



SERVICE MANUAL BMG-555
VERSION 2.4
From serial number 20197B and up.



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1. Tools & Accessories



Blastrac PN	HQV PN	
BG200994	533107901	For standard grinding wings - screws
E07185-1	531458101	For standard grinding wings - pins + magnets
E12344	534244301	For standard grinding wings - embedded
E10691	533290801	For PCD grinding wings - embedded



BG707321 #18 - 20 BG707322 #30 - 40 BLUE GRINDING WING	BG707311 #18 - 20 BG707312 #30 - 40 BG707313 #60 - 80 BG707314 #120 - 150 GREEN GRINDING WING	BG707301 #18 - 20 BG707302 #30 - 40 BG707303 #60 - 80 BG707304 #120 - 150 RED GRINDING WING	BG707341-2 #30 - 40 BLACK GRINDING WING
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BG200997-1/SET PCD GRINDING WING BG200999-1/SET PCD GRINDING WING 2 X 1/4 BG200995-1/SET PCD GRINDING WING 1 X 1	E07459 ROTARY PLATE ONLY Ø185 MM E07460 PLATE Ø185 MM COMPLETE WITH BUSH HAMMER ROLLERS BG300118-1 PLATE Ø185 MM COMPLETE WITH STAR WHEELS	E09119-2H BUSH HAMMER ROLLER Ø50 MM BG300109 CUTTER WHEEL Ø50 MM
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E09399/FINE VELCRO PLATE Ø185 MM For Polishing pads E09399/COARSE VELCRO PLATE Ø185 MM For Maintenance pads	BG185001 #40 #1 - orange BG185002 #100 #2 - Black BG185003 #200 #3 - Blue BG185004 #400 #4 - Red BG185005 #800 #5 - White BG185006 #1500 #6 - Yellow BG185007 #3000 #7 - Green POLISHING PADS Ø185 MM	BG185M004 #400 #4 BG185M005 #800 #5 BG185M006 #1500 #6 BG185M007 #3000 #7 MAINTENANCE PADS Ø185 MM	005014SR 10 M SUCTION HOSE Ø76 M
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Blastrac PN	HQV PN
BG707321	534949001
BG707322	534949101
BG707311	534950301
BG707312	534950101
BG707313	534950201
BG707314	534950001
BG707301	534951801
BG707302	534951901
BG707303	534952001
BG707304	534951701
BG707341-2	534948701
BG200997-1/SET	534951001
BG200999-1/SET	534950801
BG200995-1/SET	534950601
E07459	533491001
E07460	533076101
BG300118-1	533113701
E09119-2H	534372401
BG300109	533606501
E09399/FINE	534244701
E09399/COARSE	534244601
BG185001	534447001
BG185002	534447101
BG185003	534447401
BG185004	534447501
BG185005	534447601
BG185006	534447701
BG185007	534448001
BG185M004	534441801
BG185M005	534441901
BG185M006	534442001
BG185M007	534442101
005014SR	534783801



