HEAD BLOCKS - Limits of Use

12" Double Purchase Underhung with Beam Angles

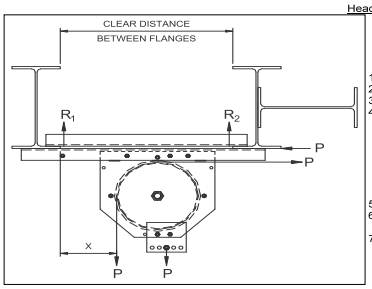
THESE TABLES APPLY TO JRC PART NUMBERS: 1XD-61259 REV 7
1XD-81259 REV 7

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.
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 1/2" gr 5 bolts..
   b) formed clips with two 1/2" gr 5 bolts, from one of the following JRC part #'s :
      i. 070-38650, 070-38675, 070-386100
      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) abo
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.

12" Double Purchase Underhung Head Block with Beam Angles

Clear Distance Between Flanges	Distance Between Offstage Beam Flange and Offstage Handline (Dimension "X")																	
	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11
10	1480	1604	1750	1926	2142	2411	2758	3222	3401	3401	3164							
11	1526	1644	1782	1945	2140	2380	2679	3065	3306	3401	3401	3017						
12	1567	1679	1809	1960	2139	2354	2617	2947	3113	3192	3401	3260	2907					
13	1602	1709	1832	1973	2138	2334	2568	2855	2969	2981	3103	2837	2438	2485				
14	1443	1735	1851	1984	2138	2316	2528	2782	2857	2823	2878	2557	2107	2010	2172			
15	1326	1759	1869	1994	2137	2302	2495	2723	2767	2700	2709	2357	1888	1726	1746	1961		
16	1239	1779	1884	2002	2136	2290	2466	2673	2694	2602	2578	2208	1731	1539	1493	1568	1808	
17	1172	1771	1898	2010	2136	2279	2442	2631	2633	2522	2473	2091	1614	1405	1324	1335	1440	1693
18	1119	1668	1910	2016	2135	2269	2421	2595	2581	2455	2388	1999	1523	1305	1205	1179	1220	1343
19	1075	1587	1921	2022	2135	2261	2403	2564	2537	2399	2317	1923	1451	1227	1115	1069	1075	1134
20	1039	1520	1931	2028	2135	2254	2387	2536	2499	2351	2256	1860	1391	1165	1045	986	971	996
21	1008	1465	1940	2032	2134	2247	2372	2512	2465	2309	2205	1807	1342	1114	990	922	894	897
22	982	1418	1948	2037	2134	2241	2359	2491	2268	2197	2160	1761	1300	1072	944	871	833	824
23	959	1378	1956	2041	2134	2236	2348	2347	2028	1906	1921	1721	1265	1036	906	829	785	766
24	939	1343	1963	2044	2134	2231	2337	2176	1849	1701	1664	1687	1234	1006	874	794	746	721

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.

HEAD BLOCKS - Limits of Use

12" Double Purchase Underhung with Beam Clips

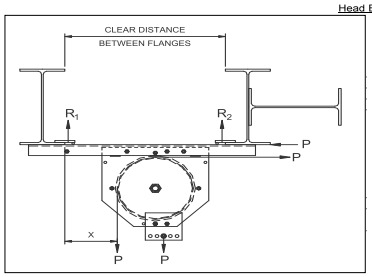
THESE TABLES APPLY TO JRC PART NUMBERS: 1XD-61259 REV 7
1XD-81259 REV 7

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.
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:

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:

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. 070-38650, 070-38675, 070-386100
   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.

For Upright Headblocks they shall be attached to structural steel by either b), or c) above.
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.

