



TIDC INDIA

(Unit of Tube Investments of India Ltd.)

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ROMBO®

Oil Field Chains



77-0014



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.

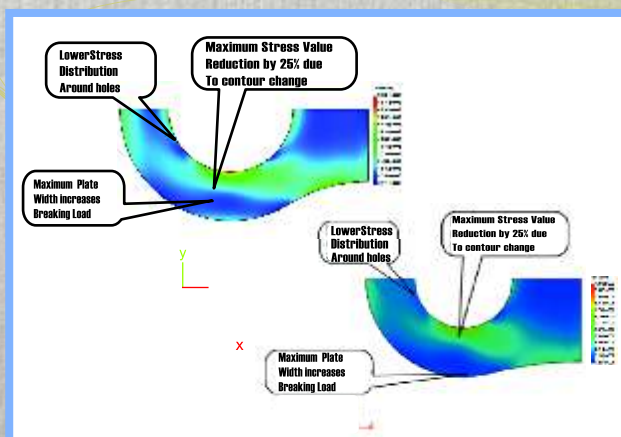
TIDC INDIA is the first Indian chain company certified for API 7F specification to manufacture Oil Filed Chains.



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.



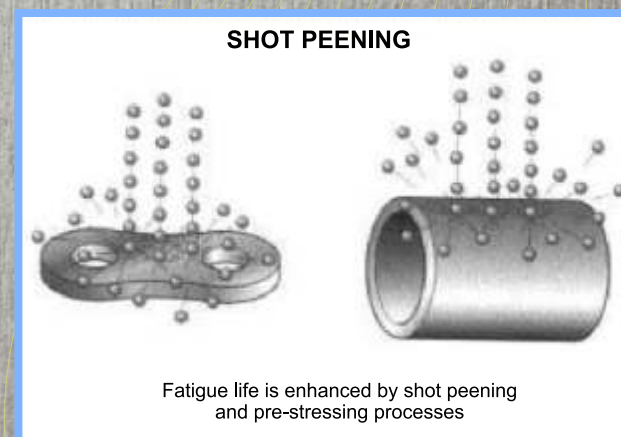
Superior Plate Manufacturing

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.



