

**Anexo 14.7 – Materiais para manutenção
anual – Teleférico da Providência**

	Descrição	Qtd
1	SHEAVE LINER 501 485X100/R40 RUBBER	30
2	SHEAVE LINER 403 403/93/R38 RUBBER	13
3	SHEAVE LINER 500 474/100/R40/ 2xR8 F. FRICT. SHEAVE UNIG	8
4	SHEAVE LINER 420 422/93/R34 RUBBER	40
5	SHEAVE LINER 501 LW100 DIA.520 M. SEAL. LAM., SPEC. S. HUB. CORR.	2
6	SHEAVE LINER 420 CW 93 DIA.455 W. SEAL. WASHERS, SPEC. DGBB, CORR	2
7	BREAK FORK SWITCH C.GLAND F.2 CABLES DIA.5-6	10
8	BREAK FORK DIA 4.5 L=122 STAT BREAKING LOAD 60-100N	50
9	SIDE PLATE DIA.520/400.5 S=18 R	20
10	SNAP RING 593,5X 6.3 DELTA-TONE COATED	20
11	SPAC.SL. DIA.50/ 30 L= 160 SPACER SLEEVE	10
12	SPACER DIA.68/50 S= 23,5 F. SHEAVE 501 GALVAN. + YELLOW	10
13	DGBB DING 625/1 - 6310-2RS1-C3GLE VT210 (90% +/-5% DG BALL BEAR.	32
14	CIRCLIP F. BORES DIN 472 110 X 4 PHOSPHATED	50
15	SEALING WASHER Z212F 60 X 110 SONDERAUSF. DER OBERFLAECHE	25
16	SIDE PLATE DIA.455/330.5 S=17R 6.9+-0.1	16
17	SNAP RING 323.8 X 6.0 DELTA-TONE COATED	16
18	SPACER SLEEVE. 35/25 L=140 F. SHEAVE 420C	10
19	DGBB DING 625/1 - 6307-2RS1-C3GLE DG BALL BEAR VT210 (90% +/-5%	32
20	CIRCLIP F. BORES DIN 472 80 X 2.5 PHOSPHATED	70
21	SPACER DIA.57/35 S= 18,5 F. SHEAVE 420C GALVAN. +YELLOW	10
22	SEALING WASHER Z010F 50 X 80 SPECIAL SURFACE DESIGN	40
23	V-BELT CC/HCC EL=6150 MM DOUBLE V-BELT OPTIBEL	12
24	V-BEL SPC LW=1900 MM D23P TOLERANCE +/-2MM	100
25	V-BELT XPC LW=1870 MM DIN 7753-1	20
26	V-BELT XPC LW=1960 MM DIN 7753-1	12
27	V-BELT XPC LW=2080 MM DIN 7753-1	7
28	TYRE "DOPPELMAYR-K" DESIGN	100
29	TYRE TUBE "DOPPELMAYR-K" WITH VALV TR 88 G 3.5/4.008	30
30	TYRE COMPL. "DOPPELMAYR-G" PRESSURE RANGE 3.5-5.0 BAR	10
31	LUBR. GREASE - MOBIL GREASE XHP 222 0.4 KG CARTRIDGE	10
32	LUBR. GREASE - STABURAGS NBU 8 EP 0.4 KG CARTRIDGE KLUEBER	2
33	SILAMIN 510 FENKART 1.0L BOTTLE	5
34	LUBR. GREASE - MOBILHT SHC 460 0.4 KG CARTRIDGE	5
35	INSPECTIONS PARTS A108 NOTE: SEE TEXT	80
36	GRIP TONGUE A108-C TYPE 1 ROPE DIA.44-47MM	32
37	RUNNING WHEEL DIA. 180 MM VM A180-C	25
38	GUIDE ROLLER DIA.158 MM A104/8VM A104-C/A108-C	25
39	HEAD AXLE A108-C DIA.32 L 354	2
40	SPRING CROSS HEAD A108-C 50 X 290	1
41	SPRING AXLE A108-C DIA.28 NL 91	4
42	AXLE F. RUNNING WHEEL A108-C DIA.35 NL 115.5	15
43	GUIDE ROLLER DIA.158 MM AGA-C	5
44	RUNNING WHEEL DIA. 180 AGA-C	5
45	GUIDE ROLLER DIA.158 MM AGA-C	5

	Descrição	Qtd