12" Double Purchase Underhung Head Block with Beam Clips

Clear Distance Between Flanges	Distance Between Offstage Beam Flange and Offstage Handline (Dimension "X")																	
	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11
10	308	334	364	401	446	502	574	671	806	789	658							
11	318	342	371	405	445	495	558	638	745	876	732	628						
12	326	349	376	408	445	490	545	613	702	820	805	691	605					
13	333	356	381	411	445	486	535	594	669	765	878	754	660	587				
14	340	361	385	413	445	482	526	579	644	725	829	816	715	636	573			
15	346	366	389	415	445	479	519	567	624	693	781	879	770	685	617	561		
16	351	370	392	417	445	477	513	556	607	668	743	836	825	734	661	601	551	
17	355	374	395	418	445	474	508	548	593	648	713	792	880	783	705	641	588	543
18	360	378	398	420	444	472	504	540	582	630	688	757	842	832	749	681	625	577
19	363	381	400	421	444	471	500	534	572	616	668	729	802	881	793	721	661	611
20	367	384	402	422	444	469	497	528	563	604	650	705	769	846	837	761	698	645
21	370	386	404	423	444	468	494	523	556	593	635	684	742	810	881	801	735	679
22	373	389	405	424	444	466	491	518	549	583	622	667	719	779	850	842	772	713
23	376	391	407	425	444	465	489	514	543	575	611	652	699	753	816	829	785	747
24	378	393	408	426	444	464	486	511	538	568	601	639	682	731	787	794	746	721

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.

HEAD BLOCKS - Limits of Use

12" Double Purchase Underhung with Welds

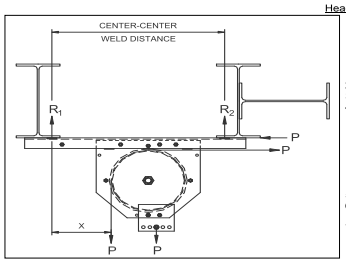
THESE TABLES APPLY TO JRC PART NUMBERS: 1XD-61259 REV 7
1XD-81259 REV 7

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.
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. 070-38650, 070-38675, 070-386100
      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.

12" Double Purchase Underhung Head Block with Welds

Center - Center	Distance Between Offstage Weld Centerline and Offstage Handline (Dimension "X")																	
Weld Distance	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11
10	1725	1864	2027	2221	2456	2747	3116	3278	3375	3401	3401							
11	1767	1898	2050	2230	2443	2702	3022	3122	3136	3285	3401	3037						
12	1802	1927	2071	2237	2432	2665	2947	3002	2962	3027	3213	2568	2413					
13	1808	1953	2088	2243	2423	2635	2887	2908	2829	2839	2941	2271	2026	2055				
14	1639	1975	2103	2248	2416	2610	2838	2832	2724	2695	2742	2066	1781	1715	1824			
15	1516	1995	2116	2253	2409	2588	2796	2769	2639	2582	2590	1916	1612	1500	1514	1661		
16	1423	2012	2128	2257	2403	2570	2761	2716	2569	2491	2470	1802	1489	1352	1319	1374	1541	
17	1350	2028	2138	2261	2398	2553	2730	2671	2510	2415	2373	1712	1394	1244	1184	1191	1269	1449
18	1291	2013	2147	2264	2394	2539	2704	2633	2460	2352	2293	1639	1320	1161	1085	1066	1097	1189
19	1242	1919	2156	2267	2390	2527	2680	2599	2417	2298	2226	1579	1260	1096	1010	974	978	1025
20	1201	1842	2164	2269	2386	2515	2660	2569	2380	2251	2169	1529	1210	1043	950	904	892	911
21	1167	1777	2170	2272	2383	2505	2641	2382	2209	2211	2120	1486	1169	999	902	848	825	828
22	1137	1722	2177	2274	2380	2496	2625	2155	1948	1898	1980	1449	1133	963	863	804	773	765
23	1111	1674	2183	2276	2377	2488	2462	1982	1758	1670	1681	1416	1103	932	829	767	731	715
24	1088	1633	2188	2278	2375	2481	2320	1846	1614	1504	1477	1388	1076	905	801	736	696	675

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.