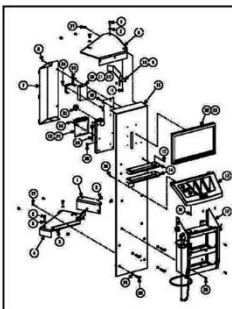
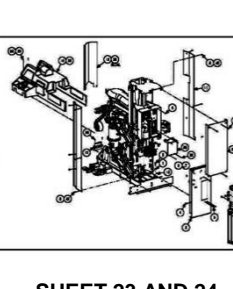


# TCRH REVOLUTION TIRE CHANGER PARTS DRAWING

 <p><b>BASE ASSEMBLY</b> www.tcr1x.com</p> <p><b>SHEET 3</b></p>	 <p><b>SPINDLE ASSEMBLY</b> www.tcr1x.com</p> <p><b>SHEET 4 and 5</b></p>	 <p><b>SPINDLE ASSEMBLY (CONTINUED)</b> www.tcr1x.com</p> <p><b>SHEET 6</b></p>	 <p><b>FOOT PEDALS</b> www.tcr1x.com</p> <p><b>SHEET 7</b></p>	 <p><b>HYDRAULIC MANIFOLD</b> www.tcr1x.com</p> <p><b>SHEET 9 HOSES - SHEET 10</b></p>
 <p><b>PUSHER ASSEMBLY</b> www.tcr1x.com</p> <p><b>SHEET 8</b></p>	 <p><b>UPPER ARM LOWER ARM</b> www.tcr1x.com</p> <p><b>SHEET 11 AND 12</b></p>	 <p><b>CABINET</b> www.tcr1x.com</p> <p><b>SHEET 13</b></p>	 <p><b>PNEUMATIC MANIFOLD AND BLASTER</b> www.tcr1x.com</p> <p><b>SHEET 14</b></p>	
 <p><b>PUSHER ASSEMBLY</b> www.tcr1x.com</p> <p><b>SHEET 15 AND 16</b></p>	 <p><b>SLIM SIDE CONSOLE</b> www.tcr1x.com</p> <p><b>SHEET 17</b></p>	 <p><b>CABINET</b> www.tcr1x.com</p> <p><b>SHEET 18</b></p>	 <p><b>CONTROLS</b> www.tcr1x.com</p> <p><b>SHEET 19</b></p>	 <p><b>PNEUMATIC MANIFOLD AND BLASTER</b> www.tcr1x.com</p> <p><b>SHEET 20</b></p>
 <p><b>PNEUMATIC MANIFOLD AND BLASTER</b> www.tcr1x.com</p> <p><b>SHEET 21</b></p>	 <p><b>ELECTRICAL</b> www.tcr1x.com</p> <p><b>SHEET 22</b></p>	 <p><b>CABINET</b> www.tcr1x.com</p> <p><b>SHEET 23 AND 24</b></p>	 <p><b>POWER UNIT</b> www.tcr1x.com</p> <p><b>SHEET 25</b></p>	 <p><b>FLANGE PLATE, DUAL WHEEL, THICK BEAD KITS</b> www.tcr1x.com</p> <p><b>SHEET 26</b></p>
<p><b>APPENDIX A: WIRING SCHEMATICS</b></p>				

## TCR1X REVOLUTION TIRE CHANGER

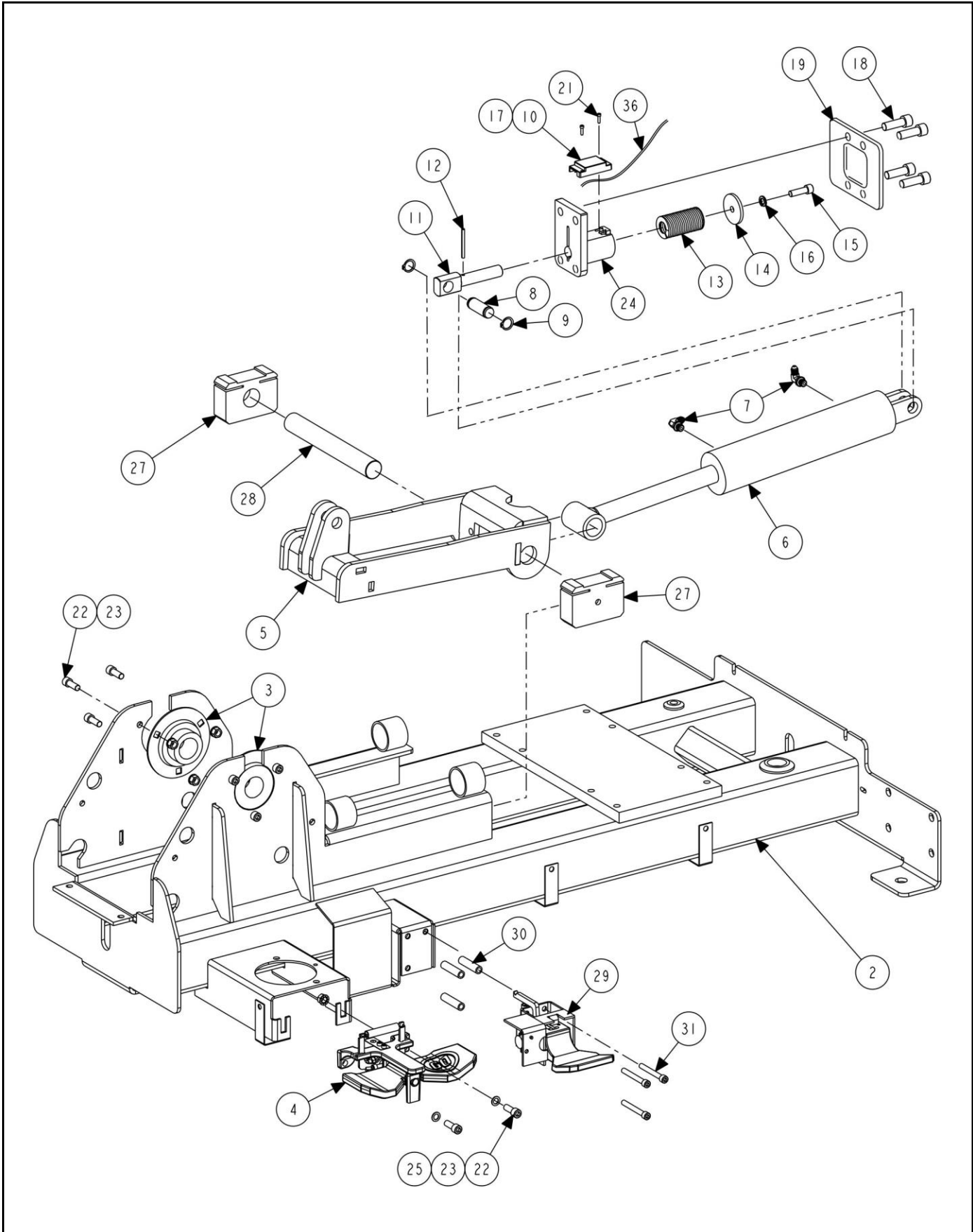
REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

**PARTS DESCRIPTION LISTING**

Sheet No.	Description
3	BASE ASSEMBLY
4	SPINDLE ASSEMBLY
5	SPINDLE ASSEMBLY (CROSSVIEW)
6	SPINDLE PLATEN
7	FOOT PEDALS
8	TOWER ASSEMBLY
9	HYDRAULIC MANIFOLD
10	HYDRAULIC HOSES
11	UPPER AND LOWER BEAD BREAKER ARMS
12	UPPER AND LOWER BEAD BREAKER ARMS (continued)
13	MOUNT / DEMOUNT ARM
14	MOUNT / DEMOUNT ARM SUB-ASSEMBLY
15	PUSHER ASSEMBLY
16	PUSHER ASSEMBLY (continued)
17	SLIM SIDE CONSOLE
18	CABINET
19	CONTROLS
20	PNEUMATICS
21	PNEUMATIC MANIFOLD AND BLASTER
22	ELECTRICAL
23	COVER AND POWER UNIT
24	COVER, ACCESSORY KIT AND ETC. (continued)
25	POWER UNIT
26	FLANGE PLATE, DUAL WHEEL, THICK BEAD KITS
27 - 29	APPENDIX A – WIRING SCHEMATICS

TCRH model changes include spindle (sheet 4, 5 & 6), hydraulics (sheet 9 & 10) and pusher (sheet 15 & 16).  
 For model TCR1X (previous model that introduced Walk-Away), refer to Form 11-53.  
 For model TCR1S (previous model with slim side console), refer to Form 11-49.  
 For model TCR1 (original model with large console), refer to Form 11-45.





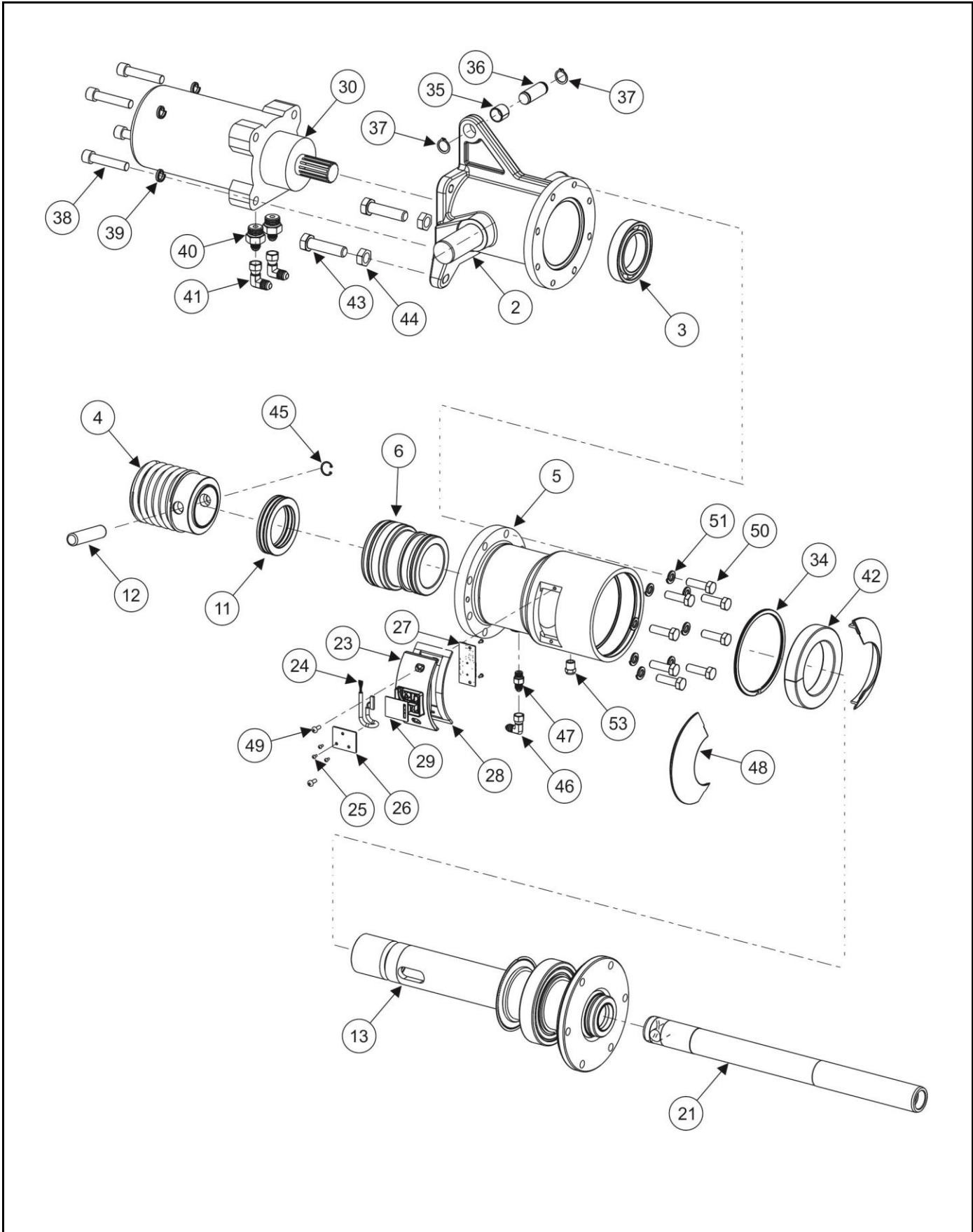
# BASE ASSEMBLY

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
1	72-565-1 (-BLK)	BASE - TIRE CHANGER MAIN ASSEMBLY (Not Illus.) (Includes)	1
1a	72-564-1 (-BLK)	BASE AND TOWER ASSEMBLY (Not Illus.) (Includes)	1
2	72-498-1-005	BASE ASSEMBLY - TIRE CHANGER	1
3*	130-213-2	BEARING - FLANGE 3-BOLT 1-7/16 INCH	2
4	20-3611-1	KIT- TILT FOOT PEDAL (See Sheet 6) (Includes:)	1
22	74-578-3	SOCKET HEAD CAP SCREW 3/8-16 X 1.00 INCH (FULL-THREAD)	2
23	76-159-2	NUT - KEPS 3/8-16	2
25	77-297-2	WASHER - FLAT 3/8 INCH	2
5	149-312-1-005	FRAME - SPINDLE TILT	1
6	140-99-2	CYLINDER - HYDRAULIC 63 MM BR X 30 RD X 215 STK	1
7	145-473-2	FITTING - 4-6 SAE 37 DEGREE ELBOW	2
8	135-505-2	PIN - CLEVIS 3/4 X 1.688 INCH	1
9	112-63-2	SNAP RING - TRUARC #5100-75	2
10	105-626-2	HOUSING - LIMIT SWITCH 1	1
11	63-280-2	ROD - EYE-BB	1
12	135-285-2	PIN - 3/16 X 1 1/2 INCH TYPE C DRIV-LOK	1
13	98-454-2	SPRING - DIE 1.5 OD .75 RD 3.5 INCHES LONG	1
14	77-379-2	WASHER - BB SPRING RETAINER	1
15	74-575-2	SOCKET HEAD CAP SCREW 3/8-16X1.25 (FULL-THREAD)	1
16	77-216-2	WASHER - LOCK HI-COLLAR 3/8 INCH	1
17	18-350-2	SWITCH - HANGER	1
18	74-637-3	HEX HEAD CAP SCREW 1/2-13 X 1.50 INCH, GRADE 5	4
19	51-3124-005	PLATE-SUPPORT	1
20	Not Used	Not Used	-
21	75-116-2	SOCKET HEAD CAP SCREW 6-32 X .50 INCH (FULL-THREAD)	2
22	74-578-2	SOCKET HEAD CAP SCREW 3/8-16 X 1.00 INCH (FULL-THREAD)	6
23	76-159-2	NUT - KEPS 3/8-16	6
24	14-1751-1-005	BRACKET - TILT STOP	1
26	12-226-1	CLAMP - AUTO TIRE CHANGER SPINDLE (Not Illustr.) (See Sheet 4)	1
or	12-238-1	SPINDLE - TCR1 FIELD REPLACEMENT (Not Illustr.) (See Sheet 4)	1
27	121-280-2	BLOCK - TILT SLIDE	2
28	159-22-2	AXLE - TILT BRACKET	1
29	20-3610-1	KIT- ROTATE FOOT PEDAL (See Sheet 6) (Includes:)	1
30	46-701-2	SPACER - SINGLE FOOT PEDAL TIRE CHANGER	3
31	74-586-3	SOCKET HEAD CAP SCREW 5/16-18 X 2.5 INCH (FULL-THREAD)	3
32	137-129-3	HOSE - 1/4 INCH ID HYDRAULIC 36 INCH LONG (Not Ill.) (See Sht 9)	1
33	137-131-3	HOSE - 1/4 INCH ID HYDRAULIC 22 INCH LONG (Not Ill.) (See Sht 9)	1
34	137-134-3	HOSE - ASSEMBLY HYDRAULIC 1/4 X 76 INCH (Not Ill.) (See Sheet 9)	2
35	12-228-2	CLAMP - HOSE 1/2 INCH DIAMETER (Not Illustrated)	2
36	38-1167-1	CABLE ASSEMBLY - DAQ TO TILT SW	1

\* Bearings must be slid onto the pivot axles of the spindle (item 2, next sheet) before they can be bolted to the base.



# SPINDLE ASSEMBLY

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Form CD07825-00, 10-20a

Sheet 4 of 29

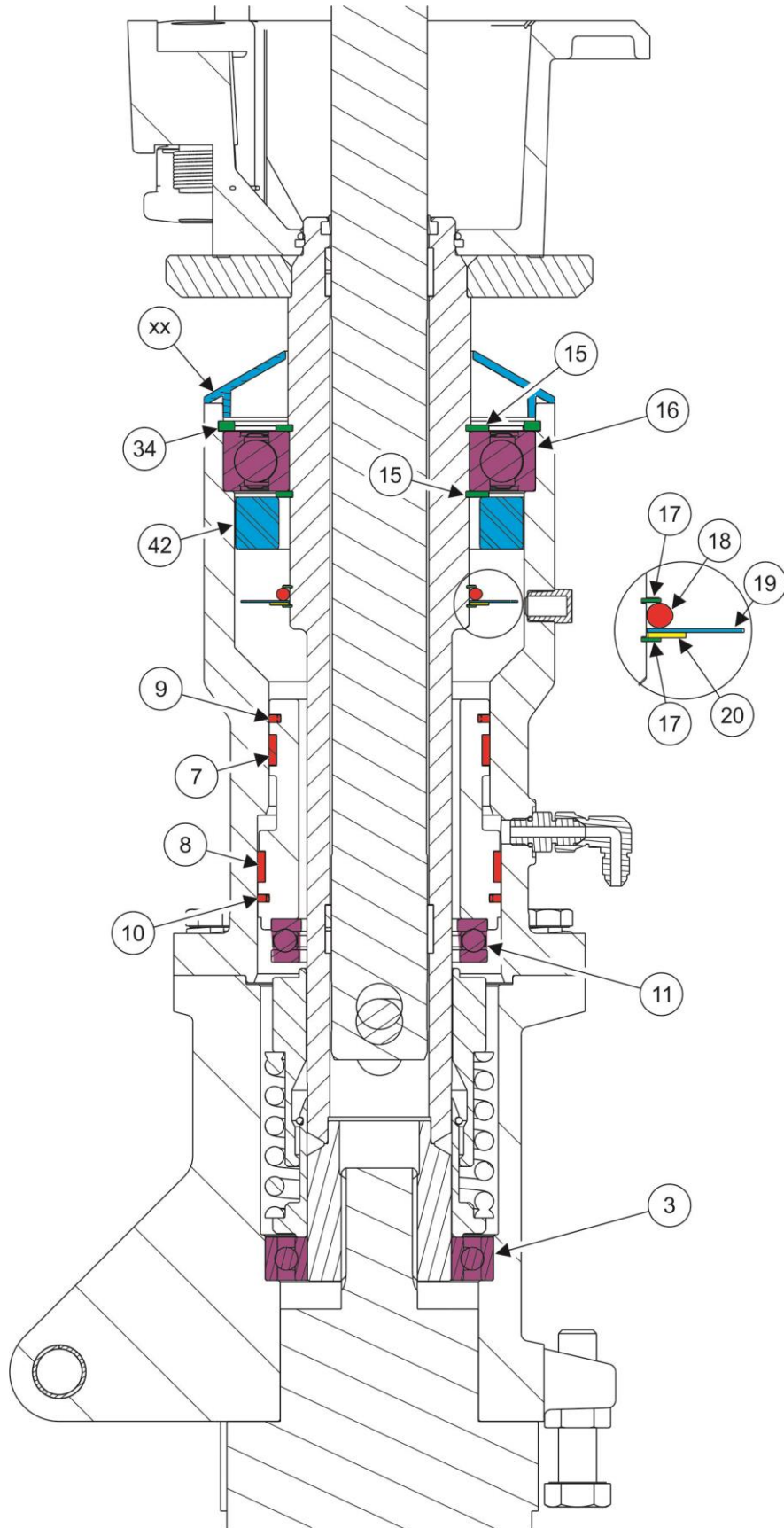
Index No.	Part Number	Description	Qty.
1	12-270-1	SPINDLE-TCR HYDRAULIC (Continued on Following Sheet)	1
OR	12-275-1*	SPINDLE - HYD FIELD REPLACEMENT (Not Illustr.) (See Sheet Note Below)	1
2	105-754-3*	HOUSING - PIVOT WELDMENT	1
3	130-260-2*	BEARING-60 X 95 X 18MM	1
4	41-260-1*	RETAINER ASM-SPRING	1
5	140-132-2*	CYLINDER-TCR-H SPINDLE (Order as 20-3874-1: incl items 5, 6, 42)	1
6	182-32-1*	PISTON ASM-TCR SPINDLE (See Sheet 5 for rings and seals included)	1
11	130-261-2*	BEARING-THRUST	1
12	135-653-2*	DOWEL-.750 X 3.25	1
13	97-700-1*	SHAFT ASM-TCR SPINDLE HYD (See Sheet 5 for parts included)	1
21	97-694-2*	SHAFT-TCR-H CLAMP	1
22	125-431-1	SENSOR-RT_ASSY	1
23	105-578-2	HOUSING-RT SENSOR	1
24	38-1110-3	CABLE ASM-SPINDLE R/T SENSOR	1
25	75-403-2	PHSMS 6X.31 PR TPAB ZP	5
26	44-39-2	WINDOW-RT SENSOR	1
27	45-1307-1	PCA- TC ENCODER/TILT	1
28	49-85-2	GASKET-ENCODER HOUSING	1
29	49-86-2	GASKET, RT SENSOR WINDOW, TCR1	1
30	129-257-2	MOTOR-HYDRAULIC	1
31	184-114-1	HUB ASM-TCR PLATEN (Not Illustrated) (See Sheet 6)	1
32	12-260-1	CLAMP ASSY-SPEEDNUT (Not Illustrated) (See Sheet 6)	1
33	97-634-1	SPINDLE-TC QUICK RELEASE (Not Illustrated) (See Sheet 6)	1
34	112-158-2*	SNAP RING-INT SPIRAL 130MM	1
35	130-206-2*	BEARING-SLEEVE .75X.88 X.75L	1
36	135-505-2	PIN-CLEVIS 3/4 X 1.688	1
37	112-63-2	SNAP RING-TRUARC #5100-75	2
38	74-500-3	SHCS 1/2-13 X 2.50 ZP	4
39	77-382-2	WASHER-LOCK HI-COLLAR 1/2 BO	4
40	145-447-2	FITTING-STRAIGHT THD CONNECTOR	2
41	145-449-2	FITTING-#6 SWIVEL NUT ELBOW	2
42	179-83-2*	SHIELD, GREASE, ENCODER WHEEL	1
43	74-62-2	HHCS 5/8-11X2.50 FTHD ZP	2
44	76-541-2	NUT-JAM 5/8-11 ZP	2
45	112-167-2*	SNAP-RING INTERNAL 3/4 BORE	1
46	145-229-2*	FITTING-STRAIGHT THD ADAPTOR	1
47	145-320-2*	FITTING-7/16 SWIVEL NUT ELBOW	1
48	69-1680-2*	COVER-TCR SPINDLE DUSTCOVER	2
49	75-15-2	RHMS 10-32X.50 PR ZP	2
50	74-647-3*	HHCS 7/16-14X1.50 FTHD GR5 ZP	8
51	77-155-2*	WASHER-LOCK 7/16 HELICAL SPG	8
52	Field purchase	LUBRIPLATE #630-AA	A/R
53	136-111-2	FILTER-BREATHING VENT, 1/4 NPT	1

