

Model	Max. Rated Hoist Capacity ¹		Cage Torque Capacity				Die Rated Load Capacity										End Load Rating				Max. Tool Diameter	Approximate Tool Weight												
			Cage P/N	Max. Rated Torque Capacity		Die P/N	Primary Nominal Pipe Size		Max. Pipe Weight ³		Min. Pipe Weight ⁴		Overlap Pipe Size		Max. Pipe Weight ³		Min. Pipe Weight ⁴		Slip to Pipe Body Load Efficiency ⁵	Torque Factor ^{5,6}				Max. Circulation Pressure ⁷		Max. Pressure End Load ⁷								
				(ton)	(tonne)		(ft.lbs)	(N.m)	(in)	(mm)	(ppf)	(kg/m)	(ppf)	(kg/m)	(in)	(mm)	(ppf)	(kg/m)		(ppf)				(kg/m)	(%)	(ft.lbs/psi/ppf)	(N.m/MPa/(kg/m))	(psi)	(MPa)	(ton)	(tonne)	(in)	(mm)	(lbs)
CRTi1-4.5 CRTi2-4.5	120	108	81325 ²	10,000	13,500	80957 ²	4.5	114.3	13.5	20.09	9.5	14.14	-	-	24.1	35.86	23.2	34.53	80%	0.01336	1.765	8,000	55	50	45	11.0	279	320	145					
						80957	4.5	114.3	11.6	17.26	9.5	14.14	-	-	-	-	-	-	-	-	-	-	80%	0.01336	1.765	8,000	55	50	45	11.0	279	320	145	
			80939	13,000	17,600	82000	5.0	127.0	18.0	26.79	15.0	22.32	5.5	139.7	29.7	44.20	29.7	44.2	29.7	44.2	80%	0.01248	1.649	6,900	48	50	45	11.0	279	350	159			
						82734	5.0	127.0	21.4	31.85	18.0	26.79	5.5	139.7	35.3	52.53	35.3	52.53	80%	0.01315	1.738	7,300	50	50	45	11.0	279	350	159					
						80980	5.5	139.7	17.0	25.3	14.0	20.83	-	-	-	-	-	-	-	-	-	-	70%	0.0099	1.308	5,200	36	50	45	11.0	279	350	159	
						81182	5.5	139.7	23.0	34.23	20.0	29.76	-	-	-	-	-	-	-	-	-	-	-	78%	0.01125	1.487	5,800	40	50	45	11.0	279	350	159
						82823	5.5	139.7	26.8	39.88	23.0	34.23	5.00	127.0	11.5	17.11	11.5	17.11	80%	-	-	6,600	46	50	45	11.0	279	350	159					
CRTi1-5.5 CRTi2-5.5	200	181	81128 ²	20,000	27,100	81129 ²	5.5	139.7	23.0	34.23	20.0	29.76	-	-	-	-	-	-	80%	0.02222	2.936	10,000	69	125	113	13.0	330	490	222					
			80912	25,000	33,800	80913	5.5	139.7	17.0	25.3	14.0	20.83	5.75	146.1	19.4	28.80	19.4	28.80	80%	0.02071	2.737	10,000	69	125	113	13.0	330	490	222					
			82145	25,000	33,800	81129	5.5	139.7	20.0	29.76	20.0	29.76	-	-	-	-	-	-	-	-	-	80%	0.02222	2.936	10,000	69	125	113	13.0	330	490	222		
						82165	6.63	168.3	24.0	35.72	20.0	29.76	7.0	177.8	35.0	52.09	32.0	47.62	79%	0.01884	2.49	9,500	66	125	113	13.0	330	550	249					
						80981	7.0	177.8	23.0	34.23	17.0	25.3	7.63	193.8	47.1	70.09	42.8	63.69	67%	0.01291	1.706	7,700	53	125	113	13.0	330	550	249					
						82013	7.0	177.8	26.0	38.69	20.0	29.76	7.63	193.8	47.1	70.09	47.1	70.09	71%	0.01369	1.809	7,900	54	125	113	13.0	330	550	249					
						81284	7.0	177.8	32.0	47.62	26.0	38.69	6.63	168.4	17.0	25.30	17.0	25.30	78%	0.0153	2.022	8,400	58	125	113	13.0	330	550	249					
						83076	7.63	193.7	29.7	44.2	24.0	35.72	-	-	-	-	-	-	-	-	-	-	-	79%	0.01545	2.042	6,600	46	125	113	13.0	330	660	299
						82710	7.0	177.8	23.0	34.23	17.0	25.3	7.63	193.7	47.1	70.09	42.8	63.69	67%	0.01291	1.706	7,700	53	125	113	13.0	330	550	249					
						82712	7.0	177.8	26.0	38.69	20.0	29.76	7.63	193.8	47.1	70.09	47.1	70.09	71%	0.01369	1.809	7,900	54	125	113	13.0	330	550	249					
						82711	7.0	177.8	32.0	47.62	26.0	38.69	-	-	-	-	-	-	-	-	-	-	-	78%	0.0153	2.022	8,400	58	125	113	13.0	330	550	249
						82713	7.63	193.7	29.7	44.2	24.0	35.72	-	-	-	-	-	-	-	-	-	-	-	79%	0.01545	2.042	6,600	46	125	113	13.0	330	660	299
						82904	8.63	219.1	28.0	41.67	24.0	35.72	-	-	-	-	-	-	-	-	-	-	-	76%	0.01493	1.973	4,900	34	125	113	14.4	364	700	318
