



PINTLE CHAIN

Requirements of medium or heavy loads or where temperatures are involved, usually dictate the choice of pintle chain for use with metal mesh belt constructions. The pintle chains are available in standard or heavy duty types. In the latter type, a special series of heavy-duty pintle chains was developed for NATIONAL in which the bearing area of the sidebars is equal to that of the chain barrel. This distributes wear, resulting in longer chain life and provides additional strength for maximum service. The use of a specially processed malleable iron will increase the strength of the chain, provide greater resistance to abrasion and permit its use at higher temperatures. For elevated temperatures, an alloy chain should be selected.

Pintle chains are affixed to the metal mesh in much the same manner as the roller chain. Standard assemblies include the use of rods which may be journaled as necessary to act as pins of the chain. Other constructions provide for structural members such as bars, angles or channels passing through or attached to the metal mesh belt and riveted or bolted to chain accessories. Most of the constructional features may be furnished with Pintle Chain belting.

Drawings of the standard and heavy duty Pintle Chain belting assemblies provide details for preliminary engineering assistance.

STANDARD PINTLE CHAIN DRIVEN BELTS

Chain No. and Type	Chain Pitch (in.)	D (in.)		E (in.)		Rod Size (in.)	Chain Ultimate Strength (Lb./Strand)	Allowable Chain Pull (Lb./Strand)	Chain Weight (Lb./Ft.)
		Rods on Every Pitch	Rods on Spaced Pitches	Riveted Edge	Cottered Edge				
442	1.375	0.875	1.000	0.938	1.063	5/16	6000	830	1.4
445	1.630	0.875	1.000	0.938	1.063	5/16	6000	830	1.5
452	1.506	0.953	1.125	1.063	1.188	3/8	7000	970	2.0
455	1.630	0.953	1.125	1.063	1.188	3/8	7300	1060	1.9
462	1.634	1.203	1.281	1.219	1.344	7/16	9000	1500	2.5
477	2.308	1.031	1.156	1.094	1.219	7/16	9600	1400	2.0
488	2.609	1.281	1.469	1.406	1.469	7/16	11000	1800	2.9
H-79	2.609	1.500	1.687	1.625	1.813	1/2	18000	2380	4.8
4103	3.075	1.453	1.719	1.656	1.938	3/4	22000	3500	5.7
4124	4.063	2.016	2.313	2.25	2.5	13/16	33000	4560	8.5

HEAVY DUTY PINTLE CHAIN DRIVEN BELTS

Chain No. and Type	Chain Pitch (in.)	D (in.)	E (in.)		Rod Size (in.)	Chain Ultimate Strength (Lb./Strand)	Allowable Chain Pull (Lb./Strand)	Chain Weight (Lb./Ft.)
			Riveted Edge	Cottered Edge				
SM-1445	1.630	1.141	1.188	1.250	3/8	8000	1000	1.69
SM-1452	1.506	1.172	1.250	1.313	7/16	10000	1200	2.13
SM-1462	1.654	1.516	1.625	1.688	1/2	12500	1800	3.05
SM-1477	2.310	1.359	1.438	1.563	1/2	12500	1600	2.59
SM-1788	2.609	1.703	1.813	1.875	9/16	17500	2280	3.93
SM-14103	3.075	1.953	2.063	2.188	3/4	26000	3500	4.46

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