\* Noted items are included with field replacement spindle, 12-275-1

**HUNTER**  
Engineering Company

11250 HUNTER DRIVE BRIDGETON, MO 63044

PPP-Paint Code Required  
A/R-As Required  
REF-Reference

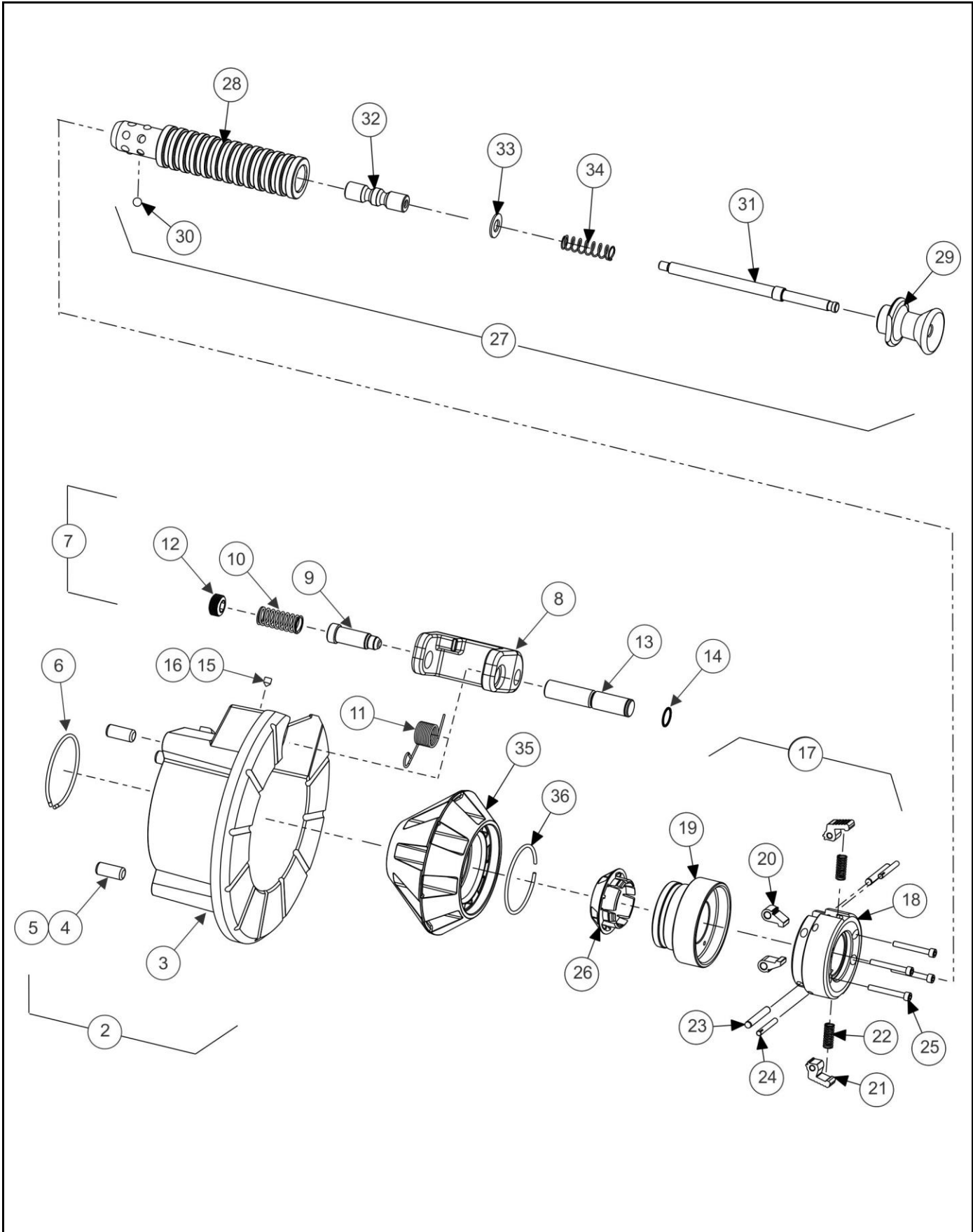


## SPINDLE ASSEMBLY

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
1	12-270-1	SPINDLE-TCR HYDRAULIC (Continued on Following Sheet)	1
3	130-260-2	BEARING-60 X 95 X 18MM	REF
6	182-32-1	PISTON ASM-TCR SPINDLE (includes :)	REF
7	223-106-2	RING-WEAR 3.625 DIA	1
8	223-107-2	RING-WEAR 4.00 DIA	1
9	124-250-2	SEAL-3.625" PISTON	1
10	124-251-2	SEAL-4.00" PISTON	1
11	130-261-2	BEARING-THRUST	REF
13	97-700-1	SHAFT ASM-TCR SPINDLE HYD (includes :)	REF
14	124-188-2	SEAL-SHAFT WIPER 40MM	1
15	112-142-2	SNAP RING-EXT 75MM	2
16	130-205-2	BEARING-BALL 75MM X 130MM	1
17	112-185-2	RING-EXT RETAINING 2.937	2
18	124-195-2	SEAL-ORING 412 SILICONE	1
19	17-84-2	DISK-ENCODER RING-TC	1
20	77-399	WASHER-FLAT 75MM 2-31/32	1
22	125-431-1	SENSOR-RT_ASSY	REF
23	105-578-2	HOUSING-RT SENSOR	1
24	38-1110-3	CABLE ASM-SPINDLE R/T SENSOR	1
25	75-403-2	PHSMS 6X.31 PR TPAB ZP	5
26	44-39-2	WINDOW-RT SENSOR	1
27	45-1307-1	PCA- TC ENCODER/TILT	1
28	49-85-2	GASKET-ENCODER HOUSING	1
29	49-86-2	GASKET, RT SENSOR WINDOW, TCR1	1
34	112-158-2	SNAP RING-INT SPIRAL 130MM	REF
42	179-83-2	SHIELD, GREASE, ENCODER WHEEL	REF
48	69-1680-2	COVER-TCR SPINDLE DUSTCOVER	REF

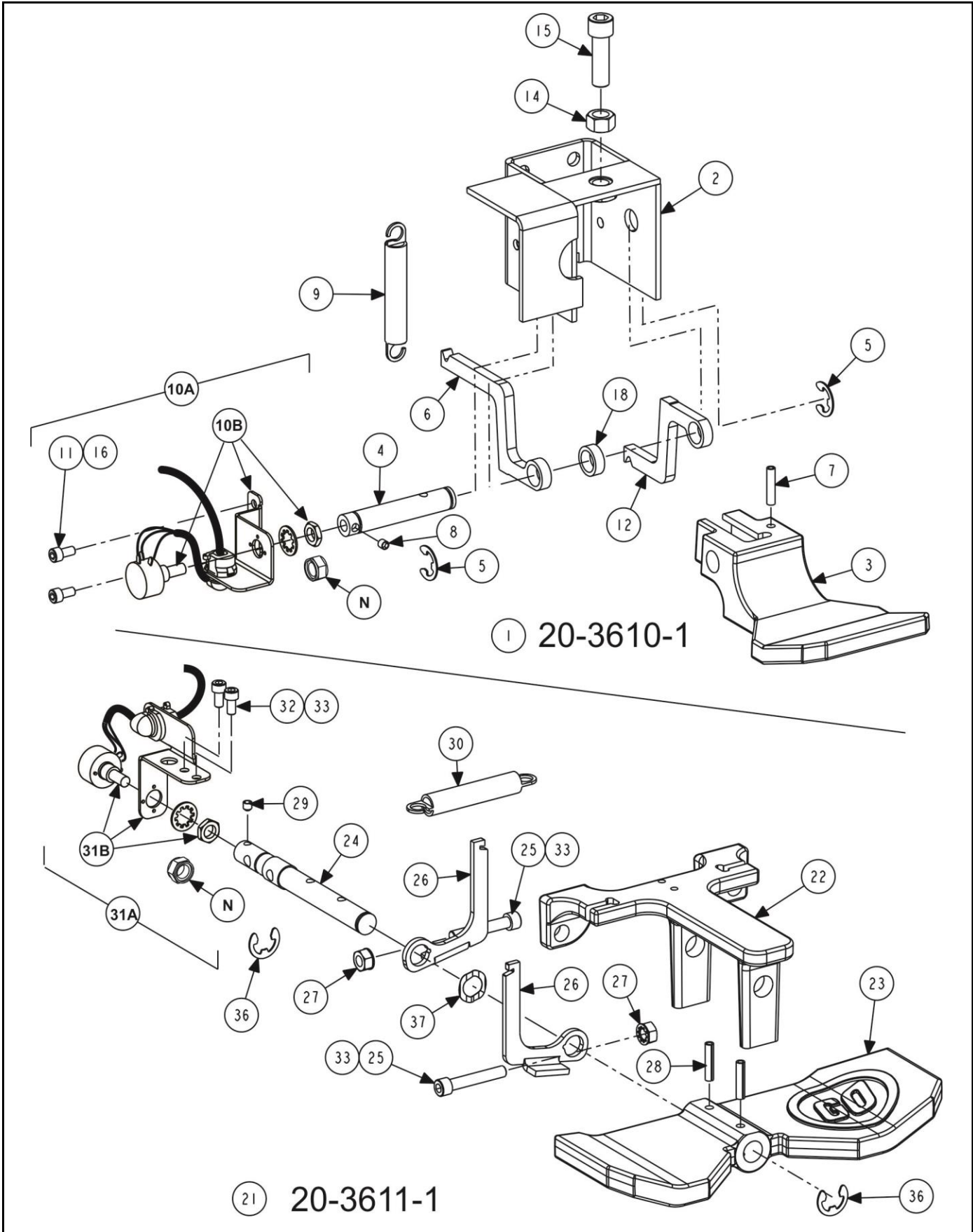


**SPINDLE ASSEMBLY (CONTINUED)**

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
1	12-270-1	SPINDLE-TCR HYDRAULIC (Continued from Previous Sheet)	1
2	184-114-1	HUB ASM-TCR PLATEN (Consists Of:))	1
3	105-759-3	HOUSING ASM-TCR PLATEN (Includes:)	1
4	135-499-2	PIN-DOWEL 7/16 DIA X 1 inch LONG	
5	Field Obtain	RETAINING COMPOUND LOCTITE #609)	A/R
6	41-208-2	RETAINER-ROUND WIRE 2.5 DIA	1
7	135-658-1	PIN ASM-TCR ANTI ROTATE (Consists Of:))	1
8	68-107-2	BODY-TCR ANTI ROTATE	1
9	135-659-2	PIN-TCR ANTI-ROTATE	1
10	98-473-2	SPRING-COMP .65 OD X 2.5 X .06	1
11	98-468-2	SPRING-TORSION AR PIN	1
12	75-781-3	SSS-HOL LCK3/4-16X3/8LG COATED	1
13	159-27-2	AXLE-TCR ANTI ROTATE	1
14	112-156-2	SNAP RING-SPIROLOX EXT .625	1
15	75-65-2	SSS 1/4-20X5/16 CONE PT	1
16	Field Obtain	ADHESIVE- MEDIUM THREAD LOCKER (LOCTITE #242)	A/R
17	12-260-1	CLAMP ASSEMBLY – SPEEDNUT (Consists Of:))	1
18	12-256-2	CLAMP - SPEEDNUT BODY	1
19	217-83-2	COLLAR - SPEEDNUT	1
20	144-177-2	LINK - PAWL, SPEED-NUT	2
21	144-178-2	LINK - PAWL RELEASE	2
22	98-547-2	SPRING - COMP .36OD X .88 X .038 INCH	2
23	135-13-2	PIN - DOWEL 1/4 X1.75	2
24	135-285-2	PIN - 3/16X1 1/2 TYPE C DRIV-LOK	2
25	75-533-2	SOCKET HEAD CAP SCREW 10-32 X 1.50 INCH	4
26	192-223-2	CONE - SMALL BORE SPEEDNUT	1
27	97-634-1	SPINDLE - TIRE CHANGER QUICK RELEASE (Consisting Of:)	1
28	97-632-2	SPINDLE - TIRE CHANGER REMOVABLE SHAFT	1
29	97-684-2	SPINDLE - KNOB	1
-	ASSEMBLY INSTR.	LOCTITE 243 (blue, medium, removable) KNOB TO SHAFT (item 7)*	-
-	ASSEMBLY INSTR.	TORQUE TO 15 FOOT-POUNDS	-
30	130-215-2	BALL - STEEL 5/16 INCH	6
31	97-673-2	SHAFT ROD	1
32	97-661-2	SHAFT - PLUNGER	1
-	ASSEMBLY INSTR.	LOCTITE 263 (red, high, permanent) PLUNGER TO ROD (item10)*	-
33	77-73-2	WASHER - FLAT 7/16 INCH	1
34	98-453-2	SPRING - COMPRESSION .54 OD X 2.75 X .048 INCH	1
35	192-226-1	CONE, TC WHEEL CLAMP (Included in kit 20-2734-1)(Includes:)	REF.
36	41-208-2	RETAINER - ROUND WIRE 2.5 INCH DIAMETER	1
37	192-233-1	CONE – MEDIUM CLAMPING (Included in Kit 20-2734-1) (Not Illus.)	REF.



## FOOT PEDALS

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

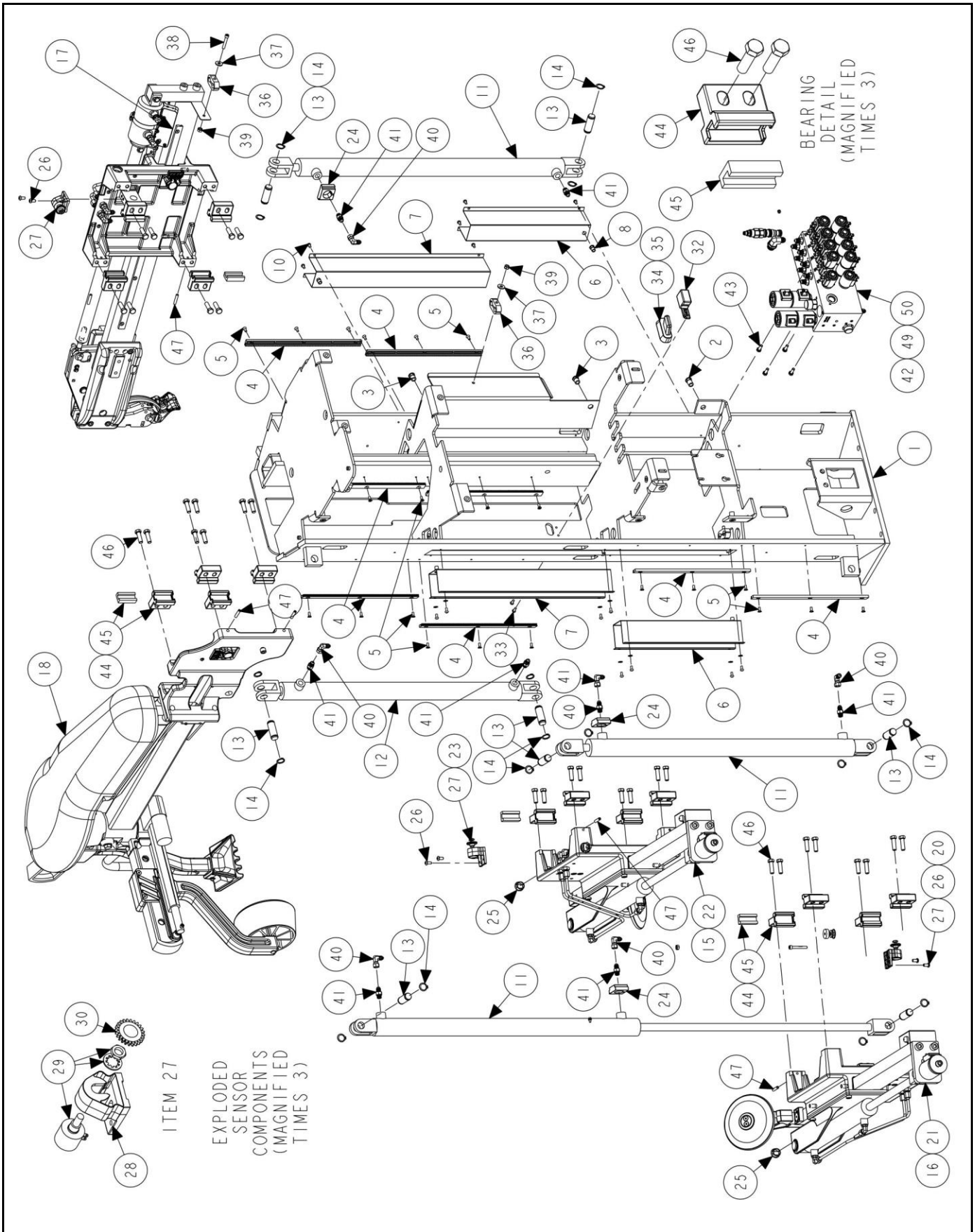
## PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
1	20-3610-1 *	KIT- ROTATE FOOT PEDAL (Consisting Of:*)	1
2	14-1490-1-005	BRACKET - TIRE CHANGER SINGLE FOOT PEDAL	1
3	164-98-2	LEVER - FOOT PEDAL	1
4	159-23-2	AXLE - SINGLE FOOT PEDAL TIRE CHANGER	1
5	112-15-2	SNAP RING - #5133-50 OR EQUAL	2
6	22-523	ANGLE - SPRING ARM UPPER TIRE CHANGER	1
7	135-61-2	PIN - SPLIT 3/16 X 7/8 INCH	1
8	75-76-2	SOCKET SET SCREW 10-32 X 3/16 INCH	1
9	98-472-2	SPRING - FOOT PEDAL EXTENSION	1
10A	20-3606-1 **	KIT-ROTATE FOOT PEDAL SENSOR (includes)	1
10B	93-68-1	POT-TC ROTATE PEDAL SENSOR	1
11	75-427-2	SOCKET HEAD CAP SCREW 10-32 X .38 INCH (FULL-THREAD)	2
12	22-524	ANGLE - SPRING ARM LOWER TIRE CHANGER	1
14	76-154-2	NUT - HEX 3/8-16 STEEL PLAIN	1
15	74-160-2	SOCKET HEAD CAP SCREW 3/8-16X1.25 INCH (FULL-THREAD)	1
16	Field Purchase	ADHESIVE - LOCTITE 242	A/R
18	113-324-2	BUSHING - TIRE CHANGER FOOT PEDAL SPACER	1
19	76-509-2	NUT - CUSTOM POTENTIOMETER	1
20	Field Purchase	ADHESIVE - THREAD LOCK STICK, LOCTITE 248 BLUE	A/R
21	20-3611-1 *	KIT- TILT FOOT PEDAL (Consisting Of:*)	1
22	14-1556-2	BRACKET - TIRE CHANGER FOOT PEDAL	1
23	164-112-2	LEVER - BUTTERFLY FOOT PEDAL (Now with GO cast on pedal)	1
24	159-25-2	AXLE - BUTTERFLY PEDAL	1
25	75-250-2	SOCKET HEAD CAP SCREW 1/4-20X1.50 INCH	2
26	22-536	ANGLE - FOOT PEDAL SPRING ARM	2
27	76-85-2	NUT - KEPS 1/4-20	2
28	135-61-2	PIN - SPLIT 3/16 X 7/8 INCH	2
29	75-76-2	SOCKET SET SCREW 10-32 X 3/16 INCH	1
30	98-472-2	SPRING - FOOT PEDAL EXTENSION	1
31A	20-3607-1**	KIT-TILT FOOT PEDAL SENSOR (includes)	1
31B	93-69-1	POT-TC TILT PEDAL SENSOR	1
32	75-427-2	SOCKET HEAD CAP SCREW 10-32 X .38 INCH (FULL-THREAD)	2
33	Field Purchase	ADHESIVE - LOCTITE 242	A/R
36	112-15-2	SNAP RING - #5133-50	2
37	98-503-2	SPRING - WAVE SMALLLEY SSR-0075	1
38	Field Purchase	ADHESIVE - THREAD LOCK STICK, LOCTITE 248 BLUE	A/R
39	94-22-2	TIE, CABLE	1
N	76-509-2 **	NUT - CUSTOM POTENTIOMETER	1

Greyed out part numbers are not intended to be replaced as individual parts. Order associated kit.

\* Kits also contains attaching hardware (see Sheet 3).

\*\* If custom potentiometer nut, item N, is present, then discard it when using the kit to replace the potentiometer.



# TOWER ASSEMBLY

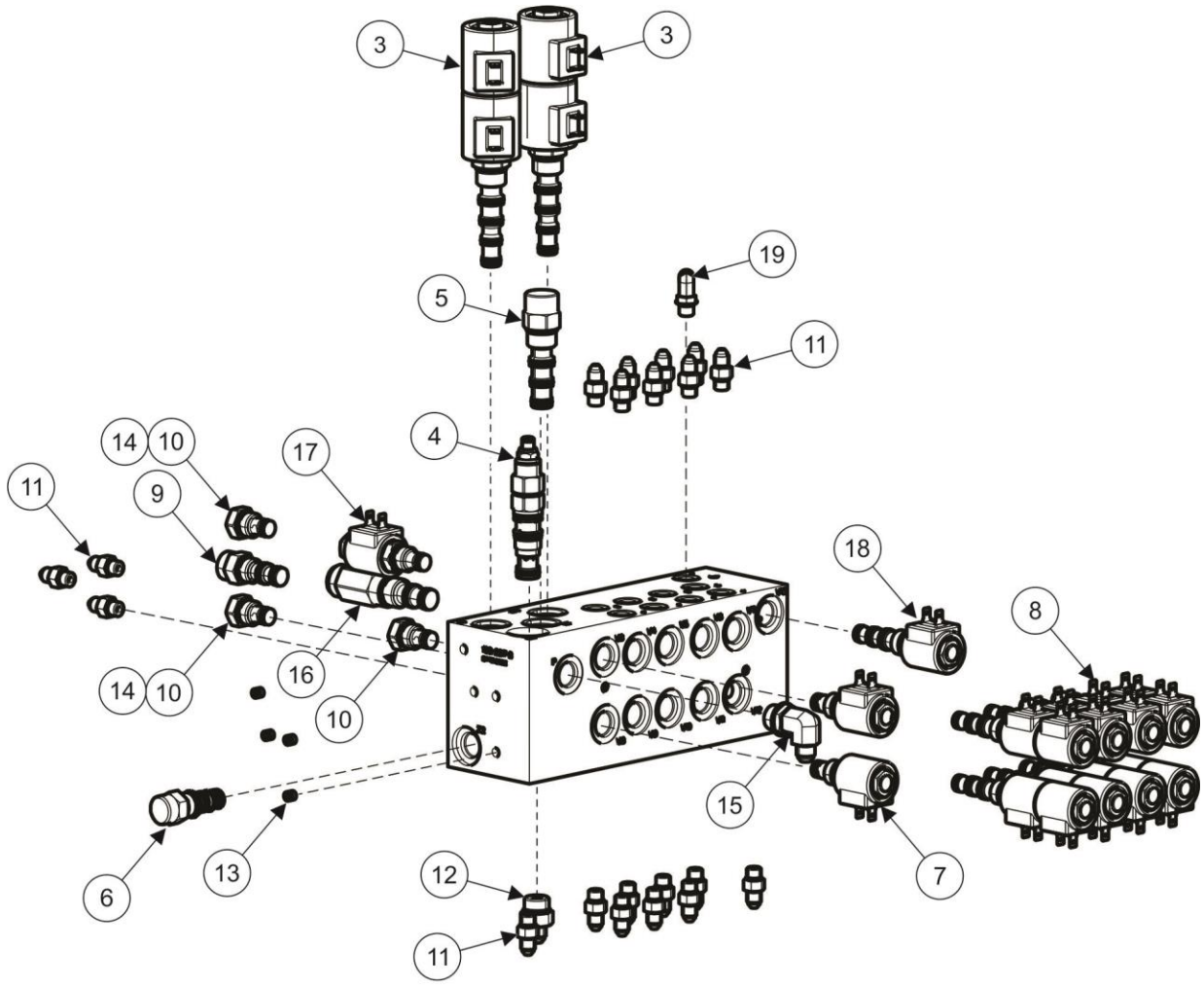
REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

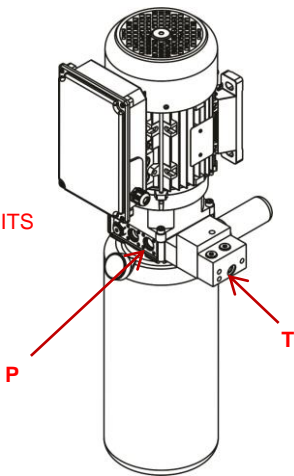
Form CD07825-00, 10-20a

Sheet 8 of 29

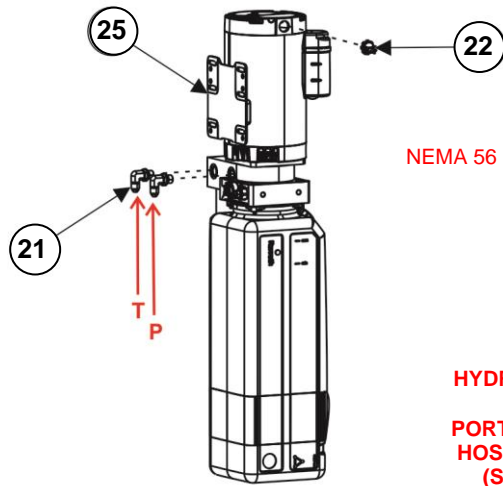
Index No.	Part Number	Description	Qty.
1	149-304-1-PPP	FRAME - TIRE CHANGER TOWER	1
2	76-501-2	NUT - HEX INSERT 5/16-18	15
3	76-413-2	NUT - HEX INSERT 5/16-18	2
4	99-145-2	RACK - POSITION SENSOR 24 PITCH	8
5	75-940-3	FLAT HEAD MACHINE SCREW 10-32 X .50 INCH	24
6	104-182-1	GUIDE ASSEMBLY - LOWER HOSE (Includes:)	2
7	104-183-1	GUIDE ASSEMBLY - UPPER HOSE (Includes:)	2
8	76-414-2	NUT - HEX INSERT 1/4-20	1
9	Not Used	Not Used	0
10	75-866-2	SCREW-SELF-TAPPING 10-32 X 3/8 INCH PH TYPE F	16
11	140-101-2	CYLINDER - HYDRAULIC 38 MM BR X 20 RD X 660 STK	3
12	140-102-2	CYLINDER - HYDRAULIC 38 MM X25 RD X 584 STK	1
13	135-505-2	PIN - CLEVIS 3/4 X 1.688 INCH	8
14	112-63-2	SNAP RING - TRUARC #5100-75	16
15	103-216-1	ARM ASSEMBLY - UPPER BEAD BREAKER (See Sheet 10 & 11)	1
16	103-217-1	ARM ASSEMBLY - LOWER BEAD BREAKER (See Sheet 10 & 11)	1
17	103-218-1	ARM ASSEMBLY - MOUNT / DEMOUNT (See Sheet 12)	1
18	103-224-1	ARM - TIRE CHANGER PUSHER ASSEMBLY (See Sheet 14 & 15)	1
19	106-186-2	SLEEVE - 1.30 INCH DIAMETER NYLON HOSE (Not Illustrated)	9 ft.
20	38-1174-1	CABLE ASSEMBLY - DAQ BOARD TO ARM POTENTIOMETER	1
21	38-1168-1	CABLE - DAQ TO PIEZO AND ARM SWITCH	1
22	38-1217-1	CABLE - DAQ TO PIEZO	1
23	38-1218-1	CABLE - DAQ TO ARM POTENTIOMETERS	2
24	113-326-2	BUSHING - CYLINDER PORT	3
25	43-111-2	PLUG - 7/8 INCH DIAMETER HOLE	3
26	75-848-2	SOCKET BUTTON HEAD CAP SCREW 1/4-20 X 1/2 INCH	6
27	125-490-1	SENSOR, TIRE CHANGER VERTICAL POSITION (Consisting Of:)	3
28-31	20-3504-1	KIT - POSITION SENSOR	1
32	14-1651-2	BRACKET-TCR LOGITECH C270 CAM	1
33	75-15-2	RHMS 10-32X.50 PR ZP	2
34	125-494-2	SENSOR-LOGITECH C270 HD WEBCAM	1
35	38-1088-2	CABLE-USB EXT 6FT	1
36	12-227-2	CLAMP - TUBE 1/2 INCH DOUBLE	8
37	77-67-2	WASHER - FLAT 1/4 INCH	8
38	75-250-2	SOCKET HEAD CAP SCREW 1/4-20 X 1.50 INCH	8
39	76-85-2	NUT - KEPS 1/4-20	2
40	145-320-2	FITTING - 7/16 INCH SWIVEL NUT ELBOW	11
41	145-477-2	FITTING - STRAIGHT THREAD ADAPTOR	8
42	108-287-3	VALVE ASSEMBLY TCR MANIFOLD (See Sheet 9)	1
43	75-29-2	HEX HEAD CAP SCREW 1/4-20 X .75 INCH (FULL-THREAD)	4
44	28-124-2	HOLDER - UHMW BEARING	16
45	130-245-2	BEARING - VERTICAL	16
46	74-240-2	HEX HEAD CAP SCREW 3/8-16 X 1.25 INCH GRADE 5	32
47	75-45-2	SOCKET SET SCREW 1/4-20 X 1 1/4 INCH	8
48	Field Purchase	ADHESIVE - LOCTITE 242	A/R
49	38-1273-3	CABLE ASSEMBLY - HYDRAULIC VALVE CONTROL	2
50	38-1271-3	CABLE ASSEMBLY - DAQ TO PROP VALVES	1



