

2016

OVERHEAD CONVEYOR PRODUCTS





Established in 1987, Meritt Transmissions, has over the years emerged as leading manufacturer and exporter of Roller Chains, Conveyor Chains, Elevator Chains and Sprockets.

Meritt products are engineered for long trouble free service and are available in extensive range of types and sizes for convenient power transmission and conveying.

Meritt imports and distribute wide range of Overhead Chains, Sprockets etc. It is available in ready stock. A comprehensive range of standard products is shown in this catalogue, however Meritt can supply other associated products tailored to customers specific requirements.

Meritt chains and sprockets are well known for its cost effectiveness with reliability of quality, delivery and service.

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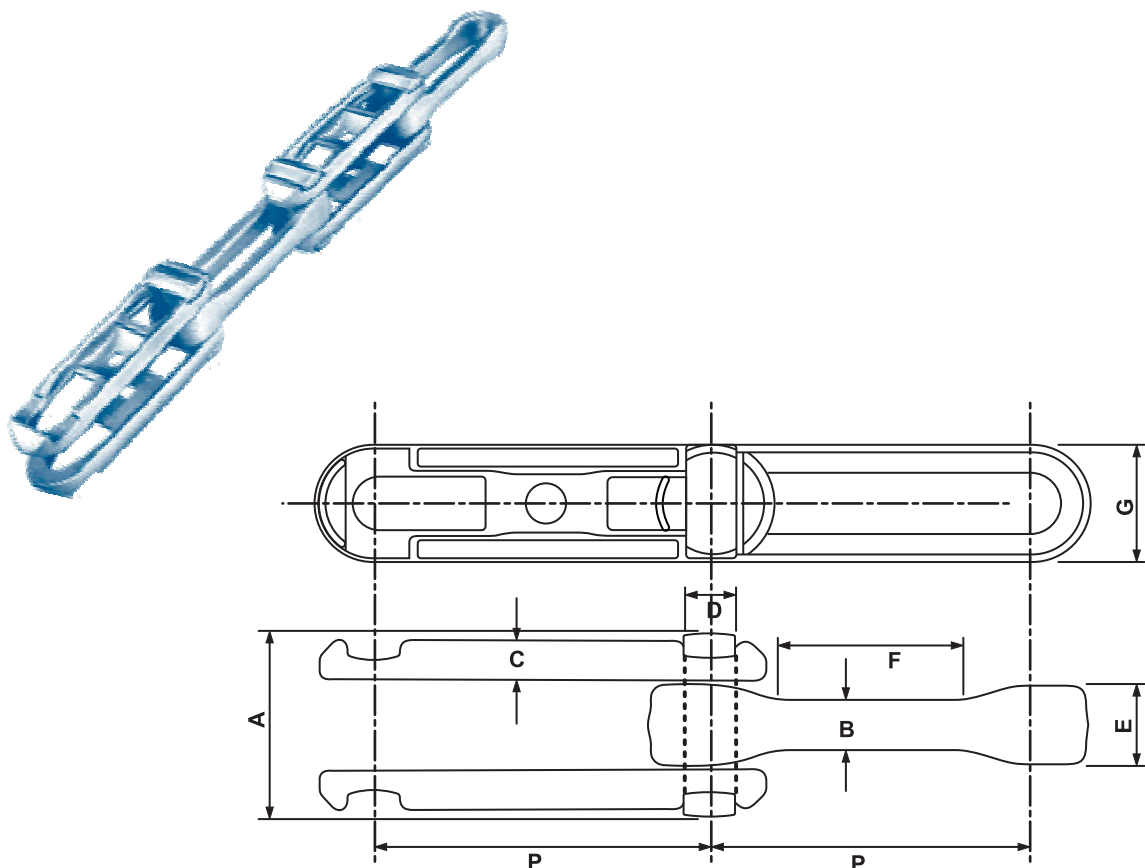
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DROP FORGED RIVETLESS CHAIN

Introduction

Drop forged rivetless chain is used extensively for trolley conveyors, drag conveyors and flight conveyors. It is an ideal chain for these applications due to its high strength to weight ratio, its ability to flex in both the horizontal and vertical planes, and the overall simplicity of the chain i.e. it comprises three components which can be assembled and disassembled by hand without the use of tools.

The regular pattern tends to be used in the heavier range of chain in drag and flight conveyors operating in materials that would tend to pack in chain joints. The X-type pattern is now extensively used in overhead trolley conveyors and its design gives increased strength and the ability to flex transversely on a smaller radius. The X-type chain is manufactured in sizes 348, 458 and 678.



X type rivetless chain

Dimensional & Technical Details

CHAIN	MIN U.T.S. KN	CHAIN WEIGHT (kg/mtr)	NOMINAL PITCH	ACTUAL PITCH	DIMENSIONS mm						
			P		A	B	C	D	E	F	G
X348	110	3.3	76.2	76.6	44.0	13.0	10.4	12.7	18.8	41	28
X458	220	4.8	101.6	102.4	57.0	16.0	12.0	15.8	25.0	58	36
X678	380	10.0	152.4	153.2	77.0	20.6	18.0	22.2	32.5	87	51

TECHNICAL DATA

Materials

The standard chain is manufactured from high carbon steels. It is available in alloy steel also against specific order.

Pitch Tolerance

The pitch tolerance is normally measured over 3.28m (10ft).

