DIAMOND®
CHAIN COMPANY

DIAMOND®

OIL FIELD ROLLER CHAIN

CHAIN DESCRIPTIONS AND DIMENSIONS

Roller chains used in the oil and gas industry are subject to some of the greatest operating loads and harshest environments. Diamond Chain produces its oil and gas roller chain to meet or exceed the standards set by the American Petroleum Institute's (API) specification 7F. It is highly recommended that multi strand chains used in oil field operations be constructed with press-fit center plates.

American Petroleum Institute
7F-0003

Dimensions in Inches

ANSI NUMBER	PITCH INCHES	ROLLER WIDTH	ROLLER DIAMETER	PIN DIAMETER	LINK PLATE THICKNESS	C	R	K	POUNDS PER FOOT	AVERAGE TENSILE STRENGTH	E*	H*
60	3/4	1/2	.469	.234	.044	1.11	1.04	....	.99	8500	0.615	0.713
60H	3/4	1/2	.469	.234	.125	1.24	1.17	....	1.18	8500	0.615	0.713
60-2	3/4	1/2	.469	.234	.094	2.01	1.94	.897	1.95	17000	0.615	0.713
60H-2	3/4	1/2	.469	.234	.125	2.27	2.20	1.028	2.33	17000	0.615	0.713
60-3	3/4	1/2	.469	.234	.094	2.91	2.84	.897	2.88	25500	0.615	0.713
60H-3	3/4	1/2	.469	.234	.125	3.31	3.24	1.028	3.47	25500	0.615	0.713
60-4	3/4	1/2	.469	.234	.094	3.81	3.74	.897	3.90	34000	0.615	0.713
60H-4	3/4	1/2	.469	.234	.125	4.34	4.26	1.028	4.61	34000	0.615	0.713
60-5	3/4	1/2	.469	.234	.094	4.71	4.64	.897	4.97	42500	0.615	0.713
60-6	3/4	1/2	.469	.234	.094	5.60	5.53	.897	5.96	51000	0.615	0.713
60-8	3/4	1/2	.469	.234	.094	7.40	7.33	.897	7.94	68000	0.615	0.713
60-10	3/4	1/2	.469	.234	.094	9.19	9.12	.897	9.92	85000	0.615	0.713
80	1	5/8	.625	.312	.125	1.44	1.32	....	1.73	14500	0.820	0.950
80H	1	5/8	.625	.312	.156	1.57	1.45	....	2.02	14500	0.820	0.950
80-2	1	5/8	.625	.312	.125	2.59	2.47	1.153	3.37	29000	0.820	0.950
80H-2	1	5/8	.625	.312	.156	2.84	2.72	1.283	3.93	29000	0.820	0.950
80-3	1	5/8	.625	.312	.125	3.74	3.62	1.153	5.02	43500	0.820	0.950
80H-3	1	5/8	.625	.312	.156	4.14	4.02	1.283	5.92	43500	0.820	0.950
80-4	1	5/8	.625	.312	.125	4.90	4.79	1.153	6.73	58000	0.820	0.950
80H-4	1	5/8	.625	.312	.156	5.42	5.30	1.283	7.87	58000	0.820	0.950
80-5	1	5/8	.625	.312	.125	6.06	5.94	1.153	8.40	72500	0.820	0.950
80-6	1	5/8	.625	.312	.125	7.22	7.10	1.153	10.07	87000	0.820	0.950
80-8	1	5/8	.625	.312	.125	9.53	9.40	1.153	13.41	116000	0.820	0.950

*Maximum values are shown.
NOTE: ANSI 60 and larger chains are available as cottered or riveted type design.
Multiple strand chains are available with slip-fit (standard) or press-fit center plates.

