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* Some components for 30 Tool ATC Shown.



Fadal Engineering
844-323-2526
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This reference covers the following Fadal machine models:

VMC 8030B-II

VMC 8032

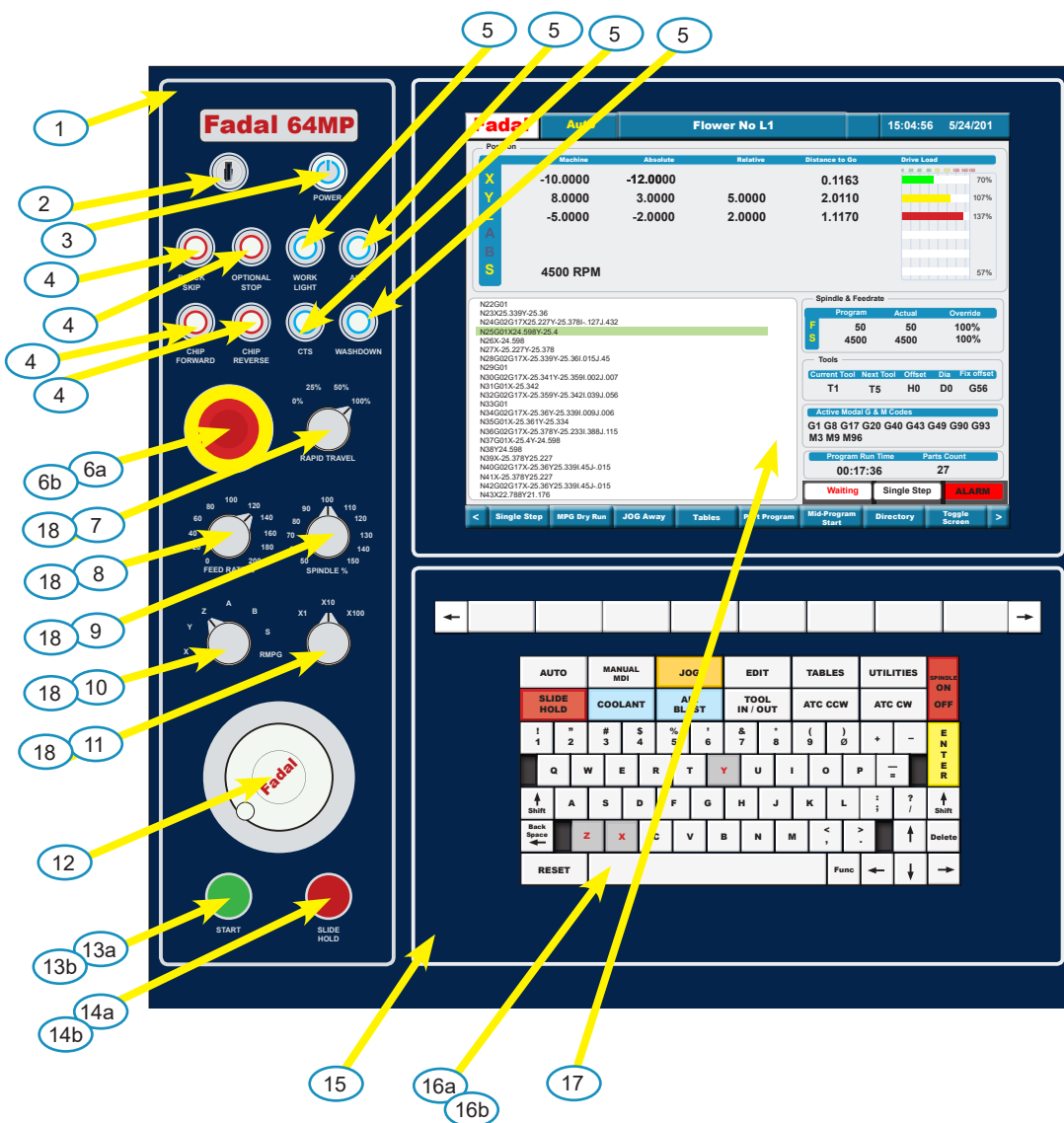
West Coast Tech. Center..... (844) 323-2526
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www.fadal.com
3100 E. Cedar St., Ste-7, Ontario, CA. 91761 USA

The content of this manual has been reviewed for accuracy and is applicable to current Fadal hardware and software products as described herein. Differences may exist and we cannot guarantee that they are completely covered in this document. The information in this document is reviewed regularly and any necessary changes will be incorporated in the next revision. We welcome any suggestions for improvement.

Material is subject to change without notice.

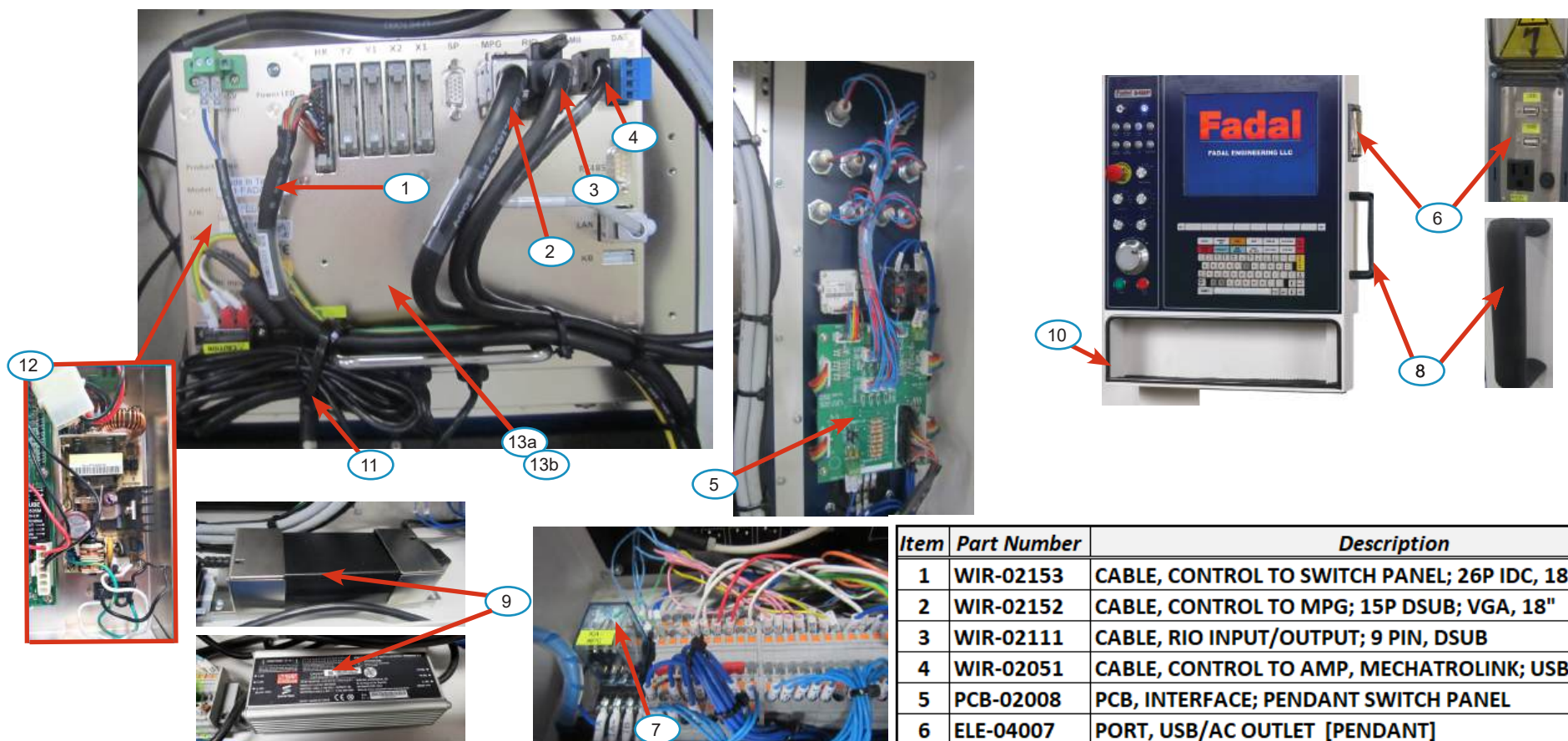
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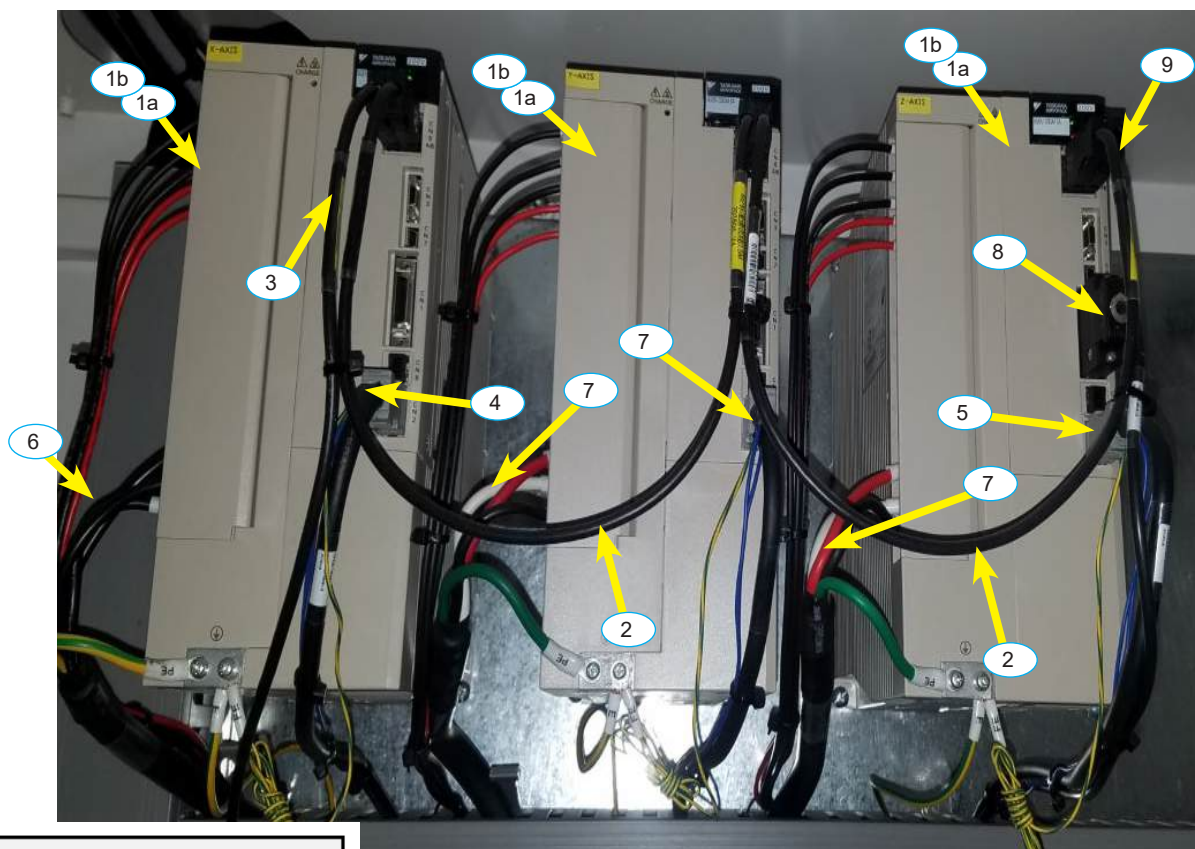
Item	Part Number	Description
1	CTR-02005	PANEL; 64MP [NO SWITCHES]
2	SWT-00014	KEYLOCK SWITCH; 64MP PENDANT
3	SWT-00006	SWITCH; PENDANT POWER ON/OFF
4	SWT-00015	PUSH-BUTTON SWITCH; RED LED, SPDT
5	SWT-00016	PUSH-BUTTON SWITCH; BLUE LED, SPDT
6a	SWT-00048	E-STOP KNOB/RELEASE; 64MP [NO SWITCHES]
6b	SWT-00049	E-STOP SWITCH ASSEMBLY; 64MP [NO KNOB]
7	SWT-00018	SELECTOR SWITCH; RAPID TRAVEL %, 4 POSITION
8	SWT-00019	SELECTOR SWITCH; FEEDRATE %, 16 POSITION
9	SWT-00020	SELECTOR SWITCH; SPINDLE RPM %, 21 POSITION
10	SWT-00021	SELECTOR SWITCH; AXIS SELECTION (X,Y,Z,A,B,S,RMPG), 7 POSITION
11	SWT-00022	SELECTOR SWITCH; JOG RATE, 3 POSITION
12	MPG-02002	MPG UNIT; 24 VDC, 64MP, CNC88
13a	SWT-00023	PUSH-BUTTON; START, GREEN [NO SWITCH ASSEMBLY]
13b	SWT-00050	START SWITCH ASSEMBLY; 64MP [NO BUTTON]
14a	SWT-00024	PUSH-BUTTON; SLIDE HOLD, RED [NO SWITCH ASSEMBLY]
14b	SWT-00051	SLIDE HOLD SWITCH ASSEMBLY; 64MP [NO BUTTON]
15	CTR-02006	PANEL; 64MP [KEYBOARD/MONITOR NOT INCLUDED]
16a	KBD-00001	KEYBOARD ASSEMBLY; 64MP, MILL
16b	KBD-00003	KEYBOARD KEY CAPS; 64MP
17	CTR-02008	MONITOR, 15", VGA; 64MP [MUST BE SENT IN FOR EVALUATION & REPAIR]
18	SWT-00037	KNOB; SELECTOR SWITCHES

64MP PENDANT - Front Panel



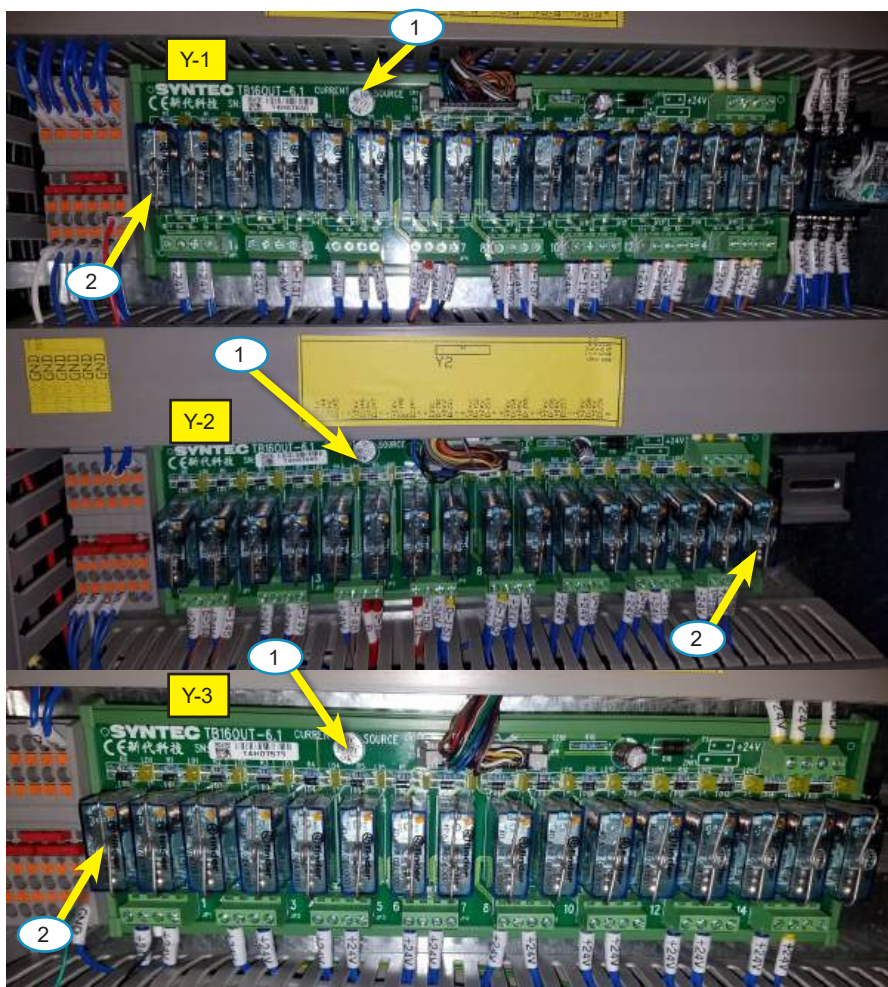
Item	Part Number	Description
1	WIR-02153	CABLE, CONTROL TO SWITCH PANEL; 26P IDC, 18"
2	WIR-02152	CABLE, CONTROL TO MPG; 15P DSUB; VGA, 18"
3	WIR-02111	CABLE, RIO INPUT/OUTPUT; 9 PIN, DSUB
4	WIR-02051	CABLE, CONTROL TO AMP, MECHATROLINK; USB 11'
5	PCB-02008	PCB, INTERFACE; PENDANT SWITCH PANEL
6	ELE-04007	PORT, USB/AC OUTLET [PENDANT]
7	RLY-00046	RELAY, ICECUBE; 24VDC, OMRON [MPG]
8	CTR-02011	HANDLE; PENDANT
9	PWR-00002	POWER SUPPLY; 24VDC
10	SEL-00068	EDGE PROTECTOR; PENDANT POCKET [PER FT.]
11	WIR-02181	CABLE, CONTROL TO KEYBOARD; 64MP, 5-COND.
12	PWR-00014	POWER SUPPLY, CONTROL; 24VDC TO 5VDC
13a	CTR-02000	CONTROL UNIT/MONITOR; 64MP, 4-AXIS W/ SOFTWARE
13b	CTR-02001	CONTROL UNIT/MONITOR; 64MP, 5-AXIS W/OUT SOFTWARE

64MP PENDANT - FRONT & INTERIOR

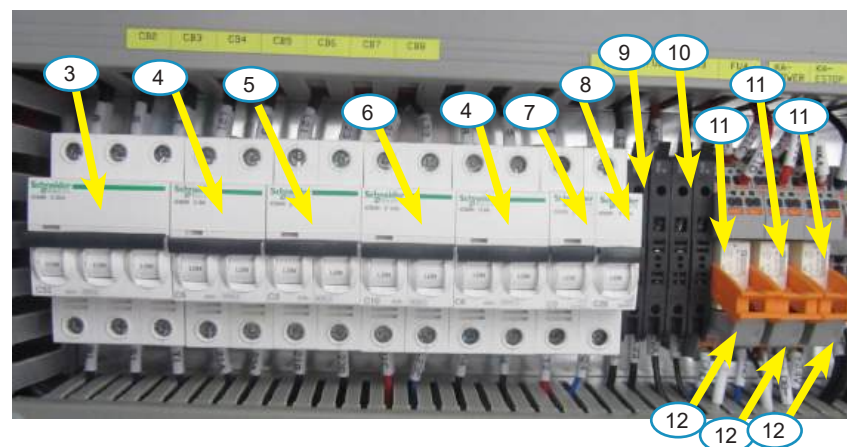


Item	Part Number	Description
1a	AMP-02004	AMPLIFIER, YASKAWA; 330A, SIG. 5
1b	AMP-02016	AMPLIFIER, YASKAWA; 3030A, SIG. 7
2	WIR-02050	CABLE, USB-USB; MECHATROLINK; 18" AMP TO AMP
3	WIR-02051	CABLE, USB-USB; MECHATROLINK; 11', CONTROL TO AMP
4	WIR-02143	CABLE, MOTOR, ENCODER; 15M/90; X-AXIS
5	WIR-02144	CABLE, MOTOR, ENCODER; 10M/90; Y,Z-AXIS
6	WIR-02145	CABLE, MOTOR, POWER; 15M/90; X-AXIS
7	WIR-02146	CABLE, MOTOR, ENCODER; 10M/90; Y,Z-AXIS
8	WIR-02208	CABLE, Z-AXIS BRAKE & BATTERY BACKUP
9	WIR-02175	PULLUP RESISTOR; MECHATROLINK NETWORK

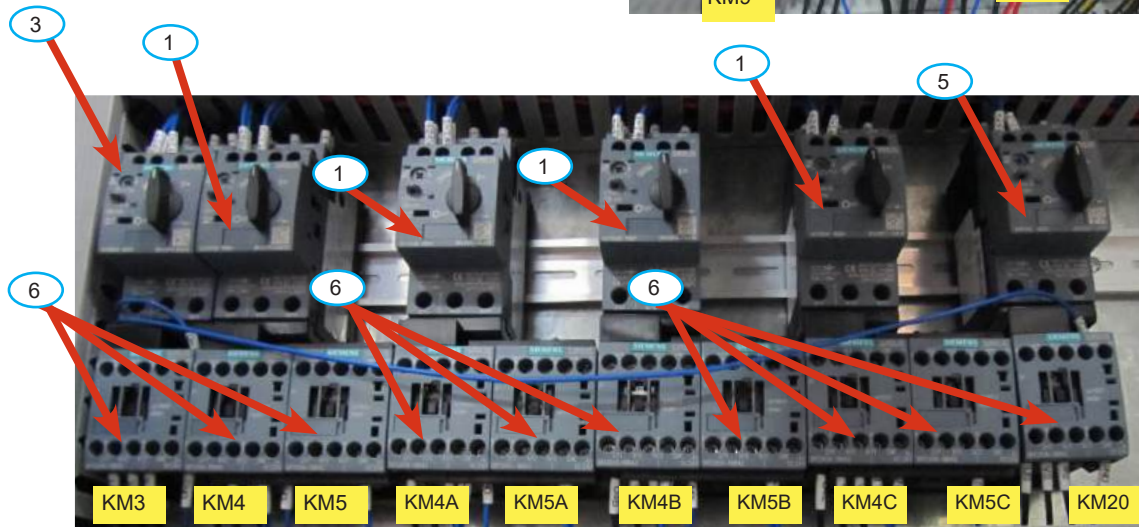
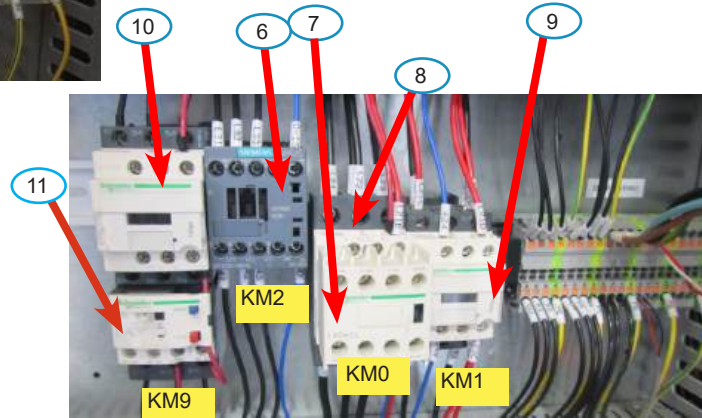
ELECTRICAL CABINET - AMPS



Item	Part Number	Description
1	PCB-02010	PCB,OUTPUT BOARD;Y1,Y2,Y3
2	RLY-00023	RELAY,MINI-ICECUBE;FINDER SPST
3	CBR-00032	CIRCUIT BREAKER,3-POLE;400V 32A SCHNEIDER
4	CBR-00033	CIRCUIT BREAKER,2-POLE;400V 6A SCHNEIDER
5	CBR-00034	CIRCUIT BREAKER,2-POLE;400V 3A SCHNEIDER
6	CBR-00035	CIRCUIT BREAKER,2-POLE;400V 10A SCHNEIDER
7	CBR-00036	CIRCUIT BREAKER,1-POLE;400V 6A SCHNEIDER
8	CBR-00037	CIRCUIT BREAKER,1-POLE;400V 20A SCHNEIDER
9	CBR-00019	FUSE,6X30MM 7A AGC-7 [FU-1, FU-2]
10	CBR-00020	FUSE,6X30MM 2A AGC-2 [FU-3, FU-4]
11	RLY-00040	RELAY,ESTOP;24VDC 2PDT 8A
12	RLY-00040-S	RELAY SOCKET BASE



ELECTRICAL CABINET - OUTPUTS



Item	Part Number	Description
1	RLY-00034	OVERLOAD,CONTACTOR;1.1-1.6A;SMNS
2	RLY-00038	OVERLOAD,CONTACTOR;1.8-2.5A SMNS
3	RLY-00035	OVERLOAD,CONTACTOR;2.8-4.0A SMNS
4	RLY-00039	OVERLOAD,CONTACTOR;4.5-6.3A SMNS
5	RLY-00031	OVERLOAD,CONTACTOR;7.0-10A SMNS
6	RLY-00030	CONTACTOR,SIEMENS;1BB42
7	RLY-00024	CONTACTOR,3-POLE;220V COIL
8	RLY-00033	CONTACT BLOCK;[FITS RLY-00024]
9	RLY-00037	CONTACTOR, 12A;SCHNEIDER
10	RLY-00003	*CONTACTOR,AC240VAC 3-PH COIL
11	RLY-00032	*OVERLOAD,9.0 TO 13.0A;FITS RLY-00003
12	CBR-00040	

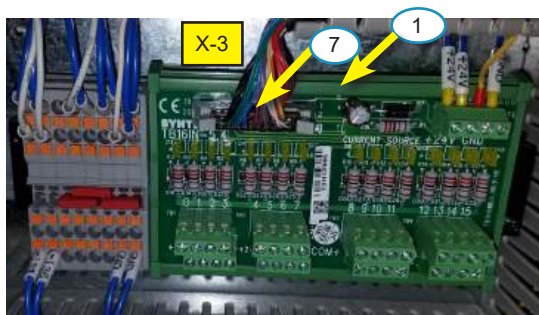
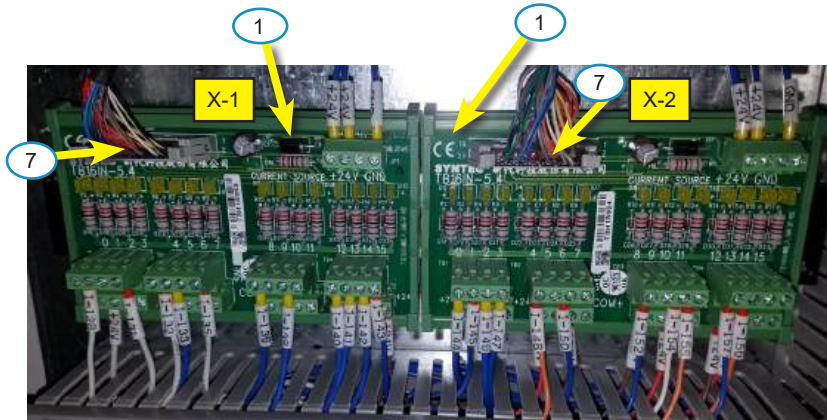
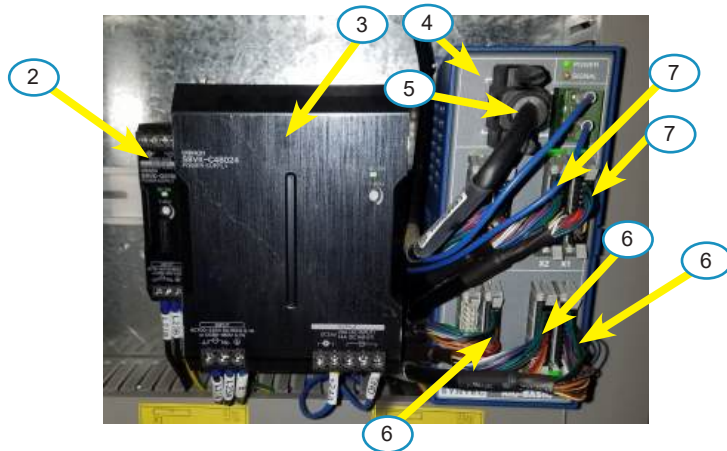
*ChipBlaster Unit

**PolarJet Unit

KM0	E-Stop Power Interrupt	Items 7, 8
KM1	E-Stop Servo Interrupt:	Item 9
KM2	Chiller unit:	Item 6
KM3	Coolant Pump:	Items 3, 6
KM4, KM5*	Conveyor:	Items 1, 6, 6
KM4A, KM5A	Auger A:	Items 1, 6, 6
KM4B, KM5B	Auger B:	Items 1, 6, 6
KM4B, KM5C	Auger C:	Items 1, 6, 6
KM20	Washdown Pump:	Items 5, 6
KM9*	Coolant-Thru Spindle:	Items 10, 11

*Many items shown are Optional, and not standard equipment

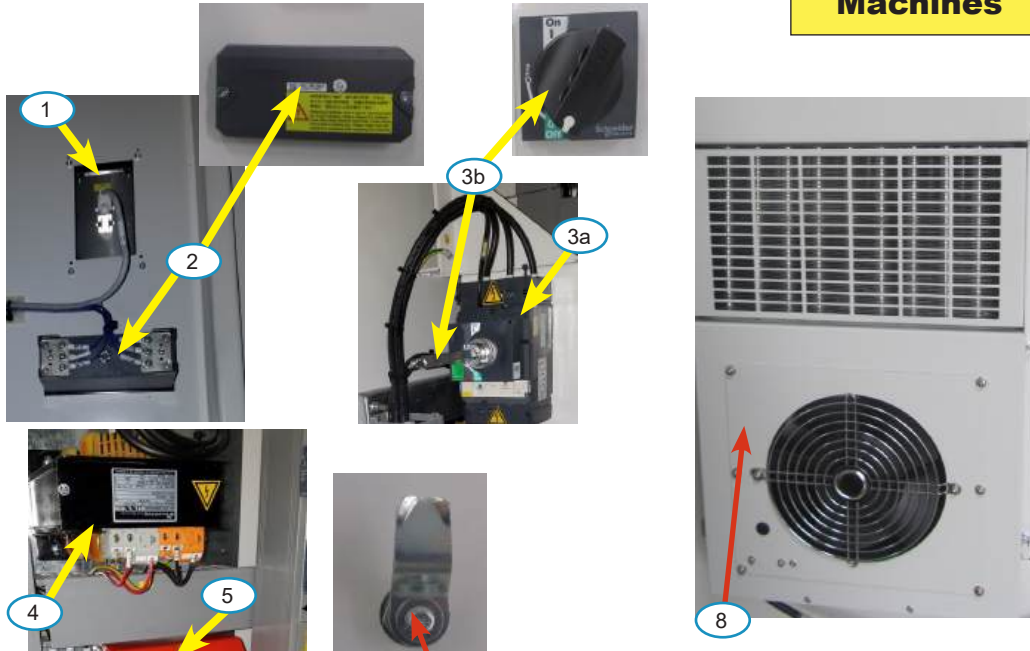
ELECTRICAL CABINET - OUTPUTS



Item	Part Number	Description
1	PCB-02009	PCB,INPUT INTERFACE;TB16IN;X1,X2,X3 SERIES II
2	PWR-00012	POWER SUPPLY,OMRON;5VDC
3	PWR-00011	POWER SUPPLY,OMRON;24VDC
4	CTR-02004	CONTROLLER,I/O SYNTEC RIO
5	WIR-02111	CABLE,RIO INPUT/OUTPUT 9-PIN DSUB 5.5M
6	WIR-02112	CABLE,RIO OUTPUT;20P IDC 3.5M Y1-Y4
7	WIR-02113	CABLE,RIO INPUT;20P IDC 0.6M X1-X4

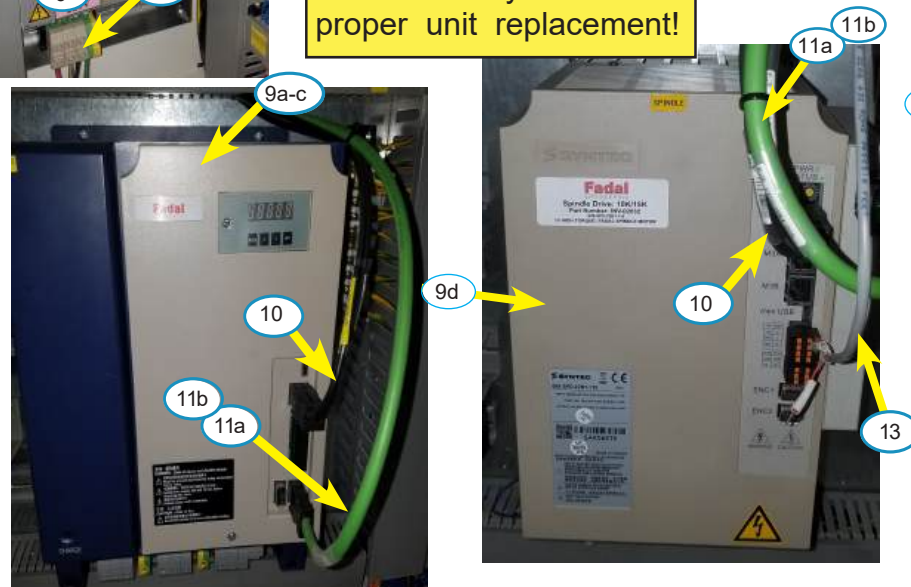
ELECTRICAL CABINET - INPUTS/POWER SUPPLIES

SERIES II Machines



ELECTRICAL CABINET - MAIN

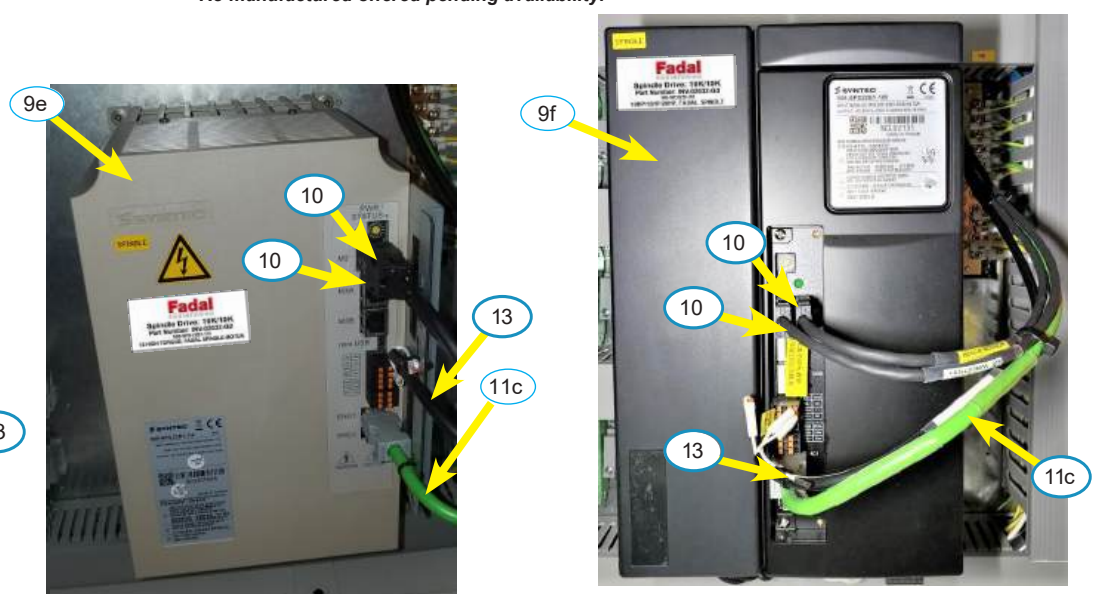
Check Spindle Drive
label carefully to ensure
proper unit replacement!



Item	Part Number	Description
1	ELE-04003	PORT,ETHERNET; RJ45
2	ELE-04008	BATTERY BOX,3 D-CELL;ENCODER BACKUP
3a	CBR-00039	MAIN POWER DISCONNECT SWITCH / BREAKER ASSY.
3b	CBR-00039B	MAIN POWER DISCONNECT SWITCH ROTARY EXTENSION
4	TRN-00004	TRANSFORMER;230V TO 120V;2520-4020B-II
5	ATC-02068	BRAKING CONTROL,DATC ARM MOTOR; 6030B-II, 8030B-II, 6032, 8032
6	CBR-00031	CIRCUIT BREAKER; CHILLER / SPINDLE DRIVE
7	WIR-02035	TERMINAL BLOCK,DIN RAIL;3-POLE
8	FAN-02007	CABINET COOLER;HEAT EXCHANGER;2520-4020
9a	INV-02021	SPINDLE DRIVE.10HP; FADAL MOTOR, 10K
9b	INV-02022* **	SPINDLE DRIVE,15HT; FADAL MOTOR, 10K/15K USE INV-2032-G3
9c	INV-02023* **	USE INV-02032-G3
9d	INV-02024* **	SPINDLE DRIVE,20VHT; FADAL MOTOR, 10K USE INV-02032-G3
9e	INV-02001	SPINDLE DRIVE,10 HP; BALDOR MOTOR, 10K
9f	INV-02002* **	SPINDLE DRIVE,15HT; BALDOR MTR, 10K/15K USE INV-02032-G3
9g	INV-02032-G1	SPINDLE DRV,15HT; FADAL MTR,10K/15K [GEN 1] NLA: USE INV-02032-G3
9h	INV-02032-G2	SPINDLE DRV,15HT; FADAL MTR,10K/15K [GEN 2] NLA: USE INV-02032-G3
9i	INV-02032-G3*	SPINDLE DRIVE,15HT/20VHT;FADAL MTR,10K/15K [GEN 3]
10	WIR-02057	CABLE,USB-USB;MECHATROLINK;6 FT INV-AMP
11a	WIR-02039	CABLE,ENCODER;BALDOR SPINDLE MTR TO DRV
11b	WIR-02150	CABLE,ENCODER;FADAL MOTOR TO DRV
11c	WIR-02150-SYN	CABLE,ENCODER;FADAL MOTOR TO DRV, SYNTEC
12	DOR-02018	CABINET DOOR LATCH
13	WIR-02049	CABLE; 18 AWG, 2-COND., PER FOOT [ORIENTATION SIGNAL]

*Specify if spindle motor is Baldor or Fadal, Standard(10hp), HT(15hp), or optional VHT (20hp) type.
Provide machine serial number for proper settings.

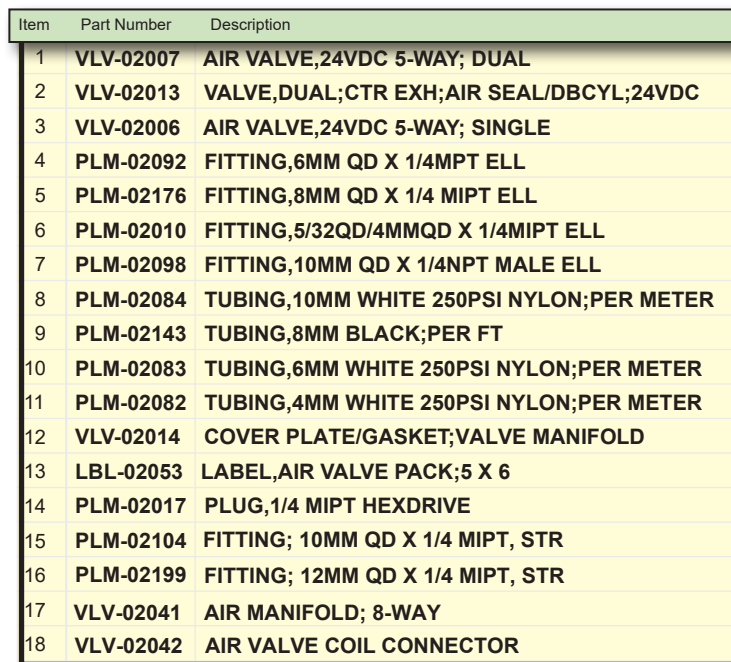
**Re-manufactured offered pending availability.



