



PARTS CATALOG

HYDRA-RAM 490 MANURE SPREADER



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HYDRA-RAM 490 MANURE SPREADER

(SPECIFICATIONS AND DESIGN SUBJECT TO CHANGE WITHOUT NOTICE)

DIRECTION ARROW

ARROWS ARE USED WITH ILLUSTRATIONS TO INDICATE THE FRONT OF THE UNIT. "RIGHT-HAND" AND "LEFT-HAND" SIDES ARE DETERMINED BY FACING THE DIRECTION OF MACHINE FORWARD TRAVEL.

BOX ENCLOSED ILLUSTRATIONS

A REFERENCE NUMBER, SHOWN IN THE PARTS LIST, IS ASSIGNED TO A BOX ENCOMPASSING ALL PARTS SOLD AS A SERVICE ASSEMBLY.

REFERENCE NUMBER IDENTIFICATION

000-099 PARTS USED FOR ASSEMBLY
100-199 BOLTS & FASTENERS
800-899 REPLACEMENT PARTS OR SERVICE ASSEMBLIES –
USED TO REPLACE OR REBUILD COMPONENTS OF THE
MACHINE

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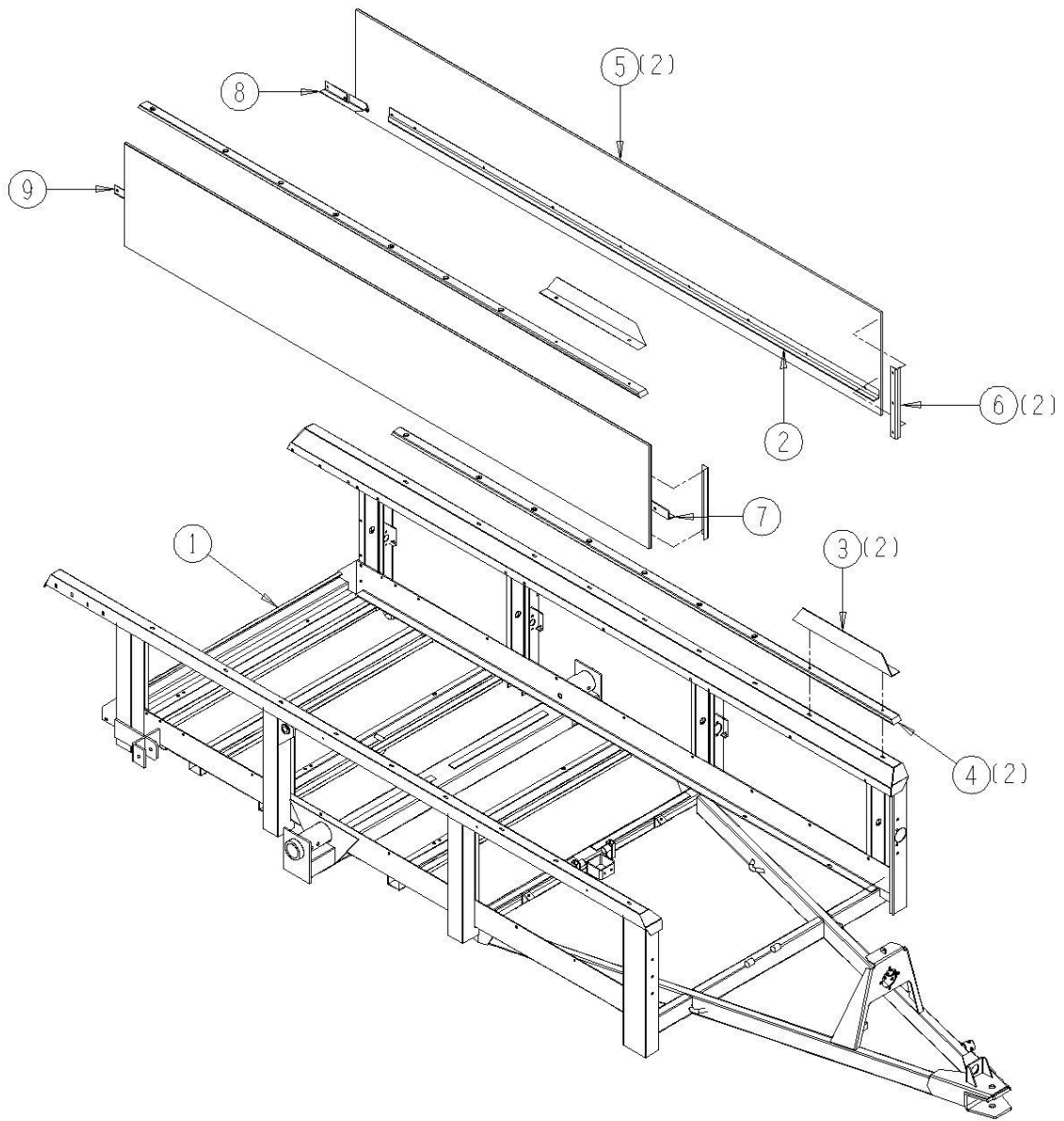
7204-4-6 Manual Holder 70

PARTS
CATALOG

7204-1-1 Main Frame & Side Panels

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR22477	Main Frame, Spreader, 490	1	72005020-	
1	PR22476	Main Frame,490 SPREADER	0	72004001- 72005019	
2	PR38364	Angle, Sliding Floor, Left Side, 490	1		
3	PR39181	Splash Guard, 490	2		
4	PR44526	Bumper Rail, Top Rail Protector, 490	2		
5	PR44534	Panel Side Walls, 490 Spreader	2		
6	PR51535	End Cover, Front Side Panel, 490 Spreader	2		
7	PR38366	Angle, Sliding Floor, Right Side, 490	1		
8	PR38362	Angle Iron, Rear, Left 490 Spreader	0	72004001- 72005019 72005020- Use PR38368	
8	PR38368	Floor Retainer, Rear, LH	1	72005020-	
9	PR38363	Angle Iron, Rear, Right 490 Spreader	0	72004001- 72005019 72005020- Use PR38369	
9	PR38369	Floor Retainer, Rear, RH	1	72005020-	
101	BL-6-150-C	3/8 UNC X 1 1/2 CARRIAGE BOLT GR5 ZINC	18		
102	BL-6-FW	3/8 USS FW ZC	18		
103	BL-6-LW	3/8 SPLIT LW ZC	18		
104	BL-6-N	3/8-16 HEX NUTS ZC	18		

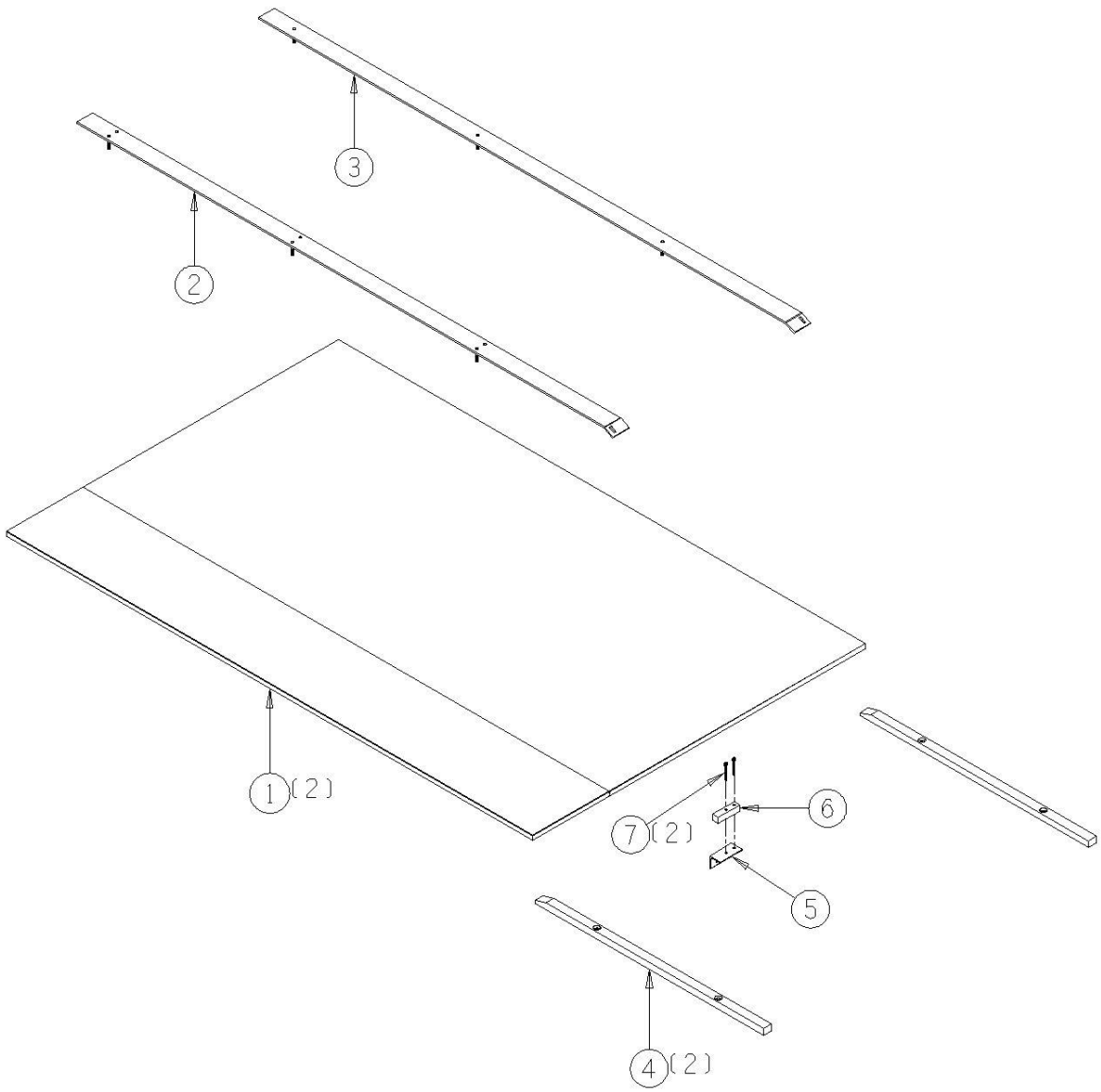
7204-1-1 MAIN FRAME & SIDE PANELS



7204-1-2 Main Floor & Wear Strips

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR44530	Panel, Main Floor, High Density, 490 Spreader	1		
2	PR21065	Wear Strip, 490 Spreader	1		
3	PR21066	Wear Strip, Spreader Floor, 490 Spreader	1		
4	PR30998	Slide, Wood, 490 Spreader	2		
5	PR33555	Angle	1		
6	PR32639	Support, Cylinder, UHMW	1		
7	PIN-C4-32	Cotter Pin .25 x 2"	2		
101	BL-6-FW	3/8 USS FW ZC	9		
102	BL-6-LN	3/8 UNC FIN HEX LOCK NUT NE A563 GrA ZINC	15		
103	BL-6-200-C	3/8 UNC X 2 CARRIAGE BOLT GR5 ZINC	4		
104	BL-6-150-C	3/8 UNC X 1 1/2 CARRIAGE BOLT GR5 ZINC	2		

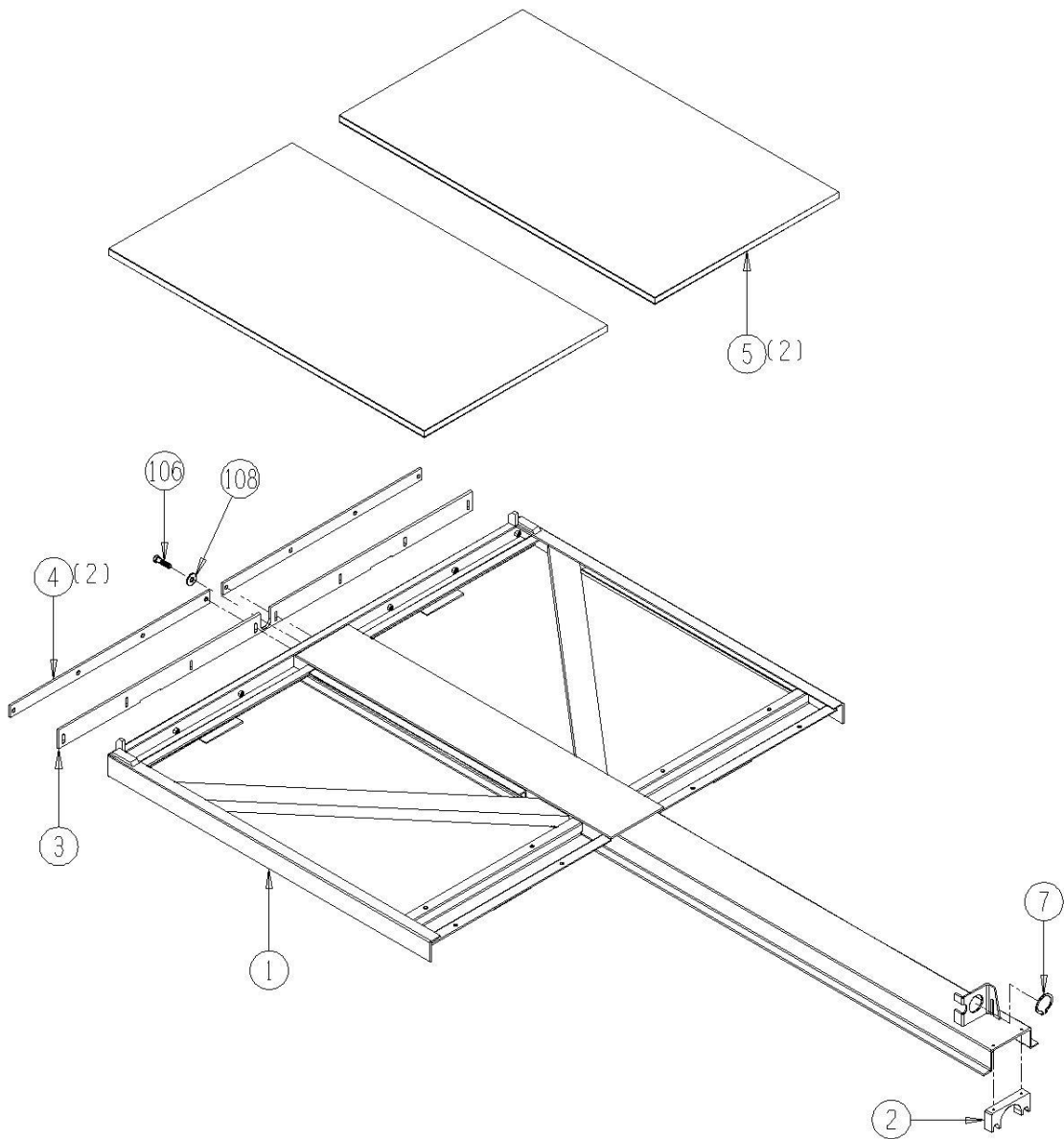
7204-1-2
MAIN FLOOR & WEAR STRIPS



7204-1-3 Sliding Floor

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR25869	Sliding Floor, 490 Spreader	1	S.N. - 72009012	
2	PR27331	Hydraulic Cylinder Guide, 490 Spreader	1		
3	PR32601	Flat, Rubber Scaper, 490 Spreader	1		
4	PR32599	Flat Bar, Scraper, 490 Spreader	2		
5	PR44562	Sliding Floor Panel, 490 Spreader	2		
6	HA-1031	Hydraulic Hose Holder 3/8	1		
7	PR15411	Retaining Ring, 490	1		
101	BL-5-200-H	5/16-18 X 2 HEX CAP G5 ZC	8		
102	BL-6-FW	3/8 USS FW ZC	12		
103	BL-6-250-C	3/8 UNC X 2 1/2 CARRIAGE BOLT GR5 ZINC	4		
104	BL-4-075-H	1/4 UNC X 3/4 HH C/S BOLT GR5 ZINC	1		
105	BL-4-FW	1/4 USS FW ZC	1		
106	BL-M12-40	12MM Bolt, Coarse Thread, 40MM Length	1		
107	BL-4-125-HL	1/4 X 1 1/4 HEX Lag Screw G2 ZC	2		
108	BL-8-FW-8	1/2 FLAT WASHER G8 ZC	1		