NOTHING OUTLASTS A DIAMOND.®

Dimensions in Inches

ANSI NUMBER	PITCH INCHES	ROLLER WIDTH	ROLLER DIAMETER	PIN DIAMETER	LINK PLATE THICKNESS	C	R	K	POUNDS PER FOOT	AVERAGE TENSILE STRENGTH	E*	H*
100	1 1/4	3/4	.750	.375	.156	1.73	1.61	....	2.51	24000	1.025	1.188
100H	1 1/4	3/4	.750	.375	.187	1.86	1.74	....	2.82	24000	1.025	1.188
100-2	1 1/4	3/4	.750	.375	.156	3.14	3.02	1.408	4.91	48000	1.025	1.188
100H-2	1 1/4	3/4	.750	.375	.187	3.41	3.28	1.539	5.58	48000	1.025	1.188
100-3	1 1/4	3/4	.750	.375	.156	4.56	4.43	1.408	7.40	72000	1.025	1.188
100H-3	1 1/4	3/4	.750	.375	.187	4.96	4.82	1.539	8.32	72000	1.025	1.188
100-4	1 1/4	3/4	.750	.375	.156	5.97	5.84	1.408	9.80	96000	1.025	1.188
100H-4	1 1/4	3/4	.750	.375	.187	6.49	6.37	1.539	11.04	96000	1.025	1.188
100-5	1 1/4	3/4	.750	.375	.156	7.38	7.25	1.408	12.20	120000	1.025	1.188
100-6	1 1/4	3/4	.750	.375	.156	8.78	8.66	1.408	14.60	144000	1.025	1.188
100-8	1 1/4	3/4	.750	.375	.156	11.6	11.48	1.408	19.40	192000	1.025	1.188
120	1 1/2	1	.875	.437	.187	2.14	2.00	....	3.69	34000	1.230	1.425
120H	1 1/2	1	.875	.437	.219	2.27	2.13	....	4.08	34000	1.230	1.425
120-2	1 1/2	1	.875	.437	.187	3.93	3.79	1.789	7.35	68000	1.230	1.425
120H-2	1 1/2	1	.875	.437	.219	4.20	4.06	1.924	8.04	68000	1.230	1.425
120-3	1 1/2	1	.875	.437	.187	5.72	5.58	1.789	11.10	102000	1.230	1.425
120H-3	1 1/2	1	.875	.437	.219	6.13	5.99	1.924	11.99	102000	1.230	1.425
120-4	1 1/2	1	.875	.437	.187	7.52	7.38	1.789	14.70	136000	1.230	1.425
120H-4	1 1/2	1	.875	.437	.219	8.06	7.92	1.924	15.94	136000	1.230	1.425
120-5	1 1/2	1	.875	.437	.187	9.31	9.17	1.789	18.43	170000	1.230	1.425
120-6	1 1/2	1	.875	.437	.187	11.10	10.96	1.789	22.11	204000	1.230	1.425
120H-6	1 1/2	1	.875	.437	.219	11.91	11.77	1.924	23.84	204000	1.230	1.425
120-8	1 1/2	1	.875	.437	.187	14.68	14.54	1.789	29.47	272000	1.230	1.425
120-10	1 1/2	1	.875	.437	.187	18.26	18.12	1.789	36.83	340000	1.230	1.425
140	1 3/4	1	1.000	.500	.219	2.31	2.14	....	5.00	46000	1.435	1.663
140H	1 3/4	1	1.000	.500	.250	2.44	2.28	....	5.40	46000	1.435	1.663
140-2	1 3/4	1	1.000	.500	.219	4.24	4.07	1.924	9.65	92000	1.435	1.663
140H-2	1 3/4	1	1.000	.500	.250	4.50	4.34	2.055	10.65	92000	1.435	1.663
140-3	1 3/4	1	1.000	.500	.219	6.16	6.00	1.924	14.30	138000	1.435	1.663
140H-3	1 3/4	1	1.000	.500	.250	6.56	6.39	2.055	15.90	138000	1.435	1.663
140-4	1 3/4	1	1.000	.500	.219	8.09	7.93	1.924	18.95	184000	1.435	1.663
140H-4	1 3/4	1	1.000	.500	.250	8.62	8.45	2.055	21.10	184000	1.435	1.663
140-6	1 3/4	1	1.000	.500	.219	11.94	11.78	1.924	28.25	276000	1.435	1.663
160	2	1 1/4	1.125	.562	.250	2.73	2.54	....	6.35	58000	1.640	1.900
160H	2	1 1/4	1.125	.562	.281	2.86	2.68	....	7.03	58000	1.640	1.900
160-2	2	1 1/4	1.125	.562	.250	5.04	4.85	2.305	12.83	116000	1.640	1.900
160H-2	2	1 1/4	1.125	.562	.281	5.30	5.12	2.436	13.88	116000	1.640	1.900
160-3	2	1 1/4	1.125	.562	.250	7.35	7.16	2.305	19.03	174000	1.640	1.900
160H-3	2	1 1/4	1.125	.562	.281	7.75	7.56	2.436	20.68	174000	1.640	1.900
160-4	2	1 1/4	1.125	.562	.250	9.66	9.47	2.305	25.60	232000	1.640	1.900
160H-4	2	1 1/4	1.125	.562	.281	10.17	10.00	2.436	27.62	232000	1.640	1.900
160-6	2	1 1/4	1.125	.562	.250	14.27	14.09	2.305	37.78	348000	1.640	1.900

