

# Chains for the Timber Industry



**Chaînes pour l'Industrie du bois**

**Ketten für die Holzindustrie**



**JOHN KING**

## COMPANY HISTORY AND INFORMATION



Climax Works 1930's



Chain Assembly 1960's

John King and Company was established in Leeds, England in 1926. Their tradition was in the manufacture of cast link chain. They have therefore unrivalled experience in the production of highest quality cast link chain under the 'Climax Quality Brand' for the most demanding timber industry applications.

Although cast link chains remain an important part of the King chain programme, the Company have moved into other product ranges including welded steel, engineered steel and forged fork link chain (see JK brochure forged chains & sprockets). Today John King (Chains) Ltd offer the widest range of chains of any European manufacturer and are exporting product World Wide.

John King USA Inc. operating from their plant in East Peoria (IL) are well equipped for various manufacturing and assembly processes. For high quality chain production serving North and South America.

Products are manufactured within the dictates of ISO 9000 to ensure consistent high quality. The John King name is synonymous with a British tradition of courtesy, quality and good value in conveying components.



**JOHN KING**



New Climax Works 2000's

## KING CLIMAX CAST LINK DRAG CHAIN

### THE CLIMAX SPECIFICATION FOR CAST DRAGS

#### LINK - JK/MN - Austenitic high Manganese Steel

Offering work hardening properties - the tougher the job, the more we like it!

#### LINK - JK/WRI - High Alloy Heat Treated Steel

For guaranteed material and heat treatment parameters, for high impact and optimum wear performance.

#### PINS - Forged Head from High Alloy Steel

Through hardened for high strength. Surface induction hardened for optimum wear resistance.



Inclined Log Haul



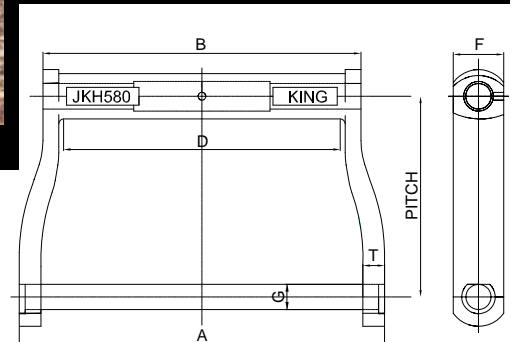
Chip Reclaim Conveyor



Chip Recovery



Chipper Infeed



- ★ The one piece link construction obviates problems associated with welded or engineered steel construction.
- ★ Heavy cross section with oval barrel for added wear resistance.
- ★ Heavy sidebar section for increased strength and wear performance.

CHAIN No.	AVERAGE PITCH		A		B		SIDE BARS THICKNESS		HEIGHT		PINS G		BARREL D		MINIMUM ULTIMATE STRENGTH		RATED WORKING LOAD		AVERAGE NETT WEIGHT
	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	LBS	Kg	LBS	Kg	LBS/Ft
JKH110	6	152.4	12 <sup>5</sup> / <sub>8</sub>	320	9	229	3/4	19.05	1 <sup>1</sup> / <sub>2</sub>	38.1	3/4	19.05	1 <sup>1</sup> / <sub>2</sub>	38.1	81000	37000	3500	6100	18
JKH480	8	203.2	14 <sup>1</sup> / <sub>2</sub>	370	11	280	7/8	22	2	50.08	7/8	22.22	2	50.08	145000	66000	24200	11000	31
JKH580	8	203.2	15 <sup>1</sup> / <sub>2</sub>	394	11	280	7/8	22	2	50.08	1	25.40	2	50.08	162000	74000	27000	13000	33
JKH132	6.05	153.67	6 <sup>1</sup> / <sub>2</sub>	165	3	76.2	7/8	22	2	50.08	1	25.40	1 <sup>3</sup> / <sub>4</sub>	44.95	175000	80000	30000	13800	18

# KING CLIMAX WELDED STEEL CHAIN FOR HIGH DUTY TIMBER TRANSPORT

John King offer a full programme of fully heat treated offset sidebar welded steel chains designed for a wide range of timber industry requirements, offering optimum performance in heavy haul and long service chain applications including storage log decks, pulp wood conveyors, debarkers, chipper infeed and trimmer conveyors.

