



OWNER'S MANUAL

RENEGADE MODEL 408V&T

PARTS & SCHEMATICS

NOTE:

MANUAL including SPECIFICATIONS, subject to change without notice.
All ratings are based on structural factors only, not vehicle capacities or capabilities.

Miller Industries Towing Equipment, Inc.
2755 Kirila Blvd.
Hermitage, PA 16148
Phone (724) 981-3328 | www.millerind.com

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Price \$25.00

LIMITED WARRANTY

MILLER INDUSTRIES TOWING EQUIPMENT INC., hereinafter referred to as MILLER, warrants to the original purchaser that each new MILLER wrecker or other MILLER products will be free from defects in material and workmanship for a period of twelve (12) months from date placed in service, but in no event shall such warranty period exceed twenty-four (24) months from date of manufacture by MILLER. The purchaser must promptly notify MILLER in writing of any failure in material or workmanship. In no event shall MILLER accept such notification later than twenty-four (24) months from date of delivery or twelve (12) months from date placed in service, whichever is earlier.

MILLER's obligation under this warranty, statutory or otherwise, is limited to the repair or replacement at the MILLER factory, or at a point designated by MILLER, of such part or parts as shall appear upon inspection by MILLER to be defective in material or workmanship. New or remanufactured parts will be used for any replacement at MILLER's option. This warranty is not transferable. This warranty does not obligate MILLER to bear the cost of labor or transportation charges in connection with the repair or replacement of any parts found to be defective, nor shall it apply to a product upon which repairs or alterations have been made unless authorized by MILLER.

EXCEPT AS EXPRESSLY SET FORTH IN THIS WARRANTY, MILLER MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND HEREBY DISCLAIMS ALL OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. MILLER shall in no event be liable for claimed downtime, claimed loss of profits or goodwill, or any other special, incidental, indirect, or consequential damages concerning or relating to any product or parts, whether based on negligence, strict liability, breach of contract, breach of warranty, misrepresentation or any other legal theory, regardless of whether the loss resulted from any general or particular requirement which MILLER knew or had reason to know about at the time of sale.

MILLER makes no warranty, express or implied, as to finished products manufactured or supplied by another manufacturer or supplier by MILLER to purchaser, including, but not limited to, any vehicle to which a MILLER product may be affixed or any accessories or wire rope (cable), and expressly disclaims any implied warranties of merchantability or fitness for a particular purpose as to such equipment or products. This language shall in no way affect or diminish the rights of the purchaser to rely on such warranties as are extended by such manufacturers or suppliers.

MILLER, whose policy is one of continuous improvement, reserves the right to improve its products through changes in design or materials as it may deem desirable without being obligated to incorporate such changes in products previously sold. This warranty is not intended to cover or include the following items, which are set forth by way of example and not limitation:

- A. Normal deterioration of trim, paint, lettering, and appearance items due to wear or exposure to weather, road conditions, road treatments, etc.
- B. Any damage or defect due to accident, misuse, abuse, improper or unauthorized repairs, failure to provide reasonable and necessary maintenance, or uses for which the equipment was not designed or intended.
- C. Alterations or modifications that affect performance, operation or reliability.
- D. Normal maintenance parts including (but not limited to) wear pads, bushings, wire rope, mud flaps, fenderettes, light bulbs, hydraulic oil, filters, and tow sling belts.

IT IS EXPRESSLY UNDERSTOOD THAT MILLER MAKES NO IMPLIED WARRANTY THAT MILLER PRODUCTS SHALL BE FIT FOR THE PURPOSE OF LIFTING OR MOVING PEOPLE OR FOR ANY OTHER IMPROPER USE.



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SERIAL NUMBER

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OWNER, USER, AND OPERATOR:

We appreciate your choice of our towing and recovery unit for your application. Our number one priority is user safety which is best achieved by our joint efforts. We feel that you can make a major contribution to safety if you, as the equipment owner and operator:

- Comply with all Federal, State, and local regulations.
- Read, understand, and follow the instructions in this manual.
- Use good, safe work practices in a common sense way.
- Only have authorized and trained personnel operating the towing and recovery unit.

It is assumed that the owner/operator has a thorough knowledge of the accepted and lawful retrieval and towing methods as dictated by their city, county, and state. MILLER rejects any liability claim that may result from the incorrect or unlawful applications of its equipment.

NOTE

Use of other than factory or factory authorized replacement parts may void the warranty.

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1 Parts

This section is provided by the manufacturer for the purpose of ordering any component part of the Renegade 408V&T that may be required when part replacement is necessary. Be certain to use only original equipment replacement parts for warranty purposes as well as for keeping your unit in its original state and optimum operating capacities.

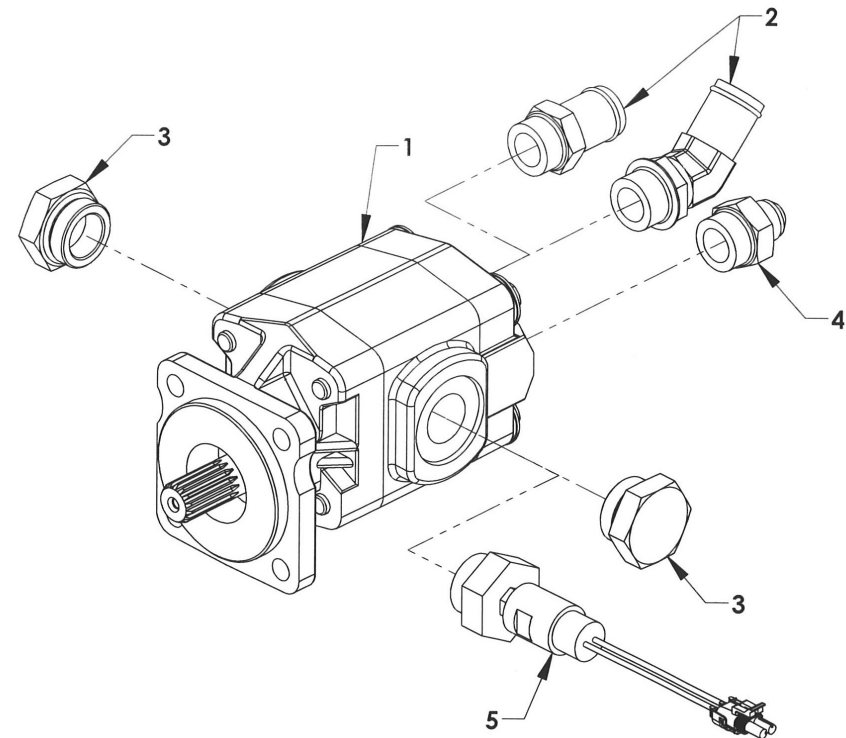
When ordering replacement or spare parts, be sure to provide the following information to the manufacturer's parts department.

- Manual number and date of publication
- Manual page number
- Page title
- Reference number of part desired
- Part number
- Part description
- Quantity of part desired
- Unit serial number

Providing this information will help ensure that the correct parts will be delivered to you in an expedient manner without delay. Should additional information be required for repair or replacement of certain components, contact your manufacturer's authorized representative.

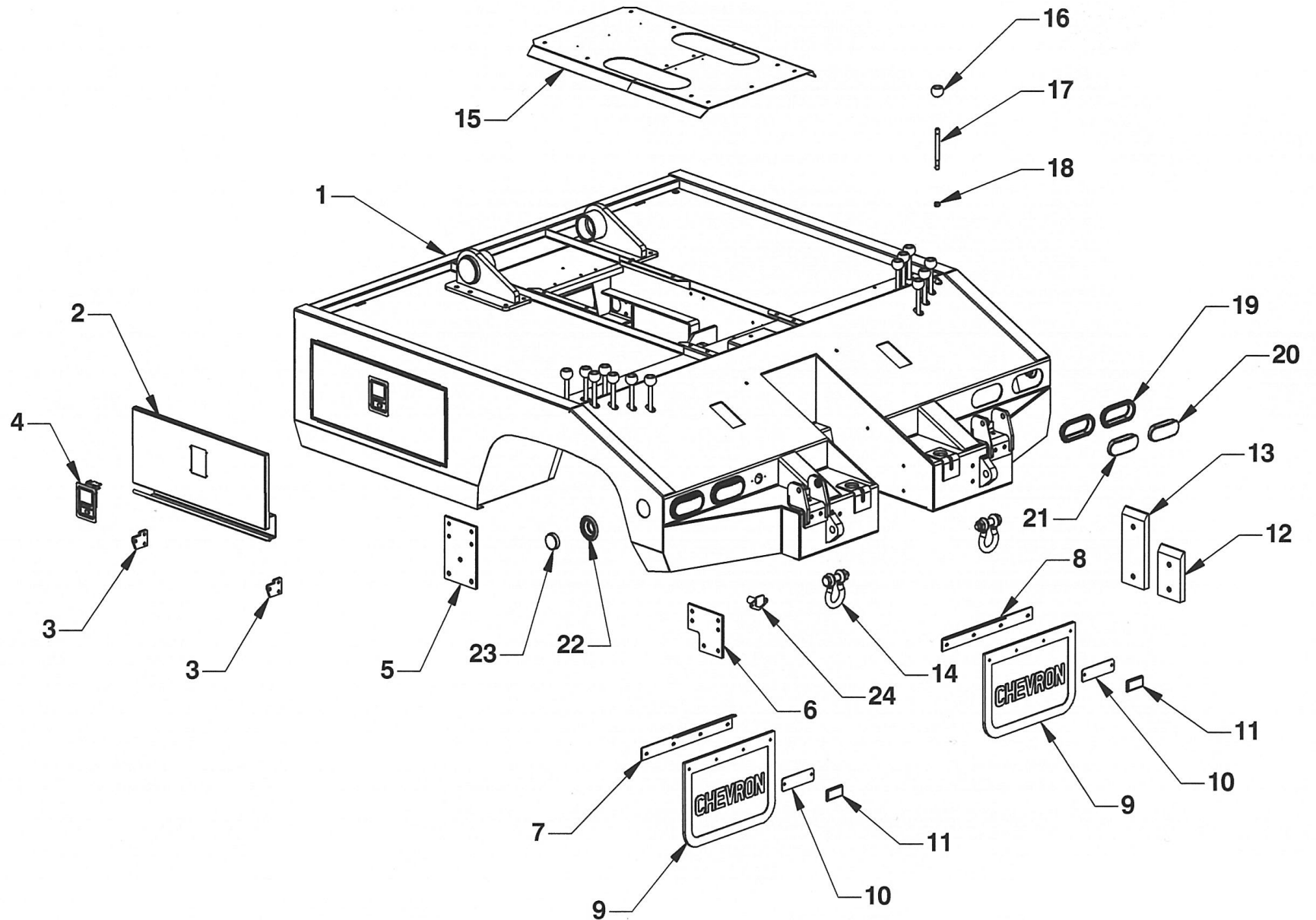
The manufacturer reserves the right, without notice or obligation, to improve or modify their products, which may change the specifications, models, and feature availability.

Direct Mount Pump - 17 GPM



ITEM	PART #	DESCRIPTION	QTY
1	0320144	17 GPM, 1 IN. 15 SPLINE SHAFT, SAE 4-BOLT FLANGE	1
2	03006339	#16-45 M O-RING x 1-1/4 M NIPPLE	1
-	77C82	#16 M O-RING x 1-1/4 M NIPPLE	1
3	77620	1-1/4 O-RING PLUG 900598-20	2
4	0301368	#16 M O-RING x 3/4 MJIC	1
5	0909434	PRESSURE TRANSDUCER (OPTIONAL)	1

