicle has adequate weight and braking capacity to tow this unit.

During Transport

- Comply with all laws governing highway safety when moving machinery.
- Use transport lights as required by all laws to adequately warn operators of other vehicles.
- Regulate speed to road conditions and maintain complete control.
- Maximum transport speed of this implement should never exceed 20 mph as indicated on the machine. Maximum transport speed of any combination of implements must not exceed the lowest specified speed of the implements in combination. Do not exceed 10 mph during off-highway travel.
- Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.
- It is probable that this implement is taller, wider, and longer than the towing vehicle. Become aware of and avoid all obstacles and hazards in the travel path of the equipment, such as power lines, ditches, etc.

Pressurized Oil

- Relieve the hydraulic system of all pressure before adjusting or servicing. See hydraulic power unit manual for procedure to relieve pressure.
- High-pressure fluids can penetrate the skin and cause serious injury or death. Leaks of high-pressure fluids may not be visible. Use cardboard or wood to detect leaks in the hydraulic system. Seek medical treatment immediately if injured by high-pressure fluids.

- Hydraulic system must be purged of air before operating to prevent serious injury or death.
- Do not bend or strike high-pressure lines. Do not install bent or damaged tubes or hoses.
- Repair all oil leaks. Leaks can cause fires, personal injury, and environmental damage.
- Route hoses and lines carefully to prevent premature failure due to kinking and rubbing against other parts. Make sure that all clamps, guards and shields are installed correctly.
- Check hydraulic hoses and tubes carefully. Replace components as necessary if any of the following conditions are found:
  - End fittings damaged, displaced, or leaking.
  - Outer covering chafed/cut or wire reinforcing exposed.
  - Outer covering ballooning locally.
  - Evidence of kinking or crushing of the flexible part of a hose.

Preparing for Emergencies

- Keep a first aid kit and properly rated fire extinguisher nearby.


- Keep emergency numbers for fire, rescue, and poison control personnel near the phone.

Wearing Protective Equipment

- Wear clothing and personal protective equipment appropriate for the job.


- Wear steel-toed shoes when operating.

- Wear hearing protection when exposed to loud noises.

- Do not wear additional hearing impairing devices such as radio headphones, etc

Notes

SECTION II
Set Up

General Set Up Information

This section contains all of the instructions required for the complete assembly of the entire Rolling Harrow implement.

For your safety, and the safety of others, use proper tools and equipment and always use safe working procedures. Refer to these instructions before starting any work on your machine.

IMPORTANT

- *The procedures for assembling this unit were intended for two or more people.*

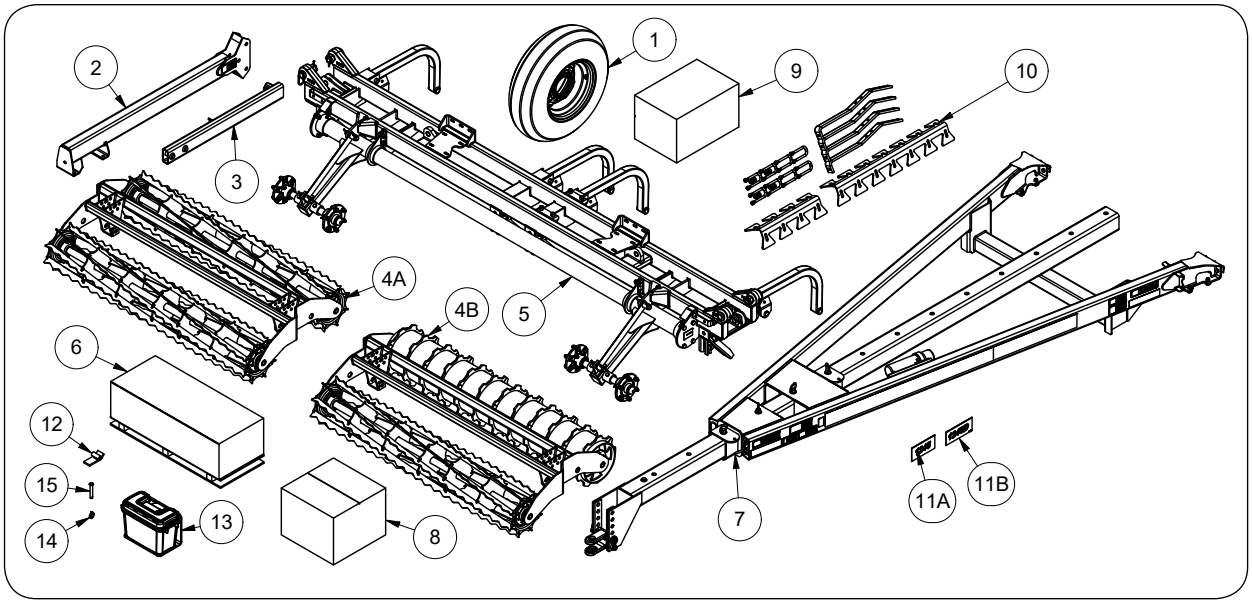
For ease of assembly, install all hardware loosely until assembly is complete and then tighten according to "Torque Chart" unless otherwise specified.

⚠ WARNING

- **READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW "SAFETY" SECTION IN THIS MANUAL IF NECESSARY.**
- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE THE MACHINE IS SECURELY BLOCKED.**
- **MOVING PARTS CAN CRUSH AND CUT. KEEP AWAY FROM MOVING PARTS.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 3,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.**

Depending on the model you ordered, you should have received the following bundles:

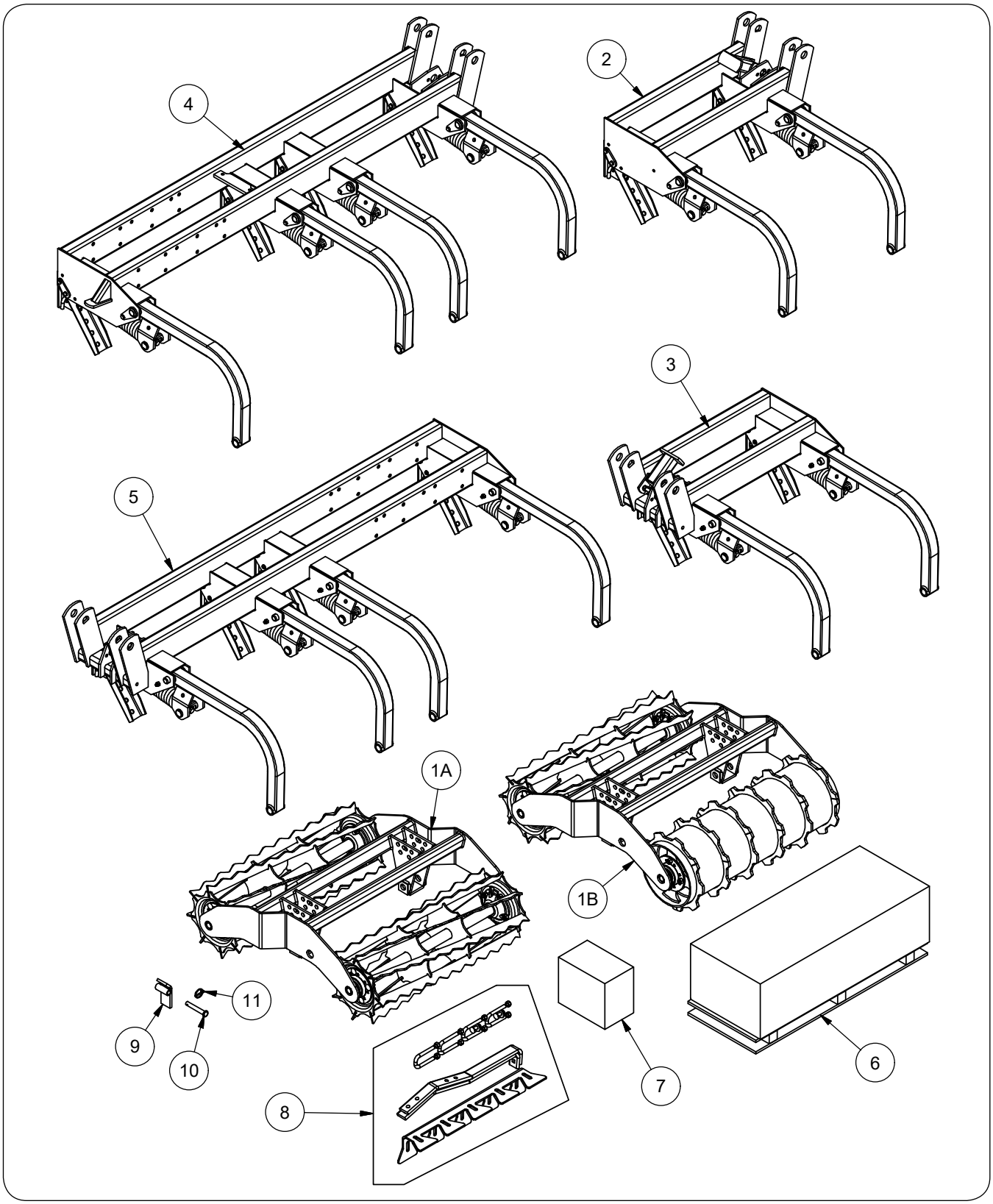
Rolling Harrow - 12' & 15' Base Shipping Bundles



ITEM	PART NUMBER		DESCRIPTION	QTY	NOTES
	12' BASE	15' BASE			
1	60911	60911	Mounted Tire & Wheel 9.5-15	4	
2	77694G	77694G	Jack Arm Weldment =Green=	1	
	77694R	77694R	Jack Arm Weldment =Red=		
3	77698B	77698B	Jack Mount Weldment	1	
4A	74847B	-	Basket & Frame 6' (Double) Assembly	2	
	78466CG	-	HD Basket & Frame 6' (Double) Assembly-Option		
	-	74828B	Basket & Frame 5' (Double) Assembly	3	
	-	78474CG	HD Basket & Frame 5' (Double) Assembly-Option		
4B	76032B	-	Drum & Frame 6' (Double) Assembly	2	
	78777CG	-	HD Drum & Frame 6' (Double) Assembly-Option		
	-	76008B	Drum & Frame 5' (Double) Assembly	3	
	-	78776CG	HD Drum & Frame 5' (Double) Assembly-Option		
5	77222G	-	Main Frame 12' Assembly =Green=	1	
	77222R		Main Frame 12' Assembly =Red=		
	-	77226G	Main Frame 15' Assembly =Green=		
		77226R	Main Frame 15' Assembly =Red=		
6	77726B	77726B	Hyd. Base Parts Bundle	1	
7	77228G	77228G	Hitch Assembly =Green=	1	
	77228R	77228R	Hitch Assembly =Red=		
8	77732B	77732B	Lights/Transport Marking Package	1	
9	76543B	76556B	Rocker Bundle	1	For Model 1245D ONLY
10	76542B	-	Drum/Basket Scraper Kit	2	For Model 1245D ONLY
	-	76541B	Drum/Basket Scraper Kit	3	
11A	9501232	9501232	Decal 1245	2	
11B	9501822	9501822	Decal 1245D	2	
12	77042B	77042B	Pin-Up Bushing	4/6	For Model 1245D ONLY
13	77401B	77401B	Toolbox / Storage Box	1	For Model 1245D ONLY
14	9093	9093	Klik Pin	4/6	For Model 1245D ONLY
15	91523	91523	Clevis Pin	4/6	For Model 1245D ONLY

NOTE: Refer to parts section for complete parts breakdown.

Rolling Harrow - 12’ Base 3’-9’ Wing Shipping Bundles

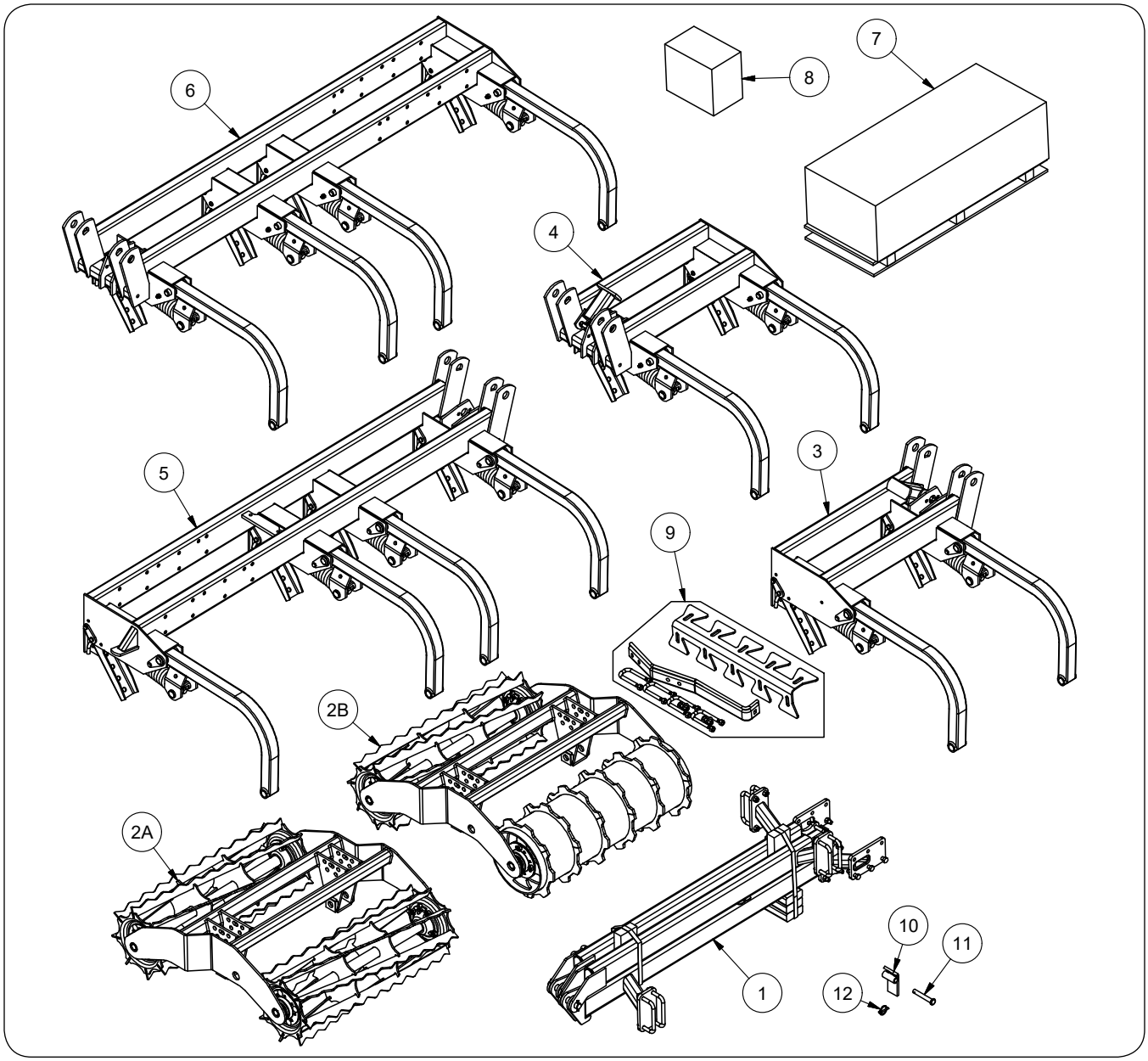


NOTE: Refer to parts section for complete parts breakdown.

Rolling Harrow - 12' Base 3'-9' Wing Shipping Bundles

ITEM	PART NO.	DESCRIPTION	12' BASE WING QTY.						
			3'	4'	5'	6'	7'	8'	9'
1A	74845B	Basket & Frame 3' (Double) Assembly	2	-	-	-	2	-	-
	78773CG	HD Basket & Frame 3' (Double) Assembly - Option							
	74846B	Basket & Frame 4' (Double) Assembly	-	2	-	-	2	4	2
	78470CG	HD Basket & Frame 4' (Double) Assembly - Option							
	74828B	Basket & Frame 5' (Double) Assembly	-	-	2	-	-	-	2
	78474CG	HD Basket & Frame 5' (Double) Assembly - Option							
	74847B	Basket & Frame 6' (Double) Assembly	-	-	-	2	-	-	-
	78466B	HD Basket & Frame 6' (Double) Assembly - Option							
1B	76030B	Drum/Basket & Frame 3' (Double) Assembly	2	-	-	-	2	-	-
	78774CG	HD Drum/Basket & Frame 3' (Double) Assembly - Option							
	76031B	Drum/Basket & Frame 4' (Double) Assembly	-	2	-	-	2	4	2
	78775CG	HD Drum/Basket & Frame 4' (Double) Assembly - Option							
	76008B	Drum/Basket & Frame 5' (Double) Assembly	-	-	2	-	-	-	2
	78776CG	HD Drum/Basket & Frame 5' (Double) Assembly - Option							
	76032B	Drum/Basket & Frame 6' (Double) Assembly	-	-	-	2	-	-	-
	78777CG	HD Drum/Basket & Frame 6' (Double) Assembly - Option							
2	75762G	Wing 3' LH Assembly =Green=	1	-	-	-	-	-	-
	75762R	Wing 3' LH Assembly =Red=							
	75764G	Wing 4' LH Assembly =Green=	-	1	-	-	-	-	-
	75764R	Wing 4' LH Assembly =Red=							
	75766G	Wing 5' LH Assembly =Green=	-	-	1	-	-	-	-
	75766R	Wing 5' LH Assembly =Red=							
	75768G	Wing 6' LH Assembly =Green=	-	-	-	1	-	-	-
	75768R	Wing 6' LH Assembly =Red=							
3	75763G	Wing 3' RH Assembly =Green=	1	-	-	-	-	-	-
	75763R	Wing 3' RH Assembly =Red=							
	75765G	Wing 4' RH Assembly =Green=	-	1	-	-	-	-	-
	75765R	Wing 4' RH Assembly =Red=							
	75767G	Wing 5' RH Assembly =Green=	-	-	1	-	-	-	-
	75767R	Wing 5' RH Assembly =Red=							
	75769G	Wing 6' RH Assembly =Green=	-	-	-	1	-	-	-
	75769R	Wing 6' RH Assembly =Red=							
4	75770G	Wing 7' LH Assembly =Green=	-	-	-	-	1	-	-
	75770R	Wing 7' LH Assembly =Red=							
	75772G	Wing 8' LH Assembly =Green=	-	-	-	-	-	1	-
	75772R	Wing 8' LH Assembly =Red=							
	75774G	Wing 9' LH Assembly =Green=	-	-	-	-	-	-	1
	75774R	Wing 9' LH Assembly =Red=							
5	75771G	Wing 7' RH Assembly =Green=	-	-	-	-	1	-	-
	75771R	Wing 7' RH Assembly =Red=							
	75773G	Wing 8' RH Assembly =Green=	-	-	-	-	-	1	-
	75773R	Wing 8' RH Assembly =Red=							
	75775G	Wing 9' RH Assembly =Green=	-	-	-	-	-	-	1
	75775R	Wing 9' RH Assembly =Red=							
6	77795B	Wing Parts Bundle (For 3' Thru 6' Wings)	1	1	1	1	-	-	-
	77730B	Wing Parts Bundle (For 7' Thru 9' Wings)	-	-	-	-	1	1	1
7	74569B	Split-Function Valve Kit	1	1	1	1	1	1	1
8	76539B	Drum Scraper Kit 3'	2	-	-	-	2	-	-
	76540B	Drum Scraper Kit 4'	-	2	-	-	2	4	2
	76541B	Drum Scraper Kit 5'	-	-	2	-	-	-	2
	76542B	Drum Scraper Kit 6'	-	-	-	2	-	-	-
9	77042B	Basket Pin Up Bushing Weldment	4	4	4	4	8	8	8
10	91523	Clevis Pin 5/8" Dia. x 4"	4	4	4	4	8	8	8
11	9093	Klik Pin 3/16" Dia. x 1 9/16"	4	4	4	4	8	8	8

Rolling Harrow - 15’ Base 3’-11’ Wing Shipping Bundles



ITEM	PART NO.	DESCRIPTION	15’ BASE WING QTY.								
			3’	4’	5’	6’	7’	8’	9’	10’	11’
1	74065G	Truss Bundle 15’ Base with 11’ Wings =Green=	-	-	-	-	-	-	-	-	1
	74065R	Truss Bundle 15’ Base with 11’ Wings =Red=									
2A	74845B	Basket & Frame 3’ (Double) Assembly	2	-	-	-	2	-	-	-	-
	74846B	Basket & Frame 4’ (Double) Assembly	-	2	-	-	2	4	2	-	-
	74828B	Basket & Frame 5’ (Double) Assembly	-	-	2	-	-	-	2	4	2
	74847B	Basket & Frame 6’ (Double) Assembly	-	-	-	2	-	-	-	-	2
2B	76030B	Roller Basket & Frame 3’ (Double) Assembly	2	-	-	-	2	-	-	-	-
	76031B	Roller Basket & Frame 4’ (Double) Assembly	-	2	-	-	2	4	2	-	-
	76008B	Roller Basket & Frame 5’ (Double) Assembly	-	-	2	-	-	-	2	4	2
	76032B	Roller Basket & Frame 6’ (Double) Assembly	-	-	-	2	-	-	-	-	2

Rolling Harrow - 15' Base 3'-11' Wing Shipping Bundles

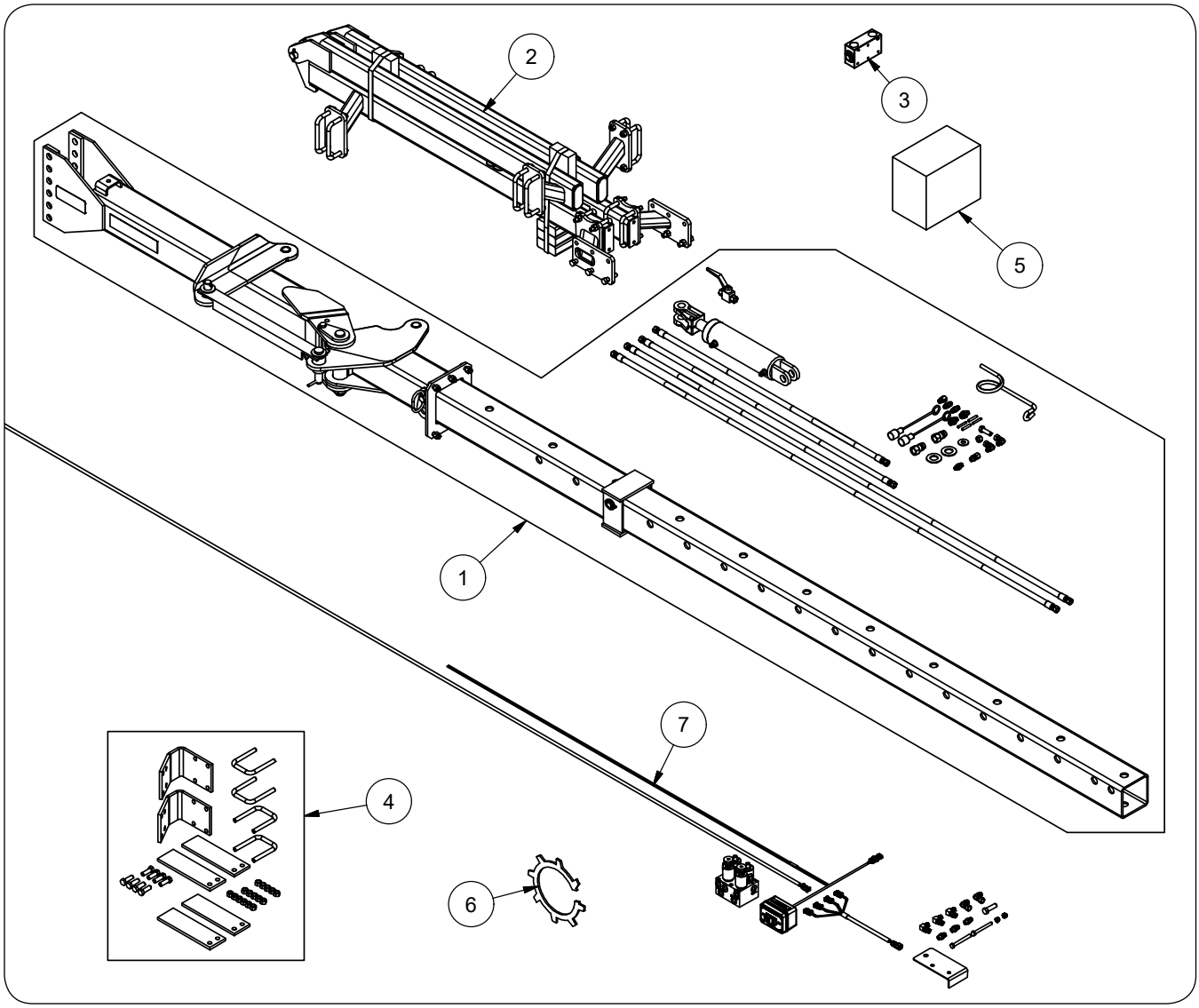
ITEM	PART NO.	DESCRIPTION	15' BASE WING QTY.								
			3'	4'	5'	6'	7'	8'	9'	10'	11'
3	75762G	Wing 3' LH Assembly =Green=	1	-	-	-	-	-	-	-	-
	75762R	Wing 3' LH Assembly =Red=									
	75764G	Wing 4' LH Assembly =Green=	-	1	-	-	-	-	-	-	-
	75764R	Wing 4' LH Assembly =Red=									
	75766G	Wing 5' LH Assembly =Green=	-	-	1	-	-	-	-	-	-
	75766R	Wing 5' LH Assembly =Red=									
	75768G	Wing 6' LH Assembly =Green=	-	-	-	1	-	-	-	-	-
	75768R	Wing 6' LH Assembly =Red=									
4	75763G	Wing 3' RH Assembly =Green=	1	-	-	-	-	-	-	-	-
	75763R	Wing 3' RH Assembly =Red=									
	75765G	Wing 4' RH Assembly =Green=	-	1	-	-	-	-	-	-	-
	75765R	Wing 4' RH Assembly =Red=									
	75767G	Wing 5' RH Assembly =Green=	-	-	1	-	-	-	-	-	-
	75767R	Wing 5' RH Assembly =Red=									
	75769G	Wing 6' RH Assembly =Green=	-	-	-	1	-	-	-	-	-
	75769R	Wing 6' RH Assembly =Red=									
5	75770G	Wing 7' LH Assembly =Green=	-	-	-	-	1	-	-	-	-
	75770R	Wing 7' LH Assembly =Red=									
	75772G	Wing 8' LH Assembly =Green=	-	-	-	-	-	1	-	-	-
	75772R	Wing 8' LH Assembly =Red=									
	75774G	Wing 9' LH Assembly =Green=	-	-	-	-	-	-	1	-	-
	75774R	Wing 9' LH Assembly =Red=									
	75776G	Wing 10' LH Assembly =Green=	-	-	-	-	-	-	-	1	-
	75776R	Wing 10' LH Assembly =Red=									
	75778G	Wing 11' LH Assembly =Green=	-	-	-	-	-	-	-	-	1
	75778R	Wing 11' LH Assembly =Red=									
6	75771G	Wing 7' RH Assembly =Green=	-	-	-	-	1	-	-	-	-
	75771R	Wing 7' RH Assembly =Red=									
	75773G	Wing 8' RH Assembly =Green=	-	-	-	-	-	1	-	-	-
	75773R	Wing 8' RH Assembly =Red=									
	75775G	Wing 9' RH Assembly =Green=	-	-	-	-	-	-	1	-	-
	75775R	Wing 9' RH Assembly =Red=									
	75777G	Wing 10' RH Assembly =Green=	-	-	-	-	-	-	-	1	-
	75777R	Wing 10' RH Assembly =Red=									
	75779G	Wing 11' RH Assembly =Green=	-	-	-	-	-	-	-	-	1
	75779R	Wing 11' RH Assembly =Red=									
7	77796B	Wing Parts Bundle (For 3' Thru 6' Wings)	1	1	1	1	-	-	-	-	-
	77797B	Wing Parts Bundle (For 7' Wings)	-	-	-	-	1	-	-	-	-
	77729B	Wing Parts Bundle (For 8' Thru 9' Wings)	-	-	-	-	-	1	1	-	-
	77728B	Wing Parts Bundle (For 10' Thru 11' Wings)	-	-	-	-	-	-	-	1	1
8	74569B	Split-Function Valve Kit	1	1	1	1	1	1	1	1	1
9	76539B	Drum Scraper Kit 3'	2	-	-	-	2	-	-	-	-
	76540B	Drum Scraper Kit 4'	-	2	-	-	2	4	2	-	-
	76541B	Drum Scraper Kit 5'	-	-	2	-	-	-	2	4	2
	76542B	Drum Scraper Kit 6'	-	-	-	2	-	-	-	-	2
10	77042B	Basket Pin Up Bushing Weldment	4	4	4	4	8	8	8	8	8
11	91523	Clevis Pin 5/8" Dia. x 4"	4	4	4	4	8	8	8	8	8
12	9093	Klik Pin 3/16" Dia. x 1 9/16"	4	4	4	4	8	8	8	8	8

NOTE: Refer to parts section for complete parts breakdown.

Optional Shipping Bundles For Rolling Harrow

PART NO.		DESCRIPTION	NOTES
12' BASE	15' BASE		
74077B	74077B	Transport Wheel Bundle/ Lift Assist w/7.60 x 15 Tires	For 12' Base w/ 8' - 9' Wings or 15' Base w/ 7' - 11' Wings
73173FS	73173FS	In-Lieu Of Dual Hydraulic Kit	For All Sizes
87373B	87375B	Straight Spiked-Tooth Leveler Bar	For Base & 3' Wing Set
87374B	87377B	Straight Spiked-Tooth Leveler Bar	For Base & 4' Wing Set
87376B	87379B	Straight Spiked-Tooth Leveler Bar	For Base & 5' Wing Set
87378B	87381B	Straight Spiked-Tooth Leveler Bar	For Base & 6' Wing Set
87380B	87383B	Straight Spiked-Tooth Leveler Bar	For Base & 7' Wing Set
87382B	87385B	Straight Spiked-Tooth Leveler Bar	For Base & 8' Wing Set
87384B	87386B	Straight Spiked-Tooth Leveler Bar	For Base & 9' Wing Set
-	87387B	Straight Spiked-Tooth Leveler Bar	For Base & 10' Wing Set
-	87388B	Straight Spiked-Tooth Leveler Bar	For Base & 11' Wing Set
76834B	76836B	Diagonal-Tooth Leveler Bar	For Base & 3' Wing Set
76835B	76838B	Diagonal-Tooth Leveler Bar	For Base & 4' Wing Set
76837B	76840B	Diagonal-Tooth Leveler Bar	For Base & 5' Wing Set
76839B	76842B	Diagonal-Tooth Leveler Bar	For Base & 6' Wing Set
76841B	76844B	Diagonal-Tooth Leveler Bar	For Base & 7' Wing Set
76843B	76846B	Diagonal-Tooth Leveler Bar	For Base & 8' Wing Set
76845B	76849B	Diagonal-Tooth Leveler Bar	For Base & 9' Wing Set
-	76852B	Diagonal-Tooth Leveler Bar	For Base & 10' Wing Set
-	76854B	Diagonal-Tooth Leveler Bar	For Base & 11' Wing Set
87409B	87411B	Coil-Tine Leveler Bar	For Base & 3' Wing Set
87410B	87413B	Coil-Tine Leveler Bar	For Base & 4' Wing Set
87412B	87415B	Coil-Tine Leveler Bar	For Base & 5' Wing Set
87414B	87417B	Coil-Tine Leveler Bar	For Base & 6' Wing Set
87416B	87419B	Coil-Tine Leveler Bar	For Base & 7' Wing Set
87418B	87421B	Coil-Tine Leveler Bar	For Base & 8' Wing Set
87420B	87422B	Coil-Tine Leveler Bar	For Base & 9' Wing Set
-	87423B	Coil-Tine Leveler Bar	For Base & 10' Wing Set
-	87424B	Coil-Tine Leveler Bar	For Base & 11' Wing Set
76670B	76670B	Dual Split Function Valve Kit	Replaces Single Split Function Valve For 18-37' Units
76671B	76671B	Dual Split-Function Valve Kit	For 18-37' Units

Accessory Shipping Bundles For Rolling Harrow



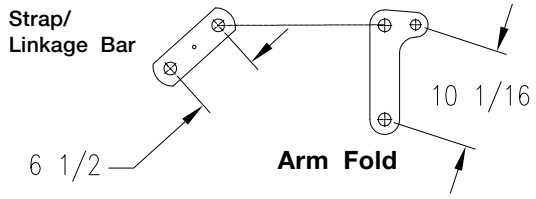
ITEM	PART NO.	DESCRIPTION	NOTES
1	73538GFS	Offset “In Lieu of” Tongue =Green=	For All Sizes
	73538RFS	Offset “In Lieu of” Tongue =Red=	
2	74065G	Brace Assembly =Green=	For 15’ Base w/10’ Wings
	74065R	Brace Assembly =Red=	
3	91240	Lock/Check Valve	For All Sizes - Connecting Rolling Harrow to lead machine that uses rephase hydraulics
4	89360B	Transport Tire Soil Scraper Kit	For All Sizes
5	76671B	Dual Split Function Valve Kit	
6	74964	Disc Plate/Reinforcing Disc (Weld-In)	For Aggressive & Regular Basket Rollers ONLY
7	73393	Electric Over Hydraulic Control Switch	For Offset/Steerable Tongue
8	77737G	A-Frame Gooseneck Hitch Assembly w/Decals =Green=	NOT SHOWN
	77737R	A-Frame Gooseneck Hitch Assembly w/Decals =Red=	

Wing Fold Linkage

There are differences in the wing fold strap/linkage bar depending on the base frame and wing size used on the machine. Be certain you have the correct hydraulic wing parts bundle for your machine. Use FIG. 2-1 and FIG. 2-2 to identify the proper linkage components for your machine.

FIG. 2-1

A. 12' Base with 3-6' Wings



B. 12' Base with 7-9' Wings

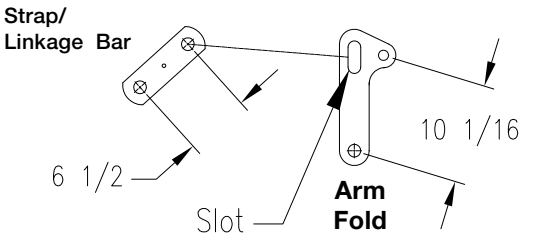
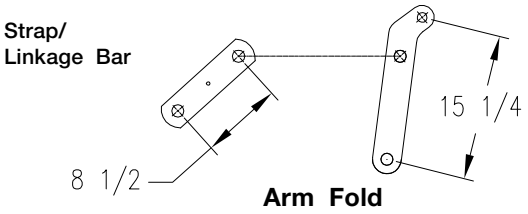
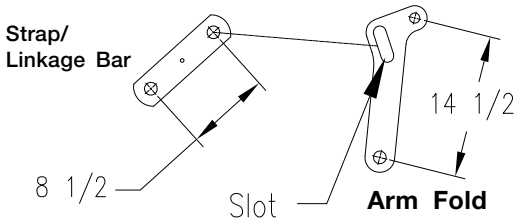


FIG. 2-2

C. 15' Base with 3-6' Wings



D. 15' Base with 7-11' Wings



1. If wings will be installed on the machine, remove the D-pin 1 1/4" dia. x 2 5/8" (87292), 1 1/4" flat washer (9405-128), and 5/16" dia. x 2" spiral pin (91144-186) from the ends of the base frame (FIG. 2-3). Identify the correct cylinder arm (see Table 2-1) for your machine. Obtain these arms from the hydraulic bundle included with the wing. Orient arms as shown and secure with D-pins, flat washers, and spiral pins previously removed.

IMPORTANT

- *Using the improper linkage and/or wing fold cylinders will damage your machine.*

TABLE 2-1

ITEM	PART NO.	DESCRIPTION
A	81502B	Arm/Fold 12' Base w/3-6' Wings
B	81503B	Arm/Fold 12' Base w/7-9' Wings
C	88815B	Arm/Fold 15' Base w/3-6' Wings
D	81504B	Arm/Fold 15' Base w/7-11' Wings

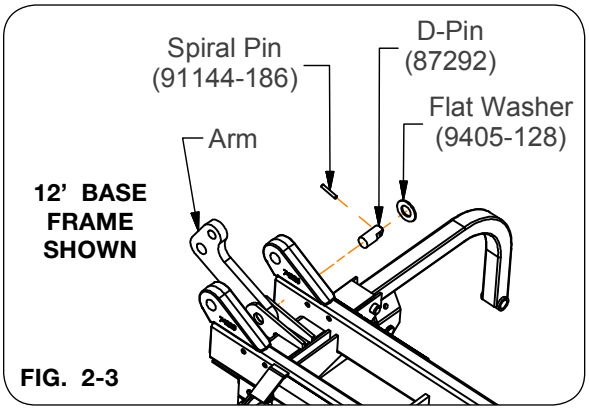


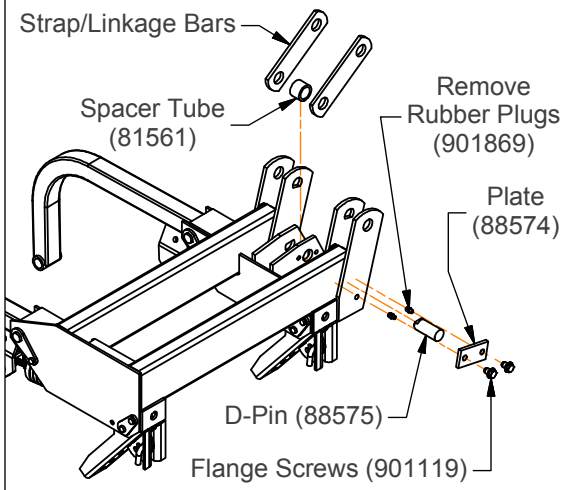
FIG. 2-3

Wing Fold Linkage (continued)

2. Remove and discard the rubber plugs (901869) from the wing frames.

3. Position the spacer tube (81561) between the proper strap/linkage bars, see FIG. 2-1 & FIG. 2-2. Secure with D-pin (88575), plate (88574) and 1/2"-13UNC x 3/4" flange screws (901119) (FIG. 2-4). Tighten flange screws.

FIG. 2-4



RH WING SHOWN

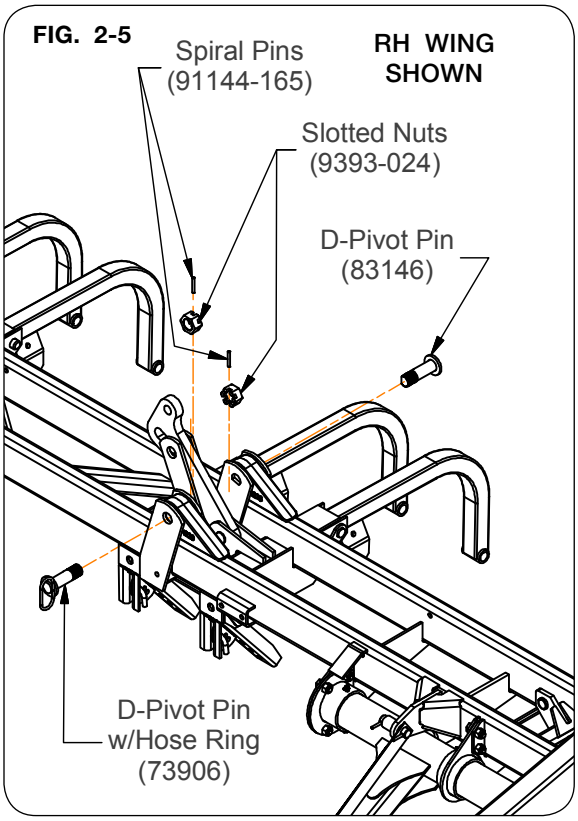
Wings to Base Frame

NOTE: The folding linkage is to be assembled to the main frame and wings first.

1. Position base frame in assembly area.

2. Install the wings onto the base frame. Align the hinge holes and install the 1 1/4" dia. x 4 5/8" D-pivot pins with hose rings (73906), 1 1/4" dia. x 4 5/8" D-pivot pins (83146), 1 1/4"-12UNF slotted nuts (9393-024) and 1/4" dia. x 1 7/8" spiral pins (91144-165) as shown in FIG. 2-5. Tighten nuts, but do not cause hinges to bind from over tightening.

FIG. 2-5



Hitch Assembly

NOTE: If necessary, install optional leveler bar kits now. See optional leveler bar assembly in this section. If no leveler bars will be installed on this machine, the mounting arms should be placed in the lock-up position to prevent dragging or accumulating of debris. See OPERATION section for procedure to lock up the arms.

If using an A-Frame Gooseneck Hitch Assembly (77737G or 77737R) instead of the standard hitch assembly, refer to "A-Frame Gooseneck Hitch Assembly (Optional)" in this section.

1. Locate the hitch assembly. Remove the fourteen 1/2"-13UNC x 2" grade 8 capscrews (91299-103), six 1/2" flat washers (9503326), fourteen 1/2"-13UNC locknuts (9800), two backer plates (78945B), and two reinforcement plates (700256B) from the hitch (FIG. 2-6). Using a safe device rated at 1000 lbs. minimum, install the hitch assembly onto the main frame. Reinstall the previously removed hardware.

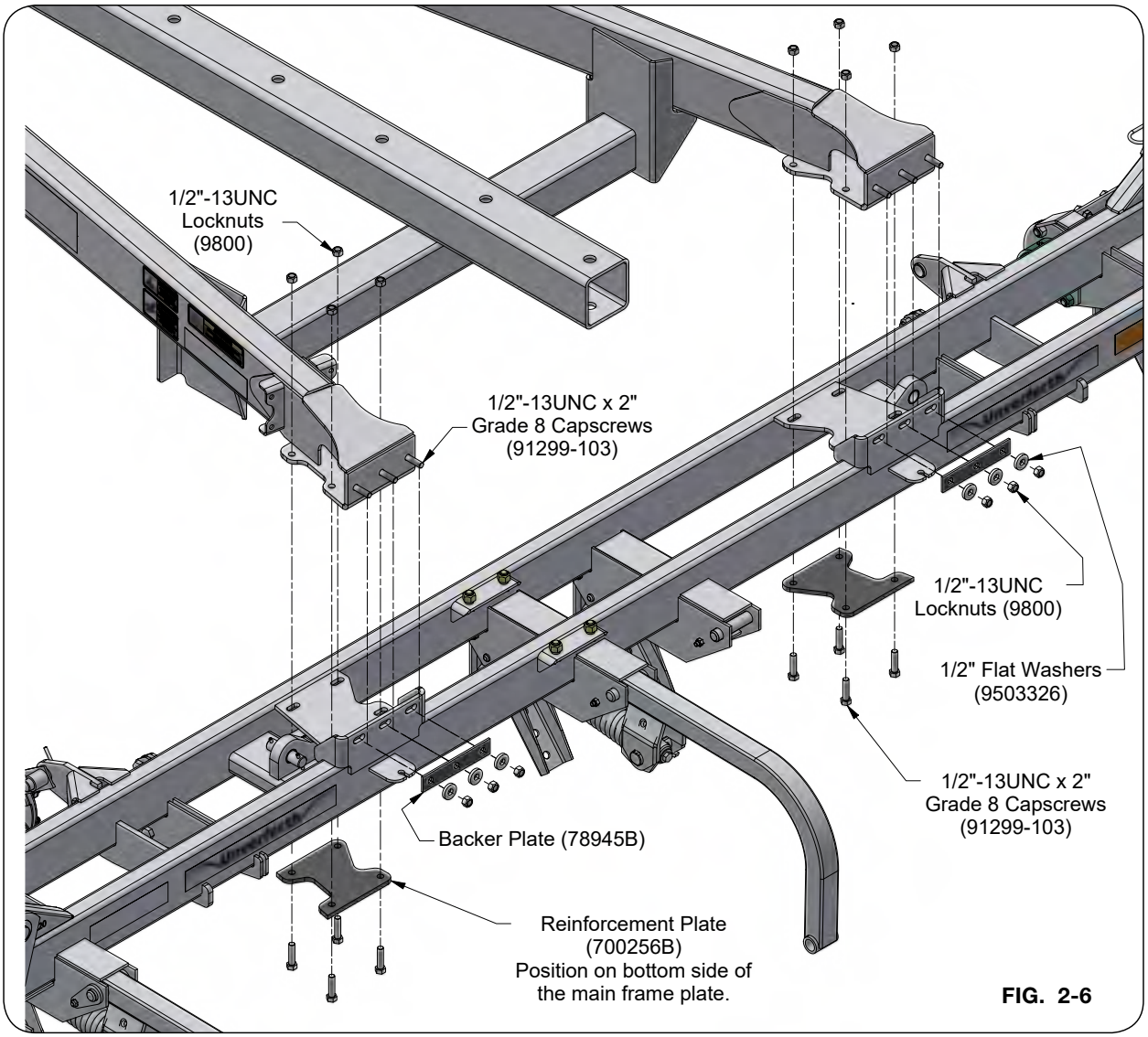


FIG. 2-6

NOTE: Units with rear truss, refer to Truss Kit in this section.

Truss Kit (35’ & 37’ Models)

⚠ WARNING

- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 150 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

NOTE: Rear truss is optional for the 35’ machines. See your Unverferth dealer to order a truss kit for your 35’ machine.

1. Remove and retain the U-bolts and nuts from the arms.

NOTE: The truss kit has pre-load built into it. It may not be completely parallel to the main/wing frame.

2. Loosely attach truss brackets (74068G or 74068R) to the hitch and frame with 1/2”-13UNC x 2” grade 8 capscrews (91299-103), 1/2” flat washers (9503326) and 1/2”-13UNC locknuts (9800) (FIG. 2-7).

3. Use a safe lifting device rated at a minimum of 150 lbs., lift the truss assembly into place. Loosely attach the base truss weldment to the truss bracket with 1/2”-13UNC U-bolts (95161) and 1/2”-13UNC locknuts (9800) (FIG. 2-7).

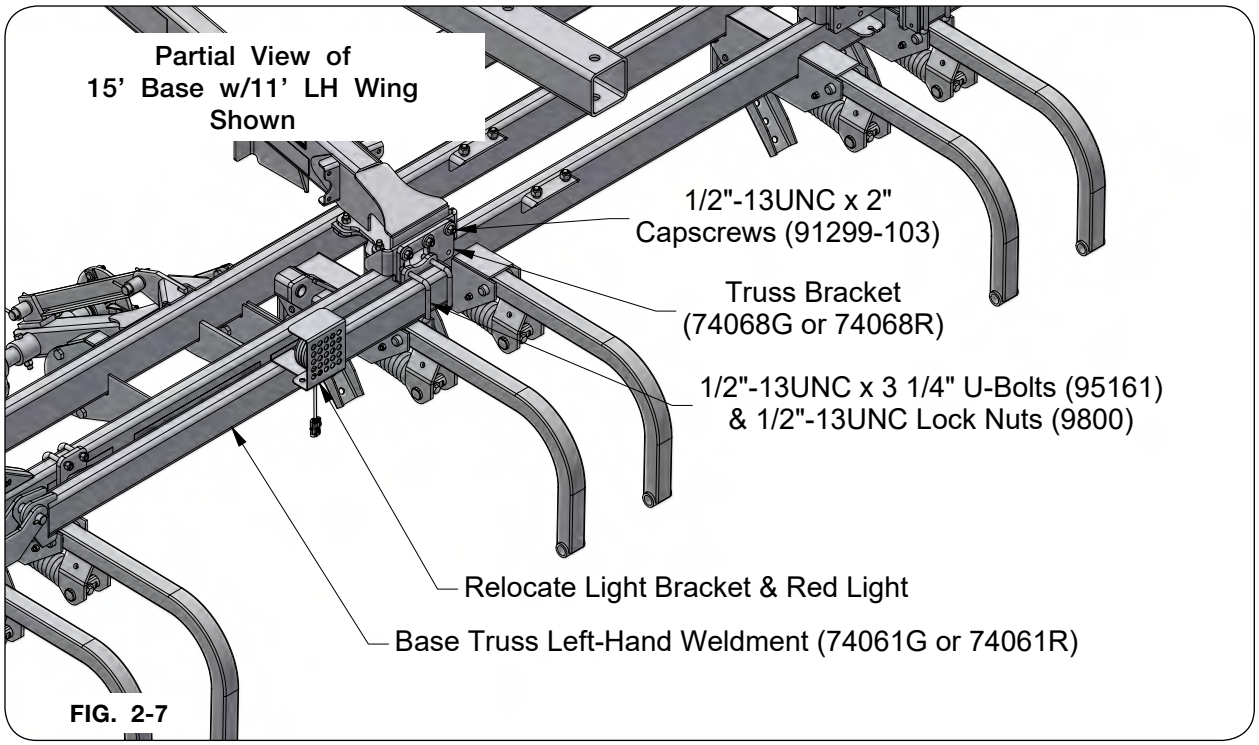


FIG. 2-7

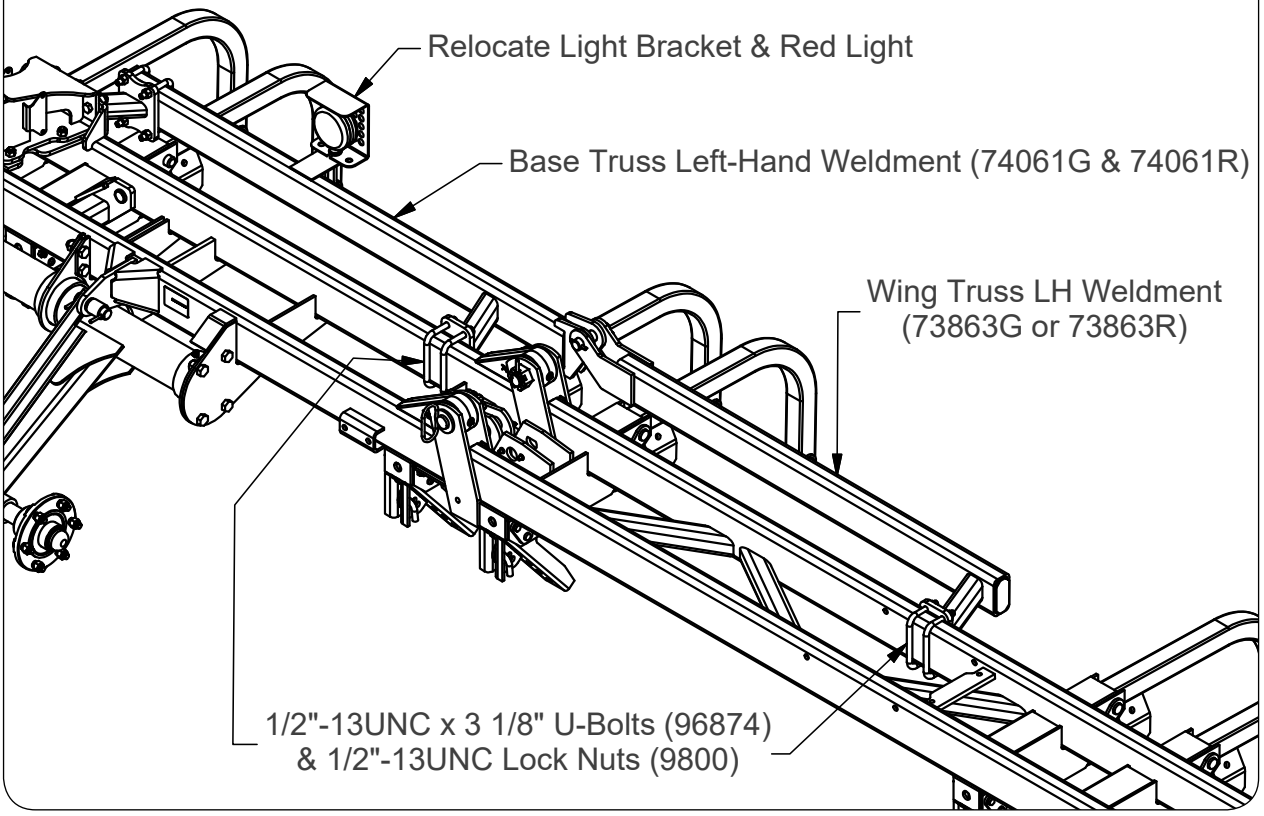
Truss Kit (35' & 37' Models) (continued)

4. Loosely attach the other end of the base truss weldment to the main frame with 1/2"-13UNC U-bolts (96874) and 1/2"-13UNC locknuts (9800) (FIG. 2-8).

5. Unfold the wing truss weldment. Loosely fasten the wing truss weldment to the wing with 1/2"-13UNC U-bolts (96874) and 1/2"-13UNC locknuts (9800). Repeat steps 3 through 5 for the opposite truss assembly (FIG. 2-8).

FIG. 2-8

11' LH Wing Shown



NOTE: Leave all truss hardware loose until further instructed.

Base Wheel Assembly

1. Using a safe lifting device rated at 1,000 lbs. minimum, raise front of machine until shipping strap and pins can be removed from the base frame and rockshaft. Be careful not to damage basket mounting arms or basket springs while lifting machine.

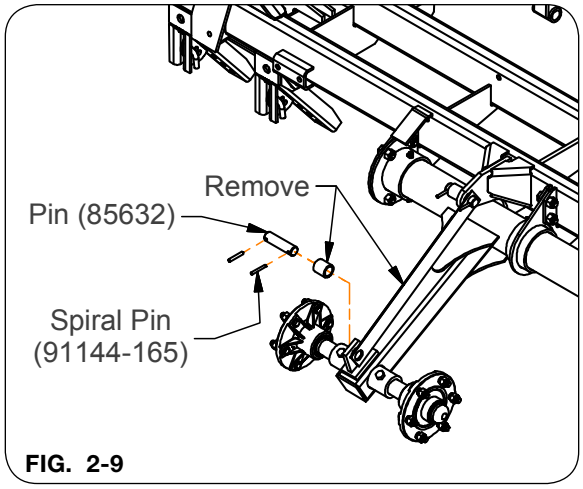


FIG. 2-9

2. Open the hydraulic base parts bundle and locate the two 3" x 6" hydraulic cylinders (95412). Check that retracted cylinder length is 16 1/4". Adjust both cylinders to this dimension as necessary.

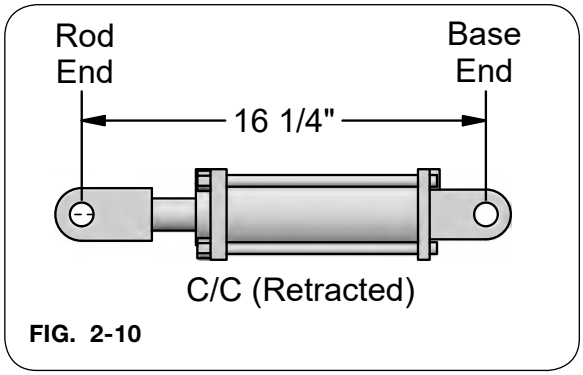


FIG. 2-10

3. Install lift cylinders onto base frame with ports facing out. Secure base end of cylinder to base frame using the previously removed 1" dia. x 3 3/4" pins (85632) and 1/4" dia. x 1 7/8" spiral pins (91144-165) (FIG. 2-11).

NOTE: Do not connect the rod end of the cylinder at this time.

