CHANCE® EPOXIGLAS™ LIVE-LINE TOOL INSTRUCTION MANUAL

A WARNING

Failure to follow these instructions and all safety rules and guidelines while using this tool may result in serious injury or death. This tool should only be used by competent individuals properly trained on its use. DO NOT exceed the Working Load Limit for load bearing tools.

A CAUTION

These instructions are not intended as a substitute for proper training or experience in the safe operation of the tool. Only competent technicians familiar with the tool should maintain or repair it. Always follow applicable laws, regulations, and company work practices and procedures.

A DANGER

Always maintain proper working clearances and Minimum Approach Distances (MAD) when working on or near energized lines or equipment. If using rubber gloves in combination with a stick that does not meet OSHA requirements, the gloves must be rated for full system voltage.

1. Before and After Each Use

- a. Clean the Epoxiglas™ surfaces using CHANCE Silicone Wipes (C4002568) or Wiping Cloths (M1904). They both clean and leave a protective layer of silicone on the finish of the stick. For heavier contamination, Moisture Eater II (C4002364 or C4002538) can be used. Moisture Eater II was designed specifically for cleaning hot sticks and will remove both contamination and moisture from the surface. It also removes silicone, so a Silicone Wipe should ALWAYS be used after using Moisture Eater II. To maintain cleanliness, keep tools off the ground and other contaminated surfaces while working. Use of CHANCE Hot Line Tool Racks (M4660) or a clean tarp is recommended at the worksite.
- b. Thoroughly inspect the tool for any damage, excessive wear, or missing components per IEEE 516. DO NOT USE if damaged, components are missing, or there is any reason to suspect the mechanical and/or electrical properties of the tool may be compromised. Tools that have been damaged and show exposed fibers must be removed from service and destroyed.
- c. Verify the tool functions correctly and smoothly.
- d. If desired or specified for certain jobs by local regulations or company work practices (e.g. before extra high voltage transmission work), the tool can be field tested using the CHANCE Wet/Dry Hotstick Tester prior to use.

2. Maintenance

- a. Periodic electrical testing The tools shall be electrically tested at a minimum once every two years or more frequently per applicable government and/or company safety rules and regulations. Consideration should be given to more frequent testing based on frequency of use, work conditions, care and maintenance, etc. Always test tools before returning to service after a repair or refinishing. ASTM F3121 may be referenced for in-service electrical testing.
- b. Refinishing The original glossy finish on CHANCE Epoxiglas tools can often be refinished. Use CHANCE Gloss Restorer Kit (C4001520) or Epoxy Refinishing Kit (C4002365).





c. Repair - The CHANCE Epoxiglas Bond Kit (H1917) is recommended for many repairs. See kit instructions for more details. Hardware, bolts, and pins should be replaced only with OEM replacement parts. Tools that have been subjected to overstressing should be permanently removed from service. All repairs and refinishing should be followed by electrical testing of the tool before putting the tool back into service.

3. Storage & Transportation

a. Store tools in a clean and dry location out of direct sunlight. Tubes, bags, racks, or a tool trailer are recommended. Surfaces should be well padded and secure the tools to prevent damage. DO NOT store where moisture, oil, caustic chemicals or their vapors, or other degrading material may be present.

4. Disposal

a. Always follow local laws and regulations. The metallic parts can be removed and recycled. The fiberglass pole and other components can be repurposed or disposed of as solid waste except where prohibited by law.

5. Load Ratings

		MAX WO	ORKING I TENSION
CATALOG ID	NAME	LB.	KG
PSC4004132	Crossarm Link Stick 1.25" (32mm), .75" (19mm) Hook	1,500	680
PSC4004372	Crossarm Link Stick 1.25" (32mm), 1.0" (25mm) Hook	3,500	1,588
C4001175	Hoist Link Stick 1.25" (32mm), 15" (0.381m)	4,000	1,814
C4002399	Hoist Link Stick 1.25" (32mm), 18" (0.457m)	4,000	1,814
C4002400	Hoist Link Stick 1.25" (32mm), 24" (0.610m)	4,000	1,814
PSC4002400001	02400001 Hoist Link Stick 1.25" (32mm), 36" (0.914m)		1,814
PSC4002400008	C4002400008 Hoist Link Stick 1.25" (32mm), 63" (1.60m)		1,814
C4000574	Hotstick Tension Puller 1.5" (38mm) for 34.5kV		1,814
C4000575	Hotstick Tension Puller 1.5" (38mm) for 69kV		1,814
PSC4012730	Symmetrical Tension Puller		1,814
H47152	Strain Link Stick 1.25" (32mm), 4' 9" (1.22m)	3,500	1,588
C4000814	Strain Link Stick 1.25" (32mm), 7' 3" (2.21m)	3,500	1,588
C4000815	Strain Link Stick 1.25" (32mm), 9' 3" (2.82m)	3,500	1,588
C4000816	C4000816 Strain Link Stick 1.25" (32mm), 11' 3" (3.43m)		1,588