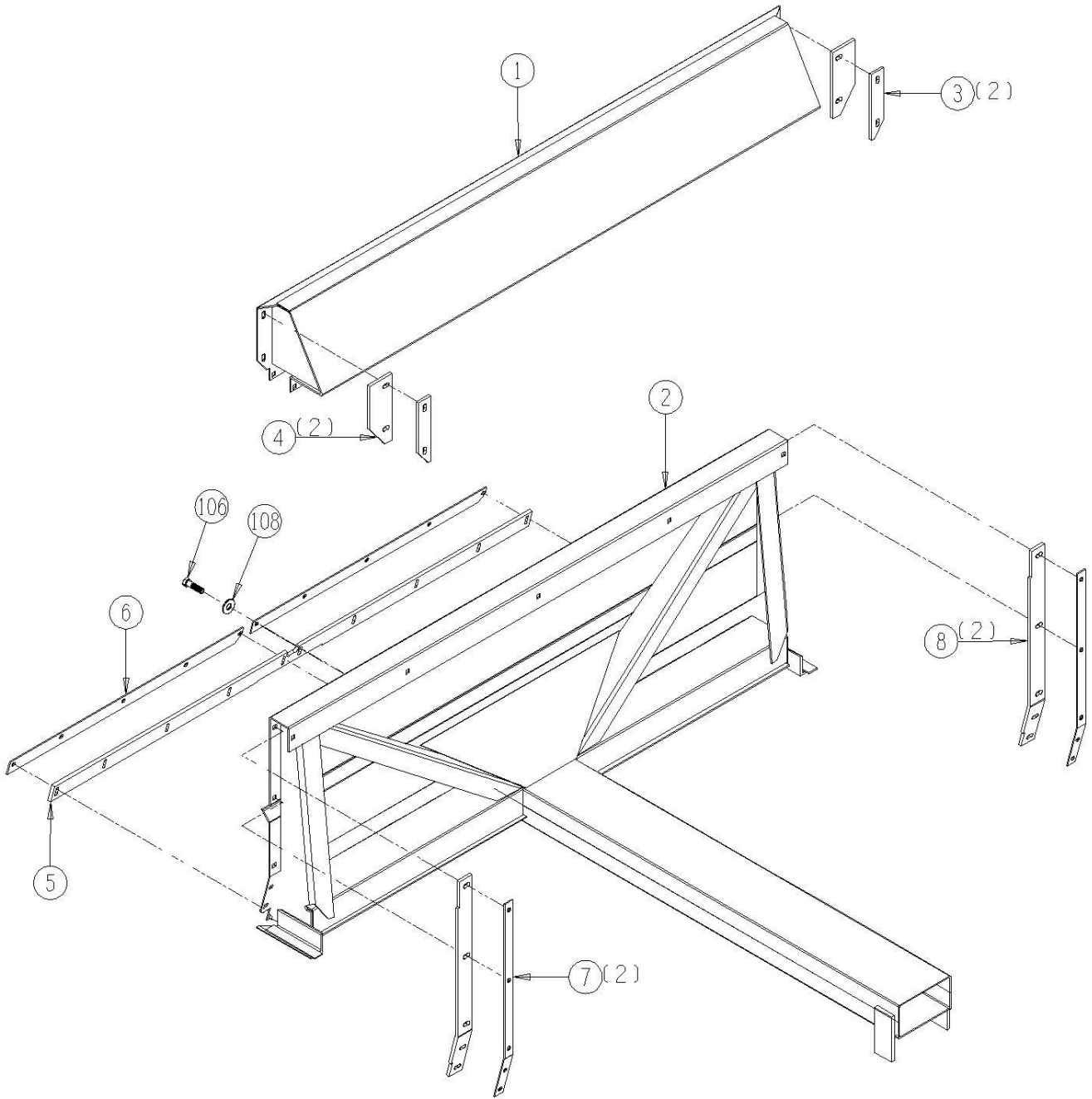
7204-1-3 SLIDING FLOOR



7204-1-4 Moving Panel

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR20699	Extension, Moving Floor, 490 Spreader	1		
2	PR25870	Front Panel, Moving Panel, 490 Spreader	1	S.N. - 72009012	
3	PR39188	Top Panel Plate, Top Panel, 490 Spreader	2	PR39188	
4	PR39187	Top Panel Rubber, Top Panel, 490 Spreader	2		
5	PR33400	Bottom Rubber, Moving Panel, 490	1		
6	PR33057	Bottom Plate, Moving Panel, 490 Spreader	2		
7	PR37307	Side Plate, 490 Spreader	2		
8	PR37305	Side Rubber, Moving Panel, 490 Spreader	2		
9	PR15411	Retaining Ring, 490	1		
101	BL-6-250-C	3/8 UNC X 2 1/2 CARRIAGE BOLT GR5 ZINC	5		
102	BL-6-150-C	3/8 UNC X 1 1/2 CARRIAGE BOLT GR5 ZINC	12		
103	BL-6-125-8	3/8-16 X 1 1/4 HH C/S GR8 ZC	10		
104	BL-6-FW	3/8 USS FW ZC	10		
105	BL-6-LN	3/8 UNC FIN HEX LOCK NUT NE A563 GrA ZINC	19		
106	BL-M12-40	12MM Bolt, Coarse Thread, 40MM Length	1		
108	BL-8-FW-8	1/2 FLAT WASHER G8 ZC	1		

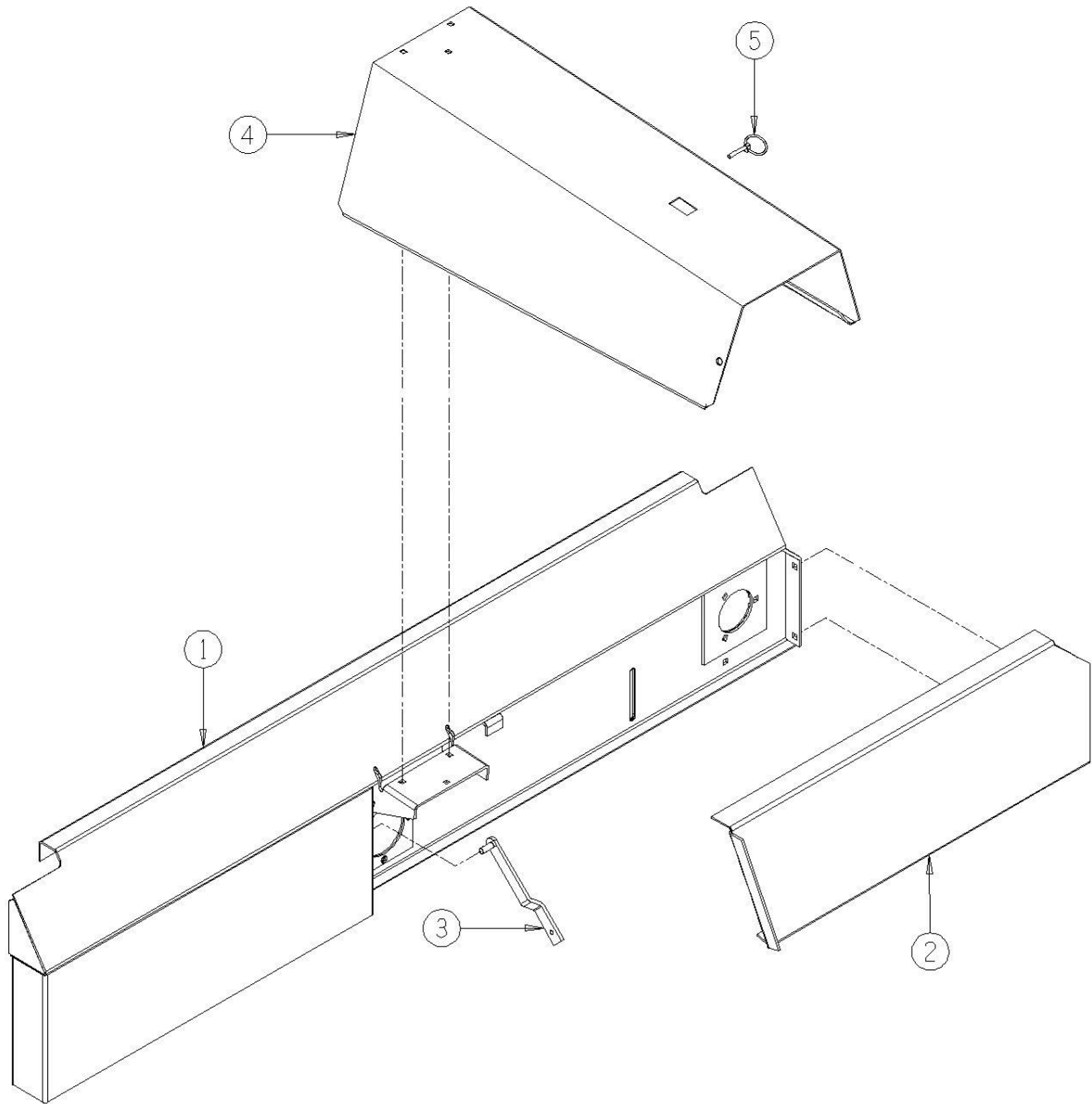
7204-1-4 MOVING PANEL



7204-1-5 Front Panel & Drive Shields

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR19467	Front Panel 490 Spreader	1		
2	PR20258	Shield Front Panel,490 Spreader	1		
3	PR24570	PTO Shield Stop,490 Spreader	1		
4	PR38757	Hood, PTO Shield, 490 Spreader	1		
5	PIN-250L	1/4" Lynch Pin	1		

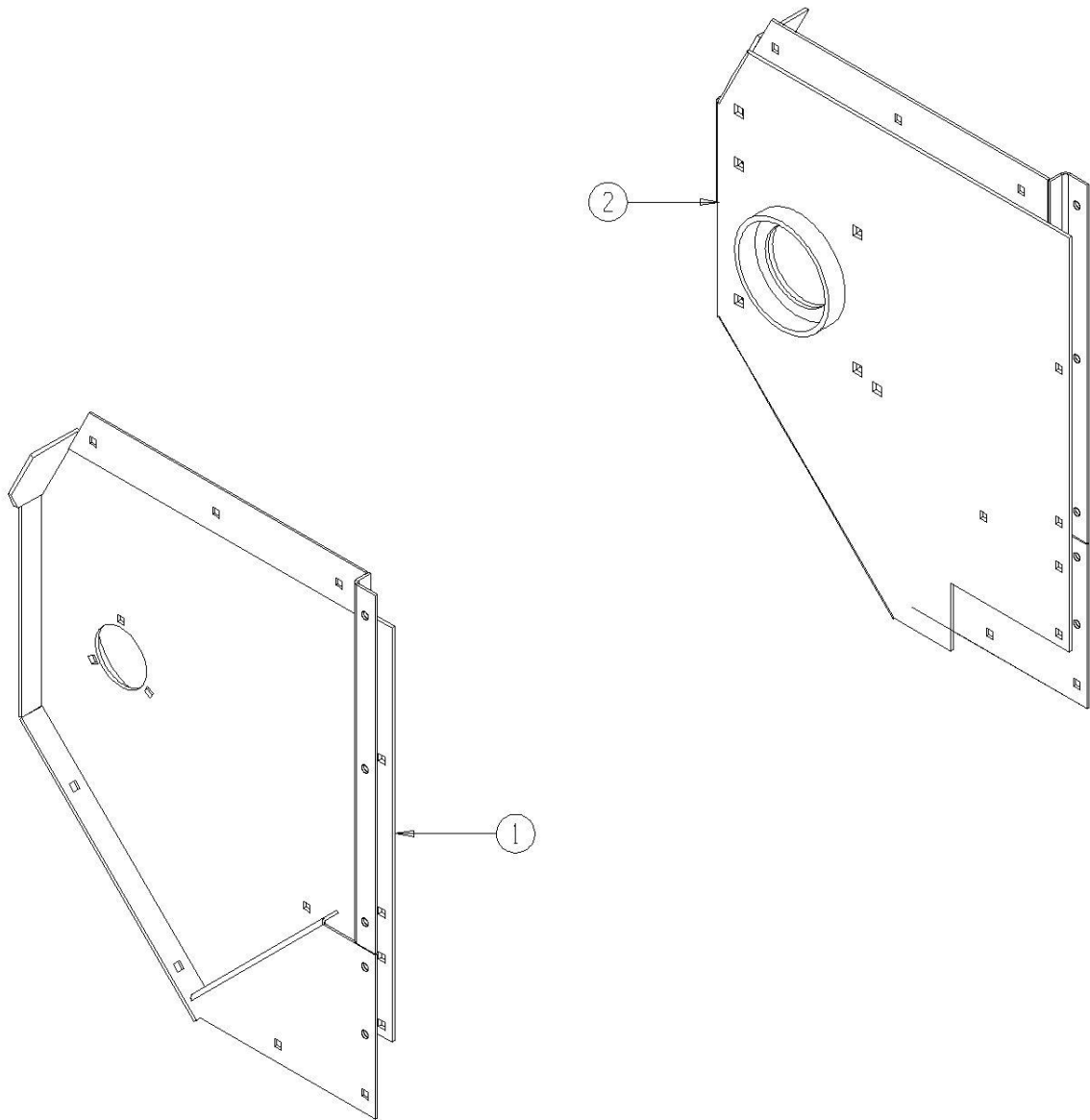
7204-1-5 FRONT PANEL & DRIVE SHEILDS



7204-1-6 Beater Support Panels

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR39195	Beater Panel, RH, 490	1	72005020-	
1	PR19472	Beater Panel, R.H., 490 Spreader	0	72004001- 72005019	
2	PR39193	Beater Panel, L.H., 490 Spreader	0	72004001- 72005019	
2	PR39196	Beater Panel, LH, 490	1	72005020-	
101	BL-6-250-C	3/8 UNC X 2 1/2 CARRIAGE BOLT GR5 ZINC	7		
102	BL-6-150-C	3/8 UNC X 1 1/2 CARRIAGE BOLT GR5 ZINC	3		
103	BL-6-FW	3/8 USS FW ZC	10		
104	BL-6-LN	3/8 UNC FIN HEX LOCK NUT NE A563 GrA ZINC	10		
105	BL-8-175-C	1/2 UNC X 1 3/4 CARRIAGE BOLT GR5 ZINC	4		
106	BL-8-FW	1/2 USS FW ZC	4		
107	BL-8-LN	1/2-13 HEX LOCK NUT NYLON INSERT ZC	4		

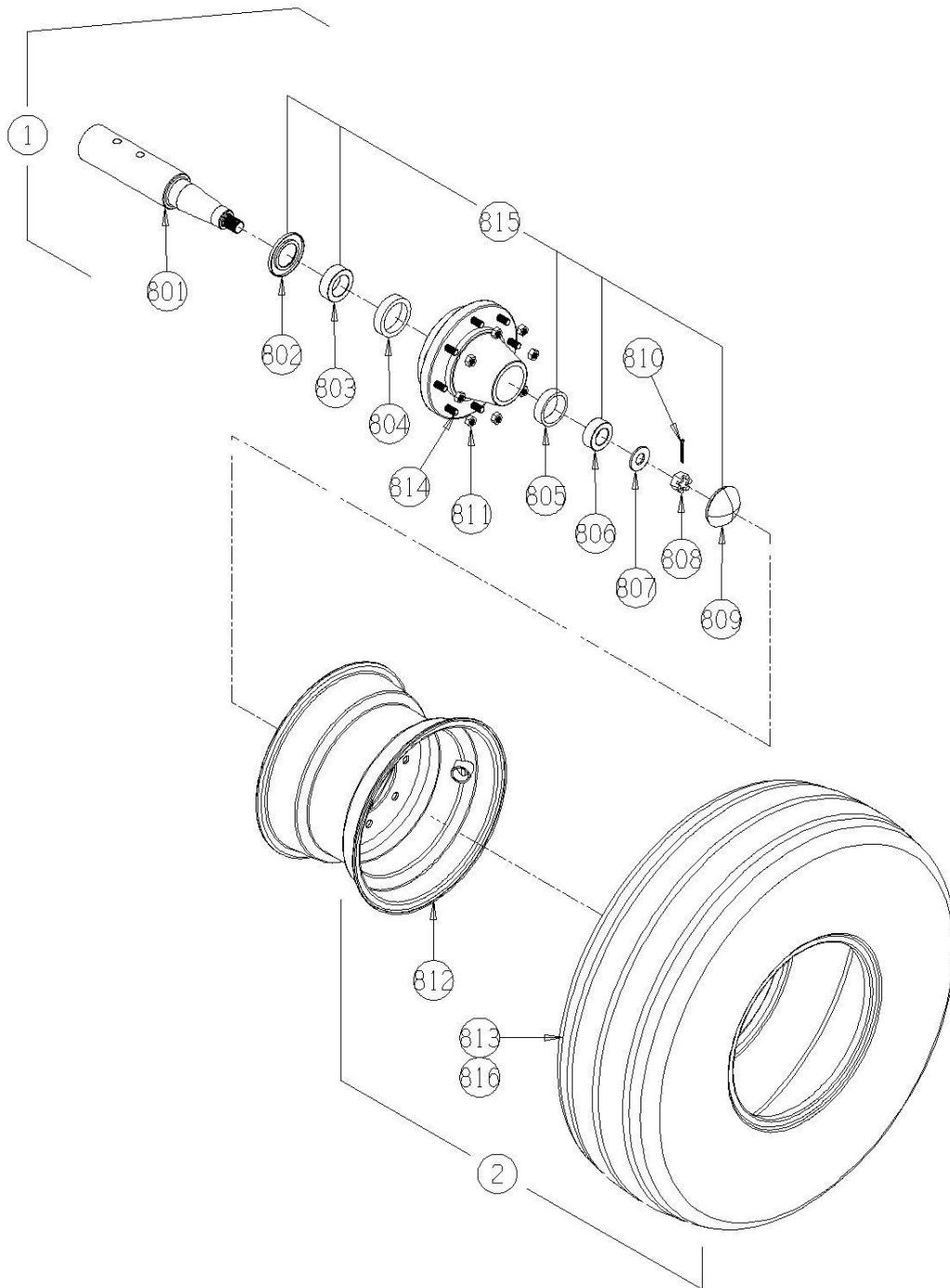
7204-1-6 BEATER SUPPORT PANELS



7204-1-7 Wheel & Hub, Truck Tires, 11.00

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	WHL-3000	Hub Assembly Complete (includes spindle), Painted Black	2		Harvesters use WHL-3000-2
2	WHM-7107	11.00-22.5 Tire & Wheel Assy.	2		
801	WHL-3001	Spindle 3" x 16"	2	WHL-3000	
802	WHL-3000G	Seal	2	WHL-3000	
803	WHL-3000C	Inner Cone	2	WHL-3000	
804	WHL-3000A	Inner Cup	2	WHL-3000	
805	WHL-3000B	Outer Cup	2	WHL-3000	
806	WHL-3000D	Outer Cone	2	WHL-3000	
807	WHL-3000K	Spindle Washer	2	WHL-3000	
808	WHL-3000J	Spindle Nut	2	WHL-3000	
809	WHL-3000H	Hub Cap	2	WHL-3000	3 1/8 od
810	PIN-C3-16-32	Cotter Pin 3/16 x 2"	2		
811	WHL-3000F	Lug Nut	16	WHL-3000	
812	WHL-7107	22.5 x 8.25 Wheel - 8-8-6 - 3/8" Positive Offset	2		
813	WHT-7107	11-22.5 Recapped Implement Tire	2		
814	WHL-3000E	Stud Bolt	16	WHL-3000	
815	WBR-3000K	Wheel Bearing Kit for WHL-3000 Hub & Spindle Assy.	2	WHL-3000	
816	WHT-1021	1000-20 Tube	2	WHT-1020 OR WHT- 7107	

