

RENOLD

palm oil mill chain



RENOLD

Continuous Improvement

Palm Oil industry - conveyor chain

RENOLD - ULTIMATE DESIGN

Following the successful launch of the Renold Premier Series, our design engineers have further developed the range of Palm Oil Chains. This has been achieved by paying close attention to material and heat treatment specifications on all components.

In recent years many of our competitors have attempted to achieve higher breaking loads, but it must be appreciated that it is easy to do this simply by increasing component hardness. If carried out in an uncontrolled way this results in brittle materials which can easily break when subjected to high impact loads such as might occur in a mechanical jam.

Renold has not only improved tensile strength but has ensured that the chain components remain tough and resistant to impact.



SPECIAL DESIGN FEATURES

Correct chain selection is essential for optimum performance. Renold's experienced sales, production and design staff are always available to advise on particular products and applications.

Large diameter deep case hardened bearing pin with softened ends and all round riveting for additional security. The Renold large pin diameter increases the bearing area thus reducing bearing pressure and prolonging chain life.

Substantial diameter rollers coupled with a large bush diameter to reduce bearing pressure and improve wear performance.

Optimum heat treatment processes on pin, bush and roller for greater wear resistance.

Robust bush with keyed feature to prevent distortion during assembly ensuring excellent concentricity.

Bush projection designed to reduce friction between the inner and outer plates and maintain clearances during operation allowing efficient lubricant penetration.

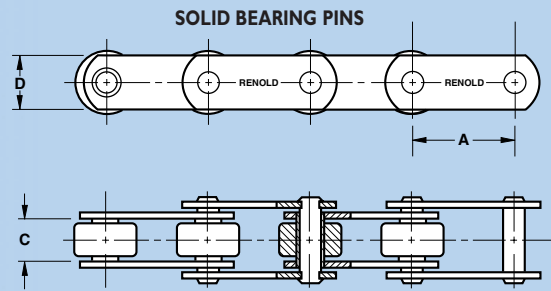
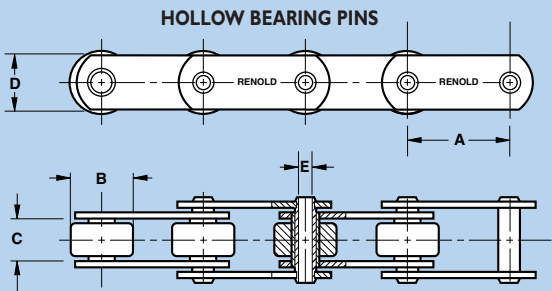
Tightly controlled plate production methods resulting in the optimum interference fits for increased fatigue resistance.

Improved material specification resulting in a further significant increase in chain tensile strength across the range.

Precise pitch control ensures excellent gearing with chain sprockets resulting in improved performance.

Palm Oil industry - conveyor chain

RENOLD



STANDARD

Chain Ref.	Pitch		Breaking load		Roller Dia.		Inside width		Plate Depth		Hollow Pin Bore		Pin/Bush Bearing Area		Mass kg/m
	inch	mm	lbf	Newtons	inch	mm	inch	mm	inch	mm	Dia inch	Dia mm	in ²	mm ²	
	A	A			B	B	C	C	D	D	E	E			

SOLID BEARING PIN

S45161	4.0	101.6	18000	80000	1.875	47.6	0.75	19.0	1.50	38.1	-	-	0.94	603	6.43
S45241	6.0	152.4	18000	80000	1.875	47.6	0.75	19.0	1.50	38.1	-	-	0.94	603	5.24
S45162	4.0	101.6	32000	142000	2.625	66.7	1.00	25.4	2.00	50.8	-	-	1.75	1128	14.22
S45242	6.0	152.4	32000	142000	2.625	66.7	1.00	25.4	2.00	50.8	-	-	1.75	1128	11.18
S45243	6.0	152.4	50000	222000	3.500	88.9	1.50	38.1	2.40	61.0	-	-	2.88	1856	24.15

