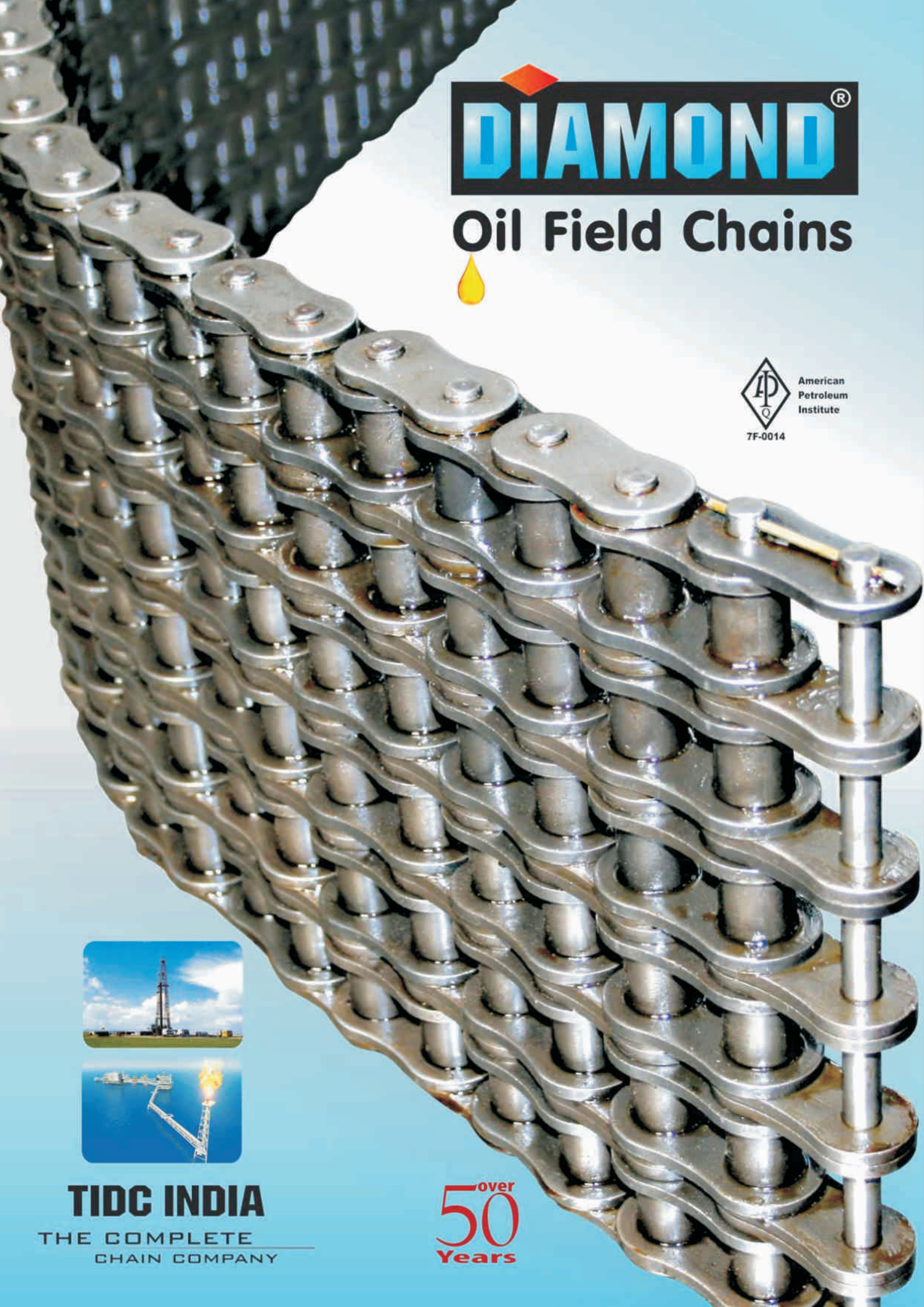




DIAMOND[®]

Oil Field Chains



American
Petroleum
Institute

7F-0014



TIDC INDIA
THE COMPLETE
CHAIN COMPANY

over
50
Years



About TIDC INDIA

TIDC INDIA, a part of multibillion Murugappa group is the leading manufacturer of power transmission products. With recent acquisition of Sedis, France, TIDC INDIA is having more than 180 year's of combined experience in engineering and manufacturing of all types of power transmission chains to various applications.

