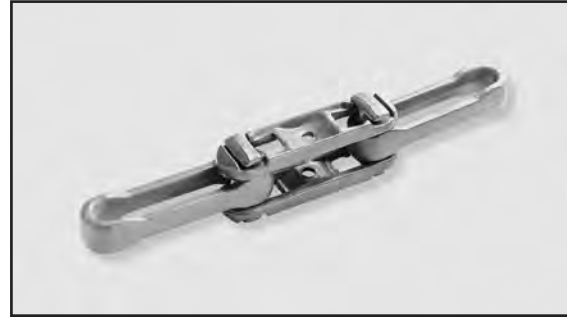
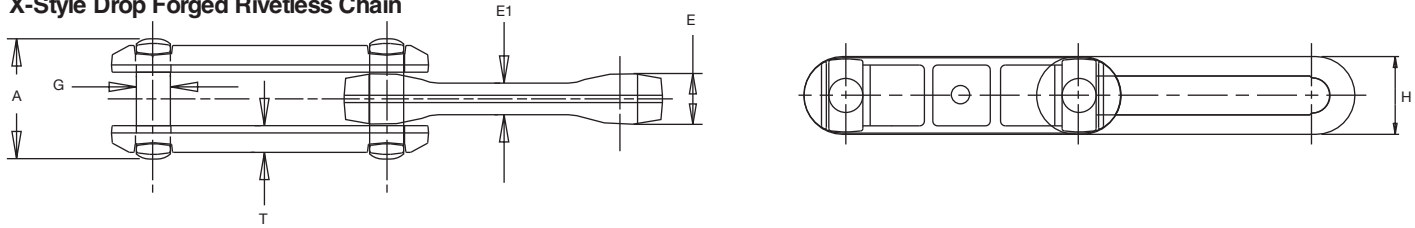


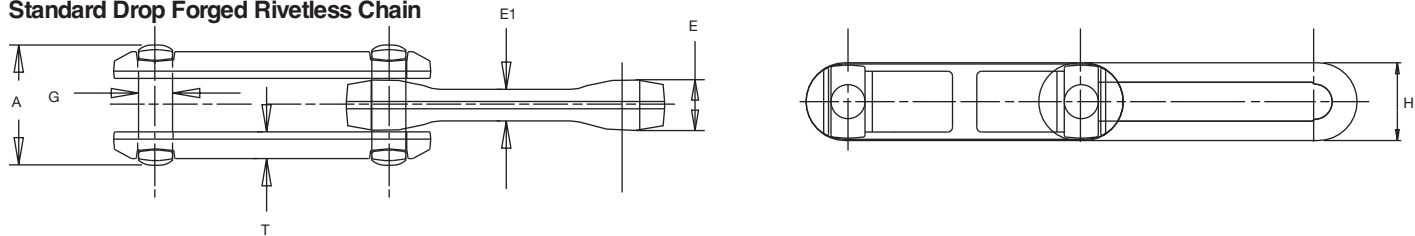
Drop Forged Rivetless Chain has widespread use in many industries on trolleys, scraper flights, assembly and similar conveyors. Because materials do not tend to pack in its open structure, the Drop Forged Rivetless Chain is used extensively for flight conveyors. Its design permits both horizontal and vertical operation over irregular routes, making it particularly acceptable for trolley conveyor service. Related chain products and accessories are Barloop Chain, trolleys, drive dogs and Caterpillar Chain.



**X-Style Drop Forged Rivetless Chain**



**Standard Drop Forged Rivetless Chain**



**X-Style and Standard Drop Forged Rivetless Chain**

All dimensions are in inches unless otherwise indicated.