HOLLOW BEARING PIN

S05161	4.0	101.6	15000	67000	1.875	47.6	0.75	19.0	1.50	38.1	0.52	13.2	0.94	603	5.91
S05162	4.0	101.6	26000	116000	2.625	66.7	1.00	25.4	2.00	50.8	0.79	20.1	1.75	1128	12.74
S05242	6.0	152.4	26000	116000	2.625	66.7	1.00	25.4	2.00	50.8	0.79	20.1	1.75	1128	10.91
S05243	6.0	152.4	44000	196000	3.500	88.9	1.50	38.1	2.40	61.0	0.91	23.1	2.88	1856	22.18

PREMIER

Chain Ref.	Pitch		Breaking load		Roller Dia.		Inside width		Plate Depth		Hollow Pin Bore		Pin/Bush Bearing Area		Mass kg/m
	inch	mm	lbf	Newtons	inch	mm	inch	mm	inch	mm	Dia inch	Dia mm	in ²	mm ²	
	A	A			B	B	C	C	D	D	E	E			

SOLID BEARING PIN

E45161	4.0	101.6	26000	116000	1.875	47.6	0.75	19.0	1.50	38.1	-	-	0.94	603	6.43
E45241	6.0	152.4	26000	116000	1.875	47.6	0.75	19.0	1.50	38.1	-	-	0.94	603	5.24
E45162	4.0	101.6	50000	222000	2.625	66.7	1.00	25.4	2.00	50.8	-	-	1.75	1128	14.22
E45242	6.0	152.4	50000	222000	2.625	66.7	1.00	25.4	2.00	50.8	-	-	1.75	1128	11.18

HOLLOW BEARING PIN

E05161	4.0	101.6	17000	76000	1.875	47.6	0.75	19.0	1.50	38.1	0.52	13.2	0.94	603	5.91
E05162	4.0	101.6	36000	160000	2.625	66.7	1.00	25.4	2.00	50.8	0.79	20.1	1.75	1128	12.74
E05242	6.0	152.4	36000	160000	2.625	66.7	1.00	25.4	2.00	50.8	0.79	20.1	1.75	1128	10.91

PREMIER EXTRA

Chain Ref.	Pitch		Breaking load		Roller Dia.		Inside width		Plate Depth		Hollow Pin Bore		Pin/Bush Bearing Area		Mass kg/m
	inch	mm	lbf	Newtons	inch	mm	inch	mm	inch	mm	Dia inch	Dia mm	in ²	mm ²	
	A	A			B	B	C	C	D	D	E	E			

SOLID BEARING PIN

X62161	4.0	101.6	30000	134000	1.875	47.6	0.75	19.0	1.50	38.1	-	-	0.94	603	6.43
X62241	6.0	152.4	30000	134000	1.875	47.6	0.75	19.0	1.50	38.1	-	-	0.94	603	5.24
X62162	4.0	101.6	60000	267000	2.625	66.7	1.00	25.4	2.00	50.8	-	-	1.75	1128	14.22
X62242	6.0	152.4	60000	267000	2.625	66.7	1.00	25.4	2.00	50.8	-	-	1.75	1128	11.18

HOLLOW BEARING PIN

X02161	4.0	101.6	24000	107000	1.875	47.6	0.75	19.0	1.50	38.1	0.52	13.2	0.94	603	5.91
X02242	6.0	152.4	50000	222000	2.625	66.7	1.00	25.4	2.00	50.8	0.79	20.1	1.75	1128	10.91

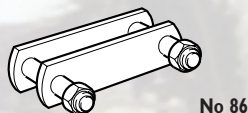
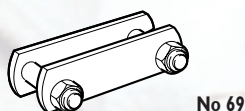
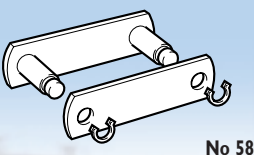
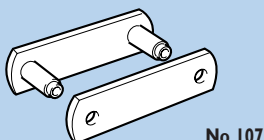
For further details of Renold's vast range of Conveyor Products please contact us now.