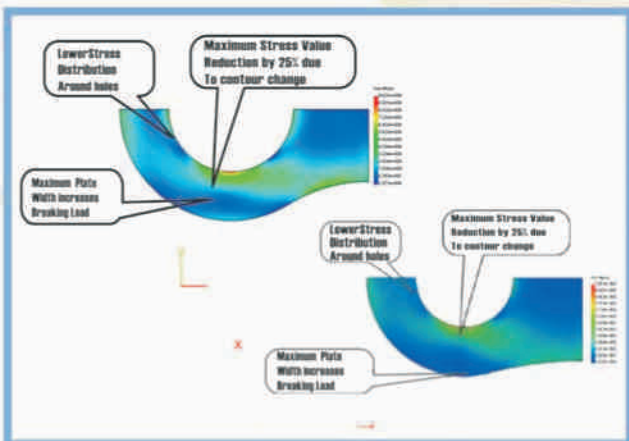
TIDC INDIA is the first Indian chain company certified for API 7F specification to manufacture Oil Filed Chains.



TIDC Chain for Oil Field Machinery

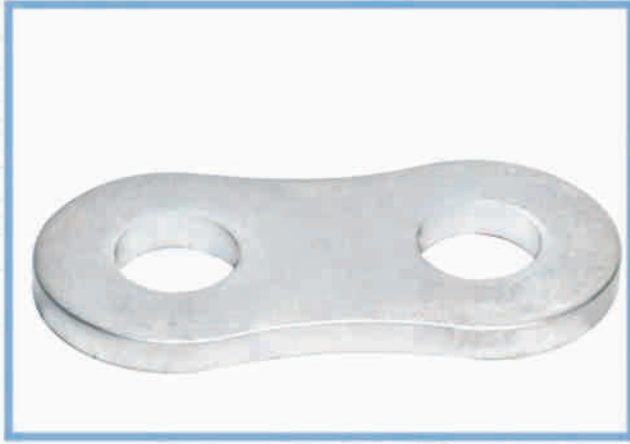
Oil exploration calls for tough standard application and high levels of performance. Oil Field Chains are subjected to high shock loads and repeated cyclic loads.

Our chains are engineered to meet these requirements through proper selection of material, superior technology and manufacturing excellence to ensure that chains exceed performance requirements consistently.



Optimized Plate Contour

The Plate Contour has been optimized for stress distribution through Finite Element Analysis (FEA) to deliver higher fatigue strength.



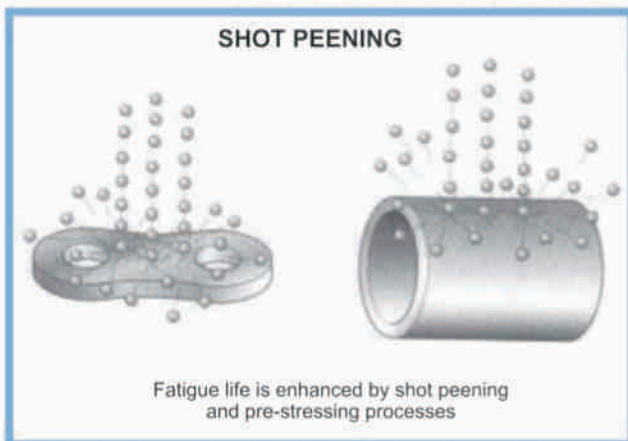
Superior Plate Manufacturing

Our special hole preparation process ensures maximum contact area and improves fatigue resistance as compared to conventional process. This process is done using high precision tools that are manufactured at our state of the art facility.



Material and Heat Treatment

The special alloy steel grade of Oil Field Chains are heat treated under controlled atmosphere. This ensures uniform carburized and hardened surfaces for superior wear and fatigue resistance maintaining high core strength for maximum toughness and breaking strength.



