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# ***FALLOW***

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# ***MASTER 4-28***

***OPERATOR'S MANUAL***

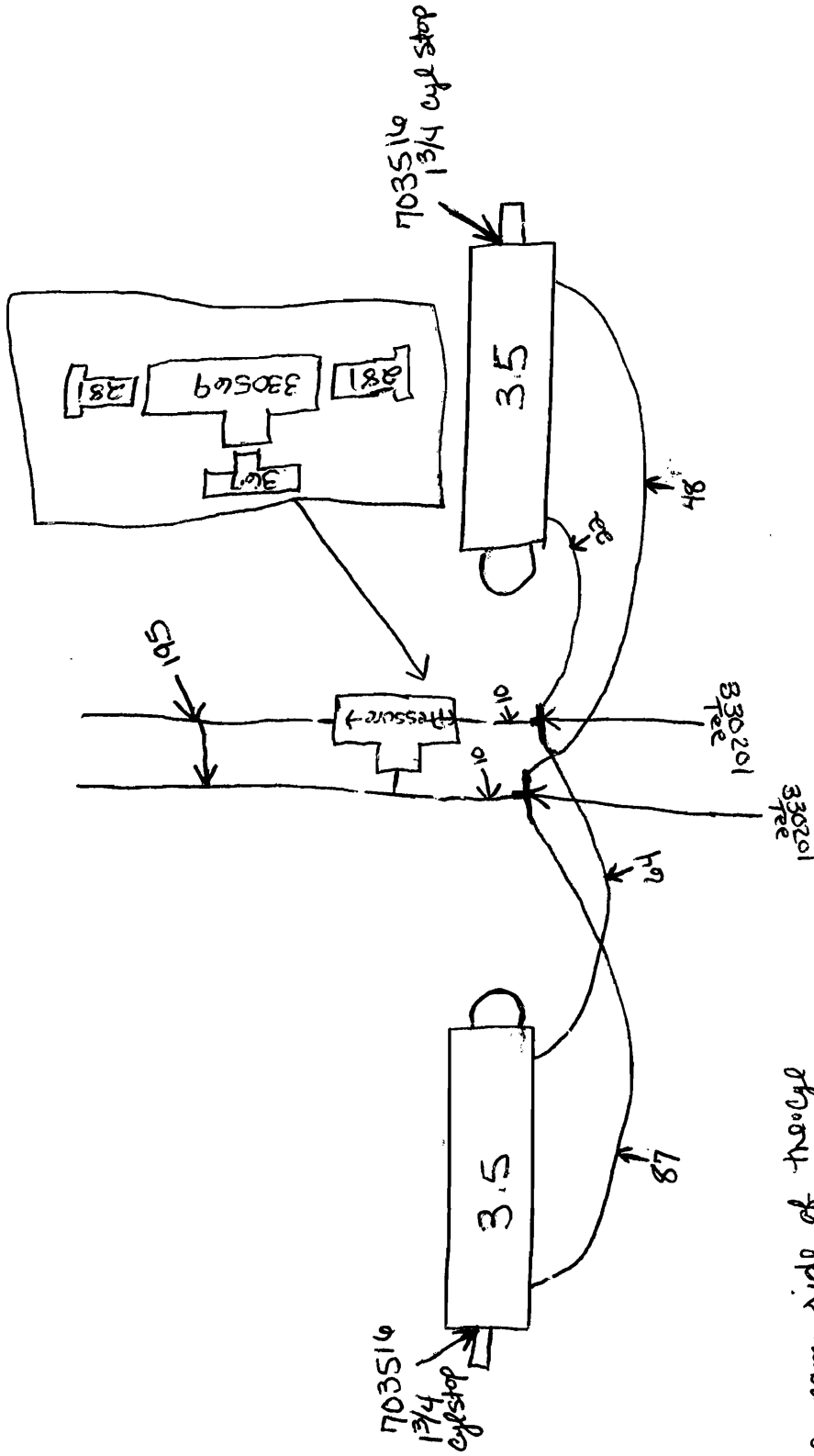
**ORTHMAN  
MANUFACTURING  
INCORPORATED**

***STILL THE STRONGEST***

**ORTHMAN MFG. INC.  
75765 RD. 435  
LEXINGTON, NE 68850**

**OM06-01-01**

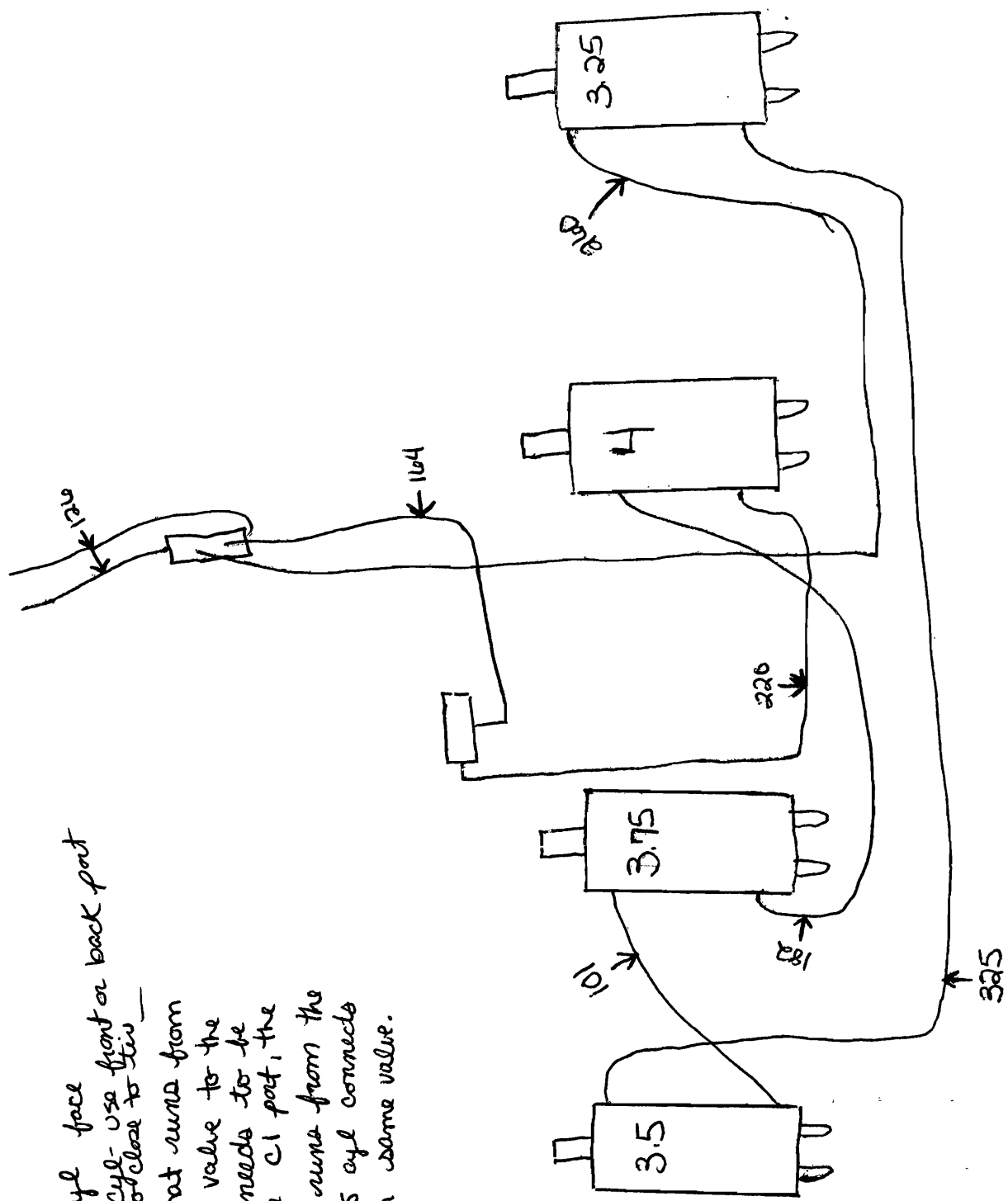
H-28  
F.M.  
Field



on the non-rod side of the cyl  
use 330275, on base end of  
cyl use 330276.  
Base guns to pressure side of  
the 330569 unford protection valve.

4-28  
F.M.  
LIFT

- Side parts on cyl face toward smaller cyl - use front or back part when fitting gets to size -
- the 164" hose that runs from the stroke control valve to the anti-suck valve needs to be connected to the C1 part, the 260" hose that runs from the top of the 3.25 cyl connects to C2 part on same valve.



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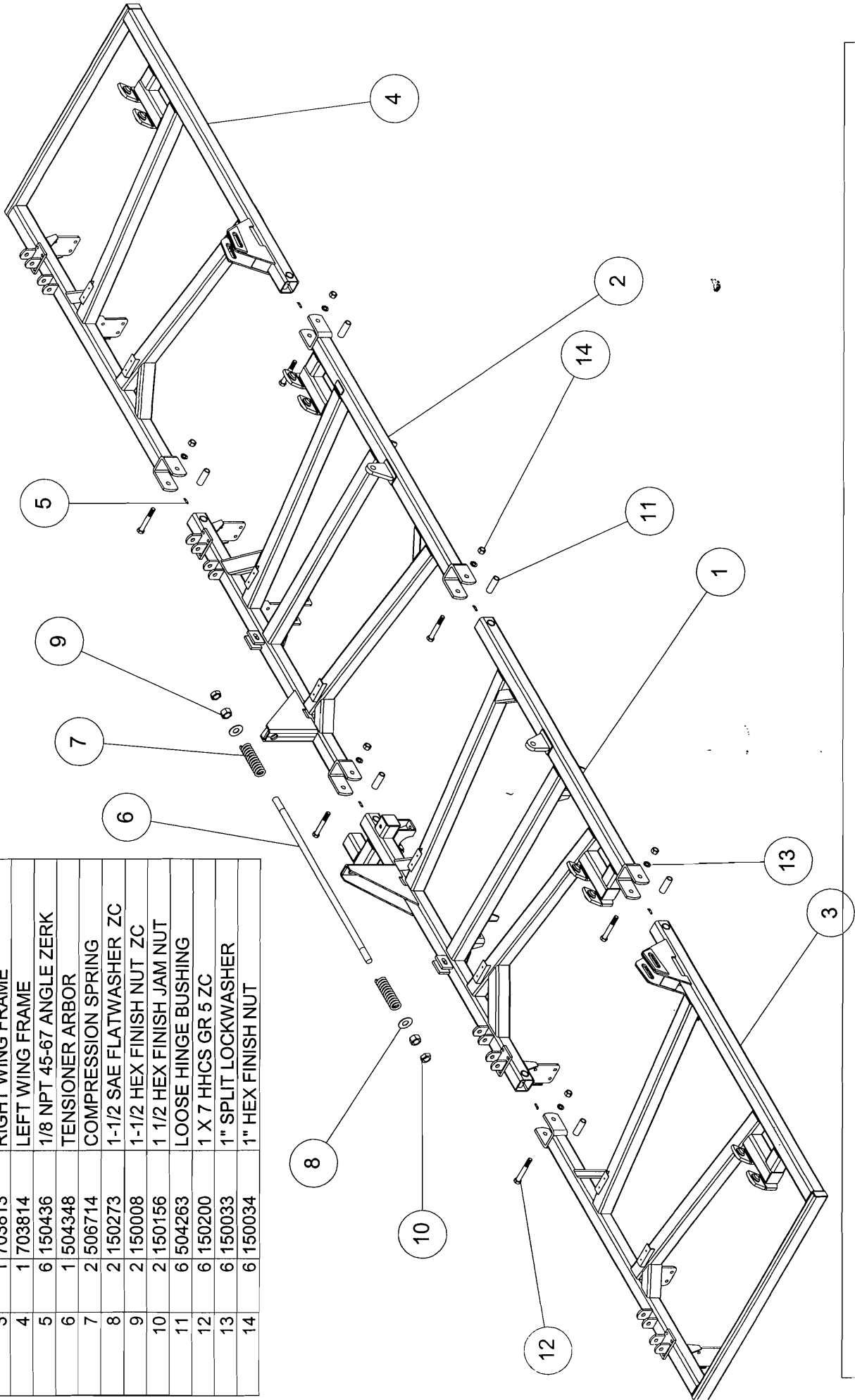
**MOST ACCIDENTS CAN BE AVOIDED WHEN SAFETY RULES ARE FOLLOWED**

**THE FOLLOWING RULES WILL HELP KEEP MACHINE-RELATED ACCIDENTS TO A MINIMUM:**

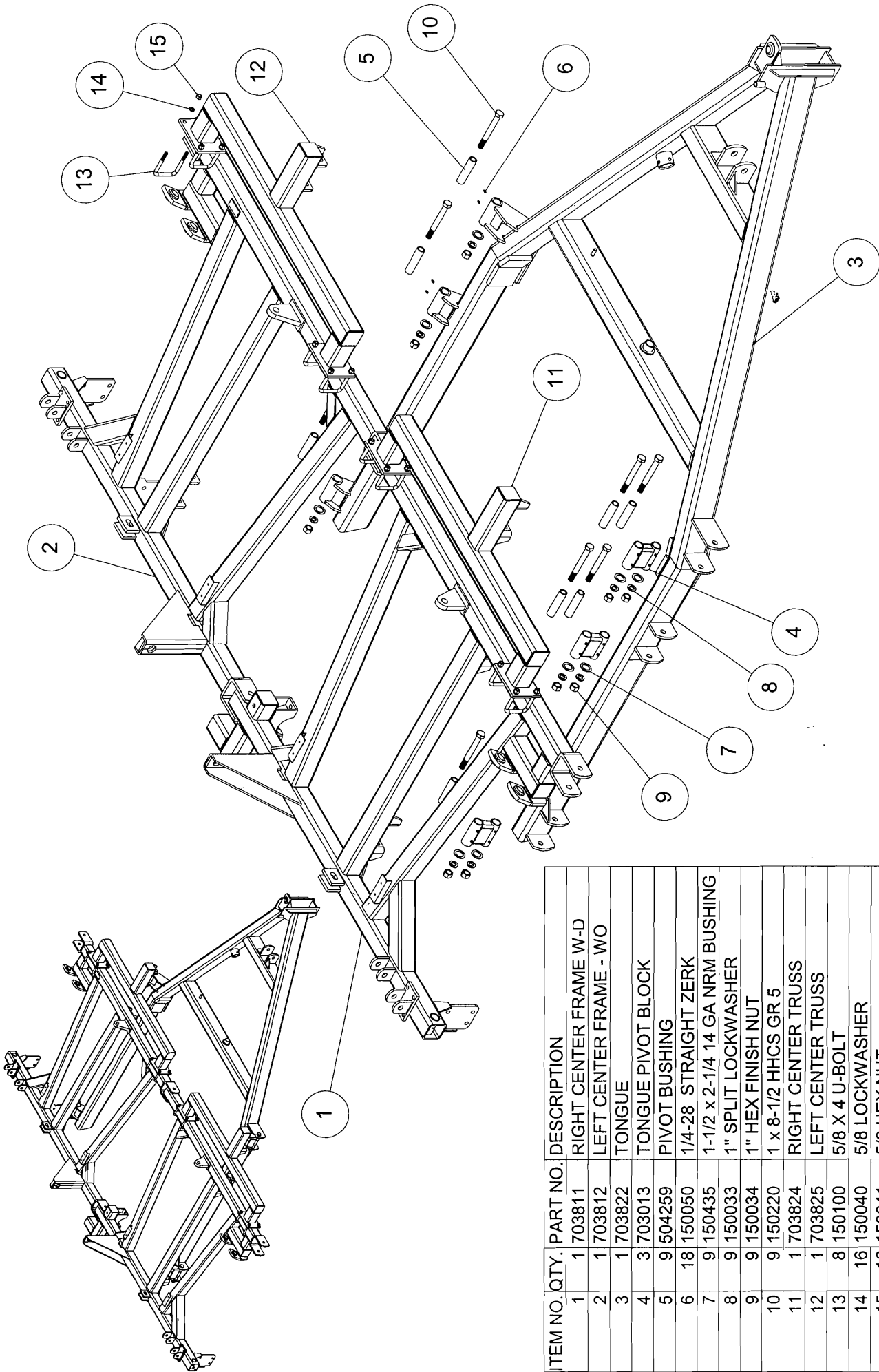
1. READ THE INSTRUCTION AND PARTS MANUAL CAREFULLY BEFORE USING MACHINE.
2. NEVER WALK UNDER AN UNPINNED IMPLEMENT WING.
3. ALWAYS REQUIRE BYSTANDERS TO STAND CLEAR OF MACHINE WHILE FOLDING AND UNFOLDING WINGS OR WHILE RAISING OR LOWERING MACHINE.
4. NEVER ALLOW FEET TO BE UNDER SHOVELS.
5. DO NOT WALK ON FRAMES.
6. DO NOT ADJUST, LUBRICATE OR CLEAN MACHINE WITH TRACTOR RUNNING.
7. ALWAYS USE LOCK-UP PINS WHEN WINGS ARE IN FOLDED POSITION.
8. ALWAYS USE ROAD LOCK-OUT BRACKETS WHEN ROADING.
9. COMPLY WITH ALL STATE AND LOCAL TRANSPORTATION LAWS.
10. CHECK WHEEL BOLTS EVERY 100 HOURS.
11. DO NOT TRANSPORT MACHINE OVER 15 MILES PER HOUR.
12. NEVER ALLOW RIDERS ON IMPLEMENT.
13. DO NOT STAND OVER TONGUE WHEN HITCHING OR UNHITCHING.
14. NEVER REMOVE ANY LOCKING PINS UNLESS HYDRAULIC CYLINDERS AND LINES ARE FREE OF AIR AND FULL OF HYDRAULIC OIL.
15. CHECK TIRE PRESSURE, AND INSPECT TIRES FOR CUTS OR WEAR DAILY. (USE RECOMMENDED PRESSURES ON TIRES.)
16. DO NOT REMOVE OR TAMPER WITH SAFETY DEVICES - HYDRAULIC RESTRICTORS, LOCK-OUT BRACKETS, LOCK-UP ARMS, AND HYDRAULIC WING FOLD PROTECTION VALVES.
17. WATCH FOR AND AVOID PROTRUDING OBJECTS - SHARP TEETH, SHARP BLADES.
18. STAY CLEAR OF CRUSH POINTS - HITCH AREA, TINES, SHOVELS, HINGE AREAS.
19. FOLD AND UNFOLD WINGS ON LEVEL GROUND.
20. INSPECT PINS FOR WEAR - REPLACE WORN PARTS.
21. INSPECT HYDRAULIC SYSTEM FOR WEAR - REPLACE WORN OR BROKEN PARTS, FRAYED HOSES AND LEAKY FITTINGS.

**SAFETY PRECAUTIONS**

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703811	RIGHT CENTER FRAME W-D
2	1	703812	LEFT CENTER FRAME - WO
3	1	703813	RIGHT WING FRAME
4	1	703814	LEFT WING FRAME
5	6	150436	1/8 NPT 45-67 ANGLE ZERK
6	1	504348	TENSION ARBOR
7	2	506714	COMPRESSION SPRING
8	2	150273	1-1/2 SAE FLATWASHER ZC
9	2	150008	1-1/2 HEX FINISH NUT ZC
10	2	150156	1 1/2 HEX FINISH JAM NUT
11	6	504263	LOOSE HINGE BUSHING
12	6	150200	1 X 7 HHCS GR 5 ZC
13	6	150033	1" SPLIT LOCKWASHER
14	6	150034	1" HEX FINISH NUT

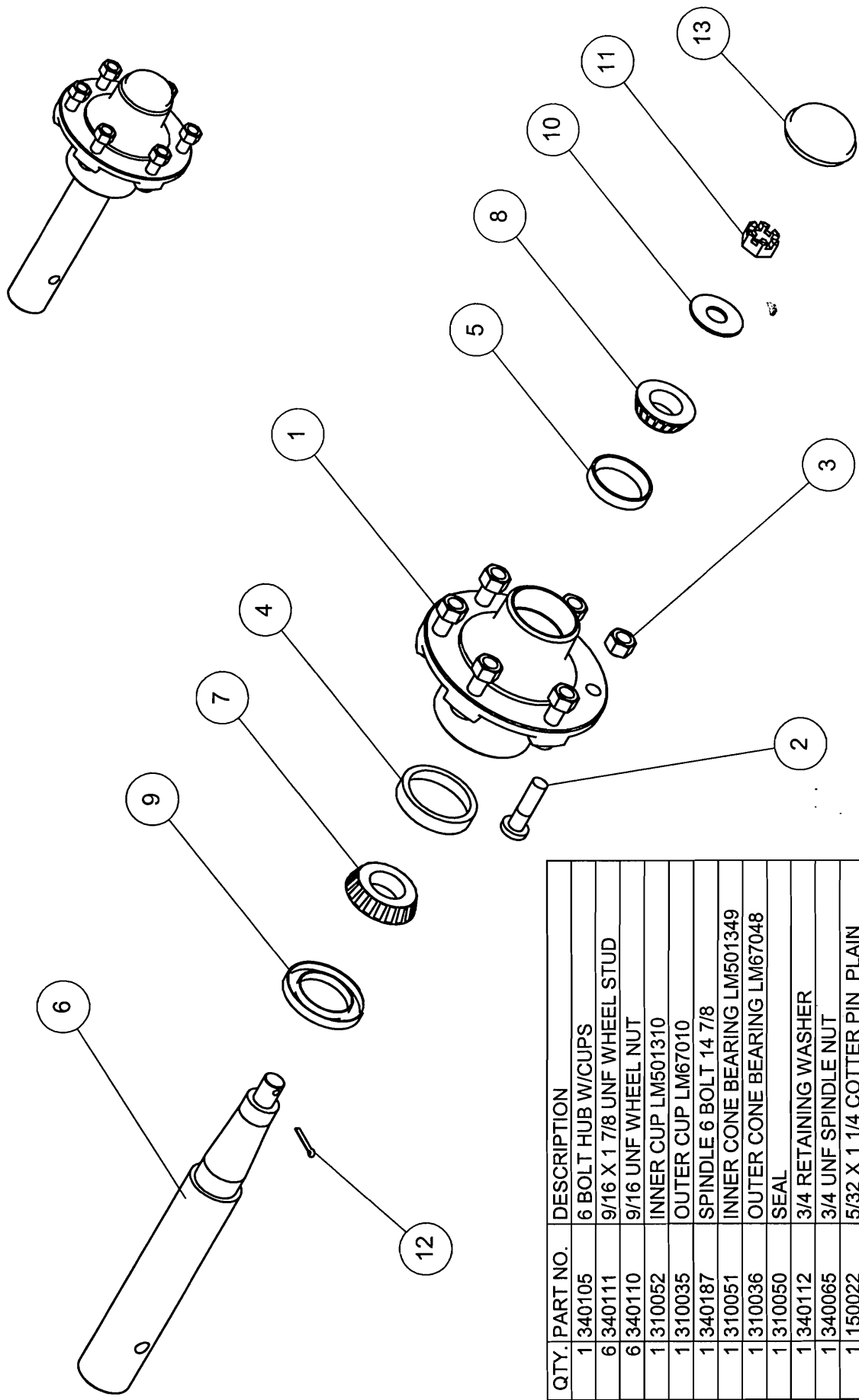


# FRAME ASSEMBLY



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703811	RIGHT CENTER FRAME W-D
2	1	703812	LEFT CENTER FRAME - WO
3	1	703822	TONGUE
4	3	703013	TONGUE PIVOT BLOCK
5	9	504259	PIVOT BUSHING
6	18	150050	1/4-28 STRAIGHT ZERK
7	9	150435	1-1/2 x 2-1/4 14 GA NRM BUSHING
8	9	150033	1" SPLIT LOCKWASHER
9	9	150034	1" HEX FINISH NUT
10	9	150220	1 x 8-1/2 HHCS GR 5
11	1	703824	RIGHT CENTER TRUSS
12	1	703825	LEFT CENTER TRUSS
13	8	150100	5/8 X 4 U-BOLT
14	16	150040	5/8 LOCKWASHER
15	16	150041	5/8 HEX NUT