2. Spare parts

Fig. 01 Frame complete

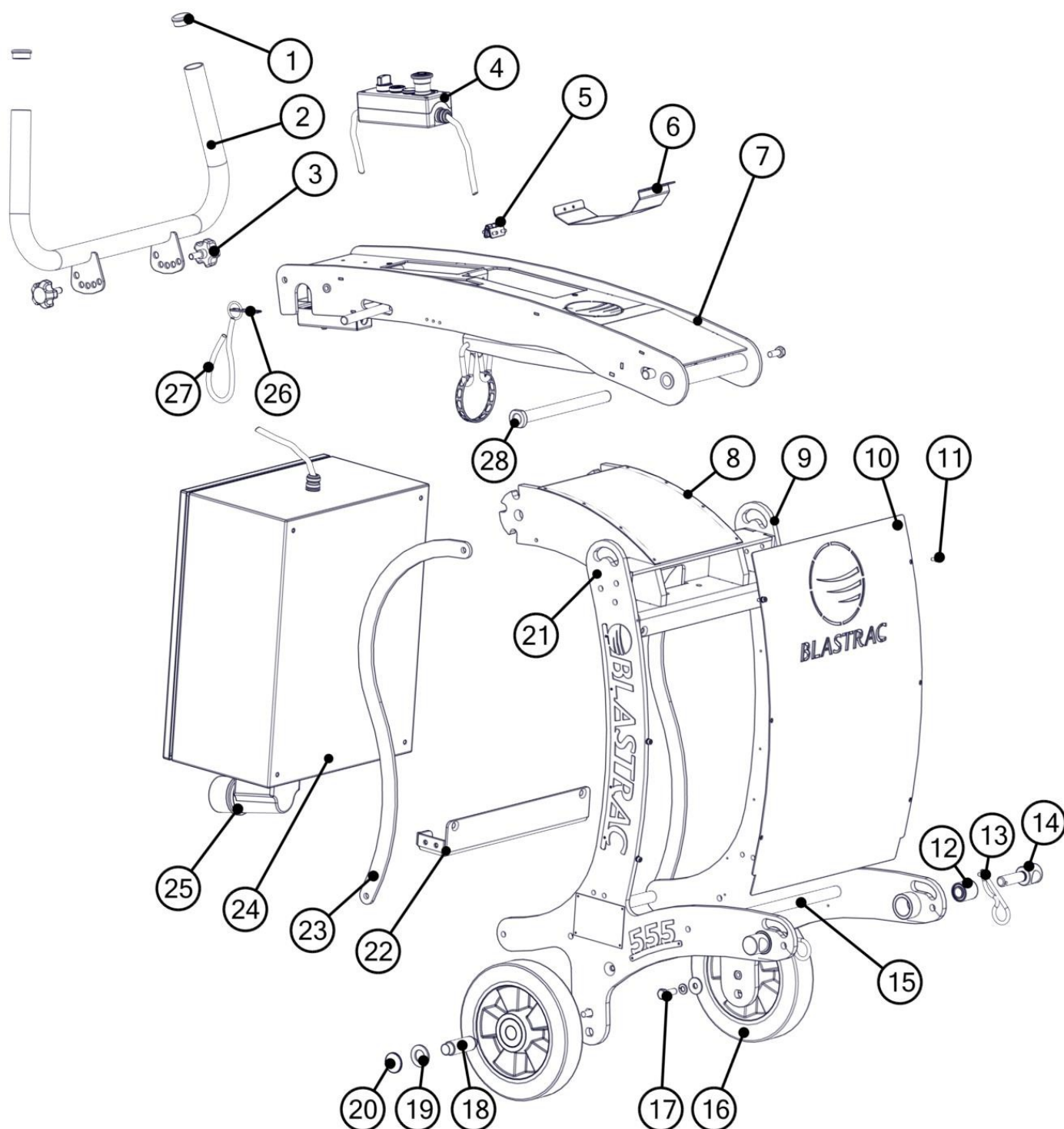




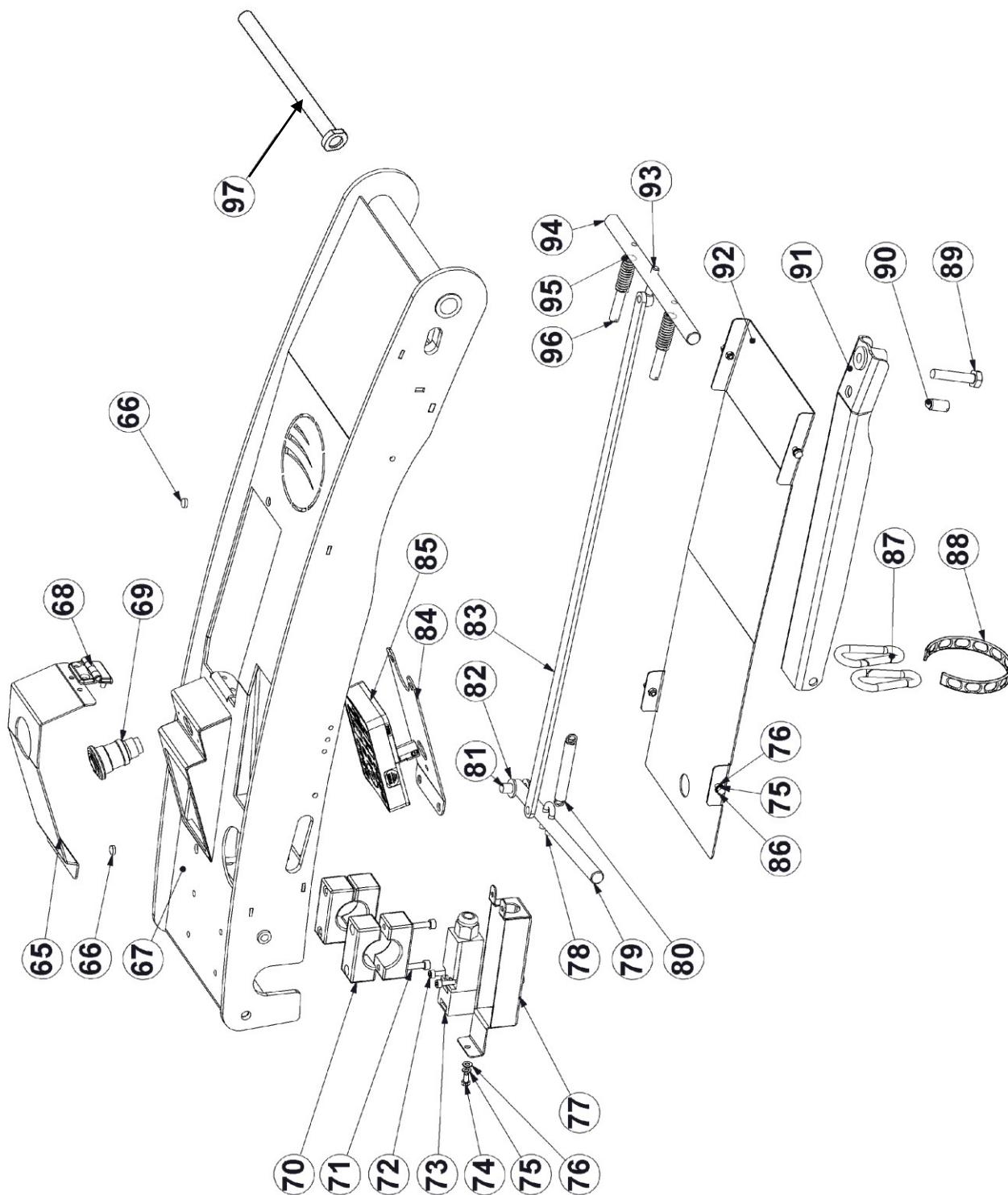
Fig.01 Frame complete

Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
1	BE0643	533407601	Tube cap round		2
2	E11229_BL	534871201	Steer handle		1
3	BE0721	534083401	Knob M10		2
4	E06861	533810701	Operating box complete	Star/delta	1
	E07882	534082201	Operating box complete	Speed control	1
	E01543	533749201	Emergency stop		
	E00360	533978001	Signal light red complete		
	E01318	533377401	Start button		
	E01323	533403101	Left/right switch		
	E05130	533217901	Make contact (green)		
	E01351	533734601	Potential meter complete (speed switch)		
5	E11124	534768601	Hinge 40x40		1
6	E11224	533259001	Control box cover		1
7	E11221	533201701	Main handle		1
8	E11219	533235801	Handle mounting bracket		1
9	E11216	533356901	Left side of frame		1
10	E11232	534593901	Front cover Blastrac		1
11			M5x12 hex sockethead cap		6
12	E01492	533643001	Megi bush		2
13	E11119	533243301	Spring lock 5mm		2
14	E12981	533251701	Hinge bolt		2
15	E11218	533248801	Stiffening shaft		3
16	E01491	533007501	Wheel		2
17			M10x30		2
18	E11236	533343301	Wheel shaft - BMG		2
19			M20 Washer		2
20	BE0097	533709901	Starlock ring diam.20 with cap		2
21	E11215	535227601	Right side of frame		1
22	E11230	535116501	Bottom electrobox bracket		1
23	E11217	533596001	Electrobox bumper strip		2
24	E07287	535608101	Electrobox 4,0kW 1x230V	Control Box	1
	E12484	534554801	Electrobox 7,5kW 3x400V Fixed Speed	Control Box	1
	E06863	534554901	Electrobox 7,5kW 3x400V Speed Control	Control Box	1
	E12457	534554701	Electroset 1x230V 4.0kW SC	Keypad	1
	E12500	534375101	Electroset 3x400V 7.5kW SC	Keypad	1
25	E10389		Cable type SOOW 10/3	9m	1
	E10390		Plug male 30A, 2P, 250 VAC		1
	E10391		Female connector 30A, 2P, 250 VAC		1
26	BG11759	533289101	Key for deadman switch		1
27	BG11758	533810801	Cord for deadman switch		1



Fig. 01.2

Handle complete for Keypad



**Fig. 01.2****Handle complete for Keypad**

Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
65	E12380	533234101	Keypad cover		1
66	E06446	533511501	Magnet		2
67	E12375	533226401	Handle		1
68	E12404	533565401	Hinge		1
-	BE0952	534690901	M5x16 Countersunk head screw	Not shown	2
-	BE0901	534689001	M5 Hex Flangelocknut/ins	Not shown	4
69	E13002	533679201	Emergency stop		1
70	999-9156	533767701	Pipe clamb (set) 35mm		2
71	BE0191	533397801	M6x50 Hexagon socket head		4
72	BE0184	534691301	M5x30 Hexagon socket head		2
73	BG11760	533387401	Deadman switch		1
74	BE0180	-	M5x12 Hexagon Socket Head cap	DIN912	1
75	BE0310	-	M5 Spring lock washer		5
76	BE0304	534690101	M5 Washer		5
77	E11226	533276101	Deadman switch cover		1
-	BE0901	534689001	M5 Hex Flangelocknut/ins	Not shown	2
78	BE0712	533238201	Wire rope clamp 8mm DIN741_555		1
79	E11227	533376201	Unlocking handle		1
80	E10388	533238901	Tension spring		1
81	BE0054	533685701	M10x30 Hexagon Socket Head Cap		1
82	BE0004	533268701	M10 Washer		2
83	E10380	533222101	Push strip		1
84	E12379	534417401	Cover plate		1
-	BE1066	-	M6 Self-locking hex flange nut	Not shown	4
85	E10904	533514201	Keypad		1
86	BE0180	-	M5x12 Hexagon Socket Head cap	DIN912	4
-	BE0304	534690101	M5 Washer		4
87	BE0653	533214001	Snap hook		2
88	E07008	533088801	Chain for dusthose	11 links / 36 cm	1
89	BE0232	-	M10x50 hexagon bolt		1
90	E11284	-	M12x22 Resilient pressure piece		1
-	BE0075	534624301	M12 Hexagon nut (low)	Not shown	1
91	E11222	533072701	Hose arm		1
92	E11557	535158701	Cover steer handle		1
93	BE0702	533239501	M8x40 eye bolt		1
94	E11220	533233701	Locking axle		1
95	E09237	533287101	Spring 14,8x64x2,0		2
96	E10556	533225901	Spring axle		2
97	E11228	533280901	Handle mounting shaft		1
-	BE0580	-	M10x20 hex. socket head cap s. DIN912	Not shown	2
-	BE0006	533321101	M10 spring lock washer DIN127B	Not shown	2
-	BE0062	534064101	Washer M10x30x1,5	Not shown	2