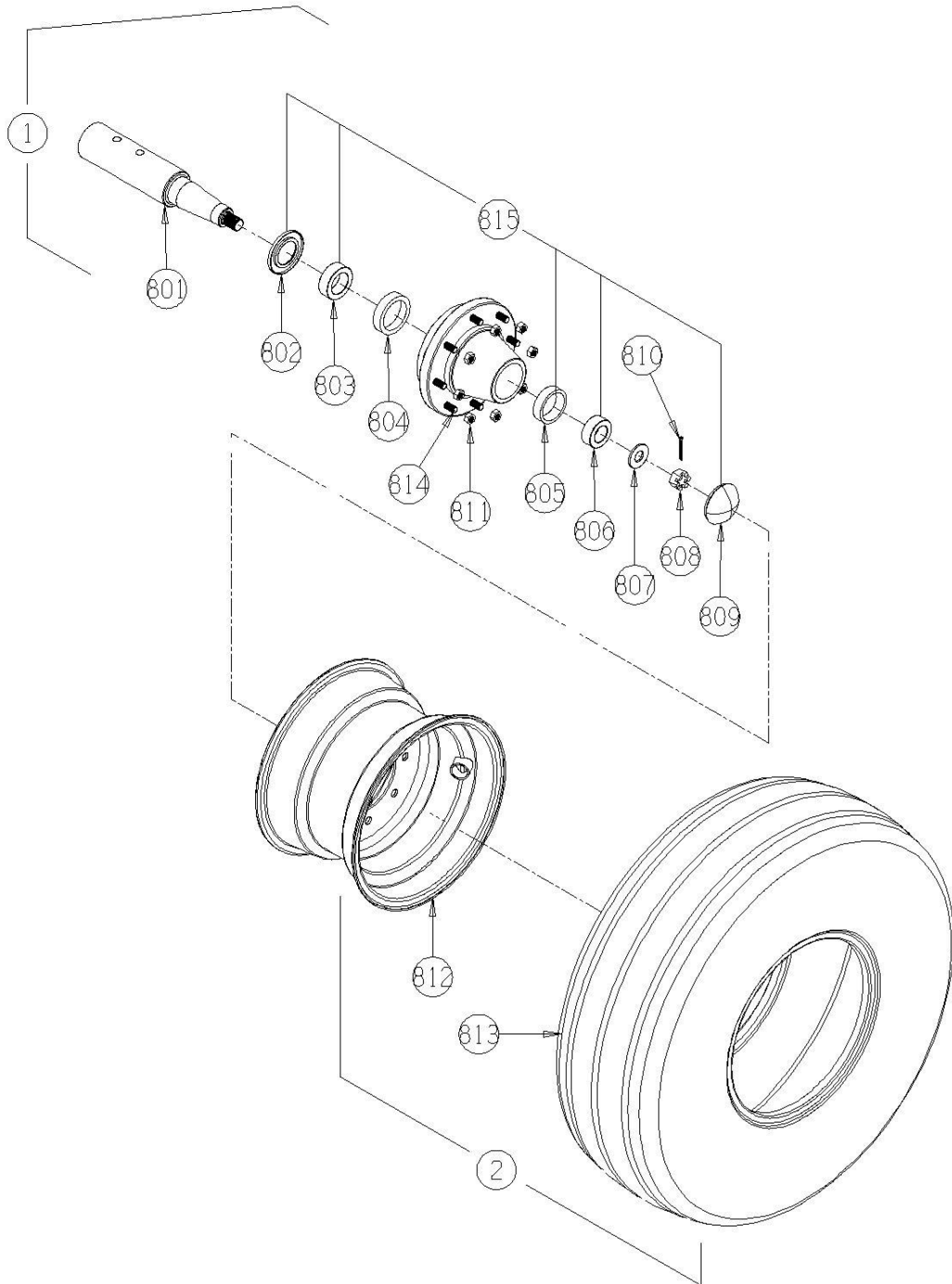
7204-1-7
WHEEL & HUB, TRUCK TIRES, 10.00



7204-1-8 Optional, Wheel & Hub, Implements

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	WHL-3000	Hub Assembly Complete (includes spindle), Painted Black	2		Harvesters use WHL-3000-2
2	WHM-1514	16.5-16.1 Tire & Wheel Assembly (Spreader, Tubeless)	2	790	
801	WHL-3001	Spindle 3" x 16"	2	WHL-3000	
802	WHL-3000G	Seal	2	WHL-3000	
803	WHL-3000C	Inner Cone	2	WHL-3000	
804	WHL-3000A	Inner Cup	2	WHL-3000	
805	WHL-3000B	Outer Cup	2	WHL-3000	
806	WHL-3000D	Outer Cone	2	WHL-3000	
807	WHL-3000K	Spindle Washer	2	WHL-3000	
808	WHL-3000J	Spindle Nut	2	WHL-3000	
809	WHL-3000H	Hub Cap	2	WHL-3000	3 1/8 od
810	PIN-C3-16-32	Cotter Pin 3/16 x 2"	2		
811	WHL-3000F	Lug Nut	16	WHL-3000	
812	WHL-1614	16 x 14 Wheel 8-8-6 (3/8 Positive Offset)	2		
813	WHT-1614	16.5 x 16.1 14 Ply Ribbed Implement Tire (Spreader, Tubeless)	2		
814	WHL-3000E	Stud Bolt	16	WHL-3000	
815	WBR-3000K	Wheel Bearing Kit for WHL-3000 Hub & Spindle Assy.	2	WHL-3000	

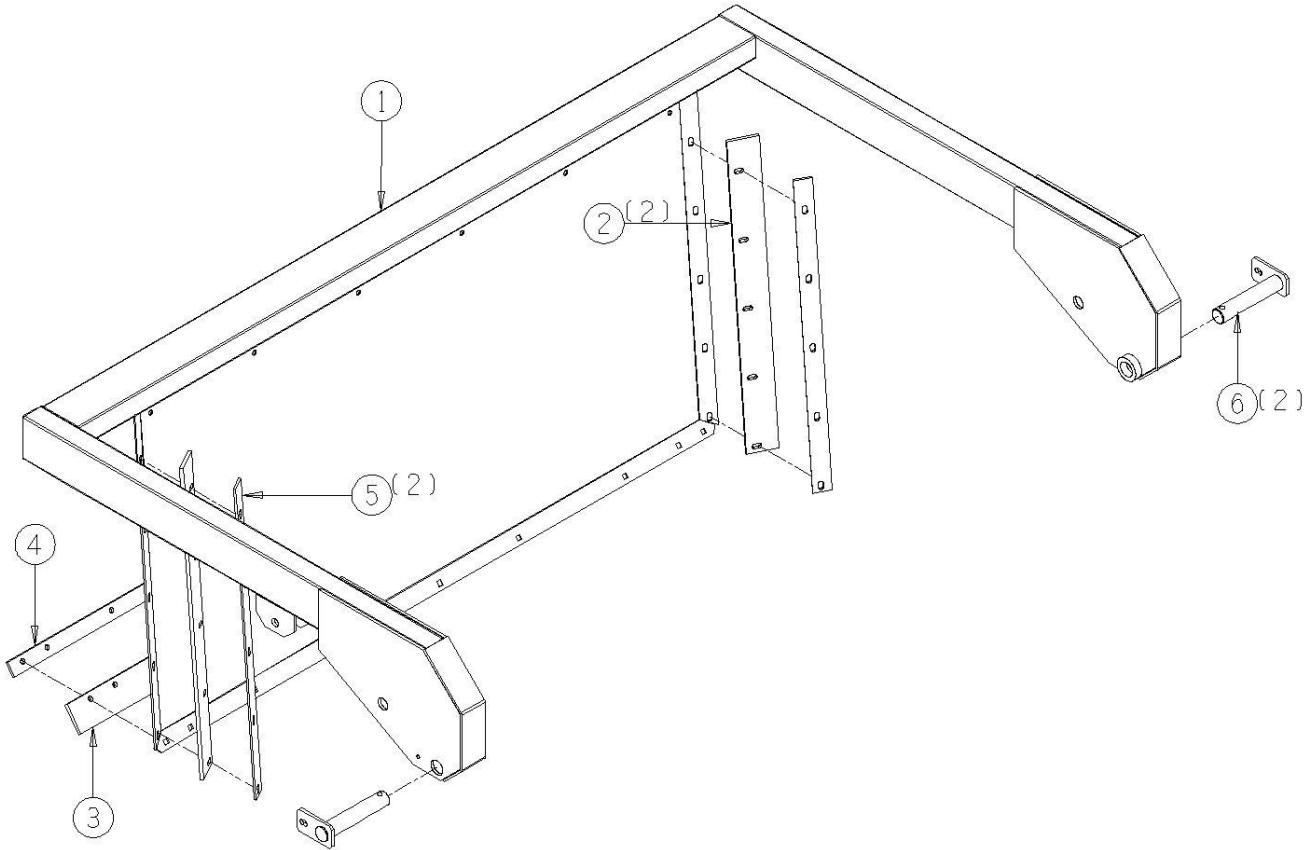
7204-1-8 OPTIONAL, WHEEL & HUB, IMPLEMENTS



7204-1-10 Endgate

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR20186	EndGate Weldment	1		
2	PR29509	Side Rubber, Endgate, 490 Spreader	2		
3	PR29514	Rubber Bottom, Endgate, 490 Spreader	1		
4	PR29508	Back Plate	1		
5	PR29510	Side Back Plate, Endgate, 490 Spreader	2		
6	PR20187	Endgate Pin, 490 Spreader	2		
7	BL-20-FW	1 1/4" Flat Washer, Zinc	1		
101	BL-6-125-C	3/8 UNC X 1 1/4 CARRIAGE BOLT GR5 ZINC	19		
102	BL-6-FW	3/8 USS FW ZC	21		
103	BL-6-100-H	3/8 UNC X 1 HH C/S BOLT GR5 ZINC	2		
104	BL-6-N	3/8-16 HEX NUTS ZC	19		
105	BL-6-LW	3/8 SPLIT LW ZC	21		
106	BL-6-200-H	3/8-16 X 2 HEX CAP G5 ZC	1		
107	BL-6-LN	3/8 UNC FIN HEX LOCK NUT NE A563 GrA ZINC	1		

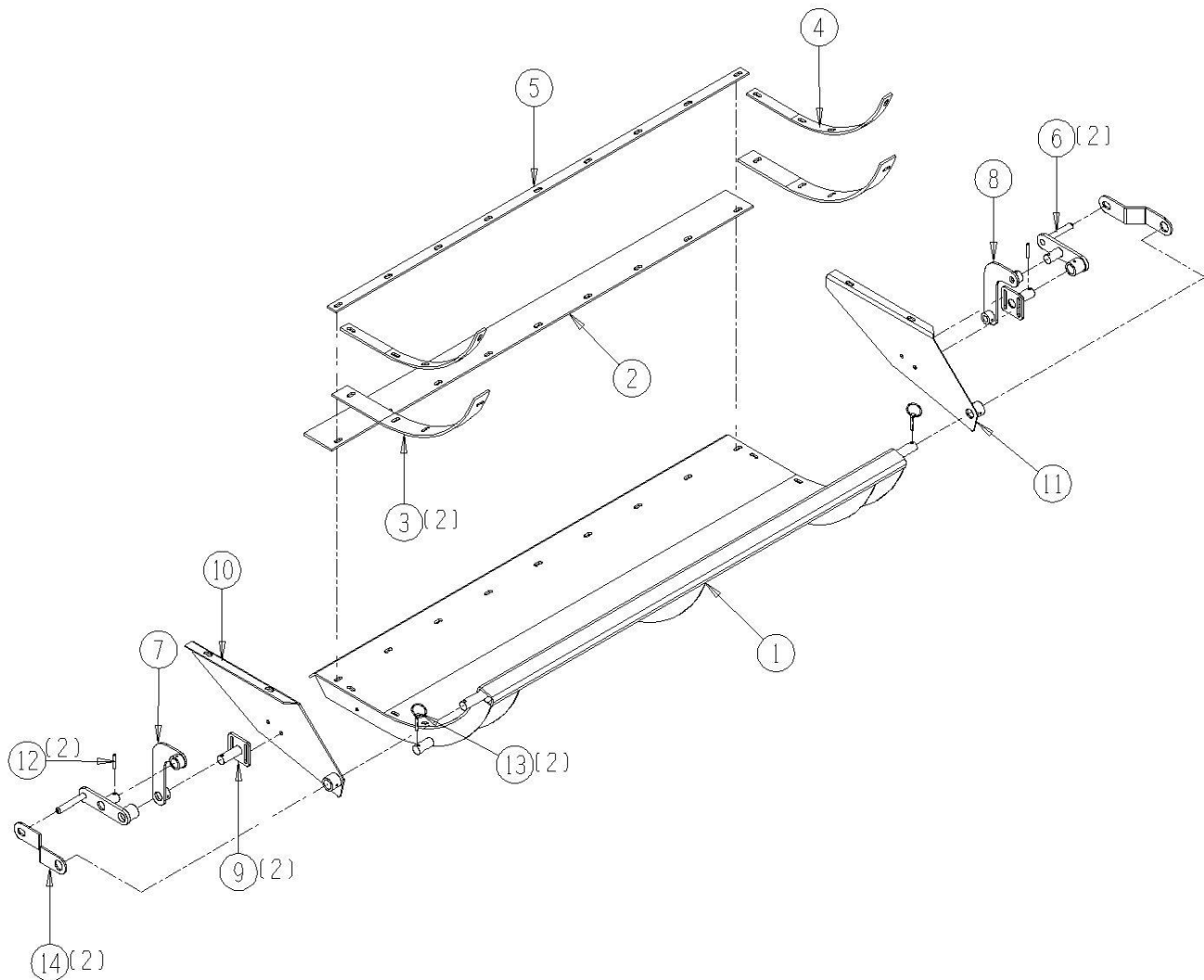
7204-1-10 ENDGATE



7204-1-11 Optional Slurry Pan Will Fit 72006010-

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR21317	Slurry Pan,490 Bottom	1	PR21317	
2	BT-0082	Belting,Slurry Pan , Bottom, 490 Spreader	1	BT-0082	
3	BT-0083	Belting,Side Slurry Pan,490 Spreader	2	BT-0083	
4	BAR-0083	Bar,Side,Slurry Pan, 490 Spreader	2	BAR-0083	
5	BAR-0082	Bar, Bottom,Slurry Pan 490 Spreader	1	BAR-0082	
6	ADJ-0080	Adjuster Handle Slurry Pan	2	ADJ-0080	
7	ADJ-0081	Adjuster Linkage Slurry Pan Left	1	ADJ-0081	
8	ADJ-0082	Adjuster Linkage Slurry Pan Right	1	ADJ-0082	
9	ADJ-0083	Adjuster Pivot Slurry Pan	2	ADJ-0083	
10	PR21318	Slurry Pan,490 Left Side Panel	1	PR21318	
11	PR21319	Slurry Pan,490 Right Side Panel	1	PR21319	
12	PIN-4-28	Roll Pin 1/4" x 1.75"	8		
13	BL-16-FW	1" Flat Washer, Zinc	2		
14	ADJ-0084	Locking Bar, Slurry Pan	2		
15	GF-1428	Grease Fitting 1/4" x 28 straight	6		
101	BL-6-100-C	3/8 UNC X 1 CARRIAGE BOLT GR5 ZINC	27		
102	BL-6-FW	3/8 USS FW ZC	27		
103	BL-6-LW	3/8 SPLIT LW ZC	27		
104	BL-6-N	3/8-16 HEX NUTS ZC	27		

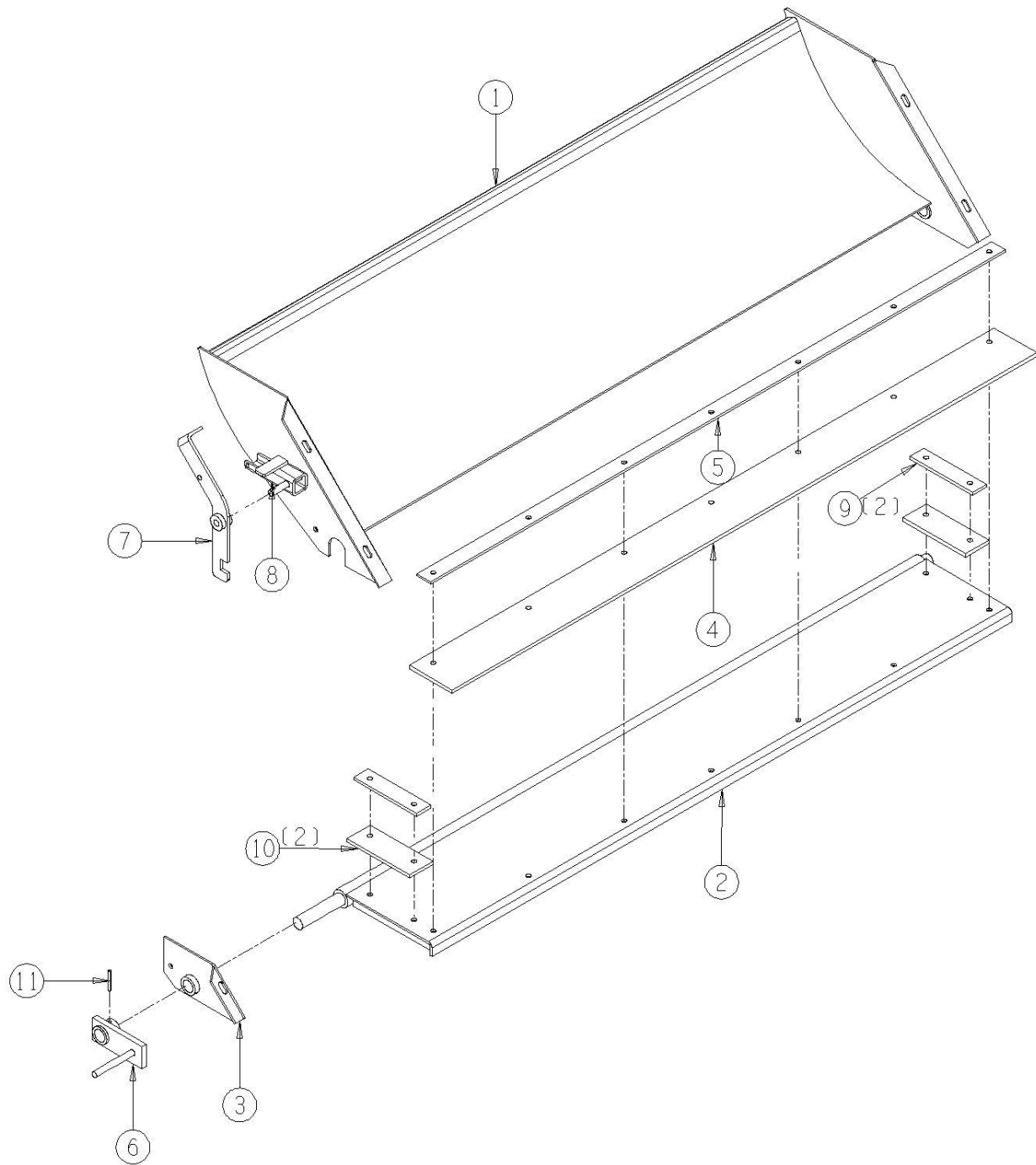
7204-1-11 OPTIONAL SLURRY PAN
WILL FIT 72006010-