IEC 100L UNITS



NEMA 56 UNITS



HYDRAULIC MANIFOLD AND PUMP PORTS IDENTIFIED FOR HOSE IDENTIFICATION (SEE FOLLOWING SHEET)

# HYDRAULIC MANIFOLD

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

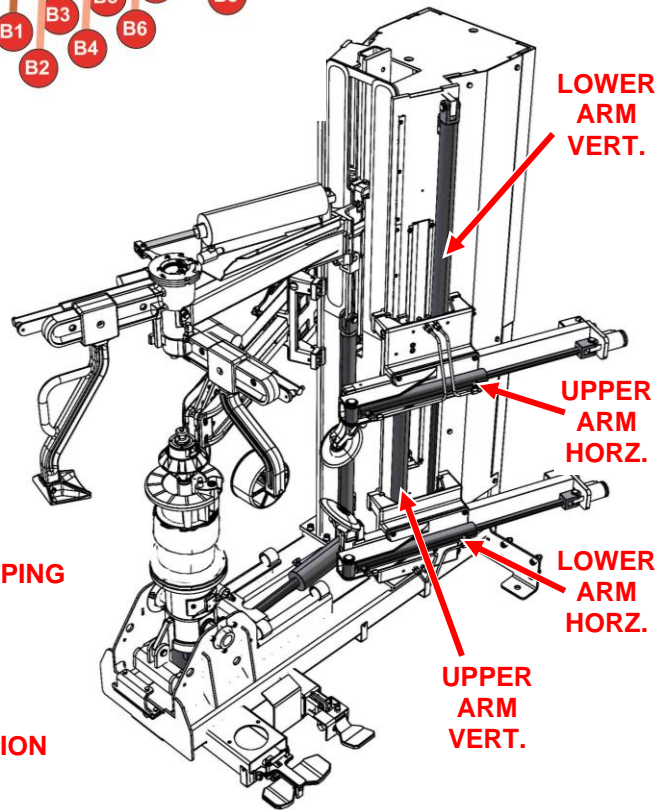
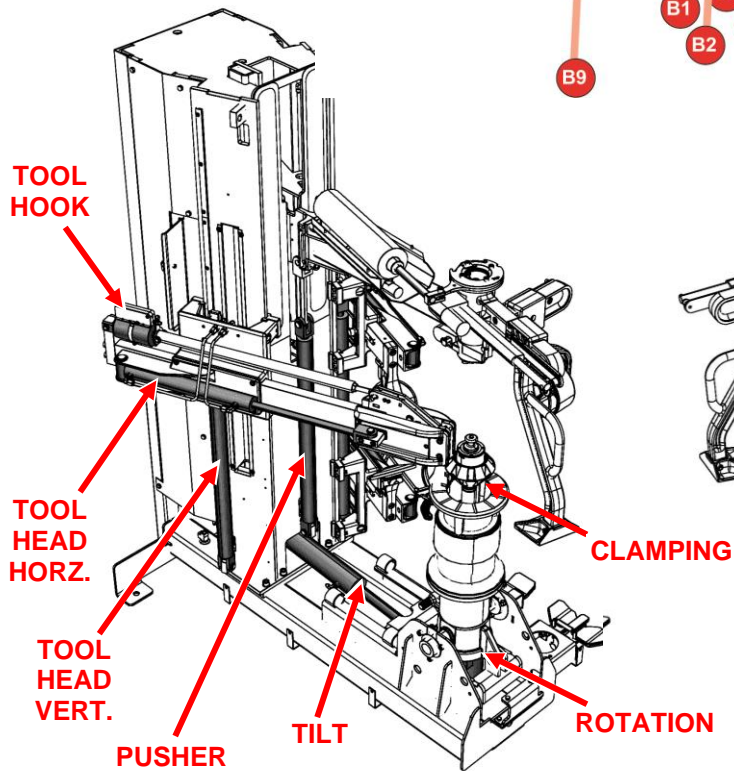
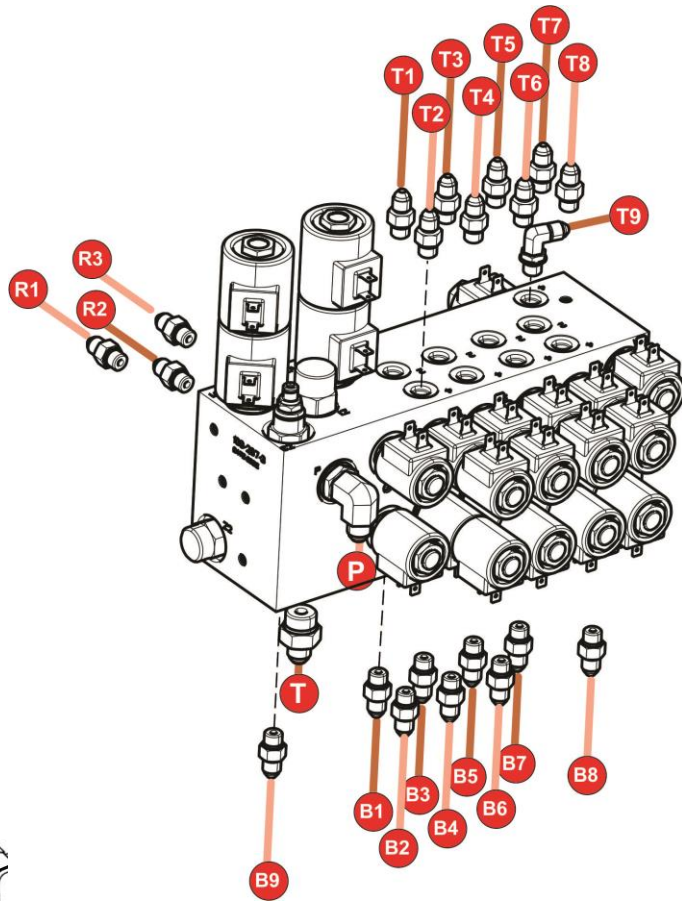
Index No.	Part Number	Description	Qty.
1	108-287-3	MANIFOLD, TCR HYDRAULIC(Consisting of:)	1
2	185-52-2	MANIFOLD - TCR HYDRAULIC (Not Available)	1
3*	108-273-2**	VALVE - PROP 5 WAY 3 POSITION	2
4	108-250-2	VALVE - COUNTERBALANCE	1
5	108-214-2	VALVE - PRESSURE COMPENSATOR	1
6	108-215-2	VALVE - LOAD SHUTTLE	1
7*	108-271-2**	VALVE - PROP 2 WAY NORMALLY-CLOSED	2
8*	108-272-2**	VALVE - DIRECTIONAL 4 WAY 3 POSITION CC*	8
9	108-253-2	VALVE - LOGIC ELEMENT (UNLOADING VALVE***)	1
10	108-219-2	VALVE - CHECK	3
11	145-428-2	FITTING - SAE 37 DEGREE STRAIGHT	20
12	145-458-2	FITTING - 6-8 SAE STRAIGHT THREAD CONNECTOR	1
13	145-336-2	FITTING - EXPANSION PLUG (Not Field Serviceable)	25
14	108-221-2	VALVE - ORIFICE DISK	2
15	145-471-2	FITTING - 6-8 SAE 90 DEGREE ELBOW	1
16	108-284-2	VALVE - PRESSURE REDUCING	1
17	108-288-2	VALVE-2 WAY 2 POS NO	1
18	108-290-2	VALVE-4 WAY 2 POS	1
19	145-430-2	FITTING-4-4 SAE 37 DEG ELBOW	1
20	148-128-2	FLUID - DEXRON III 5 GALLON BUCKET	1
21	145-471-2	FITTING - 6-8 SAE 90 DEGREE ELBOW	2
22	21-937-2	CONNECTOR - WIRE NUT	2
23	38-1273-1	CABLE ASSEMBLY - HYDRAULIC VALVE CONTROL	Ref.
24	38-1271-1	CABLE ASSEMBLY - DAQ TO PROP VALVES	Ref.
25	Replacement Kit	HYD. POWER UNIT (See Sheet 21)	Ref.

\*\* Replacement valves without solenoid coil are available for order by service reps to replace valves with debris issues. Replacement coils are also available.

- For 108-273-2 (item 3), the valve only replacement part is 108-244-2 and coil only replacement part is 50-108-2.
- For 108-271-2 (item 7), the valve only replacement part is 108-245-2 and coil only replacement part is 50-107-2.
- For 108-272-2 (item 8), the valve only replacement part is 108-259-2 and coil only replacement part is 50-107-2.

\*\*\* In service manual 6701-T, this valve is referred to as "Pressure Compensating Unloading Valve."

**HYDRAULIC  
MANIFOLD  
PORTS  
IDENTIFIED**



**HYDRAULIC CYLINDERS  
IDENTIFIED**

**HYDRAULIC HOSES**

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

PARTS DESCRIPTION LISTING

Top Manifold Ports

	Port ID	Stamped* Valve/Port	ID Color (# ties)	Part Number	Hose Description
Lower Arm - Vertical		V4			
Rod Port	T1	2	Green (single)	137-132-3	HOSE - 1/4 INCH ID HYDRAULIC 18 INCH LONG
Cap Port	T2	4	Green (double)	137-128-3	HOSE-ASSEMBLY HYDRAULIC 1/4 X 44 INCH
Upper Arm – Horiz.		V5			
Rod Port	T3	2	Blue (single)	137-123-3	HOSE-ASSEMBLY HYDRAULIC 1/4 X 80 INCH
Cap Port	T4	4	Blue (double)	137-122-3	HOSE-ASSEMBLY HYDRAULIC 1/4 X 84 INCH
Tool Head – Horiz.		V6			
Cap Port	T5	2	White (single)	137-123-3	HOSE-ASSEMBLY HYDRAULIC 1/4 X 80 INCH
Rod Port	T6	4	White (double)	137-122-3	HOSE-ASSEMBLY HYDRAULIC 1/4 X 84 INCH
Tool Hook		V7			
Rod Port	T7	2	Grey (single)	137-124-3	HOSE-ASSEMBLY HYDRAULIC 1/4 X 76 INCH
Cap Port	T8	4	Grey (double)	137-124-3	HOSE-ASSEMBLY HYDRAULIC 1/4 X 76 INCH
Clamping		V13 / V14			
Port	T9	4		137-123-3	HOSE-ASSEMBLY HYDRAULIC 1/4 X 80 INCH

Bottom Manifold Ports

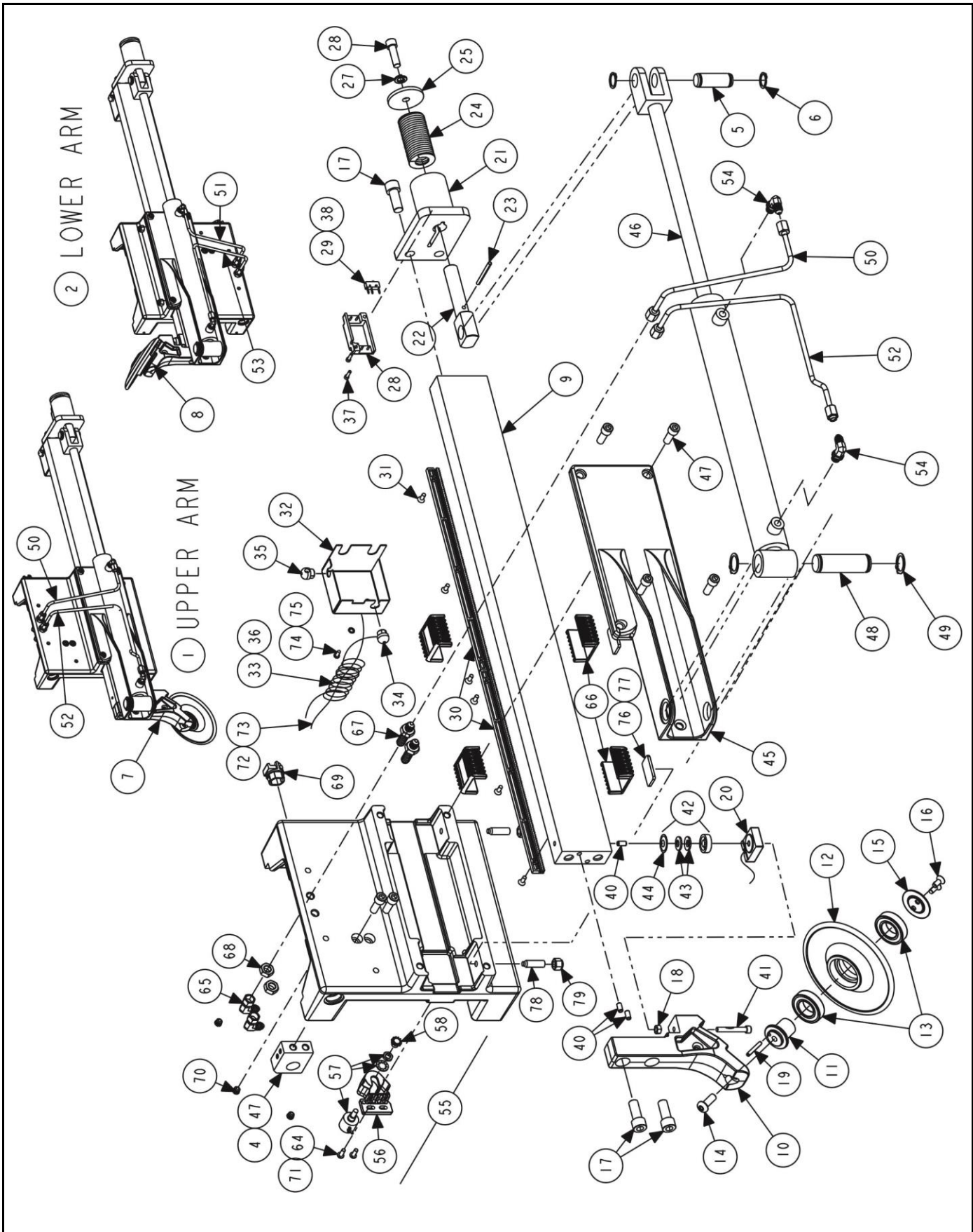
	Port ID	Stamped* Valve/Port	ID Color (# ties)	Part Number	Hose Description
Upper Arm - Vertical		V9			
Rod Port	B1	2	Orange (single)	137-129-3	HOSE - 1/4 INCH ID HYDRAULIC 36 INCH LONG
Cap Port	B2	4	Orange (double)	137-131-3	HOSE - 1/4 INCH ID HYDRAULIC 22 INCH LONG
Lower Arm – Horiz.		V10			
Rod Port	B3	2	Red(single)	137-126-3	HOSE - ASSEMBLY HYDRAULIC 1/4 X 56 INCH
Cap Port	B4	4	Red (double)	137-125-3	HOSE - ASSEMBLY HYDRAULIC 1/4 X 60 INCH
Pusher		V11			
Rod Port	B5	2	Purple (single)	137-129-3	HOSE - 1/4 INCH ID HYDRAULIC 36 INCH LONG
Cap Port	B6	4	Purple (double)	137-132-3	HOSE - 1/4 INCH ID HYDRAULIC 18 INCH LONG
Tool Head - Vertical		V12			
Rod Port	B7	2	Yellow (single)	137-129-3	HOSE - 1/4 INCH ID HYDRAULIC 36 INCH LONG
Cap Port	B8	4	Yellow (double)	137-132-3	HOSE - 1/4 INCH ID HYDRAULIC 18 INCH LONG
Spindle (tilt)		V1			
Cap Port	B9	2	Blue	137-131-3	HOSE - 1/4 INCH ID HYDRAULIC 22 INCH LONG
Power Unit		-			
Pump (supply)	P	P	N/A	137-148-3	HOSE - ASSEMBLY HYDRAULIC 3/8 X 30 INCH
Tank			N/A	137-148-3	HOSE - ASSEMBLY HYDRAULIC 3/8 X 30 INCH

Rear Manifold Ports

	Port ID	Stamped* Valve/Port	ID Color (# ties)	Part Number	Hose Description
Spindle (tilt)		V1			
Rod Port	R1	4	Orange	137-129-3	HOSE - 1/4 INCH ID HYDRAULIC 36 INCH LONG
Spindle (rotation).		V2			
Rod Port	R2	2	White	137-134-3	HOSE - ASSEMBLY HYDRAULIC 1/4 X 76 INCH
Cap Port	R3	4	Mauve	137-134-3	HOSE - ASSEMBLY HYDRAULIC 1/4 X 76 INCH

\* Lists the valve associated to the port and the identify mark next to the port. Valve V1 & V2 are located on TOP. Valve V14 is located on rear. Valve V3 through V13 are located on FACE of manifold. Port identifying number is stamped next to each port on manifold.





## UPPER AND LOWER BEAD BREAKER ARMS

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
1	103-216-1	ARM ASSEMBLY - UPPER BB (Shown assembled and exploded)	1
2	103-217-1	ARM ASSEMBLY - LOWER BB (Shown assembled)	1
3	56-73-2	CARRIER - CARRIAGE MACH	1
4	11-1432-2	SUPPORT - CYLINDER MOUNT EYE	1
5	135-505-2	PIN - CLEVIS 3/4 X 1.688 INCH	1
6	112-63-2	SNAP RING - TRUARC #5100-75	2
7	103-229-1	ARM ASSEMBLY - UPPER SUBASSEMBLY (Unique to upper arm)	1
8	103-230-1	ARM ASSEMBLY - LOWER SUBASSEMBLY (Unique to lower arm)	1
9	114-98-2	SLIDE - BEAD ROLLER	1
10	14-1745-2*	RACKET-END EFFECTOR (Aug 2018 upgrade)	1
OR	14-1602-2**	END - EFFECTOR BRACKET	1
11	97-688-2*	SHAFT-BEAD ROLLER AXLE (Aug 2018 upgrade)	1
OR	97-623-2**	SHAFT - BEAD BREAKER END EFFECTOR AXLE	1
12	111-154-3*	ROLLER ASSEMBLY- BEAD (roller with bearings)	1
13	130-212-2	BEARING - 6005	2
14	74-632-3*	SOCKET BUTTON HD CAP SCREW 7/16-14X1.00 (Aug 2018 upgrade)	1
OR	74-517-3**	SOCKET BUTTON HEAD CAP SCREW 3/8-16 X 1.0 IN (FULL-THRD)	1
15	41-207-2*	RETAINER - BEAD BREAKER ROLLER	1
16	75-385-3	FLAT HEAD SOCKET CAP SCREW 1/4-20 X .63 INCH	2
17	74-581-3	SOCKET HEAD CAP SCREW 1/2-13X1.25 INCH	4
18	76-368-2*	NUT LOCK 1/4-20 NYLON INSERT	1
19	135-141-2*	PIN - ROLL 3/16 X 1 1/4 INCH	1
20	125-487-1	SENSOR, PIEZO FIELD SERVICE	1
21	14-1351-1-005	BRACKET - COMPLIANCE SWITCH	1
22	63-280-2	ROD - EYE- BEAD BREAKER	1
23	135-517-2	PIN - SPLIT 3/16-2	1
24	98-454-2	SPRING - DIE 1.5 OD .75 RD 3.5 INCH LONG	1
25	77-379-2	WASHER - BEAD BREAKER SPRING RETAINER	1
26	74-575-2	SOCKET HEAD CAP SCREW 3/8-16 X 1.25 INCH (FULL-THREAD)	1
27	77-216-2	WASHER - LOCK HI-COLLAR 3/8 INCH	1
28	105-626-2	HOUSING - LIMIT-SWITCH 1	1
29	18-350-2	SWITCH - HANGER	1
30	99-145-2	RACK - POSITION SENSOR 24 PITCH	2
31	75-940-3	FLAT HEAD MACHINE SCREW 10-32 X .50 INCH	6
32	67-731-1	BOX - JUNCTION TIRE CHANGER COMPLIANCE	1
33	38-1175-3	CABLE ASSEMBLY - ARM INLINE COILED	1
34	59-35-2	STRAIN RELIEF - RA HEYCO 1374	1
35	59-65-2	STRAIN RELIEF - HEYCO #1361	1
36	37-685-1*	WIRE ASSEMBLY-PIEZO CURRENT LIMIT	1
37	75-116-2	SOCKET HEAD CAP SCREW 6-32 X .50 INCH (FULL-THREAD)	2
38	37-703-1	WIRE ASSEMBLY - COMPLIANCE SWITCH	1
39	Field Purchase	ADHESIVE - LOCTITE 242	A/R
40	135-163-2	PIN - DOWEL 1/4 X 1/2 INCH LONG STEEL	3
41	75-836-3*	SOCKET HEAD CAP SCREW 1/4 - 20 SPECIAL	2

\* Noted items (on this page and following page) are contained within Piezo Field Service Kit 20-3014-1.

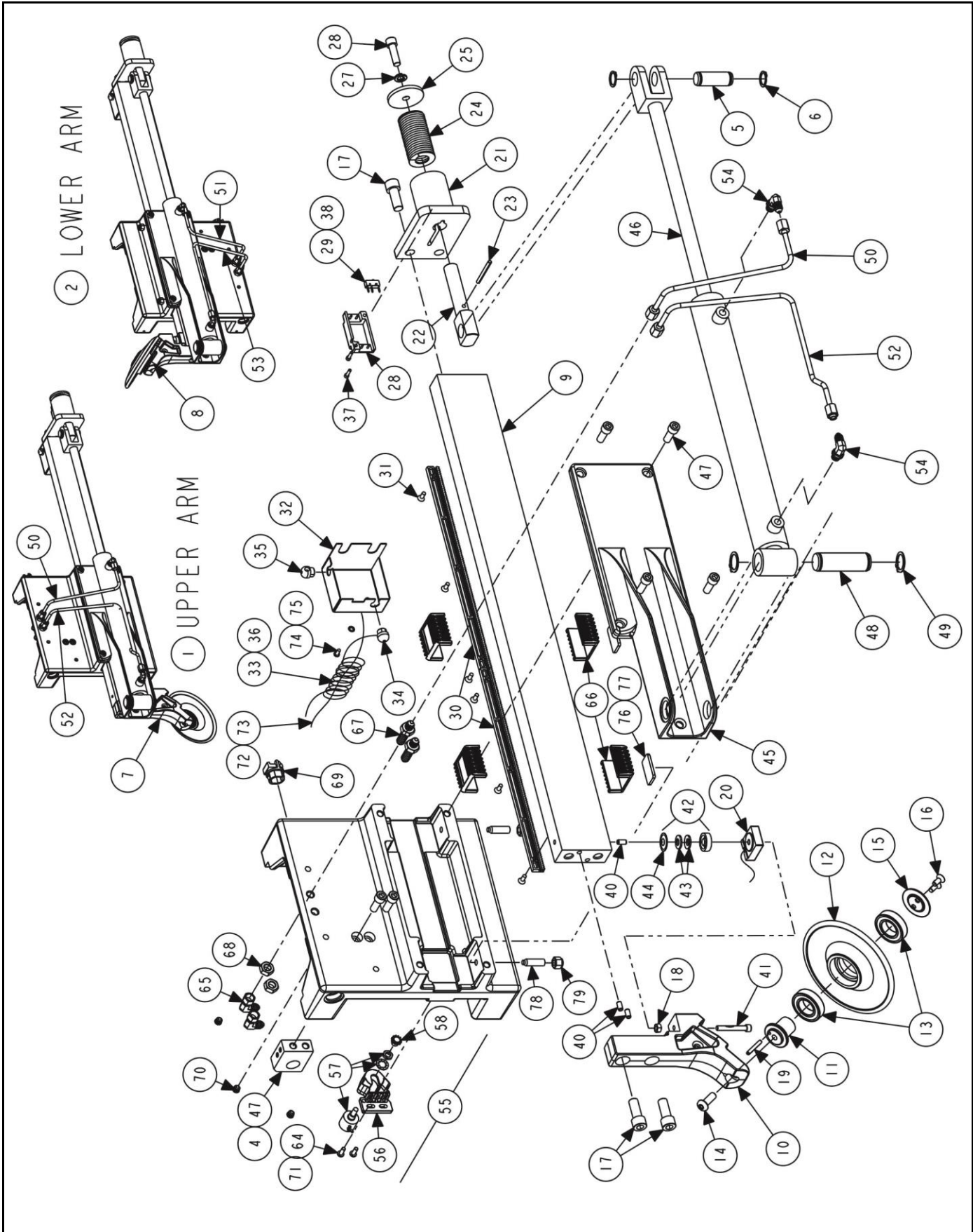
\*\* Kit 20-3505-1 is available to upgrade assemble to design with a larger axle bolt (item 14). (See Service Bulletin 18-046 or F-18-11.)

