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FALLOW

MASTER 5-35

OPERATOR'S MANUAL

**ORTHMAN
MANUFACTURING
INCORPORATED**

STILL THE STRONGEST

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

OM06-01-02

FALLOW MASTER III™ 5-35 Manual Index

1	SAFETY PRECAUTIONS	35	HYDRAULIC SHUTOFF LINKAGE AND LEVER
2	FRAME ASSEMBLY	36	UNFOLD PROTECTION VALVE
3	8-BOLT SPINDLE ASSEMBLY	37	UNFOLD PROTECTION VALVE PLACEMENT
4	CENTER ROCKSHAFT KIT (SINGLE)	38	ANTICREEP VALVE KIT
5	6-BOLT SPINDLE ASSEMBLY	39	SCHEMATIC PARTS LIST
6	DUAL AXLE AND WHEEL ASSEMBLY	40	DEPTH CONTROL HYDRAULICS SCHEMATIC
7	CENTER ROCKSHAFT KIT (DUAL)		APPENDIX
8	CENTER ROCKSHAFT ASSEMBLY PLACEMENT	A1	802512-HINGE BOLT KIT
9	WING ROCKSHAFT KIT (SINGLE)	A2	802543-5/8 x 4 x 4 U-BOLT KIT
10	WING ROCKSHAFT KIT (DUAL)	A3	801161 ROCKSHAFT BEARING HARDWARE
11	ROCKSHAFT ASSEMBLY PLACEMENT (WING)	A4	801132-WALKING DUAL AXLE BOLT KIT
12	ROCKSHAFT ASSEMBLY PLACEMENT (INSERT)		
13	DUAL AXLE AND WHEEL POSITIONS		
14	DEPTH CONTROL ASSEMBLY (CENTER & RT. INSERT)		
15	DEPTH CONTROL ASSEMBLY (WING & LT. INSERT)		
16	TONGUE ASSEMBLY		
17	HOSE STAND ASSEMBLY		
18	"EDGE ON" CHISEL SHANK ASSEMBLY		
19	SHANK ASSEMBLY W/O TOP PLATE		
20	SHANK ASSEMBLY W/HYD. SHUTOFF HOLDER		
21	SHANK ASSEMBLY W/ VALVE BRACKET		
22	SHANK PLACEMENT		
23	5-BOLT SPINDLE ASSEMBLY		
24	GAUGE WHEEL DETAIL		
25	GAUGE WHEEL PLACEMENT		
26	CYLINDER PARTS LIST		
27	CYLINDER PARTS LIST		
28	CYLINDER BREAKDOWN		
29	SCHEMATICS PARTS LIST		
30	WINGFOLD HYDRAULICS SCHEMATICS		
31	WINGFOLD DETAIL		
32	WING LOCK-UP ARM ASSEMBLY		
33	SINGLE POINT DEPTH CONTROL DETAIL		
34	DEPTH STOP		
35	DEPTH STOP AND VALVE		
	ASSEMBLY INSTRUCTIONS		
	LEVELING INSTRUCTIONS		
	OPERATION AND MAINTENANCE INSTRUCTIONS		

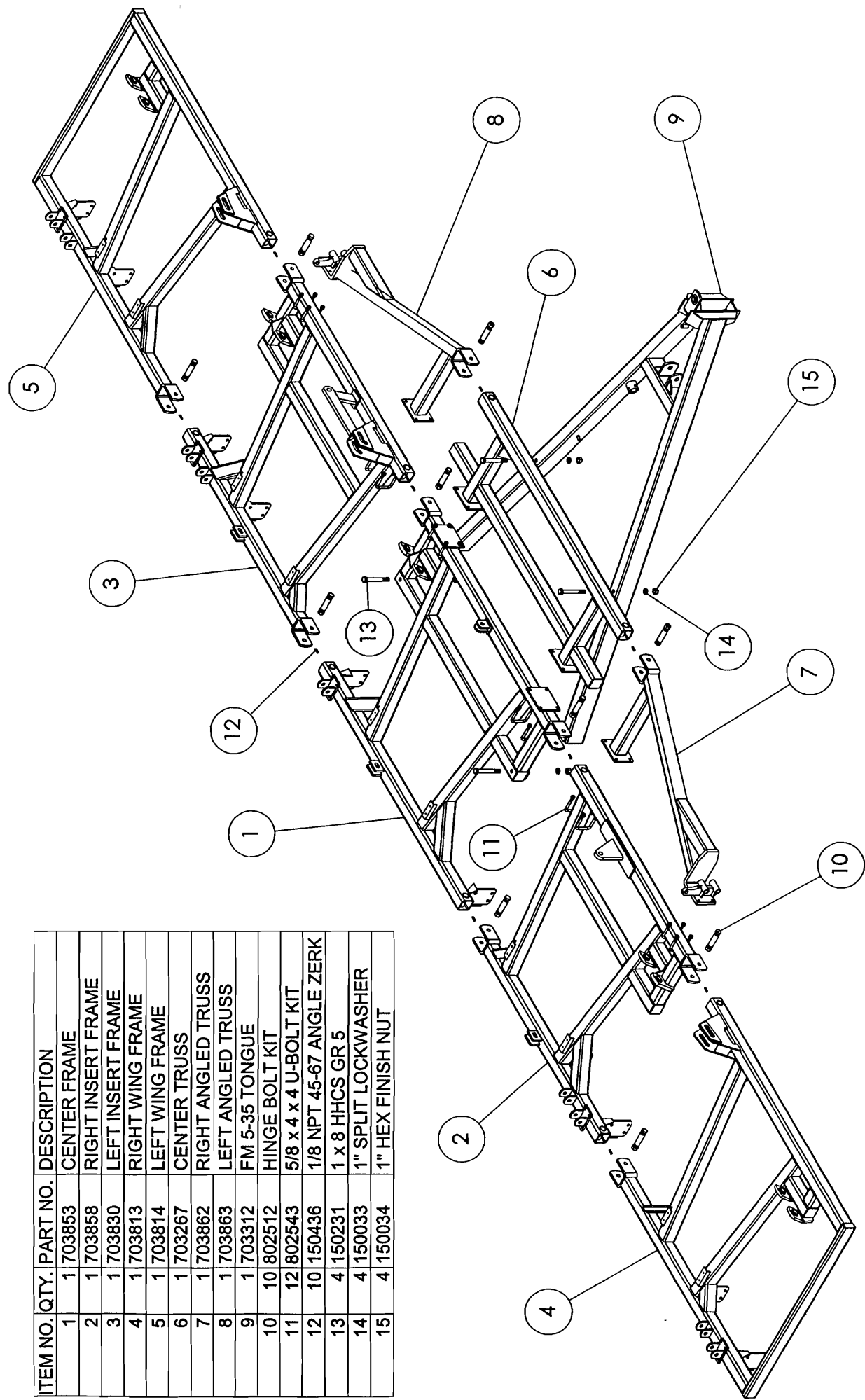
MOST ACCIDENTS CAN BE AVOIDED WHEN SAFETY RULES ARE FOLLOWED

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

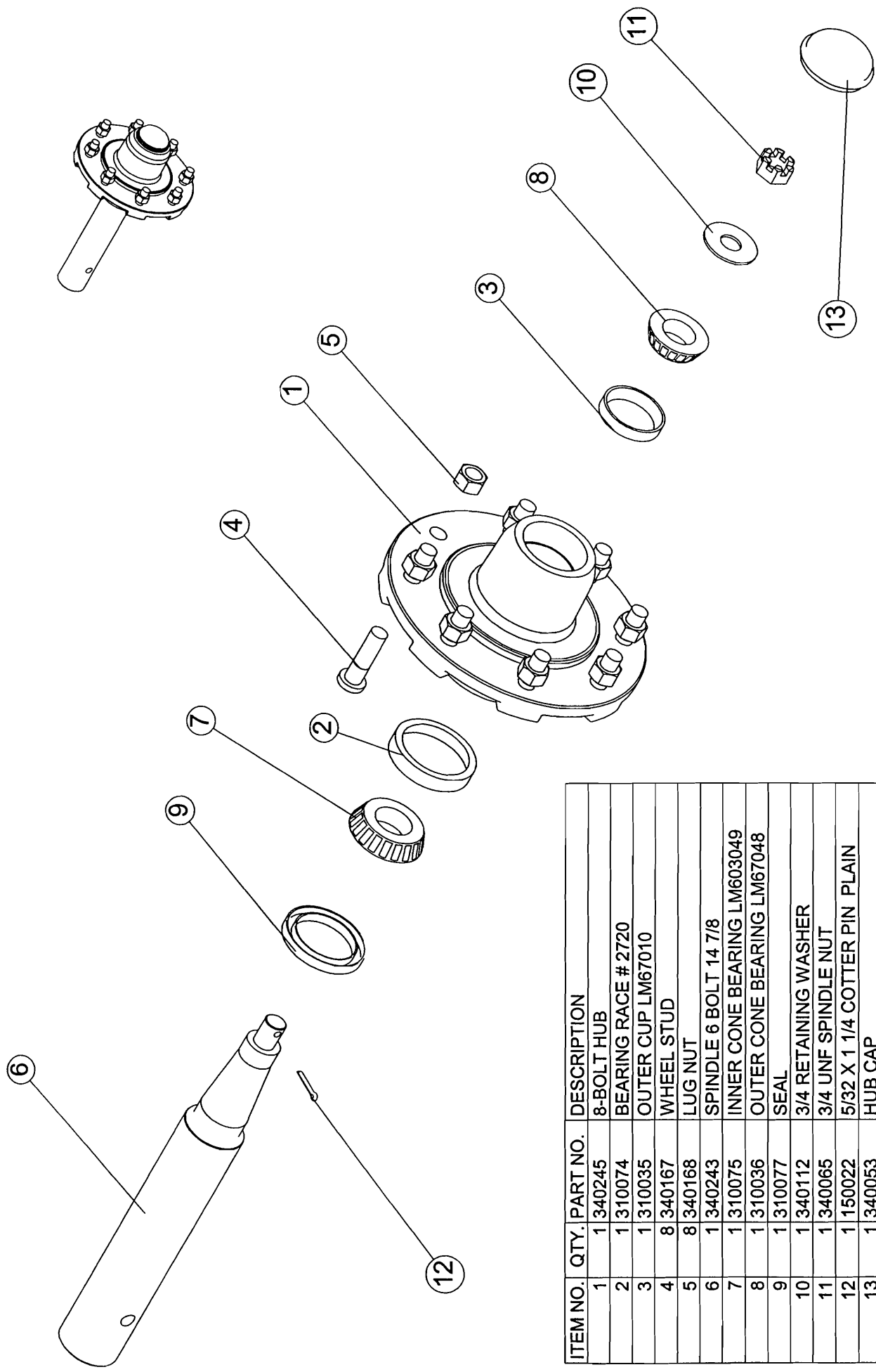
1. READ THE INSTRUCTION AND PARTS MANUAL CAREFULLY BEFORE USING MACHINE.
2. NEVER WALK UNDER AN UNPINNED IMPLEMENT WING.
3. ALWAYS REQUIRE BYSTANDERS TO STAND CLEAR OF MACHINE WHILE FOLDING AND UNFOLDING WINGS OR WHILE RAISING OR LOWERING MACHINE.
4. NEVER ALLOW FEET TO BE UNDER SHOVELS.
5. DO NOT WALK 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	703853	CENTER FRAME
2	1	703858	RIGHT INSERT FRAME
3	1	703830	LEFT INSERT FRAME
4	1	703813	RIGHT WING FRAME
5	1	703814	LEFT WING FRAME
6	1	703267	CENTER TRUSS
7	1	703862	RIGHT ANGLED TRUSS
8	1	703863	LEFT ANGLED TRUSS
9	1	703312	FM 5-35 TONGUE
10	10	802512	HINGE BOLT KIT
11	12	802543	5/8 x 4 x 4 U-BOLT KIT
12	10	150436	1/8 NPT 45-67 ANGLE ZERK
13	4	150231	1 x 8 HHCS GR 5
14	4	150033	1" SPLIT LOCKWASHER
15	4	150034	1" HEX FINISH NUT

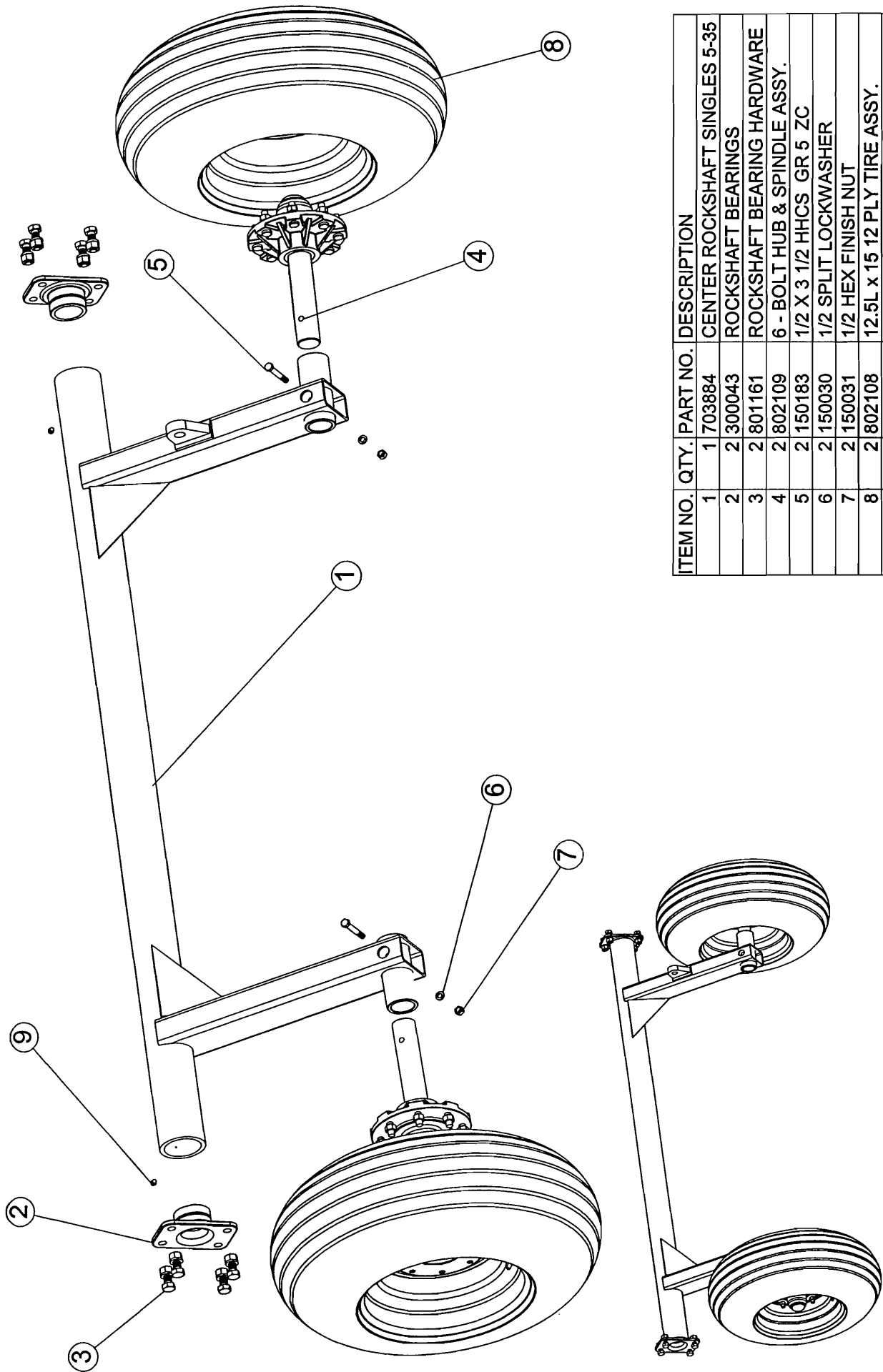


FRAME ASSEMBLY



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	340245	8-BOLT HUB
2	1	310074	BEARING RACE # 2720
3	1	310035	OUTER CUP LM67010
4	8	340167	WHEEL STUD
5	8	340168	LUG NUT
6	1	340243	SPINDLE 6 BOLT 14 7/8
7	1	310075	INNER CONE BEARING LM603049
8	1	310036	OUTER CONE BEARING LM67048
9	1	310077	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

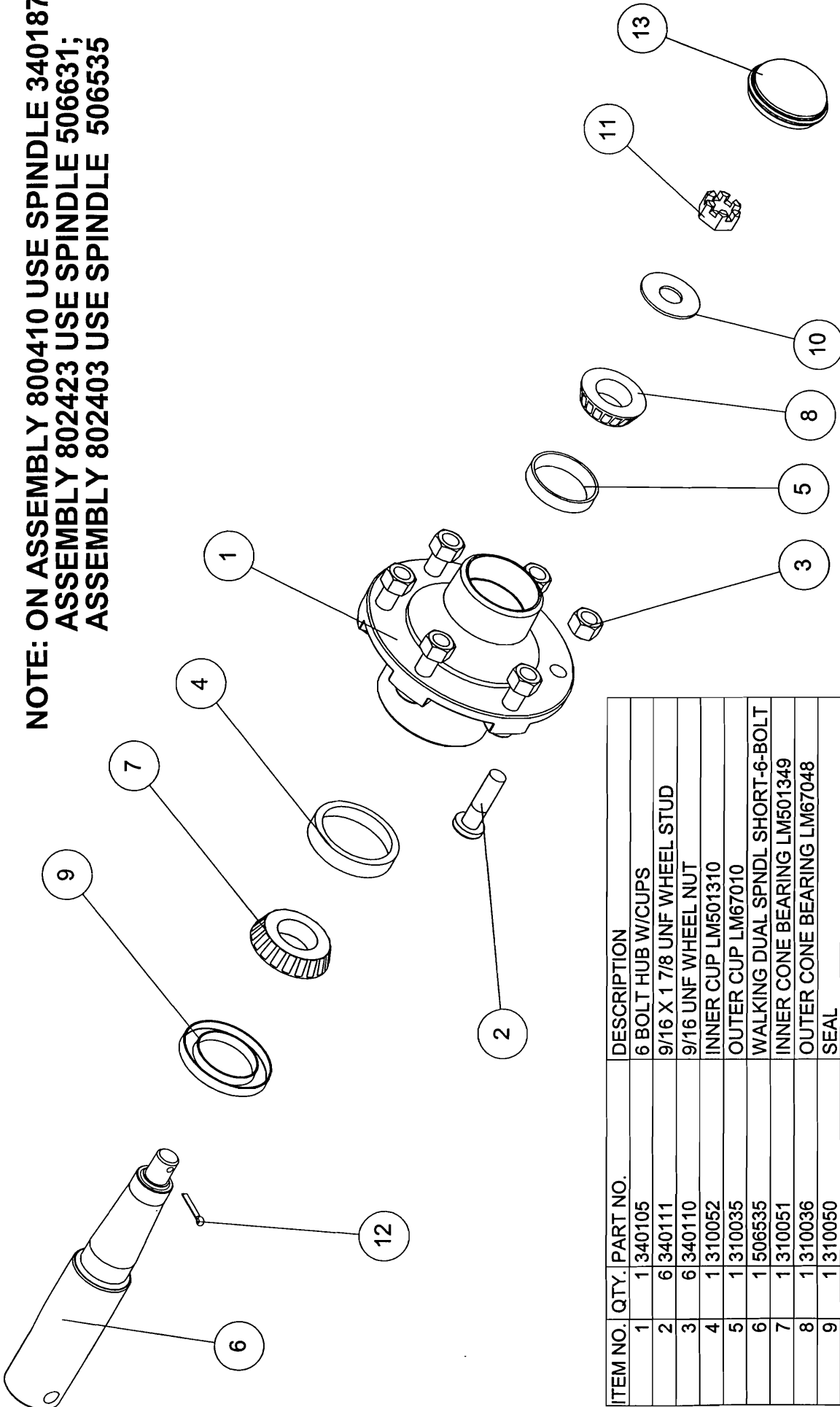
HUB & SPINDLE ASSEMBLY 8 BOLT (802109)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703884	CENTER ROCKSHAFT SINGLES 5-35
2	2	300043	ROCKSHAFT BEARINGS
3	2	801161	ROCKSHAFT BEARING HARDWARE
4	2	802109	6 - BOLT HUB & SPINDLE ASSY.
5	2	150183	1/2 X 3 1/2 HHCS GR 5 ZC
6	2	150030	1/2 SPLIT LOCKWASHER
7	2	150031	1/2 HEX FINISH NUT
8	2	802108	12.5L x 15 12 PLY TIRE ASSY.
9	2	150049	1/8 NPT STRAIGHT ZERK

RIGHT CENTER ROCKSHAFT KIT (901443)

**NOTE: ON ASSEMBLY 800410 USE SPINDLE 340187;
 ASSEMBLY 802423 USE SPINDLE 506631;
 ASSEMBLY 802403 USE SPINDLE 506535**

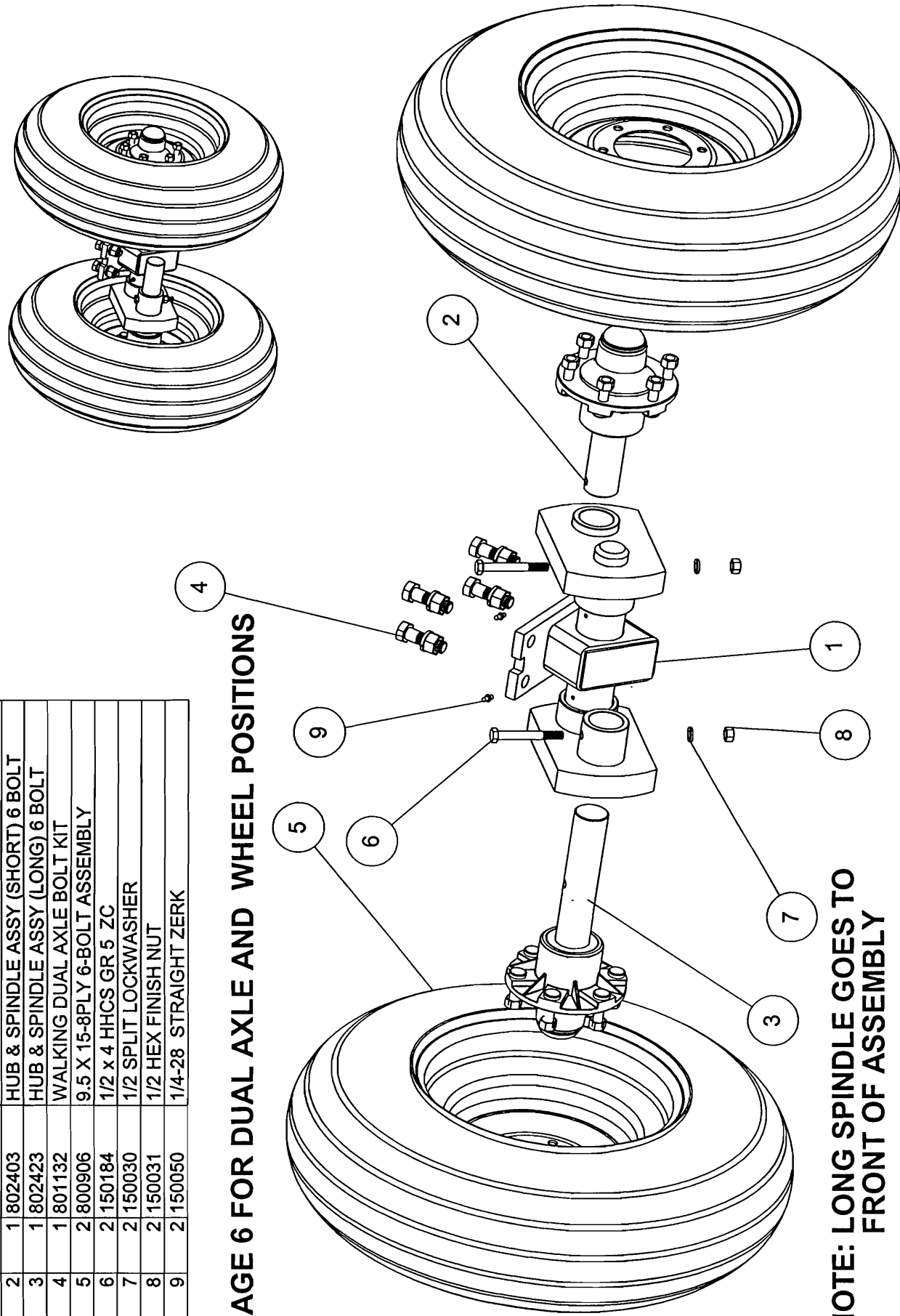


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1340105	6 BOLT HUB W/CUPS
2	6	1340111	9/16 X 1 7/8 UNF WHEEL STUD
3	6	1340110	9/16 UNF WHEEL NUT
4	1	1310052	INNER CUP LM501310
5	1	1310035	OUTER CUP LM67010
6	1	1506535	WALKING DUAL SPNDL SHORT-6-BOLT
7	1	1310051	INNER CONE BEARING LM501349
8	1	1310036	OUTER CONE 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 6 BOLT