7204-1-11A Slurry Pan Will Fit -72006009

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR21313	Pan, Bottom Beater, Rear of Frame, 490 Spreader	1		
2	PR21316	Gate, End Pan, Fits to Bottom Pan, 490 Spreader	1		
3	PR21600	Panel, Mounting Plate, RH Pan Side, 490 Spreader	1		
4	PR31449	Belting, End Pan, Bottom, 490 Spreader	1		
5	PR31448	Strap, Belting Support, End Pan, 490 Spreader	1		
6	PR25105	Latch Arm, Gate, End Pan	1		
7	PR25109	Handle, End Pan	1		
8	SPG-96543	Extension Spring for Spreader	1		
9	PR31450	Strap Hold Down, Side, End Pan, 490 Spreader	2		
10	PR31451	Belting, End Pan, Side, 490 Spreader	2		
11	PIN-4-28	Roll Pin 1/4" x 1.75"	1		

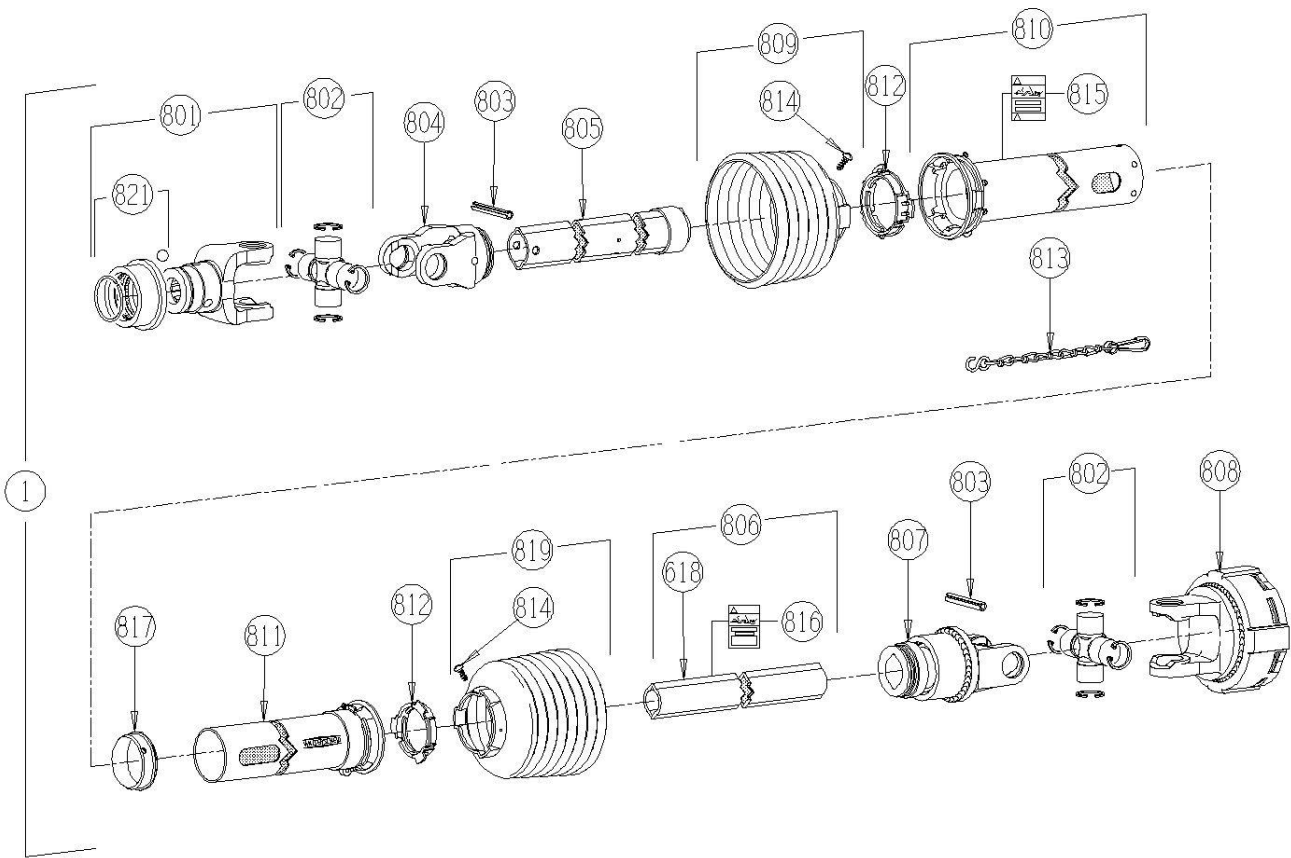
7204-1-11A OPTIONAL, SLURRY PAN
WILL FIT-72006009



7204-2-1 540 Drive Line w/ Clutch

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PTB-1014	Driveline for Hydra Ram Spreader, 540 RPM	1		
801	PTB-1014A	Yoke, 1 3/8"-6 Spline	1		
802	PTB-1014B	Cross & Bearing Kit	2		
803	PTB-1014C	Spring Pin 10 X 75	1		
804	PTB-1014D	Inboard Yoke 1b	1		
805	PTB-1014E	Inner Profile	1		
806	PTB-1014F	Profile & Sleeve W.A.	1		
807	PTB-1014G	Inboard Yoke 2a	1		
808	PTB-1014H	Friction Clutch	1		
809	PTB-1014I	Shield Cone 6 Rib	1		
810	PTB-1014J	Out. Shield Tube Ovl	1		
811	PTB-1014K	Inn. Shield Tube Rnd	1		
812	PTS-1002J	PTO Shield Bearing Ring	2		
813	PTS-1002K	PTO Shield Safety Chain	1		
814	PTS-1010K	Screw	2		
815	PTS-1010L	Decal, Outer	1		
816	PTS-1010M	Decal, Inner	1		
817	PTS-1010N	Support Bearing	1		
818	PTB-1014L	Zerk	1		
819	PTB-1014M	Shield Cone 4 Rib	1		
820	PTB-1014N	Spring Pin 8 X 60 in	1		
821	PTB-1014P	ASGE Collar Kit	1		

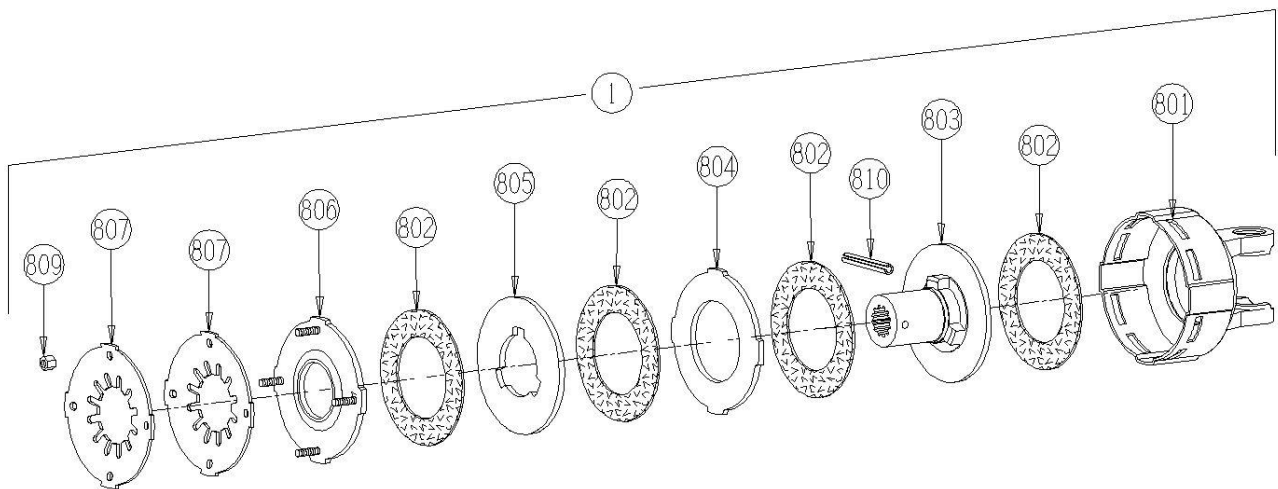
7204-2-1
WALTERSCHEID 540 RPM DRIVELINE W/ CLUTCHES



7204-2-2 Slip Clutch

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PTB-1014H	Friction Clutch	0		
801	PTB-1014H-A	Clutch Housing	1		
802	PTS-1010G-B	Friction Disk	4		
803	PTS-1010G-C	Hub	1		
804	PTS-1010G-D	Drive Plate	1		
805	PTS-1010G-E	Drive Plate	1		
806	PTS-1010G-F	Thrust Plate	1		
807	PTB-1014H-B	Belleville Spring	2		
809	PTS-1010G-H	Hex Nut, M8	4		
810	PTB-1014N	Spring Pin 8 X 60 in	1		

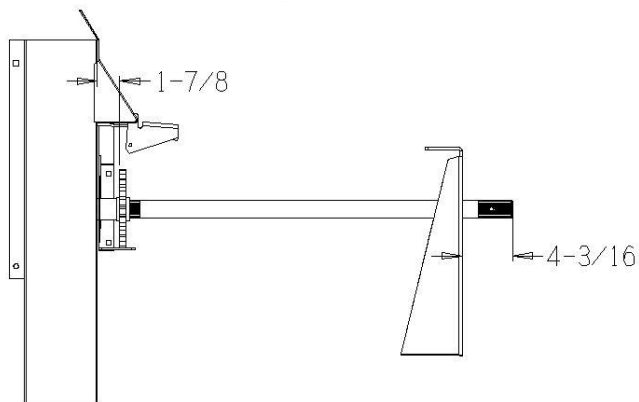
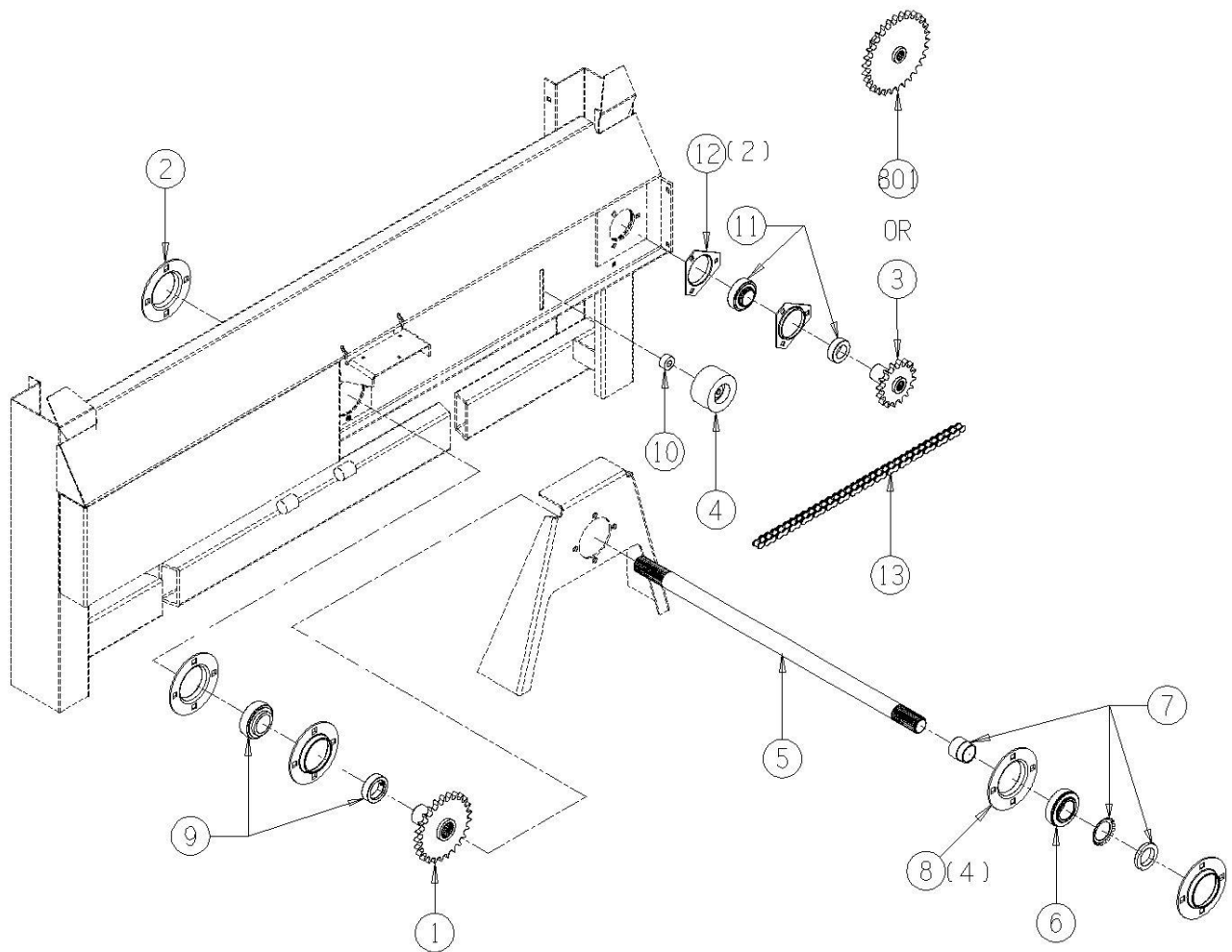
7204-2-2 SLIP CLUTCH



7204-2-5 Front Drive Shaft Sprockets & Chain

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR25379	Sprocket Wldmt, Front Input, 490	1		
2	PR28139	Cap, Input Drive	1		
3	PR23048	Sprocket Wldmt, 540 rpm, 490	1		
4	RLT-035-228	Roller 3.5 dia x 2.2 x 1/2" bore, no flange	1		
5	PR38260	Shaft, Jack Shaft, 490	1	490	
6	BR-209-085	Bearing, Taper Bore, 1 1/2"	1		
7	BR-209-085A	Adapter for Taper Bore Bearing, 1 1/2"	1		50mm LTB
8	BR-085-MS	Stamped Bearing Housing for 1 3/4" Bearing	4		
9	BR-175-085-KB-I	Bearing, 1 3/4" ID, SS	1		
10	SPA-0061	Spacer, Spreader	1		
11	BR-144-072-I	Bearing, 1 7/16" ID, TS	1		
12	BR-072-MSTR	Stamped Bearing Housing for 1 7/16" Bearing, 3 Bolt	2		
13	CH-60H-109	Roller Chain 109 pitches #60H, w/master	1		
101	BL-8-125-C	1/2 UNC X 1 1/4 CARRIAGE BOLT GR5 ZINC	4		
102	BL-6-125-C	3/8 UNC X 1 1/4 CARRIAGE BOLT GR5 ZINC	3		
103	BL-8-175-C	1/2 UNC X 1 3/4 CARRIAGE BOLT GR5 ZINC	4		
104	BL-8-400-C	1/2 UNC X 4 CARRIAGE BOLT GR5 ZINC	1		
105	BL-8-LW	1/2 SPLIT LW ZC	9		
106	BL-6-LW	3/8 SPLIT LW ZC	3		
107	BL-6-N	3/8-16 HEX NUTS ZC	3		
108	BL-6-SW	3/8 SAE FW ZC	3		
109	BL-8-LN	1/2-13 HEX LOCK NUT NYLON INSERT ZC	4		
110	BL-8-N	1/2-13 HEX FIN NUTS ZC	9		
111	BL-8-SW	1/2 SAE FW ZC	9		
801	PR23050	Sprocket Wldmt, 1000, 490	1		

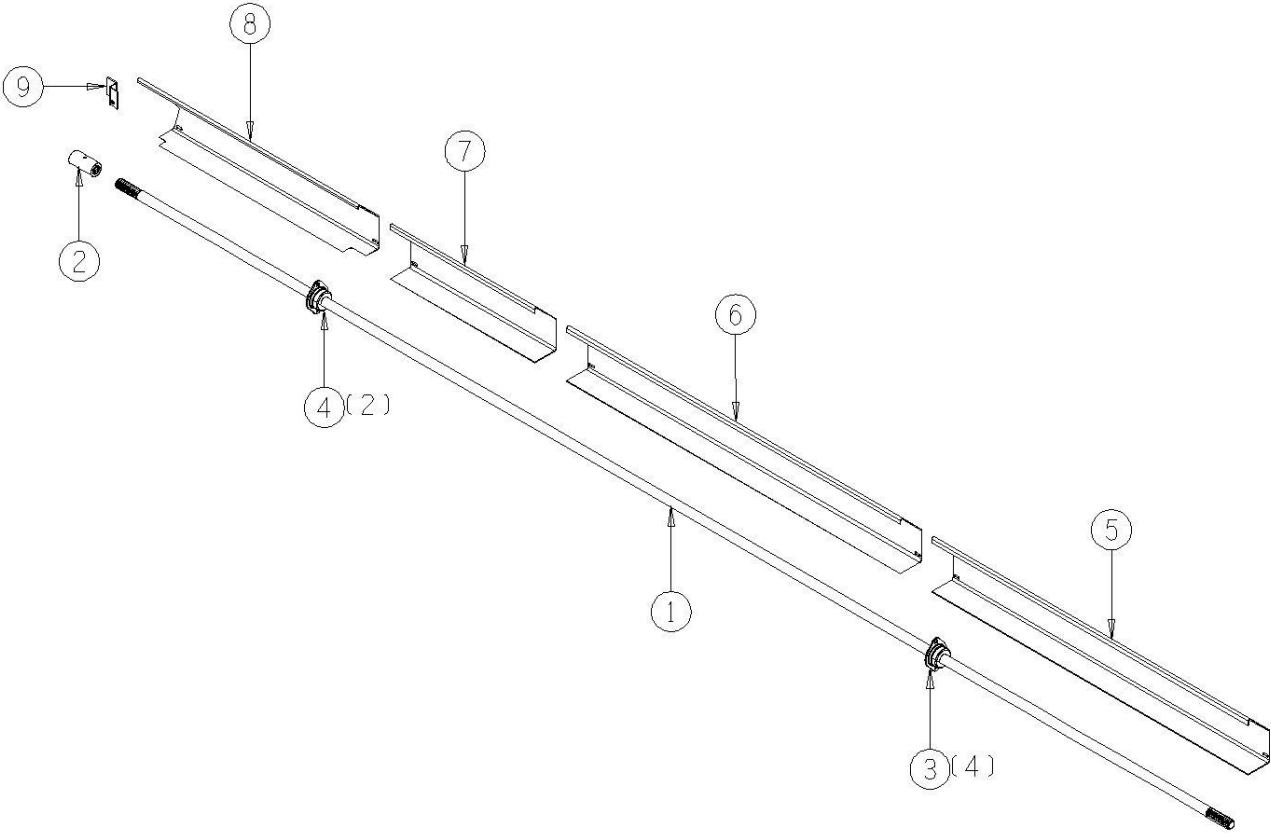
7204-2-5
FRONT DRIVE SHAFT SPROCKETS & CHAIN



