RENOLD

Industrial Chain Technology

RENOLD

Chain catalogue

www.renold.in

Certificate

Standard:	**ISO 9001:2015** **ISO 14001:2015** **ISO 45001:2018**
Certificate Registr. No.	**01 100 1737867** **01 104 1737867** **01 213 1737867**
Certificate Holder:	**Renold Chain India Private Limited** **D.Gudallur Post, Guzliamparai Taluk,** **Dindigul Dist, Dindigul-624620.**
Scope:	**Design and Manufacture of Roller, Bush, Loaf & Conveyer Chains and Related Accessories for Industrial, Oil and Gas Applications.** Proof has been furnished by means of an audit that the requirements of ISO 9001:2015/ISO 14001:2015 and ISO 45001:2018 are met.
Validity:	The certificate is valid from 2021-03-19 until 2024-03-18. First Certification 2018.

2021-03-02

TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

www.tuv.com

IAF DAkkS TÜVRheinland®
Precisely Right.

Certificate of Authority to use the Official API Monogram

License Number: 7F-0020

The American Petroleum Institute hereby grants to

RENOLD CHAIN INDIA PRIVATE LIMITED
SF No. 398/1A, 399/1 & 2 D Gudalur Post
Gudliamparai Taluk
Dindigul, Tamil Nadu
India

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and API-7F and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with this Certificate number: 7F-0020.

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: Roller Chain

QMS Exclusive Servicing Customer Property

Effective Date: AUGUST 21, 2023
Expiration Date: MAY 1, 2025

American Petroleum Institute

To verify the authenticity of this license, go to www.api.org/compositelist.

RENOLD
Superior Chain Technology

History

Product Innovation

1879 Hans Renold founds the company

1880 Hans Renold patents his bush roller chain design

1893 Renold begins using hardened components

1895 Hand Renold patents inverted tooth / silent chain

1906 Renold begins manufacture of chain wheels

1912 Renold begins end-softening pins

1927 Renold patents the keyed bush

1948 Renold patents first coupling

1954 Renold patents the biplanar chain

1959 Renold introduces progressive die tooling

1967 Renold develops range of non-lube chain

1970 Renold begins cold extrusion of rollers

1975 Renold introduces high-waisted GP plate form

1987 Renold first chain company to achieve BS5750

1988 Modular gear product introduced

1993 Renold achieves API approval

1996 Renold obtains ISO9001

2000 Renold Synergy launched

2001 Renold achieves ISO14001

2003 Renold Synergy upgraded

2004 Renold Syno range launched

2007 Customised heavy-duty chain design introduced

Growth by acquisition and new product ranges

1879 Hans Renold founds the company

1925 Renold buys Brampton Brothers of France

1930 Renold buys Coventry Chain Co.

1947 Couplings manufacturing begins at Cardiff

1963 Renold buys Arnold & Stolzenberg GmbH of Germany

1967 Renold buys Croft Engineers (Holdings) Ltd.

1972 Renold buys Ajax of USA

1996 Renold buys Holset Couplings (UK)

2000 Renold buys Jeffrey Chain Corp of USA

2006 Loose wormgears relocates to Milnrow

2007 Renold buys Hangzhou Shanshui of China

2008 Renold buys 75% of chain business of LGB India

RENOLD

Renold Footprint

- Chain Manufacturing
- Gears / Couplings Manufacturing
- Sales Offices (NSCs)

RENOLD

Renold Products

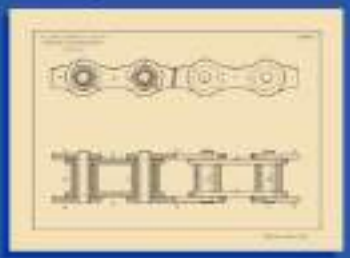
Unique Quality and Performance

Leading Edge Technology

Renold provides practical cost effective solutions, with a commitment of value through quality. This is achieved by continuous investment in people, process technology and manufacturing.

Consistant Reliability

Renold's has more than 125 years of experience in the design and manufacture of power transmission products, to the highest specifications, with proven performance in diverse industries worldwide, which underwrites the guaranteed quality and the assurance of reliability.



Original patent drawing 1880 for bush roller chain

Package Solutions

One stop for your drive systems, including roller and conveyor chain, gears, motors, couplings, variators and fabricated bases.

Service Excellence and Care

Renold offers a unique level of service excellence and customer care. Our experienced applications engineers will select the optimum solution with the aid of the latest computer and design technology. Renold is the name for service, care and peace of mind.

" Behind every conceivable industry and application environment; heavy or light duty, indoor or outdoor, clean or contaminated, high or low temperature, Renold is hard at work delivering performance and increasing productivity. "

Renold Transmission Chain Product Range

Roller Chain

- British, ANSI, API, DIN, ISO and Works Standard Chains
- Adapted Chains
- Extended Pitch Chains
- Hollow Pin Chains
- Made to Order, Special Chains
- Nickel Plated Chains
- Oilfield Chains
- Stainless Steel Chains

Applications

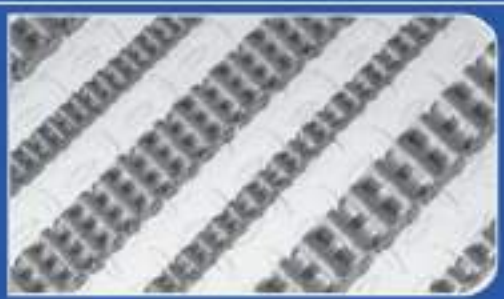
• Abattoirs • Air Conditioning • Aircraft - Civil & Military • Bakery Machines • Battery Manufacturing • Brewing • Canning • Carpet Machines • Chart Tables/Marine • Chocolate Manufacturing • Concrete Moulding Equipment • Copying Machines • Dairy Machinery • Drying Machinery • Earth Moving Equipment • Extrusion Machines • Filtration Plants • Food & Drink Manufacture • Glass Manufacture • Health Care Equipment • Hydraulic Components • Ice-Cream Manufacture • In-flight Refuelling • Ingot Casting & Scrap Metal Processing • Latex Machinery • Laundry Machinery • Lawnmower Manufacture • Mill Machinery • Mining • MOT Brake Testing Machinery • Nuclear Power • Off Road Vehicles • Oil Industry • Packaging Machines • Paper & Card Making • Paper Shredders • Plastic Machinery • Potato Grading Machinery • Power Generation • Printing Machines • Quarry Plant • Road Making & Plant Machinery • Robotic Systems • Roof Tile Manufacture • Ship's Engines • Silkscreen Machinery • Ski-Lifts • Soot Blowers • Steel Making • Straddle Carriers • Sugar Beet Machines • Sun-Blinds • Telecommunications • Textile Machinery • Timber and Woodworking Machines • Tin Printer Ovens • Tobacco/Cigarette Machinery • Tunnelling Machines • T.V. and Audio Equipment • Tyre Manufacture • Waste Handling • X-Ray Equipment

Conveyor Chain

- British, ISO and Works Standard Chains
- Adapted Chains
- Agricultural Chains
- Escalator Chains
- Made to Order, Specials
- Stainless Steel Chains
- Sugar Cane Chains
- Zinc Plated Chains

Applications

• Abattoirs • Agricultural Machinery • Bakery Machines • Bottle Washing Plants • Brick & Tile Machinery OEM • Car Plants • Cement Plants • Chemical Plants • Chicken Process Equipment • Cigarette/Tobacco Machinery • Dust Filters • Egg Sorting Conveyors • Electrical Switchgears • Escalators • Extrusion Machines • Feed Mill Machines • Feed Silo Equipment • Fibreglass Industry • Filtration Plants • Fish Conveyor • Food Sterilisation • Food Processing • Freezing Equipment • Freezing Tunnels • Glass • Manufacturing • Grain Conveyor • Harvesting Machines • Ice Cream Machines • Induction Furnaces• Ingot Casting &Scrap Metal Processing Mr • Latex Machinery • Leisure Rides • Luggage & Parcel Handling • Machine Tools • Mail Sorting • Metal Casting • Mushroom Compost Machinery • Nuclear • Ovens/Provers • Potato Grading Machinery • Potting Machinery • Quarries • Radio Astronomy • Roof Tile Manufacture • Rope Machinery • Saw Mill Equipment • Sewage Plants • Shaker Conveyors • Ski-Lifts • Sluice Gates • Steel Making • Sugar Factories • Swarf Conveyors • Textile Machinery • Timber & Woodworking Machines • Tool Changer • Tunnelling Machines • Tyre Manufacture • Washing & Sterilising Machines • Water Treatment • Wire Sets



Lifting Chain

- LH(BL), AL, LL and Works Standard Chains

Applications

• Bottle Washing Plants • Cement Plants • Chemical • Counterbalance Sets • Cranes • Dust/Swarf Conveyors • Elevators • Food Processing • Food Sterilisation • Fork Lift Trucks • Pipe Line Valves/Taps • Printing Machines • Rock Drilling • Straddle Carriers • Sun-Blinds • Tail Lifts

Section 1

European (BS) & ANSI Products & Dimensions

Table of Contents

Chain Components, Construction & Connecting Links

A) PARTS OF A CHAIN

PIN

The member which bears the entire Chain load and acts as bearing together with the bush as the chain engages with the sprocket. Thus the Pin is usually subjected to wear, shear and bending.

BUSH

Together with the pin it acts as a bearing at times of engagement with the sprocket. It also protects the pin from impact loads. High resistance to wear and fatigue strength are its essential requirements.

ROLLER

Essentially a shock absorber which reduces the impact effects resulting from engagement with the sprocket and also permits rolling engagement with the sprocket. Should have high resistance to wear, fatigue and impact loads.

OUTER PLATE
(Pin link Plate)

INNER PLATE
(Roller link Plate)

The member holds the pin and bushes and is subjected to tension. Therefore its requirements are high tensile strength and resistance to fatigue and impact loads.

B) COMPONENTS OF A CHAIN

INNER LINK

No.4 : An inner link consists of six parts. Two bushings are press fitted into two plates and two free-rotating rollers are assembled over the bushings.

OUTER LINK

No.107 : An outer link consists of four members. Two pins are press-fitted into two plates. In the rivetted type outer link, the pins are rivetted on both ends. In the cotter type outer link one end of the pin is rivetted, and the other end has a hole and extends beyond the outer plate just far enough to receive the cotter pin.
There are two types of connecting links.

CONNECTING LINK

(a) Cotter Type

No.11 : Two pins are press-fitted into one plate and rivetted at one end. The other end of each pin has a hole to allow installation of cotter pin. The connecting plate is designed for a slip-fit with the pins.

(b) Spring Clip Type

No.26 : Two pins are press-fitted into one link plate and rivetted at one end. The other end of each pin is grooved to permit installation of the spring clip which holds the connecting plate in place. The connecting plate is a slip-fit on the pins.

OFFSET LINK

(a) Single Offset link

No.12 : In this link half of the link is like an outer link and half is an inner link. one bushing is press-fitted into two cranked plates, and one free-rotating roller is assembled over the bushing. One cotter pin is assembled slip-fit in the cranked plates, and flat-milled at one end to prevent its turning in the plate hole. This can alone be used as a connecting link.

(b) Double Offset link

No.30 : This link consists of one roller link and one offset link assembled together and rivetted. This is to be used in combination with connecting links.

Solution Chains from Renold

*Nickel Plated Chain

Renold Nickel Plated chain delivers excellent corrosion protection. Ideal for applications such as bottling where spillages can lead to corrosion the specification for this chain is designed to optimise its performance. Every modification is made to push the wear and fatigue resistance to the maximum as well as delivering corrosion resistance.

Features and benefits:

- Hexavalent chrome free
- 400 hours corrosion protection during salt spray tests to DIN 50021
- Cold extruded, roller delivering maximum Renold performance
- Plates and rollers shot peened to our exact specifications
- Wear and fatigue resistance that delivers maximum working life
- Lubrication that improves wear performance
- Tensile strength is approximately 85 that of standard carbon steel chain

*Stainless Steel Chain

Renold Stainless Steel chain is made from high grades of rust-proof steel.

These perform extremely well in environments that are acidic, alkaline, where direct contact with food is a consideration, where the chain will be exposed to water, and for very high or very low temperature locations (-40° to +400°C) where resistance to corrosion is a requirement.

Renold Stainless Steel chain should be selected when resistance to chemical action is critical. It is manufactured using FDA approved material and is prelubricated with USDA H1 approved lubricant.

Features and benefits:

- All components made from rust-proof steel
- All components receive surface finishing to remove stress raisers
- Lubrication that improves wear performance
- Tensile strength is approximately 65 that of standard carbon steel chain

*Zinc Plated Chain

This is a new zinc plating from Renold. Ideal for applications susceptible to light corrosion, the new plating has one consistent appearance, replacing the yellow and blue chromated versions previously available and delivering the same high levels of corrosion resistance.

Every component is plated before assembly and the chain has improved wear resistance under normal loads due to the new surface treatment.

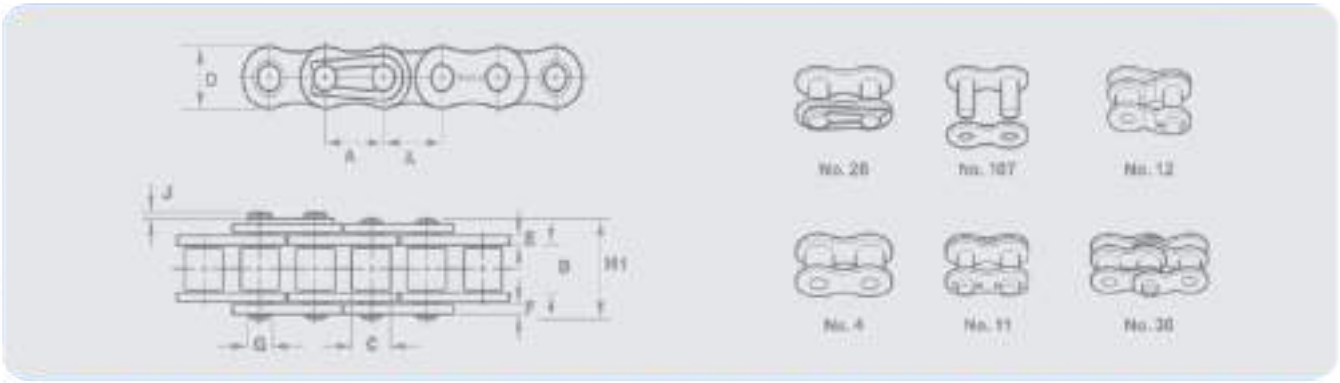
Features and benefits:

- Hexavalent chrome free
- 250 hours corrosion protection during salt spray tests to DIN 50021
- Cold extruded, roller delivering maximum Renold performance
- Plates and rollers shot peened to our exact specifications
- Wear and fatigue resistance that delivers maximum working life
- Lubrication that improves wear performance
- Tensile strength is approximately 85 that of standard carbon steel chain

*Subject to minimum order Quantity.
*Not Sold from Stock.
*Make to order Category.

Renold Roller Chain

European (BS) Standard / ISO 606



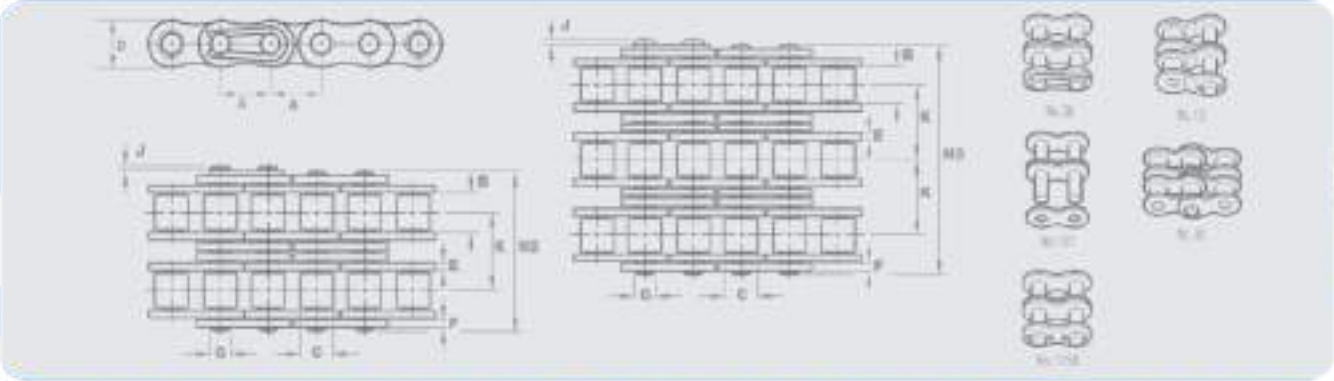
Chain Ref.		Technical Details (mm)												Connecting Links					
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	WIP Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Conn. Link Extension MAX	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 26	No. 12	No. 38
European (BS) Standard - Simplex														**SIMPLEX**					
		A	A	B	C	D	E	F	G	H	J								
LN0561	05B-1	0.315	8.00	3.00	5.00	7.11	0.78	0.78	2.51	8.60	1.55	4400	0.174	✓	✓	-	✓	-	✓
LN06B1GP*	06B-1	0.375	9.525	5.72	6.35	8.26	1.23	1.23	3.28	13.50	1.65	8900	0.413	✓	✓	-	✓	-	✓
LN0881	08B-1	0.500	12.70	7.75	8.51	11.81	1.55	1.55	4.45	17.00	1.95	17800	0.684	✓	✓	-	✓	-	✓
R1230	081	0.500	12.70	3.30	7.75	9.91	1.00	1.00	3.66	10.20	0.75	8900	0.304	✓	✓	-	✓	-	✓
R1249	083	0.500	12.70	4.88	7.75	10.30	1.44	1.34	4.09	12.90	0.75	11600	0.455	✓	✓	-	✓	-	✓
R41	085	0.500	12.70	6.25	7.77	9.91	1.30	1.30	3.66	14.00	1.00	8700	0.448	✓	✓	-	✓	-	✓
LN1081	10B-1	0.625	15.875	9.65	10.16	14.73	1.55	1.55	5.08	19.60	2.05	22200	0.878	✓	✓	-	✓	-	✓
LN1281	12B-1	0.750	19.05	11.68	12.07	16.13	1.81	1.81	5.72	22.70	2.30	28900	1.193	✓	✓	-	✓	-	✓
LN1681	16B-1	1.000	25.40	17.02	15.88	21.08	3.70	3.05	8.28	36.10	2.70	60000	2.714	✓	✓	-	✓	✓	-
LN2081	20B-1	1.250	31.75	19.56	19.05	26.42	4.80	3.55	10.19	43.20	3.05	95000	3.795	✓	✓	-	✓	✓	-
LN2481	24B-1	1.500	38.10	25.40	25.40	33.40	6.25	5.25	14.63	55.60	3.30	166000	7.129	✓	✓	✓	-	✓	-
LN2881	28B-1	1.750	44.45	30.99	27.94	37.08	7.75	6.55	15.90	65.10	3.70	208000	9.448	✓	✓	✓	-	✓	-
LN3281	32B-1	2.000	50.80	30.99	29.21	42.29	7.25	6.55	17.81	67.40	3.95	250000	9.911	✓	✓	✓	-	✓	-
LN4081	40B-1	2.500	63.50	38.10	39.37	52.96	8.25	8.25	22.89	82.60	5.10	355000	15.930	✓	✓	✓	-	✓	-
LN4881	48B-1	3.000	76.20	45.72	48.26	63.88	12.25	9.75	29.24	99.10	5.25	560000	25.402	✓	✓	✓	-	-	-
LN56B1GP*	56B-1	3.500	88.90	53.34	53.98	77.85	13.80	12.25	34.32	114.60	-	850000	37.362	✓	✓	✓	-	-	-

* Straight side plates

Note : Cotter Type Chains are availbale in all Sizes with MOQ

Renold Roller Chain

European (BS) Standard / ISO 606



Chain Ref.		Technical Details (mm)													Connecting Links					
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	W/P Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Cons. Link Extension MAX	Transverse Pitch NOM	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 26	No. 12	No. 10
European (BS) Standard - Duplex															**DUPLEX**					
LN06B2GF*	060-2	0.375	9.525	5.72	6.35	8.26	1.23	1.23	3.28	23.80	1.65	10.24	16900	0.770	✓	✓	-	✓	-	✓
LN08B2	080-2	0.500	12.70	7.75	8.51	11.81	1.55	1.55	4.45	31.00	1.95	13.92	31100	1.308	✓	✓	-	✓	-	✓
LN10B2	100-2	0.625	15.875	9.65	10.16	14.73	1.55	1.55	5.08	36.20	2.05	16.59	44500	1.727	✓	✓	-	✓	-	✓
LN12B2	120-2	0.750	19.05	11.68	12.07	16.13	1.81	1.81	5.72	42.20	2.30	19.46	57800	2.349	✓	✓	-	✓	-	✓
LN16B2	160-2	1.000	25.40	17.02	15.88	21.08	3.70	3.85	8.28	68.00	2.70	31.88	106000	5.354	✓	✓	-	✓	✓	-
LN20B2	200-2	1.250	31.75	19.56	19.05	26.42	4.88	3.55	10.19	79.70	3.05	36.45	179000	7.481	✓	✓	-	✓	✓	-
LN24B2	240-2	1.500	38.10	25.40	25.40	33.40	6.25	5.25	14.63	101.80	3.30	48.36	280000	14.082	✓	✓	✓	-	✓	-
LN28B2	280-2	1.750	44.45	30.99	27.94	37.08	7.75	6.55	15.90	124.70	3.70	59.56	368000	18.709	✓	✓	✓	-	✓	-
LN32B2	320-2	2.000	50.80	30.99	29.21	42.29	7.25	6.55	17.81	126.00	3.95	58.55	450000	19.563	✓	✓	✓	-	✓	-
LN40B2	400-2	2.500	63.50	38.10	39.37	52.96	8.25	8.25	22.89	154.90	5.10	72.29	630000	31.367	✓	✓	✓	-	✓	-
LN48B2	480-2	3.000	76.20	45.72	48.26	63.88	12.25	9.75	29.24	190.40	5.25	91.21	1000000	50.254	✓	✓	✓	-	-	-
LN56B2GF*	560-2	3.500	88.90	53.34	53.98	77.85	13.80	12.25	34.32	221.28	-	106.60	1600000	74.401	✓	✓	✓	-	-	-

Note : Cotter Type Chains are availbale in all Sizes with MOQ

European (BS) Standard - Triplex **TRIPLEX**

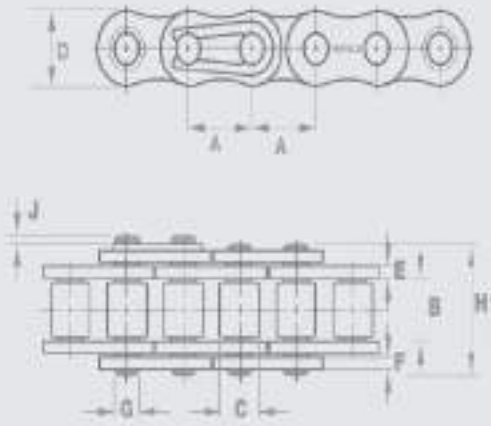
LN06B3GF*	060-3	0.375	9.525	5.72	6.35	8.26	1.23	1.23	3.28	34.00	1.65	10.24	24900	1.125	✓	✓	-	✓	-	✓
LN08B3	080-3	0.500	12.70	7.75	8.51	11.81	1.55	1.55	4.45	44.90	1.95	13.92	44500	1.936	✓	✓		✓		✓
LN10B3	100-3	0.625	15.875	9.65	10.16	14.73	1.55	1.55	5.08	52.80	2.05	16.59	66700	2.629	✓	✓	-	✓	-	✓
LN12B3	120-3	0.750	19.05	11.68	12.07	16.13	1.81	1.81	5.72	61.70	2.30	19.46	86700	3.508	✓	✓	-	✓	-	✓
LN16B3	160-3	1.000	25.40	17.02	15.88	21.08	3.70	3.85	8.28	99.90	2.70	31.88	160000	8.007	✓	✓	-	✓	✓	-
LN20B3	200-3	1.250	31.75	19.56	19.05	26.42	4.88	3.55	10.19	116.10	3.05	36.45	250000	11.167	✓	✓	-	✓	✓	-
LN24B3	240-3	1.500	38.10	25.40	25.40	33.40	6.25	5.25	14.63	150.20	3.30	48.36	425000	21.043	✓	✓	✓	-	✓	-
LN28B3	280-3	1.750	44.45	30.99	27.94	37.08	7.75	6.55	15.90	184.30	3.70	59.56	539000	28.206	✓	✓	✓	-	✓	-
LN32B3	320-3	2.000	50.80	30.99	29.21	42.29	7.25	6.55	17.81	184.50	3.95	58.55	679000	29.211	✓	✓	✓	-	✓	-
LN40B3	400-3	2.500	63.50	38.10	39.37	52.96	8.25	8.25	22.89	227.20	5.10	72.29	959000	46.804	✓	✓	✓	-	✓	-
LN48B3	480-3	3.000	76.20	45.72	48.26	63.88	12.25	9.75	29.24	281.60	5.25	91.21	1500000	75.092	✓	✓	✓	-	-	-
LN56B3GF*	560-3	3.500	88.90	53.34	53.98	77.85	13.80	12.25	34.32	327.80	5.85	106.60	2240000	111.444	✓	✓	✓	-	-	-

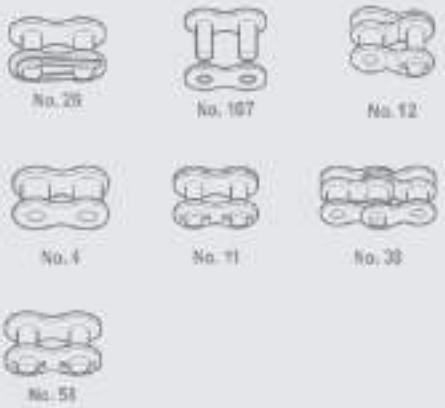
* Straight side plates

Note : Cotter Type Chains are availbale in all Sizes with MOQ

Renold Roller Chain

ANSI Standard / ISO 606





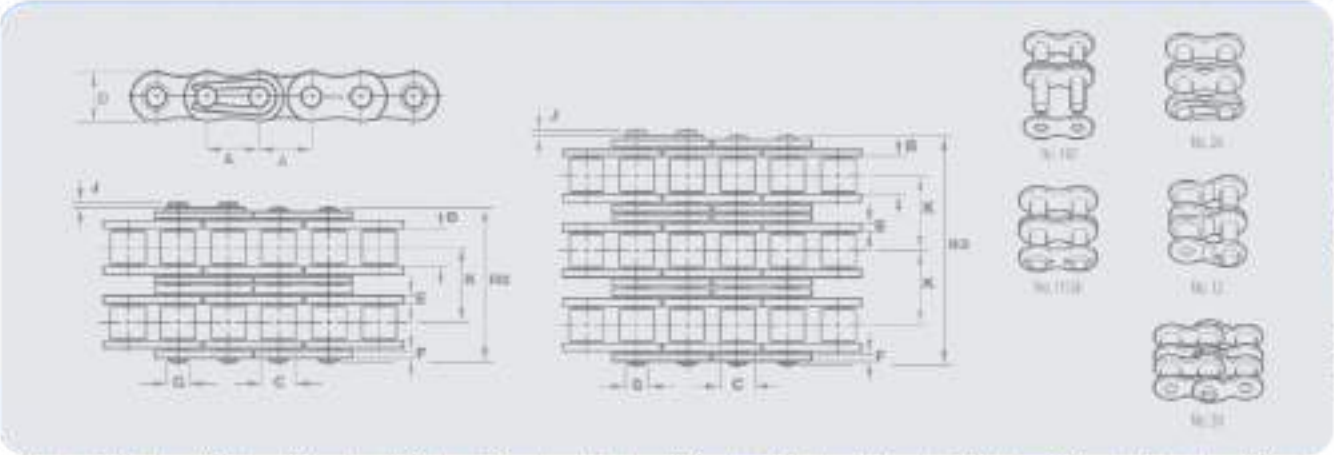
ANSI Standard - Simplex

Chain Ref.		Technical Details (mm)												Connecting Links					
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	W/P Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Cont. Link Extension MAX	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 26	No. 58	No. 12	No. 38
		A	A	B	C	D	E	F	G	Ht	I									
LN40A-1	40-1	0.500	12.70	7.85	7.92	12.07	1.54	1.54	3.98	17.80	1.95	13900	0.642	✓	✓	✓	✓	-	✓	✓
LN50A-1	50-1	0.625	15.875	9.40	10.16	15.09	2.01	2.05	5.09	21.80	2.05	21800	1.077	✓	✓	✓	✓	-	✓	✓
LN60A-1	60-1	0.750	19.05	12.57	11.91	18.10	2.45	2.45	5.96	26.90	2.30	31300	1.575	✓	✓	✓	✓	-	✓	✓
LN80A-1	80-1	1.000	25.40	15.75	15.88	24.13	3.25	3.25	7.94	33.50	2.70	55600	2.670	✓	✓	✓	-	✓	✓	-
LN100A-1	100-1	1.250	31.75	18.90	19.05	30.17	4.05	4.05	9.54	41.10	3.85	87000	4.042	✓	✓	✓	-	✓	✓	-
LN120V-1	120-1	1.500	38.10	25.22	22.23	36.20	4.95	4.95	11.11	50.80	3.30	125000	5.967	✓	✓	✓	-	✓	✓	-
LN140V-1	140-1	1.750	44.45	25.22	25.40	42.23	5.85	5.85	12.71	54.90	3.70	170000	7.623	✓	✓	✓	-	✓	✓	-
LN160V-1	160-1	2.000	50.80	31.55	28.58	48.26	6.55	6.55	14.29	65.50	3.95	223000	10.202	✓	✓	✓	-	✓	✓	-
LN180V-1	180-1	2.250	57.15	35.48	35.71	54.30	7.25	7.25	17.46	73.90	4.55	281000	13.851	✓	✓	✓	-	✓	-	-
LN200V-1	200-1	2.500	63.50	37.85	39.68	60.33	8.25	8.25	19.85	80.30	5.10	347000	17.028	✓	✓	✓	-	✓	✓	-
LN240V-1	240-1	3.000	76.20	47.35	47.63	72.39	9.75	9.75	23.81	95.50	5.25	500000	24.598	✓	✓	✓	-	✓	-	-

Note : Cotter Type Chains Are Available In All Sizes With MOQ

Renold Roller Chain

ANSI Standard / ISO 606



ANSI Standard - Duplex

Chain Ref.		Technical Details (mm)													Connecting Links						
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	W/P Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Centre Link Extension MAX	Transverse Pitch NOM	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 26	No. 58	No. 12	No. 30
		A	A	B	C	D	E	F	G	M2	I	K									
LN40A-2	40-2	0.500	12.70	7.85	7.92	12.07	1.54	1.54	3.98	32.30	1.95	14.38	27800	1.266	✓	✓	✓	✓	-	✓	✓
LN50A-2	50-2	0.625	15.875	9.48	10.16	15.09	2.05	2.05	5.09	39.90	2.85	18.11	43600	2.127	✓	✓	✓	✓	-	✓	✓
LN60A-2	60-2	0.750	19.05	12.57	11.91	18.10	2.45	2.45	5.96	49.80	2.30	22.78	63600	3.115	✓	✓	✓	✓	-	✓	✓
LN80A-2	80-2	1.000	25.40	15.75	15.88	24.13	3.25	3.25	7.94	62.70	2.70	29.29	111300	5.340	✓	✓	✓	-	✓	✓	-
LN100A-2	100-2	1.250	31.75	18.90	19.05	30.17	4.05	4.05	9.54	77.80	3.85	35.76	174000	8.003	✓	✓	✓	-	✓	✓	-
LN120N-2	120-2	1.500	38.10	25.22	22.23	36.20	4.95	4.95	11.11	96.30	5.38	45.44	250000	11.84	✓	✓	✓	-	✓	✓	-
LN140N-2	140-2	1.750	44.45	25.22	25.40	42.23	5.85	5.85	12.71	103.60	3.70	48.87	340000	11.116	✓	✓	✓	-	✓	✓	-
LN160N-2	160-2	2.000	50.80	31.55	28.58	48.26	6.55	6.55	14.29	124.20	3.95	58.55	446000	20.246	✓	✓	✓	-	✓	✓	-
LN180N-2	180-2	2.250	57.15	35.48	35.71	54.30	7.25	7.25	17.46	140.00	4.55	65.84	561000	27.458	✓	✓	✓	-	✓	-	-
LN200N-2	200-2	2.500	63.50	37.85	39.68	60.33	8.25	8.25	19.85	151.90	5.10	71.55	694000	33.730	✓	✓	✓	-	✓	✓	-
LN240N-2	240-2	3.000	76.20	47.35	47.63	72.39	9.75	9.75	23.81	183.40	5.25	87.83	1000000	48.840	✓	✓	✓	-	✓	-	-

Note : Cotter Type Chains Are Available In All Sizes With MOQ

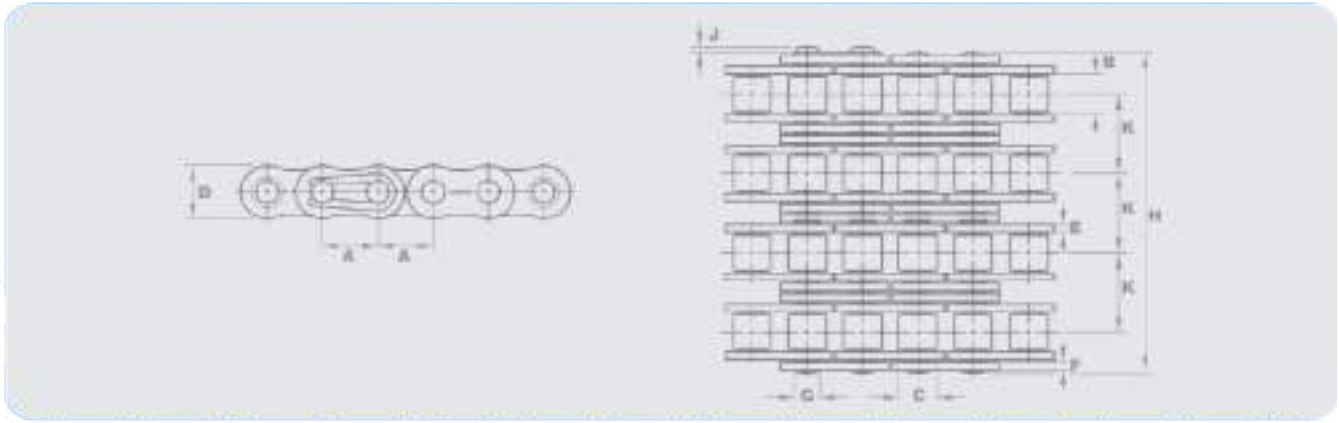
ANSI Standard - Triplex

		A	A	B	C	D	E	F	G	M3	I	K									
LN40A-3	40-3	0.500	12.70	7.85	7.92	12.07	1.54	1.54	3.98	46.70	1.95	14.38	41700	1.889	✓	✓	✓	✓	-	✓	✓
LN50A-3	50-3	0.625	15.875	9.48	10.16	15.09	2.05	2.05	5.09	57.90	2.85	18.11	65400	3.178	✓	✓	✓	✓	-	✓	✓
LN60A-3	60-3	0.750	19.05	12.57	11.91	18.10	2.45	2.45	5.96	72.60	2.30	22.78	93900	4.657	✓	✓	✓	✓	-	✓	✓
LN80A-3	80-3	1.000	25.40	15.75	15.88	24.13	3.25	3.25	7.94	91.90	2.70	29.29	166800	8.010	✓	✓	✓	-	-	✓	-
LN100A-3	100-3	1.250	31.75	18.90	19.05	30.17	4.05	4.05	9.54	113.00	3.85	35.76	261000	11.963	✓	✓	✓	-	-	✓	-
LN120N-3	120-3	1.500	38.10	25.22	22.23	36.20	4.95	4.95	11.11	141.70	5.38	45.44	375000	17.711	✓	✓	✓	-	-	✓	-
LN140N-3	140-3	1.750	44.45	25.22	25.40	42.23	5.85	5.85	12.71	152.40	3.70	48.87	510000	22.608	✓	✓	✓	-	-	✓	-
LN160N-3	160-3	2.000	50.80	31.55	28.58	48.26	6.55	6.55	14.29	182.90	3.85	58.55	669000	30.277	✓	✓	✓	-	-	✓	-
LN180N-3	180-3	2.250	57.15	35.48	35.71	54.30	7.25	7.25	17.46	206.00	4.55	65.84	843000	41.066	✓	✓	✓	-	-	-	-
LN200N-3	200-3	2.500	63.50	37.85	39.68	60.33	8.25	8.25	19.85	223.50	5.10	71.55	1045000	50.428	✓	✓	✓	-	-	✓	-
LN240N-3	240-3	3.000	76.20	47.35	47.63	72.39	9.75	9.75	23.81	271.30	5.25	87.83	1508000	71.078	✓	✓	✓	-	✓	-	-