Chain Number	Pitch	Chain Width			Pin Diameter	Sidebars		Min. Side Flex Radius (in.)	Average Ultimate Strength (lbs.)		Max. Work Load (lbs.)		Avg. Pitches (ft.)	Approx. Weight (lbs./ft.)
		Overall	Inside			Thick.	Height		Alloy Heat-Treated <sup>1</sup>	Heat-Treated	Normal	Freq. Flex.		
			A	E	E1									
X-348 <sup>2</sup>	3.015	1.73	.75	.50	.50	.41	1.09	10.0	24,000		2,600	1,200	3.95	2.2
X-458 <sup>2</sup>	4.031	2.19	1.00	.63	.63	.47	1.38	24.0	60,000	48,000	4,000	1,900	2.98	3.2
468	4.031	3.19	1.59	1.13	.75	.41	1.88		70,000			2.98	7.5	
X-658 <sup>2</sup>	6.031	2.19	1.00	.63	.63	.47	1.38		48,000			1.99	2.7	
X-678 <sup>2</sup>	6.031	3.03	1.28	.81	.88	.72	2.00	35.0	100,000	85,000	7,100	3,300	1.99	6.7
698	6.031	3.75	1.56	1.00	1.13	.56	2.56		150,000	130,000	10,800	5,200	1.99	11.4
998	9.031	3.75	1.56	1.00	1.13	.63	2.53		150,000	130,000	10,800	5,200	1.33	9.0

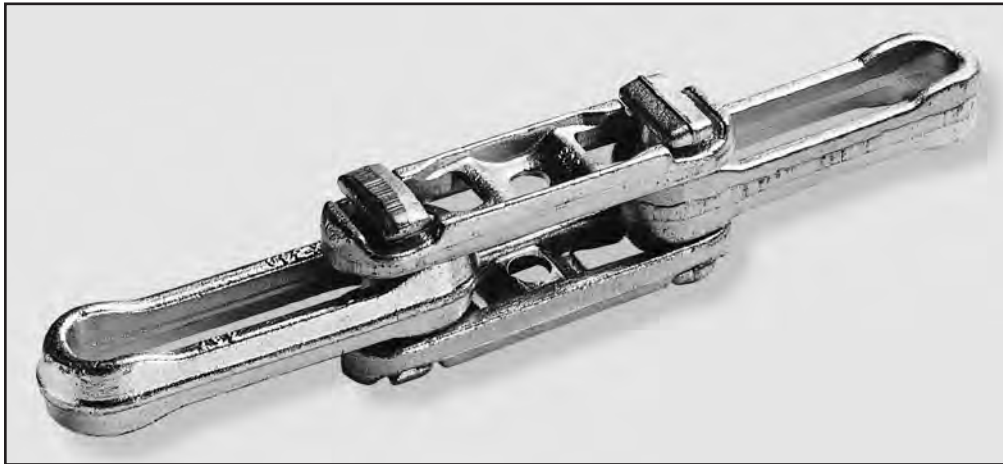
Note: Magna-flux inspected chain is available.

Component hardness: BHN 344 (Nom.) = Carbon steel chains; BHN 380 (Nom.) = Alloy steel chains.

<sup>1</sup>ANSI/SAE 8642

<sup>2</sup>The prefix "X" designates a design proportioned to flex transversely on a shorter radius. The outside bars are made with a mid-pitch panel that strengthens the sidebar and prevents material from falling through the link. X-Styles are used on overhead conveyors and other special applications. Attachments shown on the following pages fit both Standard and X-Style Chain.