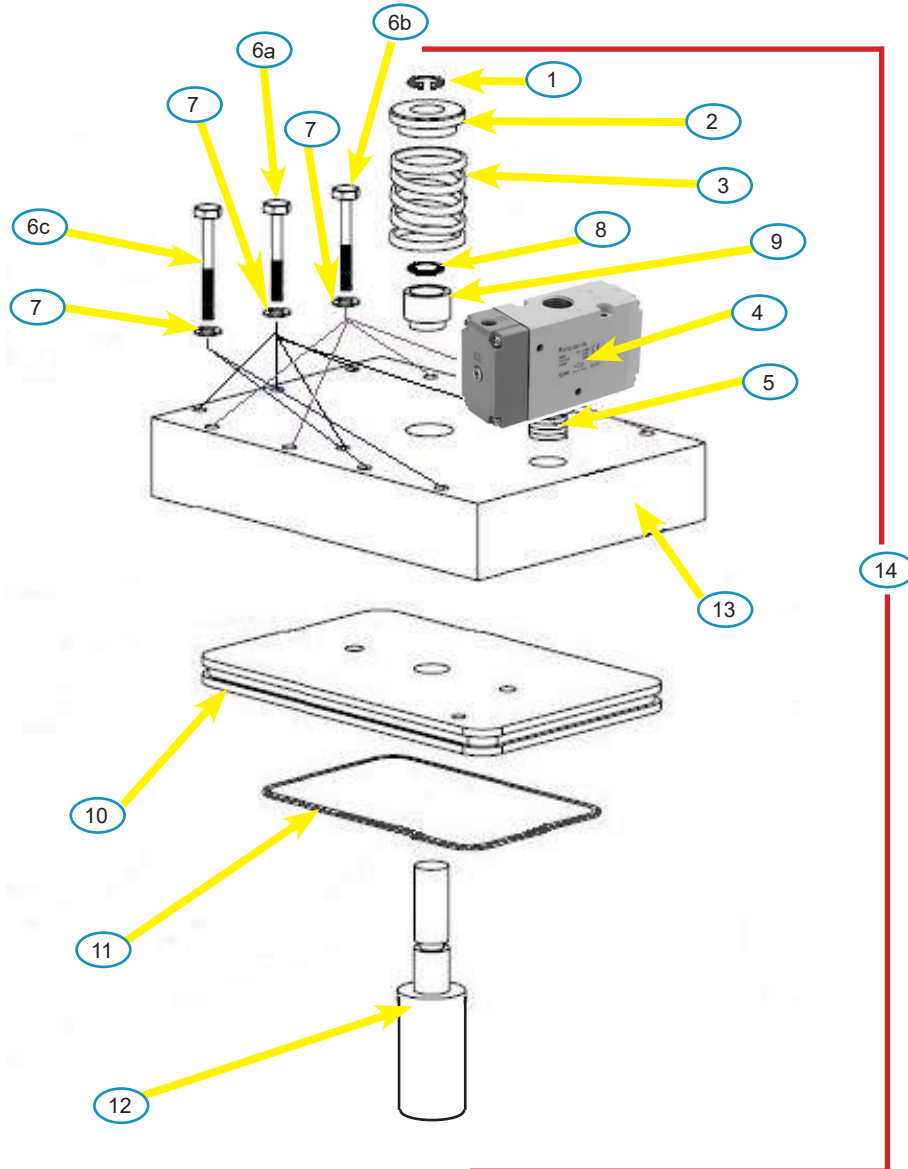


Item	Part Number	Description
1	ELE-04002	HABOR CHILLER UNIT,220V
2	PCB-02015	PCB,CONTROL;HABOR CHILLER
3	HDW-02114	FILTER-SCREEN,HABOR CHILLER
4	HDW-02115	CAP,OIL RESERVOIR;HABOR CHILLER
5	PCB-02016	PCB,RELAY;HABOR CHILLER
6	RLY-00004	OVERLOAD,1.0 TO 1.6A; FITS RLY-00003
7	RLY-00005	OVERLOAD,1.6 TO 2.5A; FITS RLY-00003
8	RLY-00003	CONTACTOR,240VAC 3PH-AC220V COIL
9	FAN-02012	FAN BLADE,HABOR CHILLER
10	PMP-02033	CHILLER PUMP/FAN MOTOR,HABOR CHILLER
11	PLM-02117	AIR GUN,COILED HOSE 1/4
12	PLM-02119	BRACKET, AIR HOSE/WASHDOWN HOSE
13	PLM-02201	SPRAY NOZZLE; OPERATOR WASHDOWN
14	PLM-02176	COILED HOSE, OPERATOR WASHDOWN
15	HDW-02066	AIR TANK,RESERVE
16	ELE-04011	WORKLIGHT,CAN;4 INCH ARM;24VDC 70W
17	ELE-04006	BULB,24VDC 70W
18	DOR-02044	LATCH,CAGE DOOR
19a	REG-02012	REGULATOR,WATER SEPARATOR; MM
19b	REG-02012-B	REGULATOR,WATER SEPARATOR; BOWL
20	SWT-00067	PRESSURE SWITCH,REGULATOR;DANFOSS
21	PLM-02084	TUBING,10MM WHITE 250PSI NYLON;PER METER
22	REG-02013	GAUGE,AIR PRESSURE; 0-150PSI 1/8
23	REG-02014	OILER,AIR LUBE MM
24a	REG-02015	FILTER; MM
24b	REG-02015-B	FILTER; BOWL
25	PLM-02124	CROSS TEE; 3/8 NPT
26	PLM-02197	FITTING; 12MM QD X 3/8 MIPT, ELL
27	REG-02009	REGULATOR ASSY, MAIN AIR PRESSURE; W/OUT PRES. SWITH/TEE
28	REG-02008	REGULATOR; AIR PRESSURE, COMPLETE ASSEMBLY
29	PLM-02195	TUBING; 12MM
30	PLM-02196	FITTING; 12MM QD X 3/8 MIPT, STRAIGHT
31	PLM-02194	FITTING; 3/8 MIPT X 3/8 MIPT, ELBOW
32	PLM-02197	FITTING; 12MM QD X 3/8 MIPT, ELBOW
33	VLV-02040	CHECK VALVE; 3/8 FIPT
34	PLM-02105	BALL VALVE; 1/4 FIPT X 1/4 MIPT
35	PLM-02198	FITTING; 8MM QD X 1/4 MIPT, ELBOW
36	PLM-02171	FITTING; 10MM QD X 1/2 MIPT, ELBOW
37	ELE-04031	WORKLIGHT, LED CAN; 18" ARM, 24VDC
38	ELE-04032	LED MODULE [FITS ELE-04031]
39	ELE-04014	WORKLIGHT, TUBULAR; 19", 220VAC, 12W

CHILLER CAGE - MISC



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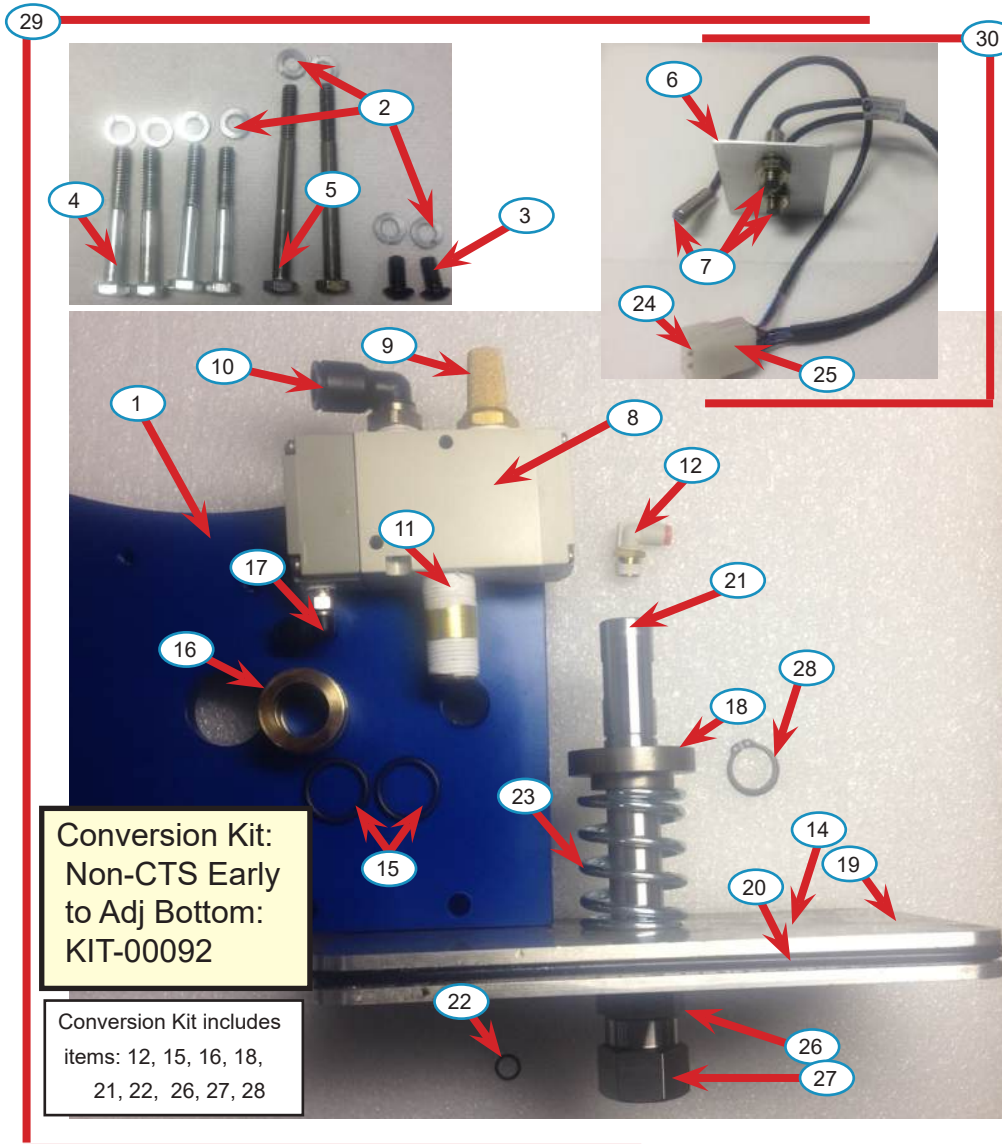


Item	Part Number	Description
1	HDW-02015	RETAINING CLIP, DRAWBAR CYLINDER SHAFT
2	DRB-02007	SPRING CAP SERIES II NON-CTS
3	HDW-02006	SPRING,DB CYLINDER RETURN
4	VLV-02000	AIR VALVE,DB CYLINDER
5	PLM-02019	PIPE NIPPLE,3/8 MIPT X 1 INCH
6a	SCR-00015	SCREW,1/4-20 X 1.75 HEXCAP [5 REQD]
6b	SCR-00016	SCREW,1/4-20 X 2 HEXCAP [4 REQD]
6c	SCR-00017	SCREW,1/4-20 X 3 HEXCAP [2 REQD]
7	SCR-00003	LOCKWASHER,1/4 [11 REQD]
8	SEL-00007	O'RING,-115; VITON .687 ID X 3/32 [2 REQD]
9	BRG-02000	BEARING,DRAWBAR CYL SHAFT
10	DRB-02006	PISTON PLATE,SERIES II [NO MAGNET]
11	SEL-00017	O'RING,DBCYL 7.25ID X 3/32
12	DRB-02003	SHAFT,DB CYLINDER SERIES II NON-CTS
13	DRB-02002	HOUSING,DRAWBAR CYLINDER;WIDE
14	DRB-02000	DRAWBAR CYLINDER ASSY [USE DRB-02051]

DRAWBAR CYLINDER [Early]

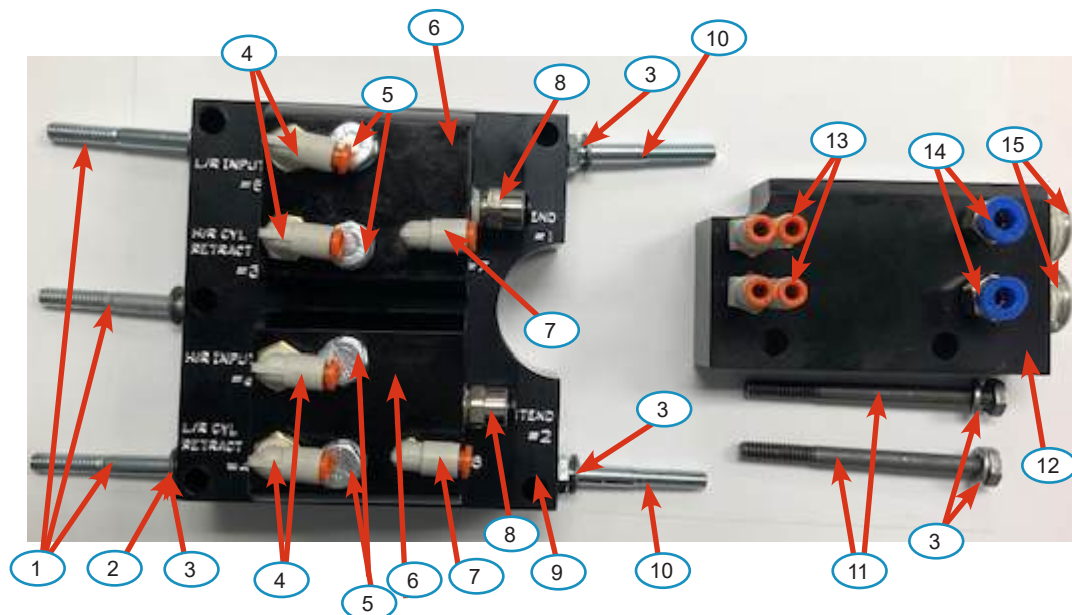


Page 12

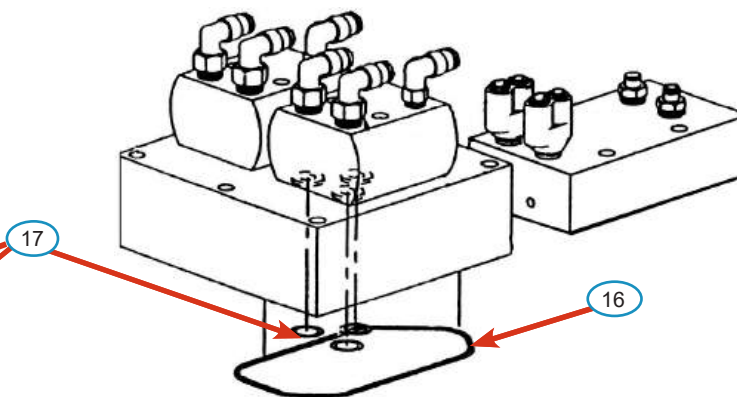


Item	Part Number	Description
1	DRB-02002	HOUSING,DRAWBAR CYL;WIDE [BLUE]
2	SCR-00003	LOCKWASHER,1/4 [8 REQD]
3	SCR-00165	SCREW,BUTTONHEAD;1/4-20 X 1/2
4	SCR-00016	SCREW,1/4-20 X 2 HEXCAP [4 REQD]
5	SCR-00017	SCREW,1/4-20 X 3 HEXCAP [2 REQD]
6	SMT-00226	BRACKET,DRAWBAR DOWN/UP SENSOR
7	SWT-00001	PROXIMITY SWITCH,W/LED;8MM 3-WIRE
8	VLV-02000	AIR VALVE,DB CYLINDER
9	PLM-02050	MUFFLER,3/8 MIPT
10	PLM-02087	FITTING,10MM QD X 3/8NPT MALE ELL
11	PLM-02049	PIPE NIPPLE,3/8 MIPT X 1.5 INCH
12	PLM-02012	FITTING,4MMQD X 1/8MIPT ELL
14	PLM-02028	PLUG,1/8 MIPT HEXDRIVE
15	SEL-00007	O'RING,-115; VITON .687 ID X 3/32
16	BRG-02000	BEARING,DRAWBAR CYL SHAFT
17	PLM-02091	FITTING,6MMQD X 1/8MIPT ELL
18	DRB-02036	SPRING PAD,DBCYL SHAFT;NON-CTS/CTS
19	DRB-02006	PISTON PLATE,SERIES II [NO MAGNET]
20	SEL-00017	O'RING,DBCYL 7.25ID X 3/32
21	DRB-02046	SHAFT,DRAWBAR CYLINDER;NON-CTS/CTS THD'D
22	SEL-00130	O'RING,DBCYL SHAFT;1.2MM X 7.0MM ID
23	HDW-02006	SPRING,DB CYLINDER RETURN
24	CNX-00007	PIN,MALE AWG16 MOLEX
25	CNX-00006	PLUG,6-PIN MOLEX F
26	DRB-02048	LOCKNUT,DBCYL SHAFT;NON-CTS/CTS
27	DRB-02047	ENDCAP,BOTTOM;DBCYL SHAFT;NON-CTS
28	HDW-02015	RETAINING CLIP; DRAWBAR CYLINDER SHAFT
29	DRB-02051	DRAWBAR CYLINDER ASSEMBLY [NON-CTS]
30	SWT-00088	DBCYL PROXIMITY SWITCH ASSEMBLY [3]

DRAWBAR CYLINDER - LOWER THREADED PISTON

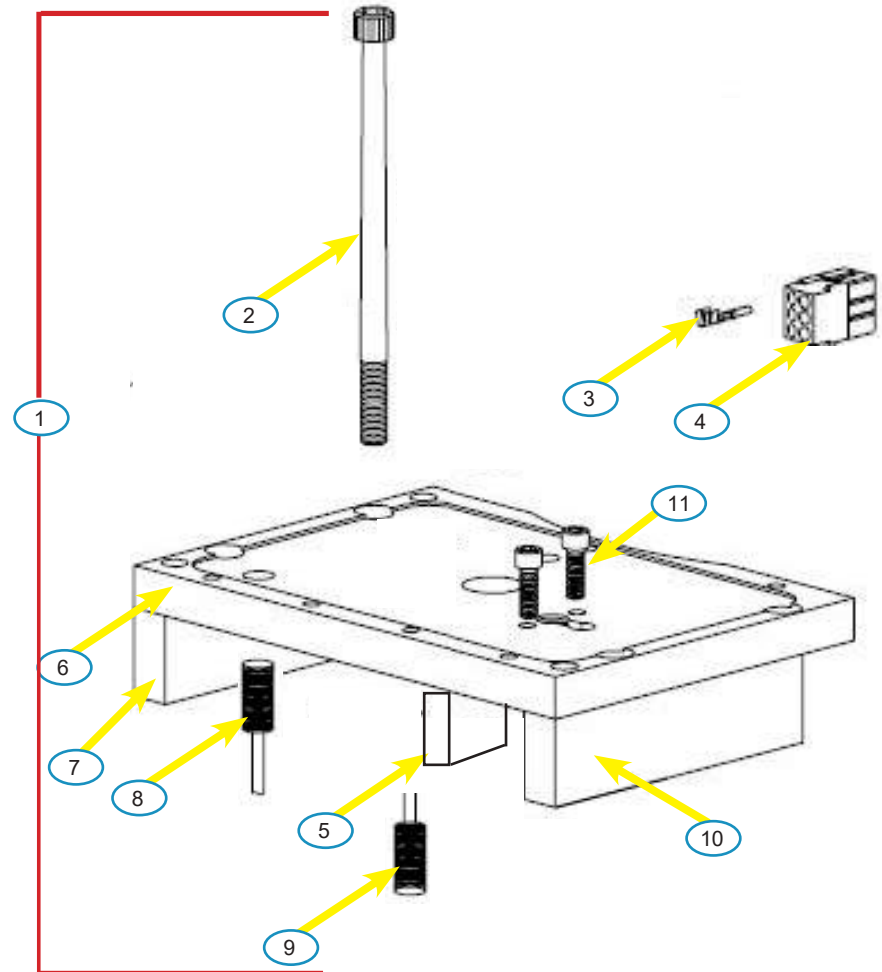


Item	Part Number	Description	
1	SCR-00016	SCREW, 1/4-20 X 2 HEXCAP	[4 REQ'D]
2	SCR-00098	FLATWASHER, 1/4 ZINC	[3 REQ'D]
3	SCR-00003	LOCKWASHER, 1/4	[10 REQ'D]
4	PLM-02012	FITTING, 5/32QD/4MMQD X 1/8NPT ELL	[4 REQ'D]
5	SCR-00014	SCREW, 1/4-20 X 1.5 HEXCAP	[4 REQ'D]
6	HYD-02005	HYDRAULIC ACTUATOR ASSEMBLY	[PK/2]
7	PLM-02015	FITTING, 5/32QD/4MMQD X 10-32 ELL	[2 REQ'D]
8	PLM-02093	FITTING, 6MMQD X 1/8NPT STR	[2 REQ'D]
9	HYD-02000	RESERVOIR, HYDRAULIC ACTUATORS	
10	SCR-00015	SCREW, 1/4-20 X 1.75 HEXCAP	[5 REQ'D]
11	SCR-00017	SCREW, 1/4-20 X 3 HEXCAP	[2 REQ'D]
12	HYD-02004	SEPARATOR BLOCK, HYDRAULIC ACTUATORS	
13	PLM-02014	FITTING, 5/32QD/4MMQD X 1/8NPT WYE	[2 REQ'D]
14	PLM-02093	FITTING, 6MMQD X 1/8MIPT STR	[2 REQ'D]
15	PLM-02024	PLUG, 1/2 MIPT; HEXDRIVE	[2 REQ'D]
16	SEL-00010	O-RING, -151 VITON; 3.0 ID X 3/32	[2 REQ'D]
17	SEL-00021	O-RING, -012 VITON; 3/8 ID X 1/16	[6 REQ'D]



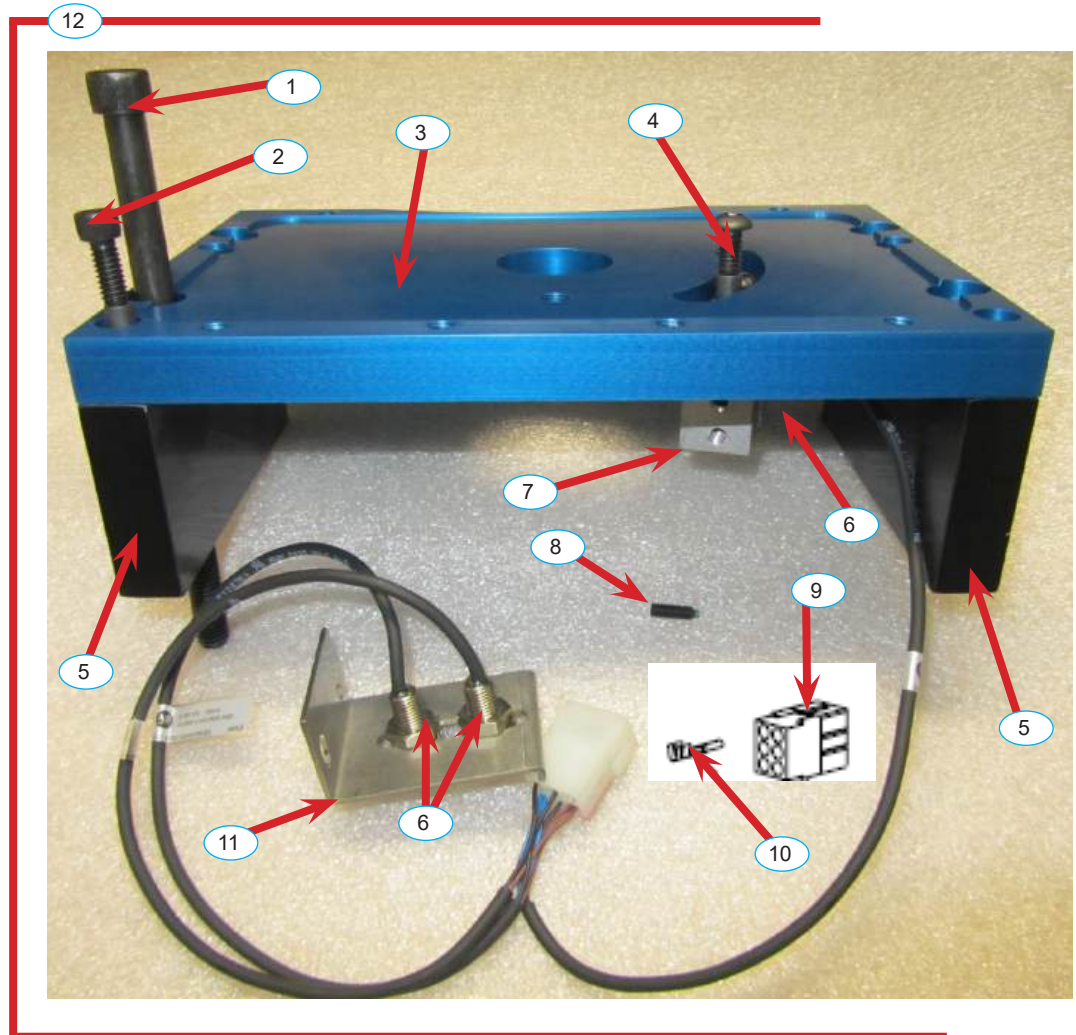
HYDRAULIC ACTUATORS

Item	Part Number	Description
1	ORB-02000	ORIENTATION BRIDGE ASY,NON-CTS 40T
2	SCR-00024	SCREW,3/8-16 X 6 SHCS [4 REQ]
3	CNX-00007	PIN,MALE;AWG16
4	CNX-00006	PLUG,6-PIN MOLEX F
5	ORB-02003	BLOCK, ORIENTATION SWITCH MOUNT, 8MM
6	ORB-02001	ORIENT BRIDGE PLATE
7	ORB-02002	LEG, OBRIDGE;LEFT
8	SWT-00002	SENSOR,REED;12MM
9	SWT-00001	SENSOR,PROX;8MM
10	ORB-02006	LEG,RIGHT;SENSOR PORTHOLE
11	SCR-00043	SCREW,1/4-20 X 3/4 SHCS [6 REQ]



Early ORIENT BRIDGE

Item	Part Number	Description
1	SCR-00024	SCREW,3/8-16 X 6 SHCS [4 REQ]
2	SCR-00043	SCREW,1/4-20 X 3/4 SHCS [4 REQ]
3	ORB-02007	ORIENT BRIDGE PLATE [BLUE]
4	SCR-00219	SCREW,1/4-20 X 5/8 BUTTONHEAD [2 REQ]
5	ORB-02002	LEG, OBRIDGE;LEFT/RIGHT
6	SWT-00001	SENSOR,PROX;8MM [3 REQ]
7	ORB-02003	BLOCK,ORIENT SWITCH MOUNT 8MM
8	SCR-00162	SETSCREW,NYLON TIP;10-32 X 1/2
9	CNX-00006	PLUG,6-PIN MOLEX F
10	CNX-00007	PIN,MALE;AWG16
11	SMT-00164	BRACKET,DUAL SENSOR;DBCYL
12	ORB-02000	ORIENTATION BRIDGE ASSY, [SRS II NON-CTS]



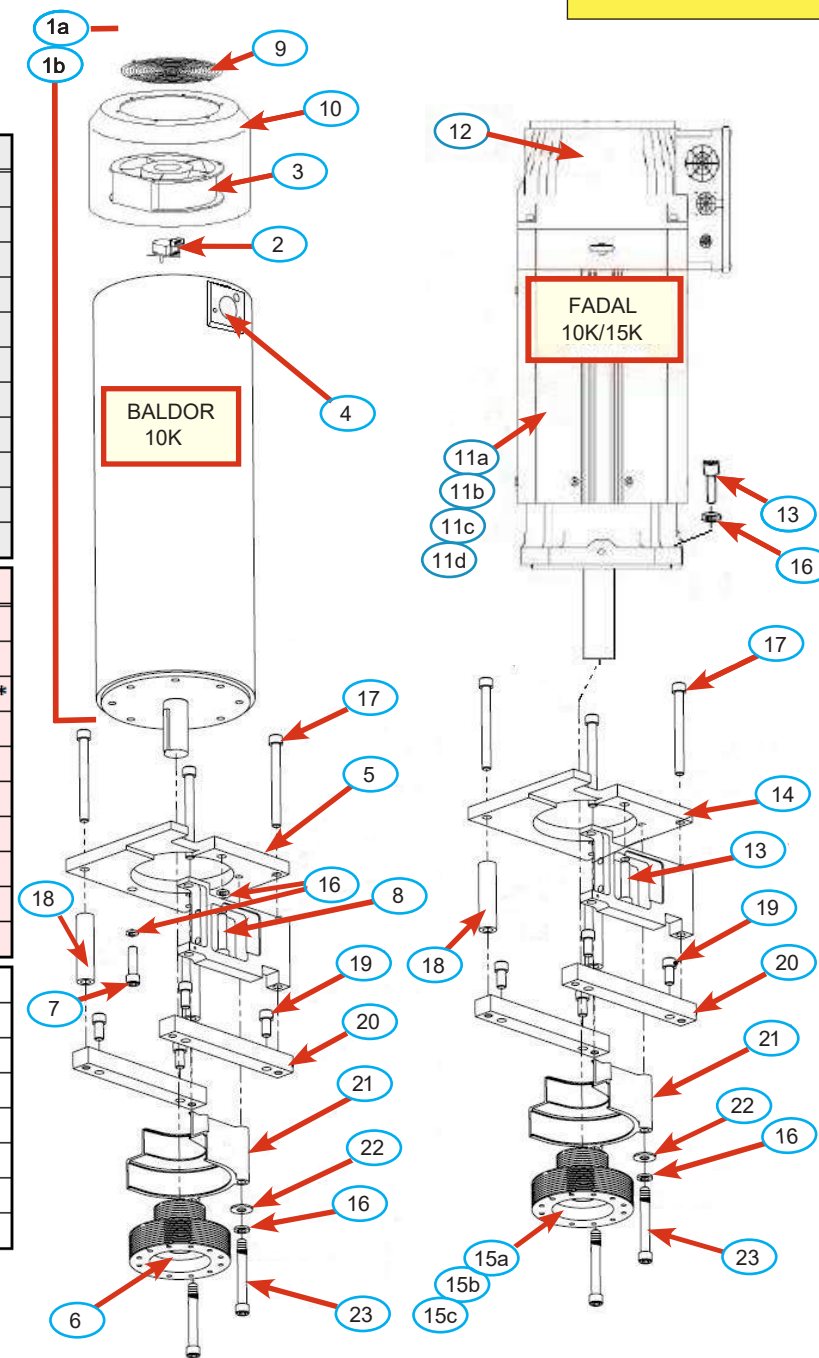
ORIENTATION BRIDGE

Item	Part Number	Description - BALDOR SPINDLE MOTOR
1a	MTR-02001	MOTOR; BALDOR 10 HP W/ ENCODER [NO PULLEY] *
1b	MTR-02002	MOTOR; BALDOR, 15 HT W/ ENCODER [NO PULLEY] *
2	ENC-02001	ENCODER; BALDOR, 1000L
3	FAN-02001	FAN, 6 X 6; BALDOR
4	MTR-02003	BLOCK; ELECTRICAL JUNCTION BOX MOUNT
5	MTR-02004	PLATE, MOTOR MOUNT; 10HP/15HT, BALDOR
6	PUL-02001	PULLEY, SPINDLE MOTOR; BALDOR, 10K/15K
7	SCR-00010	SCREW; 1/2-13 X 1.75, HEXCAP
8	SCR-00011	SCREW; 1/2-13 X 2.25, HEXCAP
9	FAN-02015	FAN GUARD
10	MTR-02130	FAN/ENCODER SHROUD

Item	Part Number	Description - FADAL SPINDLE MOTOR
11a	MTR-02034	MOTOR; FADAL, 10HP, NO PULLEY *
11b	MTR-02035-G1	MOTOR; FADAL, 10K/15K, 15HT, NO PULLEY [GEN 1] *
11c	MTR-02035-G2	MOTOR; FADAL, 10K/15K, 15HT, W/ WOODRUFF KEY, SYN. ENC., NO PULLEY [GEN 2] *
11d	MTR-02036	MOTOR; FADAL, 10K/15K, 15HT, 48MM SHAFT, SYN. ENC., NO PULLEY *
12	FAN-02013	COOLING FAN; FADAL SPINDLE MOTOR, 10HP/15HP
13	SCR-00221	SCREW; 1/2-13 X 1.25, HEXCAP, GR5
14	MTR-02010	PLATE, MOTOR MOUNT; 10HP/15HT, FADAL
15a	PUL-02005	PULLEY, SPINDLE MOTOR; FADAL, 10K/15K, W/ STEPPED KEY
15b	PUL-02005-M	PULLEY, SPINDLE MOTOR; FADAL, 10K/15K, W/ STEPPED KEY & WOODRUFF KEY
15c	PUL-02015-M/48	PULLEY, SPINDLE MOTOR; 10K/15K, HT, 48MM [FITS MTR-02036]

16	SCR-00002	LOCKWASHER; 1/2"
17	SCR-00051	SCREW; 1/2-13 X 5, SHCS
18	MTR-02005	STAND-OFF TUBE; 4.0, 10K/15K [2 REQUIRED]
19	SCR-00030	SCREW; 1/2-13 X 1, SHCS [4 REQUIRED]
20	MTR-02006	MOUNTING BLOCK, NON-VULCANIZED; MOTOR MOUNT
21	BEL-02001	BELT GUIDE; SPINDLE MOTOR
22	SCR-00001	HARDWASHER, 1/2 ID X 3/4 OD X .125" THICK [DISCONTINUED]
23	SCR-00013	SCREW; 1/2-13 X 4, SHCS

* SPINDLE MOTOR CAN BE ORDERED WITH PULLEY AND BALANCED FOR AN ADDITIONAL CHARGE

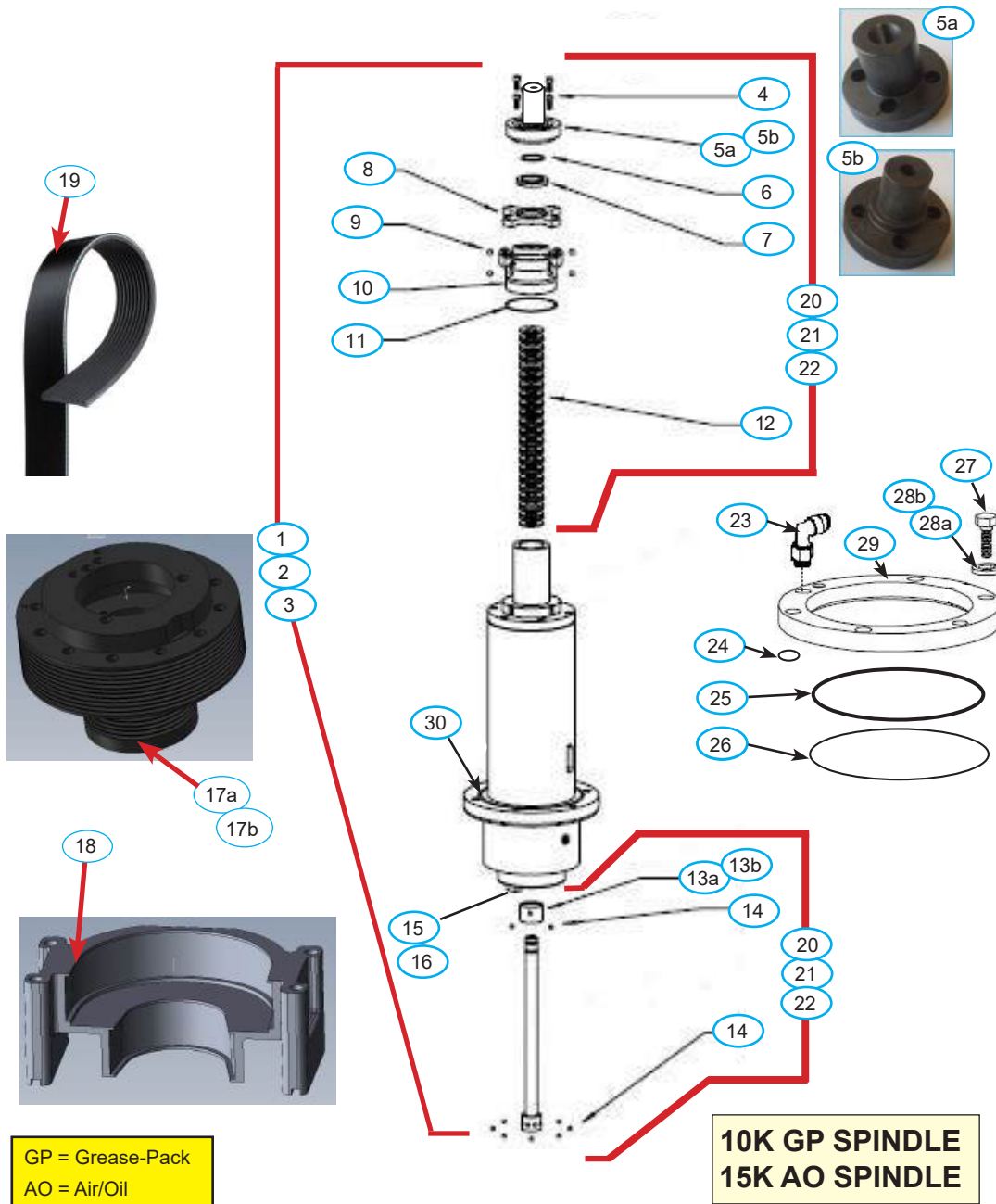


SPINDLE MOTOR

Item	Part Number	Description
1	SPN-02022	SPINDLE ASSEMBLY, 10K, GREASE PACK, DUAL RANGE
2	SPN-02004*	SPINDLE ASSEMBLY, 15K, AIR/OIL, DUAL RANGE
3	SPN-02005*	SPINDLE ASSEMBLY, 15K, GREASE PACK, DUAL RANGE
4	SCR-00167	SCREW, M4-0.7 X 14MM SHCS
5a	DRB-02004	KNOCKOOUT CAP; 10K/15K, NON-CTS, 40 TAPER
5b	DRB-02015	KNOCKOOUT CAP; 10K/15K, CTS, 40 TAPER
6	SEL-00029	O-RING, VITON, 16MM ID X 2MM
7	DRB-02012	RETAINER CLIP, LDB, 40 TAPER [PK/2]
8	DRB-02011	SPIDER, LDB, 40 TAPER
9	BRG-02013	BALL, 1/4 HARDENED [4 REQUIRED]
10	DRB-02026	SPRING PILOT, SERIES ii [TALL]
11	SEL-00009	O-RING, VITON; 1.125 ID X 3/32
12	DRB-02017	BELLEVILLE SPRING WASHERS, DRAWBAR [PK/44]
13a	DRB-02008	FLOATER, 40T, LONG [26MM]
13b	DRB-02043	FLOATER, 40T, SHORT [21MM]
14	BRG-02012	BALL, 3/16 HARDENED [10 REQUIRED]
15	SPN-02026	SPINDLE NOSE KEY, SHORT
16	SPN-02027	SPINDLE NOSE KEY, LONG
17a	PUL-02002	PULLEY, SPINDLE; 10K/15K W/ PIN
17b	PUL-02006	PULLEY, SPINDLE; 10K/15K NO PIN
18	BEL-02002	BELT GUIDE; SPINDLE
19	BEL-02000	BELT; POZI-DRIVE; 10K/15K
20	DRB-02023	DRAWBAR KIT, 40T, 10K, SERIES II; NON-COOLANT-THRU [16.8]
21	DRB-02027/10K	DRAWBAR KIT, 40T, 10K; NON-CTS/CTS COMPATIBLE [ITEMS 4-14]
22	DRB-02027/15K	DRAWBAR KIT, 40T, 15K; NON-CTS/CTS COMPATIBLE [ITEMS 4-14]
23	PLM-02097	FITTING, 10MM QD X 1/8NPT ELL**
24	SEL-00021	O-RING, VITON; 3/8 ID X 1/16
25	SEL-00012	O-RING, VITON; 4.50 ID X 1/8
26	SEL-00004	O-RING, VITON; 4.75 X 1/16
27	SCR-00061	SCREW, 3/8-16 X 1.25 GR8 SHCS
28a	SCR-00118	WASHER, BRONZE ; 3/8 ID [USE W/ ALUMINUM RING]
28b	SCR-00004	LOCK WASHER; 3/8 ID [USE W/ STEEL RING]
29	SPN-02002	RETAINING RING, ADAPTER; SPINDLE
30	SEL-00011	O-RING, 160; VITON, 5.25 ID X 3/32