Fig. 02 Machine complete

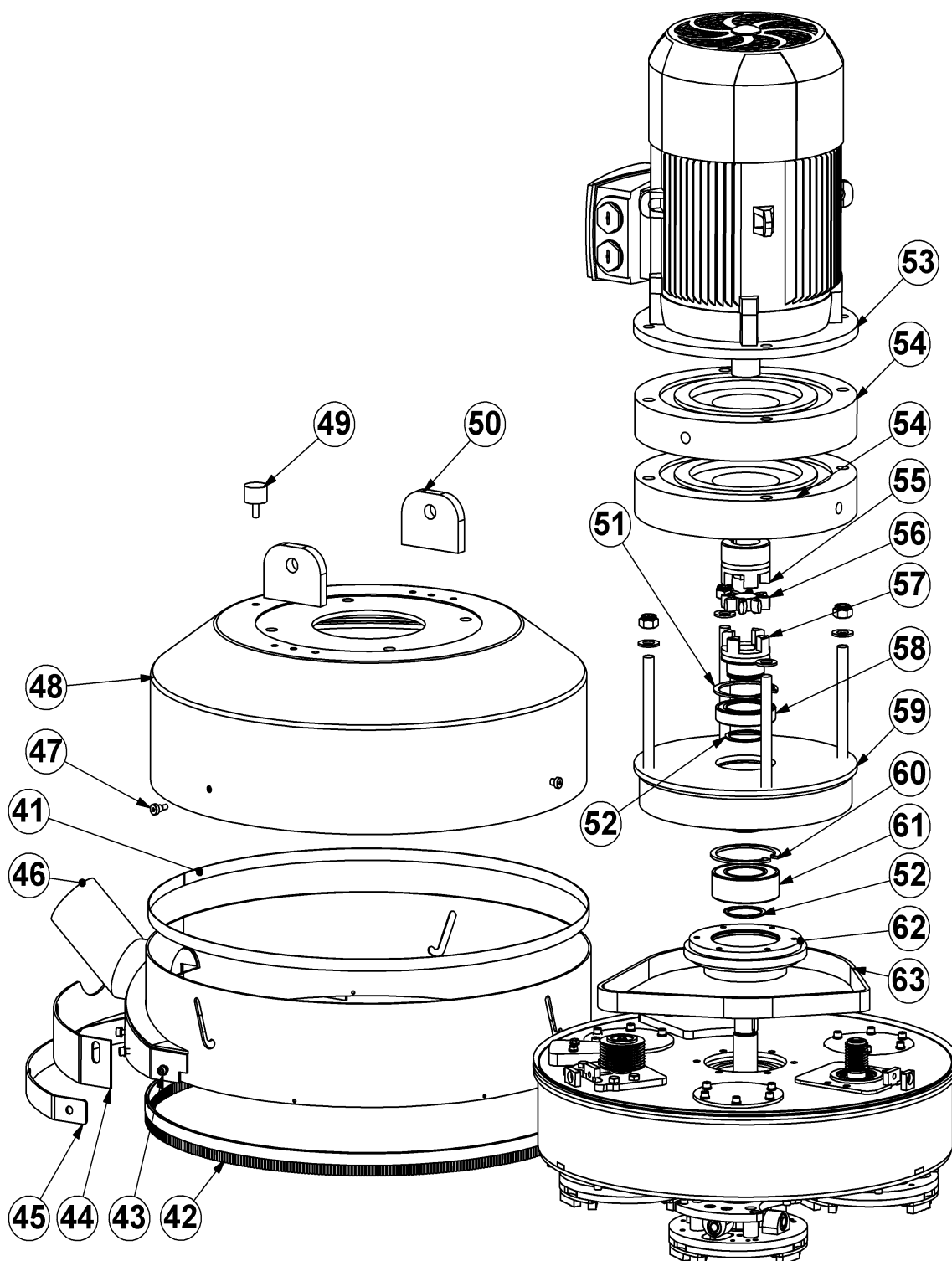




Fig. 02 Machine complete

Item	Blastrac PN	HQV PN	Description	Remarks	Qty
41	E06897	533970001	HDPE strip		2m
42	BG-Brush20mm	534888501	Synth. Brush for 555		2m
43	BE0020	534692701	M6x20 Hexagon socket head cap		4
44	E11028	533752801	Rubber seal of floating shroud		1
45	E11027	533502501	Tightening steel strip		1
46	E11014	533422301	Floating shroud BMG-555		1
47	BE0655	533402401	M6 8x12 hex. Socket head shoulder	ISO7379	3
48	E11008	533653201	Protection cover BMG-555		1
49	E11187	533267601	Rubber bumper 30-20		1
50	E11120	533027101	Holder		2
51	BE0107	533344001	Retaining ring for bore Ø 80mm		1
52	BE0126	533220501	Retaining ring for shaft Ø 50mm	DIN 471	2
53	E07286-IE2ALU / BL	534713901	Motor 4,0kW 3x230/400	1000RPM	1
	BG11960-IE2 / BL	534714801	Motor 7,5kW 3x 400V		
54	E10231	535913401	Fill-up block steel	1x on 230V version	2
	E10231-ALU	534575201	Fill-up block aluminium for 1x230V	Only on 230V version	1
55	E11012_3	535373801	Top coupling		1
56	E11012_2	535378601	Spider for totex 28		1
57	E11012_1	535343201	Bottom coupling		1
58	E11058	533218501	Bearing		1
59	E11010	534699001	Main pulley-BMG-555		1
60	E03993	533371101	Retaining ring for bore Ø 90mm		1
61	E01490	533600701	Bearing		1
62	E06048	534386301	Central bearing housing top		1
63	E11030	533616101	Top drive belt		1



