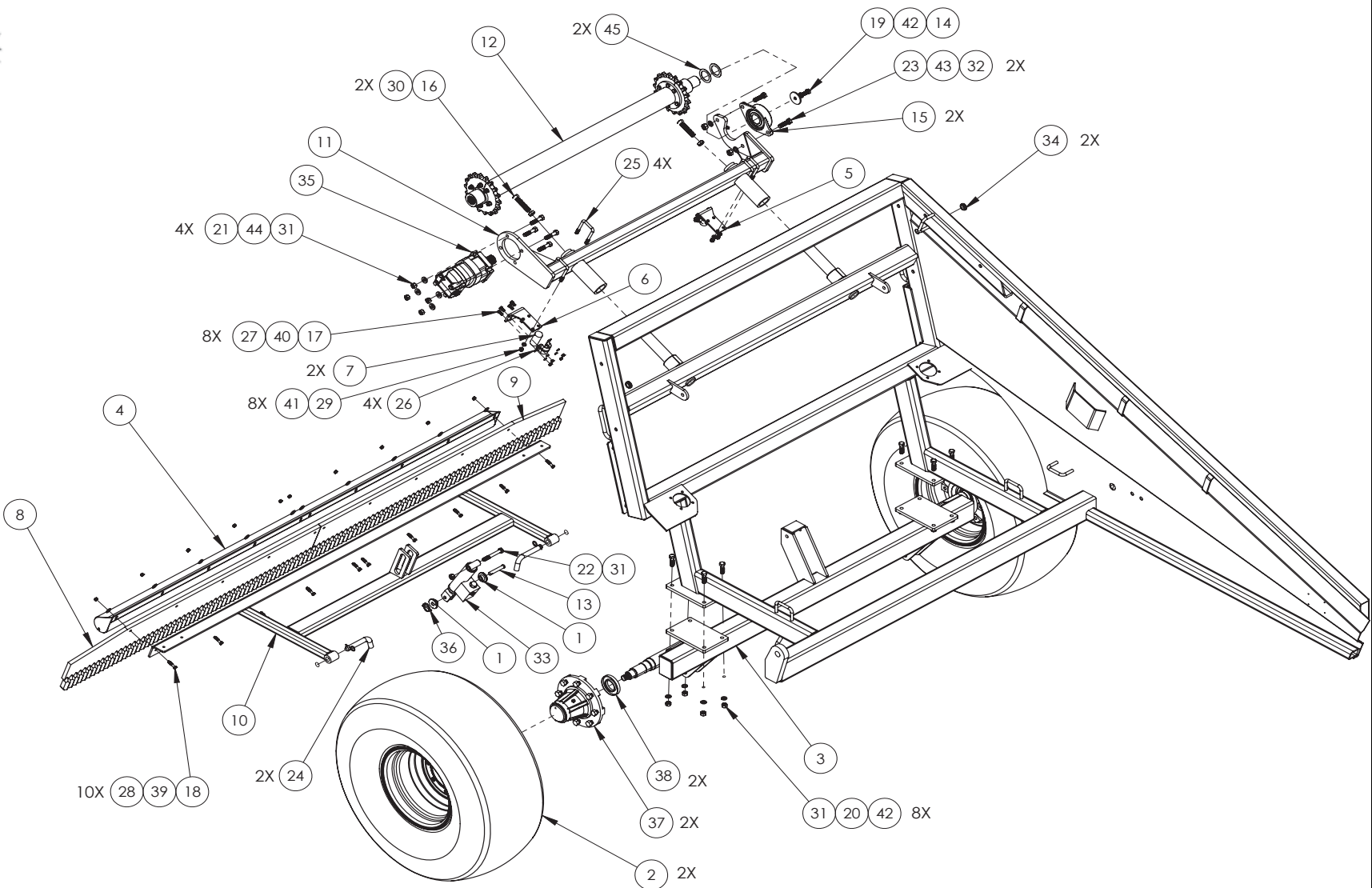


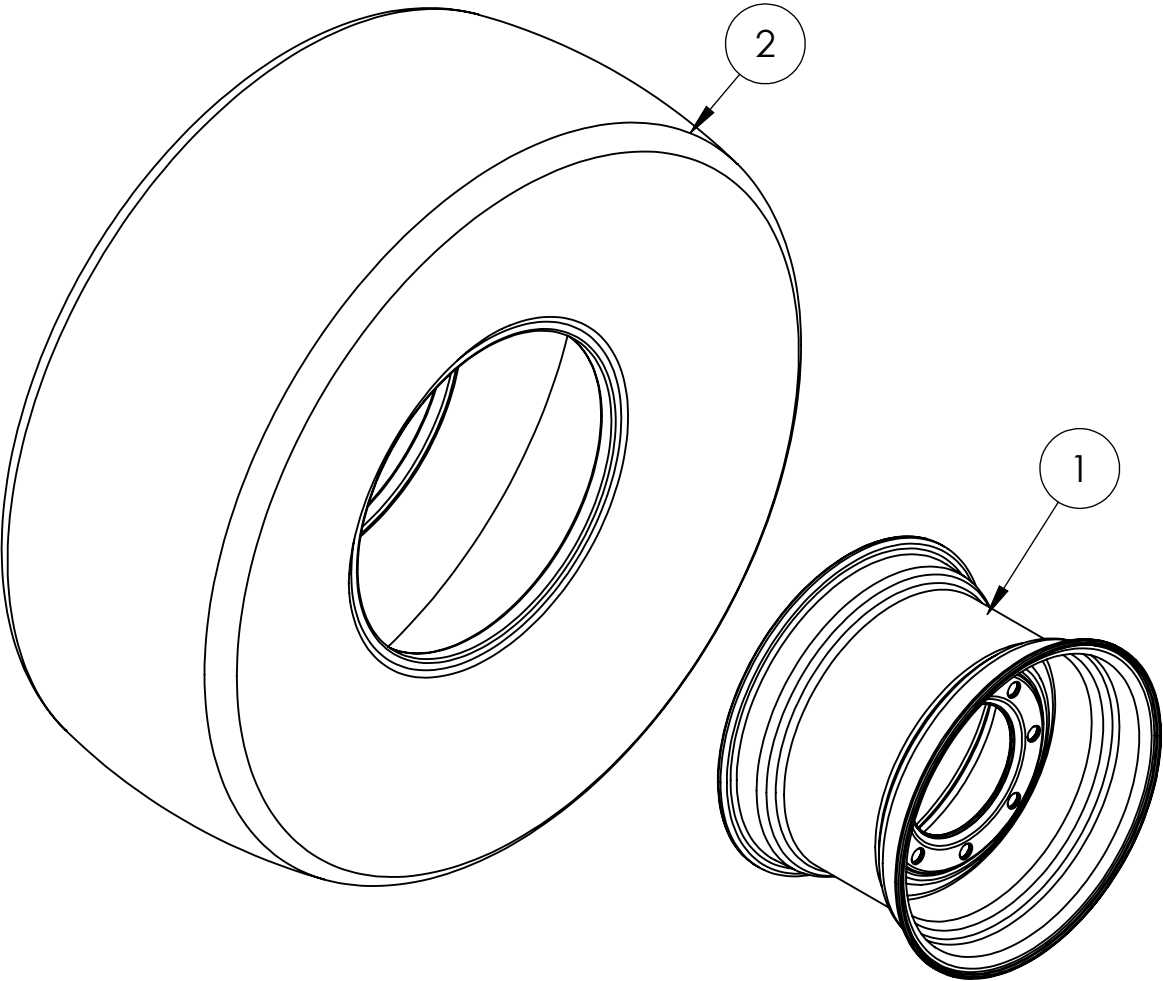


REAR AXLE AND GROOMER SCHEMATIC

REAR AXLE AND GROOMER LEGEND

ITEM #	QTY.	PART #	DESCRIPTION
1	2	450183	BUSHING, GROOMER TENSION
2	2	450184	WHEEL ASM: 36 X 13.5-15
3	1	450361	AXLE WELDMENT 4500D
4	1	500408	GROOMER BAR ROUND
5	1	500497	WLDT: ROCK KNOCKER LH
6	1	500498	WLDT: ROCK KNOCKER RH
7	2	500499	ROD; ROCK KNOCKER
8	1	550124	COMB, RIGHT 5500
9	1	550125	COMB, LEFT 5500
10	1	550150	WLD: GROOMER BAR
11	1	550291	MT, REAR SHAFT
12	1	550474	ASSY; SHAFT, REAR CONV SPLIT
13	1	CP0013	PIN, CLEVIS MOD 1/2 X 3
14	1	M5462	3/16 X 1/2 ID X 2-1/4 OD WASHER
15	1	P004175	BEARING: 1-3/4 FLANGE 2 BOLT
16	2	P099012	BOLT: HEX 5/8-11 X 3 FULL THD
17	8	P100403	BOLT: HEX, 1/4"NC X 3/4" GR5
18	10	P100506	BOLT: HEX, 5/16" NCX 1 1/2"GR5
19	1	P100804	BOLT: HEX 1/2"-13 X 1"
20	8	P100807	BOLT: HEX 1/2-13 X 1-3/4"
21	4	P100809	BOLT: HEX 1/2-13 X 2-1/4"
22	1	P100815	BOLT: HEX, 1/2-13 NC X 3 3/4" GR.5
23	2	P100908	BOLT: HEX, 9/16-12 NC X 2
24	2	P121200	BENT HITCH PIN 3/4" X 3-1/2"
25	4	P127214	U-BOLT, 3/8 X 2 X 3.75
26	4	P128905	CLAMP, U STRAP 1.31
27	8	P155250	NUT: HEX, 1/4" TOP-LOCK
28	10	P155350	NUT: HEX, 5/16 TOP-LOCK
29	8	P155450	NUT: HEX 3/8"-16NC TOP-LOCK ZP
30	2	P155800	5/8-11 HEX JAM NUT
31	13	P155850	NUT: HEX 1/2"-13NC TOP-LOCK ZP
32	2	P155900	NUT: HEX, 9/16"-12 TOP-LOCK
33	1	P259160	CYLINDER: 1-1/2B X 4S W/CAV CH
34	2	P297625	GROMMET: 5/8 BORE
35 *	1	P353600	MOTOR: 4000 COMPACT 169-0133-001
36	1	P622604	PIN, LYNCH 3/16 X 1-1/4
37	2	P764400	HUB ASSY, 8 BOLT
38	2	P764404	SEAL, GREASE 2 ID 3.62 OD
39	10	P850105	WASHER: FLAT 5/16" ZP
40	8	P851104	WASHER: LOCK 1/4"
41	8	P851106	WASHER: LOCK 3/8" ZP
42	9	P851108	WASHER: LOCK 1/2" ZP
43	2	P851109	WASHER: LOCK 9/16"
44	4	P852608	1/2" HARD WASHER
45	2	P855525	BUSHING: MACH 18GA X 1-3/4

***71.P353610 SEAL KIT USED ON #35 CONVEYOR MOTOR P353600**



P/N: 450184 REAR TIRE ASSEMBLY

2	1	P763952	TIRE: 36 X 13.50-15
1	1	P763951	RIM: 15 X 10 X 8
ITEM	QTY.	PART NUMBER	DESCRIPTION

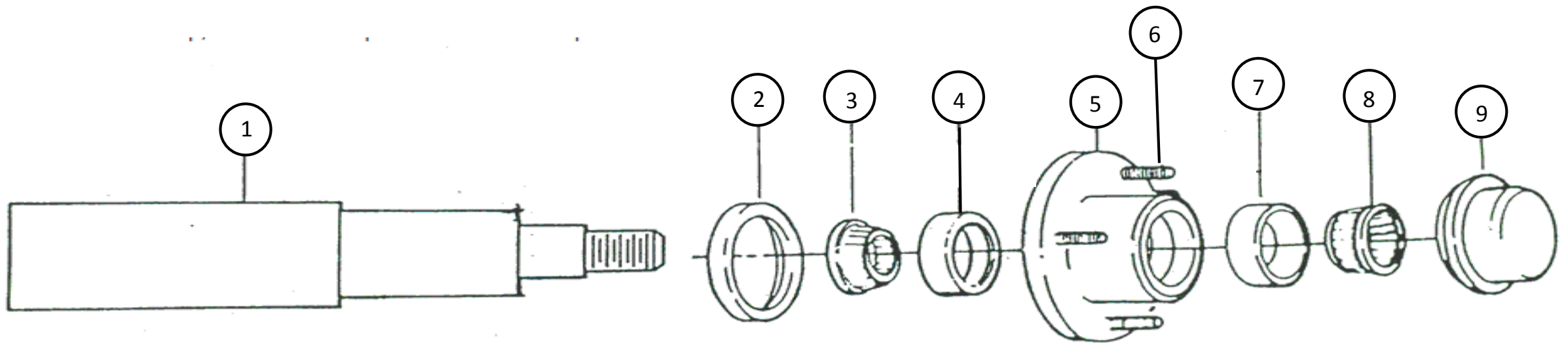


P.O. BOX 2135
JAMESTOWN, ND 58402

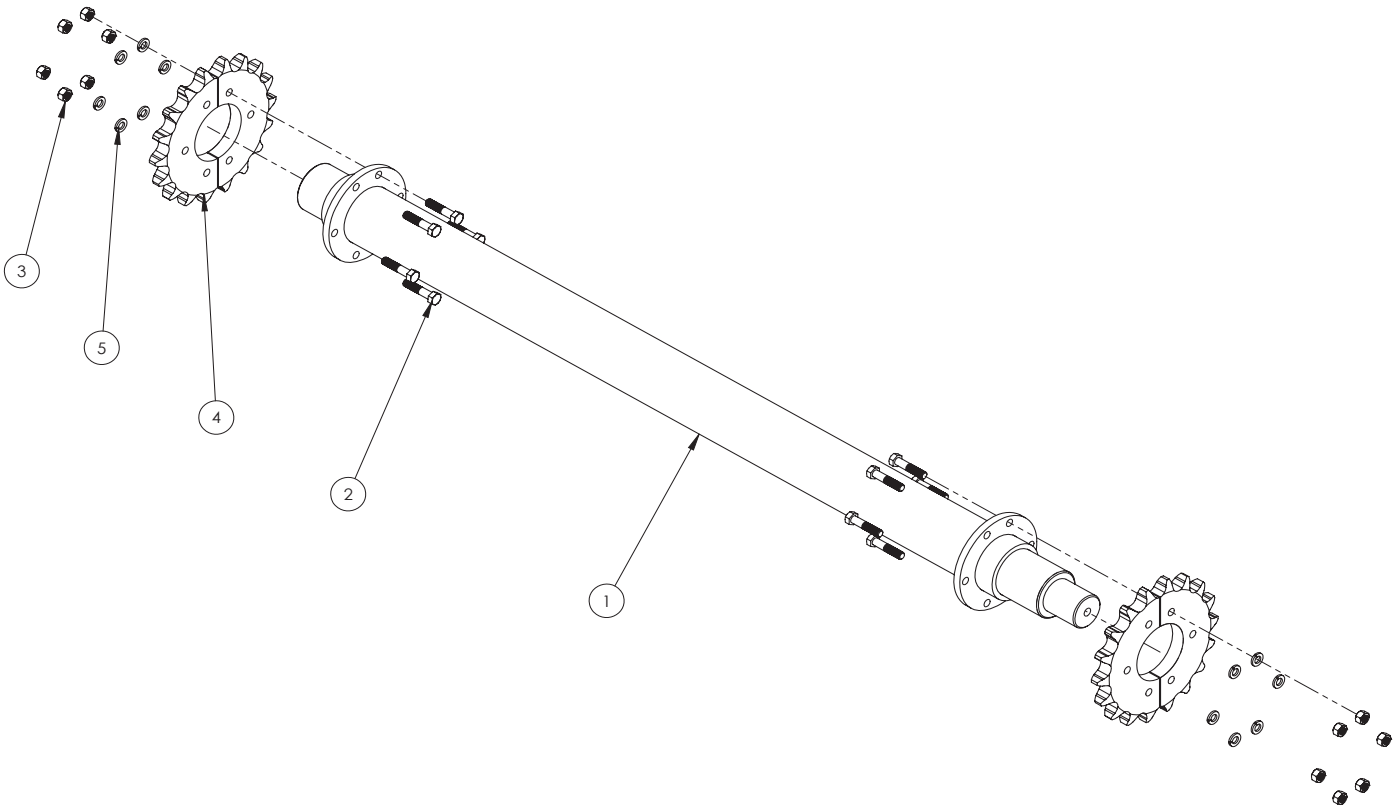
DRAWN BY LEM	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CHERRINGTON. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CHERRINGTON IS PROHIBITED.	UNLESS OTHERWISE NOTED		
DATE 2-20-09		TOLERANCES ON DECIMALS FRACTIONS ANGLES		
DO NOT SCALE		.XX±.060 ±1/32 ±1° .XXX±.030		
TITLE WHEEL ASM: 36 X 13.5-15		PART NO. 450184		