* OPTIONAL

**NOTE: Relocated to right side of headstock casting on some 2018 & all later year models [See Pg. 20]



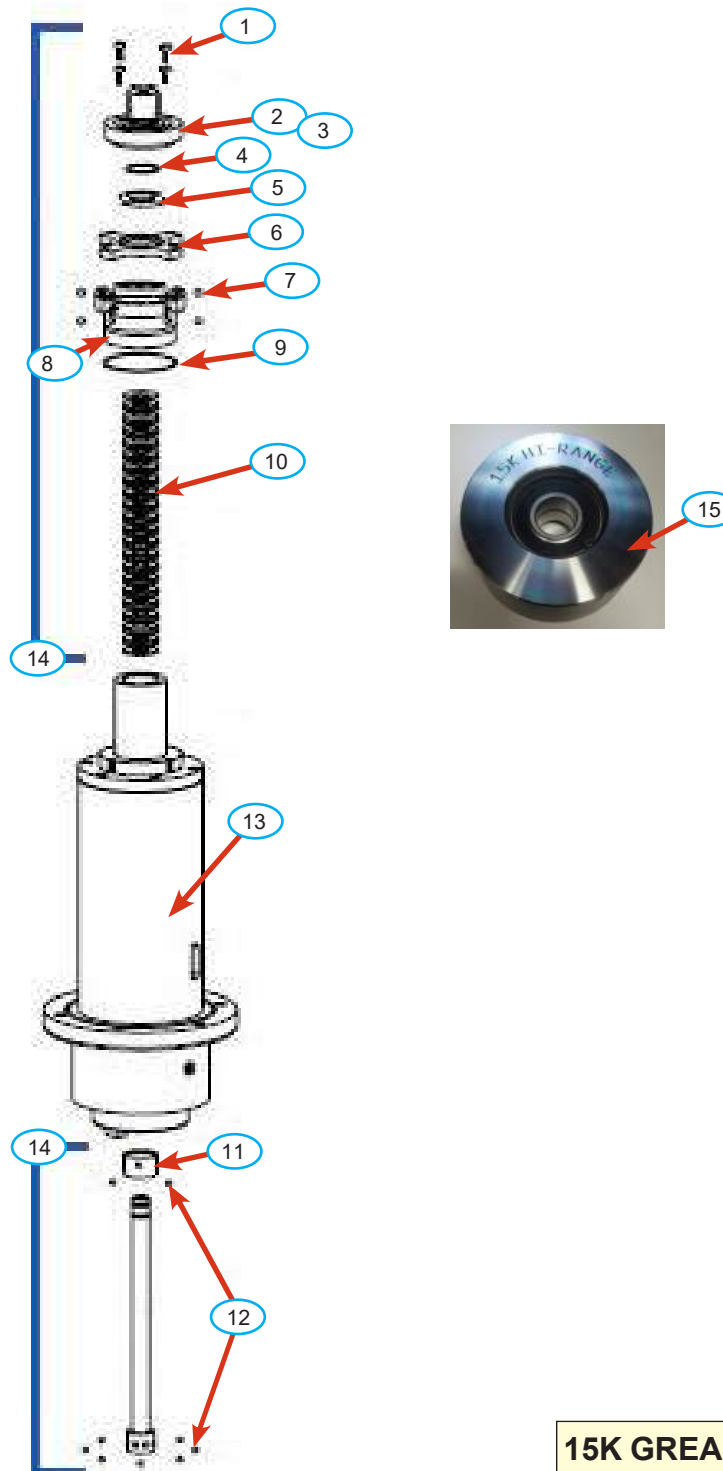
GP = Grease-Pack
AO = Air/Oil

**10K GP SPINDLE
15K AO SPINDLE**

Item	Part Number	Description
1	SCR-00167	SCREW; M4-0.7 X 14MM, SHCS
2	DRB-02004	KNOCK-OUT CAP; 10K/15K, NON-CTS
3	DRB-02015	KNOCK-OUT CAP; 10K/15K, CTS
4	SEL-00029	O-RING; 16MM ID X 2MM, VITON
5	DRB-02012	RETAINER CLIPS [PK/2]
6	DRB-02011	SPIDER
7	BRG-02013	BALL; 1/4, HARDENED [4 REQUIRED]
8	DRB-02026	SPRING PILOT
9	SEL-00009	O-RING; 1.125 ID X 3/32, VITON
10	DRB-02017	BELLVILLE SPRING WASHERS; DRAWBAR [PK/44]
11	DRB-02043	FLOATER; SHORT [21MM]
12	BRG-02012	BALL; 3/16 HARDENED [10 REQUIRED]
13	SPN-02005*	SPINDLE ASSY, 15K, GREASE PACK, DUALRANGE
14	DRB-02027**	DRAWBAR KIT; 15K, NON-CTS/CTS COMPATIBLE
15	IDL-02012/15K	IDLER ROLLER ASSEMBLY W/ BEARINGS; 15K

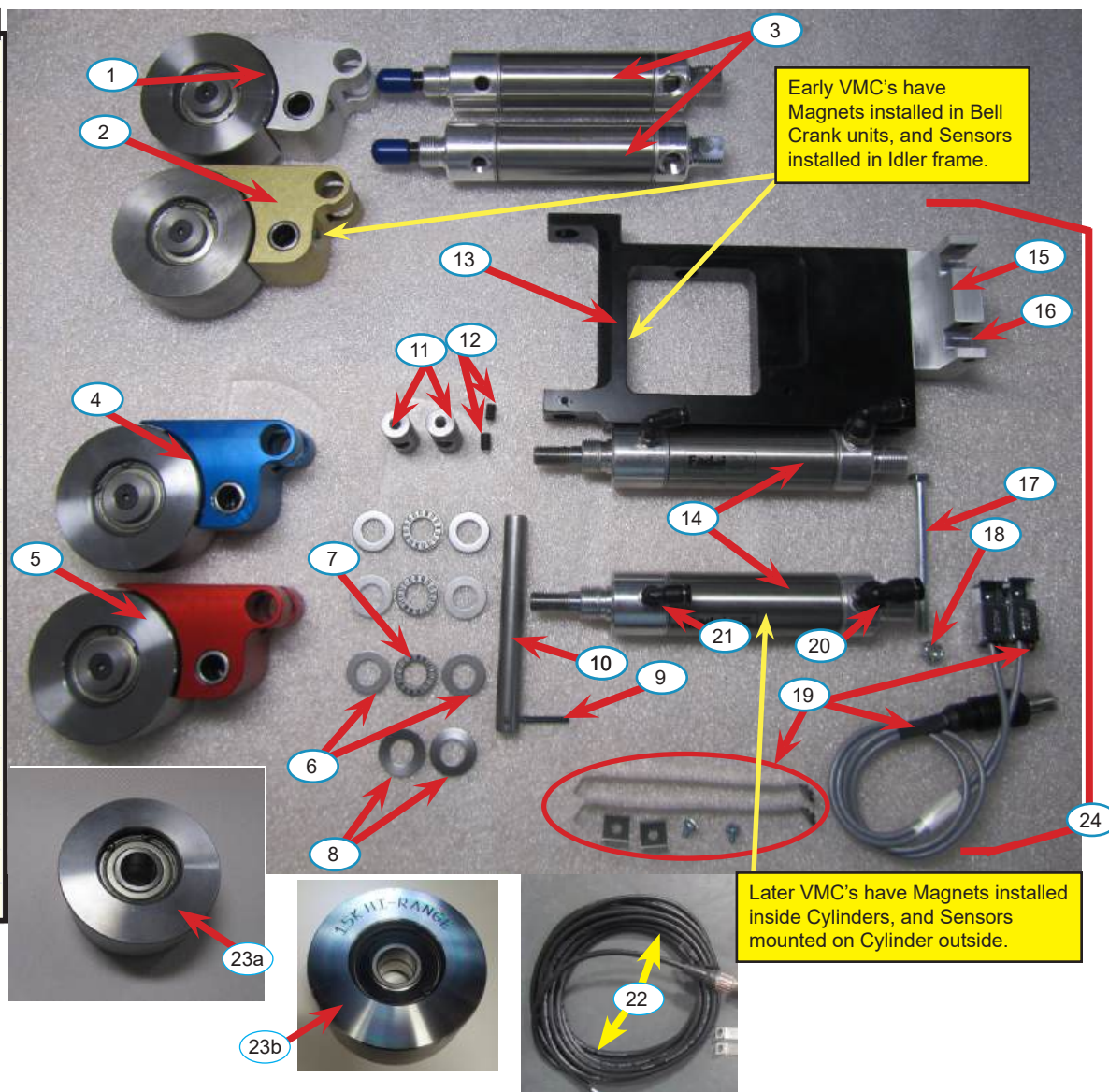
* INCLUDES DRB-02027

** INCLUDES ITEMS 1-12



15K GREASE PACK SPINDLE

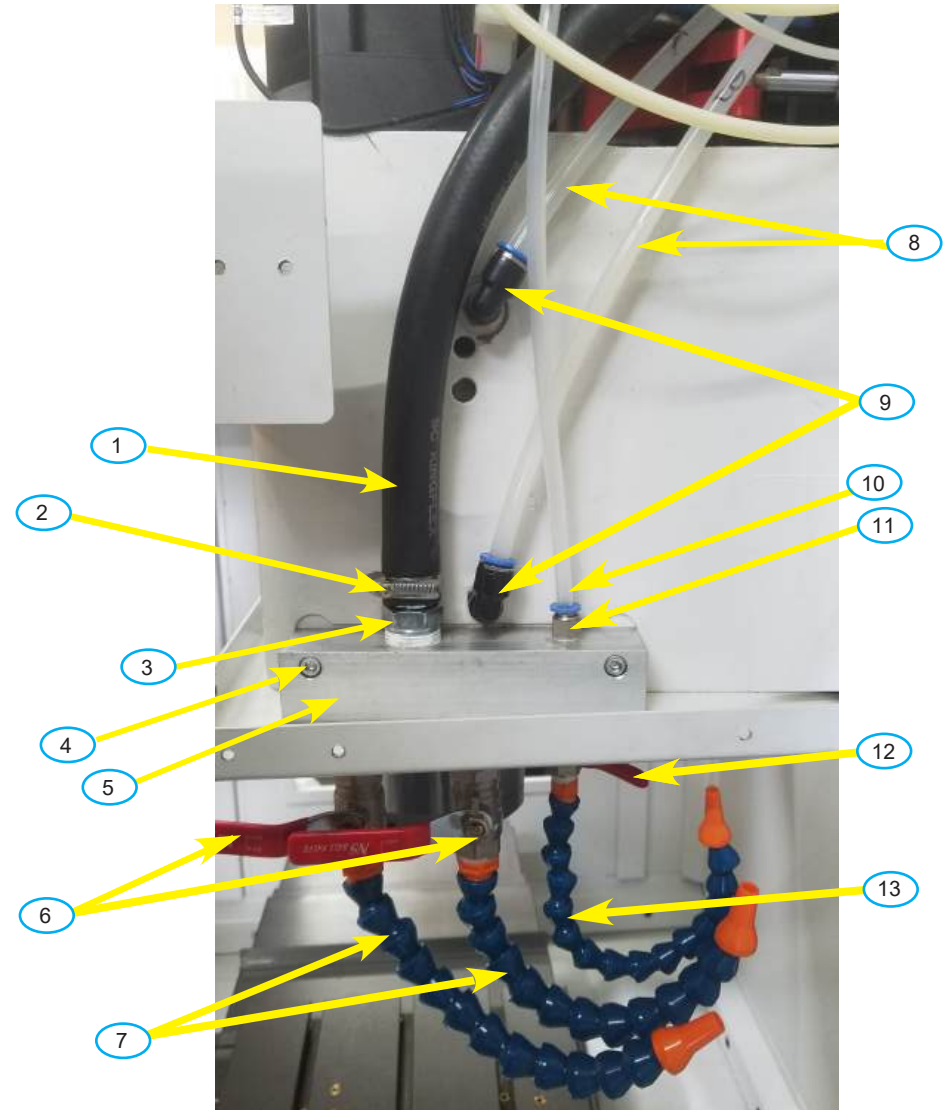
Item	Part Number	Description
For early VMC models with IDL-02000 assembly:		
1	IDL-02011	IDLER BELL CRANK/ROLLER ASSY; SILVER-UPPER
2	IDL-02010	IDLER BELL CRANK/ROLLER ASSY; GOLD-LOWER
3	CYL-02005	CYLINDER, HYD; [NO MAGNET] <i>NLA: USE CYL-02007</i>
For later VMC models with IDL-02013 assembly:		
4	IDL-02016	IDLER BELL CRANK/ROLLER ASSY; BLUE-UPPER
5	IDL-02017	IDLER BELL CRANK/ROLLER ASSY; RED-LOWER
6	BRG-02002	THRUST WASHER, IDLER PIVOT [6 REQ'D]
7	BRG-02001	THRUST BEARING, IDLER PIVOT [3 REQ'D]
8	HDW-02003	BELLEVILLE SPRING
9	HDW-02002	PIN, ROLL; 1/8 DIA X 1
10	IDL-02003	SHAFT, PIVOT; IDLERS
11	IDL-02007	ROD END, CYLINDER PIVOT
12	SCR-00039	SETSCREW, 1/4-20 X 3/8 NYLON TIP
13	IDL-02015	FRAME, IDLER ASSY [10HP, 15HT OR 20VHT]
14	CYL-02007	CYLINDER, HYD; 2-PORT [w/MAGNET]
15	IDL-02005	MOUNT BRACKET, CYLINDERS
16	SCR-00043	SCREW, 1/4-20 X 3/4 SHCS
17	SCR-00018	SCREW, 1/4-20 X 3.25 HEXCAP
18	SCR-00036	NUT, 1/4-20 NYLOCK
19	SWT-00031	SENSORS/HARNESS, MAGNETIC IDLER CYL
20	PLM-02092	FITTING, 6MM QD X 1/4MPT ELL
21	PLM-02012	FITTING, 5/32QD/4MMQD X 1/8MPT ELL
22	WIR-02160	CABLE/CONNECTOR, IDLER CYLINDERS; 5M
23a	IDL-02012	IDLER ROLLER W/BEARINGS [HI OR LOW]
23b	IDL-02012-15K	IDLER ROLLER W/BEARINGS [15K HI RANGE]
24	IDL-02013	COMPLETE IDLER ASSY [INCL. ITEMS #4-#21]



IDLER ASSEMBLY

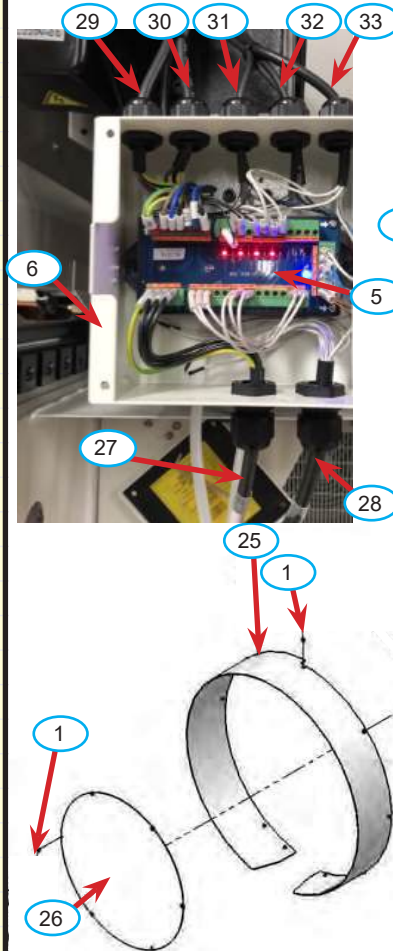
Item	Part Number	Description
1	PLM-02071	HOSE, 3/4", BRAIDED
2	HDW-02011	HOSE CLAMP; WORM, 1"
3	PLM-02182	FITTING; 3/4" BARB X 3/4" MIPT
4	SCR-00188	SCREW, M6-1.0 X 40MM SHCS [2 REQ]
5	CNT-02031	COOLANT MANIFOLD BLOCK
6	PLM-02165	BALL VALVE, 1/2 X 1/2NPT, LEVER HANDLE
7	PLM-02146	1/2 PT FLEXLINE [12 LINKS]
8	PLM-02084	10MM TUBING
9	PLM-02087	FITTING, 10MM QD X 3/8NPT ELL *
10	PLM-02143	TUBING, 8MM
11	PLM-02184	FITTING, 8MMQD X 1/4MIPT STR
12	PLM-02183	1/4FIPT X 1/4FIPT, LEVER HANDLE
13	PLM-02134	1/4 PT FLEXLINE [15 LINKS]

**NOTE: Upper fitting relocated from upper spindle retaining ring on some 2018 & all later year models [See pg. 18]*

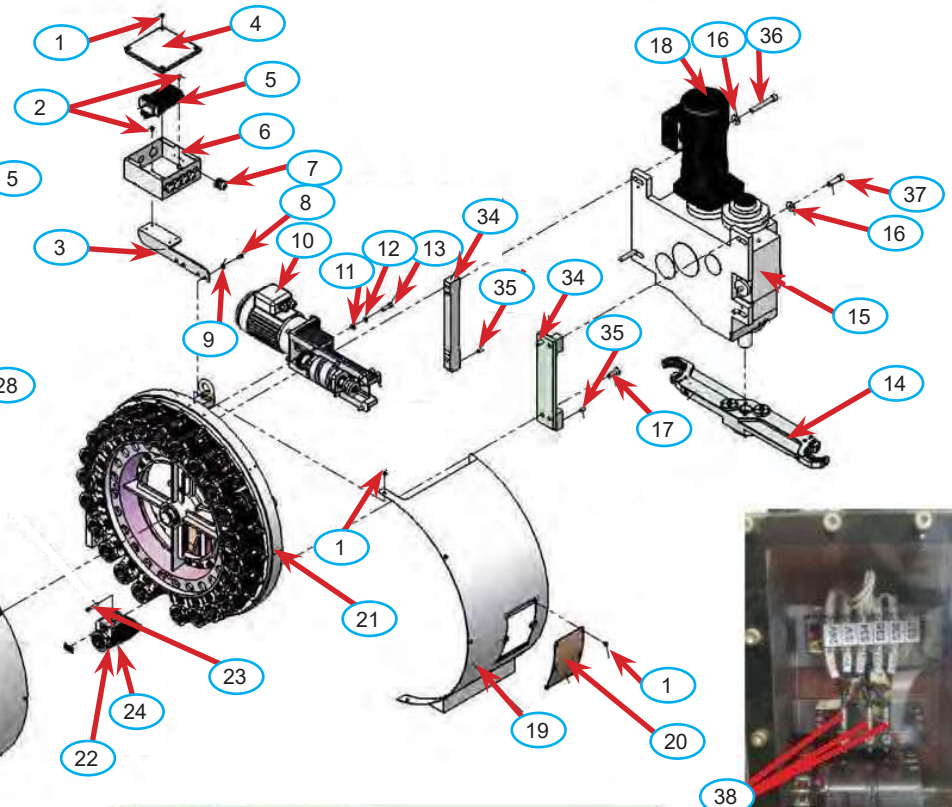


HEAD PLUMBING

Item	Part Number	Description
1	SCR-00171	SCREW,M5-0.8 X 8MM PANHDCS
2	SCR-00152	SCREW,M5-0.8 X 10MM SHCS
3	ATC-02079	SUPPORT,JUNCTION BOX
4	CVR-02112	COVER,JUNCTION BOX
5	PCB-02011	INTERFACE BOARD,DATC
6	ELE-04030	JUNCTION BOX,ELECTRICAL
7	CNX-00043	CABLE STRAIN RELIEF
8	SCR-00067	SCREW,M6-1.0 X 10MM SHCS
9	SCR-00140	FLATWASHER,M6
10	[SEE PG. 22]	MAGAZINE DRIVE ASSEMBLY
11	SCR-00141	FLATWASHER,M8
12	SCR-00139	LOCKWASHER,M8
13	SCR-00060	SCREW,M8-1.25 X 30MM SHCS
14	[SEE PG. 24]	TOOL ARM ASSEMBLY
15	ATC-02080	TRANSMISSION ASSEMBLY
16	SCR-00147	WASHER,THICK;M12
17	SCR-00114	SCREW,M12-1.75 X 40MM SHCS
18	MTR-02061	ARM MOTOR,DATC24
19	ATC-02081	FRONT COVER,MAGAZINE DATC24
20	ATC-02082	SENSOR WINDOW,DATC24/30
21	[SEE PG. 23]	MAGAZINE ASSEMBLY
22	[SEE PG. 22]	TOOL BUCKET ASSEMBLY
23	SCR-00188	SCREW,M6-1.0 X 40MM SHCS
24	LBL-02076	BUCKET NUMBERS [SET/24]
25	ATC-02083	COVER EXTENSION,DATC24
26	ATC-02084	MAGAZINE WINDOW,DATC24
27	WIR-02200	CABLE,3-PH PWR;CNTRL TO DATC
28	WIR-02201	CABLE,DATC SENSORS TO CNTRL
29	WIR-02202	CABLE,PWR TO MAGAZINE MTR
30	WIR-02203	CABLE,PWR TO DATC ARM MTR
31	WIR-02204	CABLE,BUCKET UP/DOWN SENS
32	WIR-02205	CABLE,INDEX/ORIGIN SENSORS
33	WIR-02206	CABLE,ARM ROTATION SENSORS



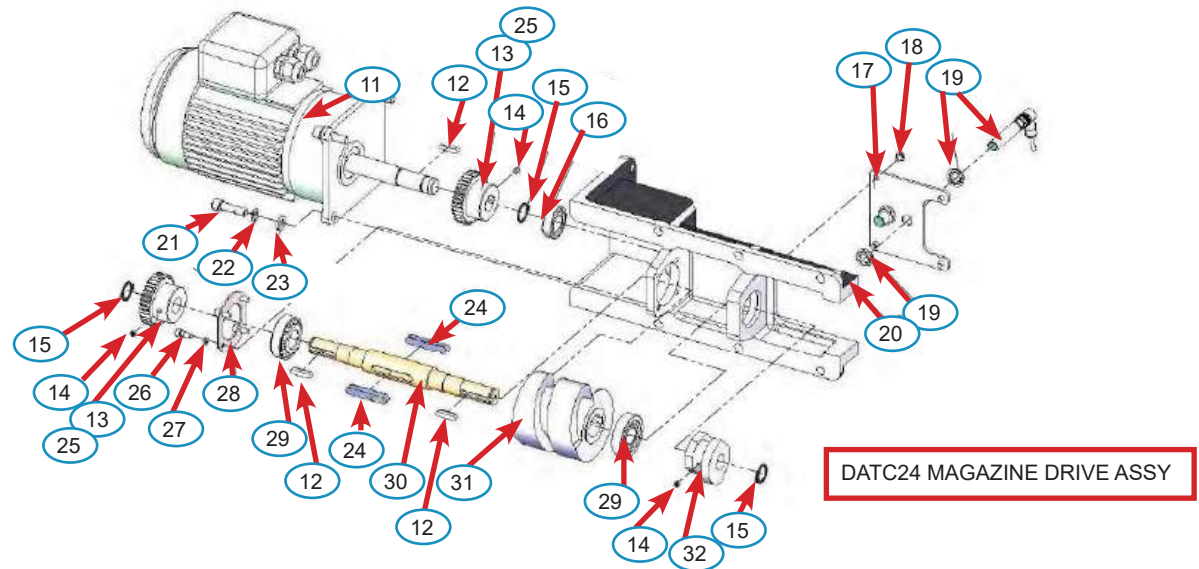
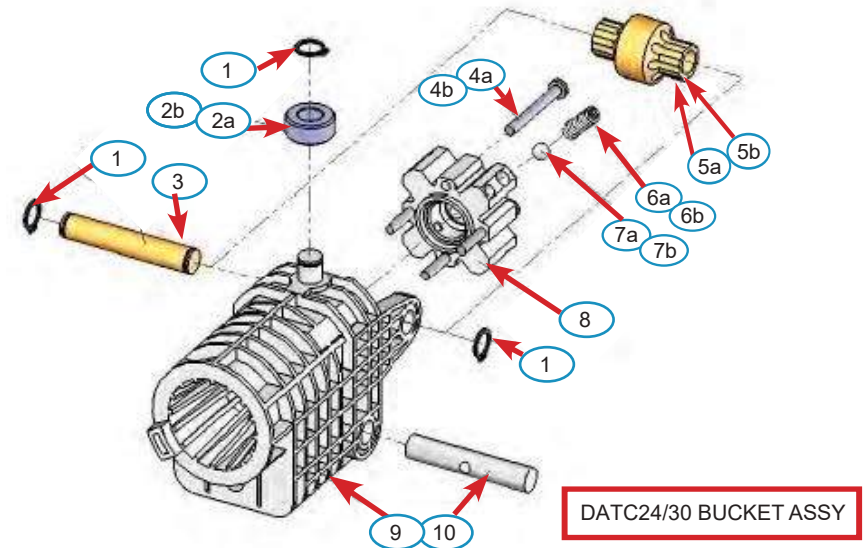
Item	Part Number	Description
34	ATC-02085	CAM SHIM, DATC [2 REQ'D]
35	HDW-02117	PIN, 8 MM DIA X 18 MM L [2 REQ'D]
36	SCR-00302	SCREW,M12-1.75X90L [2 REQ'D]
37	SCR-00247	SCREW,M12-1.75X45L [2 REQ'D]



Item	Part Number	Description
38	SWT-00025	SENSOR, DATC 24/30, ARM POSITION

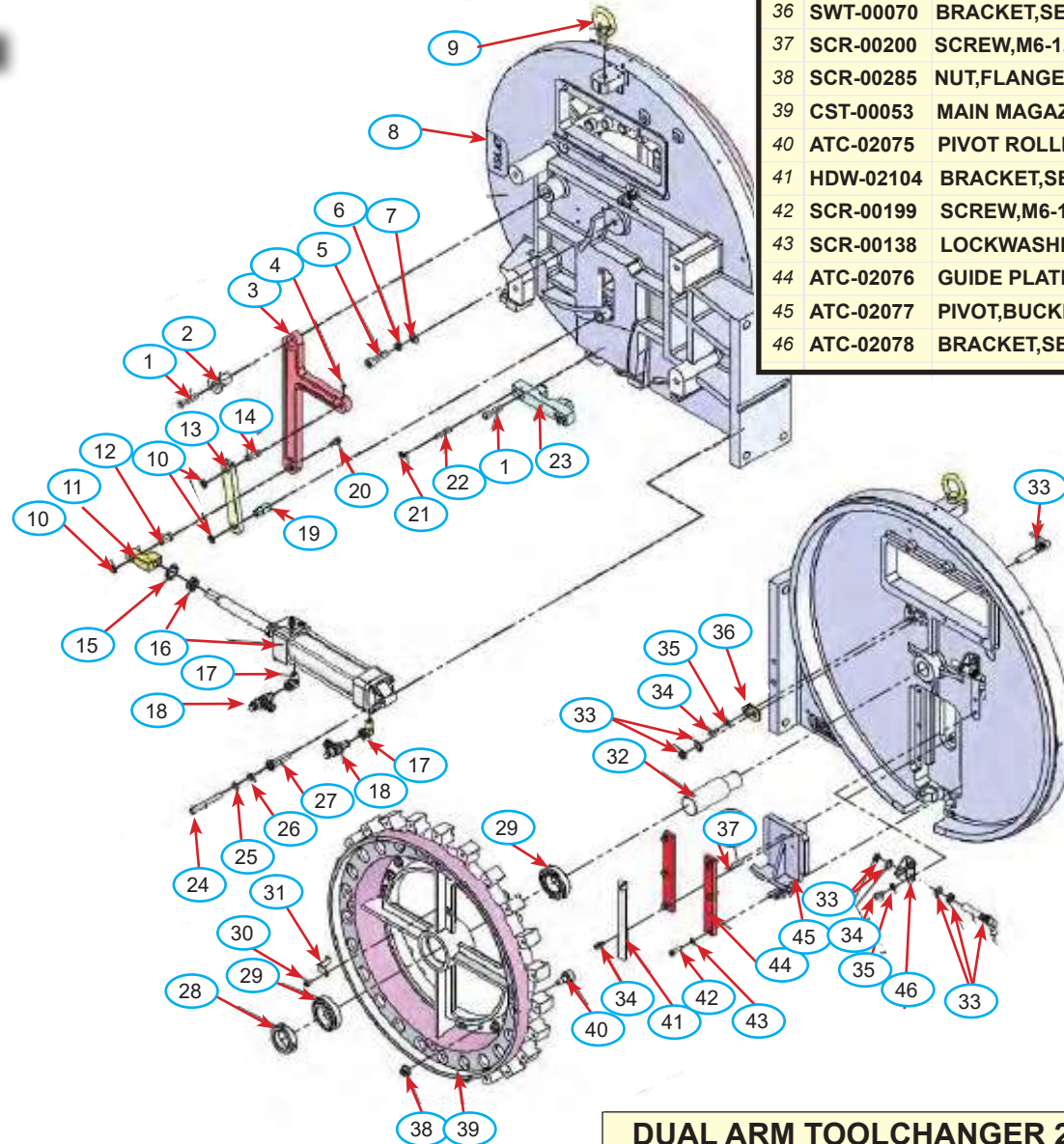
DUAL ARM TOOLCHANGER 24/30

Item	Part Number	Description
1	HDW-02055	RETAINING RING, M12
2a	ATC-02022-24	ROLLER, GUIDE;DATC24 BUCKET
2b	ATC-02022-30	ROLLER, GUIDE;DATC30 BUCKET
3	ATC-02023	PIN,BUCKET DRIVE;MAGAZINE ASSY
4a	SCR-00319	SCREW,M5-0.8 X 45MM, PHILLIPS [24T]
4b	SCR-00318	SCREW,M4-0.7 X 8MM, PHILLIPS [30T]
5a	ATC-02024-24	ROLLER,DRIVE;ATC BUCKET PIVOT-24T ATC
5b	ATC-02024-30	ROLLER,DRIVE;ATC BUCKET PIVOT-30T ATC
6a	HDW-02056-BT	SPRING,TOOL RETENTION;BT ATC
6b	HDW-02056-CT	SPRING,TOOL RETENTION;CT ATC
7a	ATC-02050	BALL,STEEL;TOOL RETENTION;ATC24/30, CT
7b	HDW-02057	BALL,STEEL;TOOL RETENTION;ATC24/30, BT
8	ATC-02003	ENDSOCKET,TOOL BUCKET, DATC24
9	ATC-02010	TOOL BUCKET,DATC24/30;CAT/BT
10	ATC-02026	PIN,TOOL BUCKET;DATC24
11	MTR-02060	MOTOR,MAGAZINE;DATC24/30
12	HDW-02047	KEY,DRIVE GEAR;MAGAZINE MOTOR
13	HDW-02059	GEAR, MAGAZINE MOTOR/DRIVE SHAFT [24T]
14	SCR-00174	SETSCREW,M5-0.8 X 5MM
15	HDW-02060	RETAINING RING,M18
16	BRG-02047	BEARING,MAGAZINE DRIVE;DATC24
17	HDW-02061	BRACKET,SENSOR;MAGAZINE INDEX
18	SCR-00171	SCREW,M5-0.8 X 8MM PANHEAD SHCS
19	SWT-00007	SENSOR,DATC;12MM 24VDC
20	ATC-02027	MOTOR MOUNT,MAGAZINE DRIVE;DATC24
21	SCR-00175	SCREW,M8-1.25 X 30MM SHCS
22	SCR-00139	LOCKWASHER,M8
23	SCR-00141	FLATWASHER,M8
24	HDW-02067	KEY,DRIVE;8MM X 7MM X 50MM
25	HDW-02068	GEAR, MAGAZINE MOTOR/DRIVE SHAFT [30T]
26	SCR-00179	SCREW,M5-0.8 X 12MM SHCS
27	SCR-00180	LOCKWASHER,M5
28	BRG-02048	BEARING COVER,DATC MAGAZINE DRIVE
29	BRG-02049	BEARING,MAGAZINE DRIVE
30	ATC-02030	SHAFT,CAM DRIVE;DATC24 SERIES I / II
31	ATC-02012	WORM DRIVEGEAR,DATC MAGAZINE [24T]
32	ATC-02032	CAM INDEXER,MAG. SENSOR;SRS I / II [24T]



DUAL ARM TOOLCHANGER 24/30

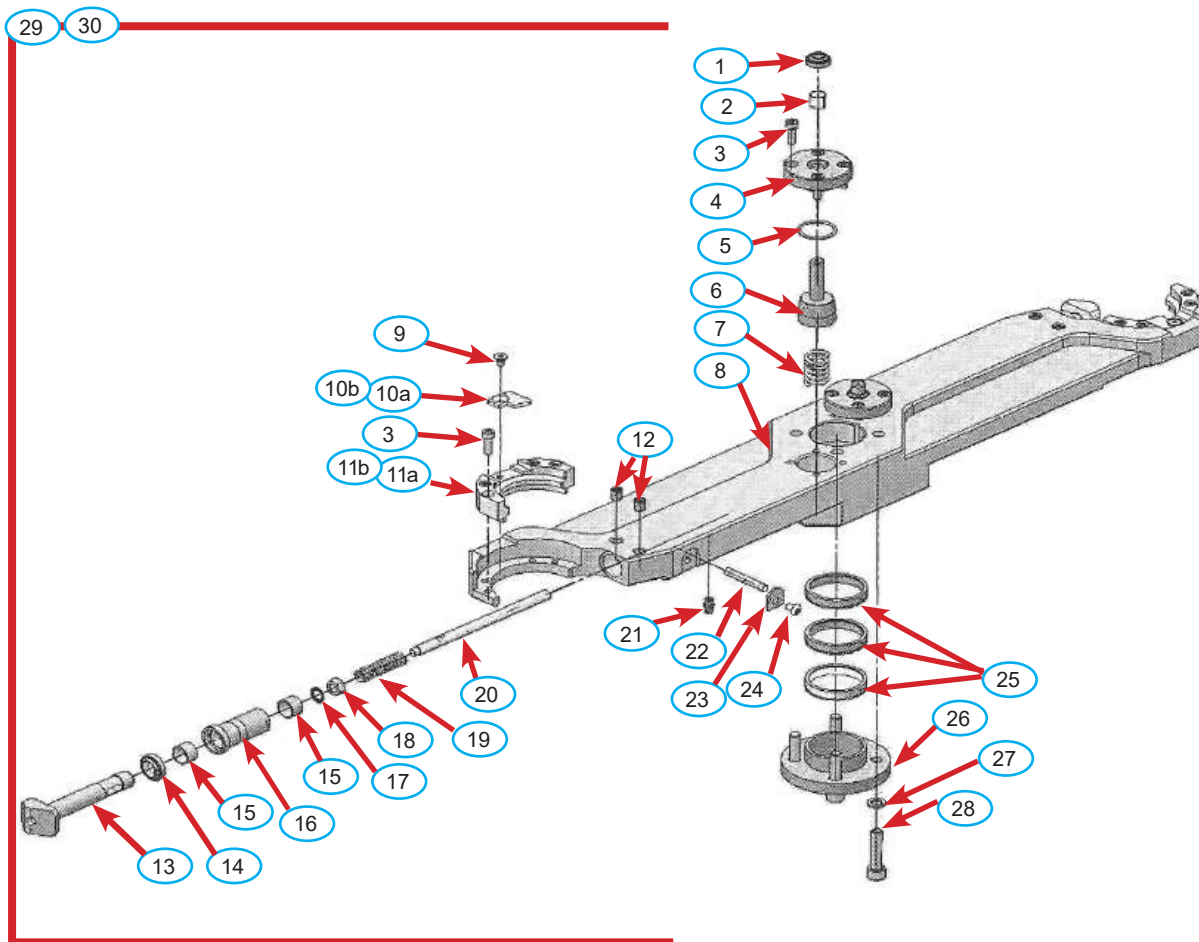
Item	Part Number	Description
1	SCR-00087	SCREW,M8-1.5 X 35MM SOCAP
2	HDW-02098	PIVOT BEARING,LEVER
3	ATC-02071	LEVER,AIR CYLINDER;DATC
4	SCR-00149	SETSCREW,M6-1.0 X 6MM
5	SCR-00117	SCREW,M10-1.5 X 40MM SOCAP
6	SCR-00187	LOCKWASHER,M10
7	SCR-00205	FLATWASHER,M10
8	CST-00052	CASTING,BACK PLATE;DATC24
9	HDW-02099	EYEHOOK,M12
10	HDW-02100	RETAINING RING,12MM
11	CYL-02034	ENDCAP,AIR CYLINDER;DATC24
12	CYL-02035	PIVOT SHAFT,AIR CYLINDER
13	ATC-02072	LEVER,BUCKET DOWN;DATC24
14	HDW-02101	PIN,BUCKET DOWN LEVER
15	HDW-02102	BELLEVILLE WASHER,M16
16	CYL-02036	CYLINDER,BUCKET UP/DN DATC
17	PLM-02164	FITTING,STREET ELL,1/4 PT
18	VLV-02033	VALVE,FLOW CONTROL
19	HDW-02103	PIVOT PIN,BUCKET DN LEVER
20	SCR-00064	SCREW,M6-1.0 X 16MM SOCAP
21	SCR-00284	NUT,FLANGED;M8-1.25
22	SCR-00233	SETSCREW,M8-1.25 X 40MM
23	ATC-02073	CLAMP,TOOL BUCKET POSITION
24	SCR-00239	SCREW,M8-1.25 X 70MM SOCAP
25	SCR-00139	LOCKWASHER,M8
26	SCR-00141	FLATWASHER,M8
27	CYL-02037	PIVOT PIN,AIR CYLINDER;DATC
28	BLS-02030	NUT,M40-1.5
29	BRG-02108	BEARING,MAGAZINE SPINDLE
30	SCR-00067	SCREW,M6-1.0 X 10MM SOCAP
31	SWT-00068	BRACKET,SENSOR
32	ATC-02074	SHAFT,MAGAZINE SPINDLE
33	SWT-00069	SENSOR,M12 24VDC



Item	Part Number	Description
34	SCR-00136	SCREW,M6-1.0 X 12MM SOCAP
35	SCR-00140	FLATWASHER,M6
36	SWT-00070	BRACKET,SENSOR
37	SCR-00200	SCREW,M6-1.0 X 35MM SOCAP
38	SCR-00285	NUT,FLANGED;M10-1.25
39	CST-00053	MAIN MAGAZINE
40	ATC-02075	PIVOT ROLLER,MAGAZINE;DATC
41	HDW-02104	BRACKET,SENSOR;TOOL DOWN
42	SCR-00199	SCREW,M6-1.0 X 20MM SOCAP
43	SCR-00138	LOCKWASHER,M6
44	ATC-02076	GUIDE PLATE,PIVOT;BUCKET DN
45	ATC-02077	PIVOT,BUCKET DOWN
46	ATC-02078	BRACKET,SENSOR;TOOL

DUAL ARM TOOLCHANGER 24

Item	Part Number	Description
1	SEL-00031	LIP SEAL,18MM OD X 10MM ID X 7MM L
2	BRG-02045	BEARING,12MM OD X 10MM ID X 10MM L
3	SCR-00168	SCREW,M5-0.8 X 16L SHCS
4	ATC-02013	PLUNGER COVER
5	SEL-00033	O'RING
6	ATC-02014	PLUNGER,DATC ARM
7	HDW-02049	SPRING,DATC ARM PLUNGER
8	ATC-02015	ARM CASTING,ATC24/30 6030/8030B-II 620MM
9	SCR-00128	SCREW,M5-0.8 X 8MM FLATHEAD SHCS
10a	ATC-02008	KEY,TOOL;DATC24 CAT[6030,8030B-II] 1 EA
10b	ATC-02009	KEY,TOOL;DATC24 BT [6030,8030B-II] 1 EA
11a	ATC-02001	GRIPPERS,DATC;CAT40 [1 EA] 60/8030B-II
11b	ATC-02002	GRIPPERS,DATC;BT40 [1 EA] 60/8030B-II
12	SCR-00170	SETSCREW,M8-1.25 X 8MM CUP POINT
13	ATC-02016	LATCH ROD,DATC ARM;6030/8030B-II
14	SEL-00032	LIP SEAL,22MM OD X 14MM ID X 7MM L
15	BRG-02046	BEARING,14MM OD X 16MM ID X 10MM L
16	ATC-02017	TUBE,BEARING HOLDER DATC ARM
17	HDW-02050	M8 SPRING WASHER,CONICAL; DATC ARM
18	SCR-00093	NUT,M8-1.25
19	HDW-02051	SPRING,LATCH ROD;DATC 6030B/8030B-II
20	HDW-02052	ROD EXTENSION,DATC;6030B/8030B-II
21	HDW-02053	ZERK FITTING,DATC ARM;GREASE
22	HDW-02054	PIN,DATC LATCH ROD;6030B/8030B-II
23	ATC-02018	COVER,LATCH ROD PIN
24	SCR-00171	SCREW,M5-0.8 X 8MM PANHEAD SHCS
25	ATC-02019	TAPERLOCK RINGS,DATC24
26	ATC-02020	TAPERLOCK HOUSING,DATC24
27	HDW-02062	M8 SPRING WASHER
28	SCR-00172	SCREW,M8-1.25 X 35MM HEXCAP
29	ATC-02060	ARM ASSY, DATC24 CAT/BT[NO GRIPPERS]
30	ATC-02061	ARM ASSY, DATC30 CAT/BT[NO GRIPPERS]