Note : Cotter Type Chains Are Available In All Sizes With MOQ

Renold Multiplex

ANSI Standard



ANSI Standard - Multiplex

Chain Ref.			Technical Details (mm)													Connecting Links			
RENOLD CHAIN No.	ISO Ref.	ANSI No.	Pitch (inch)	Pitch (mm)	W/P Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Cons.Link Clearance MAX	Transverse Pitch NOM.	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11/48	No. 26
			A	A	B	C	D	E	F	G	H	J	E						
LN40A4	08A-4	40-4	0.500	12.70	7.85	7.92	11.15	1.55	1.55	3.98	59.70	3.90	14.38	67600	2.59	✓	✓	✓	✓
LN50A4	10A-4	50-4	0.625	15.875	9.40	10.16	14.55	2.03	2.03	5.07	75.20	4.10	18.11	111200	4.20	✓	✓	✓	-
LN50A3	10A-3	50-3	0.625	15.875	9.40	10.16	15.09	2.05	2.05	5.09	57.90	2.05	18.11	65400	3.178	✓	✓	✓	-
LN50A4	10A-4	50-4	0.625	15.875	9.40	10.16	15.09	2.01	2.05	5.09	75.80	2.05	18.11	43600	4.229	✓	✓	✓	-
LN60A4	12A-4	60-4	0.750	19.05	12.57	11.91	17.45	2.39	2.39	5.96	94.30	4.60	22.78	151250	6.20	✓	✓	✓	-
LN60A5	12A-5	60-5	0.750	19.05	12.57	11.91	17.45	2.39	2.39	5.96	116.90	4.60	22.78	190000	7.75	✓	✓	✓	-
LN60A6	12A-6	60-6	0.750	19.05	12.57	11.91	17.45	2.39	2.39	5.96	139.70	4.60	22.78	226800	9.30	✓	✓	✓	-
LN80A4	16A-4	80-4	1.000	25.40	15.38	15.75	24.05	3.25	3.25	7.93	120.70	5.40	29.29	258000	11.20	✓	✓	✓	-
LN80A5	16A-5	80-5	1.000	25.40	15.38	15.75	24.05	3.25	3.25	7.93	149.90	5.40	29.29	322500	14.00	✓	✓	✓	-
LN80A6	16A-6	80-6	1.000	25.40	15.38	15.75	24.05	3.25	3.25	7.93	179.40	5.40	29.29	387000	16.80	✓	✓	✓	-
LN80A8	16A-8	80-8	1.000	25.40	15.38	15.75	24.05	3.25	3.25	7.93	237.80	5.40	29.29	516000	22.40	✓	✓	✓	-
LN100A4	20A-4	100-4	1.250	31.75	19.05	19.05	29.97	4.06	4.06	9.54	147.10	6.10	35.76	408150	16.80	✓	✓	✓	-
LN100A5	20A-5	100-5	1.250	31.75	19.05	19.05	29.97	4.06	4.06	9.54	182.90	6.10	35.76	520600	21.00	✓	✓	✓	-
LN100A6	20A-6	100-6	1.250	31.75	19.05	19.05	29.97	4.06	4.06	9.54	218.70	6.10	35.76	627200	25.20	✓	✓	✓	-
LN120A4	24A-4	120-4	1.500	38.10	25.68	22.23	35.89	4.80	4.80	11.11	185.70	6.60	45.44	570000	22.92	✓	✓	✓	-
LN120A5	24A-5	120-5	1.500	38.10	25.68	22.23	35.89	4.80	4.80	11.11	231.20	6.60	45.44	711700	27.96	✓	✓	✓	-
LN120A6	24A-6	120-6	1.500	38.10	25.68	22.23	35.89	4.80	4.80	11.11	276.6	6.60	45.44	854000	33.50	✓	✓	✓	-
LN120A8	24A-8	120-8	1.500	38.10	25.68	22.23	35.89	4.80	4.80	11.11	367.60	6.60	45.44	1138000	44.65	✓	✓	✓	-
LN140A4	28A-4	140-4	1.750	44.45	25.73	25.40	41.81	5.61	5.61	12.64	199.70	7.40	48.87	765000	30.21	✓	✓	✓	-
LN140A5	28A-5	140-5	1.750	44.45	25.73	25.40	41.81	5.61	5.61	12.64	248.40	7.40	48.87	956400	37.72	✓	✓	✓	-
LN140A6	28A-6	140-6	1.750	44.45	25.73	25.40	41.81	5.61	5.61	12.64	297.50	7.40	48.87	1147688	45.24	✓	✓	✓	-
LN160A4	32A-4	160-4	2.000	50.80	32.13	28.58	47.73	6.35	6.35	14.29	218.80	7.90	58.55	976600	38.90	✓	✓	✓	-
LN200A4	40A-4	200-4	2.500	63.50	38.15	39.67	59.56	8.13	8.13	19.81	291.60	10.20	71.35	1690000	68.24	✓	✓	✓	-

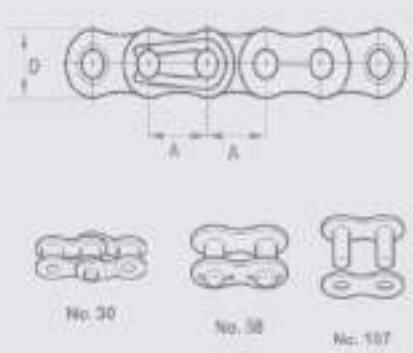
SIMPLEX CHAIN

DUPLEX CHAIN

TRIPLEX CHAIN

Zinc Plated Chain

European (BS) Standard / ISO 606 / ANSI Standard



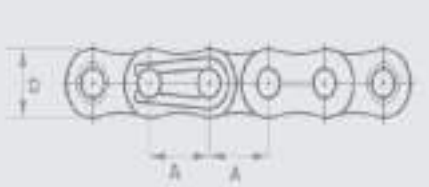
Chain Ref.		Technical Details (mm)												Connecting Links						
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	WIP Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Conn. Link Extension MAX	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 26	No. 58	No. 12	No. 30
European (BS) Standard - Simplex																				
		A	A	B	C	D	E	F	G	H	J									
LN06B-1* - ZP	06B-1	0.375	9.525	5.72	6.35	8.26	1.23	1.23	3.28	13.50	1.65	7565	0.39	✓	✓	-	✓	-	-	✓
LN08B-1 - ZP	08B-1	0.500	12.70	7.75	8.51	11.81	1.55	1.55	4.45	17.00	1.95	15130	0.70	✓	✓	-	✓	-	-	✓
LN10B-1- ZP	10B-1	0.625	15.875	9.65	10.16	14.73	1.55	1.55	5.08	19.60	2.05	18870	0.96	✓	✓	-	✓	-	-	✓
LN12B-1- ZP	12B-1	0.750	19.05	11.68	12.07	16.13	1.81	1.81	5.72	22.70	2.30	24565	1.22	✓	✓	-	✓	-	-	✓
LN16B-1- ZP	16B-1	1.000	25.40	17.02	15.88	21.08	3.70	3.05	8.28	36.10	2.70	51000	2.80	✓	✓	-	✓	-	✓	-
LN20B-1- ZP	20B-1	1.250	31.75	19.56	19.05	26.42	4.80	3.55	10.19	43.20	3.05	80750	3.85	✓	✓	-	✓	-	✓	-
LN24B-1- ZP	24B-1	1.500	38.10	25.40	25.40	33.40	6.25	5.25	14.63	53.40	3.30	136000	7.45	✓	✓	✓	-	-	✓	-

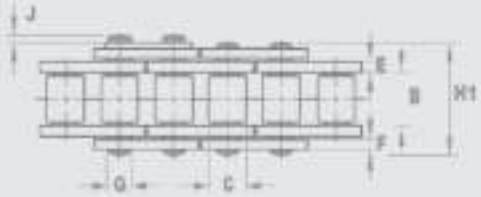
* Straight side plates

"Subject to Minimum Order Quantity - Not Sold from Stock"

Nickel Plated Chain

European (BS) Standard / ISO 606 / ANSI Standard





Chain Ref.		Technical Details (mm)													Connecting Links					
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	WIP Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Cum. Link Extension MAX	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 26	No. 58	No. 12	No. 30

European (BS) Standard - Simplex

		A	a	B	C	D	E	F	G	H	J									
LN06B-1*-NP	06B-1	0.375	9.525	5.72	6.35	8.26	1.23	1.23	3.28	13.50	1.65	7565	0.39	✓	✓	-	✓	-	-	✓
LN08B-1-NP	08B-1	0.500	12.70	7.75	8.51	11.81	1.55	1.55	4.45	17.00	1.95	15139	0.70	✓	✓	-	✓	-	-	✓
LN10B-1-NP	10B-1	0.625	15.875	9.65	10.16	14.73	1.55	1.55	5.08	19.60	2.05	18879	0.96	✓	✓	-	✓	-	-	✓
LN12B-1-NP	12B-1	0.750	19.05	11.68	12.07	16.13	1.81	1.81	5.72	22.70	2.30	24565	1.22	✓	✓	-	✓	-	-	✓
LN16B-1-NP	16B-1	1.000	25.40	17.02	15.88	21.08	3.79	3.05	8.28	36.10	2.70	51000	2.80	✓	✓	-	✓	-	✓	-
LN20B-1-NP	20B-1	1.250	31.75	18.56	19.05	26.42	4.89	3.55	10.19	43.28	2.70	95000	-	✓	✓	-	-	-	-	-
LN24B-1-NP	24B-1	1.500	38.10	25.40	25.40	33.40	6.25	5.25	14.63	53.40	3.30	136000	7.45	✓	✓	✓	-	-	✓	-
LN28B-1-NP	28B-1	1.750	44.45	30.99	27.94	37.08	7.75	6.55	15.90	65.10	3.70	170000	9.35	✓	✓	✓	-	-	✓	-
LN32B-1-NP	32B-1	2.000	50.80	30.99	29.21	42.29	7.25	6.55	17.81	67.40	3.95	212500	10.10	✓	✓	✓	-	-	✓	-

ANSI Standard - Simplex

		A	a	B	C	D	E	F	G	H	J									
LN40A-1-NP	40-1	0.500	12.70	7.85	7.92	12.07	1.54	1.54	3.98	17.80	1.95	11855	0.60	✓	✓	✓	✓	-	✓	✓
LN50A-1-NP	50-1	0.625	15.875	9.40	10.16	15.09	2.05	2.05	5.09	21.80	2.05	18533	1.00	✓	✓	✓	✓	-	✓	✓
LN60A-1-NP	60-1	0.750	19.05	12.57	11.91	18.10	2.45	2.45	5.96	26.90	2.30	26665	1.47	✓	✓	✓	✓	-	✓	✓
LN80A-1-NP	80-1	1.000	25.40	15.75	15.88	24.13	3.25	3.25	7.94	33.58	2.70	47240	2.90	✓	✓	✓	-	✓	✓	-
LN100A-1-NP	100-1	1.250	31.75	18.90	19.05	30.17	4.05	4.05	9.54	41.10	3.05	73950	4.20	✓	✓	✓	-	✓	✓	-

* Straight side plates

"Subject to Minimum Order Quantity - Not Sold from Stock"

Renold ANSI Xtra Chain

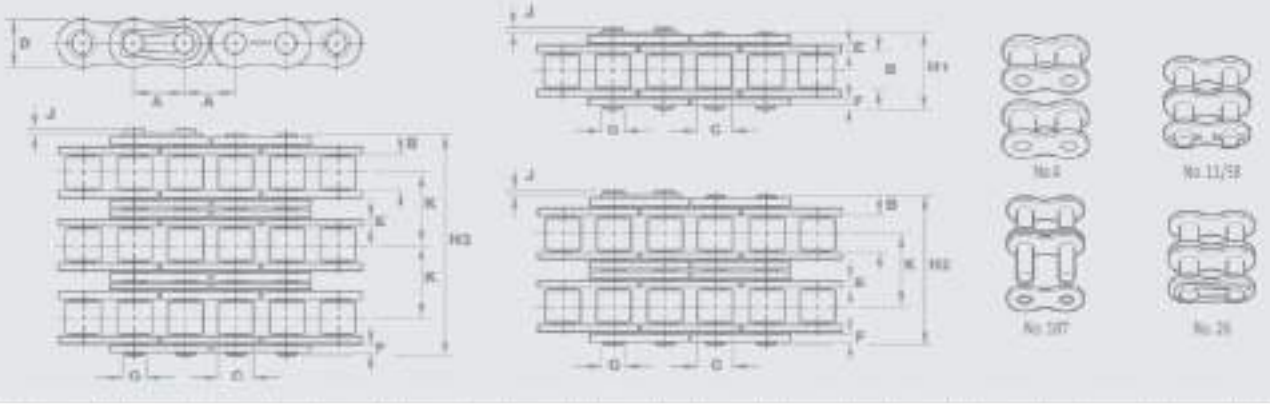
RENOLD ANSI XTRA...

Shock resistant

Fatigue resistant

High loads

... THE HEAVY DUTY CHAIN



Product description

RENOLD ANSI XTRA chain incorporates the usual Renold performance enhancing features including seamless bushes, ball drifted plate holes, shot peening and optimum interference fits. The extra features incorporated into this range of chain is classified by:

- Thicker side plates denoted by 'H'. These plates are approximately 20% thicker than standard ANSI chain
- Through hardened pins, denoted by 'V'

The gearing dimensions of ANSI XTRA chain are identical to our standard ANSI simplex range and will therefore run on standard sprockets. The larger transverse pitch of duplex and triplex chains with heavy duty side plates (H or HV range) require special sprockets.

The range can therefore be summarised as follows:

H Range - Identical to standard ANSI chain with the exception of the overall width. Thicker plates give this chain excellent resistance to heavy loads and help absorb shock. Duplex and triplex chain must have sprockets with an increased transverse pitch of the teeth.

V Range - Identical dimensions to standard ANSI chain but with a higher breaking load and excellent resistance to shock loads.

HV Range - A combination of the 'H' and 'V' chain, giving excellent resistance to both heavy and shock loads.

A further enhancement to the chain life can be achieved by hardening the sprocket teeth of the drive. 'H' and 'HV' chains are designed for improved fatigue life, therefore offset and slip fit joints which have a lower fatigue resistance are not recommended.

Shown below is an easy to use features guide to help in selecting chain to suit its application.

Chain Type	Strength	Wear	Heavy Loads	Shock Loads	High Speeds
Standard ANSI	Good	Excellent	Good	Good	Excellent
XTRA H Range	Good	Excellent	Excellent	Good	Not Suitable
XTRA V Range	Excellent	Good	Good	Excellent	Good
XTRA HV Range	Excellent	Good	Excellent	Excellent	Not Suitable

*Subject to minimum order Quantity. | *Not Sold from Stock. | *Make to order Category.

Renold ANSI Xtra Chain

ANSI XTRA roller chain is specifically designed and manufactured for arduous applications where frequent, impulsive or heavy loads are involved, or where operating conditions are severe as in the mining, quarrying, rock drilling, forestry and construction industries. This chain is interchangeable with our standard ANSI range and can be used to upgrade the performance of existing applications subject to normal design and installation checks.

Multiplex versions are also available on request.

ANSI Xtra - Simplex and Multiplex

Chain Ref.		Technical Details (mm)														Connecting Links			
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	W/P Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Conn. Link Extension MAX	Transverse Pitch NOM	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 58
		A	A	B	C	D	E	F	G	H	J	K						
LN60H-1	60H-1	0.750	19.05	12.57	11.91	18.10	3.15	3.25	5.96	30.20	2.30	-	31300	1.800	✓	✓	-	✓
LN60H-2	60H-2	0.750	19.05	12.57	11.91	18.10	3.15	3.25	5.96	56.30	2.30	26.11	62600	3.600	✓	✓	-	✓
LN60H-3	60H-3	0.750	19.05	12.57	11.91	18.10	3.15	3.25	5.96	82.40	2.30	26.11	93900	5.400	✓	✓	-	✓
LN80V-1	80V-1	1.000	25.40	15.75	15.88	24.13	4.25	3.25	7.94	33.10	2.70	-	55600	2.800	✓	✓	✓	✓
LN80V-2	80V-2	1.000	25.40	15.75	15.88	24.13	4.25	3.25	7.94	62.70	2.70	29.29	111200	-	✓	✓	✓	✓
LN80V-3	80V-3	1.000	25.40	15.75	15.88	24.13	4.25	3.25	7.94	91.90	2.70	29.29	166800	-	✓	✓	✓	✓
LN80H-1	80H-1	1.000	25.40	15.75	15.88	24.13	4.05	3.88	7.94	37.40	2.70	-	55600	3.300	✓	✓	-	✓
LN80H-2	80H-2	1.000	25.40	15.75	15.88	24.13	4.05	3.88	7.94	70.00	2.70	32.59	111200	6.600	✓	✓	-	✓
LN80H-3	80H-3	1.000	25.40	15.75	15.88	24.13	4.05	3.88	7.94	102.60	2.70	32.59	166800	9.900	✓	✓	-	✓
LN80HV-1	80HV-1	1.000	25.40	15.75	15.88	24.13	4.05	3.88	7.94	37.40	2.70	-	55600	-	✓	✓	✓	✓
LN80HV-2	80HV-2	1.000	25.40	15.75	15.88	24.13	4.05	3.88	7.94	70.00	2.70	32.59	111200	6.600	✓	✓	-	✓
LN80HV-3	80HV-3	1.000	25.40	15.75	15.88	24.13	4.05	3.88	7.94	102.60	2.70	32.59	166800	9.900	✓	✓	-	✓
LN100V-1	100V-1	1.250	31.75	18.90	19.05	30.17	4.05	4.05	9.54	41.10	3.05	-	87000	4.200	✓	✓	✓	✓
LN100V-2	100V-2	1.250	31.75	18.90	19.05	30.17	4.05	4.05	9.54	77.00	3.05	35.76	174000	-	✓	✓	✓	✓
LN100V-3	100V-3	1.250	31.75	18.90	19.05	30.17	4.05	4.05	9.54	113.00	3.05	35.76	261000	-	✓	✓	✓	✓
LN100H-1	100H-1	1.250	31.75	18.90	19.05	30.17	4.95	4.91	9.54	44.50	3.05	-	87000	4.800	✓	✓	-	✓
LN100H-2	100H-2	1.250	31.75	18.90	19.05	30.17	4.95	4.91	9.54	83.60	3.05	39.09	174000	10.300	✓	✓	-	✓
LN100H-3	100H-3	1.250	31.75	18.90	19.05	30.17	4.95	4.91	9.54	122.70	3.05	39.09	261000	15.500	✓	✓	✓	✓
LN100HV-1	100HV-1	1.250	31.75	18.90	19.05	30.17	4.95	4.91	9.54	44.50	3.05	-	87000	4.800	✓	✓	-	✓
LN100HV-2	100HV-2	1.250	31.75	18.90	19.05	30.17	4.95	4.91	9.54	70.00	3.05	39.09	174000	10.300	✓	✓	-	✓
LN100HV-3	100HV-3	1.250	31.75	18.90	19.05	30.17	4.95	4.91	9.54	102.60	3.05	39.09	261000	15.450	✓	✓	-	✓
LN120V-1	120V-1	1.500	38.10	25.22	22.23	36.20	5.85	5.85	11.11	55.00	3.30	-	125000	-	✓	✓	✓	✓
LN120V-2	120V-2	1.500	38.10	25.22	22.23	36.20	5.85	5.85	11.11	96.10	3.30	45.44	250000	-	✓	✓	✓	✓
LN120V-3	120V-3	1.500	38.10	25.22	22.23	36.20	5.85	5.85	11.11	145.70	3.30	45.44	375000	-	✓	✓	✓	✓
LN120H-1	120H-1	1.500	38.10	25.22	22.23	36.20	5.85	5.85	11.11	55.00	3.30	-	125000	6.300	✓	✓	-	✓
LN120H-2	120H-2	1.500	38.10	25.22	22.23	36.20	5.85	5.85	11.11	103.90	3.30	48.870	250000	12.600	✓	✓	-	✓
LN120H-3	120H-3	1.500	38.10	25.22	22.23	36.20	5.85	5.85	11.11	152.80	3.30	48.870	375000	18.800	✓	✓	-	✓
LN120HV-1	120HV-1	1.500	38.10	25.22	22.23	36.20	5.85	5.85	11.11	55.00	3.30	-	125000	-	✓	✓	✓	✓
LN120HV-2	120HV-2	1.500	38.10	25.22	22.23	36.20	5.85	5.85	11.11	103.90	3.30	48.87	250000	-	✓	✓	✓	✓
LN120HV-3	120HV-3	1.500	38.10	25.22	22.23	36.20	5.85	5.85	11.11	152.80	3.30	48.87	375000	-	✓	✓	✓	✓
LN140V-1	140V-1	1.750	44.45	25.22	25.40	42.23	5.85	5.85	12.71	54.90	3.70	-	170000	7.000	✓	✓	✓	✓
LN140V-2	140V-2	1.750	44.45	25.22	25.40	42.23	5.85	5.85	12.71	103.60	3.70	48.87	340000	15.900	✓	✓	✓	✓
LN140V-3	140V-3	1.750	44.45	25.22	25.40	42.23	5.85	5.85	12.71	152.40	3.70	48.87	510000	23.100	✓	✓	✓	✓
LN140H-1	140H-1	1.750	44.45	25.22	25.40	42.23	6.55	6.55	12.71	59.00	3.70	-	170000	8.600	✓	✓	-	✓
LN140H-2	140H-2	1.750	44.45	25.22	25.40	42.23	6.55	6.55	12.71	111.20	3.70	52.28	340000	16.700	✓	✓		✓
LN140H-3	140H-3	1.750	44.45	25.22	25.40	42.23	6.55	6.55	12.71	163.40	3.70	52.28	510000	25.000	✓	✓	-	✓
LN140HV-1	140HV-1	1.750	44.45	25.22	25.40	42.23	6.55	6.55	12.71	59.00	3.70	-	170000	8.600	✓	✓	-	✓
LN140HV-2	140HV-2	1.750	44.45	25.22	25.40	42.23	6.55	6.55	12.71	111.20	3.70	52.28	340000	16.740	✓	✓	-	✓
LN140HV-3	140HV-3	1.750	44.45	25.22	25.40	42.23	6.55	6.55	12.71	163.40	3.70	52.28	510000	25.100	✓	✓	-	✓
LN160V-1	160V-1	2.000	50.80	31.55	28.58	48.26	6.55	6.55	14.29	65.10	3.95	-	223000	10.400	✓	✓	✓	✓
LN160V-2	160V-2	2.000	50.80	31.55	28.58	48.26	6.55	6.55	14.29	124.20	3.90	58.55	446000	-	✓	✓	✓	✓
LN160V-3	160V-3	2.000	50.80	31.55	28.58	48.26	6.55	6.55	14.29	182.90	3.90	58.55	669000	-	✓	✓	✓	✓
LN160H-1	160H-1	2.000	50.80	31.55	28.58	48.26	6.55	7.25	14.29	69.40	3.70	-	223000	-	✓	✓	✓	✓
LN160H-2	160H-2	2.000	50.80	31.55	28.58	48.26	6.55	7.25	14.29	131.30	3.70	61.90	446000	-	✓	✓	✓	✓
LN160H-3	160H-3	2.000	50.80	31.55	28.58	48.26	6.55	7.25	14.29	193.20	3.70	61.90	669000	-	✓	✓	✓	✓
LN160HV-1	160HV-1	2.000	50.80	31.55	28.58	48.26	7.25	7.25	14.29	69.40	3.70	-	223000	11.200	✓	✓	-	✓
LN160HV-2	160HV-2	2.000	50.80	31.55	28.58	48.26	7.25	7.25	14.29	131.30	3.70	61.90	446000	24.600	✓	✓	-	✓
LN160HV-3	160HV-3	2.000	50.80	31.55	28.58	48.26	7.25	7.25	14.29	193.20	3.70	61.90	669000	35.200	✓	✓	-	✓
LN180V-1	180V-1	2.250	57.15	35.48	35.71	53.51	7.11	7.11	17.46	73.90	4.10	-	382500	13.940	✓	✓	✓	✓
LN200V-1	200V-1	2.500	63.50	37.85	39.67	59.56	8.13	8.13	19.85	81.35	33.10	-	440000	17.300	✓	✓	✓	✓
LN240HV-1	240HV-1	3.000	76.20	47.35	47.63	71.30	13.20	13.20	23.80	106.80	32.50	-	845160	30.500	✓	✓	-	✓

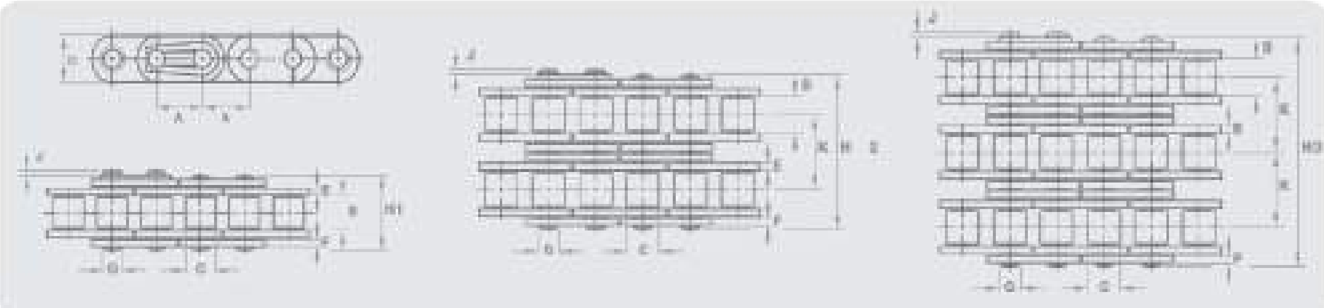
Note: Cotter Type Chains Are Available In All Sizes With MOQ.

Not all split and roll pin options are available on all sizes, although we would recommend roll pin on quadruplex and above. Before specifying, cranked links or other connecting links please consult Renold.

Section 1

Straight Side Plate

ISO 606



Chain Ref.		Technical Details (mm)														Connecting Links						
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	WIP Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Conn. Link Extension MAX	Transverse Pitch NOM	ISO606 Tensile Strength (Newton) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 26	No. 10	No. 12	No. 30

Simplex

		A	A	B	C	D	E	F	G	H1	I	K									
LN08B-1GF	08B-1	0.500	12.70	7.75	8.51	11.81	1.64	1.54	4.45	17.00	1.95	-	17800	0.70	✓	✓	✓	✓	✓	✓	✓
LN10B-1GF	10B-1	0.625	15.875	9.65	10.16	14.73	1.64	1.64	5.08	19.60	2.05	-	22200	0.870	✓	✓	✓	✓	✓	✓	✓
LN12B-1GF	12B-1	0.750	19.05	11.68	12.07	16.13	1.88	1.88	5.72	22.70	2.30	-	28900	1.19	✓	✓	✓	✓	✓	✓	-
LN16B-1GF	16B-1	1.000	25.40	17.02	15.88	21.08	3.70	3.05	8.28	36.10	2.70	-	60000	2.71	✓	✓	-	✓	-	-	-
LN20B-1GF**	20B-1	1.000	31.75	19.56	19.05	26.42	4.80	3.51	10.19	47.20	3.05	-	95000	3.80	✓	✓	-	✓	-	-	-
LN24B-1GF	24B-1	1.750	38.10	25.40	25.40	33.40	6.25	5.25	14.63	53.40	3.30	-	160000	7.12	✓	✓	-	✓	-	-	-
LN28B-1GF	28B-1	2.000	44.45	30.99	27.94	37.08	7.75	6.55	15.90	65.10	3.70	-	200000	9.41	✓	✓	-	✓	-	-	-
LN32B-1GF	32B-1	1.500	50.80	30.99	29.21	42.29	7.25	6.55	17.81	67.40	3.95	-	250000	9.91	✓	✓	-	✓	-	-	-

Note : Cotter Type Chains Are Available In All Sizes With MOQ

Duplex

		A	A	B	C	D	E	F	G	H2	I	K									
LN08B-2GF	08B-2	0.500	12.70	7.75	8.51	11.81	1.64	1.54	4.45	31.00	1.95	13.92	31100	1.31	✓	✓	✓	✓	✓	✓	✓
LN10B-2GF	10B-2	0.625	15.875	9.65	10.16	14.73	1.64	1.64	5.08	36.20	2.05	16.59	44500	1.727	✓	✓	✓	✓	✓	✓	✓
LN12B-2GF	12B-2	0.750	19.05	11.68	12.07	16.13	1.81	1.81	5.72	42.20	2.30	19.46	57800	2.35	✓	✓	✓	✓	✓	✓	-
LN16B-2GF	16B-2	1.000	25.40	17.02	15.88	21.08	3.70	3.05	8.28	68.00	2.70	31.88	106000	5.35	✓	✓	-	✓	-	-	-
LN20B-2GF**	20B-2	1.000	31.75	19.56	19.05	26.42	4.80	3.55	10.19	79.70	3.05	36.45	170000	7.40	✓	✓	-	✓	-	-	-
LN24B-2GF	24B-2	1.750	38.10	25.40	25.40	33.40	6.25	5.25	14.63	101.80	3.30	48.36	280000	14.00	✓	✓	-	✓	-	-	-
LN28B-2GF	28B-2	2.000	44.45	30.99	27.94	37.08	7.75	6.55	15.90	124.70	3.70	59.56	360000	16.99	✓	✓	-	✓	-	-	-
LN32B-2GF	32B-2	1.500	50.80	30.99	29.21	42.29	7.25	6.55	17.81	128.00	3.95	58.55	450000	19.36	✓	✓	-	✓	-	-	-

Note : Cotter Type Chains Are Available In All Sizes With MOQ

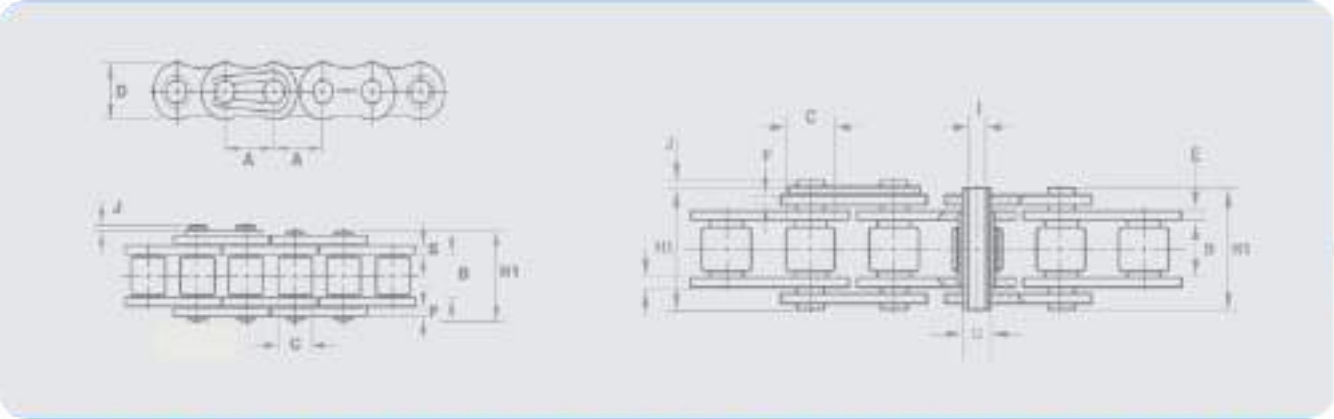
Triplex

		A	A	B	C	D	E	F	G	H3	I	K									
LN08B-3GF	08B-3	0.500	12.70	7.75	8.51	11.81	1.64	1.54	4.45	46.00	1.95	13.92	44500	1.94	✓	✓	✓	✓	✓	✓	✓
LN10B-3GF	10B-3	0.625	15.875	9.65	10.16	14.73	1.64	1.64	5.08	52.80	2.05	16.59	66700	2.629	✓	✓	✓	✓	✓	✓	✓
LN12B-3GF	12B-3	0.750	19.05	11.68	12.07	16.13	1.81	1.81	5.72	61.70	2.30	19.46	88700	3.51	✓	✓	✓	✓	✓	✓	-
LN16B-3GF	16B-3	1.000	25.40	17.02	15.88	21.08	3.70	3.05	8.28	99.90	2.70	31.88	160000	8.01	✓	✓	-	✓	-	-	-
LN20B-3GF**	20B-3	1.500	31.75	19.56	19.05	26.42	4.80	3.55	10.19	116.10	3.05	36.45	250000	11.17	✓	✓	-	✓	-	-	-
LN24B-3GF	24B-3	1.750	38.10	25.40	25.40	33.40	6.25	6.25	14.63	150.20	3.30	48.36	425000	21.00	✓	✓	-	✓	-	-	-
LN28B-3GF	28B-3	2.000	44.45	30.99	27.94	37.08	7.75	6.55	15.90	184.30	3.70	59.56	530000	28.21	✓	✓	-	✓	-	-	-
LN32B-3GF	32B-3	1.500	50.80	30.99	29.21	42.29	7.25	6.55	17.81	184.50	3.95	58.55	670000	29.21	✓	✓	-	✓	-	-	-

Note : Cotter Type Chains Are Available In All Sizes With MOQ

* Hollow Pin Chain

European (BS) Standard / ANSI Standard



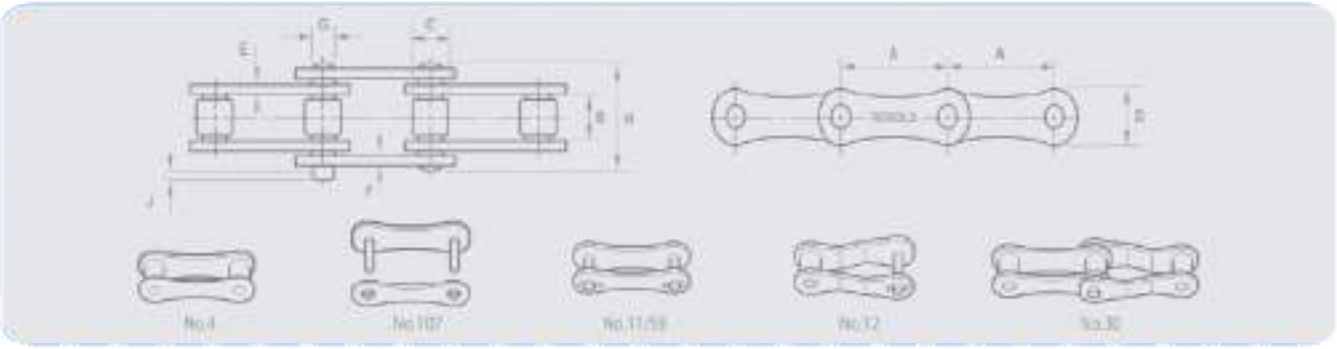
Chain Ref.		Technical Details (mm)													Conn Links	
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	W/P Inside Width IP	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Outer Diameter MAX	Pin Inner Diameter MIN	Pin Length MAX	Conn Link Extension MAX	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 2S
European (BS) Standard - Simplex Chain																
		A	A	B	C	D	E	F	G	I	H1	J				
R42BHP	-	0.500	12.70	7.75	8.51	11.71	1.64	1.64	6.13	4.20	16.8	1.13	12000	0.551	✓	✓
LN10B1HP	-	0.625	15.875	9.65	10.16	14.66	1.64	1.64	7.09	5.17	18.90	1.23	19620	1.633	✓	✓
LN12B1HP	-	0.750	19.05	11.68	12.07	16.10	1.88	1.88	8.05	6.04	22.30	1.80	26000	1.304	✓	✓
LN16B1HP	-	1.00	25.40	17.02	15.88	20.70	3.70	3.70	11.64	8.40	35.70	2.30	51800	2.306	✓	✓
ANSI Standard - Simplex Chain																
		A	A	B	C	D	E	F	G	I	H1	J				
LN50HP-1**	-	0.625	15.875	9.40	10.16	15.00	2.05	2.05	7.24	5.12	20.60	0.65	31120	0.902	✓	✓
LN60HP-1**	-	0.750	19.05	12.57	11.89	18.00	2.45	2.45	8.64	5.98	25.60	1.20	42686	1.323	✓	✓
LN80HP-1**	-	1.000	25.40	15.75	15.88	23.80	3.25	3.05	11.63	7.96	32.20	1.50	40824	2.266	✓	✓

* Subject to minimum order quantity. Not sold from stock.