Palm Oil chain - value through quality

RENOLD ULTIMATE SPECIFICATION - CONVEYOR CHAIN

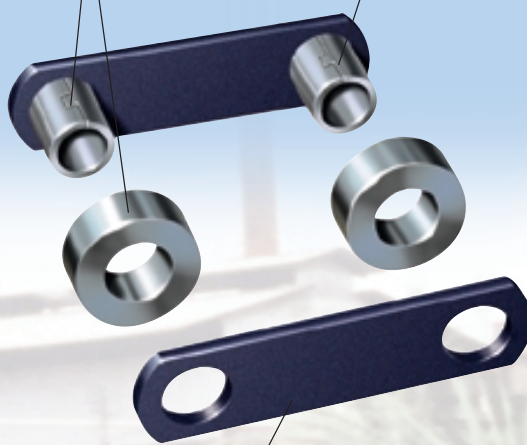
The Renold Palm Oil Chain specification results from years of design, test and application experience ensuring product reliability and consistency. In order to optimise product performance, we strictly control: materials specification, heat treatment, processes, fits, assembly, lubrication and packaging.

CHAIN JOINTS AVAILABLE



Optimum heat treatment processes on pin, bush and roller for greater wear resistance.

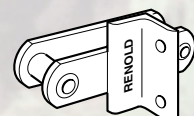
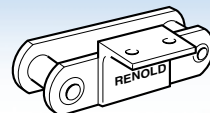
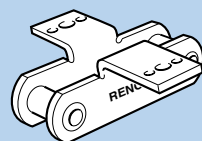
Robust bush with keyed feature to prevent distortion during assembly ensuring excellent concentricity.



New material specification for increased strength with significant increase in chain breaking load.

ATTACHMENT TYPES AVAILABLE

For other attachment designs please contact us



RENOLD ULTIMATE SPECIFICATION - TRANSMISSION CHAIN

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

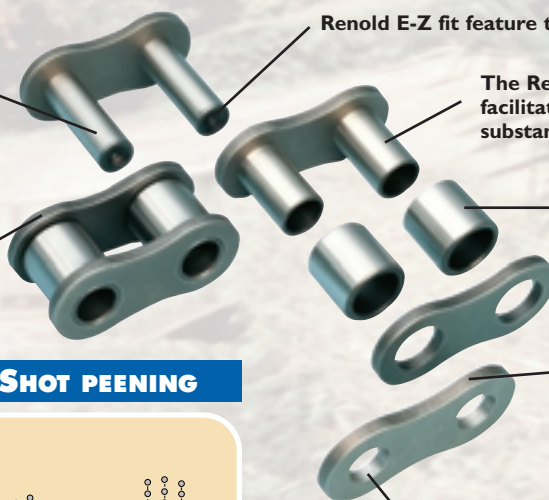
Fatigue life is substantially improved by optimising fits and controlling plate hole quality. Sprocket life is enhanced by matching the chain gearing exactly to the Renold tooth form.

Renold E-Z fit feature to minimise downtime.

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

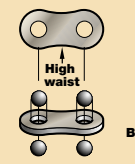
Roller and bush life are maximised by the use of highly technological components and the careful selection and control of the heat treatment process.

The high waisted plate shape, pioneered by Renold in 1975, ensures optimum stress distribution.