## KING CLIMAX CHAINS INCLUDE

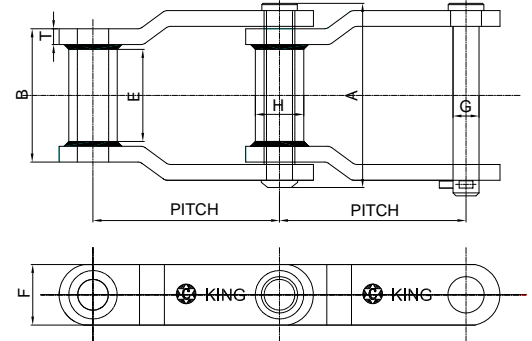
- ★ Heat treated carbon steel sidebar
- ★ Through hardened chain pins and bushes
- ★ Robotic welding of components for high integrity and high consistency
- ★ Fully weldable with all standard and custom made attachments



Slasher Deck



Debarker Infeed Conveyor



## STANDARD CLIMAX WH SERIES

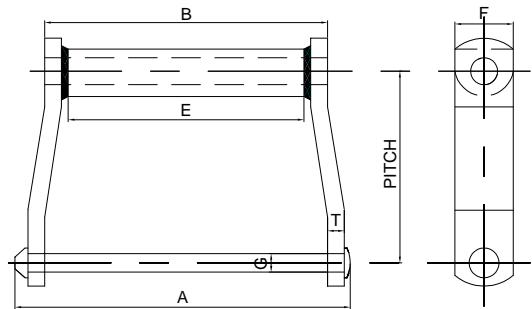
CHAIN No.	AVERAGE PITCH		A		E		SIDEBARS THICKNESS HEIGHT T F				PINS G		BARREL B H				MINIMUM ULTIMATE STRENGTH		RATED WORKING LOAD		AVERAGE NETT WEIGHT
	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	LBS	Kg	LBS	Kg	LBS/Ft
WH78	2.609	66.3	3	78.20	1	25.40	3/4	6.35	1 1/4	31.75	1/2	12.7	2	50.80	7/8	22.22	33000	15000	3000	1350	4.10
WH82	3.075	78.1	3 5/16	84.14	1 3/8	34.93	3/4	6.35	1 1/4	31.75	9/16	14.29	2 1/4	57.15	1 1/16	27.00	36000	16400	4400	1996	4.70
WH124	4.000	101.6	4 1/4	107.95	1 1/2	38.10	3/8	9.52	1 1/2	88.10	3/4	19.05	2 13/16	74.43	1 1/4	31.75	57000	26000	7350	3334	8.00
WH111	4.760	120.9	4 13/16	104.78	1 7/8	47.63	3/8	9.52	1 1/2	88.10	3/4	19.05	4 13/16	122.23	1 1/4	31.75	60000	27000	8850	3788	8.60
WH106	6.000	152.4	4 1/4	107.95	1 1/2	38.10	3/8	9.52	1 1/2	88.10	3/4	19.05	2 13/16	71.43	1 1/4	31.75	60000	27000	7350	3334	4.50
WH132	6.050	153.7	6 1/4	158.75	2 7/8	73.03	1/2	12.70	2	50.80	1	25.40	4 27/64	112.32	1 3/4	44.45	122000	55400	15000	6800	13.50
WH155	6.050	153.7	6 1/2	165.90	2 7/8	73.03	5/8	15.88	2 1/2	63.50	1 1/8	28.58	4 5/8	117.48	1 3/4	44.45	151000	68600	18200	8270	19.50