** MOQ

*Double Pitch Chain

ISO 1275 / ANSI B29.100

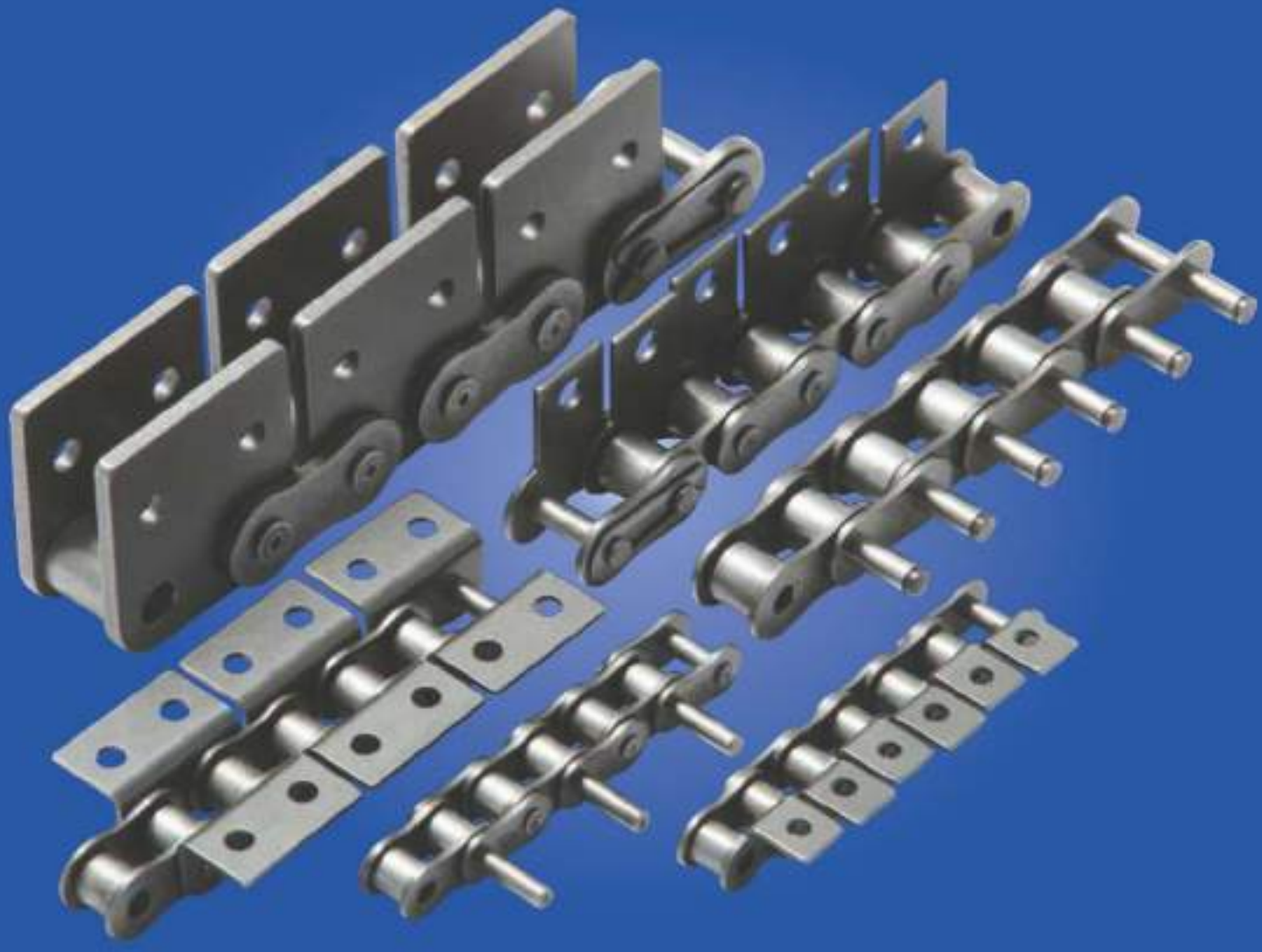


Chain Ref.		Technical Details (mm)												Conn Links					
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	WIP Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Conn. Link Excess MAX	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 38	No. 12	No. 10
ISO 1275 - Simplex																			
		A	A	B	C	D	E	F	G	H	J								
LN2088	2088	1.00	25.40	7.75	8.51	11.81	1.64	1.54	4.45	17.00	1.95	17800	0.46	✓	✓	✓	-	-	✓
LN2108	2108	1.25	31.75	9.65	10.16	14.73	1.64	1.64	5.08	19.69	2.05	22200	0.61	✓	✓	✓	-	-	✓
LN2128	2128	1.50	38.10	11.68	12.07	16.13	1.88	1.79	5.72	22.79	2.30	28900	0.78	✓	✓	✓	-	-	✓
LN2168	2168	2.00	50.80	17.02	15.88	21.08	3.75	3.05	7.94	36.10	2.70	60000	1.99	✓	✓	✓	-	-	✓
LN2208**	2208	2.50	63.50	19.56	19.05	26.42	4.80	3.55	10.19	41.20	3.05	95000	2.45	✓	✓	✓	-	✓	-
LN2248**	2248	3.00	76.20	25.40	25.40	33.40	6.25	5.25	14.63	53.40	3.30	168000	4.80	✓	✓	✓	-	✓	-
LN2328**	2328	4.00	101.60	30.99	29.21	42.29	7.25	6.55	17.81	67.40	3.95	250000	5.95	✓	✓	✓	-	-	-
ANSI Standard - Conveyor Small Roller (Straight Plate).																			
		A	A	B	C	D	E	F	G	H	J								
LNC2040	C2040	1.00	25.40	7.85	7.92	12.07	1.54	1.54	3.98	17.80	1.95	13900	0.50	✓	✓	✓	✓	✓	-
LNC2050	C2050	1.25	31.75	9.40	10.16	15.09	2.45	2.45	5.09	21.80	2.05	21800	0.84	✓	✓	✓	✓	✓	-
LNC2060H	C2060H	1.50	38.10	12.57	11.91	18.10	3.15	3.25	5.96	26.20	2.30	31300	1.51	✓	✓	✓	✓	✓	-
LNC2080H	C2080H	2.00	50.80	15.75	15.88	24.13	4.05	3.80	7.94	37.40	2.70	55600	2.45	✓	✓	✓	✓	✓	-
LNC2100H	C2100H	2.50	63.50	18.90	19.05	30.17	4.75	4.75	9.54	44.50	3.05	87000	3.68	✓	✓	✓	✓	✓	-
LNC2120H**	C2120H	3.00	76.20	21.22	22.23	36.20	5.85	5.85	11.11	55.00	3.30	125000	4.93	✓	✓	✓	✓	✓	-
LNC2160H**	C2160H	4.00	101.60	31.55	28.58	48.26	7.25	7.25	14.29	69.40	3.95	223000	8.90	✓	✓	✓	✓	✓	-
ANSI Standard - Conveyor Large Roller (Straight Plate).																			
		A	A	B	C	D	E	F	G	H	J								
LNC2042	C2042	1.00	25.40	7.85	15.88	12.07	1.54	1.54	3.98	17.80	1.95	13900	0.82	✓	✓	✓	✓	✓	-
LNC2052	C2052	1.25	31.75	9.40	19.05	15.09	2.45	2.45	5.09	21.80	2.05	21800	1.26	✓	✓	✓	✓	✓	-
LNC2062H	C2062H	1.50	38.10	12.57	22.23	18.10	3.15	3.25	5.96	26.20	2.30	31300	2.03	✓	✓	✓	✓	✓	
LNC2082H	C2082H	2.00	50.80	15.75	28.58	24.13	4.05	3.80	7.94	37.40	2.70	55600	3.36	✓	✓	✓	✓	✓	-
LNC2102H	C2102H	2.50	63.50	18.90	39.67	30.17	4.75	4.75	9.54	44.50	3.05	87000	5.65	✓	✓	✓	✓	✓	-
LNC2122H**	C2122H	3.00	76.20	21.22	44.45	36.20	5.85	5.85	11.11	55.00	3.30	125000	7.90	✓	✓	✓	✓	✓	-
LNC2162H**	C2162H	4.00	101.60	31.55	57.15	48.26	7.25	7.25	14.29	69.40	3.95	223000	12.80	✓	✓	✓	✓	✓	-
ANSI Standard - Drive Chain																			
		A	A	B	C	D	E	F	G	H	J								
LX2040**	A2040	1.00	25.40	7.85	7.92	12.07	1.54	1.54	3.98	17.80	1.95	13900	0.40	✓	✓	✓	✓	✓	-
LX2050**	A2050	1.25	31.75	9.40	10.16	15.09	2.05	2.05	5.09	21.80	2.05	21800	0.70	✓	✓	✓	✓	✓	-
LX2060**	A2060	1.50	38.10	11.57	11.91	18.10	2.45	2.45	5.96	26.90	2.30	31300	1.05	✓	✓	✓	✓	✓	
LX2080**	A2080	2.00	50.80	15.75	15.88	24.13	3.25	3.05	7.94	33.50	2.70	55600	1.76	✓	✓	✓	✓	✓	-

* Subject to minimum order quantity. Not sold from stock.

** MOQ

Standard Attachments



Renold standard power transmission chain can be adapted for conveying duties by the fitment of attachments shown on these pages. The attachments can be assembled on one or both sides of the chain at any desired pitch spacing.

Note:

1. K2 attachments cannot be assembled on adjacent inner and outer links on the same side of the chain.
2. M2 & K2 attachments cannot be assembled next to a No. 30 Cranked link double joint.

Bearing pins with an extension on one side of the chain can be built into chain at any desired pitch spacing and afford a simple means by which attachments or tubular staybars may be secured to chain. The pins for BS/DIN series chain are grooved for standard external type circlips to BS 3673 Part 2 (not supplied) so that, if required, attachments may be retained endwise or can be supplied as a standard straight extended pin.

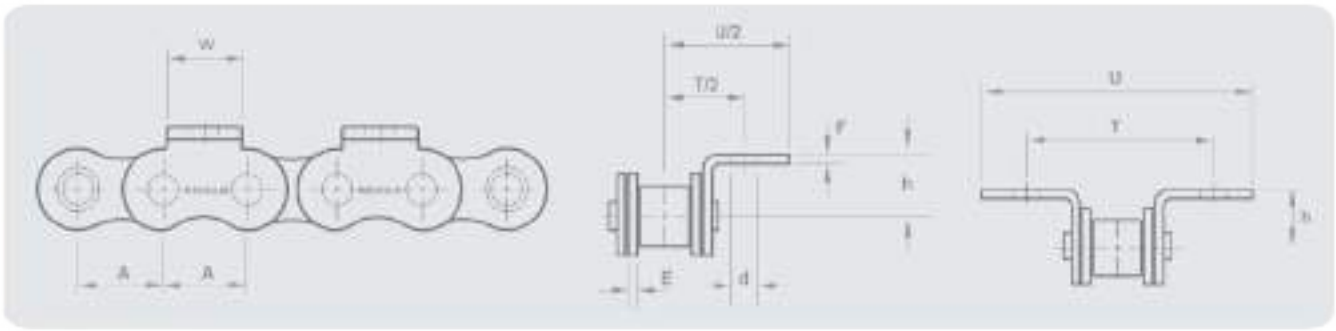
RENOLD

Superior Chain Technology

Section 1

K1 Attachments

Renold & ISO 606

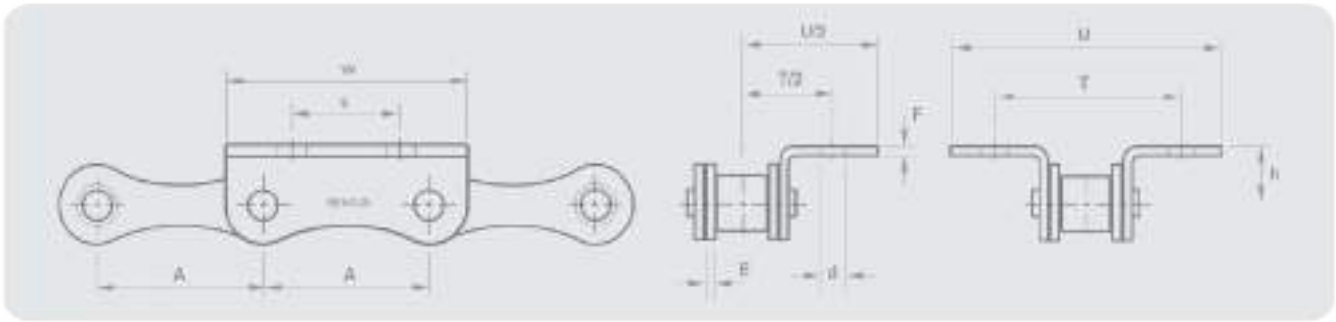


ISO Standard

Chain Ref.		Technical Details (mm)								
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner	Plate Thickness Outer	Attachment length nominal	Flat form height	Att. hole dia (min.)	Transverse distance b/w holes center	Z-nominal
		A	A	E	F	w	h	d	T	U
LN08B1	08B-1	0.500	12.70	1.64	1.54	11.50	8.90	4.30	25.40	37.08
LN10B1	10B-1	0.625	15.875	1.64	1.64	15.80	10.30	5.30	31.80	45.50
LN12B1	12B-1	0.750	19.05	1.88	1.88	16.60	13.50	6.40	38.10	59.60
LN16B1	16B-1	1.000	25.40	3.70	3.05	28.80	15.90	6.40	50.80	71.80

K2 Attachments

Renold & ISO 606

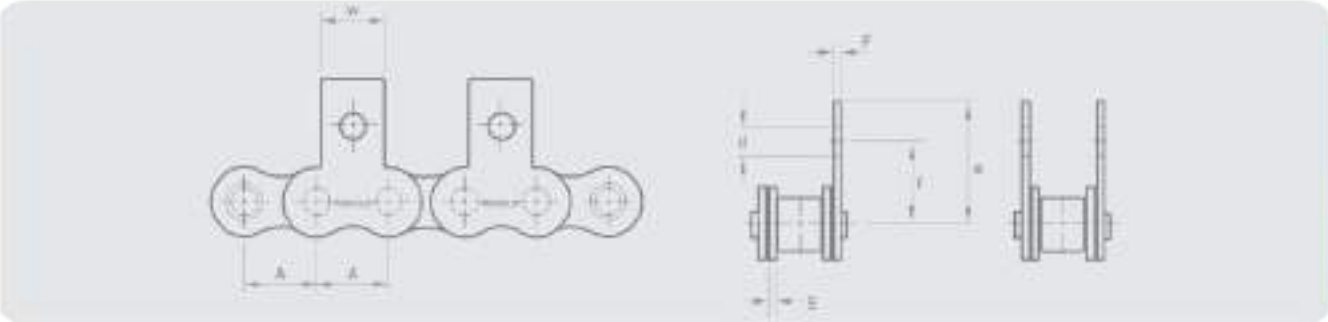


ISO Standard

Chain Ref.		Technical Details (mm)									
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner	Plate Thickness Outer	Flat form height	Att. hole dia (min.)	Attachment length nominal	Att. hole pitch (nominal)	Transverse distance b/w holes center	Z-nominal
		A	A	E	F	h	d	w	t	T	U
LN08B1	08B-1	0.500	12.70	1.64	1.54	8.90	4.30	23.20	12.70	25.40	37.08
LN10B1	10B-1	0.625	15.875	1.64	1.64	10.30	5.30	29.15	15.875	31.80	45.50
LN12B1	12B-1	0.750	19.05	1.88	1.88	13.50	6.40	33.58	19.05	38.10	59.60
LN16B1	16B-1	1.000	25.40	3.70	3.05	15.90	6.40	45.90	25.40	50.80	71.80

M1 Attachments

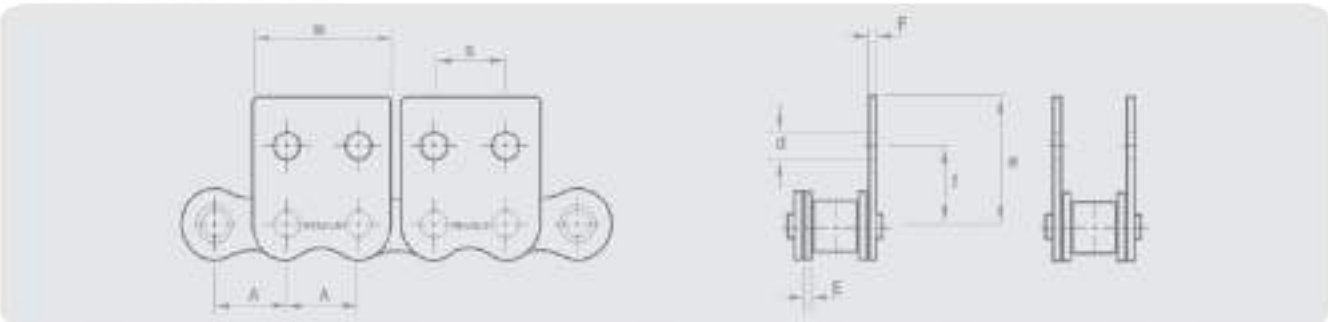
Renold & ISO 606



Chain Ref.		Technical Details (mm)							
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Attachment length nominal	Flat height nominal	Height from chain center line min.	Att. hole dia (min.)
ISO Standard									
		A	A	E	F	K	K	I	J
LN08B1	08B-1	0.500	12.70	1.64	1.54	11.50	19.20	12.70	4.30
LN10B1	10B-1	0.625	15.875	1.64	1.64	15.00	23.70	15.90	5.30
LN12B1	12B-1	0.750	19.05	1.88	1.88	16.60	32.10	21.00	6.40
LN16B1	16B-1	1.000	25.40	3.70	3.05	23.00	34.07	23.00	6.40

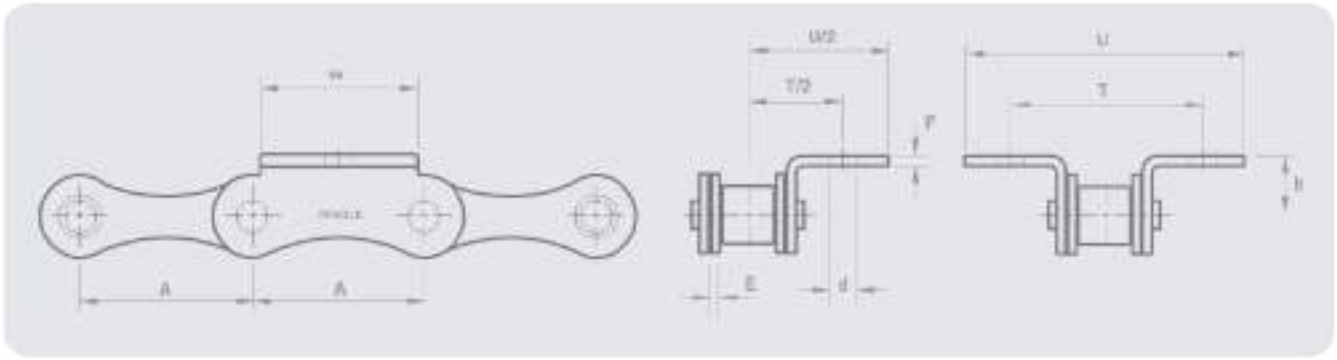
M2 Attachments

Renold & ISO 606



Chain Ref.		Technical Details (mm)								
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Attachment Plate height nominal	Flat form height	Attachment hole diameter (min.)	Attachment Length nominal	Att. hole pitch nominal
ISO Standard										
		A	A	E	F	K	I	J	M	A
LN08B1	08B-1	0.500	12.70	1.64	1.54	19.20	12.70	4.30	23.20	12.70
LN10B1	10B-1	0.625	15.875	1.64	1.64	23.70	15.90	5.30	29.20	15.875
LN12B1	12B-1	0.750	19.05	1.88	1.88	32.10	21.00	6.40	33.50	19.05
LN16B1	16B-1	1.000	25.40	3.70	3.05	34.07	23.00	6.40	45.90	25.40

Double Pitch K1 Attachments

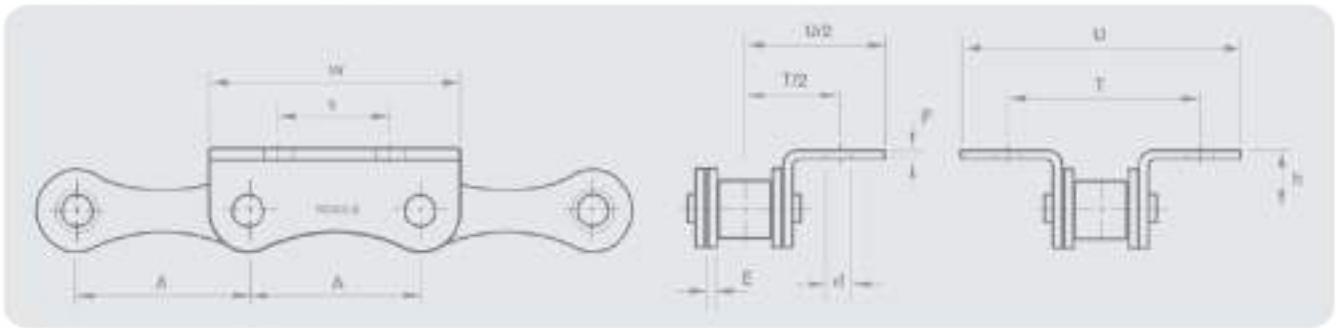


Chain Ref.		Technical Details (mm)								
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner	Plate Thickness Outer	Attachment length nominal	Flat form height	Attachment hole dia (min.)	Transverse distance b/w holes center	Z-nominal

Renold BS K1 Attachments

		A	d	E	F	W	h	d	T	U
LN2088-1	2088-1	1.00	25.40	1.64	1.54	23.8	9.12	4.30	25.40	42.5
LN2108-1	2108-1	1.25	31.750	1.64	1.54	25.4	11.13	5.30	31.80	48.5
LN2128-1	2128-1	1.50	38.10	1.88	1.79	20.0	14.68	6.40	38.10	54.8
LN2168-1	2168-1	2.00	50.80	3.70	3.05	40.0	19.05	6.40	50.80	83.8
LN2208-1	2208-1	2.50	63.50	4.80	3.55	40.0	23.42	8.40	63.50	98.7
LN2248-1	2248-1	3.00	76.20	6.25	5.25	70.0	18.05	10.50	76.20	124.7

K2 Attachments

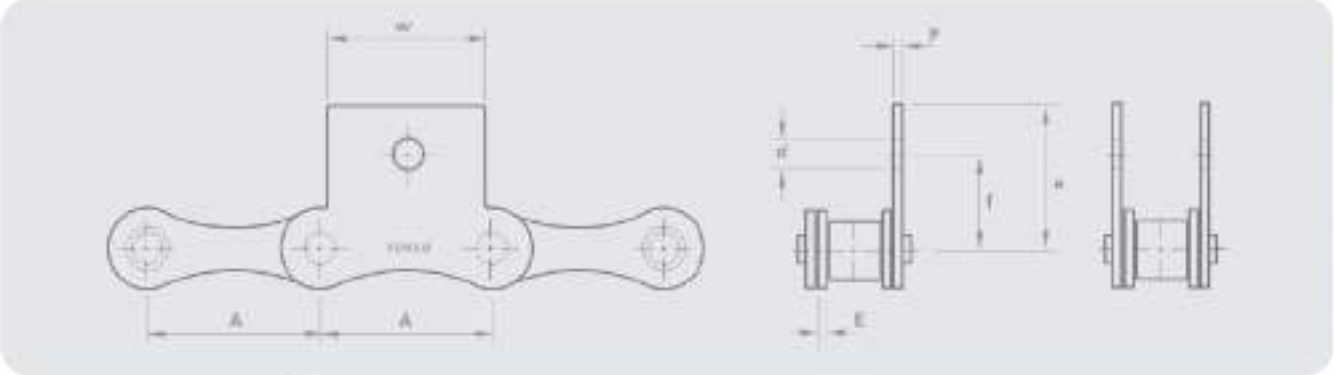


Chain Ref.		Technical Details (mm)									
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner	Plate Thickness Outer	Flat form height	Att. hole dia (min.)	Att. length nominal	Att. hole pitch (nominal)	Transverse distance b/w holes center	Z-nominal

Renold BS K2 Attachments

		A	d	E	F	h	d	W	t	T	U
LN2088-1	2088-1	1.00	25.40	1.64	1.54	9.12	4.30	37.1	12.70	25.40	42.5
LN2108-1	2108-1	1.25	31.75	1.64	1.54	11.13	5.30	46.7	15.875	31.80	48.5
LN2128-1	2128-1	1.50	38.10	1.88	1.79	14.68	6.40	54.4	19.05	38.10	54.8
LN2168-1	2168-1	2.00	50.80	3.70	3.05	19.05	6.40	71.3	25.40	50.80	83.8
LN2208-1	2208-1	2.50	63.50	4.80	3.55	23.42	8.40	86.5	31.75	63.50	98.7
LN2248-1	2248-1	3.00	76.20	6.25	5.25	19.05	10.50	-	38.10	76.20	-

Double Pitch M1 Attachments

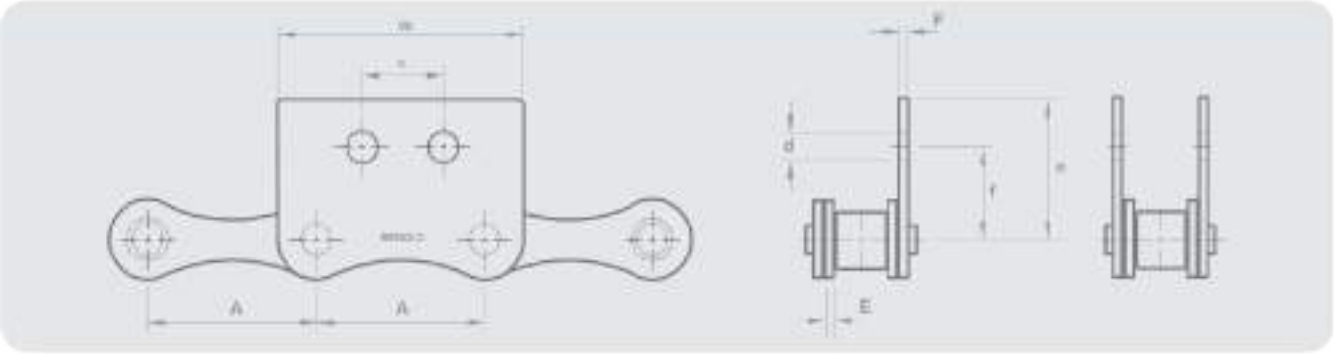


Chain Ref.		Technical Details (mm)							
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Attachment length nominal	Att. Plate height nominal	Height from chain center line min.	Attachment hole dia (min.)

Renold BS M1 Attachments

		A	A	E	F	w	e	f	d
LN2088-1	2088-1	1.00	25.40	1.64	1.54	23.8	20.8	13.7	4.30
LN2108-1	2108-1	1.25	31.75	1.64	1.64	25.4	24.9	16.5	5.30
LN2128-1	2128-1	1.50	38.10	1.88	1.79	30.0	28.3	18.5	6.40
LN2168-1	2168-1	2.00	50.80	3.70	3.05	40.0	40.0	27.4	6.40
LN2208-1	2208-1	2.50	63.50	4.80	3.55	40.0	48.7	33.0	8.40
LN2248-1	2248-1	3.00	76.20	6.25	5.25	70.0	61.5	42.7	10.50

M2 Attachments



Chain Ref.		Technical Details (mm)								
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Att. Plate height nominal	Plat form height	Att. hole dia (min.)	height form chain center line min.	Att. hole pitch nominal

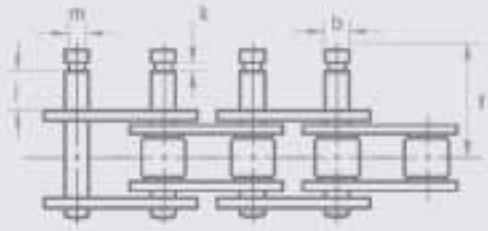
Renold BS M2 Attachments

		A	A	E	F	e	f	d	W	t
LN2088-1	2088-1	1.00	25.40	1.64	1.54	20.8	13.7	4.30	37.1	12.7
LN2108-1	2108-1	1.25	31.75	1.64	1.64	24.9	16.5	5.30	46.7	15.8
LN2128-1	2128-1	1.50	38.10	1.88	1.79	28.3	18.5	6.40	54.4	19.0
LN2168-1	2168-1	2.00	50.80	3.70	3.00	40.0	27.4	6.40	71.3	25.4
LN2208-1	2208-1	2.50	61.50	4.80	3.55	48.7	33.0	8.40	86.5	31.7
LN2248-1	2248-1	3.00	76.20	6.25	5.25	61.5	42.7	10.50	-	38.1

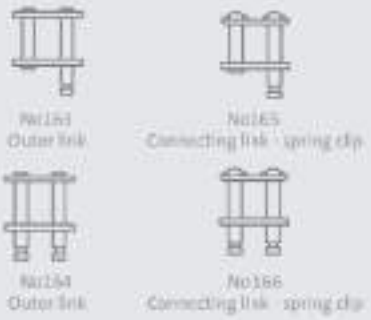
Extended Bearing Pins

European (BS) Standard / ISO 606

Extended pin + circlip groove (type C)
to suit standard external circlips to BS3673 Part 2



Unit assemblies



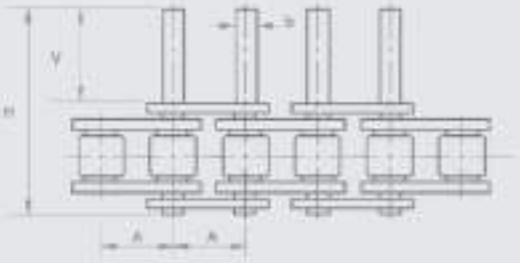
Chain Ref.		Technical Details (mm)						
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Pin Diam. MAX	Extension Length to Circlip Groove MAX	Circlip Groove Width MIN	Circlip Groove Diam. MIN	Chain track from chain Centre line MAX

Type C

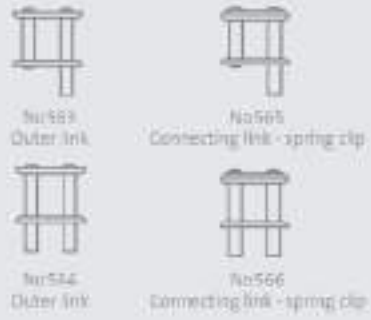
		A	A	b	j	k	m	f
LH 08B1	080-1	0.500	12.70	4.45	7.19	0.58	3.38	17.78
LH 10B1	100-1	0.625	15.875	5.08	9.45	0.71	3.73	21.34
LH 12B1	120-1	0.750	19.05	5.72	11.81	0.71	4.78	25.15
LH 16B1	160-1	1.000	25.40	8.28	15.75	1.02	6.93	38.58

Extended pins with circlip groove
(clip not supplied unless specifically requested)

Extended pin (type D)



Unit assemblies



Chain Ref.		Technical Details (mm)				
RENOLD CHAIN No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Pin Diam. ±0.01	Extension Length ±0.25	Pin Length MAX

Type D - ISO 606

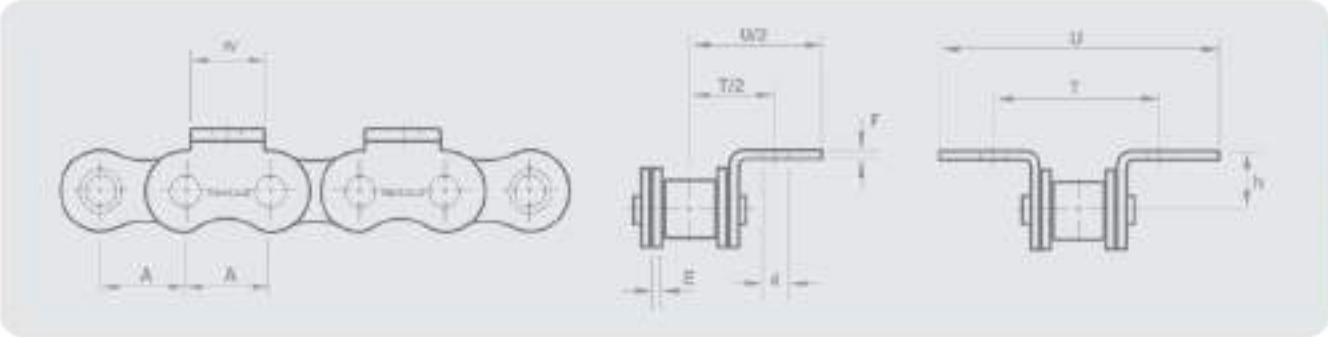
		A	A	b	e	h
LH 06B1*	060-1	0.375	9.525	3.28	11.30	23.80
LH 08B1	080-1	0.500	12.70	4.45	14.80	31.00
LH 10B1	100-1	0.625	15.875	5.08	17.80	36.20
LH 12B1	120-1	0.750	19.05	5.72	20.70	42.40
LH 16B1	160-1	1.000	25.40	8.28	33.30	68.00
LH 20B1	200-1	1.250	31.75	10.19	38.30	79.70
LH 24B1	240-1	1.500	38.10	14.63	50.30	101.80

Straight extended pin

* Straight side plates

K1 Attachments

ANSI B29.100 / ISO 606



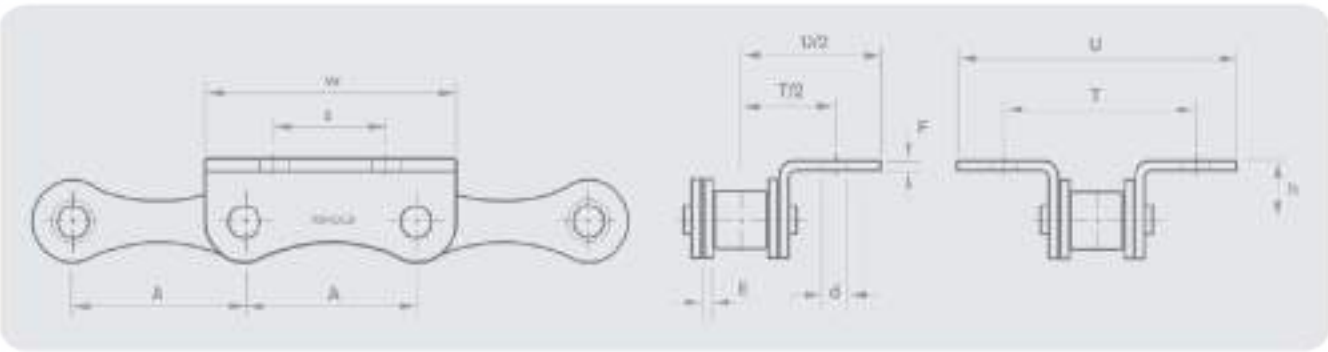
Chain Ref.		Technical Details (mm)								
RENOLD CHAIN No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness inner	Plate Thickness Outer	Att. length nominal	Flat form height	Att. hole dia (min.)	Transverse distance b/w holes center	Z-nominal