MAY WODKING

		MAX WO	RKING TENSION
CATALOG ID	NAME	LB.	KG
C4000817	Strain Link Stick 1.25" (32mm), 13' 3" (4.04m)	3,500	1,588
C4000818	Strain Link Stick 1.25" (32mm), 15' 3" (4.65m)	3,500	1,588
H47161	Strain Link Stick 1.5" (38mm), 3' 3" (0.99m)	6,500	2,948
H47162	Strain Link Stick 1.5" (38mm), 4' 9" (1.45m)	6,500	2,948
H47163	Strain Link Stick 1.5" (38mm), 6' 9" (2.06m)	6,500	2,948
H47164	Strain Link Stick 1.5" (38mm), 8' 9" (2.67m)	6,500	2,948
H47165	Strain Link Stick 1.5" (38mm), 10' 9" (3.28m)	6,500	2,948
H47166	Strain Link Stick 1.5" (38mm), 12' 9" (3.89m)	6,500	2,948
H4717	Strain Link Stick 1.5" (38mm), 5' 0" (1.52m)	6,500	2,948
H47171	Strain Link Stick 1.5" (38mm), 7' 2" (2.18m)	6,500	2,948
H4718	Strain Link Stick 1.5" (38mm), 5' 2" (1.58m)	6,500	2,948
H47181	Strain Link Stick 1.5" (38mm), 7' 2" (2.18m)	6,500	2,948
H47182	Strain Link Stick 1.5" (38mm), 9' 2" (2.79m)	6,500	2,948
H47183	Strain Link Stick 1.5" (38mm), 11' 2" (3.40m)	6,500	2,948
H47184	Strain Link Stick 1.5" (38mm), 13' 2" (4.01m)	6,500	2,948
H4722	Spiral Link Stick 1.25" (32mm), 31" (0.787m)	3,500	1,588
C4000812	Spiral Link Stick 1.25" (32mm), 57.5" (1.46m)	3,500	1,588
H47144	Roller Link Stick 1.25" (32mm), 58" (1.47m)	1,000	454
H47146	Roller Link Stick 1.25" (32mm), 82" (2.08m)	1,000	454
C4012144	Adjustable Strain Pole 2" (51mm), 6' (1.83m)	7,500	3,402
C4012145	Adjustable Strain Pole 2" (51mm), 7' (2.13m)	7,500	3,402
C4012146	Adjustable Strain Pole 2" (51mm), 8' (2.44m)	7,500	3,402





			MAX WORKING LOAD IN TENSION		
CATALOG ID	NAME	LB.	KG		
C4012147	Adjustable Strain Pole 2" (51mm), 10' (3.05m)	7,500	3,402		
C4012215	Adjustable Strain Pole 2" (51mm), 12' (3.66m)	7,500	3,402		
C4012148	Adjustable Strain Pole 2" (51mm), 14' (4.27m)	7,500	3,402		
C4012149	Adjustable Strain Pole 2" (51mm), 18' (5.49m)	7,500	3,402		
C4012174	Heavy Duty Strain Carrier, 6' (1.83m)	15,000	6,804		
C4012175	Heavy Duty Strain Carrier, 7' (2.13m)	15,000	6,804		
C4012176	Heavy Duty Strain Carrier, 8' (2.44m)	15,000	6,804		
C4012177	Heavy Duty Strain Carrier, 10' (3.05m)	15,000	6,804		
C4012216	Heavy Duty Strain Carrier, 12' (3.66m)	15,000	6,804		
C4012178	Heavy Duty Strain Carrier, 14' (4.27m)	15,000	6,804		
C4012179	Heavy Duty Strain Carrier, 18' (5.49m)	15,000	6,804		
C4010411	Standard Duty Strain Carrier, 6' (1.83m)	6,500	2,948		
C4010410	Standard Duty Strain Carrier, 8' (2.44m)	6,500	2,948		
H1949113	Strain Pole, Butt Swivel & 3.35" Clevis, 113" (2.87m)	12,000	5,443		
C4000612	Strain Pole, Butt Swivel & 1.56" Clevis, 113" (2.87m)	12,000	5,443		
C4000613	Strain Pole, Butt Swivel & 1.56" Clevis, 134" (3.40m)	12,000	5,443		
PSC4002915	Strain Pole, Dual 1.56" Clevis, 113" (2.87m)	12,000	5,443		
PSC4002916	Strain Pole, Dual 1.56" Clevis, 134" (3.40m)	12,000	5,443		
H472084	Suspension Link Stick 1.5" (38mm), 84" (2.13m)	6,500	2,948		
H472096	Suspension Link Stick 1.5" (38mm), 96" (2.44m)	6,500	2,948		
H4720114	Suspension Link Stick 1.5" (38mm), 114" (2.90m)	6,500	2,948		





