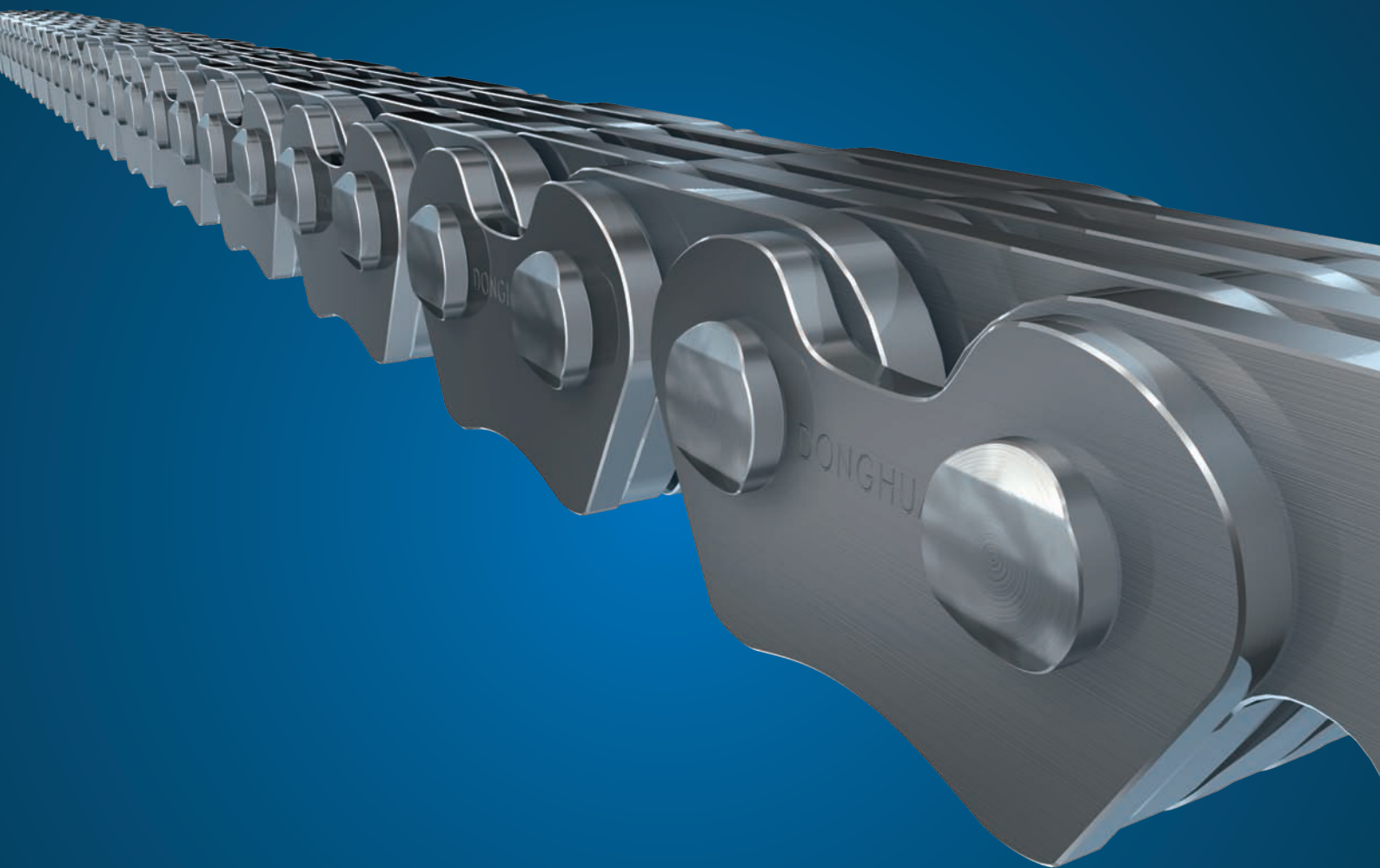
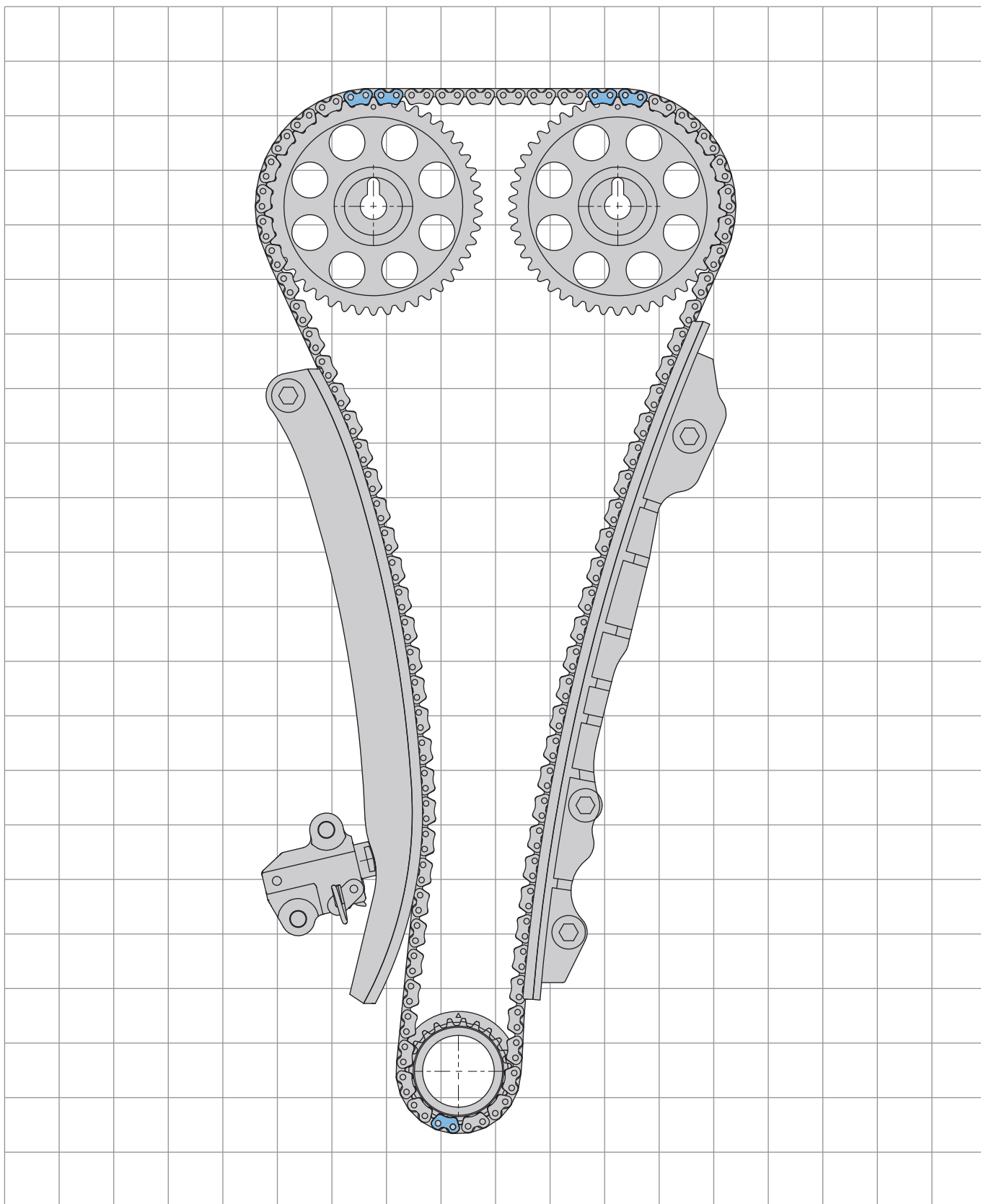