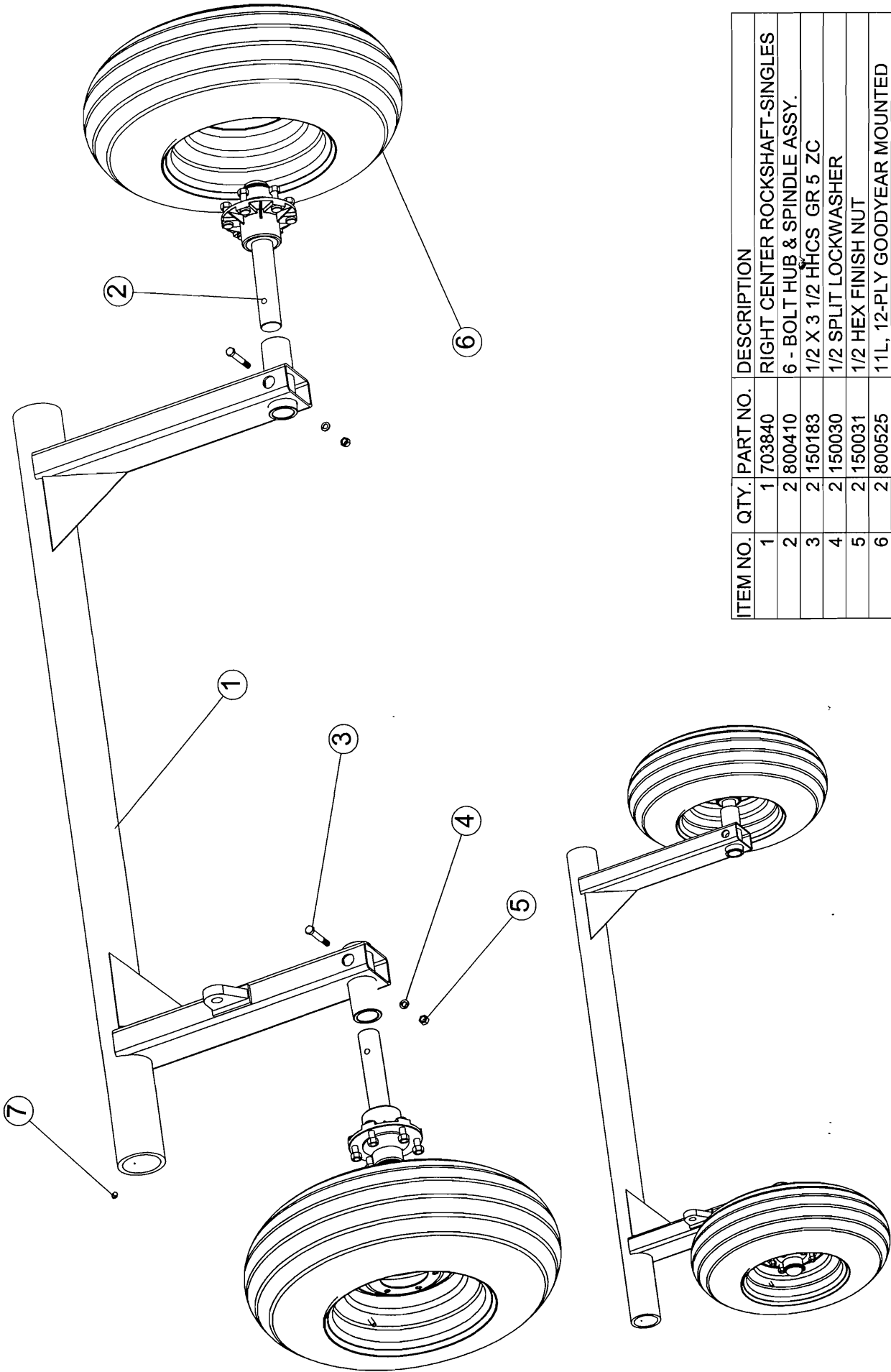
# TONGUE AND TRUSS ASSEMBLY



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	340105	6 BOLT HUB W/CUPS
2	6	340111	9/16 X 1 7/8 UNF WHEEL STUD
3	6	340110	9/16 UNF WHEEL NUT
4	1	310052	INNER CUP LM501310
5	1	310035	OUTER CUP LM67010
6	1	340187	SPINDLE 6 BOLT 14 7/8
7	1	310051	INNER CONE BEARING LM501349
8	1	310036	OUTER CONE BEARING LM67048
9	1	310050	SEAL
10	1	340112	3/4 RETAINING WASHER
11	1	340065	3/4 UNF SPINDLE NUT
12	1	150022	5/32 X 1 1/4 COTTER PIN PLAIN
13	1	340053	HUB CAP

**6 BOLT HUB & SPINDLE ASSEMBLY (800410) 3**

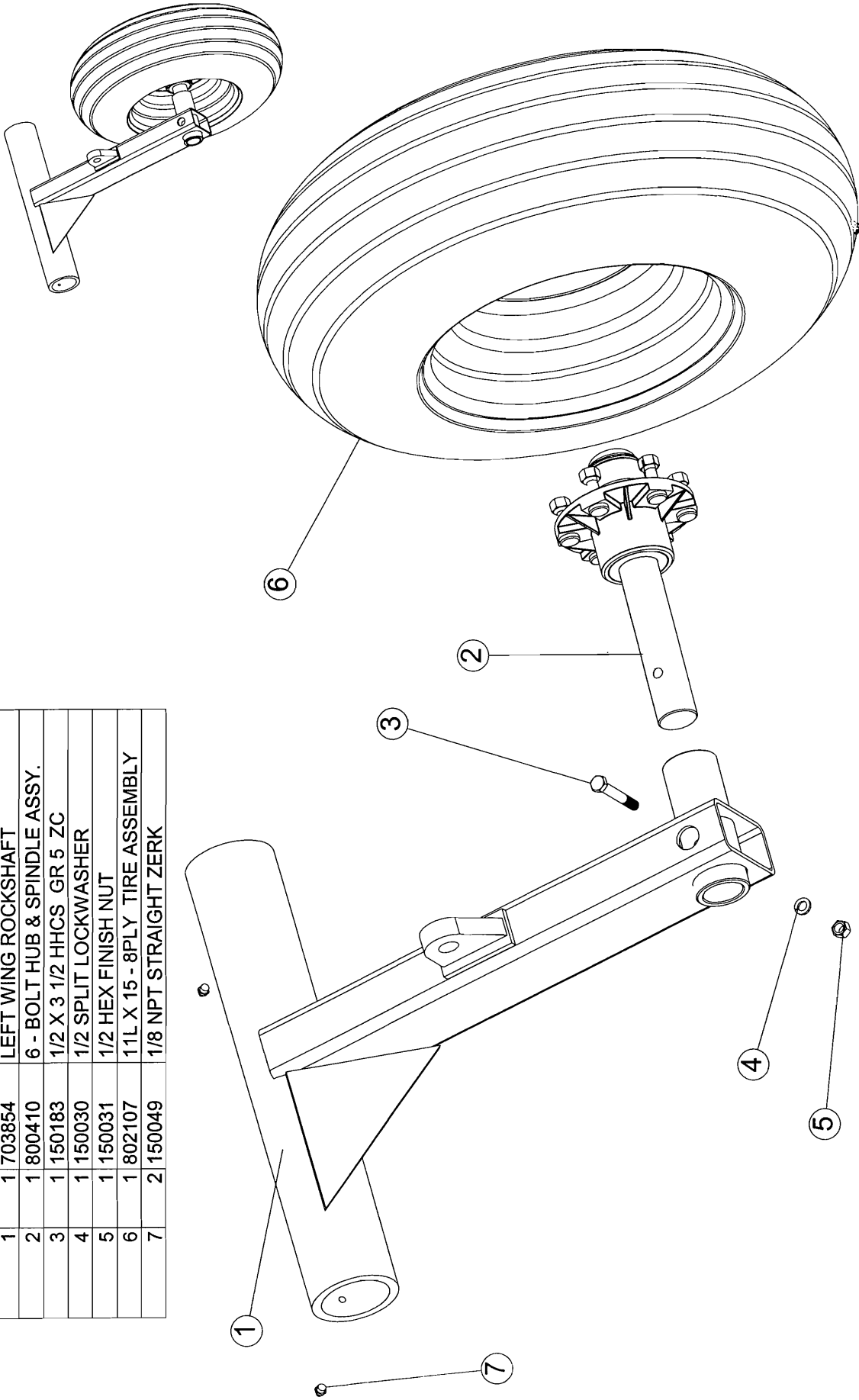




ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703840	RIGHT CENTER ROCKSHAFT-SINGLES
2	2	800410	6 - BOLT HUB & SPINDLE ASSY.
3	2	150183	1/2 X 3 1/2 HHCS GR 5 ZC
4	2	150030	1/2 SPLIT LOCKWASHER
5	2	150031	1/2 HEX FINISH NUT
6	2	800525	11L, 12-PLY GOODYEAR MOUNTED
7	1	150049	1/8 NPT STRAIGHT ZERK

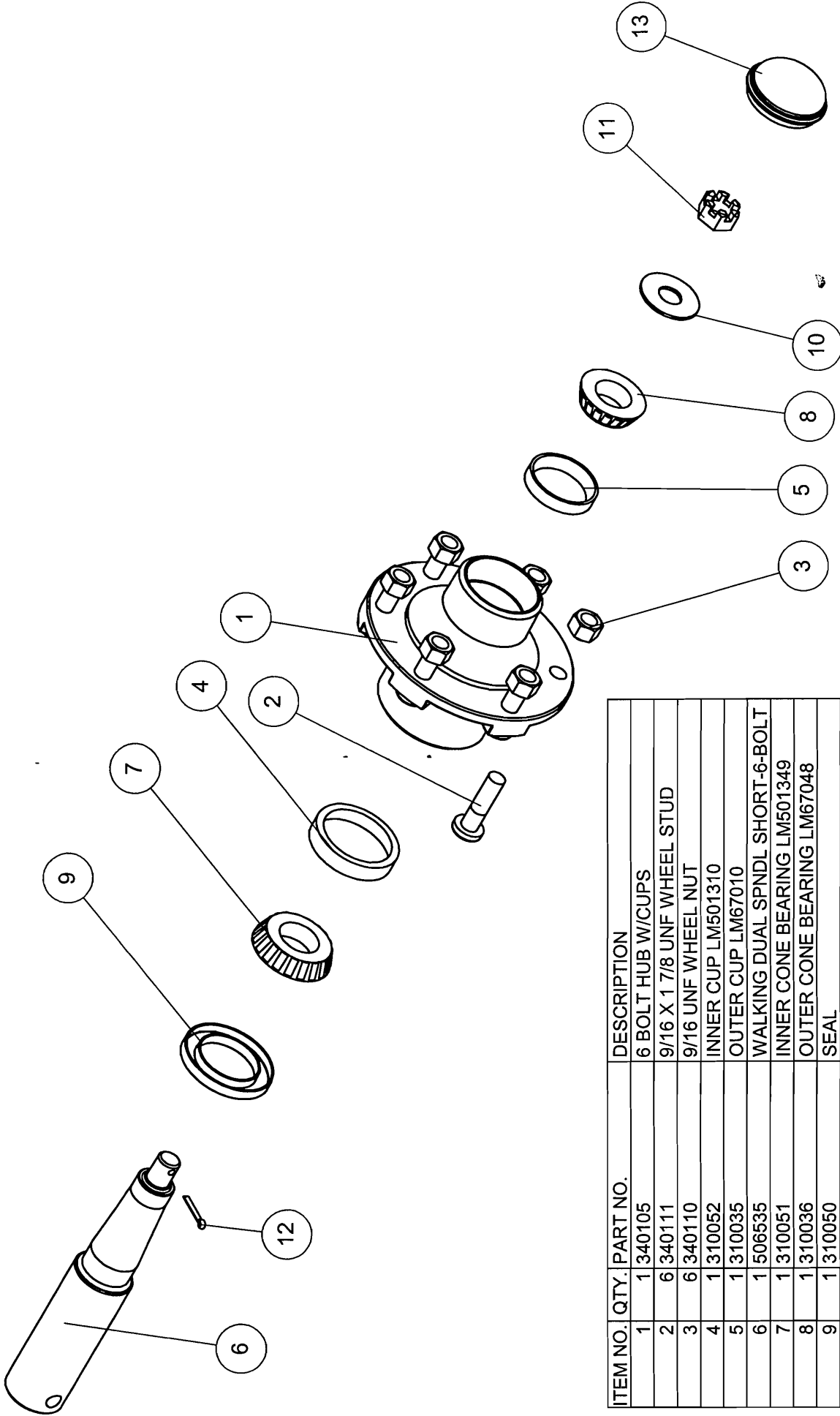
**RIGHT CENTER ROCKSHAFT KIT (901408)**

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703854	LEFT WING ROCKSHAFT
2	1	800410	6 - BOLT HUB & SPINDLE ASSY.
3	1	150183	1/2 X 3 1/2 HHCS GR 5 ZC
4	1	150030	1/2 SPLIT LOCKWASHER
5	1	150031	1/2 HEX FINISH NUT
6	1	802107	11L X 15 - 8PLY TIRE ASSEMBLY
7	2	150049	1/8 NPT STRAIGHT ZERK



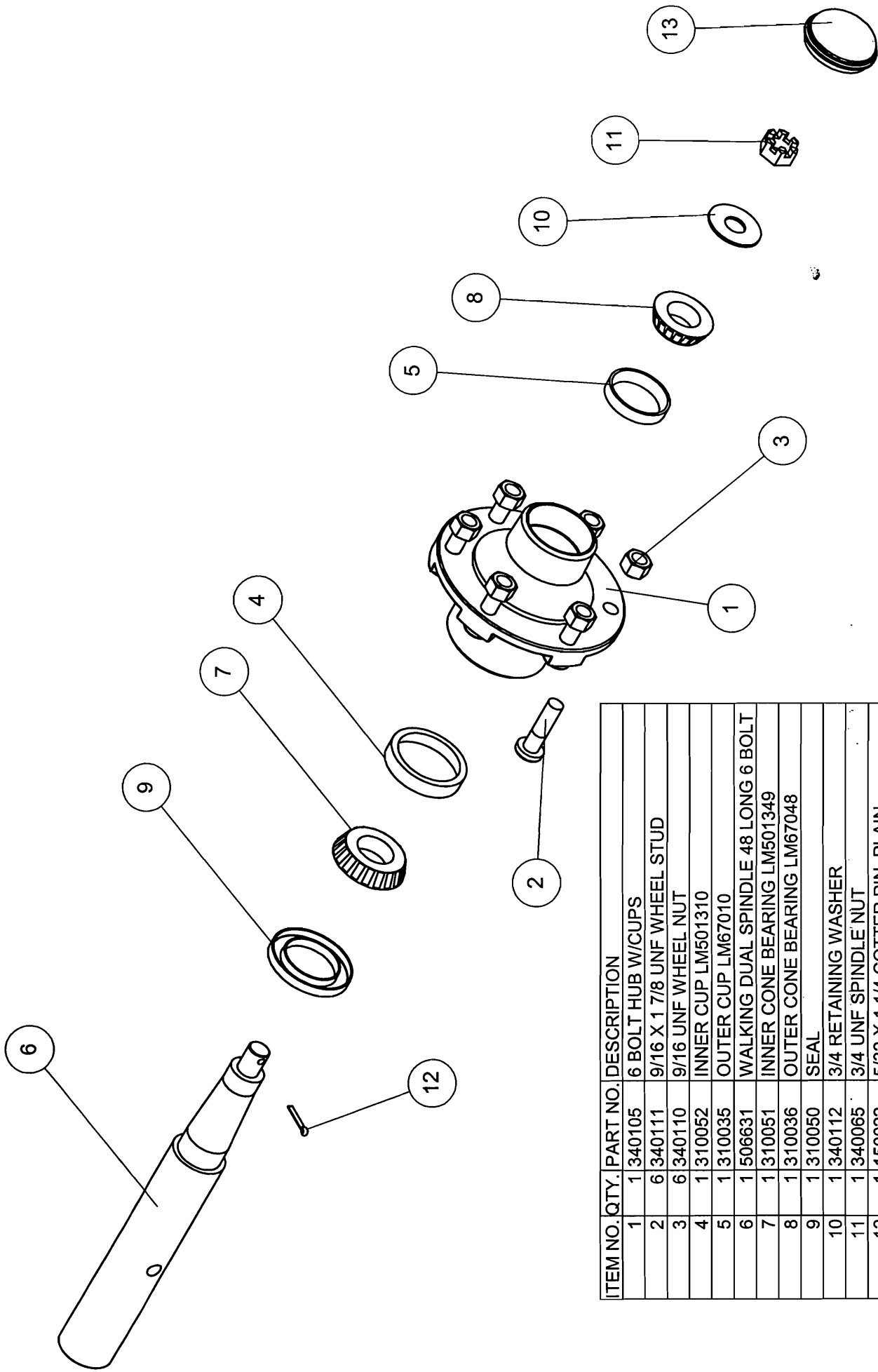
**NOTE: USE ROCKSHAFT 703855 ON RIGHT  
WING ROCKSHAFT KIT (901410);  
USE TIRE 800525 FOR LEFT CENTER  
ROCKSHAFT KIT (901446)**

**LEFT WING ROCKSHAFT KIT (901409)**



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1340105	6 BOLT HUB W/CUPS
2	6	1340111	9/16 X 1 7/8 UNF WHEEL STUD
3	6	1340110	9/16 UNF WHEEL NUT
4	1	1310052	INNER CUP LM501310
5	1	1310035	OUTER CUP LM67010
6	1	1506535	WALKING DUAL SPNDL SHORT-6-BOLT
7	1	1310051	INNER CONE BEARING LM501349
8	1	1310036	OUTER CONE BEARING LM67048
9	1	1310050	SEAL
10	1	1340112	3/4 RETAINING WASHER
11	1	1340065	3/4 UNF SPINDLE NUT
12	1	150022	5/32 X 1 1/4 COTTER PIN PLAIN
13	1	1340053	HUB CAP

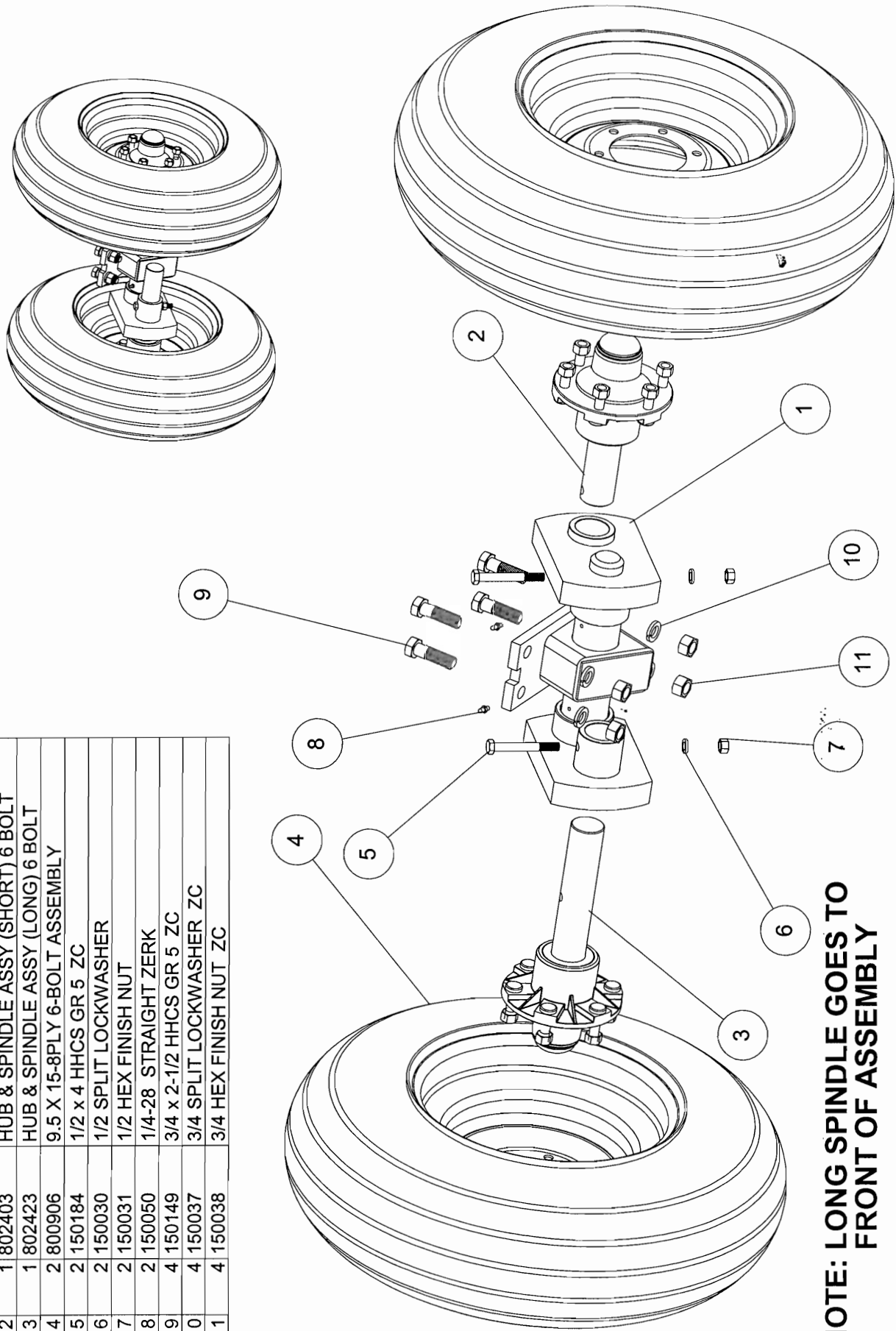
**HUB & SPINDLE ASSEMBLY (SHORT) 6 BOLT (802403) 6**



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	340105	6 BOLT HUB W/CUPS
2	6	340111	9/16 X 1 7/8 UNF WHEEL STUD
3	6	340110	9/16 UNF WHEEL NUT
4	1	310052	INNER CUP LM501310
5	1	310035	OUTER CUP LM67010
6	1	506631	WALKING DUAL SPINDLE 48 LONG 6 BOLT
7	1	310051	INNER CONE BEARING LM501349
8	1	310036	OUTER CONE BEARING LM67048
9	1	310050	SEAL
10	1	340112	3/4 RETAINING WASHER
11	1	340065	3/4 UNF SPINDLE NUT
12	1	150022	5/32 X 1 1/4 COTTER PIN PLAIN
13	1	340053	HUB CAP

# HUB & SPINDLE ASSEMBLY (LONG) 6 BOLT (802423)

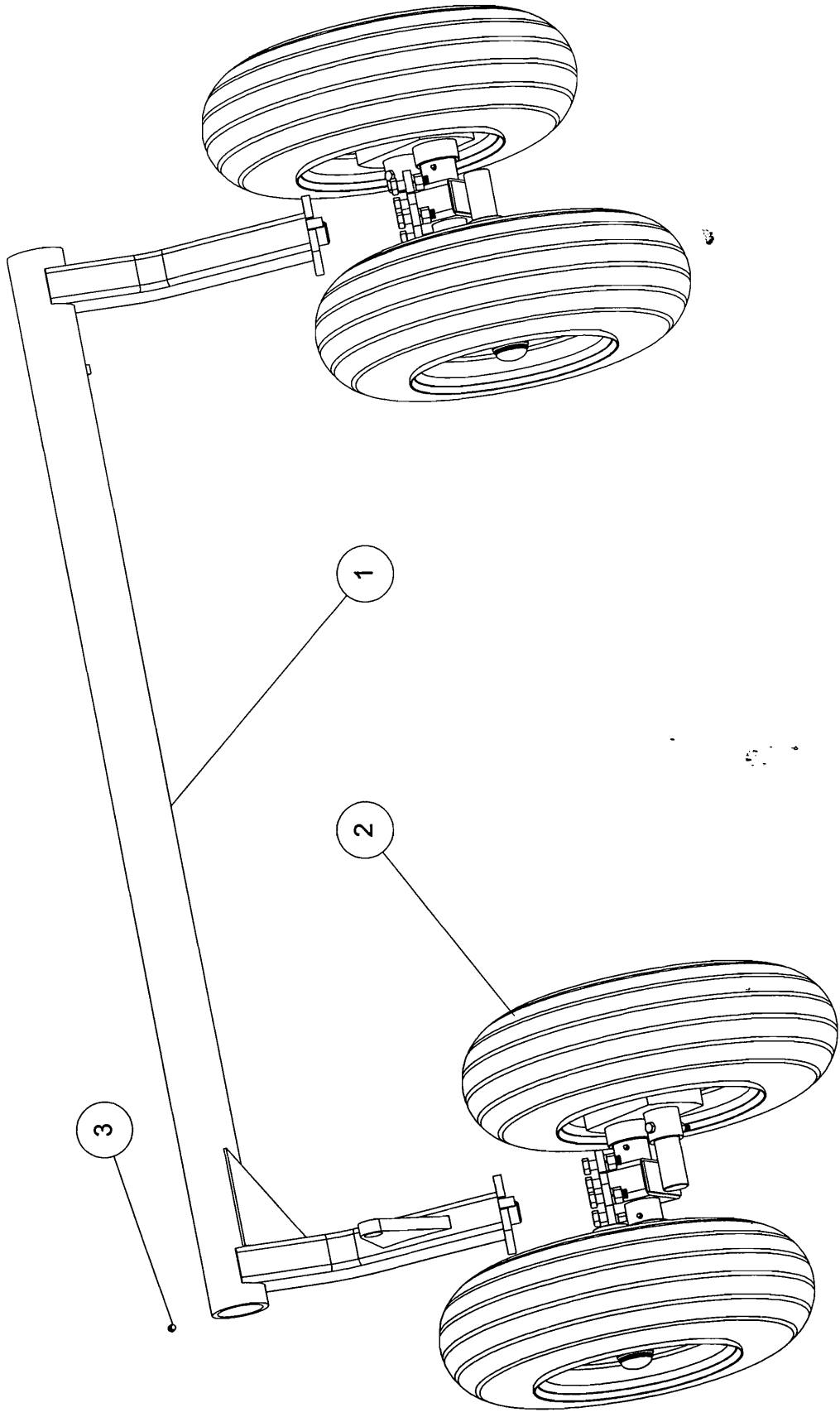
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703786	WALKING DUAL AXLE 6 BOLT W.A.
2	1	802403	HUB & SPINDLE ASSY (SHORT) 6 BOLT
3	1	802423	HUB & SPINDLE ASSY (LONG) 6 BOLT
4	2	800906	9.5 X 15-8PLY 6-BOLT ASSEMBLY
5	2	150184	1/2 x 4 HHCS GR 5 ZC
6	2	150030	1/2 SPLIT LOCKWASHER
7	2	150031	1/2 HEX FINISH NUT
8	2	150050	1/4-28 STRAIGHT ZERK
9	4	150149	3/4 x 2-1/2 HHCS GR 5 ZC
10	4	150037	3/4 SPLIT LOCKWASHER ZC
11	4	150038	3/4 HEX FINISH NUT ZC