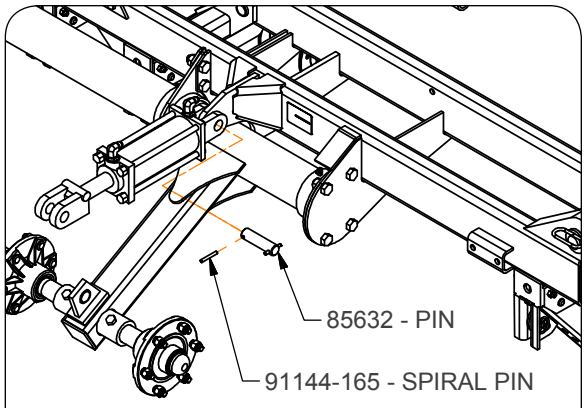


FIG. 2-11

Base Wheel Assembly (continued)

4. Install four 9.5L-15 tires (60911) on base frame (FIG. 2-12).

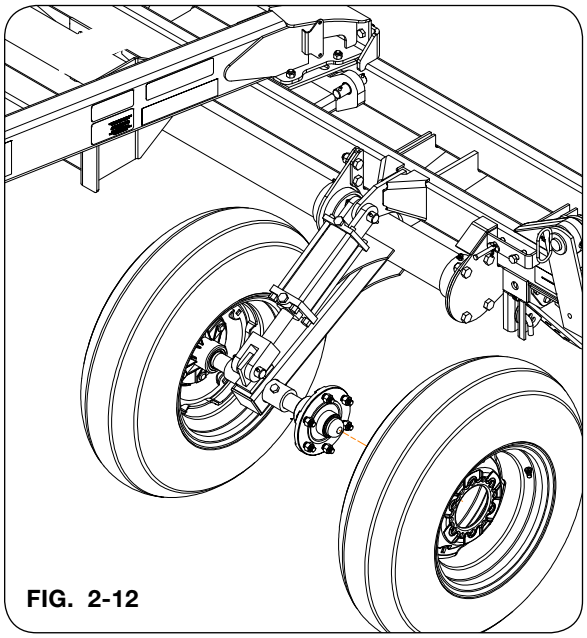


FIG. 2-12

⚠ CAUTION

- **IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGULARLY. SEE TORQUE PAGE IN THE "MAINTENANCE" SECTION FOR PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.**

Transport Chain

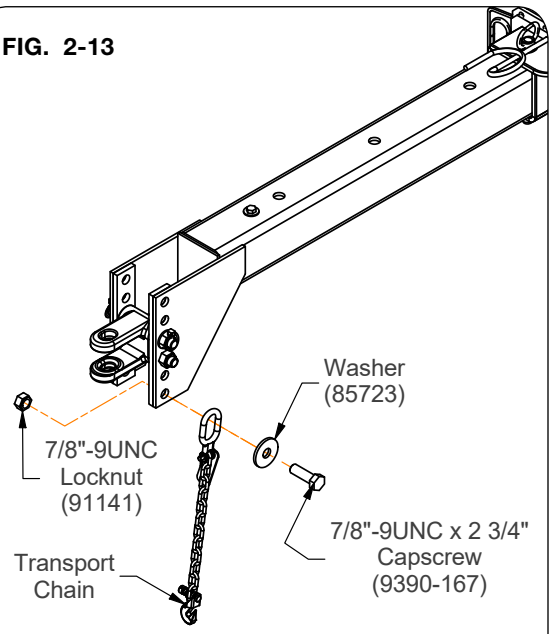
⚠ CAUTION

- **ALWAYS USE TRANSPORT CHAIN WHEN TRANSPORTING IMPLEMENTS. FAILURE TO USE CHAINS COULD CAUSE PERSONAL INJURY OR DAMAGE IF IMPLEMENTS BECOME DISENGAGED.**

- **REPLACE TRANSPORT CHAIN IF ANY LINK OR END FITTING IS BROKEN, STRETCHED, DAMAGED OR NOT FUNCTIONING. DO NOT WELD TRANSPORT CHAIN.**

1. Retrieve transport chain (94098), 7/8”-9UNC x 2 1/4” capscrew (9390-165), large flat washer (85723), and 7/8”-9UNC locknut (91141) from hydraulic base frame parts bundle. Place washer on capscrew. Place large chain loop against outside of tongue plate, align with an available hole, and insert capscrew and washer. Secure with nut (FIG. 2-13).

FIG. 2-13



Wing Rest Stands

UNITS WITH FLAT FOLD WINGS
12’ Base with 3’, 4’, 5’ & 6’ Wings
15’ Base with 3’, 4’, 5’, 6’ & 7’ Wings

1. Wing stands (77289B) for these machines are located in the wings parts box (FIG. 2-14). Install them onto the rear bar of the left-hand and right-hand wing frames. Position wing stand 24 inches from the hinge area and so 2° angle is toward centerline of machine on both sides as shown in FIG. 2-15. Retain with one 1/2”-13UNC U-bolt (96874) and two 1/2”-13UNC locknuts (9800) on each stand.

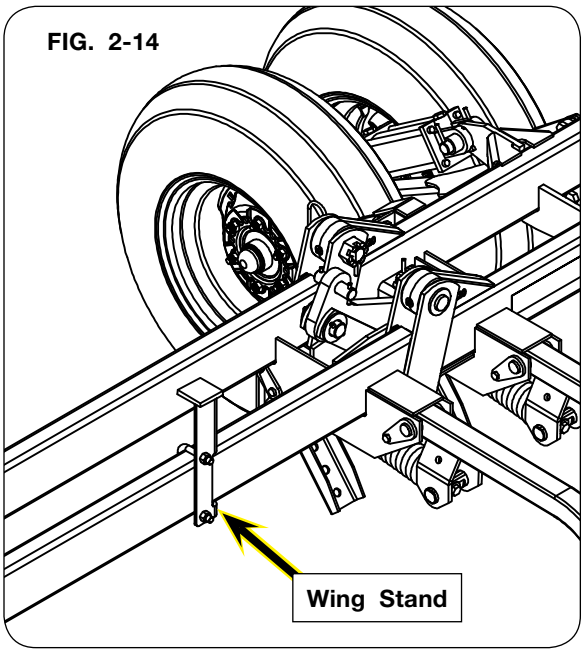


FIG. 2-14

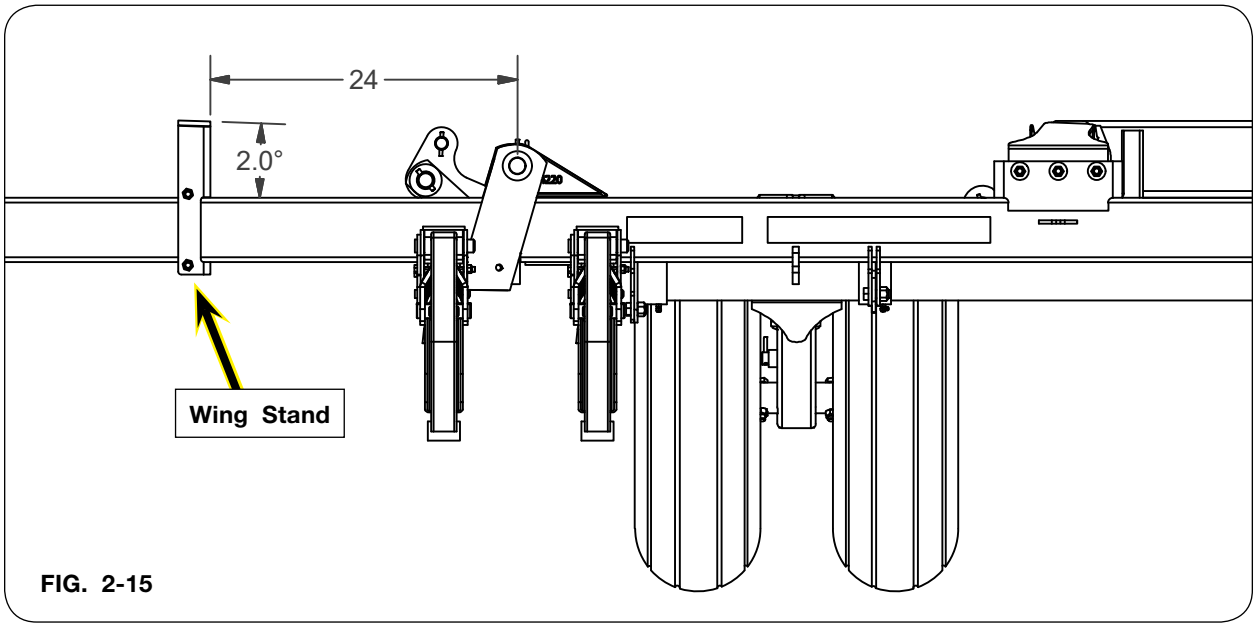


FIG. 2-15

Wing Rest Stands (continued)

UNITS WITH STACK FOLD WINGS
12’ Base with 7’, 8’, 9’ Wings
15’ Base with 8’, 9’, 10’, 11’ Wings

3. Open the hydraulic wing bundle and locate the wing stand weldment (81571B) and brace (wing stand) weldment (81572B). Use Table 2-2 below to determine the proper location of the wing rest from the end of the right hand wing. Install the wing stand weldment and brace (wing stand) weldment on the rear bar of the right hand wing. Secure with three 1/2”-13UNC x 3 1/4” capscrews (9390-108) and 1/2”-13UNC locknuts (9800).

TABLE 2-2

BASE SIZE	WING SIZE	DIMENSION “X” (FIG. 2-18)
12’	7’	13”
12’	8’	35”
12’	9’	58”
15’	8’	3”
15’	9’	25 1/2”
15’	10’	49”
15’	11’	71”

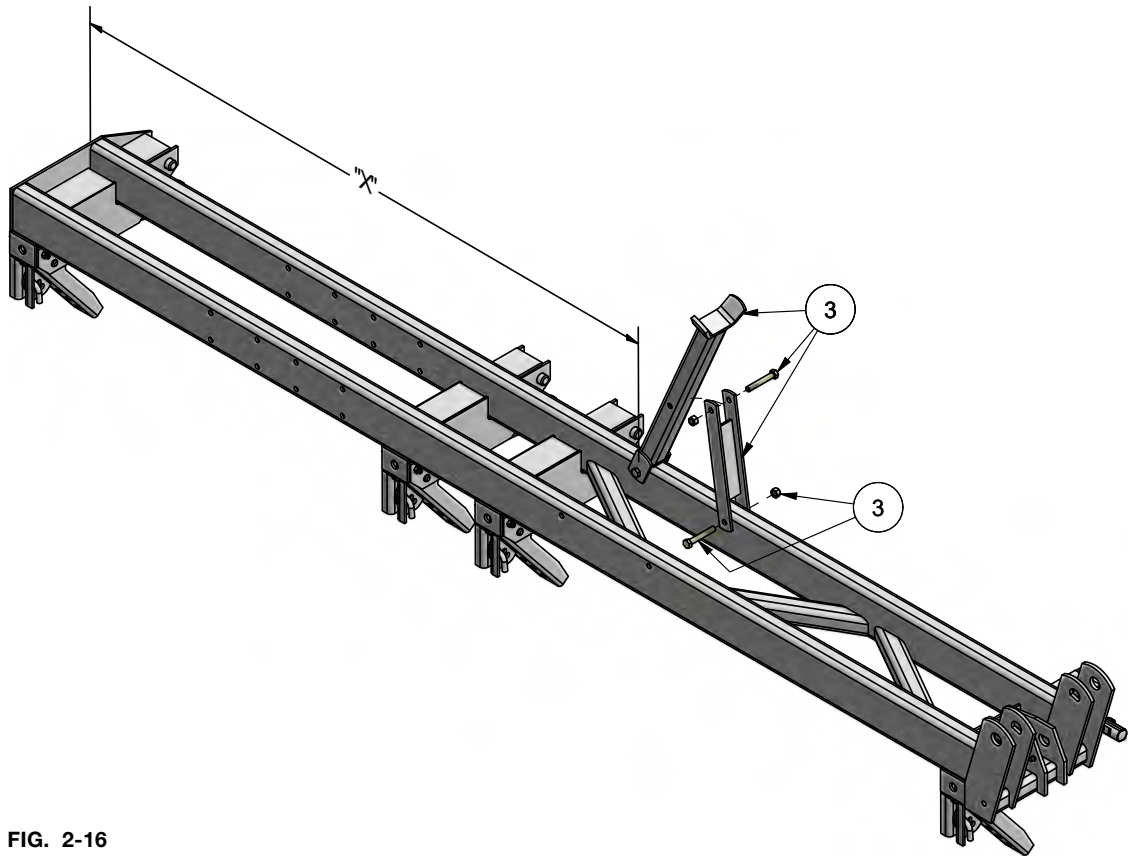


FIG. 2-16

Wing Fold Cylinders

1. Attach the linkage bars to the arm using two 1 1/4" dia. x 3 5/8" pins (87283), four 1 1/4" flat washers (9405-128), and four 5/16" dia. x 2" spiral pins (91144-186) which can be found in the hydraulic wing parts bundle (FIG. 2-17).

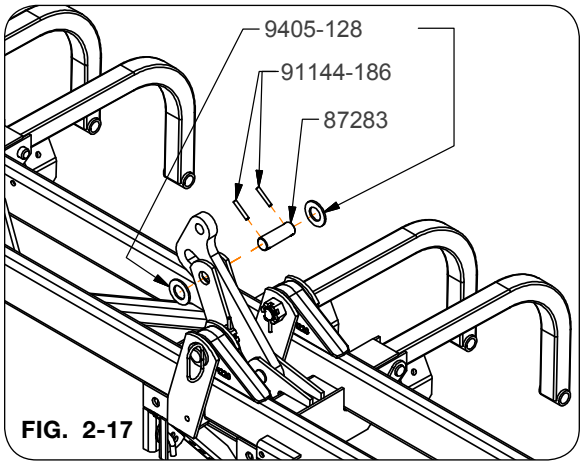


FIG. 2-17

2. Use Table 2-3 below to identify the hydraulic wing-fold cylinders required for your machine. Check that the retracted cylinder dimension ("A" Dimension) in FIG. 2-18 matches the length in Table 2-3. Adjust cylinder clevis as necessary to match the retracted length on both cylinders.

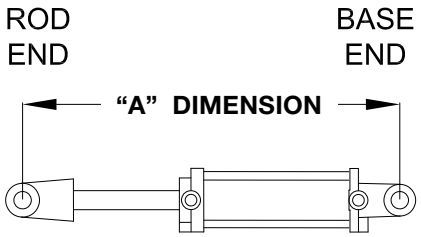


FIG. 2-18

TABLE 2-3

BASE SIZE	WING SIZE	CYLINDER SIZE	"A" DIM. (RETRACTED)	TYPE OF WING FOLD	(R.H. WING CYLINDER) SPACER LENGTH REQ.D
12'	3-6'	3 x 16"	26 1/4"	Flat	----
12'	7'	4 x 16"	26 1/4"	Stack	2 1/4"
12'	8'	4 x 16"	26 1/4"	Stack	2 3/4"
12'	9'	4 x 16"	26 1/4"	Stack	3 3/8"
15'	3-6'	2 1/2 x 24"	34 1/4"	Flat	----
15'	7'	3 1/2 x 24"	34 1/4"	Flat	----
15'	8'	3 1/2 x 24"	34 1/4"	Stack	2 1/2"
15'	9'	3 1/2 x 24"	34 1/4"	Stack	2 7/8"
15'	10'	4 x 24"	34 1/4"	Stack	2 3/4"
15'	11'	4 x 24"	34 1/4"	Stack	3 3/8"

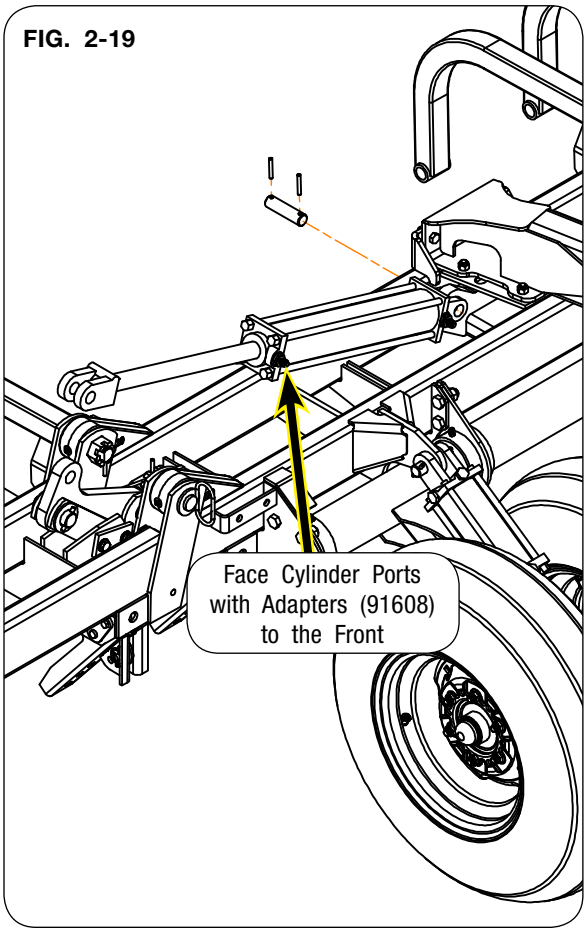
Wing Fold Cylinders (continued)

3. Install wing fold cylinders with ports facing the front of the machine. Attach the cylinder bases to the lug in the base frame using the 1” dia. x 3 3/4” pins (85632) and 1/4” dia. x 1 7/8” spiral pins (91144-165) from the hydraulic wing parts bundle (FIG. 2-19).

NOTE: 12 Ft. Base with 7, 8 & 9 Ft. Wings require the left-hand fold cylinder rod end port facing forward and the right-hand fold cylinder rod end port facing rearward. Use the top port on the base end of each cylinder.

NOTE: Do not connect the rod end of the cylinder at this time.

FIG. 2-19



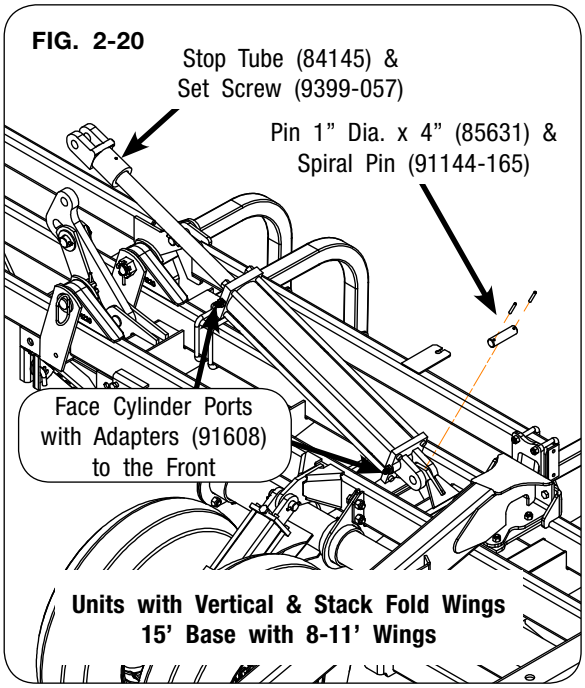
Wing Fold Cylinders (continued)

4. **UNITS WITH STACK FOLD WINGS ONLY,** spacer tube must be installed on the rod end of the **RIGHT-HAND WING** fold cylinder. Use Table 2-3 on page 2-20 to determine the correct spacer tube length for your machine and obtain this tube from the hydraulic wing parts bundle (FIG. 2-20). Mark the position of the clevis on the cylinder rod. Remove the clevis, slip the spacer tube on the rod, and reinstall the clevis to the marked position. Tighten clevis bolt. Slide the spacer tube against the clevis and tighten the setscrew in the tube.

5. Locate four hydraulic connectors with 3/4"-16 male O-ring threads to 9/16"-18 JIC male threads with 0.060" restrictor (91608) from hydraulic wing parts bundle. Install these fittings into the ports of the wing fold cylinders.

NOTE: For 12' base with 7-9' wings, the base end fittings must be installed in the top port of each cylinder. (FIG. 2-21)

FIG. 2-20



Units with Vertical & Stack Fold Wings
15' Base with 8-11' Wings

FIG. 2-21

Main Frame Basket Rocker Arm Assembly - Model 1245D Only

1. In parts box (12' Base - 76543B; 15' Base - 76556B) locate 1 1/2" x 6" cylinders (TA0-904623-0), cylinder mount weldments and hardware (76495B), link weldment basket rockers (75930B), 1/2"-13UNC x 2 1/4" capscrews (9390-104) and 1/2"-13UNC locknuts (9800). Install base end of cylinder with ports facing up to the mounting bracket of the basket rocker arms using capscrews and locknuts. (FIG. 2-22, FIG. 2-23, FIG. 2-24)
2. Attach the cylinder mount weldments and hardware (76495B) to the bent arm. (FIG. 2-22, FIG. 2-23, FIG. 2-24)
3. Secure the rod end of the cylinders (TA0-9046230) to the link weldment basket rocker (75930B) using 1/2"-13UNC x 2 1/4" capscrews (9390-104) and 1/2"-13UNC locknuts (9800). (FIG. 2-22, FIG. 2-23, FIG. 2-24)

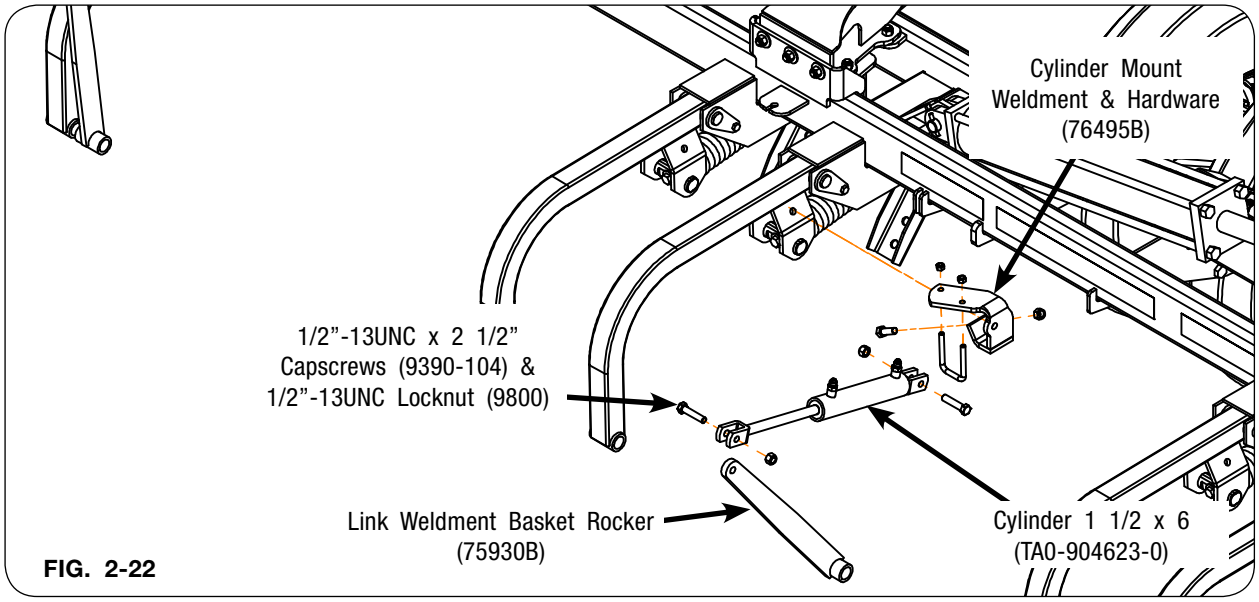


FIG. 2-22

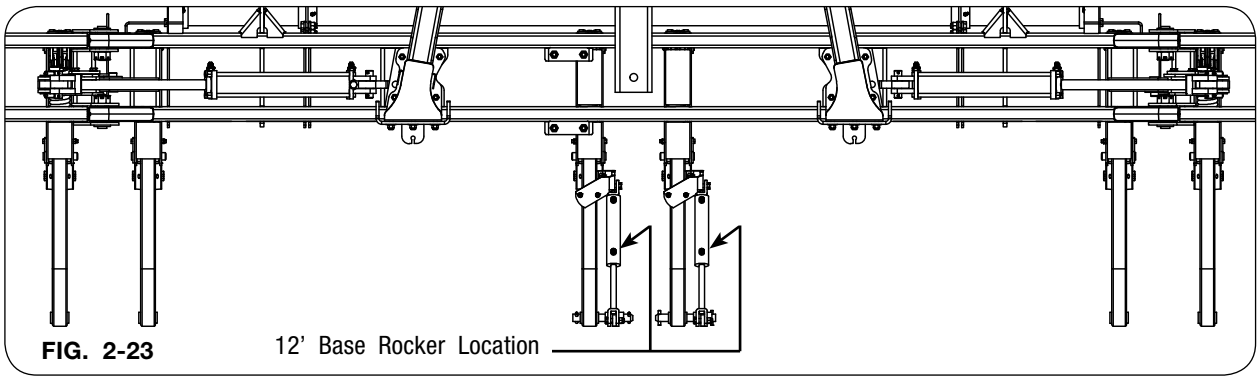


FIG. 2-23

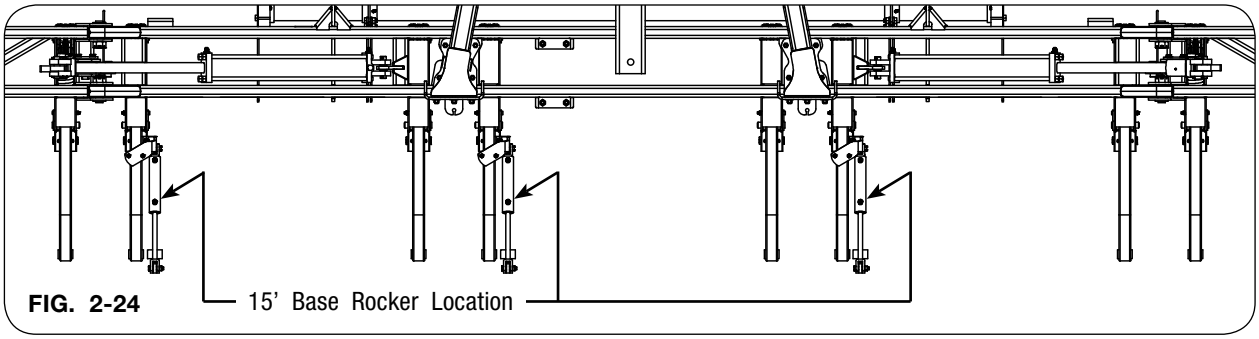


FIG. 2-24

Stack Fold Sequence Valve Assembly
For 12' Base with 7', 8', 9' Wings

1. Mount hydraulic fittings to valve (901942) (FIG. 2-25 or FIG. 2-26).

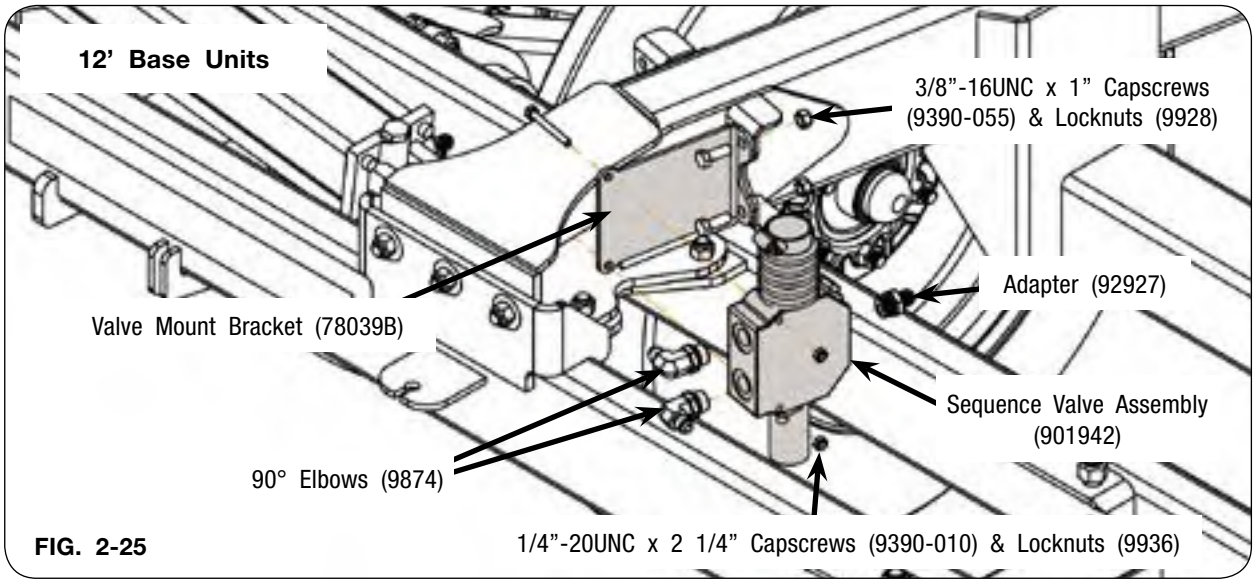


FIG. 2-25

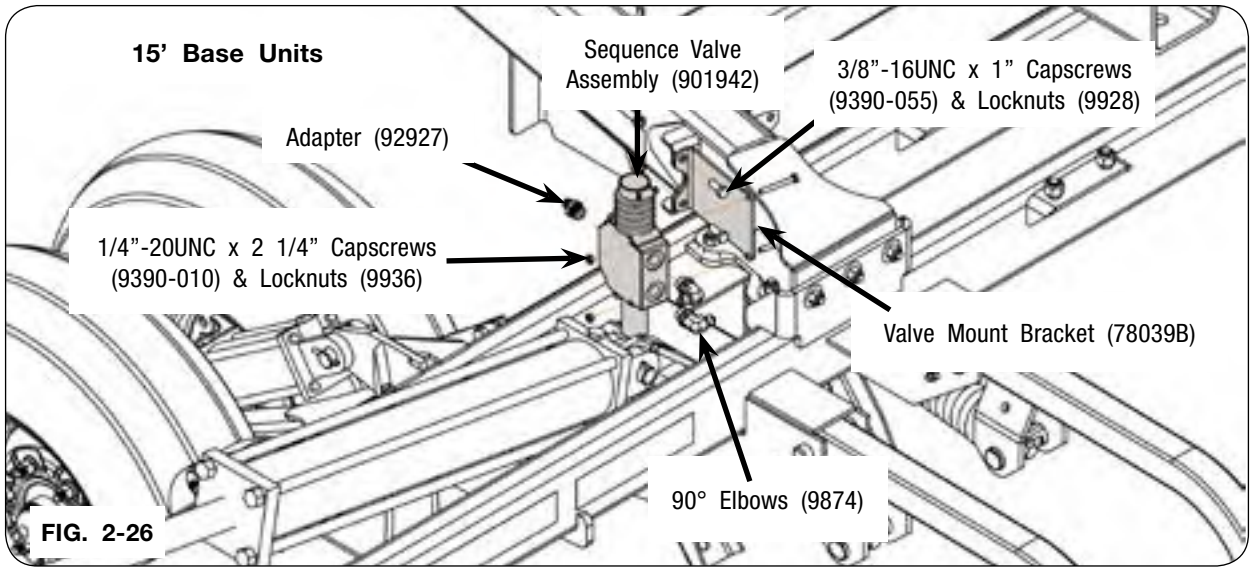


FIG. 2-26

2. **12' BASE UNITS**
   Secure valve assembly to valve mount bracket (78039B) with two 1/4"-20UNC x 2 1/4" capscrews (9390-010) and 1/4"-20UNC locknuts (9936). Attach the valve mount bracket to the left-hand side of the hitch A-frame. Secure with two 3/8"-16UNC x 1" capscrews (9390-055) and 3/8"-16UNC locknuts (9928) (FIG. 2-25).

   15' BASE UNITS
   Secure valve assembly to valve mount bracket (78039B) with two 1/4"-20UNC x 2 1/4" capscrews (9390-010) and 1/4"-20UNC locknuts (9936). Attach the valve mount bracket on the outside of the left-hand side of the hitch A-frame. Secure with two 3/8"-16UNC x 1" capscrews (9390-055) and 3/8"-16UNC locknuts (9928) (FIG. 2-26).

Hydraulic Assembly

1. Using the following images as a guide, install hydraulic components to the machine.

IMPORTANT

- *Do not use any tape or thread sealant as all fittings have mechanical or o-ring seals. This prevents contamination from tape or thread sealants from entering the tractor's hydraulic system.*

NOTE: It is recommended to run the electrical harness with the hydraulic hoses when installing them down the left-hand side A-frame tube.

NOTE: If the A-Frame Gooseneck Hitch assembly is being used, install the 2 hose extensions provided to the hoses that lead to the tractor. Tabs are located to the inside of the left-hand tube to secure the hydraulic hoses. If dual hydraulics are being used, additional hose extensions need to be purchased. See "A-Frame Gooseneck Hitch" components in the PARTS section for hoses required.

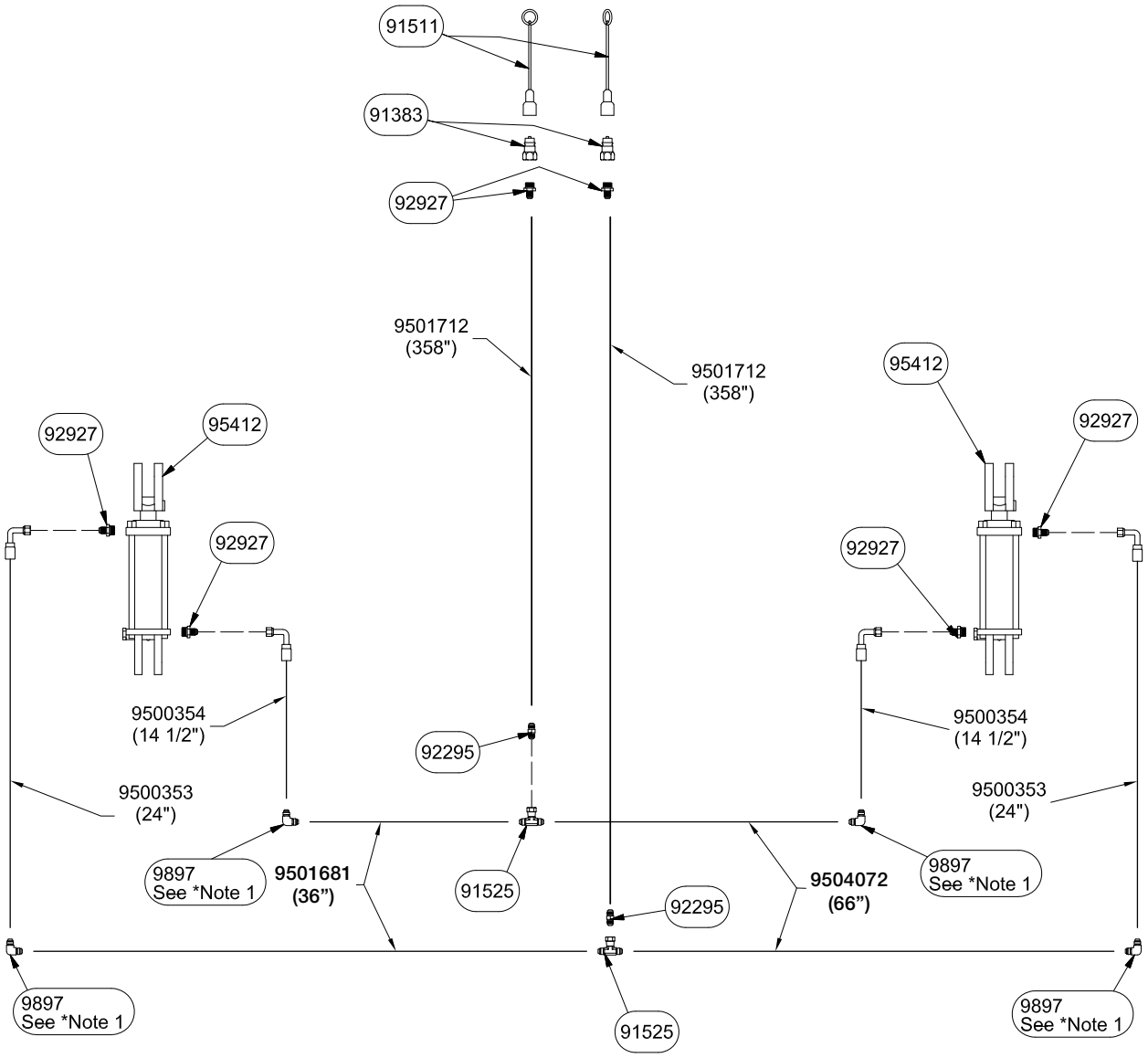
NOTE: Refer to the "HOSE ROUTING DIAGRAMS" for routing and positioning of the hydraulic components onto the frame.

NOTE: Refer to the PARTS section for fitting type, hose size, and length required.

NOTE: Refer to Purging A Hydraulic System in this section for purging instructions and warnings after assembly of the hydraulic components is completed.

Hydraulic Assembly (continued)

Hose Routing Diagram For Base Models



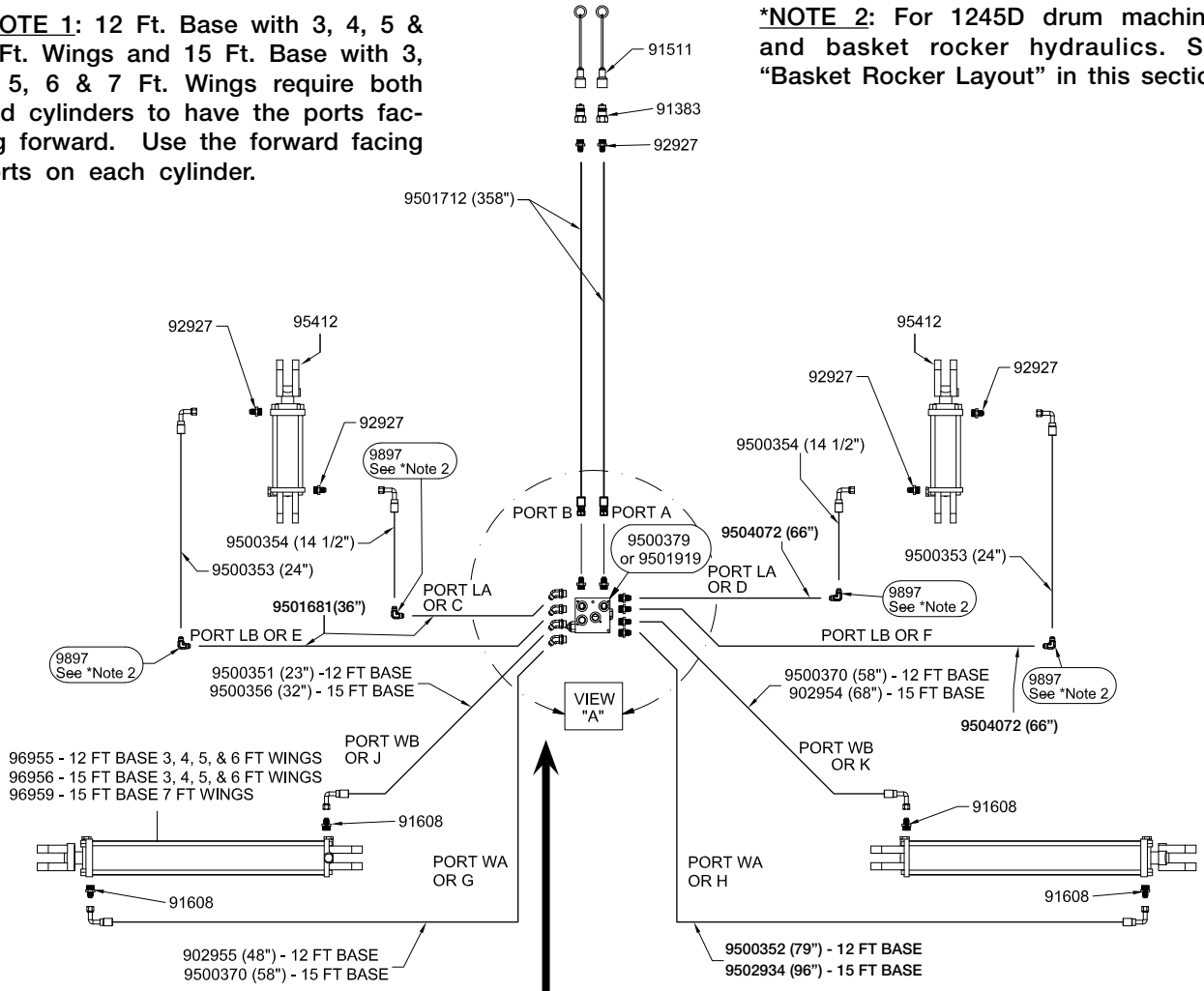
*NOTE 1: For 1245D drum machines and basket rocker hydraulics. See "Basket Rocker Layout" in this section.

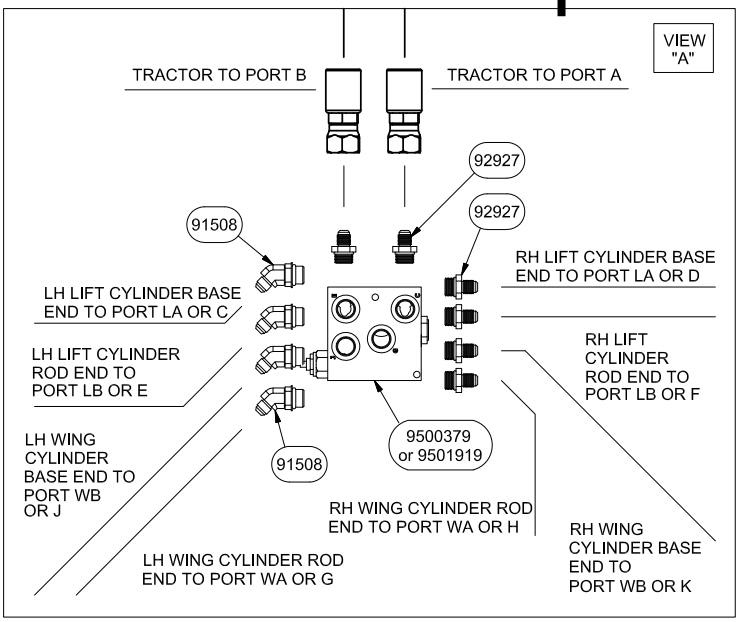
Hydraulic Assembly (continued)

Hose Routing Diagram For Flat & Vertical Fold Models

*NOTE 1: 12 Ft. Base with 3, 4, 5 & 6 Ft. Wings and 15 Ft. Base with 3, 4, 5, 6 & 7 Ft. Wings require both fold cylinders to have the ports facing forward. Use the forward facing ports on each cylinder.

*NOTE 2: For 1245D drum machines and basket rocker hydraulics. See "Basket Rocker Layout" in this section.



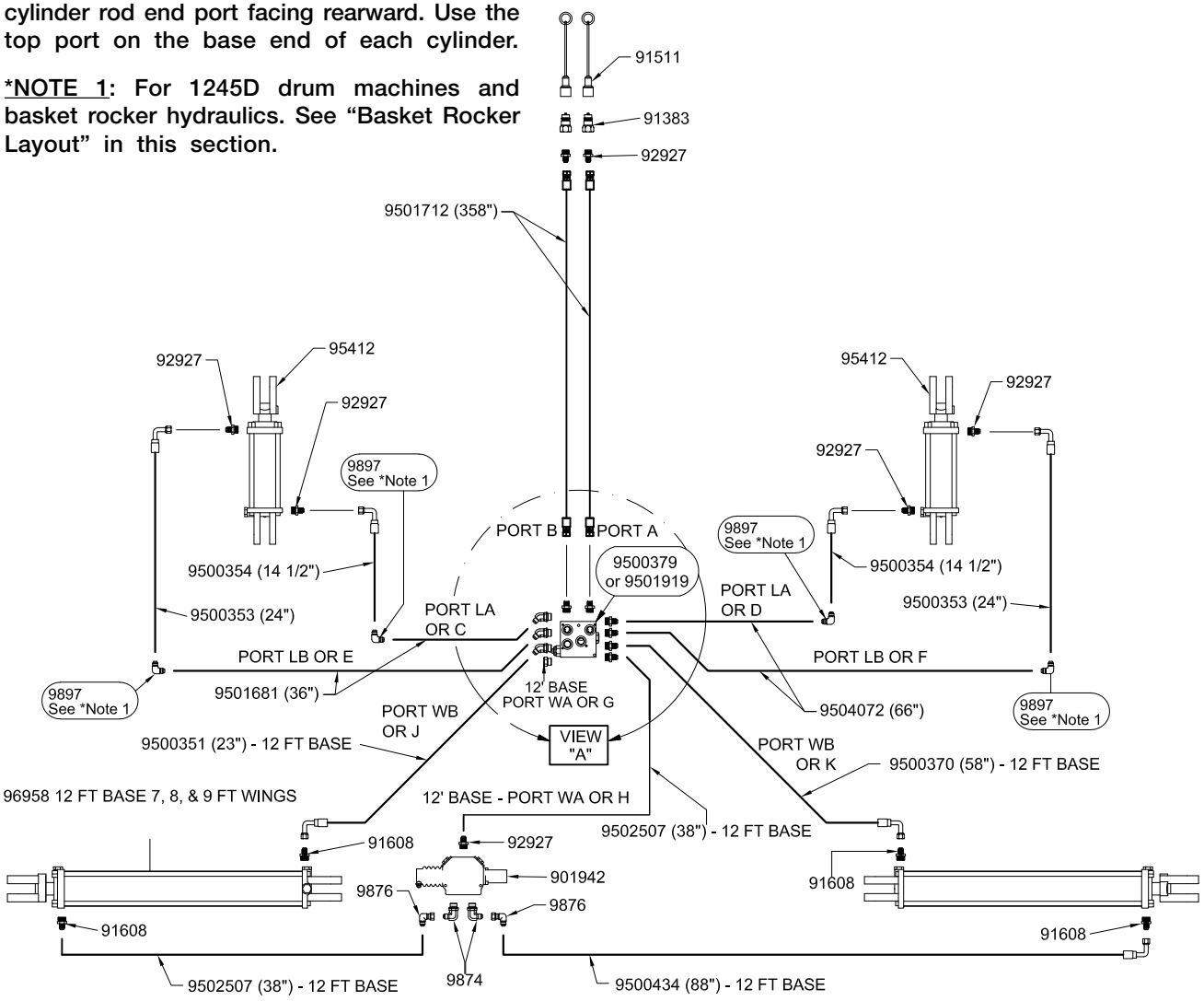


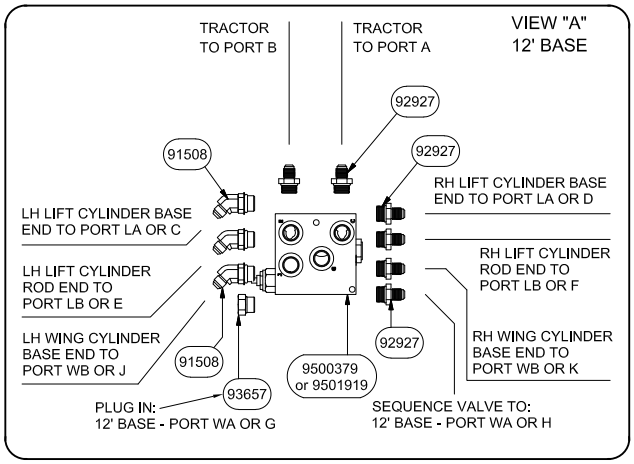
Hydraulic Assembly (continued)

Hose Routing Diagram For Stack Fold Models

NOTE: 12 Ft. Base with 7, 8 & 9 Ft. Wings require the left-hand fold cylinder rod end port facing forward and the right-hand fold cylinder rod end port facing rearward. Use the top port on the base end of each cylinder.

***NOTE 1: For 1245D drum machines and basket rocker hydraulics. See "Basket Rocker Layout" in this section.**



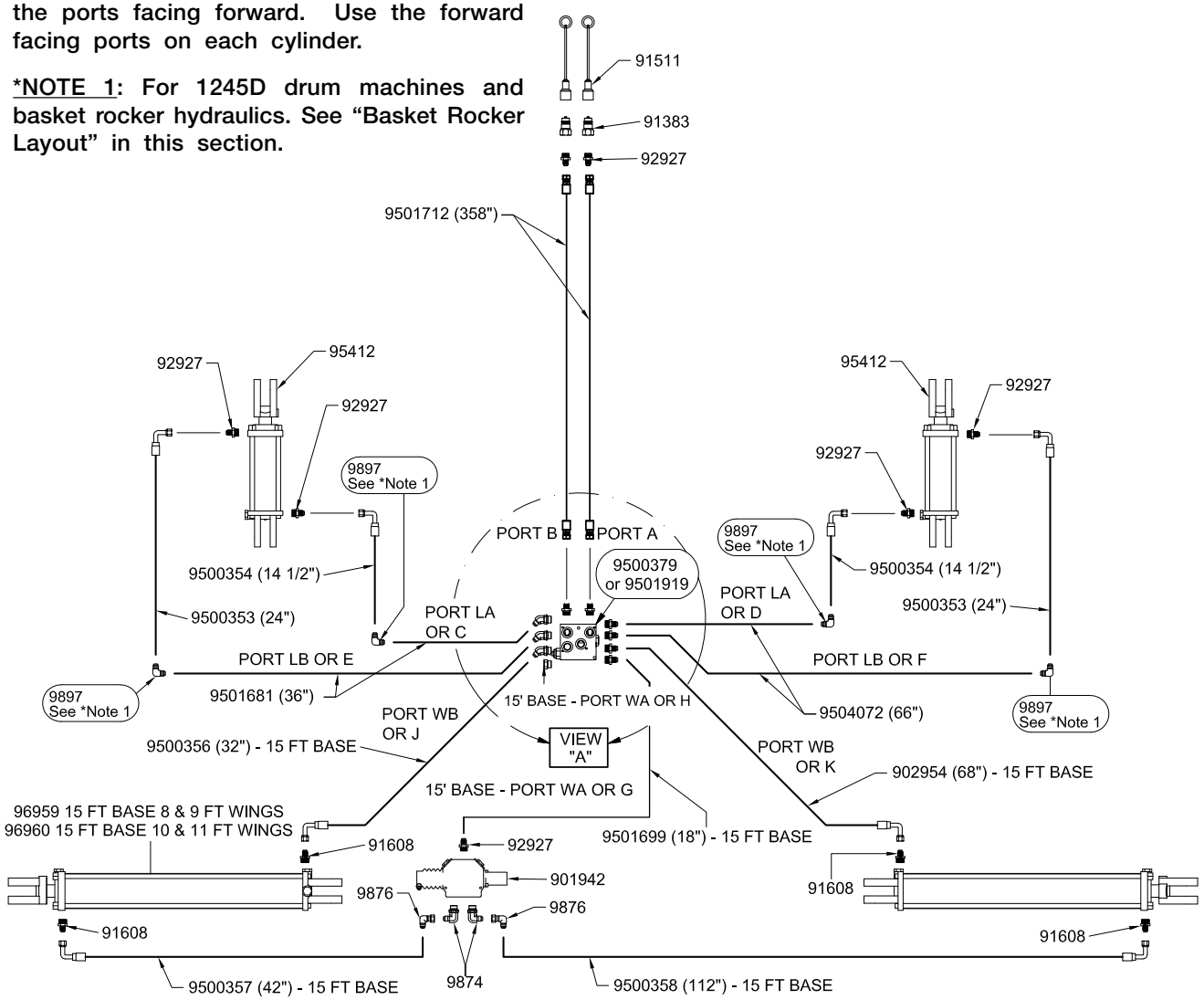


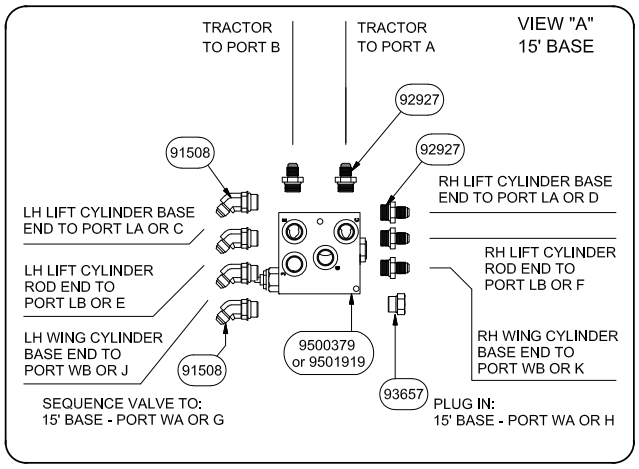
Hydraulic Assembly (continued)

Hose Routing Diagram For Stack Fold Models

NOTE: 15 Ft. Base with 8, 9, 10 & 11 Ft. Wings require both fold cylinders to have the ports facing forward. Use the forward facing ports on each cylinder.

