

E11, E15 & E20 Electric Option

Safety, Operation, Maintenance & Parts Manual

LT20 Series

Rev. E4.06



Safety is our #1 concern! Read and understand all safety information and instructions before operating, setting up or maintaining this machine.

Form #616

Table of Contents

Section-Page

SECTION 1	OPERATION	1-1
1.1	Starting The Motor	1-1
1.2	Blade Rotation Change.....	1-1
SECTION 2	MAINTENANCE	2-1
2.1	Drive Belt	2-1
SECTION 3	REPLACEMENT PARTS	3-1
3.1	How To Use The Parts List	3-1
3.2	Sample Assembly	3-1
3.3	Motor Starter Box Assembly.....	3-2
3.4	Electric Motor Assembly	3-3
3.5	Electric Motor Assembly E20	3-5
3.6	Power Cord Bracket	3-7
3.7	LT20 RC Power Cord Hanger (No. 600872)	3-8
SECTION 4	MOTOR KIT E15-LT20 JAPAN	4-1
4.1	Motor Kit E15-20J JAPAN	4-2
4.2	Power Cord Bracket 091599	4-4
4.3	Control Box 097136	4-5
4.4	Motor Assembly 098300-7	4-6
4.5	Power Feed Assembly (597521-7)	4-8
4.6	Blade Lube System Kit 503517	4-9
4.7	Front Control Panel 097131	4-10
4.8	Sprocket Assembly 512276	4-11
4.9	Motor Assembly 098299	4-12
SECTION 5	DC ELECTROMAGNETIC BRAKE (CE ONLY), SIEMENS MOTORS	5-1
5.1	Design and Principle of Operation	5-1
5.2	Service	5-2
SECTION 6	DERELI ELECTROMAGNETIC BRAKE, BIBUS-ELK MOTORS	6-1
6.1	Brake parts.....	6-1
6.2	Design and Principle of Operation	6-2
6.3	Service	6-2

SECTION 1 OPERATION

1.1 Starting The Motor



DANGER! Always be sure all persons are away from the blade before starting the motor.

DANGER! Push the emergency switch located on the LT20 control box, to stop the sawmill immediately.

LT20 Series

Turn on the main switch to start the motor. When the power is on the white control light located on the box door comes on. When all covers are closed white “ready” control light comes on.


1.2 Blade Rotation Change

Make sure the blade rotation is correct as shown in the motor housing after starting an electric motor sawmill.

Turn off the blade motor using the “Stop” switch located on the front of the control box. Disconnect the starter box using the main switch, and disconnect the plug located on the left side of the starter box.


Then, with the screwdriver turn the phase converter switch (red switch at the bottom of the connector) to the right or to the left, and rotate it about 180° - this converts the phases and changes the blade rotation.


SECTION 2 MAINTENANCE

 **This symbol** identifies the interval (hours of operation) which each maintenance procedure should be performed. "AR" signifies maintenance procedures which should be performed as required.

2.1 Drive Belt

 Periodically check all belts for wear. Replace any damaged or worn belts as needed.

 Adjust the drive belt support as needed. The drive belt support is designed to extend belt life.

 **DANGER!** Do not for any reason adjust the drive belt support with the motor running. Always stop the motor before reaching or looking into the drive belt area.

SECTION 3 REPLACEMENT PARTS

3.1 How To Use The Parts List

- Use the table of contents or the index to locate the assembly that contains the part you need.
- Go to the appropriate section and locate the part in the illustration.
- Use the number pointing to the part to locate the correct part number and description in the table.
- Parts shown indented under another part are included with that part.
- Parts marked with a diamond (◆) are only available in the assembly listed above the part.

See the sample table below. Sample Part #A01111 includes part F02222-2 and subassembly A03333. Subassembly A03333 includes part S04444-4 and subassembly K05555. The diamond (◆) indicates that S04444-4 is not available except in subassembly A03333. Subassembly K05555 includes parts M06666 and F07777-77. The diamond (◆) indicates M06666 is not available except in subassembly K05555.

3.2 Sample Assembly				
REF.	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	SAMPLE ASSEMBLY, COMPLETE (INCLUDES ALL INDENTED PARTS BELOW)	A01111	1	
1	Sample Part	F02222-22	1	
	Sample Subassembly (Includes All Indented Parts Below)	A03333	1	
2	Sample Part (◆ Indicates Part Is Only Available With A03333)	S04444-4	1	◆
	Sample Subassembly (Includes All Indented Parts Below)	K05555	1	
3	Sample Part (◆ Indicates Part Is Only Available With K05555)	M06666	2	◆
4	Sample Part	F07777-77	1	

To Order Parts:

- From Europe call our European Headquarters and Manufacturing Facility in Kolo, Poland at **+48-63-2626000**. From the continental U.S., call **1-800-448-7881** to order parts. Have your customer number, vehicle identification number, and part numbers ready when you call.
- From other international locations, contact the Wood-Mizer distributor in your area for parts.

3 REPLACEMENT PARTS

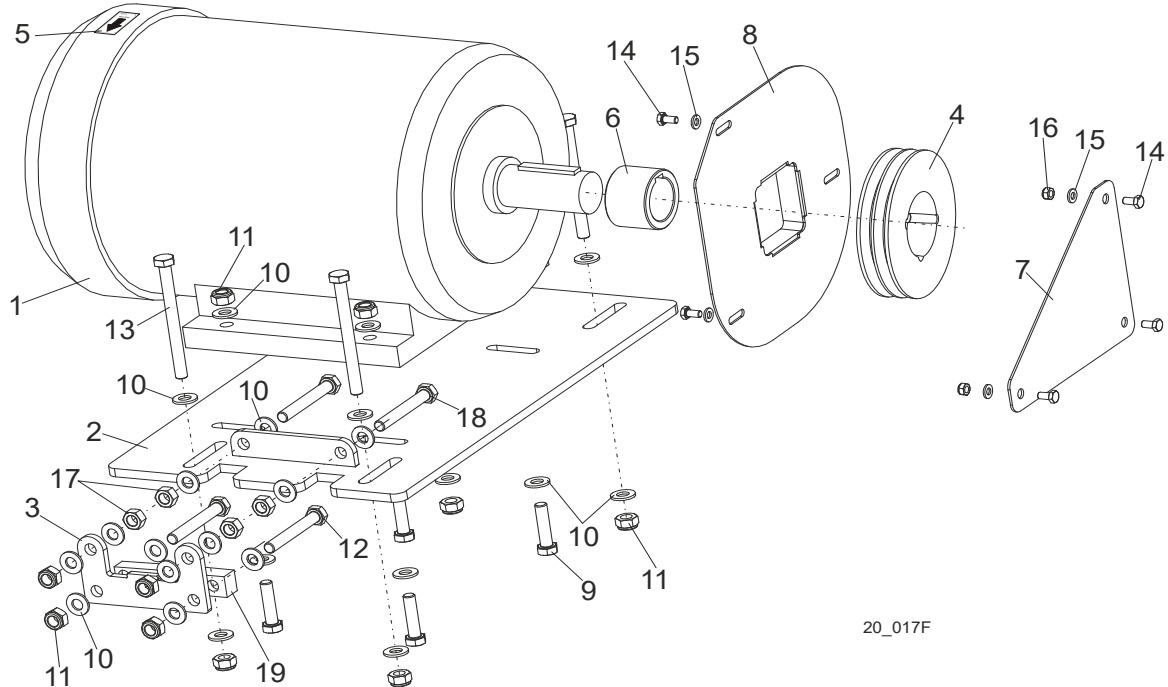
Motor Starter Box Assembly

3.3 Motor Starter Box Assembly



REF.	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	STARTER ASSEMBLY, LT20 11HP & 15HP 3-PHASE 50HZ ELECTRIC MOTOR	597501	1	
	BOX, LT20 AC ELECTRIC (NORWAY)	096017-2	1	
	CABLE, OLFLEX CLASSIC 400P 12G2.5	R80585-52	2.1 m	
	CABLE GLAND, PG21 1060.21 BRASS	F81096-5	1	

