



DIAMOND[®]

Oil Field Chains



TIDC INDIA
THE COMPLETE
CHAIN COMPANY

over
50
Years



About TIDC INDIA

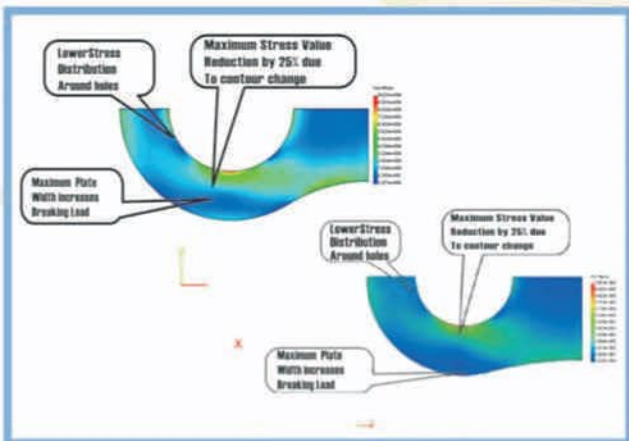
TIDC INDIA, a part of multibillion Murugappa group is the leading manufacturer of power transmission products. With recent acquisition of Sedis, France, TIDC INDIA is having more than 180 year's of combined experience in engineering and manufacturing of all types of power transmission chains to various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



TIDC Chain for Oil Field Machinery

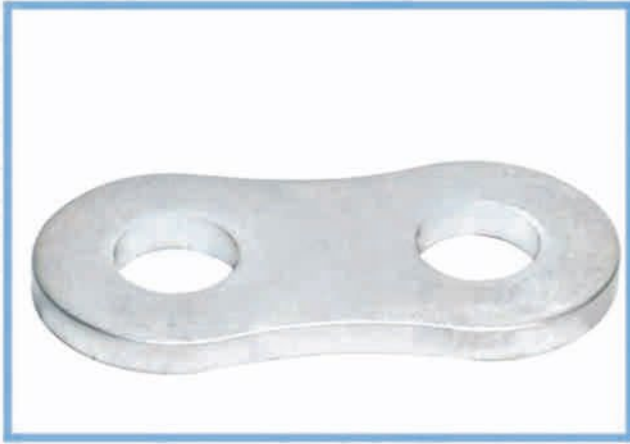
Oil exploration calls for tough standard application and high levels of performance. Oil Field Chains are subjected to high shock loads and repeated cyclic loads.

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.



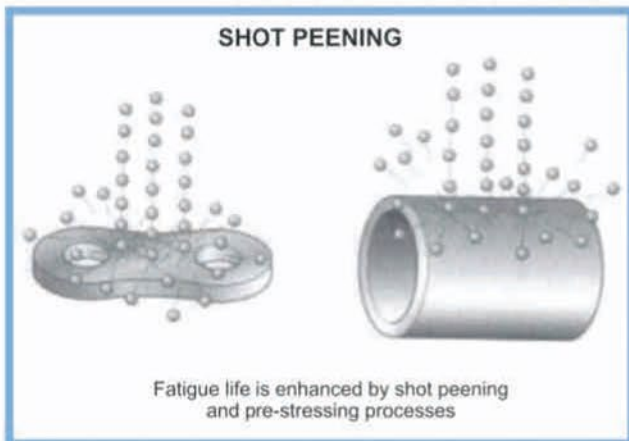
Superior Plate Manufacturing

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.



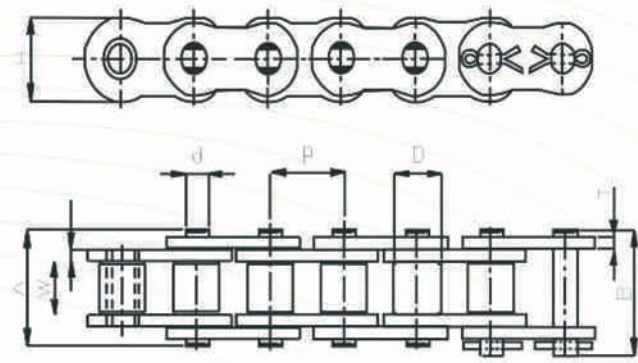
Material and Heat Treatment

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.