DUAL ARM TOOLCHANGER 24/30

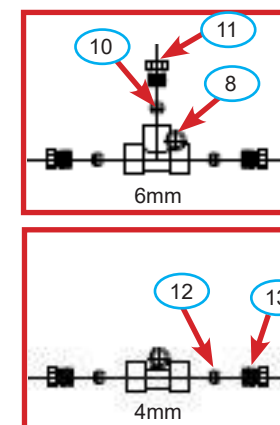
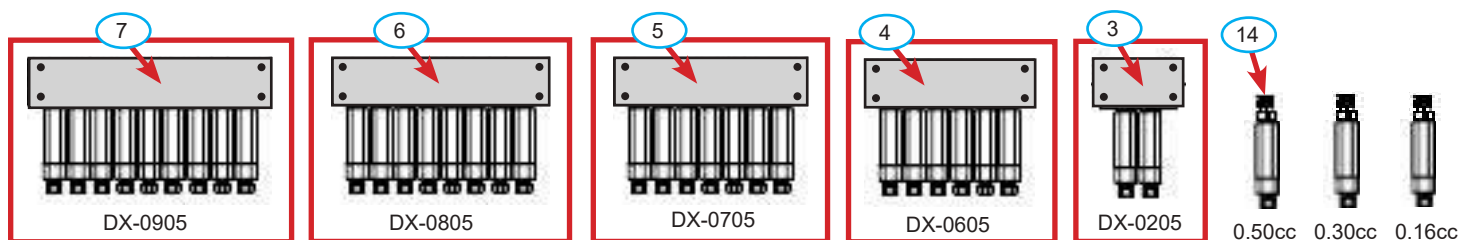
Item	Part Number	Description
1	LUB-02032	WAYLUBE PUMP, 6030B-II, 8030B-II
2	LUB-02030	GAUGE,PRESSURE; 0-500PSI
3	LUB-02034-2	MANIFOLD,DX-2 PORT;[NO INJECTORS]
4	LUB-02034-6	MANIFOLD,DX-6 PORT;[NO INJECTORS]
5	LUB-02034-7	MANIFOLD,DX-7 PORT;[NO INJECTORS]
6	LUB-02034-8	MANIFOLD,DX-8 PORT;[NO INJECTORS]
7	LUB-02034-9	MANIFOLD,DX-9 PORT;[NO INJECTORS]
8	LUB-02047	COMPRESSION TEE, 6MM
9	LUB-02048	OILLINE,COPPER;6MM X 6' [NOT SHOWN]
10	LUB-02049	FERRULE, 6MM
11	LUB-02050	COMPRESSION NUT,6MM
12	LUB-02054	FERRULE,4MM [5/32]
13	LUB-02055	COMPRESSION NUT,4MM [5/32]
14	LUB-02035-50	LUBE INJECTOR, DX-TYPE;0.5CC



6030B-II Series Configuration

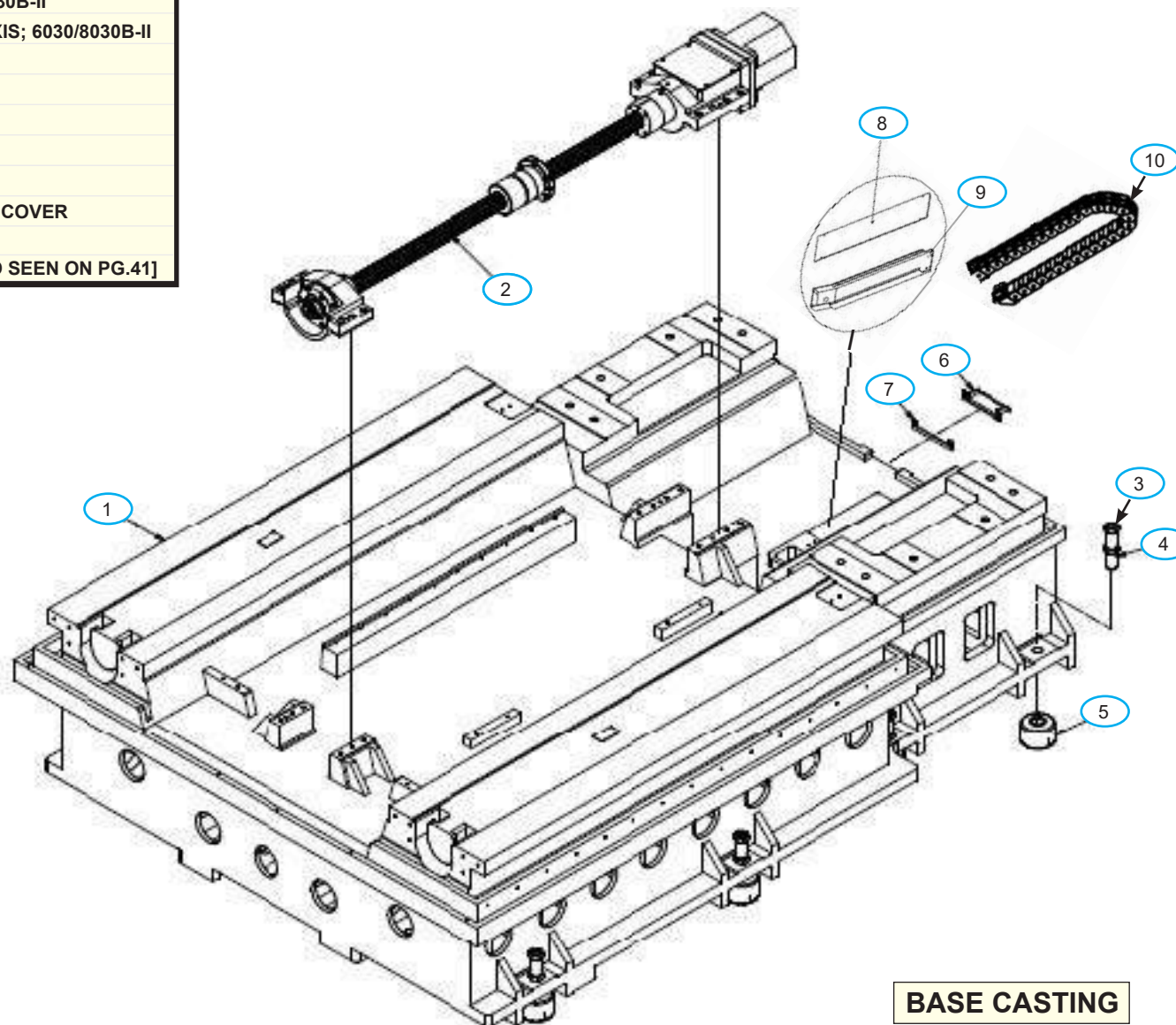
DX-0905 (1), DX-0805 (2), DX-0705 (2), DX-0605 (1), DX-0205 (2)

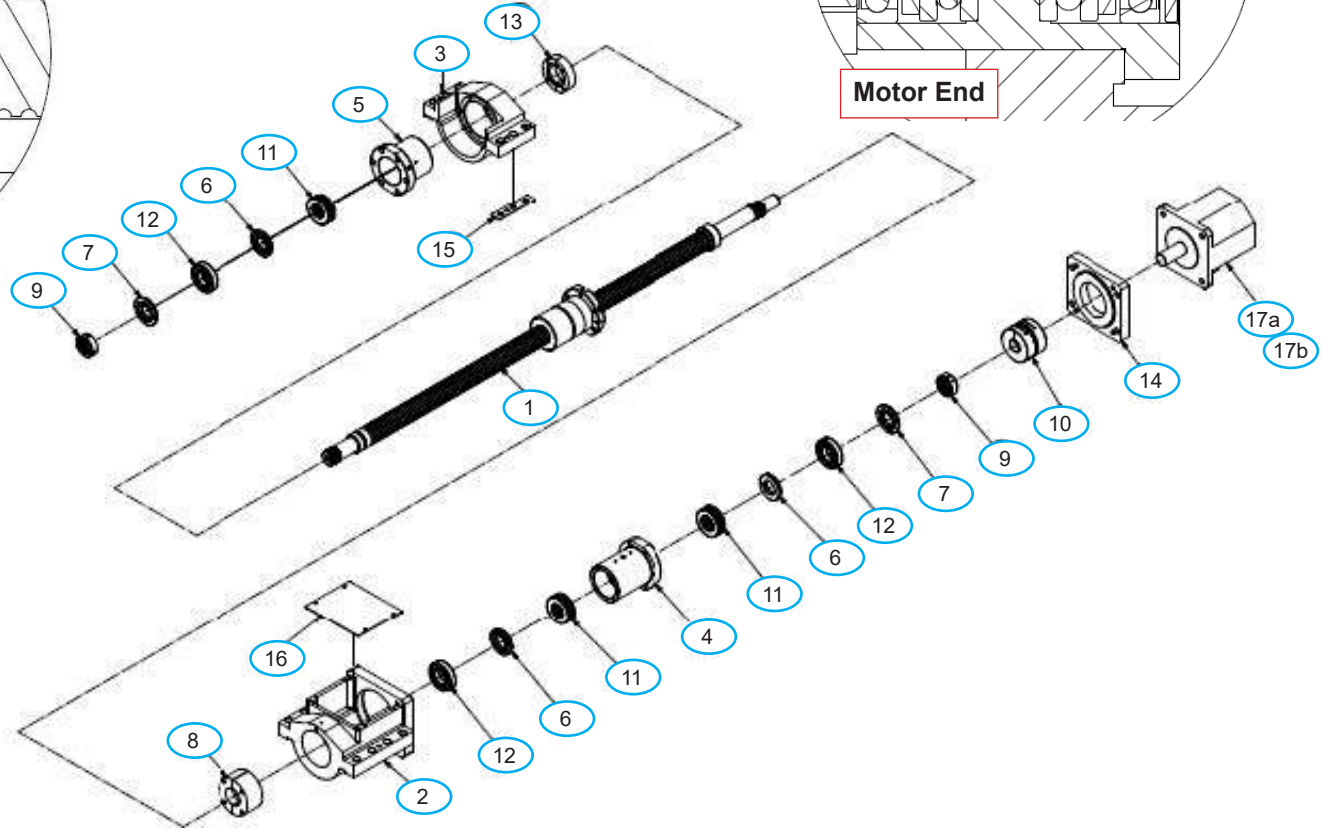
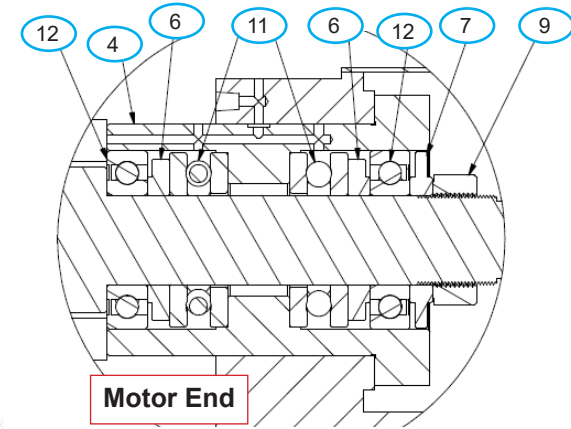
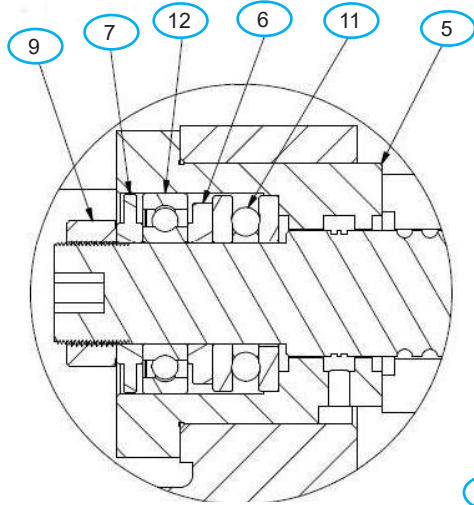
DX Series - 0.50cc per Port



LUBRICATION SYSTEM

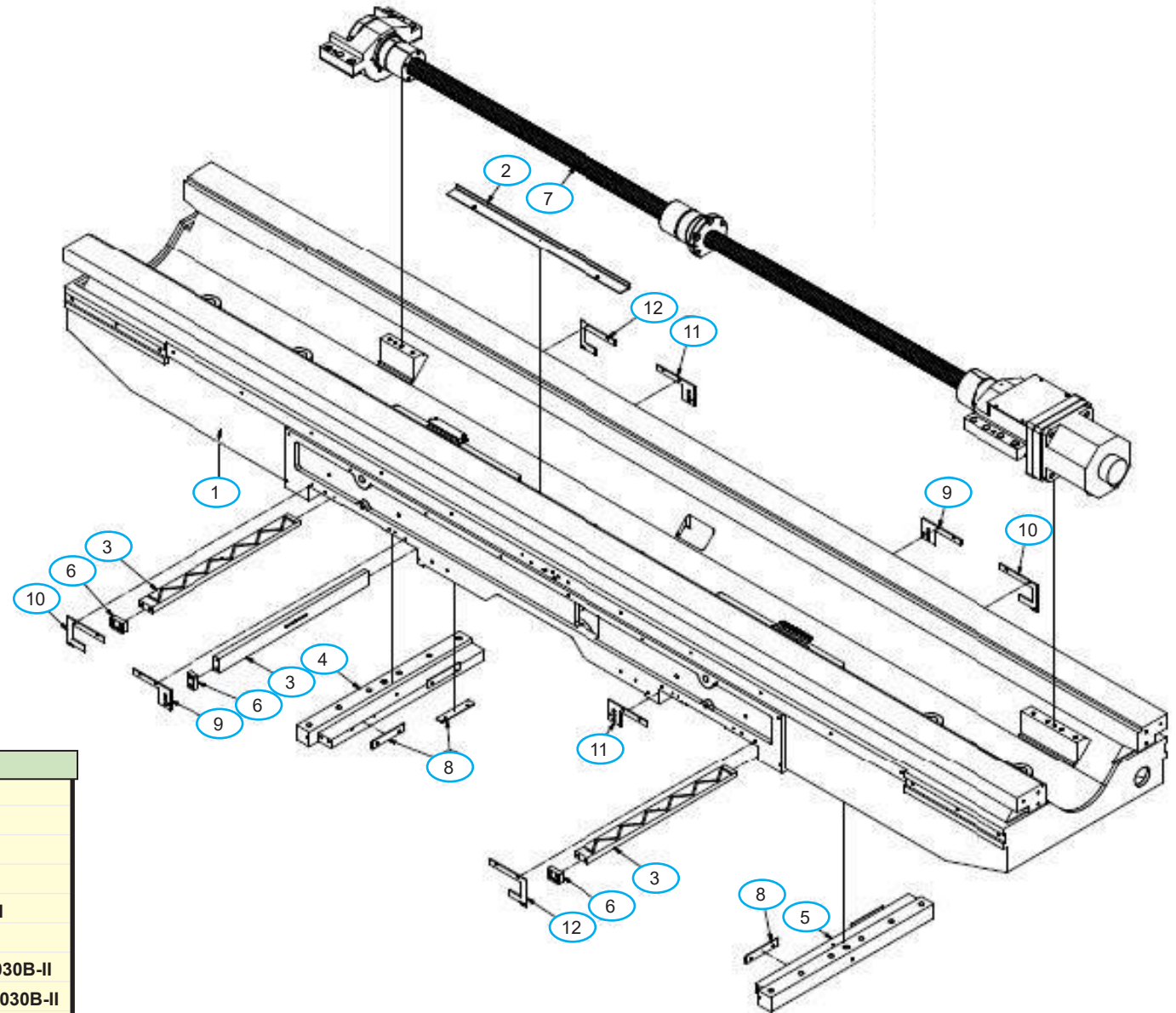
Item	Part Number	Description
1	CST-00001	BASE CASTING,6030/8030B-II
2	SEE PG. 27	BALLSCREW ASSY,Y-AXIS; 6030/8030B-II
3	HDW-02069	LEVELING SCREW
4	HDW-02070	NUT,LEVELING SCREW
5	HDW-02071	FOOTPAD,3.5 IN
6	LUB-02057	OIL-LINE BRACKET
7	LUB-02056	OIL-LINE SPACER
8	SMT-00243	CABLE CARRIER TRAY COVER
9	SMT-00242	CABLE CARRIER TRAY
10	CVR-02135	CABLE CARRIER [ALSO SEEN ON PG.41]





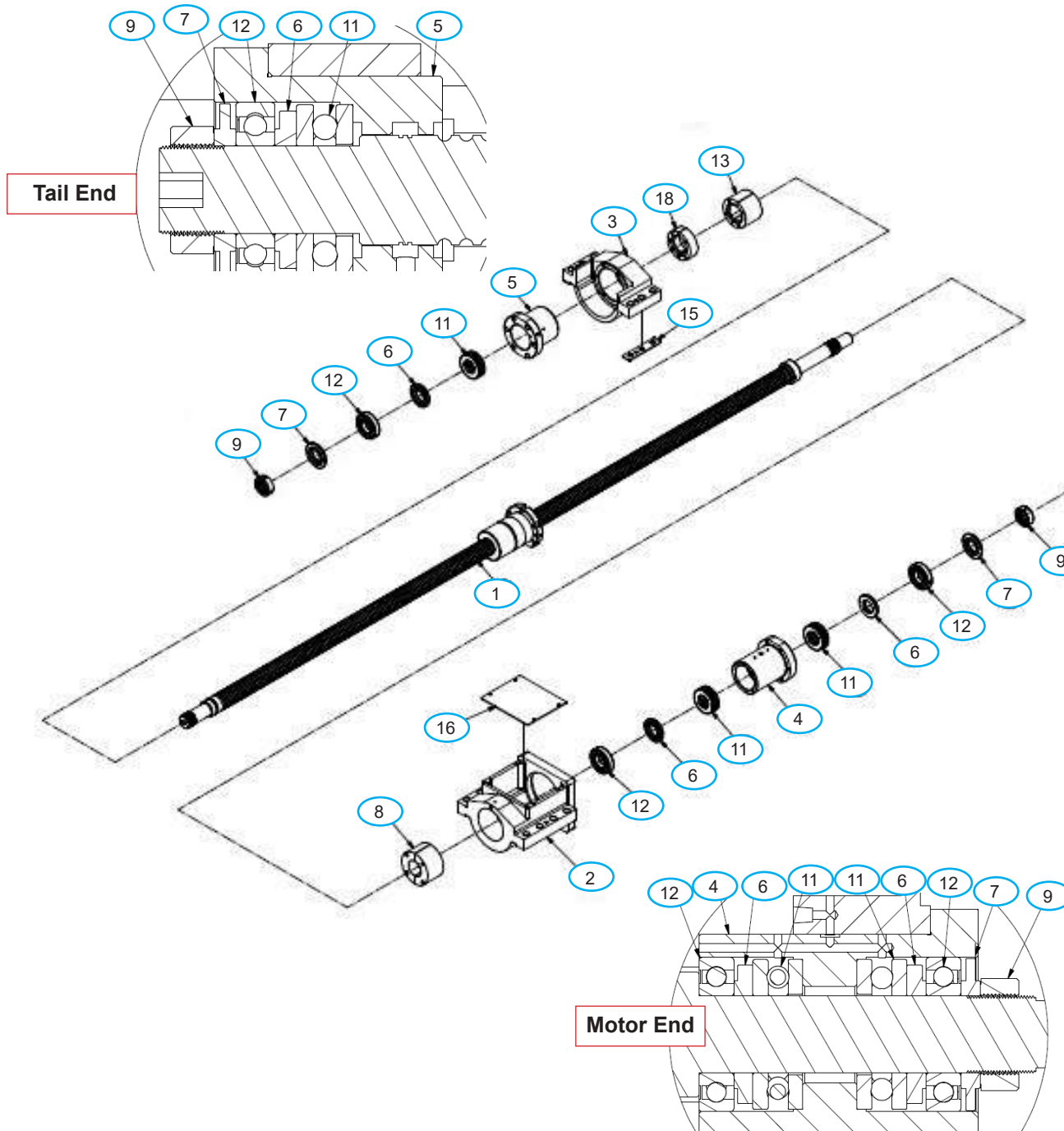
Item	Part Number	Description
1	BLS-02021	BALLSCREW,Y-AXIS;6030B-II,8030B-II
2	BLS-02025	THRUST BEARING MOUNT;6030/8030B-II
3	BLS-02026	TAIL BEARING MOUNT;6030/8030B-II
4	BLS-02027	BEARING COLLAR,MOTOR;6030/8030B-II
5	BLS-02028	BEARING COLLAR,TAIL;6030/8030B-II
6	BRG-02039	SPACER,BEARING;[1-STEP]
7	BRG-02040	OUTBOARD SPACER;[2-STEP-LARGE]
8	BLS-02029	COLLAR PAD;HARD STOP;6030/8030B-II
9	BLS-02030	JAM NUT;BEARING;6030/8030B-II
10	CPL-00004	COUPLER;6030/8030B-II
11	BRG-02035	3 PC BALL BEARING;6030/8030B-II
12	BRG-02034	BALL BEARING,[SHIELD: 1]
13	BLS-02031	COLLAR PAD,HARD STOP;6030/8030B-II
14	MTR-02063	MOUNT PLATE,MOTOR
15	BLS-02032	THREADED PLATE,TAIL BEARING MOUNT
16	BLS-02033	COVER,BEARING MOUNT;6030/8030B-II
17a	MTR-02031	AXIS MOTOR,YASKAWA 4.4KW [SIG. 5]
17b	MTR-02120	AXIS MOTOR,YASKAWA 4.4KW [SIG. 7]

Y-AXIS BALLSCREW



Item	Part Number	Description
1	CST-00002	SADDLE CASTING,8030B-II
2	CVR-02062	COVER,CABLE E-CHAIN
3	GIB-02004	SADDLE GIB,Y-AXIS;8030B-II
4	GIB-02020	GIB STRAP,Y-AXIS [LEFT];8030B-II
5	GIB-02021	GIB STRAP,Y-AXIS [RIGHT];8030B-II
6	GIB-02022	GIB ENDCAP,V/H;8030B-II
7	SEE PG.29	BALLSCREW ASSEMBLY,X-AXIS;8030B-II
8	GIB-02023	GUIDE PLATE,GIB STRAP;Y-AXIS;8030B-II
9	SEL-00038	WIPER,'L' SHAPE;Y-AXIS [LEFT];8030B-II
10	SEL-00039	WIPER,'C' SHAPE;Y-AXIS [LEFT];8030B-II
11	SEL-00040	WIPER,'L' SHAPE;Y-AXIS [RIGHT];8030B-II
12	SEL-00041	WIPER,'C' SHAPE;Y-AXIS [RIGHT];8030B-II

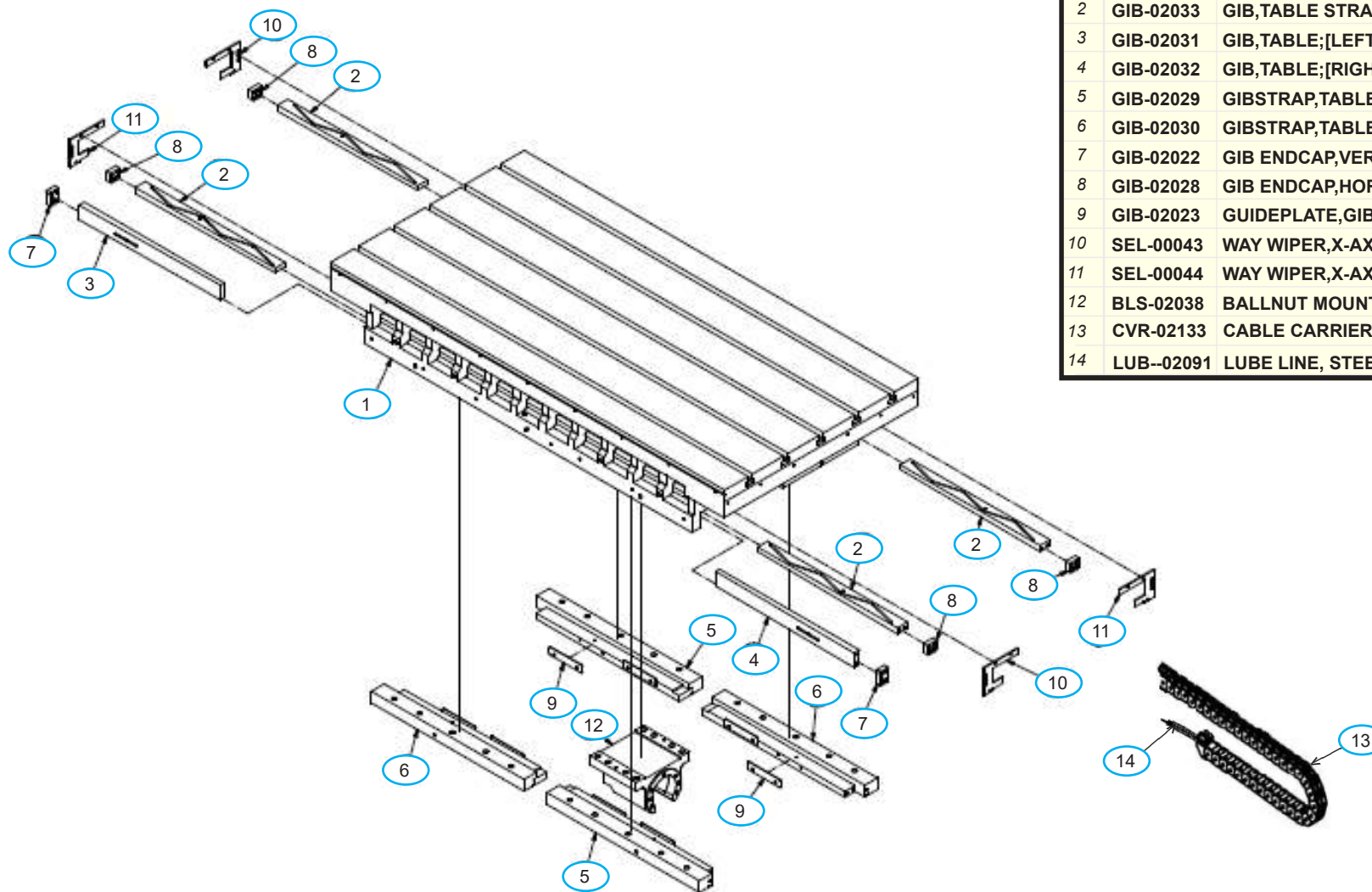
SADDLE CASTING



Item	Part Number	Description
1	BLS-02023	BALLSCREW,X-AXIS;8030B-II
2	BLS-02025	MOTOR BEARING MOUNT;6030/8030B-II
3	BLS-02026	TAIL BEARING MOUNT;6030/8030B-II
4	BLS-02027	BEARING COLLAR,THRUST;6030/8030B-II
5	BLS-02028	BEARING COLLAR,TAIL;6030/8030B-II
6	BRG-02039	SPACER,BEARING;[1-STEP]
7	BRG-02040	OUTBOARD SPACER;[2-STEP LARGE]
8	BLS-02034	COLLAR PAD,HARD STOP1;6030/8030B-II
9	BLS-02030	JAM NUT,BEARING;6030/8030B-II
10	CPL-00004	COUPLER,MOTOR;XY-AXIS;6030/8030B-II

11	BRG-02034	BALL BEARING,[SHIELD: 1]
12	BRG-02035	3 PC BALL BEARING;6030/8030B-II
13	BLS-02035	COLLAR PAD,HARD STOP2;6030/8030B-II
14	MTR-02063	MOUNT PLATE,AXIS MOTOR;6030/8030B-II
15	BLS-02032	THREADED PLATE,TAIL BRG MOUNT
16	BLS-02033	COVER,BEARING MOUNT;6030/8030B-II
17a	MTR-02031	AXIS MOTOR,YASKAWA 4.4KW [SIG. 5]
17b	MTR-02120	AXIS MOTOR,YASKAWA 4.4KW [SIG. 7]
18	BLS-02036	COLLAR PAD,HARD STOP3;6030/8030B-II

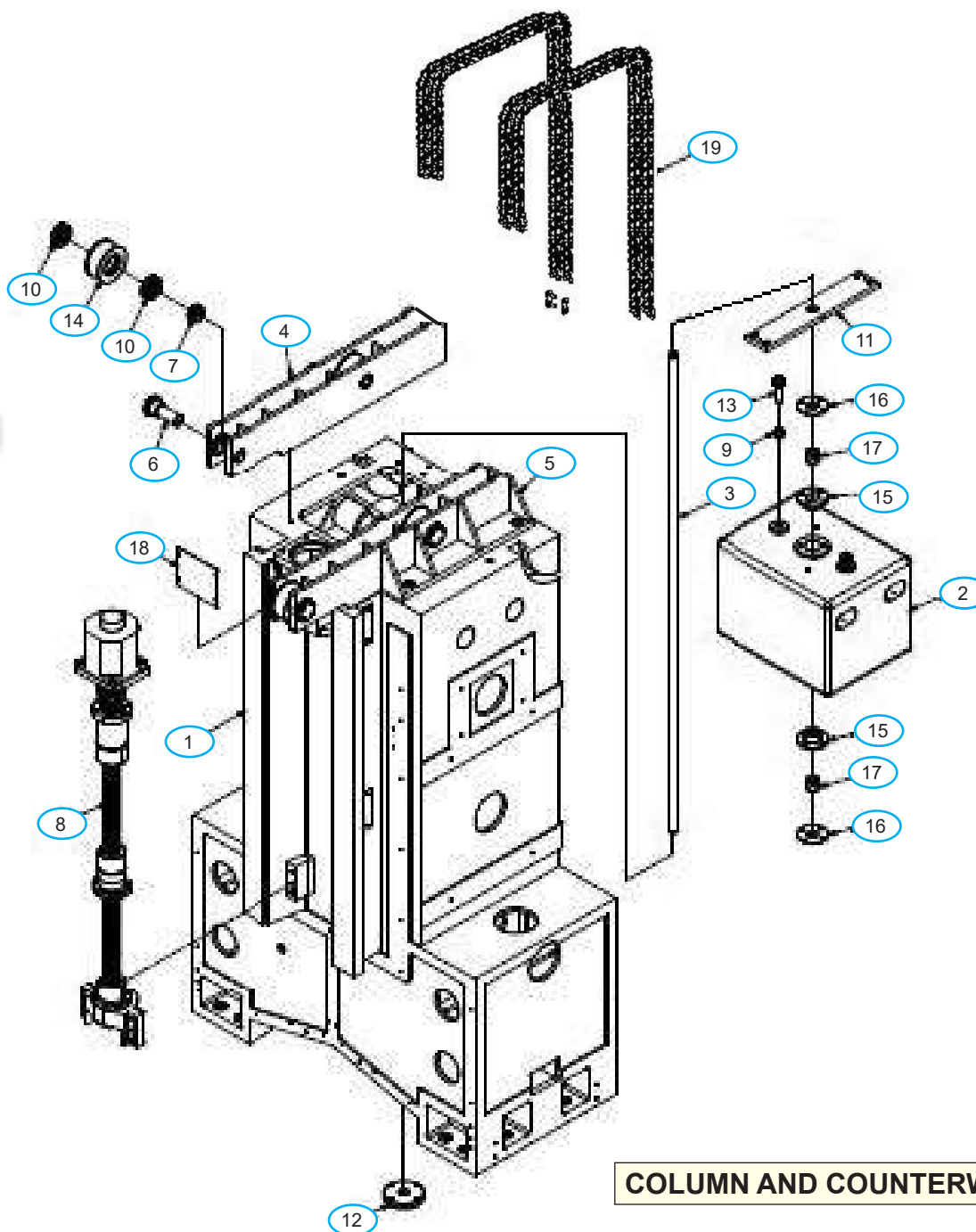
X-AXIS BALLSCREW



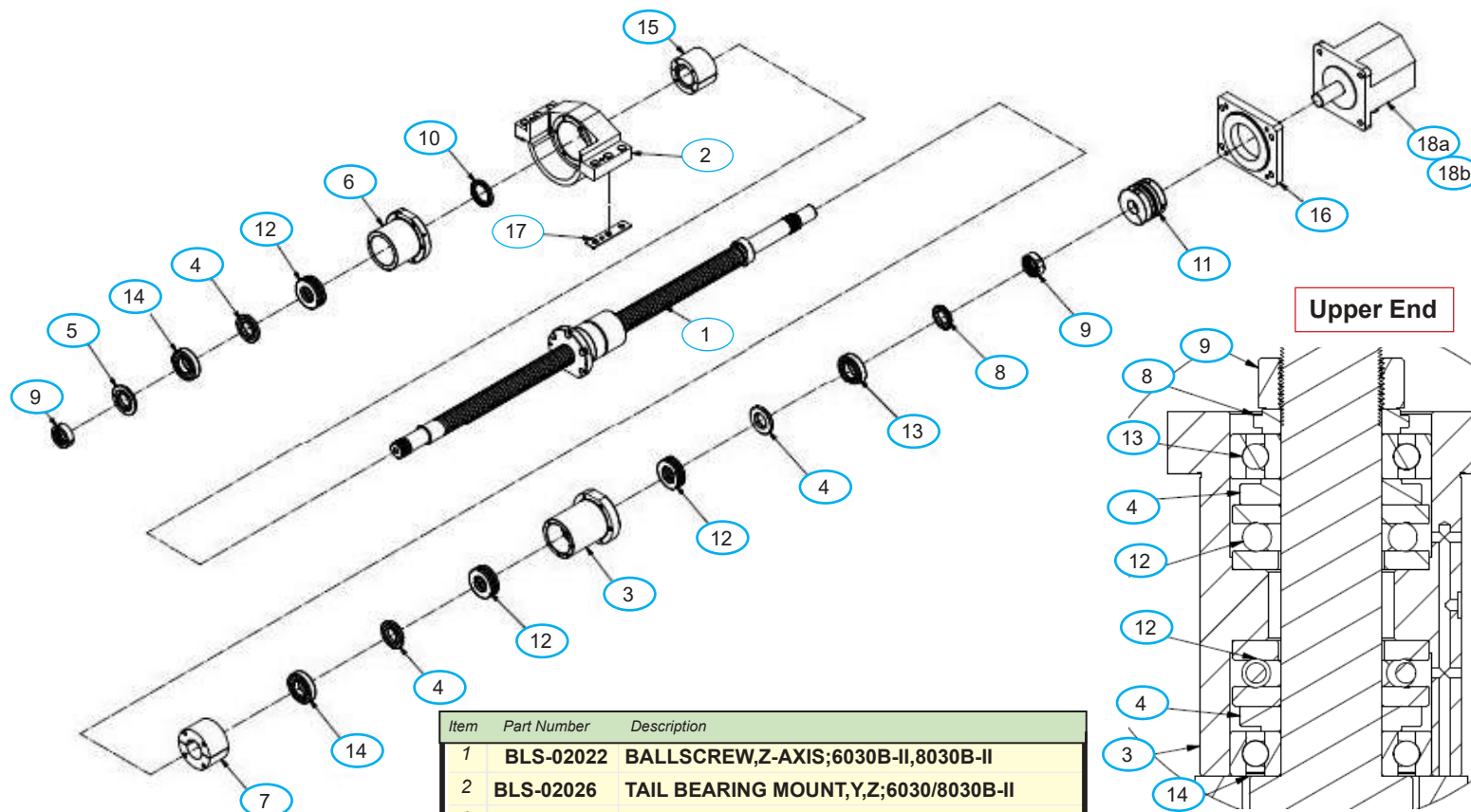
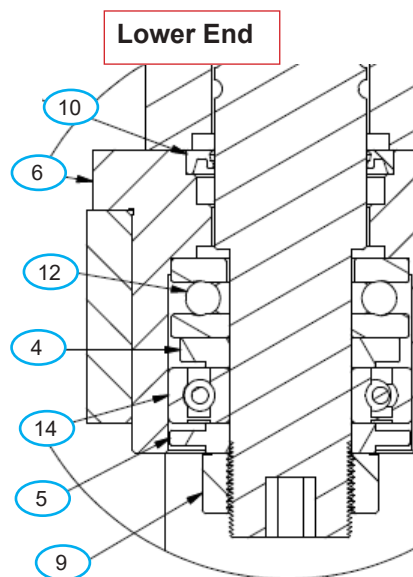
Item	Part Number	Description
1	CST-00007	TABLE CASTING,6030B-II
2	GIB-02033	GIB, TABLE STRAP;RIGHT/LEFT;6030B-II
3	GIB-02031	GIB, TABLE;[LEFT] 6030B-II
4	GIB-02032	GIB, TABLE;[RIGHT] 6030B-II
5	GIB-02029	GIBSTRAP, TABLE [FRONT-RIGHT] 6030B-II
6	GIB-02030	GIBSTRAP, TABLE [FRONT-LEFT] 6030B-II
7	GIB-02022	GIB ENDCAP, VERTICAL; 6030B-II
8	GIB-02028	GIB ENDCAP, HORIZONTAL; 6030B-II
9	GIB-02023	GUIDEPLATE, GIB STRAP; X-AXIS; 6030B-II
10	SEL-00043	WAY WIPER, X-AXIS 6030B-II; [LEFT]
11	SEL-00044	WAY WIPER, X-AXIS 6030B-II; [RIGHT]
12	BLS-02038	BALLNUT MOUNT BLOCK; 6030B-II/8030B-II
13	CVR-02133	CABLE CARRIER
14	LUB--02091	LUBE LINE, STEEL BRAIDED; 6MM X 3000MM

TABLE

Item	Part Number	Description
1	CST-00004	COLUMN CASTING
2	CWT-00001	COUNTERWEIGHT BLOCK
3	CWT-00002	COUNTERWEIGHT GUIDE BAR
4	CWT-00003	ROLLER BRACKET,CWT [LEFT]
5	CWT-00004	ROLLER BRACKET,CWT [RIGHT]
6	CWT-00005	AXLE,CWT ROLLER
7	CWT-00006	BUSHING,CWT ROLLER;6030B-II
8	SEE PG. 32	BALLSCREW ASSEMBLY,Z-AXIS;6030B-II
9	SCR-00178	NUT,M20-P2.5
10	BRG-02038	BEARING,CWT ROLLER
11	CWT-00007	CWT COVER PLATE
12	CWT-00008	ENDCAP,BOTTOM;CWT GUIDE BAR
13	SCR-00176	SCREW,CWT CHAIN MOUNT
14	CWT-00009	ROLLER,CWT CHAIN;6030B-II
15	CWT-00010	MOUNT PLATE,GUIDEBAR BUSHING;CWT
16	CWT-00011	ENDCAP,BUSHING;CWT
17	CWT-00012	BUSHING,GUIDEBAR;CWT
18	BLS-02033	COVER PLATE,BEARING MOUNT
19	CWT-00022	COUNTERWEIGHT CHAIN (PAIR)