# 汽车链/摩托车链

## AUTOMOBILE CHAINS & MOTORCYCLE CHAINS



# 汽车发动机正时系统 Timing system for automotive engine



汽车链/摩托车链 AUTOMOBILE CHAINS & MOTORCYCLE CHAINS

# 汽车发动机正时系统

## Timing system for automotive engine

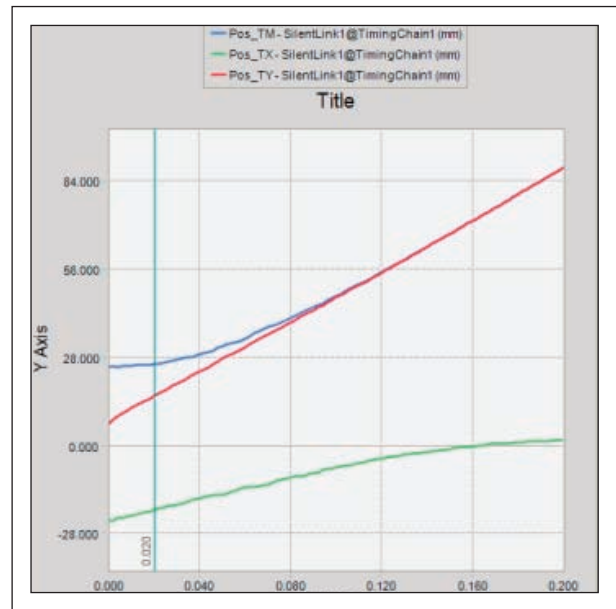
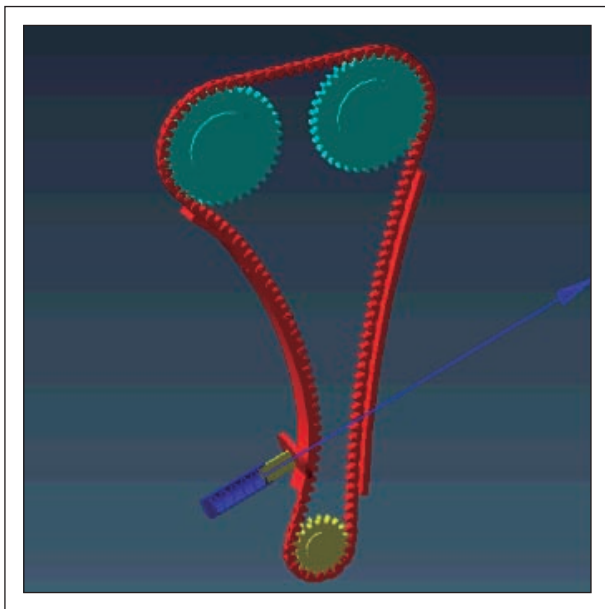
汽车发动机正时系统是实现发动机配气功能的重要子系统。东华能进行正时系统仿真模型及链条的应力分布状况分析。

Automotive engine timing system is the important subsystem realizing the gas distribution function of engine.

Donghua can conduct the simulation of timing system and stress distribution analysis of chain.

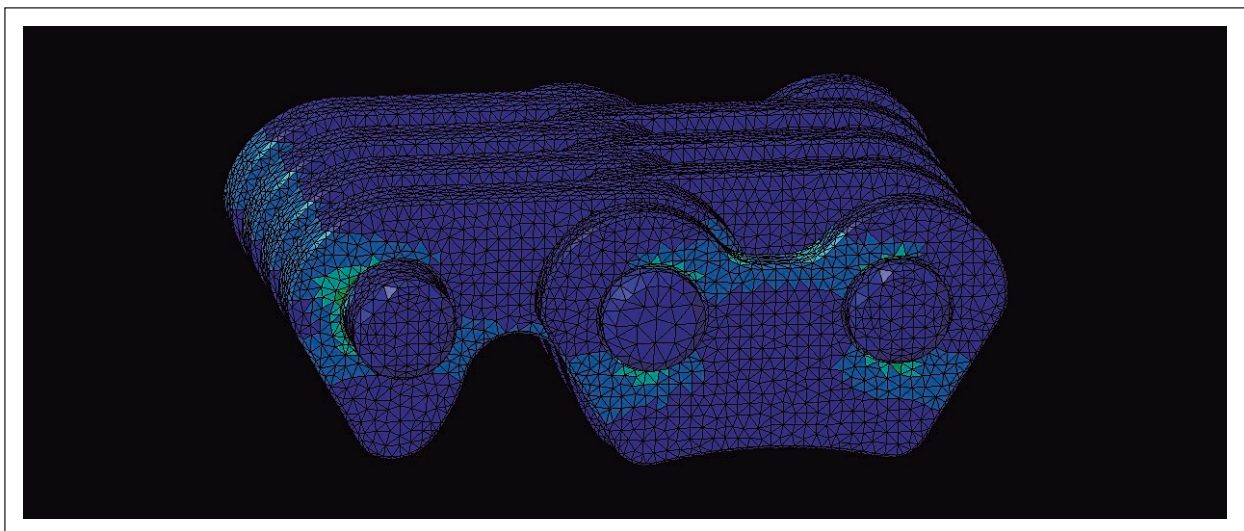
### 正时系统仿真模型

#### Timing system simulation model



### 链条的应力分布状态

#### Chain stress distribution

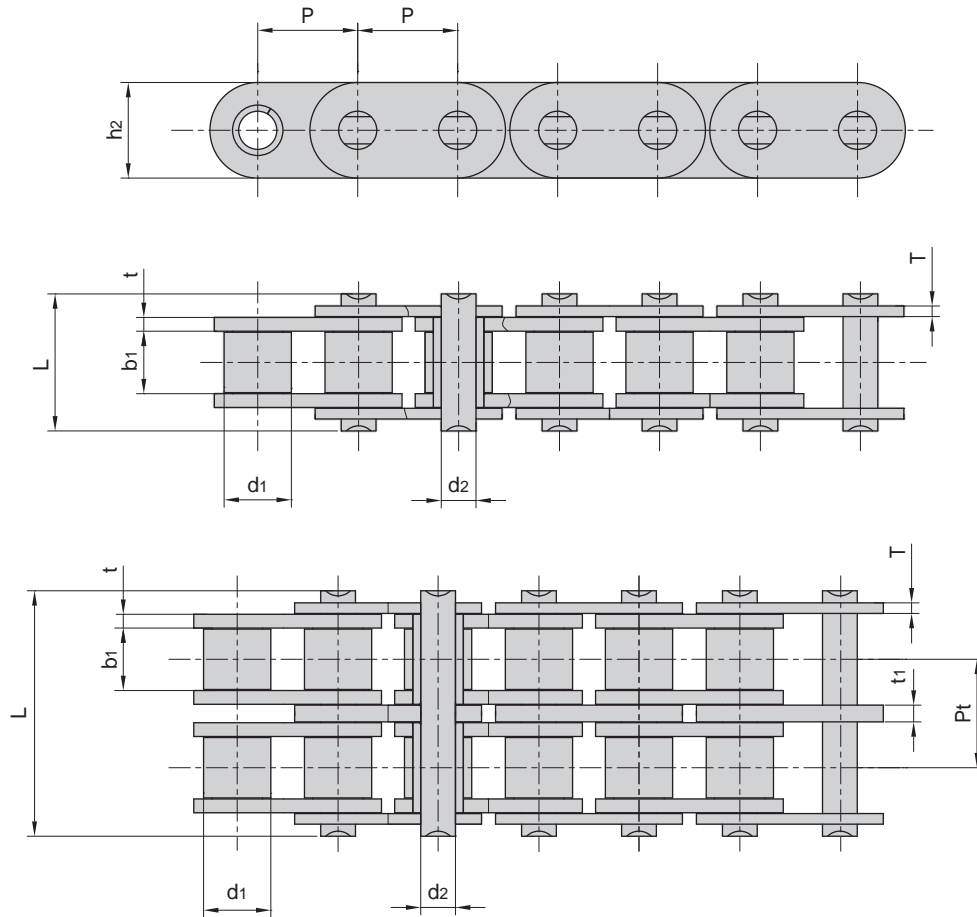


# 发动机正时滚子链

## Roller chains for engine timing

发动机正时滚子链主要用于汽车发动机正时系统、机油泵、平衡轴和共轨泵驱动系统，是发动机的关键零部件。具备较高的强度、耐久性能。

Roller chain for engine timing is mainly used for automobile engine timing system, oil pump, balance shaft and common rail pump drive system etc.. This chain is the key engine component with high strength and durability.