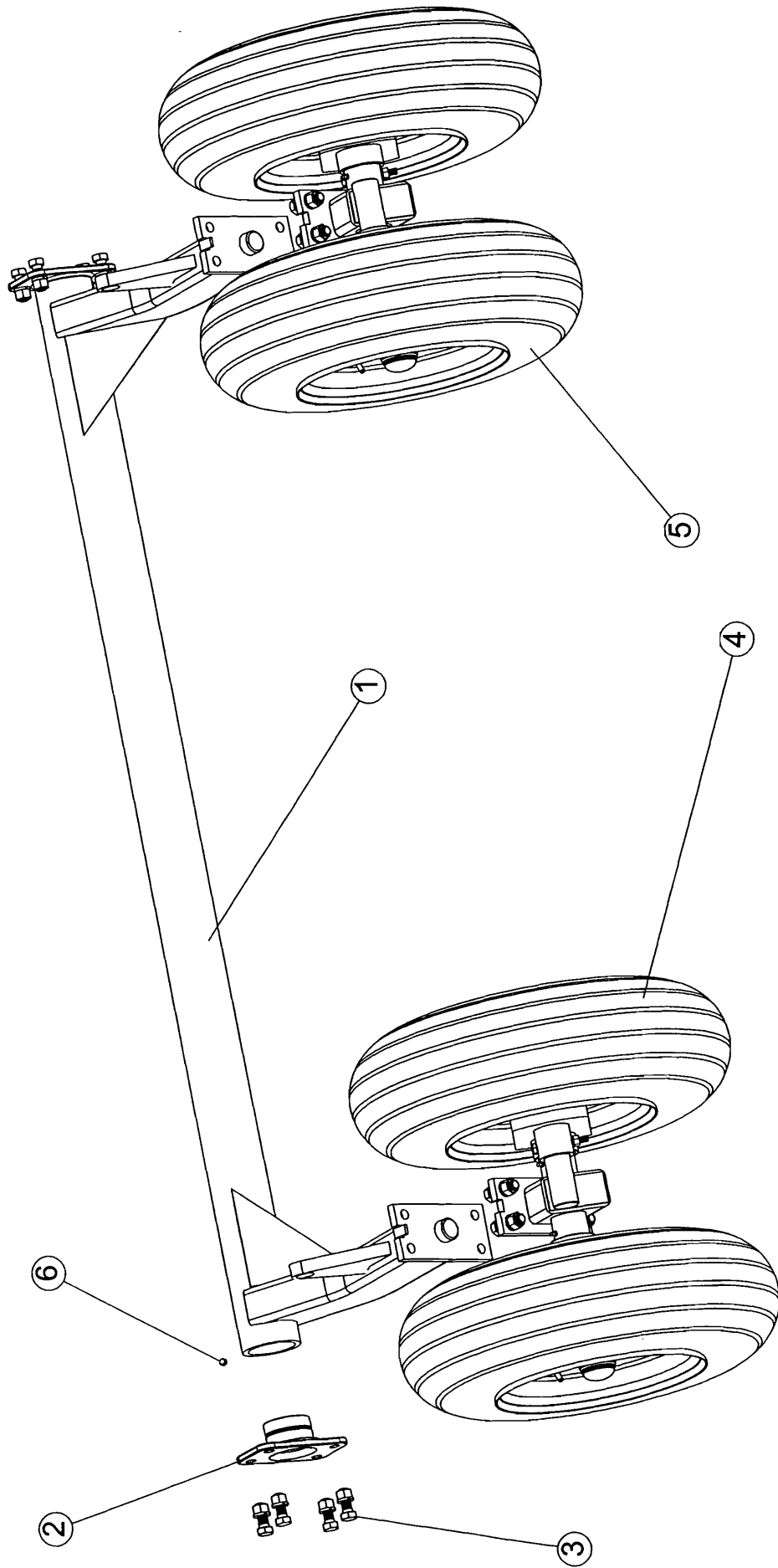
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1703786	WALKING DUAL AXLE 6 BOLT W.A.
2	1	1802403	HUB & SPINDLE ASSY (SHORT) 6 BOLT
3	1	1802423	HUB & SPINDLE ASSY (LONG) 6 BOLT
4	1	1801132	WALKING DUAL AXLE BOLT KIT
5	2	800906	9.5 X 15-8PLY 6-BOLT ASSEMBLY
6	2	150184	1/2 x 4 HHCS GR 5 ZC
7	2	150030	1/2 SPLIT LOCKWASHER
8	2	150031	1/2 HEX FINISH NUT
9	2	150050	1/4-28 STRAIGHT ZERK

SEE PAGE 6 FOR DUAL AXLE AND WHEEL POSITIONS



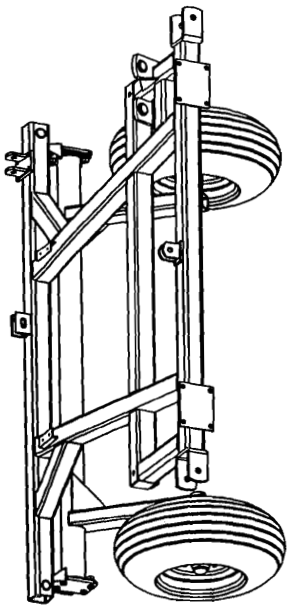
NOTE: LONG SPINDLE GOES TO FRONT OF ASSEMBLY

DUAL AXLE AND WHEEL ASSEMBLY (901340)

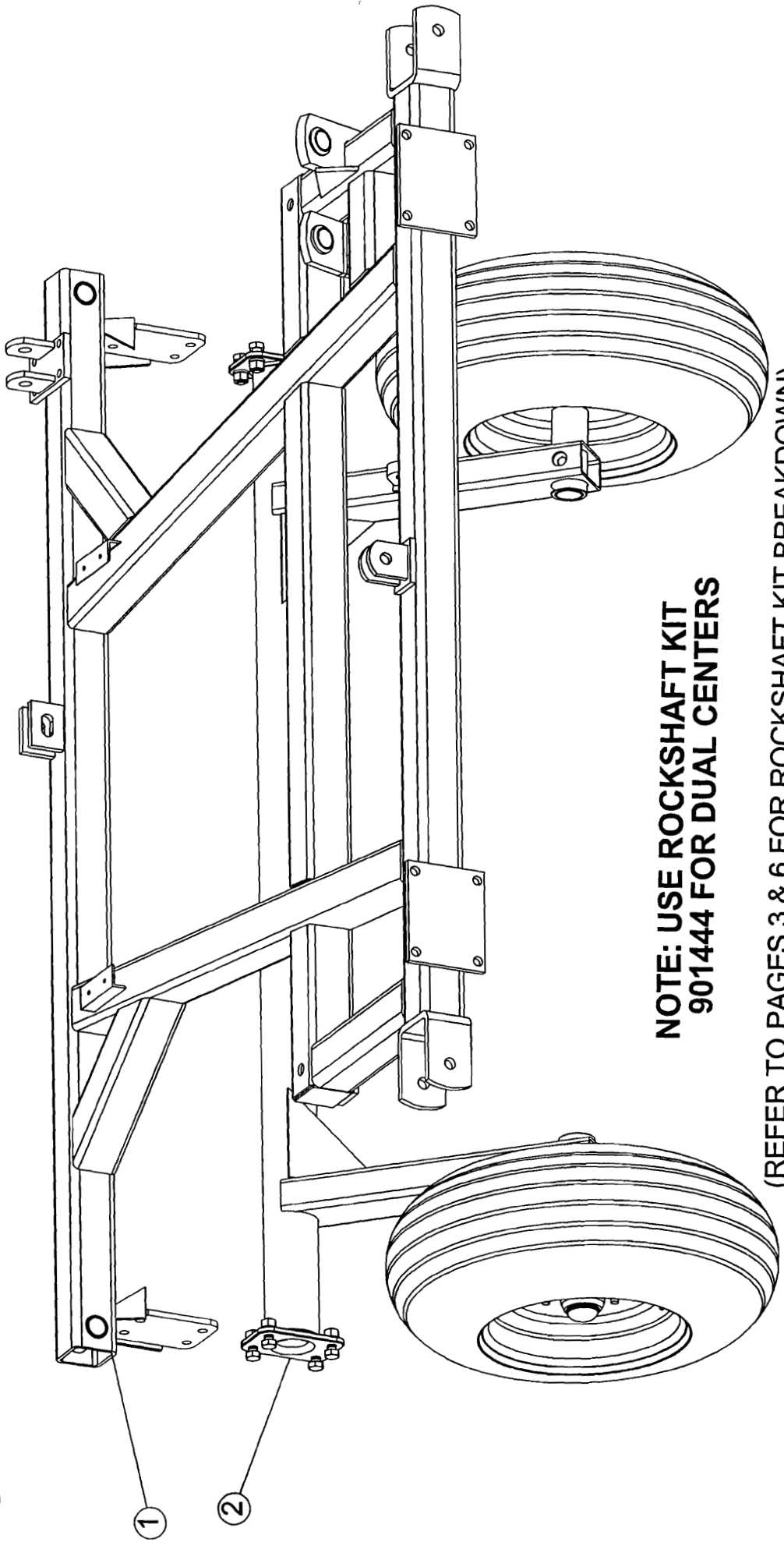


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1703210	CENTER ROCKSHAFT
2	2	300043	ROCKSHAFT BEARINGS
3	2	801161	ROCKSHAFT BEARING HARDWARE
4	1	901340	DUAL AXLE AND WHEEL ASSY.
5	1	901340	DUAL AXLE AND WHEEL ASSY.
6	2	150049	1/8 NPT STRAIGHT ZERK

DUAL CENTER ROCKSHAFT KIT (901444)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703853	CENTER FRAME
2	1	901443	RIGHT CENTER ROCKSHAFT KIT (SINGLE)

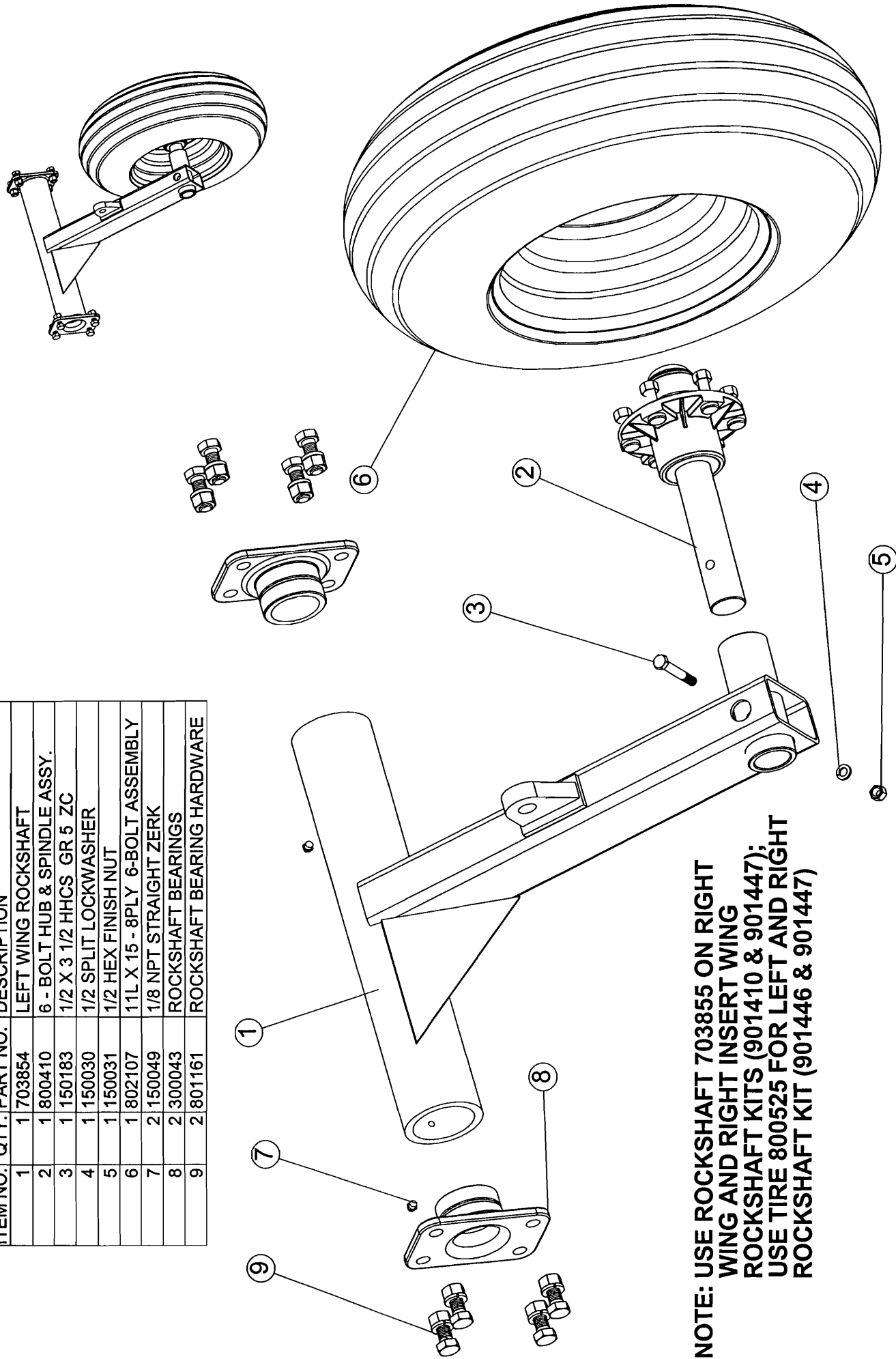


**NOTE: USE ROCKSHAFT KIT
901444 FOR DUAL CENTERS**

(REFER TO PAGES 3 & 6 FOR ROCKSHAFT KIT BREAKDOWN)

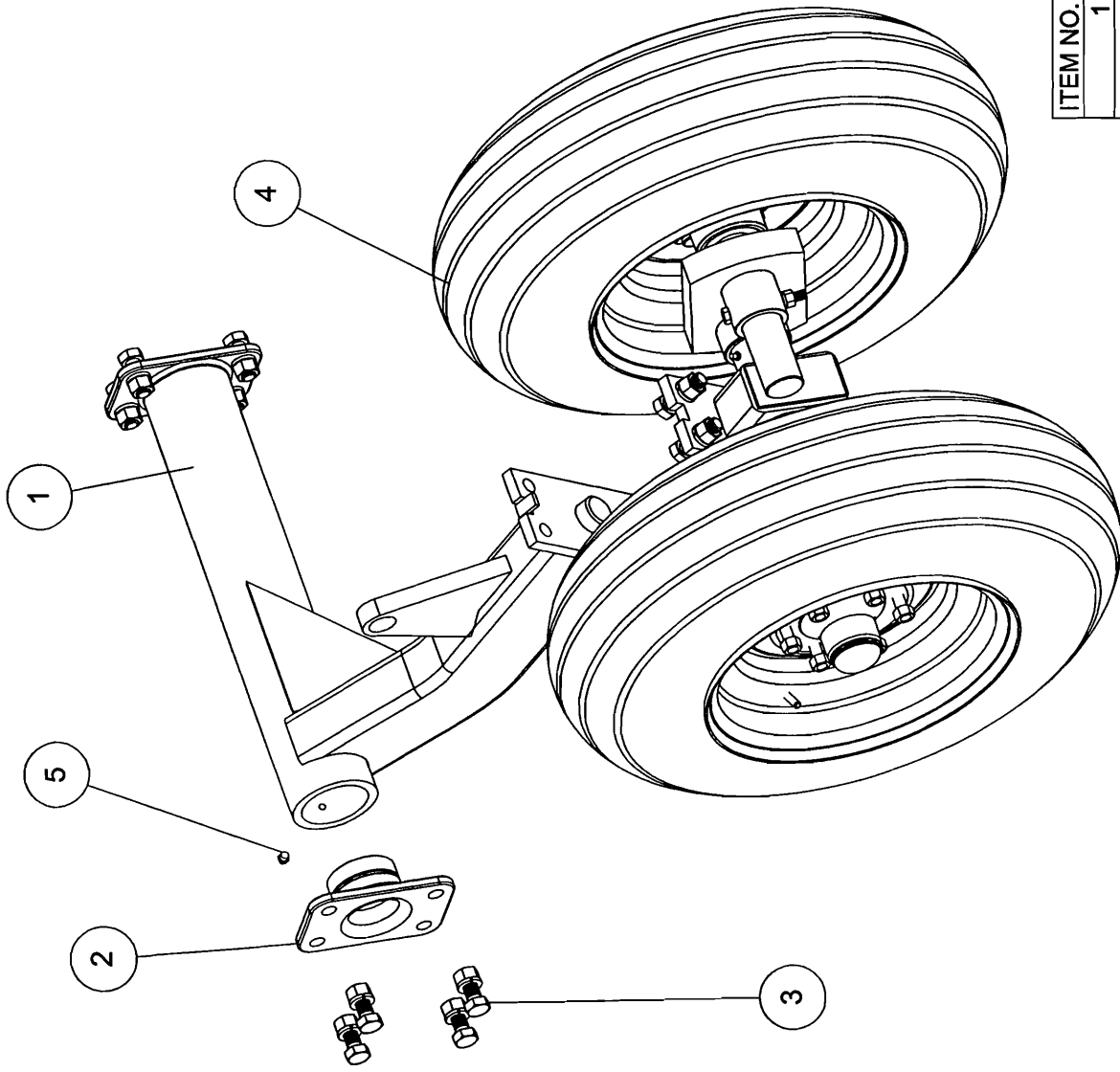
ROCKSHAFT ASSEMBLY PLACEMENT

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	1 1/4 X 15 - 8PLY 6-BOLT ASSEMBLY
7	2	150049	1/8 NPT STRAIGHT ZERK
8	2	300043	ROCKSHAFT BEARINGS
9	2	801161	ROCKSHAFT BEARING HARDWARE



NOTE: USE ROCKSHAFT 703855 ON RIGHT WING AND RIGHT INSERT WING ROCKSHAFT KITS (901410 & 901447); USE TIRE 800525 FOR LEFT AND RIGHT ROCKSHAFT KIT (901446 & 901447)

LEFT WING ROCKSHAFT KIT (901409)

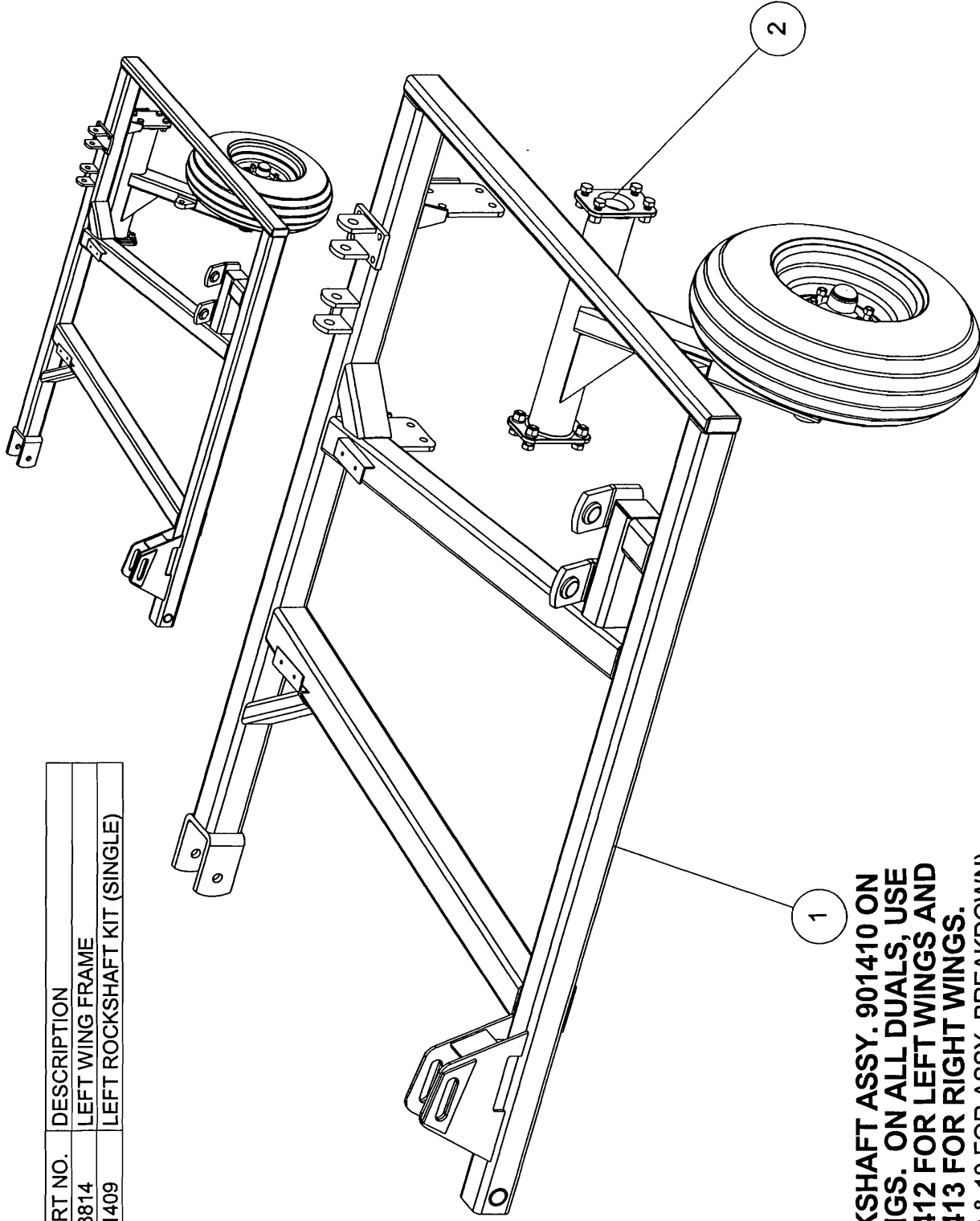


**NOTE: FOR LEFT ROCKSHAFT ASSY.
(901412) USE ROCKSHAFT 703231**

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703232	RT INSERT CENTER ROCKSHAFT
2	2	300043	ROCKSHAFT BEARINGS
3	2	801161	ROCKSHAFT BEARING HARDWARE
4	1	901340	DUAL AXLE AND WHEEL ASSY.
5	2	150049	1/8 NPT STRAIGHT ZERK

DUAL RIGHT ROCKSHAFT ASSY. (901413)

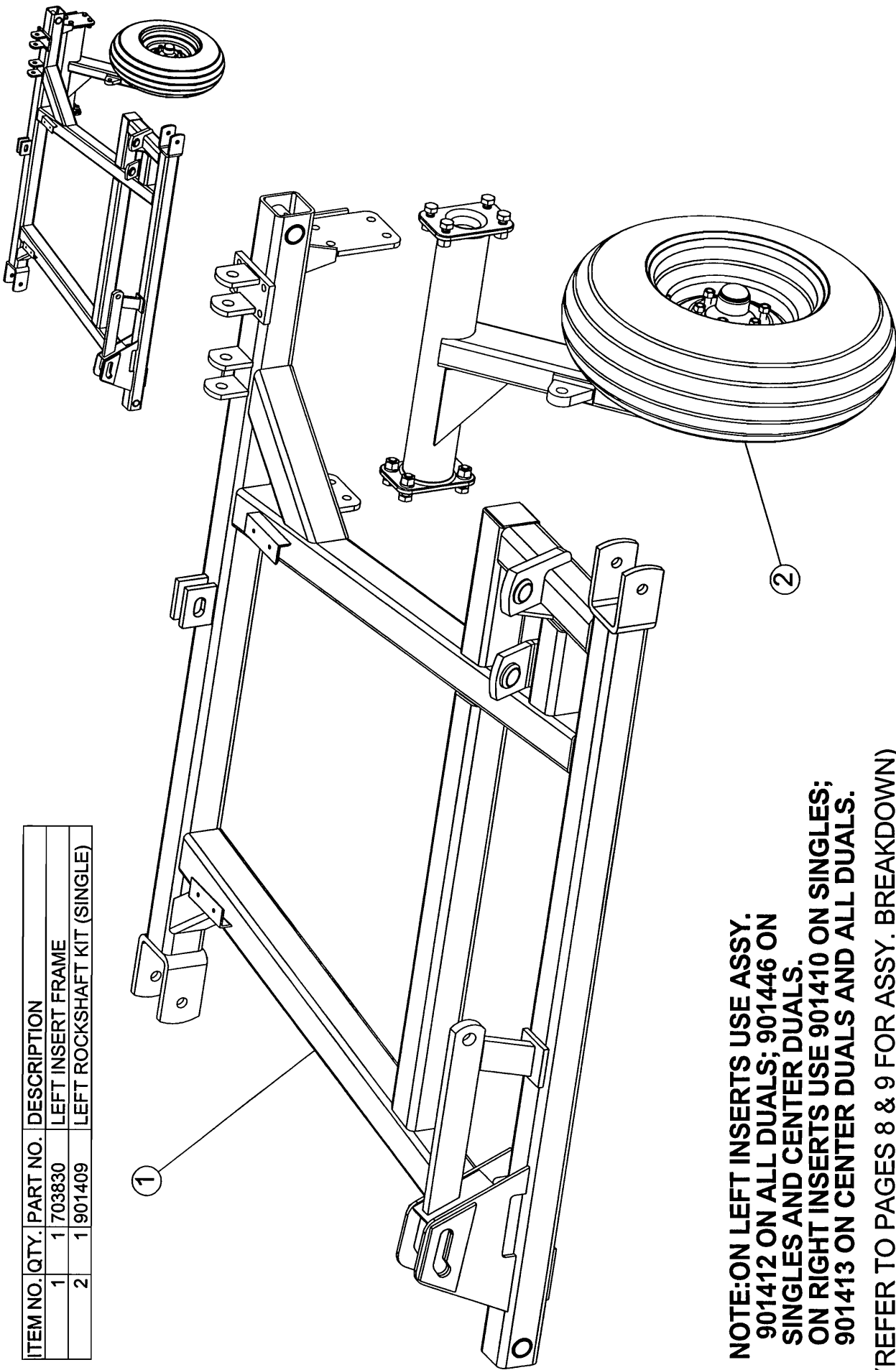
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1703814	LEFT WING FRAME
2	1	1901409	LEFT ROCKSHAFT KIT (SINGLE)



NOTE: USE ROCKSHAFT ASSY. 901410 ON RIGHT WINGS. ON ALL DUALS, USE ASSY. 901412 FOR LEFT WINGS AND ASSY. 901413 FOR RIGHT WINGS.
 (REFER TO PAGES 9 & 10 FOR ASSY. BREAKDOWN)

ROCKSHAFT ASSEMBLY PLACEMENT (WING)

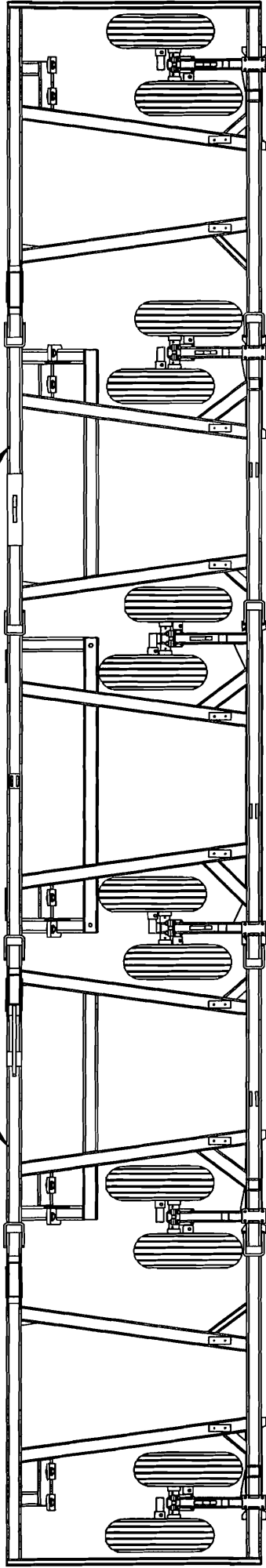
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703830	LEFT INSERT FRAME
2	1	901409	LEFT ROCKSHAFT KIT (SINGLE)



