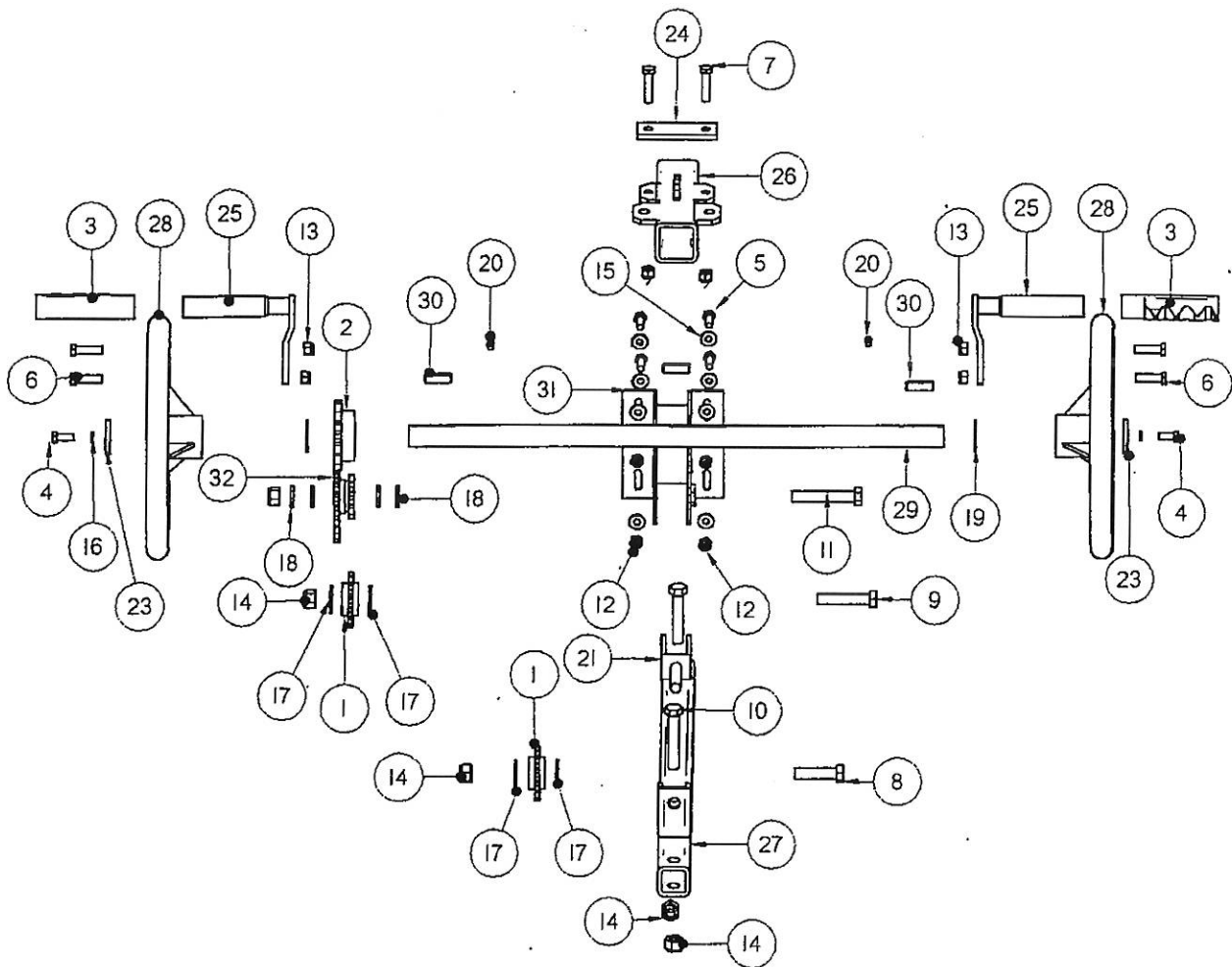


STEERING DRIVE ASSEMBLY



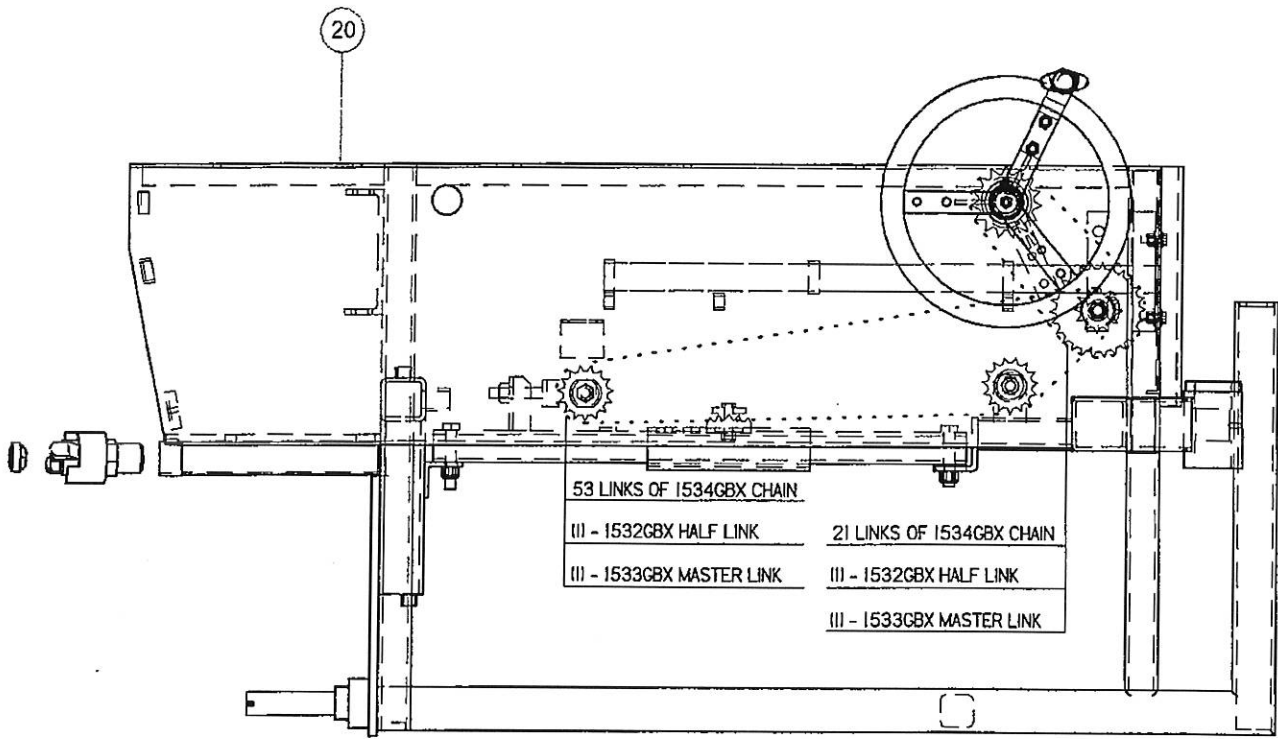
FNG814300-01

STEERING DRIVE ASSEMBLY

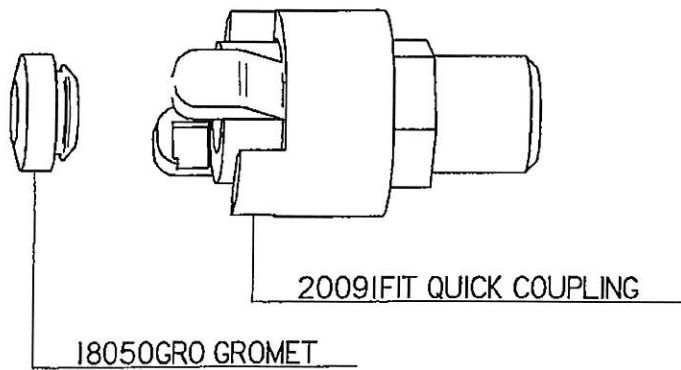
Item Number	File Name	Quantity	Description
1	I515IGBX.par	2	IDLER SPROCKET
2	I519GBX.par	1	15 TOOTH SPROCKET 1 1/8" BORE
3	I820GRO.par	2	HANDLE GRIP
4	2519BLT.par	2	5/16" X 3/4" BOLT
5	2520BLT.par	4	5/16" X 1" BOLT
6	2540BLT.par	4	3/8" X 1 1/4" BOLT
7	254IBLT.par	2	3/8" X 1 1/2" BOLT
8	2563BLT.par	1	1/2" X 2" BOLT
9	2564BLT.par	2	1/2" X 2 1/2" BOLT
10	2566BLT.par	1	1/2" X 2 3/4" BOLT
11	2567BLT.par	1	1/2" X 3" BOLT
12	2719NUT.par	4	5/16" NYLON LOCK NUT
13	2727NUT.par	6	3/8" LOCKNUT
14	2734NUT.par	6	1/2" LOCKNUT
15	280IWAS.par	8	1/4" FLAT WASHER
16	2810WAS.par	2	5/16" LOCK WASHER
17	2830WAS.par	4	1/2" WASHER
18	283IWAS.par	4	7/8"OD X 1/2"ID WASHER 10GA.
19	2860WAS.par	2	1 1/2" OD X 1" ID 5GA. WASHER
20	950IMIS.par	2	GREASE ZERT
21	MFA06715.par	1	SPROCKET CLEVIS
22	MNF0528.asm	1	MAIN FRAME
23	SRS1608.par	2	STEERING WASHER CAP
24	SRS16160.par	1	STEERING CHAIN TIE DOWN
25	SRS1651.par	2	STEERING WHEEL SPINNER
26	SRUI3040.par	1	STEERING SLIDE
27	SRUI3041.par	1	STEERING SLIDE BAR
28	SRUI306.par	2	STEERING WHEEL
29	SRUI3070.par	1	STEERING WHEEL SHAFT
30	SRUI3071.par	3	1/4" KEYWAY
31	SRUI313.par	1	CHAIN TIGHTENER
32	SRUI330.par	1	TRANSMISSION GEAR SPROCKET

FNG814300-01

STEERING DRIVE ASSEMBLY

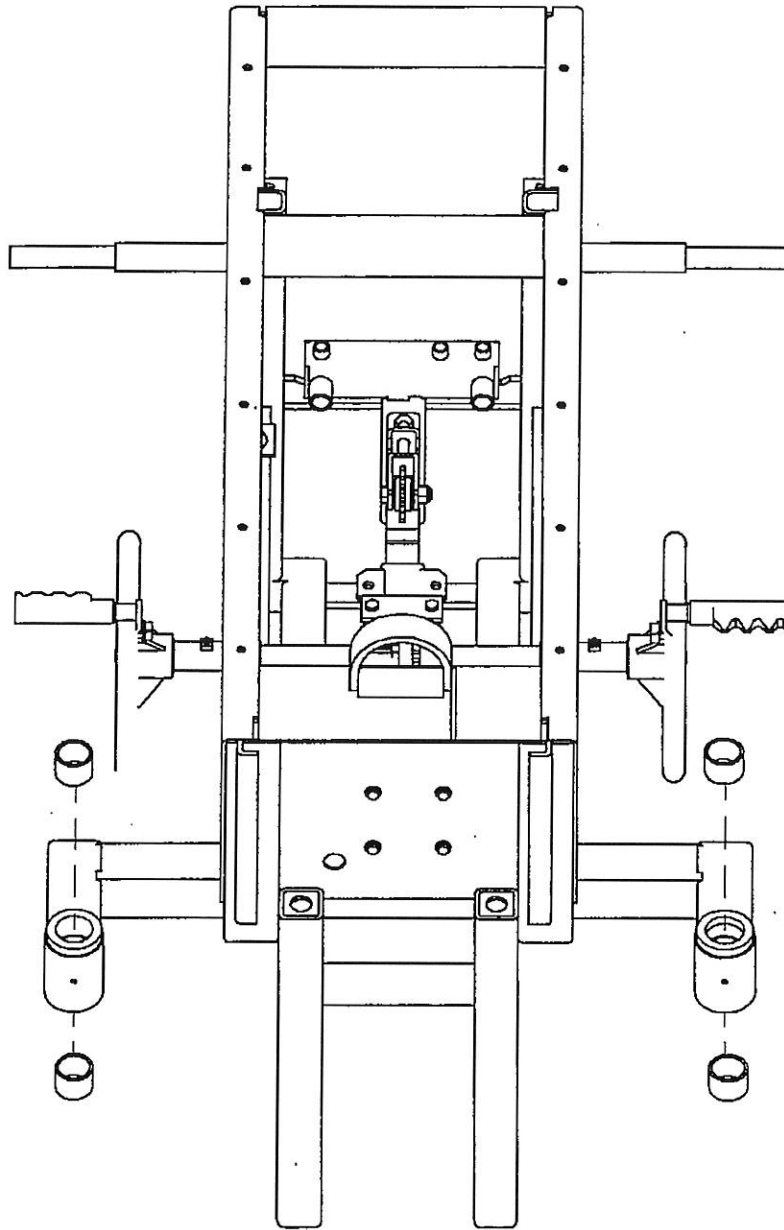


DOTTED LINES REPRESENT THE PATHS THAT 1534GBX 40 LINK CHAIN TAKE



FNG814300-01

STEERING DRIVE ASSEMBLY

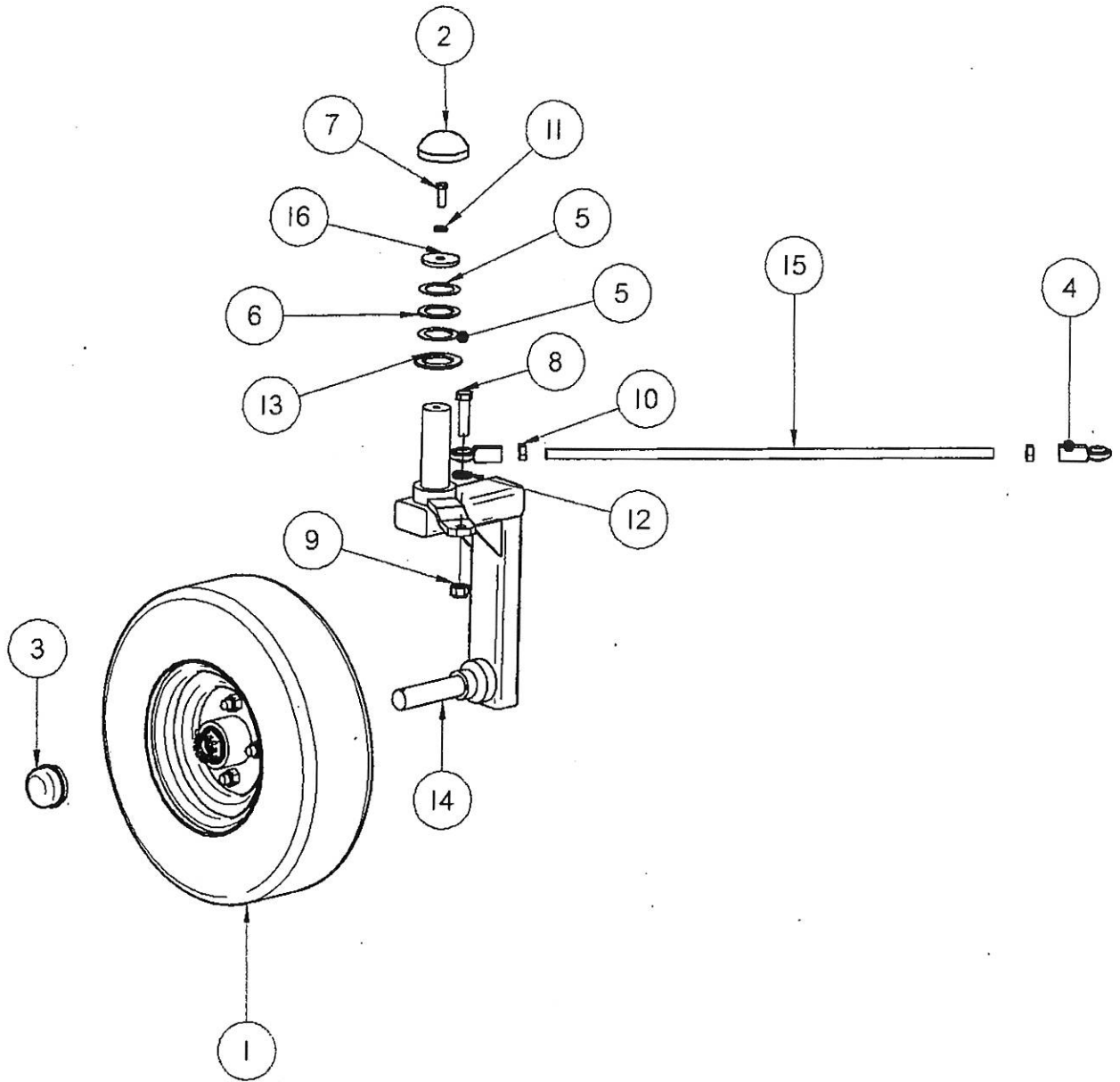


BRONZE BUSHING PART # 04066BRG QTY. 4

BUSHINGS MUST BE HONED TO FIT SPINDLE

FNG814300-01

RIGHT SPINDLE ASSEMBLY



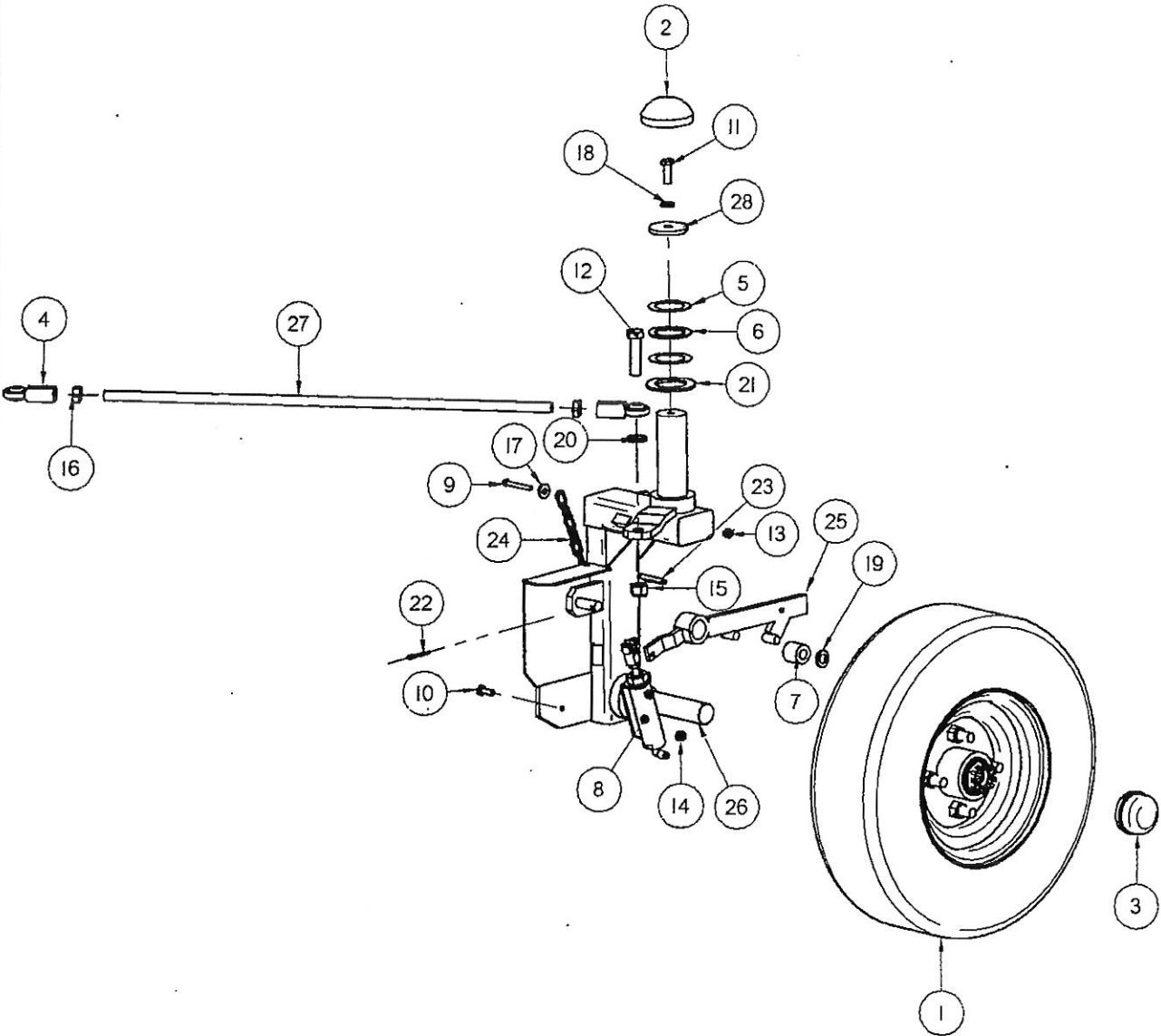
FNG814300-02

RIGHT SPINDLE ASSEMBLY

Item Number	File Name	Quantity	Description
1	02042WHL.asm	1	RIGHT WHEEL
2	02520WHL.par	1	DUST CAP
3	0252WHL.par	1	SPINDLE CAP
4*	04015BRG.par	2	1/2" ROD END BEARING
5	040500BRG.par	2	1 1/2" THRUST BEARING WASHER
6	040501BRG.par	1	1 1/2" THRUST BEARING
7	2538BLT.par	1	3/8" X 1" BOLT
8	2563BLT.par	1	1/2" X 2" BOLT
9	2734NUT.par	1	1/2" LOCKNUT
10	27696NUT.par	2	1/2" JAM NUT
11	2821WAS.par	1	3/8" LOCK WASHER
12	2831WAS.par	1	7/8"OD X 1/2"ID WASHER 10GA.
13	2867WAS.par	1	2 1/2"OD X 1 5/8"ID WASHER
14	SRSI6134.par	1	RIGHT SPINDLE ASSEMBLY
15	SRSI6171.par	1	TIE ROD
16	SRSI6281.par	1	SPINDLE CAP WASHER