CHAIN	No of PITCHES	MEASURING LOAD	DIMENSIONS	
		kN	MAXmm	MINmm
348	40	0.45	3095.2	3050.5
458	30	0.90	3096.5	3062.2
678	20	1.35	3082.8	3054.9

Finishes

Chain can be supplied in a variety of conditions like Zinc plated, hot dipped galvanized, etc against specific

Vertical Curve Minimum Radius

(based on trolley pitch)

348 CHAIN			458 CHAIN			678 CHAIN		
Trolley Spacing		Min Vertical Radius	Trolley Spacing		Min Vertical Radius	Trolley Spacing		Min Vertical Radius
4	306 mm	1500 mm	2	205 mm	1830 mm	2	306 mm	3660 mm
6	460 mm	1830 mm	4	410 mm	2440 mm	4	612 mm	4572 mm
8	610 mm	2440 mm	6	615 mm	3048 mm	6	918 mm	6096 mm
10	766 mm	3048 mm	8	820 mm	3660 mm			

Horizontal Turn

Minimum Recommended Radius

CHAIN	Roller Turn Bend Radius	Traction Wheel Diameter
348	450mm	610mm
458	450mm	610mm
678	610mm	910mm

Maximum Recommended Safe Working Load

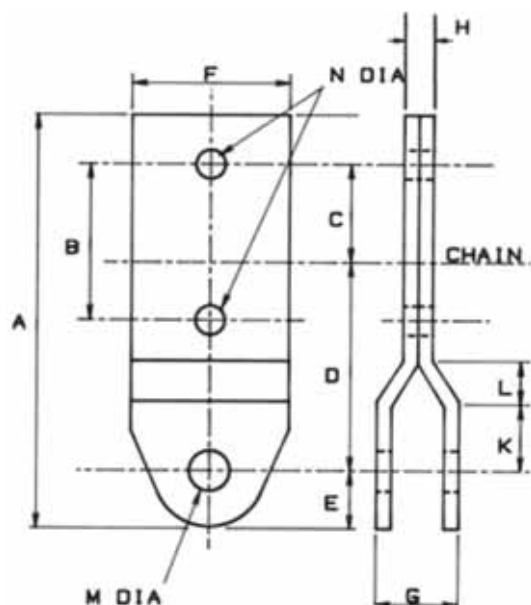
CHAIN	Recommended Safe Working Load	
	Ideal	Average
348	900kg	650kg
458	1800kg	1250kg
678	2700kg	2000kg

Average : Recommended to give longer chain life. Curves and bends similar to ideal but temperatures up to 120°C permissible.

Ideal: Combined horizontal and vertical curves limited to approx. 20 together with no heat or adverse atmospheric conditions. Bend radii as recommended above. Speed limited to max. 0.1 m/sec with good lubrication and general maintenance. Arduous systems with high temperatures and more severe conditions should be analysed individually.

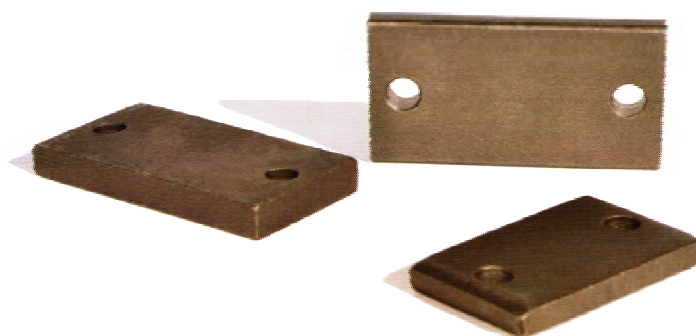
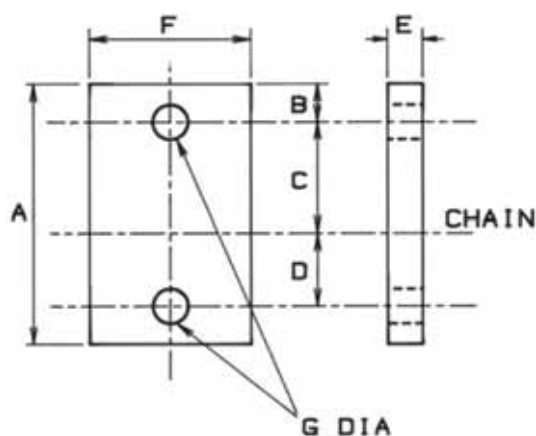
ATTACHMENTS

'H Attachment



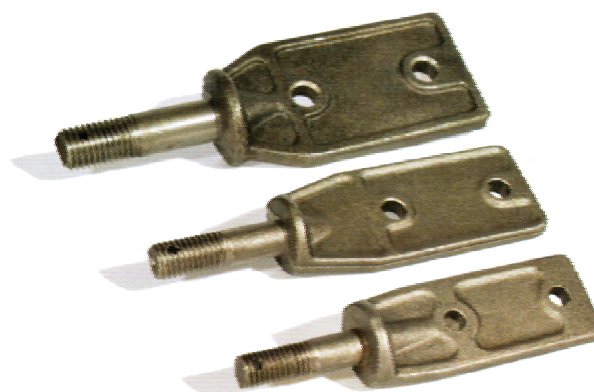
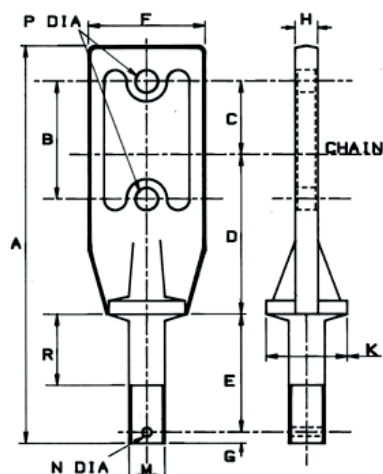
CHAIN	DIMENSIONS mm												
	A	B	C	D	E	F	G	H	K	L	M	N	Wt [kg]
348	133	48	26	79	16	38.1	20.6	6.0	24	20	13.5	9	0.22
458	143	54	33.5	73	19	50	27	10	25	14	13.5	10.5	0.48
678	178	70	41.5	92	25	76	33.3	12	30	17.5	20.6	13.5	1.26