**NOTE: ON LEFT INSERTS USE ASSY.
 901412 ON ALL DUALS; 901446 ON
 SINGLES AND CENTER DUALS.
 ON RIGHT INSERTS USE 901410 ON SINGLES;
 901413 ON CENTER DUALS AND ALL DUALS.
 (REFER TO PAGES 8 & 9 FOR ASSY. BREAKDOWN)**

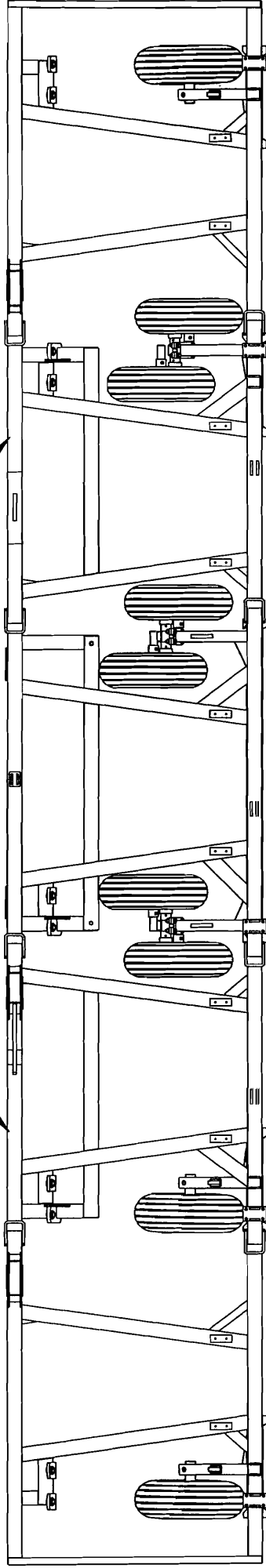
FRONT OF IMPLEMENT

ALL DUALS



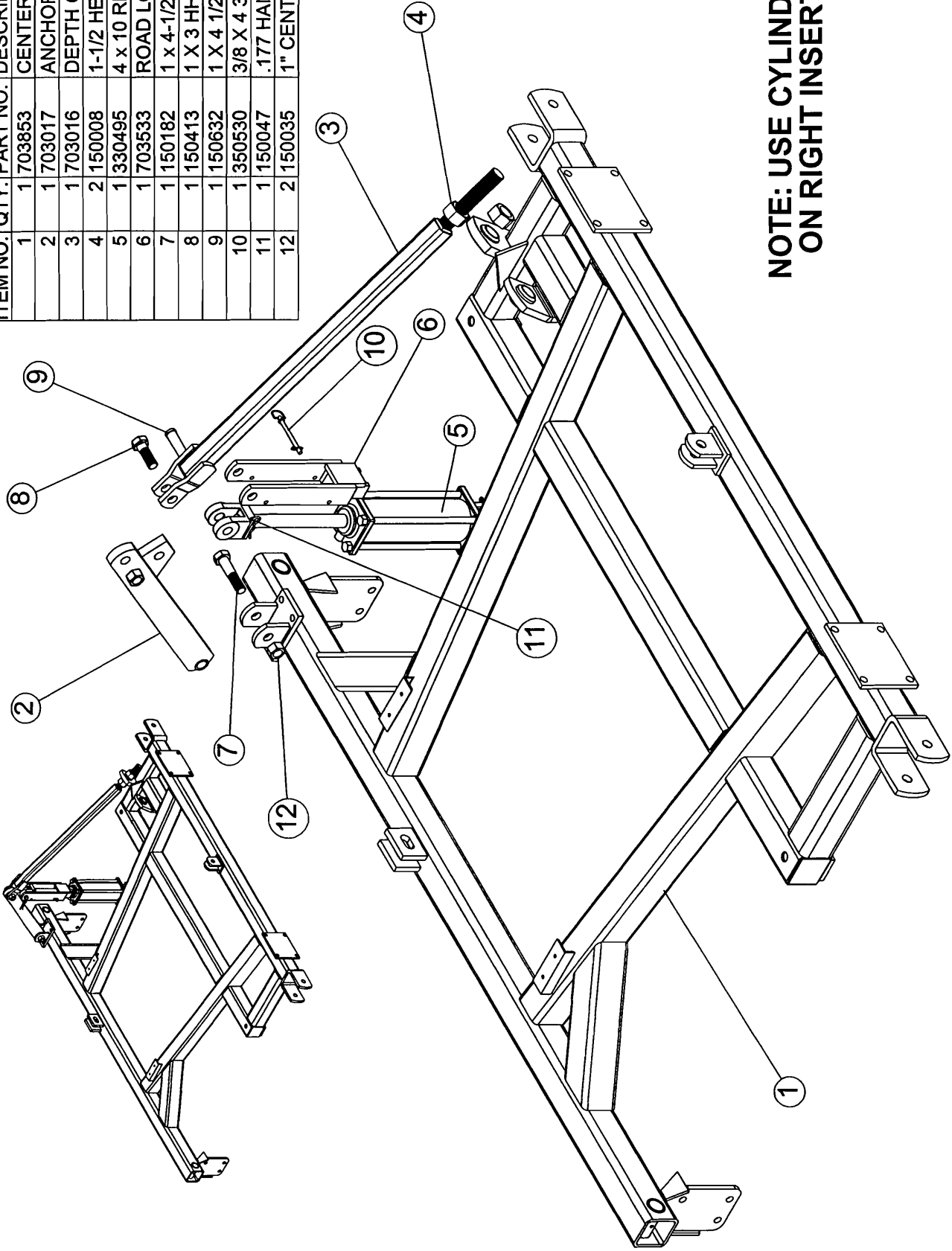
FRONT OF IMPLEMENT

CENTER DUALS



DUAL AXLE AND WHEEL POSITIONS

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703853	CENTER FRAME
2	1	703017	ANCHOR LINKAGE
3	1	703016	DEPTH CONTROL LINKAGE
4	2	150008	1-1/2 HEX FINISH NUT ZC
5	1	330495	4 X 10 REPHASE CYLINDER
6	1	703533	ROAD LOCK-OUT - W.A. (WHITE)
7	1	150182	1 X 4-1/2 HHCS GR 5 ZC
8	1	150413	1 X 3 HHCS GR 5 ZC
9	1	150632	1 X 4 1/2 CLEVIS PIN
10	1	350530	3/8 X 4 3/8 HITCH PIN
11	1	150047	.177 HAIRPIN COTTER
12	2	150035	1" CENTERLOCK HEX NUT ZC

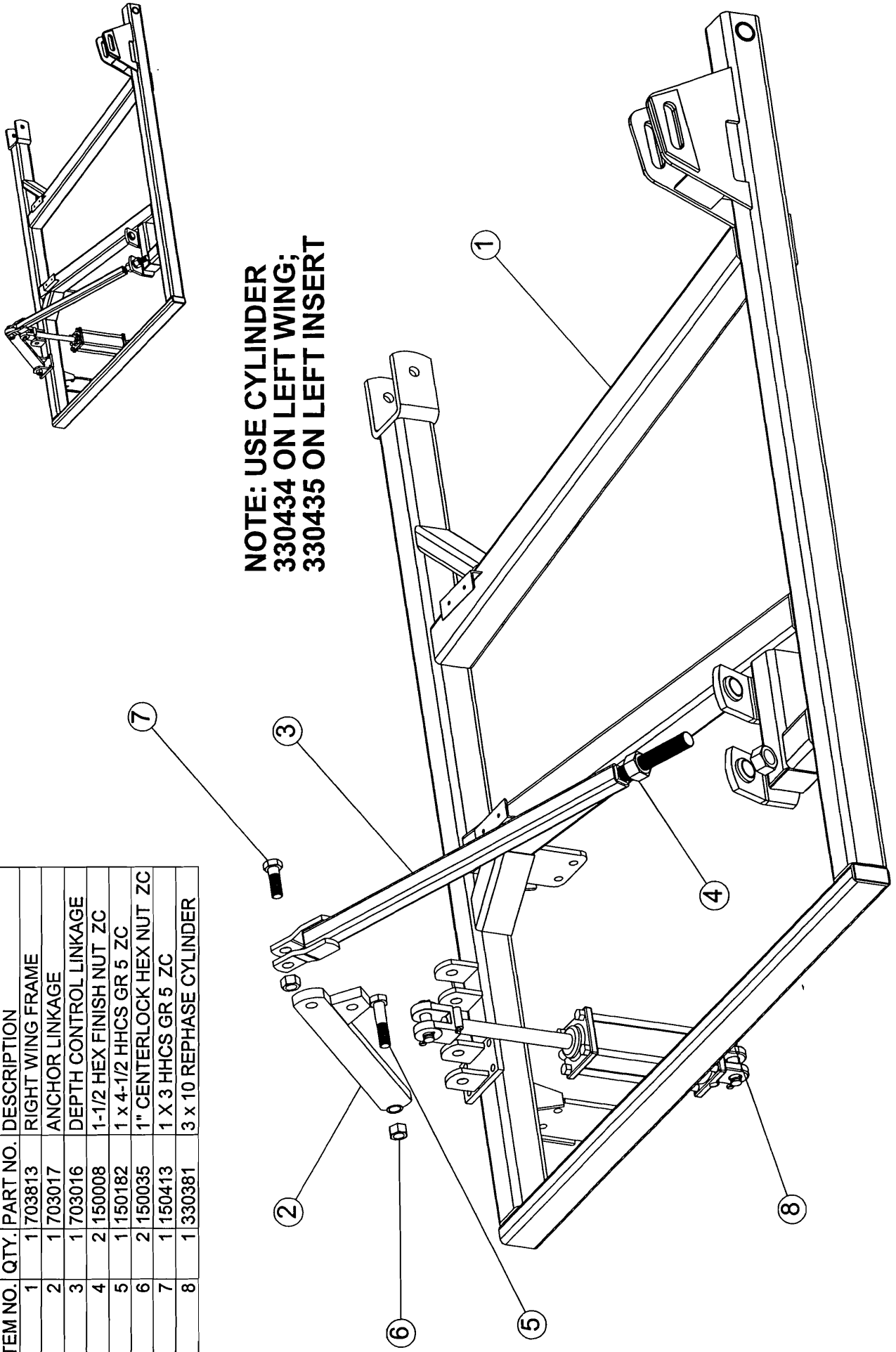


**NOTE: USE CYLINDER 330382
ON RIGHT INSERT**

DEPTH CONTROL ASSEMBLY (CENTER & RIGHT INSERT)

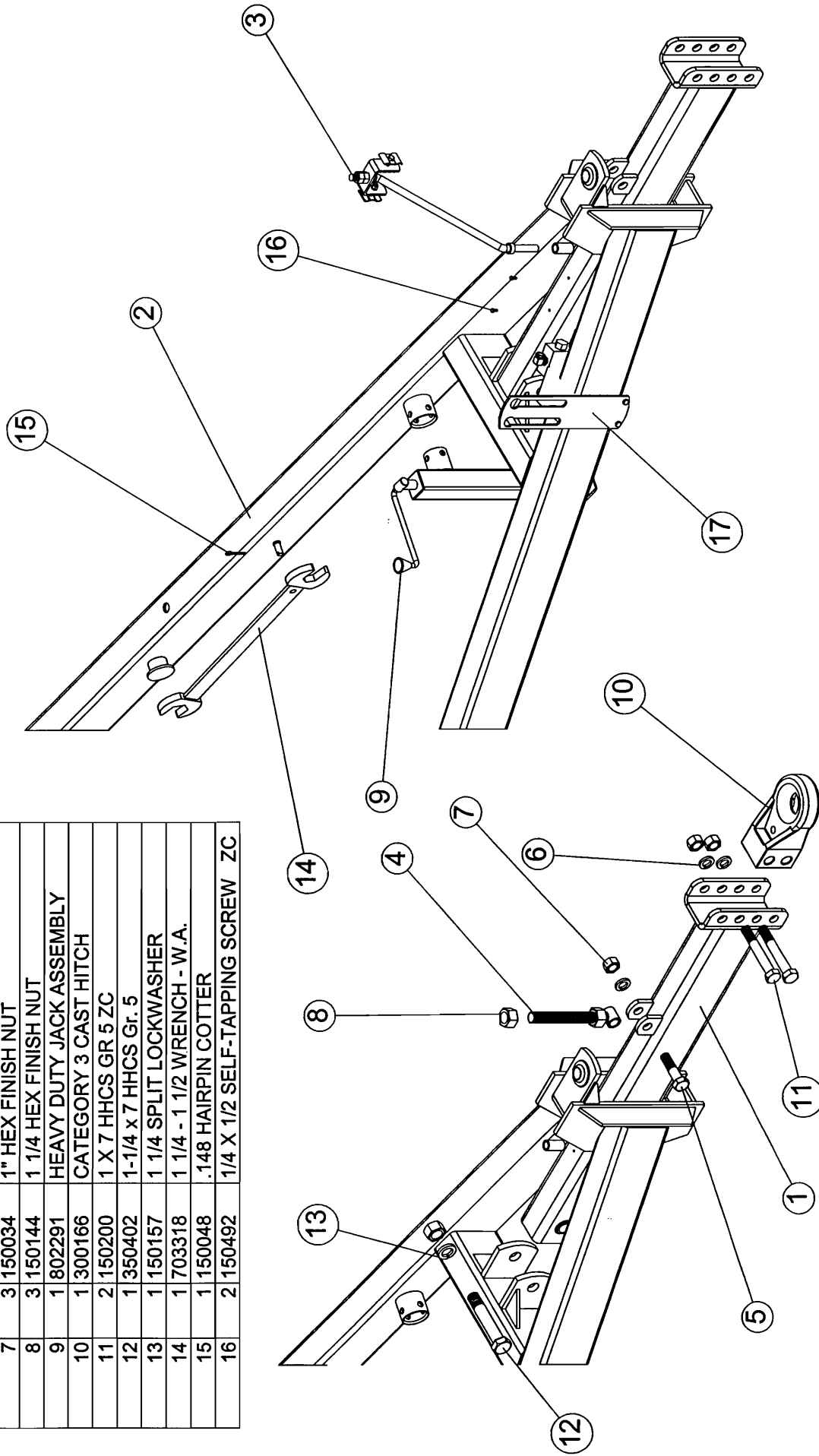
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703813	RIGHT WING FRAME
2	1	703017	ANCHOR LINKAGE
3	1	703016	DEPTH CONTROL LINKAGE
4	2	150008	1-1/2 HEX FINISH NUT ZC
5	1	150182	1 X 4-1/2 HHCS GR 5 ZC
6	2	150035	1" CENTERLOCK HEX NUT ZC
7	1	150413	1 X 3 HHCS GR 5 ZC
8	1	330381	3 X 10 REPHASE CYLINDER

**NOTE: USE CYLINDER
330434 ON LEFT WING;
330435 ON LEFT INSERT**

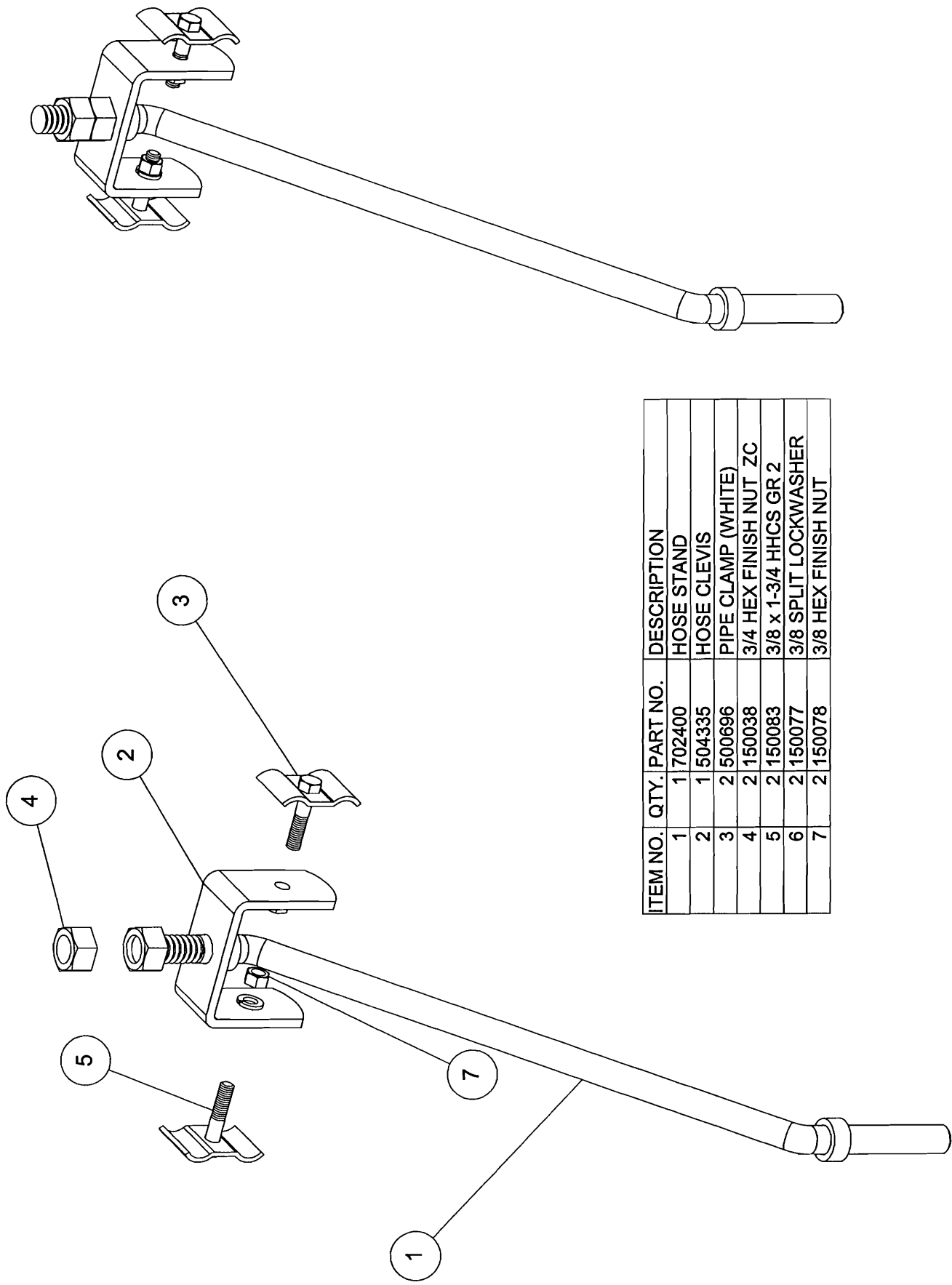


DEPTH CONTROL ASSEMBLY (WINGS & LEFT INSERT)

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703828	EXTENSION TONGUE 3, 4, & 5
2	1	703312	FM 5-35 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



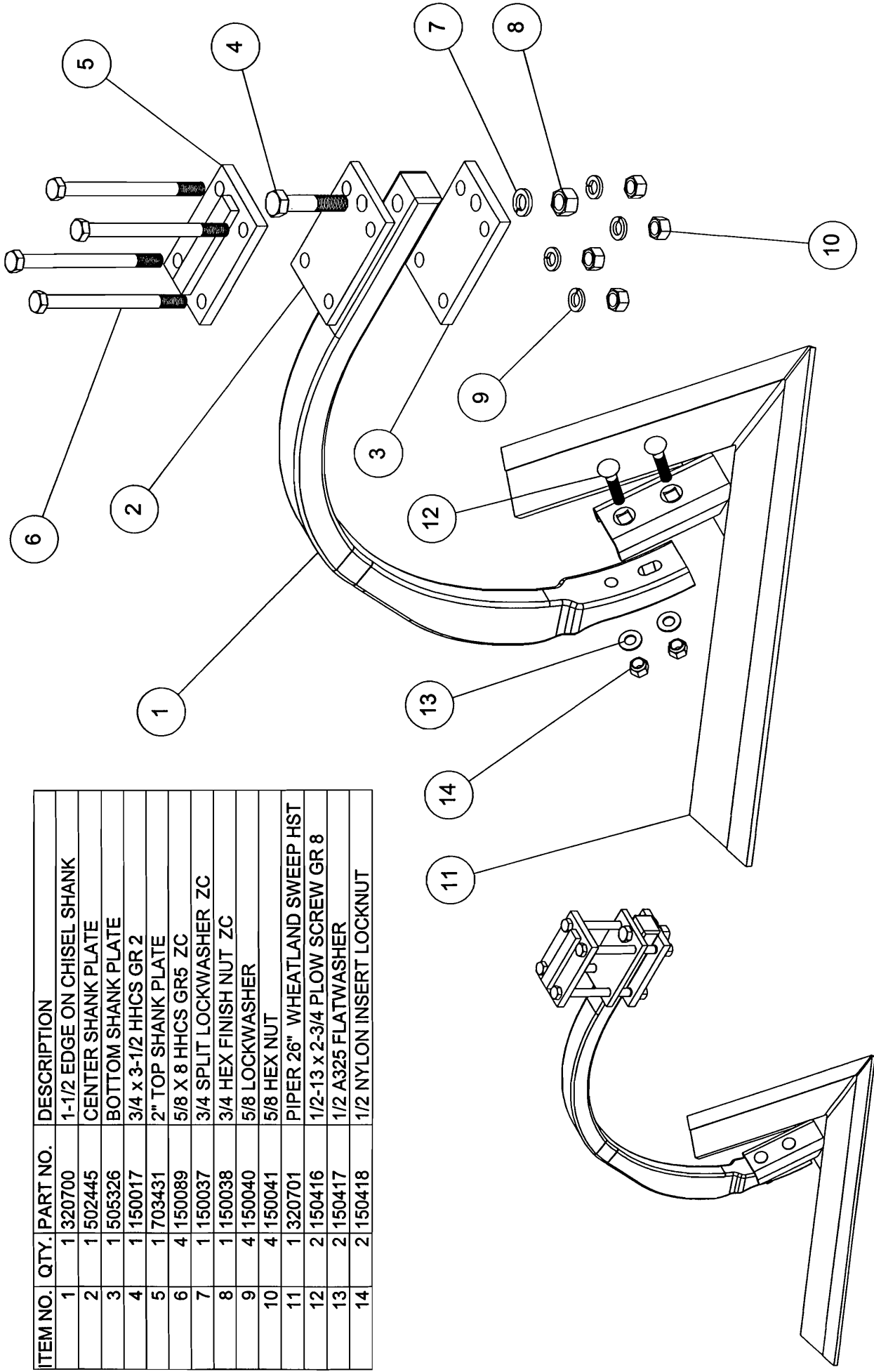
TONGUE ASSEMBLY



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1702400	HOSE STAND
2	1	1504335	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

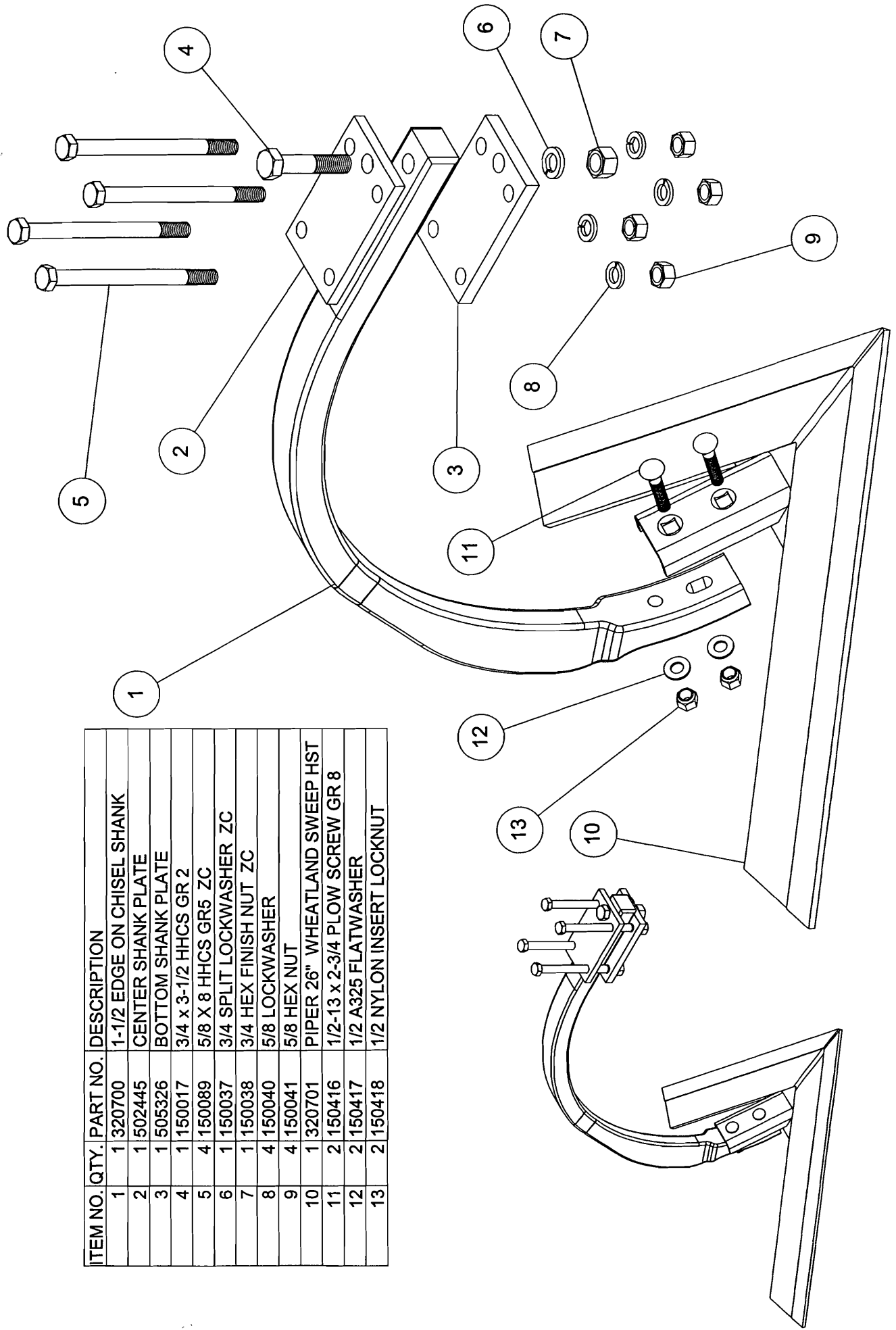
HOSE STAND ASSEMBLY

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	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