3.4 Electric Motor Assembly



20_017F

REF.	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY
1	MOTOR, 11kW AEL132M2C-PD-DHF	597502	1
	BRAKE PADS	605912	1
	FAN, IRON CAST	605913	1
	ELECTROMAGNET	605914	1
	SPRING, CENTRAL	605915	1
	COVER, BRAKE AND FAN	605916	1
2	MOUNT WELDMENT, E15 ELECTRIC MOTOR COMPLETE	097927-1	1
3	PLATE, BELT TENSIONER	097821-1	1
4	PULLEY, E15 MOTOR 2-GROOVE	091560	1
5	DECAL, MOTOR REVOLUTIONS DIRECTION - 2925 r.p.m.	S20097F	1
6	BUSHING, LT20 MOTOR SPACER	091639-1	1
7	PLATE, MOUNTING CAP	094247-1	1
8	GUARD, E15 SHAFT	589527-1	1
9	BOLT, M10x40-8.8 HEX HEAD FULL THREAD ZINC	F81003-16	4
10	WASHER, 10.5 FLAT ZINC	F81055-1	26
11	NUT, M10-8-B NYLON HEX ZINC LOCK	F81033-1	8
12	BOLT, M10x75-8.8 HEX HEAD ZINC	F81003-15	2
13	BOLT, M10x110-8.8 HEX HEAD ZINC	F81003-43	4
14	BOLT, M6x12-8.8 HEX HEAD ZINC	F81001-7	6
15	WASHER, 6.4 FLAT ZINC	F81053-1	6
16	NUT, M6-8-B HEX NYLON LOCK ZINC	F81031-2	3
17	NUT, M10-8-B HEX ZINC	F81033-3	4

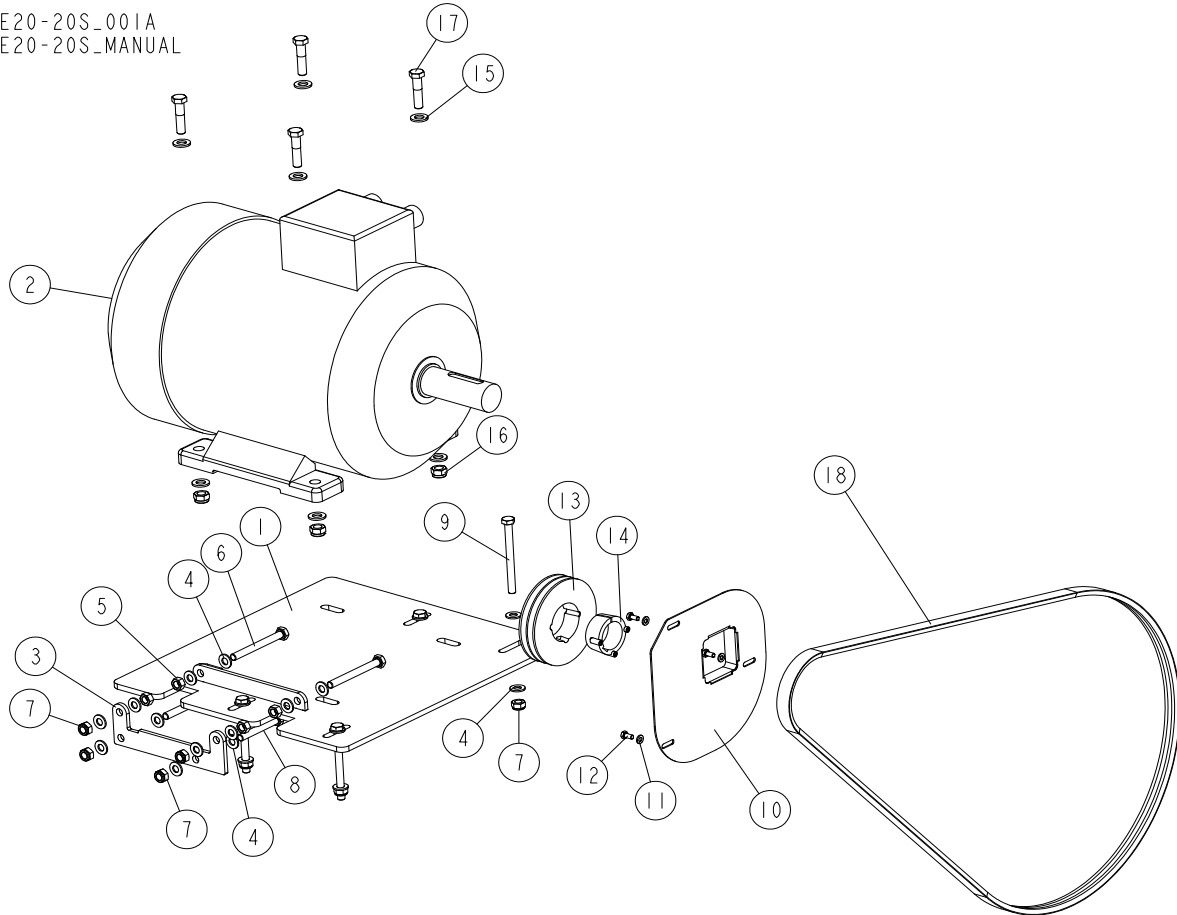
3 REPLACEMENT PARTS

Electric Motor Assembly

18	BOLT, M10x100-8.8 HEX HEAD FULL THREAD ZINC	F81003-91	2	
19	E15J SPACER PLATE	589524-1	1	

3.5 Electric Motor Assembly E20

E20-20S_001A
 E20-20S_MANUAL



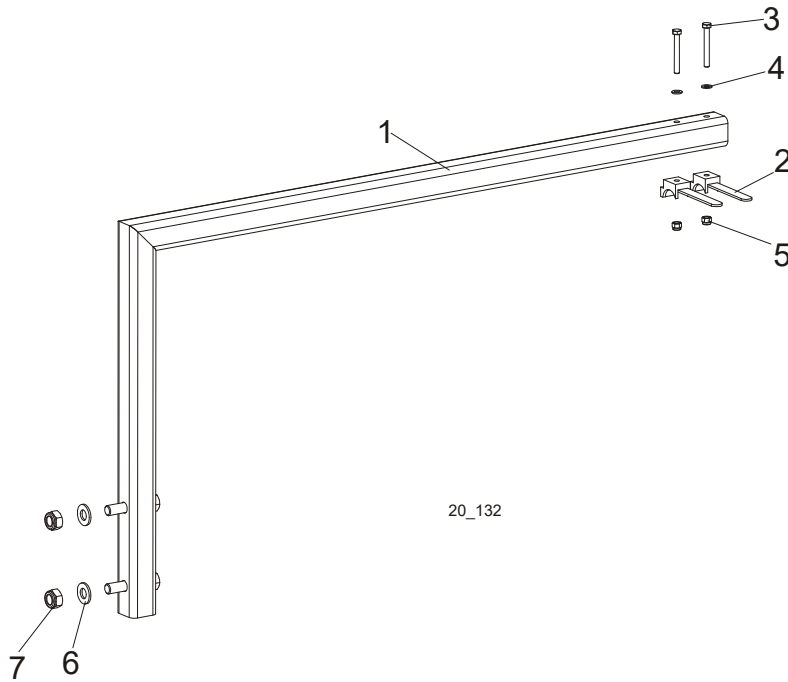
REF.	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY
1	MOUNT WELDMENT, E20 ELECTRIC MOTOR COMPLETE	539306-1	1
2	MOTOR.15KW 380-420W 2SG160M-2B(B/HM) ELECTRIC MOTOR 15KW WP-DA160M B3 (3SG160M-2) 230	086856 086856-2	1
3	PLATE, BELT TENSIONER	539309-1	1
4	WASHER, 10.5 FLAT ZINC	F81055-1	20
5	NUT, M10-8-B-FE	F81033-3	4
6	BOLT, M10X100-8.8 ZINC	F81003-91	2
7	NUT,M10-8-B NYLON HEX ZINC LOCK	F81033-1	8
8	BOLT, M10X75-8.8-FE/ZN5 PN-M/82101	F81003-15	2
9	BOLT, M10X110 8.8 HEX HEAD ZINC	F81003-43	4
10	GUARD, E20 SHAFT	539310-1	1
11	WASHER 6.4 FE/ZN5 PN-78/M-82005	F81053-1	3
12	BOLT M6X12 8.8 FE/ZN5	F81001-7	3
-	PULLEY, E20 MOTOR SPZ106-2/FI42	550783	1
13	PULLEY. SPZ 125-2 (F02173) PULLEY. SPZ 106-2 (F02159) Japan version	538724 550782	1