FNG814300-02

LEFT SPINDLE ASSEMBLY



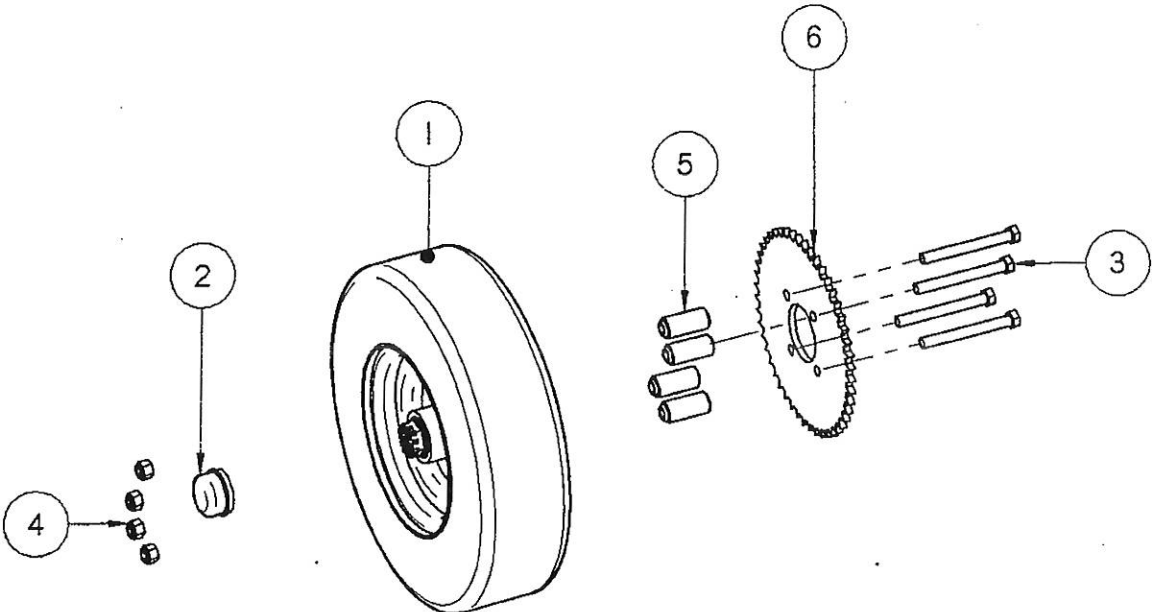
FNG814300-03

LEFT SPINDLE ASSEMBLY

Item Number	File Name	Quantity	Description
1	02042WHL.asm	1	LEFT WHEEL
2	02520WHL.par	1	DUST CAP
3	0252WHL.par	1	SPINDLE CAP
4	04015BRG.par	2	1/2" ROD END BEARING
5	040500BRG.par	2	1 1/2" THRUST BEARING WASHER
6	040501BRG.par	1	1 1/2" THRUST BEARING
7	0406BRG.par	1	BRONZE BEARING
8	05040CYL.asm	1	BRAKE CYLINDER ASSEMBLY
9	2484BLT.par	1	3/16" X 1 3/4" BOLT
10	2501BLT.par	1	1/4" X 3/4" BOLT
11	2538BLT.par	1	3/8" X 1" BOLT
12	2563BLT.par	1	1/2" X 2" BOLT
13	2713NUT.par	1	3/16" NYLON LOCK NUT
14	2716NUT.par	1	1/4" NYLON LOCK NUT
15	2734NUT.par	1	1/2" LOCKNUT
16	27696NUT.par	2	1/2" JAM NUT
17	2801WAS.par	1	1/4" FLAT WASHER
18	2821WAS.par	1	3/8" LOCK WASHER
19	28310WAS.par	1	7/8" OD X 1/2" ID WASHER 14GA.
20	2831WAS.par	1	7/8"OD X 1/2"ID WASHER 10GA.
21	2867WAS.par	1	2 1/2"OD X 1 5/8"ID WASHER
22	3022IPIN.par	1	1/8" X 1 1/4" COTTER PIN
23	3024PIN.par	1	1" LOCK PIN
24	9504MIS.asm	1	#4 STRAIGHT LINK CHAIN
25	SRS16132.PAR	1	BRAKE ASSEMBLY
26	SRS16133.par	1	LEFT SPINDLE ASSEMBLY
27	SRS16171.par	1	TIE ROD
28	SRS16281.par	1	SPINDLE CAP WASHER

FNG814300-03

LEFT WHEEL ASSEMBLY



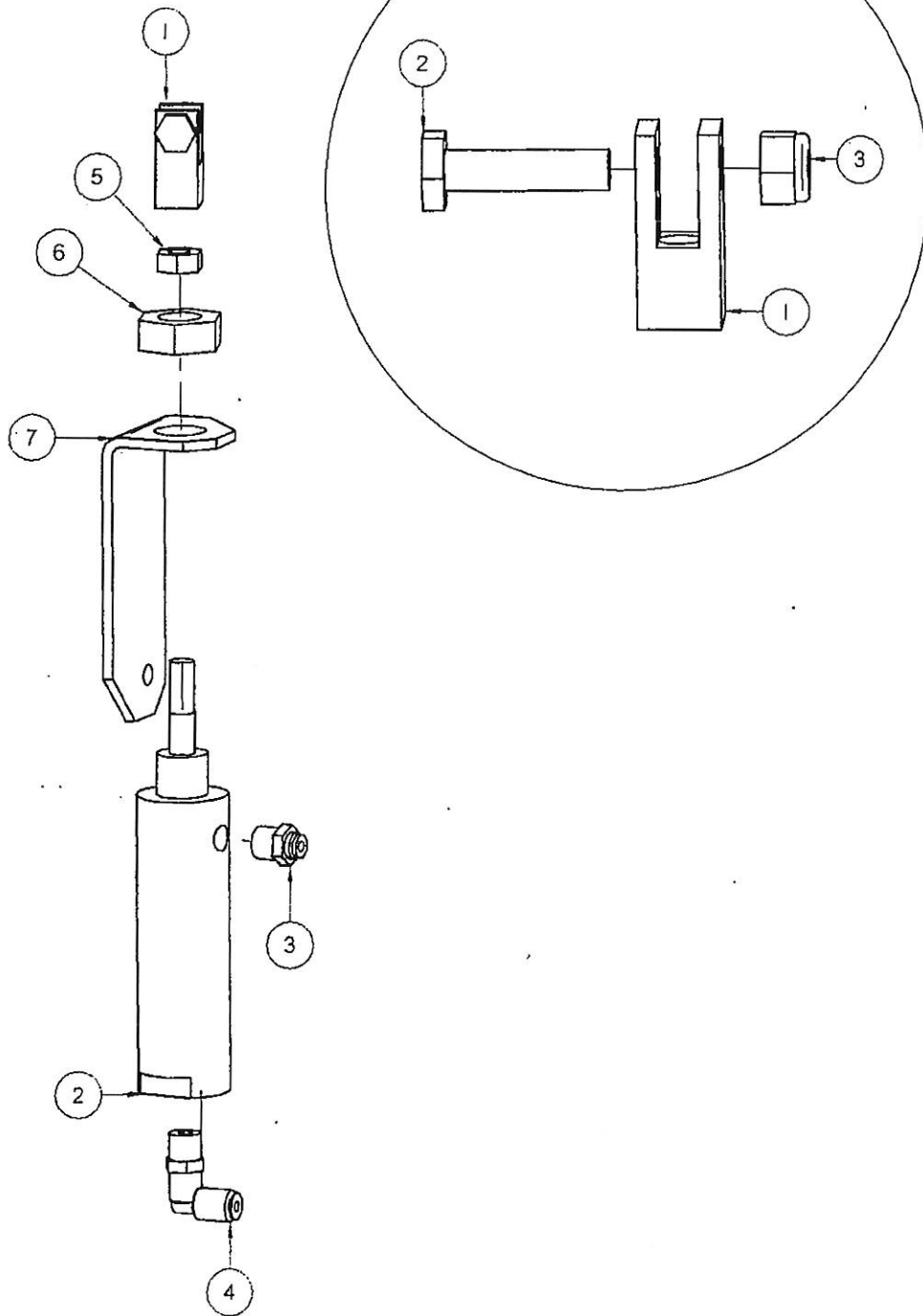
FNG814300-04

LEFT WHEEL ASSEMBLY

Item Number	File Name	Quantity	Description
1	02042WHL.asm	1	LEFT WHEEL
2	0252WHL.par	1	SPINDLE CAP
3	2574BLT.par	4	1/2" x 4 1/2" FINE THREAD BOLT
4	2733NUT.par	4	1/2" STANDARD NUT
5	SFP0714.par	4	WHEEL SPACER
6	SRSI650I.par	1	4 HOLE SPROCKET

FNG814300-04

BRAKE CYLINDER ASSEMBLY



FNG814300-05

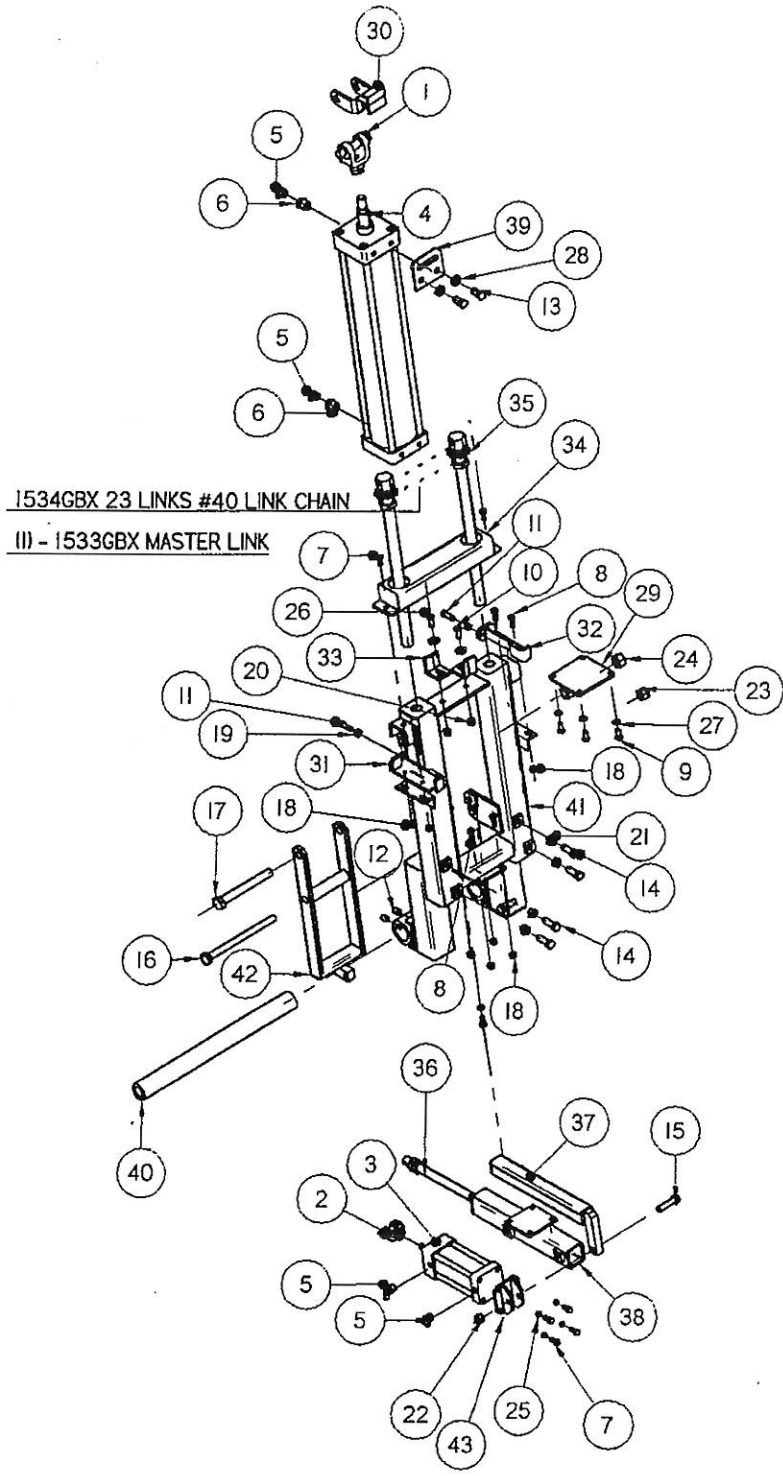
BRAKE CYLINDER ASSEMBLY

Item Number	File Name	Quantity	Description
1	05000CYL.asm	1	BRAKE CYLINDER CLEVIS
2	05040CYL.par	1	BRAKE CYLINDER
3	20750FIT.par	1	1/8" X 1/8" MALE FITTING
4	2075IFIT.par	1	1/8" X 1/8" 90 DEG. SWIVEL
5	2769I2NUT.par	1	5/16" JAM NUT
6	27698NUT.par	1	5/8" JAM NUT
7	SRS1677.par	1	BRAKE CYLINDER MOUNT

Item Number	File Name	Quantity	Description
1	05000CYL.par	1	CLEVIS
2	2503BLT.par	1	1/4" X 1" BOLT
3	2716NUT.par	1	1/4" NYLON LOCK NUT

FNG814300-05

MAST ASSEMBLY



FNG814300-06

MAST ASSEMBLY

Item Number	File Name	Quantity	Description
1	0500CYL.asm	1	CLEVIS FOR 1" ROD
2	0501CYL.asm	1	CLEVIS FOR 5/8" ROD
3	05051CYL.asm	1	2 1/2" X 4" AUTO ALIGN CYLINDER
4	05209CYL.asm	1	4" X 20" RAISE AND LOWER CYLINDER
5	2052FIT.par	4	1/4" TO 3/8" 90 DEG. FITTING
6	2130FFT.par	2	1/2" TO 3/8" PIPE REDUCER
7	2519BLT.par	6	5/16" X 3/4" BOLT
8	2520BLT.par	8	5/16" X 1" BOLT
9	2537BLT.par	4	3/8" X 3/4" BOLT
10	2538BLT.par	2	3/8" X 1" BOLT
11	2540BLT.par	2	3/8" X 1 1/4" BOLT
12	25590BLT.par	4	1/2" X 1/2" 13 SET SCREW
13	2559BLT.par	2	1/2" X 1" BOLT
14	2562BLT.par	6	1/2" X 1 1/2" BOLT
15	2563BLT.par	1	1/2" X 2" BOLT
16	2590BLT.par	1	5/8" X 8" BOLT
17	259970BLT.par	1	3/4" X 6" BOLT
18	2719NUT.par	10	5/16" NYLON LOCK NUT
19	2725NUT.par	2	3/8" STANDARD NUT
20	2727NUT.par	2	3/8" LOCKNUT
21	2732NUT.par	6	1/2" STANDARD NUT
22	2734NUT.par	1	1/2" LOCKNUT
23	2743NUT.par	1	5/8" NYLON LOCK NUT
24	27489NUT.par	1	3/4" SIDE LOCK NUT
25	2810WAS.par	4	5/16" LOCK WASHER
26	2820WAS.par	2	3/8" FLAT WASHER
27	2821WAS.par	4	3/8" LOCK WASHER
28	2832WAS.par	2	1/2" WASHER
29	SRG11200.par	1	REAR RAISE AND LOWER CYLINDER MOUNT
30	SRG1123.par	1	SAFETY LATCH
31	SRS16180.par	1	MAST ADJUSTER LEFT
32	SRS16181.par	1	MAST ADJUSTER RIGHT
33	SRS16240.par	2	CHAIN TIGHTENER
34	SRS16250.par	1	MAST CHAIN COVER
35	SRS1630.asm	2	SCEW JACK
36	SRS16310.asm	1	AUTO ALIGNMENT ADJUST
37	SRS16380.par	1	AUTO ADJUST INSIDE SLIDE
38	SRS16381.par	1	AUTO ADJUST OUTSIDE SLIDE
39	SRS16472.par	1	CYLINDER SUPPORT BRACKET
40	SRUI3190.par	1	UPPER TOOL BAR
41	SRUI348.par	1	MAST
42	SRUI349.par	1	ANGLE ADJUSTING PIVOT
43	SRUI351.par	1	AUTO ALIGN CYLINDER MOUNT