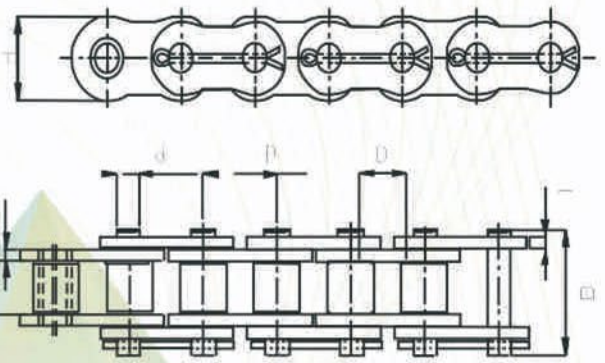


Shot Peening of Link Plates & Rollers

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.



R Series
(Riveted type)



N Series
(Cottered type)

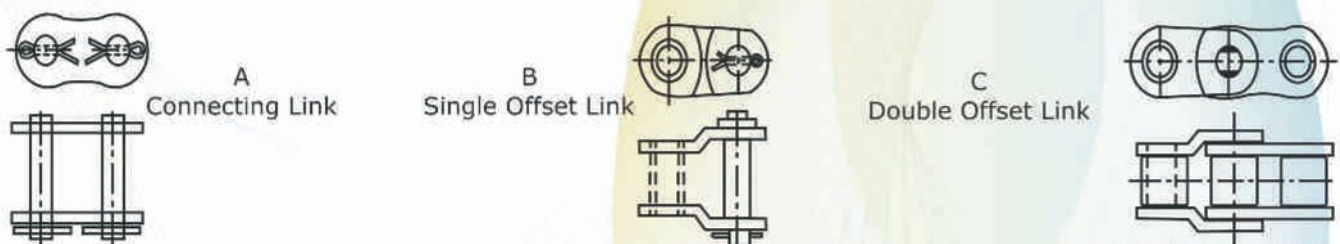
Regular Series

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
40	R08A/N08A	1	12.70	7.85	7.92	1.52	12.07	3.98	17.80	21.20		13.90	A,B,C
		2							32.10	35.50	14.38	27.80	
		3							46.50	49.90	14.38	41.70	
		4							60.90	64.30	14.38	55.60	
		5							75.28	78.68	14.38	69.50	
		6							89.60	93.00	14.38	83.40	
		7							103.98	107.38	14.38	97.30	
		8							118.40	121.80	14.38	111.20	
50	R102/N102	1	15.88	9.40	10.16	2.03	15.09	5.09	21.80	25.60		21.71	A,B,C
		2							39.90	43.70	18.11	43.42	
		3							58.00	61.80	18.11	65.13	
		4							76.20	80.00	18.11	86.84	
		5							94.31	98.11	18.11	108.55	
		6							112.40	116.20	18.11	130.26	
		7							130.51	134.31	18.11	151.97	
		8							148.60	152.40	18.11	173.68	
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	R121/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	R121/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							184.50	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	