'I Attachment



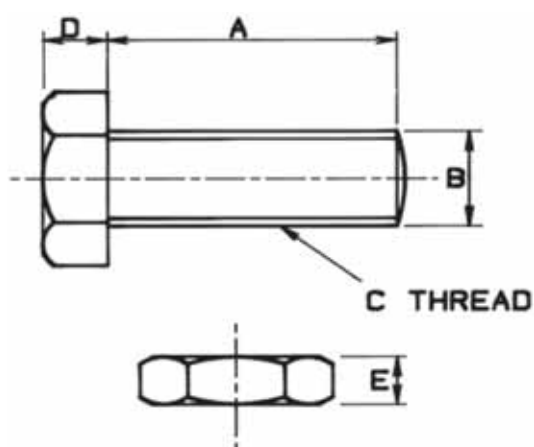
CHAIN	DIMENSIONS mm							
	A	B	C	D	E	F	G	Wt [kg]
348	68	10	26	22	6.0	38.1	9	0.13
458	75	10.5	33.5	20.5	10	44.5	10.5	0.24
108 Drop	93	16	45	20	10	50	11	0.30
678	102	16	41.5	28.5	12	76.2	13.5	0.63

'B Attachment



CHAIN	DIMENSIONS mm														
	A	B	C	D	E	F	G	H	K	L	M	N	P	R	Wt [kg]
348	146	48	26	62	40	38.1	6	6.4	32	M12	12	4	9	15	0.22
458	178	54	33.5	71.5	52	50	6	9.5	35	M16	16	4	10.5	32	0.45
678	222	70	41.5	79	67	76	9.5	12.7	51	M22	22	5.5	13.5	41.2	1.27

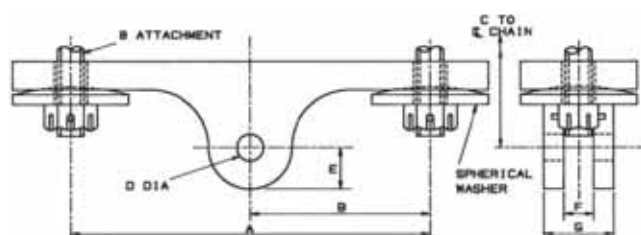
Fixing Bolt & Locknut



CHAIN	DIMENSIONS mm		
	348	458	678
A	20	25	35
B	8	10	12
C	M8	M10	M12
D	5.5	6.0	8.0
E	5.5	6.0	8.0

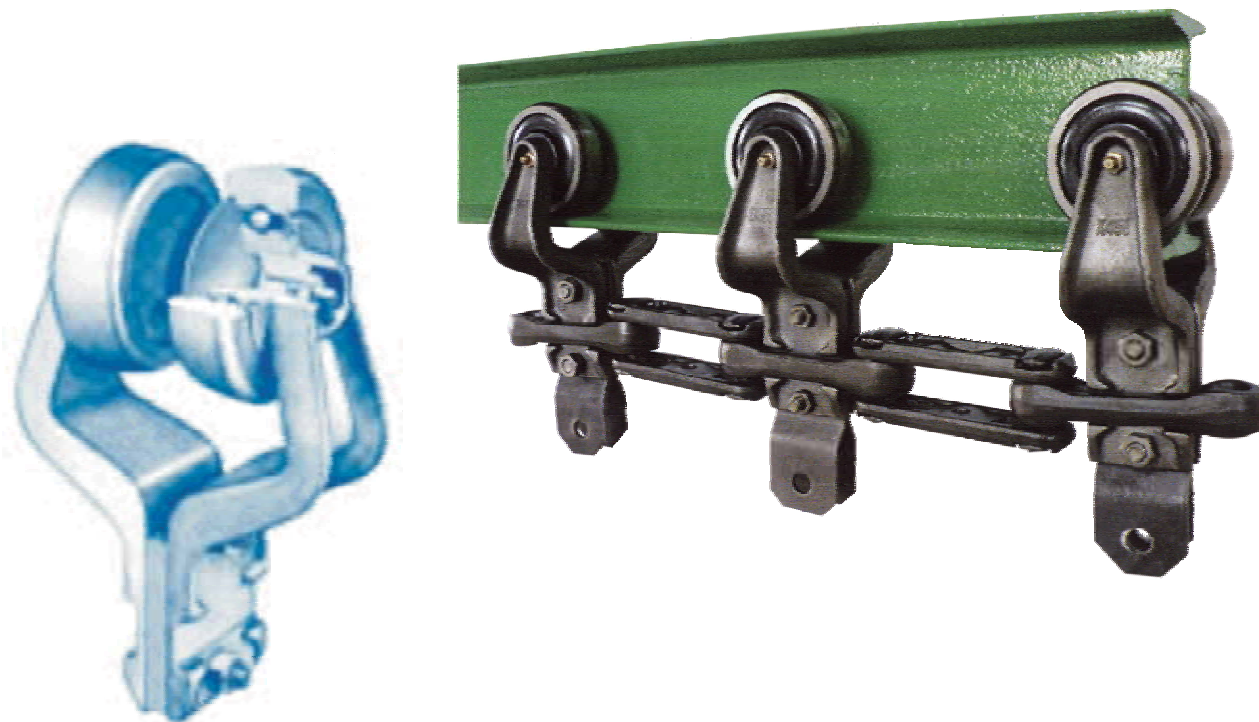
Load Bar

Used in conjunction with B attachment, spherical washer & spacer with castle nut & split pin



CHAIN	DIMENSIONS mm	
	458	678
A	204.4	306.4
B	102.4	153.2
C	123.8	142.9
D	17.5	20.6
E	25.4	25.4
F	17.5	—
G	42.9	60

TROLLEYS

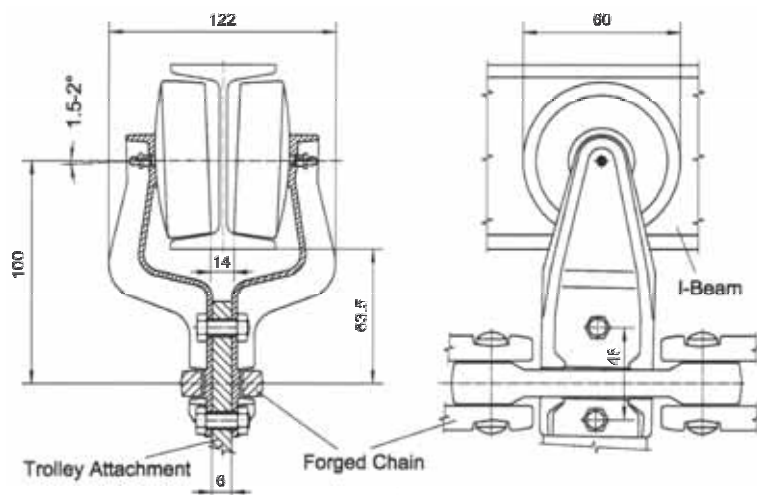


Trolleys for Drop Forged Chain

Trolleys can be supplied to meet most design requirements. There are two main types;

1. Ribbon cage wheels (Retainer type): semi-precision bearings, recommended for clean environments, operating in temperatures between -20°C and 150°C.
2. Full ball complement (FBC): semi-precision bearings, recommended for wash plant and oven applications, maximum operating temperature 250°C subject to grease used.