Rear hub assembly 4500

- 1) 71.P765300 Spindle 2.12
- 2) 71.P764404 Seal
- 3) 71.P764408 Bearing 1.796 ID / bore
- 4) 71.P764403 Race
- 5) 71.P764405 Bare hub only
- * 71.P764400 Complete hub – contains items #3, 4, 5, 7, 8
- 6) 71.P764406 Wheel bolt 9/16 x 1-3/4
- 7) 71.P764402 Race
- 8) 71.P764407 Bearing 1.375 ID / bore
- 9) 71.P764401 Dust cap



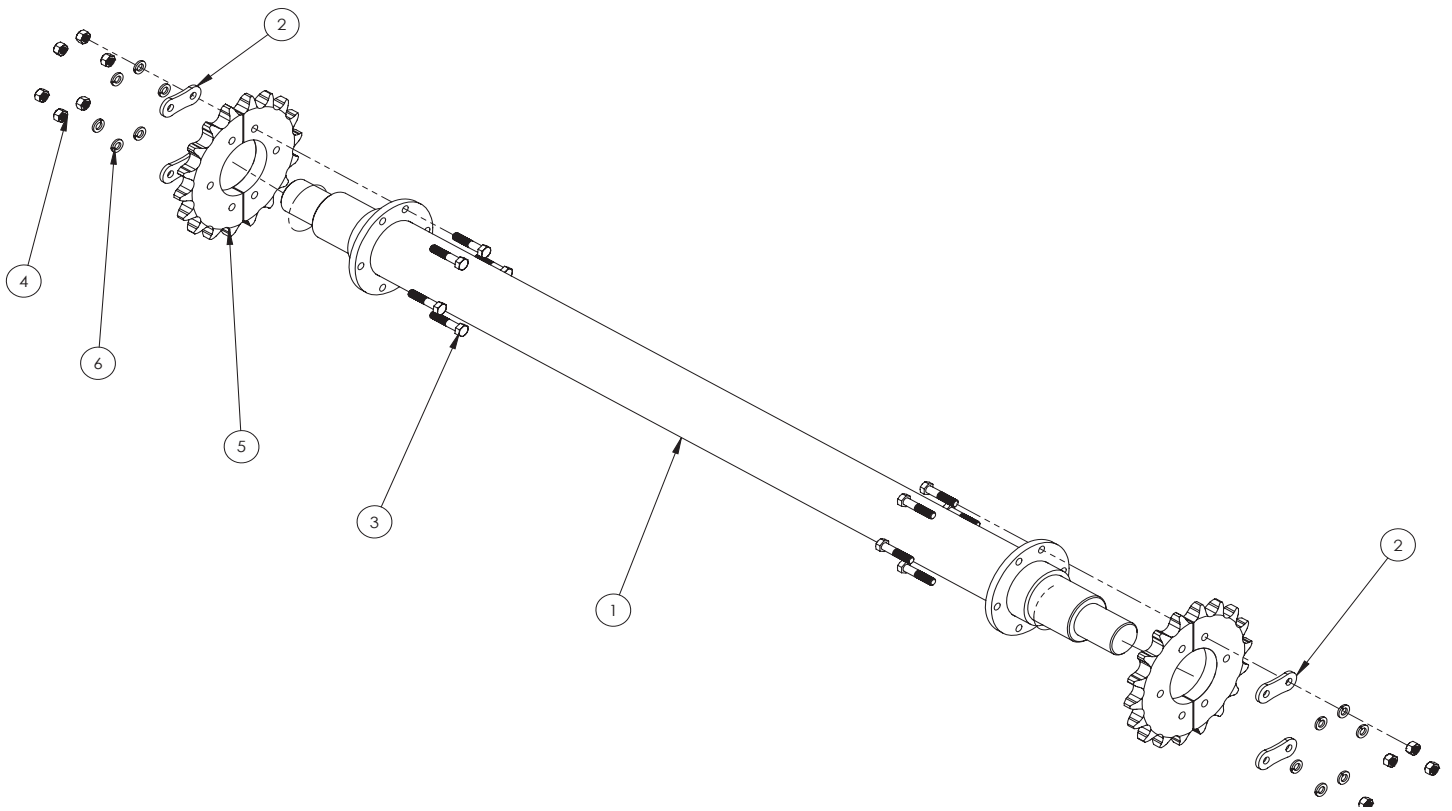
REAR CONVEYOR SHAFT ASSEMBLY



<u>ITEM</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	550472	WLDT: SHAFT REAR SPLIT MT
2	12	P100607	BOLT: HEX 3/8-16 X 1-3/4"
3	12	P155450	NUT: HEX 3/8"-16NC TOP-LOCK ZP
4	2	P691218	SPROCKET; #100A18 SPLIT
5	12	P851106	WASHER: LOCK 3/8" ZP

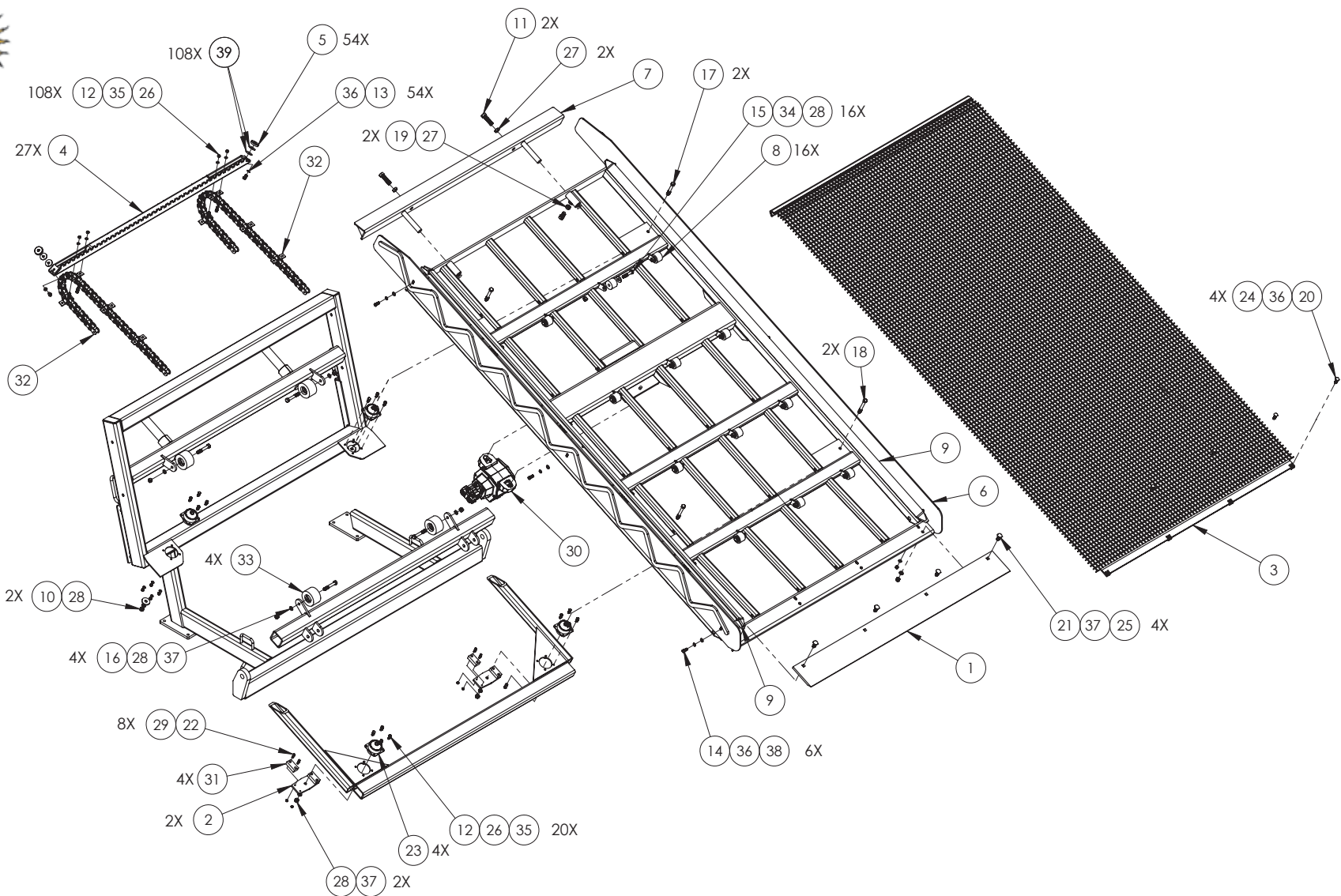
71.550474 COMPLETE REAR SHAFT ASSEMBLY CONTAINS ITEMS #1 - #5

FRONT CONVEYOR SHAFT ASSEMBLY



<u>ITEM</u>	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	550473	WLDT: SHAFT FRONT SPLIT MT
2	4	CP0055	PALTE: SPLIT SPKT TIE
3	12	P100607	BOLT: HEX 3/8-16 X 1-3/4"
4	12	P155450	NUT: HEX 3/8"-16NC TOP-LOCK ZP
5	2	P691218	SPROCKET; #100A18 SPLIT
6	12	P851106	WASHER: LOCK 3/8" ZP

71.550475 COMPLETE FRONT SHAFT ASSEMBLY *CONTAINS ITEMS #1 - #6



SCREEN LEGEND

<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	450064	CUTTING EDGE 4500
2	2	450285	PLATE, ISO STOP
3	1	450347	SCREEN ASSY; 3/4 HI RISE 5500
4	27	450352	WLDT: FLIGHT 45, 5500, 2.12
5	54	470130	FLIGHT PUCK
6	1	550402	WLDT: GALV. SCREEN FRM 5500
7	1	550414	WLD, SCREEN TENSIONER GALV
8	16	CP0043	RISER: SCREEN- 90 A Duro (Blue)
9	2	CP0047	WLDT; GLIDE RAIL 45,46, 5500
10	2	M5009-5	3/16" X 1/2" X 1-3/4" WASHER
11	2	P099010	BOLT: HEX 5/8-11 X 2 1/2 FULL THD
12	124	P100504	BOLT: HEX, 5/16" NC X 1" GR5
13	54	P100603	BOLT: HEX, 3/8"NC X 3/4" GR5
14	6	P100604	BOLT: HEX 3/8"-16NC X 1 GR5ZP
15	16	P100810	BOLT: HEX, 1/2" X 2 1/2" GR.5
16	4	P100813	BOLT: HEX 1/2-13 X 3-1/4"
17	2	P100815	BOLT: HEX, 1/2-13 NC X 3 3/4" GR.5
18	2	P100817	BOLT, HEX 1/2-13 X 4-1/4
19	2	P101005	BOLT: HEX 5/8-11 X 1-1/4"
20	4	P104606	BOLT: CARRIAGE, 3/8" X 1-1/2"
21	4	P104806	BOLT: CARRIAGE, 1/2" X 1-1/2" GR5
22	8	P110404	BOLT: SHCS 1/4-20 X 1" ALLEN HD
23	4	P133065	ISOLATOR: SQ PLATFORM 283P310
24	4	P150600	NUT: HEX 3/8-16
25	4	P150800	NUT: HEX 1/2"-13NC ZP
26	124	P155350	NUT: HEX, 5/16 TOP-LOCK
27	4	P155800	5/8-11 HEX JAM NUT
28	24	P155850	NUT: HEX 1/2"-13NC TOP-LOCK ZP
29	8	P158003	NUT, HEX, 1/4 ELASTIC STOP
30*	1	P358100	VIBRATOR, HYD HA4-3300
31	4	P605010	SPRING BUMPER, 3/4
32	2	P632140	CHAIN: 100K1 x 219 P
33	4	P761100	SNUGULATOR 2500BD1X
34	16	P850108	WASHER: FLAT 1/2" ZP
35	124	P851105	WASHER: LOCK 5/16"
36	60	P851106	WASHER: LOCK 3/8" ZP
37	12	P851108	WASHER: LOCK 1/2" ZP
38	6	P851606	WASHER: FLAT 3/8" HEAVY
39	108	P852015	WASHER: FLAT 3/8" FENDER

CHAIN REPAIR ITEMS:

71.P632143 #100 K1 ATTACHMENT LINK

71.P632142 MASTER CONNECTING LINK

71.P632141 1/2 LINK (OFFSET)

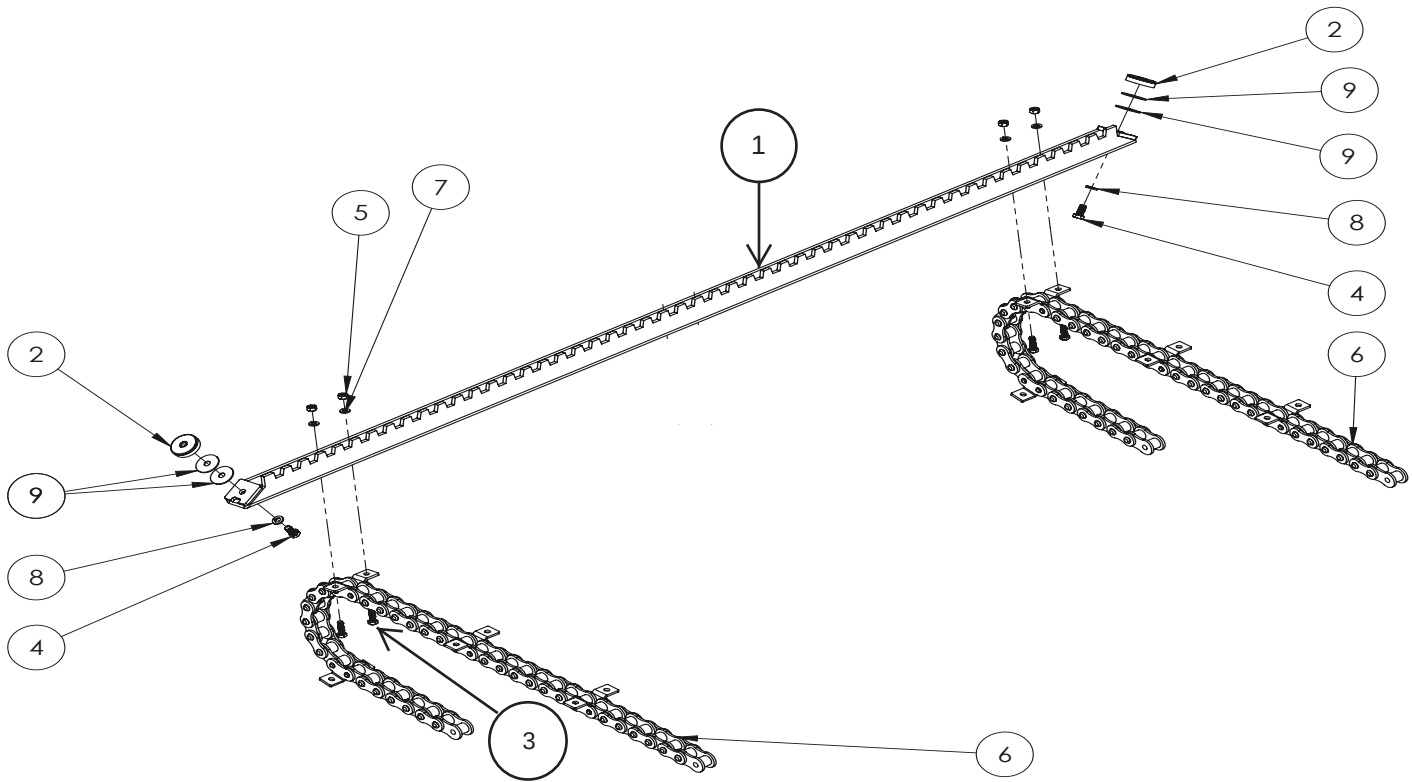
* #30 SHAKER / VIBRATOR ADDITIONAL ITEMS

