

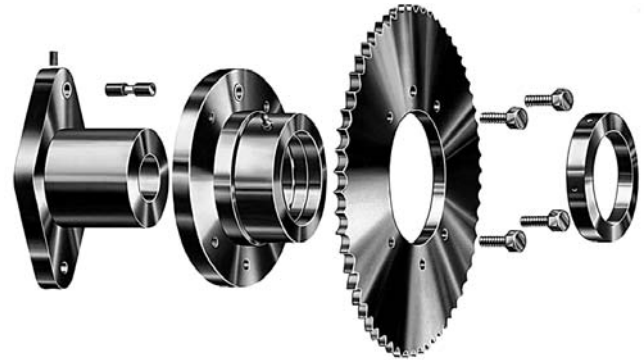
Bolt-On Shear Pin Sprockets



Shear Pin sprockets provide simple, dependable protection against expensive machinery damage caused by overloads or jamming. Torque is transmitted by a single pin, necked to shear when the safe load is exceeded. When an overload occurs, the pin shears, disconnecting the drive immediately.

The Bolt-on Shear Pin Adapter converts any plate sprocket into a stock Shear Pin sprocket allowing immediate delivery of stock Shear Pin sprockets.

Selection guide on page E-6 gives complete procedure to select the proper Shear Pin assembly.



SPROCKETS

Stock Shear Pin Assemblies

Shear Pin Assembly Number	Hub Bore Range	Shear Pin Hub	Shear Pin Adapter
		Catalog Number	Catalog Number
SP-17	1" & UNDER	SPH-17	SPA-17
SP-18	1 ¹ / ₆ -1 ¹ / ₄	SPH-18	SPA-18
SP-19	1 ¹ / ₆ -1 ¹ / ₂	SPH-19	SPA-19
SP-20	1 ¹ / ₆ -1 ³ / ₄	SPH-20	SPA-20
SP-21	1 ¹ / ₆ -2	SPH-21	SPA-21
SP-22	2 ¹ / ₆ -2 ¹ / ₄	SPH-22	SPA-22
SP-23	2 ¹ / ₆ -2 ¹ / ₂	SPH-23	SPA-23
SP-24	2 ¹ / ₆ -2 ³ / ₄	SPH-24	SPA-24
SP-25	2 ³ / ₆ -3	SPH-25	SPA-25
SP-26	3 ¹ / ₆ -3 ¹ / ₄	SPH-26	SPA-26
SP-27	3 ¹ / ₆ -4	SPH-27	SPA-27
SP-28	4 ¹ / ₆ -4 ¹ / ₂	SPH-28	SPA-28
SP-29	4 ¹ / ₆ -5	SPH-29	SPA-29
SP-30	4 ¹ / ₆ -5 ¹ / ₂	SPH-30	SPA-30
SP-31	5 ¹ / ₆ -6	SPH-31	SPA-31

Notes on Pricing:

Shear Pin Hub List Price includes any finished bore within the stated range, standard keyway, setscrew, and hardened steel shear pin bushing.

Shear Pin Adapter List Price includes the Shear Pin bushin and grease fitting.

Complete Assembly List Price includes all components of the Shear Pin assembly as described above. Total list price of any Shear Pin sprocket is the complete assembly list price plus the list price of the desired plate sprocket (from tables of stock sprocket list prices).

Replacement Sprockets should be priced as altered stock sprockets directly from List Price and Alteration Charge tables.

Shear Pin Components may be ordered separately and will be treated as stock items when conforming to standard specifications and descriptions above.

Pricing Examples:

1. Stock Shear Pin Sprocket

To price a 35 tooth shear pin sprocket for 160 chain (160SP35) using SP-26 shear pin assembly with 3¹/₆" bore, standard keyway and setscrew:

SP-26 Assembly List Price.....
160A35 List Price

See List Price Sheet

Total List Price

2. Shear Pin Adapter and Sprocket for Existing Hub

To price a "Bolt-on" shear pin adapter and sprocket to replace the sprocket part of existing 50SP40 using SP-19 hub:

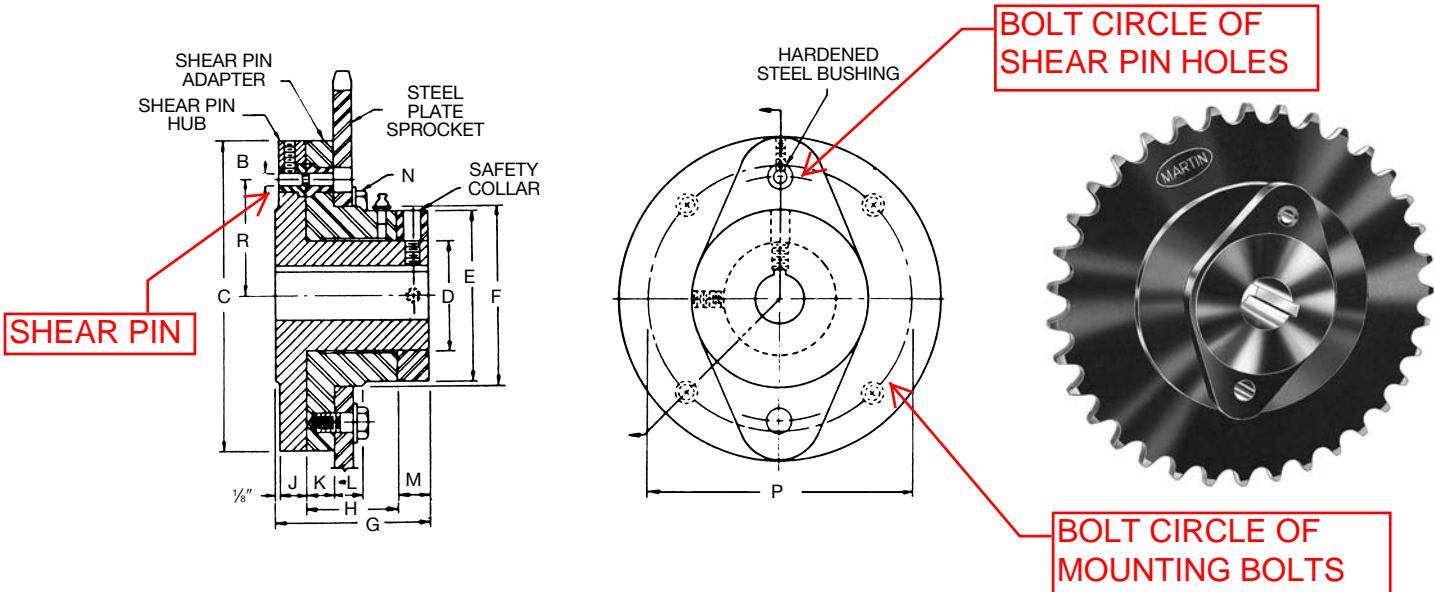
SPA-19 Adapter List Price.....
50A40 List Price

See List Price Sheet

Total List Price

Shear Pin Sprockets can also be furnished in other standard styles or made to customer's specifications. Price on application.

It is important that the torque requirement for the selected hub be checked in the torque rating table on page E-6 and the neck diameter of Shear Pin be specified.



Shear Pin Assembly Dimensions (Inches)