FNG814300-06

MAST ASSEMBLY

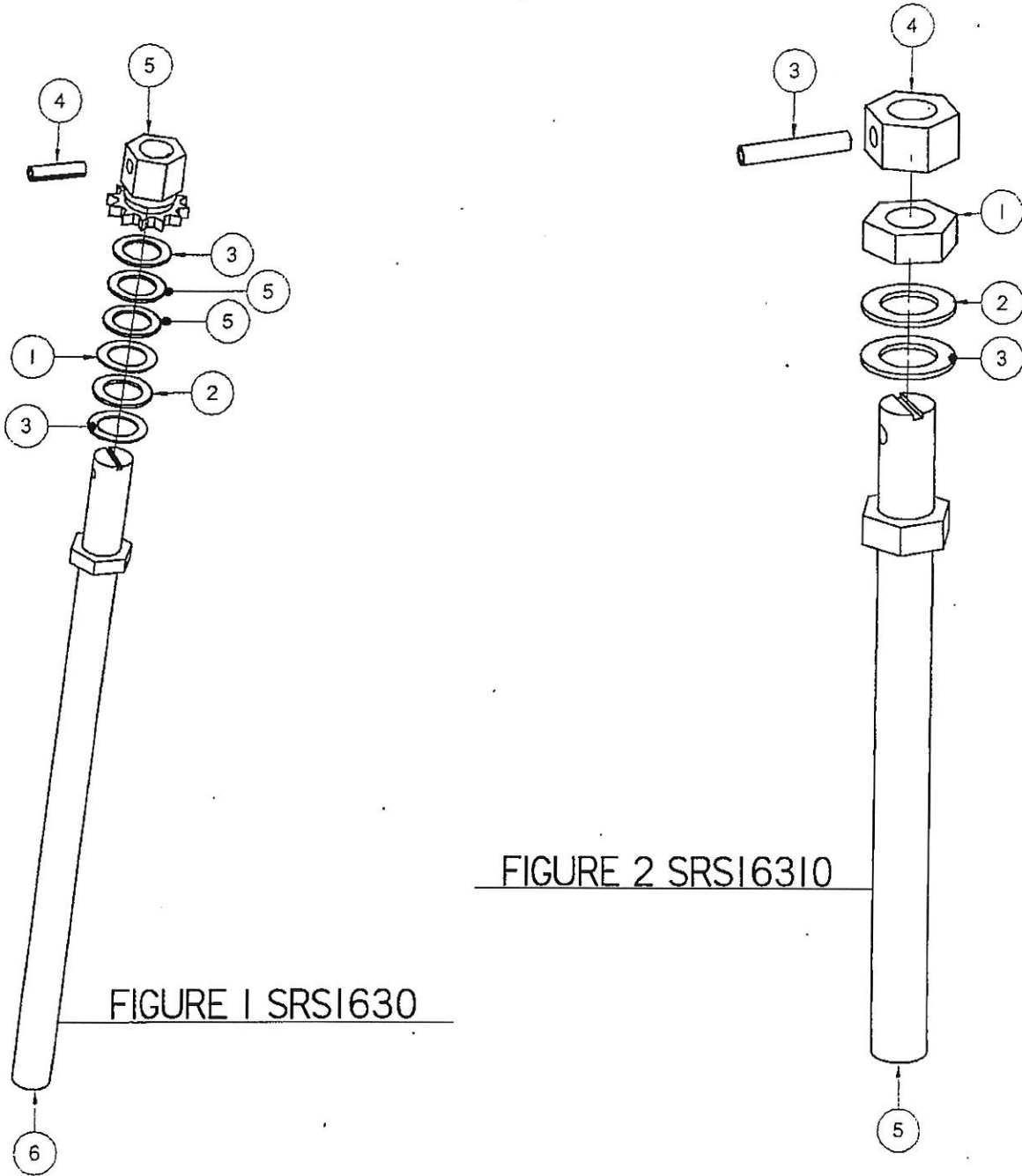


FIGURE 2 SRSI6310

FIGURE 1 SRSI630

FNG814300-06

MAST ASSEMBLY

FIGURE 1 SRSI630

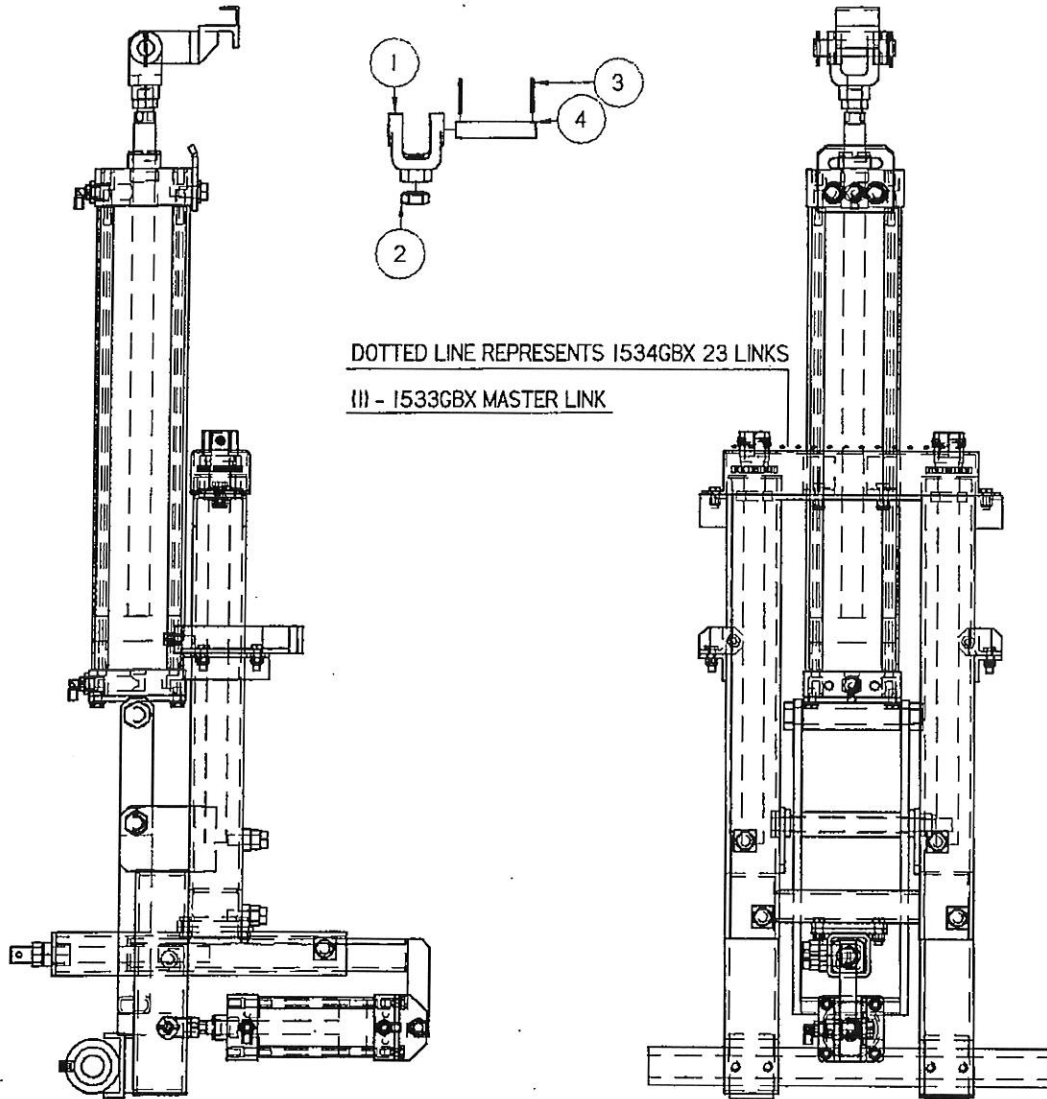
Item Number	File Name	Quantity	Description
1	04080BRG.par	2	THRUST BEARING WASHER
2	0408BRG.par	1	THRUST BEARING
3	2860WAS.par	3	1 1/2" OD X 1" ID 5GA. WASHER
4	3006PIN.par	1	3/8" X 1 1/2" ROLL PIN
5	SRSI630_.par	1	SCREW JACK TOP
6	SRSI630.par	1	SCREW JACK

FIGURE 2 SRSI6310

Item Number	File Name	Quantity	Description
1	2756NUT.par	1	3/4" JAM NUT
2	28510WAS.par	2	3/4" THIN MACHINE WASHER
3	30102PIN.par	1	1/4" X 1 1/2" ROLL PIN
4	SRSI6310_.par	1	3/4" STANDARD NUT
5	SRSI6310.par	1	AUTO ALIGNMENT ADJUST

FNG814300-06

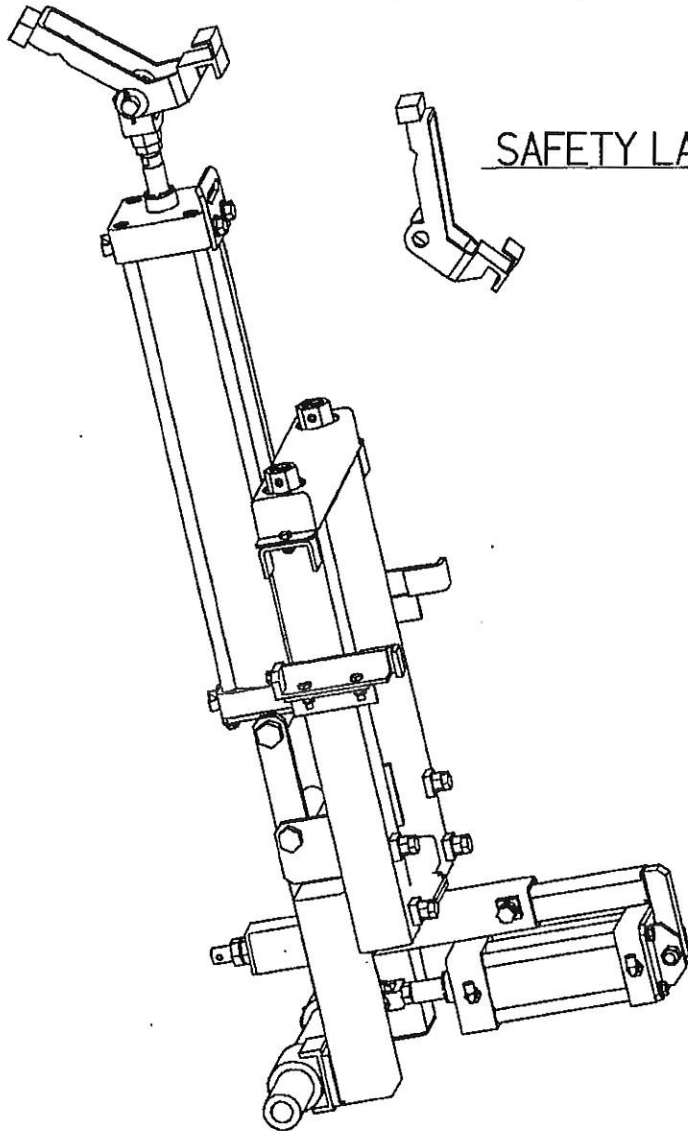
MAST ASSEMBLY



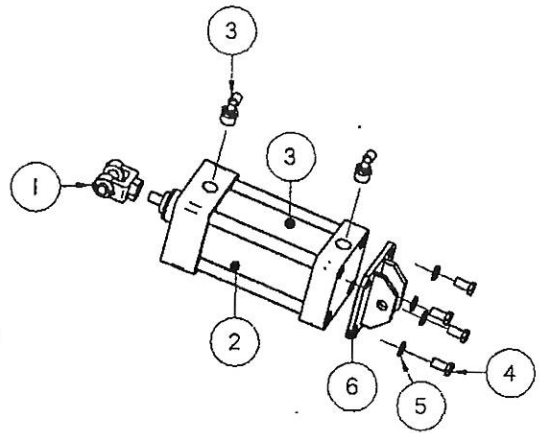
Item Number	File Name	Quantity	Description
1	0500CYL01.par	1	CLEVIS FOR 1" ROD
2	27699NUT.par	1	3/4" JAM NUT
3	30221PIN.par	2	1/8" X 1 1/4" COTTER PIN
4	SRS1663.par	1	SAFETY LATCH PIN

FNG814300-06

MAST ASSEMBLY 24" DRILL DEPTH



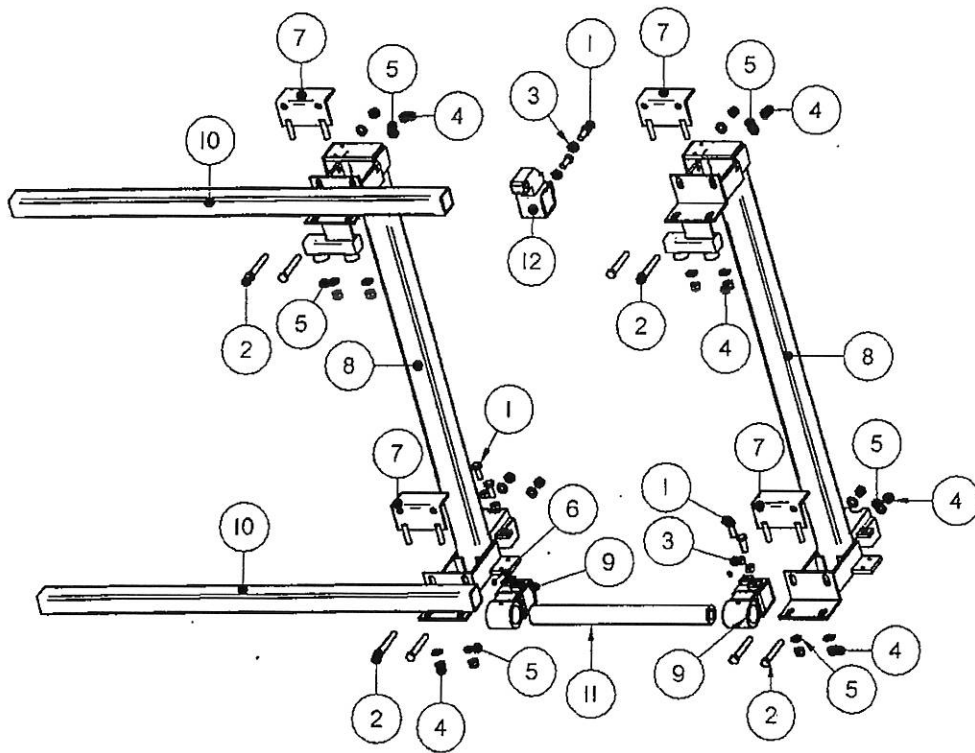
SAFETY LATCH PART # SRG11230



Item Number	File Name	Quantity	Description
1	0501CYL.asm	1	CLEVIS FOR 5/8" ROD
2	052120CYL.asm	1	3 1/4" X 4" CYLINDER
3	2052FIT.par	2	1/4" TO 3/8" 90 DEG. FITTING
4	25162BLT.par	4	3/8" X 3/4" FINE THREAD BOLT
5	2821WAS.par	4	3/8" LOCK WASHER
6	SRS1664.par	1	AUTO ALIGN CYL. BRACKET MULTIGANG

FNG81434

TOOL BAR ASSEMBLY



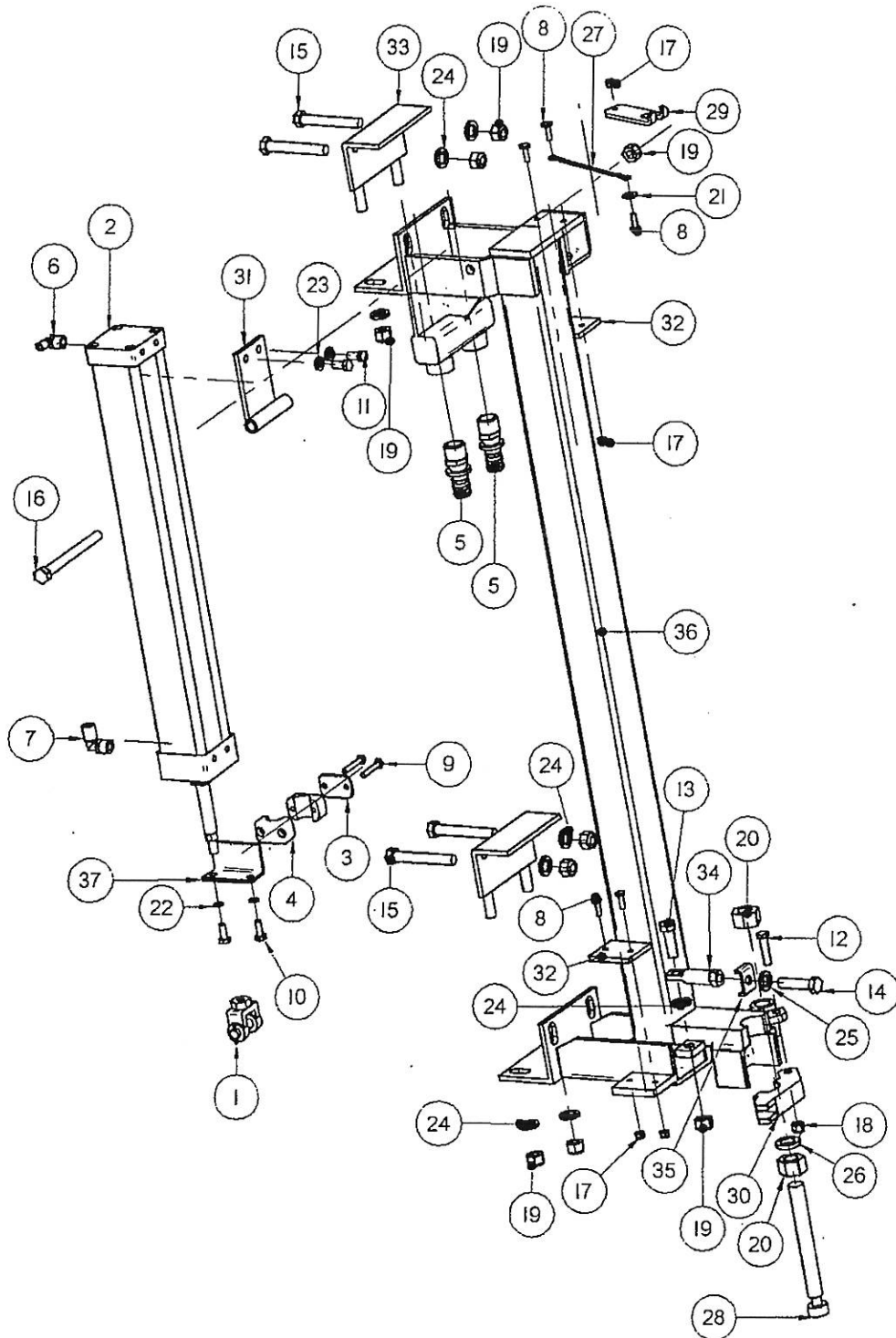
FNG814300-07

TOOL BAR ASSEMBLY

Item Number	File Name	Quantity	Description
1	2560BLT.par	6	1/2" X 1 1/4" BOLT
2	2568BLT.par	8	1/2" X 3 1/2" BOLT
3	2732NUT.par	6	1/2" STANDARD NUT
4	2734NUT.par	16	1/2" LOCKNUT
5	2831WAS.par	16	7/8"OD X 1/2"ID WASHER 10GA.
6	950IMIS.par	2	GREASE ZERT
7*	MFA06420.par	4	2" FEED BAR CLAMP
8*	SRSI6334.par	2	FEED BAR
9*	SRSI6351.par	2	HINGE
10*	SRUI318.par	2	OUTSIDE TOOL BAR
11	SRUI3190.par	1	UPPER TOOL BAR
12*	Sru1350.Par	1	TOOL BAR TO CYLINDER MOUNT HINGE