## UWL Drop Forged Rivetless Chain

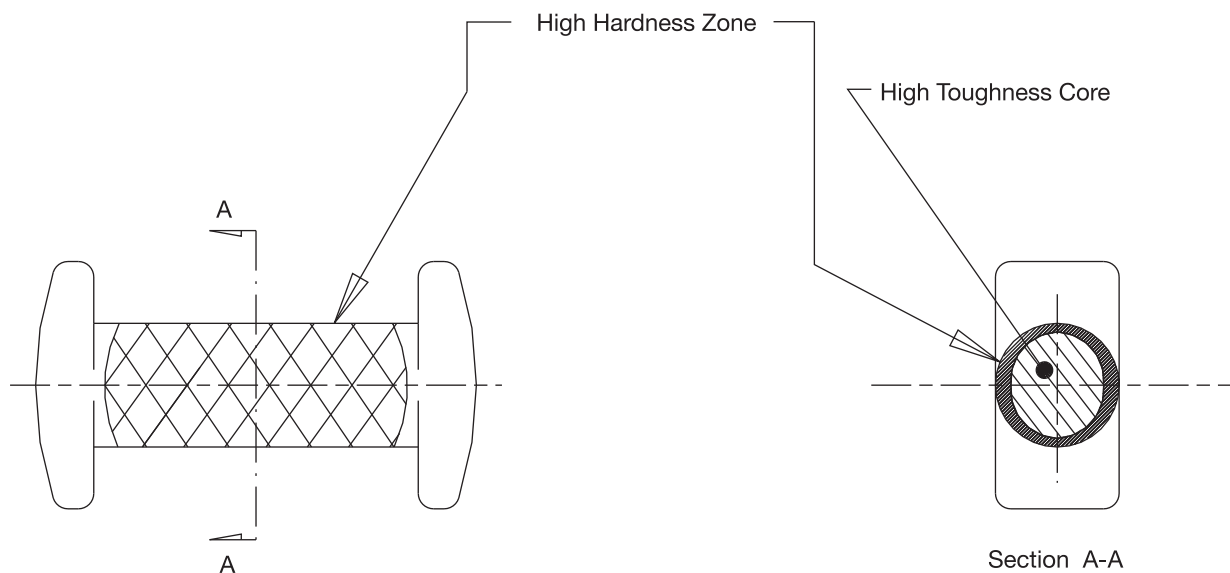


### UWL (Ultra Wear Life)

#### Drop Forged Rivetless Chains

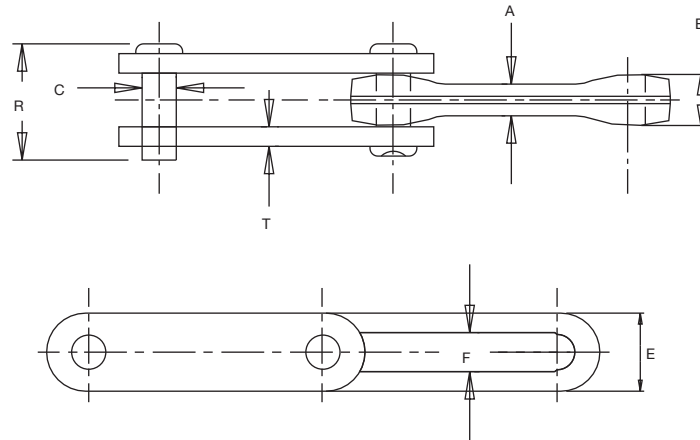
Ultra Wear Life Drop Forged Rivetless Chain extends wear life of rivetless chain. Tests under real-life conditions have proven that UWL chain lasts 40 to 50 percent longer than ordinary rivetless chain. This extraordinary performance has been achieved with special steels and a proprietary pin hardening process. Since pin wear is the major limiting factor with rivetless chain, Tsubaki's specially produced pins greatly increase the chain's wear life. UWL Drop Forged Rivetless Chain is available in X-348, X-458, X-678, 698 and barloop styles.

#### Higher Hardness Pin for "Ultra Wear Life" Performance



### Barloop Chains

A solid side bar chain with standard rivetless chain center links and hardened wear surfaces to assure long life in sliding applications. Barloop Chains consist of a standard forged rivetless inside block, fabricated steel sidebars, and cold drawn steel pins. Barloop Chain offers the advantage of a flat sidebar for welding attachments. The pin is securely locked in the sidebars eliminating both the wear between the pin and sidebar and the possibility of the chain coming apart when slack exists. Tsubaki offers Barloop Chain with a nut and bolt assembly that rotates. This permits easy assembly and quick replacement.



