THESE TABLES APPLY TO JRC PART NUMBERS:

100-61259x25D REV 8 100-81259x25D REV 8 100-81259N25DPA REV 2

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 JR 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.
- 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. 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 <u>based on block capacity only</u> and do not reflect the capacity of the cable you use. Consult your wire rope manufacturer for the RWL for your particular cable.



Base Angle: 2 x 1 1/2 x 1/4

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. 1
- 2. All headblocks mount on two beams, with the shaft between the beam centerlines.
- 3
- All cable fleet angles are less than 1.5°. For Underhung Headblocks, they shall be attached to structural steel in one of the 4. 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. 5 The onstage connection to structure must have the bolt bear directly against the
- 6. mounting steel in shear.
- 7. CONTACT J R CLANCY FOR OTHER MOUNTING CONDITIONS.

TABLE 1 - HEAD BLOCK GROSS LOAD CAPACITY (in lbs.) - 12" Double Purchase Underhung Head Block with Beam Angles

Clear Distance		Distance Between Offstage Beam Flange and Offstage Handline (Dimension "X")																
Between Flanges	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11
10	1540	1675	1835	2030	2270	2576	2976	3310	3310	3310	2919							
11	1584	1711	1861	2039	2255	2523	2862	3278	3310	3310	3243	2815						
12	1622	1742	1882	2047	2243	2481	2775	3121	3137	3286	3310	3035	2734					
13	1655	1769	1901	2054	2233	2447	2706	3001	2962	3028	3215	2565	2413	2671				
14	1683	1792	1917	2059	2225	2419	2651	2907	2829	2839	2942	2268	2025	2057	2390			
15	1645	1813	1930	2064	2218	2396	2605	2831	2723	2695	2742	2063	1780	1716	1825	2189		
16	1521	1831	1942	2068	2211	2376	2567	2768	2638	2582	2590	1913	1611	1500	1515	1663	2040	
17	1427	1847	1953	2072	2206	2359	2534	2715	2568	2490	2470	1799	1487	1352	1319	1374	1543	1926
18	1354	1862	1963	2075	2201	2344	2506	2670	2509	2415	2373	1708	1393	1243	1184	1192	1270	1451
19	1294	1875	1971	2078	2197	2331	2482	2631	2459	2351	2293	1636	1318	1160	1085	1066	1098	1190
20	1245	1886	1979	2081	2193	2319	2460	2597	2416	2297	2226	1576	1258	1095	1009	974	979	1025
21	1205	1849	1986	2083	2190	2309	2441	2568	2378	2250	2168	1525	1209	1042	950	903	892	912
22	1170	1784	1992	2085	2187	2300	2424	2380	2208	2210	2119	1482	1167	998	902	848	825	828
23	1140	1728	1998	2087	2184	2291	2409	2153	1947	1898	1982	1445	1132	962	862	803	773	765
24	1114	1680	2003	2089	2182	2284	2395	1980	1757	1670	1682	1413	1101	931	829	766	731	715

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.

Index

THESE TABLES APPLY TO JRC PART NUMBERS:

100-61259x25D REV 8 100-81259x25D REV 8 100-81259N25DPA REV 2

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 JR 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. 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. 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 <u>based on block capacity only</u> and do not reflect the capacity of the cable you use. Consult your wire rope manufacturer for the RWL for your particular cable.



Base Angle: 2 x 1 1/2 x 1/4

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. 1.
- 2. All headblocks mount on two beams, with the shaft between the beam centerlines.
- All cable fleet angles are less than 1.5°. 3.
- For Underhung Headblocks, they shall be attached to structural steel in one of the 4 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.

