

GEARMORE® **TWINSTAR**

GENERATION 2 BASKET RAKES



PARTS MANUAL

For

**MODELS 2027G2-7 & 2030G2-7
7 BAR SERIES**

2013

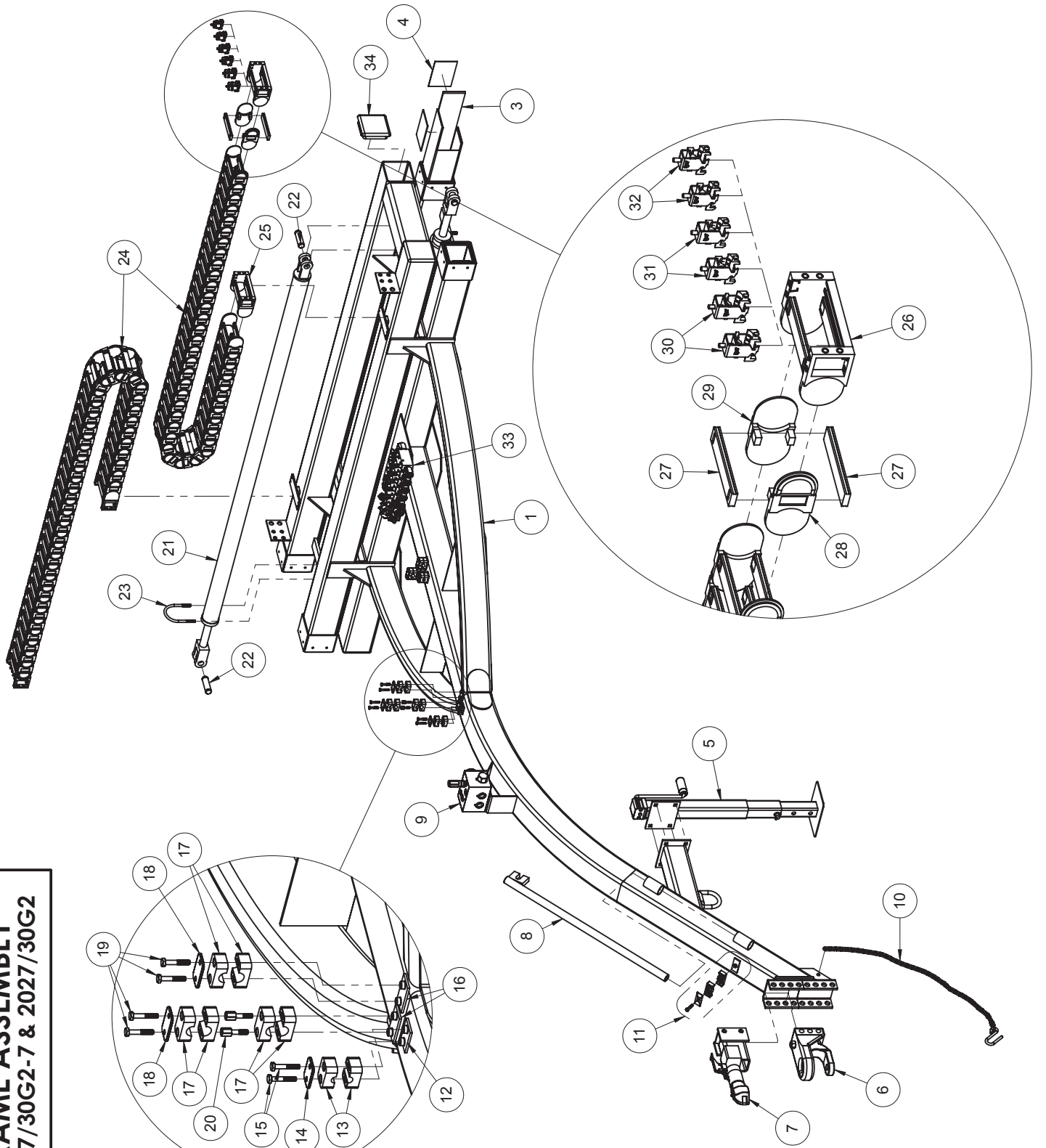


TWINSTAR

GENERATION 2 PARTS MANUAL

DESCRIPTION	PAGE
TABLE OF CONTENTS	1
MAINFRAME ASSEMBLY	2-3
EXTENSION ARM ASSEMBLY	4-7
BASKET HANGER, FRAME, & LIFT ASSEMBLY	8-13
TWIN HUB AND STAR ASSEMBLY	14-15
GAUGE WHEEL ASSEMBLY	16-17
ANGLE STOP ASSEMBLY	18-19
HYDRAULIC FLOW CONTROL	20-21
HYDRAULIC SCHEMATIC – 5 FUNCTION	22-23
HYDRUALIC SCHEMATIC – 6 FUNCTION	24-25
EXTENSION ARM HYDRAULIC CYLINDER	26
FIVE FUNCTION CONTROL BOX	27-29
SIX FUNCTION CONTROL BOX	30-32
FIVE FUNCTION CONTROL VALVE	33-38
SIX FUNCTION CONTROL VALVE	37-40
FIVE FUNCTION CONTROL VALVE WITH E-SERIES COILS	41-45
SIX FUNCTION CONTROL VALVE WITH E-SERIES COILS	44-46
FIVE FUNCTION CONTROL BOX (E-SERIES COILS)	47-49
SIX FUNCTION CONTROL BOX (E-SERIES COILS)	50-51

MAIN FRAME ASSEMBLY
MODELS: 2027/30G2-7 & 2027/30G2



MAINFRAME ASSEMBLY
MODELS: 2027/30G2-7

ITEM	QTY	PART NO	DESCRIPTION
1	1	HR-2030-G2	Main Frame
3	16	HR-0051-G2	Slide Tube Wear Strip 1/4" x 3 7/8"
4	8	HR-0055-G2	12 Gauge Shim
#	16	G-25-1.25-SFHMS	1/4" x 1 1/4" Slot Flat Head Machine Screw w/ 1/4" Nylock Nut (Shim Side) (not shown)
#	16	G-25-1-SFHMS	1/4" x 1" Slot Flat Head Machine Screw w/ 1/4" Nylock Nut (not shown)
	Ref	HR-0051HK	Slide Tube Wear Strip Hardware Kit, Includes 16 ea. of the above 2 items
5	1	HR-2052	Tongue Jack
6	1	HR-0490	Clevis Hitch Assembly
7	Ref	HR-2410P	2-5/16" Ball Hitch - optional for clevis hitch
8	1	HR-2001	Stripper Bar Adjustment Tool
9	1	HR-0391	Hydraulic Manifold w/ Cartridges
10	1	HR-0341	Safety Chain - 37"
11	1	HR-0404	1/2" Clamp - Double Hose (w/ Mounting Plate & Top Plate)
12	2	HR-0700	Base Plate (1/2" Clamp - Single Hose)
13	2	HR-0417	1/2" Clamp - Single Hose
14	2	HR-0415	Top Plate (1/2" Clamp - Single Hose)
15	4	HR-0419	1/4" x 1-1/2" HHCS
16	4	HR-0701	Base Plate (3/4" Clamp - Single Hose)
17	6	HR-0407	3/4" Clamp - Single Hose
18	4	HR-0408	Top Plate (3/4" Clamp - Single Hose)
19	8	HR-0419	1/4" x 1-1/2" HHCS
20	4	HR-0406	Stack Bolt 3/4" Clamp
21	2	HR-0318-1	Spread Cylinder Without External Hydraulic Line, Ram
22	4	HR-0317	Hyd Cyl Pin
23	2	G-375-3.5-NCU	3/8" x 3 1/2" U-Bolt
24	1	HR-3110	Energy Chain - Set of 2, 6-5/8" Width Assembled Chains
25	2	HR-3111	Energy Chain - Female KMA Bracket For 6-5/8" Width Chain
26	2	HR-3112	Energy Chain - Male KMA Bracket For 6-5/8" Width Chain
27	168	HR-3113	Energy Chain - Crossbar For 6-5/8" Width Chain
28	80	HR-3104	Energy Chain - Side Plate LH For 5-1/4" & 6 5/8" Width Chain
29	80	HR-3105	Energy Chain - Side Plate RH For 5-1/4" & 6 5/8" Width Chain
30	4	HR-3106	Energy Chain - Chain Fix 1/2" Single For 5-1/4" & 6-5/8" Width Chain
31	4	HR-3115	Energy Chain - Chain Fix 3/8" Single For 6-5/8" Width Chain
32	4	HR-3114	Energy Chain - Chain Fix 1/4" Single For 6-5/8" Width Chain
	1	HR-3100	Energy Chain - Set of 2, 5-1/4" Width Assembled Chains (not shown)
	2	HR-3101	Energy Chain - Female KMA Bracket For 5-1/4" Width Chain (not shown)
	2	HR-3102	Energy Chain - Male KMA Bracket For 5-1/4" Width Chain (not shown)
	168	HR-3103	Energy Chain - Crossbar For 5-1/4" Width Chain (not shown)
	4	HR-3107	Energy Chain - Chain Fix 1/4" Double For 5-1/4" Width Chain (not shown)
#	REF	HR-3117	Energy Chain - Hose Seperator (not shown)
33	1	700-0805-4022	Hydraulic Control Valve (5 Function) Serial #10128 & Over
33	1	HR-0810	Hydraulic Control Valve (5 Function) Serial #10127 & Under
33	Ref	700-0806-4022	Hydraulic Control Valve (6 Function) *option Serial #10128 & Over
33	Ref	700-0806-4021	Hydraulic Control Valve (6 Function) *option Serial #10127 & Under
34	4	HSR-0023	5" Plastic Cap (not used prior to 2009)
#	Ref	HR-R3605437	Spread Cylinder Seal Kit (not Shown)
#	1	HR-0343	SMV Sign (not shown)
#	1	HR-2006	Tool Box (not shown) (not used prior to 2012)
#	Ref	HR-2008	Width Marker Decal Set
#	1	HR-0433	Parts Manual Canister (not shown) (used prior to 2012)

Note: When ordering parts for Energy Chain, please refer to the part number stamped on each part for accuracy

EXTENSION ARM ASSEMBLY

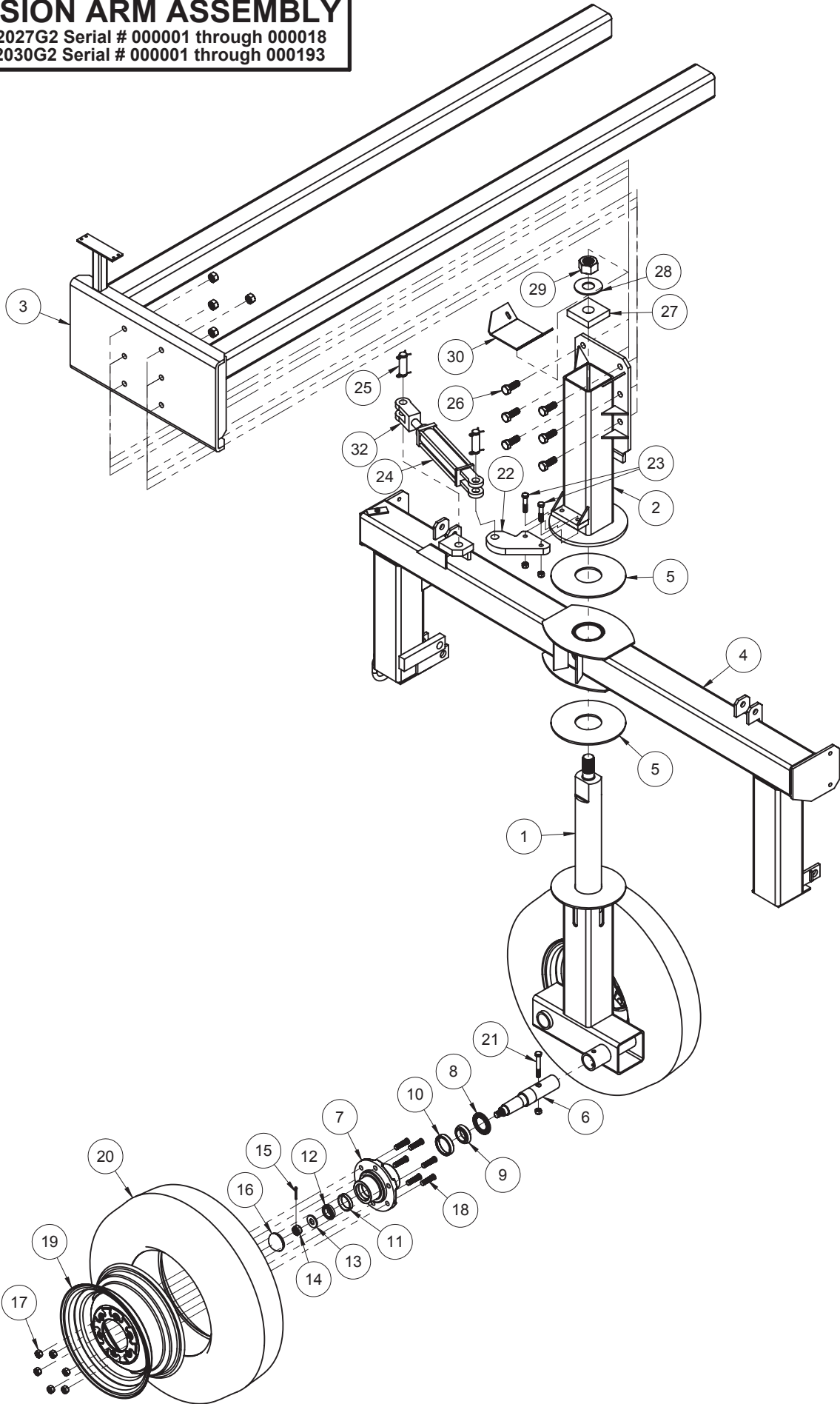
MODELS: 2027/30G2-7

Serial # 10100 and Greater

ITEM	QTY	PART NO	DESCRIPTION
1	1	HSR-2470	Wheel Tower Weldment - RH
1	1	HSR-2471	Wheel Tower Weldment - LH
2	2	HR-2510-1	Wheel Tower Receiver (with 8 13/16" wide hole spacing)
3	1	HSR-2100-1	Double Slide Weldment - RH
3	1	HSR-2101-1	Double Slide Weldment - LH
4	1	HR-2478	Basket Pivot Weldment - RH
4	1	HR-2479	Basket Pivot Weldment - LH
5	4	HR-0481	UHMW Pivot Plate
6	4	HR-0083	Spindle RTM SA3500F
7	4	HR-0082	Wheel Hub w/ Bearings & Seal RTM 2-3566F-C2-00
8	4	HR-0383	Spindle Seal National 473463
9	4	HR-0378	Inner Bearing LM501349
10	4	HR-0379	Inner Race LM501310
11	4	HR-0377	Outer Race LM67010
12	4	HR-0376	Outer Bearing LM67048
13	4	HR-0382	Spindle Washer
14	4	HR-0381	Spindle Nut 3/4" NF Slotted
15	4	HR-0384	Cotter Pin 1/8" x 2"
16	4	HR-0375	Grease Cap
17	24	HR-0380	Lug Nut 9/16" NF
18	24	ST562	9/16" NF - 2 1/4" Stud
19	4	HR-0085	Wheel
20	4	HR-0086	7.50 x 15 Smooth Tire
20	4	HR-0707	LT235/75R15 Road Tire (not shown)
21	4	HR-0704	1/2" x 3 1/2" NC Gr.5 Cap Screw w/ 1/2" Grip Nut
22	2	HR-0066A	Break Away Cylinder Mount
23	4	HR-0705	1/2" x 2 1/2" NC Gr.8 Cap Screw w/ 1/2" Grip Nut
24	2	HR-0106	2" x 8" ASAE Hydraulic Cylinder
25	4	HR-0317	Hydraulic Cylinder Pin
26	12	HR-0706	3/4" x 2 1/2" NC Gr.8 Cap Screw w/ 3/4" Grip Nut
27	2	HR-0472	Washer Plate
28	2	G-1.5SAEFW	1 1/2" SAE Flat Washer
29	2	HR-0473	1 1/2" SAE Nylock
30	2	HSR-0015	5" Plastic Cap (Modified)
32	2	HR-0314	Hydraulic Cylinder Rod Clevis
**	4	HR-0082	Wheel Hub w/ Bearings & Seal RTM 2-3566F-C2-00
**		HR-0313	Hydraulic Cylinder Seal Kit, (Not Shown) Spencer #639572

EXTENSION ARM ASSEMBLY

MODELS: 2027G2 Serial # 000001 through 000018
2030G2 Serial # 000001 through 000193

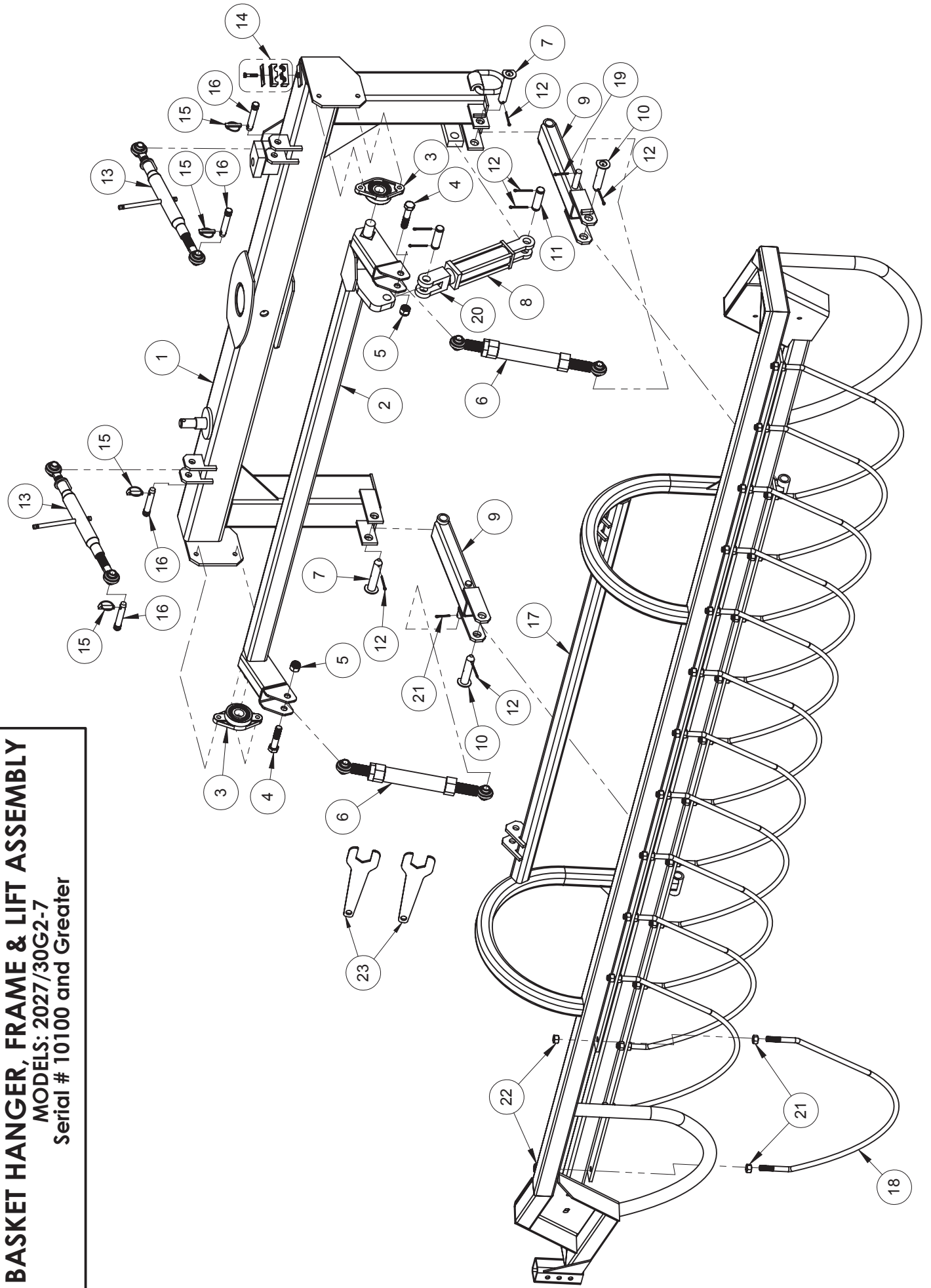


EXTENSION ARM ASSEMBLY

MODELS: 2027G2-7 Serial # 000001 through 000018
2030G2-7 Serial # 000001 through 000193