71.P358105 HYDRAULIC MOTOR SHAFT SEAL

71.P358107 HYDRAULIC MOTOR

71.P358108 DRIVE COUPLING ASSEMBLY

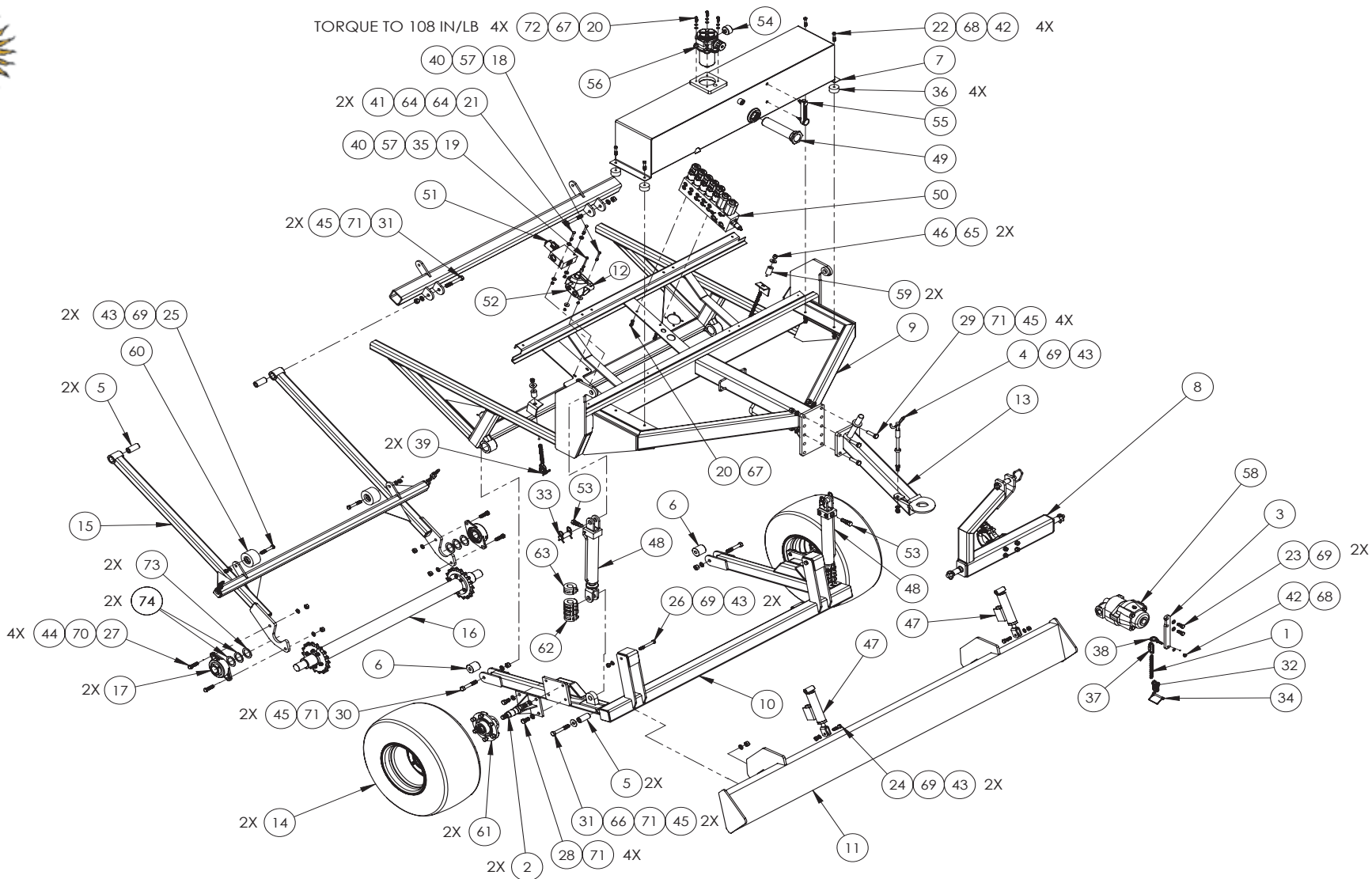
CHAIN AND FLIGHT SCHEMATIC



ITEM	QTY	PART NO	DESCRIPTION
1	27	450352	WLDT: FLIGHT BLADE 4500/5500, 2.12
2	54	470130	FLIGHT PUCK
3	108	P100504	BOLT: HEX, 5/16" NC X 1" GR5
4	54	P100603	BOLT: HEX, 3/8"NC X 3/4" GR5
5	108	P155350	NUT: HEX, 5/16 TOP-LOCK
6	2	P632140	CHAIN: 100K1 x 219 P ARMOR
6A	REF	P632143	LINK: KI CONNECTOR
7	108	P851105	WASHER: LOCK 5/16"
8	54	P851106	WASHER: LOCK 3/8" ZP
9	108	P852015	WASHER: FLAT 3/8" FENDER

CHAIN REPAIR ITEMS:

71.P632143 #100 K1 ATTACHMENT LINK
 71.P632142 MASTER CONNECTING LINK
 71.P632141 1/2 LINK (OFFSET)



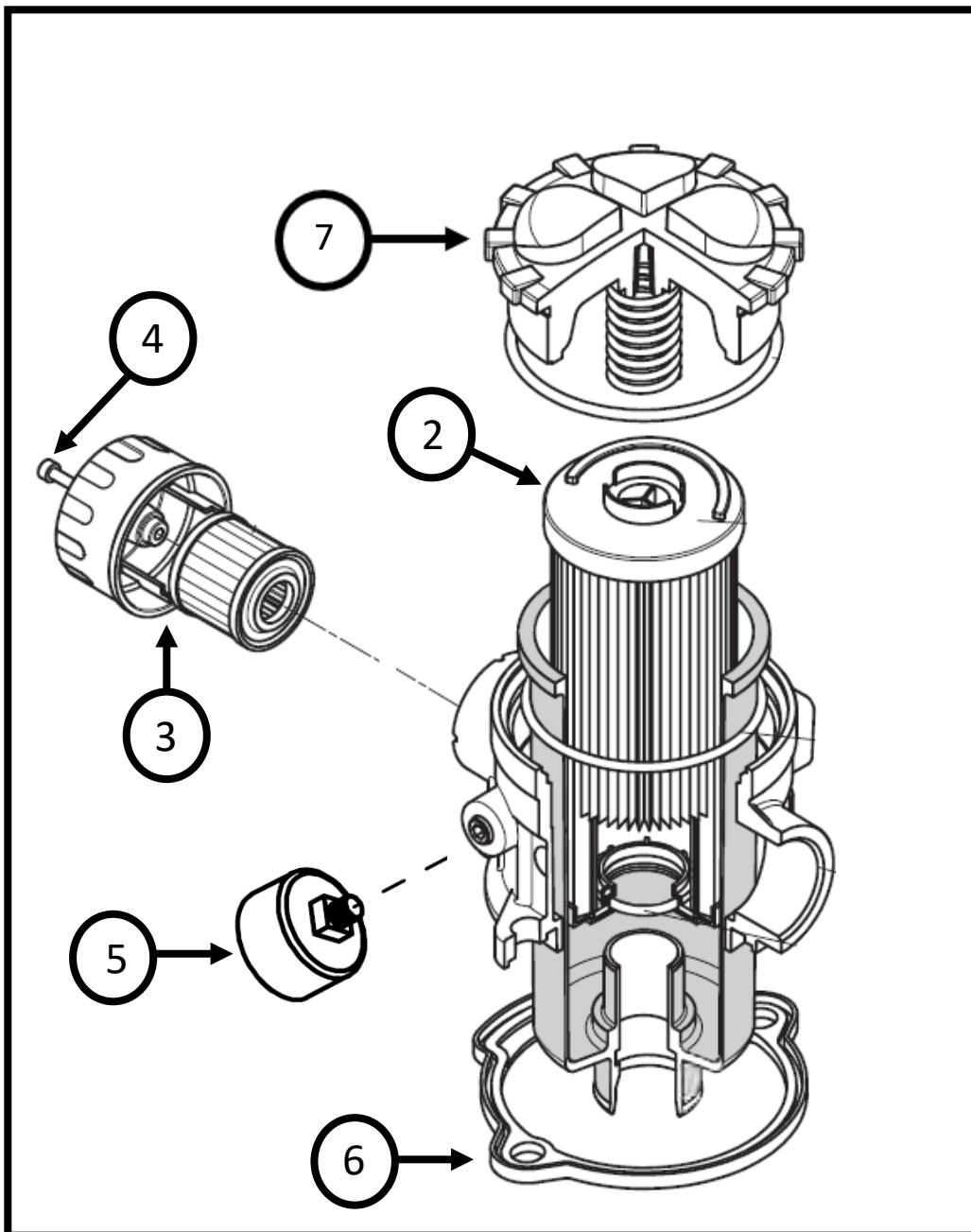
TANK & FRONT END LEGEND

ITEM#	QTY.	PART#	DESCRIPTION	ITEM#	QTY.	PART#	DESCRIPTION
1	1	005123	CHAIN, TOQUE ARM	42	5	P155450	NUT: HEX 3/8"-16NC TOP-LOCK ZP
2	2	005201	AXLE WLD, GAUGE WHEEL	43	7	P155850	NUT: HEX 1/2"-13NC TOP-LOCK ZP
3	1	005231	TORQUE ARM, EATON PTO	44	4	P155900	NUT: HEX, 9/16"-12 TOP-LOCK
4	1	005313	HOSE LOOP ASSY, SLIDER	45	10	P157500	NUT: HEX, 5/8"-11 TOP-LOCK
5	4	450098	BUSHING, NYL 1.25 X .625 X 2.688	46	2	P158005	1/2-13 NYLOCK NUT
6	2	450112	BUSHING, NYL 2 X .625 X 2	47	2	P259160	CYLINDER: 1-1/2B X 4S W/CAV CH
7	1	450296	HYD RESERVOIR 4500/4600	48	2	P259305	CYL: 2B X 10S W/CAV CH
8	1	450334	ASM: 3 PT LIGHT CAT1 OPEN	49	1	P278250	STRAINER, HYD 30 GPM
9	1	450358	MAIN FRAME, 4500D	50	1	P292400	VALVE: VA04-0699-1
10	1	450363	GAUGE WHEEL FRAME	51	1	P292410	VALVE ASM, PV72-30
11	1	450364	LEVELING BLADE WLD	52	1	P294150	VALVE: BRAND FC55-10-SAE*37
12	1	460135	LEVER; FLOW CONTROL	53	2	P294250	VALVE, PILOT CHECK
13	1	470132	HITCH WELD, BOLT ON PINTLE	54	1	P297170	GAUGE, IND LP C1-20
14	2	470152	WHEEL ASSY, 26 X 12-12	55	1	P297220	GAUGE: OIL SIGHT
15	1	550292	CONVEYOR SUPPORT 4500/5500	56 *	1	P371840	FILTER: MPT1042CAG8A10HBTSEE NOTE
16	1	550475	ASSY; SHAFT, FRONT CONV SPLIT	57	2	P500304	WASHER: RUBBER 1/4 X 1
17	2	P004175	BEARING: 1-3/4 FLANGE 2 BOLT	58	1	P556600	PUMP, EATON PTO #77022-LAH
18	1	P100411	BOLT: HEX, 1/4"NC X 2 3/4" GR5 ZN	59	2	P602420	SPRING, TUBE 1/2 X 1-1/8 X 1-3/4
19	1	P100414	1/4-20 X 3-1/2 HEX BOLT	60	2	P761100	SNUGULATOR 2500BD1X
20	6	P100504	BOLT: HEX, 5/16" NC X 1" GR5	61	2	P764300	HUB ASSEMBLY, 6 BOLT
21	2	P100511	5/16-18 X 2-3/4 HEX BOLT	62	2	P781000	STROKE CONT SET
22	4	P100608	BOLT: HEX 3/8-16 X 2"	63	2	P781002	STROKE CONTROL, 1-1/2
23	2	P100805	BOLT: HEX, 1/2" X 1-1/4"	64	4	P850105	WASHER: FLAT 5/16" ZP
24	2	P100807	BOLT: HEX 1/2-13 X 1-3/4"	65	2	P850108	WASHER: FLAT 1/2" ZP
25	2	P100813	BOLT: HEX 1/2-13 X 3-1/4"	66	2	P850110	WASHER: FLAT 5/8" ZP
26	2	P100816	BOLT: HEX 1/2"-13NC X 4 GR5ZP	67	6	P851105	WASHER: LOCK 5/16"
27	4	P100908	BOLT: HEX, 9/16-12 NC X 2	68	5	P851106	WASHER: LOCK 3/8" ZP
28	8	P101005	BOLT: HEX 5/8-11 X 1-1/4"	69	9	P851108	WASHER: LOCK 1/2" ZP
29	4	P101009	BOLT; HEX 5/8 X 2 1/4	70	4	P851109	WASHER: LOCK 9/16"
30	2	P101015	BOLT: HEX 5/8-11 X 3-3/4 GR8	71	18	P851110	WASHER: LOCK 5/8"
31	4	P101017	BOLT, HEX 5/8-11 X 4-1/4	72	4	P852105	WASHER: FLAT 5/16" NARROW
32	1	P118070	PIN CLEVIS, 5/16 X 1	73	2	P855128	10 GA. X 1-3/4" MACHINE BUSHING
33	4	P120850	CLEVIS PIN: 1"	74	4	P855525	BUSHING: MACH 18GA X 1-3/4
34	1	P123005	3/8 SAFETY PIN X 2 1/2	75	18	P851110	WASHER: LOCK 5/8"
35	1	P133033	SPACER: NYLON .62 OD X .25 ID X .62	76	4	P852105	WASHER: FLAT 5/16" NARROW
36	4	P133035	RUBBER SPACER 2" X 1"	77	6	P851105	WASHER: LOCK 5/16"
37	1	P135005	QUICK LINK, 5/16"	78	5	P851106	WASHER: LOCK 3/8" ZP
38	1	P135102	3/8-16 X 1-1/4 FORGED EYE BOLT	79	14	P851108	WASHER: LOCK 1/2" ZP
39	2	P135190	JAW END: 1/2-13 X 9	80	4	P851109	WASHER: LOCK 9/16"
40	2	P155250	NUT: HEX, 1/4" TOP-LOCK	81	18	P851110	WASHER: LOCK 5/8"
41	2	P155350	NUT: HEX, 5/16 TOP-LOCK				