See following table for items 42 through 79.

**HUNTER**  
Engineering Company

11250 HUNTER DRIVE BRIDGETON, MO 63044

PPP-Paint Code Required  
A/R-As Required  
REF-Reference



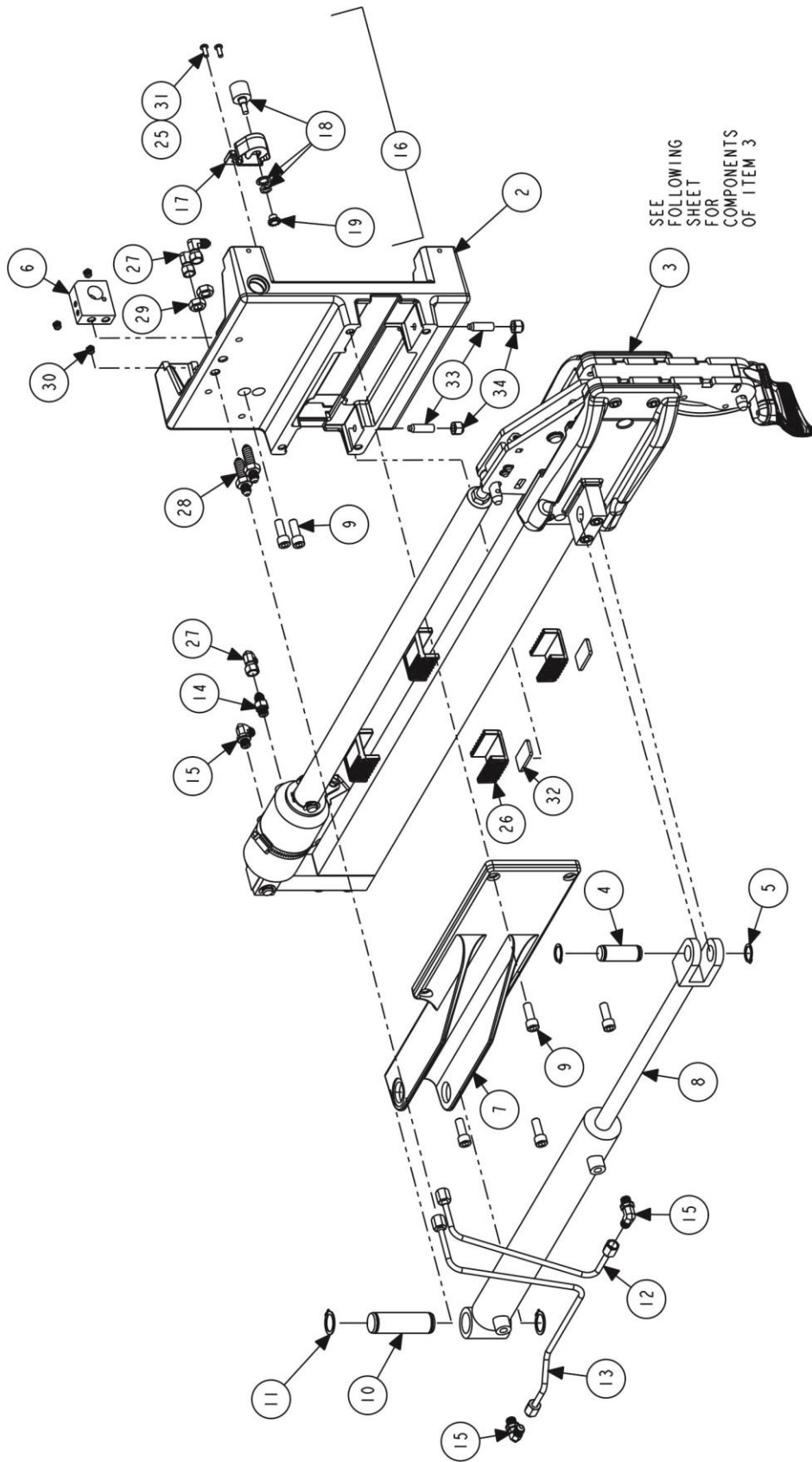
UPPER AND LOWER BEAD BREAKER ARMS (continued)

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
-	103-216-1	ARM ASSEMBLY - UPPER BB (Continued from previous table)	Ref.
-	103-217-1	ARM ASSEMBLY - LOWER BB (Continued from previous table)	Ref.
42	98-511-1*	SPRING ASSEMBLY – BELLEVILLE (Includes:)	1
43	98-511-1	SPRING – BELLEVILLE .375 INCH ID	2
44	162-184-2	TAPE-1 INCH DIAMETER DISC	1
45	69-1385-2	COVER - CARRIAGE 2 MACH	1
46	140-100-2	CYLINDER - HYDRAULIC 38 MM BR X 20 RD X 305 STK	1
47	74-578-3	SOCKET HEAD CAP SCREW 3/8-16 X 1.00 INCH (FULL-THREAD)	6
48	135-507-2	PIN - CLEVIS 1 X 2.75 INCH	1
49	112-88-2	SNAP RING - TRUARC 5100-100	2
50	16-1010-3	TUBE - 1/4 INCH ASSEMBLY (Unique upper arm component)	1
51	16-1014-3	TUBE ASSEMBLY - 1/4 INCH HYDRAULIC (Unique to lower arm)	1
52	16-1138-3	TUBE ASSEMBLY - 1/4 INCH OFFSET (Unique upper arm part)	1
53	16-1015-3	TUBE ASSEMBLY - 1/4 INCH HYDRAULIC (Unique to lower arm)	1
54	145-430-2	FITTING - 4-4 SAE 37 DEGREE ELBOW	2
55	125-489-1	SENSOR – T/C HORIZONTAL POSITION (Consisting Of:)	1
56-59	20-3504-1	KIT – POSITION SENSOR	1
60-63	Not Used	Not Used	-
64	75-867-2	SOCKET BUTTON HEAD CAP SCREW 10-32 X 1/2 INCH	2
65	145-320-2	FITTING - 7/16 SWIVEL NUT ELBOW	2
66	130-246-2	BEARING - HORIZONTAL	4
67	145-448-2	FITTING - BULKHEAD UNION	2
68	76-495-2	NUT - BULKHEAD UNION	2
69	59-67-2	STRAIN RELIEF - RSR-875	1
70	94-37-2	TIE - HOLDER SNAP-IN .312 INCH HOLE	3
71	Field Purchase	ADHESIVE - LOCTITE 242	A/R
72	94-11-2	TIE-CABLE	5
73	37-684-1	WIRE ASSEMBLY- GROUND	1
74	75-32-2	ROUND HEAD MACHINE SCREW 8-32 X 3/8 INCH	1
75	77-14-2	WASHER-LOCK 8 INTERNAL TOOTH	1
76	169-163-2	SHIM-1.5 X 1.5 X .010	A/R
77	51-3025*	PLATE-ADJUSTMENT	2
78	75-882-2*	SOCKET SET SCREW-3/8-16 X 1.25 INCH DOG POINT	2
79	76-275-2*	NUT-LOCK 3/8-16 NYLON INSERT	2

\* Noted items (on this page and previous page) are contained within Piezo Field Service Kit 20-3014-1.  
See previous table for items 1 through 41.



## MOUNT / DEMOUNT ARM

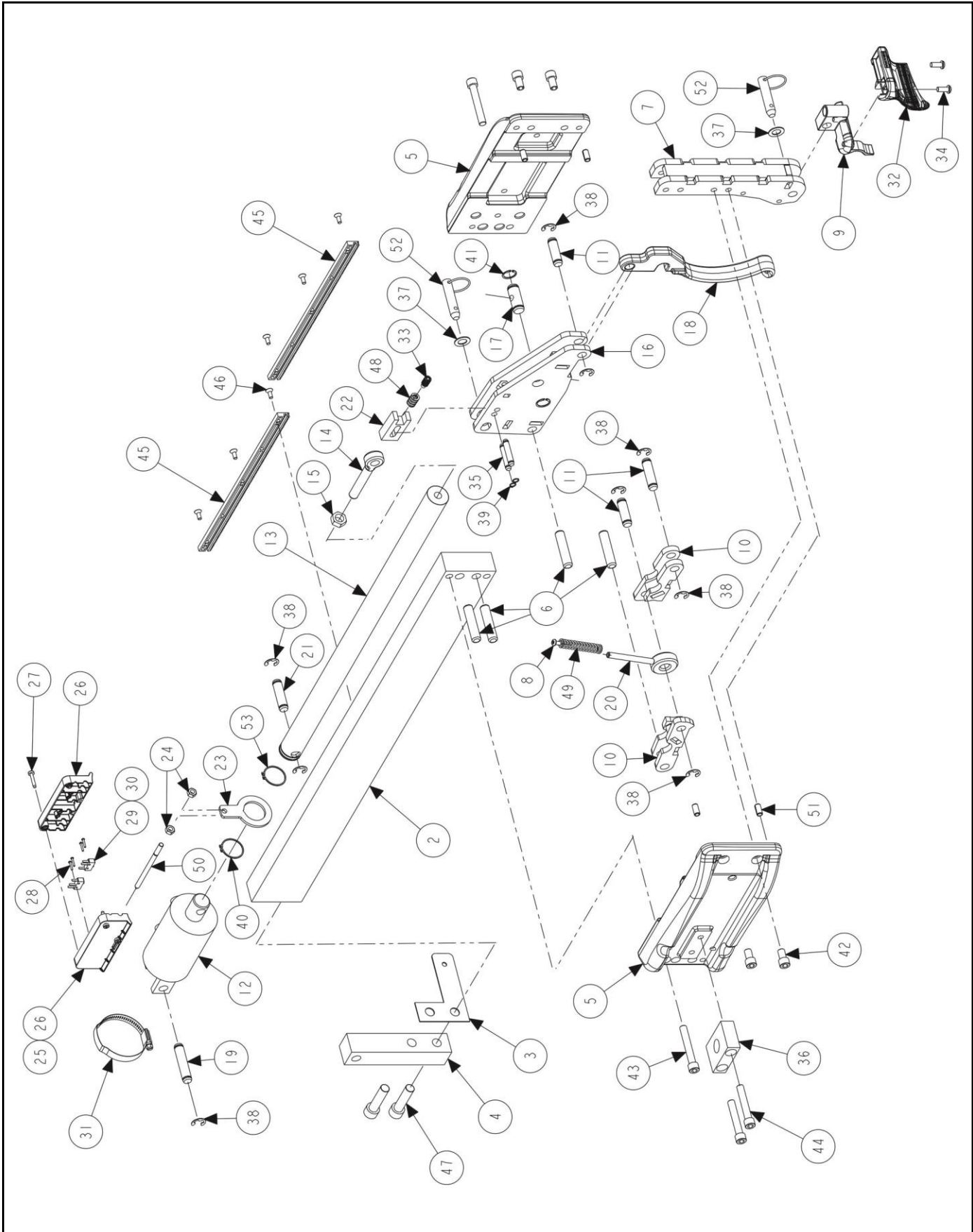
REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Form CD07825-00, 10-20a

Sheet 13 of 29

Index No.	Part Number	Description	Qty.
1	103-218-1	ARM ASSEMBLY - MOUNT / DEMOUNT (Consisting of:)	1
2	56-73-2	CARRIER - CARRIAGE MACH	1
3	103-228-1	ARM ASSEMBLY - MOUNT/DEMOUNT SUB (See sheet 13)	1
4	135-505-2	PIN - CLEVIS 3/4 X 1.688 INCH	1
5	112-63-2	SNAP RING - TRUARC #5100-75	2
6	11-1432-2	SUPPORT - CYLINDER MOUNT EYE	1
7	69-1385-2	COVER - CARRIAGE 2 MACH	1
8	140-100-2	CYLINDER - HYDRAULIC 38 MM BR X 20 RD X 305 STK	1
9	74-578-3	SOCKET HEAD CAP SCREW 3/8-16 X 1.00 INCH (FULL-THREAD)	6
10	135-507-2	PIN - CLEVIS 1 X 2.75 INCH	1
11	112-88-2	SNAP RING - TRUARC 5100-100	2
12	16-1010-3	TUBE - 1/4 INCH ASSEMBLY	1
13	16-1011-3	TUBE - 1/4 INCH ASSEMBLY	1
14	145-229-2	FITTING - STRAIGHT THREAD ADAPTOR	1
15	145-430-2	FITTING - 4-4 SAE 37 DEGREE ELBOW	3
16	125-489-1	SENSOR - TIRE CHANGER HORZ POSITION (Consisting Of:)	1
17-20	20-3504-1	KIT - POSITION SENSOR	1
21-24	Not Used	Not Used	-
25	75-867-2	SOCKET BUTTON HEAD CAP SCREW 10-32 X 1/2 INCH	2
26	130-246-2	BEARING - HORIZONTAL	4
27	145-320-2	FITTING - 7/16 INCH SWIVEL NUT ELBOW	3
28	145-448-2	FITTING - BULKHEAD UNION	2
29	76-495-2	NUT - BULKHEAD UNION	2
30	94-37-2	TIE - HOLDER SNAP-IN .312 INCH HOLE	3
31	Field Purchase	ADHESIVE - LOCTITE 242	A/R
32	51-3025	PLATE-ADJUSTMENT	2
33	75-882-2	SOCKET SET SCREW-3/8-16 X 1.25 INCH DOG POINT	2
34	76-275-2	NUT-LOCK 3/8-16 NYLON INSERT	2

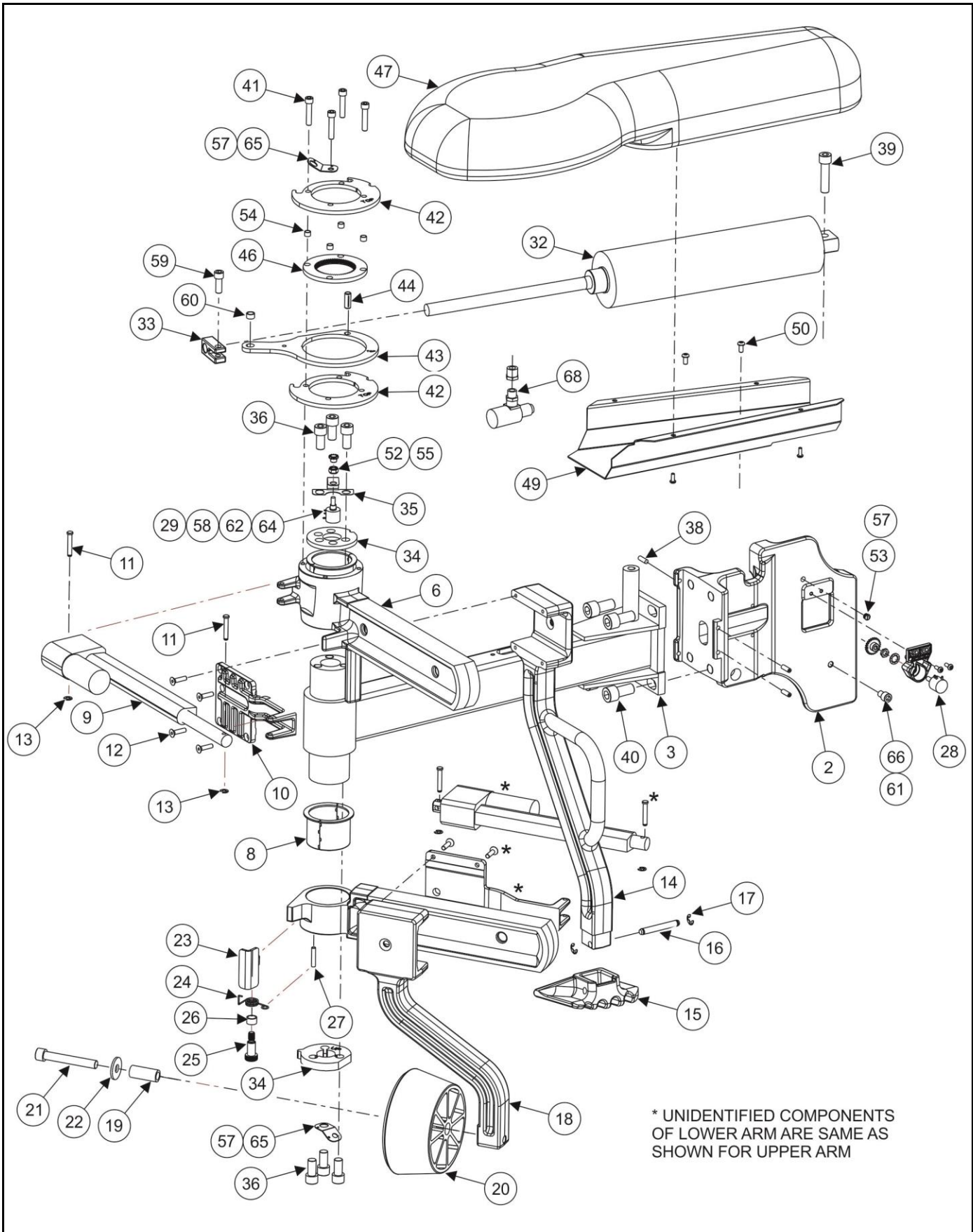


**MOUNT / DEMOUNT ARM SUB-ASSEMBLY**

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
1	103-228-1	ARM ASSEMBLY-MOUNT / DEMOUNT SUB (Consisting of:)	1
2	114-103-2	SLIDE ASSEMBLY - TOOL HEAD (includes two pins (item 6))	1
3	14-1347-005	BRACKET - TOOL HEAD HOSE	1
4	14-1328-2	BRACKET - TOOL HEAD CYLINDER	1
5	71-212-2	SIDE - TOOLHEAD	2
6	135-514-2	PIN - DOWEL 1/2 X 2.25 INCH STEEL	2
7	103-208-1-005	ARM ASSEMBLY - TOOL MOUNT	1
8	75-847-2	SOCKET BUTTON HEAD CAP SCREW 10-32 X 3/8 INCH (FULL-THREAD)	1
9	221-718-2	TOOL - MOUNT INSERT	1
10	120-110-1	LINK - COMPLIANT	2
11	135-501-2	PIN - CLEVIS 1/2 X 1.25 INCH	3
12	140-92-2	CYLINDER - HYDRAULIC 60 MM BR X 25 RD X 48 STK	1
13	63-294-2	DRAWBAR - TCR1	1
14	74-572-2	EYEBOLT 1/2 X 1/2-13 X 2.5 INCH LONG	1
15	76-16-2	NUT - JAM 1/2-13	1
16	103-204-1	ARM - LIFT TIRE CHANGER TOOL	1
17	135-503-2	PIN - COMPLIANCE	1
18	221-723-1	HOOK - DEMOUNT TOOL ASSEMBLY	1
19	135-508-2	PIN - CLEVIS 1/2 X 2.0 INCH	1
20	63-278-3	RODEYE - COMPLIANT ASSEMBLY	1
21	135-502-2	PIN - CLEVIS 1/2 X 1.5 INCH	1
22	121-279-2	BLOCK - TOOL COMPLIANCE	1
23	51-2643	PLATE - TOOLHEAD LIMIT SWITCH PULL	1
24	76-85-2	NUT - KEPS 1/4-20	2
25	105-623-1	HOUSING - ASSEMBLY TOOL LIMIT SWITCH (Consisting Of:)	1
26	105-622-2	HOUSING - TOOLHEAD LIMIT SWITCHES	2
27	75-740-2	SCREW - SELF-TAPPING PAN HEAD SHEET METAL SCREW 8-18 HI-LO	4
28	75-829-2	SCREW - SELF-TAPPING 2-28 X 1/2 INCH TORX	4
29	38-1162-1	CABLE - ASSEMBLY TOOL HEAD LIMIT SWITCH (Includes:)	1
30	18-350-2	SWITCH - HANGER	2
31	12-225-2	CLAMP - HOSE 2-1/16 TO 3 X 1/2 INCH	1
32	221-713-2	TOOL - MOUNT PLASTIC OUTER	1
33	75-789-3	SOCKET SET SCREW 3/8-16 X 3/4 INCH	1
34	75-849-2	SOCKET BUTTON HEAD CAP SCREW 1/4-20 X 3/4 INCH	2
35	135-512-2	PIN - CLEVIS 5/16 X 1.25 INCH	2
36	121-285-2	BLOCK - TOOL HEAD CLEVIS	1
37	77-294-2	WASHER - FLAT 1/2 ID X 7/8 INCH OD	2
38	112-15-2	SNAP RING - #5133-50 OR EQUAL	10
39	112-152-2	SNAP RING - #5133-031	4
40	112-168-2	SNAP RING - #5101-125	1
41	112-94-2	SNAP RING - 5108-062 TRUARC	2
42	74-577-3	SOCKET HEAD CAP SCREW 3/8-16 X .63 INCH (FULL-THREAD)	4
43	74-579-3	SOCKET HEAD CAP SCREW-3/8-16 X 2.50 INCH LONG	2
44	74-582-3	SOCKET HEAD CAP SCREW 3/8-16 X 2.25 INCH LONG	2
45	99-145-2	RACK - POSITION SENSOR 24 PITCH	2
46	75-940-3	FLAT HEAD MACHINE SCREW 10-32 X .50 INCH	6
47	74-576-3	SOCKET HEAD CAP SCREW 1/2-13 X 2.00 INCH (FULL-THREAD)	2
48	98-469-2	SPRING - DIE .50 OD X 1 INCH LONG	1
49	98-455-2	SPRING - COMPRESSION .5 OD X 2.5 X .071 INCH	1
50	63-281-2	ROD - LIMIT SWITCH ACTUATOR	1
51	135-226-2	PIN - ROLL 5/16 X 5/8 INCH LONG	4
52	135-548-2	PIN - CLEVIS BALL DETENT 1/2 X 1.5 INCH USABLE LENGHT	2
53	112-168-2	SNAP RING - #5101-125	1



