

Wire Rope Assembly & Fittings

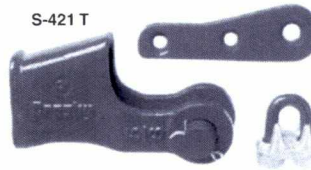
Wedge Sockets

**The "Terminator" Crosby's
"New & Improved" Wedge Socket**

US patent 5,553,360 and foreign equivalents.

- Basket is cast steel.
- Individually magnetic particle inspected.
- Pin diameter and jaw opening allows wedge and socket to be used in conjunction with open swage & spelter sockets.
- Secures the tail or "dead end" of the wire rope to the wedge, thus eliminates loss or "Punch out" of the wedge.
- Eliminates the need for an extra piece of rope, and is easily installed.
- The " TERMINATOR™ wedge eliminates the potential breaking off of the tail due to fatigue.
- The tail, which is secured by the base of the clip and the wedge, is left undeformed and available for reuse.
- Incorporates Crosby's patented QUIC-CHECK™ "Go" and "No-Go" feature cast into the wedge. The proper size rope is determined when the following criteria are met:

1. The wire rope should pass thru the "Go" hole in the wedge.
 2. The wire rope should NOT pass thru the "No-Go" hole in the wedge.
- Utilizes standard Crosby Red-U-Bolt wire rope clip.
 - Generates a minimum efficiency of 80% based on the catalog breaking strength of the wire rope.
 - Standard S-421 wedge socket can be retrofitted with the new style "TERMINATOR™" wedge.
 - Available with Bolt, Nut, and Cotter Pin.



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Wire Rope Assembly and Fittings

Wire Rope Size (in.)	S-421 T Stock No. Complete Assembly*	S-421 T Weight Each (lbs.)	S-421 TW Stock No. Wedge Only	S-421 TW Weight Each (lbs.)
3/8	1035000	3.18	1035555	.50
1/2	1035009	6.15	1035564	1.05
5/8	1035018	9.70	1035573	1.79
3/4	1035027	14.50	1035582	2.60
7/8	1035036	21.50	1035591	4.02
1	1035045	30.75	1035600	5.37
1-1/8	1035054	45.30	1035609	7.84
**1-1/4	1040448	57.50	1040607	6.81

Wire Rope Dia. † (in)	Dimensions (in)															
	A	B	C	D	G	H	J†	K†	L	P	R	S	T	U	V	
3/8	5.63	2.77	.81	.81	1.38	3.12	7.38	1.60	.88	1.56	.44	2.13	.44	1.25	1.38	
1/2	6.81	3.55	1.00	1.00	1.62	3.85	8.75	1.21	1.06	1.94	.50	2.44	.53	1.75	1.88	
5/8	8.16	4.36	1.25	1.19	2.12	4.58	10.34	1.64	1.22	2.25	.56	3.13	.69	2.00	2.19	
3/4	9.78	4.81	1.50	1.38	2.44	5.37	12.03	2.17	1.40	2.62	.66	3.63	.78	2.34	2.56	
7/8	11.16	4.65	1.75	1.63	2.69	6.28	14.00	2.22	1.66	3.12	.75	4.19	.88	2.69	2.94	
1	12.75	5.08	2.00	2.00	2.56	7.02	15.86	2.71	2.00	3.75	.88	4.63	1.03	2.88	3.28	
1-1/8	14.38	5.51	2.25	2.25	3.31	7.76	17.70	2.50	2.25	4.25	1.00	5.38	1.19	3.13	3.56	
1-1/4	16.00	7.94	2.50	2.50	3.56	N/A	N/A	3.39	2.50	4.75	1.12	5.81	1.31	3.38	3.81	

* Terminator Assembly includes Socket, Wedge, Pin, and Wire Rope Clip.

† Nominal

‡ For intermediate wire rope sizes use next larger size socket.

** 1-1/4" not available in TERMINATOR™ style.

Wedge Sockets: Important Safety Information

Inspection/Maintenance Safety

- Always inspect socket, wedge and pin before using.
- Do not use part showing cracks.
- Do not use modified or substitute parts.
- Repair minor nicks or gouges to socket or pin by lightly grinding until surfaces are smooth. Do not reduce original dimension more than 10%. Do not repair by welding.
- Inspect permanent assemblies annually, or more often in severe operating conditions.