A) 348 Trolley – 63.5 mm Drop

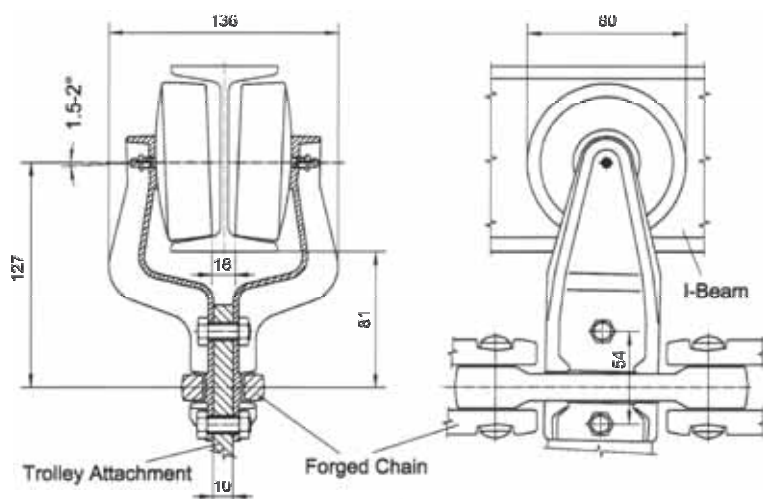


Standard trolley has a riveted 60mm diameter wheel.

It is generally supplied with full ball wheels.

Weight of two wheel trolley	1.1kg
Maximum payload of two wheel trolley	100kg
Torque for locknut M8	20-30Nm.

B) 458 Trolley – 81 mm Drop

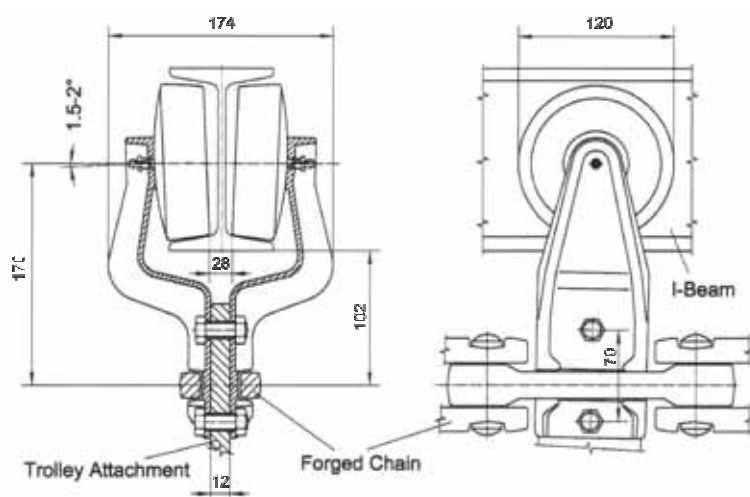


Standard trolley has a riveted 80mm diameter wheel.

It is generally supplied with full ball wheels.

Weight of two wheel trolley	2.5kg
Maximum payload of two wheel trolley	200kg
Torque for locknut M10	40-50Nm

C) 678 TROLLEY - 101.6mm DROP

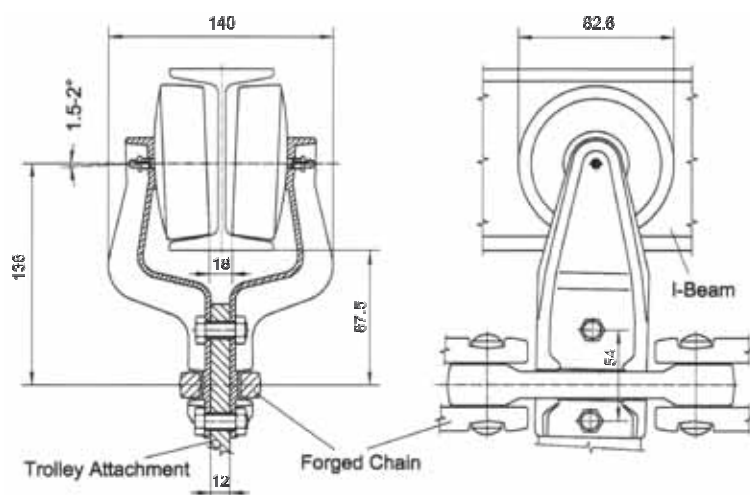


Standard trolley has a riveted 120mm diameter wheel.

It is generally supplied with full ball wheels.

Weight of two wheel trolley	7.7kg
Maximum payload of two wheel trolley	550kg
Torque for locknut M10	40-50Nm.

D) 678 TROLLEY (4"over 6") 87.3mm DROP

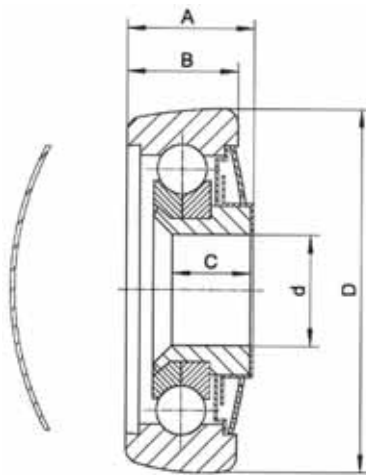


Standard trolley has a riveted 82mm diameter wheel.

