





# CASING RUNNING TOOL CAPACITY

Specification Summary

Model	Max. Rated Hoist Capacity <sup>1</sup> (ton) (tonne)		Cage Torque Capacity			Die Rated Load Capacity												End Load Rating				Max. Tool Diameter (in.) (mm)		Approximate Tool Weight (lbs) (kg)								
			Cage P/N	Max. Rated Torque Capacity (ft.lbs) (N.m)		Die P/N	Primary Nominal Pipe Size (in.) (mm)		Maximum Pipe Weight <sup>2</sup> (ppf) (kg/m)		Minimum Pipe Weight <sup>3</sup> (ppf) (kg/m)		Overlap Pipe Size (in.) (mm)		Maximum Pipe Weight <sup>2</sup> (ppf) (kg/m)		Minimum Pipe Weight <sup>3</sup> (ppf) (kg/m)		Slip to Pipe Body Load Efficiency <sup>4</sup> (%)	Torque Factor <sup>4,5</sup> (ft.lbs/psi/ppf) (N.m/MPa/(kg/m))						Max. Circulation Pressure <sup>6</sup> (psi) (MPa)		Max. Pressure End Load <sup>6</sup> (ton) (tonne)				
				(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)	
CRTi1-70 CRTi2-70 CRTi3-70 CRTi3-70HC <sup>350</sup>	320 <sup>9</sup>	290	80840 or 82856	50,000	67,700	81293 <sup>9</sup>	18.63	473.1	111.0	165.19	111.0	165.19	-	-	-	-	-	27%	0.00669	0.880	2,000	14	250	227	21.0	533	1,060	481				
101407 <sup>9</sup>	18.63	473.1				115.0	171.14	115.0	171.14	-	-	-	-	-	-	-	-	-	25%	0.00567	0.750	2,100	14	250	227	21.0	533	1,060	481			
81991 <sup>9</sup>	20.0	508.0				94.0	139.89	94.0	139.89	-	-	-	-	-	-	-	-	-	27%	0.00591	0.781	1,700	12	250	227	21.0	533	1,250	567			
81799 <sup>9</sup>	20.0	508.0				111.0	165.19	111.0	165.19	-	-	-	-	-	-	-	-	-	27%	0.00603	0.800	1,700	12	250	227	21.0	533	1,250	567			
CRTi4-70	420	381	81353 or 83145	50,000	67,700	82999 <sup>7</sup>	35,000	47,400	83000 <sup>7</sup>	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	25.30	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	-	-	-	-	-	-	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	7.0	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	45.5	67.71	-	-	-	-	-	-	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	14.0	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	14.0	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	14.0	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																														