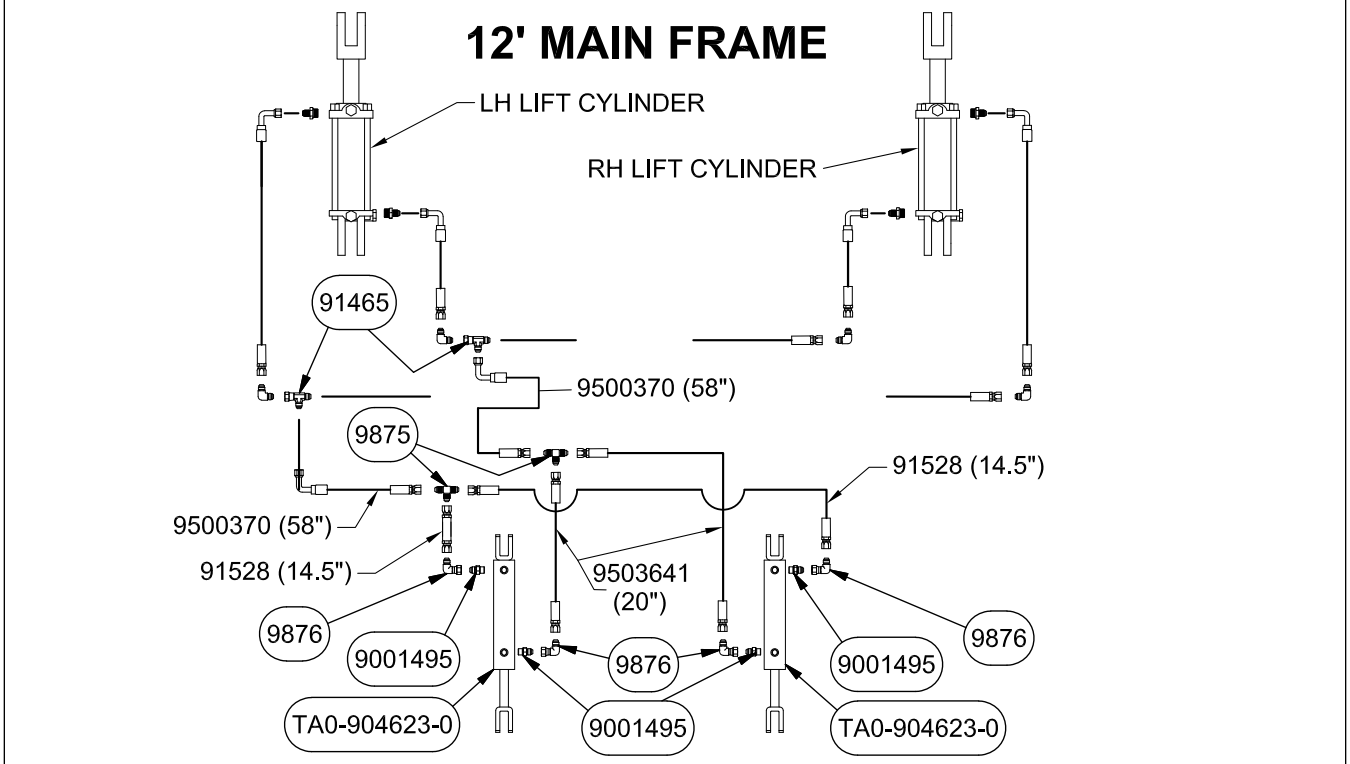
***NOTE 1: For 1245D drum machines and basket rocker hydraulics. See "Basket Rocker Layout" in this section.**

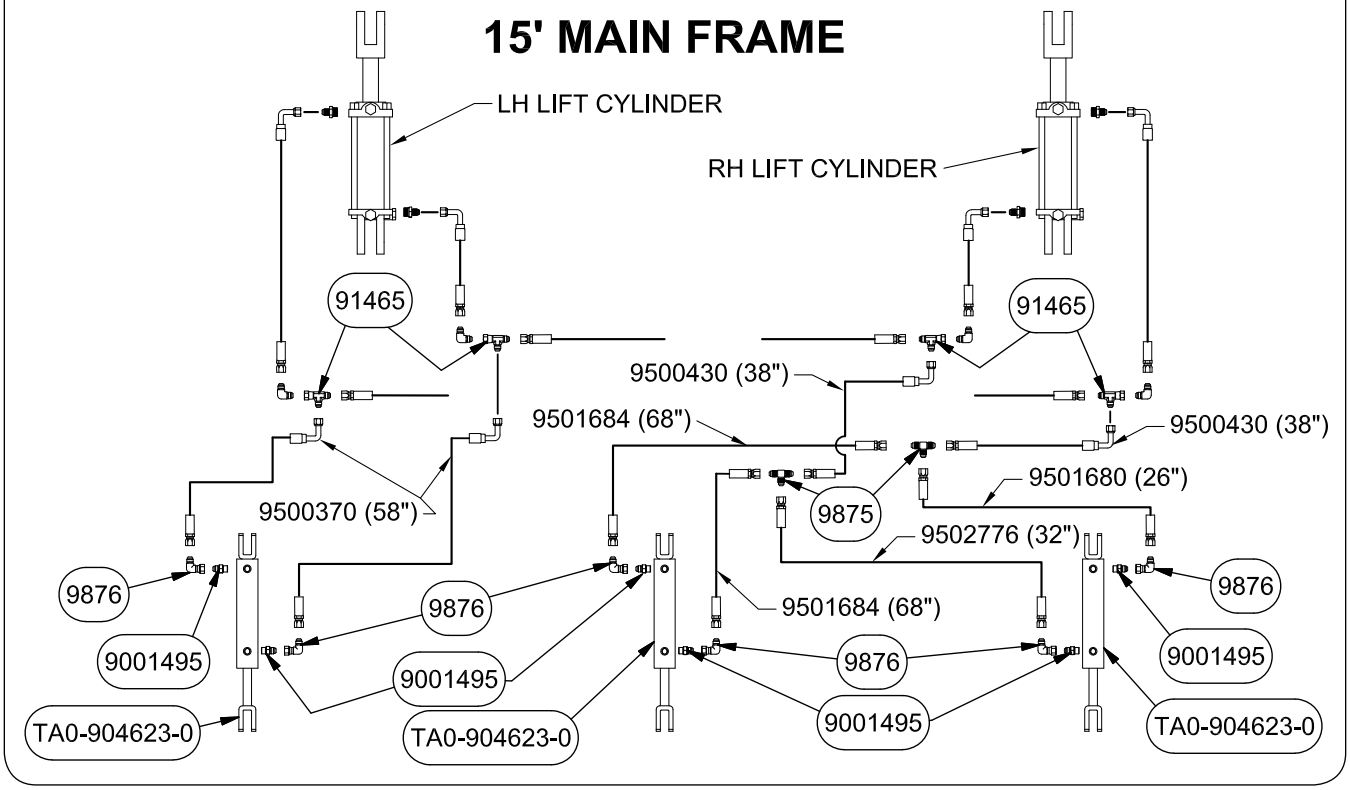




Hydraulic Assembly (continued)

Hose Routing Diagram For 1245D Drum Units — Basket Rocker Layout





Hydraulic Assembly (continued)

2. With the wings unfolded and all hydraulic hoses assembled, install hose wrap (75884) to each hinge area. Wrap all hoses passing through the hose retaining ring and center wrap on the ring. Use cable ties (94037) to fasten the hose wrap on the ends and 3”-4” on each side of the ring.

Purging A Hydraulic System

⚠ WARNING

- **RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR’S MANUAL FOR PROPER PROCEDURES.**

- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.**

3. Purge air from system as follows:

   A. Clear all personnel and objects from the area, including where the machine will have full range of motion during the hydraulic movement. Remove transport locks from the machine.
   B. Pressurize the system and maintain the system at full pressure for at least 5 seconds after the cylinder rods stop moving, or hydraulic motors have completed the required movement. Check that all movements are fully completed.
   C. Check oil reservoir in the hydraulic power source and refill as needed.
   D. Pressurize the system again to reverse the motion of step B. Maintain pressure on the system for at least 5 seconds after the cylinder rods stop moving, or hydraulic motors have completed the required movement. Check that all movements are fully completed.
   E. Check for hydraulic oil leaks using cardboard or wood. Tighten connections according to directions in the Torque Specifications in the MAINTENANCE section.
   F. Repeat steps in B, C, D, and E 10-12 times.

Hydraulic System

Cylinder Pin Installation

NOTE: Before installing the rod end cylinder pin. See the "Purging Hydraulic System" on previous page.

1. For all machines, connect wheel lift cylinder rod ends to lugs on rockshaft with 1" dia. x 3 3/4" pins (85632) and 1/4" dia. x 1 7/8" spiral pins (91144-165) (FIG. 2-29).

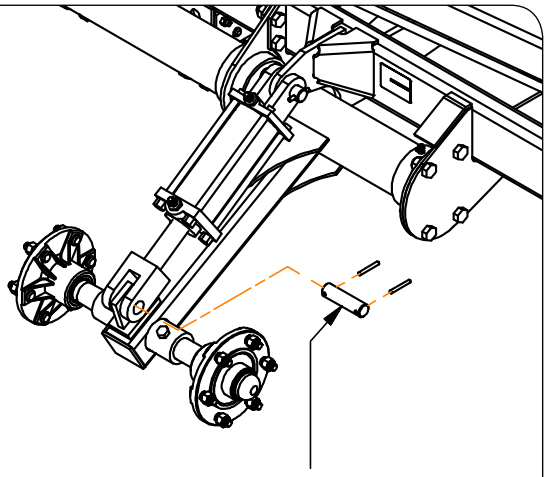
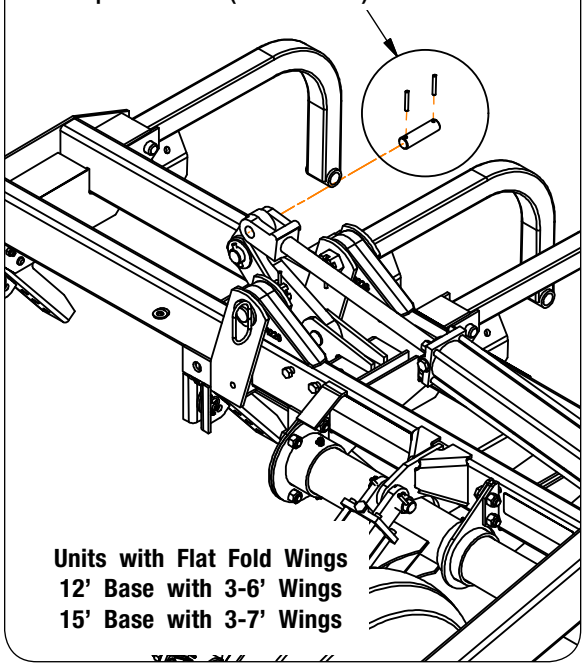


FIG. 2-29

2. Attach the rod end of the wing fold cylinder to the arm/fold linkage using 1" dia. pins (3 3/4" long-85632 for FLAT FOLD WINGS & 4" long-85631 for STACK FOLD WINGS) and 1/4" dia. x 1 7/8" spiral pins (91144-165) from the hydraulic wing parts bundle (FIG. 2-30).

FIG. 2-30



Hydraulic System (continued)

3. Raise unit and fully fold wings. Check clearances for hoses, wing transport wheels, etc. Check that wings sit on rest stands when folded and that wing fold linkage is not under tension when wings are fully folded. Adjust cylinder clevises if necessary so the cylinders do not load linkage when wings are fully folded.

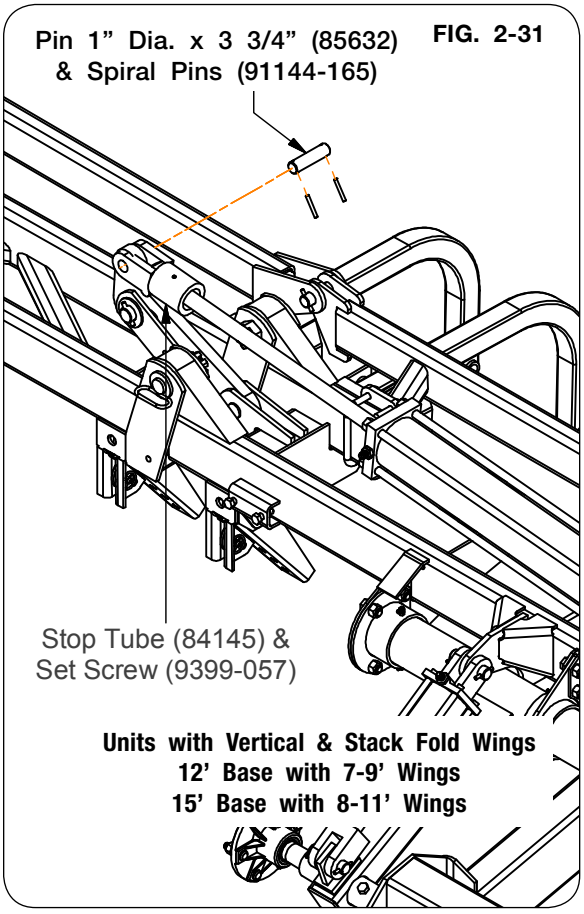


FIG. 2-31

Hydraulic System (continued)

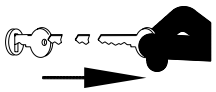
Sequence Valve Shim Kit #74669

For 12’ Base with 7’, 8’, 9’ Wings

For 15’ Base with 8’, 9’, 10’, 11’ Wings

NOTE: In some cases it may be necessary to add a shim kit to the left hand-wing actuator plate for activation of the wing fold sequence valve.

1. Park the unit on a firm, level surface. Unfold the wings to field working position and lower the machine to the ground. Set the vehicle parking brake, shut off the engine and remove the ignition key.



2. Locate the actuator plate on the left-hand wing.

NOTE: Depending on the wing size, there may be more than one plate.

3. If the actuator plate does not have bolt holes, use a shim as a template to locate and drill two 7/16” holes. Align the edge of the shim plate with the outer edge of the wing actuator plate (FIG. 2-32).

4. Install the thin shim 74667B using the hardware provided on top of the actuator plate (FIG. 2-32).

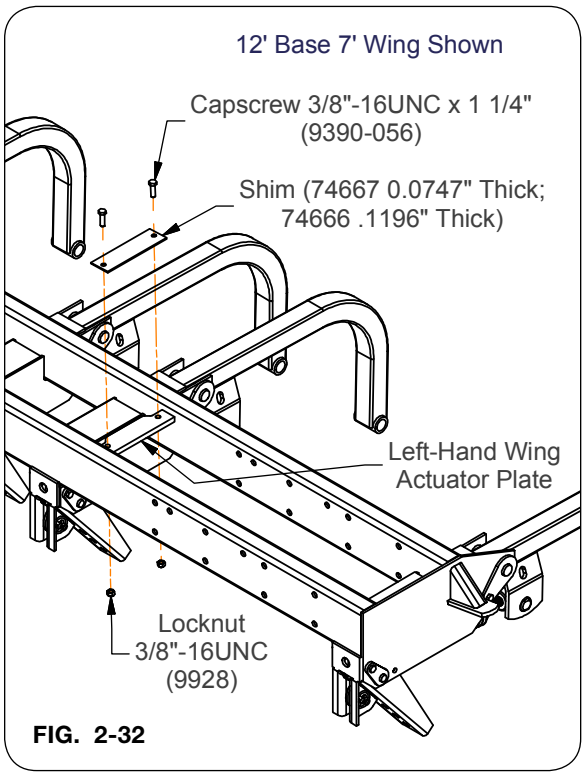


FIG. 2-32

Hydraulic System (continued)

5. Fold the unit to confirm the shim contacts and activates the sequence valve (FIG. 2-33).

6. If the sequence valve does not activate, replace 74667B with shim 74666B using the hardware provided. Fold the unit to confirm the shim contacts and activates the sequence valve.

7. If the sequence valve does not activate, install both shims and repeat.

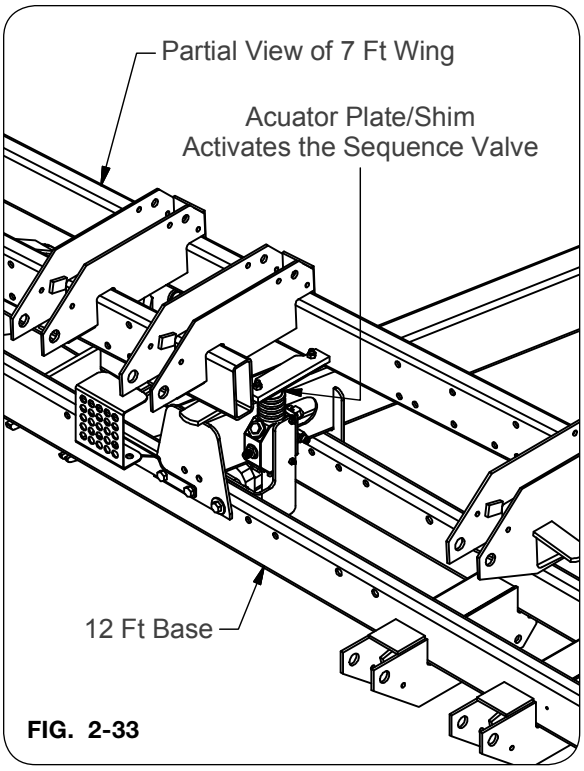
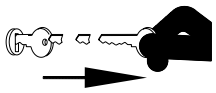


FIG. 2-33

Units with Truss Kit

1. With the U-bolts loose enough to allow the trusses to slide, connect the Rolling Harrow to a tractor and fold/unfold the wings on the machine to allow the truss hinge to align with the wing hinge.



2. Set the parking brake, shut the tractor engine off and remove the ignition key.

3. Tighten all truss hardware

Drum Scraper Assembly

WARNING

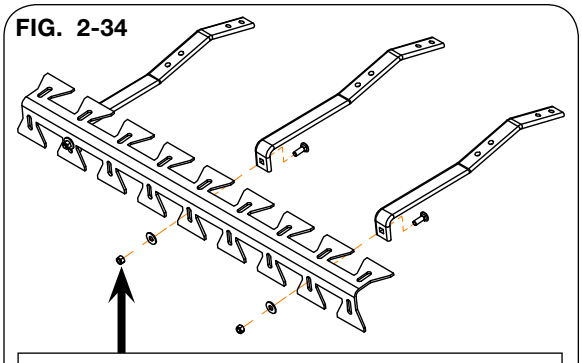
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.**

1. Locate scrapers, bar mounts and hardware bags.
2. Install arm (76015B) to scraper using 1/2"-13UNC x 1 1/2" carriage bolts (9388-104) passing bolt through arm first. (FIG. 2-34)

NOTE: 3' baskets require 2 bar mounts.
4' baskets require 2 bar mounts.
5' Baskets require 3 bar mounts.
6' baskets require 4 bar mounts.

3. Install 1/2" flat washers (9405-088) and 1/2"-13UNC locknuts (9800) on scraper. (FIG. 2-34)
4. Slide arm all the way to the bottom of the scraper slot.
5. Lay bar mounts/scraper assembly on top of basket frame near working position. (FIG. 2-35)
6. Install U-bolts (901837) from bottom of basket frame through arm. (FIG. 2-35)
7. Center notch in scraper over ribs on drums and secure scraper assembly with four 1/2"-13UNC locknuts per bar mount. (FIG. 2-36)
8. Adjust scraper down to within 1/8" of the drum by loosening the locknuts on the carriage bolts, re-position scraper and secure with locknuts. (Some conditions may require the scraper to touch the drum to effectively scrape. Keep contact pressure to a minimum to prevent excessive wear to the scraper or drum.) Torque locknuts, refer to Torque Chart in MAINTENANCE section.

FIG. 2-34



Bar Mounts (76015B), Scraper, Carriage Bolts (9388-104), Flat Washers (9405-088), & Locknuts (9800)

U-Bolts (901837) & Locknuts (9800)

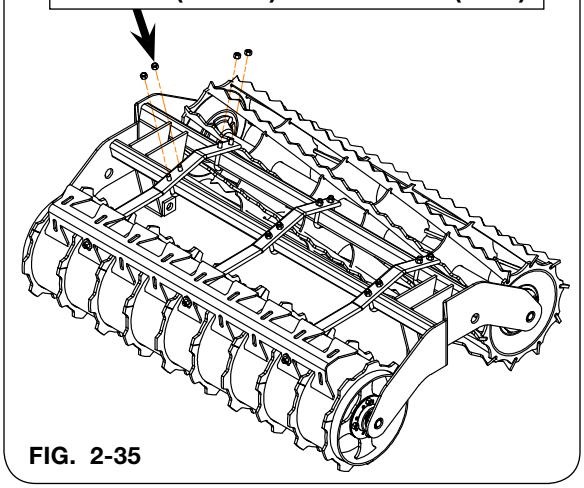
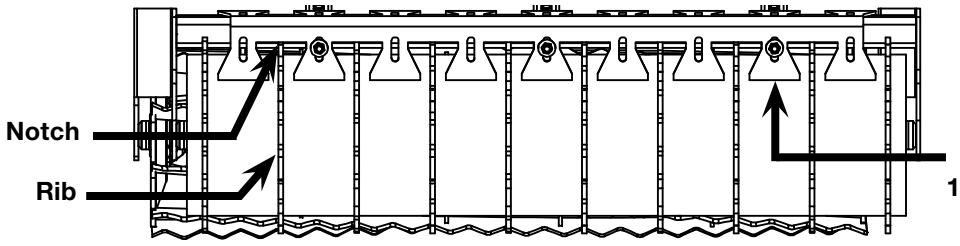


FIG. 2-35

Center Notch In Scraper Over Ribs On Drum Roller

FIG. 2-36



Drum/Basket & Frame Assemblies

⚠ WARNING

- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.**
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 750 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

1. Connect the Rolling Harrow implement to a tractor. Raise the machine, but keep the wings unfolded. Install transport locks on main frame axle cylinders. Block the wings to remain level with the main frame. Lower machine onto transport locks and blocking. Relieve hydraulic oil pressure, see the power unit Operator's Manual for the proper procedure. Block the wheels on the machine to keep it from moving. Set the vehicle parking brake, shut off the engine and remove the ignition key.

2. Locate in parts box/crate (77726B) the rubber basket/arm pivot covers (88826). There is a rubber cover for each basket mounting arm on the machine. Install rubber basket arm pivot covers over bent arms. See FIG. 2-37.

3. Locate in the parts box (12' Base - 76543B; 15' Base - 76556B) the 1" Dia. x 8 1/8" basket mounting pins (9501583) and 5/16" Dia. x 2" spiral pins (91144-186). Locate in the parts box/crate (77726B) the 1" Dia. x 5 1/8" basket mounting pins (9500423) and 5/16" Dia. x 2" spiral pin (91144-186).

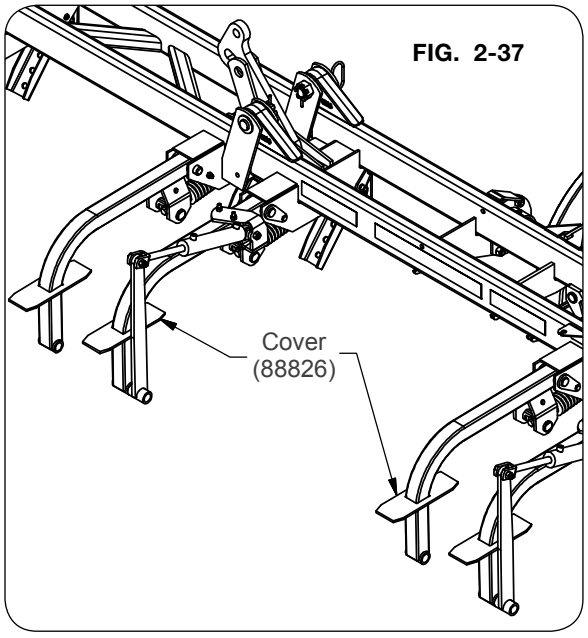


FIG. 2-37

Drum/Basket & Frame Assemblies (continued)

4. Using a safe lifting device rated at 750 lbs. minimum, lift basket assembly into position on the mounting arms. Identify baskets and mating wings using Table 2-4, FIG. 2-38, and FIG. 2-39. Units with drums have the drums mounted to the rear. Install the basket mounting pins and spiral pins. Also install attach the scrapers to the drum/basket frames with the U-bolts (901837) and 1/2"-13UNC locknuts (9800) provided.

NOTE: When tightening the u-bolts for the scrapers, leave the same amount of threads exposed. Over tightening the nuts could result in excessive flex of the scraper arm which may affect the adjustment.

5. Repeat for each drum/basket assembly.

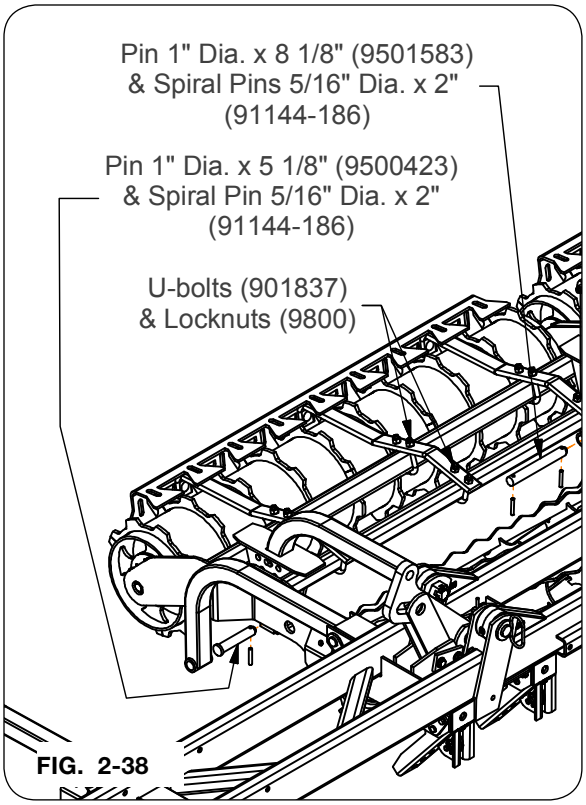
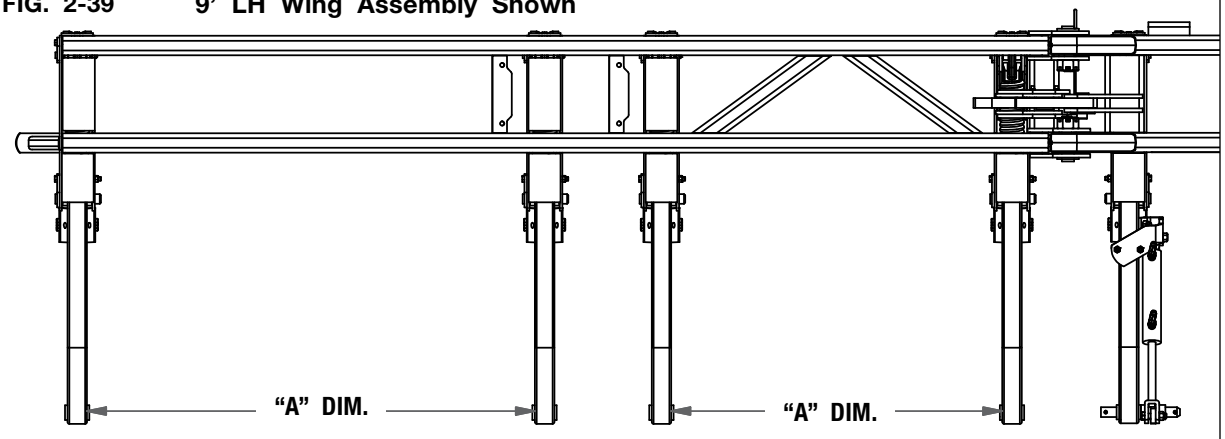


FIG. 2-38

TABLE 2-4		
"A" DIM. (FIG. 2-39)	BASKET WIDTH	FRAME WIDTH
22"	3'	35"
34"	4'	47"
46"	5'	59"
58"	6'	71"

FIG. 2-39 9' LH Wing Assembly Shown



Basket & Frame Assemblies

⚠ WARNING

- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.**
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 600 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

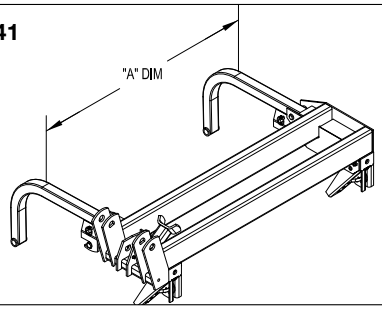
1. Connect the Rolling Harrow implement to a tractor. Raise the machine, but keep the wings unfolded. Install the transport locks on the main frame axle cylinders. Block the wings to remain level with the main frame. Lower the machine onto the transport locks and blocking. Relieve the hydraulic oil pressure, see the power unit operator's manual for the proper procedure. Block the wheels on the machine to keep it from moving. Set the vehicle parking brake, shut off the engine and remove the ignition key.
2. Locate in the base parts box and wing parts box the rubber basket/arm pivot covers (88826). There is a rubber cover for each basket mounting arm on the machine. Install the rubber basket arm pivot covers over the bent arms (FIG. 2-40).

FIG. 2-40

3. Locate in the base parts box and wing parts box, the 1" dia. x 5 1/8" basket mounting pins (9500423) and 5/16" dia. x 2" spiral pin (91144-186) (FIG. 2-41).

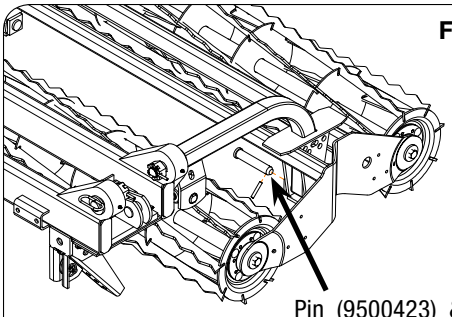
TABLE 2-5		
"A" DIM. (FIG. 2-41)	BASKET WIDTH	FRAME WIDTH
22"	3'	35"
34"	4'	47"
46"	5'	59"
58"	6'	71"

FIG. 2-41



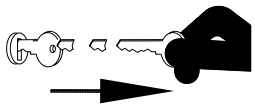
4. Using a safe lifting device rated at 350 lbs. minimum, lift the basket assembly into position on the mounting arms. Identify the baskets and mating wings using Table 2-5 and FIG. 2-42. Position the aggressive basket forward unless instructed otherwise. Install the basket mounting pins and spiral pins.
5. Repeat for each basket assembly.

FIG. 2-42



Jack Assembly

1. Connect Rolling Harrow implement to tractor using 1” diameter hitch pin with locking pin. Lower unit so it rests on tractor drawbar, Rolling Harrow baskets, and tires. Shut off tractor, set the parking brake, and remove the ignition key.



⚠ WARNING

- **TO PREVENT MACHINE FROM TIPPING BACKWARDS, UNIT MUST BE HOOKED TO TRACTOR.**

2. Remove the four 5/8”-11UNC x 1 1/4” capscrews (9390-121) and locknuts (9801) from the base frame.

3. Assemble jack arm weldment to the center of the base frame as shown in FIG. 2-43 or FIG. 2-44. Retain into position with previously removed hardware.

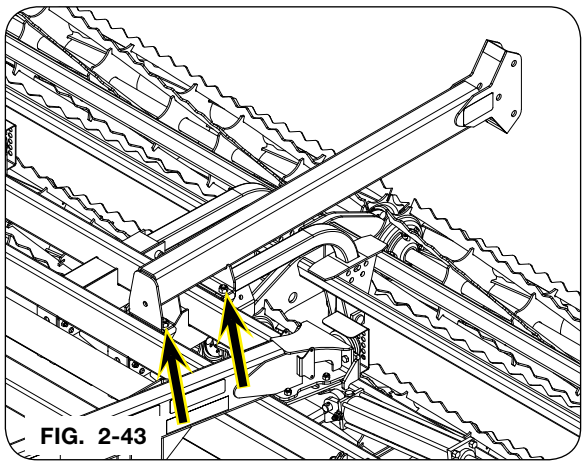
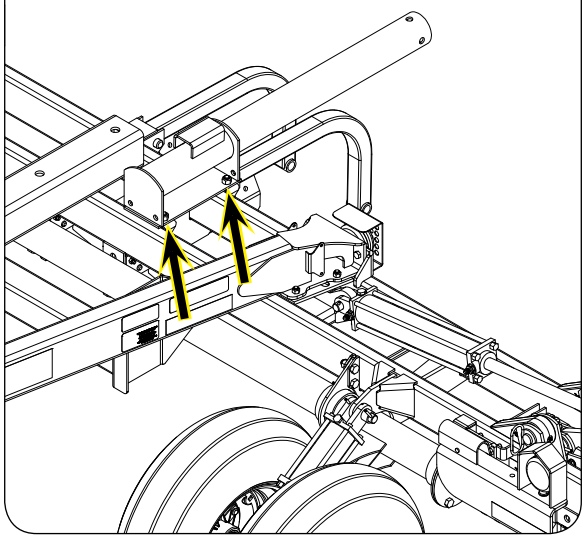


FIG. 2-43

FIG. 2-44



Jack Assembly (continued)

3. Locate hitch pin (97035), 3/4”-10UNC x 4 1/2” capscrew (9390-154), and 3/4”-10UNC locknut (9802). (FIG. 2-45)

4. Attach the jack mount weldment to the jack arm weldment with 3/4”-10UNC x 4 1/2” capscrew (9390-154) and 3/4”-10UNC locknut (9802). Rotate jack mount weldment until jack is horizontal and secure with hitch pin (95035) (FIG. 2-45).

   or

   Attach the jack mount weldment to the jack arm weldment with hitch pin (95035) (FIG. 2-46).

5. Attach the jack to the jack mount weldment (77698B) with 5/8”-11UNC x 3 1/4” capscrew (9390-129) and 5/8”-11UNC locknut (9801) (FIG. 2-45 or FIG. 2-46).

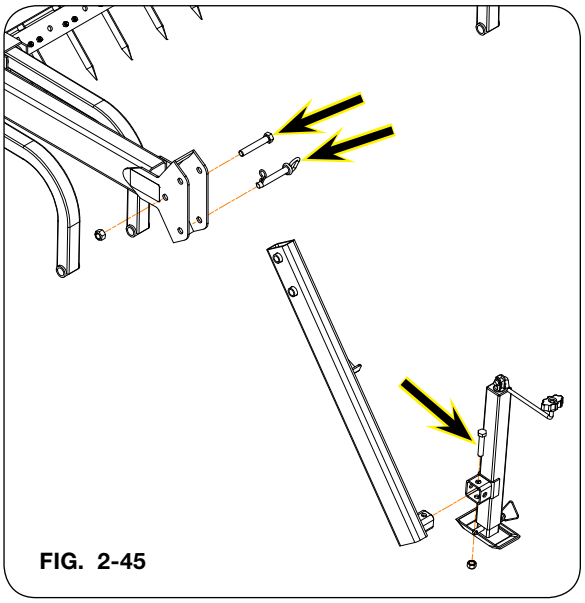


FIG. 2-45

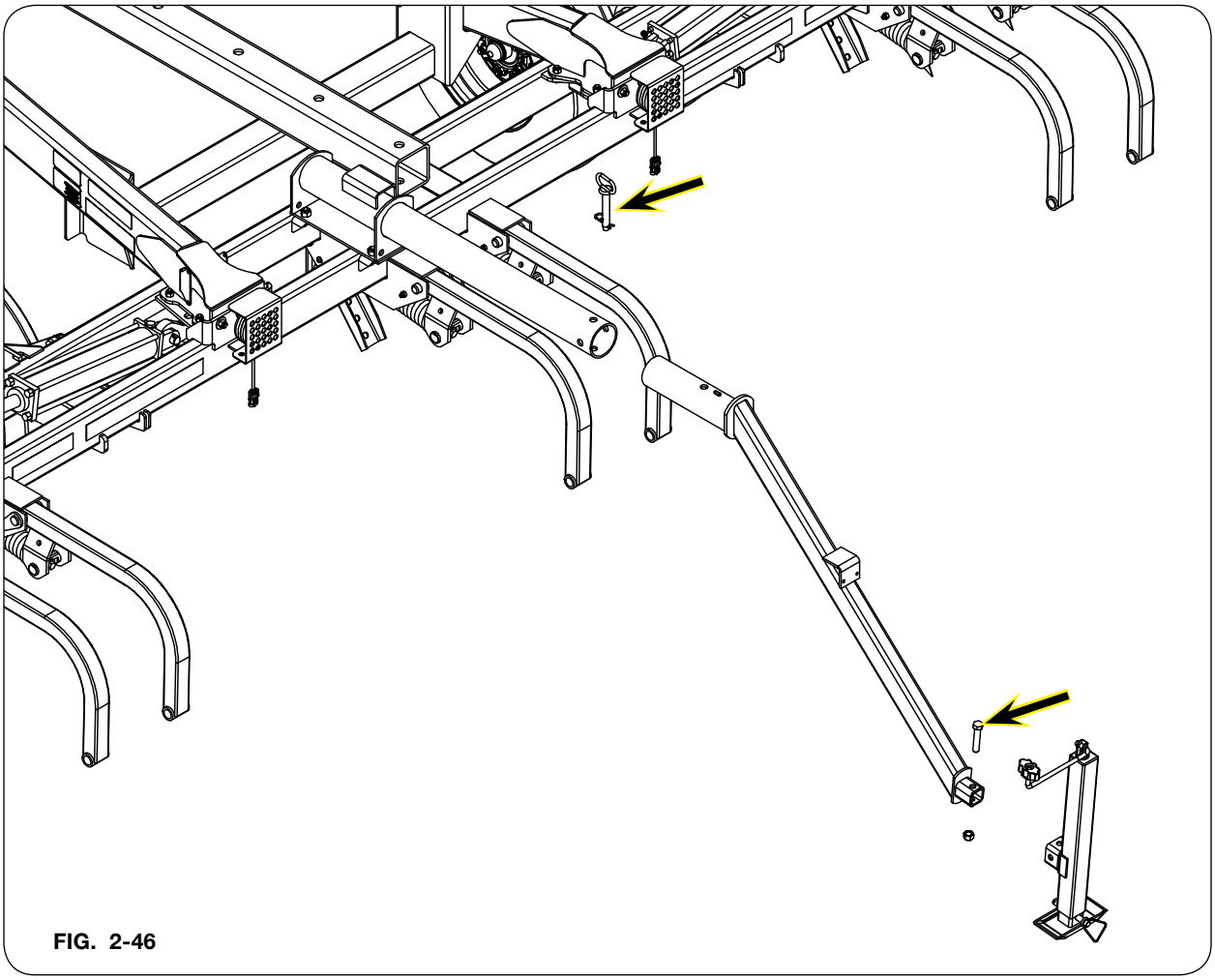
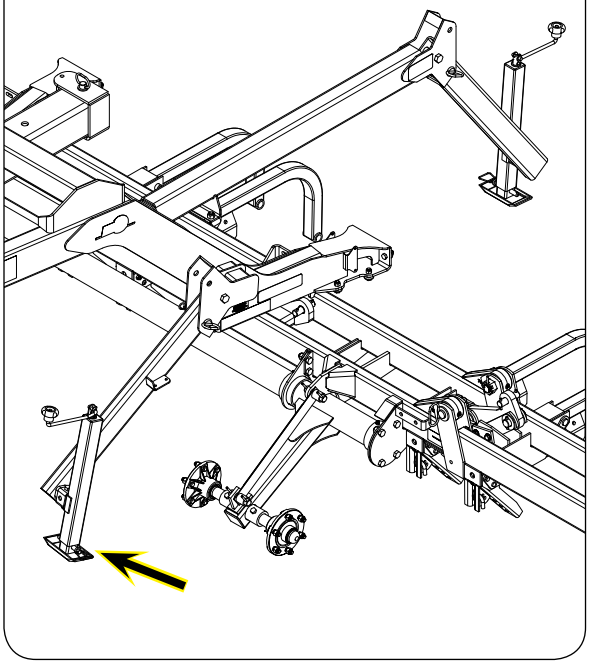


FIG. 2-46

Jack Assembly (continued)

If the gooseneck hitch assembly is being used, gradually release the safe lifting device retaining the hitch. If the rear jack assembly raises off the ground, then a second jack needs to be purchased (kit #77813B). Assemble the second jack to the front of the gooseneck hitch assembly (FIG. 2-47).

FIG. 2-47



SMV Emblem

1. Obtain strap (81952B) from base frame parts bundle, along with 1/4”-20UNC x 1” capscrews (9390-005) and locknuts (9936). Mount to bracket on jack stand mount (FIG. 2-48 or FIG. 2-49).

2. Get SMV emblem, two 1/4”-20UNC x 3/4” capscrews (9390-003), 1/4” flat washers (9405-066), and 1/4”-20UNC locknuts (9936) from base frame parts box (FIG. 2-48 or FIG. 2-49). Install SMV to strap (81952B) on jack bracket. Orient SMV so point is to top when jack is rotated to transport position.

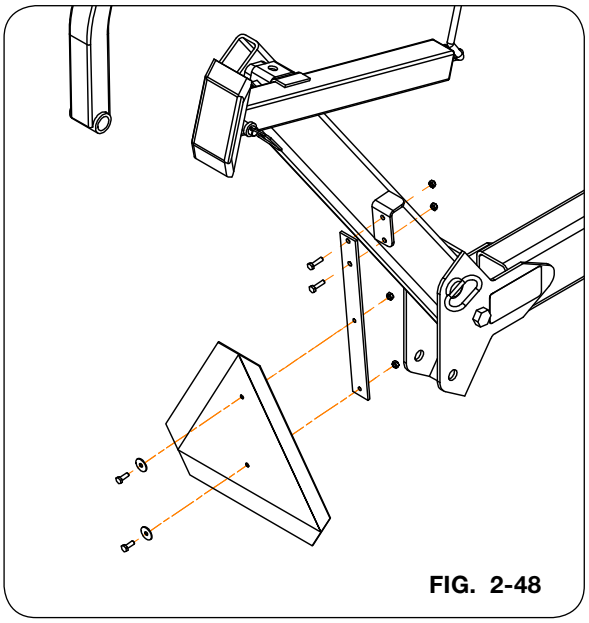


FIG. 2-48

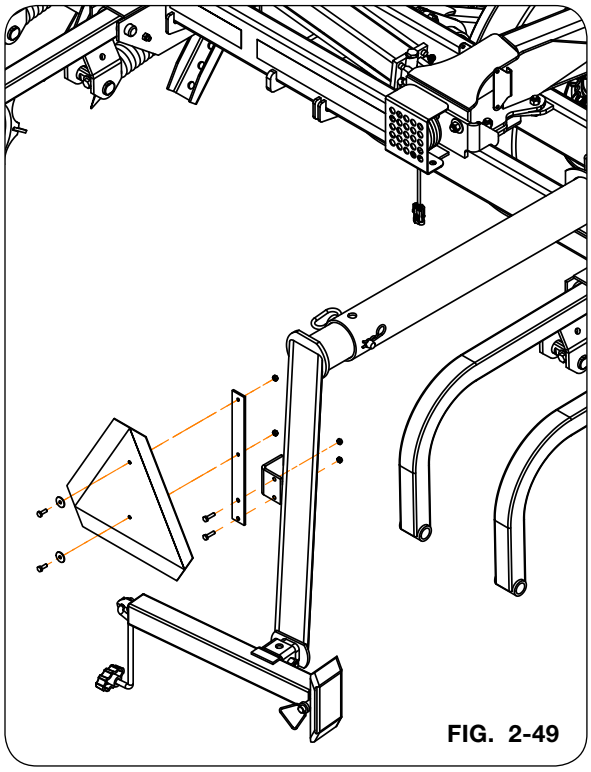


FIG. 2-49

Hose Holder

1. Locate hose holder (79337B), 1/2”-13UNC x 6 1/2” capscrew (9390-116), 1/2” flat washer (9405-088) and 1/2”-13UNC locknut (9800) in the hydraulic base parts bundle. Locate and remove hose holder (902979B), 1/2”-13UNC x 1 3/4” capscrew (9390-102), 1/2” flat washer (9405-088) and 1/2-13UNC locknut (9800) attached to the front of the hitch assembly. Assemble parts onto hitch (FIG. 2-50).

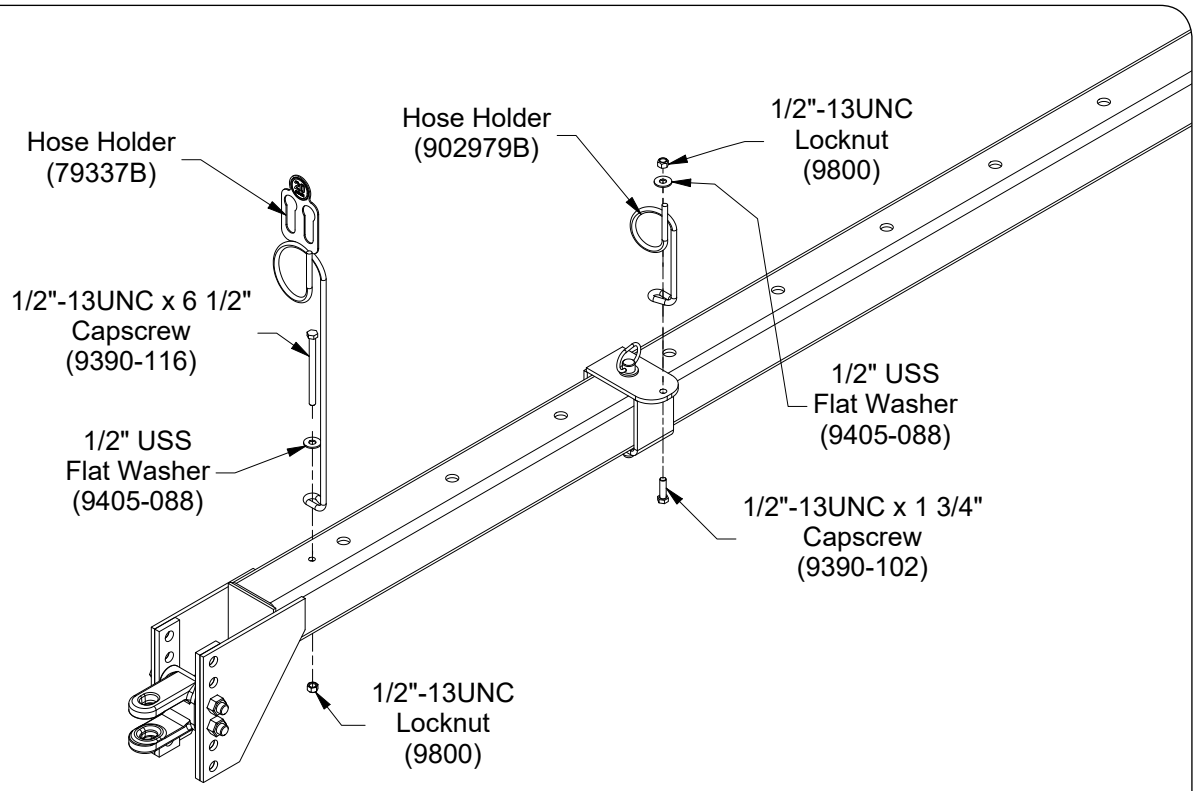


FIG. 2-50

Transport Marking & Light Kit (77732B)

Before installing this kit, lower machine completely to the ground and block securely. Set parking brake on tractor, release any pressure in hydraulic system, and shut tractor engine off.

NOTE: Unverferth Manufacturing has designed the transport lighting and marking kit to meet United States federal law and ASABE standards at the time of manufacture. Machine modifications, including additional features or changes to the intended configurations, may require updates to the lighting and marking as well.

Compliance with all lighting and marking laws is the responsibility of the operator at the time of travel.

See federal regulation 49 CFR 562; available at www.govinfo.gov for US federal law requirements.

See your Unverferth dealer for additional brackets, reflectors, or lights to meet your requirements.

Front, rear, left, and right are determined from the tractor operator's seat, facing the direction of travel.

Lights

1. Secure the red round light (9003877) and light protector bracket (73338B), with the red lens facing the rear, to the bracket using 1/2"-20UNC nut provided with the light. Be careful not to overtighten and damage light. Use same procedure for both sides.

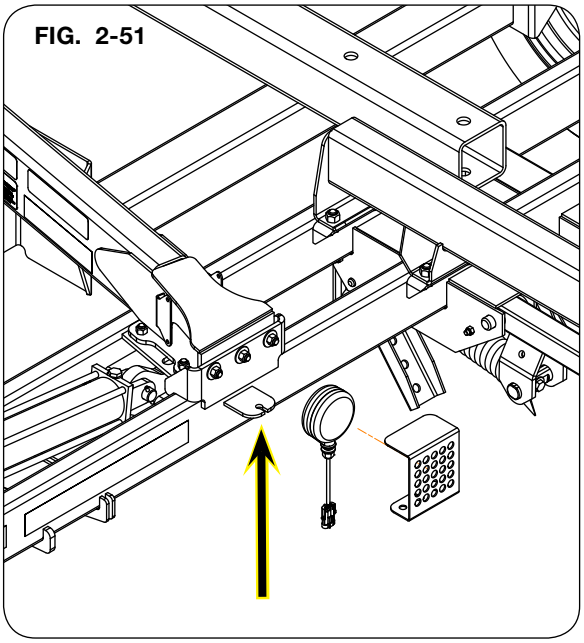


FIG. 2-51

Transport Marking & Light Kit (77732B) (continued)

2. Secure bracket (74117B Left-Hand) or (74116B Right-Hand) to frame using 1/2”-13UNC x 1 1/2” capscrews (9390-101) and 1/2”-13UNC locknuts (94981).

NOTE: Amber stripe on bracket must be visible from front of implement.

3. Secure double-sided amber light (9003876) to bracket using 1/2”-13UNC nut provided, be sure not to overtighten. Use same procedure for both sides.

NOTE: Make certain lights are clearly visible and no hoses or other components obstruct view of lights from the rear of machine.

NOTE: Amber lens must always be to the outside of implement.

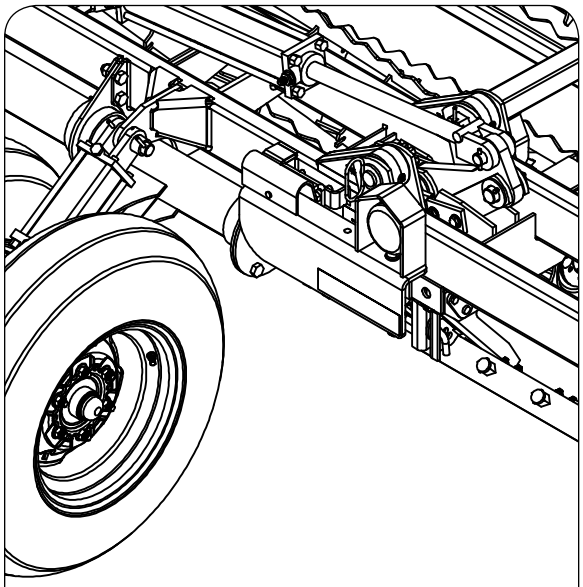


FIG. 2-52

SIS Decal

1. Attach plate with SIS decal (79340B) to the rear of the main frame and 8 1/2” to the right of center using a 1/4”-20UNC u-bolt (9503592) and two 1/4”-20UNC locknuts (9936). (FIG. 2-53)

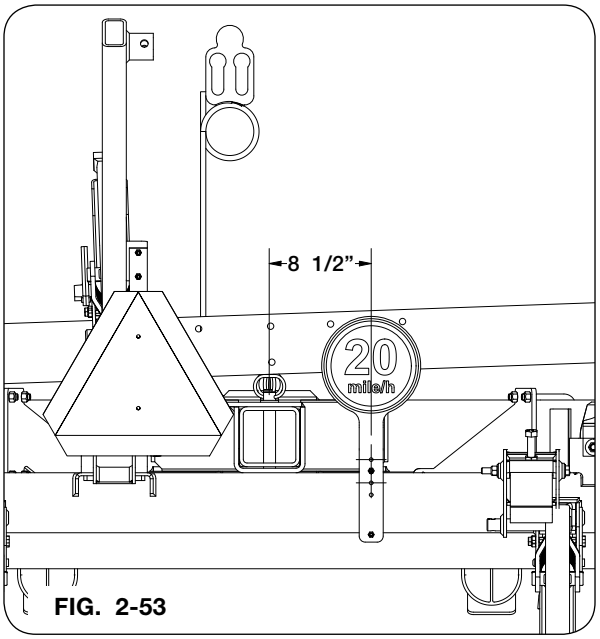


FIG. 2-53

Transport Marking & Light Kit (77732B) (continued)

Wiring Harness

When installing the harnesses, do not cut or break the wire coverings. Tie harnesses away from moving parts, such as cylinders and folding links. The wiring harnesses consist of four pieces, the main harness, the cross harness, and two extension harnesses.

The main harness has a 7-pin (round) plug conforming to SAE standards that connects to tractor or other towing vehicle. If your tractor or other towing vehicle does not have the mating socket connector, contact a respective dealer.

1. Route the main harness (89467) along the extendible tongue and the hitch frame. Allow sufficient slack at the hitch for the machine to turn (approximately 4 ft.).

2 Attach the wiring extension (86466 to the main harness (89467).

The cross harness (22790) connects to the 6 pin connector of the main harness, both red taillights, and the extension harnesses.

3. Route the legs labeled “R” to the right side of machine, and the legs labeled “L” to the left side.

4. Connect the three pin connectors on the cross harness to the 3 pin connectors on the red taillights.

5. Coil up any excess and secure harness to frame with cable ties.

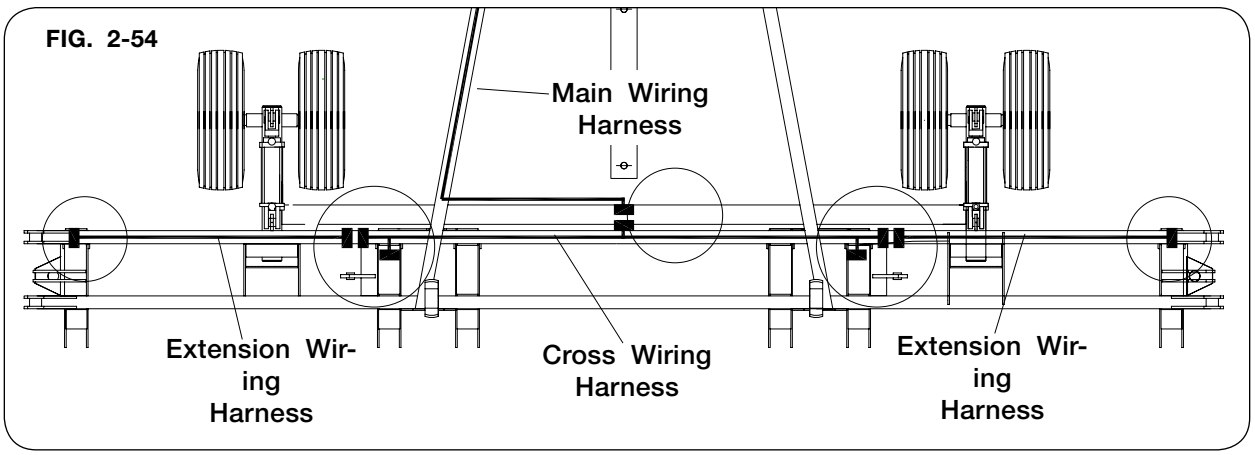
The extension harnesses (86421) connect the two pin connector of the cross harness to the two pin connectors on the amber extremity lights.

6. Route extension harnesses along the main frame and connect it to the amber extremity lights.

7. Tie the extension harnesses to the extremity light mounting bracket through the extra hole in the light bracket.

8. Coil up any excess and tie the remainder to the main frame with cable ties. Be sure to avoid contact with the fold cylinders, fold linkage, or any other moving parts.

FIG. 2-54



Wing Transport Wheels (Optional)
Available ONLY on 7, 8, 9, 10, 11 Ft. Wings

⚠ WARNING

- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 100 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

Assembly for the right-hand wing is shown, left-hand assembly is similar. The standard mounting is with the tires towards the outside of the wing. On 28' and 35' machines, the wing wheels require the tires towards the center of the machine.

1. Park machine on a firm level surface. Leave machine connected to a tractor. Lower machine to ground and unfold the wings. Depressurize the machine's hydraulic system, set the parking brake, shut off the engine, and remove the ignition key.

2. Using Table 2-6 below, determine the location of the mounting holes for the wing transport wheels for your machine.

TABLE 2-6

WING SIZE	12' BASE	15' BASE
7'	Inner Set	Outer Set
8'	22 1/2" from End	16 1/2" from End
9'	19 1/2" from End	25 1/2" from End
10'	-	28 1/2" from End
11'	-	25 1/2" from End

IMPORTANT

- *Mounting the wing transport wheel in the incorrect location may damage the machine.*

3. Using a safe lifting device rated at a minimum of 75 lbs., install axle and bracket assembly (87294B) to wing frame (FIG. 2-55). Retain with four 1/2"-13UNC x 3 1/4" capscrews (9390-108) on front bar, two 1/2"-13UNC x 3" capscrews (9390-107) on rear bar, and six locknuts (9800). Tighten all hardware.