Refuse Conveyor



Live Bottom Bin, Waferboard Plant

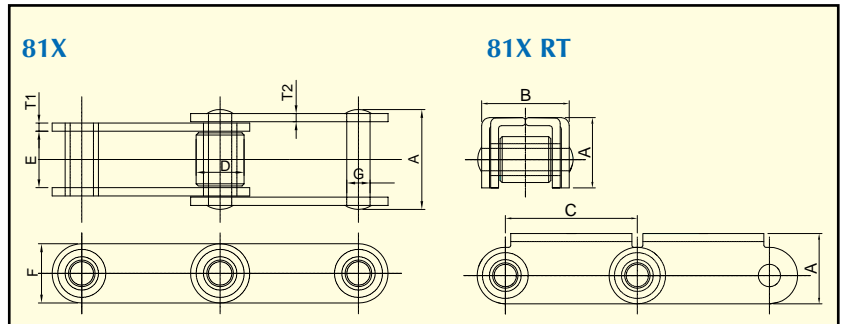
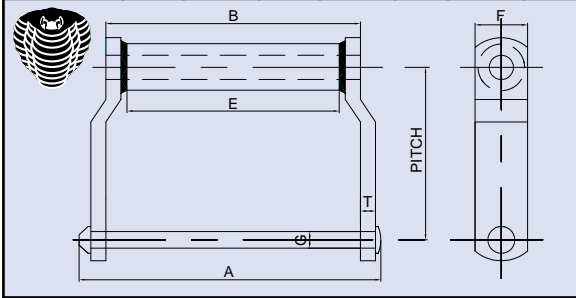


## WELDED STEEL DRAG CHAIN

CHAIN No.	AVERAGE PITCH		A		E		SIDEBARS THICKNESS HEIGHT T F				PINS G		B		MINIMUM ULTIMATE STRENGTH		RATED WORKING LOAD		AVERAGE NETT WEIGHT
	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	LBS	Kg	LBS	Kg	LBS/Ft
WDH102	5.000	127	9 1/4	234.95	6 3/8	161.92	3/8	9.5	1.5	38.1	3/4	19.05	7 3/4	196.90	60000	27300	10000	45500	11.8
WDH104	6.000	152.4	6 7/8	174.63	4 1/8	104.8	3/8	9.5	1.5	38.1	3/4	19.05	5 3/8	136.52	60000	27300	10000	45500	8.5
WDH110	6.000	152.4	11 7/8	301.63	9	228.6	3/8	9.5	1.5	38.1	3/4	19.05	10 3/8	263.50	51000	23200	8500	38000	12
WDH112	8.000	203.2	11 7/8	301.63	9	228.6	3/8	9.5	1.5	38.1	3/4	19.05	10 3/8	263.50	60000	23200	10000	45500	10
WDH116	8.006	203.2	15 3/8	390.52	12 3/4	323.85	3/8	9.5	1 3/4	44.45	3/4	19.05	14 1/8	358.8	69000	31500	11500	5250	18.5
WDH120	6.000	152.4	12 1/8	307.98	8 3/4	222.25	1/2	12.7	2.0	50.8	7/8	22.22	10 1/4	260.35	90000	40900	15000	6800	20
WDH480	8.000	203.20	14 5/8	371.48	11 3/16	284.16	1/2	12.7	2.0	50.8	7/8	22.22	12 3/4	323.85	90000	40900	15000	6800	18
WDH580	8.000	203.20	14 5/8	371.48	11 3/16	284.16	1/2	12.7	2.0	50.8	1.0	25.4	12 3/4	323.85	123000	55900	20500	9300	19.4

## KING COBRA HEAVY DUTY DRAG CHAIN

CHAIN No.	AVERAGE PITCH		A		E		SIDE BARS THICKNESS HEIGHT				PINS G		B		MINIMUM ULTIMATE STRENGTH		RATED WORKING LOAD		AVERAGE NETT WEIGHT
	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	LBS	Kg	LBS	Kg	LBS/Ft
WDH120HD	6	152.40	12 <sup>1</sup> / <sub>4</sub>	311	8 <sup>3</sup> / <sub>4</sub>	222.25	<sup>5</sup> / <sub>8</sub>	15.88	2	50.8	1	25.4	10 <sup>3</sup> / <sub>8</sub>	263.52	125000	56800	20500	9300	25.6
WDH480HD	8	203.20	15	381	11	279.40	<sup>5</sup> / <sub>8</sub>	15.88	2	50.8	1	25.4	13	330.20	125000	56800	20500	9300	24.6



