



I-5100 12', 19', 22', 25', 29' Assembly & Parts Manual 2016
Manual #: MNPI-51-1229-16A

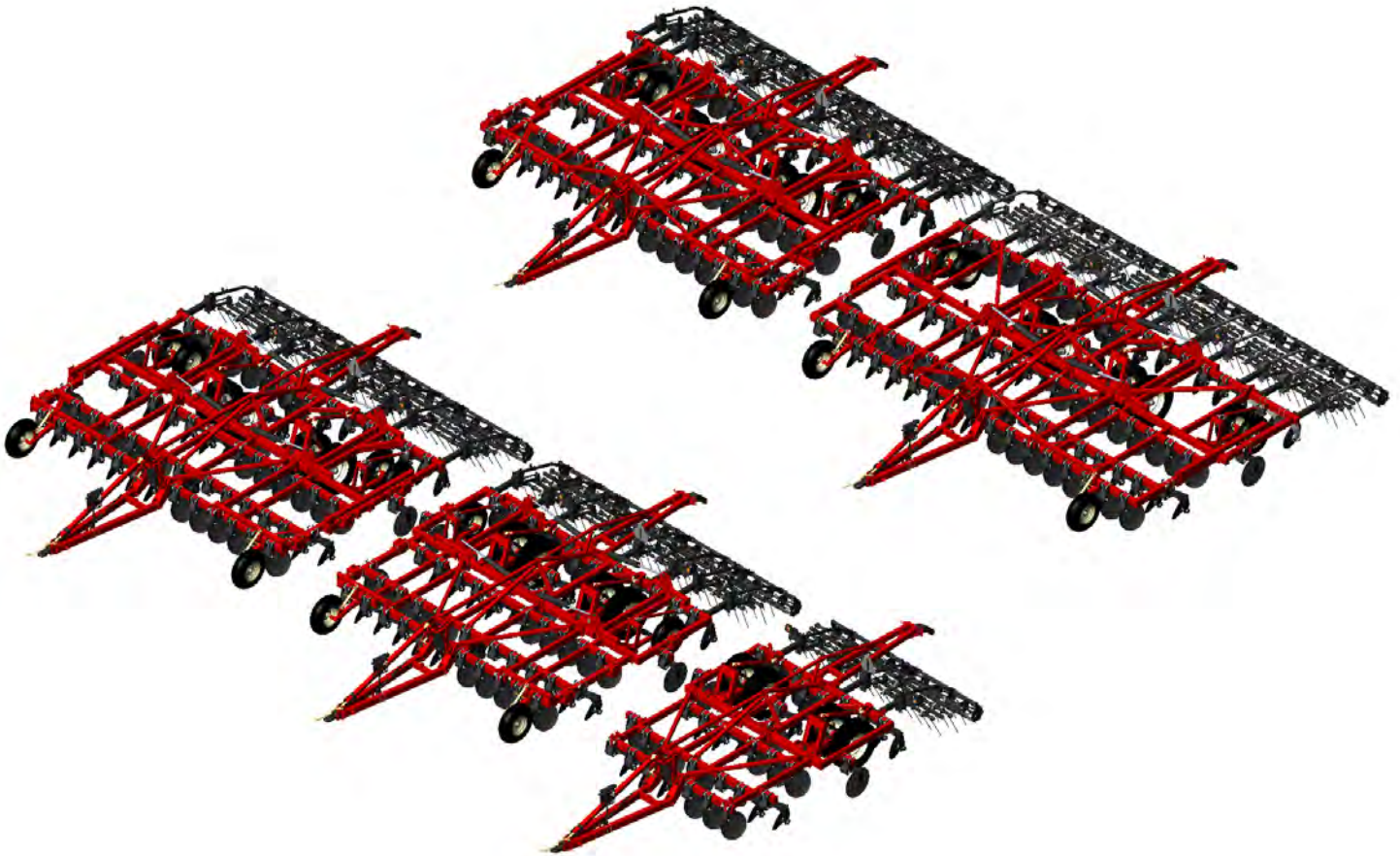


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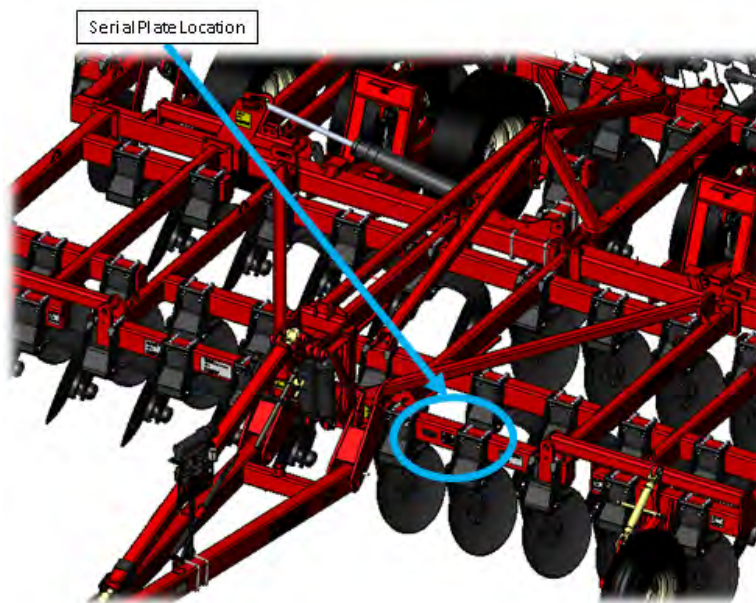
Serial Number and Paint Code

Your machine has a model and serial number to clearly identify it. Always give your dealer the model number and serial number of your machine when ordering parts or requesting service information. Record the model and serial numbers in the spaces provided for easy reference. We also recommend recording the serial numbers of any third party equipment, such as fans, conveyor, etc.

MANUFACTURED BY: SALFORD GROUP INC.	
MODEL NO.	SERIAL NO.

Model number: _____

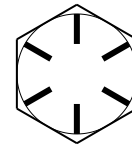
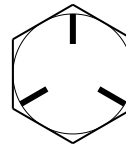
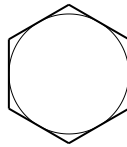
Serial numbers: _____



ATTENTION: If your machine has the decal shown below located next to the serial number plate, the red paint code is **EF20824P1**. If your machine does **NOT** have the decal shown below, the red paint code is **EF25521P1**.



Salford Recommended Torque Values



BOLT SIZE	GRADE 2		GRADE 5		GRADE 8	
	ft-lbs	Nm	ft-lbs	Nm	ft-lbs	Nm
1/2"NC	50	68	75	102	105	142
5/8"NC	90	122	150	203	210	285
3/4"NC	160	217	270	366	375	508
7/8"NC	145	197	395	536	610	827
1"NC	210	285	590	800	910	1234

NOTES: These recommended torque values are applicable when applied to the nut only. These recommended torque values are approximate only. The torque-tension relationship is affected by lubrication, surface finish, thread fit, plating, lock-washers, etc.

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

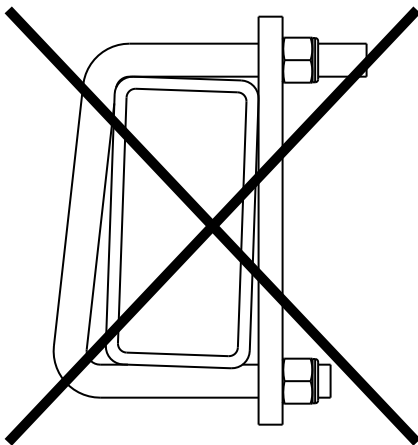
Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Fasteners should be replaced with the same or higher grade. If higher-grade fasteners are used, these should only be tightened to the strength of the original.

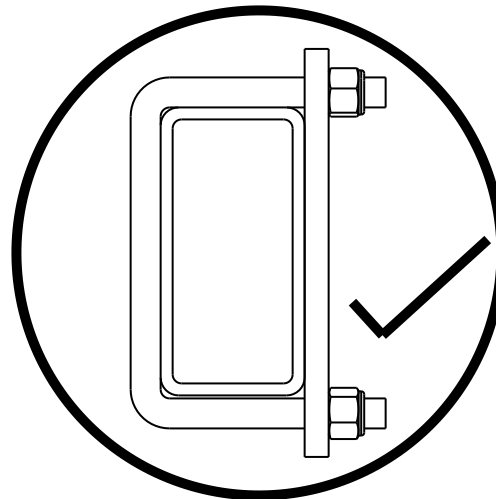
Make sure fasteners threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

WARNING

Do not tighten one side of the u-bolt before the other side.



Both sides of the u-bolt must be tightened equally.



Wheel Torque Specifications



WARNING Maintain proper torque to provide safe and secure attachment of the wheel hub/drum. Improperly tightened wheel nuts can cause the wheel to separate from the wheel mounting surface during operation. This could result in property damage, serious personal injury, or possibly loss of life.

NOTE - If wheel does not have chamfers to match profile of the nuts, use flat side of nuts against rim face.

Install all lug nuts/bolts by hand to prevent cross threading and tighten lug nuts/bolts following the steps and tightening sequence diagram below.

- STEP 1) Torque to 20-25 ft•lbs following the appropriate pattern below.
 STEP 2) Torque to 55-60 ft•lbs following the appropriate pattern below.
 STEP 3) Torque to final ft•lbs rating (see bolt size below) following the appropriate pattern below.

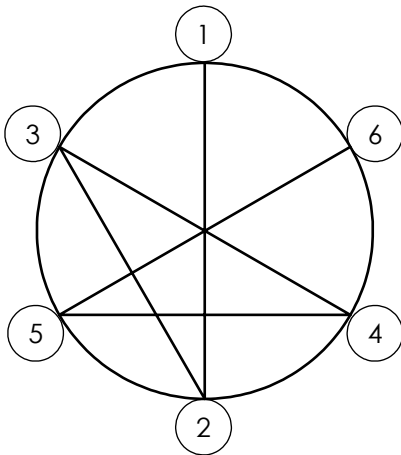
Bolt Size (Hub Size)	Final Torque*
1/2" dia. bolt (up to 3000 lb hubs)	90 ft•lbs
9/16" dia. bolt (4000 - 5000 lb hubs)	120 ft•lbs
5/8" dia. bolt (5500 - 12000 lb hubs)	170 ft•lbs
3/4" dia. bolt (16000 - 20000 lb hubs)	300 ft•lbs
7/8" dia. bolt (25000 lb hubs)	540 ft•lbs
22mm dia. bolt (35000 lb hubs)	540 ft•lbs

*Dry Torque values shown.

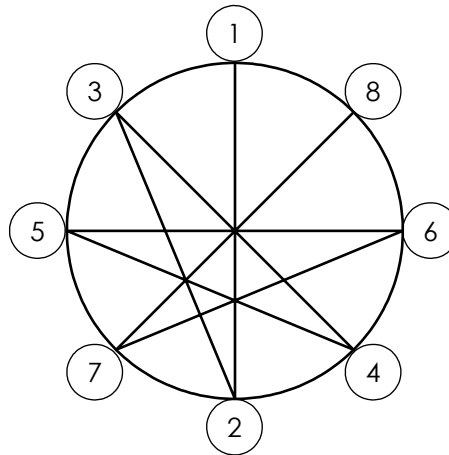
If using a lubricant (eg oil, or anti-sieze), use only 75% of the dry torque.

Lug Nut/Bolt Tightening Sequence

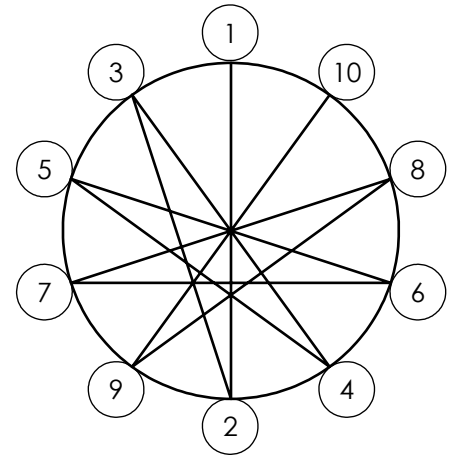
6 LUG BOLT PATTERN



8 LUG BOLT PATTERN



10 LUG BOLT PATTERN



NOTE - Recheck the torque settings of lug nuts/bolts after 10km (6 miles) and again after 50km (30 miles). Periodically and at the beginning of each season check the condition and the torque of the lug nuts/bolts.

Tire Pressure Ratings

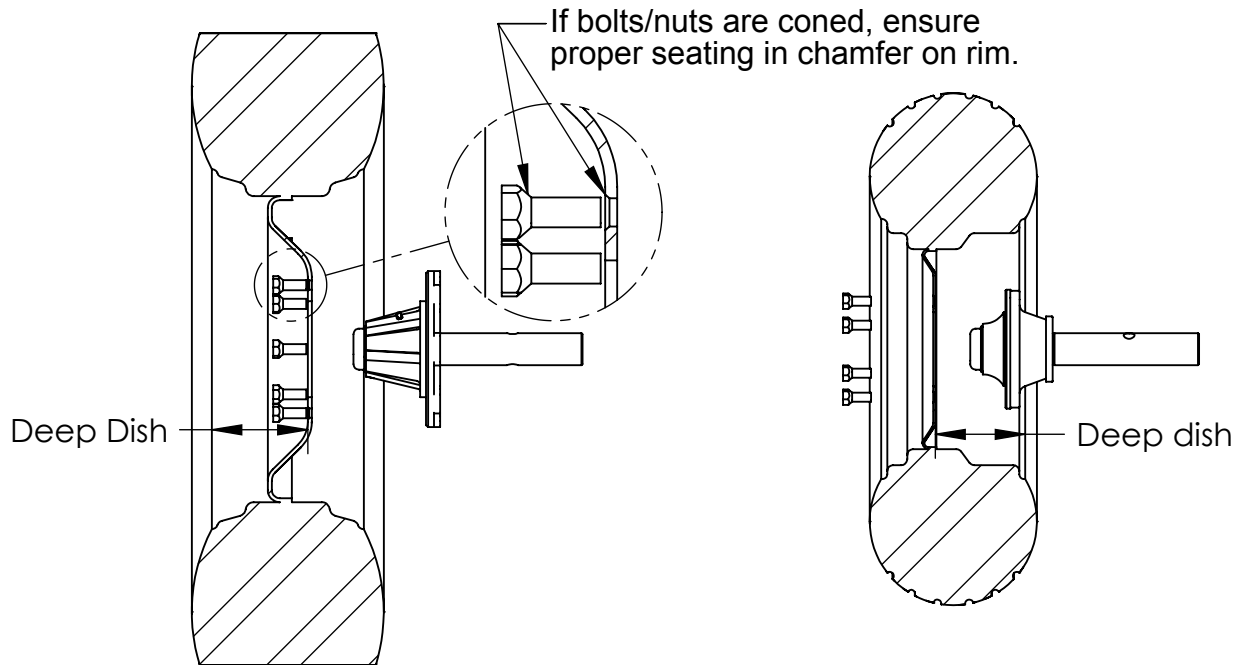
Ensure proper inflation of each tire for safe operation and extended tire life.

Tire Size	Pressure [psi]	Pressure [bar]
23.1 x 26 (16 ply)	25 [psi]	1.72 [bar]
15 x 19.5 Lug Tire (6 ply)	30 [psi]	2.07 [bar]
Load Range C - 11L15	35 [psi]	2.41 [bar]
28L26 (16 ply)	36 [psi]	2.48 [bar]
30.5LR32 (181A8/B)	52 [psi]	3.58 [bar]
Load Range D - 11L15 - 12.5L15	65 [psi]	4.48 [bar]
15 x 19.5 Lug Tire (14 ply)	70 [psi]	4.83 [bar]
340/60R16.5IMP (145A8/B)	73 [psi]	5.00 [bar]
Load Range F - 11L15 - 12.5L15 Truck Tires - 245/70R19-5 - 305/70R22-5	90 [psi]	6.20 [bar]
Truck Tires - 425/60R22-5	110 [psi]	7.49 [bar]
Truck Tires - 445/60R22-5	SEE TIRE SIDEWALL!!	

NOTE - Periodically and at the beginning of each season check the condition and the pressure of each tire.

Tire Installation Direction

Measure both sides of tire in to rim face. Install the deep side in or out according to the instructions below.



Tires to install
deep dish out:

12.5L
305
15 x 19.5
340

Tires to install
deep dish in:

11L
245
425
445

Do not rely on valve stem for orientation of tires. It may face in or out on different rims.

General Safety Precautions

Signal Words

The words **DANGER**, **WARNING**, or **CAUTION** are used with the safety alert symbol. Learn to recognize the safety alerts, and follow the recommended precautions and safe practices.

Three words are used in conjunction with the safety-alert symbol:



DANGER

Indicates an imminently hazardous situation that, if not avoided, will cause **DEATH OR VERY SERIOUS INJURY**



WARNING

Indicates a potentially hazardous situation that, if not avoided, could cause **DEATH OR SERIOUS INJURY**



CAUTION

Indicates a potentially hazardous situation that, if not avoided, may cause **MINOR OR MODERATE INJURY**

Replace any **DANGER**, **WARNING**, **CAUTION**, or instructional decal that is not readable or is missing. The location and part number of these decals are identified later in this manual.

The words **Important** and **Note** are not related to personal safety but are used to give additional information and tips for operating or servicing this equipment.

IMPORTANT: Identifies special instructions or procedures which, if not strictly observed could result in damage to, or destruction of the machine, process or its surroundings.

NOTE: Indicates points of particular interest for more efficient and convenient repair or operation.

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT!

General Safety Precautions

Wing Fold

- Wings may fall rapidly causing injury.
- Do not stand under wings.
- Always stay clear of wings when being lowered, raised, or in an elevated state.
- Always use wing locks when raised.
- Ensure cylinders are completely filled with hydraulic fluid to avoid any unexpected movement.



Hydraulics

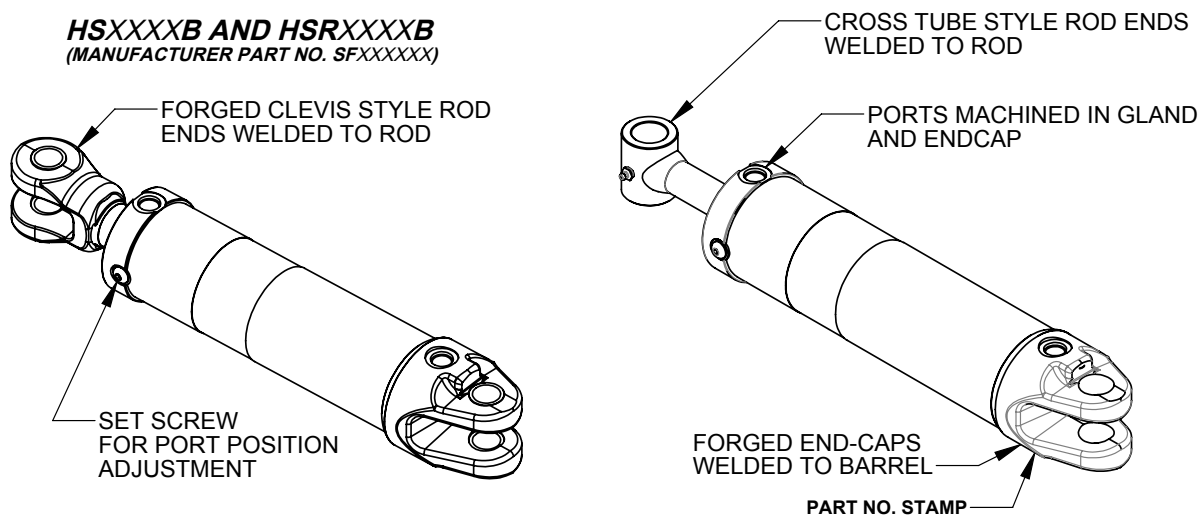
- **DO NOT** search for high pressure hydraulic leaks without any hand and face protection. A tiny, almost invisible leak can penetrate skin, requiring immediate medical attention.
- Use cardboard or wood to detect leaks – never your hand.
- Double check that all is clear before operating hydraulics.
- **NEVER** remove hydraulic hoses or ends with machine elevated. Relieve hydraulic pressure before disconnecting hydraulic hoses or ends.
- Use transport/maintenance locks when machine is raised.
- Maintain proper hydraulic fluid levels.
- Keep all connectors clean for positive connections.
- Ensure all fittings and hoses are in good condition and are properly tightened.
- **NEVER** work on or under an elevated machine unless it has been locked up using the transport/maintenance locks.



Cylinder Series Identification Guide

SALFORD 'B' SERIES*

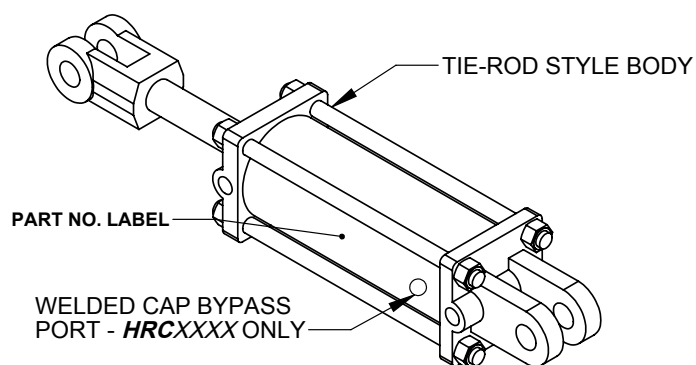
HSXXXXB AND HSRXXXXB
(MANUFACTURER PART NO. SFXXXXXX)



*REQUIRED 3 3/8" LONG OR LONGER PINS

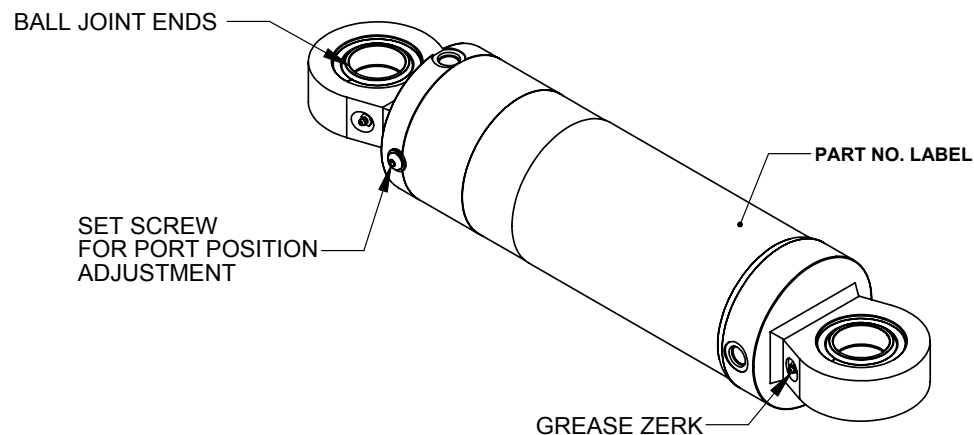
SALFORD 'C' SERIES

HCXXXX AND HCRXXXX
(MANUFACTURER PART NO. XXTXXX-XXX)

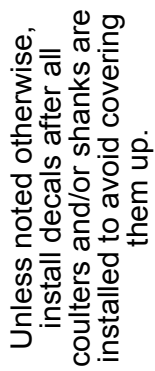


SALFORD 'BBJ' SERIES

HSXXXXBBJ AND HSRXXXXBBJ
(MANUFACTURER PART NO. HSRXXXXBBJ)



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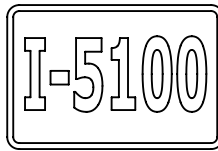
Decal Locations

ITEM	I-5100 12ft	I-5100 16ft	I-5100 19ft-29ft	PART NUMBER	DESCRIPTION
1	2	2	2	GD102	WWW. SALFORD DECAL
2	2	2	2	GD229	I-5100 DECAL
3	6	10	10	GD100	SALFORD DECAL LARGE w/BLACK BORDER (4" HIGH X 16" LONG)
4	1	1	1	GD109	DEPTH CONTROL DECAL
5	1	1	1	GD110	WARNING DON'T LIFT DECAL
6	1	1	1	GD245	ATTENTION LUBRICATE DECAL
7	1	1	1	GD214	2 1/2" x 2 1/2" PATENT NUMBER & PATENT PENDING DECAL
8	1	1	1	GDSW116	IMPORTANT - DO NOT EXCEED THE MAXIMUM TILT
9	1	1	1	GDSW117	IMPORTANT - AVOID EXCESSIVE DEPTH AND COULTER WHIP
10	2	2	2	GD194	8 LUG TIGHTENING SEQUENCE & TIRE PRESSURE WARNING STICKER
11	-	-	4	GD193	6 LUG TIGHTENING SEQUENCE & TIRE PRESSURE WARNING STICKER
12	2	2	2	GDSW2	USE PROPER TOOLS AND READ MANUAL DECAL
13	2	2	2	GDT3	DANGER STICKER FOR CRUSHING HAZARD "HITCHING IMPLEMENT TO TRACTOR PINCH POINT"
14	-	4	4	GDSW200	WARNING STICKER OVERHEAD CRUSHING HAZARD "SHOWS WING FALLING ON SOMEONES HEAD"
15	-	-	2	GD144	WING LOCK DECAL - 570
16	1	1	1	GDSW700	WARNING STICKER, ALTERNATE HIGH PRESSURE FLUID HAZARD STICKER
17	1	1	1	GDSW4	SAFE OPERATION LIST DECAL
18	3	7	9	GD108100	GREASE EVERY 100 HOURS DECAL
19	1	1	1	GD210	HOSE IDENTIFICATION DECAL
20	1	1	1	GD212	TURNBUCKLE DIRECTION DECAL
21	1	1	1	GD249	5100 OPERATING RECOMMENDATIONS DECAL
22	1	1	1	----	SERIAL NUMBER PLATE

Decal Locations



GD102 (1)



GD229 (2)



GD100 (3)



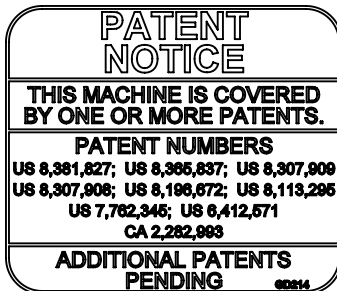
GD109 (4)



GD110 (5)



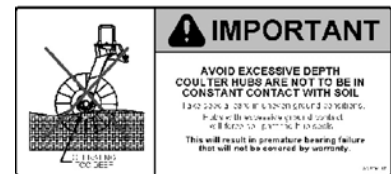
GD245 (6)



GD214 (7)



GDSW116 (8)



GDSW117 (9)



GDSW2 (12)



GD194 (10)



GD193 (11)



GD144 (15)



GDSW700 (16)