### Barloop (Bar Link) Chains

All dimensions are in inches unless otherwise indicated.

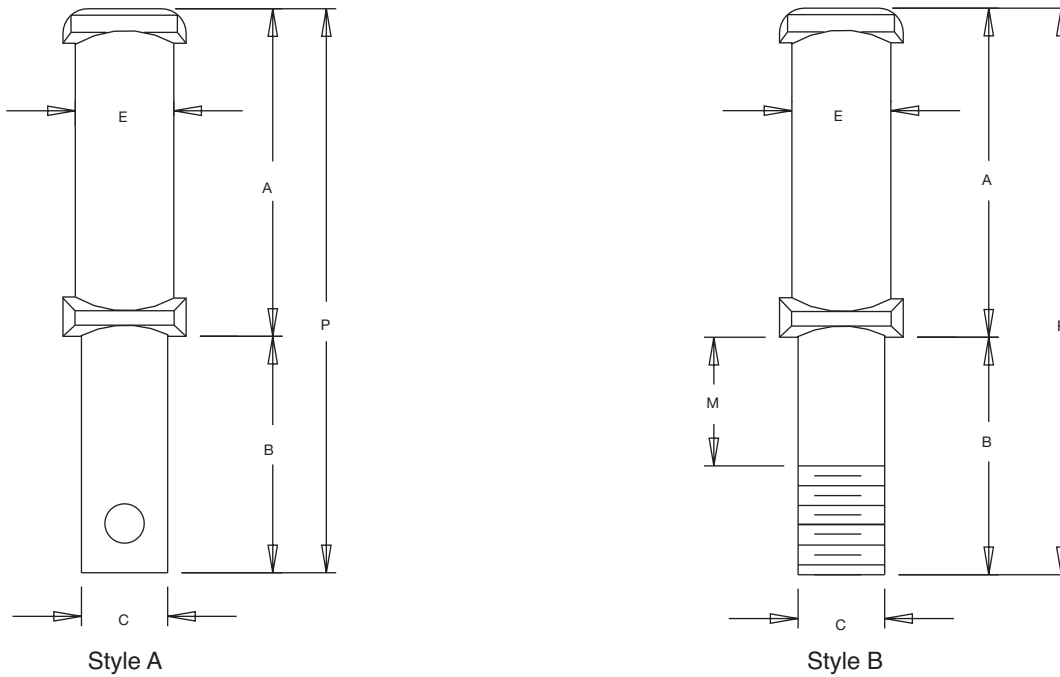
Chain Number	Pitch	Dimensions							Average Ultimate Stgth. (lbs.)	Average Pitches per Foot	Approx. Weight (lbs./ft.)
		A	B	C	E	F	T	R			
S-348 <sup>1</sup>	3.015	.50	.75	.50	1.06	.53	.25	1.75	24,000	3.95	2.4
S-458	4.031	.63	1.02	.63	1.38	.69	.31	2.06	48,000	2.98	3.5
S-678	6.031	.81	1.31	.88	2.00	1.00	.50	3.00	85,000	1.99	8.6
S-698	6.031	1.00	1.56	1.13	2.69	1.25	.50	3.13	130,000	1.33	13.2
S-998	9.031	1.00	1.56	1.13	2.69	1.25	.50	3.13	130,000	1.33	10.4

<sup>1</sup>Standard chain inventory features nut and bolt construction.