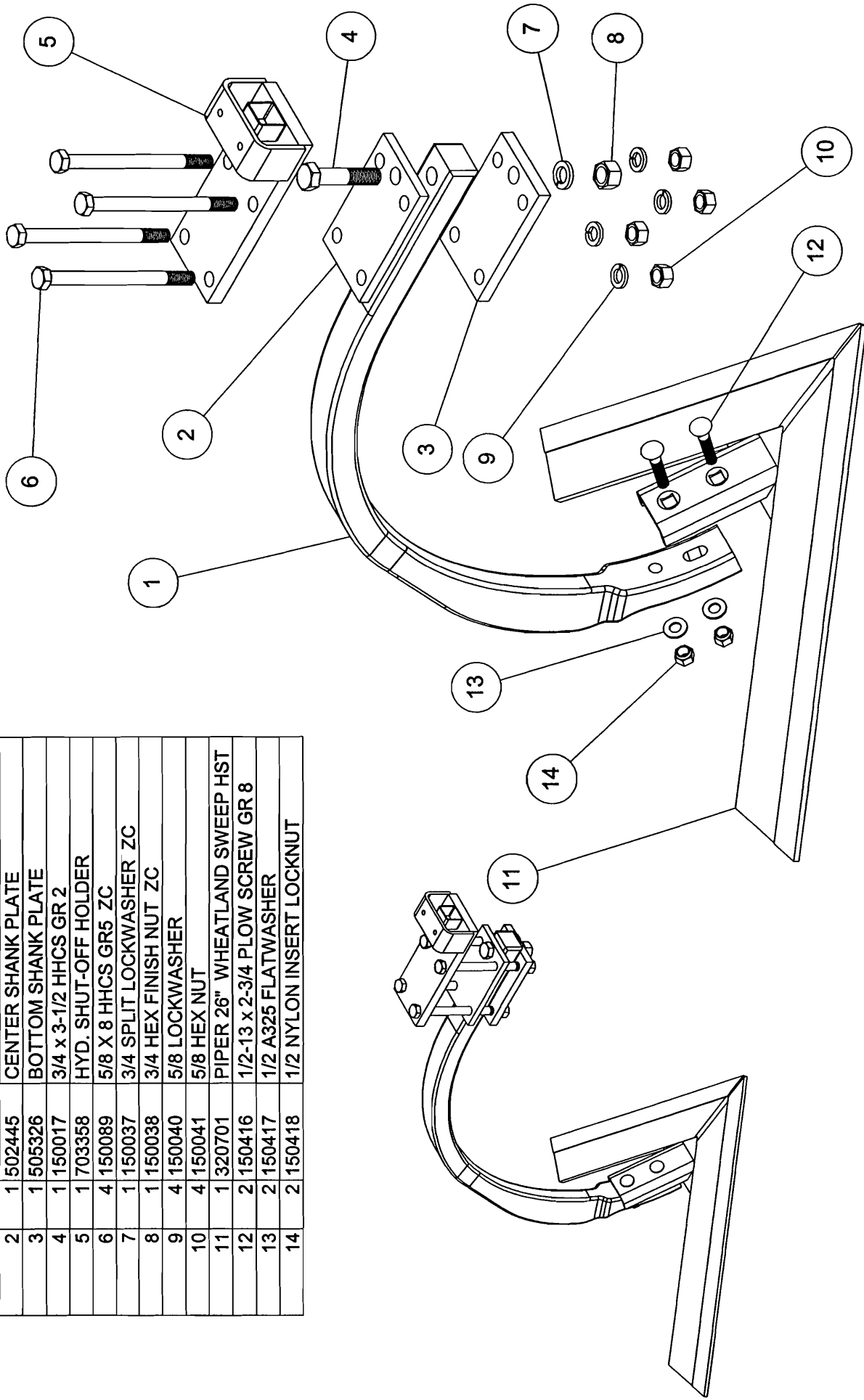
"EDGE ON" CHISEL SHANK ASSEMBLY (901392)

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	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	1320701	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

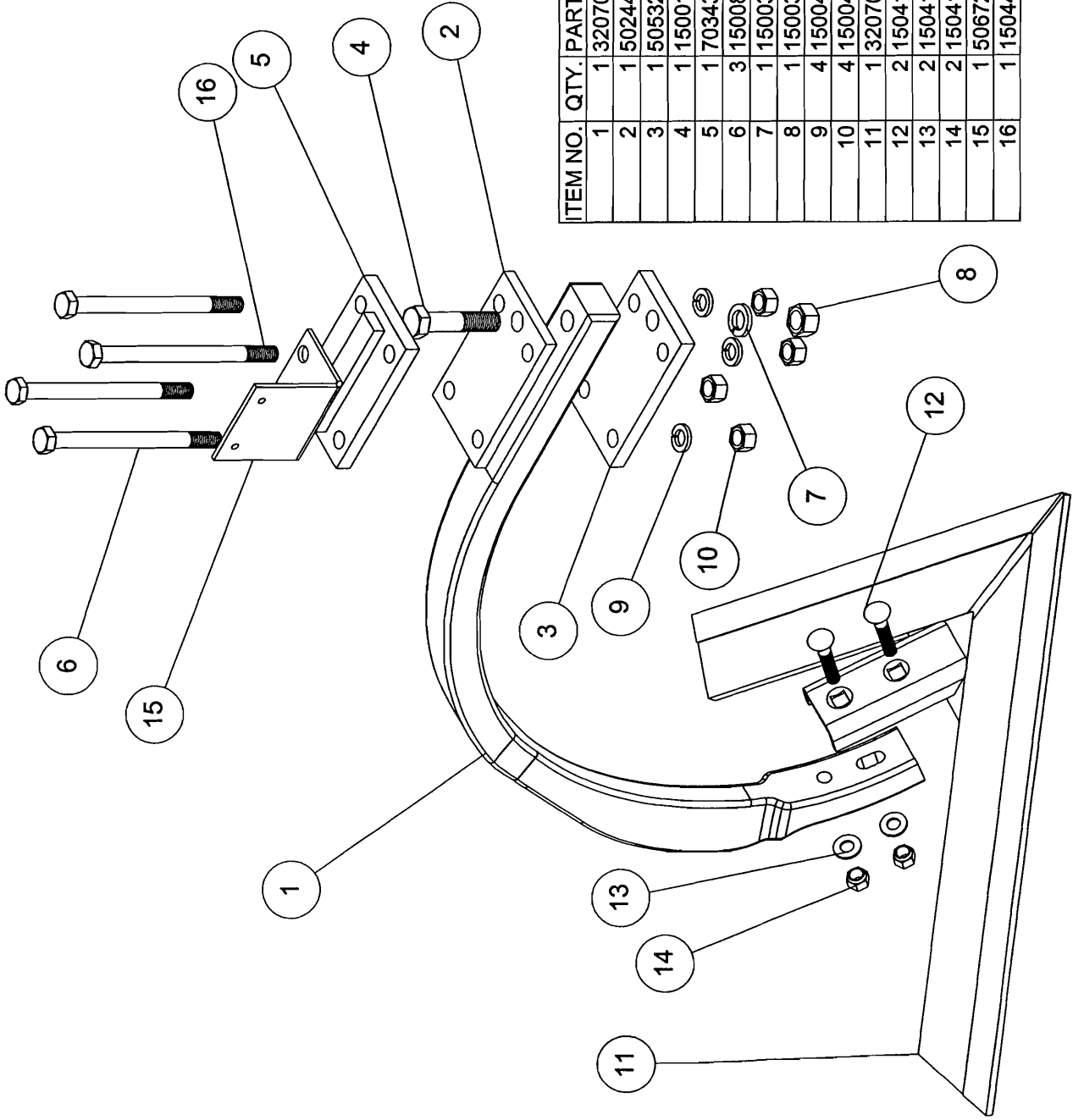
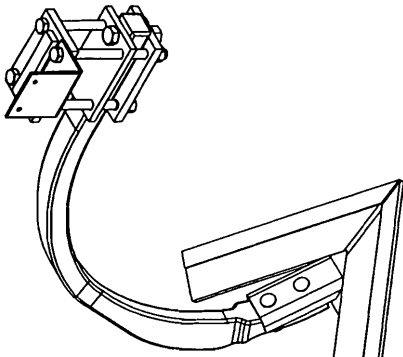


SHANK ASSEMBLY W/O TOP PLATE (901393) 18

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 GR 5 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



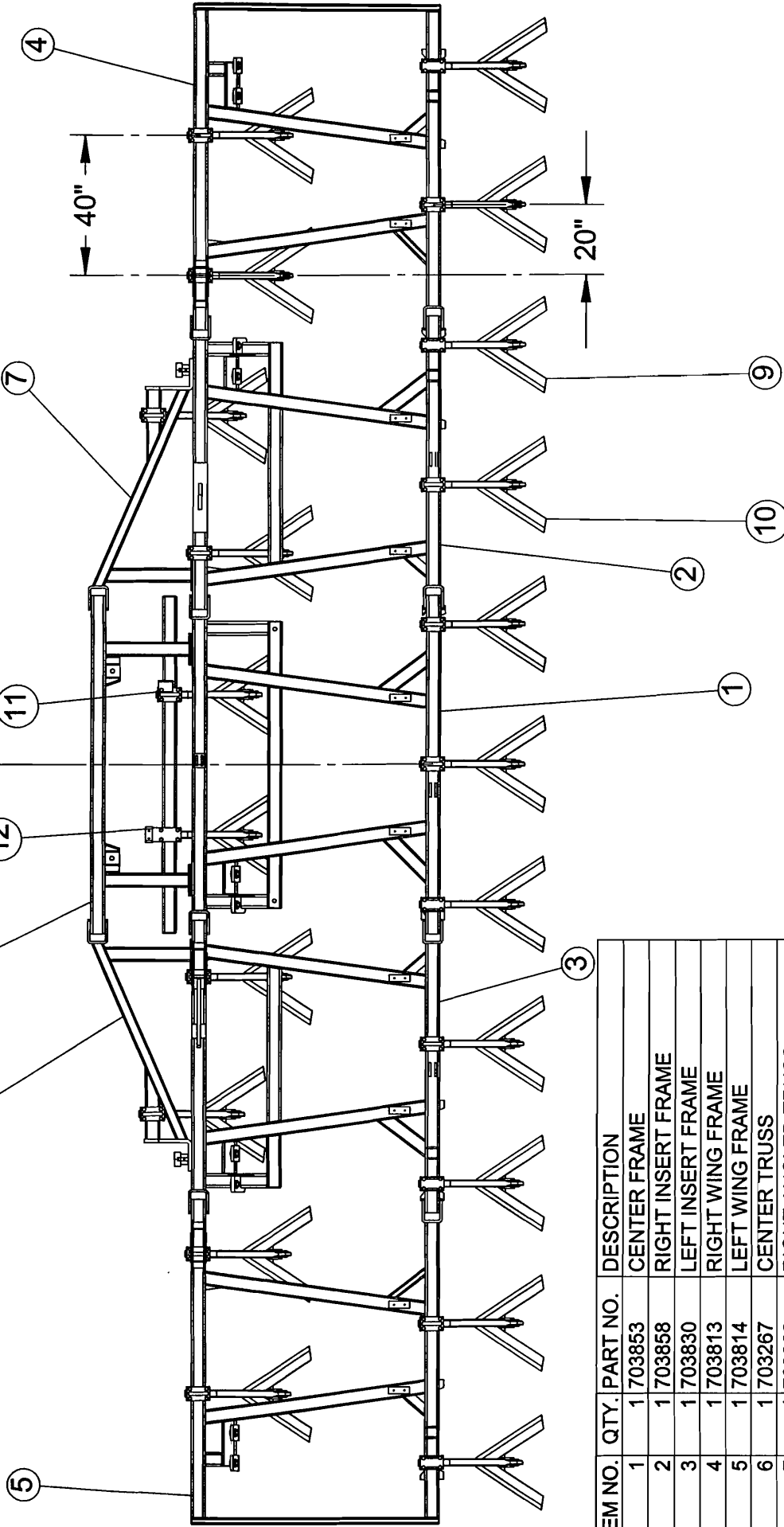
SHANK ASSEMBLY W/ HYD. SHUT OFF HOLDER (901394) 19



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 FLATWASHER
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

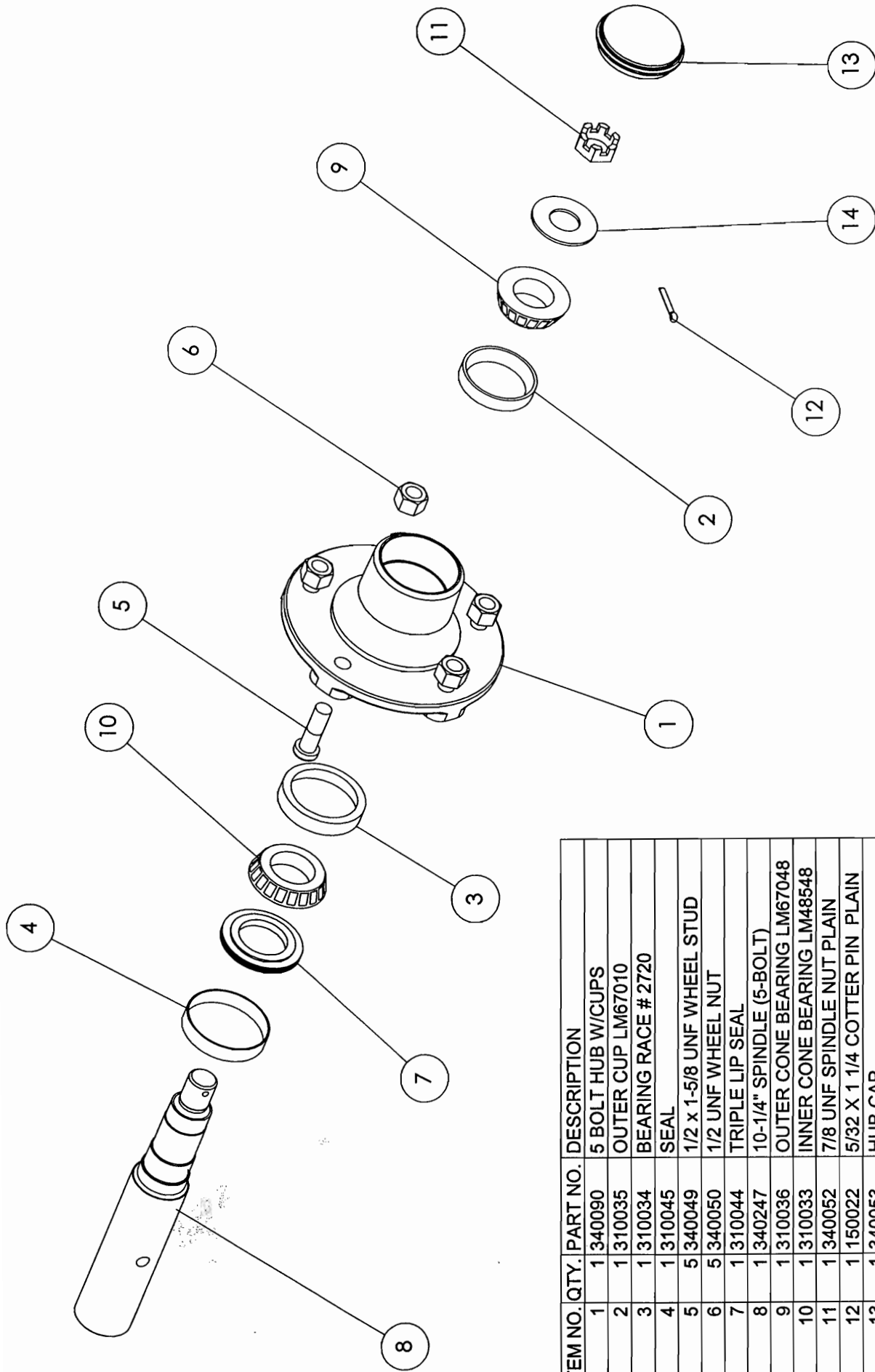
"EDGE ON" CHISEL SHANK W/ VALVE BRACKET (901415)

CENTERLINE OF IMPLEMENT



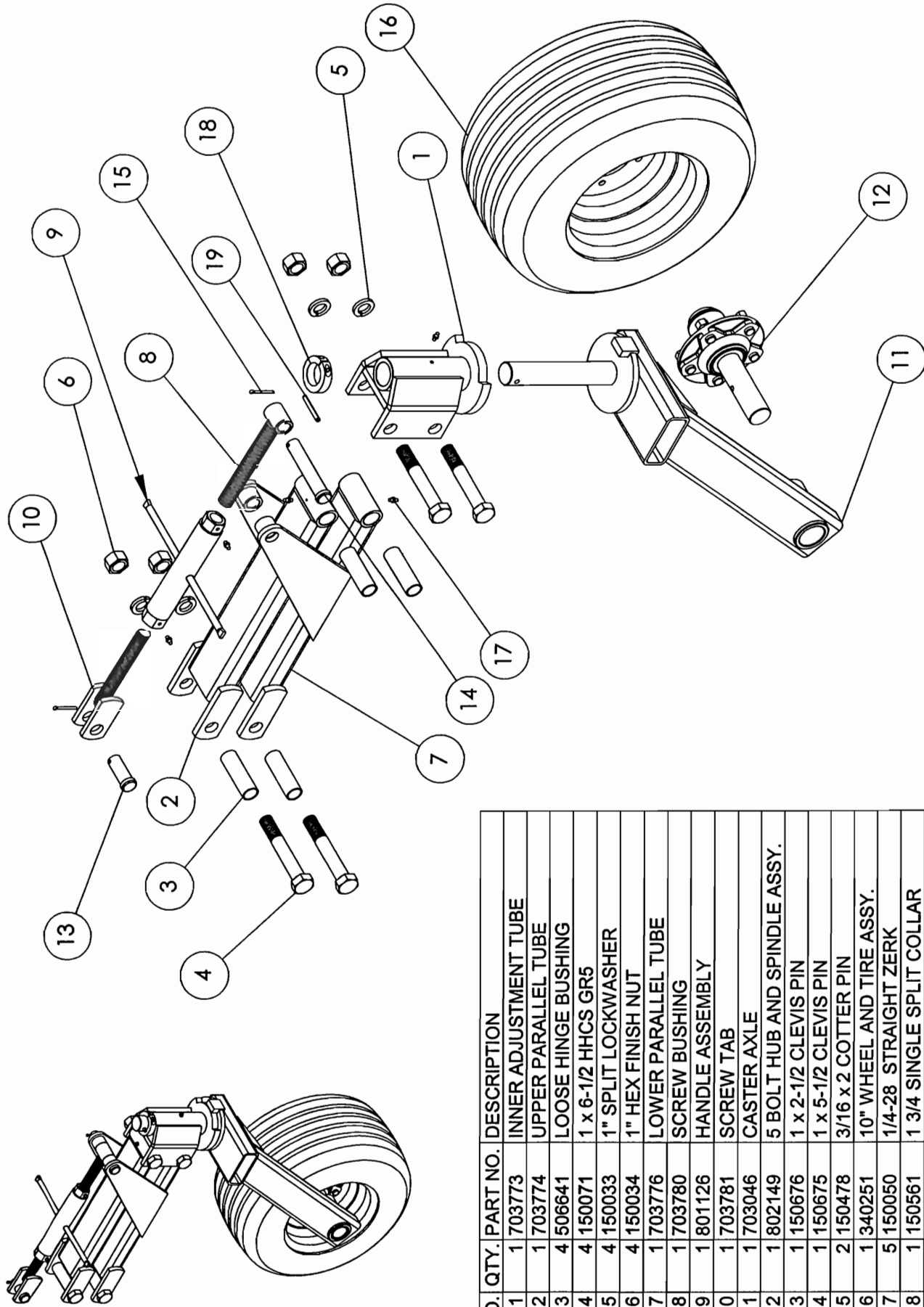
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1703853	CENTER FRAME
2	1	1703858	RIGHT INSERT FRAME
3	1	1703830	LEFT INSERT FRAME
4	1	1703813	RIGHT WING FRAME
5	1	1703814	LEFT WING FRAME
6	1	1703267	CENTER TRUSS
7	1	1703862	RIGHT ANGLED TRUSS
8	1	1703863	LEFT ANGLED TRUSS
9	5	901393	SHANK ASSY. W/O TOP PLATE
10	14	901392	SHANK ASSY. W/ TOP PLATE
11	1	901415	SHANK ASSY. W/ TOP PLATE
12	1	901394	SHANK ASSY W/ HYD.HOLDER

5-35 SHANK PLACEMENT



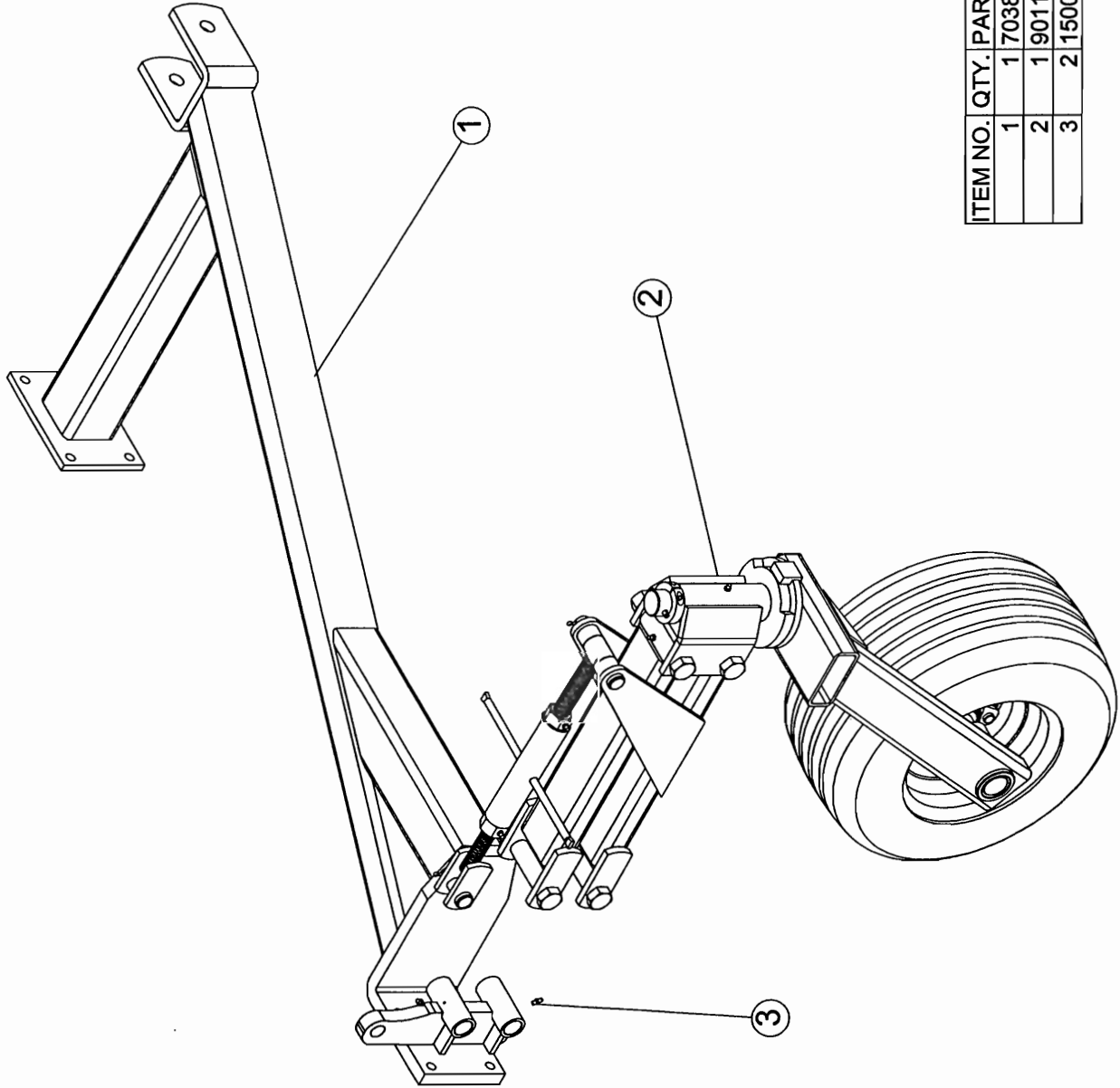
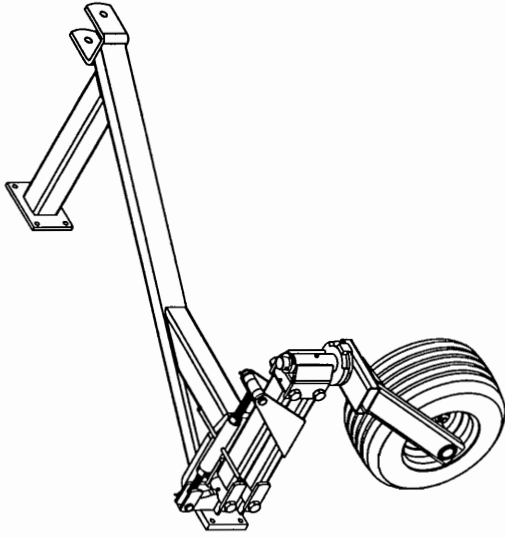
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	340090	5 BOLT HUB W/CUPS
2	1	310035	OUTER CUP LM67010
3	1	310034	BEARING RACE # 2720
4	1	310045	SEAL
5	5	340049	1/2 x 1-5/8 UNF WHEEL STUD
6	5	340050	1/2 UNF WHEEL NUT
7	1	310044	TRIPLE LIP SEAL
8	1	340247	10-1/4" SPINDLE (5-BOLT)
9	1	310036	OUTER CONE BEARING LM67048
10	1	310033	INNER CONE BEARING LM48548
11	1	340052	7/8 UNF SPINDLE NUT PLAIN
12	1	150022	5/32 X 1 1/4 COTTER PIN PLAIN
13	1	340053	HUB CAP
14	1	340051	7/8 RETAINING WASHER

5 BOLT HUB AND SPINDLE ASSEMBLY (802149)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703773	INNER ADJUSTMENT TUBE
2	1	703774	UPPER PARALLEL TUBE
3	4	506641	LOOSE HINGE BUSHING
4	4	150071	1 x 6-1/2 HHCS GR5
5	4	150033	1" SPLIT LOCKWASHER
6	4	150034	1" HEX FINISH NUT
7	1	703776	LOWER PARALLEL TUBE
8	1	703780	SCREW BUSHING
9	1	801126	HANDLE ASSEMBLY
10	1	703781	SCREW TAB
11	1	703046	CASTER AXLE
12	1	802149	5 BOLT HUB AND SPINDLE ASSY.
13	1	150676	1 x 2-1/2 CLEVIS PIN
14	1	150675	1 x 5-1/2 CLEVIS PIN
15	2	150478	3/16 x 2 COTTER PIN
16	1	340251	10" WHEEL AND TIRE ASSY.
17	5	150050	1/4-28 STRAIGHT ZERK
18	1	150561	1 3/4 SINGLE SPLIT COLLAR
19	1	150443	3/8 X 2 1/2 ROLL PIN

