

HEAD BLOCKS - Limits of Use

12" Single Purchase Upright

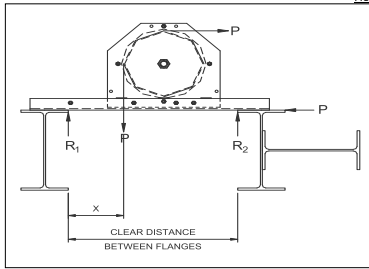
THESE TABLES APPLY TO JRC PART NUMBERS:

1XS-61255R REV 6
 1XS-81255R REV 6
 1XS-61255H REV 2
 1CS-101255R REV 3

Headblock Load Rating Table Instructions

- NOTE: There are individual tables for each size and orientation of head block
- 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.
 - 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:
 - Orientation of block (upright or underhung) and for underhung, the attachment method.
 - Size of the block (sheave diameter at: 8", 12", or 16").
 - The clear distance between the supporting head steel flanges (NOT the beam centerline distance).
 - The distance from the onstage side of the offstage beam flange to the offstage handline distance.
 - Once you know the above information find the tables that match the size and orientation of the headblock you need.
 - 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.
 - Next find the "Distance Between Offstage Beam Flange and Handline (Dimension X)" across the top row of the spreadsheet.
 - Where your selected Row and Column intersect will be the Gross Load Capacity (in lbs) of your headblock.
 - 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.
 - Your final maximum RWL for your head block will be the lesser of:
 - the Gross RWL from the Table, OR
 - 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:

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

TABLE 1 - HEAD BLOCK GROSS LOAD CAPACITY (in lbs.) - 12" 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	3401	3401	3401	3401	2725													
11	3401	3401	3401	3401	2725													
12	3401	3401	3401	3401	3401	2165												
13	3401	3401	3401	3401	3401	2696	1844											
14	3401	3401	3401	3401	3401	3401	2283	1636										
15	3401	3401	3401	3401	3401	3401	2877	2015	1491									
16	3301	3401	3401	3401	3401	3401	3401	2528	1828	1383								
17	2545	3253	3401	3401	3401	3401	3401	3260	2264	1699	1300							
18	1883	2523	3268	3401	3401	3401	3401	3401	2935	2104	1583	1234						
19	1527	1861	2503	3255	3401	3401	3401	3401	3401	2695	1965	1498	1181					
20	1306	1505	1841	2486	3243	3401	3401	3401	3401	3401	2510	1854	1429	1137				
21	1154	1283	1486	1824	2470	3232	3401	3401	3401	3401	3352	2363	1765	1372	1099			
22	1044	1132	1264	1468	1808	2456	3222	3401	3401	3401	3401	3148	2244	1691	1324	1068		
23	960	1022	1112	1247	1453	1795	2444	3213	3401	3401	3401	3401	2983	2145	1628	1283	1040	
24	894	938	1002	1095	1231	1439	1782	2433	3205	3401	3401	3401	3401	2847	2062	1575	1248	1016
25	841	872	918	985	1080	1217	1427	1771	2422	3197	3401	3401	3401	3401	2731	1991	1529	1217
26	798	819	853	901	969	1066	1205	1415	1760	2413	3191	3401	3401	3401	3401	2633	1929	1488
27	761	775	800	835	886	955	1053	1193	1405	1751	2404	3184	3401	3401	3401	3401	2548	1876
28	730	739	756	782	820	872	943	1042	1183	1395	1742	2396	3178	3401	3401	3401	3401	2474
29	703	708	719	739	767	806	859	932	1031	1174	1387	1734	2388	3173	3401	3401	3401	3401
30	680	681	688	702	723	753	794	848	921	1022	1165	1379	2382	3168	3401	3401	3401	3401

Indicates dimension recommended in JRC Design Guide

TABLE 2 - MAXIMUM LINE LOADS			
12" Sheave Line Load limited by Tread Pressure			
Cable Diameter	Cast	Steel	Nylon
1/4"	750	1500	5250

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.