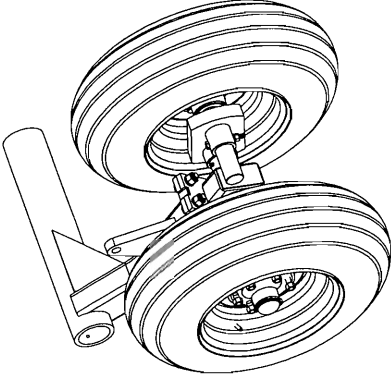
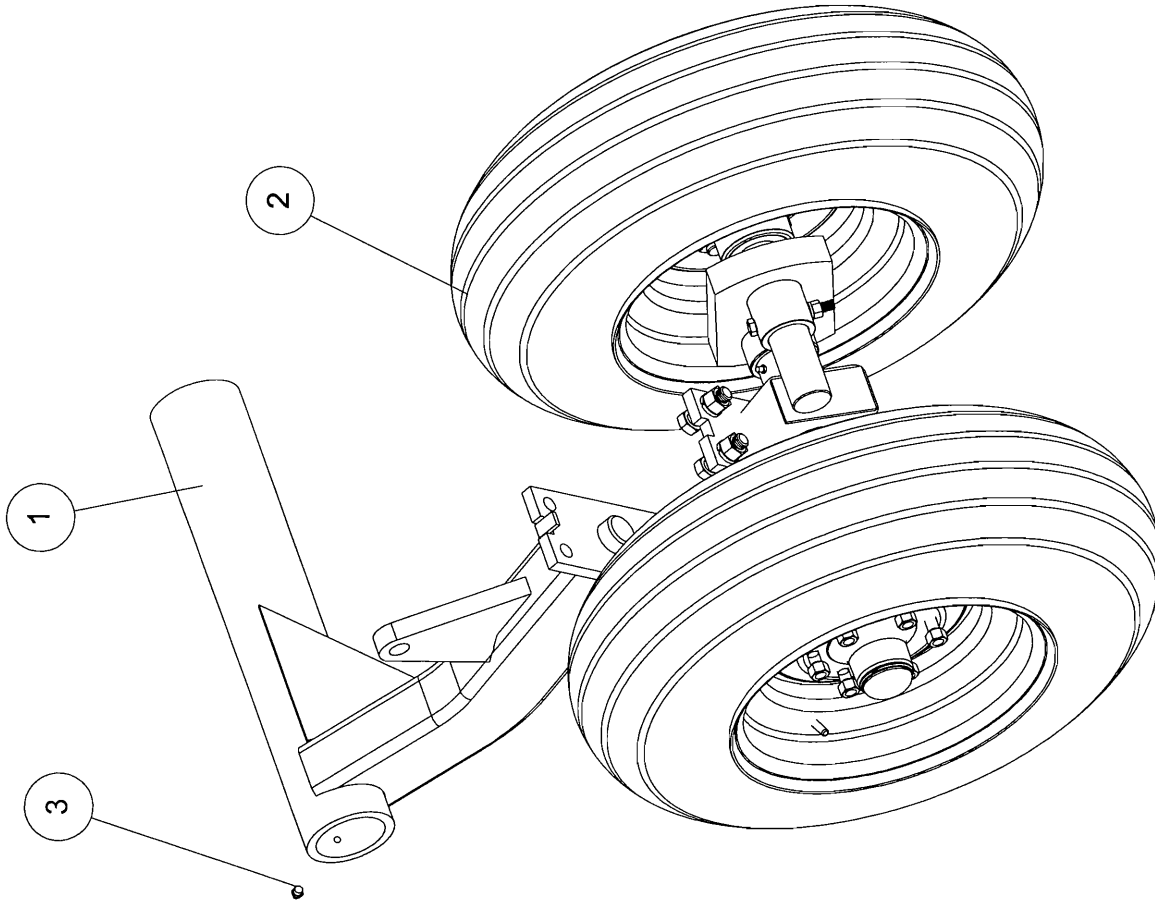
**NOTE: LONG SPINDLE GOES TO FRONT OF ASSEMBLY**

## DUAL AXLE AND WHEEL ASSEMBLY (901340)

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703819	RIGHT CENTER ROCKSHAFT W.O.
2	1	901340	DUAL AXLE AND WHEEL ASSY.
3	1	150049	1/8 NPT STRAIGHT ZERK



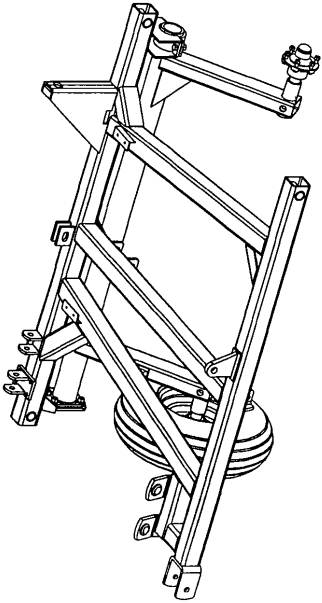
**DUAL RIGHT CENTER ROCKSHAFT KIT (901411)**



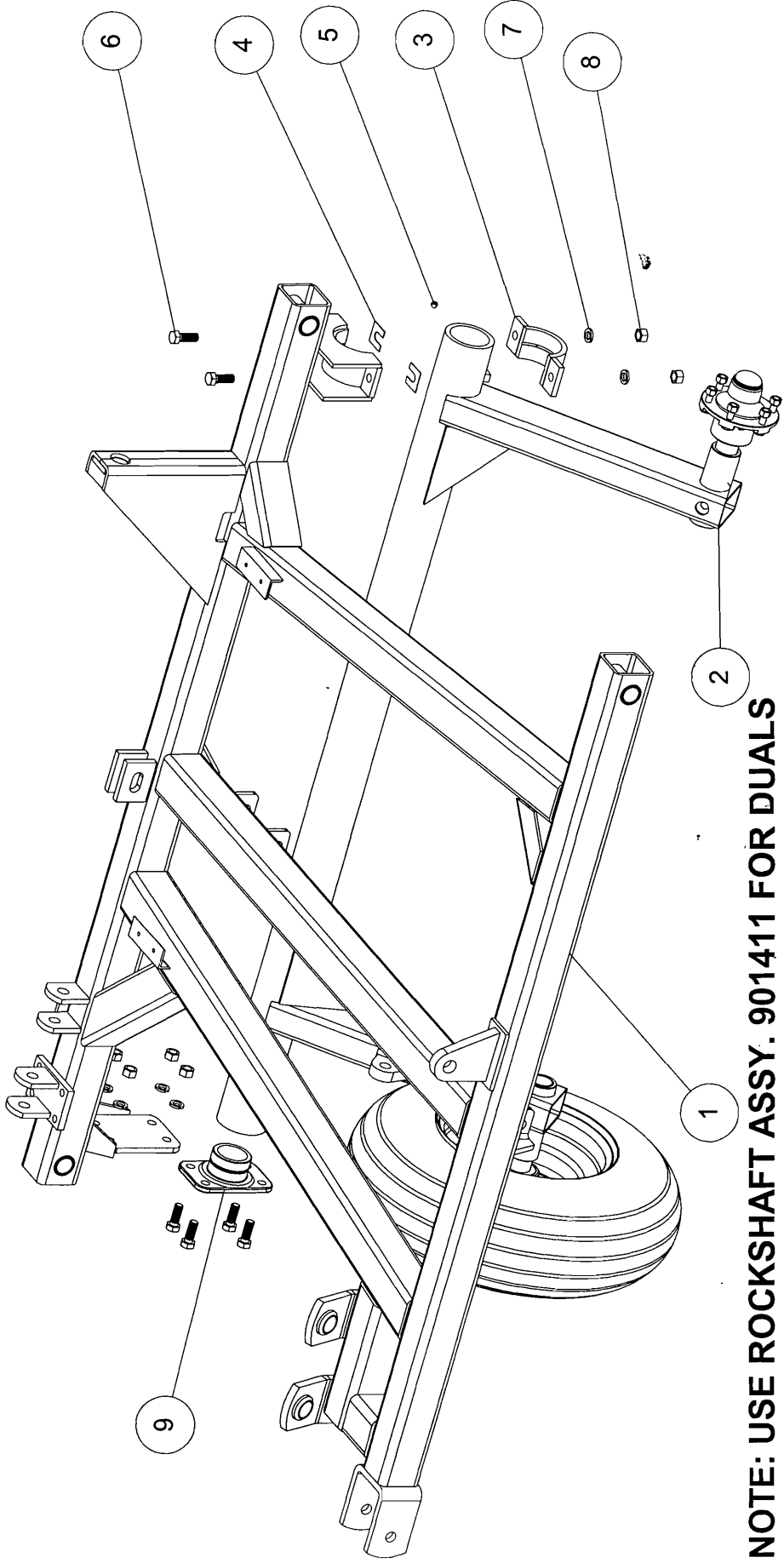
**NOTE: FOR LEFT ROCKSHAFT ASSY.  
(901412) USE ROCKSHAFT 703231**

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703232	RT INSERT CENTER ROCKSHAFT
2	1	901340	DUAL AXLE AND WHEEL ASSY.
3	2	150049	1/8 NPT STRAIGHT ZERK

**DUAL RIGHT ROCKSHAFT ASSY. (901413).**



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1703811	RIGHT CENTER FRAME W-D
2	1	1901408	RIGHT CENTER ROCKSHAFT KIT (SINGLE)
3	1	1703857	BEARING CAP
4	2	150081	2 x 2 x 16 GA SLOTTED SHIM
5	1	150049	1/8 NPT STRAIGHT ZERK
6	6	150057	3/4 X 2 HHCS GR 2 ZC
7	6	150037	3/4 SPLIT LOCKWASHER ZC
8	6	150038	3/4 HEX FINISH NUT ZC
9	1	1300043	ROCKSHAFT BEARINGS

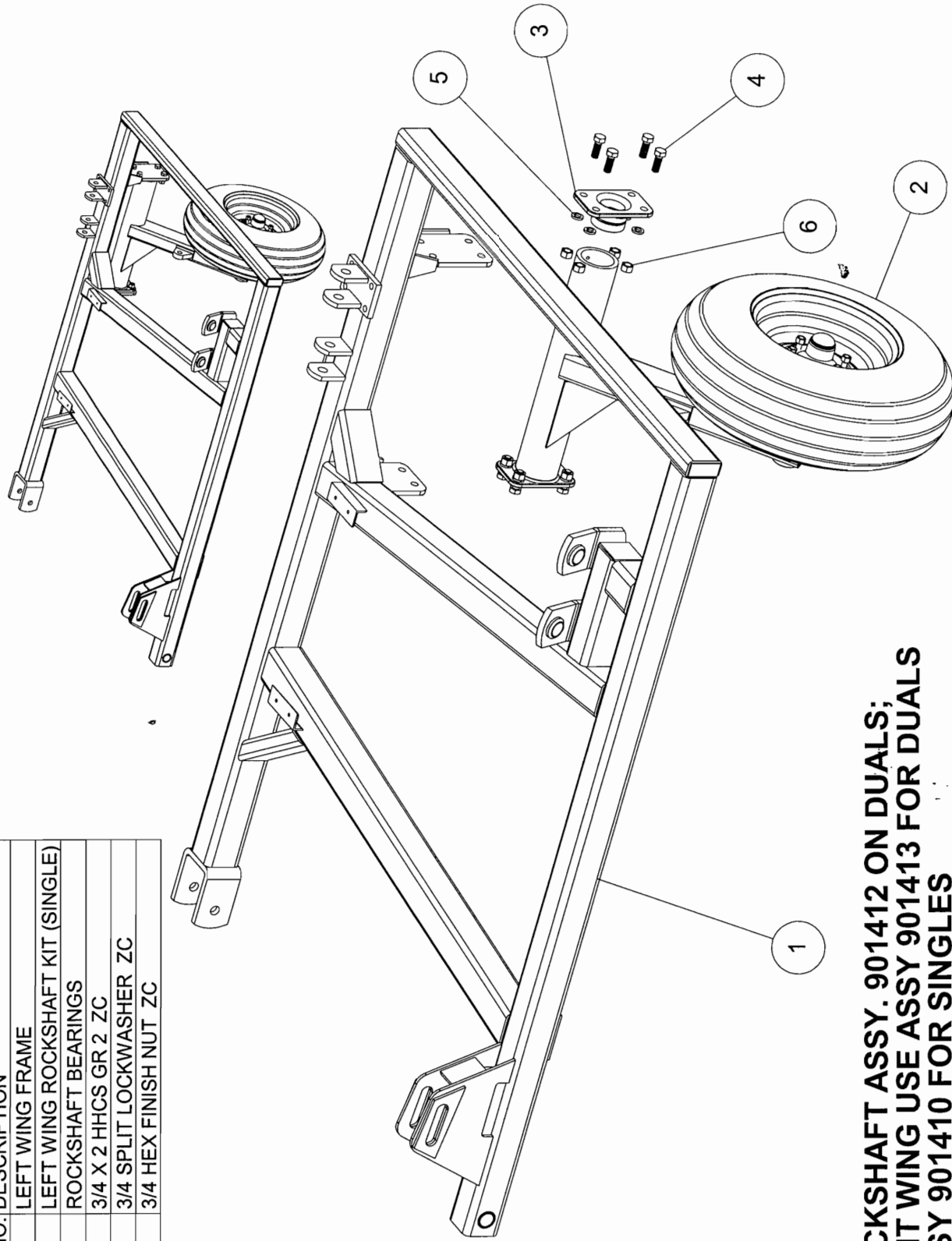


NOTE: USE ROCKSHAFT ASSY. 901411 FOR DUALS

**ROCKSHAFT ASSY. PLACEMENT**



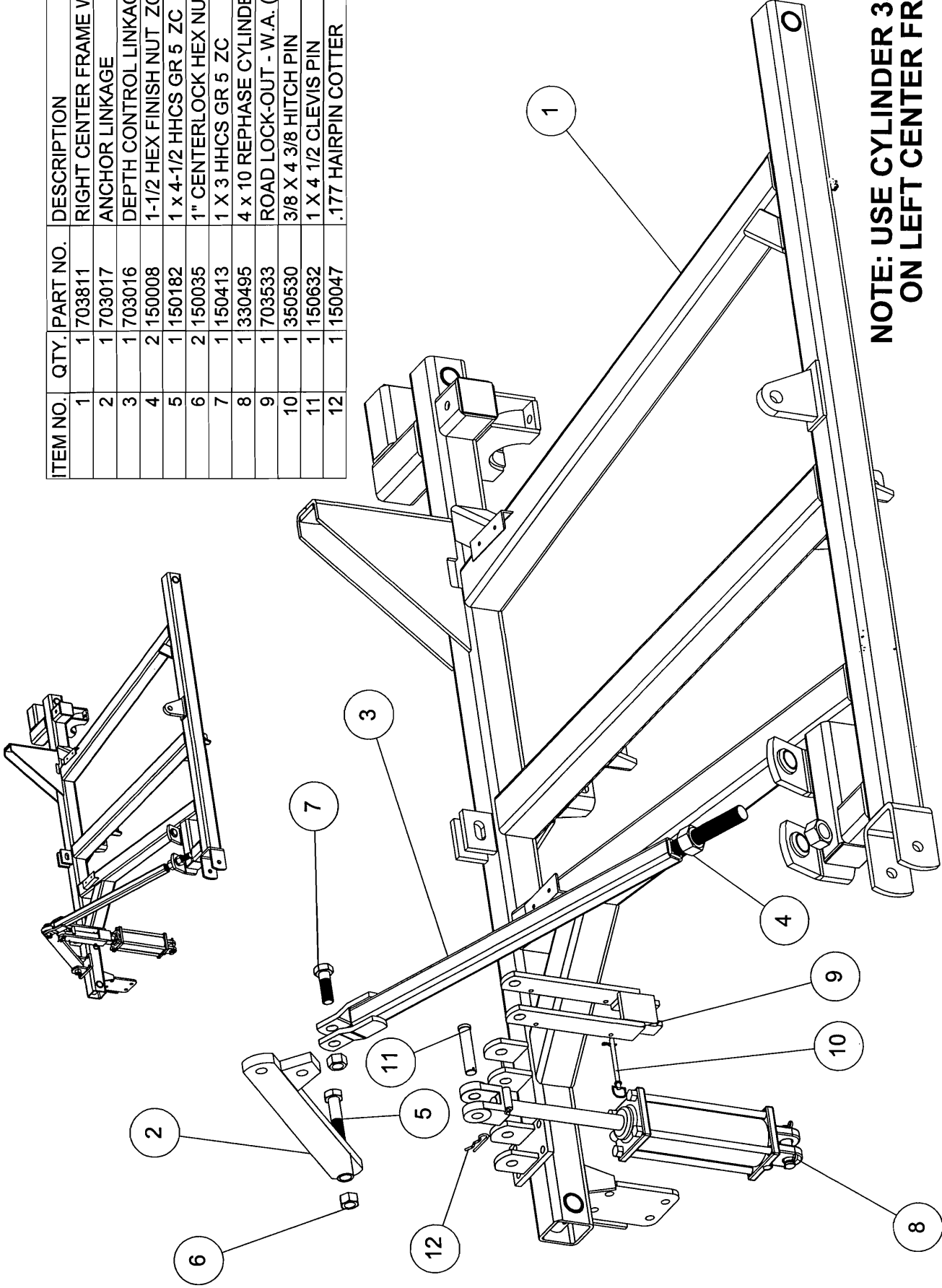
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703814	LEFT WING FRAME
2	1	901409	LEFT WING ROCKSHAFT KIT (SINGLE)
3	2	300043	ROCKSHAFT BEARINGS
4	8	150057	3/4 X 2 HHCS GR 2 ZC
5	8	150037	3/4 SPLIT LOCKWASHER ZC
6	8	150038	3/4 HEX FINISH NUT ZC



**NOTE: USE ROCKSHAFT ASSY. 901412 ON DUALS;  
ON RIGHT WING USE ASSY 901413 FOR DUALS  
AND ASSY 901410 FOR SINGLES**

## ROCKSHAFT ASSEMBLY PLACEMENT (WING)

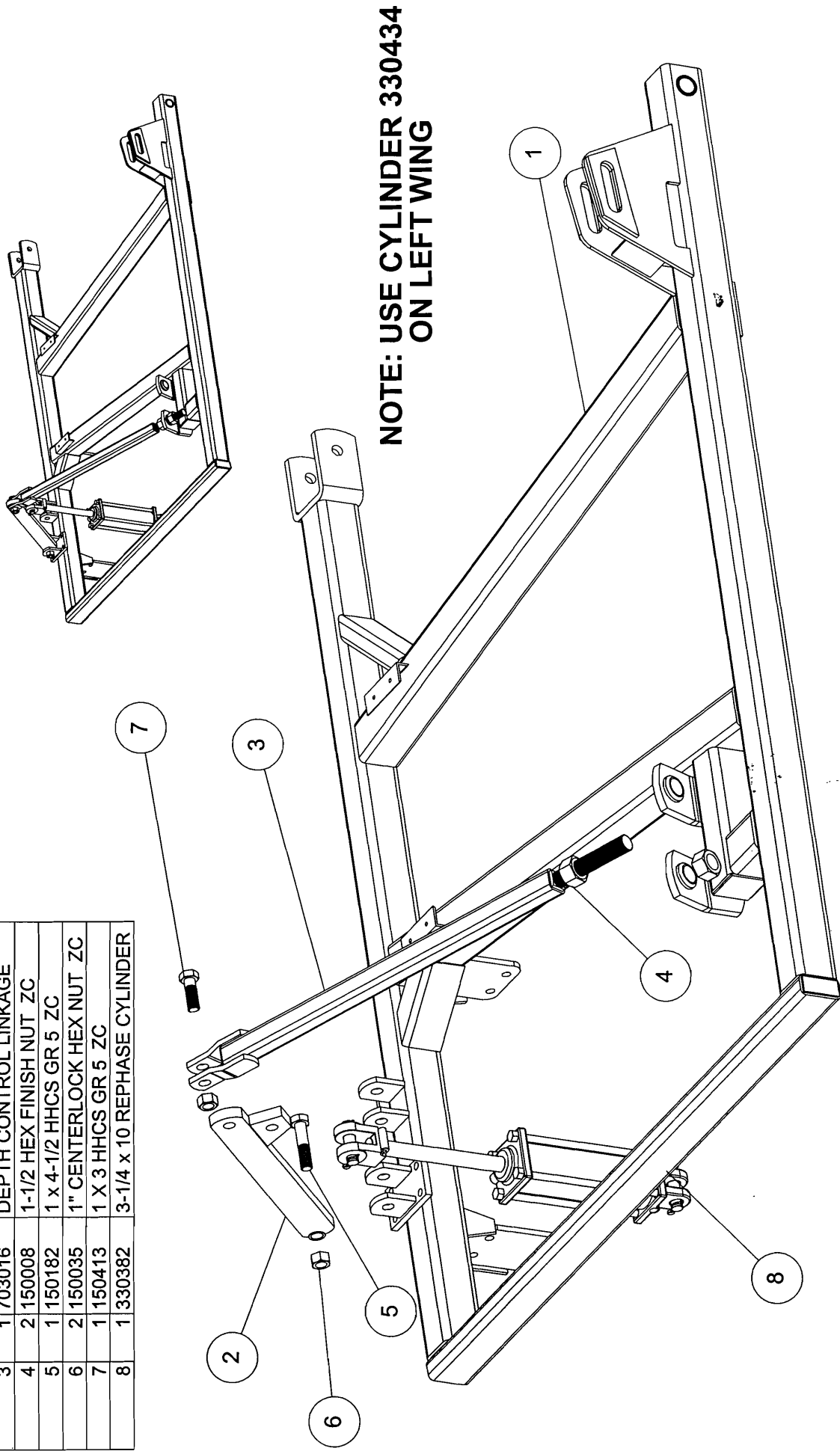
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703811	RIGHT CENTER FRAME W-D
2	1	703017	ANCHOR LINKAGE
3	1	703016	DEPTH CONTROL LINKAGE
4	2	150008	1-1/2 HEX FINISH NUT ZC
5	1	150182	1 X 4-1/2 HHCS GR 5 ZC
6	2	150035	1" CENTERLOCK HEX NUT ZC
7	1	150413	1 X 3 HHCS GR 5 ZC
8	1	330495	4 X 10 REPHASE CYLINDER
9	1	703533	ROAD LOCK-OUT - W.A. (WHITE)
10	1	350530	3/8 X 4 3/8 HITCH PIN
11	1	150632	1 X 4 1/2 CLEVIS PIN
12	1	150047	.177 HAIRPIN COTTER



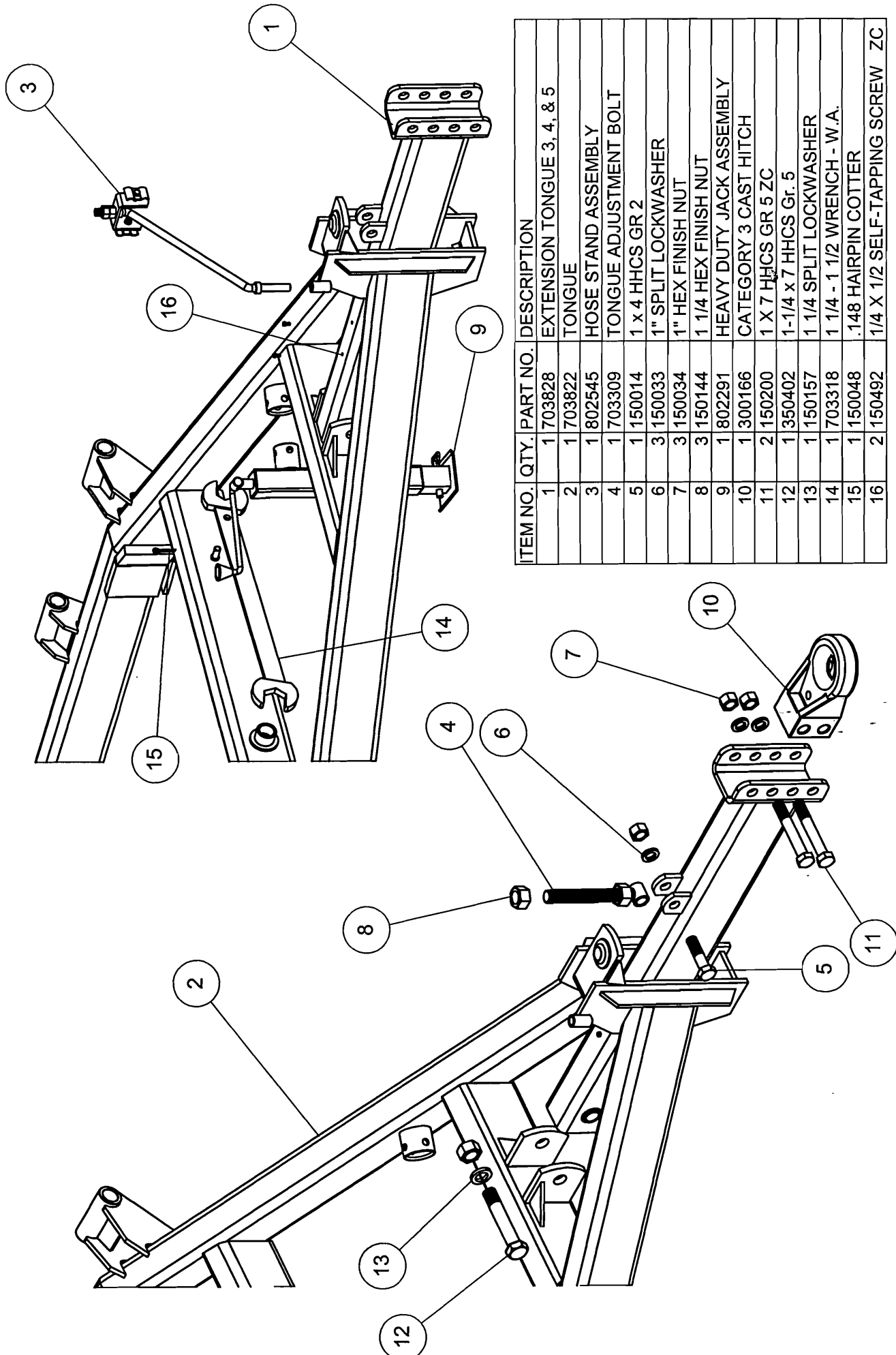
**NOTE: USE CYLINDER 330435  
ON LEFT CENTER FRAMES**