46	DGBB DING 625/1 - 6207-2RS1-C3 LT VT210 (TTF 90% +/-5% DG BEAR.	10
47	CIRCLIP F. BORES DIN 472 72 X 3.0 GALVANIZED	10
48	WASHER A108-C DIA.70.0/50.0 S=6.5	5
49	SPRING GUIDE ROD A108-C L=430	6
50	BOTTOM SPRING PLATE A108-C WITE ZINC FLAKE COATING	2
51	SPRING GUIDE, TOP A108-C WITE ZINC FLAKE COATING	2
52	AXLE RETAINER AGA-C A108-C, A104-C	10
53	BOLT DIN 933-8.8 M 8 X 20 HEXAGON BOLT, GAVANIZED (ISO 4017)	100
54	SHOULDER BOLT A108-C	10
55	SELF-LOCKING NUT DIN 985-8 M10 GAVANIZED (ISO 10511)	50
56	ROLL PIN DIN 1481 6 X 55 W. DRACROMET FINISH (ISO 8752)	200
57	CASTLE NUT DIN 979-04 M20 X 2+.0 GALVANIZED, PRESSED TYPE	10
58	SPLIT PIN DIN 94 5X 50 ST GAVANIZED (ISSO 1234)	100
59	HEXAG. NUT DIN 439B-04 M18 GAVANIZED (ISO 4035)	50
60	HEX. NUT M18 A108-C	50
61	LUBR. GREASE INTERFLON FG LT2 400 ML CARTRIDGE	1
62	BUS COUPLER ETHER-TCP/IP BK9100 BECKHOFF PROGRAMMED	1
63	BUS TERMINAL 8 DIG. OUTP. KL2408 BECKHOFF	3
64	BUS TERMINAL 8 DIG. INP. KL1408 BECKHOFF	3
65	BUS END TERMINAL KL9010 BECKHOFF	1
66	ETHERNET SHDSL EXTENDER DDW120 PLUS LV WESTERMO	1
67	ETHERNET SWITCH 8-PORT O. NO. 2891929 PHOENIX	1
68	PATCH CABLE S/FTP L= 5.0M SHIELDED, CATEGORY CAT6	2
69	DC/DC CONVERTER 15W VTM23WC24 24VDC/+/-15VDC ETA ELECTRIK	1
70	DC/DC CONVERTER 25W VTA24SC24 24VDC/24VDC ETA ELECTRIK	1
71	DC/DC CONVERTER 50W VTB24SC24 24VDC/24VDC ETA ELECTRIK	1
72	CHARGING CONNECTION VACUN FU	1
73	PROXIM. SWITCH ITEM NO. 195007 19-3023BBPKG/SS-000-K CONTACT	10
74	OUTLET GDM 3009-3-POLE + DIN 43650-A/ISO 4400	10
75	PROFILED JOINT GDM 3-16 731 531-002 FOR GDM 3009	20
76	PROXIMITY SWITCH IG5521 IFM INDUCTIVE (DIA.18) PNP CONTACT	4
77	PROXIMITY SWITCH F1 GS (RED) PULSOR M18 9914-1735 ANALOG	4
78	PROXIMITY SWITCH F2 GS (GREEN) PULSOR M18 9914-1736 ANALOG	4
79	PLUG ELWIKA 4012PG9 IP67 RELISTE	4
80	INTERF. CONVERTER PAP4 + FILTER NO. 305158 F. RS232/RPD PILZ	1
81	TIME RELAY PQ20P-DOPP (2 CHANGE-OV.CONT.) TELE HAASE	2
82	VOLTAGE RELAY S1UMUP/UB24V/ UM500V NO. 827225 PILZ	2
83	RELAY SKR 115DL 24VDC (3 CHANGE-OV.CONTACTS) ELESTA	6
84	RELAY SKR 115 220V AC (3 CHANGE-OV.CONTACTS) ELESTA	5
85	SMALL RELAY MY4ZIN1 24VDC 14-CHANNEL CHANGE-OVER CONTACT	10
86	SMALL RELAY RT425024 COIL VOLTAGE: 24V/DC SCHRACK	20
87	INTERFACE RELAY PLC-RSC 24DC/21 ORDER NO. 2966171	6
88	SAFETY RELAY SF4D-B1-AC/DC 24V SDS	1
89	RELAY BASE PF 113 BE 11-PIN	4