4 Series Steel Integrated Body Components

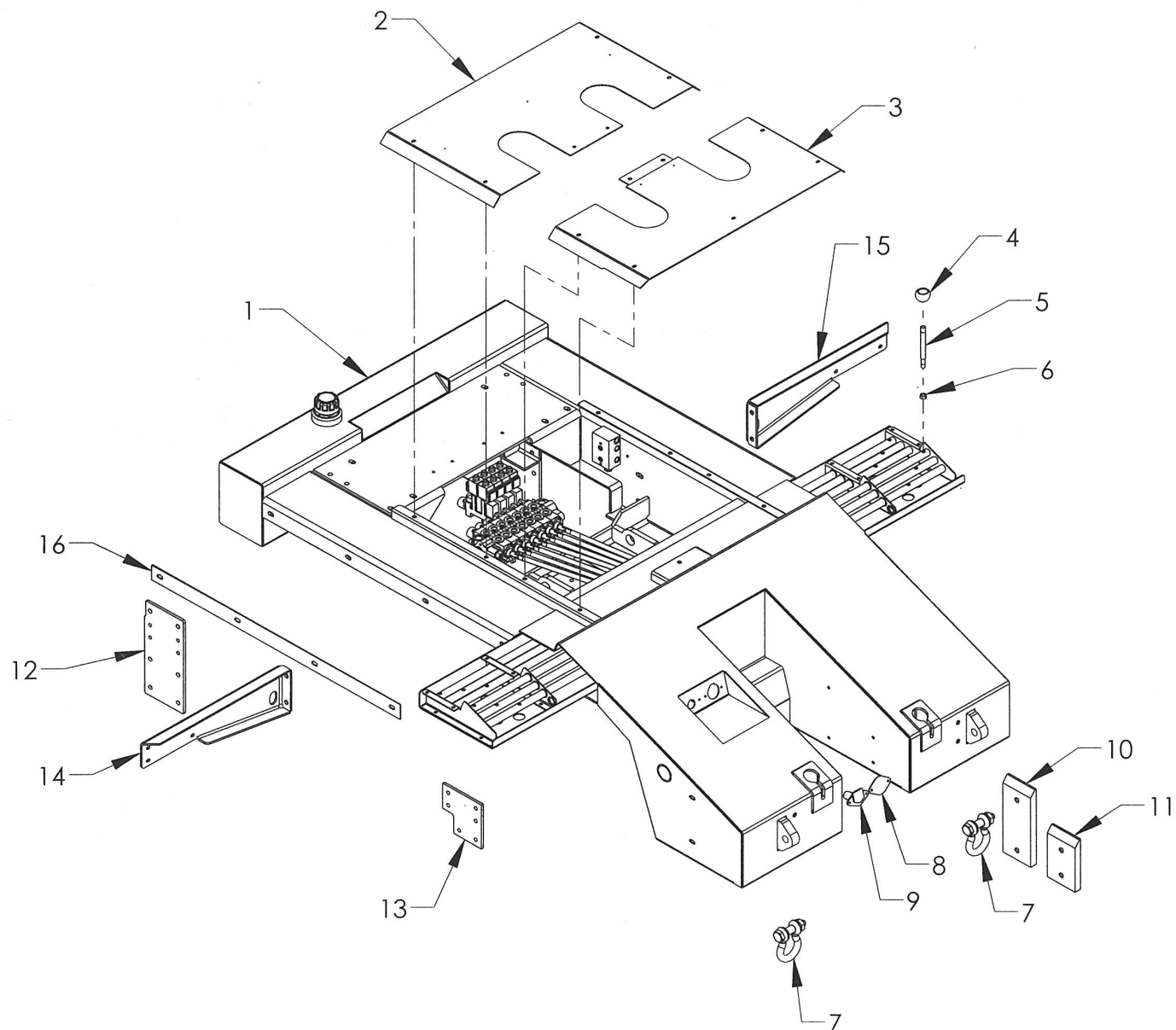


4 Series Steel Integrated Body Components (cont'd)

ITEM	PART #	DESCRIPTION	QTY
1	5033V	INTEGRATED WRECKER BODY	1
2	5A300	TOOL BOX DOOR	2
3	5A316	TOOL BOX DOOR MOUNTING BLOCK	4
4	54658	ROTARY PADDLE LATCH #3	2
5	53263	FRONT MOUNTING BRACKET	2
6	532501	MIDDLE BODY MOUNTING BRACKET	2
7	53182L	MUDFLAP MOUNTING BRACKET - LEFT	1
8	53182R	MUDFLAP MOUNTING BRACKET - RIGHT	1
9	A1040	MUDFLAP	2
10	59115	REAR REFLECTOR MOUNTING PLATE	2
11	93300R	REFLECTOR - RED	2
12	59320	UHHW WEAR PAD	2
13	59319	UHHW WEAR PAD	2
14	84716	6-1/2 TON SHACKLE W/NUT & BOLT	2
15	5431250	ACCESS COVER	1
16	7A211	CONTROL KNOB	14
17	7A168	CONTROL HANDLE	14
18	83320	NUT 1/2-20 UNF	14
19	92650	TAILLIGHT GROMMET	4
20	92600R	TAILLIGHT	2
21	95600	BACKUP LIGHT	2
22	93150	MARKER LIGHT GROMMET	2
23	93100R	RED MARKER LIGHT	2
24	98400	TOW LIGHT PLUG	1

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4 Series Modular Subframe

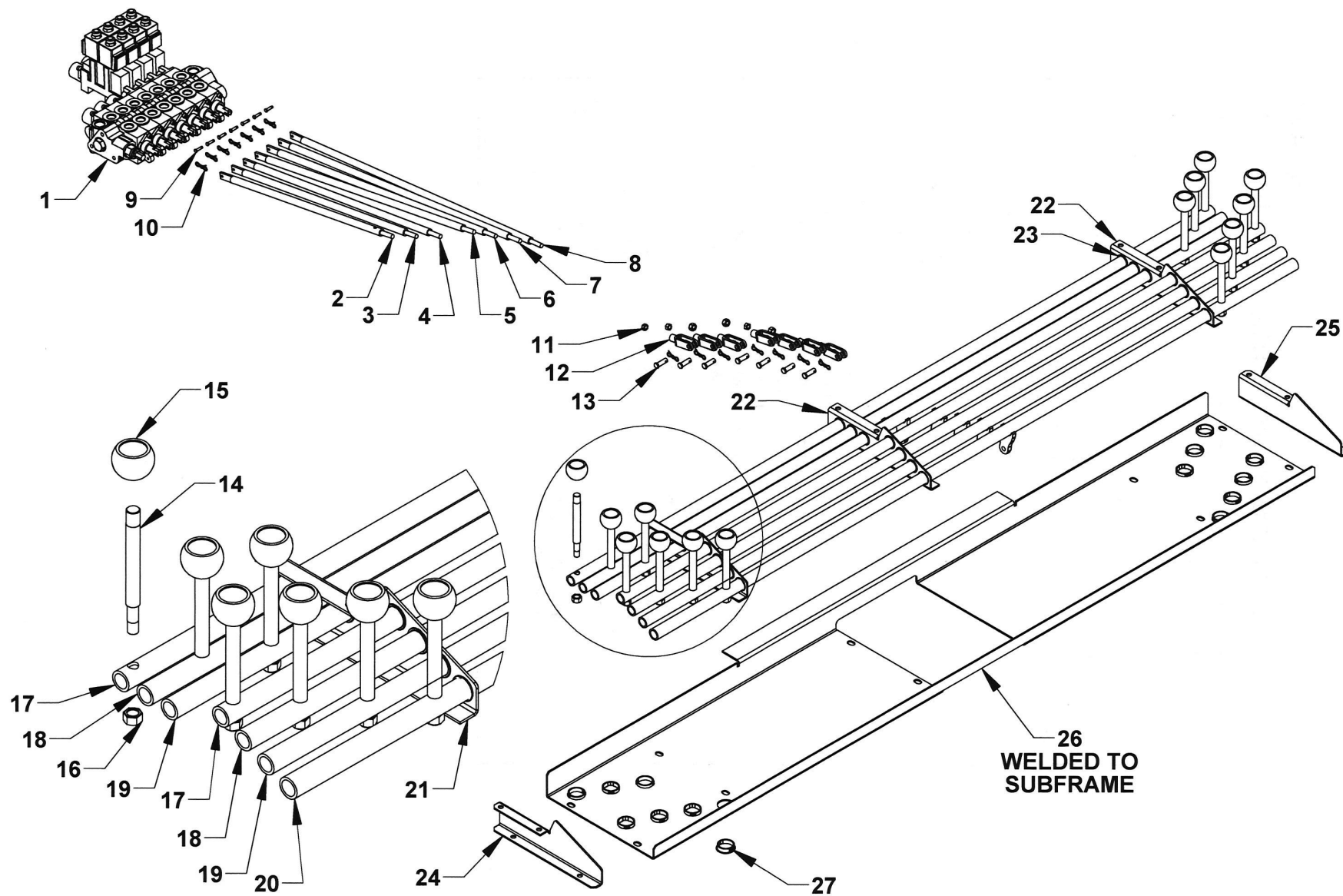


4 Series Modular Subframe (cont'd)

ITEM	PART #	DESCRIPTION	QTY
1	264010	SUBFRAME	1
2	2640751	MODULAR 4 SERIES SERVICE COVER PANEL-FRONT	1
3	2640752	MODULAR 4 SERIES SERVICE COVER PANEL-REAR	1
4	7A211	CONTROL KNOB	12
5	7A168	CONTROL HANDLE	12
6	83321	1/2-20 JAM NUT	12
7	84716	6-1/2 TON SHACKLE AND SCREW PIN	2
8	26403A	TRAILER PLUG HOLE COVER	1
9	98400	4 PRONG TRAILER PLUG SOCKET	1
10	59319	UHMW WEAR PAD	2
11	59320	UHMW WEAR PAD	2
12	265091	FRONT BODY MOUNTING BRACKET	2
13	532501	408/512 MIDDLE BODY MOUNTING BRACKET	2
14	37851R	TOOLBOX MOUNTING BRACKET - RIGHT	1
15	37851L	TOOLBOX MOUNTING BRACKET - LEFT	1
16	54M4190	SIDE BODY MOUNTING GASKET	2

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4 Series Control Rods and Valves

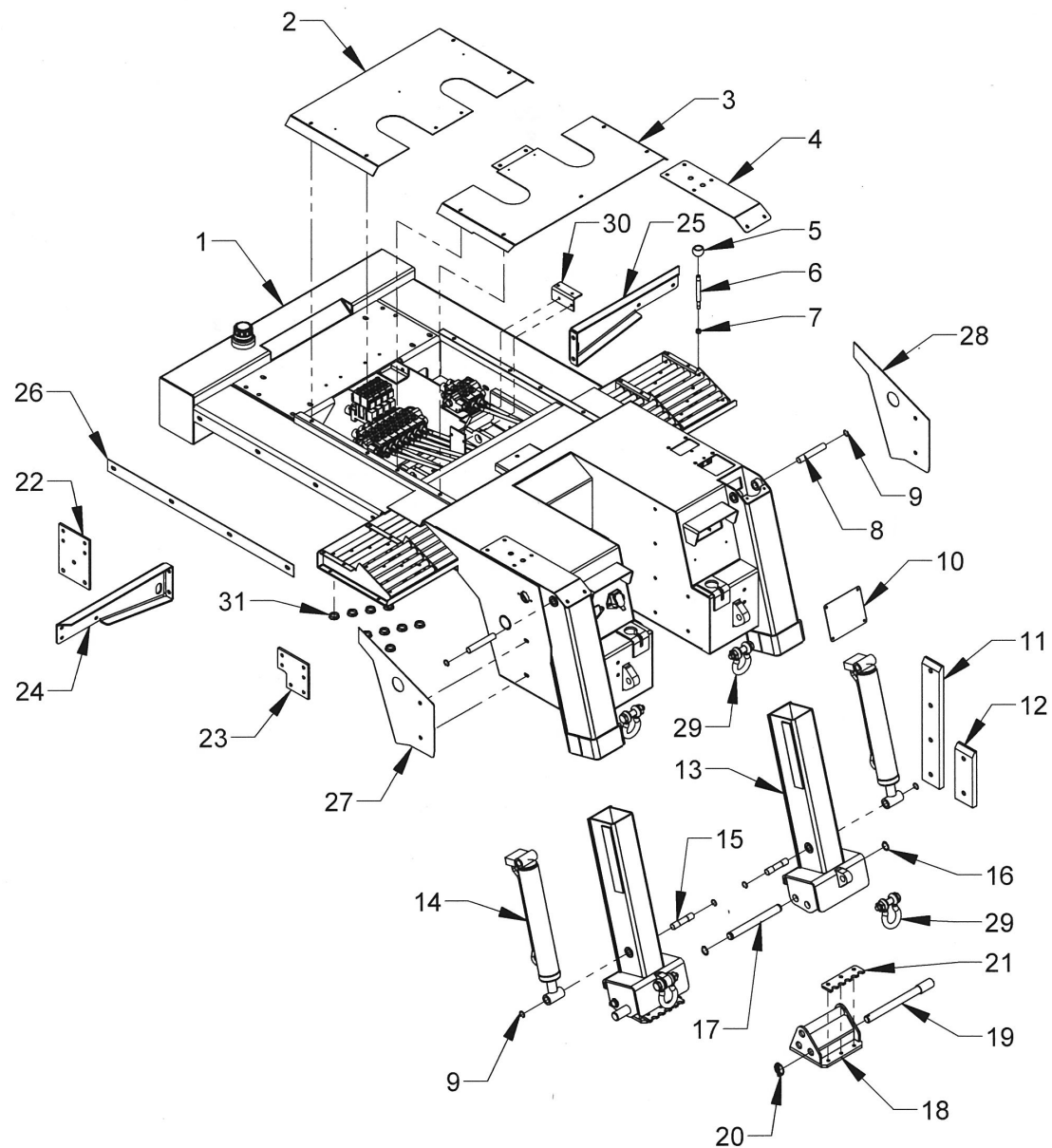


4 Series Control Rods and Valves (cont'd)

ITEM	PART #	DESCRIPTION	QTY
1	74227S	PRINCE CONTROL VALVE, 7 SPOOL, 4 SOLENOID	1
2	7A61862	CONTROL ROD 18-5/8	1
3	7A62012	CONTROL ROD 20-1/8	1
4	7A62162	CONTROL ROD 21-5/8	1
5	7A62425	CONTROL ROD 24-1/2	1
6	7A62550	CONTROL ROD 25-5/8	1
7	7A62688	CONTROL ROD 27-1/8	1
8	7A62825	CONTROL ROD 28-1/4	1
9	0307456	PIN, CLEVIS 3/16 DIA x 3/4 ZP	7
10	0403067	BOWTIE COTTER PIN	14
11	0403115	HEX NUT, 3/8-24 UNF ZP	7
12	84530	CLEVIS-RH-GFN 3/8-24 UNF	7
13	84620	PIN, CLEVIS 3/8 DIA X 7/8 ZP	7
14	7A168	WRECKER CONTROL HANDLE	14
15	7A211	WRECKER CONTROL HANDLE KNOB	14
16	0400411	HEX NUT 1/2-20 UNF ZP	14
17	56334A	WRECKER CONTROL ROD	2
18	56334B	WRECKER CONTROL ROD	2
19	56334C	WRECKER CONTROL ROD	2
20	56334D	WRECKER CONTROL ROD	1
21	56350L	CONTROL ROD PIVOT PLATE-LH	1
22	56350R	CONTROL ROD PIVOT PLATE-RH	2
23	NMC557-16C	BUSHING 1 IN. ID NYLON SPLIT	14
24	56352L	CONTROL ROD END PLATE -LH	1
25	56352R	CONTROL ROD END PLATE-RH	1
26	264041	WRECKER CONTROL ROD TRAY	1
27	03004099	WRECKER CONTROL TRAY PLUG	14

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4 Series Hydraulic Stabilizer Subframe