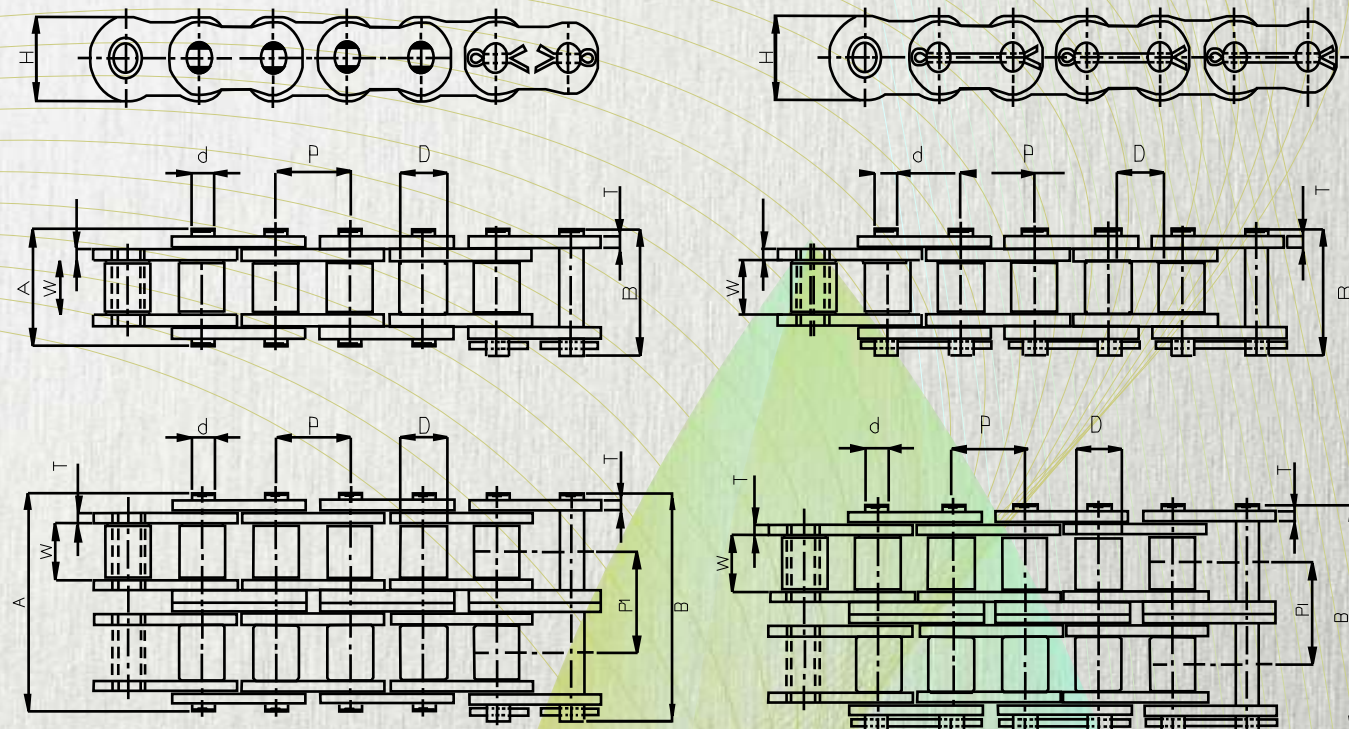
Material and Heat Treatment

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.



R Series
(Riveted type)

N Series
(Cottered type)

Regular Series

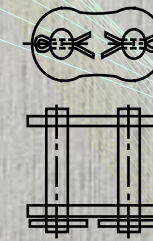
All dimensions in mm
ANSI B29.1/API 7F

Intl Ref. 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
ASA-60	R121/N121	1	19.05	12.58	11.94	2.39	18.10	5.96	26.90	31.50		31.27	A,B,C
		2							49.80	54.40	22.78	62.54	
		3							72.60	77.20	22.78	93.81	
		4							95.38	99.98	22.78	125.08	
		5							118.16	122.76	22.78	156.35	
		6							140.94	145.54	22.78	187.62	
		7							163.72	168.32	22.78	218.89	
		8							186.50	191.10	22.78	250.16	
ASA-80	R161/N161	1	25.40	15.75	15.87	3.15	24.13	7.94	33.50	38.90		55.60	A,B,C
		2							62.70	68.10	29.29	111.20	
		3							91.90	97.30	29.29	166.80	
		4							121.19	126.59	29.29	222.40	
		5							150.48	155.88	29.29	278.00	
		6							179.77	185.17	29.29	333.60	
		7							209.06	214.46	29.29	389.20	
		8							238.35	243.75	29.29	444.80	
ASA-100	R201/N201	1	31.75	18.90	19.05	4.00	30.17	9.54	41.10	47.20		86.87	A,B,C
		2							77.00	83.10	35.76	173.74	
		3							113.00	119.10	35.76	260.61	
		4							148.76	154.86	35.76	347.48	
		5							184.52	190.62	35.76	434.35	
		6							220.28	226.38	35.76	521.22	
		7							256.04	262.14	35.76	608.09	
		8							291.80	297.90	35.76	694.96	
ASA-120	R241/N241	1	38.10	25.23	22.22	4.70	36.20	11.11	50.80	57.40		125.10	A,B,C
		2							96.30	102.90	45.44	250.20	
		3							141.70	148.30	45.44	375.30	
		4							187.14	193.74	45.44	500.40	
		5							232.58	239.18	45.44	625.50	
		6							278.02	284.62	45.44	750.60	
		7							323.46	330.06	45.44	875.70	
		8							368.90	375.50	45.44	1000.80	