汽车链/摩托车链 AUTOMOBILE CHAINS & MOTORCYCLE CHAINS

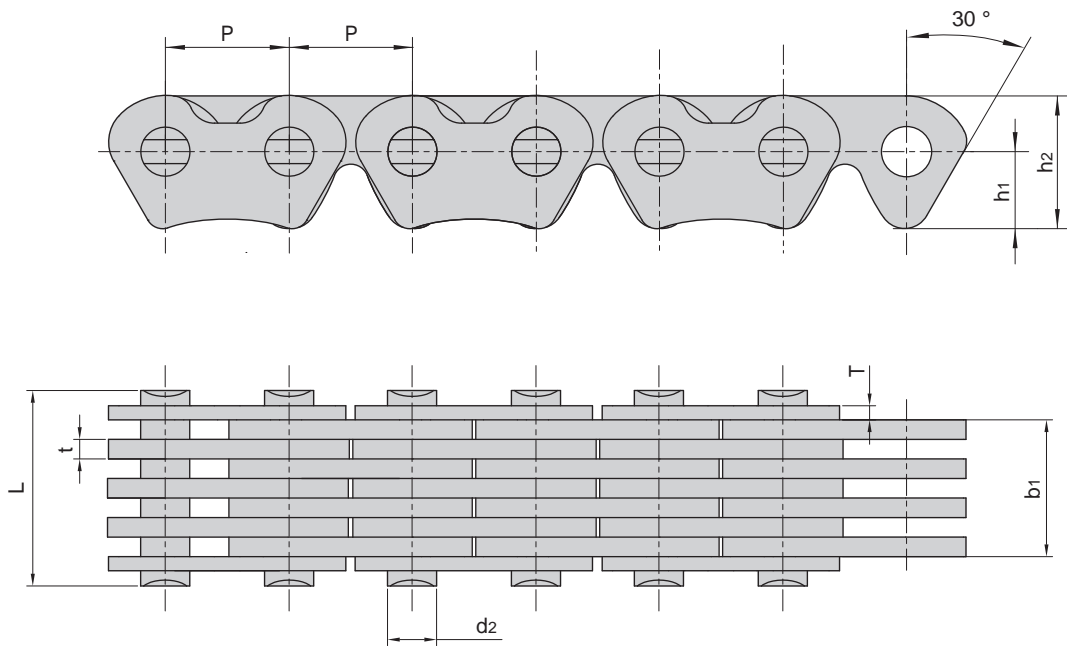
东华链号 Donghua Chain No.	节距	滚子直径	内节内宽	销轴直径	销轴长度	内链板高度	链板厚度		排距	极限拉伸载荷	每米长重
	Pitch	Roller diameter	Width between inner plates	Pin diameter	Pin length	Inner plate depth	Plate thickness	Transverse pitch			
	P	d1 max	b1 min	d2 max	L max	h2 max	t/t1 max	T max			
	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN/lbf	kg/m
05E	8.000	5.65	4.60	3.05	12.3	7.65	1.3	1.04	-	7.0/1574	0.38
05BT	8.000	5.65	4.60	3.05	12.3	7.65	1.3	1.20	-	8.5/1912	0.41
06AT	9.525	6.35	3.94	3.28	10.5	8.20	1.3	1.04	-	8.9/2002	0.34
06BT	9.525	6.35	5.72	3.28	12.5	8.20	1.3	1.04	-	9.0/2045	0.38
06BT-2	9.525	6.35	5.72	3.28	22.9	8.20	1.3/1.6	1.04	10.24	16.9/3802	0.67
06BTH-2	9.525	6.35	5.72	3.28	25.1	8.20	1.6	1.20	10.24	17.8/4045	0.84

# 发动机正时静音链

## Silent chains for engine timing

发动机正时静音链主要用于汽车发动机正时系统，是发动机关键零部件，具有较高的强度、耐久性和静音性等优良性能。

Silent chain for engine timing is mainly used for automobile engine timing system. The chain is the key engine component with excellent performances such as high strength, durability and silencing and so on.



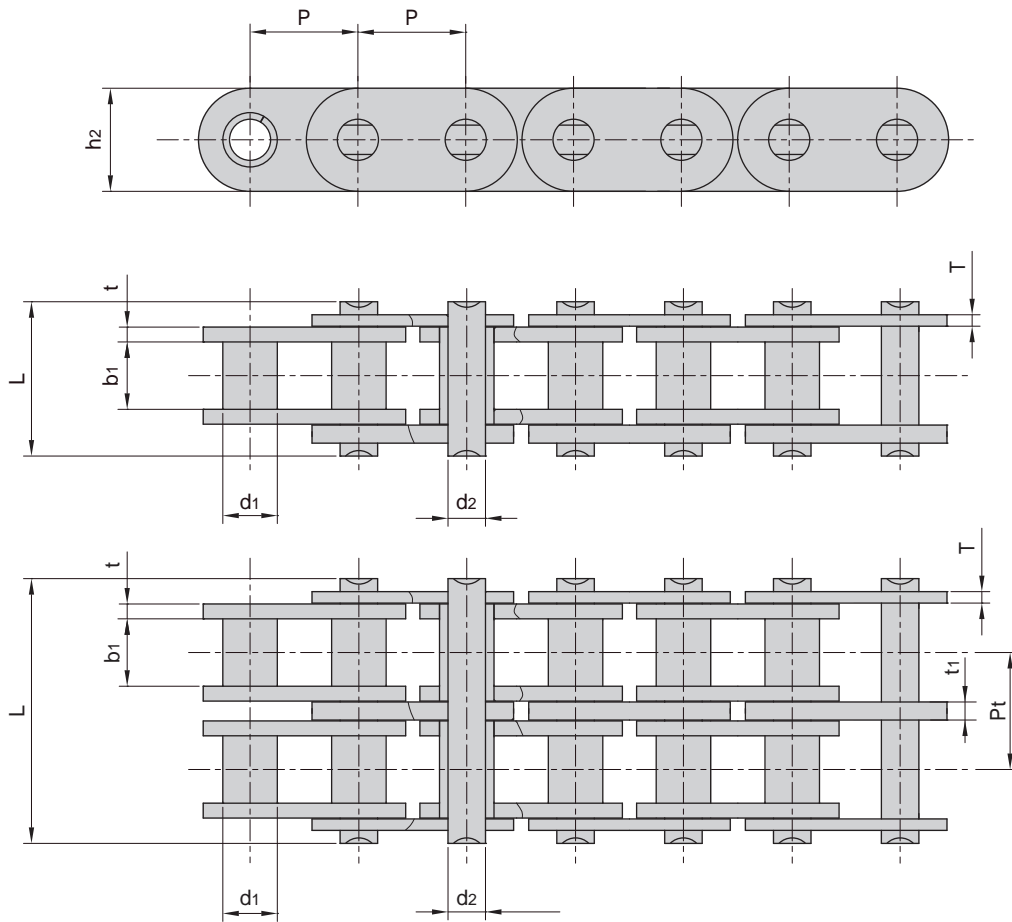
东华链号 Donghua Chain No.	节距	链宽	销轴直径	销轴长度	链板高度	链板厚度		导向型式	片数	极限拉伸载荷	每米长重
	Pitch	Chain width	Pin diameter	Pin length	Plate depth	Plate thickness					
	P	b <sub>1</sub> min	d <sub>2</sub> max	L max	h <sub>2</sub> max	t max	T max				
	mm	mm	mm	mm	mm	mm	mm		n	Q min	q
										kN/lbf	kg/m
CL04D-4×5W	6.35	7.6	2.40	11.70	6.95	1.2	0.75	(外)Outside	9(4X5)	12.4/2790	0.38
CL05D-4×4W	8.00	7.6	2.92	11.78	9.59	1.3	1.04	(外)Outside	8(4X4)	16.5/3712	0.51
CL05D-3×4W	8.00	6.5	2.92	10.48	9.59	1.3	1.04	(外)Outside	7(3X4)	12.4/2790	0.45

