

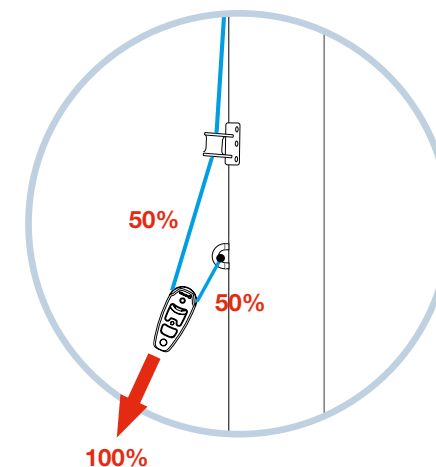
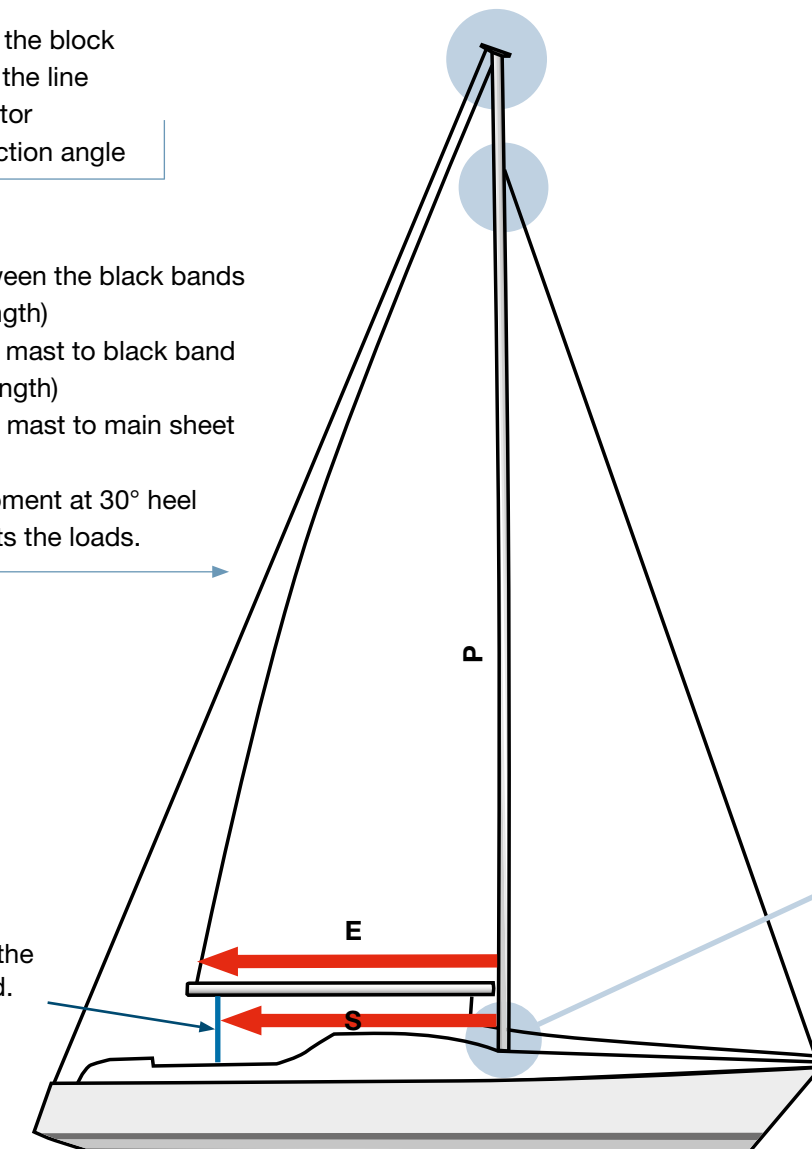
P = Load on the block
 F = Load on the line
 k = Load factor
 α (°) = Deflection angle

α (°)	k
0	2,00
10	1,99
20	1,97
30	1,93
40	1,88
50	1,81
60	1,73
70	1,64
80	1,53
90	1,41
100	1,29
110	1,15
120	1,00
130	0,85
140	0,68
150	0,52
160	0,35
170	0,17
180	0

P = Distance between the black bands (~main luff length)
 E = Distance from mast to black band (~main foot length)
 S = Distance from mast to main sheet attachment
 RM = Righting Moment at 30° heel
 The RM affects the loads.