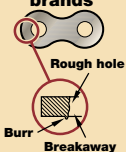


BALL DRIFTING

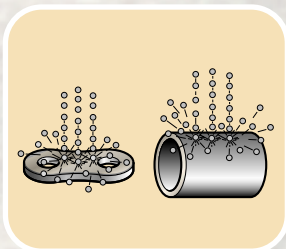
RENOLD



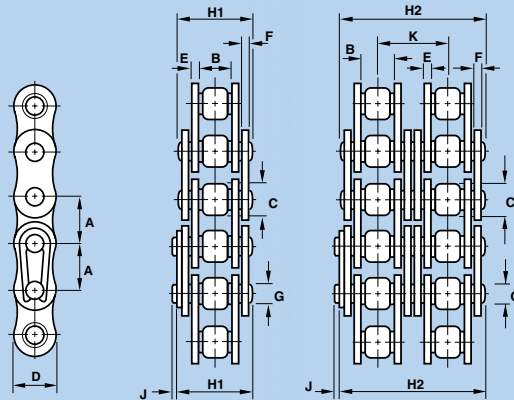
Other brands



SHOT PEENING



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



Chain

Technical Details

Connecting Links

ISO No	Renold Chain No	Pitch Inch	Pitch mm	Inside Width	Roller Dia	Plate Height Inner	Plate Width Outer	Plate Width	Pin Dia	Pin Length Extra	Con Link	Trans Pitch Min	F _B Newtons min	Weight kg/m	No 4	No 107	No 11	No 26	No 12	No 30	No 58
		A	A	B	C	D	E	F	G	H1	J	K									

BS SIMPLEX

06B-1	110038	0.375	9.530	5.72	6.35	8.26	1.30	1.04	3.28	13.50	3.3	-	8900	0.39	✓	✓	-	✓	-	✓	-
08B-1	110046	0.500	12.700	7.75	8.51	11.81	1.55	1.55	4.45	17.00	3.9	-	17800	0.70	✓	✓	-	✓	-	✓	-
	111044	0.500	12.700	3.30	7.75	9.60	1.13	0.98	4.09	9.80	3.9	-	8900	0.30	✓	✓	-	✓	-	✓	-
	111046	0.500	12.700	4.88	7.75	9.60	1.13	0.98	4.09	11.40	3.9	-	8900	0.35	✓	✓	-	✓	-	✓	-
	111044	0.500	12.700	5.21	8.51	11.81	1.55	1.55	4.45	14.46	3.9	-	17800	0.70	✓	✓	-	✓	-	✓	-
10B-1	110056	0.625	15.880	9.65	10.16	14.73	1.55	1.55	5.08	19.60	4.1	-	22200	0.92	✓	✓	-	✓	-	✓	-
	110054	0.625	15.880	6.48	10.16	14.73	1.55	1.55	5.08	16.00	4.1	-	22200	0.81	✓	✓	-	✓	-	✓	-
12B-1	110066	0.750	19.050	11.68	12.07	16.13	1.80	1.80	5.72	22.70	4.6	-	28900	1.20	✓	✓	-	✓	-	✓	-
16B-1	110088	1.000	25.400	17.02	15.88	21.08	4.12	3.10	8.28	36.10	5.4	-	60000	2.80	✓	✓	-	✓	✓	-	-
20B-1	110106	1.250	31.750	19.56	19.05	26.42	4.62	3.61	10.19	43.20	6.1	-	95000	3.85	✓	✓	-	✓	✓	-	-
24B-1	110127	1.500	38.100	25.40	25.40	33.40	6.10	5.08	14.63	53.40	6.6	-	160000	7.45	✓	✓	✓	-	✓	-	-

BS DUPLEX

												H2										
06B-2	114038	0.375	9.530	5.72	6.35	8.26	1.30	1.04	3.28	23.80	3.3	10.24	16900	0.74	✓	✓	-	✓	-	✓	-	
08B-2	114046	0.500	12.700	7.75	8.51	11.81	1.55	1.55	4.45	31.00	3.9	13.92	31100	1.38	✓	✓	-	✓	-	✓	-	
10B-2	114056	0.625	15.880	9.65	10.16	14.73	1.55	1.55	5.08	36.20	4.1	16.59	44500	1.80	✓	✓	-	✓	-	✓	-	
12B-2	114066	0.750	19.050	11.68	12.07	16.13	1.80	1.80	5.72	42.20	4.6	19.46	57800	2.40	✓	✓	-	✓	-	✓	-	
16B-2	114088	1.000	25.400	17.02	15.88	21.08	4.12	3.10	8.28	68.00	5.4	31.88	106000	5.50	✓	✓	-	✓	✓	-	-	
20B-2	114106	1.250	31.750	19.56	19.05*	26.42	4.62	3.61	10.19	79.70	6.1	36.45	170000	7.80	✓	✓	-	✓	✓	-	-	
24B-2	114127	1.500	38.100	25.40	25.40	33.40	6.10	5.08	14.63	101.80	6.6	48.36	280000	14.80	✓	✓	✓	-	✓	-	-	