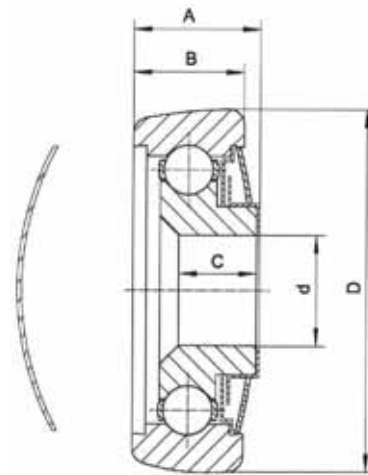
It is generally supplied with full ball wheels.

Weight of two wheel trolley	3.2kg
Maximum payload of two wheel trolley	200kg.
Torque for locknut M10	40-50Nm.

TROLLEY WHEELS



FBC Type



RetainerType



FBC Type



RetainerType

Wheel Number	Type	Dimensions					Trolley Size
		A	B	C	D	d	
Φ 60 x 16	FBC	22mm	20mm	13mm	60mm	16mm	3"
Φ 80 x 25	FBC	28.5mm	25mm	17mm	80mm	25mm	4"
Φ 82 x 25	FBC	28.5mm	25mm	17mm	82mm	25mm	4"
Φ 120 x 25	FBC	36mm	33mm	21.5mm	120mm	25mm	6"

Retainer Type are also available.

When using automatic oil lubrication, the wheels are available less the seals and inner covers for open bearing operation.

SPROCKETS

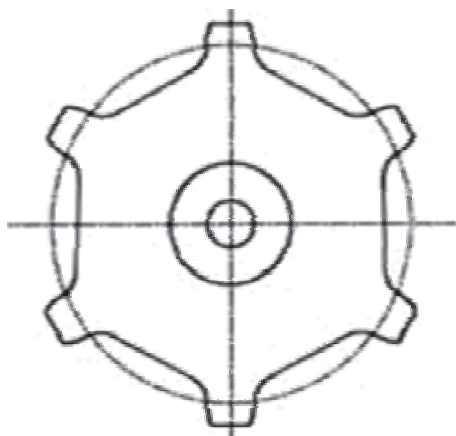
Sprockets

Sprockets are normally of fabricated construction and can be supplied for all sizes of forged rivetless chain.

Sprockets are available with one sided or central boss and can be pilot bored or bored and keywayed. Customer to specify the number of teeth and the bore size.

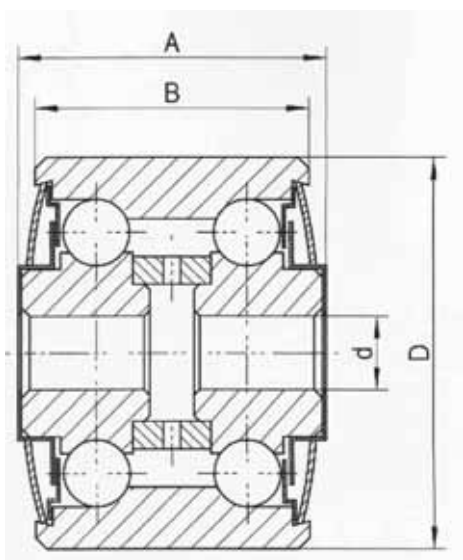
Sprockets are also available with replaceable teeth and with shear boss.

Hardened tooth profile also available upon request.



CHAIN	No. of Teeth	P.C.D. mm
348	9	438.9
	13	632.2
	19	923.4
458	9	585
	14	907.4
	19	1226.8
678	6	588.8
	9	877.8
	12	1167.4

ROLLER TURN ROLLERS



Roller Number	Dimensions				
	A	B	D1	D2	d
Φ 70X12.7	2.76"	2.56"	2.76"	2.05"	0.64"
	70mm	65mm	70mm	52mm	16.2mm

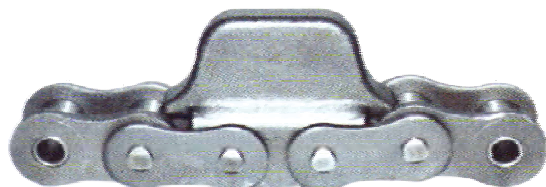
Custom dimensions are also available.

CATERPILLAR DRIVE CHAIN

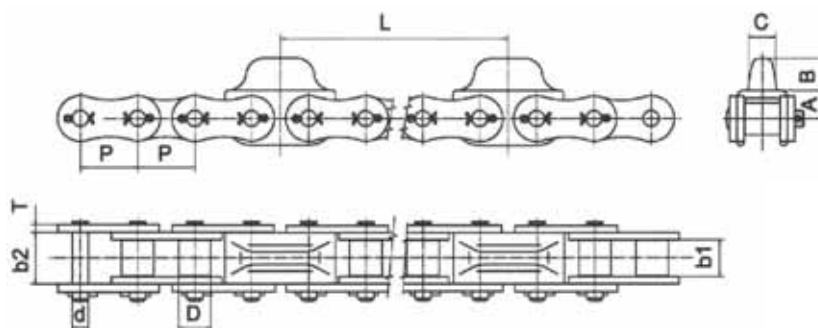
Caterpillar Drive Chain

Caterpillar drive chains can be supplied in customer's specified lengths with dogs fitted to cottered transmission chain.

The standard number of pitches and number of dogs is shown below.