Wing Transport Wheels (Optional) (continued)
Available ONLY on 7, 8, 9, 10, 11 Ft. Wings

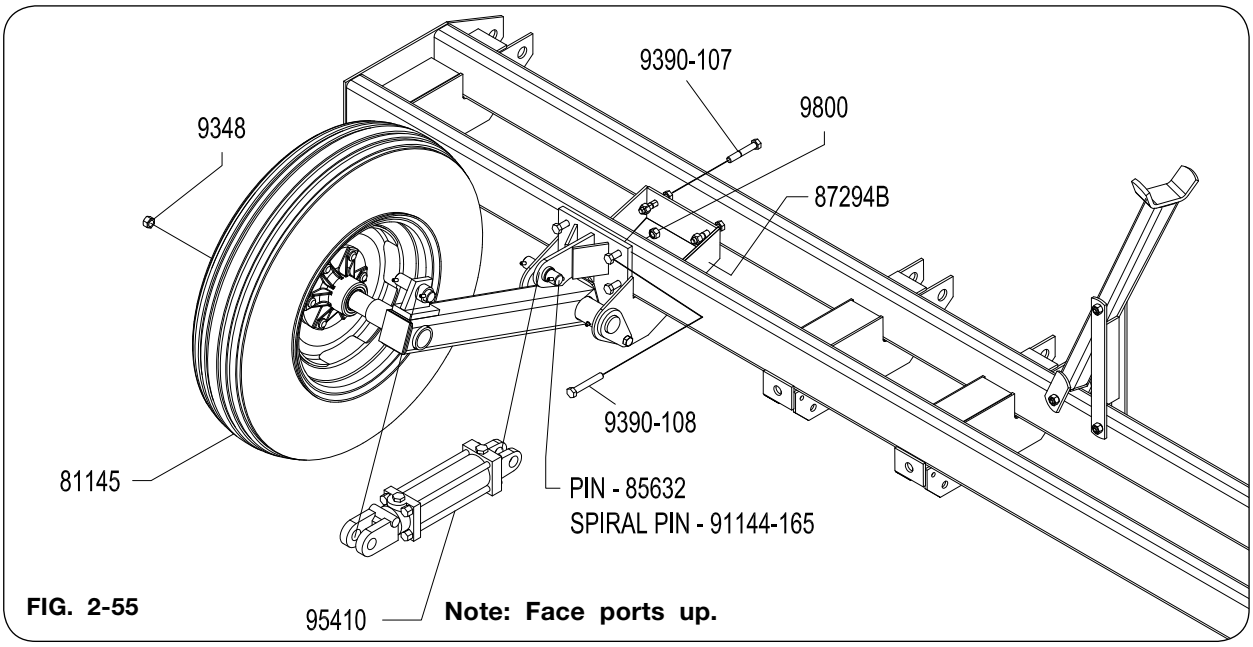


FIG. 2-55 **Note: Face ports up.**

4. Install tire and wheel assembly (81145) onto axle.

⚠ CAUTION

- **IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGULARLY. SEE TORQUE PAGE IN THE "MAINTENANCE" SECTION FOR PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.**

5. Measure the retracted length of the 2 1/2" x 6" wheel cylinder (95410) as shown in FIG. 2-56. Adjust to 16 1/4" center-to-center, if necessary.

6. Mount cylinder with ports facing the front of the machine. Connect base end of cylinder to lug on frame bracket using 1" dia. x 3 3/4" pin (85632) and 1/4" dia. x 1 7/8" spiral pins (91144-165). (FIG. 2-56)

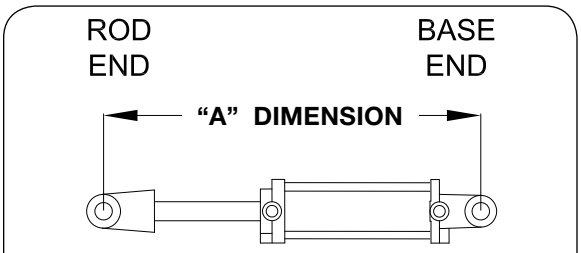


FIG. 2-56

7. Install left-hand components.

8. Refer to hydraulic layout for connecting the wing transport wheel hydraulics to the machine hydraulic system.

Wing Transport Wheels (Optional) (continued)
Available ONLY on 7, 8, 9, 10, 11 Ft. Wings

WARNING

- **HYDRAULIC SYSTEM MUST BE PURGED OF AIR BEFORE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.**

- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.**

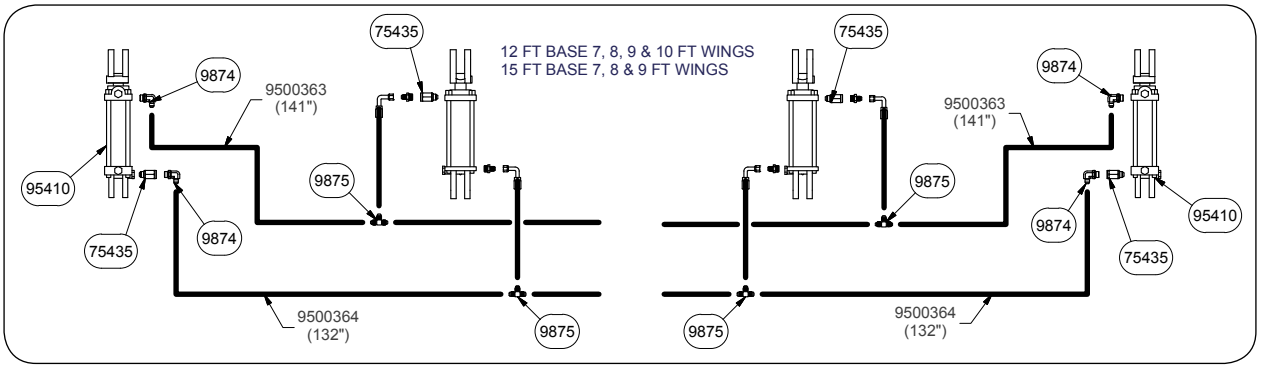
- **RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR PROPER PROCEDURES.**

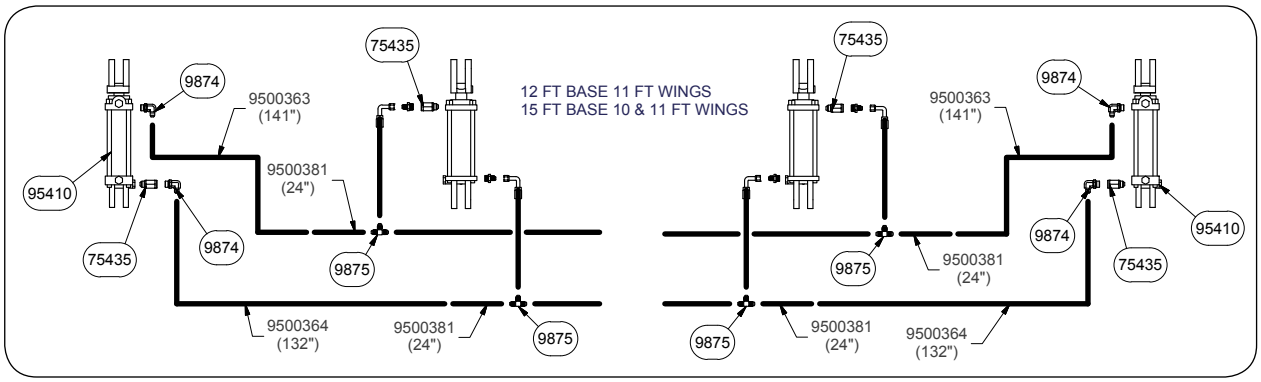
9. Purge wing wheel hydraulics according to purging a hydraulic system in this section.
10. Connect rod end of wing transport wheel cylinder to wheel arm lug using 1" dia x 3 3/4" pin (85632) and 1/4" dia. x 1 7/8" spiral pins (91144-165) (FIG. 2-54 on previous page).
11. Raise machine and fold wings, checking clearance between wing transport tires and hitch A-frame.

For Wing Transport Wheel Plumbing--refer to PARTS section for hoses, fitting types, and position.

NOTE: Wing transport wheels are optional equipment, not available on 3-6 ft. size wings.

Schematic





Leveler Bar Assembly (Optional)

WARNING

- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **FALLING EQUIPMENT CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED.**

1. See Adjustments Section for procedure to adjust leveling bar tension.
2. Determine the style of leveler bar to be installed and follow instructions for that style. Unverferth Manufacturing does not recommend mixing leveler bar styles on a machine. See torque chart for proper tightening of all leveler bar hardware.

Spike Tooth Leveler Bar

1. Refer to chart below for determining which leveler bars are required for each machine section (FIG. 2-56).

"A" DIM. (FIG. 2-56)	ONE-BAR SIZE	ANGLE LENGTH
24"	3'	33"
36"	4'	45"
48"	5'	57"
60"	6'	69"

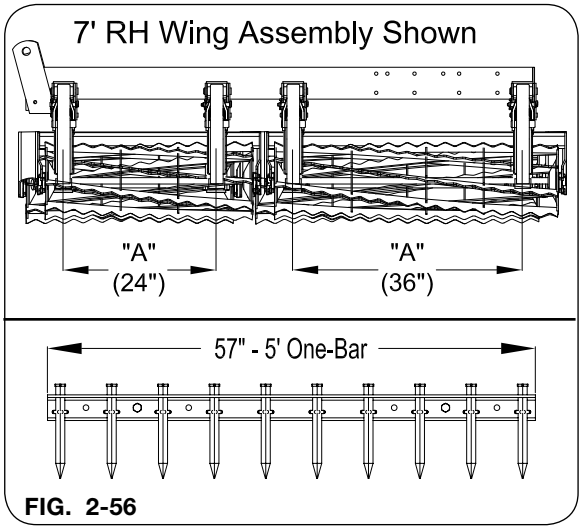


FIG. 2-56

2. Remove the 5/8"-11UNC x 1 1/2" capscrews (9390-122), square washers (83284), and 5/8"-11UNC locknuts (9801) from the angle of the leveler bar assembly (FIG. 2-57).
3. Center the leveler bar assembly between the mounting arms and align with the proper set of mounting holes. Mount the spike leveler bars in the lowest holes on the mounting arms unless directed otherwise. Place the flats of the angles against the mounting arms and insert the capscrews. Place the square washers inside the mounting arms and secure with the locknuts as shown in FIG. 2-57.


FIG. 2-57

Leveler Bar Assembly (Optional) (continue)

Diagonal Tooth Leveler Bar

Diagonal tooth leveler bars come in right-hand and left-hand assemblies. The teeth will point diagonally to the outside of the machine on each assembly.

1. Use the chart below and the diagonal tooth leveler bar layouts to identify the bars needed for your machine (FIG. 2-58).

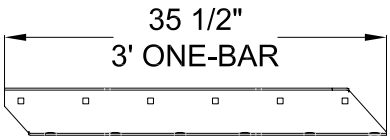


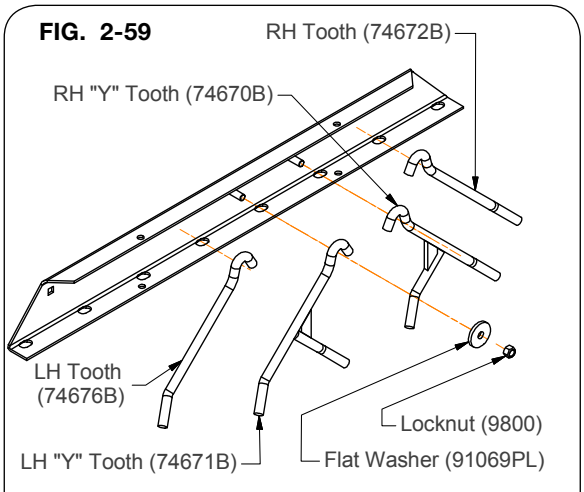
FIG. 2-58

NOTE: On STACK FOLD UNITS ONLY, if there is interference when folding the unit with the tooth and wing stand, remove the tooth from the left-hand leveler bar and replace it with spacer kit #78635B.

ONE-BAR SIZE	RIGHT/LEFT LENGTH	CENTER LENGTH
3'	35 1/2"	--
4'	47 1/2"	44 1/2"
5'	59 1/2"	56 1/2"
6'	73 3/8"	68 1/2"

2. The dimensions on the diagonal tooth leveler bar layouts identify which holes must be used for mounting. The diagonal bars attach to the machine's mounting arms using the 1/2"-13UNC x 3" carriage bolts (9388-110), two square washers (3788B), 1/4" thick flat washers (91069B), 1/2" USS washers (9405-088), and 1/2"-13UNC locknuts (9800) (FIG. 2-59 & 2-60). Often, this mounting hardware will not be assembled to the diagonal bar at the correct location shown by the layouts. Switch mounting hardware to the position shown on Diagonal Tooth One-Bar Layouts in this section.

FIG. 2-59



NOTE: Correct orientation for hook assembly.

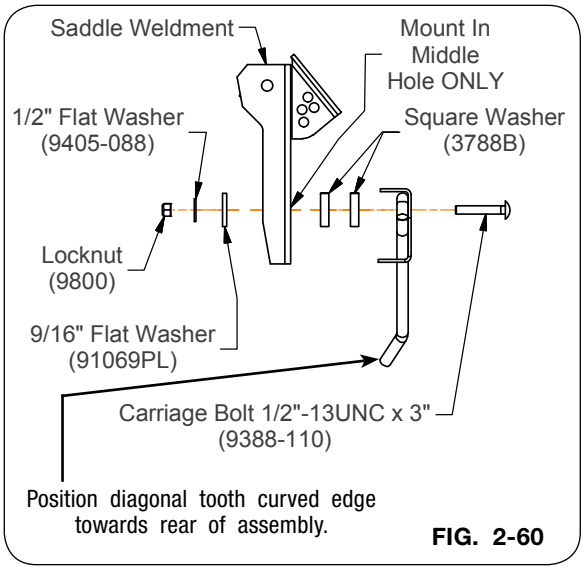


FIG. 2-60

3. Mount the diagonal bar to the MIDDLE hole on the machine's mounting arms (Fig 2-59).

IMPORTANT

- *Machine damage will result if the diagonal leveler bars are installed in any hole in the machine's mounting arms other than the middle.*

Leveler Bar Assembly (Optional) (continue)

Coil Tine Leveler Bar

1. Refer to the chart below to identify the coil tine leveler bars needed for each section (FIG. 2-61).

"A" DIM.	ONE-BAR SIZE	ANGLE LENGTH (FIG. 2-61)
24"	3'	34"
36"	4'	46"
48"	5'	58"
60"	6'	70"

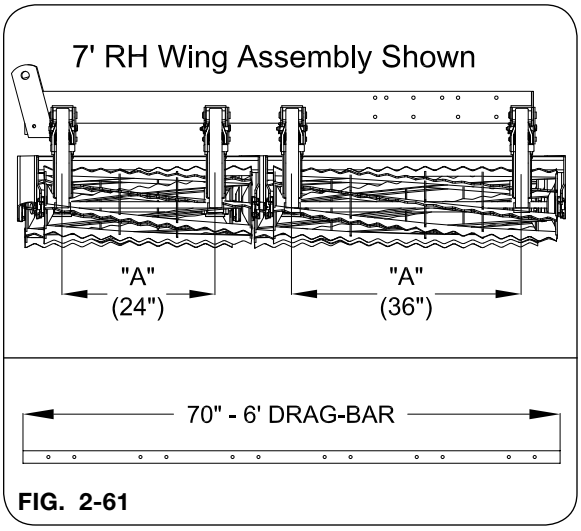


FIG. 2-61

2. Remove the 7/16"-14 locknuts (9799), 7/16" flat washers (9405-082), and U-bolts (95914) from the coil tine bar assemblies (FIG. 2-62).

FIG. 2-62

3. Mount the tine bar clamps in the lower two holes of the machine mounting arm unless directed otherwise. Place the clamp castings (84720) against the front of the machine mounting arms, put the tine bar assemblies in the clamps, and install the U-bolts (95914). Place the 7/16" flat washers (9405-082) against the back of the mounting arm and install the 7/16"-14UNC locknuts (9799). Center the tine bar between the machine mounting arms before tightening hardware.

4. Identify the tines behind the base frame tires and wing transport tires that could rotate forward into the tires. These tines must have the anti-rotation clips (84837) installed to prevent tire damage. Check the hydraulic base parts bundle and wing transport wheel parts bundle for the clips.

IMPORTANT

- *Operating coil tine leveler bars without tine anti-rotation clips installed may cause tire damage.*

Leveler Bar Assembly (Optional) (continue)

5. Remove both 5/16”-18UNC x 1 3/4” capscrews (9390-062) and 5/16”-18UNC locknuts (9928) on a tine directly behind a base frame or wing transport tire (FIG. 2-63).

FIG. 2-63

6. Attach clip, bushing, capscrew, and 3/8”-16UNC centerline locknut provided in hydraulic bundle (FIG. 2-64). Then install the other capscrew and locknut previously removed. Tighten hardware.

IMPORTANT

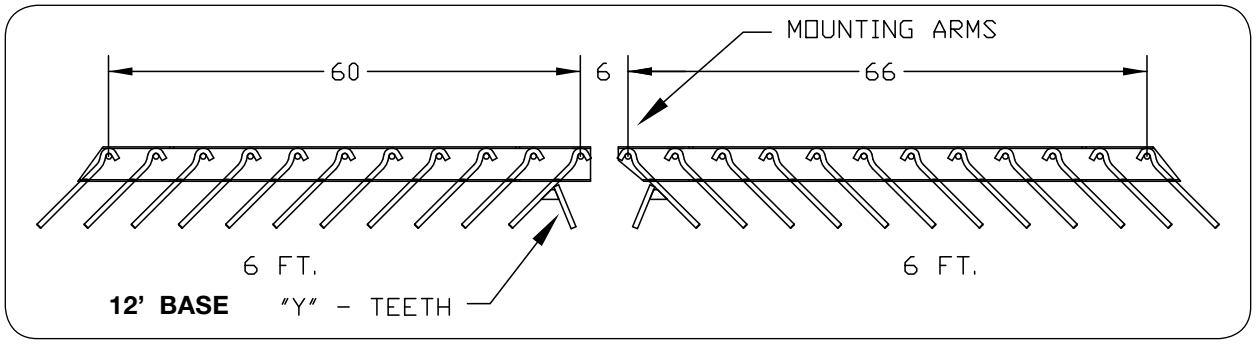
- *Clip 84837 must be assembled against the tine bar and hooked around the coil tine.*

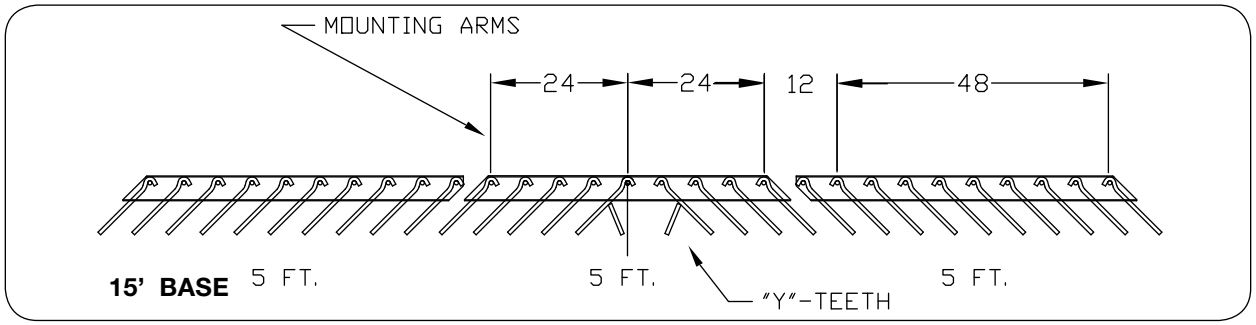
FIG. 2-64

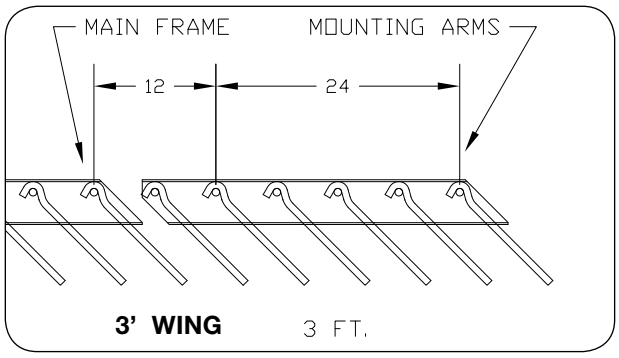
7. Check that coil tine cannot rotate into tires when clip is properly installed. If tines can still rotate into tires, loosen U-bolts on tine bar mounts and rotate tine bar until tines cannot touch tires. Re-tighten U-bolts. Grind lip on clip to set clearance if necessary.

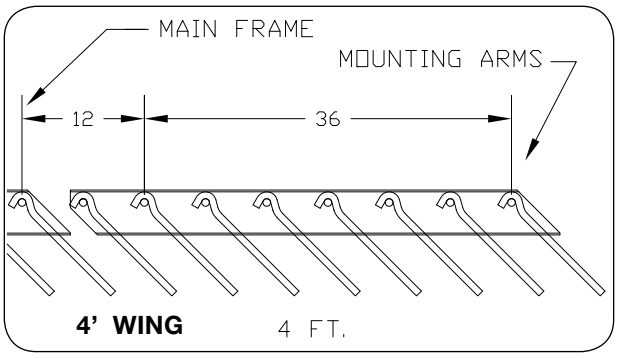
Diagonal Tooth One-Bar Layouts

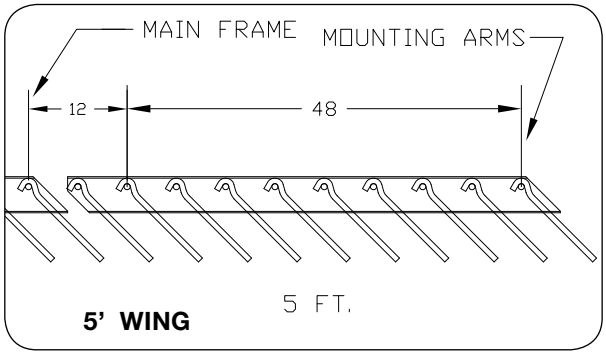
Use these layouts to locate diagonal tooth one-bars with "Y" tooth as shown.
NOTE: On wings, right-hand view shown, assemble left-hand in the same manner.



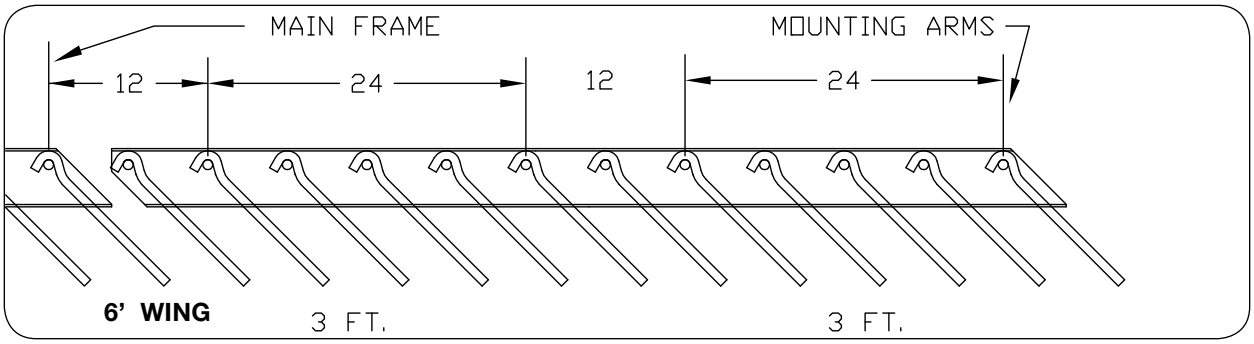




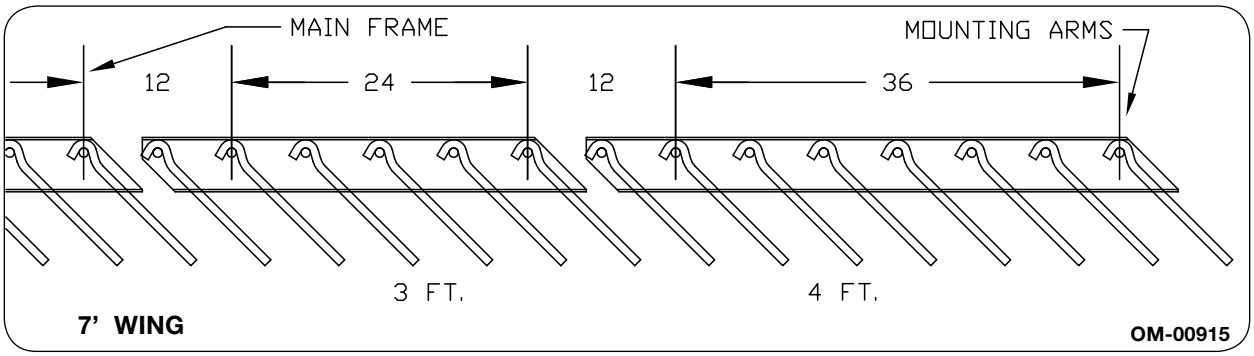




Diagonal Tooth One-Bar Layouts (continue)

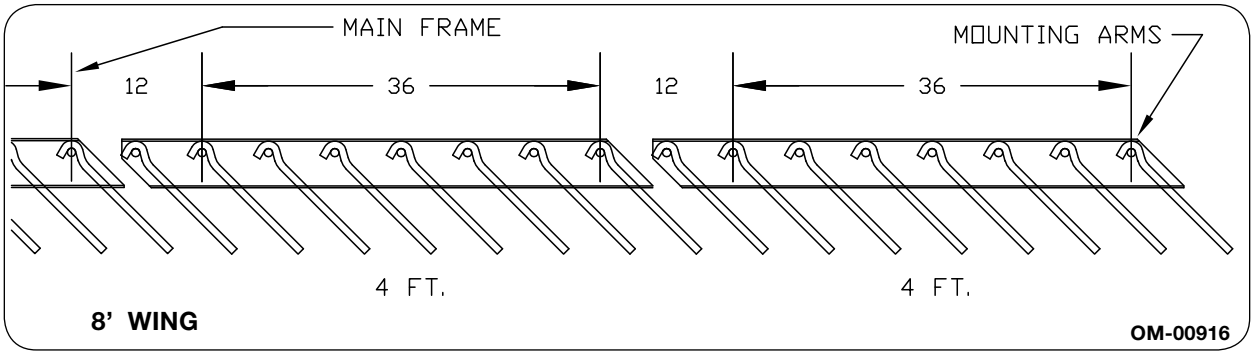


6' WING



7' WING

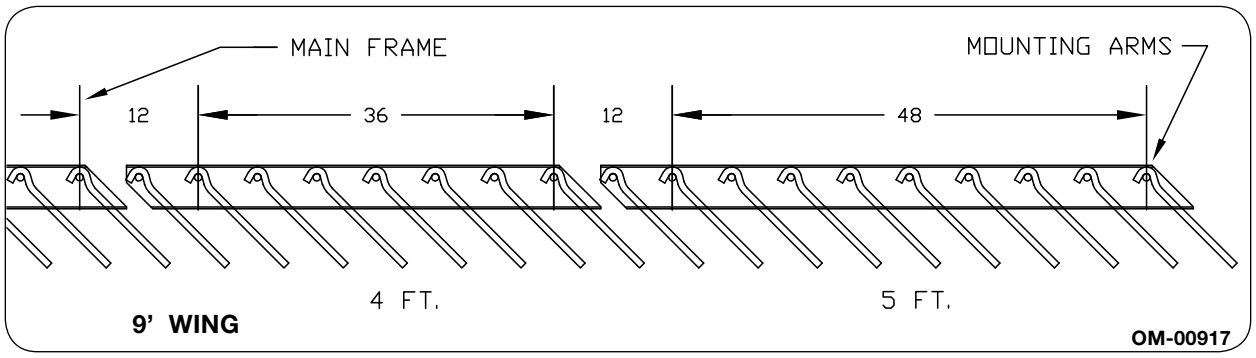
OM-00915



8' WING

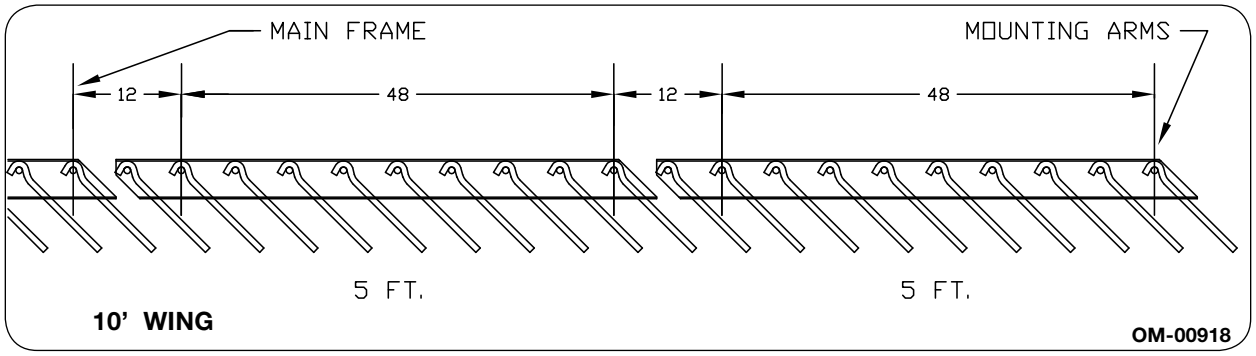
OM-00916

Diagonal Tooth One-Bar Layouts (continue)



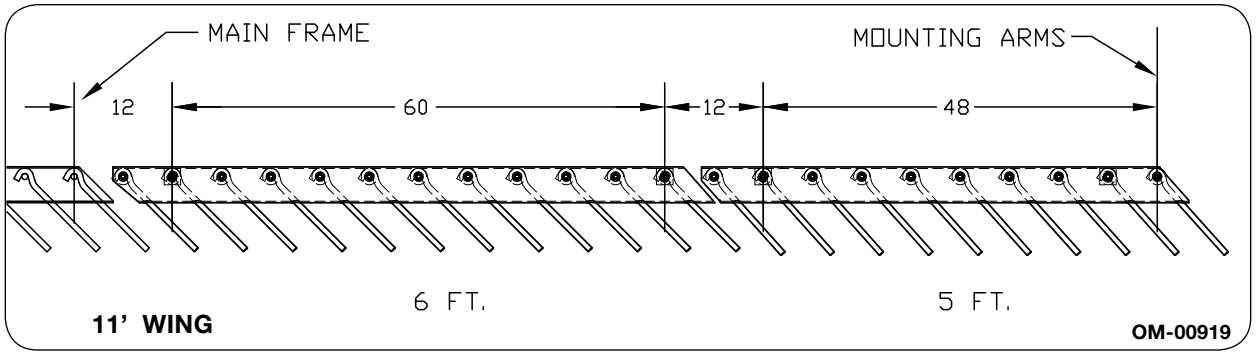
9' WING

OM-00917



10' WING

OM-00918



11' WING

OM-00919

Weld-In Reinforcement Disc Part #74964 (Optional)

This option is for reinforcing both the regular and aggressive basket in rocky soils. This accessory will provide additional stiffness to your basket.

⚠ WARNING

- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE THE MACHINE IS SECURELY BLOCKED.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**

IMPORTANT

- *Disconnect harrow completely from tractor before welding on equipment. Damage may occur to the electrical system.*

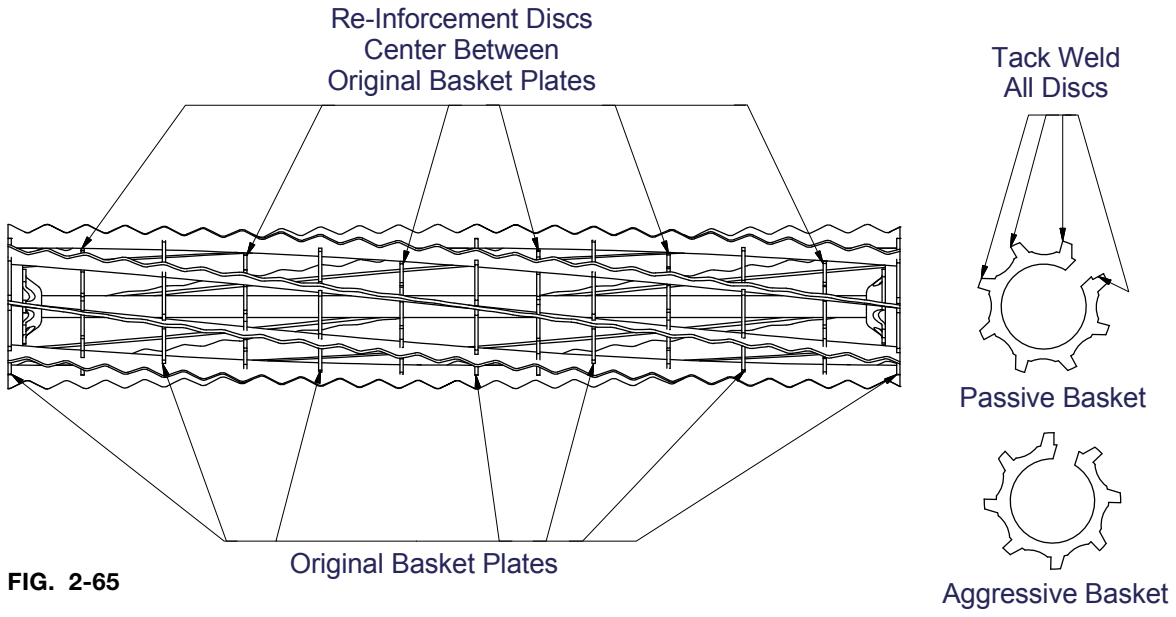


FIG. 2-65

1. Position discs inside of the basket by inserting horizontally between blades, and then rotating vertically.
2. Center reinforcement discs between original basket plates and hold into position using locking pliers or clamps (FIG. 2-66).

FIG. 2-66

IMPORTANT

- *Be sure that all welding is done by qualified personnel. Failure to do so could result in damage to your ROLLING HARROW.*

Weld-In Reinforcement Disc Part #74964 (Optional) (continued)

3. Remove powder coating before welding. Secure discs into place by tack welding. Weld where discs and basket blades are in contact (FIG. 2-67 & 2-68).

Aggressive Basket

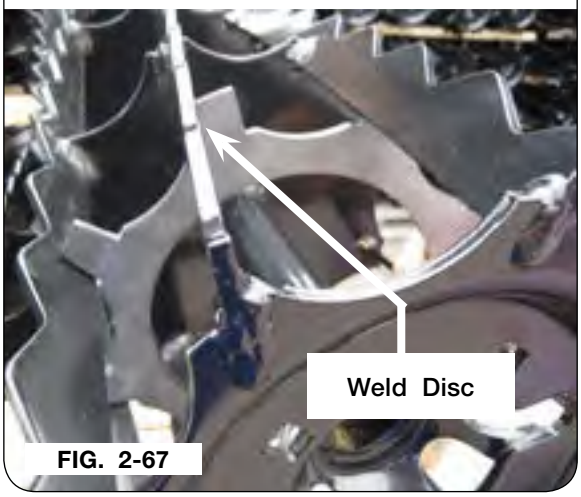


FIG. 2-67

Passive Basket

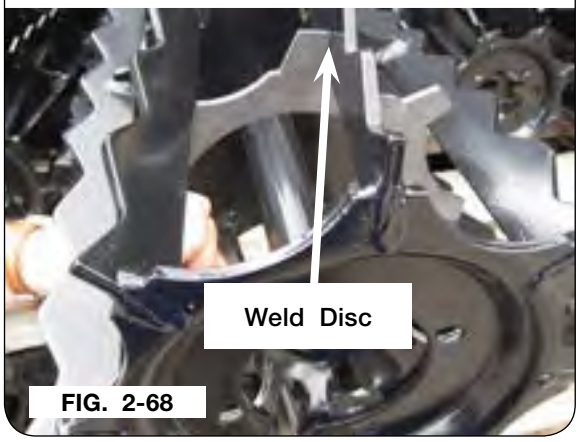


FIG. 2-68

4. Paint plates and repaint areas where welds have been made for rust protection.

Pilot Check Valve (Part #91240) (Optional)

This option is recommended when teeing the Rolling Harrow hydraulics to the primary tillage tools having rephasing hydraulic cylinders. This option prevents the ROLLING HARROW implement from drifting down from the transport position.

⚠ WARNING

- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **HYDRAULIC SYSTEM MUST BE PURGED OF AIR BEFORE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.**
- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.**
- **RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR PROPER PROCEDURES.**

Depressurize the hydraulic systems of the primary tillage tool and the ROLLING HARROW implement before beginning valve installation.

Install the pilot operated check valve onto the rear of the primary tillage tool. Connections from the rephase system must be installed into the ports of the valve that are closest together. Connections to the ROLLING HARROW system go into the other two ports.

Purge hydraulic system before use. Refer to primary tillage tool manual to purge that system. Refer to Purging A Hydraulic System in this section.

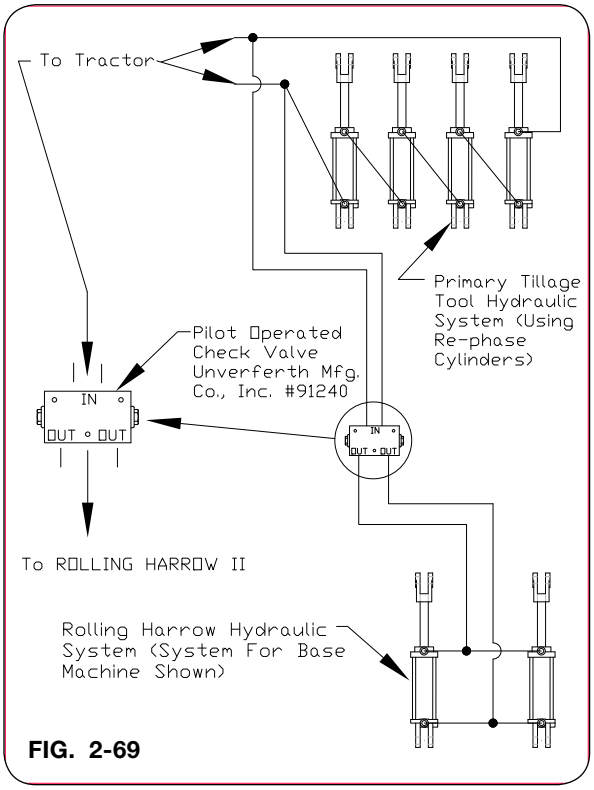
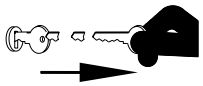


FIG. 2-69

Dual Hydraulic Kit #73173FS (Optional)

A dual hydraulic kit in-lieu of the split function valve is available for all sizes of the Rolling Harrow implement. This kit will separate the lift and wing fold hydraulics into two different systems for better control of the lift and fold functions. Each system will then require its own remote control valve from the tractor or must be plumbed into existing circuits on the primary tillage tool.

Park the machine on a firm, level surface, unfold the wings and lower the unit to the ground. Block the machine from any movement, set the tractor parking brake, depressurize the hydraulic system, shut off the engine and remove the ignition key.

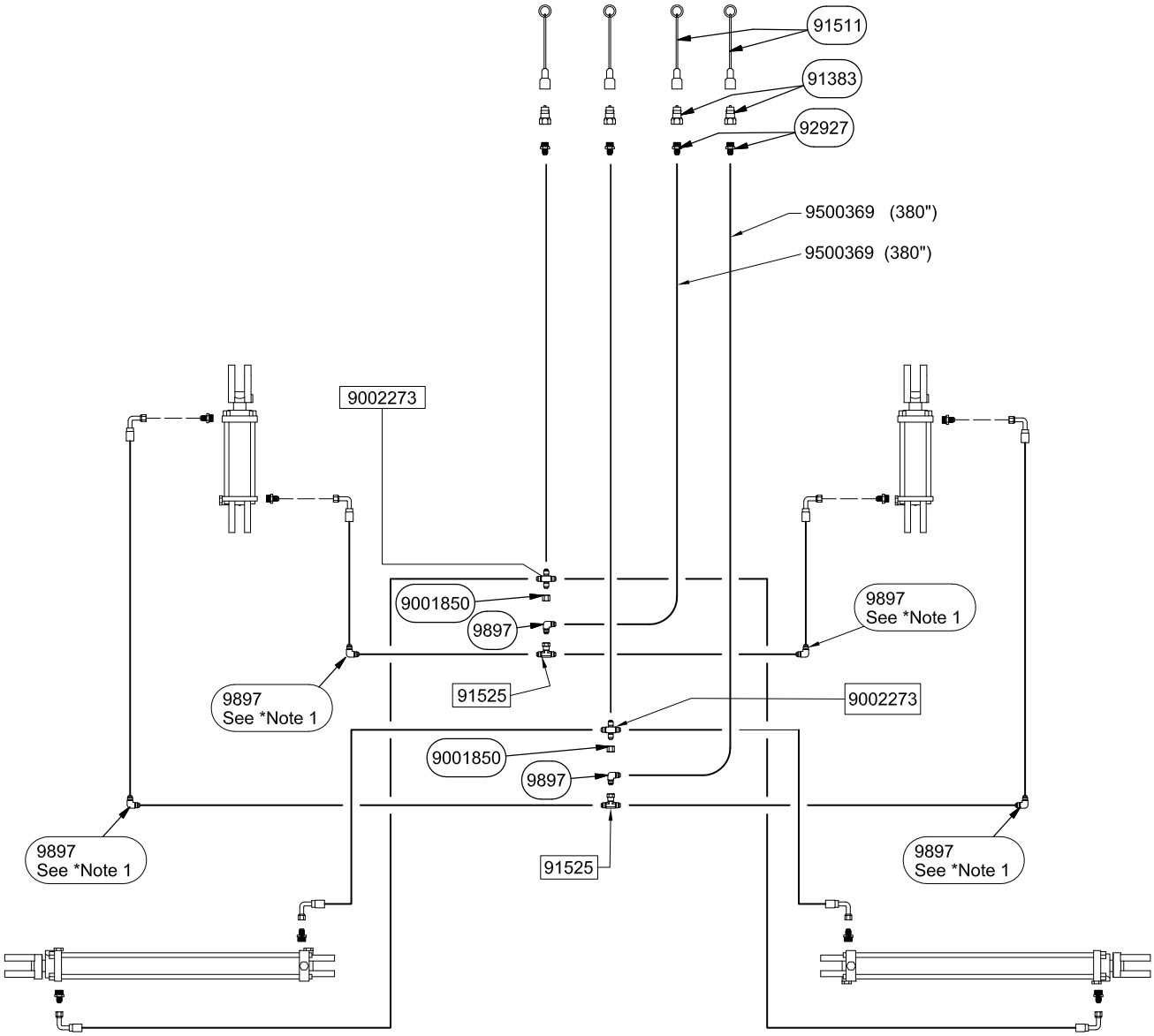


⚠ WARNING

- **HYDRAULIC SYSTEM MUST BE PURGED OF AIR BEFORE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.**
- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.**
- **RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR PROPER PROCEDURES.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**

Dual Hydraulic Kit #73173FS (Optional) (continued)

Hose Routing Diagram For Flat & Vertical Fold Models

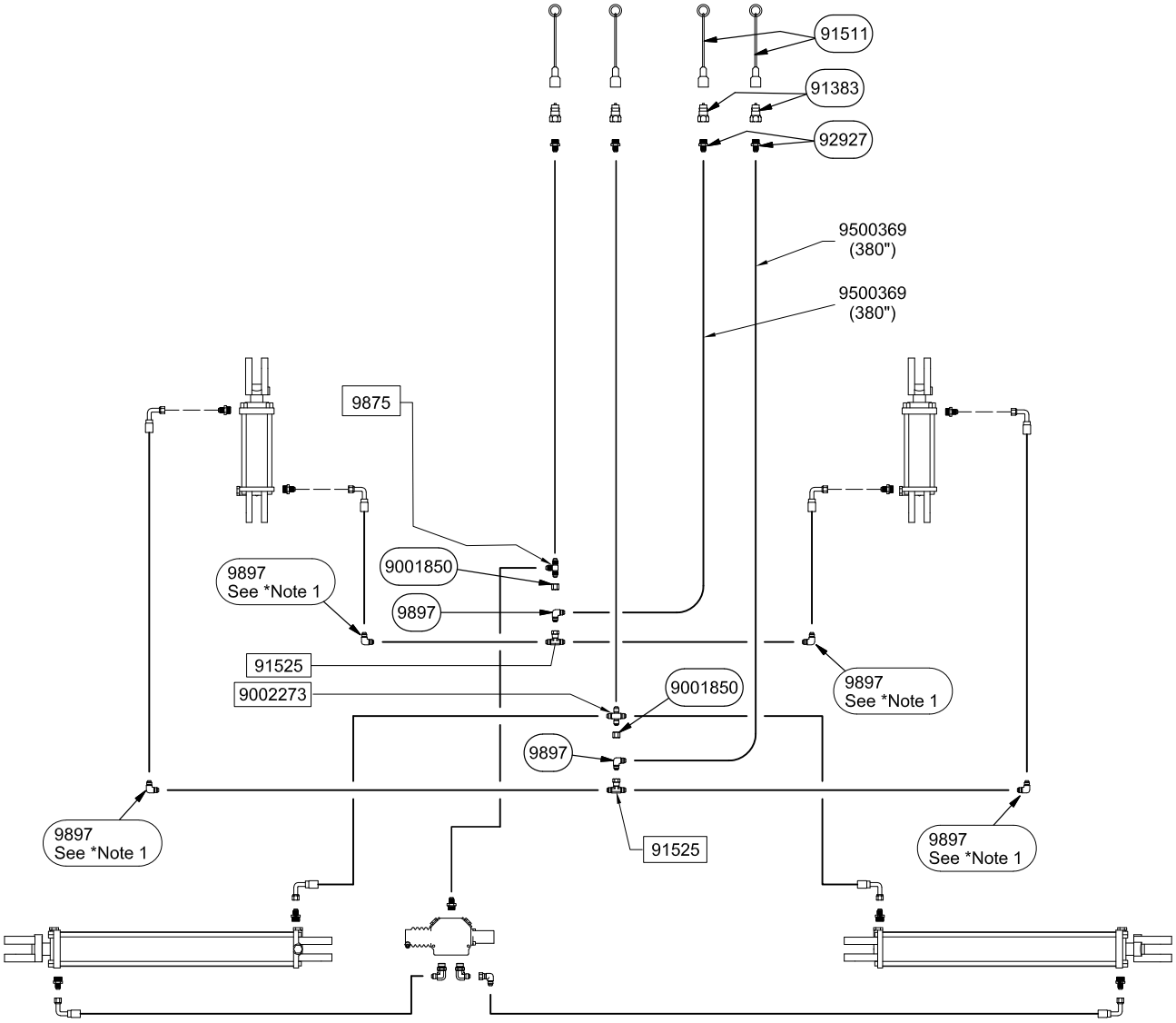


*NOTE 1: For 1245D drum machines and basket rocker hydraulics. See “Basket Rocker Layout” in this section.

*NOTE 2: The crosses and tees are provided with the base parts box.

Dual Hydraulic Kit #73173FS (Optional) (continued)

Hose Routing Diagram For Stack Fold Models



*NOTE 1: For 1245D drum machines and basket rocker hydraulics. See "Basket Rocker Layout" in this section.

*NOTE 2: The crosses and tees are provided with the base parts box.

Tire Scraper Kit (89360B) (Optional)

1. Park the unit on a firm, level surface and unfold the wings. Lower machine until baskets are in contact with ground. Block the tires on the machine to keep it from moving. Set the tractor's parking brake, shut-off the engine, and remove the ignition key.

2. Attach the scraper brackets (89358B) to the axle weldment using U-bolts (95531) and 1/2"-13UNC locknuts (9800) (FIG. 2-70, 2-71 & 2-72).

3. Secure the scraper plates (89359B) to the scraper brackets (89358B) using capscrews 1/2"-13UNC x 1 1/2" (9390-101) and locknuts 1/2"-13UNC (9800) (FIG. 2-70, 2-71 & 2-72).


FIG. 2-70


FIG. 2-71


FIG. 2-72

A-Frame Gooseneck Hitch Assembly (Optional)

⚠ WARNING

- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.**
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 1200 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

1. Remove and save the fourteen 1/2”-13UNC x 2” grade 8 capscrews (91299-103), two backer plates (78945B), six 1/2” flat washers (9503326) and fourteen 1/2”-13UNC locknuts (9800) from the hitch. Remove and discard the reinforcement plates (700256B). Using a safe lifting device rated at 1200 lbs. minimum, lift gooseneck hitch assembly into position on the main frame (FIG. 2-73). Reinstall the previously removed hardware and reinforcement plates (700255B).

FIG. 2-73

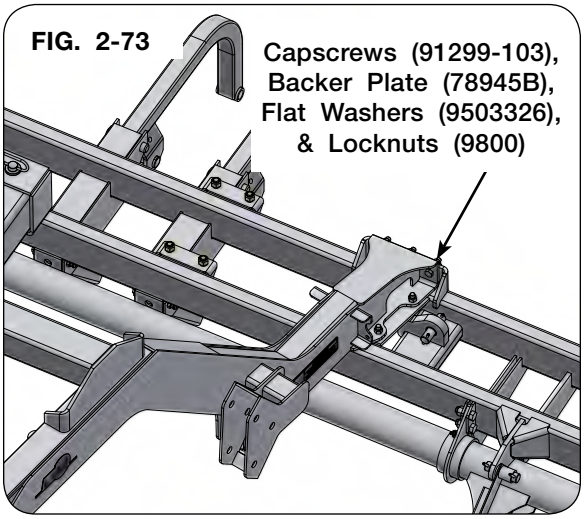
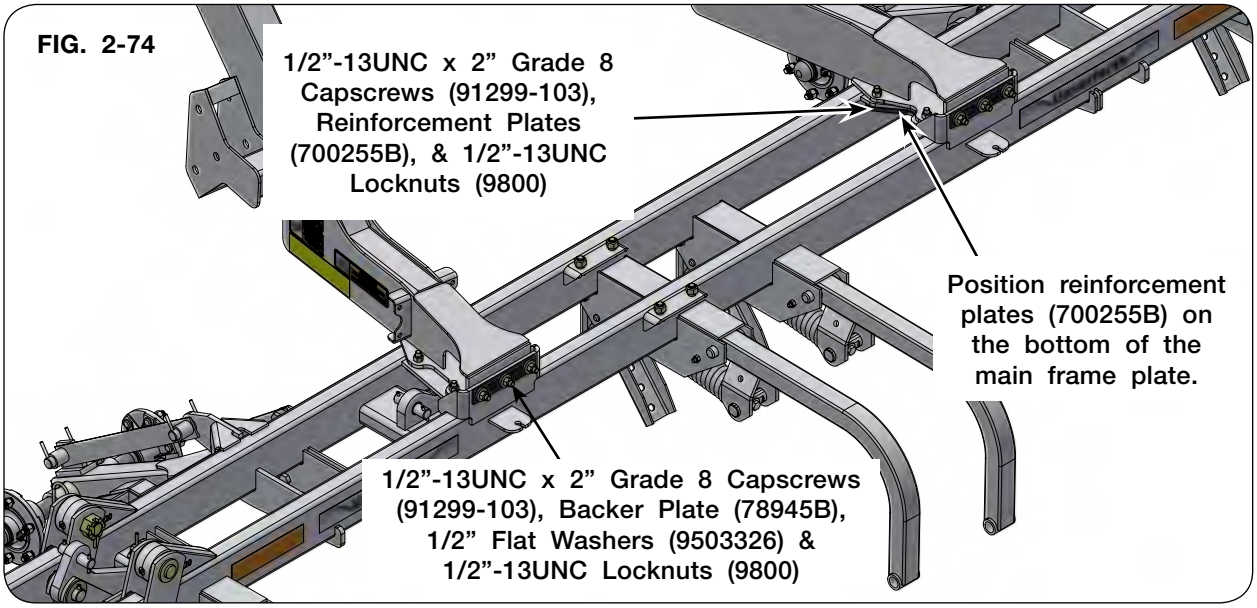


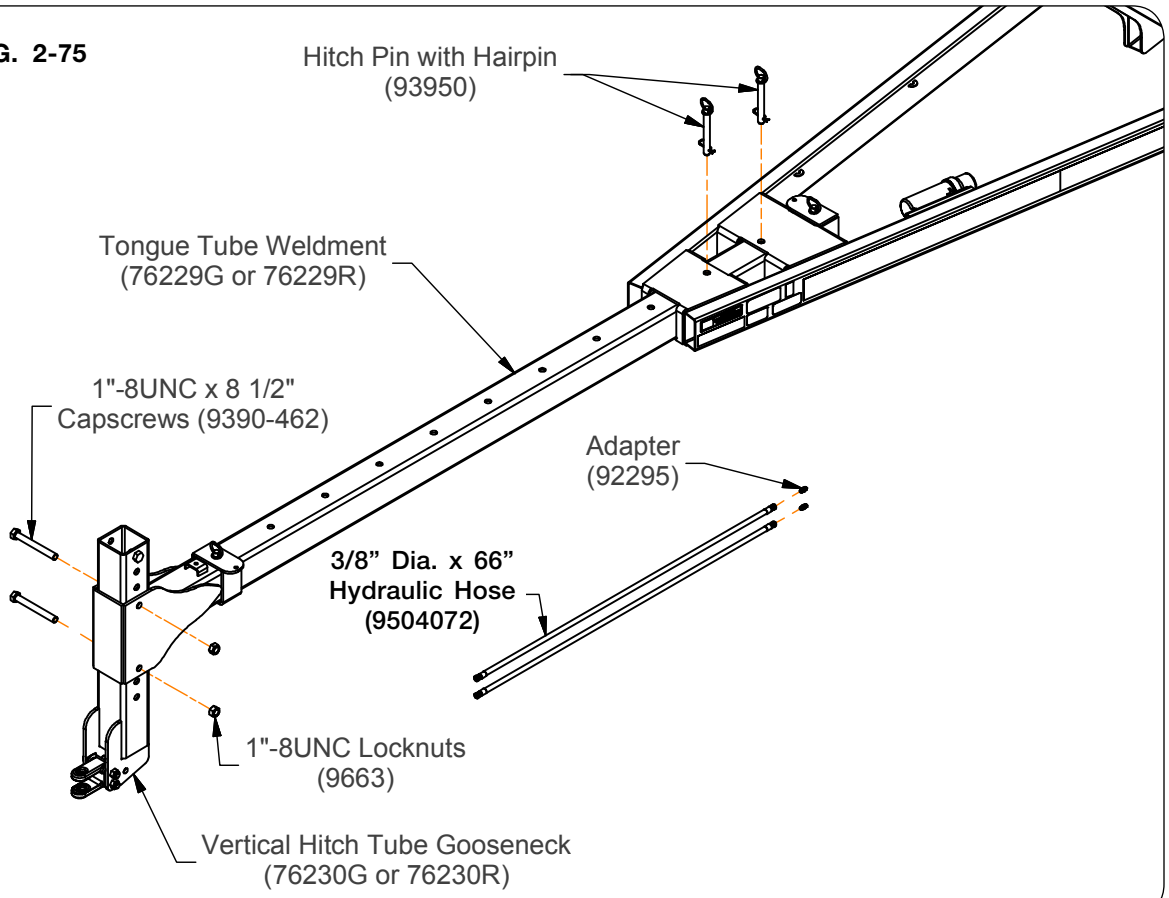
FIG. 2-74



A-Frame Gooseneck Hitch Assembly (Optional) (continued)

3. With the hitch still supported with a safe lifting device up to 1200 lbs., adjust the vertical post of the hitch by removing the 1”-8UNC x 8 1/2” capscrews (9390-462) and 1”-8UNC locknuts (9663). Then retain the vertical hitch tube into position with the previously removed hardware. (FIG. 2-75)

FIG. 2-75



4. Adjust the tongue length so the outside ends of the lead tool/finishing attachment will pass under the arched portion of the tongue when performing a sharp turn. Remove the two hitch pins with hairpins (93950) retaining the tongue tube weldment (76229G or 76229R). Extend the tongue tube weldment (76229G or 76229R) then reinsert the two hitch pins with hairpins (93950). (FIG. 2-75)

5. Install the adapters (92295) and hose extensions (9504072) to the Rolling Harrow hoses that lead to the tractor. Route the hoses along the inside of the frame and cable tie them in place. (FIG. 2-75)

Refer to “Hitch Assembly” step 2 in this section.