ITEM	QTY	PART NO	DESCRIPTION
1	1	HSR-2470	Wheel Tower Weldment - RH
1	1	HSR-2471	Wheel Tower Weldment - LH
2	2	HR-2510	Wheel Tower Receiver (with 7" wide hole spacing)
3	1	HSR-2100	Double Slide Weldment - RH
3	1	HSR-2101	Double Slide Weldment - LH
4	1	HR-2478	Basket Pivot Weldment - RH
4	1	HR-2479	Basket Pivot Weldment - LH
5	4	HR-0481	UHMW Pivot Plate
6	4	HR-0083	Spindle RTM SA3500F
7	4	HR-0082	Wheel Hub w/ Bearings & Seal RTM 2-3566F-C2-00
8	4	HR-0383	Spindle Seal National 473463
9	4	HR-0378	Inner Bearing LM501349
10	4	HR-0379	Inner Race LM501310
11	4	HR-0377	Outer Race LM67010
12	4	HR-0376	Outer Bearing LM67048
13	4	HR-0382	Spindle Washer
14	4	HR-0381	Spindle Nut 3/4" NF Slotted
15	4	HR-0384	Cotter Pin 1/8" x 2"
16	4	HR-0375	Grease Cap
17	24	HR-0380	Lug Nut 9/16" NF
18	24	ST562	9/16" NF - 2 1/4" Stud
19	4	HR-0085	Wheel
20	4	HR-0086	7.50 x 15 Smooth Tire
20	4	HR-0707	LT235/75R15 Road Tire (not shown)
21	4	HR-0704	1/2" x 3 1/2" NC Gr.5 Cap Screw w/ 1/2" Grip Nut
22	2	HR-0066A	Break Away Cylinder Mount
23	4	HR-0705	1/2" x 2 1/2" NC Gr.8 Cap Screw w/ 1/2" Grip Nut
24	2	HR-0106	2" x 8" ASAE Hydraulic Cylinder
25	4	HR-0317	Hydraulic Cylinder Pin
26	12	HR-0706	3/4" x 2 1/2" NC Gr.8 Cap Screw w/ 3/4" Grip Nut
27	2	HR-0472	Washer Plate
28	2	G-1.5SAEFW	1 1/2" SAE Flat Washer
29	2	HR-0473	1 1/2" SAE Nylock
30	2	HR-0513	Cover Plate
32	2	HR-0314	Hydraulic Cylinder Rod Clevis
**	4	HR-0082	Wheel Hub w/ Bearings & Seal RTM 2-3566F-C2-00
**		HR-0313	Hydraulic Cylinder Seal Kit, (Not Shown) Spencer #639572

BASKET HANGER, FRAME & LIFT ASSEMBLY
 MODELS: 2027/30G2-7
 Serial # 10100 and Greater



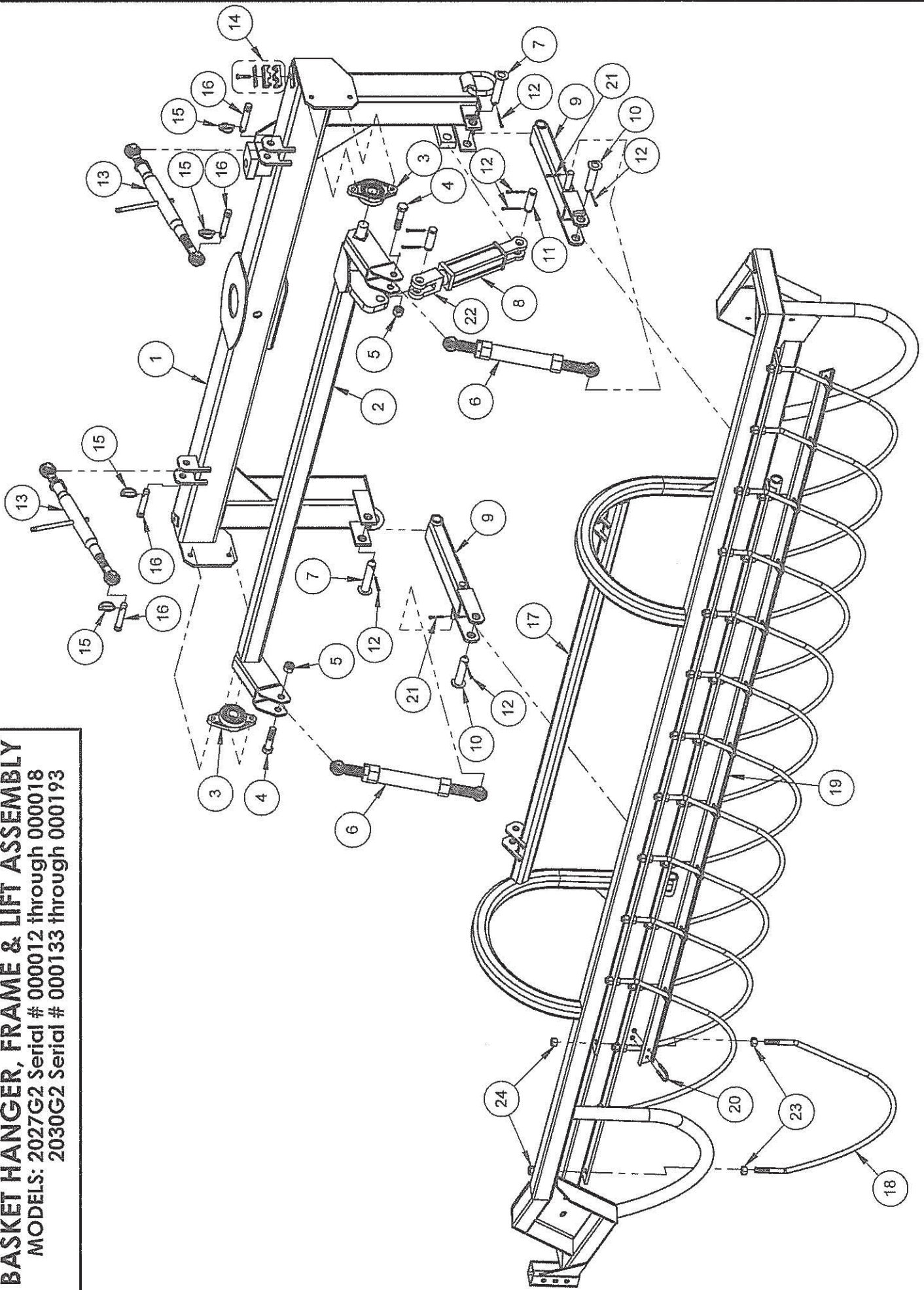
BASKET HANGER, FRAME AND LIFT ASSEMBLY

MODELS: 2027/30G2-7

Serial # 10100 and Greater

ITEM	QTY	PART NO	DESCRIPTION
1	1	HR-2478	Basket Pivot Weldment - RH
1	1	HR-2479	Basket Pivot Weldment - LH (Not Shown)
2	1	HR-2450-1	Suspension Axle - RH
2	1	HR-2451-1	Suspension Axle - LH (Not Shown)
3	4	HR-0232	Flange Bearing
4	4	G-75-3.5NCCS	3/4" x 3 1/2" HHCS
5	4	G-75NCHGN	3/4" Hex Grip Nut
6	4	HR-2003-A	Adjustable Link
7	4	HR-2117	Clevis Pin, Bottom 4-3/4" (Serial #12102 or less)
7	4	HR-11117	Clevis Pin, Bottom 4-3/4" (Greaseable) (Serial #12103 or greater)
8	2	HR-0107	2" x 6" Hydraulic Cylinder
9	4	HR-2113-1	Parallel Arm (Serial #12102 or less)
9	4	HR-2113-2	Parallel Arm (Serial #12103 or greater)
10	4	HR-2116	Clevis Pin, Top 4-1/2" (Serial #12102 or less)
10	4	HR-11116	Clevis Pin, Top 4-1/2" (Greaseable) (Serial #12103 or greater)
11	4	HR-0317	Hydraulic Cylinder Pin
12	16	HR-0159	Cotter Pin 3/16" x 1-1/2"
13	4	HR-0200	Top Link
14	2	HR-0404	1/2" Double Hose Clamp w/ Mounting Plate
15	8	HR-0198	Lynch Pin - 7/16"
16	8	HR-0105	Pin
17	1	HR-2623-1	Basket Frame - 7-Tine Bar, 12' - RH (Serial #12102 or less)
17	1	HR-2623-2	Basket Frame - 7-Tine Bar, 12' - RH (Serial #12103 or greater)
17	1	HR-2624-1	Basket Frame - 7-Tine Bar, 12' - LH (Not Shown) (Serial #12102 or less)
17	1	HR-2624-2	Basket Frame - 7-Tine Bar, 12' - LH (Not Shown) (Serial #12103 or greater)
17	Ref	HR-2621-1	Basket Frame - 7-Tine Bar, 10 1/2' - RH (Not Shown) (Serial #12102 or less)
17	Ref	HR-2621-2	Basket Frame - 7-Tine Bar, 10 1/2' - RH (Not Shown) (Serial #12103 or greater)
17	Ref	HR-2622-1	Basket Frame - 7-Tine Bar, 10 1/2' - LH (Not Shown) (Serial #12102 or less)
17	Ref	HR-2622-2	Basket Frame - 7-Tine Bar, 10 1/2' - LH (Not Shown) (Serial #12103 or greater)
18	24	HR-2630	Stripper Bar (7-Tine Bar, RH & LH, 10 1/2' & 12' Basket)
19	4	HR-0703	Cotter Pin 1/4" x 1-1/2"
20	2	HR-0314	Hydraulic Cylinder Rod Clevis
21	48	G-625NCHN	5/8" NC Hex Nut
22	48	G-625NCHGN	5/8" Hex Grip Nut
23	2	HR-2004-A	Basket Adjustment Wrench
#	2	HR-2007	Tooth Tool
#		HR-0313	Hydraulic Cylinder Seal Kit, (Not Shown) Spencer #639572

BASKET HANGER, FRAME & LIFT ASSEMBLY
 MODELS: 2027G2 Serial # 000012 through 000018
 2030G2 Serial # 000133 through 000193

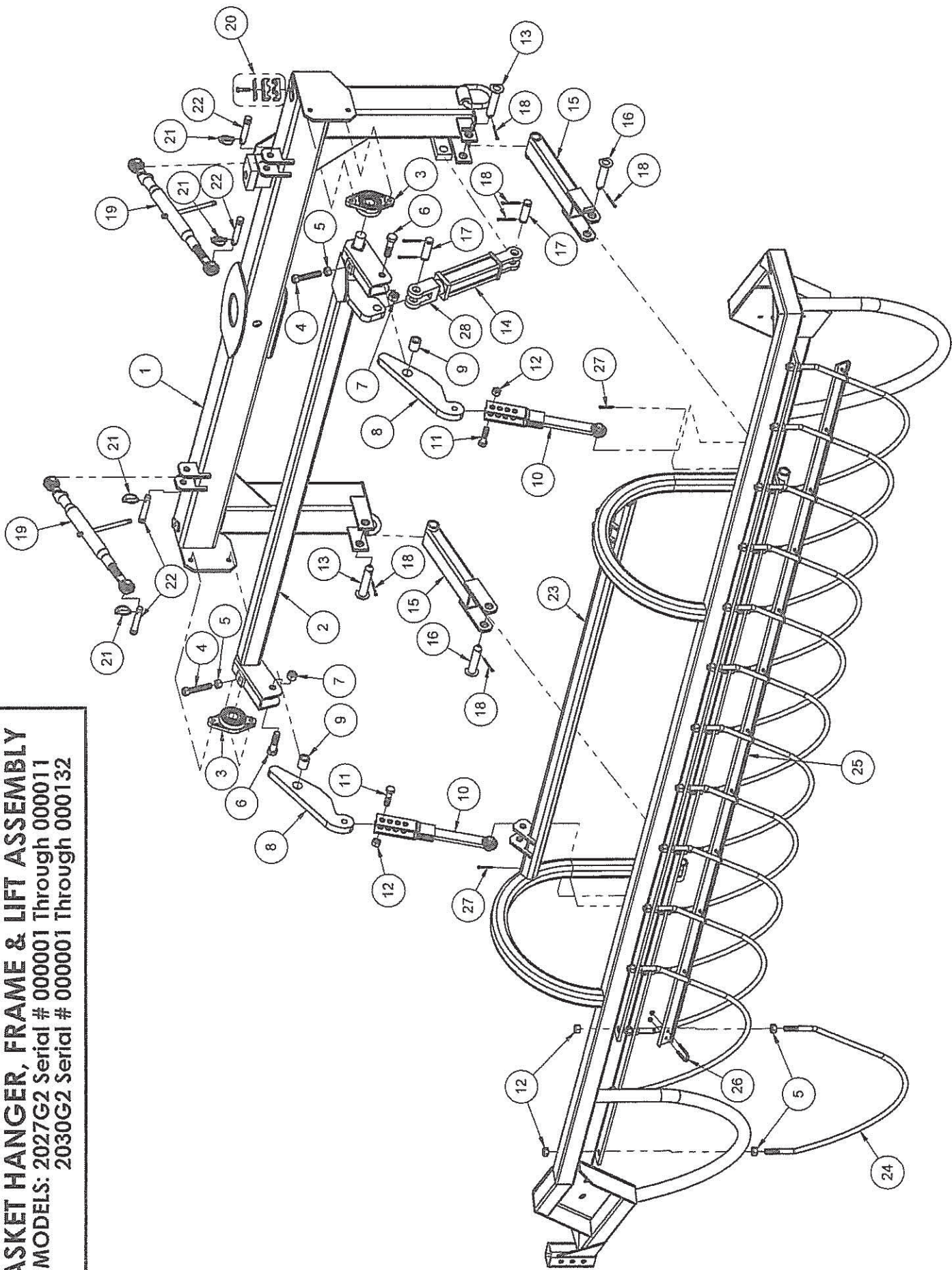


BASKET HANGER, FRAME AND LIFT ASSEMBLY

**MODELS: 2027G2-7 Serial # 000012 through 000018
2030G2-7 Serial # 000133 through 000193**

ITEM	QTY	PART NO	DESCRIPTION
1	1	HR-2478	Basket Pivot Weldment - RH
1	1	HR-2479	Basket Pivot Weldment - LH (Not Shown)
2	1	HR-2450-1	Suspension Axle - RH
2	1	HR-2451-1	Suspension Axle - LH (Not Shown)
3	4	HR-0232	Flange Bearing
4	4	G-75-3.5NCCS	3/4" x 3 1/2" HHCS
5	4	G-75NCHGN	3/4" Hex Grip Nut
6	4	HR-2003	Adjustable Link
7	4	HR-2117	Clevis Pin, Bottom 4-3/4"
8	2	HR-0107	2" x 6" Hydraulic Cylinder
9	4	HR-2113-1	Parallel Arm
10	4	HR-2116	Clevis Pin, Top 4-1/2"
11	4	HR-0317	Hydraulic Cylinder Pin
12	16	HR-0159	Cotter Pin 3/16" x 1-1/2"
13	4	HR-0200	Top Link
14	2	HR-0404	1/2" Double Hose Clamp w/ Mounting Plate
15	8	HR-0198	Lynch Pin - 7/16"
16	8	HR-0105	Pin
17	1	HR-2623-1	Basket Frame - 7-Tine Bar, 12' - RH
17	1	HR-2624-1	Basket Frame - 7-Tine Bar, 12' - LH (Not Shown)
17	Ref	HR-2621-1	Basket Frame - 7-Tine Bar, 10 1/2' - RH (Not Shown)
17	Ref	HR-2622-1	Basket Frame - 7-Tine Bar, 10 1/2' - LH (Not Shown)
18	24	HR-2630	Stripper Bar (7-Tine Bar, RH & LH, 10 1/2' & 12' Basket)
19	2	HR-0671	Support Channel 12'
19	Ref	HR-0670	Support Channel 10 1/2' (Not Shown)
20	24	HR-0222	1/4" U-Bolt w/1/4" Hex Grip Nuts
21	4	HR-0703	Cotter Pin 1/4" x 1-1/2"
22	2	HR-0314	Hydraulic Cylinder Rod Clevis
23	48	G-625NCHN	5/8" NC Hex Nut
24	48	G-625NCHGN	5/8" Hex Grip Nut
	2	HR-2004	Basket Adjustment Wrench
#		HR-0313	Hydraulic Cylinder Seal Kit, (Not Shown) Spencer #639572

BASKET HANGER, FRAME & LIFT ASSEMBLY
 MODELS: 2027G2 Serial # 000001 Through 000011
 2030G2 Serial # 000001 Through 000132



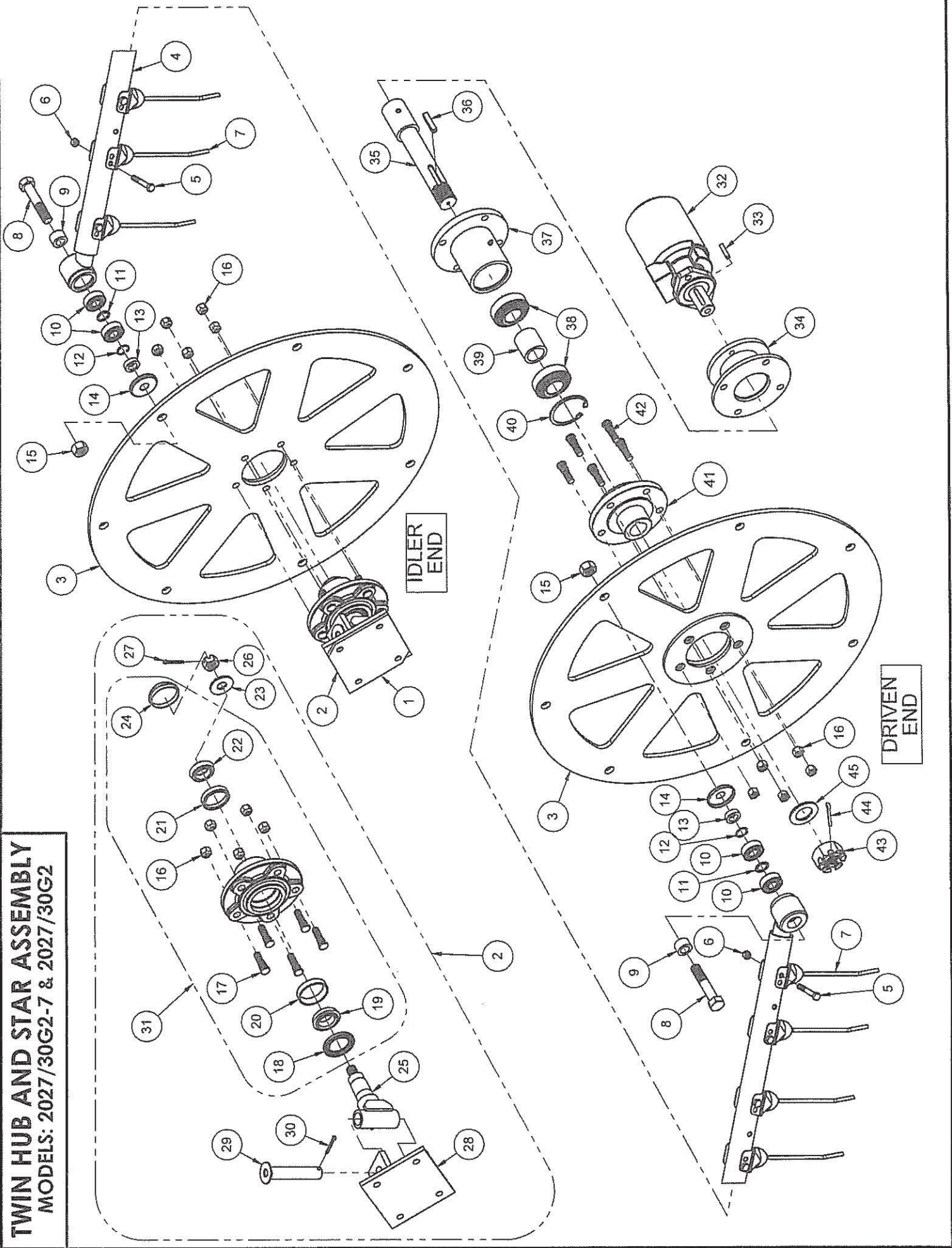
BASKET HANGER, FRAME AND LIFT ASSEMBLY

MODELS: 2027G2-7 Serial # 000001 Through 000011

2030G2-7 Serial # 000001 Through 000132

ITEM	QTY	PART NO	DESCRIPTION
1	1	HR-2478	Basket Pivot Weldment - RH
1	1	HR-2479	Basket Pivot Weldment - LH (Not Shown)
2	1	HR-2450	Suspension Axle - RH
2	1	HR-2451	Suspension Axle - LH (Not Shown)
3	4	HR-0232	Flange Bearing
4	4	HR-0224	5/8" x 3" NC Special Bolt
5	52	G-625NCHN	5/8" NC Hex Nut
6	4	G-75-3NCCS	3/4" x 3" HHCS
7	4	G-75NCHGN	3/4" Hex Grip Nut
8	4	HR-0428	Adjuster Arm
9	4	HR-0431	Bushing
10	4	HR-2429-S	Link
11	4	HR-0028	5/8" x 2-1/2" HHCS
12	52	G-625NCHGN	5/8" Hex Grip Nut
13	4	HR-2117	Clevis Pin, Bottom 4-3/4"
14	2	HR-0107	2" x 6" Hydraulic Cylinder
15	4	HR-2113	Parallel Arm
16	4	HR-2116	Clevis Pin, Top 4-1/2"
17	4	HR-0317	Hydraulic Cylinder Pin
18	16	HR-0159	Cotter Pin 3/16" x 1-1/2"
19	4	HR-0200	Top Link
20	2	HR-0404	1/2" Double Hose Clamp w/ Mounting Plate
21	8	HR-0198	Lynch Pin - 7/16"
22	8	HR-0105	Pin
23	1	HR-2623	Basket Frame - 7-Tine Bar, 12' - RH
23	1	HR-2624	Basket Frame - 7-Tine Bar, 12' - LH (Not Shown)
23	Ref	HR-2621	Basket Frame - 7-Tine Bar, 10 1/2' - RH (Not Shown)
23	Ref	HR-2622	Basket Frame - 7-Tine Bar, 10 1/2' - LH (Not Shown)
24	24	HR-2630	Stripper Bar (7-Tine Bar, RH & LH, 10 1/2' & 12' Basket)
25	2	HR-0671	Support Channel 12'
25	Ref	HR-0670	Support Channel 10 1/2' (Not Shown)
26	24	HR-0222	1/4" U-Bolt w/1/4" Hex Grip Nuts
27	4	HR-0703	Cotter Pin 1/4" x 1-1/2"
28	2	HR-0314	Hydraulic Cylinder Rod Clevis
#		HR-0313	Hydraulic Cylinder Seal Kit, (Not Shown) Spencer #639572