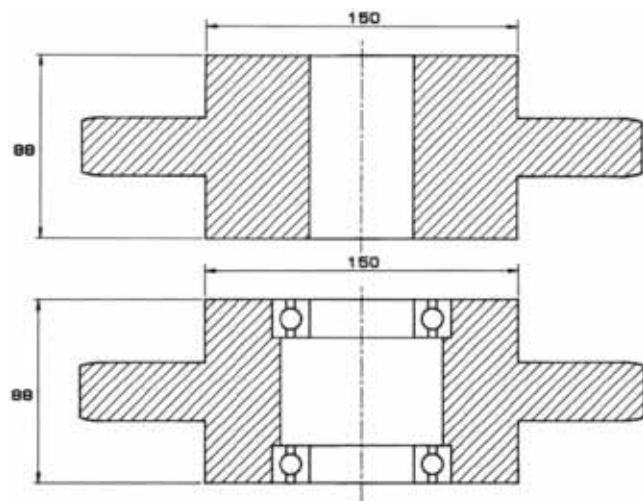


CHAIN	Standard No. of PITCHES	Standard No. of DOGS	Centers	A Nominal
348	60	20	6	38
458	60	15	8	44
678	60	10	12	54



Chain Number	Dimensions									
	P	D	b1	b2	T	d	L	A	B	C
X348-D	50.8mm	28.58mm	31.55mm	45.3mm	6.4mm	14.27mm	152.4mm	25mm	28mm	16mm
X458-D	50.8mm	28.58mm	31.55mm	45.3mm	6.4mm	14.27mm	203.2mm	25mm	35mm	25mm
X678-D	50.8mm	28.58mm	31.55mm	45.3mm	6.4mm	14.27mm	304.8mm	25mm	50mm	27mm

CATERPILLAR CHAIN DRIVE SPROCKETS

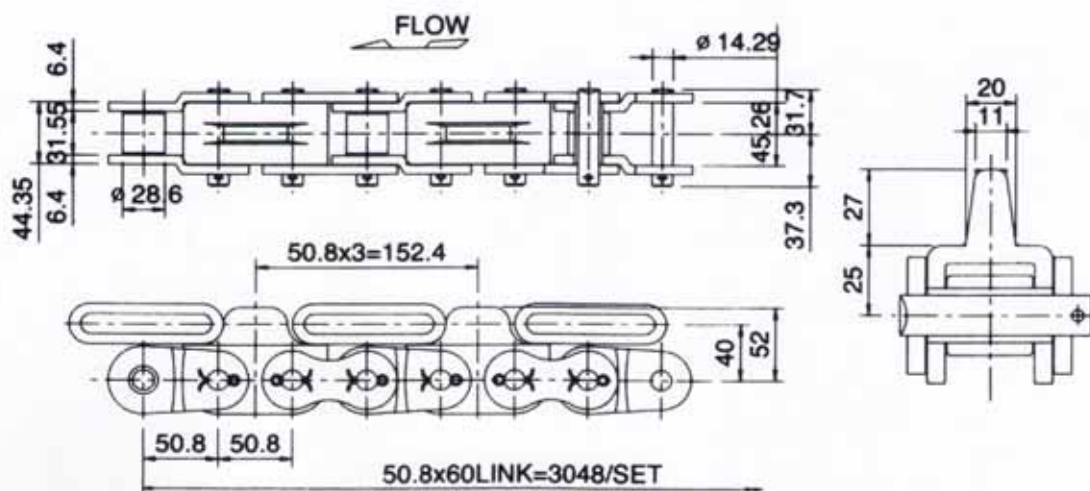


Standard sprockets are as follows:

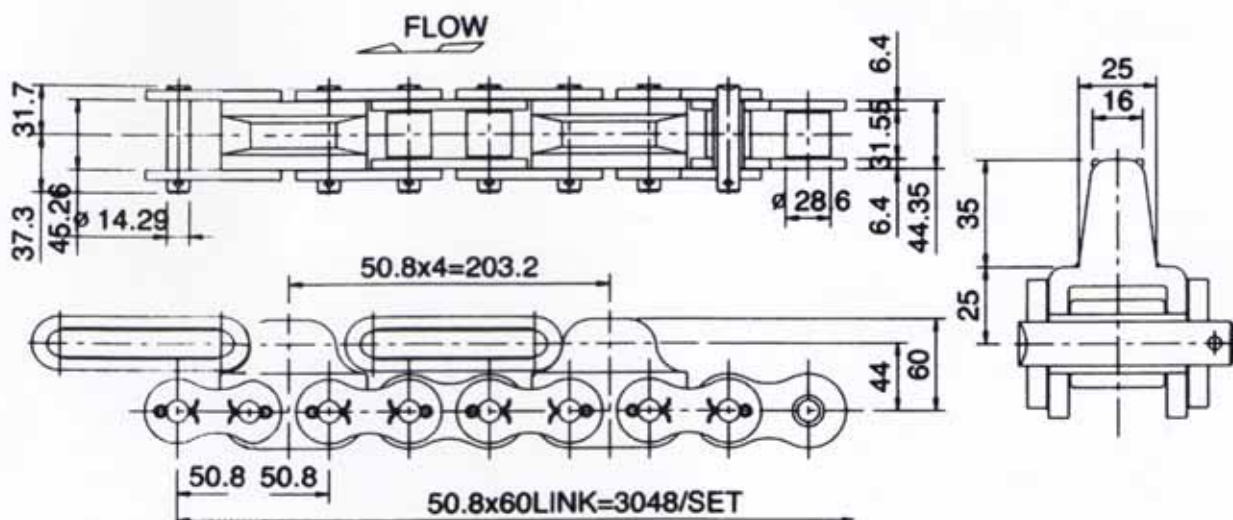
- [a] Drive sprocket
16 tooth sprocket x 2" pitch ASA160.
Bored and keywayed to customers specification.
- [b] Tension sprocket
16 tooth sprocket x 2" pitch ASA160 Supplied with two 6012 type bearings.