		MAX VERTICAL LOAD PER WIREHOLDER		
CATALOG ID	NAME	LB.	KG	
H480060	Extension Arm 2.5" (64mm), 5' (1.52m)	150	68	
H480072	Extension Arm 2.5" (64mm), 6' (1.83m)	150	68	
T4032417	Extension Arm 2.5" (64mm), 6' (1.83m)	150	68	
C4001310	HD Extension Arm 3" (76mm), 6' (1.83m)	300	136	
H480092	Extension Arm2.5" (64mm), 7' 8" (2.34m)	150	68	
H480092INS	Ext. Arm with Insulators 2.5" (64mm), 7' 8" (2.34m)	150	68	
PSC4004101	Universal Ext. Arm 2 Wireholders 2.5" (64mm), 6'	150	68	
PSC4004102	Universal Ext. Arm 1 Wireholder 2.5" (64mm), 5'	150	68	
H48628	Rubber-Glove Auxiliary Arm 2.5" (64mm)	600; 150¹	272; 68¹	
C4000517	Temporary Crossarm Conductor Support	150	68	
H4809W	Single Conductor Support 2.5" (64mm)	200²	912	
C4001509	Two Conductor Supports 2.5" (64mm) 150 ²		68 ²	
T4001940	One Conductor Support, 2.5" (64mm), 30" (0.76m)	200	91	
T4001939	Two Conductor Supports, 2.5" (64mm), 48" (1.22m)	150	68	

^{1.} Max Load Rating 600 lb. (272 kg) balanced; 150 lb. (68 kg) unbalanced

All Epoxiglas Pole is manufactured and tested according to ASTM F711, IEC 60855, and CHANCE specifications including 100% electrical testing at the factory.

These instructions do not claim to cover all details or variations concerning installation, operation, or maintenance of this tool. If further information is desired, contact Hubbell Power Systems.

Phone: 573-682-5521

Email: hpsliterature@hubbell.com
Web: hubbellpowersystems.com

Hubbell Power Systems, Inc. reserves the right to make changes to this manual at any time, without notice, and without incurring any obligation.





^{2.} Max Side Load Rating 100 lb. (45 kg)

TRAINING

CHANCE Lineman Grade Tools offers in-person live line training. Learn more and inquire online at https://info.hubbellpowersystems.com/lineman-tools-training.

DISCLAIMER

These products should only be installed, used, or serviced by adequately trained personnel. These instructions are not a substitute for adequate training in the safe use of these products, and they do not address all situations that may be encountered when using these products. When using any product, always read and follow the installation and operating instructions and warnings for the product, all applicable federal, state, and local safety regulations, industry standards, and your employer's internal safety guidelines and operating instructions. Failure to follow applicable safety rules and instructions may result in serious injury, death, and/or property damage.

The user is responsible for the safe installation and use of any product, and must evaluate the conditions at the time of use and consult with their employer's internal safety guidelines or safety experts hired by your employer, as needed.

Hubbell Power Systems, Inc. is not liable for death, serious injury, or property damage resulting from the use of these products in any manner that is inconsistent with the product installation and operating instructions, your employer's internal safety guidelines, or recommendations from safety experts hired by your company.

