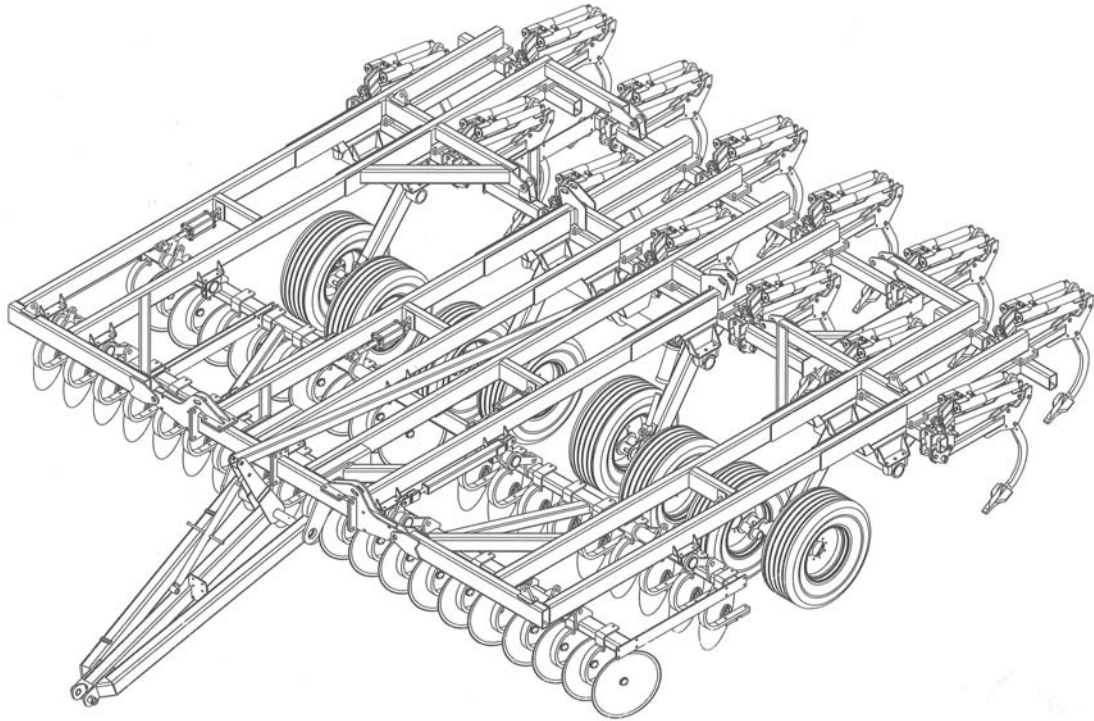




ASSEMBLY INSTRUCTIONS



SoilPro 513

Printed in USA (74325D) 8/15

WR WIL-RICH

PO Box 1030
Wahpeton, ND 58074
PH (701) 642-2621
Fax (701) 642-3372
www.wil-rich.com

WARRANTY

The only warranty Wil-Rich gives and the only warranty the dealer is authorized to give is as follows:

We warrant products sold by us to be in accordance with our published specifications or those specifications agreed to by us in writing at time of sale. Our obligation and liability under this warranty is expressly limited to repairing, or replacing, at our option, within 12 months after date of retail delivery, any product not meeting the specifications. ***We make no other warranty, express or implied and make no warranty of merchantability or of fitness for any particular purpose.*** Our obligation under the warranty shall not include any transportation charges or costs or installation or any liability for direct, indirect or consequential damage or delay. If requested by us, products or parts for which a warranty claim is made are to be returned transportation prepaid to our factory. Any improper use, operation beyond rated capacity, substitution of parts not approved by us, or any alteration or repair by others in such manner as in our judgment affects the product materially and adversely shall void this warranty. ***No employee or representative is authorized to change this warranty in any way or grant any other warranty.***

Wil-Rich reserves the right to make improvement changes on any of our products without notice.

When warranty limited or not applicable: Warranty on hoses, cylinders, hubs, spindles, engines, valves, pumps or other trade accessories are limited to the warranties made by the respective manufactures of these components. Rubber tires and tubes are warranted directly by the respective tire manufacturer only, and not by Wil-Rich.

Warranty does not apply to any machine or part which has been repaired or altered in any way so as in the our judgment to affect its reliability, or which has been subject to misuse, negligence or accident.

A Warranty Validation and Delivery Report Form must be filled out and received by Wil-Rich to initiate the warranty coverage.

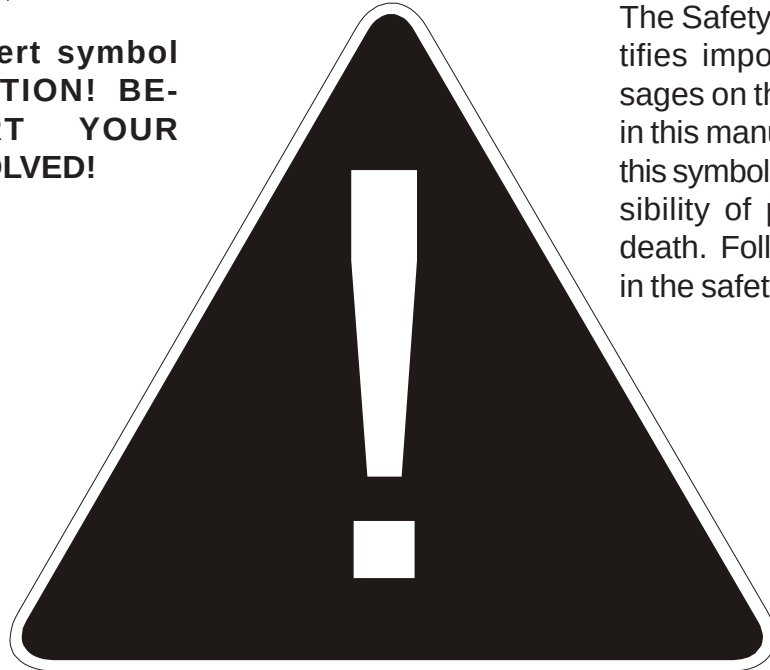
WARRANTY CLAIMS PROCEDURE

1. The warranty form must be returned to Wil-Rich within fifteen (15) working days from the repair date.
2. Parts returned to Wil-Rich without authorization will be refused. The parts must be retained at the dealership for ninety (90) days after the claim has been filed. If the Service Department would like to inspect the parts, a packing slip will be mailed to the dealer. The packing slip must be returned with the parts. The parts must be returned prepaid within thirty (30) days of receiving authorization. After the parts are inspected and warranty is verified, credit for the return freight will be issued to the dealer.
3. Parts that will be scrapped at the dealership will be inspected by a Wil-Rich Sales Representative, District Sales Manager or Service Representative within the ninety (90) day retaining period.

PERSONAL SAFETY IS IMPORTANT!

ALL PERSONNEL INVOLVED WITH THE ASSEMBLY AND/OR OPERATION OF THIS EQUIPMENT MUST BE INFORMED OF PROPER SAFETY PROCEDURES. OPERATOR'S/ ASSEMBLY MANUALS PROVIDE THE NECESSARY INFORMATION. IF THE MANUAL IS LOST FOR A PARTICULAR IMPLEMENT, ORDER A REPLACEMENT AT ONCE. OPERATOR'S AND ASSEMBLY MANUALS ARE AVAILABLE AT NO CHARGE UPON REQUEST.

This Safety Alert symbol means **ATTENTION! BECOME ALERT YOUR SAFETY IS INVOLVED!**



The Safety Alert symbol identifies important safety messages on the SoilPro 513 and in this manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is SAFETY important to you?

3 Big Reasons

Accidents Disable and Kill
Accidents Cost
Accidents Can Be Avoided

SIGNAL WORDS:

Note the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guidelines:

DANGER

An immediate and specific hazard which **WILL** result in severe personal injury or death if the proper precautions are not taken.

WARNING

A specific hazard or unsafe practice which **COULD** result in severe personal injury or death if the proper precautions are not taken

CAUTION

Unsafe practices which **COULD** result in personal injury if proper practices are not taken, or as a reminder of good safety practices.

ADDRESS INQUIRIES TO: WIL-RICH PO BOX 1030
WAHPETON, ND 58074
PH (701) 642-2621 FAX (701) 642-3372

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ASSEMBLY INFORMATION

Remove all wires and arrange the parts conveniently.

NOTE: Always wear safety glasses or goggles and be careful when cutting wires and steel bands as they are under tension and will spring back when cut.

Wherever the terms "left" and "right" are used, it must be understood to mean from a position behind and facing the machine.

Lubricate all bearings and moving parts as you proceed and make sure they work freely.

Loosely install all bolts connecting mating parts before final tightening.

When tightening bolts, they must be torqued to the proper number of foot-pounds as indicated in the table unless specified. It is important that all bolts be kept tight.

On new machines, all nuts and bolts must be rechecked after a few hours of operation.

When replacing a bolt, use only a bolt of the same grade or higher. Except in shear bolt applications, where you must use the same grade bolt.

Bolts with no markings are grade 2

Grade 5 bolts furnished with the machine are identified by three radial lines on the head.

Grade 8 bolts furnished with the machine are identified by six radial lines on the head.

All U-bolts are grade 5.



THIS SYMBOL USED TO CALL YOUR ATTENTION TO INSTRUCTIONS CONCERNING YOUR PERSONAL SAFETY.
BE SURE TO OBSERVE AND FOLLOW THESE INSTRUCTIONS

GRADE 2		GRADE 5			GRADE 8		
							
TORQUE IN FOOT POUNDS							
BOLT	DIA	3/8	1/2	5/8	3/4	7/8	1
HEX	HEAD	9/16	3/4	15/16	1-1/8	1-5/8	1-1/2
UNC	GR2	18	45	89	160	252	320
UNC	GR5	30	68	140	240	360	544
UNC	GR8	40	100	196	340	528	792
UNF	GR2	21	51	102	178	272	368
UNF	GR5	32	70	168	264	392	572
UNF	GR8	48	112	216	368	572	840



CAUTION

TO AVOID INJURY AND/OR MACHINE DAMAGE:

- Refer to Operator's Manual for safety instructions.
- Do not stand or climb on machine when operating.
- Use clean hazard flashers and SMV sign when transporting.
- Observe highway traffic regulations.

23325

MODIFICATIONS

It is the policy of Wil-Rich to improve its products whenever possible and practical to do so. We reserve the right to make changes, improvements and modifications at any time without incurring obligation to make such changes, improvements on any equipment sold previously.

CAUTION

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY AND/OR EQUIPMENT DAMAGE.

• Just before and during operation be sure no one is on or around the implement.

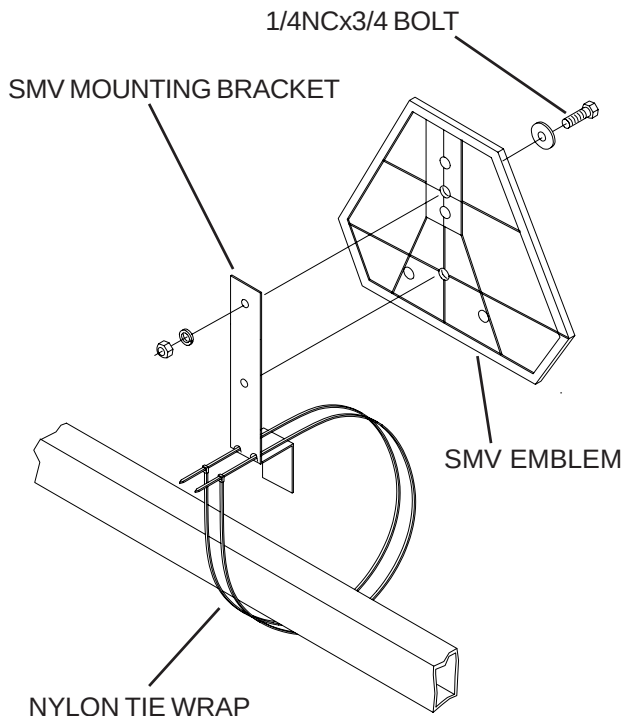
• Before activating the hydraulic system, check hoses for proper connections.

• Before lowering the wings for the first time, make sure the entire system has been charged with oil.

• With wings down always install hydraulic cylinder channel lock(s) for transporting.

5334

SAFETY



The bracket provided is designed to mount to numerous frame sizes and can be orientated in different positions to avoid interference with implement components.

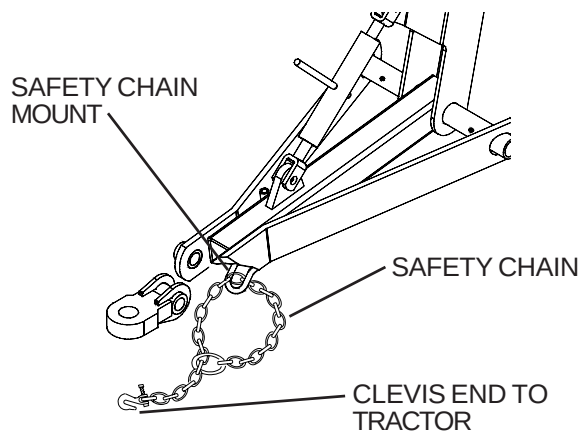
The SMV emblem is to be secured as near to the rear and centered, or as near to the left of center of implement as practical.

Emblem is to be 2 to 6 feet above the ground measured from the lower edge of the emblem.

Keep safety decals clean. Replace any safety decals that are damaged, destroyed, missing, painted over or can no longer be read. Replacement safety decals are available through your dealer.

The purpose of the safety chain is to provide an auxiliary attaching system to retain the connection between towing and towed machine in the event of separation of the primary attaching system.

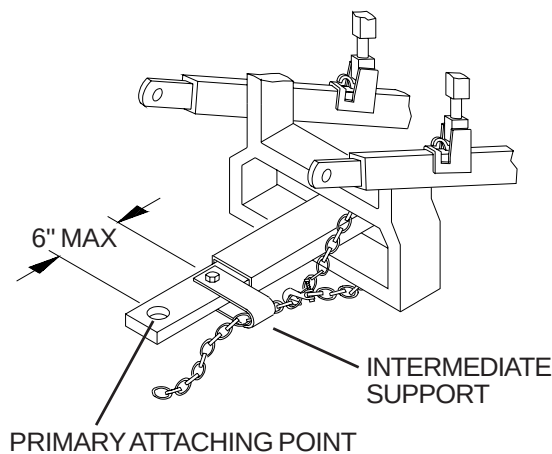
The safety chain should be hooked long enough to permit full turns. Unnecessary slack should be taken up.



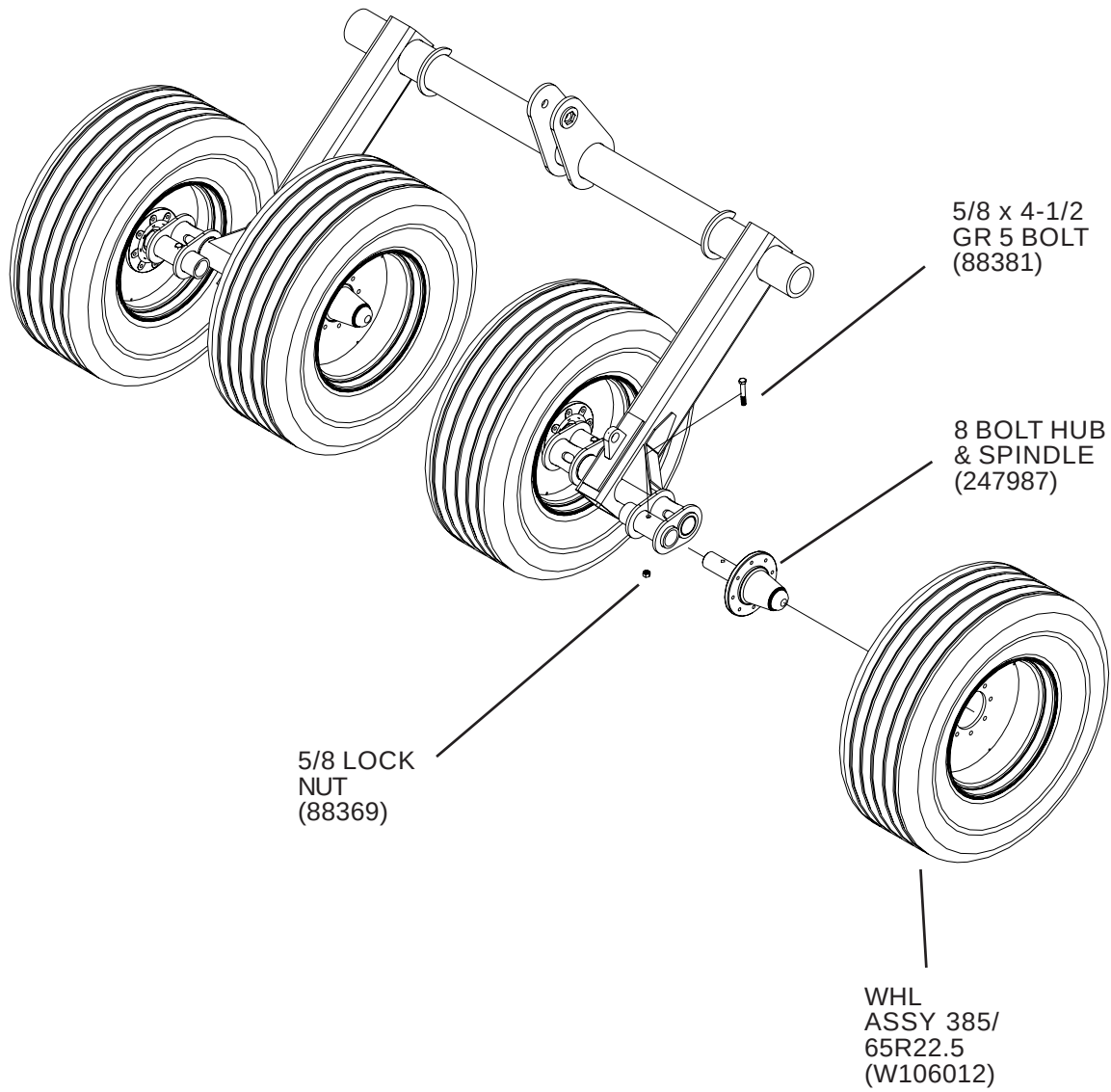
Intermediate support is to be used if there is more than 6" of unsupported chain on either side of the primary attaching point.

The intermediate support should not be mounted more than 6" from the primary attaching point. (See figure below)

The intermediate support is available from your Wil-Rich dealer.