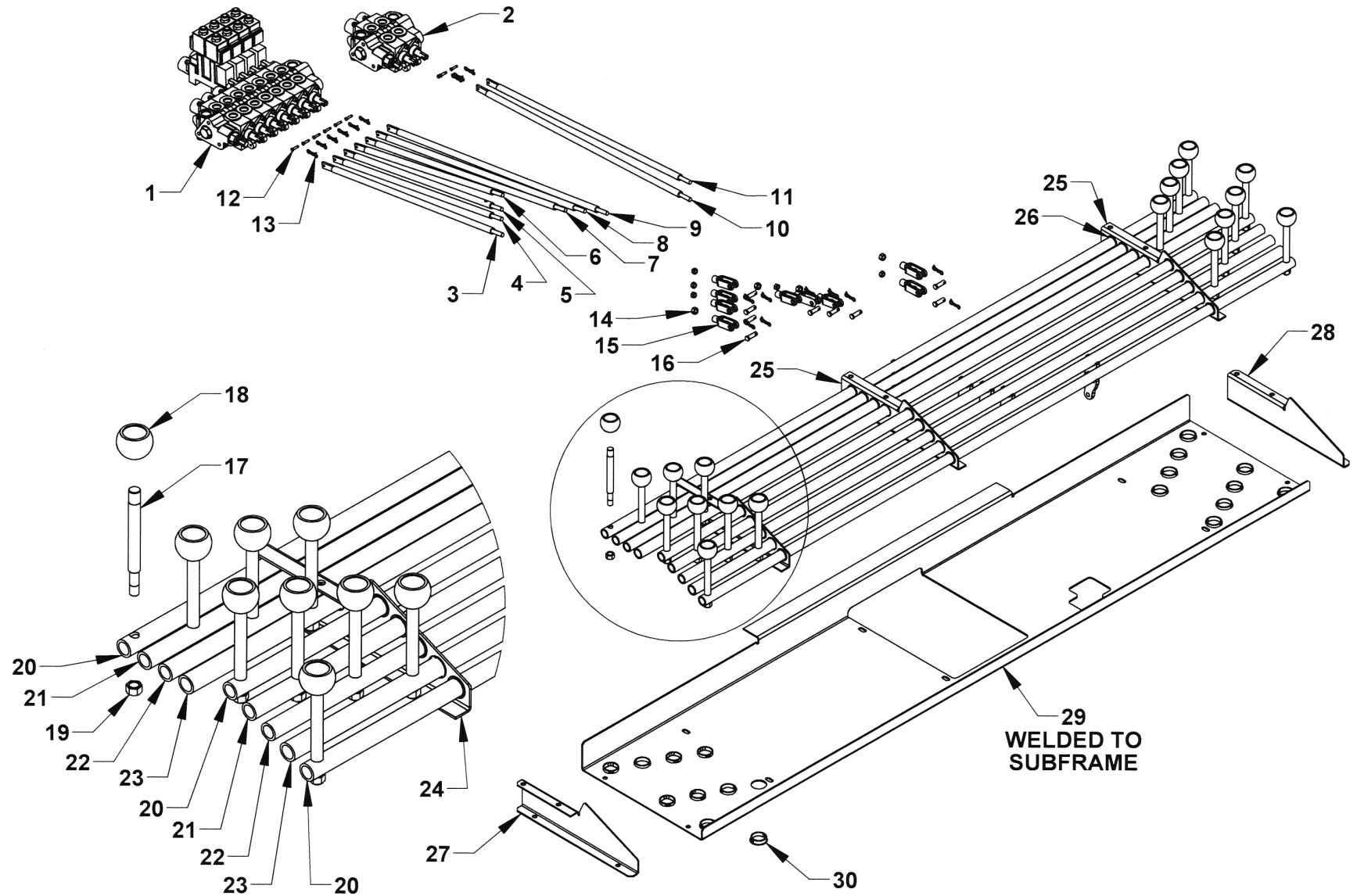


4 Series Hydraulic Stabilizer Subframe (cont'd)

ITEM	PART #	DESCRIPTION	QTY
1	264010H	4 SERIES HYDRAULIC STABILIZER SUBFRAME	1
2	2640751	MODULAR 4/5 SERIES SERVICE COVER PANEL-FRNT	1
3	2640752	MODULAR 4/5 SERIES SERVICE COVER PANEL-REAR	1
4	266058	STABILIZER ACCESS COVER	2
5	7A211	CONTROL KNOB	18
6	7A168	CONTROL HANDLE	18
7	83321	1/2 - 20 JAM NUT	18
8	262617	PIN .980 x 6.00	2
9	86100I	RETAINING RING 1.00 INTERNAL	8
10	26605D	AIR VALVE MOUNTING PLATE	1
11	266062	UHMW WEAR PAD	2
12	266061	UHMW WEAR PAD	2
13	262620-34	INNER STABILIZER TUBE	2
14	72A300144	STABILIZER CYLINDER	2
15	65714	PIN .980 x 4.625	2
16	86125E	RETAINING RING 1.25 EXTERNAL	4
17	262637	STABILIZER PAD PIVOT PIN	2
18	262630	STABILIZER PAD	2
19	262638	STABILIZER PAD POSITION PIN	2
20	84712	LYNCH PIN	2
21	6961413	CLEAT	2
22	53263	FRONT BODY MOUNTING BRACKET	2
23	532501	MIDDLE BODY MOUNTING BRACKET	2
24	37851R	TOOL BOX MOUNTING BRACKET-RIGHT	1
25	37851L	TOOL BOX MOUNTING BRACKET-LEFT	1
26	54M4190H	SIDE BODY MOUNTING GASKET	2
27	54M4191L	REAR BODY MOUNTING GASKET - LEFT	1
28	54M4191R	REAR BODY MOUNTING GASKET - RIGHT	1
29	84716	6-1/2 TON SHACKLE AND SCREW PIN	4
30	265034	COUNTERBALANCE MOUNTING BRACKET	1
31	03004099	WRECKER CONTROL TRAY PLUG	18

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4 Series Hydraulic Stabilizers Control Rods and Valves

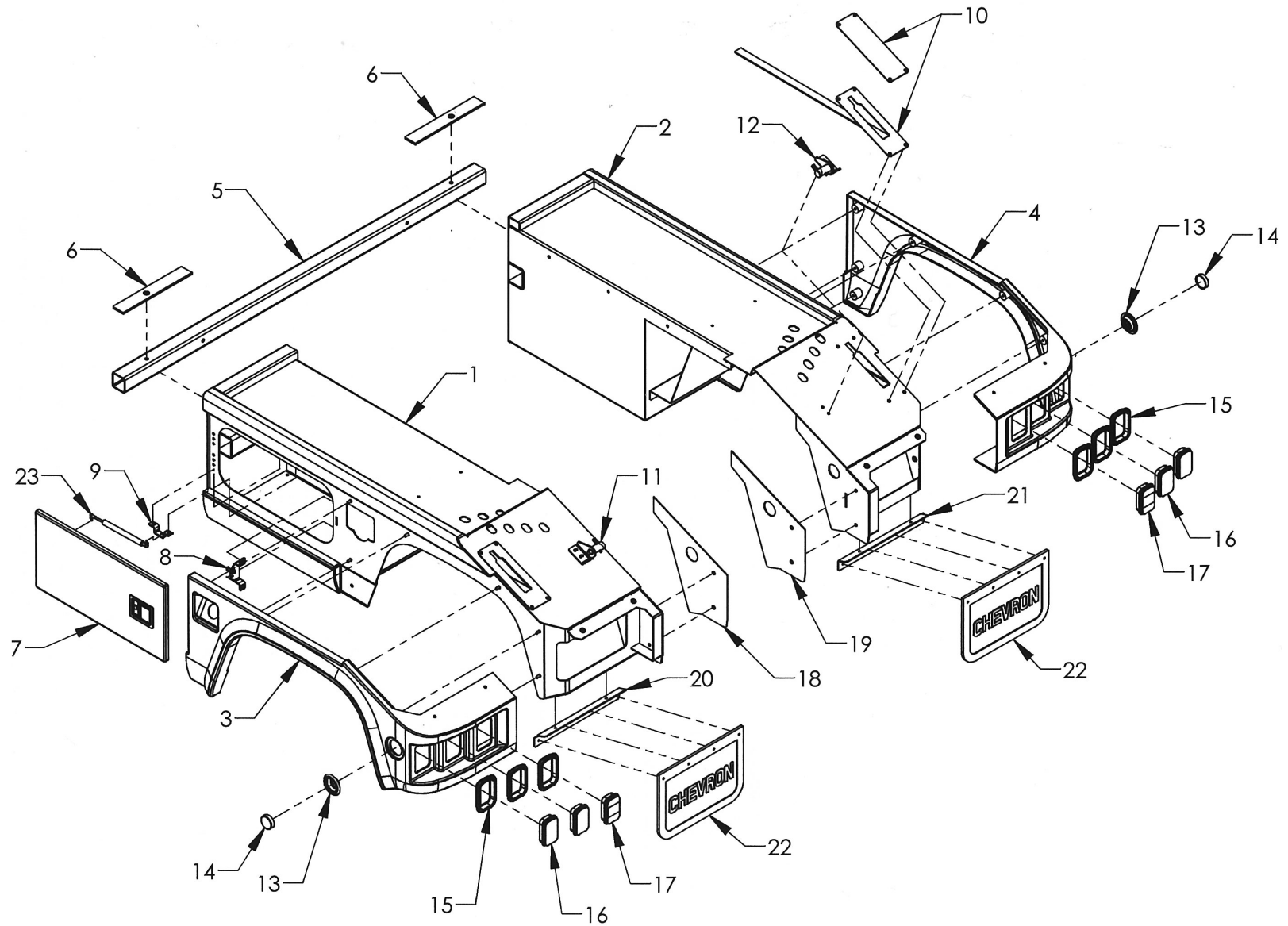


4 Series Hydraulic Stabilizers Control Rods and Valves (cont'd)

ITEM	PART #	DESCRIPTION	QTY
1	74227S	PRINCE CONTROL VALVE, 7 SPOOL, 4 SOLENOID	1
2	74232	PRINCE CONTROL VALVE 2-SPOOL	1
3	7A62162	CONTROL ROD 21-5/8	1
4	7A62012	CONTROL ROD 20-1/8	1
5	7A61862	CONTROL ROD 18-5/8	1
6	7A61738	CONTROL ROD 17-3/8	1
7	7A62425	CONTROL ROD 24-1/2	1
8	7A62550	CONTROL ROD 25-5/8	1
9	7A62688	CONTROL ROD 27-1/8	1
10	7A62600	CONTROL ROD 26	1
11	7A62551	CONTROL ROD 24-5/8	1
12	0307456	PIN, CLEVIS 3/16 DIA x 3/4 ZP	9
13	0403067	BOWTIE COTTER PIN	18
14	0403115	HEX NUT, 3/8-24 UNF ZP	9
15	84530	CLEVIS-RH-GFN 3/8-24 UNF	9
16	84620	PIN, CLEVIS 3/8 DIA X 7/8 ZP	9
17	7A168	WRECKER CONTROL HANDLE	18
18	7A211	WRECKER CONTROL HANDLE KNOB	18
19	0400411	HEX NUT 1/2-20 UNF ZP	18
20	56334A	WRECKER CONTROL ROD	3
21	56334B	WRECKER CONTROL ROD	2
22	56334C	WRECKER CONTROL ROD	2
23	56334D	WRECKER CONTROL ROD	1
24	264044HL	CONTROL ROD PIVOT PLATE-LH	1
25	264044HR	CONTROL ROD PIVOT PLATE-RH	2
26	NMC557-16C	BUSHING 1 IN. ID NYLON SPLIT	18
27	264043HL	CONTROL ROD END PLATE -LH	1
28	264043HR	CONTROL ROD END PLATE-RH	1
29	264042H	WRECKER CONTROL ROD TRAY	1
30	03004099	WRECKER CONTROL TRAY PLUG	18

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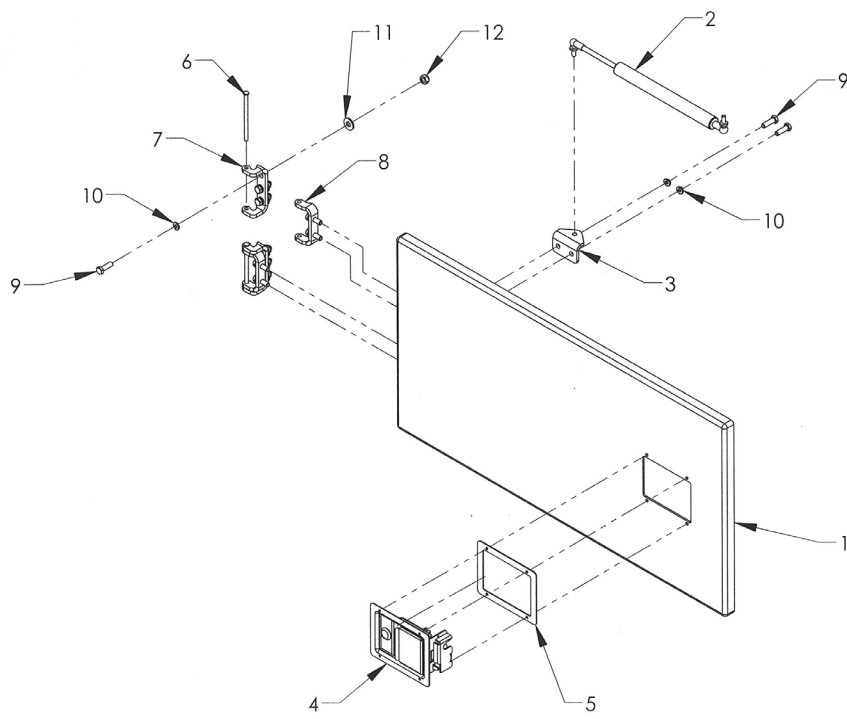
4 Series Aluminum Integrated Modular Boxes



4 Series Aluminum Integrated Modular Boxes (cont'd)

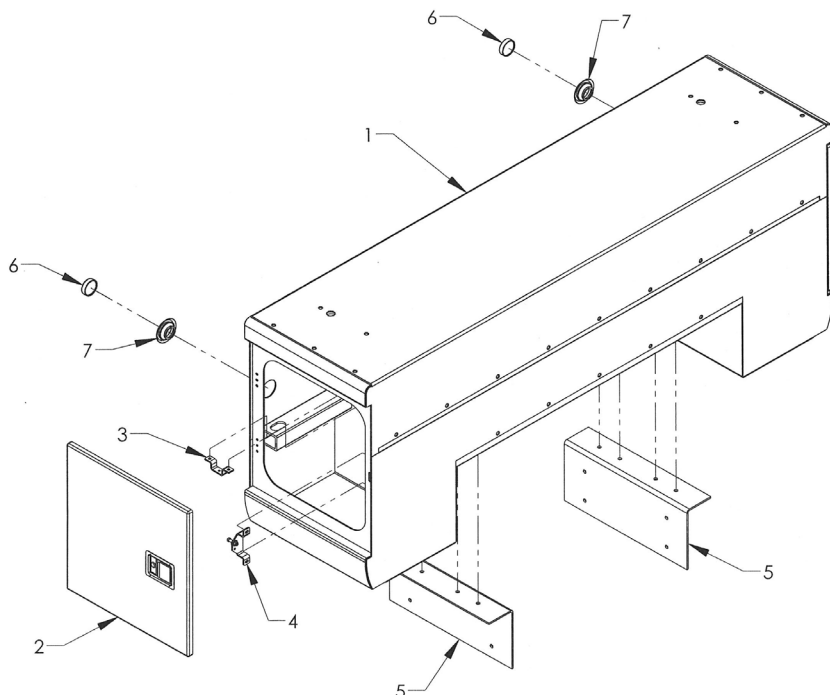
ITEM	PART #	DESCRIPTION	QTY
1	54M40060L	MODULAR BOX DRIVER SIDE	1
2	54M4060R	MODULAR BOX PASSENGER SIDE	1
3	54M4150L	FIBERGLASS REAR CORNER PANEL - LEFT	1
4	54M4150R	FIBERGLASS REAR CORNER PANEL - RIGHT	1
5	54M4195	MODULAR BOX MOUNTING TUBE	1
6	54601	MOUNTING TUBE RUBBER GASKET	2
7	54M4160G	MODULAR SIDE DOOR GROUP	2
8	54M4145	DOOR LATCH BRACKET	2
9	54M4166	DOOR CYLINDER MOUNTING BRACKET	2
10	5462B0	WHEEL RETAINER STORAGE GUARD, CONVT'L.	2
-	5462B3	L-ARM POCKET HOLE COVER, AUTOGRIP	2
11	59240L	WHEEL RETAINER LOCK PIN - LEFT	1
12	59240R	WHEEL RETAINER LOCK PIN - RIGHT	1
13	93150	MARKER LIGHT GROMMET	2
14	93100R	RED REFLECTIVE MARKER LIGHT	2
15	96650	TAIL LIGHT GROMMET	6
16	95600	TAIL LIGHT	4
17	95500	BACK UP LIGHT	2
18	54M4191L	MODULAR BOX DRIVER SIDE RUBBER GASKET	1
19	54M4191R	MODULAR BOX PASS. SIDE RUBBER GASKET	1
20	54M413AL	MUDFLAP MOUNTING BRACKET - LEFT	1
21	54M413AR	MUDFLAP MOUNTING BRACKET - RIGHT	1
22	A1040	MUDFLAP 20 x 14	2
23	5AGS087- 0675MD10-020	GAS CYLINDER	2