7204-2-6 Side Drive Shaft & Shields

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR38270	Shaft, Side, 490	1		
2	PR28259	Coupler, 1" Splined Shaft	1		
3	BR-052-MST	Stamped Bearing Housing for 1" Bearing, Two Bolt	4		
4	BR-100-052-KB-I	Bearing, 1" ID, SS	2		
5	PR38772	Shield, Side Shaft, Front, 490 Spreader	1		
6	PR38773	Shield, Side Shaft, Next to Front, 490 Spreader	1		
7	PR38774	Shield, Side Shaft, Next to Rear, 490 Spreader	0		
7	PR38775	Shield, Side Shaft, Intern/Rear, 490	1		
8	PR38776	Shield, Side Shaft, Rear, 490	1		
8	PR39028	Shield, Side Shaft, Rear, 490 Spreader	0	72004001- 72005019	
9	PR39023	Bracket, Rear Shield, Spreader	1		
10	PIN-4-28	Roll Pin 1/4" x 1.75"	1		
101	BL-4-075-H	1/4 UNC X 3/4 HH C/S BOLT GR5 ZINC	10		
102	BL-5-100-C	5/16-18 x 1, Z5	4		
103	BL-4-LW	1/4 SPLIT LW ZC	10		
104	BL-4-FW	1/4 USS FW ZC	10		
105	BL-5-N	5/16-18 UNF HEX NUT A563 GrA ZINC	4		
106	BL-5-LW	5/16 SPLIT LW ZC	4		
107	BL-5-WS	5/16" SAE Washer	4		

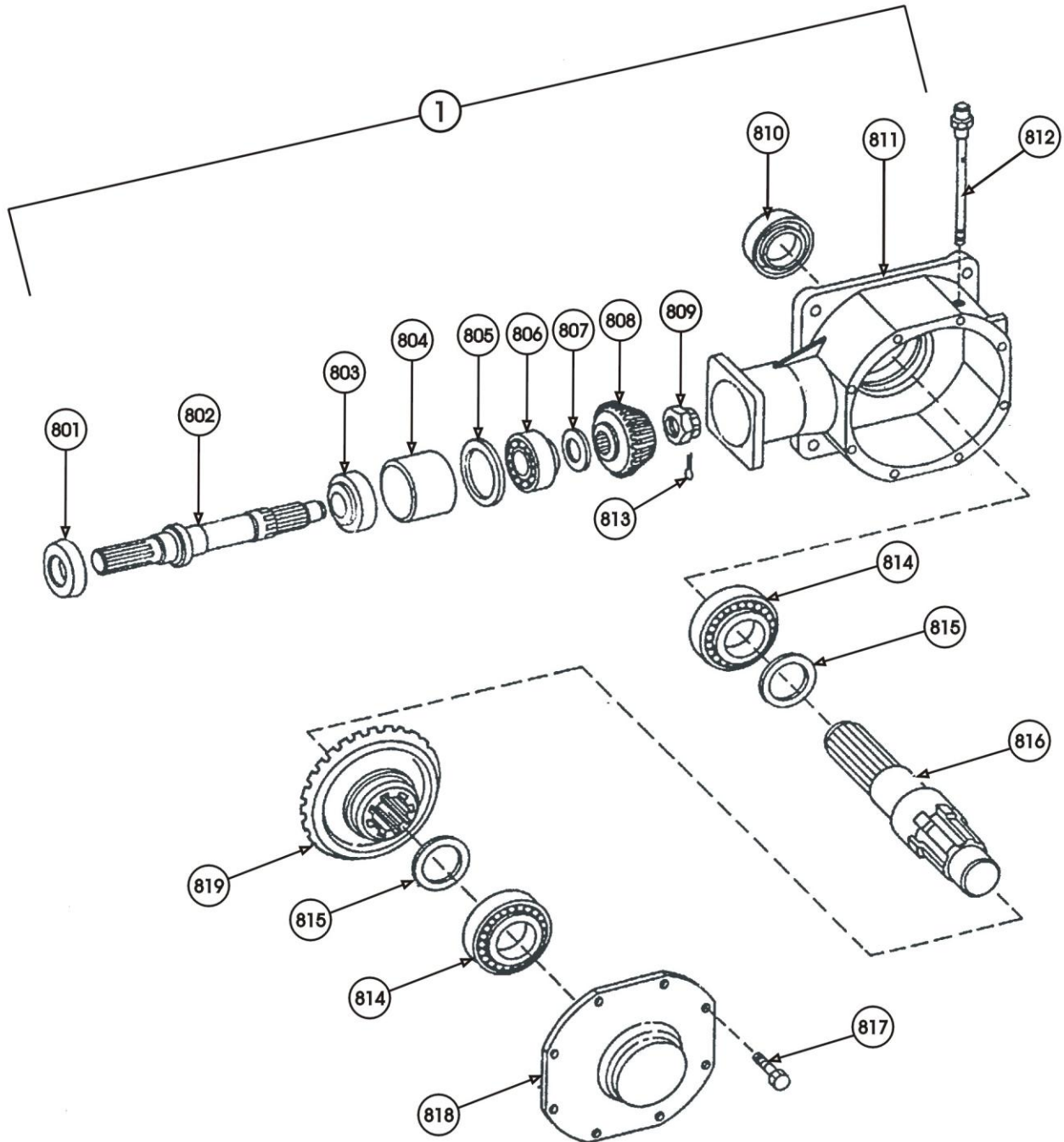
7204-2-6 SIDE DRIVE SHAFT & SHIELDS



7204-2-7 Gearbox

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR23903	Gearbox, 3 Shaft	1		
101	BL-8-225-C	1/2 UNC X 2 1/4 CARRIAGE BOLT GR5 ZINC	4		
102	BL-8-N	1/2-13 HEX FIN NUTS ZC	4		
103	BL-8-LW	1/2 SPLIT LW ZC	4		
104	BL-8-SW	1/2 SAE FW ZC	4		
602	HP-1038	Gear Lube, 80W90 @ Quart	1.25	Hydra Ram Spreader	
801	PR23902-A	Double Lip Seal	1	AW25863 will work	
802	PR23905-A	Shaft	1		
803	PR23902-C	Bearing & Race	2		
804	PR23902-D	Spacer	1		Reference Only, Special Order
805	PR23902-E	Snap Ring	1		Reference Only, Special Order
806	PR23902-F	Bearing & Race	1		
807	PR23902-G	Shim Kit	1		Contains 9 pieces Reference Only, Special Order
808	PR23902-H	Pinion	1		Reference Only, Special Order
809	PR23902-J	Nut	1		Reference Only, Special Order
810	PR23902-K	Double Lip Seal	1	WP39008 will work	
811	PR23902-L	Housing	1		Reference Only, Special Order
812	PR23902-M	Dipstick	1		
813	PR23902-N	Cotter Pin	1		Reference Only, Special Order
814	PR23902-P	Bearing & Race (Output shaft)	2		
815	PR23902-Q	Shim Kit	2		Contains 4 pieces Reference Only, Special Order
816	PR23905-B	Shaft	1		
817	PR23902-S	Bolt M10 x 22	8		Reference Only, Special Order
818	PR23905-C	Cover	1		
819	PR23902-U	Bevel Gear	1		Reference Only, Special Order
820	PR23905-D	Double Lip Seal	1		

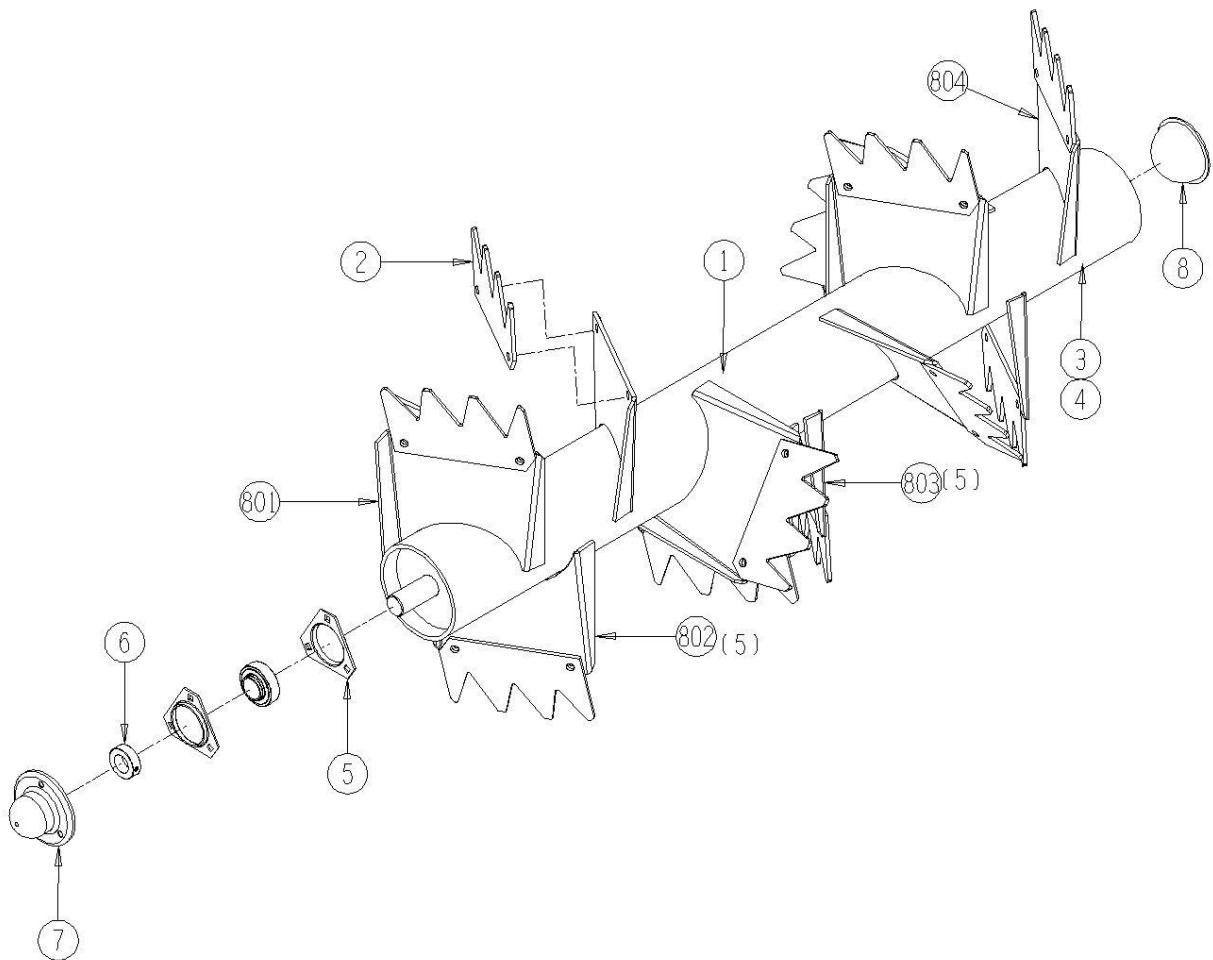
7204-2-7 GEARBOX



7204-2-8 Main Beater

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR39038	Main Beater, 490 Spreader	1		
2	PR26825	Blade, Beater, 490 Spreader	12		Requires 12 per beater
3	PIN-8-50	Roll Pin, 8mm x 50mm	1		
4	AP-12	¾' NPT Plug	1		
5	BR-072-MSTR	Stamped Bearing Housing for 1 7/16' Bearing, 3 Bolt	2		
6	BR-144-072-I	Bearing, 1 7/16' ID, TS	1		
7	PR28029	Upper Beater Cap	1		
8	PR39040	Cap, Gearbox, 3rd Shaft	1		
100	BL-8-150-H	1/2 UNC X 1 1/2 HH C/S BOLT GR5 ZINC	24		
101	BL-8-LN	1/2-13 HEX LOCK NUT NYLON INSERT ZC	24		
102	BL-8-SW	1/2 SAE FW ZC	48		
801	PR39038-C	Paddle Bracket	1	PR39038	
802	PR39038-D	Paddle Bracket	5	PR39038	
803	PR39038-E	Paddle Bracket	5	PR39038	
804	PR39038-F	Paddle Bracket	1	PR39038	

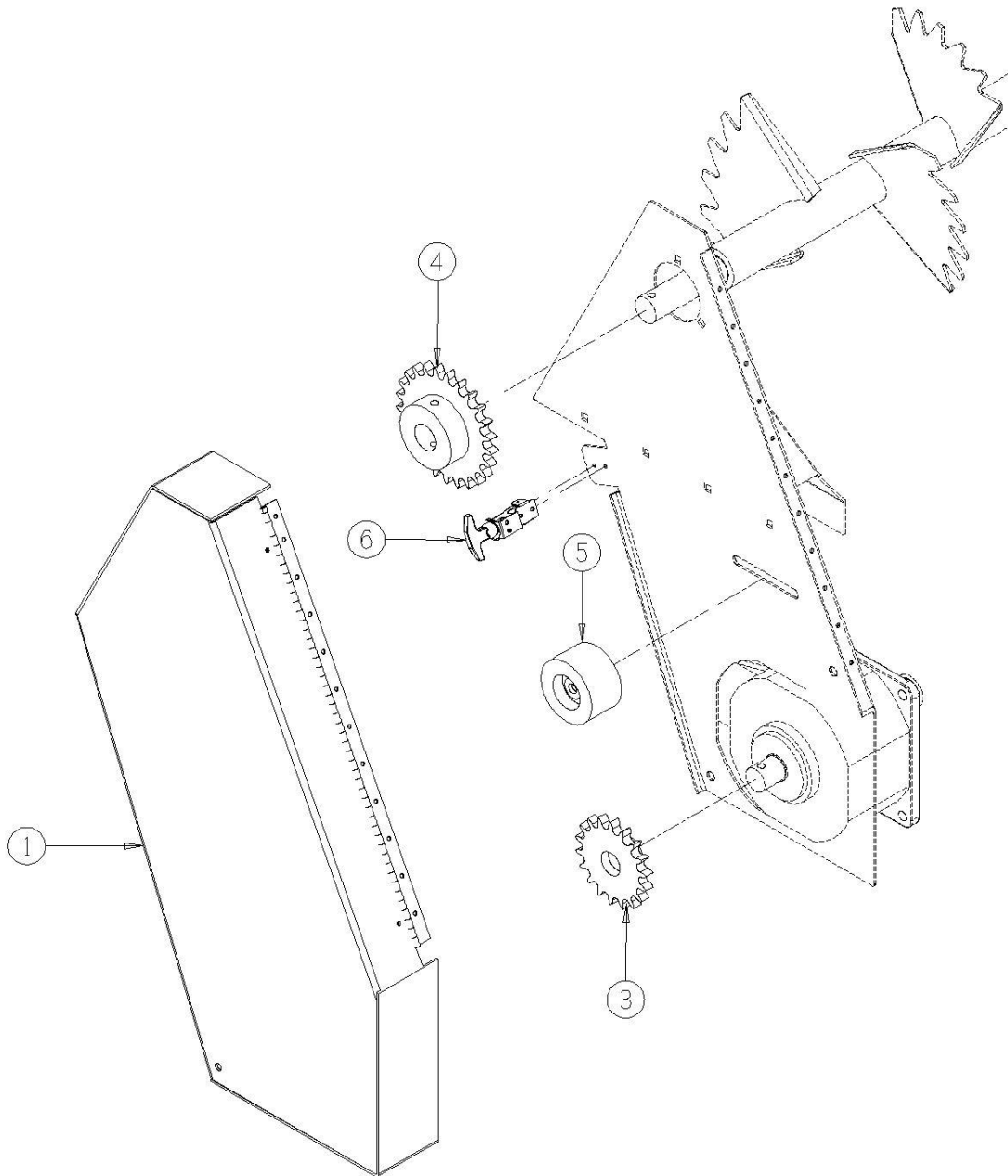
7204-2-8 MAIN BEATER



7204-2-9 Upper Beater Drive

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR21234	Shield Upper Beater, 490 Spreader	1		
3	PR21233	Drive Sprocket, 490 Spreader	1		
4	PR31292	Sprocket , 490 Spreader	1		
5	RLT-035-228	Roller 3.5 dia x 2.2 x 1/2" bore, no flange	1		
6	LA-1530	Medium Rubber T Latch Assembly	1		
7	CH-60H-87	Roller Chain 87 pitches #60H Upper Beater Drive w/master	1		
101	BL-8-325-H	1/2 UNC X 3 1/4 HH C/S BOLT GR5 ZINC	2		
102	BL-8-LN	1/2-13 HEX LOCK NUT NYLON INSERT ZC	2		
103	BL-8-FW	1/2 USS FW ZC	2		

