

# Line Check Sheet for Paragliders

# Piece Check

Glider Type: UP XT20 K2 <sup>3</sup> SM (LTF/EN B)	Serial No.:
Rev. No.: 4	Date: 19.08.2014

Line lengths [mm]

R. No.	Area										rib no. brakes																
	A					B						C															
	Nom.	Left			Right			Nom.	Left			Right			Nom.	Left			Right								
		-20 mm	-10 mm	0 mm	+10 mm	+20 mm	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	Nom.	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	-20 mm	-10 mm	0 mm	+10 mm	+20 mm
2	8365																8290										
4	8265																8200										
6	8245																8180										
8	8295																8240										
10	8245																8200										
12	8160																8125										
14	8125																8100										
16	8135																8130										
18	8005																7985										
20	7860																7865										
22	7710																7720										
24	7625																7620										
26	7265																										
27	7210																										
27																											

Total line length in cm from riser quick link to canopy including line loops, following DHV measuring method. Line load is 5 daN.

Rib numbering starts in the center of the wing. Wing sides in flight direction, seen from top.

Measurements are rounded to the next 0,5 cm. Please mark measurements relative to nominal by crossing X

R. No.	Area										rib no. brakes						
	D					Brake											
	Nom.	Left			Right			Nom.	Left			Right					
		-20 mm	-10 mm	0 mm	+10 mm	+20 mm	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	
2	8430															9125	3
4	8335															8910	5
6	8315															8840	7
8	8380															8715	9
10	8335															8576	11
12	8260															8590	13
14	8230															8515	15
16	8255															8420	17
18	8090															8445	19
20	7955															8335	21
22	7800															8225	23
24	7685															8165	25
26																	
27																	
27																	

Loops on Quick links		Loop Index	MTS
Factory setting			
A1	--	0	0
A2	--	0	0
A3	--	0	0
B1	--	0	0
B2	--	0	0
B3	--	0	0
C1	--	0	0
C2	--	0	0
C3	--	0	0
STI	--	0	0

brakes measured inkl. 10cm-loop

### Single Line Lengths

Glider Type: UP XT20 K2<sup>3</sup> SM (LTF/EN B)  
Rev. No.: 4

Serial No.:  
Date: 19.08.2014

Line no.	Quantity	Length [mm]	material	colour
a1	2	1292	989/1.3	red
a2	2	1197	989/1.3	red
a3	2	1175	989/1.3	red
a4	2	1229	989/1.3	red
a5	2	1178	989/1.3	red
a6	2	1091	989/1.3	red
a7	2	1051	989/1.3	red
a8	2	1069	989/1.3	red
a9	2	932	989/1.1	red
a10	2	789	989/1.1	red
a11	2	792	989/1.1	red
a12	2	707	989/1.1	red
a13	2	478	989/1.1	blue
a14	2	422	989/1.1	blue
b1	2	1199	989/1.3	blue
b2	2	1104	989/1.3	blue
b3	2	1085	989/1.3	blue
b4	2	1146	989/1.3	blue
b5	2	1100	989/1.3	blue
b6	2	1021	989/1.3	blue
b7	2	990	989/1.3	blue
b8	2	1019	989/1.3	blue
b9	2	891	989/1.1	blue
b10	2	762	989/1.1	blue
b11	2	776	989/1.1	blue
b12	2	694	989/1.1	blue
c1	2	1224	989/1.1	yellow
c2	2	1130	989/1.1	yellow
c3	2	1113	989/1.1	yellow
c4	2	1176	989/1.1	yellow
c5	2	1133	989/1.1	yellow
c6	2	1057	989/1.1	yellow
c7	2	1030	989/1.1	yellow
c8	2	1060	989/1.1	yellow
c9	2	914	989/1.1	yellow
c10	2	789	989/1.1	yellow
c11	2	802	989/1.1	yellow
c12	2	706	989/1.1	yellow
d1	2	1316,0	989/1.1	yellow
d2	2	1224,0	989/1.1	yellow
d3	2	1206,0	989/1.1	yellow
d4	2	1266,0	989/1.1	yellow
d5	2	1222,0	989/1.1	yellow
d6	2	1145,0	989/1.1	yellow
d7	2	1114,0	989/1.1	yellow
d8	2	1138,0	989/1.1	yellow
d9	2	968,0	989/1.1	yellow
d10	2	833,0	989/1.1	yellow
d11	2	836,0	989/1.1	yellow
d12	2	715,0	989/1.1	yellow