## PUSHER ASSEMBLY

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

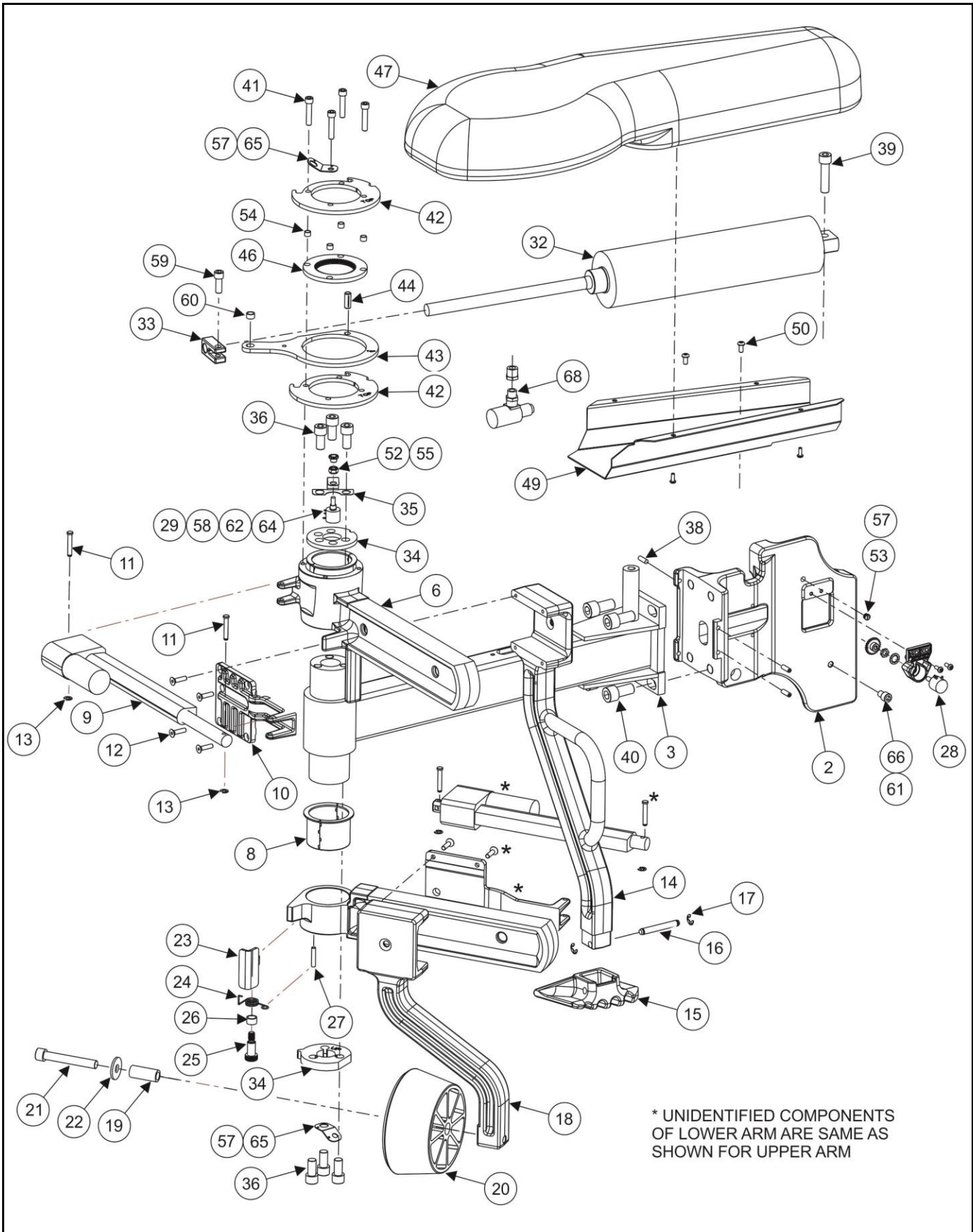
## PARTS DESCRIPTION LISTING

Form CD07825-00, 10-20a

Sheet 15 of 29

Index No.	Part Number	Description	Qty.
1	103-306-1	ARM ASM-TCR-H PUSHER (Consisting Of:)	1
2	56-66-2	CARRIER - TIRE CHANGER PUSHER	1
3	118-763-1-005	BEAM - PUSHER SUPPORT TCR-H	1
4	103-307-1	ARM - PUSHER ROTATIONAL UPPER (Consisting of items 6, 8 - 18)	1
5	103-308-1	ARM - PUSHER ROTATION LOWER (Cons. of items 7-14 and 19-23)	1
6	103-312-1	ARM ASSEMBLY - UPPER PUSHER (Includes bearing pressed in)	1
7	103-313-1	ARM ASSEMBLY - LOWER PUSHER (Includes bearing pressed in)	1
8	130-256-2	BEARING PUSHER ARM – SPLIT (qty 2 required to make a bearing)	2
9	140-91-2	CYLINDER - ELECTRIC ACTUATOR TIRE CHANGER PUSHER	1
10	69-1686-2	COVER - PUSHER ARM	1
11	135-664-2	PIN, CLEVIS 1/4 X 1.406 INCH UL	2
12	75-226-2	FLAT HEAD SOCKET CAP SCREW 1/4-20 X 1.00 INCH	4
13	112-182-2	RETAINING RING 1/4 E-STYLE	2
14	103-194-2	ARM - TIRE CHANGER PUSHER LONG (UPPER ARM ONLY)	1
15	62-52-2	FOOT - TIRE CHANGER PUSHER (UPPER ARM ONLY)	1
16	135-506-2	PIN - CLEVIS 3/8 X 2.5 INCH (UPPER ARM ONLY)	1
17	112-14-2	SNAP RING #5133-37 OR EQUAL (UPPER ARM ONLY)	2
18	103-195-2	ARM - TIRE CHANGER PUSHER SHORT (LOWER ARM ONLY)	1
19	106-172-2	SLEEVE – TIRE CHANG PUSHER BP ROLLER (LOWER ARM ONLY)	1
20	111-134-2	ROLLER - TIRE CHANGER PUSHER (LOWER ARM ONLY)	1
21	74-324-2*	SHC SCREW 1/2-13 X 3.50 INCH GRADE 8 (LOWER ARM ONLY)	1
22*	77-214-2	WASHER - FLAT 1/2 INCH SPECIAL (LOWER ARM ONLY)	1
23	144-184-2	PAWL ASM-LEVER PUSHER	1
24	98-561-2	SPRING-TORSION	1
25	74-663-3	BOLT-SHOULDER 1/2X.875 INCH	1
26	106-227-2	SLEEVE-.626X.5X.375 INCH	1
27	135-121-2	PIN-ROLL 1/4X1 1/4 INCH	1
28	20-3504-1	KIT – POSITION SENSOR (Use kit items listed below)	1
-	93-72-1	POT ASSEMBLY - 10 TURN, D-SHAFT	1
-	14-1633-2	BRACKET - POSITION SENSOR	1
-	99-186-2	GEAR - 24 T, 24 DP, D-SHAFT	1
-	75-867-3	SOCKET BUTTON HEAD CAP SCREW 10-32X.50 INCH COATED	2
29	20-3504-1	KIT – POSITION SENSOR (Use kit items listed below)	1
-	93-72-1	POT ASSEMBLY - 10 TURN, D-SHAFT	1
-	99-185-2	GEAR - 12 T, 24 DP, D-SHAFT	1

See following table for items 32 through 71.



### PUSHER ASSEMBLY (continued)

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
	103-306-1	ARM ASM-TCR-H PUSHER (Consisting Of:)	Ref.
32	140-89-2	CYLINDER - PNEUMATIC 3 INCH X 10 INCH	1
33	175-411-2	ADAPTOR - TIRE CHANGER PUSHER CYLINDER ROD	1
34	51-2446-005	PLATE - TIRE CHANGER PUSHER HUB RETAINER	1
35	14-1343	BRACKET - PUSHER POTENTIOMETER	1
36	74-107-3	SOCKET HEAD CAP SCREW 1/2-13 X 1.00 INCH (FULL-THREAD)	6
37	75-867-2	SOCKET BUTTON HEAD CAP SCREW 10-32 X .50 IN	4
38	75-71-2	SOCKET SET SCREW 1/4-20 X 3/4 INCH	4
39	74-576-3	SOCKET HEAD CAP SCREW 1/2-13 X 2.00 INCH (FULL-THREAD)	1
40	74-499-2	SOCKET HEAD CAP SCREW - 5/8 - 18 X 1.25 INCH LONG	4
41	74-583-3	SOCKET HEAD CAP SCREW 5/16-18 X 1.50 INCH (FULL-THREAD)	4
42	51-3206	PLATE - PUSHER DRIVE	2
43	51-3163-1	PLATE - PUSHER ACTUATOR	1
44	135-652-2	PIN - DRIVE LOK 3/8 X 1 INCH	1
46	99-142-2	GEAR - PUSHER RING	1
47	69-1438-2	COVER - TIRE CHANGER PUSHER DRIVE	1
48	Field Purchase	ADHESIVE - LOCTITE #603	A/R
49	14-1465-005	BRACKET - PUSHER COVER MOUNTING	1
50	75-848-2	SOCKET BUTTON HEAD CAP SCREW 1/4-20 X 1/2 INCH	2
52	76-509-2	NUT - CUSTOM POTENTIOMETER	1
53	94-37-2	TIE - HOLDER SNAP-IN .312 INCH HOLE	1
54	106-188-2	SLEEVE - PUSHER RING GEAR	4
55	Field Purchase	ADHESIVE - THREAD LOCK STICK (Loctite 248 Blue)	A/R
57	94-22-2	TIE-CABLE	5
58	15-36-2	TUBING - SPIRAL WRAP	1
59	74-578-3	SOCKET HEAD CAP SCREW 3/8-16 X 1.00 INCH (FULL-THREAD)	1
60	106-191-2	SPACER - TIRE CHANGER PUSHER DRIVE YOKE	1
61	12-236-2	CLAMP - 1 INCH DIAMETER HOSE CLAMP	1
62	38-1161-1	CABLE ASSEMBLY - PUSHER HORIZONTAL / CONTROL BOARD	1
63	38-1171-1	CABLE ASSEMBLY - CONTROL BOARD-PUSH SENSOR	1
64	38-1173-1	CABLE ASSEMBLY - PUSH ROT TO PUSH BOARD	1
65	14-1544	BRACKET - PUSHER WIRE ROUTING	2
66	74-427-2	SOCKET HEAD CAP SCREW .375-16X.50 INCH	1
68	108-148-2	VALVE - QUICK EXHAUST WITH MUFFLER (See Sheet 18)	REF.

See previous table for items 1 through 31.

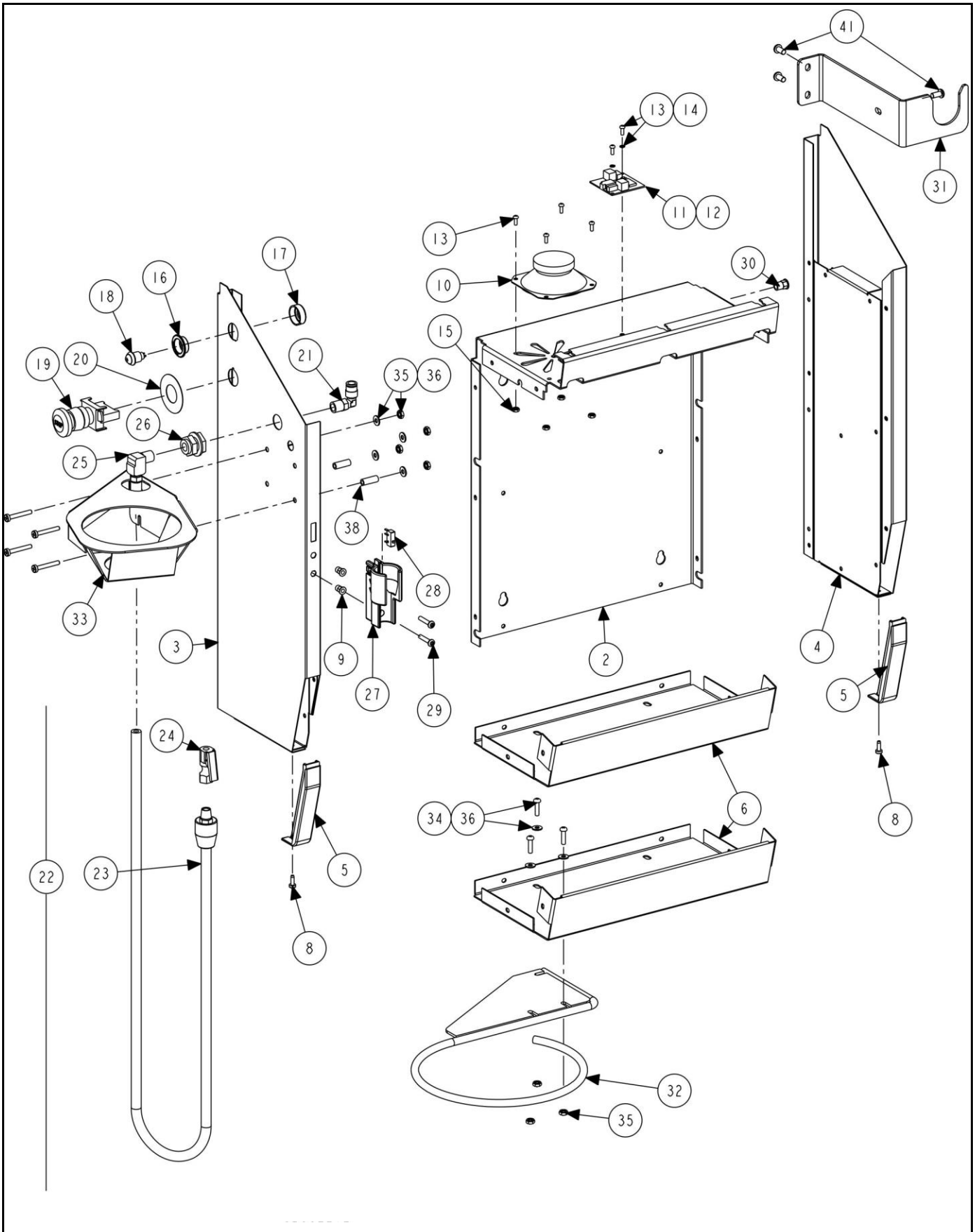




## PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
1	14-1646-1-005	BRACKET ASSEMBLY, REAR MOUNT TCR1S CONSOLE	1
2	74-37-2	HEX HEAD CAP SCREW 1/2-13 X 1.00 INCH FTHD	6
3	76-25-2	NUT-HEX 1/2-13	2
4	14-1642-PPP	BRACKET, LOWER, TCR1S CONSOLE	1
5	14-1643-PPP	BRACKET, UPPER,TCR1S CONSOLE	1
6	77-294-2	WASHER, FLAT 1/2 ID X 7/8 INCH OD	4
7	69-1565-PPP	COVER, TCR1S ELECTRICAL PANEL	1
8	75-90-2	ROUND HEAD MACHINE SCREW 1/4-20 X 3/8 INCH	3
9	106-195-2	SLEEVE, 1-1/4 INCH ID CORR. CONDUIT	1
10	69-1569-PPP	COVER, TCR1S CONSOLE CABLE	1
11	74-283-2	SOCKET BUTTON HEAD CAP SCREW 5/16-18 X .50 INCH FTHD	2
12	30-537-1-PPP	CONSOLE, TC-SLIM CONTROL (See sheet 18)	1
13	30-539-1	CONSOLE, CONTROL, TCR-SLIM (See sheet 19)	1
14	215-201-005	SHELF, UTILITY, TCR1S CONSOLE	2
15	75-481-2	SOCKET BUTTON HEAD CAP SCREW 1/4-20 X .50 INCH	4
16	171-292-1-PPP	PANEL ASSEMBLY, TCR1S CONSOLE	1
17	171-294-1	PANEL, ELECTRONICS CONSOLE-TCR	1
18	48-56-2	RIVET, BLIND 3/16 X 1/4 INCH	6
19	113-258-2	BUSHING, PUSH ON TRIM	0.33
20	113-322-2	BUSHING, HEYCO 2406	1
21	45-1545-2*	PCB-J1900 Mini-ITX motherboard (Requires software 1.6.0 and greater)	1
OR	45-1499-2*	ADVANTECH MOTHERBOARD	1
22	232-253-2	FLEX ATX 150W POWER SUPPLY	1
23	14-1349	BRACKET, TC POWER SUPPLY	1
24	75-24-2	ROUND HEAD MACHINE SCREW 6-32 X .38 INCH	1
25	63-85-2	ROD-HOOK	4
26	76-159-2	NUT, KEPS 3/8-16	4
27	74-563-2	HEX HEAD CAP SCREW 3/16 – 18 X .75 INCH	4
28	113-270-2	BUSHING, HEYCO 2103 .312 X .625 INCH	1
29	74-12-2	SOCKET HEAD CAP SCREW 5/16-18 X 1.00 FULL-THREAD	4
30	75-848-2	SOCKET BUTTON HEAD CAP SCREW 1/4-20X 1/2 INCH LONG	Ref.
31	75-736-2	SCREW-SELF-TAPPING 8-16 X .50 INCH PLASTITE	Ref.
32	227-109-2	DISPLAY, 22 INCH LCD W/ RESISTIVE TOUCH (Req. 1.5 software**)	1
AND	75-668-2	M4 x 10mm PAN HEAD MACHINE SCREW (Monitor mnt. hrdw.)	4
C1	38-1281-2	CABLE, 24PIN MOBO PWR EXT, 10 INCH	1
C2	38-1278-2	CABLE, TCR1S CONSOLE POWER	1
C3	38-954-2	CABLE, USB 2.0 A/B 2 METER	1
C4	38-1287-2	CABLE, USB BULKHD, FEMALE-.75M	2
D1	128-1756-2	DECAL, CONSOLE TCR1X (WalkAway Decal)	1

\* Replace the motherboard with the same part number as existing board, if possible.



# CABINET

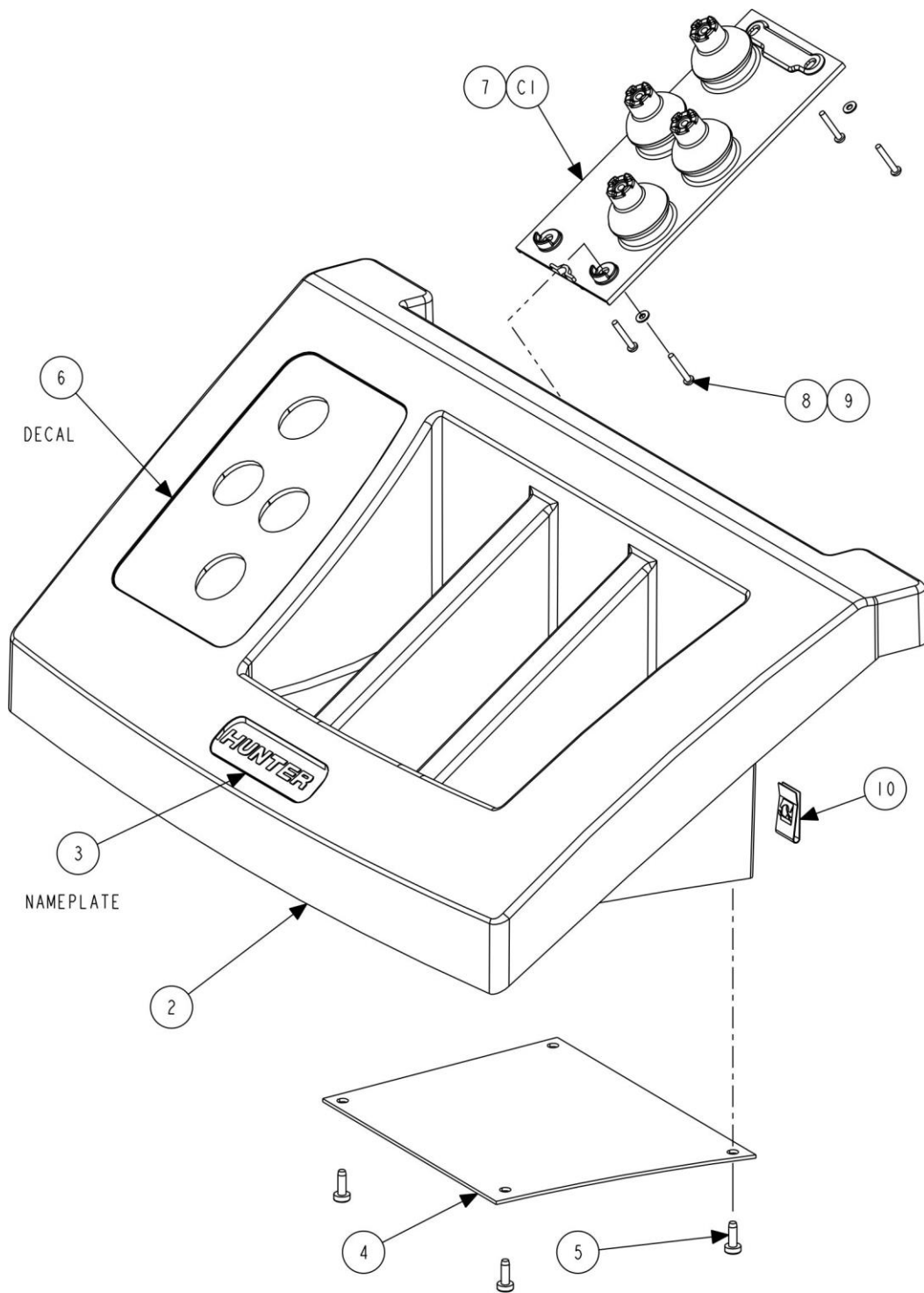
REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Form CD07825-00, 10-20a

Sheet 18 of 29

Index No.	Part Number	Description	Qty.
1	30-537-1-PPP	CONSOLE-TC-SLIM CONTROL (Consists Of:)	1
2	11-1643-1-005	SUPT ASSEMBLY -TC CONTROL	1
3	71-243-1-PPP	SIDE ASSEMBLY -TC CABINET LH	1
4	71-244-1-PPP	SIDE ASSEMBLY -TC CABINET RH	1
5	179-85-2	SHIELD-TC CONSOLE CORNER	2
6	215-197-005	SHELF-TC CABINET	2
7	48-56-2	RIVET-BLIND 3/16X1/4	10
8	75-736-2	SCREW-SELF-TAPPING 8-16 X .50 INCH PLASTITE	2
9	76-415-2	NUT-HEX INSERT 10-32	2
10	109-173-1	SPEAKER ASSEMBLY -3.5 INCH W CABLE	1
11	45-1451-1	MONO AUDIO AMP	1
12	37-653-1	WIRE ASSEMBLY, TC AUDIO AMP POWER	1
13	75-24-2	ROUND HMS 6-32X.38 inch	6
14	77-82-2	WASHER-LOCK 6 HELICAL SPG	2
15	76-84-2	NUT-KEPS 6-32	4
16	105-639-2	HOUSING-POWER BUTTON, OUTER	1
17	105-646-2	HOUSING - POWER BUTTON TC	1
18	18-565-2	SWITCH ASSEMBLY -BAL MOBO POWER	1
19	18-562-2	SWITCH-EMERGENCY STOP, TC	1
20	128-1537-2	DECAL - 2X2 SQUARE BLANK YELLOW	1
21	145-246-2	FITTING-ELBOW 1/4 NPT TO 3/8 INCH	1
22	105-727-1	HOUSING ASSEMBLY - TC TIRE FILL	1
23	137-155-1	HOSE-TC TIRE FILL 72 INCH (Includes:)	1
24	145-341-2	FITTING-AIR CHUCK LOCK-ON OPEN	1
25	145-241-2	FITTING-1/4 INCH BRASS STREET ELBOW	1
26	145-224-2	COUPLING-BULKHEAD	1
27	105-721-1	ASSEMBLY - INFLATION STATATION (Includes:)	1
28	18-350-2	SWITCH-SUBMINIATURE LIMIT (glued in place)	1
29	75-850-2	SOCKET HEAD CAP SCREW 10-32X1.0 INCH	2
30	76-414-2	NUT-HEX INSERT 1/4-20	1
31	14-1645-005	BRACKET, TCR1S BLASTER NOZZLE	1
32	14-1778-3	BRACKET-MOUNT, PASTE BUCKET	1
33	14-1781-1-005	BRACKET, CLAMP RETAINER, WELDMENT	1
34	75-85-2	ROUND HEAD MACHINE SCREW 10-32 X 3/4 INCH	3
35	76-61-2	NUT-KEPS 10-32	7
36	77-52-2	WASHER-FLAT 10	7
37	75-947-2	PAN HEAD MACHINE SCREW 10-32 X 1.375 INCH	5
38	46-801-2	SPACER- #10 X 5/16 OD X .88 L.	2
39	75-848-2	SOCKET BUTTON HEAD CAP SCREW 1/4-20 X 1/2 INCH LONG	3
40	75-668-2	PAN HEAD MACHINE SCREW M4X.7 X 10MM	4
41	75-481-2	SOCKET BUTTON HEAD CAP SCREW 1/4-20 X .50 INCH	3
C1	38-1247-1	CABLE, POWER BOARD TO RELAY, CABINET SIDE	1



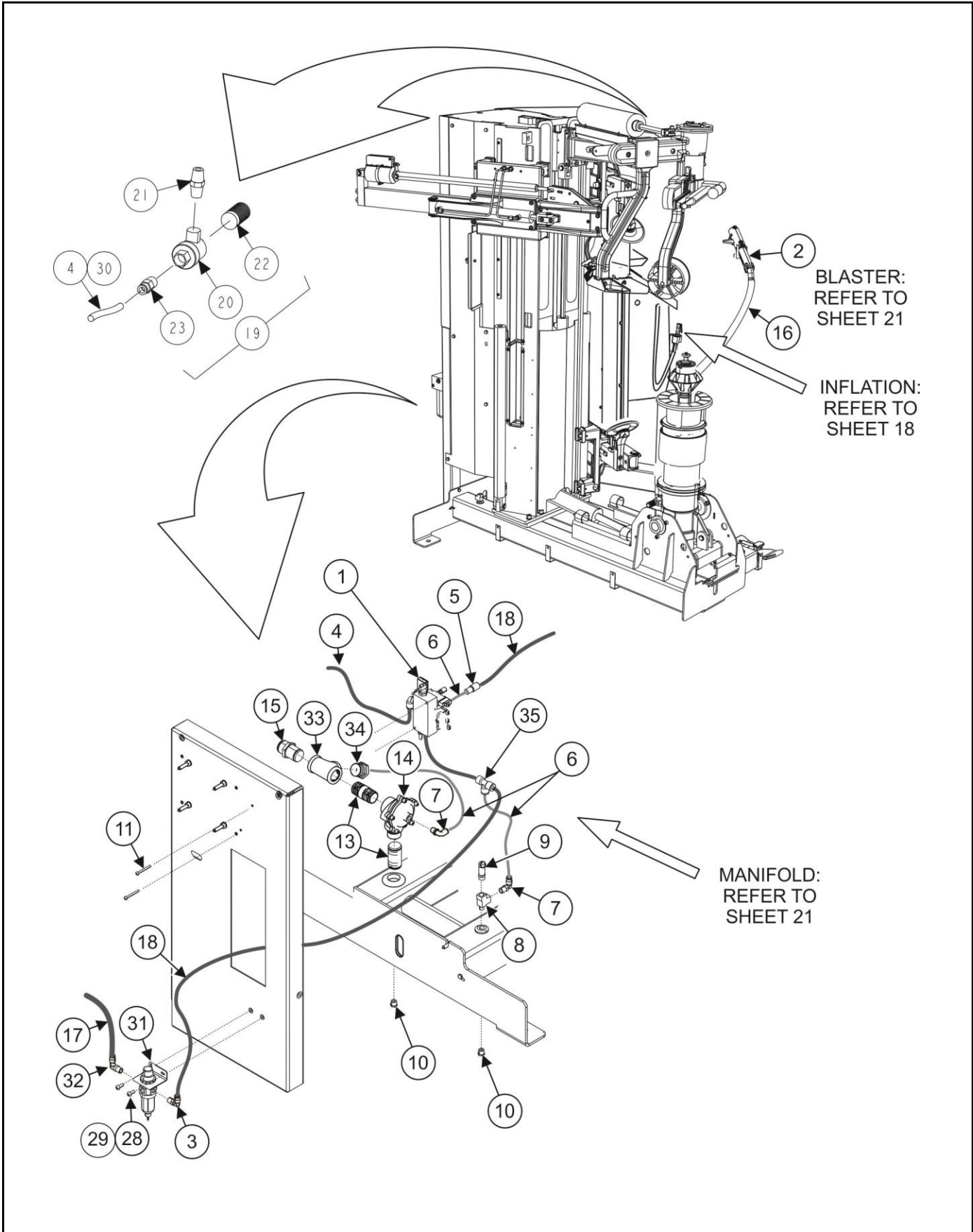
## CONTROLS

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
1	30-539-1	CONSOLE-CONTROL, TCR-SLIM (Consisting Of:)	1
2	11-1650-2	SUPPORT, TCR1S CONTROL CONSOLE	1
3	24-181-2	NAMEPLATE, TC HUNTER	1
4	51-2636-005	PLATE, TC STORAGE POCKET	1
5	75-736-2	SCREW-SELF-TAPPING 8-16 X .50 INCH PLASTITE	7
6	128-1415-2	DECAL, TC JOYSTICKS	1
7	146-61-1*	CONTROLLER ASSEMBLY – JOYSTICK, TCR	1
8	75-537-2	ROUND HEAD MACHINE SCREW 4-40 X .75 INCH	4
9	77-79-2	WASHER, FLAT 4 SPECIAL	4
10	76-411-2	NUT-1/4-20 TINNEMAN TYPE U	2
C1	38-1279-1	CABLE - JSTCK TO DAQ CAB SIDE	1

\* Controller assembly is a glued together assembly that does not have field servable components.