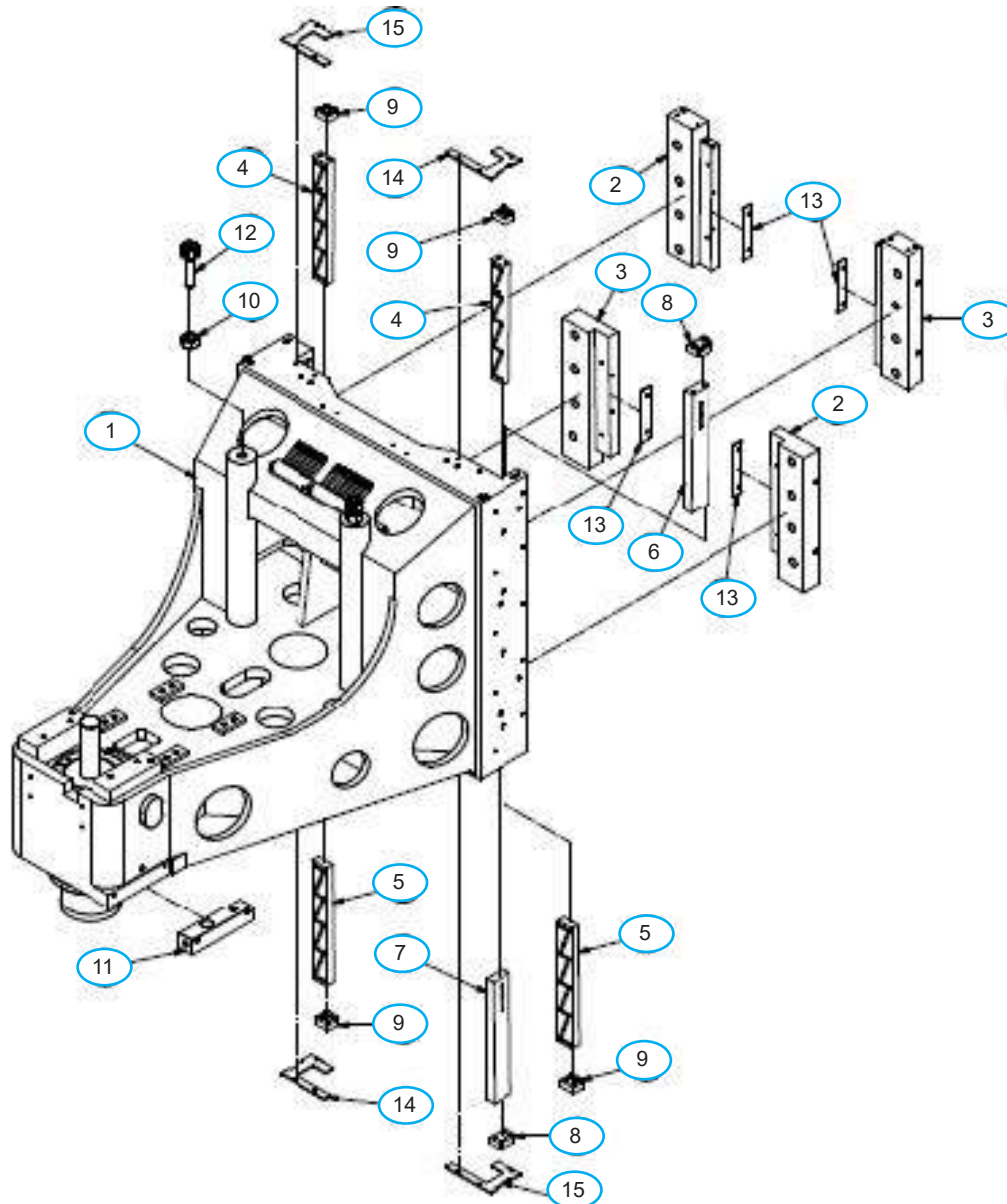


COLUMN AND COUNTERWEIGHT



Item	Part Number	Description
1	BLS-02022	BALLSCREW,Z-AXIS;6030B-II,8030B-II
2	BLS-02026	TAIL BEARING MOUNT,Y,Z;6030/8030B-II
3	BLS-02027	BEARING COLLAR,UPPER;6030/8030B-II
4	BRG-02039	SPACER,BEARING;[1-STEP]
5	BRG-02040	OUTBOARD SPACER;[2-STEP LARGE]
6	BLS-02037	BEARING COLLAR,TAIL;Z;6030/8030B-II
7	BLS-02034	COLLAR PAD;HARD STOP1;6030/8030B-II
8	BRG-02037	SPACER,BEARING;[2-STEP SMALL]
9	BLS-02030	JAM NUT,BEARING;6030/8030B-II
10	SEL-00042	OIL SEAL
11	CPL-00004	COUPLER;6030/8030B-II
12	BRG-02035	THRUST BEARING,6030/8030B-II [3 REQ'D]
13	BRG-02036	BALL BEARING;[SHIELD: 0]
14	BRG-02034	BALL BEARING;[SHIELD: 1]
15	BLS-02035	COLLAR PAD,HARD STOP2;6030/8030B-II
16	MTR-02063	MOUNT PLATE,MOTOR
17	BLS-02032	THREADED PLATE,TAIL BEARING MOUNT
18a	MTR-02032	AXIS MOTOR,YASKAWA,W/BRAKE 4.4KW [SIG.5]
18b	MTR-02121	AXIS MOTOR,YASKAWA,W/BRAKE 4.4KW [SIG.7]

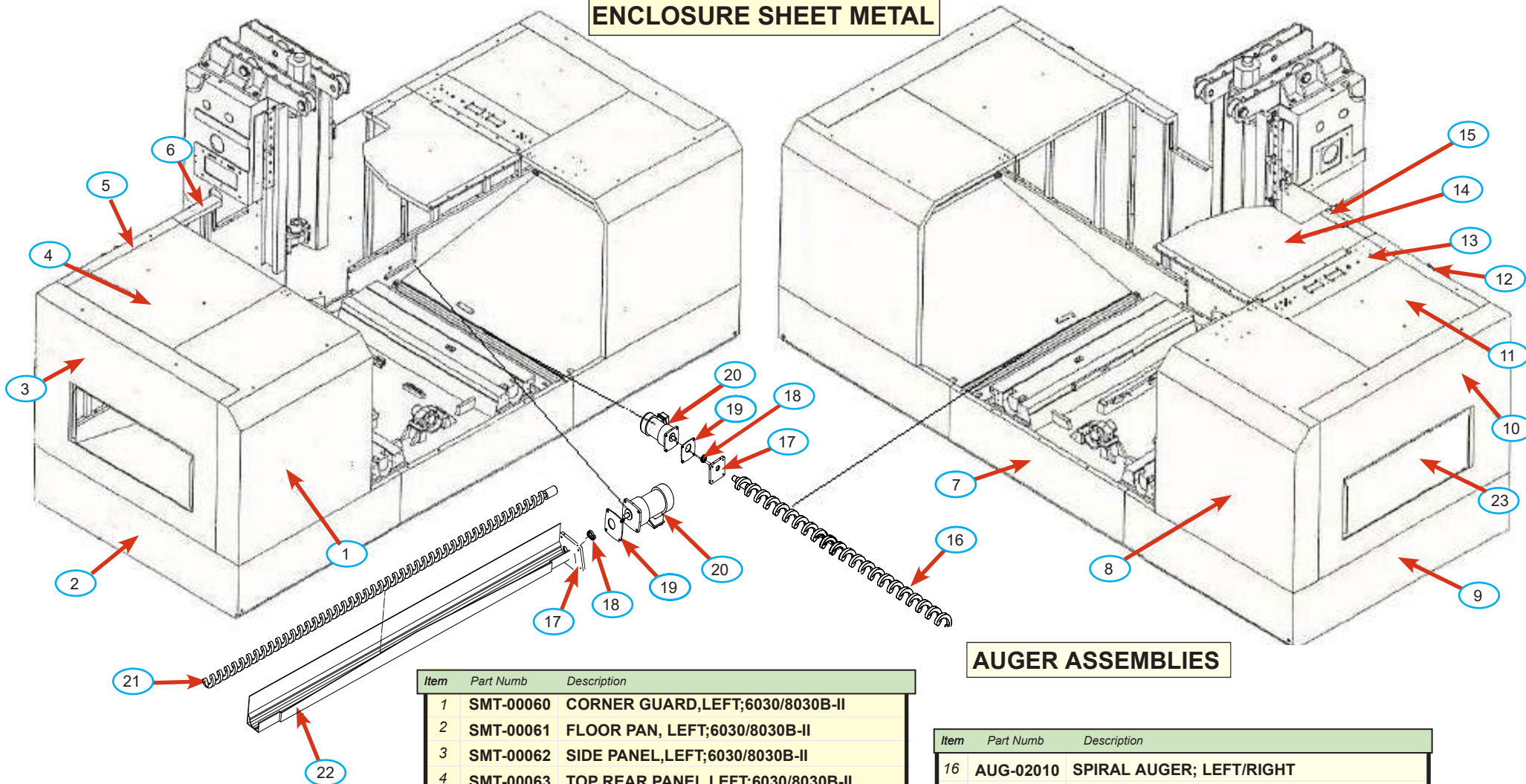
Z-AXIS BALLSCREW



Item	Part Number	Description
1	CST-00005	HEAD CASTING,6030B-II,8030B-II 40T
2	GIB-02024	GIB STRAP,U/L,L/R;Z-AXIS 6030/8030B-II
3	GIB-02025	GIB STRAP,U/R,L/L;Z-AXIS 6030/8030B-II
4	GIB-02005	GIB,GIB STRAP;L/R;60/8030B-II Z-AXIS UPPER
5	GIB-02006	GIB,GIB STRAP;L/R;60/8030B-II Z-AXIS LOWER
6	GIB-02007	GIB,SIDE;60/8030B-II Z-AXIS UPPER
7	GIB-02008	GIB,SIDE;60/8030B-II Z-AXIS LOWER
8	GIB-02022	ENDCAP,SIDE GIB;60/8030B-II Z-AXIS U/L
9	GIB-02026	ENDCAP,GIB STRAP GIB;U/L L/R Z-AXIS
10	SCR-00178	NUT,M20-2.5 CWT CHAIN MOUNT
11	CNT-02030	BLOCK,COOLANT MANIFOLD
12	SCR-00176	SCREW, M20-2.5 X 50MM SHCS CWT CHAIN MOUNT
13	GIB-02023	GUIDEPLATE,GIB STRAP;Z-AXIS;60/8030B-II
14	SEL-00045	WAYWIPER,LWR LEFT/UPR RIGHT;Z-AXIS 6030B-II
15	SEL-00046	WAYWIPER,LWR RIGHT/UPR LEFT;Z-AXIS 60/8030B-II

HEADSTOCK

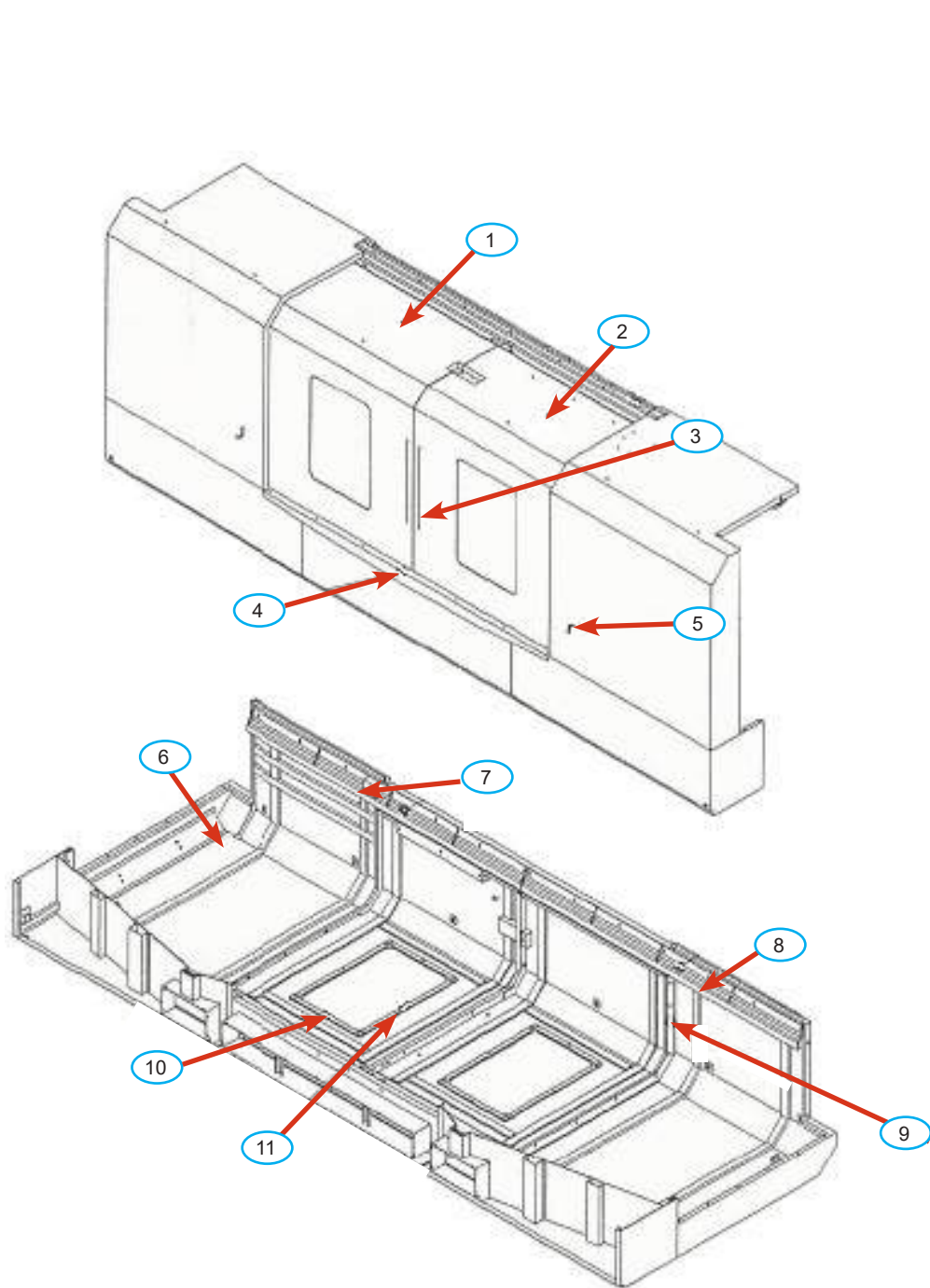
ENCLOSURE SHEET METAL



AUGER ASSEMBLIES

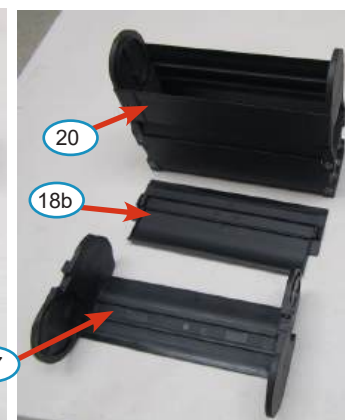
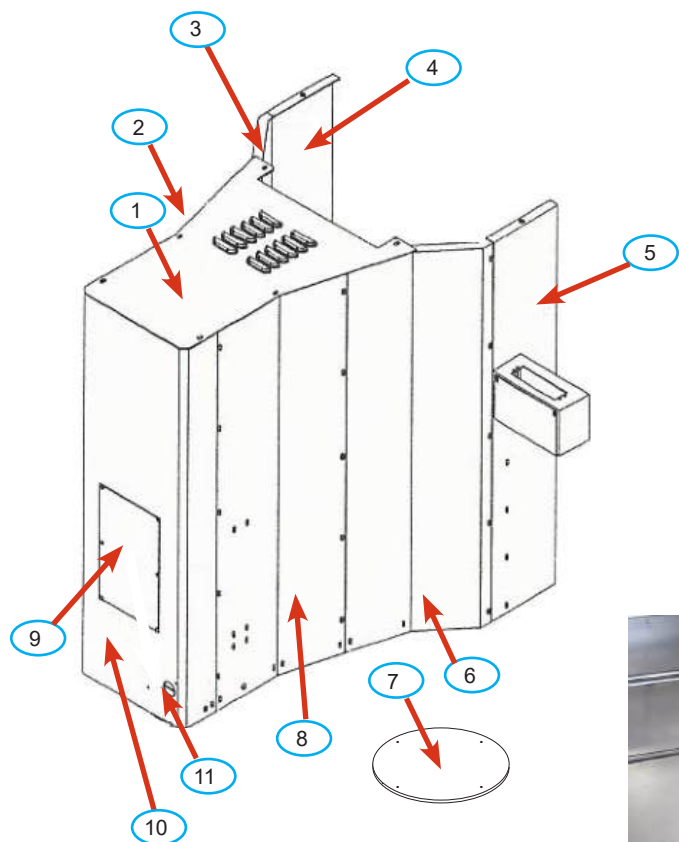
Item	Part Numb	Description
1	SMT-00060	CORNER GUARD, LEFT; 6030/8030B-II
2	SMT-00061	FLOOR PAN, LEFT; 6030/8030B-II
3	SMT-00062	SIDE PANEL, LEFT; 6030/8030B-II
4	SMT-00063	TOP REAR PANEL, LEFT; 6030/8030B-II
5	SMT-00064	REAR PANEL, LEFTMOST; 6030/8030B-II
6	SMT-00065	REAR PANEL, LEFT CENTER; 8030B-II
7	SMT-00066	FRONT CENTER SKIRT; 6030/8030B-II
8	SMT-00067	CORNER GUARD, RIGHT; 6030/8030B-II
9	SMT-00068	FLOOR PAN, RIGHT; 6030/8030B-II
10	SMT-00069	SIDE PANEL, RIGHT; 6030/8030B-II
11	SMT-00070	TOP REAR PANEL, RIGHT; 8030B-II
12	SMT-00071	REAR PANEL, RIGHTMOST; 6030/8030B-II
13	SMT-00072	TOP RT CTR PANEL/PENDANT MOUNT
14	SMT-00073	TOP CENTER REAR PANEL; 6030/8030B-II
15	SMT-00074	REAR PANEL, RT CENTER; 8030B-II

Item	Part Numb	Description
16	AUG-02010	SPIRAL AUGER; LEFT/RIGHT
17	AUG-02019	AUGER MOUNTING PLATE
18	AUG-02007	SEAL; MOTOR SHAFT
19	AUG-02008	GASKET; MOTOR
20	MTR-02107	AUGER MOTOR
21	AUG-02009	SPIRAL AUGER; REAR
22	AUG-02012	AUGER TRAY; REAR
23	DOR-02008	ENCLOSURE SIDE DOOR [SHOWN ON PG.40]



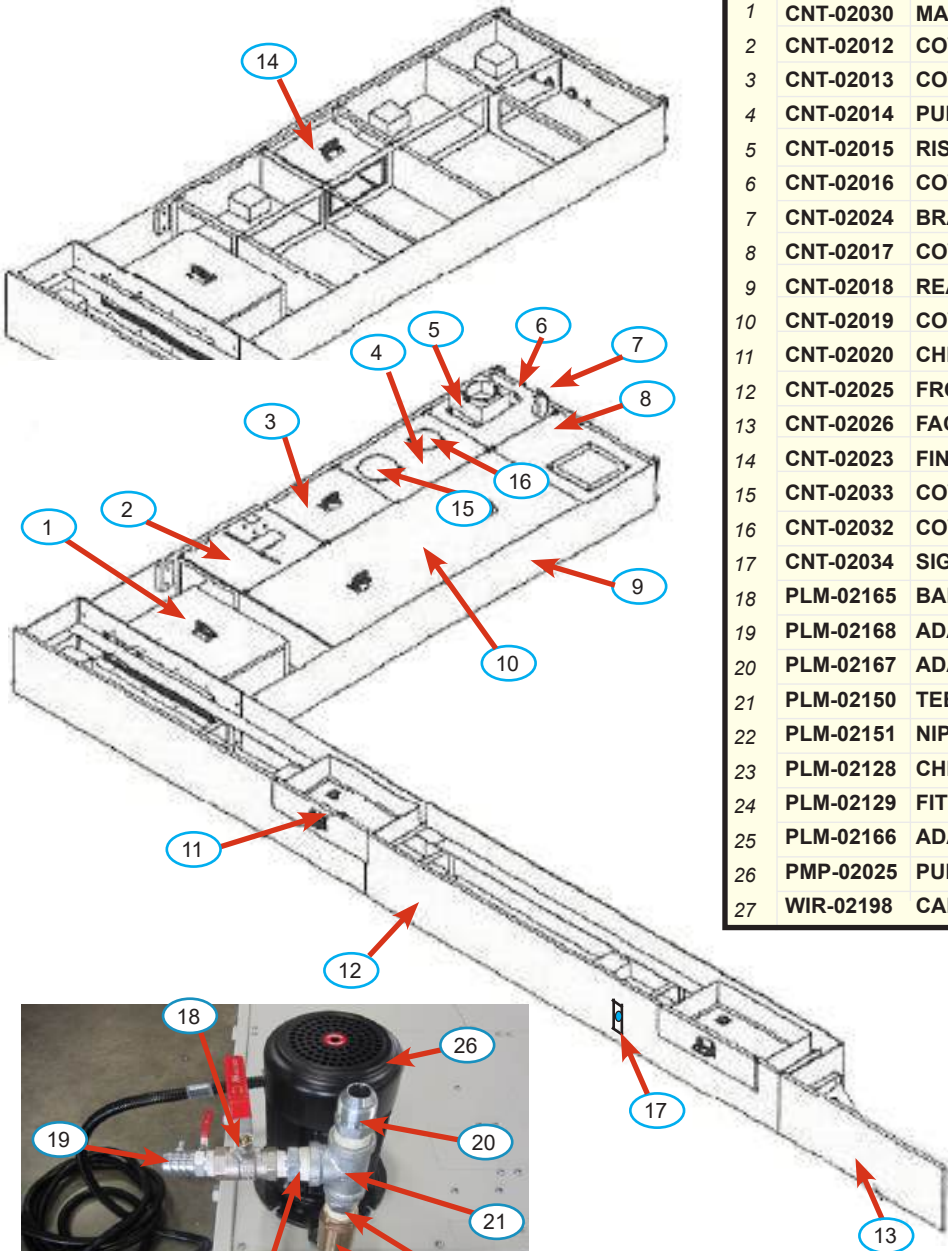
Item	Part Number	Description
1	DOR-02016	DOOR PANEL, FRONT LEFT;6030/8030B-II
2	DOR-02017	DOOR PANEL,FRONT RIGHT;6030/8030B-II
3	DOR-02014	HANDLE,FRONT DOOR;6030/8030B-II
4	DOR-02018	DOOR LEDGE,BOTTOM;SS;6030/8030B-II
5	SMT-00059	HOOK,AIRHOSE;6030/8030B-II
6	DOR-02019	BRACKET,DOOR STOP;8030B-II
7	DOR-02026	DOOR RAIL, UPPER LEFT;6030/8030B-II
8	DOR-02027	DOOR RAIL, UPPER RIGHT;6030/8030B-II
9	DOR-02020	DOOR EDGE,6030/8030B-II
10	DOR-02021	WINDOW RETAINER BAR,TOP/BTM;8030B-II
11	DOR-02022	WINDOW RETAINER BAR,LT/RT;8030B-II
12	DOR-02028	DOOR RAIL, BOTTOM;6030/8030B-II
13	DOR-02024	DOOR RAIL GUARD, BTM LEFT;6030/8030B-II
14	DOR-02025	DOOR RAIL GUARD, BTM RIGHT;6030/8030B-II
15	DOR-02023	CENTER SUPPORT,DOOR RAIL;6030/8030B-II
16	ELE-04024	DOOR LATCHING INTERLOCK; FRONT DOORS,24VDC
17	WIR-02214	CABLE; FRONT DOOR INTERLOCK (6030/8030B-II)

ENCLOSURE SHEET METAL



Item	Part Number	Description
1	SMT-00075	TOP PANEL,HEAD COVER;6030/8030B-II
2	SMT-00076	FRONT SIDE,LEFT;HEAD CVR;6030/8030B
3	SMT-00077	REAR SIDE,LEFT;HEAD CVR;6030/8030B
4	SMT-00078	REAR PANEL,LEFT;HEADCVR;6030/8030B
5	SMT-00079	REAR PANEL,RT;HEAD CVR;6030/8030B
6	SMT-00080	REAR SIDE,RT;HEAD CVR;6030/8030B-II
7	SMT-00081	BOTTOM ACCESS COVER,HEAD
8	SMT-00082	FRONT SIDE,RIGHT;HEAD CVR;6030/8030
9	SMT-00083	ACCESS PANEL,FRONT;6030/8030B-II
10	SMT-00084	FRONT PANEL,HEAD CVR;6030/8030B-II
11	SWT-00005	SWITCH,TOOL RELEASE
12	CVR-02059	WAY COVER,X-AXIS [LEFT] 8030B-II
13	CVR-02060	WAY COVER,X-AXIS [RIGHT] 8030B-II
14	CVR-02056	WAY COVER, Y-AXIS [FRONT]6030/8030B
15	CVR-02057	WAY COVER, Y-AXIS [BACK]6030/8030B-II
16	CVR-02058	WAY COVER,Z-AXIS;6030/8030B-II
17	CVR-02025	E-CHAIN KIT; LINK BODY 1 EA
18a	CVR-02027	E-CHAIN LINK COVER, OUTSIDE, 1 EA
18b	CVR-02132	E-CHAIN LINK COVER, INSIDE, 1 EA
19	CVR-02024	E-CHAIN KIT;HEAD END BRACKET
20	CVR-02023	E-CHAIN KIT;CABT END BRACKET
21	CVR-02022	E-CHAIN,CABT TO HEAD;W/BOTH BRKTS
22	CVR-02127	FRONT TABLE COVER
23	CVR-02128	REAR TABLE COVER
24	CVR-02110	WAYCOVER WIPER [PR. FT.]

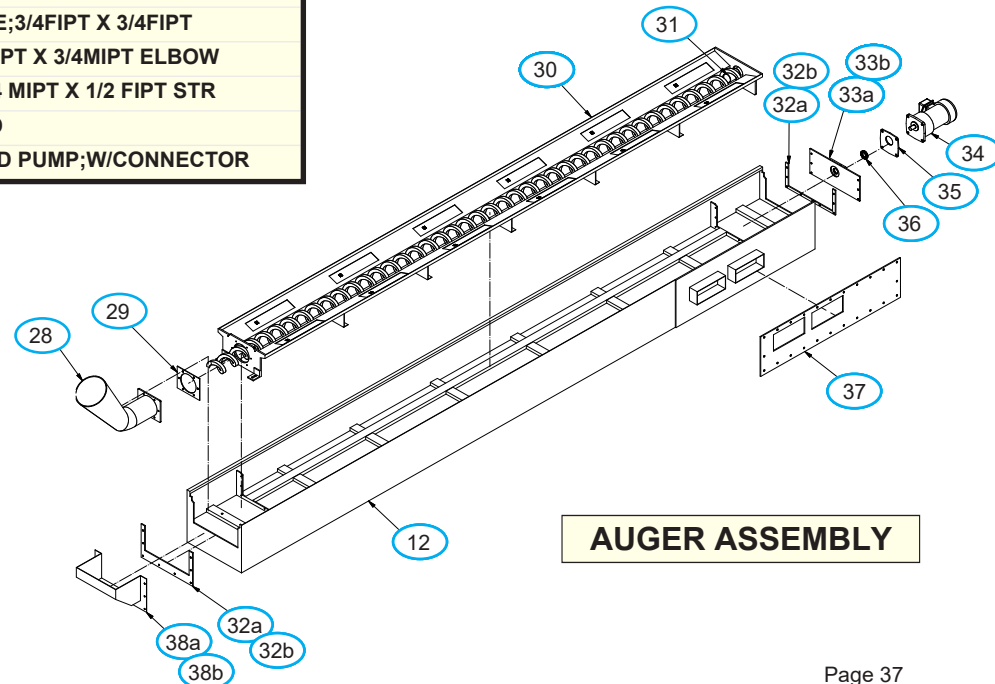
HEADCOVER AND WAYCOVERS



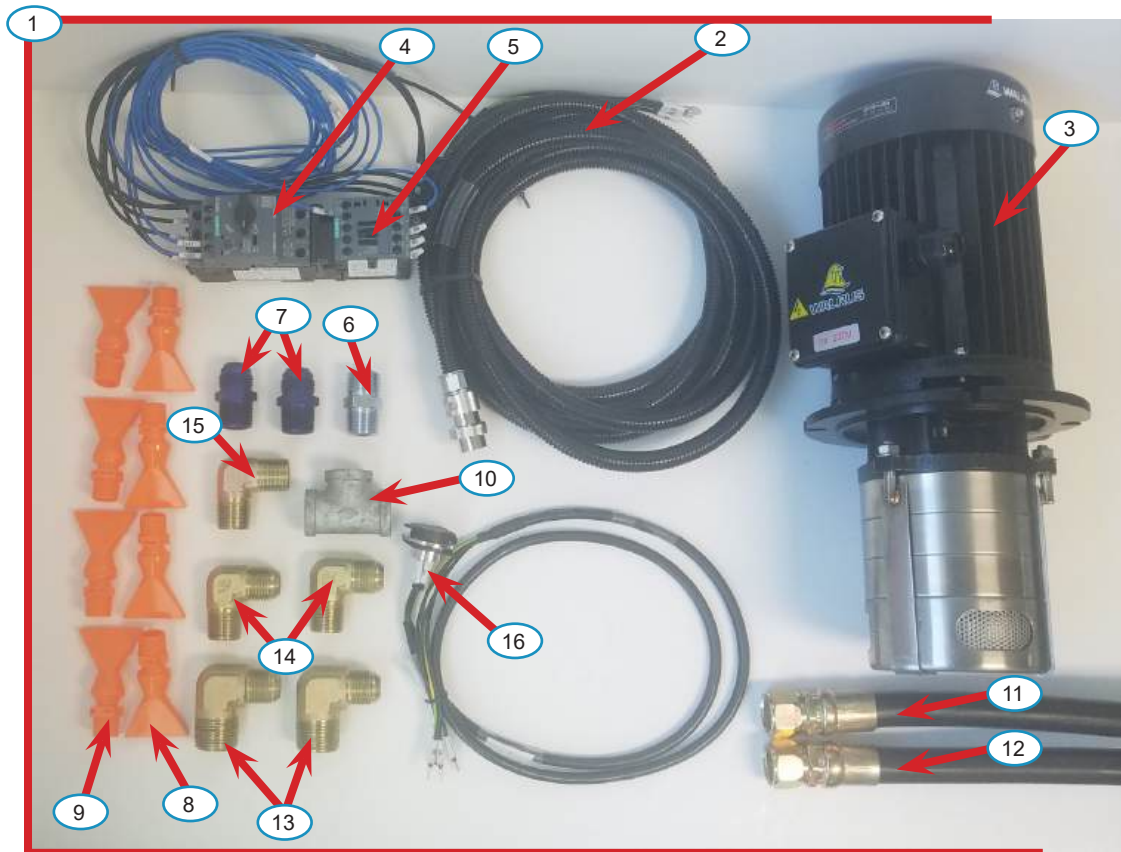
COOLANT TANK ASSEMBLY

Item	Part Number	Description
1	CNT-02030	MAIN FILTER BOX,6030B-II
2	CNT-02012	COVER,OIL SKIMMER,6030B-II
3	CNT-02013	COVER,COMPARTMENT1,TANK;6030B-II
4	CNT-02014	PUMP MOUNTING PLATE,TANK;6030B-II
5	CNT-02015	RISER BOX;WASHDOWN PUMP;6030B-II
6	CNT-02016	COVER,WASHDOWN PUMP;6030B-II
7	CNT-02024	BRACKET
8	CNT-02017	COVER,COMPARTMENT2;6030B-II
9	CNT-02018	REAR TANK BODY,102 IN;6030B-II
10	CNT-02019	COVER,COMPARTMENT3;6030B-II
11	CNT-02020	CHIP DRAWER, LEFT/RIGHT,6030B-II
12	CNT-02025	FRONT TANK BODY,181 IN;6030B-II
13	CNT-02026	FACE EXTENSION,DRWR TANK;6030B-II
14	CNT-02023	FINE CHIPS FILTER BOX,6030B-II
15	CNT-02033	COVER PLATE,9 IN;WASHDOWN PUMPS
16	CNT-02032	COVER PLATE,7 IN;COOLANT PUMPS
17	CNT-02034	SIGHT GLASS,COOLANT LEVEL;TANK
18	PLM-02165	BALL VALVE,1/2 MIPT X 1/2 FIPT;LEVER
19	PLM-02168	ADAPTER, 3/4 BARB X 1/2 MIPT
20	PLM-02167	ADAPTER, 3/4 MIPT X 3/4 JIC MALE
21	PLM-02150	TEE,3/4 FIPT
22	PLM-02151	NIPPLE, 3/4 MIPT
23	PLM-02128	CHECK VALVE;3/4FIPT X 3/4FIPT
24	PLM-02129	FITTING,3/4MIPT X 3/4MIPT ELBOW
25	PLM-02166	ADAPTER, 3/4 MIPT X 1/2 FIPT STR
26	PMP-02025	PUMP, FLOOD
27	WIR-02198	CABLE,FLOOD PUMP;W/CONNECTOR

Item	Part Number	Description
28	AUG-02014	DISCHARGE CHUTE
29	AUG-02015	CHUTE GASKET
30	AUG-02013	AUGER TRAY; FRONT
31	AUG-02011	AUGER SCREW; FRONT
32a	AUG-02016	GASKET; 6 MOUNTING HOLES
32b	AUG-02017	GASKET; 8 MOUNTING HOLES
33a	AUG-02006	MOTOR MOUNT PLATE; 6 MOUNT HOLES
33b	AUG-02020	MOTOR MOUNT PLATE; 8 MOUNT HOLES
34	MTR-02107	AUGER MOTOR
35	AUG-02008	MOTOR GASKET
36	AUG-02007	OIL SEAL
37	SEL-00146	TANK GASKET
38a	AUG-02017	SCOOPED END TRAY; 6 MOUNT HOLES
38b	AUG-02018	SCOOPED END TRAY; 8 MOUNT HOLES

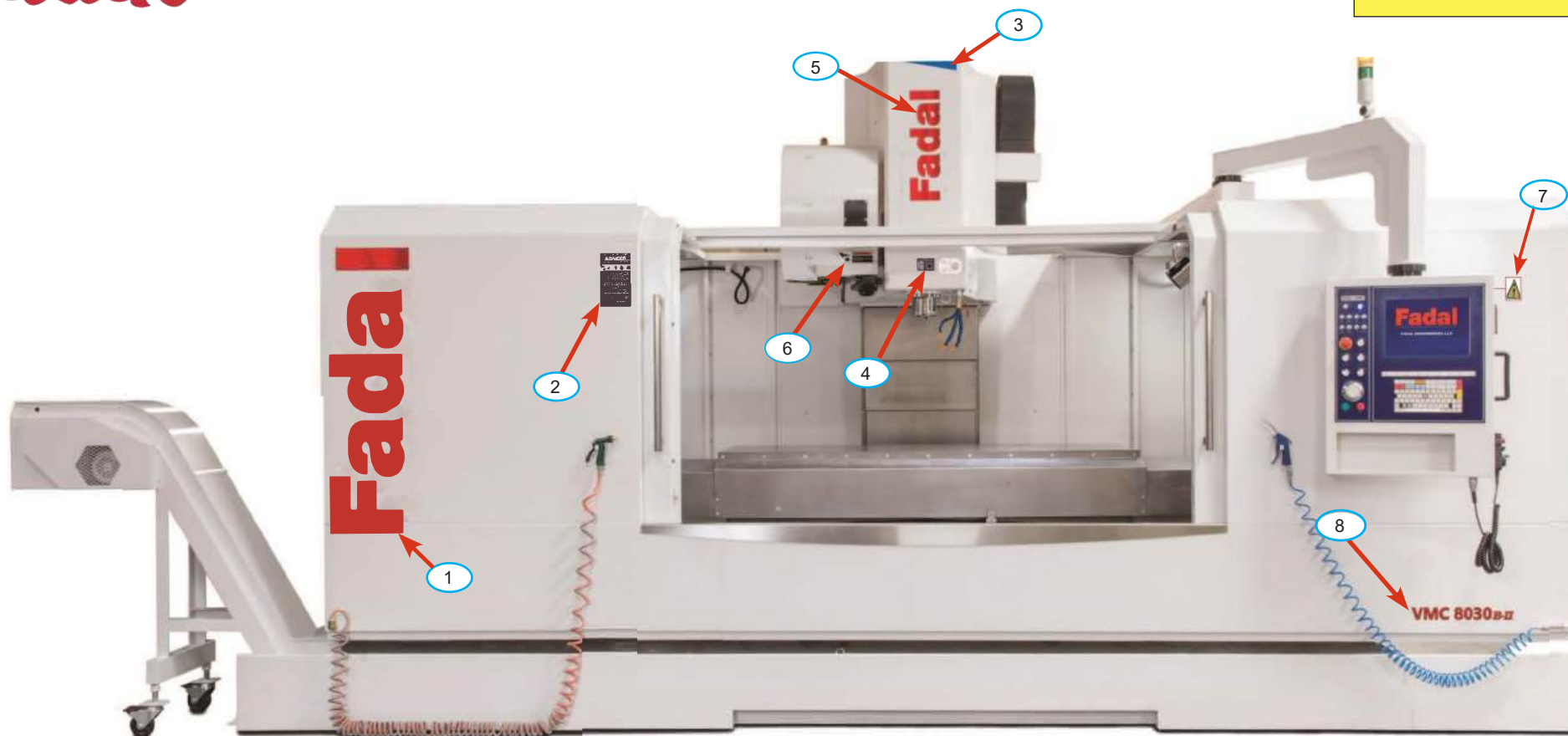


AUGER ASSEMBLY



Item	Part Number	Description
1	KIT-00093	KIT,WASHDOWN PUMP;SIDE OR REAR
2	WIR-02108	CABLE,WASHDOWN PUMP;PUMP TO CAB
3	PMP-02011	PUMP,WASHDOWN;230VAC 3PH;VERT
4	RLY-00031	OVERLOAD,7-10A CONTACTOR;SIEMENS
5	RLY-00030	CONTACTOR,SIEMENS;SRS II
6	PLM-02151	FITTING,3/4 MIPT NIPPLE
7	PLM-02167	FITTING,3/4 MIPT X 3/4 JIC STR [2 REQ]
8	PLM-02137	FLARE NOZZLE,1 1/4;[3/8 BALL] EACH
9	PLM-02138	ADAPTER,1/2 PT TO 3/8 BALL EACH
10	PLM-02020	PIPE TEE,3/4 FIPT X 3/4 FIPT X 3/4 FIPT
11	HYD-02073	HYDRAULIC HOSE,3/4 JIC X 137" LENGTH
12	HYD-02072	HYDRAULIC HOSE,3/4 JIC X 52" LENGTH
13	PLM-02182	FITTING,1" MIPT X 3/4 JIC ELL [2 REQ]
14	PLM-02183	FITTING,3/4 MIPT X 3/4 JIC ELL [2 REQ]
15	PLM-02184	FITTING,3/4 MIPT X 3/4 MIPT ELL
16	WIR-02109	RELAY TO RECEPTACLE,WASHDN PUMP

KIT-00093 WASHDOWN PUMP



Item	Part Numb	Description
1	LBL-02015	LABEL, FRONT; "FADAL" 48 X 13
2	LBL-02000	LABEL,"DANGER" 9 X 5
3	LBL-02023	HEAD STRIPES; DIAG. 10 X 6
4	LBL-02022	LABEL; "LOAD TOOLS" 3 X 4 [RED]
5	LBL-02014	LABEL, HEAD; "FADAL" 22 X 16
6	LBL-02002	LABEL, HEADSTOCK "WARNING" 7 X 3
7	LBL-02005	LABEL,"ELECTRIC SYMBOL 2.5 INCH
8	LBL-02024	LABEL; "VMC 8030BII" 2 X 16 RED

ENCLOSURE LABELS



Right Side View

Item	Part Number	Description
1	LBL-02021	LABEL,"WARNING";REGEN RESISTOR
2	LBL-02001	LABEL,"DO NOT OPERATE"
3	LBL-02003	LABEL,SIDE PANEL;"WARNING"
4	DOR-02008	ENCLOSURE SIDE DOOR



Left Side View

ENCLOSURE LABELS

Item	Part Number	Description
1	LBL-02021	LABEL,"WARNING";REGEN RESISTOR
2	LBL-02003	LABEL,DOOR PANEL;"WARNING"
3	LBL-02041	LABEL,"WARNING! AC VOLTAGES"
4	LBL-02008	LABEL,"HEAT EXCHANGER"
5	LBL-02005	LABEL,"ELECTRIC SYMBOL" 2.5 INCH
6	LBL-02007	LABEL, BACK PANEL,"220 VOLTS"
7	LBL-02054	LABEL, "AIR PRESSURE"
8	CVR-02135	CABLE CARRIER