ANSI SIMPLEX

												H1										
35-1	129033*	0.375	9.530	4.68	5.08	9.05	1.30	1.30	3.59	15.50	3.3	-	7900	0.33	✓	✓	-	✓	✓	✓	-	
40-1	119043	0.500	12.700	7.85	7.92	12.07	1.55	1.55	3.98	17.80	3.9	-	13900	0.63	✓	✓	✓	✓	✓	✓	-	
41	119040	0.500	12.700	6.35	7.77	9.91	1.30	1.30	3.59	14.50	2.0	-	6700	0.42	✓	✓	✓	✓	✓	✓	-	
50-1	119053	0.625	15.880	9.40	10.16	15.09	2.03	2.03	5.07	21.80	4.1	-	21800	1.05	✓	✓	✓	✓	✓	✓	-	
60-1	119063	0.750	19.050	12.57	11.91*	18.10	2.39	2.39	5.96	26.90	4.6	-	31300	1.55	✓	✓	✓	✓	✓	✓	-	
80-1	119083	1.000	25.400	15.75	15.88	24.13	3.25	3.25	7.93	33.50	5.4	-	55600	2.80	✓	✓	✓	-	✓	-	✓	
100-1	119103	1.250	31.750	18.90	19.05	30.17	4.06	4.06	9.54	41.10	6.1	-	87000	4.20	✓	✓	✓	-	✓	-	✓	
120-1	119123	1.500	38.100	25.23	22.23	36.20	4.80	4.80	11.11	50.80	6.6	-	125000	5.70	✓	✓	✓	-	✓	-	✓	

ANSI DUPLEX

												H2										
35-2	125033*	0.375	9.530	4.68	5.08	9.05	1.30	1.30	3.59	25.65	3.3	10.13	15800	0.65	✓	✓	-	✓	✓	✓	-	
40-2	115043	0.500	12.700	7.85	7.92	12.07	1.55	1.55	3.98	32.20	3.9	14.38	27800	1.20	✓	✓	✓	✓	✓	✓	-	
50-2	115053	0.625	15.880	9.40	10.16	15.09	2.03	2.03	5.07	39.90	4.1	18.11	43600	2.10	✓	✓	✓	✓	✓	✓	-	
60-2	115063	0.750	19.050	12.57	11.91	18.10	2.39	2.39	5.96	49.80	4.6	22.78	62600	3.05	✓	✓	✓	✓	✓	✓	-	
80-2	115083	1.000	25.400	15.75	15.88	24.13	3.25	3.25	7.93	62.70	5.4	29.29	111200	5.50	✓	✓	✓	-	✓	-	✓	
100-2	115103	1.250	31.750	18.90	19.05	30.17	4.06	4.06	9.54	77.00	6.1	35.76	174000	8.40	✓	✓	✓	-	✓	-	✓	
120-2	115123	1.500	38.1	25.23	22.23	36.20	4.80	4.80	11.11	96.30	6.6	45.44	250000	11.00	✓	✓	✓	-	✓	-	✓	

* = BUSH CHAIN

F_B = AXIAL BREAKING FORCE



No.4



No.107



No.11/58



No.26



No.12

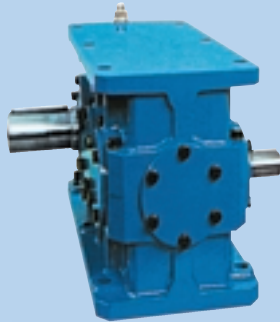


No.30

ALSO AVAILABLE FROM **RENOLD**

HC SERIES

The HC Series of gear units include helical and bevel/helical types, foot, shaft mounted, speed reducer and motorised options. The ratio range is 1.12:1 to 1250:1 power capacity of up to 1000kW.