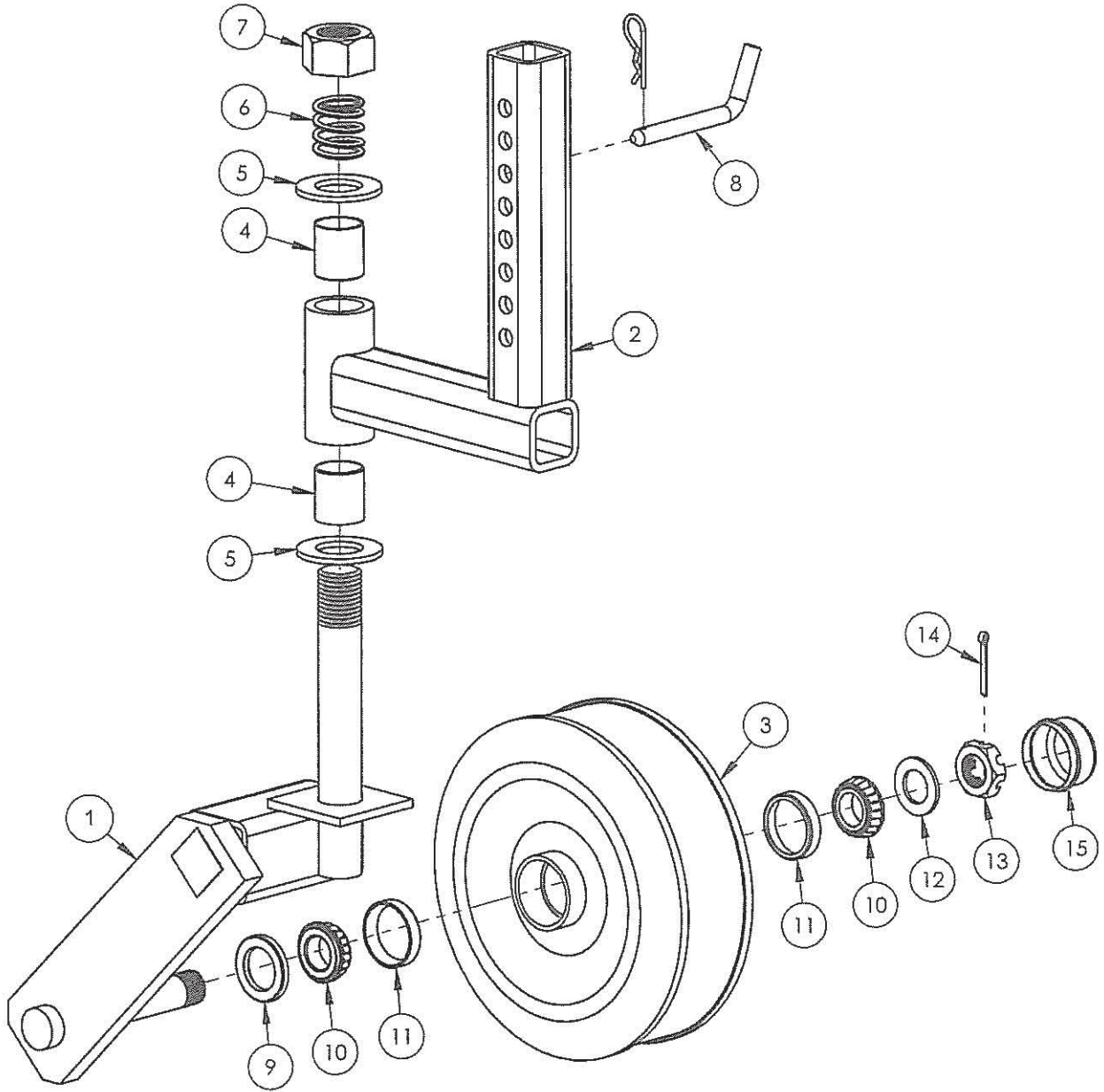
TWIN HUB AND STAR ASSEMBLY
MODELS: 2027/30G2-7 & 2027/30G2



TWIN HUB AND STAR ASSEMBLY
MODELS: 2027/30G2-7

ITEM	QTY	PART NO	DESCRIPTION
1	2	HR-0647	Reinforcing Plate
2	1	HR-4162	Knuckle Assembly w/Hub - RH
2	1	HR-4163	Knuckle Assembly w/Hub - LH
3	4	HR-2640	G2 Star Wheel
4	14	HR-4130	Tine Bar - 12 ft w/Bearings
4	Ref	HR-4120	Tine Bar - 10-1/2 ft w/Bearings (Not Shown)
5	350	HR-0181	3/8" x 2-1/2" HHCS
6	350	HR-0182	3/8" Lock Nut
7	175	HR-0168	Right Hand Rake Tooth
7	175	HR-0169	Left Hand Rake Tooth (Not Shown)
8*	28	HR-0176	3/4" NC x 4" HHCS
9*	28	HR-0174	Tine Bar Long Spacer
10*	56	HR-0172	Tine Bar Bearing Z9504
11*	28	HR-0184	Tine Bar Shim Washer
12*	28	HR-0173	Snap Ring
13*	28	HR-0177	Tine Bar Small Spacer
14*	28	HR-0175	Dust Shield
15*	28	HR-0178	3/4" NC Lock Nut
16	20	G-STN-509	1/2"-20 NF Lug Nut
17	10	G-ST-504	1/2"-20 NF - 2 1/4" Stud
18	2	G-SL-175	Bearing Seal (RTM SL-175)
19	2	G-LM48548	Inner Spindle Bearing LM48548
20	2	G-LM48510	Inner Bearing Race LM48510
21	2	HR-0377	Outer Bearing Race LM67010
22	2	HR-0376	Outer Spindle Bearing LM67048
23	2	HR-0382	3/4" Spindle Washer (RTM SW-750)
24	2	HR-0375	Grease Cap
25	2	HR-2652	Knuckle Spindle Weldment
26	2	HR-381	Spindle Nut 3/4" NF Slotted (RTM SN-750)
27	2	HR-0384	Cotter Pin 5/32" x 1 1/2"
28	1	HR-2650	Knuckle Base Plate - RH
28	1	HR-2651	Knuckle Base Plate - LH (Not Shown)
29	2	HR-2653	Knuckle Pin
30	2	HR-0159	Cotter Pin 3/16" x 1-1/2"
31	2	HR-2654	Hub w/Studs, Bearings and Seal
32	2	HR-0165	Hydraulic Motor, Heavy Duty, Parker #TF0360ASO30AAAB
32	2	HR-0165-12	Hydraulic Motor, Heavy Duty, White #500375A5120AAAAA (Serial #12101 or greater)
32	Ref	HR-0709	Hydraulic Motor, Extra HD, Parker #TF0475ASO30AAAB - Option
32	Ref	HR-0709-12	Hydraulic Motor, Extra HD, White #500470A5120AAAAA - Option (Serial #12101 or greater)
33	2	HR-0357-12	5/16" x 1/4" Key Stock 1 1/2" Long
34	2	HR-2369	Adapter Housing
35**	2	HR-2351	Jack Shaft 1-1/4"
36**	2	HR-0356	3/8" Key Stock - 2"
37**	2	HR-2352	Bearing Housing
38**	4	HR-0355	Bearing CSA208-24
39**	2	HR-0363	Spacer
40**	2	HR-0354	Snap Ring
41**	2	HR-2361	Drive Hub Assembly w/Studs
42**	10	G-7-122	1/2"-20 NF - 2" Stud
43	2	HR-0367	1-1/2" Slotted Nut
44**	2	HR-0367-1	Cotter Pin 1/4" x 2"
45**	2	HR-0368	Machined Washer 2-1/2" OD x 1-1/2" ID X 3/16"
*	Ref	HR-4125	Tine Bar Bearing Assembly
**	2	HR-4361	Bearing Housing Assembly
	Ref	HR-0165-1	Seal Kit For HD & Extra HD Hydraulic Motor, Parker #SK000092
	Ref	HR-0165-2	Seal Kit For all White Motors #500444001 (Serial #12101 or greater)

GAUGE WHEEL ASSEMBLY 08' (optional)

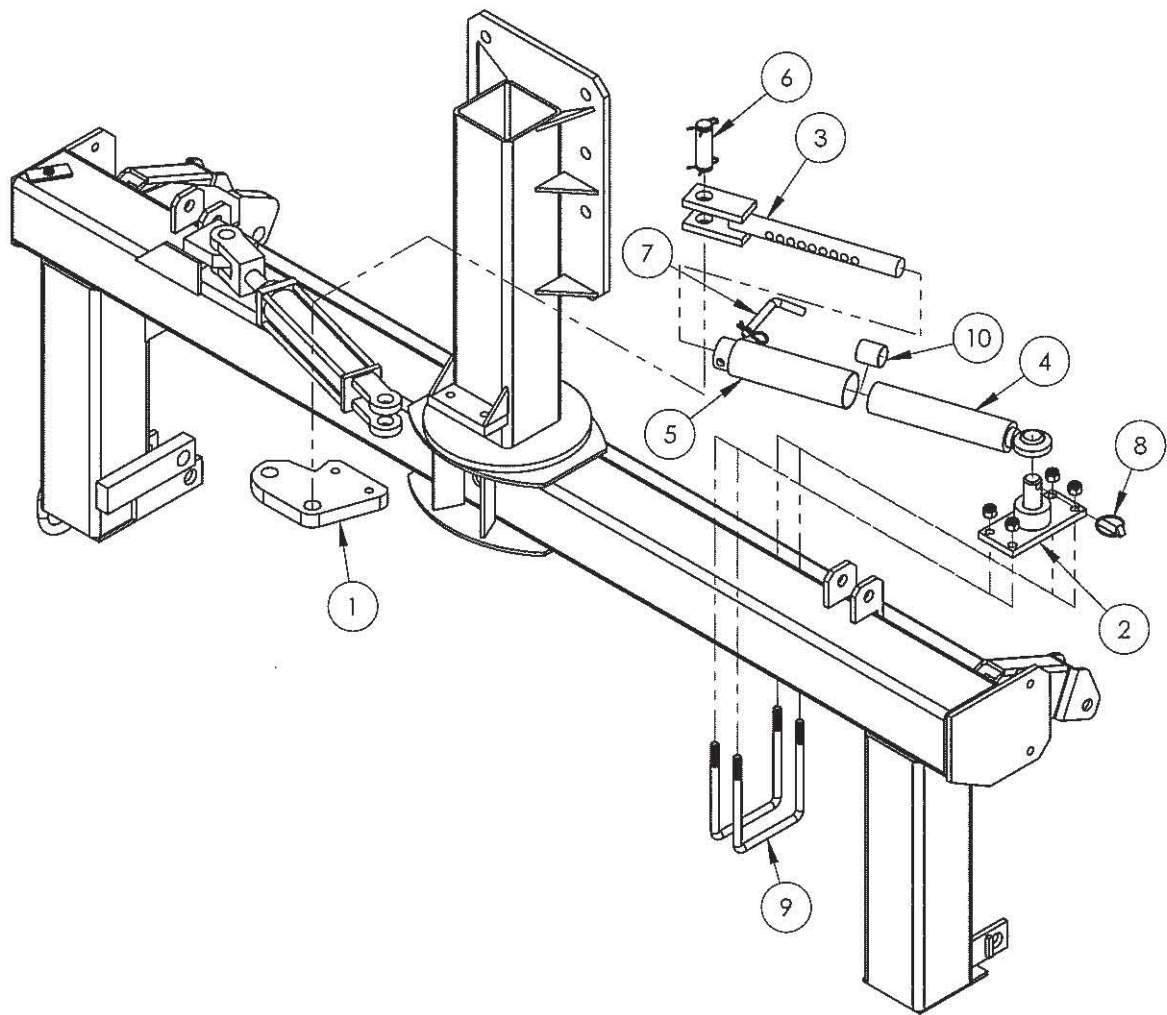


GAUGE WHEEL ASSEMBLY 08' (optional)

HR-5612 & HR-5712

ITEM	QTY	PART NO	DESCRIPTION
1	1	HR-2458	Pivot Bracket Assembly - RH
1	1	HR-2457	Pivot Bracket Assembly - LH (not shown)
2	2	HR-2660	Pivot Arm Weldment
3	2	HR-2486	12" Steel Wheel
4	4	HR-0487	Plastic Bearing Insert
5	2	HR-0488	1-1/4" SAE Flat Washer
6	2	HR-0486	Spring
7	2	HR-0489	1-1/4" NC Nylock Nut
8	2	G-P71111	Pin
9	2	HR-0385	Seal - National 471750
10	4	HR-0386	Bearing - L44643
11	4	HR-0387	Race - L44610
12	2	HR-0402	Washer
13	2	HR-0403	Slotted Nut
14	2	HR-0159	Cotter Pin
15	2	HR-0388	Cap - 21-3

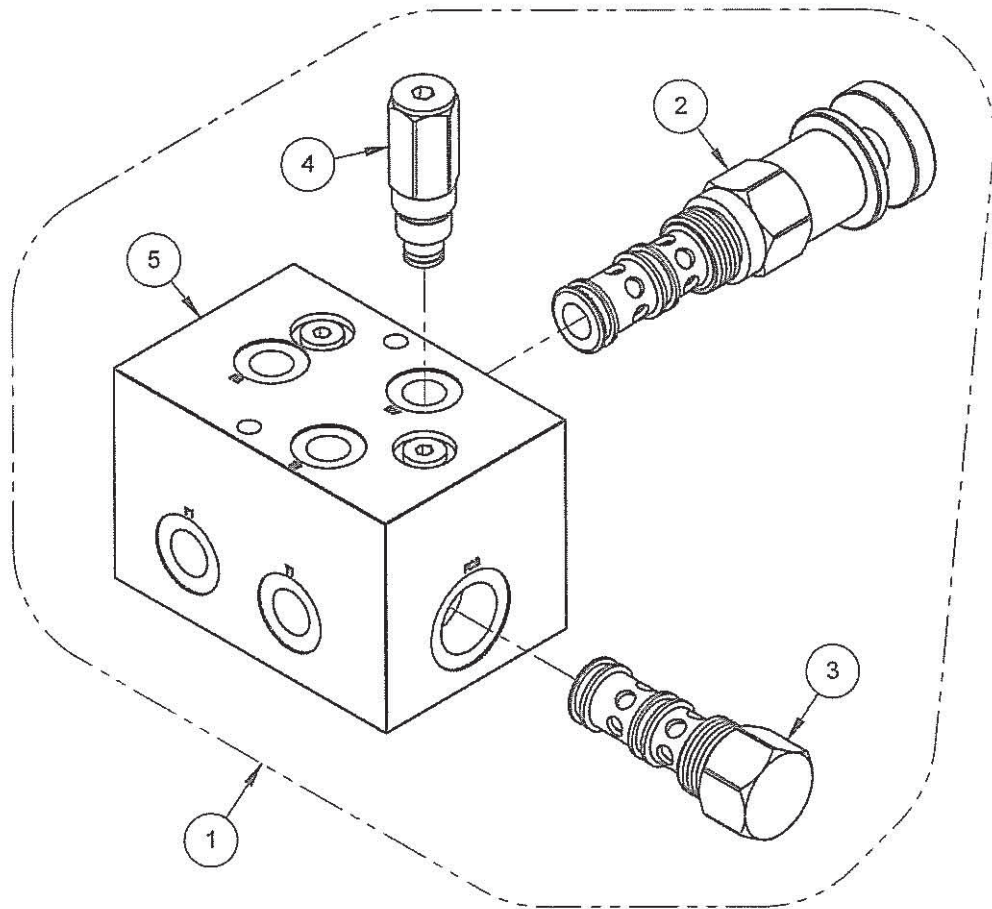
HR-5800 ANGLE STOP ASSEMBLY



HR-5800 ANGLE STOP ASSEMBLY
FOR MODELS: 2027/30-G25 & 2027/30-G27

ITEM	QTY	PART NO	DESCRIPTION
1	2	HR-0066B	Angle Stop Mount
2	2	HR-0850	Bolt On Pivot Base
3	2	HR-0851	Inner Slide Shaft
4	2	HR-0852	Outer Slide
5	2	HR-0853	Stop Collar Sleeve
6	2	HR-0317	1" Pin
7	2	P71111	1/2" Pin w/Keeper
8	2	HR-0198	7/16" Lynch Pin
9	4	HR-0860	1/2" x 5" x 7" NC U-Bolt w/Nylock Nuts
10	2	HR-0487	Plastic Bearing Insert
#	2	HR-0850A	7/16" Keystock 3" Long (not shown)