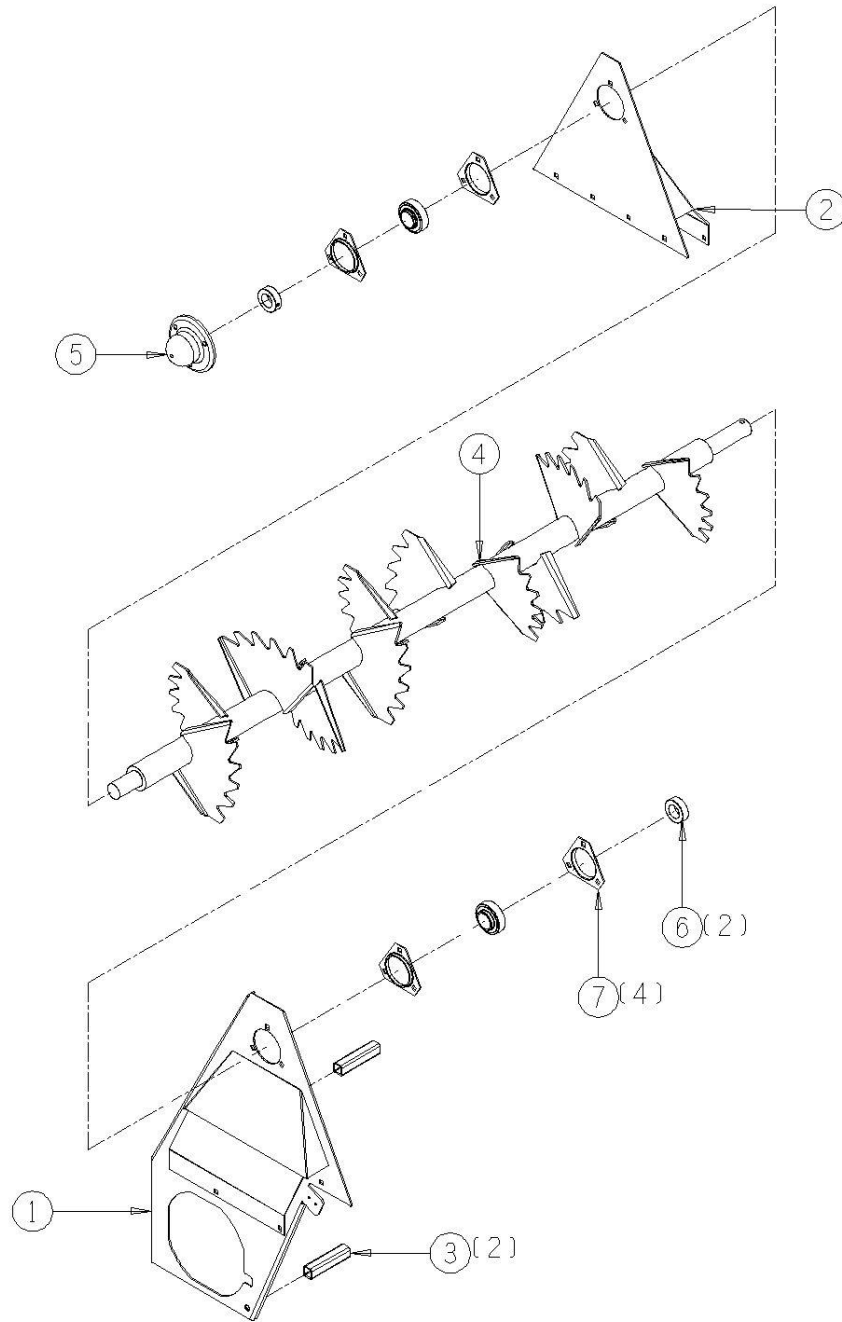
7204-2-9 OPTIONAL, UPPER BEATER DRIVE



7204-2-10 Upper Beater

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR21229	Upper Beater Panel	1	PR21229	
2	PR21230	Upper Beater Panel	1		
3	SPA-0052	Spacer, 490 Spreader	2		
4	PR21226	Upper Beater, 490 Spreader	1		
5	PR28029	Upper Beater Cap	1		
6	BR-144-072-I	Bearing, 1 7/16" ID, TS	2		
7	BR-072-MSTR	Stamped Bearing Housing for 1 7/16" Bearing, 3 Bolt	4		
101	BL-6-100-C	3/8 UNC X 1 CARRIAGE BOLT GR5 ZINC	12		
102	BL-6-N	3/8-16 HEX NUTS ZC	12		

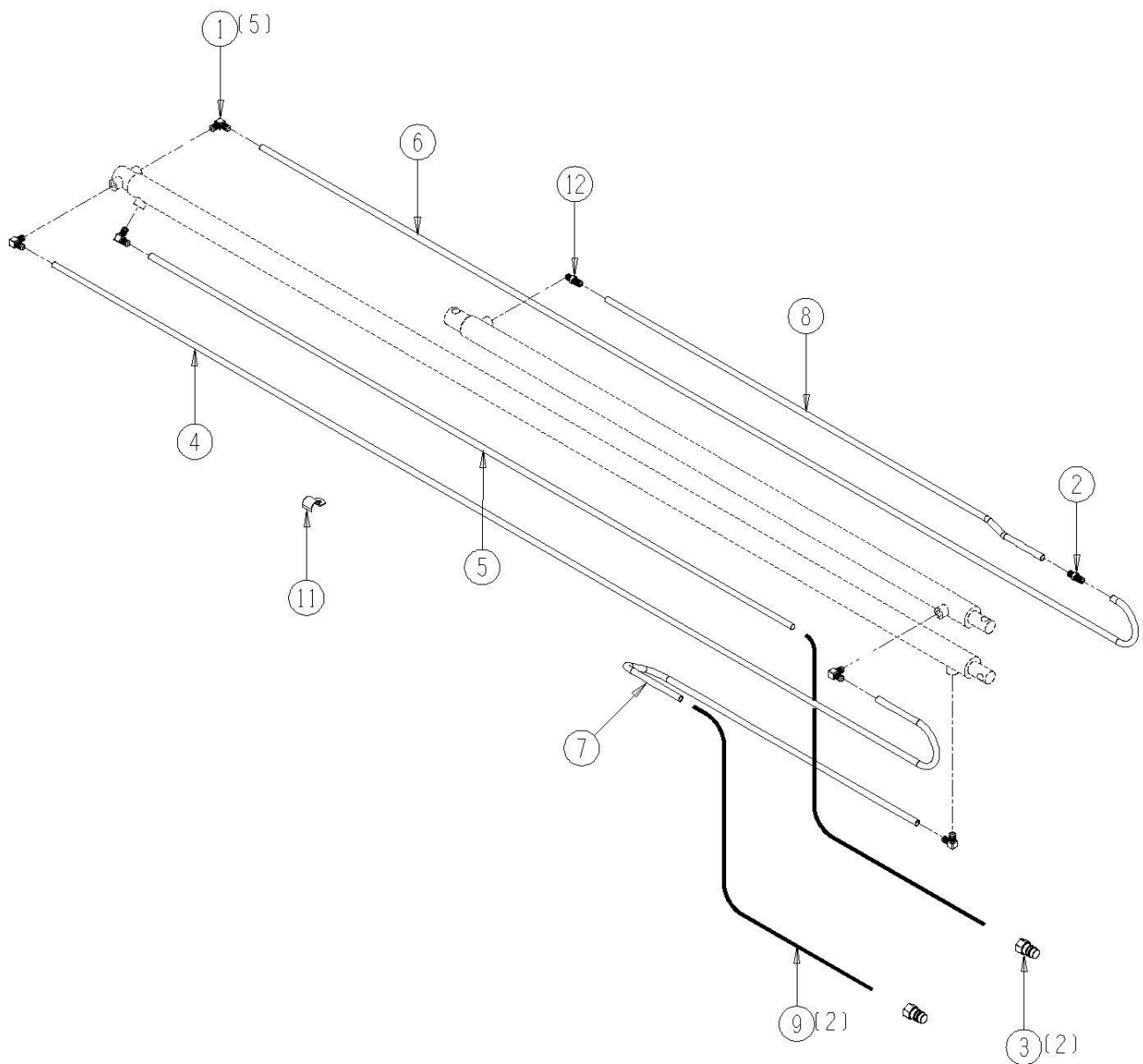
7204-2-10 OPTIONAL, UPPER BEATER



7204-3-1 Hydraulics, Main

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
0	CL-005	Clamp, For 5/8" O.D., Rubber Cushioned Loop	1		
1	A-6801-8-8	Elbow, 1/2" MJ x 8 SAE	5		
2	A-2403-8-8	1/2" JIC Male Union	1		
3	A-QD2010-8-8	Tractor Quick Coupler, Male, 1/2" w/ FPT	2		
4	H-T7013	Oil Line	1		
5	H-T7014	Oil Line	1		
6	H-T7015	Oil Line	1		
7	H-T7016	Oil Line	1		
8	H-T7017	Oil Line	1		
9	h6-80-8mp-8mj	3/8" hose 1/2" MP x 1/2" MJ x 80" long	2		
10	HW-08	1/2" OD Washer for Hydraulic Tube/Hose	10		
11	HA-1032	Hydraulic Hose Holder 1/2	3	19101	
12	A-6400-8-8	1/2" MJIC x 8 SAE	1		
601	HP-1038	Gear Lube, 80W90 @ Quart	1.25		Hydra Ram Spreader
602	HY-TRAN	Hytran @ gal	4.5		

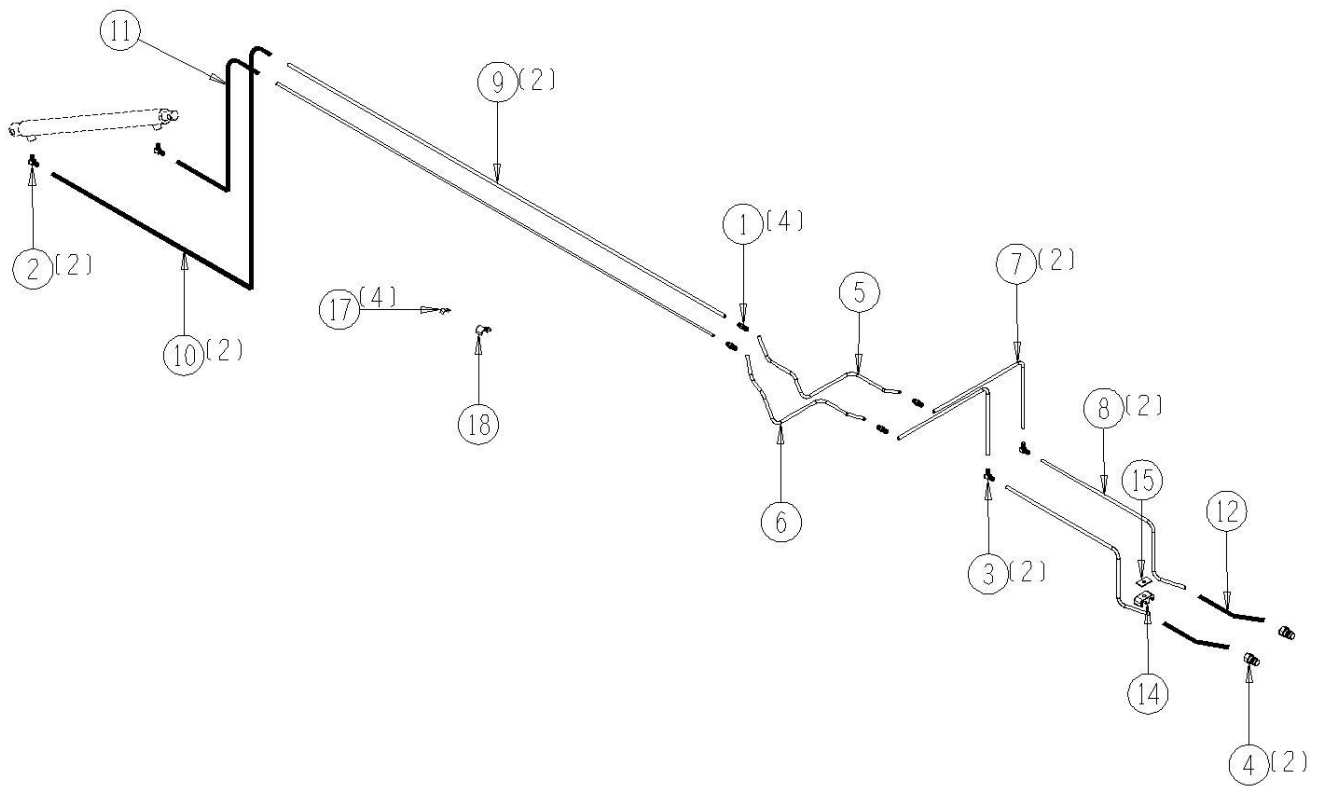
7204-3-1 HYDRAULICS, PUSH OFF CYLINDERS



7204-3-2 Hydraulics, Endgate

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	A-2403-6-6	Union, 3/8" MJ x 3/8" MJ	4		
2	A-6809-6-6	Elbow, 3/8" FJX x 6 SAE	2		
3	A-2500-6	Elbow, 3/8" MJ x 3/8" MJ	2		
4	A-QD2010-8-8	Tractor Quick Coupler, Male, 1/2" w/ FPT	2		
5	H-T7009	Oil Line	1		
6	H-T7010	Oil Line	1		
7	H-T7011	Oil Line	2		
8	H-T7012	Oil Line	2		
9	H-T7018	Oil Line	2		
10	H4-80-8MP-6MJ	1/4" hose 1/2" MP x 3/8" MJ x 80" long	2		
11	H4-54-6MJ-6MJ	1/4" hose 3/8" MJ x 3/8" MJ x 54" long	1		
12	H4-28-6MJ-6MJ	1/4" hose 3/8" MJ x 3/8" MJ x 28" long	1		
13	HW-06	3/8" OD Washer for Hydraulic Tube/Hose	16		
14	PR34896	Hose Clamp, 1/4" Hydraulic, 1/2" O.D. Hose	1		
15	PR34894	Support, Clamp, 1/4" Double Hose Clamp	1		
16	WT-17H	Heavy Duty Wire Tie 17.5"	2		
17	CL-6-3	Clamp, 3/8" O.D., Dual Tube, 1/4" Bolt Mount	5		
18	A-6810-6-6	Elbow, 3/8" FJX x 6 SAE, 45-	1		

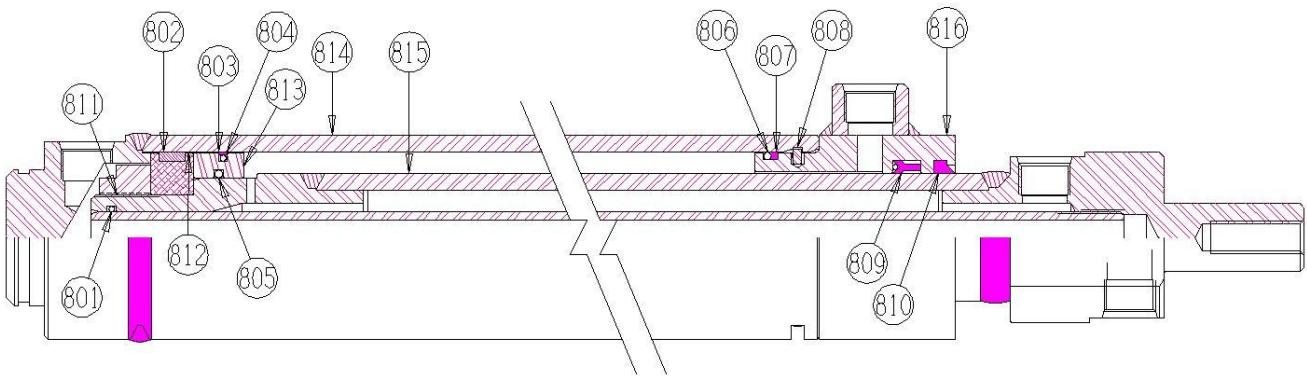
7204-3-2 HYDRAULICS, ENDGATE CYLINDER



7204-3-3 Main Cylinder

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR24701	Hydraulic Cylinder, Main, 490	1		
801	PR24701-A	O' Ring	1		Part of Seal Kit, Not Sold Separately
802	PR24701-B	Wear Ring	1		Part of Seal Kit, Not Sold Separately
803	PR24701-C	Poly Hone	1		Part of Seal Kit, Not Sold Separately
804	PR24701-D	O'Ring	1		Part of Seal Kit, Not Sold Separately
805	PR24701-E	O' Ring	1		Part of Seal Kit, Not Sold Separately
806	PR24701-F	O' Ring	1		Part of Seal Kit, Not Sold Separately
807	PR24701-G	Back-up Ring	1		Part of Seal Kit, Not Sold Separately
808	PR24701-H	Wire Retaining Ring	1		Part of Seal Kit, Not Sold Separately
809	PR24701-I	Loaded U-Cup	1		Part of Seal Kit, Not Sold Separately
810	PR24701-J	Rod Wiper	1		Part of Seal Kit, Not Sold Separately
811	PR24701-K	Thin Locknut	1		Reference Only, Special Order
812	PR24701-L	Piston	1		Reference Only, Special Order
813	PR24701-M	Piston	1		Reference Only, Special Order
814	PR24701-N	Barrel Assembly	1		Reference Only, Special Order
815	PR24701-O	Rod Assembly	1		Reference Only, Special Order
816	PR24701-P	Head Assembly	1		Reference Only, Special Order
817	PR24701-SK	Seal Kit, 490 Main Cylinder	1		