GDT3 (13)



GDSW200 (14)



GD210 (19)



GD212 (20)



GDSW4 (17)

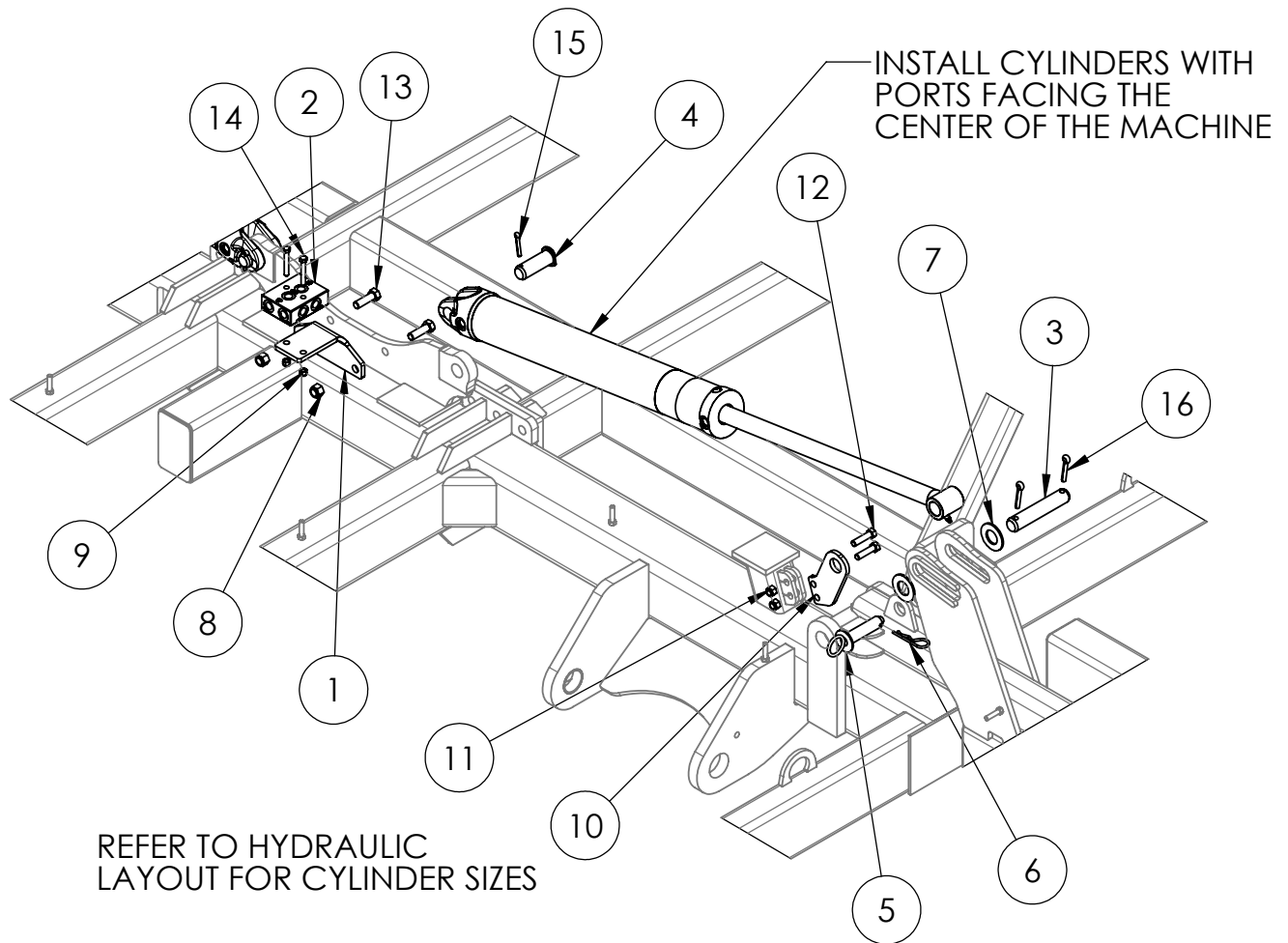


GD108100 (18)

SERIAL # (22)
PLATE

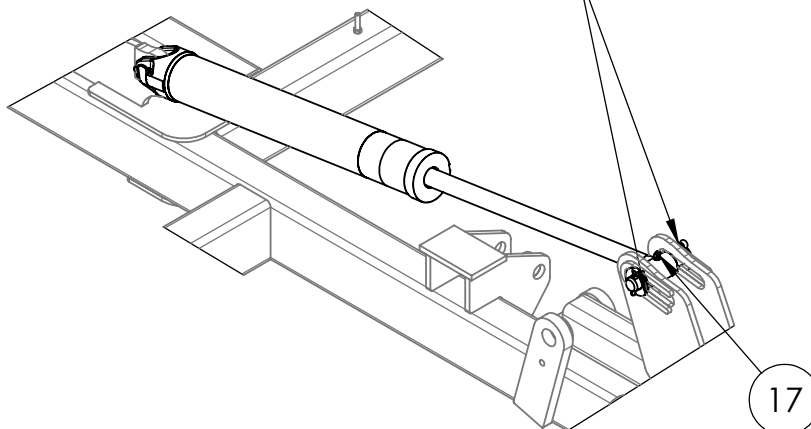
GD249 (21)

Wing Fold Cylinder Installation



CAUTION

When installing pins, washers must be installed, major damage and or serious injuries or death may occur if washers are not installed properly



Wing Fold Cylinder Installation

ITEM	QTY	PART NO.	DESCRIPTION
1	1	A60079F	HYDRAULIC MANIFOLD BRACKET
2	1	H00012	3 SECTION WING FOLDING MANIFOLD
3	4	GPH2000612A06	1 1/4" x 6 1/2" HARDENED PIN - 2 HOLES
4	4	GPHF2000312H05	1 1/4" x 3 1/2" SHOULDER PIN HARDENED W/ FLATS
5	1	GP1600414C04	1" x 4 1/4" RING & WASHER PIN
6	1	GHP9	#9 HAIR PIN
7	8	BF20S	1 1/4" SAE WASHER
8	2	BN10L	5/8" NYLOCK NUT NC
9	2	BN06L	3/8"-16NC NYLOCK NUT
10	2	FL01061	RTS WING LOCK LUG
11	4	BN08L	1/2" NYLOCK NUT NC
12	4	B0820	1/2" NC x 2" LG. HEX BOLT GR. 5
13	2	B1020	5/8 X 2" BOLT GR. 5 PLATED
14	2	B0625	3/8" NC x 2 1/2" LG. HEX BOLT GR. 5
15	4	BSC0520	5/16" x 2" COTTER PIN
16	8	BSC0620	3/8" x 2" COTTER PIN
17	4	GF1688	1/8" NPT GREASE FITTING 45deg



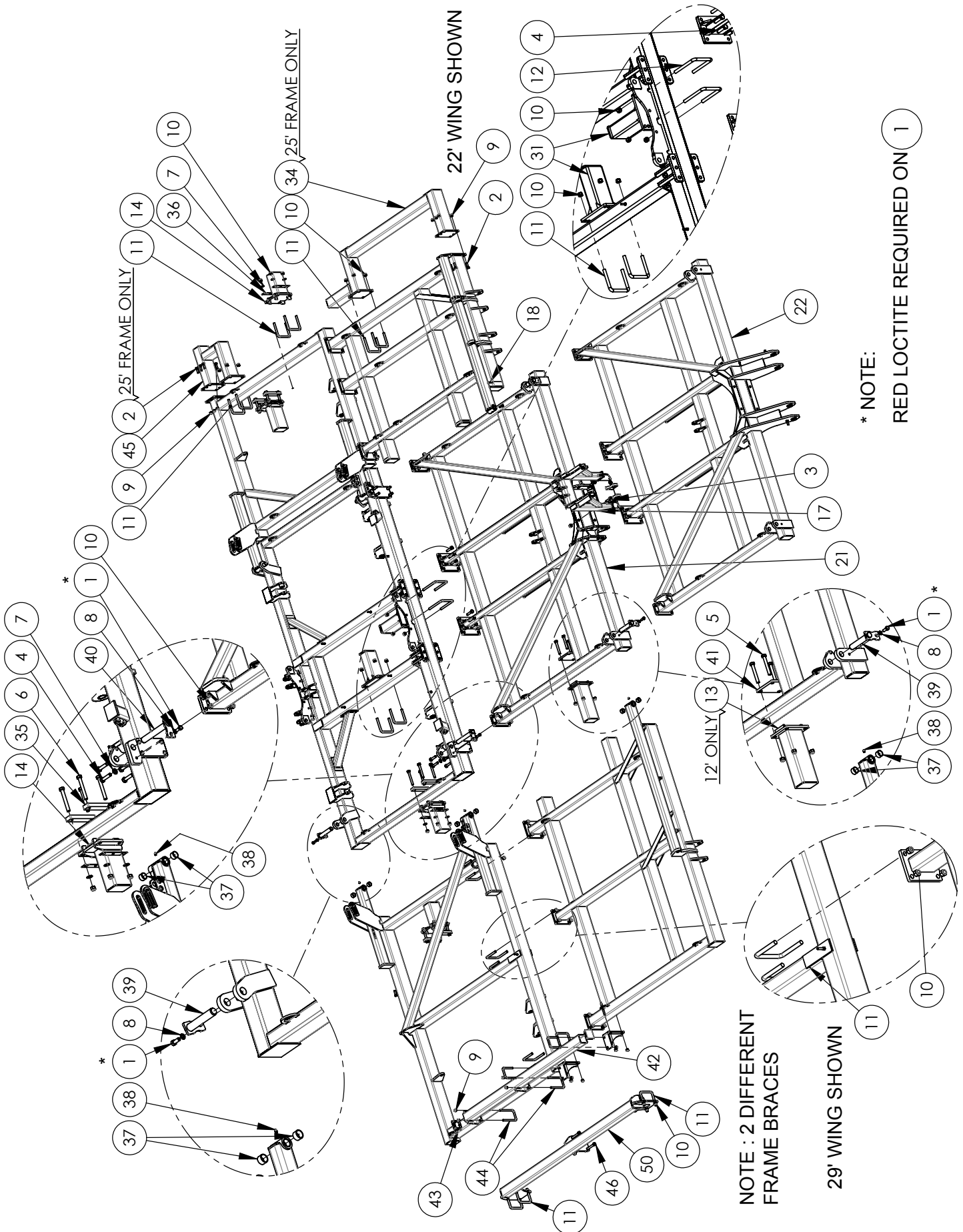
CAUTION

!!!DO NOT install pins in rods ends until **ALL AIR** has been purged out of the wing folding hydraulic circuit. See hydraulic layout for instructions.

When installing pins, washers must be installed, major damage and or serious injuries or death may occur if washers are not installed.

See ***Cylinder Series Identification Guide*** page for details on types of wingfold cylinders

Frame Assembly

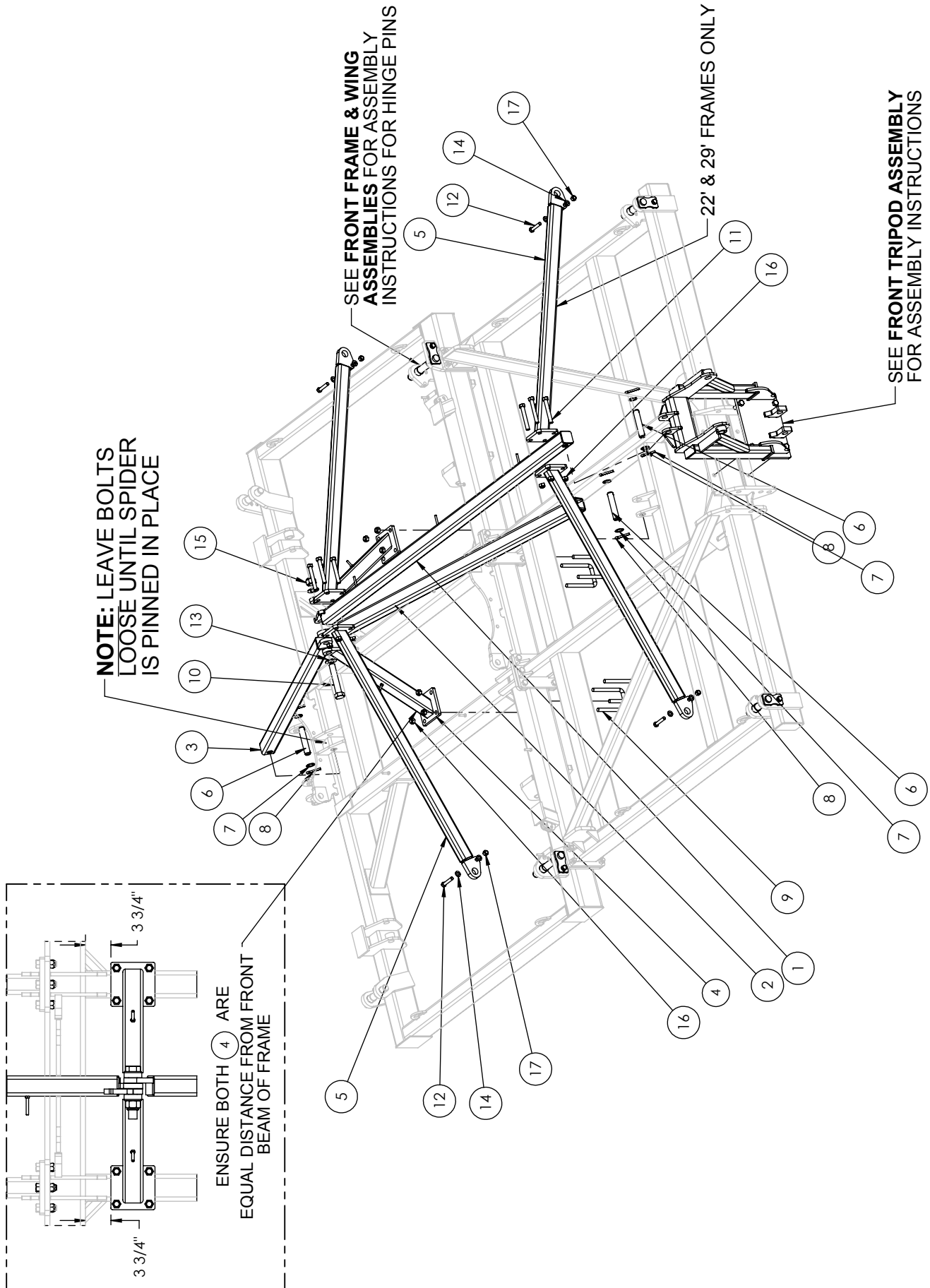


Frame Assembly

ITEM	12ft	19ft	22ft	25ft.	29ft	PART NO.	DESCRIPTION
1	-	6	6	6	6	B1015	5/8" NC x 1 1/2" LG. HEX BOLT GR. 5
2	-	-	-	30	-	B1020	5/8"NC x 2" LG. HEX BOLT
3	4	4	4	4	4	B1225	3/4"NC x 2-1/2" HEX BOLT
4	20	20	20	20	20	B1230	3/4"NC x 3" BOLT GR. 5
5	8	-	-	-	-	B1255	3/4" x 5 1/2" HEX BOLT
6	8	-	-	-	16	B1260	3/4" NC x 6" LG. HEX BOLT GR.5
7	16	16	16	16	24	BF12HS	3/4" HARD STRUCTURAL WASHER
8	-	6	6	6	6	BL10	5/8" LOCKWASHER
9	-	-	40	70	40	BN10L	5/8" NYLOCK NUT NC
10	52	60	76	92	92	BN12L	3/4" NC NYLOCK NUT
11	4	18	22	30	22	BU1260	3/4" x 6 x 6" U-BOLT
12	2	2	2	2	2	BU1266	U-BOLT 3/4" x 6" x 8" LG.
13	2	-	-	-	-	C11186	4" x 6" x 16" BOLT ON TOOLSTUB - 3/4" U-BOLTS
14	2	2	2	2	4	C11199	I-5100 2" DROP 11"LG GUIDE COULTER STUB
15	-	1	-	-	-	C11770L	19FT I-5100 WING FRAME - LEFT
16	-	1	-	-	-	C11770R	19FT I-5100 WING FRAME - RIGHT
17	1	1	1	1	1	C11319	5100 TONGUE TRIPOD TOWER
18	-	1	-	-	-	C11409L	5119 FRONT WING FRAME - LH
19	-	1	-	-	-	C11409R	5119 FRONT WING FRAME - RH
20	-	1	1	1	1	C11412	5100 12', 19', 22', & 29' MAINFRAME
21	-	1	-	-	-	C11414	5100 CENTER FRONT FRAME - FOR CONTAINER
22	-	-	1	1	1	C11307	5122, 5129 FRONT MAIN FRAME
23	-	-	-	-	1	C11465L	29FT I-5100 WING FRAME - LEFT
24	-	-	-	-	1	C11465R	5129 CONTAINER WING FRAME
25	-	-	-	-	1	C11466L	5129 FRONT WING FRAME - LEFT
26	-	-	-	-	1	C11466R	5129 FRONT WING FRAME - RIGHT
27	-	-	1	1	-	C11582L	5122 FRONT WING FRAME - LEFT
28	-	-	1	1	-	C11582R	5122 FRONT WING FRAME - RIGHT
29	-	-	1	1	-	C11583L	22FT I-5100 WING FRAME - LEFT
30	-	-	1	1	-	C11583R	22FT I-5100 WING FRAME - RIGHT
31	2	2	2	2	2	C11586	5100 12, 19-29' CENTER BLADE ADJUSTABLE STUB
32	1	-	-	-	-	C11589	12' 5100 MAIN FRAME
33	1	-	-	-	-	C11590	12' 5100 FRONT MAIN FRAME
34	-	-	-	2	-	C11592	I5125 FRONT WING EXTENSION
35	4	-	-	-	8	FL00943	1" x 2" 44w PULL-UP PLATE
36	4	4	4	4	8	FL04207	5100 STABILIZER COULTER SHIM
37	-	12	12	12	12	GBB175150100	1 3/4" x 1 1/2" x 1" LG. HARD BUSHING
38	-	6	6	6	6	GF1610	1/8" NPT GREASE FITTING
39	-	4	4	4	4	GPH2400814F	1 1/2" x 8 1/4" LG. HARD PLATE PIN
40	-	2	2	2	2	GPH2401000F	1 1/2" x 10 7/8" LG. AXLE PIN - HARDENED
41	2	-	-	-	-	L00520	5/8" x 7" x 8 1/2" - 3/4" U-BOLT PLATE
42	-	-	2	2	2	C11778	5100 OUTER WING BRACE
43	-	-	4	4	4	A60208	BLACK PLASTIC CAP FOR 4" x 4" TUBE
44	-	-	4	4	4	BU1046	U-BOLT 5/8" x 4" x 7 1/2" LG.
45	-	-	-	2	-	C11773	I-5100 25' REAR WING EXTENSION
46	-	-	8	8	8	B1265	3/4"NC x 6 1/2" LG. HEX BOLT GR. 5
47	-	-	8	8	8	BU1040	5/8 x 4 x 5-1/2" U-BOLT
48	-	-	8	8	8	BU1061	U-BOLT 5/8" x 6" x 5 1/2"
49	-	-	8	8	8	C11779	5100-25' 29' WING BRACE MOUNT
50	-	-	1	1	1	C11323R	5129 OUTER WING BRACE - RIGHT
51	-	-	1	1	1	C11323L	5129 OUTER WING BRACE - LEFT

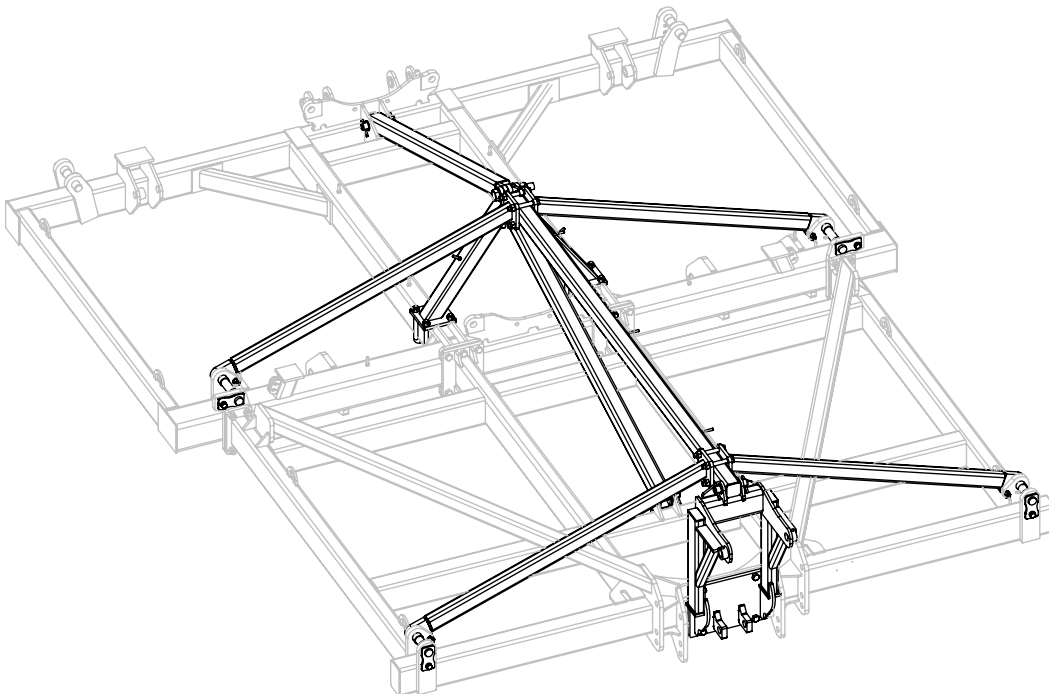
FRAME MAY INCLUDE C11323 FRAME BRACES OR C11778,C11779 FRAME BRACES

Spider Link Install



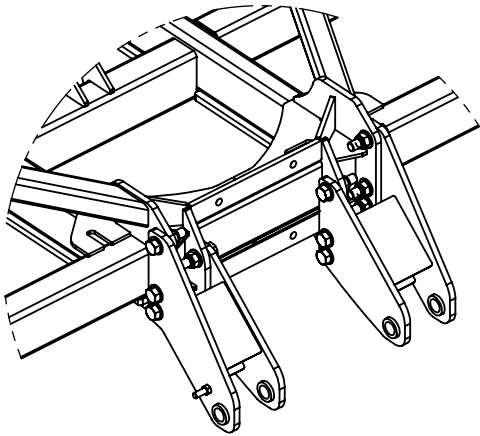
Spider Link Install

ITEM	12ft-19ft	22ft-29ft	PART NO.	DESCRIPTION
1	1	1	C11321	5100 FRONT UPPER SPIDER LINK
2	1	1	C11322	5100 FRONT LOWER SPIDER LINK
3	1	1	C11311	5100 REAR SPIDER LINK
4	2	2	C11099	3+1 RTS SIDE SPIDER LINK
5	-	4	C11490	5100 OUTSIDE SPIDER LINK
6	3	3	GPH2000612A06	1 1/4" x 6 1/2" HARDENED PIN - 2 HOLES
7	6	6	GM30	1 1/4" MACHINE BUSHING
8	6	6	BSC0620	3/8" x 2" COTTER PIN
9	4	4	BU1246	U-BOLT 3/4" x 4" x 7 1/2" LG.
10	1	1	B2070	1 1/4"NC x 7" HEX BOLT GR. 5
11	-	8	B1255	3/4" NC x 5 1/2" LG. HEX BOLT GR. 5
12	-	4	B1032	5/8 X 3 1/4" BOLT GR. 5 PLATED
13	2	2	BF20S	1 1/4" SAE WASHER
14	-	8	BF10HS	5/8" HARD STRUCTURAL FLAT WASHER
15	1	1	BN20L	1 1/4"NC LOCK NUT
16	12	20	BN12S	3/4" STOVER LOCK NUT
17	-	4	BN10L	5/8" NYLOCK NUT NC

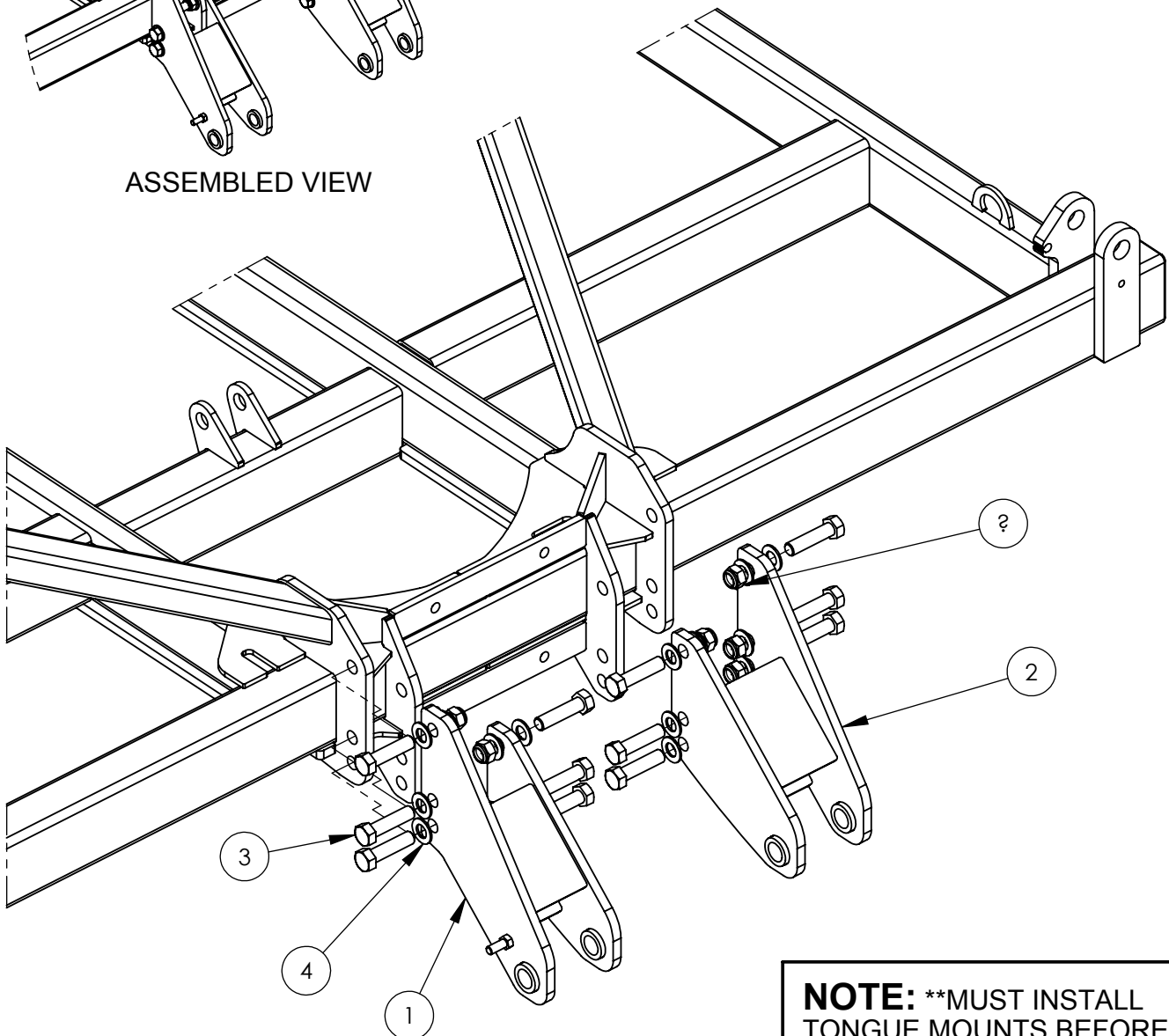


Tongue Mount Install

ITEM	QTY	PART NO.	DESCRIPTION
1	1	C11415R	5100 TONGUE MOUNT BOLT-IN- RH
2	1	C11415L	5100 TONGUE MOUNT BOLT-IN -LH
3	12	B1640	1"NC x 4" BOLT
4	24	BF16S	1" SAE WASHER
5	12	BN16L	1-8 NC NYLOCK NUT