4 Series Modular Box Door Group



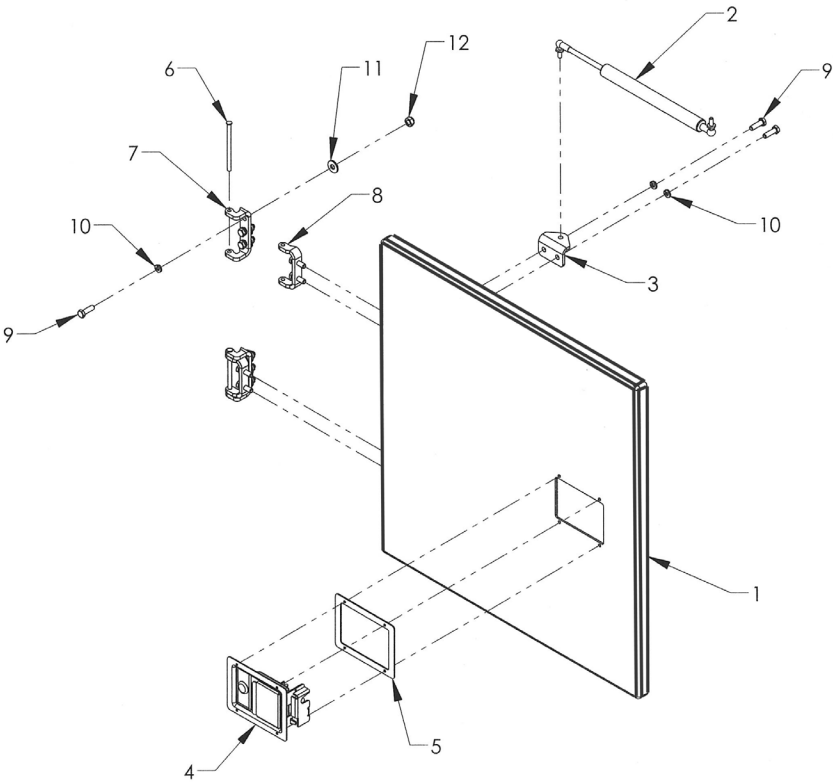
ITEM	PART #	DESCRIPTION	QTY
1	54M4160	ALUMINUM WRECKER DOOR WELDMENT	1
2	5AGS08-0675MD10-020	GAS SPRING CYLINDER	1
3	54M4165	DOOR CYLINDER MOUNTING BRACKET	1
4	54658	ROTARY PADDLE LATCH	1
5	54657	GASKET - PADDLE LATCH	1
6	54M4183	DOOR HINGE PIN	2
7	54M4181	DOOR HINGE OUTER	2
8	54M4182	DOOR HINGE INNER	2
9	81110	BOLT, 5/16-18 UNC x 1	2
10	82130	LOCK WASHER 5/16	2
11	82110	FLAT WASHER 5/16	2
12	83125	NYLON LOCK NUT 5/16-18 UNC	1

4 Series Aluminum Tunnel Box Group (24 x 92)



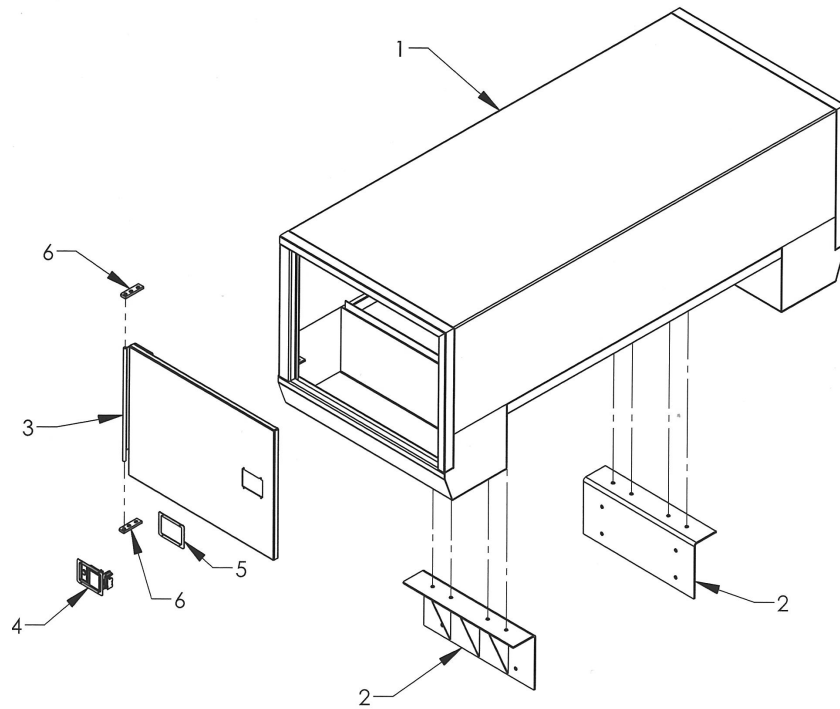
ITEM	PART #	DESCRIPTION	QTY
1	54M41024	ALUMINUM WRECKER TUNNEL BOX	1
2	54M4170G	TUNNEL BOX DOOR GROUP - 24 IN.	2
3	54M4166	DOOR CYLINDER MOUNTING BRACKET	2
4	54M4145	DOOR LATCH BRACKET	2
5	54598	TUNNEL BOX MOUNTING BRACKET	2
6	93100A	AMBER REFLECTIVE MARKER LIGHT	2
7	93150	MARKER LIGHT GROMMET	2

4 Series Aluminum Tunnel Box Door



ITEM	PART #	DESCRIPTION	QTY
1	54M4170	ALUMINUM WRECKER DOOR WELDMENT	1
2	5AGS08-0675MD10-020	GAS SPRING CYLINDER	1
3	54M4165	DOOR CYLINDER MOUNTING BRACKET	1
4	54658	ROTARY PADDLE LATCH	1
5	54657	GASKET - PADDLE LATCH	1
6	54M4183	DOOR HINGE PIN	2
7	54M4181	DOOR HINGE OUTER	2
8	54M4182	DOOR HINGE INNER	2
9	0400109	BOLT, 5/16-18 UNC x 1	12
10	0400464	LOCK WASHER 5/16	12
11	0400465	FLAT WASHER 5/16	6
12	0400382	NYLON LOCK NUT 5/16-18 UNC	6

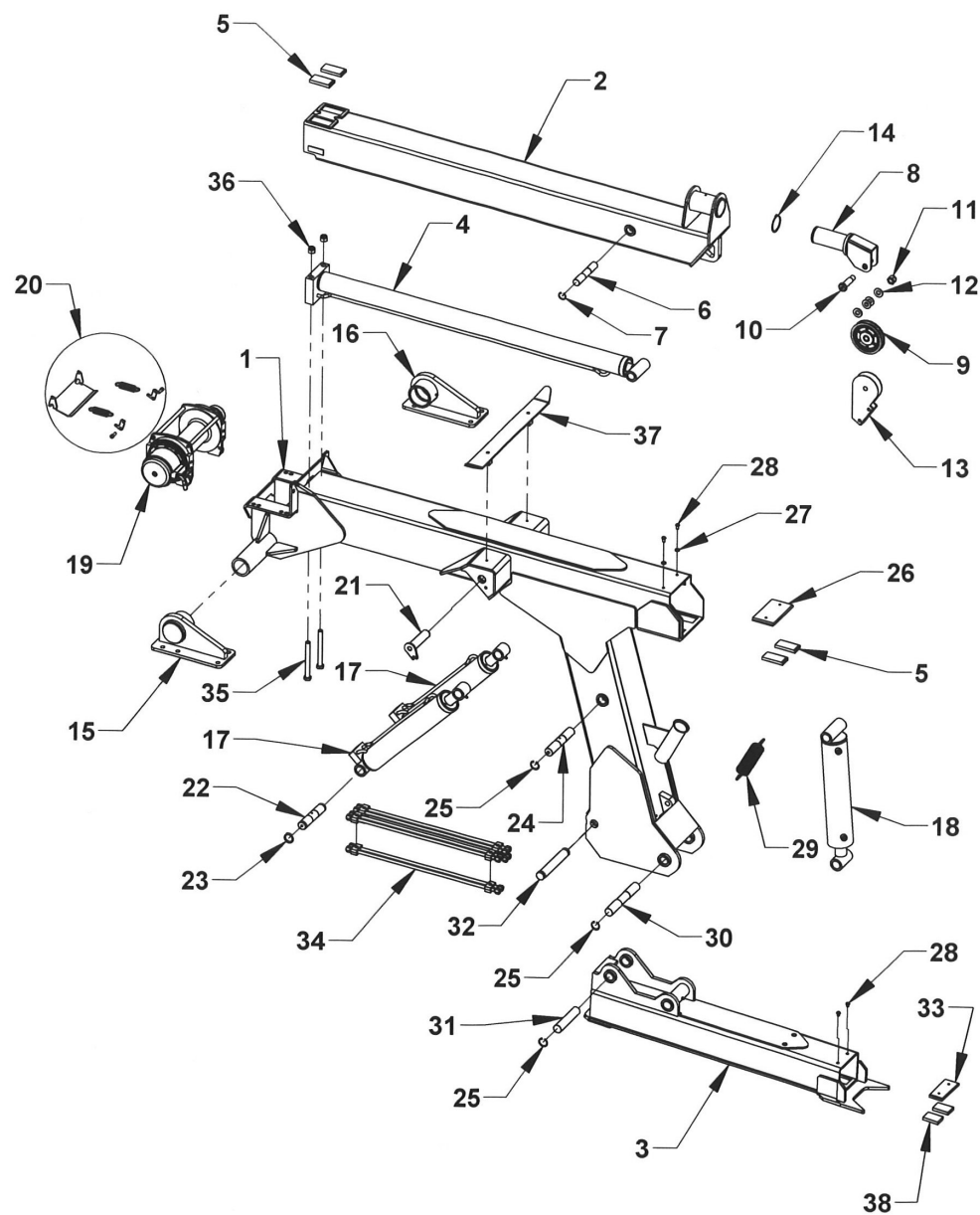
4 Series Steel Tunnel Box Group (36 x 86)



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ITEM	PART #	DESCRIPTION	QTY
1	548236	36 INCH STEEL TUNNEL BOX WELDMENT	1
2	548515	TUNNEL BOX MOUNTING BRACKET	2
3	5484036	36 INCH TUNNEL BOX DOOR	2
4	54658	ROTARY PADDLE LATCH	2
5	54657	GASKET - PADDLE LATCH	2
6	54863	TUNNEL BOX DOOR HING MOUNT	4