Table I

Shear Pin Assembly Number	Shear Pin			Diameters			Length Thru			Hub Flange Thickness	Adapt. Flange Thickness	Sprocket Seat Width	Bolts		Weights (lbs.)	
	Radius	Pin Dia.	Flange	Shear Pin Hub	Adapt. Hub & Collar	Sprocket Seat	Shear Pin Hub	Adapt.	Collar				Number & Size	Bolt Circle	Shear Pin Hub	Shear Pin Adapt.
SP-17	1 ¹³ / ₁₆	1/4	5 ¹ / ₄	1 ¹ / ₄	2 ¹ / ₂	2 ³ / ₈	2 ⁷ / ₁₆	1 ¹ / ₈	3/8	3/8	3/8	7/8	4-3/8"	4	2.7	3.2
SP-18	2 ¹ / ₁₆	1/4	6	2 ¹ / ₄	3 ³ / ₈	3 ³ / ₈	2 ¹ / ₁₆	1 ¹ / ₈	1/2	3/8	3/8	7/8	4-3/8"	4 ³ / ₈	4.6	4.7
SP-19	2 ¹ / ₁₆	3/8	6 ¹ / ₄	2 ¹ / ₄	4	4 ¹ / ₈	3 ³ / ₁₆	2 ¹ / ₈	3/8	1/8	1/8	1 ¹ / ₁₆	4-1/2"	5 ¹ / ₂	7.2	7.6
SP-20	3	3/8	7 ¹ / ₄	3 ³ / ₈	4 ¹ / ₄	4 ¹ / ₈	4 ¹ / ₁₆	2 ¹ / ₂	3/8	1/8	1/8	1 ¹ / ₁₆	4-1/2"	6 ¹ / ₄	11.0	11.9
SP-21	3 ³ / ₁₆	7/8	8 ¹ / ₄	3 ³ / ₈	5 ¹ / ₄	5 ¹ / ₈	4 ¹ / ₁₆	2 ¹ / ₈	7/8	1/8	1/8	1 ¹ / ₁₆	4-5/8"	7	16.2	16.9
SP-22	3 ³ / ₁₆	1/2	9 ¹ / ₄	4 ¹ / ₄	6 ¹ / ₄	6 ¹ / ₈	5 ¹ / ₁₆	3	1	1/8	1/8	1 ¹ / ₁₆	4-5/8"	8	23.3	24.5
SP-23	4	1/2	10	4 ¹ / ₂	6 ¹ / ₂	6 ¹ / ₈	5 ¹ / ₁₆	3 ¹ / ₂	1	1/8	1/8	1 ¹ / ₁₆	4-5/8"	8 ¹ / ₄	26.3	27.7
SP-24	4 ³ / ₈	3/8	11 ¹ / ₂	5	7	7 ¹ / ₈	6 ¹ / ₁₆	3 ³ / ₈	1 ¹ / ₈	1/8	1/8	1 ¹ / ₁₆	4-5/8"	9 ¹ / ₄	40.4	38.6
SP-25	4 ³ / ₈	3/8	12 ¹ / ₂	5 ¹ / ₂	8	8 ¹ / ₈	6 ¹ / ₁₆	4 ¹ / ₄	1 ¹ / ₄	1/8	1/8	1 ¹ / ₁₆	6-5/8"	10 ¹ / ₄	52.6	53.6
SP-26	5 ⁵ / ₁₆	1 ¹ / ₁₆	13 ¹ / ₂	6 ¹ / ₄	8 ³ / ₈	8 ³ / ₈	7 ¹ / ₁₆	4 ¹ / ₄	1 ¹ / ₈	1/8	1/8	1 ¹ / ₁₆	6-5/8"	11 ¹ / ₄	66.7	66.8
SP-27	6 ¹ / ₁₆	3/8	15 ¹ / ₂	7	10	10 ¹ / ₈	8 ¹ / ₁₆	5 ¹ / ₂	1 ¹ / ₂	1/8	1/8	1 ¹ / ₁₆	6-5/8"	12 ¹ / ₄	96.5	100.0
SP-28	6 ¹ / ₁₆	3/8	16 ¹ / ₄	7 ¹ / ₄	10 ¹ / ₄	10 ¹ / ₈	9 ¹ / ₁₆	6 ¹ / ₂	1 ¹ / ₂	1/8	1/8	1 ¹ / ₁₆	6-5/8"	13 ¹ / ₄	125.0	115.0
SP-29	7 ¹ / ₈	7/8	17 ¹ / ₂	8 ¹ / ₂	12	12 ¹ / ₈	10 ¹ / ₁₆	7	1 ¹ / ₄	1 ¹ / ₈	1/8	1 ¹ / ₁₆	6-1"	14 ¹ / ₄	160.0	150.0
SP-30	8 ¹ / ₈	1	20 ¹ / ₄	9 ¹ / ₄	13 ³ / ₈	13 ³ / ₈	11 ¹ / ₁₆	7 ¹ / ₂	2	2 ¹ / ₈	1/8	1 ¹ / ₁₆	6-1"	17	215.0	207.0
SP-31	8 ¹ / ₈	1 ¹ / ₈	22 ¹ / ₂	10 ³ / ₄	15	15 ¹ / ₈	12 ¹ / ₁₆	8 ¹ / ₄	2 ¹ / ₄	2 ¹ / ₈	1/8	1 ¹ / ₁₆	6-1"	18 ³ / ₄	318.0	265.0

NOTE: Shear Pin "Pin" length equals 2 x "J" dimension.

Sprocket Sizes For Stock Shear Pin Assemblies

Table II

Shear Pin Assembly Number	Hub Bore Range	Minimum Number of Teeth for Single Sprockets												
		Chain Number												
		35	41	40	50	60	80	100	120	140	160	180	200	240
SP-17	1" & UNDER	48	37	37	30	26	—	—	—	—	—	—	—	—
SP-18	1 ¹ / ₁₆ -1 ¹ / ₄	55	42	42	34	29	23	—	—	—	—	—	—	—
SP-19	1 ¹ / ₈ -1 ¹ / ₂	61	46	47	38	32	25	21	—	—	—	—	—	—
SP-20	1 ¹ / ₄ -1 ³ / ₄	69	53	53	43	36	28	23	—	—	—	—	—	—
SP-21	1 ³ / ₈ -2	78	59	59	48	41	31	26	22	19	—	—	—	—
SP-22	2 ¹ / ₁₆ -2 ¹ / ₄	86	65	66	53	45	34	28	24	21	19	17	—	14
SP-23	2 ³ / ₁₆ -2 ¹ / ₂	89	67	67	55	46	35	29	25	22	19	18	16	14
SP-24	2 ³ / ₈ -2 ³ / ₄	101	76	77	62	52	40	33	28	24	22	20	18	16
SP-25	2 ³ / ₁₆ -3	110	83	83	67	56	43	35	30	26	23	21	19	17
SP-26	3 ¹ / ₁₆ -3 ¹ / ₂	—	98	98	72	61	46	38	32	28	25	23	20	18
SP-27	3 ³ / ₁₆ -4	—	102	102	82	69	53	43	36	32	28	25	23	20
SP-28	4 ¹ / ₁₆ -4 ¹ / ₂	—	107	107	86	72	55	45	38	33	29	26	24	21
SP-29	4 ³ / ₁₆ -5	—	—	—	92	77	59	48	40	35	31	28	26	22
SP-30	5 ¹ / ₁₆ -5 ¹ / ₂	—	—	—	106	89	68	55	46	40	35	32	29	25
SP-31	5 ³ / ₁₆ -6	—	—	—	—	98	75	61	51	44	39	35	32	27