If further information is desired or if particular problems are encountered which are not sufficiently covered in these instructions, contact Hubbell Power Systems, Inc. for additional information. Operating and installation instructions are available on the Hubbell Power Systems, Inc.

website: <u>hubbellpowersytems.com</u>





INSTRUCTIONS FOR CHANCE® TEMPORARY WORK PLATFORM

Keep these instructions with the equipment for future reference.

⚠ WARNING

CHANCE* Platforms are intended for use by experienced and competent operators. Improper mounting, removal or use of CHANCE Platforms may result in property damage, serious personal injury or death. Users must read and fully understand all warnings, safety rules, labels, and instructions as well as all national, local and company regulations pertaining to this equipment prior to its use. Always use appropriate Personal Protective Equipment (PPE).

↑ WARNING

DO NOT EXCEED MANUFACTURER'S SPECIFIED MAXIMUM LOAD RATING. Working load includes weight of workers, all equipment, and materials. Exceeding maximum load rating could cause equipment to break and result in severe injury or death.

MAXIMUM LOAD RATINGS*						
Catalog No.	Description	Max. Load				
		Rating				
C4021042	4-ft. Insulated Platform	500 lb.				
C4021043	6-ft. Insulated Platform	500 lb.				
C4021079	8-ft. Insulated Platform	500 lb.				
H496442W	42-in. Standard Platform	500 lb.				
H49644W	4-ft. Standard Platform	500 lb.				
H49646W	6-ft. Standard Platform	500 lb.				
H49648W	8-ft. Standard Platform	500 lb.				
T4020632	10-ft. Standard Platform	500 lb.				
T4020619	12-ft. Standard Platform	500 lb.				
T4020030	48-in. Suspension Platform	400/300 lb.**				
C4020426	30-in. Utility Platform	400 lb.				
*If platforms is not listed souts at Hubball Davyon Systems						

*If platform is not listed, contact Hubbell Power Systems for maximum load rating

**400 lb perpendicular, reduced to 300 lb in side position

USE

CHANCE® Platforms are used to provide an elevated work surface. Do not use this equipment if you are not properly trained and supervised in the use of this particular equipment and the procedures being done. Do not use any part of the platform for lifting, rigging, or any function other than its intended use.

⚠ WARNING

Always use proper fall restraint/arrest while using CHANCE Platform boards. Equipment and practices should be per applicable national, local, and/or company regulations and work practices. Platform rail and tripod are only to be used for balancing and centering on the platform. Do not use platform board, mounting attachment, rail and tripod as an anchorage point for fall restraint/arrest. Failure to use proper fall restraint/arrest equipment could result in serious injury or death.

INSPECTION

Before every use, all components of the platform board, its attachments and accessories should be thoroughly inspected by qualified personnel for any indications or signs of damage or mechanical stress including but not limited to components that are: bent, worn, cracked, gouged, scratched, feathered, elongated, deformed, corroded, rusted, blistered, loose, missing, abraded, burned, showing signs of tracking or any other damage. Verify proper operation of moving components to ensure there is no binding, kinking, looseness (indicative of worn threads) or any other indication of a defect. All parts should be free of contamination, and insulated poles shall be cleaned and wiped with silicone or equivalent before each use. Electrical testing of insulated components should be performed per industry and local standards. If the platform board, mount, rail or tripod has been dropped from an elevated worksite, or if there is suspicion that any component is damaged, it should be removed from service. Do not alter or substitute parts of the platform or mounts.

LOCATION

Before mounting a platform on the structure, consider:

- Safe working distances
- Best work position
- Type of structure
- Desired working height
- Tasks to perform
- Appropriate mount and necessary installation clearance

These will determine the distance below the conductor to place the platform mount and the direction in which the platform is to extend.

If using a 42", 4', 6', or 8' platform, and working from multiple positions, a CHANCE pivot attachment may be used to allow repositioning of the platform without

These instructions do not claim to cover all details or variations in equipment, nor to provide for all possible conditions to be met concerning installation, operation, or maintenance of this equipment. If further information is desired or if particular problems are encountered which are not sufficiently covered in this guide, contact Hubbell Power Systems.





WARNING

ELECTRICAL SHOCK HAZARD, CAN CAUSE SEVERE INJURY OR DEATH. Before installing the platform or pivot attachment, use appropriately rated cover-up equipment on all energized components, all components that could become energized, and all grounded components, such as neutral wires and guy wires in the vicinity which might be touched when installing or using the platform or pivot attachment.