4 Series Integrated Boom Assembly Single Line

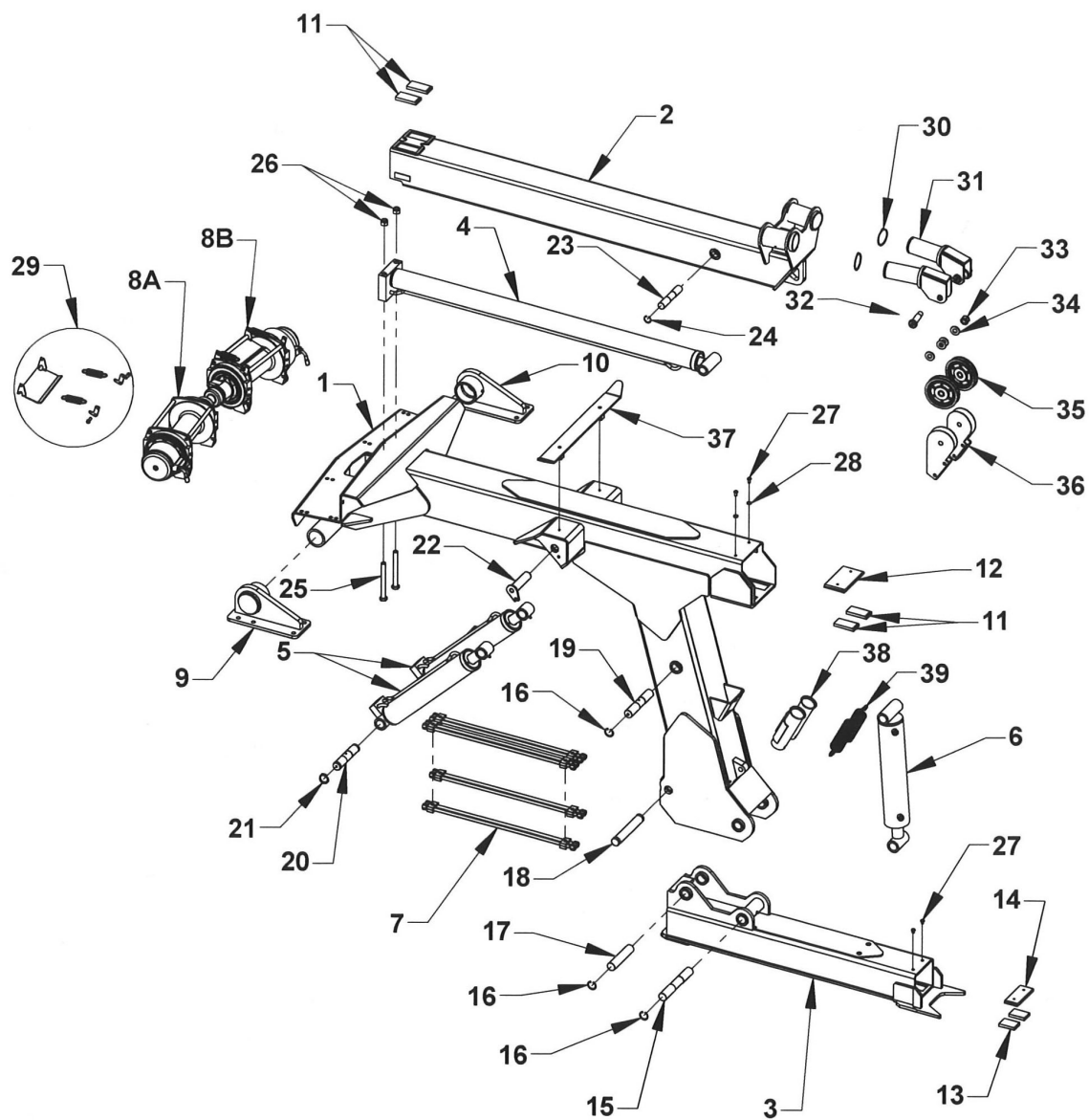


4 Series Integrated Boom Assembly Single Line (cont'd)

ITEM	PART #	DESCRIPTION	QTY
1	6I1033	408T L-BOOM	1
2	6I1053	408T INNER BOOM TUBE	1
3	6I1071	UNDERLIFT OUTER TUBE - AUTOGRIP	1
-	6I1072	UNDERLIFT OUTER TUBE - CONVENTIONAL	1
4	720133	408T BOOM EXTENSION CYLINDER	1
5	63595	NYLATRON WEAR PAD 1/2 x 2 x 4	4
6	6I1339	4 SERIES BOOM EXTENSION CYL. ROD MTG. PIN	1
7	86125I	SNAP RING 1-1/8 INTERNAL	2
8	61336	BOOM END SWIVEL - 408/512	1
9	69120	PULLEY 6 INCH	1
10	61368	PULLEY BOLT	1
11	83610	HEX NUT 7/8 x 14 UNF	1
12	82510	FLAT WASHER 3/4	4
13	61370	CABLE FOLLOWER	1
14	86287E	SNAP RING 2-7/8 EXTERNAL	2
15	6I1330L	TRUNNION BRACKET - LEFT	1
16	6I1330R	TRUNNION BRACKET - RIGHT	1
17	72A35016	4 SERIES BOOM LIFT CYLINDER	2
18	720122	408VT VERTICAL FOLD CYLINDER	1
19	71102L	WINCH 9000 LB. PLANETARY	1
20	A9016	CABLE TENSIONER KIT	1
21	6I1240	LIFT CYLINDER PIN - ROD END	2
22	6I4245	BOOM LIFT CYLINDER BASE PIN	2
23	86150E	SNAP RING 1-1/2 EXTERNAL	2
24	6I1545	POWER TILT BASE PIN	1
25	86150I	SNAP RING 1-1/2 INTERNAL	4
26	63431	BOOM SHIM PAD	1
27	82210	FLAT WASHER 3/8	2
28	812A8	BOLT 3/8-16 UNC BUTTON HEAD	4
29	86910	CABLE TENSION SPRING	1
30	6I16202	PIN - OUTER BOOM PIVOT	1
31	6I1740	PIN - POWER TILT ROD	1
32	6I1625	POWER TILT RESTRICTOR PIN	1
33	65621H	BEARING PAD - STINGER	1
34	6I50110G	408-512 BOOM PIPE ASSEMBLY GROUP	4
35	81670	BOLT 3/4 x 7 GRADE 8 COARSE THREAD	2
36	83521	3/4 COARSE THREAD NYLON LOCK NUT	2
37	6I1470	RENEGADE BOOM ANTLER	1
38	65612	NYLATRON WEAR PAD 1/2 x 2 x 3	2

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4 Series Integrated Boom Assembly Twin Line

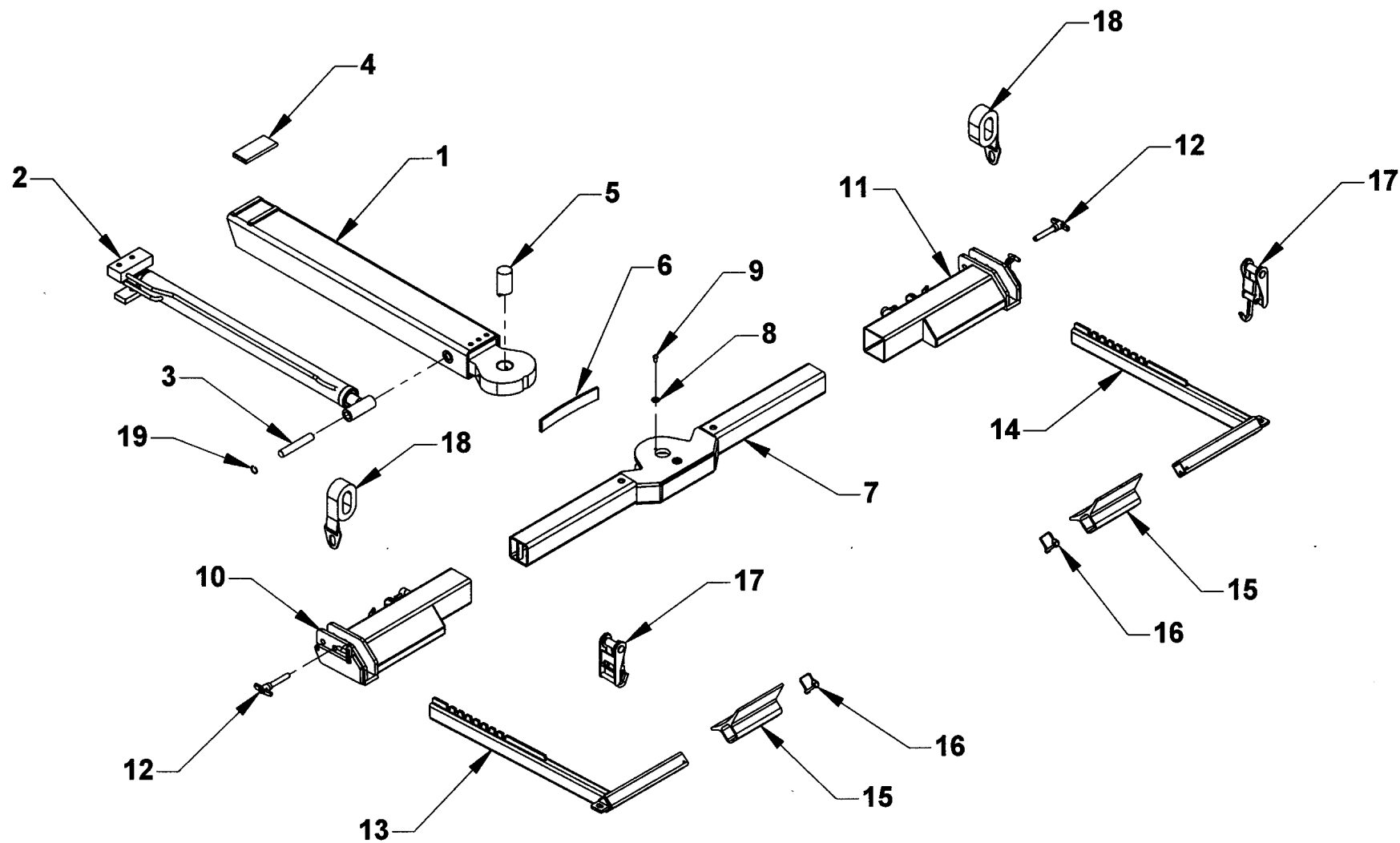


4 Series Integrated Boom Assembly Twin Line (cont'd)

ITEM	PART #	DESCRIPTION	QTY
1	6I1034	INTEGRATED BOOM - OUTER 408T2	1
2	6I1054	INNER BOOM TUBE - 408T2	1
3	6I1071	UNDERLIFT OUTER TUBE - AUTOGRIP	1
-	6I1072	UNDERLIFT OUTER TUBE - CONVENTIONAL	1
4	720133	BOOM EXTENSION CYLINDER	1
5	72A35016	BOOM LIFT CYLINDER	2
6	720122	408VT BOOM TILT/FOLD CYLINDER	1
7	6I501106	408/512 BOOM PIPE ASSEMBLY GROUP	4
8A	71102L	9000 LB. PLANETARY WINCH - LEFT	1
8B	71102R	9000 LB. PLANETARY WINCH - RIGHT	1
9	6I1330L	TRUNNION BRACKET - LEFT	1
10	6I1330R	TRUNNION BRACKET - RIGHT	1
11	63595	NYLATRON WEAR PAD 1/2 x 2 x 4	4
12	63431	UHMW WEAR PAD 1/2 x 4 x 8	1
13	65612	NYLATRON WEAR PAD 1/2 x 2 x 3	2
14	65621H	UHMW WEAR PAD 1/2 x 2-1/2 x 6	1
15	6I16202	UNDERLIFT PIVOT PIN 1480 x 10	1
16	86150I	SNAP RING 1-1/2 INTERNAL	2
17	6I1740	UNDERLIFT TILT PIN 1.480 x 7	1
18	6I1625	POWER TILT RESTRICTOR PIN	1
19	6I1545	POWER TILT BASE PIN 1.480 x 8-1/4	1
20	6I4245	UNDERLIFT TILT PIN 1.480 x 8-1/8	1
21	86150E	SNAP RING 1-1/2 EXTERNAL	2
22	6I1240	BOOM LIFT CYLINDER PIN	1
23	6I1339	PIN - BOOM EXTENSION CYLINDER	2
24	86125I	SNAP RING 1-1/4 INTERNAL	2
25	81670	BOLT 3/4 x 7 GRADE 8 COARSE THREAD	1
26	83521	NYLON LOCK NUT 3/4 COARSE THREAD	2
27	812A5	BUTTON HEAD BOLT 3/8-16 UNC x 3/4	4
28	82210	3/8 FLAT WASHER	2
29	A9016	CABLE TENSIONER KIT	2
30	86287E	SNAP RING 2-7/8 EXTERNAL	2
31	61366	BOOM END SWIVEL - 408/512	2
32	61368	PULLEY BOLT	2
33	83610	HEX NUT 7/8 x 14 UNF	2
34	82510	FLAT WASHER 3/4	8
35	69120	PULLEY 6 INCH	2
36	61370	CABLE FOLLOWER	2
37	6I1470	RENGADE BOOM ANTLER	1
38	6I60280	TWIN LINE CABLE TENSION SPRING BRACKET	1
39	86910	CABLE TENSION SPRING	2

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4 Series Wheel Lift Components (Standard)

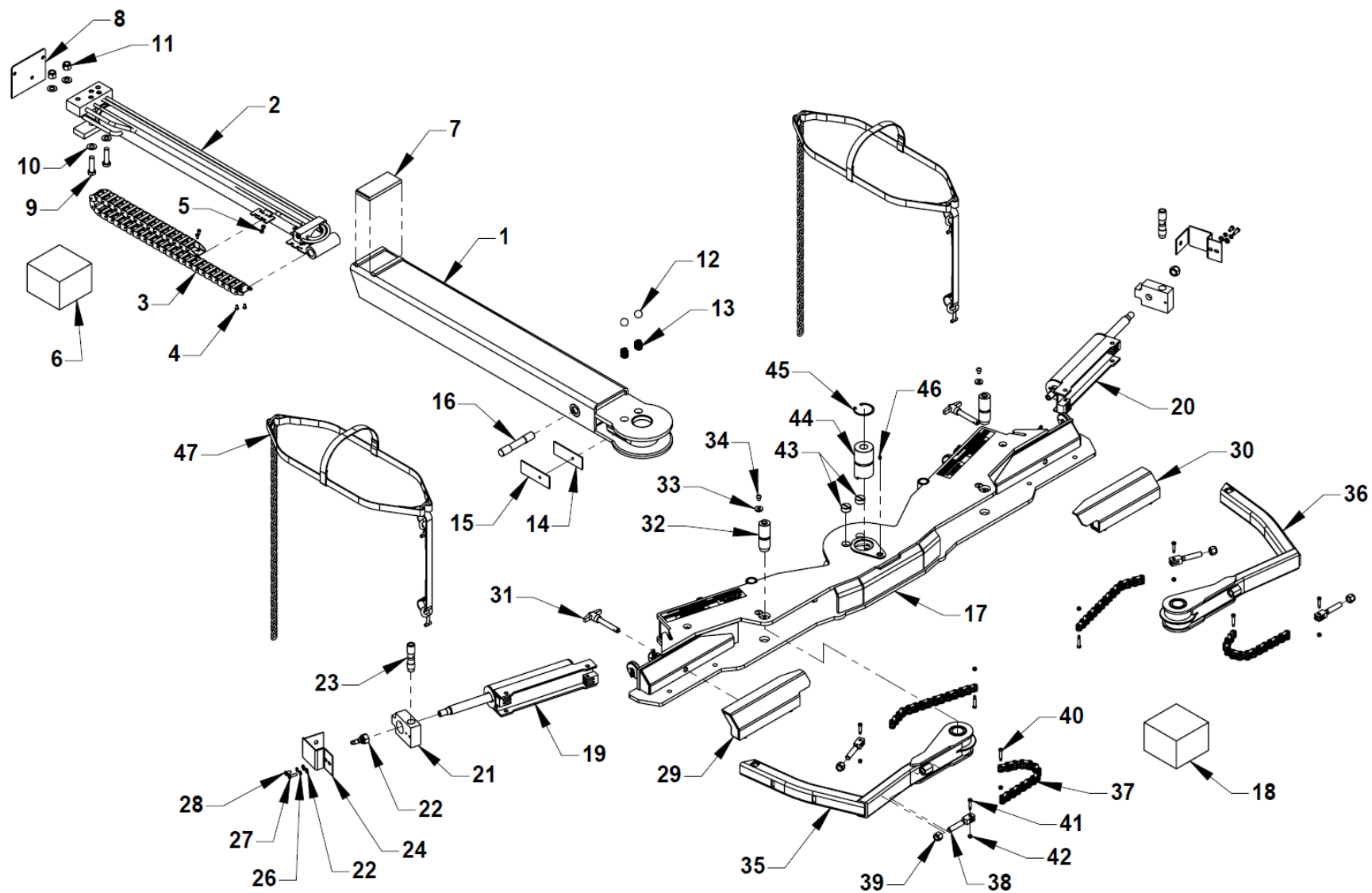


4 Series Wheel Lift Components (Standard) (cont'd)

ITEM	PART #	DESCRIPTION	QTY
1	611088	INNER BOOM	1
2	720163	EXTENSION CYLINDER	1
3	643572	PIN - .980 x 5.812	1
4	65621	NYLATRON WEAR PAD	1
5	65435	CROSSBAR PIVOT PIN	1
6	65228	DETENT LEAF SPRING	1
7	65515	CROSSBAR	1
8	82210	3/8 FLAT WASHER - HEAVY DUTY	1
9	812A5	BOLT 3/8 x 5/8 BUTTON HEAD	1
10	65265L	WHEEL GRID - LEFT	1
11	65265R	WHEEL GRID - RIGHT	1
12	84921	T-PIN WITH LANYARD	2
13	65250L	L-ARM - LEFT	1
14	65250R	L-ARM - RIGHT	1
15	65245	WHEEL PAN	2
16	84911	5/16 SAFETY SNAP PIN	2
17	65280A	RATCHET	2
18	65285	STRAP	2
19	86100I	SNAP-RING 1.00 INCH INTERNAL	2