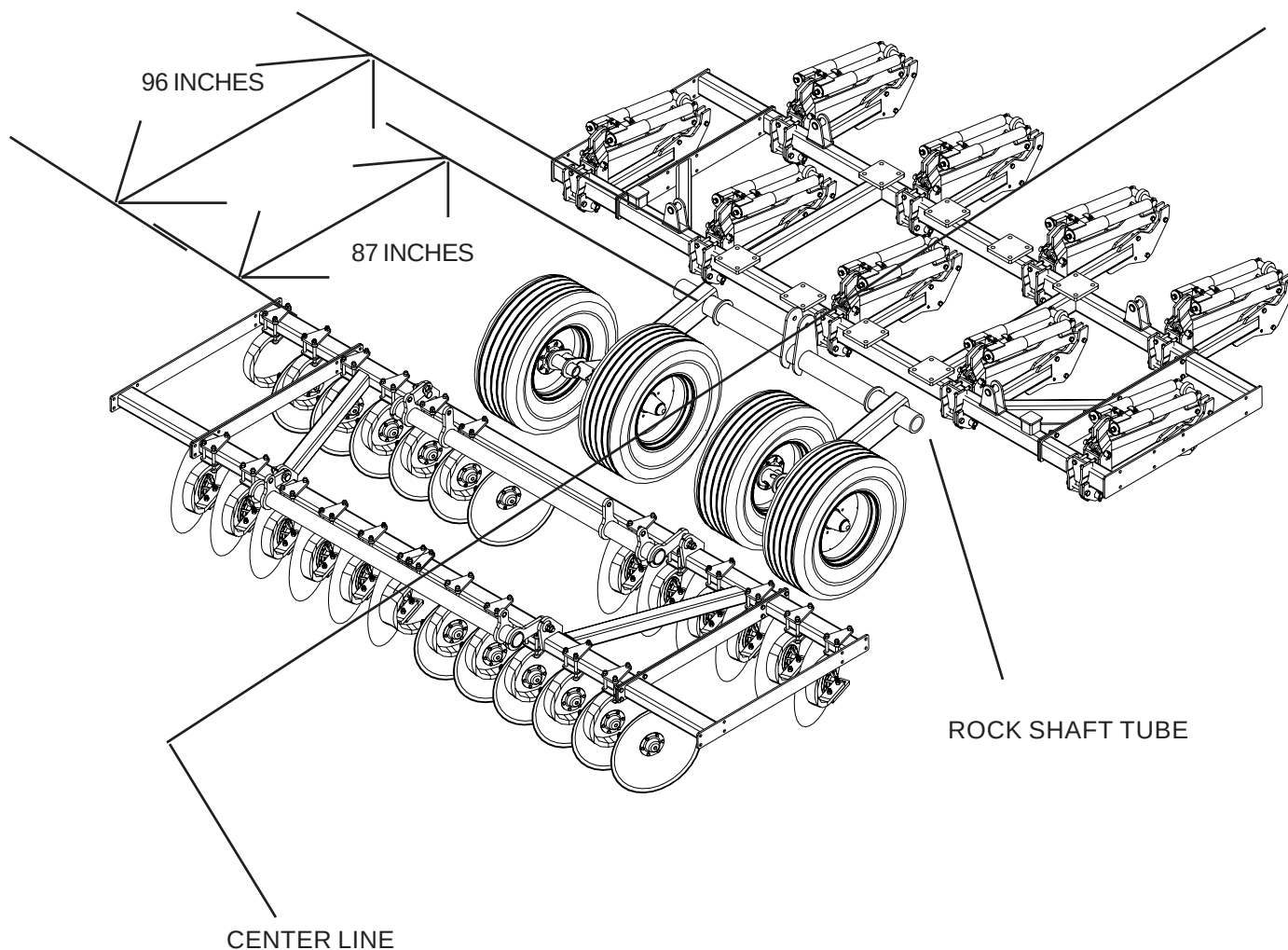


AXLE ASSEMBLY

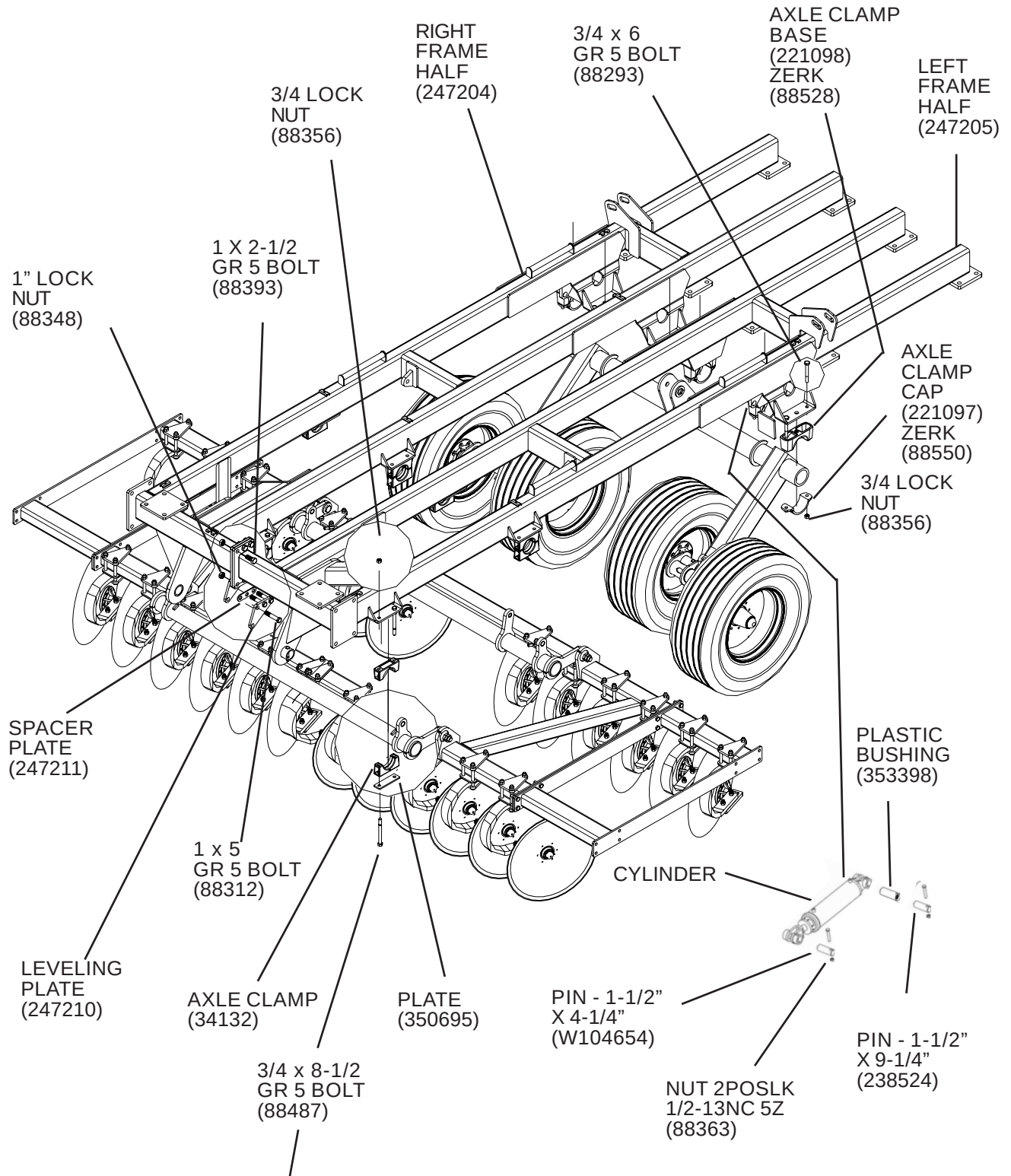


GANG AND AXLE SPACING

NOTE: PLACE DISC FRAME
AND AXLE AS SHOWN. BOT-
TOM OF ROCK SHAFT TUBE
SHOULD BE SUPPORTED 25"
OFF GROUND.

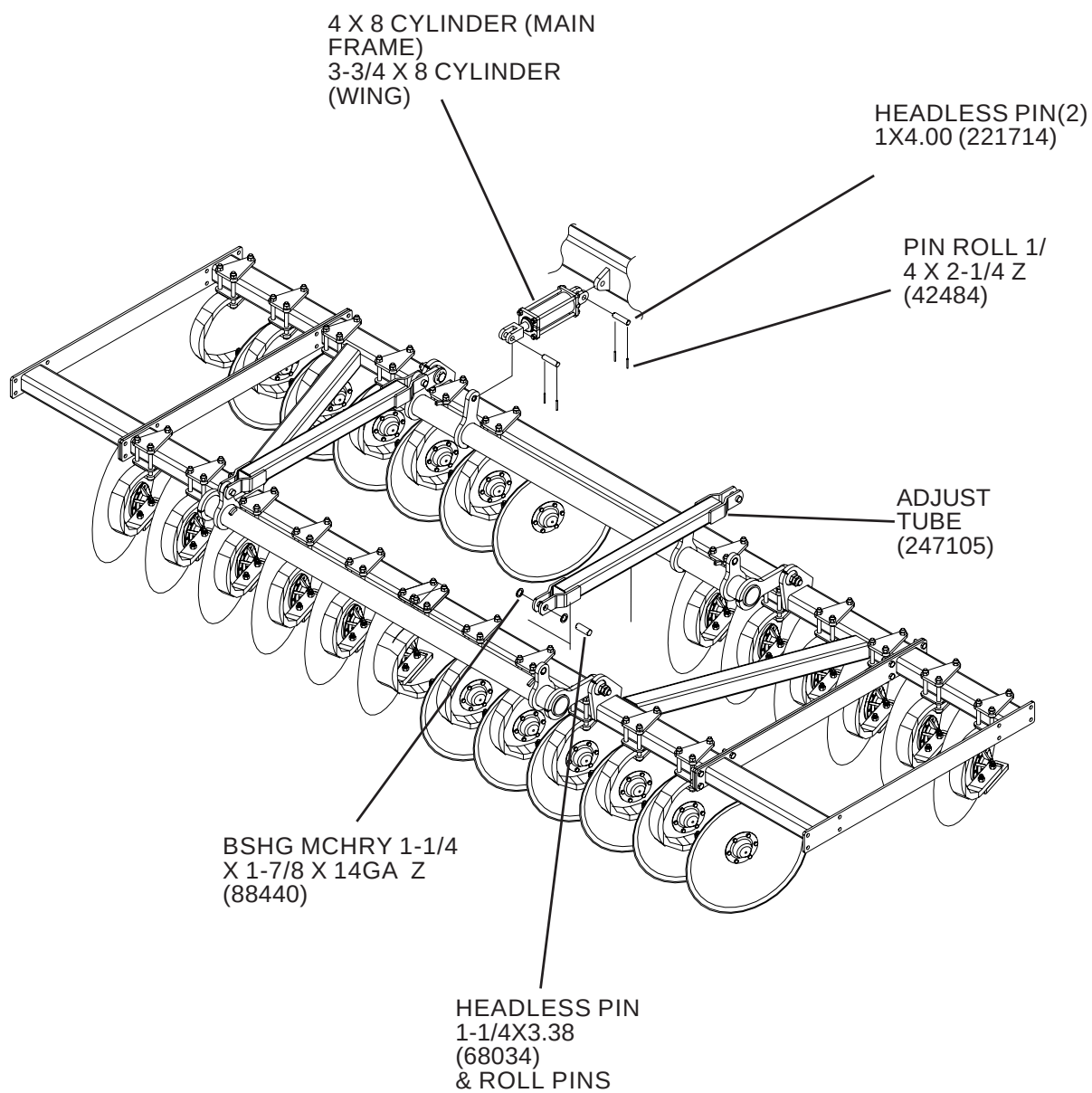


MAIN FRAME ASSEMBLY

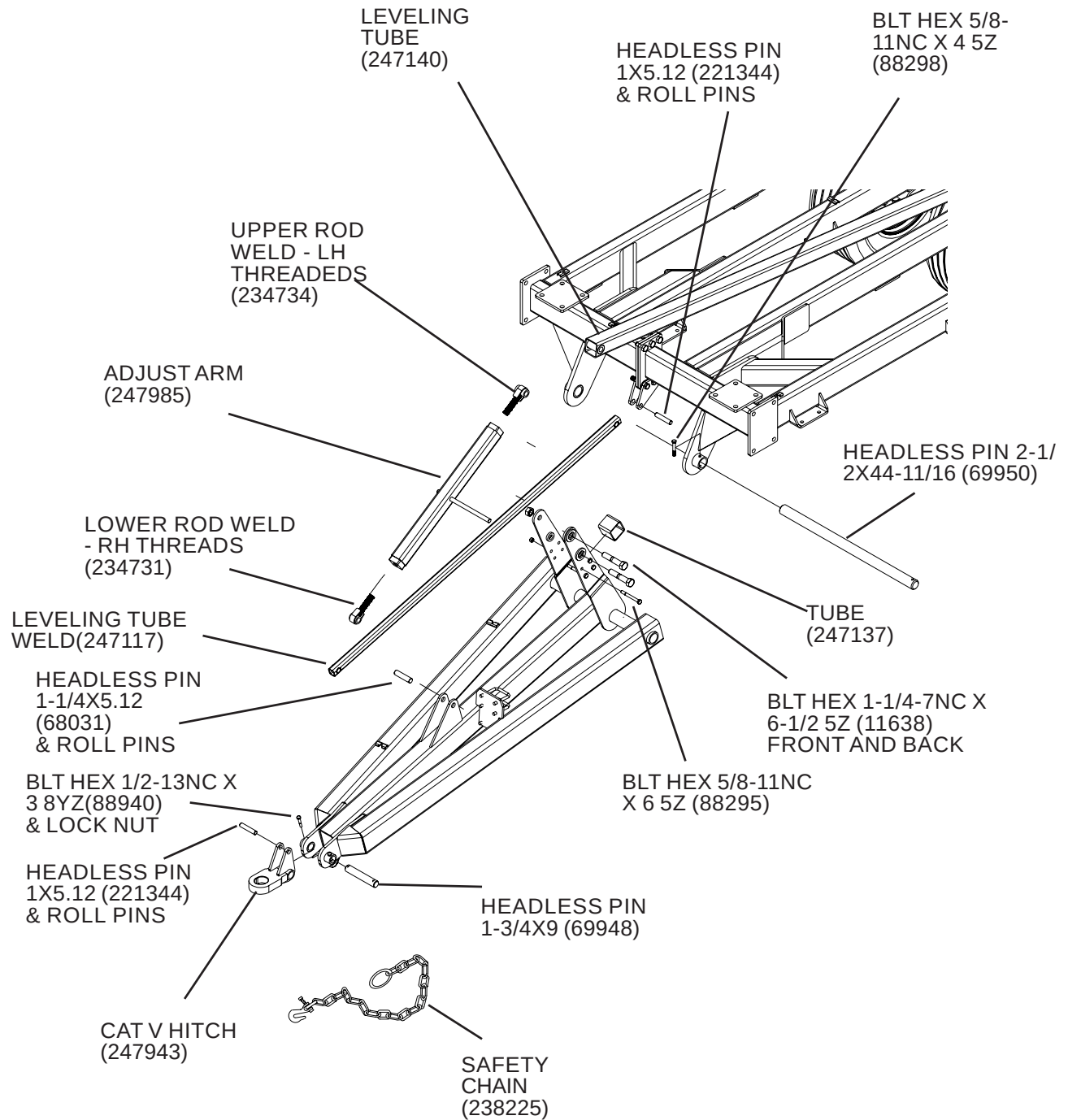


NOTE: BOLT ORIENTATION. TORQUE THESE BOLTS EVENLY. IF THEY ARE NOT TORQUED EVENLY, PART FAILURE MAY OCCUR.