90	SOCKET RSS 214 14-PIN ART. NO. 180050 TELE	4

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91	INTERFACE RELAY PLC-BSC 24DC/21-21 ORDER NO. 2967015	4
92	OPTO COUPLER DEK-OV-24DC/24DC/10 PHOENIX ART.NO. 2964322	4
93	INTERFACE RELAY PLC OPTO COUPL PLC-OSC-24DC/24DC/2	10
94	CHARGER SKYLLA-TG 24/50 ADJUSTED VICTRON ENERGY	1
95	TACHO ALTER REO 444 R1B 0.06EG/JT-IP65 W. MAX. 10000 RPM--0.18A	1
96	INCREMENTAL SHAFT ENCODER 861 LEINE+LIND	1
97	OVERVOLTAGE ARRESTER DG S 75 DEHN ART. NO. 952071	4
98	LIGHTN.C./SURGE ARREST. 920324 PROTECT. MODULE BXT ML4 BE 24	4
99	LIGHTN.C./SURGE ARREST. 920300 PROTECT. MODULE BXT BASS DEHN	4
100	PRINT.B. BLSCHAS2 LIGHTN. PROT. ASSEMBLED LUZETE	2
101	OVERVOLTAGE PROTECTION PLUG PHOENIX CONTACT ART. No. 2838733	4
102	BASIC ELEMENT F. PROTECTIVE PLUG PHOENIX CONTACT ART. No.2856113	3
103	TERMINAL TERMITRAB-UKK5-M-F/60 AC WITH GAS FILLED OVER. ARR.	2
104	TERMINAL TERMITRAB-SLKK110DC ORDER NO. 2794932 PHOENIX	3
105	AUXIL. CONTACT 1 N. OPEN HN 10 BENEDIKT & JAEGER	4
106	AUXIL. CONTACT 1 N. CLOS. HN 01 BENEDIKT & JAEGER	4
107	SWITCH ELEMENT 1 N. OPEN B3T10 (FRONT INST.) BENEDIKT & JAEGER	4
108	SWITCH ELEMENT 1 N. CLOS. B3T01 (FRONT INST.) BENEDIKT & JAEGER	4
109	AUXIL. CONTACT 1NO CEL18-10 ABB	4
110	AUXIL. CONTACT 1NC CEL18-01 ABB	4
111	PCB TSAP-1 W/O RECTIF. 4K7 ASSEMBLED	1
112	CAM SWITCH M10H EA1 +OV + SA TELUX	1
113	CAM SWITCH M10H EA1+OV + G2 PROTECTED AG. ACCID. CONT. TELUX	2
114	CAM SWITCH M10H EST31 +OV + R5 + PN31 (E058H) TELUX	2
115	CAM SWITCH M10H E 744H TELUX	2
116	CHANGE-OV. SWITCH M10H EU3 + OV PROTECTED AG. ACCID. CONT. TELUX	2
117	CHANGE-OV. SW. M10H EU3 + OV + SA 01 TELUX WITH BLANK LABEL	2
118	KEY SWITCH B5SAT 0 DOALU DIA.30 BENEDIKT & JAEGER	2
119	KEY SWITCH B5SAR 0 D. AL., DIA.30 BENEDIKT & JAEGER	2
120	PUSH BUTTON, RED B5D D. ALUM. DIA.30 BENEDIKT & JAEGER	2
121	PUSH BUTTON, RED BS4P44T RT DIA.40 BENEDIKT & JAEGER	2
122	MUSHROOM-SH. BUTTON, YELL B5P1 DIA.30 D. ALUM. BENEDIKT & JAEGER	2
123	PUSH BUTTON, GREEN, B5D D. ALUM. DIA.30 BENEDIKT & JAEGER	5
124	PUSH BUTTON, BLACK, B5D D. ALUM. DIA. 30 BENEDIKT & JAEGER	5
125	PUSH BUTTON, BLUE, B5D D. ALUM BENEDIKT & JAEGER	5
126	PUSH BUTTON, RED, B5D D. ALUM DIA. 30 BENEDIKT & JAEGER	2
127	COUPLING PIECE B3M BENEDIKT & JAEGER	2
128	RCCB 5SM3 344-6 40A RELEASE CURRENT 0.03A SIEMENS	2
129	RCCB 5SM3 654-6 40A RELEASE CURRENT 0.3A SIEMENS	2