Regular Series

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

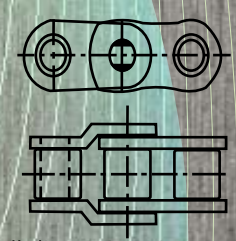
Intl Ref. No.	TIDC Chain No.	No. of Strands	Pitch (P)	Width between Inner Plates (W) (Min)	Roller Dia (D) (Max)	Plate Thickness (T)	Plate Height (H) (Max)	Bearing Pin Dia (d) (Max)	Width Over Bearing Pin (A) (Max)	Width Over Joint Fasteners (B) (Max)	Transverse Pitch (P1)	Tensile Strength (KN) (Min)	Spares
ASA-140	R281/N281	1	44.45	25.23	25.40	5.56	42.23	12.71	54.90	62.30		170.27	A,B,C
		2							103.60	111.00	48.87	340.54	
		3							152.40	159.80	48.87	510.81	
		4							201.27	207.87	48.87	681.08	
		5							249.34	256.74	48.87	851.35	
		6							298.21	305.61	48.87	1021.62	
		7							347.08	354.48	48.87	1191.89	
		8							395.95	403.35	48.87	1362.16	
ASA-160	R321/N321	1	50.80	31.55	28.57	6.30	48.26	14.29	65.50	73.40		222.40	A,B,C
		2							124.20	132.10	58.55	444.80	
		3							182.90	190.80	58.55	667.20	
		4							241.45	249.35	58.55	889.60	
		5							300.00	307.90	58.55	1112.00	
		6							358.55	366.45	58.55	1334.40	
		7							417.10	425.00	58.55	1556.80	
		8							475.65	483.55	58.55	1779.20	
ASA-200	R401/N401	1	63.50	37.85	39.67	7.90	60.33	19.85	80.30	90.50		347.50	A,B,C
		2							151.90	162.10	71.55	695.00	
		3							227.20	237.40	71.55	1042.50	
ASA-240	R481/N481	1	76.20	47.35	47.62	9.60	72.39	23.81	95.50	106.00		529.40	A,B,C
		2							183.40	193.90	87.83	1058.80	
		3							271.30	281.80	87.83	1588.20	



A
Connecting Link



B
Single Offset Link

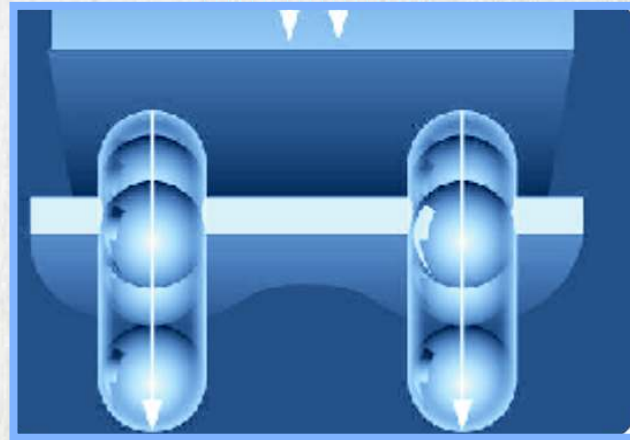


C
Double Offset Link

Heavy Series

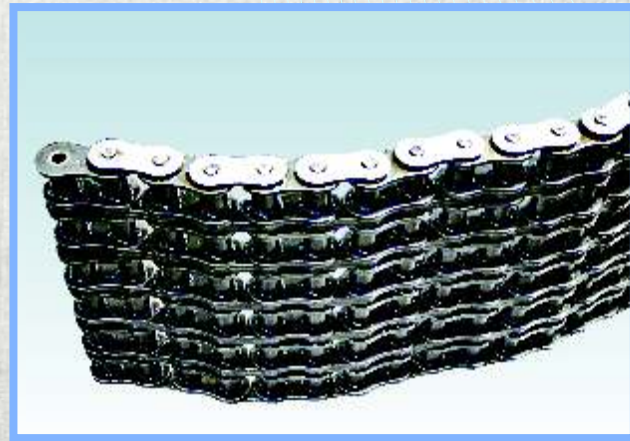
All dimensions in mm
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Intl Ref. No.	TIDC Chain No.	No. of Strands	Pitch (P)	Width between Inner Plates (W) (Min)	Roller Dia (D) (Max)	Plate Thickness (T)	Plate Height (H) (Max)	Bearing Pin Dia (d) (Max)	Width Over Bearing Pin (A) (Max)	Width Over Joint Fasteners (B) (Max)	Transverse Pitch (P1)	Tensile Strength (KN) (Min)	Spares
60H	R122/N122	1	19.05	12.58	11.91	3.15	18.10	5.96	30.20	34.80		31.27	A,B,C
		2							56.30	60.90	26.11	62.54	
		3							82.40	87.00	26.11	93.81	
80H	R162/N162	1	25.40	15.75	15.87	4.00	24.13	7.94	37.40	42.80		55.60	A,B,C
		2							70.00	75.40	32.59	111.20	
		3							102.60	108.00	32.59	166.80	
100H	R202/N202	1	31.75	18.90	19.05	4.70	30.17	9.54	44.50	50.60		86.87	A,B,C
		2							83.60	89.70	39.09	173.74	
		3							122.70	128.80	39.09	260.61	
120H	R242/N242	1	38.10	25.23	22.22	5.56	36.20	11.11	55.00	61.60		125.10	A,B,C
		2							103.90	110.50	48.87	250.20	
		3							152.40	159.40	48.87	375.30	
140H	R282/N282	1	44.45	25.23	25.40	6.30	42.23	12.71	59.00	66.40		170.27	A,B,C
		2							111.20	118.60	52.20	340.54	
		3							163.40	170.80	52.20	510.81	
160H	R322/N322	1	50.80	31.55	28.57	7.14	48.26	14.29	69.40	77.30		222.40	A,B,C
		2							131.30	139.20	61.90	444.80	
		3							193.20	201.10	61.90	667.20	
200H	R402/N402	1	63.50	37.85	39.67	9.60	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	47.62	12.70	72.39	23.81	111.40	121.90		529.40	A,B,C
		2							212.60	223.10	101.22	1058.80	
		3							313.80	324.30	101.22	1588.20	