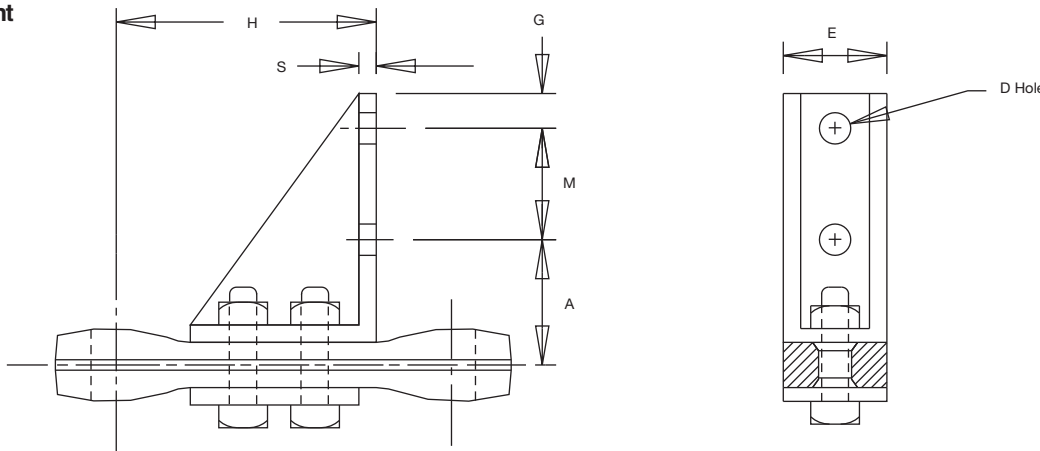
To locate compatible sprockets for your chain, refer to the Product Cross-Reference at the back of this section.

Note: Dimensions are subject to change. Contact Tsubaki Technical Support to obtain certified prints for design and construction.

### Extended Pin



### S-22 Attachment



### Drop Forged Rivetless Chain Attachments

All dimensions are in inches unless otherwise indicated.

Attach. Number	Chain Number	A	B	C	D	E	G	H	M	P	S	Approx. Weight (lbs./ft.)
Extended Pin <sup>1</sup>	X-458	2.25	1.13	.50		.63			.31	3.38		.3
	X-678	3.13	1.50	.75		.88			.19	4.63		1.5
	X-678	3.13	1.50	.88		.88			.19	4.63		1.6
	998	3.88	1.75	.75		1.13			.38	5.63		1.9
S-22	X-458	2.25			.56	1.38	.63	3.18	2.00		.31	2.0
	X-678	2.88			.68	1.81	.88	4.75	2.25		.31	4.7

<sup>1</sup>Attachment pins also available with hexnut and lock washer.  
Attachments other than those shown available upon request.

To locate compatible sprockets for your chain, refer to the Product Cross-Reference at the back of this section.

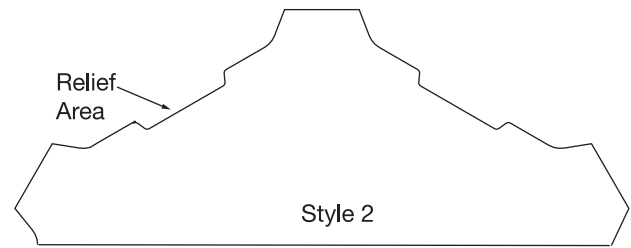
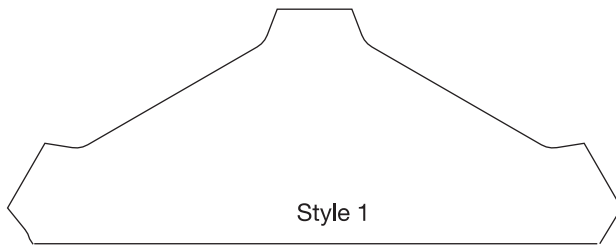
Note: Dimensions are subject to change. Contact Tsubaki Technical Support to obtain certified prints for design and construction.

## Sprockets for Drop Forged Rivetless Chain

Drop Forged Rivetless Sprockets are designed to work with the chain and attachments. Some setups, such as slider attachments on overhead slaughter house lines, require extra clearance that is not part of standard sprocket construction (Style 1).

Our specially developed sprocket (Style 2) has a “relief area.” This keeps the chain from riding out of the sprocket pocket and reduces premature joint wear.