3 REPLACEMENT PARTS

Electric Motor Assembly E20

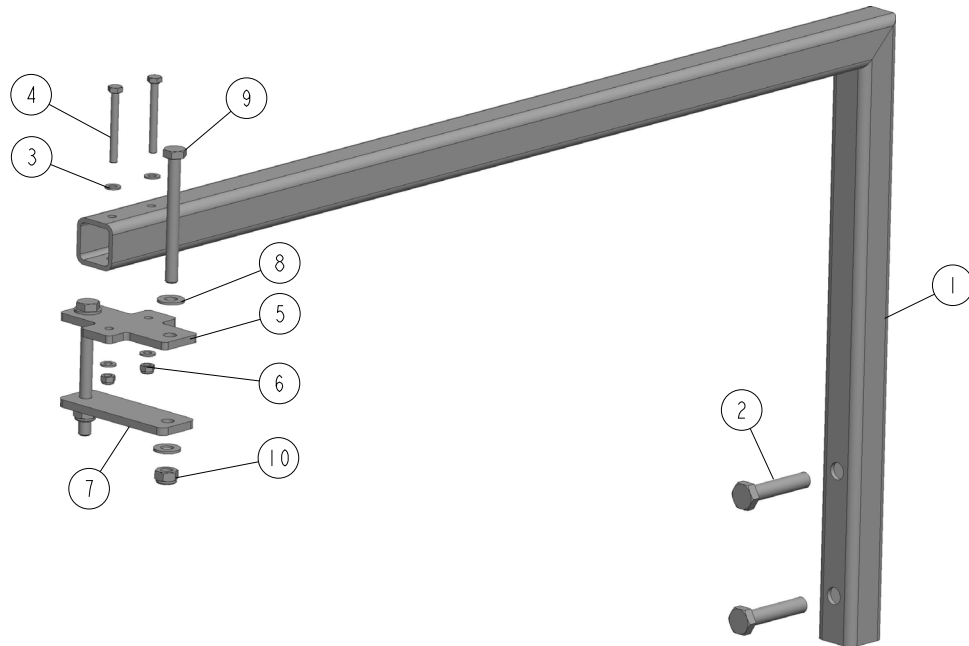
REF.	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY	
14	TAPER LOCK 1610-42 (T31081) TAPER LOCK 1610-38 T31079, TAPER LOCK 1610-38 (T31079) JAPAN	538921 538723	1	
15	WASHER, M12 , FLAT, ZINC	F81056-1	8	
16	NUT,M12-8 ,HEX,NYLON,ZINC,LOCK	F81034-2	4	
17	BOLT M12X50 8.8	F81004-74	4	
18	BELT, BX2101LP LT20	014819-2	1	

3.6 Power Cord Bracket



REF.	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY
	BRACKET, LT20 POWER CORD COMPLETE	091599	1
1	Bracket, LT20 Power Cord	091598-1	1
2	Holder, Cable Plastic Tie	F81082-1	2
3	Bolt, M5x40-8,8 Hex Head	F81000-11	2
4	Washer, 5.3 Flat Zinc	F81052-1	2
5	Nut, M5-8 Nylon Lock Zinc	F81030-2	2
6	WASHER, 10.5 FLAT ZINC	F81055-1	2
7	NUT, M10 NYLON HEX ZINC LOCK	F81033-1	2

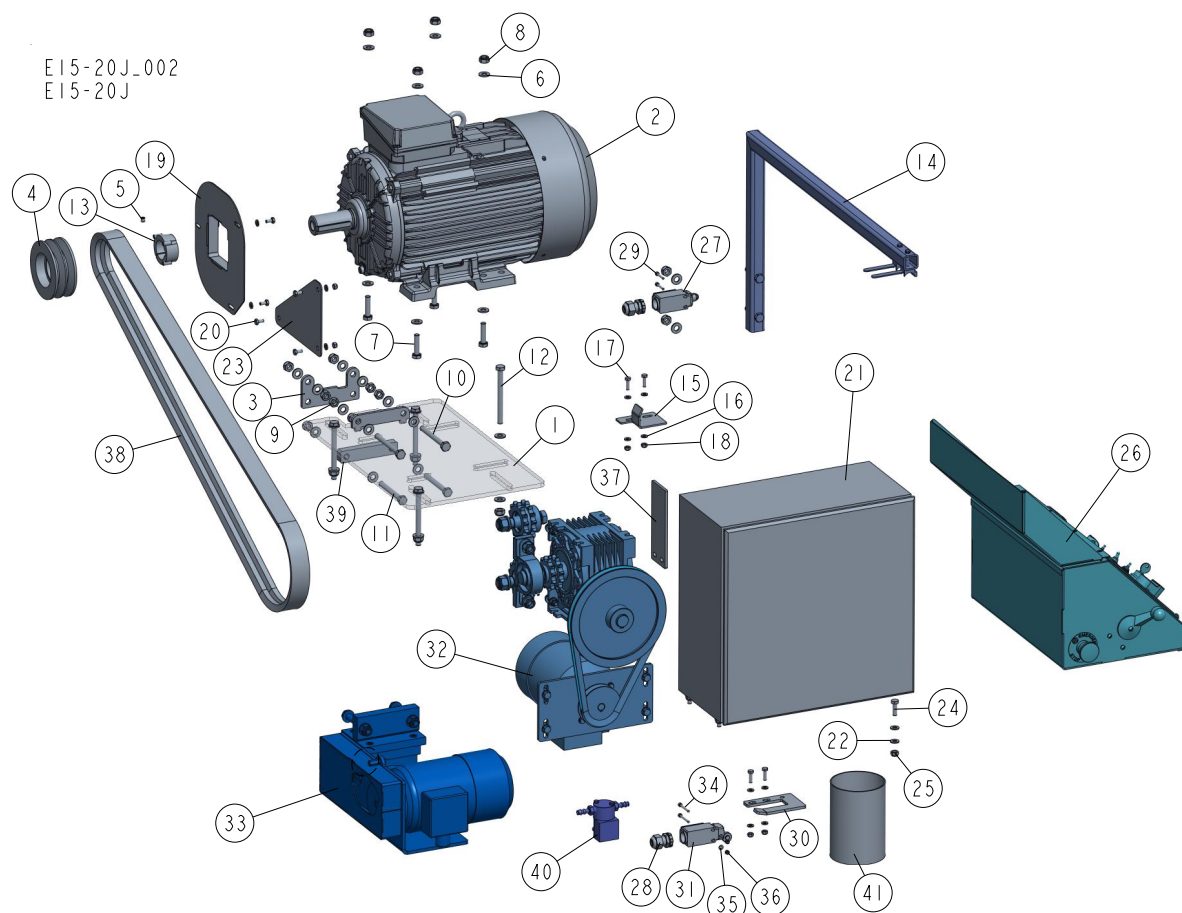
3.7 LT20 RC Power Cord Hanger (No. 600872)

600872_001
600872

REF.	DESCRIPTION (* indicates parts available in assemblies only)	PART #	QTY	
-	HANGER, LT20 RC POWER CORD - COMPLETE	600872	1	
1	HANGER WELDMENT, LT20 POWER CORD	091598-1	1	
2	BOLT, M10X50-8.8 HEX HEAD FULL THREAD ZINC	F81003-4	2	
3	WASHER, 5.3 FLAT ZINC	F81052-1	4	
4	BOLT, M5X45 DIN933-A2-70 STAINLESS STEEL	F81000-22	2	
5	PLATE, RC POWER CORD HANGER (2)	600873-1	1	
6	NUT, M5-8-FE/ZN5 DIN985	F81030-2	2	
7	PLATE, RC POWER CORD HANGER	539369-1	1	
8	WASHER, 8.4 FLAT ZINC	F81054-1	4	
9	BOLT, M8X80-8.8 HEX HEAD ZINC	F81002-18	2	
10	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	2	