# 发动机正时套筒链

## Bush chains for engine timing

发动机正时套筒链主要用于柴油发动机正时系统、平衡轴系统，套筒链与滚子链相比，结构简单，具备较高的耐磨性能。

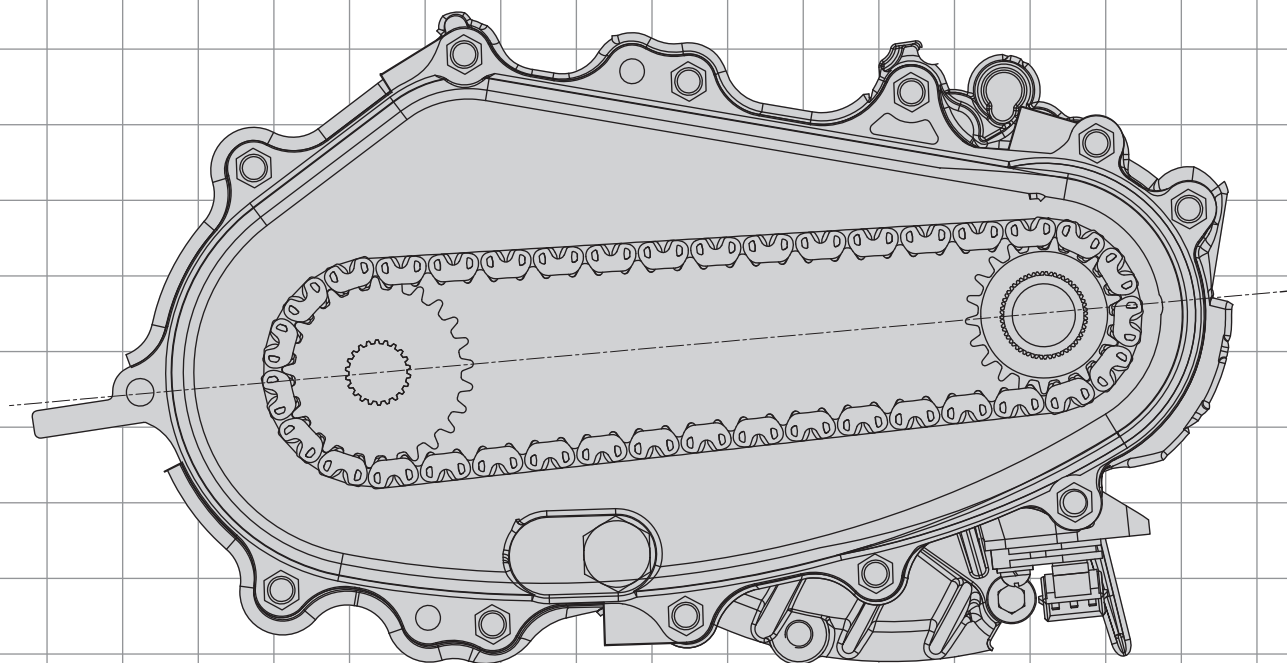
Bush chain for engine timing is mainly used for diesel engine timing system and the balance shaft system etc.. Compared with the roller chain, it has simpler structure and higher wear resistance.



东华链号 Donghua Chain No.	节距	套筒直径	内节内宽	销轴直径	销轴长度	内链板高度	链板厚度		排距	极限拉伸载荷	每米长重
	Pitch	Bush diameter	Width between inner plates	Pin diameter	Pin length	Inner plate depth	Plate thickness	Transverse pitch	Ultimate tensile strength	Weight per meter	
	P	d1 max	b1 min	d2 max	L max	h2 max	t/t1 max	T max	Pt	Q min	q
	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN/lbf	kg/m
05CT	8.000	5.00	4.76	3.15	11.8	7.6	1.3	1.04	-	8.5/1932	0.35
06D	9.525	6.35	5.50	4.44	13.9	9.6	1.4	1.30	-	9.0/2024	0.53
C35F2-2	9.525	5.08	4.85	3.28	22.8	8.3	1.6/1.8	1.04	10.13	17.4/3913	0.80

# 变速箱/分动箱静音链 Transmission & Transfer case silent chains

汽车链/摩托车链 AUTOMOBILE CHAINS & MOTORCYCLE CHAINS



圆销式静音链  
Round pin type silent chains



滚销式静音链  
Rocker joint type silent chains

# 变速箱/分动箱静音链 Transmission & Transfer case silent chains



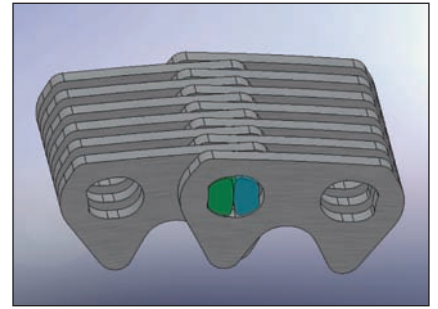
汽车链/摩托车链 AUTOMOBILE CHAINS & MOTORCYCLE CHAINS



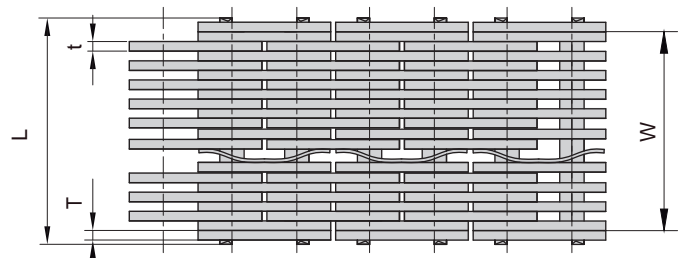
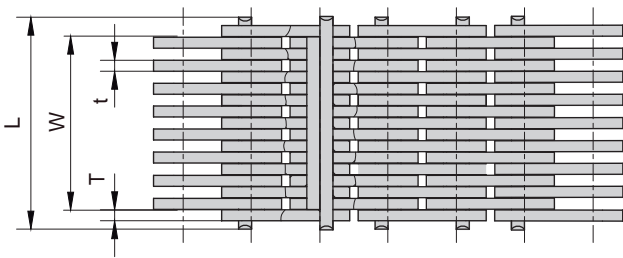
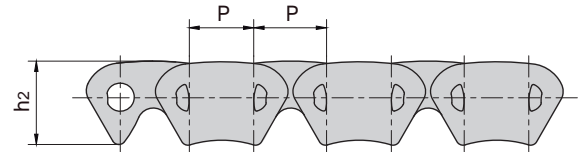
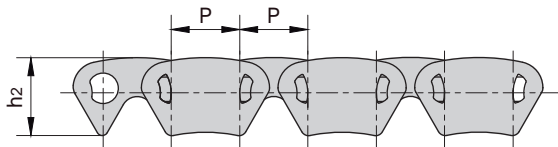
# 滚销式静音链