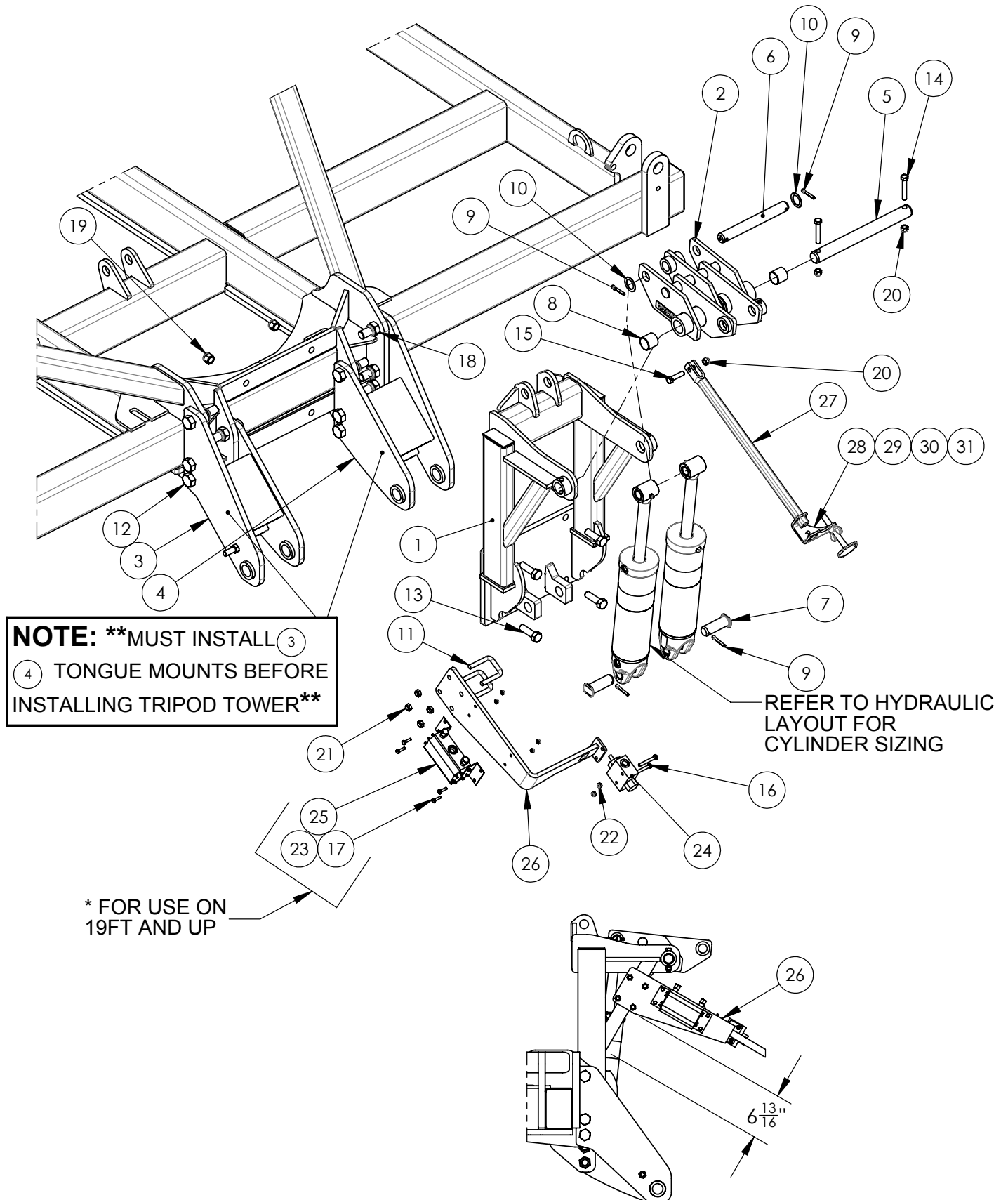
ASSEMBLED VIEW



NOTE: **MUST INSTALL TONGUE MOUNTS BEFORE INSTALLING TRIPOD TOWER**

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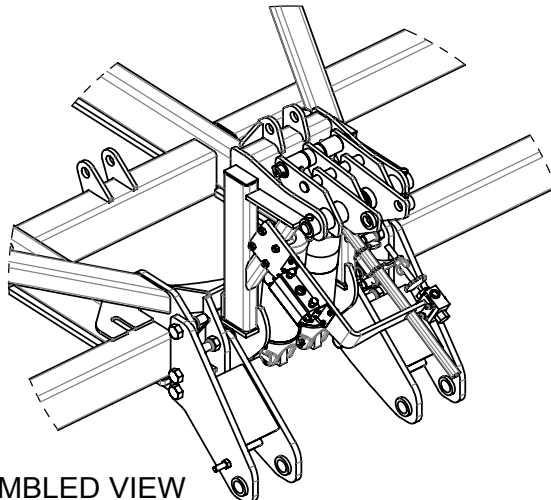
Front Tripod Assembly



Front Tripod Assembly

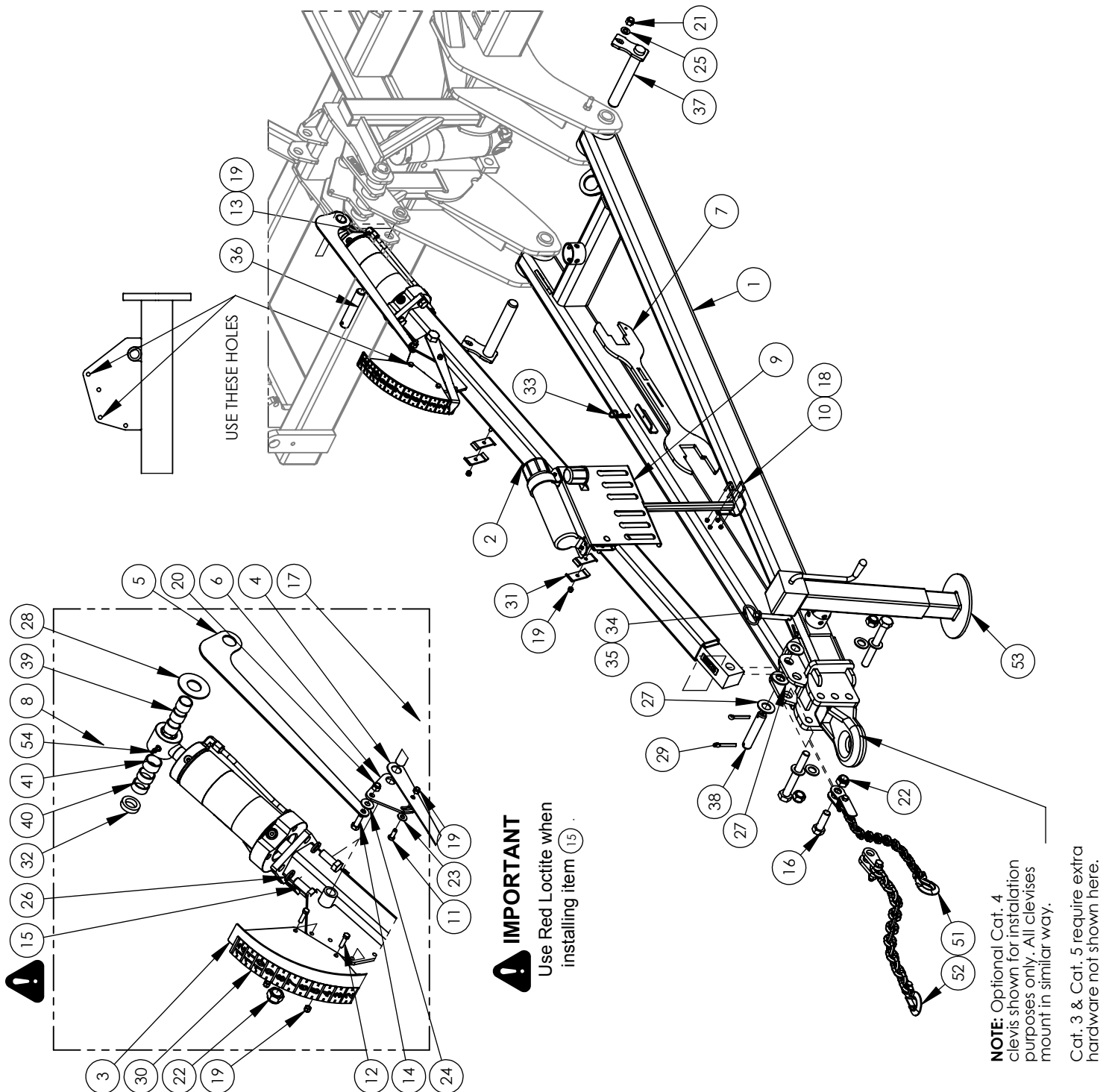
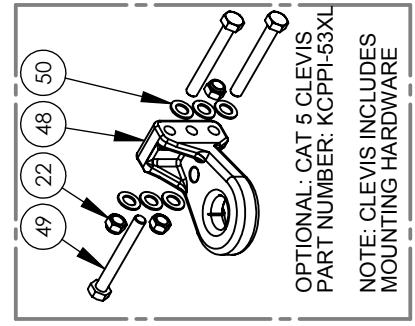
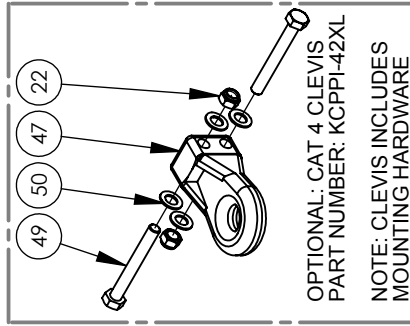
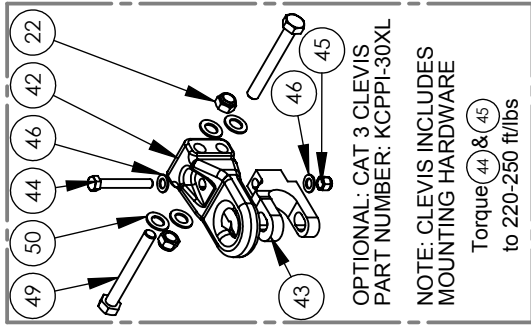
ITEM	QTY	PART NO.	DESCRIPTION
1	1	C11319	5100 TONGUE TRIPOD TOWER
2	1	C11314	I5100 BELL-CRANK
3	1	C11415R	5100 TONGUE MOUNT BOLT-IN- RH
4	1	C11415L	5100 TONGUE MOUNT BOLT-IN -LH
5	1	GP2401514A09	PIN 1 1/2" DIA. x 15 1/4" LG. - 2 HOLES
6	1	GPH2001012A05-4	1 1/4" DIA. x 10 1/2 " LG - 2 HOLE - 4140
7	2	GPHF2000312H05	1 1/4" x 3 1/2" SHOULDER PIN HARDENED W/ FLATS
8	2	GBP242624Z	1 1/2" ID x 1 21/32" OD x 1 1/2" LG Z BUSHING
9	4	BSC0520	5/16" x 2" COTTER PIN
10	2	GM30	1 1/4" MACHINE BUSHING
11	2	BU0820	1/2" x 2 x 3 U-BOLT
12	12	B1640	1"NC x 4" BOLT
13	4	B1225	3/4"NC x 2-1/2" HEX BOLT
14	2	B0830	1/2"NC x 3" HEX BOLT
15	1	B0820	1/2" NC x 2" LG. HEX BOLT GR. 5
16	2	B0525	5/16" NC x 2 1/2" LG. HEX BOLT GR. 5
* 17	4	B0410	1/4" x 1" NC SS BOLT
18	12	BN16L	1-8 NC NYLOCK NUT
19	4	BN12L	3/4" NC NYLOCK NUT
20	3	BN08L	1/2" NYLOCK NUT NC
21	4	BN08S	1/2"-13NC STOVER LOCK NUT
22	2	BN05L	5/16" LOCK NUT
* 23	4	BN04L	1/4" LOCK NUT
24	1	HVSF075075	STROKE CONTROL VALVE WITH FILTER -08
* 25	1	HV1300637	2 OUTLET GEARED FLOW DIVIDER/COMBINER
26	1	C11671	12'-29' 5100 SQUARE DEPTH CONTROL BRACKET
27	1	A60198	22" LG. SQUARE DEPTH CTRL ROD WITH CLEVIS
28	1	FL03503	DEPTH CONTROL SLIDER
29	1	BN10W	5/8"-11 NC WING NUT
30	1	A60178	DEPTH CONTROL BOLT
31	1	A60230	3/8" X 1 1/8" L-BOLT

* FOR USE ON 19FT MACHINES AND UP



ASSEMBLED VIEW

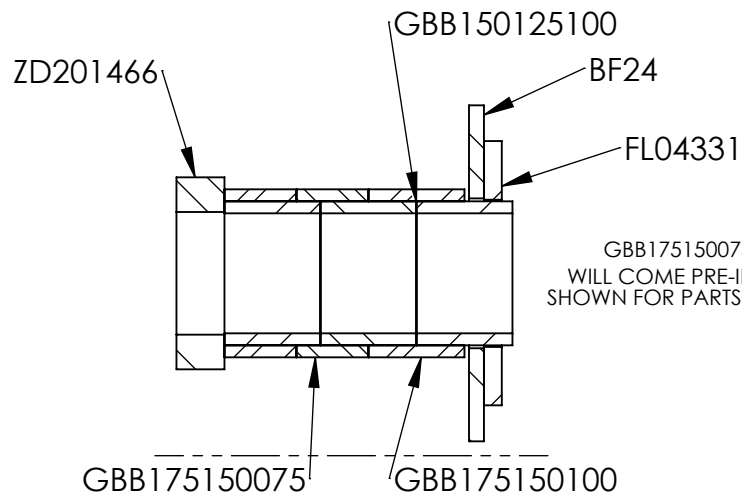
Hydraulic Tilt Adjust Tongue Installation



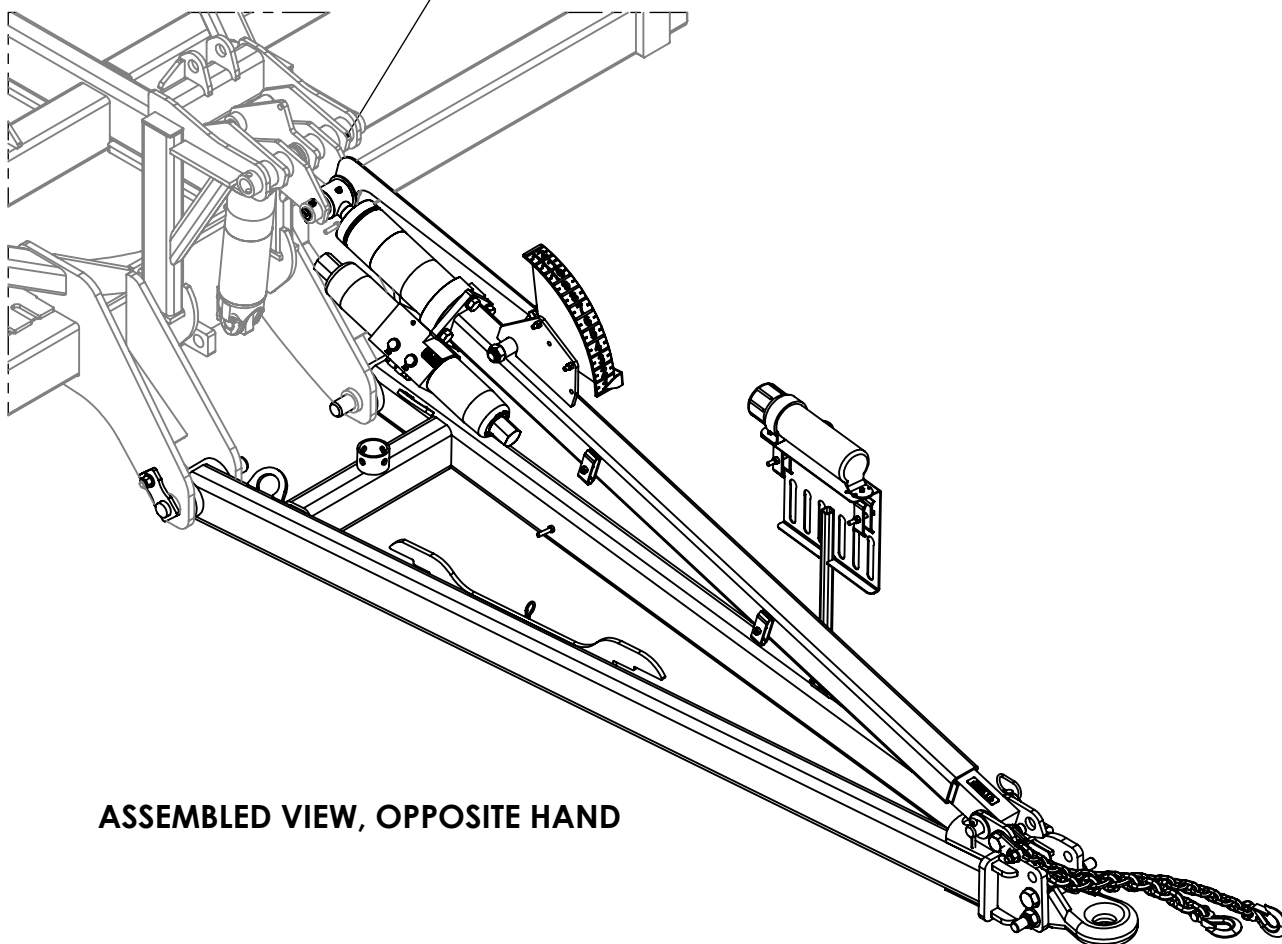
Hydraulic Tilt Adjust Tongue Installation

ITEM	12', 16' & 19'	22', 25' & 29'	PART NO.	DESCRIPTION
1	1	1	C11731	I-5100 TONGUE - 3" x 5" TUBE
2	1	1	C11626	TELESCOPE FOR HYDRAULIC TILT ADJUST
3	1	1	C11520	TILT DEPTH GAUGE DECAL MOUNT
4	1	1	FL04224	TILT DEPTH GAUGE POINTER
5	1	1	FL04331	TILT DEPTH GAUGE ACTUATOR
6	1	1	FL04332	HYDRAULIC TILT ADJUST PIVOT LINK
7	1	1	FL04668	TURNBUCKLE WRENCH FOR 2" - 2.5" - 3" - 3.5"
8	1	1	HSA4004B	ACCUMULATOR TELESCOPE CYLINDER
9	1	1	A60104A	5100/699 OPERATOR STATION WITH HARDWARE
10	2	2	BU0410	1/4 x 1" x 1 1/2" U-BOLT
11	1	1	B0610	3/8" NC x 1" LG. HEX BOLT GR.5
12	2	2	B0615	3/8" NC x 1 1/2" LG. HEX BOLT GR.5
13	1	1	B0625	3/8" X 2 1/2" LG. GRADE 5
14	1	1	B0815	1/2" NC x 1 1/2" LG. HEX BOLT GR. 5
15	4	4	B1220	3/4 X 2" PLATED BOLT GR.5
16	1	1	B1630	1" NC x 3" LG. HEX BOLT GR.5
17	1	1	B1650	1"NC x 5" LG. HEX BOLT GR.5
18	4	4	BN04L	1/4" LOCK NUT
19	6	6	BN06L	3/8"-16NC NYLOCK NUT
20	1	1	BN08L	1/2" NYLOCK NUT NC
21	2	2	BN10L	5/8" NYLOCK NUT NC
22	4	4	BN16L	1-8 NC NYLOCK NUT
23	1	1	BF06	3/8" FLATWASHER
24	1	1	BF08	1/2" FLATWASHER
25	2	2	BF10HS	5/8" HARD STRUCTURAL FLAT WASHER
26	4	4	BL12	3/4" LOCKWASHER
27	4	4	BF20S	1 1/4" SAE WASHER
28	1	1	BF24	1 1/2" PLATED WASHER
29	2	2	BSC0620	3/8" x 2" COTTER PIN
30	1	1	GD254	TELESCOPE CYLINDER TILT GAUGE DECAL
31	4	4	P0160B	HOSE CLAMP 4"
32	1	1	ZD201466	1.280" ID x 2" OD x 1/2" LG COLLAR
33	1	1	GHP9	#9 HAIR PIN
34	1	1	GP100414C03	5/8" DIA x 4 1/4" PIN RING & WASHER
35	1	1	GHP11	#11 HAIR PIN
36	1	1	GPH2000634B06-4	4140 PIN 1 1/4" DIA. x 6 3/4" LG. - 1 HOLE
37	2	2	GPH2401000F	1 1/2" x 10 7/8" LG. AXLE PIN - HARDENED
38	1	1	GPH2000612A06	1 1/4" x 6 1/2" HARDENED PIN - 2 HOLES
39	3	3	GBB150125100	1 1/2" x 1 1/4" x 1" LG. HARD BUSHING
40	2	2	GBB175150075	1 3/4" x 1 1/2" x 3/4" LG. HARD BUSHING
41	1	1	GBB175150100	1 3/4" x 1 1/2" x 1" LG. HARD BUSHING
42	1	-	PPI-30XL	CAT #3 CAST CLEVIS
43	1	-	PPI-208VR	CLEVIS FOR CAT 3 HITCH
44	1	-	B1255H	3/4" x 5 1/2" HEX BOLT GR. 8
45	1	-	BN12L	3/4" NC NYLOCK NUT
46	2	-	BF12HS	3/4" HARD STRUCTURAL WASHER
47	-	1	PPI-42XL	CAT 4 CAST IRON HITCH
48	-	-	PP53XL	CAT #4-5 CAST CLEVIS
49	2	2	B1680H	1" x 8" NC HEX BOLT GR. 8
50	4	4	BF16HS	1" HARD STRUCTURAL WASHER
51	1	-	GJ652027	21,000 LB SAFETY CHAIN
52	-	1	GJ35K48	41,000 LB SAFETY CHAIN - 60" LG.
53	1	1	GJ8002	8000 LB TONGUE JACK
54	1	1	GF1610	1/8" NPT GREASE FITTING