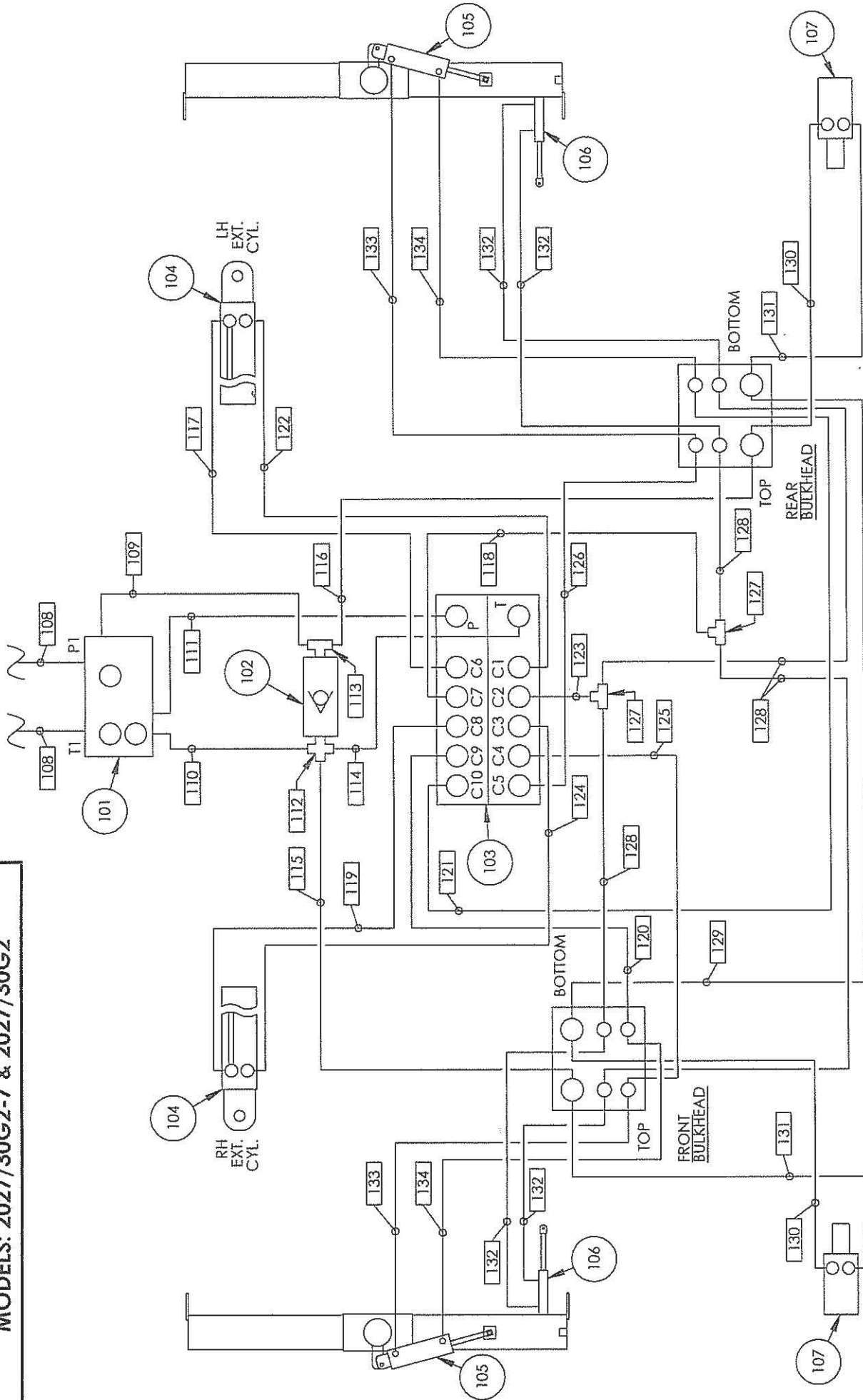
HYDRAULIC FLOW CONTROL
MODELS: 2027/30G2-7 & 2027/30G2



HYDRAULIC FLOW CONTROL
MODELS: 2027/30G2-7

ITEM	QTY	PART NO	DESCRIPTION
1	1	HR-0391	Hyd Flow Control Manifold w/Cartridges
2	1	HR-0392	Flow Control Cartridge, Adjustable 4 - 8GPM
3	1	HR-0393	Flow Control Cartridge, Fixed 4GPM
4	1	HR-0395	Motor Relief Valve - 2000 PSI
5	1	HR-0396	Hyd Flow Control Manifold

HYDRAULIC SCHEMATIC-5 FUNCTION
MODELS: 2027/30G2-7 & 2027/30G2

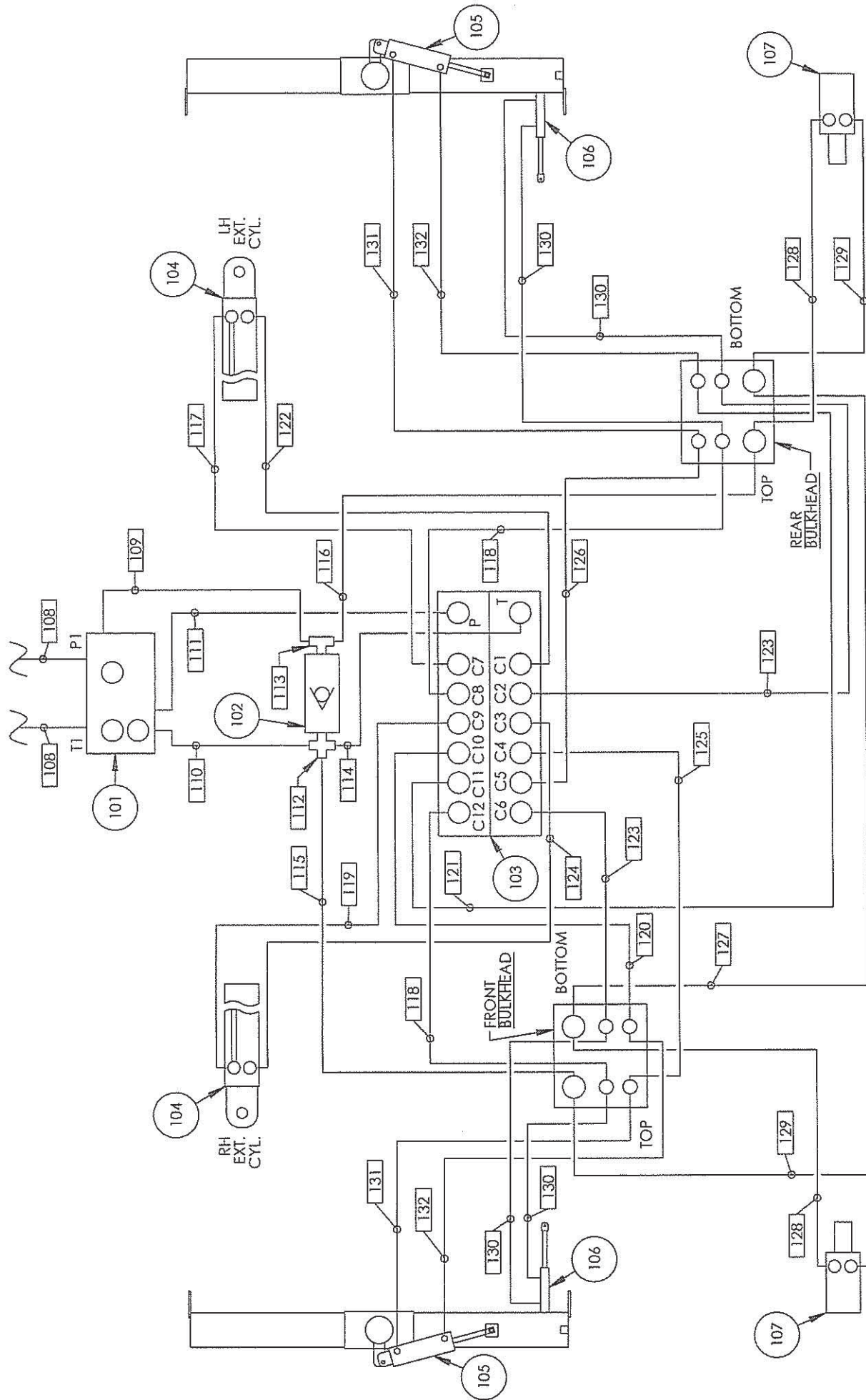


ATTACHMENTS
 YAKIMA WA

HYDRAULIC SCHEMATIC - 5 FUNCTION
MODELS: 2027/30G2-7

ITEM	QTY	PART NO	DESCRIPTION
101	1	HR-0391	Hydraulic Manifold
	1	HR-0392	Adjustable Flow Cartridge 4-8 GPM (not shown)
	1	HR-0393	Fixed Flow Cartridge 4 GPM (not shown)
	1	HR-0395	Motor Relief Valve - 2000 PSI (not shown)
102	1	HR-0284	Check Valve
103	1	700-0805-4022	Hydraulic Control Valve (5 Function) Serial #10128 & Over
103	1	HR-0810	Hydraulic Control Valve (5 Function) Serial #10127 & Under
104	2	HR-0318-1	Spread Cylinder Without External Hydraulic Line, Ram
104	Ref	HR-0318	Spread Cylinder With External Hydraulic Line, Ram
105	2	HR-0106	2" x 8" Hydraulic Cylinder
106	2	HR-0107	2" x 6" Hydraulic Cylinder
107	2	HR-0165	Hydraulic Motor, Heavy Duty, Parker #TF0360ASO30AAAB
	2	HR-0709	Hydraulic Motor, Extra Heavy Duty, Parker#TF0475ASO30AAAB - (optional)
108	2	HR-3144	1/2" Hydraulic Hose - 113"
	2	HR-0276	8010-4 Pioneer Tips (not shown)
109	1	HR-3120	1/2" Hydraulic Hose - 64"
	1	HR-0306	1/2" Adapter (not shown) 6802x8x8
110	1	HR-3121	1/2" Hydraulic Hose - 58 1/2"
	1	HR-0301	1/2" Adapter (not shown) 6801x8x10
111	1	HR-3122	1/2" Hydraulic Hose - 73"
	1	HR-0305	1/2" Adapter (not shown) 6802x8x10
112	1	HR-0272	1/2" Cross Adapter - 2650-08-08-08
113	1	HR-0708	1/2" Tee Adapter - 2601-8-8
114	1	HR-3123	1/2" Hydraulic Hose - 11"
115	1	HR-3124	1/2" Hydraulic Hose - 73"
116	1	HR-3125	1/2" Hydraulic Hose - 70"
117	1	HR-3126	1/4" Hydraulic Hose - 64" For use with HR-0318 Spread Cylinder
	1	HR-3126-1	1/4" Hydraulic Hose - 64" For use with HR-0318-1 Spread Cylinder
	1	HR-0300	1/4" Adapter (not shown) 6400-L-06-06-0
118	1	HR-3127	3/8" Hydraulic Hose - 23 7/8"
119	1	HR-3128	1/4" Hydraulic Hose - 62" For use with HR-0318 Spread Cylinder
	1	HR-3128-1	1/4" Hydraulic Hose - 62" For use with HR-0318-1 Spread Cylinder
	1	HR-0300	1/4" Adapter (not shown) 6400-L-06-06-0
120	1	HR-3129	1/4" Hydraulic Hose - 57"
121	1	HR-3130	1/4" Hydraulic Hose - 69"
122	1	HR-3131	1/4" Hydraulic Hose - 43 1/2"
	1	HR-0300	1/4" Adapter (not shown) 6400-L-06-06-0
123	1	HR-3132	3/8" Hydraulic Hose - 20 7/8"
124	1	HR-3133	1/4" Hydraulic Hose - 63 1/2"
	1	HR-0300	1/4" Adapter (not shown) 6400-L-06-06-0
125	1	HR-3134	1/4" Hydraulic Hose - 55"
126	1	HR-3135	1/4" Hydraulic Hose - 67"
127	2	HR-0328	3/8" Tee Adapter - 2603-06-06-06-FG
128	4	HR-3136	3/8" Hydraulic Hose - 51"
129	1	HR-3137	1/2" Hydraulic Hose - 118"
130	2	HR-3138	1/2" Hydraulic Hose - 240"
131	2	HR-3139	1/2" Hydraulic Hose - 242"
132	4	HR-3140	3/8" Hydraulic Hose - 206"
133	2	HR-3141	1/4" Hydraulic Hose - 160"
134	2	HR-3142	1/4" Hydraulic Hose - 171 1/2"

HYDRAULIC SCHEMATIC-6 FUNCTION
MODELS: 2027/30G2-7 & 2027/30G2



ATTACHMENTS
YAKIMA WA

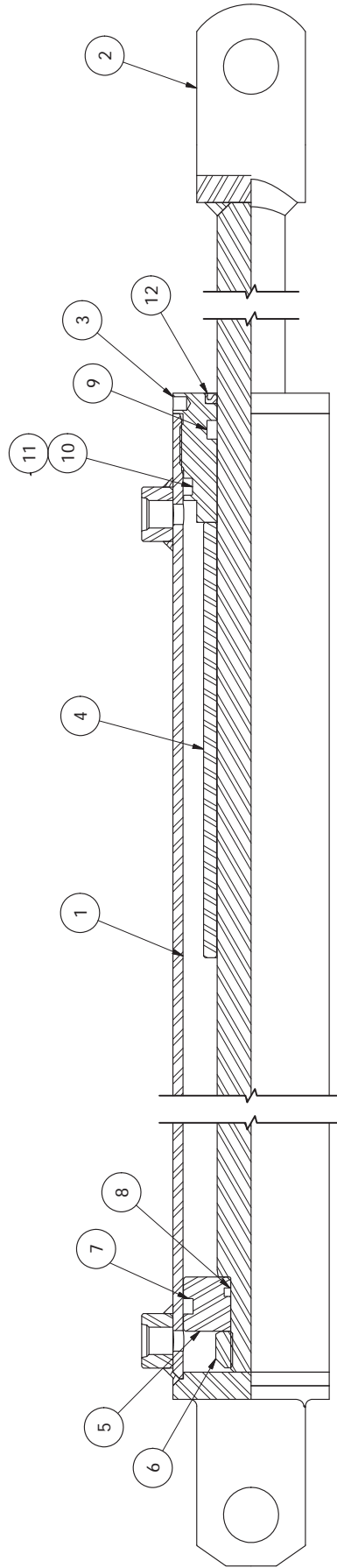
HYDRAULIC SCHEMATIC - 6 FUNCTION (optional)

MODELS: 2027/30G2-7

ITEM	QTY	PART NO	DESCRIPTION
101	1	HR-0391	Hydraulic Manifold
	1	HR-0392	Adjustable Flow Cartridge 4-8 GPM (not shown)
	1	HR-0393	Fixed Flow Cartridge 4 GPM (not shown)
	1	HR-0395	Motor Relief Valve - 2000 PSI (not shown)
102	1	HR-0284	Check Valve
103	1	700-0806-4022	Hydraulic Control Valve (6 Function) *option Serial #10128 & Over
103	1	700-0806-4021	Hydraulic Control Valve (6 Function) *option Serial #10127 & Under
104	2	HR-0318-1	Spread Cylinder Without External Hydraulic Line, Ram
104	Ref	HR-0318	Spread Cylinder With External Hydraulic Line, Ram
105	2	HR-0106	2" x 8" Hydraulic Cylinder
106	2	HR-0107	2" x 6" Hydraulic Cylinder
107	2	HR-0165	Hydraulic Motor, Heavy Duty, Parker #TF0360ASO30AAAB
	2	HR-0709	Hydraulic Motor, Extra Heavy Duty, Parker#TF0475ASO30AAAB - (optional)
108	2	HR-3144	1/2" Hydraulic Hose - 113"
	2	HR-0276	8010-4 Pioneer Tips (not shown)
109	1	HR-3120	1/2" Hydraulic Hose - 64"
	1	HR-0306	1/2" Adapter (not shown) 6802x8x8
110	1	HR-3121	1/2" Hydraulic Hose - 58 1/2"
	1	HR-0301	1/2" Adapter (not shown) 6801x8x10
111	1	HR-3122	1/2" Hydraulic Hose - 73"
	1	HR-0305	1/2" Adapter (not shown) 6802x8x10
112	1	HR-0272	1/2" Cross Adapter - 2650-08-08-08
113	1	HR-0708	1/2" Tee Adapter - 2601-8-8
114	1	HR-3123	1/2" Hydraulic Hose - 11"
115	1	HR-3124	1/2" Hydraulic Hose - 73"
116	1	HR-3125	1/2" Hydraulic Hose - 70"
117	1	HR-3126	1/4" Hydraulic Hose - 45 1/2" For use with HR-0318 Spread Cylinder
	1	HR-3126-1	1/4" Hydraulic Hose - 64" For use with HR-0318-1 Spread Cylinder
	1	HR-0300	1/4" Adapter (not shown) 6400-L-06-06-0
118	1	HR-3145	3/8" Hydraulic Hose - 78"
119	1	HR-3128	1/4" Hydraulic Hose - 66 1/2" For use with HR-0318 Spread Cylinder
	1	HR-3128-1	1/4" Hydraulic Hose - 62" For use with HR-0318-1 Spread Cylinder
	1	HR-0300	1/4" Adapter (not shown) 6400-L-06-06-0
120	1	HR-3129	1/4" Hydraulic Hose - 57"
121	1	HR-3130	1/4" Hydraulic Hose - 69"
122	1	HR-3131	1/4" Hydraulic Hose - 43 1/2"
	1	HR-0300	1/4" Adapter (not shown) 6400-L-06-06-0
123	1	HR-3146	3/8" Hydraulic Hose - 77"
124	1	HR-3133	1/4" Hydraulic Hose - 63 1/2"
	1	HR-0300	1/4" Adapter (not shown) 6400-L-06-06-0
125	1	HR-3134	1/4" Hydraulic Hose - 55"
126	1	HR-3135	1/4" Hydraulic Hose - 67"
127	1	HR-3137	1/2" Hydraulic Hose - 118"
128	2	HR-3138	1/2" Hydraulic Hose - 240"
129	2	HR-3139	1/2" Hydraulic Hose - 242"
130	4	HR-3140	3/8" Hydraulic Hose - 206"
131	2	HR-3141	1/4" Hydraulic Hose - 160"
132	2	HR-3142	1/4" Hydraulic Hose - 171 1/2"

BILL OF MATERIALS

ITEM	QTY	DESCRIPTION	PART NO.
1	1	BARREL WELDMENT	R5507907
2	1	SHAFT WELDMENT	R4207907
3	1	GLAND	R6500013
4	1	STOP TUBE	R4805437
5	1	PISTON	R6400045
6	1	LOCKNUT, 3/4-16 UNF, GRADE C	R3005005
7	1	SEAL, PISTON, PSP-A, #330, 2.500	R3500066
8	1	SEAL, O-RING, NBR70A, #210, 0.750 x 1.000 x 0.125	R3503210
9	1	ROD SEAL, U-CUP, 1.250 x 1.625 x 0.313	R3501011
10	1	SEAL, O-RING, NBR70A, #330, 2.125 X 2.500 X 0.188	R3503330
11	1	SEAL, BACK-UP, URETHANE, #330, 2.125 x 2.500 x 0.055	R3508330
12	1	SEAL, WIPER, CASED, 1.250 x 1.688 x 0.188, NITRILE	R3506016

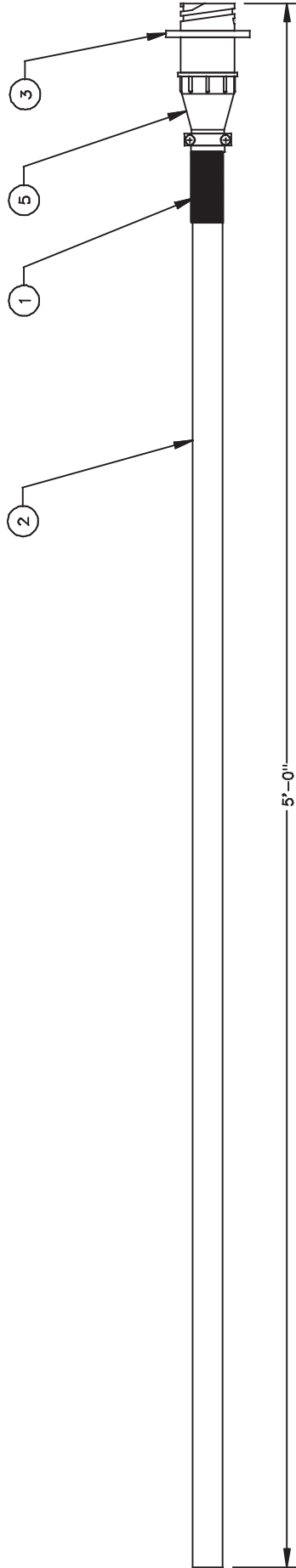


ALL INFORMATION SHOWN IS PROPRIETARY AND CANNOT BE REPRODUCED WITHOUT PERMISSION FROM RAM INDUSTRIES INC.	
DRAWN BY: K Strelloff	1/3/2013
CHECKED BY: D Lammerts	1/3/2013
APPROVED BY: D Lammerts	1/3/2013
SIZE: B	SCALE: 1:1
TITLE: PARTS	REV: 0
PART NO: IR4507907 - PARTS	
SHEET 1 of 1	

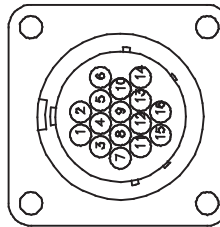
TOLERANCES UNLESS OTHERWISE SPECIFIED	
DECIMAL	XX ±0.000 STRAIGHTNESS ±.000 R/F
FRACTIONS	XXX ±.005 PARALLELISM ±.010 R/F
ANGLES	±1% CONCENTRICITY .0000 R/F
	±5° SURFACE FINISH 125µR Ra
	FILLETS & RADIUS ROUNDS UNLESS SPECIFIED