						80987	8.63	219.1	32.0	47.62	28.0	41.67	-	-	-	-	-	-	-	-	-	-	-	80%	0.0158	2.088	5,000	34	125	113	14.4	364	700	318
						80824	8.63	219.1	36.0	53.57	32.0	47.62	-	-	-	-	-	-	-	-	-	-	-	80%	0.01614	2.133	5,200	36	125	113	14.4	364	700	318
						82118	9.63	244.5	36.0	53.57	32.3	48.07	-	-	-	-	-	-	-	-	-	-	-	73%	0.01401	1.85	4,000	28	125	113	14.4	364	750	340
						82749	9.63	244.5	40.0	59.53	36.0	53.57	-	-	-	-	-	-	-	-	-	-	-	74%	0.01429	1.888	4,000	28	125	113	14.4	364	750	340
						80825	9.63	244.5	43.5	64.74	40.0	59.53	9.88	251.0	55.0	81.85	55.0	81.85	75%	0.01452	1.919	4,100	28	125	113	14.4	364	750	340					
						82157	9.63	244.5	47.0	69.94	43.5	64.74	-	-	-	-	-	-	-	-	-	-	-	76%	-	-	4,200	29	125	113	14.4	364	750	340
						80988	9.63	244.5	53.5	79.62	53.5	79.62	9.88	250.8	66.9	99.56	66.0	98.22	73%	0.00845	1.117	4,400	30	125	113	14.4	364	750	340					
						82021	10.75	273.1	40.5	60.27	35.8	53.28	-	-	-	-	-	-	-	-	-	-	-	58%	0.00547	0.723	3,100	21	125	113	14.4	364	800	363
						102355	10.75	273.1	45.5	67.71	43.5	64.74	-	-	-	-	-	-	-	-	-	-	-	65%	0.01258	1.663	3,200	22	125	113	14.4	364	800	363
						81323	10.75	273.1	51.0	75.9	51.0	75.9	-	-	-	-	-	-	-	-	-	-	-	58%	0.00365	0.482	3,300	23	125	113	14.4	364	800	363
						81085	10.75	273.1	60.7	90.33	60.7	90.33	-	-	-	-	-	-	-	-	-	-	-	58%	0.00435	0.575	3,400	23	125	113	14.4	364	800	363
						81955	11.75	298.5	47.0	69.94	47.0	69.94	-	-	-	-	-	-	-	-	-	-	-	56%	0.01076	1.422	2,600	18	125	113	14.4	364	840	381
						80833	11.75	298.5	54.0	80.36	54.0	80.36	11.88	301.8	58.8	87.50	58.8	87.50	58%	0.0111	1.467	2,700	19	125	113	14.4	364	840	381					
						82070	11.75	298.5	60.0	89.29	60.0	89.29	-	-	-	-	-	-	-	-	-	-	-	59%	-	-	2,700	19	125	113	14.4	364	840	381
						82756	13.38	339.7	48.0	71.43	48.0	71.43	-	-	-	-	-	-	-	-	-	-	-	45%	0.0086	1.136	1,900	13	125	113	14.4	364	910	413
						82327	13.38	339.7	54.5	81.1	54.5	81.1	-	-	-	-	-	-	-	-	-	-	-	49%	0.01122	1.483	2,000	14	125	113	14.4	364	910	413
80828	13.38	339.7	61.0	90.78	61.0	90.78	-	-	-	-	-	-	-	-	-	-	-	48%	0.00931	1.23	2,000	14	125	113	14.4	364	910	413						
81064	13.38	339.7	72.0	107.1	72.0	107.1	-	-	-	-	-	-	-	-	-	-	-	50%	-	-	2,100	14	125	113	14.4	364	910	413						
CRTi1-7.0 CRTi2-7.0 CRTi3-7.0	320 ⁸	290	80840 or 82856	50,000	67,700	80928	7.0	177.8	26.0	38.69	17.0	25.3	7.63	193.8	47.1	70.09	42.8	63.69	77%	0.01643	2.171	10,000	69	250	227	14.4	364	685	311					
						81062	7.0	177.8	35.0	52.09	26.0	38.69	6.63	168.4	20.0	29.76	20.0	29.76	80%	0.01899	2.509	10,000	69	250	227	14.4	364	685	311					
						80986	7.63	193.7	33.7	50.15	24.0	35.72	-	-	-	-	-	-	-	-	-	-	71%	0.01512	1.998	10,000	69	250	227	14.4	364	900	408	
						82279	7.63	193.7	39.0	58.04	29.7	44.2	7.75	196.9	46.1	68.60	46.1	68.60	76%	0.01632	2.157	10,000	69	250	227	14.4	364	900	408					
						80987	8.63	219.1	32.0	47.62	24.0	35.72	9.63	244.6	75.6	112.51	75.6	112.51	80%	0.01744	2.305	10,000	69	250	227	14.4	364	910	413					
						80824	8.63	219.1	36.0	53.57	28.0	41.67	-	-	-	-	-	-	-	-	-	-	-	80%	0.01744	2.305	10,000	69	250	227	14.4	364	910	413
						82118	9.63	244.5	36.0	53.57	32.3	48.07	-	-	-	-	-	-	-	-	-	-	-	73%	0.0153	2.022	8,000	55	250	227	14.4	364	920	417
						82749	9.63	244.5	4																									