FNG814300-07

FEED BAR ASSEMBLY



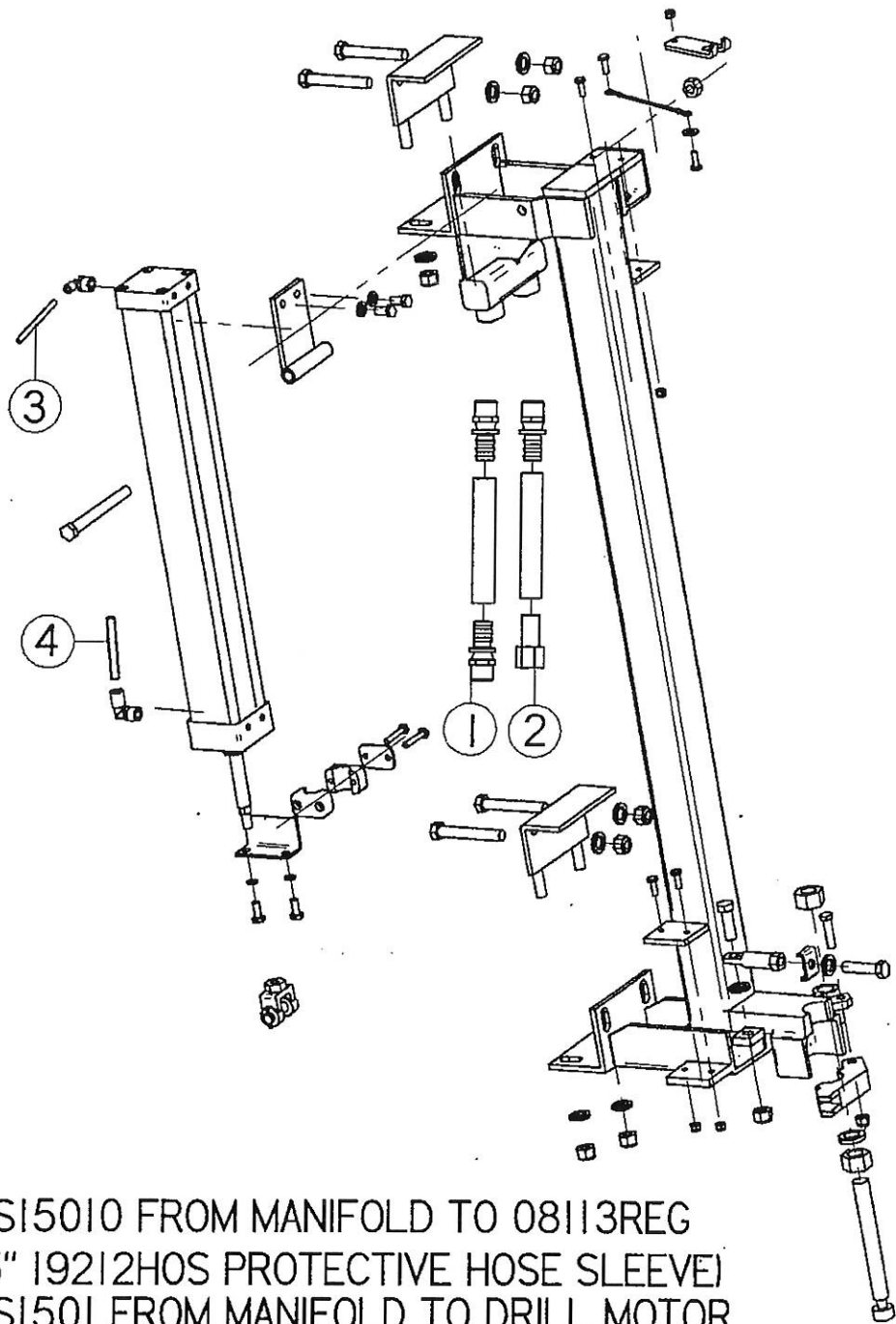
FNG814300-08

FEED BAR ASSEMBLY

Item Number	File Name	Quantity	Description
1	0501CYL.asm	1	CLEVIS FOR 5/8" ROD
2	05140CYL.asm	1	2.5" X 20" FEED CYLINDER
3	192309HOS.par	1	1" VIBRATION DAMPING HOSE CLAMP
4	192309HOS.par	2	1" VIBRATION DAMPING HOSE CLAMP
5	1999FIT.par	2	3/4" X 3/4" HOSE SWIVEL
6	2052FIT.par	1	1/4" TO 3/8" 90 DEG. FITTING
7	2054FIT.par	1	3/8" X 3/8" 90 DEG. FITTING
8	250IBLT.par	5	1/4" X 3/4" BOLT
9	2506BLT.par	2	1/4" X 1 1/2" BOLT
10	2516BLT.par	2	5/16" X 3/4" FINE THREAD BOLT
11	2537BLT.par	2	3/8" X 3/4" BOLT
12	254IBLT.par	1	3/8" X 1 1/2" BOLT
13	2562BLT.par	1	1/2" X 1 1/2" BOLT
14	2563BLT.par	1	1/2" X 2" BOLT
15	2568BLT.par	4	1/2" X 3 1/2" BOLT
16	2575BLT.par	1	1/2" X 5" BOLT
17	2716NUT.par	5	1/4" NYLON LOCK NUT
18	2727NUT.par	1	3/8" LOCKNUT
19	2734NUT.par	10	1/2" LOCKNUT
20	27490NUT.par	2	3/4" COIL ROD NUT
21	2801WAS.par	1	1/4" FLAT WASHER
22	2810WAS.par	2	5/16" LOCK WASHER
23	2821WAS.par	2	3/8" LOCK WASHER
24	2831WAS.par	9	7/8"OD X 1/2"ID WASHER 10GA.
25	2832WAS.par	1	1/2" WASHER
26	2852WAS.par	1	3/4" LOCK WASHER
27	3030PIN.par	1	6" LANYARD WITH LOOPS
28	CRA02041.par	1	6" STOP ROD
29	CRA0218.par	1	CARRIAGE LOCK
30	MFA0609.par	1	BIT GUIDE
31	MFA0625.par	1	FEED CYLINDER MOUNT BRACKET
32	MFA0626.par	2	STOP PAD
33	MFA06420.par	2	2" FEED BAR CLAMP
34	MFA0674.par	1	SWIVEL BOLT
35	MFA0690.par	1	BIT GUIDE KEEPER
36	SRS16334.par	1	FEED BAR
37	SRS16800.par	1	1" HOSE MOUNT BRACKET

FNG814300-08

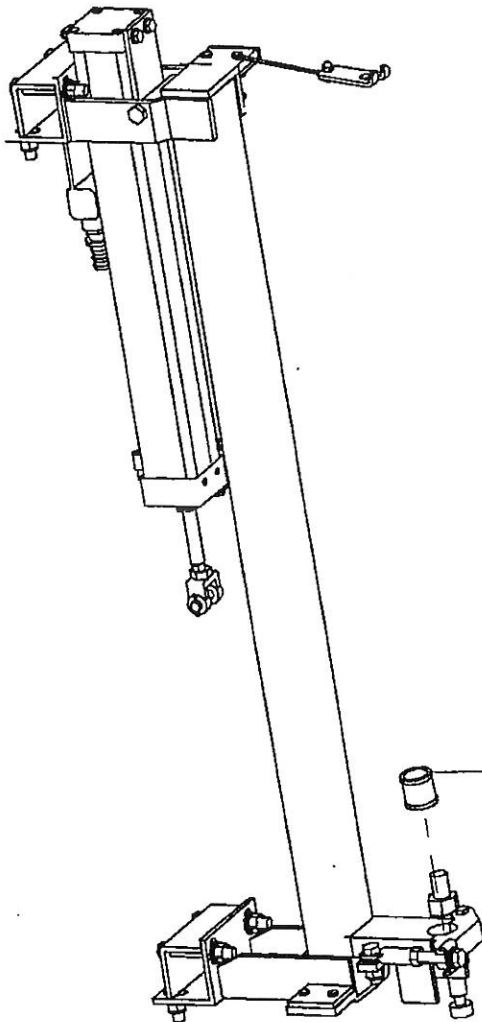
FEED BAR ASSEMBLY



1. HOS15010 FROM MANIFOLD TO 08113REG
(85" 19212HOS PROTECTIVE HOSE SLEEVE)
2. HOS1501 FROM MANIFOLD TO DRILL MOTOR
3. 14' OF 1903HOS 1/4" BLACK TUBING FROM FEED CYLINDER
IN TO 08101REG
4. 14' OF 1905HOS 3/8" BLACK TUBING FROM FEED CYLINDER
OUT TO 060102VAL

FNG814300-08

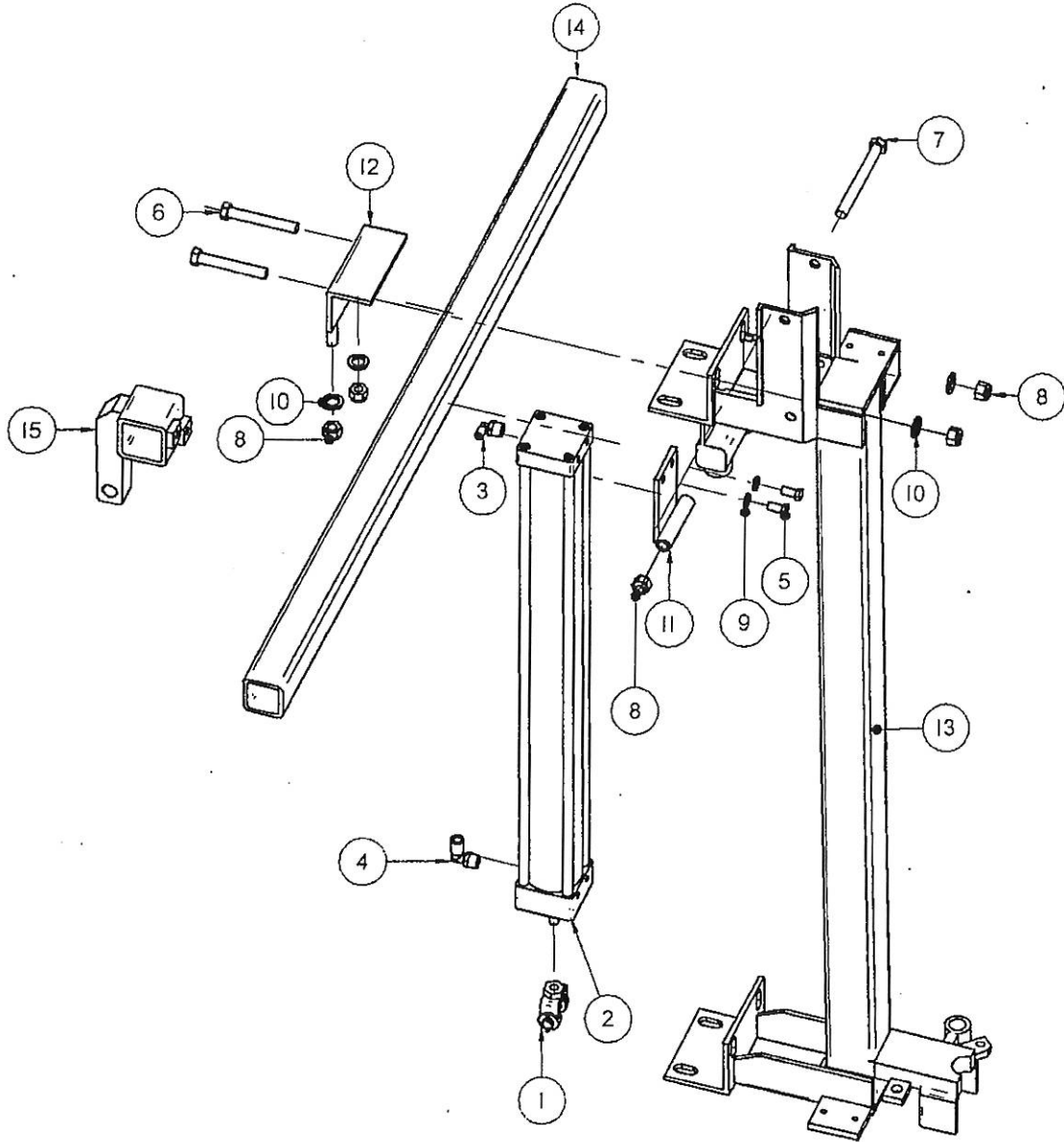
FEED BAR ASSEMBLY



- 1108MCP 5/8" BUSHING
- 1109MCP 3/4" BUSHING
- 1110MCP 7/8" BUSHING
- 1111MCP 1" BUSHING
- 1112MCP 1 1/8" BUSHING

FNG814300-08

FEED BAR ASSEMBLY FOR 24" DRILL DEPTH



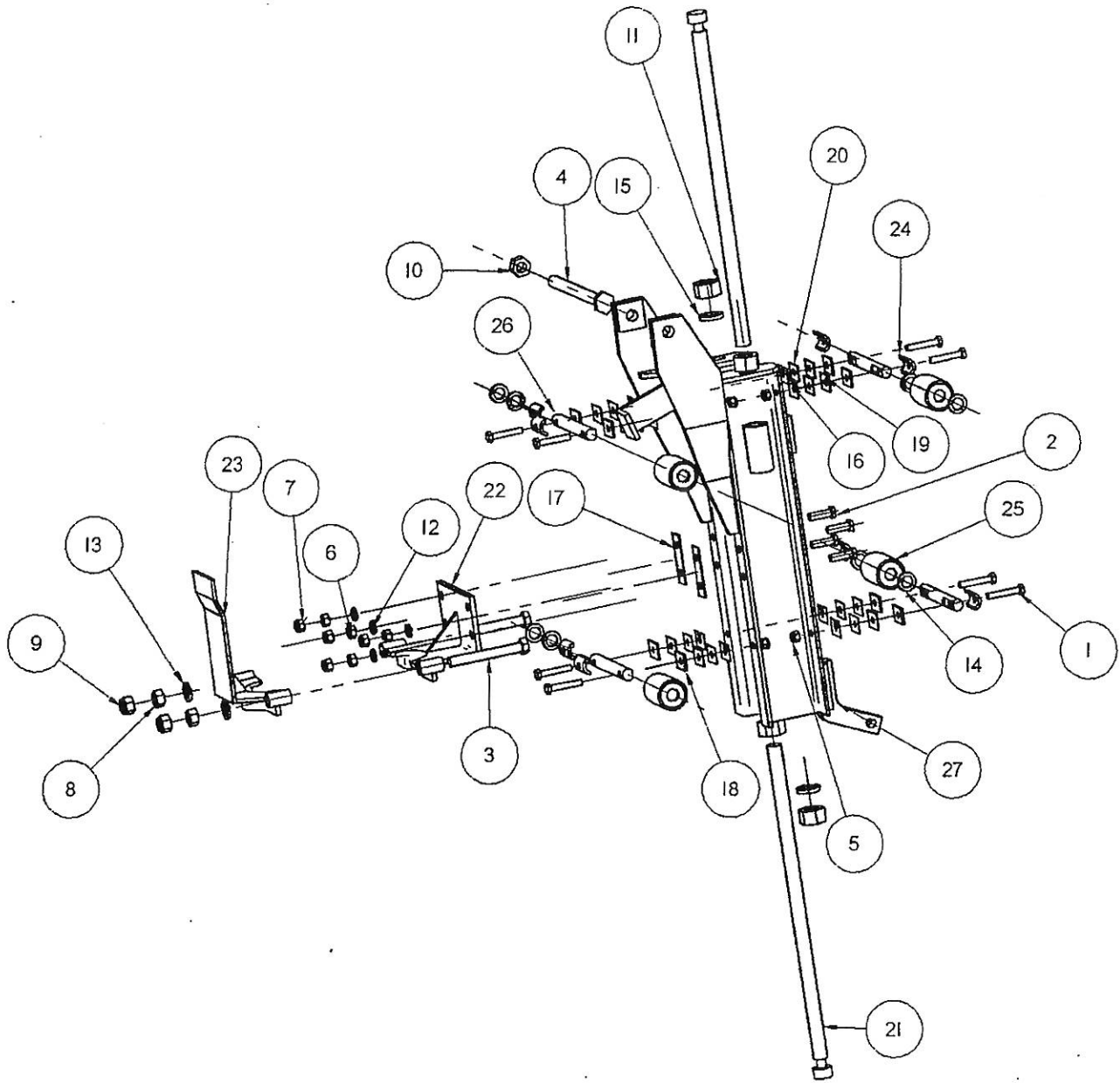
FNG81434

FEED BAR ASSEMBLY FOR 24" DRILL DEPTH

Item Number	File Name	Quantity	Description
1'	0501CYL.asm	1	CLEVIS FOR 5/8" ROD
2'	05160CYL.asm	1	FEED CYLINDER FOR 24" DRILL DEPTH
3'	2052FIT.par	1	1/4" TO 3/8" 90 DEG. FITTING
4'	2054FIT.par	1	3/8" X 3/8" 90 DEG. FITTING
5'	2537BLT.par	2	3/8" X 3/4" BOLT
6'	2568BLT.par	2	1/2" X 3 1/2" BOLT
7'	2575BLT.par	1	1/2" X 5" BOLT
8'	2734NUT.par	5	1/2" LOCKNUT
9'	2821WAS.par	2	3/8" LOCK WASHER
10'	2831WAS.par	4	7/8"OD X 1/2"ID WASHER 10GA.
11'	MFA0625.par	1	FEED CYLINDER MOUNT BRACKET
12'	MFA06420.par	1	2" FEED BAR CLAMP
13'	SRS16336.par	1	FEED BAR 24" DRILL DEPTH
14'	SRUI318.par	1	OUTSIDE TOOL BAR
15'	SRUI3500.par	1	TOOL BAR TO CYLINDER MOUNT HINGE 24"

FNG81434

CARRIAGE ASSEMBLY



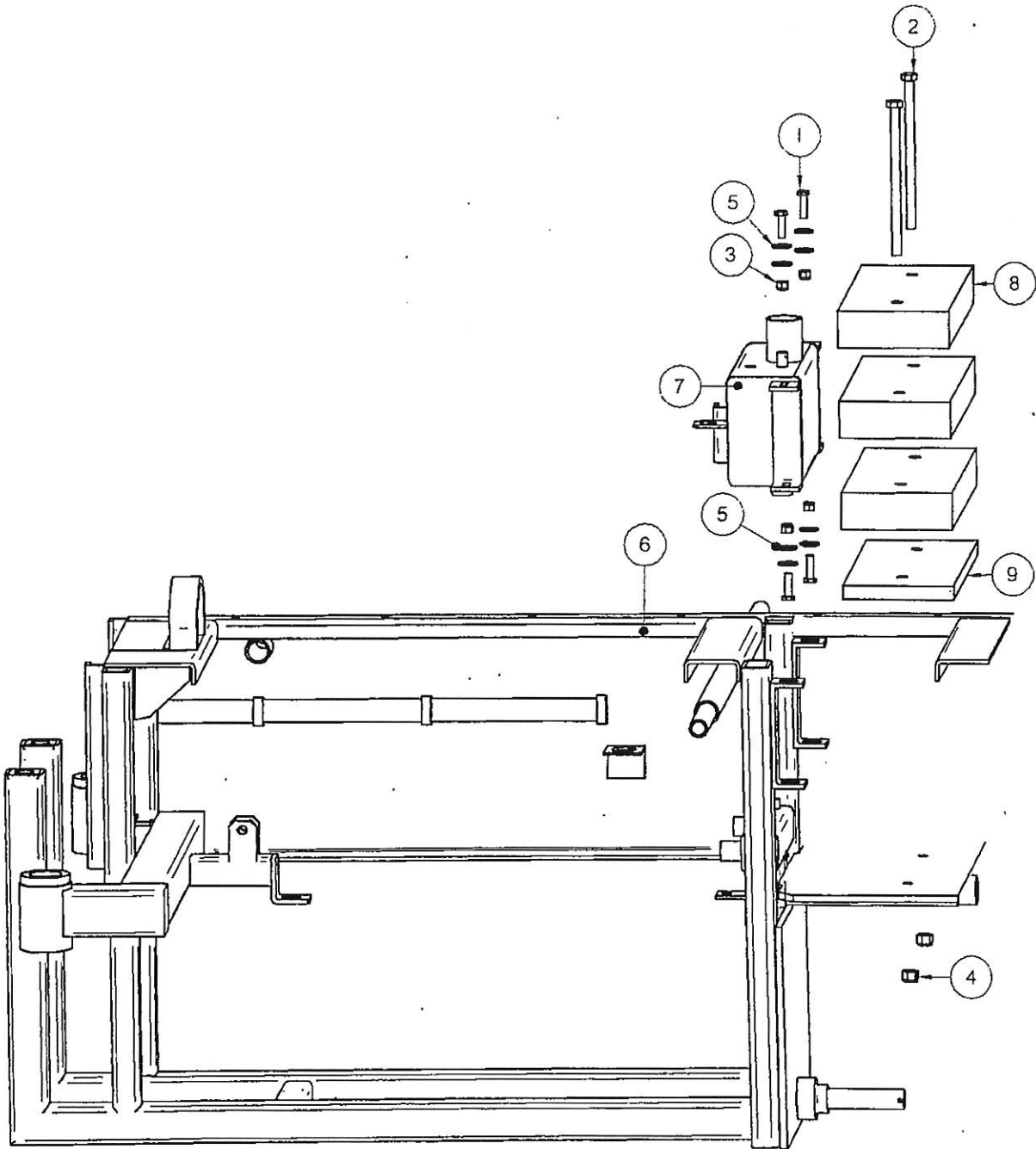
FNG814300-09

CARRIAGE ASSEMBLY

Item Number	File Name	Quantity	Description
1	2526BLT	8	5/16" X 1-1/2" BOLT
2	2540BLT.par	4	3/8" X 1 1/4" BOLT
3	2570BLT.par	2	1/2" X 4" BOLT
4	2590BLT.par	1	5/8" X 8" BOLT
5	2719NUT.par	8	5/16" LOCKNUT
6	2725NUT.par	4	3/8" STANDARD NUT
7	2727NUT.par	4	3/8" LOCKNUT
8	2732NUT.par	2	1/2" STANDARD NUT
9	2734NUT.par	2	1/2" LOCKNUT
10	2742NUT.par	1	5/8" LOCKNUT
11	27490NUT.par	4	3/4" COIL ROD NUT
12	2821WAS.par	4	3/8" LOCK WASHER
13	2832WAS.par	2	1/2" WASHER
14	2841WAS.par	8	5/16" WASHER
15	2852WAS.par	2	3/4" LOCK WASHER
16	7009TAB.par	8	STAINLESS STEEL SHIM
17	7010TAB.par	2	16 GA. TWO HOLE SHIM
18	7011TAB.par	8	12 GA. SHIM
19	7012TAB.par	8	18 GA. SHIM
20	7013TAB.par	8	22 GA. SHIM
21	Cra02030.Par	2	18" STOP ROD
22	CRA0214.par	1	UPPER DRILL BRACKET
23	CRA0216.par	1	LOWER DRILL BRACKET
24	CRA0230.par	8	BEARING KEEPER
25	CRA0233.par	4	ROLLER BEARING DRUM
26	CRA0234.par	4	ROLLER BEARING AXLE
27	CRG01041.par	1	CARRIAGE

