Link-Belt® HC-218A Performance Specifications

Boom live mast — lifting capacities when used as short boom①

Extended mast only		Upper without counterweight				Upper with "A" or "AB" counterweight	
Load radius		On tires		On outriggers		On outriggers only	
Feet	*meters*	Pounds	*kilograms*	Pounds	*kilograms*	Pounds	*kilograms*
10′ to 14′	*3.05 to 4.27*	33,000	*14 969*	33,000	*14 969*	33,000	*14 969*
14′ to 25′	*4.27 to 8.23*	13,500	*6 123*	33,000	*14 969*	33,000	*14 969*

①Boom live mast must be fixed in extended 24′ *(7.32 m)* long position when used as short boom. Use of live mast as short boom is intended for machine assembly or disassembly only. It should not be used for general crane service. Lifting maximum 33,000 lbs. *(14 969 kg)* capacity requires 3-parts ⅞″ *(22 mm)* diameter Type "N" wire rope.

Wire rope and rope drum data

Main load hoist wire rope length — for tubular booms using ⅞″ *(22 mm)* diameter wire rope①②③

Parts of line	Boom length															
	30′ *(9.14 m)*④		40′ *(12.19 m)*		50′ *(15.24 m)*		60′ *(18.29 m)*		70′ *(21.34 m)*		80′ *(24.38 m)*		90′ *(27.43 m)*		100′ *(30.48 m)*	
	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*
1	85	*25.96*	125	*38.10*	145	*44.20*	165	*50.29*	185	*56.39*	205	*62.48*	225	*68.58*	245	*74.68*
2	120	*36.58*	170	*51.82*	200	*60.96*	230	*70.10*	260	*79.25*	290	*88.39*	320	*97.54*	350	*106.68*
3	155	*47.24*	215	*65.53*	255	*77.72*	295	*89.92*	335	*102.11*	375	*114.30*	415	*126.49*	455	*138.68*
4	190	*57.91*	260	*79.25*	310	*94.49*	360	*109.73*	410	*124.97*	460	*140.21*	510	*155.45*	560	*170.69*
5	225	*68.58*	305	*92.96*	365	*111.25*	425	*129.54*	485	*147.83*	545	*166.12*	605	*184.40*	665	*202.69*
6	260	*79.25*	350	*106.68*	420	*128.02*	490	*149.35*	560	*170.69*	630	*192.02*	700	*213.36*	770	*234.70*
7	295	*89.92*	395	*120.40*	475	*144.78*	555	*169.16*	635	*193.55*	715	*217.93*	795	*242.32*	875	*266.70*
8	330	*100.58*	440	*134.11*	530	*161.54*	620	*188.98*	710	*216.41*	800	*243.84*	890	*271.27*		
9	365	*111.25*	485	*147.83*	585	*178.31*	685	*208.79*	785	*239.27*	885	*269.75*				
10	400	*121.92*	530	*161.54*	640	*195.07*	750	*228.60*	860	*262.13*						

Parts of line	Boom length															
	110′ *(33.53 m)*		120′ *(36.58 m)*		130′ *(39.62 m)*		140′ *(42.67 m)*		150′ *(45.72 m)*		160′ *(48.77 m)*		170′ *(51.82 m)*		180′ *(54.86 m)*	
	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*
1	255	*80.77*	285	*86.87*	305	*92.96*	325	*99.06*	345	*105.16*	365	*111.25*	385	*117.35*	405	*123.44*
2	380	*115.82*	410	*124.97*	440	*134.11*	470	*143.26*	500	*152.40*	530	*161.54*	560	*170.69*	590	*179.83*
3	495	*150.88*	535	*163.07*	575	*175.26*	615	*187.45*	655	*199.64*	695	*211.84*	735	*224.03*	775	*236.22*
4	610	*185.93*	660	*201.17*	710	*216.41*	760	*231.65*	810	*246.89*	860	*262.13*				
5	725	*220.98*	785	*239.27*	845	*257.56*										
6	840	*256.03*														

Parts of line	Boom length									
	190′ *(57.91 m)*		200′ *(60.96 m)*		210′ *(64.01 m)*		220′ *(67.06 m)*		230′ *(70.10 m)*	
	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*	Feet	*meters*
1	425	*129.54*	445	*135.64*	465	*141.73*	485	*147.83*	505	*153.92*
2	620	*188.98*	650	*198.12*	680	*207.26*	710	*216.41*	740	*225.55*
3	815	*248.41*	855	*260.60*						

①Hammerhead boom lengths: 30′ to 230′ *(9.14 to 70.10 m)*.
②Open throat boom lengths: 40′ to 230′ *(12.19 to 70.10 m)*.
③Tapered boom lengths: 90′ to 230′ *(27.43 to 70.10 m)*.
④Hammerhead boom only.