Casing Running Tool Capacity Summary

Model	Max. Rated Hoist Capacity ¹		Cage Torque Capacity				Die Rated Load Capacity											End Load Rating				Max. Tool Diameter		Approximate Tool Weight								
			Cage P/N	Max. Rated Torque Capacity		Die P/N		Primary Nominal Pipe Size		Max. Pipe Weight ³		Min. Pipe Weight ⁴		Overlap Pipe Size		Max. Pipe Weight ³		Min. Pipe Weight ⁴		Slip to Pipe Body Load Efficiency ⁵	Torque Factor ^{5,6}					Max. Circulation Pressure ⁷		Max. Pressure End Load ⁷				
	(ton)	(tonne)		(ft.lbs)	(N.m)	(in)	(mm)	(ppf)	(kg/m)	(ppf)	(kg/m)	(in)	(mm)	(ppf)	(kg/m)	(ppf)	(kg/m)	(ft.lbs/psi/ppf)	(N.m/MPa/(kg/m))		(psi)	(MPa)	(ton)	(tonne)	(in)	(mm)	(lbs)	(kg)				
CRTI4-7.0	420	381	81353 or 83145	50,000	67,700	82999 ²	35,000	47,400	83000 ²	7.0	177.8	42.7	63.54	38.0	56.55	6.63	168.4	28.0	41.67	24.0	35.72	80%	-	-	10,000	69	248	225	16.3	414	1,100	499
						81277	7.0	177.8	26.0	38.69	17.0	25.3	7.63	193.7	47.1	70.09	42.8	63.69	80%	0.03032	4.006	10,000	69	248	225	16.3	414	1,100	499			
						81508	7.0	177.8	35.0	52.09	26.0	38.69	7.63	193.7	55.3	82.30	55.3	82.30	80%	0.03102	4.099	10,000	69	248	225	16.3	414	1,100	499			
						81884	7.63	193.7	33.7	50.15	24.0	35.72	8.63	219.1	49.0	72.92	28.0	41.67	80%	0.02592	3.425	10,000	69	248	225	16.3	414	1,100	499			
						83345	7.63	193.7	39.0	58.04	29.7	44.20	-	-	-	-	-	-	80%	0.02721	3.595	10,000	69	248	225	16.3	414	1,100	499			
						82750	7.63	193.7	55.3	82.30	51.2	76.19	7.00	177.8	29.0	43.16	23.0	34.23	80%	-	-	10,000	69	248	225	16.3	414	1,100	499			
						81421	8.63	219.1	36.0	53.57	28.0	41.67	-	-	-	-	-	-	-	80%	0.02688	3.552	10,000	69	248	225	16.3	414	1,100	499		
						101755	8.63	219.1	44.0	65.48	36.0	53.57	-	-	-	-	-	-	-	80%	0.02267	2.995	10,000	69	248	225	16.3	414	1,100	499		
						83041	8.63	219.1	59.6	88.69	59.6	88.69	-	-	-	-	-	-	-	80%	-	-	10,000	69	248	225	16.3	414	1,100	499		
						81793	9.63	244.5	43.5	64.74	36.0	53.57	9.88	251.0	55.0	81.85	53.5	79.62	80%	0.02835	3.746	8,100	56	248	225	16.3	414	1,100	499			
						81420	9.63	244.5	53.5	79.62	47.0	69.94	9.88	250.8	65.3	97.18	62.8	93.46	80%	0.02513	3.321	8,600	59	248	225	16.3	414	1,100	499			
						82812	9.63	244.5	59.4	88.40	53.5	79.62	9.88	250.8	72.0	107.15	68.8	102.39	80%	-	-	8,900	61	248	225	16.3	414	1,100	499			