FNG814300-09

COUNTER WEIGHT ASSEMBLY



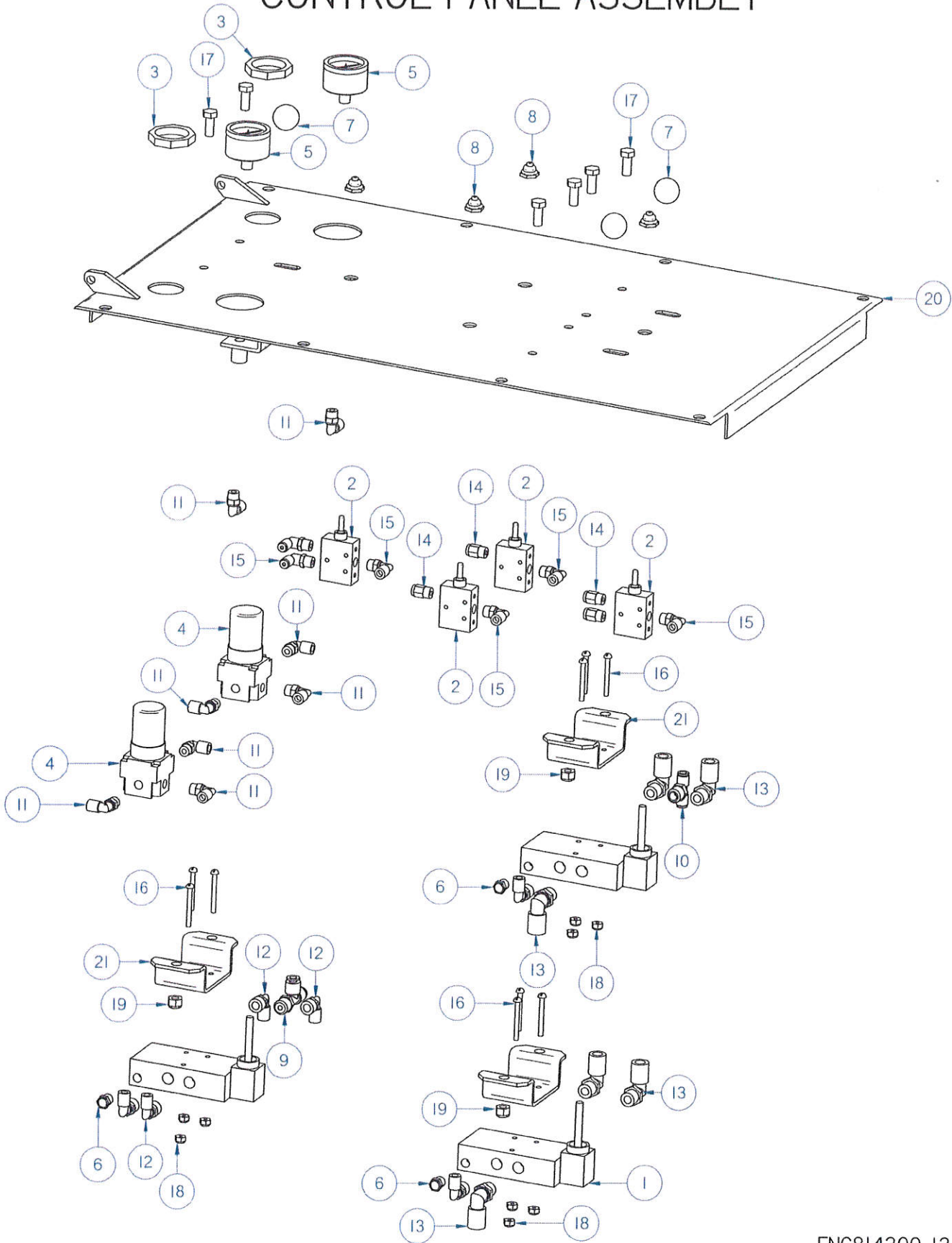
FNG814300-10

COUNTER WEIGHT ASSEMBLY

Item Number	File Name	Quantity	Description
1	2540BLT.par	4	3/8" X 1 1/4" BOLT
2	2580IBLT.par	2	1/2" X 8" BOLT
3	2727NUT.par	4	3/8" LOCKNUT
4	2734NUT.par	2	1/2" LOCKNUT
5	2820IWAS.par	8	3/8" HARDENED FLAT WASHER
6	MNF0528.asm	1	MAIN FRAME
7	SRSI6264.par	1	OIL TANK
8	SRSI6271.par	3	COUNTER WEIGHT LARGE
9	SRSI6272.par	1	COUNTER WEIGHT SMALL

FNG814300-10

CONTROL PANEL ASSEMBLY

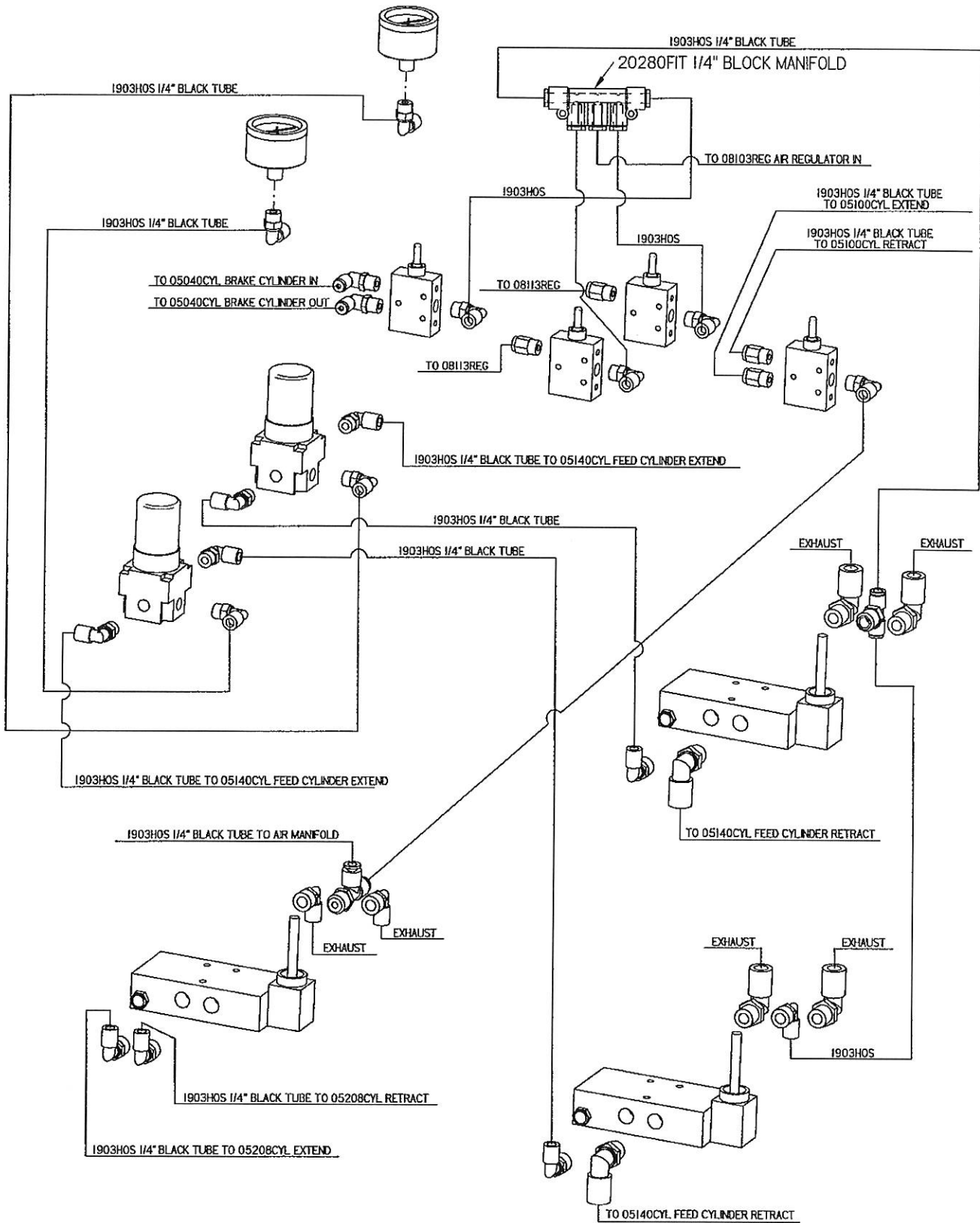


FNG814300-13

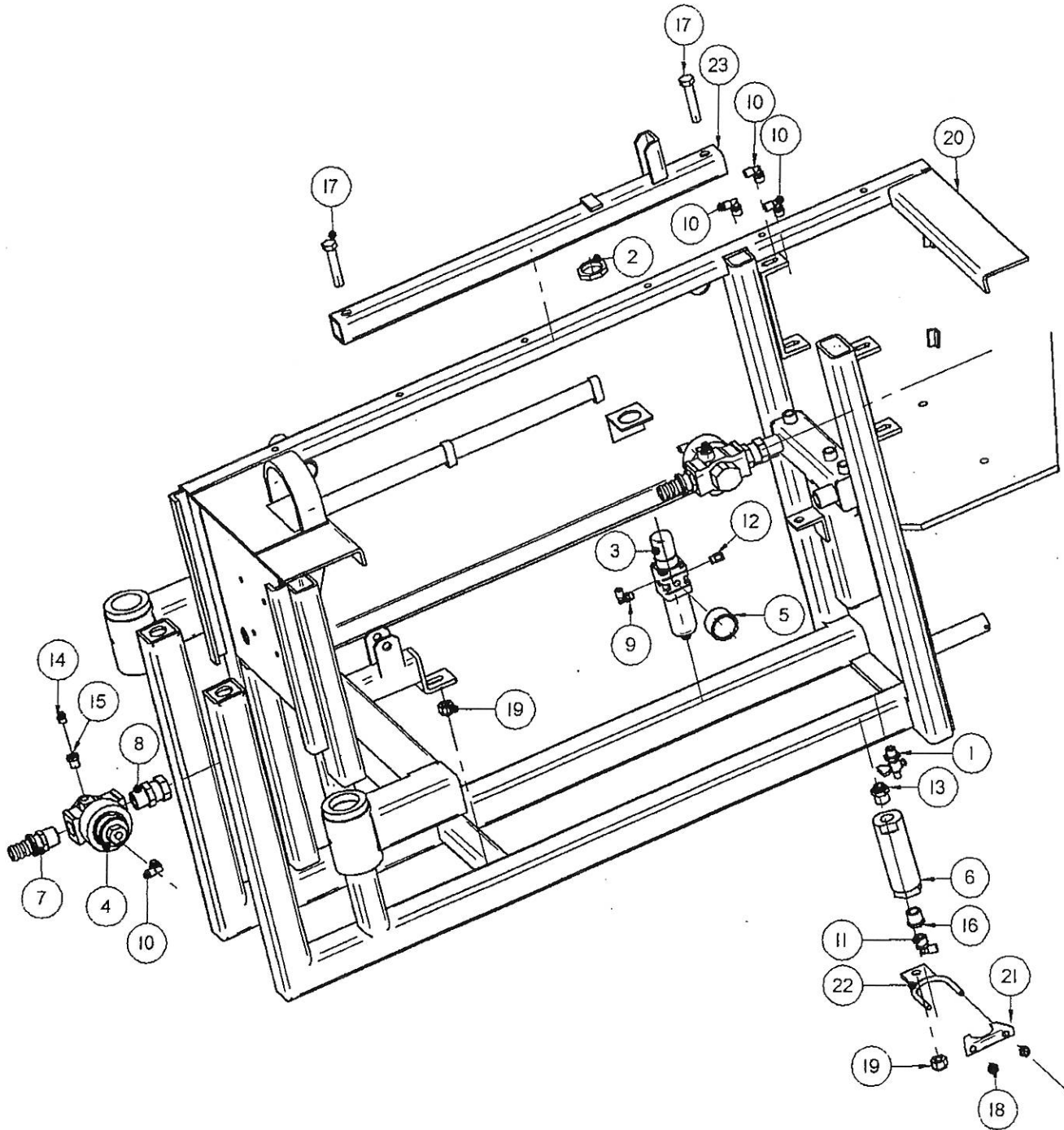
CONTROL PANEL ASSEMBLY

Item Number	File Name	Quantity	Description
1	060102VAL.par	3	3 WAY POSITION VALVE WITH KNOB
2*	06095VAL.par	4	TOGGLE SWITCH
3	081010REG.par	2	REGULATOR LOCK RING
4	081010REG.par	2	REGULATOR WITH LOCK RING
5	09022GAU.par	2	GAUGE 0-60 1/8" MPT
6	1001BRV.par	3	1/8" BREATHER VENT
7	17420IRPT.par	3	KNOB
8	1828GRO.par	4	RED BOOT FOR 06095VAL
9	2035FIT.par	1	1/4" X 1/4" MALE RUN T
10*	2041FIT.par	1	1/4" BRANCH T
11	2050FIT.par	12	1/4" TO 1/8" 90 DEG. FITTING
12	2051FIT.par	7	1/4" TO 1/4" 90 DEG. FITTING
13	2053FIT.par	6	3/8" TO 1/4" MALE 90
14*	2066FIT.par	4	1/4" TO 1/8" MALE CONNECTOR
15	20751FIT.par	2	1/8" X 1/8" 90 DEG. SWIVEL
16	2478BLT.par	9	8/32" X 1 1/2" BOLT
17	2519BLT.par	6	5/16" X 3/4" BOLT
18	2712NUT.par	9	8/32" NYLON LOCK NUT
19	2719NUT.par	3	5/16" NYLON LOCK NUT
20	PAN04080.par	1	CONTROL PANEL
21	SRU13460.psm	3	VALVE SPACER

CONTROL PANEL SCHEMATIC



INTERNAL REGULATOR ASSEMBLY



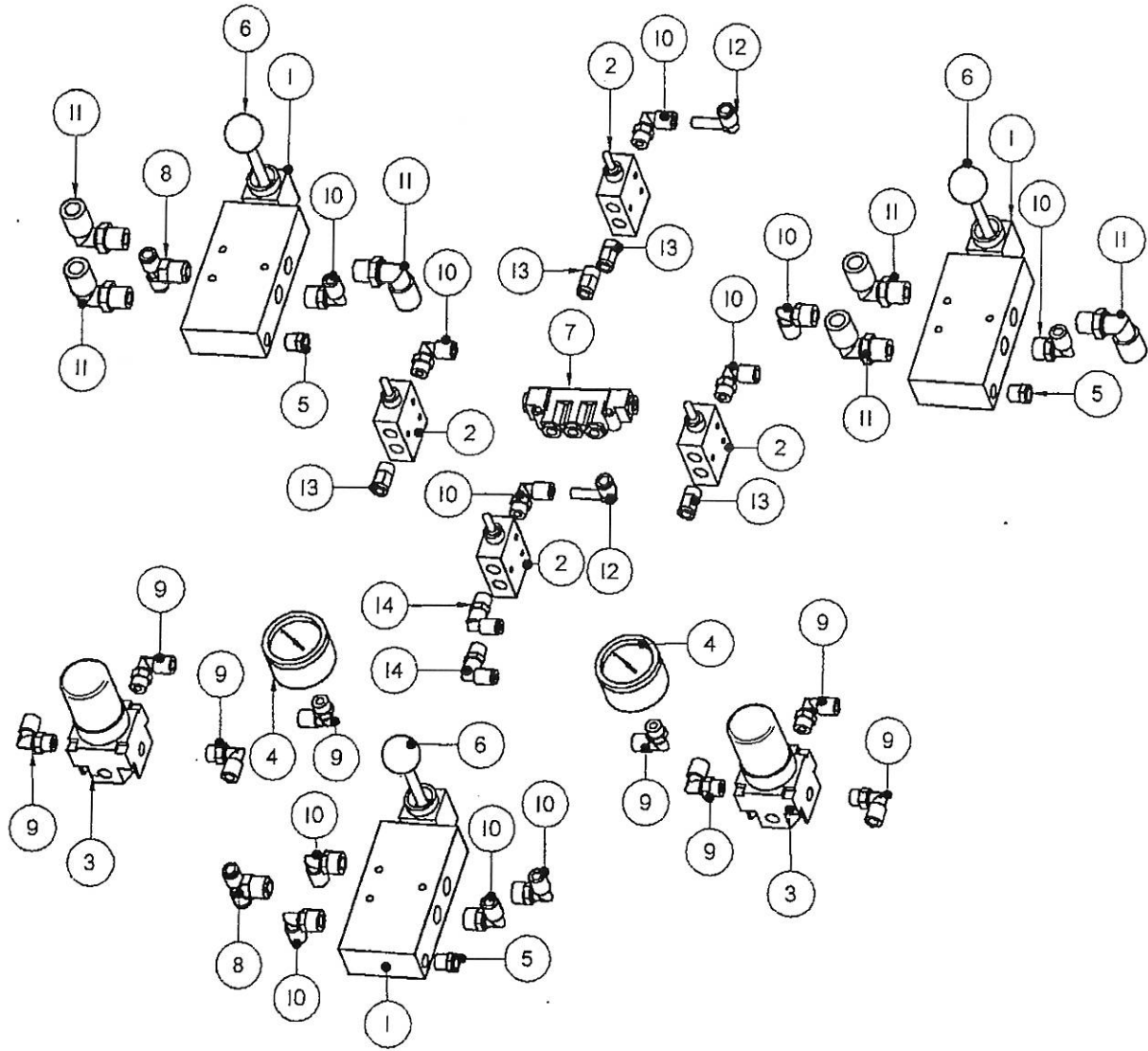
FNG814300-12

INTERNAL REGULATOR ASSEMBLY

Item Number	File Name	Quantity	Description
1	06056VAL.par	1	BUTTERFLY BLEEDER VALVE
2	08103REG.par	1	REGULATOR LOCK RING
3	08103REG.par	1	1/8" FILTER REGULATOR
4	08113REG.par	2	3/4" REGULATOR
5	09023GAU.par	1	0-160 GAUGE
6	1006BRV.par	1	1/2" HYDRAULIC FILTER
7	1999FIT.par	2	3/4" X 3/4" HOSE SWIVEL
8	20010FIT.par	2	3/4" SWIVEL CONNECTOR
9	2050FIT.par	1	1/4" TO 1/8" 90 DEG. FITTING
10	2051FIT.par	5	1/4" TO 1/4" 90 DEG. FITTING
11	2052FIT.par	1	1/4" TO 3/8" 90 DEG. FITTING
12	2066FIT.par	1	1/4" TO 1/8" MALE CONNECTOR
13	2072FIT.par	1	3/8" TO 1/2" MALE CONNECTOR
14	20750FIT.par	2	1/8" X 1/8" MALE FITTING
15	20755FIT.par	2	1/4" X 1/8" BUSHING
16	20760PFT.par	1	1/2" TO 3/8" REDUCER
17	2564BLT.par	2	1/2" X 2 1/2" BOLT
18	2719NUT.par	2	5/16" NYLON LOCK NUT
19	2734NUT.par	2	1/2" LOCKNUT
20	MNF0528.asm	1	MAIN FRAME
21	SRS16265.par	1	OIL FILTER BRACKET
22	SRS16265.par	1	OIL FILTER BRACKET
23	SRUI3041.par	1	STEERING SLIDE BAR