SECTION 4 MOTOR KIT E15-LT20 JAPAN

4.1 Motor Kit E15-20J JAPAN

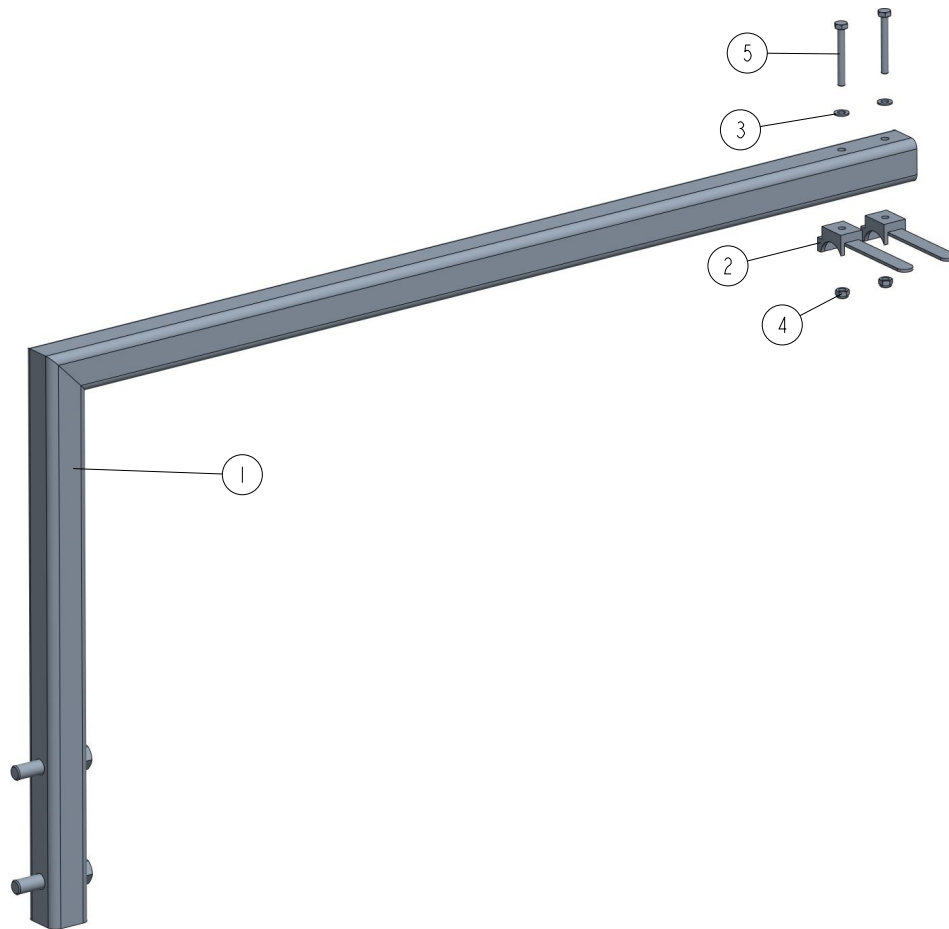


REF	DESCRIPTION (◆ indicates parts available in assemblies only)	PART #	QTY
-	MOTOR ASSEMBLY E15-LT20 JAP	E15-20J	1
1	MOUNT WELDMENT, E15 ELECTRIC MOTOR COMPL	097927-1	1
2	MOTOR 3SIE 132M2A-HM 11KW E15 3540 1/MIN	089049-7	1
3	PLATE, BELT TENSIONER	097821-1	1
4	PULLEY SPB-2 D=106 TAPER LOCK N05838	594003	1
5	SCREW, M8X8-33H HEX SOCKET SET FLAT POIN	F81014-1	1
6	WASHER, 10.5 FLAT ZINC	F81055-1	30
7	BOLT, M10 X 40-8.8 HEX HEAD FULL THREAD	F81003-16	4
8	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	14
9	NUT, M10 8 HEX ZINC	F81033-3	4
10	BOLT, M10X100-8.8 HEX HEAD FULL THREAD Z	F81003-91	2
11	BOLT, M10X90-8.8-B HEX HEAD ZINC	F81003-66	2
12	BOLT, M10X110-8.8 HEX HEAD ZINC	F81003-43	4
13	TAPER LOCK 1610-38 (T31079)	538723	1
14	BRACKET, LT20 POWER CORD COMPLETE See Section 4.2	091599	1
15	BRACKET, LIMIT SWITCH	091682-1	1
16	WASHER, 6.4 FLAT ZINC	F81053-1	14
17	BOLT, M6X20-8.8 HEX HEAD FULL THREAD ZIN	F81001-2	4
18	NUT, M6-8-B HEX NYLON LOCK ZINC	F81031-2	7
19	GUARD, E15 SHAFT	589527-1	1

REF	DESCRIPTION (◆ indicates parts available in assemblies only)	PART #	QTY	
20	BOLT, M6X12-8.8 HEX HEAD FULL THREAD ZIN	F81001-7	6	
21	BOX,ELECTRIC LT20	096017-7	1	
22	WASHER, 8.4 FLAT ZINC	F81054-1	8	
23	PLATE, COVER	094247-1	1	
24	BOLT, M8X25-8.8-B HEX HEAD FULL THREAD Z	F81002-5	4	
25	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	4	
26	CONTROL BOX ASSEMBLY, LT20 AC COMPLETE See Section 4.3	097136	1	
27	SWITCH, FA134 Z11 SAFETY	100910	1	
28	GLAND, ST PG 13.5 GREY CABLE	086524	2	
29	SCREW, M4X25-8.8 HEX SOCKET HEAD CAP ZIN	F81011-3	2	
30	BRACKET, LIMIT SWITCH	091852-1	1	
31	SWITCH, FA138 Z11LIMIT	100931	1	
32	MOTOR ASSEMBLYG/D LT20/AC JAP. See Section 4.4	098300-7	1	
33	POWER FEED ASSEMBLY LT20 AC JAP. See Section 4.5	091196-7	1	
34	SCREW, M4X35-8.8 HEX SOCKET HEAD CAP ZIN	F81011-34	2	
35	WASHER 4.3 FLAT ZINC	F81051-2	2	
36	NUT, M4-8 HEX NYLON ZINC LOCK	F81029-1	2	
37	PLATE, GUIDE	098662-1	1	
38	BELT, OPTIBELT 2XPB 2100 LD DRIVE	557191	1	
39	E15J SPACER PLATE (JAPAN VERSION ONLY)	589524-1	1	
40	KIT, LT20AC BLADE LUBE SYSTEM See Section 4.6	503517	1	
41	TUBING, 4" I.D. RUBBER	086364	1	

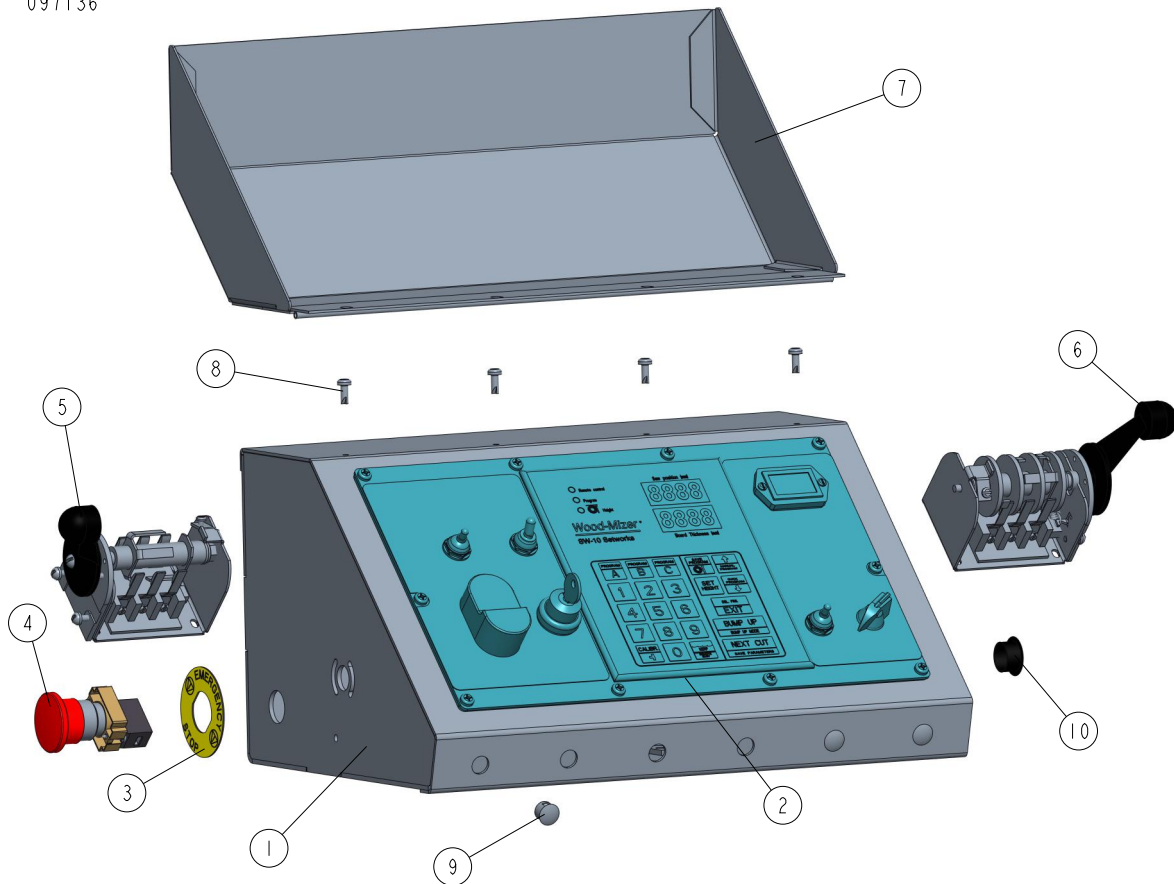
4.2 Power Cord Bracket 091599

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091599



REF	DESCRIPTION (◆ indicates parts available in assemblies only)	PART #	QTY	
-	BRACKET, LT20 POWER CORD COMPLETE	091599	1	
1	BRACKET, LT20 POWER CORD	091598-1	1	
2	HOLDER - PLASTIC CABLE TIE	F81082-1	2	
3	WASHER, 5.3 FLAT ZINC	F81052-1	2	
4	NUT, M5-8 DIN985 ZINC-PLATED	F81030-2	2	
5	BOLT, M5 X 40 8.8 HEX HEAD	F81000-11	2	