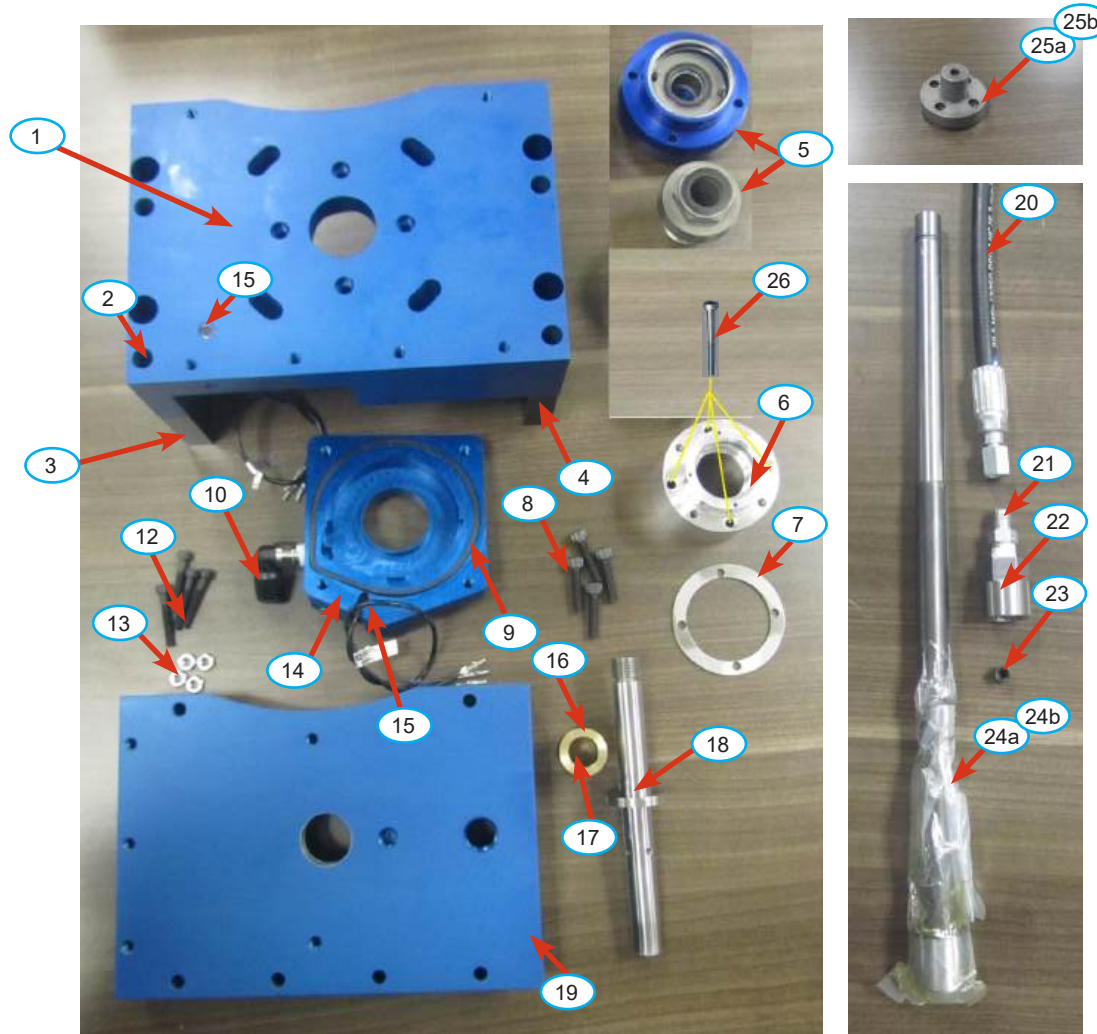


Rear View

ENCLOSURE LABELS

OPTIONS

<i>Option Description</i>	<i>Page</i>
COOLANT-THRU-SPINDLE HEAD ASSEMBLY [EARLY]	43
COOLANT-THRU-SPINDLE HEAD ASSEMBLY [ADJUSTABLE PISTON]	44-45
COOLANT-THRU-SPINDLE HEAD PUMP UNIT; CHIPBLASTER	46
COOLANT-THRU-SPINDLE HEAD PUMP UNIT; POLARJET	47
15K GREASE PACK SPINDLE	48
15K AIR-OIL SPINDLE / LUBRICATION SYSTEM	49
TOUCH PROBE / TOOL PRESETTER; WIRELESS	50
CHIP CONVEYOR	51
30 TOOL ATC	52
40 TOOL ATC	53-56
8 INCH STANDARD ROTARY; FR-8D	57
10 INCH STANDARD ROTARY; FR-10D	58
12 INCH STANDARD ROTARY; FR-12D	59
15 INCH STANDARD ROTARY; FR-15D	60
8 INCH TILTING ROTARY; FTR-8D	61
VHT SPINDLE MOTOR	62



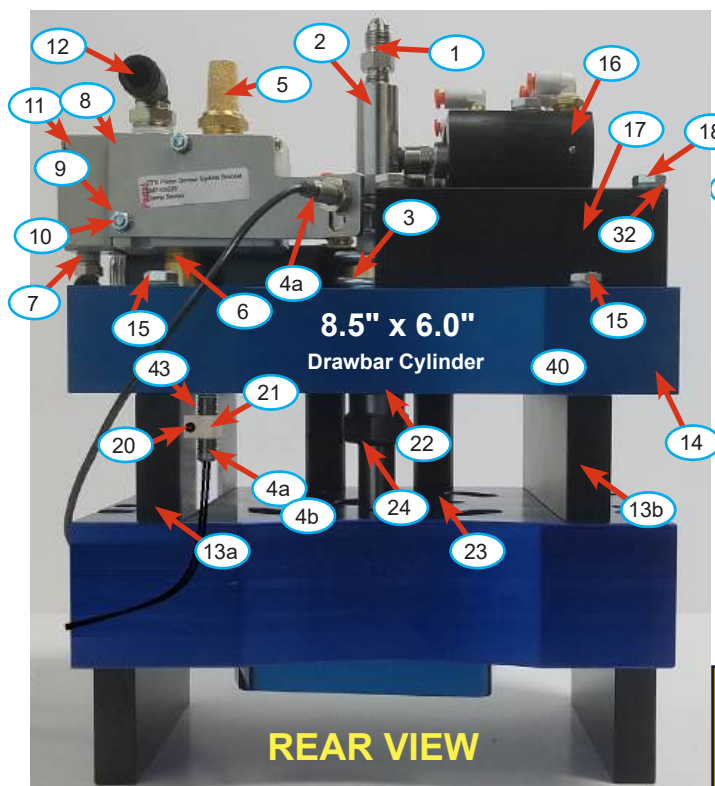
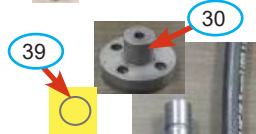
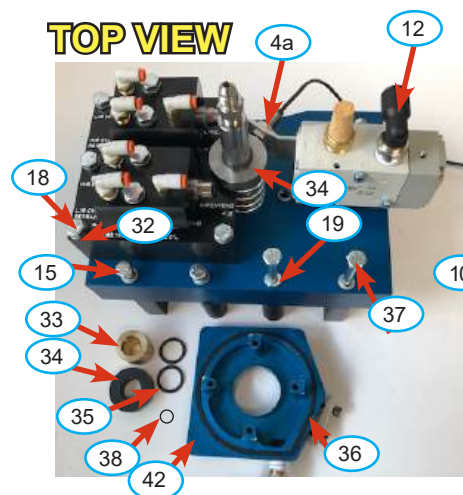
Item	Part Number	Description
1	ORB-02004	ORIENTATION BRIDGE PLATE; CB COOLANT-THRU-SPINDLE
2	SCR-00043	SCREW; 1/4-20 X 3/4 SHCS
3	ORB-02002	LEG. ORIENTATION BRIDGE; LFT/RT
4	ORB-02006	LEG. ORIENTATION BRIDGE; RT [DISCONTINUED USE ORB-02002]
5	CTS-00007	ROTARY UNION; CB COOLANT-THRU-SPINDLE
6	CTS-00009	SEAL BASE, CB COOLANT-THRU-SPINDLE
7	CTS-00010	JACKING PLATE, CB COOLANT-THRU-SPINDLE
8	SCR-00044	SCREW; 1/4-20 X 1 SHCS
9	SEL-00015	SQUARE O-RING, 3/32 X 3.5 DIA
10	PLM-02098	FITTING; 10MM QD X 1/4NPT ELL
11	PLM-02084	TUBING; BLACK, NYLON, 10MM [NOT SHOWN]
12	SCR-00076	SCREW; 10-32 X 1.25 SHCS
13	SCR-00008	NUT; 10-32 BRITE
14	CTS-00008	DRAIN TRAP; CB COOLANT-THRU-SPINDLE
15	SWT-00001	PROXIMITY SWITCH; 8MM, 3 WIRE
16	DRB-02055	BUSHING; DRAWBAR PISTON
17	SEL-00016	O-RING
18	DRB-02014	DISCONTINUED - USE KIT-00095 [SEE PAGE 42]
19	DRB-02013	HOUSING; DRAWBAR CYLINDER, COOLANT-THRU-SPINDLE
20	HYD-00008	HYDRAULIC HOSE; 3000PSI 1/4 JIC, 25 FT.
21	PLM-02076	FITTING; HYDRAULIC, 1/4 JIC A 1/4 NPT
22	CTS-00006	DISCONTINUED - USE KIT-00095 [SEE PAGE 42]
23	PLM-02028	PLUG; 1/8 MPT, HEXDRIVE
24a	DRB-02027/10K	DRAWBARR ASSEMBLY; 16.5, 10K [USE W/ DRB-02015] *
24b	DRB-02022	DRAWBARR ASSEMBLY; [USE W/ DRB-02015-2] *
25a	DRB-02015	KNOCK-OUT CAP;CTS, W/ O-RING [USE W/ DRB-02027]
25b	DRB-02015-2	KNOCK-OUT CAP;CTS, NO O-RING [USE W/ DRB-02022]
26	SCR-00288	SCREW, M4-.7 X 40MM, SHCS [4 REQUIRED]

* Provide spindle information from spindle mounting flange

COOLANT THRU SPINDLE - Early

STANDARD DRAWBAR CYLINDER

TOP VIEW



KIT-00095 Update Kit

Includes Items: 1, 2, 4a, 8, 9, 13a, 15,
19-24, 33-35, 37-41, 44

For CTS Machines w/ 8.5" x 6" DBCYL [#14]

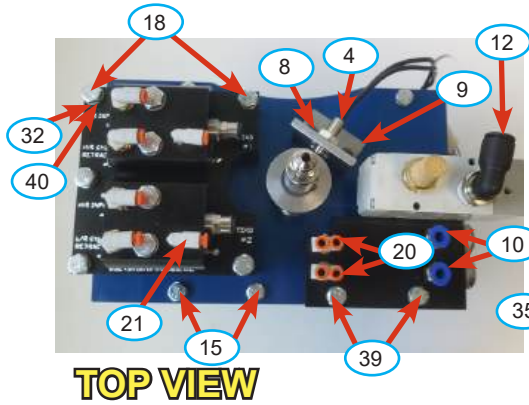
Requires Software Version 3.0 or Later

Item	Part Number	Description
1	PLM-02161	FITTING, HYDRAULIC; 1/4 JIC X 1/8 NPT
2	DRB-02046-12	SHAFT; CTS/NON-CTS THREADED
3	HDW-02006	SPRING, DRAWBAR CYL RETURN
4a	SWT-00001	PROXIMITY SWITCH, 8MM; 3 WIRE
4b	SWT-00002	HALL EFFECT SWITCH, 12MM; 2 WIRE
5	PLM-02050	MUFFLER, 3/8 MIPT
6	PLM-02049	PIPE NIPPLE, 3/8 MIPT X 1.5 INCH
7	PLM-02091	FITTING, 6MM QD X 1/8 MIPT ELL
8	SMT-00226	BRACKET, DRAWBAR UP SENSOR
9	SCR-00124	KEPSNUT, M4-0.7 [2 REQUIRED]
10	SCR-00288	SCREW, M4-0.7 X 40MM SHCS [2 REQD]
11	VLV-02000	AIR VALVE, DRAWBAR CYLINDER
12	PLM-02091	FITTING, 10MM QD X 3/8NPT ELL
13a	ORB-02010-L	STOP/SPACER, DRB CYL PLATE, LEFT
13b	ORB-02010	STOP/SPACER, DRB CYL PLATE
14	DRB-02013	HOUSING, DRAWBAR CYL, CTS [6 x 8.5]
15	SCR-00289	SCREW, 1/4-20 X 3.75; HEXCAP [5 REQD]
16	HYD-02005	HYDRAULIC ACTUATOR ASSY [SET OF 2]
17	HYD-02000	RESERVOIR, HYDRAULIC ACTUATORS
18	SCR-00015	SCREW, 1/4-20 X 1.75 HEXCAP
19	SCR-00006	LOCKWASHER, 1/4 [10 REQUIRED]
20	SCR-00055	SCREW; 1/4-20 X 5/8, SHCS
21	SWT-00085	CLAMP; DOWN SENSOR
22	DRB-02048-12	LOCKNUT, DBCYL SHAFT; CTS/NON-CTS
23	ORB-02011	SPACER TUBE, DRB-OBRIIDGE [2 REQD]
24	DRB-02049-12	ENDSHAFT, BOTTOM; DBCYL; CTS ONLY
25	CTS-00007	ROTARY UNION, CB COOLANT-THRU
26	CTS-00009	SEAL BASE, CB COOLANT-THRU
27	CTS-00010	JACKING PLATE, CB COOLANT-THRU
28	DRB-02027/10K	DRAWBAR KIT; 40T, 10K, CTS/NON-CTS COMPATIBLE, 16.5 [DRB-02015]
29	DRB-02027/15K	DRAWBAR KIT; 40T, 15K, CTS/NON-CTS COMPATIBLE, 16.5 [DRB-02015]
30	DRB-02015	KNOCK-OUT CAP; COOLANT-THRU
31	SCR-00126	SETSCREW, 10-32 X 1.25 CUP PT [4 REQ]
32	SCR-00098	FLATWASHER, 1/4 ZIN
33	DRB-02055	BUSHING; DRAWBAR PISTON SHAFT
34	DRB-02007	SPRING PAD, DBCYL SHAFT; CTS-EARLY
35	SEL-00007	O'RING, -115; VITON .687 ID X 3/32 [2 REQ]
36	SEL-00015	SQUARE O'RING, 3/32 X 3.50 DIA
37	SCR-00290	SCREW, 1/4-20 X 5; HEXCAP [2 REQD]
38	SEL-00130	O'RING, VITON; 7MM ID X 1.2MM THICK
39	SEL-00029	O'RING, VITON; 16MM ID X 2MM [KO CAP]
40	DRB-02006	PISTON PLATE, NO MAG; CTS [Ref Pg. 13]
41	HDW-02015	CLIP, RETAINING; DB CYL SHAFT
42	CTS-00008	DRAIN TRAP, COOLANT-THRU
43	SWT-00003	SLEEVE, ADAPTER, 8MM TO 12MM
44	TOL-02040	ALIGNMENT TOOL; CTS INSTALLATION

COOLANT THRU SPINDLE: GEN 1 Update Kit KIT-00095

WIDE DRAWBAR CYLINDER VERSION

OPTIONS



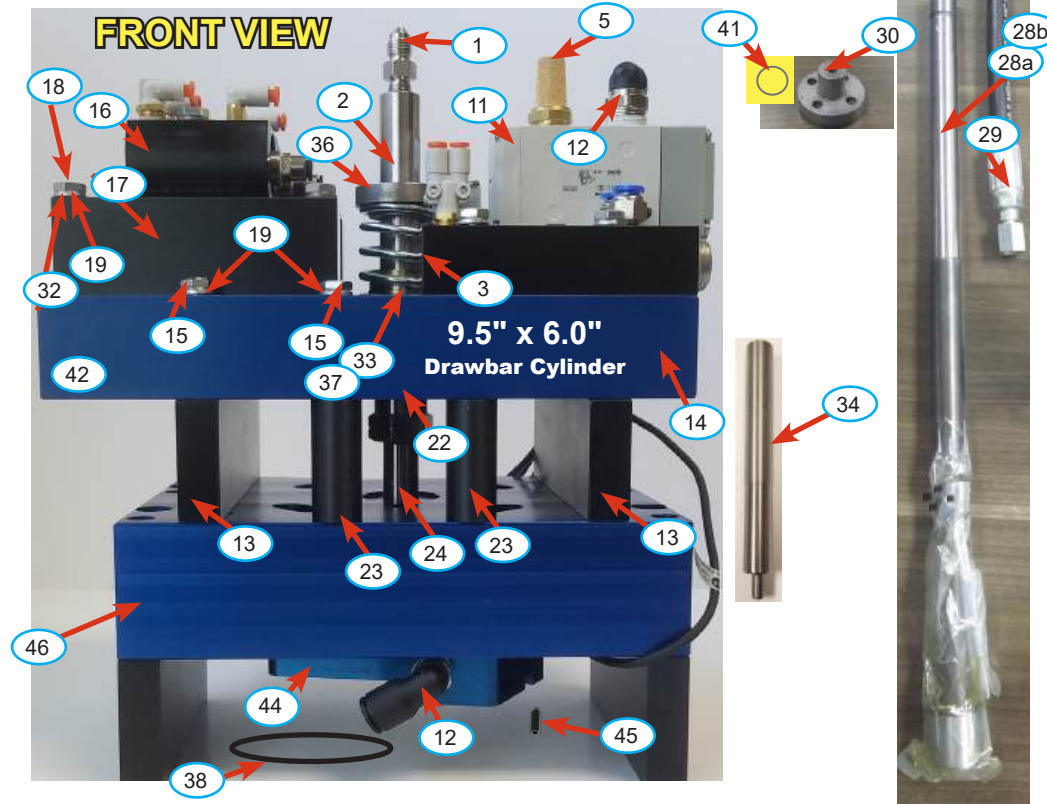
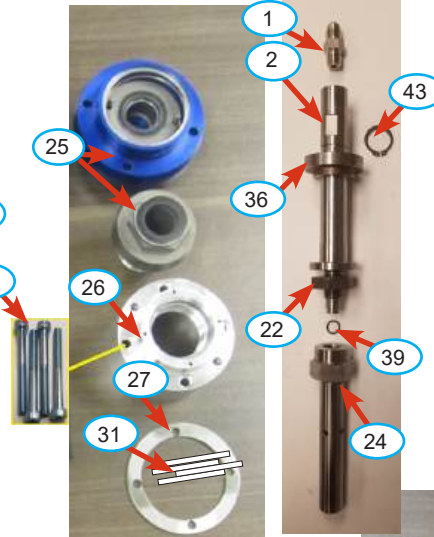
TOP VIEW

KIT-00094 Update Kit

Includes Items: 1, 2, 4, 8, 9, 13, 15, 19,
22-24, 33, 34, 36, 37, 39-41, 43

For CTS Machines w/ 9.5" x 6" DBCYL [#14]

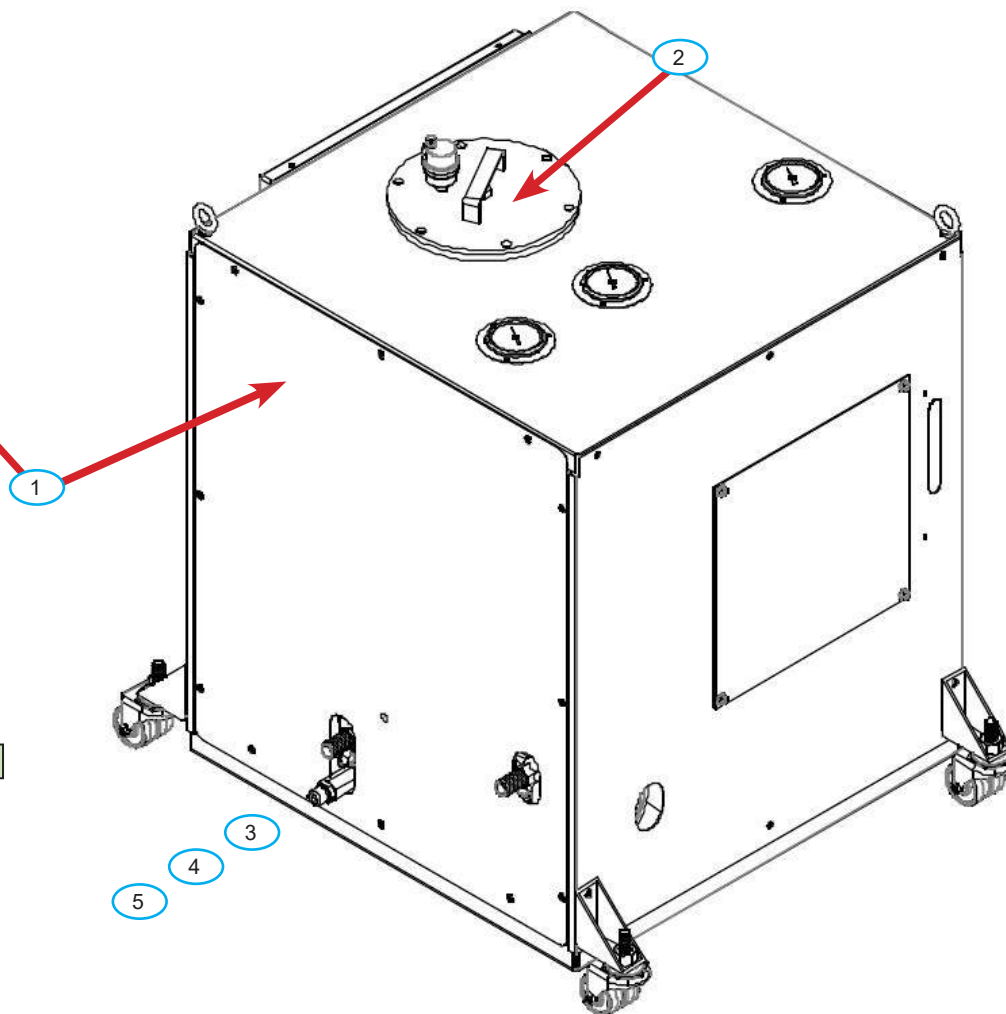
Requires Software Version 3.0 or Later



FRONT VIEW

Item	Part Number	Description
1	PLM-02161	FITTING, HYDRAULIC; 1/4 JIC X 1/8 NPT
2	DRB-02046-12	SHAFT; CTS/NON-CTS THREADED
3	HDW-02006	SPRING, DRAWBAR CYL RETURN
4	SWT-00001	PROXIMITY SWITCH, 8MM; 3 WIRE
5	PLM-02050	MUFFLER, 3/8 MIPT
6	PLM-02049	PIPE NIPPLE, 3/8 MIPT X 1.5 INCH
7	PLM-02012	FITTING, 4MM QD X 1/8 MIPT, ELL
8	SCR-00165	SCREW, BUTTONHD; 1/4-20 X 1/2 [2 REQ]
9	SMT-00226	BRACKET; DRAWBAR DOWN/UP SENSOR
10	PLM-02093	FITTING, 6MM QD X 1/8 MIPT STR
11	VLV-02000	AIR VALVE, DRAWBAR CYLINDER
12	PLM-02098	FITTING, 10MM QD X 1/4 NPT, ELL
13	ORB-02010	STOP/SPACER, DRAWBAR CYLINDER PLATE
14	DRB-02002	HOUSING, DRAWBAR CYLINDER, CTS-WIDE [6 x 9.5]
15	SCR-00289	SCREW, 1/4-20 X 3.75; HEXCAP [5 REQUIRED]
16	HYD-02005	HYDRAULIC ACTUATOR ASSY [SET OF 2]
17	HYD-02000	RESERVOIR, HYDRAULIC ACTUATORS
18	SCR-00015	SCREW, 1/4-20 X 1.75 HEXCAP
19	SCR-00006	LOCKWASHER, 1/4 [10 REQUIRED]
20	PLM-02014	FITTING, 5/32 QD/4MM QD X 1/8 NPT WYE
21	PLM-02015	FITTING; 5/32 QD/4MM QD X 10-32 ELL
22	DRB-02048-12	LOCKNUT, DBCYL SHAFT; CTS/NON-CTS
23	ORB-02011	SPACER TUBE, DRB-OBRIDGE [2 REQD]
24	DRB-02049-12	ENDSHAFT, BOTTOM; DBCYL; CTS ONLY
25	CTS-00007	ROTARY UNION, CB COOLANT-THRU
26	CTS-00009	SEAL BASE, CB COOLANT-THRU
27	CTS-00010	JACKING PLATE, CB COOLANT-THRU
28a	DRB-02027/10K	DRAWBAR KIT; 40T, 10K, CTS/NON-CTS COMPATIBLE, 16.5 [DRB-02015]
28b	DRB-02027/15K	DRAWBAR KIT; 40T, 15K, CTS/NON-CTS COMPATIBLE, 16.5 [DRB-02015]
29	HYD-00008	HYDRAULIC HOSE; 3000PSI 1/4-JIC25FT
30	DRB-02015	KNOCK-OUT CAP; COOLANT-THRU
31	SCR-00126	SETSCREW; 10-32 X 1.25 CUP PT [4 REQUIRED]
32	SCR-00098	FLATWASHER, 1/4 ZINC [5 REQUIRED]
33	DRB-02056	BUSHING; DRAWBAR PISTON SHAFT
34	TOL-02040	ALIGNMENT TOOL; COOLANT-THRU
35	SCR-00288	SCREW; M4-.7X40MM, SHCS [Ref Pg. 41]
36	DRB-02036	SPRING PAD, DBCYL SHAFT; CTS
37	SEL-00007	O-RING, -115; VITON .687 ID X 3/32 [2 REQUIRED]
38	SEL-00015	SQUARE O-RING, 3/32 X 3.50 DIA
39	SCR-00290	SCREW, 1/4-20 X 5; HEXCAP [2 REQUIRED]
40	SEL-00130	O-RING, VITON; 7MM ID X 1.2MM THICK
41	SEL-00029	O-RING, VITON; 16MM ID X 2MM [KO CAP]
42	DRB-02006	PISTON PLATE, NO MAGNET, CTS [Ref Pg. 13]
43	HDW-02015	RETAINING CLIP; DRAWBAR CYLINDER SHAFT
44	CTS-00008	DRAIN TRAP, COOLANT-THRU
45	SCR-00162	SET SCREW, NYLON TIP, 10-32 X 1/2
46	ORB-02004	ORIENTATION BRIDGE PLATE

COOLANT THRU SPINDLE: GEN 2
Update Kit KIT-00094

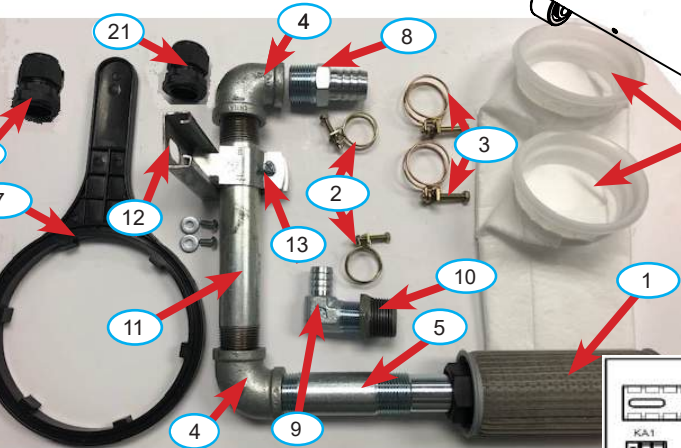
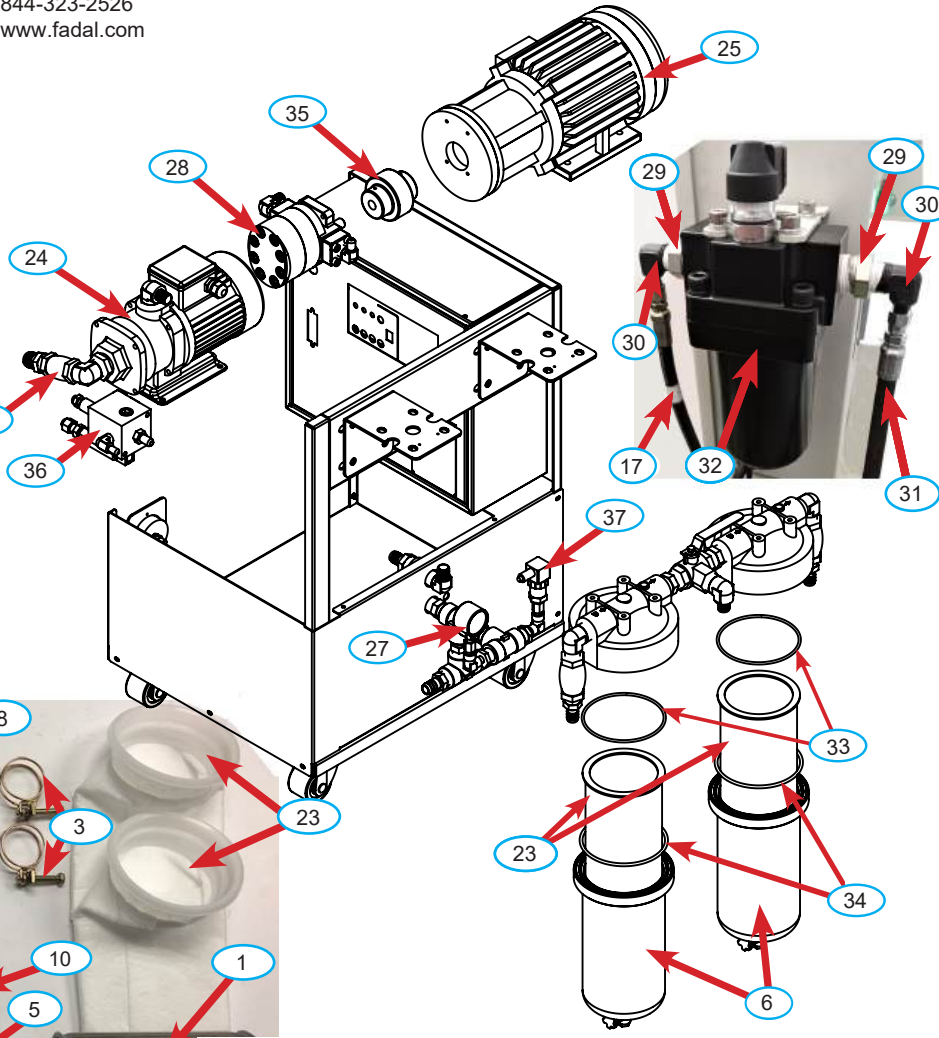
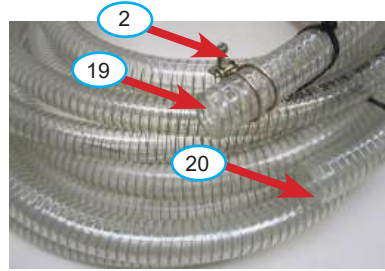


Item	Part Number	Description
1	PMP-02020	CHIPBLASTER SYSTEM,0-500PSI;230V
2	PMP-02021	CHIPBLASTER FILTER KIT - 2 PACK
3	PLM-02077	FITTING,BUSHING;BRASS 1/2 M X 1/4 F
4	PLM-02076	FITTING,HYDR;1/4 FLARE JIC X 1/4 F
5	HYD-02008	HYDRAULIC HOSE,CTS;1/4JIC X 7.6M

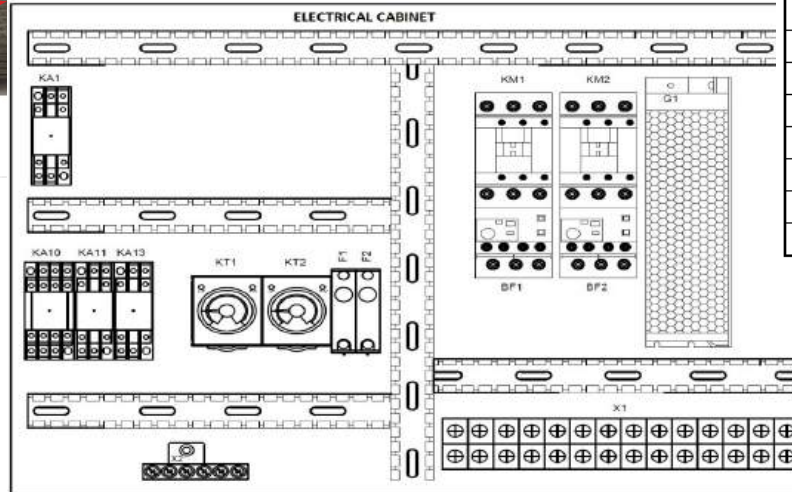
WARNING!

LBL-02077

**COOLANT-THRU-SPINDLE
CHIPBLASTER SYSTEM**



Symbol	Part Number	Description
F1	CBR-00020	FUSE; AC, 2A
F3	CBR-00045	FUSE; DC, 6A
KA1	RLY-00046	RELAY; SYSTEM START
KA10	RLY-00046	RELAY; SYSTEM READY
KA11	RLY-00046	RELAY; FILTER PRESSURE DETECT
KA13	RLY-00046	RELAY; SYSTEM READY FEEDBACK
KT1	ELE-04036	TIMER; FILTER PRESSURE DELAY SHUTDOWN
KT2	ELE-04036	TIMER; FILTER PRESSURE DETECT
KM1	RLY-00053	CONTACTOR; HIGH PRESSURE PUMP MOTOR
KM2	RLY-00013	CONTACTOR; TRANSFER PUMP MOTOR
BF1	RLY-00032	OVERLOAD; HIGH PRESSURE PUMP MOTOR
BF2	RLY-00006	OVERLOAD; TRANSFER PUMP MOTOR
X1	WIR-02028	TERMINAL BLOCK
X2	WIR-02219	GROUND BUSS BAR
G1	PWR-00015	DC POWER SUPPLY; 220VAC - 24VDC



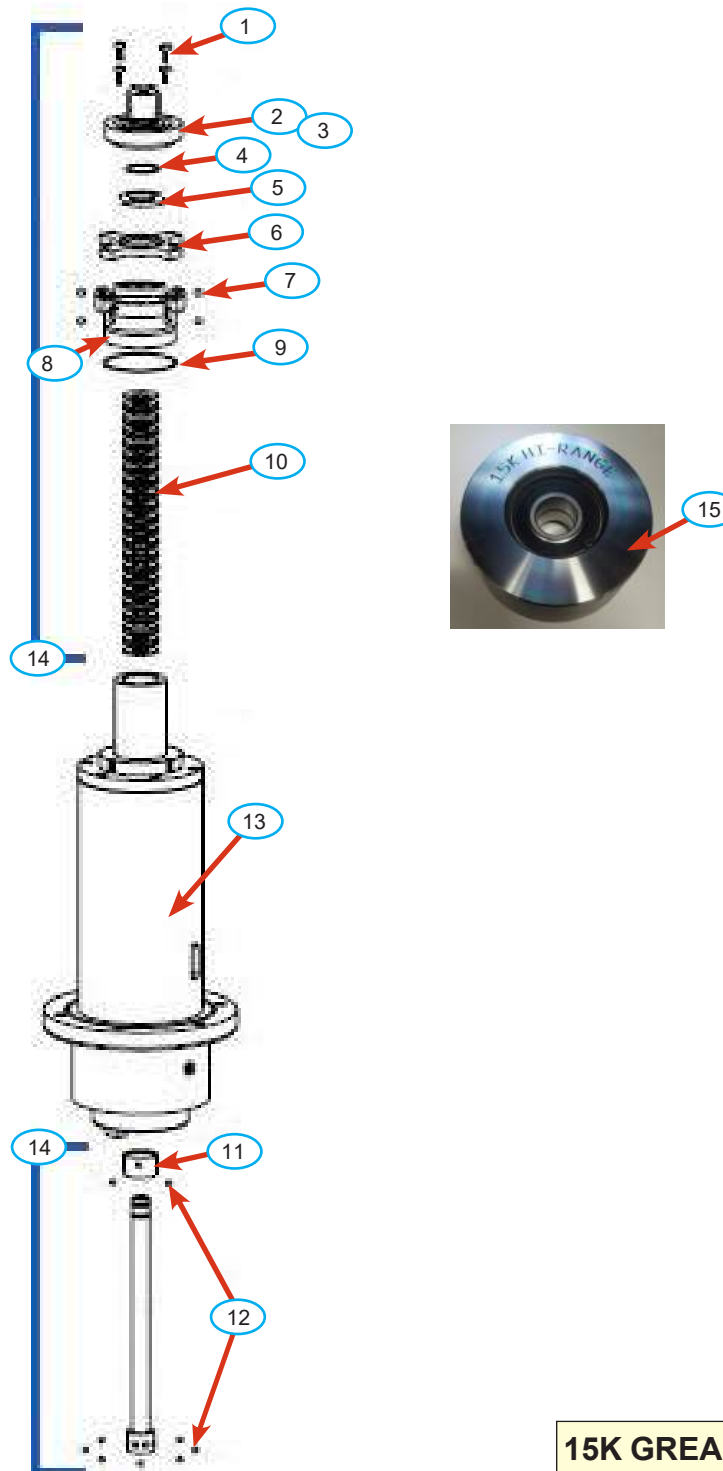
Item	Part Number	Description
1	CTS-00013	FILTER CARTRIDGE; MF-08
2	HDW-02011	HOSE CLAMP, WORM 1"
3	HDW-02012	HOSE CLAMP, WORM 1 1/2"
4	PLM-02052	ELBOW; 1" FIPT
5	PLM-02163	PICKUP TUBE/FILTER SUPPORT
6	CTS-00014	FILTER CANNISTER ASSEMBLY
7	TOL-02063	TOOL; FILTER CARTRIDGE
8	PLM-02021	ADAPTER; 1" BARB X 1" MIPT
9	PLM-02182	ADAPTER; 3/4" BARB X 3/4" MIPT ELL
10	PLM-02179	BUSHING; 1" MIPT X 3/4" MIPT ELL
11	PLM-02177	PIPE NIPPLE; 1" X 8"
12	PLM-02079-1	PIPE STRUT [1.5" CHANNEL] X 4"
13	PLM-02079-2	STRUT CLAMP; 1" OD
14	LBL-02077	LABEL "WARNING" - WARRANTY
15	CNT-02060	COOLANT PUMP SYSTEM; POLARJET
16	PLM-02162	FITTING; 3/8 JIC BULKHEAD ELL W/ NUT
17	HYD-02038	HOSE, HYDRAULIC; 3/8 JIC X 3500 MM, STR
18	HYD-02008	HOSE, HYDRAULIC; 1/4 JIC X 7.6 M
19	PLM-02071	SPRING HOSE; 3/4" [PR/FT]
20	PLM-02022	SPRING HOSE; 1" [PR/FT]
21	WIR-02169	CABLE STRAIN RELIEF, 10 MM
22	WIR-02196	CABLE STRAIN RELIEF, 18 MM
23	CTS-00015	FILTER BAG (2 PACK)
24	PMP-02034	TRANSFER PUMP
25	MTR-02126	MOTOR; HIGH PRESSURE COOLANT PUMP
26	PLM-02169	CHECK VALVE
27	CTS-00018	PRESSURE GUAGE; 1000 PSI / 70 KG/CM ²
28	PMP-02035	HIGH PRESSURE PUMP
29	PLM-02202	REDUCER; 3/4" X 1/2"
30	PLM-02203	ELBOW; 1/2 NPT X 7/16 JIC
31	HYD-02073	HOSE; 32 INCHES
32	CTS-00017	OUTLET FILTER ASSEMBLY
33	SEL-00149	O'RING; FACE GROOVE
34	SEL-00150	O'RING; FLANGE
35	CTS-00027	COUPLER; HIGH PRESSURE PUMP - MOTOR
36	CTS-00028	PRESSURE REGULATOR MANIFOLD
37	SWT-00089	PRESSURE SWITCH

**COOLANT-THRU-SPINDLE
POLARJET SYSTEM**

Item	Part Number	Description
1	SCR-00167	SCREW; M4-0.7 X 14MM, SHCS
2	DRB-02004	KNOCK-OUT CAP; 10K/15K, NON-CTS
3	DRB-02015	KNOCK-OUT CAP; 10K/15K, CTS
4	SEL-00029	O-RING; 16MM ID X 2MM, VITON
5	DRB-02012	RETAINER CLIPS [PK/2]
6	DRB-02011	SPIDER
7	BRG-02013	BALL; 1/4, HARDENED [4 REQUIRED]
8	DRB-02026	SPRING PILOT
9	SEL-00009	O-RING; 1.125 ID X 3/32, VITON
10	DRB-02017	BELLVILLE SPRING WASHERS; DRAWBAR [PK/44]
11	DRB-02043	FLOATER; SHORT [21MM]
12	BRG-02012	BALL; 3/16 HARDENED [10 REQUIRED]
13	SPN-02005*	SPINDLE ASSY, 15K, GREASE PACK, DUALRANGE
14	DRB-02027**	DRAWBAR KIT; 15K, NON-CTS/CTS COMPATIBLE
15	IDL-02012/15K	IDLER ROLLER ASSEMBLY W/ BEARINGS; 15K