SECTION III
Operation

General Operation Information

WARNING

- **READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW "SAFETY" SECTION IN THIS MANUAL IF NECESSARY.**

Read this operation section thoroughly. Acquaint yourself with the adjustments required to obtain efficient and trouble-free operations.

Preparing Tractor

Follow these recommendations if the Rolling Harrow implement will be connected directly to a tractor.

Before operating implement refer to tractor operator's manual for information concerning safe methods of operation, hydraulics, hitch adjustment, tire inflation, wheel adjustments, and tractor weights.

Check tractor brakes and transport lights. Make sure they are in proper working order.

Check tractor hydraulic oil reservoir and add oil if needed.

Be sure tractor drawbar has sufficient capacity to operate the Rolling Harrow implement.

Adjust the tractor drawbar vertically so the top side of the bar is approximately 17 inches from the ground, and lock on centerline of tractor.

Secure the tractor 3-Point linkage so that it does not swing into the tractor tires or onto the hoses.

Preparing Primary Tillage Tool

Follow these recommendations if the Rolling Harrow implement will be connected to another tillage tool.

Refer to the units "Operator's Manual" for specifications, set up, service, and operating procedures of this unit.

Confirm that the rear hitch of the primary tillage tool has sufficient capacity to operate the Rolling Harrow.

Be sure the rear hitch is securely attached to the primary tillage tool frame. Check hitch every day of use for loose, broken, or worn components.

Rear Hitch Height On Primary Tillage Tool

For maximum performance and adjust ability of your ROLLING HARROW implement, it is recommended the rear hitch height of the primary tillage tool (FIG. 3-1) be approximately 16 to 24 inches (20" nominal) from the ground line when in the field.

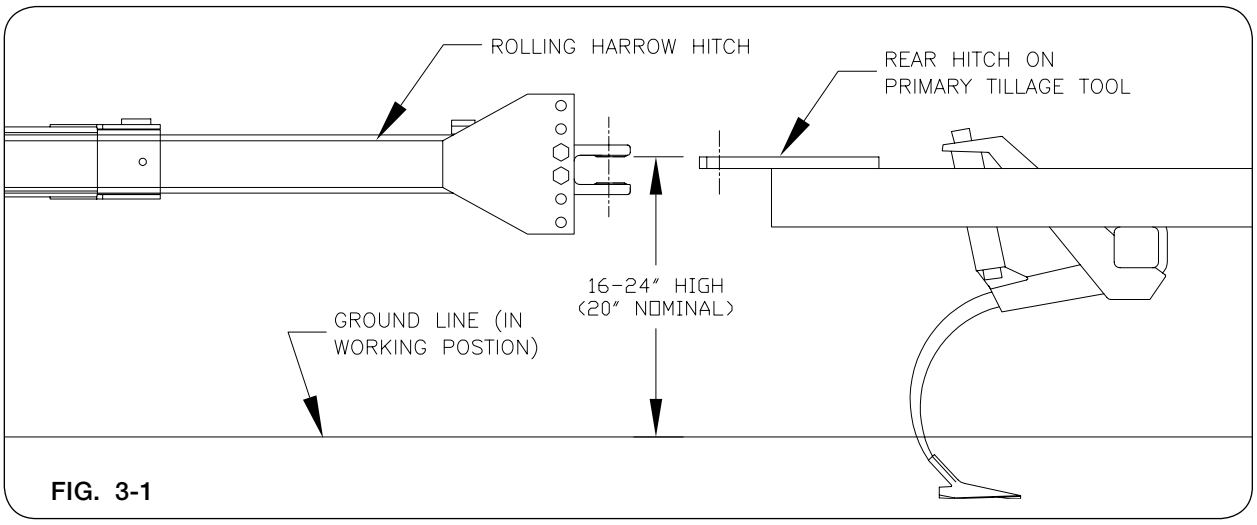


FIG. 3-1

Preparing Rolling Harrow

Perform the service checks as outlined below. Repair or replace any damaged or worn parts before operating.

Bolts And Nuts

Before going to the field, check all hardware for tightness. Recheck all bolts for tightness, after the unit has been operated for several hours.

⚠ CAUTION

- **IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGULARLY. SEE TORQUE PAGE IN THE "MAINTENANCE" SECTION FOR PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.**

For questions regarding new tire warranty, please contact your local original equipment tire dealer. Used tires carry no warranty. Tire manufacturers' phone numbers and web sites are listed in the "MAINTENANCE" Section of this manual for your convenience.

Pins

Before going to the field, check that all pins are in place and are in good condition. Replace any worn, damaged, or missing pins.

Check that locking hardware for pins are in place and tight.

Leveler Bar Mounting Arms

Frame assemblies are shipped with mounting arms for leveler bars down. If the machine will be operated without leveler bars, the arms should be folded up for best performance. See "Leveler Bar Lock-Up" in this section for fold procedures.

Hydraulics

Check routing of all hydraulic hoses. Hoses should not be kinked, twisted, or rubbing against sharp edges. Hoses should be secure with tie straps.

Check hoses and fittings for hydraulic leaks. Tighten or replace as required.

Lubrication

Lubricate unit as outlined in MAINTENANCE section.

Tire Pressure

Check tire pressure, see "MAINTENANCE" section for recommended air pressure. Be sure tire pressure is equal in all tires.

Attaching Rolling Harrow To Primary Tillage Tool or Tractor

Before attaching the Rolling Harrow implement to your primary tillage tool or tractor, adjust the extended length of the hitch tube to give adequate turning clearance between the two machines when turning on the ends.

To Lengthen:

1. Unfold the machine and lower the machine to the ground.
2. Remove the pin from the rear tongue tube stop collar.
3. Reset the rear tongue tube stop collar to the desired tongue extended length and reinsert the pin.
4. Remove the two vertical pins that attach the tongue to the A-frame.
5. Pull the machine forward until the rear tongue stop collar contacts the A-frame.
6. Reinsert the two vertical pins that attach the tongue to the A-frame.

To Shorten:

1. Unfold the machine and lower the machine to the ground.
2. Remove the two vertical pins that attach the tongue to the A-frame.
3. Back the machine until the front tongue stop collar contacts the A-frame.
4. Reinsert the two vertical pins that attach the tongue to the A-frame.

If unit is parked in the raised position, turn handle on jack to remove pressure and rotate jack into “Transport Position”, see “Jack Assembly” in SETUP section.

Attaching Rolling Harrow To Primary Tillage Tool or Tractor

Hydraulic Hook-Up

The unit's hydraulic system may be connected to a 2-way control valve on the back of a tractor or to an existing circuit on the primary tillage tool.

⚠ WARNING

- **ALWAYS RELIEVE HYDRAULIC SYSTEM PRESSURE BEFORE DISCONNECTING HOSES FROM TRACTOR OR SERVICING HYDRAULIC SYSTEM. SEE TRACTOR OPERATOR'S MANUAL FOR PROPER PROCEDURES.**
- **HYDRAULIC CYLINDERS MUST BE PURGED BEFORE HYDRAULIC SYSTEMS MAY BE USED. FAILURE TO DO THIS COULD RESULT IN SERIOUS INJURY.**

NOTE: Refer to SETUP section for purging process.

NOTE: Refer to MAINTENANCE section when checking hydraulic circuit operation.

HYDRAULIC HOOK-UP INTO A CIRCUIT USING REPHASE CYLINDERS:

If the unit's hydraulic system is connected to an existing hydraulic circuit using rephase cylinders on the primary tillage tool, Unverferth Manufacturing recommends installing the optional #91240 pilot check valve between the two hydraulic systems. This valve prevents the unit's lift system from bypassing oil through the rephase system and leaking down from the transport position. See your Unverferth dealer to order this valve. See ASSEMBLY section for hydraulic hook-up.

Raise unit into transport position and install cylinder transport locks (FIG. 3-2).

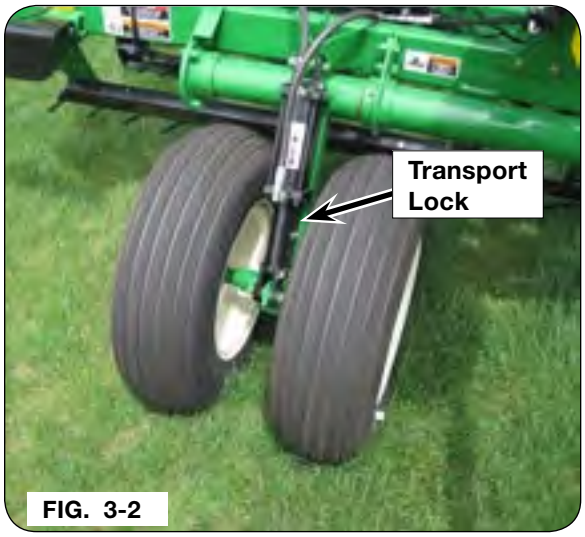


FIG. 3-2

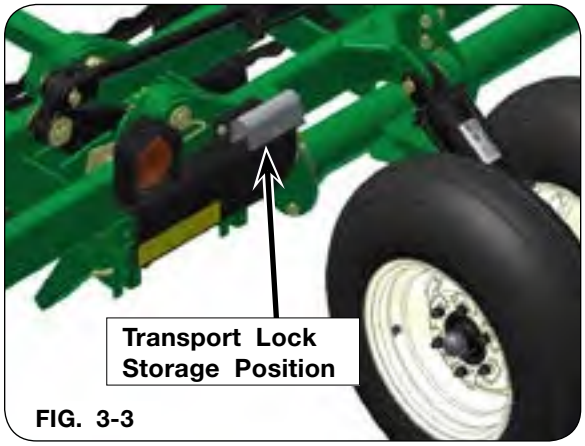


FIG. 3-3

Unfolding The Wings

DANGER

- **ELECTROCUTION WILL CAUSE SERIOUS INJURY OR DEATH. THE ROLLING HARROW IS NOT INSULATED. KEEP AWAY FROM ALL ELECTRICAL LINES AND DEVICES. ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT.**

IMPORTANT

- *Follow one of these procedures to avoid damaging the Rolling Harrow implement during the wing unfolding process.*

If transport locks will be removed before unfolding:

1. Fully raise the unit and remove the transport locks from the lift cylinders.
2. Park the unit on a loose surface (soil, gravel, etc). Do not unfold the wings with the unit parked on concrete, asphalt, or similar packed surfaces.
3. Activate the unit's hydraulic system to lower the machine/unfold the wings. The machine should lower itself to the ground before the wings start to unfold.
4. As the wing baskets approach the ground, slowly pull the unit forward. This will prevent the unit's baskets and leveler bar teeth from jamming sideways into the ground and possibly damaging the unit.

If transport locks will be removed after unfolding:

1. Activate the unit's hydraulic system to lower the machine/unfold the wings. The machine should lower itself onto the transport locks before the wings start to unfold. BOTH TRANSPORT LOCKS MUST BE INSTALLED.
2. Fully unfold the wings. Once the wings have unfolded, reverse the oil flow through the hydraulic system to fully extend the wheel lift cylinders. Stop before the wings start to fold.
3. Remove the transport locks from the lift cylinders.
4. Lower the machine to the field working position.

If dual hydraulic kit is installed:

1. Fully raise the unit and remove the transport locks from the lift cylinders.
2. Fully unfold the wings.

Transport Chain

⚠ CAUTION

- **ALWAYS USE TRANSPORT CHAIN WHEN TRANSPORTING IMPLEMENTS. FAILURE TO USE CHAIN COULD CAUSE PERSONAL INJURY OR DAMAGE IF IMPLEMENTS BECOME DISENGAGED.**

FIG. 3-4 shown with hook-up between tractor and Rolling Harrow implement. Always use intermediate support when connecting the implement directly to a tractor. DO NOT use the intermediate support as the chain attaching point.

Transport chain should have a minimum rating equal to the gross weight of implement and all attachments. Use only ASABE approved chains. Allow no more slack in chain than necessary to permit turning.

FIG. 3-4 OM-87758

⚠ CAUTION

- **REPLACE TRANSPORT CHAIN IF ANY LINK OR END FITTING IS BROKEN, STRETCHED, OR DAMAGED. DO NOT WELD TRANSPORT CHAIN.**

Transporting

⚠ WARNING

- **THE ROLLING HARROW IMPLEMENT WILL INCREASE THE OVERALL LENGTH OF THE PRIMARY TILLAGE TOOL. USE EXTREME CAUTION WHEN TURNING TO AVOID BYSTANDERS, OBSTACLES, ETC. REDUCE GROUND SPEEDS TO AVOID DAMAGE TO ROLLING HARROW OR PRIMARY TILLAGE TOOL.**

Before unit is transported, be sure the jackstand is in the "Transport Position" see "Jack Assembly" in SET UP section.

⚠ CAUTION

- **INSTALL HYDRAULIC CYLINDER TRANSPORT LOCKS BEFORE TRANSPORTING (FIG. 3-5).**

Comply with all laws governing highway safety and regulations when moving machinery on public roads.

Be sure SMV Emblem is in place and clearly visible on the rear of the implement. See SMV Emblem in SET UP section.

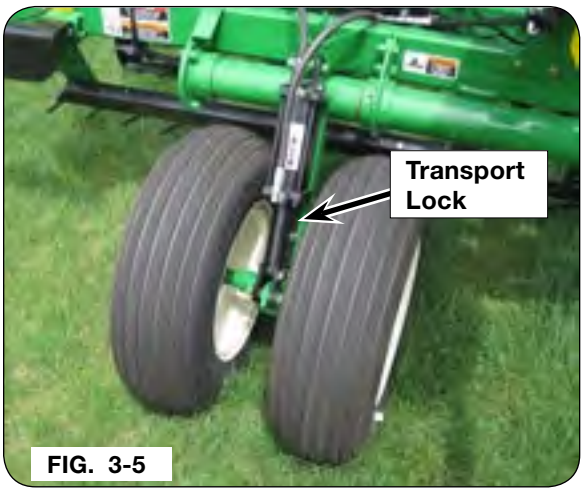


FIG. 3-5

⚠ CAUTION

- **USE APPROVED ACCESSORY LIGHTS AND REFLECTORS WHEN TRANSPORTING AT NIGHTS, DURING PERIODS OF POOR VISIBILITY, AND AS REQUIRED BY ALL LAWS.**

Check with local authorities to insure lights and reflectors comply with local standards.

Transporting (continued)

For safe transporting of these implements, the transport speed should never exceed 10 M.P.H. in the field or over rough terrain. Reduce transport speed to maintain full control of the implement and tractor at all times.

NOTE: Unverferth Manufacturing has designed the transport lighting and marking kit to meet United States federal law and ASABE standards at the time of manufacture. Machine modifications, including additional features or changes to the intended configurations, may require updates to the lighting and marking as well.

Compliance with all lighting and marking laws is the responsibility of the operator at the time of travel.

See federal regulation 49 CFR 562; available at www.govinfo.gov for US federal law requirements.

See your Unverferth dealer for additional brackets, reflectors, or lights to meet your requirements.

Unhitching

⚠ WARNING

- **RISING OR FALLING TONGUE CAN CAUSE SERIOUS INJURY OR DEATH. USE JACK TO SUPPORT IMPLEMENT BEFORE REMOVING HITCH PIN.**
- **IF UNIT IS TO BE UNHOOKED IN THE TRANSPORT POSITION, INSTALL HYDRAULIC CYLINDER TRANSPORT LOCKS AND LOWER JACKSTAND TO GROUND BEFORE UNHOOKING UNIT.**

Refer to “Jack Assembly” in SETUP section for positioning of jackstand into “Parked Position”.

⚠ CAUTION

- **KEEP HANDS AND FEET AWAY FROM JACKSTAND WHEN LOWERING.**

When parking the ROLLING HARROW implement onto rear jackstand, lower jack down into position and turn handle to transfer the weight of the unit to the jack.

Remove hitch pin.

⚠ WARNING

- **ALWAYS RELIEVE HYDRAULIC SYSTEM PRESSURE BEFORE DISCONNECTING HOSES FROM TRACTOR OR SERVICING HYDRAULIC SYSTEM. SEE TRACTOR OPERATOR’S MANUAL FOR PROPER PROCEDURES.**

Disconnect the hydraulic hoses. Install dust covers over the hose plugs and outlets.

Before unhitching the primary tillage tool, refer to the unit’s operator’s manual for unhitching procedures.

Field Adjustments

Rolling Harrow Basket

The Rolling Harrow basket is designed to help provide an excellent seedbed when used in conjunction with your primary tillage tool.

To obtain maximum performance from your unit in the field, it should be run with the transport wheels in the “Raised” position. This allows maximum transfer of weight to the baskets, thus providing for better leveling and ground working action by allowing the unit to more closely follow the ground contour.

Field Adjustments (continue)

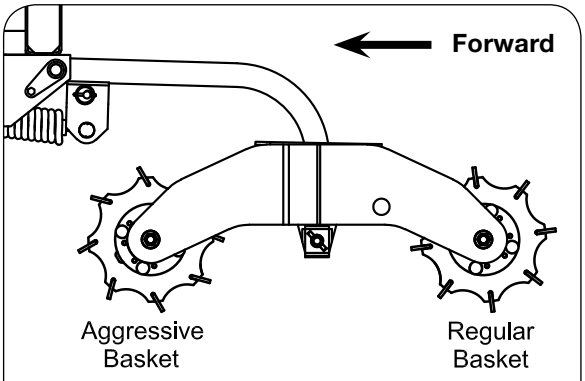
Basket Running Positions

The Rolling Harrow basket assemblies consist of an aggressive basket with the blades angled forward and a regular basket with radial blades. The basket assemblies can operate with either basket in the forward or leading position.

NORMAL POSITION

In most cases, the unit runs with the aggressive basket positioned to the front (Fig 3-6) for maximum penetration in normal soil conditions.

A maximum amount of leveling and conditioning of the soil is obtained when the aggressive basket is positioned to the front (as shown in FIG. 3-6). This position also helps provide thorough mixing of chemicals into the top two to three inches of the soil, when used for incorporation.



View Looking From LH Side

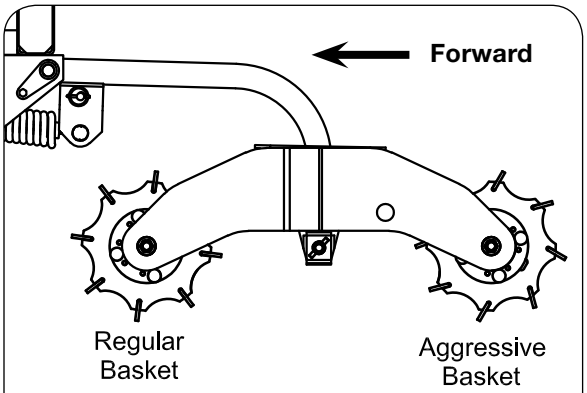
FIG. 3-6

ALTERNATE POSITION

The unit runs with aggressive basket positioned to the rear (FIG. 3-7) for maximum firming action in light sandy soils.

A maximum amount of firming and conditioning of the soil is obtained when the aggressive basket is positioned at the rear (as shown in FIG. 3-7).

To reverse Rolling Harrow baskets, remove mounting pin (9500423) and spiral pin (91144-186) (FIG. 3-7) connecting basket frame to spring arm, rotate basket frame and reinstall mounting pins and spiral pins.



View Looking From LH Side

FIG. 3-7

Leveler Bar

The optional leveler bar is designed to improve the seedbed leveling capabilities of your Rolling Harrow implement. This accessory can be ordered with your unit or added later; see your dealer for details. Spike tooth, diagonal tooth, and coil tine leveler bars are available. The spike tooth bar performs best in heavier soils under conventional tillage with lower amounts of residue. The diagonal tooth bar is recommended for lighter soils in a conventional or minimum tillage system with light to moderate residue. The coil tine bar is recommended for minimum tillage systems with higher amounts of residue. Spring pressure on the leveler bar controls the aggressiveness of the bar. For greater leveling action in heavier soils with little residue, increase the spring pressure. For better residue flow through the leveler bar, decrease the spring pressure.

Leveler Bar (continued)

Spring Tension Adjustment

Spring pressure is adjusted by aligning different holes between the adjustment casting and the leveler bar arm as shown in FIG. 3-8A, FIG. 3-8B, and FIG. 3-8C.

To adjust spring pressure:

1. Remove bent pin from arm.
2. To INCREASE spring pressure, align the arm to be in the most vertical position.
3. To DECREASE spring pressure, adjust the arm to be more horizontal.
4. Always adjust both leveler bar arms for the same leveler bar to the same setting.

FIG. 3-8A

FIG. 3-8B

FIG. 3-8C

Leveler Bar (continued)

Spike Bar Adjustment

The spike tooth leveler bar can be mounted in any of the 3 holes of the hanger. Set the spike bar lower for more leveling action. The bar should be set to the same height on both hangers of each leveler bar section of the machine.

Tooth depth adjustment is provided, but should only be adjusted to compensate for tooth wear.

To adjust individual tooth depth:
1. Loosen the U-bolt on each tooth
2. Drive the tooth up or down, as desired
3. Re-tighten the U-bolts
4. Always set each tooth to the same height on each leveler bar


FIG. 3-9

Diagonal Bar Adjustment

Diagonal tooth leveler bars can mount ONLY in the center hole on each hanger arm. Mounting in any other location will damage the machine.

Coil Tine Bar Adjustment

Coil tine bars may be mounted in the lower two or upper two holes of the hanger. Mount the bars in the lower holes for greater leveling action.

The aggressiveness of the coil tines can be controlled by rotating the tine bars relative to the mounting U-bolts. For more leveling and mixing action, loosen the U-bolts and rotate the tine bar until the spacers hold the coil tines in a nearly vertical position (FIG. 3-10) For better performance in high-residue conditions, rotate the tine bar so the tines have more room to rotate back before touching the spacers. When adjusting the coil tines, always be sure the tines will not contact the tires or tire damage could occur.

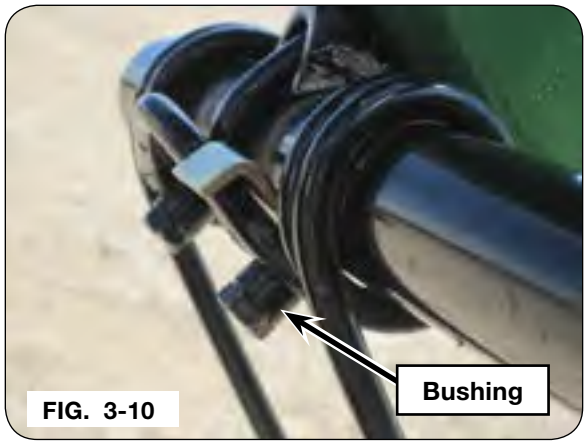


FIG. 3-10

Leveler Bar (continued)

Leveler Bar Lock-Up

In very high residue conditions or when less tillage action is desired, all types of leveler bars may be locked up so they will not contact the ground.

To lock up tool-free style leveler bars:

1. Remove bent pin from leveler arm.
2. Raise arm to highest setting where hole in arm matches hole in adjustment casting. (See FIG. 3-11 & 3-12)
3. Reinstall bent pin.
4. Be sure both arms are in the same setting for each leveler bar.

FIG. 3-11

FIG. 3-12

Basket Pitch Adjustment

Standard on 1245D Models; Optional on 1245 Models

In some conditions, it may be desirable to limit the float of the basket frame. Only limit the float sufficiently to improve performance. Excessive float limitation may damage the machine.

⚠ WARNING

- **WHEN WORKING AROUND THE MACHINE, BE SURE IT IS SECURELY BLOCKED; FAILURE TO DO SO COULD RESULT IN TIPPING OR MOVEMENT OF MACHINE, CAUSING SEVERE BODILY HARM.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 100 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

1. Park the unit on a firm, level surface. Unfold the wings into the field working position. Set the vehicle parking brake.

2. Raise the machine off the ground and insert the transport cylinder locks. Lower and rest the machine on the transport cylinder stops. Block the wheels on the machine to keep it from moving.

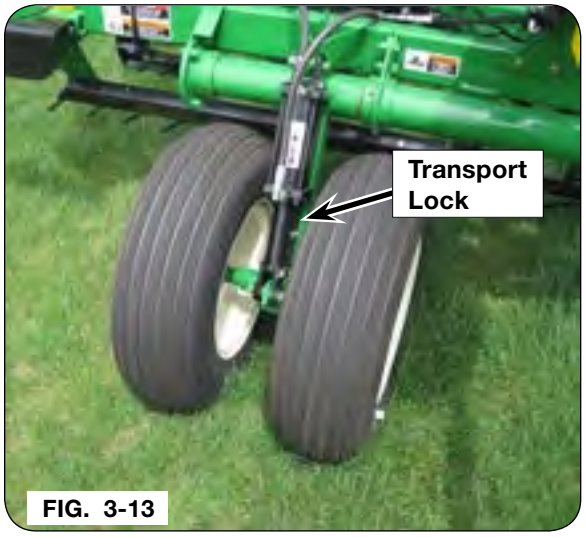
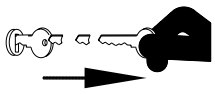


FIG. 3-13

3. Shut off the engine and remove the ignition key.



Basket Pitch Adjustment (continued)

Standard on 1245D Models; Optional on 1245 Models

4. Install pin and spacer in the second hole from the rear with the plate facing the mounting arm. Reposition into alternate holes as necessary for field conditions.

NOTE: Place the pins and spacers in the storage box when not in use.

IMPORTANT

- *Only install the pin and spacer on the rear side of the basket arm. Installation of the pins on the front side of the arm could result in damage to the basket, frame, or other components*

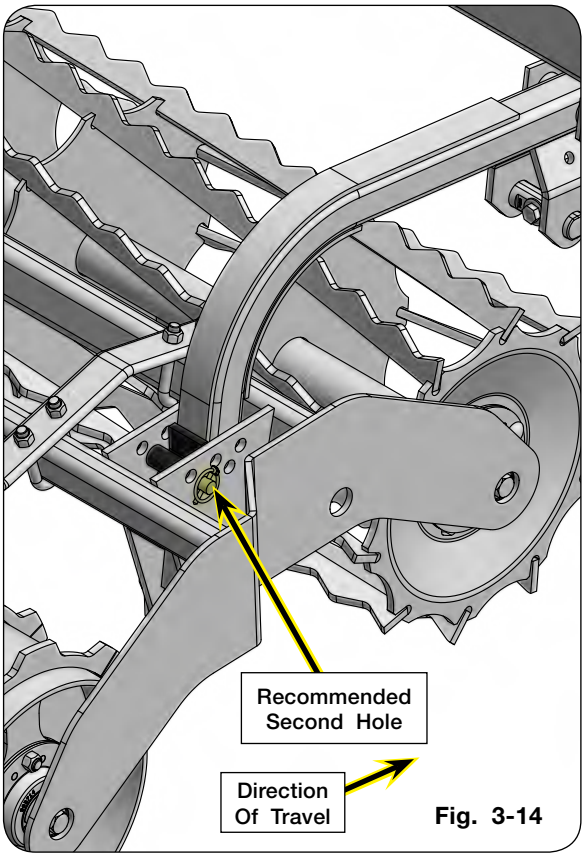


Fig. 3-14

Notes

SECTION IV
Maintenance

Storage

Your implement is an important investment. Spend a little time to protect it from destructive rust and corrosion. You will be repaid in longer service life and better performance.

Do the following before placing the implement in storage:

1. Remove dirt and trash which could cause rusting.
2. Repaint any chipped or scraped areas.
3. Lubricate wing pivots (FIG. 4-1).

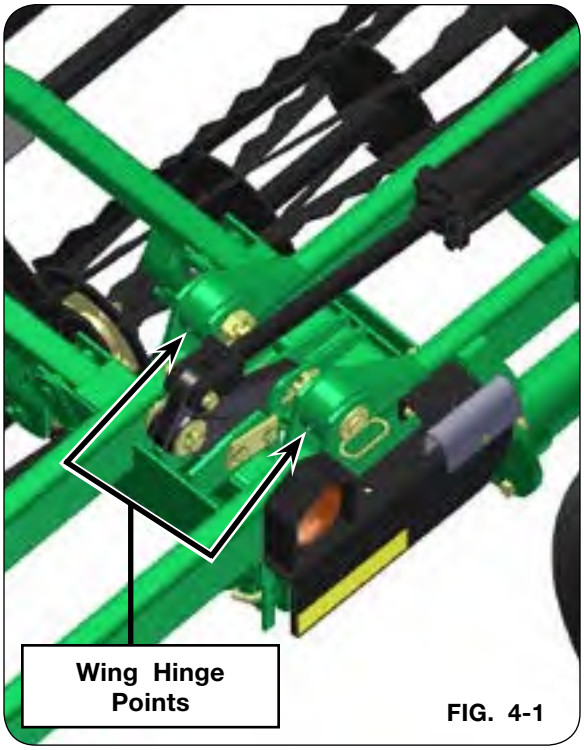


FIG. 4-1

4. Coat all earth moving surfaces with suitable rust preventative.
5. Inspect for damage or worn parts, replace before next season.
6. Store implement inside, away from livestock.
7. Block up implement to keep tires and ground tools off ground.
8. Replace all worn, torn or faded decals and reflectors.

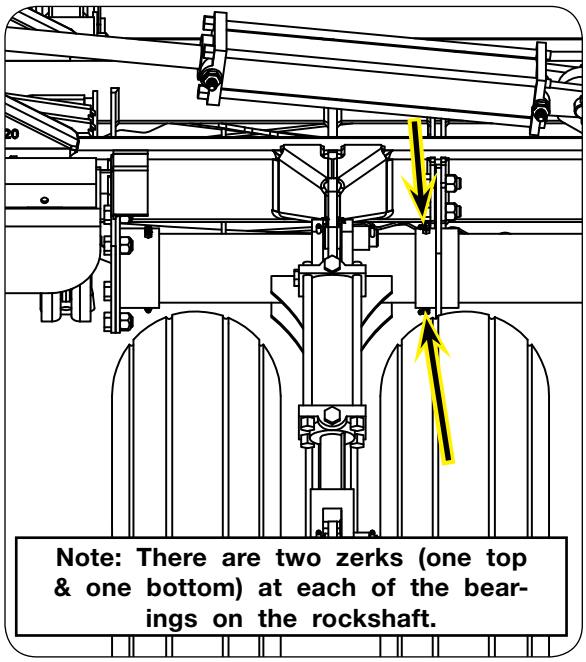
To save storage space, the telescopic tongue may be pushed into the A-frame. The tongue will need to be lengthened to the proper working length when the machine is used again.

DO NOT store the machine with the wings folded and the base frame lowered to the ground. This can damage the base frame basket springs.

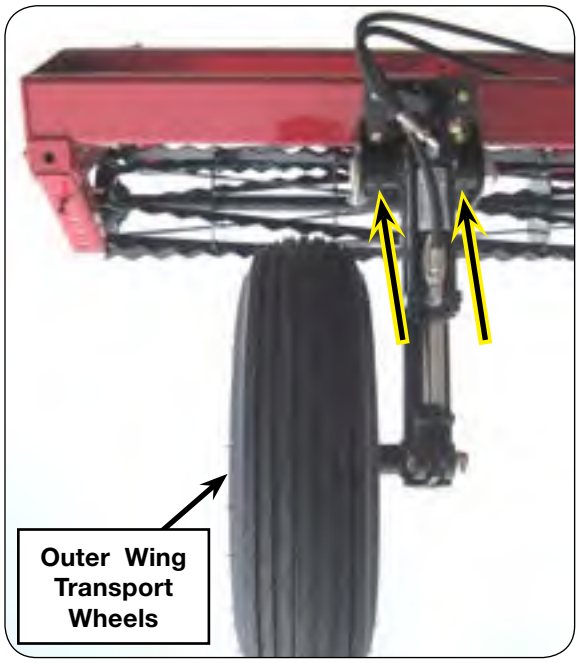
Lubrication

Be sure to lubricate the indicated points of the Rolling Harrow implement as outlined.

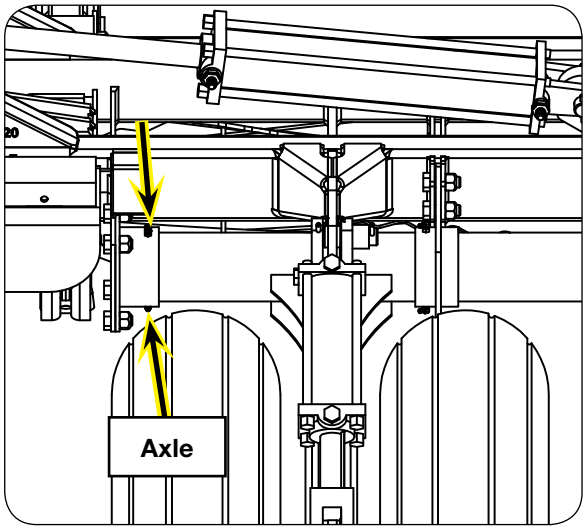
LOCATION	SEASON		HOURS
	BEGINNING	END	
AXLE & WING TRANSPORT WHEELS - 12 lube fittings - grease gun	✓	✓	8
WING HINGE POINTS - 4 lube fitting - grease gun	✓	✓	8
WHEEL HUBS - repack All bearings	✓		



Note: There are two zerks (one top & one bottom) at each of the bearings on the rockshaft.



Outer Wing Transport Wheels



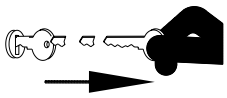
Axle

Replacing Rolling Harrow Basket Bearings

⚠ WARNING

- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THIS IMPLEMENT.**

1. Bearing replacement kit (74006) is available for the ROLLING HARROW basket.
2. Park unit on a firm level surface. Unfold wings, lower the ROLLING HARROW implement to the ground, set the tractor parking brake, depressurize the hydraulic system, shut off the engine, and remove the ignition key.



3. Remove pin (9500423) from the basket assembly with the worn bearing. Using the tractor hydraulic system, raise the unit to transport height. Install transport stops on lift cylinders. Set tractor parking brake, depressurize the hydraulic system, shut off the engine and remove the ignition key.
4. Roll the basket assembly from under the machine.
5. Remove the 5/8”-11UNC x 1 1/4” capscrew (900872) from the bearing bolt (74280) on the worn bearing. Place pry bar between the head of the stub shaft and the basket weldment to prevent the head of the stub shaft from turning.
6. Push the stub shaft into the basket weldment so the shaft disengages the basket frame side plate.
7. It should be possible to move the basket so the worn bearing is clear of the side frame. If this is not possible, repeat steps 4 & 5 for the capscrew and stub shaft on the other end of the basket and roll the basket away from the frame.
8. Remove the 1/2”-13UNC x 1 1/4” carriage bolts (9322-103) from the bearing and basket. Remove bearing from the basket and remove stub shaft from bearing.
9. Inspect the square recess for the stub shaft in the frame side plate. Remove dirt and debris from this area and make certain edges are not worn or rounded. Repair or replace frame as needed.
10. Discard worn bearing and used mounting hardware. Examine inner race of replacement bearing. If the inner race protrudes beyond the housing more on one side than the other, install the bearing in the basket such that this side is facing the frame side plate. Insert the stub shaft into the bearing and mount the bearing to the basket with the new carriage bolts. Torque locknuts on carriage bolts to 70-75 ft.-lbs.

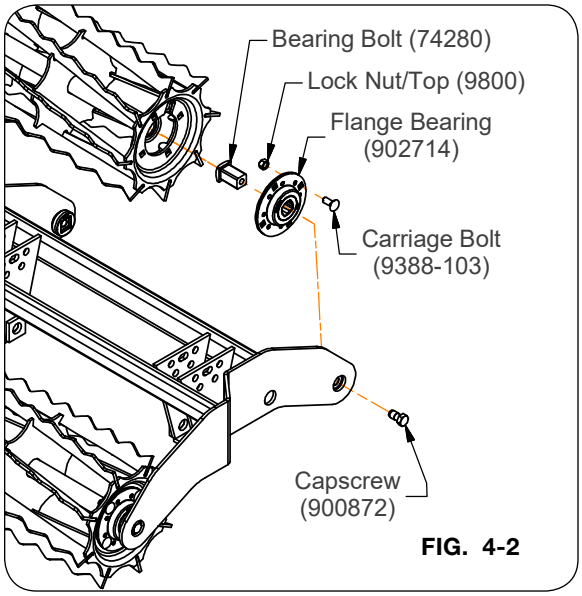


FIG. 4-2

Replacing Rolling Harrow Basket Bearings (continued)

11. Push the basket back into the frame. Align the hole in the bearing bolt with the hole in the frame side plate. Thread the new 5/8"-11UNC x 1 1/4" capscrew (900872) into the bearing bolt (74280) until the epoxy begins to engage.

12. Use a pry bar to force the head of the bearing bolt (74280) against the inner race of the bearing. This may flex the side plate of the frame away from the basket; this is acceptable. While maintaining pressure on the head of the bearing bolt (74280), use the 5/8"-11UNC x 1 1/4" capscrew (900872) to rotate the stub shaft until the end of it engages in the square recess of the frame side plate. Often there will be an audible click when the shaft engages and the side plate move toward the basket. Use the pry bar to prevent the bearing bolt from turning and torque the 5/8"-11UNC x 1 1/4" capscrew (900872) to 150-160 ft.-lbs.

IMPORTANT

- *The bearing bolt MUST fully engage the square recess in the frame side plate to prevent machine damage. Make certain the bearing bolt is fully engaged before tightening the 5/8"-11UNC x 1 1/4" capscrew (900872).*

13. Reinstall basket assembly on machine with pins (9500423) and spiral pins (91144-186).

Replacing Spring Assemblies

If it is necessary to disassemble the basket springs, be sure to reassemble the cast trunnion according to FIG. 4-3.

SPRING ASSEMBLY #75473B

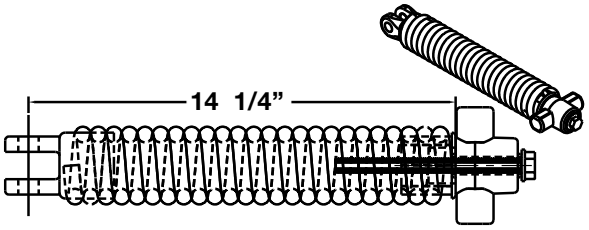


FIG. 4-3

Hub Assembly

1. Use grease to lubricate the seal lip.
2. Place the hub onto the spindle. Rotate the hub while installing the hub so that the seal does not fold under as the lip goes on the seal face of the spindle.
3. Be sure the outer cone slides on the spindle and into the cup.
4. Assemble the washer and nut onto the spindle and tighten the nut to 30-40 ft.-lbs. while rotating the hub to seat bearings. Do not move the hub after this step is complete.
5. Back off the nut until it becomes loose.
6. Finger tighten the nut by hand without moving the hub.
7. Tighten the nut to align to the next slot with the hole in the spindle and install the cotter pin. Do not bend the cotter pin.
8. Check for looseness in the hub. There should not be any wiggle. If it does, remove the cotter pin, tighten the nut one more slot, insert the cotter pin and repeat step 8.
9. Check for drag while rotating the hub. The hub should rotate with slight resistance. If it drags excessively, repeat the procedure starting at step 4.
10. Bend the legs of the cotter pin.
11. Install the hub cap.

Hydraulic System

NOTE: For plumbing diagram, refer to "Hydraulic Diagram 1". Refer to PARTS section for hydraulic components detail listing.

Standard Single Hydraulic Operation

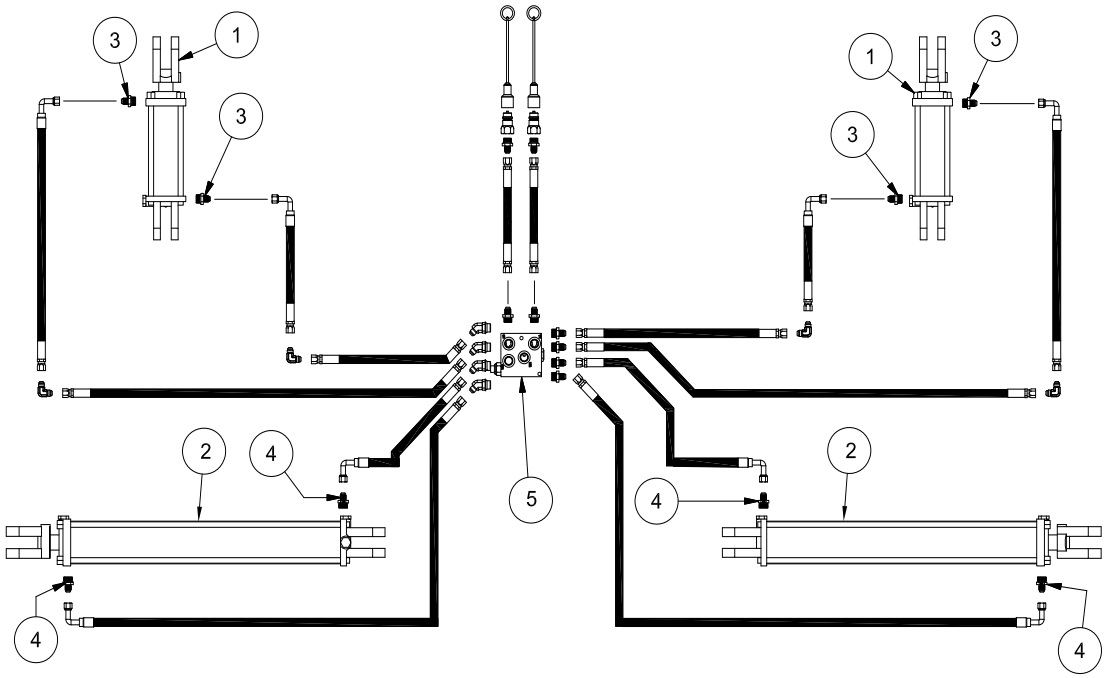
Proper valve function: On the raise cycle, the unit should raise completely then fold. On the lower cycle, the unit will lower/unfold at the same time.

NOTE: It is recommend to adjust valves when hydraulic oil is at operating temperature.
NOTE: Recommended operating hydraulic flow is 8-15 gpm. Recommended operating hydraulic pressure is greater than 2,200 psi.

Unit folds before raising completely: Reference pressure cartridge valve SQ1. Back off jam nut. Use Allen Wrench turn valve clockwise ¼ turn at a time until the unit raises completely then folds. Tighten jam nut.

Unit raises but does not fold: Reference pressure cartridge valve SQ1. Back off jam nut. Use Allen Wrench turn valve counter-clockwise ¼ turn at a time until the unit raises completely then folds. Tighten jam nut.

HYDRAULIC DIAGRAM #1



ITEM	DESCRIPTION	QTY	NOTES
1	Base Wheel Cylinder	2	Cylinder 3 x 6
2	Wing Fold Cylinder	2	12' Base (3-6' Wings)
			12' Base (10-11' Wings)
			15' Base (3-7' Wings)
3	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male		
4	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	4	with 0.060 Restrictor
5	Split Function Sequence Valve	1	

All hoses, cylinders, and fittings are rated for a minimum of 3000PSI. Any replacement components must be rated for 3000PSI minimum.

Hydraulic System (continued)

Servicing Stack-Fold Valve

Stack Fold Valve Sticking

In some cases, particularly after periods of inactivity, the stack fold valve spool may stick in the compressed position and the wings will not fold in the proper sequence. Usually this can be corrected by tapping on the top of the spool to jar it loose. Be careful not to strike the spool too hard and drive it through the spool cover on the bottom of the valve. If the valve remains stuck, it will need removed, disassembled, and inspected for damage, broken parts, etc. See Seal Kit Installation for disassembly details.

Spool Cover Repair

In some cases, the spool in the stack fold valve will travel beyond its intended range and break off the spool cover on the bottom of the valve. Operation of the Rolling Harrow without the spool cover installed can lead to contamination of or internal damage to the stack fold valve.

The first step in repairing a broken spool cover is to determine why the spool traveled too far. Possible causes are:

1. Excessive wing fold speed at contact between spool top and wing striker bar
2. Build-up of material on wing striker bar or spool top
3. Incorrect installation of stack fold valve (valve mounted too high)

Remove the two 1/4”-20 x 3/4” socket head capscrews on the bottom of the valve. Place a new cap on the valve, align the holes, and re-install the socket head capscrews. New socket head capscrews can be purchased from local fastener supplier.

FIG. 4-4

Seal Kit Installation

A seal kit (#92952) is available to repair the stack fold valve if it should begin to leak or bypass oil. Service should be done in a clean environment.

⚠ WARNING

- **ALWAYS RELIEVE HYDRAULIC SYSTEM PRESSURE BEFORE DISCONNECTING HOSES FROM TRACTOR OR SERVICING HYDRAULIC SYSTEM. SEE TRACTOR OPERATOR’S MANUAL FOR PROPER PROCEDURES.**

- **HYDRAULIC CYLINDERS MUST BE PURGED BEFORE HYDRAULIC SYSTEM MAY BE USED. FAILURE TO DO THIS COULD RESULT IN SERIOUS INJURY.**

Hydraulic System (continued)

1. Disconnect hydraulic hoses from valve, remove valve from machine, and drain oil.
2. Remove fittings from valve.
3. Remove 1/4”-20UNC x 3/4” socket head capscrews from spool cover on bottom of valve. Remove spool cover.
4. Remove boot clamp from spool top and press boot down to expose drive pin. See FIG. 4-5.

FIG. 4-5

Press boot down to expose drive pin

5. Drive out the pin and remove spool top, boot, and spring.
6. Remove 1/4”-20UNC x 1/2” socket head capscrew from spool stop on bottom of spool and remove stop.
7. Remove the check valves from each corner of the valve.
8. Gently but firmly push the spool out the bottom of the valve. If the spool is stuck, soak in penetrating oil and lightly tap the top of the spool. Forcing the spool out may damage the spool or the valve body.
9. Pry out the seals just inside each end of the valve body.
10. Remove the Teflon split washer, O-ring, and metal washer from each check valve.
11. Clean valve body and spool in solvent. Inspect each for damage, blockage, etc.
12. Coat new O-rings, seals, and washers from seal kit with clean hydraulic oil.
13. Install seals in each end of valve body.
14. Determine the correct size O-rings in the seal kit and install them on the check valves

Hydraulic System (continued)

15. Install the Teflon split washers on the check valves, making certain washers are against the bottom of the groove with the O-rings on top (FIG. 4-6).

16. Install new metal washers on check valves.

17. Remaining parts in seal kit are not needed for this application.

18. Coat spool liberally with oil. Push spool into valve from the bottom using a twisting motion. Be careful not to damage new seals in valve.

19. Re-install check valves and tighten.

20. Re-install spool stop on bottom of spool and tighten 1/4"-20UNC x 1/2" socket head capscrew.

FIG. 4-6

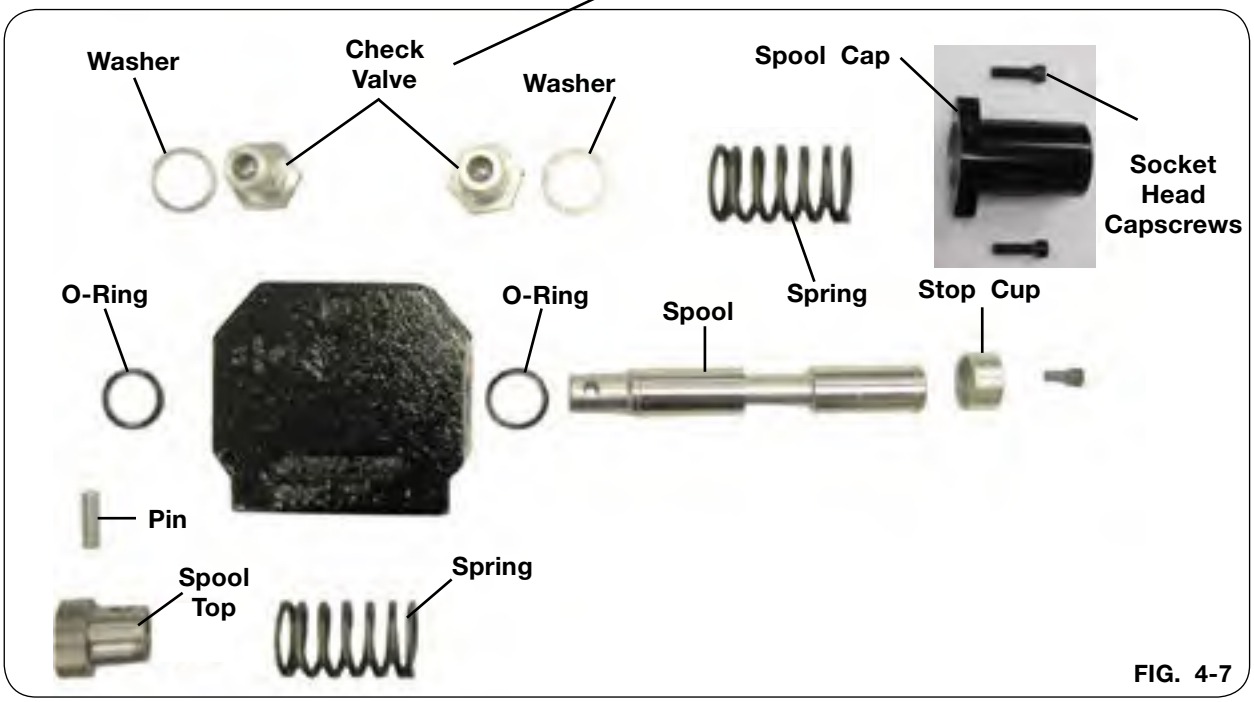


FIG. 4-7

21. Support valve and spool stop. Install rubber boot and washer on top of valve. Place remaining spring on washer.

22. Compress spring until holes in top and spool shaft align. Re-install drive pin.

23. Slip boot over spool top and secure with clamp.

24. Re-install spool cap on bottom of valve and tighten 1/4"-20 x 3/4" socket head capscrews.

25. Confirm that spool strokes properly. Re-install on machine.

Troubleshooting

PROBABLE CAUSE	CORRECTION
Hydraulics Not Functioning Properly	
Incorrect hose hook-up to tractor control levers	Refer to Tractor Operator's Manual for valve and control lever arrangement
Insufficient tractor hydraulic pressure	A. Check hydraulic reservoir oil level B. Refer to tractor "Operator's Manual" or hydraulic system recommendations
Hydraulic components leaking oil	Find cause and correct, see MAINTENANCE section
Hydraulic hoses kinked or twisted	Find cause and correct
Malfunction of hydraulic cylinders A. Cylinder leakage B. Orifice in wing-fold cylinders plugged	 A. Repair or replace cylinders. See PARTS section for cylinder or seal kit part numbers B. Remove contamination from system (flush system, change oil and filter)
Stack-fold wings not folding in proper sequence. (Wrong connections to stack-fold valve)	Refer to MAINTENANCE section for checking system function. (Refer to ASSEMBLY section for hydraulic assembly procedures)
Unit "Bleeding Down" when hooked into primary tillage tools hydraulic system (with rephase cylinders)	Install pilot operated check valve, refer to OPERATIONS section
Wing Transport wheels raise before base transport wheels	Normal Operation
Split Function Valve NOTE: It is recommend to adjust valves when hydraulic oil is at operating temperature. NOTE: Recommended operating hydraulic flow is 8-15 GPM. Recommended operating hydraulic pressure is greater than 2,200 PSI.	
Proper Valve Function	On the raise cycle, the unit should raise completely then fold. On the lower cycle, the unit will lower/unfold at the same time.
Unit folds before raising completely	Reference pressure cartridge valve SQ1 (Top Cartridge). Back off jam nut. Use Allen Wrench turn valve clockwise ¼ turn at a time until the unit raises completely then folds. Tighten jam nut.
Unit raises but does not fold	Reference pressure cartridge valve SQ1 (Top Cartridge). Back off jam nut. Use Allen Wrench turn valve counter-clockwise ¼ turn at a time until the unit raises completely then folds. Tighten jam nut.
Dual Function Valve NOTE: It is recommend to adjust valves when hydraulic oil is at operating temperature. NOTE: Recommended operating hydraulic flow is 8-15 GPM. Recommended operating hydraulic pressure is greater than 2,200 PSI.	
Proper Valve Function	On the raise cycle, the unit should raise completely then fold. On the lower cycle, the unit should unfold completely then lower.
Unit folds before raising completely	Reference pressure cartridge valve SQ1 (Top Cartridge). Back off jam nut. Use Allen Wrench turn valve clockwise ¼ turn at a time until the unit raises completely then folds. Tighten jam nut.
Unit raises but does not fold	Reference pressure cartridge valve SQ1 (Top Cartridge). Back off jam nut. Use Allen Wrench turn valve counter-clockwise ¼ turn at a time until the unit raises completely then folds. Tighten jam nut.
Unit lowers before unfolding completely	Reference pressure cartridge valve SQ2 (Bottom Cartridge). Back off jam nut. Use Allen Wrench turn valve clockwise ¼ turn at a time until the unit unfolds completely then lowers. Tighten jam nut.
Unit unfolds but does not lower	Reference pressure cartridge valve SQ2 (Bottom Cartridge). Back off jam nut. Use Allen Wrench turn valve counter-clockwise ¼ turn at a time until the unit unfolds completely then lowers. Tighten jam nut.

Complete Torque Chart – Capscrews - Grade 5

NOTE: Grade 5 capscrews can be identified by three radial dashes on head.

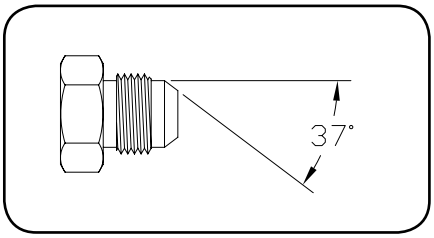
NOTE: For wheel torque requirements, refer to **Wheels and Tires**.

NOTE: Tighten U-bolts to have the same number of threads exposed on each end.

SIZE	FOOT POUNDS	NEWTON METERS	SIZE	FOOT POUNDS	NEWTON METERS
1/4-20 1/4-28	8-10 9-11	11-13 12-15	3/4-10 3/4-16	200-220 210-230	270-300 285-310
5/16-18 5/16-24	15-17 17-19	20-23 23-26	7/8-9 7/8-14	330-350 360-380	425-475 460-515
3/8-16 3/8-24	25-28 28-31	34-38 38-42	1-8 1-14	500-525 540-560	675-710 730-760
7/16-14 7/16-20	40-45 45-50	54-61 61-68	1 1/8-7 1 1/8-12	600-635 665-700	815-860 920-950
1/2-13 1/2-20	62-68 68-75	84-92 92-102	1 1/4-7 1 1/4-12	850-895 940-990	1150-1215 1275-1340
9/16-12 9/16-18	90-98 100-110	22-133 134-148	1 3/8-6 1 3/8-12	1125-1175 1280-1335	1525-1590 1735-1810
5/8-11 5/8-18	120-135 124-137	162-183 168-186	1 1/2-6 1 1/2-12	1500-1560 1685-1755	2035-2115 2285-2380

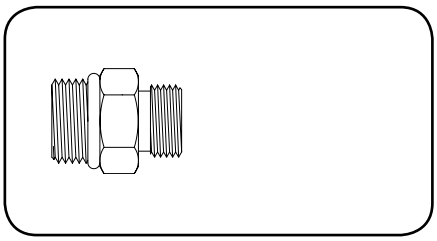
Hydraulic Fittings – Torque and Installation

SAE FLARE CONNECTION (JIC)



1. Tighten nut with finger until it bottoms the seat.
2. Using a wrench, rotate nut to tighten. Turn nut 1/3 turn to apply proper torque.