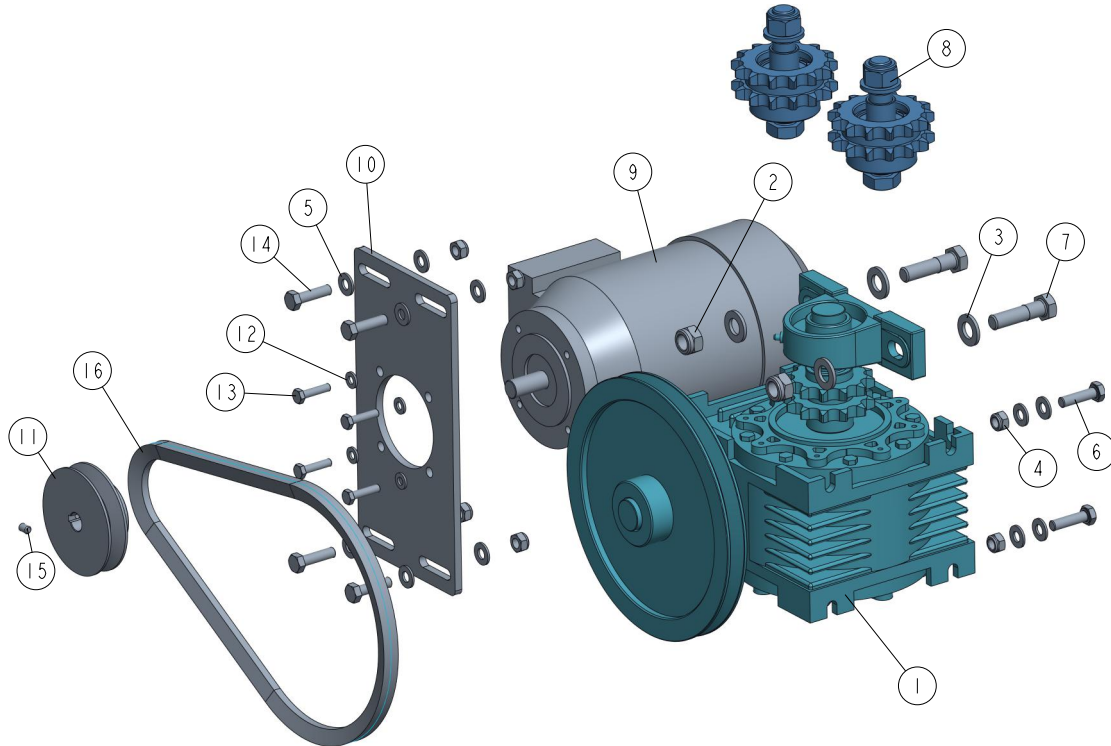
4.3 Control Box 097136

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097136

REF	DESCRIPTION (◆ indicates parts available in assemblies only)	PART #	QTY
-	CONTROL BOX ASSEMBLY, LT20 AC COMPLETE	097136	1
1	BOX WELDMENT, LT20 AC CONTROL	097134-1	1
2	PANEL, LT20AC FRONT CONTROL COMPLETE See Section 4.7	097131	1
3	WASHER, E-STOP	086561	1
4	BUTTON, XB4 BS542 EMERGENCY STOP	086556	1
5	SWITCH ASSEMBLY, POWER FEED DRUM	E20438	1
6	SWITCH, 1992 UP/DOWN	E20440	1
7	COVER WELDMENT, LT20/40 COMPLETE	097135-1	1
8	BOLT, #10-24X1/2 PH	F05015-17	4
9	PLUG, 12.7 HEYMAN DP-812 HOLE	086773	3
10	CAP, SR1086 22.2 DIA. HOLE	093544	1