**DEPTH CONTROL ASSEMBLY (CENTER)**

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703813	RIGHT WING FRAME
2	1	703017	ANCHOR LINKAGE
3	1	703016	DEPTH CONTROL LINKAGE
4	2	150008	1-1/2 HEX FINISH NUT ZC
5	1	150182	1 x 4-1/2 HHCS GR 5 ZC
6	2	150035	1" CENTERLOCK HEX NUT ZC
7	1	150413	1 X 3 HHCS GR 5 ZC
8	1	330382	3-1/4 x 10 REPHASE CYLINDER

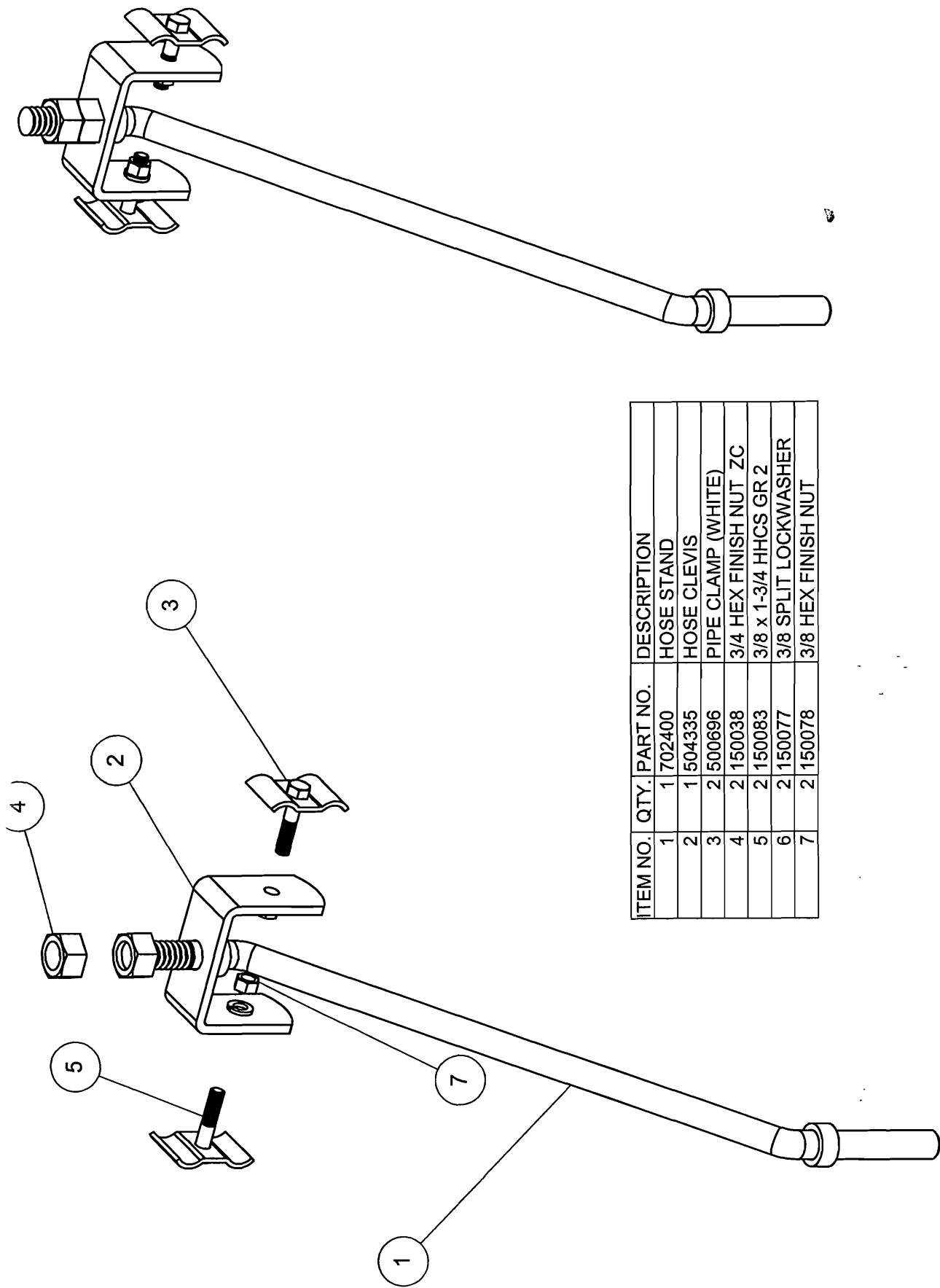


**DEPTH CONTROL ASSEMBLY (WING)**



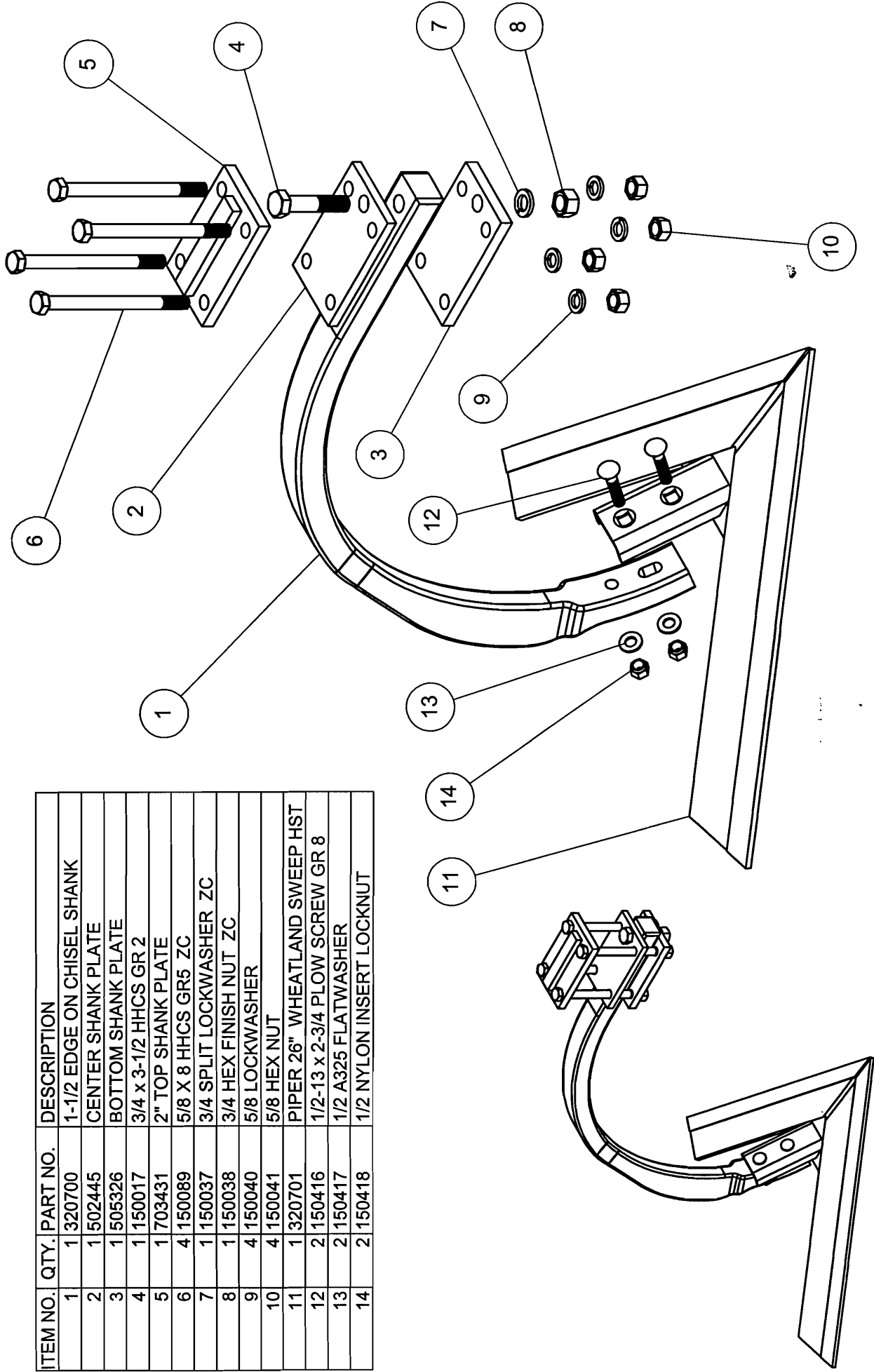
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703828	EXTENSION TONGUE 3, 4, & 5
2	1	703822	TONGUE
3	1	802545	HOSE STAND ASSEMBLY
4	1	703309	TONGUE ADJUSTMENT BOLT
5	1	150014	1 x 4 HHCS GR 2
6	3	150033	1" SPLIT LOCKWASHER
7	3	150034	1" HEX FINISH NUT
8	3	150144	1 1/4 HEX FINISH NUT
9	1	802291	HEAVY DUTY JACK ASSEMBLY
10	1	300166	CATEGORY 3 CAST HITCH
11	2	150200	1 X 7 HHCS GR 5 ZC
12	1	350402	1-1/4 x 7 HHCS Gr. 5
13	1	150157	1 1/4 SPLIT LOCKWASHER
14	1	703318	1 1/4 - 1 1/2 WRENCH - W.A.
15	1	150048	.148 HAIRPIN COTTER
16	2	150492	1/4 X 1/2 SELF-TAPPING SCREW ZC

**TONGUE ASSEMBLY**



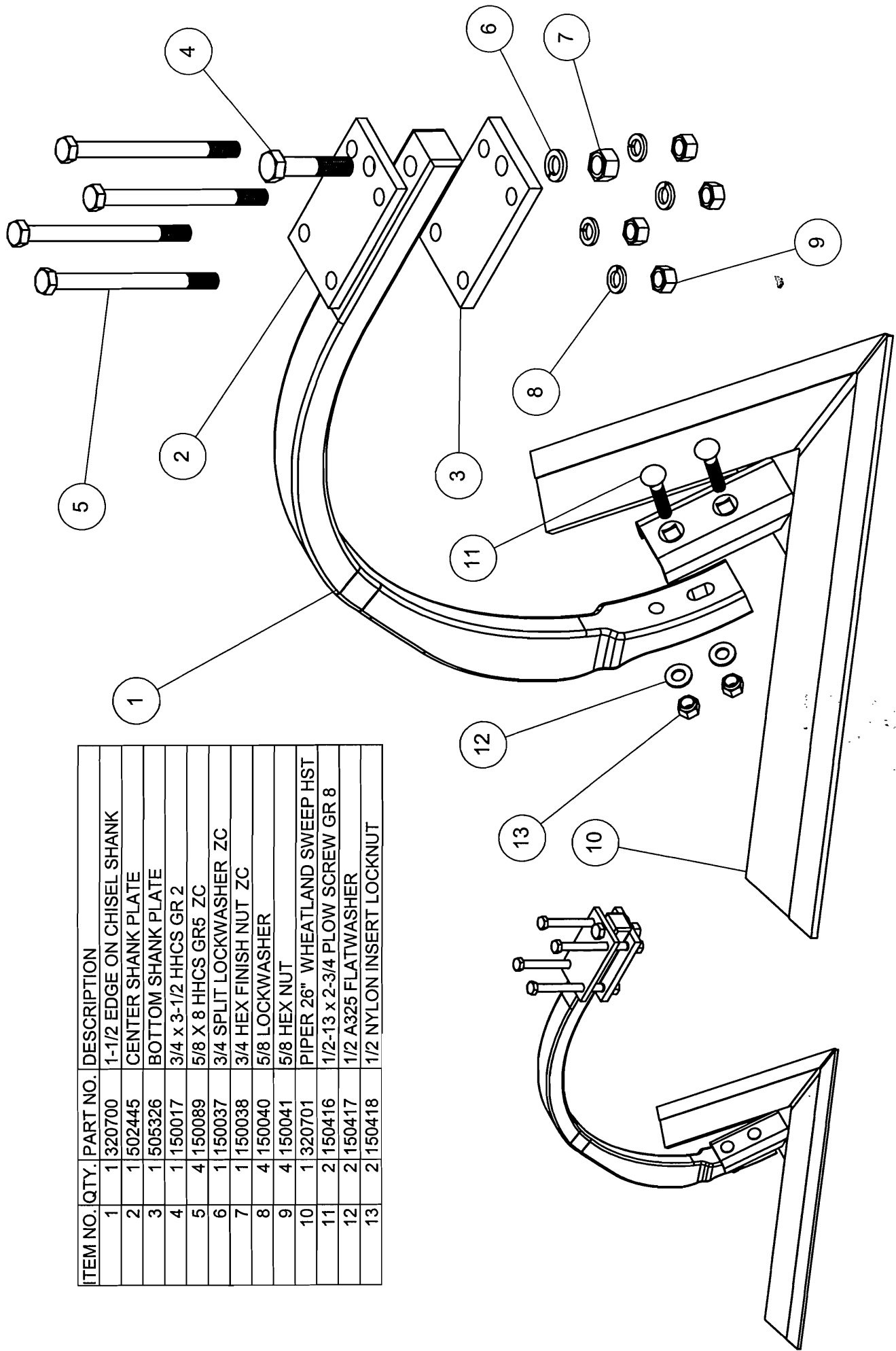
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	702400	HOSE STAND
2	1	504335	HOSE CLEVIS
3	2	500696	PIPE CLAMP (WHITE)
4	2	150038	3/4 HEX FINISH NUT ZC
5	2	150083	3/8 x 1-3/4 HHCS GR 2
6	2	150077	3/8 SPLIT LOCKWASHER
7	2	150078	3/8 HEX FINISH NUT

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1320700	1-1/2" EDGE ON CHISEL SHANK
2	1	1502445	CENTER SHANK PLATE
3	1	1505326	BOTTOM SHANK PLATE
4	1	1150017	3/4 x 3-1/2" HHCS GR 2
5	1	1703431	2" TOP SHANK PLATE
6	4	150089	5/8 X 8 HHCS GR5 ZC
7	1	1150037	3/4 SPLIT LOCKWASHER ZC
8	1	1150038	3/4 HEX FINISH NUT ZC
9	4	150040	5/8 LOCKWASHER
10	4	150041	5/8 HEX NUT
11	1	1320701	PIPER 26" WHEATLAND SWEEP HST
12	2	150416	1/2-13 x 2-3/4 PLOW SCREW GR 8
13	2	150417	1/2 A325 FLATWASHER
14	2	150418	1/2 NYLON INSERT LOCKNUT



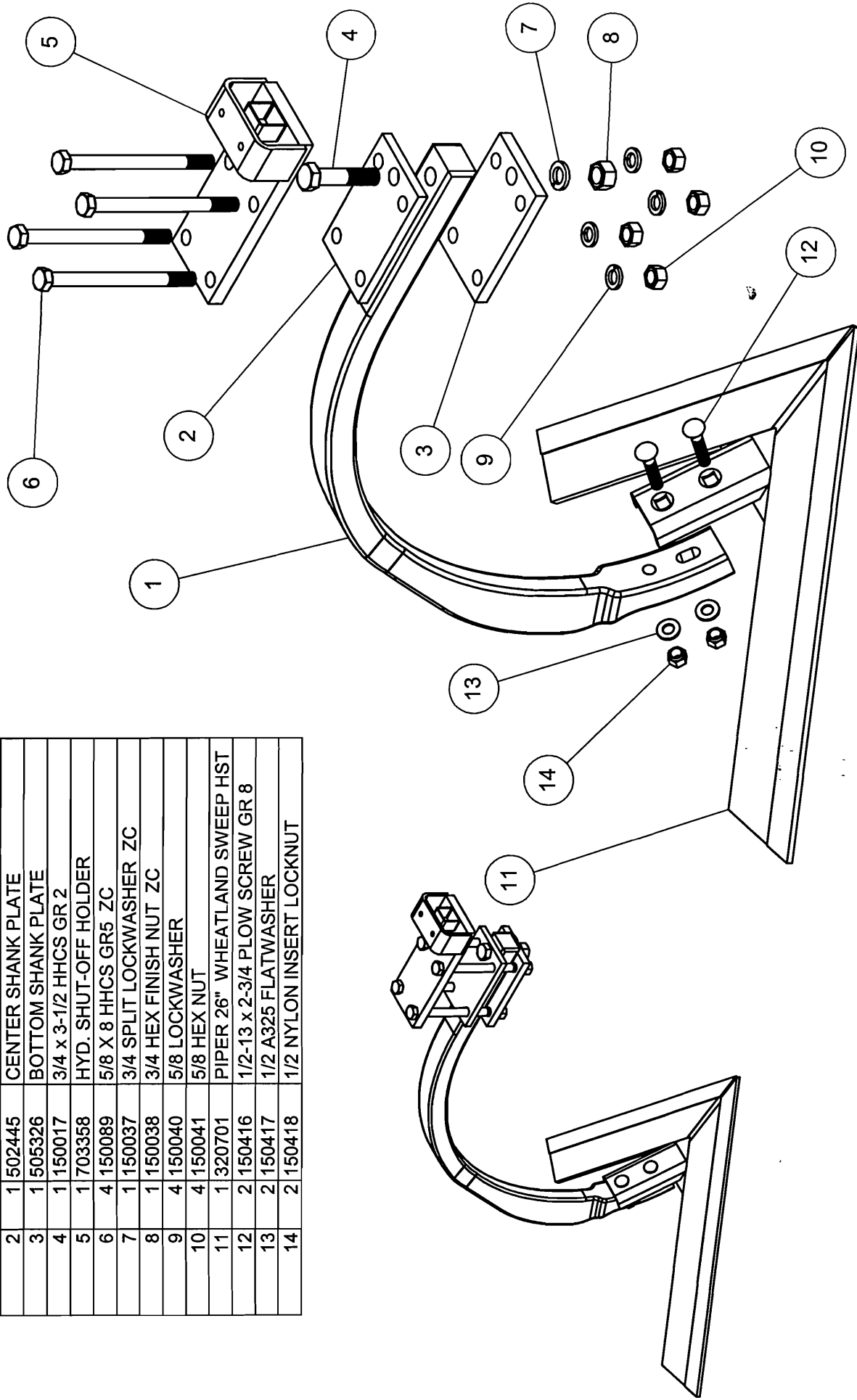
**"EDGE ON" CHISEL SHANK ASSEMBLY (901392) 17**

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	320700	1-1/2 EDGE ON CHISEL SHANK
2	1	502445	CENTER SHANK PLATE
3	1	505326	BOTTOM SHANK PLATE
4	1	150017	3/4 x 3-1/2 HHCS GR 2
5	4	150089	5/8 X 8 HHCS GR5 ZC
6	1	150037	3/4 SPLIT LOCKWASHER ZC
7	1	150038	3/4 HEX FINISH NUT ZC
8	4	150040	5/8 LOCKWASHER
9	4	150041	5/8 HEX NUT
10	1	320701	PIPER 26" WHEATLAND SWEEP HST
11	2	150416	1/2-13 x 2-3/4 PLOW SCREW GR 8
12	2	150417	1/2 A325 FLATWASHER
13	2	150418	1/2 NYLON INSERT LOCKNUT



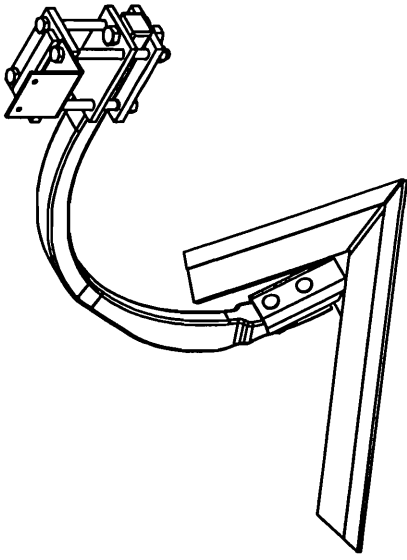
**SHANK ASSEMBLY W/O TOP PLATE (901393)**

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	320700	1-1/2 EDGE ON CHISEL SHANK
2	1	502445	CENTER SHANK PLATE
3	1	505326	BOTTOM SHANK PLATE
4	1	150017	3/4 x 3-1/2 HHCS GR 2
5	1	703358	HYD. SHUT-OFF HOLDER
6	4	150089	5/8 X 8 HHCS GR5 ZC
7	1	150037	3/4 SPLIT LOCKWASHER ZC
8	1	150038	3/4 HEX FINISH NUT ZC
9	4	150040	5/8 LOCKWASHER
10	4	150041	5/8 HEX NUT
11	1	320701	PIPER 26" WHEATLAND SWEEP HST
12	2	150416	1/2-13 x 2-3/4 PLOW SCREW GR 8
13	2	150417	1/2 A325 FLATWASHER
14	2	150418	1/2 NYLON INSERT LOCKNUT



**SHANK ASSEMBLY W/ HYD. SHUT OFF HOLDER (901394)**





ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	320700	1-1/2" EDGE ON CHISEL SHANK
2	1	502445	CENTER SHANK PLATE
3	1	505326	BOTTOM SHANK PLATE
4	1	150017	3/4 x 3-1/2 HHCS GR 2
5	1	703431	2" TOP SHANK PLATE
6	3	150089	5/8 X 8 HHCS GR5 ZC
7	1	150037	3/4 SPLIT LOCKWASHER ZC
8	1	150038	3/4 HEX FINISH NUT ZC
9	4	150040	5/8 LOCKWASHER
10	4	150041	5/8 HEX NUT
11	1	320701	PIPER 26" WHEATLAND SWEEP HST
12	2	150416	1/2-13 x 2-3/4 PLOW SCREW GR 8
13	2	150417	1/2 A325 FLAWASHER
14	2	150418	1/2 NYLON INSERT LOCKNUT
15	1	506724	VALVE BRACKET
16	1	150448	5/8 x 8 1/2 HHCS, GR. 5

**"EDGE ON" CHISEL SHANK W/ VALVE BRACKET (901415)**

CENTERLINE OF SHANK

CENTERLINE OF IMPLEMENT

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1703811	RIGHT CENTER FRAME W-D
2	1	1703812	LEFT CENTER FRAME - WO
3	1	1703813	RIGHT WING FRAME
4	1	1703814	LEFT WING FRAME
5	4	1901393	SHANK ASSY. W/O TOP PLATE
6	11	1901392	SHANK ASSY. W/ TOP PLATE
7	1	1901394	SHANK ASSY W/ HYD.HOLDER
8	1	1703824	RIGHT CENTER TRUSS
9	1	1703825	LEFT CENTER TRUSS
10	1	1901415	SHANK ASSY. W/ TOP PLATE

20"

40"

7

9

8

10

5

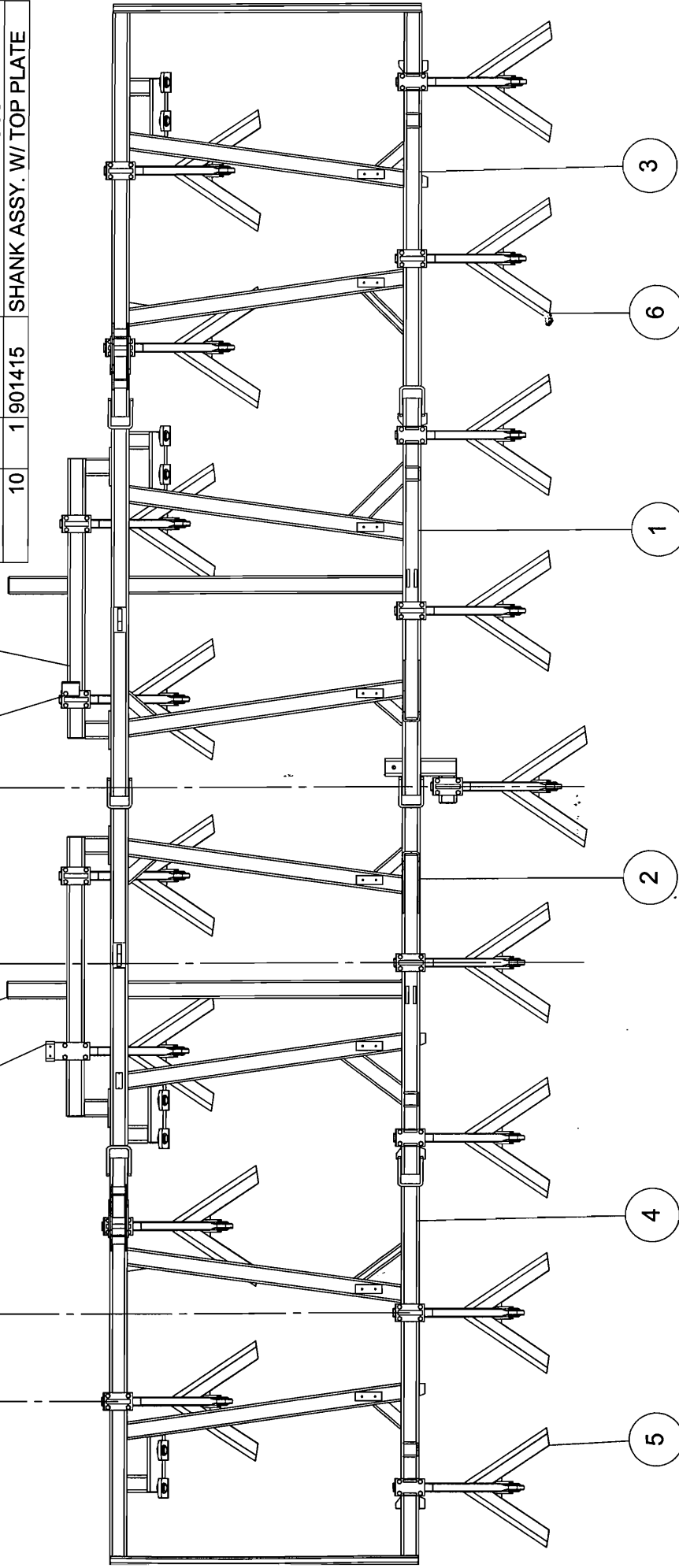
4

2

1

6

3



4-28 SHANK PLACEMENT

21

REF.	PART#	QTY	DESCRIPTION
	330434	1	3-1/2 X 10 WINGFOLD CYLINDER
1	330651	1	BASE CASTING
2	330646	4	TIE ROD BOLT
3	330657	1	HEAD CASTING
4	330809	4	TIE ROD HEX NUT
5	330666	1	CLEVIS
6	330638	1	PRINCE CYLINDER ROD
7	330643	1	BARREL
8	330663	1	PISTON
9	330668	1	CYLINDER ROD NUT
	330721		PRINCE PACKING KIT