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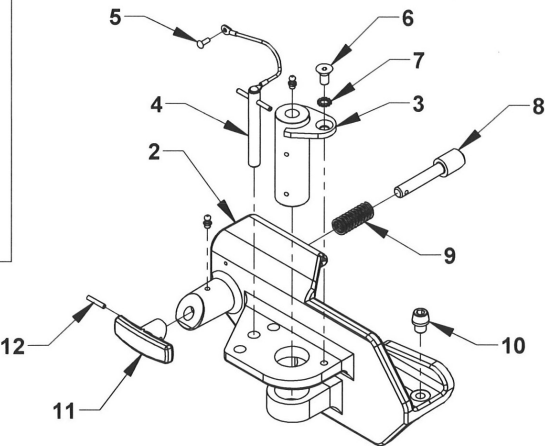
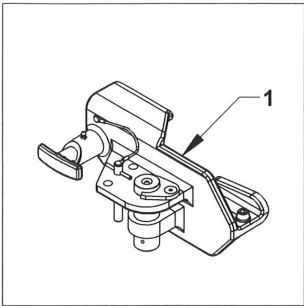
Wheel Lift Components (AutoGrip)



Wheel Lift Components (AutoGrip) (cont'd)

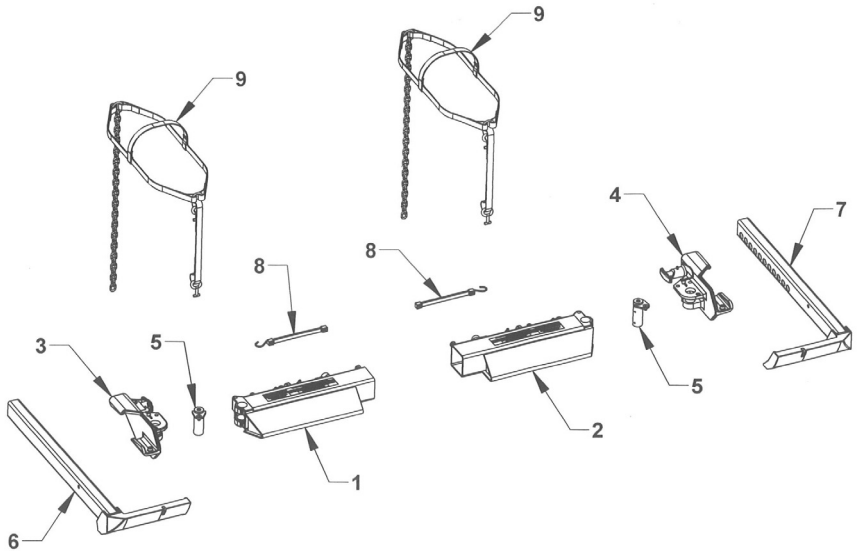
ITEM	PART #	DESCRIPTION	QTY
1	611086	408T AUTOGRIP INNER UNDERLIFT TUBE	1
2	720144	EXTENSION CYLINDER 2.50 BORE x 31.24 STROKE	1
3	69726	HOSE TRACK	1
4	0400596	BOLT, BHCS, 1/4-20 UNC x 1/2	4
5	0400367	NYLON LOCK NUT, 1/4-20 UNC	4
6	75091	HOSE KIT IGUS TRACK	1
7	65621	NYLATRON WEAR PAD	1
8	69335	GRAVEL GUARD	1
9	0403141	BOLT, HHCS, 5/8-11 UNC x 2-1/4	2
10	0400505	FLAT WASHER, 5/8	4
11	0400421	NYLON LOCK NUT, 5/8-11 UNC	2
12	0308129	DETENT BALL	2
13	03000066	DETENT SPRING	2
14	64304R	RUBBER GASKET	2
15	64304C	HOSE CLAMP PLATE	2
16	643572	PIN .980 x 5-7/8	1
17	644002	AUTOGRIP CROSSBAR WELDMENT	1
18	75048C	HOSE KIT ARM CYLINDERS	1
19	720152L	L-ARM CYLINDER - LEFT	1
20	720152R	L-ARM CYLINDER - RIGHT	1
21	727162	L-ARM CYLINDER MOUNTING BLOCK	2
22	0400441	NYLON LOCK NUT 3/4-16 UNF	2
23	644432	L-ARM CYLINDER MOUNTING PIN	2
24	644292	CROSSBAR GRAVEL GUARD	2
25	0400465	FLAT WASHER, 5/16	4
26	0400464	LOCK WASHER, 5/16	4
27	0400109	BOLT, HHCS, 5/16-18 UNC x 1	2
28	04012132	BOLT, HHCS, 5/16-18 UNC x 5/8	2
29	697402L	WHEEL CHOCK - LEFT	1
30	697402R	WHEEL CHOCK - RIGHT	1
31	84921	5/8" T-PIN	2
32	644452	L-ARM PIVOT PIN	2
33	0720463	WASHER, PIVOT PIN RETAINER - 3/8"	2
34	0403140	BOLT, BHCS, 3/8-16 UNC x 1/2	2
35	644352L	L-ARM - LEFT	1
36	644352R	L-ARM - RIGHT	1
37	87440	L-ARM CHAIN	4
38	64441	L-ARM CHAIN CLEVIS	4
39	0400421	NYLON LOCK NUT 5/8-11	4
40	0403163	5/16 x 1-1/4 SHOULDER SHCS 1/4-20 UNC	4
41	0403164	5/16 x 1 SHOULDER SHCS 1/4-20 UNC	4
42	0400367	NYLON LOCK NUT 1/4-20 UNC	8
43	643272	DETENT SCREW	2
44	644402	CROSSBAR PIVOT PIN	1
45	86250I	SNAP RING - 2-1/2" INTERNAL	1
46	7B130	GREASE FITTING 1/4-28" UNF	1
47	0902382	1 INCH NYLON POLY-COAT BASKET STRAP	2
-	65287	BASKET TIRE STRAP - MEDIUM-LARGE BLUE	2

Pivot L-Arm Receiver Group



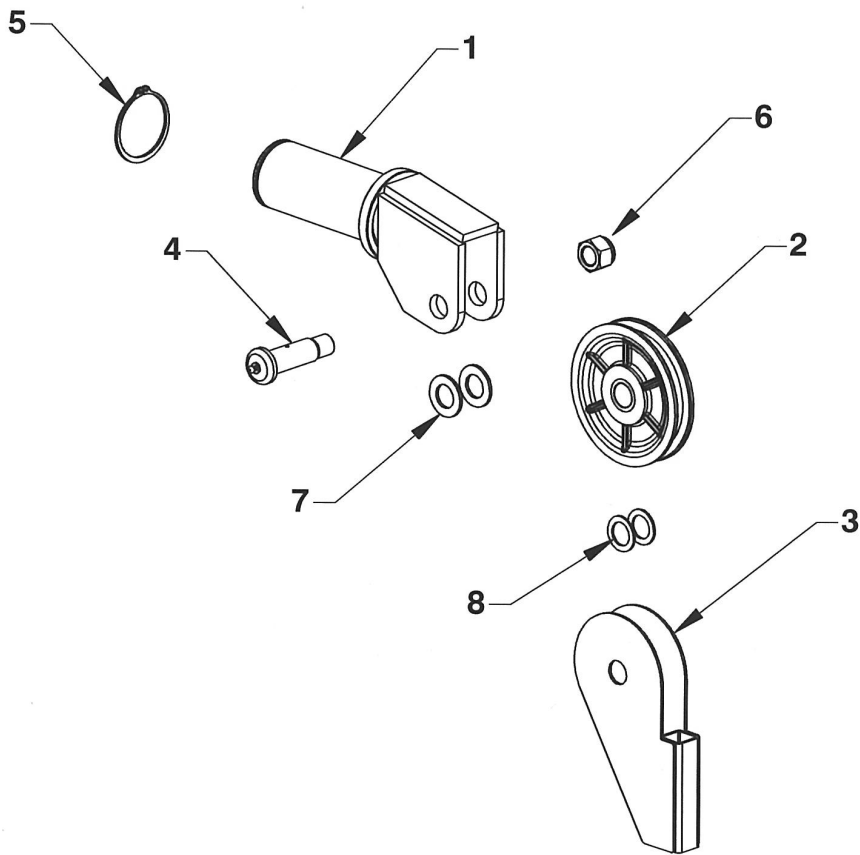
ITEM	PART #	DESCRIPTION	QTY
1	09007328L	PIVOT L-ARM RECEIVER GROUP - LH	1
-	09007328R	PIVOT L-ARM RECEIVER GROUP - RH	-
2	0719079	PIVOT L-ARM RECEIVER CASTING - LH	1
-	0719080	PIVOT L-ARM RECEIVER CASTING - RH	-
3	0802187	L-ARM RECEIVER CASTING PIVOT PIN	1
4	0904744	PIN ASSEMBLY	1
-	0714415	PIVOT LOCK PIN	1
-	0303918	LANYARD	1
-	0400044	DRIVE SCREW #10-24 x 1/2 ROUND HEAD	1
5	0400044	DRIVE SCREW #10-24 x 1/2 ROUND HEAD	1
6	0400349	SCREW 3/8-16 x 1/2 FHSC	1
7	0400481	LOCK WASHER 3/8 EXTERNAL TOOTH	1
8	0707505	7/8 CAM PIN	1
9	0302641	CAM PIN SPRING	1
10	0712933	SCREW 1/2-13x1/2 TAPERED SOCKET CAP	1
11	0302648	T-HANDLE	1
12	0400559	ROLL PIN 3/16 -1	1

Pivot Wheel Grids and L-Arms (Optional)



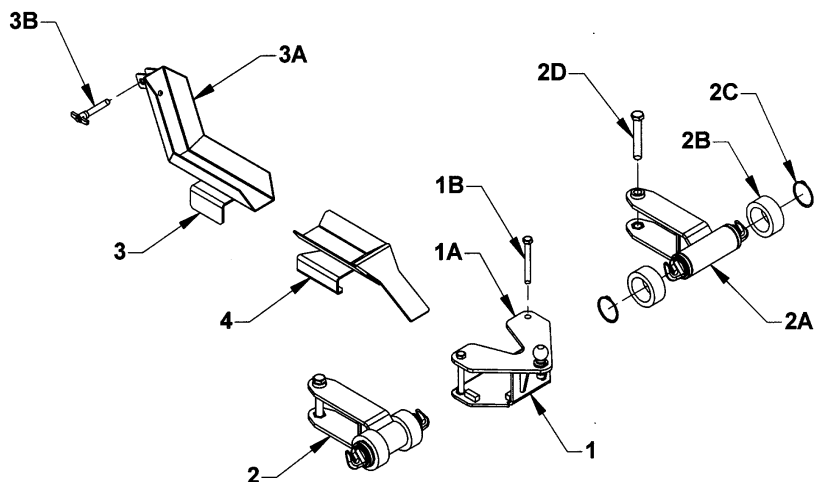
ITEM	PART #	DESCRIPTION	QTY
1	0809290L	PIVOT WHEEL GRID-LEFT	1
2	0809290R	PIVOT WHEEL GRID-RIGHT	1
3	09007328L	PIVOT L-ARM RECEIVER GROUP-LEFT	1
4	09007328R	PIVOT L-ARM RECEIVER GROUP-RIGHT	1
5	0802187	L-ARM RECEIVER CASTING PIVOT PIN	2
6	0803648	LEFT ALUMINUM L-ARM	1
7	0803649	RIGHT ALUMINUM L-ARM	1
8	03000010	RUBBER TENSION STRAP WITH S-HOOK	2
9	0902382	BASKET STRAP, SMALL - MEDIUM, YELLOW	2
-	65287	BASKET STRAP, TRUCK - MEDIUM, BLUE	2

4 Series Boom End Swivel



ITEM	PART #	DESCRIPTION	QTY
1	61369	BOOM END SWIVEL	1
2	69125	PULLEY - 6 INCH	1
3	61379	CABLE FOLLOWER	1
4	61368	PIN .980 x 3-5/8	1
5	86287E	RETAINING RING 2-7/8 EXTERNAL	1
6	83610	NYLON LOCK NUT 7/8-14	1
7	82710	FLAT WASHER 1.00 x 1-1/2 x .120	2
8	82718	FLAT WASHER 1.00 x 1-1/2 x .060	2

4 Series AutoGrip Attachments



ITEM	PART #	DESCRIPTION	QTY
1	694510G	TOW BALL ATTACHMENT GROUP (BALL EXCLUDED)	1
1A	694510	TOW BALL BRACKET WELDMENT	1
1B	816665	BOLT 3/4-10 UNC x 6.5	2
2	649002G	TOW BAR ATTACHMENT GROUP	2
2A	649002	TOW BAR WELDMENT	1
2B	64910	RUBBER RING	2
2C	86350E	RETAINING RING 3.5 EXTERNAL	2
2D	81815	BOLT 1.00-8 UNC x 6.5	1
3	694540G	MOTORCYCLE FRONT TIRE SADDLE GROUP	1
3A	6954540	MOTORCYCLE FRONT TIRE SADDLE	1
3B	84922	T-PIN 3/4 x 4	1
4	694550	MOTORCYCLE REAR TIRE SADDLE	1
-	694560	STRAP TIE-DOWN KIT (NOT SHOWN)	1