Hydraulic Tilt Adjust Tongue Installation

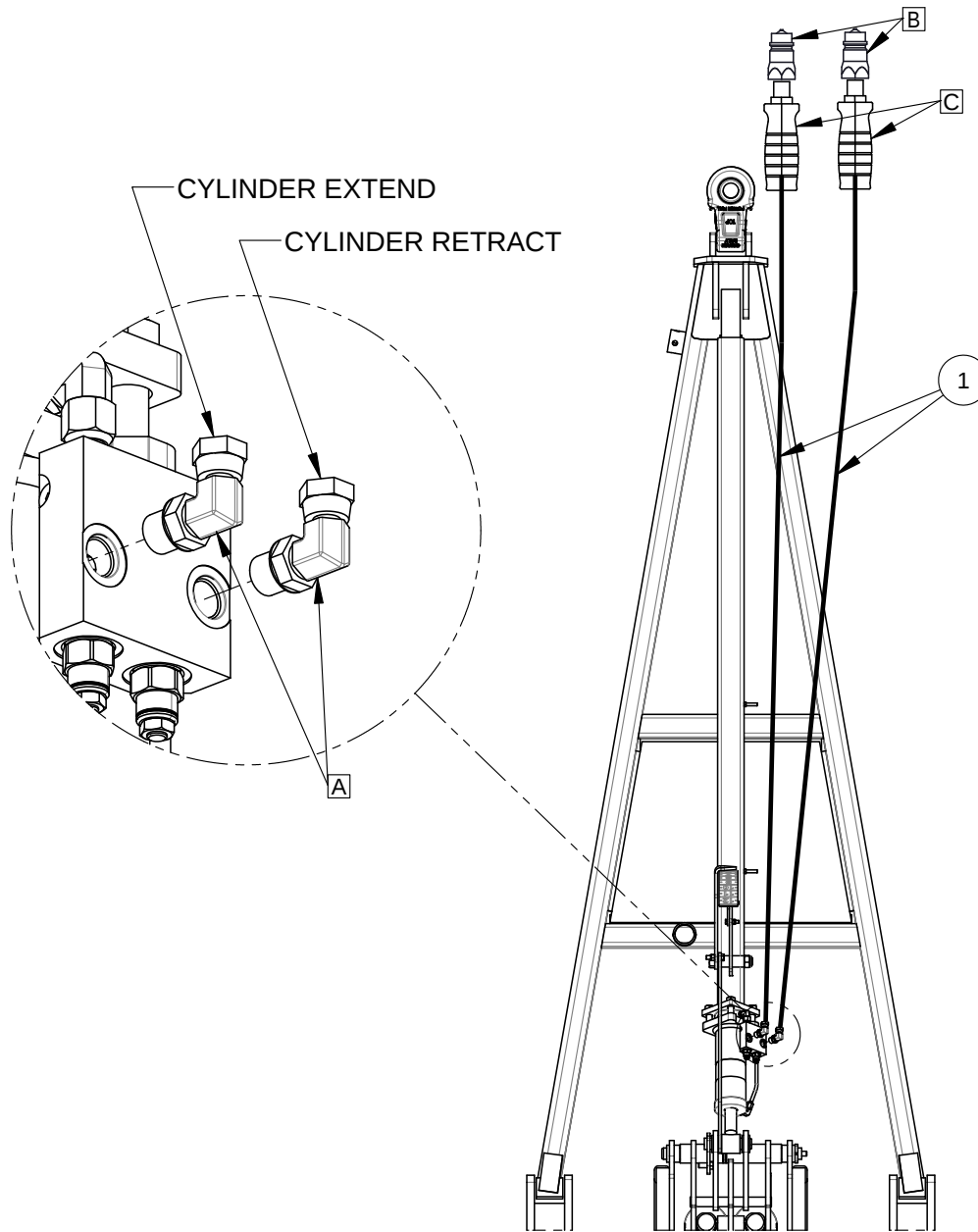


SECTION VIEW
AT CYLINDER
ROD END



ASSEMBLED VIEW, OPPOSITE HAND

Hydraulic Tongue Hose Routing

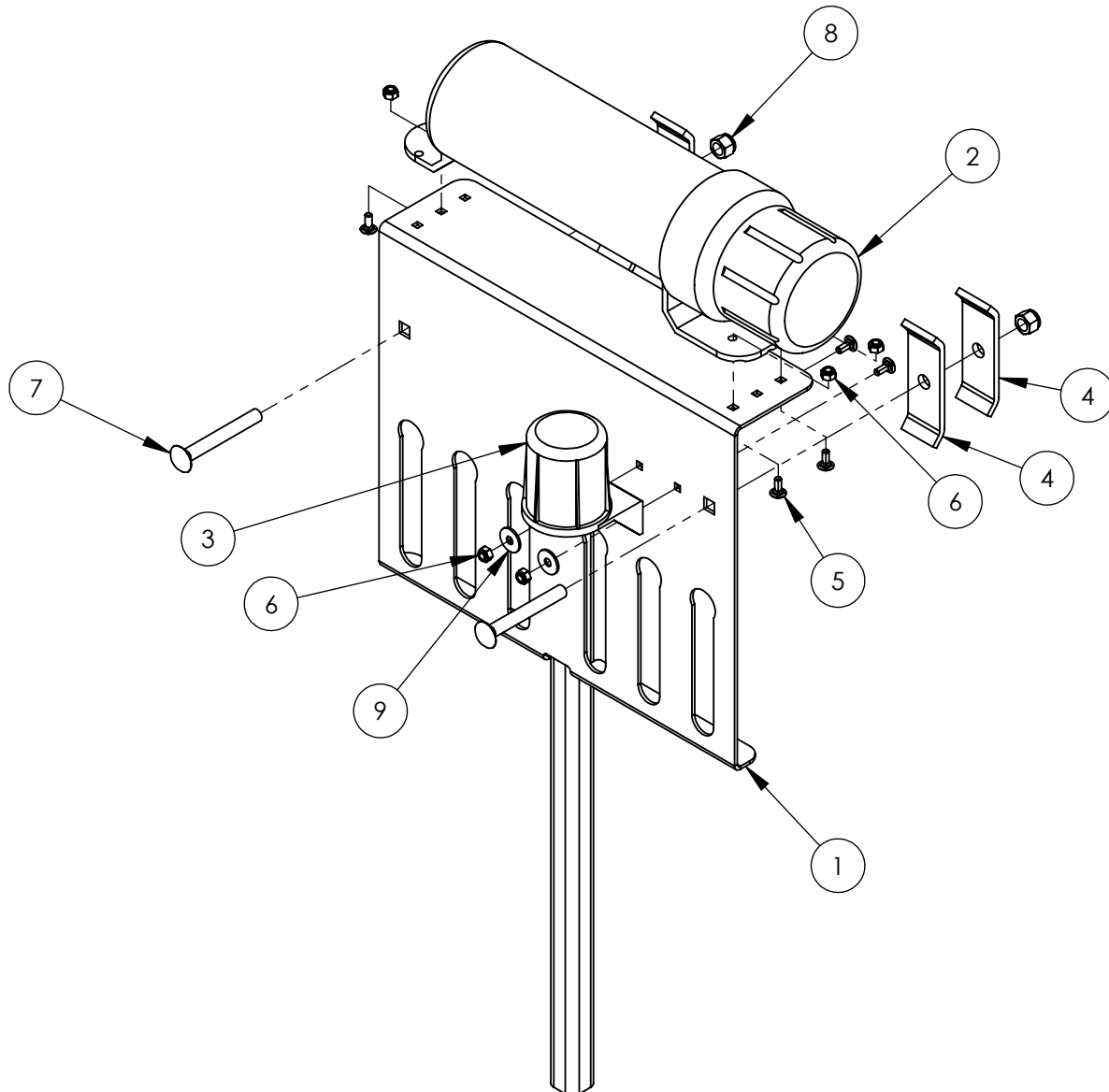


LABEL	QTY	HOSE SIZE	ENDS (ALL NPT MALE)	LENGTH	FROM	TO
1	2	3/8"	3/8" - 1/2"	15'	TONGUE TURNBUCKLE CYLINDER	TRACTOR

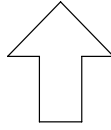
ITEM	QTY	PART NO.	DESCRIPTION
A	2	H951586	1/2" ORB M TO 3/8" NPT F SWIVEL 90 DEG ELBOW
B	2	H80104P	1/2" NPT MALE PIONEER COUPLER
C	2	HG-PT23E23R21R	(PAIR OF BLACK / BLACK-GREY HOSE GRIPS (WITH 1/2" NPT M - F)

Telescope Mount Hose Holder

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	A60104	OPERATOR STATION/HOSE HOLDER
2	1	G106	HD OPERATORS MANUAL HOLDER
3	1	GL11750	LIGHT PLUG HOLDER - PLASTIC
4	4	P0160B	HOSE CLAMP 4"
5	5	BC0205	10-24 x 1/2" A307A LOW CARBON ZINC CARRIAGE BOLT
6	5	BN02L	#10-24 NYLOCK NUT
7	2	BC0630	3/8"NC x 3" LG. CARRIAGE BOLT
8	2	BN06L	3/8"-16NC NYLOCK NUT
9	2	BF04	1/4" FLATWASHER



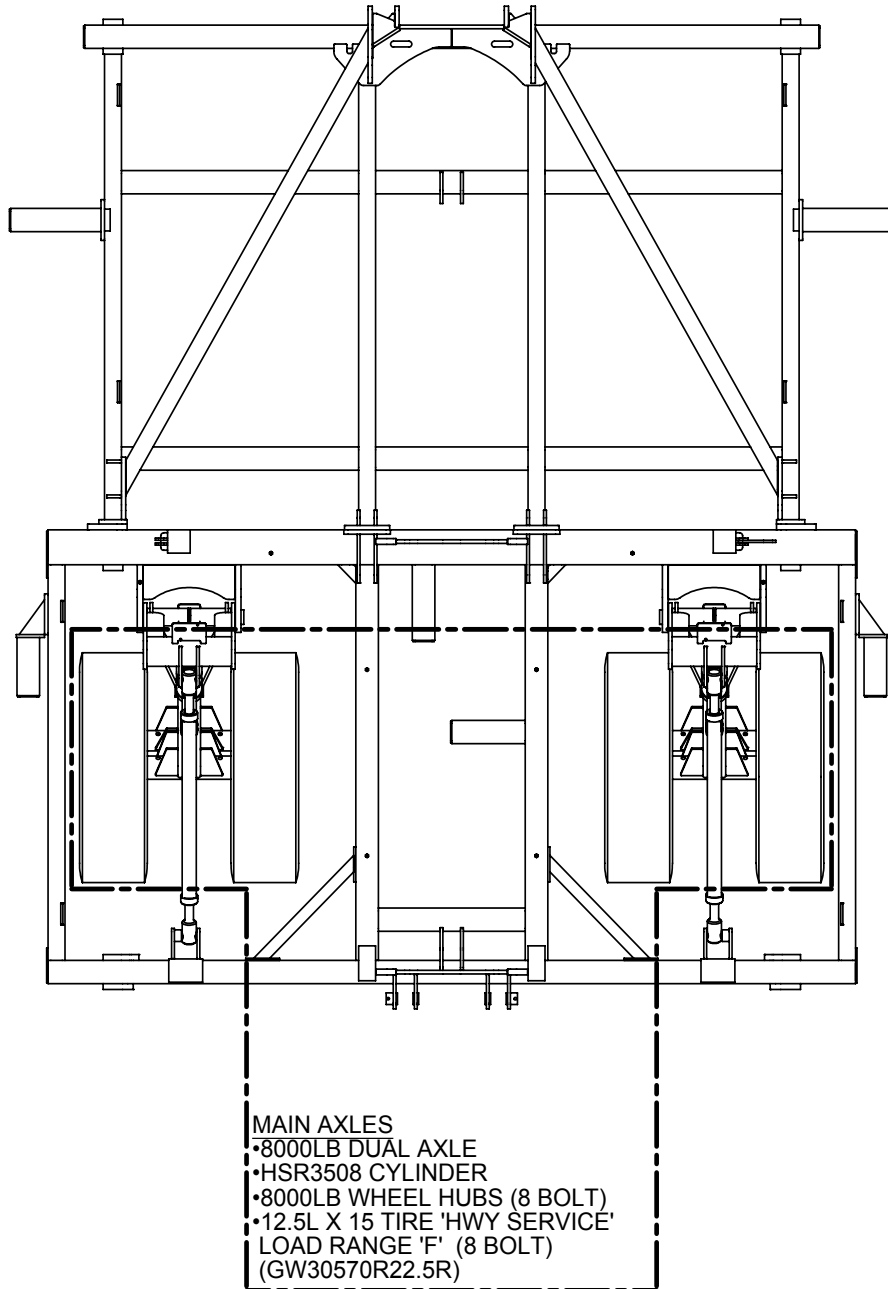
12ft Wheel and Axle Layout



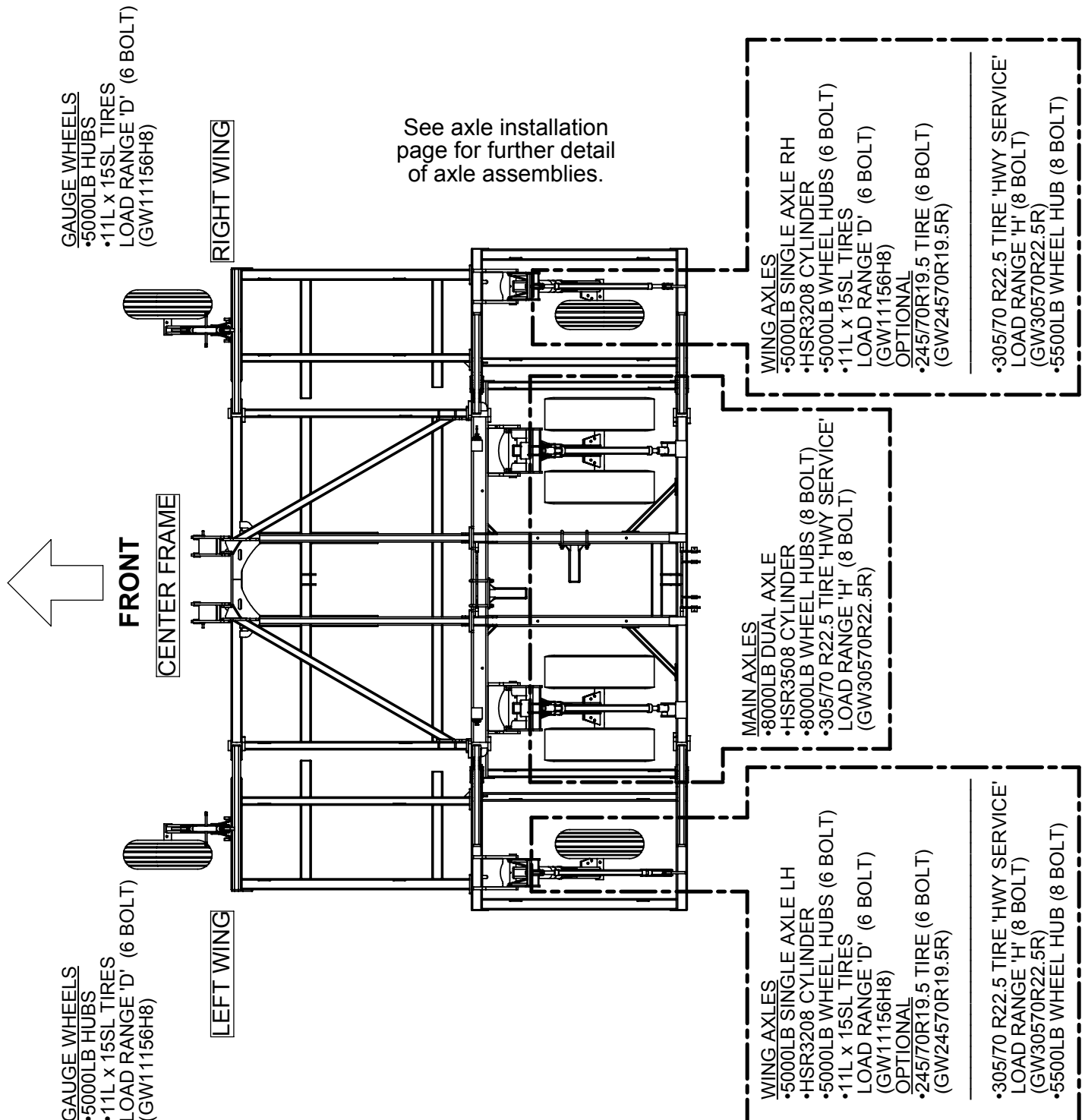
FRONT

CENTER FRAME

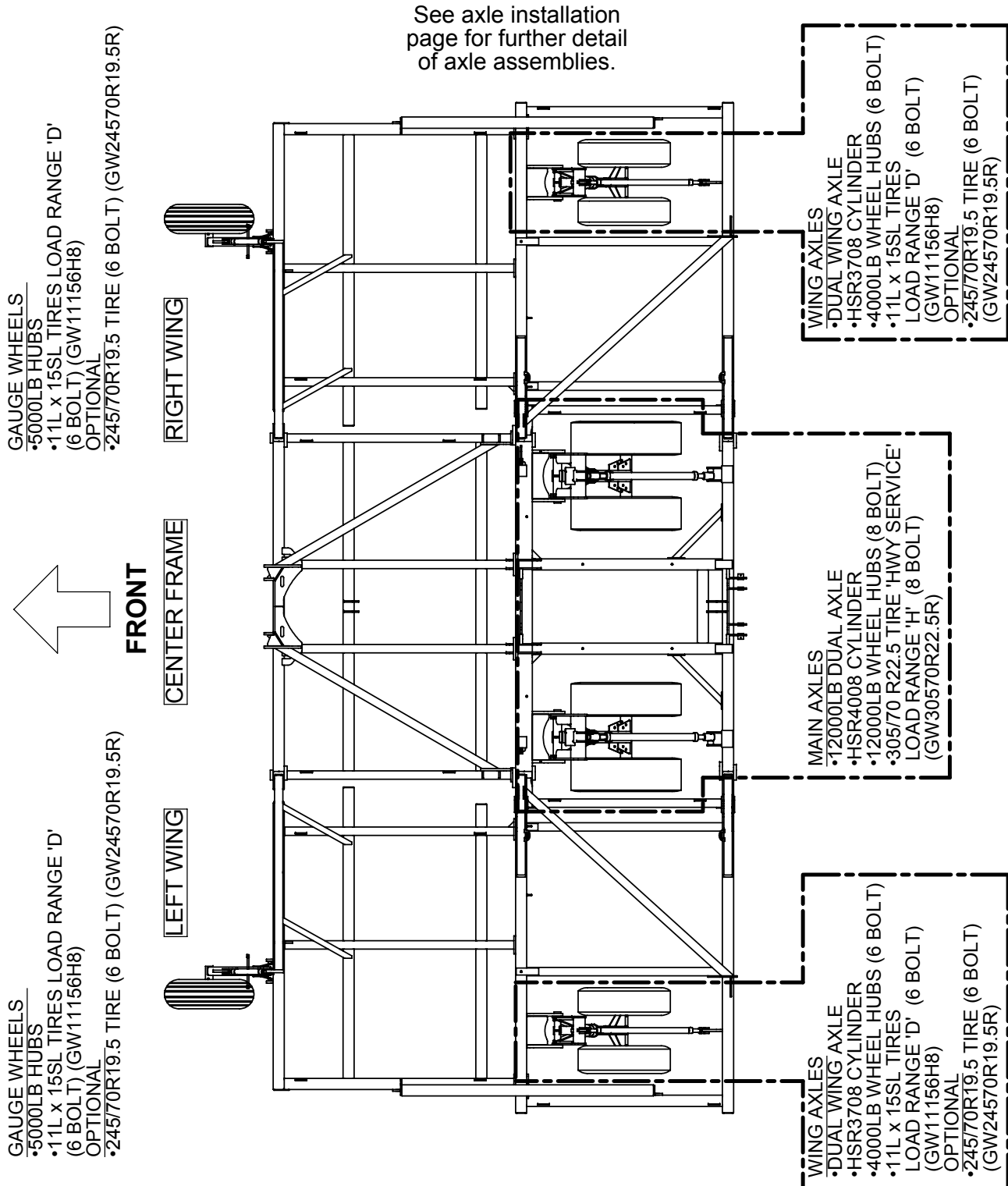
See axle installation
page for further detail
of axle assemblies.



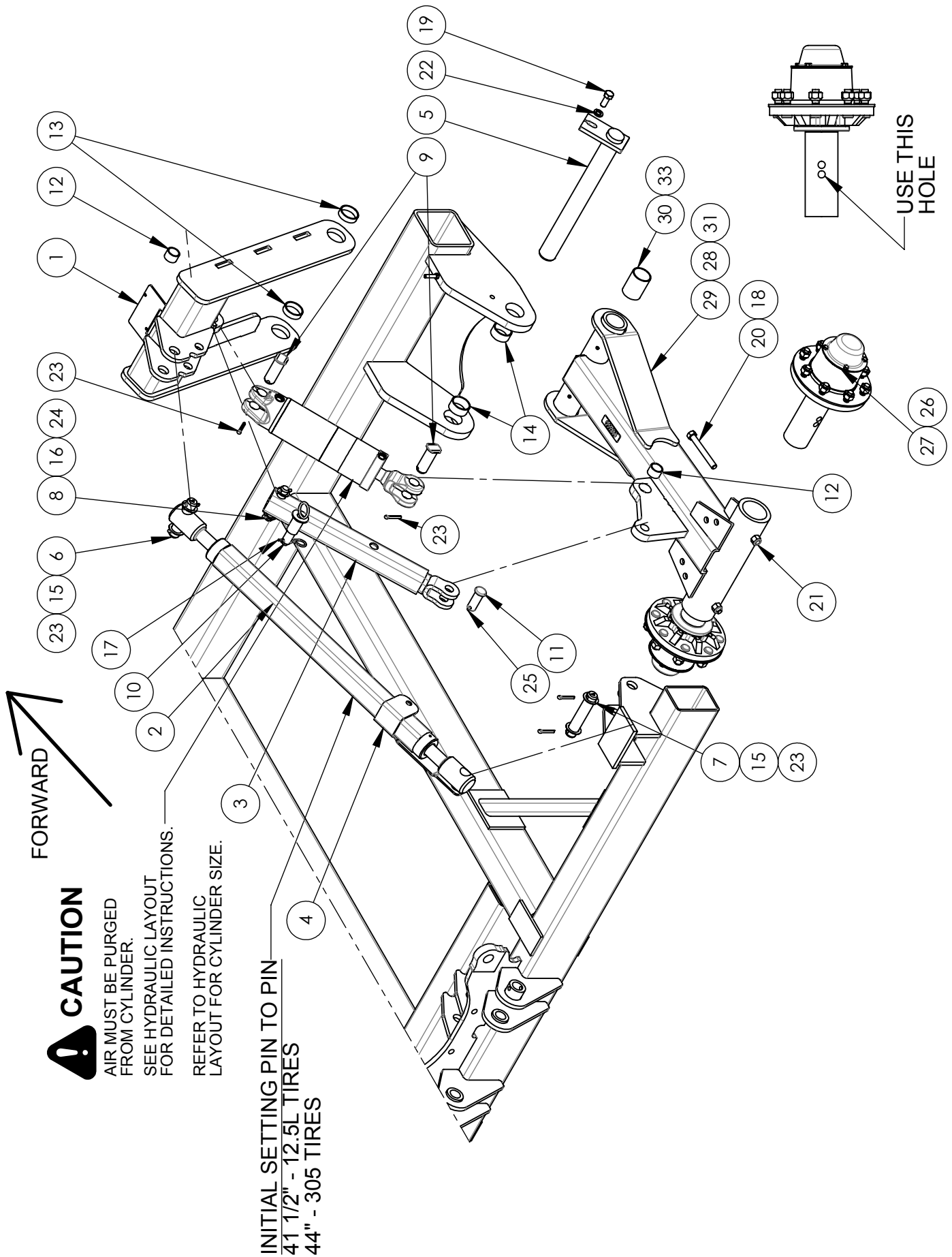
19ft Wheel and Axle Layout



22ft - 29ft Wheel and Axle Layout



Mainframe Axle Installation



Mainframe Axle Installation

ITEM	12FT, 16FT & 19FT	22FT & 29FT	PART NO.	DESCRIPTION
1	2	2	T00343	MAIN FRAME AXLE TOWER - FOR LONG 2" PIN
2	2	2	A60127	33" TUBE 2 1/2" TURNBUCKLE
3	2	2	C50010	TRANSPORT LOCK ASSEMBLY
4	2	2	C10716	2 1/2" TURNBUCKLE LOCK
5	2	2	GPH3201958F	2" x 19 5/8" LG. AXLE PIN - HARDENED
6	2	2	GP2000512A05	1 1/4" x 5 1/2" PIN - 2 HOLES
7	2	2	GPH2000612A06	1 1/4" x 6 1/2" HARDENED PIN - 2 HOLES
8	2	2	GP16005A05	PIN 1" DIA. x 5" LG. - 2 HOLES
9	4	4	GPHF2000312H05	1 1/4" x 3 1/2" SHOULDER PIN HARDENED W/ FLATS
10	2	2	GP1600414C04	1" x 4 1/4" RING & WASHER PIN
11	2	2	GP1600258H04	PIN 1" DIA. x 2 5/8" LG. WITH HEAD
12	4	4	GBB150125100	1 1/2" x 1 1/4" x 1" LG. HARD BUSHING
13	4	4	GBB225200062	2 1/4" x 2" x 5/8" LG. HARD BUSHING
14	4	4	GBB225200100	2 1/4" x 2" x 1" LG. HARD BUSHING
15	8	8	GM30	1 1/4" MACHINE BUSHING
16	4	4	GM26	1" MACHINE BUSHING
17	2	2	GHP9	#9 HAIR PIN
18	4	-	B1045	5/8 x 4 1/2" HEX BOLT GR 5
19	2	2	B1015	5/8" NC x 1 1/2" LG HEX BOLT GR. 5 PLATED
20	-	4	B1050	5/8"NC x 5" LG HEX BOLT GR.5 PLATE
21	4	4	BN10L	5/8" NYLOCK NUT NC
22	2	2	BL10	5/8" LOCKWASHER
23	12	12	BSC0520	5/16" x 2" COTTER PIN
24	4	4	BSC0515	5/16" x 1 1/2" COTTER PIN
25	2	2	BSC0415	1/4" x 1 1/2" COTTER PIN
26	4	-	GW8000A	8000 lb GREASABLE HUB AND 14" SPINDLE ASSY
27	-	4	GW12000A	12000 LB HUB AND 15" SPINDLE ASSEMBLY
28	2	-	C00254	8,000LB DUAL AXLE - 31.5"
29	-	2	C00256	12,000 LB DUAL AXLE - 31.5"
30	4	4	GBB225200300	2 1/4" x 2" x 3" LG. HARD BUSHING
31	2	-	C00196	8,000LB DUAL AXLE - 31.5"
32	-	2	C00197	12,000 LB DUAL AXLE - 31.5"
33	4	4	GBB213200200	2 1/8" x 2" x 2" LG. HARD BUSHING

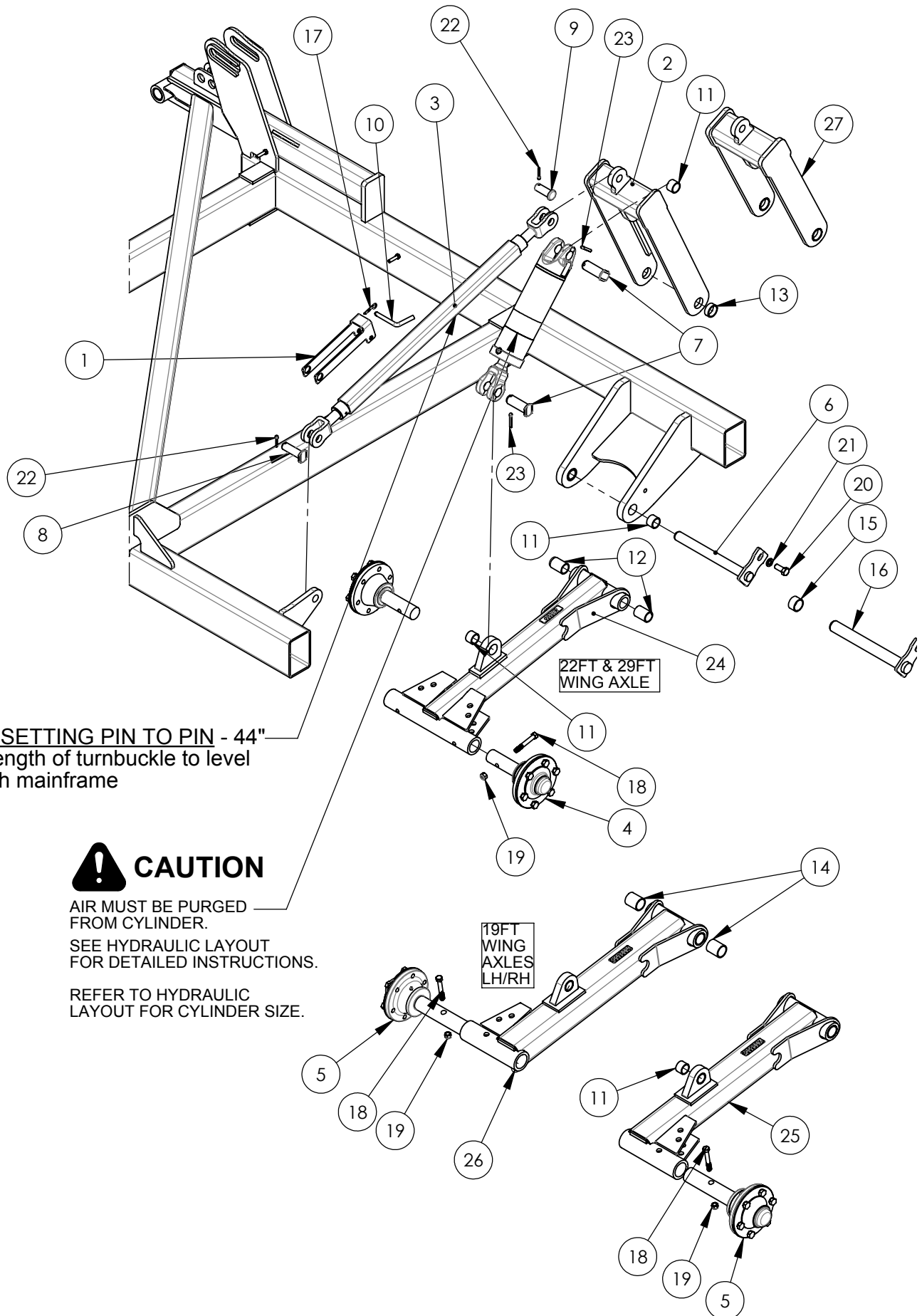


CAUTION

AIR MUST BE PURGED FROM CYLINDER.
SEE HYDRAULIC LAYOUT FOR DETAILED INSTRUCTIONS.
REFER TO HYDRAULIC LAYOUT FOR CYLINDER SIZE.