						82276	10.75	273.1	40.5	60.27	32.8	48.74	-	-	-	-	-	-	-	80%	0.02060	2.722	6,200	43	248	225	16.3	414	1,300	590		
						82275	10.75	273.1	51.0	75.90	45.5	67.71	-	-	-	-	-	-	-	80%	0.02179	2.879	6,500	45	248	225	16.3	414	1,300	590		
						102777	10.75	273.1	55.5	82.59	51.0	75.90	11.50	292.1	98.2	146.14	98.2	146.14	80%	0.02201	2.908	6,600	46	248	225	16.3	414	1,300	590			
						82910	10.75	273.1	60.7	90.33	55.5	82.59	-	-	-	-	-	-	-	80%	-	-	6,700	46	248	225	16.3	414	1,300	590		
						81255	10.75	273.1	65.7	97.77	60.7	90.33	-	-	-	-	-	-	-	80%	-	-	6,900	48	248	225	16.3	414	1,300	590		
						81494	10.75	273.1	73.2	108.93	71.1	105.81	-	-	-	-	-	-	-	80%	-	-	7,200	50	248	225	16.3	414	1,300	590		
						81138	10.75	273.1	79.2	117.86	79.2	117.86	-	-	-	-	-	-	-	80%	-	-	7,500	52	248	225	16.3	414	1,300	590		
						83096	10.75	273.1	109.0	162.21	109.0	162.21	9.63	244.6	43.5	64.74	40.0	59.53	80%	-	-	8,600	59	248	225	16.3	414	1,300	590			
						81495	11.75	298.5	60.0	89.29	54.0	80.36	-	-	-	-	-	-	-	80%	0.01932	2.553	5,400	37	248	225	16.3	414	1,400	635		
						81757	11.75	298.5	71.0	105.66	65.0	96.73	11.88	301.6	71.8	106.85	71.8	106.85	80%	-	-	5,600	39	248	225	16.3	414	1,400	635			
						100703	11.75	298.5	82.6	122.92	78.0	116.08	10.75	273.1	20.0	29.76	20.0	29.76	80%	-	-	5,900	41	248	225	16.3	414	1,400	635			
						82039	12.75	323.9	58.4	86.91	50.0	74.41	13.38	339.7	98.0	145.84	98.0	145.84	79%	0.01675	2.214	4,400	30	248	225	16.3	414	1,650	748			
						82168	13.38	339.7	54.5	81.10	48.0	71.43	14.00	355.6	100.0	148.82	100.0	148.82	80%	0.01705	2.253	3,900	27	248	225	16.3	414	1,900	862			
						81897	13.38	339.7	61.0	90.78	54.5	81.10	14.00	355.6	106.0	157.75	106.0	157.75	80%	0.01743	2.303	4,000	28	248	225	16.3	414	1,900	862			
						82164	13.38	339.7	68.0	101.20	61.0	90.78	14.00	355.6	112.6	167.57	112.6	167.57	80%	0.01773	2.343	4,000	28	248	225	16.3	414	1,900	862			
						81150	13.38	339.7	72.0	107.15	68.0	101.20	13.63	346.1	88.2	131.26	88.2	131.26	80%	0.01784	2.357	4,100	28	248	225	16.3	414	1,900	862			
						82588	13.38	339.7	77.0	114.59	72.0	107.15	-	-	-	-	-	-	-	80%	-	-	4,200	29	248	225	16.3	414	1,900	862		
						83154	13.38	339.7	86.0	127.98	85.0	126.49	-	-	-	-	-	-	-	80%	-	-	4,300	30	248	225	16.3	414	1,900	862		