Fig. 03 Upper & Lower Drive

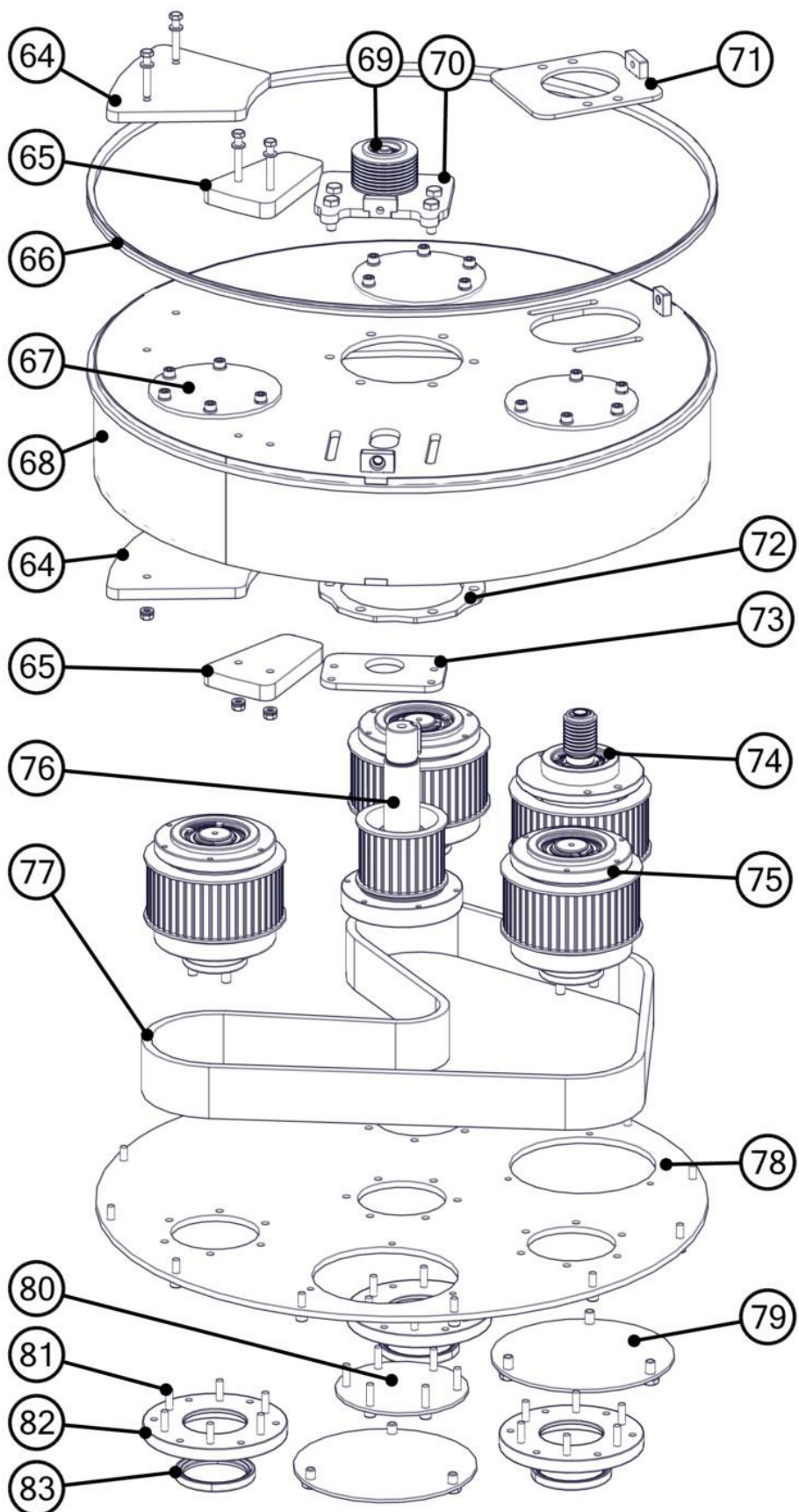


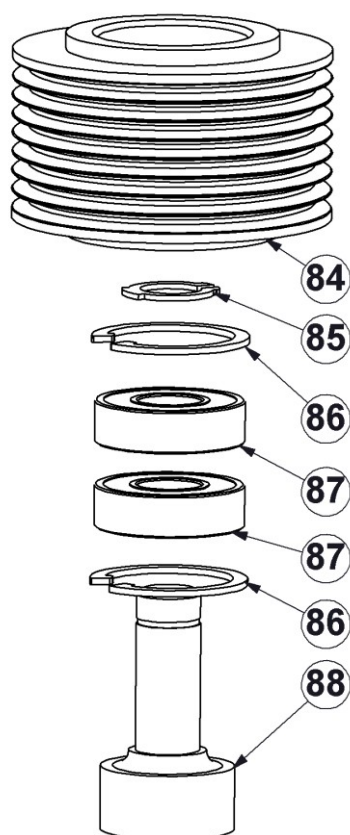


Fig.03 Upper & Lower Drive system

Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
64	E11181	535086501	Balancing plate		2
65	E11182	535086601	Balancing plate-2		1
66	E11013	533375701	V-seal Low drive BMG-555		1
67	E11029	535226501	Plug for bearing housing		3
68	E09985	533043201	Housing BMG-555		1
69	E11061	533503001	Tension pulley assembly BMG-555		1
70	E11047	534415301	Cover plate tension pulley BMG-555		1
71	E11044	535157901	Cover plate contra pulley BMG-555		1
72	E01503	533062201	Centre ring		1
73	E11175	535254001	Tension pulley mount ring		1
74	E11060	533662401	Contra pulley axle assembly BMG-555		1
75	E11022	533413401	Pulley complete BMG-555		3
76	E11006	533545701	Drive pulley compl.BMG-555		1
77	BG11905	534069301	HDT belt - drive		1
78	E11034	535209801	Lower plate BMG-555		1
79	BG007850	533459601	Inspection cover		2
80	BG005827	535154401	Cover		1
81			M6x25 Hexagon socket head cap		18
82	E15287	534762801	Plate for seal		3
83	E13891	534792401	Radial shaft seal		3



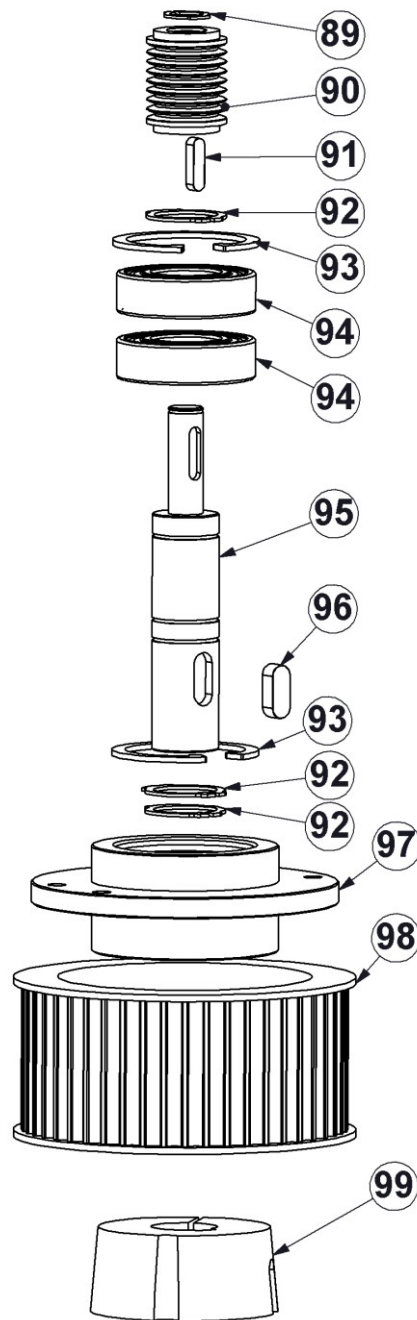
Fig. 04 Tension pulley assembly - E11061



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
84	E06051	533119701	Pulley		1
85	BE0129	533722901	Retaining ring for shaft Ø 12	DIN 471	1
86	BE0128	533722801	Retaining ring for bore Ø 28	DIN 472	2
87	E06203	533111101	Bearing		2
88	E11046	535253901	Tension pulley axle (PK belt BMG-555)		1