ISO / ANSI Standard

		A	A	E	F	W	h	d	T	U
LN40A1	40	0.500	12.70	1.54	1.54	9.50	7.90	3.30	25.40	35.50
LN50A1	50	0.625	15.875	2.05	2.05	14.38	10.30	5.10	31.80	-
LN60A1	60	0.750	19.05	2.45	2.45	13.90	11.90	3.10	38.10	54.42
LN80A1	80	1.000	25.40	3.25	3.05	19.10	15.90	6.60	50.80	69.10

K2 Attachments

ANSI B29.100 / ISO 606



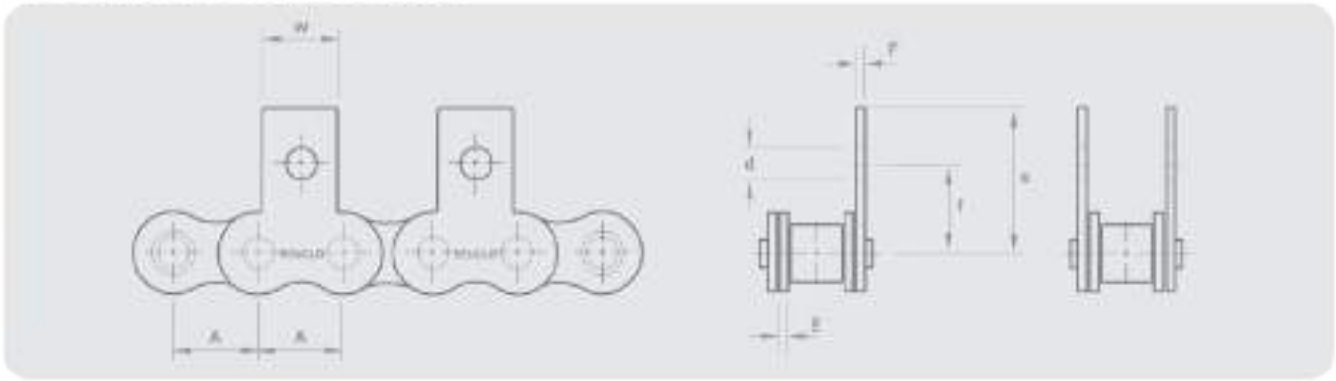
Chain Ref.		Technical Details (mm)									
RENOLD CHAIN No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness inner	Plate Thickness Outer	Flat form height	Att. hole dia (min.)	Att. length nominal	Att. hole pitch (nominal)	Transverse distance b/w holes center	Z-nominal

ISO / ANSI Standard

		A	A	E	F	h	d	W	I	T	U
LN40A1	40	0.500	12.70	1.54	1.54	7.90	3.30	19.00	12.70	25.40	35.50
LN50A1	50	0.625	15.875	2.05	2.05	10.30	5.10	28.75	15.875	31.80	-
LN60A1	60	0.750	19.05	2.45	2.45	11.90	5.10	34.30	19.05	38.10	54.42
LN80A1	80	1.000	25.40	3.25	3.05	15.90	6.60	38.20	25.40	50.80	69.10

M1 Attachments

ANSI B29.100 / ISO 606



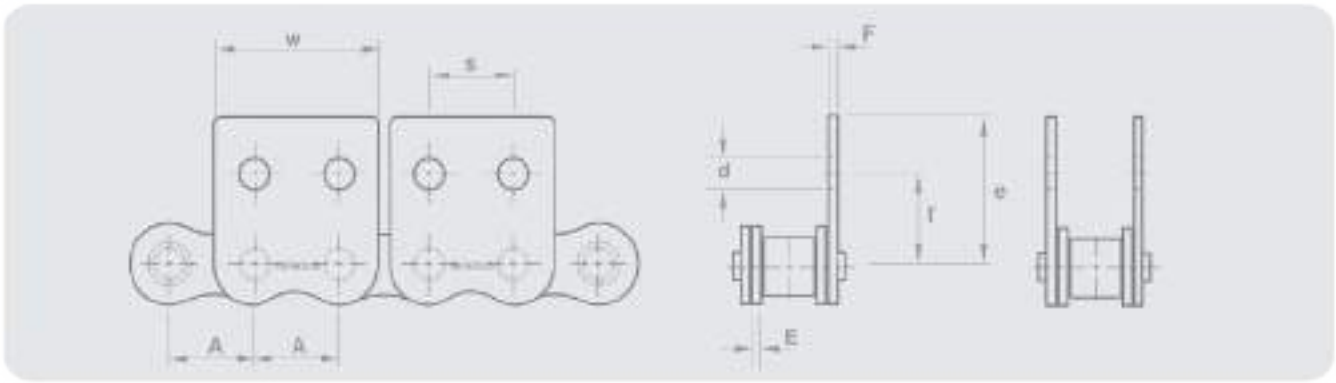
Chain Ref.		Technical Details (mm)							
RENOLD CHAIN No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Plat form height	Att. Plate height nominal	Height from chain center line min.	Att. hole dia (min.)

ISO / ANSI Standard

		A	A	E	F	w	e	f	d
LN40A1	40	0.500	12.70	1.54	1.54	9.50	17.50	12.70	3.30
LN50A1	50	0.625	15.875	2.05	2.05	14.38	22.18	15.90	5.10
LN60A1	60	0.750	19.05	2.45	2.45	15.90	26.20	18.30	5.10
LN80A1	80	1.000	25.40	3.25	3.05	19.10	33.95	24.60	6.60

M2 Attachments

ANSI B29.100 / ISO 606



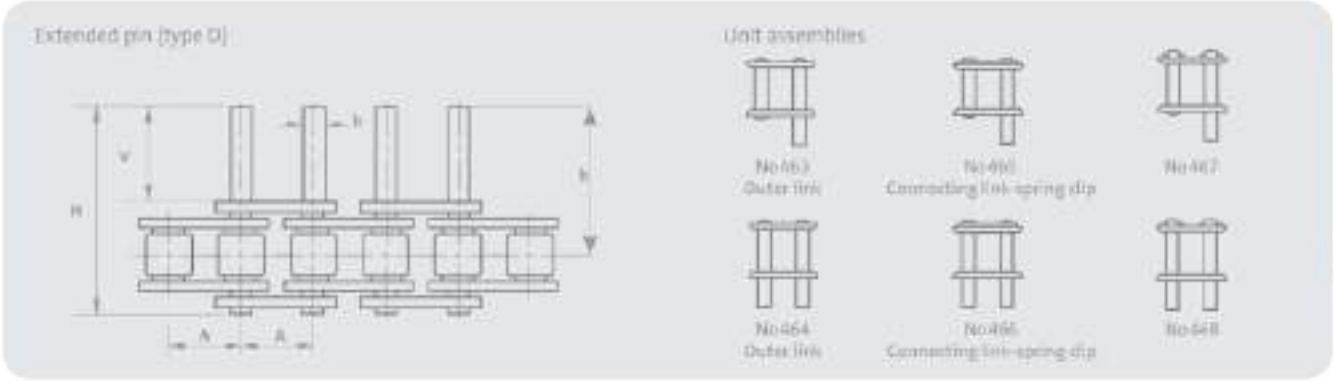
Chain Ref.		Technical Details (mm)								
RENOLD CHAIN No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Att. Plate height nominal	Plat form height	Att. hole dia (min.)	Att. length nominal	Att. hole pitch nominal

ISO / ANSI Standard

		A	A	E	F	e	f	z	w	s
LN40A1	40	0.500	12.70	1.54	1.54	17.50	12.70	3.30	19.00	12.70
LN50A1	50	0.625	15.875	2.05	2.05	22.18	15.90	5.10	28.75	15.875
LN60A1	60	0.750	19.05	2.45	2.45	26.20	18.30	5.10	34.30	19.05
LN80A1	80	1.000	25.40	3.25	3.05	33.95	24.60	6.60	38.20	25.40

Extended Bearing Pins

ANSI B29.100 / ISO 606

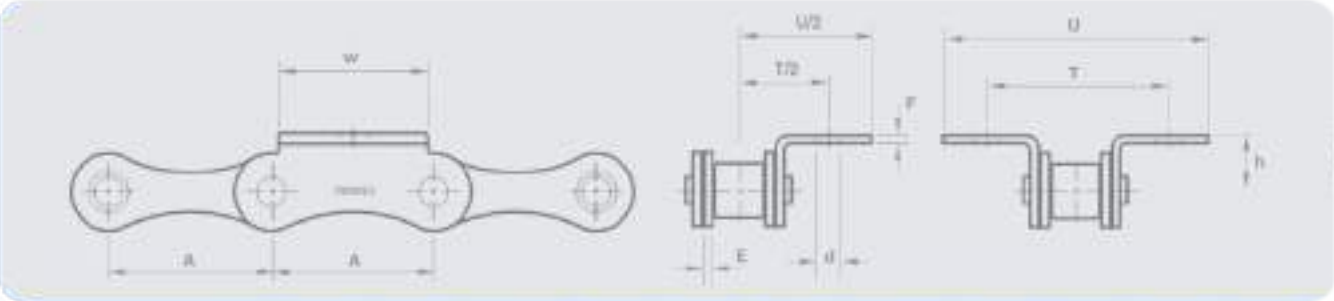


Chain Ref.		Technical Details (mm)					
RENOLD CHAIN No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Pin Diam. ±0.01	Extension Length ±0.25	Chain track from chain Centre line MAX	Extension Pin Length
ANSI Standard							
		A	A	b	V	h	H
LM4041	40	0.500	12.70	3.96	9.71	18.00	28.90
LM5041	50	0.625	15.875	5.08	11.89	22.40	33.30
LM6041	60	0.750	19.05	5.94	14.27	27.20	40.65
LM8041	80	1.000	25.40	7.92	19.05	35.70	52.45

"Subject to Minimum Order Quantity - Not Sold from Stock"

Double Pitch K1 Attachments

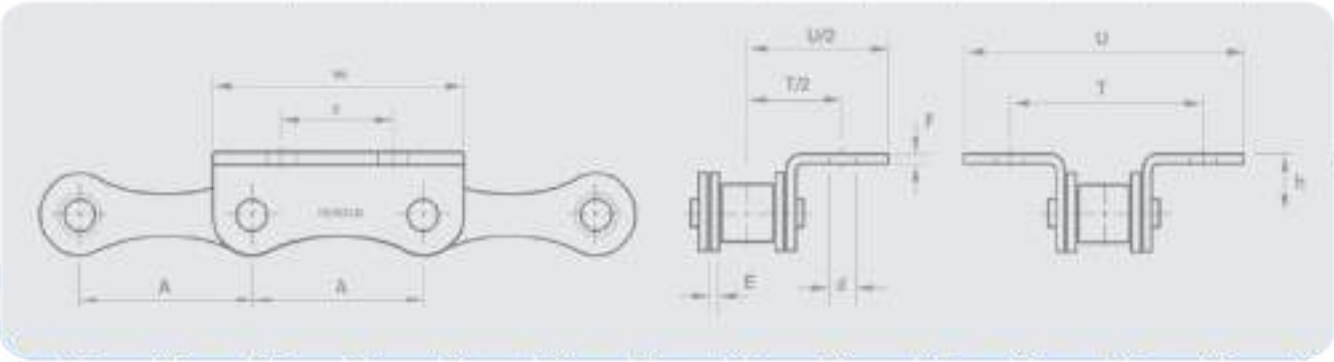
ANSI B29.100 / ISO 606 (Straight/Waist Plate)



Chain Ref.		Technical Details (mm)								
RENOLD CHAIN No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness inner	Plate Thickness Outer	Att. length nominal	Plat form height	Att. hole dia (min.)	Transverse distance b/w holes center	Z-nominal
ANSI Standard K1										
		A	A	E	F	W	h	d	T	U
LNC 2040	C2040	1.000	25.40	1.51	1.51	23.80	9.12	3.33	25.40	40.60
LNC 2050	C2050	1.250	31.75	2.00	2.00	25.40	11.13	5.08	31.76	48.90
LNC 2060	C2060	1.500	38.10	2.40	2.39	28.60	14.68	5.08	42.88	58.00
LNC 2060H	C2060H	1.500	38.10	3.17	3.17	28.60	14.68	5.08	42.88	61.60
LNC 2080H	C2080H	2.000	50.80	4.00	3.75	38.10	19.05	6.63	55.58	81.40

Double Pitch K2 Attachments

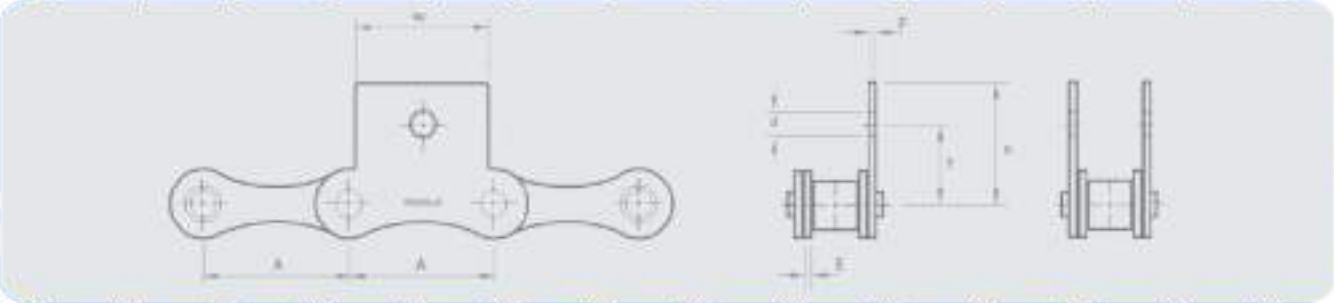
ANSI B29.100 / ISO 606 (Straight/Waist Plate)



Chain Ref.		Technical Details (mm)									
RENOLD CHAIN No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness inner	Plate Thickness Outer	Att. length nominal	Plat form height	Att. hole dia (min.)	Transverse distance b/w holes center	Z-nominal	Att. hole Pitch
		A	A	E	T	W	h	d	T	U	S
LNC 2040	C2040	1.000	25.40	1.51	1.51	23.80	9.12	3.33	25.40	40.60	9.52
LNC 2050	C2050	1.250	31.75	2.00	2.00	25.40	11.13	5.08	31.76	48.90	11.91
LNC 2060	C2060	1.500	38.10	2.40	2.39	28.60	14.68	5.08	42.88	58.00	14.27
LNC 2060H	C2060H	1.500	38.10	3.17	3.17	28.60	14.68	5.08	42.88	61.60	14.27
LNC 2080H	C2080H	2.000	50.80	4.00	3.75	38.10	19.05	6.63	55.58	81.40	19.05

M1 Attachments

ANSI B29.100 / ISO 606 (Straight/Waist Plate)



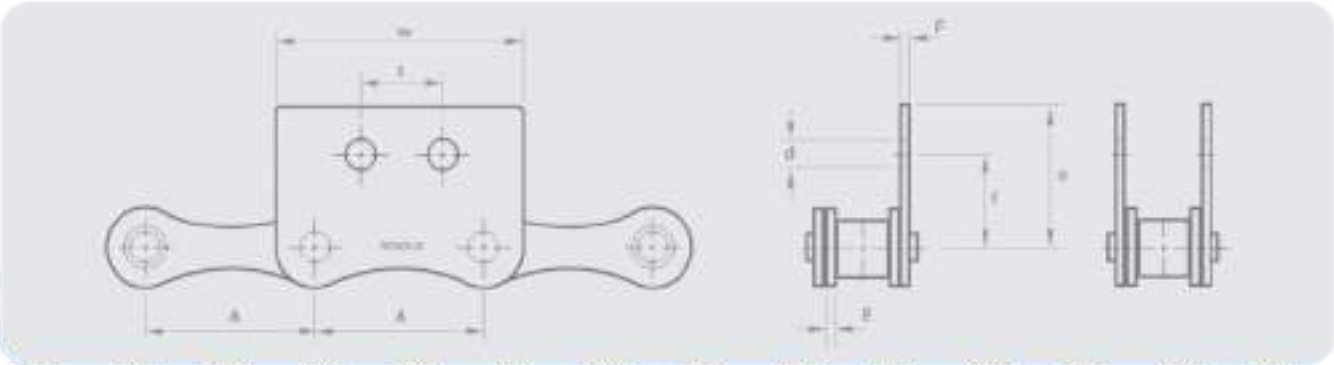
Chain Ref.		Technical Details (mm)							
RENOLD CHAIN No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Att. length nominal	Att. Plate height nominal	Plate form height	Att. hole dia (min.)

ANSI Standard M1

		A	J	E	F	W	H	f	z
LNC 2040	C2040	1.000	25.40	1.51	1.51	23.80	20.90	11.12	3.33
LNC 2050	C2050	1.750	31.75	2.00	2.00	25.40	24.90	14.27	5.08
LNC 2060	C2060	1.500	38.10	2.40	2.39	28.60	30.20	17.48	5.08
LNC 2060H	C2060H	1.500	38.10	3.17	3.17	28.66	30.20	17.48	5.08
LNC 2080H	C2080H	2.000	50.80	4.00	3.75	38.10	-	22.22	6.63

M2 Attachments

ANSI B29.100 / ISO 606 (Straight/Waist Plate)



Chain Ref.		Technical Details (mm)								
RENOLD CHAIN No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Plate height nominal	Plat form height	Att. hole dia (min.)	Att. length nominal	Att. hole pitch nominal

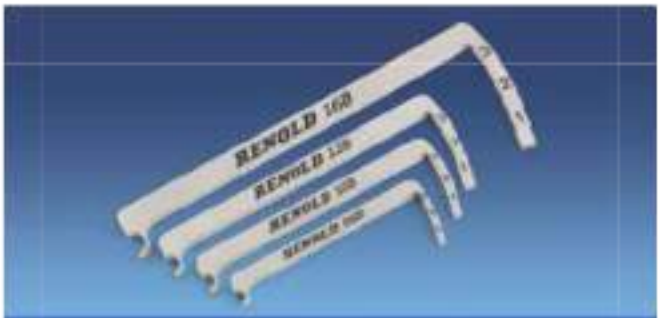
ISO Standard

		A	A	E	F	H	f	z	W	t
LNC2080H	C2060H	2.00	50.80	4.00	3.75	40.50	25.40	6.63	38.1	15.05

Chain Pin Extractor

Do you have to grind chain to cut it? Renold makes cutting chain easy. Using the Renold Chain Pin Extractor cutting chain is effortless, it takes just seconds and there's no mess.

www.renoldpinextractor.com



Chain Wear Guide

Measure chain extension easily and accurately with chain wear guides from Renold. Running a worn chain will reduce efficiency. Available individually or as a set, these tools help you to improve your chain drive performance, prevent accelerated sprocket tooth wear and minimise operational noise.

www.chainwearguide.com

Renold Klik-Top polymer block chain

Renold Klik-Top polymer block chain is a modern alternative to conventional polymer block chain. If you need to remove a Klik-Top block it's easy, no need to disassemble the chain. Renold: making life easier!

Renold Chain Selector

The new Chain Selector from Renold has been launched, making it even easier to specify the right transmission chain for the job. You can quickly and easily generate a selection, alter parameters to include environmental factors like corrosion or lubrication and even allow for applications with shock loads.

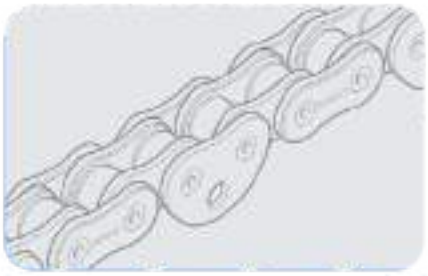
www.renoldchainselector.com

Section 2

Industry Applications

Table of Contents

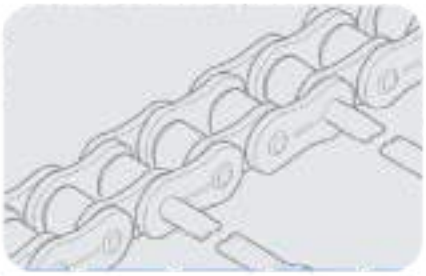
Special Engineered Chain



Aircraft chain

- 8mm to 12.7mm pitch
- Conforms to BAe spec.

Renold aircraft chain provides a flexible connection for use in control systems and other operating gear, including the transmission of power, where a positive tension is required.



Can manufacture

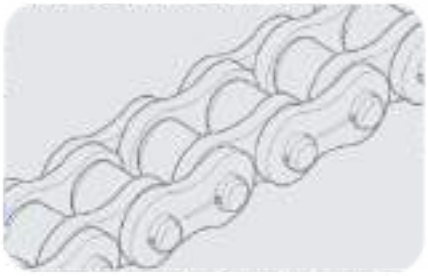
- 9.05mm and 25.4mm pitch chain.

Standard and hollow bearing pin transmission chain fitted with plastic tipped, extended bearing pins used for transporting freshly painted cans through drying ovens. Special high temperature lubricant available on this product.

Escalator drive chain

- 584107
- 25.4mm pitch
- Breaking load 129.4 kN.

Two strands of matched chain connected by extended bearing pins and fitted with plastic rollers for silent drives in escalators.



Marine diesel chain

- 110245, 110281, 110325 and 110366.

Matched in sets of two or three strands acting as timing chains within large marine diesel engines.

Pipe wrench chain - oil industry

- 586 927
- 31.75mm pitch.

The oil industry use a pipe wrench chain system to assemble 'Down Hole Pipes'.

Polythene film production

- 6.35mm to 38.1mm pitch.

Sharpened spiked shaped attachments pierce the polythene and pulls it through various production processes.

Quarry chain - for rock drilling

- ANSI HV series 50.8mm pitch.

Face rock drilling machines with six chain driven heads are used to drill holes for explosive charges.

Sheet metal handling

- 19.05mm pitch and 25.4mm pitch chain.

'Bent-claw' attachments hold square rods which support steel sheets through printing and drying processes.

Small component manufacture

- 8mm, 12.7mm and 15.8mm pitch chain.

A typical V-shaped attachment plate used to locate small electrical components such as resistors and capacitors, through various production processes. The chains generally run in pairs with plates formed to suit specific products.

Chocolate Industry Chain

Renold supplies a comprehensive range of chain to meet the demands of manufacturing confectionary products. Environmental requirements such as hygiene are catered for as well as considerations such as corrosion and wear resistance.

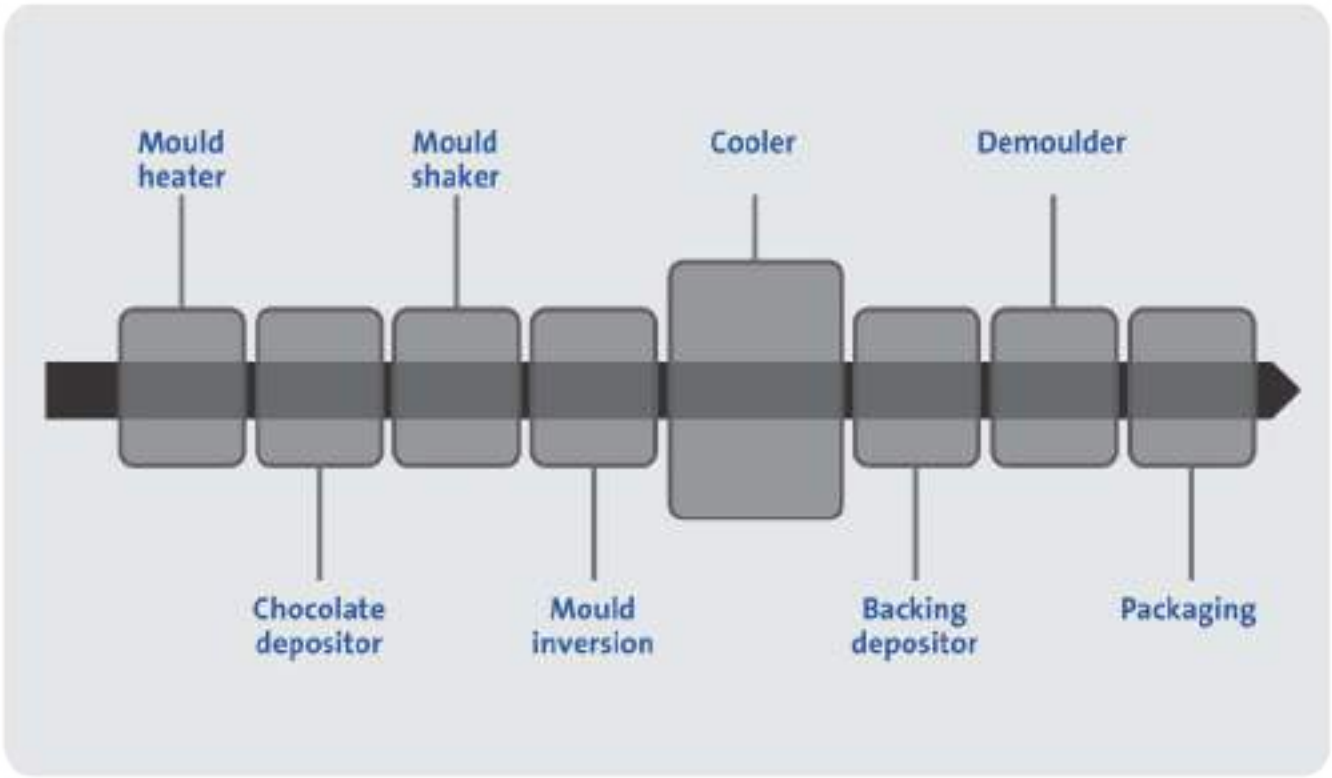
Standard and non-standard attachments are available to suit your needs. Renold has the experience to provide products and support to keep your high volume production lines operational.

We don't just provide products that make a difference;

you get the best services from Renold too!

At every stage of the process Renold provides exactly what you need.

Precision in our chain ensures accurate indexing of moulds along a production line, minimising waste chocolate.



Food Industry Chain

One of the largest and most diverse industries imaginable, the processing, manufacturing and packaging of the world's food products delivers challenges to engineers looking to meet tough productivity targets. This requires first class technical support and the right product for the job.

Renold offers the most comprehensive range of chain products designed for the food industry and works with many of the leading international brand names that we encounter every day.

Chain aimed at reducing maintenance, delivering high levels of resistance to wear, fatigue and corrosion and keeping your production levels at their highest; that's our speciality!

Renold has options, whatever your application environment!

Conditions	The Chain Solution	
Washdown	Syno PB Stainless steel chain	Hydro-Service chain Nickel plated chain Polymer bushed conveyor chain
Corrosive conditions - Mild (pH between 5 and 7)	Syno NP [3,4] Stainless Steel [1,3,4] Steriliser chain [1,3,4]	Polymer bushed conveyor chain [3,4] Hydro-Service chain [3] Nickel Plated [3,4]
Corrosive conditions - High (pH below 5 and above 7; temperatures above 60°c)	Nickel Plated	Stainless Steel [2]
Cannot lubricate	Syno NP	Syno PB
Direct contact with food	Stainless steel	
High shock loads	Standard roller chain Standard conveyor chain	Engineering class chain
Heavy loads	Standard conveyor chain	Renold Synergy
Temperature: Hot or Cold (Between -40°C and 180°C. Above 180°C special lubrication would be required)	Stainless steel Steriliser chain	Standard conveyor chain Engineering class chain
High humidity	Stainless steel Hydro-Service	Steriliser chain
High speed	Standard roller chain Double Pitch roller chain	Can feeder chain
Vertical system	Standard roller chain	Engineering class chain
Indexing / moulding applications	Standard roller chain	Apron chain
High Abrasion	Sovereign	

1 = Suitable for temperatures over 60°C (stainless steel and steriliser chain)

2 = Suitable for highly corrosive conditions of more than 60°C (stainless steel)

3 = Suitable for environments associated with general corrosion

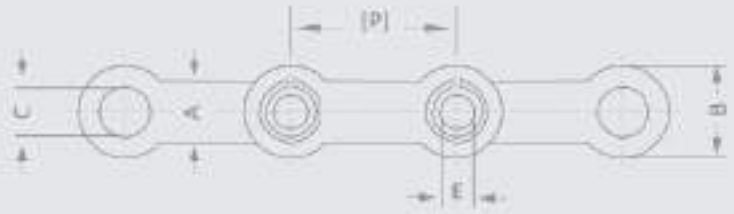
4 = Suitable for environments associated with pitting or crevice corrosion such as salt water, moderately high temperatures or a pH of 5 - 8

5 = Suitable for environments associated with galvanic corrosion

TEXTILE MILL CATALOG

Carding Machinery Chains For Textile Mills

High Tensile, High Speed - Flat Card Chains

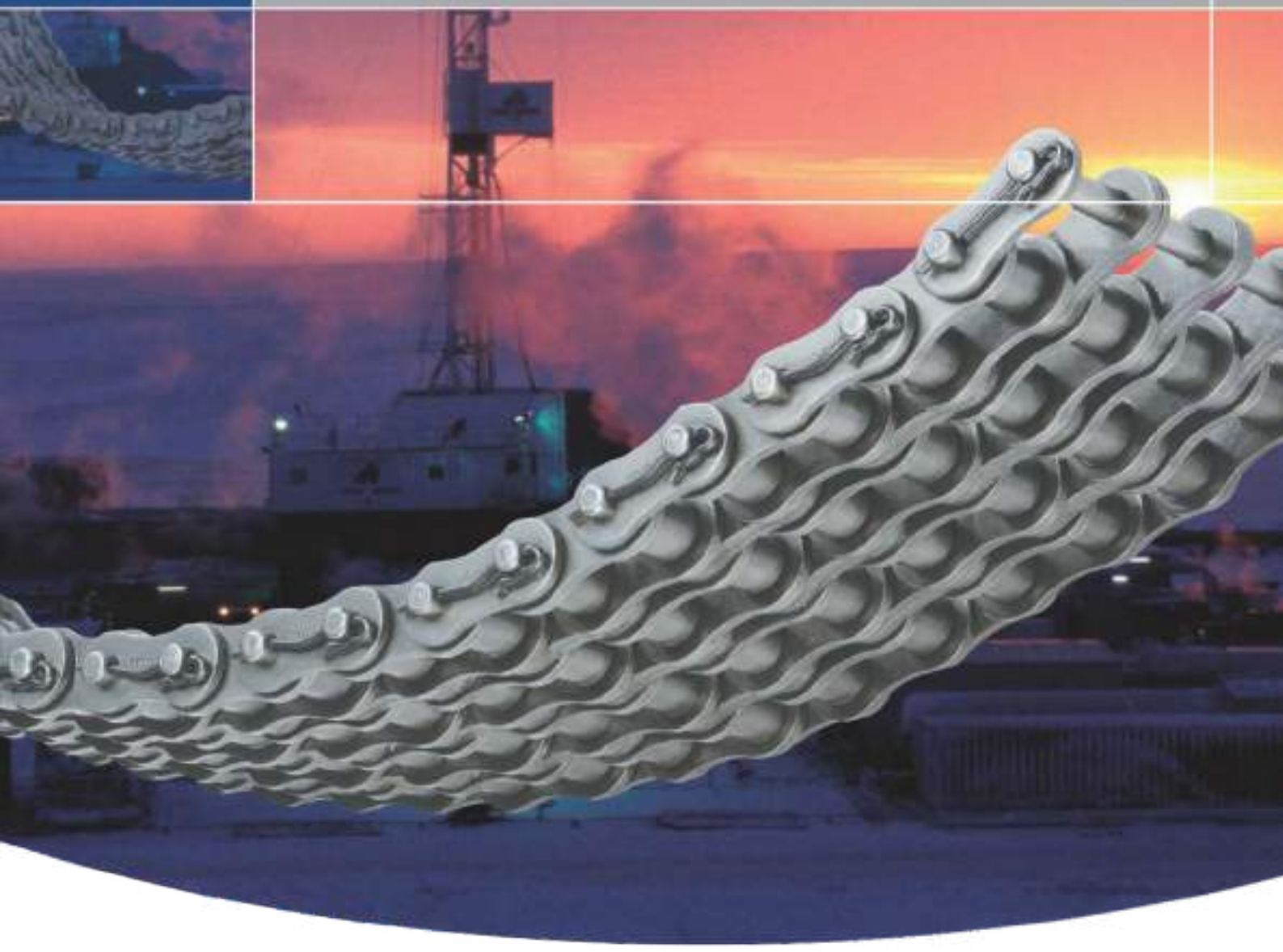


Chain Ref.	Technical Details (mm)								
RENOLD CHAIN No.	Pitch P mm	Stay Width A mm	Plate Width B mm	Plate Bore C (min.) mm	Bush Head Dia. mm	Bush Bore E mm	Bush Height mm	Plate Thickness mm	Application
FD 365111 HT	36.51	11.10	22.20	13.00	15	9.50	14.10	2.65	MMC, H&B, T&S, Textool
FD 365127 HT	36.51	12.70	22.20	13.00	15	9.50	14.10	2.65	Brooks & Doxey Hetherington
FD 365158 HT	36.55	15.88	22.20	13.00	15	10.10	15.80	2.64	Trumac
FD 365159 HT	36.51	15.88	22.20	13.00	15	9.50	14.10	2.65	Platt Bros
FD 365160 HT	36.50	16.00	23.50	15.03	15	10.00	15.50	2.65	Trumac
FD 365167 HT	36.51	16.70	22.20	13.00	15	9.50	14.10	2.65	Toyoda
FD 373960 HT	37.30	9.60	22.20	13.00	15	9.50	14.10	2.65	D & B
SC 66	36.51	16.70	22.20	13.03	14	8.20	18.20	2.75	Lakshmi Rieter
SC 134	38.00	14.30	22.20	13.00	15	10.0	15.70	2.64	NSE

Slow Speed - Flat Card Chain

FD 365111 CT	36.51	11.10	22.20	13.00	15	9.50	14.10	2.65	MMC, H&B, T&S, Textool
FD 365127 CT	36.51	12.70	22.20	13.00	15	9.50	14.10	2.65	Brooks & Doxey Hetherington
FD 365159 CT	36.51	15.88	22.20	13.00	15	9.50	14.10	2.65	Platt Bros
FD 365167 CT	36.51	16.70	22.20	13.00	15	9.50	14.10	2.65	Toyoda
FD 373960 CT	37.30	9.60	22.20	13.00	15	9.50	14.10	2.65	D & B
SC 127	36.51	16.70	22.20	13.00	15	9.50	14.10	2.75	MMC - XLIO

Oilfield Chain



RENOLD

Superior Chain Technology

www.renold.in

Renold Oilfield Chain

Unique Quality and Performance

Leading edge technology

Renold provides practical cost effective solutions, with a commitment of value through quality. This is achieved by continuous investment in people, process technology and manufacturing.

Package solutions

One stop for your drive systems, including roller and conveyor chain, gears, motors, couplings, variators and fabricated bases.

Special solutions and innovations

Renold is recognised throughout the industry for its capability to create specific solutions to customers' unique requirements. International companies and industries from steel to food processing to escalators to textile machinery have chosen Renold to solve their problems.

Consistent reliability

Renold's 100 years of experience in the design and manufacture of power transmission products, to the highest specifications, with proven performance in diverse industries worldwide, underwrites the guaranteed quality and the assurance of reliability.