7204-3-3
MAIN CYLINDER

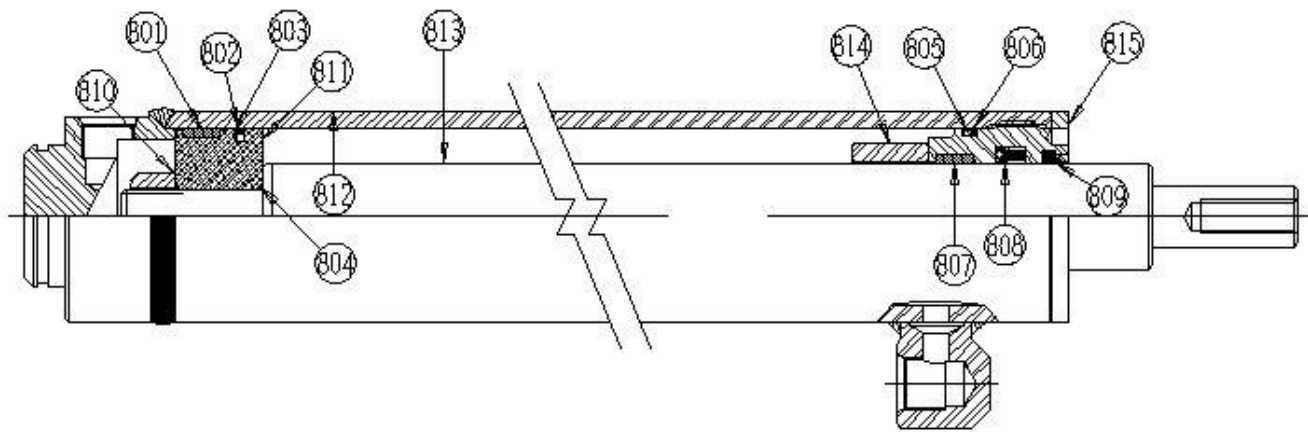


817 SEAL KIT

7204-3-4 Secondary Cylinder

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR24702	Hydraulic Cylinder, Secondary, 490	1		
801	PR24702-A	Wear Ring	1		Part of Seal Kit, Not Sold Separately
802	PR24701-C	Poly Hone	1		Part of Seal Kit, Not Sold Separately
803	PR24701-D	O'Ring	1		Part of Seal Kit, Not Sold Separately
804	PR24702-B	O' Ring	1		Part of Seal Kit, Not Sold Separately
805	PR24702-C	O' Ring	1		Part of Seal Kit, Not Sold Separately
806	PR24701-G	Back-up Ring	1		Part of Seal Kit, Not Sold Separately
807	PR24702-D	Wear Ring	1		Part of Seal Kit, Not Sold Separately
808	PR24702-E	Loaded U-Cup	1		Part of Seal Kit, Not Sold Separately
809	PR24702-F	Rod Wiper	1		Part of Seal Kit, Not Sold Separately
810	PR24702-G	Locknut	1		Reference Only, Special Order
811	PR24702-H	Piston	1		Reference Only, Special Order
812	PR24702-I	Barrel Assembly	1		Reference Only, Special Order
813	PR24702-J	Rod	1		Reference Only, Special Order
814	PR24702-K	Spacer	1		Reference Only, Special Order
815	PR24702-L	Internal Head	1		Reference Only, Special Order
816	PR24702-SK	Seal Kit, Secondary Cylinder	1		

7204-3-4
SECONDARY CYLINDER

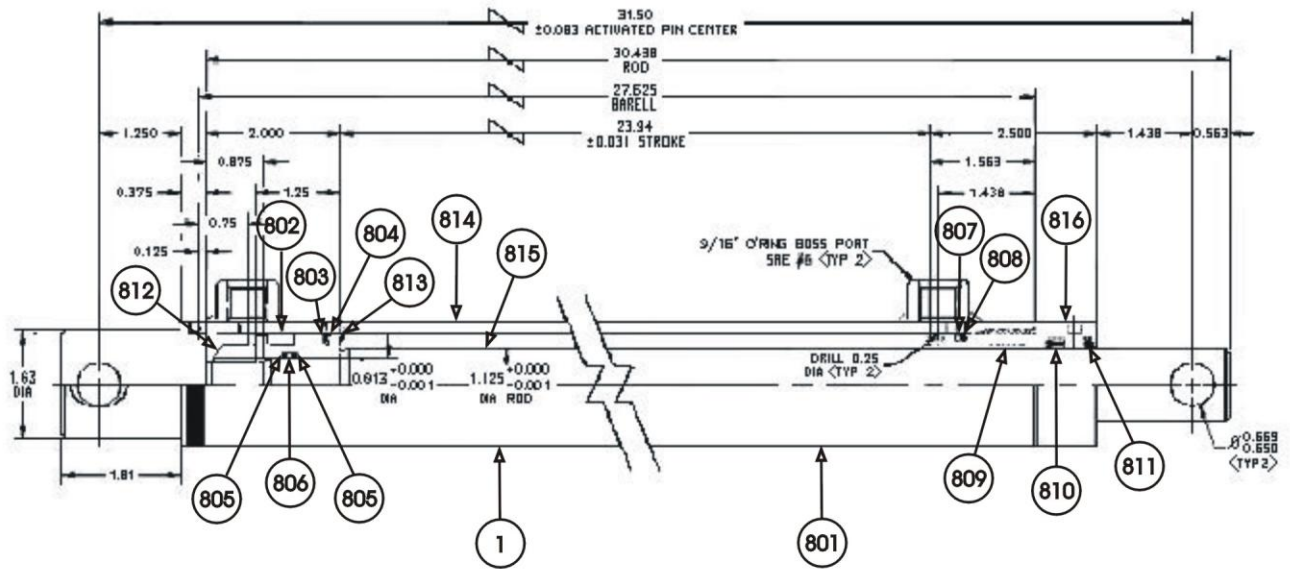


816 SEAL KIT

7204-3-5 Endgate Cylinder

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	PR39068	Cylinder, Endgate, 1.5 bore	1		
802	PR39068-A	Wear Ring	1		Part of Seal Kit, Not Sold Separately
803	PR39068-B	TFE Seal	1		Part of Seal Kit, Not Sold Separately
804	PR39068-C	O Ring	1		Part of Seal Kit, Not Sold Separately
805	PR39068-D	Back-Up Ring	2		Part of Seal Kit, Not Sold Separately
806	PR39068-E	O Ring	1		Part of Seal Kit, Not Sold Separately
807	PR39068-F	O Ring	1		Part of Seal Kit, Not Sold Separately
808	PR39068-G	Back-Up Ring	1		Part of Seal Kit, Not Sold Separately
809	PR39068-H	Wear Ring	1		Part of Seal Kit, Not Sold Separately
810	PR39068-I	Loaded U-Cup	1		Part of Seal Kit, Not Sold Separately
811	PR39068-J	Rod Wiper	1		Part of Seal Kit, Not Sold Separately
812	PR39068-K	Locknut	1		Reference Only, Special Order
813	PR39068-L	Piston	1		Reference Only, Special Order
814	PR39068-M	Barrel Assembly	1		Reference Only, Special Order
815	PR39068-N	Rod	1		Reference Only, Special Order
816	PR39068-OB	Internal Cylinder Head 1 1/2" (Fine)	1		Verify Stamp Location
816	PR39068-O	Internal Cylinder Head 1 1/2" (coarse)	1		Verify Stamp Location
817	PR39068-SK	Seal Kit, Endgate Cylinder, Per Each	1		

7204-3-5 ENDGATE LIFT CYLINDER

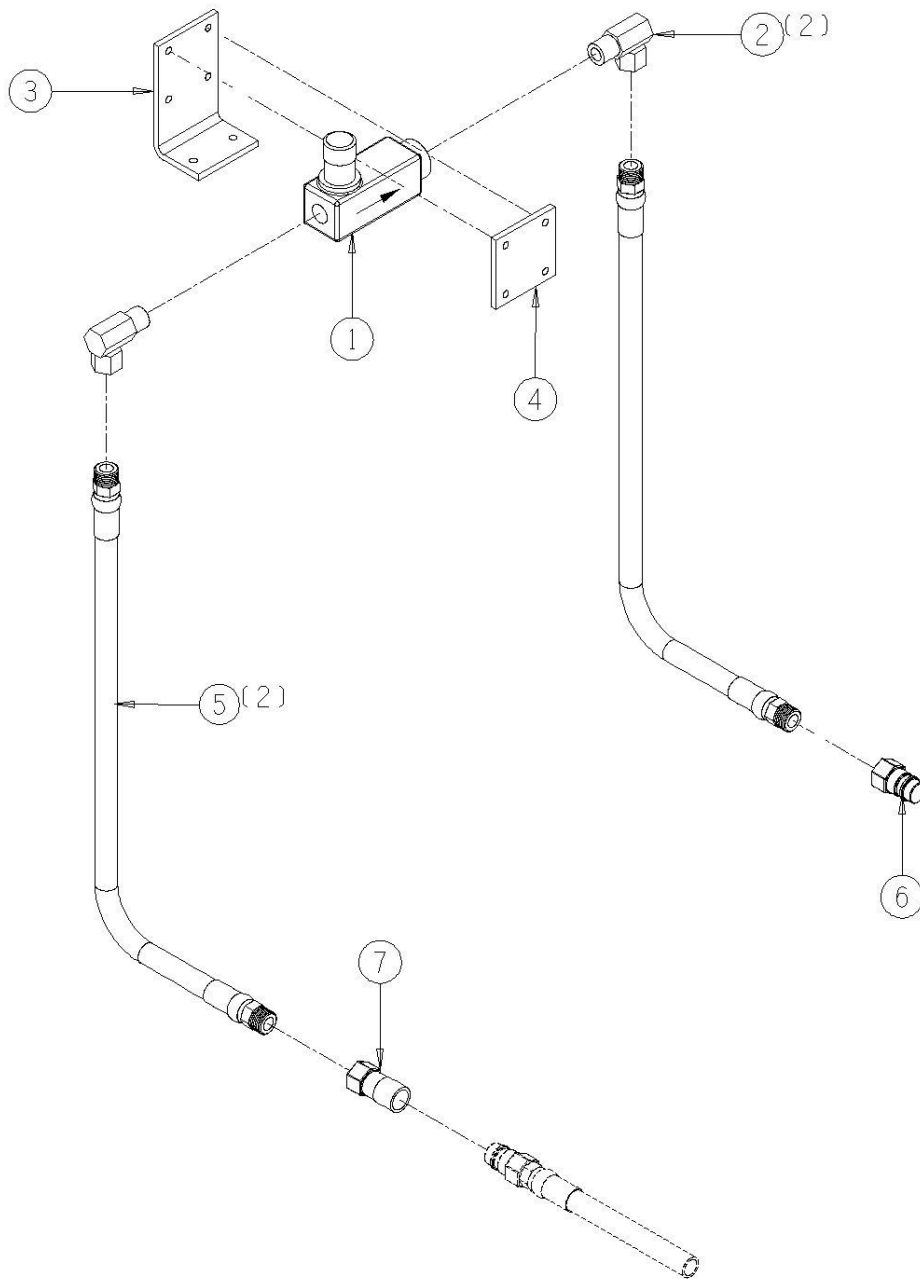


805 Seal Kit

7204-3-6 Optional,Control Valve,Closed Center

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	HV-8-8M-RFF	Flow Control Valve w/ reverse free flow/closed center	1		
2	A-1501-8-8	1/2 MP x 1/2 FPX90°	2		
3	MOU-0015	Mount, Control Valve, Closed Center, Spreader	1		
4	MOU-0016	Mount, Mating Plate, Control Valve, Closed Center	1		
5	H8-70-8MP-8MP	1/2 in hose 1/2MP x 1/2MP x 70 in long	2		
6	A-QD2010-8-8	Tractor Quick Coupler, Male, 1/2" w/ FPT	1		
7	A-QD2050-8-8	Tractor Quick Coupler, Female, 1/2" w/ FPT	1		
101	BL-4-275-H	1/4-20 X 2 3/4 HEX CAP G5 ZC	4		
102	BL-4-LN	1/4-20 HEX LN NE ZC	6		
103	BL-6-FW	3/8 USS FW ZC	6		
104	BL-4-175-H	1/4-20 X 1 3/4 HEX CAP G5 ZC	2		

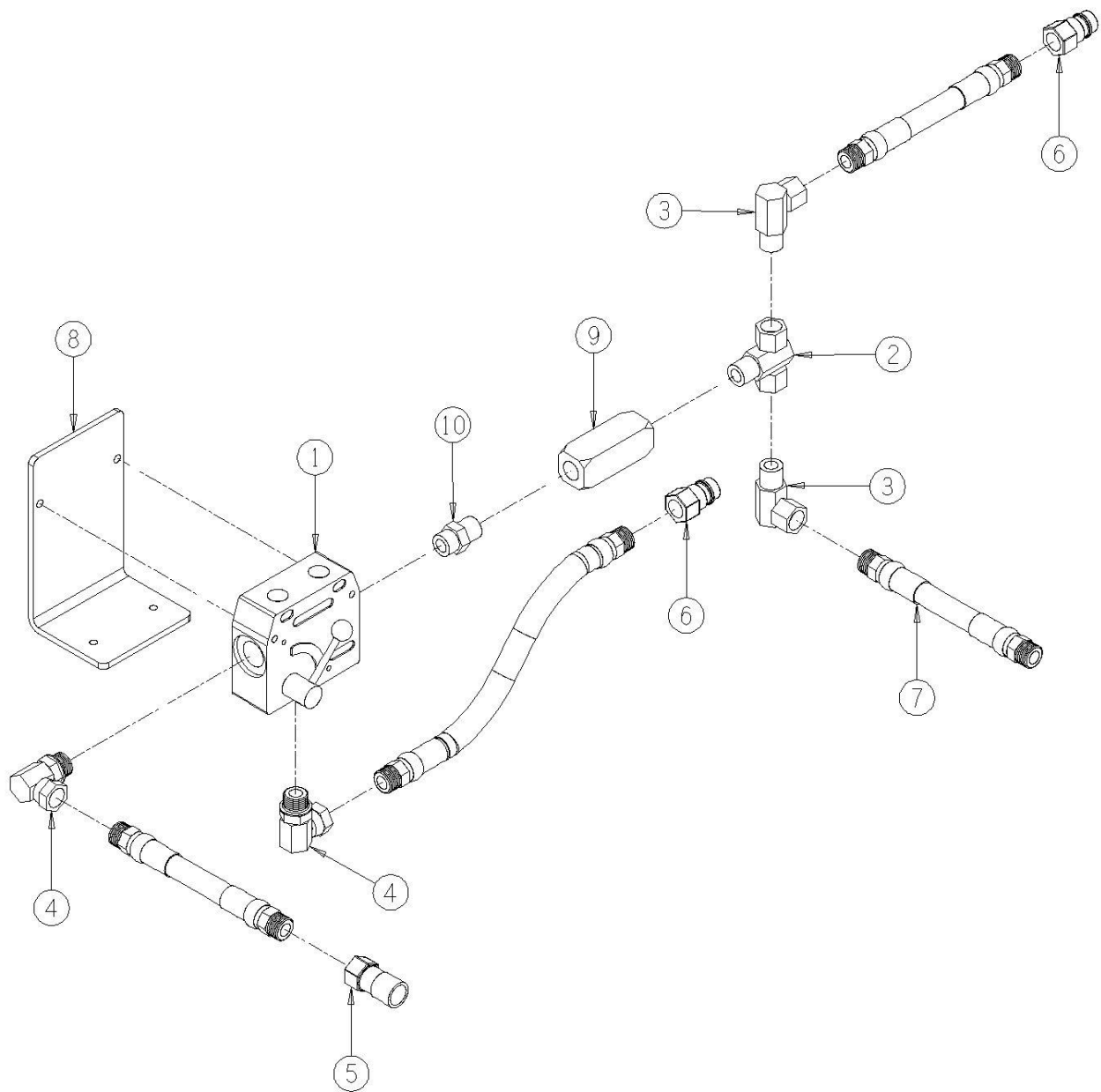
7204-3-6
OPTIONAL, CONTROL VALVE, CLOSED CENTER



7204-3-7 Optional, Control Valve, Open Center

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	HV-FC5510	Flow Control	1		
2	A-1601-8-8-8	1/2 MP x 1/2 FPX x 1/2 FPX Tee	1		
3	A-1501-8-8	1/2 MP x 1/2 FPX90°	2		
4	A-6901-10-8	10 SAE x 1/2 FPX90°, Forged	2		
5	A-QD2050-8-8	Tractor Quick Coupler, Female, 1/2" w/ FPT	2		
6	A-QD2010-8-8	Tractor Quick Coupler, Male, 1/2" w/ FPT	2		
7	H8-70-8MP-8MP	1/2 in hose 1/2MP x 1/2MP x 70 in long	4		
8	MOU-0014	Mount, Control Valve, Open Center, Spreader	1		
9	HV-CKV-800S	1/2" Parker Check Valve	1		
10	A-6401-10-8	10 SAE x 1/2 MPT Male	1		
101	BL-4-175-H	1/4-20 X 1 3/4 HEX CAP G5 ZC	4		
102	BL-4-LN	1/4-20 HEX LN NE ZC	4		
103	BL-4-FW	1/4 USS FW ZC	4		

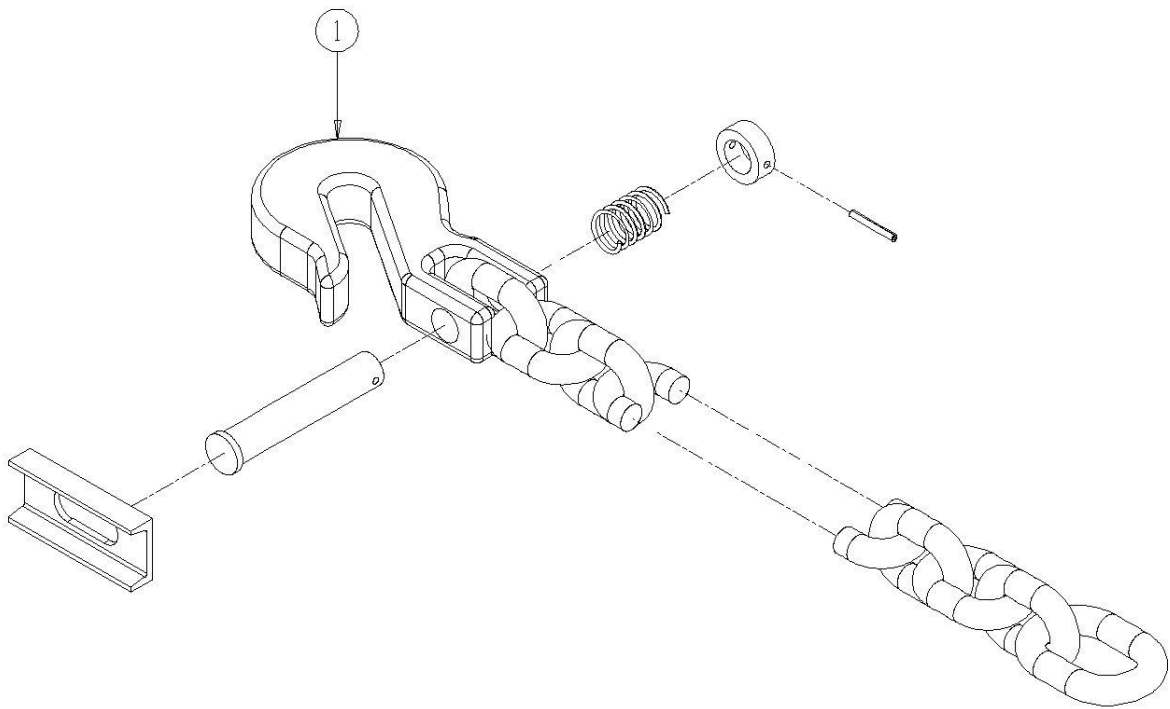
7204-3-7
OPTIONAL, CONTROL VALVE, OPEN CENTER