FNG814300-12

AIR LINE SCHEMATIC



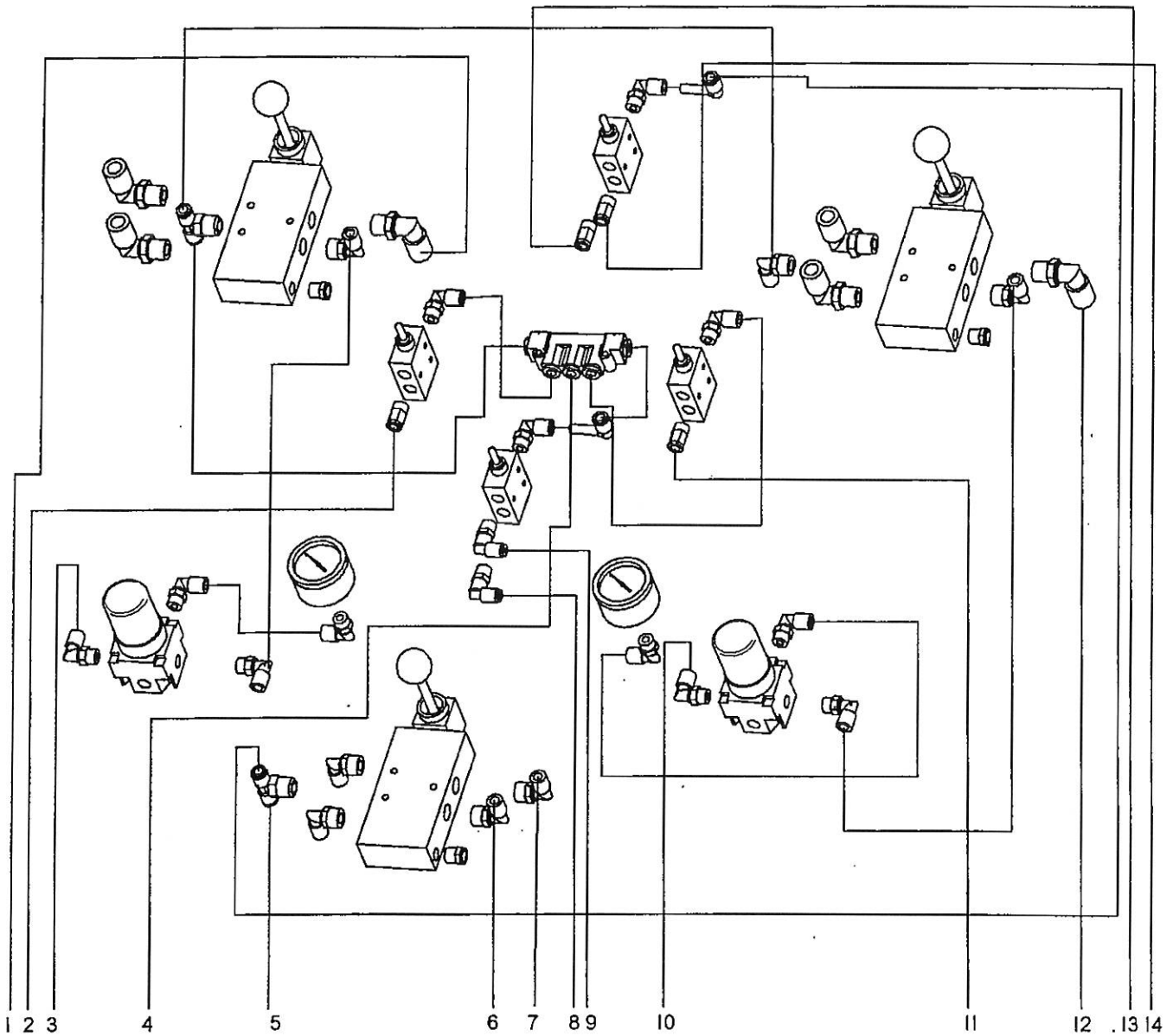
FNG814300-13

AIR LINE SCHEMATIC

Item Number	File Name	Quantity	Description
1	060102VAL.par	3	3 WAY POSITION VALVE
2	06095VAL.par	4	TOGGLE SWITCH
3	0810IREG.par	2	REGULATOR 0-125 MAX PSI. 1/8" PORTS
4	09022GAU.par	2	GAUGE 0-60 1/8" MPT
5	1001BRV.par	3	1/8" BREATHER VENT
6	17420IRPT.par	3	KNOB
7	20280FIT.par	1	1/4" BLOCK MANIFOLD
8	2041FIT.par	2	1/4" BRANCH T
9	2050FIT.par	12	1/4" TO 1/8" 90 DEG. FITTING
10	2051FIT.par	7	1/4" TO 1/4" 90 DEG. FITTING
11	2053FIT.par	6	3/8" TO 1/4" MALE 90
12	20580FIT.par	2	1/4" PLUG IN ELBOW
13	2066FIT.par	4	1/4" TO 1/8" MALE CONNECTOR
14	20751FIT.par	2	1/8" X 1/8" 90 DEG. SWIVEL

FNG814300-13

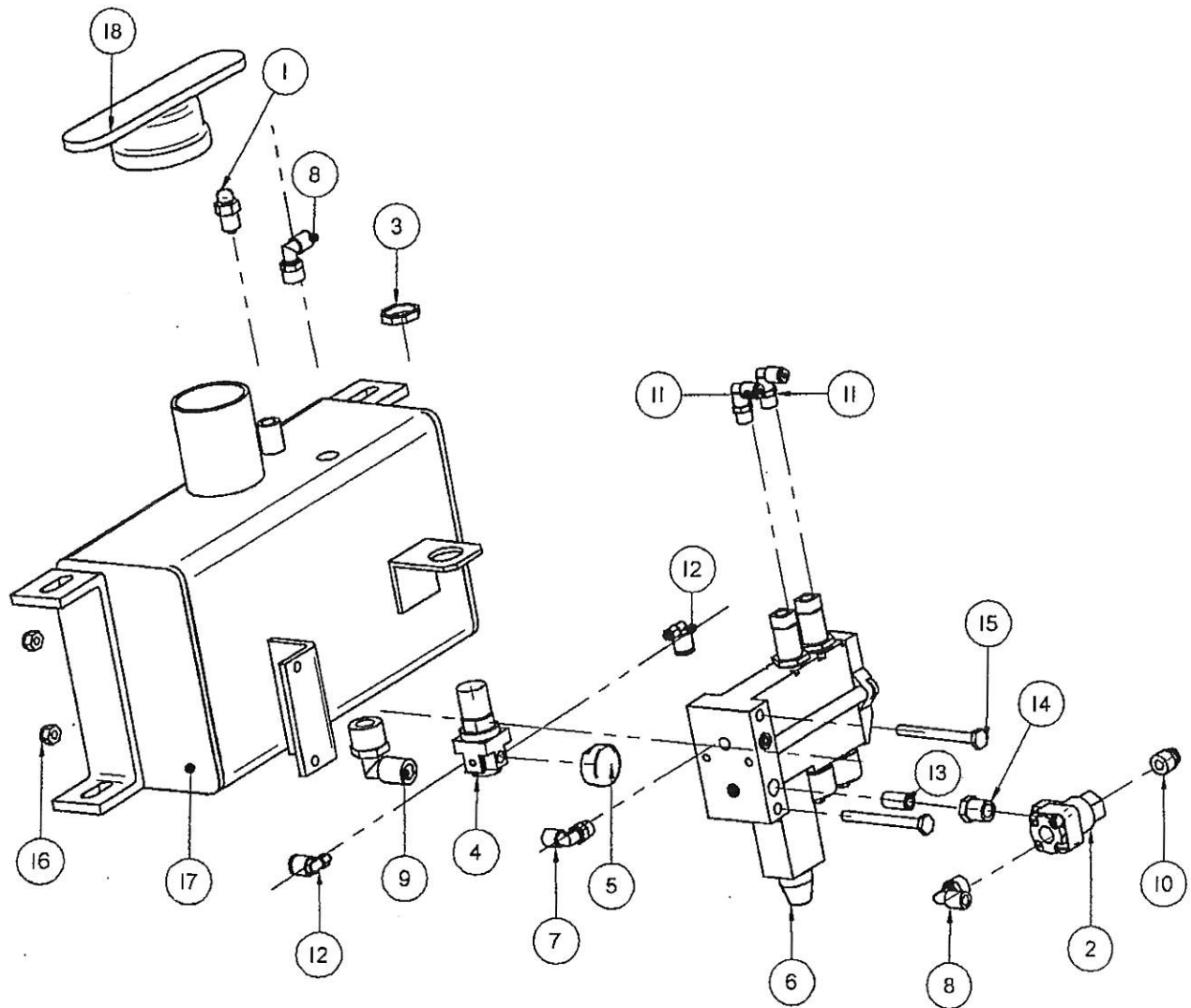
AIR LINE SCHEMATIC



- 1. TO 05140CYL FEED CYLINDER OUT
- 2. TO 08113REG REGULATOR
- 3. TO 05140CYL FEED CYLINDER IN
- 4. TO 08103REG AIR REGULATOR IN
- 5. TO AIR MANIFOLD
- 6. TO 05209CYL RAISE AND LOWER CYLINDER (RAISE)
- 7. TO 05209CYL RAISE AND LOWER CYLINDER (LOWER)
- 8. TO 05040CYL BRAKE CYLINDER IN
- 9. TO 05040CYL BRAKE CYLINDER OUT
- 10. TO 05140CYL FEED CYLINDER IN
- 11. TO 08113REG REGULATOR
- 12. TO 05140CYL FEED CYLINDER OUT
- 13. TO 052100CYL AUTO ALIGN CYLINDER IN
- 14. TO 052100CYL AUTO ALIGN CYLINDER OUT

FNG814300-13

OIL TANK ASSEMBLY



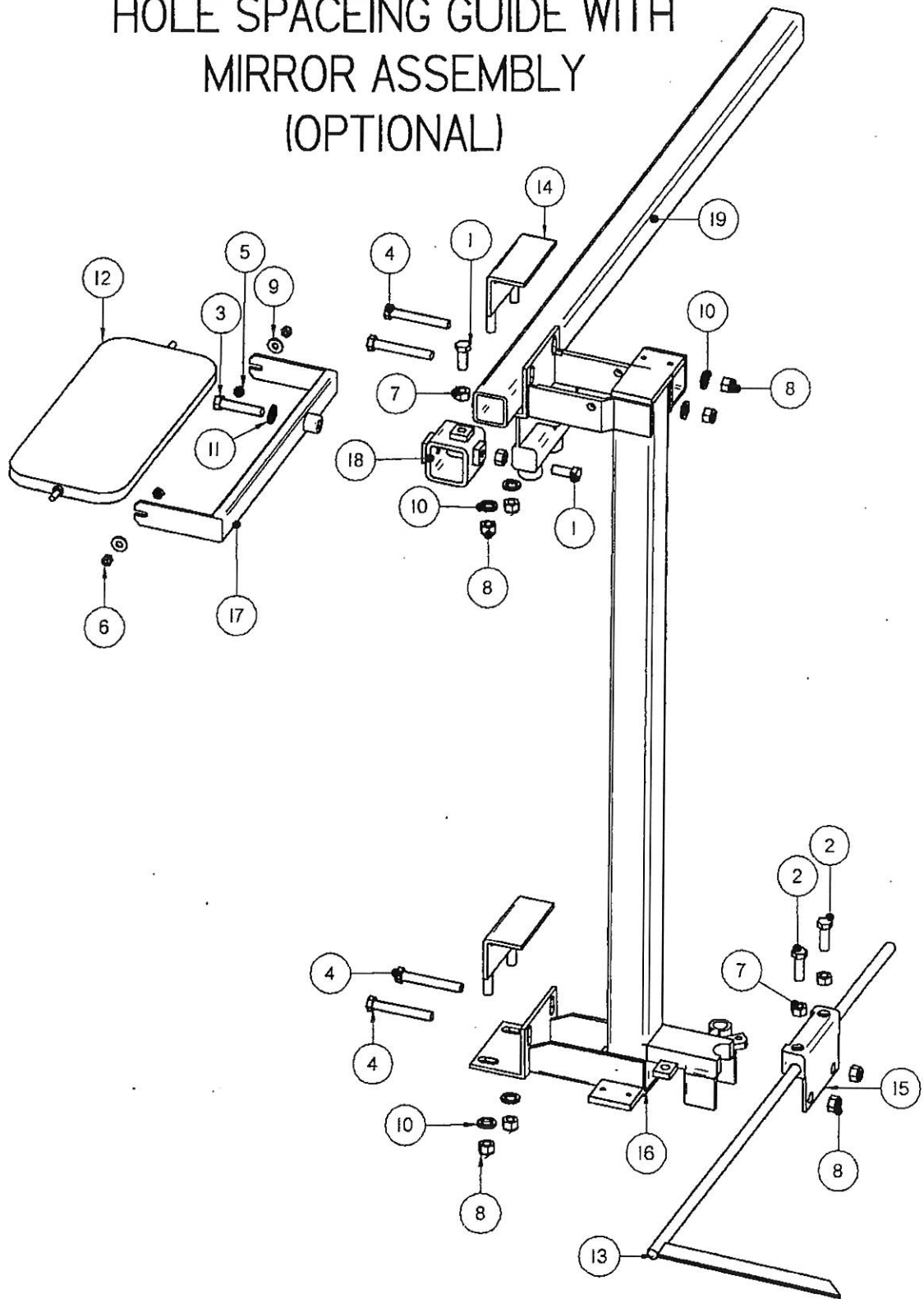
FNG814300-14

OIL TANK ASSEMBLY

Item Number	File Name	Quantity	Description
1	06055VAL.par	1	BUTTON BLEEDER VALVE
2	06140VAL.par	1	SHUTTLE VALVE
3	08108REG.par	1	LOCK RING FOR 08108REG
4	08108REG.par	1	REGULATOR WITH 0-125 MAX PSI
5	09024GAU.par	1	GAUGE 0-150 MAX PSI
6	16071OIL.par	1	2 BANK OILER
7	2050FIT.par	1	1/4" TO 1/8" 90 DEG. FITTING
8	2051FIT.par	2	1/4" TO 1/4" 90 DEG. FITTING
9	2055FIT.par	1	3/8" TO 1/2" 90 DEG. FITTING
10	2067FIT.par	1	1/4" TO 1/4" MALE CONNECTOR
11	2075IFIT.par	2	1/8" X 1/8" 90 DEG. SWIVEL
12	20754FIT.par	2	1/4" to 10/32" 90 DEG. FITTING
13	2105PFT.par	1	1/8" CLOSE NIPPLE
14	21390PFT.par	1	1/4" TO 1/8" REDUCER
15	2509BLT.par	2	1/4" X 2 1/2" BOLT
16	2716NUT.par	2	1/4" NYLON LOCK NUT
17	SRS16264.par	1	OIL TANK
18	SRS1648.par	1	OIL TANK CAP

FNG814300-14

HOLE SPACEING GUIDE WITH MIRROR ASSEMBLY (OPTIONAL)



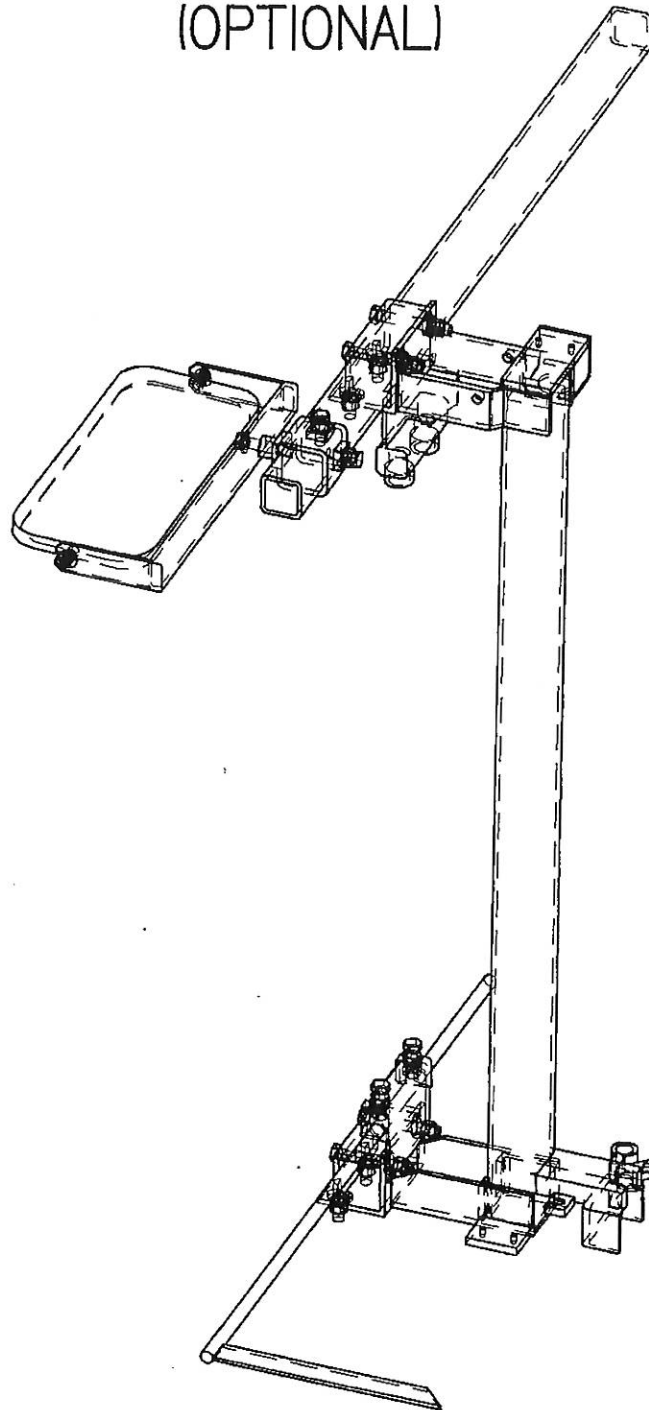
FNG814300-15

HOLE SPACEING GUIDE WITH MIRROR ASSEMBLY (OPTIONAL)