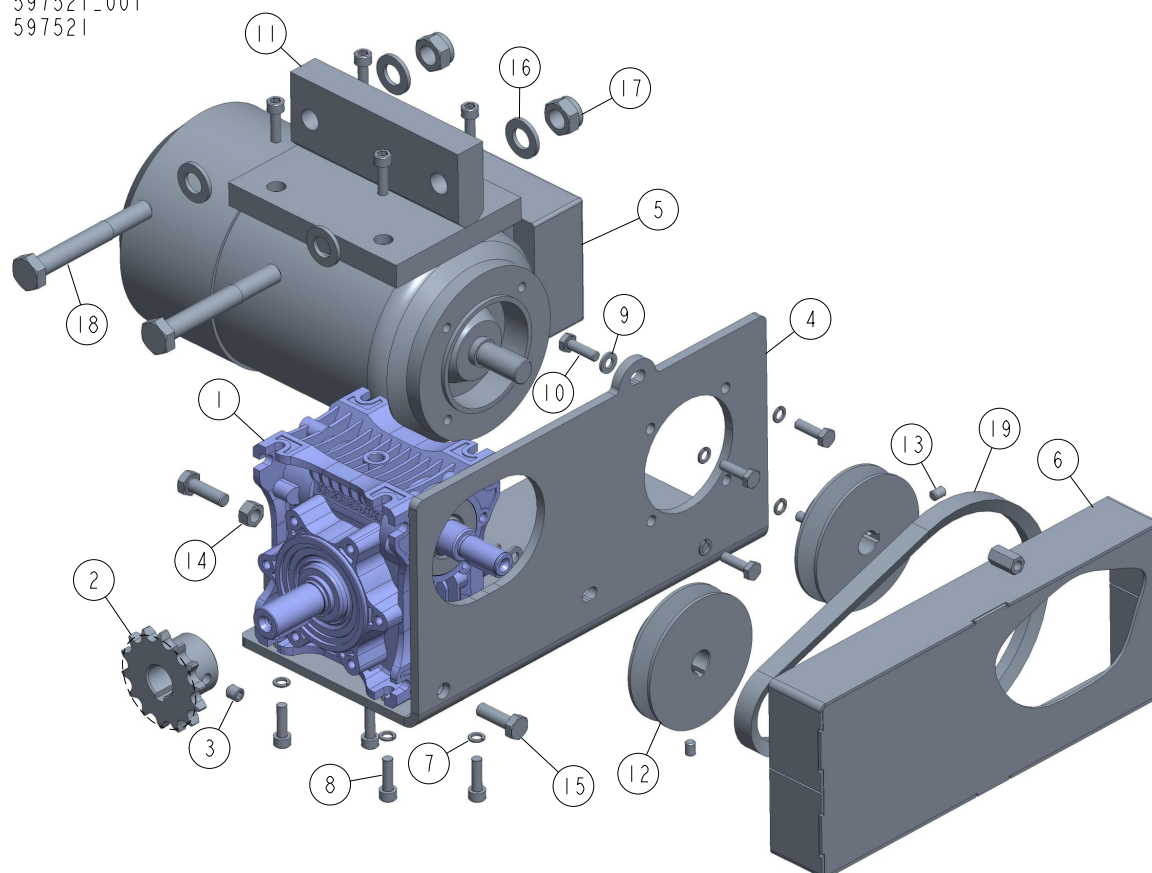
4.4 Motor Assembly 098300-7

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098300-7



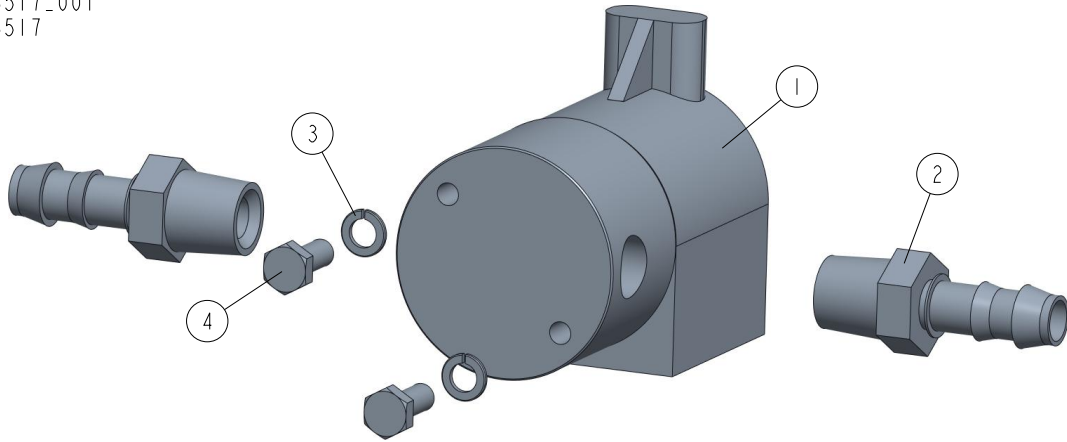
REF	DESCRIPTION (◆ indicates parts available in assemblies only)	PART #	QTY
-	MOTOR ASSEMBLY LT20/AC JAP.	098300-7	1
1	MOTOR ASSEMBLY, LT20 UP/DOWN See Section 4.9	098299	1
2	NUT, M12-8 HEX NYLON ZINC LOCK	F81034-2	2
3	WASHER, 13 FLAT ZINC	F81056-1	4
4	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	8
5	WASHER, 8.4 FLAT ZINC	F81054-1	16
6	BOLT, M8X30 8.8 HEX HEAD FULL THREAD ZIN	F81002-7	4
7	BOLT, M12X45 8.8 HEX HEAD ZINC	F81004-32	2
8	SPROCKET ASSEMBLY See Section 4.8	512276	2
9	MOTOR, SKH 71- 4B2 RAL 9005	091304	1
10	PLATE, LT20AC UP/DOWN MOTOR MOUNT	098355-1	1
11	PULLEY, LT20 POWER FEED GEAR BOX	090699-1	1
12	WASHER, 6.4 FLAT ZINC	F81053-1	4
13	BOLT, M6X25 -8.8 HEX HEAD FULL THREAD ZI	F81001-3	4
14	BOLT, M8X30-8.8-B HEX HEAD FULL THREAD Z	F81002-2	4
15	SCREW, M6X8-33H-GEOMET HEX SOCKET SET W/	F81013-1	2
16	V-BELT, HA-800 (KLEBERG)	091086	1

4.5 Power Feed Assembly (597521-7)

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597521

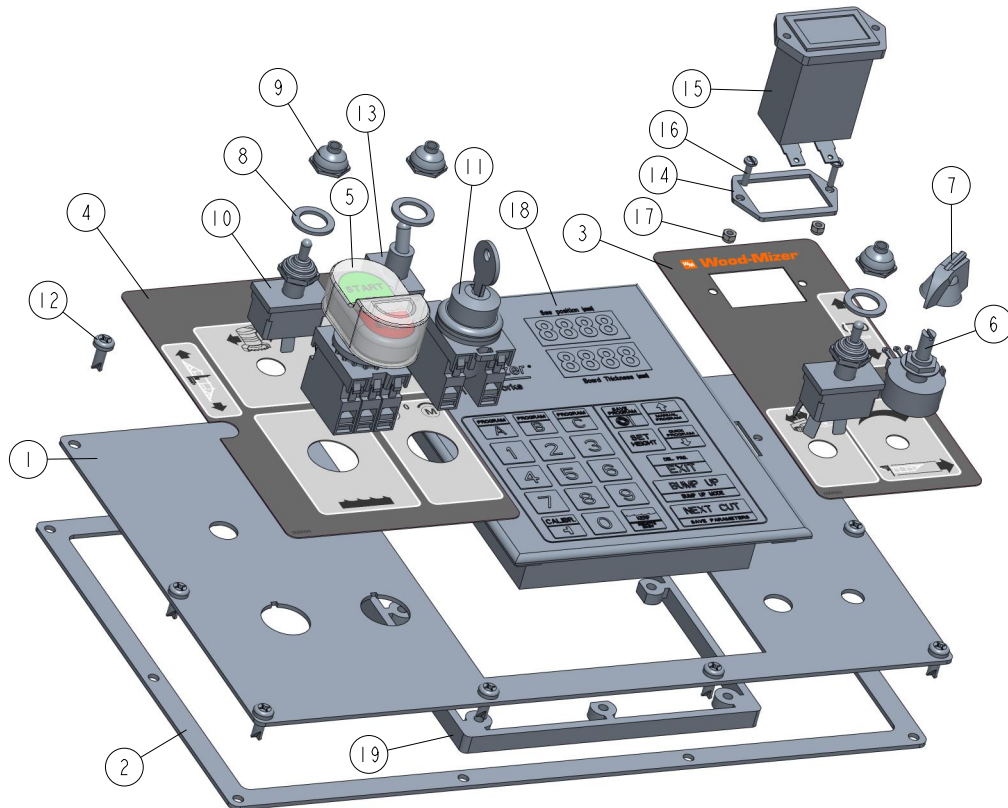
REF	DESCRIPTION (◆ indicates parts available in assemblies only)	PART #	QTY
-	POWER FEED ASSEMBLY, LT20 AC JAP.	597521-7	1
1	GEAR BOX, MRA-04/7,5-WBS-WJ/1-N/S-B8	597515	1
2	SPROCKET, 08B Z14 ZINC-PLATED	090702-1	1
3	SCREW, M8 X 8-33H	F81014-1	1
4	BLACHA UCHWYTOWA REDUKTORA P/T LT20 AC MAL.	597520-1	1
5	MOTOR SKH71X-2C2; 0.75KW; 2780R/MIN.	097313-7	1
6	GUARD, POWER FEED DRIVE BELT	091195-1	1
7	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	8
8	SCREW, M6X20 8.8 HEX SOCKET HEAD CAP ZIN	F81001-22	8
9	WASHER, 6.4 FLAT ZINC	F81053-1	2
10	BOLT, M6X20-8.8 HEX HEAD FULL THREAD ZIN	F81001-2	6
11	BRACKET, POWER FEED GEAR BOX MOUNT	597518-1	1
12	PULLEY, LT20 POWER FEED GEAR BOX	090699-1	2
13	SCREW, M6 X 8 BLACK OXIDE SOCKET HEAD SE	F81013-1	2
14	NUT, M8-8-B HEX ZINC	F81032-1	2
15	BOLT, M8X25-8.8-B-HEX HEAD FULL THREAD Z	F81002-5	2
16	WASHER, 13 FLAT ZINC	F81056-1	4
17	NUT, M12 8 HEX NYLON ZINC LOCK	F81034-2	2
18	BOLT, M12X90 8.8 HEX HEAD ZINC	F81004-2	2
19	V-BELT, HA-560 (STOMIL-SANOK)	088562	

4.6 Blade Lube System Kit 503517

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503517

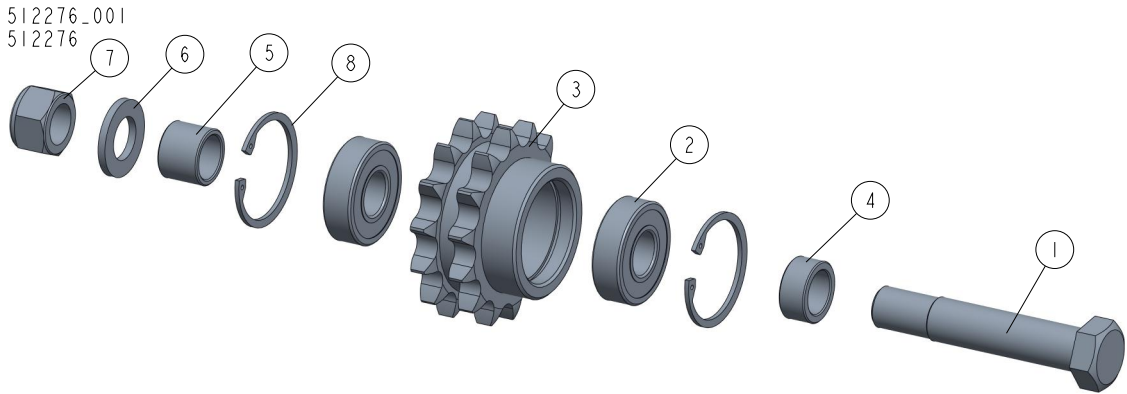
REF	DESCRIPTION (◆ indicates parts available in assemblies only)	PART #	QTY	
-	KIT, LT20AC BLADE LUBE SYSTEM	503517	1	
1	VALVE, WATER LUBE SOLENOID	016140	1	
2	FITTING, 1/4" MALE NPT 3/8" HOSE BARB	P04682	2	
3	WASHER, 5.1 SPLIT LOCK ZINC	F81052-2	2	
4	BOLT, #10-32X1/2 HH	F05004-60	2	