## ENGINEERING CLASS CHAIN

### ROLLER CHAIN 81X - THE TIMBER CHAIN

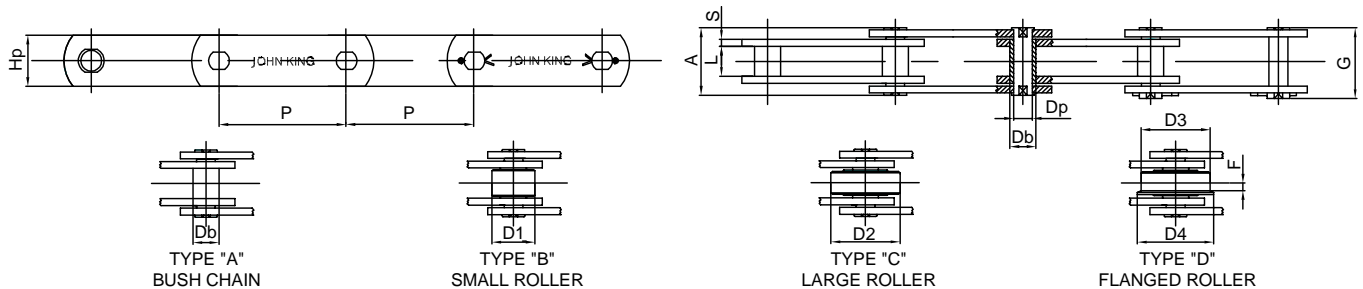
CHAIN No.	AVERAGE PITCH		A		E		T1		T2		F		G		D		MINIMUM ULTIMATE STRENGTH		
	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	LBS	Kg	
STANDARD	JK81X	2.609	66.27	1 <sup>11</sup> / <sub>16</sub>	42.86	1 <sup>3</sup> / <sub>8</sub>	34.93	<sup>5</sup> / <sub>32</sub>	4.00	<sup>5</sup> / <sub>32</sub>	4.00	1 <sup>1</sup> / <sub>8</sub>	28.58	<sup>7</sup> / <sub>16</sub>	11.11	<sup>29</sup> / <sub>32</sub>	23.0	25000	11350
HEAVY DUTY	JK81XH	2.609	66.27	2 <sup>2</sup> / <sub>16</sub>	55.56	1 <sup>3</sup> / <sub>4</sub>	44.45	<sup>5</sup> / <sub>16</sub>	7.94	<sup>7</sup> / <sub>32</sub>	5.56	1 <sup>1</sup> / <sub>4</sub>	31.75	<sup>7</sup> / <sub>16</sub>	11.11	<sup>29</sup> / <sub>32</sub>	23.0	40000	18000
EXTRA	JK81XHH	2.609	66.27	2 <sup>1</sup> / <sub>2</sub>	63.50	1 <sup>3</sup> / <sub>4</sub>	44.45	<sup>5</sup> / <sub>16</sub>	7.94	<sup>5</sup> / <sub>16</sub>	7.94	1 <sup>1</sup> / <sub>4</sub>	31.75	<sup>7</sup> / <sub>16</sub>	11.11	<sup>29</sup> / <sub>32</sub>	23.0	42000	19000

### ROLLER CHAIN 81X WITH INTEGRAL ROOFTOP

CHAIN No.	A		B		C		AVAILABLE IN XH AND XHH VERSIONS WITH UHMWP OR STEEL CAPS
	IN	mm	IN	mm	IN	mm	
JK81X RT	2.609	66.27	1 <sup>1</sup> / <sub>2</sub>	38.10	1 <sup>13</sup> / <sub>16</sub>	46.04	

Applications include timber and transfer conveyors, trimmer saws, stackers, unscramblers.

## EUROPEAN STANDARD ROLLER AND BUSH SERIES CHAINS



### FV SERIES AS DIN 8165

DIN No.	P	L	D1	D2	D3	D4	F	D6	Dp	Hp	S	A	G	BREAKING LOAD	
	mm													mm	N
FV90	63, 80, 100, 125, 160, 200, 250	25	30	48	63	78	6.5	20	14	35	5	53	56.5	100.000	115.000
FV112	100, 125, 160, 200, 250	30	32	55	72	90	7.5	22	16	40	6	62	66	120.000	170.000
FV140	100, 125, 160, 200, 250	35	36	60	80	100	9	26	18	45	6	67	71.5	145.000	180.000
FV180	125, 160, 200, 250, 315	45	42	70	100	125	13	30	20	50	8	86	92	190.000	250.000
FV250	160, 200, 250, 315	55	50	80	125	155	15	36	26	60	8	97	103.5	275.000	300.000

N\*\* - Denotes heat treated sidebars.

