

HEAD BLOCKS - Limits of Use

8" Single Purchase Upright

THESE TABLES APPLY TO JRC PART NUMBERS:

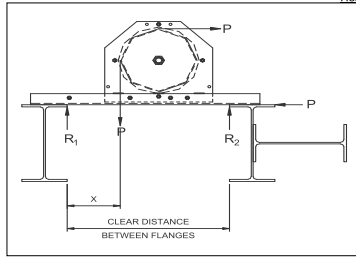
1CS-60855R REV 7
1CS-60855R REV 8

Headblock Load Rating Table Instructions

NOTE: There are individual tables for each size and orientation of head block

1. Review the LIMITS OF USE section shown on the right hand side of this document. If your project does not meet the LIMITS OF USE, please contact J R Clancy for further information.
2. Review the project for the exact requirements of your specific head block. You will need to know the following information prior to using the head block load rating tables:
 - a. Orientation of block (upright or underhung) and for underhung, the attachment method.
 - b. Size of the block (sheave diameter at: 8", 12", or 16")
 - c. The clear distance between the supporting head steel flanges (NOT the beam centerline distance).
 - d. The distance from the onstage side of the offstage beam flange to the offstage handline headblock you need.
3. Once you know the above information find the tables that match the size and orientation of the headblock you need.
4. Once you have located the tables for your particular block, on TABLE 1, go to the leftmost column on the table labeled "Clear Distance Between Flanges" or "Center - Center Weld Distance". Read down until you find the distance specific to your project.
5. Next find the "Distance Between Offstage Beam Flange and Handline (Dimension X)" across the top row of the spreadsheet!
6. Where your selected Row and Column intersect will be the Gross Load Capacity (in lbs) of your headblock.
7. Next find the cable diameter and sheave type in TABLE 2 below. Calculate the Tread Pressure Limited Capacity by multiplying the maximum individual line load x the number of lift lines.
8. Your final maximum RWL for your head block will be the lesser of:
 - a. the Gross RWL from the Table, OR
 - b. the Tread Pressure Limited Capacity.

NOTE: The above values are based on block capacity only and do not reflect the capacity of the cable you use. Consult your wire rope manufacturer for the RWL for your particular cable.



Head Blocks - LIMITS OF USE

NOTE: RWL (Recommended Working Load) is a function of mounting conditions and is only valid when the following criteria are met:

1. All lift lines wrap 90° around the sheave, all hand lines wrap 180° around the sheave.
2. All headblocks mount on two beams, with the shaft between the beam centerlines.
3. All cable fleet angles are less than 1.5°.
4. For Underhung Headblocks, they shall be attached to structural steel in one of the following three methods:
 - a) beam clip angles, min. two 2" x 1 1/4" x 1/4" angles, back to back bolted with two 1/2" gr 5 bolts.
 - b) formed clips with two 1/2" gr 5 bolts, from one of the following JRC part #'s :
 - i. 070-38850, 070-38875, 070-388100
 - ii. 070-38850, 070-38875, 070-388100
 - c) welded directly to the beam, min. four 1/4" fillet welds at 1.5" in length ea.
5. For Upright Headblocks they shall be attached to structural steel by either b), or c) above.
6. The onstage connection to structure must have the bolt bear directly against the mounting steel in shear.
7. CONTACT J R CLANCY FOR OTHER MOUNTING CONDITIONS.

TABLE 1 - HEAD BLOCK GROSS LOAD CAPACITY (in lbs.) - 8" Single Purchase Upright

Clear Distance Between Flanges	Distance Between Offstage Beam Flange and Offstage Handline (Dimension "X")																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
10	3012	3012	3012	3012	3012	2081												
11	3012	3012	3012	3012	3012	2760	1847											
12	3012	3012	3012	3012	3012	3012	2430	1689										
13	2164	3012	3012	3012	3012	3012	3012	2207	1575									
14	1720	2134	3012	3012	3012	3012	3012	2992	2045	1489								
15	1461	1688	2109	3012	3012	3012	3012	3012	2759	1924	1422							
16	1291	1427	1660	2087	3012	3012	3012	3012	3012	2583	1828	1367						
17	1170	1256	1398	1637	2068	3002	3012	3012	3012	3012	2446	1752	1323					
18	1081	1134	1226	1374	1617	2052	2990	3012	3012	3012	3012	2335	1689	1286				
19	1011	1044	1104	1201	1352	1599	2037	2980	3012	3012	3012	3012	2245	1636	1254			
20	956	975	1014	1079	1179	1334	1583	2024	2970	3012	3012	3012	3012	2169	1592	1227		
21	911	919	944	988	1056	1160	1317	1569	2013	2962	3012	3012	3012	3012	2104	1553	1204	
22	874	874	888	917	965	1037	1143	1303	1557	2003	2954	3012	3012	3012	2975	2049	1520	1183
23	842	836	843	861	895	945	1020	1128	1290	1546	1993	2947	3012	3012	3012	2891	2001	1491
24	815	805	805	816	838	875	928	1004	1115	1278	1535	1985	2941	3012	3012	3012	2818	1959
25	792	778	773	778	793	818	857	913	991	1103	1268	1977	2935	3012	3012	3012	3012	2754
26	772	754	746	746	755	772	801	841	899	979	1092	1258	1518	1970	2930	3012	3012	3012
27	754	734	722	719	723	734	755	785	827	886	988	1082	1249	1510	1963	2925	3012	3012
28	738	716	702	695	695	702	716	739	771	815	875	957	1073	1241	1503	1957	2920	3012
29	723	700	683	674	671	675	684	700	724	758	804	865	948	1065	1234	1497	1952	2916
30	711	685	667	656	651	651	656	668	686	712	747	793	856	940	1057	1227	1491	1947

Indicates dimension recommended in JRC Design Guide

TABLE 2 - MAXIMUM LINE LOADS			
8.5" Sheave Line Load limited by Tread Pressure			
Cable Diameter	Cast	Steel	Nylon
1/4"	500	1000	3500

NOTE: The above values are based on block capacity only and do not reflect the capacity of the cable you use. Consult your wire rope manufacturer for the RWL for your particular cable.