WARNING

Do not pivot or attempt to pivot the platform with a worker or materials on the board. The worker could lose balance and fall when the board moves, causing severe injury or death. Move the worker from the board to the structure before pivoting the platform.

remounting the board. Do not pivot the platform with a worker or materials on the board. If using the pivot attachment, align the center of rotation halfway between the working positions.

WARNING

DO NOT USE A PIVOT TYPE ATTACHMENT ON ROUND STEEL OR CONCRETE POLES. The chain binders may not grip these surfaces as well as a wood pole. This may cause the platform to move without warning particularly when the platform is pivoted to the side, causing the worker to fall. Could cause severe injury or death.

PLATFORM INSTALLATION AND USE

After determining the location and orientation of the platform, follow the instructions included with the chain binder to install the appropriate platform mount. If longer chains are needed, use only CHANCE extension chains. Ensure locking pins are fully inserted in all chain socket clevises. If the platform mount includes lag screws, back the lag screws out before installation. If mounting on a wood pole, tighten the lag screws into the pole for additional stability. If using the pivot attachment, align the center of rotation halfway between the working positions.

Fixed Mount: Attach platform board to mount using the long "T" pin. Ensure Klik-Pin is replaced to secure "T" pin in place. Raise board and position the brace firmly against the structure, hook the chain/strap assembly to the brace fork, and reseat brace against structure. Adjust as needed to level the board.

⚠ WARNING

The chain/strap assembly must always be properly engaged with the brace to keep the brace in position. Failure to do this will cause the platform to fall and could result in serious injury or death.

Pivot Mount: Attach platform board to mount using the upper long "T" pin. Ensure Klik-Pin is replaced to secure "T" pin in place. Raise board, hook chain/strap assembly to brace fork and attach brace to mount using the lower "T" pin. Ensure Klik-Pin is replaced to secure "T" pin in place.

Vigorously shake the board and re-tighten the chain binders so the board is fully seated and tightly secured to the structure before transitioning to the board. If using the pivot mount, be certain that the pivot attachment is locked into position by tightening the handwheel before transitioning to the board. Periodically check tightness of chain binders and re-tighten as necessary, especially before an operator transitions onto the board.

If the platform is equipped with a railing, install the railing in the "up" position before mounting the platform board on the structure.

If using an insulated platform, do not use the Epoxiglas™ pole sections as steps as this could cause surface contamination which may reduce the insulation characteristics.

Always use proper fall restraint/arrest equipment and practices per applicable national, local, and/or company regulations and work practices. Platform rail and tripod are only to be used for balancing and centering on the platform. Platform board, mounting attachment, rail and tripod are not rated for and should not be used as an anchorage point for fall restraint/arrest.

Confirm adequate clearance, ensure stability, and use caution when transitioning to the board. Do not over extend your reach. Reposition the board if necessary. Do not reposition the board with a worker or materials on the board. If using a pivot mount, do not pivot the platform with a worker or materials on the board. To pivot, loosen handwheel, reposition board, and re-tighten handwheel. Confirm that board is securely locked into position before transitioning to the board.

These instructions apply to products manufactured by Hubbell Power Systems, Inc. and/or its corporate affiliates. When using any product, make sure to follow all safety procedures, practices, regulations and industry standards issued or required by any local, state or federal regulatory body or agency. In addition, users should review and follow all operating and installation instructions located on the Hubbell Power Systems website at, http://www.hubbellpowersystems.com/resources/ instructions. The safe installation and use of any product also depends on the specific conditions present at the location of use and requires users to independently evaluate those conditions and consult with their own independently retained safety experts and internal safety guidelines. Failure to follow the appropriate safety regulations, industry standards, installation instructions, operating instructions or internal safety guidelines could result in property damage, serious bodily injury and/or death. Hubbell Power Systems is not liable for any damages to property or injuries, including death, to individuals that use this product in a manner that is inconsistent with the safety procedures and practices explained in this message or recommended by independent safety experts or internal safety guidelines.





For product inquiries, please contact your local sales representative or customer service representative.

CHANCE® EPOXIGLAS™ WIRE TONG INSTRUCTION MANUAL



A WARNING

Failure to follow these instructions and all safety rules and guidelines while using this tool may result in serious injury or death. This tool should only be used by competent individuals properly trained on its use. DO NOT exceed the Working Load Limit for load bearing tools.