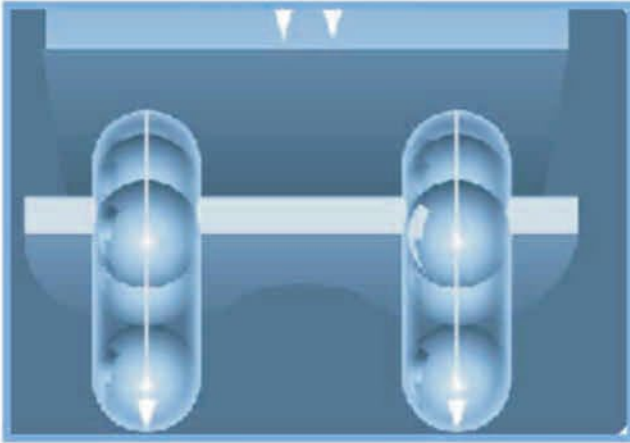
Regular Series

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
120	R121/N241	1	38.10	25.23	22.23	4.75	36.2	11.11	51.50	58.30	45.44	125.10	A,B,C
		2							97.00	103.80		250.20	
		3							142.40	149.20		375.30	
		4							187.80	194.60		500.40	
		5							233.30	240.10		625.50	
		6							278.70	285.50		750.60	
		7							324.10	330.90		875.70	
		8							369.60	376.40		1000.80	
140	R281 / N281	1	44.45	25.23	25.40	5.56	42.23	12.71	55.60	63.3	48.87	170.27	A, B, C
		2							104.50	112.2		340.54	
		3							153.40	161.1		510.81	
		4							202.20	209.9		681.08	
		5							251.10	258.8		851.35	
		6							300.00	307.7		1021.62	
		7							348.80	356.5		1191.89	
		8							397.70	405.4		1362.16	
160	R321 / N321	1	50.80	31.55	28.58	6.35	48.26	14.29	66.00	74.5	58.55	222.40	A, B, C
		2							124.5	133		444.80	
		3							183.10	191.6		667.20	
		4							241.60	250.1		889.60	
		5							300.20	308.7		1112.00	
		6							358.70	367.2		1334.40	
		7							417.30	425.8		1556.80	
		8							475.80	484.3		1779.20	
200	R401 / N401	1	63.50	37.85	39.68	7.92	60.33	19.85	80.30	90.50	71.55	347.50	A, B, C
		2							151.90	162.10		695.00	
		3							223.40	233.60		1042.50	
		3							223.40	233.60		1042.50	
240	R481 / N481	1	76.20	47.35	47.63	9.53	72.39	23.81	97.90	109.80	87.83	529.40	A, B, C
		2							185.80	197.70		1058.80	
		3							273.60	285.50		1588.20	



Heavy Series

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
60H	R122/N122	1	19.05	12.58	11.91	3.18	18.10	5.96	30.20	34.40	26.11	31.27	A,B,C
		2							56.30	60.50		62.54	
		3							82.40	86.60		93.81	
80H	R162/N162	1	25.40	15.75	15.88	3.96	24.13	7.94	37.30	42.40	32.59	55.60	A,B,C
		2							69.90	75.00		111.20	
		3							102.50	107.60		166.80	
100H	R202/N202	1	31.75	18.90	19.05	4.75	30.17	9.54	44.50	50.40	30.09	86.87	A,B,C
		2							83.60	89.50		173.74	
		3							122.70	128.60		260.61	
120H	R242/N242	1	38.10	25.23	22.23	5.56	36.20	11.11	54.90	61.70	48.87	125.10	A,B,C
		2							103.80	110.60		250.20	
		3							152.70	159.50		375.30	
140H	R282/N282	1	44.45	25.23	25.40	6.35	42.23	12.71	58.90	66.60	52.20	170.27	A,B,C
		2							111.10	118.80		340.54	
		3							163.30	171.00		510.81	
160H	R322/N322	1	50.80	31.55	28.58	7.14	48.26	14.29	69.30	77.80	61.90	222.40	A,B,C
		2							131.20	139.70		444.80	
		3							193.10	201.60		667.20	
200H	R402/N402	1	63.50	37.85	39.68	9.53	60.33	19.85	87.10	97.30	78.31	347.50	A,B,C
		2							165.40	175.60		695.00	
		3							243.70	253.90		1042.50	
240H	R482/N482	1	76.20	47.35	47.63	12.70	72.39	23.81	111.30	123.20	101.22	529.40	A,B,C
		2							212.50	224.40		1058.80	
		3							313.80	325.70		1588.20	