*Maximum values are shown.
NOTE: ANSI 60 and larger chains are available as cottered or riveted type design.
Multiple strand chains are available with slip-fit (standard) or press-fit center plates.

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Dimensions in Inches

ANSI NUMBER	PITCH INCHES	ROLLER WIDTH	ROLLER DIAMETER	PIN DIAMETER	LINK PLATE THICKNESS	C	R	K	POUNDS PER FOOT	AVERAGE TENSILE STRENGTH	E*	H*
180	2 1/4	1 13/32	1.406	.687	.281	3.15	2.88	....	9.06	76000	1.845	2.138
180H	2 1/4	1 13/32	1.406	.687	.312	3.28	3.01	....	9.59	76000	1.845	2.138
180-2	2 1/4	1 13/32	1.406	.687	.281	5.75	5.48	2.592	17.67	152000	1.845	2.138
180H-2	2 1/4	1 13/32	1.406	.687	.312	6.00	5.73	2.723	18.86	152000	1.845	2.138
180-3	2 1/4	1 13/32	1.406	.687	.281	8.34	8.07	2.592	26.20	228000	1.845	2.138
180H-3	2 1/4	1 13/32	1.406	.687	.312	8.73	8.46	2.723	28.14	228000	1.845	2.138
200	2 1/2	1 1/2	1.562	.781	.312	3.44	3.12	....	10.65	95000	2.050	2.375
200H	2 1/2	1 1/2	1.562	.781	.375	3.71	3.39	....	13.38	110000	2.050	2.375
200-2	2 1/2	1 1/2	1.562	.781	.312	6.26	5.94	2.817	21.50	190000	2.050	2.375
200H-2	2 1/2	1 1/2	1.562	.781	.375	6.79	6.48	3.083	26.38	220000	2.050	2.375
200-3	2 1/2	1 1/2	1.562	.781	.312	9.08	8.76	2.817	32.30	285000	2.050	2.375
200H-3	2 1/2	1 1/2	1.562	.781	.375	9.88	9.56	3.083	40.85	330000	2.050	2.375
200-4	2 1/2	1 1/2	1.562	.781	.312	11.90	11.58	2.817	42.90	380000	2.050	2.375
200-6	2 1/2	1 1/2	1.562	.781	.312	17.52	17.21	2.817	64.50	570000	2.050	2.375
240	3	1 7/8	1.875	.937	.375	4.32	3.83	....	17.03	157600	2.422	2.806
240H	3	1 7/8	1.875	.937	.500	4.85	4.35	....	21.08	157600	2.422	2.806
240-2	3	1 7/8	1.875	.937	.375	7.77	7.27	3.458	33.44	315200	2.422	2.806
240-3	3	1 7/8	1.875	.937	.375	11.23	10.73	3.458	49.77	472800	2.422	2.806