## PNEUMATICS

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

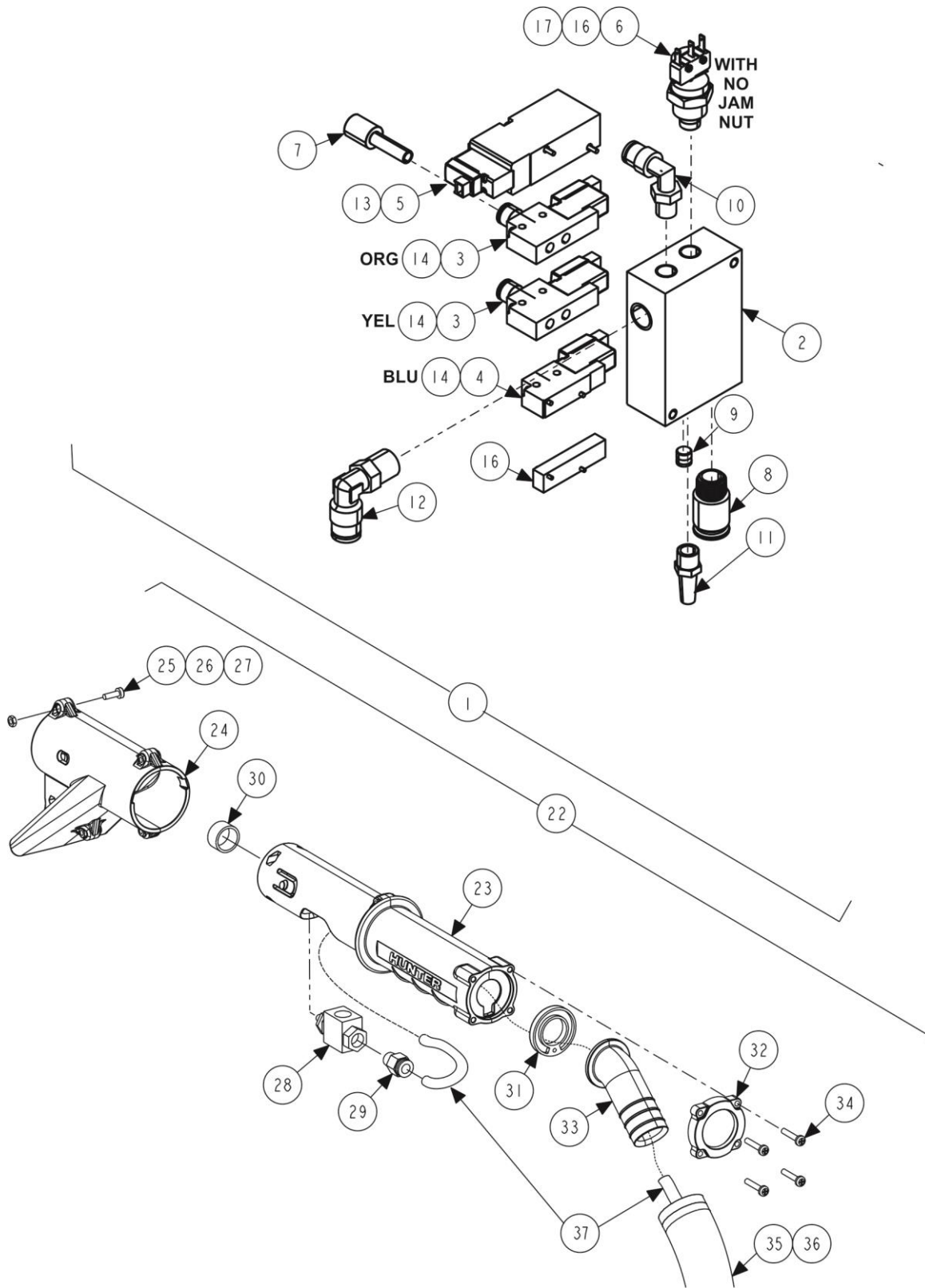
Form CD07825-00, 10-20a

Sheet 20 of 29

Index No.	Part Number	Description	Qty.
1	185-54-1	MANIFOLD ASSEMBLY - PNEUMATIC TCRH (See sheet 20)	1
2	106-184-1	NOZZLE - TIRE CHANGER BLASTER (See sheet 20)	1
3	145-463-2	FITTING - 3/8 INCH MALE ELBOW	1
4	16-363-2	TUBING - NYLON 3/8 INCH OD	15 ft.
5	145-381-2	FITTING - 5/16 INCH TO 1/4 UNION PTC	1
6	16-423-2*	TUBING - AIR .172 INCH INNER DIAMETER	7 ft.
7	145-350-2*	FITTING - 1/4 INCH TUBE - 1/4 NPT 90 ELBOW	2
8	145-226-2	TEE - MALE RUN 1/4 INCH NPT	1
9	108-229-2	VALVE - PRESSURE RELEASE - 150 PSI	1
10	43-96-2	PLUG - 1/4 NPT HEX HEAD	2
11	75-153-2	ROUND HEAD MACHINE SCREW 10 - 32X1 3/4 INCH	2
12	76-61-2	NUT - KEPS 10 - 32	2
13	145-438-2*	PIPE NIPPLE - 1 INCH NPT X 2.5 INCH	2
14	108-246-1*	VALVE - DUMP AUTEL	1
15	145-440-2	FITTING - HOSE END - 1 INCH	1
16	137-120-2	HOSE - 1 INCH ID - 200 PSI (See following sheet for details)	5 ft.
17	137-96-1	HOSE ASSEMBLY - PNEUMATIC SUPPLY	1
18	16-321-2	TUBE - 5/16 INCH O.D.	19 ft.
19	108-148-2	VALVE - QUICK EXHAUST WITH MUFFLER	2
20	108-132-2	VALVE - QUICK EXHAUST, 1/4 INCH	1
21	145-310-2	FITTING - 1/4 INCH NPT HEX NIPPLE	1
22	145-290-2	FITTING - 1/4 INCH NPT EXHAUST SILENCER	1
23	145-184-2	FITTING - 1/4 INCH NPT ADAPTOR	1
24	145-246-2	FITTING - ELBOW 1/4 NPT TO 3/8 INCH	1
25-26	Not Used	Not Used	-
27	12-223-2	CLAMP - HOSE - 1.45 INCH ID	2
28	75-132-2	ROUND HEAD MACHINE SCREW 1/4 - 20 X .63 INCH	4
29	76-85-2	NUT - KEPS 1/4 - 20	2
30	15-62-2	TUBE - WIRE LOOM TIRE CHANGER PUSHER	3 ft.
31*	136-106-2	FILTER REGULATOR WITH GAGE	1
OR	136-115-2**	BOWL, FILTER / REGULATOR, SMC METAL ETAL**	REF.
32	145-474-2	FITTING - STREET ELBOW 3/8 - 1/4 INCH	1
33	145-496-2*	FITTING, 1" NPT FEMALE TEE	1
34	113-348-2*	BUSHING-TUBE SEAT	1
35	145-506-2	FITTING-3/8 INCH TEE TO 1/4 INCH PTC	1

\* Dump valve replacement kit 20-3110-1 contains noted items.

\*\* Replacement metal bowl, 136-115-2, is available, as direct swap for original metal bowl.

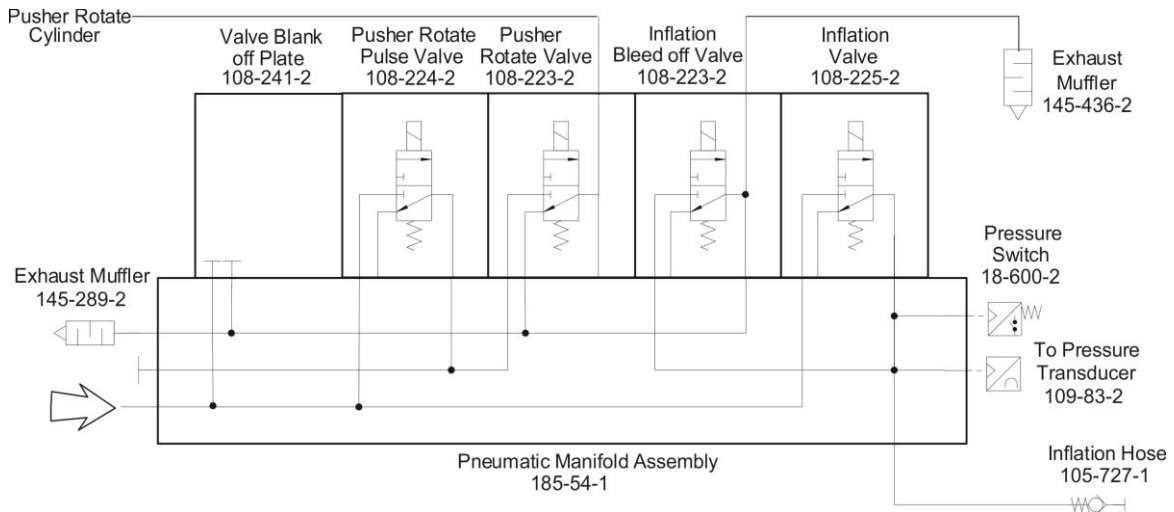


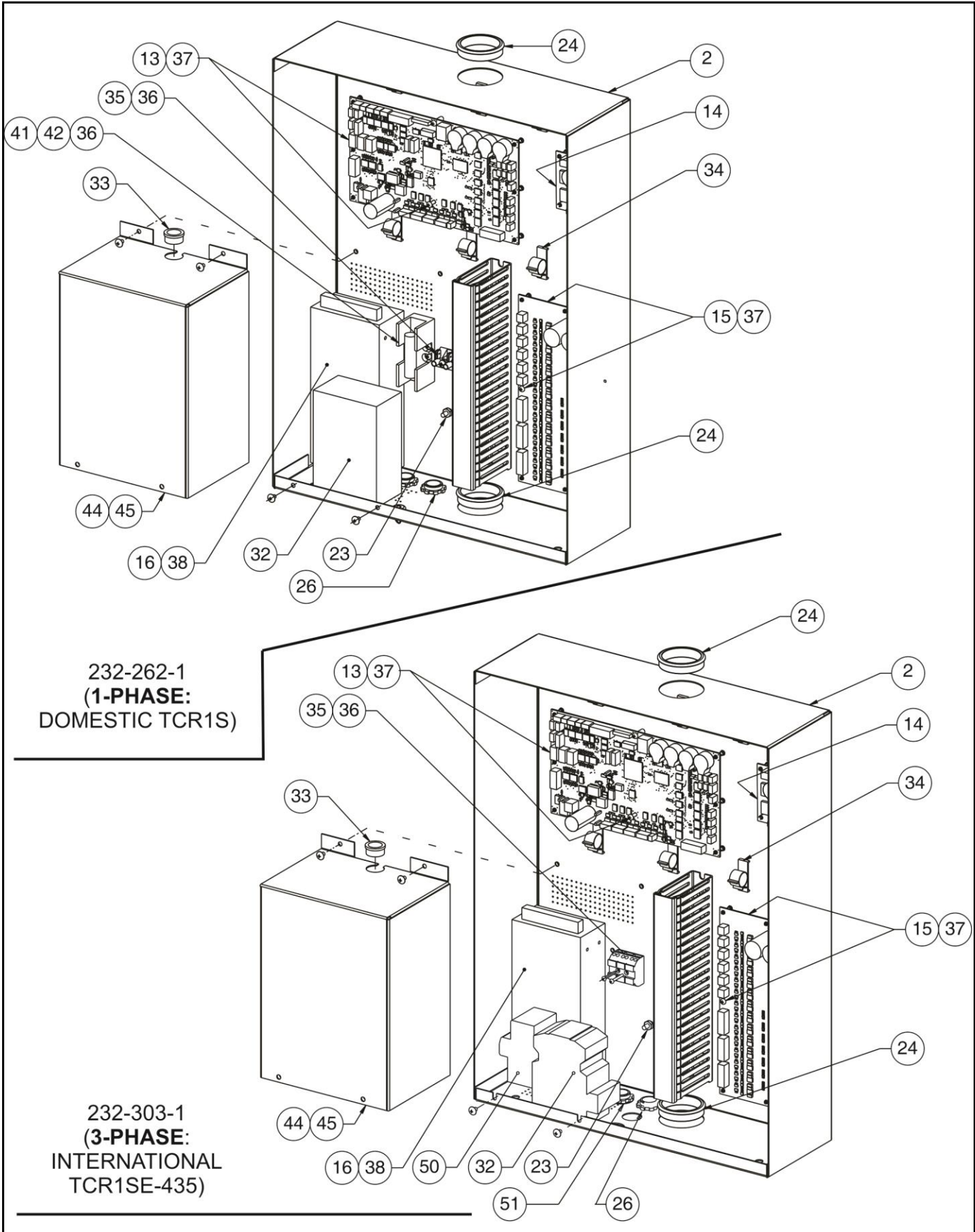
## PNEUMATIC MANIFOLD AND BLASTER

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
1	185-54-1	MANIFOLD ASSEMBLY - PNEUMATIC TCRH (Consisting Of:)	1
2	185-43-2	MANIFOLD - PNEUMATIC TIRE CHANGER (Not Available)	1
3	108-223-2	VALVE - 3 PORT NORMALLY CLOSED	2
4	108-224-2	VALVE - 3 PORT NORMALLY CLOSED	1
5	108-225-2	VALVE - 3 PORT NORMALLY CLOSED	1
6	18-600-2	SWITCH - PRESSURE 65 PSI	1
7	145-436-2	SILENCER- 1/4" PTC	1
8	145-289-2	FITTING-1/8 NPT EXHST SILENCER	1
9	145-336-2	FITTING-EXPANSION PLUG	1
10	145-324-2	FITTING-1/8 NPT TO 1/4 TUBE 90	1
11	145-481-2	FITTING-STRAIGHT3/8ODX1/4NPT	1
12	145-246-2	FITTING-ELBOW 1/4 NPT TO 3/8	1
13	37-639-1	WIRE ASM-DAQ BD TO INFL VALVE	1
14	37-768-1	WIRE ASSY- TCR PNEU/HYD	1
15	38-1164-1	CABLE ASM-DAQ TO INFL PRESS SW	1
16	108-241-2	VALVE - BLANK OFF PLATE	1
17	Field Purchase	LOCTITE #545 THREAD SEALANT	A/R
22	106-184-1	NOZZLE - TIRE CHANGER BLASTER (Consisting Of:)	1
23	142-179-3	HANDLE - BEAD SEAT (Includes:)	1
24	106-181-3	NOZZLE - BEAD SEAT (Includes:)	1
25	75-805-2	PAN HEAD MACHINE SCREW - 6 - 32 X 7/16 - INCH	4
26	76-511-2	NUT - UNDERSIZED HEX - 6 - 32	4
27	Field Purchase	LOCTITE 242	A/R
28	108-75-2	VALVE - 2 WAY POPPET	1
29	145-502-2	FITTING - COMPRESSION 1/8 INCH NPT X 1/4 INCH TUBE	1
30	98-470-2	SPRING - COMPRESSION	1
31	46-685-2	SPACER - BEAD SEAT	1
32	53-182-2	CAP - END - BEAD SEAT	1
33	145-443-3	FITTING - HOSE - BEAD SEAT	1
34	75-784-2	PAN HEAD SHEET METAL SCREW 6 X 3/4 INCH BLACK	4
35	137-120-2	HOSE - 1 INCH ID - 200 PSI	Ref.
36	12-223-2	CLAMP - HOSE - 1.45 INCH ID	Ref.
37	16-423-2	TUBING - AIR .172 INCH INNER DIAMETER	Ref.





## ELECTRICAL

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Form CD07825-00, 10-20a

Sheet 22 of 29

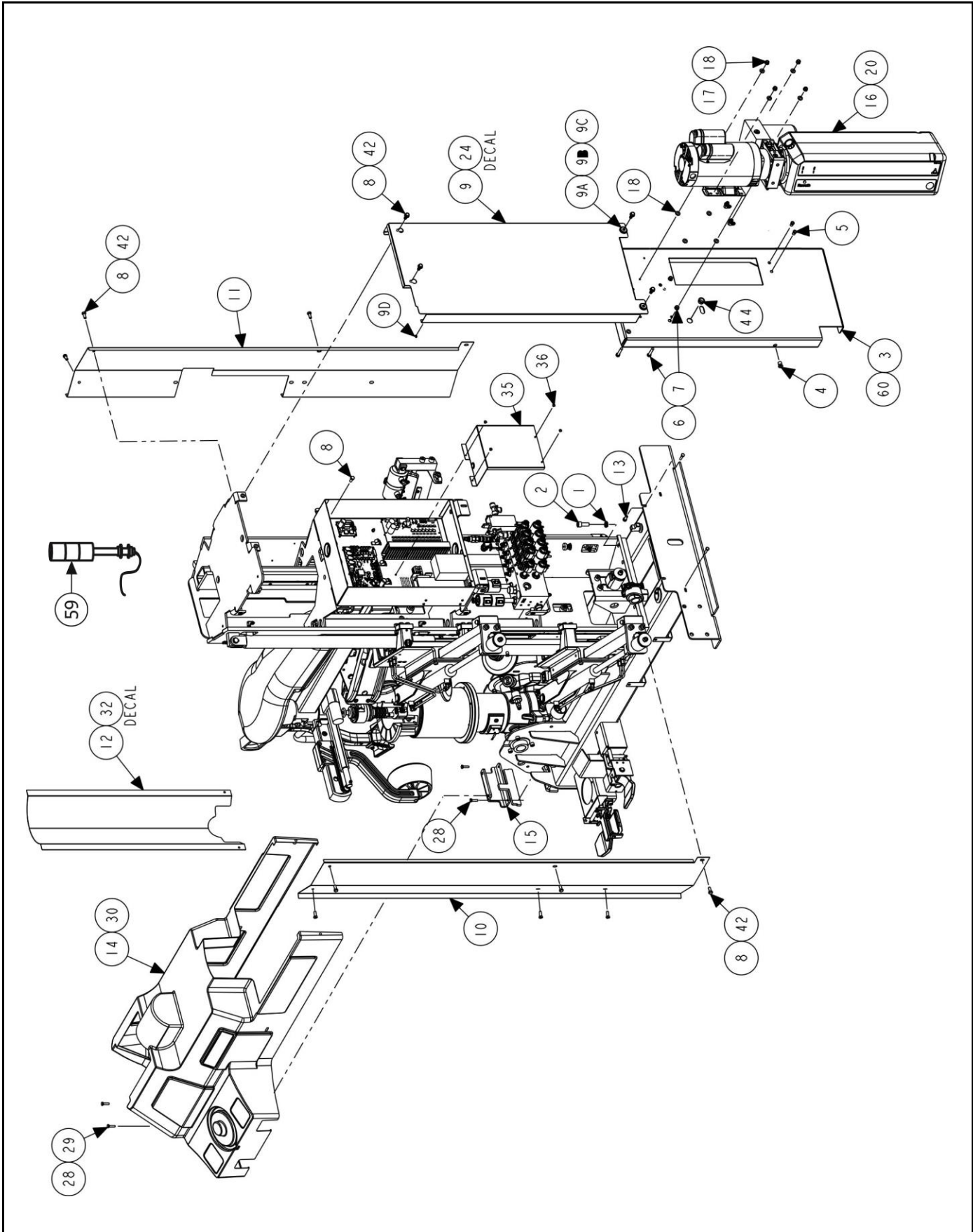
Index No.	Part Number	Description	Qty.
1*	232-262-1 *	ELECTRICAL SUBASSEMBLY - TIRE CHANGER (1-phase) (Cons Of:)	1
OR*	232-303-1 *	ELECTRICAL SUBASSEMBLY - TIRE CHANGER 3 PHASE (Cons Of:)	1
2	67-728-1	BOX - ASSEMBLY TIRE CHANGER ELECTRICAL	1
3-12	Not Used	Not Used	-
13	45-1419-1	PCA - TIRE CHANGER USB DAQ	1
14	45-1315-1	PCA - TIRE CHANGER PUSHER CONTROL	1
15	45-1483-1	PCA - TIRE CHANGER POWER / OUTPUTS	1
16	232-276-2	POWER SUPPLY	1
17	38-1150-1	CABLE - DAQ TO OUTPUTS	1
18	38-1151-1	CABLE - PUSHER CONTROL TO DAQ	1
19	37-631-1	WIRE ASSEMBLY - POWER TO DAQ	1
20	37-634-1	WIRE ASSEMBLY - TIRE CHANGER POWER BOARD TO BOARD	1
21	Not Used	Not Used	
22	37-642-1	WIRE ASSEMBLY - TRANSFORMER TO POWER SUPPLY BOARD	1
23	76-61-2	NUT - KEPS 10 - 32	2
24	113-322-2	BUSHING - HEYCO 2406	2
25	Not Used	Not Used	-
26	12-27-2	CLAMP - CABLE 1/2 INCH	3
27	38-1180-1	CABLE ASSEMBLY - TIRE CHANGER CONSOLE POWER	1
28	38-1255-1 (1-phase)	CABLE - RELAY TO MOTOR(1-phase)	1
OR	38-1276-1 (3-phase)	CABLE ASSEMBLY - RELAY TO MOTOR (3-phase)	1
29	37-644-1	WIRE ASSEMBLY - RELAY TO TERM BLACK	1
30	37-641-1	WIRE ASSEMBLY - TERM BLACK TO TRANSFORMER	1
31	38-1198-1 (1-phase)	CABLE ASSEMBLY - POWER TIRE CHANGER (1-phase)	1
OR	38-1269-1 (3-phase)	CABLE - POWER 14/5. 400V 3PH (3-phase)	1
32	18-537-2 (1-phase)	DC CONTACTOR / NOISE SUPPRESSOR (1-phase)	1
OR	18-595-2 (3-phase)	DC CONTACTOR / NOISE SUPPRESSOR (3-phase)	1
33	113-270-2	BUSHING - HEYCO 2103 .812 X .625 INCH	1
34	94-24-2	TIE - CABLE CLIP ADJUSTABLE	6
35	21-749-2	CONN - AC JUNCTION BLOCK	1
36	75-199-2	ROUND HEAD MACHINE SCREW 4 - 40 X 7/8 INCH	2
37	75-49-2	ROUND HEAD MACHINE SCREW 6 - 32 X 1/2 INCH	4
38	75-874-2	PAN HEAD MACHINE SCREW M4 X .7 X 6 MM	4
39	40-185-1	TRANSFORMER ASSEMBLY - TIRE CHANGER CURRENT SENSOR	1
40	37-659-1	WIRE ASSEMBLY - POWER SUPPLY GROUND	1
41	33-137-2 (1-phase)	FUSE HOLDER - 250 VOLT 30 AMP (1-phase)	1
42	33-138-2 (1-phase)	FUSE - 250 VOLT, 20 AMP (1-phase)	1
43	37-679-1 (1-phase)	WIRE ASSEMBLY - FUSE (1-phase)	1
44	69-1505-1	COVER - ASSEMBLY POWER BOX	Ref.
45	75-345-2	TRUSS HEAD MACHINE SCREW 8 - 32 X 1/4 INCH	Ref.
46	38-1244-1	CABLE - JOYSTCK TO DAQ, TOWER SIDE (Not Illus.)	1
47	38-1246-1	CABLE -POWER BOARD TO RELAY, TOWER SIDE (Not Illus.)	1
48	38-1248-1	CABLE - DAQ TO INFLATION, TOWER SIDE (Not Illus.)	1
49	19-161-2	TERMINAL-HEAVY DUTY RING (Not Illus.)	2
50	18-596-2 (3-phase)	RELAY-OVERLOAD 7-10A (3-phase)	1
51	12-19-2 (3-phase)	#15233 APPLETON CONNECTOR (3-phase)	1

\* Unique components of the two panels are identified as (1-phase) or (3-phase).