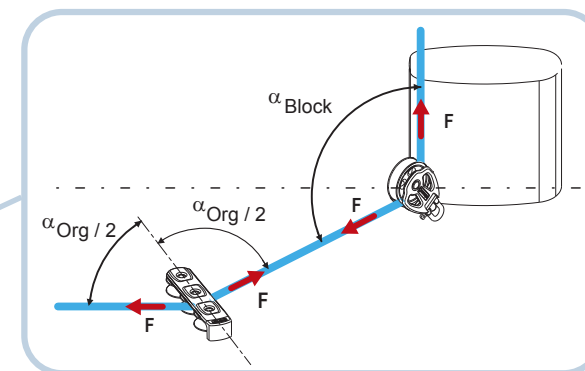
Main sheet load.
 The further aft the sheet is placed on the boom, the less load.

The deflection angle of the main halyard over the sheave is 0°.
 The load on the sheave is halyard load x 2.



Code 0 halyard load is reduced 50% with this 2:1 purchase.

90° deflection angle gives a block load of 1,41 x halyard load.



130° deflection angle gives a block load of 0,85 x halyard load.

Reference list - Running Rig Loads

Boat model	Type of rig	P (mm)	E (mm)	S (mm)	Displ. (Tonnes)	RM	Genn. /Spinn. load (kg)	Genn. /Spinn. Block load 90° angle (kg)	Code 0 load 2:1 haly. Block load 90° angle (kg)	Code 0 load (kg)	Code 0 load 1:1 haly. Block load 90° angle (kg)	Main halyard (kg)	Main halyard, Block load 90° angle (kg)*	Main sheet at S (kg)	Genoa halyard (kg)	Genoa halyard, Block load 90° angle (kg)	Genoa sheet (kg)	
H-Boat	Fractional	8700	3000	2600	1,45	8,3	193	272	216	305	432	609	217	306	251	217	306	167
Maxi Magic	Fractional	9750	3150	3150	2,2	9,5	185	261	209	294	417	588	238	336	238	238	336	183
Albin Cumulus	Fractional	10700	3000	2800	3,6	14,8	250	353	275	388	550	776	326	460	349	326	460	251
Dehler 29	Fractional	11300	4100	3500	3,1	18,6	300	423	335	472	670	945	315	444	369	315	444	242
Maxi 87	Masthead	9880	2750	2650	3,8	15,9	258	364					279	393	290	388	547	298
Bavaria 32 (2001)	Fractional	11070	4050	2250	3,9	20,3	319	450	353	498	705	994	406	572	731	406	572	312
Contrast 33	Fractional	12100	3550	2960	3,7	20,8	337	475	376	530	752	1060	415	585	497	415	585	319
Linjett 33 (2002)	Fractional	12450	4000	4000	4,3	21,8	330	465	371	523	742	1046	427	602	427	427	602	328
X-332	Fractional	13250	4550	4000	4,3	25,3	358	505	404	570	808	1139	474	668	539	474	668	364
Hanse 315	Fractional	11500	4250	4300	4,7	24,3	375	529	419	590	837	1180	461	650	456	461	650	355
Scanmar 33	Fractional	12550	3700	3800	5	25	380	536	422	595	844	1190	470	663	458	470	663	362
Comfortina 35	Fractional	13250	4450	4450	5,2	25,4	356	502	402	567	804	1134	475	670	475	475	670	366
Hallberg-Rassy 31	Fractional	11500	3760	3760	4,5	27,2	418	589	469	661	937	1321	499	704	499	499	704	384
Maxi 95	Masthead	10600	3400	3200	4,7	20,5	312	440					334	471	354	463	653	356
Nauti Cat 321	Masthead	11000	3500	2360	6,0	24,1	345	486					374	527	554	519	732	399
CB 365	Fractional	13600	4800	4400	5,2	29,5	368	519	419	590	837	1180	528	744	576	528	744	406
Hallberg-Rassy 342	Fractional	12700	4500	4300	5,7	31,8	437	616	490	691	980	1382	557	785	583	557	785	428