* INCLUDES DRB-02027

** INCLUDES ITEMS 1-12

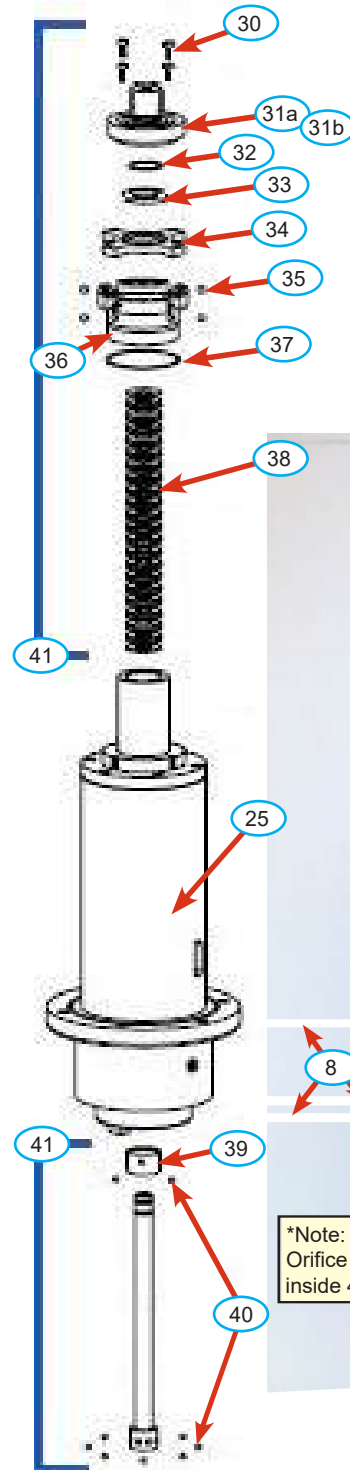


15K GREASE PACK SPINDLE

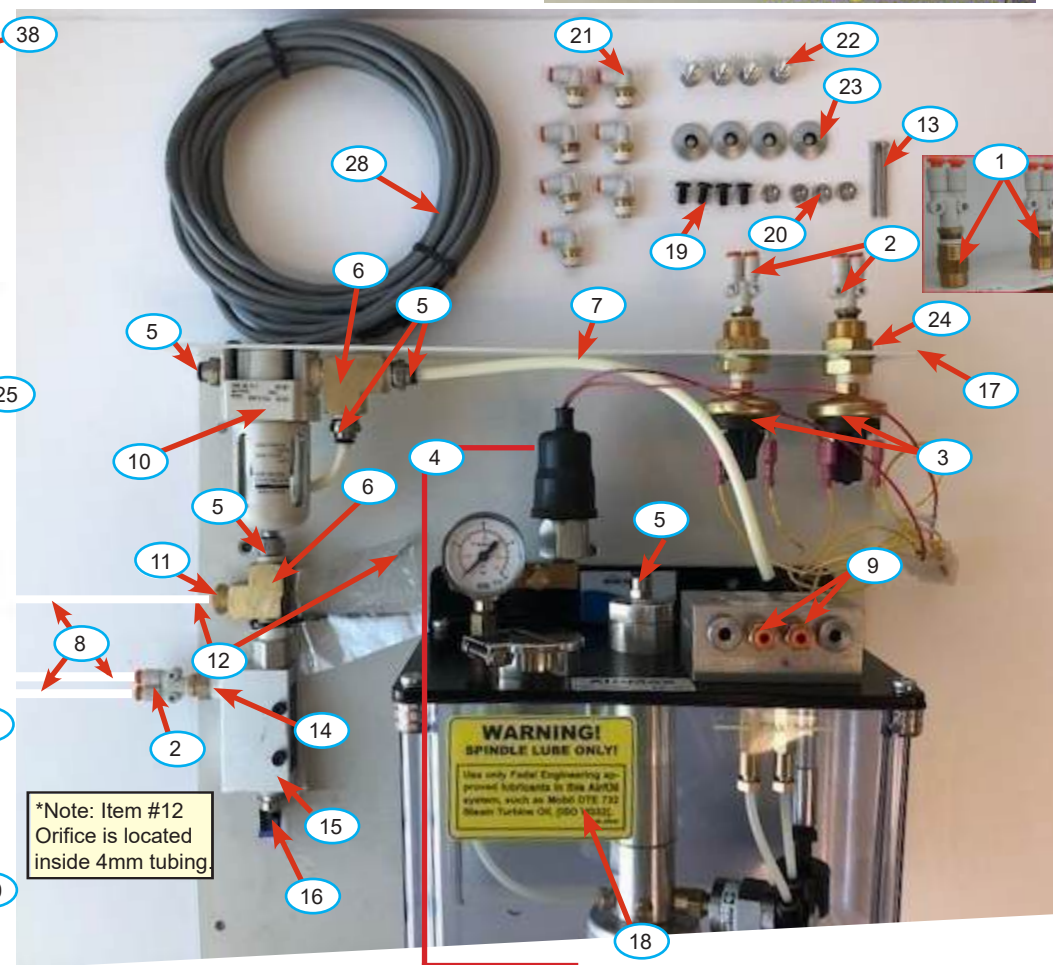
Item	Part Number	Description
1	PLM-02095	BRASS COUPLER, 1/8 FPT
2	PLM-02014	FITTING, 5/32 QD/4MM QD X 1/8 MIPT WYE
3	SWT-00009	PRESSURE SWITCH, 25 PSI AIR/OIL
4	LUB-02011	LUBRICATION PUMP, AIR/OIL SPINDLE
5	PLM-02094	FITTING, 6MM QD X 1/4 MPT STR
6	PLM-02090	RIGHT ANGLE TEE; 1/4 MIPT X 1/4 FIPT
7	PLM-02083	TUBING, 6MM, 250PSI NYLON
8	PLM-02000	TUBING, 4MM [5/32] 250PSI NYLON
9	PLM-02013	FITTING, 5/32 QD/4MM QD X 1/8 MIPT STR
10	REG-02003	COALESCING FILTER, AIR/OIL SMC
11	PLM-02011	FITTING, 5/32 QD/4MM QD X 1/4 MIPT STR
12	SPN-02001	ORIFICE, 5/32 INSERT; AIR SEAL *
13	SCR-00327	SCREW, M3 X 37.5 W/ LOCK WASHER, PHILLIPS
14	PLM-02041	BUSHING, 1/4 FIPT TO 1/8 MIPT
15	PMP-02018	VACUUM PUMP, AIR OIL
16	PLM-02104	FITTING, 10MM QD X 1/4 MIPT STR
17	SMT-00055	MOUNTING PLATE, AIR-OIL PUMP/SWTS
18	LBL-02040	LABEL, SPINDLE LUBE; AIR-OIL
19	SCR-00041	SCREW, 10-32 X 3/8 BUTTONHEAD SHCS
20	SCR-00008	NUT, 10-32 BRITE
21	PLM-02012	FITTING, 5/32 QD/4MM QD X 1/8 MIPT ELL
22	SEL-00069	CUP WASHER, SEALING; 0.75 OD X 0.25 ID
23	HDW-02045	STANDOFF, MALE/FEM; 10-32 X 1/2 LONG;
24	PLM-02170	BULKHEAD FITTING, BRASS; 1/8 FIPT
25	SPN-02004*	SPINDLE ASSY, 15K AIR-OIL DUAL RANGE
26	VLV-02006	AIR VALVE, 24VDC, 5 WAY, SINGLE
27	PLM-02092	FITTING, 6MM QD X 1/4 MPT, ELL
28	WIR-02063	CABLE; 6 COND., 22 AWG, SHIELDED [PER/ FT]
29	IDL-02012/15K	IDLER ROLLER ASSEMBLY W/ BEARINGS; 15K
30	SCR-00167	SCREW; M4-0.7 X 14MM, SHCS
31a	DRB-02004	KNOCK-OUT CAP; 10K/15K, NON-CTS
31b	DRB-02015	KNOCK-OUT CAP; 10K/15K, CTS
32	SEL-00029	O-RING; 16MM ID X 2MM, VITON
33	DRB-02012	RETAINER CLIPS [PK/2]
34	DRB-02011	SPIDER
35	BRG-02013	BALL; 1/4, HARDENED [4 REQUIRED]
36	DRB-02026	SPRING PILOT
37	SEL-00009	O-RING; 1.125 ID X 3/32, VITON
38	DRB-02017	BELLVILLE SPRING WASHERS; DRAWBAR [PK/44]
39	DRB-02043	FLOATER; SHORT [21MM]
40	BRG-02012	BALL; 3/16 HARDENED [10 REQUIRED]
41	DRB-02027**	DRAWBAR KIT; 15K, NON-CTS/CTS COMPATIBLE

* INCLUDES DRB-02027

** INCLUDES ITEMS 30-40



MOUNTED @ REAR AIR MANIFOLD



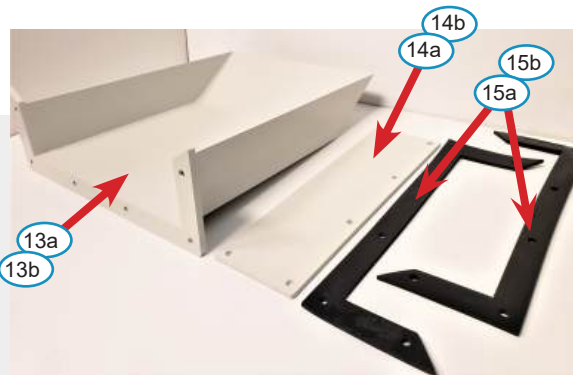
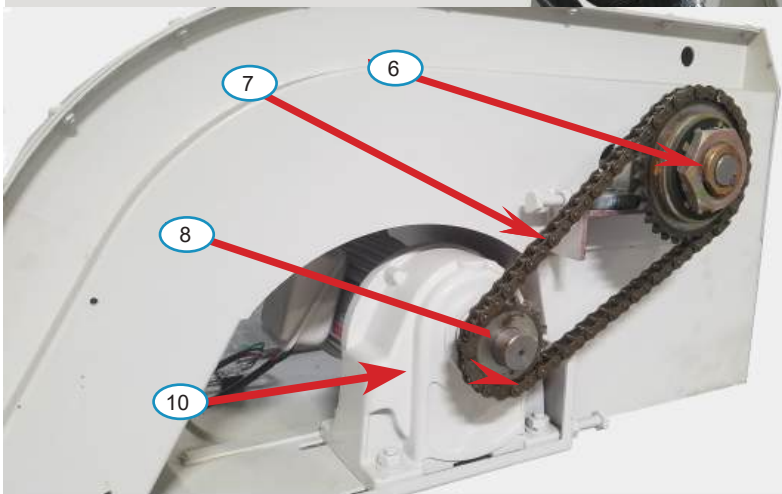
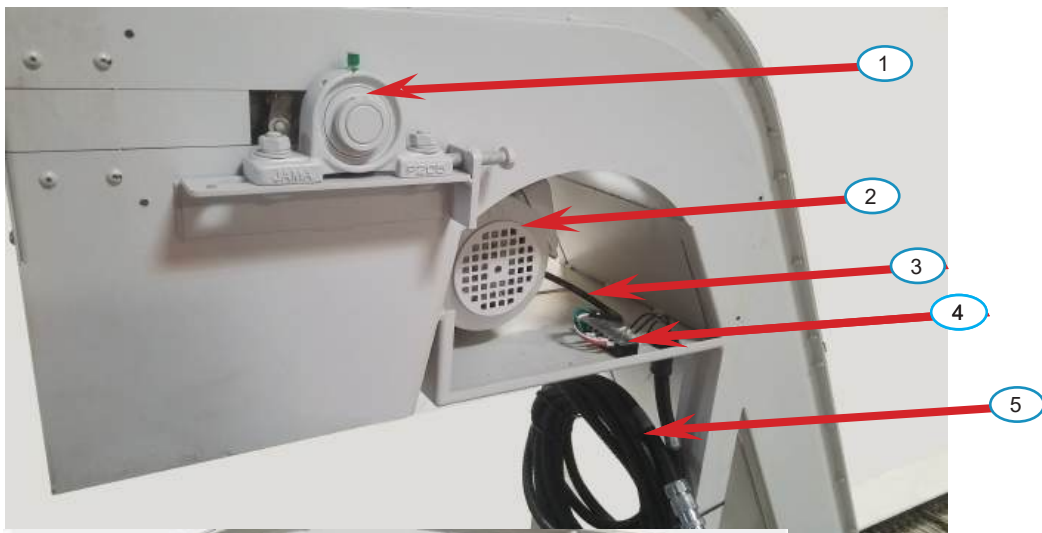
*Note: Item #12
Orifice is located
inside 4mm tubing.

15K AIR-OIL SPINDLE



Item	Part Number	Description
1	PRB-02000	TOOLSETTER,WIRELESS;NO TIP VOTS90
2	PRB-02001	CONTACT DISK,TOOLSETTER
3	PRB-02002	PROBE,SPINDLE; NO STUD/TIP;VOP40
4	PRB-02003	PROBE STYLUS, SS
5	PRB-02004	RECEIVER KIT, 24V TOOLSETTER/PROBE
6	PRB-02005	CABLE; RECEIVER W/GUARD
7	PRB-02006	CRASHPIN,VOTS TOOLSETTER
8	PRB-02015	PROBE STYLUS,CERAMIC W/ RUBY TIP
9	PRB-02008	ACCESSORY PKG, [INSTALLATION]
10	PRB-02009	ADAPTER,VOP40 TO BT-30
11	PRB-02010	ADAPTER,VOP40 TO BT-40
12	PRB-02011	ADAPTER,VOP40 TO CT-40
13	PRB-02017	REMOTE CONTROL [ONLY]
14	PRB-02013	BATTERY CAP
15	ELE-04012	BATTERY,1/2AA; 3.6V [2 REQ]
16	ELE-04013	BATTERY,CR123A; 3.6V [EARLY]
17	PRB-02016	CRASHPIN,VOP40 TOUCH PROBE
18	PRB-02010	BT SHANK ASSEMBLY

PROBE/PRESETTER

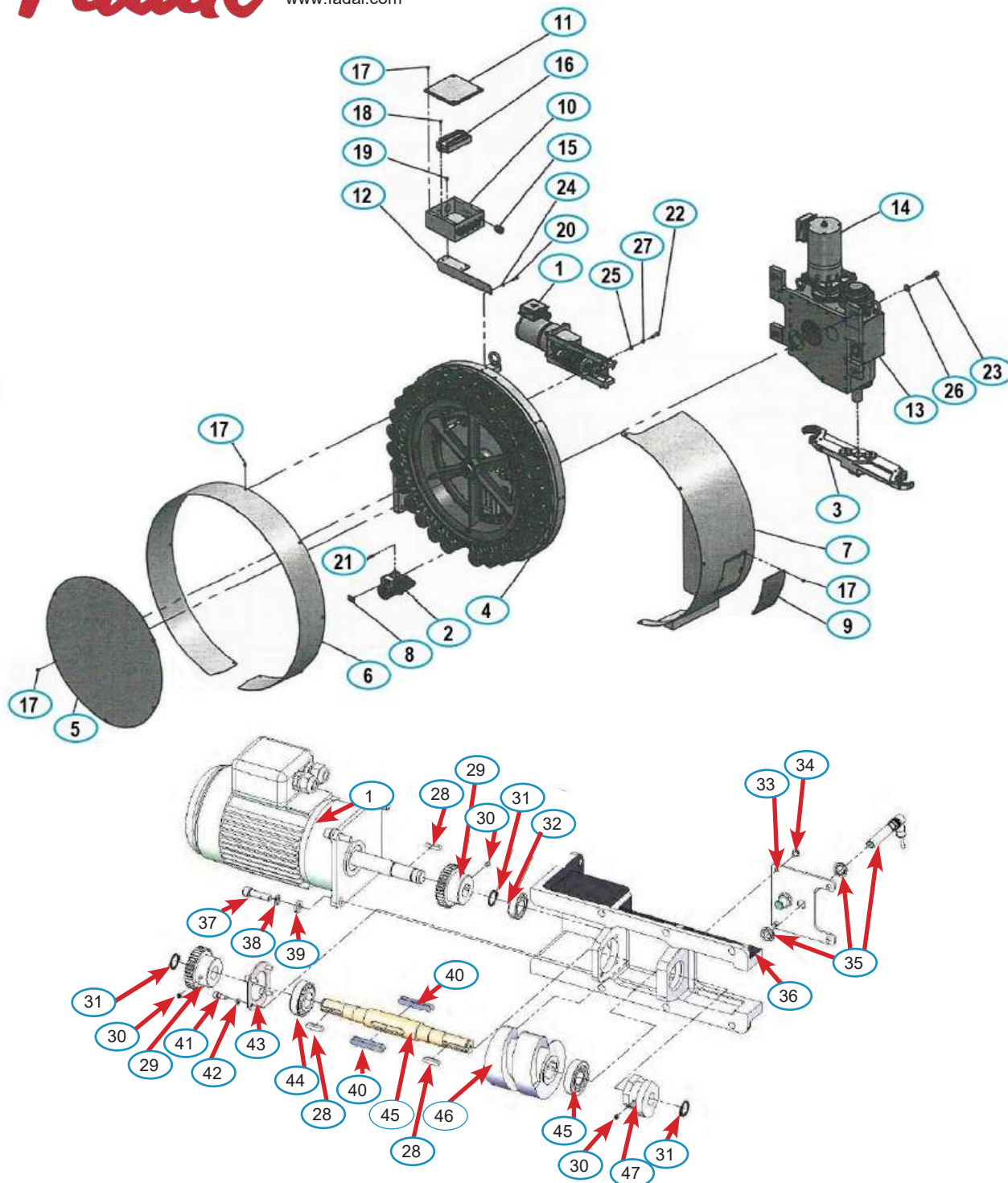


Item	Part Number	Description
1	CNV-02014	SUPPORT BEARING ASSEMBLY
2	MTR-02029	DRIVE MOTOR
3	WIR-02211	CABLE (TERMINAL BLOCK TO MOTOR)
4	WIR-02212	TERMINAL BLOCK
5	WIR-02213	POWER CABLE [W/ CONNECTOR]
6	CNV-02015	TORQUE LIMITER [CLUTCH]
7	HDW-02116	DRIVE CHAIN
8	CNV-02016	SPROCKET
9	CNV-02013	CASTER
10	CNV-02017	GEAR REDUCER
11	CNV-02018	CHAIN COVER
12	CNV-02012	CHIP CONVEYOR - COMPLETE
13a	CNV-02019	FRONT COOLANT TANK EXTENSION TRAY; 6 MOUNTING HOLES *
13b	CNV-02056	FRONT COOLANT TANK EXTENSION TRAY; 8 MOUNTING HOLES *
14a	CNV-02020	FRONT COOLANT TANK END PLATE; 6 MOUNTING HOLES *
14b	CNV-02057	FRONT COOLANT TANK END PLATE; 8 MOUNTING HOLES *
15a	CNV-02021	GASKET; END PLATE/EXTENSION TRAY, 6 MOUNTING HOLES *
15b	CNV-02058	GASKET; END PLATE/EXTENSION TRAY, 8 MOUNTING HOLES *

* 6 Mounting Holes Shown

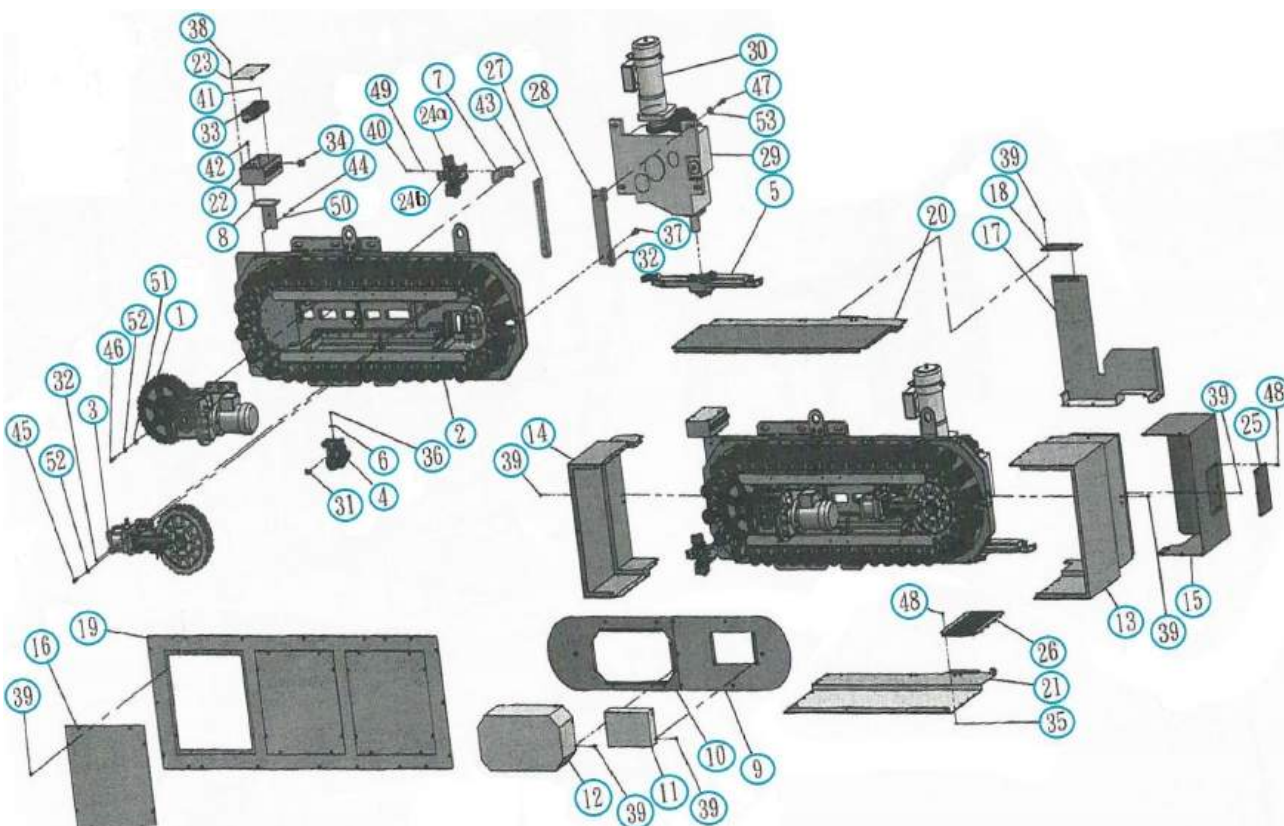
CHIP CONVEYOR





Item	Part Number	Description
1-2		SEE PAGE 22
3		SEE PAGE 24
4	ATC-02087	MAGAZINE ASSEMBLY
5	ATC-02088	MAGAZINE COVER
6	ATC-02089	MAGAZINE SHROUD
7	ATC-02090	FRONT MAGAZINE COVER
8		SEE PAGE 22
9-16		SEE PAGE 21
17	SCR-00171	SCREW; M5-0.8 X 8MM, PANHDCS
18-20		SEE PAGE 21
21-22		SEE PAGE 22
23-24		SEE PAGE 21
25		SEE PAGE 22
26-27		SEE PAGE 21
28		SEE PAGE 22
29	HDW-02068	GEAR, MAGAZINE MOTOR/DRIVE SHAFT
30-36		SEE PAGE 22
37	SCR-00060	SCREW; M8-1.25 X 30MM, SHCS
38-45		SEE PAGE 22
46	ATC-02171	WORM DRIVE GEAR (CAM), DATC MAGAZINE [30T]
47	ATC-02172	CAM INDEXER, MAGAZINE SENSOR [30T]

30 TOOL ATC

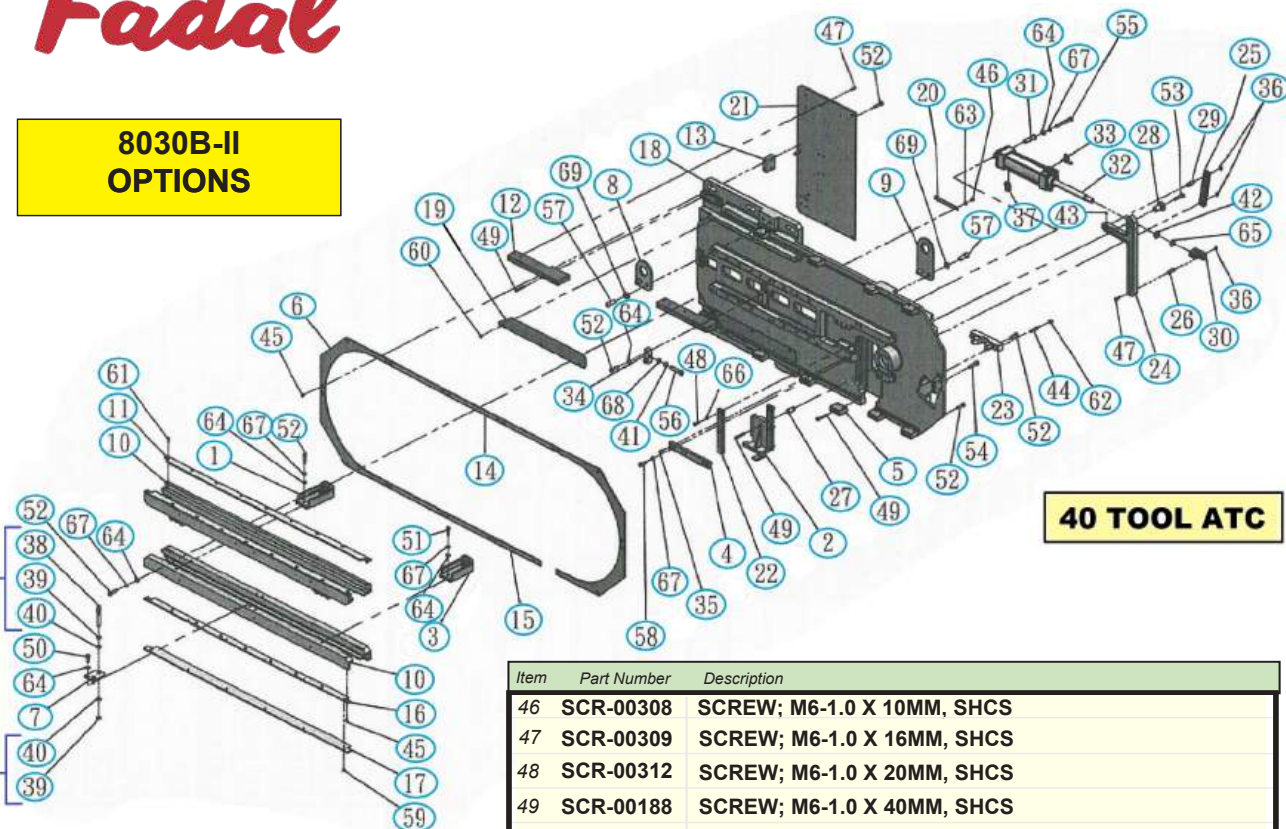


Item	Part Number	Description
39	SCR-00137	SCREW, M6-1.0 X 10MM BUTTONHEAD SHCS
40	SCR-00304	SCREW, M4-.7 X 35MM, SHCS
41	SCR-00305	SCREW, M5-.8 X 8MM, SHCS
42	SCR-00306	SCREW, M5-.8 X 10MM, SHCS
43	SCR-00308	SCREW, M6-1.0 X 10MM, SHCS
44	SCR-00309	SCREW, M6-1.0 X 16MM, SHCS
45	SCR-00243	SCREW, M10-1.5 X 30MM, SHCS
46	SCR-00208	SCREW, M10-1.5 X 35MM, SHCS
47	SCR-00117	SCREW, M10-1.5 X 40MM, SHCS
48	SCR-00137	SCREW, M6-1.0 X 10MM, BUTTONHEAD SHCS
49	SCR-00155	WASHER, M4
50	SCR-00140	WASHER, M6
51	SCR-00205	WASHER, M10
52	SCR-00187	LOCK WASHER, M10
53	SCR-00307	THICK WASHER, M12 x 30MM x 6MM

Item	Part Number	Description
1		MAGAZINE DRIVE ASSEMBLY [SEE PAGE 54]
2		40T MAGAZINE ASSEMBLY [SEE PAGE 53]
3		MAGAZINE POSITIONING ASSEMBLY [SEE PAGE 55]
4		TOOL POCKET ASSEMBLY [SEE PAGE 54]
5	ATC-02086	DATC ARM ASSEMBLY
6	ATC-02091	MAGAZINE HOME (REFERENCE) DOG
7	ATC-02092	SOLENOID VALVE MOUNTING BRACKET
8	ATC-02093	ELECTRICAL BOX MOUNTING BRACKET
9	ATC-02094	INNER MAGAZINE COVER
10	ATC-02095	COVER
11	ATC-02096	SENSOR COVER
12	ATC-02097	MOTOR COVER
13	ATC-02098	MAGAZINE FRONT COVER
14	ATC-02099	MAGAZINE REAR COVER
15	ATC-02100	DATC ARM CAM (GEARBOX) COVER
16	ATC-02101	TRANSPARENT COVER
17	ATC-02102	INNER BASE COVER
18	ATC-02103	AIR CYLINDER COVER
19	ATC-02104	MAGAZINE COVER
20	ATC-02105	UPPER MAGAZINE COVER
21	ATC-02106	LOWER MAGAZINE COVER
22	ATC-02107	ELECTRICAL BOX
23	ATC-02108	ELECTRICAL BOX COVER
24A	VLV-02037	AIR SOLENOID VALVE - POCKET UP/DOWN
24B	VLV-02038	AIR SOLENOID VALVE - MAGAZINE POSITION
25	ATC-02110	TRANSPARENT COVER
26	ATC-02111	BRUSH
27	ATC-02112	CAM (GEARBOX) SPACER-REAR
28	ATC-02113	CAM (GEARBOX) SPACER-FRONT
29	ATC-02080	CAM (GEARBOX) ASSEMBLY
30	MTR-02117	DATC ARM DRIVE MOTOR
31	ATC-02115	POCKET NUMBER PLATE
32	ATC-02116	PIN
33	WIR-02210	TERMINAL BLOCK
34	CNX-00043	CABLE STRAIN RELIEF
35	SCR-00092	NUT; M6 X 1.0
36	SCR-00302	SCREW, M5-.8 X 10MM, FLATHEAD
37	SCR-00303	SCREW, M12-1.75 X 40MM, FLATHEAD
38	SCR-00152	SCREW, M6-1.0 X 10MM BUTTONHEAD SHCS

40 TOOL ATC

**8030B-II
OPTIONS**

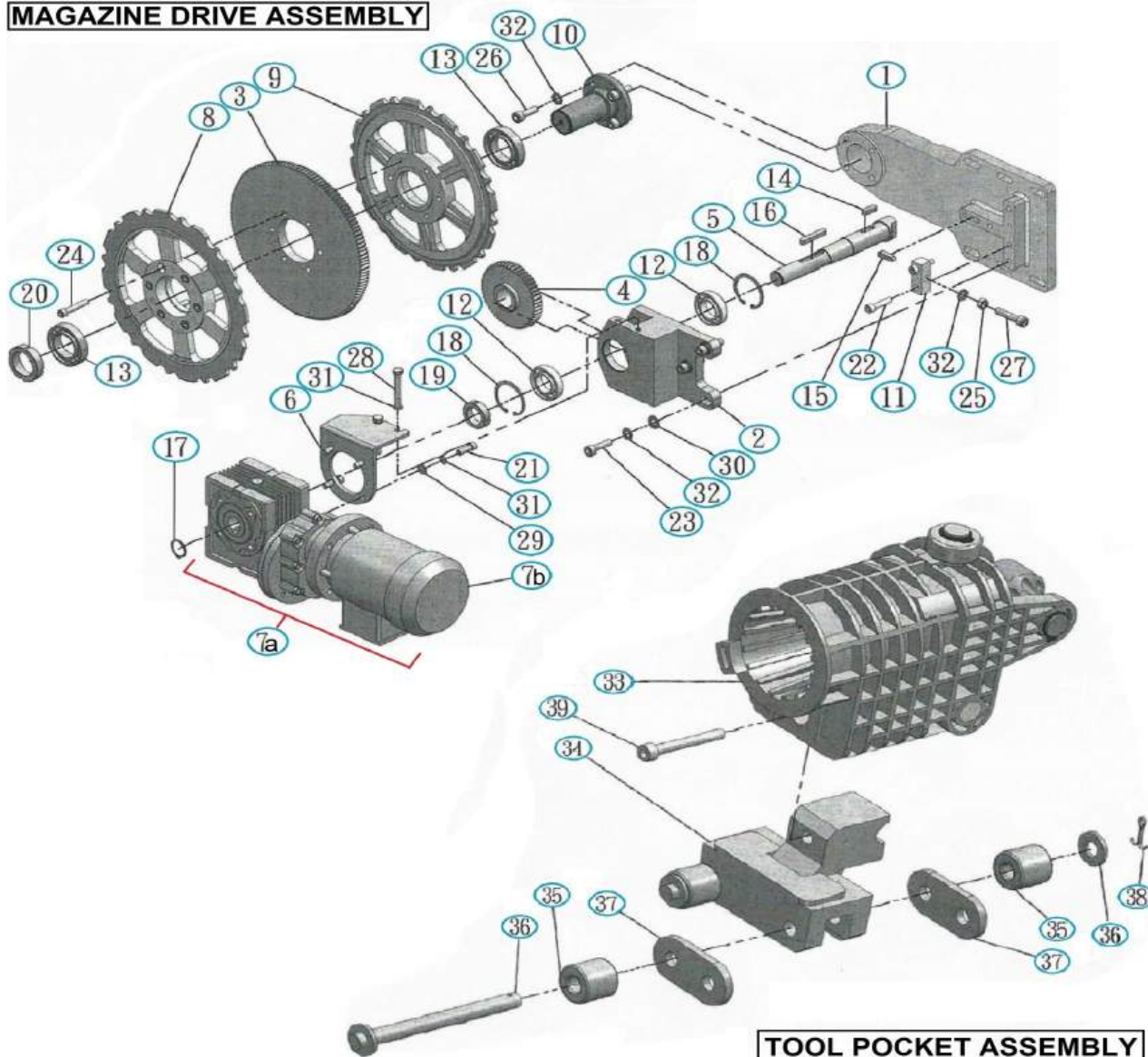


40 TOOL ATC

Item	Part Number	Description
46	SCR-00308	SCREW; M6-1.0 X 10MM, SHCS
47	SCR-00309	SCREW; M6-1.0 X 16MM, SHCS
48	SCR-00312	SCREW; M6-1.0 X 20MM, SHCS
49	SCR-00188	SCREW; M6-1.0 X 40MM, SHCS
50	SCR-00313	SCREW; M8-1.25 X 20MM, SHCS
51	SCR-00091	SCREW; M8-1.25 X 25MM, SHCS
52	SCR-00207	SCREW; M8-1.25 X 30MM, SHCS
53	SCR-00260	SCREW; M8-1.25 X 35MM, SHCS
54	SCR-00241	SCREW; M8-1.25 X 40MM, SHCS
55	SCR-00239	SCREW; M8-1.25 X 70MM, SHCS
56	SCR-00314	SCREW; M10-1.5 X 50MM, SHCS
57	SCR-00315	SCREW; M12-1.75 X 30MM, SHCS
58	SCR-00254	SCREW; M8-1.25 X 25MM, HEXCAP
59	SCR-00169	SCREW; M5-0.8 X 8MM, BUTTONHEAD
60	SCR-00316	SCREW; M6-1.0 X 8MM, BUTTONHEAD
61	SCR-00317	SCREW; M6-1.0 X 16MM, BUTTONHEAD
62	SCR-00284	NUT; M8-1.25, FLANGED
63	SCR-00140	WASHER; M6
64	SCR-00141	WASHER; M8
65	HDW-02108	SPRING WASHER; M16, CONICAL
66	SCR-00138	LOCK WASHER; M6
67	SCR-00139	LOCK WASHER; M8
68	SCR-00187	LOCK WASHER; M10
69	SCR-00193	LOCK WASHER; M12

Item	Part Number	Description
1	ATC-02117	GUIDE RAIL BRACKET [A]
2	ATC-02118	TOOL POCKET UP/DOWN PUSHER
3	ATC-02119	GUIDE RAIL BRACKET [B]
4	ATC-02120	CONNECTING PLATE
5	ATC-02121	TOOL POT CAROUSEL ASSEMBLY SUPPORT BLOCK-A
6	ATC-02122	SUPPORT FRAME- FRONT & REAR
7	ATC-02123	ORIGIN SENSOR PLATE
8	ATC-02124	LIFTING RING-A
9	ATC-02125	LIFTING RING-B
10	ATC-02126	GUIDE RAIL
11	ATC-02127	CHAIN BAR - UPPER
12	ATC-02128	TOOL POT CAROUSEL ASSEMBLY SUPPORT BLOCK-B
13	ATC-02129	TOOL POT CAROUSEL ASSEMBLY SUPPORT BLOCK-C
14	ATC-02130	SUPPORT FRAME-A, UPPER
15	ATC-02131	SUPPORT FRAME-B, LOWER
16	ATC-02132	CHAIN BAR-B, LOWER
17	ATC-02133	CHAIN BAR COVER
18	ATC-02134	MAIN CAST BODY
19	ATC-02135	MAIN BODY WIRE HOUSING
20	ATC-02136	MAIN BODY WIRE HOUSING-B
21	ATC-02137	COVER PLATE
22	ATC-02076	TOOL UP/DOWN GUIDE PLATE
23	ATC-02073	TOOL POCKET POSITION SEAT
24	ATC-02071	LEVER, AIR CYLINDER
25	ATC-02072	TOOL POT DOWN, CONNECTING SHAFT
26	CYL-02035	AIR CYLINDER SHAFT CONNECTING PIN
27	HDW-02103	UP/DOWN PUSHER CONNECTING PIN
28	ATC-02138	PIVOT SHAFT CONNECTING PIN
29	HDW-02101	CONNECTING PIN
30	CYL-02034	AIR CYLINDER SHAFT LINK
31	CYL-02037	AIR CYLINDER FIXED MOUNTING PIN
32	CYL-02042	AIR CYLINDER
33	SWT-00083	REED SWITCH
34	ATC-02139	ADJUSTMENT BLOCK
35	HDW-02117	PIN, 8MM X 18L
36	HDW-02055	RETAINING RING; Ø12
37	PLM-02098	FITTING; ELBOW, 10MM X 1/4" NPT
38	SWT-00069	ORIGIN SENSOR, M12 [INCLUDES ITEMS #39 & #40]
39	SEE #38	SENSOR NUT [INCLUDED W/ SWT-00069]
40	SEE #38	SENSOR WASHER [INCLUDED W/ SWT-00069]
41	SCR-00095	NUT; M10 X 1.5
42	SCR-00311	NUT; M16 X 1.5
43	SCR-00149	SET SCREW; M6-1.0 X 6MM
44	SCR-00310	SET SCREW; M8-1.25 X 40MM
45	SCR-00190	SCREW; M6-1.0 X 12MM, FLATHEAD