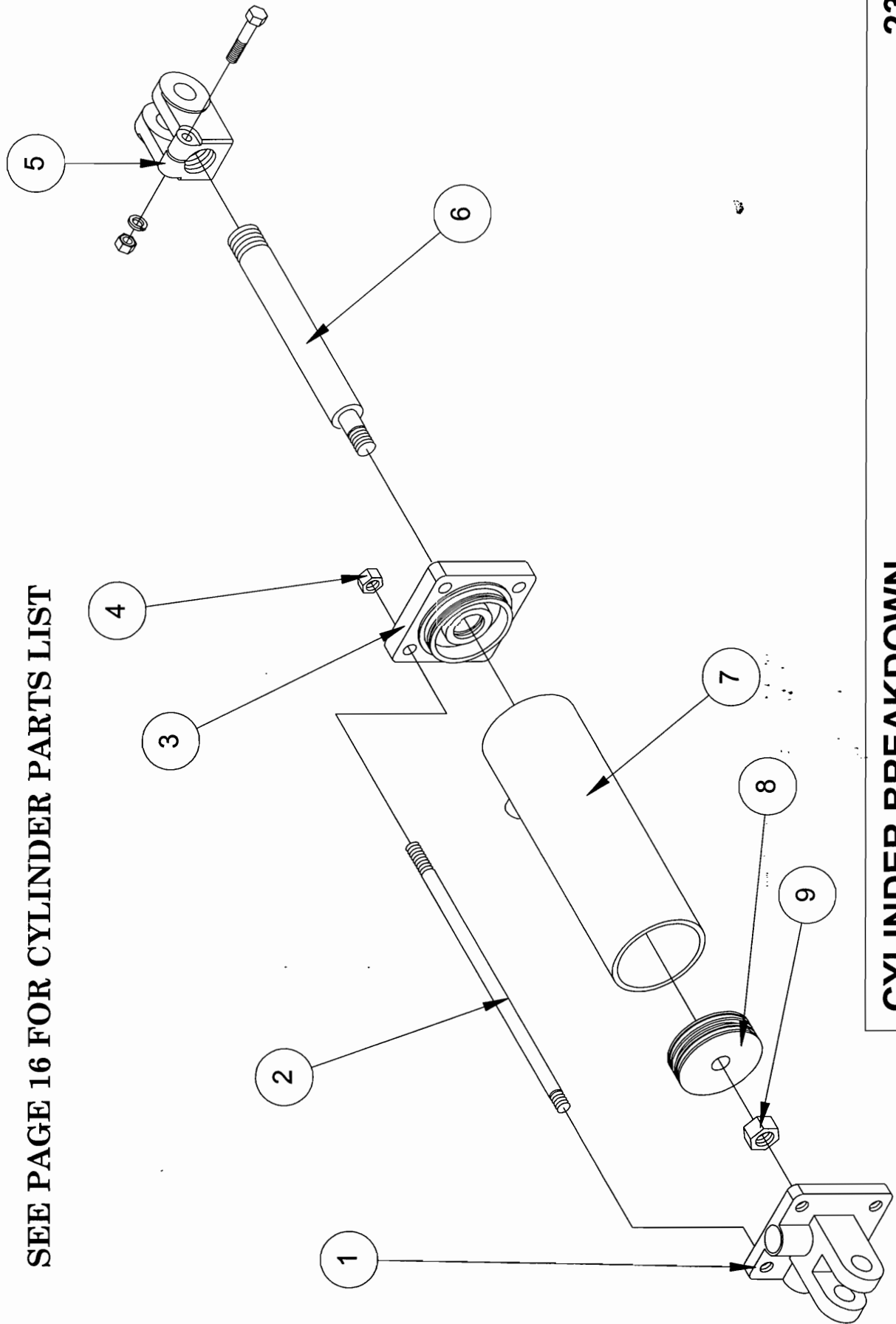
REF.	PART#	QTY	DESCRIPTION
	330382	1	3-1/4 X 10 WINGFOLD CYLINDER
1	330650	1	BASE CASTING
2	330646	4	TIE ROD BOLT
3	330656	1	HEAD CASTING
4	330809	4	TIE ROD HEX NUT
5	330666	1	CLEVIS
6	330638	1	PRINCE CYLINDER ROD
7	330642	1	BARREL
8	330662	1	PISTON
9	330668	1	CYLINDER ROD NUT
	330720		PRINCE PACKING KIT

REF.	PART#	QTY	DESCRIPTION
	330539	1	3 1/2 X 24 WINGFOLD CYLINDER
1	330598	1	BASE CASTING
2	330595	4	TIE ROD BOLT
3	330601	1	HEAD CASTING
4	330753	4	TIE ROD HEX NUT
5	330607	1	CLEVIS
6	330589	1	PRINCE CYLINDER ROD
7	330592	1	BARREL
8	330604	1	PISTON
9	330610	1	CYLINDER ROD NUT
	330634		PRINCE PACKING KIT

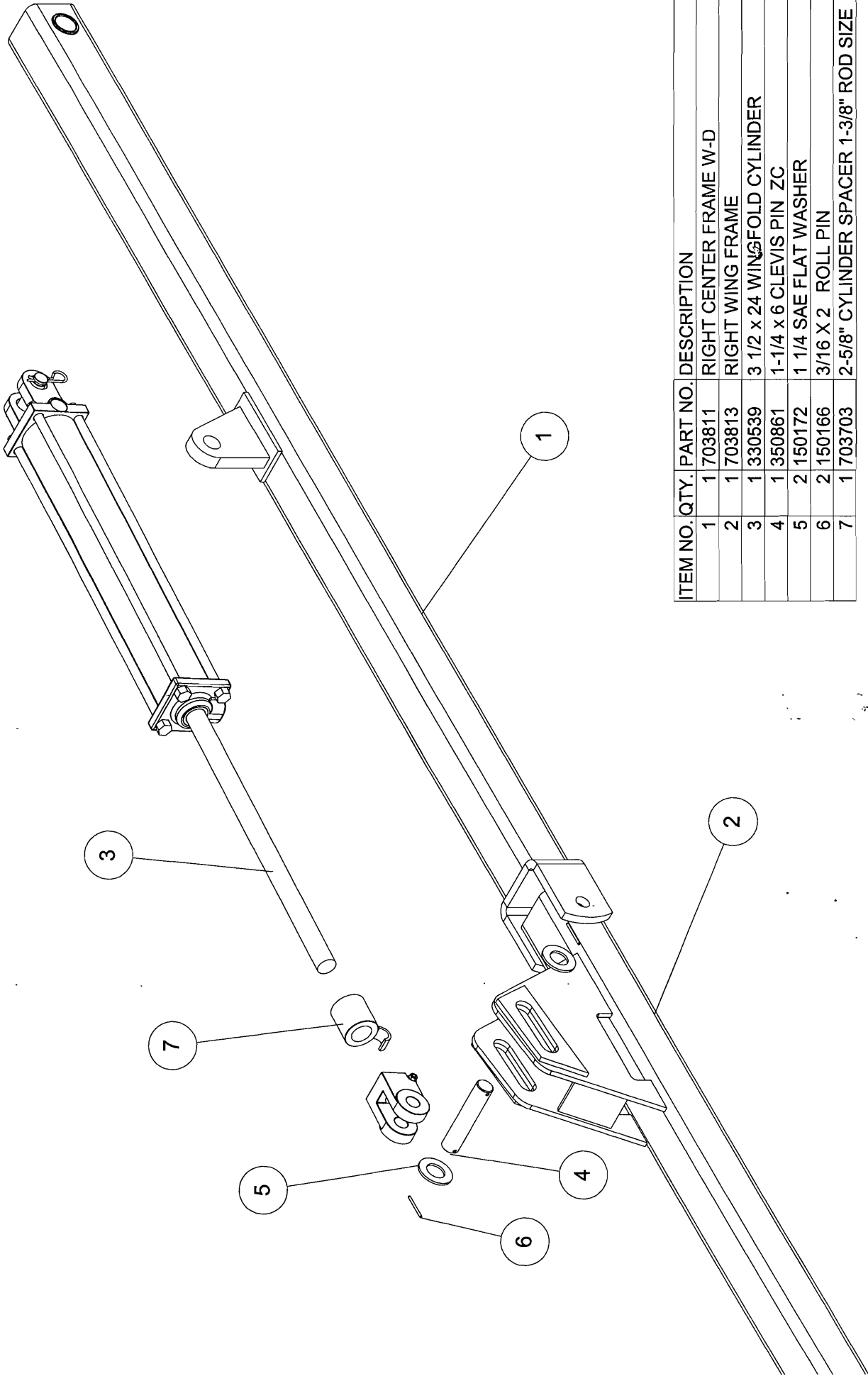
REF.	PART#	QTY	DESCRIPTION
	330495	1	4 X 10 WINGFOLD CYLINDER
1	330653	1	BASE CASTING
2	330647	4	TIE ROD BOLT
3	330659	1	HEAD CASTING
4	330809	4	TIE ROD HEX NUT
5	330667	1	CLEVIS
6	330639	1	PRINCE CYLINDER ROD
7	330645	1	BARREL
8	330665	1	PISTON
9	330669	1	CYLINDER ROD NUT
	330723		PRINCE PACKING KIT

REF.	PART#	QTY	DESCRIPTION
	330435	1	3-3/4 X 10 WINGFOLD CYLINDER
1	330652	1	BASE CASTING
2	330647	4	TIE ROD BOLT
3	330658	1	HEAD CASTING
4	330809	4	TIE ROD HEX NUT
5	330667	1	CLEVIS
6	330639	1	PRINCE CYLINDER ROD
7	330644	1	BARREL
8	330664	1	PISTON
9	330669	1	CYLINDER ROD NUT
	330722		PRINCE PACKING KIT

SEE PAGE 16 FOR CYLINDER PARTS LIST

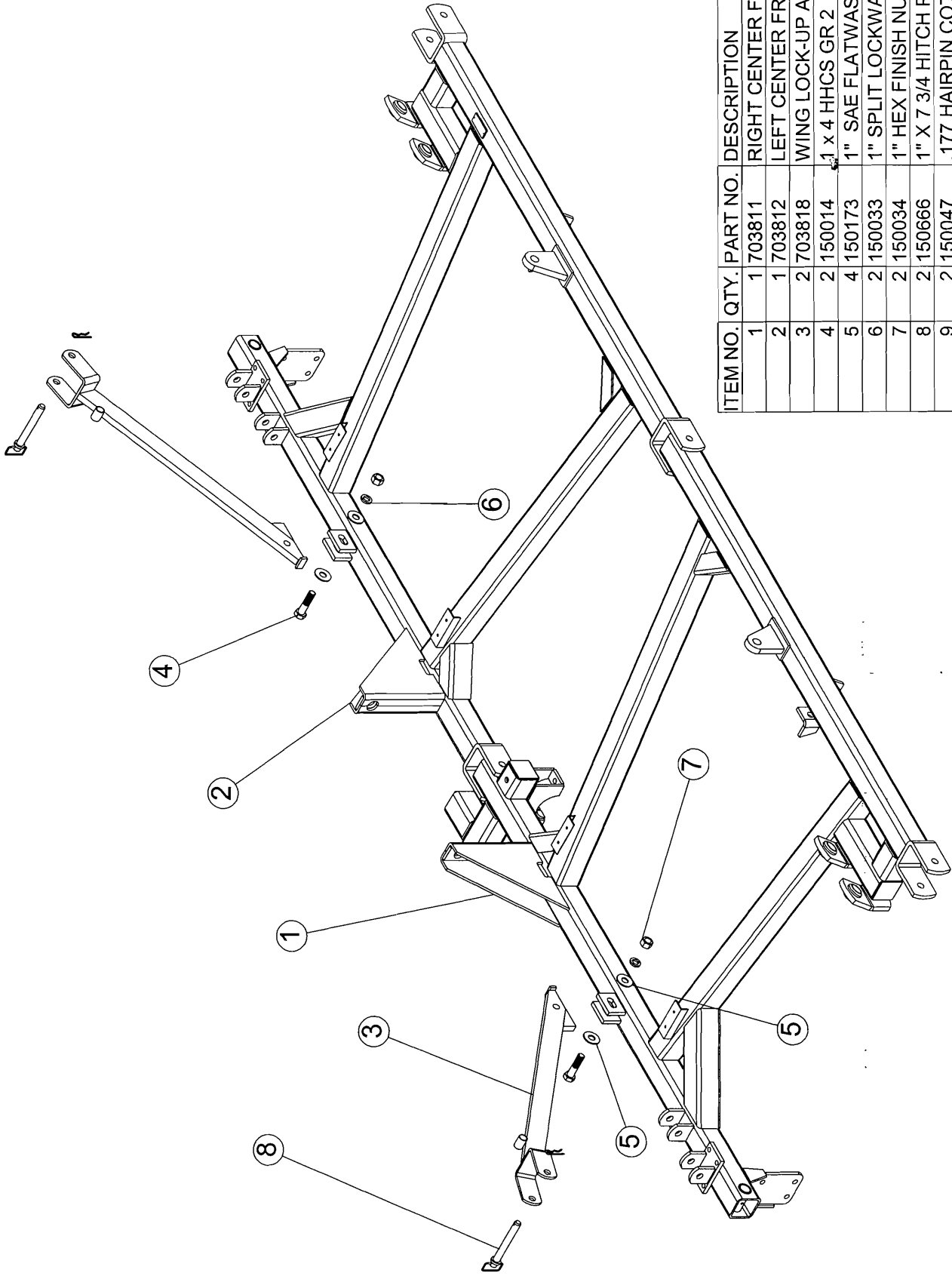


**CYLINDER BREAKDOWN**



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703811	RIGHT CENTER FRAME W-D
2	1	703813	RIGHT WING FRAME
3	1	330539	3 1/2 x 24 WINGFOLD CYLINDER
4	1	350861	1-1/4 x 6 CLEVIS PIN ZC
5	2	150172	1 1/4 SAE FLAT WASHER
6	2	150166	3/16 X 2 ROLL PIN
7	1	703703	2-5/8" CYLINDER SPACER 1-3/8" ROD SIZE

# WINGFOLD DETAIL














ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703811	RIGHT CENTER FRAME W-D
2	1	703812	LEFT CENTER FRAME - WO
3	2	703818	WING LOCK-UP ARM
4	2	150014	.1 x 4 HHCS GR 2
5	4	150173	1" SAE FLATWASHER
6	2	150033	1" SPLIT LOCKWASHER
7	2	150034	1" HEX FINISH NUT
8	2	150666	1" X 7 3/4 HITCH PIN
9	2	150047	.177 HAIRPIN COTTER

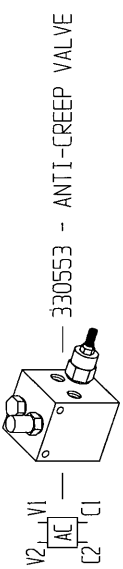
**WING LOCK-UP ARM ASSEMBLY**

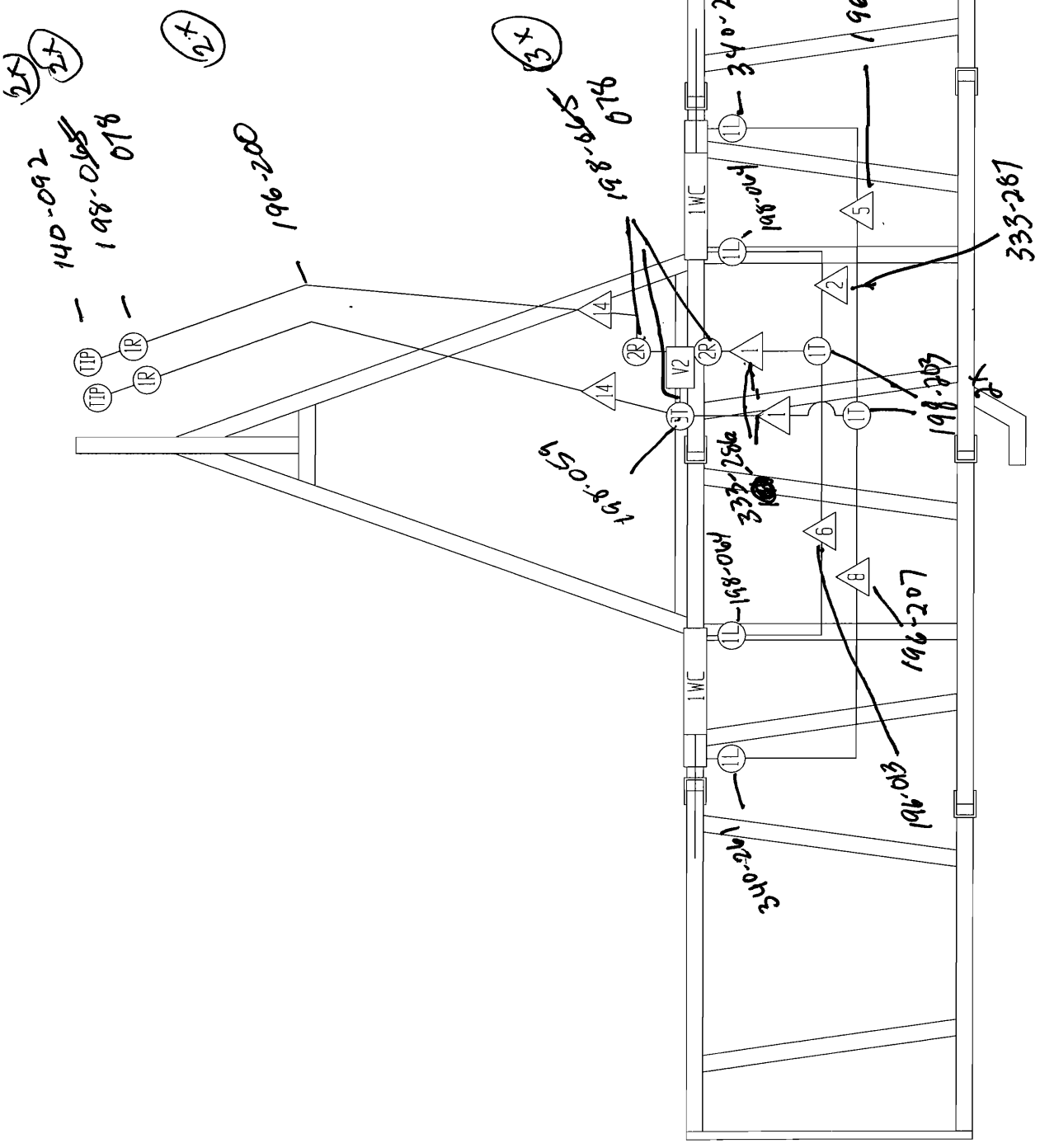
100C —  — 330539 - 3 1/2" x 24" CYLINDER

200C — 330382 - 3 1/4" x 10 REPHASING CYLINDER  
 300C — 330434 - 3 1/2" x 10" REPHASING CYLINDER  
 400C — 330435 - 3 3/4" x 10" REPHASING CYLINDER  
 500C — 330495 - 4" x 10" REPHASING CYLINDER

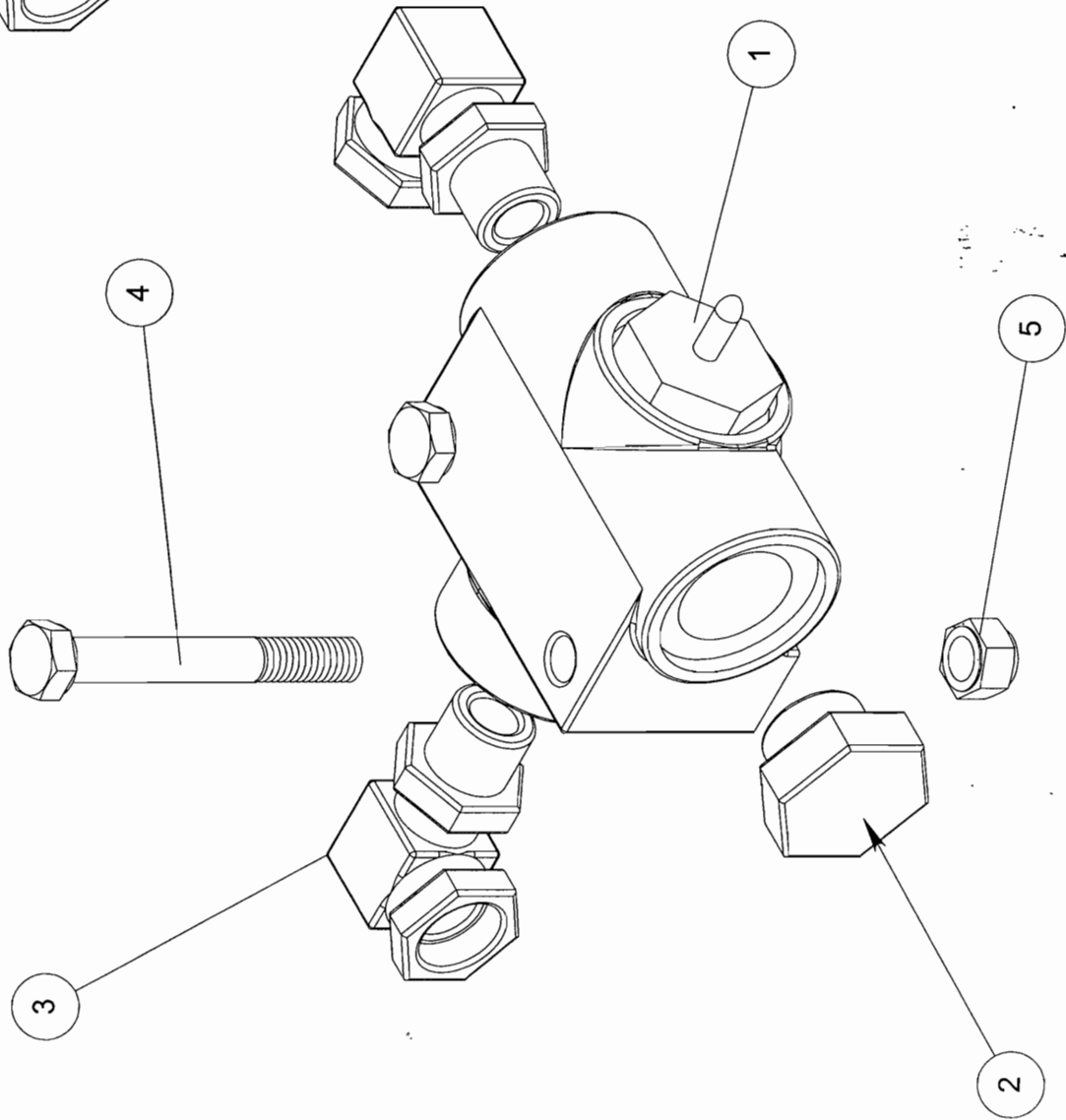
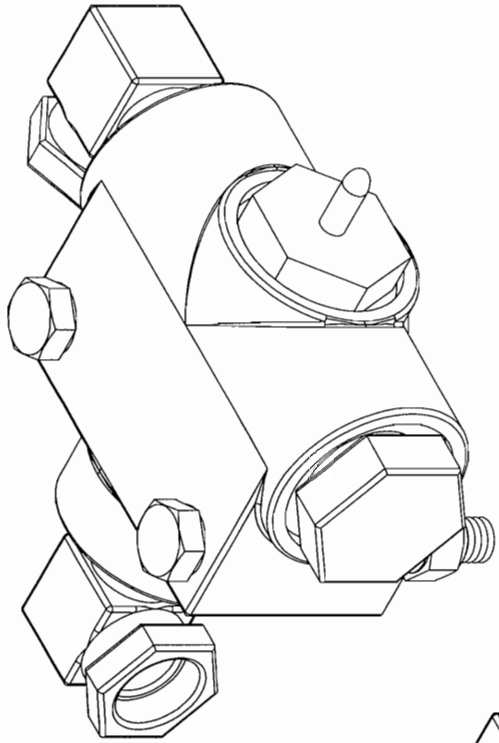
1 — 802309 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 14 INCHES.  
 2 — 800349 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 22 INCHES.  
 3 — 800350 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 26 INCHES.  
 4 — 800294 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 34 INCHES.  
 5 — 800808 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 47.5 INCHES.  
 6 — 800422 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 64 INCHES.  
 7 — 802100 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 78 INCHES.  
 8 — 802184 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 87 INCHES.  
 9 — 800359 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 101 INCHES.  
 10 — 802102 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 113 INCHES.  
 11 — 800958 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 126 INCHES.  
 12 — 800363 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 136 INCHES.  
 13 — 800374 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 153 INCHES.  
 14 — 800759 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 195 INCHES.  
 15 — 802184 - 3/8" STEEL HYDRAULIC LINE - 48 INCHES.