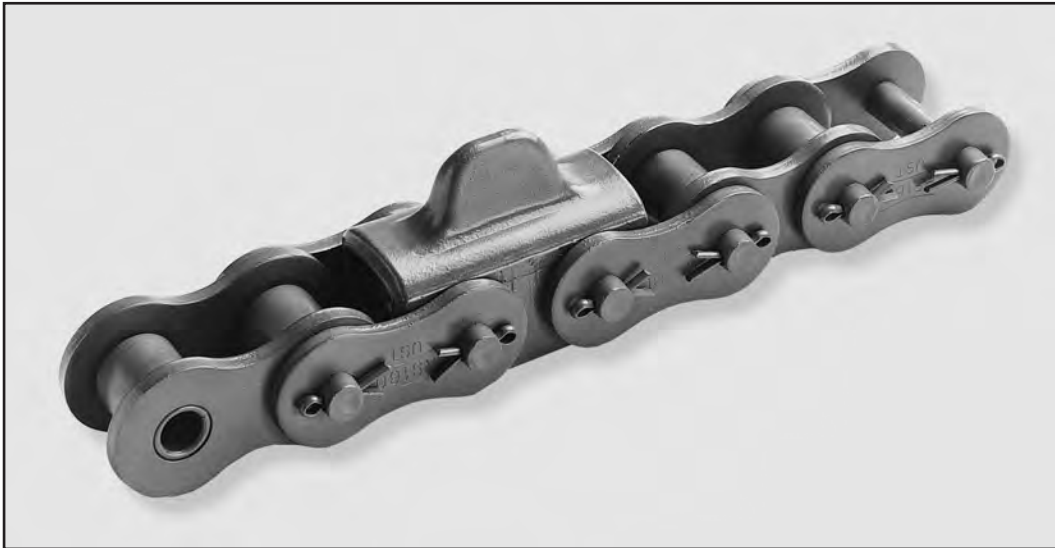
Select the right sprocket for your application. Contact Tsubaki of Canada Limited, if you have any questions.



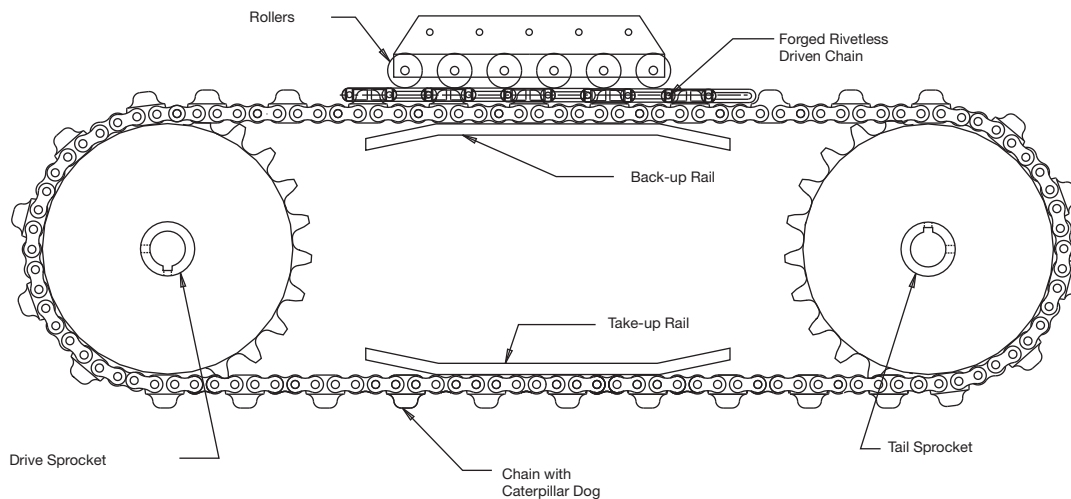
Standard sprockets are not designed for some applications like overhead slaughter house lines where the attachment requires extra clearance. Drop Forged Rivetless Sprockets from Tsubaki have a “relief area” that allows for attachment protrusion. This means better articulation and longer wear life.