* BUSHING SIZE SPECIFIC TO AXLE PART NUMBER

Wing Axle Installation



Wing Axle Installation

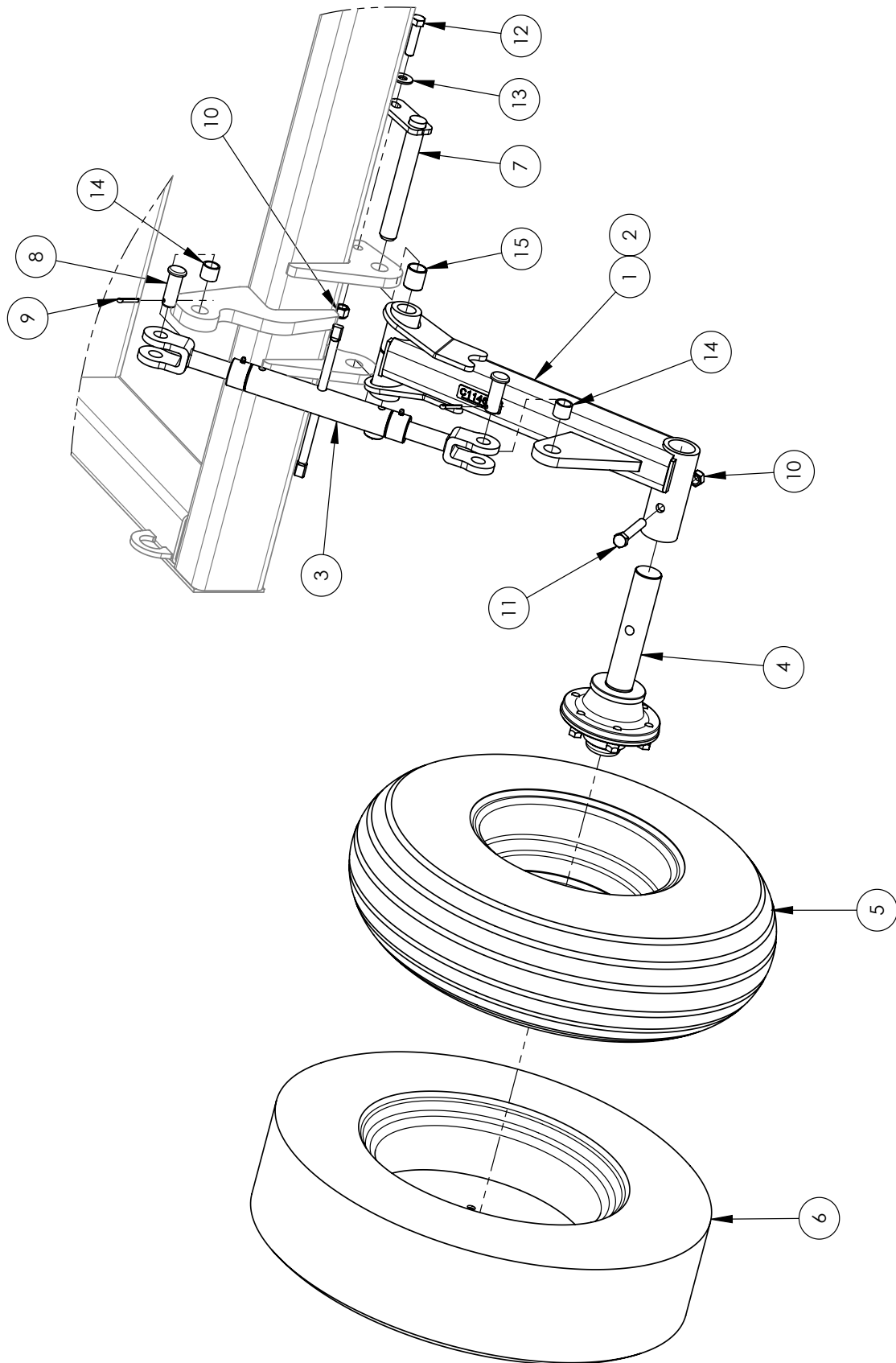
ITEM	19FT	22FT & 29FT	PART NO.	DESCRIPTION
1	2	2	FL00051	TURNBUCKLE LOCK
2	-	2	T00388	SECONDARY WING AXLE TOWER
3	2	2	A60146	33" TUBE 2" WING TURNBUCKLE
4	-	4	GW4000A	4000 LB HUB AND SPINDLE ASSEMBLY
5	2	-	GW5000A	5000 LB HUB AND SPINDLE ASSEMBLY
6	-	2	GPH2001314F	1 1/4" x 13 1/2" LG. AXLE PIN - HARDENED
7	4	4	GPHF2000312H05	1 1/4" x 3 1/2" SHOULDER PIN HARDENED W/ FLATS
8	2	2	GPHF1600338H04	1" x 3 3/8" SHOULDER PIN HARDENED W/FLATS
9	2	2	GP1600258H04	PIN 1" DIA. x 2 5/8" LG. WITH HEAD
10	2	2	GP0800312L03	1/2" x 3 1/2" L - PIN
11	4	8	GBB150125100	1 1/2" x 1 1/4" x 1" LG. HARD BUSHING
12	-	4	GBB150125200	1 1/2" x 1 1/4" x 2" LG. HARD BUSHING
13	4	-	GBB175150062	1 3/4" x 1 1/2" x 5/8" LG. HARD BUSHING
14	4	-	GBB175150200	1 3/4" x 1 1/2" x 2" LG. HARD BUSHING
15	4	-	GBB175150100	1 3/4" x 1 1/2" x 1" LG. HARD BUSHING
16	2	-	GPH2401312F	1 1/2" x 13 7/8" LG. AXLE PIN - HARDENED
17	2	2	GHP11	#11 HAIR PIN
18	2	4	B0835	1/2 X 3 1/2" BOLT
19	2	4	BN08L	1/2" NYLOCK NUT NC
20	2	2	B1015	5/8" NC x 1 1/2" LG. HEX BOLT GR. 5
21	2	2	BL10	5/8" LOCKWASHER
22	4	4	BSC0415	1/4" x 1 1/2" COTTER PIN
23	4	4	BSC0520	5/16" x 2" COTTER PIN
24	-	2	C00257	DUAL WING AXLE - 1.25" PIN, STEEL BUSHINGS
25	1	-	C00266L	5000LB SINGLE AXLE
26	1	-	C00266R	5000LB SINGLE AXLE
27	2	-	C10739	700-1 PRIMARY WING AXLE TOWER



CAUTION

AIR MUST BE PURGED FROM CYLINDER.
SEE HYDRAULIC LAYOUT FOR DETAILED INSTRUCTIONS.
REFER TO HYDRAULIC LAYOUT FOR CYLINDER SIZE.

Gauge Wheel Installation



Gauge Wheel Installation

ITEM	QTY	PART NO.	DESCRIPTION
1	1	C11469R	5136 GAUGE WHEEL ARM - RH
2	1	C11469L	5136 GAUGE WHEEL ARM - LH
3	2	A50010	TURNBUCKLE
4	2	GW5000A	5000 LB HUB AND SPINDLE ASSEMBLY
5	2	GW11156H8	11L x 15SL x 6 BOLT WHEEL & TIRE (LOAD RANGE D)
+ 6	2	GW24570R19.5R	245/70R19.5 6 BOLT WHEEL ASSEMBLY - RECAPPED
7	2	GPH2000912F	1 1/4" x 9 1/2" LG PLATE PIN - HARDENED
8	4	GP1600258H04	PIN 1" DIA. x 2 5/8" LG. WITH HEAD
9	4	BSC0415	1/4" x 1 1/2" COTTER PIN
10	4	BN10L	5/8" NYLOCK NUT NC
11	2	B1040	5/8"NC x 4" LG. HEX BOLT
12	2	B1025	5/8" NC x 2 1/2" LG. HEX BOLT GR. 5
13	2	BF10	5/8" FLAT WASHER
14	4	GBB125100100	1 1/4" x 1" x 1" LG. HARD BUSHING
15	4	GBP202224	1 1/4" ID x 1 13/32" OD x 1 1/2" LG. PLASTIC

+ TIRE OPTION



12000LB Hub and Spindle Assembly

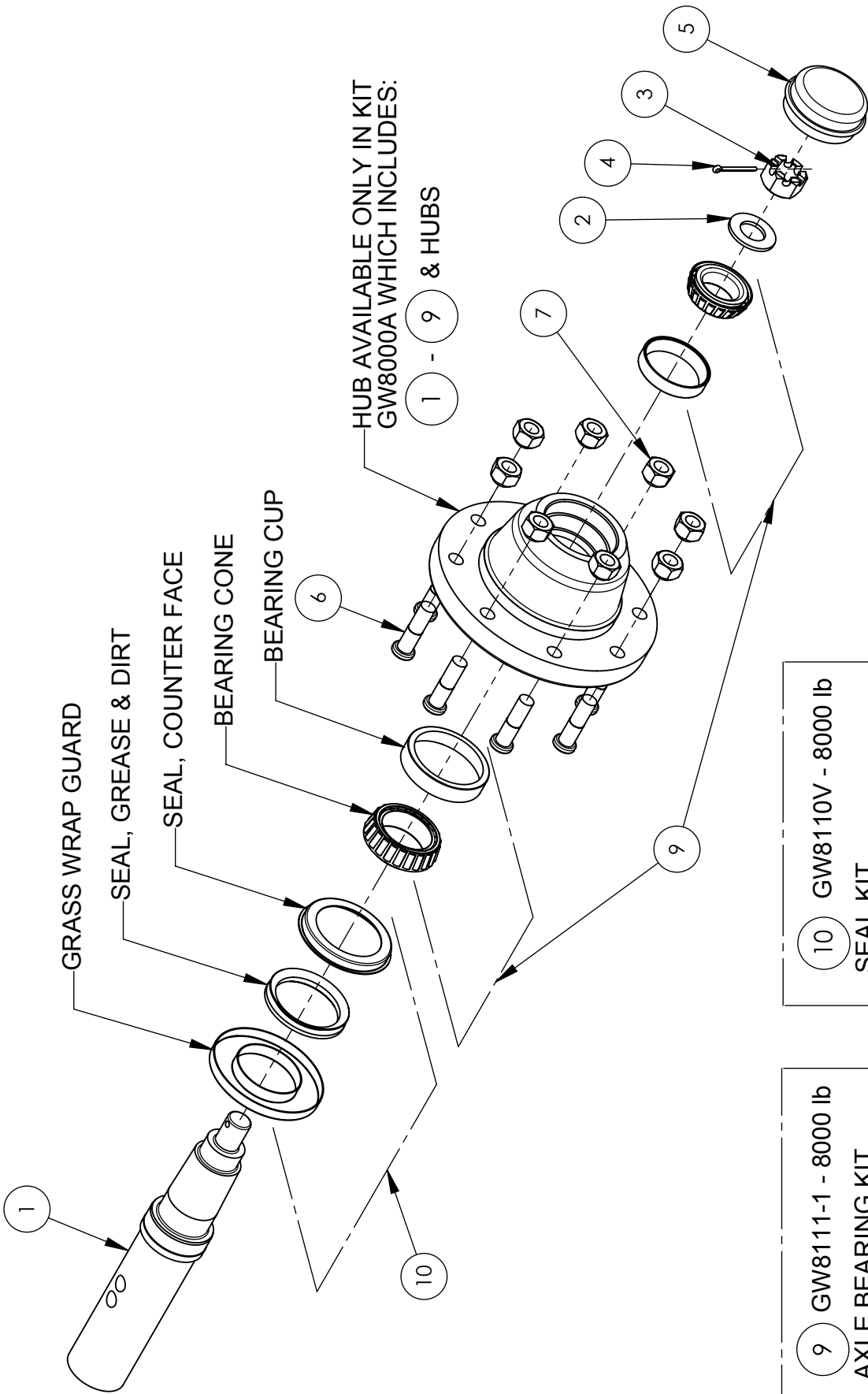
ITEM	QTY	PART NO.	DESCRIPTION
1	1	GW12015	12000 LB SPINDLE - 15" LONG
2	1	BN28SF	1 3/4" NF SLOTTED FLANGE NUT
3	1	BSR0527	5/16" x 2 3/4" ROLL PIN
4	1	GW12112S	12000 LB DUST CAP SEAL
5	1	GW14112	14,000 LB DUST CAP
6	4	B0505	5/16"NC x 1/2" LG. HEX BOLT
7	8	BW10	5/8" WHEEL LUG NUT
8	8	BW1020	5/8" x 2" PRESS-IN WHEEL STUD
9	1	GW12111-1	12000 LB BEARING WITH V-SEAL KIT
10	1	GW12110V	10000/12000 LB V-SEAL KIT

Entire assembly available as part number GW12000A (includes hub, spindle, bearings, seal, dust cap, and hardware).



NOTE: TIGHTEN LUG NUTS ONCE PER DAY FOR FIRST WEEK

8000LB Hub and Spindle Assembly



10 GW8110V - 8000 lb
SEAL KIT

9 GW8111-1 - 8000 lb
AXLE BEARING KIT

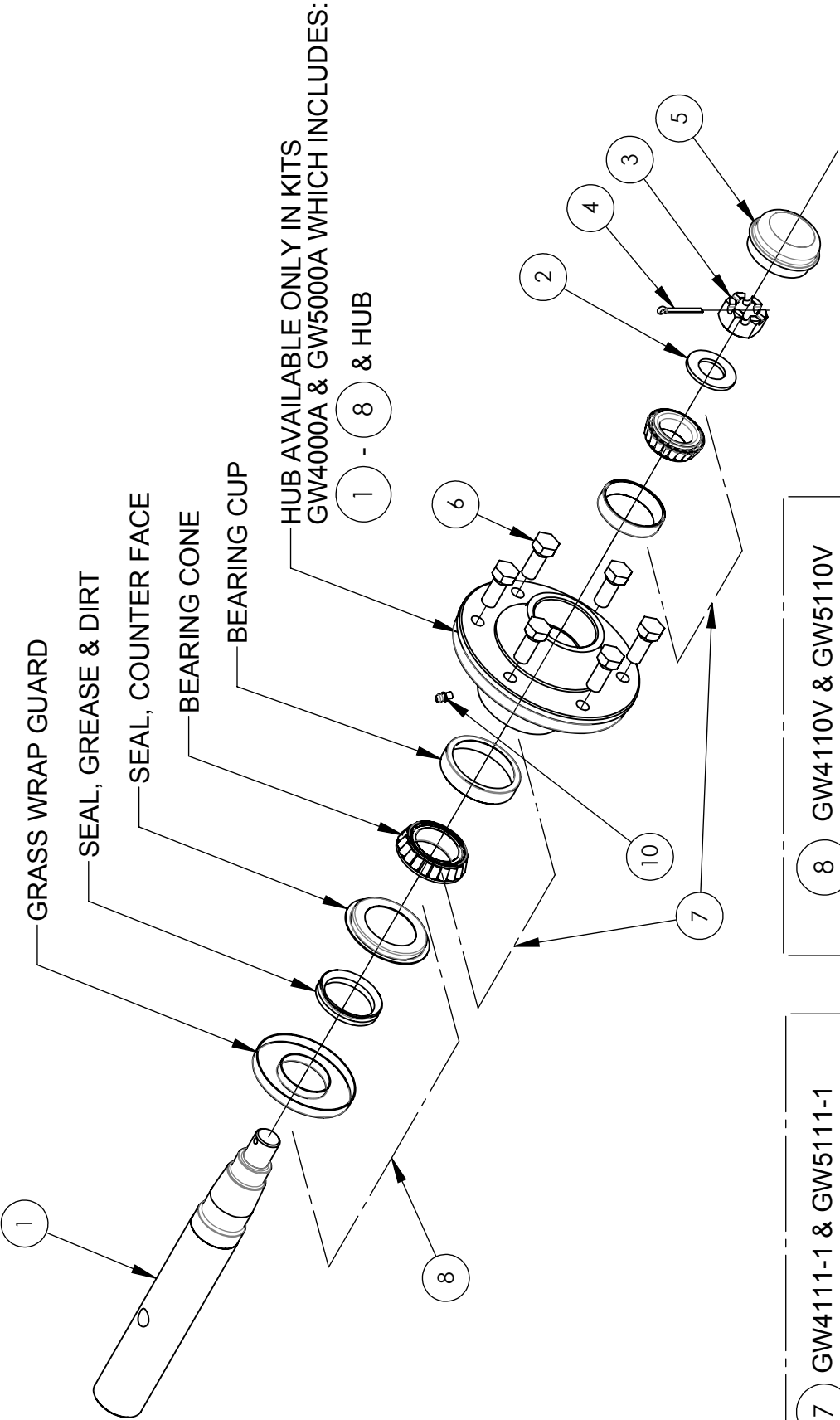
GREASE	
PART NUMBER	GREASE & SEALANT TUBES
G741	KENDALL SHP #2 GREASE (TUBE @ 425g)
G742	KENDALL SHP #2 GREASE (CASE, 10 @ 425g)

8000LB Hub and Spindle Assembly

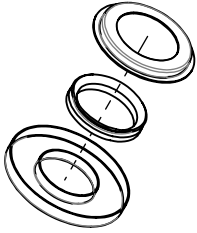
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	GW8014	SPINDLE, 8 000 LBS.
2	1	GW8108	1" SPINDLE WASHER
3	1	BN16SF	1" NF SLOTTED HEX NUT
4	1	BSC0317	3/16" x 1 3/4" COTTER PIN
5	1	GW8112	8000 DUST CAP
6	8	BW1020	5/8" x 2" PRESS-IN WHEEL STUD
7	8	BW10	5/8" WHEEL LUG NUT
9	1	GW8111-1	8000 LB BEARING KIT
10	1	GW8110V	8000 LB V-SEAL KIT

Entire assembly available as part number GW8000A (includes hub, spindle, bearings, seal, dust cap, and hardware).

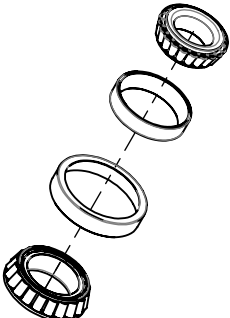
4,000LB & 5,000LB Hub and Spindle Assembly



8 GW4110V & GW5110V
4000/5000 lb SEAL KIT



7 GW4111-1 & GW5111-1
4000/5000 lb AXLE BEARING KIT



GREASE	
PART NUMBER	GREASE & SEALANT TUBES
G741	KENDALL SHP #2 GREASE (TUBE @ 425g)
G742	KENDALL SHP #2 GREASE (CASE: 10 @ 425g)

4,000LB & 5,000LB Hub and Spindle Assembly

5000 lb Hub and Spindle Assembly

ITEM	QTY	PART NO.	DESCRIPTION
1	1	GW5014	5000/5500 LB SPINDLE-14 IN. LG
2	1	BF16-9	1" HARD SAE FLAT WASHER GR.9 PLATED
3	1	BN16SF	1" NF SLOTTED HEX NUT
4	1	BSC0317	3/16" x 1 3/4" COTTER PIN
5	1	GW5112	5000/5500 LB DUST CAP
6	6	BW0912	9/16"-18 x 1 1/4" WHEEL BOLT
7	1	GW5111V	5000/5500 LB BEARING KIT
8	1	GW5110V	5000/5500 LB V-SEAL KIT
10	1	GF641	1/4"-28NF GREASE FITTING

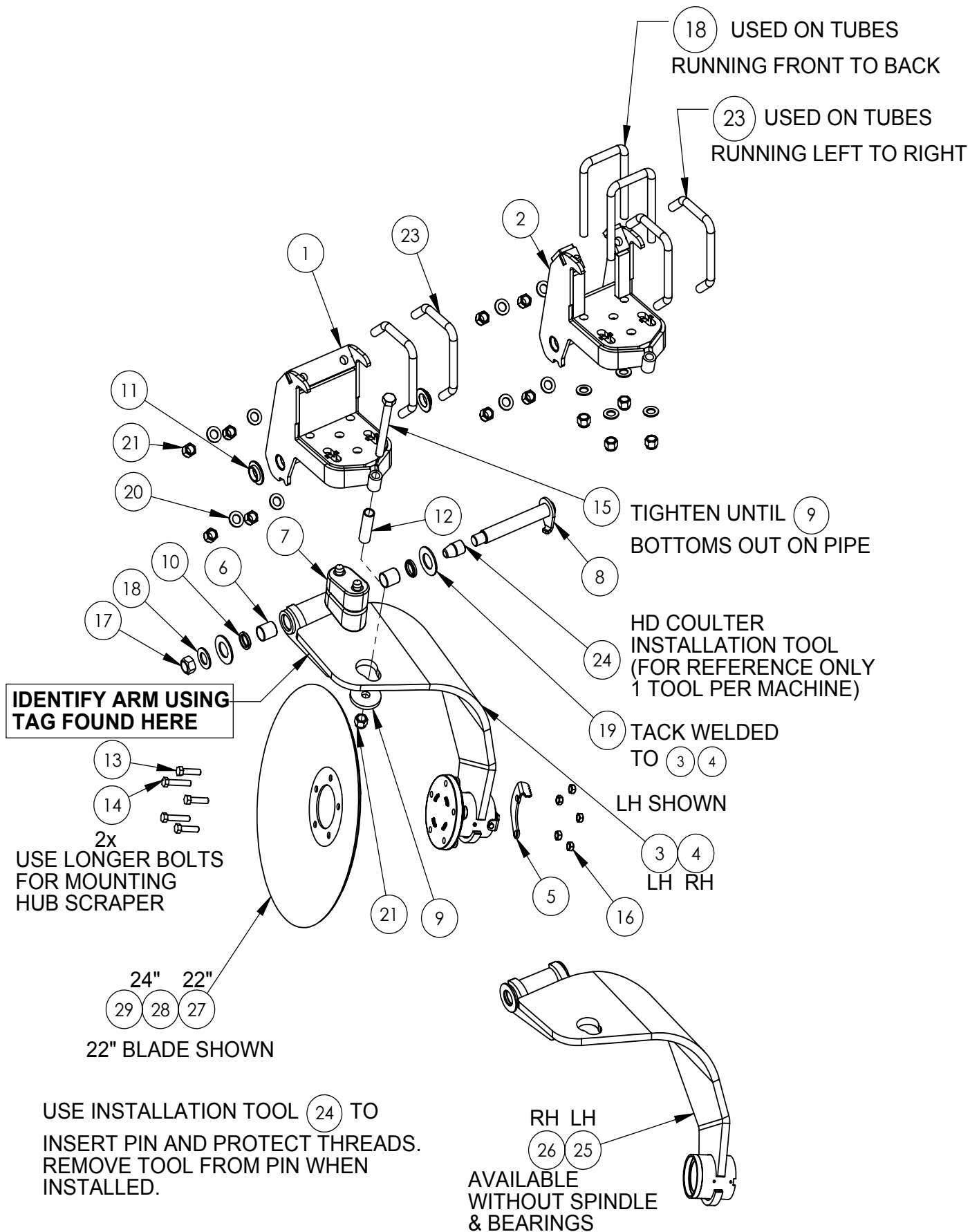
Complete assembly available as part number GW5000A (includes hub, spindle, bearings, seals, dust cap, and hardware).

4000 lb Hub and Spindle Assembly

ITEM	QTY	PART NO.	DESCRIPTION
1	1	GW4010	4000 LB SPINDLE - 10" LG.
2	1	BF16HS	1" HARD STRUCTURAL WASHER
3	1	BN16JS	1"-14NF SLOTTED JAM NUT
4	1	BSC0317	3/16" x 1 3/4" COTTER PIN
5	1	GW4112	4000 LB DUST CAP
6	6	BW0912	9/16"-18 x 1 1/4" WHEEL BOLT
7	1	GW4111V	4000LB BEARING KIT
8	1	GW4110V	4000 LB V-SEAL KIT
10	1	GF641	1/4"-28NF GREASE FITTING

Complete assembly available as part number GW4000A (includes hub, spindle, bearings, seals, dust cap, and hardware).