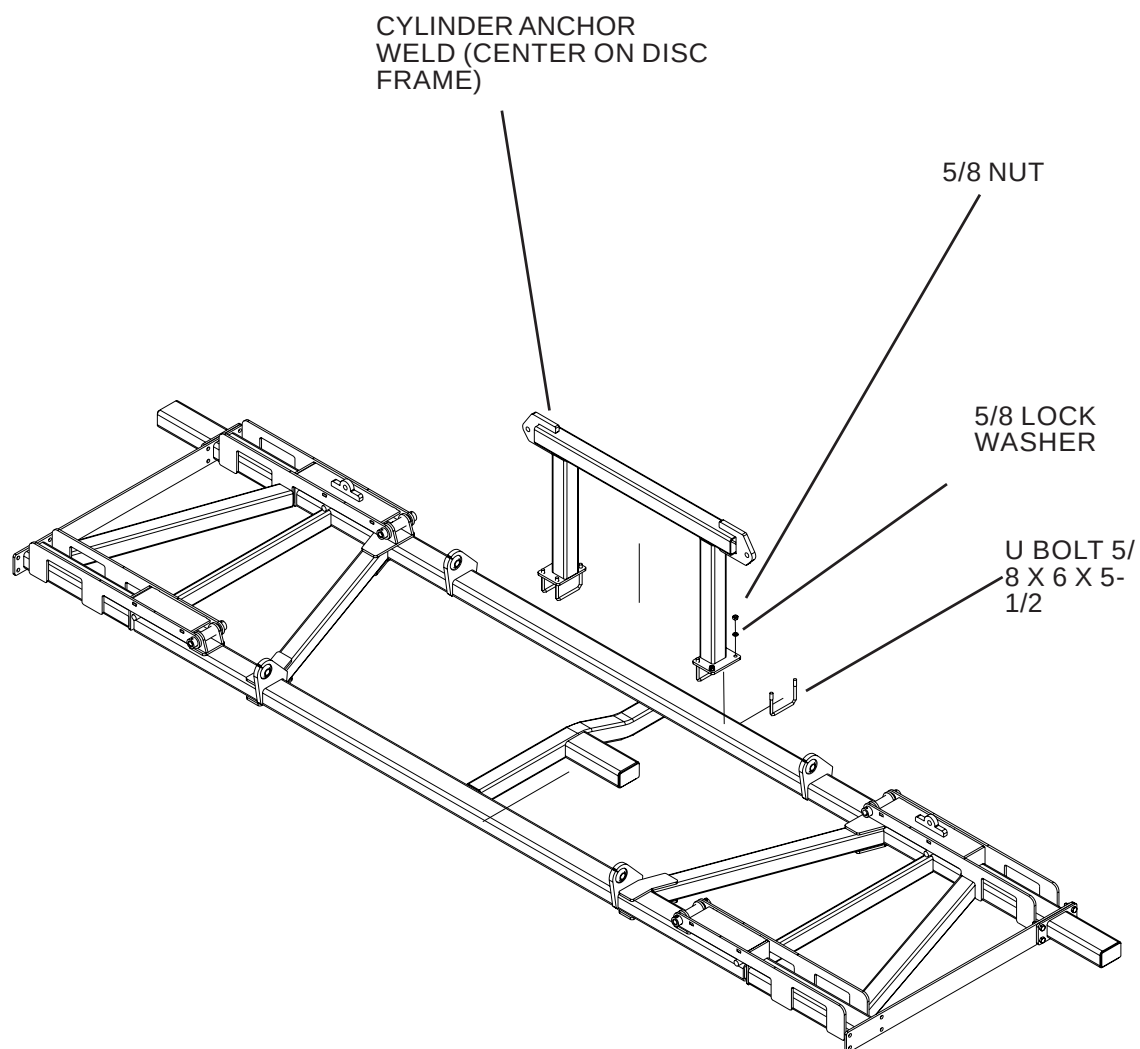
GANG LIFT ASSEMBLY



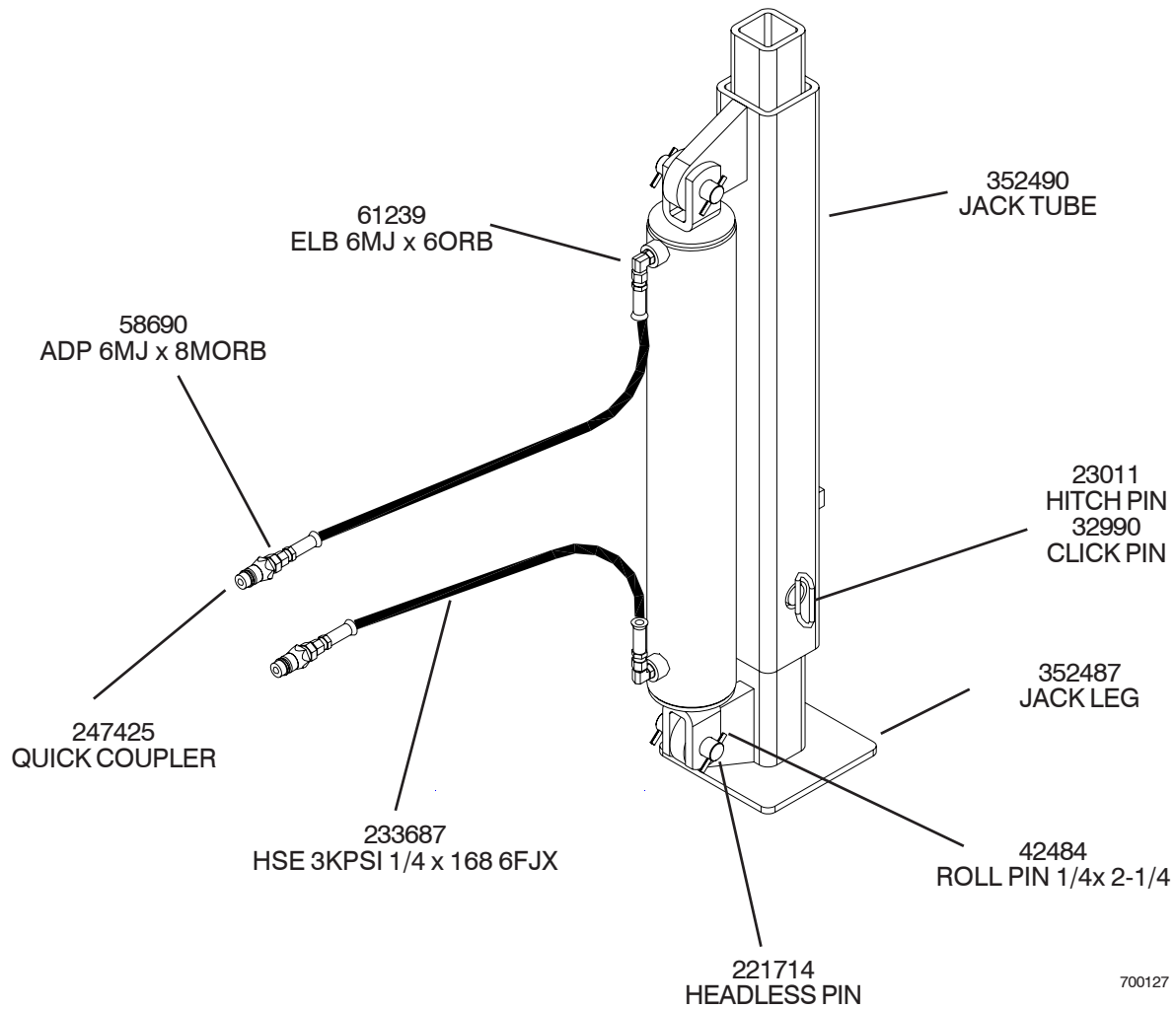
HITCH ASSEMBLY



9 SHANK FOLDING WING ANCHOR

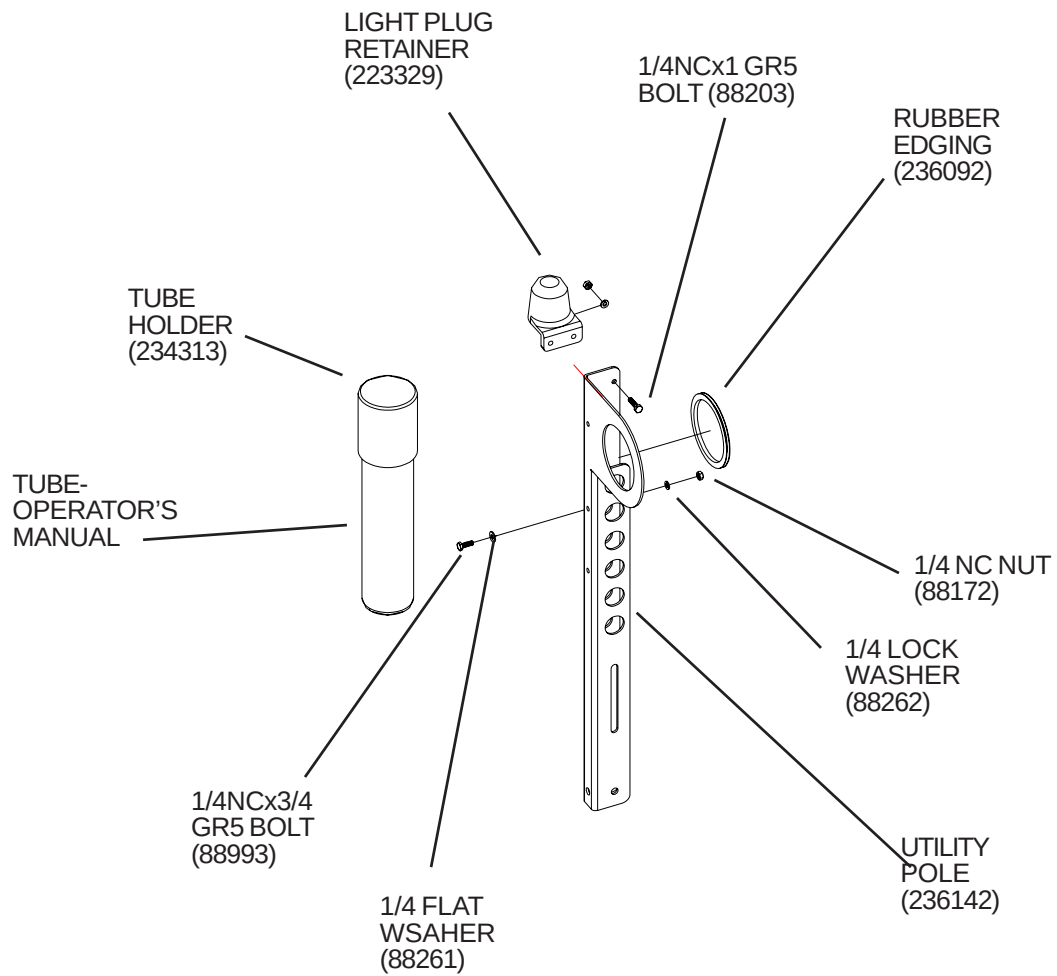


JACK ASSEMBLY



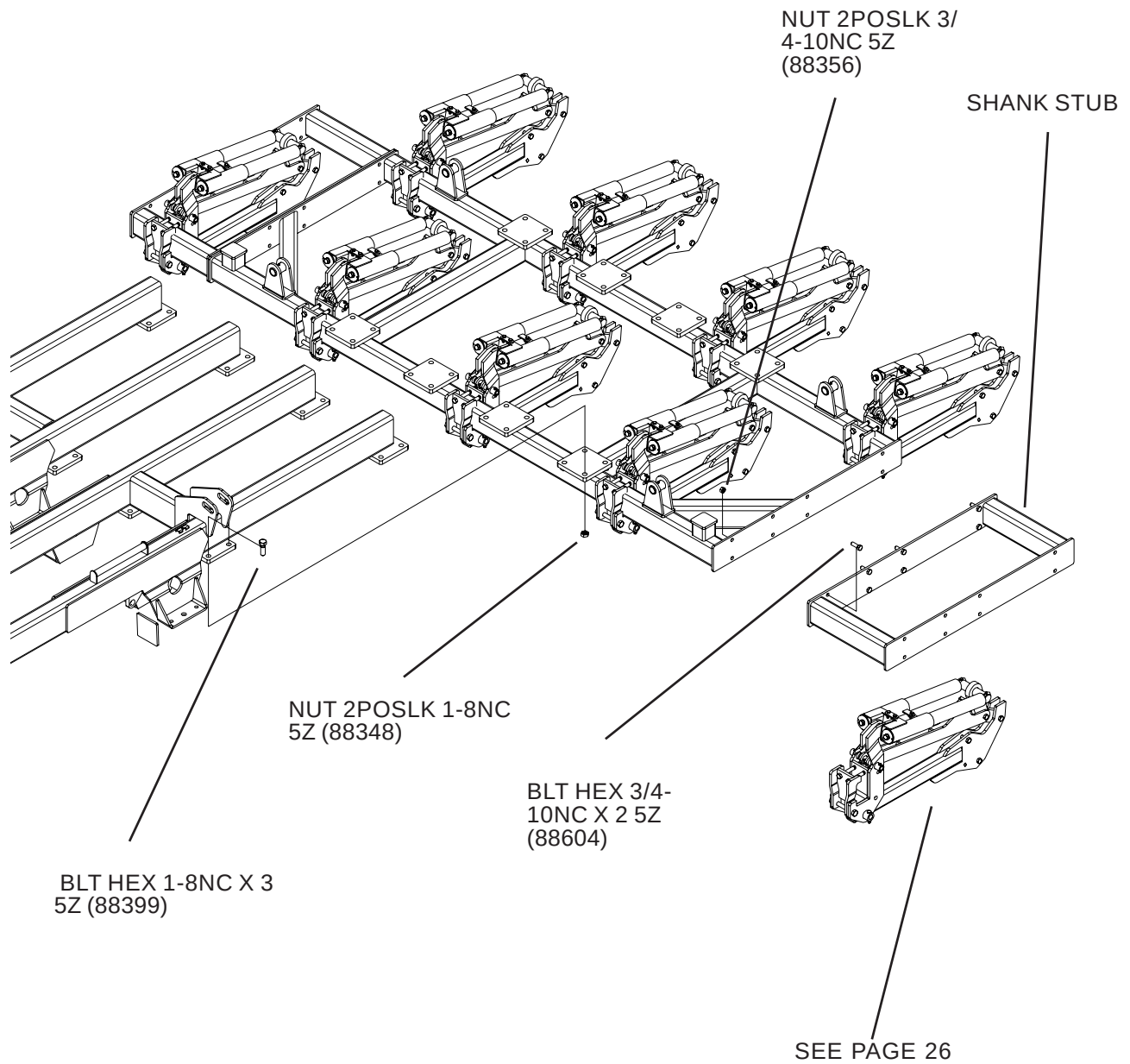
79149-2

UTILITY POLE ASSEMBLY

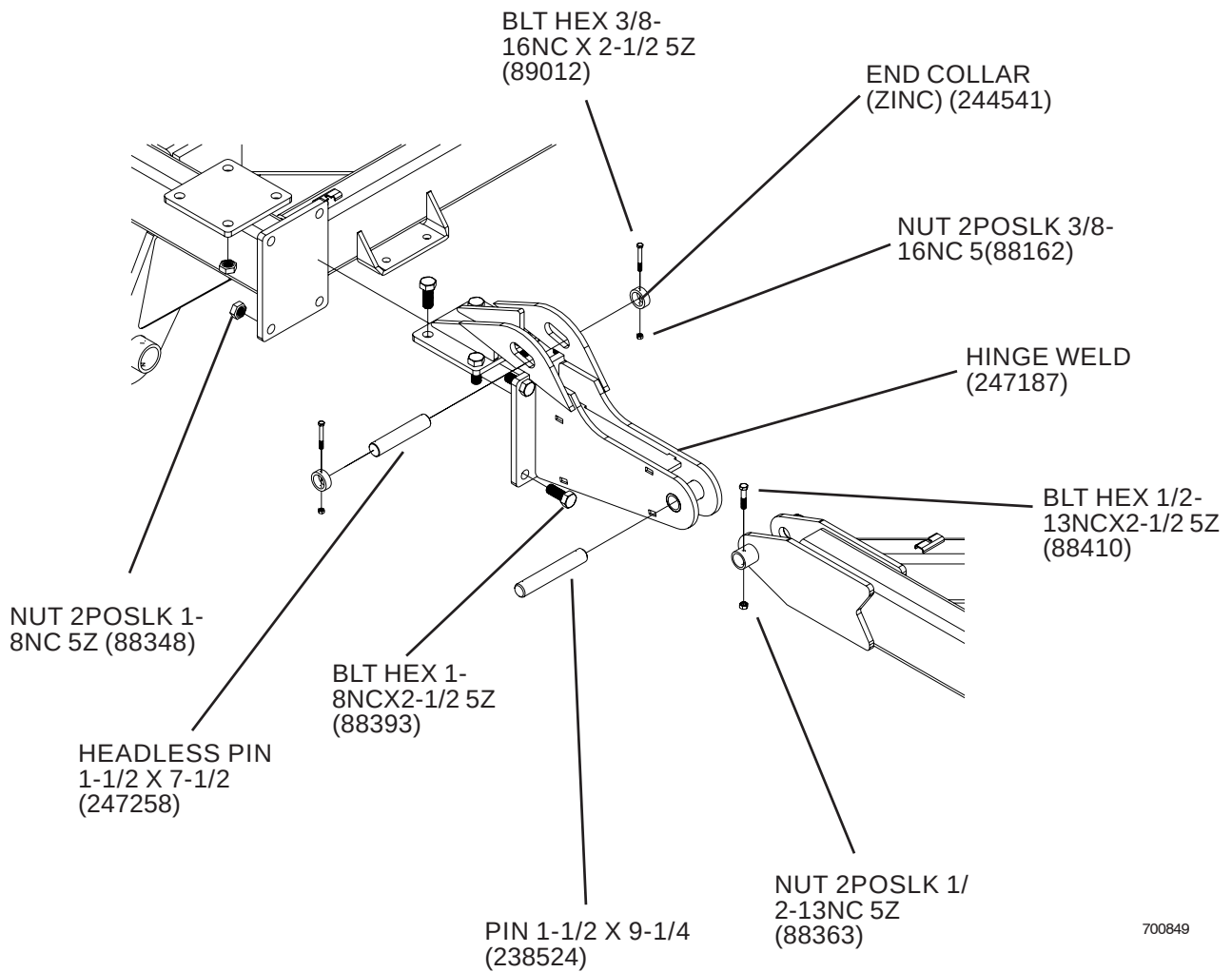


70098

SHANK FRAME ASSEMBLY



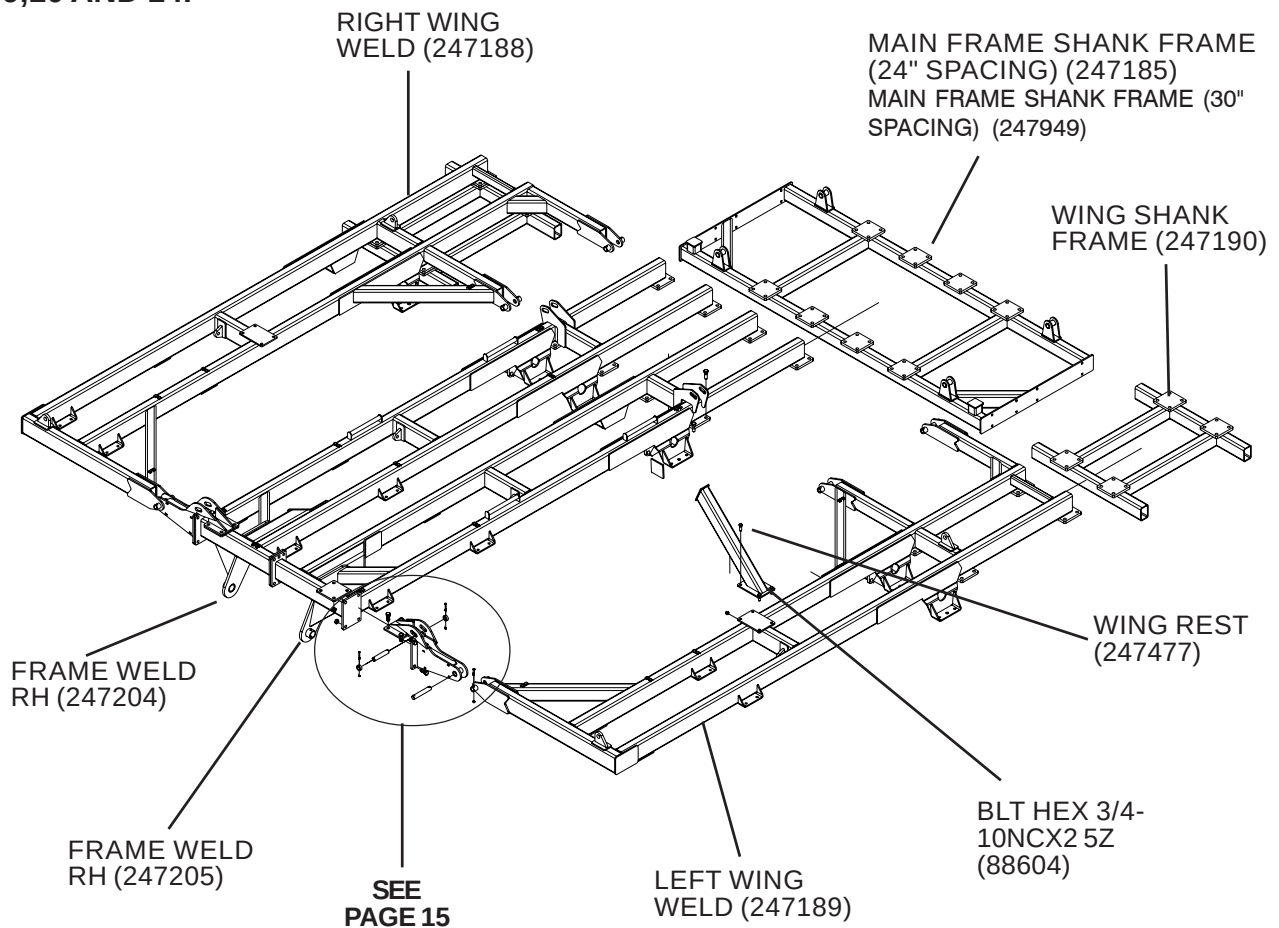
HINGE ASSEMBLY



700849

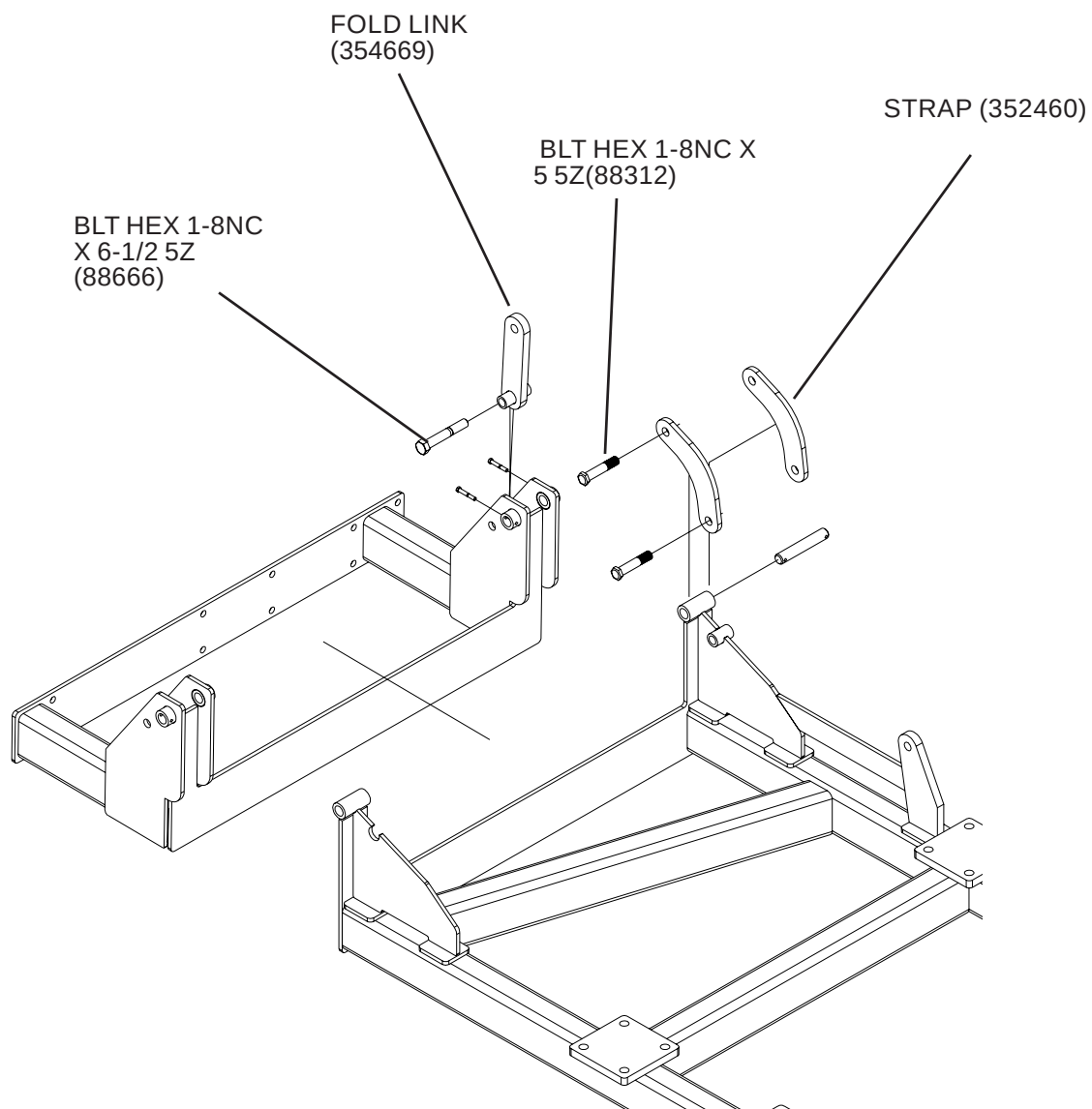
WING ASSEMBLY

NOTE: PLACE WING DISC GANGS, AXLES AND SHANK FRAMES AS SHOWN FOR THE MAIN FRAME ASSEMBLY ON PAGE 8. MOUNT THESE COMPONENTS USING THE SAME HARDWARE AS SHOWN FOR THE MAIN FRAME ASSEMBLY ON PAGES 9,10 AND 14.