**HUNTER**  
Engineering Company

11250 HUNTER DRIVE BRIDGETON, MO 63044

PPP-Paint Code Required  
A/R-As Required  
REF-Reference



## COVERS AND POWER UNIT

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

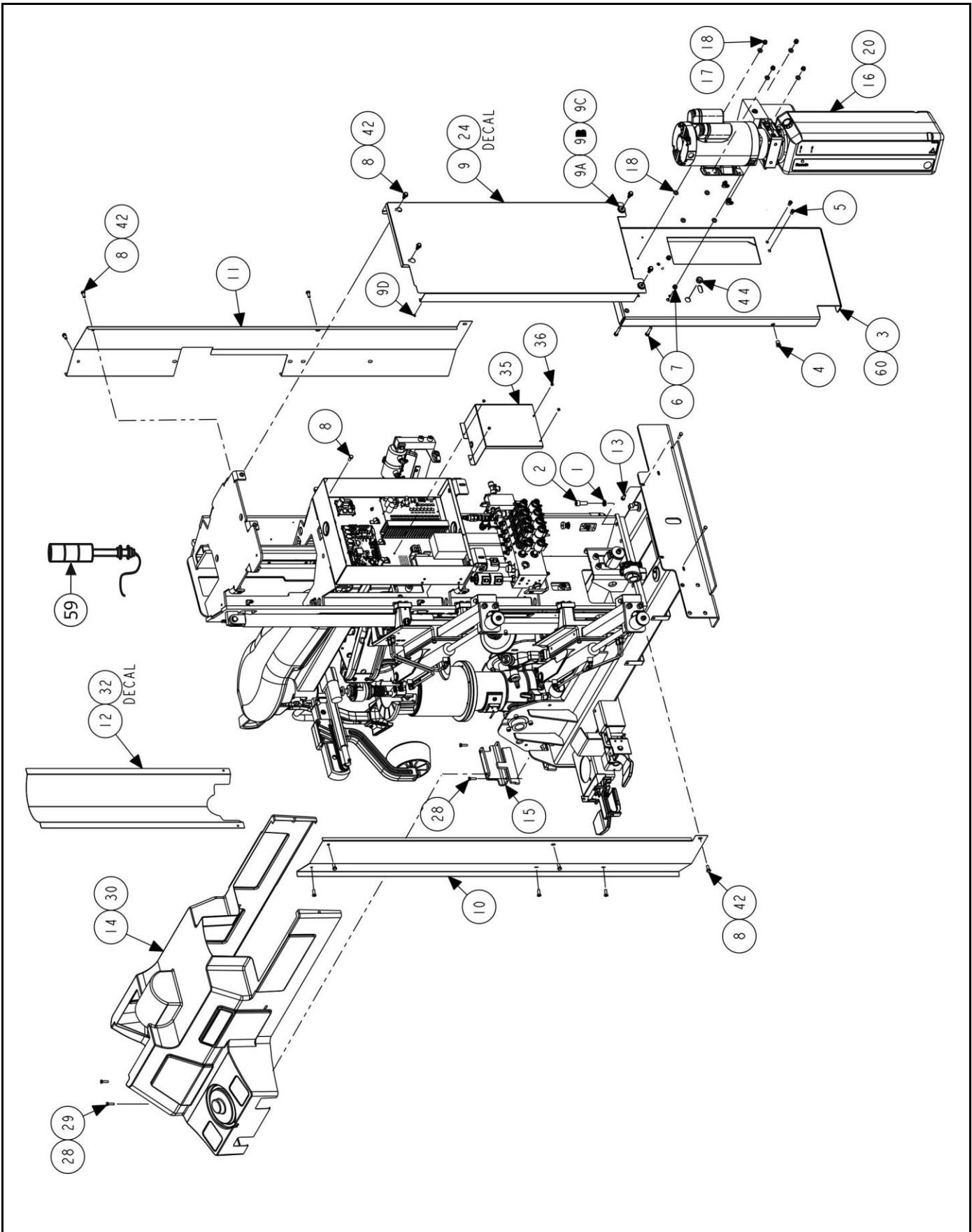
Index No.	Part Number	Description	Qty.
1	77-63-2	WASHER - LOCK 1/2 INCH HELICAL SPRING	12
2	74-581-3	SOCKET HEAD CAP SCREW 1/2-13 X 1.25 INCH	8
3	11-1657-1-PPP	SUPPORT - ASSEMBLY PANEL, TCR1S HPU (Includes:)	1
4	76-413-2	NUT - HEX INSERT 5/16 - 18	8
5	76-414-2	NUT - HEX INSERT 1/4 - 20	2
6	74-51-2	HEX HEAD CAP SCREW 5/16-18 X 1.50 INCH	4
OR	74-573-2	HHCS 7/16-14 x 1.75	
7	76-177-2	NUT - KEPS 5/16 - 18	4
OR	76-78-2	NUT-JAM 7/16-14	
8	74-20-2	HEX HEAD CAP SCREW 5/16-18 X .75 INCH FLANGED	25
9	69-1585-1-PPP	COVER - TCR1S REAR ELECTRICAL (Includes vibration dampers:)	1
9A	113-355-2	GROMMET- 7/8 HOLE X 5/8 INCH ID	2
9B	46-759-2	STANDOFF - 1/4 INCH GROMMET INSERT	2
9C	77-24-2	WASHER - FLAT 5/16 INCH	2
9D	62-89-2	FOOT-BUMPER 1/2 OD X .31 INCH THICK	1
10	69-1571-PPP	COVER - TCR1S REAR RIGHT-HAND	1
11	69-1510-PPP	COVER - TIRE CHANGER REAR LEFT-HAND	1
12	69-1446-PPP	COVER - TIRE CHANGER FRONT	1
13	76-25-2	NUT - HEX 1/2 - 13	4
14	69-1566-2	COVER - TCR1S BASE (Decals included:)	1
-	128-1470-2	DECAL - TIRE CHANGER ROTATE PEDAL (Not Illustrated)	1
-	128-1471-2	DECAL - TIRE CHANGER TILT PEDAL (Not Illustrated)	1
-	128-1472-2	DECAL - TIRE CHANGER BASE COVER HUNTER (Not Illustrated)	1
15	14-1499-1-005	BRACKET ASSEMBLY - TIRE CHANGER BASE COVER	1
16	20-3034-1	KIT- TCR1 HYD. POWER UNIT, 60 HZ (1-PH, 60 HZ NORTH AMERICA) (Replacement kit includes all necessary hardware - listed below)	1
OR	20-3035-1	KIT-TCR1 HYD. POWER UNIT, 50 HZ (1-PH, 50 HZ INTERNATIONAL) (Replacement kit includes all necessary hardware - listed below)	1
OR	20-3166-1	KIT-TCR1 HYD. POWER UNIT 435 (3-PH, 50 HZ INTERNATIONAL) (Replacement kit includes all necessary hardware - listed below)	1
-	74-573-2	HHCS 7/16-14 x 1.75	4
-	76-78-2	NUT-JAM 7/16-14	4
-	77-73-2	WASHER-FLAT 7/16	8
-	76-43-2	NUT-HEX 7/16-14	4
-	19-161-2	TERMINAL-HEAVY DUTY RING	2
-	74-51-2	HHCS 5/16-18 x 1.50	4
-	76-177-2	NUT-KEPS 5/16-18	8
-	77-20-2	WASHER-FLAT 5/16	8
	21-937-2	CONNECTOR-WIRE NUT	2
17	76-177-2	NUT - KEPS 5/16 - 18 (NEMA Style Motors)	4
OR	76-43-2	NUT, HEX 7/16-14 (IEC Style Motors)	8
18	77-20-2	WASHER - FLAT 5/16 INCH (NEMA Style Motors)	8
OR	77-73-2	WASHER, FLAT 7/16 INCH (IEC Style Motors)	8
19	145-471-2	FITTING - 6 - 8 SAE 90 DEGREE ELBOW	2
20	21-937-2	CONNECTOR - WIRE NUT (NEMA Style Motors)	2
21	128-1419-3*	DECALS - WHEEL BALANCER SAFETY (Not Illus.)	2
22	128-1540-3	DECAL - TCR1 FRONT L/R WARNING (Not Illustr.)	1
23	128-1120-2	DECAL-ETL LISTING MARK (Not Illustrated)	1

See following table for items 24 through 56.

**HUNTER**  
Engineering Company

11250 HUNTER DRIVE BRIDGETON, MO 63044

PPP-Paint Code Required  
A/R-As Required  
REF-Reference

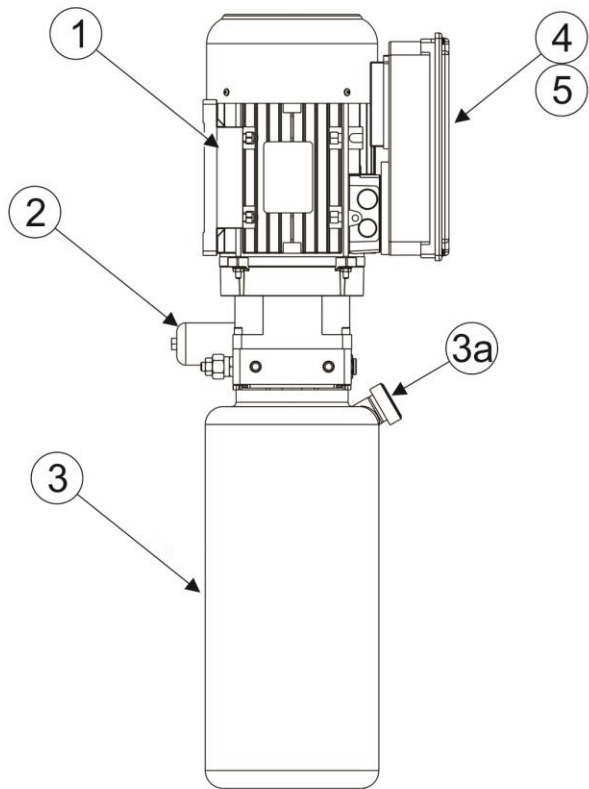


COVERS, ACCESSORY KIT AND ETC. (continued)

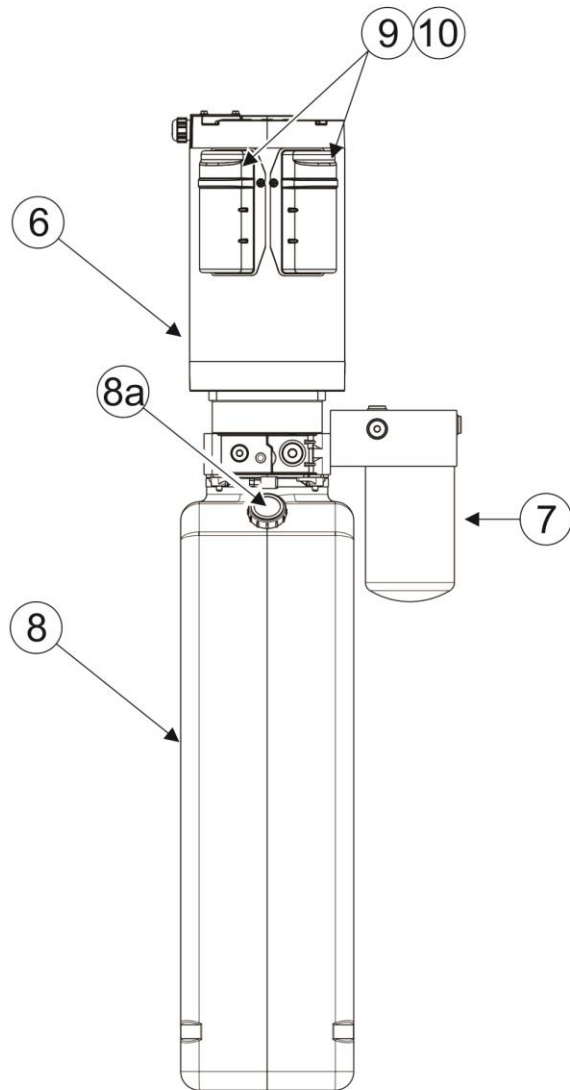
REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

## PARTS DESCRIPTION LISTING

Index No.	Part Number	Description	Qty.
24	128-1514-2	DECAL - TCR1 WIRING	1
27	128-1149-2	DECAL - WARNING TIRE CHANGER AIR BLAST (Not Illustrated)	1
28	75-817-2	HEX HEAD CAP SCREW - 1/4 - 20 X 1 INCH GRADE 2 BLACK	10
29	77-402-2	WASHER - 1/4 INCH BLACK (SS)	8
30	76-517-2	NUT - U NUT 1/4 - 20	4
31	128-435-2	DECAL - REMOVE CLIP - ON WEIGHTS (Not Illustrated)	1
32	128-1495-2	DECAL - TIRE CHANGER MAIN TOWER FRONT	1
33	128-1496-2	DECAL - TC LEFT TOWER FRONT ("HUNTER TCR1") (Not Illus.)	1
34	128-1497-2	DECAL - TC RIGHT TOWER FRONT ("REVOLUTION") (Not Illus.)	1
35	69-1505-1	COVER - ASSEMBLY POWER BOX	1
36	75-345-2	TRUSS HEAD MACHINE SCREW 8 - 32 X 1/4 INCH	4
37	128-156-2	DECAL - CABINET LOCATION WARNING (Not Illustrated)	1
38	128-381-2	DECAL - NOT SERVICEABLE - WARNING (Not Illustrated)	2
39	128-511-2	DECAL - GROUND (EARTH) (Not Illustrated)	1
40	128-1498-2	DECAL - 20A/230V FUSE REPLACEMENT (Not Illustrated)	1
41	128-1515-2	DECAL - FLUID FLASH POINT (Not Illustrated)	1
42	49-84-2	GASKET - TIRE CHANGER REAR PANEL	27
43	94-15-2	TIE - CABLE (Not Illustrated)	3
44	113-270-2	BUSHING - HEYCO 2103 .812 X .625 INCH	1
45	20-3173-1	KIT - ACCESSORY TCR1S / X / H (Not Illus.) (Includes:)	1
46	RP6-3784	HUNTER TIRE MOUNTING PASTE (Not Illustrated)	1
47	RP6-1506	BRUSH - ANGLED PASTE APPLICATOR (Not Illustrated)	1
48	RP11-2020688	VALVE PULLER (Not Illustrated)	1
49	221-759-2	TOOL-VALVE CORE TORQUE DRIVER	1
50	179-15-2	SHIELD - SAFETY GOGGLES (Not Illustrated)	1
51	221-659-2	TOOL - ADHESIVE WEIGHT REMOVER (Not Illustrated)	1
52	69-1394-2	COVER - ANTI ROTATE PIN (Not Illustrated)	2
53	69-1392-2	COVER - PLATEN RUBBER (Not Illustrated)	2
54	192-233-1	CONE - MEDIUM CLAMPING (Not Illustrated)	1
55	192-223-2	CONE-SMALL BORE_SPEEDNUT (Not Illustrated)	1
56	192-226-1	CONE-TC WHEEL CLAMP(Not Illustrated)	2
57	111-154-3	ROLLER ASSEMBLY - BEAD(Not Illustrated)	1
58	221-713-2	TOOL-MOUNT PLASTIC OUTER(Not Illustrated)	2
A	148-141-2	CLEANER-DSP 400/600 TARGET(Not Illustrated)	1
59	35-192-1	LIGHT ASSEMBLY, STACK RED/GREEN LED	1
60	74-563-2	HEX HEAD CAP SCREW 3/16 - 18 X .75 INCH	4



IEC 100L Units



NEMA 56 Units

NOTE: Start and run capacitors  
located inside enclosures

## POWER UNIT

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

**TECFLUID - 60 HZ (IEC 100L)**

Index No.	Part Number	Description	Qty.
1	129-275-2	MOTOR, TECFLUID 60 HZ (IEC TYPE)	1
2	136-113-2	FILTER-HPU RETURN (Settima or Tecfluid)	1
2a	136-120-2	PUMP, TECFLUID INLET FILTER (Not Illustrated)	1
3	139-88-2	PUMP-TECFLUID RESERVOIR	1
4	88-75-2	CAPACITOR- TECFLUID START	1
5	88-76-2	CAPACITOR-TECFLUID RUN	1

**SETTIMA - 60 HZ (IEC 100L)**

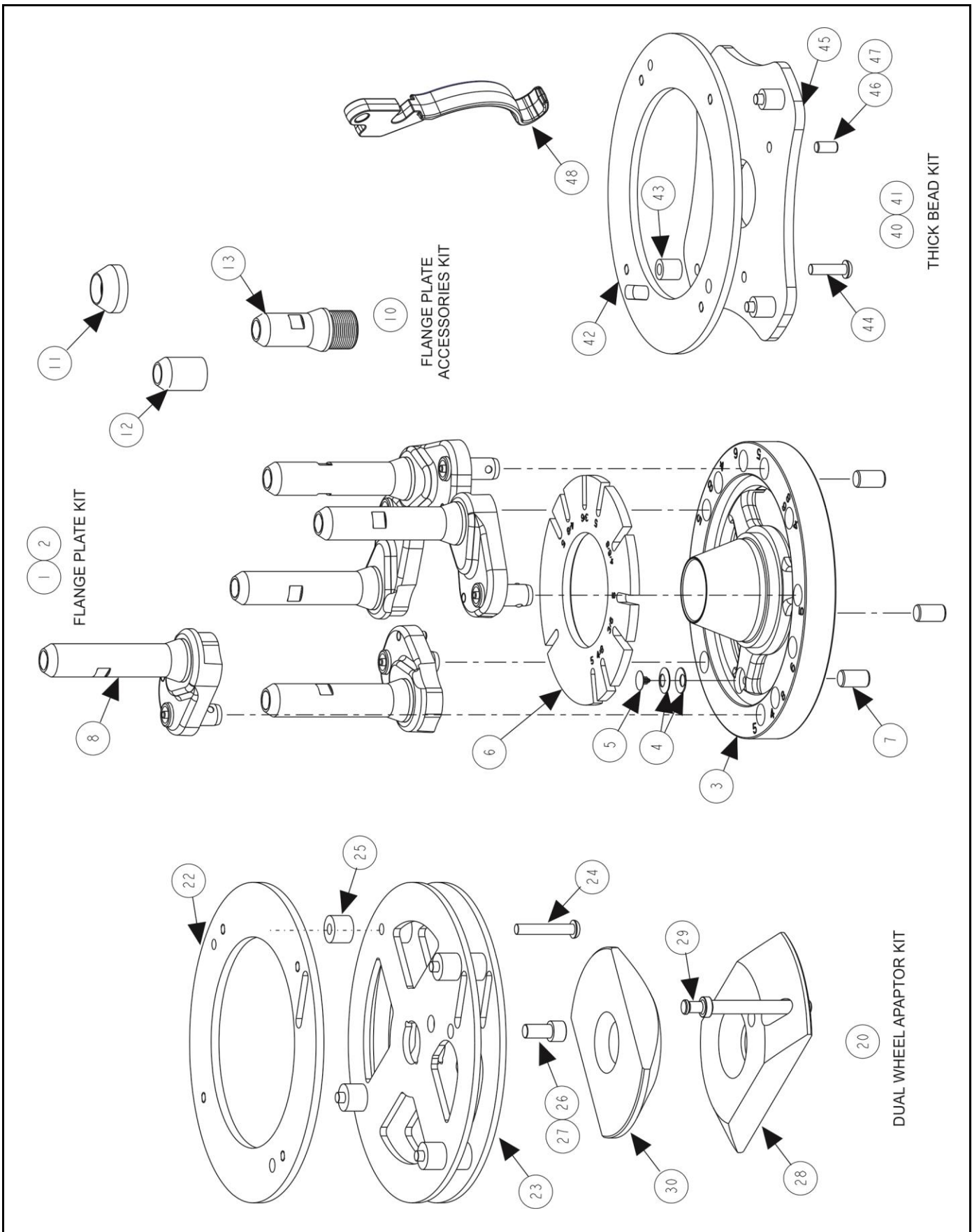
Index No.	Part Number	Description	Qty.
1	129-264-2	MOTOR, 60 HZ (IEC TYPE) 3.6 HP, 230V, 1PH (Settima)	1
2	136-113-2	FILTER-HPU RETURN (Settima or Tecfluid)	1
3	139-84-2	PUMP-RESERVOIR PLASTIC (Includes cap) (Settima)	1
3a	53-220-2	CAP-BREATHER FOR 139-84-2	1
4	88-71-2	CAPACITOR-START, 80 $\mu$ F, for 129-264-2 & 129-265-2	1
5	88-72-2	CAPACITOR-RUN, 60 $\mu$ F, for 129-264-2 & 129-265-2	1

**60 HZ (NEMA 56)**

Index No.	Part Number	Description	Qty.
6	129-262-2	MOTOR, 60 HZ (NEMA TYPE) 4 HP, 208-230V, 1 PH	1
7	136-110-2	FILTER-HYDRAULIC, 40 MICRON	1
8	139-82-2	PUMP-RESERVOIR PLASTIC, 2.5 GAL (Includes cap)	1
8a	53-219-2	CAP-BREATHER FOR 139-82-2	1
9	88-69-2	CAPACITOR-START (60 HZ MOTORS), 216-259 $\mu$ F, 250 VAC, for 129-262-2	1
10	88-70-2	CAPACITOR-RUN (60 HZ MOTORS), 30 $\mu$ F, 370 VAC, for 129-262-2	1

**50 HZ (IEC 100L AND NEMA 56) (INTERNATIONAL ONLY)**

Index No.	Part Number	Description	Qty.
1	129-265-2	MOTOR, 50 HZ (IEC TYPE) 3.0 KW, 220/240V, 1 PH (Settima)	1
OR	129-267-2	MOTOR, 50 HZ (IEC TYPE) 3.0 KW, 400/230V, 3 PH (Settima)	1
2	136-113-2	FILTER-HPU RETURN (Settima or Tecfluid)	1
3	139-84-2	PUMP-RESERVOIR PLASTIC (Includes cap) (Settima)	1
3a	53-220-2	CAP-BREATHER FOR 139-84-2	1
4	88-71-2	CAPACITOR-START, 80 $\mu$ F, for 129-264-2 & 129-265-2	1
5	88-72-2	CAPACITOR-RUN, 60 $\mu$ F, for 129-264-2 & 129-265-2	1
6	129-263-2	MOTOR, 50 HZ (NEMA TYPE) 4 HP, 220-230V, 1 PH	1
7	136-110-2	FILTER-HYDRAULIC, 40 MICRON	1
8	139-82-2	PUMP-RESERVOIR PLASTIC, 2.5 GAL (Includes cap)	1
8a	53-219-2	CAP-BREATHER FOR 139-82-2	1
9	88-73-2	CAPACITOR-START (50 HZ MOTORS), 297 $\mu$ F, 250 VAC, for 129-263-2	1
10	88-74-2	CAPACITOR-RUN, 50 $\mu$ F, 370 VAC, for 129-263-2	1



## FLANGE PLATE, DUAL WHEEL, THICK BEAD KITS

REFER TO NEXT SHEET FOR PARTS DESCRIPTION LISTING

**PARTS DESCRIPTION LISTING**

Index No.	Part Number	Flange Plate and Pins - Description	Qty.
1	20-3158-1	ADAPTOR, FLANGE PLATE - TCR (Consisting Of:)	1
2	175-472-1	ADAPTOR ASSEMBLY - FLANGE PLATE (Consisting Of:)	1
3	72-608-2	BASE, FLANGE ADAPTOR	1
4	98-524-2	SPRING, BELLEVILLE, 0.67 INCH OD	2
5	48-106-2	RIVET-PLASTIC, FOR 0.188 INCH HOLE	1
6	51-2916-2	PLATE, CAM, FLANGE ADAPTER	1
7	135-585-2	PIN-DOWEL 7/16 X 3/4 INCH (Press fit installation)	3
8*	135-588-1*	PIN ASSEMBLY-FOLLOWER*	5
9	74-601-2	HEX HEAD CAP SCREW M12 X1.75 X35MM FLANGED (Not Illus.)	2
10	20-3675-1	KIT-TCR FLANGE PLATE ACCESORIES (Optional Kit Includes:)	1
11	192-262-2	CONE - TIP	5
12	135-657-2	PIN - LUG EXTENSION	5
13	135-655-2	PIN - LUG Ø22MM, 50MM LONG	5
14	74-649-2	SOCKET HEAD CAP SCREW M12 X 1.75 X 30 MM (Not Illustrated)	5
15	74-650-2	SOCKET HEAD CAP SCREW M12 X 1.75 X50 MM (Not Illustrated)	5
16	74-648-2	HEX HEAD CAP SCREW M12 X 1.75 X60 MM FLANGED (Not Illus.)	2

\* Also available is the short, pivot pin portion of the pin assembly. Order 135-584-2 (PIN, LOCK, FLANGE ADAPTER) to replace just the portion of pin assembly that is inserted into the base of adaptor. Arbor Press or something similar is required to replace the pivot pin. There can absolutely NOT be beating them out or in with a hammer.