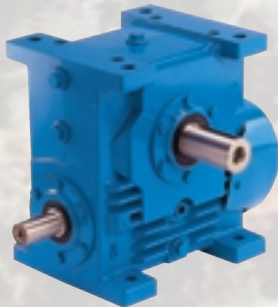
TW SERIES

The TW Series range of 10" to 28" centres, heavy-duty worm units is available in single and double reduction types, ratios from 5:1 up to 4900:1, with input powers from 16 to 506kW. Suitable for digester drives.

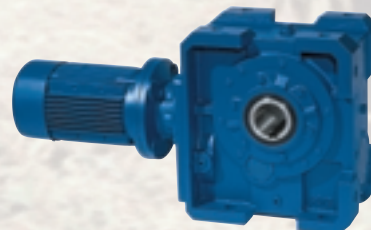
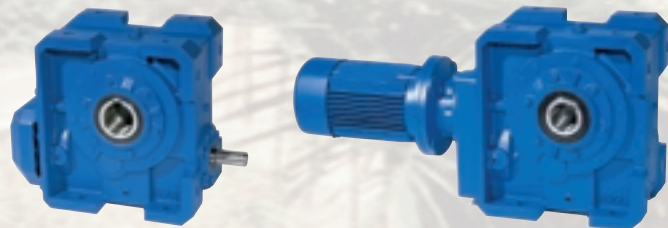


WM SERIES

The WM Series is available with 4" - 9" centres and ratios of 5:1 to 70:1 as a single reduction unit and 75:1 to 4900:1 as a double reduction. Foot, flange and shaft mounted types available.



e.PM SERIES



CARTER VARIATOR

Hydrostatic variable speed drives with a 27:1 speed range and capacities up to 22kW. Suitable for the control of autofeeders.



The e.PM range of gear units is available in worm, helical/worm or helical/bevel/helical drive options to give the optimum solution for all palm oil applications including capstan roller/crusher and thresher drives.

Unique quality and safety

RENOLD

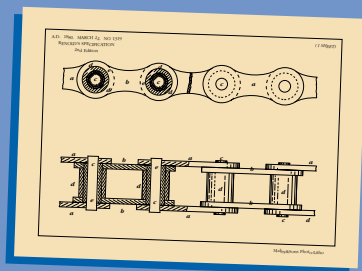
'IN A CLASS OF ITS OWN'

Renold, the inventor of Bush Roller Chain has led the world in chain technology for more than a century.



Only products designed and supplied to our specification carry the MARK OF EXCELLENCE, 'RENOLD'. You can be sure that when you choose such a product, Renold Service, Quality, Value for Money and LONG LIFE PERFORMANCE are guaranteed.

Original patent drawing 1880



A UNIQUE SERVICE



Renold, the premier chain company is dedicated to providing national and global customers with products to the ultimate of specification and design, manufactured to exceed the highest international standards.

Investment in manufacturing and process technology, combined with an international sales and distribution network, places Renold's commitment to the development of chain products and customer service at the forefront of the industry. Renold's 16 national sales companies and over 70 country distributors around the world have direct access to extensive Renold design, test and manufacturing facilities, enabling the chain required to be promptly specified and produced. Renold, the power transmission specialists, provide a worldwide customer orientated product service.

CONSISTENCY

Only materials that meet the Renold exacting specifications are used for the manufacture of our chain components.

Continual investment in new technology demonstrates Renold's commitment to innovation. State of the art automatic assembly, ensures consistent quality of all Renold components.



Stringent process controls are in place at every stage of production. Every chain is proof loaded, resulting in minimum initial wear, greater fatigue resistance and improved wear performance.



Corrosion protection and long life are achieved by automatically pre-lubricating every chain with a specially formulated grease. Chain lubrication is one of the most important factors in achieving a long and trouble free service life. Renold can advise the correct method to suit your needs.



QUALITY

Our commitment to quality ensures that Renold Transmission and Conveyor Chain conforms to and surpasses the highest international standards of manufacture and design, including approval by the American Petroleum Institute.

All of our manufacturing systems conform to ISO9001.

Renold employees are fully trained to ensure all products meet the unique Renold specification.



We also manufacture to the specifications required by API, BAe, CAA, LONDON UNDERGROUND, ROLLS-ROYCE and JAGUAR.



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