Service excellence and care

Renold offers a unique level of service excellence and customer care. Our experienced applications engineers will select the optimum solution with the aid of the latest computer and design technology. Renold is the name for service, care and peace of mind.

Local and international availability

The Renold organisation stretches world-wide.

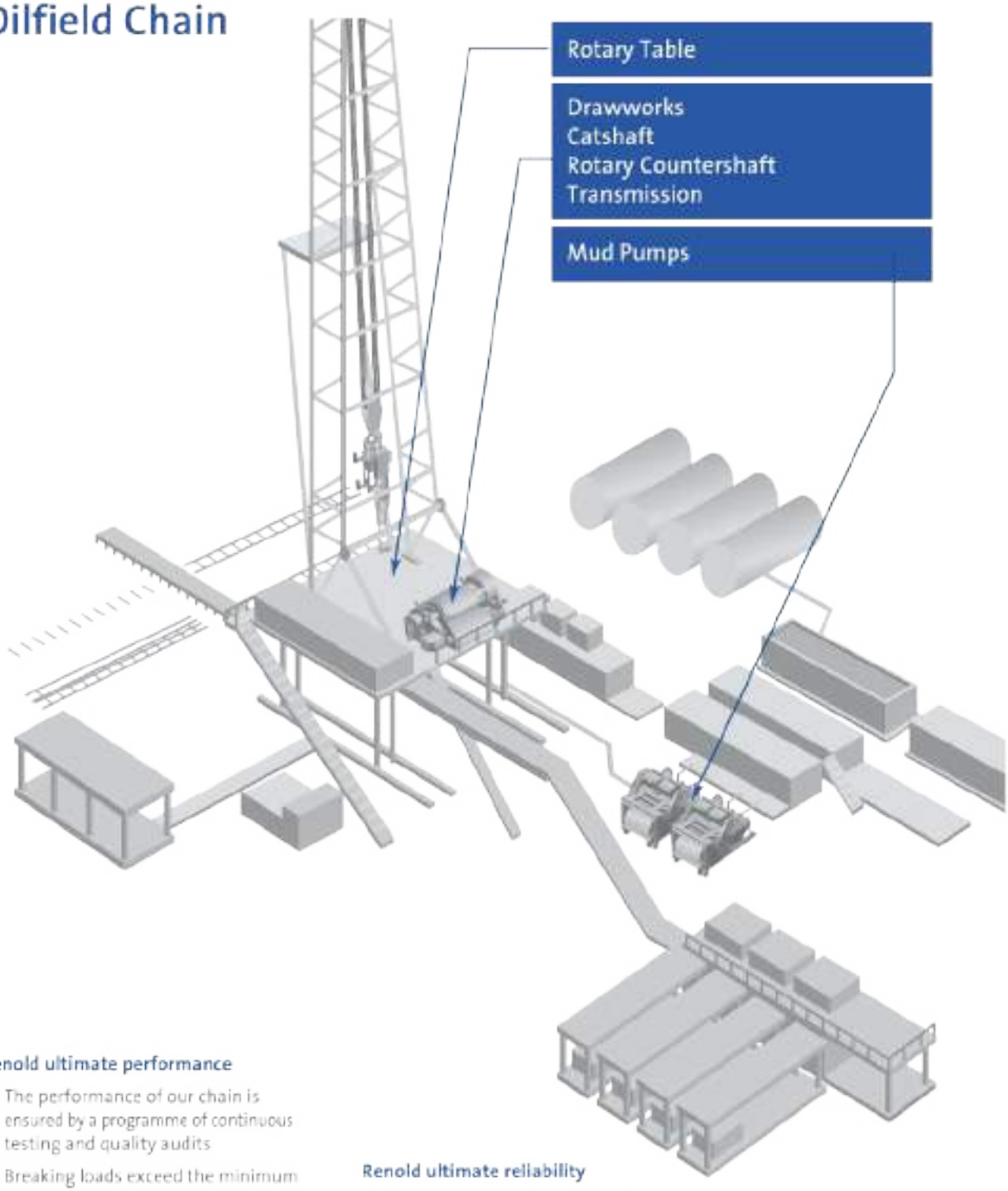
- 18 National Sales Companies
- Over 70 Overseas Distributors offering the comprehensive Renold range of power transmission products

Chain for oil extraction

Renold can supply all your chain requirements for oil extraction. Chains for applications including mud pump drives, draw works, transmission drives, catshafts, coil tubing injector heads and rotary countershafts and tables make up a comprehensive range of industry-proven, high specification products.

Photo Courtesy of Fluid Design Solutions Inc.

Oilfield Chain



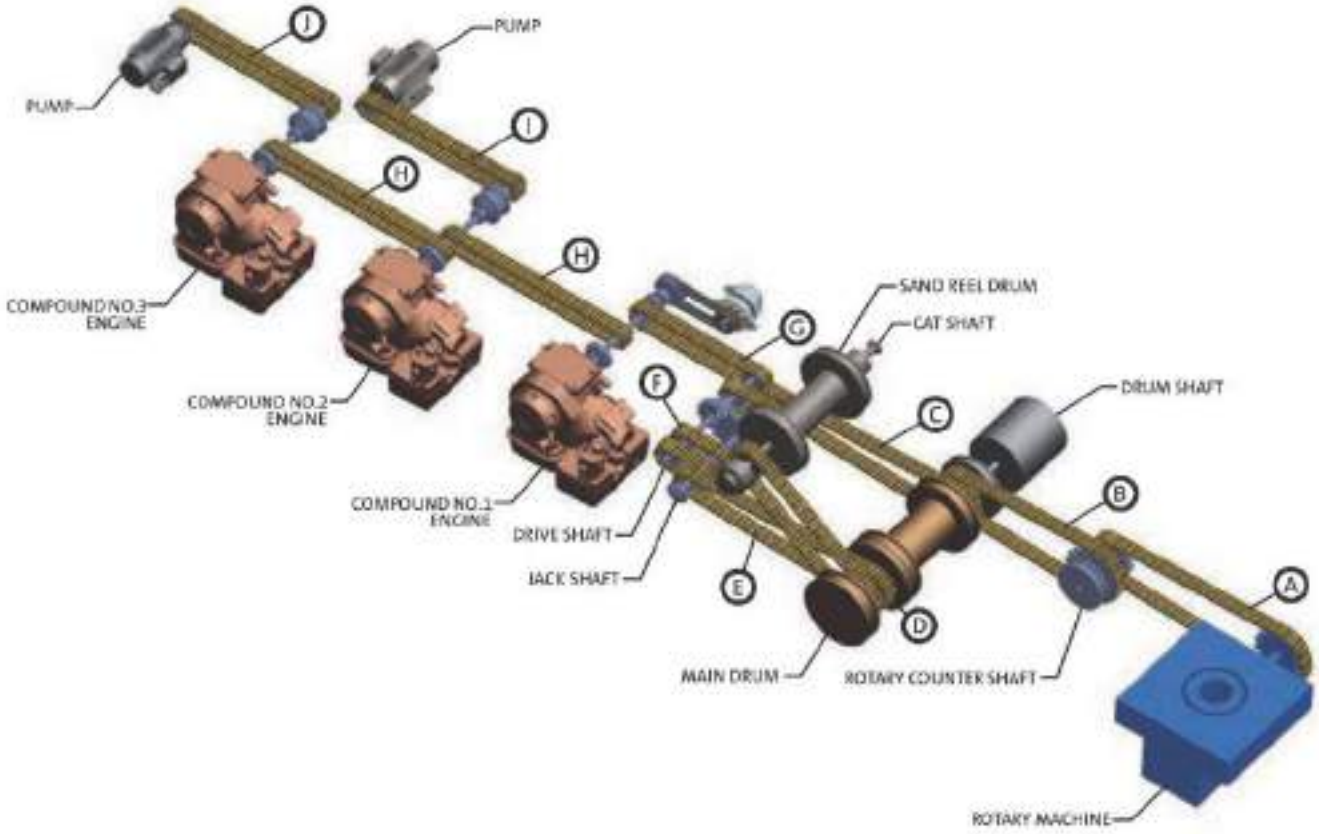
Renold ultimate performance

- The performance of our chain is ensured by a programme of continuous testing and quality audits
- Breaking loads exceed the minimum international standards
- Our specially formulated lubricants reduce initial wear, give corrosion protection and ensure long storage life
- Renold chain is highly fatigue resistant giving up to four times the life of other brands
- Fatigue life is enhanced by shot peening and other pre-stressing techniques

Renold ultimate reliability

- The key to the reliability of Renold chain is consistency in design and manufacture
- Renold's sophisticated quality assurance systems continually monitor and improve our output
- For more than 100 years Renold has had a proven track record in demanding, arduous industries

Renold Oilfield Chain



Horsepower table

S.No.	Chain Drive	4000	3000	2000	1500	1000	750	500
A	Rotary Table	160-2	160-2 200H-1	160-2	160-2 140-2	140-2 160-1	140-2 160-1	140-1 120-1
B	Rotary Countersaft	160-2 200H-1	160-2	160-2 140-2	160-2 160-3	140-2 160-1	140-2 120-1	140-1 160-1
C	High Drum	240-3	200H-3	160-4	160-3	140-3 160-2	160-2 140-2	120-3 140-2
D	Low Drum	240-3	200H-3	160-4	160-3	140-3 160-2	160-2 140-3	120-3 140-2
E	Catshaft	160-2	160-1 200H-1	160-2	160-1 140-2	160-1 140-2	160-1 140-2	140-1 120-1
F	Transmission	140-8	160-4 200H-3	160-4 160-3	160-3	160-2 140-3	140-2	120-2 100-3
G	Draw Works Input	140-8	120-8	120-6	120-4	120-3 120-4	100-4	100-3 100-4
H	Compound	140-8	120-8	120-6	120-4	120-3 120-4	100-4 120-4	100-3
I & J	Mud Pump Drives	140-8	120-8	120-8 120-6	120-6 120-4	120-4 120-3	100-6 100-4	100-4 100-3

Renold Oilfield Chain is best because...

Renold Oilfield Chain

- Manufactured to API specification 7F
- Proven longer life in offshore environments
- Supreme performance at high speed and shock loads
- Excellent return on investment

Function

Renold oilfield chains are used on:

- Mud pump drives
- Engine compounds
- Tubular and casing draw works input
- Transmission drives
- Catshafts
- Low and high drum
- Rotary countershafts
- Rotary tables

In fact wherever chains are required in oilfields because reliability is paramount.

Key Features

- Close control of material specifications to ensure consistent response to heat treatment
- Renold's plate profile ensures optimum stress distribution for greater reliability
- Fatigue life is enhanced by shot peening and other pre-stressing processes on plates, bushes and rollers
- Renold's special holing processes for oilfield chain were specifically developed to give improved fatigue resistance while minimising susceptibility to stress corrosion cracking
- Bearing pins undergo customised heat treatment and surface finish operations to ensure unsurpassed toughness and wear life
- Closely controlled tolerances ensure smooth robust running even at high speeds.
- Specially formulated factory lubrication gives substantially better initial wear performance and enhanced corrosion resistance.
- Detachable chains for ease of fitting and replacement.
- All chains are proof loaded before packing in durable containers.
- Roll pins optional for extra security.

Product Description

As standard Renold offer chain:

- To API specification 7F
- Fully detachable along its length
- Both Split and roll pin options are available on all sizes, although roll pin recommended on quadruplex and above
- With slip fit intermediate plates

Options available on request include:

- Split pins/roll pins
- Press fit intermediate plates
- Special lubrication
- Renold ANSI Xtra for particularly arduous conditions
- Pipe wrench chain

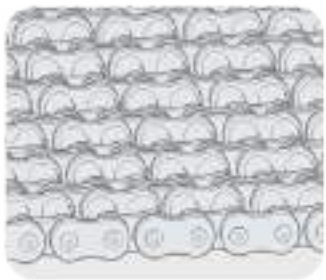
Many common oilfield chains are held in stock at our factories and many outlets worldwide.

Chain types

▲ Duplex chain
Standard
ANSI B29.1 ISO 606 A

▲ Quadruplex chain
Standard
ANSI B29.1 ISO 606 A

▲ Sextuplex chain
Standard
ANSI B29.1 ISO 606 A



▲ Octuplex chain
Standard
ANSI B29.1 ISO 606 A

▲ Pipe wrench chain
Special

Renold Oilfield Chain is best because...

Bearing Pins

Renold pins are case hardened and centreless ground producing perfectly cylindrical diameters with extremely high surface hardness, maximizing wear life.

Bush

The geometrically designed Renold bush facilitates optimum fits in the plates, substantially improving resistance to fatigue.

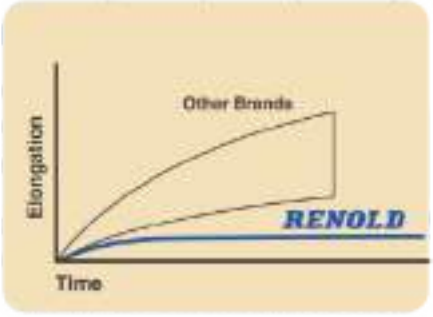
Roller

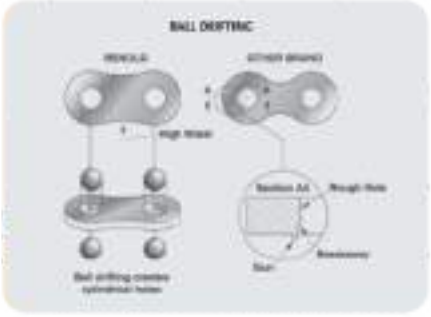
Roller and bush life are maximized by the use of precision components and the careful selection and control of the heat treatment process.

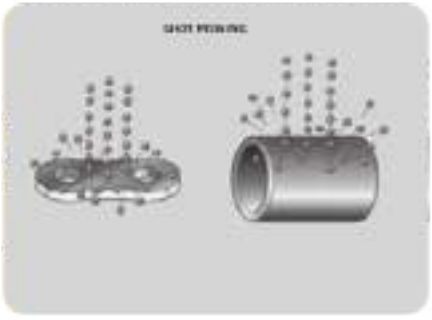
Closely controlled tolerances ensure smooth robust running even at high speeds.

Renold ultimate performance

- The performance of our chain is ensured by a programme of continuous testing and quality audits
- Breaking loads exceed the minimum international standards
- Our specially formulated lubricants reduce initial wear, give corrosion protection and ensure long storage life
- Renold chain is highly fatigue resistant. Fatigue life is enhanced by shot peening and other pre-stressing techniques







Shepherd's Crook cotter standard on sizes 80 to 160

Inner Plate

The high waisted plate shape, also pioneered by Renold, ensures optimum stress distribution.

Outer Plate

Renold pioneered ball drifting to create precisely controlled holes, which combined with other Renold process technology improves fatigue resistance and enhances wear performance

Fatigue life is substantially improved by optimizing interference fits and controlling plate hole quality.

Renold Oilfield Chain

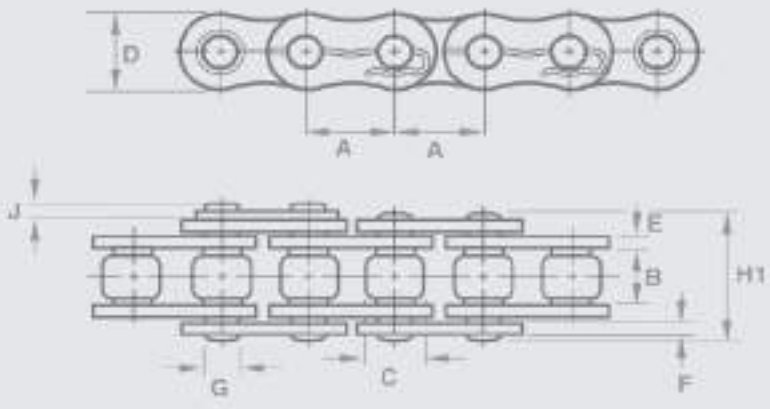
- Manufactured to API specification 7F
- Proven longer life in offshore environments
- Supreme performance at high speed and shock loads
- Excellent return on investment
- All chains are proof loaded before packing in durable containers
- Other cotter styles optional

Function

Renold oilfield chains are used on:

- Mud pump drives
- Engine compounds
- Tubular and casing draw works input
- Transmission drives
- Catshafts
- Coil tubing injector gripper and skate chains
- Low and high drum
- Rotary countershafts
- Rotary tables

In fact wherever chains are required in oilfields because reliability is paramount.



Connecting links Simple through to Multiplex

No 4

No 11/38

Oilfield Industry - ANSI Standard Chain

ISO 606 / ANSI B29.1M / API-7F

ANSI - Simplex & Multiplex

Chain Ref.		Technical Details (mm)												
RENOLD CHAIN No.	ANSI No.	Pitch (inch)	Pitch (mm)	Inside Width Nom	Roller Diam Max	Plate Height Max	Inner Plate Thickness Max	Outer Plate Thickness Max	Pin Diam Nom	Pin Length Max	Conn Link Extension Max	Transverse Pitch Nom	ISO606 Tensile Strength Min	Mass kg/m
		A	A	B	C	D	E	F	G	H1	J	K	(N)*	
FS80V-1C	80-1	1.000	25.40	15.88	15.88	23.80	3.18	3.18	7.92	38.10	3.00	-	55600	2.800
FS80V-2C	80-2	1.000	25.40	15.88	15.88	23.80	3.18	3.18	7.92	60.40	3.00	29.29	111200	5.500
FS80V-3C	80-3	1.000	25.40	15.88	15.88	23.80	3.18	3.18	7.92	97.70	3.00	29.29	166800	8.300
FS80V-4C	80-4	1.000	25.40	15.88	15.88	23.80	3.18	3.18	7.92	127.00	3.00	29.29	222400	11.200
FS80V-5C	80-5	1.000	25.40	15.88	15.88	23.80	3.18	3.18	7.92	156.26	3.00	29.29	278,000	-
FS80V-6C	80-6	1.000	25.40	15.88	15.88	23.80	3.18	3.18	7.92	185.50	3.00	29.29	333600	16.800
FS80V-8C	80-8	1.000	25.40	15.88	15.88	23.80	3.18	3.18	7.92	244.10	3.00	29.29	444800	22.400
FS100V-1C	100-1	1.250	31.75	19.05	19.05	29.40	3.96	3.96	9.53	47.10	4.20	-	86870	4.200
FS100V-2C	100-2	1.250	31.75	19.05	19.05	29.40	3.96	3.96	9.53	82.80	4.20	35.76	173740	8.400
FS100V-3C	100-3	1.250	31.75	19.05	19.05	29.40	3.96	3.96	9.53	118.60	4.20	35.76	260610	12.600
FS100V-4C	100-4	1.250	31.75	19.05	19.05	29.40	3.96	3.96	9.53	154.40	4.20	35.76	347480	16.800
FS100V-5C	100-5	1.250	31.75	19.05	19.05	29.40	3.96	3.96	9.53	190.14	4.20	35.76	521220	21.000
FS100V-6C	100-6	1.250	31.75	19.05	19.05	29.40	3.96	3.96	9.53	225.90	4.20	35.76	1389920	25.200
FS100V-8C	100-8	1.250	31.75	19.05	19.05	29.40	3.96	3.96	9.53	297.40	4.20	35.76	694960	-
FS120V-1C	120-1	1.500	38.10	25.40	22.23	36.30	4.75	4.75	11.10	58.30	5.30	-	125100	5.700
FS120V-2C	120-2	1.500	38.10	25.40	22.23	36.30	4.75	4.75	11.10	101.80	5.30	45.44	250200	11.000
FS120V-3C	120-3	1.500	38.10	25.40	22.23	36.30	4.75	4.75	11.10	145.20	5.30	45.44	375300	16.700
FS120V-4C	120-4	1.500	38.10	25.40	22.23	36.30	4.75	4.75	11.10	194.60	5.30	45.44	500400	22.800
FS120V-5C	120-5	1.500	38.10	25.40	22.23	36.30	4.75	4.75	11.10	240.86	5.30	45.44	625500	-
FS120V-6C	120-6	1.500	38.10	25.40	22.23	36.30	4.75	4.75	11.10	285.50	5.30	45.44	750600	33.500
FS120V-8C	120-8	1.500	38.10	25.40	22.23	36.30	4.75	4.75	11.10	376.40	5.30	45.44	1000800	44.650
FS140V-1C	140-1	1.750	44.45	25.40	25.40	42.30	5.56	5.56	12.70	63.30	5.20	-	178270	7.800
FS140V-2C	140-2	1.750	44.45	25.40	25.40	42.30	5.56	5.56	12.70	148.20	5.20	48.87	348540	15.500
FS140V-3C	140-3	1.750	44.45	25.40	25.40	42.30	5.56	5.56	12.70	141.10	5.20	48.87	510810	23.100
FS140V-4C	140-4	1.750	44.45	25.40	25.40	42.30	5.56	5.56	12.70	208.80	5.20	48.87	681080	30.800
FS140V-5C	140-5	1.750	44.45	25.40	25.40	42.30	5.56	5.56	12.70	258.78	5.20	48.87	851350	-
FS140V-6C	140-6	1.750	44.45	25.40	25.40	42.30	5.56	5.56	12.70	307.70	5.20	48.87	1021620	45.240
FS140V-8C	140-8	1.750	44.45	25.40	25.40	42.30	5.56	5.56	12.70	405.40	5.20	48.87	1362160	-
FS160V-1C	160-1	2.000	50.80	31.75	28.58	48.30	6.35	6.35	14.27	74.90	6.50	-	222400	10.400
FS160V-2C	160-2	2.000	50.80	31.75	28.58	48.30	6.35	6.35	14.27	131.80	6.50	58.55	444800	20.600
FS160V-3C	160-3	2.000	50.80	31.75	28.58	48.30	6.35	6.35	14.27	191.60	6.50	58.55	667200	31.000
FS160V-4C	160-4	2.000	50.80	31.75	28.58	48.30	6.35	6.35	14.27	250.10	6.50	58.55	889600	41.200
FS160V-5C	160-5	2.000	50.80	31.75	28.58	48.30	6.35	6.35	14.27	308.70	6.50	58.55	1112000	-
FS160V-6C	160-6	2.000	50.80	31.75	28.58	48.30	6.35	6.35	14.27	367.20	6.50	58.55	1334400	-
FS160V-8C	160-8	2.000	50.80	31.75	28.58	48.30	6.35	6.35	14.27	484.30	6.50	58.55	1779200	-
FS180V-1C	180-1	2.250	57.15	35.49	35.71	54.30	7.14	7.14	17.45	83.30	9.10	-	281470	-
FS180V-2C	180-2	2.250	57.15	35.49	35.71	54.30	7.14	7.14	17.45	149.20	9.10	65.84	562940	-
FS180V-3C	180-3	2.250	57.15	35.49	35.71	54.30	7.14	7.14	17.45	215.00	9.10	65.84	844410	-
FS180V-4C	180-4	2.250	57.15	35.49	35.71	54.30	7.14	7.14	17.45	280.80	9.10	65.84	1125880	-
FS200V-1C	200-1	2.500	63.50	38.10	39.68	60.20	7.92	7.92	19.84	90.50	9.00	-	347500	17.300
FS200V-2C	200-2	2.500	63.50	38.10	39.68	60.20	7.92	7.92	19.84	162.10	9.00	71.55	695000	34.400
FS200V-3C	200-3	2.500	63.50	38.10	39.68	60.20	7.92	7.92	19.84	233.60	9.00	71.55	1042500	51.200
FS200V-4C	200-4	2.500	63.50	38.10	39.68	60.20	7.92	7.92	19.84	305.20	9.00	71.55	1390000	68.240
FS240V-1C	240-1	3.000	76.20	47.63	47.63	72.40	9.53	9.53	23.80	109.80	10.50	-	500400	25.000
FS240V-2C	240-2	3.000	76.20	47.63	47.63	72.40	9.53	9.53	23.80	191.70	10.50	77.83	1000800	-
FS240V-3C	240-3	3.000	76.20	47.63	47.63	72.40	9.53	9.53	23.80	285.50	10.50	77.83	1501200	-
FS240V-4C	240-4	3.000	76.20	47.63	47.63	72.40	9.53	9.53	23.80	371.30	10.50	77.83	2001600	-

NB: From ANSI 80 to ANSI 160 Chains Shepherd's Crook option available. For ANSI 200 and ANSI 240 Chains T-pin option available.
Before specifying / using crank links or other connecting links please consult Renold.
For Through Hardened pin design, the Renold chain number is AV80V1C.

Note : Riveted type chains are available in all sizes with MOQ.

Oilfield Industry - ANSI Xtra Chain

RENOLD ANSI XTRA...

Shock resistant

Fatigue resistant

High loads

... THE HEAVY DUTY CHAIN

Product description

RENOLD ANSI XTRA chain incorporates the usual Renold performance enhancing features including seamless bushes, ball drifted plate holes, shot peening and optimum interference fits. The extra features incorporated into this range of chain is classified by:

- Thicker side plates denoted by 'H'. These plates are approximately 20% thicker than standard ANSI chain
- Through hardened pins, denoted by 'V' (used commonly in our Coil Tubing Injector chain replacement kits)

Product summary

H Range - Identical to standard ANSI chain with the exception of the overal width. Thicker plates give this chain excellent resistance to heavy loads and help absorb shock. Duplex and triplex chain must have sprockets with an increased transverse pitch of the teeth.

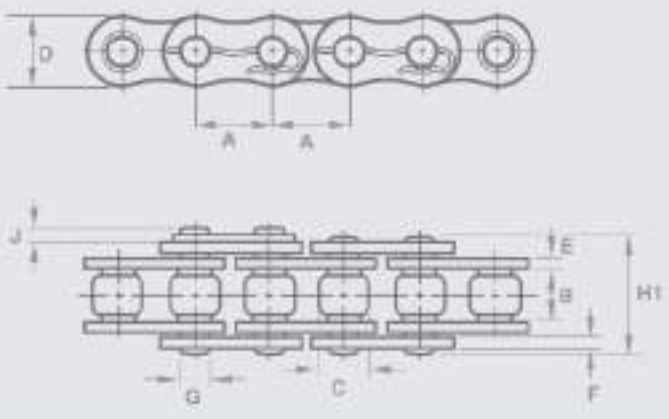
V Range - Identical dimensions to standard ANSI chain but with a higher breaking load and excellent resistance to shock loads.

HV Range - A combination of the 'H' and 'V' chain, giving excellent resistance to both heavy and shock loads.

A further enhancement to the chain life can be achieved by hardening the sprocket teeth of the drive. 'H' and 'HV' chains are designed for improved fatigue life, therefore offset and slip fit joints which have a lower fatigue resistance are not recommended.

Shown below is an easy to use features guide to help in selecting chain to suit its application.

Chain Type	Strength	Wear	Heavy Loads	Shock Loads	High Speed
Standard ANSI	Good	Excellent	Good	Good	Excellent
XTRA H Range	Good	Excellent	Excellent	Good	Not Suitable
XTRA V Range	Excellent	Good	Good	Excellent	Good
XTRA HV Range	Excellent	Good	Excellent	Excellent	Not Suitable



Oilfield Industry - ANSI Xtra Chain

Simplex & Multiplex

ANSI XTRA - Simplex & Multiplex

Chain Ref.		Technical Details (mm)												
RENOLD CHAIN No.	ANSI No.	Pitch (inch)	Pitch (mm)	Inside Width Min	Roller Diam Max	Plate Height Max	Inner Plate Thickness Max	Outer Plate Thickness Max	Pin Diam Max	Pin Length Max	Cotter Link Extension Max	Transverse Pitch Nom	ISO606 Tensile Strength Min	Mass kg/m
		A	A	B	C	D	E	F	G	H1	I	K	[N]*	
FS80HV-1C	80HV-1	1.000	25.40	15.88	15.88	23.80	3.96	3.96	7.92	42.48	5.40	-	51600	3.300
FS80HV-2C	80HV-2	1.000	25.40	15.88	15.88	23.80	3.96	3.96	7.92	75.06	5.40	32.59	111200	6.600
FS80HV-3C	80HV-3	1.000	25.40	15.88	15.88	23.80	3.96	3.96	7.92	107.66	5.40	32.59	166800	9.900
FS80HV-4C	80HV-4	1.000	25.40	15.88	15.88	23.80	3.96	3.96	7.92	140.29	5.40	32.59	222400	-
FS80HV-5C	80HV-5	1.000	25.40	15.88	15.88	23.80	3.96	3.96	7.92	172.79	5.40	32.59	278000	-
FS80HV-6C	80HV-6	1.000	25.40	15.88	15.88	23.80	3.96	3.96	7.92	205.48	5.40	32.59	333600	-
FS80HV-8C	80HV-8	1.000	25.40	15.88	15.88	23.80	3.96	3.96	7.92	270.58	5.40	32.59	444800	-
FS100HV-1C	100HV-1	1.250	31.75	19.05	19.05	29.40	4.75	4.75	9.53	50.48	6.10	-	86870	4.800
FS100HV-2C	100HV-2	1.250	31.75	19.05	19.05	29.40	4.75	4.75	9.53	88.58	6.10	39.09	173740	10.300
FS100HV-3C	100HV-3	1.250	31.75	19.05	19.05	29.40	4.75	4.75	9.53	126.66	6.10	39.09	260610	15.500
FS100HV-4C	100HV-4	1.250	31.75	19.05	19.05	29.40	4.75	4.75	9.53	167.79	6.10	39.09	347960	-
FS100HV-5C	100HV-5	1.250	31.75	19.05	19.05	29.40	4.75	4.75	9.53	206.75	6.10	39.09	433700	-
FS100HV-6C	100HV-6	1.250	31.75	19.05	19.05	29.40	4.75	4.75	9.53	245.88	6.10	39.09	520440	-
FS100HV-8C	100HV-8	1.250	31.75	19.05	19.05	29.40	4.75	4.75	9.53	324.08	6.10	39.09	693920	-
FS120HV-1C	120HV-1	1.500	38.10	25.40	22.23	36.30	5.56	5.56	11.10	61.76	6.60	-	125000	6.300
FS120HV-2C	120HV-2	1.500	38.10	25.40	22.23	36.30	5.56	5.56	11.10	110.66	6.60	48.87	250000	12.600
FS120HV-3C	120HV-3	1.500	38.10	25.40	22.23	36.30	5.56	5.56	11.10	159.56	6.60	48.87	375000	18.800
FS120HV-4C	120HV-4	1.500	38.10	25.40	22.23	36.30	5.56	5.56	11.10	208.38	6.60	48.87	500000	-
FS120HV-5C	120HV-5	1.500	38.10	25.40	22.23	36.30	5.56	5.56	11.10	257.18	6.60	48.87	625000	-
FS120HV-6C	120HV-6	1.500	38.10	25.40	22.23	36.30	5.56	5.56	11.10	306.19	6.60	48.87	750000	-
FS120HV-8C	120HV-8	1.500	38.10	25.40	22.23	36.30	5.56	5.56	11.10	403.80	6.60	48.87	1000000	-
FS140HV-1C	140HV-1	1.750	44.45	25.40	25.40	42.30	6.35	6.35	12.70	66.68	7.40	-	173370	8.600
FS140HV-2C	140HV-2	1.750	44.45	25.40	25.40	42.30	6.35	6.35	12.70	118.80	7.40	52.20	340740	16.700
FS140HV-3C	140HV-3	1.750	44.45	25.40	25.40	42.30	6.35	6.35	12.70	171.00	7.40	52.20	511110	25.100
FS140HV-4C	140HV-4	1.750	44.45	25.40	25.40	42.30	6.35	6.35	12.70	223.20	7.40	52.20	681480	-
FS140HV-5C	140HV-5	1.750	44.45	25.40	25.40	42.30	6.35	6.35	12.70	275.40	7.40	52.20	851850	-
FS140HV-6C	140HV-6	1.750	44.45	25.40	25.40	42.30	6.35	6.35	12.70	327.60	7.40	52.20	1022226	-
FS140HV-8C	140HV-8	1.750	44.45	25.40	25.40	42.30	6.35	6.35	12.70	432.00	7.40	52.20	1362966	-
FS160HV-1C	160HV-1	2.000	50.80	31.75	28.58	48.30	7.14	7.14	14.27	77.88	7.90	-	222410	11.200
FS160HV-2C	160HV-2	2.000	50.80	31.75	28.58	48.30	7.14	7.14	14.27	139.76	7.90	61.90	444820	23.500
FS160HV-3C	160HV-3	2.000	50.80	31.75	28.58	48.30	7.14	7.14	14.27	201.60	7.90	61.90	667230	35.200
FS160HV-4C	160HV-4	2.000	50.80	31.75	28.58	48.30	7.14	7.14	14.27	263.57	7.90	61.90	889640	-
FS160HV-5C	160HV-5	2.000	50.80	31.75	28.58	48.30	7.14	7.14	14.27	325.40	7.90	61.90	1112050	-
FS160HV-6C	160HV-6	2.000	50.80	31.75	28.58	48.30	7.14	7.14	14.27	387.30	7.90	61.90	1334460	-
FS160HV-8C	160HV-8	2.000	50.80	31.75	28.58	48.30	7.14	7.14	14.27	511.10	7.90	61.90	1779280	-
FS180HV-1C	180HV-1	2.250	57.15	35.49	35.71	54.30	7.92	7.92	17.45	88.76	9.10	-	281570	15.200
FS180HV-2C	180HV-2	2.250	57.15	35.49	35.71	54.30	7.92	7.92	17.45	155.06	9.10	69.16	563140	30.400
FS180HV-3C	180HV-3	2.250	57.15	35.49	35.71	54.30	7.92	7.92	17.45	221.00	9.10	69.16	844710	45.600
FS200HV-1C	200HV-1	2.500	63.50	38.10	39.68	60.20	9.53	9.53	19.84	97.38	10.20	-	347410	19.500
FS200HV-2C	200HV-2	2.500	63.50	38.10	39.68	60.20	9.53	9.53	19.84	175.60	10.20	78.31	694820	39.000
FS200HV-3C	200HV-3	2.500	63.50	38.10	39.68	60.20	9.53	9.53	19.84	253.90	10.20	78.31	1042230	57.700
FS240HV-1C	240HV-1	3.000	76.20	47.63	47.63	72.40	12.70	12.70	23.80	123.20	10.50	-	580420	30.500
FS240HV-2C	240HV-2	3.000	76.20	47.63	47.63	72.40	12.70	12.70	23.80	224.48	10.50	101.22	1060840	-
FS240HV-3C	240HV-3	3.000	76.20	47.63	47.63	72.40	12.70	12.70	23.80	325.73	10.50	101.22	1541260	-

NB: From ANSI 80H to ANSI 160H Chains Shepherd's Crook option available. For ANSI 180H to ANSI 240H Chains T-pin option available.
For Through Hardened pin design, the Renold chain number is AV80HV1C.
Renold chain far exceeds the ISO 606 tensile strength requirement, but Renold do not consider that this figure provides a useful indicator to the key chain performance areas of wear and fatigue.

Note : Riveted type chains are available in all sizes with MOQ.

Steel Industry Chain

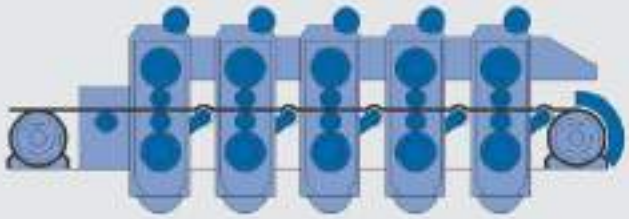
Wherever arduous conditions, corrosion and wear occur . . . steelmakers demand Renold Chain

The steel industry covers many varied activities, from raw material processing to finished product handling, each stage having its own particular needs from the power transmission and mechanical handling equipment used.

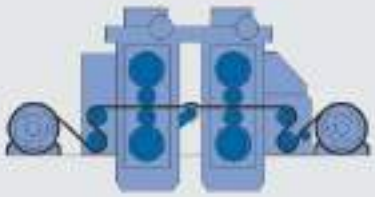
When corrosion, slipping or excessive wear occur on transmission or mechanical handling equipment used on steel processing lines the equipment can quickly take a turn for the worse, resulting in damaged product, expensive maintenance and replacement costs. That's why more and more steelmakers rely on Renold Chain to help their equipment last longer and operate more efficiently.