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Dimensions in Inches

ANSI NUMBER	PITCH INCHES	ROLLER WIDTH	ROLLER DIAMETER	PIN DIAMETER	LINK PLATE THICKNESS	C	R	K	POUNDS PER FOOT	AVERAGE TENSILE STRENGTH
472	1 1/2	3/4	.875	.437	.187	1.86	1.72	....	3.40	34000
472-2	1 1/2	3/4	.875	.437	.187	3.45	3.30	1.546	6.76	68000
472-3	1 1/2	3/4	.875	.437	.187	5.00	4.85	1.546	10.08	102000
472-4	1 1/2	3/4	.875	.437	.187	6.55	6.41	1.546	13.40	136000
264	2 1/2	1 1/2	1.562	.875	.375	3.71	3.39	....	13.68	148500
264-3	2 1/2	1 1/2	1.562	.875	.375	9.88	9.56	3.083	40.92	445500

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OILFIELD - CHAIN DESCRIPTIONS AND DIMENSIONS

CHAIN DRIVE	4000	RIG HORSEPOWER 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 COUNTERSHAFT	160-2	160-2 200H-1	160-2	160-2 140-2	140-2 160-1	140-2 160-1	140-1 120-1
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	160-2 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. DRAWWORKS 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	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

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NOTHING OUTLASTS A DIAMOND.®

DIAMOND ACE® CHAIN

The Diamond ACE® (anti-corrosion exterior) chain incorporates an electrochemically bonded, protective exterior coating that is applied prior to assembly. Each individual part is treated before assembly using a electrochemical bonding process that provides maximum resistance to iron oxide (red rust) corrosion. Pre-assembly coating ensures all component parts are thoroughly treated, which prevents internal rust from seeping out and causing contamination. Diamond ACE features a zinc-nickel and non-hexavalent chromate coating with a protective lubricant to provide corrosion protection and extended wear resistance. The anti-corrosion exterior is specifically designed to permit sacrificial oxidation of the outer layer, allowing the chain to function without corrosive attack of the base metal.

Independent salt spray and sprocket drive tests have shown that Diamond ACE is superior in balancing corrosion protection and performance.

NOTE: These chains are not intended to resist corrosion from caustic chemicals or acids. Stainless steel chain is recommended for those types of applications. Contact Diamond's application engineers for assistance in selecting the proper chain for your application.

SINGLE PITCH DRIVE CHAINS

Dimensions in Inches

ANSI NUMBER	PITCH INCHES	ROLLER WIDTH	ROLLER DIAMETER	PIN DIAMETER	LINK PLATE THICKNESS	C	R	POUNDS PER FOOT	AVERAGE TENSILE STRENGTH
40 ACE	1/2	0.313	0.312	0.156	0.060	0.720	0.670	0.420	4000
50 ACE	5/8	0.375	0.400	0.200	0.080	0.890	0.830	0.680	6600
60 ACE	3/4	0.500	0.469	0.234	0.094	1.110	1.040	0.970	8500
80 ACE	1	0.625	0.625	0.312	0.125	1.440	1.320	1.700	14500

DOUBLE PITCH DRIVE CHAINS

Dimensions in Inches

ANSI NUMBER	PITCH INCHES	ROLLER WIDTH	ROLLER DIAMETER	PIN DIAMETER	LINK PLATE THICKNESS	C	R	POUNDS PER FOOT	AVERAGE TENSILE STRENGTH
C-2040 ACE	1	0.313	0.312	0.156	0.060	0.760	0.680	0.340	3700
C-2042 ACE	1	0.313	0.325	0.156	0.060	0.760	0.680	0.340	3700
C-2050 ACE	1 1/4	0.375	0.400	0.200	0.080	0.920	0.840	0.580	6100
C-2052 ACE	1 1/4	0.375	0.750	0.200	0.080	0.920	0.840	0.580	6100
C-2060H ACE	1 1/2	0.500	0.469	0.234	0.125	1.250	1.180	1.050	8500
C-2062H ACE	1 1/2	0.500	0.875	0.234	0.125	1.250	1.180	1.050	8500
C-2080H ACE	2	0.625	0.625	0.312	0.156	1.570	1.450	1.400	14500
C-20802H ACE	2	0.625	1.125	0.312	0.156	1.570	1.450	1.400	14500

NOTE: FOR SIZES NOT LISTED, CONTACT DIAMOND FOR AVAILABILITY ON A MADE-TO-ORDER BASIS.