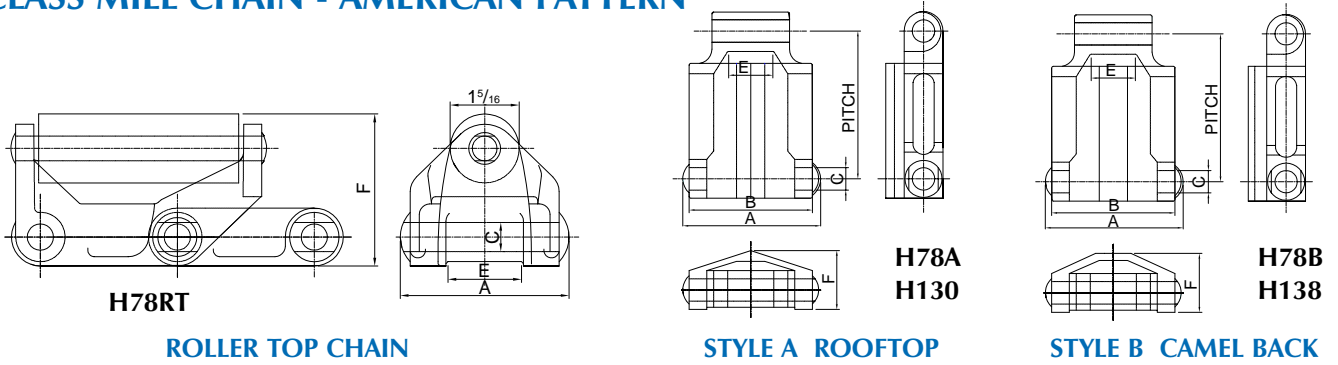
FV and M Timber chains are generally employed in bush form (rollerless). Roller versions are available as required.

Attachments generally follow standards although any custom design can be accommodated. See back page F2, G4, G2, L2, Cradle etc.

## EUROPEAN STANDARD ROLLER AND BUSH SERIES CHAINS M SERIES AS DIN 8167

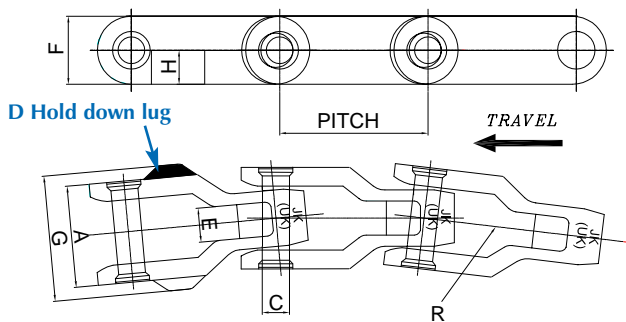
DIN No.	P	L	D1	D2	D3	D4	F	D6	Dp	Hp	S	A	G	BREAKING LOAD	
	mm													mm	N
M80	80, 100, 125, 160, 200	28	25	50	50	65	7	18	12	35	5	55	59	80.000	125.000
M112	80, 100, 125, 160, 200	32	30	60	60	75	7.5	21	15	40	6	64	36	112.000	175.000
M160	100, 125, 160, 200, 250	37	36	70	70	90	8.5	25	18	50	7	73	41	160.000	260.000
M224	125, 160, 200, 250, 315	43	42	85	85	105	10	30	21	60	8	84	47	224.000	340.000