Renold are helping to improve equipment performance and are reducing maintenance requirements right down the line. Wherever the destructive forces of high speed operation exist, from cold reduction mills to hot dip coating lines, steelmakers around the world insist on Renold Chain.

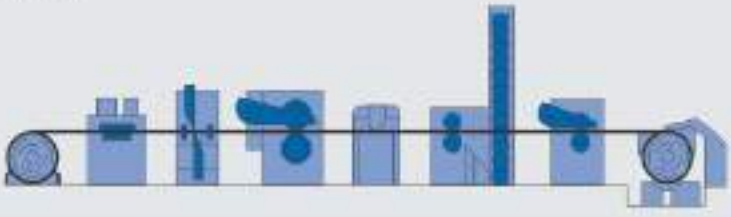
Cold Reduction Mill



Temper Mill



Slitter Lane



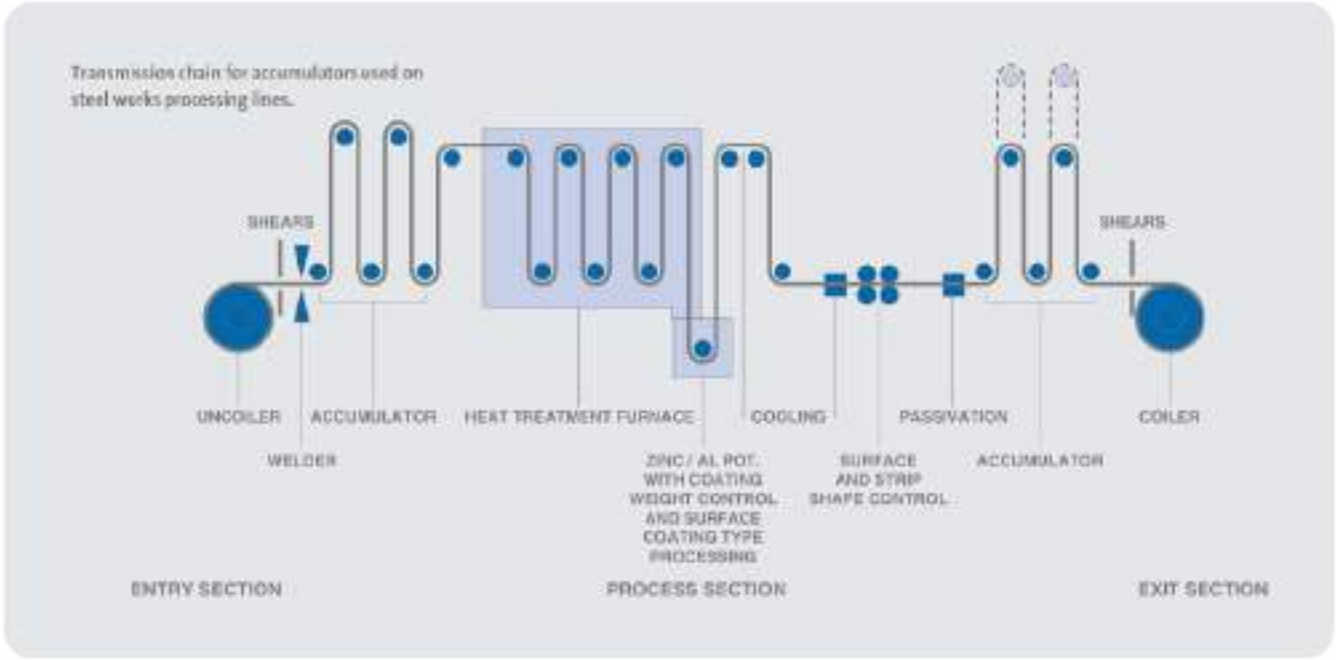
Steel Industry Chain

Key Applicational Areas

- Casting
- Coil handling
- Coil treatment
- Sheet handling
- Raw material processing
- Slab handling
- Steel section manufacture/handling
- Tube manufacture

Accumulator Chain

Hot Dip Coating Line



When coils of thin steel plate have been produced it is sometimes required to be coated - painted, galvanised or plastic coated.

Obviously, the coating process, whichever type it is, necessitates numerous operations and tight control - especially the speed at which the steel passes through the process area. It is, therefore, necessary that the steel plate being coated passes through the process section at a constant speed and is continuous and uninterrupted.

For this reason it is necessary to accumulate the steel plate before the process area to allow time, say 2 to 3 minutes, so that when the end of the coil is reached a new coil can be positioned and the beginning of the new one welded to the end of the previous one.

Skid Steer Vehicle Chain

Operating in tough conditions, chain for skid steer vehicles has to be designed to exceed the demands placed upon it. Renold has a wealth of experience supplying chain to manufacturers of these specialist vehicles.

The drive systems deliver high loads and stress which means the chain must be able to withstand wear and fatigue for as long as possible, something that has always been at the very heart of Renold chain design. The sudden shocks caused by rapid changes of direction will soon expose any chain that isn't up to the job.

Using simplex chain from the Renold ANSI Xtra range, with thicker side plates and a through-hardened pin, vehicle manufacturers can be sure that they are specifying a product that meets their own high standards. The chain can also be supplied as endless loops so that sprocket centre distance can be adjusted to accommodate the chain.

- Demanding application requires Renold fatigue resistance
- Plate and pin specification ideal for shock loadings
- Endless loops available
- Tough chain for a tough job

Chain Ref.		Technical Details (mm)											Connecting Links			
ANSI Ref.	Pitch (inch)	Pitch (mm)	Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Thickness Inner MAX	Plate Thickness Outer MAX	Pin Diam. MAX	Pin Length MAX	Cran. Link Extension MAX	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 26
	A	A	B	C	D	E	F	G	H	J						
80HVCD	1.000	25.400	15.75	15.88	24.13	4.0	4.0	7.94	35.08	3.0	87000	2.80	✓	✓	✓	-
100HVCD	1.250	31.750	18.90	19.05	30.17	4.75	4.75	9.54	39.7	4.2	133500	4.20	✓	✓	✓	-

Sugar Mill Industry Chain

Make the most of your harvest

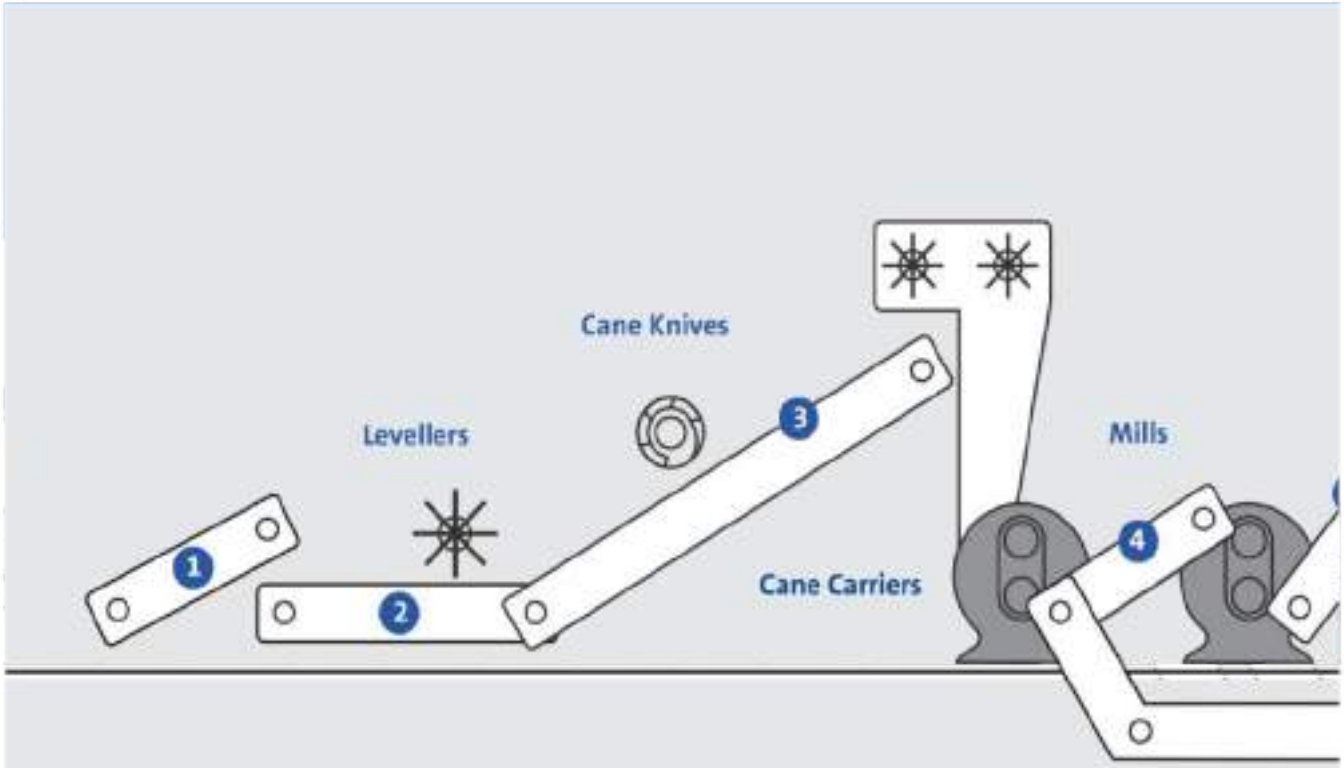
Process more raw material.
Minimize downtime.
Maximize profits.
Take to the market faster.

RENOLD
Superior Chain Technology

www.renold.in

Sugar Cane Industry

Chain for Every Stage of The Process



1. Feed Tables

Whether wet, dry or chopped Renold know the chains you need. Select Forged (458, X678, 698), Welded (W78, W82, W124, W132) or Combination (C102BM, C111M, C132) chains from Renold.

2. Cane Carriers

Renold cane carrier chain breaking loads range from 272kN to 620kN.

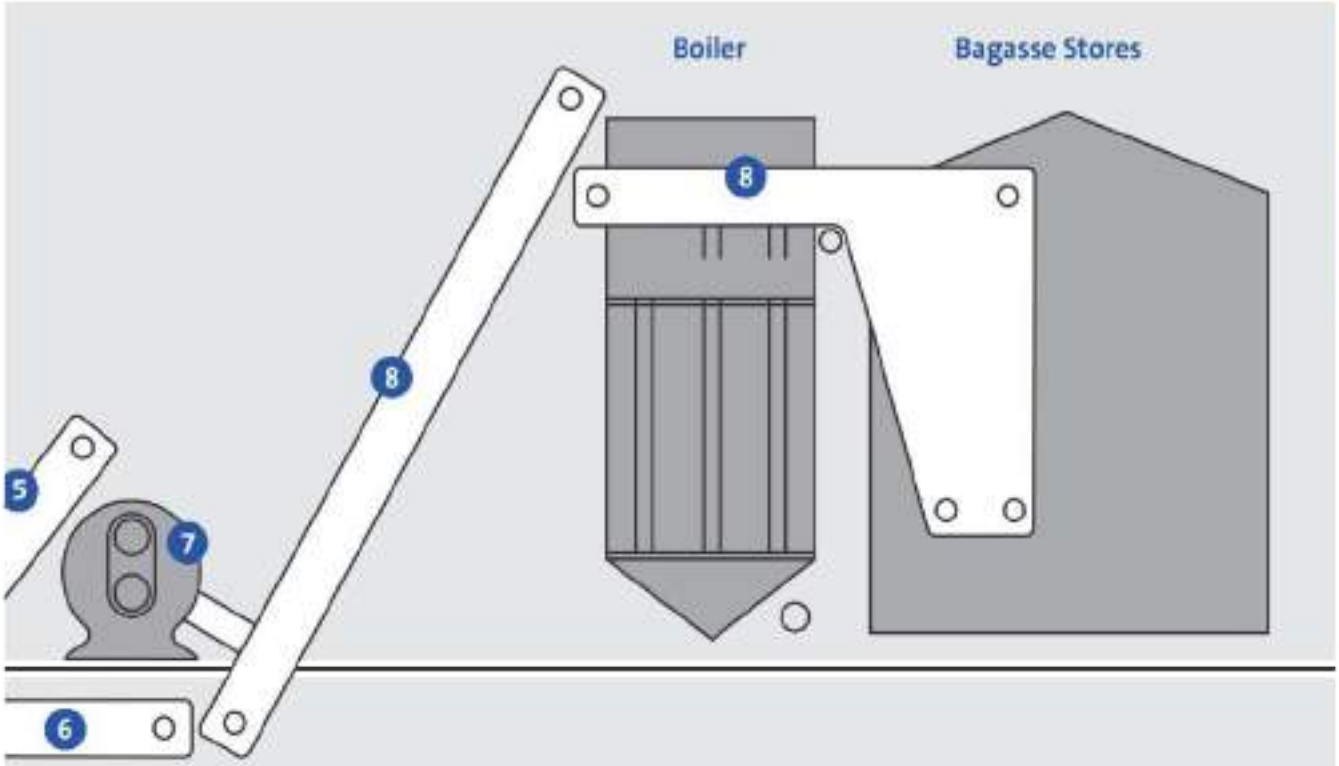
Renold's experience, as the originators of the bush roller chain, and being the first company to incorporate these features for cane carrier applications, makes Renold placed to offer the finest products for carrying cane from the yard to the first mill. Materials, heat treatment and design have been developed to ensure optimum chain life and maximum value for modest cost. Grease gun lubrication through the chain pin is available on request and heat treated stainless steel pins, bushes and rollers can be supplied.

3. Shredded Cane Elevators/Carriers

Can be either slat type with K2 type chain or scraper type, like Donnelly Chute Carriers. Chains will suffer dirt, corrosion and run at higher speeds than the cane carrier, causing greater wear.

4. Slat Inter Carriers

Stainless steel or standard iron 907 chains for bed type carriers are still widely used.



5. Donnelly Chute Carriers

When speeds are higher and inclines greater, forged or steel chains as shown below provide the best value for money, especially with stainless pins and bushes when corrosion is severe.

6. Juice/Trash Handling

Either stainless steel or standard iron, cast 4103 proves very simple and reliable to use.

8. Bagasse Chains

These are the lightest duty and usually the longest and fastest conveyors in the factory. Chain weight is often the largest loading on the conveyor. Large rollers ensure fewer revolutions and provide longer life. Typical chain is the 2184.

7. Drive Chains

For mill roller drives we manufacture all BS and ANSI standard chains in multi-strand form up to 4.0" pitch.

Alternatively we make the cranked link design up to 6.0" pitch or can design specials to suit your needs. Standard conveyor drives use BS or ANSI standards range.

Chain for every stage of the process

Moving sugarcane from harvest through processing requires top-quality chains that can stand up to abrasion, corrosion, and high shock loads at ever-increasing production rates. Renold chains have the promise of quality, reliability and consistency to keep your sugar mill running at peak capacity.

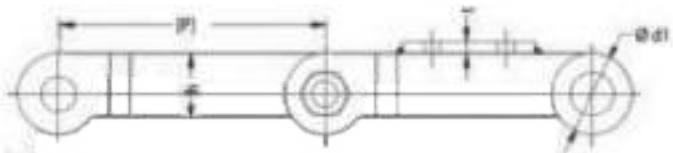
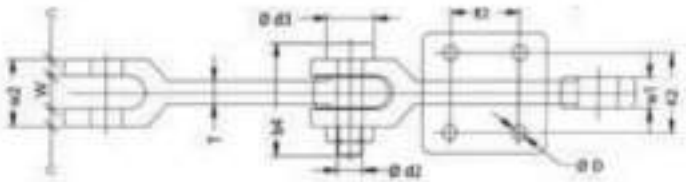

- Cane Carrier Chain
- Drive Chain
- Bagasse Chain
- Rake Elevator Chain






Rake Elevator Chain



Part Nos. & Details

	Part Number	Pitch	Inside Width	Roller Dia	Pin Dia	Attachment Hole Dia	Attachment Hole Center	Attachment Length	Platform Height	Transverse Pitch	Breaking Load in kN
Cane Carrier Chain	09060	152.40	38.10	69.85	19.05	12.70	76.20	114.30	41.40	111.25	267 kN
	09061	152.40	38.10	69.85	19.05	12.70	76.20	114.30	41.40	111.25	378 kN
	1796	152.40	38.10	69.85	22.35	12.70	76.20	114.30	41.40	111.25	445 kN
	09063	152.40	38.10	76.20	23.87	12.70	76.20	114.30	44.45	111.25	620 kN
	E750	152.40	38.10	76.20	19.05	12.70	76.20	114.30	41.30	111.25	378 kN
	E742	152.40	38.10	76.20	22.20	14.00	76.20	112.40	41.30	111.00	400 kN
	100CPQ713	152.40	44.00	75.00	22.00	14.00	60.00	95.00	42.00	125.00	309 kN
	100CSF179	152.40	38.40	76.20	22.20	14.30	76.20	116.00	47.43	111.13	422 kN

Bagasse Carrier Chain

Part Number	Pitch	Inside Width	Roller Dia	Pin Dia	Attachment Hole Dia	Attachment Hole Center	Attachment Length	Attachment Width	Attachment Face	Transverse Pitch	Breaking Load in kN
09060	152.40	38.10	69.85	19.05	12.70	82.55	114.30	50.80	111.25	88.90	267 kN
09061	152.40	38.10	69.85	19.05	12.70	82.55	114.30	50.80	111.25	88.90	378 kN
01796	152.40	38.10	69.85	22.10	12.70	82.55	114.30	50.80	111.25	88.90	445 kN
09063	152.40	38.10	76.20	23.88	12.70	88.90	127.00	50.80	142.00	100.08	620 kN
E788	152.40	38.10	76.20	19.05	12.70	82.55	114.30	50.80	111.12	88.90	267 kN
E789	152.40	34.93	76.20	22.26	12.70	88.90	127.00	50.80	142.88	92.20	356 kN
E790	152.40	38.10	69.90	19.05	12.70	120.00	155.00	57.70	134.06	106.98	265 kN
E801	152.40	34.00	76.35	19.05	14.00	50.00	63.00	100.00	116.20	68.00	215 kN
E810	152.40	38.10	76,20	19.05	14.00	100.00	130.00	50.80	-	130.05	265 kN
E846	152.40	38.10	91.00	22.00	13.00	89.00	127.00	50.80	-	92.00	295 kN
100DA8140	228.60	40.00	90.00	32.00	26.00	-	-	-	-	103.00	108 kN

Rake Elevator Chain

P	w1	w	w2	d2	b4	r	T	h	d1	t	K1	K2	D	Attachment Hame Pitch	B.T
229.00	35.00	36.00	71.00	35.00	122.00	17.50	25.00	57.00	35.05	16.00	70.00	85.00	18.00	687.00	60 TON
229.00	35.00	36.00	71.00	32.00	128.00	17.50	28.00	57.00	32.05	16.00	70.00	80.00	17.00	687.00	60 TON
229.00	35.00	36.00	71.00	32.00	119.00	17.50	28.00	57.00	32.05	16.00	70.00	120.00	18.00	687.00	60 TON
229.00	34.50	36.00	76.00	35.00	132.00	20.00	28.00	64.00	35.05	16.00	112.00	108.00	18.00	687.00	80 TON
229.00	34.50	36.00	76.00	35.00	132.00	20.00	28.00	64.00	35.05	16.00	70.00	120.00	18.00	687.00	80 TON

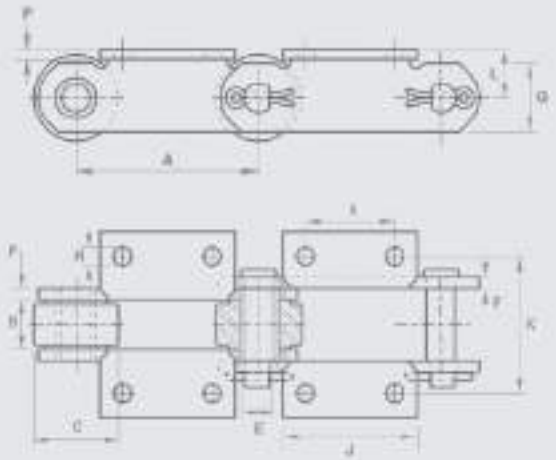
TRPF / GRPF

Ref	Pitch	Inside Width	Roller Dia	Pin Dia	Transverse Pitch	Breaking Load (kN)	Weight Kg/M
40B-1 (R6338)	63.5	38.2	39.37	22.89	72.29	350	16
48B-1 (R7645)	76.2	45.8	48.26	29.24	91.21	560	26
56B-1 (R8853)	88.9	53.4	53.8	34.1	106.6	850	35

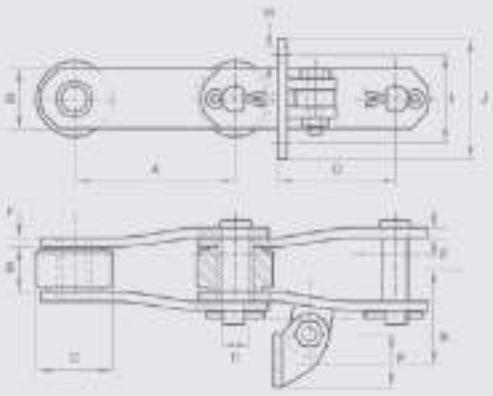
Sugar Cane industry

Technical data

Cane Carrier Chain



Bagasse Chain



Breaking loads and dimensions A to F inclusive are common with Cane Carrier Chains.

Chain Ref.	Technical Details (mm)												
Chain Ref	Pitch	Inside Width	Roller Diam	Pin Diam	Plate Thick	Plate Height	Attachment Hole Diam	Attachment Hole Centres	Attachment Length	Platform Height	Transverse Pitch	Breaking Load [kN]	Weight Kg/m

Cane Carrier Chain

	A	B	C	E	F	G	H	I	J	L	M		
R08068	152·40	38·50	69·85	19·05	9·52	50·80	12·70	76·20	114·30	41·30	111·20	272	24·70
R08061	152·40	38·50	69·85	19·05	9·52	57·15	12·70	76·20	114·30	41·30	111·20	386	25·30
R10906	152·40	36·50	76·20	22·80	10·30	61·90	12·70	76·20	114·30	44·45	111·20	620	27·50
R1796	152·40	38·50	69·85	22·23	9·52	57·15	12·70	76·20	114·30	41·30	111·20	445	26·20

Chain Ref.	Technical Details (mm)													
Chain Ref	Pitch	Inside Width	Roller Diam	Pin Diam	Plate Thick	Plate Height	Attachment Hole Diam	Attachment Hole Centres	Attachment Length	Attachment Width	Attachment Face	Transverse Pitch	Breaking Load [kN]	Weight * Kg/m

Bagasse Chain

	A	B	C	E	F	G	H	I	J	P	Q	K		
R08068	152.40	38.50	69.85	19.05	9.52	50.80	12.70	82.50	114.30	50.80	115.88	88.90	272	18.50
R08061	152.40	38.50	69.85	19.05	9.52	57.15	12.70	82.50	114.30	50.80	115.88	88.90	386	20.30
R10906	152.40	36.50	76.20	22.80	10.30	61.90	14.30	88.90	127.10	50.80	142.90	100.00	620	25.10
R1796	152.40	38.50	69.85	22.23	9.52	57.15	12.70	82.50	114.30	50.80	115.88	88.90	445	22.90
R2184	152.40	34.93	76.20	22.23	9.52	50.80	14.30	88.90	127.10	50.80	142.90	90.40	356	21.60

* Flight wing at 4-pitch spacing

Renold Superior Quality Chains for Agriculture

RENOLD

Superior Chain Technology

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Renold Agricultural Chains - value through quality

In today's world of sophisticated agricultural and processing equipment, the name RENOLD is the guarantee of outstanding quality and reliability.

Renold have been designing and manufacturing chains since 1879, in collaboration with the leading manufacturers of crop harvesting and processing equipment.

Engineering design detail and precision manufacturing techniques have earned Renold the ISO 14001:2004 + Cor. 1: 2009 and ISO 9001:2008 and BS OHSAS 18001:2007 quality assurance standards, resulting in a range of chains giving longer life under the most arduous conditions.

Popular applications for Renold Agricultural chains:

- Combine Harvesters
- Vegetable Grading Conveyors
- Grain Elevators
- Round Balers
- Circular Bale Unrollers
- Back-Feed Hoppers
- Box Scrapers
- Fruit Packing Conveyors

The standard range of Renold chain meets the majority of modern agricultural requirements.

However, with continually improving farming techniques and higher crop yields, Renold also offers a range of extra strength chains which are dimensionally identical to the standard range.

Modern Heat Treatment techniques are used to greatly enhance the breaking load and these chains have been adopted as a standard by major combine harvester manufacturers. Being dimensionally the same as the standard chain, they are more cost effective by:

- Directly replacing standard chain using existing sprockets.
- Increased load handling capability.

ROTAVATOR CHAIN

ROTAVATOR CHAIN (SHAKTIMAN / DASMESH / HOWARD / CHAKRA / DHARANI / GOMATHI)										
RENOLD CHAIN No.	Pitch	Width between Inner Plates	Inner Plate Height	Roller Diameter	Pin Diameter	Pin Width	Connecting Pin Width		Transverse Pitch	Ultimate Tensile Strength
							Spring Clip	Split Pin		
	P mm	A (Min) mm	B (Max) mm	C (Max) mm	D (Max) mm	E (Max) mm	F (Max) mm	G (Max) mm	H mm	KGF (Min)
LN80H (R 80H)	25.40	15.75	23.80	15.88	7.92	35.80	36.85	39.10	-	5780
LN 100H (R 100H)	31.75	18.90	29.40	19.05	9.53	42.90	-	46.40	-	9030
LN 120H (R 120H)	38.10	25.22	36.30	22.23	11.10	53.40	-	58.30	-	12950
LN 100HS* (R 100HS)	31.75	18.90	30.30	19.05	9.53	42.90	-	46.40	-	9030
LN 120HS* (R 120HS)	38.10	25.22	36.30	22.23	11.10	53.40	-	58.30	-	12950
LN16B (R 2517)	25.40	17.50	10.70	15.88	8.27	35.70	36.60	38.90	-	6120
LN24B (R 3825)	38.10	25.40	33.30	25.40	14.63	52.90	-	59.30	-	16310
LN28B (R 4431)	44.45	30.99	37.20	27.94	15.90	64.90	-	71.00	-	20390
LN 20B-2 (DR 3119)	31.75	19.56	25.90	19.05	10.17	78.30	80.00	81.60	36.45	17330

* Straight side plates

HARVESTER CHAIN

HARVESTER CHAIN (STANDARD / CLAAS/ PREET / KARTAR / BALKAR / DASMESH)

RENOLD CHAIN No.	Pitch	Width between Inner Plates	Inner Plate Hight	Roller Diameter	Pin Diameter	Pin Width	Connecting Pin Width		Transverse Pitch	Ultimate Tensile Strength
							Spring Clip	Split Pin		
	P mm	A (Min) mm	B (Max) mm	C (Max) mm	D (Max) mm	E (Max) mm	F (Max) mm	G (Max) mm	H mm	KGF (Min)
LN50A-1 (R 50)	15.875	12.60	18.00	11.90	5.94	48.30	49.60	-	22.78	6490
LN108-1 (R 1595)	15.875	9.85	14.66	10.16	5.08	19.50	20.60	-	-	2290
LN108-2 (DR 15950)	15.875	9.85	14.66	10.16	5.08	35.60	37.30	-	16.59	4540
LN328-1 (R 5031)	50.80	30.99	41.50	29.21	17.81	65.10	-	72.80	-	25500

POWER TILLER CHAIN

POWER TILLER CHAIN (VST / KAMCO / DASMESH)

RENOLD CHAIN No.	Pitch	Width between Inner Plates	Inner Plate Height	Roller Diameter	Pin Diameter	Pin Width	Connecting Pin Width		Transverse Pitch	Ultimate Tensile Strength
							Spring Clip	Split Pin		
	P mm	A (Min) mm	B (Max) mm	C (Max) mm	D (Max) mm	E (Max) mm	F (Max) mm	G (Max) mm	H mm	KGF (Min)
LN06B-3GF* (TR 957)	9.525	5.90	8.16	6.35	3.28	33.60	34.60	-	10.24	2540
R1249	12.70	4.90	10.36	7.75	4.09	13.10	14.00	-	-	1350
LN08B-2(DR 1278)	12.70	7.85	11.71	8.51	4.45	30.70	32.10	-	13.92	3270
LN50A-2 (DR 50)	15.875	12.60	18.00	11.90	5.94	48.30	49.60	-	22.78	6490
LN50H-2(DR 50H)	15.875	12.60	18.00	11.90	5.94	54.80	-	-	26.11	6490
R1395N	15.875	9.85	14.66	10.16	5.08	19.50	20.60	-	-	2310
LN12B-1 (R 1911)	19.05	11.70	16.10	12.07	5.72	22.40	23.70	-	-	2970
SC29H**	19.05	13.00	18.80	14.28	7.94	31.80	-	-	-	7200
LN16B-1(R 2517)	25.40	17.50	20.70	15.88	8.27	35.70	36.60	38.90	-	6120
LN100H-1 (R100H)	31.75	18.90	29.40	19.05	9.53	42.90	-	46.40	-	9030
LN100H-1GF (R100HS*)	31.75	18.90	30.30	19.05	9.53	42.90	-	46.40	-	9030
LN20B-1 (R3319)	31.75	19.56	25.90	19.05	10.17	41.85	43.60	-	-	9690
LN20B-2 (DR3119)	31.75	19.56	25.90	19.05	10.17	78.30	80.00	-	36.45	17330
LN120H-1GF (R120HS*)	38.10	25.22	36.30	22.23	11.10	53.40	-	58.30	-	12950
LN24B-1 (R3825)	38.10	25.40	33.30	25.40	14.63	52.90	-	59.30	-	16310
LN28B-1 (R4431)	44.45	30.99	37.20	27.94	15.90	64.90	-	71.00	-	20390
520NS	15.875	6.35	15.00	10.16	5.23	17.50	-	-	-	2996

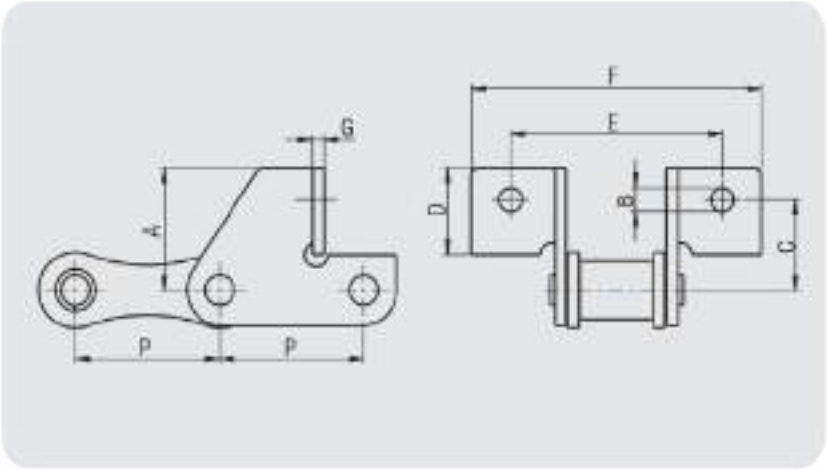
* Side bars Straight Sided Profile
** Side bars Straight Sided Profile & Endless Riveted Chain

HARVESTER CHAIN

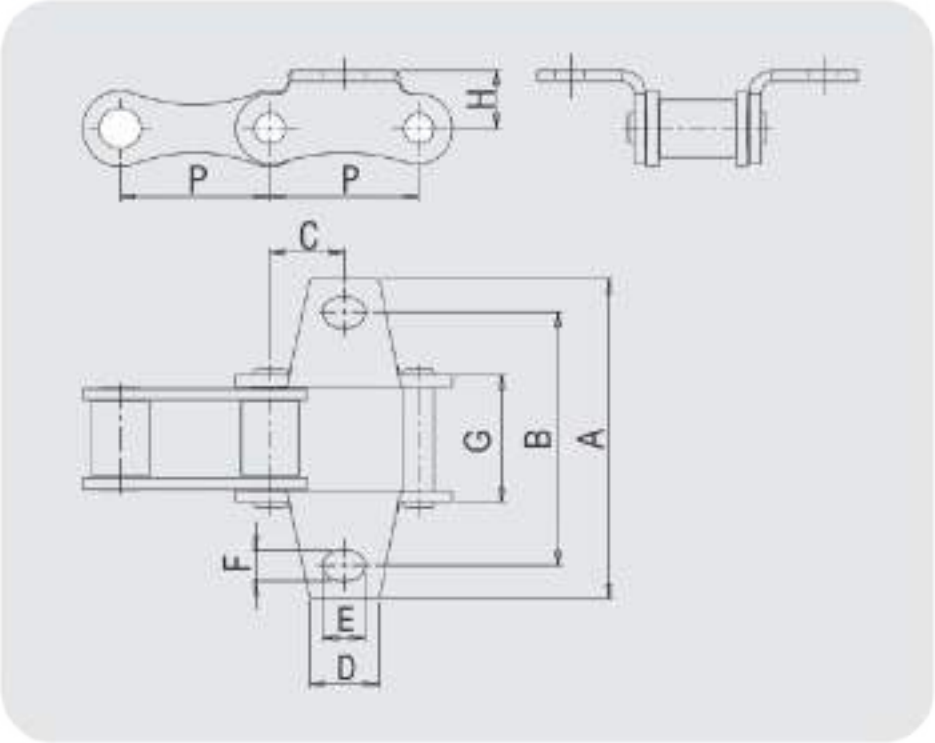
HARVESTER CHAIN (STANDARD / CLAAS/ PREET / KARTAR / BALKAR / DASMESH)

RENOLD CHAIN No.	Type	Attachment	Spacing	P mm	A (Min) mm	B (Max) mm	C (Max) mm	D (Max) mm	E (Max) mm	F (Max) mm	G (Max) mm	H mm
SC 63	Feeder - Outer	K1 Both Sides	Every 4th Pitch	41.30	89.00	70.00	20.65	19.00	11.50	8.40	35.20	15.55
SC 214	Feeder - Outer	K1 Both Sides	Every 6th Pitch									
SC 64	Feeder - Inner	K1 Both Sides	Every 2nd Pitch									
SC 215	Feeder - Inner	K1 Both Sides	Varying									
SC65	Elevator	F1 Both Sides	Every 4th Pitch	41.30	33.25	6.50	24.70	23.45	60.00	82.80	3.20	-
SC 216	Elevator	F1 Both Sides	Every 4th Pitch									
SC 225	Feeder	K1 Both Sides	Varying	38.40	86.00	57.00	19.20	38.00	8.50	-	29.40	16.00
SA38	Feeder	K1 Both Sides	Varying									
SC 226	Elevator	F4 Both Sides	Every 4th Pitch	38.40	36.50	8.40	24.00	25.00	52.00	69.50	2.50	-

F ATTACHMENT CHAIN ASSEMBLY



K ATTACHMENT CHAIN ASSEMBLY



Renold Lifting Chain Catalogue

RENOLD

Superior Chain Technology

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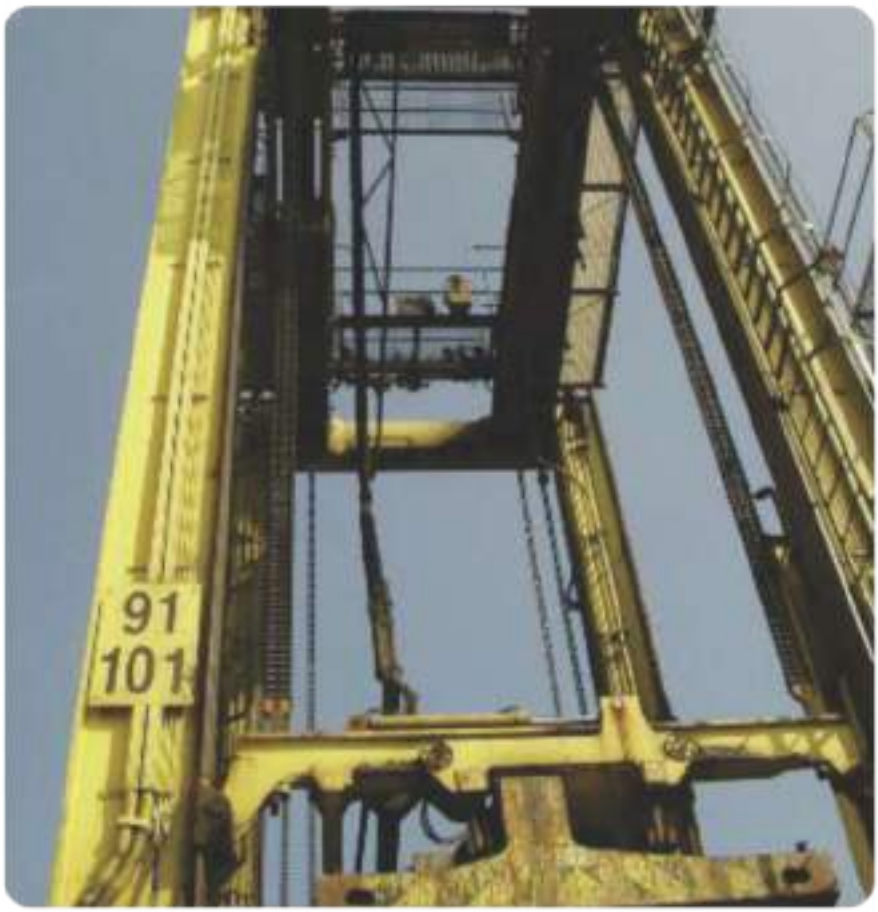
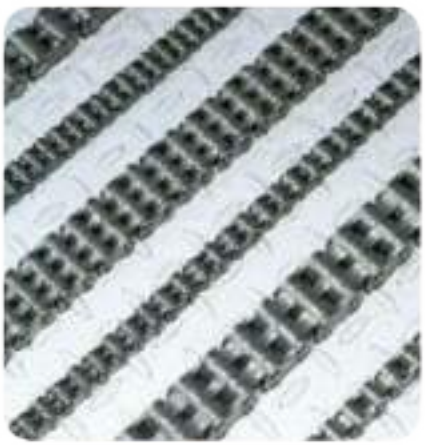
Ports & Container Handling Chain

Renold supplies a wide range of chain for lifting applications at ports around the world. With a comprehensive range of both roller and leaf chain for lifting machinery running on either wheels or rails, the Renold specification of designing chain to be highly resistant to wear and fatigue delivers lasting performance.