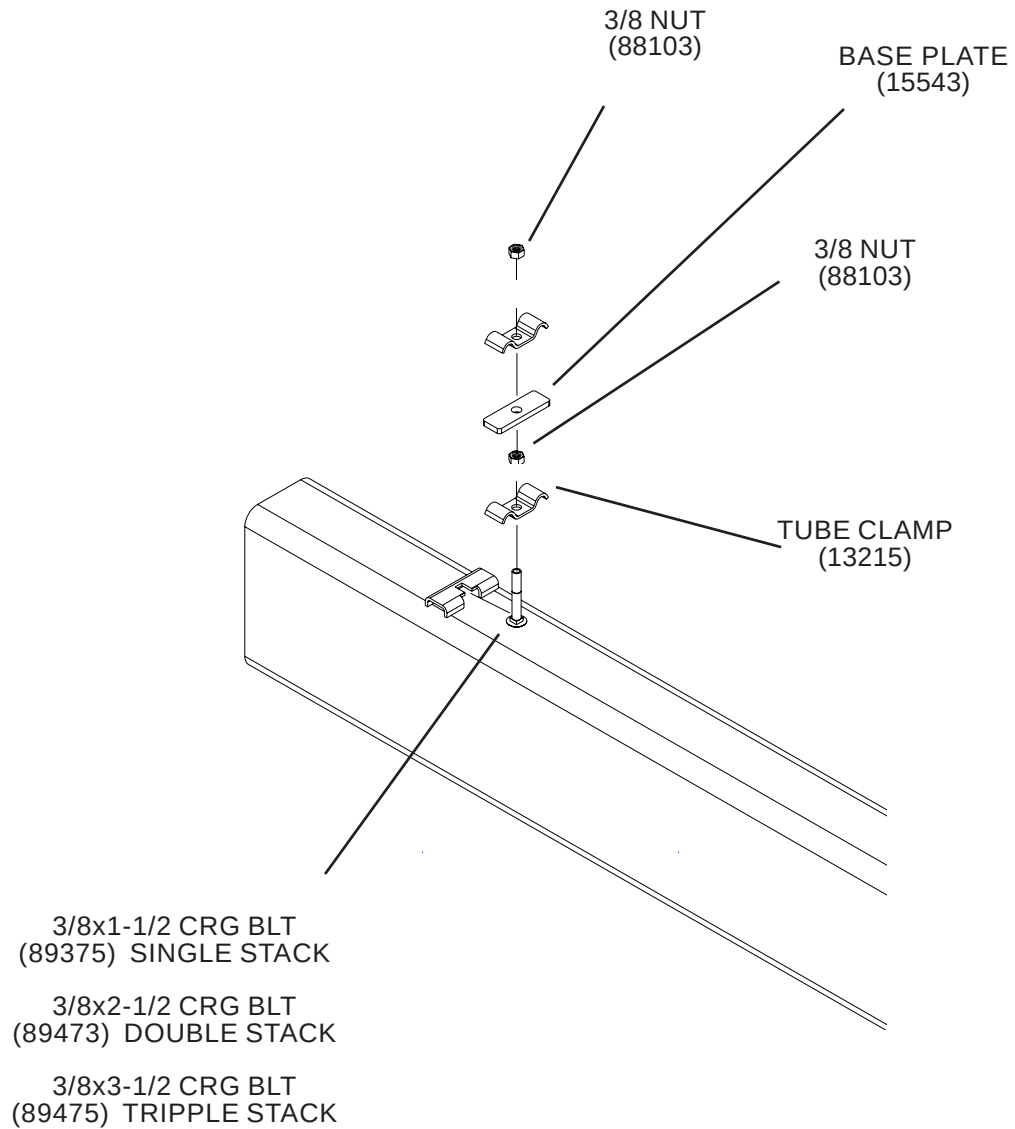
700805

FOLDING LINKAGE 9 SHANK REAR FRAME

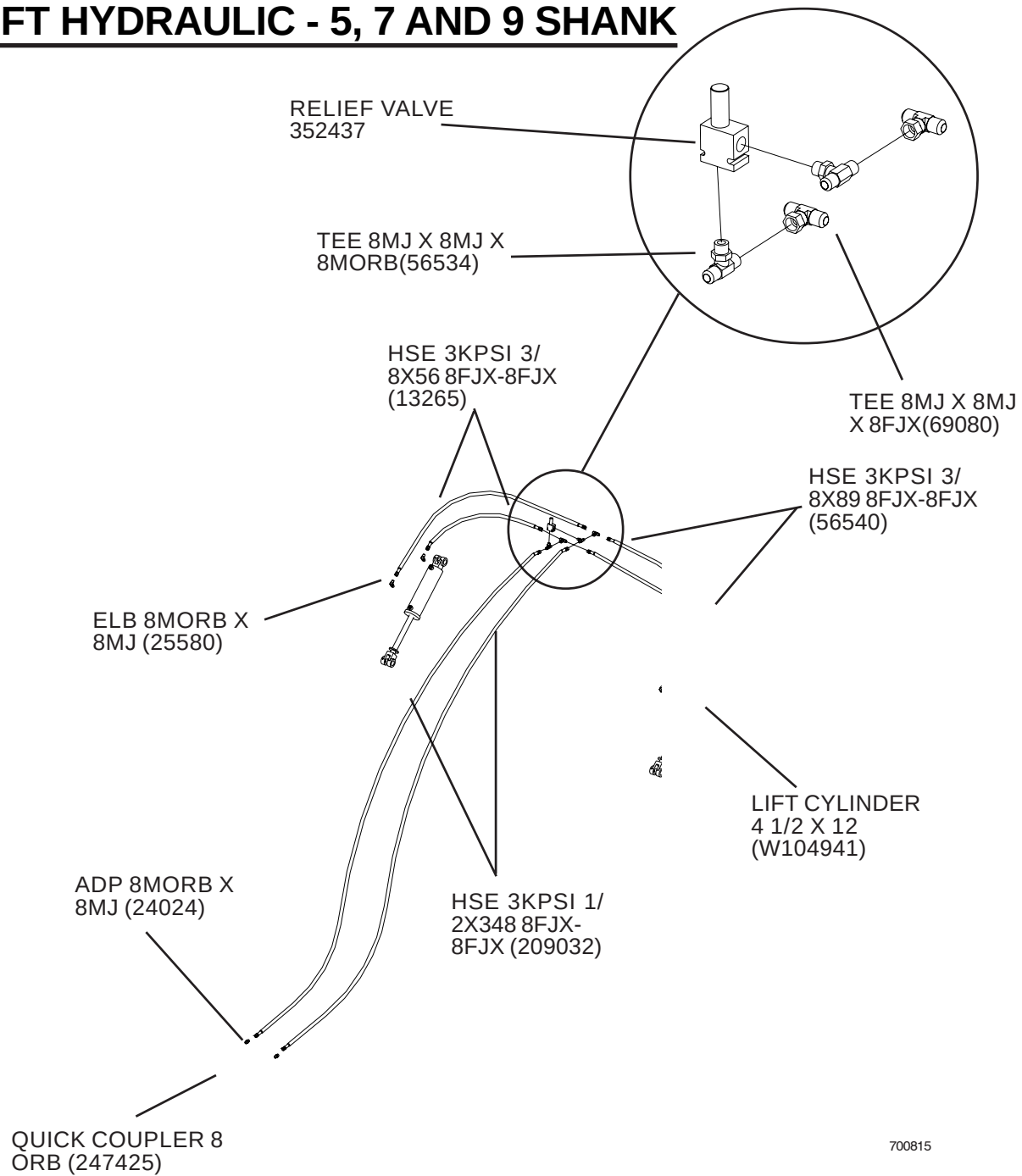


700849

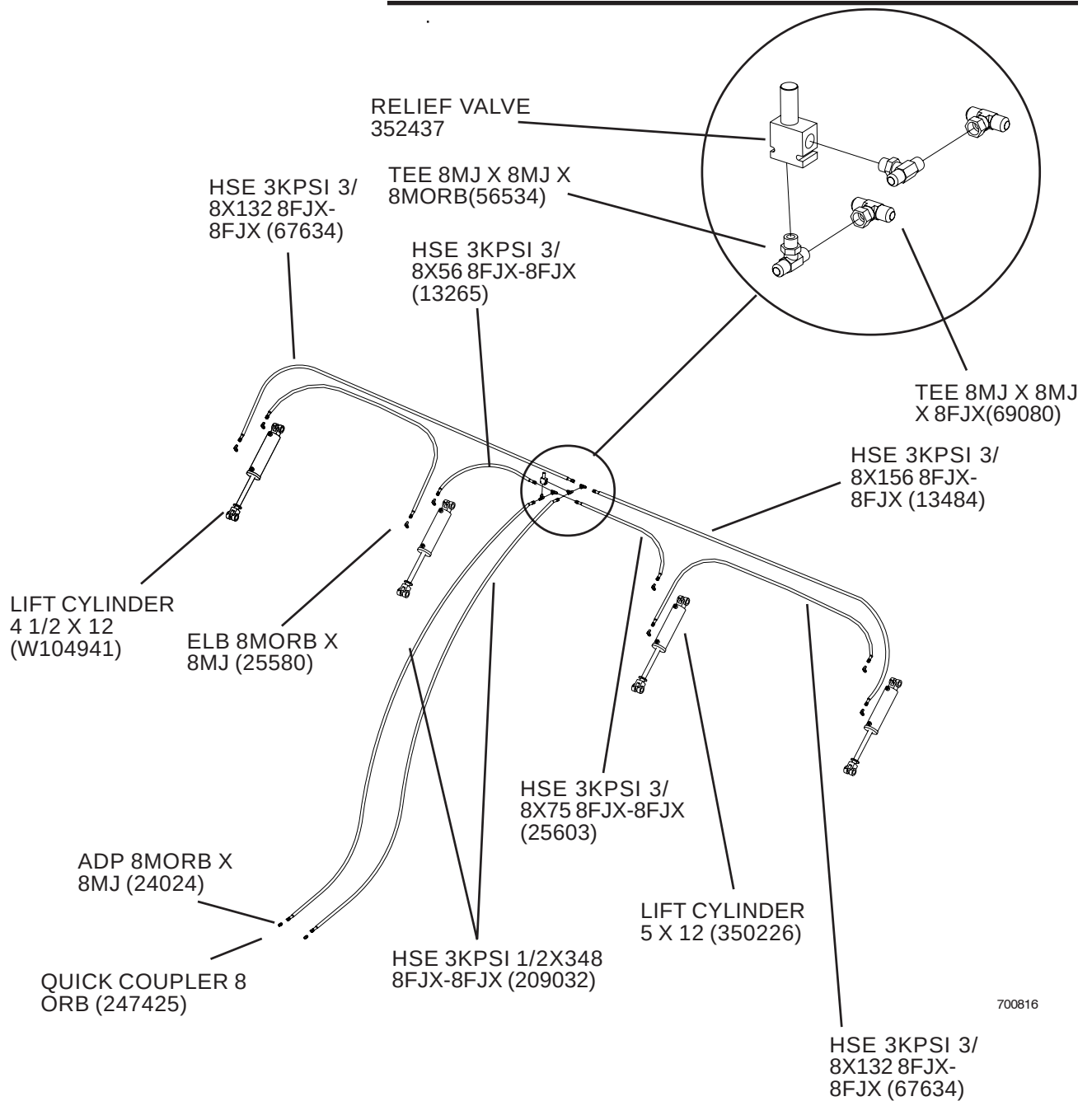
HOSE CLAMP ASSEMBLY



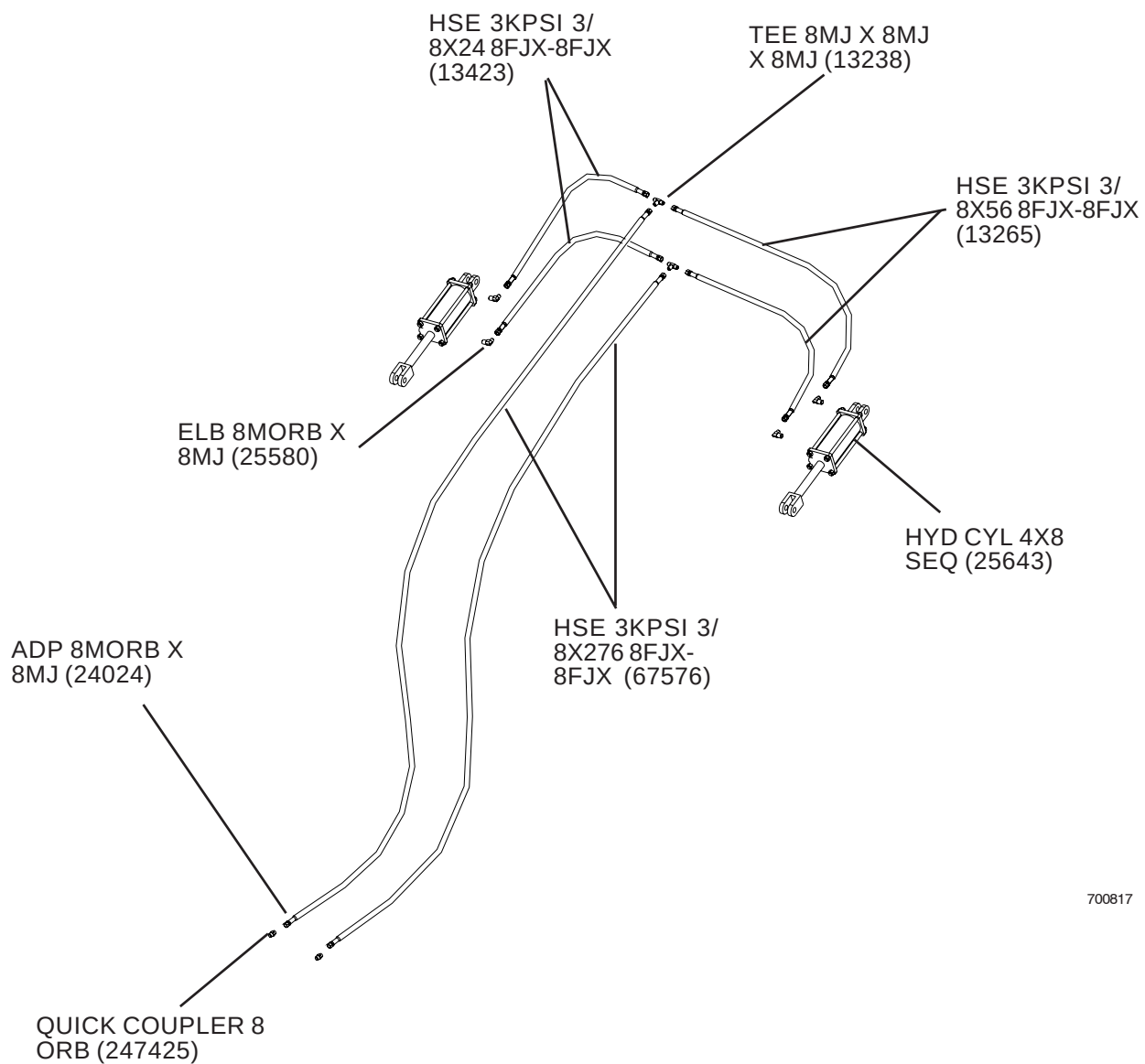
LIFT HYDRAULIC - 5, 7 AND 9 SHANK



LIFT HYDRAULIC - 11 AND 13 SHANK

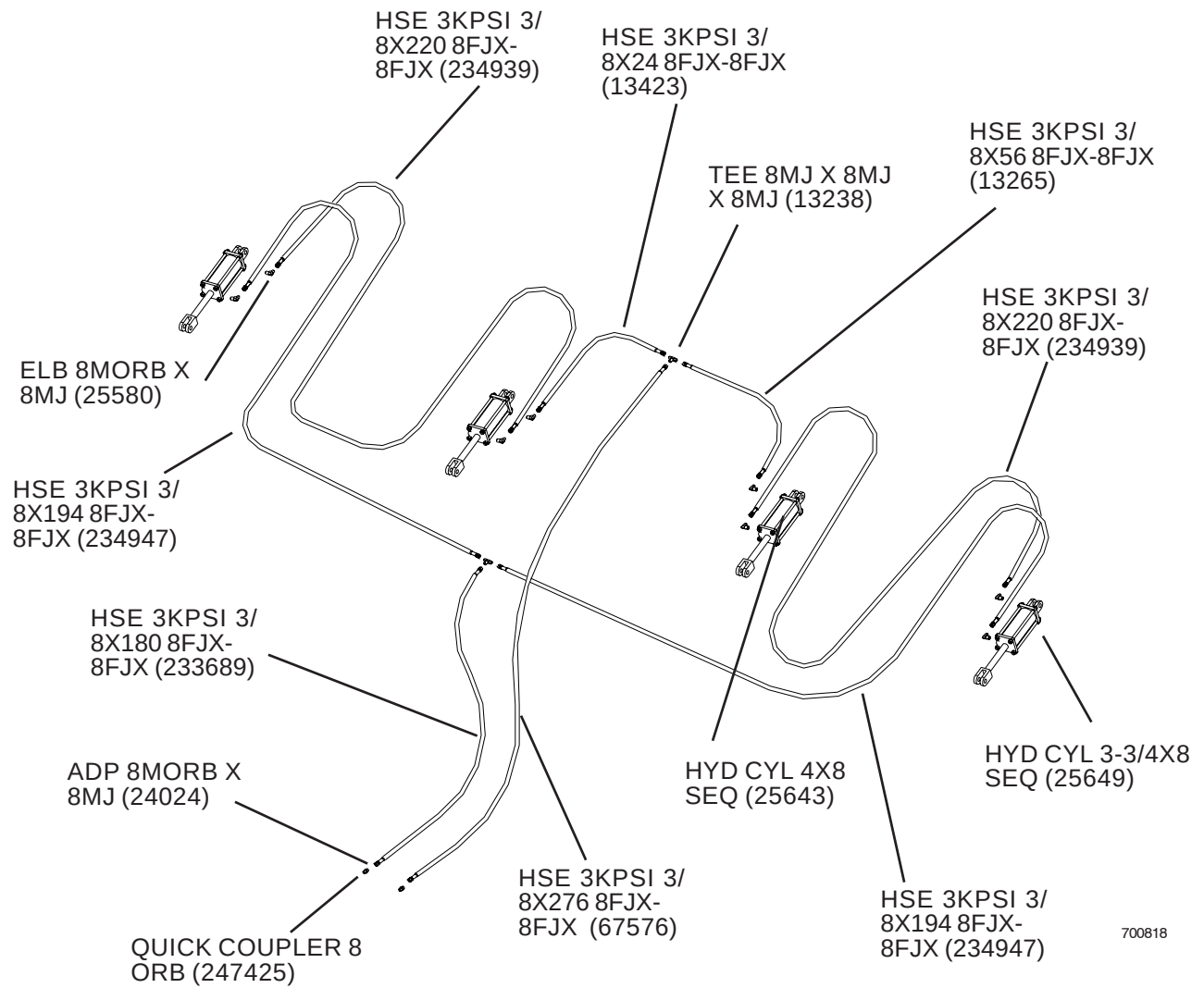


DISC LIFT HYDRAULIC - 5, 7 AND 9 SHANK

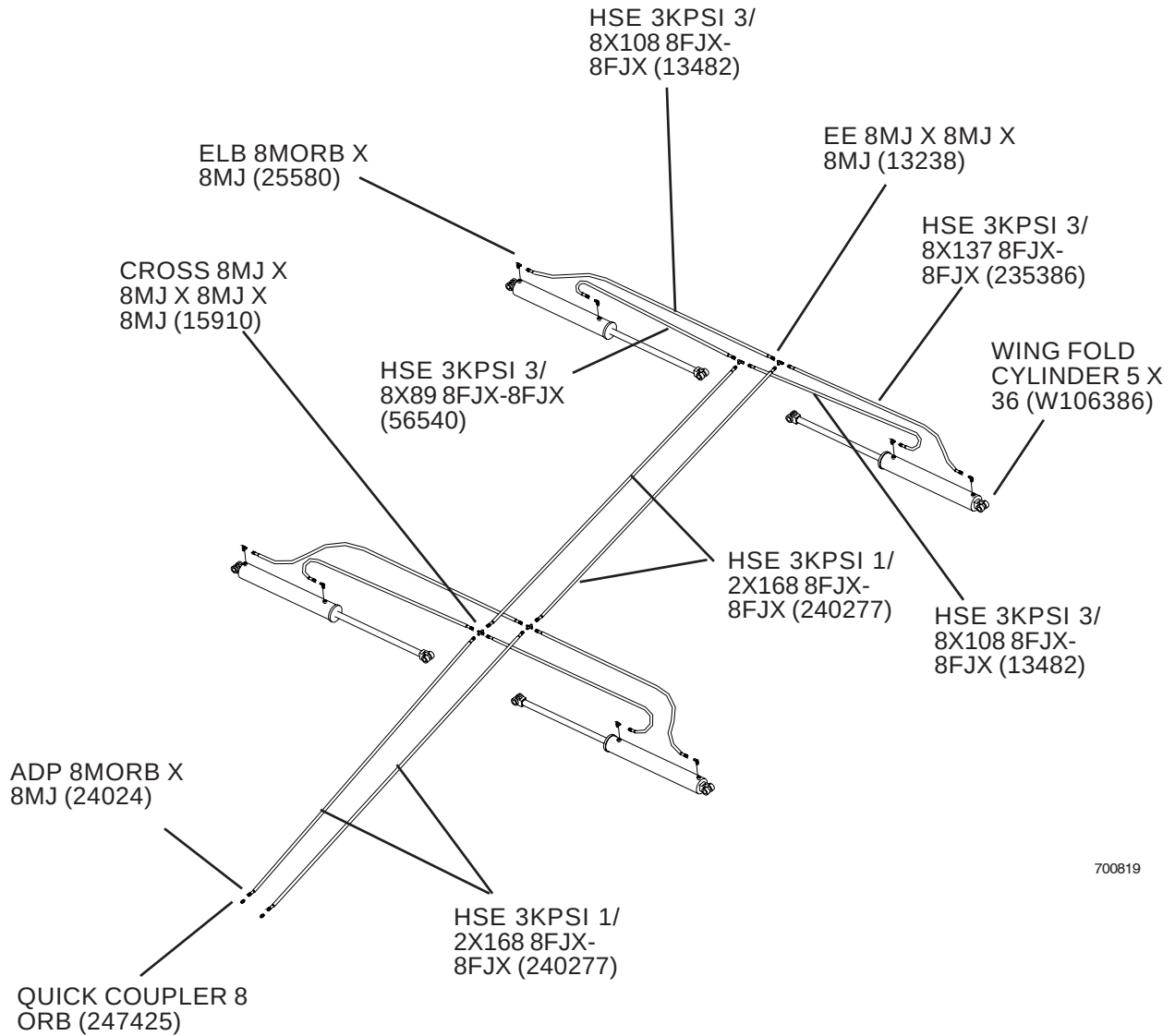


700817

DISC LIFT HYDRAULIC - 11 AND 13 SHANK

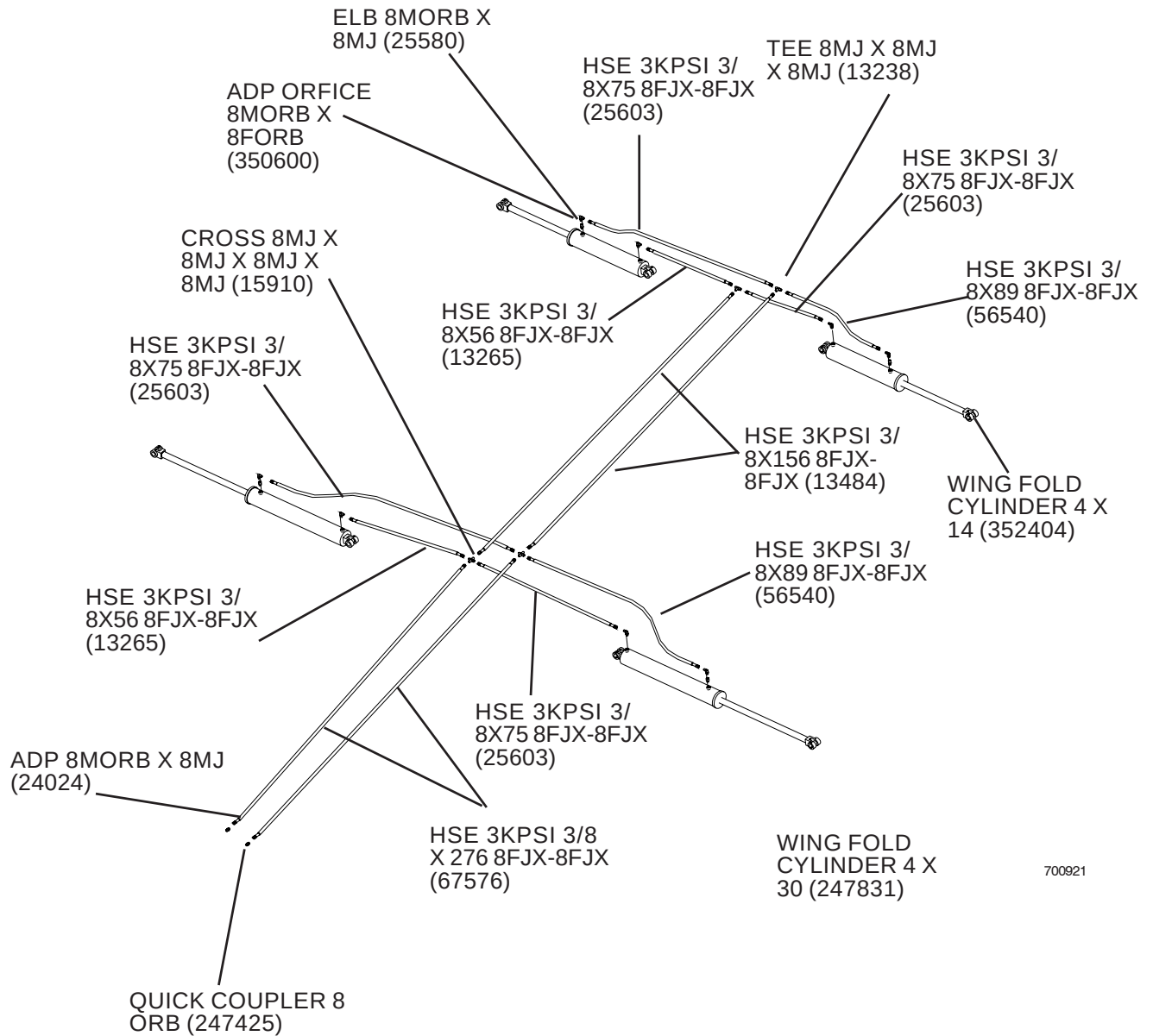


FOLD HYDRAULIC 11 & 13 SHANK



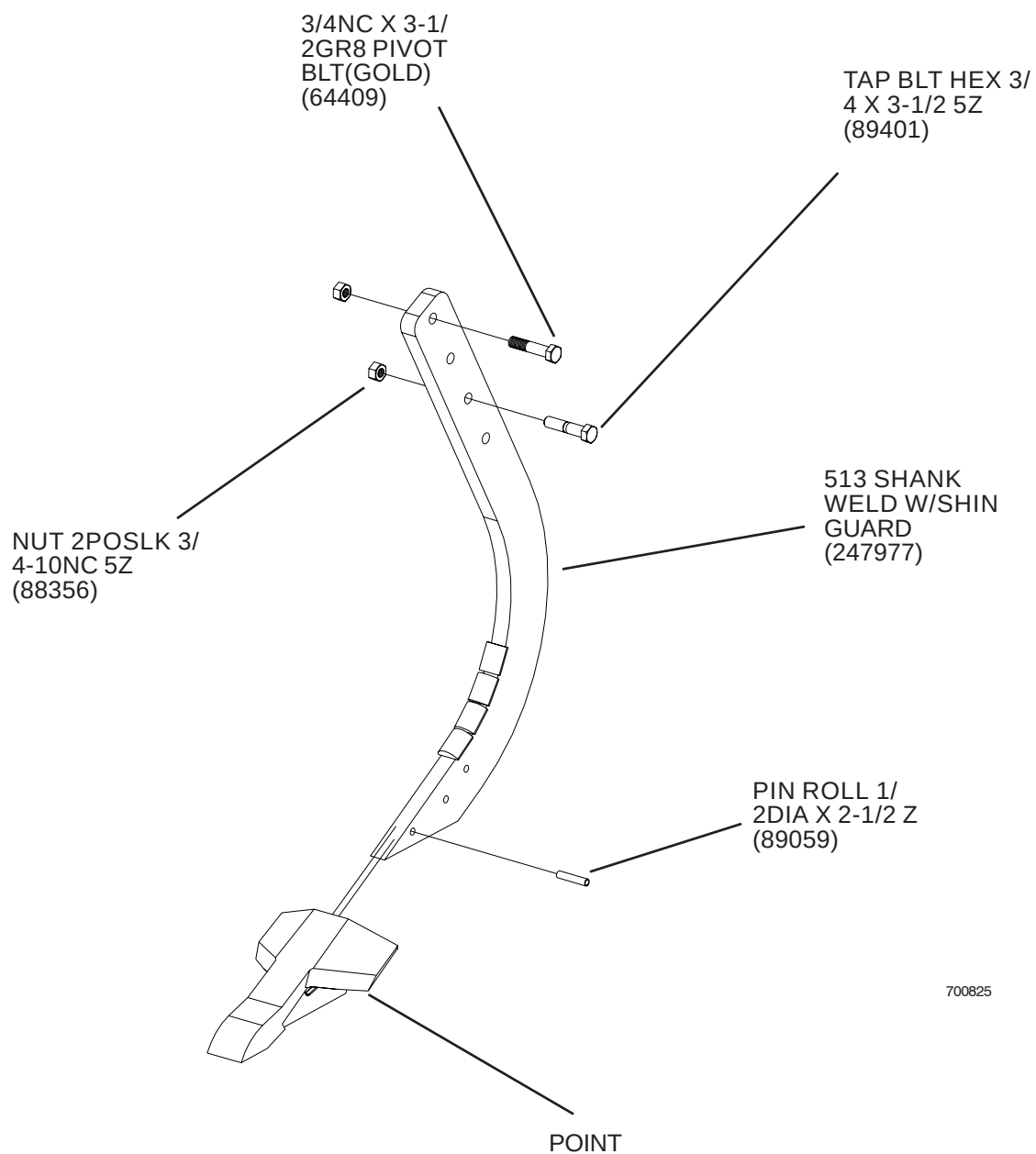
700819

FOLD HYDRAULIC 9 SHANK

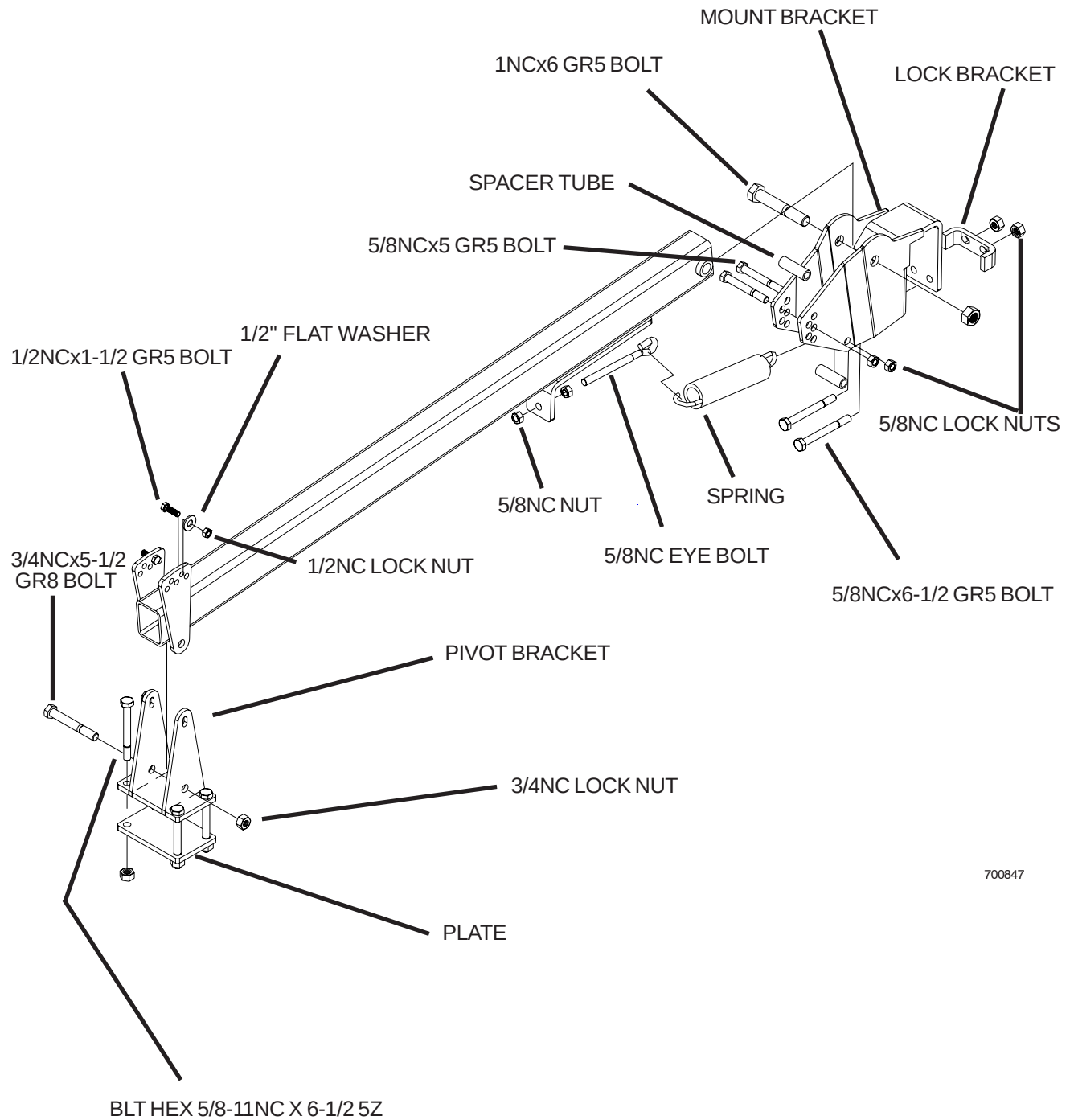


700921

SHANK ASSEMBLY

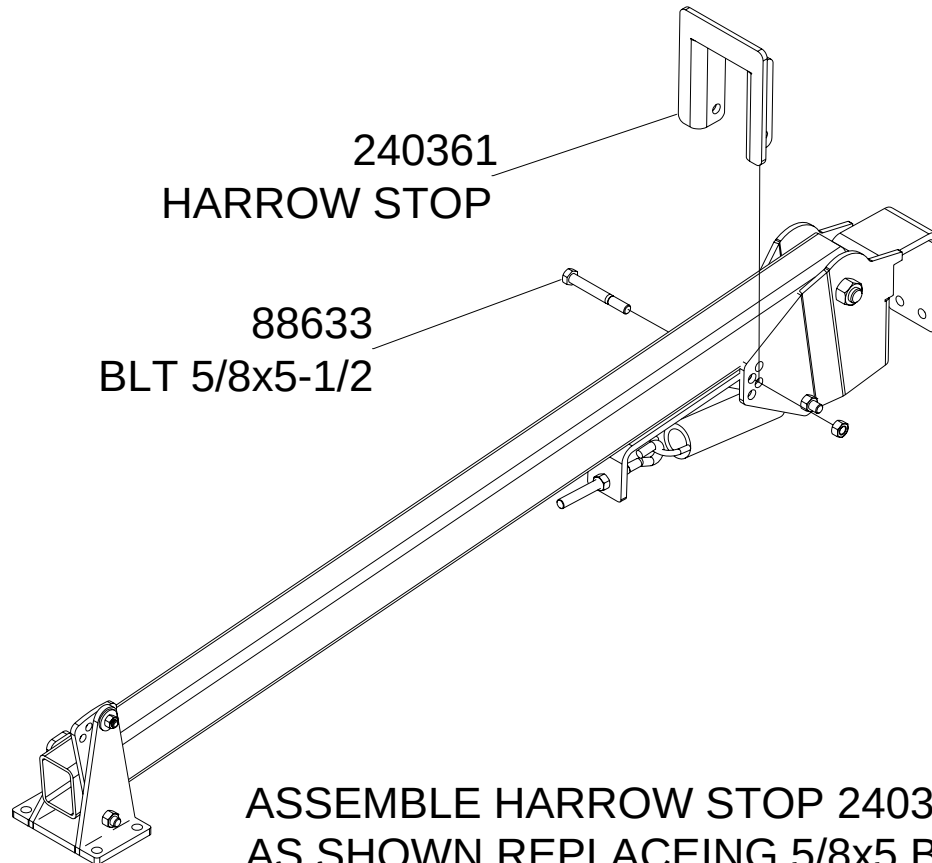


HARROW ARM ASSEMBLY



700847

HARROW STOP ARM ASSEMBLY

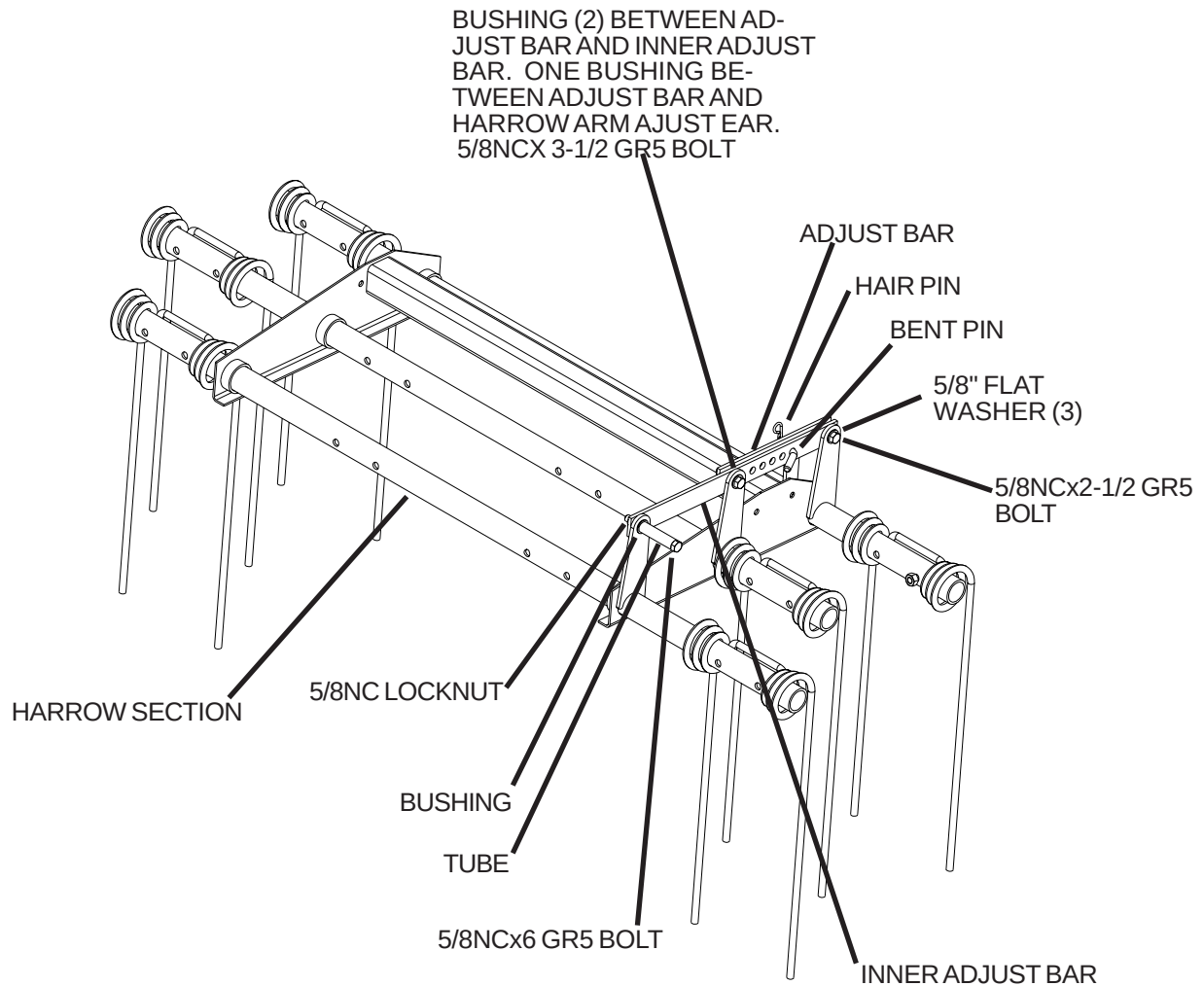


240361
HARROW STOP