Double Angle Concave Blade Assembly

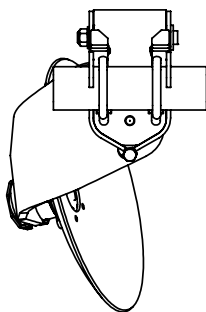


Double Angle Concave Blade Assembly

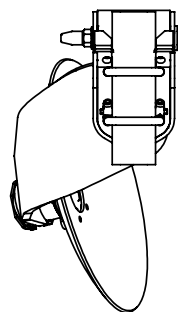
ITEM	QTY	PART NO.	DESCRIPTION
1	1	C90425	HD COULTER STANDARD MOUNT SHORT PIPE
2	1	C90426	HD COULTER STRADDLE MOUNT SHORT PIPE
3	1	C90356L	LARGE ANGLE ARM ASSEMBLY LH
4	1	C90356R	LARGE ANGLE ARM ASSEMBLY RH
5	1	C90361	INVERTED HUB SCRAPER
6	2	GBP202224	1 1/4" ID x 1 13/32" OD x 1 1/2" LG. PLASTIC
7	1	GRC00101-65	RUBBER COMPRESSION SPRING FOR RTS COULTER
8	1	GPH20009916F	1 1/4" x 9 1/4" LG. HD COULTER PIVOT PIN
9	1	FL01105	HD COULTER STOPPER
10	2	SHD-1250	1 1/4" ROD WIPER
11	2	C90274	HD COULTER MOUNT PIVOT BUSHING
12	1	ZD101453	3/4" ERW PIPE x 3 1/2" LG.
13	3	B0820	1/2" x 2" HEX BOLT
14	2	B0825	1/2" x 2 1/2" HEX BOLT
15	1	B1270	3/4 x 7" BOLT
16	5	BN08S	1/2"-13NC STOVER LOCK NUT
17	1	BN16C	1"- UNC STOVER LOCKNUT
18	1	BF16HS	1" HARD STRUCTURAL WASHER
19	2	BF22S	1 3/8" HARDENED STRUCTURAL WASHER
20	4	BF12HS	3/4" HARD STRUCTURAL WASHER
21	5	BN12L	3/4" NC NYLOCK NUT
22	2	BU1246	U-BOLT 3/4" x 4" x 7 1/2" LG.
23	2	BUV1246	3/4" V-BOLT TOP MOUNT
24	1	C90276	HD COULTER PIVOT PIN INSTALLATION TOOL
25	1	C90372L	INVERTED HUB ARM ASSY. LARGE ANGLED LH
26	1	C90372R	INVERTED HUB ARM ASSY. LARGE ANGLED RH
27	1	CT512250	22" SMOOTH 760 RADIUS (Shallow C.B.) 5.0MM (5 bolt)
28	1	CT503059	24" SMOOTH CONCAVE 1/4"
29	1	CT503059N	24" NOTCHED CONCAVE 1/4"

DOUBLE ANGLE CONCAVE BLADE COULTER ASSEMBLY

Standard Mount	Right Hand	PART# C90379R INCLUDES ITEMS (1) TO (18) EXCLUDING ITEM (2) (3)
	Left Hand	PART# C90379L INCLUDES ITEMS (1) TO (18) EXCLUDING ITEM (2) (4)
Straddle Mount	Right Hand	PART# C90376R INCLUDES ITEMS (2) TO (18) EXCLUDING ITEM (3)
	Left Hand	PART# C90376L INCLUDES ITEMS (2) TO (18) EXCLUDING ITEM (4)

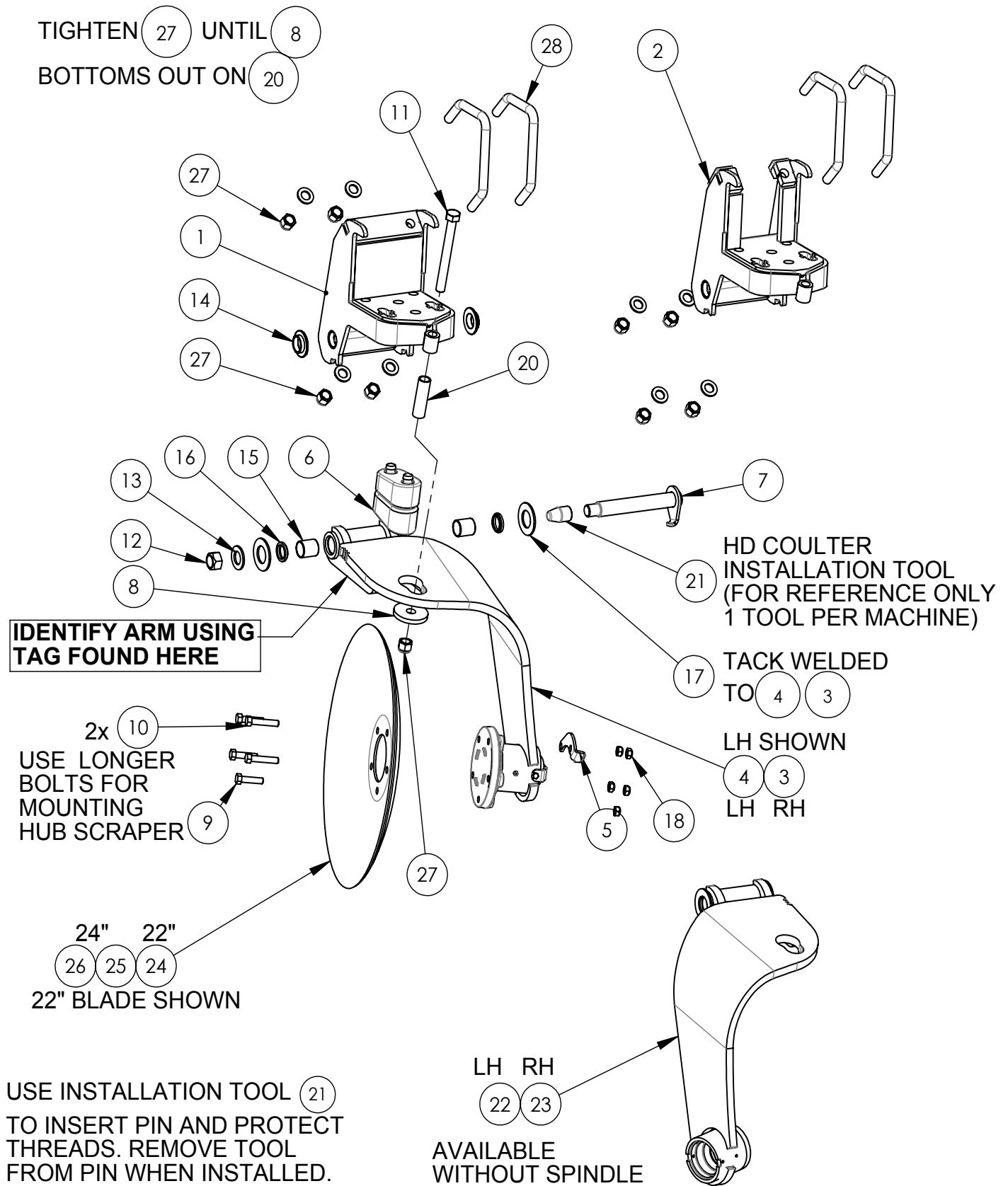


ON TUBES RUNNING
LEFT TO RIGHT USE
BUV1246 (23)



ON TUBES RUNNING
FRONT TO BACK USE
BU1246 (26)

Single Angle Concave Blade Assembly

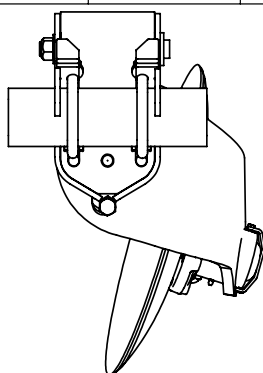


Single Angle Concave Blade Assembly

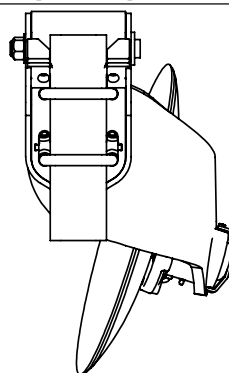
ITEM	QTY	PART NO.	DESCRIPTION
1	1	C90425	HD COULTER STANDARD MOUNT SHORT PIPE
2	1	C90426	HD COULTER STRADDLE MOUNT SHORT PIPE
3	1	C90357R	REGULAR ANGLE ARM ASSEMBLY RH
4	1	C90357L	REGULAR ANGLE ARM ASSEMBLY LH
5	1	C90361	INVERTED HUB SCRAPER
6	1	GRC00101-65	RUBBER COMPRESSION SPRING FOR RTS COULTER
7	1	GPH20009916F	1 1/4" x 9 1/4" LG. HD COULTER PIVOT PIN
8	1	FL01105	HD COULTER STOPPER
9	3	B0820	1/2" x 2" HEX BOLT
10	2	B0825	1/2" x 2 1/2" HEX BOLT
11	1	B1270	3/4 x 7" BOLT
12	1	BN16C	1"- UNC STOVER LOCKNUT
13	1	BF16HS	1" HARD STRUCTURAL WASHER
14	2	C90274	HD COULTER MOUNT PIVOT BUSHING
15	2	GBP202224	1 1/4" ID x 1 13/32" OD x 1 1/2" LG. PLASTIC
16	2	SHD-1250	1 1/4" ROD WIPER
17	2	BF22S	1 3/8" HARDENED STRUCTURAL WASHER
18	5	BN08S	1/2"-13NC STOVER LOCK NUT
19	4	BF12HS	3/4" HARD STRUCTURAL WASHER
20	1	ZD101453	3/4" ERW PIPE x 3 1/2" LG.
21	1	C90276	HD COULTER PIVOT PIN INSTALLATION TOOL
22	1	C90373L	INVERTED HUB ARM ASSEMBLY. REGULAR ANGLE
23	1	C90373R	INVERTED HUB ARM ASSEMBLY. REGULAR ANGLE
24	1	CT512250	22" SMOOTH 760 RADIUS (Shallow C.B.) 5.0MM (5 bolt)
25	1	CT503059	24" SMOOTH CONCAVE 1/4"
26	1	CT503059N	24" NOTCHED CONCAVE 1/4"
27	5	BN12L	3/4" NC NYLOCK NUT
28	2	BUV1246	3/4" V-BOLT TOP MOUNT

SMALL ANGLE CONCAVE BLADE COULTER ASSEMBLY

Standard Mount	Right Hand	PART# C90380R INCLUDES ITEMS (1) TO (14) EXCLUDING ITEM (2) (4)
	Left Hand	PART# C90380L INCLUDES ITEMS (1) TO (14) EXCLUDING ITEM (2) (3)
Straddle Mount	Right Hand	PART# C90375R INCLUDES ITEMS (2) TO (14) EXCLUDING ITEM (4)
	Left Hand	PART# C90375L INCLUDES ITEMS (2) TO (14) EXCLUDING ITEM (3)

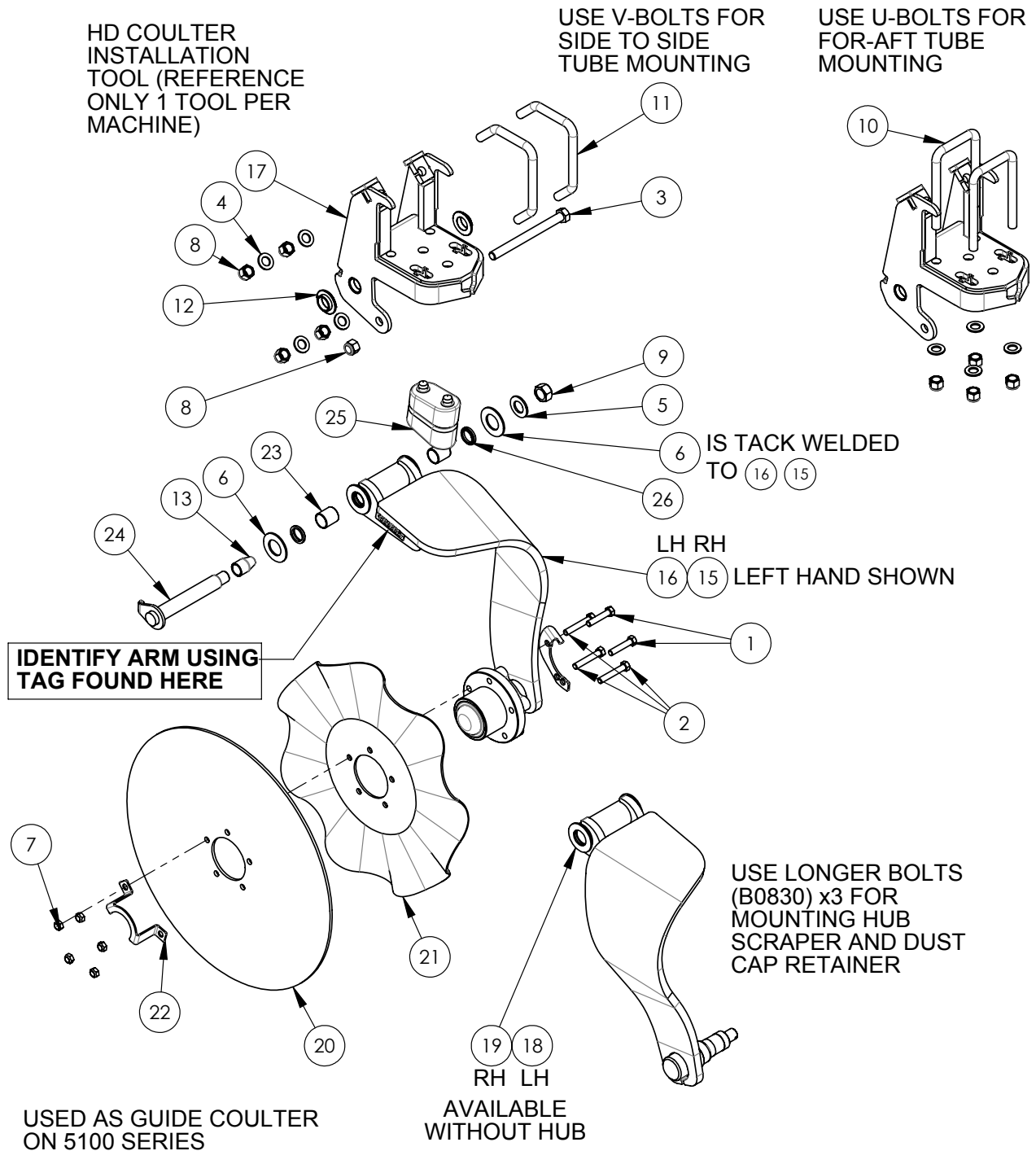


ON TUBES RUNNING
SIDE TO SIDE USE
BUV1246 (26)



ON TUBES RUNNING
FRONT TO BACK
USE BU1246 (27)

Wavy Coulter Assembly

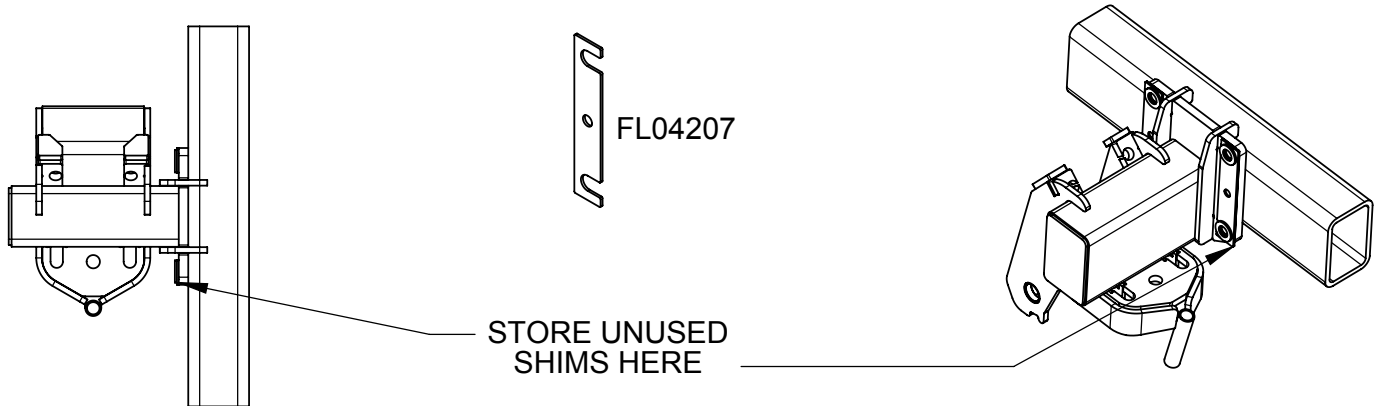


Wavy Coulter Assembly

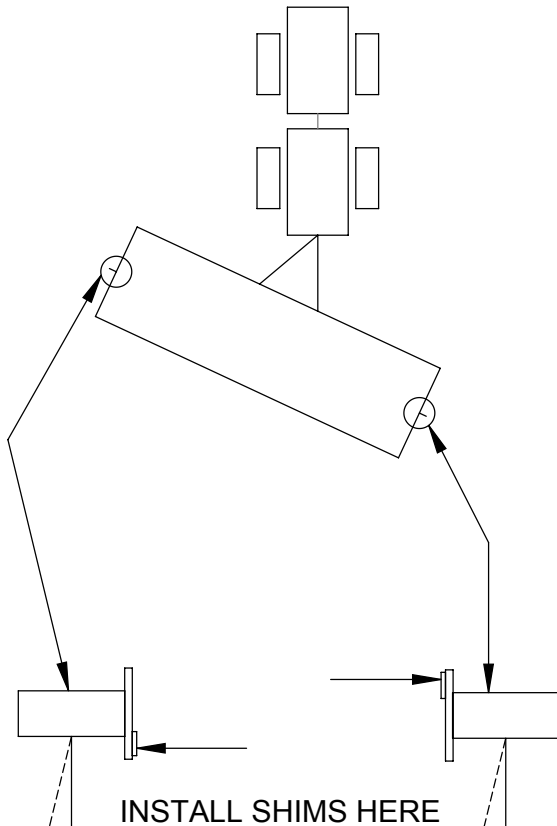
ITEM	QTY	PART NO.	DESCRIPTION
1	2	B0825	1/2" NC x 2 1/2" LG. HEX BOLT GR. 5
2	3	B0830	1/2"NC x 3" HEX BOLT
3	1	B1285	3/4 X 8 1/2" HEX BOLT GR.5
4	4	BF12HS	3/4" HARD STRUCTURAL WASHER
5	1	BF16HS	1" HARD STRUCTURAL WASHER
6	2	BF22S	1 3/8" HARDENED STRUCTURAL WASHER
7	5	BN08S	1/2"-13NC STOVER LOCK NUT
8	9	BN12L	3/4" NC NYLOCK NUT
9	1	BN16C	1"- UNC STOVER LOCKNUT
10	2	BU1246	U-BOLT 3/4" x 4" x 7 1/2" LG.
11	2	BUV1246	3/4" V-BOLT TOP MOUNT
12	2	C90274	HD COULTER MOUNT PIVOT BUSHING
13	1	C90276	HD COULTER PIVOT PIN INSTALLATION TOOL
14	1	C90313	HUB SCRAPER FOR 4 & 5 BOLT HUBS
15	1	C90393R	HD ARM W/ HUB AND BUSHINGS - RH
16	1	C90393L	HD ARM W/ HUB AND BUSHINGS - LH
17	1	C90391	HD COULTER STRADDLE MOUNT
18	1	C90392L	HD ARM W/O HUB AND BUSHINGS - LH
19	1	C90392R	HD ARM W/O HUB AND BUSHINGS - RH
20	1	CT50246	25" x 1/4" STRAIGHT COULTER (5-BOLT)
21	1	CT512208	22" COULTER BLADE 8 WAVE x 2-1/2" DEEP, 5mm THICK, 5 BOLT
22	1	FL02256	COULTER DUSTCAP RETAINER
23	2	GBP202224	1 1/4" ID x 1 13/32" OD x 1 1/2" LG. PLASTIC
24	1	GPH20009916F	1 1/4" x 9 1/4" LG. HD COULTER PIVOT PIN
25	1	GRC00101-65	RUBBER COMPRESSION SPRING FOR RTS COULTER
26	2	SHD-1250	1 1/4" ROD WIPER

Guide Coulter Shim Installation

SHIMS TO BE SET BY USER IN FIELD
 IF REQUIRED DUE TO MACHINE SKEWING
 INSTALL SHIMS TO STEER MACHINE
 (SEE IMAGES BELOW FOR INSTRUCTIONS)

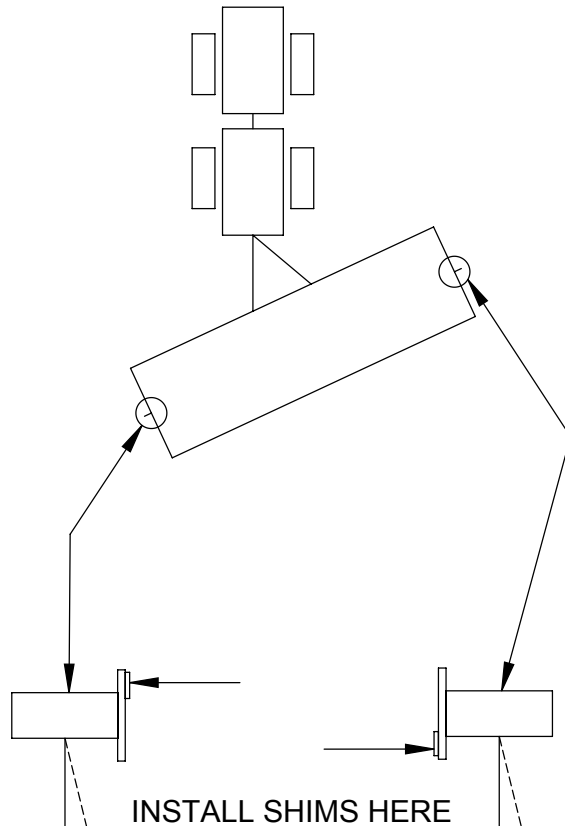


LEFT SKEW
(EXAGGERATED)



INSTALL SHIMS HERE
 BETWEEN THE GUIDE
 COULTER TOOL
 STUB AND FRAME

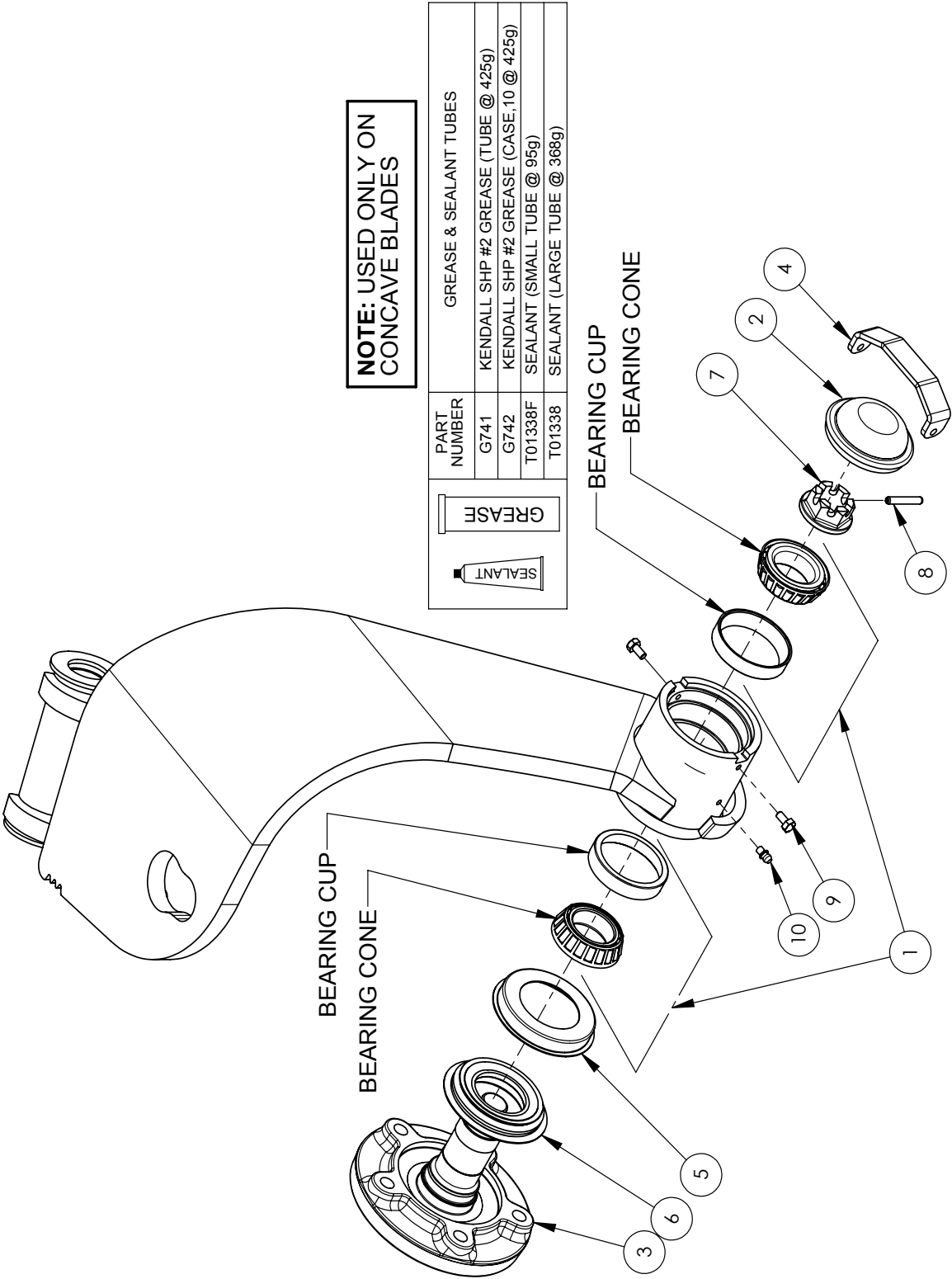
RIGHT SKEW
(EXAGGERATED)



INSTALL SHIMS HERE
 BETWEEN THE GUIDE
 COULTER TOOL
 STUB AND FRAME

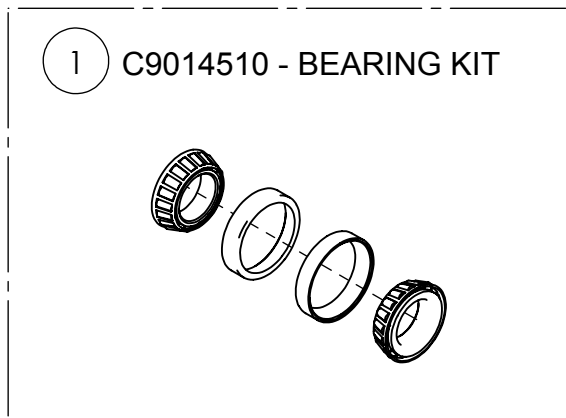
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Inverted Hub Assembly



Inverted Hub Assembly

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	C9014510	BEARING KIT FOR 5 BOLT COULTER HUB
2	1	C90102	DUST CAP
3	1	C90348FM	INVERTED SPINDLE
4	1	C90349	5 BOLT INVERTED HUB DUST CAP RETAINER
5	1	C91118C	SEAL COUNTERFACE
6	1	C91118S	SEAL, GREASE AND DIRT
7	1	BN16FCH	1"-14NF FLANGED CASTLE NUT GR. 8
8	1	BSR0415	1/4" x 1 1/2" LG ROLL-PIN PLATED
9	2	B0405F	1/4" NF x 1/2" LG HEX BOLT GR.5 PLATED
10	1	GF641	1/4"-28NF GREASE FITTING



NOTE: USED ONLY ON
CONCAVE BLADES

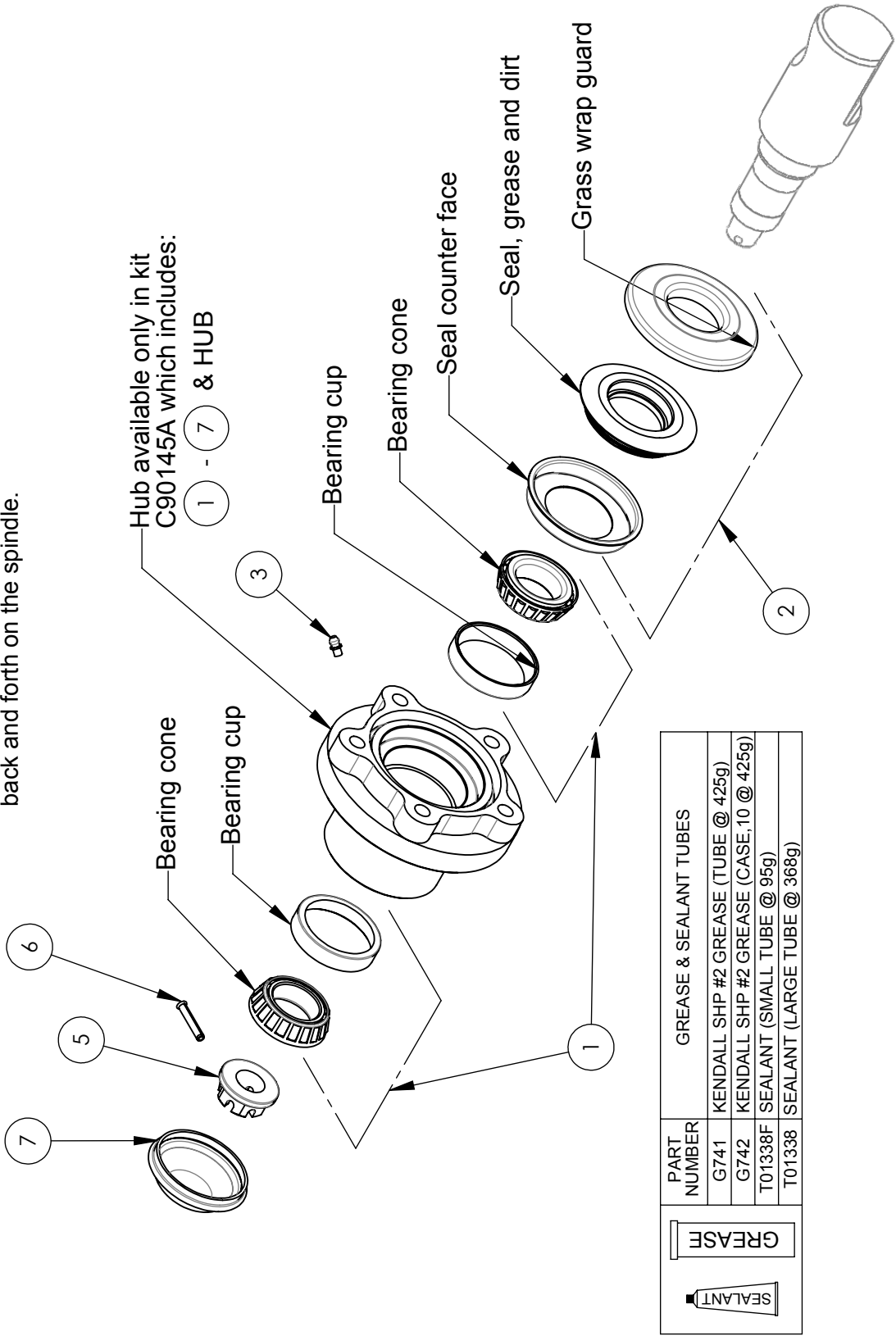
5 Bolt Coulter Hub Assembly

NOTE: USED ONLY ON STRAIGHT COULTER

 IMPORTANT

Note: Bearings must be properly grease packed.