71.P371841 REPLACEMENT HYDRAULIC FILTER ONLY

HYDRAULIC FILTER HOUSING

- 1) 71.P371840 Complete filter housing: includes base gasket and 10-micron filter element
- 2) 71.P371841 Filter element 10-micron
- 3) 71.P371842 Breather filter element / housing
- 4) 71.P110160 Mounting screw M4 - .7 X 25 mm socket head cap screw
- 5) 71.P297170 Filter indicator gauge
- 6) 71.P371839 Base gasket
- 7) 71.P371844 Cover with spring

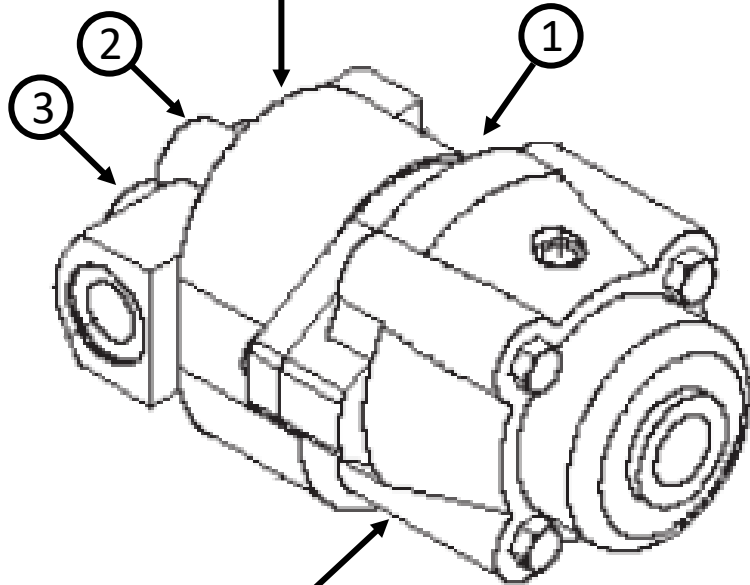


PTO PUMP

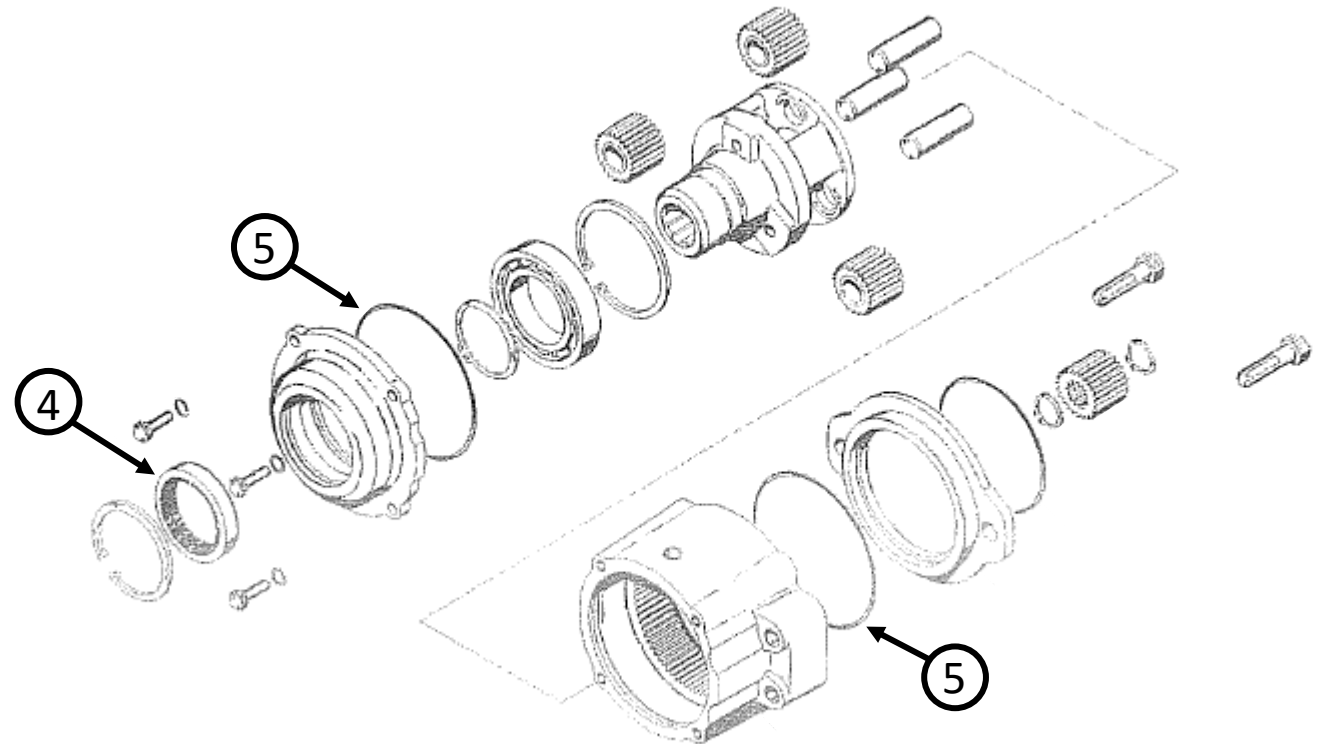
PLANETARY GEARBOX DRIVE / HYDRAULIC GEAR PUMP

- 1) 71.P556600 COMPLETE PUMP ASSEMBLY (PLANETARY GEARBOX / HYDRAULIC GEAR PUMP FULLY ASSEMBLED)
- 2) 71.P556610 HYDRAULIC GEAR PUMP (GEAR PUMP SECTION ONLY)
- 3) 71.P556611 HYDRAULIC GEAR PUMP SEAL KIT
- 4) 71.V16253-34 PTO / PLANETARY GEARBOX INPUT SHAFT SEAL
- 5) 71.V160.15 O RING

HYDRAULIC GEAR PUMP SECTION



PLANETARY GEARBOX DRIVE SECTION



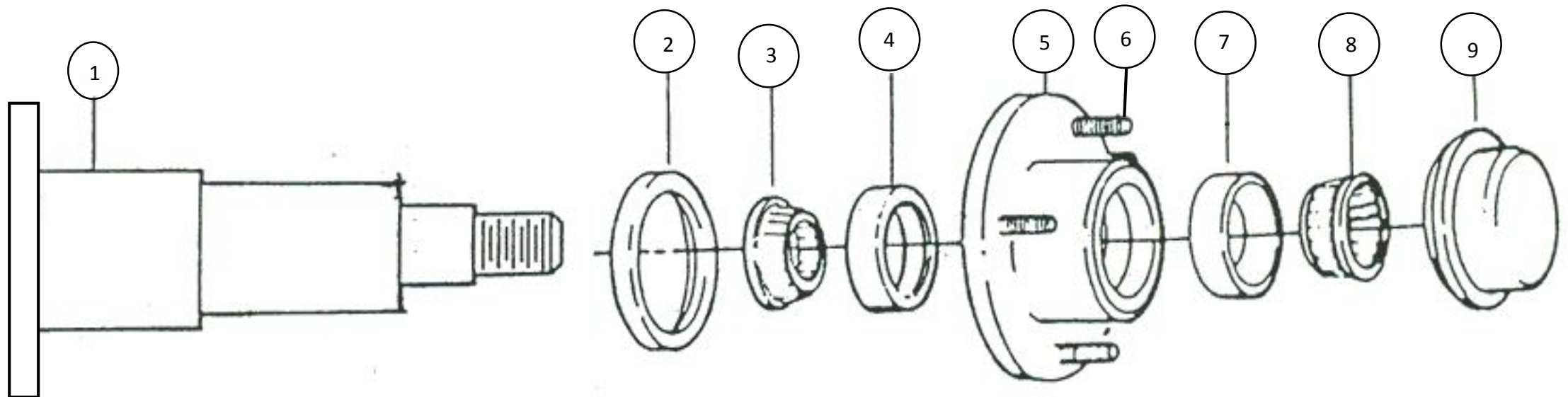
PLANETARY GEARBOX DRIVE EXPLODED VIEW

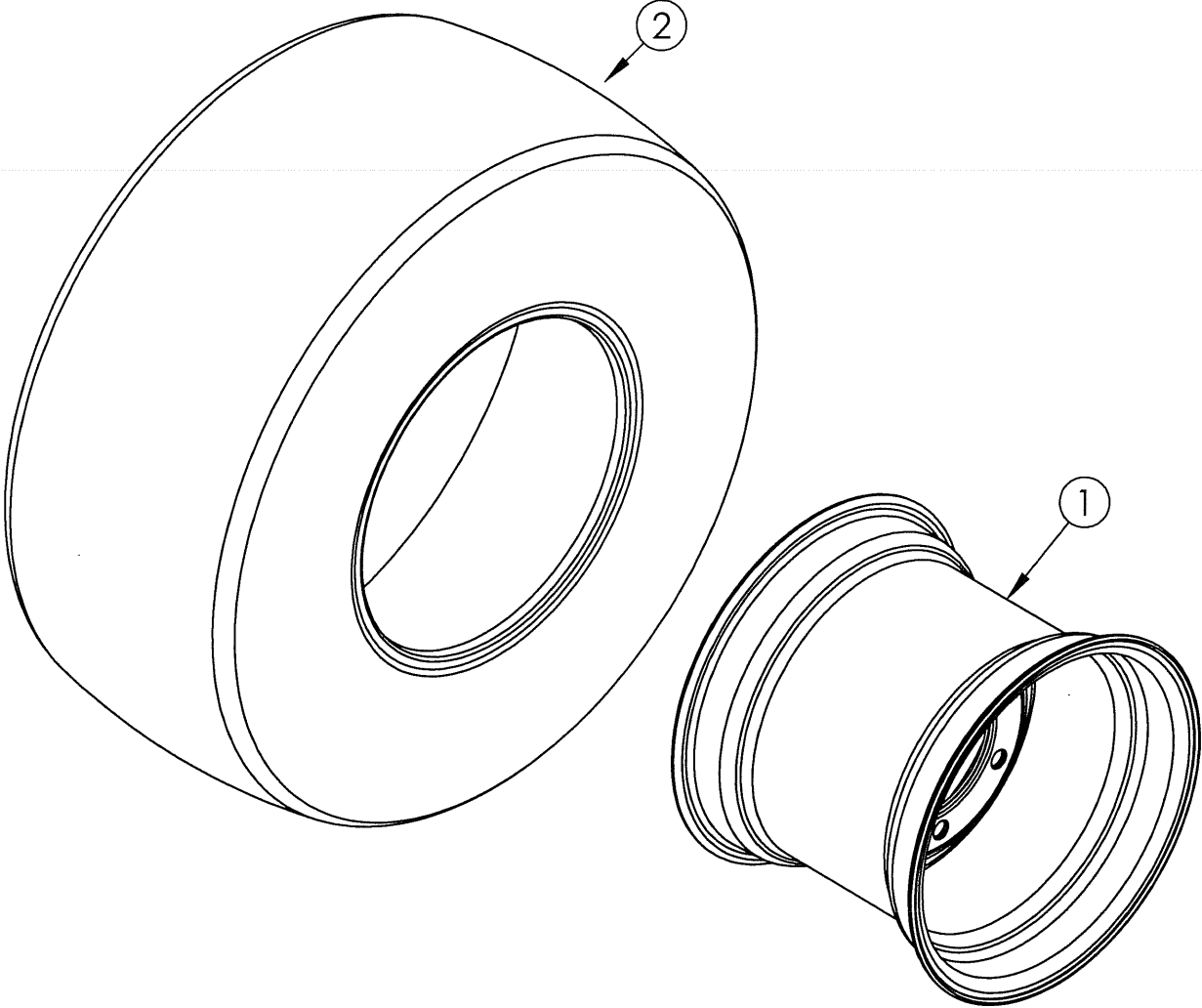
FRONT HUB ASSEMBLY MODEL 4500

- 1) 71.005201 AXLE WELD: GAUGE WHEEL
- 2) 71.P764302 HUB SEAL MFG. / SKF P/N: 16284
- 3) 71.P764303 INNER CONE / BEARING PEER P/N: LM29749
- 4) 71.P764304 INNER CUP / RACE PEER P/N: LM29710
- 5) 71.P764300 COMPLETE HUB ASSEMBLY (CONTAINS ITEM# 2 THRU 9 EXCEPT FOR #6)
- * 71.P764305 HUB ONLY: 6 BOLT X 6 INCH BOLT CIRCLE X 4-5/8 PILOT

- 6) 71.P764306 WHEEL BOLT 1/2-20 NF X 1-3/4 CONICAL
- 7) 71.P764307 OUTER CUP / RACE PEER P/N: LM67010
- 8) 71.P764308 OUTER CONE / BEARING PEER P/N: LM67048
- 9) 71.P764301 DUST CAP GKN P/N: P502026

- 71.P764310 BEARING KIT: CONTAINS ITEM# 2 THRU 4 **AND** 7 THRU 9





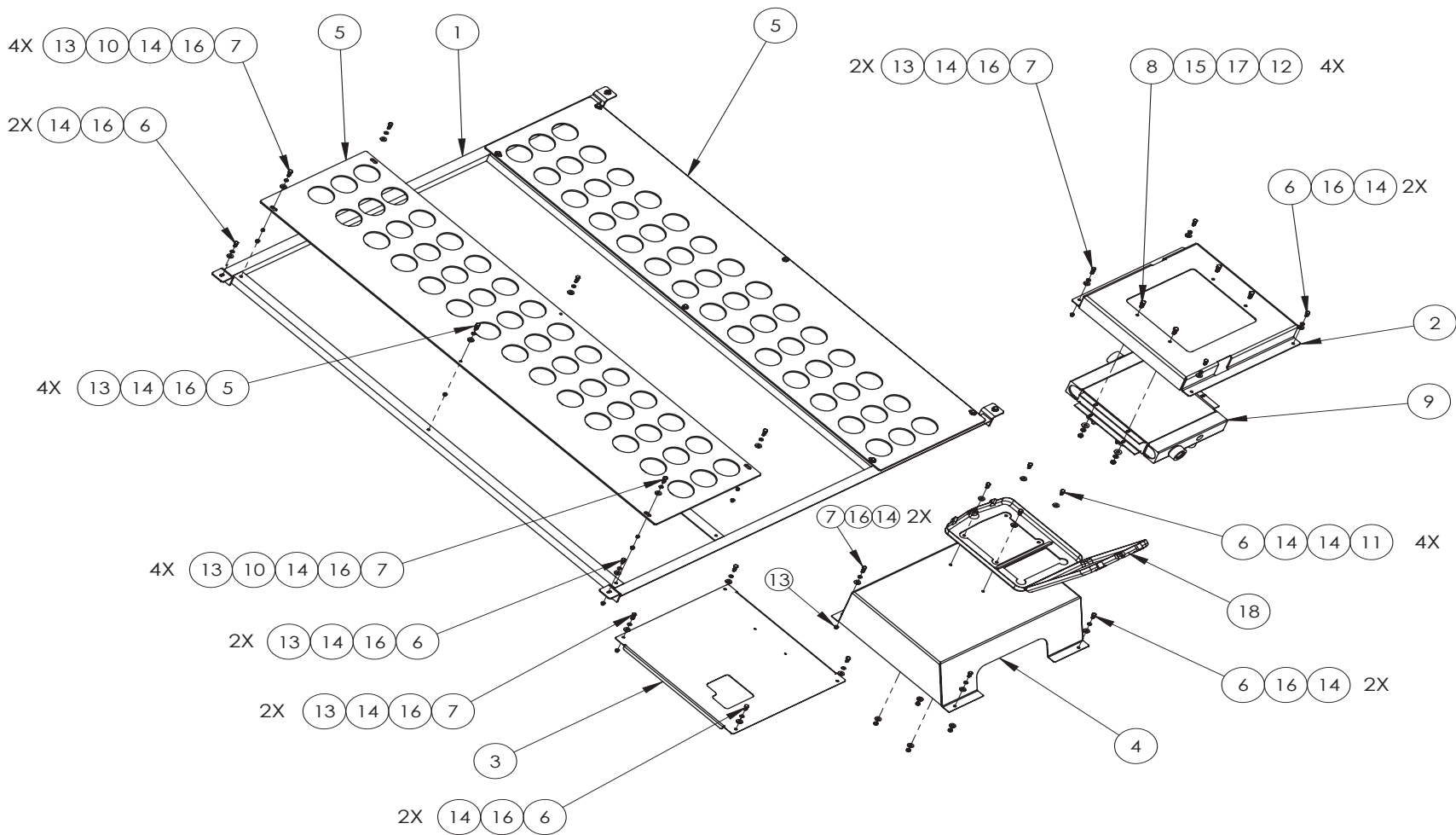
P/N: 470152 FRONT TIRE ASSEMBLY

2	1	P763300	TIRE, 26 X 12-12 TURF TRAC
1	1	P750300	RIM: 12 X 10.50
ITEM	QTY.	PART NUMBER	DESCRIPTION



P.O. BOX 2135
JAMESTOWN, ND 58402

DRAWN BY LEM	PROPRIETARY AND CONFIDENTIAL	UNLESS OTHERWISE NOTED		
DATE 11-9-07	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CHERRINGTON. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CHERRINGTON IS PROHIBITED.	TOLERANCES ON		
DO NOT SCALE		DECIMALS	FRACTIONS	ANGLES
		.XX±.060	±1/32	±1°
		.XXX±.030		
TITLE WHEEL ASSY, 26 X 12-12		PART NO. 470152		