Factors of safety are critical when large payloads are being transported and Renold understands the importance of ensuring long working life based on product integrity.

- ANSI standard large pitch roller chain
- Differing specifications to suit application
- Wide range of leaf chain sizes
- Galle chain also available





Special Applications

◄ Renold supplies leaf chain to many of the world's largest truck manufacturers.

Renold heavy duty large pitch ► transmission chains are used on straddle carriers transporting ocean going containers on docks worldwide.

Side loading fork lift trucks ►► run on Renold leaf chain are used to store and pick products in warehouses worldwide.

◄ Reliability and performance with safety built in as standard.

Leaf / FLT Chain

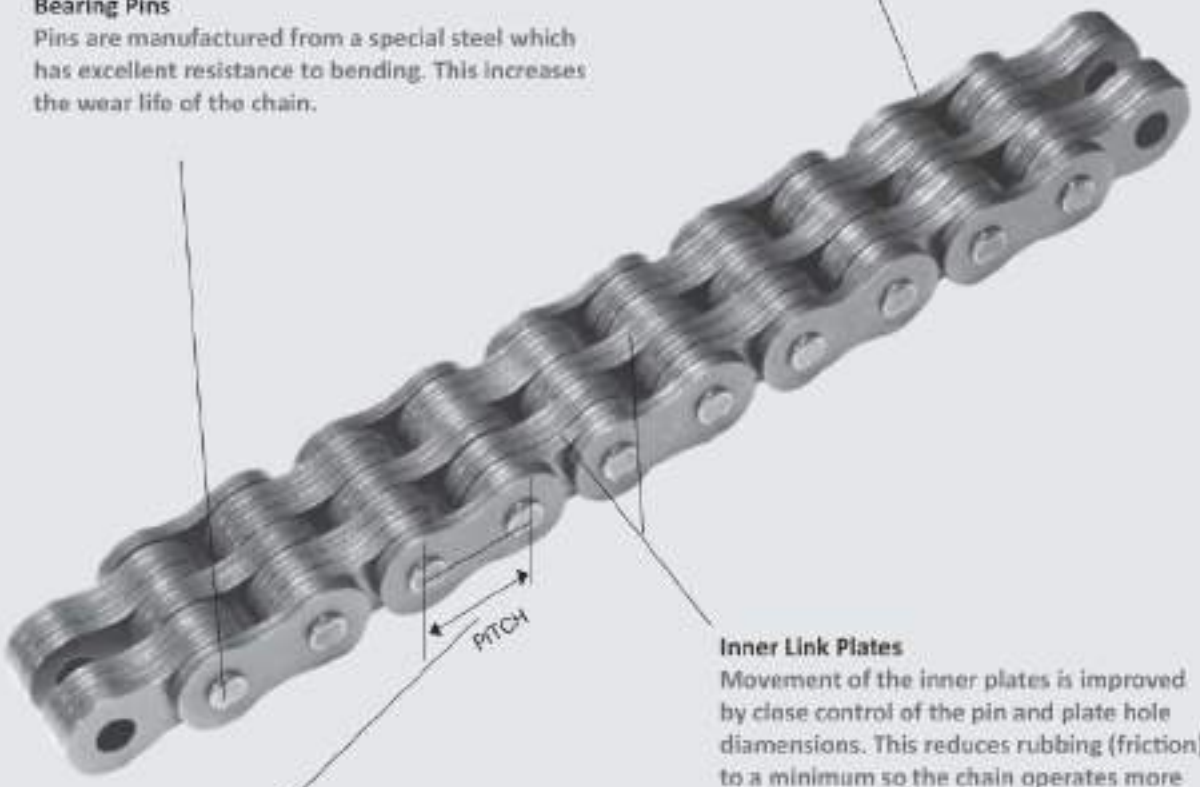
Renold Ultimate Specification

Special design features

- High Fatigue Strength
- Long Service Life
- Maximum Resistance to wear
- Compact Design

Link Plates
Plates are made from a special steel which can withstand sudden loads and provides maximum resistance to breakage

Bearing Pins
Pins are manufactured from a special steel which has excellent resistance to bending. This increases the wear life of the chain.

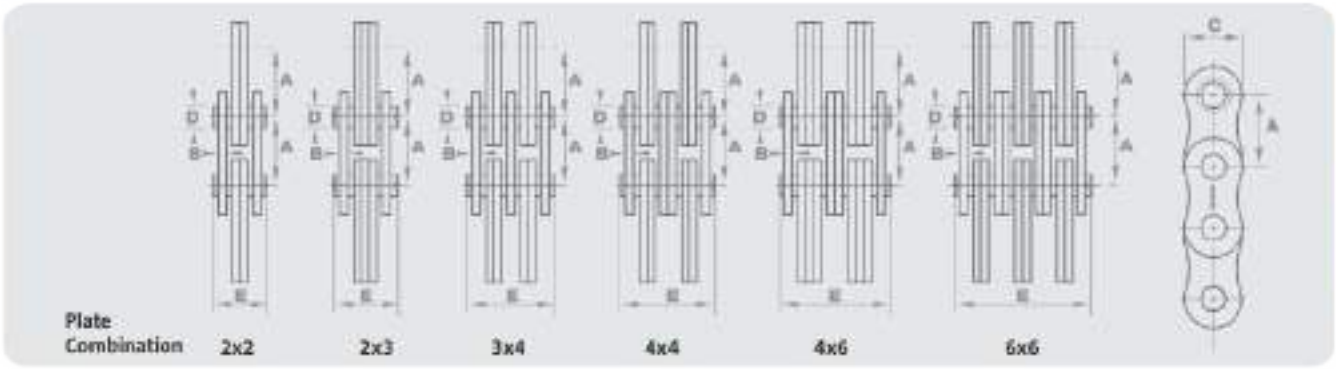


Inner Link Plates
Movement of the inner plates is improved by close control of the pin and plate hole diamensions. This reduces rubbing (friction) to a minimum so the chain operates more economically and efficiently.

Chain Pitch
Pitch (distance between each pin or plate hole) accuracy and pin hole diameters (holes in link plates) are maintained on every component during manufacture. This ensures consistent precision performance and good movement of the chain joints.

Leaf Chain LH (BL) Series

NFE26107 / ISO4347 / DIN8152 / ANSI B29.8



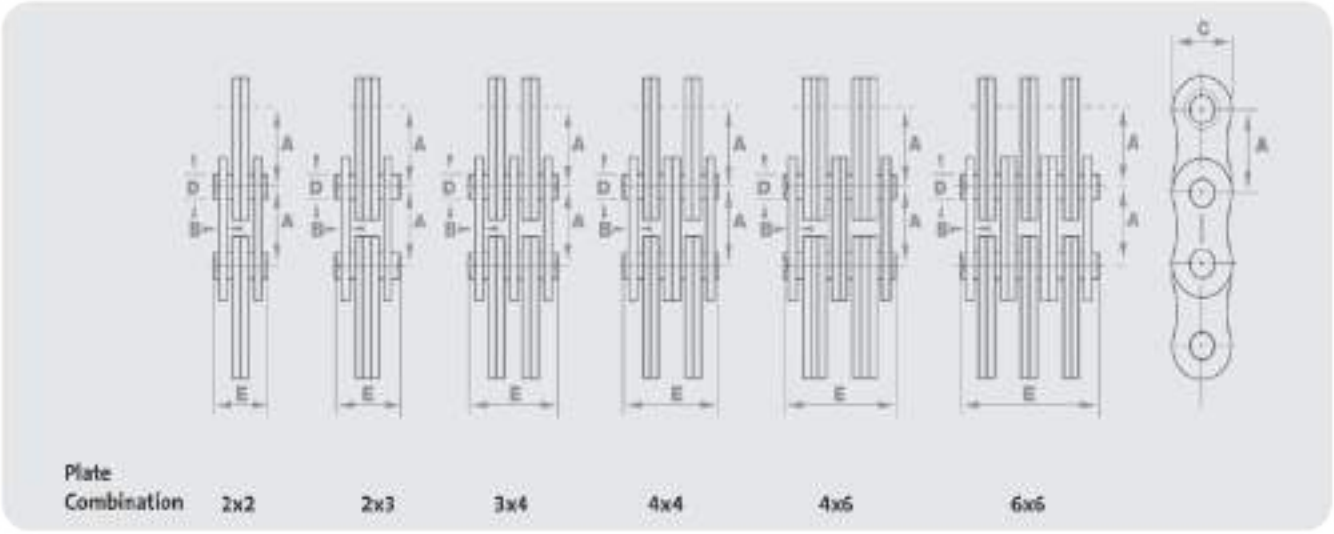
Chain Ref.			Technical Details (mm)									
RENOLD CHAIN No.	ISO Ref.	ANSI Ref.	Pitch (inch) NOM	Pitch (mm) NOM	Plate Combination	Chain Length over 100 Pitches (±0.25%)	Plate Thickness MAX	Plate Height MAX	Pin Diam. MAX	Width Over Pin MAX	Tensile Strength (Newtons) MIN	Weight kg/m
			A	A			B	C	D	E		
RNBL422	LH0622	BL422	0.500	12.700	2x2	1270	2.08	12.07	5.09	11.10	22200	0.60
RNBL423	LH0623	BL423	0.500	12.700	2x3	1270	2.08	12.07	5.09	13.20	22200	0.75
RNBL434	LH0634	BL434	0.500	12.700	3x4	1270	2.08	12.07	5.09	17.40	33400	1.04
RNBL444	LH0644	BL444	0.500	12.700	4x4	1270	2.08	12.07	5.09	19.60	44500	1.20
RNBL446	LH0646	BL446	0.500	12.700	4x6	1270	2.08	12.07	5.09	23.80	44500	1.46
RNBL466	LH0666	BL466	0.500	12.700	6x6	1270	2.08	12.07	5.09	28.00	66700	1.74
RNBL488	LH0888	BL488	0.500	12.700	8x8	1270	2.08	12.07	5.09	32.20	89000	2.56
RNBL522	LH1022	BL522	0.625	15.875	2x2	1587	2.48	15.09	5.96	12.90	33400	0.86
RNBL523	LH1023	BL523	0.625	15.875	2x3	1587	2.48	15.09	5.96	15.40	33400	1.05
RNBL534	LH1034	BL534	0.625	15.875	3x4	1587	2.48	15.09	5.96	20.40	48900	1.47
RNBL544	LH1044	BL544	0.625	15.875	4x4	1587	2.48	15.09	5.96	22.80	66700	1.84
RNBL546	LH1046	BL546	0.625	15.875	4x6	1587	2.48	15.09	5.96	27.70	66700	2.28
RNBL566	LH1066	BL566	0.625	15.875	6x6	1587	2.48	15.09	5.96	32.70	100100	2.73
RNBL622	LH1222	BL622	0.750	19.050	2x2	1905	3.30	18.11	7.94	17.40	48900	1.48
RNBL623	LH1223	BL623	0.750	19.050	2x3	1905	3.30	18.11	7.94	20.80	48900	1.84
RNBL634	LH1234	BL634	0.750	19.050	3x4	1905	3.30	18.11	7.94	27.50	75600	2.58
RNBL644	LH1244	BL644	0.750	19.050	4x4	1905	3.30	18.11	7.94	30.80	97900	2.95
RNBL646	LH1246	BL646	0.750	19.050	4x6	1905	3.30	18.11	7.94	37.50	97900	3.70
RNBL666	LH1266	BL666	0.750	19.050	6x6	1905	3.30	18.11	7.94	44.20	148800	4.30
RNBL822	LH1622	BL822	1.000	25.400	2x2	2540	4.09	24.13	9.54	21.40	84500	2.50
RNBL823	LH1623	BL823	1.000	25.400	2x3	2540	4.09	24.13	9.54	25.50	84500	3.15
RNBL834	LH1634	BL834	1.000	25.400	3x4	2540	4.09	24.13	9.54	33.80	129000	4.30
RNBL844	LH1644	BL844	1.000	25.400	4x4	2540	4.09	24.13	9.54	37.90	169000	5.00
RNBL846	LH1646	BL846	1.000	25.400	4x6	2540	4.09	24.13	9.54	46.20	169000	6.20
RNBL866	LH1666	BL866	1.000	25.400	6x6	2540	4.09	24.13	9.54	54.50	253600	7.10
RNBL1022	LH2022	BL1022	1.250	31.750	2x2	3175	4.90	30.18	11.11	25.40	115600	3.40
RNBL1023	LH2023	BL1023	1.250	31.750	2x3	3175	4.90	30.18	11.11	30.40	115600	4.25
RNBL1034	LH2034	BL1034	1.250	31.750	3x4	3175	4.90	30.18	11.11	40.30	182400	6.01
RNBL1044	LH2044	BL1044	1.250	31.750	4x4	3175	4.90	30.18	11.11	45.20	231300	6.80
RNBL1046	LH2046	BL1046	1.250	31.750	4x6	3175	4.90	30.18	11.11	55.10	231300	8.40
RNBL1066	LH2066	BL1066	1.250	31.750	6x6	3175	4.90	30.18	11.11	65.00	347000	10.20
RNBL1622	LH3222	BL1622	2.000	50.800	2x2	5080	7.52	48.26	17.46	48.00	289100	8.60
RNBL1623	LH3223	BL1623	2.000	50.800	2x3	5080	7.52	48.26	17.46	46.60	289100	10.75
RNBL1634	LH3234	BL1634	2.000	50.800	3x4	5080	7.52	48.26	17.46	61.80	440440	14.00
RNBL1644	LH3244	BL1644	2.000	50.800	4x4	5080	7.52	48.26	17.46	69.30	578300	17.40
RNBL1646	LH3246	BL1646	2.000	50.800	4x6	5080	7.52	48.26	17.46	84.50	578300	21.60
RNBL1666	LH3266	BL1666	2.000	50.800	6x6	5080	7.52	48.26	17.46	100.00	867400	25.90
RNBL1688	LH3288	BL1688	2.000	50.800	8x8	5080	7.52	48.26	17.46	125.00	1156600	34.50

Other sizes available on request. Standard end links and fixings are available. Details on request.

** MOQ

Leaf Chain AL Series

ANSI B29.8

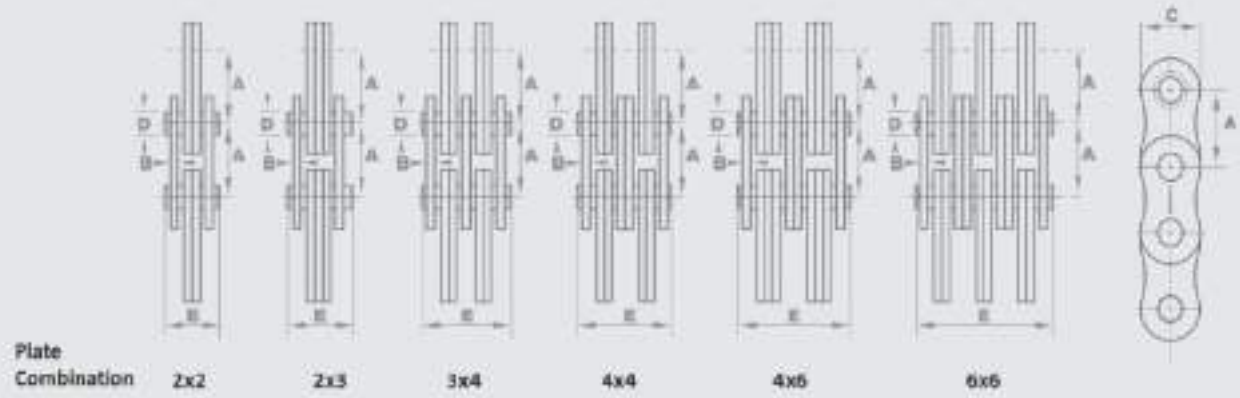


Chain Ref.		Technical Details (mm)									
RENOLD CHAIN No.	ANSI Ref.	Pitch (inch) NOM	Pitch (mm) NOM	Plate Combination	Chain Length over 100 Pitches (±0.25%)	Plate Thickness MAX	Plate Height MAX	Pin Diam. MAX	Width Over Pin MAX	Tensile Strength (Newtons) MIN	Weight kg/m
		A	A			B	C	D	E		
RNAL422	AL422	0.500	12.700	2x2	1270	1.54	10.36	3.96	8.40	22400	0.38
RNAL444	AL444	0.500	12.700	4x4	1270	1.54	10.36	3.96	14.80	28200	0.74
RNAL466	AL466	0.500	12.700	6x6	1270	1.54	10.36	3.96	21.20	34000	1.10
RNAL522**	AL522	0.625	15.875	2x2	1588	2.00	13.00	5.08	10.85	22270	0.62
RNAL544**	AL544	0.625	15.875	4x4	1588	2.00	13.00	5.08	18.35	44540	1.22
RNAL566**	AL566	0.625	15.875	6x6	1588	2.00	13.00	5.08	27.80	66810	1.81
RNAL622	AL622	0.750	19.050	2x2	1905	2.45	15.40	5.94	12.60	40000	0.87
RNAL644	AL644	0.750	19.050	4x4	1905	2.45	15.40	5.94	22.90	80000	1.71
RNAL666	AL666	0.750	19.050	6x6	1905	2.45	15.40	5.94	33.20	120000	2.54
RNAL822	AL822	1.000	25.40	2x2	2540	3.05	20.70	7.92	15.80	70000	1.45
RNAL844	AL844	1.000	25.40	4x4	2540	3.05	20.70	7.92	28.20	145000	2.84
RNAL866	AL866	1.000	25.40	6x6	2540	3.05	20.70	7.92	40.80	200000	4.24
RNAL1022	AL1022	1.250	31.75	2x2	3175	4.05	25.90	9.53	21.00	100000	2.31
RNAL1044	AL1044	1.250	31.75	4x4	3175	4.05	25.90	9.53	37.50	200000	4.68
RNAL1066	AL1066	1.250	31.75	6x6	3175	4.06	25.90	9.53	54.00	300000	6.99
RNAL1222	AL1222	1.500	38.10	2x2	3810	4.95	31.30	11.10	26.10	123000	3.29
RNAL1244	AL1244	1.500	38.10	4x4	3810	4.95	31.30	11.10	43.40	245000	6.65
RNAL1266	AL1266	1.500	38.10	6x6	3810	4.95	31.30	11.10	61.50	368000	9.94

Other sizes available on request.
Standard end links and fixings are available. Details on request.
** MOQ

Leaf Chain LL Series

NFE26107 / ISO4347 / DIN8152



Chain Ref.	Technical Details (mm)									
ISO Ref. & RENOLD CHAIN No.	Pitch (inch) NOM	Pitch (mm) NOM	Plate Combination	Chain Length over 300 Pitches (±0.25%)	Plate Thickness MAX	Plate Height MAX	Pin Diam. MAX	Width Over Pin MAX	Tensile Strength (Newtons) MIN	Weight kg/m
	A	A			B	C	D	E		
LL 0822	0.500	12.70	2x2	1270	1.55	10.92	4.45	8.45	18000	0.44
LL 0844	0.500	12.70	4x4	1270	1.55	10.92	4.45	14.60	36000	0.87
LL 0866	0.500	12.70	6x6	1270	1.55	10.92	4.45	20.70	54000	1.30
LL 1022	0.625	15.875	2x2	1588	1.65	13.72	5.08	9.30	22000	0.67
LL 1044	0.625	15.875	4x4	1588	1.65	13.72	5.08	16.10	44000	0.92
LL 1066	0.625	15.875	6x6	1588	1.65	13.72	5.08	22.90	66000	1.36
LL 1222	0.750	19.05	2x2	1905	1.90	16.13	5.72	10.70	29000	0.62
LL 1244	0.750	19.05	4x4	1905	1.90	16.13	5.72	18.50	58000	1.21
LL 1266	0.750	19.05	6x6	1905	1.90	16.13	5.72	26.30	87000	1.79
LL 1622	1.000	25.40	2x2	2540	3.20	21.08	8.28	17.20	60000	1.42
LL 1644	1.000	25.40	4x4	2540	3.20	21.08	8.28	30.20	120000	2.79
LL 1666	1.000	25.40	6x6	2540	3.20	21.08	8.28	43.20	180000	4.15
LL 2022	1.250	31.75	2x2	3175	3.70	26.42	10.19	20.10	95000	2.03
LL 2044	1.250	31.75	4x4	3175	3.70	26.42	10.19	35.10	190000	4.00
LL 2066	1.250	31.75	6x6	3175	3.70	26.42	10.19	50.10	285000	5.96
LL 2422	1.500	38.10	2x2	3810	5.20	33.40	14.63	28.40	170000	3.60
LL 2444 **	1.500	38.10	4x4	3810	5.20	33.40	14.63	49.40	340000	7.07
LL 2466 **	1.500	38.10	6x6	3810	5.20	33.40	14.63	70.40	510000	10.53
LL 3244	2.000	50.80	4x4	5080	6.45	42.29	17.81	61.00	520000	-
LL 3266	2.500	63.50	6x6	6350	8.25	52.96	22.09	111.10	1080000	-

Other sizes available on request.
Standard end links and fixings are available. Details on request.
** MOQ

Renold Heavy Duty Chain for Drill Rigs

RENOLD

Superior Chain Technology

www.renold.in

Renold Heavy Duty Chain For Drill Rigs

High loads and abrasive conditions are common for roller chains in the tough drilling environment.

Renold's range of heavy duty drive chains ensure maximum productivity and service life on drill rigs.

Renold Heavy Duty Chains are available in HT, HX & NA Series ranges.

Features & benefits	HT Series	HX Series	NA Series
Ideal for applications with dynamic loads and difficult environments	●	●	●
Chains have high shock load resistance by using through hardened pins	●	●	●
Chains have greater ultimate tensile strength ratings than standard series chains by using heavy series side plates and through hardened pins	●	●	●
Pins and rollers are specially coated to prevent fretting corrosion and minimize wear	●	●	●
Chains feature solid bushings and rollers, heat treated for wear resistance and toughness	●	●	●
Double wedge riveted pins provide higher pin security to prevent pin slippage in high load applications	●	●	●
Wide waist plate profile gives better fatigue performance and strength	●	●	●
Connecting link provides the same dynamic performance as the chain	●	●	●
Dimensionally interchangeable and connectable to equivalent chains on the market	●	●	●

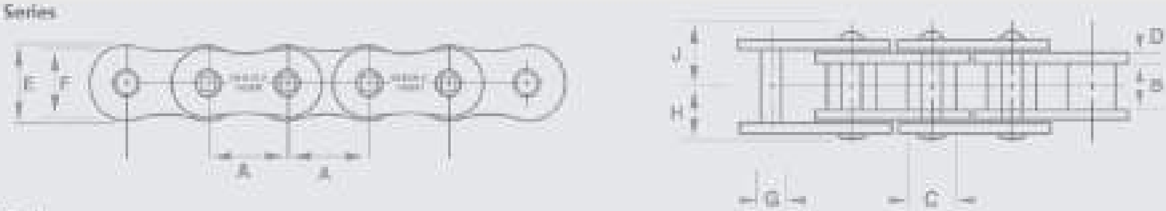
The HX & NA Series ranges are available for more arduous applications. In addition to the above features & benefits, the HX & NA Series ranges also offer:

Specially treated outer and inner plates for high tolerance fits and significantly improved fatigue life	–	●	●
Higher waisted side plates	–	●	●
Improved Roller Performance through higher grade material	–	●	●

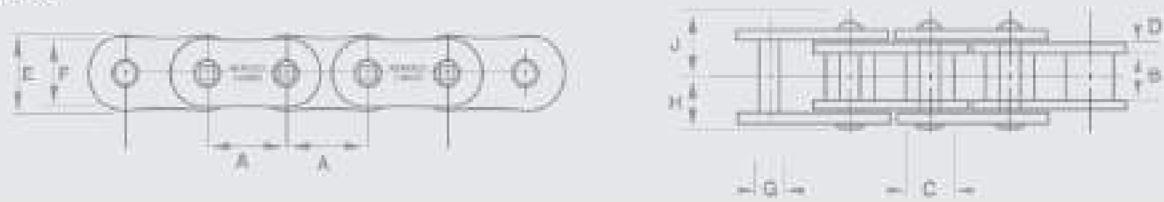
Renold Heavy Duty Chain for Drill Rigs

Dimensions

HT Series



HX Series



Chain Ref.	Technical Details (mm)														
RENOLD CHAIN No.	Pitch (inch)	Pitch (mm)	W/P Inside Width MIN	Roller Diam. MAX	Plate Thickness MAX	Plate Height Inner MAX	Plate Height Outer MAX	Pin Diam. MAX	Pin Head To Centre Line MAX	Pin End To Centre Line MAX	Minimum Tensile Strength (Newtons)	Average Tensile Strength (Newtons)	Weight kg/m	Weight lb/ft	Number of Links Per 10ft

HT Series

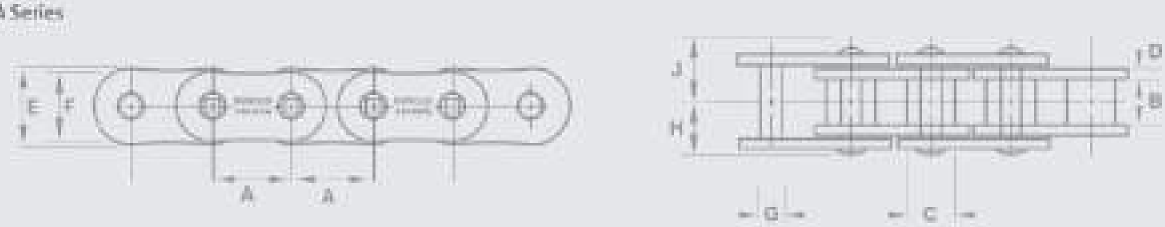
	A	A	B	C	D	E	F	G	H	J					
100HT	1.25	31.75	19.00	19.05	4.70	29.40	25.90	9.53	21.45	24.75	133,400	146,200	4.65	3.12	96
120HT	1.50	38.10	25.22	22.20	5.60	36.30	31.30	11.10	26.70	32.10	182,400	199,900	6.70	4.56	80
140HT	1.75	44.45	25.22	25.37	6.30	42.10	36.50	12.69	28.45	33.35	258,000	282,700	8.28	5.56	68
160HT	2.00	50.80	31.55	28.58	7.00	48.30	41.50	14.27	33.70	39.30	311,400	341,300	10.98	7.38	60
180HT	2.25	57.15	35.48	35.71	8.00	54.30	46.90	17.46	38.35	43.55	422,300	463,000	15.72	10.56	54
200HT	2.50	63.50	38.00	39.62	9.50	60.20	52.20	19.84	43.30	58.90	600,700	658,400	18.58	12.48	48
240HT	3.00	76.20	47.35	47.57	12.73	72.40	62.40	23.81	54.35	64.55	845,100	926,300	29.52	19.83	40

HX Series

	A	A	B	C	D	E	F	G	H	J					
100HX	1.25	31.75	19.00	19.05	4.70	29.40	25.90	9.53	21.45	24.75	133,400	146,200	4.76	3.19	96
120HX	1.50	38.10	25.22	22.20	5.60	36.30	31.30	11.10	26.70	32.10	182,400	199,900	6.92	4.65	80
140HX	1.75	44.45	25.22	25.37	6.30	42.10	36.50	12.69	28.45	33.35	258,000	282,700	8.41	5.68	68
160HX	2.00	50.80	31.55	28.58	7.00	48.30	41.50	14.27	33.70	39.30	311,400	341,300	11.67	7.84	60
180HX	2.25	57.15	35.48	35.71	8.00	54.30	46.90	17.46	38.35	43.51	422,500	467,000	15.81	10.65	54
200HX	2.50	63.50	38.00	39.62	9.50	60.20	52.20	19.84	43.30	58.90	600,700	658,400	18.72	12.58	48
240HX	3.00	76.20	47.35	47.57	12.73	72.40	62.40	23.81	54.35	64.55	845,100	926,300	29.66	19.93	40

HT Series has split cotters. HX Series has roll pin cotters.

NA Series



NA Series (Narrow Width)

	A	A	B	C	D	E	F	G	H	J					
240HNA	3.00	76.20	32.25	47.57	12.73	72.40	62.40	23.81	46.95	57.65	845,100	926,300	28.71	19.30	40
240NA	3.00	76.20	32.25	47.57	9.50	72.40	62.40	23.81	41.10	51.70	578,100	633,800	23.12	15.54	40

"Subject to Minimum Order Quantity - Not Sold from Stock"

Section 3

Conveyor Chains

Table of Contents

Bucket Elevator Chain

Pitch : 152.40 mm Pitch
Breaking Load : 50000 Kgf

Pitch : 177.80 mm Pitch
Breaking Load : 102000 Kgf

Pitch : 177.80 mm Pitch
Breaking Load : 90600 Kgf

Pitch : 152.40 mm Pitch
Breaking Load : 64000 Kgf

G4 Attachment Chain

Pitch : 200 mm Pitch
Breaking Load : 39500 Kgf

Pitch : 152.40 mm Pitch
Breaking Load : 28500 Kgf

Bucket Elevator Chain With K2 Attachment

Pitch : 152.40 mm Pitch -
Breaking Load : 45000 Kgf

Pitch : 152.40 mm Pitch -
Breaking Load : 16000 Kgf

Bucket Elevator Chain - Offset Link

Pitch : 228.60 mm Pitch -
Breaking Load : 136000 Kgf

Pitch : 228.60 mm Pitch -
Breaking Load : 101605 Kgf

Bucket Elevator Chain - Offset Link

Pitch : 228.60 mm Pitch-Breaking Load : 73500 Kgf

K2 Attachment Chain

Pitch : 250 mm Pitch -
Breaking Load : 40000 Kgf

Bucket Elevator Chain With G9 Attachment

Pitch : 228.60 mm Pitch -
Breaking Load : 83450 Kgf

Pitch : 228.60 mm Pitch -
Breaking Load : 73500 Kgf

M2 Attachment

Pitch : 500.00 mm Pitch with
Breaking Load : 122500 Kgf

Reclaimer Chain

Pitch : 250.00 mm Pitch
Breaking Load : 36200 Kgf

Pitch : 400.00 mm Pitch
Breaking Load : 200000 Kgf

Pitch : 400.00 mm Pitch
Breaking Load : 109000 Kgf

Scraper Chain

Scrapper Chain

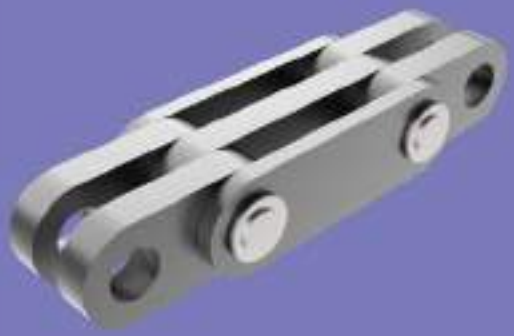
Chain Pitch : 152.40 mm
Breaking Load : 22000 Kgf

Chain Pitch : 76.20 mm
Breaking Load : 3370 Kgf

Apron Feeder Chain

Pitch : 260.00 mm Pitch
Breaking Load : 50000 Kgf

Galle Chain



Chain Pitch : 125.00+250.00 mm
Breaking Load : 480000 Kgf

Chain Pitch : 120.00 mm
Breaking Load : 224350 Kgf

Chain Pitch : 135.00 mm
Breaking Load : 200000 Kgf

Coil Conveyor Chain

Chain Pitch : 80.00 mm
Breaking Load : 5600 Kgf

Chain Pitch : 160.00 mm
Breaking Load : 24000 Kgf

Draw Bench Chain

Chain Pitch : 250.00 mm
Breaking Load : 40000 Kgf

Chain Pitch : 280.00 mm
Breaking Load : 437500 Kgf

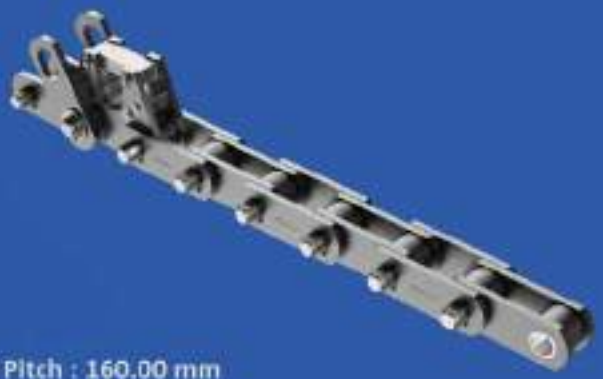
Pipe Conveyor Chain

Chain Pitch : 200.00 mm
Breaking Load : 45000 Kgf

Chain Pitch : 300.00 mm
Breaking Load : 72000 Kgf

Billet Transfer Chain

Chain Pitch : 150.00 mm
Breaking Load : 8000 Kgf



Chain Pitch : 160.00 mm
Breaking Load : 75000 Kgf

Chain Pitch : 200.00 mm
Breaking Load : 127000 Kgf

Chain Pitch : 160.00 mm
Breaking Load : 31500 Kgf

Billet Transfer Chain

Chain Pitch : 225.00 mm
Breaking Load : 56000 Kgf

Deep Link Chain (Transport)

Chain Pitch : 160.00 mm
Breaking Load : 28000 Kgf

Slag Conveyor Chain

Chain Pitch :
214.00 mm [65.00+139.00]
Breaking Load :
28000 Kgf

Cooling Bed Chain

Chain Pitch : 250.00 mm
Breaking Load : 36000 Kgf

Cranked Link Chain

Chain Pitch : 152.40 mm
Breaking Load : 52000 Kgf

Chain Pitch : 78.11 mm
Breaking Load : 48000 Kgf

Track Pad Chain

Track Pad Chain Dimension

Sl.No.	Chain Pitch - mm	Pad length & Width - mm	Width for Sprocket seating – mm	Pin Height – mm	Chain Tensile strength – N / KGF
1	135.0	400.0 x 154 .0	52.90	136.0	392400 N / 40000 KGF
2	135.0	230.0 X 154.0	52.90	136.0	392400 N / 40000 KGF

Sprockets


A Type


B TYPE


Assembly


C TYPE


Assembly


Simplex


Segment Wheel

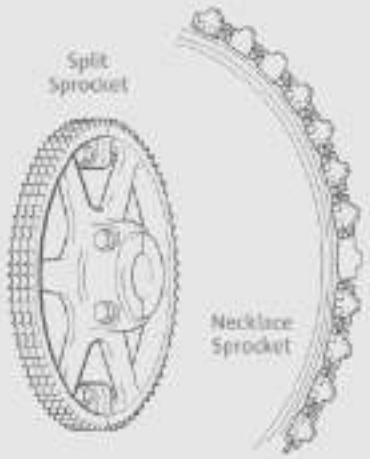

Duplex

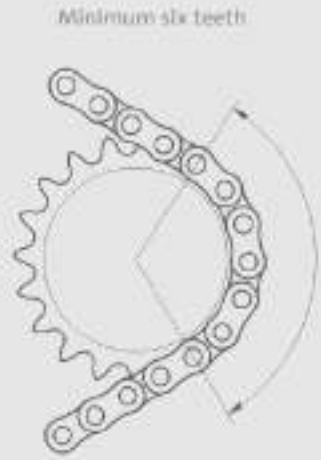

Traction Wheel


Triplex

Transmission Sprocket Details

Sprockets for Roller Chain





Renold manufacture a comprehensive range of stock sprockets for British Standard chain up to two inch pitch.