						81431	16.0	406.4	65.0	96.73	65.0	96.73	-	-	-	-	-	-	-	72%	0.01452	1.919	2,700	19	248	225	16.3	414	2,300	1,043		
						81645	16.0	406.4	84.0	125.01	84.0	125.01	-	-	-	-	-	-	-	72%	0.01486	1.964	2,800	19	248	225	16.3	414	2,300	1,043		
						82100	16.0	406.4	97.0	144.35	96.0	142.86	-	-	-	-	-	-	-	71%	-	-	2,900	20	248	225	16.3	414	2,300	1,043		
						81758	16.0	406.4	109.0	162.21	109.0	162.21	-	-	-	-	-	-	-	72%	-	-	2,900	20	248	225	16.3	414	2,300	1,043		
						82532	16.77	426.0	77.0	114.59	73.3	109.08	-	-	-	-	-	-	-	67%	0.01388	1.834	2,500	17	248	225	21.0	533	2,400	1,089		
						102675	17.00	431.8	77.5	115.33	77.5	115.33	-	-	-	-	-	-	-	64%	0.01332	1.760	2,400	17	248	225	21.0	533	2,400	1,089		
						81752	17.88	454.0	105.0	156.26	105.0	156.26	-	-	-	-	-	-	-	61%	-	-	2,200	15	248	225	21.0	533	2,450	1,111		
						100665	18.0	457.2	117.0	174.12	117.0	174.12	17.88	454.0	105.0	156.26	105.0	156.26	63%	-	-	2,200	15	248	225	21.0	533	2,450	1,111			
						82976	18.63	473.1	87.5	130.21	87.5	130.21	-	-	-	-	-	-	-	58%	0.01180	1.559	2,000	14	248	225	21.0	533	2,600	1,179		
						81566	18.63	473.1	97.7	145.39	97.7	145.39	-	-	-	-	-	-	-	63%	0.01273	1.682	2,000	14	248	225	21.0	533	2,600	1,179		
						82101	18.63	473.1	111.0	165.19	111.0	165.19	-	-	-	-	-	-	-	63%	-	-	2,000	14	248	225	21.0	533	2,600	1,179		
						82675	18.63	473.1	117.0	174.12	117.0	174.12	-	-	-	-	-	-	-	64%	-	-	2,000	14	248	225	21.0	533	2,600	1,179		
						103097	18.63	473.1	126.0	187.51	123.4	183.64	-	-	-	-	-	-	-	64%	-	-	2,100	14	248	225	21.0	533	2,600	1,179		
						81880	18.63	473.1	139.0	206.85	139.0	206.85	-	-	-	-	-	-	-	64%	-	-	2,100	14	248	225	21.0	533	2,600	1,179		
						82300	20.0	508.0	94.0	139.89	94.0	139.89	-	-	-	-	-	-	-	56%	0.01136	1.501	1,700	12	248	225	21.0	533	2,800	1,270		
81759	20.0	508.0	106.5	158.49	106.5	158.49	-	-	-	-	-	-	-	57%	0.01157	1.529	1,700	12	248	225	21.0	533	2,800	1,270								
81483	20.0	508.0	133.0 ⁹	197.93	133.0 ⁹	197.93	-	-	-	-	-	-	-	58%	-	-	1,800	12	248	225	21.0	533	2,800	1,270								
101434	20.0	508.0	147.0	218.76	147.0	218.76	-	-	-	-	-	-	-	57%	-	-	1,800	12	248	225	21.0	533	2,800	1,270								
81024	8.63	219.1	36.0	53.57	24.0	35.72	9.63	244.6	75.6	112.51	75.6	112.51	80%	0.02894	3.824	10,																