SAE STRAIGHT THREAD O-RING SEAL



1. Insure jam nut and washer are backed up to the back side of smooth portion of elbow adapter.
2. Lubricate o-ring -- VERY IMPORTANT!
3. Thread into port until washer bottoms onto spot face.
4. Position elbows by backing up adapter.
5. Tighten jam nut.

Wheels and Tires

Wheel Nut Torque

⚠ CAUTION

- **IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. TORQUE WHEEL NUTS/BOLTS TO VALUES IN TABLE. CHECK TORQUE BEFORE INITIAL USE, AFTER ONE HOUR OF USE, AND EACH HOUR UNTIL WHEEL NUTS/BOLTS MAINTAIN TORQUE VALUE. CHECK TORQUE EVERY 10 HOURS OF USE THEREAFTER. AFTER EACH WHEEL REMOVAL START TORQUE PROCESS FROM BEGINNING. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.**

Failure to check torque before first use may damage wheel nut/bolt seats. Once seats are damaged, it will become impossible to keep nuts/bolts tight. Tighten nuts/bolts to the applicable torque value shown below. Start all nuts/bolts by hand to prevent cross threading. Torque nuts/ bolts in the recommended sequence as shown in Diagram 1.

WHEEL HARDWARE	
SIZE	FOOT-POUNDS
1/2-20 (UNF)	75 Ft.-Lbs.

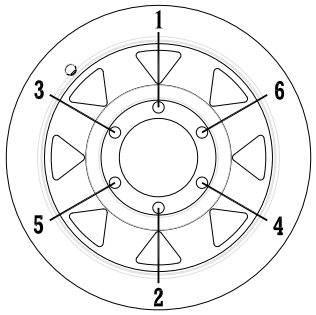


Diagram 1 - 6 bolt

Tire Pressure

- The following is to be used as a general guide for tire inflation and figures can vary depending on specific brand of tire used. **It is important that tires are inspected after unit is loaded.** Start with minimum pressure indicated. The tire should stand up with no side-wall buckling or distress as tire rolls. Record the pressure needed to support the full load and maintain this pressure to achieve proper tire life. **Do not exceed maximum recommended tire pressure.**

Recommended....44 PSI maximum

Wheels and Tires

Tire Warranty

For questions regarding new tire warranty, please contact your local original equipment tire dealer. Used tires carry no warranty. Following are phone numbers and Websites for your convenience:

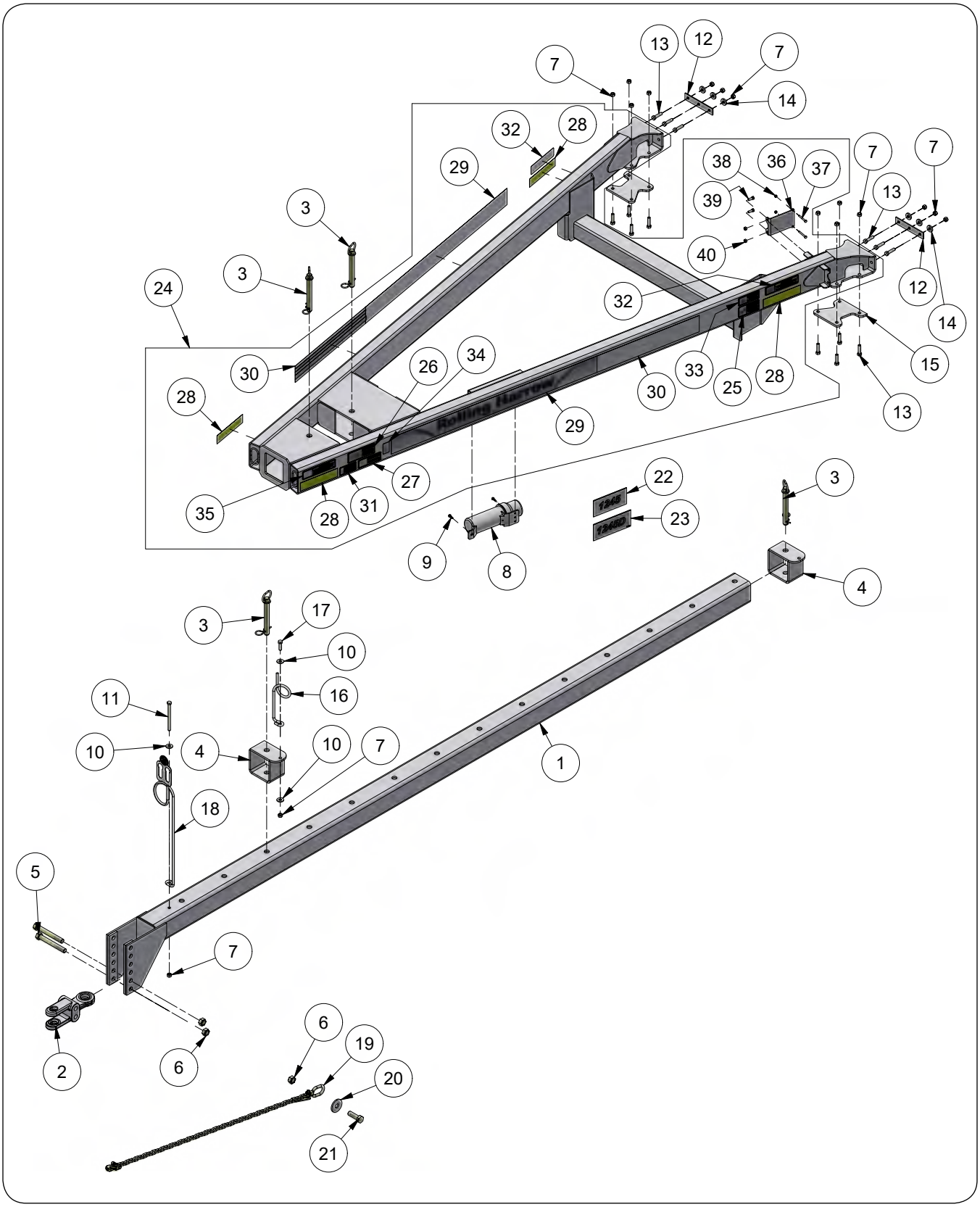
Carlisle
www.carlisletire.com
Phone 800-260-7959
Fax 800-352-0075

Greenball
www.greenball.com
Phone nearest location:
California 800-937-5204
Georgia 800-283-4569
Florida 800-935-0200
Indiana 800-426-4068
Tennessee 800-946-9412
Ohio 800-840-7295
Pennsylvania 800-869-6787

SECTION V
Parts

A-Frame & Hitch Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



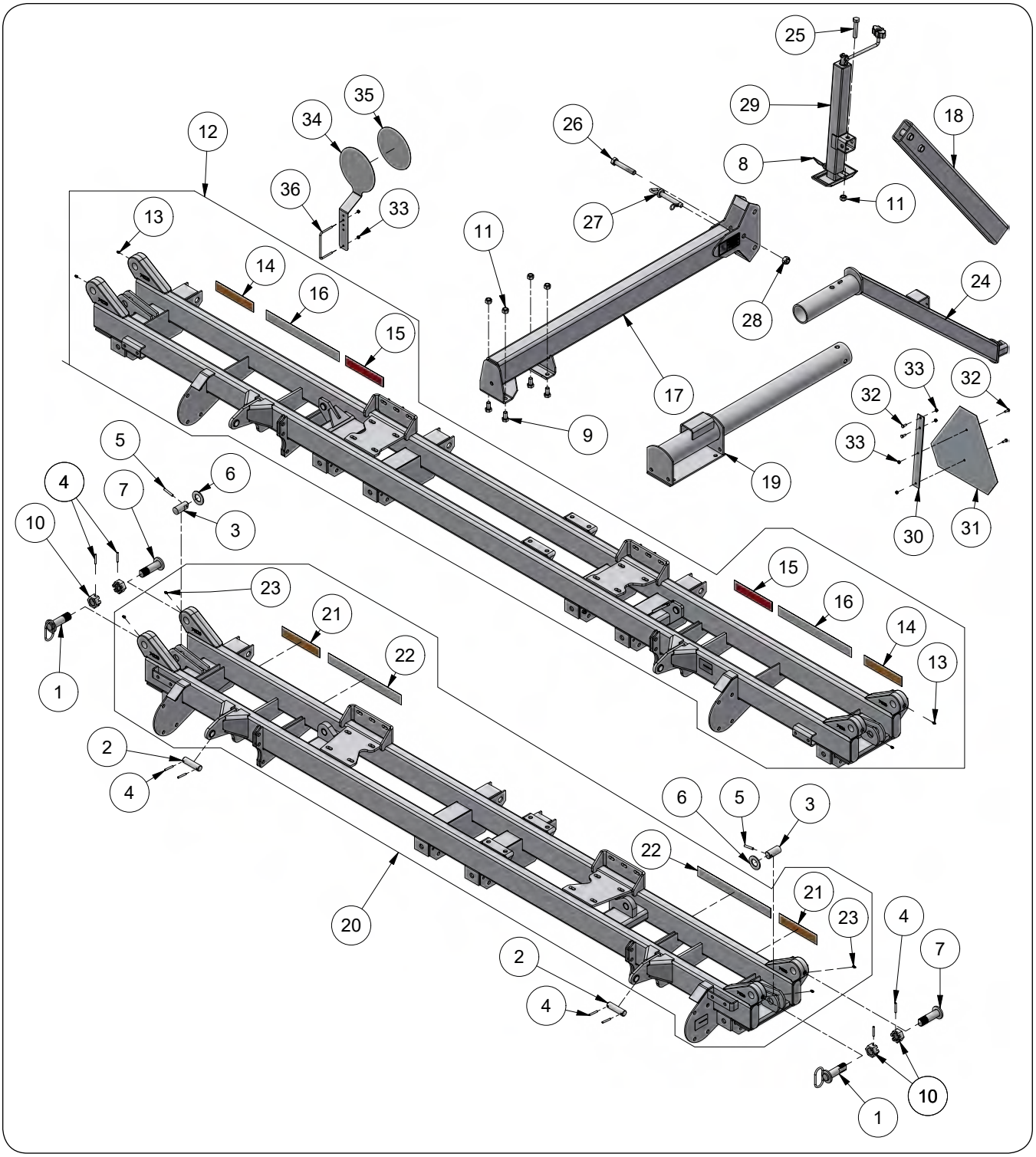
A-Frame & Hitch Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	79258G	Tongue Weldment =Green=	1	
	79258R	Tongue Weldment =Red=		
2	83301B	Hitch Clevis =Black=	1	
3	93950	Hitch Pin w/Hairpin	4	
4	89045G	Stop Weldment =Green=	2	
	89045R	Stop Weldment =Red=		
5	9390-178	Capscrew, 7/8"-9UNC x 7" G5	2	
6	91141	Locknut, 7/8"-9UNC	3	
7	9800	Locknut, 1/2"-13UNC	16	
8	900552	Manual Holder	1	
9	9512	Self-Drilling Screw, 1/4"-14 x 1"	2	
10	9405-088	Flat Washer, 1/2" USS	16	
11	9390-116	Capscrew, 1/2"-13UNC x 6 1/2" G5	1	
12	78945B	Backer Plate	2	
13	91299-103	Capscrew, 1/2"-13UNC x 2" G8	14	
14	9503326	Flat Washer 1/2" (Heavy)	6	
15	700256B	Reinforcement Plate =Black=	2	
16	902979B	Hose Holder	1	
17	9390-102	Capscrew, 1/2"-13UNC x 1 3/4" G5	1	
18	79337B	Hose Holder 7/16" Dia. with SIS Decal	1	
19	94098	Transport Chain (10,100#)	1	
20	85723	Hardened Washer	1	
21	9390-167	Capscrew, 7/8"-9UNC x 2 3/4" G5	1	
22	9501232	Decal, 1245	2	
23	9501822	Decal, 1245D		
24	77750G	Hitch A-Frame Weldment With Decals =Green=	1	(Includes Items 25 through 40)
	77750R	Hitch A-Frame Weldment With Decals =Red=		
25	95445	Decal, WARNING "High Pressure Fluid"	1	
26	94094	Decal, WARNING "Rising or Falling Tongue"	1	
27	97575	Decal, CAUTION "Transport Chain"	1	
28	9003127	Reflector =Amber=	4	
29	901129	Decal, Rolling Harrow	2	
30	900713	Decal, Stripe	2	
31	97961	Decal, WARNING "Read & Understand"	1	
32	95136	Decal, WARNING "Unfolding Wings.."	2	
33	95605	Decal, WARNING "Falling Equipment..."	1	
34	91605	Decal, FEMA	1	
35	901891	Decal, DANGER "Electrocution Hazard"	1	
36	78039B	Valve Mount Bracket =Black=	1	
37	9390-010	Capscrew, 1/4"-20UNC x 2 1/4" G5	2	
38	9936	Locknut, 1/4"-20UNC	2	
39	9390-055	Capscrew, 3/8"-16UNC x 1" G5	2	
40	9928	Locknut, 3/8"-16UNC	2	

Main Frame Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



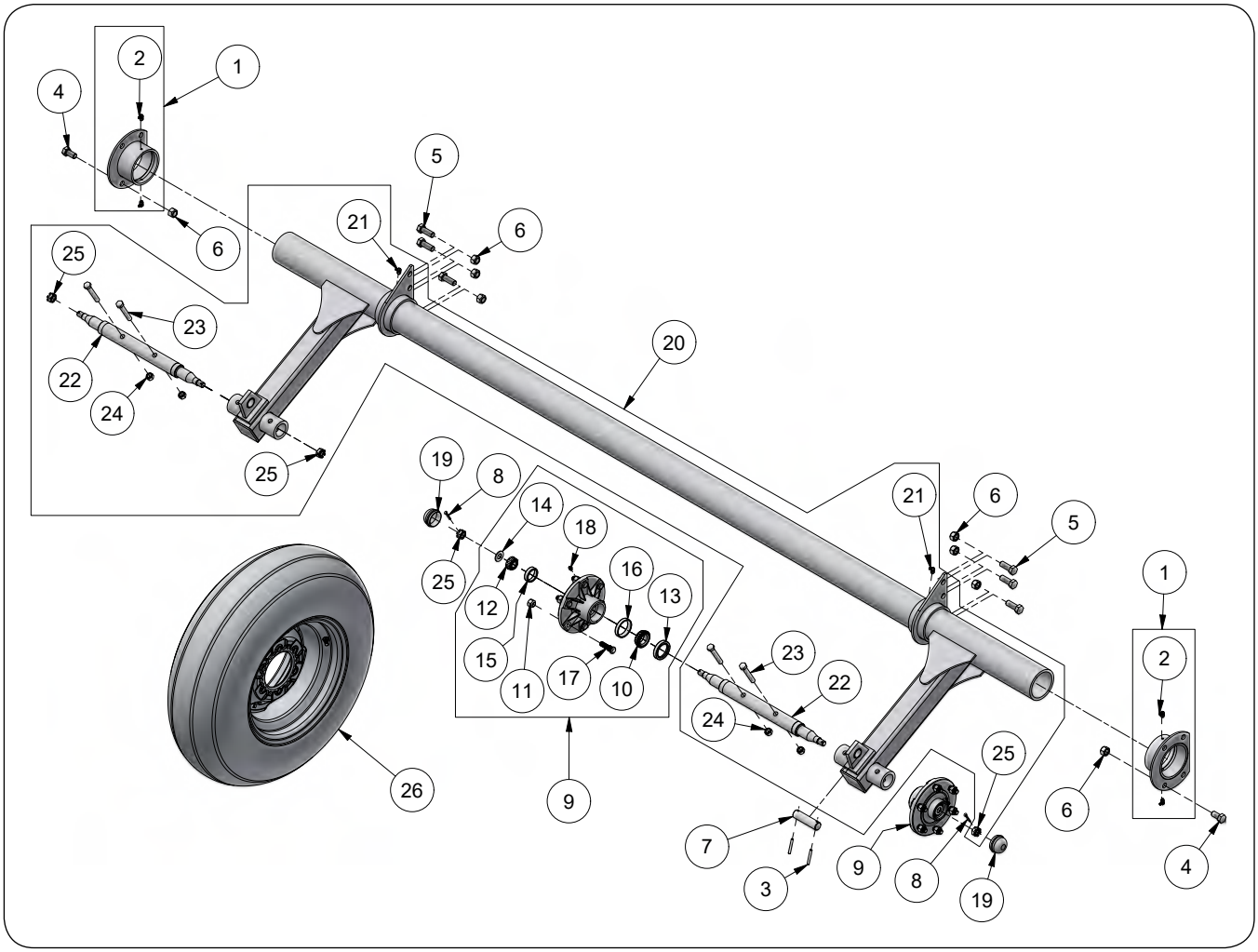
Main Frame Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	73906	D-Pivot Pin Weldment, 1 1/4" Dia. x 4 5/8	2	
2	85632	Pin, 1" Dia. x 3 3/4"	4	
3	87292	D-Pin, 1 1/4" Dia. x 2 5/8"	2	
4	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	8	
5	91144-186	Spiral Pin, 5/16" Dia. x 2"	2	
6	9405-128	Flat Washer, 1 1/4" SAE	2	
7	83146	D-Pivot Pin Weldment	2	
8	98853	Hitch Pin, 5/8" Dia. x 4 1/4"	1	
9	9390-121	Capscrew, 5/8"-11UNC x 1 1/4" G5	8	
10	9393-024	Slotted Nut, 1 1/4"-12UNF	4	
11	9801	Locknut, 5/8"-11UNC	15	
12	77226G	15 Ft. Base Weldment w/Decals =Green=	1	Includes Items 13 through 16
	77226R	15 Ft. Base Weldment w/Decals =Red=		
13	91160	Grease Zerk	4	
14	9003125	Decal, Fluorescent Orange	2	
15	9003126	Decal, Reflector =RED=	2	
16	901576	Decal, Unverferth	2	
17	77694G	Jack Arm Weldment =Green=	1	
	77694R	Jack Arm Weldment =Red=		
18	77698B	Jack Mount Weldment =Black=	1	
19	77715G	Jack Arm Weldment =Green=	1	
	77715R	Jack Arm Weldment =Red=		
20	77743G	12 Ft. Base Weldment w/Decals =Green=	1	Includes Items 21 through 23
	77743R	12 Ft. Base Weldment w/Decals =Red=		
21	9003125	Fluorescent Orange Decal	2	
22	901576	Decal, Unverferth	2	
23	91160	Grease Zerk	4	
24	87095B	Jack Mount Weldment =Black=	1	
25	9390-129	Capscrew, 5/8"-11UNC x 3 1/4" G5	1	
26	9390-154	Capscrew, 3/4"-10UNC x 4 1/2" G5	1	
27	97035	Hitch Pin, 3/4" Dia. x 4 1/4"	1	
28	9802	Locknut, 3/4"-10UNC	1	
29	901061	Jack Top Wing 5000# =Black=	1	
30	81952B	Strap	1	
31	9829	SMV Emblem	1	
32	9390-003	Capscrew, 1/4"-20UNC x 3/4" G5	4	
33	9936	Locknut/Top, 1/4"-20UNC	6	
34	79340B	Decal Plate with SIS Decal	1	Includes item 35
35	9008714	Decal, SIS 20MPH	1	
36	9503592	U-Bolt, 1/4"-20UNC x 2 5/8", 5 5/16" C/C	1	

Axle & Wheel Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



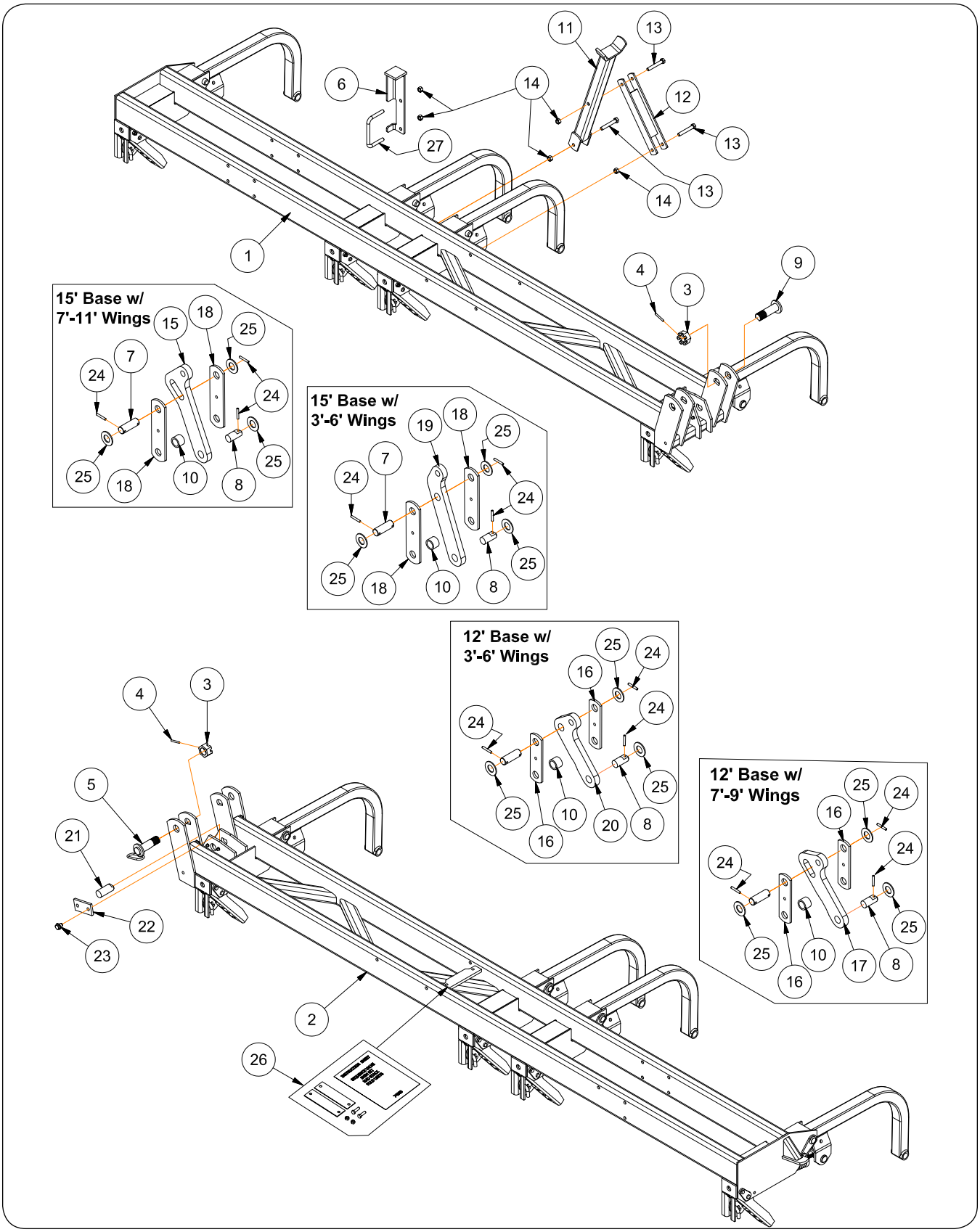
Axle & Wheel Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	87274B	Bearing Housing with 90° Grease Zerks	2	Includes Item 2
2	93415	90° Grease Zerk	4	
3	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	8	
4	9390-121	Capscrew, 5/8"-11UNC x 1 1/4" G5	8	
5	9390-123	Capscrew, 5/8"-11UNC x 1 3/4" G5	6	
6	9801	Locknut, 5/8"-11UNC	15	
7	85632	Pin, 1" Dia. x 3 3/4"	4	
8	9391-043	Cotter Pin, 3/16" Dia. x 1 1/4"	4	
9	9500001B	Hub 6 Bolt Assembly Complete	4	Includes Items 10 through 18
10	9165	Bearing Cone #LM67048	4	
11	9348	Beveled Nut, 1/2"-20UNF	24	
12	9789	Bearing Cone #LM11949	4	
13	9790	Seal, 1 5/8" I.D.	4	
14	9791	Flat Washer, 21/32" I.D.	4	
15	9784	Bearing Cup #LM11910	4	
16	9345	Bearing Cup #LM67010	4	
17	9347	Stud Bolt, 1/2"-20UNF x 1.88"	24	
18	9504710	Grease Zerk	4	
19	9787	Hub Cap	4	
20	87621B	Axle Assembly	1	Includes Items 21 through 25
21	93415	90° Grease Zerk	4	
22	86966	Spindle 1 5/8" Dia.	2	
23	9390-108	Capscrew, 1/2"-13UNC x 3 1/4" G5	4	
24	9800	Locknut, 1/2"-13UNC	4	
25	9393-014	Slotted Nut, 5/8"-11UNC	4	
26	60911	Mounted Tire & Wheel =OFF WHITE=	4	W815-6-08 - Wheel
	60911SM	Mounted Tire & Wheel =SILVER MIST=		W815-6-08SM - Wheel

Wing Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



Wing Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	75763G	Wing 3' RH Assembly =Green=	1	
	75763R	Wing 3' RH Assembly =Red=		
	75765G	Wing 4' RH Assembly =Green=		
	75765R	Wing 4' RH Assembly =Red=		
	75767G	Wing 5' RH Assembly =Green=		
	75767R	Wing 5' RH Assembly =Red=		
	75769G	Wing 6' RH Assembly =Green=		
	75769R	Wing 6' RH Assembly =Red=		
	75771G	Wing 7' RH Assembly =Green=		
	75771R	Wing 7' RH Assembly =Red=		
	75773G	Wing 8' RH Assembly =Green=		
	75773R	Wing 8' RH Assembly =Red=		
	75775G	Wing 9' RH Assembly =Green=		
	75775R	Wing 9' RH Assembly =Red=		
	75777G	Wing 10' RH Assembly =Green=		
	75777R	Wing 10' RH Assembly =Red=		
	75779G	Wing 11' RH Assembly =Green=		
	75779R	Wing 11' RH Assembly =Red=		
2	75762G	Wing 3' LH Assembly =Green=	1	
	75762R	Wing 3' LH Assembly =Red=		
	75764G	Wing 4' LH Assembly =Green=		
	75764R	Wing 4' LH Assembly =Red=		
	75766G	Wing 5' LH Assembly =Green=		
	75766R	Wing 5' LH Assembly =Red=		
	75768G	Wing 6' LH Assembly =Green=		
	75768R	Wing 6' LH Assembly =Red=		
	75770G	Wing 7' LH Assembly =Green=		
	75770R	Wing 7' LH Assembly =Red=		
	75772G	Wing 8' LH Assembly =Green=		
	75772R	Wing 8' LH Assembly =Red=		
	75774G	Wing 9' LH Assembly =Green=		
	75774R	Wing 9' LH Assembly =Red=		
	75776G	Wing 10' LH Assembly =Green=		
	75776R	Wing 10' LH Assembly =Red=		
	75778G	Wing 11' LH Assembly =Green=		
	75778R	Wing 11' LH Assembly =Red=		
3	9393-024	Slotted Nut, 1 1/4"-12UNF	4	

(Continued on next page)

Wing Components (continued)

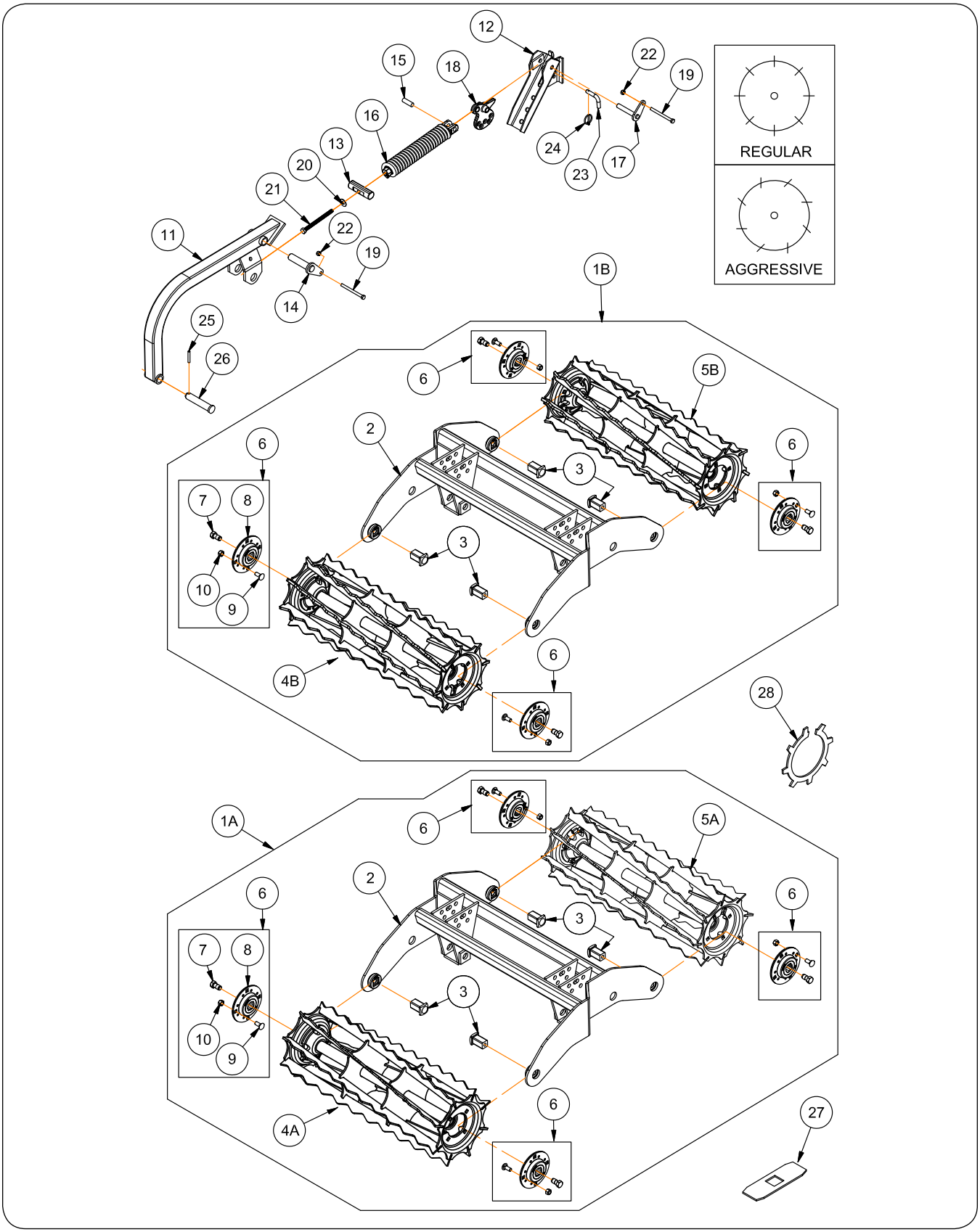
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
4	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	4	
5	73906	Pivot Pin	2	
6	77289B	Wing Stand Weldment =Black=	2	For 12' Base - 3', 4', 5' & 6' Wings For 15' Base - 3', 4', 5', 6' & 7' Wings
7	87283	Pin, 1 1/4" Dia. x 3 5/8"	2	
8	87292	D-Pin, 1 1/4" Dia. x 2 5/8"	2	
9	83146	D-Pivot Pin Weldment	2	
10	81561	Tube 1 1/4"	2	
11	81571B	Wing Stand 22 1/4" Weldment =Black=	1	For 12' Base - 7', 8' & 9' Wings For 15' Base - 8', 9', 10' & 11' Wings
12	81572B	Brace (Wing Stand) Weldment =Black=	1	For 12' Base - 7', 8' & 9' Wings For 15' Base - 8', 9', 10' & 11' Wings
13	9390-108	Capscrew, 1/2"-13UNC x 3 1/4" G5	3	
14	9800	Locknut, 1/2"-13UNC	18	
15	81504B	Arm/Fold 15'Base w/7'-11' Wings	2	For 15' Base - 7', 8', 9', 10' & 11' Wings
16	87004B	Strap/Linkage Bar	4	For 12' Base - 3' through 9' Wings
17	81503B	Arm/Fold	2	For 12' Base - 7', 8' & 9' Wings
18	87005B	Strap/Linkage Bar	4	For 15' Base - 3' through 11' Wings
19	88815B	Arm/Fold 15' Base w/3'-6' Wings	2	For 15' Base - 3', 4', 5' & 6' Wings
20	81502B	Arm/Fold 12' Base w/3'-6' Wings	2	For 12' Base - 3', 4', 5' & 6' Wings
21	88575	D-Pin, 1 1/4" Dia. x 2 15/16"	2	Used with Plate & Bolts
22	88574	Bar, 2" x 3 7/8"	2	
23	901119	Flange Screw,1/2"-13UNC x 3/4"	4	
24	91144-186	Spiral Pin, 5/16" Dia. x 2"	8	
25	9405-128	Flat Washer, 1 1/4"	6	
26	74669	Valve Shim Kit	-	
27	96874	U-Bolt, 1/2"-13UNC x 3.12"	2	

Notes

Rolling Harrow Basket Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



Rolling Harrow Basket Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NUMBER	DESCRIPTION	NOTES
1A	74845B	Basket & Frame 3' Assembly	Includes Items 2-10
	74846B	Basket & Frame 4' Assembly	
	74828B	Basket & Frame 5' Assembly	
	74847B	Basket & Frame 6' Assembly	
1B	78773CG	HD Basket & Frame 3' Assembly - Option	Includes Items 2-10
	78470CG	HD Basket & Frame 4' Assembly - Option	
	78474CG	HD Basket & Frame 5' Assembly - Option	
	78466CG	HD Basket & Frame 6' Assembly - Option	
2	74842B	Frame 3' Weldment	
	74843B	Frame 4' Weldment	
	74822B	Frame 5' Weldment	
	74844B	Frame 6' Weldment	
3	74280	Bearing Bolt	
4A	74596B	Basket 3' Regular Weldment	
	74597B	Basket 4' Regular Weldment	
	74576B	Basket 5' Regular Weldment	
	74598B	Basket 6' Regular Weldment	
4B	78771CG	HD Basket 3' Regular Weldment - Option	
	78468CG	HD Basket 4' Regular Weldment - Option	
	78472CG	HD Basket 5' Regular Weldment - Option	
	78464CG	HD Basket 6' Regular Weldment - Option	
5A	74599B	Basket 3' Aggressive Weldment	
	74600B	Basket 4' Aggressive Weldment	
	74579B	Basket 5' Aggressive Weldment	
	74601B	Basket 6' Aggressive Weldment	
5B	78772CG	HD Basket 3' Aggressive Weldment - Option	
	78469CG	HD Basket 4' Aggressive Weldment - Option	
	78473CG	HD Basket 5' Aggressive Weldment - Option	
	78465CG	HD Basket 6' Aggressive Weldment - Option	
6	74006	Flange Bearing Kit	Includes Items 7-10
7	900872	Capscrew, 5/8"-11UNC x 1 1/4"	
8	902714	Flange Bearing	
9	9388-103	Carriage Bolt, 1/2"-13UNC x 1 1/4" G5	
10	9800	Locknut, 1/2"-13UNC	

(Continued on next page)

Rolling Harrow Basket Components (continued)

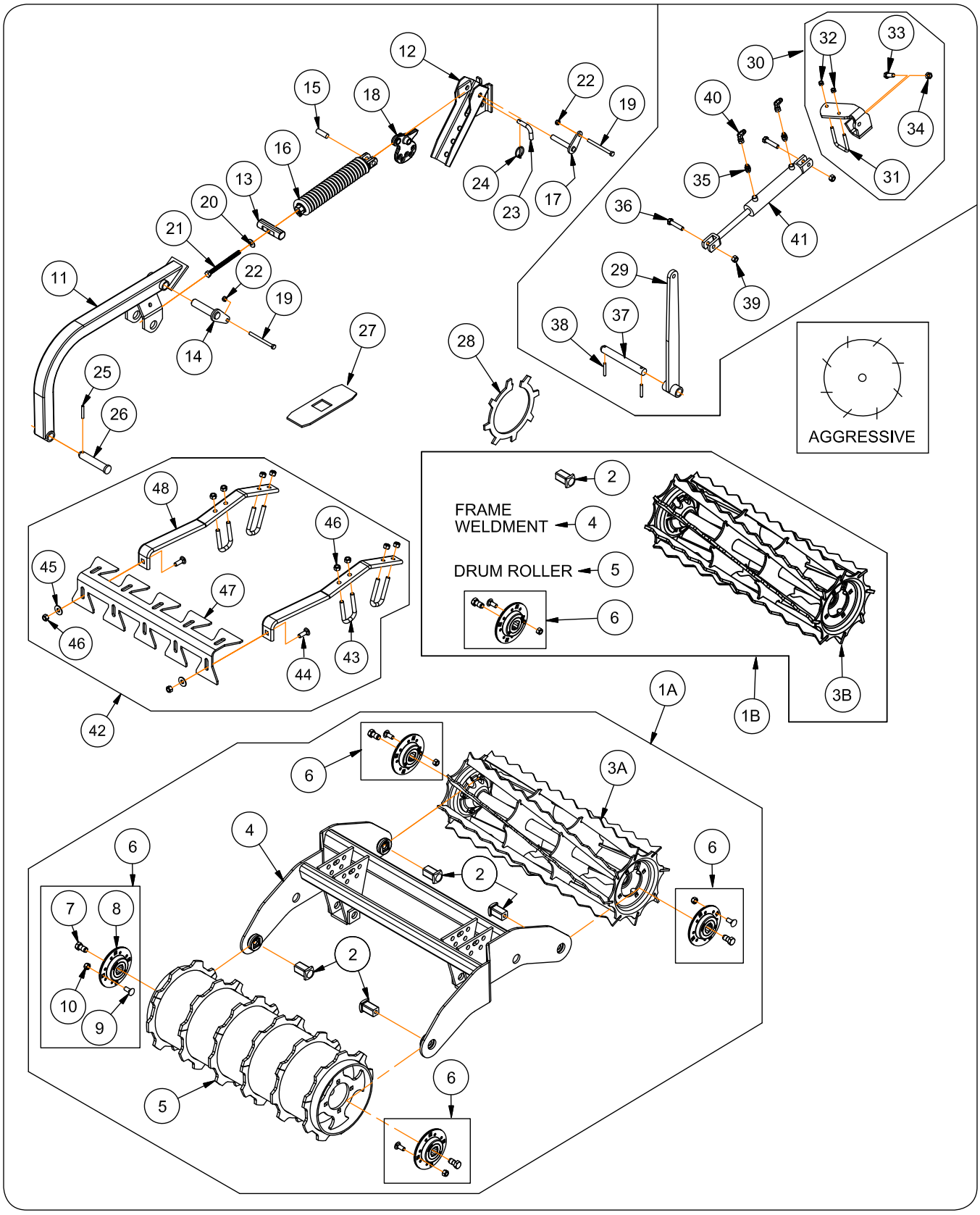
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NUMBER	DESCRIPTION	NOTES
11	74793G	Bent Arm Weldment =Green=	
	74793R	Bent Arm Weldment =Red=	
12	74848G	One-Bar Arm/Saddle Weldment =Green=	
	74848R	One-Bar Arm/Saddle Weldment =Red=	
13	74850	Trunnion	
14	76331PL	Pin Weldment, 1" Dia. x 4 11/16"	
15	81321	Pin, 5/8" Dia. x 1 7/8"	
16	75473B	Spring Assembly, 14 1/4"	
17	86251B	Pin-Link Weldment, 5/8" Dia. x 3 7/8"	
18	89256	Adjustable Link	
19	9390-068	Capscrew, 3/8"-16UNC x 4 1/2" G5	
20	9405-082	Flat Washer, 7/16 USS	
21	97171	Capscrew, 1/2"-13UNC x 6" G5	
22	9928	Locknut, 3/8"-16UNC	
23	902450	Bent Pin	
24	9093	Klik Pin, 3/16" Dia. x 1 9/16" w/Lock Ring	
25	91144-186	Spiral Pin, 5/16" Dia. x 2"	
26	9500423	Pin, 1" Dia. x 5 1/8"	
27	88826	Cover - Rubber	
28	74964	Reinforcing Disc Weld-In	

Notes

Rolling Harrow Drum Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



Rolling Harrow Drum Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NUMBER	DESCRIPTION	NOTES
1A	76030B	Basket/Drum & Frame 3' Assembly	Includes Items 2-10
	76031B	Basket/Drum & Frame 4' Assembly	
	76008B	Basket/Drum & Frame 5' Assembly	
	76032B	Basket/Drum & Frame 6' Assembly	
1B	78774CG	HD Basket/Drum & Frame 3' Assembly - Option	Includes Items 2-10
	78775CG	HD Basket/Drum & Frame 4' Assembly - Option	
	78776CG	HD Basket/Drum & Frame 5' Assembly - Option	
	78777CG	HD Basket/Drum & Frame 6' Assembly - Option	
2	74280	Bearing Bolt	
3A	74599B	Basket 3' Aggressive Weldment	
	74600B	Basket 4' Aggressive Weldment	
	74579B	Basket 5' Aggressive Weldment	
	74601B	Basket 6' Aggressive Weldment	
3B	78772CG	HD Basket 3' Aggressive Weldment - Option	
	78469CG	HD Basket 4' Aggressive Weldment - Option	
	78473CG	HD Basket 5' Aggressive Weldment - Option	
	78465CG	HD Basket 6' Aggressive Weldment - Option	
4	74842B	Frame 3' Weldment	
	74843B	Frame 4' Weldment	
	74822B	Frame 5' Weldment	
	74844B	Frame 6' Weldment	
5	76024B	Drum/Basket 3' Weldment	
	76025B	Drum/Basket 4' Weldment	
	76009B	Drum/Basket 5' Weldment	
	76`026B	Drum/Basket 6' Weldment	
6	74006	Flange Bearing Kit	Includes items 7-10
7	900872	Capscrew, 5/8"-11UNC x 1 1/4"	
8	902714	Flange Bearing	
9	9388-103	Carriage Bolt, 1/2"-13UNC x 1 1/4"	
10	9800	Locknut, 1/2"-13UNC	
11	74793G	Bent Arm Weldment =Green=	
	74793R	Bent Arm Weldment =Red=	
12	74848G	One-Bar Arm/Saddle Weldment =Green=	
	74848R	One-Bar Arm/Saddle Weldment =Red=	
13	74850	Trunnion	
14	76331PL	Pin Weldment, 1" Dia. x 4 11/16"	

(Continued on next page)

Rolling Harrow Drum Components (continued)

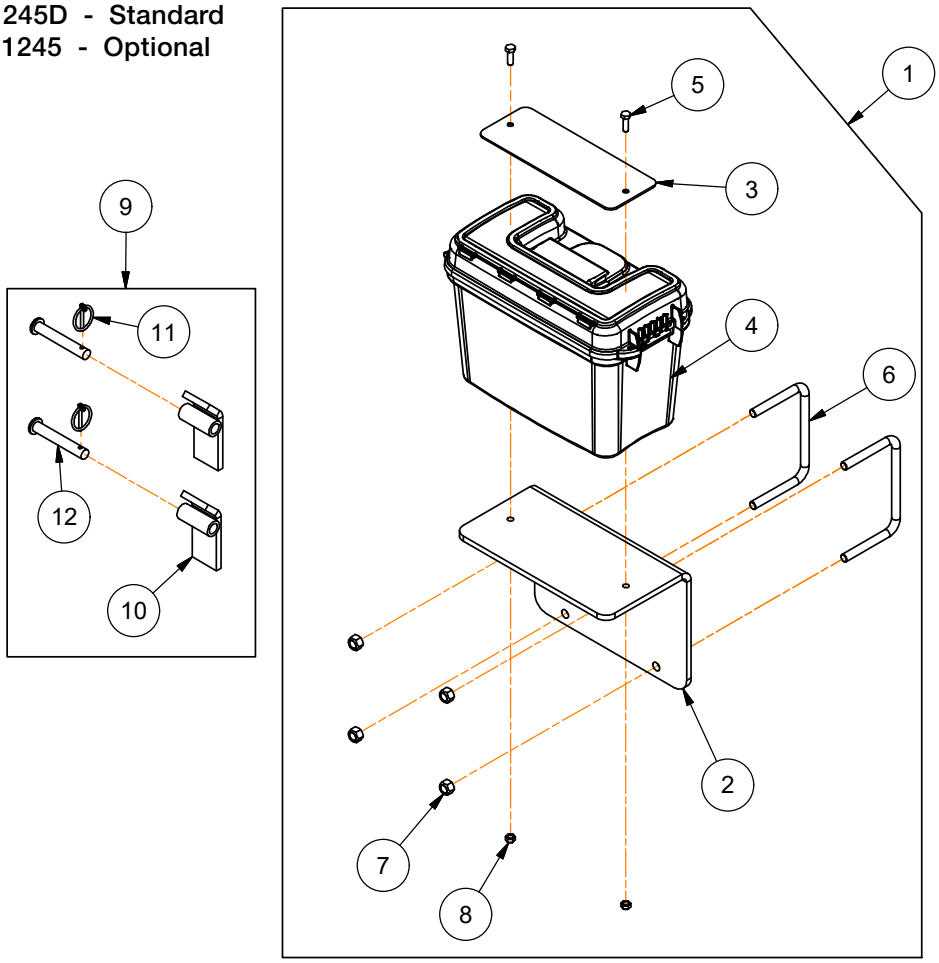
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NUMBER	DESCRIPTION	NOTES
15	81321	Pin, 5/8" Dia. x 1 7/8"	
16	75473B	Spring Assembly, 14 1/4"	
17	86251B	Pin-Link Weldment, 5/8" Dia. x 3 7/8"	
18	89256	Adjustable Link	
19	9390-068	Capscrew, 3/8"-16UNC x 4 1/2" G5	
20	9405-082	Flat Washer, 7/16" USS	
21	97171	Capscrew, 1/2"-13UNC x 6" G5	
22	9928	Locknut, 3/8"-16UNC	
23	902450	Bent Pin	
24	9093	Klik Pin, 3/16" Dia. x 1 9/16" w/Lock Ring	
25	91144-186	Spiral Pin, 5/16" Dia. x 2"	
26	9500423	Pin, 1" Dia. x 5 1/8"	
27	88826	Cover - Rubber	
28	74964	Reinforcing Disc Weld-In	
29	75930B	Link Weldment - Basket Rocker	
30	76495B	Cylinder Mount Weldment & Hardware	Includes Items 31 through 34
31	9004680	U-Bolt, 3/8"-16UNC x 3 1/4"	
32	9928	Locknut, 3/8"-16UNC	
33	9390-101	Capscrew, 1/2"-13UNC x 1 1/2" G5	
34	9800	Locknut, 1/2"-13UNC	
35	9001495	Adapter 9/16-18 JIC Male x 9/16-18 JIC Male-O-Ring	
36	9390-104	Capscrew, 1/2"-13UNC x 2 1/4" G5	
37	9501583	Pin, 1" Dia. x 8 1/8"	
38	91144-186	Spiral Pin, 5/16" Dia. x 2"	
39	9800	Locknut, 1/2"-13UNC	
40	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	
41	TA0-904623-0	Hydraulic Cylinder 1 1/2" x 6"	
42	76539B	Drum Scraper Kit 3'	Includes Items 43 through 48
	76540B	Drum Scraper Kit 4'	
	76541B	Drum Scraper Kit 5'	
	76542B	Drum Scraper Kit 6'	
43	901837	U-Bolt 1/2"-13UNC	
44	9388-104	Carriage Bolt 1/2"-13UNC x 1 1/2"	
45	9405-088	Flat Washer 1/2" USS	
46	9800	Locknut 1/2"-13UNC	
47	75598B	Drum Scraper 3'	
	76969B	Drum Scraper 4'	
	75561B	Drum Scraper 5'	
	75600B	Drum Scraper 6'	
48	76015B	Drum Scraper Bar Mount	

Basket Pin Up & Storage Box Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

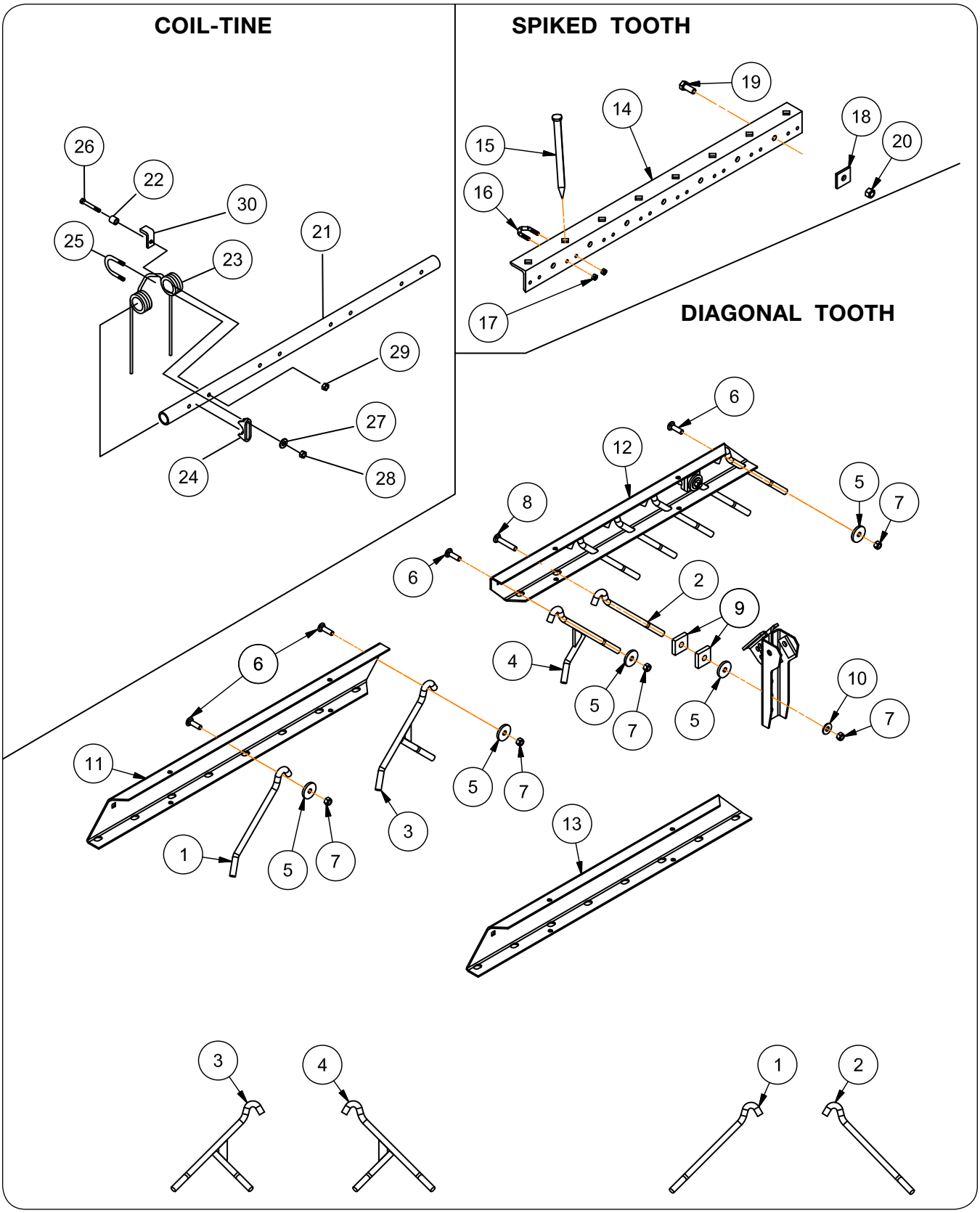
Model 1245D - Standard
Model 1245 - Optional



ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	77401B	Storage Box Bracket Assembly	1	Includes Items 2 through 8
2	77400B	Storage Box Bracket =Black=	1	
3	27741B	Plate 4" x 11"	1	
4	902456	Storage Box	1	
5	9390-030	Capscrew, 5/16"-18UNC x 1" G5	2	
6	9502320	U-Bolt, 1/2"-13UNC x 4 1/16"	2	
7	9800	Locknut/Top, 1/2"-13UNC	4	
8	9807	Locknut/Top, 5/16"-18UNC	2	
9	77660B	Basket Pivot Limit {PAIR}	1	Includes Items 10, 11, 12
10	77042B	Basket Pin Up Bushing Weldment =Black=	2	
11	9093	Klik Pin, 3/16" Dia. x 1 9/16"	2	
12	91523	Clevis Pin, 5/8" Dia. x 4"	2	

Leveler Bar Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



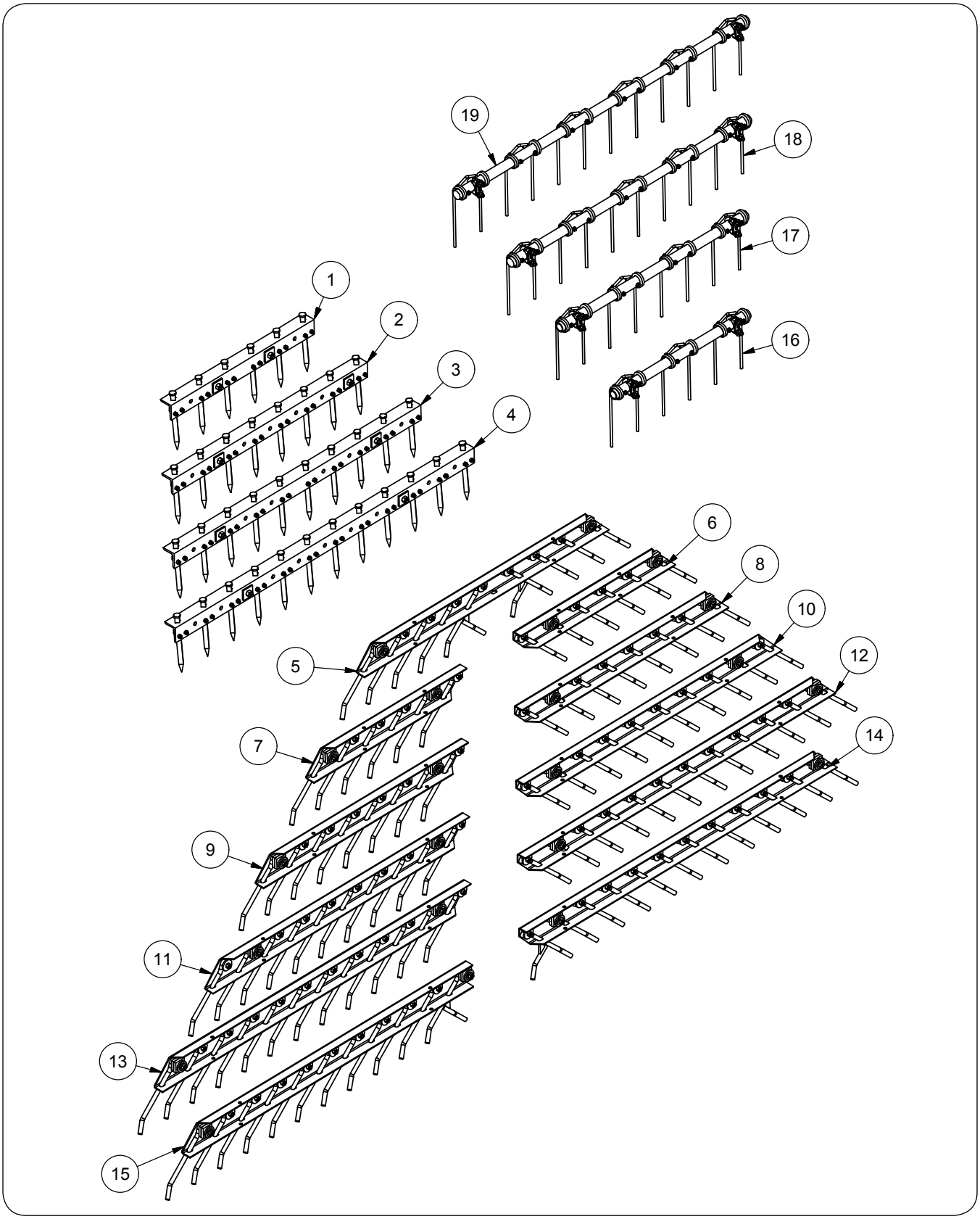
Leveler Bar Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NUMBER	DESCRIPTION	NOTES
1	74676B	Diagonal Bent Left-Hand Tooth	
2	74672B	Diagonal Bent Right-Hand Tooth	
3	74671B	Diagonal Bent Left-Hand “Y” Tooth	
4	74670B	Diagonal Bent Right-Hand “Y” Tooth	
5	91069PL	Flat Washer, 2" OD	
6	9388-105	Carriage Bolt, 1/2”-13UNC x 1 3/4” G5	
7	9800	Locknut/Top, 1/2”-13UNC	
8	9388-110	Carriage Bolt, 1/2”-13UNC x 3" G5	
9	3788B	Spacer (Required In Two Places)	
10	9405-088	Flat Washer 1/2” USS	
11	71259B	4 Ft. Diagonal Bent Tooth Leveler-Bar Left-Half	
12	71313B	3 Ft. Diagonal Bent Tooth Leveler-Bar Right-Hand-Y	
	71301B	4 Ft. Diagonal Bent Tooth Leveler-Bar Right-Hand Y	
13	71254B	4 Ft. Diagonal Bent Tooth Leveler-Bar Center	
	71255B	5 Ft. Diagonal Bent Tooth Leveler-Bar Center	
	71583B	6 Ft. Diagonal Bent Tooth Leveler-Bar Center	
14	71184B	3 Ft. Spike Tooth Leveler-Bar	
	71185B	4 Ft. Spike Tooth Leveler-Bar	
	71186B	5 Ft. Spike Tooth Leveler-Bar	
	71580B	6 Ft. Spike Tooth Leveler-Bar	
15	9634P	Diamond-Shaped Spike Tooth	
16	9635	V-Bolt, 3/8”-16UNC	
17	9928	Locknut, 3/8”-16UNC	
18	83284B	Square Washer	
19	9390-122	Capscrew, 5/8”-11UNC x 1 1/2" G5	
20	9801	Hex Nut, 5/8”-11UNC	
21	86570B	6 Ft. Tine One-Bar	
	84477B	5 Ft. Tine One-Bar	
	84478B	4 Ft. Tine One-Bar (Shown)	
	84479B	3 Ft. Tine One-Bar	
22	84531B	Tube/Bushing	
23	84724B	Spring/Coil Tine	
24	84735B	Clamp	
25	95914	U-Bolt, 7/16”-14UNC, 2.12CC G5	
26	9390-062	Capscrew, 3/8”-16UNC x 2 3/4” G5	
27	9405-082	Flat Washer, 7/16”	
28	9799	Locknut/Top, 7/16”-14UNC	
29	9928	Locknut/Top, 3/8”-16UNC	
	902875	Locknut/Center, 3/8”-16UNC (With Clip ONLY)	
30	84837	Clip (Behind Wheels ONLY)	

Leveler Bar Assemblies

Please visit www.unverferth.com/parts/ for the most current parts listing.