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2 Schematics

2.1 Body Wiring

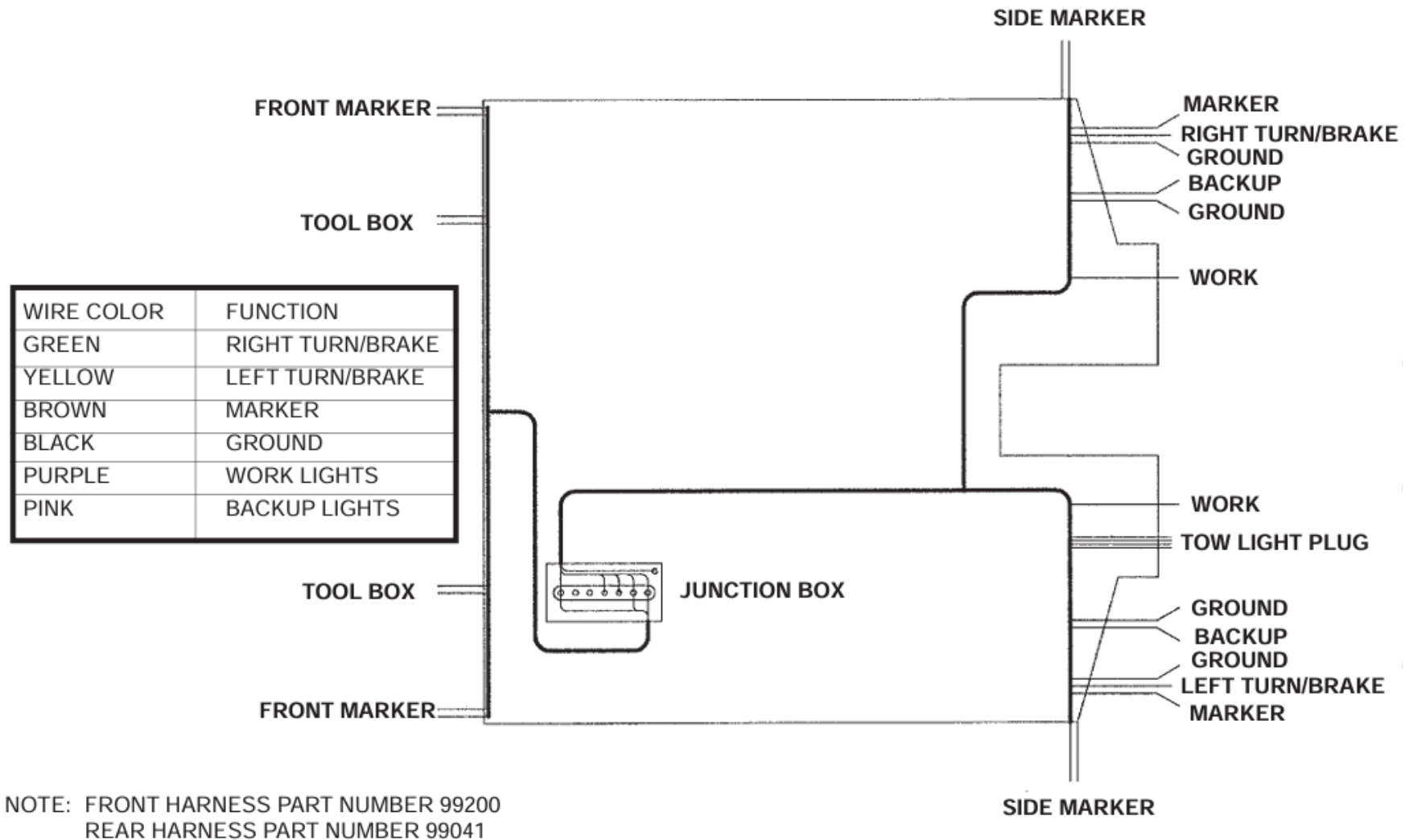


Figure 2.1 Body Wiring

2.2 Remote Control Wire Diagram

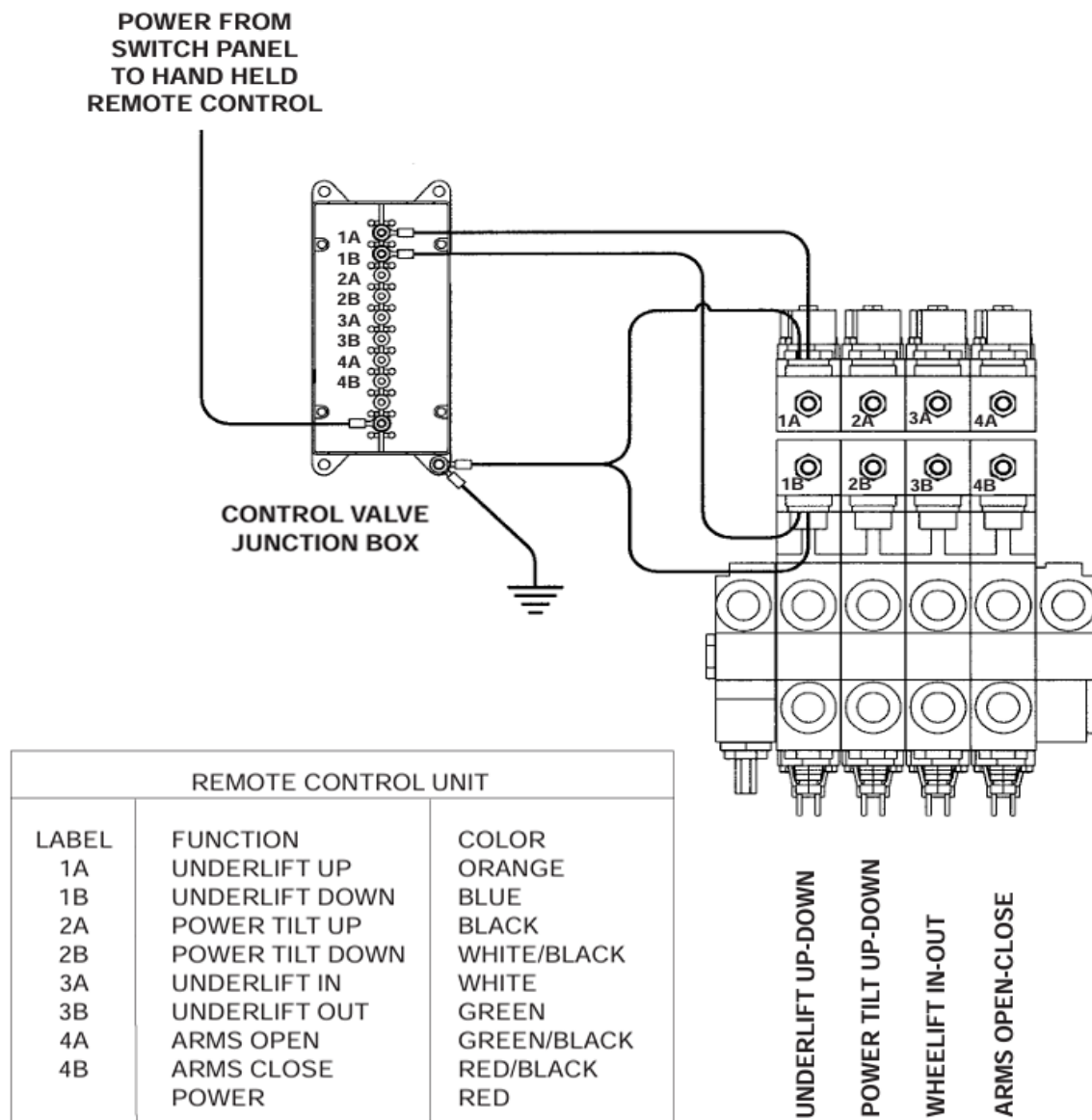


Figure 2.2 Remote Control Wiring Diagram

2.3 Single Winch Hydraulics

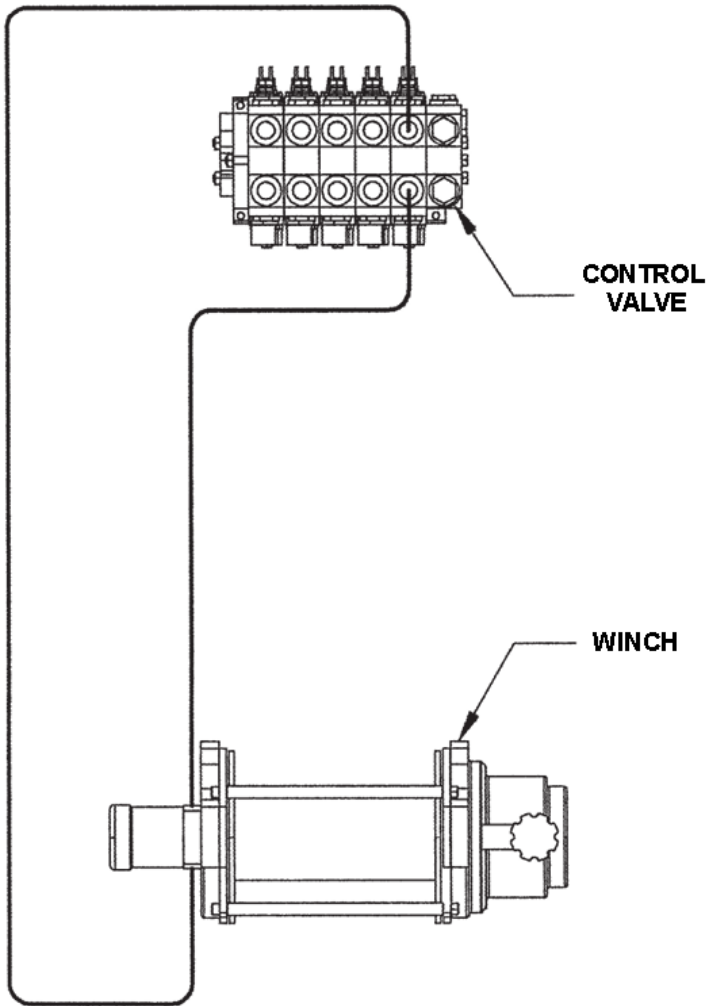


Figure 2.3 Single Winch Hydraulics

2.4 Twin Winch Hydraulics

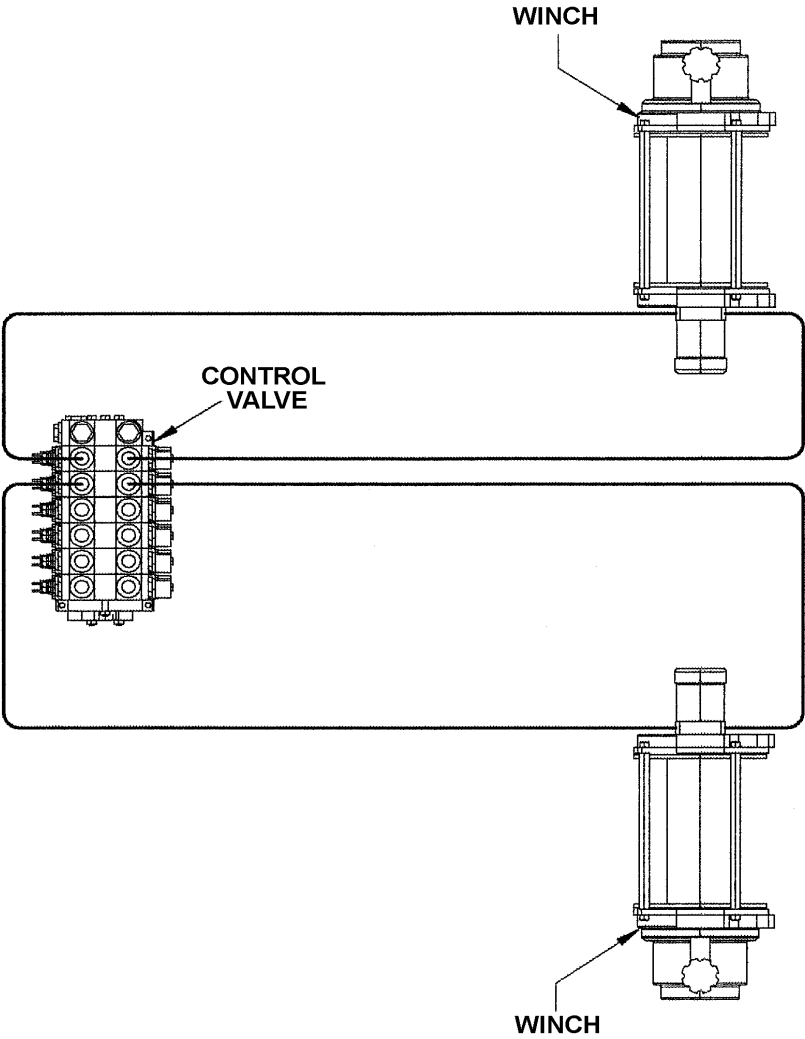


Figure 2.4 Twin Winch Hydraulics

2.5 Boom Up/Down Hydraulics

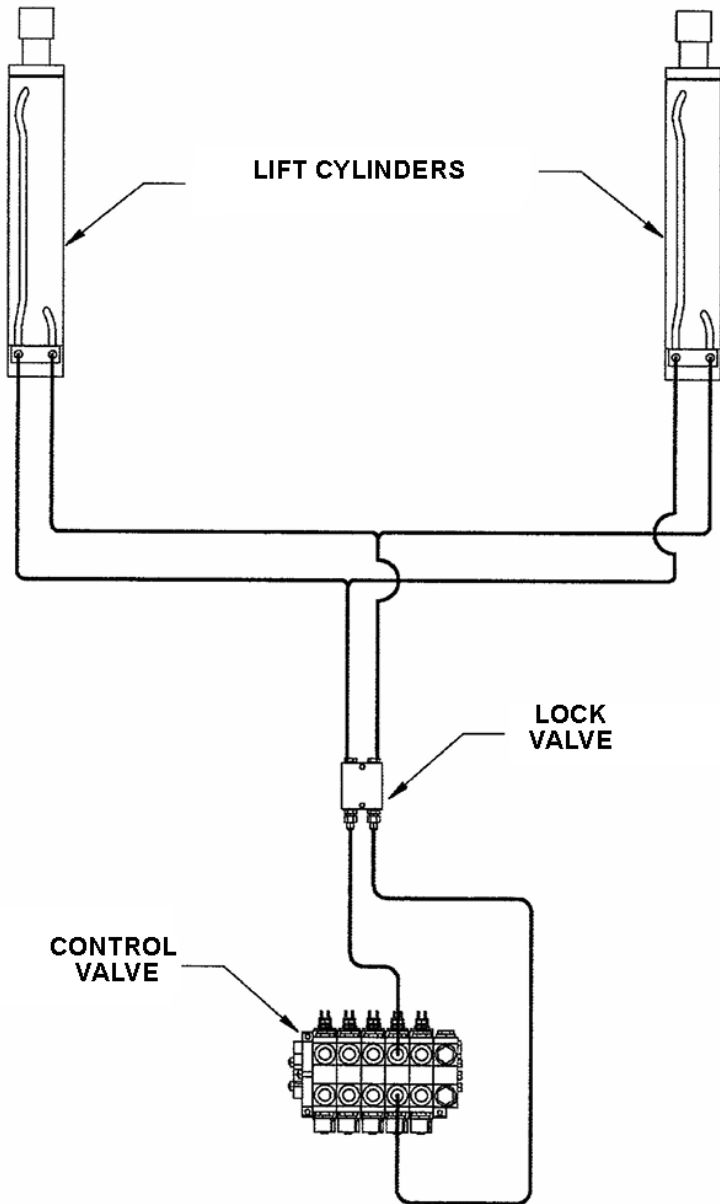


Figure 2.5 Boom Up/Down Hydraulics

2.6 Power Tilt Hydraulics