# CASING RUNNING TOOL CAPACITY

Specification Summary



Model	Max. Rated Hoist Capacity <sup>1</sup> (ton) (tonne)		Cage Torque Capacity			Die Rated Load Capacity												End Load Rating				Max. Tool Diameter (in.) (mm)		Approximate Tool Weight (lbs) (kg)					
			Cage P/N	Max. Rated Torque Capacity (ft.lbs) (N.m)		Die P/N	Primary Nominal Pipe Size (in.) (mm)		Maximum Pipe Weight <sup>2</sup> (ppf) (kg/m)		Minimum Pipe Weight <sup>3</sup> (ppf) (kg/m)		Overlap Pipe Size (in.) (mm)		Maximum Pipe Weight <sup>2</sup> (ppf) (kg/m)		Minimum Pipe Weight <sup>3</sup> (ppf) (kg/m)		Slip to Pipe Body Load Efficiency <sup>4</sup> (%)	Torque Factor <sup>4,5</sup> (ft.lbs/psi/ppf) (N.m/MPa/(kg/m))						Max. Circulation Pressure <sup>6</sup> (psi) (MPa)		Max. Pressure End Load <sup>6</sup> (ton) (tonne)	
CRTI1-8.63 CRTI2-8.63 CRTI2-8.63HC750	690	625		81008	85,000		115,200	100703	11.75	298.5	82.6	122.92	71.0	105.66	10.75	273.1	20.0	29.76		20.0	29.76	80%	0.02425	3.204	10,000	69	500	454	20.0
			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	71%	0.02012	2.659	9,000	62	500	454	20.0	508	1,850	839
			82168			13.38		339.7	54.5	81.10	48.0	71.43	14.0	355.6	100.0	148.82	100.0	148.82	74%	0.02048	2.706	8,000	55	500	454	20.0	508	2,100	953
			81897			13.38		339.7	61.0	90.78	48.0	71.43	14.0	355.6	100.0	148.82	100.0	148.82	74%	0.02048	2.706	8,000	55	500	454	20.0	508	2,100	953
			82164			13.38		339.7	68.0	101.2	54.5	81.10	14.0	355.6	112.6	167.57	106.0	157.75	75%	0.02094	2.767	8,200	57	500	454	20.0	508	2,100	953
			81150			13.38		339.7	72.0	107.15	61.0	90.78	13.63	346.1	88.2	131.26	88.2	131.26	75%	0.0213	2.815	8,300	57	500	454	20.0	508	2,100	953
	82588	13.38	339.7	77.0	114.59	61.0	90.78	14.0	355.6	114.0	169.65	112.6	167.57	75%	0.0213	2.815	8,300	57	500	454	20.0	508	2,100	953					
	83154	13.38	339.7	86.0	127.98	72.0	107.15	-	-	-	-	-	-	76%	0.02173	2.872	8,500	59	500	454	20.0	508	2,100	953					
	81431	16.0	406.4	65.0	96.73	65.0	96.73	-	-	-	-	-	-	59%	0.01627	2.150	5,500	38	500	454	20.0	508	2,500	1,134					
	81645	16.0	406.4	84.0	125.01	75.0	111.61	-	-	-	-	-	-	63%	0.01757	2.322	5,600	39	500	454	20.0	508	2,500	1,134					
	82100	16.0	406.4	97.0	144.35	84.0	125.01	-	-	-	-	-	-	61%	0.01713	2.264	5,800	40	500	454	20.0	508	2,500	1,134					
	81758	16.0	406.4	109.0	162.21	97.0	144.35	-	-	-	-	-	-	64%	0.01791	2.367	6,000	41	500	454	20.0	508	2,500	1,134					
	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	17.0	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	96.5	143.61	-	-	-	-	-	-	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	251.50	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	229.0	340.79	229.0	340.79	-	-	-	-	-	-	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					
	104449	26.0	660.4	272.3	405.23	267.3	397.79	-	-	-	-	-	-	37%	-	-	2,200	15	500	454	28.0	711	3,700	1,678					
	81462	26.0	660.4	272.3	405.23	272.3	405.23	-	-	-	-	-	-	37%	-	-	2,200	15	500	454	28.0	711	3,700	1,678					
	104737	26.0	660.4	330.4	491.69	330.4	491.69	24.50	622.3	133.0	197.93	133.0	197.93	39%	-	-	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	239.0	355.67	239.0	355.67	-	-	-	-	-	-	24%	0.00717	0.947	1,800	12	500	454	32.0	813	4,700	2,132						
105361	30.0	762.0	310.0	461.33	310.0	461.33	-	-	-	-	-	-	27%	-	-	1,800	11	500	454	32.0	813	4,700	2,132						
CRTI1-10.75	1,250	1,133	104269	125,000	169,400	104432	10.75	273.1	55.5	82.59	32.8	48.74	11.50	292.1	98.2	146.14	98.2	146.14	80%	0.04426	5.849	10,000	69	722	655	20.0	508	2,109	957
						105100	10.75	273.1	79.2	117.86	55.5	82.59	-	-	-	-	-	80%	0.05046	6.668	10,000	69	722	655	20.0	508	2,100	953	
						105136	11.75	298.5	71.0	105.66	42.0	62.50	11.88	301.6	71.8	106.85	58.8	87.50	80%	0.03979	5.258	10,000	69	722	655	20.0	508	2,215	1,005
						104434	11.75	298.5	94.0	139.89	65.0	96.73	10.75	273.1	32.8	48.74	20.0	29.76	80%	0.04495	5.940	10,000	69	722	655	20.0	508	2,180	989
						104498	12.75	323.9	58.4	86.88	44.4	66.10	13.38	339.7	98.0	145.84	72.0	107.15	80%	0.04423	5.845	10,000	69	722	655	20.0	508	2,445	1,109
						101955	13.38	339.7	72.0	107.15	48.0	71.43	14.0	355.6	116.0	172.63	94.8	141.08	80%	0.03930	5.193	10,000	69	722	655	20.0	508	2,490	1,129
						104422	16.0	406.4	97.0	144.35	65.0	96.73	-	-	-	-	-	-	80%	0.03414	4.512	8,000	55	722	655	20.0	508	2,826	1,282
						104542	16.0	406.4	129.5	192.72	97.0	144.35	16.26	413.0	122.5	182.30	122.5	182.30	80%	-	-	8,500	59	722	655	20.0	508	2,765	1,254
						104423	16.77	426.0	83.7	124.56	69.4	103.28	17.0	431.8	96.6	143.80	77.5	115.33	80%	0.03565	4.711	7,300	50	722	655	20.0	508	2,970	1,347
						104424	18.0	457.2	129.0	191.97	117.0																		