CATERPILLAR DRIVING CHAIN ARRANGEMENT

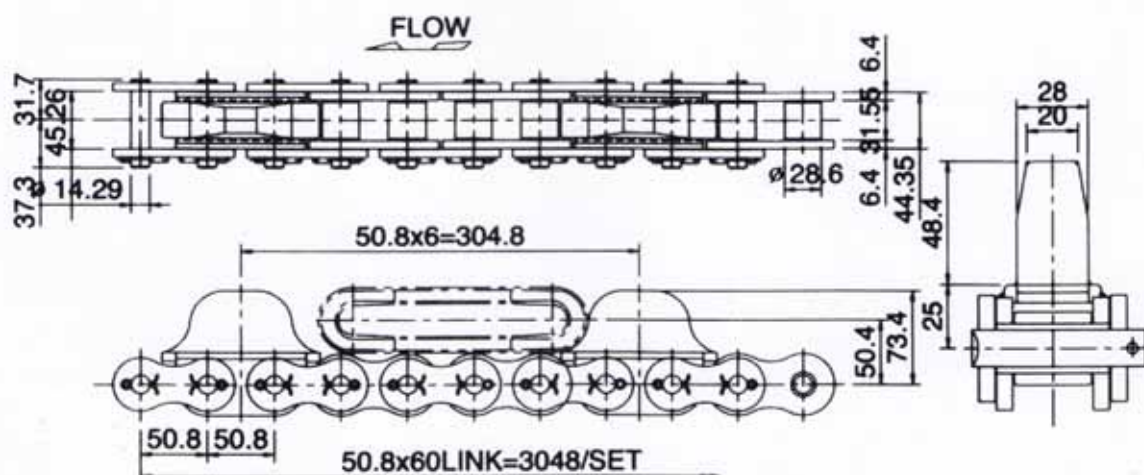
X-348D



X-458D



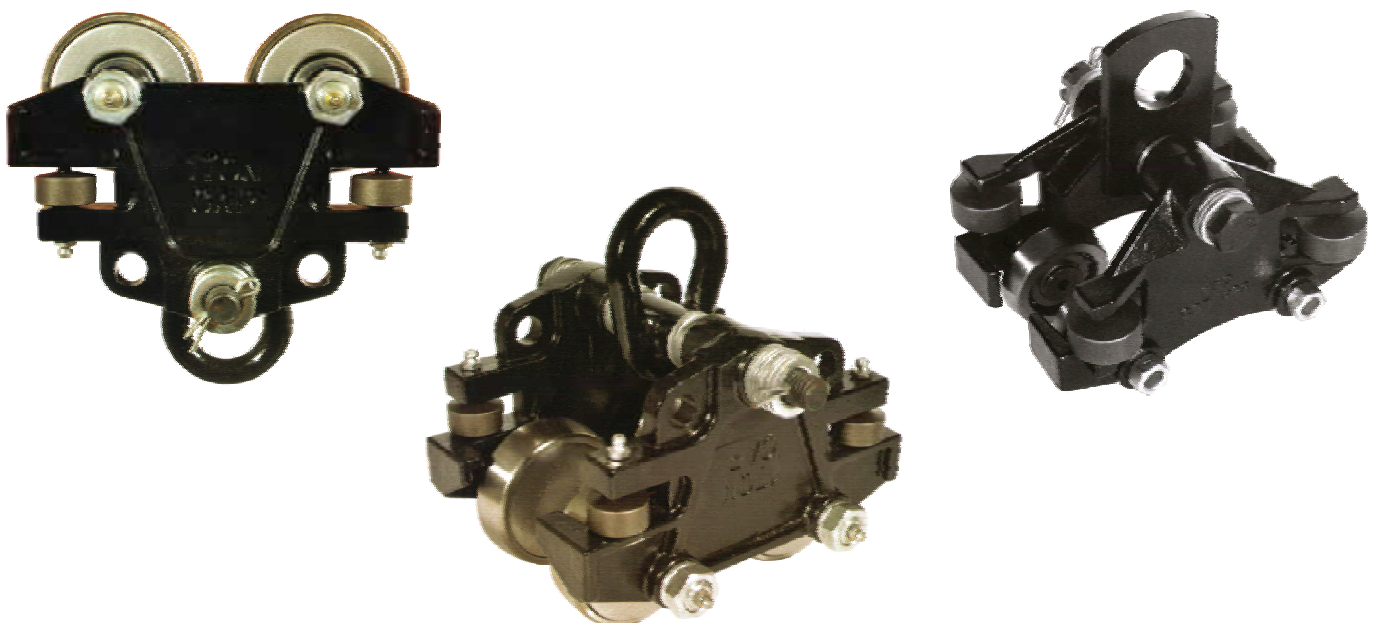
X-678D



PUSHER DOG



HAND PUSHED TROLLEY



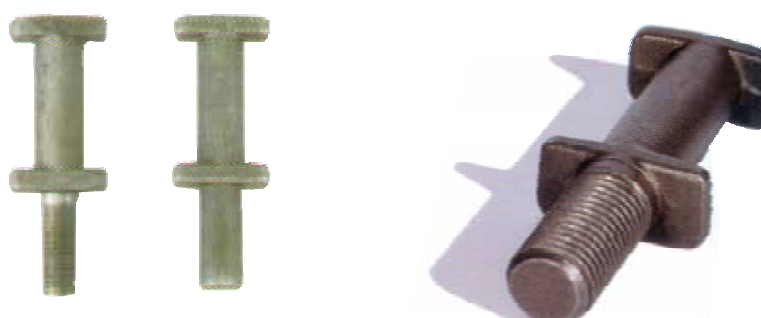
CHAIN ATTACHMENT



LOAD BAR



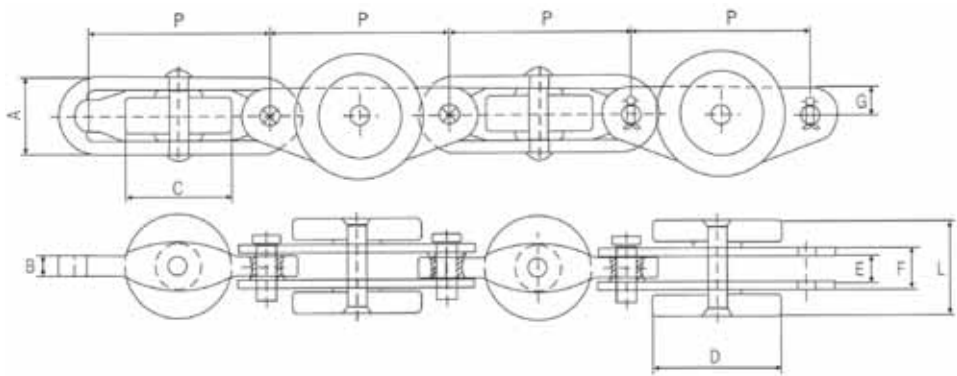
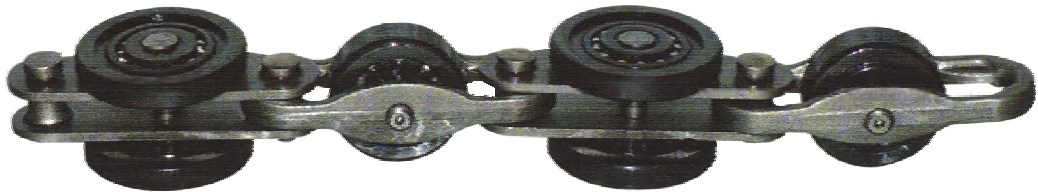
EXTENDED PIN