## Caterpillar Drive (Power) Chains

Caterpillar Drive Chains are chains with pushers used to drive drop forged chain. They are vital in driving drop forged chain conveyors, so they must deliver fatigue-free operation. The Tsubaki Caterpillar Drive Chain features high-quality roller chain with drive dogs made of one-piece forged, induction-hardened steel. The entire assembly is designed to operate flawlessly in combination with our forged rivetless chain. Our chain also meets ANSI standards.



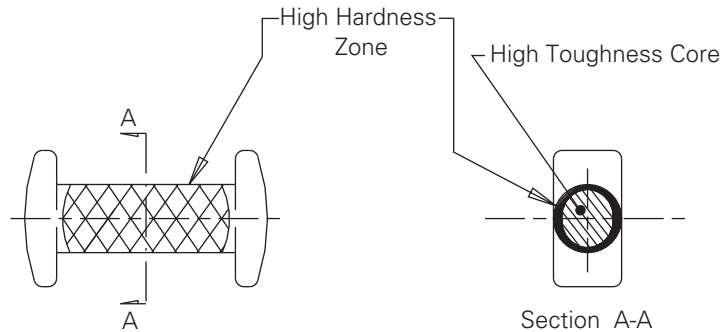
## Power Chain



## UWL-Drop Forged Rivetless Chains

Ultra Wear Life Drop Forged Rivetless Chains are innovative products that extend wear life of rivetless chain 40 percent or more. This extraordinary performance is achieved with special steels and a special pin hardening process. That means significant savings of time and money, by reducing maintenance and changeout costs, decreasing downtime, and lowering repair bills.

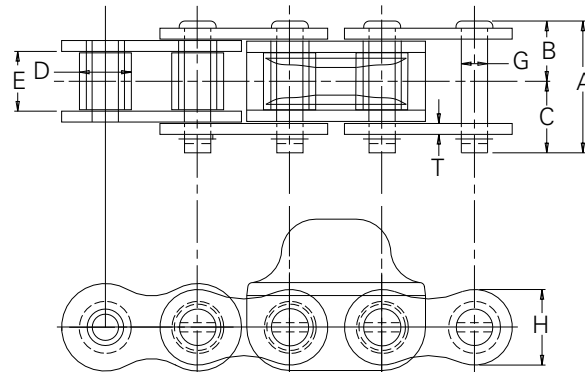
### Higher Hardness Pin for "Ultra Wear Life" Performance



## Caterpillar Drive (Power) Chains

Caterpillar Drive Chains must deliver fatigue-free operation. Every part of Caterpillar Drive Chain from Tsubaki is top of the line. The roller chain is high-quality, with many drive dogs made of one-piece forged, induction-hardened steel. Special, made-to-order caterpillar chains are also available. The entire assembly is designed to operate flawlessly in combination with Drop Forged Rivetless Chain.

### Caterpillar Drive Dog



## Caterpillar Drive Chain

All dimensions are in inches unless otherwise indicated.

Chain Number	Pitch	Chain Width				Diameter		Sidebars		Driving Dog Pitch Spacing	Average Ultimate Strength (lbs.)	Approx. Weight (lbs./ft.)
		Overall	Pin Head to CL	Pin End to CL	Inside Width	Roller	Pin	Thick.	Height			
		A	B	C	E	D	G	T	H			
160/348	2.000	2.64	1.23	1.41	1.25	1.13	.56	.25	1.90	6	58,000	8.3
160/458	2.000	2.64	1.23	1.41	1.25	1.13	.56	.25	1.90	4 or 6	58,000	8.3 or 10.0
160/678	2.000	2.64	1.23	1.41	1.25	1.13	.56	.25	1.90	6	58,000	9.8

To locate compatible sprockets for your chain, refer to the Product Cross-Reference at the back of this section.

Note: Dimensions are subject to change. Contact Tsubaki Technical Support to obtain certified prints for design and construction.