TABLE 1 - HEAD BLOCK GROSS LOAD CAPACITY (in lbs.) - 12" Double Purchase Underhung Head Block with Beam Clips

Clear Distance		Distance Between Offstage Beam Flange and Offstage Handline (Dimension "X")																
Between Flanges	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11
10	321	349	382	422	473	536	619	733	874	717	608							
11	330	356	387	424	469	525	596	688	815	796	675	586						
12	338	363	392	426	467	516	578	655	757	876	743	644	569					
13	344	368	396	427	465	509	563	630	715	826	810	703	621	556				
14	350	373	399	429	463	504	552	610	683	774	878	762	673	602	545			
15	356	377	402	430	462	499	542	594	657	735	834	820	724	649	587	536		
16	360	381	404	430	460	495	534	581	637	704	788	879	776	695	629	575	529	
17	365	384	406	431	459	491	527	570	620	679	751	840	828	741	671	613	564	523
18	368	387	408	432	458	488	522	560	606	658	722	798	880	788	713	651	599	555
19	372	390	410	432	457	485	517	552	593	641	697	764	845	834	755	690	635	588
20	375	393	412	433	457	483	512	545	583	626	677	736	806	880	797	728	670	621
21	378	395	413	434	456	481	508	539	574	614	659	712	775	849	839	766	705	653
22	381	397	415	434	455	479	505	534	566	603	644	692	748	813	881	805	741	686
23	383	399	416	434	455	477	501	529	559	593	631	675	725	784	852	803	773	719
24	385	401	417	435	454	475	499	524	553	584	620	660	706	758	819	766	731	715

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.

Index

THESE TABLES APPLY TO JRC PART NUMBERS:

Headblock Load Rating Table Instructions

100-61259x25D REV 8 100-81259x25D REV 8

100-81259N25DPA REV 2

Base Angle: 2 x 1 1/2 x 1/4

Head Blocks - LIMITS OF USE

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.
- 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. 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 <u>based on block capacity only</u> and do not reflect the capacity of the cable you use. Consult your wire rope manufacturer for the RWL for your particular cable.



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°
- For Underhung Headblocks, they shall be attached to structural steel in one of the 4
 - 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.

TABLE 1 - HEAD BLOCK GROSS LOAD CAPACITY (in lbs.) - 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	1726	1865	2028	2223	2458	2749	3119	3278	3310	3310	3310							
11	1768	1899	2052	2231	2445	2704	3024	3121	3137	3286	3310	3035						
12	1803	1928	2072	2238	2434	2667	2950	3001	2962	3028	3215	2565	2413					
13	1815	1954	2089	2244	2425	2637	2889	2907	2829	2839	2942	2268	2025	2057				
14	1645	1976	2104	2250	2417	2611	2840	2831	2723	2695	2742	2063	1780	1716	1825			
15	1521	1996	2117	2254	2410	2590	2798	2768	2638	2582	2590	1913	1611	1500	1515	1663		
16	1427	2013	2129	2258	2404	2571	2762	2715	2568	2490	2470	1799	1487	1352	1319	1374	1543	
17	1354	2029	2139	2262	2399	2555	2732	2670	2509	2415	2373	1708	1393	1243	1184	1192	1270	1451
18	1294	2021	2148	2265	2395	2540	2705	2631	2459	2351	2293	1636	1318	1160	1085	1066	1098	1190
19	1245	1927	2157	2268	2391	2528	2681	2597	2416	2297	2226	1576	1258	1095	1009	974	979	1025
20	1205	1849	2164	2270	2387	2516	2661	2568	2378	2250	2168	1525	1209	1042	950	903	892	912
21	1170	1784	2171	2273	2384	2506	2642	2380	2208	2210	2119	1482	1167	998	902	848	825	828
22	1140	1728	2178	2275	2381	2497	2626	2153	1947	1898	1982	1445	1132	962	862	803	773	765
23	1114	1680	2183	2277	2378	2489	2457	1980	1757	1670	1682	1413	1101	931	829	766	731	715
24	1091	1639	2189	2278	2376	2481	2315	1844	1613	1504	1477	1385	1075	904	800	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.

Index