## H CLASS MILL CHAIN - AMERICAN PATTERN



## TRANSFER CHAINS

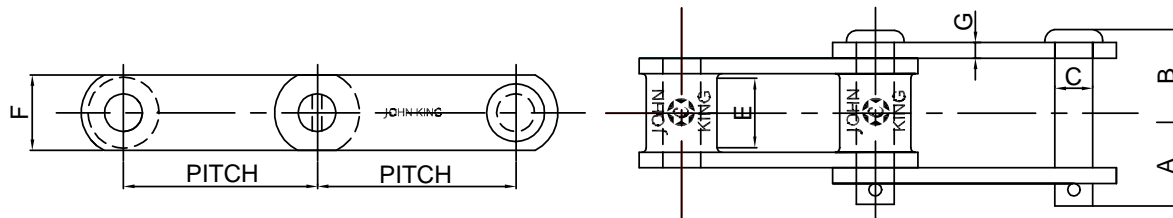
CHAIN No.	AVERAGE PITCH		A		B		C		E		F		MINIMUM ULTIMATE STRENGTH		AVERAGE NETT WEIGHT
	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	LBS	Kg	LBS/Ft
H78A	2.609	66.27	3 <sup>1</sup> / <sub>4</sub>	82.55	2 <sup>3</sup> / <sub>4</sub>	69.85	1/2	12.7	1 <sup>1</sup> / <sub>8</sub>	28.58	1 <sup>11</sup> / <sub>16</sub>	42.86	16000	7200	5.60
H78B	2.609	66.27	3 <sup>1</sup> / <sub>4</sub>	82.55	2 <sup>3</sup> / <sub>4</sub>	69.85	1/2	12.7	1 <sup>1</sup> / <sub>8</sub>	28.58	1 <sup>11</sup> / <sub>16</sub>	42.86	16000	7200	6.10
H130	4.00	101.60	3 <sup>1</sup> / <sub>4</sub>	82.55	2 <sup>13</sup> / <sub>16</sub>	71.45	1/2	12.7	1	25.40	1 <sup>11</sup> / <sub>16</sub>	42.86	14000	6400	5.20
H138	4.00	101.60	3 <sup>1</sup> / <sub>4</sub>	82.55	2 <sup>13</sup> / <sub>16</sub>	71.45	1/2	12.7	1	25.40	1 <sup>11</sup> / <sub>16</sub>	42.86	15000	6800	5.80
H78RT	2.609	66.27	A+B		3 <sup>1</sup> / <sub>4</sub>	82.55	1/2	12.7	1 <sup>1</sup> / <sub>8</sub>	28.58	2 <sup>15</sup> / <sub>16</sub>	74.62	16000	7200	8.45



## CLIMAX CASE CHAINS

CHAIN No.	AVERAGE PITCH		A		C		E		F		G		H		No OF LINKS IN 10Ft	MINIMUM ULTIMATE STRENGTH		AVERAGE NETT WEIGHT		MINIMUM TURNING RADIUS	
	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm		LBS	Kg	LBS/Ft	Kg/Mtr	IN	mm
CC600	2.52	64	1 <sup>11</sup> / <sub>16</sub>	42.86	7 <sup>1</sup> / <sub>16</sub>	11.11	1/2	13	1 <sup>1</sup> / <sub>8</sub>	28.57	-	-	-	-	48	10000	4540	3.75	1.70	19	483
CC600D	2.52	64	1 <sup>11</sup> / <sub>16</sub>	42.86	7 <sup>1</sup> / <sub>16</sub>	11.11	1/2	13	1 <sup>1</sup> / <sub>8</sub>	28.57	2 <sup>1</sup> / <sub>8</sub>	53.98	1 <sup>11</sup> / <sub>16</sub>	17.46	48	10000	4540	4.00	1.82	19	483
CC1300	3.25	83	2 <sup>1</sup> / <sub>16</sub>	52.39	9 <sup>1</sup> / <sub>16</sub>	14.30	3/8	10	1 <sup>1</sup> / <sub>2</sub>	38.10	-	-	-	-	37	15000	6800	11.3	16.82	40	1016
CC1300D	3.25	83	2 <sup>1</sup> / <sub>16</sub>	52.39	9 <sup>1</sup> / <sub>16</sub>	14.30	3/8	10	1 <sup>1</sup> / <sub>2</sub>	38.10	2 <sup>11</sup> / <sub>16</sub>	68.26	1 <sup>15</sup> / <sub>16</sub>	23.80	37	15000	6800	13.0	19.35	40	1016

CC Range offers the unique side flexing capability. Also available in engineering plastic. (See JK brochure - Acetal Case Chains).