Model	Max. Rated Hoist Capacity <sup>1</sup> (ton) (tonne)		Cage Torque Capacity			Die Rated Load Capacity												End Load Rating				Max. Tool Diameter (in.) (mm)		Approximate Tool Weight (lbs) (kg)					
			Cage P/N	Max. Rated Torque Capacity (ft.lbs) (N.m)		Die P/N	Primary Nominal Pipe Size (in.) (mm)		Maximum Pipe Weight <sup>2</sup> (ppf) (kg/m)		Minimum Pipe Weight <sup>3</sup> (ppf) (kg/m)		Overlap Pipe Size (in.) (mm)		Maximum Pipe Weight <sup>2</sup> (ppf) (kg/m)		Minimum Pipe Weight <sup>3</sup> (ppf) (kg/m)		Slip to Pipe Body Load Efficiency <sup>4</sup> (%)	Torque Factor <sup>4,5</sup> (ft.lbs/psi/ppf) (N.m/MPa/(kg/m))						Max. Circulation Pressure <sup>6</sup> (psi) (MPa)		Max. Pressure End Load <sup>6</sup> (ton) (tonne)	
ActiveSET™ CRTe-1.0GM7.75  Float(F) Non-Float(NF)	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) <sup>12</sup> 150 (NR)	45 (R) <sup>12</sup> 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) <sup>12</sup> 150 (NR)	45 (R) <sup>12</sup> 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) <sup>12</sup> 150 (NR)	45 (R) <sup>12</sup> 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) <sup>12</sup> 150 (NR)	45 (R) <sup>12</sup> 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) <sup>12</sup> 150 (NR)	45 (R) <sup>12</sup> 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) <sup>12</sup> 150 (NR)	45 (R) <sup>12</sup> 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) <sup>12</sup> 150 (NR)	45 (R) <sup>12</sup> 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) <sup>12</sup> 150 (NR)	45 (R) <sup>12</sup> 136 (NR)	16.3	414	2,400 (F) 2,200 (NF)	1,089 (F) 998 (NF)

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. 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.
3. 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. Minimum Pipe Weight listed is for standard capacity mandrels. High-capacity (HC) mandrels may have different minimum pipe weight, please consult the individual casing running tool base tool specification sheets for full range.
4. 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.
5. 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.
6. 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.
7. 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) must be run in conjunction with Keeper (P/N: 81134) and Integral Slips (P/N: 81129) to 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. CRTi3-7.0 Cage (P/N: 105853) must be run in conjunction with Keeper (P/N: 83001) and Integral Slips (P/N: 105854) to enable running 7.0 in. 38.0- 42.7ppf casing, with a reduced torque capacity of 35,000 ft.lbs. All other CRTi3-7.0 Integral Slips and Dies can be run with Cage (P/N: 105853) with a reduced torque capacity of 35,000 ft.lbs. CRTi4-7.0 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.
8. Hoist capacity for CRTi1-7.0 is 300 ton (272 tonne).
9. Hoist limited for CRTi3-7.0 is 320 ton (290 tonne).
10. Non-standard radial stroke limit for this casing weight only.
11. Dies to be used with PN-105277 jaw and cannot be used without compatible jaw.
12. 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.