PARTS LIST

N ^o	PART NUMBER	QTY	PART DESCRIPTION
1	231-007	2.0"	SHRINKTUBING .625
2	252-020	5'	CABLE 15COND 18GA
3	255-013	1	CNTR 16 PIN RECPT FLANGE
4	255-023	15	CNTR PIN (GOLD) 16/18GA
5	255-043	1	CNTR 16 PIN SHELL #17



PIN OUT DETAIL



- 1 --- RED WIRE
- 2 --- ORANGE WIRE
- 3 --- WHITE WIRE
- 4 --- BLUE/BLACK WIRE
- 5 --- RED/BLACK WIRE
- 6 --- ORANGE/BLACK WIRE
- 7 --- WHITE/BLACK WIRE
- 8 --- BLUE WIRE
- 9 --- BLACK/WHITE WIRE
- 10 --- GREEN WIRE
- 11 --- BLACK WIRE
- 12 --- BLUE/WHITE WIRE
- 13 --- GREEN/WHITE WIRE
- 14 --- RED/WHITE WIRE
- 15 --- GREEN/BLACK WIRE
- 16 --- NOT USED

NOT SHOWN: 4

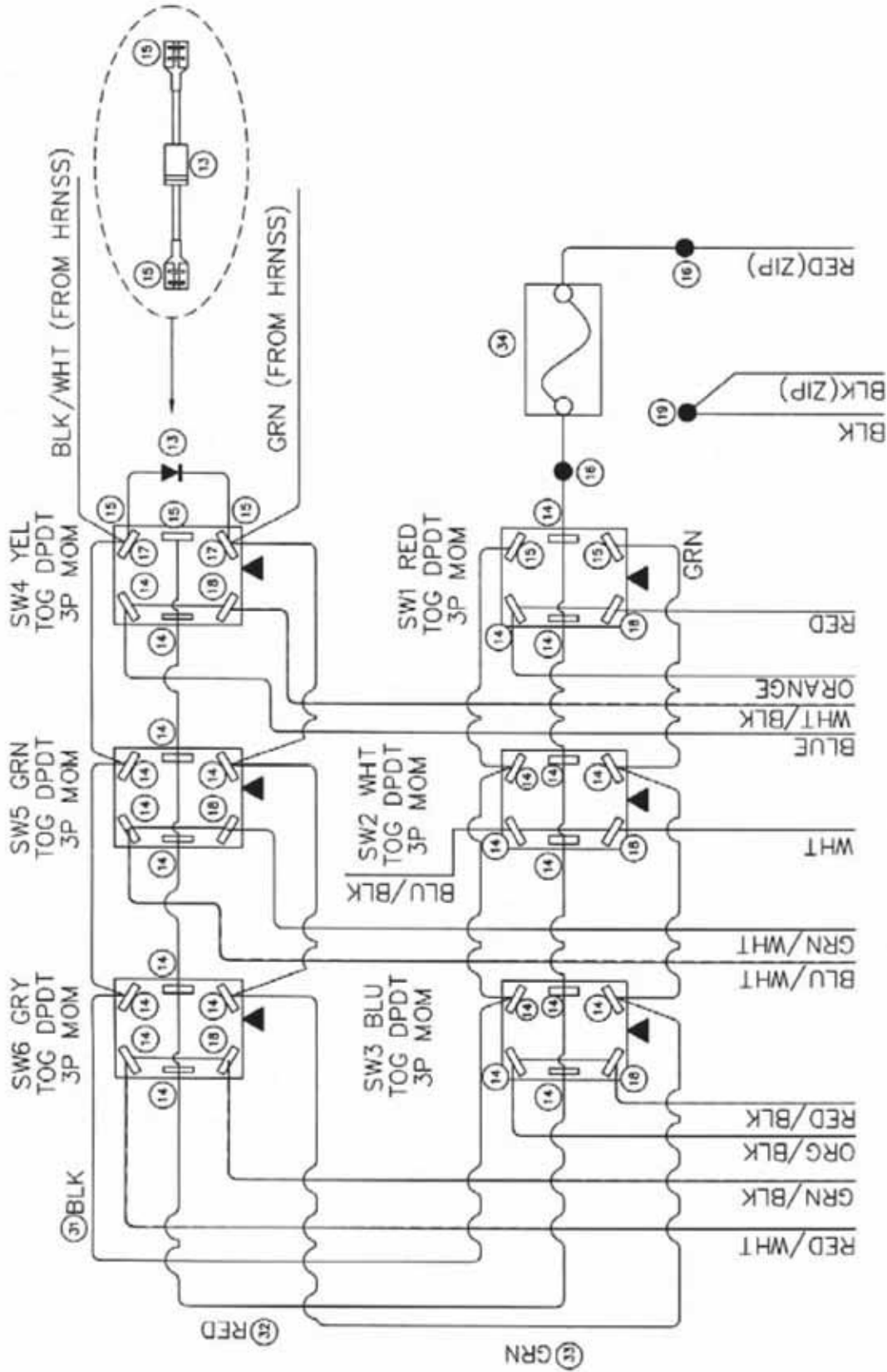
REV	DESCRIPTION	REVISIONS	FORM #	DATE	APPROVED	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES 2 PL. DECIMALS 3 PL. FRACTIONS	SIGNATURES	DATE
	RELEASED DRAWING		DT-0094	06/12/01	BES/BNL		DRWIN	
							ENGR	

THIS DRAWING IS A PROPRIETARY DESIGN OWNED BY FASSE VALVES. NO PARTS OR INFORMATION FROM THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE EXPRESS WRITTEN PERMISSION OF FASSE VALVES.

FASSE VALVES SEVEN STAR PARK SEARLET, NE 68648-2948	
HARNISS 15CON 16PIN(15) F /5'	DWG NO 300-072
SCALE A	SHEET

Six Function Control Box (Optional)

SWITCH WIRING DIAGRAM

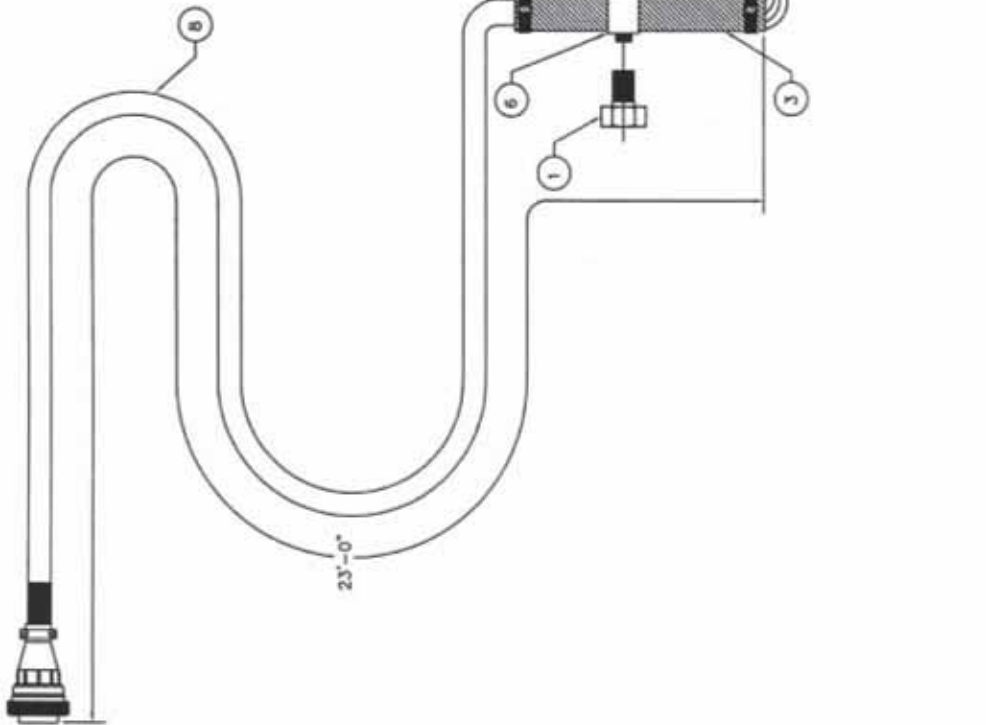


▲ = NOTCH LOCATION

DATE	BY	REVISION	DESCRIPTION
10/04/04	BLK	1	FASE VALVES
10/04/04	BLK	2	REWORK FOR PART
10/04/04	BLK	3	REWORK FOR PART
10/04/04	BLK	4	REWORK FOR PART
10/04/04	BLK	5	REWORK FOR PART
10/04/04	BLK	6	REWORK FOR PART
10/04/04	BLK	7	REWORK FOR PART
10/04/04	BLK	8	REWORK FOR PART
10/04/04	BLK	9	REWORK FOR PART
10/04/04	BLK	10	REWORK FOR PART
10/04/04	BLK	11	REWORK FOR PART
10/04/04	BLK	12	REWORK FOR PART
10/04/04	BLK	13	REWORK FOR PART
10/04/04	BLK	14	REWORK FOR PART
10/04/04	BLK	15	REWORK FOR PART
10/04/04	BLK	16	REWORK FOR PART
10/04/04	BLK	17	REWORK FOR PART
10/04/04	BLK	18	REWORK FOR PART
10/04/04	BLK	19	REWORK FOR PART
10/04/04	BLK	20	REWORK FOR PART
10/04/04	BLK	21	REWORK FOR PART
10/04/04	BLK	22	REWORK FOR PART
10/04/04	BLK	23	REWORK FOR PART
10/04/04	BLK	24	REWORK FOR PART
10/04/04	BLK	25	REWORK FOR PART
10/04/04	BLK	26	REWORK FOR PART
10/04/04	BLK	27	REWORK FOR PART
10/04/04	BLK	28	REWORK FOR PART
10/04/04	BLK	29	REWORK FOR PART
10/04/04	BLK	30	REWORK FOR PART
10/04/04	BLK	31	REWORK FOR PART
10/04/04	BLK	32	REWORK FOR PART
10/04/04	BLK	33	REWORK FOR PART
10/04/04	BLK	34	REWORK FOR PART
10/04/04	BLK	35	REWORK FOR PART
10/04/04	BLK	36	REWORK FOR PART
10/04/04	BLK	37	REWORK FOR PART
10/04/04	BLK	38	REWORK FOR PART
10/04/04	BLK	39	REWORK FOR PART
10/04/04	BLK	40	REWORK FOR PART
10/04/04	BLK	41	REWORK FOR PART
10/04/04	BLK	42	REWORK FOR PART
10/04/04	BLK	43	REWORK FOR PART
10/04/04	BLK	44	REWORK FOR PART
10/04/04	BLK	45	REWORK FOR PART
10/04/04	BLK	46	REWORK FOR PART
10/04/04	BLK	47	REWORK FOR PART
10/04/04	BLK	48	REWORK FOR PART
10/04/04	BLK	49	REWORK FOR PART
10/04/04	BLK	50	REWORK FOR PART
10/04/04	BLK	51	REWORK FOR PART
10/04/04	BLK	52	REWORK FOR PART
10/04/04	BLK	53	REWORK FOR PART
10/04/04	BLK	54	REWORK FOR PART
10/04/04	BLK	55	REWORK FOR PART
10/04/04	BLK	56	REWORK FOR PART
10/04/04	BLK	57	REWORK FOR PART
10/04/04	BLK	58	REWORK FOR PART
10/04/04	BLK	59	REWORK FOR PART
10/04/04	BLK	60	REWORK FOR PART
10/04/04	BLK	61	REWORK FOR PART
10/04/04	BLK	62	REWORK FOR PART
10/04/04	BLK	63	REWORK FOR PART
10/04/04	BLK	64	REWORK FOR PART
10/04/04	BLK	65	REWORK FOR PART
10/04/04	BLK	66	REWORK FOR PART
10/04/04	BLK	67	REWORK FOR PART
10/04/04	BLK	68	REWORK FOR PART
10/04/04	BLK	69	REWORK FOR PART
10/04/04	BLK	70	REWORK FOR PART
10/04/04	BLK	71	REWORK FOR PART
10/04/04	BLK	72	REWORK FOR PART
10/04/04	BLK	73	REWORK FOR PART
10/04/04	BLK	74	REWORK FOR PART
10/04/04	BLK	75	REWORK FOR PART
10/04/04	BLK	76	REWORK FOR PART
10/04/04	BLK	77	REWORK FOR PART
10/04/04	BLK	78	REWORK FOR PART
10/04/04	BLK	79	REWORK FOR PART
10/04/04	BLK	80	REWORK FOR PART
10/04/04	BLK	81	REWORK FOR PART
10/04/04	BLK	82	REWORK FOR PART
10/04/04	BLK	83	REWORK FOR PART
10/04/04	BLK	84	REWORK FOR PART
10/04/04	BLK	85	REWORK FOR PART
10/04/04	BLK	86	REWORK FOR PART
10/04/04	BLK	87	REWORK FOR PART
10/04/04	BLK	88	REWORK FOR PART
10/04/04	BLK	89	REWORK FOR PART
10/04/04	BLK	90	REWORK FOR PART
10/04/04	BLK	91	REWORK FOR PART
10/04/04	BLK	92	REWORK FOR PART
10/04/04	BLK	93	REWORK FOR PART
10/04/04	BLK	94	REWORK FOR PART
10/04/04	BLK	95	REWORK FOR PART
10/04/04	BLK	96	REWORK FOR PART
10/04/04	BLK	97	REWORK FOR PART
10/04/04	BLK	98	REWORK FOR PART
10/04/04	BLK	99	REWORK FOR PART
10/04/04	BLK	100	REWORK FOR PART

Five Function Control Valve

PARTS LIST			
NA	PARTNUMBER	QTY	PART DESCRIPTION
1	212-025	1	BOLT 5/16-18X0.75
2	214-002	16	CABLE TIE BLK .85"
3	231-007	4*	SHRINKTUBING .625" BLK
4	255-008	1	TRM RING 1/2" INS 14/18 GA
5	255-011	13	TRM RING .88 INS 22-18 GA
6	255-026	1	LOOM CLAMP .50"ID
7	302-861	1	MANI ASSY 50A OPN SS 12V RV WP801-8 PT 8001-8
8	320-034T	1	HARNISS 25' w/TERMINAL ENDS



- NOTES:
1. USE 3 CABLE TIES TO COIL HARNISS.
 2. CUT OFF GRN/BLK AND RED/WHT WIRES AT EDGE OF HARNISS JACKET.
 3. RETORQUE GROUND COIL NUT TO 5 FT. LBS.

REV	DESCRIPTION	DATE	APPROVED	DESIGNED	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY
1	ISSUED DRAWING	02-01-02	12/20/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02

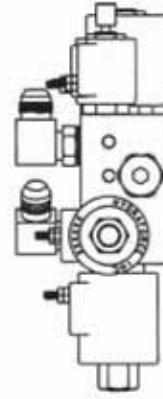
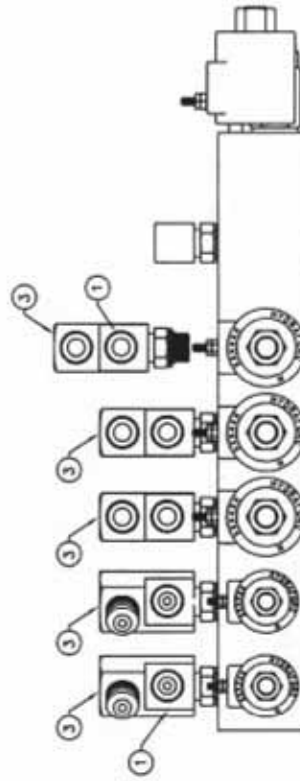
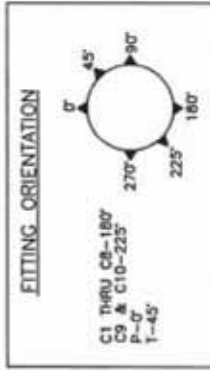
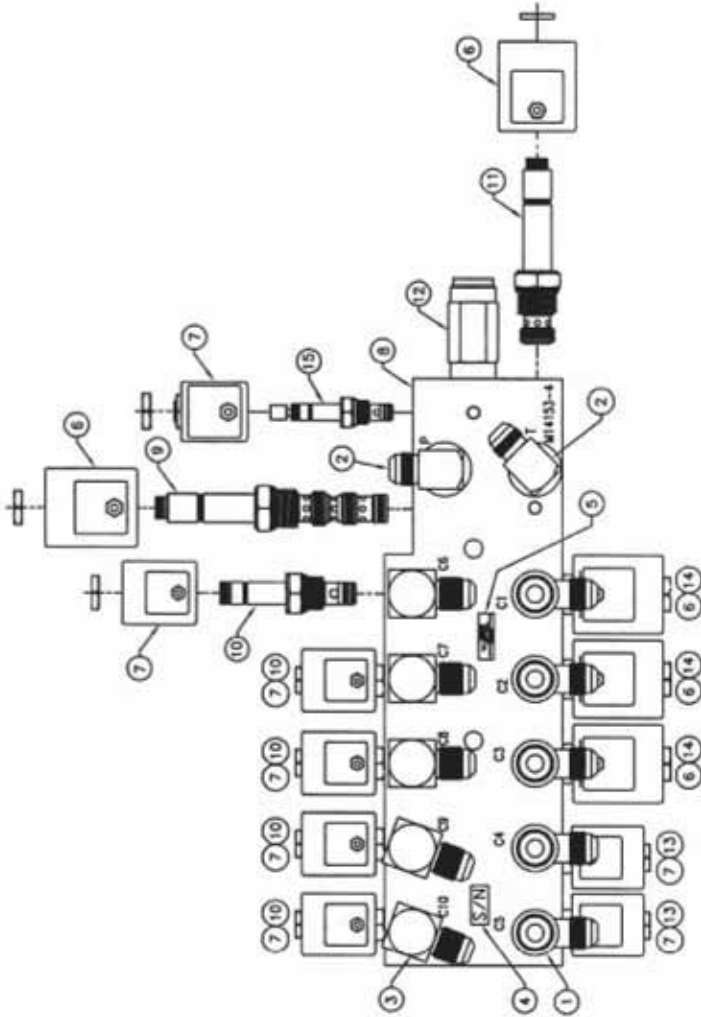
MATERIALS	WIRE	SOLENOIDS	DATE
MANUFACTURER	WIRE	SOLENOIDS	DATE
MANUFACTURER	WIRE	SOLENOIDS	DATE
MANUFACTURER	WIRE	SOLENOIDS	DATE
MANUFACTURER	WIRE	SOLENOIDS	DATE

THIS DRAWING IS A PROPERTY OF FASSE VALVES INC. IT IS TO BE USED ONLY FOR THE MANUFACTURE OF FASSE VALVES. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.	FASSE VALVES 5000 20TH AVENUE DENVER, CO 80202-3248 PHONE: 303.888.3248
MANUFACTURER ASSY 50A OPN SS 12V RV WP801-8 PTERMO-8 1500N PLUG 16P(13) 23'	REV 001
DATE 02-01-02	SCALE 303-05B
BY 12/20/02	SHEET

Five Function Control Valve

PARTS LIST

NO	PART NUMBER	QTY	PART DESCRIPTION
1	210-015	5	FTG 6801-6-6/E-MJ-MO
2	210-017	2	FTG 6801-8-8/E-MJ-MO
3	210-228	5	FTG 6801LL-6-6/E-MJ-MO
4	232-050	2	DECL 5/N (SILVER)
5	232-058	1	DECAL FASSE BLK/GOLD 1" X .75" R
6	253-003	5	COIL H/F 6354012 8-32 55 12V 1.67A IWO DIODE
7	253-005	8	COIL H/F 6304012 8-32 55 12V 1.22A IWO DIODE
8	270-093	1	MANI 514153-4 5OCR AL RV
9	273-008	1	CART H/F 5V10-40-0-N-00 SPL 4W
10	273-016	5	CART H/F 5V08-24-0-N-00 SPL 2W
11	273-017	1	CART H/F 5V10-21-0-N-00 POP 2W
12	273-090	1	CART H/F 5V10-22H-0-N-35 RLF D
13	273-867	2	CART H/F 5V08-26-0-N-00
14	273-890	3	CART H/F 5V08-28-0-N-00 POP 2W
15	273-979	1	CART H/F 5V08-20M-0-N-00 POP 2



SPECIFICATIONS:

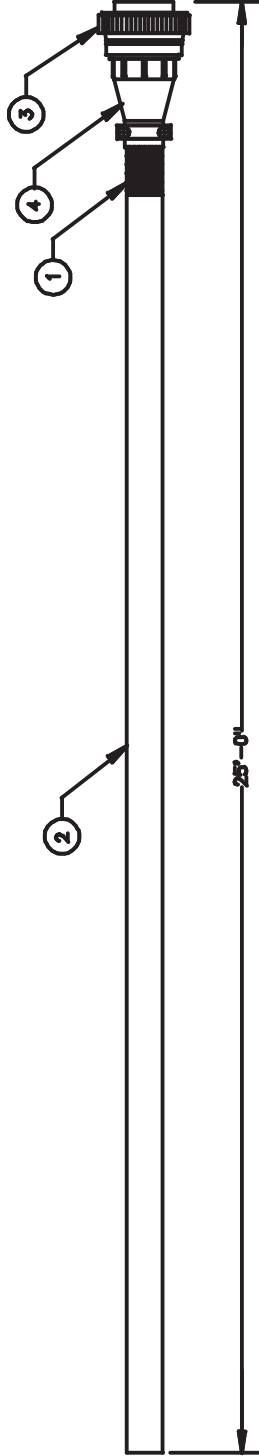
- MAXIMUM PRESSURE 3000 PSI
- MAXIMUM FLOW 8 GPM
- PORT SIZE (P, T) -8 SAE O-RING
- PORT SIZE (ALL C) -6 SAE O-RING
- MOUNTING HOLES (2) .406 DIA
- MOUNTING HOLES (1) 5/16-18 TAPPED

REV	DESCRIPTION	REVISION	DATE	BY	CHKD	DATE	BY	CHKD
1	RELEASED FROM							
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

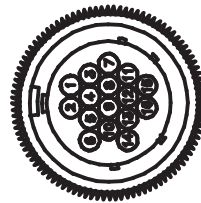
MANUFACTURED BY FASSE VALVES 3002-861	DATE 302-861	REV 1 OF 2
---	-----------------	---------------

PARTS LIST

NO	PART NUMBER	QTY	PART DESCRIPTION
1	231-007	2"	SHRINKTUBING .025
2	202-020	25'	CABLE 15CON 18GA PVC GRN
3	255-017	1	CNTR 16 PIN PLUG
4	255-043	1	CNTR 16 PIN SHELL #17
5	255-234	13	CONT AMP SOCKET 16-18GA



PIN OUT DETAIL



- 1 RED WIRE
- 2 GRN WIRE
- 3 WHT WIRE
- 4 BLU/BLK WIRE
- 5 RED/BLK WIRE
- 6 GRN/BLK WIRE
- 7 WHT/BLK WIRE
- 8 BLU WIRE
- 9 BLK/WHT WIRE
- 10 GRN WIRE
- 11 BLK WIRE
- 12 BLU/WHT WIRE
- 13 GRN/WHT WIRE
- 14 NOT USED
- 15 NOT USED
- 16 NOT USED

NOTES:

1. CUT OFF GRN/BLK & RED/WHT WIRES AT EDGE OF HARNESS.

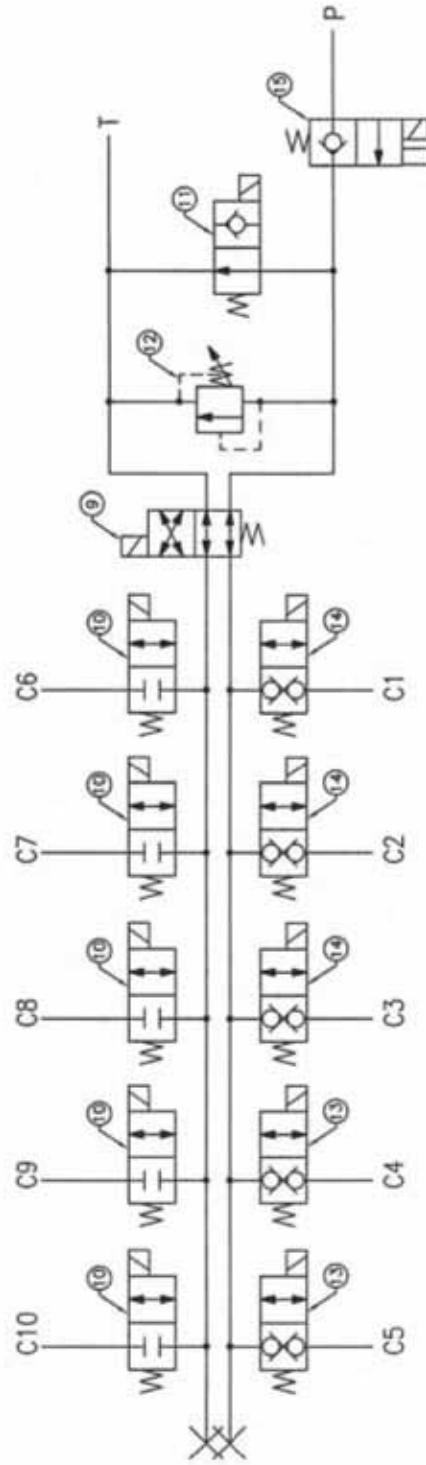
2. NOT SHOWN: (5)

REV	DESCRIPTION	DATE	BY	CHKD	APP'D	QTY	UNIT	REVISIONS
1	ISSUED HARNESS	11/24/09	INT					
2	REVISED HARNESS	04-2009	INT					
3	REVISED HARNESS	06/24/09	INT					
4	REVISED HARNESS	06/24/09	INT					
5	REVISED HARNESS	06/24/09	INT					
6	REVISED HARNESS	06/24/09	INT					
7	REVISED HARNESS	06/24/09	INT					
8	REVISED HARNESS	06/24/09	INT					
9	REVISED HARNESS	06/24/09	INT					
10	REVISED HARNESS	06/24/09	INT					
11	REVISED HARNESS	06/24/09	INT					
12	REVISED HARNESS	06/24/09	INT					
13	REVISED HARNESS	06/24/09	INT					
14	REVISED HARNESS	06/24/09	INT					
15	REVISED HARNESS	06/24/09	INT					
16	REVISED HARNESS	06/24/09	INT					

HARNESS 15CON 16PIN(13)P /25'	
PART NUMBER A	PART NO 320-034

Five Function Control Valve

HYDRAULIC SCHEMATIC



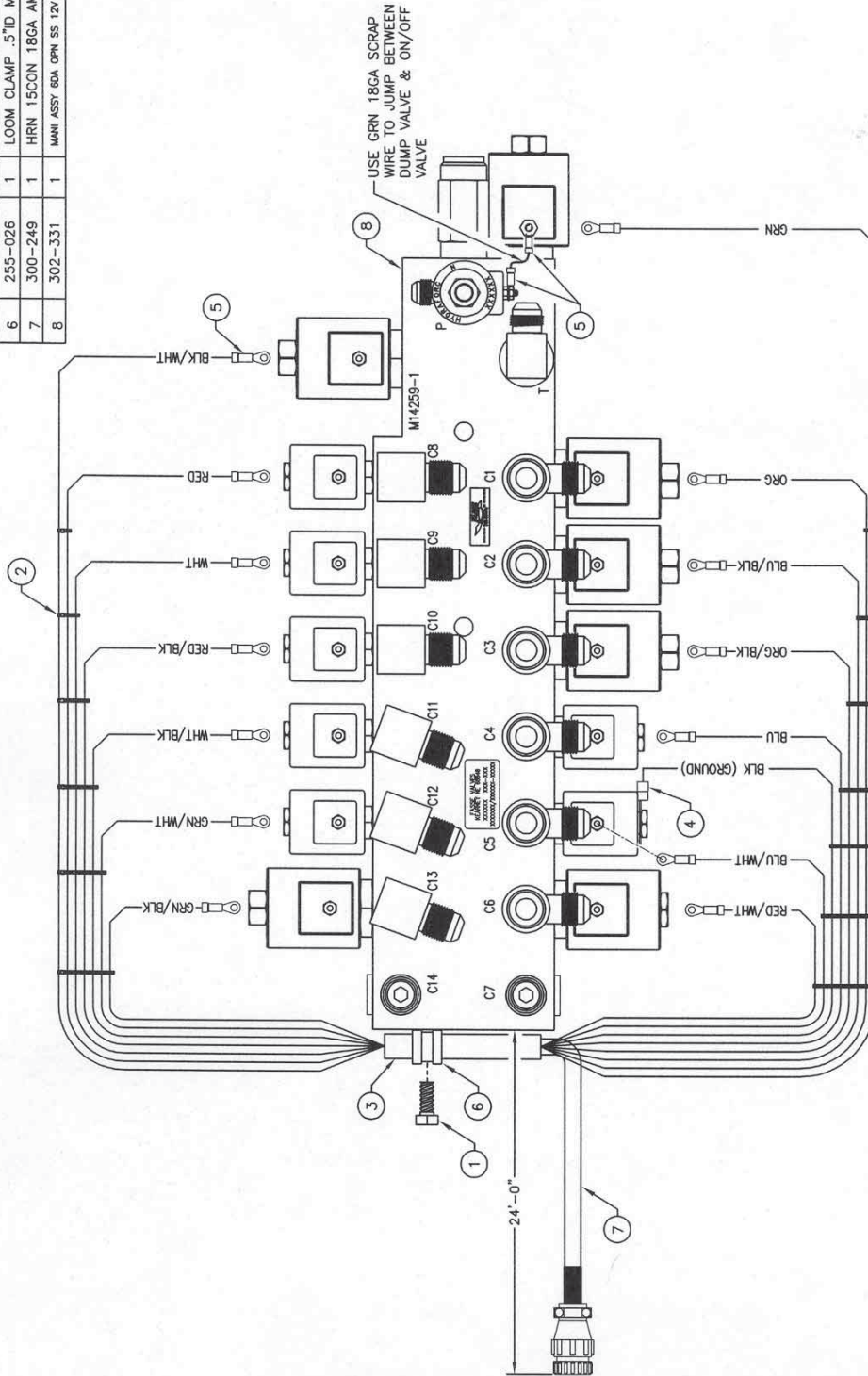
ITEM	QUANTITY	DESCRIPTION	DATE
1	1	MANIFOLD ASSEMBLY	11/11/00
2	1	SOLENOID	11/11/00
3	1	SOLENOID	11/11/00
4	1	SOLENOID	11/11/00
5	1	SOLENOID	11/11/00
6	1	SOLENOID	11/11/00
7	1	SOLENOID	11/11/00
8	1	SOLENOID	11/11/00
9	1	SOLENOID	11/11/00
10	1	SOLENOID	11/11/00
11	1	SOLENOID	11/11/00
12	1	SOLENOID	11/11/00
13	1	SOLENOID	11/11/00
14	1	SOLENOID	11/11/00
15	1	SOLENOID	11/11/00
16	1	SOLENOID	11/11/00
17	1	SOLENOID	11/11/00
18	1	SOLENOID	11/11/00
19	1	SOLENOID	11/11/00
20	1	SOLENOID	11/11/00

THE COMPANY ASSUMES NO LIABILITY FOR THE USE OF THIS SCHEMATIC FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS DESIGNED AND FOR WHICH IT IS INTENDED TO BE USED.
 SCALE: 3/4" = 1"

Six Function Control Valve (Optional)

PARTS LIST

NO	PART NUMBER	QTY	PART DESCRIPTION
1	212-025	1	BOLT 5/16-18X0.75
2	214-002	16	CABLE TIE BLACK 7"
3	231-007	4"	SHRINKTUBING .625
4	255-008	1	TRM RING 1/2" NON INS 22/18GA
5	255-011	16	TRM RING #8 INS BLUE FNL ENT
6	255-026	1	LOOM CLAMP .5"ID METAL/RUBR
7	300-249	1	HRN 15CON 18GA AMP PLUG 18P(15) 27'
8	302-331	1	MANI ASSY 6DA OPN SS 12V RV WP6801-6 P6400-8 T6801-8 ON/OFF



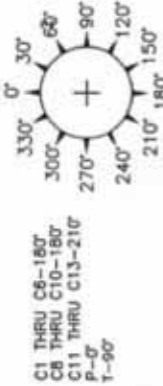
NOTES:

1. USE 3-CABLE TIES TO COIL HARNESS.
2. RETORQUE GROUND COIL NUT TO 5 FT. LBS.

REV	DESCRIPTION	DATE	APPROVED	FORM #	DATE	APPROVED	UNLESS OTHERWISE SPECIFIED	SIGNATURES	DATE
RELEASED	DRAWING	01-004	01/25/04	01-004	01/25/04	01/25/04	TOLERANCES UNLESS OTHERWISE SPECIFIED: 2 PL DECIMALS ANGLES IN DEGREES FRACTIONS	DRWFR ENGGR	10/04/04 10/04/04
<p>THIS DRAWING IS A PROPRIETARY DESIGN OWNED BY FASSE VALVES. IT IS TO BE USED ONLY UNDER A COMPOUND LICENSE AGREEMENT. ALL RIGHTS ARE RESERVED BY FASSE VALVES.</p>									
								<p>FASSE VALVES RESEARCH WE 68848-2448 MANI/HRN ASSY 6DA OPN SS 12V RV WP6801-8 PT6801-8 ON/OFF 15CON PLUG18P(15) 24'</p>	
								<p>FORM NO 303-074 SCALE SHEET</p>	

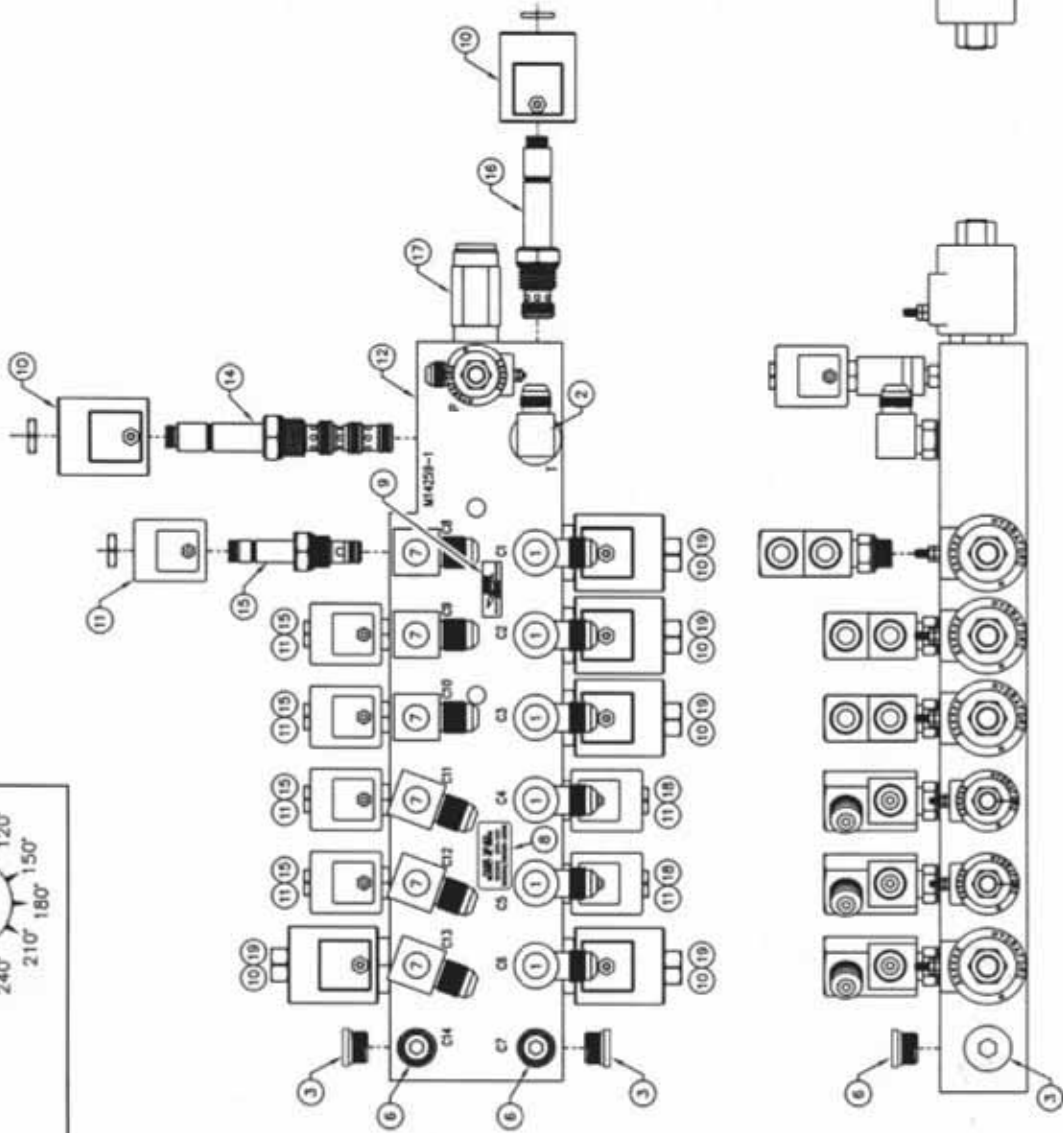
Six Function Control Valve (Optional)

FITTING ORIENTATION



NOTES:

1. TORQUE COIL NUTS TO 5 FT. LBS.



PARTS LIST

NR	PART NUMBER	QTY	PART DESCRIPTION
1	210-015	6	FTG 6801-6-6/E-MJ-MO
2	210-017	1	FTG 6801-8-8/E-MJ-MO
3	210-038	2	FTG 6408-8/MD HRP
4	210-117	1	FTG 6400-8-8/5-MJ-MO
5	210-121	1	FTG 6403-NWD-8/ADJ 5-MO-MO
6	210-127	2	FTG 6408-6/MD HRP
7	210-228	6	FTG 6801-LL-6
8	232-060	2	DECL S/N (SILVER)
9	232-059	1	DECL COIL/BLK 1.5 X .5
10	253-003	7	COIL 6354012 DO
11	253-005	8	COIL 6304012 DO
12	270-011	1	MANI 514259-1 7OIR AL
13	270-051	1	BLOCK M7024680 ON/OFF-B
14	273-008	1	CART 3V10-40-0-N-00
15	273-016	5	CART H/F 5V08-24-0-N-00
16	273-017	1	CART 5V10-21-0-N-00
17	273-090	1	CART H/F RVD10-22H-0-N-35/16
18	273-867	2	CART H/F 5V08-26-0-N-00
19	273-890	5	CART H/F 5V08-28-0-N-00
20	273-979	1	CART H/F 5V08-20M-0-N-00

REV	DESCRIPTION	REVISED DRAWING	DATE	DATE	DATE	DATE	DATE
1							

PAGES (INCLUDE COVER) NUMBER OF SHEETS DRAWN BY CHECKED BY DATE TITLE PROJECT NO. SCALE	PAGES (INCLUDE COVER) NUMBER OF SHEETS DRAWN BY CHECKED BY DATE TITLE PROJECT NO. SCALE
--	--

MANUFACTURED BY DATE PROJECT NO. SCALE	MANUFACTURED BY DATE PROJECT NO. SCALE
---	---

PAGES (INCLUDE COVER) NUMBER OF SHEETS DRAWN BY CHECKED BY DATE TITLE PROJECT NO. SCALE	PAGES (INCLUDE COVER) NUMBER OF SHEETS DRAWN BY CHECKED BY DATE TITLE PROJECT NO. SCALE
--	--

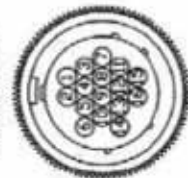
Six Function Control Valve Harness (Optional)

PARTS LIST			
NR	PART NUMBER	QTY	PART DESCRIPTION
1	231-007	2'	SHRINKTUBING .625
2	252-020	37'	CABLE 15CCN 18GA
3	255-017	1	CNTR 1.6 PIN PLUG
4	255-024	15	CNTR SOCKET (GOLD) 16/18GA
5	255-043	1	CNTR 1.6 PIN SHELL #17



- 1 --- RED WIRE
- 2 --- ORANGE WIRE
- 3 --- WHITE WIRE
- 4 --- BLUE/BLACK WIRE
- 5 --- RED/BLACK WIRE
- 6 --- ORANGE/BLACK WIRE
- 7 --- WHITE/BLACK WIRE
- 8 --- BLUE WIRE
- 9 --- BLACK/WHITE WIRE
- 10 --- GREEN WIRE
- 11 --- BLUE/WHITE WIRE
- 12 --- BLACK WIRE
- 13 --- GREEN/WHITE WIRE
- 14 --- RED/WHITE WIRE
- 15 --- GREEN/BLACK WIRE
- 16 --- NOT USED

PIN OUT DETAIL



NOT SHOWN: (4)