Casing Running Tool Capacity Summary

Model	Max. Rated Hoist Capacity ¹		Cage Torque Capacity				Die Rated Load Capacity											End Load Rating				Max. Tool Diameter		Approximate Tool Weight										
			Cage P/N	Max. Rated Torque Capacity		Primary Nominal Pipe Size		Max. Pipe Weight ³		Min. Pipe Weight ⁴		Overlap Pipe Size		Max. Pipe Weight ³		Min. Pipe Weight ⁴		Slip to Pipe Body Load Efficiency ⁵	Torque Factor ^{5,6}		Max. Circulation Pressure ⁷					Max. Pressure End Load ⁷								
	(ton)	(tonne)		(ft.lbs)	(N.m)	(in)	(mm)	(ppf)	(kg/m)	(ppf)	(kg/m)	(in)	(mm)	(ppf)	(kg/m)	(ppf)	(kg/m)		(%)	(ft.lbs/psi/ppf)	(N.m/MPa/(kg/m))	(psi)	(MPa)	(ton)	(tonne)	(in)	(mm)	(lbs)	(kg)					
CRTI1-8.63 CRTI2-8.63	690	625	81008	85,000	115,200	82532	16.77	426.0	77.0	114.59	69.4	103.28	17.0	431.8	96.6	143.80	88.1	131.11	55%	0.01548	2.046	5,000	34	500	454	20.0	508	2,600	1,179					
						102675	17.00	431.8	77.5	115.33	77.5	115.33	-	-	-	-	-	-	-	-	-	-	56%	0.01598	2.112	4,900	34	500	454	20.0	508	2,600	1,179	
						81752	17.88	454.0	105.0	156.26	93.5	139.14	-	-	-	-	-	-	-	-	-	-	-	53%	0.01485	1.962	4,500	31	500	454	20.0	508	2,650	1,202
						100665	18.0	457.2	117.0	174.12	117.0	174.12	17.88	454.0	105.0	156.26	93.5	139.14	-	-	-	-	-	56%	0.01577	2.083	4,600	32	500	454	20.0	508	2,650	1,202
						82976	18.63	473.1	87.5	130.21	87.5	130.21	20.0	508.0	229.3	341.24	229.3	341.24	-	-	-	-	-	45%	0.01269	1.676	4,000	28	500	454	20.0	508	2,800	1,270
						81434	18.63	473.1	94.5	140.63	87.5	130.21	-	-	-	-	-	-	-	-	-	-	-	51%	0.01415	1.870	4,100	28	500	454	20.0	508	2,800	1,270
						81566	18.63	473.1	97.7	145.39	87.5	130.21	-	-	-	-	-	-	-	-	-	-	-	55%	0.0152	2.009	4,000	28	500	454	20.0	508	2,800	1,270
						82101	18.63	473.1	111.0	165.19	97.7	145.39	-	-	-	-	-	-	-	-	-	-	-	55%	0.01525	2.015	4,200	29	500	454	20.0	508	2,800	1,270
						82675	18.63	473.1	117.0	174.12	111.0	165.19	-	-	-	-	-	-	-	-	-	-	-	56%	0.01525	2.015	4,200	29	500	454	20.0	508	2,800	1,270
						103097	18.63	473.1	126.0	187.51	112.0	166.67	-	-	-	-	-	-	-	-	-	-	-	56%	0.01560	2.061	4,200	29	500	454	20.0	508	2,800	1,270
						81880	18.63	473.1	139.0	206.85	136.0	202.39	-	-	-	-	-	-	-	-	-	-	-	56%	-	-	4,300	30	500	454	20.0	508	2,800	1,270
						82300	20.0	508.0	94.0	139.89	94.0	139.89	-	-	-	-	-	-	-	-	-	-	-	49%	0.01362	1.800	3,500	24	500	454	20.0	508	3,000	1,361
						81759	20.0	508.0	106.5	158.49	94.0	139.89	-	-	-	-	-	-	-	-	-	-	-	49%	0.01362	1.799	3,500	24	500	454	20.0	508	3,000	1,361
						81483	20.0	508.0	133.0	197.93	129.3	192.42	-	-	-	-	-	-	-	-	-	-	-	50%	0.01418	1.874	3,600	25	500	454	20.0	508	3,000	1,361
						101434	20.0	508.0	147.0	218.76	129.3	192.42	-	-	-	-	-	-	-	-	-	-	-	49%	0.01387	1.833	3,600	25	500	454	20.0	508	3,000	1,361
						82740	20.0	508.0	169.0	251.5	166.4	247.63	-	-	-	-	-	-	-	-	-	-	-	52%	-	-	3,800	26	500	454	20.0	508	3,000	1,361
						82102	22.0	558.8	184.5	274.57	184.5	274.57	-	-	-	-	-	-	-	-	-	-	-	45%	-	-	3,000	21	500	454	28.0	711	3,100	1,406
						81750	22.0	558.8	224.0	333.35	224.0	333.35	-	-	-	-	-	-	-	-	-	-	-	40%	-	-	3,200	22	500	454	28.0	711	3,100	1,406
						100029	24.0	609.6	176.0	261.92	176.0	261.92	-	-	-	-	-	-	-	-	-	-	-	38%	0.01086	1.435	2,500	17	500	454	28.0	711	3,100	1,406
						101875	24.0	609.6	186.0	276.80	171.3	254.91	-	-	-	-	-	-	-	-	-	-	-	38%	0.01086	1.435	2,500	17	500	454	28.0	711	3,100	1,406