ASSEMBLY PICTURE

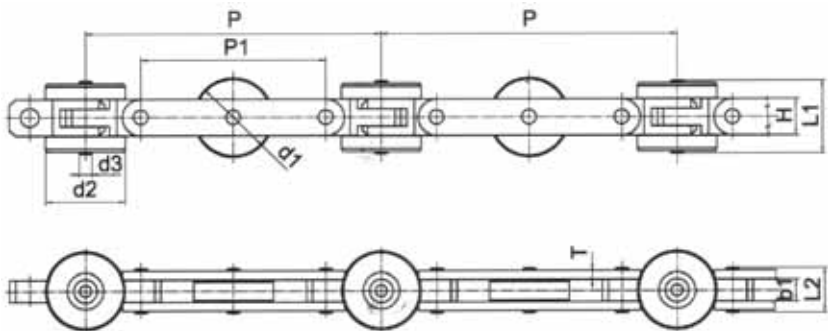


ENCLOSED TRACK CHAIN



CHAIN	PITCH	Pin Dia.	Pin Length.	Chain Shaft Dimensions mm					
	P	D	L	A	B	C	E	F	G
	mm	mm	mm	mm	mm	mm	mm	mm	mm
5075	75	54	40	33	8.5	44	12	18.4	12

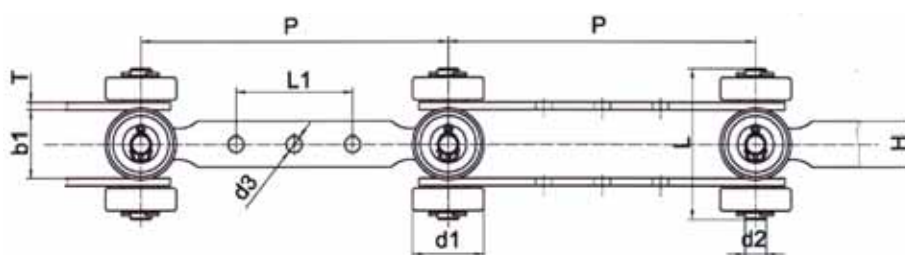
Custom dimensions are also available.



Chain Number	Pitch	Dimensions								
	P	d1	d2	b1	d3	L1	L2	P1	T	H
72000	200mm	54mm	54mm	15.2mm	13mm	49.7mm	33.2mm	125mm	6mm	25mm

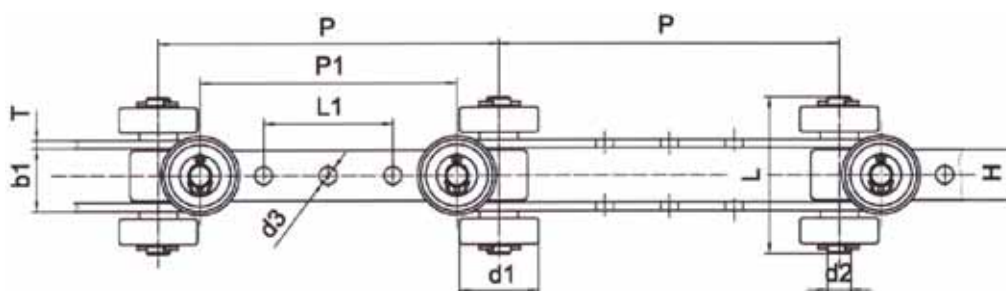
Custom dimensions are also available.

BL-PLANAR CHAINS



Chain Number	Pitch	Roller Diameter	Pin Diameter	Pin Length	Other Dimensions				
	P	d1	d2	L	L1	b1	T	H	d3
72000	203.2mm	37mm	10mm	78mm	77mm	30mm	4mm	25mm	10.5mm

Custom dimensions are also available.



Chain Number	Pitch	Roller Diameter	Pin Diameter	Pin Length	Other Dimensions					
	P	d1	d2	L	P1	L1	b1	T	H	d3
42000-1	200mm	30mm	9mm	65mm	160mm	88mm	20mm	3mm	20mm	6.5mm
42000-2	200mm	35mm	10mm	64.5mm	160mm	88mm	21mm	4mm	21mm	6.5mm
42000-3	200mm	40mm	14mm	75mm	150mm	88mm	26mm	4mm	26mm	10mm
42032	203.2mm	47mm	14mm	95mm	170.2mm	76.2mm	30mm	4mm	30mm	8.4mm

Custom dimensions are also available.

OTHER OVERHEAD CONVEYOR PRODUCTS

2 Ton Enclosed Conveyor Chain



5 Ton Enclosed Conveyor Chain with Hanger



7 Ton Enclosed Conveyor Chain



7 Ton Double Center Bearing with Hanger



7 Ton Single Center Bearing



7 Ton Enclosed Conveyor Chain (Double Center Bearing with Hanger)



Chain Link



Note: For all the products, dimensions subject to change. Certified dimension furnished upon request. While all reasonable care has been taken in preparing this catalogue, no responsibility is accepted for printing errors.



Distributed by



Meritt
T.R.A.N.S.M.I.S.S.I.O.N.S

157/159, Narayan Dhuru Street,
Behind Nagdevi Street, Mumbai - 400 003, INDIA.
Telephone - 022 - 2344 4956 / 2344 2857
Fax - 91-22-2341 4107 / 2341 0238
E-mail: sales@meritt.in • meritt2@vsnl.net
Website: **www.meritt.in**