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Wire rope and rope drum data — (continued)

Jib load hoist rope lengths (whipline) — using ¾" *(19 mm)* diameter wire rope.

Jib length	Parts of line	Boom length 40' *(12.19 m)* Feet	*meters*	50' *(15.24 m)* Feet	*meters*	60' *(18.29 m)* Feet	*meters*	70' *(21.34 m)* Feet	*meters*	80' *(24.38 m)* Feet	*meters*	90' *(27.43 m)* Feet	*meters*	100' *(30.48 m)* Feet	*meters*	110' *(33.53 m)* Feet	*meters*
30' *(9.14 m)*	1	185	*56.39*	205	*62.48*	225	*68.58*	245	*74.68*	265	*80.77*	285	*86.87*	305	*92.96*	325	*99.06*
	2	260	*79.25*	290	*88.39*	320	*97.54*	350	*106.68*	380	*115.82*	410	*124.97*	440	*134.11*	470	*143.26*
45' *(13.72 m)*	1	215	*65.53*	235	*71.63*	255	*77.72*	275	*83.82*	295	*89.92*	315	*96.01*	335	*102.11*	355	*108.20*
	2	305	*92.96*	335	*102.11*	365	*111.25*	395	*120.40*	425	*129.54*	455	*138.68*	485	*147.83*	515	*156.97*
60' *(18.29 m)*	1	245	*74.68*	265	*80.77*	285	*86.87*	305	*92.96*	325	*99.06*	345	*105.16*	365	*111.25*	385	*117.35*
	2	350	*106.68*	380	*115.82*	410	*124.97*	440	*134.11*	470	*143.26*	500	*152.40*	530	*161.54*	560	*170.69*

Jib length	Parts of line	Boom length 120' *(36.58 m)* Feet	*meters*	130' *(39.62 m)* Feet	*meters*	140' *(42.67 m)* Feet	*meters*	150' *(45.72 m)* Feet	*meters*	160' *(48.77 m)* Feet	*meters*	170' *(51.82 m)* Feet	*meters*	180' *(54.86 m)* Feet	*meters*	190' *(57.91 m)* Feet	*meters*
30' *(9.14 m)*	1	345	*105.16*	365	*111.25*	385	*117.35*	405	*123.44*	425	*129.54*	445	*135.64*	465	*141.73*	485	*147.83*
	2	500	*152.40*	530	*161.54*	560	*170.69*	590	*179.83*	620	*188.98*	650	*198.12*	680	*207.26*	710	*216.41*
45' *(13.72 m)*	1	375	*114.30*	395	*120.40*	415	*126.49*	435	*132.59*	455	*138.68*	475	*144.78*	495	*150.88*	515	*156.97*
	2	545	*166.12*	575	*175.26*	605	*184.40*	635	*193.55*	665	*202.69*	695	*211.84*	725	*220.98*	755	*230.12*
60' *(18.29 m)*	1	405	*123.44*	425	*129.54*	445	*135.64*	465	*141.73*	485	*147.83*	505	*153.92*	525	*160.02*	545	*166.12*
	2	590	*179.83*	620	*188.98*	650	*198.12*	680	*207.26*	710	*216.41*	740	*225.55*	770	*234.70*	800	*243.84*

Jib length	Parts of line	Boom length 200' *(60.96 m)* Feet	*meters*	210' *(64.01 m)* Feet	*meters*
30' *(9.14 m)*	1	505	*153.92*	525	*160.02*
	2	740	*225.55*	770	*234.70*
45' *(13.72 m)*	1	535	*163.07*	555	*169.16*
	2	785	*239.27*	805	*245.36*
60' *(18.29 m)*	1	565	*172.21*	585	*178.31*
	2	830	*252.98*	860	*262.13*