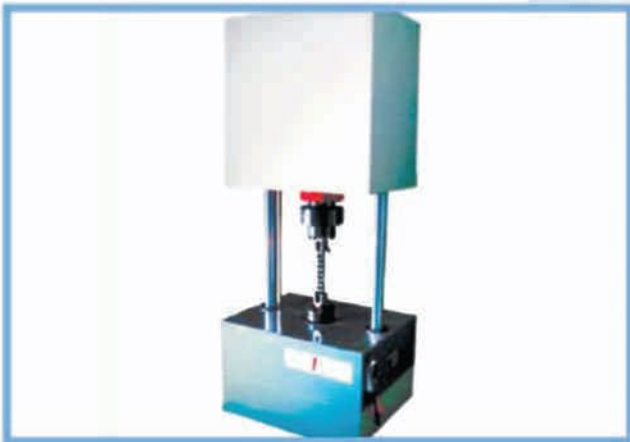
Ball Drifting of Plates

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

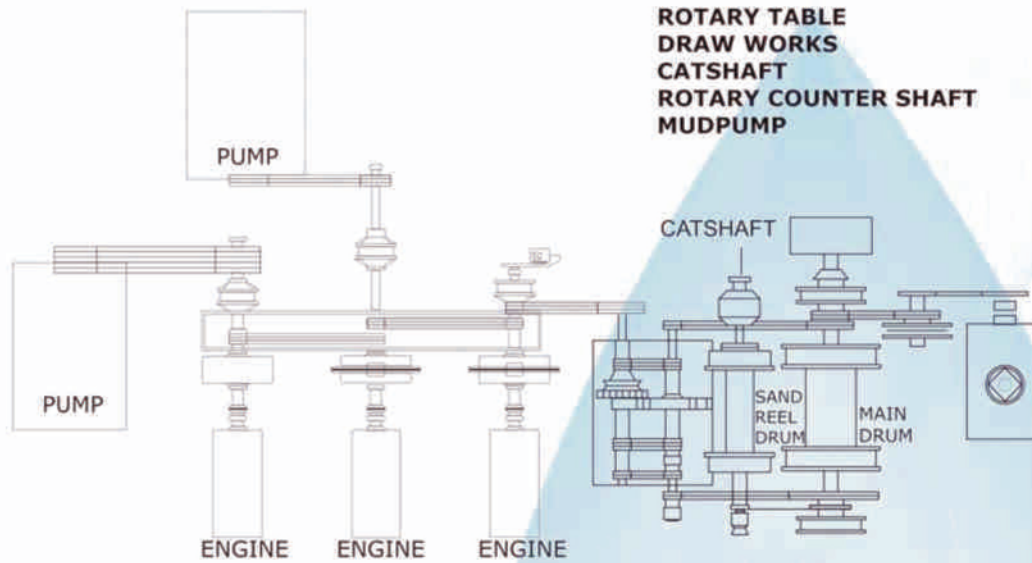
All Chains are validated for API 7F performance requirements.



Pre-Loading


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

Transmission Diagram





American Petroleum Institute



2018-151 | Digital

Certificate of Authority to use the Official API Monogram
License Number: 7F-0014 **ORIGINAL**

The American Petroleum Institute hereby grants to

**TIDC INDIA
Cth Road
Post Bag No. 11, Ambattur
Chennai, 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-0014**

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 Exclusions: Servicing

Effective Date: DECEMBER 13, 2020
Expiration Date: DECEMBER 13, 2023

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


Vice President of Global Industry Services

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



TIDC INDIA

(Unit of Tube Investments of India Ltd.)

FACTORY / MARKETING HEAD OFFICE

Post Bag No.11, Ambattur, Chennai- 600 053.

Phone: 044-4223 5509 / 5510

Fax : 044-4223 5556

E-mail: industrailchains@tii.murugappa.com

Website: www.tidcindia.in

REGIONAL OFFICES

North

TIDC INDIA

11th Floor Raffle Millennium Tower 9-B, Pusa Road
Rajendra Nagar, Rajendra Place,
New delhi-110 060.

Phone : 011-4587 0776 / 4150 2255 / 66

E-mail : icnorth@tii.murugappa.com

South

TIDC INDIA

Post Bag No.11, Ambattur,
Chennai- 600 053.

Phone : 044-4223 5590 / 5594

Fax : 044-4223 5556 / 5595

E-mail : icsouth@tii.murugappa.com

East

TIDC INDIA

Pradip Estates, 2nd Floor, No.6A, Middleton Street,
Kolkata- 700 071.

Phone : 033-2283 0410 / 0409 / 0636

Fax : 033-2281 0289

E-mail : iceast@tii.murugappa.com

West

TIDC INDIA

Office No.401, 402, 403,4th Floor, ZENITH
Complex, Shivaji Nagar, Pune- 411 005.

Phone : 020-6623 8624 / 6623 8628

Fax : 020-6623 8630

E-mail : icwest@tii.murugappa.com