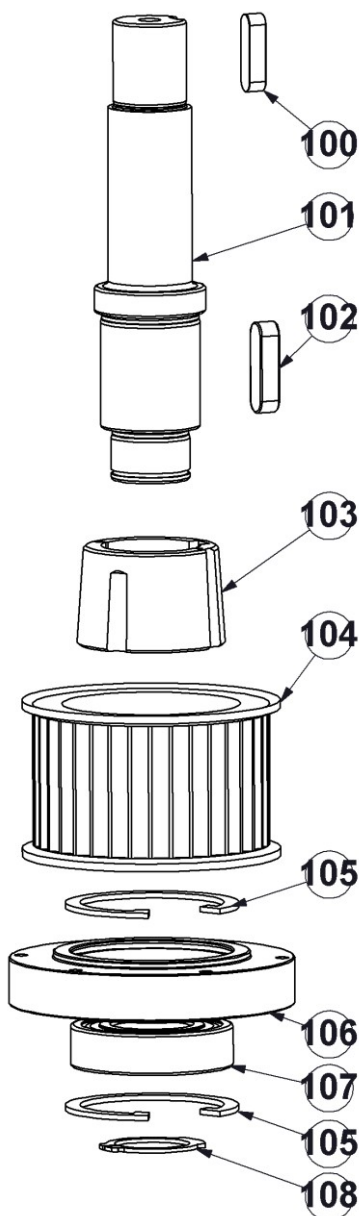
Fig. 05 Contra pulley assembly – E11060



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
89		-	Retaining ring for shaft Ø 13	DIN 471	1
90	E06050	533063501	Pulley		1
91		-	Key 5x5x20	DIN 6885A	1
92	BE0076	533914201	Retaining ring for shaft Ø 25	DIN 471	3
93	BE0077	533218301	Retaining ring for bore Ø 52	DIN 472	2
94	222-2331-E	533838201	Bearing		2
95	E09986	533366101	Contra pulley axle – BMG-555		1
96	BE0109	533293401	Key 8x7x20	DIN 6885A	1
97	E11005	535095701	Bearing housing contra pulley – BMG-555		1
98	RB165-2	535363901	Pulley		1
99	E11062	533109601	Taper lock		



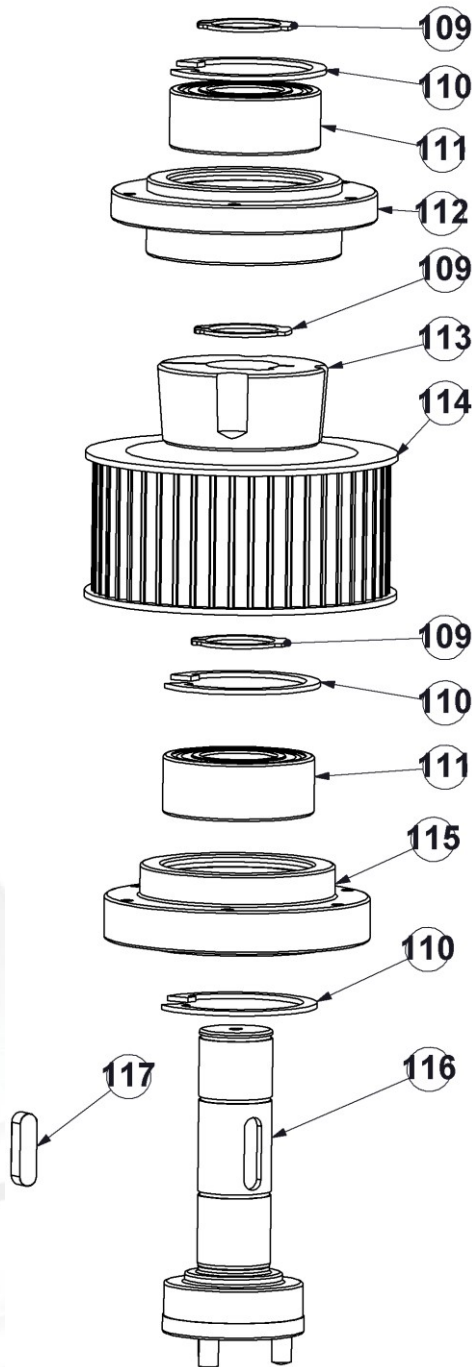
Fig. 06 Drive pulley E11006



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
100	BE0256	533905401	Key 8x7x30	DIN 6885A	1
101	E11011	535147901	Central axle BMG-555		
102			Key 10x8x35	DIN 6885A	1
103	E00718	533259701	Taper lock		1
104	E10312	535654001	Pulley		1
105	E00951	533292201	Retaining ring for bore Ø 62	DIN 472	2
106	E11040	535094301	Bearing house		1
107	B20404	533703701	Bearing		1
108	B21631	533332801	Retaining ring for shaft Ø 30	DIN 471	1



Fig. 07 Pulley (3x) E11022

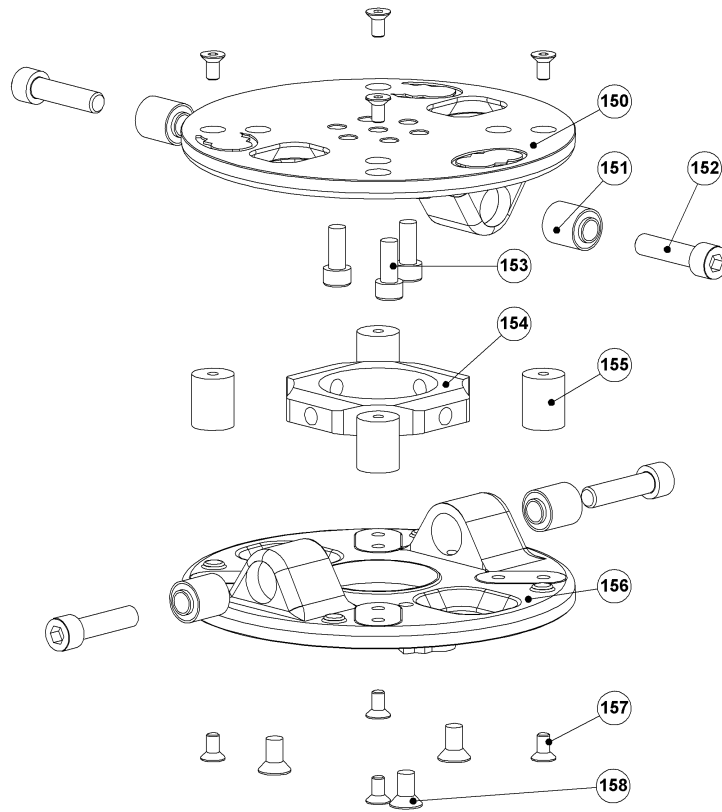


Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
109	B21631	533332801	Retaining ring for shaft Ø30	DIN 471	3
110	E00951	533292201	Retaining ring for bore Ø62	DIN 472	3
111	BG11817	533794401	Bearing		2
112	E11023	535095101	Bearing housing		
113	RB100A3-350	533605901	Taper lock		1
114	RB165-2	535363901	Pulley		1
115	BG005817	533247801	Bering housing		1
116	E09992	534302801	Axle pulley compl. BMG-555		1
117	BE0256	533905401	Key 8x7x30	DIN 6885A	1