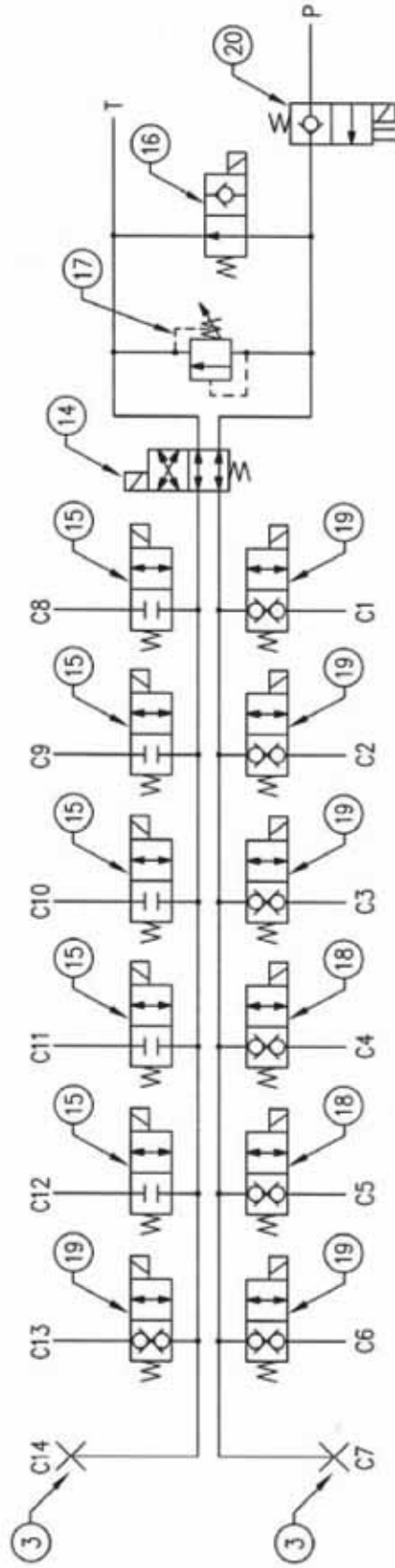
REV	DESCRIPTION	DATE	APPROVED	DATE	REVISED BY	DATE	REVISED BY
1	ISSUE	07/26/76		07/26/76			
2	ISSUE	11/07/76		11/07/76			

VALUE ENGINEER NAME: [] TITLE: [] DEPT: [] DIV: [] PHONE: []	VALUE ENGINEER NAME: [] TITLE: [] DEPT: [] DIV: [] PHONE: []
--	--

FASSE VALVES 2500 FORD PARK SPOKANE, ID 83402-3148	HARNESS 15CCN 18PN(15) P /27'
3004 48	300-249
SCALE	SHEET

Six Function Control Valve (Optional)

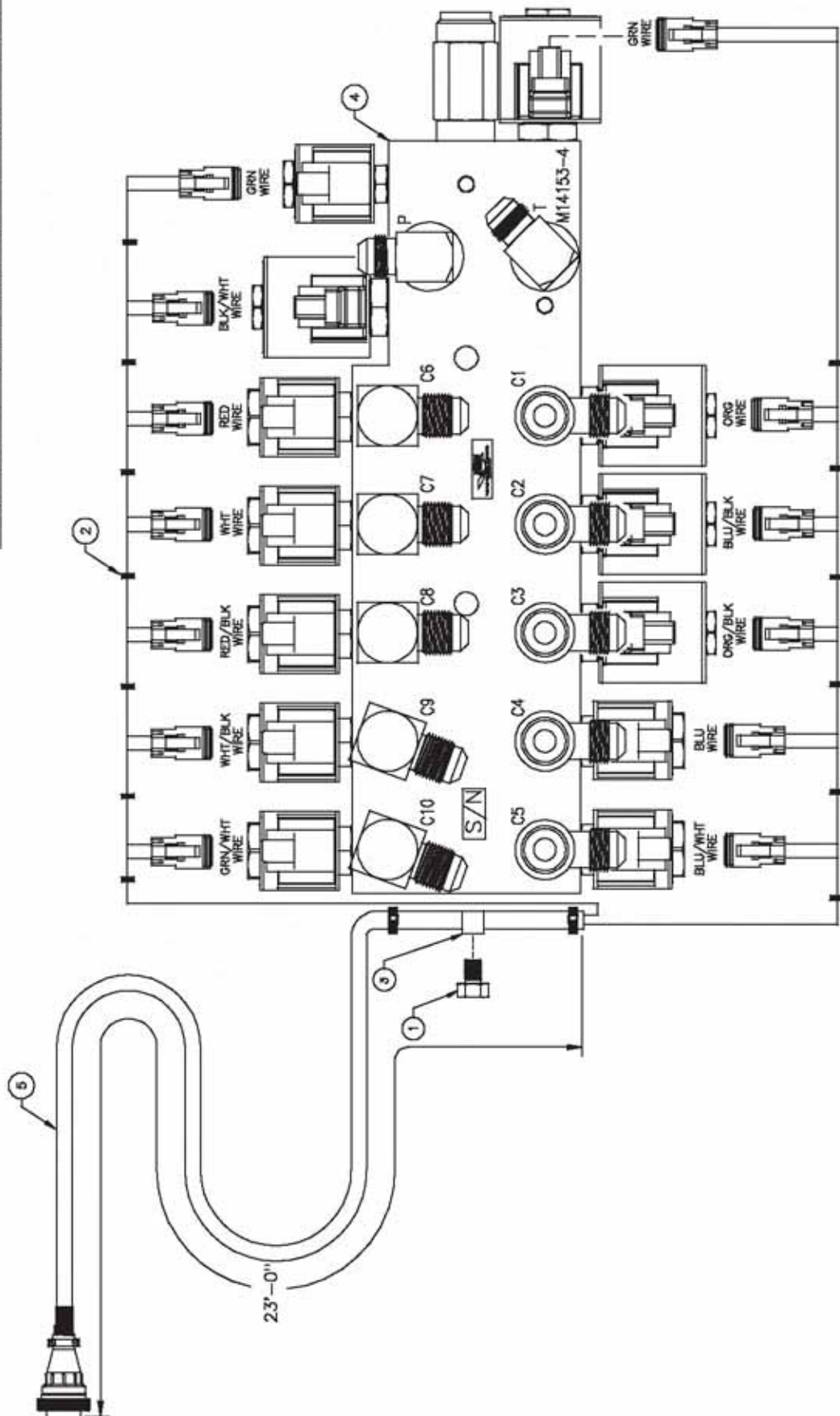
HYDRAULIC SCHEMATIC



DATE	10/04/04	DATE	10/04/04
DESIGNED BY	DAVID DUFF	DESIGNED BY	DAVID DUFF
CHECKED BY	DAVID DUFF	CHECKED BY	DAVID DUFF
APPROVED BY	DAVID DUFF	APPROVED BY	DAVID DUFF
MAN. ASSEMBLY 60A 02N 55 12V RV WP6801-8 P4400-8 16801-8 0N/027			
FORM NO.	302-331	SCALE	SHEET 2 OF 2

PARTS LIST

NO	PART NUMBER	QTY	PART DESCRIPTION
1	212-025	1	BOLT 5/16-18X0.75
2	214-002	16	CABLE TIE BLK 8.5"
3	255-028	1	LOOM CLAMP .50"ID
4	302-861	1	MANI ASSY 0805 SDA OPN E-INTG DTR 12V RV WP6001-6 PT6001-8
5	304-813	1	HRN 15CON 18GA AMP PLUG 16P(15)3DTP 2P(2) 23'



NOTE:
1. USE 3 CABLE TIES TO COIL HARNESS.

REV	DESCRIPTION	REVISIONS	FORM #	DATE	APPROVED	DESIGNED BY	DATE	DESIGNED BY	DATE	DATE	DATE
1	RELEASED DRAWING		02-015	12/05/02	DLT	DLT	12/05/02	DLT	12/05/02	DLT	12/05/02
2	UPDATED DRAWING		08-007	04/15/08	DLT	DLT	04/15/08	DLT	04/15/08	DLT	04/15/08
3	UPDATED DRAWING		08-007	08/29/08	DLT	DLT	08/29/08	DLT	08/29/08	DLT	08/29/08

UNITS	PREPARED	REVIEWED	SIGNAL/VALUES	DATE
RELAY	DLT	DLT	DLT	12/04/02
SOL	DLT	DLT	DLT	12/04/02
WIRING	DLT	DLT	DLT	12/04/02

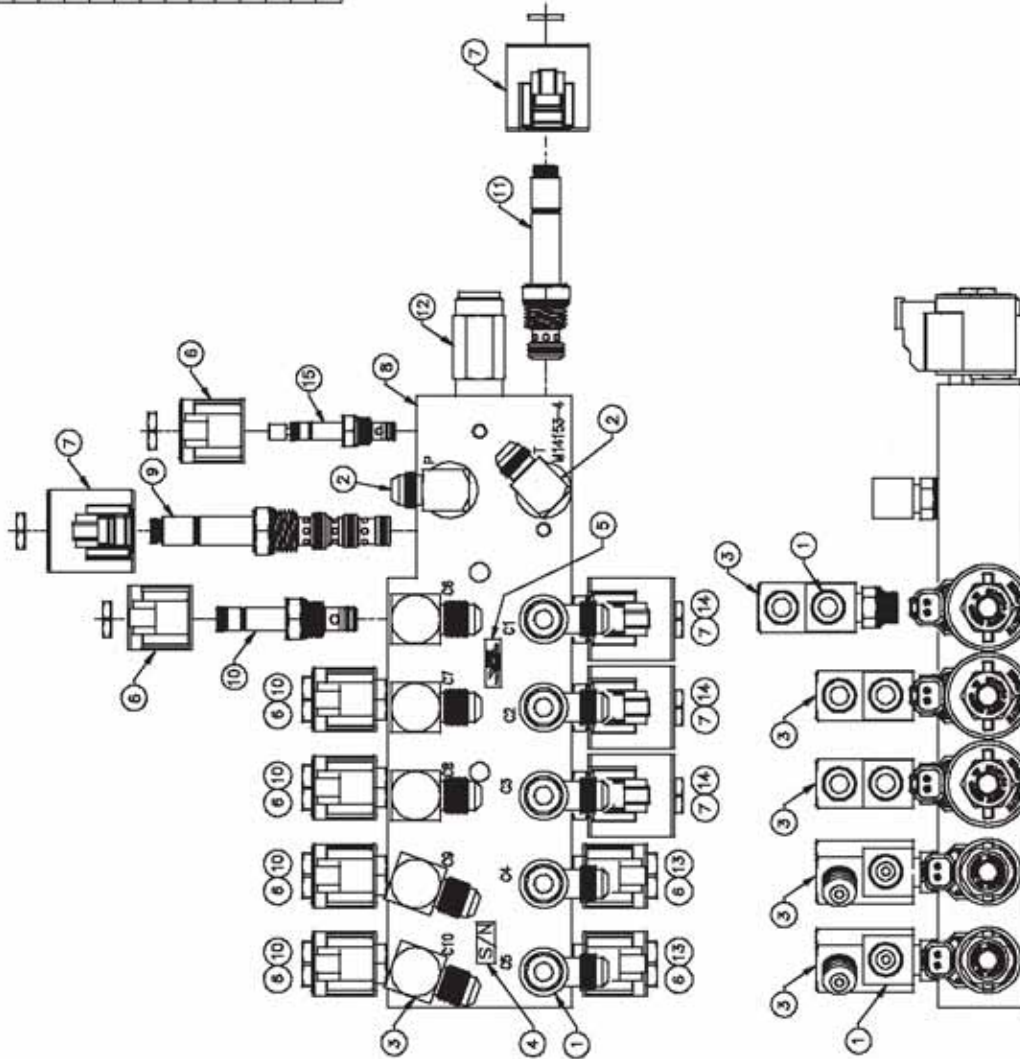
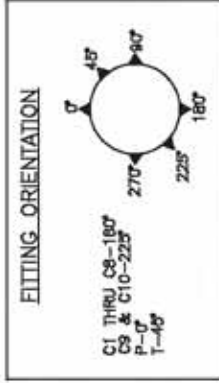
FORM NO	ISSUE NO	SCALE
303-058	303-058	3/8"=1"

MANUFACTURER	PART NO	DATE
MANI ASSY 0805 SDA OPN E-INTG DTR 12V RV WP6001-6 PT6001-8	303-058	12/05/02

PARTS LIST

№	PART NUMBER	QTY	PART DESCRIPTION
1	210-015	5	FTG 6801-6-6/E-MJ-MO
2	210-017	2	FTG 6801-8-8/E-MJ-MO
3	210-228	5	FTG 6801L-6-6/E-MJ-MO
4	232-050	2	DECL S/N (SILVER)
5	232-058	1	DECL PASSE BLK/GOLD 1" X .75" R
6	253-590	8	COIL H/F 4304012 E-8 INTG DEUT DTR 12V ZENER DIODE
7	253-593	5	COIL H/F 430412E-10 INTG DEUT DTR 12V ZENER DIODE
8	270-083	1	MANI S14153-4 5CR AL RV
9	273-008	1	CART H/F SV10-40-O-N-00 SPL 4W
10	273-016	5	CART H/F SV08-24-O-N-00 SPL 2W
11	273-017	1	CART H/F SV10-21-O-N-00 POP 2W
12	273-527	1	CART H/F RV10-22H-O-N-35/20 RLF DIRT A
13	273-867	2	CART H/F SV08-28-O-N-00
14	273-880	3	CART H/F SV08-28-O-N-00 POP 2W
15	273-979	1	CART H/F SV08-20M-O-N-00 POP 2

FITTING ORIENTATION



SPECIFICATIONS:

- MAXIMUM PRESSURE 3000 PSI
- MAXIMUM FLOW 8 GPM
- PORT SIZE (P, T) -8 SAE O-RING
- PORT SIZE (ALL C) -6 SAE O-RING
- MOUNTING HOLES (2) .406 DIA
- MOUNTING HOLES (1) 5/16-18 TAPPED

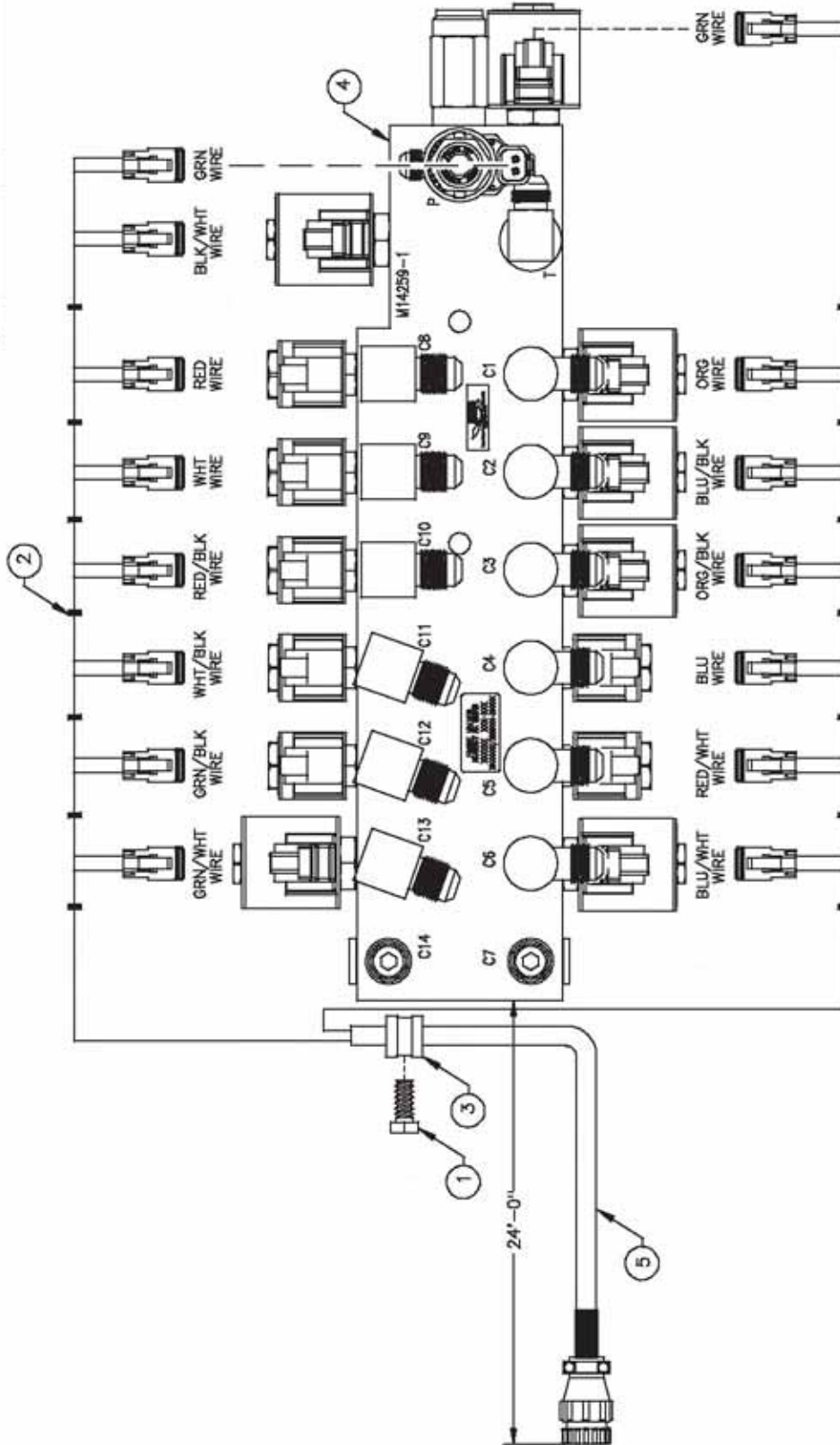
REV	DESCRIPTION	DATE	BY	CHKD	APPROVD	REVISIONS	QUANTITIES	DATE
A	RELEASED DRAWING	12/17/08	SLB	SLB	SLB	13/00/08	13	12/17/08
B	REVISED DRAWING	08/20/07	SLB	SLB	SLB	13/00/07	13	08/20/07

MANUFACTURED BY	DATE	REV
MAN ASSY 0805 50A OPN E-INTG DTR	12/17/08	13
MAN ASSY 0805 50A OPN E-INTG DTR	12/17/08	13

MANUFACTURED BY	DATE	REV
MAN ASSY 0805 50A OPN E-INTG DTR	12/17/08	13
MAN ASSY 0805 50A OPN E-INTG DTR	12/17/08	13

PARTS LIST

NO	PART NUMBER	QTY	PART DESCRIPTION
1	212-025	1	BOLT 5/16-18X0.75
2	214-002	16	CABLE TIE BLACK 7"
3	255-026	1	LOOM CLAMP .5"ID METAL/RUBR
4	302-331	1	MAN ASSY 6DA GRN 55 12V RV W/6001-8 16400-8 16001-8 ON/OFF
5	312-740	1	HRN ASSY 1500N 18CA AMP PLUG 16P(15) 180TP 2P(2) 24V



NOTES:

1. USE 3-CABLE TIES TO COIL HARNESS.

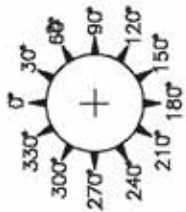
REV	DESCRIPTION	DATE	BY	CHKD	APP'D	REV	DESCRIPTION	DATE
1	ISSUED DRAWING	10/04/04	...	...	...	1	ISSUED DRAWING	10/04/04
2	ISSUED DRAWING	10/04/04	...	...	...	2	ISSUED DRAWING	10/04/04
3	ISSUED DRAWING	10/04/04	...	...	...	3	ISSUED DRAWING	10/04/04
4	ISSUED DRAWING	10/04/04	...	...	...	4	ISSUED DRAWING	10/04/04

MANUFACTURED BY	DATE	REV
...

MANUFACTURED BY	DATE	REV
...

MANUFACTURED BY	DATE	REV
...

