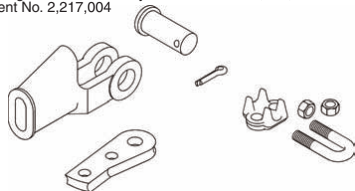


# THE JAMES WALKER CO.

## CROSBY WEDGE SOCKETS

### WEDGE SOCKET WARNING AND APPLICATION INSTRUCTIONS

Extended Wedge Socket Assembly U.S. Patent No. 5,553,360 and  
Canada Patent No. 2,217,004

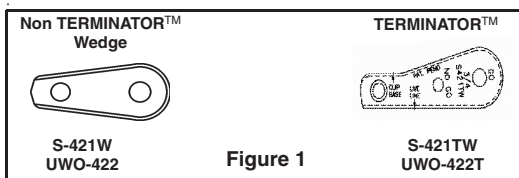


**S-421T / US-422T  
"TERMINATOR™"**

**NOTE:** The design of the basket for the S-421T 1-1/4" TERMINATOR™ Wedge Socket does not allow proper fit to the old style Crosby S-421W wedge (see Fig. 1). **Do not assemble or use.**

The design of the basket for each US-422T TERMINATOR™ Wedge Socket does not allow proper fit to the old style UWO-422 wedge (See Fig. 1). **Do not assemble or use.**

All S-421T and US-422T TERMINATOR™ baskets are marked with a capital "T" or TERMINATOR™.



**QUIC-CHECK®** "Go" and "No-Go" features cast into wedge. The proper size wire rope is determined when the following criteria are met:

1. The wire rope shall pass thru the "Go" hole in the wedge.
2. The wire rope shall NOT pass thru the "No-Go" hole in the wedge.



### Important Safety Information - Read and Follow 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.
- Do not mix and match wedges or pins between models or sizes.
- Always select the proper wedge and socket for the wire rope size.

### 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. 2).
- 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. 2).
- 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. 2).

- Secure dead end section of rope (See Fig. 2).
- Tighten nuts on clip to recommended torque (See Table 1).
- Do not attach dead end to live end or install wedge backwards (See Fig. 3).
- **Use a hammer to seat Wedge and Rope as deep into socket as possible before applying first load.**

**WARNING**

- Loads may slip or fall if the Wedge Socket is not properly installed.
- A falling 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.
- Do not interchange wedges between S-421T and US422T or between sizes.
- Do not assemble an old style 1-1/4" S-421W wedge into an S-421T 1-1/4" TERMINATOR™ basket.
- Do not assemble an old style UWO-422 wedge into a US-422T TERMINATOR™ basket.

**Figure 2**

Tail Length	
Standard 6 to 8 strand wire rope	Rotation Resistant Wire Rope
A minimum of 6 rope diameter, but not less than 6".	A minimum of 20 rope diameters, but not less than 6".

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

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

**Figure 3**

### 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).

Rev. 3

**WARNING: DO NOT EXCEED RATED CAPACITIES**

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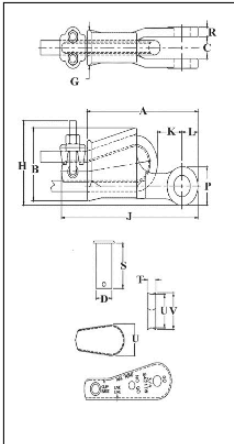
## CROSBY WEDGE SOCKETS

### S-421T



Wedge sockets meet the performance requirements of Federal Specification RR-S-550D, Type C, except those provisions required of the contractor.

- Wedge socket terminations have an efficiency rating of 80% based on the catalog strength of XXIP wire rope.
- Crosby products meet or exceed all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, Crosby products meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Type Approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7, and ABS Guide for Certification of Cranes.
- Basket is cast steel and individually magnetic particle inspected.
- Pin diameter and jaw opening allows wedge and socket to be used in conjunction with closed swage and 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.
- The 3/8" thru 1-1/8" standard S-421 wedge socket can be retrofitted with the new style TERMINATOR™ wedge.
- Available with Bolt, Nut, and Cotter Pin.
- U.S. patent 5,553,360, Canada patent 2,217,004 and foreign equivalents.



### S-421T Wedge Sockets Assembly includes Socket, Wedge, Pin and Wire Rope Clip

Wire Rope Dia.		S-421T Stock No.	Weight Each (lbs.)	S-421 TW Stock No. Wedge Only	Wedge Only Weight Each (lbs.)	Optional G-4082 Bolt, Nut & Cotter	
(in.)	(mm)					G-4082 Stock No.	Weight Each (lbs.)
3/8	9-10	1035000	3.18	1035555	.50	1092227	.38
1/2	11-13	1035009	6.15	1035564	1.05	1092236	.69
5/8	14-16	1035018	9.70	1035573	1.79	1092254	1.15
3/4	18-19	1035027	14.50	1035582	2.60	1092281	1.91
7/8	20-22	1035036	21.50	1035591	4.00	1092307	3.23
1	24-26	1035045	30.75	1035600	5.37	1092325	5.40
1-1/8	28	1035054	45.30	1035609	7.30	1092343	7.50
1-1/4	30-32	1035063	64.90	1035618	10.60	1092372	10.34

Wire Rope Dia.		S-421T Stock No.	Dimensions (in.)														
(in.)	(mm)		A	B	C	D	G	H	J'	K'	L	P	R	S	T	U	V
3/8	9-10	1035000	5.69	2.72	.81	.81	1.38	3.06	7.80	1.88	.88	1.56	.44	2.13	.44	1.25	1.38
1/2	11-13	1035009	6.88	3.47	1.00	1.00	1.62	3.76	8.91	1.26	1.06	1.94	.50	2.56	.53	1.75	1.88
5/8	14-16	1035018	8.25	4.30	1.25	1.19	2.12	4.47	10.75	1.99	1.22	2.25	.56	3.25	.69	2.00	2.19
3/4	18-19	1035027	9.88	5.12	1.50	1.38	2.44	5.28	12.36	2.41	1.40	2.63	.66	3.63	.78	2.34	2.56
7/8	20-22	1035036	11.25	5.85	1.75	1.63	2.69	6.16	14.37	2.48	1.67	3.13	.75	4.31	.88	2.69	2.94
1	24-26	1035045	12.81	6.32	2.00	2.00	2.94	6.96	16.29	3.04	2.00	3.75	.88	4.70	1.03	2.88	3.28
1-1/8	28	1035054	14.38	6.92	2.25	2.25	3.31	7.62	18.34	2.56	2.25	4.25	1.00	5.44	1.10	3.25	3.56
1-1/4	30-32	1035063	16.34	8.73	2.62	2.50	3.56	9.39	20.48	2.94	2.34	4.50	1.06	6.13	1.19	4.62	4.94

\* Nominal

NOTE: For intermediate wire rope sizes, use next larger size socket.

**WARNING: DO NOT EXCEED RATED CAPACITIES**