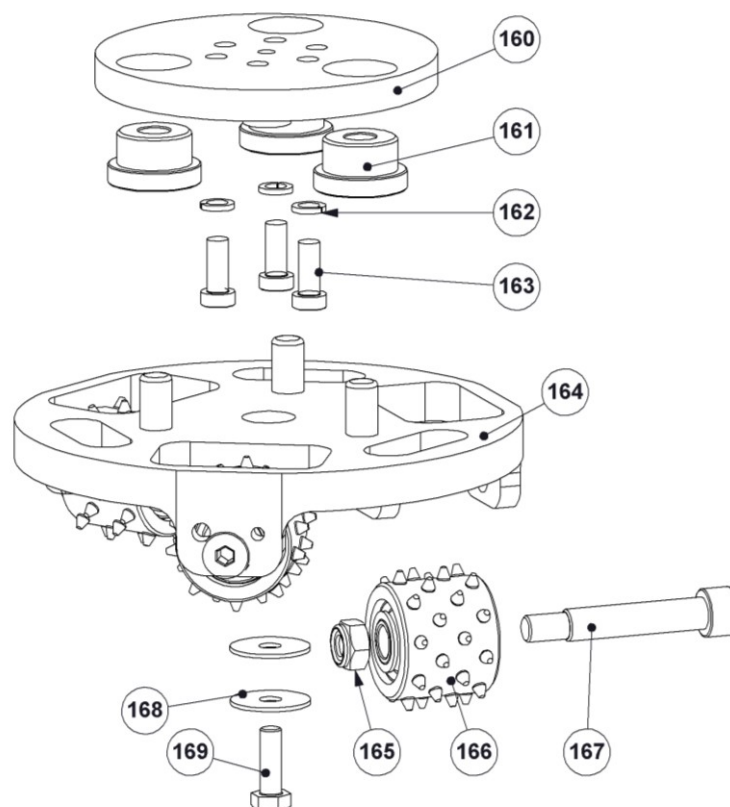


3. Tool plates

E10172-185 Buffer plate 185mm complete (3x per machine)



E12112 Bush hammer set up - 185mm (3x per machine)





When changing torque bushes, you must use the special bush mounting tool (E12866)

Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
150-158	E10172-185	534622901	185mm buffer system complete		3
150	E12260	533262901	Buffer upper plate		1
151	E12054	533224201	Torque bush		4
152	BE0444	533770501	M10x40 hexagon socket head cap screw		4
153	BE0011	533748301	M8x20 hexagon socket head cap screw		3
154	E12261	533448701	Buffer mid plate		1
155	E12265	533845301	Shock absorber		4 (standard) / 8 (optional)
156	E12262	534371101	Buffer lower plate 185mm		1
157	BE0187	534692001	M6x12 hexagon countersunk screw		8 (standard) / 16 (optional)
158	BE0456	533784401	M8x16 hexagon countersunk screw		3
	E12866	534373001	Torque bush mounting tool		1
160-169	E12112	533603401	185mm Bush hammer set up 555		1
160	BG11805	533386501	Buffer plate		1
161	BG11806	534371401	Buffer soft blue		3
162	BE0584	533319201	M8 spring lock washer small		3
163	BE0204	533676101	M8x25 hexagon socket thin head cap		3
164	E07459	533491001	Cutterplate 185mm only		1
165	BE0023	533292901	M10 locking nut		3
166	E09119-2H	534372401	Bush hammer heavy incl. bolt & nut		3
167	BE0723		M10 12x55 hexagon socket head cap screw		3
165-167	E09119-2H	534372401	Bush hammer heavy incl. bolt & nut		3
	E09119-2H/SET9	534372501	Bush hammer set of 9		
	E09119-2HSET15	533113301	Bush hammer set of 15		
168	BE0314	533244401	M8x30 plain washer		2
169	BE0030	533356201	M8x25 hexagon head screw		1
164-167	E07460	533076101	Cutter plate c.w. bush hammer 185		1
	BG300118-1	533113701	Cutter plate c.w. star wheels		1
	E07185-1	531458101	DIAMAG 185mm adapter plate		1
	E09399/fine	534244701	Velcro plate 185mm fine		1
	E09399/coarse	534244601	Velcro plate 185mm coarse		1
	E10691	533290801	185mm Diamag PCD plate		1
	BG200994	533107901	Plate for wings 185mm		1
	BG200989	534538901	Dry polish dot holder 185mm		1
	E06447	533106401	DIAMAG adapter plate for dots		3
	BG185001 – BG185007	534447001 534448001	Polishing pads 185mm		1
	BG185M004 – BG185M007	534441801 534442101	Maintenance pads 185mm		1



4. Fault diagnose frequency drive

For a complete overview of faults and how to resolve them, scan the QR code which is on the front of the frequency drive.

Does the inverter shows an "INF" fault, reset the machine.
If the machine does not work after that, call you distributor.

To reset the machine, put out the power supply and wait 5 minutes.
Then start up the machine again. Call a technician if the machine still not works.

Fault	Name	Probable cause	Remedy
A I 2 F	[AI2 input]	<ul style="list-style-type: none"> Non-conforming signal on analog input AI2 	<ul style="list-style-type: none"> Check the wiring of analog input AI2 and the value of the signal
A n F	[Load slipping]	<ul style="list-style-type: none"> The encoder speed feedback does not match the reference 	<ul style="list-style-type: none"> Check the motor, gain and stability parameters Add a braking resistor Check the size of the motor/drive/load Check the encoder's mechanical coupling and its wiring
b D F	[DBR overload]	<ul style="list-style-type: none"> The braking resistor is under excessive stress 	<ul style="list-style-type: none"> Check the size of the resistor and wait for it to cool down Check the [DB Resistor Power] (brP) and [DB Resistor value] (brU) parameters, page 211
b r F	[Brake feedback]	<ul style="list-style-type: none"> The brake feedback contact does not match the brake logic control 	<ul style="list-style-type: none"> Check the feedback circuit and the brake logic control circuit Check the mechanical state of the brake
b U F	[DB unit sh. Circuit]	<ul style="list-style-type: none"> Short-circuit output from braking unit 	<ul style="list-style-type: none"> Check the wiring of the braking unit and the resistor Check the braking resistor
C r F 1	[Precharge]	<ul style="list-style-type: none"> Load relay control fault or charging resistor damaged 	<ul style="list-style-type: none"> Switch the drive off and then back on again Check the internal connections
C r F 2	[Thyr. soft charge]	<ul style="list-style-type: none"> DC bus charging fault (thyristors) 	<ul style="list-style-type: none"> Inspect/repair the drive
E C F	[Encoder coupling]	<ul style="list-style-type: none"> Break in encoder's mechanical coupling 	<ul style="list-style-type: none"> Check the encoder's mechanical coupling
E E F 1	[Control Eeprom]	<ul style="list-style-type: none"> Internal memory fault, control card 	<ul style="list-style-type: none"> Check the environment (electromagnetic compatibility) Turn off, reset, return to factory settings
E E F 2	[Power Eeprom]	<ul style="list-style-type: none"> Internal memory fault, power card 	<ul style="list-style-type: none"> Inspect/repair the drive
E n F	[Encoder]	<ul style="list-style-type: none"> Encoder feedback fault 	<ul style="list-style-type: none"> Check [Number of pulses] (PGI) and [Encoder type] (EnS), page 72 Check that the encoder's mechanical and electrical operation, its power supply and connections are all correct If necessary, reverse the direction of rotation of the motor ([Output Ph rotation] (PHr) parameter, page 88) or the encoder signals
F C F 1	[Out. contact. stuck]	<ul style="list-style-type: none"> The output contactor remains closed although the opening conditions have been met 	<ul style="list-style-type: none"> Check the contactor and its wiring Check the feedback circuit