GAUGE WHEEL DETAIL (901120)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703862	RIGHT ANGLED TRUSS
2	1	901120	GAUGE WHEEL-PARALLEL ASSY.
3	2	150050	1/4-28 STRAIGHT ZERK

GAUGE WHEEL PLACEMENT

1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REF.	PART#	QTY	DESCRIPTION
	330381	1	3 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	330518	1	CLEVIS
6	330562	1	PRINCE CYLINDER ROD
7	330644	1	BARREL
8	330664	1	PISTON
9	330669	1	CYLINDER ROD NUT
	330722		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

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

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

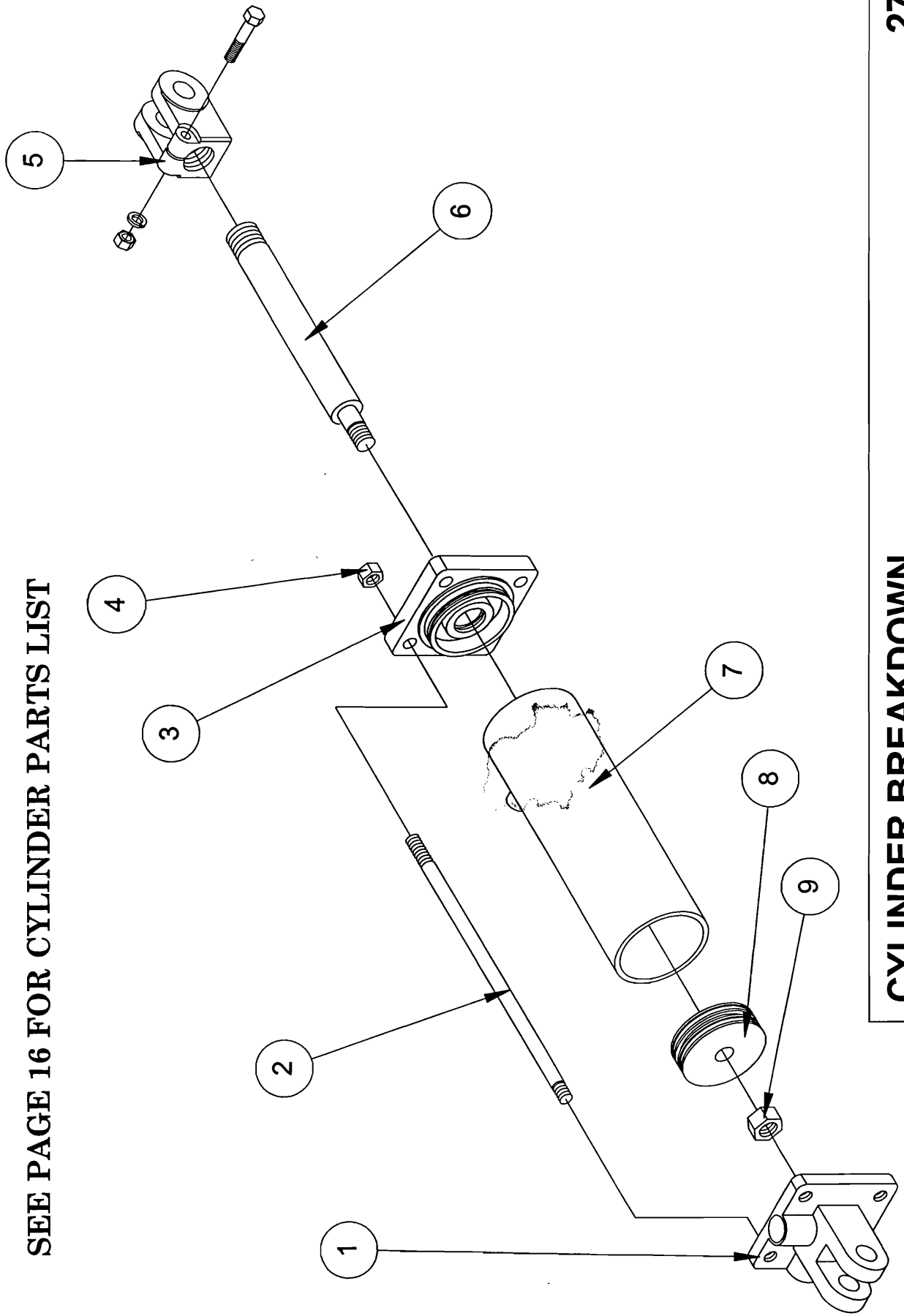
REF.	PART#	QTY	DESCRIPTION
	330495	1	4 X 10 WINGFOLD
			CYLINDER
1	330652	1	BASE CASTING
2	330647	4	TIE ROD BOLT
3	330658	1	HEAD CASTING
4	330809	4	TIE ROD HEX NUT
5	330517	1	CLEVIS
6	330567	1	PRINCE CYLINDER ROD
7	330644	1	BARREL
8	330664	1	PISTON
9	330669	1	CYLINDER ROD NUT
	330722		PRINCE PACKING KIT

CYLINDER PARTS LIST

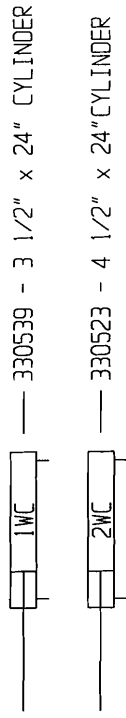
REF.	PART#	QTY	DESCRIPTION
	330539	1	3 1/2 X 24 WINGFOLD CYLINDER
1	330598	1	BASE CASTING
2	330595	4	TIE ROD BOLT
3	330601	1	HEAD CASTING
4	330809	4	TIE ROD HEX NUT
5	330607	1	CLEVIS
6	330589	1	PRINCE CYLINDER ROD
7	330592	1	BARREL
8	330604	1	PISTON
9	330610	1	CYLINDER ROD NUT
	330634		PRINCE PACKING KIT

REF.	PART#	QTY	DESCRIPTION
	330523	1	4-1/2 X 24 WINGFOLD CYLINDER
1	330598	1	BASE CASTING
2	330595	4	TIE ROD BOLT
3	330601	1	HEAD CASTING
4	330809	4	TIE ROD HEX NUT
5	330551	1	CLEVIS
6	330537	1	PRINCE CYLINDER ROD
7	330592	1	BARREL
8	330604	1	PISTON
9	330610	1	CYLINDER ROD NUT
	330634		PRINCE PACKING KIT

SEE PAGE 16 FOR CYLINDER PARTS LIST

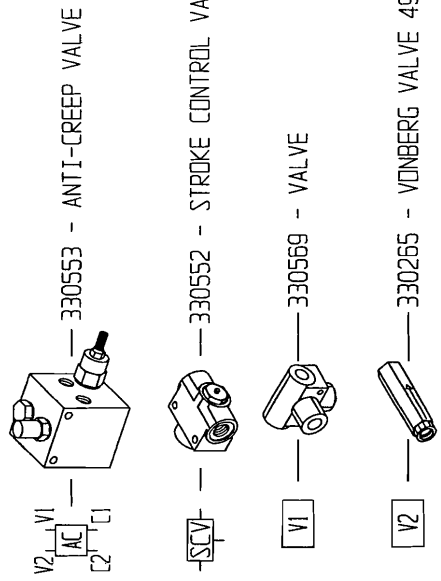


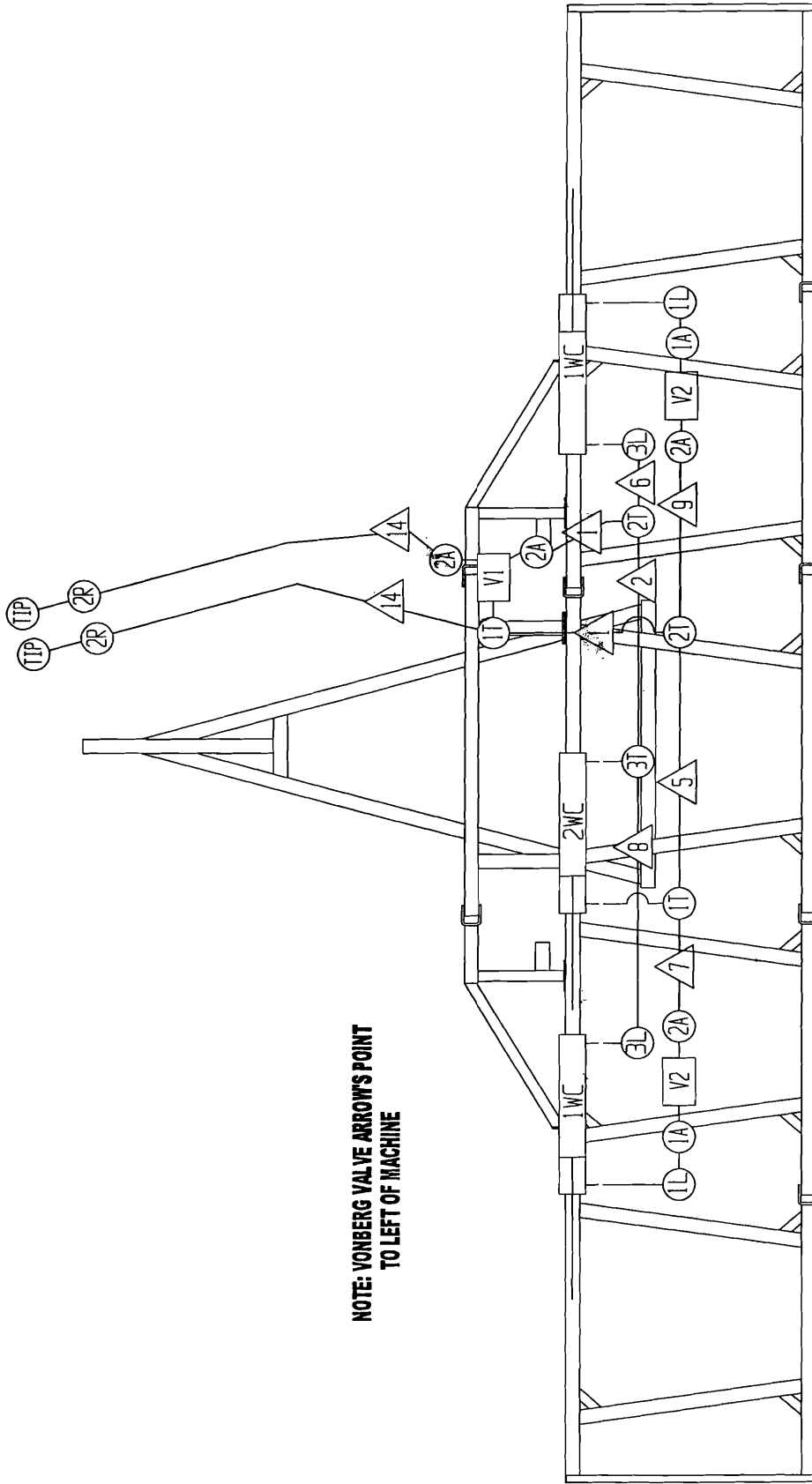
- 10C — 330434 - 3 1/2" x 10 REPHASING CYLINDER
- 20C — 330435 - 3 3/4" x 10" REPHASING CYLINDER
- 30C — 330495 - 4" x 10" REPHASING CYLINDER
- 40C — 330382 - 3 1/4" x 10" REPHASING CYLINDER
- 50C — 330381 - 3" x 10" REPHASING CYLINDER



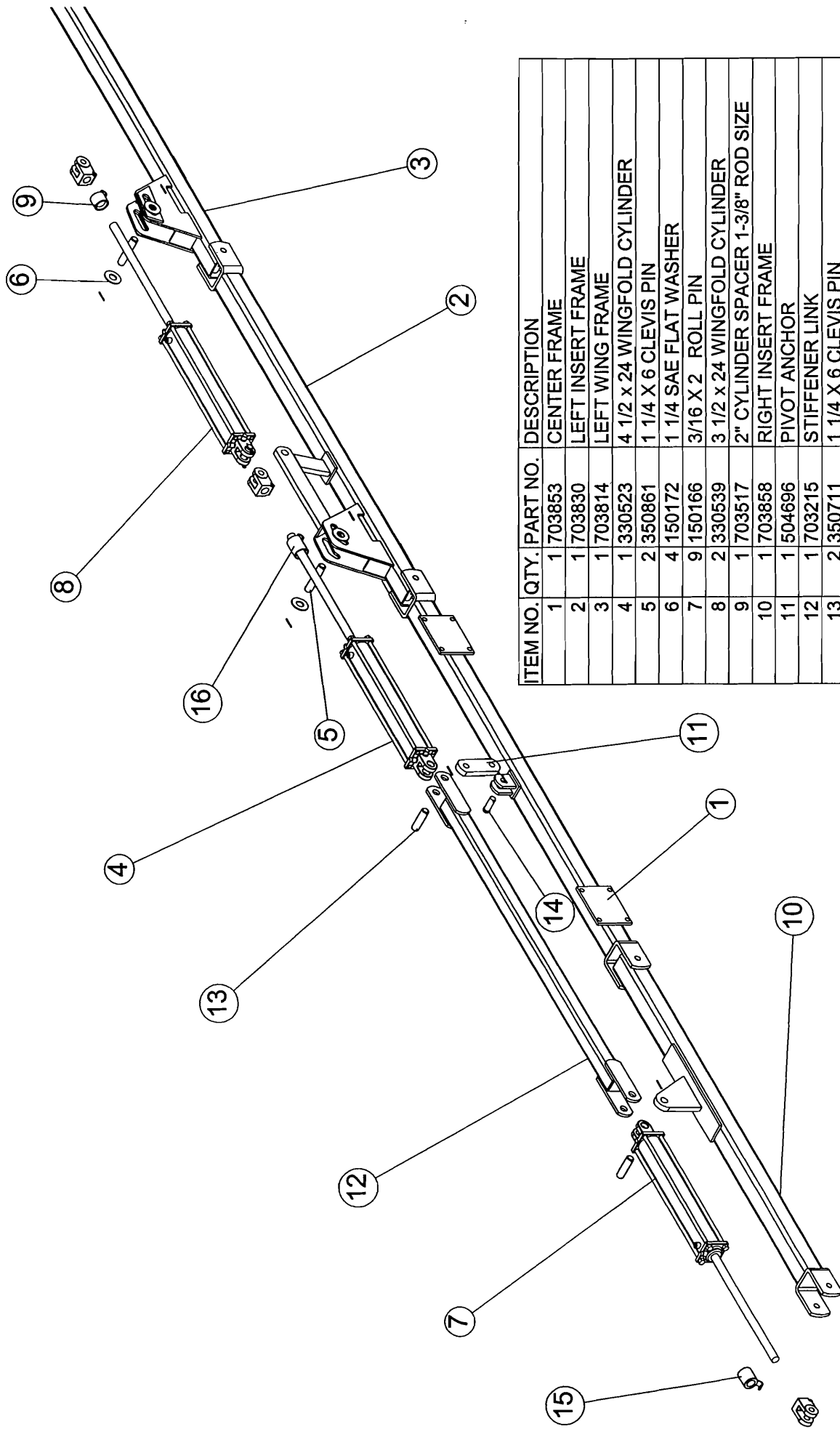
- 1 — 802309 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 14 INCHES.
- 2 — 802147 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 23 INCHES.
- 3 — 800350 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 26 INCHES.
- 4 — 800294 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 34 INCHES.
- 5 — 802219 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 46 INCHES.
- 6 — 802176 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 55 INCHES.
- 7 — 802144 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 71 INCHES.
- 8 — 802100 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 78 INCHES.
- 9 — 802180 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 81 INCHES.
- 10 — 800359 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 101 INCHES.
- 11 — 802102 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 113 INCHES.
- 12 — 800958 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 126 INCHES.
- 13 — 802113 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 161 INCHES.
- 14 — 802228 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 201 INCHES.
- 15 — 800371 - 3/8" STEEL HYDRAULIC LINE - 48 INCHES.

- 11 — 330526 - 90 DEGREE ELBOW 3/4" - 16 MALE x 3/8" MALE w/1/16" RESTRICTOR
- 21 — 330275 - 90 DEGREE ELBOW 3/4" - 16 MALE x 3/8" NPT FEMALE w/RESTRICTOR
- 31 — 330276 - 90 DEGREE ELBOW 3/4" - 16 MALE x 3/8" NPT FEMALE
- 11 — 330277 - TEE 1/2" - 16 MALE x 3/8" NPT FEMALE w/RESTRICTOR
- 21 — 330201 - 3/8" FEMALE TEE
- 31 — 330278 - TEE 3/4" - 16 MALE x 3/8" NPT FEMALE
- 1A — 330272 - SOLID O-RING ADAPTER 3/4" - 16 MALE x 3/8" FEMALE NPT
- 2A — 330274 - SWIVEL ADAPTER 1/2" - 16 MALE x 3/8" NPT FEMALE
- 1N — 330292 - 3/8" MALE PIPE NIPPLE
- 1R — 330179 - 1/16" x 3/8" RESTRICTOR
- 2R — 330173 - 1/2" x 3/8" REDUCER BUSHING
- 1P — 330563 - 3/4" UNF HEX O-RING PLUG
- 1TP — 330311 - HYDRAULIC MALE TIP - 8010-4



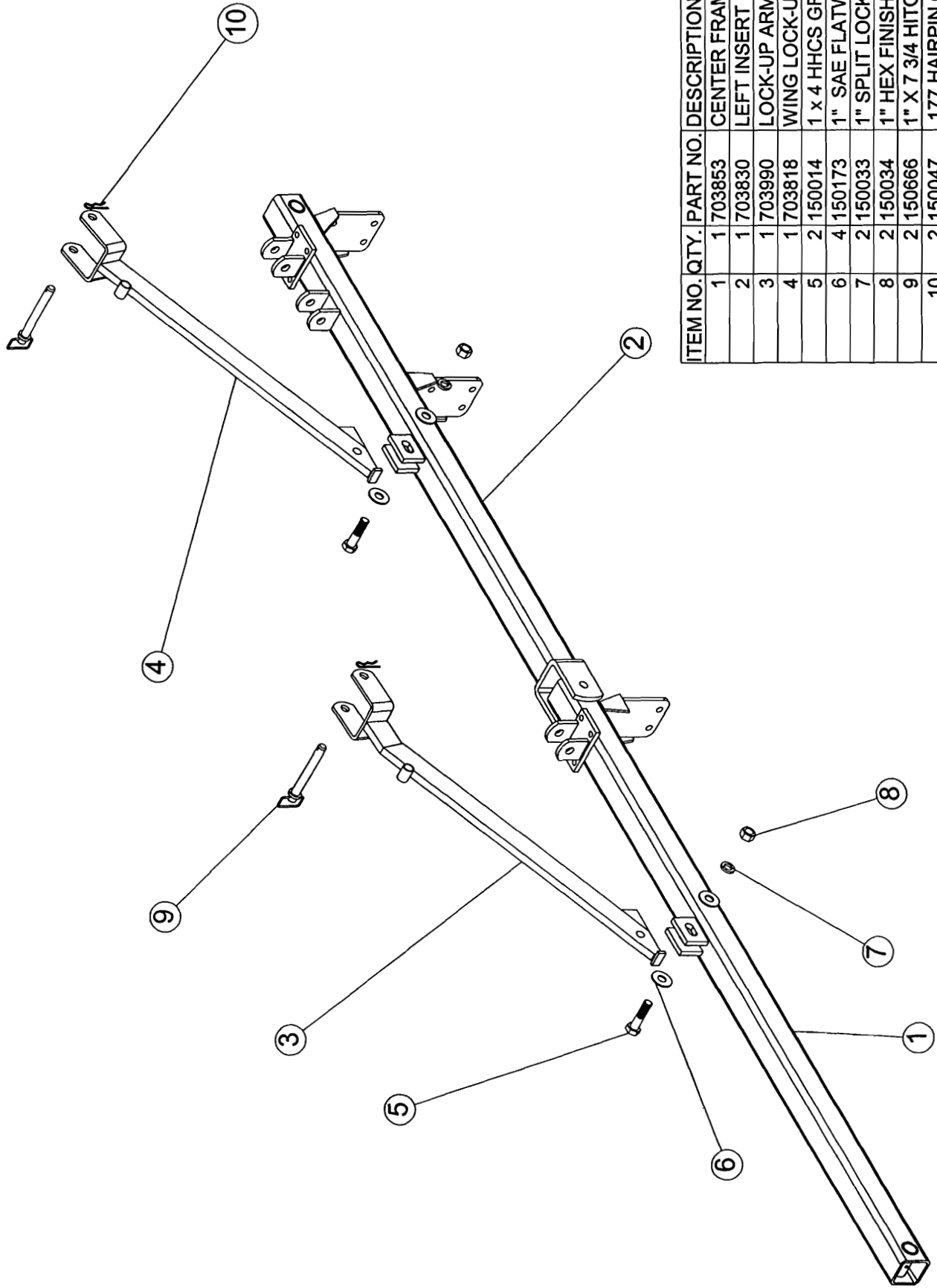


**NOTE: VONBERG VALVE ARROWS POINT
TO LEFT OF MACHINE**



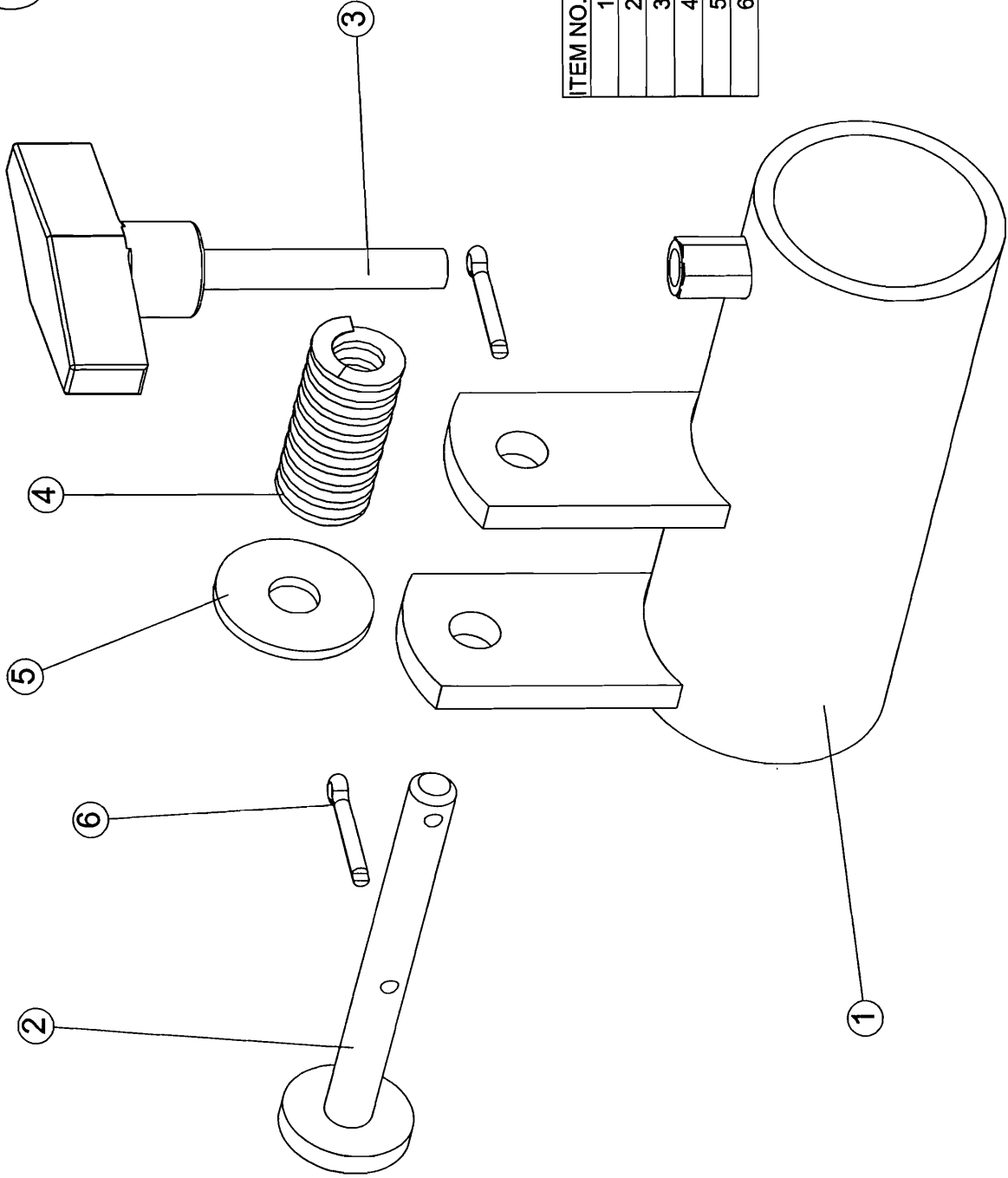
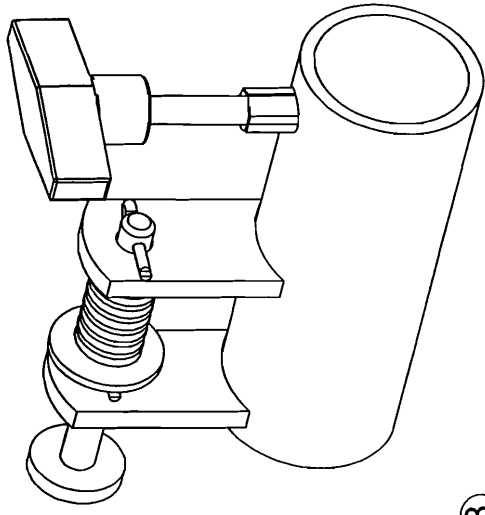
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703853	CENTER FRAME
2	1	703830	LEFT INSERT FRAME
3	1	703814	LEFT WING FRAME
4	1	330523	4 1/2 x 24 WINGFOLD CYLINDER
5	2	350861	1 1/4 X 6 CLEVIS PIN
6	4	150172	1 1/4 SAE FLAT WASHER
7	9	150166	3/16 X 2 ROLL PIN
8	2	330539	3 1/2 x 24 WINGFOLD CYLINDER
9	1	703517	2" CYLINDER SPACER 1-3/8" ROD SIZE
10	1	703858	RIGHT INSERT FRAME
11	1	504696	PIVOT ANCHOR
12	1	703215	STIFFENER LINK
13	2	350711	1 1/4 X 6 CLEVIS PIN
14	1	150056	CLEVIS PIN
15	1	703500	3-1/4" CYLINDER SPACER 1-3/4" ROD SIZE
16	1	703520	2-3/4" CYLINDER SPACER 1-3/8" ROD SIZE