Line no.	Quantity	Length [mm]	material	colour
A1	2	1900	989/1.9	red
A2	2	1900	989/1.9	red
A3	2	1900	989/1.9	red
A4	2	1900	989/1.9	red
A5	2	1900	989/1.5	red
A6	2	1750	989/1.5	red
B1	2	1900	989/1.9	blue
B2	2	1900	989/1.9	blue
B3	2	1900	989/1.9	blue
B4	2	1900	989/1.9	blue
B5	2	1900	989/1.5	blue
B6	2	1750	989/1.5	blue
C1	2	1900	989/1.5	yellow
C2	2	1900	989/1.5	yellow
C3	2	1900	989/1.5	yellow
C4	2	1900	989/1.5	yellow
C5	2	1900	989/1.3	yellow
C6	2	1750	989/1.3	yellow
D1	2	1900	989/1.5	yellow
D2	2	1900	989/1.5	yellow
D3	2	1900	989/1.5	yellow
D4	2	1900	989/1.5	yellow
D5	2	1900	989/1.3	yellow
D6	2	1750	989/1.3	yellow
AI	2	5200	450/2.5	red
AII	2	5200	450/2.5	red
AIII	2	5200	360/2.1	red
BI	2	5200	450/2.5	blue
BII	2	5200	450/2.5	blue
BIII	2	5200	360/2.1	blue
CI	2	5200	360/2.1	yellow
CII	2	5200	360/2.1	yellow
CIII	2	5200	230/1.8	yellow
DI	2	5250	360/2.1	yellow
DII	2	5250	360/2.1	yellow
DIII	2	5250	230/1.8	yellow
st1	2	415	989/1.1	blue
st2	2	507	989/1.1	blue
ST1	2	850	989/1.1	blue
ST2	2	850	989/1.1	blue
STI	2	5960	230/1.8	red

Brake no.	Quantity	Length [mm]	material	colour
br1	2	1975	989/1.1	pink
br2	2	1754	989/1.1	pink
br3	2	1688	989/1.1	pink
br4	2	1762	989/1.1	pink
br5	2	1621	989/1.1	pink
br6	2	1634	989/1.1	pink
br7	2	1562	989/1.1	pink
br8	2	1466	989/1.1	pink
br9	2	1491	989/1.1	pink
br10	2	1386	989/1.1	pink
br11	2	1272	989/1.1	pink
br12	2	1210	989/1.1	pink
BR1	2	3500	989/1.3	pink
BR2	2	3300	989/1.3	pink
BR3	2	3300	989/1.3	pink
BR4	2	3300	989/1.3	pink
BRl	2	3700	Dyneema 2.3	orange

**Line material:**

989/1.1 = Cousin Dyneema 989, diam. 1,1 mm  
 989/1.3 = Cousin Dyneema 989, diam. 1,3 mm  
 989/1.5 = Cousin Dyneema 989, diam. 1,5 mm  
 989/1.9 = Cousin Dyneema 989, diam. 1,9 mm  
 450/2.5 = Cousin Technora, 450kgs breaking streng  
 360/2.1 = Cousin Technora, 360kgs breaking strengt  
 230/1.8 = Cousin Technora, 230kgs breaking strengt

total length	no. of lines
404718	210

# Line Check Sheet for Paragliders

# Piece Check

Glider Type: UP XT20 K2 <sup>3</sup> ML (LTF/EN B)	Serial No.:
Rev. No.: 3	Date: 19.08.2014

Line lengths [mm]

R. No.	Area										rib no. brakes																	
	A					B						C																
	Nom.	Left			Right			Nom.	Left			Right			Nom.	Left			Right									
		-20 mm	-10 mm	0 mm	+10 mm	+20 mm	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	Nom.	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	
2	8830																8730											8760
4	8735																8630											8665
6	8710																8610											8645
8	8765																8675											8710
10	8715																8630											8665
12	8620																8545											8595
14	8580																8515											8560
16	8600																8540											8590
18	8455																8410											8450
20	8305																8275											8315
22	8150																8130											8170
24	8060																8040											8070
26	7685																											
27	7625																7620											
27																	7715											

Total line length in cm from riser quick link to canopy including line loops, following DHV measuring method. Line load is 5 daN.

Rib numbering starts in the center of the wing. Wing sides in flight direction, seen from top.

Measurements are rounded to the next 0,5 cm. Please mark measurements relative to nominal by crossing X

R. No.	Area										rib no. brakes						
	D					Brake											
	Nom.	Left			Right			Nom.	Left			Right					
		-20 mm	-10 mm	0 mm	+10 mm	+20 mm	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	-20 mm	-10 mm	0 mm	+10 mm	+20 mm	
2	8910															9655	3
4	8810															9415	5
6	8795															9355	7
8	8860															9225	9
10	8805															9080	11
12	8730															9090	13
14	8700															9015	15
16	8720															8920	17
18	8570															8940	19
20	8430															8835	21
22	8275															8715	23
24	8145															8650	25
26																	
27																	
27																	
27																	

Loops on Quick links		Loop Index MTS
Factory setting		
A1	--	0
A2	--	0
A3	--	0
B1	--	0
B2	--	0
B3	--	0
C1	--	0
C2	--	0
C3	--	0
STI	--	0