Item Number	File Name	Quantity	Description
1	2560BLT.par	2	1/2" X 1 1/4" BOLT
2	2562BLT.par	2	1/2" X 1 1/2" BOLT
3	2564BLT.par	1	1/2" X 2 1/2" BOLT
4	2568BLT.par	4	1/2" X 3 1/2" BOLT
5	2717NUT.par	2	5/16" STANDARD NUT
6	2719NUT.par	2	5/16" NYLON LOCK NUT
7	2732NUT.par	4	1/2" STANDARD NUT
8	2734NUT.par	8	1/2" LOCKNUT
9	2800WAS.par	2	5/16" FLAT WASHER
10	2831WAS.par	6	7/8"OD X 1/2"ID WASHER 10GA.
11	2832WAS.par	1	1/2" WASHER
12	9008MIS.par	1	MIRROR
13	MFA0635.par	1	POINTER
14	MFA06420.par	2	2" FEED BAR CLAMP
15	MFA0654.par	1	HOLE SPACING BRACKET
16	SRS16334.par	1	FEED BAR
17	SRS1668.par	1	MIRROR BRACKET
18	SRS16737.par	1	MIRROR BRACKET NO GUIDE WHEELS
19	SRUI318.par	1	OUTSIDE TOOL BAR

FNG814300-15

HOLE SPACEING GUIDE WITH
MIRROR ASSEMBLY
(OPTIONAL)



FNG814300-15

ON GRADE CONVERSION KIT

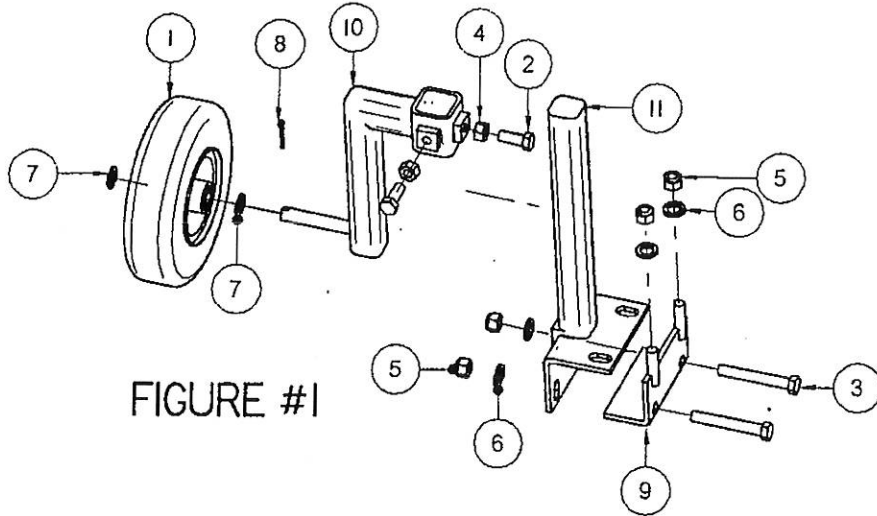


FIGURE #1

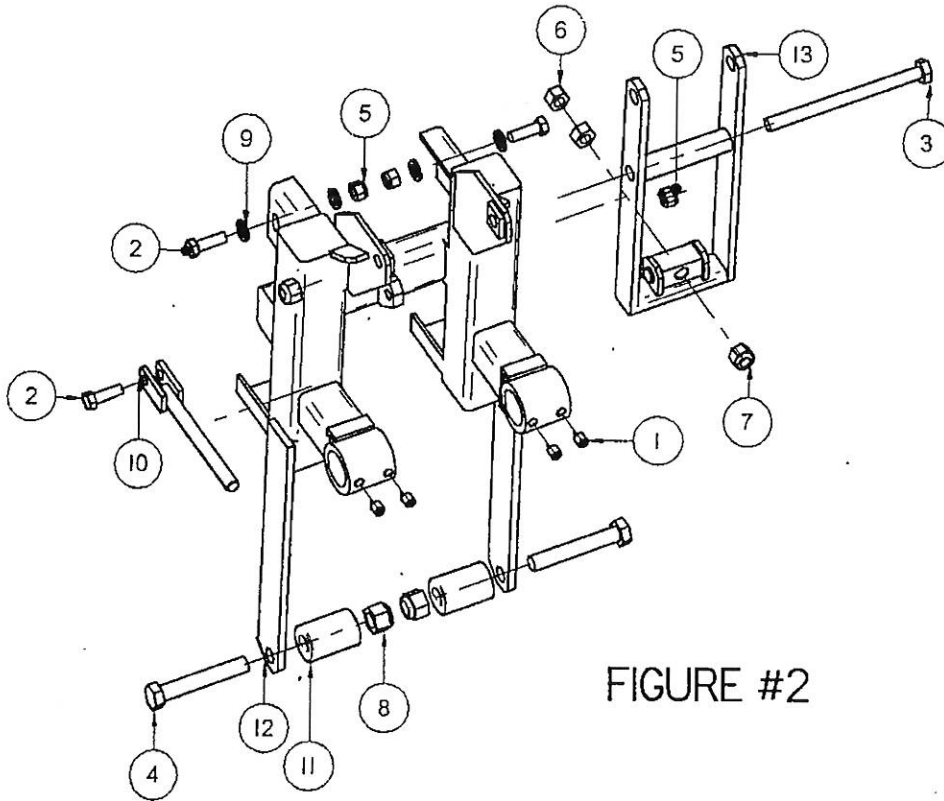


FIGURE #2

FNG814300-16

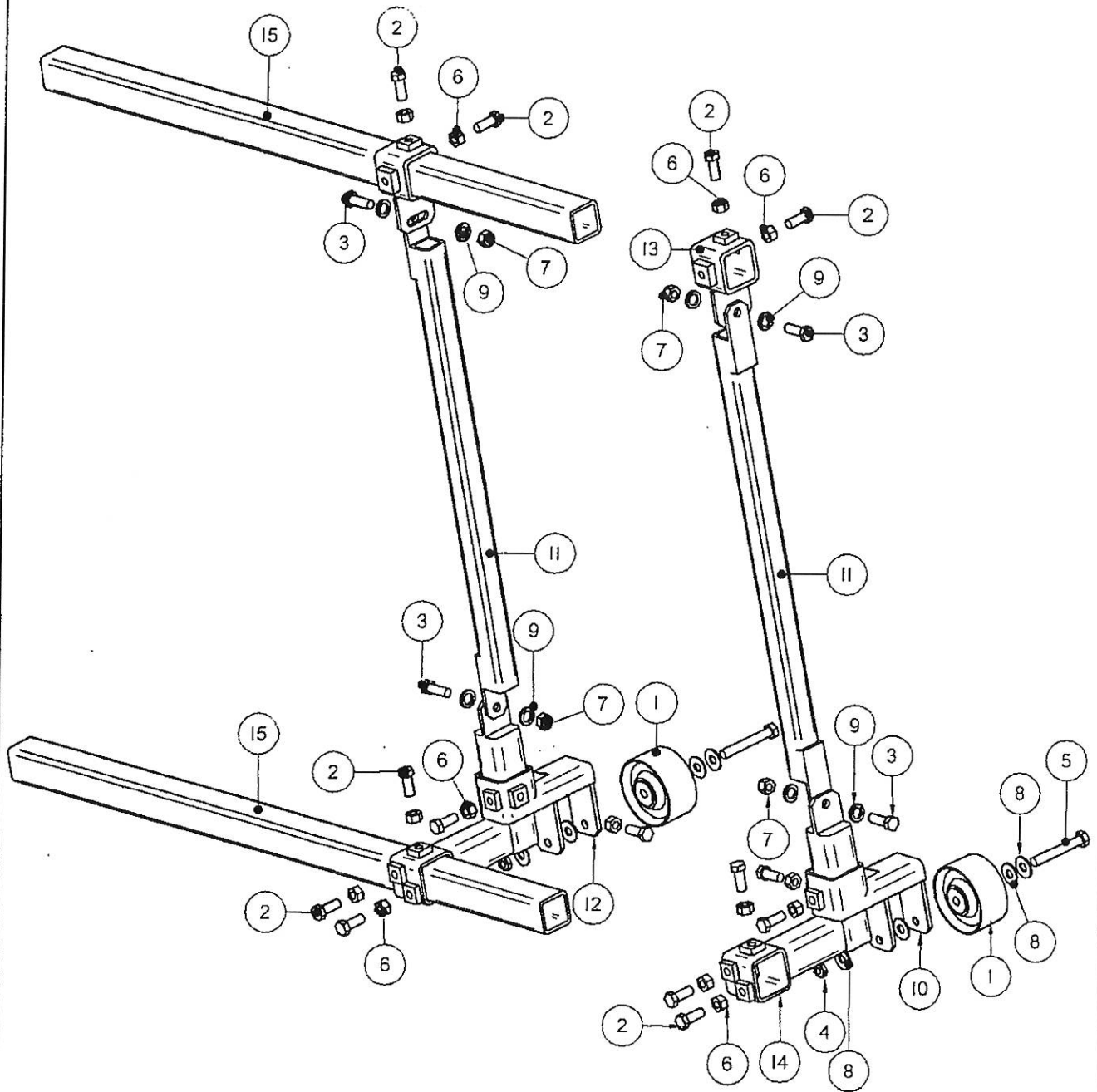
ON GRADE CONVERSION KIT

Item Number	File Name	Quantity	Description
1	020IWHL.par	1	8" WHEEL WITH 5/8" BORE
2	2560BLT.par	2	1/2" X 1 1/4" BOLT
3	2568BLT.par	2	1/2" X 3 1/2" BOLT
4	2732NUT.par	2	1/2" STANDARD NUT
5	2734NUT.par	4	1/2" LOCKNUT
6	283IWAS.par	4	7/8"OD X 1/2"ID WASHER 10GA.
7	2840WAS.par	2	5/8" 14GA. WASHER
8	3022IPIN.par	1	1/8" X 1 1/4" COTTER PIN
9	MFA06420.par	1	2" FEED BAR CLAMP
10	SRUI3351.par	1	SPINDLE ADJUSTER
11	SRUI3361.par	1	SPINDLE ADJUSTER MOUNTING BRACKET

Item Number	File Name	Quantity	Description
1	25590BLT.par	4	1/2" X 1/2" 13 SET SCREW
2	2562BLT.par	3	1/2" X 1 1/2" BOLT
3	2590BLT.par	1	5/8" X 8" BOLT
4	259907BLT.par	2	3/4" X 2 1/2" BOLT
5	2734NUT.par	3	1/2" LOCKNUT
6	2742NUT.par	2	5/8" LOCKNUT
7	2743NUT.par	2	5/8" NYLON LOCK NUT
8	2749NUT.par	2	3/4" NYLON LOCK NUT
9	283IWAS.par	4	7/8"OD X 1/2"ID WASHER 10GA.
10	SRS1661.par	1	ADJUSTABLE CLEVIS
11	SRS16620.par	2	BUSHING
12	SRUI3480.par	1	ON GRADE CONVERSION MAST
13	SRUI3490.asm	1	AUTO ALIGN PIVOT ON GRADE CONVERSION

FNG814300-16

GUIDE WHEEL ASSEMBLY (OPTIONAL)



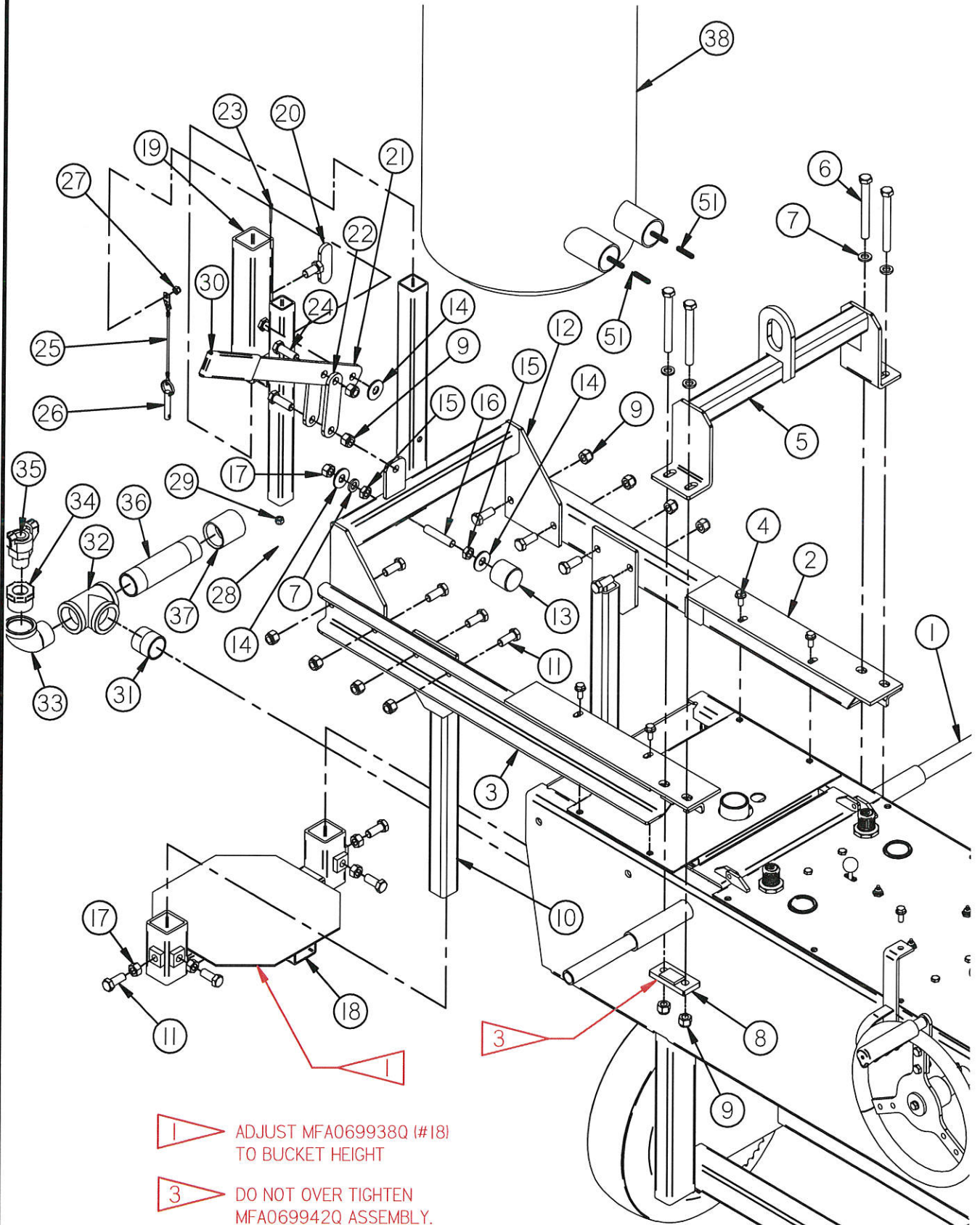
FNG 9504

GUIDE WHEEL ASSEMBLY (OPTIONAL)

Item Number	File Name	Quantity	Description
1'	0214WHL.par	2	STEEL GUIDE WHEEL
2'	2560BLT.par	14	1/2" X 1 1/4" BOLT
3'	2562BLT.par	4	1/2" X 1 1/2" BOLT
4'	25675BLT.par	2	GREASE BOLT NUT
5'	25675BLT.par	2	GREASE BOLT
6'	2732NUT.par	14	1/2" STANDARD NUT
7'	2734NUT.par	4	1/2" LOCKNUT
8'	2830WAS.par	8	1/2" WASHER
9'	2831WAS.par	8	7/8"OD X 1/2"ID WASHER 10GA.
10'	SRS1673.par	1	GUIDE WHEEL MOUNT RT.
11'	SRS16730.par	2	GUIDE WHEEL SUPPORT ARM
12'	SRS167300.par	1	GUIDE WHEEL MOUNT LT.
13'	SRS16735.par	2	MIRROR BRACKET
14'	SRS16736.par	2	GUIDE WHEEL BRACKET MOUNT SHORT
15'	SRUI318.par	2	OUTSIDE TOOL BAR

FNG 9504

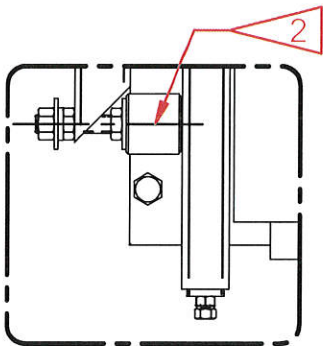
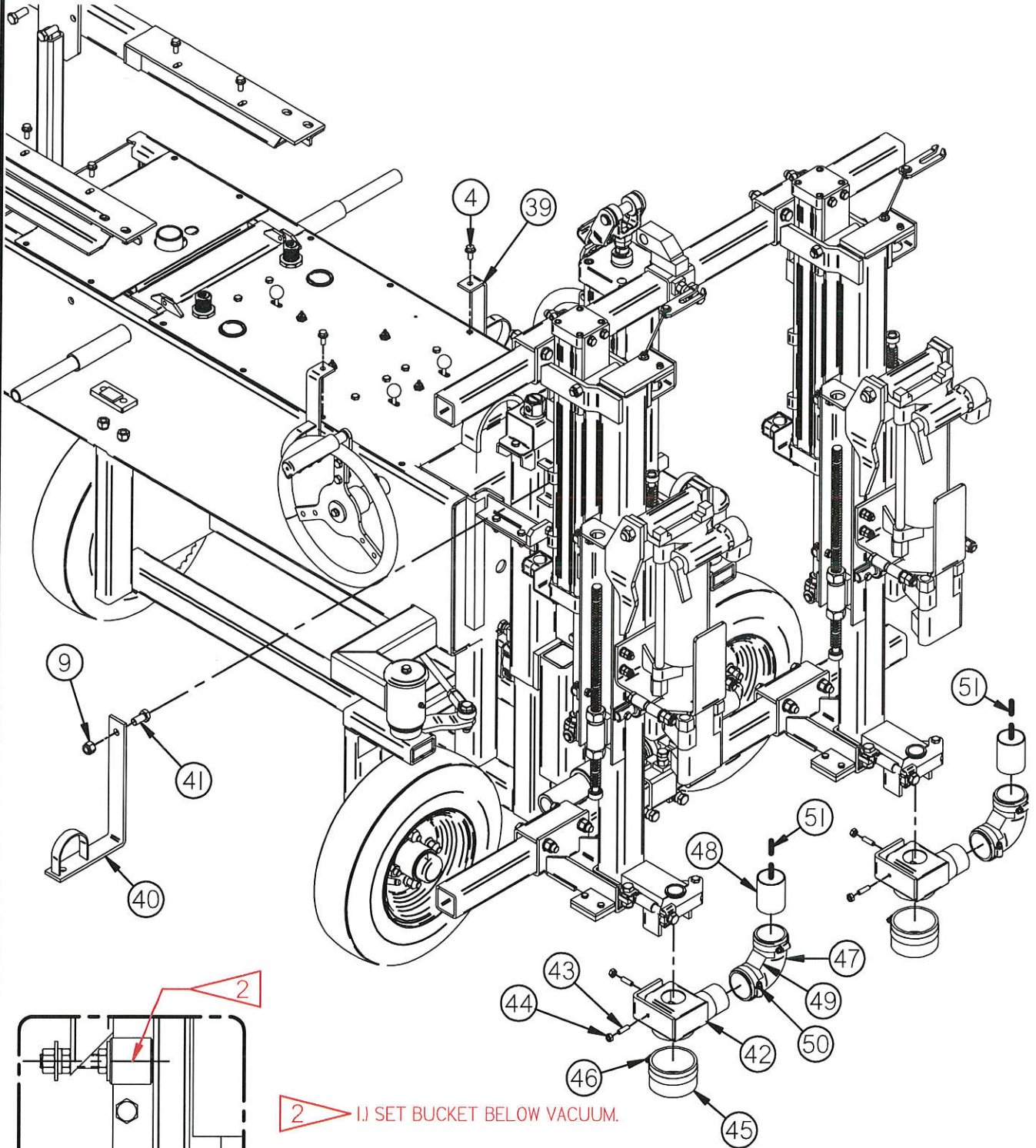
RETROFIT 210B-2SRA QMP VACUUM SYSTEM ASSEMBLY - PAGE 01



1 ADJUST MFA069938Q (#18)
TO BUCKET HEIGHT

3 DO NOT OVER TIGHTEN
MFA069942Q ASSEMBLY.

RETROFIT 210B-2SRA QMP VACUUM SYSTEM ASSEMBLY - PAGE 02



DETAIL A

2 I) SET BUCKET BELOW VACUUM.

2) ADJUST THE BUCKET AND VACUUM SO THEY ARE POSITIONED SQUARELY ON THE PLATFORM BELOW.