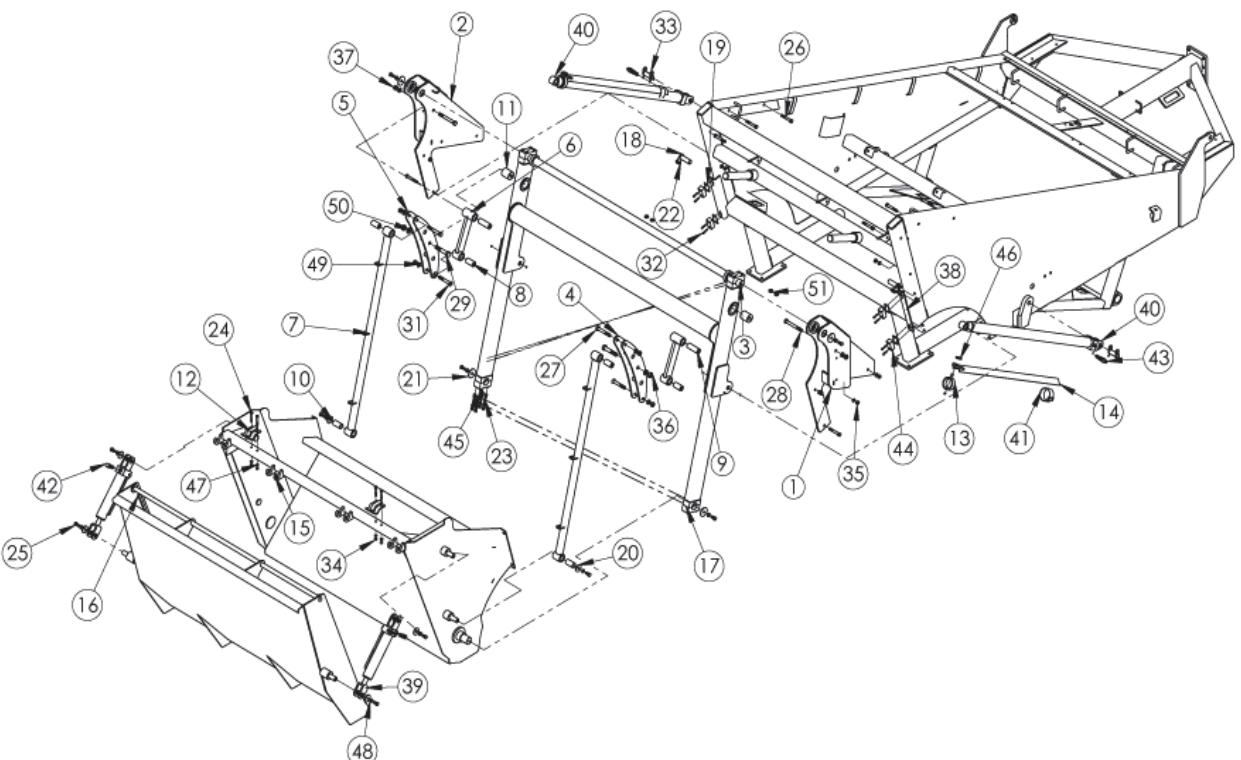
SHIELDS LEGEND

<u>ITEM #</u>	<u>QTY.</u>	<u>PART #</u>	<u>DESCRIPTION</u>
1	1	450088	FRAME, CONVEYOR COVER
2	1	450249	COOLER MT
3	1	450359	SHIELD: CONVEYOR CONTROL
4	1	450362	SHIELD: VALVE COVER WELD
5	2	470228	SHIELD, CONVEYOR
6	14	P100403	BOLT: HEX, 1/4"NC X 3/4" GR5
7	18	P100404	BOLT: HEX, 1/4"NC X 1"GR5
8	4	P100504	BOLT: HEX, 5/16" NC X 1" GR5
9	1	P117300	COOLER, HYD OIL AKG DC16-12
10	8	P126900	METAL BRONZE BEARING 1/4 X 3/8
11	4	P155250	NUT: HEX, 1/4" TOP-LOCK
12	4	P155350	NUT: HEX, 5/16 TOP-LOCK
13	20	P160251	NUT: KLIK 1/4-20 X .08-.14
14	36	P850104	WASHER: FLAT 1/4" ZP
15	4	P850105	WASHER: FLAT 5/16" ZP
16	28	P851104	WASHER: LOCK 1/4"
17	4	P851105	WASHER: LOCK 5/16"
18	1	P999000	BOX: OWNERS MANUAL

*NOT PICTURED

71.P117310 HYD COOLING FAN ONLY

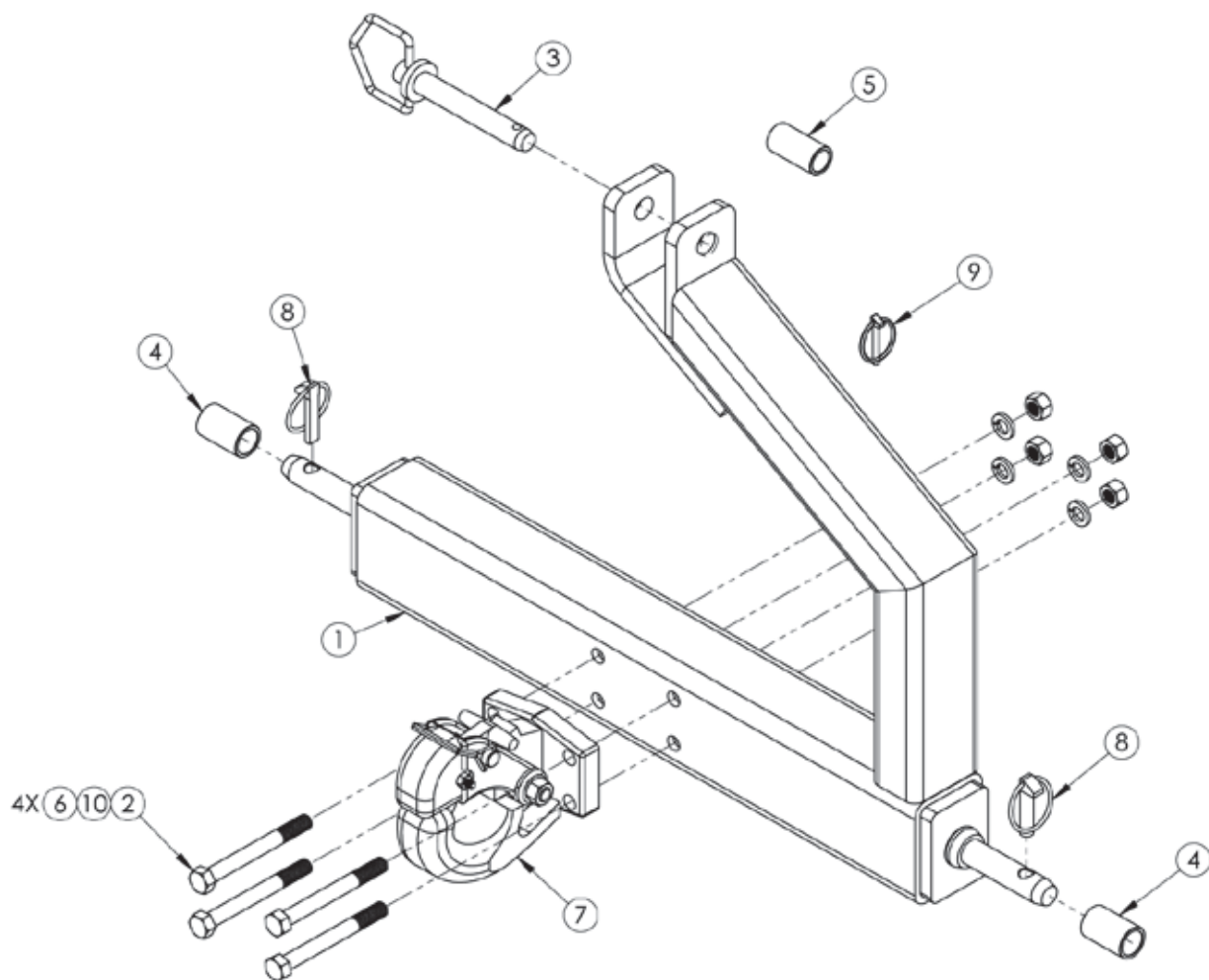
BOOM AND HOPPER SCHEMATIC



BOOM AND HOPPER LEGEND

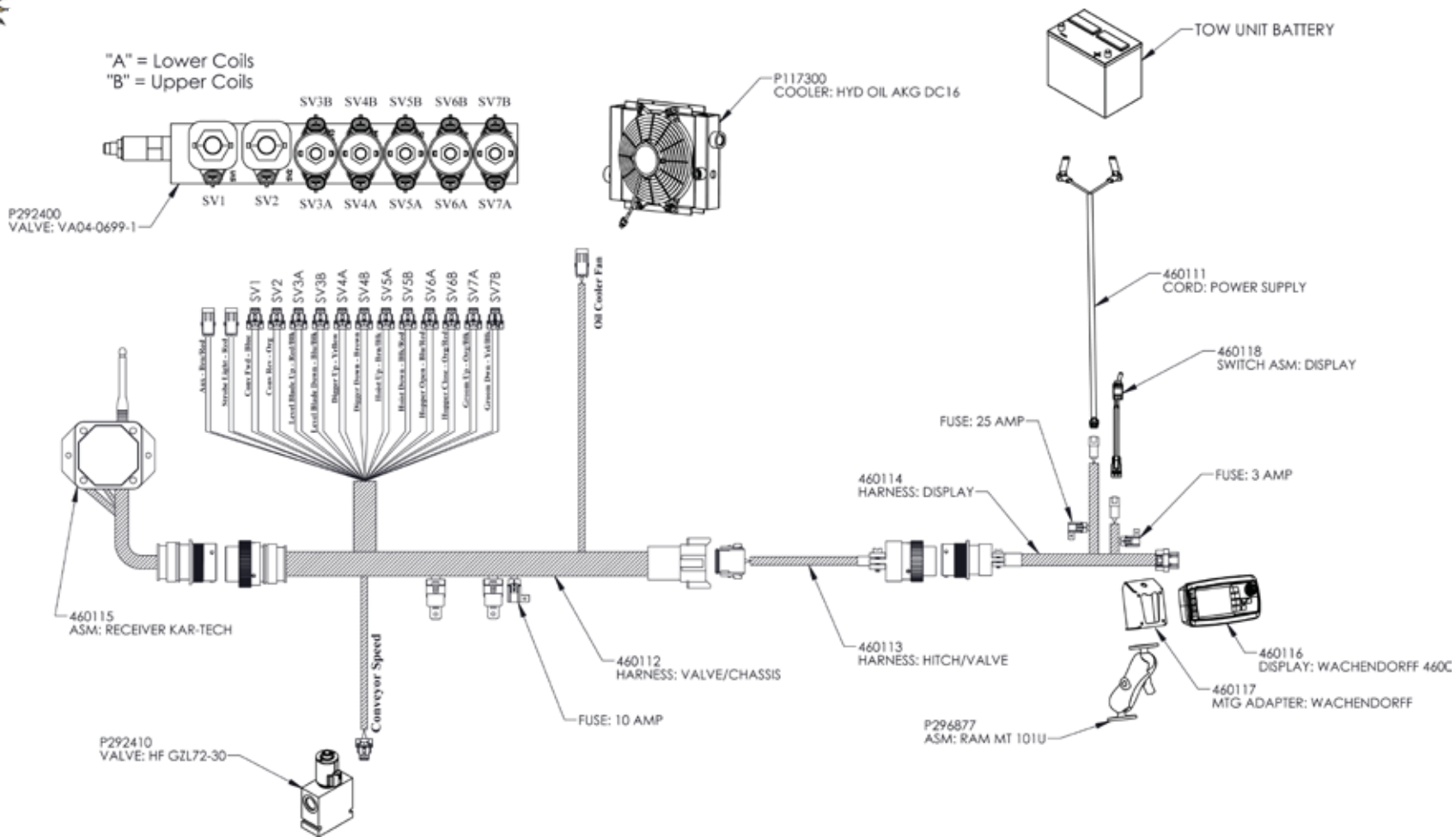
<u>ITEM NO.</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	450114	MT: HIGH LIFT RH
2	1	450115	MT: HIGH LIFT LH
3	1	450116	PIVOT, HIGH LIFT STABILIZER
4	1	450117	SCISSOR ARM WLD RH
5	1	450118	SCISSOR ARM WLD LH
6	2	450120	LINK: SCISSOR ACTION BASE
7	2	450121	LINK: SCISSOR ACTION PARALLEL
8	4	450138	BUSHING: NYL 1.25 X .625 X 2.312
9	2	450139	BUSHING, NYL 1.25 X .625 X 3.5
10	2	450140	BUSHING: NYL 1.25 X 1 X 2.312
11	2	450141	BUSHING: NYL 2 X .75 X 2.312
12	2	450149	HOPPER LOCK, WLD
13	2	450193	RETAINER, PROP BAR
14	2	450194	SAFETY PROP BAR ASM
15	1	450253	HOPPER BASE WLD 4500B
16	1	450255	HOPPER DOOR WELD 1.5
17	1	450257	BOOM WLD 4500B
18	2	480087	PIN, 1" X 3" LOCK
19	4	M30079	SPACER, BUMPER
20	6	M5009-5	3/16" X 1/2" X 1-3/4" WASHER
21	4	M5462	3/16 X 1/2 ID X 2-1/4 OD WASHER
22	2	P100604	3/8-16 X 1.0" HEX BOLT
23	16	P100609	3/8-16 X 2-1/4 HEX BOLT
24	4	P100610	3/8-16 X 2-1/2 HEX BOLT
25	10	P100804	1/2-13 X 1" HEX BOLT
26	8	P100813	1/2-13 X 3-1/4" HEX BOLT
27	2	P101016	BOLT: HEX 5/8-11 X 4" GR8
28	2	P101021	BOLT: HEX 5/8-11 X 5-1/4
29	2	P101216	BOLT, HEX 3/4-10 X 4 GR8
30	2	P108606	SET SCREW, 3/8-16 X 3/8
31	2	P110750	BOLT: FLAT HD SOCKET 5/8-11 X 4" Z
32	8	P110912	CAPSCREW, 1/4-20 X 1-1/4 ALLEN HD
33	2	P120850	CLEVIS PIN: 1"
34	6	P155450	3/8-16 TOP LOCK NUT
35	8	P155850	NUT HEX, 1/2-13 TOP LOCK
36	2	P157120	3/4-10 TOP LOCK NUT
37	6	P157500	5/8-11 TOP LOCK NUT
38	8	P158003	NUT, HEX, 1/4 ELASTIC STOP
39	2	P259330	CYL, 2B X 8S W/CAV CH
40	2	P259335	CYL; 2B X 42S W/CAV 1" BARREL END
41	2	P259999	STRAP: 12" STD DUTY CINCH
42	2	P294250	VALVE, PILOT CHECK CKCB-XFN
43	2	P294260	VALVE, COUNTERBALANCE CHECK CBCG-LJN
44	4	P605000	SPRING BUMPER
45	4	P620200	1/4-28 STR GREASE FITTING
46	2	P622604	PIN, LYNCH 3/16 X 1-1/4
47	22	P851106	3/8" LOCK WASHER
48	18	P851108	1/2" LOCK WASHER
49	6	P851110	5/8" LOCK WASHER
50	2	P851112	3/4 LOCK WASHER
51	4	P851606	3/8" HEAVY WASHER
OPT.	1	450262	HOPPER DOOR WLD. 1.75