## Rocker joint type silent chains

滚销式静音链主要用于四轮驱动分动箱和变速箱驱动系统，是驱动系统的核心部件。滚销式静音链设计采用了特殊的双滚销啮合理论，其结构不同于普通的圆销式静音链，达到降低多边形效应和噪声，具备高强度、高耐磨和传递大扭矩等多种工况使用的优越性能。Rocker joint type silent chain is mainly used for four-wheel drive transfer case and gearbox drive system, which is the core component of the drive system. Special rocker joint pin dual-meshing design makes its structure different from the ordinary round pin type silent chain and thus reducing the polygon effect and noise effectively. This chain has superior performances such as high strength, high wear resistance and transmission of high torque in many conditions etc..



滚销式静音链  
Rocker joint type silent chains

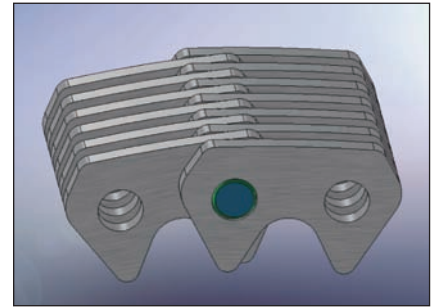


东华链号 Donghua Chain No.	节距	链宽	销轴长度	链板高度	链板厚度		导向型式	片数	极限拉伸载荷	每米长重
	Pitch	Width Between Guides	Pin length	Plate depth	Plate thickness		Guide type	Number of plate	Ultimate tensile strength	Weight per meter
	P	W	L max	h2 max	t	T		n	Q min	q
	mm	mm	mm	mm	mm	mm			kN/lbf	kg/m
HV3F3-8x9W	9.525	23.25	29.20	10.90	1.55	1.55	(外)Outside	17(8X9)	36/8096	1.5
SC180	11.113	31.41	36.33	13.52	1.55	1.55	(外)Outside	21(9X12)	72/16193	2.4

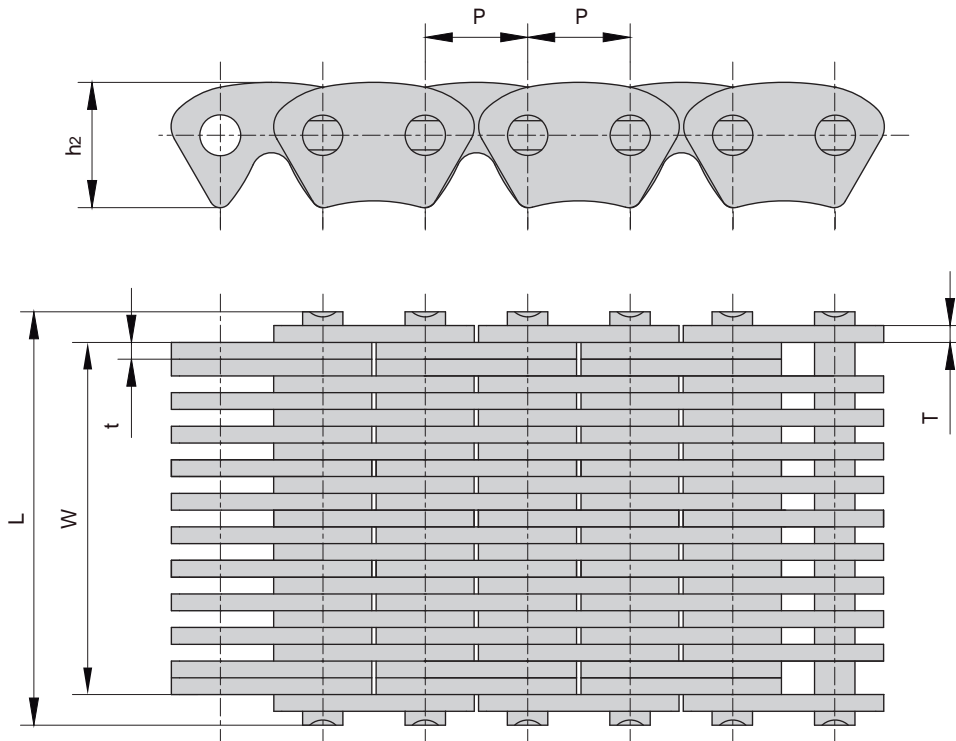
# 圆销式静音链

## Round pin type silent chains

圆销式静音链主要用于分动箱和变速箱动力总成驱动系统，是驱动系统的核心部件。链条采用优质钢，链板采取等温淬火，能适应高强度、高耐磨、低噪声、大扭矩等多种工况。Round pin type silent chain is mainly used for transfer case and gearbox assembly drive system, which is the core component of the drive system. The chain is made from superior quality steel and the plates of which are austempered, which is especially suitable for various conditions such as high strength, high wear resistance, low noise and big torque etc..



圆销式静音链  
Round pin type silent chains



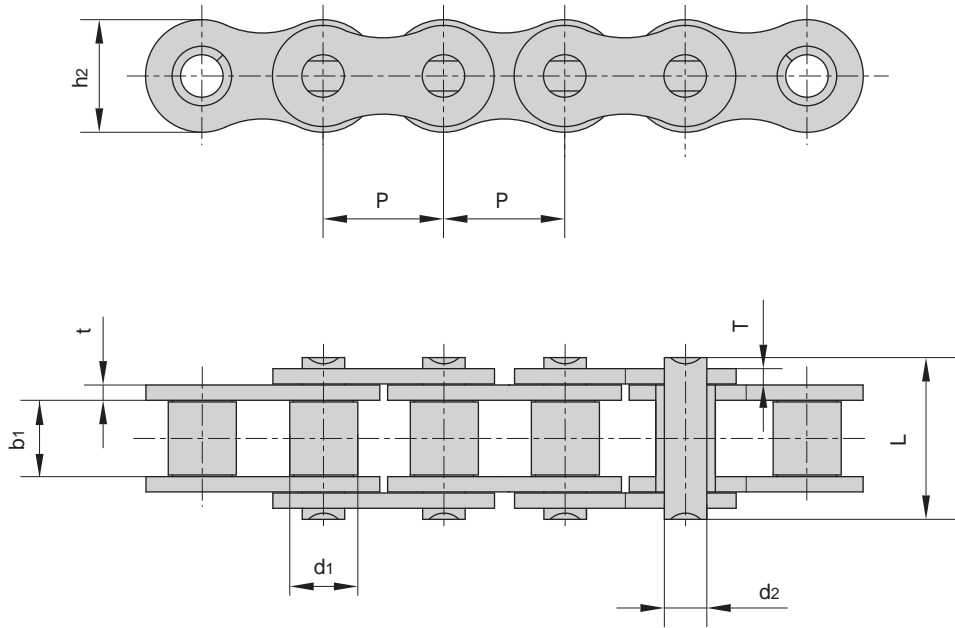
东华链号 Donghua Chain No.	节距	链宽	销轴长度	链板高度	链板厚度		导向型式 Guide type	片数 Number of plate	极限拉伸载荷	每米长重
	Pitch	Width Between Guides	Pin length	Plate depth	Plate thickness	Ultimate tensile strength			Weight per meter	
	P	W	L max	h2 max	t	T			Q min	q
	mm	mm	mm	mm	mm	mm		kN/lbf	kg/m	
CL06F2-12X11W	9.525	32.55	38.20	11.6	1.55	1.55	(外)Outside	23(12X11)	68/15293	2.2
SC1252-11X10W	12.780	30.00	36.72	15.5	1.55	1.55	(外)Outside	21(11X10)	80/17992	2.8