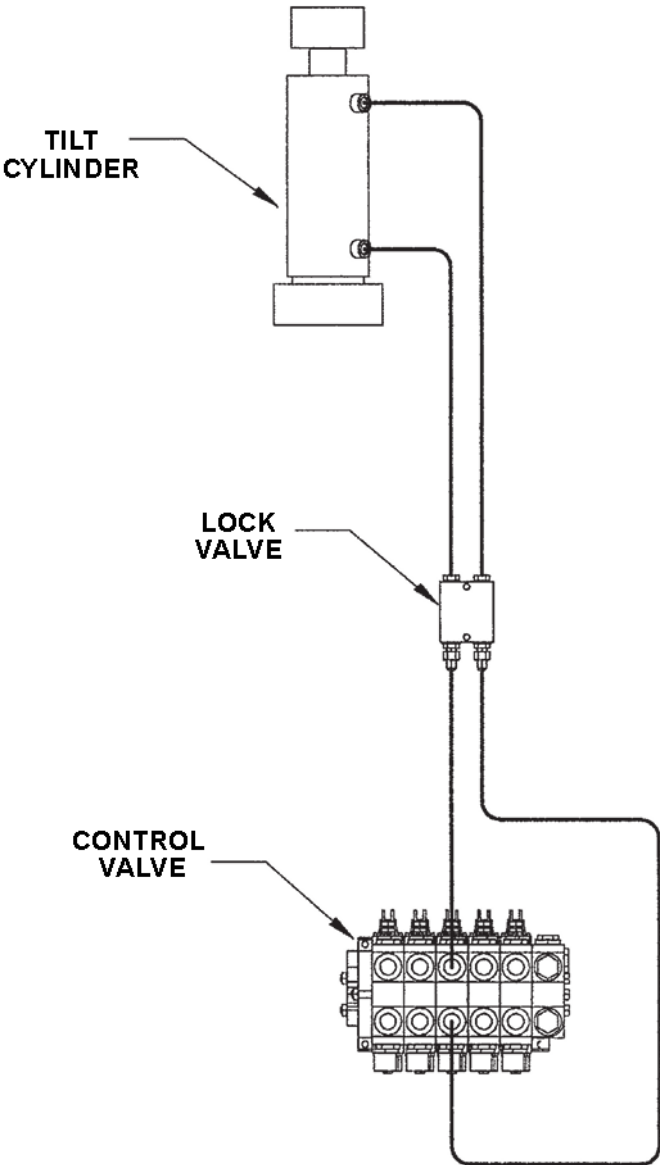


Figure 2.6 Power Tilt Hydraulics

2.7 Underlift In/Out Hydraulics

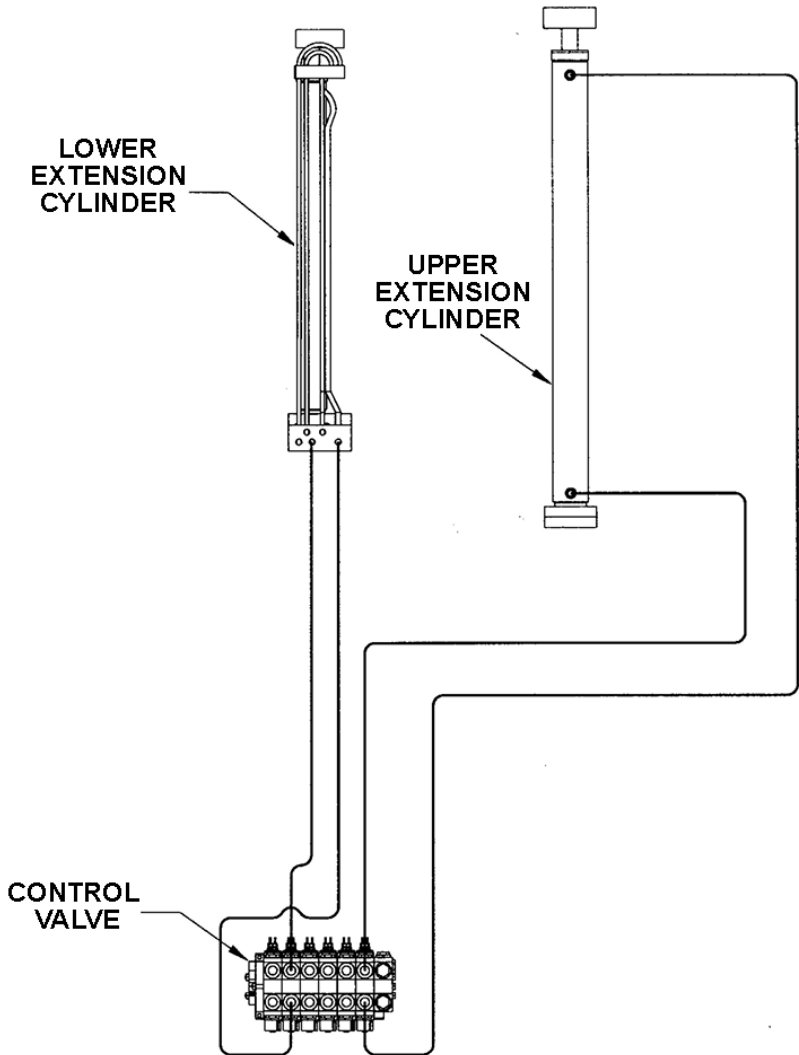


Figure 2.7 Underlift In/Out Hydraulics

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2.8 L-Arm Cylinder Hose Routing (AutoGrip II)

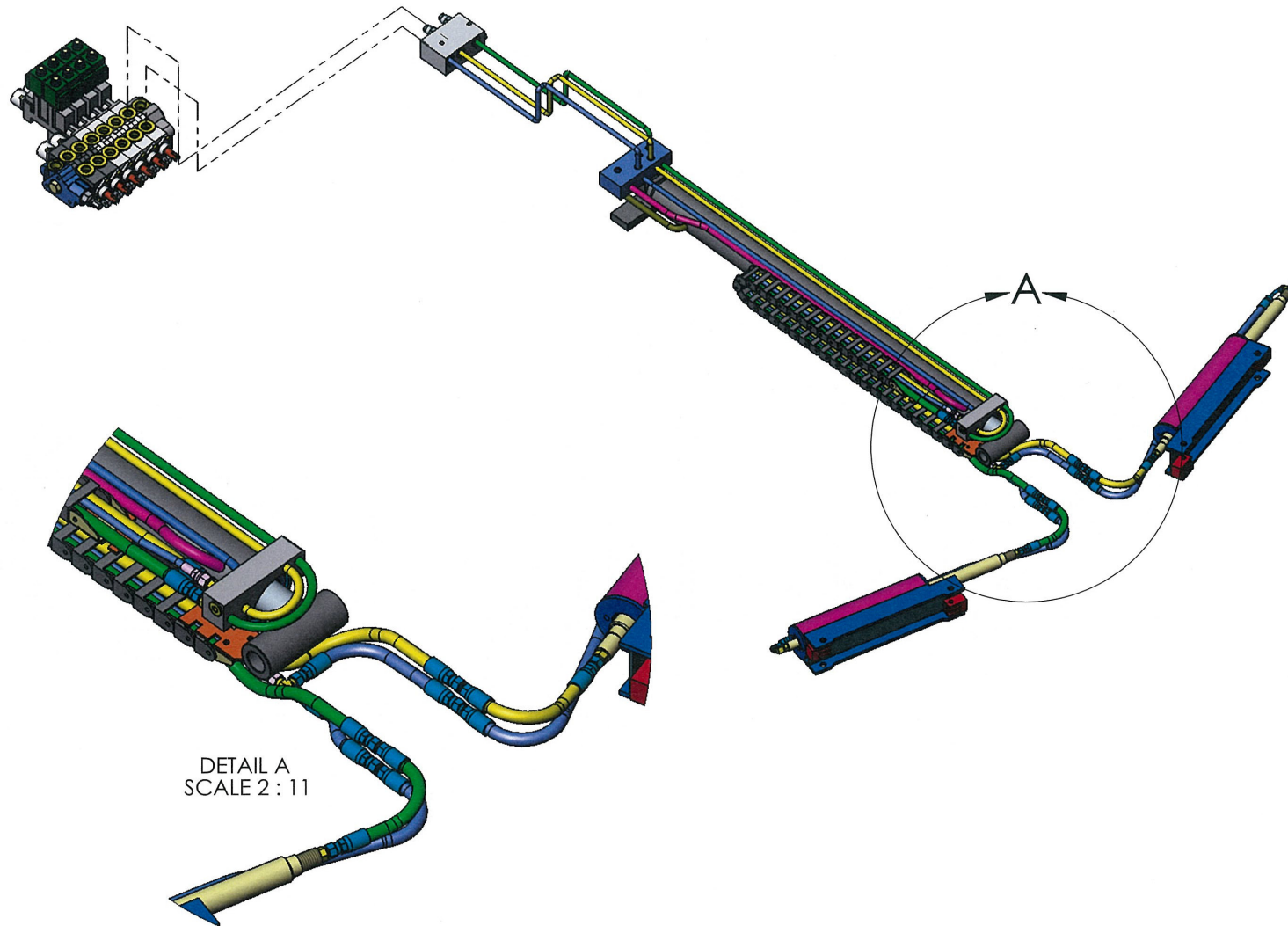


Figure 2.8 L-Arm Cylinder Hose Routing (AutoGrip II)

2.8 L-Arm Cylinder Hose Routing (AutoGrip II) (cont'd)

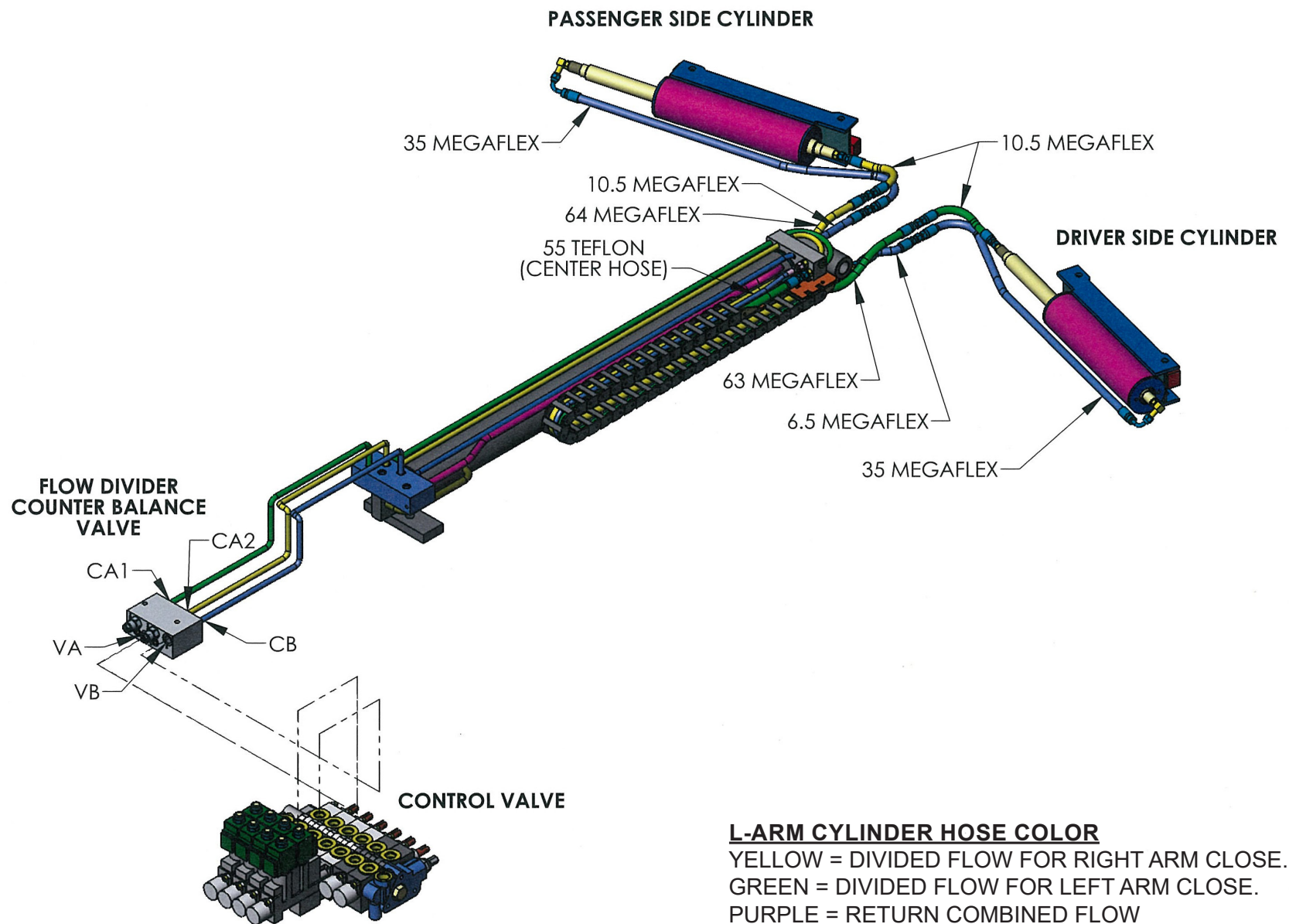


Figure 2.9 L-Arm Cylinder Hose Routing (AutoGrip II)

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