Assembly Safety

- Use only with standard 6 to 8 strand wire rope of designated size. For intermediate size rope, use next larger size socket. For example: When using 9/16" diameter wire rope use a 5/8" size Wedge Socket Assembly. Welding of the tail on standard wire rope is not recommended. The tail length of the dead end should be a minimum of 6 rope diameters but not less than 6" (See Fig. 1).
- To use with Rotation Resistant wire rope (special wire rope constructions with 8 or more outer strands) ensure that the dead end is welded, brazed or seized before inserting the wire rope into the wedge socket to prevent core slippage or loss of rope lay. The tail length of the dead end should be a minimum of 20 rope diameters but not less than 6" (See Fig. 1).
- Properly match socket, wedge and clip (See Table 1) to wire rope size.
- Align live end of rope, with center line of pin. (See Fig. 1)
- Secure dead end section of rope. (See Figure 1)
- Tighten nuts on clip to recommended torque. (Table 1)
- Do not attach dead end to live end or install wedge backwards. (See Fig. 2)
- Use a hammer to seat Wedge and Rope as deep into socket as possible before applying first load.

Operating Safety

- Apply first load to fully seat the Wedge and Wire Rope in the socket. This load should be of equal or greater weight than loads expected in use.
- Efficiency rating of the Wedge Socket termination is based upon the catalog breaking strength of Wire Rope. The efficiency of a properly assembled Wedge Socket is 80%.
- During use, do not strike the dead end section with any other elements of the rigging (Called two blocking).

FIG. 1 - "Terminator"

Std. Wedge Socket



***Tail Length Standard 6 to 8 strand wire rope** A min. of 6 rope diameters, but not less than 6" (i.e. - For 1" rope: Tail Length = 1" x 6 = 6"

Rotation Resistant Wire Rope A min. of 20 rope diameters, but not less than 6" (i.e. - For 1" rope: Tail Length = 1" x 20 = 20"

TABLE 1										
Rope Size	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1-1/8	1-1/4
Clip Size	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1-1/8	1-1/4
*Torque Ft./lbs.	45	65	65	95	95	130	225	225	225	360

*The tightening torque values shown are based upon the threads being clean, dry, and free of lubrication.

! WARNING !

FIG. 2 - "Terminator" — Std. Wedge Socket



- Loads may slip or fall if the Wedge Socket is not properly installed.
- A failing load can seriously injure or kill.
- Read and understand these instructions before installing the Wedge Socket.
- Do not side load the Wedge Socket.
- Apply first load to fully seat the Wedge and Wire Rope in the socket. This load should be of equal or greater weight than loads expected in use.

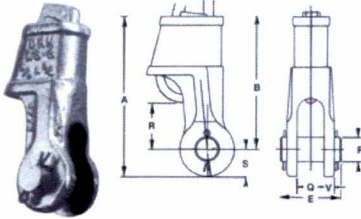
Wire Rope Assembly & Fittings

Wedge Sockets/Ferrules

Open Wedge Sockets

When using wedge sockets note that two precautions should be taken:

1. Make sure that a sudden jolt or impact does not dislodge a wedge. When installing wire rope, always pre-load the wedge with wire rope in place. Check frequently to re-tighten or reposition as necessary.
2. Make allowance for the crimping effect common with all types of wedge sockets. Experience shows it will reduce the Safe Working Limit of a line by 20 percent.

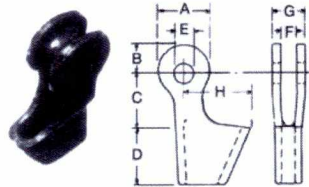


Model No.	Wire Rope Size (in)	Wt. (lbs)	A Overall Length	B Net Length	E Total Thickness	P Pin Dia.	Q Width Between Ears	R Pin to Obstr.	S Pin to End of Fitting	V Thickness of Ear
WS-4	3/8	3	6.500	5.375	2.625	1	1	1.750	1.125	.375
WS-4	1/2	3	6.500	5.375	2.625	1	1	1.937	1.125	.375
WS-5	1/2	8.5	8.750	7.250	3.500	1.250	1.375	2.437	1.500	.625
WS-5	9/16	8.5	8.750	7.250	3.500	1.250	1.375	2.812	1.500	.625
WS-5	5/8	8.5	8.750	7.250	3.500	1.250	1.375	2.750	1.500	.625
WS-6	5/8	9	8.812	7.312	3.500	1.250	1.500	2.500	1.500	.562
WS-8A	5/8	17	11.250	9.125	4.125	1.625	1.750	3.187	2.125	1
WS-6	3/4	9	8.812	7.312	3.500	1.250	1.500	1.780	1.500	.562
WS-8A	3/4	17	11.250	9.125	4.125	1.625	1.750	2.844	2.125	1
WS-7	7/8	15	11	9.500	3.500	1.250	1.312	2.937	1.500	.625
WS-8	7/8	16	11.375	9.500	4.125	1.625	1.750	2.875	1.875	.750
WS-7	1	14.5	11	9.500	3.500	1.250	1.315	2.875	1.500	.625
WS-8	1	16	11.375	9.500	4.125	1.625	1.750	2.500	1.875	.750
WS-1 0	1-1/8	45	15.437	13.250	4.125	1.625	1.750	3.062	2.187	.750
WS-1 1	1-1/8	55	16	13.500	5.000	2.500	2.500	4.500	2.500	.812
WS-10	1-1/4	45	15.437	13.250	4.125	1.625	1.750	3.125	2.187	.750
WS-1 1	1-1/4	55	16	13.500	5.000	2.500	2.500	4.250	2.500	.812
FS-26	1-1/2	99	18.375	15	6.875	3	2.625	4.187	3.375	1.250