- 1. Torque the spindle nut to 100 ft/lbs (135 Nm) to properly seat the bearings in the races. Always rotate the hub while tightening.
- 2. Back spindle nut off until it is just loose.
- 3. Re-torque to 40 (55 Nm) ft/lbs while rotating the hub.
- 4. Adjust nut to align the nearest slot with the hole in the spindle. Hub must be able to rotate relatively freely but should be tight enough so that it cannot slide back and forth on the spindle.



5 Bolt Coulter Hub Assembly

ITEM	QTY	PART NO.	DESCRIPTION
1	1	C9014510	BEARING KIT FOR 5 BOLT COULTER HUB
2	1	C91118A	MULTI-LIP SEAL KIT FOR COULTER HUBS
3	1	GF641	1/4"-28NF GREASE FITTING
5	1	BN16FCH	1"-14NF FLANGED CASTLE NUT GR. 8
6	1	BSR0415	1/4 X 1 1/2" ROLL PIN
7	1	C90102	DUST CAP

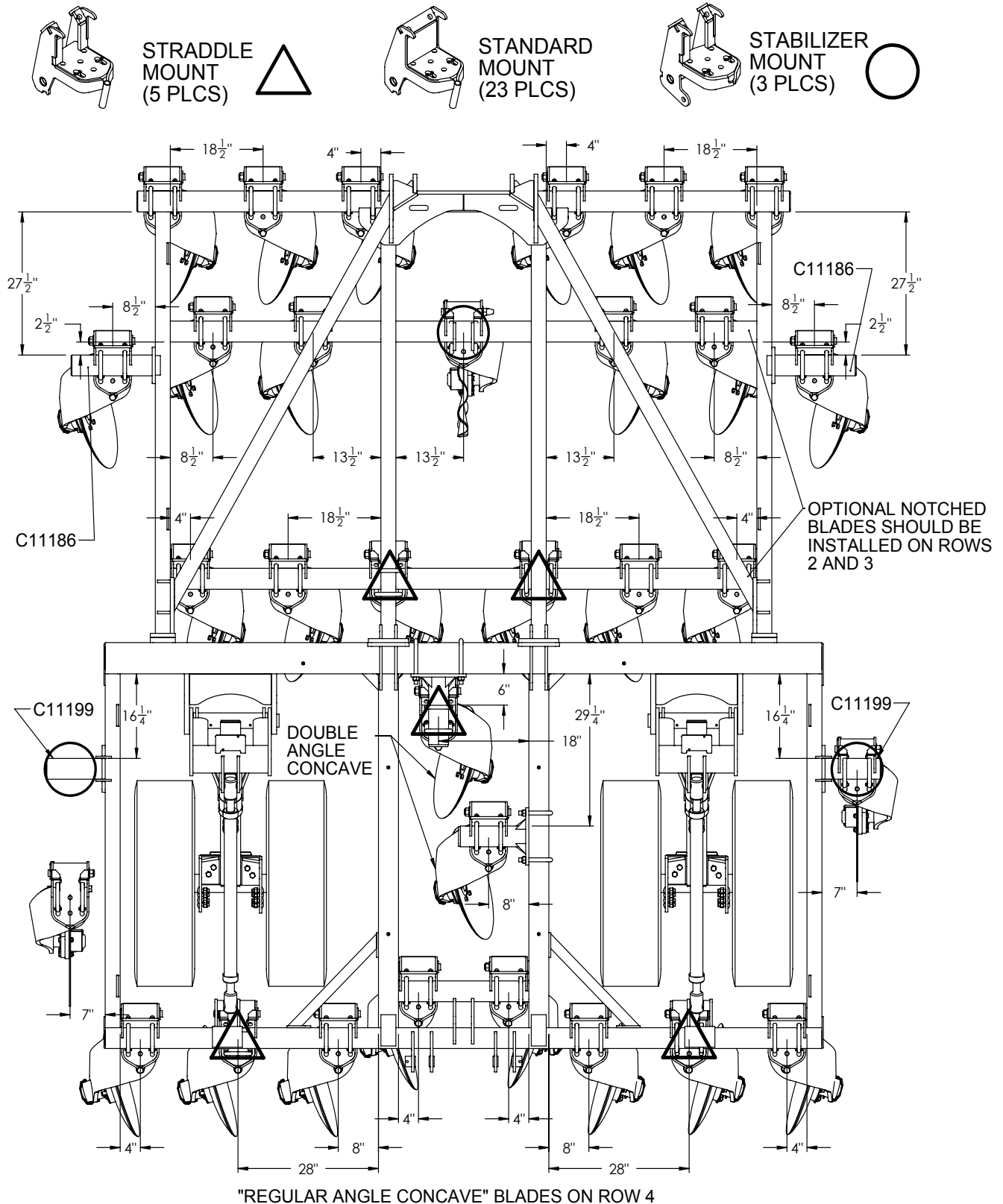


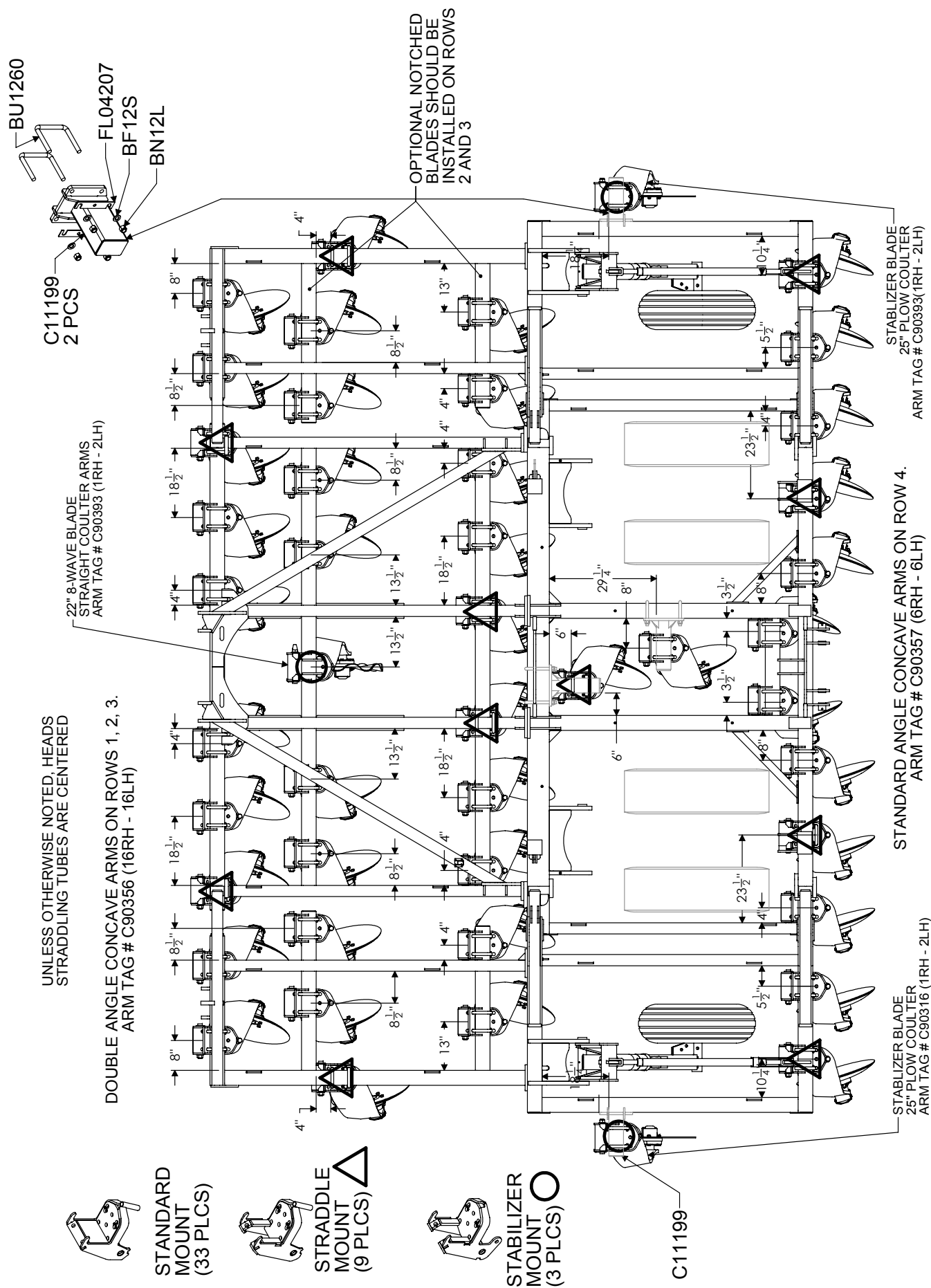
12ft Blade and Coulter Layout

- 20 - DOUBLE ANGLE CONCAVE ARMS (10LH - 10RH)
 8 - REGULAR ANGLE CONCAVE ARMS (4LH - 4RH)
 3 - STRAIGHT COULTER ARMS
 (2LH - 1RH : 22" 8 WAVE BLADE)

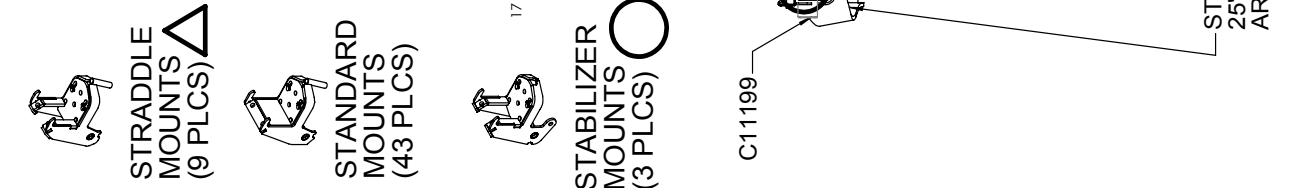
"DOUBLE ANGLE CONCAVE" ON ROWS 1, 2, 3

UNLESS OTHERWISE NOTED, HEADS
 STRADDLING TUBES ARE CENTERED

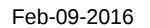




9 S BU L04: 12H 2L

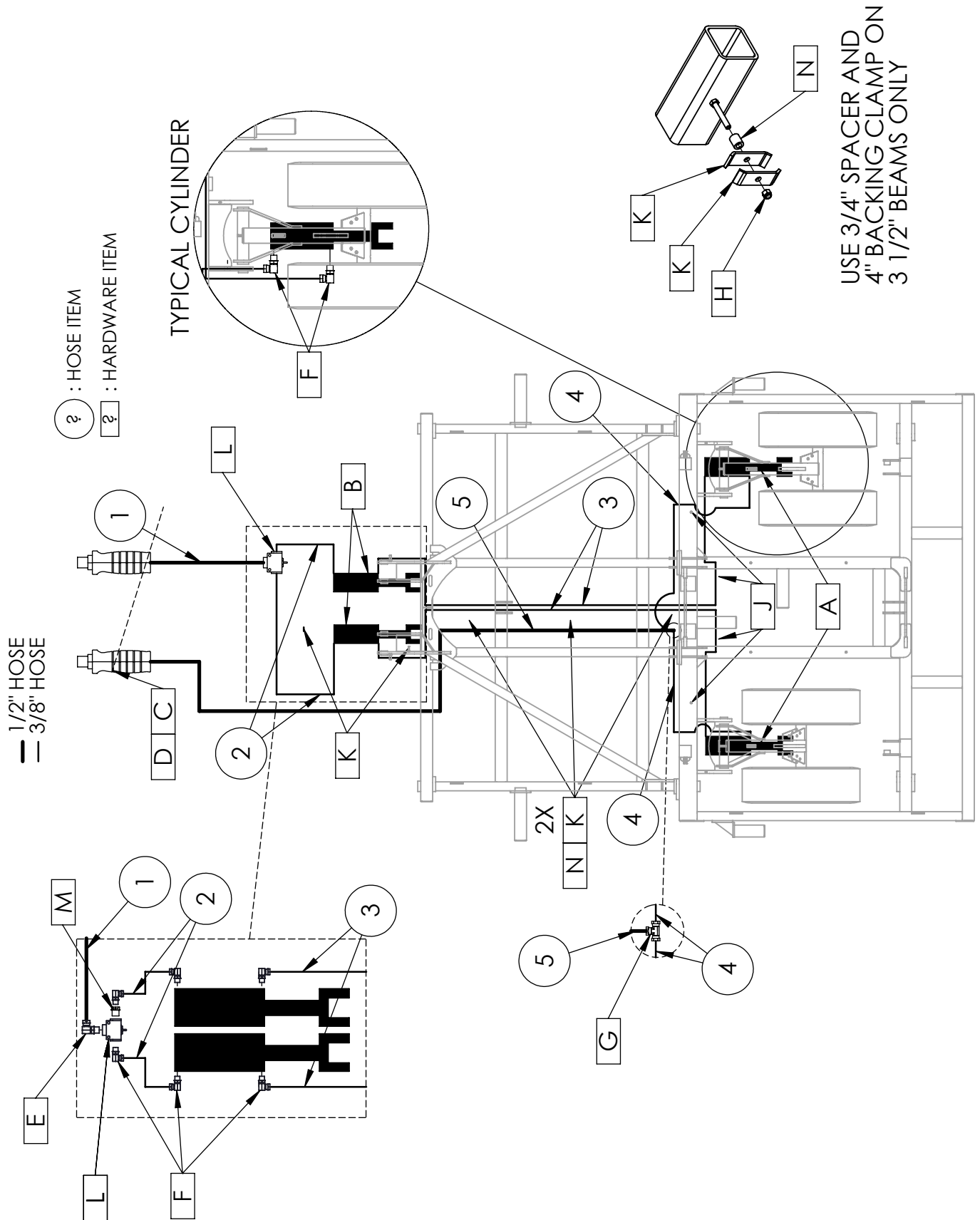






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12ft Axle Lift Hydraulics



12ft Axle Lift Hydraulics

AXLES							
LABEL	QTY.	LENGTH	FROM	TO	HOSE SIZE	END SIZE	END SIZE
1	1	15' 4"	Tractor	Stroke Control Valve	1/2"	1/2"	1/2"
2	2	2' 7"	Stroke Control Valve	Barrel on Tri-pod Cylinders	3/8"	3/8"	3/8"
3	2	15' 6"	Tri-pod Cylinder Rod	Main Axle Barrel	3/8"	3/8"	3/8"
4	2	7' 2"	Main Axle Rod	1/2" TEE	3/8"	3/8"	1/2"
5	1	26' 10"	1/2" Tee	Tractor	1/2"	1/2"	1/2"

AXLE LIFT HARDWARE			
ITEM	QTY	PART NO.	DESCRIPTION
A	2	HSR3508	3 1/2" BORE x 8" STROKE REPHASING HYD. CYLINDER
B	2	HSR35095	3 1/2" BORE x 9 1/2" STROKE REPHASING HYD. CYLINDER
C	1	HG-PT22E22R21R	PAIR OF RED/RED GREY PLASTIC HOSE GRIPS
D	2	H80104P	1/2" NPT M PIONEER TIP
E	1	H951588	1/2" ORB M x 1/2" NPT F SWIVEL ELBOW
F	10	H951586	1/2" ORB M x 3/8" NPT F SWIVEL ELBOW
G	1	H958888	1/2" NPT F ALL SWIVEL TEE
H	10	BN06L	3/8" - 16 NC NYLOCK NUT
J	17	P0160A	HOSE CLAMP - 3"
K	8	P0160B	HOSE CLAMP - 4"
L	1	HVSF075075	POPPET VALVE
M	1	H6410-12-08	3/4" ORB M x 1/2" ORD F CONNECTOR
N	3	R9063	.75" OD X .438" ID X 7/8" LONG SPACER

IMPORTANT

CHARGING THE CIRCUIT

On a concrete pad or hard ground, do not retract cylinders all the way while tongue is hitched to tractor, this could result in bending the tractor drawbar upwards.

****Connect only the pins on the barrel ends of the cylinders until the circuit has been charged.****

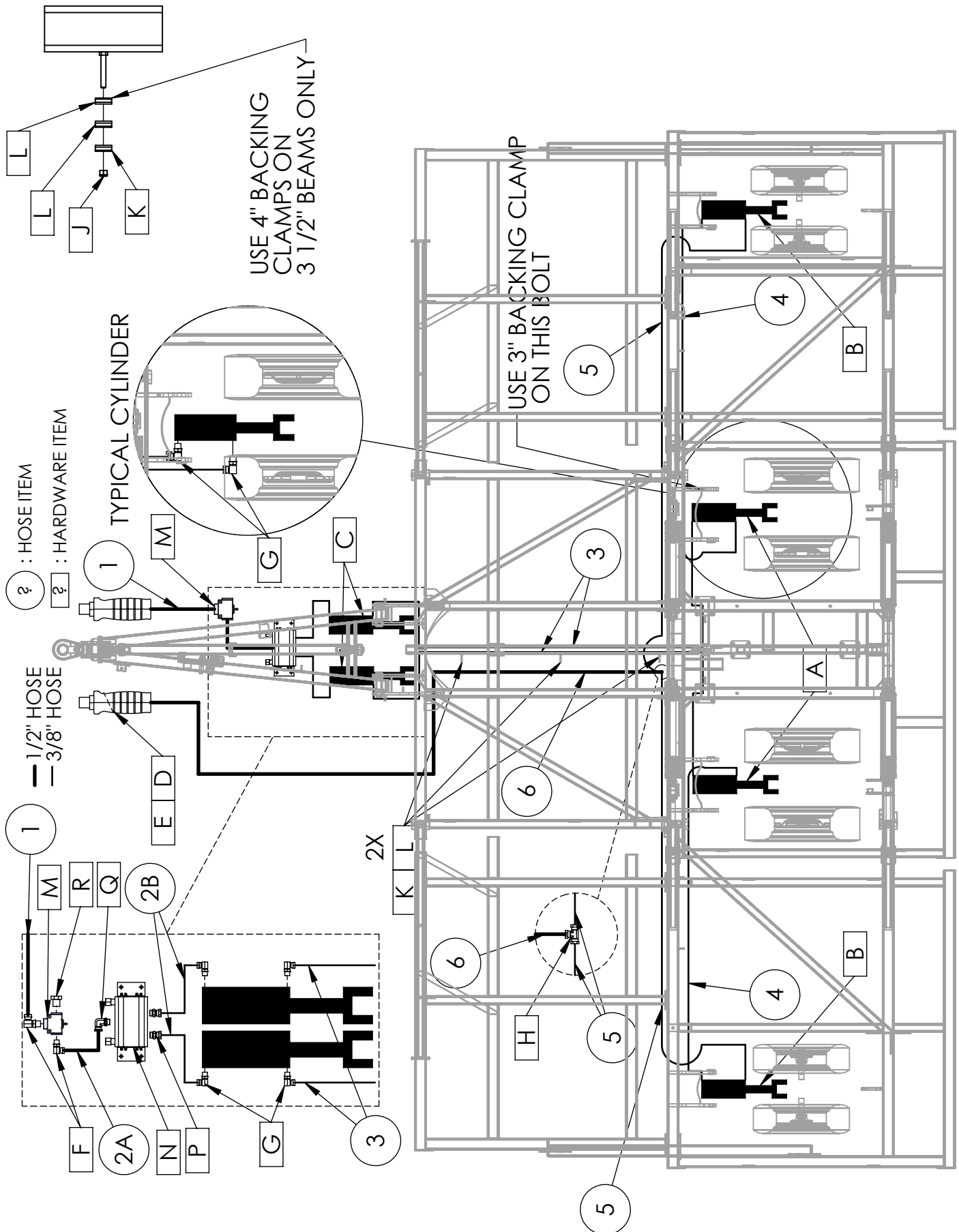
- Prop cylinders with blocks of wood, be sure that all cylinders can extend completely without striking anything.
- Connect hoses to tractor.
- Extend cylinders and hold lever for 2-3 minutes. This will purge the air from the circuit. (The lift cylinders have a port that allows oil to pass when completely extended.)
- The circuit is now free from air. Install Rod end Pins. Connect tongue telescope.

- Whenever air could have entered the cylinders, repeat above steps to purge circuit.
- Test wing fold and adjust hose droop at wings if necessary.
- Identify the lift hose ends with red tie wraps for quick hookup to tractor.

Route hoses
behind tower



19 - 29ft Axle Lift Hydraulics



19 - 29ft Axle Lift Hydraulics

LABEL	QTY.	LENGTH	FROM	TO	HOSE SIZE	END SIZE	END SIZE
1	1	15' 4"	Tractor	Stroke Control Valve	1/2"	1/2"	1/2"
2A	1	2' 6"	Stroke Control Valve	Flow Divider	1/2"	1/2"	1/2"
2B	2	2' 7"	Flow Divider	Barrel on Tri-pod Cylinders	3/8"	3/8"	3/8"
3	2	15' 6"	Tri-pod Cylinder Rod	Main Axle Barrel	3/8"	3/8"	3/8"
4	2	9'	Main Axle Rod	Wing Axle Barrel	3/8"	3/8"	3/8"
5	2	11' 5"	Wing Axle Rod	Return Tee	3/8"	1/2"	3/8"
6	1	26' 10"	Return Tee	Tractor	1/2"	1/2"	1/2"

ITEM	19FT	22FT & 29FT	PART NO.	DESCRIPTION
A	-	2	HSR4008	4" BORE x 8" STROKE REPHASING HYD. CYLINDER
	2	-	HSR3508	3 1/2" BORE x 8" STROKE REPHASING HYD. CYLINDER
B	-	2	HSR3708	3 3/4" BORE x 8" STROKE REPHASING HYD. CYLINDER
	2	-	HSR3208	3 1/4" BORE x 8" STROKE REPHASING HYD. CYLINDER
C	-	2	HSR40095	4" BORE x 9 1/2" STROKE REPHASING HYD. CYLINDER
	2	-	HSR35095	3 1/2" BORE x 9 1/2" STROKE REPHASING HYD. CYLINDER
D	1	1	HG-RT22E22R21R	PAIR OF RED EXTEND / RED-GREY RETRACT PLASTIC HOSE GRIPS
E	2	2	H80104P	1/2" NPT M PIONEER TIP
F	2	2	H951588	1/2" ORB M x 1/2" NPT F SWIVEL ELBOW
G	12	12	H951586	1/2" ORB M x 3/8" NPT F SWIVEL ELBOW
H	1	1	H958888	1/2" NPT F ALL SWIVEL TEE
J	10	10	BN06L	3/8" - 16 NC NYLOCK NUT
K	13	17	P0160A	HOSE CLAMP - 3"
L	8	8	P0160B	HOSE CLAMP - 4"
M	1	1	HVSF075075	POPPET VALVE
N	1	1	HV1300637	2 OUTLET GEARED FLOW DIVIDER/COMBINER
P	2	2	H6900-10-06-O	5/8" ORB M x 3/8" NPT F SWIVEL STRAIGHT ADAPTOR
Q	1	1	H6901-10-08-NWO	5/8" ORB M x 1/2" NPT F SWIVEL ELBOW
R	1	1	H6408-12	3/4" ORB M PLUG



IMPORTANT

CHARGING THE CIRCUIT

On a concrete pad or hard ground, do not retract cylinders all the way while tongue is hitched to tractor, this could result in bending the tractor drawbar upwards.