101050	24.0	609.6	201.0	299.12	201.0	299.12	-	-	-	-	-	-	-	-	-	-	-	39%	0.01131	1.495	2,500	17	500	454	28.0	711	3,100	1,406						
81462	26.0	660.4	275.0	409.24	275.0	409.24	-	-	-	-	-	-	-	-	-	-	-	37%	-	-	2,200	15	500	454	28.0	711	3,700	1,678						
82486	28.0	711.2	222.7	331.41	222.7	331.41	-	-	-	-	-	-	-	-	-	-	-	27%	0.00783	1.035	1,800	12	500	454	32.0	813	4,400	1,996						
82506	30.0	762.0	233.2	347.07	233.2	347.07	-	-	-	-	-	-	-	-	-	-	-	24%	0.00717	0.947	1,500	10	500	454	32.0	813	4,700	2,132						
CRTe-1.0 Grip Module 5.5"	500	453	81932	40,000	54,200	102965	3.5	88.9	9.3	13.84	7.7	11.46	-	-	-	-	-	-	80%	0.04007	5.295	10,000 (R) 10,000 (NR)	83 (R) 250 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	13.7	348	1,900 (F) 1,750 (NF)	862 (F) 794 (NF)					
						82155	4.5	114.3	16.6	24.70	9.5	14.14	-	-	-	-	-	-	-	-	-	-	80%	0.03467	4.581	6,700 (R) 10,000 (NR)	46 (R) 139 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	13.7	348	1,900 (F) 1,750 (NF)	862 (F) 794 (NF)	
						82408	5.0	127.0	25.6	38.10	11.5	17.11	-	-	-	-	-	-	-	-	-	-	-	80%	0.03081	4.071	5,200 (R) 10,000 (NR)	36 (R) 109 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	13.7	348	1,900 (F) 1,750 (NF)	862 (F) 794 (NF)
						81813	5.5	139.7	43.1	64.14	14.0	20.83	-	-	-	-	-	-	-	-	-	-	-	80%	0.02812	3.716	4,300 (R) 10,000 (NR)	30 (R) ⁸⁹ (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	13.7	348	1,900 (F) 1,750 (NF)	862 (F) 794 (NF)
CRTe-1.0 Grip Module 7.75"	500	453	81990	40,000	54,200	102965	3.5	88.9	9.3	13.84	7.7	11.46	-	-	-	-	-	-	80%	0.04007	5.295	10,000 (R) 10,000 (NR)	89 (R) 268 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	16.3	414	2,400 (F) 2,200 (NF)	1,089 (F) 998 (NF)					
						82155	4.5	114.3	16.6	24.70	9.5	14.14	-	-	-	-	-	-	-	-	-	-	80%	0.03467	4.581	6,700 (R) 10,000 (NR)	46 (R) 139 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	16.3	414	2,400 (F) 2,200 (NF)	1,089 (F) 998 (NF)	
						82408	5.0	127.0	25.6	38.10	11.5	17.11	-	-	-	-	-	-	-	-	-	-	-	80%	0.03081	4.071	5,200 (R) 10,000 (NR)	36 (R) 109 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	16.3	414	2,400 (F) 2,200 (NF)	1,089 (F) 998 (NF)
						81813	5.5	139.7	43.1	64.14	14.0	20.83	-	-	-	-	-	-	-	-	-	-	-	80%	0.02812	3.716	4,300 (R) 10,000 (NR)	30 (R) 89 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	16.3	414	2,400 (F) 2,200 (NF)	1,089 (F) 998 (NF)
						101730	6.0	152.4	26.9	40.03	18.8	27.98	-	-	-	-	-	-	-	-	-	-	-	80%	0.0306	4.044	3,700 (R) 10,000 (NR)	26 (R) 77 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	16.3	414	2,400 (F) 2,200 (NF)	1,089 (F) 998 (NF)
						101373	6.63	168.4	32.0	47.62	17.0	25.30	-	-	-	-	-	-	-	-	-	-	-	80%	0.0262	3.467	2,800 (R) 8,400 (NR)	19 (R) 58 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	16.3	414	2,400 (F) 2,200 (NF)	1,089 (F) 998 (NF)
						82854	7.0	177.8	57.1	84.97	17.0	25.30	-	-	-	-	-	-	-	-	-	-	-	80%	0.02577	3.405	2,400 (R) 7,400 (NR)	17 (R) 51 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	16.3	414	2,400 (F) 2,200 (NF)	1,089 (F) 998 (NF)
						81839	7.63	193.7	59.2	88.10	24.0	35.72	-	-	-	-	-	-	-	-	-	-	-	80%	0.02371	3.133	2,100 (R) 6,300 (NR)	14 (R) 43 (NR)	50 (R) ¹⁰ 150 (NR)	45 (R) ¹⁰ 136 (NR)	16.3	414	2,400 (F) 2,200 (NF)	1,089 (F) 998 (NF)