Open Wedge Sockets

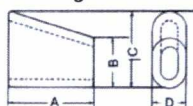
with wedge but without pin

For use with wire rope up to and including 2" dia. In ordering, specify part number only. For other sizes or special fittings, please consult sales rep.



Part No. w/ Wedge	Rope Size (in)	Hole Size (in)								Wt. (lbs)
		A	B	C	D	E	F	G	H	
WS-7510	3/8	2-1/4	1-1/4	2-1/2	3	1-1/16	5/8	1-3/8	2-9/16	2.8
WS-75143	3/8 Hvy.	2-1/2	1-7/16	2-1/2	3	1-5/16	1-1/4	2	2-3/4	5.2
WS-75106	1/2	2-1/4	1-1/4	2-1/2	3	1-1/16	5/8	1-3/8	2-9/16	2.8
WS-7511	1/2 Hvy.	2-1/2	1-7/16	2-1/2	3	1-5/16	1-1/4	2	2-3/4	5
WS-75107	5/8	3	1-3/4	3-1/4	3-1/4	1-5/16	1-3/8	2-1/8	3-5/16	5.3
WS-7512	5/8 Hvy.	3	1-3/4	3-1/4	3-3/4	1-5/16	2-1/4	3-1/8	3-3/8	7.5
WS-75108	3/4	3-1/2	2	3-3/4	3-3/4	1-5/16	1-1/4	2-1/8	3-7/8	8.5
WS-7513	3/4 Hvy.	3-3/4	2-1/8	3-3/4	3-3/4	1-3/4	2	3-1/4	4-1/8	13
WS-75109	7/8	4	2-1/4	4-1/2	4-1/2	1-5/8	1-3/4	2-3/4	4-3/16	12.5
WS-7514	7/8 Hvy.	4-1/4	2-3/8	4-1/2	4-1/2	2-1/16	2	3-1/2	4-3/4	19.8
WS-75110	1	4-1/4	2-3/8	4-3/4	5	1-5/8	1-5/8	2-3/4	4-13/16	15.7
WS-7515	1 Hvy.	4-1/2	2-1/2	4-3/4	5	2-1/16	1-3/4	3-1/2	5-1/4	26
WS-75111	1-1/8	4-1/2	2-5/8	5-3/8	5-1/4	1-5/8	1-1/2	2-3/4	5-7/8	22.5
WS-75112	1-1/4	5	2-7/8	6	5-3/4	2-1/8	1-3/4	3-1/4	6-13/16	34
WS-75113	1-3/8	5	2-7/8	6	5-3/4	2-1/8	1-3/4	3-1/4	6-13/16	35
WS-75131	1-1/2	6-1/2	3-1/2	6-3/4	6-1/2	3-1/8	2-1/2	4-1/2	8-1/16	62
WS-75132	1-5/8	6-1/2	3-1/2	6-3/4	6-1/2	3-1/8	2-1/2	4-1/2	8-1/16	60
WS-75137	1-3/4	8	4	8	12-13/16	3-1/8	2-1/2	4-1/2	9-1/4	111
WS-75138	2	8	4	8	12-13/16	3-1/8	2-1/2	4-1/2	9-1/4	111

WEDGE SOCKETS with wedge but w/o ears



Part No. (W/ Wedge)	Rope Size	Dim. (in)				Wt. (lbs)
		A	B	C	D	
WS-75165	1/4	2-1/2	1-5/8	2-3/8	1	1.2
WS-75166	3/8	2-1/2	1-5/8	2-3/8	1	1.1
WS-75104	3/8 Hvy.	3	2	2-7/8	1-1/8	1.9
WS-75103	7/16, 1/2	3	2	2-7/8	1-1/8	2

Not approved for elevator service. All Dimensions in Inches.