## CLIMAX COMBINATION CHAINS

CHAIN No.	AVERAGE PITCH		A		B		C		E		F		G		No OF LINKS IN 10Ft	MINIMUM ULTIMATE STRENGTH		AVERAGE NETT WEIGHT	
	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm		LBS	Kg	LBS/Ft	Kg/Mtr
C55	1.631	41.43	<sup>13</sup> / <sub>32</sub>	10.32	<sup>13</sup> / <sub>32</sub>	27.78	<sup>3</sup> / <sub>8</sub>	9.50	<sup>11</sup> / <sub>16</sub>	17.46	<sup>3</sup> / <sub>4</sub>	19.05	<sup>3</sup> / <sub>16</sub>	4.76	74	9000	4000	2.2	3.28
C102	4.00	101.60	<sup>2</sup> / <sub>8</sub>	53.98	<sup>2</sup> / <sub>4</sub>	57.15	<sup>5</sup> / <sub>8</sub>	15.88	<sup>17</sup> / <sub>8</sub>	47.63	<sup>1</sup> / <sub>2</sub>	38.10	<sup>3</sup> / <sub>8</sub>	9.50	30	24000	11900	7.5	11.15
C110	6.00	152.40	<sup>2</sup> / <sub>16</sub>	52.39	<sup>2</sup> / <sub>16</sub>	55.56	<sup>5</sup> / <sub>8</sub>	15.88	<sup>17</sup> / <sub>8</sub>	47.63	<sup>1</sup> / <sub>2</sub>	38.10	<sup>3</sup> / <sub>8</sub>	9.50	20	24000	11900	5.9	8.79
C111	4.76	121.90	<sup>2</sup> / <sub>8</sub>	60.33	<sup>2</sup> / <sub>8</sub>	66.68	<sup>3</sup> / <sub>4</sub>	19.05	<sup>2</sup> / <sub>8</sub>	53.98	<sup>1</sup> / <sub>4</sub>	44.45	<sup>3</sup> / <sub>8</sub>	9.50	24	36000	16400	9.3	13.87
C131	3.075	78.10	<sup>1</sup> / <sub>16</sub>	42.86	<sup>1</sup> / <sub>16</sub>	49.20	<sup>5</sup> / <sub>8</sub>	15.88	<sup>1</sup> / <sub>8</sub>	28.58	<sup>1</sup> / <sub>2</sub>	38.10	<sup>3</sup> / <sub>8</sub>	9.50	39	24000	11900	6.7	10.00
C132	6.06	153.92	<sup>3</sup> / <sub>16</sub>	81.00	<sup>3</sup> / <sub>4</sub>	82.55	1	25.40	<sup>3</sup> / <sub>8</sub>	79.38	2	50.80	<sup>1</sup> / <sub>2</sub>	12.70	20	50000	22700	13.1	19.52
C188	2.609	66.27	<sup>1</sup> / <sub>4</sub>	31.75	<sup>1</sup> / <sub>8</sub>	34.93	<sup>1</sup> / <sub>2</sub>	12.07	<sup>7</sup> / <sub>8</sub>	22.22	<sup>1</sup> / <sub>8</sub>	28.58	<sup>1</sup> / <sub>4</sub>	6.35	46	14000	6960	3.5	5.22

The tabular dimensions and weights are approximate and are not binding. Design improvements may result in variations from the published figures and verification is recommended.

## THE CLIMAX SPECIFICATION FOR KING STANDARD CAST LINK SERIES

LINK - JK/C - Wear Resistant Carbon Steel

PIN - Forged Head From Carbon Steel, Heat Treated

### STANDARD ATTACHMENTS WELDED STEEL CHAIN

A22 ATTACHMENT    H1 ATTACHMENT    RF2 ATTACHMENT    CRADLE ATTACHMENT    H2 ATTACHMENT    RR ATTACHMENT    WING ATTACHMENT

### STANDARD ATTACHMENTS EUROPEAN

C1, C3 AND C4    RR ATTACHMENT    L2 ATTACHMENT    G2 ATTACHMENT    G4 ATTACHMENT    F2 ATTACHMENT    CRADLE ATTACHMENT

## CLIMAX SPROCKETS

King operate a dedicated sprocket manufacturing division where various materials and styles are available. A wealth of experience in sprocket design ensures correct tooth pressure angle, pitch line clearance, bottom diameter and tooth pocket radius for optimum performance specific to the application.



Multiple Strand Drag Chain Head Sprocket and Tail Idler Shaft

The most modern CNC machinery is employed to ensure high speed consistent production of quality sprockets. In solid, split or segmental form.

Where required tooth forms are flame or induction hardened to enhance performance.



Split Sprockets, Combination Chain

John King Chains Limited, New Climax Works, Lancaster Business Park, Sherburn-in-Elmet LS25 6NS UK  
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