Fault	Name	Probable cause	Remedy
HdF	[IGBT desaturation]	<ul style="list-style-type: none"> Short-circuit or grounding at the drive output 	<ul style="list-style-type: none"> Check the cables connecting the drive to the motor, and the insulation of the motor Perform the diagnostic tests via the [1.10 DIAGNOSTICS] menu
ILF	[Internal com. link]	<ul style="list-style-type: none"> Communication fault between option card and drive 	<ul style="list-style-type: none"> Check the environment (electromagnetic compatibility) Check the connections Check that no more than 2 option cards (max. permitted) have been installed on the drive Replace the option card Inspect/repair the drive
InF1	[Rating error]	<ul style="list-style-type: none"> The power card is different from the card stored 	<ul style="list-style-type: none"> Check the reference of the power card
InF2	[Incompatible PB]	<ul style="list-style-type: none"> The power card is incompatible with the control card 	<ul style="list-style-type: none"> Check the reference of the power card and its compatibility
InF3	[Internal serial link]	<ul style="list-style-type: none"> Communication fault between the internal cards 	<ul style="list-style-type: none"> Check the internal connections Inspect/repair the drive
InF4	[Internal MFG area]	<ul style="list-style-type: none"> Internal data inconsistent 	<ul style="list-style-type: none"> Recalibrate the drive (performed by Schneider Electric Product Support)
InF6	[Internal-option]	<ul style="list-style-type: none"> The option installed in the drive is not recognized 	<ul style="list-style-type: none"> Check the reference and compatibility of the option
InF7	[Internal-hard init.]	<ul style="list-style-type: none"> Initialization of the drive is incomplete 	<ul style="list-style-type: none"> Turn off and reset
InF8	[Internal-ctrl supply]	<ul style="list-style-type: none"> The control power supply is incorrect 	<ul style="list-style-type: none"> Check the control power supply
InF9	[Internal- I measure]	<ul style="list-style-type: none"> The current measurements are incorrect 	<ul style="list-style-type: none"> Replace the current sensors or the power card Inspect/repair the drive
InFa	[Internal-mains circuit]	<ul style="list-style-type: none"> The input stage is not operating correctly 	<ul style="list-style-type: none"> Perform the diagnostic tests via the [1.10 DIAGNOSTICS] menu Inspect/repair the drive
InFb	[Internal- th. sensor]	<ul style="list-style-type: none"> The drive temperature sensor is not operating correctly 	<ul style="list-style-type: none"> Replace the temperature sensor Inspect/repair the drive
InFc	[Internal-time meas.]	<ul style="list-style-type: none"> Fault on the electronic time measurement component 	<ul style="list-style-type: none"> Inspect/repair the drive
InFe	[Internal- CPU]	<ul style="list-style-type: none"> Internal microprocessor fault 	<ul style="list-style-type: none"> Turn off and reset. Inspect/repair the drive
OCF	[Overcurrent]	<ul style="list-style-type: none"> Parameters in the [SETTINGS] (SEt-) and [1.4 MOTOR CONTROL] (drC-) menus are not correct Inertia or load too high Mechanical locking 	<ul style="list-style-type: none"> Check the parameters Check the size of the motor/drive/load Check the state of the mechanism
PrF	[Power removal]	<ul style="list-style-type: none"> Fault with the drive's "Power removal" safety function 	<ul style="list-style-type: none"> Inspect/repair the drive
SCF1	[Motor short circuit]	<ul style="list-style-type: none"> Short-circuit or grounding at the drive output 	<ul style="list-style-type: none"> Check the cables connecting the drive to the motor, and the insulation of the motor Perform the diagnostic tests via the [1.10 DIAGNOSTICS] menu
SCF2	[Impedant sh. circuit]	<ul style="list-style-type: none"> Significant earth leakage current at the drive output if several motors are connected in parallel 	<ul style="list-style-type: none"> Reduce the switching frequency Connect chokes in series with the motor
SCF3	[Ground short circuit]		
SDF	[Overspeed]	<ul style="list-style-type: none"> Instability or driving load too high 	<ul style="list-style-type: none"> Check the motor, gain and stability parameters Add a braking resistor Check the size of the motor/drive/load
SFF	[Speed fdbck loss]	<ul style="list-style-type: none"> Encoder feedback signal missing 	<ul style="list-style-type: none"> Check the wiring between the encoder and the drive Check the encoder
t n F	[Auto-tuning]	<ul style="list-style-type: none"> Special motor or motor whose power is not suitable for the drive Motor not connected to the drive 	<ul style="list-style-type: none"> Check that the motor/drive are compatible Check that the motor is present during auto-tuning If an output contactor is being used, close it during auto-tuning



Fault	Name	Probable cause	Remedy
APF	[Application fault]	<ul style="list-style-type: none"> Controller Inside card fault 	<ul style="list-style-type: none"> Please refer to the card documentation
bLF	[Brake control]	<ul style="list-style-type: none"> Brake release current not reached Brake engage frequency threshold [Brake engage freq] (bEn) only regulated when brake logic control is assigned 	<ul style="list-style-type: none"> Check the drive/motor connection Check the motor windings Check the [Brake release I FW] (Ibr) and [Brake release I Rev] (Ird) settings, page 148. Apply the recommended settings for [Brake engage freq] (bEn)
cnF	[Com. network]	<ul style="list-style-type: none"> Communication fault on communication card 	<ul style="list-style-type: none"> Check the environment (electromagnetic compatibility) Check the wiring Check the time-out Replace the option card Inspect/repair the drive
cdF	[CAN com.]	<ul style="list-style-type: none"> Interruption in communication on the CANopen bus 	<ul style="list-style-type: none"> Check the communication bus Check the time-out Refer to the CANopen user's manual
EPF1	[External flt-LI/Bit]	<ul style="list-style-type: none"> Fault triggered by an external device, depending on user 	<ul style="list-style-type: none"> Check the device, which caused the fault, and reset
EPF2	[External fault com.]	<ul style="list-style-type: none"> Fault triggered by a communication network 	<ul style="list-style-type: none"> Check for the cause of the fault and reset
FCF2	[Out. contact. open.]	<ul style="list-style-type: none"> The output contactor remains open although the closing conditions have been met 	<ul style="list-style-type: none"> Check the contactor and its wiring Check the feedback circuit
LCF	[input contactor]	<ul style="list-style-type: none"> The drive is not turned on even though [Mains V. time out] (LCt) has elapsed 	<ul style="list-style-type: none"> Check the contactor and its wiring Check the time-out Check the line/contactor/drive connection
LFF2 LFF3 LFF4	[AI2 4-20mA loss] [AI3 4-20mA loss] [AI4 4-20mA loss]	<ul style="list-style-type: none"> Loss of the 4-20 mA reference on analog input AI2, AI3 or AI4 	<ul style="list-style-type: none"> Check the connection on the analog inputs
ObF	[Overbraking]	<ul style="list-style-type: none"> Braking too sudden or driving load 	<ul style="list-style-type: none"> Increase the deceleration time Install a braking resistor if necessary Activate the [Dec ramp adapt.] (brA) function, page 127, if it is compatible with the application
DHF	[Drive overheat]	<ul style="list-style-type: none"> Drive temperature too high 	<ul style="list-style-type: none"> Check the motor load, the drive ventilation and the ambient temperature. Wait for the drive to cool down before restarting
DLF	[Motor overload]	<ul style="list-style-type: none"> Triggered by excessive motor current 	<ul style="list-style-type: none"> Check the setting of the motor thermal protection, check the motor load. Wait for the drive to cool down before restarting
DPF1	[1 output phase loss]	<ul style="list-style-type: none"> Loss of one phase at drive output 	<ul style="list-style-type: none"> Check the connections from the drive to the motor