Drum wire rope capacities

Wire rope layer	Front or rear drum — 17¼" *(0.50 m)* root diameter smooth lagging: ¾" *(19 mm)* wire rope: Rope per layer Feet	*meters*	Total wire rope Feet	*meters*	⅞" *(22 mm)* wire rope: Rope per layer Feet	*meters*	Total wire rope Feet	*meters*	Third or boomhoist drum — 11¼" *(0.29 m)* root diameter smooth lagging: ¾" *(19 mm)* wire rope: Rope per layer Feet	*meters*	Total wire rope Feet	*meters*
1	118	*35.97*	118	*35.97*	102	*31.09*	102	*31.09*	81	*24.69*	81	*24.69*
2	127	*38.71*	245	*74.68*	110	*33.53*	212	*64.62*	90	*27.43*	171	*51.12*
3	136	*41.45*	381	*116.13*	120	*36.58*	332	*101.19*	99	*30.18*	270	*82.30*
4	144	*43.89*	525	*160.02*	128	*39.01*	460	*140.21*	108	*32.92*	378	*115.21*
5	153	*46.63*	678	*206.65*	136	*41.45*	596	*181.66*	117	*35.66*	495	*150.88*
6	161	*49.07*	839	*255.73*	144	*43.89*	740	*225.55*				
7	169	*51.51*	1,008	*307.24*	152	*46.33*	892	*271.88*				

Rope size and type

Wire rope application	Size and type used
Boomhoist	¾" *(19 mm)* diameter, Type "T"
Main load hoist	⅞" *(22 mm)* diameter, Type "N"
Jib load hoist (1-part)	¾" *(19 mm)* diameter, Type "K"
Jib load hoist (2-part)	¾" *(19 mm)* diameter, Type "N"
Third drum	¾" *(19 mm)* diameter, Type "N"
Boom pendants	1⅜" *(35 mm)* diameter, Type "N"
Boom midpoint suspension pendants	⅞" *(22 mm)* diameter, Type "N"
Jib frontstay line	¾" *(19 mm)* diameter, Type "N"
Jib backstay line	¾" *(19 mm)* diameter, Type "N"

Wire rope types

Type "N" — 6 x 25 (6 x 19 class), filler wire, extra improved plow steel; preformed, independent wire rope center, right lay, regular lay.

Type "K" — 19 x 7 non-rotating improved plow steel, preformed, wire rope center core.

Type "T" — 6 x 30 flattened strand, extra improved plow steel, preformed independent wire rope center, right lay, lang lay.

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Wire rope and rope drum data — (continued)

Available line speed and line pull① — based on GM 6-71N diesel engine with Allison single stage torque converter developing maximum net horsepower as defined by P.C.S.A. Standard No. 1.

Attachment	Root diameter	Front or rear drum: Wire rope diameter		Line speed — first layer		Line pull — first layer		Third drum: Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer	
		Inches	*mm*	F.p.m.	*m/min*	Pounds	*kilograms*		Inches	*mm*	F.p.m.	*m/min*	Pounds	*kilograms*
Crane	17¼"	¾"	*19*	159	*48.46*	25,150	*11 408*	11¼"	¾"	*19*	117	*35.66*	31,200	*14 152*
	(0.44 m)	⅞"	*22*	160	*48.77*	25,000	*11 340*	*(0.29 m)*						

Permissible line speed and pull① — based on Type "N" wire rope strength, single part line.

Attachment	Root diameter	Front or rear drum: Wire rope diameter		Line speed — first layer		Line pull — first layer		Third drum: Root diameter	Wire rope diameter		Line speed — first layer		Line pull — first layer	
		Inches	*mm*	F.p.m.	*m/min*	Pounds	*kilograms*		Inches	*mm*	F.p.m.	*m/min*	Pounds	*kilograms*
Crane	17¼"	¾"	*19*	215	*65.53*	16,800	*7 620*	11¼"	¾"	*19*	174	*53.04*	16,800	*7 620*
	(0.44 m)	⅞"	*22*	177	*53.95*	22,700	*10 297*	*(0.29 m)*						

Load hoisting performance — line speeds are maximum for full throttle operation (1,800 r.p.m. full load speed) with GM 6-71N diesel engine equipped with Allison single stage torque converter.