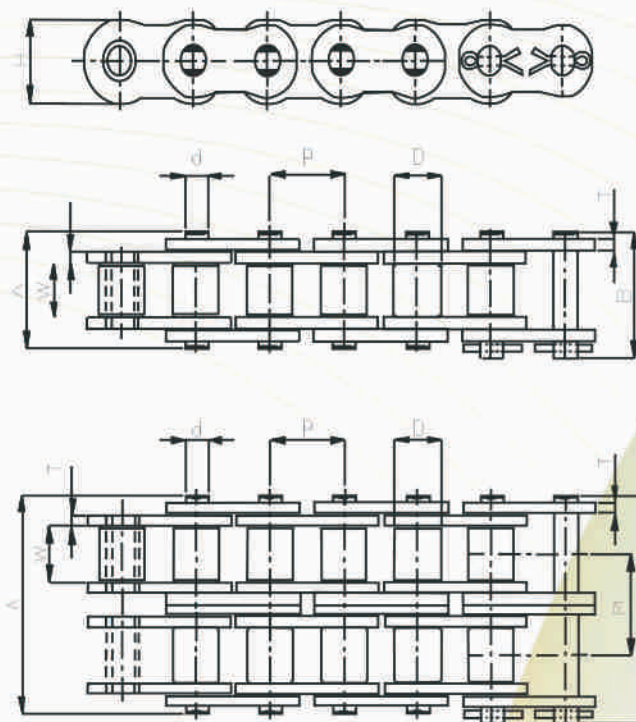
Shot Peening of Link Plates & Rollers

The plates and rollers are shot peened with round metallic shots with sufficient force to induce compressive residual stress and to improve fatigue resistance and aesthetics.

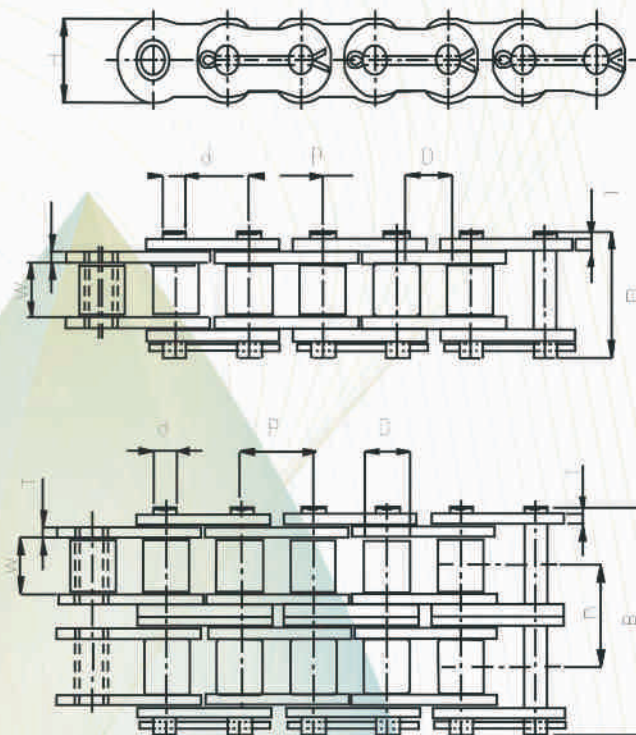


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Institute**

7F-0014



R Series
(Rivettted type)



N Series
(Cottered type)

Regular Series

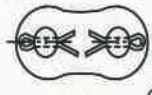
All dimensions in mm
ANSI B29.1/API 7F

ANSI No.	TDC Chain No.	No. of Strands	Pitch (P)	Width between Inner Plates (W) (Min)	Roller Dia (D) (Max)	Plate Thickness (T)	Plate Height (H) (Max)	Bearing Pin Dia (d) (Max)	Width Over Bearing Pin (A) (Max)	Width Over Joint Fasteners (B) (Max)	Transverse Pitch (P1)	Tensile Strength (KN) (Min)	Spares
60	R121/N121	1	19.05	12.58	11.91	2.39	18.10	5.96	26.80	31.00		31.27	A,B,C
		2							49.60	53.80	22.78	62.54	
		3							72.40	76.60	22.78	93.81	
		4							95.20	99.40	22.78	125.08	
		5							117.90	122.10	22.78	156.35	
		6							140.80	145.00	22.78	187.62	
		7							163.50	167.70	22.78	218.89	
		8							186.30	190.50	22.78	250.16	
80	R161/N161	1	25.40	15.75	15.88	3.18	24.13	7.94	34.00	39.10		55.60	A,B,C
		2							63.30	68.40	29.29	111.20	
		3							92.60	97.70	29.29	166.80	
		4							121.90	127.00	29.29	222.40	
		5							151.20	156.30	29.29	278.00	
		6							180.40	185.50	29.29	333.60	
		7							209.70	214.80	29.29	389.20	
		8							239.00	244.10	29.29	444.80	
100	R201/N201	1	31.75	18.90	19.05	3.96	30.17	9.54	41.20	47.10		86.87	A,B,C
		2							76.90	82.80	35.76	173.74	
		3							112.70	118.60	35.76	260.61	
		4							148.50	154.40	35.76	347.48	
		5							184.20	190.10	35.76	434.35	
		6							220.00	225.90	35.76	521.22	
		7							255.80	261.70	35.76	608.09	
		8							291.50	297.40	35.76	694.96	
120	R241/N241	1	38.10	25.23	22.23	4.75	36.20	11.11	51.50	58.30		125.10	A,B,C
		2							97.00	103.80	45.44	250.20	
		3							142.40	149.20	45.44	375.30	
		4							187.80	194.60	45.44	500.40	
		5							233.30	240.10	45.44	625.50	
		6							278.70	285.50	45.44	750.60	
		7							324.10	330.90	45.44	875.70	
		8							369.60	376.40	45.44	1000.80	