WINGFOLD DETAIL

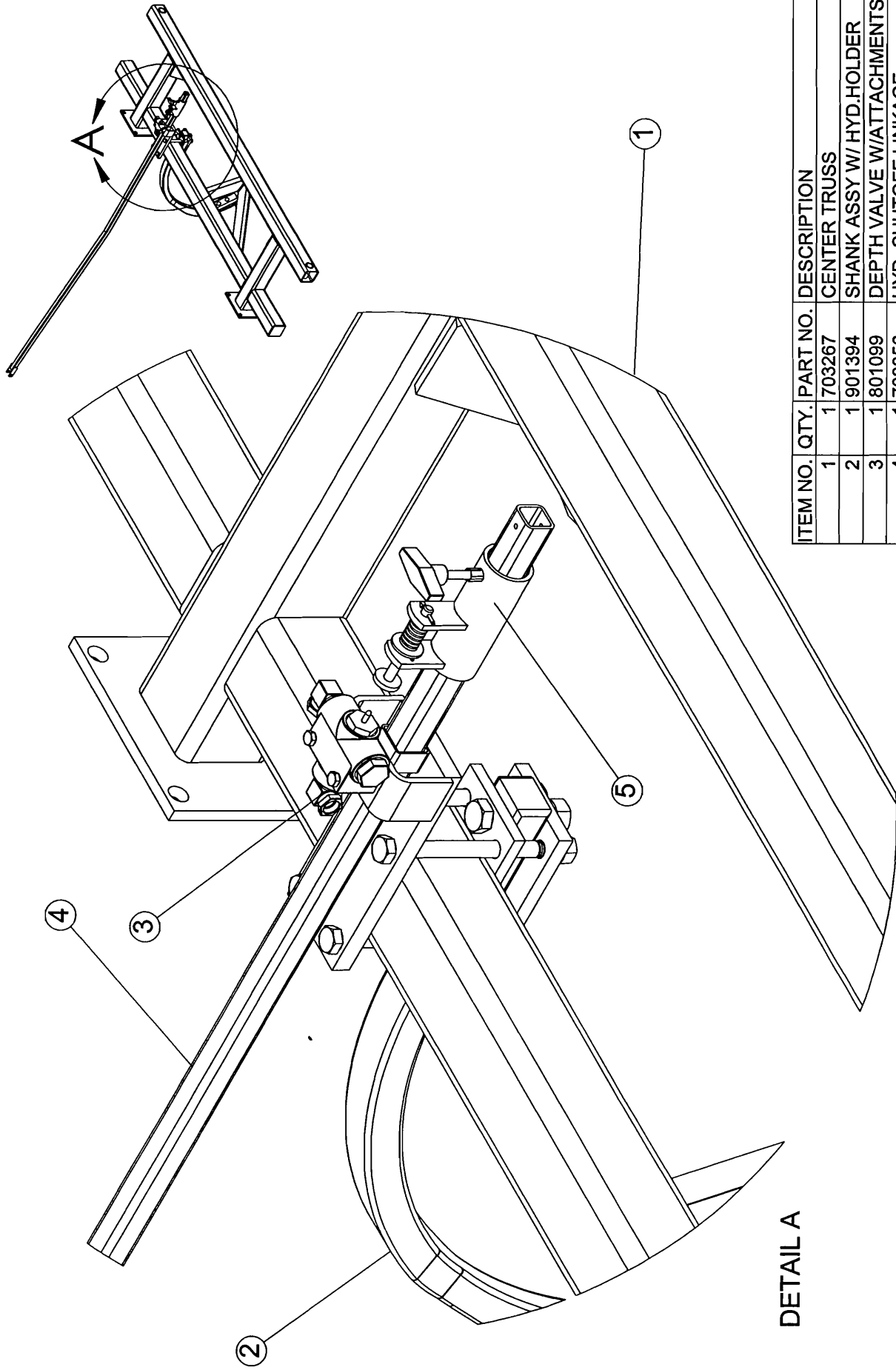


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703853	CENTER FRAME
2	1	703830	LEFT INSERT FRAME
3	1	703990	LOCK-UP ARM
4	1	703818	WING LOCK-UP ARM
5	2	150014	1 x 4 HHCS GR 2
6	4	150173	1" SAE FLATWASHER
7	2	150033	1" SPLIT LOCKWASHER
8	2	150034	1" HEX FINISH NUT
9	2	150666	1" X 7/8" HITCH PIN
10	2	150047	.177 HAIRPIN COTTER

WING LOCKUP ARMS



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703487	DEPTH STOP
2	1	703532	DEPTH STOP RAM
3	1	150569	BAR KNOB W/ 5/16 STUB
4	1	360304	SPRING
5	1	150269	3/8 USS FLAT WASHER
6	2	150507	1/8 x 1 COTTER PIN



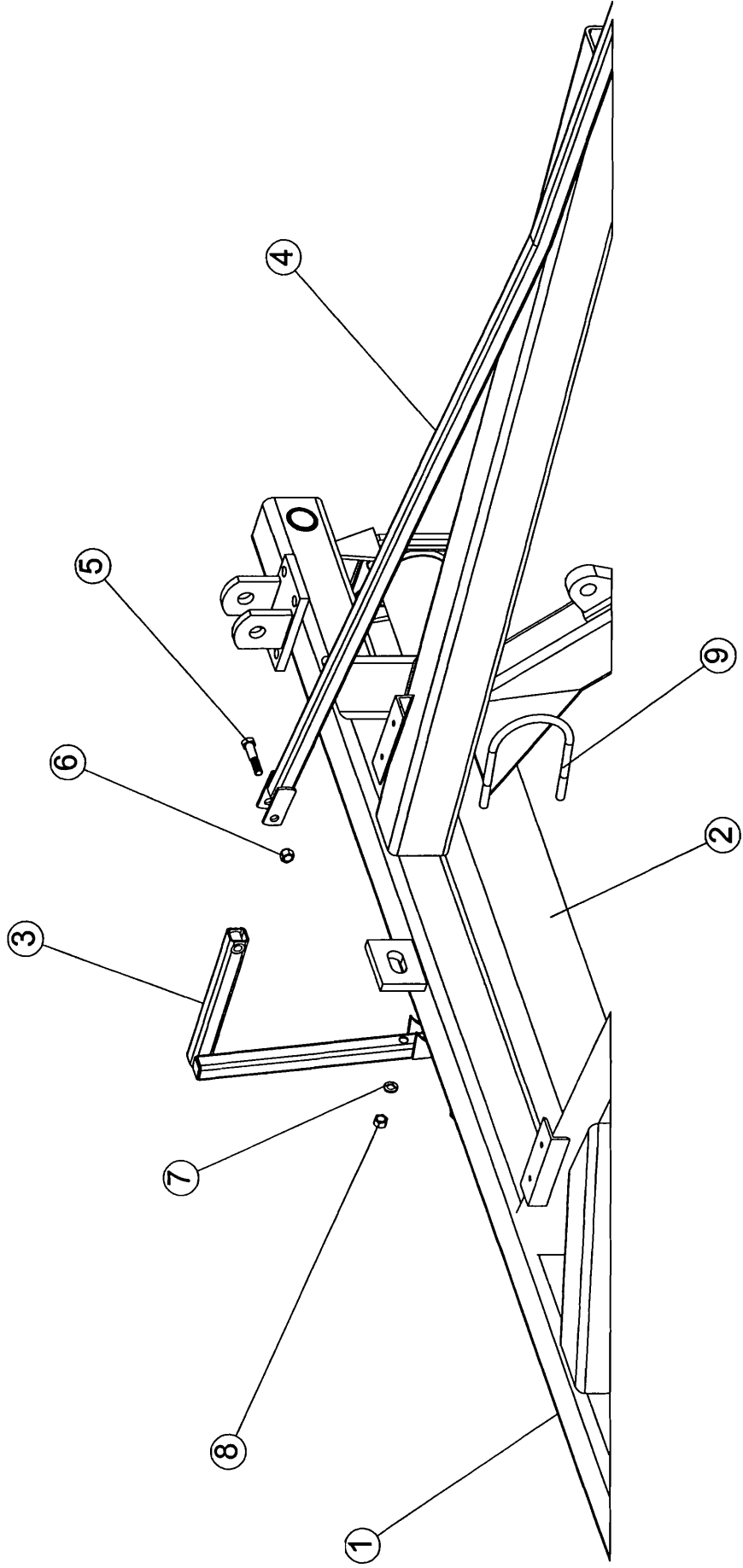
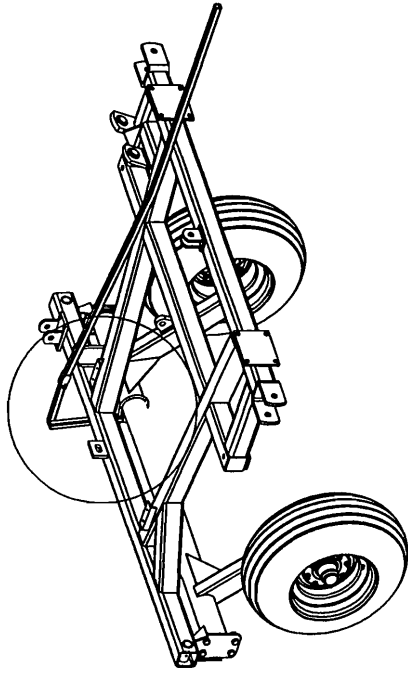
DETAIL A

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1703267	CENTER TRUSS
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

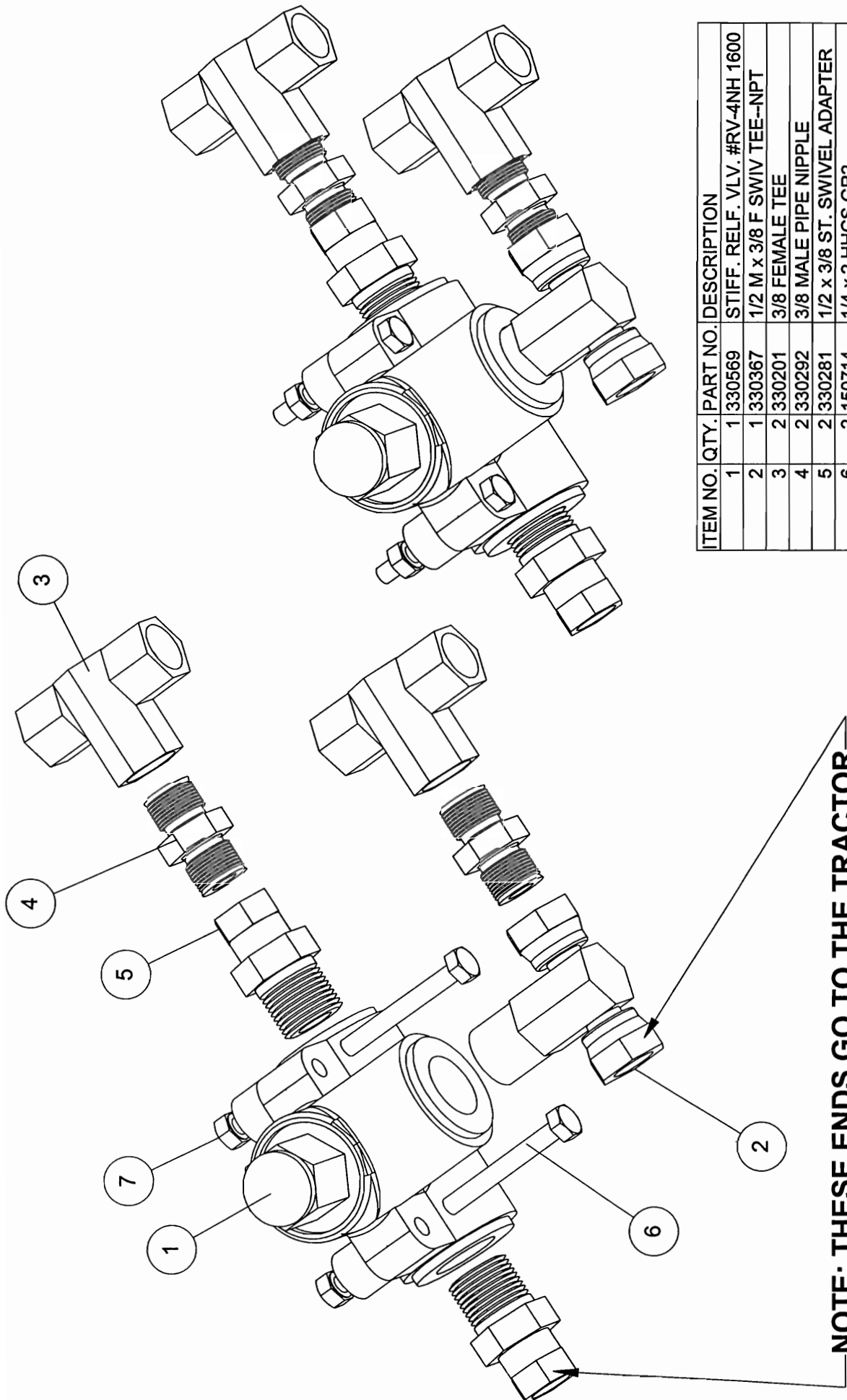
DEPTH STOP AND VALVE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703853	CENTER FRAME
2	1	901443	RIGHT CENTER ROCKSHAFT KIT (SINGLE)
3	1	703357	HYD. SHUT-OFF LEVER
4	1	703356	HYD. SHUTOFF LINKAGE
5	1	150313	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



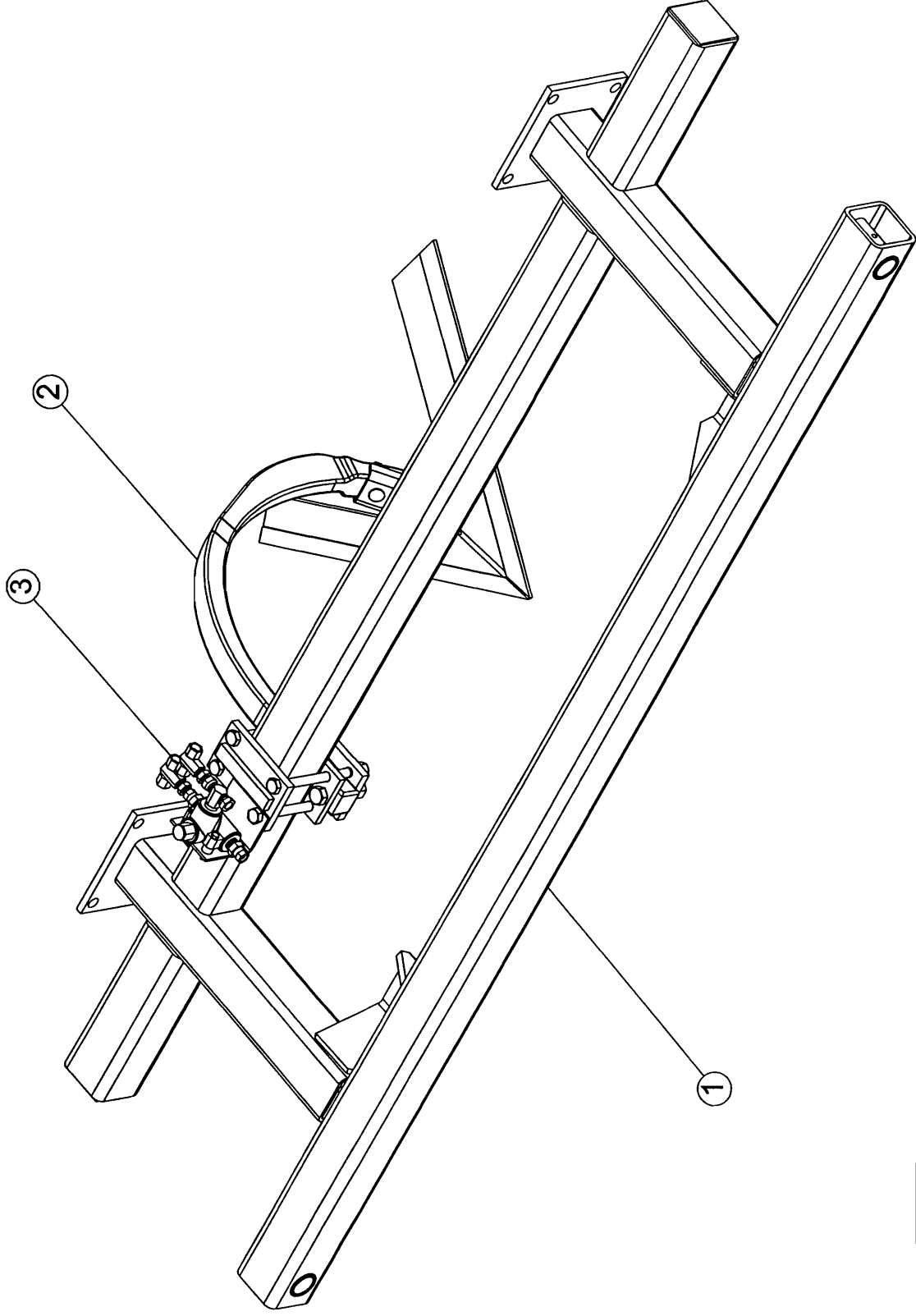
HYDRAULIC SHUTOFF LINKAGE AND LEVER



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	330292	3/8 MALE PIPE NIPPLE
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

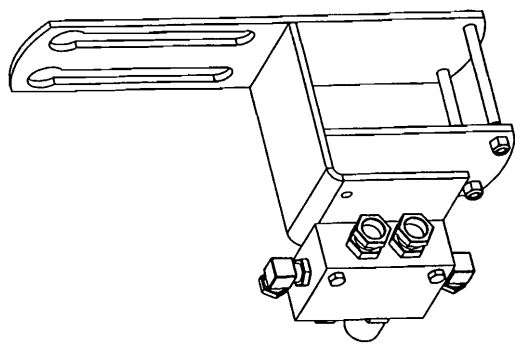
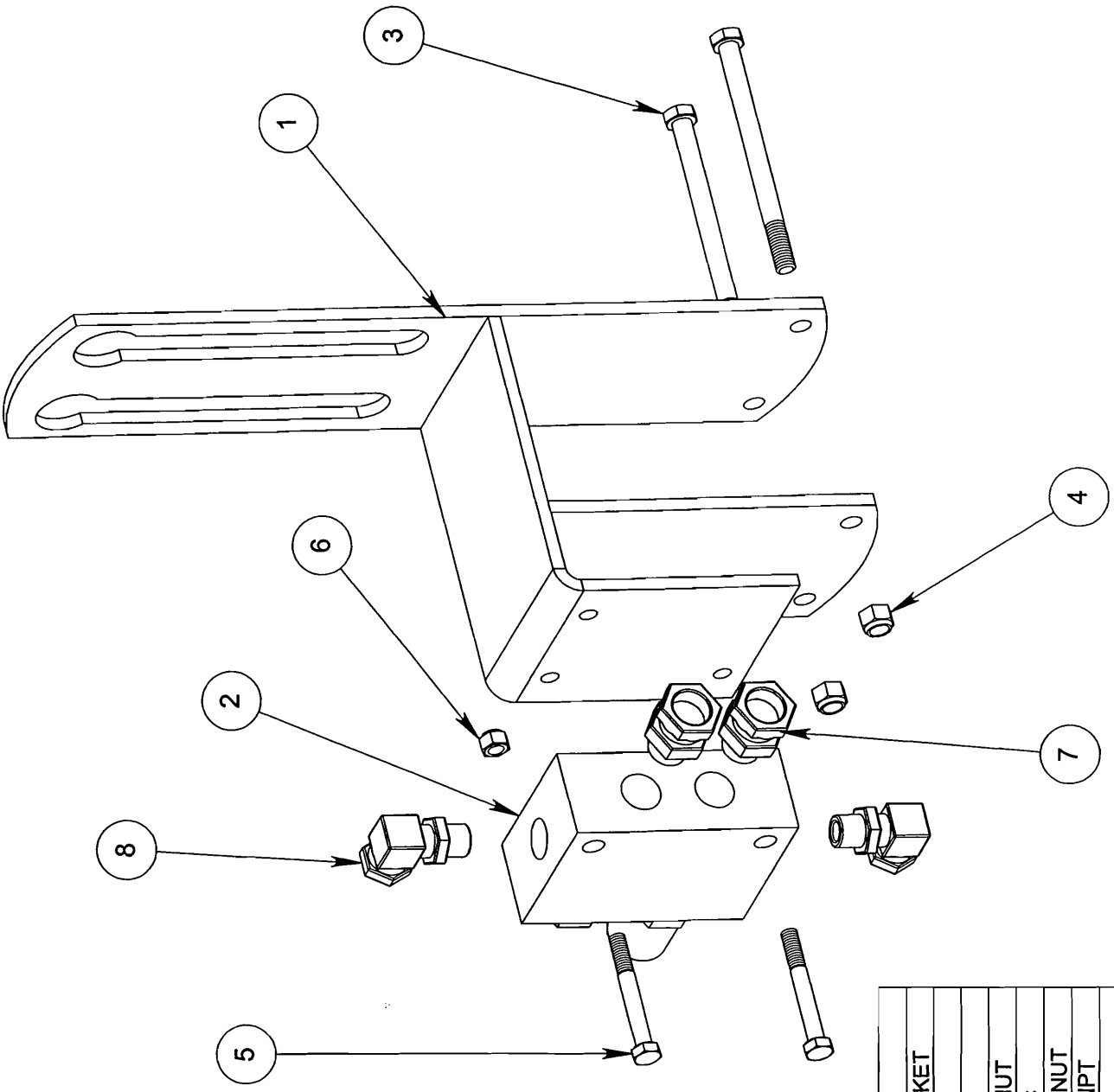
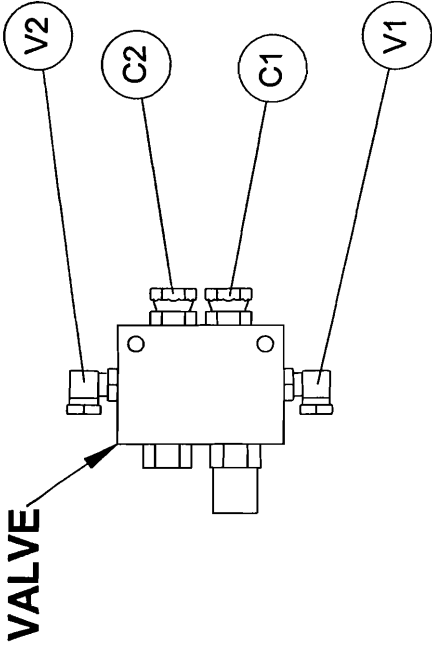
NOTE: THESE ENDS GO TO THE TRACTOR

UNFOLD PROTECTION VALVE (801135)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	703267	CENTER TRUSS
2	1	901415	SHANK ASSY. W/ TOP PLATE
3	1	801135	UNFOLD PROTECTION VALVE W/HARDWARE

UNFOLD PROTECTION VALVE PLACEMENT

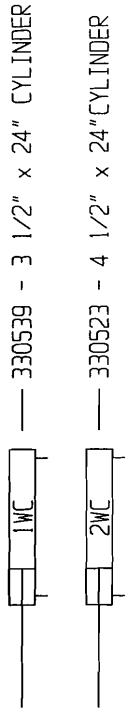


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	1703422	ANTI-CREEP VALVE BRACKET
2	1	1330553	ANTI-CREEP VALVE
3	2	150221	3/8 X 5 HHCS GR2 ZC
4	2	150505	3/8 NYLON INSERT LOCKNUT
5	2	150350	5/16 X 2 1/2 HHCS GR2 ZC
6	2	150506	5/16 NYLON INSERT LOCKNUT
7	2	1330274	3/4M X 3/8F SWIF ADAP, NPT
8	2	1330276	3/4M X 3/8F, NPT HYD EL

900994 ANTICREEP VALVE KIT

- 10C — 330434 - 3 1/2" x 10 REPHASING CYLINDER
- 20C — 330435 - 3 3/4" x 10" REPHASING CYLINDER
- 30C — 330495 - 4" x 10" REPHASING CYLINDER
- 40C — 330382 - 3 1/4" x 10" REPHASING CYLINDER
- 50C — 330381 - 3" x 10" REPHASING CYLINDER

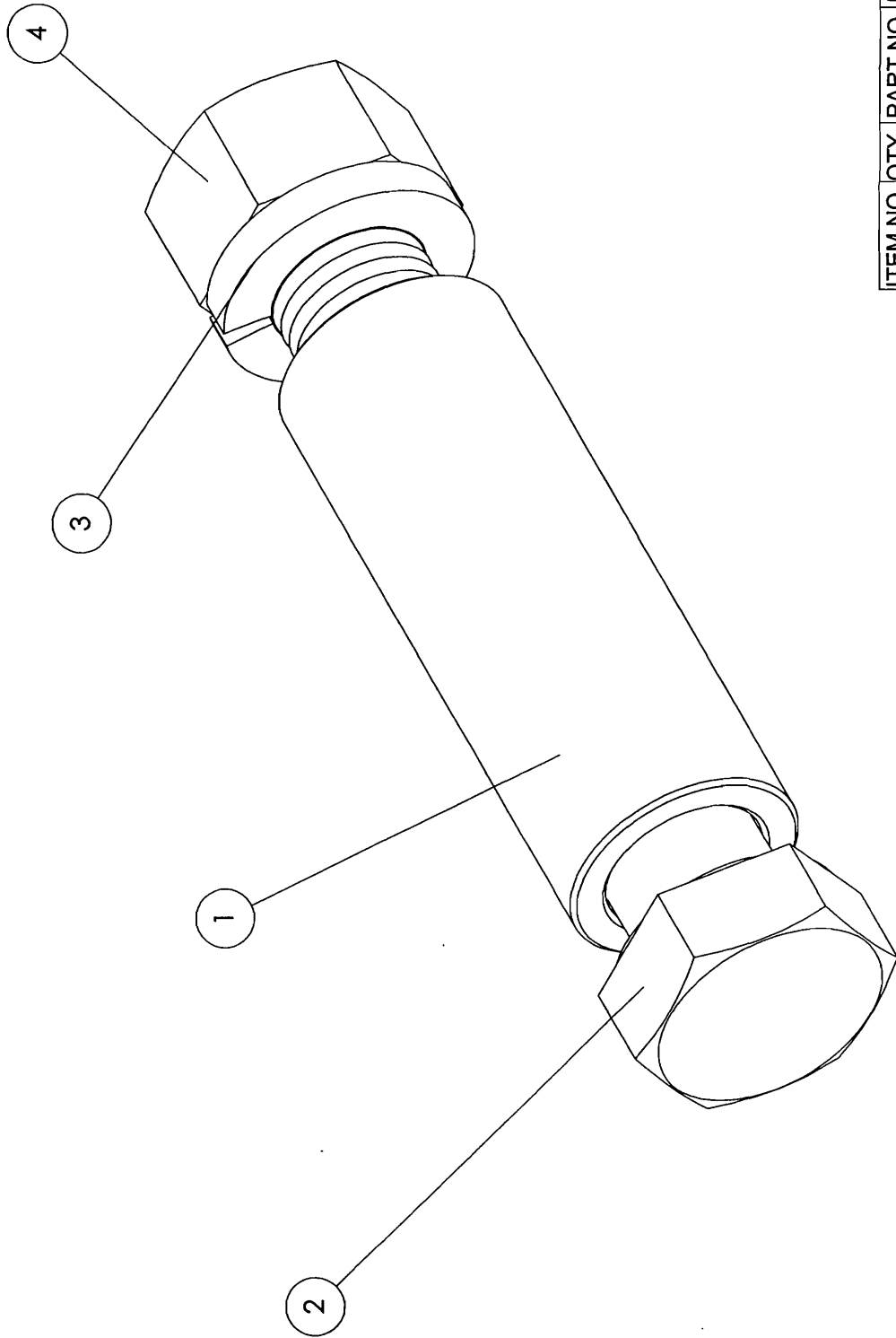
- 1 — 802309 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 14 INCHES.
- 2 — 802147 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 23 INCHES.
- 3 — 800350 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 26 INCHES.
- 4 — 800294 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 34 INCHES.
- 5 — 802219 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 46 INCHES.
- 6 — 802176 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 55 INCHES.
- 7 — 802144 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 71 INCHES.
- 8 — 802100 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 78 INCHES.
- 9 — 802180 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 81 INCHES.
- 10 — 800359 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 101 INCHES.
- 11 — 802102 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 113 INCHES.
- 12 — 800958 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 126 INCHES.
- 13 — 802113 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 161 INCHES.
- 14 — 802228 - 3/8" WIRE HYDRAULIC HOSE ASSEMBLY - 201 INCHES.
- 15 — 800371 - 3/8" STEEL HYDRAULIC LINE - 48 INCHES.