Single line load①		Front or rear drum — 17¼" *(0.44 m)* root diameter smooth laggings — using ⅞" *(22 mm)* rope: Line speed											
		First layer rope				Fourth layer rope				Seventh layer rope			
		Standard		High speed②		Standard		High speed②		Standard		High speed②	
Pounds	*kilograms*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*
1,000	*454*	334	*101.80*	554	*168.86*	428	*130.45*	706	*215.19*	521	*158.80*	853	*260.00*
5,000	*2 268*	302	*92.05*	458	*139.59*	375	*114.30*	545	*166.12*	441	*134.41*	625	*190.50*
10,000	*4 536*	263	*80.16*	352	*107.28*	312	*95.09*	377	*114.91*	353	*107.59*		
13,000	*5 897*	241	*73.46*	290	*88.39*	279	*85.04*			302	*92.05*		
15,000	*6 804*	229	*69.80*			257	*78.33*						
20,000	*9 072*	195	*59.44*										
22,700	*10 297*	177	*53.95*										

Single line load①		Third drum — 11¼" *(0.29 m)* root diameter smooth lagging — using ¾" *(19 mm)* wire rope: Line speed					
		First layer		Third layer		Fifth layer	
Pounds	*kilograms*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*
1,000	*454*	244	*74.37*	304	*92.66*	363	*110.64*
5,000	*2 268*	226	*68.89*	276	*84.13*	322	*98.15*
10,000	*4 536*	203	*61.87*	239	*72.85*	270	*82.30*
15,000	*6 804*	180	*54.86*	208	*63.40*	228	*69.49*
16,800	*7 620*	174	*53.04*	197	*60.04*	212	*64.62*

①② — see page 5.

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Wire rope and rope drum data — (continued)

Load hoisting performance — line speeds are maximum for full throttle operation (1,800 r.p.m. full load speed) with GM 6-71 diesel engine equipped with Allison single stage torque converter.

Single line load①		Front or rear drum — 17¼" *(0.44 m)* root diameter smooth laggings — using ¾" *(19 mm)* rope											
		Line speed											
		First layer rope				Fourth layer rope				Seventh layer rope			
		Standard		High speed②		Standard		High speed②		Standard		High speed②	
Pounds	*kilograms*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*
1,000	*454*	331	*100.89*	551	*167.94*	412	*125.58*	681	*207.57*	492	*149.96*	808	*246.28*
5,000	*2 268*	301	*91.74*	455	*138.68*	363	*110.64*	532	*162.15*	421	*128.32*	601	*183.18*
10,000	*4 536*	261	*79.55*	351	*106.98*	304	*92.66*	375	*114.30*	342	*104.24*		
13,000	*5 897*	240	*73.15*	290	*88.39*	274	*83.52*			296	*90.22*		
15,000	*6 804*	228	*69.49*			253	*77.11*						
20,000	*9 072*	194	*59.13*										
22,700	*10 297*	176	*53.64*										

Load hoisting performance — line speeds are maximum for full throttle operation (1,800 r.p.m. full load speed) with GM 6-71 diesel engine equipped with Twin Disc 3 stage torque converter.

Single line load①		Front or rear drum — 17¼" *(0.44 m)* root diameter smooth laggings — using ⅞" *(22 mm)* rope											
		Line speed											
		First layer rope				Fourth layer rope				Seventh layer rope			
		Standard		High speed②		Standard		High speed②		Standard		High speed②	
Pounds	*kilograms*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*
1,000	*454*	304	*92.66*	514	*156.67*	392	*119.48*	662	*201.78*	480	*146.30*	810	*246.89*
5,000	*2 268*	275	*83.82*	411	*125.27*	348	*106.07*	485	*147.83*	408	*124.36*	561	*170.99*
10,000	*4 536*	235	*71.63*	336	*102.41*	276	*84.12*	358	*109.12*	324	*98.76*		
13,000	*5 897*	214	*65.23*	277	*84.43*	261	*79.55*			290	*88.39*		
15,000	*6 804*	208	*63.40*			246	*74.98*						
20,000	*9 072*	187	*56.99*										
22,700	*10 297*	167	*50.90*										

Load hoisting performance — line speeds are maximum for full throttle operation (1,800 r.p.m. full load speed) with GM 6-71 diesel engine equipped with Twin Disc 3 stage torque converter.