1L —  — 330275 - 90 DEGREE ELBOW 3/4" - 16 MALE x 3/8" NPT FEMALE W/RESTRICTOR  
 2L —  — 330276 - 90 DEGREE ELBOW 3/4" - 16 MALE x 3/8" NPT FEMALE  
 1T —  — 330201 - 3/8" FEMALE TEE  
 2T —  — 330278 - 3/4" MALE x 3/8" FEMALE TEE  
 3T —  — 330367 - 1/2" MALE x 3/8" FEMALE SWIVEL TEE - NPT  
 1R —  — 330173 - 1/2" x 3/8" REDUCER BUSHING  
 2R —  — 330281 - 1/2" x 3/8" ST. SWIVEL ADAPTER  
 1A —  — 330274 - SWIVEL ADAPTER 3/4" - 16 MALE x 3/8" NPT FEMALE  
 1N —  — 330292 - 3/8" MALE PIPE NIPPLE  
 1P —  — 330563 - 3/4" UNF HEX O-RING PLUG  
 1TP —  — 330311 - HYDRAULIC MALE TIP - 8010-4



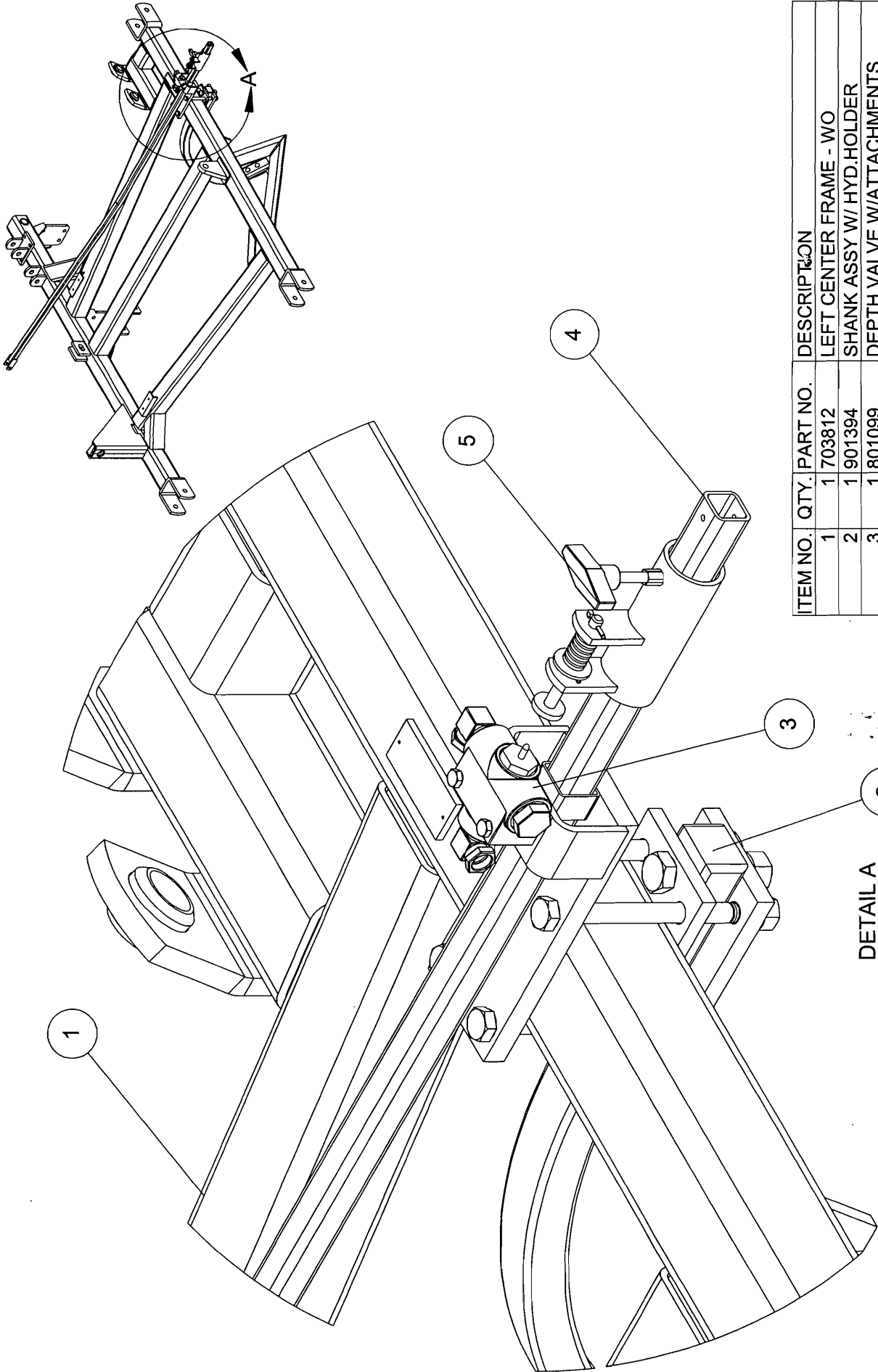






ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	330552	DEPTH CONTROL VALVE
2	1	330563	3/4" UNF HEX O-RING PLUG
3	2	330276	3/4M X 3/8F, NPT HYD EL
4	2	150350	5/16 X 2 1/2 HHCS GR2 ZC
5	2	150506	5/16 NYLON INSERT LOCKNUT

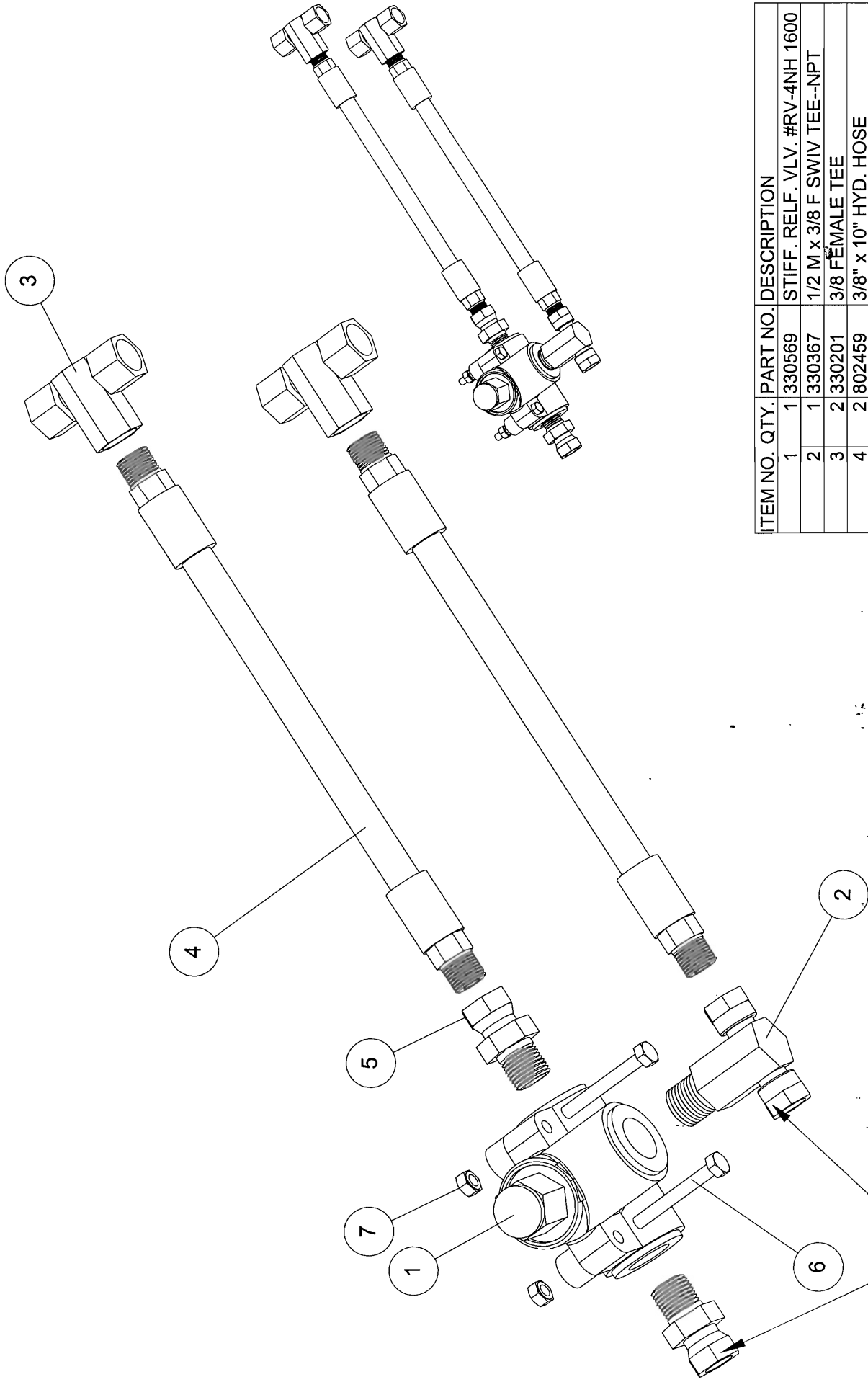
**SINGLE POINT DEPTH CONTROL DETAIL (801099)**



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1703812	LEFT CENTER FRAME - WO
2	1	1901394	SHANK ASSY W/ HYD.HOLDER
3	1	1801099	DEPTH VALVE W/ATTACHMENTS
4	1	1703356	HYD. SHUTOFF LINKAGE
5	1	1802329	DEPTH STOP

DETAIL A

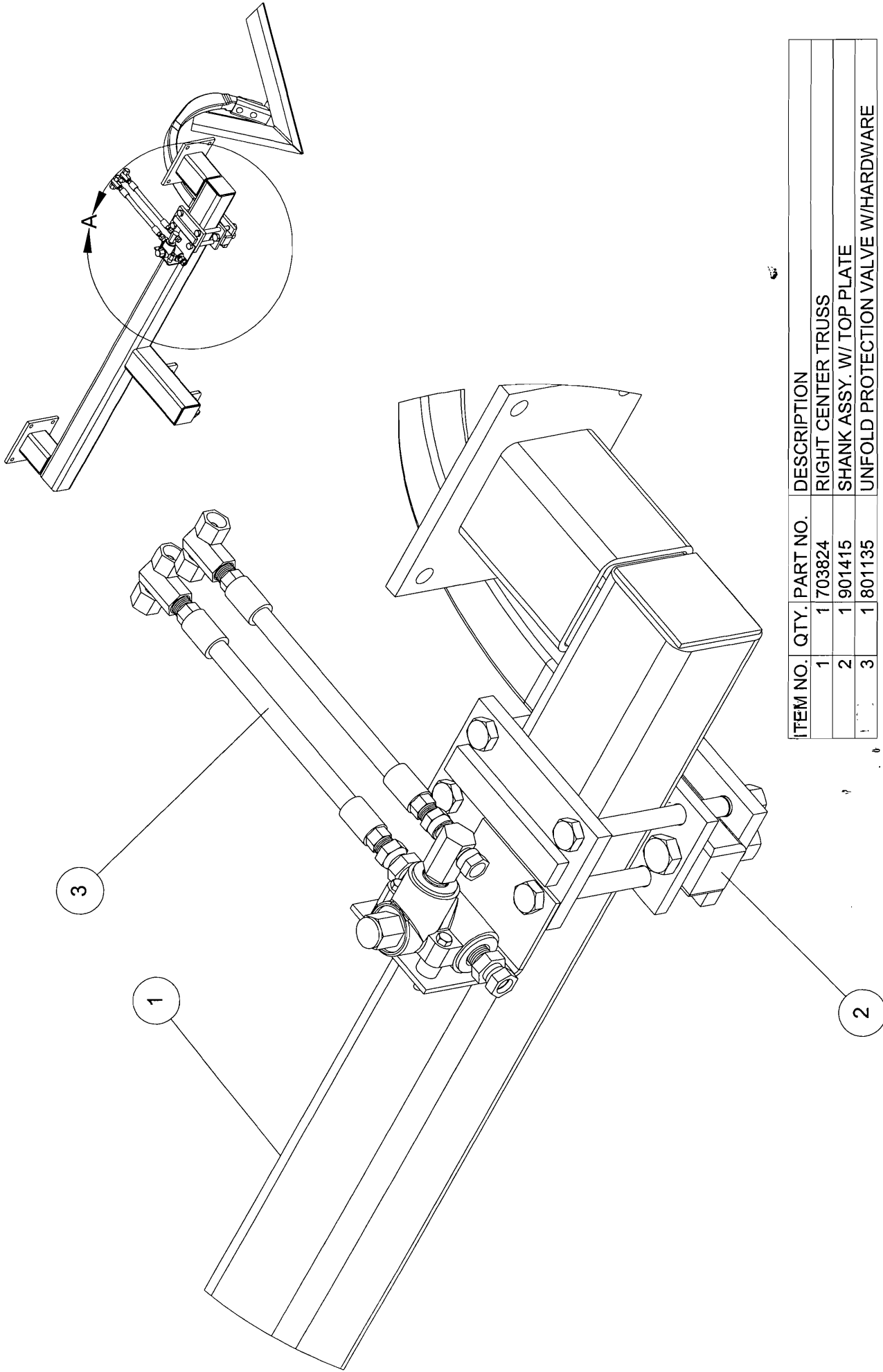
# DEPTH STOP AND VALVE



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	330569	STIFF. RELF. VLV. #RV-4NH 1600
2	1	330367	1/2 M x 3/8 F SWIV TEE--NPT
3	2	330201	3/8 FEMALE TEE
4	2	802459	3/8" x 10" HYD. HOSE
5	2	330281	1/2 x 3/8 ST. SWIVEL ADAPTER
6	2	150714	1/4 x 2 HHCS GR2
7	2	150441	1/4 NYLON INSERT LOCKNUT

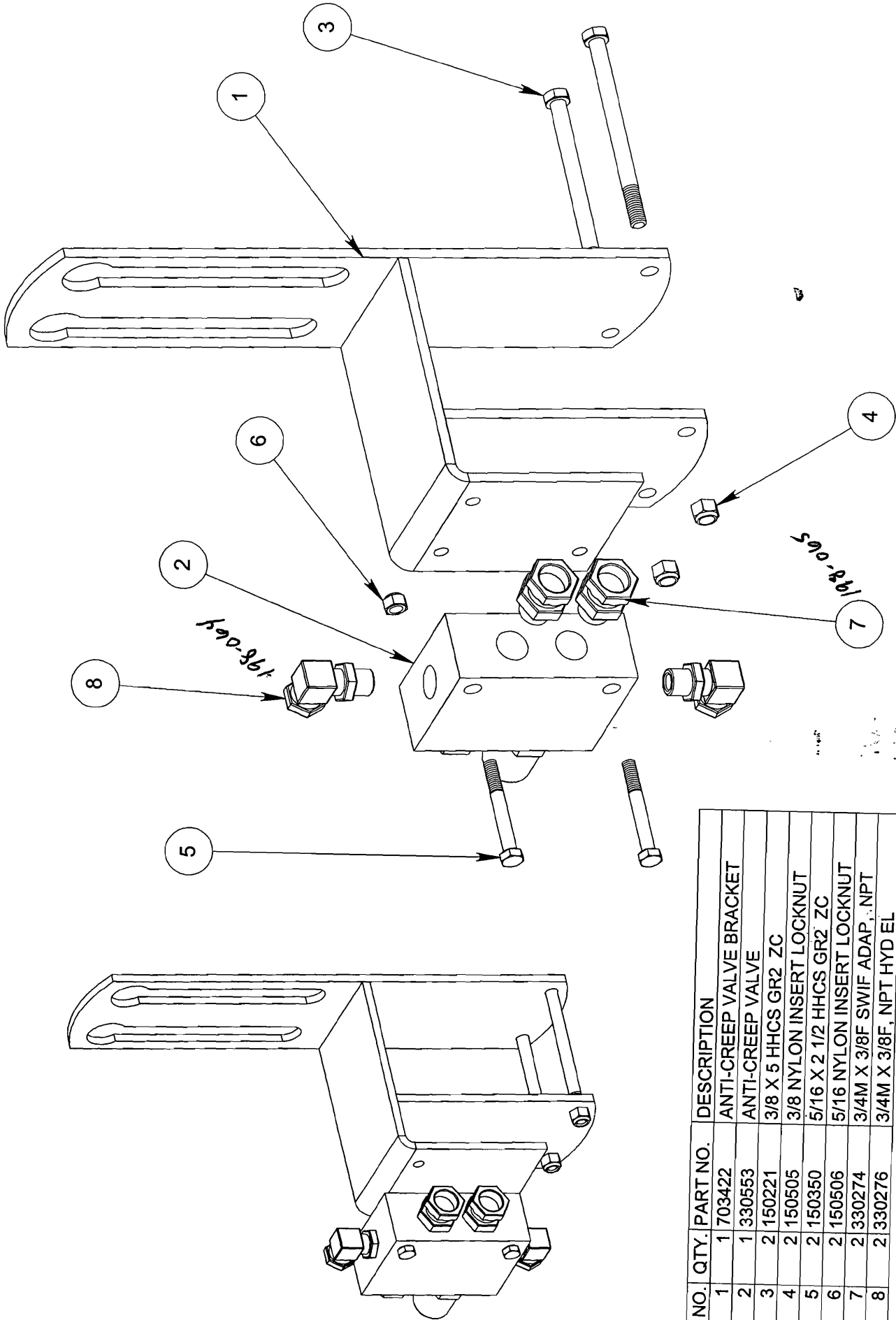
**NOTE: THESE ENDS GO TO THE TRACTOR**

**UNFOLD PROTECTION VALVE (801135)**



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703824	RIGHT CENTER TRUSS
2	1	901415	SHANK ASSY. W/ TOP PLATE
3	1	801135	UNFOLD PROTECTION VALVE W/HARDWARE

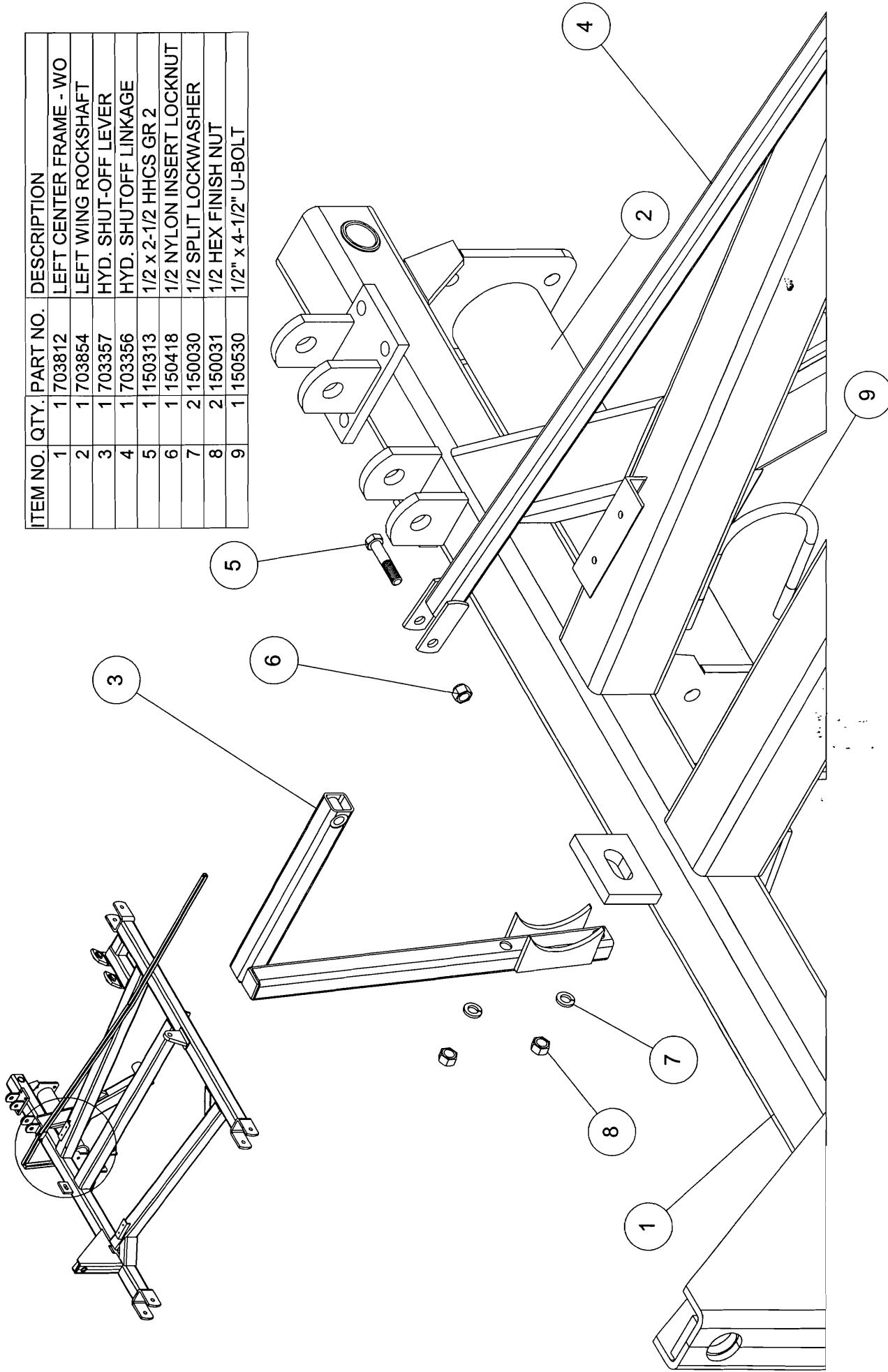
**UNFOLD PROTECTION VALVE PLACEMENT**



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703422	ANTI-CREEP VALVE BRACKET
2	1	330553	ANTI-CREEP VALVE
3	2	150221	3/8 X 5 HHCS GR2 ZC
4	2	150505	3/8 NYLON INSERT LOCKNUT
5	2	150350	5/16 X 2 1/2 HHCS GR2 ZC
6	2	150506	5/16 NYLON INSERT LOCKNUT
7	2	330274	3/4M X 3/8F SWIF ADAP., NPT
8	2	330276	3/4M X 3/8F, NPT HYD EL

## 900994 ANTICREEP VALVE KIT

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1703812	LEFT CENTER FRAME - WO
2	1	1703854	LEFT WING ROCKSHAFT
3	1	1703357	HYD. SHUT-OFF LEVER
4	1	1703356	HYD. SHUTOFF LINKAGE
5	1	1150313	1/2 x 2-1/2 HHCS GR 2
6	1	150418	1/2 NYLON INSERT LOCKNUT
7	2	150030	1/2 SPLIT LOCKWASHER
8	2	150031	1/2 HEX FINISH NUT
9	1	150530	1/2" x 4-1/2" U-BOLT



# HYDRAULIC SHUT OFF LINKAGE AND LEVER

1WC — 330539 - 3 1/2" x 24" CYLINDER

1DC — 330382 - 3 1/4" x 10 REPHASING CYLINDER

2DC — 330434 - 3 1/2" x 10" REPHASING CYLINDER

3DC — 330435 - 3 3/4" x 10" REPHASING CYLINDER

4DC — 330495 - 4" x 10" REPHASING CYLINDER

1 — 802309 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 14 INCHES.

2 — 800349 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 22 INCHES.

3 — 800350 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 26 INCHES.

4 — 800294 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 34 INCHES.

5 — 800808 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 47.5 INCHES.

6 — 800422 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 64 INCHES.

7 — 802100 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 78 INCHES.

8 — 802184 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 87 INCHES.

9 — 800359 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 101 INCHES.

10 — 802102 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 113 INCHES.


11 — 800958 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 126 INCHES.

12 — 800363 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 136 INCHES.


13 — 800374 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 153 INCHES.


14 — 800759 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 195 INCHES.


15 — 802184 - 3/8" STEEL HYDRAULIC LINE - 48 INCHES.