THREE POINT ADAPTER SCHEMATIC



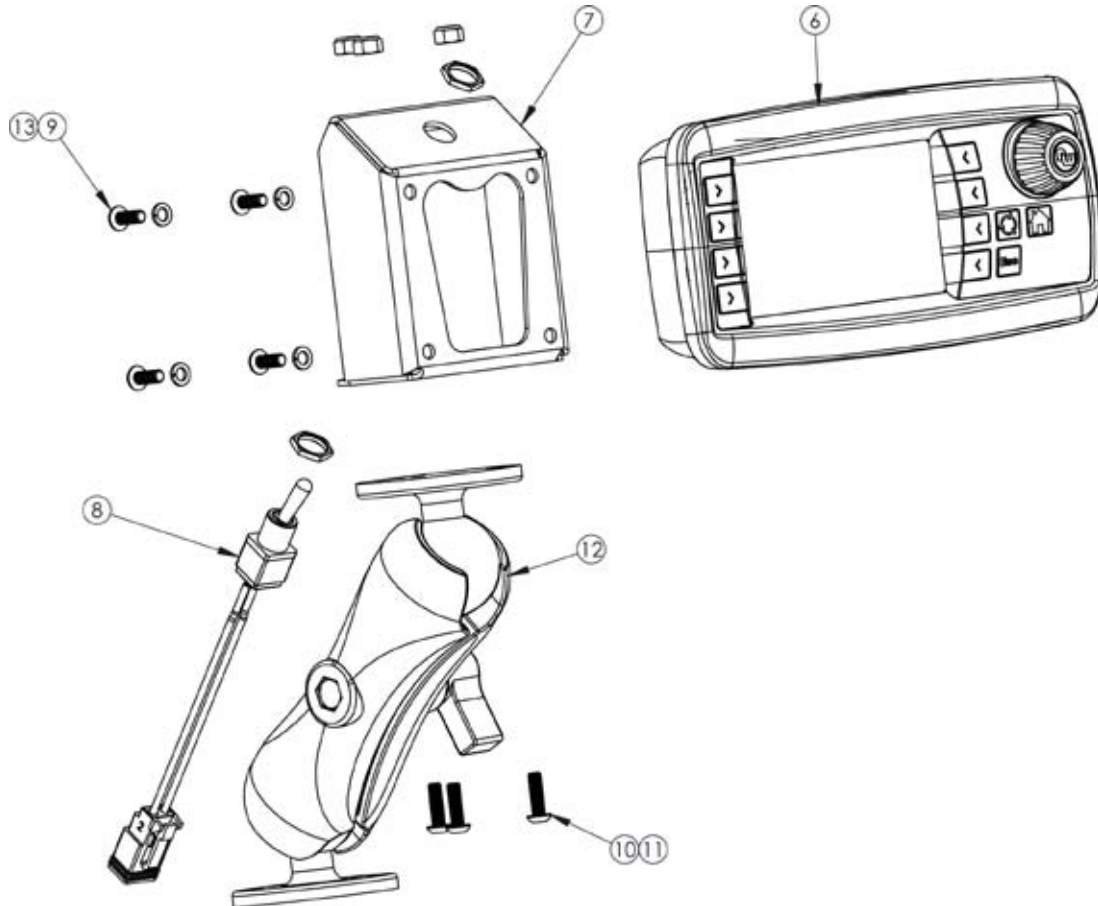
THREE POINT ADAPTER LEGEND

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	450327	PINTLE ADAPTER: 3PT CAT 1
2	4	P100818.8	1/2-13 X 4 1/2" HEX BOLT GR 8
3	1	P121100	PIN: HITCH, 3/4" #71031C
4	2	P135800	BUSHING: LIFT ARM CAT.1-2 #B821
5	1	P135801	BUSHING: TOPLINK CAT.1-2 #B831
6	4	P155850	NUT: HEX, 1/2" TOP-LOCK
7	1	P466100	PINTLE HOOK: 15 TON
8	2	P622603	PIN: LYNCH, 7/16" X 1-1/4
9	1	P622604	PIN: LYNCH, 3/16" X 1 1/4"
10	4	P851108	WASHER: LOCK 1/2"



CONTROL AND ELECTRICAL SCHEMATIC

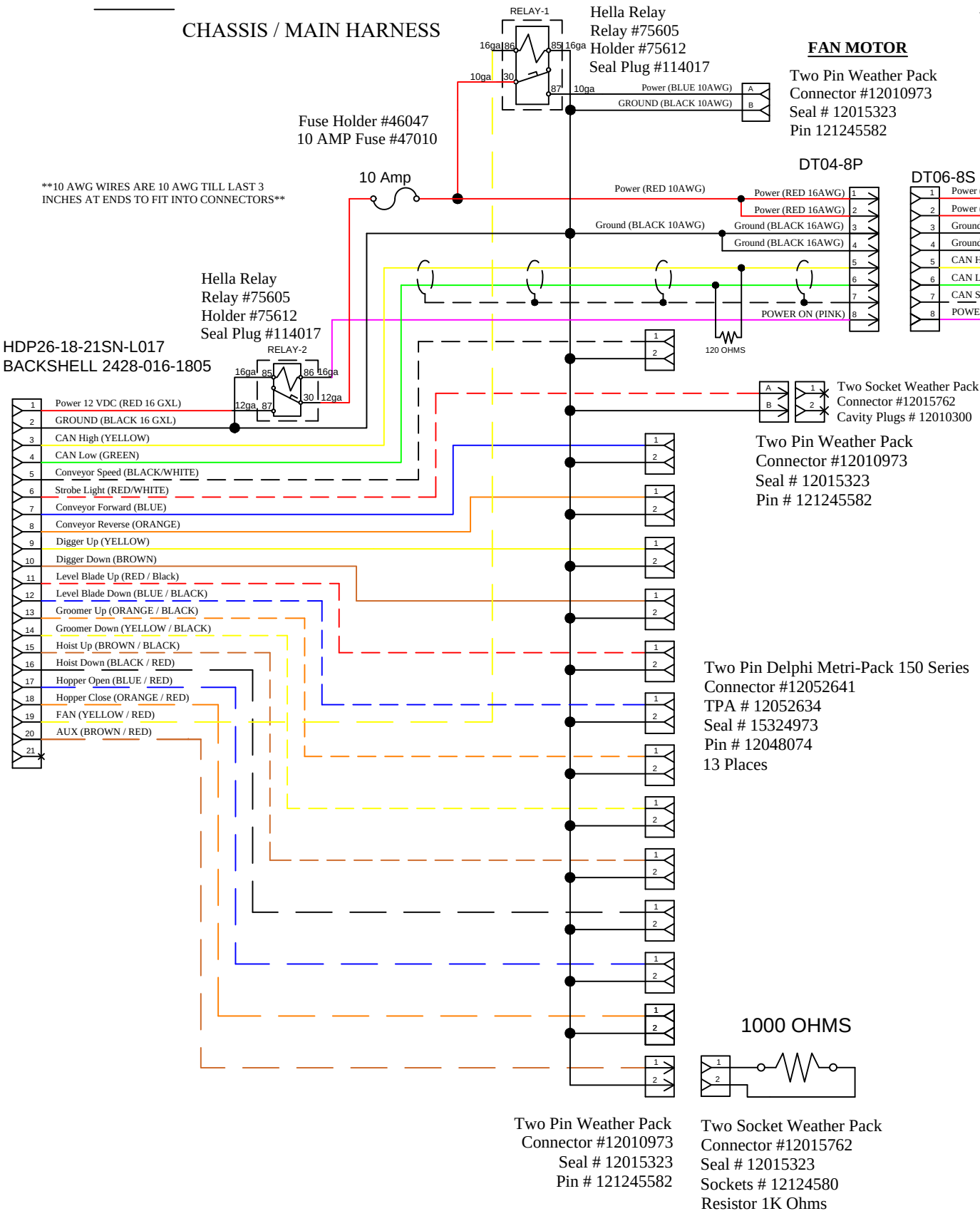
CONTROL AND ELECTRICAL LEGEND



<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	460111	CORD: POWER SUPPLY
2	1	460112	HARNESS: VALVE/CHASSIS
3	1	460113	HARNESS: HITCH/VALVE
4	1	460114	HARNESS: DISPLAY
5	1	460115	ASM: RECEIVER KAR-TECH
6	1	460116	DISPLAY: WACHENDORFF 4600
7	1	460117	MTG ADAPTER: WACHENDORFF
8	1	460118	SWITCH ASM: DISPLAY
9	4	P106102	SCREW: BHSCS 10-32 X1/2 SS
10	3	P106105	SCREW: BHSCS 10-32 X 5/8 SS
11	3	P158010	NUT: HEX, #10-32 NYLOCK SS
12	1	P296877	ASM: RAM MT 101U
13	4	P851103	WASHER: LOCK 3/16" GALV