130	FUSE CLASS CC 30A TYPE FNQ-R-30 BUSSMANN	20
131	FUSE CLASS CC 25A TYPE FNQ-R-25 BUSSMANN	10
132	FUSE CLASS CC 20A TYPE FNQ-R-20 BUSSMANN	10
133	SEMIC. FUSE 690V FLUSH END 800A BUSSMANN ID NO. 170M6462	2
134	FUSE 690V FLUSH END 1250A BUSSMANN ID NO. 170M6466	2

	Descrição	Qtd
135	PRINT. BOARD WIDWIND 4 X 330 OHM ASSEMBLED	2
136	DIGITAL INPUT CARD P-10-DI NO. 304100 PITRONIK	1
137	PRINT. BOARD RCPRB01 72 X 20 ASSEMBLED2 RC PRINTED BOARD	2
138	INTERFACE RELAY PLC OPTO COUPL PLC-OSC-24DC/24DC/2	5
139	CONTACTOR K3-24A00=.24 24V/DC BENEDIKT & JAEGER	3
140	PRINTED BOARD TASTPR03 ASSEMBLED	1
141	PRINTED BOARD - TELEPHONE CALL ASSEMBLED	1
142	OPTO COUPLER EMG 10-0V-60DC/24DC/1 ORD. NO. 2944232	2
143	OPTO COUPLER DEK-0V-24DC/24DC/10 PHOENIX ART.NO. 2964322	1
144	PCB SPOTA (COMMAND VALUE INP.) ASSEMBLED	1
145	SW.-M. POWER SUPP. PULS QS20 481 100-240VAC-48VDC/10A	1
146	GAUGE 416, SHEAVE 420C, RUBBER LINER WEAR DIA.420-4=416	1
147	GAUGE 481, F. SHEAVE 501, RUBBER LINER WEAR DIA.485-4=481	1
148	HYDR. UNIT TEC12V1, 6LTP250BAR, W. CABLE REMOTE CTRL, TECNOS.	1
149	TENSION. CYL. TEC2W10H600 TECNOX. (10KN TENS. F/600 MM STROKE)	1
150	ROUND SLING RS 4000 L=4,0 M CARR. CAP. 4000KG, SAF. FACTOR 8	3
151	ROUND SLING RS 3000 L=8,0 M CARR. CAP. 3000KG, SAF. FACTOR 8	3
152	SHACKLE 3/4" 4.75T H.-STR. CURVED/WITH/STUD/ GALVANIZED	2
153	ALUMINUM ROD	1
154	PIN PUNCH, SPECIAL DIA. 5.7 (ACCORD.TO DIN 6445)	1
155	PIN PUNCH, SPECIAL DIA. 5.7 WITH TIP (ACCORD.TO DIN 6445)	1
156	PIN PUNCH, SPECIAL DIA. 8.0 WITH RECESS (ACC.TO DIN 6445)	1
157	WRENCH DIN 3110 WS 6 X 7 DOUBLE OPEN-END WRENCH, CHROM.	1
158	SOCKET WRENCH SET D191MU-10 1/2" DRIVE 27-PCS. GEDORE	1
159	SOCKET DIN3124 WS 46 X 3/4" S UD-PROFILE	1
160	ADAPTER DIN 3123 1/2" X 3/4" EXTERN. 3/4" -ITERN. SQUARE 1/2"	1
161	WRENCH DIN 3110 WS 27 X 32 DOUBLE-E.-OPEN- J. WRENCH, CHROM.	1
162	ROLL PIN DIN 1481 6 X 45 W. DRACROMET FINISH (ISO 8752)	20
163	ROLL PIN DIN 1481 6 X 55 W. DRACROMET FINISH (ISO 8752)	20
164	ROLL PIN DIN 1481 10 X 50 W. DRACROMET FINISH (ISO 8752)	20
165	SPLIT PIN DIN 94 5 X 50 ST GALVANIZED (ISO 1234)	20
166	SELF-LOCKING NUT DIN 985-8 M10 GAVANIZED (ISO 10511)	10
167	SNAP RING DIN 471 30 X 2.0 PHOSPHATED	10
168	RETAIN. WASHER NORDLOCK NL8 WITH ZINC FLACKE COATING	20
169	EXPANS. MANDREL F. BUSH. PM2260DS FOT GRIP A108-C ELETROGALV.	5