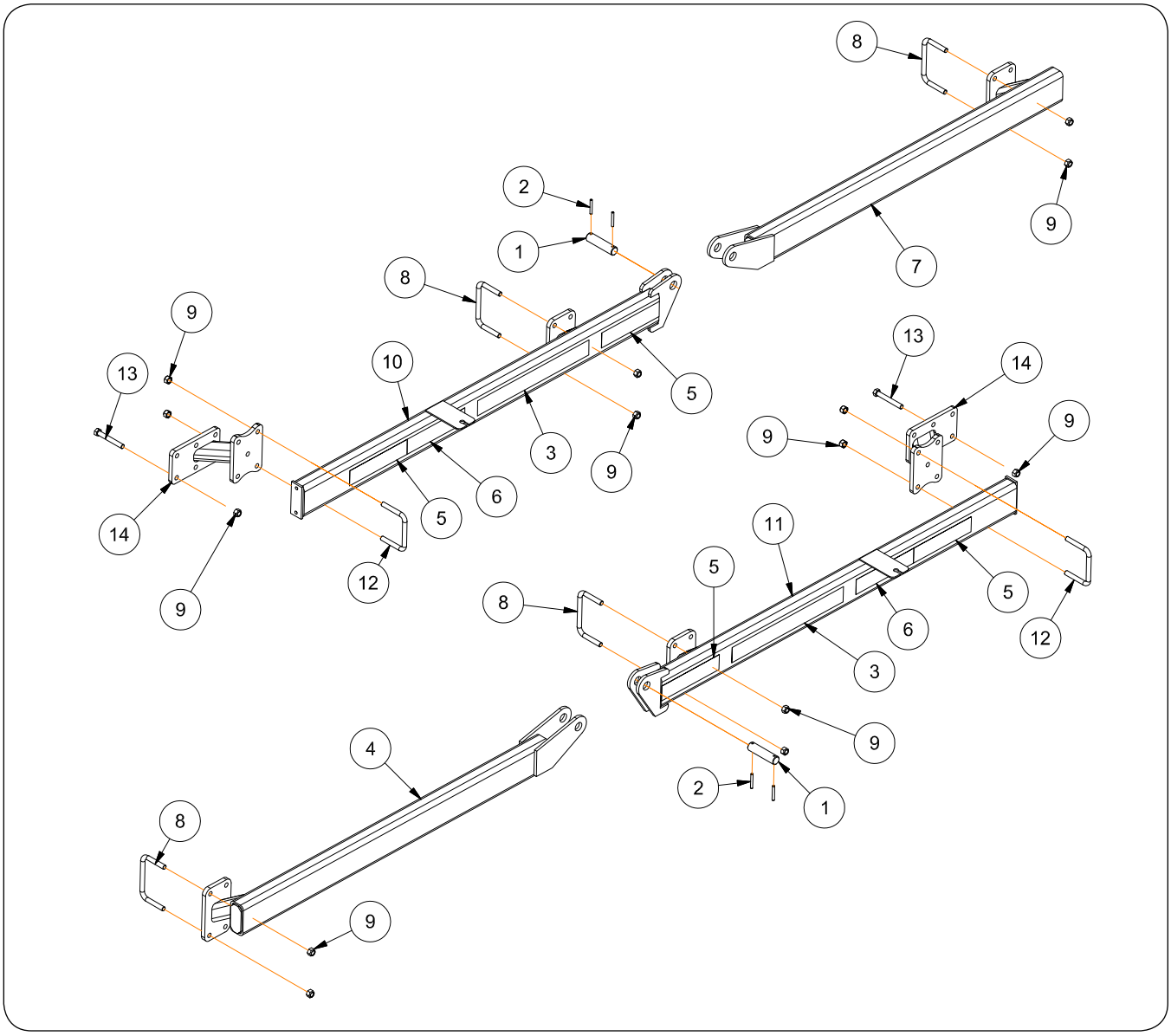
Leveler Bar Assemblies

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION
1	71181	Straight Spike-Tooth One Bar 3' Assembly
2	71182	Straight Spike-Tooth One Bar 4' Assembly
3	71183	Straight Spike-Tooth One Bar 5' Assembly
4	71579B	Straight Spike-Tooth One Bar 6' Assembly
5	74688B	Diagonal-Tooth One Bar 5' CTR Assembly
6	74680B	Diagonal-Tooth One Bar 3' RH Assembly
7	74679B	Diagonal-Tooth One Bar 3' LH Assembly
8	74682B	Diagonal-Tooth One Bar 4' RH Assembly
9	74681B	Diagonal-Tooth One Bar 4' LH Assembly
10	74684B	Diagonal-Tooth One Bar 5' RH Assembly
11	74683B	Diagonal-Tooth One Bar 5' LH Assembly
12	74686B	Diagonal-Tooth One Bar 6' RH Assembly
13	74685B	Diagonal-Tooth One Bar 6' LH Assembly
14	74216B	Diagonal-Tooth One Bar 6' RH Y Assembly
15	74215B	Diagonal-Tooth One Bar 6' LH Y Assembly
16	84482	Coil-Tine One Bar 3' Assembly
17	84481	Coil-Tine One Bar 4' Assembly
18	84480	Coil-Tine One Bar 5' Assembly
19	86569B	Coil-Tine One Bar 6' Assembly

Truss Kit Components (74065G or 74065R)

Please visit www.unverferth.com/parts/ for the most current parts listing.



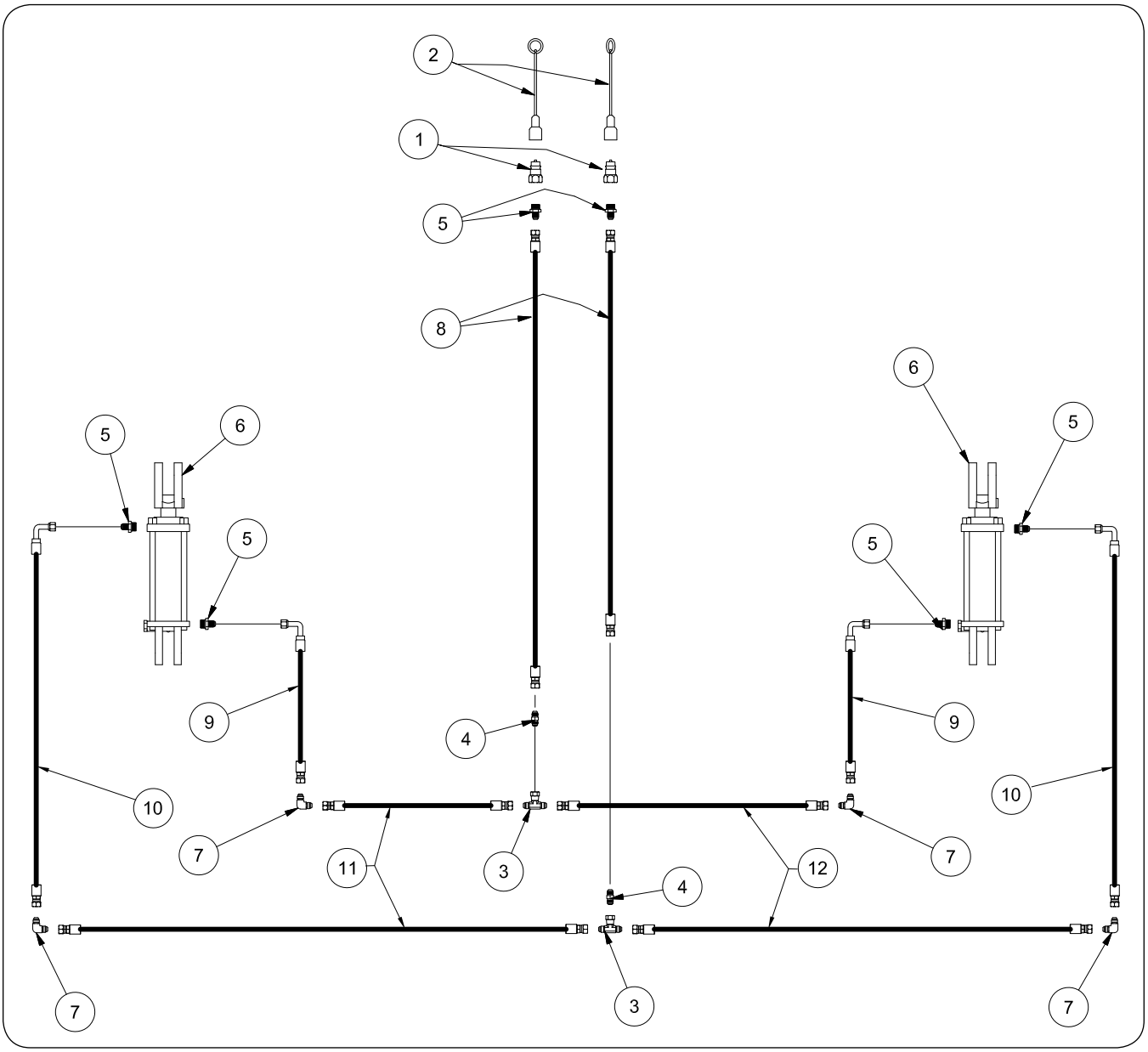
Truss Kit Components (74065G or 74065R)

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY
1	85631	Pin, 1" Dia. x 4"	2
2	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	4
3	901576	Decal, "Unverferth"	2
4	73863G	Wing Truss LH Weldment =Green=	1
	73863R	Wing Truss LH Weldment =Red=	
5	9003125	Fluorescent Strip, 2x9	4
6	9003126	Reflector, 2x9 (Red)	2
7	73868G	Wing Truss RH Weldment =Green=	1
	73868R	Wing Truss RH Weldment =Red=	
8	96874	U-Bolt, 1/2"-13UNC x 3 1/8", 5.56 C/C G5	8
9	9800	Locknut/Top, 1/2"-13UNC	30
10	74095G	Base Truss RH Weldment w/Decals =Green=	1
	74095R	Base Truss RH Weldment w/Decals =Red=	
11	74096G	Base Truss LH Weldment w/Decals =Green=	1
	74096R	Base Truss LH Weldment w/Decals =Red=	
12	95161	U-Bolt, 1/2"-13UNC x 3 1/4", 4.56 C/C G5	4
13	91299-103	Capscrew, 1/2"-13UNC x 2" G8	6
14	74068G	Truss Bracket Weldment =Green=	2
	74068R	Truss Bracket Weldment =Red=	

Hydraulics - 12’ & 15’ Bases - Model 1245

Please visit www.unverferth.com/parts/ for the most current parts listing.



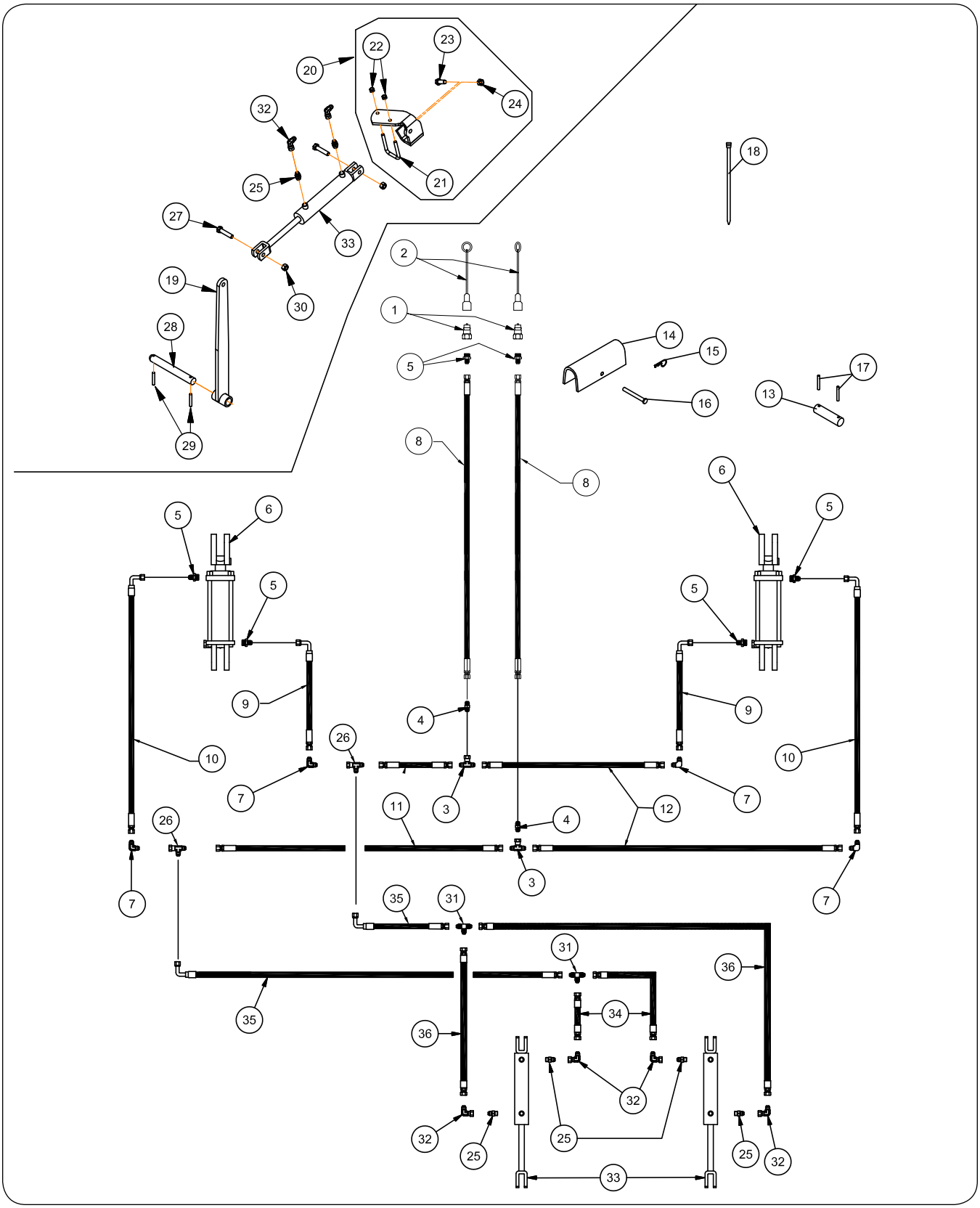
Hydraulics - 12’ & 15’ Bases - Model 1245

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY.
1	91383	Quick Disconnect Coupling	2
2	91511	Dust Cap	2
3	91525	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Female	2
4	92295	Adapter 9/16-18 JIC Male x 9/16-18 JIC Male	2
5	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	6
	9840	O-Ring (For Repairs)	-
6	95412	Hydraulic Cylinder 3 x 6	2
	9003772	Seal Kit for 3 x 6 Cylinder	-
7	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	4
8	9501712	Hydraulic Hose 3/8 x 358 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
9	9500354	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
10	9500353	Hydraulic Hose 3/8 x 24 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
11	9501681	Hydraulic Hose 3/8 x 36 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
12	9504072	Hydraulic Hose 3/8 x 66 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
13	85632	Pin, 1” Dia. x 3 3/4”	4
14	82064B	Transport Lock (6” Long)	2
15	9514	Hairpin Cotter	2
16	9828	Pin, 3/8” Dia. x 2 1/2”	2
17	91144-165	Spiral Pin, 1/4” Dia. x 1 7/8”	8
18	94038	Cable Tie, 32” Long	4
	94037	Cable Tie, 15 1/2” Long	4

Hydraulics - 12’ Base - Model 1245D

Please visit www.unverferth.com/parts/ for the most current parts listing.



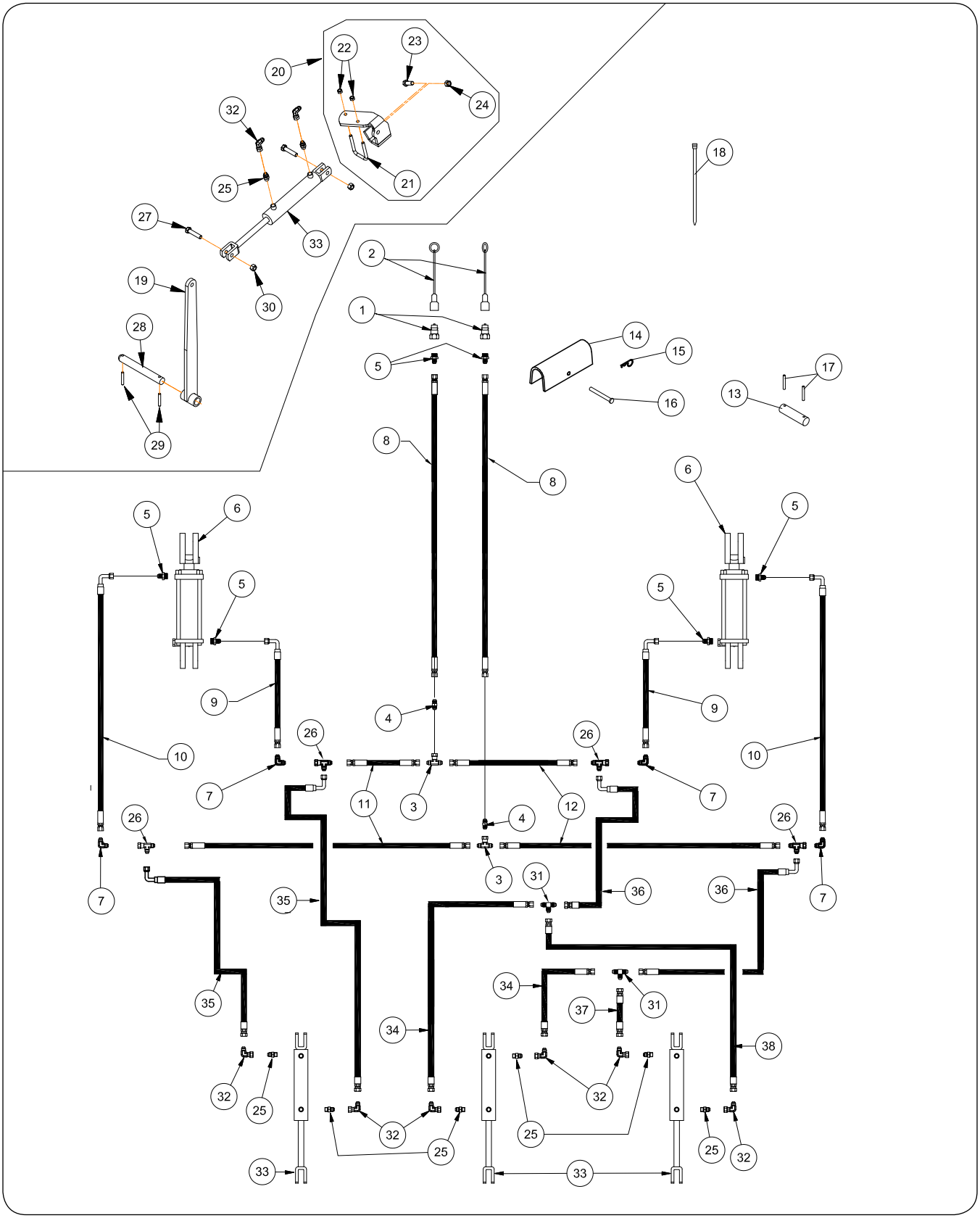
Hydraulics - 12' Base - Model 1245D

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY.
1	91383	Quick Disconnect Coupling	2
2	91511	Dust Cap	2
3	91525	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Female	2
4	92295	Adapter 9/16-18 JIC Male x 9/16-18 JIC Male	2
5	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	6
	9840	O-Ring (For Repairs)	-
6	95412	Hydraulic Cylinder 3 x 6	2
	9003772	Seal Kit for 3 x 6 Cylinder	-
7	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	4
8	9501712	Hydraulic Hose 3/8 x 358 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
9	9500354	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
10	9500353	Hydraulic Hose 3/8 x 24 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
11	9501681	Hydraulic Hose 3/8 x 36 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
12	9504072	Hydraulic Hose 3/8 x 66 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
13	85632	Pin, 1" Dia. x 3 3/4"	4
14	82064B	Transport Lock (6" Long)	2
15	9514	Hairpin Cotter	2
16	9828	Pin, 3/8" Dia. x 2 1/2"	2
17	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	8
18	94038	Cable Tie, 32" Long	4
	94037	Cable Tie, 15 1/2" Long	4
19	75930B	Link Weldment - Basket Rocker	2
20	76495B	Cylinder Mount Weldment & Hardware	2
21	9004680	U-Bolt, 3/8"-16UNC x 3 1/4"	1
22	9928	Locknut, 3/8"-16UNC	2
23	9390-101	Capscrew, 1/2"-13UNC x 1 1/2"	1
24	9800	Locknut, 1/2"-13UNC	1
25	9001495	Adapter 9/16-18 JIC Male x 9/16-18 JIC Male-O-Ring	4
26	91465	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Female	2
27	9390-104	Capscrew, 1/2"-13UNC x 2 1/4" G5	4
28	9501583	Pin, 1" Dia. x 8 1/8"	2
29	91144-186	Spiral Pin, 5/16" Dia. x 2"	4
30	9800	Locknut, 1/2"-13UNC	4
31	9875	Tee 9/16-18 JIC x 9/16-18 JIC x 9/16-18 JIC	2
32	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	4
33	TA0-904623-0	Hydraulic Cylinder 1 1/2 x 6	2
34	91528	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
35	9500370	Hydraulic Hose 3/8 x 58 (90° Elbow 9/16-18 JIC Female x 9/16-18 JIC Female)	2
36	9503641	Hydraulic Hose 3/8 x 20 (9/16-18 JIC Female x 9/16-18 JIC Female)	2

Hydraulics - 15’ Base - Model 1245D

Please visit www.unverferth.com/parts/ for the most current parts listing.



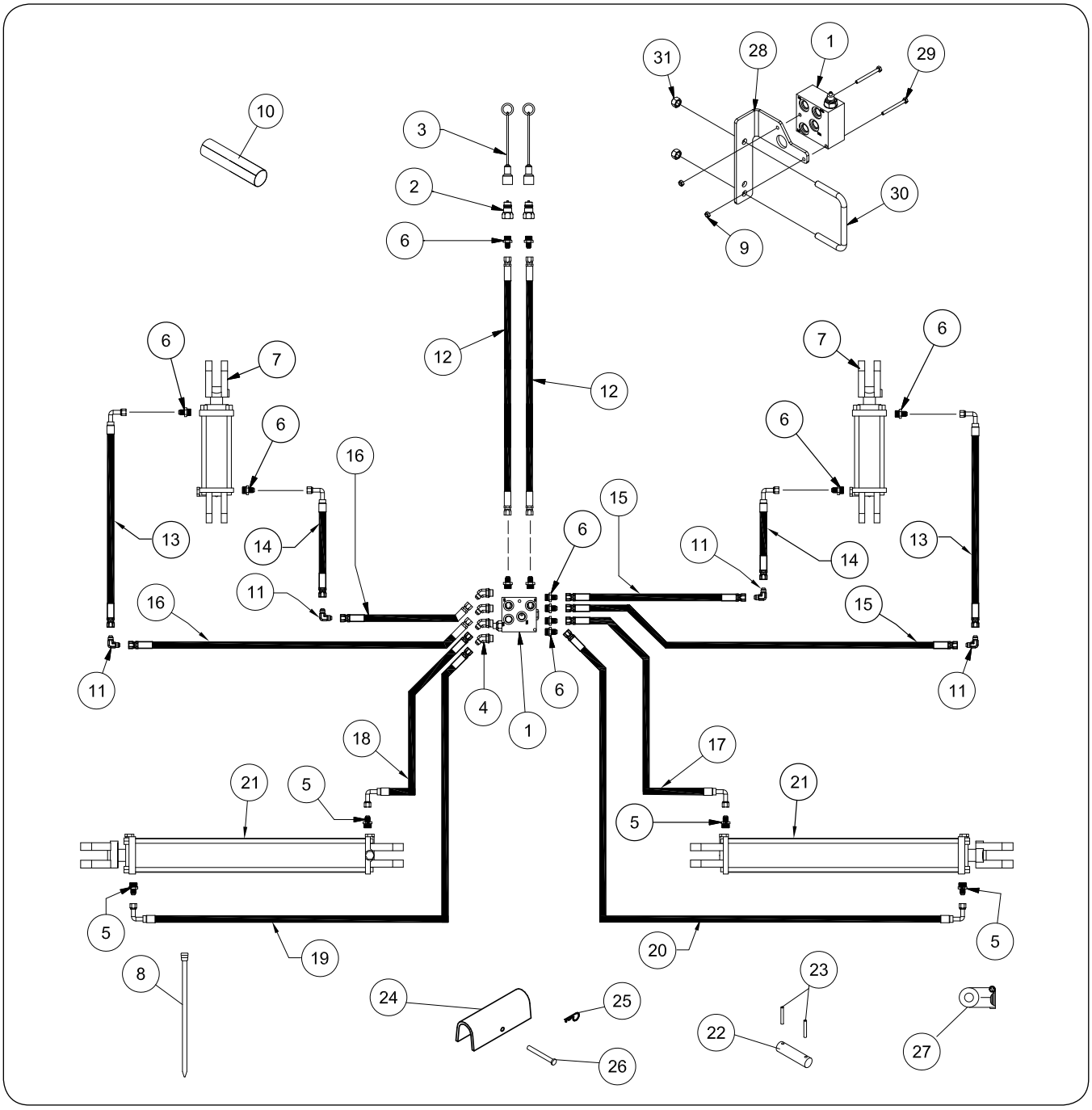
Hydraulics - 15' Base - Model 1245D

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY.
1	91383	Quick Disconnect Coupling	2
2	91511	Dust Cap	2
3	91525	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Female	2
4	92295	Adapter 9/16-18 JIC Male x 9/16-18 JIC Male	2
5	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	6
	9840	O-Ring (For Repairs)	-
6	95412	Hydraulic Cylinder 3 x 6	2
	9003772	Seal Kit for 3 x 6 Cylinder	-
7	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	4
8	9501712	Hydraulic Hose 3/8 x 358 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
9	9500354	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
10	9500353	Hydraulic Hose 3/8 x 24 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
11	9501681	Hydraulic Hose 3/8 x 36 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
12	9504072	Hydraulic Hose 3/8 x 66 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
13	85632	Pin, 1" Dia. x 3 3/4"	4
14	82064B	Transport Lock (6" Long)	2
15	9514	Hairpin Cotter	2
16	9828	Pin, 3/8" Dia. x 2 1/2"	2
17	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	8
18	94038	Cable Tie, 32" Long	4
	94037	Cable Tie, 15 1/2" Long	4
19	75930B	Link Weldment - Basket Rocker	3
20	76495B	Cylinder Mount Weldment & Hardware	3
21	9004680	U-Bolt, 3/8"-16UNC x 3 1/4"	1
22	9928	Locknut, 3/8"-16UNC	2
23	9390-101	Capscrew, 1/2"-13UNC x 1 1/2" G5	1
24	9800	Locknut, 1/2"-13UNC	1
25	9001495	Adapter 9/16-18 JIC Male x 9/16-18 JIC Male-O-Ring	6
26	91465	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Female	4
27	9390-104	Capscrew, 1/2"-13UNC x 2 1/4" G5	6
28	9501583	Pin, 1" Dia. x 8 1/8"	3
29	91144-186	Spiral Pin, 5/16" Dia. x 2"	6
30	9800	Locknut, 1/2"-13UNC	6
31	9875	Tee 9/16-18 JIC x 9/16-18 JIC x 9/16-18 JIC	2
32	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	4
33	TA0-904623-0	Hydraulic Cylinder 1 1/2 x 6	2
34	9501684	Hydraulic Hose 3/8 x 68 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
35	9500370	Hydraulic Hose 3/8 x 58 (90° Elbow 9/16-18 JIC Female x 9/16-18 JIC Female)	2
36	9500430	Hydraulic Hose 3/8 x 38 (90° Elbow 9/16-18 JIC Female x 9/16-18 JIC Female)	2
37	9501680	Hydraulic Hose 3/8 x 26 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
38	9502776	Hydraulic Hose 3/8 x 32 (9/16-18 JIC Female x 9/16-18 JIC Female)	1

Hydraulics - Flat & Vertical Fold - Model 1245
12’ Base 3’-6’ Wings & 15’ Base 3’-7’Wings

Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY
1	9500379	Split Function Sequence Valve (3000 PSI)	1
2	91383	Quick Disconnect Coupling	2
3	91511	Dust Cap	2
4	91508	45° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	4

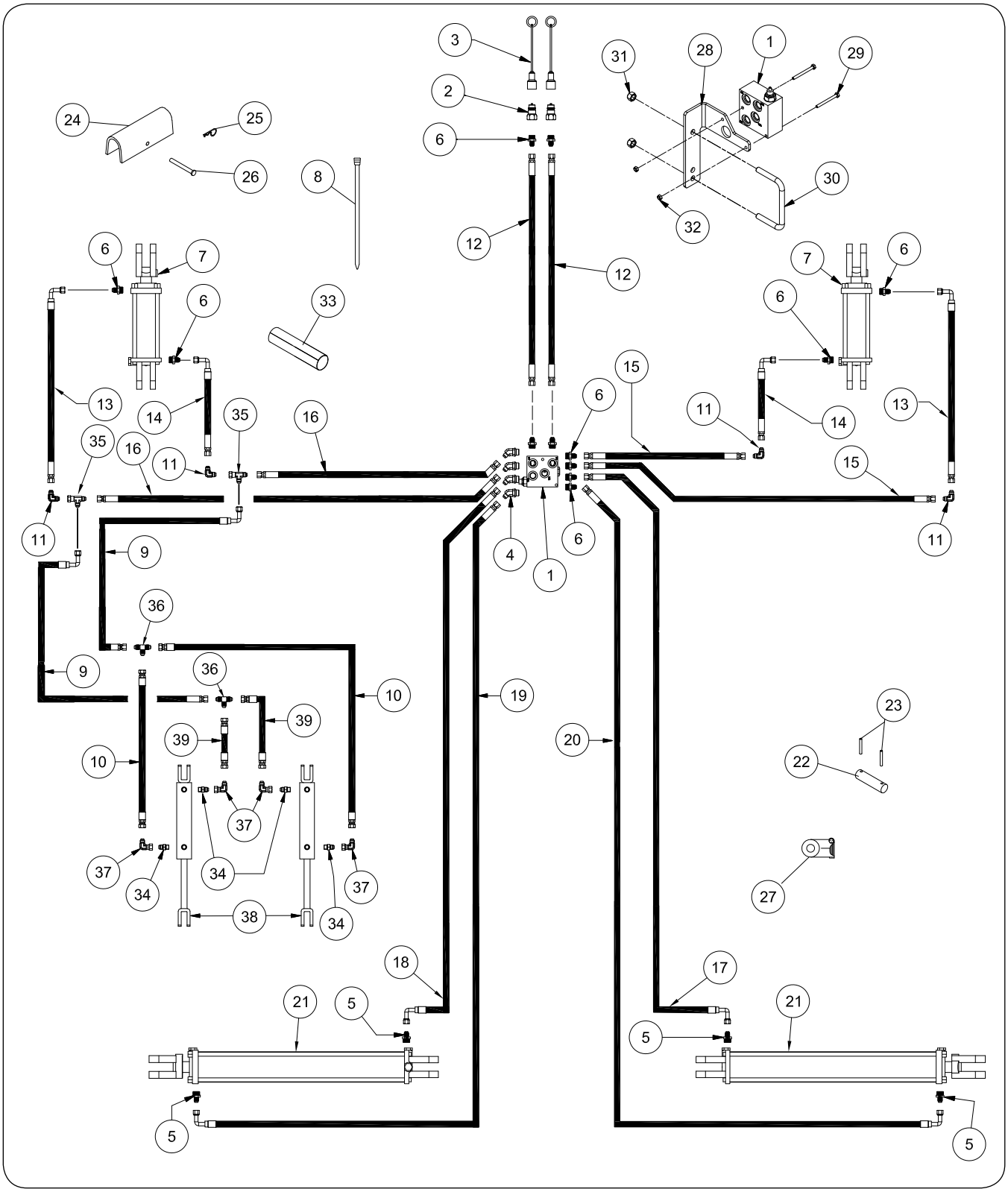
Hydraulics - Flat & Vertical Fold - Model 1245
12' Base 3'-6' Wings & 15' Base 3'-7'Wings

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY
5	91608	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male w/Restrictor	4
	9840	"O"-Ring (For Repairs)	
6	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	10
	9840	"O"-Ring (For Repairs)	
7	95412	Hydraulic Cylinder 3 x 6	2
	9003772	Seal Kit for 3 x 6 Cylinder	
8	94038	Cable Tie, 32"	A/R
	94037	Cable Tie, 15 1/2"	
9	9936	Locknut, 1/4"-20UNC	2
10	75884	Velcro Hose Wrap	2
11	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	4
12	9501712	Hydraulic Hose 3/8 x 358 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
13	9500353	Hydraulic Hose 3/8 x 24 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
14	9500354	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
15	9504072	Hydraulic Hose 3/8 x 66 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
16	9501681	Hydraulic Hose 3/8 x 36 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
17	9500370	Hydraulic Hose 3/8 x 58 (9/16-18 JIC Female x 9/16-18 JIC 90° Female) For 12' Base	1
	902954	Hydraulic Hose 3/8 x 68 (9/16-18 JIC Female x 9/16-18 JIC 90° Female) For 15' Base	
18	9500351	Hydraulic Hose 3/8 x 23 (9/16-18 JIC Female x 9/16-18 JIC 90° Female) For 12' Base	1
	9500356	Hydraulic Hose 3/8 x 32 (9/16-18 JIC Female x 9/16-18 JIC 90° Female) For 15' Base	
19	902955	Hydraulic Hose 3/8 x 48 (9/16-18 JIC Female x 9/16-18 JIC 90° Female) For 12' Base	1
	9500370	Hydraulic Hose 3/8 x 58 (9/16-18 JIC Female x 9/16-18 JIC 90° Female) For 15' Base	
20	9500352	Hydraulic Hose 3/8 x 79 (9/16-18 JIC Female x 9/16-18 JIC 90° Female) For 12' Base	1
	9500434	Hydraulic Hose 3/8 x 88 (9/16-18 JIC Female x 9/16-18 JIC 90° Female) For 15' Base	
21	96955	Hydraulic Cylinder 3 x 16 (For 12' Base 3' through 6' Wings)	2
	9003772	Seal Kit for 3 x 6 Cylinder	
	96956	Hydraulic Cylinder 2 1/2 x 24 (For 15' Base 3' through 6' Wings)	
	95388	Seal Kit for 2 1/2 x 24 Cylinder	
	96959	Hydraulic Cylinder 3 1/2 x 24 (For 15' Base 7' Wings)	
	95393	Seal Kit for 3 1/2 x 24 Cylinder	
22	85632	Pin, 1" Dia. x 3 3/4"	8
23	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	16
24	82064B	Transport Lock 6" Lg.	2
25	9514	Hairpin Cotter	2
26	9828	Pin, 3/8" Dia. x 2 1/2"	2
27	84135	Counterbored Clevis 3 x 16 Cylinder (For Repairs) (For 12' Base 3' through 6' Wings)	-
28	74202B	Sequence Valve Bracket	1
29	9390-012	Capscrew, 1/4"-20UNC x 2 3/4" G5	2
30	96874	U-Bolt, 1/2"-13UNC x 3.12"	1
31	9800	Locknut, 1/2"-13UNC	2

Hydraulics - Flat & Vertical Fold - Model 1245D
12’ Base 3’-6’ Wings

Please visit www.unverferth.com/parts/ for the most current parts listing.



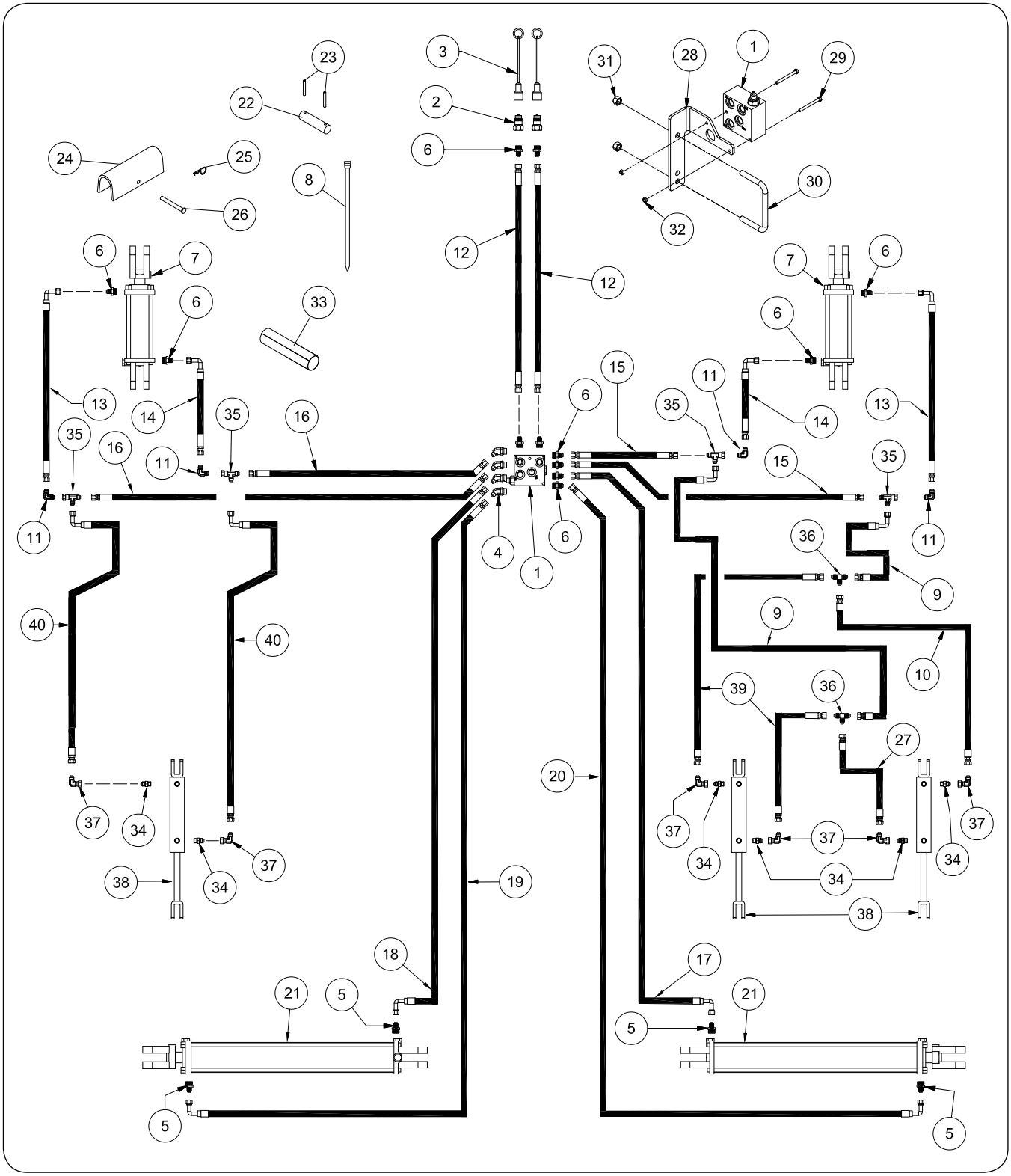
Hydraulics - Flat & Vertical Fold - Model 1245D
12' Base 3'-6' Wings

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY
1	9500379	Split Function Sequence Valve (3000 PSI)	1
2	91383	Quick Disconnect Coupling	2
3	91511	Dust Cap	2
4	91508	45° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	4
5	91608	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male w/Restrictor	4
	9840	"O"-Ring (For Repairs)	
6	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	10
	9840	"O"-Ring (For Repairs)	
7	95412	Hydraulic Cylinder 3 x 6	2
	9003772	Seal Kit for 3 x 6 Cylinder	
8	94038	Cable Tie, 32"	A/R
	94037	Cable Tie, 15 1/2"	
9	9500370	Hydraulic Hose 3/8 x 58 (90° Elbow 9/16-18 JIC Female x 9/16-18 JIC Female)	2
10	9503641	Hydraulic Hose 3/8 x 20 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
11	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	4
12	9501712	Hydraulic Hose 3/8 x 358 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
13	9500353	Hydraulic Hose 3/8 x 24 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
14	9500354	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
15	9504072	Hydraulic Hose 3/8 x 66 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
16	9501681	Hydraulic Hose 3/8 x 36 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
17	9500370	Hydraulic Hose 3/8 x 58 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
18	9500351	Hydraulic Hose 3/8 x 23 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
19	902955	Hydraulic Hose 3/8 x 48 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
20	9500352	Hydraulic Hose 3/8 x 79 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
21	96955	Hydraulic Cylinder 3 x 16 (For 12' Base 3' through 6' Wings)	2
	9003772	Seal Kit for 3 x 6 Cylinder	
22	85632	Pin, 1" Dia. x 3 3/4"	8
23	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	16
24	82064B	Transport Lock 6" Lg.	2
25	9514	Hairpin Cotter	2
26	9828	Pin, 3/8" Dia. x 2 1/2"	2
27	84135	Counterbored Clevis 3 x 16 Cylinder (For Repairs)	-
28	74202B	Sequence Valve Bracket	1
29	9390-012	Capscrew, 1/4"-20UNC x 2 3/4" G5	2
30	96874	U-Bolt, 1/2"-13UNC x 3.12"	1
31	9800	Locknut, 1/2"-13UNC	2
32	9936	Locknut, 1/4"-20UNC	2
33	75884	Velcro Hose Wrap	2
34	9001495	Adapter 9/16-18 JIC Male x 9/16-18 JIC Male-O-Ring	4
35	91465	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Female	2
36	9875	Tee 9/16-18 JIC x 9/16-18 JIC x 9/16-18 JIC	2
37	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	4
38	TA0-904623-0	Hydraulic Cylinder 1 1/2 x 6	2
39	91528	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC Female)	2

Hydraulics - Flat & Vertical Fold - Model 1245D
15’ Base 3’-7’Wings

Please visit www.unverferth.com/parts/ for the most current parts listing.



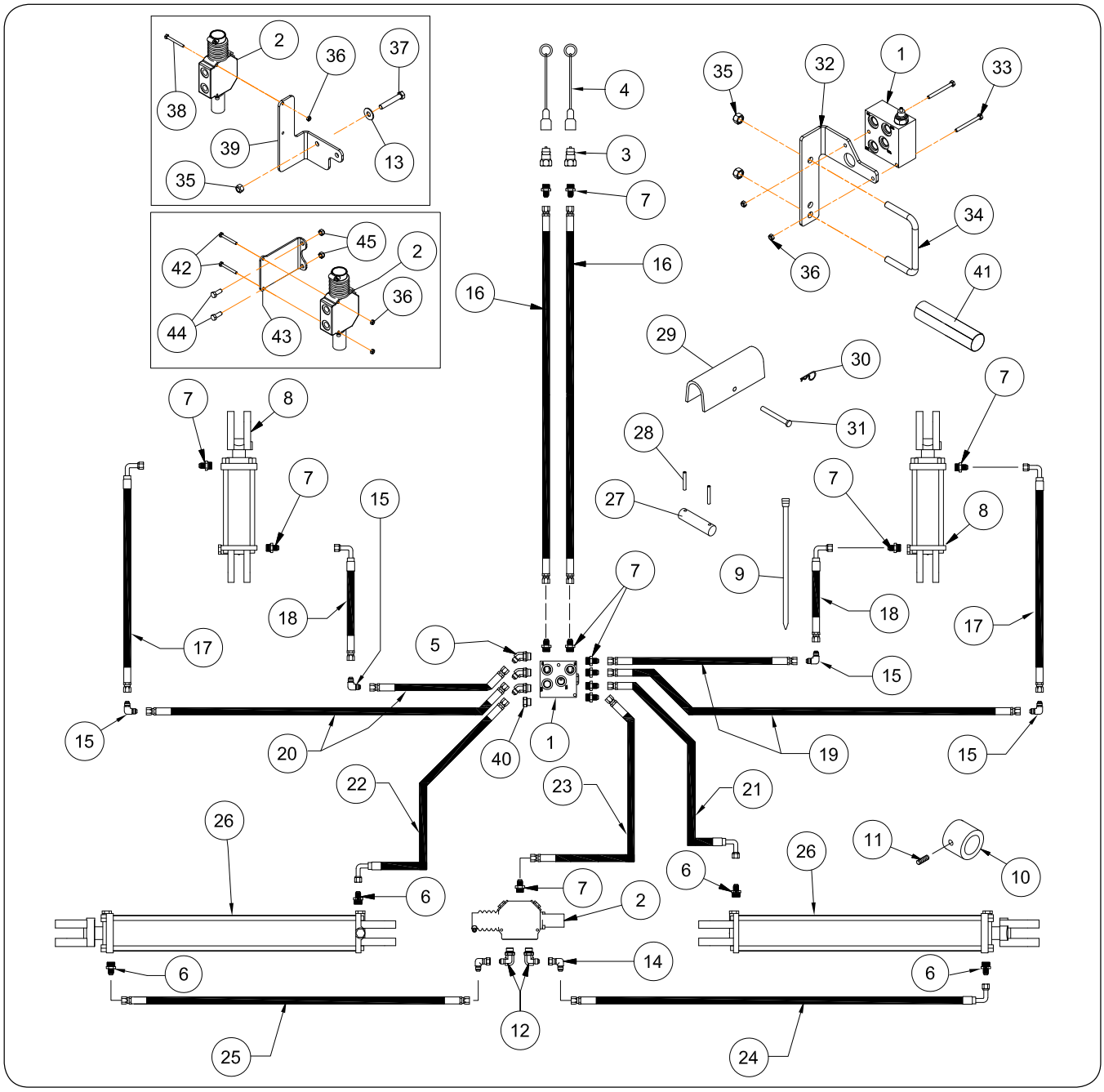
Hydraulics - Flat & Vertical Fold - Model 1245D 15' Base 3'-7'Wings

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY
1	9500379	Split Function Sequence Valve (3000 PSI)	1
2	91383	Quick Disconnect Coupling	2
3	91511	Dust Cap	2
4	91508	45° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	4
5	91608	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male w/Restrictor	4
	9840	"O"-Ring (For Repairs)	
6	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	10
	9840	"O"-Ring (For Repairs)	
7	95412	Hydraulic Cylinder 3 x 6	2
	9003772	Seal Kit for 3 x 6 Cylinder	
8	94038	Cable Tie, 32"	AR
	94037	Cable Tie, 15 1/2"	
9	9500430	Hydraulic Hose 3/8 x 38 (90° Elbow 9/16-18 JIC Female x 9/16-18 JIC Female)	2
10	9501680	Hydraulic Hose 3/8 x 26 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
11	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	4
12	9501712	Hydraulic Hose 3/8 x 358 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
13	9500353	Hydraulic Hose 3/8 x 24 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
14	9500354	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
15	9504072	Hydraulic Hose 3/8 x 66 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
16	9501681	Hydraulic Hose 3/8 x 36 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
17	902954	Hydraulic Hose 3/8 x 68 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
18	9500356	Hydraulic Hose 3/8 x 32 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
19	9500370	Hydraulic Hose 3/8 x 58 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
20	9502934	Hydraulic Hose 3/8 x 96 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
21	96956	Hydraulic Cylinder 2 1/2 x 24 (For 15' Base 3' through 6' Wings)	2
	95388	Seal Kit for 2 1/2 x 24 Cylinder	
	96959	Hydraulic Cylinder 3 1/2 x 24 (For 15' Base 7' Wings)	
	95393	Seal Kit for 3 1/2 x 24 Cylinder	
22	85632	Pin, 1" Dia. x 3 3/4"	8
23	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	16
24	82064B	Transport Lock 6" Lg.	2
25	9514	Hairpin Cotter	2
26	9828	Pin, 3/8" Dia. x 2 1/2"	2
27	9502776	Hydraulic Hose 3/8 x 32 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
28	74202B	Sequence Valve Bracket	1
29	9390-012	Capscrew, 1/4"-20UNC x 2 3/4" G5	2
30	96874	U-Bolt, 1/2"-13UNC x 3.12"	1
31	9800	Locknut, 1/2"-13UNC	2
32	9936	Locknut, 1/4"-20UNC	2
33	75884	Velcro Hose Wrap	2
34	9001495	Adapter 9/16-18 JIC Male x 9/16-18 JIC Male-O-Ring	4
35	91465	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Female	2
36	9875	Tee 9/16-18 JIC x 9/16-18 JIC x 9/16-18 JIC	2
37	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	4
38	TA0-904623-0	Hydraulic Cylinder 1 1/2 x 6	2
39	9501684	Hydraulic Hose 3/8 x 68 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
40	9500370	Hydraulic Hose 3/8 x 58 (90° Elbow 9/16-18 JIC Female x 9/16-18 JIC Female)	2

Hydraulics - Stack-Fold - Model 1245 - 12’ Base 7’-9’ Wings

Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY
1	9500379	Split Function Sequence Valve (3000 PSI)	1
2	901942	Sequence Valve Assembly (Refer to “Valve/Actuator Assembly” in this Section)	1
3	91383	Quick Disconnect Coupling	2
4	91511	Dust Cap	2
5	91508	45° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	3
6	91608	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male w/Restrictor	4
	9840	“O”-Ring (For Repairs)	

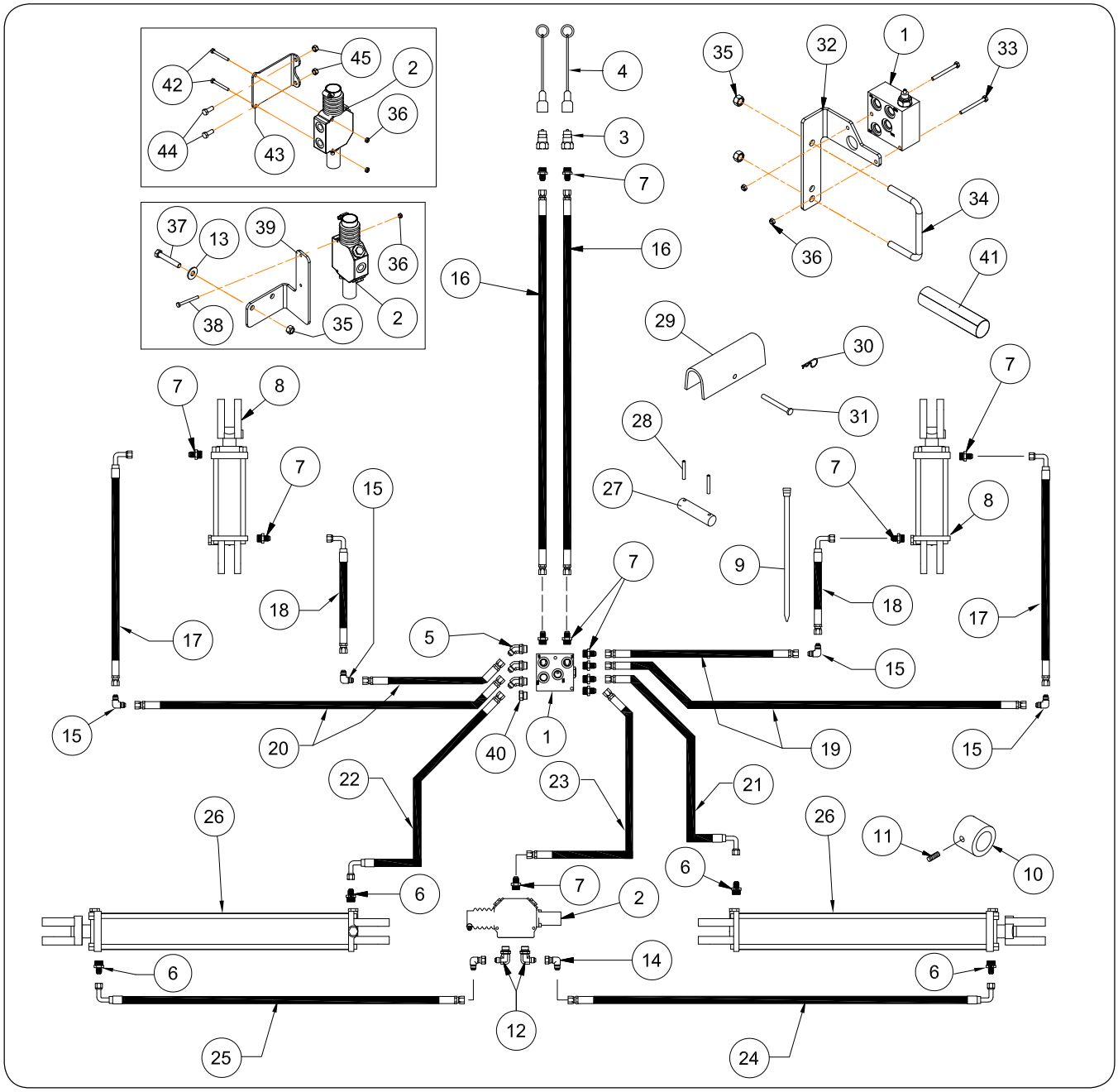
Hydraulics - Stack-Fold - Model 1245 - 12' Base 7'-9' Wings

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY
7	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	10
	9840	"O"-Ring (For Repairs)	
8	95412	Hydraulic Cylinder 3 x 6	2
	9003772	Seal Kit for 3 x 6 Cylinder	
9	94038	Cable Tie, 32"	1
	94037	Cable Tie, 15 1/2"	
10	84154	Cylinder Stop 2 1/4" Long (For 12' Base 7' Wings)	2
	84144	Cylinder Stop 2 3/4" Long (For 12' Base 8' Wings)	
	84145	Cylinder Stop 3 3/8" Long (For 12' Base 9' Wings)	
11	9399-057	Set Screw 1/4-20UNC x 1/4 (Cup Point/Hex Socket	2
12	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	2
	9840	"O"-Ring (For Repairs)	
13	9405-088	Flat Washer 1/2" USS	2
14	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	2
15	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	4
16	9501712	Hydraulic Hose 3/8 x 358 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
17	9500353	Hydraulic Hose 3/8 x 24 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
18	9500354	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
19	9504072	Hydraulic Hose 3/8 x 66 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
20	9501681	Hydraulic Hose 3/8 x 36 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
21	9500370	Hydraulic Hose 3/8 x 58 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
22	9500351	Hydraulic Hose 3/8 x 23 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
23	9502507	Hydraulic Hose 3/8 x 38 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
24	9500434	Hydraulic Hose 3/8 x 88 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
25	9502507	Hydraulic Hose 3/8 x 38 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
26	96958	Hydraulic Cylinder 4 x 16	2
	95407	Seal Kit for 4 x 16 Cylinder	
27	85632	Pin, 1" Dia. x 3 3/4"	8
28	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	16
29	82064B	Transport Lock 6"	2
30	9514	Hairpin Cotter	2
31	9828	Pin, 3/8" Dia. x 2 1/2"	2
32	74202B	Sequence Valve Bracket	1
33	9390-012	Capscrew, 1/4"-20UNC x 2 3/4" G5	2
34	96874	U-Bolt, 1/2"-13UNC x 3.12"	1
35	9800	Locknut, 1/2"-13UNC	4
36	9936	Locknut, 1/4"-20UNC	4
37	9390-107	Capscrew, 1/2"-13UNC x 3" G5	2
38	9390-011	Capscrew, 1/4"-20UNC x 2 1/2" G5	2
39	73751B	Valve Bracket	1
40	93657	Plug 3/4-16 O-Ring w/ Hex Head	1
41	75884	Velcro Hose Wrap	2
42	9390-010	Capscrew, 1/4"-20UNC x 2 1/4" G5	2
43	78039B	Valve Bracket	1
44	9390-055	Capscrew, 3/8"-16UNC x 1" G5	2
45	9928	Locknut, 3/8"-16UNC	2

Hydraulics - Stack-Fold - Model 1245 - 15’ Base 8’-11’ Wings

Please visit www.unverferth.com/parts/ for the most current parts listing.