1L —  - 330275 - 90 DEGREE ELBOW 3/4" - 16 MALE x 3/8" NPT FEMALE W/RESTRICTOR


2L —  - 330276 - 90 DEGREE ELBOW 3/4" - 16 MALE x 3/8" NPT FEMALE


1T —  - 330201 - 3/8" FEMALE TEE

2T —  - 330278 - 3/4" MALE x 3/8" FEMALE TEE


3T —  - 330367 - 1/2" MALE x 3/8" FEMALE SWIVEL TEE - NPT

1R —  - 330173 - 1/2" x 3/8" REDUCER BUSHING

2R —  - 330281 - 1/2" x 3/8" ST. SWIVEL ADAPTER

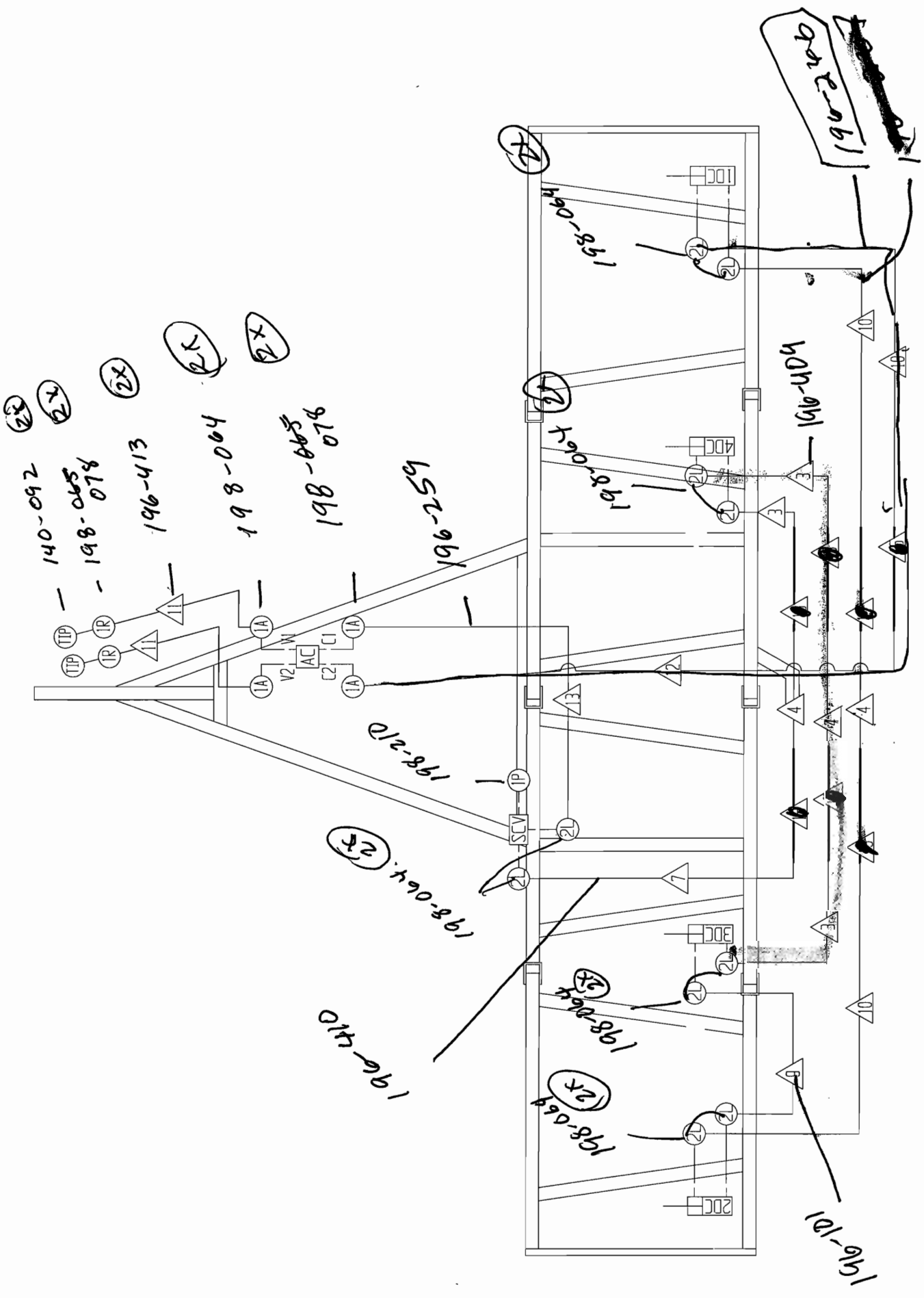
1A —  - 330274 - SWIVEL ADAPTER 3/4" - 16 MALE x 3/8" NPT FEMALE

1N —  - 330292 - 3/8" MALE PIPE NIPPLE

1P —  - 330563 - 3/4" UNF HEX O-RING PLUG

1TP —  - 330311 - HYDRAULIC MALE TIP - 8010-4







# ASSEMBLY INSTRUCTIONS FOR FM4-28

1. BEGIN BY PUTTING ANGLE ZERKS IN ALL HINGE POINTS AND STRAIGHT ZERKS IN ALL ROCKSHAFTS.
2. SET LEFT CENTER FRAME ON STANDS SO THAT IT CAN BE SAFELY WORKED ON, UNDER AND AROUND. ATTACH THE RIGHT CENTER FRAME USING LOOSE BUSHING, 1" X 7" GRADE 5 HEX BOLTS, LOCKWASHERS AND NUTS. POSITION STANDS UNDER FRAME AND REPEAT PROCEDURE FOR WING FRAMES IN LIKE MANNER. TIGHTEN ALL BOLTS. NOTE: WHEN TIGHTENING THE TWO HEX NUTS AT EACH END OF THE TENSIONER ARBOR, SNUG THEM TOGETHER FLUSH WITH ENDS OF THE ARBOR; THIS WILL PROVIDE PROPER TENSION ON THE TENSIONER ARBOR COMPRESSION SPRINGS.
3. LAYOUT ROCKSHAFTS IN PROPER LOCATIONS UNDER EACH FRAME OR BACK OF MACHINE. (NOTE: THE FM4-28 MACHINE USES 6-BOLT SPINDLES ON THE 2 CENTER AXLE ARMS.) PLACE BEARINGS #300044 ON EACH END OF ROCKSHAFT AND ALIGN ROCKSHAFTS BETWEEN MOUNTING PLATES LOCATED UNDERNEATH OF FRAMES. SECURE WITH 3/4" X 2" BOLTS. MOUNT ALL ROCKSHAFTS IN LIKE MANNER. TIGHTEN ALL BOLTS.
4. INSERT 6-BOLT HUB AND SPINDLE ASSEMBLIES INTO SPINDLE TUBE ON WING FRAMES. ALIGN HOLE IN SPINDLE WITH HOLE IN TUBE AND SECURE WITH 1 1/2" X 3-1/2" BOLTS, LOCK WASHERS AND NUTS. (NOTE: FM4-28 WILL USE TWO SPINDLE SPACERS ON THE RIGHT CENTER FRAME AXLE ARMS.) SLIP SPACERS ON SPINDLE AND ALIGN HOLES. GREASE OUTSIDE OF SPACER BEFORE INSERTING ASSEMBLY INTO SPINDLE BUSHING ON AXLE ARM TO ALLOW SPACER TO BE REMOVED FREELY. IN CASE OF CHANGING FM4-28 TO FM6-42, WHICH USES 8-BOLT SPINDLES. SECURE WITH 1/2" X 4" BOLTS, LOCKWASHERS AND NUTS. TIGHTEN ALL SPINDLE BOLTS.
5. MOUNT TIRES AND WHEELS.
  - 5.1 ON CENTER DUALS USE 9.5L - 8 PLY TIRES ON 6 BOLT WHEEL ON RIGHT CENTER AND LEFT CENTER FRAMES. USE 11L - 8 PLY TIRES ON 6 BOLT WHEELS ON RIGHT WING AND LEFT WING.
  - 5.2 ON ALL DUALS USE 9.5L - 8 PLY TIRES ON 6 BOLT WHEELS ON ALL FRAMES
6. SCREW ONE 1-1/2" NUT ONTO EACH DEPTH LINKAGE, LEAVING APPROXIMATELY 5" OF THE THREAD SHOWING. SLIP THE THREADED SHAFT THROUGH THE WELDED BUSHING, LOCATED AT THE FRONT OF EACH FRAME SECTION ON TOP. SCREW ON THE OTHER 1-1/2" NUT AND POSITION TO MIDDLE OF ADJUSTMENT FOR A PRELIMINARY SETTING. LOCATE ANCHOR LINKAGE ON BACK OF FRAME AND SECURE WITH 1" X 4-1/2", GRADE 5 HEX BOLT AND LOCKNUT ON THE LOWER END. THE TOP SECURES TO THE DEPTH LINKAGE ON THE TOP HOLE WITH 1" X 3" GRADE 5 BOLT AND LOCKNUT. CONTINUE SAME PROCEDURE ON ALL FRAMES. TIGHTEN LOCKNUTS; STILL ALLOWING ARMS TO PIVOT.
7. INSTALLING TONGUE: LOCATE THE TWO PIVOT BLOCKS. INSTALL 1/2" STRAIGHT ZERKS IN THE PIVOT BLOCKS AND IN THE UNDER TONGUE PIVOT. POSITION TONGUE UNDER FRONT OF MACHINE USING A FORK LIFT OR A WINCH TRUCK. PLACE LOOSE BUSHINGS IN PIVOT BLOCKS AND PIVOT ON TONGUE. SECURE BOTH PIVOT BLOCKS ON RIGHT CENTER WITH 1" X 8-1/2" BOLTS, LOCKWASHERS, AND NUTS. LIFT UNDER TONGUE UP TO PIVOT BLOCKS AND SECURE ON BOTH SIDES WITH 1" X 8-1/2" BOLTS.
8. REFERRING TO TONGUE ASSEMBLY DETAIL PAGE, THREAD ONE 1-1/4" HEX NUT TO 2/3 OF THREADED LENGTH ON THE TONGUE ADJUSTMENT SCREW. INSERT THE TONGUE ADJUSTMENT SCREW UPWARDS INTO BALL JOINT ON THE FRONT OF THE TONGUE.
  9. INSERT EXTENSION TONGUE INTO TONGUE AND ATTACH 1-1/4" X 7" HEX BOLT. POSITION ADJUSTABLE SCREW BETWEEN THE TWO TABS ON THE EXTENSION TONGUE AND SECURE WITH 1" X 4" BOLT. ATTACH CAST HITCH USING 1" X 7", GRADE 5 HEX BOLTS.
  10. ASSEMBLE HOSE STAND, HOSE CLEVIS, AND PIPE CLAMPS LEAVING SIDE HOSE CLAMPS LOOSE UNTIL PLACEMENT OF HOSES. INSERT HOSE STAND INTO RECEIVER BUSHING ON THE SIDE OF TONGUE PLATE. ATTACH TONGUE JACK AND WRENCH TO TONGUE.
  11. NOTE SCHEMATICS OF HYDRAULIC SYSTEM: LOCATE ALL DEPTH REPHASING CYLINDERS. LOOSEN PLASTIC PLUGS IN CYLINDER PORTS TO ALLOW THEM TO BE CONNECTED TO THE ROCKSHAFTS AND ANCHOR LINKAGES. (NOTE: CENTER CYLINDERS ON CENTER FRAMES WILL HAVE ROAD LOCKOUT ATTACHED TO RAM END WITH 1" X 3-7/8" CLEVIS PIN AND THEN ATTACH ASSEMBLY TO THE ANCHOR LINKAGE.) PIN ROAD LOCK-OUT IN UP POSITION WITH 3/8" X 4-1/2" CLEVIS PINS AND CLIPS PROVIDED. PIN BASE END OF 24" WINGFOLD CYLINDERS TO ANCHORS ON CENTER FRAMES. PROP UP RAM END OF CYLINDERS. (DO NOT HOOK UP UNTIL HYDRAULIC SYSTEM IS CHARGED WITH OIL.) INSTALL ALL HYDRAULIC FITTINGS IN PROPER LOCATIONS AND TIGHTEN. (NOTE: RESTRICTED FITTINGS ON RAM ENDS ON WINGFOLD CYLINDERS.) ASSEMBLE ALL HYDRAULIC HOSES ACCORDING TO DIAGRAM AND FASTEN TO FRAMES WITH HYDRAULIC HOSE CLAMPS. CONNECT HOSES TO TRACTOR OR HYDRAULIC UNIT. ACTIVATE THE HYDRAULICS EXTENDING AND RETRACTING THE WINGFOLD CYLINDERS TO REMOVE AIR FROM THE SYSTEM. CYLINDERS CAN NOW

# ASSEMBLY INSTRUCTIONS FOR FM4-28

BE PINNED UP TO THE SLOTTED WINGFOLD PLATES WITH 1 1/4" X 4-1/2" CLEVIS PINS, FLATWASHER, AND ROLL PINS. ACTIVATE HYDRAULICS TO DEPTH CONTROL CYLINDERS EXTENDING THEM TO REPHASING POSITION. HOLD THIS POSITION FOR APPROXIMATELY 2-3 MINUTES. THIS WILL PURGE AIR FROM THE SYSTEM. IF USING A TRACTOR FOR REPHASING, RUN TRACTOR AT IDLE SPEED. RETRACT AND THEN EXTEND THE CYLINDERS TO ENSURE THAT THEY ARE STROKING EVENLY AND IN PHASE WITH EACH OTHER.

**12.** MACHINE SHOULD BE LEFT IN UP POSITION AND BARRELS OR STANDS MAY BE REMOVED. MARK OUT SHANK PLACEMENT IN 20" CENTERS, STARTING AT REAR CENTER OF MACHINE. ASSEMBLE SHANKS (SEE DRAWING) ON MACHINE USING 5/8" X 8", GRADE 5 HEX BOLTS, LOCKWASHERS, AND NUTS. NOTICE THAT ONE 4-HOLE PLATE IS ON TOP OF THE FRAME. THEN IMMEDIATELY UNDER THE FRAME AND ON TOP OF THE SHANK IS A 5-HOLE PLATE. UNDER THE SHANK IS ANOTHER 5-HOLE PLATE. SECURE SHANK BETWEEN PLATES WITH 3/4" x 3 1/2" BOLT, LOCKWASHER, AND A NUT. ALIGN ALL SHANKS AND TIGHTEN BOLTS.

**13.** SECURE 26-INCH SHOVELS ON SHANKS USING 1/2" X 2-3/4" PLOW BOLTS, LOCKWASHERS, AND H.D. NUTS. INSERTING A 1/2" FLATWASHER UNDER BOTTOM SIDE OF BLADE CAN ALIGN SHOVEL POINTS UP OR DOWN. TIGHTEN BOLTS.

**14.** POSITION LOCK-UP ARMS IN PROPER LOCATIONS AND SECURE WITH 5/8" X 4" U-BOLTS, LOCKWASHER, AND HEX NUTS.

## LEVELING MACHINE

LEVELING THE MACHINE CAN BE DONE IN THE FIELD OR ON THE LOT. IN EITHER CASE, THERE SHOULD BE WEIGHT ON THE TIRES SHOULD BE PROPERLY INFLATED. IF IN THE FIELD, THE SHOVELS SHOULD BE PULLED IN THE GROUND TO A WORKING DEPTH. IF ADJUSTMENTS ARE MADE WHILE ON THE LOT, EQUAL LENGTH DONUT SPACERS SHOULD BE PLACED ON LARGEST AND SMALLEST CYLINDERS. THESE SPACERS SHOULD ALLOW THE MACHINE TO BE LOWERED TO WITHIN 1" OF THE GROUND. MEASURE THE SPINDLE HEIGHTS ON EACH SECTION AND NOTE MEASUREMENTS. (MEASURE FROM THE TOP OF THE SPINDLE TO A STRAIGHT EDGE PLACED ACROSS THE TOP OF THE FRAME.) AS THE 2 CENTER AXLE ARM SPINDLES ARE LARGER IN DIAMETER. SUBTRACT 1/8" FROM WING SPINDLE MEASUREMENTS TO MATCH THE LEVEL ON CENTER FRAME SPINDLES. WHEN LEVELING THE MACHINE WITH 12.5L TIRES, SUBTRACT AN 5/8" FOR THE LARGER TIRES (THAT WOULD BE A TOTAL OF 3/4" WITH THE LARGER TIRE AND SPINDLE)

ALL MEASUREMENTS SHOULD CORRESPOND. IF A DIFFERENCE IS FOUND, LOOSEN THE 1-1/2" NUTS ON THE DEPTH LINKAGE AND ADJUST EITHER IN OR OUT UNTIL THE DIMENSIONS ARE EQUAL (ALL ADJUSTMENTS MUST BE MADE WITH THE WEIGHT ON THE TIRES.) AFTER ADJUSTING, TIGHTEN THE 1-1/2" NUTS. USE THE SINGLE POINT DEPTH CONTROL TO MAKE ANY TILLAGE DEPTH ADJUSTMENTS.

# OPERATION & MAINTENANCE INSTRUCTIONS

## OPERATION OF MACHINE

1. CHECK ALL HARDWARE FOR TIGHTNESS DURING BREAK-IN USE OF A NEW MACHINE.
2. VISUALLY CHECK TIRE INFLATION EACH DAY.
3. CHECK SHOVEL MOUNTING BOLTS FOR TIGHTNESS EACH DAY.
4. OVER A PERIOD OF TIME (i.e. 2 HOURS WORKING) THE PHASING CYLINDERS MAY BECOME UNBALANCED DUE TO SMALL AMOUNTS OF SEAL BY-PASS. TO REPHASE THE CYLINDERS IT IS NECESSARY TO EXTEND THEM TO THE REPHASING POSITION FOR APPROXIMATELY THIRTY (30) SECONDS TO A MINUTE. DURING TURNS AT CORNERS OF THE FIELD OR TURN-ROW TURNS, THE REPHASING CAN BE DONE BY HOLDING THE TRACTOR LEVER IN THE UP POSITION FOR THE DURATION OF THE TURN. RETRACT AND THEN EXTEND THE CYLINDERS TO ENSURE THAT THEY ARE STROKING EVENLY AND IN PHASE WITH EACH OTHER.

## LUBRICATION

1. WHEEL HUBS ARE PROVIDED WITH PLUGGED GREASE ZERK HOLES TO ACCOMMODATE THOSE OWNERS WHO PREFER TO ADD GREASE TO HUBS BETWEEN REPACKINGS. FACTORY RECOMMENDED LUBRICATION IS TO ANNUALLY REPACK THE HUB BEARINGS.

GREASE POINTS	DAILY	WEEKLY	6-MONTH
HINGE POINTS		✓	
ROCKSHAFT BEARINGS	✓		
COULTERS	✓		
WALKING DUALS		✓	
RATCHET JACK			✓

## WINTERIZING MACHINE

- WHEN FINISHED USING MACHINE FOR THE SEASON OR STORING MACHINE FOR AN EXTENDED PERIOD OF TIME, THESE MEASURES WILL HELP ENSURE THAT YOUR MACHINE WILL BE IN GOOD OPERATING CONDITION FOR THE NEXT SEASON.
1. LUBRICATE ALL GREASE POINTS.
  2. UNFOLD MACHINE AND REST MACHINE ON SHOVELS TO RELIEVE HYDRAULIC PRESSURE. (AS THE SUN WARMS THE MACHINE, THE HYDRAULIC OIL IN THE SYSTEM EXPANDS 100 PSI FOR EVERY DEGREE OF INCREASE IN TEMPERATURE. UNDER CERTAIN CONDITIONS, THE OIL COULD EXPAND ENOUGH TO BLOW OUT THE ROD SEALS.)
  3. PUT A LIGHT COATING OF GREASE ON THE EXPOSED CYLINDER RODS. THIS WILL PREVENT EXPOSURE TO THE ELEMENTS FROM CORRODING THE ROD.



## ***COULTERS - FALLOW MASTER***

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### INSTALLATION MANUAL

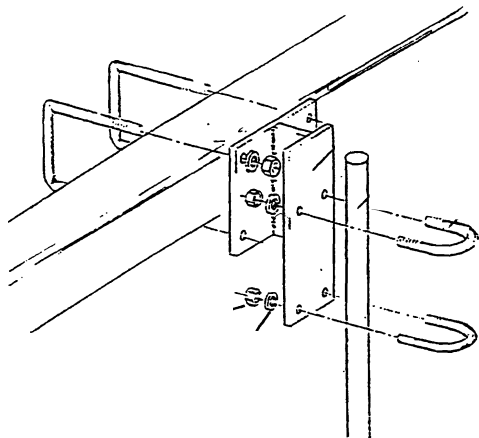
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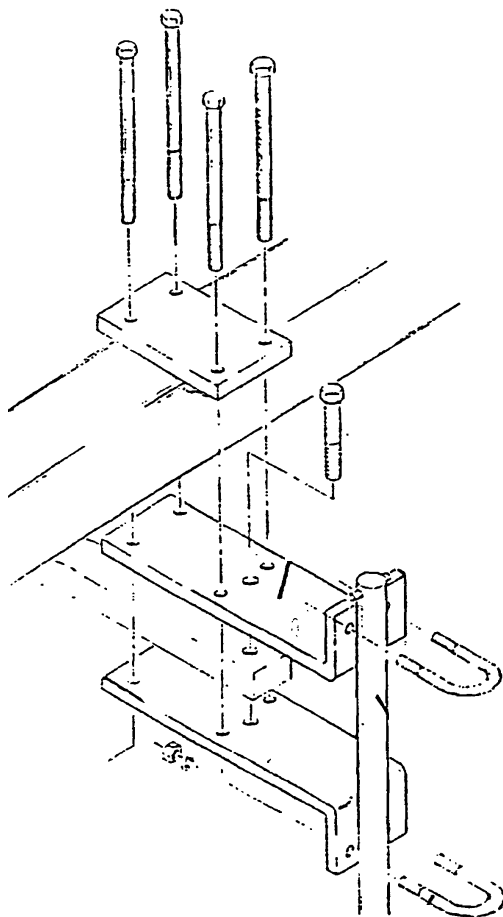
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COULTER DESCRIPTIONS AND SHANK MOUNT ILLUSTRATIONS

**1.**

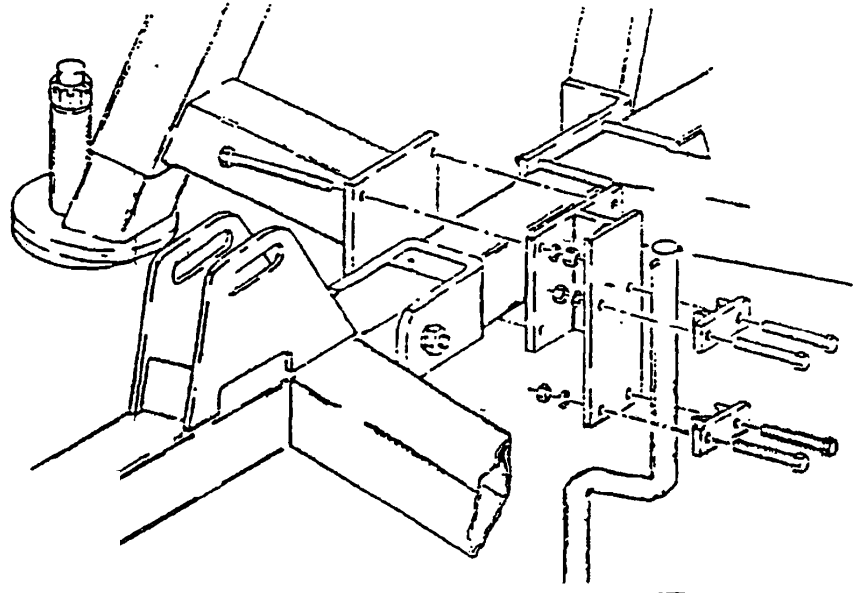


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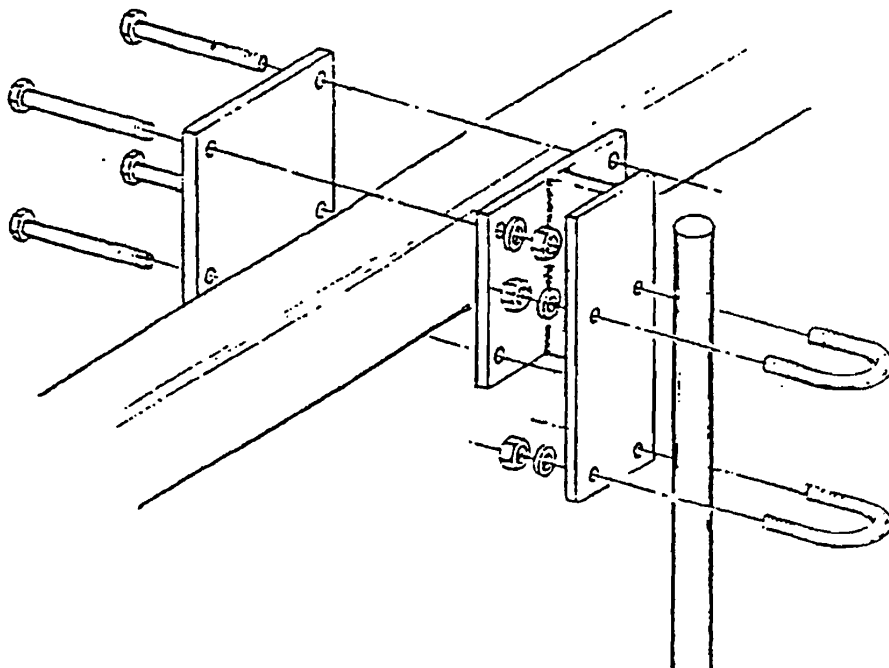