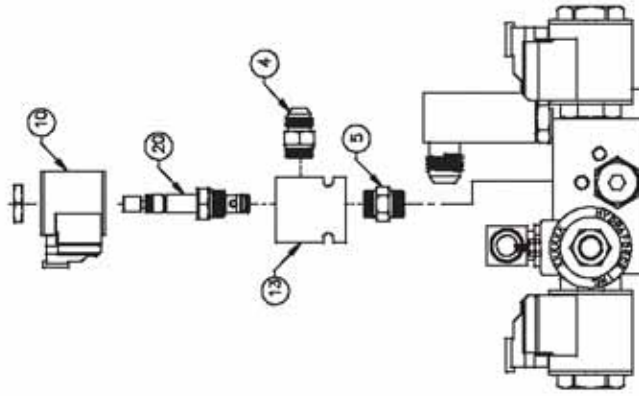
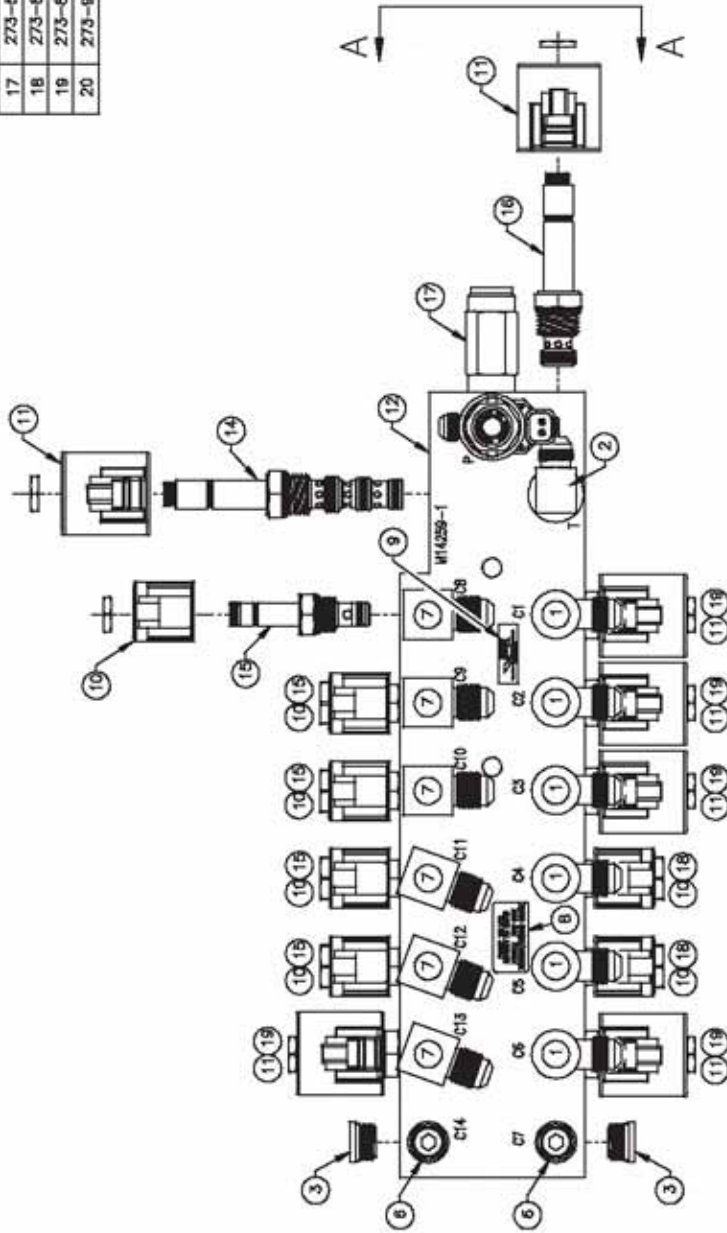
FITTING ORIENTATION



C1 THRU C6-180°
 C8 THRU C10-180°
 C11 THRU C13-210°
 P-0°
 T-90°

PARTS LIST

NO	PART NUMBER	QTY	PART DESCRIPTION
1	210-015	6	FTG 6801-6-8/E-MJ-MO
2	210-017	1	FTG 6801-8-9/E-MJ-MO
3	210-038	2	FTG 6408-8/MO HHP
4	210-117	1	FTG 6400-8-8/S-MJ-MO
5	210-121	1	FTG 6403-NMO-8/ADJ S-MO-MO
6	210-127	2	FTG 6408-6/MO HHP
7	210-228	8	FTG 6801-LI-8
8	232-050	2	DECL S/N (SILVER)
9	232-058	1	DECL GOLD/BLK 1.5 X .5
10	253-590	8	COIL H/F 4304012 E-8 INTG DEUT DTR 12V ZENER DIODE
11	253-583	7	COIL H/F 4304112E-10 INTG DEUT DTR 12V ZENER DIODE
12	270-011	1	MANI S14259-1 7CIR AL
13	270-051	1	BLOCK M7024680 ON/OFF-8
14	273-008	1	CART SY10-40-0-N-00
15	273-016	5	CART H/F SY08-24-0-N-00
16	273-017	1	CART SY10-21-0-N-00
17	273-527	1	CART H/F RV10-22H-0-N-36/20 RLF DIFF A
18	273-867	2	CART H/F SY08-26-0-N-00
19	273-890	5	CART H/F SY08-28-0-N-00
20	273-878	1	CART H/F SY08-20M-0-N-00



VIEW A-A

REV	DESCRIPTION	DATE	BY	CHKD	APP'D	DATE	REV	DESCRIPTION
1	ISSUED DRAWING	08/20/88	DL	DL		18/04/04	1	REVISED TO
2	ISSUED DRAWING	08/20/88	DL	DL		18/04/04	2	REVISED TO
3	ISSUED DRAWING	08/20/88	DL	DL		18/04/04	3	REVISED TO

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

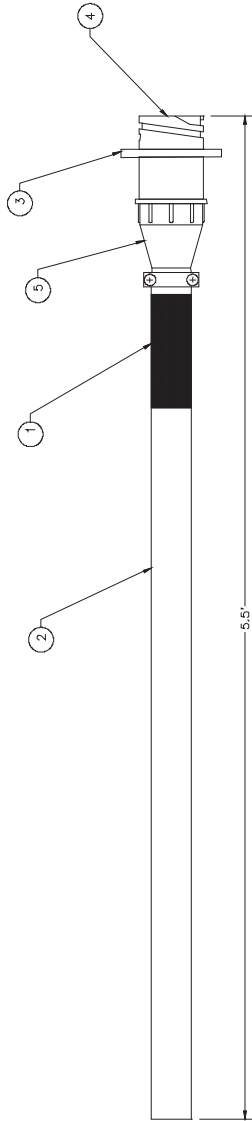
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

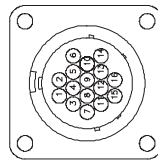
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL	CHKD	DL	APP'D	

DATE	18/04/04	BY	DL	CHKD	DL	APP'D	
DATE	18/04/04	BY	DL				

PARTS LIST			
NO	PART NUMBER	QTY	PART DESCRIPTION
1	231-009	2"	SHRINKTUBING .500" BLK
2	252-020	5.5'	CABLE 15CON 18GA
3	258-013	1	CNTR. 16 PIN RECP FLANGE
4	259-023	15	CNTR. PIN (GOLD) 16/18GA
5	258-043	1	CNTR. 16 PIN SHELL #17



PIN OUT DETAIL

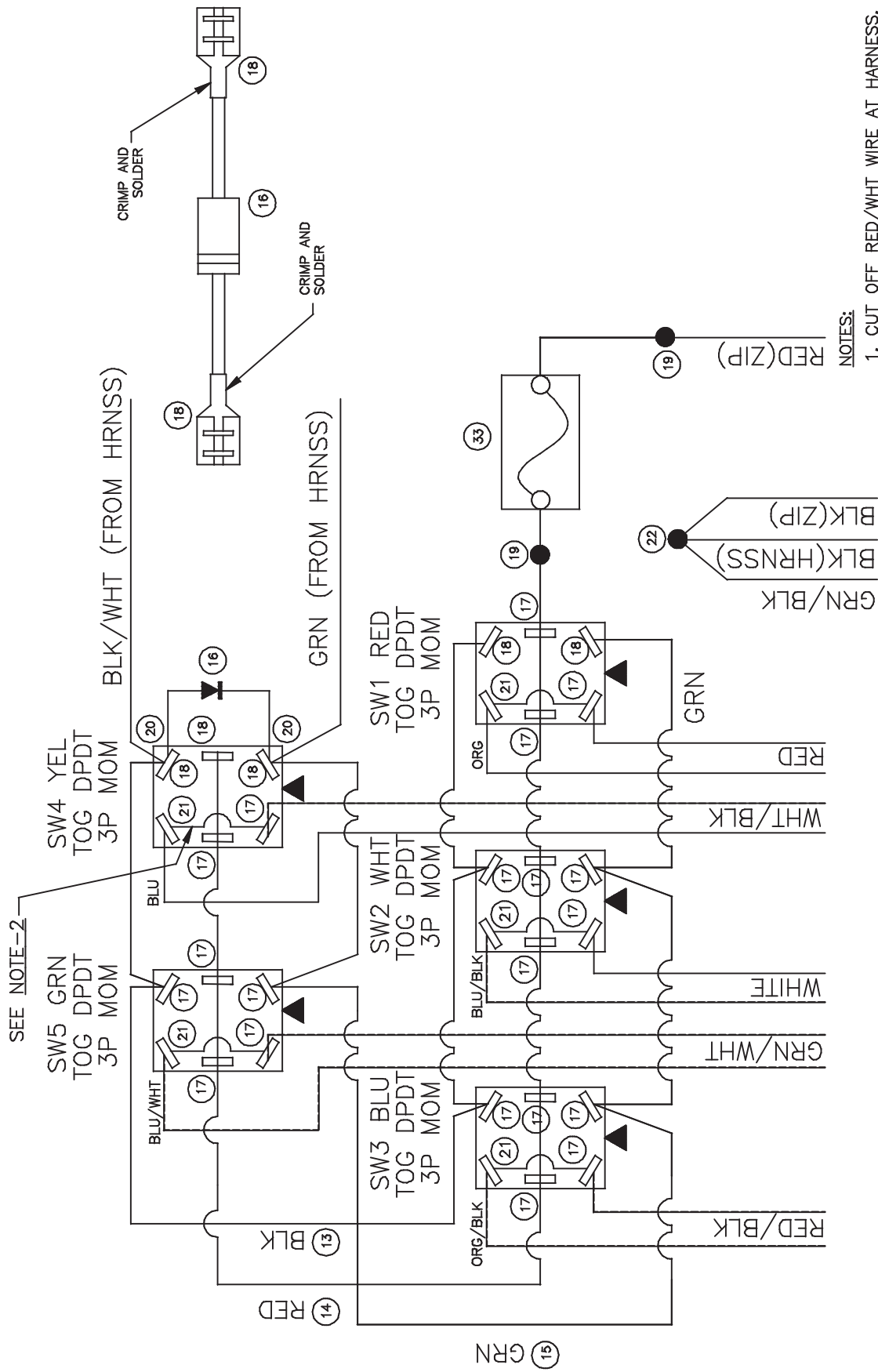


- 1 --- RED WIRE
- 2 --- ORANGE WIRE
- 3 --- WHITE WIRE
- 4 --- BLUE/BLACK WIRE
- 5 --- BLUE WIRE
- 6 --- RED/BLACK WIRE
- 7 --- WHITE/BLACK WIRE
- 8 --- WHITE WIRE
- 9 --- BLACK/WHITE WIRE
- 10 --- GREEN WIRE
- 11 --- BLUE/WHITE WIRE
- 12 --- BLUE WIRE
- 13 --- GREEN/WHITE WIRE
- 14 --- RED/WHT WIRE
- 15 --- GRN/BLK WIRE
- 16 --- NOT USED

REV	DESCRIPTION	FORM #	DATE	APPROVED	DESIGNED	DATE	DESIGNED	DATE	DATE
1	RELEASED DRAWING	DP-007	07/24/09	DLG	DLG	09/04/09	DLG	09/04/09	09/04/09

DESIGNED BY	DLG	CHECKED BY	DLG
DRAWN BY	DLG	DATE	09/04/09
SCALE	1:1	REV	1
TITLE	HARNES 15CON 16PN(15) F /5.5'		
PROJECT NO	311-801		
SCALE	1:1		

SWITCH WIRING DIAGRAM



- NOTES:
1. CUT OFF RED/WHT WIRE AT HARNESS.
 2. USE SCRAP 18GA WIRE TO JUMP BETWEEN SWITCHES.

▲ = NOTCH LOCATION

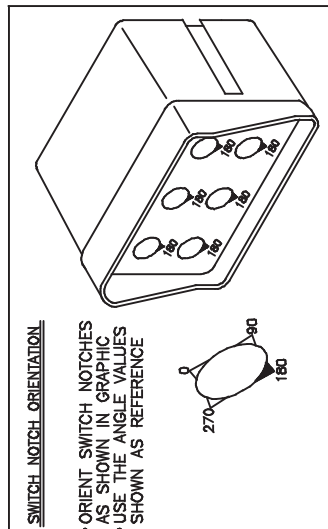
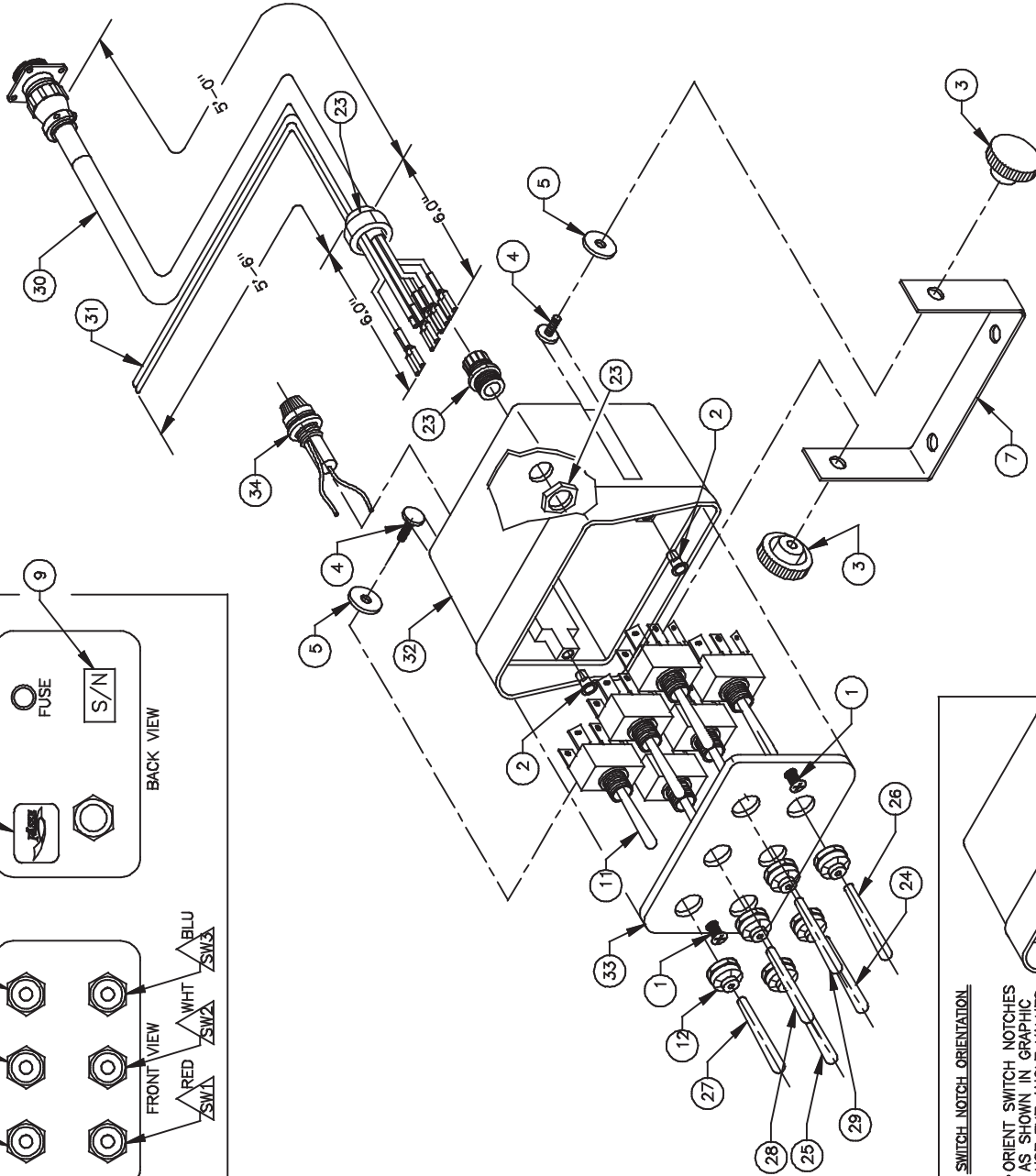
USER: JIMMIE BRIDGE	SIGNATURES	DATE		FASSE VALVES 10000 WHEATLAND AVE WHEATLAND, WY 83081-2248
DESIGNER: JLB	DATE: 06/29/02			
TOLERANCES ON DIMS: 2 PL DECIMALS	ENGINEER: BML	DATE: 06/29/02		
ANGLES: UNLESS OTHERWISE SPECIFIED				
FRANCHISE: UNLESS OTHERWISE SPECIFIED				
THIS DRAWING IS A PROPRIETARY DESIGN OWNED BY FASSE VALVES. IT IS TO BE USED ONLY FOR THE PARTS IDENTIFIED HEREIN. NO PARTS OR INFORMATION FROM THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING. ALL RIGHTS ARE RESERVED BY FASSE VALVES.			MTR ASSY 805/RAN-C15L5PN16F	DWG NO 320-180
			SIZE FROM NO A	SCALE 2 OF 2

PARTS LIST

NO	PART NUMBER	QTY	PART DESCRIPTION
1	212-184	2	SCREW 6-32 X 3/8 OVAL HD BLK
2	212-202	2	INSERT 6-32X3/8 BRASS
3	212-215	2	KNOB 1/4-20 FEMALE
4	212-231	2	SCREW WELDED 1/4-20 X .500
5	213-335	2	WASHER NYLON .257X.875X.060
6	214-002	14	CABLE TIE BLACK 7"
7	219-300	1	BRKT HSG MONITOR
8	230-057	1	BAG POLY CLR 14 X 18 2MIL W/LOGO
9	232-050	2	DECL S/N (SILVER)
10	232-058	1	DECAL FASSE BLK/GOLD 1"X.75" RND CRNR
11	250-013	6	SW TOG DPDT 3P MOM LONG
12	250-023	6	SW TOG BOOT OPN GRY
13	252-058	1'	WIRE 18GA BLK
14	252-059	1.5'	WIRE 18GA RED
15	252-060	1'	WIRE 18GA GRN
16	254-001	1	DIODE D116A2 6AMP
17	255-002	25	TRM T-TAP F PO BLU
18	255-006	5	TRM PO F INS 22/18GA
19	255-030	2	TRM SPLICE CLOSED END
20	255-070	2	TRM PO M/F 16-14GA
21	255-119	6	TRM PO F INS 16-14GA
22	255-285	1	TRM SPLICE CLOSED END LRG 14-16GA
23	255-710	1	STRAIN RLF HEYCO .45"-705"ID, HOLE DIA 1.115"
24	259-004	1	SW TOG GRIP VNYL WHT .187
25	259-005	1	SW TOG GRIP VNYL RED .187
26	259-015	1	SW TOG GRIP VNYL BLU .187
27	259-022	1	SW TOG GRIP VNYL YEL .187
28	259-023	1	SW TOG GRIP VNYL GRN .187
29	259-027	1	SW TOG GRIP VNYL GRY .187
30	300-072	1	HRN 15CON 18GA AMP SQFLRCP 16P(15) 5'
31	300-271	1	HARNSS R/B WIRE /6'
32	304-400	1	ENCL DRILL MNTBRX FH-1 1/8"IG
33	308-001	1	ENCL DRILL FP MNTR SW6 L00261
34	319-768	1	FUSEHOLDER PANEL MOUNT ASSY 10A /5'

NOTES:

1. USE 2-CABLE TIES TO COIL UP HARNESS
2. PUT REMAINING CABLE TIES IN BAG
3. NOT SHOWN: (6) (8)



REV	DESCRIPTION	REVISED	DATE	APPROVED	SIGNATURES	DATE
A	RELEASED DRAWING	01-01-04	01-01-04	DRP/TER	DRP/TER	10/04/04
B	REVISED DRAWING	01-01-04	01-01-04	DRP/TER	DRP/TER	10/04/04
C	REVISED DRAWING	01-01-04	01-01-04	DRP/TER	DRP/TER	10/04/04

THIS DRAWING IS A PROPERTY OF FASCO VALVES. IT IS TO BE USED ONLY FOR THE PROJECT AND UNDER A CONFIDENTIAL AGREEMENT. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.



**13477 Benson Avenue
Chino, CA 91710**

Phone: (909) 548-4848

Fax: (909) 548-4747

sales@gearmore.com

www.gearmore.com