Regular Series

All dimensions in mm
ANSI B29.1/API 7F

ANSI No.	TIDC Chain No.	No. of Strands	Pitch (P)	Width between Inner Plates (W) (Min)	Roller Dia (D) (Max)	Plate Thickness (T)	Plate Height (H) (Max)	Bearing Pin Dia (d) (Max)	Width Over Bearing Pin (A) (Max)	Width Over Joint Fasteners (B) (Max)	Transverse Pitch (P1)	Tensile Strength (KN) (Min)	Spares
140	R281/N281	1	44.45	25.23	25.40	5.56	42.23	12.71	55.60	63.30		170.27	A,B,C
		2							104.50	112.20	48.87	340.54	
		3							153.40	161.10	48.87	510.81	
		4							202.20	209.90	48.87	681.08	
		5							251.10	258.80	48.87	851.35	
		6							300.00	307.70	48.87	1021.62	
		7							348.80	356.50	48.87	1191.89	
		8							397.70	405.40	48.87	1362.16	
160	R321/N321	1	50.80	31.55	28.58	6.35	48.26	14.29	66.00	74.50		222.40	A,B,C
		2							124.50	133.00	58.55	444.80	
		3							183.10	191.60	58.55	667.20	
		4							241.60	250.10	58.55	889.60	
		5							300.20	308.70	58.55	1112.00	
		6							358.70	367.20	58.55	1334.40	
		7							417.30	425.80	58.55	1556.80	
		8							475.80	484.30	58.55	1779.20	
200	R401/N401	1	63.50	37.85	39.68	7.92	60.33	19.85	80.30	90.50		347.50	A,B,C
		2							151.90	162.10	71.55	695.00	
		3							223.40	233.60	71.55	1042.50	
240	R481/N481	1	76.20	47.35	47.63	9.53	72.39	23.81	97.90	109.80		529.40	A,B,C
		2							185.80	197.70	87.83	1058.80	
		3							273.60	285.50	87.83	1588.20	



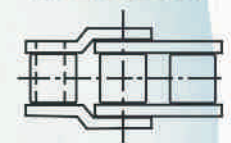
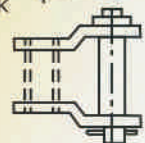
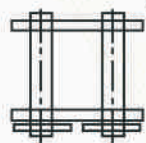
A
Connecting Link