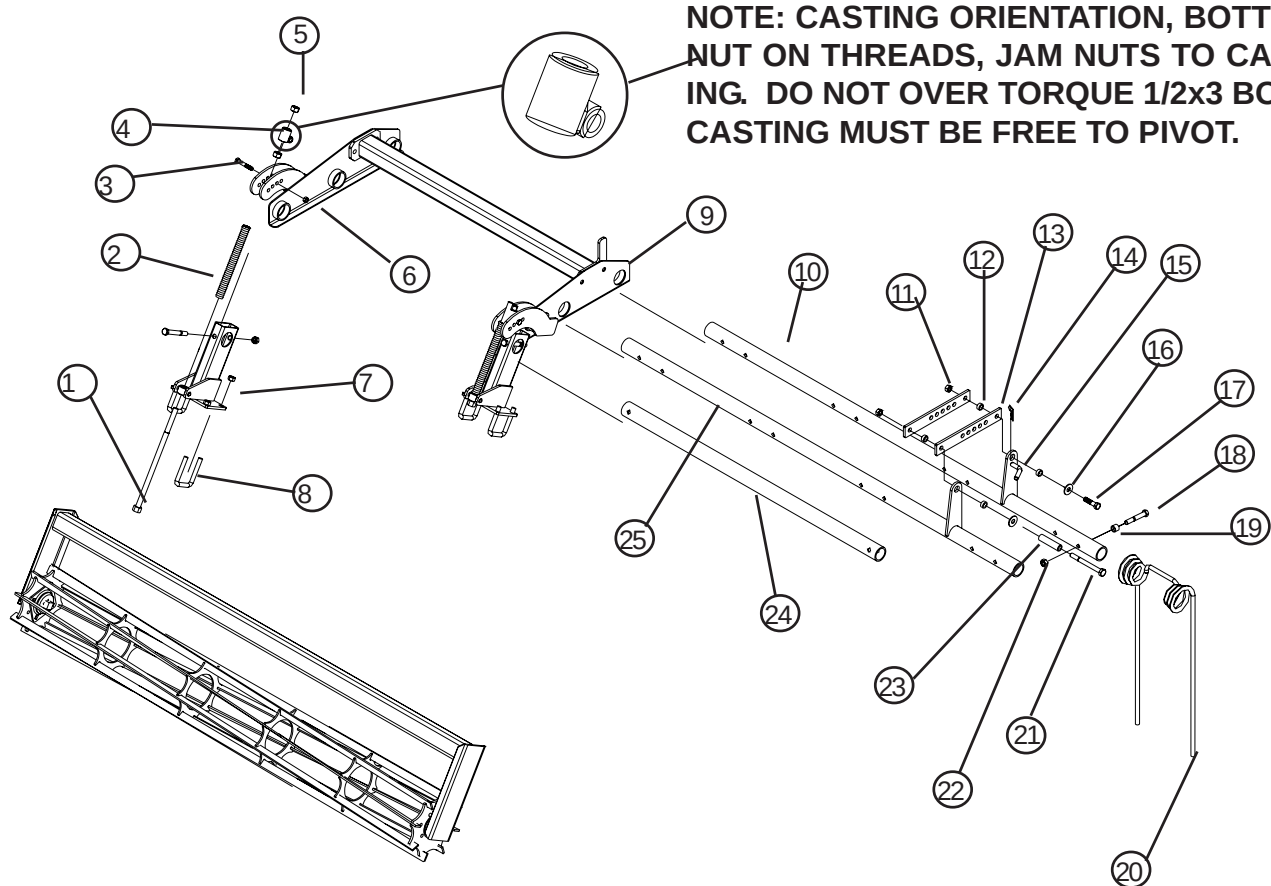
88633
BLT 5/8x5-1/2

ASSEMBLE HARROW STOP 240361
AS SHOWN REPLACEING 5/8x5 BOLT
WITH BOLT SUPPLIED. THIS SHOULD BE
DONE ON OUTER WINGS TO PREVENT
HARROW DAMAGE.

3-BAR HARROW ASSEMBLY



HARROW SECTION ASSEMBLY



700806

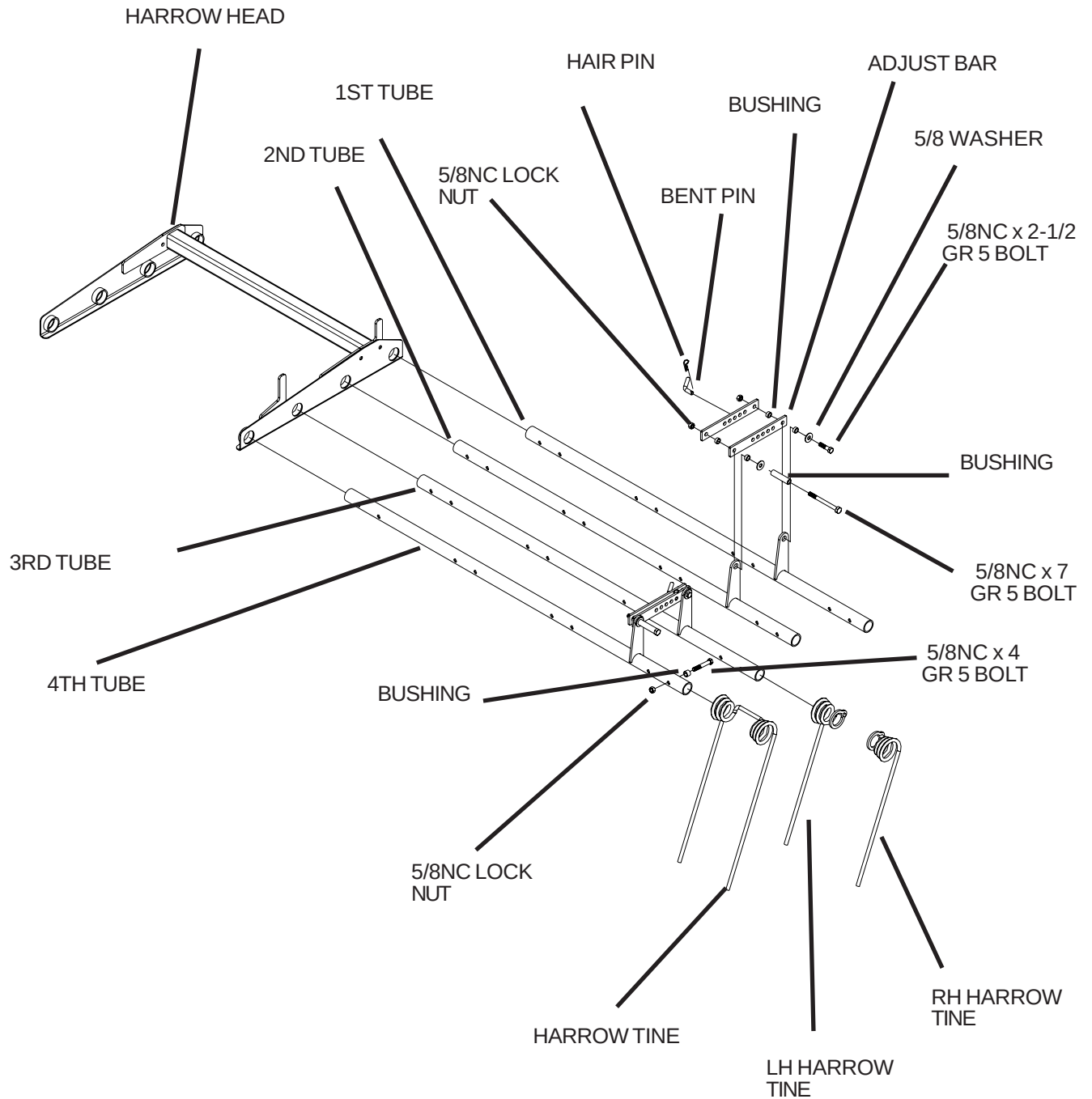
ITEM PART NO. DESCRIPTION

1	67076	3/4-10NCx16.5 SPECIAL BOLT
2	68581	COMPRESSION SPRING
3	88541	1/2-13NCx3 BOLT
4	221981	MOUNT CASTING
5	88110	3/4NC NUT
6	88363	1/2NC LOCK NUT
7	88627	5/8NC NLK NUT
8	89327	5/8NCx3x4 U-BOLT
9	245393	8FT HARROW MOUNT WELD
	245392	6FT HARROW MOUNT WELD
	245391	4FT HARROW MOUNT WELD
10	244289	8FT FRONT HARROW TUBE
	244287	6FT FRONT HARROW TUBE
	244285	4FT FRONT HARROW TUBE
11	88627	5/8NC NLK NUT
12	200479	BUSHING
13	222575	INNER ADJUST BAR
14	23039	HAIR PIN
15	32871	5/8x1-3/8 BENT PIN
16	88277	5/8 FLAT WASHER