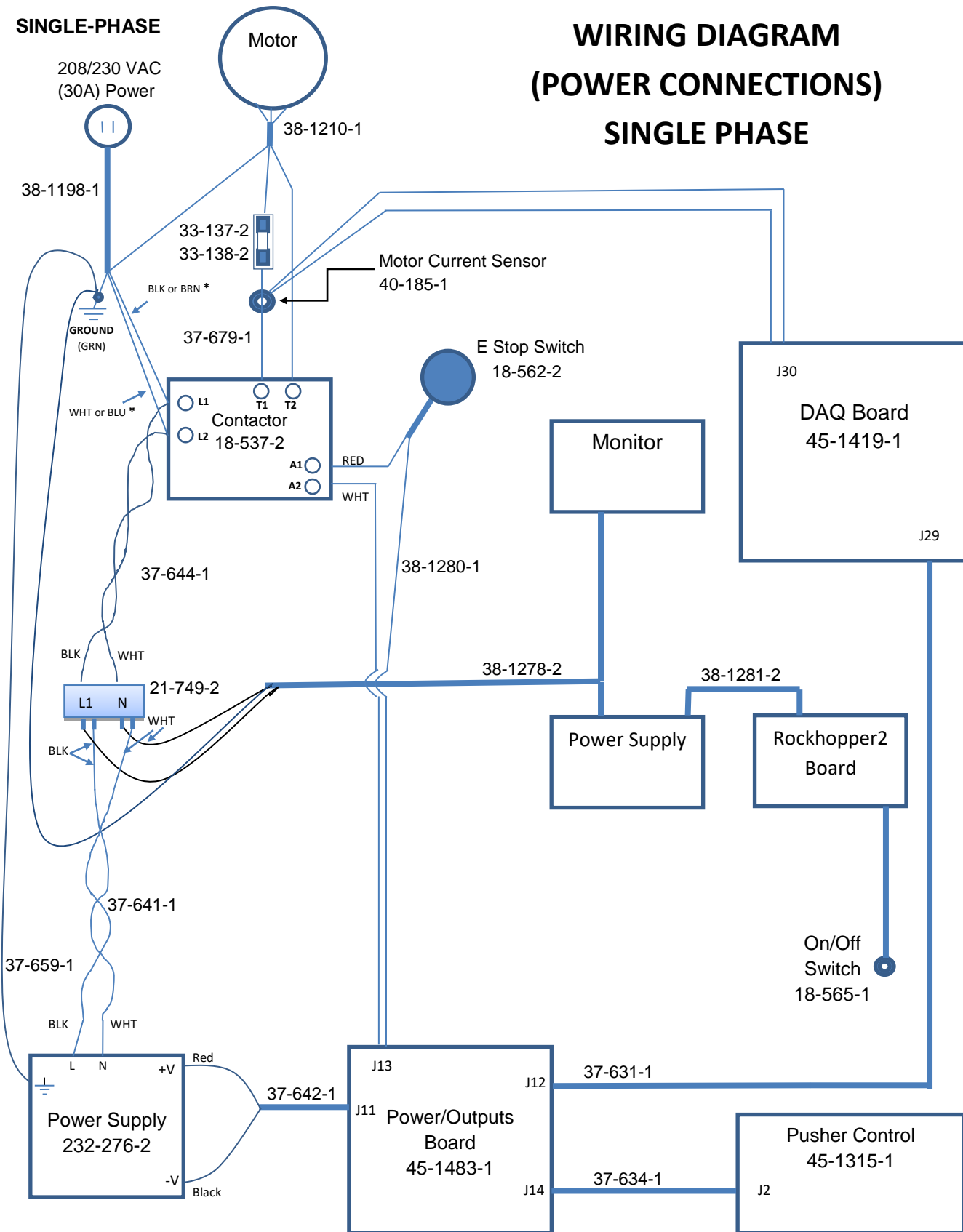
Index No.	Part Number	Large Bore / Dual Wheel Description	Qty.
20	20-2964-1	KIT-TCR LARGE BORE / DUAL WHEEL (Consisting Of:)	1
21	175-433-1	ADAPTOR-TCR1 19.5 ASSEMBLY (Consisting Of:)	1
22	51-2649-005	PLATE-TCR1 19.5 TOP	1
23	51-2800-005	PLATE-TCR1 19.5 BASE	2
24	74-564-2	SBHCS 3/8-16 X 2-1/4 INCH	4
25	46-723-2	SPACER-TCR1 19.5 ADAPTOR	8
26	74-107-2	SOCKET HEAD CAP SCREW 1/2-13 X 1.00 INCH FULL-THD	2
27	76-333-2	NUT-LOCK 1/2-13 NYLON INSERT LH	2
28	192-234-2	CONE-TCR LARGE BORE / DUAL WHEEL	1
29	135-540-2	PIN-TCR1 19_5 ADAPTOR	1
30	192-235-2	CONE-TCR SMALL BORE DUALY	1

Index No.	Part Number	Medium Duty Tool Hook & Adaptor - Description	Qty.
40	20-3160-1	KIT-MEDIUM DUTY TOOL HOOK & ADAPTOR (Consisting Of:)	1
41	175-479-1	ADAPTOR - TCR MED DUTY REVERSE (Consisting Of:)	1
42	51-2649-005	PLATE-TCR1 19.5 TOP	1
43	46-723-2	SPACER-TCR1 19.5 ADAPTOR	4
44	74-597-2	SOCKET BUTTON HEAD CAP SCREW - 3/8-16 X 1.38 INCH FULL-THD	4
45	51-2977-005	PLATE - TCR MED DUTY REVERSE	1
46	135-594-2	PIN - DOWEL 10MM X 20MM LONG	3
47	LOCTITE #609	ADHESIVE-RETAINING COMPOUND	A/R
48	221-761-1	HOOK-TC HD TOOL ASSEMBLY	1
49	216-135-2	HOOK-TOOLHOLDER PLASTIC (Not Illustrated)	1
50	112-15-2	SNAP RING-#5133-50 OR EQUAL (Not Illustrated)	5



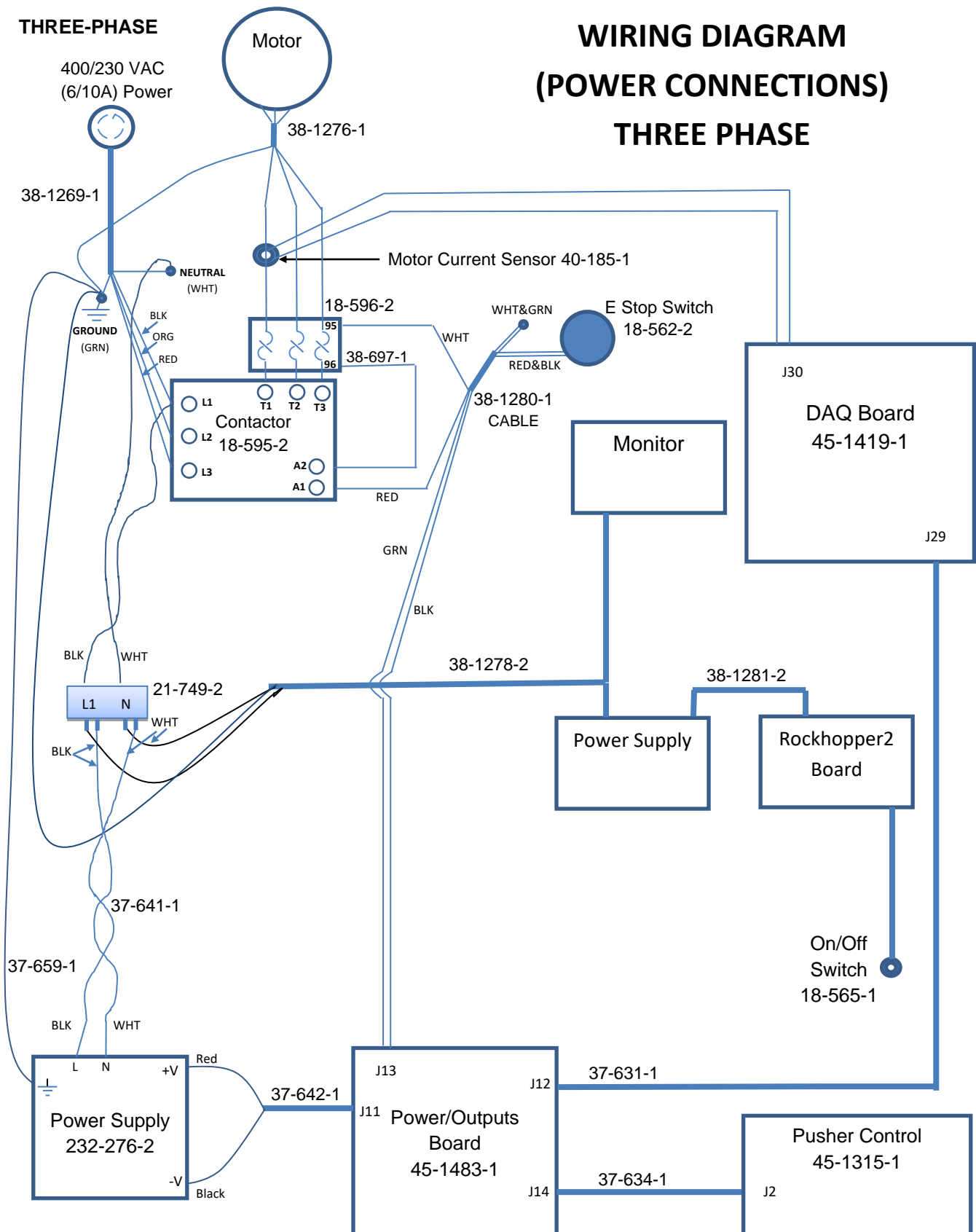
**SINGLE-PHASE**

**WIRING DIAGRAM  
(POWER CONNECTIONS)  
SINGLE PHASE**

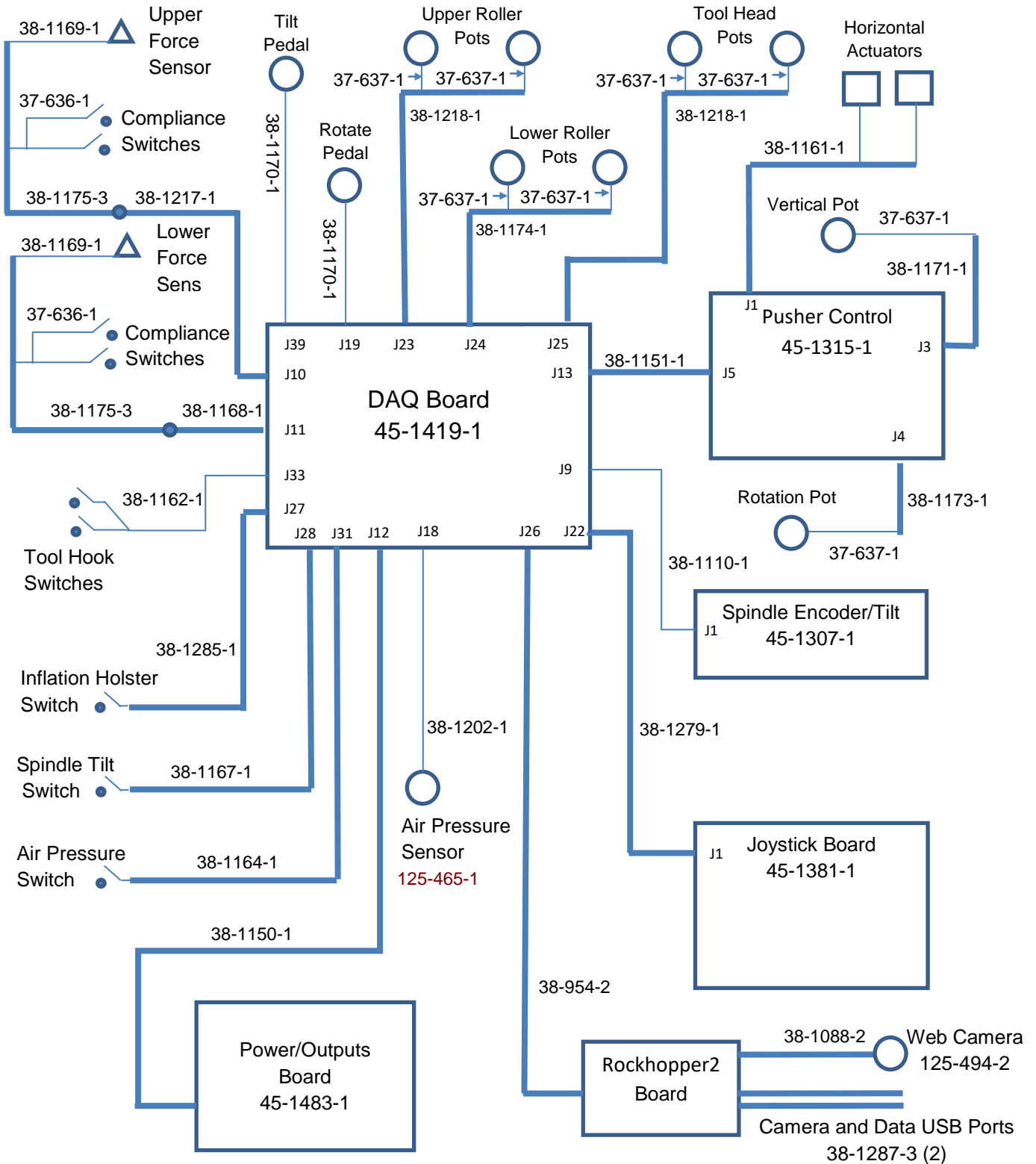


APPENDIX A

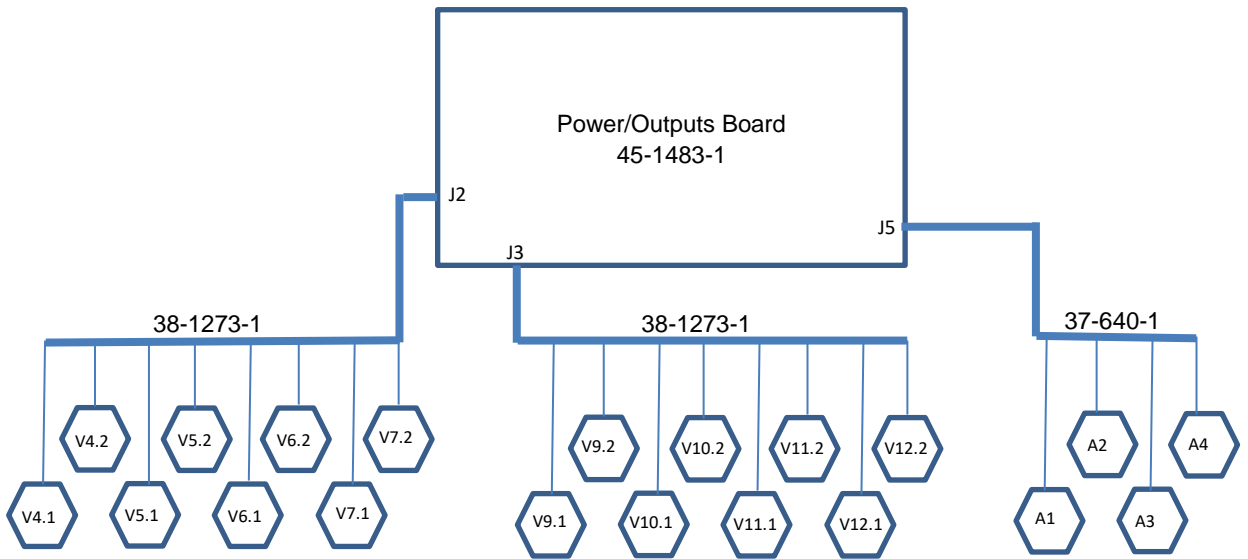
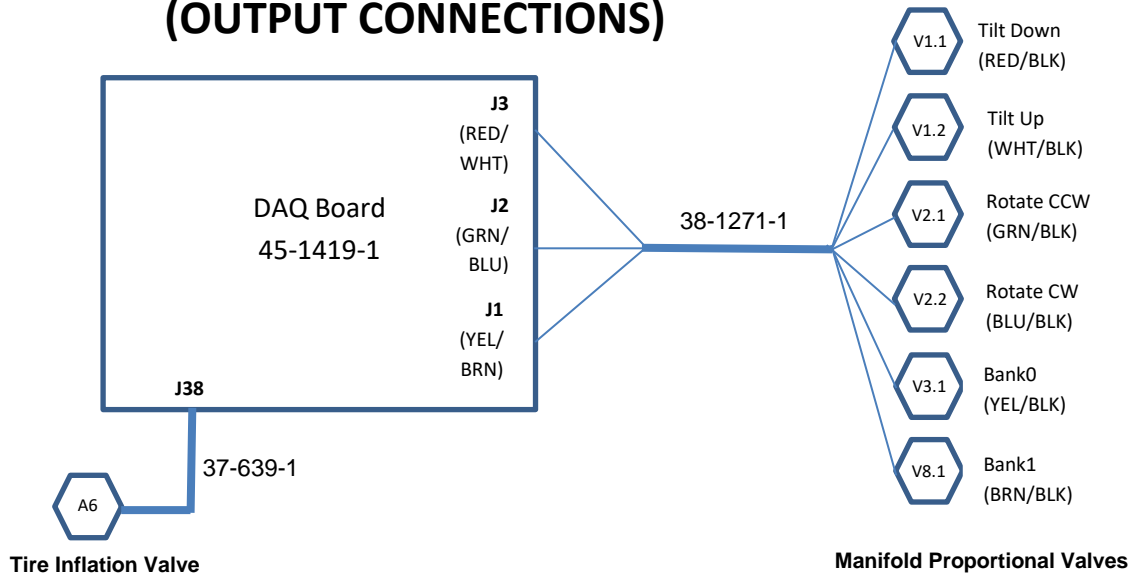
# WIRING DIAGRAM (POWER CONNECTIONS) THREE PHASE



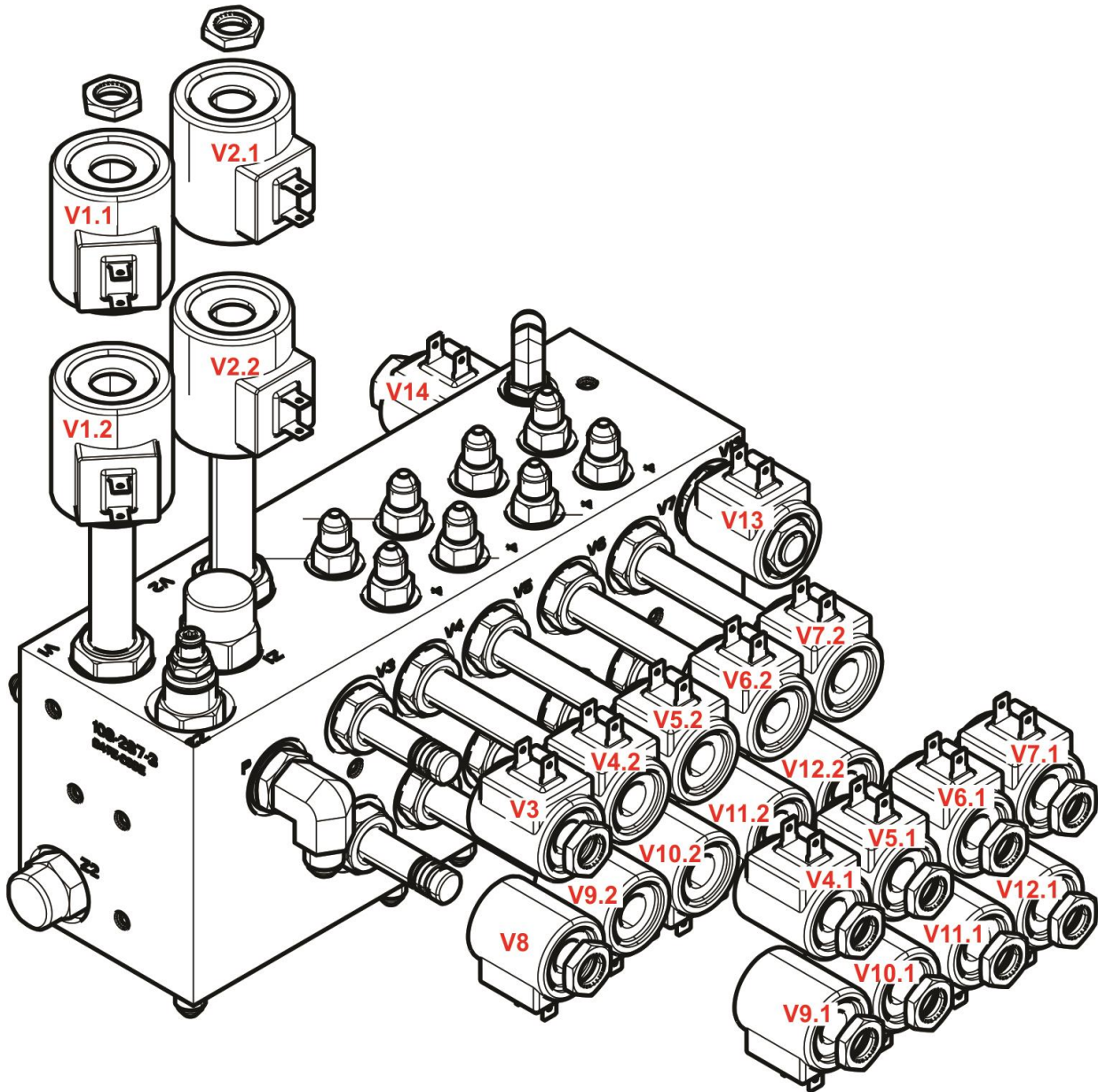
# WIRING DIAGRAM (SIGNAL CONNECTIONS)



## WIRING DIAGRAM (OUTPUT CONNECTIONS)



# HYDRAULIC MANIFOLD WIRING (COILS IDENTIFIED)



**APPENDIX A**

<b>PROPORTIONAL VALVES</b>		
<u>COIL ID</u>	<u>FUNCTION</u>	<u>WIRING LEADS</u>
V1.1	Tilt Up	RED+/BLK-
V1.2	Tilt Down	WHT+/BLK-
V2.1	Rotate CW	GRN+/BLK-
V2.2	Rotate CCW	BLU+/BLK-
V3.1	Bank V4 – V7	YEL+/BLK-
V8.1	Bank V9 – V12	BRN+/BLK-

<b>DIRECTIONAL VALVES (BANK 1)</b>		
<u>COIL ID</u>	<u>FUNCTION</u>	<u>WIRING LEADS</u>
V4.1	Lower Vert Down	RED+/BLK-
V4.2	Lower Vert Up	WHT+/BLK-
V5.1	Upper Horiz To Home	GRN+/BLK-
V5.2	Upper Horiz To Spindle	BLU+/BLK-
V6.1	Tool Head Horiz To Home	YEL+/BLK-
V6.2	Tool Head Horiz To Spindle	BRN+/BLK-
V7.1	Tool Head Hook Up	ORG+/BLK-
V7.2	Tool Head Hook Down	WHT+/RED-

<b>DIRECTIONAL VALVES (BANK 2)</b>		
<u>COIL ID</u>	<u>FUNCTION</u>	<u>WIRING LEADS</u>
V9.1	Upper Vert Up	RED+/BLK-
V9.2	Upper Vert Down	WHT+/BLK-
V10.1	Lower Horiz To Home	GRN+/BLK-
V10.2	Lower Horiz To Spindle	BLU+/BLK-
V11.1	Pusher Vert Up	YEL+/BLK-
V11.2	Pusher Vert Down	BRN+/BLK-
V12.1	Tool Head Vert Up	ORG+/BLK-
V12.2	Tool Head Vert Down	WHT+/RED-

<b>DIRECTIONAL VALVES (TCRH ADDITIONS)</b>		
<u>COIL ID</u>	<u>FUNCTION</u>	<u>WIRING LEADS</u>
V13	CLAMPING – ACTUATE	TBD
V14	CLAMPING – HOLD	TBD