# 摩托车链 MOTORCYCLE CHAINS



# 摩托车链 Motorcycle chains

发动机链条  
Engine chains



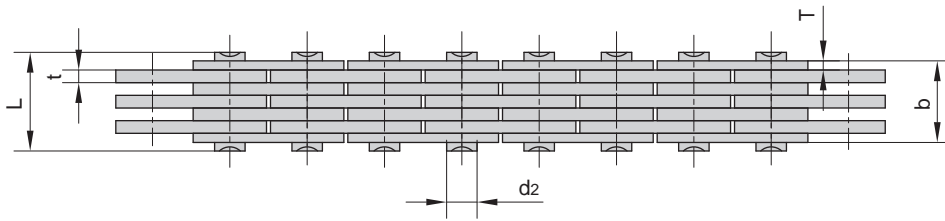
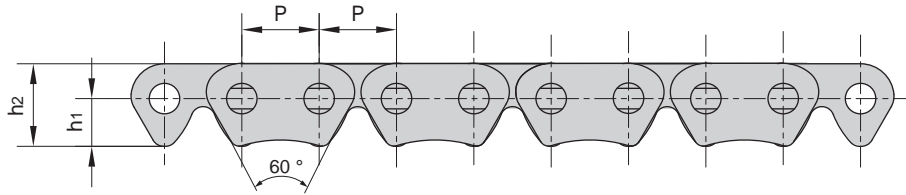
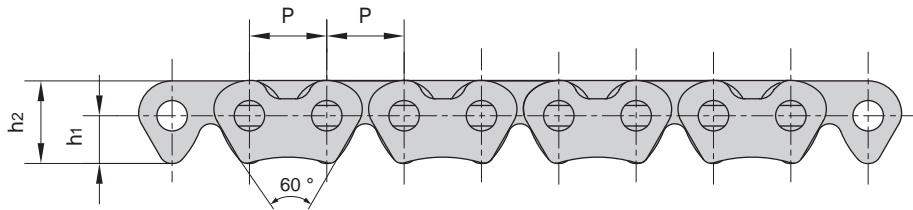
汽车链/摩托车链 AUTOMOBILE CHAINS & MOTORCYCLE CHAINS

ISO 链号 ISO Chain No.	东华链号 Donghua Chain No.	节距	套筒直径	内节内宽	销轴直径	销轴长度	内链板高度	链板厚度	极限拉伸载荷	平均拉伸载荷	每米长重
		Pitch	Bush diameter	Width between inner plates	Pin diameter	Pin length	Inner plate depth	Plate thickness	Ultimate tensile strength	Average tensile strength	Weight per meter
		P	d1 max	b1 min	d2 max	L max	h2 max	t/T max	Q min	Q0	q
		mm	mm	mm	mm	mm	mm	mm	kN/lbf	kN	kg/m
04C	25	6.350	3.30	3.18	2.31	7.90	6.00	0.80	3.5/795	4.6	0.15
25H	25H	6.350	3.30	3.18	2.31	8.90	6.00	1.04	4.8/1091	5.5	0.17
-	25H(E)	6.350	3.30	3.18	2.31	8.90	6.00	1.04	5.8/1304	6.4	0.18
-	25HF2	6.350	3.30	3.18	2.31	9.10	5.80	1.2/1.10	5.8/1304	6.4	0.19
219H	219H	7.774	4.59	5.00	3.01	11.90	7.40	1.2/1.04	7.3/1641	8.0	0.28
-	*C219H	7.774	4.59	5.00	3.01	11.90	7.40	1.2/1.04	7.3/1641	8.0	0.33
-	219HF1	7.785	4.60	4.50	3.28	13.00	7.00	2.0/1.40	9.0/2024	9.8	0.37
270H	270H	8.500	5.00	4.75	3.28	13.15	8.45	1.8/1.40	10.8/2428	11.9	0.43

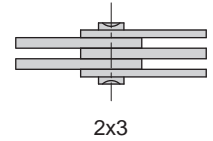
\*直边链板  
\*Straight sided plates

# 摩托车链 Motorcycle chains

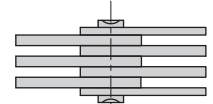
发动机静音链  
Engine silent chains



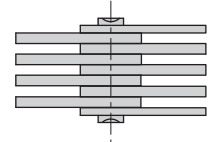
链板组合  
Plates lacing



2x3



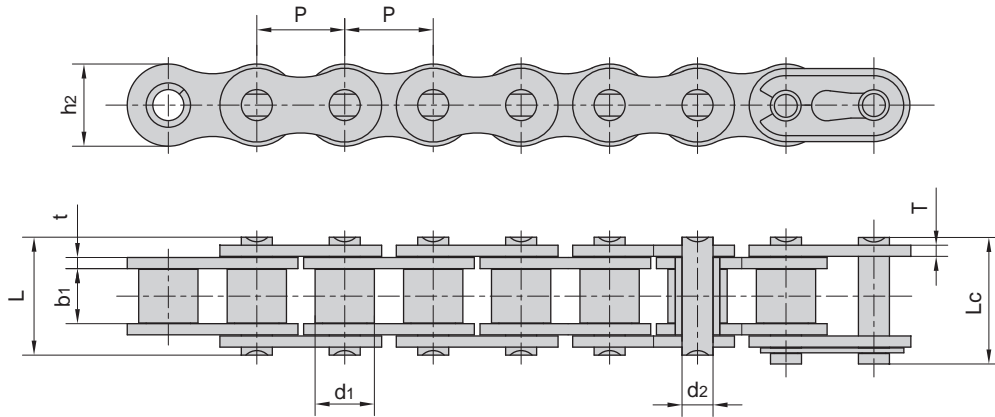
3x4



4x5

东华链号 Donghua Chain No.	节距	链宽	销轴直径	销轴长度	孔中心到齿尖 距离	链板高度	链板厚度	导向形式	片数	极限拉伸载荷	平均拉伸载荷	每米长重
	Pitch	Chain width	Pin diameter	Pin length	Distance from hole center to tooth	Plate depth	Plate thickness	Guide type	Number of plates	Ultimate tensile strength	Average tensile strength	Weight per meter
	P	b max	d2 min	L max	h1	h2 max	t/T max		n	Q min	Q0	q
	mm	mm	mm	mm	mm	mm	mm			kN/lbf	kN	kg/m
CL04-2x3	6.35	4.35	2.50	6.05	3.94	6.80	1.04/0.75	外Outside	5(2×3)	5.19/1179	5.4	0.22
CL04-3x4	6.35	6.35	2.50	8.20	3.90	6.72	1.04/0.75	外Outside	7(3×4)	8.82/2004	9.2	0.28
CL04-4x5	6.35	9.40	2.50	10.90	3.90	6.72	1.04	外Outside	9(4×5)	11.76/2672	12.3	0.35