Swede Star 370	Fractional	14570	4900	4600	6,2	36,4	443	625	505	712	1010	1424	612	863	652	612	863	470
Dehler 36	Fractional	14200	4950	4750	6,2	42,5	531	749	600	846	1200	1692	681	960	710	681	960	524
Finngulf 36	Fractional	13700	4300	4170	5,5	30,8	394	556	450	635	901	1270	544	767	561	544	767	419
Hallberg-Rassy 372	Fractional	14380	4800	5010	8,3	47,3	580	818	660	931	1320	1861	735	1036	704	735	1036	565
Arcona 400	Fractional	15350	5500	5400	7	50,9	589	830	673	949	1346	1898	773	1090	787	773	1090	595
Bavaria 42 Vision	Fractional	15450	5540	2945	12,3	58,9	676	953	762	1074	1524	2149	857	1208	1612	857	1208	659
Hallberg-Rassy 382	Masthead	14200	5000	5000	8,7	45	519	732					579	816	579	803	1132	618
Linjett 43	Fractional	16400	5620	3100	9	63,8	733	1034	839	1183	1679	2367	906	1277	1642	906	1277	697
Arcona 430	Fractional	17200	6000	5800	9,2	69,5	734	1035	844	1189	1687	2379	962	1356	995	962	1356	740
Dehler 46	Fractional	17700	6250	6250	11,2	78,5	800	1128	919	1295	1837	2590	1047	1476	1047	1047	1476	806
Bavaria 47 CR	Fractional	15900	5600	2650	11,5	86	942	1328	1075	1515	2149	3030	1117	1575	2359	1117	1575	859
Hanse 495	Fractional	18105	6200	3200	14	98,3	934	1317	1068	1505	2135	3010	1226	1729	2376	1226	1729	943
Bavaria 50 CR	Fractional	18270	6170	3580	17,1	106	1008	1421	1147	1617	2294	3235	1293	1823	2228	1293	1823	994
Hylas 46	Masthead	15450	5500	5760	12,6	82	857	1208	985	1389	1970	2778	881	1242	841	1222	1723	940
Swan 431	Masthead	16380	4220	2180	11,9	75,7	786	1108					833	1175	1612	1155	1629	889
Finngulf 44	Masthead	16500	5000	5000	10,3	64,3	637	898					743	1048	743	1030	1452	793
Hallberg-Rassy 48	Fractional	18020	6340	5900	18,5	125	1174	1655	1343	1893	2685	3786	1451	2046	1559	1541	2173	1116
Hanse 545	Fractional	21450	6500	3070	18,7	147,6	1277	1801	1472	2075	2943	4150	1630	2298	3450	1630	2298	1254
Hallberg-Rassy 54	Fractional	20250	7100	6600	26,3	174,3	1461	2060	1685	2376	3370	4752	1831	2582	1969	1831	2582	1408
Hallberg-Rassy 57	Fractional	22700	7200	6660	33,4	212,7	1715	2418	2000	2819	3999	5639	2105	2968	2275	2105	2968	1619
Hallberg-Rassy 64	Fractional	22750	7800	7395	38,5	265	2000	2820	2333	3289	4665	6578	2455	3462	2589	2455	3462	1888
Hanse 675	Fractional	27200	9000	5190	40	282,6	1923	2711	2241	3159	4481	6318	2568	3621	4453	2568	3621	1975
Hylas 56	Masthead	19200	6500	6750	21,4	173,3	1494	2107					1487	2097	1432	2063	2909	1587
Swan 65	Masthead	22500	6900	6500	31,8	252	1909	2692					1933	2726	2052	2682	3782	2063