ITEM PART NO. DESCRIPTION

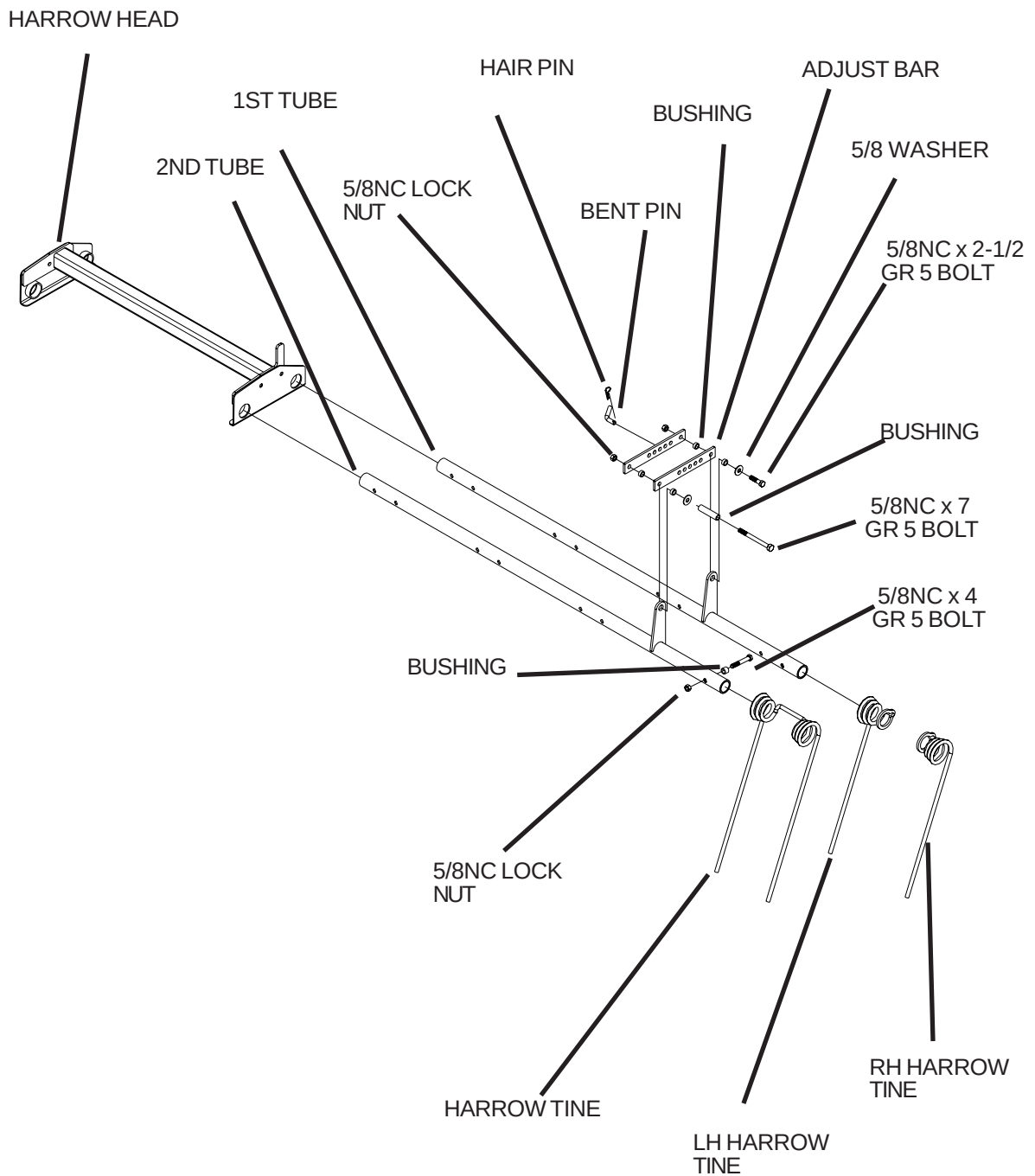
17	88409	5/8NCx2-1/2 GR5 BOLT
18	88298	5/8NCx4 GR5 BOLT
		QTY - 24-8FT
		18-6FT
		12-4FT
19	200479	BUSHING
20	236087	26" H.D. HARROW TOOTH
		QTY - 12/ 8FT SEC
		9/ 6FT SEC
		3/ 4FT SEC
21	88383	5/8-11NCx7 BOLT
22	88845	5/8 TOP LOCK NUT
23	22521	SPACER TUBE
24	244295	8FT BASKET TUBE
	244294	6FT BASKET TUBE
	243629	4FT BASKET TUBE
25	244290	8FT REAR HARROW TUBE
	244288	6FT REAR HARROW TUBE
	244286	4FT REAR HARROW TUBE

4-BAR HARROW ASSEMBLY



700846

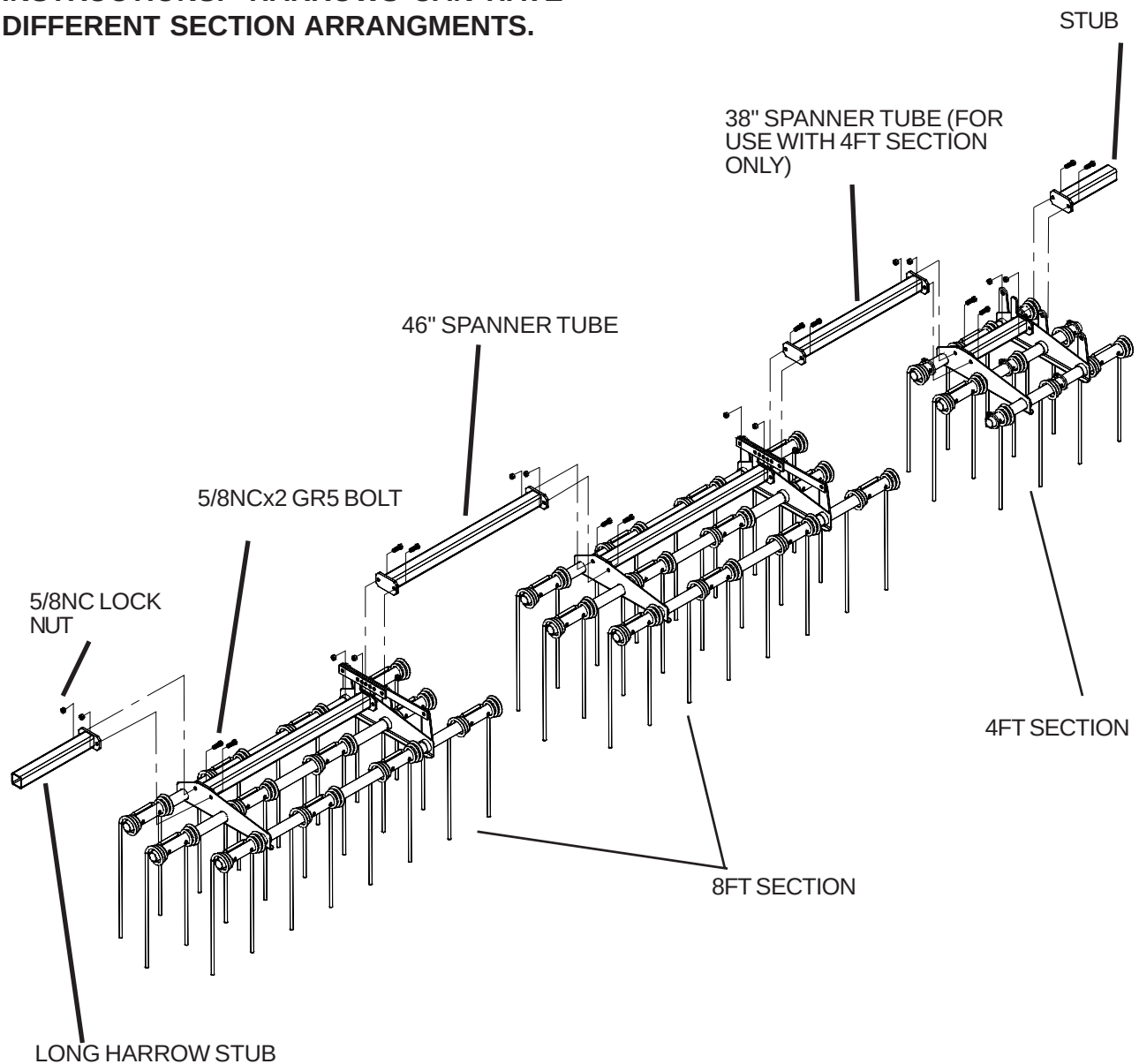
2-BAR HARROW ASSEMBLY



700929

SPANNER TUBE ASSEMBLY

NOTE: THIS IS FOR GENERAL ASSEMBLY INSTRUCTIONS. HARROWS CAN HAVE DIFFERENT SECTION ARRANGMENTS.

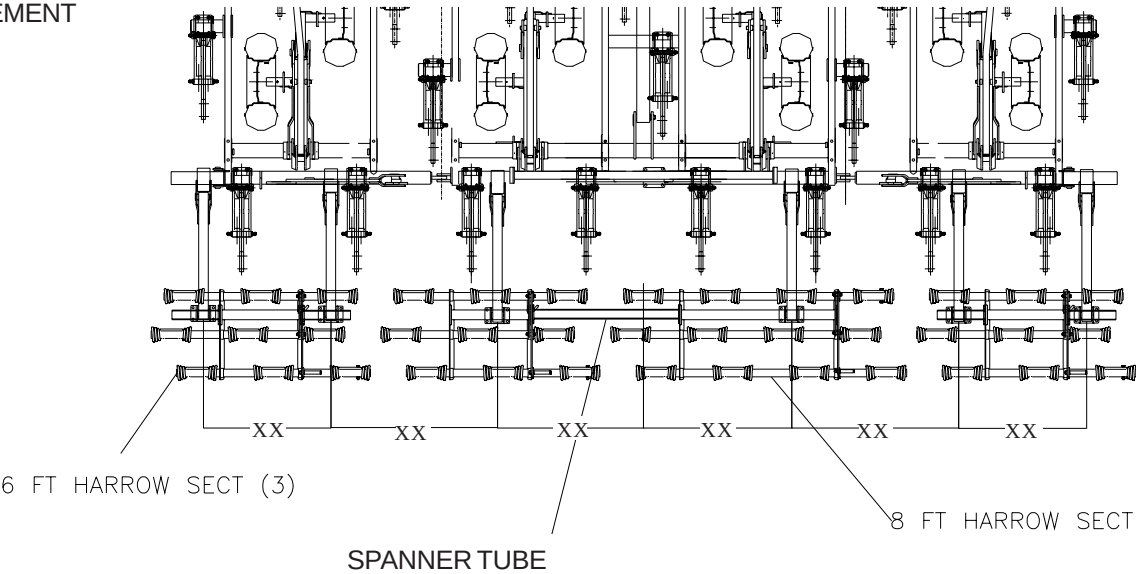


HARROW PLACEMENT

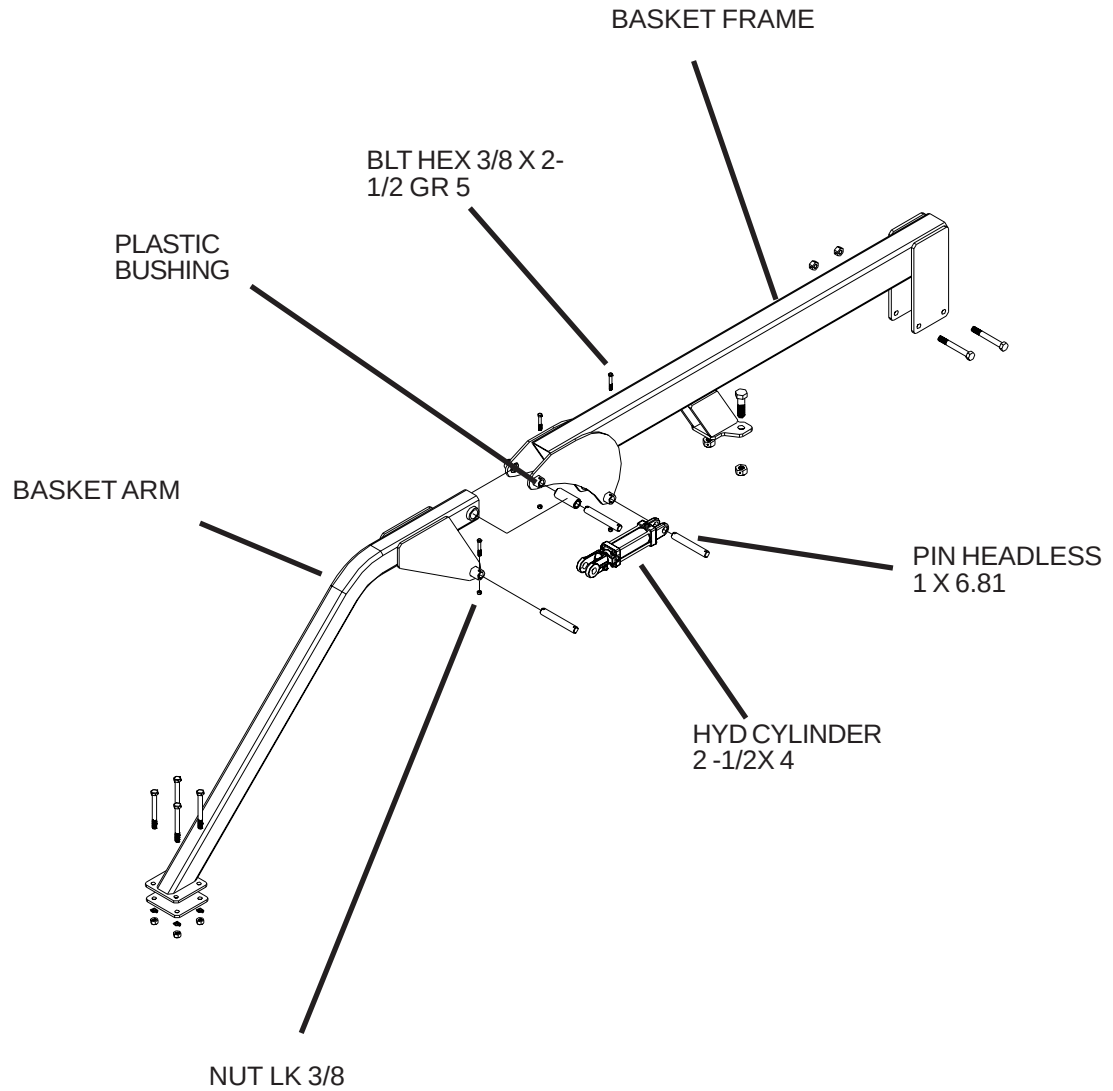
HARROW MOUNTING CHART

		SECTION, STUBS, SPANNERS & EXT			ARM LOCATION (IN FROM CENTER)		
SIZE	WINGS	MAIN FRAME			WINGS		
5/30-7/24		8ft	46"SP	8ft	54	0	54
7/30-9/24		6ft	46"SP	8ft	46"SP	6ft	
		90	54	0	54	90	
9-24 FOLDING	15"stub	4ft	6ft	46"SP	6ft	4ft	15" stub
	108	88	58	8	58	88	108
11-24		6ft	8ft	46"SP	6ft	6ft	
	142	90	54	0	54	90	142
13-24	8ft	6ft	6ft	46"SP	6ft		
	142	105	41	8	4	105	142