# 摩托车链 Motorcycle chains



ISO链号 ISO Chain No.	东华链号 Donghua Chain No.	节距	滚子直径	内节内宽	销轴直径	销轴长度		内链板高度	链板厚度	极限拉伸载荷	平均拉伸载荷	每米长重
		Pitch	Roller diameter	Width between inner plates	Pin diameter	L	Lc	Inner plate depth	Plate thickness	Ultimate tensile strength	Average tensile strength	Weight per meter
		P	d1 max	b1 min	d2 max	L max	Lc max	h2 max	t/T max	Q min	Q0	q
		mm	mm	mm	mm	mm	mm	mm	mm	kN/lbf	kN	kg/m
-	*T3F	9.525	6.00	9.50	4.50	18.60	20.00	9.30	1.85/1.50	11.80/2653	13.6	0.61
420	420	12.700	7.77	6.25	3.96	14.70	16.10	12.00	1.50	16.00/3597	17.6	0.55
-	420F3	12.700	7.77	6.40	3.97	15.00	16.60	11.80	1.60/1.45	16.00/3597	17.6	0.64
-	420HF1	12.700	7.77	6.25	3.96	17.00	18.40	12.00	2.03	16.00/3597	17.6	0.76
-	420HT	12.700	7.77	6.25	3.96	17.00	-	12.00	2.03	21.40/4811	23.5	0.76
428	428	12.700	8.51	7.75	4.45	16.70	18.20	11.80	1.60	17.80/4002	19.6	0.70
-	428F1	12.700	8.51	7.94	4.50	16.70	18.05	11.80	1.60	17.15/3855	19.4	0.71
-	428DS	12.700	8.51	7.94	4.45	17.90	19.30	12.00	1.85	18.62/4186	21.0	0.76
428MH	428H	12.700	8.51	7.85	4.45	18.80	19.90	11.80	2.03	20.60/4631	23.4	0.79
-	428HF1	12.700	8.51	7.85	4.45	17.90	19.00	11.80	1.80	19.50/4384	20.7	0.74
-	428HSH	12.700	8.51	7.75	4.45	20.00	-	12.00	2.42	27.00/6070	29.4	0.89
-	428HF4	12.700	8.51	7.94	4.50	18.90	20.10	11.80	2.03	20.50/4609	23.4	0.82
-	428HD	12.700	8.51	7.85	4.45	18.80	19.90	11.80	2.03	20.60/4631	23.4	0.85
520	520	15.875	10.16	6.25	5.08	17.50	19.00	15.09	2.03	26.50/5957	29.7	0.89
-	520F2	15.875	10.16	6.35	5.24	17.50	19.05	15.09	2.03	26.50/5957	29.7	0.97
-	520F3	15.875	10.16	6.48	5.08	17.50	19.00	15.09	2.03	26.50/5957	29.7	0.89
520MH	520MH	15.875	10.22	6.25	5.25	19.00	21.20	15.30	2.20	30.50/6857	33.6	-
-	520HF2	15.875	10.22	6.25	5.30	19.30	-	15.30	2.42	32.00/7194	35.2	1.25
-	520HF3	15.875	10.22	6.25	5.30	19.80	-	15.30	2.80/2.42	40.00/8992	44.0	1.36
-	520HF4	15.875	10.16	6.25	5.08	19.30	20.80	15.09	2.42	26.50/5957	29.7	1.10
-	520HD	15.875	10.16	6.35	5.34	18.60	20.00	15.09	2.20	35.00/7868	38.5	1.04
525	525	15.875	10.16	7.95	5.08	19.30	20.70	15.09	2.03	26.50/5957	29.7	1.06
525MH	525MH	15.875	10.22	7.85	5.25	21.20	23.20	15.30	2.20	30.50/6857	33.6	-
-	525HF1	15.875	10.16	7.95	5.08	20.90	22.30	15.09	2.42	26.50/5957	29.7	1.20
530	530	15.875	10.16	9.40	5.08	20.70	22.20	15.09	2.03	26.50/5957	29.7	1.06
-	530SH	15.875	10.16	9.40	5.08	22.10	-	15.09	2.42	32.80/7374	33.5	1.24
630	630	19.050	11.91	9.40	5.96	24.00	26.20	18.60	2.42	35.30/7936	38.8	-

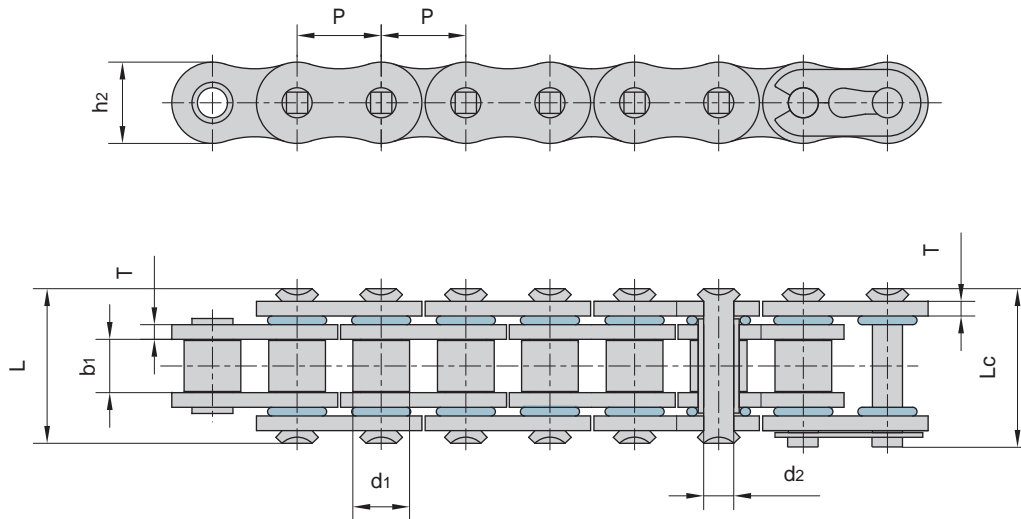
\*套筒链:表中滚子直径d1为套筒直径。

\*Bush chain: d1 in the table indicates the external diameter of the bush.