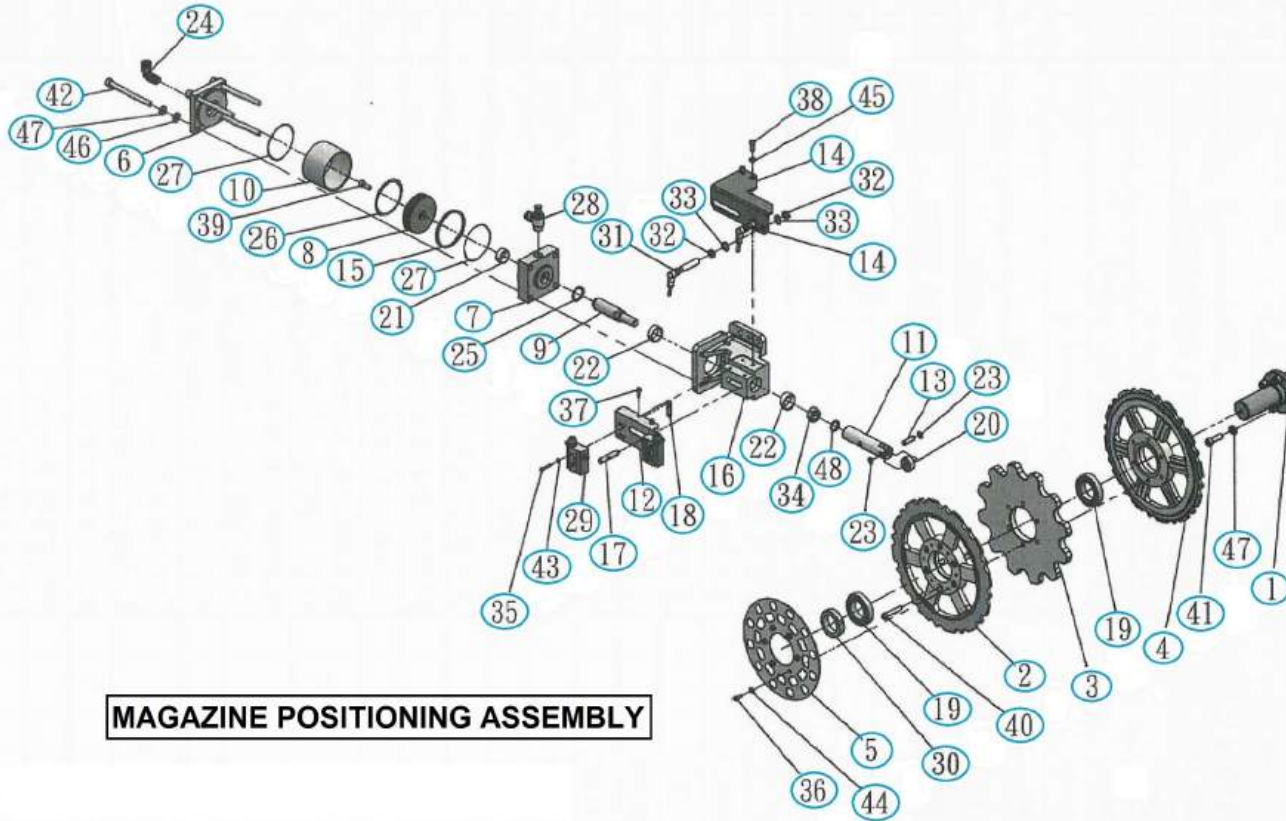
MAGAZINE DRIVE ASSEMBLY



TOOL POCKET ASSEMBLY

Item	Part Number	Description
1	ATC-02140	MAGAZINE DRIVE ASSEMBLY PLATE
2	ATC-02141	GEAR HOUSING
3	ATC-02142	GEAR-130T
4	ATC-02143	GEAR-52T
5	ATC-02144	TRANSMISSION SHAFT
6	ATC-02145	REDUCER MOUNTING BRACKET
7a	MTR-02030	MOTOR
7b	ATC-02146	MOTOR/DRIVE ASSEMBLY
8	ATC-02147	MAGAZINE ROTATION WHEEL-A [12T]
9	ATC-02148	MAGAZINE ROTATION WHEEL-B [12T]
10	ATC-02149	MAGAZINE WHEEL MOUNT SHAFT
11	ATC-02150	MAGAZINE ADJUSTMENT BLOCK
12	BRG-02125	BEARING
13	BRG-02126	BEARING
14	HDW-02058	KEY, W8x7Tx25L
15	HDW-02120	KEY, W8x7Tx30L
16	HDW-02067	KEY, W8x7Tx50L
17	HDW-02118	RETAINING RING, M25
18	HDW-02119	RETAINING RING, M55
19	SCR-00320	RETAINING LOCKNUT, M30-1.5 [YSR]
20	SCR-00321	RETAINING LOCKNUT, M40-1.5 [YSR]
21	SCR-00091	SCREW, M8-1.25 X 25MM, SHCS
22	SCR-00087	SCREW, M8-1.25 X 35MM, SHCS
23	SCR-00208	SCREW, M10-1.5 X 35MM, SHCS
24	SCR-00199	SCREW, M8-1.25 X 45MM, SHCS
25	SCR-00332	SCREW, M10-1.5 X 8MM, SHCS
26	SCR-00243	SCREW, M10-1.5 X 30MM, SHCS
27	SCR-00204	SCREW, M10-1.5 X 45MM, SHCS
28	SCR-00060	SCREW, M8-1.25 X 30MM, SHCS
29	SCR-00153	WASHER, M8
30	SCR-00205	WASHER, M10
31	HDW-02062	LOCK WASHER, M8
32	SCR-00187	LOCK WASHER, M10
33	ATC-02151	TOOL POT, 40T ATC, BT/CT
34	ATC-02152	TOOL POT SEAT
35	ATC-02153	CHAIN LINK ROLLER
36	ATC-02154	CHAIN LINK PIN
37	ATC-02155	CHAIN LINK
38	HDW-02121	COTTER PIN
39	SCR-00323	SCREW; M5-0.8 X 40MM, SHCS

40 TOOL ATC

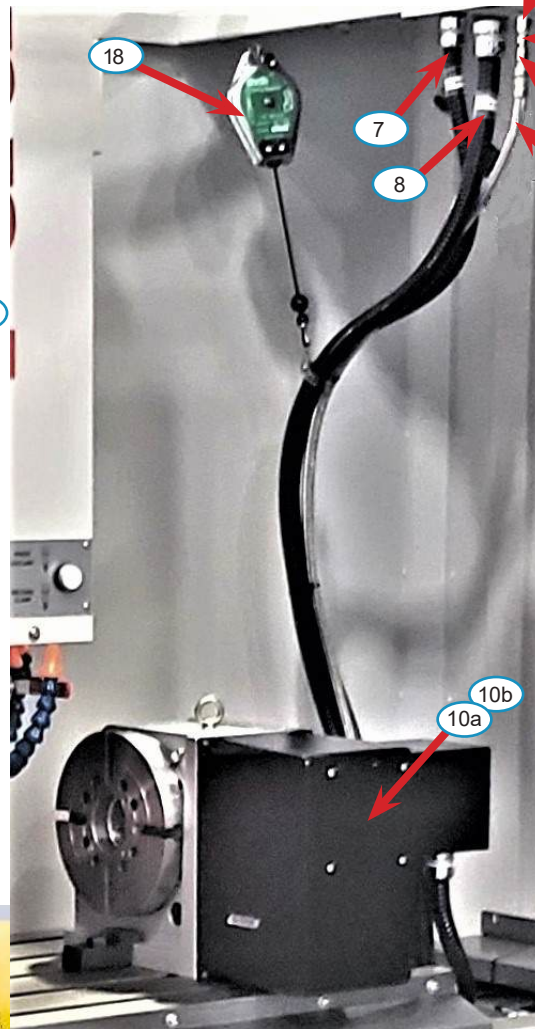
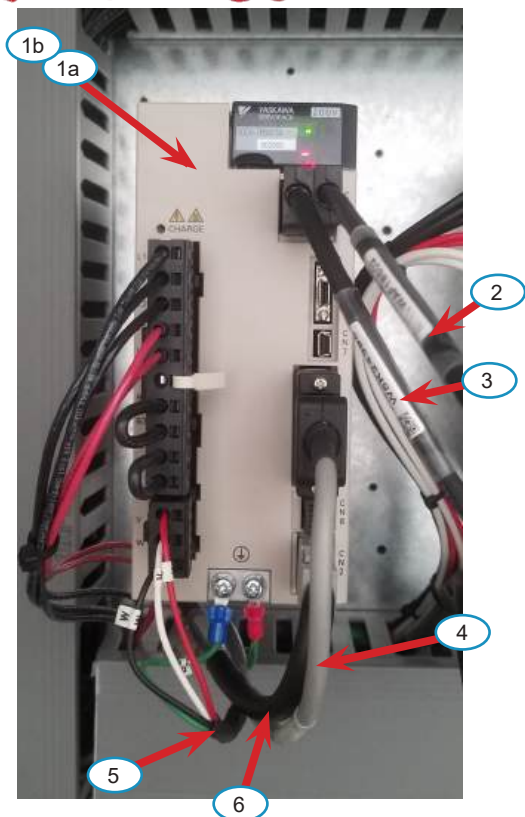


MAGAZINE POSITIONING ASSEMBLY

Item	Part Number	Description
39	SCR-00313	SCREW, M8-1.25 X 20MM, SHCS
40	SCR-00199	SCREW, M8-1.25 X 45MM, SHCS
41	SCR-00243	SCREW, M10-1.5 X 30MM, SHCS
42	SCR-00326	SCREW, M10-1.5 X 120MM, SHCS
43	SCR-00155	WASHER, M4
44	SCR-00158	WASHER, M5
45	SCR-00140	WASHER, M6
46	SCR-00205	WASHER, M10
47	SCR-00187	LOCK WASHER, M10
48	SCR-00235	LOCK WASHER, M16

Item	Part Number	Description
1	ATC-02149	MAGAZINE WHEEL MOUNT SHAFT
2	ATC-02142	MAGAZINE ROTATION WHEEL-A
3	ATC-02156	MAGAZINE POSITIONING WHEEL
4	ATC-02148	MAGAZINE ROTATION WHEEL-B
5	ATC-02157	SENSOR WHEEL PLATE
6	ATC-02158	CYLINDER UPPER COVER
7	ATC-02159	CYLINDER LOWER COVER
8	ATC-02160	CYLINDER PISTON
9	ATC-02161	CYLINDER PISTON ROD
10	ATC-02162	CYLINDER SLEEVE
11	ATC-02163	ROLLER PISTON ROD
12	ATC-02164	SWITCH SEAT
13	ATC-02165	CONNECTING PIN
14	ATC-02166	SENSOR SWITCH BRACKET
15	ATC-02167	WEAR RESISTANT RING
16	ATC-02168	AIR CYLINDER BASE
17	ATC-02169	PIN
18	ATC-02170	SLOTTED PLATE
19	BRG-02126	BEARING
20	BRG-02127	ROLLER
21	BRG-02128	SELF LUBRICATING SLEEVE, 25x28x12L
22	BRG-02129	SELF LUBRICATING SLEEVE, 28x32x12L
23	HDW-02080	RETAINING RING, M10
24	PLM-02087	FITTING, 10MM QD x 3/8 NPT, ELL
25	SEL-00144	O'RING, P25
26	SEL-00094	O'RING, P70
27	SEL-00145	O'RING, S75
28	PLM-02185	FITTING: FLOW ADJUST, 10MM QD x 3/8 NPT, ELL
29	SWT-00084	MICRO SWITCH
30	SCR-00321	RETAINING LOCK NUT, M40-1.5 [YSR]
31	SWT-00069	SENSOR, M12 24VDC
32	SEE #38	SENSOR NUT [INCLUDED W/ SWT-00069]
33	SEE #38	SENSOR WASHER [INCLUDED W/ SWT-00069]
34	SCR-00324	NUT, M16-2.0
35	SCR-00325	SCREW, M4-0.7 X 25MM, SHCS
36	SCR-00179	SCREW, M5-0.8 X 12MM, SHCS
37	SCR-00136	SCREW, M6-1.0 X 12MM, SHCS
38	SCR-00309	SCREW, M6-1.0 X 16MM, SHCS

40 TOOL ATC



Item	Part Number	Description
1	AMP-02001	AMPLIFIER,YASKAWA, 1.5KW [SIG. 7]
2	WIR-02013	CABLE, USB-USB; MECHATROLINK 18" AMP-AMP
3	WIR-02050	CABLE, USB-USB; MECHATROLINK 11' CTR-AMP
4	WIR-02020	CABLE ,AMP TO TERMINAL BLOCK; BATTERY BKP
5	WIR-02119	HARNESS, A-AXIS POWER; AMP TO BULKHEAD
6	WIR-02010	HARNESS, A-AXIS ENCODER; AMP TO BULKHEAD
7	WIR-02012	CABLE; A-AXIS ENCODER, BULKHEAD TO ROTARY
8	WIR-02013	CABLE, A-AXIS POWER; BULKHEAD TO ROTARY
9	PLM-02191	HOSE; 1/4 JIC, STEEL BRAIDED
10a	ROT-02056	ROTARY TABLE; FR-8D [W/OUT MTR]
10b	ROT-02056/MTR	ROTARY TABLE; FR-8D [W/ MTR]
11	PLM-02186	REDUCER; 3/8 NPT - 1/4 NPT
12	PLM-02092	FITTING; 6MM QD X 1/4 MPT ELL
13	PLM-02083	TUBING; NYLON, 6MM
14	SCR-00328	WASHER; 25MM X 14MM X 2.5MM
15	PLM-02192	FITTING; PUSH CONNECT SOCKET HOSE COUPLING
16	PLM-02193	FITTING; QUICK DISCONNECT HOSE COUPLING
17	PLM-02190	FITTING; 1/4 JIC - 1/4 FIPT
18	WIR-02216	SUSPENDED CABLE TENSIONER, ADJUSTABLE



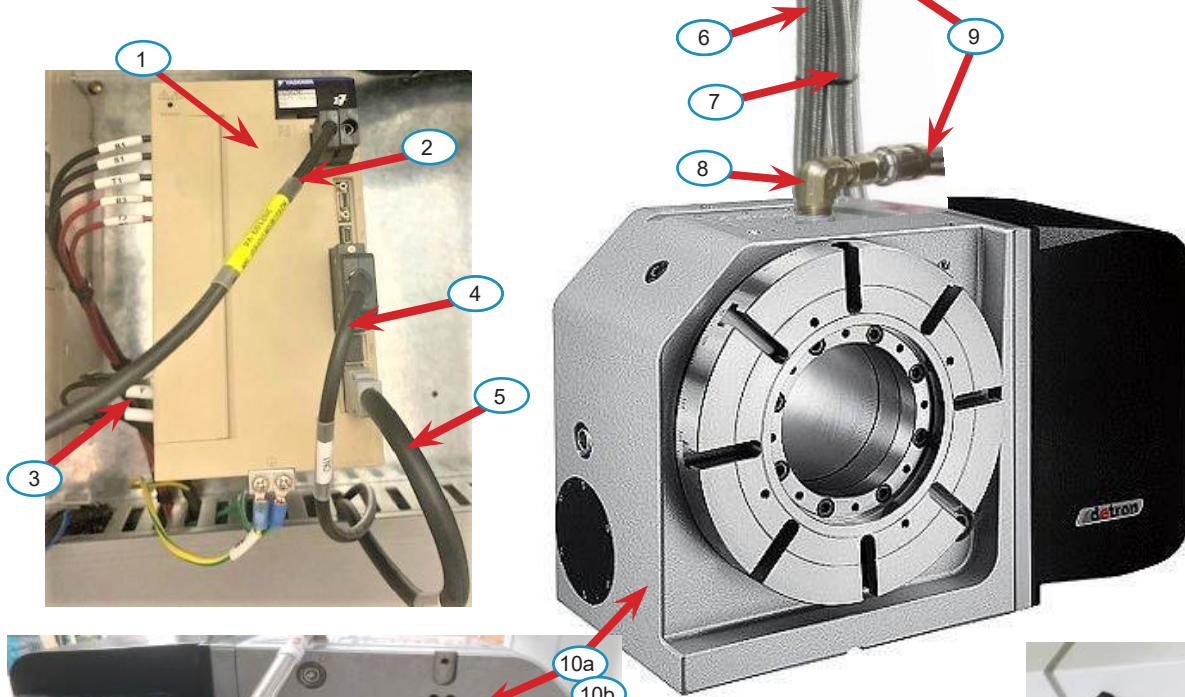
8" ROTARY

Item	Part Number	Description
1	AMP-02017	AMPLIFIER, YASKAWA, 1.5KW [SIG. 7]
2	WIR-02050	CABLE, USB-USB; MECHATROLINK 18" AMP-AMP
3	WIR-02051	CABLE, USB-USB; MECHATROLINK 11' CTR-AMP
4	WIR-02020	CABLE, AMP TO TERMINAL BLOCK; BATTERY BKP
5	WIR-02119	HARNESS, A-AXIS POWER; AMP TO BULKHEAD
6	WIR-02010	HARNESS, A-AXIS ENCODER; AMP TO BULKHEAD
7	WIR-02012	CABLE; A-AXIS ENCODER, BULKHEAD TO ROTARY
8	WIR-02013	CABLE, A-AXIS POWER; BULKHEAD TO ROTARY
9	PLM-02191	HOSE; 1/4 JIC, STEEL BRAIDED
10a	ROT-02073	ROTARY TABLE, 4TH; FR-10D; [NO MOTOR]
10b	ROT-02073/MTR	ROTARY TABLE, 4TH; FR-10D; [W/ MOTOR]
11	PLM-02186	REDUCER; 3/8 NPT - 1/4 NPT
12	PLM-02092	FITTING; 6MM QD X 1/4 MPT ELL
13	PLM-02083	TUBING; NYLON, 6MM
14	HYD-02021	HOSE; HYDRAULIC, 1/4 JIC X 1M
15	REG-02016	AIR REGULATOR
16	VLV-02011	AIR SOLENOID VALVE
17	WIR-02049	CABLE; 2-COND., AWG18 X 10'
18	REG-02013	AIR PRESSURE GAUGE; 0-150 PSI, 1/8
18	HYD-02072	AIR/OIL BOOSTER CYLINDER
19	HYD-02070	OIL PRESSURE GAUGE; 0-1000 PSI

8030B-II OPTIONS

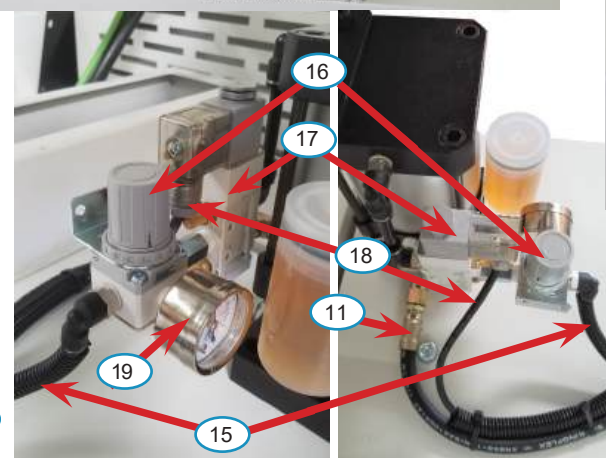
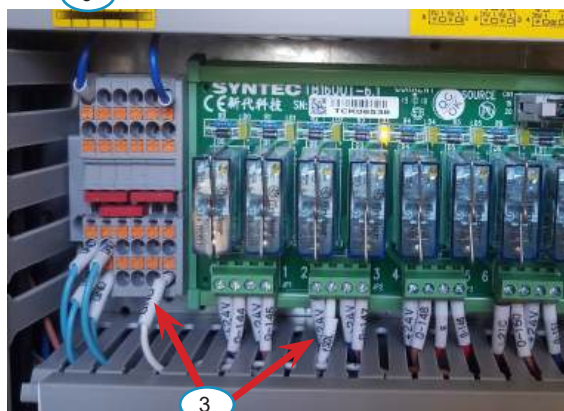
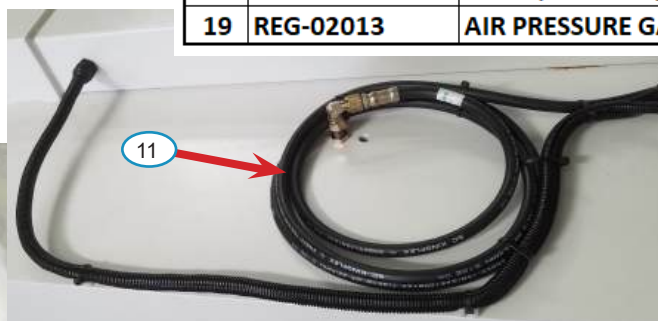
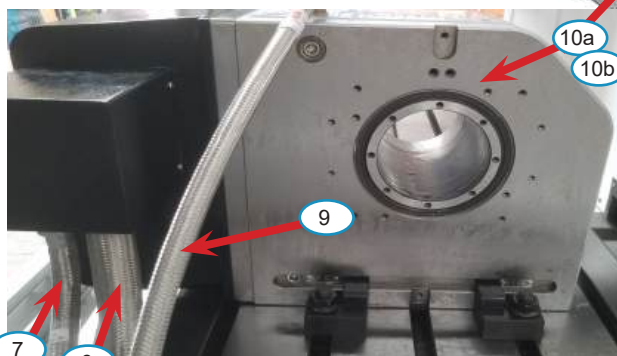
10" ROTARY

PARTS MANUAL 8030B-II, 8032



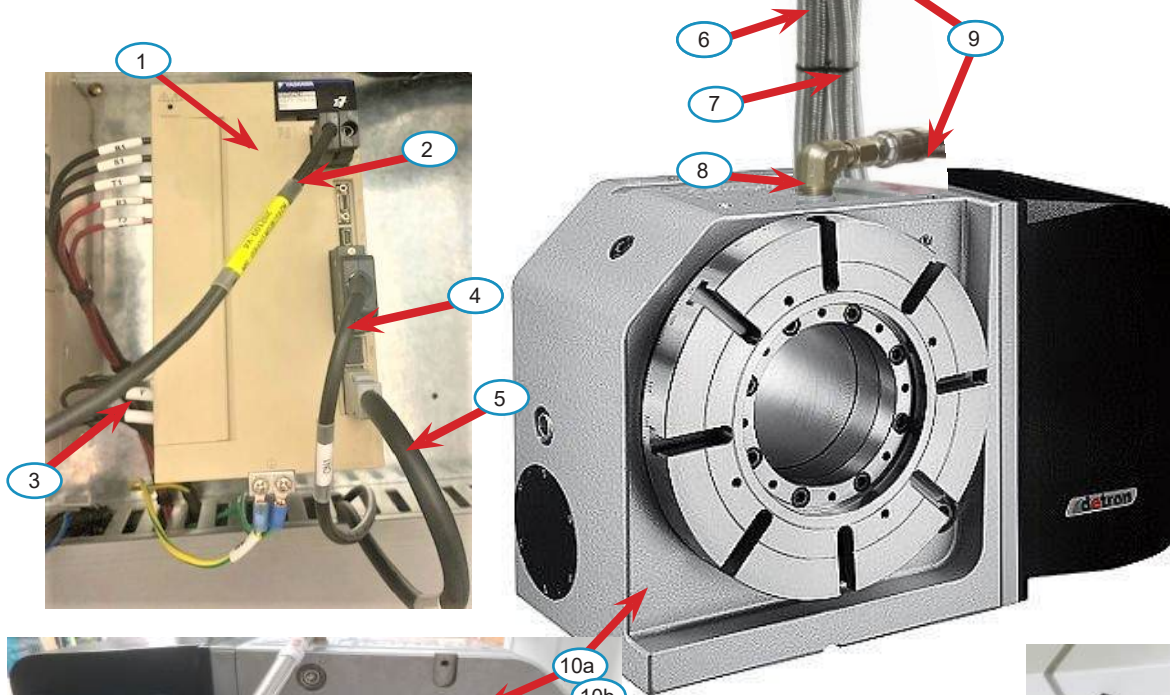
Item	Part Number	Description
1	AMP-02015	AMPLIFIER, YASKAWA, S7-200A
2	WIR-02050	CABLE, USB-USB; MECHATROLINK 18" AMP-AMP
3	WIR-02119	HARNESS, A-AXIS POWER; AMP TO BULKHEAD
4	WIR-02020	CABLE, AMP TO TERMINAL BLOCK; BATTERY BKP
5	WIR-02118	HARNESS, A-AXIS ENCODER; AMP TO BULKHEAD
6	WIR-02012	CABLE, A-AXIS ENCODER; BULKHEAD TO ROTARY
7	WIR-02013	CABLE, A-AXIS POWER; BULKHEAD TO ROTARY
8	PLM-02204	FITTING; 1/4" NPT - 7/16 JIC, ELL
9	PLM-02191	HOSE; 1/4 JIC, STEEL BRAIDED
10a	ROT-02074	ROTARY TABLE, 4TH; FR-12D [NO MOTOR]
10b	ROT-02074/MTR	ROTARY TABLE, 4TH; FR-12D; [W/MOTOR]
11	HYD-02021	HOSE; HYDRAULIC, 1/4 JIC X 1M
12	HYD-02072	AIR/OIL BOOSTER CYLINDER
13	HYD-02070	OIL PRESSURE GAUGE; 0-1000 PSI
14	PLM-02172	FITTING; 6MM QD X 1/4 MPT ELL
15	PLM-02083	TUBING; NYLON, 6MM
16	REG-02016	AIR REGULATOR
17	VLV-02011	AIR SOLENOID VALVE
18	WIR-02049	CABLE; 2-COND., AWG18 X 10'
19	REG-02013	AIR PRESSURE GAUGE; 0-150 PSI, 1/8

8030B-II OPTIONS

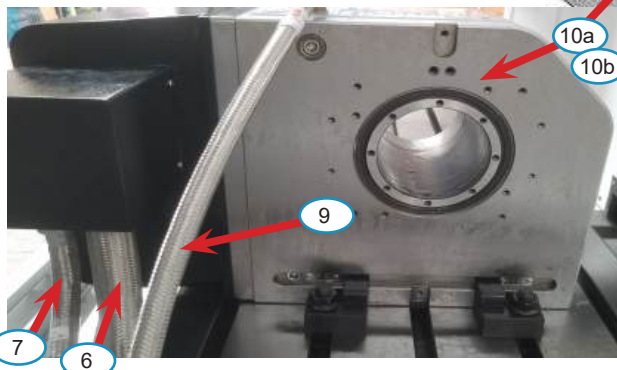


12" ROTARY

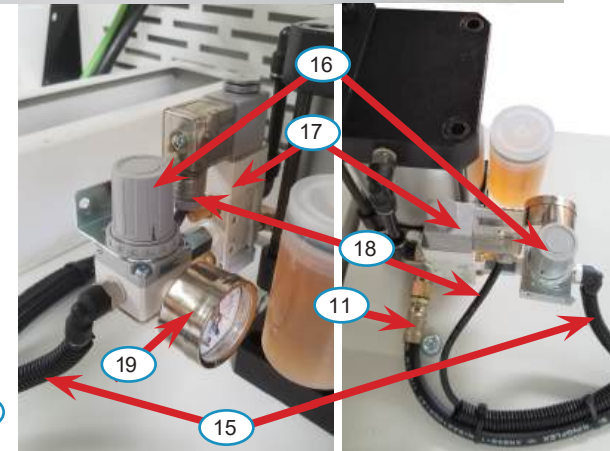
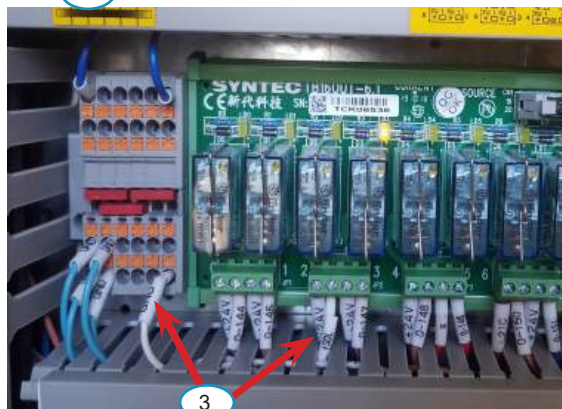
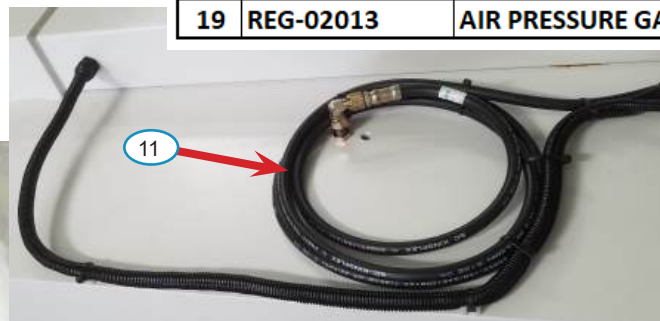
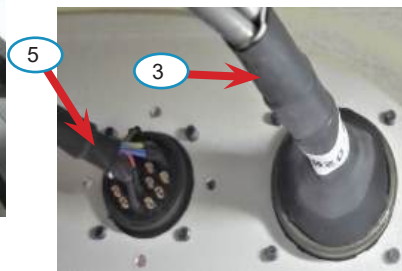
PARTS MANUAL 8030B-II, 8032



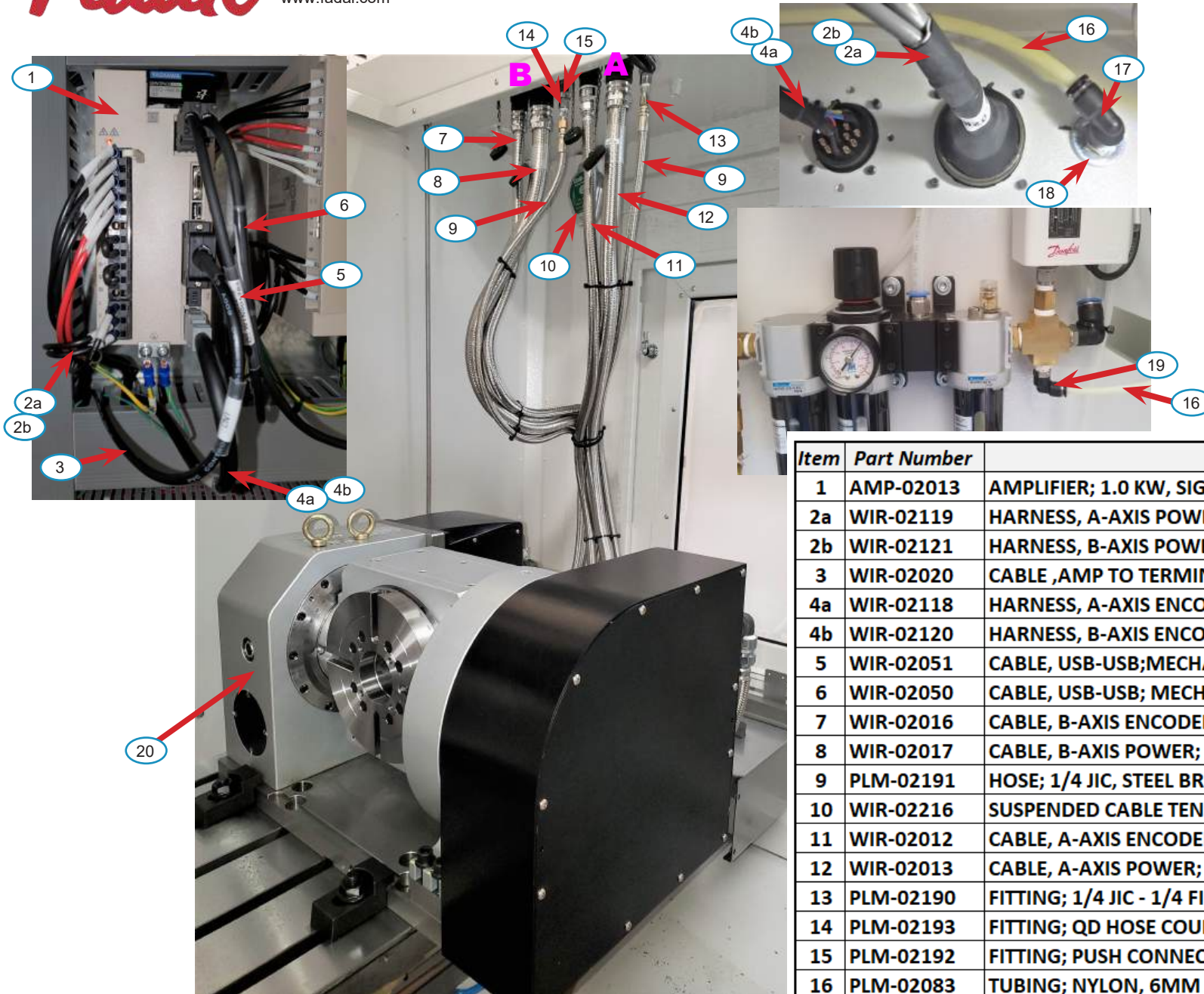
Item	Part Number	Description
1	AMP-02015	AMPLIFIER, YASKAWA, S7-200A
2	WIR-02050	CABLE, USB-USB; MECHATROLINK 18" AMP-AMP
3	WIR-02119	HARNESS, A-AXIS POWER; AMP TO BULKHEAD
4	WIR-02020	CABLE, AMP TO TERMINAL BLOCK; BATTERY BKP
5	WIR-02118	HARNESS, A-AXIS ENCODER; AMP TO BULKHEAD
6	WIR-02012	CABLE, A-AXIS ENCODER; BULKHEAD TO ROTARY
7	WIR-02013	CABLE, A-AXIS POWER; BULKHEAD TO ROTARY
8	PLM-02204	FITTING; 1/4" NPT - 7/16 JIC, ELL
9	PLM-02191	HOSE; 1/4 JIC, STEEL BRAIDED
10a	ROT-02075	ROTARY TABLE, 4TH; FR-12D [NO MOTOR]
10b	ROT-02075/MTR	ROTARY TABLE, 4TH; FR-12D; [W/MOTOR]
11	HYD-02021	HOSE; HYDRAULIC, 1/4 JIC X 1M
12	HYD-02072	AIR/OIL BOOSTER CYLINDER
13	HYD-02070	OIL PRESSURE GAUGE; 0-1000 PSI
14	PLM-02172	FITTING; 6MM QD X 1/4 MPT ELL
15	PLM-02083	TUBING; NYLON, 6MM
16	REG-02016	AIR REGULATOR
17	VLV-02011	AIR SOLENOID VALVE
18	WIR-02049	CABLE; 2-COND., AWG18 X 10'
19	REG-02013	AIR PRESSURE GAUGE; 0-150 PSI, 1/8



6030B-II OPTIONS



15" ROTARY

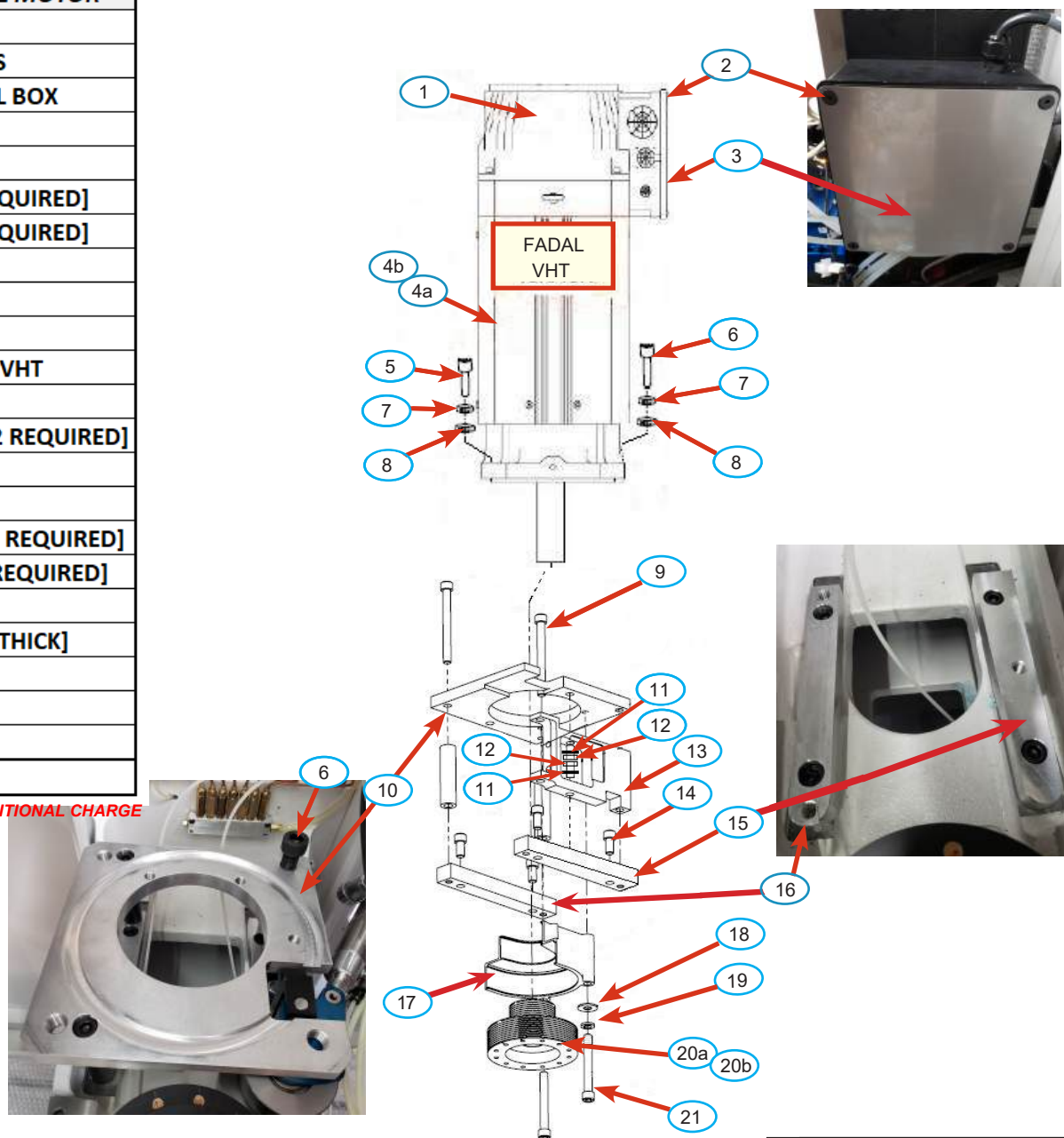


8" TILTING ROTARY

Item	Part Number	Description
1	AMP-02013	AMPLIFIER; 1.0 KW, SIG. 7
2a	WIR-02119	HARNESS, A-AXIS POWER; AMP TO BULKHEAD
2b	WIR-02121	HARNESS, B-AXIS POWER; AMP TO BULKHEAD
3	WIR-02020	CABLE ,AMP TO TERMINAL BLOCK; BATTERY BKP
4a	WIR-02118	HARNESS, A-AXIS ENCODER ;AMP TO BULKHEAD
4b	WIR-02120	HARNESS, B-AXIS ENCODER; AMP TO BULKHEAD
5	WIR-02051	CABLE, USB-USB;MECHATROLINK 11', CTR-AMP
6	WIR-02050	CABLE, USB-USB; MECHATROLINK 18" AMP-AMP
7	WIR-02016	CABLE, B-AXIS ENCODER; BULKHEAD TO ROTARY
8	WIR-02017	CABLE, B-AXIS POWER; BULKHEAD TO ROTARY
9	PLM-02191	HOSE; 1/4 JIC, STEEL BRAIDED
10	WIR-02216	SUSPENDED CABLE TENSIONER, ADJUSTABLE
11	WIR-02012	CABLE, A-AXIS ENCODER; BULKHEAD TO ROTARY
12	WIR-02013	CABLE, A-AXIS POWER; BULKHEAD TO ROTARY
13	PLM-02190	FITTING; 1/4 JIC - 1/4 FIPT
14	PLM-02193	FITTING; QD HOSE COUPLING
15	PLM-02192	FITTING; PUSH CONNECT SOCKET HOSE COUPLING
16	PLM-02083	TUBING; NYLON, 6MM
17	PLM-02092	FITTING; 6MM QD X 1/4MPT ELL
18	SCR-00328	WASHER; 25MM X 14MM X 2.5MM
19	PLM-02172	FITTING, 6MM QD X 3/8 MALE NPT, ELL
20	ROT-02061	TILTING ROTARY TABLE, 4/5TH;[FTR-8D];[W/ CABLES/MTRS

Item	Part Number	Description - VHT OPTIONAL SPINDLE MOTOR
1	FAN-02014	COOLING FAN
2	SCR-00090	SCREW; M6-1.0 X 8MM, FLATHEAD SCS
3	MTR-02011	COVER PLATE; VHT MOTOR ELECTRICAL BOX
4a	MTR-02078/38	VHT SPINDLE MOTOR; 38MM SHAFT *
4b	MTR-02078/48	VHT SPINDLE MOTOR; 48MM SHAFT *
5	SCR-00330	SCREW; M18-2.5 X 18MM, SHCS [3 REQUIRED]
6	SCR-00331	SCREW; M18-2.5 X 34MM, SHCS [1 REQUIRED]
7	SCR-00273	LOCK WASHER; M18
8	SCR-00274	FLAT WASHER; M18
9	SCR-00051	SCREW; 1/2-13 X 5, SHCS
10	MTR-02099	MOTOR MOUNTING PLATE; FADAL, 20VHT
11	SCR-00129	LOCK WASHER; M12 [2 REQUIRED]
12	SCR-00292	SCREW; M12-1.25 X 30MM, HEXCAP [2 REQUIRED]
13	IDL-02015	IDLER FRAME [SEE ALSO PG. 19]
14	SCR-00030	SCREW; 1/2-13 X 1, SHCS
15	MTR-02101	MOTOR MOUNT BAR; VHT-RT. SIDE [1 REQUIRED]
16	MTR-02006	MOTOR MOUNT BAR; STANDARD [1 REQUIRED]
17	BEL-02004	BELT GUIDE; SPINDLE MOTOR
18	SCR-00001	HARD WASHER; 1/2 ID [3/4 OD X .125 THICK]
19	SCR-00002	LOCK WASHER; 1/2
20a	PUL-02005/38	PULLEY; SPINDLE MOTOR; 38MM ID
20b	PUL-02005/48	PULLEY; SPINDLE MOTOR; 48MM ID
21	SCR-00013	SCREW; 1/2-13 X 4, SHCS

* SPINDLE MOTOR CAN BE ORDERED WITH PULLEY AND BALANCED FOR AN ADDITIONAL CHARGE



VHT SPINDLE MOTOR