ACAUTION

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A DANGER

Always maintain proper working clearances and Minimum Approach Distances (MAD) when working on or near energized lines or equipment. If using rubber gloves in combination with a stick that does not meet OSHA requirements, the gloves must be rated for full system voltage.

1. Before and After Each Use

- a. Clean the Epoxiglas™ surfaces using CHANCE Silicone Wipes (C4002568) or Wiping Cloths (M1904). They both clean and leave a protective layer of silicone on the finish of the stick. For heavier contamination, Moisture Eater II (C4002364 or C4002538) can be used. Moisture Eater II was designed specifically for cleaning hot sticks and will remove both contamination and moisture from the surface. It also removes silicone, so a Silicone Wipe should ALWAYS be used after using Moisture Eater II. To maintain cleanliness, keep tools off the ground and other contaminated surfaces while working. Use of CHANCE Hot Line Tool Racks (M4660) or a clean tarp is recommended at the worksite.
- b. Thoroughly inspect the tool for any damage, excessive wear, or missing components per IEEE 516. DO NOT USE if damaged, components are missing, or there is any reason to suspect the mechanical and/or electrical properties of the tool may be compromised. Tools that have been damaged and show exposed fibers must be removed from service and destroyed.
- c. Verify the tool functions correctly and smoothly.
- d. If desired or specified for certain jobs by local regulations or company work practices (e.g. before extra high voltage transmission work), the tool can be field tested using the CHANCE Wet/Dry Hotstick Tester prior to use.

2. Maintenance

- a. Periodic electrical testing The tools shall be electrically tested at a minimum once every two years or more frequently per applicable government and/or company safety rules and regulations. Consideration should be given to more frequent testing based on frequency of use, work conditions, care and maintenance, etc. Always test tools before returning to service after a repair or refinishing. ASTM F3121 may be referenced for in-service electrical testing.
- b. Refinishing The original glossy finish on CHANCE Epoxiglas™ tools can often be refinished. Use CHANCE Gloss Restorer Kit (C4001520) or Epoxy Refinishing Kit (C4002365).



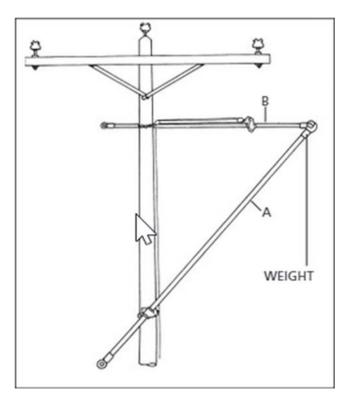


c. Repair - The CHANCE Epoxiglas™ Bond Kit (H1917) is recommended for many repairs. See kit instructions for more details. Hardware, bolts, and pins should be replaced only with OEM replacement parts. Tools that have been subjected to overstressing should be permanently removed from service. All repairs and refinishing should be followed by electrical testing of the tool before putting the tool back into service.

3. Applications and Working Loads

Wire Tong Applications

The following information is intended to assist in the selection of the proper Wire Tongs for a particular application and greatest load. Four popular application methods are shown on these pages.



BLOCKS 30° WEIGHT

Figure 1 - Wire Tongs with saddles and wire tong blocks clamp on holding stick.

Figure 2 - Wire Tong with saddles and swivel wire tong band on lift stick.

WORKING LOADS FOR CHANCE WIRE TONGS*

Figure	Epoxiglas Pole Diameter		Туре	Maximum	Maximum Wire Size and Span (Level Ground)			
No.			Support	Working Load Per Conductor	ACSR		Copper	
	Α	В		rei conductor	Size	Span	Size	Span
1	2 in. (51 mm)	1.5 in. (38 mm)	Saddles	275 lb. (124 kg)	4/0	700 ft. (213m)	4/0	300 ft. (91m)
'	2.5 in. (64 mm)	1.5 in. (38 mm)	Lever Lift	475 ib. (215 kg)	4/0	1200 ft. (366m)	4/0	500 ft. (152m)
2	2 in. (51 mm)	1.5 in. (38 mm)	Saddles	275 lb. (124 kg)	4/0	700 ft. (213m)	4/0	300 ft. (91m)
2	2.5 in. (64 mm)	1.5 in. (38 mm)	Lever Lift	475 ib. (215 kg)	4/0	1200 ft. (366m)	4/0	500 ft. (152m)

^{*}Based on Tong "B" substantially horizontal. The lower the top saddle is placed below the conductor level, the greater the strain on Tong "A" and therefore the less load it can support.