汽车链/摩托车链 AUTOMOBILE CHAINS & MOTORCYCLE CHAINS

# ○型密封圈摩托车链

## O-Ring motorcycle chains

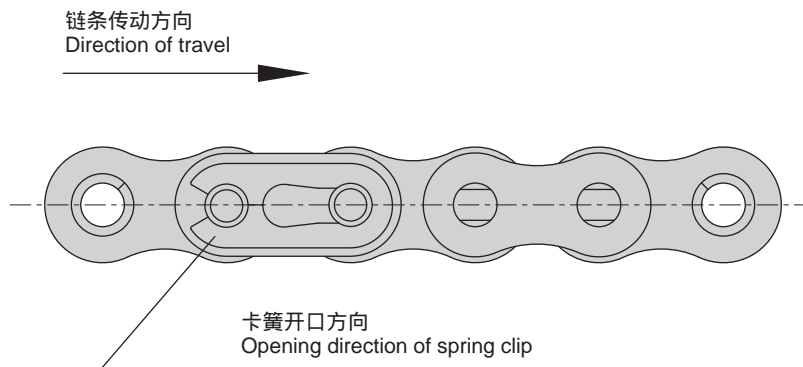


东华链号 Donghua Chain No.	节距 Pitch	滚子直径 Roller diameter	内节内宽 Width between inner plates	销轴直径 Pin diameter	销轴长度 Pin length		内链板高度 Inner plate depth	链板厚度 Plate thickness	极限拉伸载荷 Ultimate tensile strength	平均拉伸载荷 Average tensile strength	每米长重 Weight per meter
	P	d1 max	b1 min	d2 max	L max	Lc max	h2 max	T max	Q min	Q <sub>0</sub>	q
	mm	mm	mm	mm	mm	mm	mm	mm	kN/ bf	kN	kg/m
420 OR	12.700	7.77	6.25	3.96	16.65	17.95	12.00	1.50	16.0/3599	17.00	0.62
428HVS	12.700	8.51	7.94	4.45	21.70	22.70	12.30	2.03	22.0/4946	23.00	0.85
50LD	15.875	10.16	9.53	5.08	23.40	24.60	15.09	2.03	22.2/5045	26.50	1.12
520 OR	15.875	10.16	6.70	5.30	21.20	22.30	15.09	2.20	32.0/7200	34.00	1.11
520F1 OR	15.875	10.16	6.25	5.30	21.20	22.30	15.09	2.20	32.0/7200	34.00	1.09
520F2 OR	15.875	10.16	9.65	5.30	24.10	25.50	15.09	2.20	32.0/7200	34.00	1.21
520V6	15.875	10.16	6.25	5.08	19.80	21.30	15.09	2.03	22.2/5045	26.50	0.96
520H OR	15.875	10.16	6.25	5.24	21.52	22.92	15.09	2.42	26.5/6022	29.60	1.26
525 OR	15.875	10.16	7.95	5.30	21.50	22.90	15.09	2.03	26.5/6022	29.60	1.30
525F1 OR	15.875	10.16	7.95	5.30	23.10	24.00	15.09	2.20	32.0/7200	34.00	1.16
525H OR	15.875	10.16	7.95	5.30	23.10	24.50	15.09	2.42	26.5/6022	29.60	1.44
530H OR	15.875	10.16	9.53	5.24	24.80	26.20	15.09	2.42	29.0/6524	30.00	1.39
630F1 OR	19.050	11.91	9.53	5.94	25.50	27.30	18.00	2.42	31.8/7149	35.00	1.50

## 链条的维护和保养 Maintenance:

1. 链条在传动中应保持良好的工作环境，应有保护装置，尽量避免尘粒、泥沙等障碍物进入，并及时给予清洗，以免链条过失损坏。
2. 链条应避免接触酸、碱等腐蚀性强的化学药品，以防过早引起链条表面腐蚀。
3. 为使链条的正常运转，必须经常、定时加油润滑。
4. 必须及时调整张紧装置，保持链条运转稳定。

1. The chain should be kept working under good environment condition during its drive operation and the protection device is indispensable to prevent obstacles such as dust, mud and sand etc. into chain. Cleaning the chain timely to avoid chain damage.
2. Try to be far away from the conditions where acid or alkali corrosion chemical medicine exists to prevent chain surface from premature corrosion.
3. The chain should be periodically lubricated with oil to keep its normal operation.
4. Adjust the tensioning device timely to keep the smooth operation of chain.



## 链条安装主要事项 Installation:

1. 各传动链轮必须在同一中心线上，不允许有偏摆倾斜现象，否则将使链传动机构及链条过失磨损。
2. 链条连接接销上的卡簧（锁片）必须卡入连接销的颈槽之中，以确保链条的运转安全。
3. 卡簧的装置方向，必须是卡簧的开口方向和链条运转方向相反，以防止卡簧在运转中被碰撞而脱离。

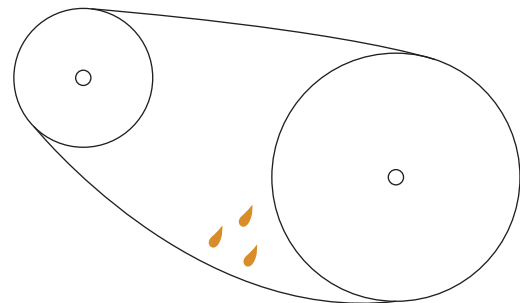
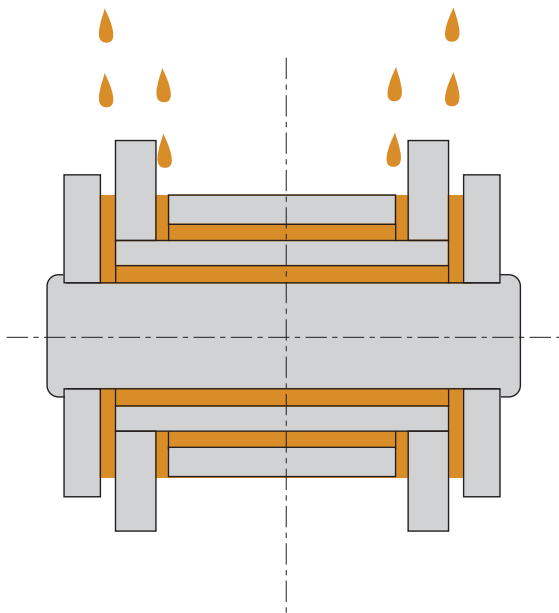
1. Each sprocket should be in the same center line, no deflection and incline permitted. Otherwise the chain drive mechanism or chain fault worn.
2. The circlip in the connecting pin should be installed in the place to secure chain.
3. The opening direction of circlip should be opposite to the chain drive direction to prevent the circlip from falling off due to impact load during chain operation.



链条的润滑 Lubrication:

1. 润滑油和润滑脂的目的主要是为了减缓链条的磨损和腐蚀，因为磨损大多发生在链条传动时弯曲部位的销轴和套筒之间。因此一定要在该部位注入润滑油。
2. 在链条传动的松边部位，外链节与内链节的间隙内请注入润滑油，同时在套筒与滚子之间也应保持适量的润滑油。

1. The lubrication oil and grease will slow the wear and corrosion rate efficiently and the wear usually occurs in the bend place between pin and bush during the chain drive operation, so this place should be lubricated.
2. Inject the lubrication oil into the gap between outer link and inner link of the loose side of chain and in the meantime the gap between bush and pin should also be lubricated properly.

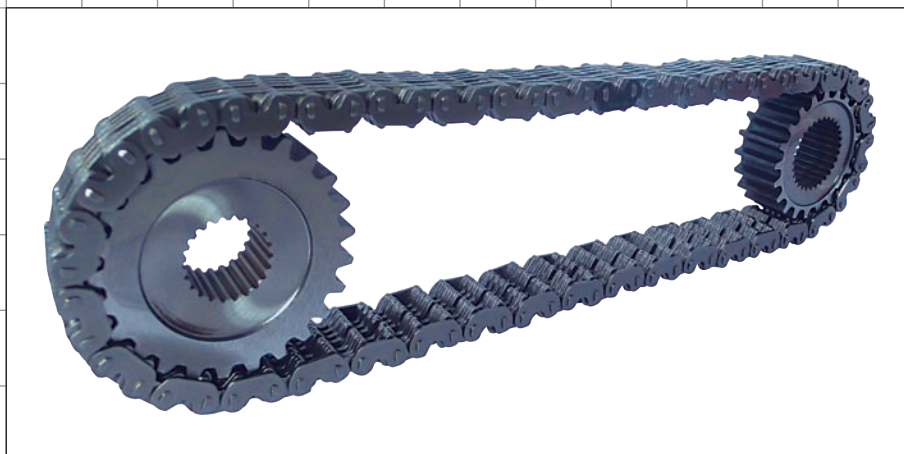


滴油位置  
Lubrication position

# 链条、链轮组合

# CHAINS & SPROCKETS COMBINATION

DONGHUA PRODUCT CATALOGUE 2011



东华能提供链条、链轮组合供货  
Donghua can provide chains and sprockets combination for the customer.