7204-4-1 Optional, Safety Chain

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	FRM-3164	Safety Chain, Agricultural, 20,200 lb. Capacity	1		
101	BL-12-450-8	¾" x 4 1/2", HH C/S G8 ZC	1		
102	BL-12-LN-8	¾" Lock Nuts w/ Nylon Inserts, Grade 8	1		
103	PR37152	Washer, Safety Chain	1		

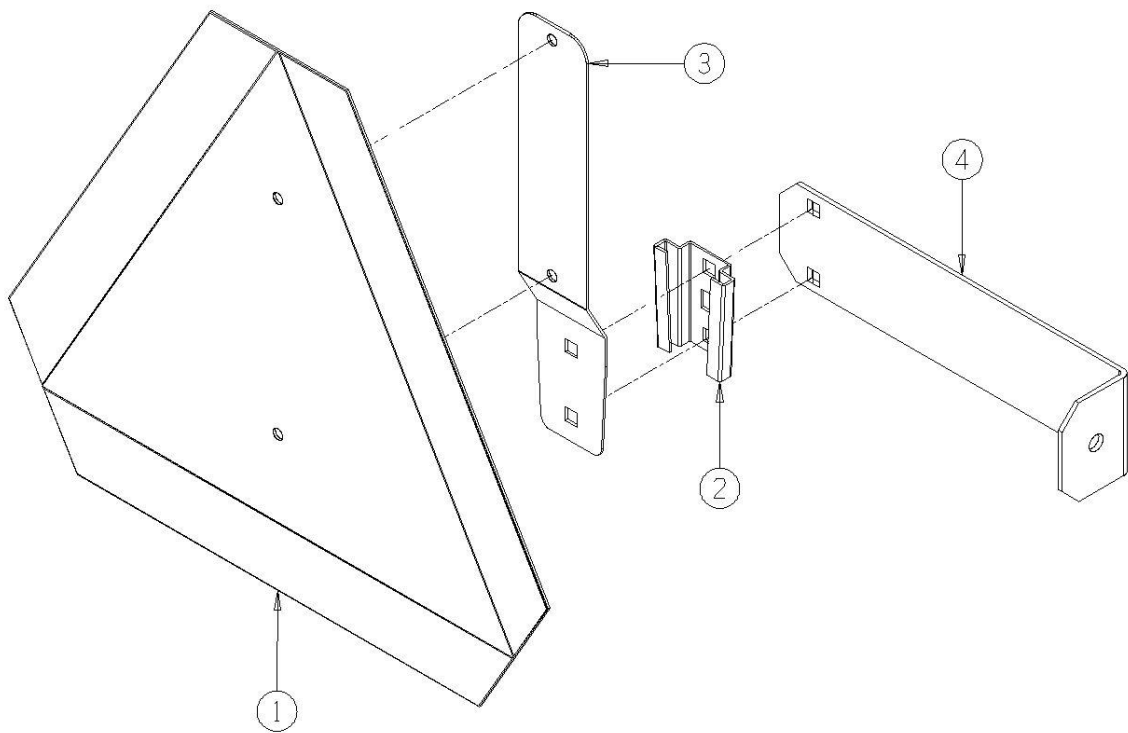
7204-4-1 OPTIONAL, SAFETY CHAIN



7204-4-2 SMV Emblem & Brackets

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	SMV-PL	SMV Sign, Metal	1		
2	SMV-S	Socket for Spade Mount	1		
3	SMV-SM	Spade Mount	1		
4	PR39117	Bracket, SMV Sign, Spreader	1		
101	BL-5-075-H	5/16-18 X ¾ HEX CAP G5 ZC	2		
102	BL-4-062-C	1/4" x 5/8" Zinc Carriage Bolt	2		
103	BL-5-LN	5/16-18 HEX LN NE ZC	2		
104	BL-4-LN	1/4-20 HEX LN NE ZC	2		
105	BL-5-FW	5/16 USS FW ZC	2		

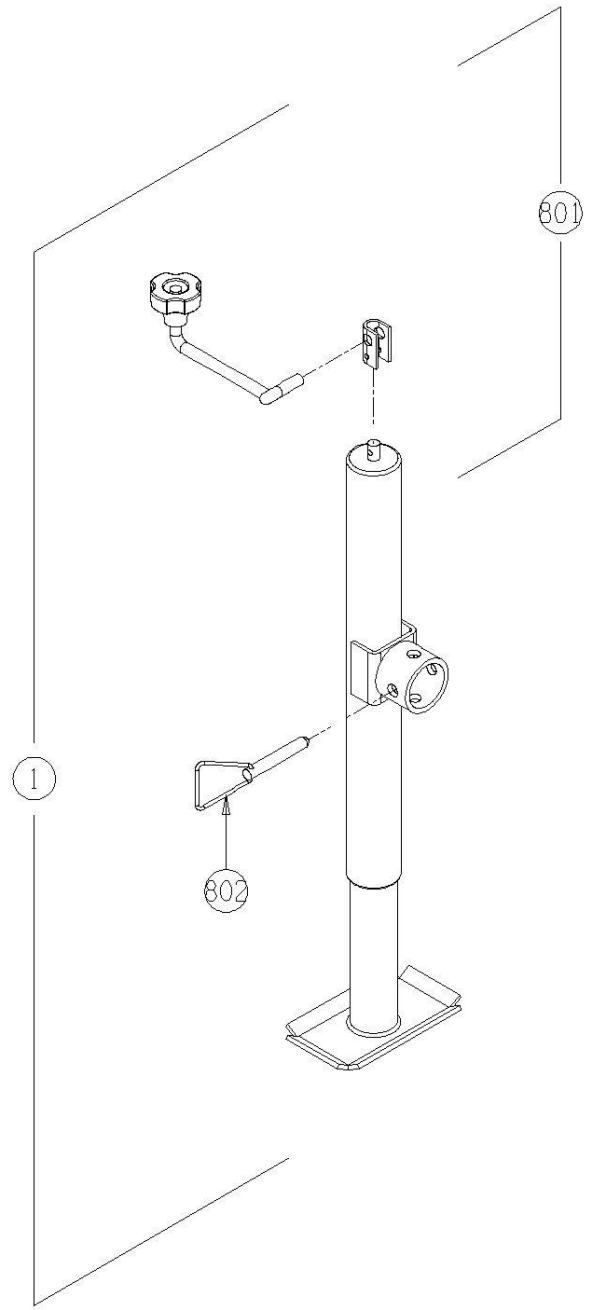
7204-4-2
SMV EMBLEM & BRACKETS



7204-4-3 Jack Stand

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	WH-16122	Bulldog Sidewind Swivel Jack, 5,000 lb.	1	-71009001 -70209005	Old Style-Topwind, Part No. 18-450-3
801	WH-16122-D	Crank Assy for Bulldog Topwind Swivel Jack	1	-71009001	
802	WH-16122-E	Pin & Chain Assy for Bulldog Topwind Swivel Jack	1	-71009001	

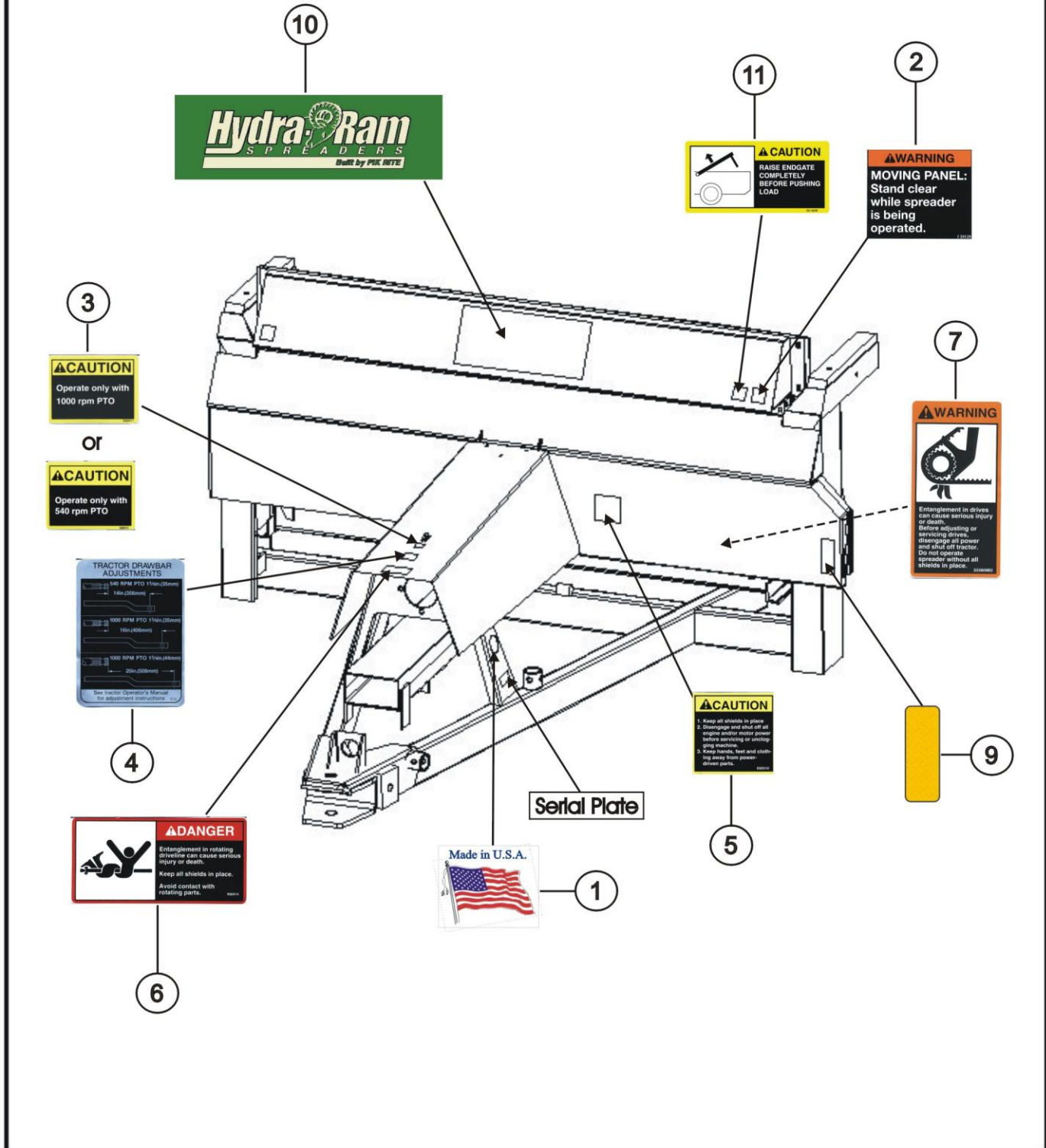
7204-4-3
JACK STAND



7204-4-4 Decals, Front

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
0	MAN-0041	Manual, Parts, 490 Spreader	0		
0	MAN-0042	Manual, Operators, 490 Spreader	0		
1	DC-0011	Decal, All, 'Made in USA', White Back w/ Red & Blue Letters	1		
2	DC-0020	Decal, Warning, Moving Panel	2		
3	DC-0024	Decal, Caution, 540 rpm PTO	1		
3	DC-0021	Decal, Caution, 1000 rpm PTO	0		
4	DC-0022	Decal, Tractor Drawbar Adjustments	1		
5	DC-0023	Decal, Caution, Keep All Shields In Place	1		
6	DC-0025	Decal, Danger, Entanglement In Rotating Drive	1		
7	DC-0027	Decal, Warning, Entanglement In Drives	1		
9	DC-0034	Decal, Amber, Reflector, Spreader	1		
10	DC-0052	Decal, 'Hydra Ram Spreaders' Logo, Large	1		
11	DC-0038	Decal, Caution, Raise Endgate Completely	1		
101	RI-3-6-P	Pop Rivets 3/16 x 3/8 Domed, .375 head, ea.	2		

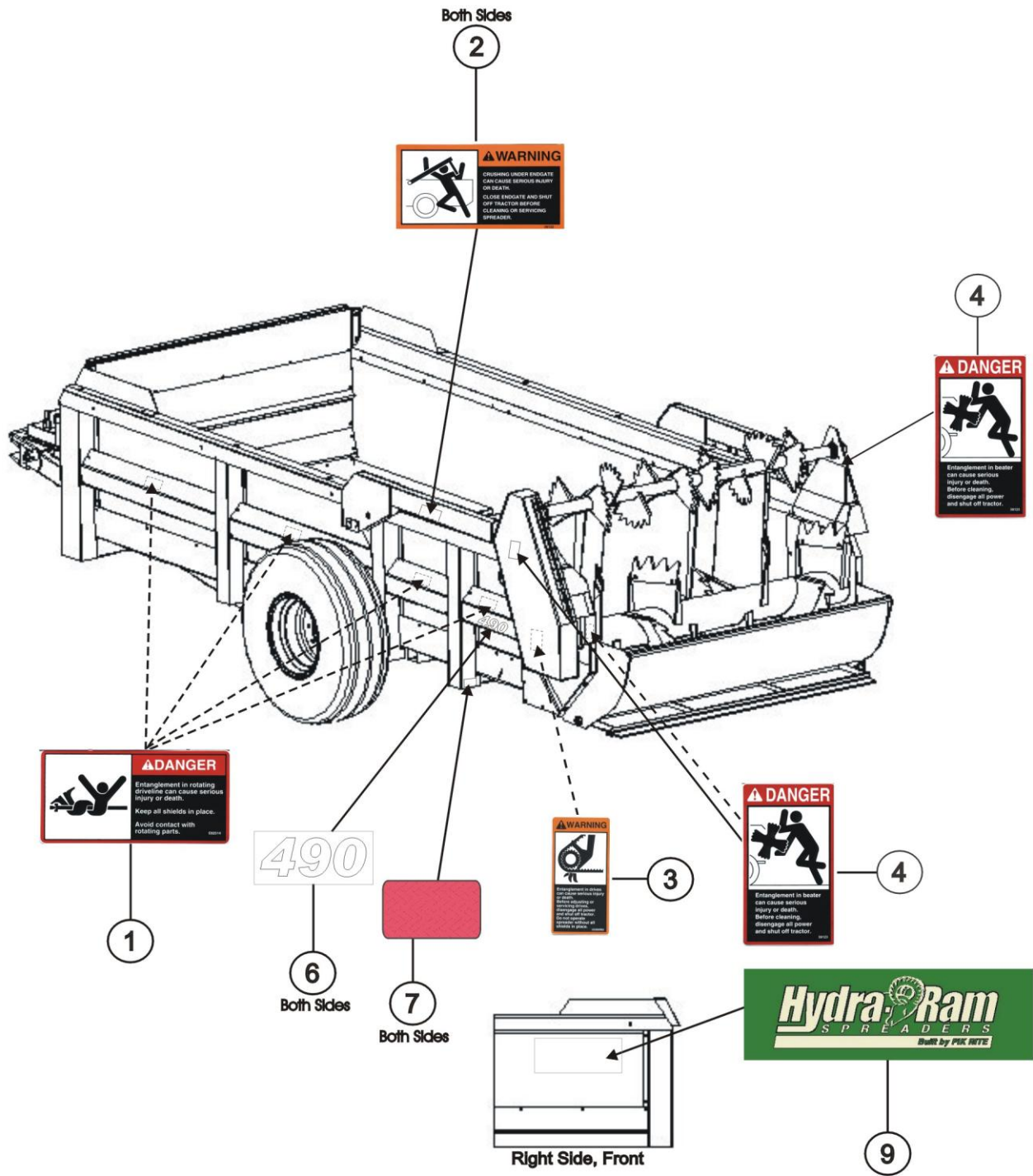
7204-4-4 DECALS, FRONT OF SPREADER



7204-4-5 Decals, Side & Rear

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	DC-0025	Decal, Danger, Entanglement In Rotating Drive	4		
2	DC-0026	Decal, Warning, Crushing Under Endgate	2		
3	DC-0027	Decal, Warning, Entanglement In Drives	1		
4	DC-0030	Decal, Danger, Entanglement In Beater	3		
5	DC-0036	Decal, 'HYDRA-RAM', Side Panels, Block Letters	2		
6	DC-0047	Decal, '490', Spreader	2		
7	DC-0033	Decal, Red, Reflector, Spreader	2		
8	DC-0038	Decal, Caution, Raise Endgate Completely	1		
9	DC-0052	Decal, 'Hydra Ram Spreaders' Logo, Large	1		

7204-4-5 DECALS, SIDE OF SPREADER



7204-4-6 Manual Holder

<u>Ref</u>	<u>Part No.</u>	<u>Description</u>	<u>Parts – Assembly</u>	<u>Will Fit SN</u>	<u>Remarks</u>
1	MAN-67670	Manual Holder/Canister	1		
101	BL-1224-087-DT	12-24 x 7/8 Drill and Tap Screw	4		

7204-4-6 MANUAL HOLDER