COULTER DESCRIPTIONS AND SHANK MOUNT ILLUSTRATIONS

**3.**

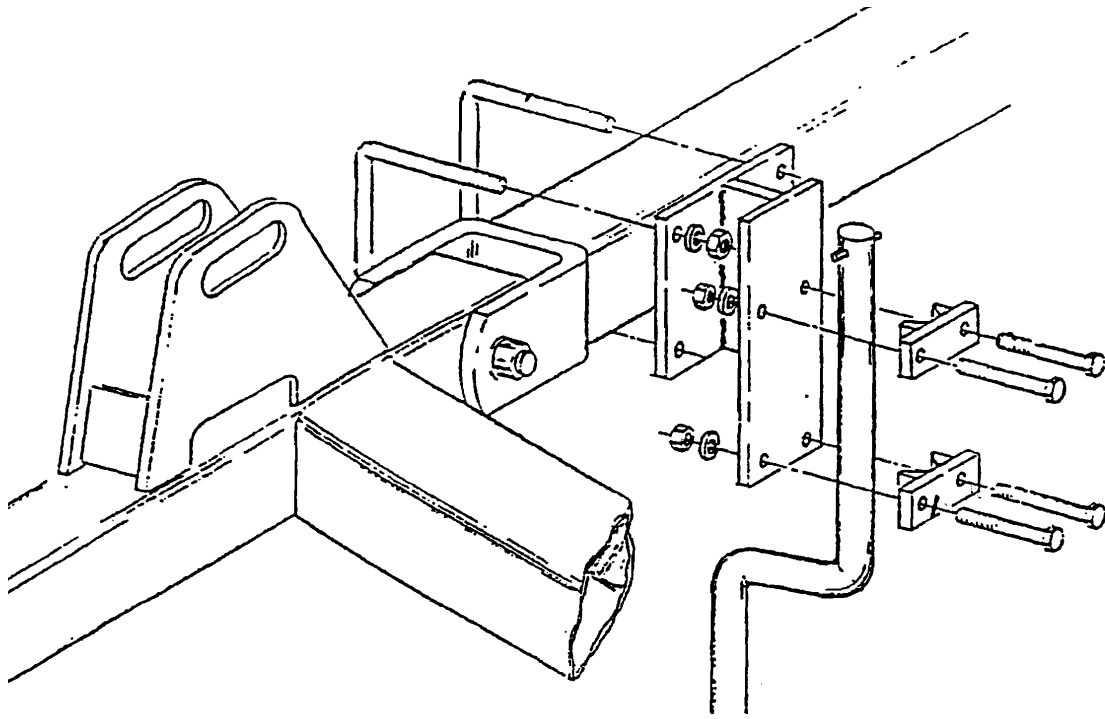


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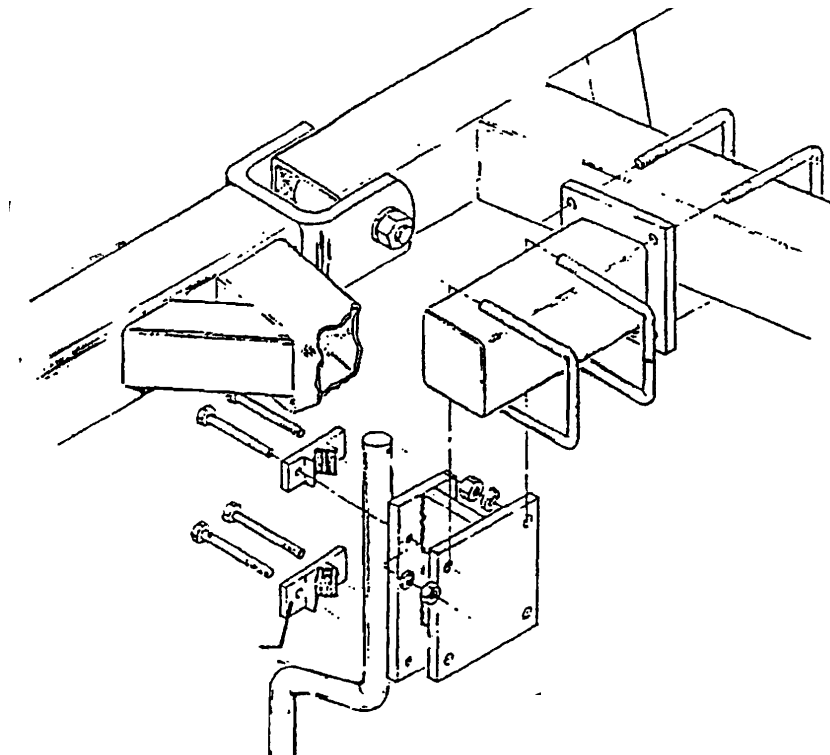


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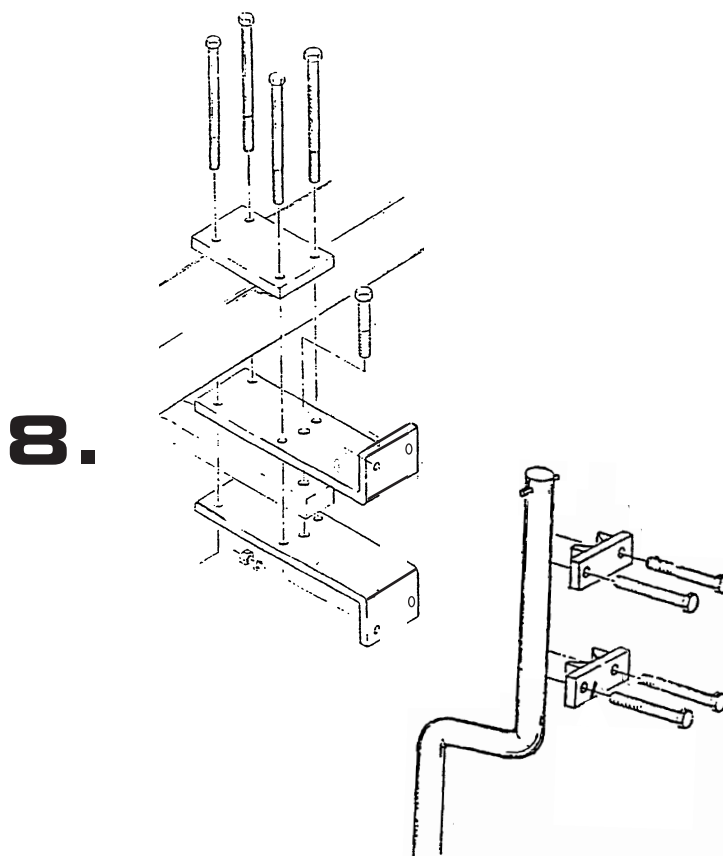
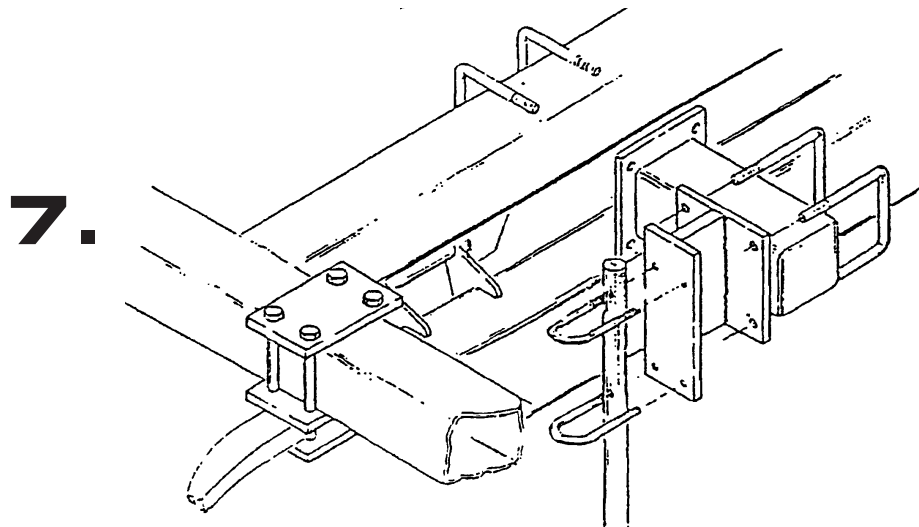
**5.**



**6.**



COULTER DESCRIPTIONS AND SHANK MOUNT ILLUSTRATIONS



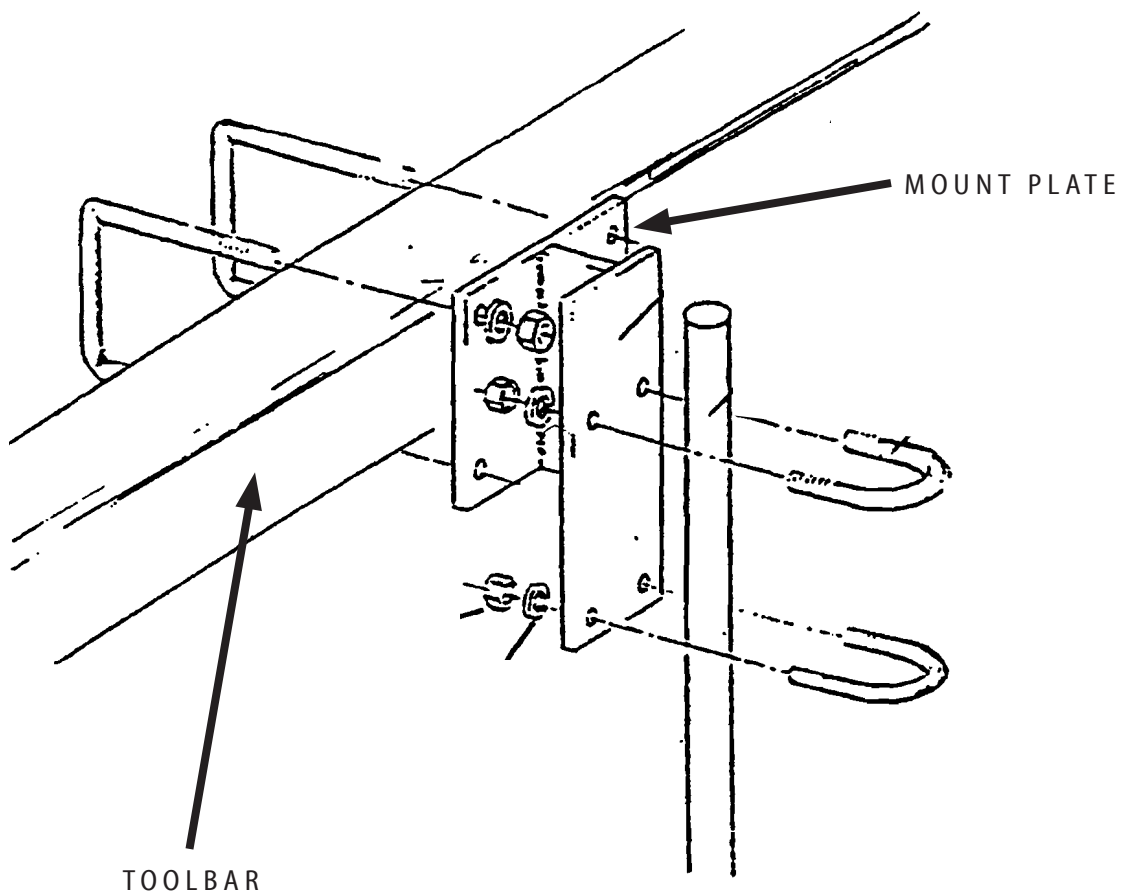


COULTER DESCRIPTIONS AND SHANK MOUNT ILLUSTRATIONS

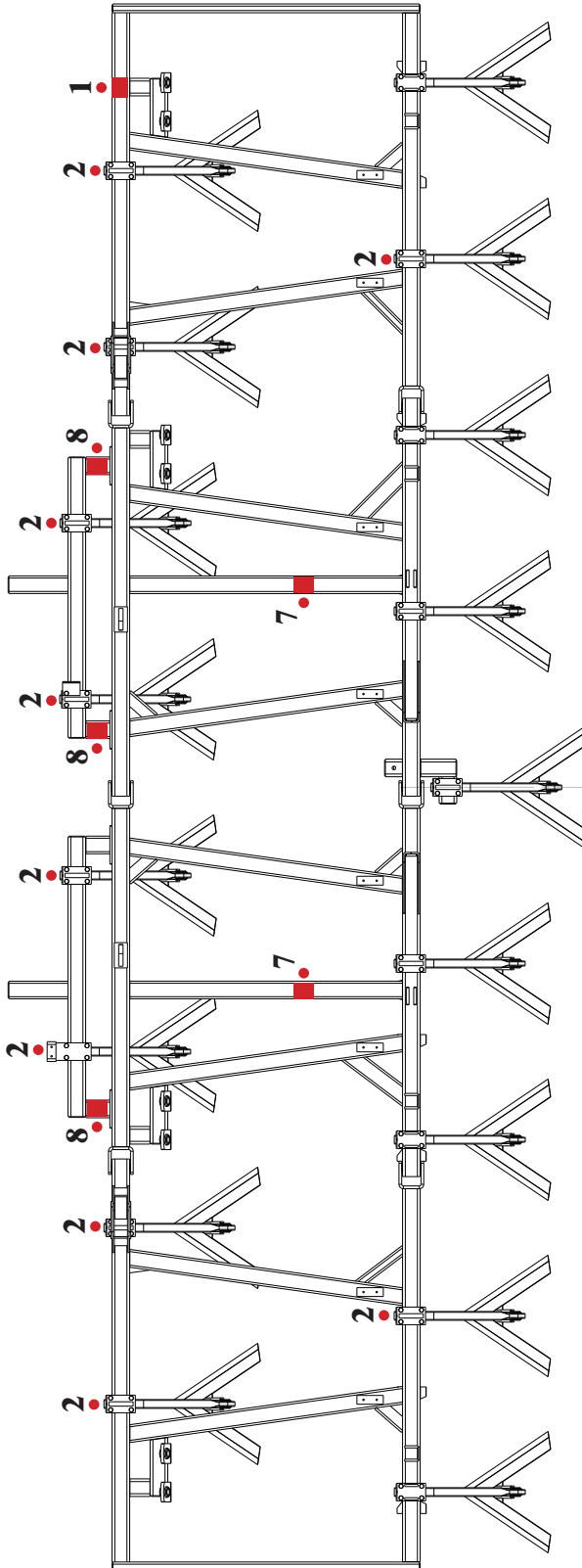
SPACER PLATE IS PLACED BETWEEN THE MOUNT PLATE AND TOOLBAR

(USE LONGER U-BOLTS WHEN MOUNTING A #9)

**9.**



4 section 28 foot Fallow Master Coulters mounting locations:

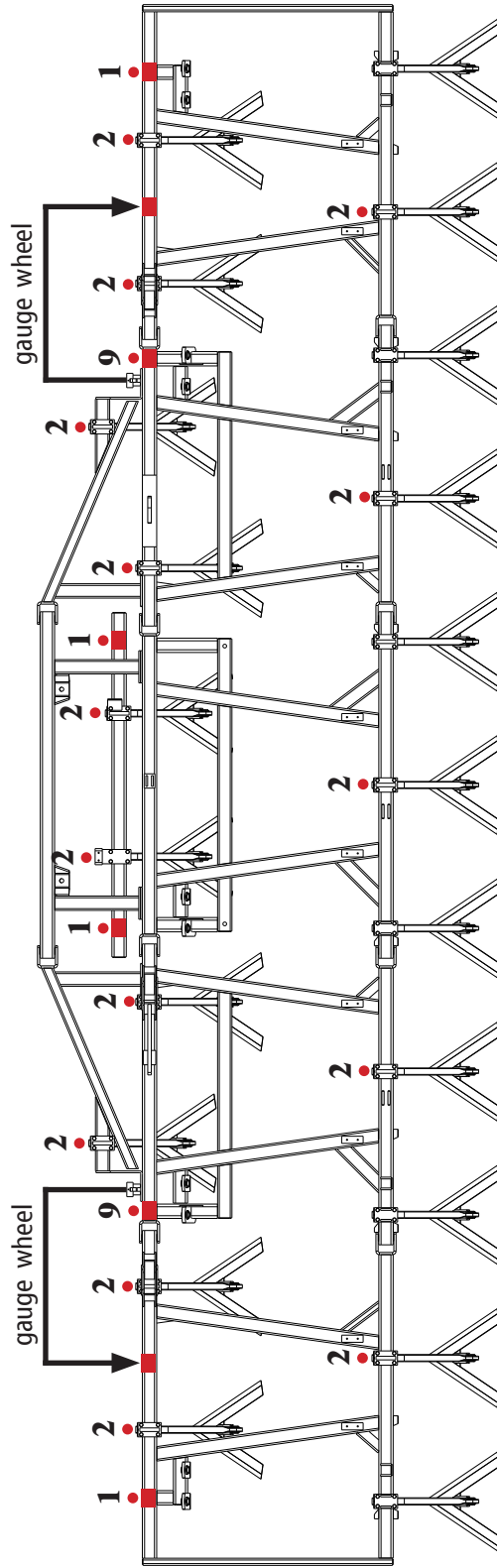


The 4 section 28 foot Fallow Master Coulters package consists of:

- three - #8's (offset shanks)
- two - #1's (straight shanks)
- two - #7's (straight shanks)
- ten - #2's (straight shanks)

- 1** = SHANK MOUNT STYLE
- = COULTER POSITION
- = MOUNT POSITION

5 section 35 foot Fallow Master Coulter mounting locations:



The 5 section 35 foot Fallow Master Coulter package consists of:

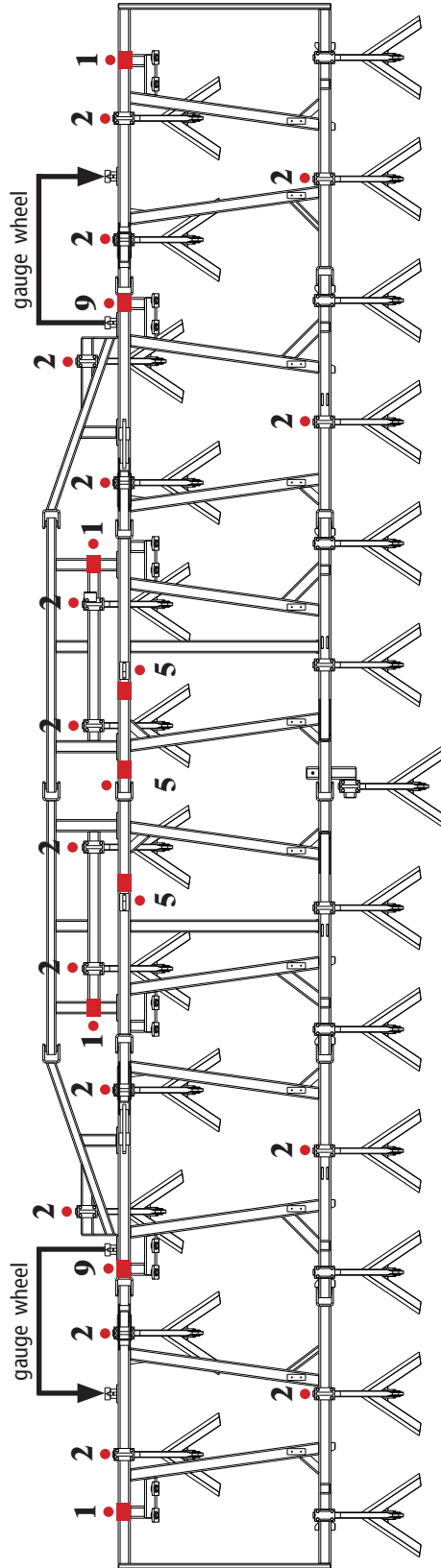
- two - #9's (straight shanks)
- fifteen - #2's (straight shanks)
- four - #1's (straight shanks)

**1** = SHANK MOUNT STYLE

**●** = COULTER POSITION

**■** = MOUNT POSITION

6 section 42 foot Fallow Master Coulters mounting locations:

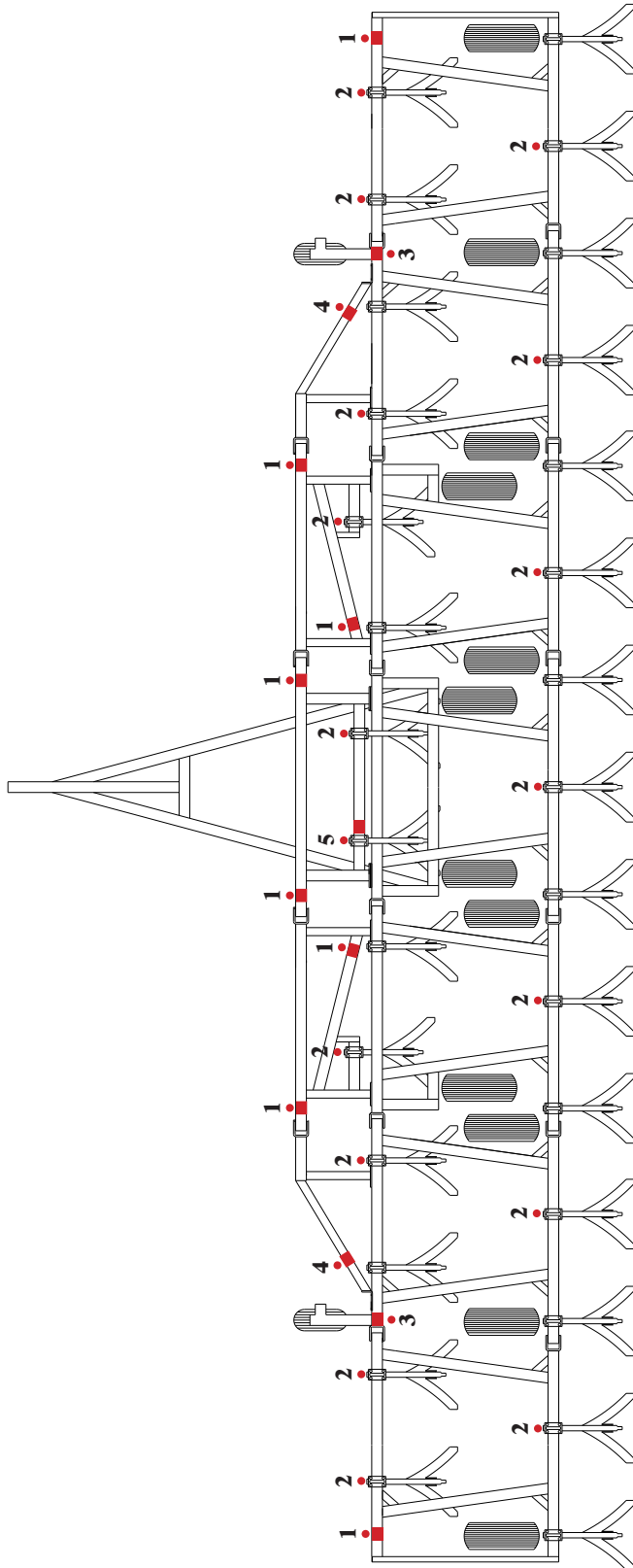


The 6 section 42 foot Fallow Master Coulters package consists of:

- two - #9's (straight shanks)
- three - #5's (offset shanks)
- four - #1's (straight shanks)
- sixteen - #2's (straight shanks)

- 1** = SHANK MOUNT STYLE
- = COULTER POSITION
- = MOUNT POSITION

7 section 49 foot Fallow Master Coulters mounting locations:



The 7 section 49 foot Fallow Master Coulters package consists of:

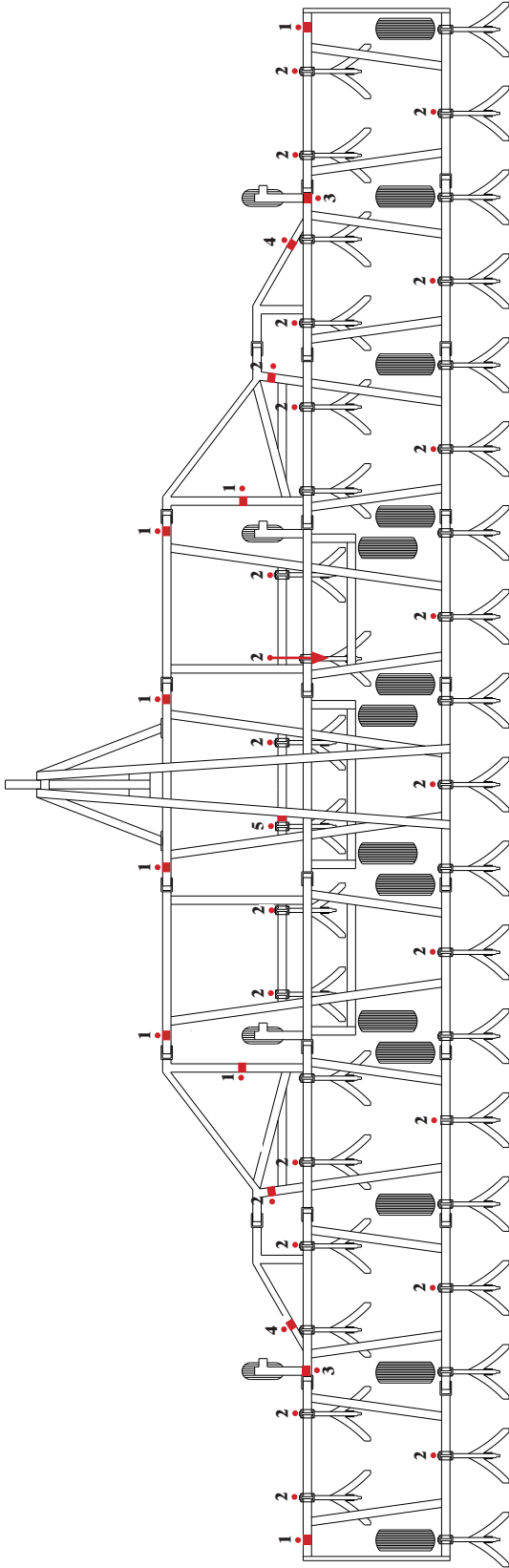
- eight - #1's (straight shanks)
- sixteen - #2's (straight shanks)
- two - #3's (offset shanks)
- two - #4's (straight shanks)
- one - #5 (offset shank)

**I** = SHANK MOUNT STYLE

● = COULTER POSITION

■ = MOUNT POSITION

9 section 63 foot Fallow Master Coulters mounting locations:



The 9 section 63 foot Fallow Master Coulters package consists of:

twenty four - #2's (straight shanks)

two - #3's (offset shanks)

eight - #1's (straight shanks)

two - #4's (straight shanks)

one - #5 (offset shank)

**1** = SHANK MOUNT STYLE

**●** = COULTER POSITION

**■** = MOUNT POSITION