4.7 Front Control Panel 097131

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097131

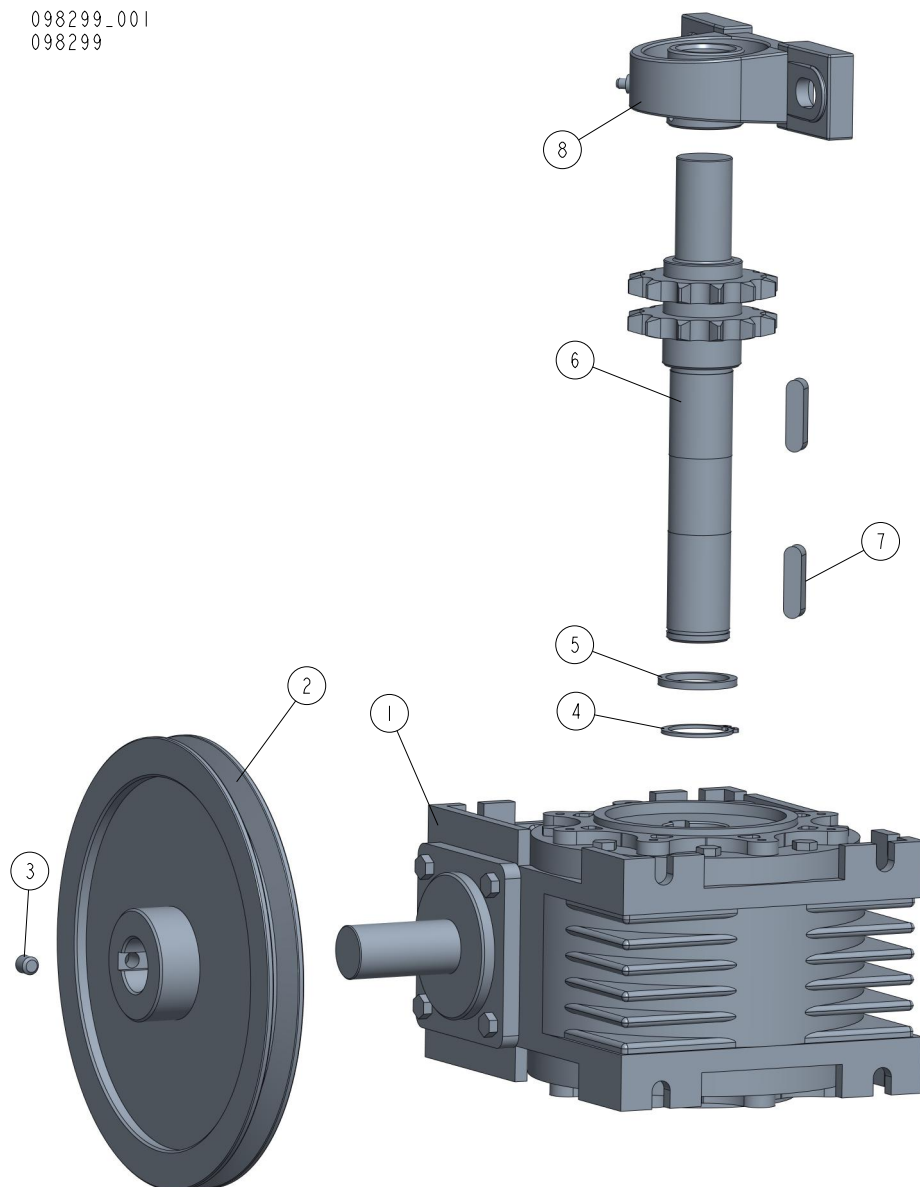
REF	DESCRIPTION (◆ indicates parts available in assemblies only)	PART #	QTY
-	PANEL, LT20AC FRONT CONTROL COMPLETE	097131	1
1	PANEL, LT20/40 AC FRONT CONTROL	100572-1	1
2	GASKET, LT20/40 CONTROL BOX	097132	1
3	DECAL, LT20AC/DC CONTROL BOX RIGHT	099593	1
4	DECAL, LT20/40 AC CONTROL BOX LEFT	099594	1
5	SWITCH, START/STOP 24V MOELLER ILLUMINAT	090452	1
6	SWITCH ASSEMBLY, FEED RATE	E20519	1
7	KNOB, SPEED CONTROL	P06257	1
8	WASHER, 1/2X3/4X1/16 NYLON	P05251-1	3
9	BOOT, TOGGLE SWITCH	P02575	3
10	SWITCH, DPDT TOGGLE 21A REV MOM SPADE	024200	2
11	SWITCH, M22 3-POSITION KEY	091361	1
12	BOLT, #10-24X1/2 PH	F05015-17	10
13	SWITCH, SPST ON/OFF 15A .25 TABS TOGGLE	P03027	1
14	GASKET, HOUR METER	093346	1
15	METER, HOUR	093166	1
16	BOLT, M3X12-8.8 ZINC	F81000-12	2
17	NUT, M3-6-HEX NYLON ZINC LOCK	F81028-2	2
18	CONTROLLER, SW-10 SETWORKS	500628	1
19	FRAME, SW08 SETWORKS REAR	100909	1

4.8 Sprocket Assembly 512276



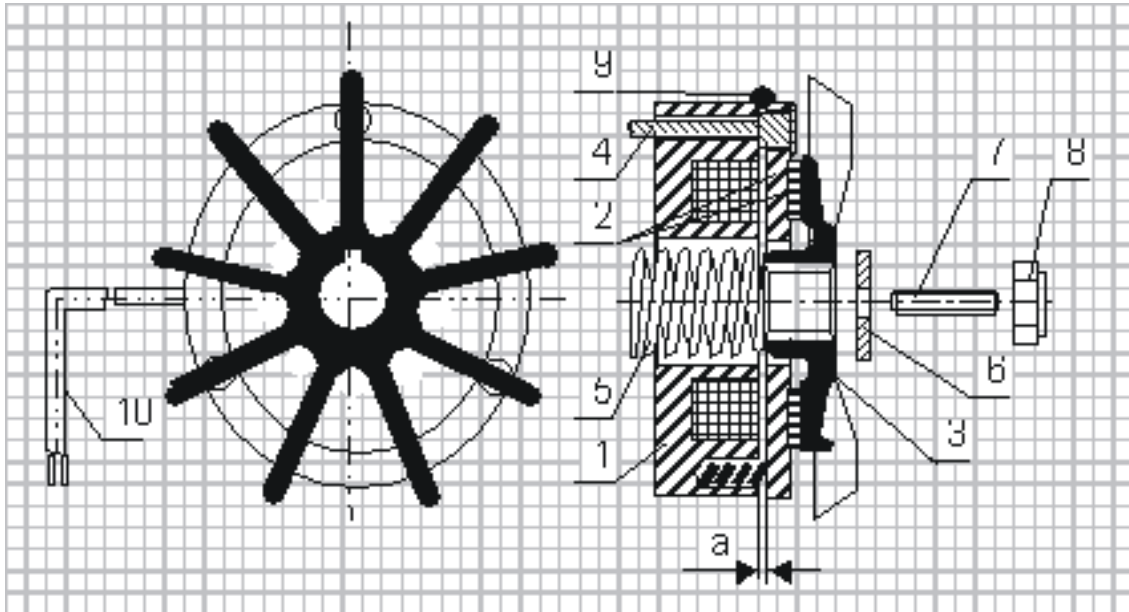
REF	DESCRIPTION (◆ indicates parts available in assemblies only)	PART #	QTY
-	SPROCKET ASSEMBLY	512276	1
1	BOLT, M16D1F6 X 90-8.8 HEX FIT SHORT THR	F81006-15	1
2	BEARING, 6203-2RS FLT ROLLING	086114	2
3	SPROCKET, ULMER T08260	512247-1	1
4	BUSHING, D42 BELT TENSIONER SPACER ZINC-	087965-1	1
5	SPACER, IDLER ZINC	088792-1	1
6	WASHER, 17 SPLIT LOCK ZINC	F81058-1	1
7	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	1
8	RING, W40 SPRING RETAINING	F81090-3	2

4.9 Motor Assembly 098299

098299_001
098299

REF	DESCRIPTION (◆ indicates parts available in assemblies only)	PART #	QTY
-	MOTOR ASSEMBLY, LT20 UP/DOWN	098299	1
1	BOX, R-63/66/F1/B3 GEAR	097786	1
2	PULLEY, LT20	091078-1	1
3	SCREW, M8X8-33H HEX SOCKET SET FLAT POIN	F81014-1	1
4	RING, Z28 OUTSIDE RETAINING	F81090-12	1
5	WASHER	098351	1
6	SHAFT, LT20 UP/DOWN W/SPROCKET	512249-1	1
7	KEY, A8X7X32 PARALLEL	088564	2
8	BEARING ASSEMBLY, UCP205 CX	088468	1

SECTION 5 DC ELECTROMAGNETIC BRAKE (CE ONLY), SIEMENS MOTORS



- 1 - Electromagnet,
- 2 - Armature complete with brake linings,
- 3 - Fan,
- 4 - Retaining bolt
- 5 - Central spring,
- 6 - Special washer,
- 7 - Set screw,
- 8 - Self-locking nut,
- 9 - Sealing ring,
- 10 - Output cable.