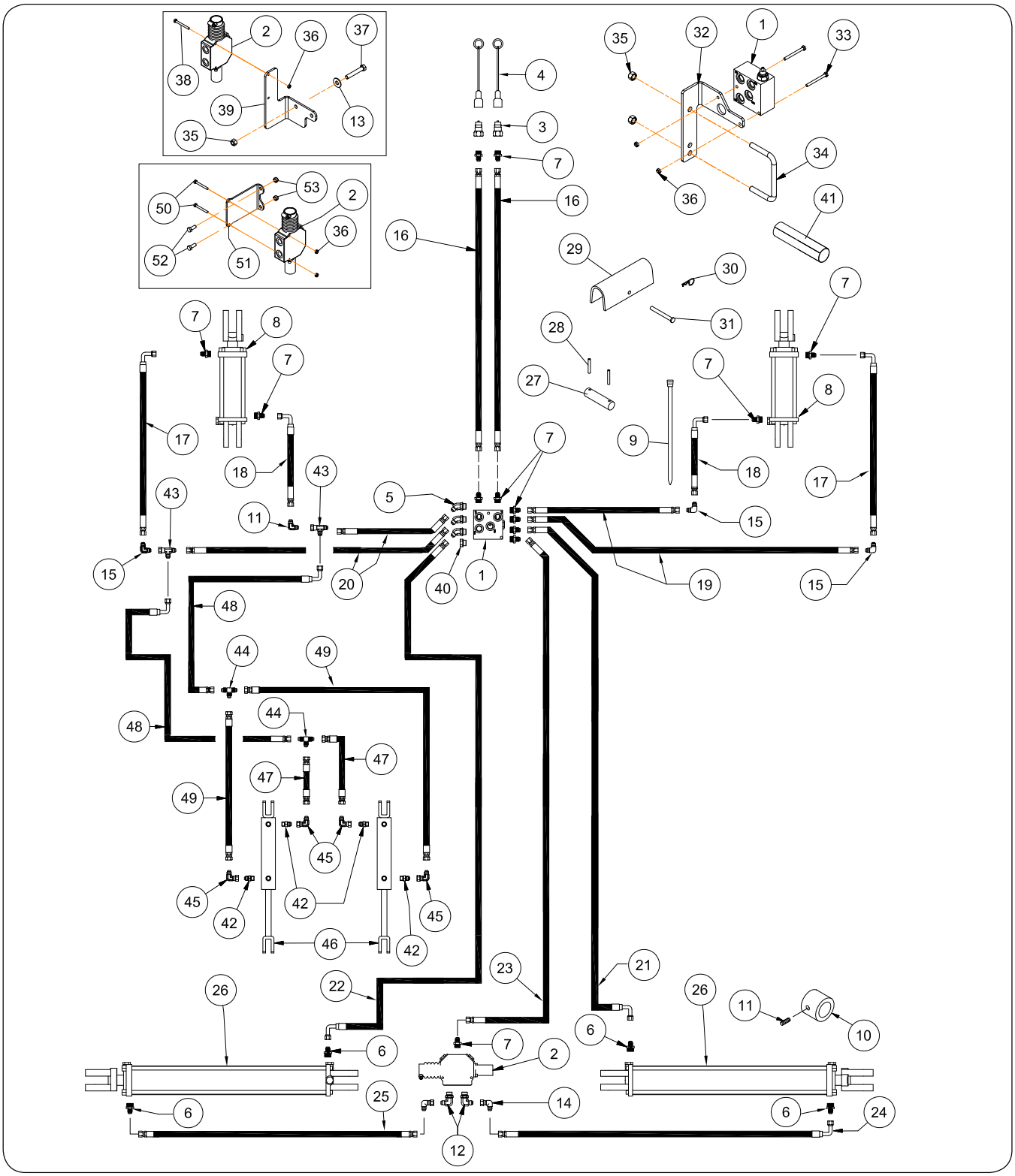
ITEM	PART NO.	DESCRIPTION	QTY
1	9500379	Split Function Sequence Valve (3000 PSI)	1
2	901942	Sequence Valve Assembly (Refer to “Valve/Actuator Assembly” in this Section)	1
3	91383	Quick Disconnect Coupling	2
4	91511	Dust Cap	2
5	91508	45° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	3
6	91608	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male w/Restrictor	4
	9840	“O”-Ring (For Repairs)	
7	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	10
	9840	“O”-Ring (For Repairs)	

Hydraulics - Stack-Fold - Model 1245 - 15' Base 8'-11' Wings

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY
8	95412	Hydraulic Cylinder 3 x 6	2
	9003772	Seal Kit for 3 x 6 Cylinder	
9	94038	Cable Tie, 32"	1
	94037	Cable Tie, 15 1/2"	
10	84142	Cylinder Stop 2 1/2"	2
	84143	Cylinder Stop 2 7/8"	
	84144	Cylinder Stop 2 3/4"	
	84145	Cylinder Stop 3 3/8"	
11	9399-057	Set Screw, 1/4"-20UNC x 1/4" (Cup Point/Hex Socket)	2
12	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	2
	9840	"O"-Ring (For Repairs)	
13	9405-088	Flat Washer, 1/2" USS	2
14	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	2
15	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	4
16	9501712	Hydraulic Hose 3/8 x 358 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
17	9500353	Hydraulic Hose 3/8 x 24 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
18	9500354	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
19	9504072	Hydraulic Hose 3/8 x 66 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
20	9501681	Hydraulic Hose 3/8 x 36 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
21	902954	Hydraulic Hose 3/8 x 68 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
22	9500356	Hydraulic Hose 3/8 x 32 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
23	9501699	Hydraulic Hose 3/8 x 18 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
24	9500358	Hydraulic Hose 3/8 x 112 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
25	9500357	Hydraulic Hose 3/8 x 42 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
26	96959	Hydraulic Cylinder 3 1/2 x 24 (For 8' & 9' Wings)	2
	95393	Seal Kit for 3 1/2 x 24 Cylinder	
	96960	Hydraulic Cylinder 4 x 24 (For 10' & 11' Wings)	
	95407	Seal Kit for 4 x 24 Cylinder	
27	85632	Pin, 1" Dia. x 3 3/4"	8
28	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	16
29	82064B	Transport Lock 6"	2
30	9514	Hairpin Cotter	2
31	9828	Pin, 3/8" Dia. x 2 1/2"	2
32	74202B	Sequence Valve Bracket	1
33	9390-012	Capscrew, 1/4"-20UNC x 2 3/4" G5	2
34	96874	U-Bolt, 1/2"-13UNC x 3.12"	1
35	9800	Locknut, 1/2"-13UNC	4
36	9936	Locknut, 1/4"-20UNC	4
37	9390-107	Capscrew, 1/2"-13UNC x 3" G5	2
38	9390-011	Capscrew, 1/4"-20UNC x 2 1/2" G5	2
39	73955B	Valve Bracket	1
40	93657	Plug 3/4-16 O-Ring w/ Hex Head	1
41	75884	Velcro Hose Wrap	2
42	9390-010	Capscrew, 1/4"-20UNC x 2 1/4" G5	2
43	78039B	Valve Bracket	1
44	9390-055	Capscrew, 3/8"-16UNC x 1" G5	2
45	9928	Locknut, 3/8"-16UNC	2

Hydraulics - Stack-Fold - Model 1245D - 12’ Base 7’-9’ Wings

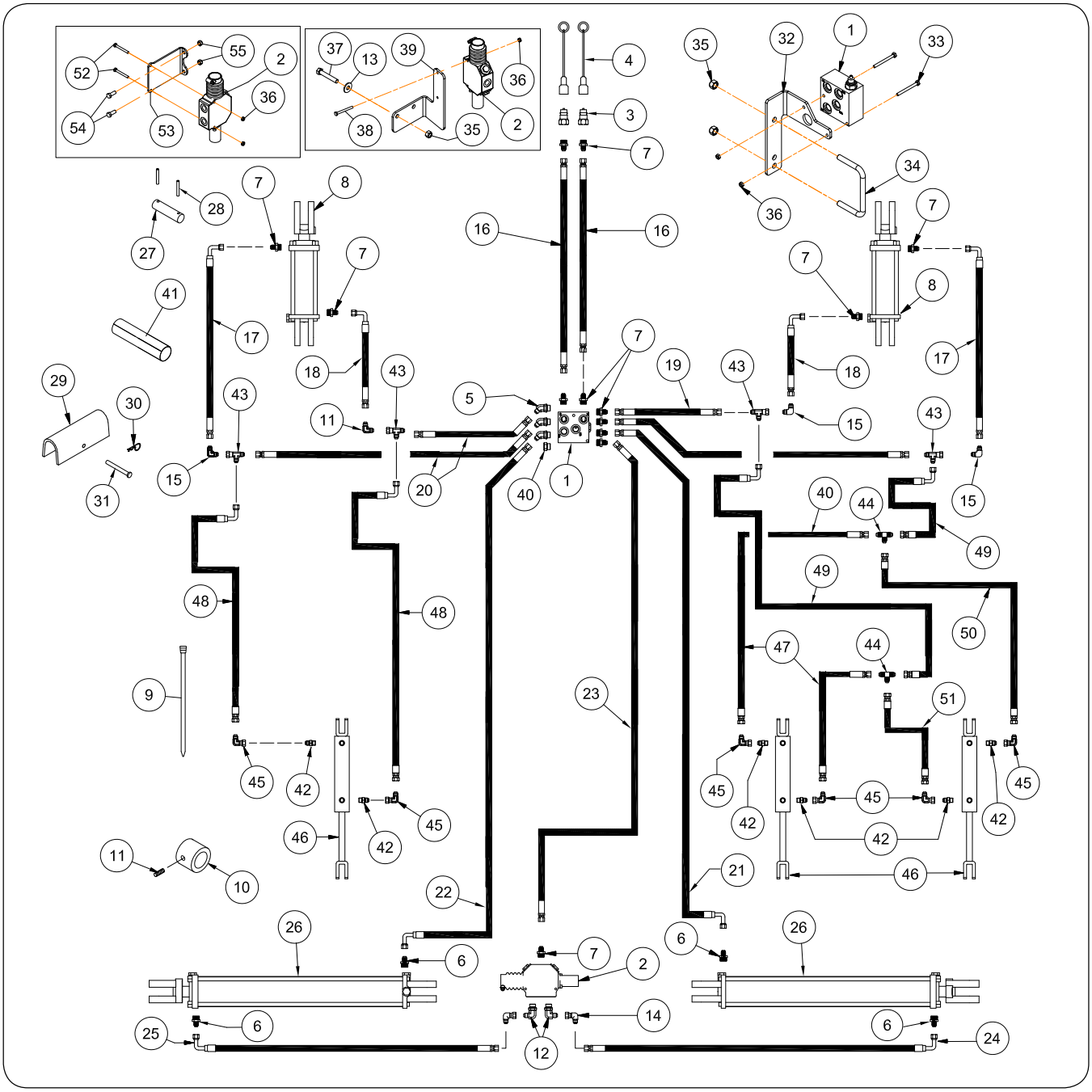


ITEM	PART NO.	DESCRIPTION	QTY
1	9500379	Split Function Sequence Valve (3000 PSI)	1
2	901942	Sequence Valve Assembly (Refer to “Valve/Actuator Assembly” in this Section)	1
3	91383	Quick Disconnect Coupling	2
4	91511	Dust Cap	2

Hydraulics - Stack-Fold - Model 1245D - 12' Base 7'-9' Wings

ITEM	PART NO.	DESCRIPTION	QTY
5	91508	45° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	3
6	91608	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male w/Restrictor	4
7	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	10
8	95412	Hydraulic Cylinder 3 x 6	2
	9003772	Seal Kit for 3 x 6 Cylinder	
9	94038	Cable Tie, 32"	1
	94037	Cable Tie, 15 1/2"	
10	84154	Cylinder Stop 2 1/4" Long (For 12' Base 7' Wings)	2
	84144	Cylinder Stop 2 3/4" Long (For 12' Base 8' Wings)	
	84145	Cylinder Stop 3 3/8" Long (For 12' Base 9' Wings)	
11	9399-057	Set Screw 1/4-20UNC x 1/4 (Cup Point/Hex Socket)	2
12	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	2
13	9405-088	Flat Washer, 1/2" USS	2
14	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	2
15	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	4
16	9501712	Hydraulic Hose 3/8 x 358 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
17	9500353	Hydraulic Hose 3/8 x 24 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
18	9500354	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
19	9504072	Hydraulic Hose 3/8 x 66 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
20	9501681	Hydraulic Hose 3/8 x 36 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
21	9500370	Hydraulic Hose 3/8 x 58 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
22	9500351	Hydraulic Hose 3/8 x 23 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
23	9502507	Hydraulic Hose 3/8 x 38 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
24	9500434	Hydraulic Hose 3/8 x 88 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
25	9502507	Hydraulic Hose 3/8 x 38 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
26	96958	Hydraulic Cylinder 4 x 16 (For 12' Base 7' through 9' Wings)	2
	95407	Seal Kit for 4 x 16 Cylinder	
27	85632	Pin, 1" Dia. x 3 3/4" Lg.	8
28	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8" Lg.	16
29	82064B	Transport Lock 6" Lg.	2
30	9514	Hairpin Cotter	2
31	9828	Pin, 3/8" Dia. x 2 1/2" Lg.	2
32	74202B	Sequence Valve Bracket	1
33	9390-012	Capscrew, 1/4"-20UNC x 2 3/4" G5	2
34	96874	U-Bolt, 1/2"-13UNC x 3.12"	1
35	9800	Locknut, 1/2"-13UNC	4
36	9936	Locknut, 1/4"-20UNC	4
37	9390-107	Capscrew, 1/2"-13UNC x 3" G5	2
38	9390-011	Capscrew, 1/4"-20UNC x 2 1/2" G5	2
39	73751B	Valve Bracket (For 12' Base 7' - 9' Wings)	1
40	93657	Plug 3/4-16 O-Ring w/ Hex Head	1
41	75884	Velcro Hose Wrap	2
42	9001495	Adapter 9/16-18 JIC Male x 9/16-18 JIC Male-O-Ring	4
43	91465	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Female	2
44	9875	Tee 9/16-18 JIC x 9/16-18 JIC x 9/16-18 JIC	2
45	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	4
46	TA0-904623-0	Hydraulic Cylinder 1 1/2 x 6	2
47	91528	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
48	9500370	Hydraulic Hose 3/8 x 58 (90° Elbow 9/16-18 JIC Female x 9/16-18 JIC Female)	2
49	9503641	Hydraulic Hose 3/8 x 20 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
50	9390-010	Capscrew, 1/4"-20UNC x 2 1/4" G5	2
51	78039B	Valve Bracket	1
52	9390-055	Capscrew, 3/8"-16UNC x 1" G5	2
53	9928	Locknut, 3/8"-16UNC	2

Hydraulics - Stack-Fold - Model 1245D - 15' Base 8'-11' Wings



ITEM	PART NO.	DESCRIPTION	QTY
1	9500379	Split Function Sequence Valve (3000 PSI)	1
2	901942	Sequence Valve Assembly (Refer to "Valve/Actuator Assembly" in this Section)	1
3	91383	Quick Disconnect Coupling	2
4	91511	Dust Cap	2
5	91508	45° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	3
6	91608	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male w/Restrictor	4
7	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	10
8	95412	Hydraulic Cylinder 3 x 6	2
	9003772	Seal Kit for 3 x 6 Cylinder	
9	94038	Cable Tie, 32"	1
	94037	Cable Tie, 15 1/2"	

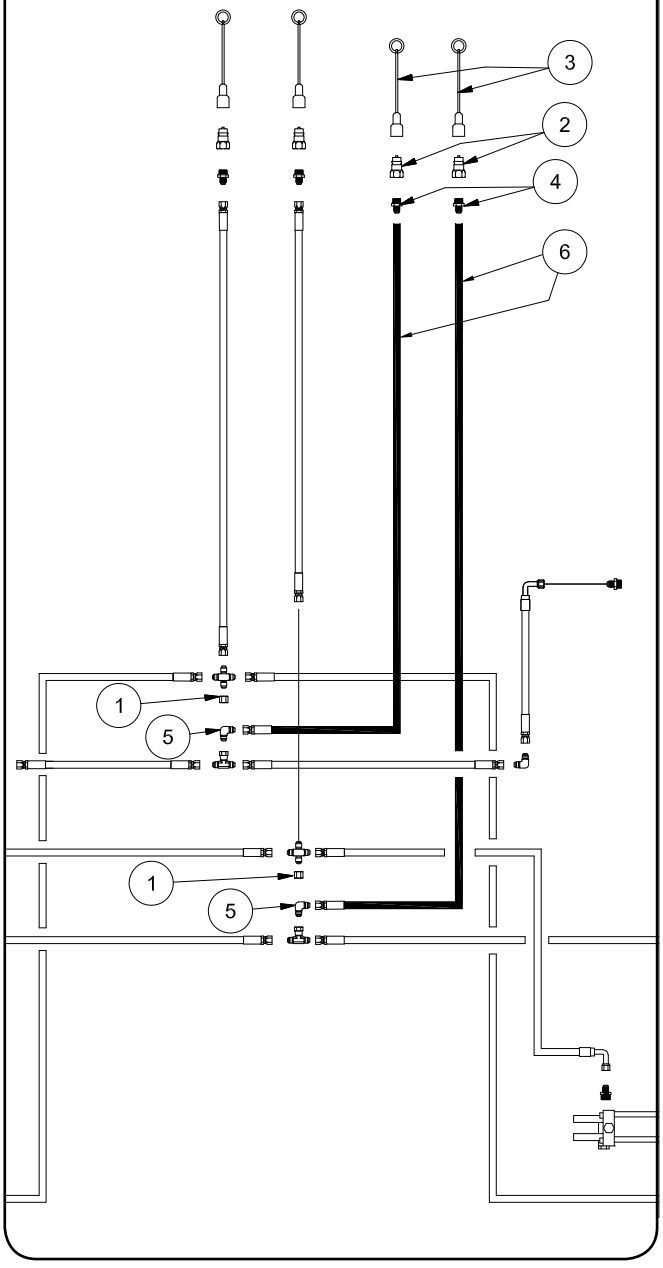
Hydraulics - Stack-Fold - Model 1245D - 15' Base 8'-11' Wings

ITEM	PART NO.	DESCRIPTION	QTY
10	84144	Cylinder Stop 2 3/4" Long (For 12' Base 8' Wings; For 15' Base 10' Wings)	1
	84145	Cylinder Stop 3 3/8" Long (For 12' Base 9' Wings; For 15' Base 11' Wings)	
	84142	Cylinder Stop 2 1/2" Long (For 15' Base 8' Wings)	
	84143	Cylinder Stop 2 7/8" Long (For 15' Base 9' Wings)	
11	9399-057	Set Screw 1/4-20UNC x 1/4 (Cup Point/Hex Socket)	2
12	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	2
	9840	"O"-Ring (For Repairs)	
13	9405-088	Flat Washer 1/2" USS	2
14	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	2
15	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	4
16	9501712	Hydraulic Hose 3/8 x 358 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
17	9500353	Hydraulic Hose 3/8 x 24 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
18	9500354	Hydraulic Hose 3/8 x 14 1/2 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	2
19	9504072	Hydraulic Hose 3/8 x 66 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
20	9501681	Hydraulic Hose 3/8 x 36 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
21	902954	Hydraulic Hose 3/8 x 68 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
22	9500356	Hydraulic Hose 3/8 x 32 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
23	9501699	Hydraulic Hose 3/8 x 18 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
24	9500358	Hydraulic Hose 3/8 x 112 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
25	9500357	Hydraulic Hose 3/8 x 42 (9/16-18 JIC Female x 9/16-18 JIC 90° Female)	1
26	96959	Hydraulic Cylinder 3 1/2 x 24 (For 15' Base 8' & 9' Wings)	2
	95393	Seal Kit for 3 1/2 x 24 Cylinder	
	96960	Hydraulic Cylinder 4 x 24 (For 15' Base 10' & 11' Wings)	
	95407	Seal Kit for 4 x 24 Cylinder	
27	85632	Pin, 1" Dia. x 3 3/4"	8
28	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8"	16
29	82064B	Transport Lock 6" Lg.	2
30	9514	Hairpin Cotter	2
31	9828	Pin, 3/8" Dia. x 2 1/2"	2
32	74202B	Sequence Valve Bracket	1
33	9390-012	Capscrew, 1/4"-20UNC x 2 3/4" G5	2
34	96874	U-Bolt, 1/2"-13UNC x 3.12"	1
35	9800	Locknut, 1/2"-13UNC	4
36	9936	Locknut, 1/4"-20UNC	4
37	9390-107	Capscrew, 1/2"-13UNC x 3" G5	2
38	9390-011	Capscrew, 1/4"-20UNC x 2 1/2" G5	2
39	73955B	Valve Bracket (For 15' Base 8'-11' Wings)	1
40	93657	Plug 3/4-16 O-Ring w/ Hex Head	1
41	75884	Velcro Hose Wrap	2
42	9001495	Adapter 9/16-18 JIC Male x 9/16-18 JIC Male-O-Ring	6
43	91465	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Female	2
44	9875	Tee 9/16-18 JIC x 9/16-18 JIC x 9/16-18 JIC	2
45	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	6
46	TA0-904623-0	Hydraulic Cylinder 1 1/2 x 6	3
47	9501684	Hydraulic Hose 3/8 x 68 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
48	9500370	Hydraulic Hose 3/8 x 58 (90° Elbow 9/16-18 JIC Female x 9/16-18 JIC Female)	2
49	9500430	Hydraulic Hose 3/8 x 38 (90° Elbow 9/16-18 JIC Female x 9/16-18 JIC Female)	2
50	9501680	Hydraulic Hose 3/8 x 26 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
51	9502776	Hydraulic Hose 3/8 x 32 (9/16-18 JIC Female x 9/16-18 JIC Female)	1
52	9390-010	Capscrew 1/4"-20UNC x 2 1/4" G5	2
53	78039B	Valve Bracket	1
54	9390-055	Capscrew, 3/8"-16UNC x 1" G5	2
55	9928	Locknut, 3/8"-16UNC	2

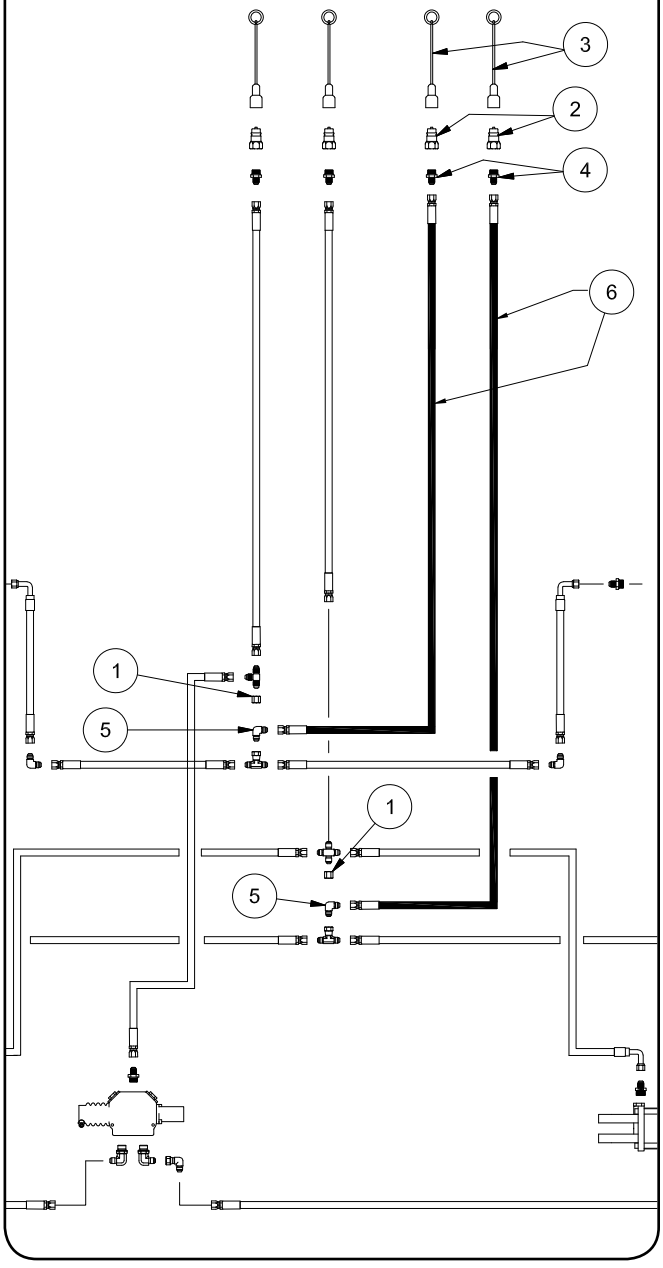
Dual Hydraulic Kit #73173FS (Optional)

Please visit www.unverferth.com/parts/ for the most current parts listing.

For Flat & Vertical Fold Models



For Stack Fold Models



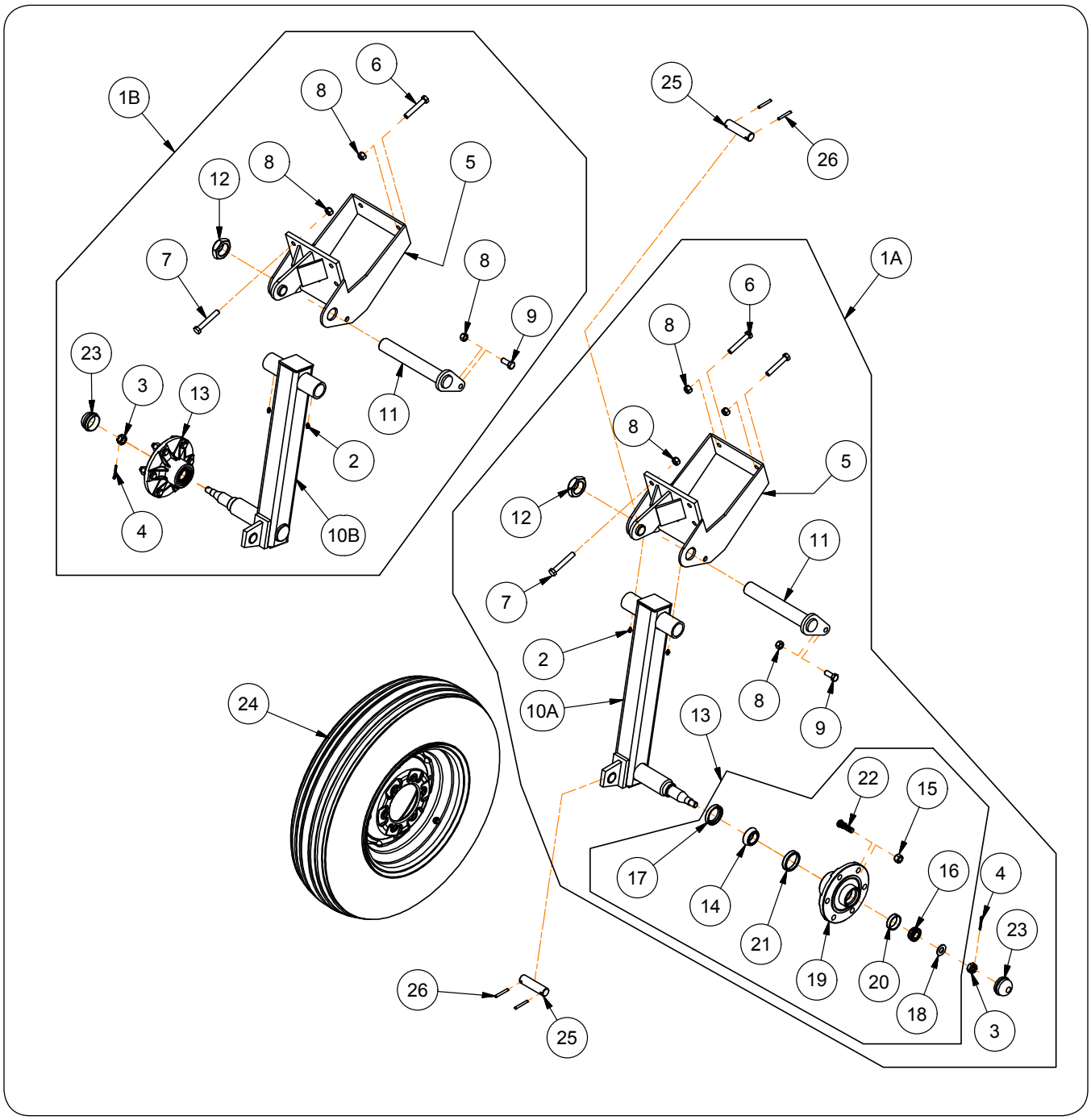
Dual Hydraulic Kit #73173FS (Optional)

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY
1	9001850	Cap Nut 3/8" Tube OD x 9/16-18 JIC Female	2
2	91383	Quick Disconnect Coupling	2
3	91511	Dust Cap	2
4	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	2
	9840	"O"-Ring (For Repairs)	
5	9897	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Male	2
6	9500369	Hydraulic Hose 3/8 x 380 (9/16-18 JIC Female x 9/16-18 JIC Female)	2

Wing Transport Wheel & Hub Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



Wing Transport Wheel & Hub Components

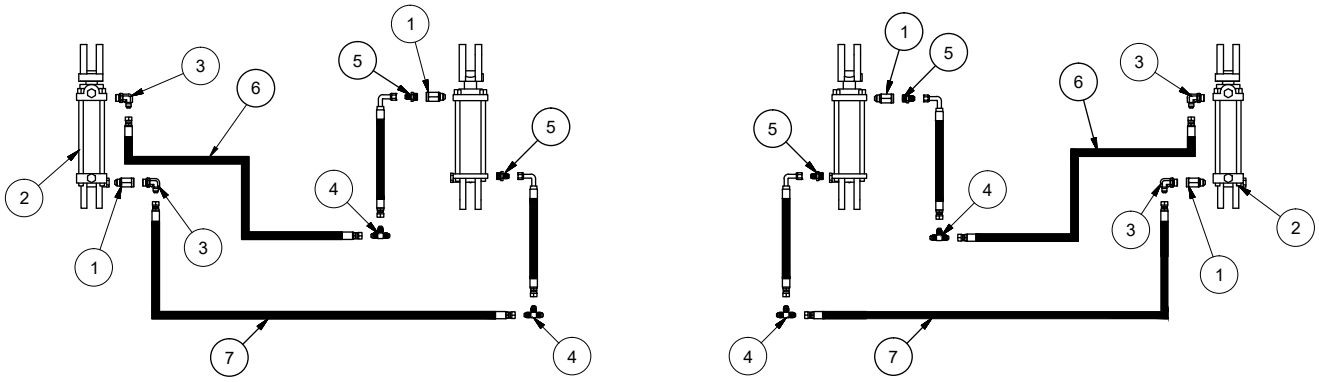
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY
1A	87293B	Gauge Wheel LH Assembly (Includes Items 2 through 23)	1
1B	87294B	Gauge Wheel RH Assembly (Includes items 2 through 23)	1
2	91160	Grease Zerk	4
3	9393-014	Slotted Nut 5/8-18UNF G2	2
4	9391-043	Cotter Pin 3/16" Dia. x 1 1/4"	2
5	87253B	Wheel Bracket Weldment	2
6	9390-107	Capscrew, 1/2"-13UNC x 3" G5	4
7	9390-108	Capscrew, 1/2"-13UNC x 3 1/4" G5	8
8	9800	Locknut, 1/2"-13UNC	14
9	9390-100	Capscrew, 1/2"-13UNC x 1 1/4" G5	2
10A	86007B	Axle Weldment (Left-Hand)	1
10B	86008B	Axle Weldment (Right-Hand)	1
11	89264	Pin Weldment (Includes Item #12)	2
12	9397-022	Elastic Jam Nut, 1 1/2"-12UNF G5	2
13	9500001B	Hub 6 Bolt Assembly Complete	2
14	9165	Bearing Cone #LM67048	2
15	9348	Beveled Nut 1/2-20UNF	12
16	9789	Bearing Cone #LM11949	2
17	9790	Seal, 1 5/8" I.D.	2
18	9791	Flat Washer, 21/32" I.D.	2
19	N/A	Hub 6-Bolt ONLY	2
20	9784	Bearing Cup #LM11910	2
21	9345	Bearing Cup #LM67010	2
22	9347	Stud Bolt, 1/2"-20UNF x 1.88"	12
23	9787	Hub Cap	2
24	81145	Mounted Tire & Wheel (7.6-15 8-Ply Tire) =OFF WHITE=	2
	81145SM	Mounted Tire & Wheel (7.6-15 8-Ply Tire) =SILVER MIST=	
	W615-6	Implement Wheel =OFF WHITE=	-
	W615-6SM	Implement Wheel =SILVER MIST=	
	9002500	Valve Stem	-
25	85632	Pin, 1" Dia. x 3 3/4"	4
26	91144-165	Spiral Pin, 1/4" Dia. x 1 7/8	8

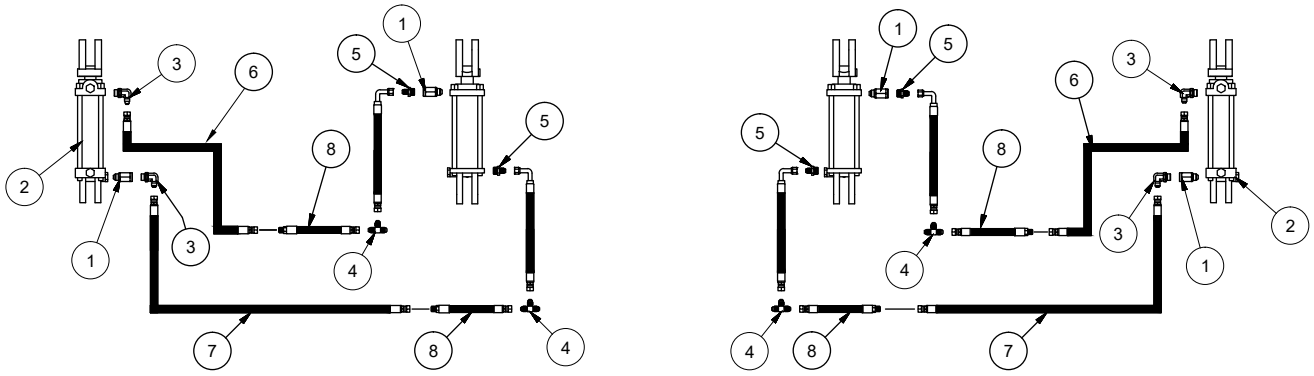
Wing Transport Wheel Hydraulics

Please visit www.unverferth.com/parts/ for the most current parts listing.

For 12’ Base 7’ through 9’ Wings; For 15’ Base 7’ through 9’ Wings



For 15’ Base 10’ & 11’ Wings

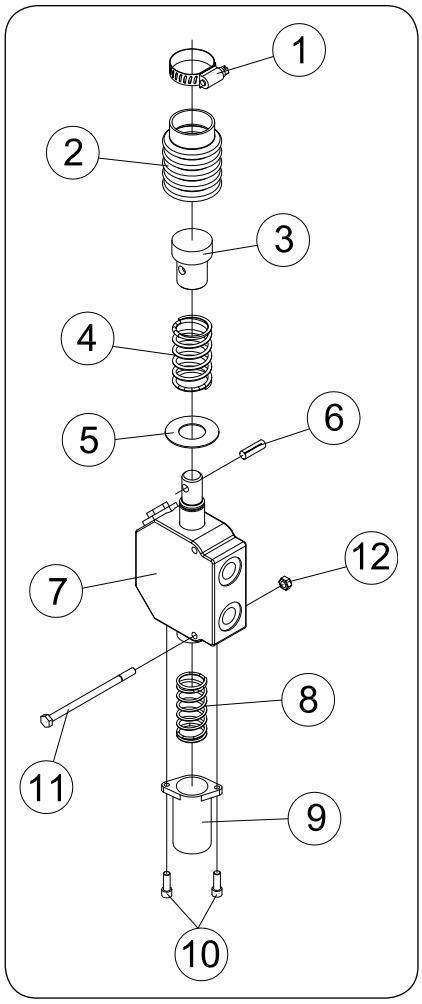


ITEM	PART NO.	DESCRIPTION	QTY
1	75435	In-Line Check Valve w/ 0.055 Restrictor 3/4-16UNF O-Ring Male x 3/4-16UNF Female	4
	9840	“O”-Ring (For Repairs)	
2	95410	Hydraulic Cylinder 2 1/2 x 6 (3000 PSI)	3
	95388	Seal Kit for 2 1/2 x 6 Cylinder	
3	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	4
	9840	“O”-Ring (For Repairs)	
4	9875	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Male	4
5	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	4
6	9500363	Hydraulic Hose 3/8 x 141 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
7	9503722	Hydraulic Hose 3/8 x 132 (9/16-18 JIC Female x 9/16-18 JIC Female)	2
8	9500381	Hydraulic Hose 3/8 x 24” (9/16-18 JIC Female x 9/16-18 JIC Male) For 15’ Base 10’ & 11’ Wings	2

Notes

Valve / Actuator Assembly

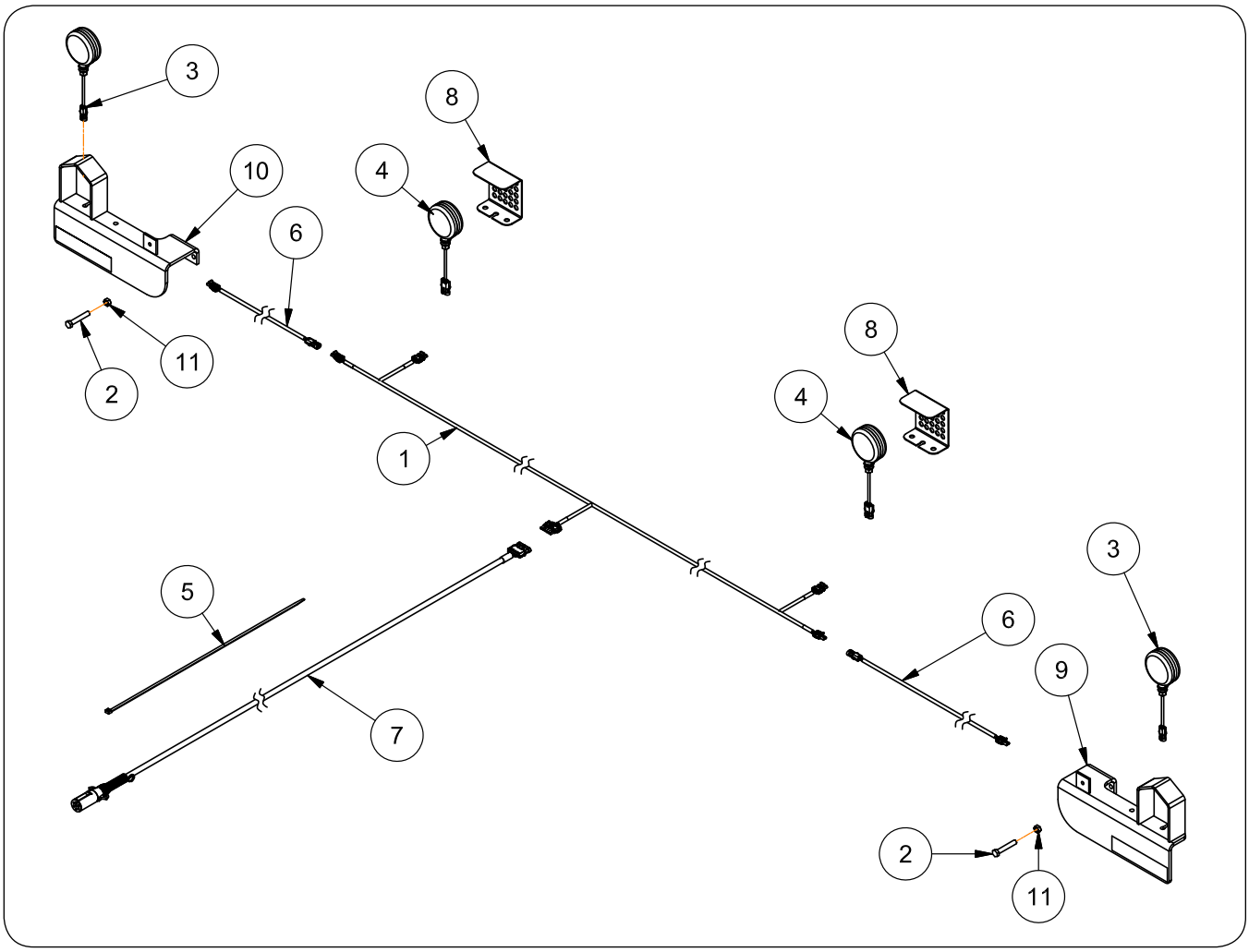
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY
	901942	Sequence Valve Complete (Includes Items 1 through 10)	-
	92952	Seal Kit	-
1	91543	Hose Clamp	1
2	95645	Rubber Boot	1
3	901946	Plunger Cap	1
4	91472	Spring, 1.46" Dia. x 2.5" Lg.	1
5	91541	Washer	1
6	900449	Groove Pin, 5/16" Dia. x 1.07"	1
7	N/A	Valve	1
	92952	Seal Kit	
8	901943	Spring, 1.13" Dia. x 2.56" Lg.	1
9	901944	Cap (For Repairs ONLY)	1
10	901282	Socket Head Capscrew, 1/4"-20UNC x 7/8"	2
11	9390-011	Capscrew, 1/4"-20UNC x 2 1/2" Lg.	2
12	9936	Locknut, 1/4"-20UNC	2

Transport Marking & Light Kit (77732B)

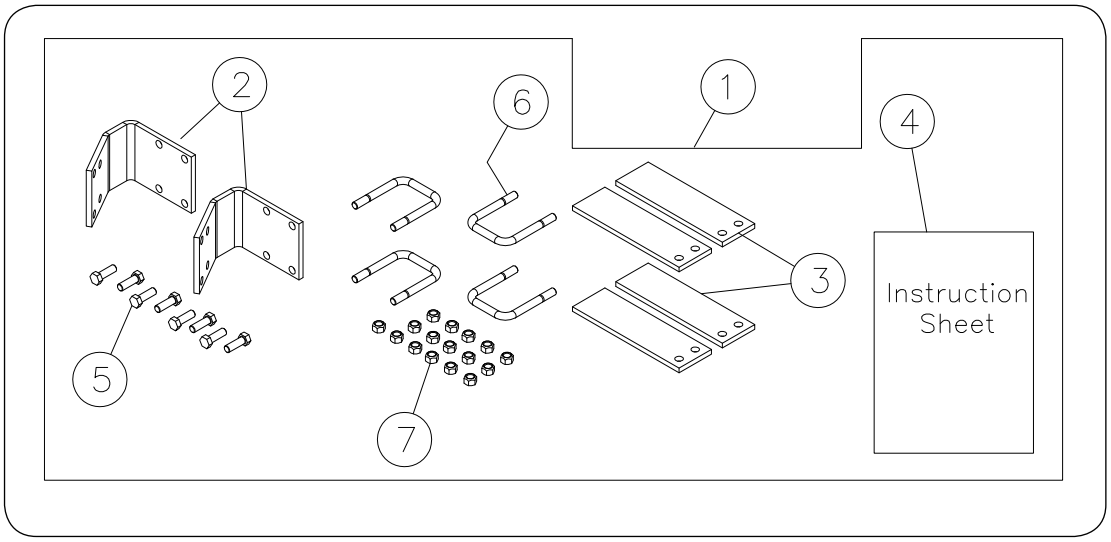
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	22790	Wiring Harness 132”	1	
2	9390-101	Capscrew, 1/2”-13UNC x 1 1/2” G5	4	
3	9003876	Light (Amber)	2	
4	9003877	Light (Red)	2	
5	94038	Cable Tie (28 1/4”)	8	
6	86421	Wiring Harness 48”	2	
7	89467	Wiring Harness 336”	1	
8	73338B	Light Bracket	2	
9	74117B	Bracket w/Reflector (9003127)	1	
10	74116B	Bracket w/Reflector (9003127)	1	
11	94981	Locknut, 1/2”-13UNC	4	

Tire Scraper Kit (89360B) (Optional)

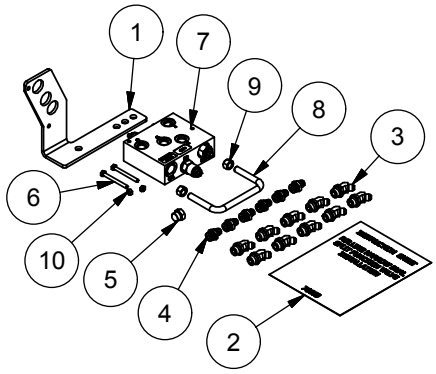
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	NOTES
1	89360B	Tire Scraper Kit	
2	89358B	Scraper Bracket	
3	89359B	Scraper Plate	
4	89389	Instruction Sheet	
5	9390-101	Capscrew 1/2-13UNC x 1 1/2	`
6	95531	U-Bolt 1/2-13UNC x 4 1/4	
7	9800	Locknut 1/2-13UNC	

Dual Split Function Valve Kit #76671B (Optional)

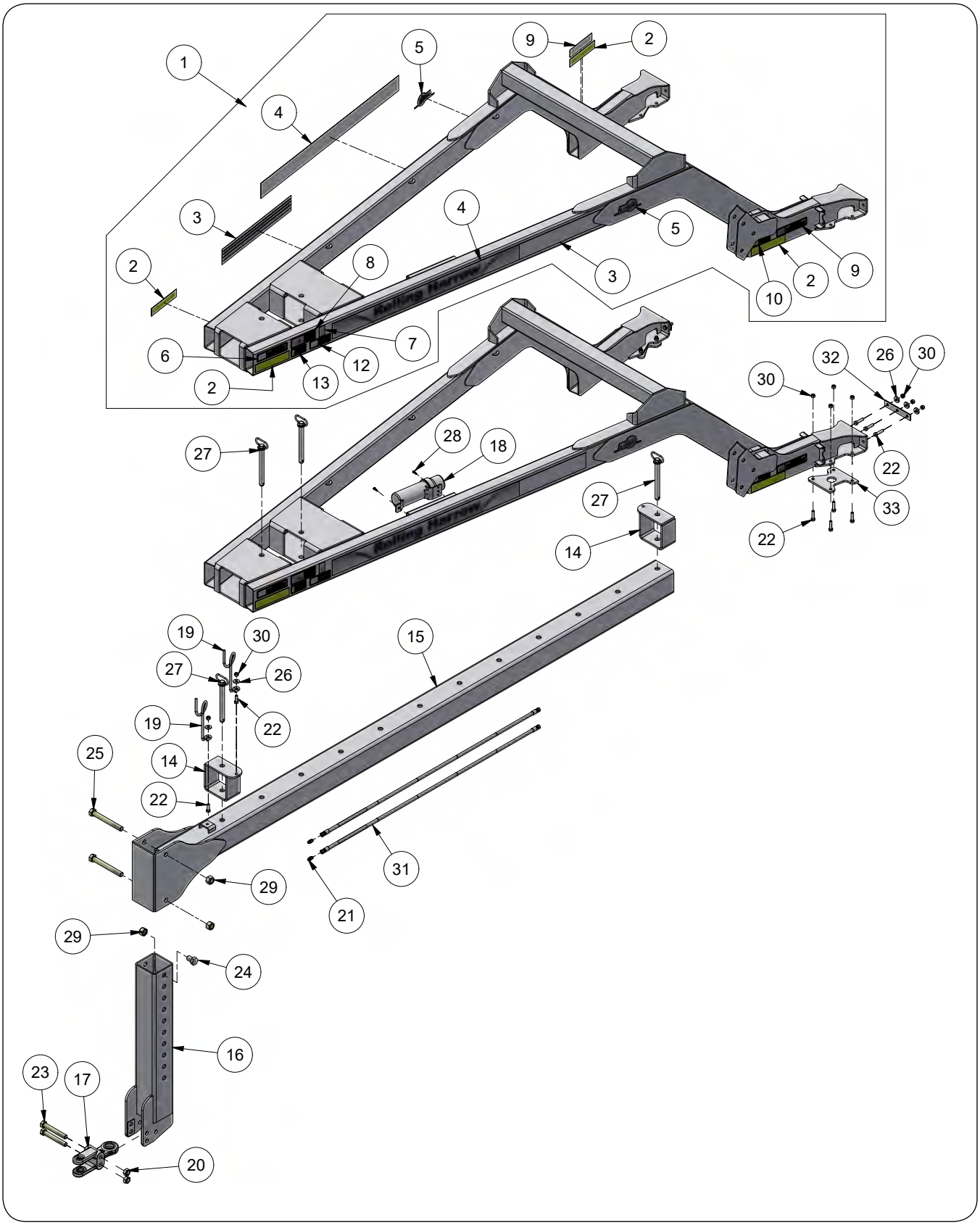
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	74803B	Valve Bracket	1	
2	76669	Instruction Sheet	1	
3	91508	45° Elbow	10	
4	92927	Adapter	6	
5	93657	Plug	1	
6	9390-012	Capscrew, 1/4"-20UNC x 2 3/4" G5	2	Grade 5
7	9501919	Dual Split Function Valve	1	
8	96874	U-Bolt, 1/2"-13UNC x 3 1/8", 5 9/16" C/C	1	
9	9800	Locknut/Top, 1/2"-13UNC	2	
10	9936	Locknut/Top, 1/4"-20UNC	2	

A-Frame Gooseneck Hitch Assembly (Optional)

Please visit www.unverferth.com/parts/ for the most current parts listing.



A-Frame Gooseneck Hitch Assembly (Optional)

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	77737G	A-Frame Gooseneck Hitch Assembly =Green=	-	
	77737R	A-Frame Gooseneck Hitch Assembly =Red=		
1	700240G	A-Frame Gooseneck Hitch w/Decals =Green=	1	Includes Items 2 through 13
	700240R	A-Frame Gooseneck Hitch w/Decals =Red=		
2	9003127	Reflector =Amber= (2 x 9)	4	
3	900713	Decal, Stripe	2	
4	901129	Decal, Rolling Harrow	2	
5	901764	Decal, UM Swoosh (3 x 7)	2	
6	901891	Decal, DANGER “Electrocution”	1	
7	91605	Decal, FEMA	1	
8	94094	Decal, WARNING “Tongue”	1	
9	95136	Decal, WARNING “Folding/Unfolding Wings”	2	
10	95445	Decal, WARNING “High-Pressure Fluid”	1	
11	95605	Decal, WARNING “Falling Equipment”	1	
12	97575	Decal, CAUTION “Transport Chain”	1	
13	97961	Decal, WARNING “Read and Understand Manual”	1	
14	76203G	Stop Weldment =Green=	2	
	76203R	Stop Weldment =Red=		
15	76229G	Tongue Tube Weldment =Green=	1	
	76229R	Tongue Tube Weldment =Red=		
16	76230G	Vertical Hitch Tube Gooseneck =Green=	1	
	76230R	Vertical Hitch Tube Gooseneck =Red=		
17	83301B	Hitch Clevis =Black=	1	
18	900552	Manual Holder	1	
19	902979B	Hose Holder	2	
20	91141	Locknut/Center, 7/8”-9UNC	2	
21	92295	Adapter	2	
22	91299-103	Capscrew, 1/2”-13UNC x 2” G8	2	
23	9390-177	Capscrew, 7/8”-9UNC x 6 1/2” G5	2	
24	9390-181	Capscrew, 1”-8UNC x 1 1/2” G5	1	
25	9390-462	Capscrew, 1”-8UNC x 8 1/2” G5	2	
26	9503326	Flat Washer, 1/2” (Heavy)	16	
27	9502801	Hitch Pin with Hairpin Cotter	4	
28	9512	Self-Drilling Screw, 1/4-14 x 1”	2	
29	9663	Locknut/Top, 1”-8UNC	3	
30	9800	Locknut/Top, 1/2”-13UNC	16	
31	9504072	Hydraulic Hose, 3/8” Dia. x 66”	2	
32	78945B	Plate, 1 1/2” x 7 3/4” =Black=	2	
33	700255B	Reinforcement Plate, 7 1/4” x 8 15/32” =Black=	2	

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