Pins for Open Wedge Sockets

Pins listed are standard and in stock; pins with two cotter keys or with square or hex machine bolts and nuts are also available.



Part No.	Description (in)	Wt (lbs)
P-5814	For 3/8 and 1/2 standard sockets	.6
P-5837	For 3/8 and 1/2 heavy, 5/8 and 3/4 standard skts.	1.25
P-5839	For 5/8 heavy socket	1.5
P-5871	For 3/4 heavy socket	3.
P-59021	For 7/8 and 1 heavy sockets	5.
P-58611	For 7/8, 1 and 1-1/8 std. sockets	2.5
P-59021	For 1-1/4 and 1-3/8 std. sockets	5.
P-59716	For 1-1/2, 1-5/8, 1-3/4 and 2 std. sockets	15.

FERRULES

Pointed Zinc Ferrules

This ferrule is pointed to enable it to pass under loads. Two holes are provided for pouring socket metal.

Size	Length (in)	O.D. (in)	Hook Size	Rope Size (in)	Approx. Wt. (lbs)
Light	3-3/8	2-1/8	Light	3/4, 7/8, 1	1.2
Junior	3-5/8	2-3/8	Junior	7/8, 1, 1-1/8	1.8

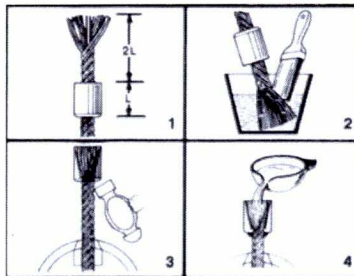


How to attach zinc-type ferrules

Use socket metal, not babbitt or lead. These metals will not adhere to the wire-clean the rope thoroughly, dirty wires will pull out of socket metal.

1. Drive ferrule on cable 2 ferrule lengths from end. On fiber core rope only, cut out hemp center. Separate strands wires and straighten to form brush.
2. Clean greasy wires with gasoline or solvent—an inexpensive paint brush facilitates grease removal.
3. After drying thoroughly, drive ferrule out to end of cable and distribute wires evenly, flush with ferrule top.
4. Place mud seal around bottom of ferrule & sprinkle with sal ammoniac between strands. It will serve as a flux—Pour socket metal, filling ferrule slightly above top to allow for metal shrinkage after cooling. Metal is at correct pouring temperature when blue tinge appears on metal surface immediately after skimming.

Do not exceed the Safe Working Load.

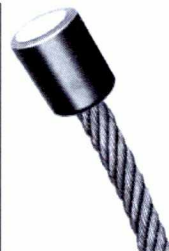


WARNING: Zinc type ferrules DO NOT develop 100% holding power (efficiency). Read and understand manufacturer's installation instructions prior to use. Pull testing is recommended prior to use whenever the possibility of personal injury or property damage exists.

Zinc-Type Ferrules

Rugged zinc-type ferrules are made of shock and abrasion resistant alloy steel for maximum durability. These ferrules are designed to fit Bardon Hooks perfectly, insuring easy installation and trouble-free performance. Ferrules retain strength even after repeated exposure to heat. Zinc-type ferrules will not mushroom or spread.

Item	Ferrule Size Length (in)	Outside Dia. (in)	Hook Size	Rope Size (in)	Approx. Wt. (lbs)
D4	1-3/4	1-1/2	Dwarf	3/8, 1/2	.40
D5	1-3/4	1-1/2	Dwarf	5/8	.40
B4	2	1-5/8	Bantam	3/8, 1/2	.50
B5	2	1-5/8	Bantam	5/8	.50
B6	2	1-5/8	Bantam	3/4	.50
L6	2-5/8	2-1/8	Light	3/4	1.1
L7	2-5/8	2-1/8	Light	7/8	1.1
L8	2-5/8	2-1/8	Light	1	1.1
J7	2-3/4	2-3/8	Junior	7/8	1.8
J8	2-3/4	2-3/8	Junior	1	1.8
J9	2-3/4	2-3/8	Junior	1-1/8	1.8
J10	2-3/4	2-3/8	Junior	1-1/4	1.8
S9	3-3/16	2-13/16	Standard	1, 1-1/8	2.9
S10	3-3/16	2-13/16	Standard	1-1/4	2.9
S11	3-3/16	2-13/16	Standard	1-3/8	2.9
S12	3-3/16	2-13/16	Standard	1-1/2	2.9



Note: LJ Ferrule sizes have been discontinued. Use junior Ferrules on all Light Junior hooks.

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