- 1L — 330539 - 3 1/2" x 24" CYLINDER
- 2L — 330523 - 4 1/2" x 24" CYLINDER
- 3L — 330526 - 90 DEGREE ELBOW 3/4" - 16 MALE x 3/8" MALE w/1/16" RESTRICTOR
- 4L — 330275 - 90 DEGREE ELBOW 3/4" - 16 MALE x 3/8" NPT FEMALE w/RESTRICTOR
- 5L — 330276 - 90 DEGREE ELBOW 3/4" - 16 MALE x 3/8" NPT FEMALE
- 11 — 330277 - TEE 1/2" - 16 MALE x 3/8" NPT FEMALE w/RESTRICTOR
- 21 — 330201 - 3/8" FEMALE TEE
- 31 — 330278 - TEE 3/4" - 16 MALE x 3/8" NPT FEMALE
- 1A — 330272 - SOLID O-RING ADAPTER 3/4" - 16 MALE x 3/8" FEMALE NPT
- 2A — 330274 - SWIVEL ADAPTER 1/2" - 16 MALE x 3/8" NPT FEMALE
- 1N — 330292 - 3/8" MALE PIPE NIPPLE
- 1R — 330179 - 1/16" x 3/8" RESTRICTOR
- 2R — 330173 - 1/2" x 3/8" REDUCER BUSHING
- 1P — 330563 - 3/4" UNF HEX O-RING PLUG
- 1TP — 330311 - HYDRAULIC MALE TIP - 8010-4



- V1 — 330553 - ANTI-CREEP VALVE
- V2 — 330552 - STROKE CONTROL VALVE
- V1 — 330569 - VALVE
- V2 — 330265 - VENBERG VALVE 49040-1250

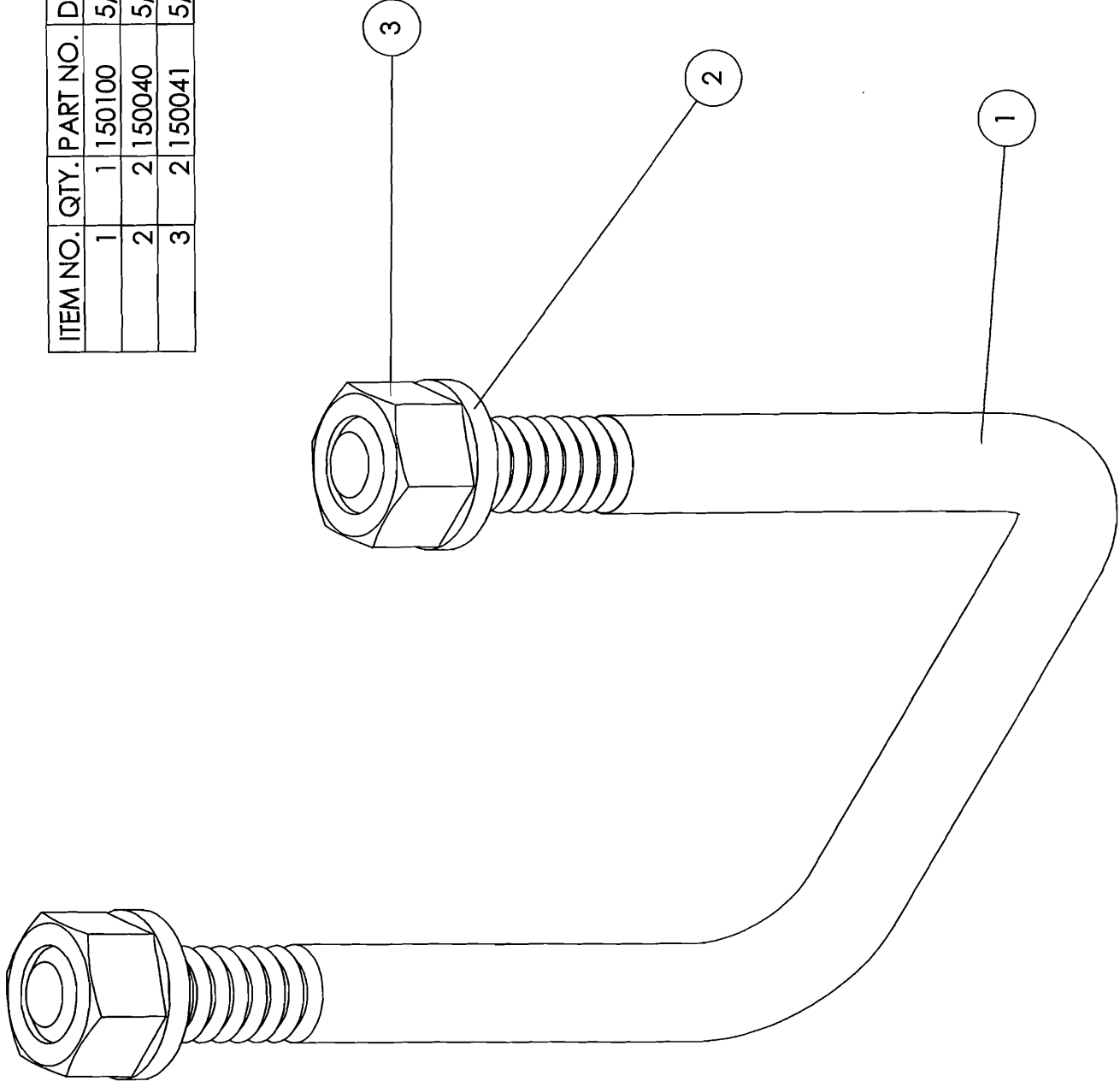


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	504263	LOOSE HINGE BUSHING
2	1	150200	1 X 7 HHCS GR 5 ZC
3	1	150033	1" SPLIT LOCKWASHER
4	1	150034	1" HEX FINISH NUT

802512 TRUSS/FRAME HINGE/BOLT KIT **A1**

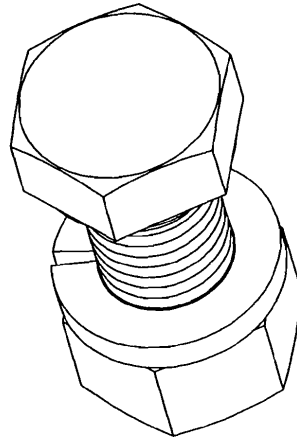
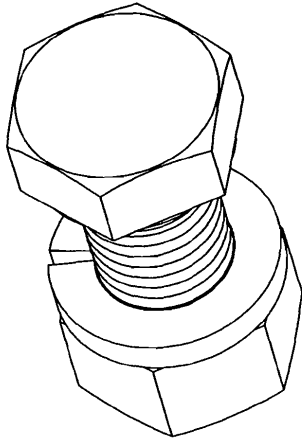
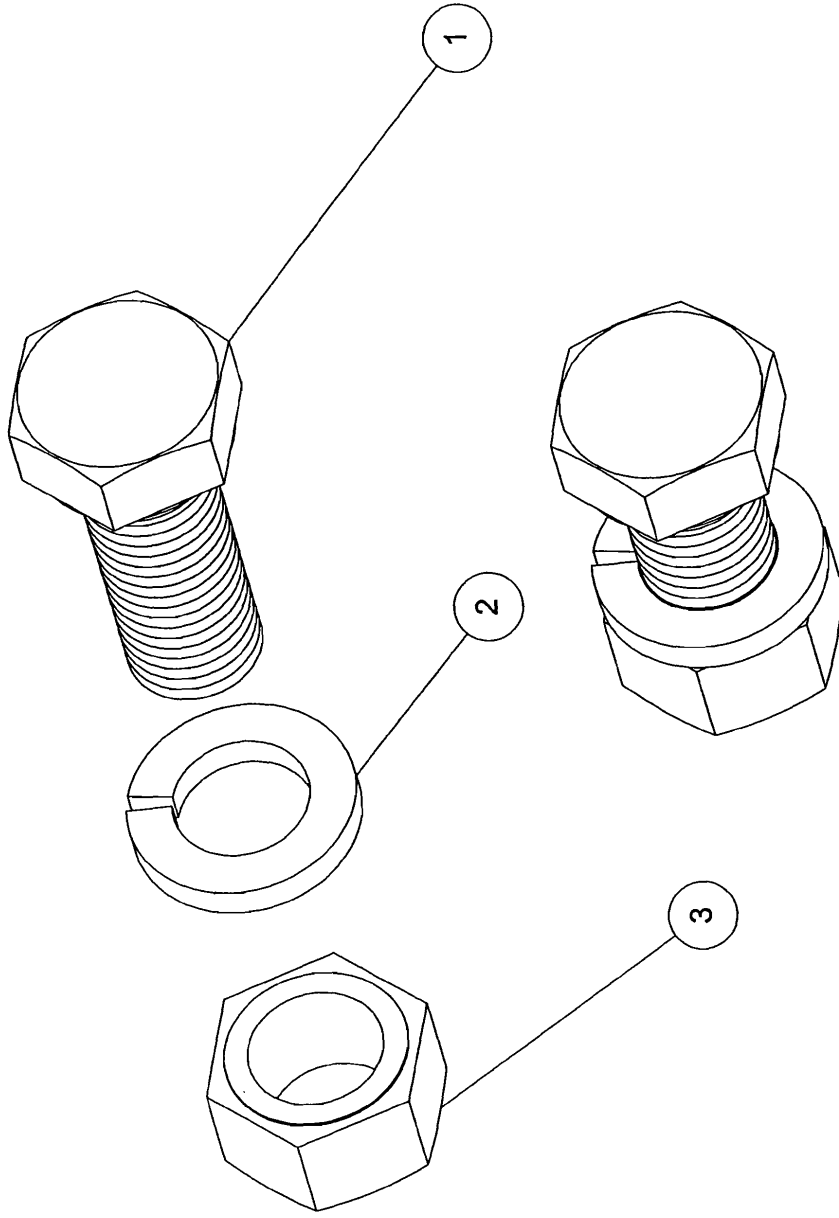
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ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	150100	5/8 X 4 U-BOLT
2	2	150040	5/8 LOCKWASHER
3	2	150041	5/8 HEX NUT



802543 5/8 X 4 X 4 U-BOLT

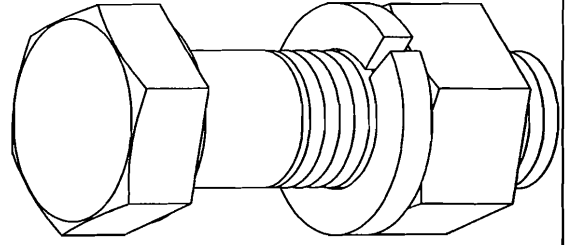
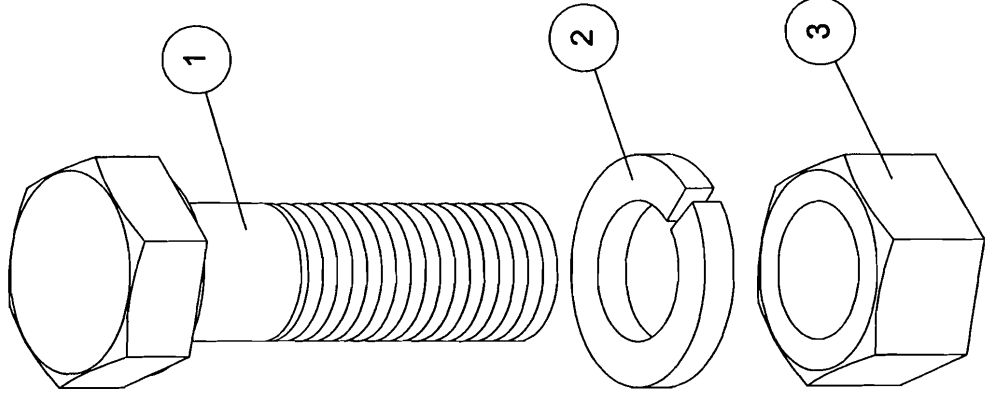
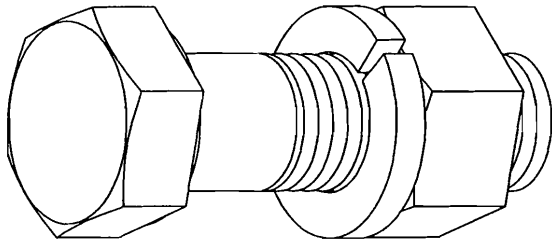
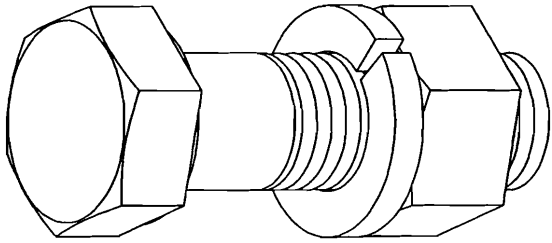
A2



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	4	150057	3/4 X 2 HHCS GR 2 ZC
2	4	150037	3/4 SPLIT LOCKWASHER ZC
3	4	150038	3/4 HEX FINISH NUT ZC

801161 ROCKSHAFT BEARING HARDWARE

A3



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	4	150149	3/4 x 2-1/2 HHCS GR 5 ZC
2	4	150037	3/4 SPLIT LOCKWASHER ZC
3	4	150038	3/4 HEX FINISH NUT ZC

801132 WALKING DUAL AXLE BOLT KIT

A4

ASSEMBLY INSTRUCTIONS FOR FM5-35

- REFER TO DRAWING LABELED FM5-35 FRAME ASSEMBLY. BEGIN BY PUTTING ANGLE ZERKS IN ALL HINGE POINTS AND STRAIGHT ZERKS IN ALL ROCKSHAFTS.
 - SET CENTER FRAME ON STANDS SO THAT IT CAN BE SAFELY WORKED ON, UNDER AND AROUND. ATTACH RIGHT AND LEFT INSERT WING FRAMES USING LOOSE BUSHING, 1" X 7" GRADE 5 HEX SCREWS, LOCKWASHERS AND NUTS. POSITION STANDS UNDER INSERT WINGS AND REPEAT PROCEDURE FOR WINGS. TIGHTEN ALL BOLTS.
 - LAYOUT ROCKSHAFTS IN PROPER LOCATIONS UNDER EACH FRAME. 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. (NOTE: IF NEEDED, SHIM CAST BEARINGS USING 3/2" FLAT WASHERS TO ASSURE SNUG, BUT WORKING FIT OF ROCKSHAFTS. ALSO NOTE: WHEN STUBBLE TREADERS ARE USED THE MOUNTING BRACKETS GOES ON FIRST THEN THE ROCKSHAFT IS ASSEMBLED.)
 - INSERT 6-BOLT HUB AND SPINDLE ASSEMBLIES INTO SPINDLE TUBE ON FOUR OUTER AXLE ARMS. ALIGN HOLE IN SPINDLE WITH HOLE IN TUBE AND SECURE WITH 1/2" X 3-1/2" BOLTS. INSERT 8 BOLT SPINDLES INTO CENTER FRAME AXLE ARMS AND SECURE WITH 1/2" X 4" BOLTS.
 - MOUNT WHEELS USING 12.5L - 12 PLY TIRES ON CENTER SECTION AND 11L - 12 PLY TIRES ON INSERT WINGS AND 11L - 8 PLY TIRES ON WING SECTIONS. (NOTE: 12.5L TIRES VALVE STEM POINTS TO THE SPINDLE OR CENTER OF MACHINE. THE 11.5L TIRE VALVE STEM POINTS AWAY FROM THE SPINDLE OR TOWARDS THE OUTSIDE OF THE MACHINE.)
 - ON CENTER DUALS USE 9.5L - 8 PLY TIRES ON 6 BOLT WHEEL ON CENTER AND RIGHT INSERT FRAMES. USE 11L - 8 PLY TIRES ON 6 BOLT WHEELS ON RIGHT WING, LEFT WING AND LEFT INSERT WING.
 - ON ALL DUALS USE 9.5L - 8 PLY TIRES ON 6 BOLT WHEELS ON ALL FRAMES
 - MOUNT TIRES AND WHEELS.
 - 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. 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.
 - ATTACH CENTER TRUSS TO THE CENTER FRAME USING 3/4" X 2" HEX BOLTS. PLACE LOOSE BUSHING IN HINGE HOLES.
 - PLACE TONGUE ASSEMBLY UNDER CENTER FRAME AND TRUSS AND ATTACH TO THE FRONT TWO (2) HOLES IN THE CENTER TRUSS CORNERS WITH 1" X 8" GRADE 5 HEX BOLTS IN FRONT HOLES FIRST. (NOTE: THIS PROCEDURE ALLOWS EASIER CONNECTION OF ANY MISALIGNMENT OF TONGUE MOUNTING HOLES TO FRAME.)
 - ASSEMBLE RIGHT AND LEFT EXTENSION TRUSSES TO RIGHT AND LEFT INSERT WING FRAMES USING 5/8" U-BOLTS. ATTACH HINGES TO CENTER TRUSS WITH 1" X 7" GRADE 5 HEX BOLTS.
 - 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 AND SECURE WITH THE OTHER 1-1/4" HEX NUT. ADJUST TO TRACTOR BAR HEIGHT.
- INSERT EXTENSION TONGUE INTO TONGUE AND ATTACH 1-1/4" X 7" HEX BOLT. ATTACH EITHER CAST HITCH USING 1" X 7", GRADE 5 HEX BOLTS; OR OPTIONAL WELDED PIVOT HITCH WITH BUSHING AND 1-1/4" X 7" GRADE 5, HEX BOLT TO EXTENSION TONGUE.
 - ASSEMBLE HOSE STAND AS PER DRAWING 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.
 - 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 CYLINDER ON CENTER FRAME 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 FRAME AND ALSO INSERT WINGS. 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 BOTH 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

ASSEMBLY INSTRUCTIONS FOR FM5-35

HYDRAULICS EXTENDING AND RETRACTING THE WINGFOLD CYLINDERS TO REMOVE AIR FROM THE SYSTEM. CYLINDERS CAN NOW BE PINNED UP TO THE SLOTTED WINGFOLD PLATES WITH 1 1/4" X 4-1/2" CLEVIS PINS, FLATWASHER, AND ROLL PINS. (NOTE VONBERG VALVE AND DIRECTION ARROWS ON LEFT FOLD CYLINDER ROD PORT.) NOW 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.

15. MACHINE SHOULD BE LEFT IN UP POSITION AND BARRELS OR STANDS MAY BE REMOVED. MARK OUT SHANK PLACEMENT IN 20" CENTERS, STARTING AT, STARTING IN REAR AT 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.

16. 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.

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

18. FM5-35 USES 2 GAUGE WHEEL ASSEMBLIES. MOUNT ONE ON RIGHT AND LEFT INSERT WING IN POSITION AS SHOWN USING CLAMP PLATES, 5/8" X 4" HEX BOLTS, LOCKWASHERS, AND HEX NUTS. TIGHTEN SECURELY.

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" EXTRA ON WING SPINDLE MEASUREMENTS TO MATCH THE LEVEL ON CENTER FRAME SPINDLES. WHEN LEVELING THE MACHINE WITH 12.5L TIRES, SUBTRACT 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. ANY TILLAGE DEPTH ADJUSTMENTS SHOULD BE MADE BY USING THE SINGLE POINT DEPTH CONTROL.

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

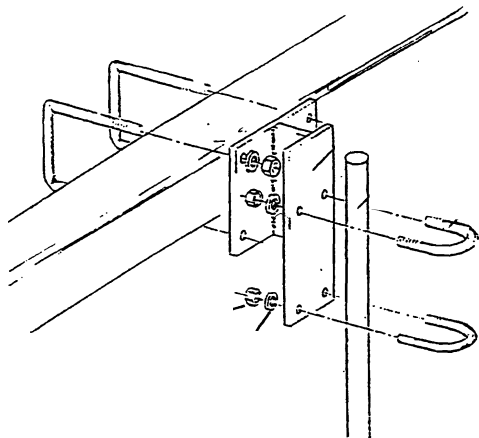
INSTALLATION MANUAL



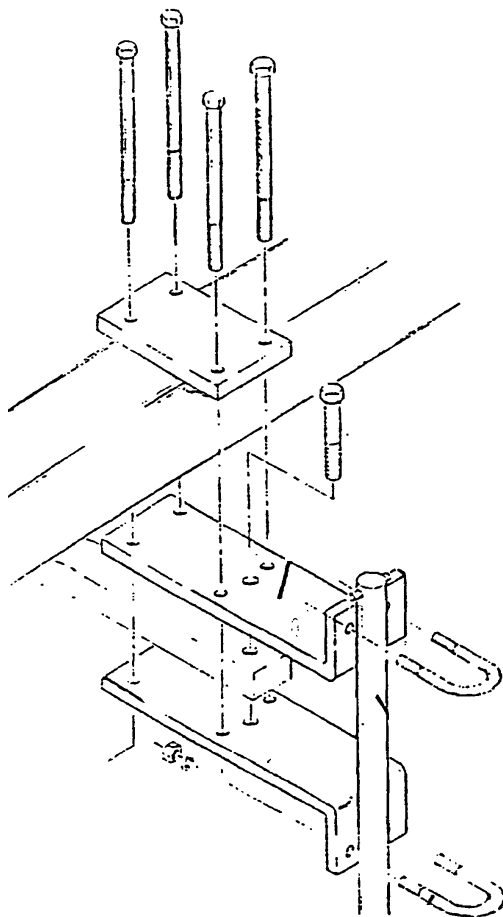
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COULTER DESCRIPTIONS AND SHANK MOUNT ILLUSTRATIONS

1.