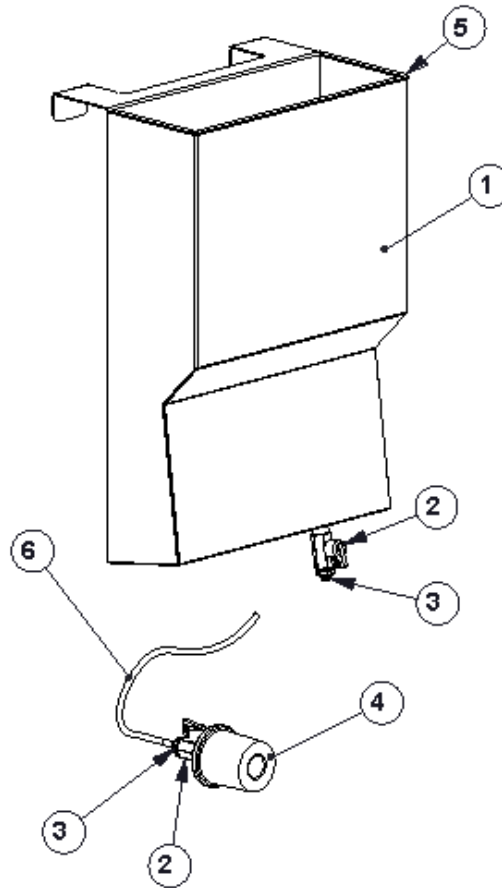
Fault	Name	Probable cause	Remedy
D P F 2	[3 output phase loss]	<ul style="list-style-type: none"> Motor not connected or motor power too low Output contactor open Instantaneous instability in the motor current 	<ul style="list-style-type: none"> Check the connections from the drive to the motor If an output contactor is being used, parameterize [Output Phase Loss] (OPL) = [Output cut] (OAC), page 201 Test on a low power motor or without a motor: In factory settings mode, motor phase loss detection is active [Output Phase Loss] (OPL) = [Yes] (YES). To check the drive in a test or maintenance environment, without having to use a motor with the same rating as the drive (in particular for high power drives), deactivate motor phase loss detection [Output Phase Loss] (OPL) = [No] (nO) Check and optimize the following parameters: [IR compensation] (Ufr), page 70, [Rated motor volt.] (UnS) and [Rated mot. current] (nCr), page 85, and perform [Auto tuning] (tUn), page 88
D S F	[Mains overvoltage]	<ul style="list-style-type: none"> Mains voltage too high Disturbed mains supply 	<ul style="list-style-type: none"> Check the mains voltage
D L F 1	[PTC1 overheat]	<ul style="list-style-type: none"> Overheating of the PTC1 probes detected 	<ul style="list-style-type: none"> Check the motor load and motor size Check the motor ventilation Wait for the motor to cool before restarting Check the type and state of the PTC probes
D L F 2	[PTC2 overheat]	<ul style="list-style-type: none"> Overheating of the PTC2 probes detected 	
D L F L	[LI6=PTC overheat]	<ul style="list-style-type: none"> Overheating of PTC probes detected on input LI6 	
P L F 1	[PTC1 probe]	<ul style="list-style-type: none"> PTC1 probes open or short-circuited 	
P L F 2	[PTC2 probe]	<ul style="list-style-type: none"> PTC2 probes open or short-circuited 	<ul style="list-style-type: none"> Check the PTC probes and the wiring between them and the motor/drive
P L F L	[LI6=PTC probe]	<ul style="list-style-type: none"> PTC probes on input LI6 open or short-circuited 	
S C F 4	[IGBT short circuit]	<ul style="list-style-type: none"> Power component fault 	
S C F 5	[Motor short circuit]	<ul style="list-style-type: none"> Short-circuit at drive output 	
S L F 1	[Modbus com.]	<ul style="list-style-type: none"> Interruption in communication on the Modbus bus 	<ul style="list-style-type: none"> Check the communication bus Check the time-out Refer to the Modbus user's manual
S L F 2	[PowerSuite com.]	<ul style="list-style-type: none"> Fault communicating with PowerSuite 	<ul style="list-style-type: none"> Check the PowerSuite connecting cable Check the time-out
S L F 3	[HMI com.]	<ul style="list-style-type: none"> Fault communicating with the graphic display terminal 	<ul style="list-style-type: none"> Check the terminal connection Check the time-out
S r F	[Torque time-out]	<ul style="list-style-type: none"> The time-out of the torque control function is attained 	<ul style="list-style-type: none"> Check the function's settings Check the state of the mechanism
S S F	[Torque/current lim]	<ul style="list-style-type: none"> Switch to torque limitation 	<ul style="list-style-type: none"> Check if there are any mechanical problems Check the parameters of [TORQUE LIMITATION] (tLA-) page 171, and the parameters of fault [TORQUE OR I LIM. DETECT.] (tld-), page 210
t J F	[IGBT overheat]	<ul style="list-style-type: none"> Drive overheated 	<ul style="list-style-type: none"> Check the size of the load/motor/drive Reduce the switching frequency Wait for the motor to cool before restarting



Fault	Name	Probable cause	Remedy
CFF	[Incorrect config.]	<ul style="list-style-type: none"> Option card changed or removed Control card replaced by a control card configured on a drive with a different rating The current configuration is inconsistent 	<ul style="list-style-type: none"> Check that there are no card errors In the event of the option card being changed/removed deliberately, see the remarks below Check that there are no card errors In the event of the control card being changed deliberately, see the remarks below Return to factory settings or retrieve the backup configuration, if it is valid (see page 223)
CFI	[Invalid config.]	<ul style="list-style-type: none"> Invalid configuration The configuration loaded in the drive via the bus or communication network is inconsistent 	<ul style="list-style-type: none"> Check the configuration loaded previously Load a compatible configuration
HCF	[Cards pairing]	<ul style="list-style-type: none"> The [CARDS PAIRING] (PPI-) function, page 212, has been configured and a drive card has been changed 	<ul style="list-style-type: none"> In the event of a card error, reinsert the original card Confirm the configuration by entering the [Pairing password] (PPI) if the card was changed deliberately
PHF	[Input phase loss]	<ul style="list-style-type: none"> Drive incorrectly supplied or a fuse blown Failure of one phase 3-phase ATV71 used on a single-phase line supply Unbalanced load <p>This protection only operates with the drive on load</p>	<ul style="list-style-type: none"> Check the power connection and the fuses Use a 3-phase mains supply Disable the fault by [Input phase loss] (IPL) = [No] (nO) (page 202)
USF	[Undervoltage]	<ul style="list-style-type: none"> Line supply too low Transient voltage dip Damaged pre-charge resistor 	<ul style="list-style-type: none"> Check the voltage and the parameters of [UNDERVOLTAGE MGT] (USb-), page 205 Replace the pre-charge resistor Inspect/repair the drive



5. Watertank (optional) E12075



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
1	E12074	534934301	Water tank only BMG-555		1
2	E06282	533252301	Ball valve mini		2
3	E06279	533500701	Water reducing coupling		2
4	E08818	534931701	Water adapter for floating shroud		1
5	E00644	534518601	Edging strip 6,5 x 9,5 mm	for E12074	1
6	E06278	533259501	PU hose 8x5,5mm black	BLE06278	1



Inspection comments

Inspection before initial operation on:	_____
By:	_____
Date of initial operation:	_____
Serial number & Year of manufacture:	_____

Recurring inspections / maintenance log

Date / Hour counter	Findings	Repairs / Cleaning	Test on	By*

*competent person



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