B
Single Offset Link



C
Double Offset Link

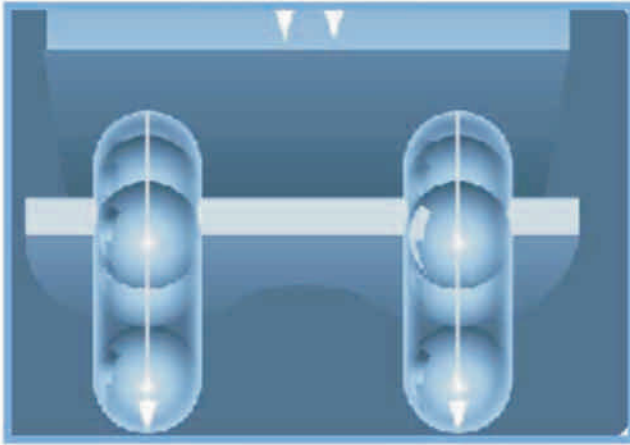


All dimensions in mm

Heavy Series

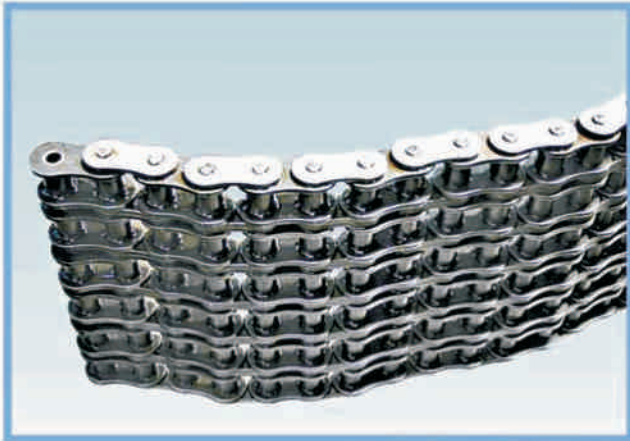
ANSI B29.1/API 7F

ANSI No.	TIDC Chain No.	No. of Strands	Pitch (P)	Width between Inner Plates (W) (Min)	Roller Dia (D) (Max)	Plate Thickness (T)	Plate Height (H) (Max)	Bearing Pin Dia (d) (Max)	Width Over Bearing Pin (A) (Max)	Width Over Joint Fasteners (B) (Max)	Transverse Pitch (P1)	Tensile Strength (KN) (Min)	Spares
60H	R122/N122	1	19.05	12.58	11.91	3.18	18.10	5.96	30.20	34.40		31.27	A,B,C
		2							56.30	60.50	26.11	62.54	
		3							82.40	86.60	26.11	93.81	
80H	R162/N162	1	25.40	15.75	15.88	3.96	24.13	7.94	37.30	42.40		55.60	A,B,C
		2							69.90	75.00	32.59	111.20	
		3							102.50	107.60	32.59	166.80	
100H	R202/N202	1	31.75	18.90	19.05	4.75	30.17	9.54	44.50	50.40		86.87	A,B,C
		2							83.60	89.50	39.09	173.74	
		3							122.70	128.60	39.09	260.61	
120H	R242/N242	1	38.10	25.23	22.23	5.56	36.20	11.11	54.90	61.70		125.10	A,B,C
		2							103.80	110.60	48.87	250.20	
		3							152.70	159.50	48.87	375.30	
140H	R282/N282	1	44.45	25.23	25.40	6.35	42.23	12.71	58.90	66.60		170.27	A,B,C
		2							111.10	118.80	52.20	340.54	
		3							163.30	171.00	52.20	510.81	
160H	R322/N322	1	50.80	31.55	28.58	7.14	48.26	14.29	69.30	77.80		222.40	A,B,C
		2							131.20	139.70	61.90	444.80	
		3							193.10	201.60	61.90	667.20	
200H	R402/N402	1	63.50	37.85	39.68	9.53	60.33	19.85	87.10	97.30		347.50	A,B,C
		2							165.40	175.60	78.31	695.00	
		3							243.70	253.90	78.31	1042.50	
240H	R482/N482	1	76.20	47.35	47.63	12.70	72.39	23.81	111.30	123.20		529.40	A,B,C
		2							212.50	224.40	101.22	1058.80	
		3							313.80	325.70	101.22	1588.20	



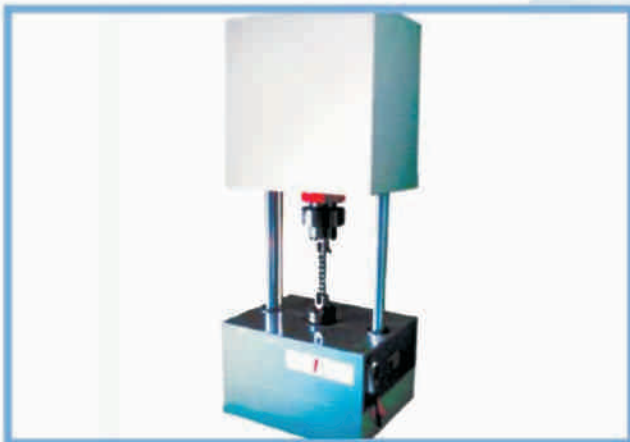
Ball Drifting of Plates

The intermediate plates are ball drifted to induce compressive stress around the holes for better fatigue performance.