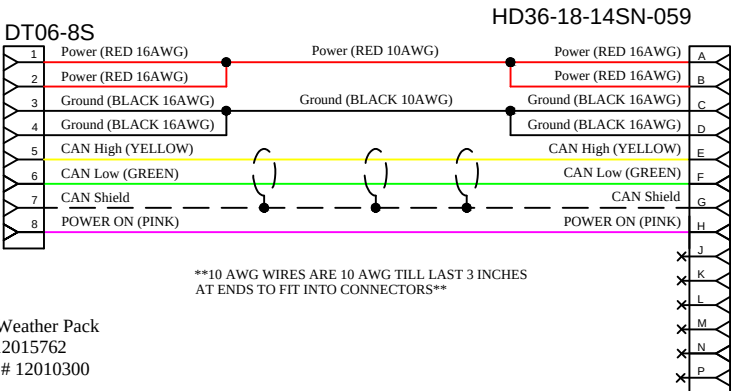
W3 71.460112

CHASSIS / MAIN HARNESS



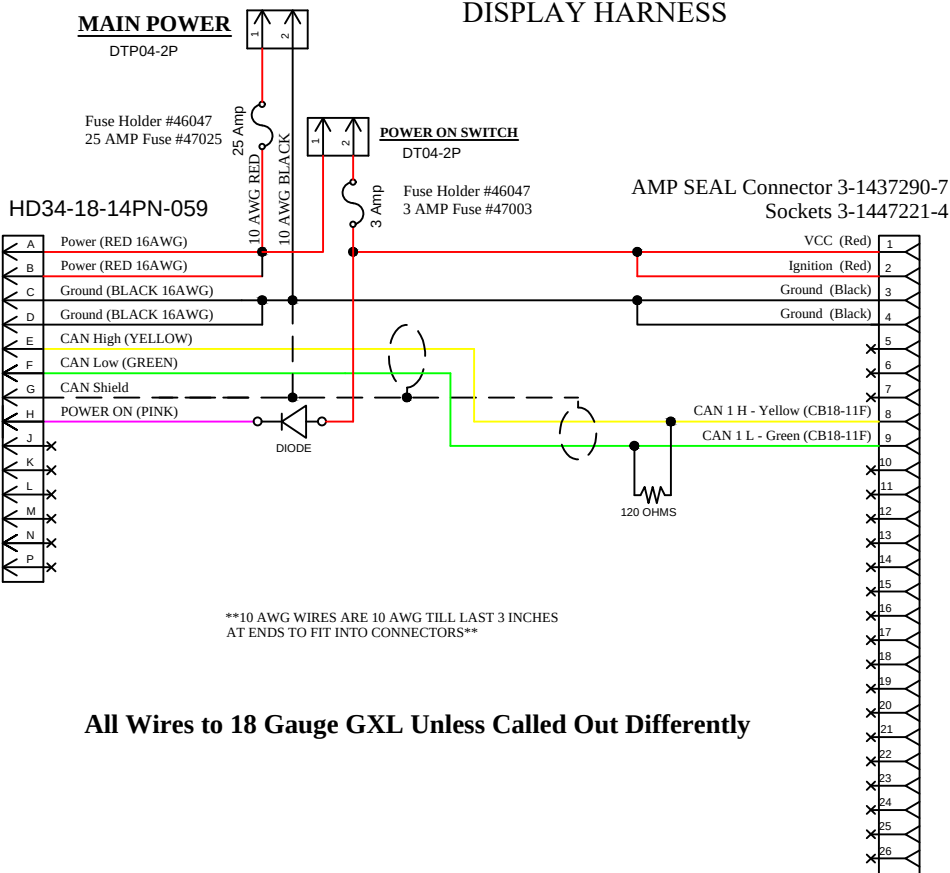
W2 71.460113

HITCH HARNESS



W1 71.460114

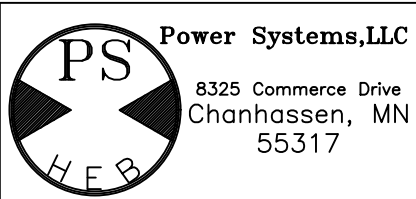
DISPLAY HARNESS



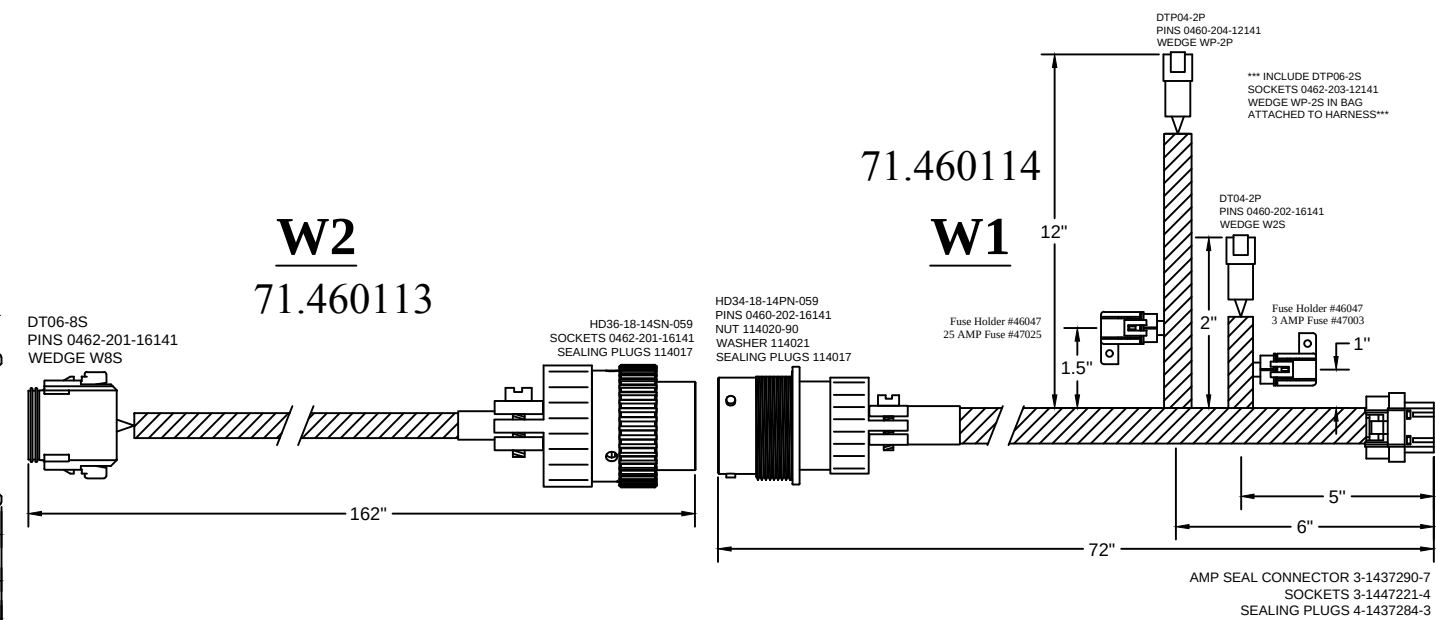
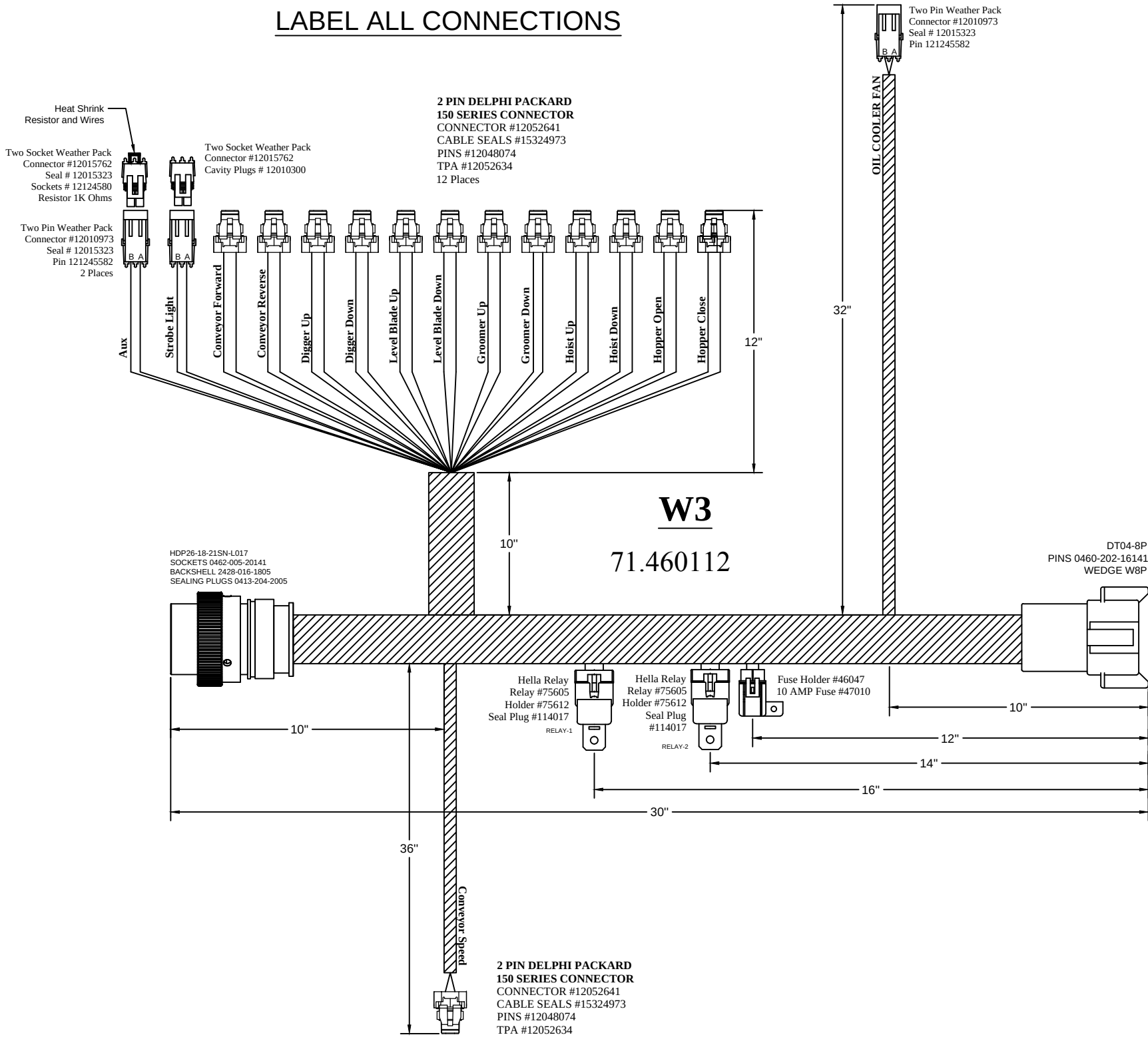
All Wires to 18 Gauge GXL Unless Called Out Differently

*NOT SHOWN: 71.460111 12 VOLT POWER SUPPLY CABLE
(CONNECTS TO MAIN POWER CONNECTOR AND 12 VOLT BATTERY)

B	CJ	09/01/17		XXX	Corrected Drawing to Yellow wire color for CAN High
B	CJ	05/06/16	ECN5959	XXX	Added Diode to Power On Wire
A	CJ	09/20/13	ECN4755	XXX	Released to Production
REV.	BY	DATE	ECN	CHECK	DESCRIPTION OF CHANGES



DWG	TITLE Harness 1,2,3					
B	DRAWN BY	CHECK BY	DATE	PAGE	DRAWING NO.	REV.
SIZE	CJ	XXX	09/16/13	1 of 2	EA1678-W1,2,3	B



B	CJ	09/01/17		XXX	Corrected Drawing to Yellow wire color for CAN High
B	CJ	05/06/16	ECN5959	XXX	Added Diode to Power On Wire
A	CJ	09/20/13	ECN4755	XXX	Released to Production
REV.	BY	DATE	ECN	CHECK	DESCRIPTION OF CHANGES

PS

HERB

Power Systems,LLC

8325 Commerce Drive
Chanhassen, MN
55317

DWG

B

SIZE

TITLE

Harness 1,2,3

DRAWN BY

CJ

CHECK BY

XXX

DATE

09/16/13

PAGE

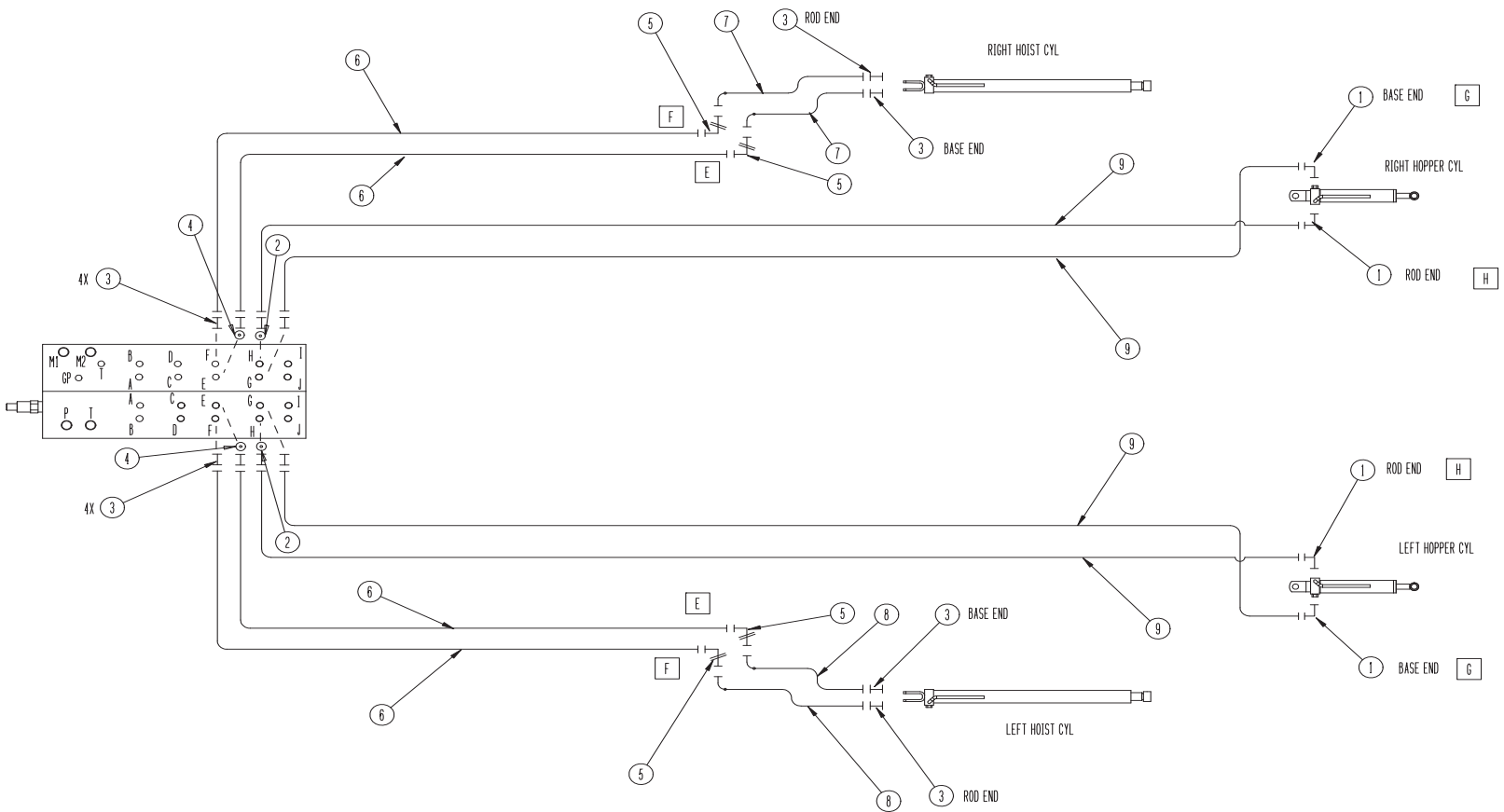
2 of 2

DRAWING NO.

EA1678-W1,2,3

REV.

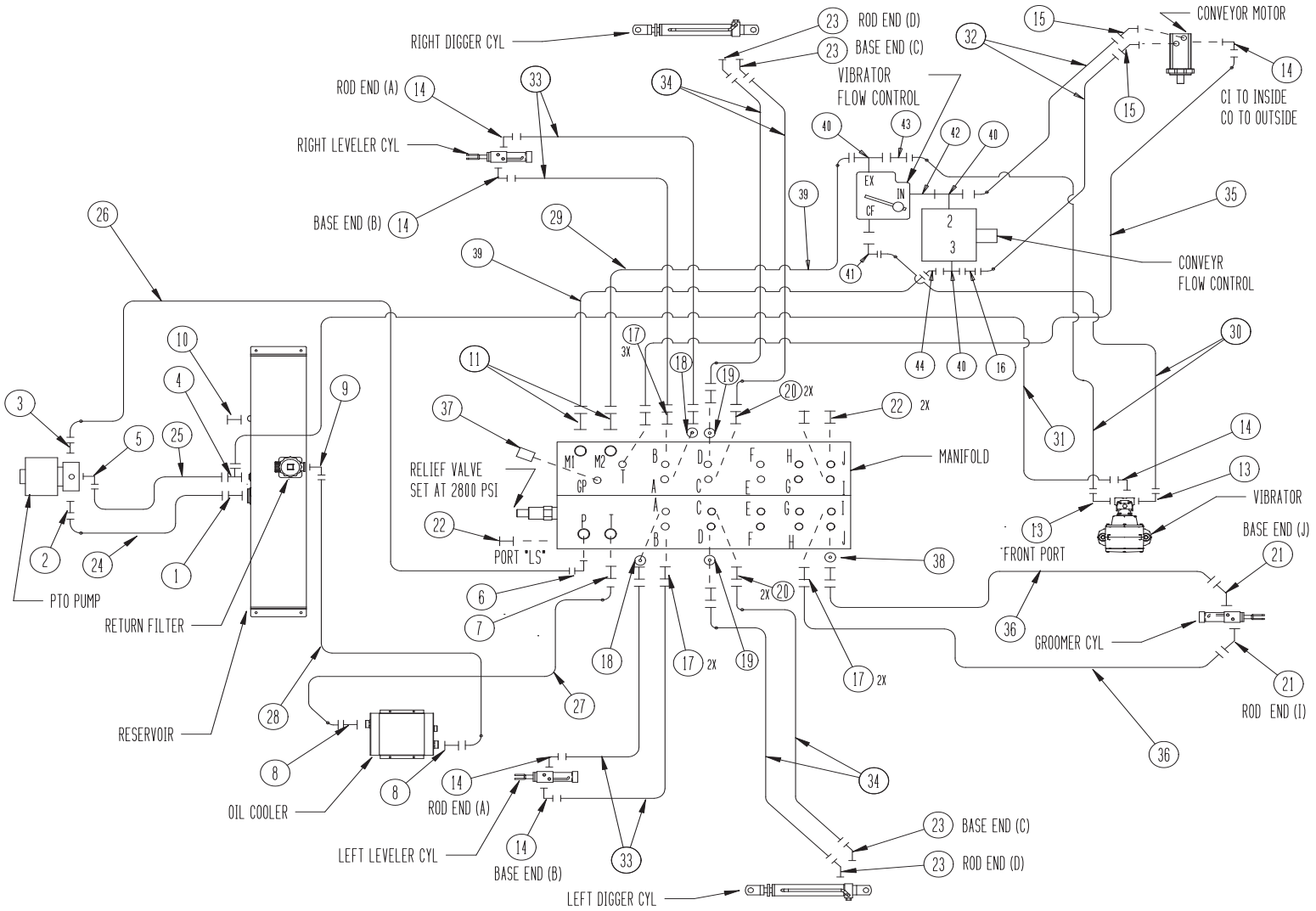
B



HIGH LIFT CIRCUIT SCHEMATIC

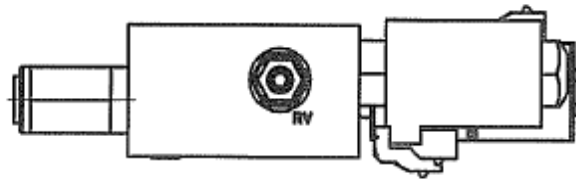
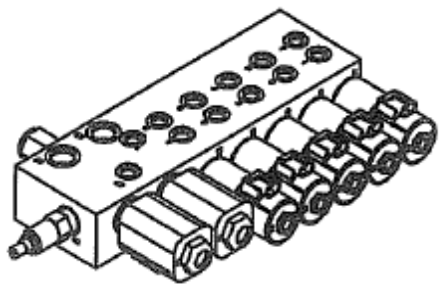
HIGH LIFT CIRCUIT LEGEND