3) ADJUST THE SPACER (#13) SO THAT IT IS FLUSH AGAINST THE TUBE (#19).

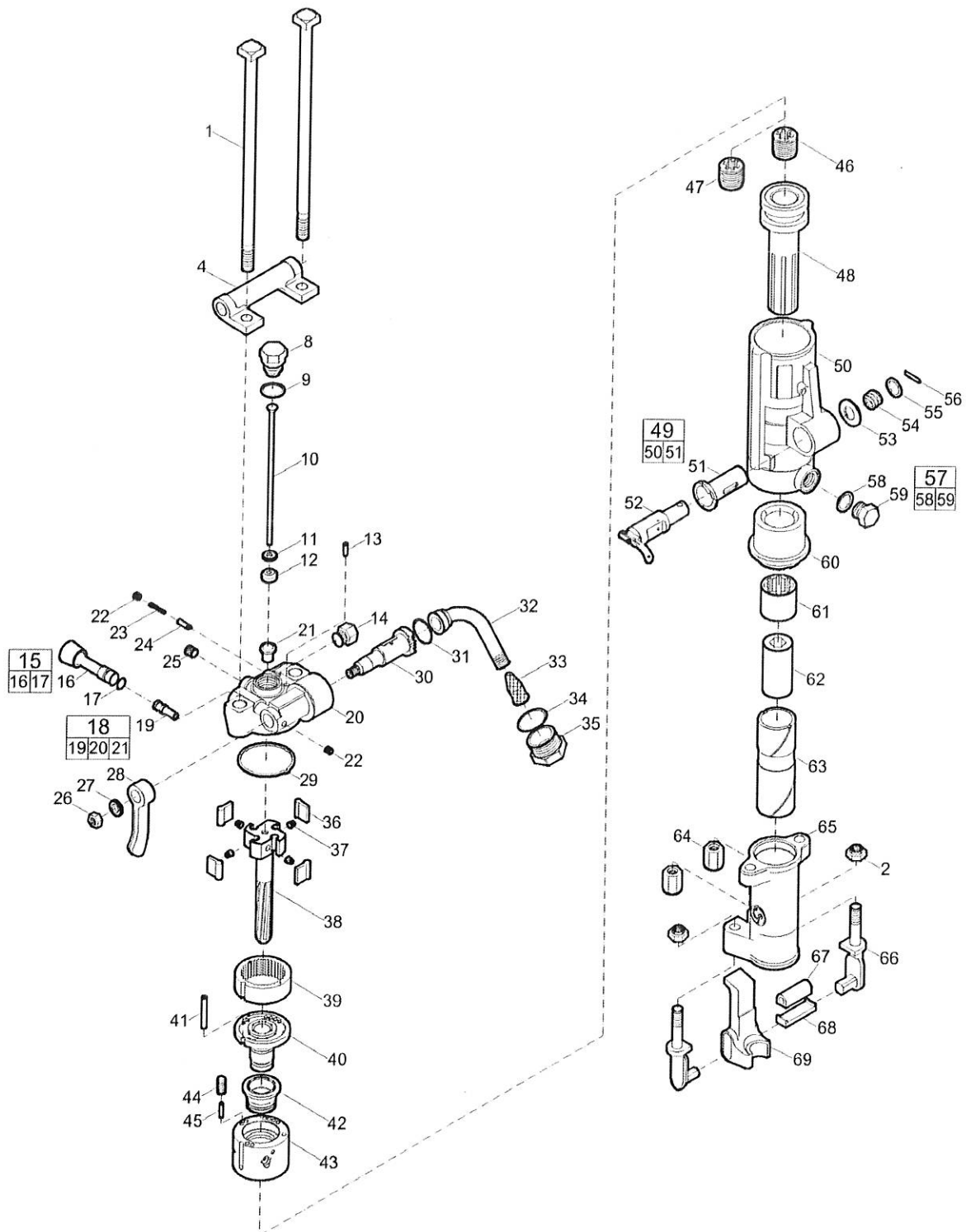
RETROFIT 210B-2SRA QMP VACUUM SYSTEM ASSEMBLY - PAGE 03

Item No.	Part No.	Quantity	Description
1	FNG814300	1	210B-2 SRA (2-GANG DRILL)
2	MFA069940Q	1	RETROFIT 210B-2 SRA LEFT ARM
3	MFA069939Q	1	RETROFIT 210B-2 SRA RIGHT ARM
4	25175 BLT	6	5/16 NC X .75" LG. HEX FLG HEAD BOLT
5	MFA069941Q	1	210B-2 SRA RETROFIT LIFTING BALE
6	2572BLT	4	1/2" NC X 4 1/2" BOLT, GR. 5
7	2831WAS	5	7/8" OD X 1/2" ID WASHER 10GA.
8	MFA069942Q	2	210B-2 SRA RETROFIT BOLT PLATE
9	2734NUT	16	1/2" NC NYLON INSERT LOCKNUT
10	MFA069936Q	2	210B-2 SRA QMP VAC SYSTEM LEG
11	2560BLT	12	1/2" NC X 1.25" HX HD BOLT
12	MFA069937Q	1	QMP SLIDE RECEIVER
13	MFA06997Q	1	NYLON SPACER, QMP VAC SYSTEM
14	2830 WAS	3	1/2" STD. FLAT WASHER
15	27696 NUT	2	1/2" NF HEX JAM NUT (RT. HND.)
16	25641 BLT	1	1/2"-13 X 2.50" FULLY THREADED STUD
17	2732 NUT	5	1/2" NC STANDARD NUT
18	MFA069938Q	1	210B-2 SRA QMP VAC SYSTEM MT. PLT.
19	MFA069933Q	1	QMP VAC ADAPTER - (MOD 210B-2 SRA)
20	MFA069903	1	SET SCREW - DUST COLLECTION
21	MFA0699040	1	RAISE/LOWER LEVER - MACRO DUST COLLECTION
22	MFA069906	2	FRAME CLAMP LONG
23	30221 PIN	1	1/8" X 1-1/4" COTTER PIN
24	2562 BLT	2	1/2" NC X 1.50" HX HD TAP BOLT
25	3031PIN	1	LANYARD W/TAB ONE END
26	3029PIN	1	LOCK PIN

RETROFIT 210B-2SRA QMP VACUUM SYSTEM ASSEMBLY - PAGE 04

Item No.	Part No.	Quantity	Description
27	2716NUT	1	1/4" NC NYLON LOCK NUT
28	MFA0699700Q	1	QMP 2-PORT COLLECTOR MOUNTING BOLT
29	2719 NUT	1	5/16" NC NYLON INSERT LOCKNUT
30	18206GRO	1	LEVER GRIP
31	212701 PFT	1	1-1/4" CLOSE NIPPLE
32	2104 PFT	1	1-1/4" PIPE TEE
33	21600 PFT	1	1-1/4" STREET ELL
34	20780 PFT	1	1-1/4" TO 3/4" BUSHING
35	2006FIT	1	3/4" MALE PIPE TO QUICK COUPLER
36	21276 PFT	1	1-1/4" X 6" NIPPLE
37	21475 PFT	1	FULL COUPLING, 1-1/4NPT (STEEL)
38	9695IQ MIS	1	MACRO QMP VACUUM
39	MFA06994	2	SMALL HOSE HOLDER (210B-2 SRA)
40	MFA06995	2	LARGE HOSE HOLDER (210B-2 SRA)
41	2559BLT	2	1/2" X 1" BOLT
42	MFA069913	2	DUST COLLECTOR HEAD
43	2521 BLT	4	5/16-18 X 1" SET SCREW
44	2717 NUT	4	5/16 UNC HEX NUT (ZP, GR. 5)
45	190406 HOS	2	3" COLLECTOR HOSE (2" LONG PIECE)
46	19503 CLP	2	WORM GEAR HOSE CLAMP (3 - 4")
47	19045 HOS	2	2" 90 DEG. SILICONE HOSE COUPLER
48	MFA069910_12	2	DUST HEAD ROUND TUBE
49	MFA069914	2	90 DEG. ELBOW CLAMP
50	195025 CLP	4	WORM GEAR HOSE CLAMP (1-1/2" - 2-1/2")
51*	19255 HOS	2	2" VACUUM HOSE

Spare parts list CP 0032 A 7/8" x 3 1/4"



Refer to the Parts Online web page for most up-to-date information. The printed information might be outdated.

Item	Part No.	Name	Qty	L
1	R086623	Bolt - Thru	2	
2	R005742	Nut - Elastic stop	2	A
4	R086608	Bracket - Handle	1	
8	R076793	Plug - Air tube	1	
9	R000537	Gasket - Tube plug	2	
10	R077184	Tube - Air	1	
11	R075449	Washer - Air tube	1	
12	R075099	Rubber - Air tube	1	
13	R075802	Pin - Valve plunger	1	
14	R076372	Plug - Water valve	1	
15	R079130	Water valve port plug, complete	1	
16	-	Water valve port plug	1	
17	C079489	O-ring	1	
18	R087948	Backhead, complete	1	
19	R098054	Bushing - Water valve	1	
20	-	Backhead	1	
21	R137738	Bushing - Blow tube	1	
22	C068064	Plug - Pipe	2	
23	R085671	Spring - Valve plunger	1	
24	R086627	Plunger - Throttle valve	1	
25	C068799	Plug - pipe, Ø 1/4 in., Ø 6.5 mm	1	C
26	P002149	Nut - Hexagon	1	D
27	C036717	Lockwasher - Head latch	1	E
28	R079124	Handle - Throttle valve	1	
29	H0979432	Gasket	1	
30	R086628	Valve - Throttle	1	
31	P103521	O-ring	1	
32	R075265	Swivel - Air inlet	1	
33	R005584	Screen - Air inlet	1	
34	R110317	O-ring	1	
35	R000530	Air swivel nut	1	
36	R075267	Pawl	4	
37	R086654	Spring - Pawl	4	
38	R086622	Bar - Rifle	1	

Refer to the Parts Online web page for most up-to-date information. The printed information might be outdated.

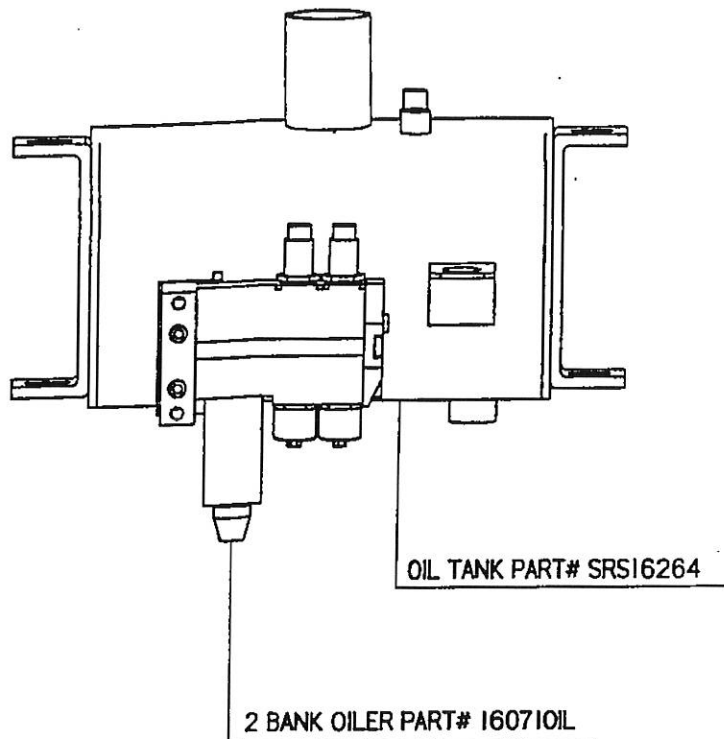
Item	Part No.	Name	Qty	L
39	R076194	Ring - Ratchet	1	
40	R098085	Bushing - Valve guide	1	
41	R075772	Pin - Valve case dowel	1	
42	R076263	Valve	1	
43	R076264	Case - Valve	1	
44	R098084	Plug - Oil regulating	1	
45	R085625	Stem - Oil regulating	1	
46	R075839	Nut - Rifle bar	1	F
47	R075826	Nut - Rifle bar	1	G
48	R000088	Piston	1	
49	R087990	Cylinder, complete	1	
50	--	Cylinder	1	
51	R086611	Bushing - Blower valve	1	
52	R086612	Valve - Blower	1	
53	R075777	Washer - Blower valve	1	
54	R075778	Spring - Blower valve	1	
55	R075780	Washer - Valve spring	1	
56	R076266	Pin - Spring	1	
57	R085611	Oil plug, complete	1	
58	R091176	Gasket - Oil plug	1	
59	--	Oil plug	1	
60	R042161	Bushing - Cylinder	1	
61	R086733	Nut - Chuck rotation	1	
62	R099374	Chuck, 7/8" x 31/4" (22 x 82.5 mm)	1	
63	R041321	Sleeve - Chuck, 7/8" x 31/4" (22 x 82.5 mm)	1	
64	R085756	Nut - Thru bolt	2	
65	R041320	Fronthead, 7/8" x 31/4" (22 x 82.5 mm)	1	
66	R093896	Tunnion - Retainer	2	
67	R093897	Buffer - Retainer	1	
68	R093898	Retainer - Latch shoe	1	
69	R093913	Retainer, 7/8" (22 mm)	1	

Comments for Page: CP 0032 A 3/8" x 3/4"

(L)OCAL REMARKS

- A | 5/8" - 11
- B | 1/8"
- C | 1/4"

Refer to the Parts Online web page for most up-to-date information. The printed information might be outdated.



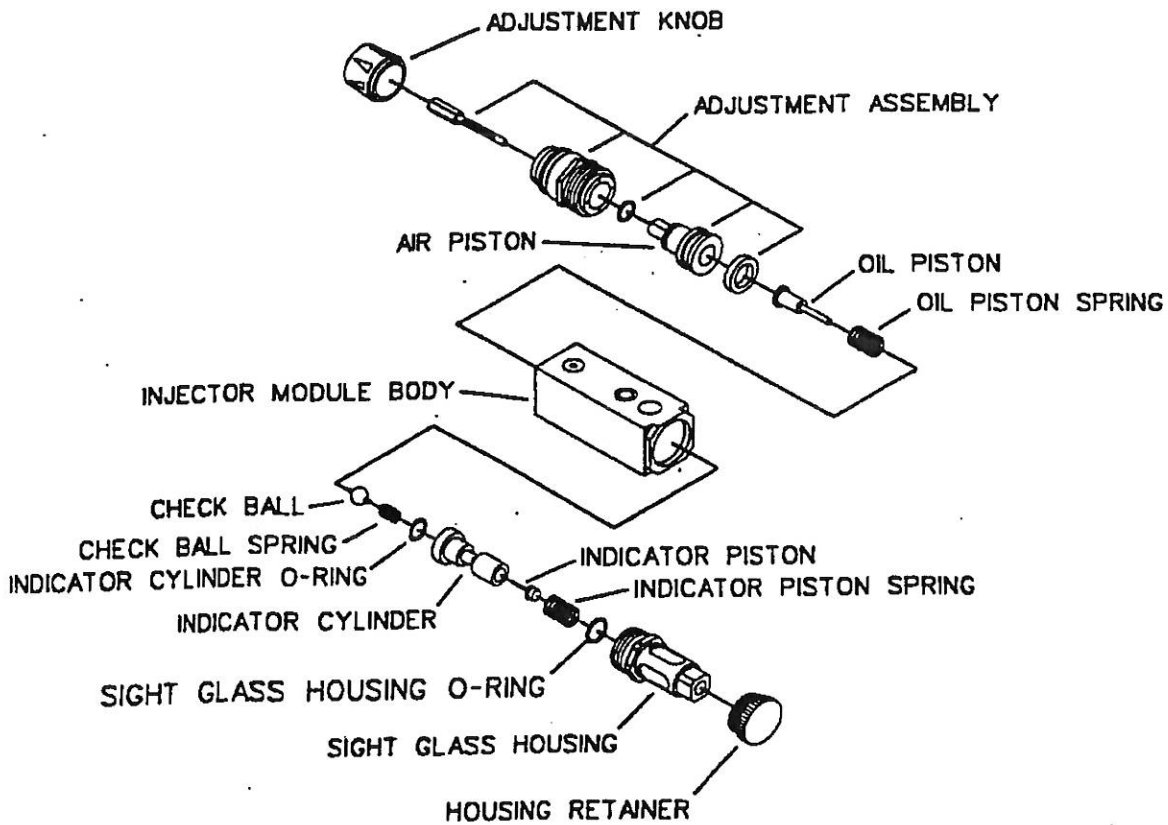
REPAIR KITS:

1757RPT

- OIL PISTON SPRING
- OIL PISTON
- ADJUSTMENT KNOB
- ADJUSTMENT ASSEMBLY

17570RPT

- INDICATOR CYLINDER
- INDICATOR CYLINDER O-RING
- INDICATOR PISTON
- INDICATOR PISTON SPRING
- CHECK BALL
- CHECK BALL SPRING
- HOUSING RETAINER
- SIGHT GLASS HOUSING
- SIGHT GLASS HOUSING O-RING



13. INSTRUCTIONS FOR INSTALLING "ON-GRADE CONVERSION KIT" FOR E-Z DRILL MODEL 210B-2 SRA

(Refer to "ON GRADE CONVERSION KIT" pages in Parts Book/Operators Manual)

To begin, the machine, which is set up in the "slab-rider" configuration, will have to have the drill systems dropped down in the horizontal position. Since the drill systems, in the horizontal position, will be below the wheels, you will either need to block up the wheels off the ground, or move the machine over to the edge of a concrete slab at least 9" thick.

Turn off air and disconnect the main air from the air compressor. Begin to disconnect entire drill systems assembly from the main frame assembly.

- (1) Disconnect all hoses and tubing at the drill systems.
- (2) Remove "raise and lower" cylinder (05209 CYL).
- (3) Remove both lower tool bars (2" square tube – SRU 1318) and upper tool bar (black round pipe – SRU 13190) and hinges (SRS 16351) by loosening all clamps (MFA 06420).
- (4) Where the upper tool bar was, install the bushings (SRS 16620).
- (5) Take the conversion mast (SRU 13480) and match up the "ears" on it to "ears" on the main frame mast; bolt it on.
- (6) Slide the upper tool bar (round black tube - SRU 13190) that was earlier removed through the bosses on the conversion mast and the hinges; tighten set screws (25590 BLT)

Move the main frame around to the other end of the feed systems.

- (1) Lower the mast (by turning the large nuts on top of the mast – loosen $\frac{1}{2}$ " bolts on the side of the mast first). Lower it down until you can slide the lower tool through the clamps on the feed systems (the one that is closest to the main frame) and the hinges (SRS 16351). Center it and tighten the clamps.

IMPORTANT: BE SURE TO CENTER THE CYLINDER MOUNT (SRU 15300) AND PLACE IT SO THAT IT IS POINTING STRAIGHT UP

- (2) Install "raise and lower" cylinder (05209 CYL)
- (3) Be sure that nuts on the adjustable clevis (SRS 1661) are backed away from the auto align pivot (SRU 13490) approximately 1" from either side. This lets the drill systems "float", allowing for changes in the subgrade and keeps the drill systems horizontal.
- (4) Connect all hoses and tubing

Install wheel assembly on to outer tool bar close to the center of the frame. This wheel will ride on top of the slab. Adjust the height of the wheel to level the drills. Also, adjust screw jack on main frame to level the other end of the drill systems. **IMPORTANT: Remember to loosen $\frac{1}{2}$ " bolts on side of the mast before adjusting screw jacks. Re-tighten after making the adjustment.**