SAMPLE HARROW PLACEMENT

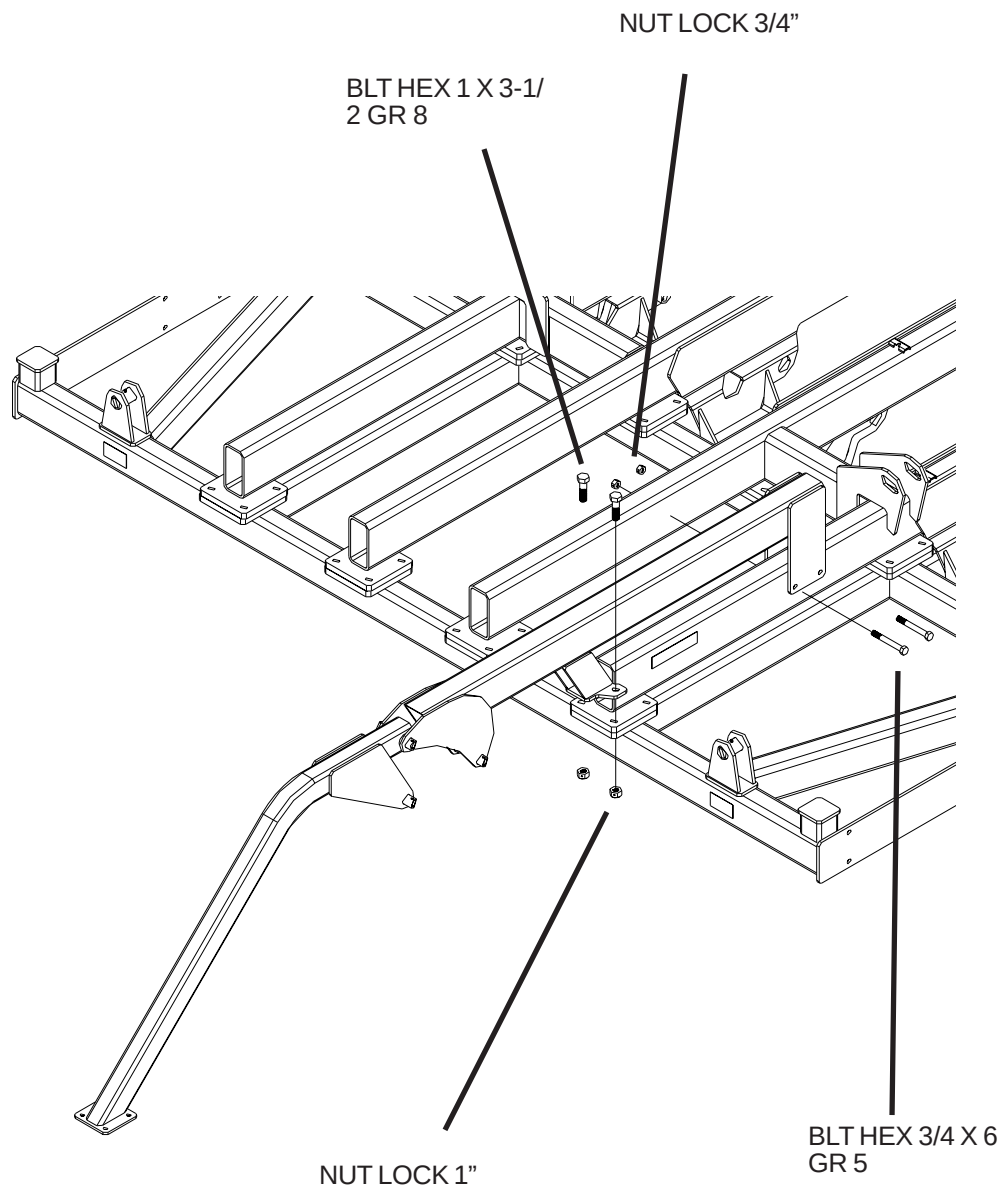


HYDRAULIC BASKET ARM



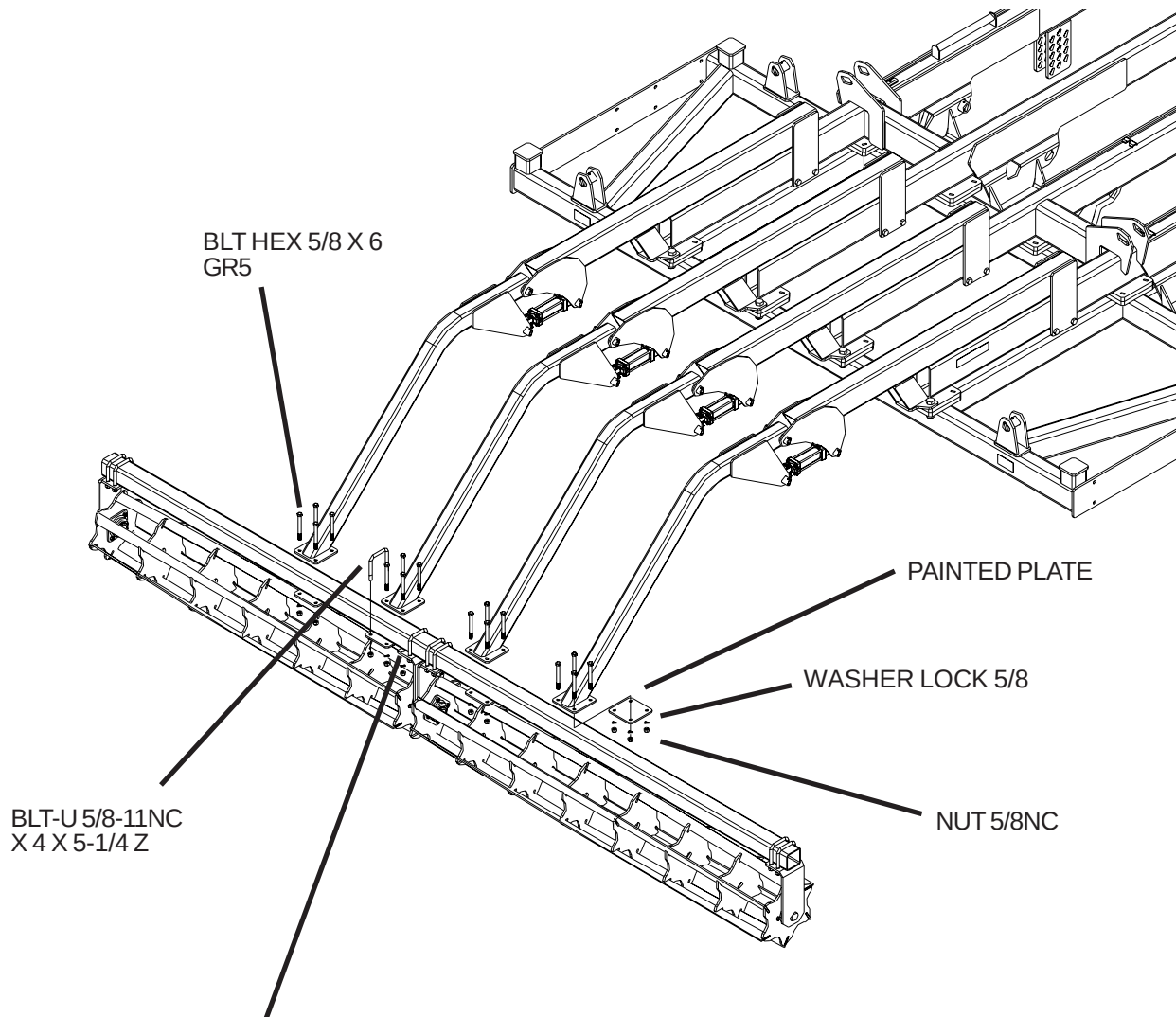
701158

HYDRAULIC BASKET ARM



701160

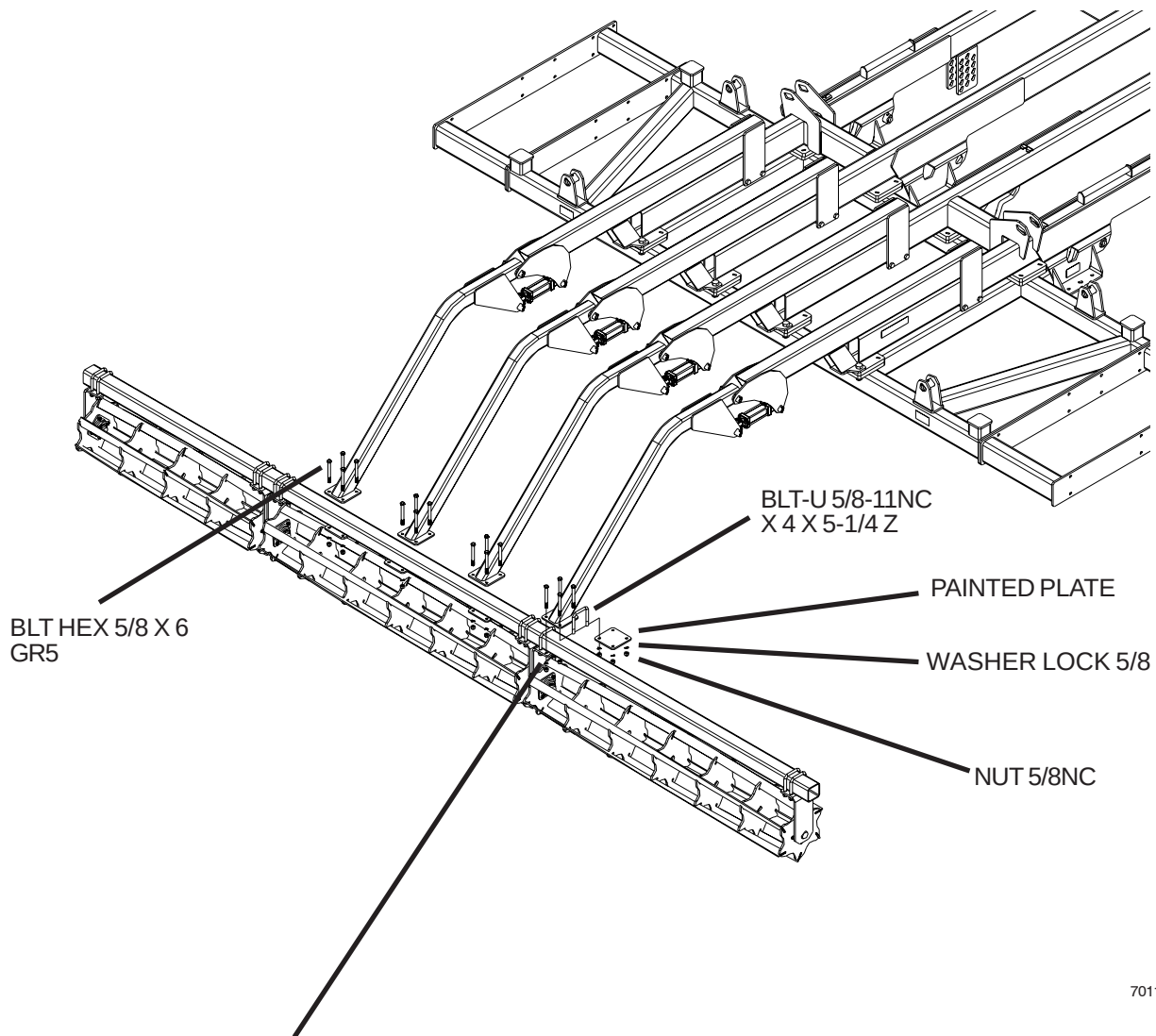
HYDRAULIC BASKET MOUNT 5-30/7-24



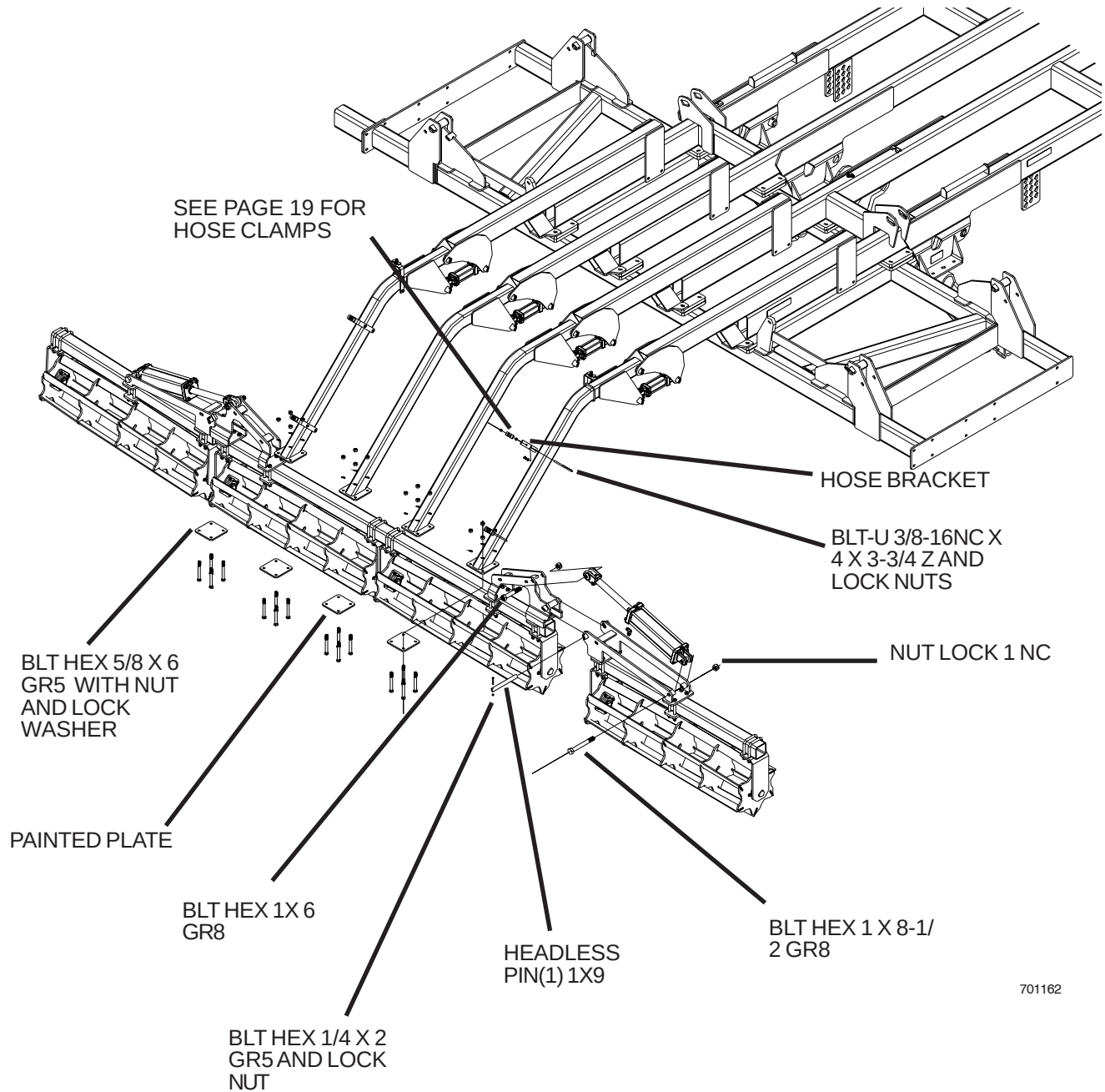
NOTE: ALIGN THIS SET OF BOLTS WITH THE BASKET HANGER MOUNTS. THIS WILL SET BASKET ASSEMBLY TO PROPER LOCATION.