Other sizes of sprocket, including those to American Standard dimensions, are available on request.

Special sprockets are also manufactured on request, in special materials or formats, normally to suit a specific application in harsh or difficult drive situations, examples being:

- Sprockets incorporating shafts
- Welded or detachable hubs
- Shear pin devices fitted
- Necklace sprockets made up of chain plates and individual tooth sections for turning large drums or tables
- Combination sprockets (two or more sprockets combined having different pitch sizes and numbers of teeth)
- Sprockets in two or more sections, i.e. split sprockets or segmental sprockets

Selection of sprocket materials

Choice of material and heat treatment will depend upon shape, diameter and mass of the sprocket. The table above can be used as a simple guide on the correct selection of sprocket material.

Sprocket and chain compatibility

Most drives have an even number of pitches in the chain and by using a driver sprocket with an odd number of teeth, uniform wear distribution over both chain and sprocket teeth is ensured. Even numbers of teeth for both the driver and driven sprockets can be used, but wear distribution on both the sprocket teeth and chain is poor.

Number of teeth

The maximum number of teeth in any driven sprocket should not exceed 114. This limitation is due to the fact that for a given elongation of chain due to wear, the working pitch diameter of the chain on the sprocket increases in relation to the nominal pitch diameter, i.e. the chain assumes a higher position on the sprocket tooth. The allowable safe chain wear is considered to be in the order of 2% elongation over nominal length.

A simple formula for determining how much chain elongation a sprocket can accommodate is $\frac{200}{N}$

expressed as a percentage where N is the number of teeth on the largest sprocket in the drive system.

It is good practice to have the sum of teeth not less than 50 where both the driver and driven sprockets are operated by the same chain, e.g. on a 1:1 ratio drive, both sprockets should have 25 teeth each.

Centre distance

For optimum wear life, centre distance between two sprockets should normally be within the range 30 to 50 times the chain pitch. On drive proposals with centre distances below 30 pitches or greater than 2m, we would recommend that the drive details are discussed with our technical staff.

The minimum centre distance is sometimes governed by the amount of chain lap on the driver sprocket, our normal recommendation in this circumstance being not less than six teeth in engagement with the chain.

The centre distance is also governed by the desirability of using a chain with an even number of pitches to avoid the use of a cranked link, a practice that is not recommended except in special circumstances.

For a drive in the horizontal plane, the shortest centre distance possible should be used consistent with recommended chain lap (minimum six teeth) on the driver sprocket.

Chain Installation and Maintenance

Preparation

Check equipment to ensure that general requirements are correct (e.g. sprockets, sheaves, means of adjustment).

Check condition and rigidity of the shafts and bearings, particularly if there has been considerable previous service. Replace or rectify if necessary.

Drive/headshaft/sprockets should be checked to ensure they are level, parallel and square with any slides or bearings.

Use a spirit level and adjustable comparator bar or micrometer between shafts at extreme points on each side of the drive. Rectify any parallelism error present.

Place sprockets or respective shafts in approximate alignment and fit the keys in accordance with correct engineering practice. Do not finally secure keys at this stage.

Care must be taken with sprockets of split design to ensure perfect abutting of the faces of each half. Proceed with the key fitting after the halves are finally bolted together, otherwise the key can prevent correct assembly and subsequently result in malgearing.

It should be verified that key heads will not project beyond the width of any cases, guards or guides.

Checking Alignment

Accurate alignment of shafts, sheaves and sprocket tooth faces provides a uniform distribution of load across the entire chain width and contributes substantially to maximum drive life.

Use a straight edge in several different positions, if possible, as a check against wobble. A nylon or similar line is a good substitute for a straight edge particularly on longer centre distances.

Installation of Chain

Should endwise float of shafts be present, make due allowances so that alignment is correct at the mid position of float.

When alignment is correct within closest practical limits, drive any keys home and take a final check.

When sheaves are used it should be checked that the chain sits comfortably between the flanges with equal clearance on both sides.

Pins should not rub on the sheave flanges.

Renold Chain should not be assembled into the system until attention has been paid to cleanliness of the sprocket teeth and sheave working area, particularly if debris of an abrasive nature (cement dust, weld spatter etc.) has been prevalent whilst work was in progress.

Ensure the chain is clean and free from debris and place around the sprockets or sheave, observing instructions where matched strands are involved. Ensure that the strength of tackle is sufficient to hold the chain. Chain weights are shown in the Renold catalogue. Do not detach any tackle until the chain is completely assembled.

Never paint a chain since this will prevent the penetration of maintenance lubricant.

Adjustment

After chain installation ensure that all fastenings have been properly tightened.

Carry out any adjustment operations to ensure that all chains are equally loaded.

Test Run

It is advisable to give the system a short test run for the following reasons:

- To check for correct operation
- To ensure there is no cross binding and all chains are carrying an equal load
- To check for any unusual noise or vibration

Maintenance Schedule

Regular chain maintenance is important if maximum life is to be achieved. In a correctly sized and installed system with adequate maintenance lubrication, the chain is expected to last for approximately 6,000 hours or 3 years whichever is shorter.

The following maintenance schedule is suggested.

Regularly

- Check chain adjustment/load sharing and rectify if necessary
- Check for smooth operation while under load in both lifting and lowering directions
- Check for wear on side plates (Max 5 of plate height)
- Check for evidence for twist or side bow
- Check for damaged or cracked plates
- Check for chain elongation (Max 3 FLT chain, 2 Roller chain).
- Check for turned or protruding pins
- Check for cleanliness of components
- Check for shaft and sprocket or sheave alignment
- Check for wear on sprockets or sheaves
- Check the condition of the lubricant
- Relubricate if necessary
- Check the lubrication system if present

The frequency of maintenance checks depends upon environmental conditions such as presence of moisture, temperature extremes, corrosive atmospheres, abrasive contamination etc. The presence of shock or overloads will also reduce life expectancy and increase the requirement for regular checks.

At Least Every 6 Months

Carry out the above checks and procedures on the entire chain. If all parts of the chain cannot be accessed remove it and replace in accordance with manufactures instructions.

Chain Installation and Maintenance

Chain Protection

A new Renold chain should always be stored in its original packing until installation. Renold chain is lubricated at the factory, but this lubrication will not stand up to outdoor conditions for prolonged periods particularly where there is a salt water atmosphere.

Unprotected, lubricated chains will become contaminated with grit and other materials which will harm the chain.

Lubrication

Renold Chain should be protected against dirt and moisture and be lubricated with good quality, non-detergent petroleum based oil. A periodic reoiling is desirable as already outlined. Heavy oils and greases are generally too stiff to enter the chain working surfaces and should not be used.

Care must be taken to ensure that the lubricant reaches the bearing area of the chain. This can be done by directing the oil into the clearances between the inner and outer link plates.

The table below indicates the correct lubricant viscosity for various ambient temperatures.

Ambient Temperature Celsius	Lubricant SAE	Rating BS4231
-5 to +5	20	46 to 68
5 to 40	30	100
40 to 50	40	150 to 220
50 to 60	50	320

For the majority of applications in the above temperature ranges, a multigrade SAE 20/50 oil would be suitable.

Use of Grease

As mentioned, the use of grease is not recommended. However, if grease lubrication is essential it should be noted that applying normal greases to the outside surfaces of a chain only seals the bearing surfaces and will not work into them. This causes premature failure. Grease has to be heated until fluid and the chain immersed and allowed to soak until all air bubbles cease to rise. If this system is used the chains need regular cleaning and regreasing at intervals, depending on the loads in the lifting system.

Abnormal Ambient Temperatures

For elevated temperatures up to 250°C, dry lubricants, such as colloidal graphite or MoS_2 in white spirit or poly-alkaline glycol carriers are most suitable.

Conversely, at low temperatures between -5° and -40°C, special low temperature initial greases and subsequent oil lubricants are necessary. Lubricant suppliers will give recommendations.

Lubricating Methods

There are two basic methods of lubricating lifting systems:

- TYPE 1, Manual Lubrication.

  Oil is applied periodically with a brush or oil can, preferably once every 8 hours of operation. Volume and frequency should be sufficient to just keep the chain wet with oil and allow penetration of clean lubricant into the chain joints.

  Applying lubricant by aerosol can be satisfactory under some conditions, but it is important that the aerosol lubricant is of an approved type for the application, such as that supplied by Renold. This type of lubricant penetrates into the pin/ bush/ roller clearances resisting both the tendency to drip or drain when the chain is stationary and dripping when the chain is moving.

- TYPE 2, Drip or Pressurised Lubrication

  Oil drips or jets are directed between the link plate edges from a lubricator. Volume and frequency should be sufficient to allow penetration of lubricant into the chain joints.

Environmental Factors

Effect of Temperature

During operation an important factor to control in a drive system is the chain temperature. Depending on the severity of the drive service, continuity of use, etc., special attention to the lubrication method may be required.

Chain temperature above 100°C should be avoided if possible due to lubricant limitations, although chain can generally give acceptable performance up to around 250°C in some circumstances.

Low temperatures reduce chain strength by embrittlement. Going in and out of cold storage can result in moisture from condensation.

Chemical Solutions or Vapours

Corrosive attack on the chain components can cause microscopic cracking. This can lead to progressive deterioration followed by dramatic failure.

Abrasives

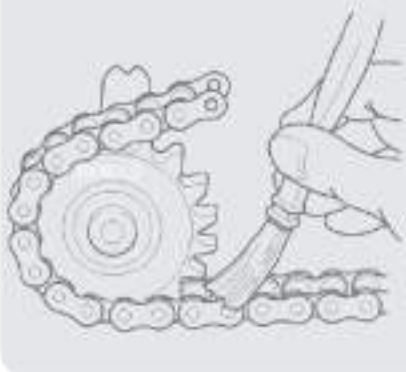
These will cause accelerated wear and is difficult to detect at an early stage.

Dynamic/Shock Loads

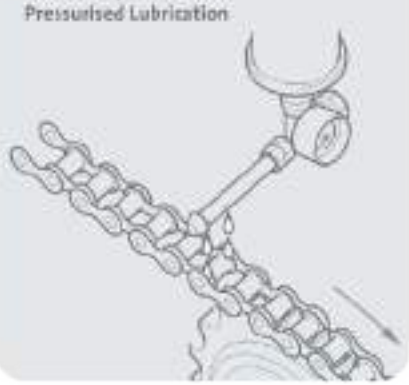
These can lead to early fatigue failure of pins and plates.

All of the above conditions make it very difficult to predict chain life. It is therefore important to monitor chain performance closely until a proper schedule is established.

TYPE 1, Manual Lubrication



TYPE 2, Drip or Pressurised Lubrication



Chain Installation and Maintenance

To Measure Chain Wear

Chain wear can be ascertained by length measurement as follows:

Lay the chain on a flat surface and, after anchoring it at one end, attach to the other end a turnbuckle and a spring balance suitably anchored.

Apply a tension load by means of the turnbuckle amounting to approximately 5% of the chain breaking load.

As an alternative to the use of turnbuckle and spring balance, the chain may be measured in-situ with a nominal weight in the lifting system.

- Measure length 'M' (see Fig A) in millimetres from which the percentage extension can be obtained from the following formula:

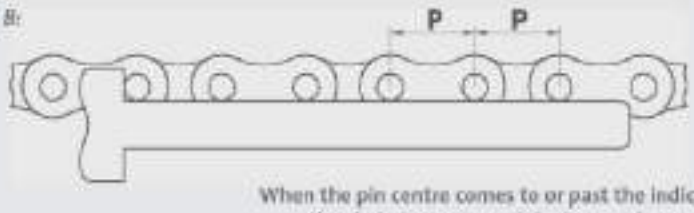
$$\text{Percentage extension} = \frac{M - (X \times P)}{X \times P} \times 100$$

Where X = number of pitches measured
P = pitch in mm

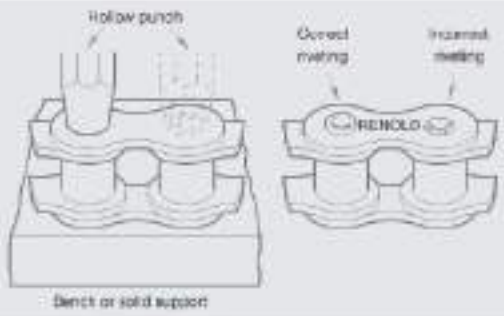
- As a general rule, the useful life of the chain is terminated and the chain should be replaced when the percentage extension reaches 2 per cent (1 per cent in the case of extended pitch chains). For drives with no provision for adjustment, the rejection limit is lower, dependent upon the speed and layout. A usual figure is between 0.7 and 1.0 per cent extension.

Fig A:

Fig B:



When the pin centre comes to or past the indicated point, the chain is worn out: it is time to change the chain.



It is not satisfactory to determine the elongation of a chain by checking its overall length against the nominal length of a new chain. Worn chains must be examined over their full length and then measured on that portion of the chain which has obviously had the most wear. Maximum wear occurs generally to those sections which articulate under load i.e. where the chain passes over a sprocket or sheave.

Renold Chain Wear Guide

A simple to use chain wear guide is available from Renold for most popular sizes of chain pitch (see Fig B)

Riveting Chain

Roller Chains up to 63.5mm (2.5") Pitch

- Insert the bearing pins of the outer link (No. 107) through the inner links of the chain to be joined. If multiplex chain, assemble intermediate plates at the same time
- Provide support for the outer link (No.107) while assembling the separate outer plate. This has a force fit and is driven onto the bearing pins using a hollow punch alternatively on each pin. The plate should be driven to the point of similar clearance between outer and inner links as with the adjacent chain
- Still supporting the outer link (No.107), rivet the bearing pin ends, taking care to finish with a neat uniform spread having a similar appearance to the pins in the adjacent chain. The force required to spread the pin end will vary with the pitch of the chain, excessive riveting force should always be avoided. Except where final chain joining in-situ is necessary, the work should be carried out on a bench
- Check that the newly fitted link articulates freely

Chain Matching

Any application in which two or more strands of chain are required to work side by side would benefit from special matching procedures. These procedures only apply to roller chain and can be summarised as follows:

Length Matching

Chains are accurately measured in handling lengths between 3m and 8m and selected to give overall length uniformity of two (or more) strands.

Pitch Matching

Pitch matched chains are made from shorter subsections around 0.3 to 0.6m in length, graded and joined to give even greater accuracy on both pitch to pitch dimensions and overall lengths.

Colour Coding

The above two methods are factory applied. It is also possible to receive chain coded to give a graded length tolerance within the normal manufacturing limits of 0 to +0.15%.

Contact Renold Chain for further details.

Chain Installation and Maintenance

General

A correctly installed chain will enhance service life and ensure safe operation.

When ordering replacement chains consult your operating/service manual to ensure that the new chain or chains will be supplied to the correct size, length and configuration.

Where a lift truck has a pair of chains, a new pair should always be ordered and replaced. The replacement of only one chain will lead to premature failure of both the new and used chain.

Sprockets

Examination of the tooth faces will give an indication of the amount of wear which has occurred (Fig A). Under normal circumstances this will be evident as a polished worn strip about the pitch circle diameter on each of the sprocket teeth as shown.

If the depth of this wear 'X' has reached an amount equal to 10 of the 'Y' dimension, then steps should be taken to replace the sprocket. Running new chain on sprockets having this amount of tooth wear will cause rapid chain wear.

It should be noted that in normal operating conditions, with correct lubrication the amount of wear 'X' will not occur until several chains have been used.

Sheaves

Check the running diameter and side faces of the flanges of sheaves. There should be no evidence of side wear on the flanges (indicating malalignment). The sheave diameter should not be excessively worn.

Chain

Chain repair should not as a rule be undertaken. A correctly selected and maintained chain should gradually wear out over a period of time, but it should not fail. A length extension check will give an indication of the service life remaining.

Renold chain is prelubricated at the factory to ensure good corrosion resistance and wear properties. If a chain is dry of this lubricant due to cleaning, the chain must be relubricated before fitting to the system..

Other Points

Before refitting the chain check that the chain anchors and sheaves are undamaged. Broken, damaged or worn out anchors and sheaves must be replaced before fitting the chain or chains.

Never fit a chain with a used anchor pin. Pins may have been bent or damaged or have fatigue cracks that cannot be seen by the naked eye. Your operating/service manual will give full and detailed instructions on fitting and adjusting the chain.

Never paint chain or clean chain using steam or high pressure water jets.

If a lifting chain sustains damage due to an overload, jam-up, or by riding over the sprocket teeth or sheave flanges, it should be carefully removed from the drive and given a thorough visual examination. Remove the lubricating grease and oil to make the task easier.

Depending on the damage, it may be practicable to effect temporary repairs using replacement links. It is not, however, a guarantee that the chain has not been overstressed and so made vulnerable to a future failure.

The best policy therefore is to remove the source of trouble and fit a new chain.

Replacing Chain Sets

When replacing chain in multiple point lifting systems the entire chain set should be replaced for the following reasons:

- Used chain may have sustained fatigue cracking that will eventually cause failure.
- Used chain may have elongated which will lead to a premature replacement of a new chain running in parallel.
- The anchors holding the used chain may be at the limit of their adjustment causing misalignment of both the used and new chain.
- A new chain will have a lower rolling resistance than its mating chain causing stress on cylinder cross-heads and sheaves.
- The time and labour cost to change the second chain is minimal once the truck is stripped down ready.

Disconnecting Chain

Disconnecting Leaf Chain

- Two pins need to be removed from one joint. Both pins should be in the same outside plate. With a grinding wheel, grind the heads of both pins flush with the pin link plate. This prevents scoring damage to inside link holes during disassembly. If chain is exposed to grinding dust, chain should be cleaned and relubricated.
- Position a support ring in a clearance hole in the work surface. The support ring serves to support the bottom pin link plate and avoid damage to chain components while driving the pin through the chain.
- Drive the pin through the chain with a hammer and punch. The punch should have a diameter slightly less than the pin link plate aperture. Use a series of small blows rather than a few heavy ones.
- Repeat the above steps with the other pin in the same link.

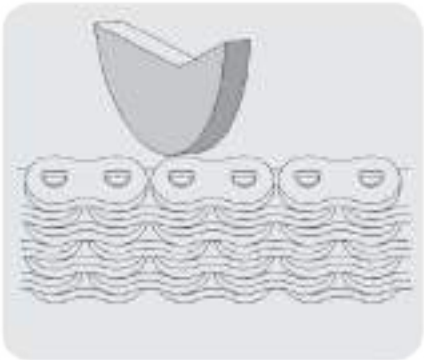
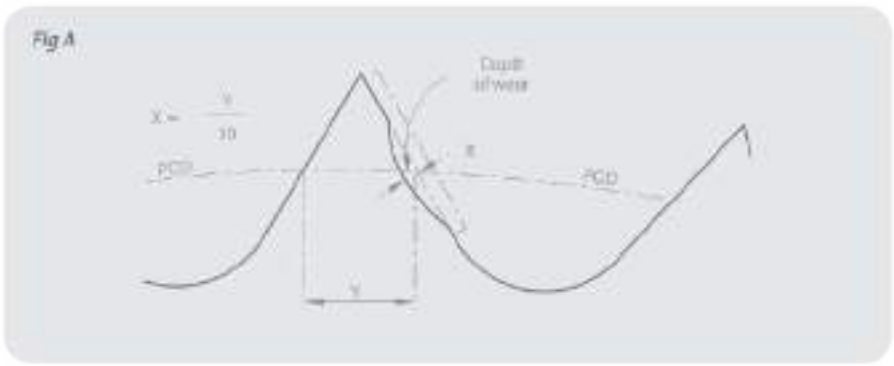
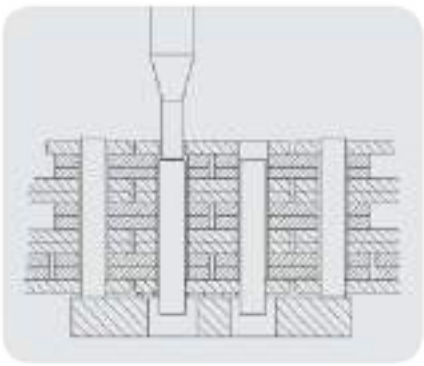


Fig A





Chain Installation and Maintenance

Disconnecting Roller Chain

Renold Chain has end softened pins and for chain up to 1" pitch the pin may be removed using a suitable chain extractor. Otherwise follow the above procedure.

In order to obtain the longest life from a leaf chain, Renold recommends the following procedures for cutting short chain lengths from a new coil or shortening an existing leaf chain.

- Method 1 - Grinding

  Two pins need to be removed. Both pins should be in the same outer link plate. With a grinding wheel, grind the heads of both pins flush with the outer link plate. This will ensure that the pin when pushed out will not damage the portion of the inner link plate holes noted in Fig. B. The joint may now be easily removed with a suitable hammer and punch. If the chain is contaminated with grinding dust, it should be cleaned and re-lubricated before use.

- Method 2 - Pressing

  Two pins need to be removed. Both pins should be in the same outer link plate. Arrange the joint, which is to be removed as shown in Fig. A such that it is at right angles to the line of the chain. This will ensure that the riveted wedge of the pin head when pushed out will not damage the portion of the inner link plate holes noted in Fig. B. Push the pins directly through the inner link plates using a suitable hydraulic or manual press. The movement of the pin through the outer link plate will tend to collapse the riveted end of the pin and allow it to pass freely through the inner link plate holes.

Geeeral

When using either of the above methods ensure that:

- The outer plates are not reused
- The portion of the inner link plate holes noted in Fig. B are not damaged.

Pin removal

To remove the pins, position the chain on a solid support with a clearance hole corresponding to the pin positions. Drive the pin through the first outer link plate using a suitable hammer and punch, with a series of light blows rather than one heavy blow (Method 1) or with a suitable hydraulic or manual press (Method 2).

Once the pin is clear of this outer link plate, carry out the same operation on the second adjacent pin. At this point the pins may be removed by hand or with minimal additional force and should pass unimpeded through the inner link plates. If the pin has to be forced through the inner link plates, due to insufficient collapse of the pin head or poor grinding, excessive damage can occur to the holes of the inner link plates. Inner link plate holes should be visually checked on each cutting operation. Excessively damaged holes will have one or more very discernible grooves running in the direction of the pin removal. If excessive damage is noticed in the portion of the inner link plate holes noted in Fig. B, the chain should not be used.

Fig A: Method 2 - Pressing

Fig B: Pin removal

Safety Warnings

Health & Safety Warning

The following precautions must be taken before disconnecting and removing a chain from a system prior to replacement.

1. Always isolate the power source from the drive or equipment.
2. Always wear safety glasses.
3. Always wear appropriate protective clothing, hats, gloves and safety shoes as warranted by the circumstances.
4. Always ensure tools are in good working condition and used in the proper manner.
5. Ensure there is no residual load in the system by supporting hung weights etc.
6. Always support the chain to avoid sudden unexpected movement of chain or components.
7. Never attempt to disconnect or reconnect a chain unless the correct procedure is fully understood.
8. Ensure that directions for the correct use of any tools are followed.
9. Never reuse individual components.
10. Never reuse a damaged chain or chain part.

General Advice

- Never mix chain from various manufacturers.
- Never build chain from individual components.
- If a chain has been damaged it is likely that parts not obviously damaged are also affected. Replace the entire chain.
- Do not electroplate chain, this can only be accomplished at the factory by plating individual components before assembly. Post electroplated chain will fail due to hydrogen embrittlement.
- Do not carry out welding operations on c chain.
- Do not paint chain.
- Do not anneal or otherwise heat chain above 250°C. If a torch is used to cut chain, the chain should be discarded.
- Do not join lengths of chain together, particularly in safety critical applications.
- Note that the minimum tensile strength quoted in catalogues does not refer to the working load. Designers generally use a factor of at least 5:1 on lifting applications.

Chain Installation and Maintenance

Safety Warning FLT Chain

Never use a connecting link in any lifting application to join leaf or roller chain lengths together, in any manner that does not have the truck manufacturers approval. Misuse of connecting links will render your chain warranty void and subject the user to a safety hazard. Renold Distributors will not supply connecting links for this purpose.

When chains are sold as assemblies, the connecting pins must be fitted to the chain anchor and chain using the approved method outlined by the truck manufacturer.

If you are unsure about the correct method, contact your local Renold Chain Representative or the Truck Manufacturer direct.

The following notes highlight the common modes of failure in lifting chain.

Modes of Failure

Normal Wear

When the chain reaches the end of its normal wear life it should be replaced. It is important to measure the chain in the section that moves over the sprockets or sheaves which do the greater amount of work.

Plate Edge Wear (Fig 3)

Plate edge wear occurs where the chain runs over the sheave. This can be compared to a normal plate height by measuring an unworn portion.

Distorted or Damaged Plates

These can cause tight joints and prevent chain articulation.

Turned or Protuding Pins (Fig 4)

Inadequately lubricated or highly loaded chain generates high frictional load between pin and plates. In extreme cases the torque exceeds interference fit between the pin and the outer plates, resulting in pin turning. This ultimately causes the pin to screw out of the plates resulting in failure.

The pin head rivets should be examined to determine if the "VEE" flats are still in correct alignment. Chain with rotated/displaced heads or abnormal pin protrusion should be replaced immediately. Do not attempt to repair the chain by welding or driving the pin(s) back into the chain. Once the press fit integrity between outside plates and pins has been altered it cannot be restored.

Wear on the Pin Heads

Caused by chain misalignment. This condition damages the chain and should be corrected.

Cracked Plates (Fig 1)

Cracked plates can have a number of causes. In any event any cracks discovered in a chain will render it unsafe. Chain should be immediately replaced.

Reasons for Plate Cracking

- Fatigue cracks caused by cyclic loading beyond the chain's endurance limit, which normally start at the plate hole (point of highest stress) and perpendicular to the chain pitch line.

  There is no noticeable yielding (stretch) of the material.
- Stress corrosion cracking (Fig 2) due to the presence of harsh environmental conditions. These also start at the plate hole but tend to extend in an arc-like path between the plate holes.

More than one crack can often appear on a plate. This can be caused by the presence of acid or caustic fluids or vapours in combination with a static stress. The interference fit between a pin and plate gives sufficient static stress. This means that in the right environmental conditions, the chain can crack even if under no load. For example, the presence of battery acid fumes in a warehouse could cause cracking in a chain stored on the shelf.

- Never electroplate a chain or its components. This process liberates hydrogen, and hydrogen embrittlement cracks will appear. These are similar in appearance to stress corrosion cracks.

  Plated chains have to be produced by Renold Chain under controlled conditions which ensure no embrittlement takes place.

  Corrosion fatigue cracks are in appearance very similar to normal fatigue cracks.
- Corrosion fatigue results from an aggressive environment combined with a cyclic stress. (Stress corrosion cracks are caused by a static stress).

Tensile Failure (Fig 5)

Tensile failure results from repeatedly loading the chain above its elastic limit. (Approximately 65 of breaking load).

Side plates appear stretched and distorted and plate holes often elongate and break out.

Tight Joints

Tight joints do not rotate freely, resulting in high friction. This means that the lifting mechanism becomes less efficient and accelerates the onset of wear and fatigue related problems.

Fig 1

Fig 2

Fig 3

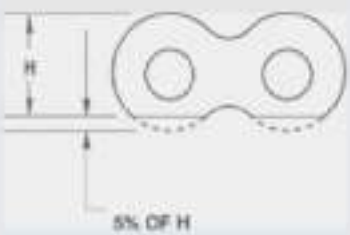


Fig 4

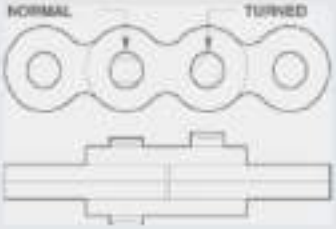


Fig 5

Chain Installation and Maintenance

Troubleshooting

Problem	Probable Cause	Solution
Anchor fails	• High overload	• Replace anchor and chain set. • Correct cause of overload.
Chain climbing or jumping off the sprocket or sheave	• Chain or sprockets worn • Foreign build up in the tooth gap (sprockets only)	• Replace the chain and sprockets/ sheave if necessary. • Clean the sprocket teeth of all material so that the chain engages correctly
Chain elongation (A gradual increase over its life is normal)	• Lubrication failure • Overload conditions	• Replace chain and sprockets or sheaves • Check lubrication failure. • Check lubrication, drive configuration and loadings. • Replace chain.
Chain running hot	• Lubrication method or type of lubrication is unsuitable for the operating speed and the load being transmitted • Insufficient lubrication • Chain continually hitting an obstruction • Incorrect chain size selected for the speed and load	• Increase the lubrication frequency and quantity • Consider changing lubricant • Increase the frequency of lubrication in line with good maintenance practice • Remove the obstruction • Check the chain selection as a larger pitch or multistrand chain of equivalent capacity may be required
Corrosion pitting	• Exposure to corrosive environment	• Replace chain set and protect from hostile environment
Enlarged holes 	• Chain misaligned	• Replace chain set and correct cause of overload
Excessive noise	• Misalignment of sprockets/sheaves • Inadequate lubrication • Worn or incorrectly fitted bearings • Worn chain or sprockets/sheaves • Tight joints • Heavy impulsive loads • Obstruction in the chain path	• Misalignment introduces abnormal loading and wear • Recheck alignment to maintain normal drive conditions • Improve the lubrication method to ensure the proper amount of lubrication is available in the bearing areas • Replace or correct the bearings as these will malign the entire drive • Replace the chain and, where necessary, the sprockets/sheaves • Replace chain set • Reduce the load • Remove the costruction

Chain Installation and Maintenance

Troubleshooting

Problem	Probable Cause	Solution
Heavy wear on sprocket teeth working faces. (a bright polished appearance is normal)	• Poor lubrication • Presence of abrasive	• Improve the method of lubrication, (see lubrication section). • Check for presence of foreign materials and elliminate the source. • Replace sprockets and chain if necessary.
Kinks in chain (joints tight) 	• Worn chain or sprockets/sheaves • Bent pins due to overload • Chain corroded • Peened plate edges • Dirt or foreign substance in joints	• Replace chain sets and sprockets/sheaves. • Check lubrication. • Correct overload condition, replace chain set. • Clean chain with wire brush and relubricate. Replace chain set as soon as possible. • Mechanical damage, remove cause. Replace chain set as soon as possible. • Clean chain and relubricate.
Pin fails 	• System loading is greater than the capacity of the chain	• Check the safety factor to determine if the chain capacity has been exceeded. • Reduce high load condition. • Replace with chain of larger capacity.
Protruding or turned pins	• Lack of lubrication • High loads	• Replace chain set immediately. • Ensure proper lubrication regime. • Replace chain set.
Rust present on chain	• Inadequate lubrication. This will also affect the joints which will be discoloured, (light to dark brown) and could be rough, grooved or galled	• Remove several joints and check that the components are not severely damaged. Replace chain and sprockets as necessary • Improve lubrication method
Sheave worn	• Chain misaligned	• Replace chain and sheave. • Correct misalignment.
Side plates are worn	• Wear on the inside of the plate is caused by sprocket misalignment • Wear on the top of the side plate is caused by the chain rubbing against some obstruction • Normal wear on leaf chain against sheave • Abnormal wear on leaf chain rubbing against guides	• Check and adjust sprocket and shaft alignment • Remove source of rubbing by removing the obstruction • Replace chain at 5 wear • Check alignment, increase clearance.

Chain Installation and Maintenance

Troubleshooting

Problem	Probable Cause	Solution
Side plate fails 	• Fatigue cracks due to high dynamic load • Stress corrosion due to severe rusting or exposure to acidic or caustic medium • Tensile failure due to high overload	• Reduce loads • Replace chain with higher capacity • Replace chain set and protect from hostile environment • Replace chain set and correct cause of overload
Twisted chain 	• Lubrication failure • Overload conditions	• Replace chain and sprockets or sheaves • Check lubrication failure • Check lubrication, drive configuration and loadings • Replace chain
Wear on the sides of the sprocket teeth	• Drive misalignment	• Check and correct sprocket and shaft alignment
Worn surfaces on outside links or pin heads	• Misalignment rubbing on guides	• Check alignment and correct

Safety warning

Outer Link: for high speed drives or drives operating in arduous conditions a properly riveted outer link (No 107) must always be used for optimum security, in preference to any other form of chain joint. The use of other connectors and cranked links (No 12 and No 30) must always be restricted to light duty, non-critical applications, in drives where an odd number of pitches is absolutely unavoidable. Wherever possible, drives should have sufficient overall adjustment to ensure the use of an even number of pitches throughout the useful life of the chain. A cranked link joint should only be used as a last resort.

Health and Safety at work

In the interests of safety, customers are reminded that when purchasing any technical product for use at work (or otherwise), any additional or up-to-date information and guidance, which it has not been possible to include in the publication, should be obtained by you from your local sales office in relation to the suitability and the safe and proper use of the product. All relevant information and guidance must be passed on by you to the person engaged in, or likely to be affected by or responsible for the use of the product.

Chain performance

The performance levels and tolerances of our product stated in this catalogue (including without limitation, serviceability, wear life, resistance to fatigue, corrosion protection) have been verified in a programme of testing and quality control in accordance with Renold, independent and/or international standard recommendations.

No representations or warranties are given that our product shall meet the stated performance levels or tolerances for any given application outside the performance levels and tolerances for the product's own specific application and environment.

Guidance notes

Whilst all reasonable care in compiling the information contained in this catalogue is taken, no responsibility is accepted for errors. All information contained in this catalogue is subject to change without notice.

Illustrations - The illustrations used in this catalogue represent the type of product described but the goods supplied may vary in some detail from those illustrated.

Specifications - The right is reserved to make modifications to the product to meet manufacturing conditions and/or developments (for example in design or materials).

Renold - Product can be supplied by Renold companies or representatives around the world on the standard terms and conditions of sale of the company or representative from which the product is purchased.

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