Assembly

All intermediate plates are semi press fitted for uniform distribution of loads across all strands. This feature substantially improves the service life of chains under shock loads.



Testing

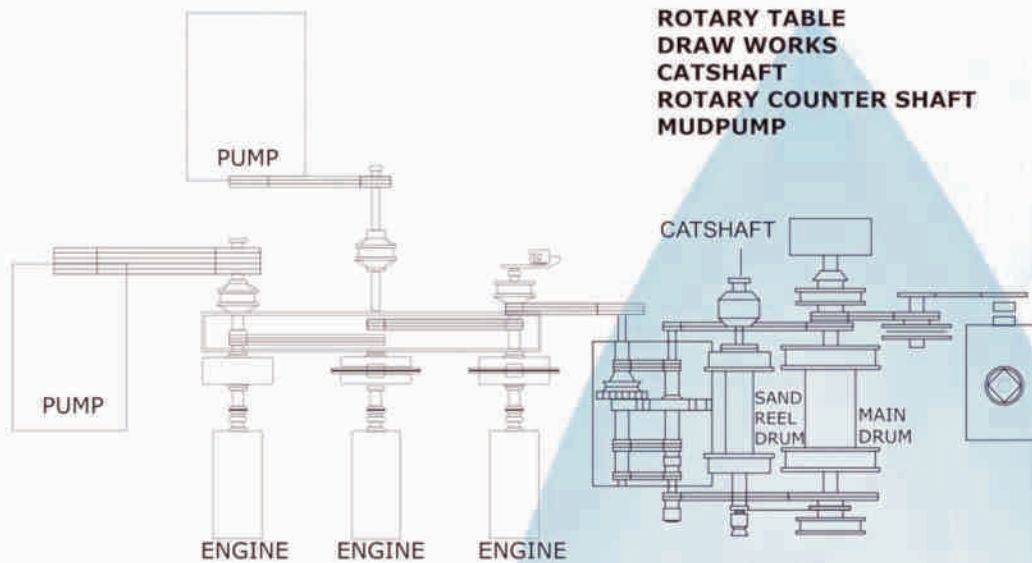
All Chains are validated for API 7F performance requirements.



Pre-Loading

Chains are pre-loaded to ensure uniform load distribution and to reduce initial stretch on usage.

Transmission Diagram



CERTIFICATE TUV NORD

Management system as per
ISO 14001 : 2004

As assessed and ISO 14001:2004 assessment is hereby certified to:

TDC INDIA
(UNIT OF TUBE INVENTMENTS OF INDIA LTD.)
Survey No. 804, 10801, Ambattur, Chennai - 600 055,
Cth Road, Ambattur - Chennai - 600 055, Tamil Nadu,
India
and other sites as per Sub-clause 4.1

After a successful assessment of management system and compliance with

Manufacture of Automobiles, Industrial Appliances, Cast Chains,
Engineering Class Chains, Free Running Components & Accessories

Standard Issued by: TUV NORD

Standard Issued by: TUV NORD

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7F-0014

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CERTIFICATE TUV NORD

Management system as per
ISO 9001 : 2008

As assessed and ISO 9001:2008 assessment is hereby certified to:

TDC INDIA
Survey No. 804, 10801, Ambattur,
Chennai - 600 055,
India
and other locations as per Sub-clause 4.1

After a successful assessment of management system and compliance with

Design, Manufacture and Supply of Standard Roller Chains, Bush Chains,
Leaf Chains, Special Chains, Sprockets, Gear Chains, Agricultural Chains,
Engine Chains, Engineering Class Chains, Sprockets and Accessories,
Manufacture and Supply of Free Running Parts
(Components and Sub Assemblies)

Standard Issued by: TUV NORD

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Certificate of Authority to use the Official API Monogram

License Number: 7F-0014

ORIGINAL

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Post Bag No. 11, Ambattur
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Noty D. Lee
Executive Vice President



**American
Petroleum
Institute**



2018-111

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* While all reasonable care has been taken in compiling the information contained in this catalogue, no responsibility is accepted for printing errors.



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(Unit of Tube Investments of India Ltd.)

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