701161

HYDRAULIC BASKET MOUNT 7-30/9-24

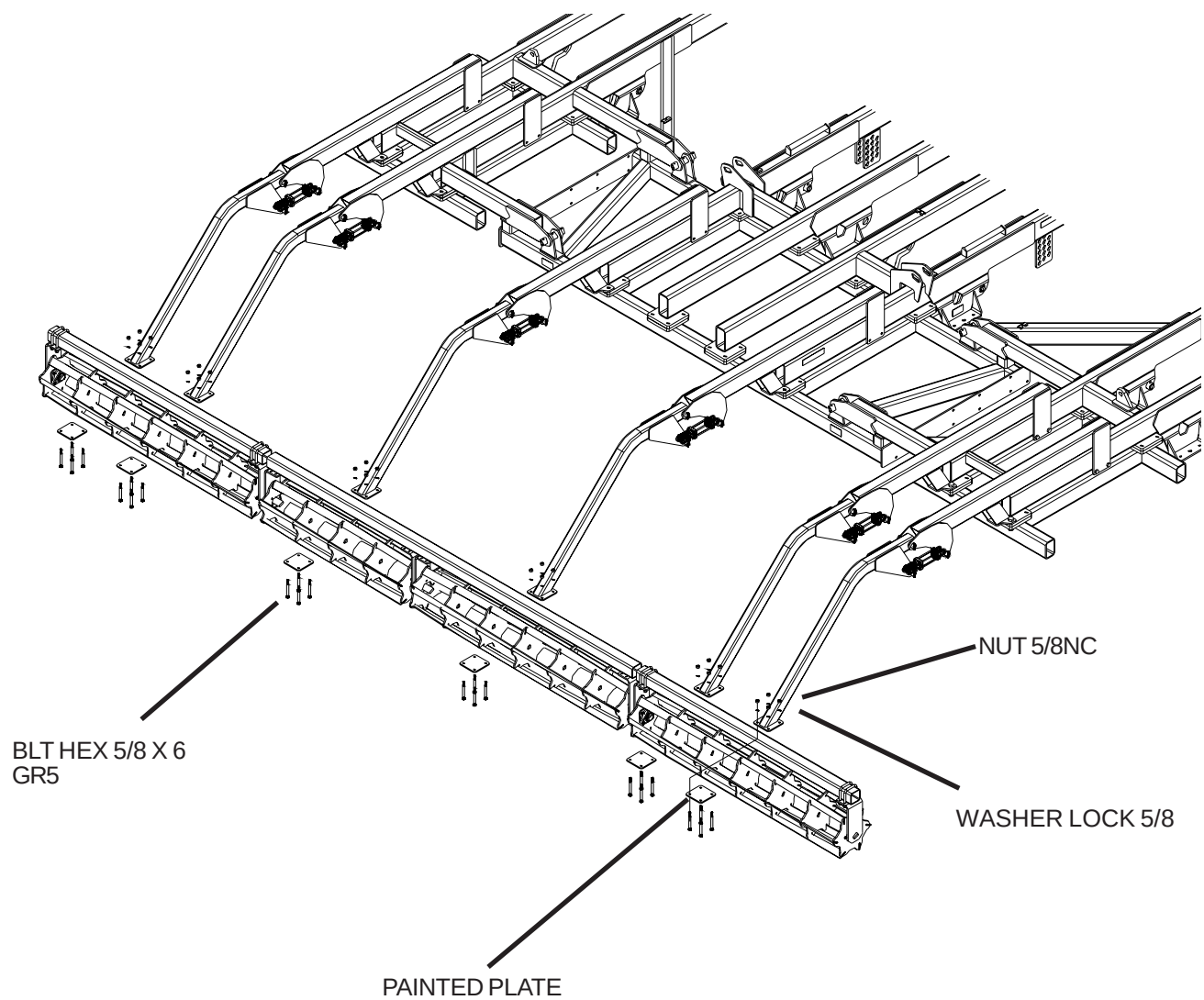


HYDRAULIC BASKET MOUNT 9-24 FOLDING



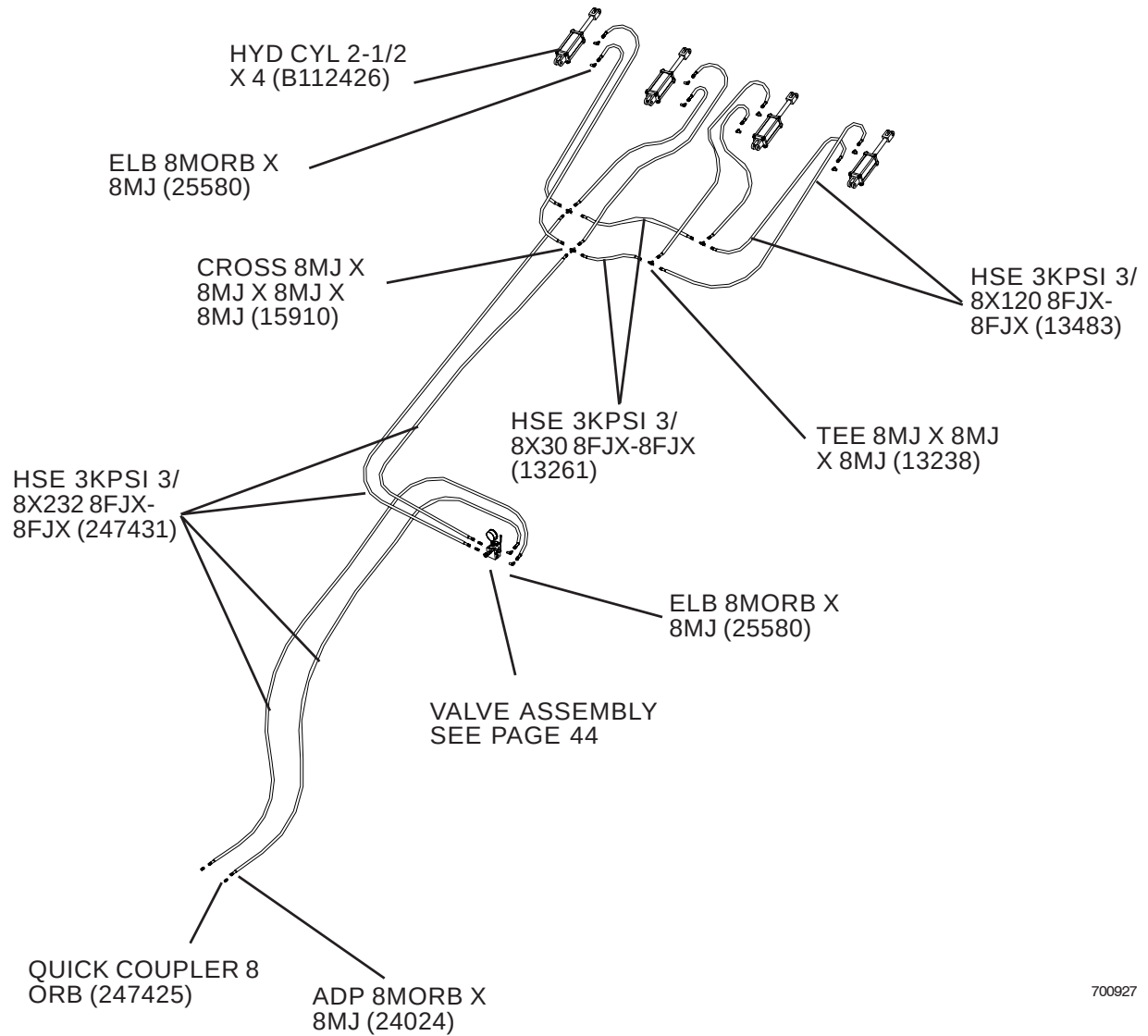
701162

HYDRAULIC BASKET MOUNT 11-24/13-24 FOLDING

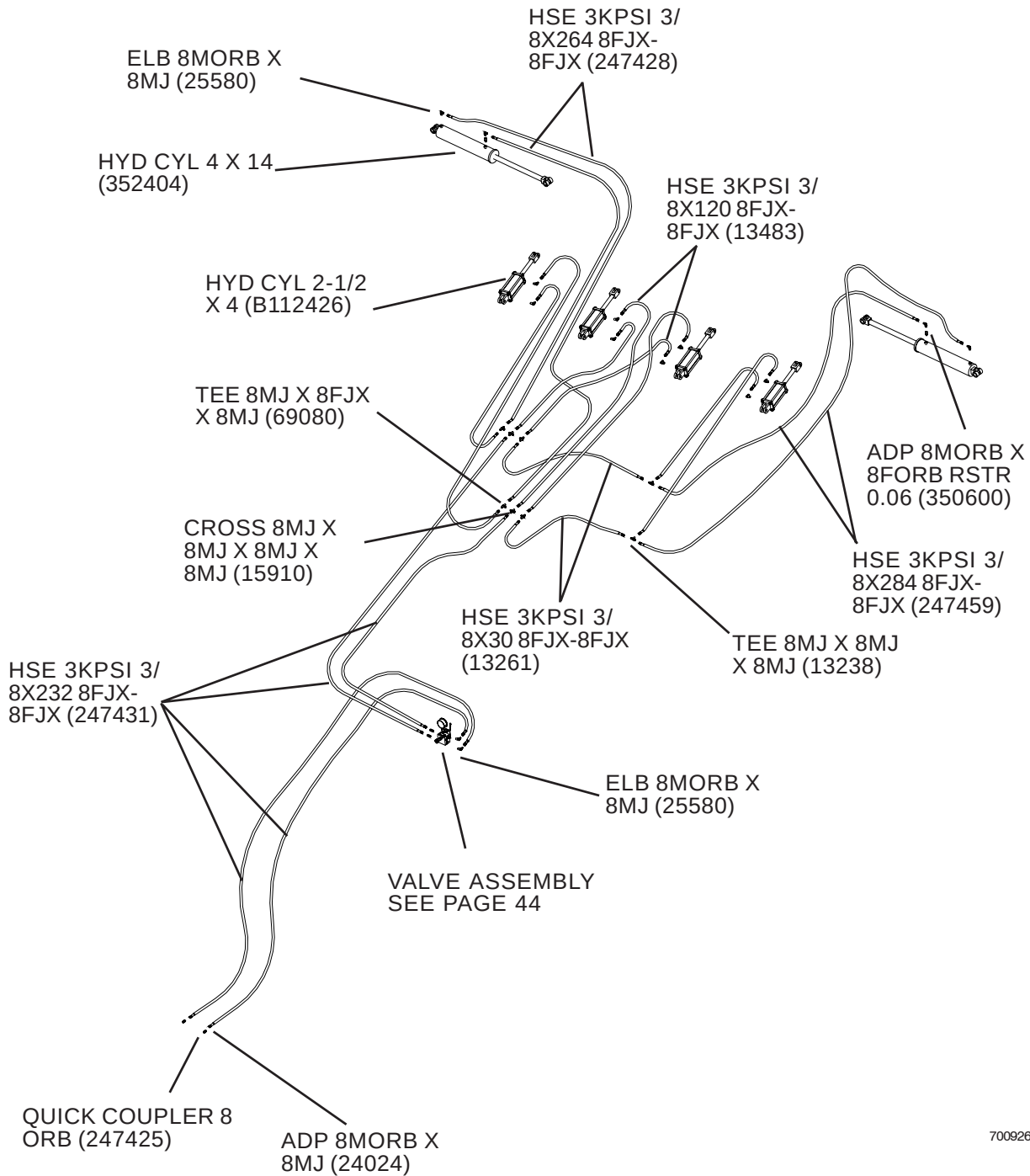


701165

HYDRAULIC BASKET HYDRUALICS RIGID

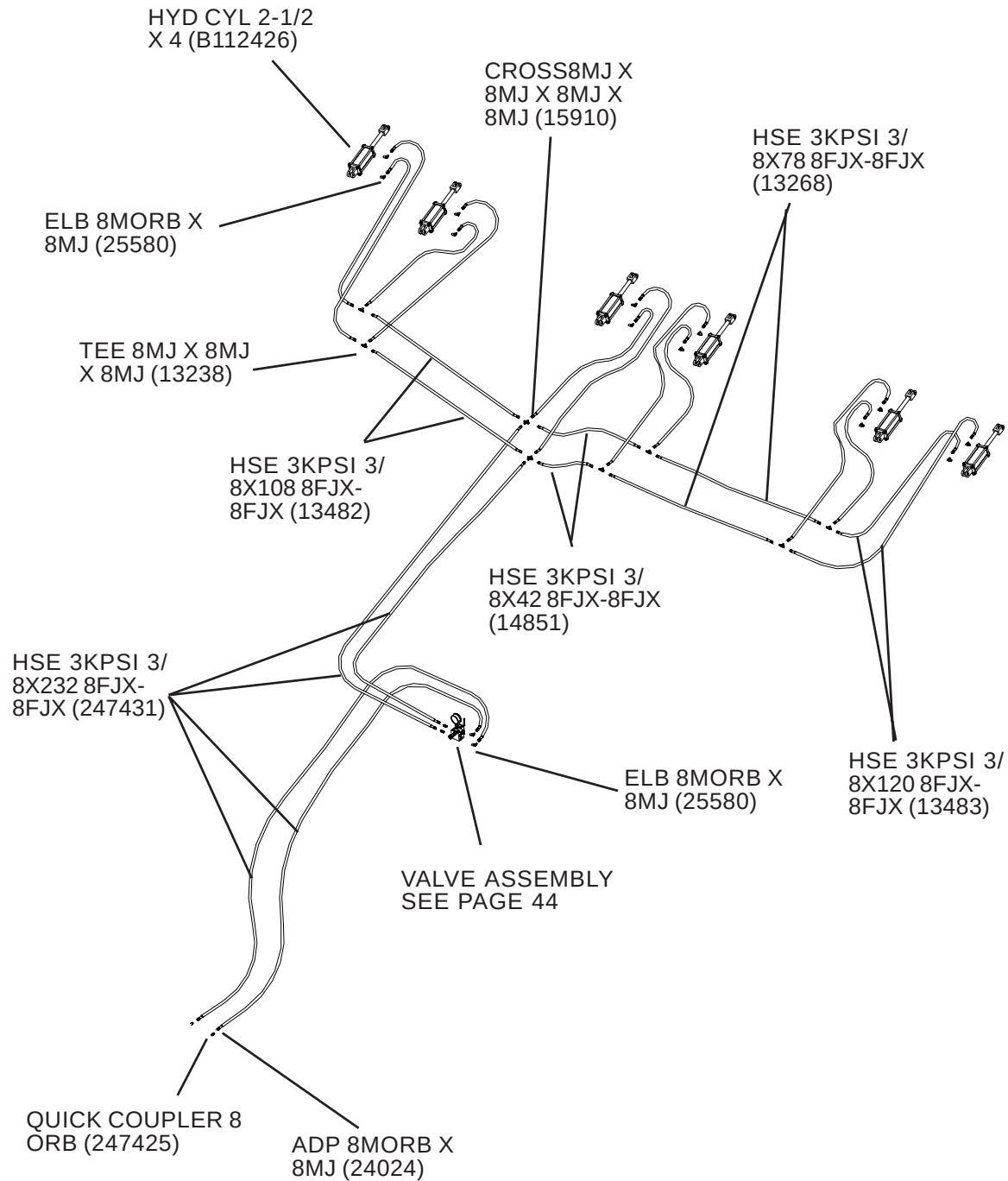


HYDRAULIC BASKET HYDRAULICS 9 SHANK FOLDING



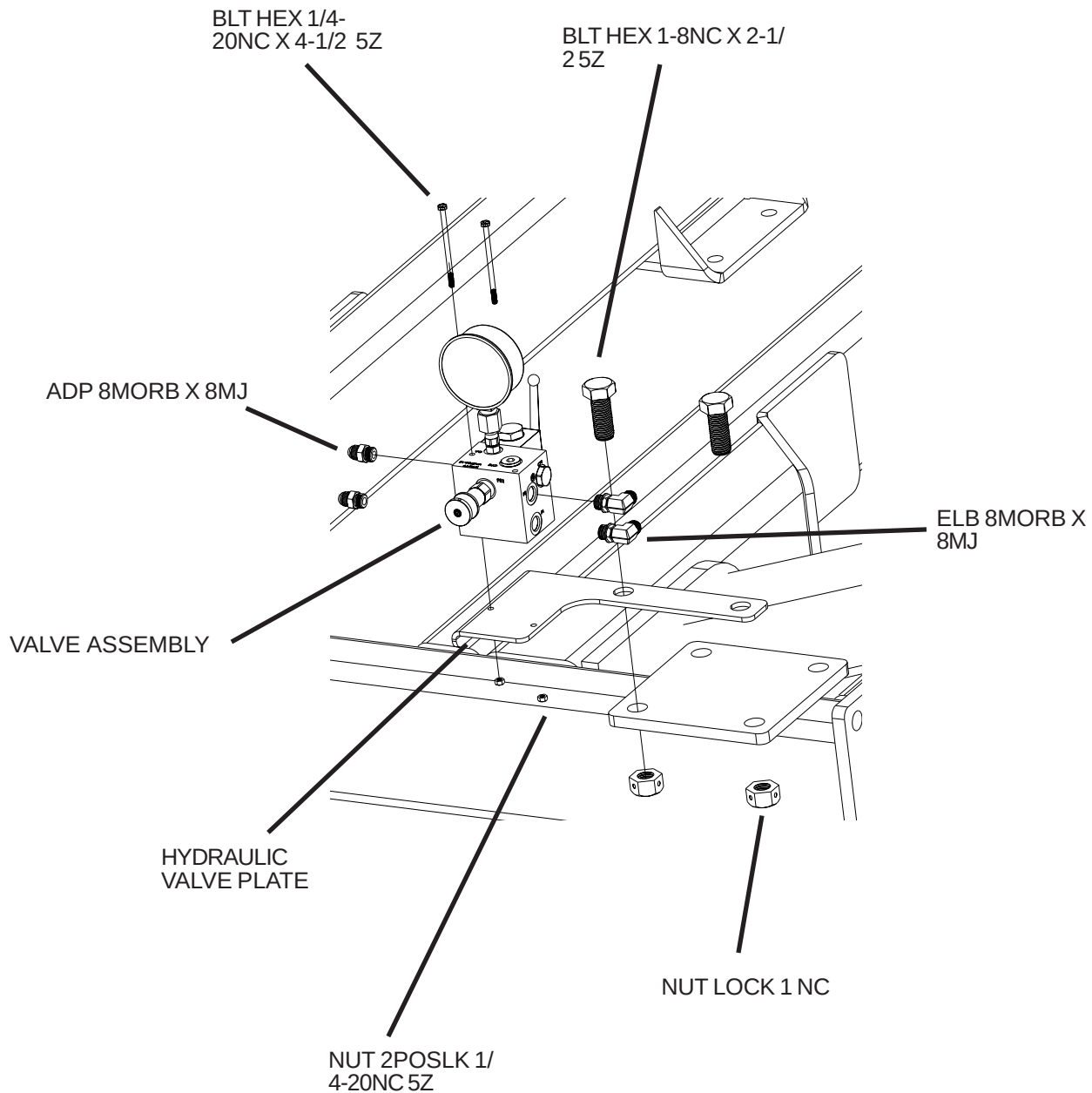
700926

HYDRAULIC BASKET HYDRUALICS 11 AND 13 SHANK FOLDING



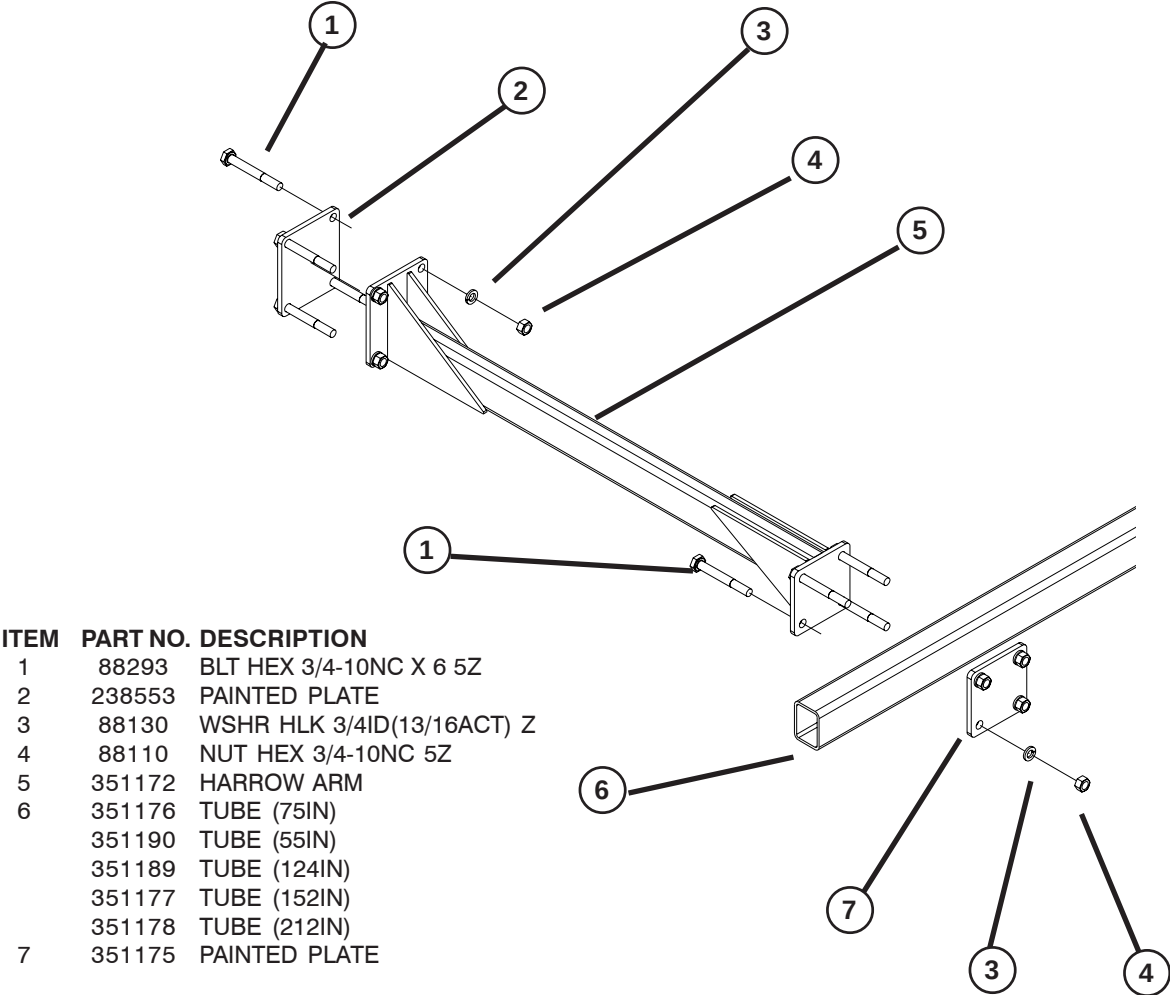
700928

HYDRAULIC BASKET VALVE MOUNT



701166

SPIKE TOOTH HARROW MOUNTS



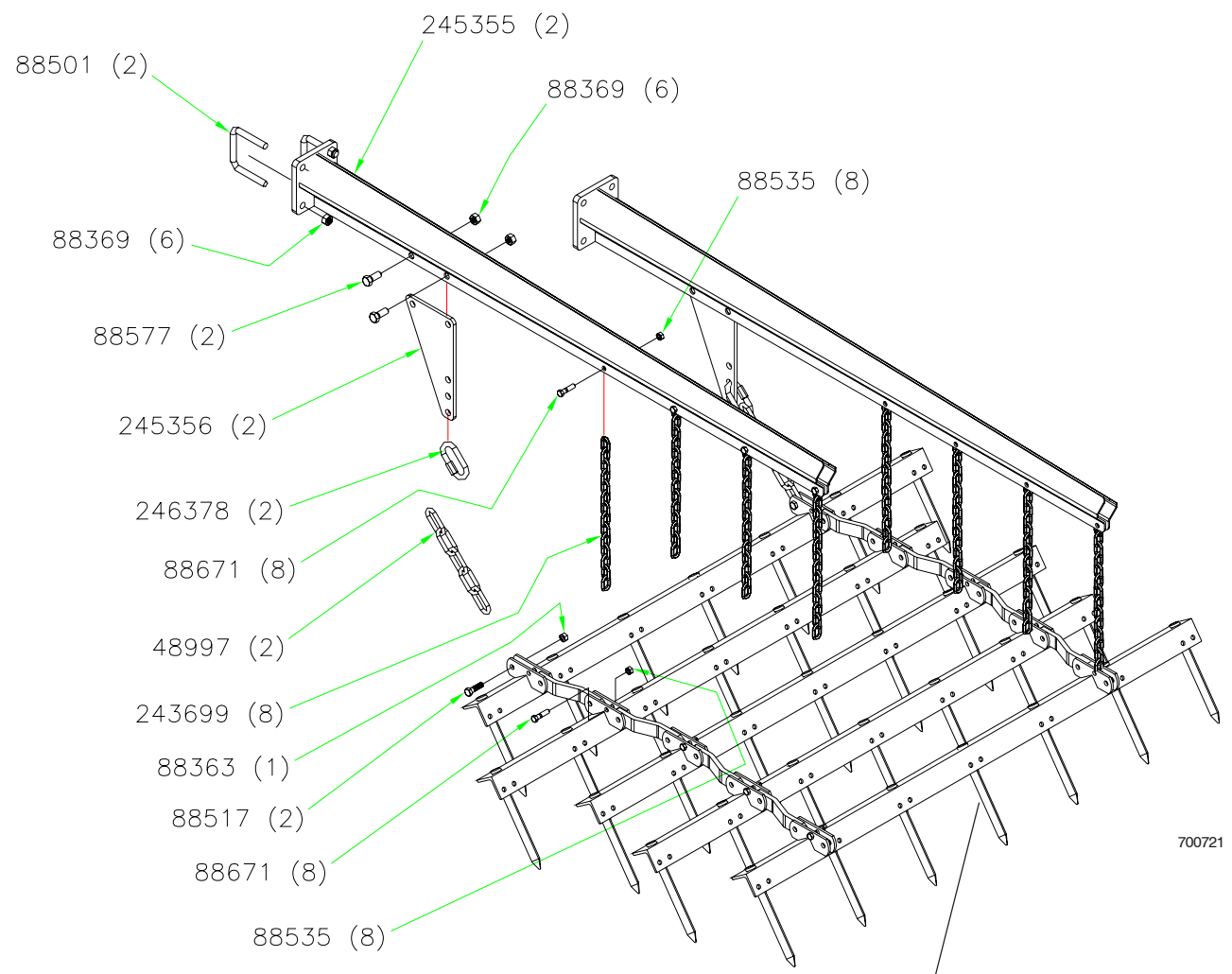
SPIKE TOOTH HARROW PLACEMENT

CENTER LINE

50	2	124	50
5'10"			5'10"
- CROSS BAR			
- ARM LOCATION (INCH FROM CENTER LINE)			
- SECTION			

	LEFT WING	MAIN FRAME		RIGHT WING
SoilPro 513 5/30-7/24		50 7'6"	152 5 7'6"	50
SoilPro 513 7/30-9/24		90 54 6'8"	212 5 6'8" 6'8"	90
SoilPro 513 11/24	75 142 90 6'8"	54 5'10"	152 5 5'10"	75 90 142 6'8"
SoilPro 513 13/24	75 142 105 7'6"	54 6'8"	152 5 6'8"	75 105 142 7'6"

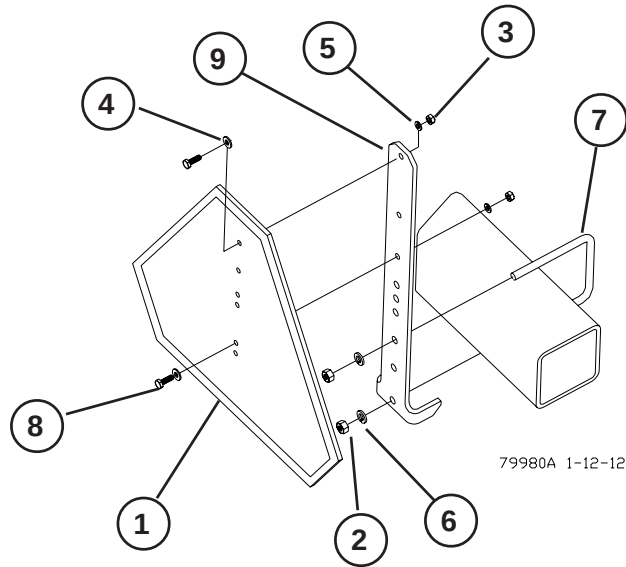
SPIKE TOOTH HARROW SECTION ASSEMBLY



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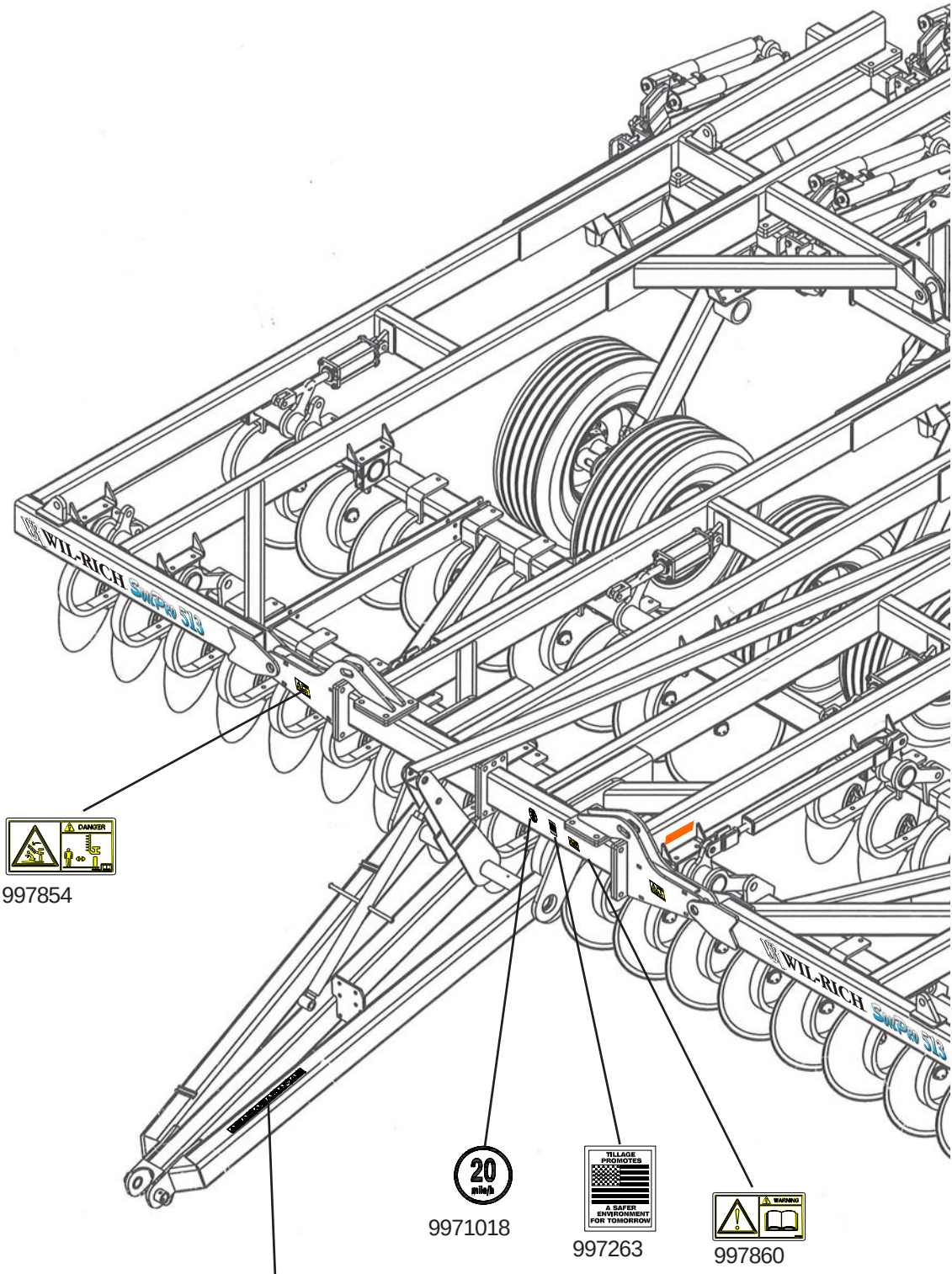
55208	4'-2"	5 TEETH/RANK
55209	5'-0"	6 TEETH/RANK
55210	5'-10"	7 TEETH/RANK(SHOWN)
55211	6'-8"	8 TEETH/RANK
55212	7'-6"	9 TEETH/RANK

ITEMS	DESCRIPTIONS
243699	14 LINK CHAIN
245355	HARROW MOUNT
245356	PLATE (PAINTED)
246378	QUICK LINK - 1/2 INCH
48997	5 LINK CHAIN
88363	NUT 2POSLK 1/2-13NC 5Z
88369	NUT 2POSLK 5/8-11NC 5Z
88501	BLT-U 5/8-11NCX4X4-1/4 Z
88517	BLT HEX 1/2-13NCX1-3/4 5Z
88535	NUT 2POSLK 7/16-14NC 5P
88577	BLT HEX 5/8-11NCX1-1/2 5Z
88671	BLT HEX 7/16-14NCX1-3/4 5Z



ITEM	PART NO	DESCRIPTION	QTY
1	30651	SMV EMBLEM S276.6	1
2	88103	NUT HEX 3/8-16NC 5Z	2
3	88172	NUT HEX 1/4-20NC 5Z	2
4	88261	WSHR FLAT 1/4(5/16 X 3/4ACT) Z	2
5	88262	WSHR HLK 1/4ID(5/16ACT) Z	2
6	88362	WSHR HLK 3/8ID Z	2
7	88385	BLT-U 3/8-16NCX4X5 Z	1
8	88993	BLT HEX 1/4-20NC X 3/4 5Z	2
9	350933	SMV BRACKET	1

DECAL PLACEMENT



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