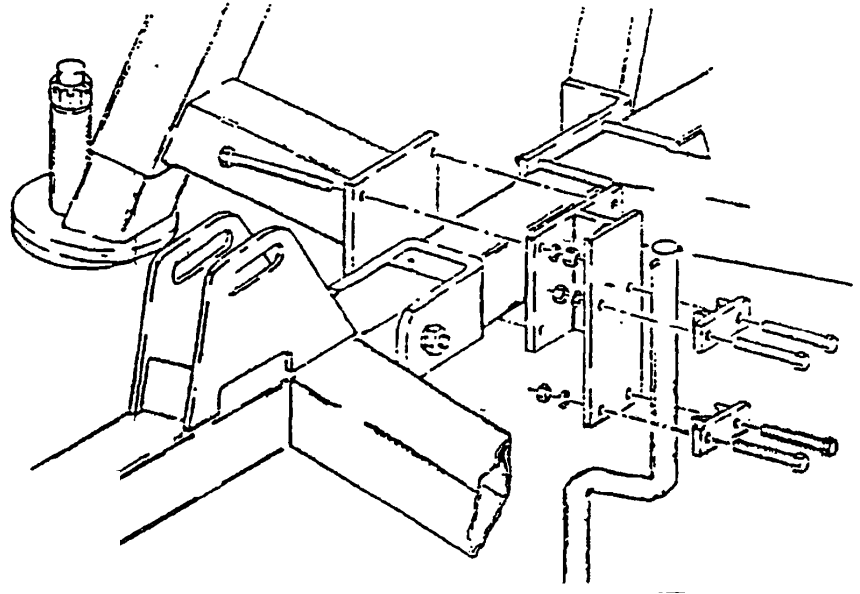


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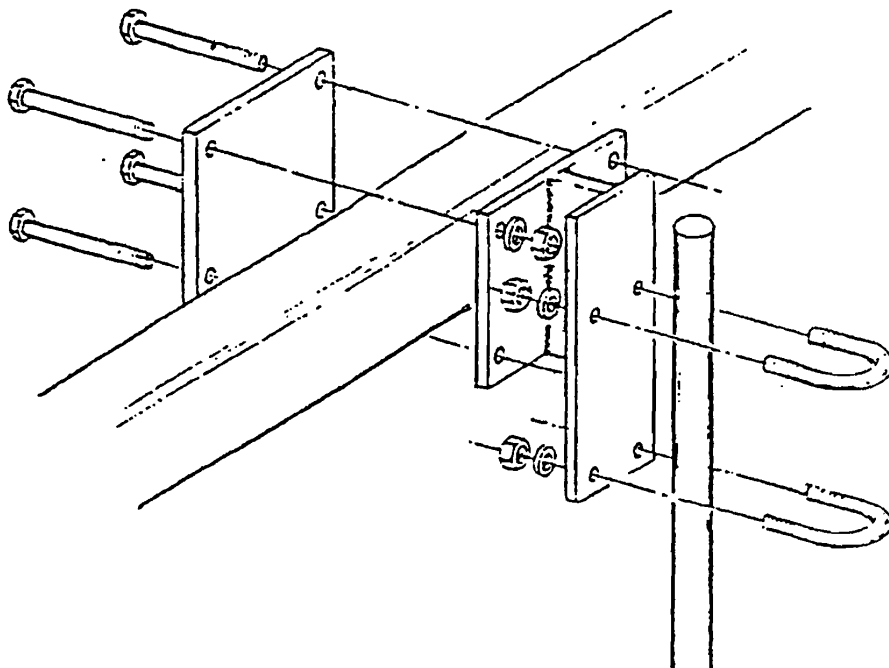


COULTER DESCRIPTIONS AND SHANK MOUNT ILLUSTRATIONS

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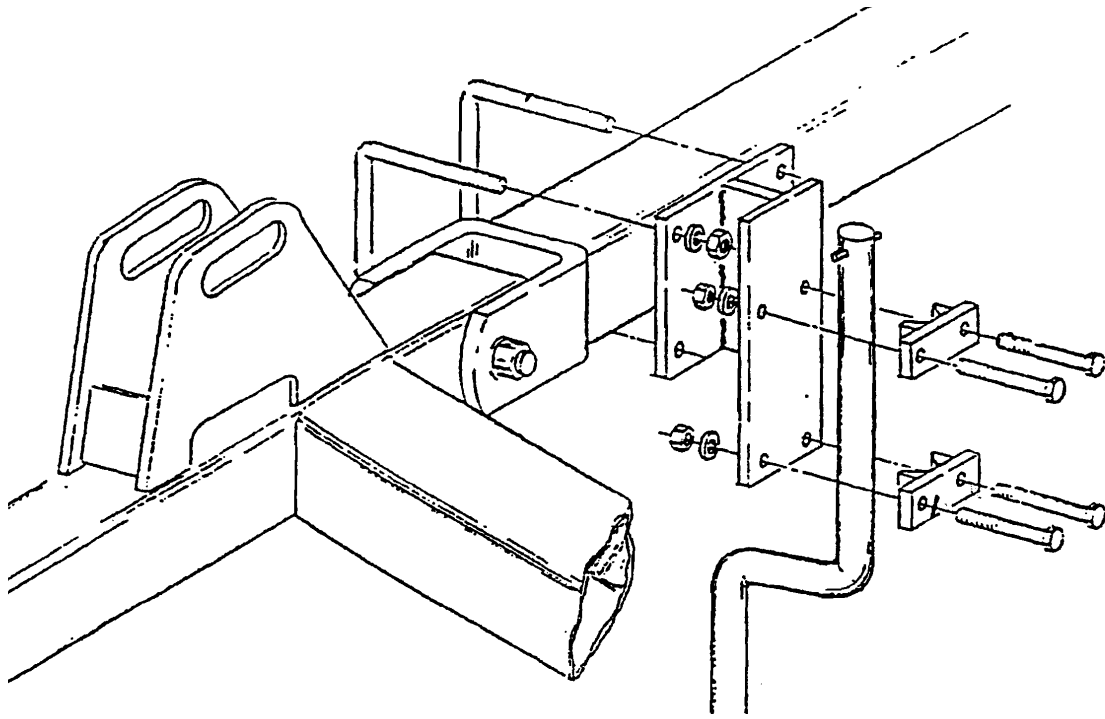


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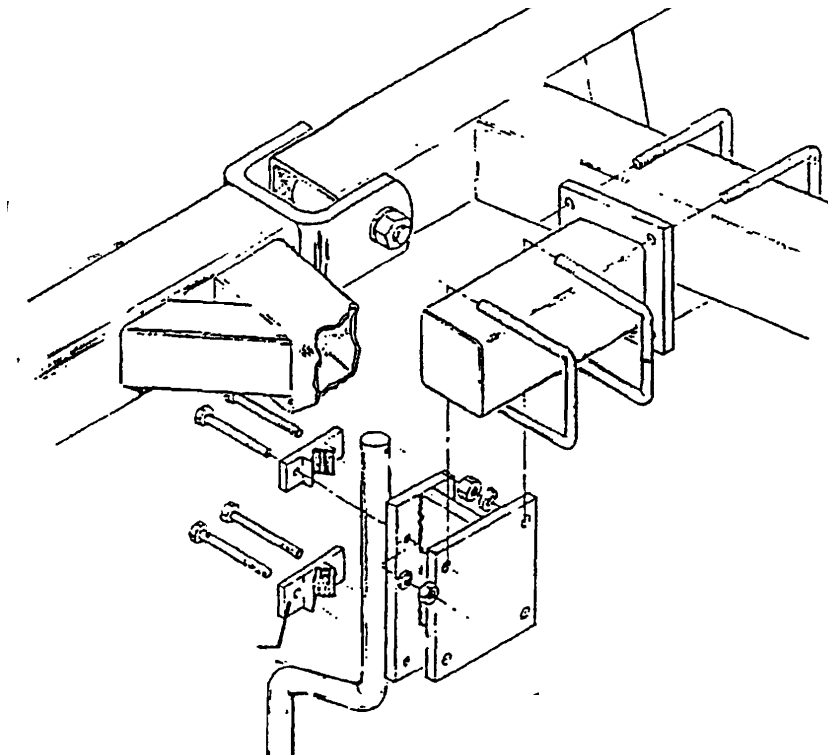


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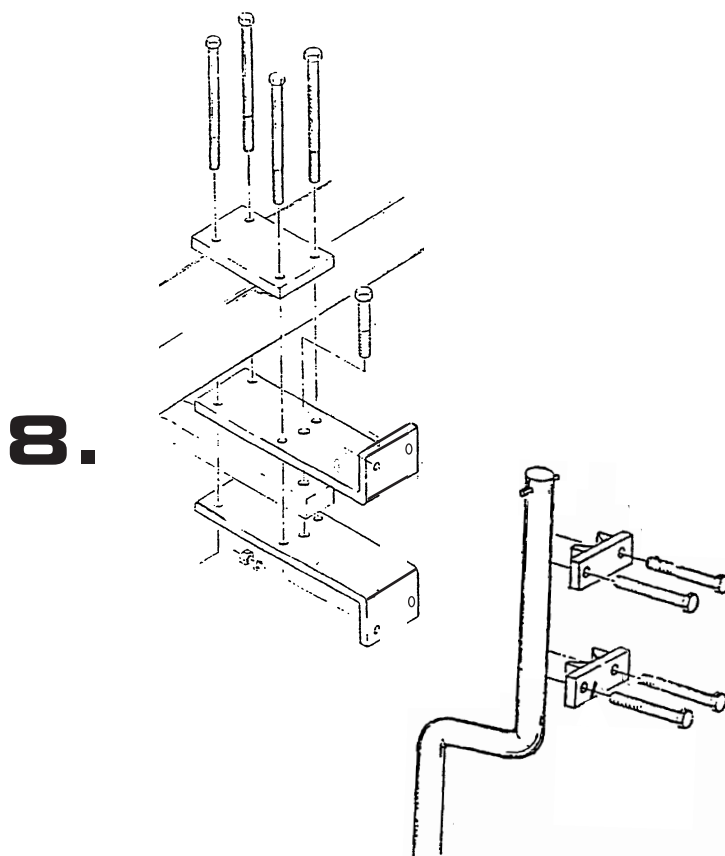
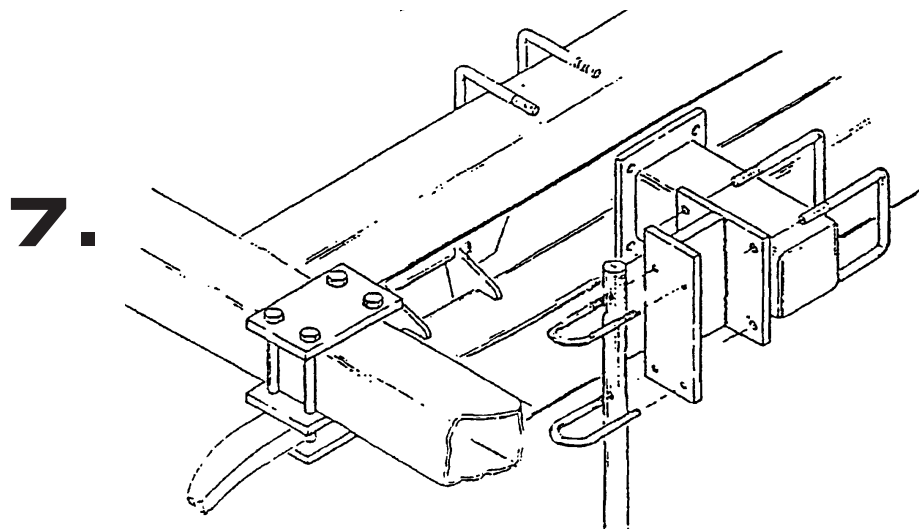
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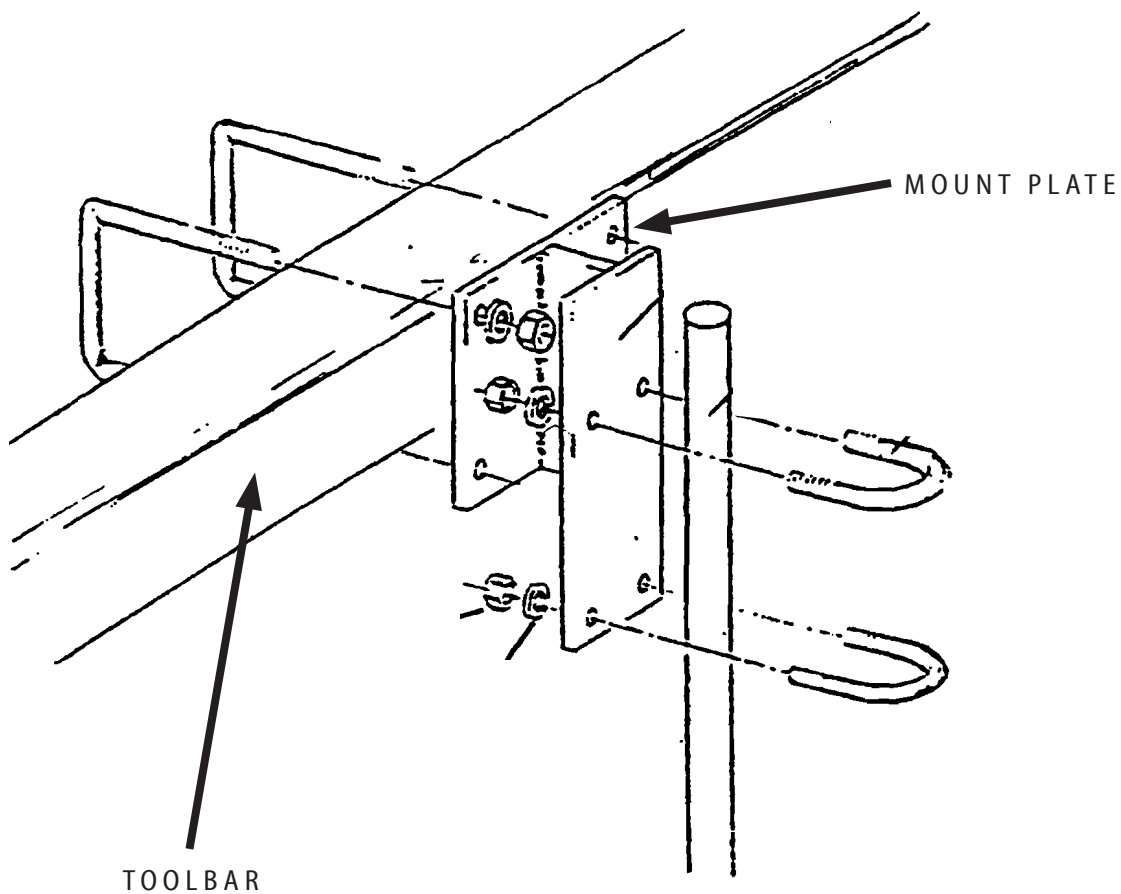
COULTER DESCRIPTIONS AND SHANK MOUNT ILLUSTRATIONS



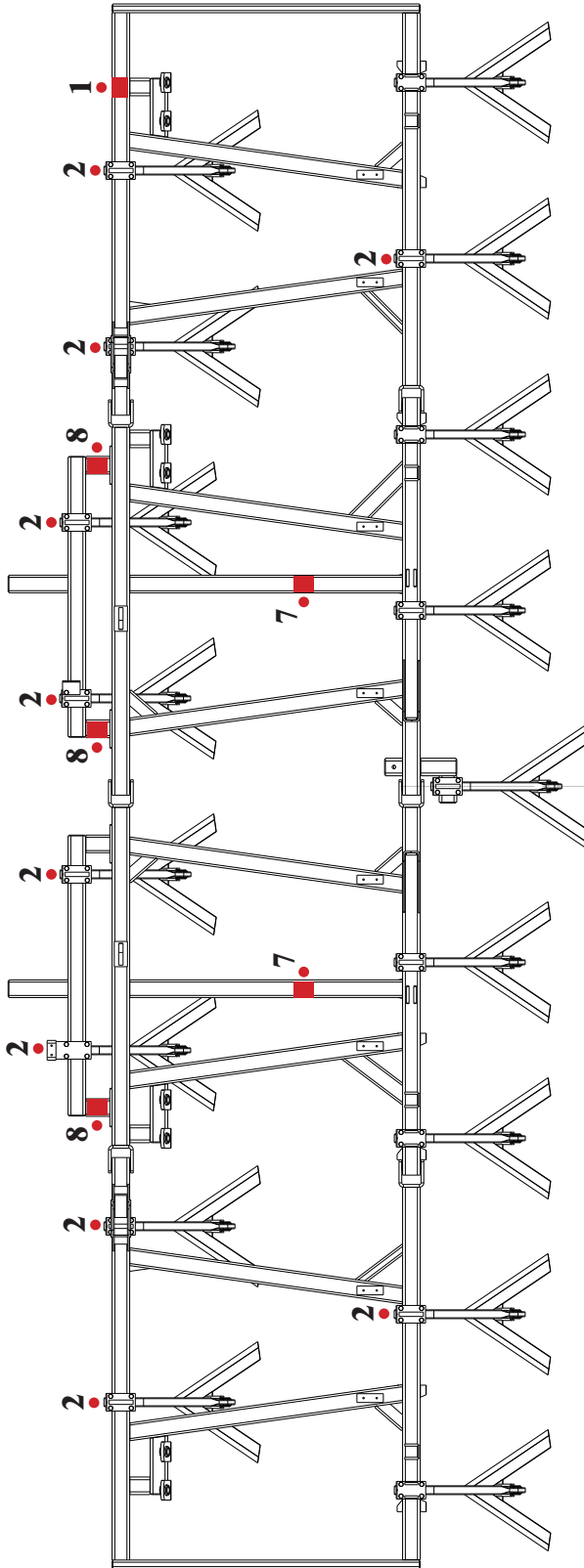
COULTER DESCRIPTIONS AND SHANK MOUNT ILLUSTRATIONS

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:

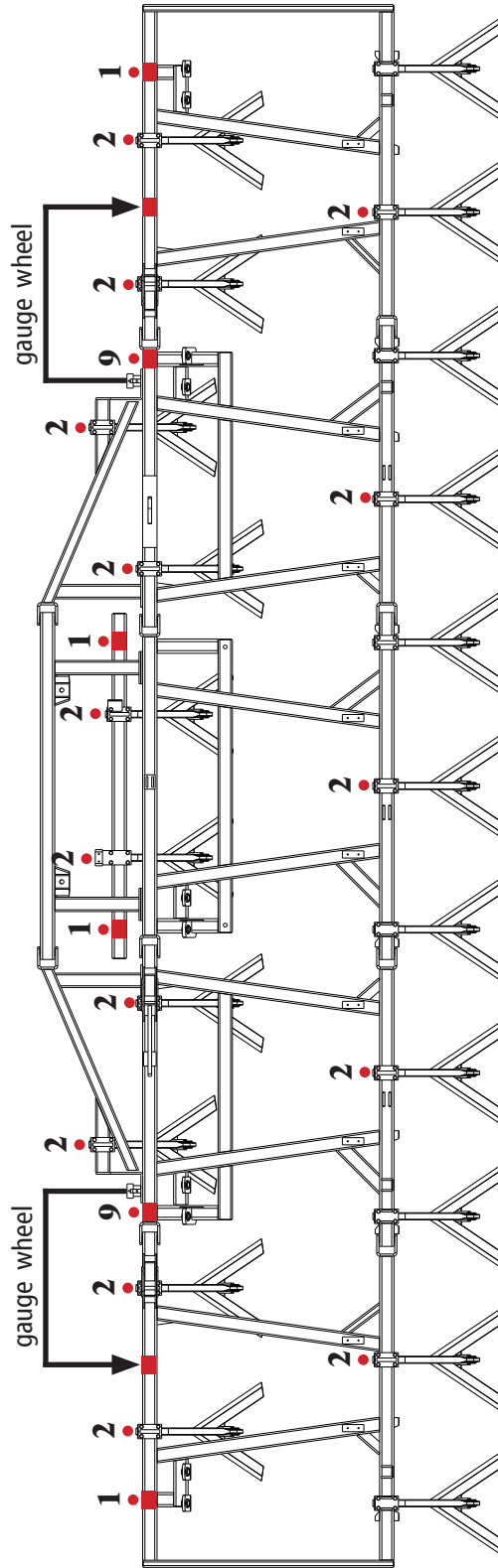


The 4 section 28 foot Fallow Master Coulters package consists of:

- 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 Coulters mounting locations:



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

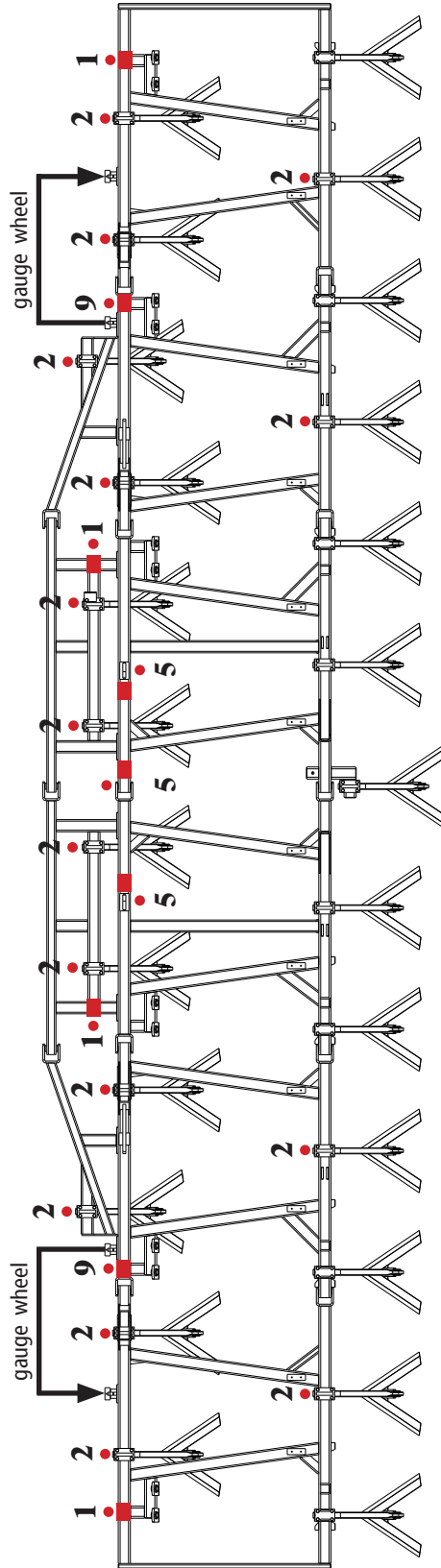
- two - #9's (straight shanks)
- fifteen - #2's (straight shanks)
- four - #1's (straight shanks)

1 = SHANK MOUNT STYLE

● = COULTER POSITION

■ = MOUNT POSITION

6 section 42 foot Fallow Master Coulters mounting locations:

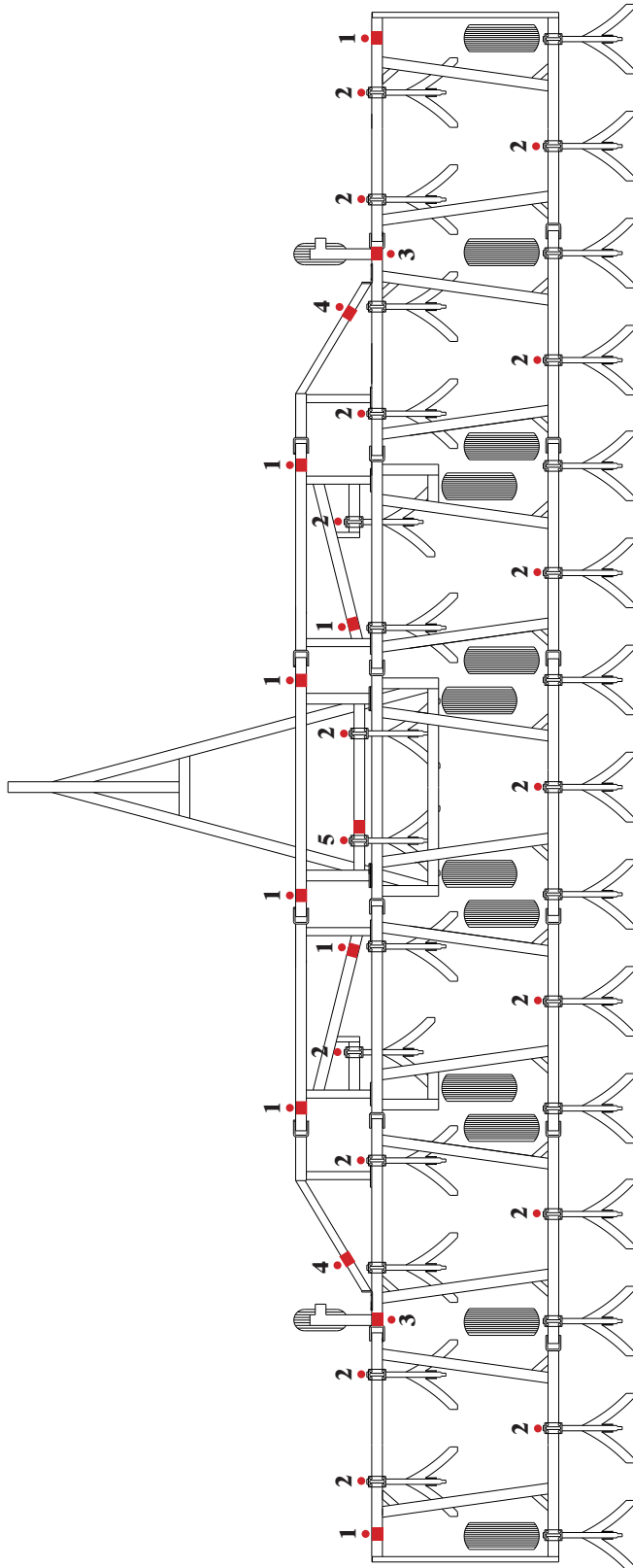


The 6 section 42 foot Fallow Master Coulters package consists of:

- 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:

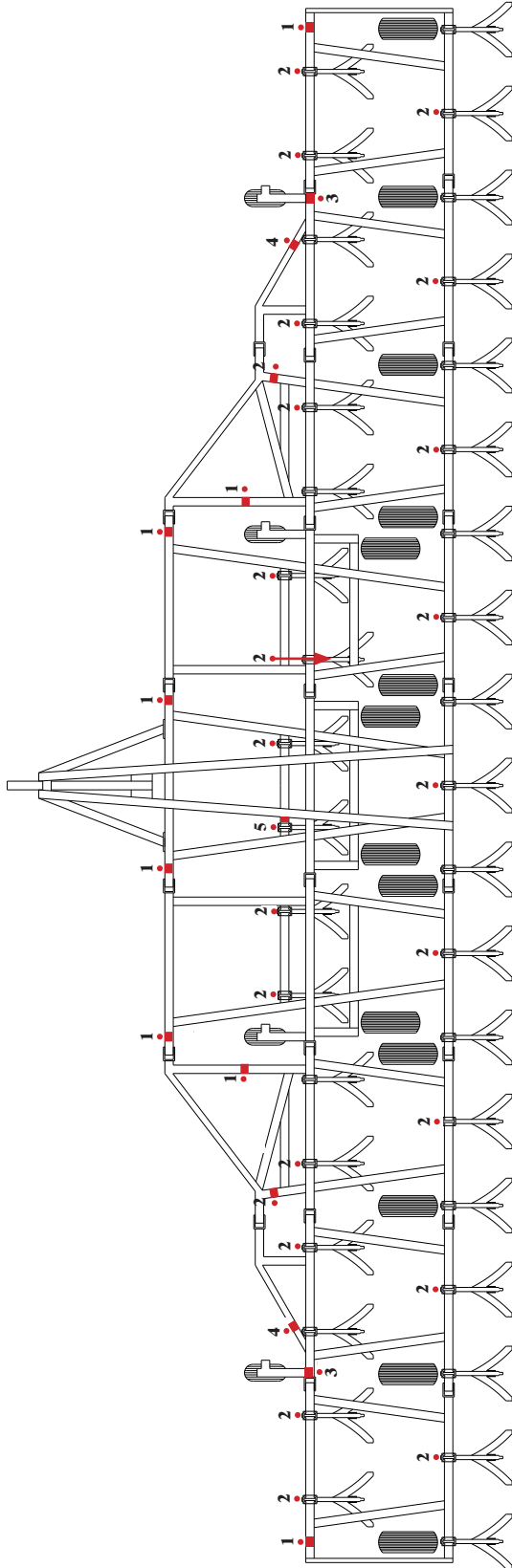
- eight - #1's (straight shanks)
- sixteen - #2's (straight shanks)
- two - #3's (offset shanks)
- two - #4's (straight shanks)
- one - #5 (offset shank)

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