Single line load①		Front or rear drum — 17¼" *(0.44 m)* root diameter smooth laggings — using ¾" *(19.mm)* rope											
		Line speed											
		First layer rope				Fourth layer rope				Seventh layer rope			
		Standard		High speed②		Standard		High speed②		Standard		High speed②	
Pounds	*kilograms*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*
1,000	*454*	302	*92.05*	510	*155.45*	378	*115.21*	637	*194.16*	453	*138.07*	764	*232.87*
5,000	*2 268*	274	*83.52*	404	*124.66*	336	*102.41*	474	*144.48*	396	*120.70*	535	*163.07*
10,000	*4 536*	234	*71.32*	334	*101.80*	268	*81.69*	357	*108.81*	310	*94.49*		
13,000	*5 897*	212	*64.62*	276	*84.12*	254	*77.42*			284	*86.56*		
15,000	*6 804*	207	*63.09*			242	*73.76*						
20,000	*9 072*	186	*56.69*										
22,700	*10 297*	167	*50.90*										

①②— see page 5.

GENERAL INFORMATION ONLY

HC-218A performance specifications

Wire rope and rope drum data — (continued)

Load hoisting performance — line speeds are maximum for full throttle operation (1,800 r.p.m. full load speed) with Cummins N855C220 diesel engine equipped with Twin Disc 3 stage torque converter.

Single line load①		Front or rear drum — 17¼" *(0.44 m)* root diameter smooth laggings — using ⅞" *(22 mm)* rope											
		Line speed											
		First layer rope				Fourth layer rope				Seventh layer rope			
		Standard		High speed②		Standard		High speed②		Standard		High speed②	
Pounds	*kilograms*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*
1,000	*454*	301	*91.74*	502	*153.01*	387	*117.96*	642	*195.68*	471	*143.56*	779	*237.44*
5,000	*2 268*	280	*85.34*	437	*133.20*	352	*107.29*	530	*161.54*	418	*127.41*	604	*184.10*
10,000	*4 536*	253	*77.11*	340	*103.63*	303	*92.35*	369	*112.47*	341	*103.94*		
13,000	*5 897*	234	*71.32*	284	*86.56*	270	*82.30*			294	*89.61*		
15,000	*6 804*	221	*67.36*			249	*75.90*						
20,000	*9 072*	189	*57.61*										
22,700	*10 297*	172	*52.43*										

Load hoisting performance — line speeds are maximum for full throttle operation (1,800 r.p.m. full load speed) with Cummins N855C220 diesel engine equipped with Twin Disc 3 stage torque converter.

Single line load①		Front or rear drum — 17¼" *(0.44 m)* root diameter smooth laggings — using ¾" *(19 mm)* rope											
		Line speed											
		First layer rope				Fourth layer rope				Seventh layer rope			
		Standard		High speed②		Standard		High speed②		Standard		High speed②	
Pounds	*kilograms*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*	F.p.m.	*m/min*
1,000	*454*	299	*91.14*	499	*152.10*	372	*113.39*	619	*188.67*	445	*135.64*	737	*224.64*
5,000	*2 268*	279	*85.04*	434	*132.28*	340	*103.63*	515	*156.97*	398	*121.31*	584	*178.00*
10,000	*4 536*	251	*76.50*	339	*103.33*	295	*89.92*	367	*111.86*	330	*100.58*		
13,000	*5 897*	233	*71.02*	284	*86.56*	265	*80.77*			288	*87.78*		
15,000	*6 804*	220	*67.06*			245	*74.68*						
20,000	*9 072*	189	*57.61*										
22,700	*10 297*	172	*52.43*										

①Maximum permissible load on single part of line: 16,800 lbs. *(7 620 kg)* for ¾" *(19 mm)* Type "N" wire rope; 9,900 lbs. *(4 491 kg)* for ¾" *(19 mm)* Type "K" wire rope; 22,700 lbs. *(10 297 kg)* for ⅞" *(22 mm)* Type "N" wire rope.

②Machine equipped with optional planetary drive unit.

We are constantly improving our products and reserve the right to change designs and specifications.

FMC Corporation
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Link-Belt® cranes & excavators
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