****Connect only the pins on the barrel ends of the cylinders until the circuit has been charged.****

2. Prop cylinders with blocks of wood, be sure that all cylinders can extend completely without striking anything.
3. Connect hoses to tractor.
4. Extend cylinders and hold lever for 2-3 minutes. This will purge the air from the circuit. (The lift cylinders have a port that allows oil to pass when completely extended.)
5. The circuit is now free from air. Install Rod end Pins. Connect tongue telescope.

- Whenever air could have entered the cylinders, repeat above steps to purge circuit.
- Test wing fold and adjust hose droop at wings if necessary.
- Identify the lift hose ends with red hose grips for quick hookup to tractor.

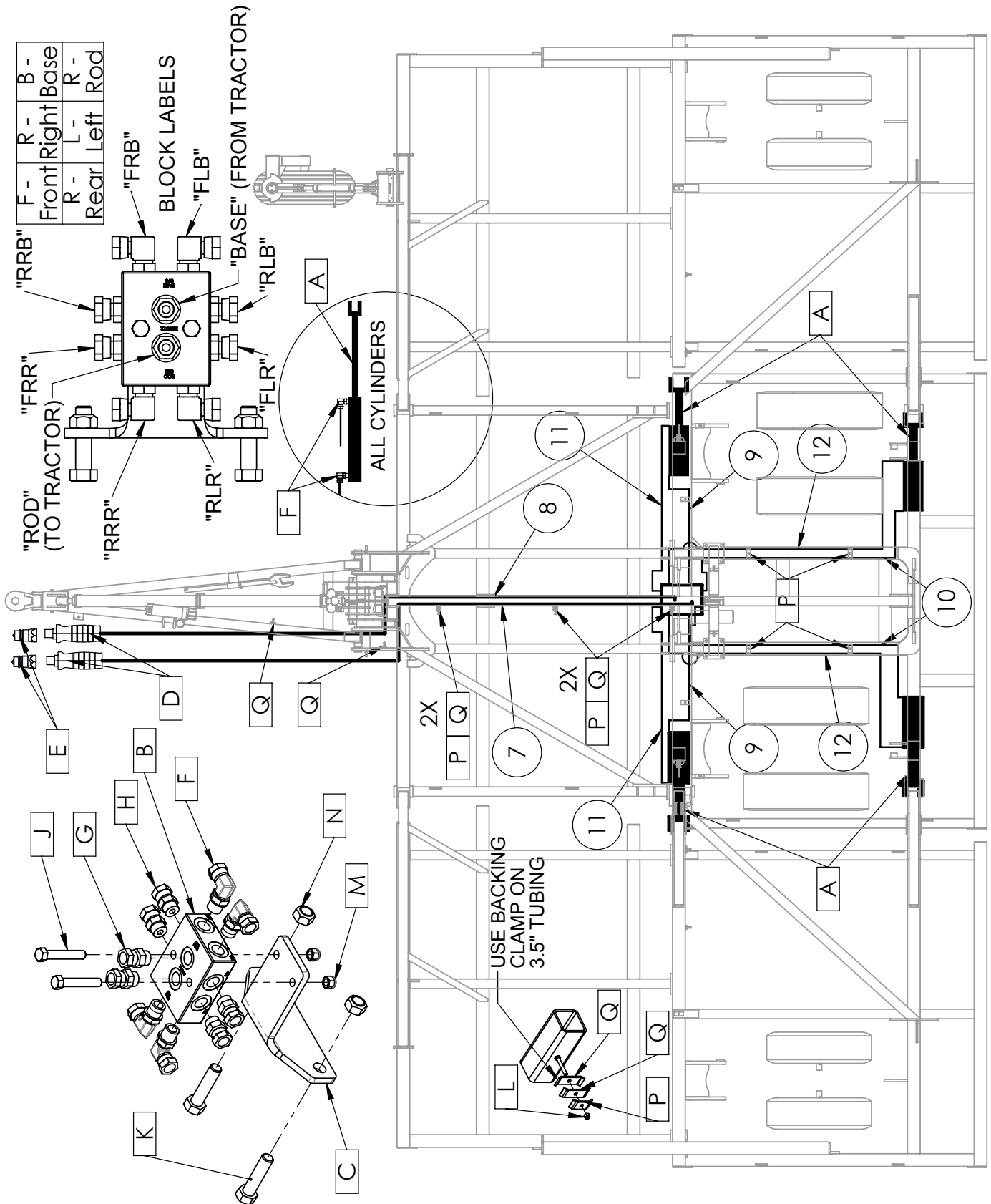


Route hoses
behind tower



Leave a droop in hose at wing hinge.

Wing Fold Hydraulics



Wing Fold Hydraulics

LABEL	QTY.	LENGTH	FROM	TO	HOSE SIZE	END SIZE	END SIZE
7	1	26' 10"	Tractor	Manifold Block	1/2"	1/2" NPT M	1/2" NPT M
8	1	26' 10"	Manifold Block	Tractor	1/2"	1/2" NPT M	1/2" NPT M
9	2	3'	Manifold Feed	Front Wing Cylinder - Barrel	3/8"	3/8" NPT M	3/8" NPT M
10	2	6' 6"	Manifold Feed	Rear Wing Cylinder - Barrel	3/8"	3/8" NPT M	3/8" NPT M
11	2	3' 10"	Manifold Return	Front Wing Cylinder - Rod	3/8"	3/8" NPT M	3/8" NPT M
12	2	9' 2"	Manifold Return	Rear Wing Cylinder - Rod	3/8"	3/8" NPT M	3/8" NPT M

ITEM	19FT	22FT	29FT	PART NO.	DESCRIPTION
A	-	-	4	HS4524	4 1/2" BORE x 24" STROKE HYD. CYLINDER
	-	4	-	HS4024	4 BORE x 24" STROKE HYD. CYLINDER
	4	-	-	HS3524	3 1/2" BORE x 24" STROKE HYD. CYLINDER
B	1	1	1	H00012	3 SECTION WING FOLDING MANIFOLD
C	1	1	1	A60079F	HYDRAULIC MANIFOLD BRACKET
D	1	1	1	HG-PT24E24R21R	PAIR OF GREEN EXTEND / GREEN-GREY RETRACT PLASTIC HOSE GRIPS
E	2	2	2	H80104P	1/2" NPT PIONEER MALE TIP
F	12	12	12	H951586	-08 ORB M x -06 F NPT SWIVEL ELBOW
G	2	2	2	H930588	-08 ORB M x -08 F NPT STRAIGHT SWIVEL
H	4	4	4	H930586	-08 ORB M x -06 F NPT STRAIGHT SWIVEL
J	2	2	2	B0725	7/16" NC x 2 1/2" HEX BOLT GR 5 PLATED
K	2	2	2	B1020	5/8" NC x 2" HEX BOLT GR 5 PLATED
L	9	9	9	BN06L	3/8" NC NYLOCK NUT
M	2	2	2	BN07L	7/16" NC NYLOCK NUT
N	2	2	2	BN10L	5/8" NC NYLOCK NUT
P	7	7	7	P0160A	HOSE CLAMP - 3"
Q	8	8	8	P0160B	HOSE CLAMP - 4"

CHARGING THE FOLD SYSTEM

Do not connect the cylinder rods until system has been charged with oil.

1. Prop up the cylinders with a block of wood (fig 1). Check to see that the rods will extend completely without striking anything.
2. Connect tractor (note: check to see that all cylinders extend and retract in sync. If one goes backwards, check the plumbing.)
3. Extend cylinders completely, hold lever for 30 sec. as air exits cylinder.
4. Retract cylinders completely, hold lever for 30 sec. as air exits cylinder.
5. Repeat steps 3&4 three times.
6. Install cylinder pins. Be sure washers are installed correctly (see fold cylinder parts page).

CAUTION

**Air in the wing cylinder will cause wings to fall to the ground!!!
Whenever air could have entered the cylinders, repeat the process above to purge circuit.**

**ALWAYS UNFOLD WINGS before working on hydraulics!!!
Never work on a lift system with the wings folded**

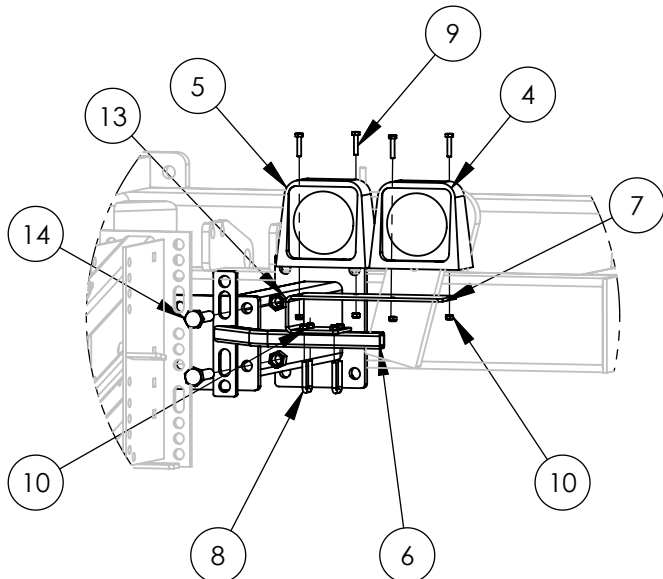
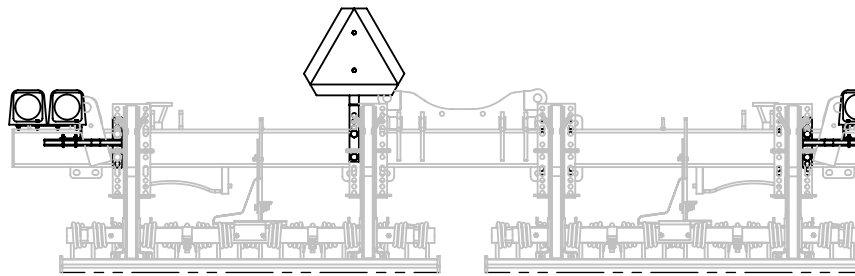
Identify the fold hose ends with green hose grips for quick hookup to tractor.

Fig 1. When charging the circuit, prop up cylinder with block of wood. Be sure the rod can extend freely without striking anything.

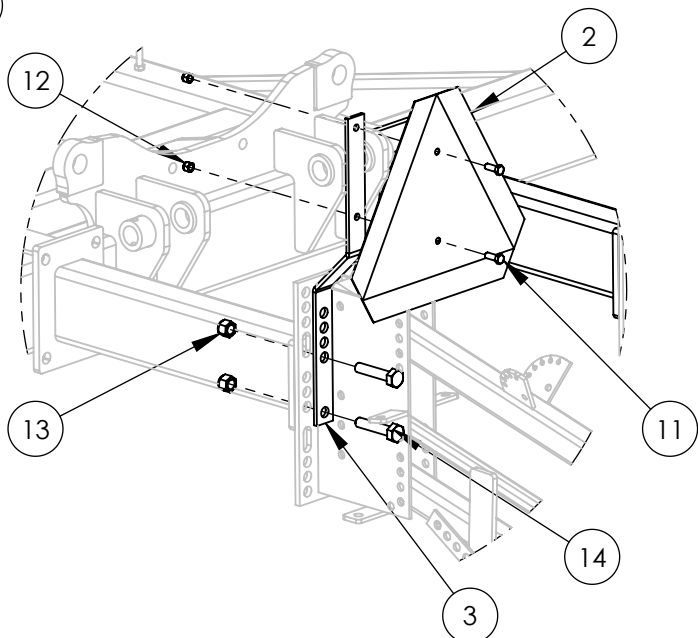


Lights & SMV Installation

ITEM	QTY	PART NO.	DESCRIPTION
1	1	GL767762	SALFORD WESBAR LIGHT KIT
2	1	GAP103NS	SMV SIGN
3	1	L01403	OFFSET SMV MOUNTING BRACKET
4	2	GL767762-AA	ORANGE LIGHT
5	2	GL767762-R	RED LIGHT
6	2	A60055	LIGHT BRACKET (SHORT)
7	2	L00425	OUTSIDE LIGHT MOUNTING PLATE
8	4	BU0410	1/4 x 1" x 1 1/2" U-BOLT
9	8	B0412	1/4" NC x 1 1/4" HEX BOLT
10	16	BN04L	1/4" LOCK NUT
11	2	B0610	3/8" X 1" LG. GRADE 5
12	2	BN06L	3/8"-16NC LOCK NUT
13	6	BN10L	5/8" NYLOCK NUT NC
14	6	B1030	5/8 x 3" HEX BOLT GR 5

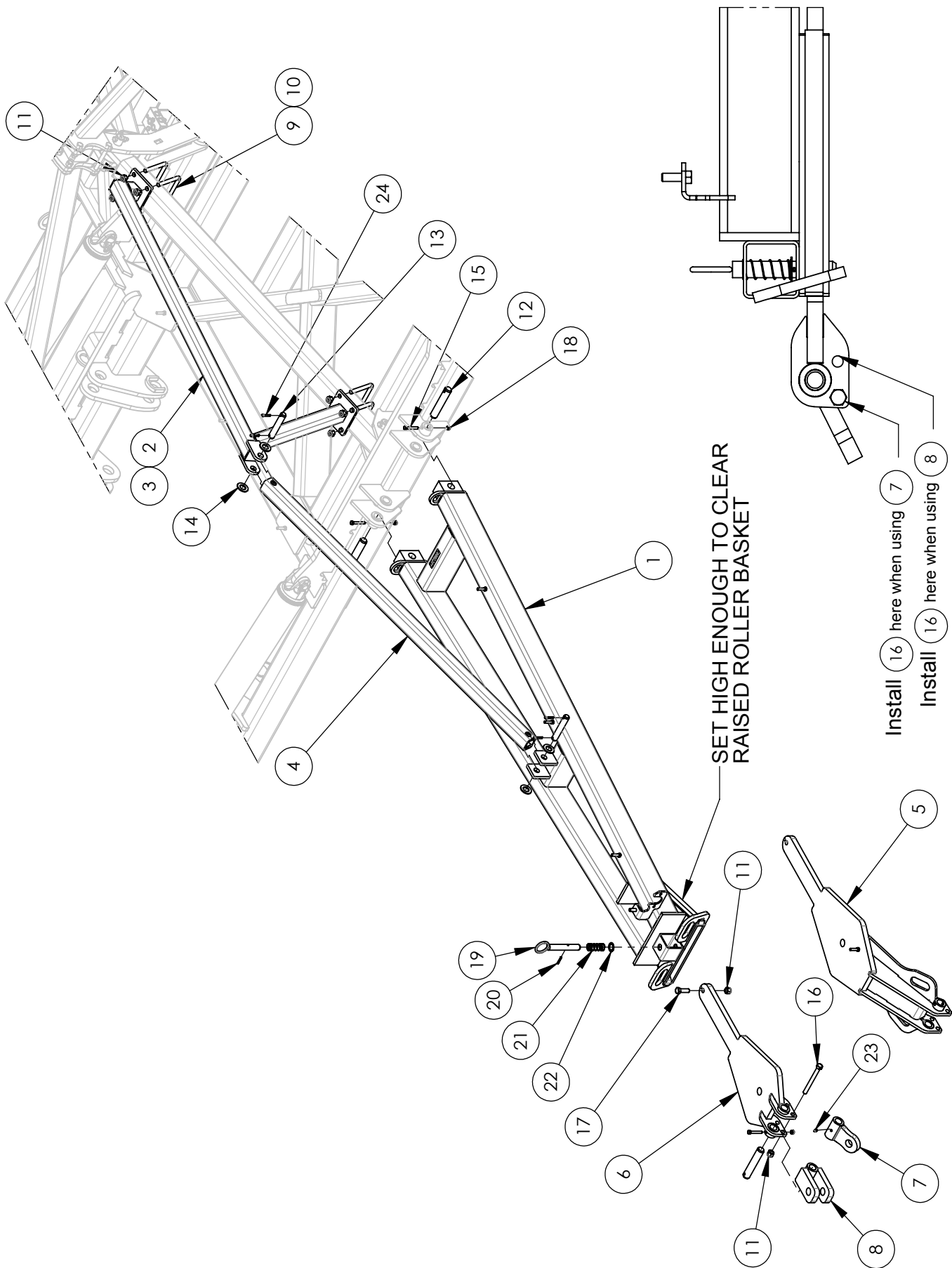


NOTE: AMBER LIGHT IS MOUNTED ON THE OUTSIDE OF THE LIGHT BRACKET. RED IS ON THE INSIDE



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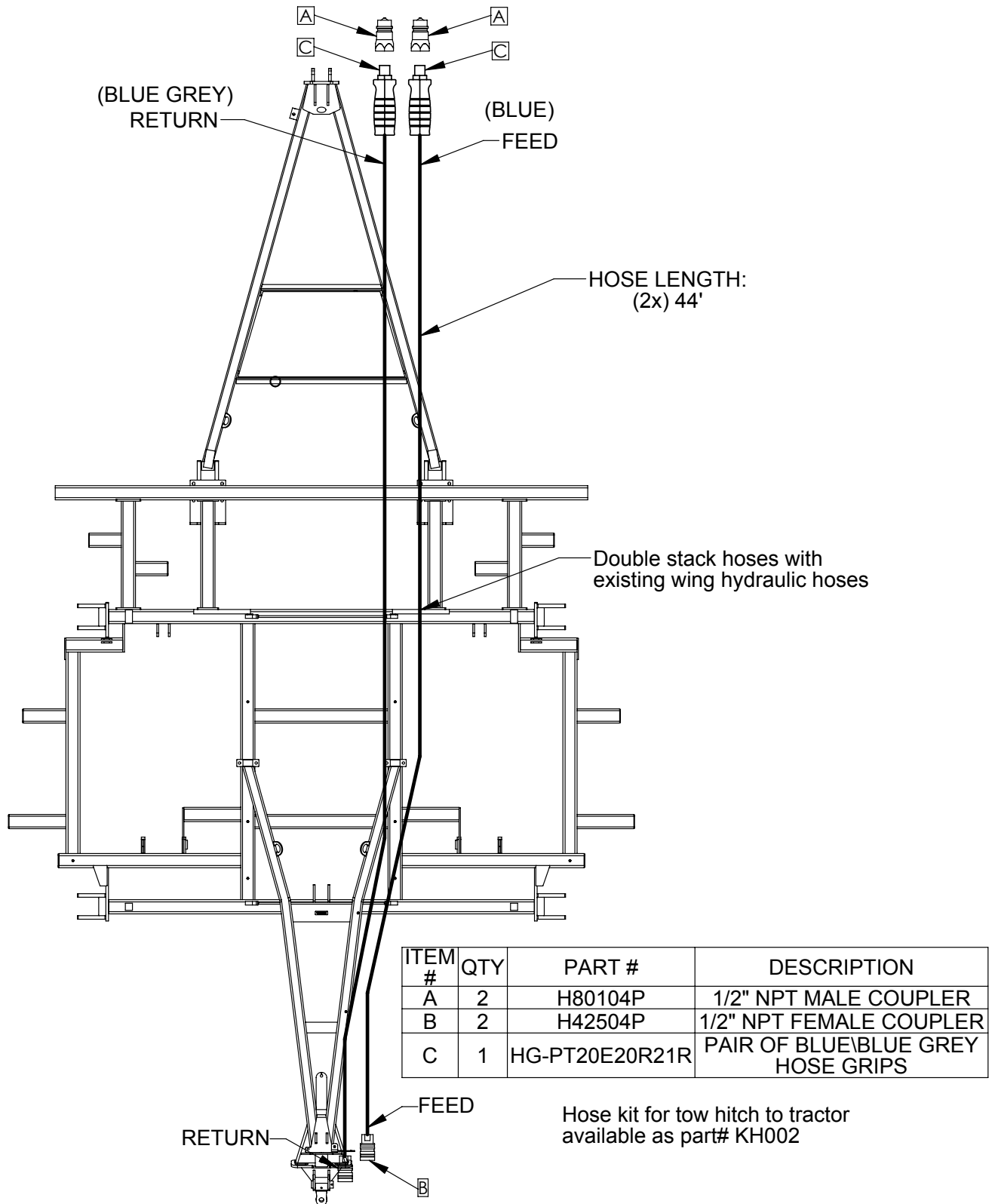
Tow Hitch Installation



Tow Hitch Installation

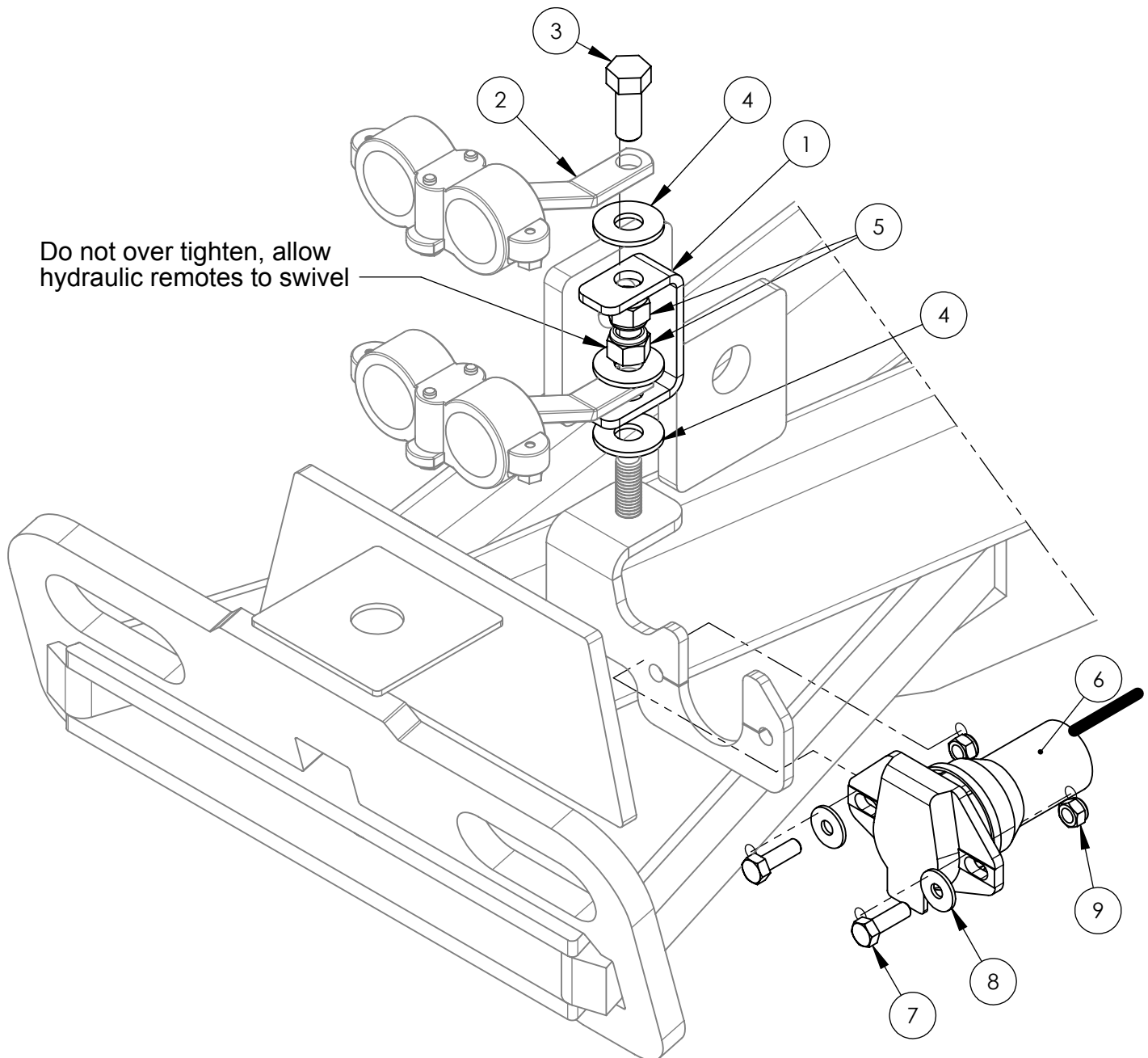
ITEM	12-29ft QTY	36ft QTY	PART NO.	DESCRIPTION
1	1	1	C11686	PIN MOUNTED TOW HITCH
2	-	1	C11454	5136 TOW HITCH BRACE
3	1	-	C11381	5100 TOW HITCH BRACE
4	1	1	C11044	570 TOWHITCH BRACE LINK 66 1/2"
5	1	1	C10932	DROP TOW HITCH INSERT
6	1	1	C10859	TOW HITCH INSERT
7	1	1	T00328	TOW HITCH CLEVIS
8	1	1	C11165	TOW HITCH DOUBLE CLEVIS
9	-	4	BU1040	5/8 x 4 x 5-1/2" U-BOLT
10	4	-	BU1030	U-BOLT 5/8" x 3" x 4 1/2"
11	10	10	BN10L	5/8" NYLOCK NUT NC
12	3	3	GP2000612B06	1 1/4" x 6 1/2" LG. PIN - 1 HOLE
13	2	2	GP1600512A05	PIN 1" DIA. x 5 1/2" LG. - 2 HOLES
14	4	4	BF16S	1" SAE WASHER
15	3	3	B0625	3/8" NC x 2 1/2" LG. HEX BOLT GR. 5
16	1	1	B1060	5/8"NC x 6" LG. HEX BOLT
17	1	1	B1020	5/8"NC x 2" LG. HEX BOLT
18	3	3	BN06L	3/8"-16NC NYLOCK NUT
19	1	1	GPSPEC16C1000	RING & WASHER TOW HITCH SPRING PIN
20	1	1	BSR0415	1/4" x 1 1/2" LG ROLL-PIN PLATED
21	1	1	C1072	TOW HITCH PIN SPRING
22	1	1	GM26	1" MACHINE BUSHING
23	1	1	GF1610	1/8" NPT GREASE FITTING
24	4	4	BSC0515	5/16" x 1 1/2" COTTER PIN

Tow Hitch Hydraulics



Tow Hitch Dual Remote Hyd. Assembly & 7 Pin Plug Assembly

ITEM	QTY	PART NO.	DESCRIPTION
1	1	L01496	TOW HITCH DUAL REMOTE HYDRUALIC BRACKET
2	2	H50064	PIONEER HOSE HOLDER
3	1	B0812	1/2" x 1 1/4" HEX BOLT
4	3	BF08	1/2" FLATWASHER
5	2	BN08L	1/2" NYLOCK NUT NC
6	1	GLA60168	TOW HITCH LIGHT HARNESS EXTENSION
7	2	B0510	5/16" X 1" HEX BOLT GR. 5
8	2	BF05	5/16" FLATWASHER
9	2	BN05L	5/16" LOCK NUT
10	2	BN10S	5/8" NC STOVER LOCK NUT





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