5.1 Design and principle of operation

The DC electromagnetic brake type H consists of 3 main subassemblies:

- electromagnet (1),
- armature complete (2)
- cast iron fan (3).

Electromagnet (1) energised: The DC voltage from the motor applied via the rectifying circuit causes the attraction of the armature (2) releasing the brake and thus the fan (3) is free to rotate.

Electromagnet (1) de-energised: The electromagnet stops to attract the armature (2) and spring presses the armature with brake linings (2) against the fan and the brake is thus applied.

5.2 Service

During normal operation and at the routine inspections verify the air gap and check if all screws are tight. In case when any symptoms of inefficient braking are observed, then use the self-locking nut (8) to re-adjust the air gap to the value corresponding to Table 1.

Such readjustment may be repeated until the brake linings are completely worn out. When this will occur, a complete armature with brake linings (2) must be replaced.

If the air gap of the brake is correctly adjusted and despite of it the brake does not operate properly (the brake fails to release), it may be caused by:

- the electromagnet (1): burned coil or defected output cable (10),
- rectifying circuit (installed in the electric motor terminal box).

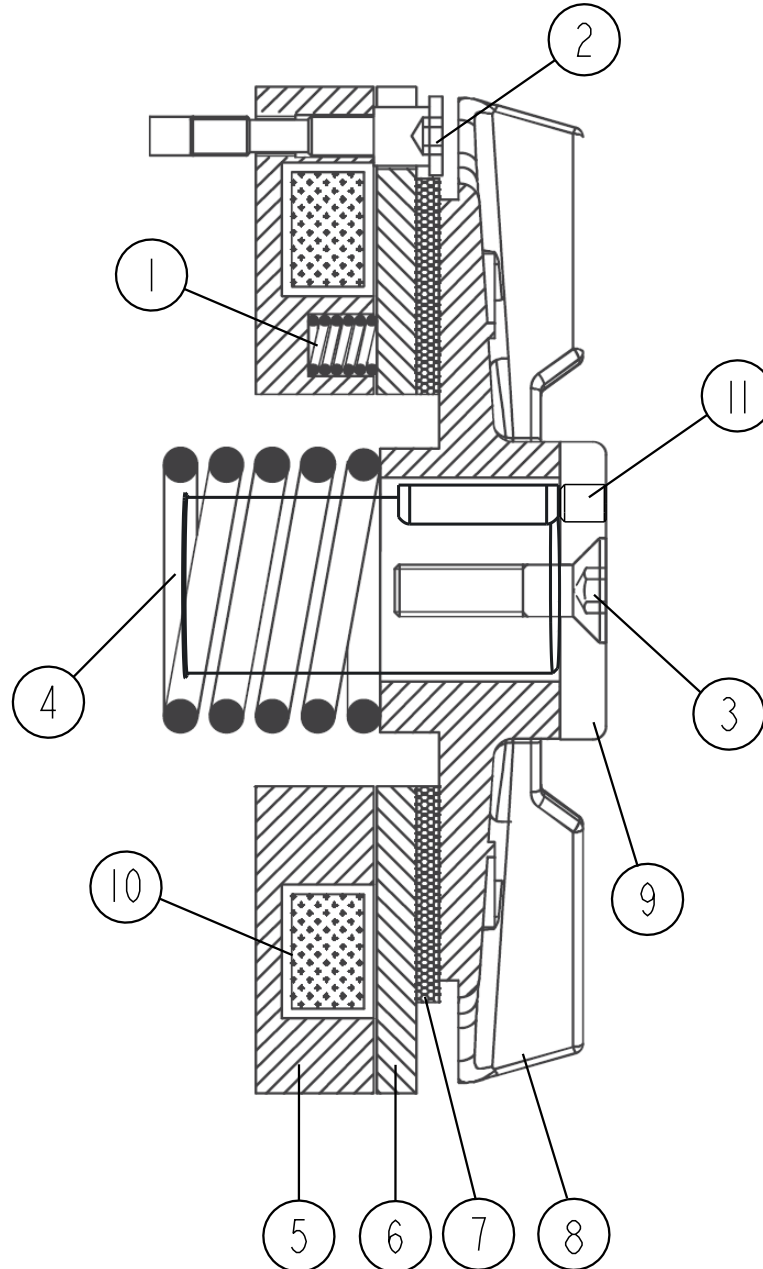
The above mentioned subassemblies should be checked and defected part replaced.

Table 1:

TYPE	H-63	H-71	H-80	H-90	H-100	H-112	H-132	H-160
Nominal Gap „a”	0.2 ±0,05	0.2 ±0,05	0.2 ±0,05	0.2 ±0,05	0.2 ±0,1	0.2 ±0,1	0.2 ±0,1	0.2 ±0,1

SECTION 6 DERELI ELECTROMAGNETIC BRAKE, BIBUS-ELK MOTORS

6.1 Brake parts



1. Pressure spring
2. Brake mounting screw
3. Adjustment screw
4. Tension spring
5. Brake body

6. Pressure flange
7. Brake pad
8. Cast iron fan
9. Adjustment screw washer
10. Electromagnet
11. Tightening screw

6.2 Design and principle of operation

The DC electromagnetic brake consists of 3 main subassemblies:

- electromagnet
- armature
- cast iron fan

Electromagnet energised: DC voltage from the motor applied through the rectifier circuit attracts the armature releasing the brake, and thus the fan can rotate freely.

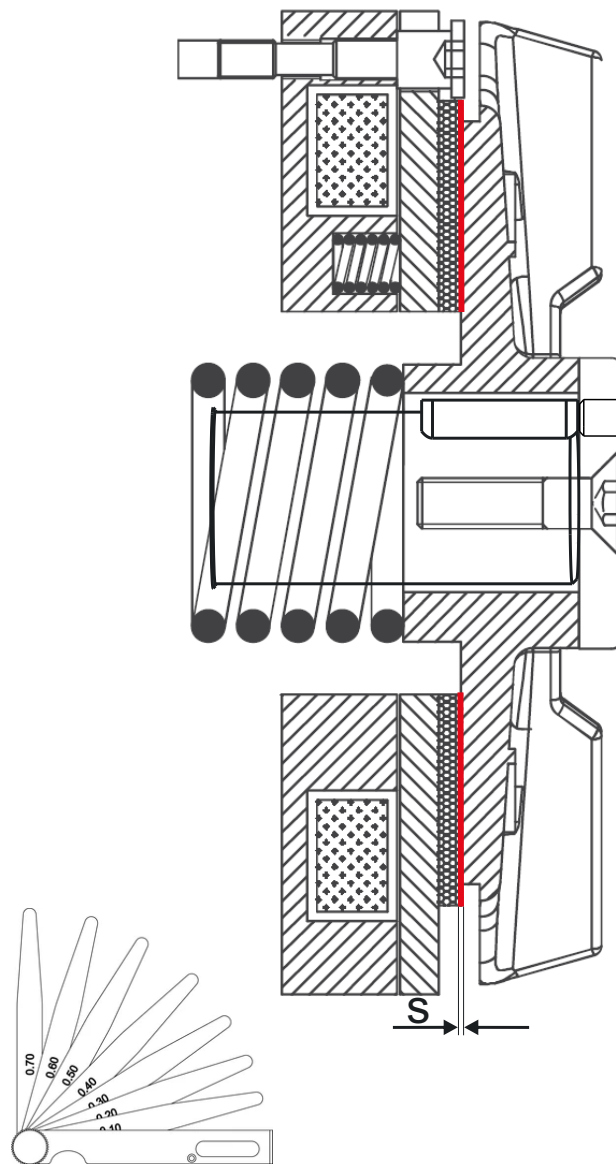
Electromagnet de-energised: The electromagnet stops to attract the armature and a spring presses the armature with brake pads against the fan, thus activating the brake.

6.3 Service

During normal operation and at the routine inspections verify the air gap between the brake pads and the cast iron fan with a feeler gauge and check if all screws are tight. In case when any symptoms of inefficient braking are observed, then use the self-locking nut to re-adjust the air gap to the value corresponding to Table 1.

Table 2:

Type	Air gap (s) [mm]	Tightening torques for brake mounting screws [Nm]
DHF132	0.35 (+0,1) (-00.05)	10.0



AIR GAP BETWEEN THE THE BRAKE PADS AND THE CAST IRON FAN

Such readjustment may be repeated until the brake linings are completely worn out. Once every three months, remove the brake and evaluate the condition of the friction linings, if worn, replace. After replacement, assemble the brake, maintaining the measurement of the air gap. Tighten the main screw with the torque indicated in Table 1. Check the correct operation.