brakes measured inkl. 10cm-loop

### Single Line Lengths

Glider Type: UP XT20 K2<sup>3</sup> ML (LTF/EN B)  
Rev. No.: 3

Serial No.:  
Date: 19.08.2014

Line no.	Quantity	Length [mm]	material	colour
a1	2	1354	989/1.3	red
a2	2	1255	989/1.3	red
a3	2	1233	989/1.3	red
a4	2	1292	989/1.3	red
a5	2	1239	989/1.3	red
a6	2	1148	989/1.3	red
a7	2	1107	989/1.3	red
a8	2	1127	989/1.3	red
a9	2	982	989/1.1	red
a10	2	833	989/1.1	red
a11	2	829	989/1.1	red
a12	2	739	989/1.1	red
a13	2	501	989/1.1	blue
a14	2	441	989/1.1	blue
b1	2	1257	989/1.3	blue
b2	2	1157	989/1.3	blue
b3	2	1139	989/1.3	blue
b4	2	1205	989/1.3	blue
b5	2	1157	989/1.3	blue
b6	2	1074	989/1.3	blue
b7	2	1043	989/1.3	blue
b8	2	1074	989/1.3	blue
b9	2	939	989/1.1	blue
b10	2	804	989/1.1	blue
b11	2	811	989/1.1	blue
b12	2	725	989/1.1	blue
c1	2	1282	989/1.1	yellow
c2	2	1185	989/1.1	yellow
c3	2	1168	989/1.1	yellow
c4	2	1235	989/1.1	yellow
c5	2	1191	989/1.1	yellow
c6	2	1112	989/1.1	yellow
c7	2	1084	989/1.1	yellow
c8	2	1116	989/1.1	yellow
c9	2	975	989/1.1	yellow
c10	2	843	989/1.1	yellow
c11	2	850	989/1.1	yellow
c12	2	749	989/1.1	yellow
d1	2	1382,0	989/1.1	yellow
d2	2	1286,0	989/1.1	yellow
d3	2	1269,0	989/1.1	yellow
d4	2	1333,0	989/1.1	yellow
d5	2	1288,0	989/1.1	yellow
d6	2	1207,0	989/1.1	yellow
d7	2	1176,0	989/1.1	yellow
d8	2	1201,0	989/1.1	yellow
d9	2	1045,0	989/1.1	yellow
d10	2	904,0	989/1.1	yellow
d11	2	899,0	989/1.1	yellow
d12	2	771,0	989/1.1	yellow

Line no.	Quantity	Length [mm]	material	colour
A1	2	2000	989/1.9	red
A2	2	2000	989/1.9	red
A3	2	2000	989/1.9	red
A4	2	2000	989/1.9	red
A5	2	2000	989/1.5	red
A6	2	1850	989/1.5	red
B1	2	2000	989/1.9	blue
B2	2	2000	989/1.9	blue
B3	2	2000	989/1.9	blue
B4	2	2000	989/1.9	blue
B5	2	2000	989/1.5	blue
B6	2	1850	989/1.5	blue
C1	2	2000	989/1.5	yellow
C2	2	2000	989/1.5	yellow
C3	2	2000	989/1.5	yellow
C4	2	2000	989/1.5	yellow
C5	2	2000	989/1.3	yellow
C6	2	1850	989/1.3	yellow
D1	2	2000	989/1.5	yellow
D2	2	2000	989/1.5	yellow
D3	2	2000	989/1.5	yellow
D4	2	2000	989/1.5	yellow
D5	2	2000	989/1.3	yellow
D6	2	1850	989/1.3	yellow
AI	2	5500	450/2.5	red
AII	2	5500	450/2.5	red
AIII	2	5500	360/2.1	red
BI	2	5500	450/2.5	blue
BII	2	5500	450/2.5	blue
BIII	2	5500	360/2.1	blue
CI	2	5500	360/2.1	yellow
CII	2	5500	360/2.1	yellow
CIII	2	5500	230/1.8	yellow
DI	2	5550	360/2.1	yellow
DII	2	5550	360/2.1	yellow
DIII	2	5550	230/1.8	yellow
st1	2	434	989/1.1	blue
st2	2	531	989/1.1	blue
ST1	2	900	989/1.1	blue
ST2	2	900	989/1.1	blue
STI	2	6300	230/1.8	red

Brake no.	Quantity	Length [mm]	material	colour
br1	2	2060	989/1.1	pink
br2	2	1827	989/1.1	pink
br3	2	1761	989/1.1	pink
br4	2	1877	989/1.1	pink
br5	2	1731	989/1.1	pink
br6	2	1744	989/1.1	pink
br7	2	1669	989/1.1	pink
br8	2	1571	989/1.1	pink
br9	2	1596	989/1.1	pink
br10	2	1488	989/1.1	pink
br11	2	1370	989/1.1	pink
br12	2	1303	989/1.1	pink
BR1	2	3700	989/1.3	pink
BR2	2	3450	989/1.3	pink
BR3	2	3450	989/1.3	pink
BR4	2	3450	989/1.3	pink
BRl	2	3900	Dyneema 2.3	orange

#### Line material:

989/1.1 = Cousin Dyneema 989, diam. 1,1 mm  
 989/1.3 = Cousin Dyneema 989, diam. 1,3 mm  
 989/1.5 = Cousin Dyneema 989, diam. 1,5 mm  
 989/1.9 = Cousin Dyneema 989, diam. 1,9 mm  
 450/2.5 = Cousin Technora, 450kgs breaking streng  
 360/2.1 = Cousin Technora, 360kgs breaking strengt  
 230/1.8 = Cousin Technora, 230kgs breaking strengt

total length	no. of lines
427156	210