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	4	P261350	FITTING 6MJ 6MB 90
2	2	P276107	FITTING 6MB DISC W/.062 ORIFACE
3	12	P276101	FITTING 6MJ 6MB
4	2	P276108	FITTING 6MB DISC W/.110 ORIFACE
5	4	P265410	FITTING 6MJ 6MJ BULKHEAD 90
6	4	P233119	HOSE -AM-6 X 119" 6FJ 6FJ
7	2	P233918	HOSE -AM-6 X 18" 6FJ 6FJ 90
8	2	P233926	HOSE -AM-6 X 26" 6FJ 6FJ 90
9	4	P233250	HOSE -AM-6 X 250" 6FJ 6FJ



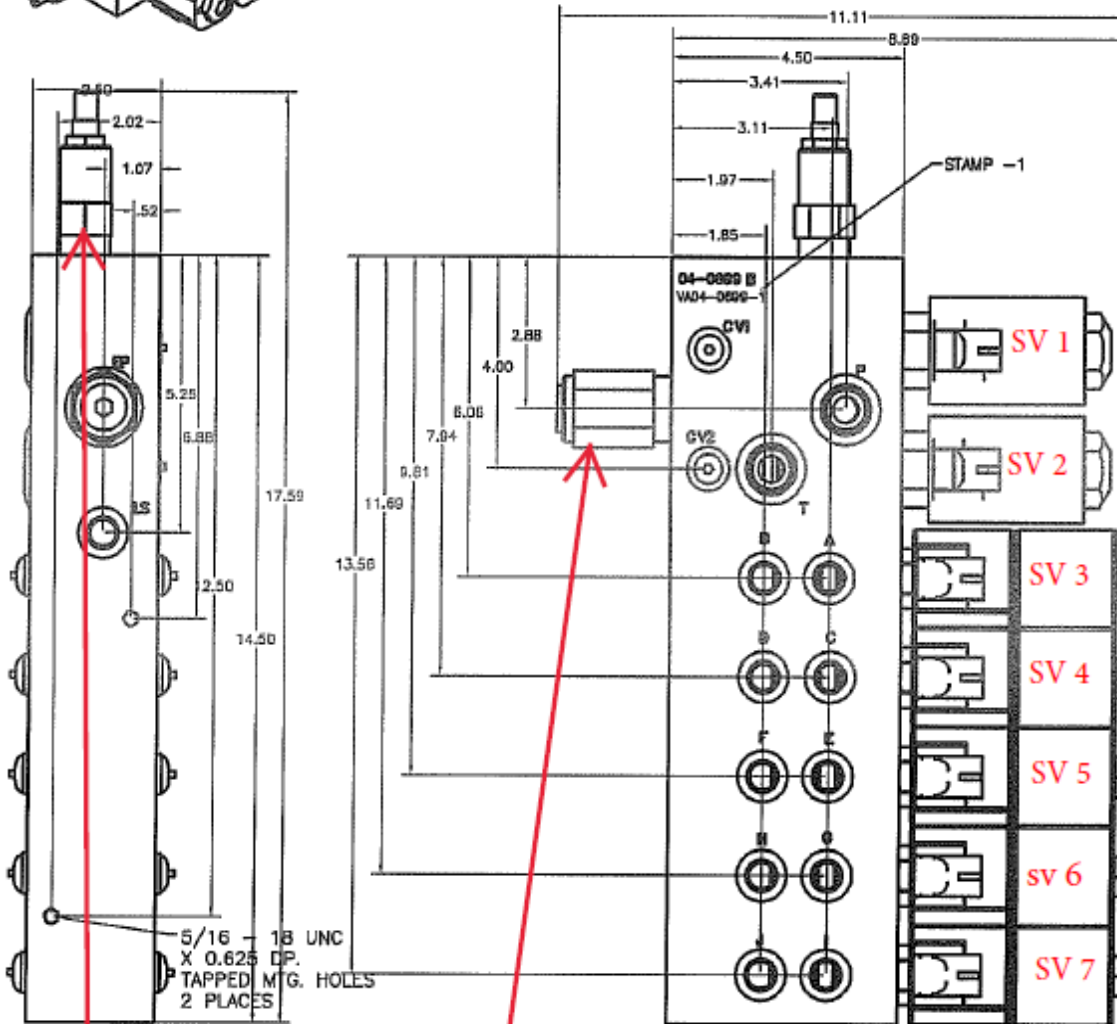
MAIN HYDRAULIC CIRCUIT LEGEND

<u>ITEM</u>	<u>QTY</u>	<u>PART NO</u>	<u>DESCRIPTION</u>
1	1	P277192	FITTING 20MJ 24MB
2	1	P277190	FITTING 20MJ 20MB
3	1	P276458	FITTING 10MJ 12MB
4	1	P265654	FITTING 6MJ 8MB 6MJ
5	1	P261350	FITTING 6MJ 6MB90
6	1	P276202	FITTING 10MJ 10MB90
7	1	P276440	FITTING 12MJ 10MB
8	2	P277100	FITTING 12MJ 16MB
9	1	P277106	FITTING 12MJ 16MB90
10	1	P278005	FITTING 8MB PLUG
11	2	P276200	FITTING 10MJ 10MB
12	1	P276430	FITTING 8MJ 10 MB
13	2	P261010	FITTING 8MJ 8MB90
14	6	P261400	FITTING 4MJ 4MB90
15	2	P276201	FITTING 10MJ 10MB45
16	1	P276442	FITTING 10MJ 10 FJX
17	7	P261452	FITTING 4MJ 6MB
18	2	P276105	FITTING 6MB DISC W/.032 ORIFACE
19	2	P276108	FITTING 6MB DISC W/.110 ORIFACE
20	4	P276101	FITTING 6MJ 6MB
21	2	P261420	FITTING 4MJ 4MB45
22	3	P270906	FITTING 6MB PLUG
23	4	P261525	FITTING 6MJ 6MB45
24	1	P289981	HOSE-FX-20 X 81" 20FJ 20FJ90
25	1	P233087	HOSE- AM-6 X 87" 6FJ 6FJ
26	1	P235106	HOSE- AM-10 X 106" 10FJ 10FJ90 W/ CORDURA
27	1	P236031	HOSE-AM-12 X 31" 12FJ45 12FJ90 (180 ROTATION)
28	1	P236947	HOSE-AM-12 X 47" 12FJ 12FJ90
29	1	P235029	HOSE-AM-10 X 29" 10FJ 10FJ
30	2	P234114	HOSE-AM-8 X 114" 8FJ 8FJ45
31	1	P232164	HOSE-AM-4 X 164" 4FJ 6FJ
32	2	P235120	HOSE-AM-10 X 120" 10FJ 10FJ45
33	4	P232956	HOSE-AM-4 X 56" 4FJ 4FJ90
34	4	P233946	HOSE-AM-6 X 46" 6FJ 6FJ90 LONG
35	1	P232158	HOSE-AM-4 X 158" 4FJ 4FJ45
36	2	P232172	HOSE-AM-4 X 172" 4FJ 4FJ
37	1	P276290	NIPPLE, DIAGNOSTIC
38	1	P276107	FITTING: 6MB DISC W/.062 ORIFACE
39	1	P235930	HOSE-AM-10 X 39" 10FJ 10FJ90
40	3	P265703	FITTING 10MJ 10MJ 10MB
41	1	P261554	FITTING 8MJ 8FJX90
42	1	P276444	FITTING 10MB 10FJX
43	1	P276454	FITTING 8MJ 10FJ
44	1	P276212	FITTING 10MJ 10FJX45

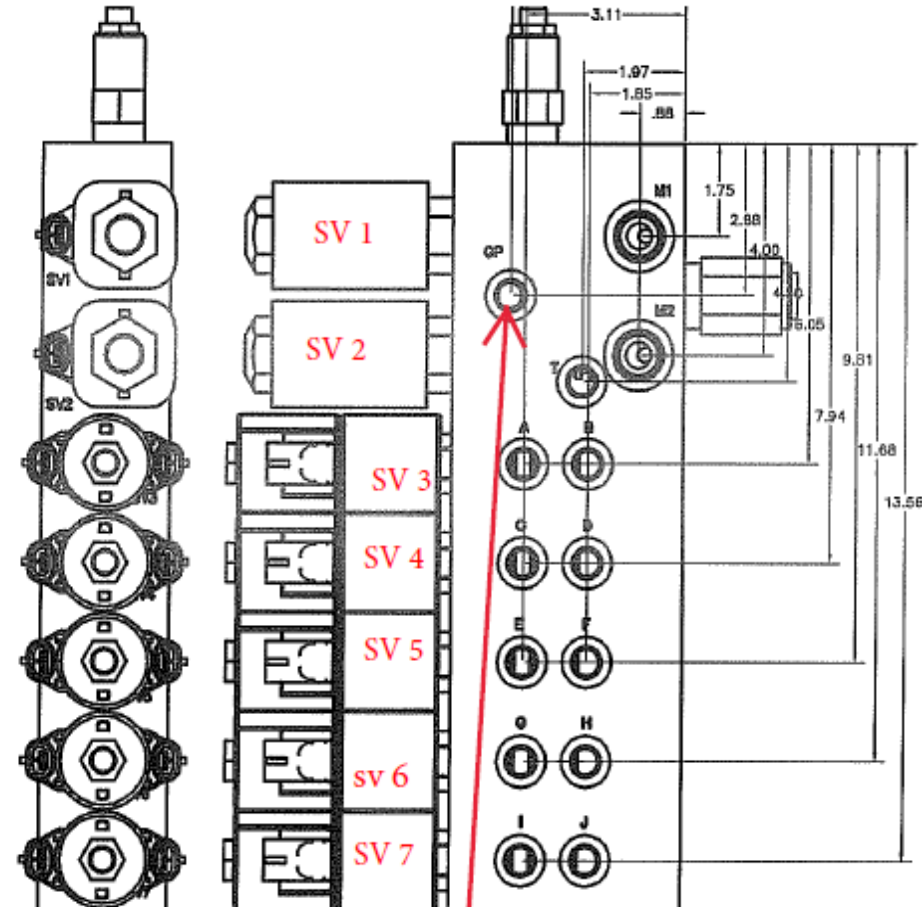


LOCATION	CARTRIDGE P/N	COIL P/N	SEAL KIT P/N
SV1	71.P291122	71.P291120	71.P291123
SV2	71.P291122	71.P291120	71.P291123
SV3	71.P292402	71.P291110	71.P291117
SV4	71.P292402	71.P291110	71.P291117
SV5	71.P291111	71.P291110	71.P291117
SV6	71.P292402	71.P291110	71.P291117
SV6	71.P292402	71.P291110	71.P291117
SV7	71.P292402	71.P291110	71.P291117
RELIEF	71.P292401		
EP	71.P291114		
EP	71.P291113		

(EP valve types do not interchange)
 Early EP: extends beyond the bottom of valve block
 Late EP: mounts basically flush with bottom of valve body



EP VALVE LOCATION
 (EARLY STYLE SHOWN P/N: 71.P291114)



HYDRAULIC TEST POR LOCATION (GP)

PORT LOCATIONS:

SV1 / SV2 - M1,M2-CONVEYOR, FORWARD/REVERSE
 SV3 - A+B-LEVEL BLADE, RAISE/LOWER
 SV4 - C+D-DIGGER LIFT, RAISE/LOWER
 SV5 - E+F-HOPPER LIFT, RAISE/LOWER
 SV6 - G+H-HOPPER DUMP, OPEN/CLOSE
 SV7 - I+J-GROOMER, RAISE/LOWER

CONTROL FUNCTIONS:

SV1 CONVEYOR FORWARD
 SV2 CONVEYOR REVERSE
 SV3 LEVELING BLADE RAISE / LOWER
 SV4 DEPTH CYLINDER (DIGGER POINT) RAISE / LOWER
 SV5 HOPPER BOOM RAISE / LOWER
 SV6 HOPPER DOOR (DUMP) OPEN / CLOSE
 SV7 GROOMER (FINISHER) RAISE / LOWER

MAIN VALVE P/N 71.P292400
USED ON MDL 4500 / 4600

PRESSURE RELIEF VALVE
 (ADJUST TO 2800 PSI)

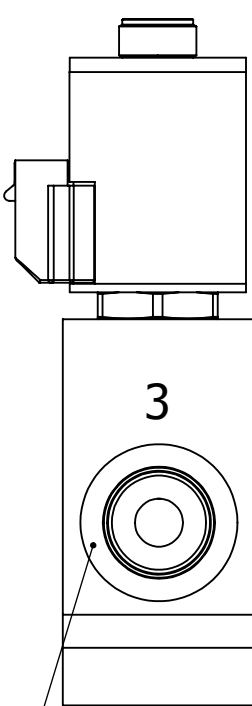
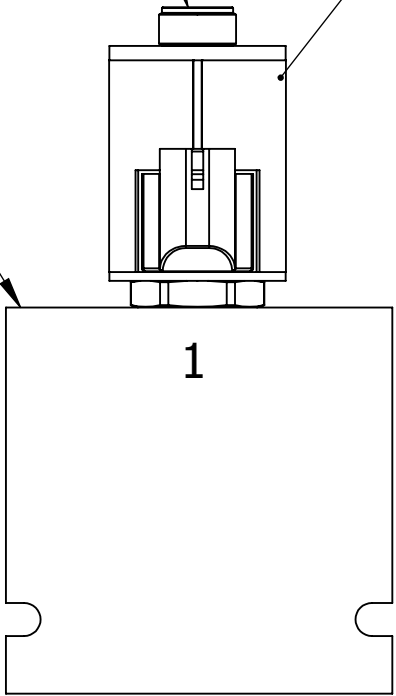
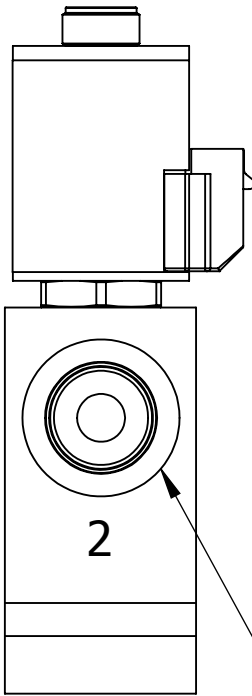
CONVEYOR SPEED PROPORTIONAL VALVE ASSEMBLY

COMPLETE VALVE ASSEMBLY
CBC P/N: 71.P292410

CARTRIDGE SPOOL VALVE
CBC P/N: 71.P292416

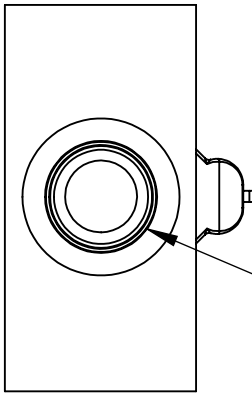
CARTRIDGE SPOOL SEAL KIT
CBC P/N: 71.P291123

12V PROPORTIONAL COIL
CBC P/N: 71.P292415



-10 O RING PORT

-10 ORING PORT
CONTROLLED FLOW



BOTTOM PORT PLUGGED

MANIFOLD WIRING DIAGRAM



MANIFOLD WIRING CONNECTIONS