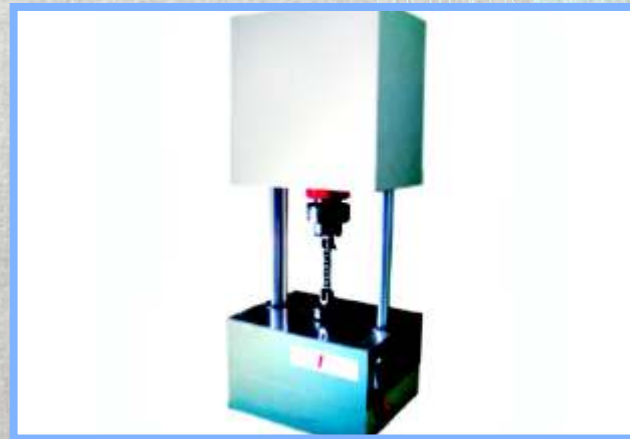
Ball Drifting of Plates

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

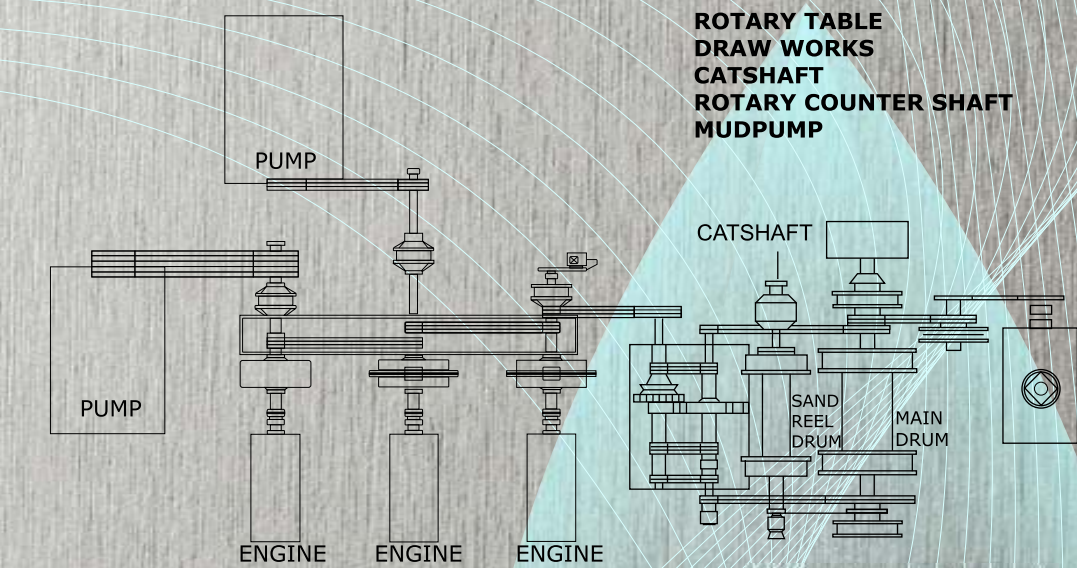
All Chains are validated for API 7F performance requirements.



Pre-Loading

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

Transmission Diagram



ROTARY TABLE
DRAW WORKS
CATSHAFT
ROTARY COUNTER SHAFT
MUDPUMP

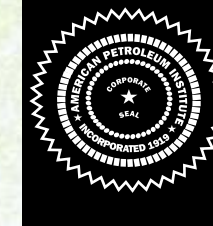


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