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¹ Tool hoist rating is based on API Specification 8C.; however, load capacity is further constrained by local interaction of the slip dies with the casing which must not exceed the efficiency indicated for individual slip die sizes to avoid excess deformation. The slip to casing interaction hoist limit is calculated by multiplying the slip to pipe body load efficiency number by the casing hoist limit found in API Specification 5C2. For example: from 5C2 the pipe body yield for 9.625" x 40 ppf L80 casing is 916,000 lbs (415.5 tonne). The slip efficiency for die 81756 used to run this casing on the CRTI2-8.63 tool is 80%. Therefore the casing hoist limit is 80% x 916,000 lbs = 732,800 lbs (366.4 tons) or 80% x 415.5 tonne = 311.6 tonne.

² CRTI1,2-4.5 Cage (P/N: 81325) when run in conjunction with Integral Slips (P/N: 80957) enable running 4.5" 13.5ppf casing, with a reduced torque capacity of 10,000 ft.lbs. All other CRTI1,2-4.5 Integral Slips can be run with Cage (P/N: 81325) with a reduced torque capacity of 10,000 ft.lbs.

CRTI1,2-5.5 Cage (P/N: 81128) when run in conjunction with Integral Slips (P/N: 81129) enable running 5.5" 23.0ppf casing, with a reduced torque capacity of 20,000 ft.lbs. CRTI1,2-5.5 Integral Slips 80913, 82165, 80981, 82013, 81284 and 83076 can also be run with Cage (P/N: 81128) with a reduced torque capacity of 20,000 ft.lbs.

CRTI4-7 Cage (P/N: 82999) must be run in conjunction with Keeper (P/N: 83001) and Integral Slips (P/N: 83000) to enable running 7.0" 38.0-42.7ppf casing, with a reduced torque capacity of 35,000 ft.lbs. All other CRTI4-7 Integral Slips and Dies can be run with Cage (P/N: 82999) with a reduced torque capacity of 35,000 ft.lbs.

³ Maximum pipe weight is defined by the API Specification 5CT drift diameter of the heaviest weight casing into which the CRTI tool assembled with the specified die set will fit.

⁴ Indicated minimum pipe weight is based on the assumption that control of average pipe inside diameter over die grip interval does not allow pipe body area reduction less than 3.5% from nominal and additionally takes into account tool wear allowances, die penetration, casing deformation and tool stroke.

⁵ Slip to pipe body load efficiency and torque factor are only applicable to primary pipe size. The Slip to pipe body load efficiency and torque factor might be lower for overlap pipe sizes.

⁶ Torque Capacity may be limited by slip die/casing interaction. Where torque factors are provided, multiply this factor by the desired casing weight in ppf then multiply the result by the casing yield strength to determine the slip die/casing interaction torque limit. If no value is provided, tool rating will be limiting for all standard casing grades.

⁷ CRTI and CRTe tool pressure end load capacity is independent of casing pressure capacity and casing seal assembly pressure capacity. During circulation hoist capacity must be reduced by the pressure end load.

⁸ Hoist capacity for CRTI1-7.0 is 300 ton.

⁹ Non-standard radial stroke limit for this casing weight only.

¹⁰ CRTe tool maximum pressure end load depends on the casing seal arrangement and stinger assembly. The retractable stinger assembly (R) has smaller pressure end load capacity than the fixed or non-retractable stinger assembly (NR). CRTe tool hoist capacity must be reduced by the pressure end load during circulation.