NOTE:

(1) Supports

- Maximum recommended load for Saddles with extensions is 800 lb.
- Lever Lift will exceed Wire Tong strength when load is properly applied in line with pole.

(2) Working Loads

- Any elevated structure requires an analysis in determining the load.
- When calculations are impractical or unnecessary, and a pole is slightly higher than neighboring poles, consider total weight of span on each side as maximum working load.
- Does not apply to hilltop structures where special analysis must be made to determine load.

(3) Epoxiglas™ Working Loads

- When working load is greater than that given in the table for a particular Wire Tong, it will be necessary to use double Wire Tongs with double-type lever lift, or use larger Wire Tong Epoxiglas™ Working Loads.
- Maximum working loads are based on a pole deflection of approximately one inch when used in manner shown.
- Cantilever values, with a safety factor of more than two, are: 1.5 in. – 375 ft.-lb.; 2 in. – 900 ft.-lb.; 2.5 in. – 1500 ft.-lb.; and 3 in. – 2500 ft.-lb.
- Tensile strength values, with a safety factor more than two, are: 1.5 in. 1500 lb.; 2 in. 2000 lb.; 2.5 in. 2500 lb.; and 3 in. 3000 lb.

Wire Tong Applications

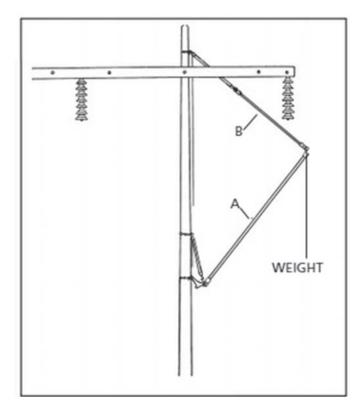


Figure 3 - Wire Tongs, lever lift, link stick, and rope blocks used on heavy conductors.

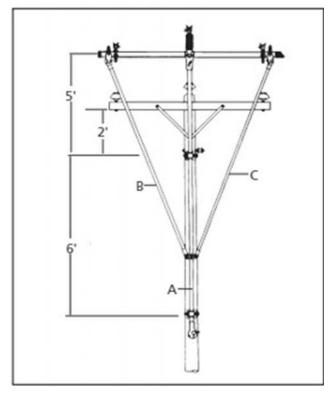


Figure 4 - Three Phase Lift Set where all three wires are lifted at once.





WORKING LOADS FOR CHANCE WIRE TONGS

Figure	Figure Epoxiglas Pole Diameter (inches)		Type	Maximum	Maximun (Level Gr	n Wire Size	e and Spai	n		
_			Support Working Load Per Conductor		ACSR		Copper			
	Α	В	С			Per Conductor	Size	Span	Size	Span
7	2 in. (51 mm)	1.5 in. (38 mm)			350 lb. (158 kg)	4/0	850 ft. (259m)	4/0	375ft. (114m)	
3	2.5 in. (64 mm)	1.5 in. (38 mm)		Lever Lift	1000 lb. (453 kg)	397/5	1150 ft. (350m)	250	850 (259m)	
4	2.5 in. (64 mm)	2 in. (51 mm)	2 in. (51 mm)	Saddles	225 lb. (102 kg) *	4/0	550 ft. (168m)	4/0	230 (70m)	

^{*}With max. lift of 5' above saddle, max. unbalance of 225 lb. on one side.

NOTE:

(1) Supports

- Maximum recommended load for Saddles with extensions is 800 lb.
- Lever Lift will exceed Wire Tong strength when load is properly applied in line with pole.

(2) Working Loads

- Any elevated structure requires an analysis in determining the load.
- When calculations are impractical or unnecessary, and a pole is slightly higher than neighboring poles, consider total weight of span on each side as maximum working load.
- Does not apply to hilltop structures where special analysis must be made to determine load.

(3) Epoxiglas™ Working Loads

- When working load is greater than that given in the table for a particular Wire Tong, it will be necessary to use double Wire Tongs with double-type lever lift, or use larger Wire Tong Epoxiglas™ Working Loads.
- Maximum working loads are based on a pole deflection of approximately one inch when used in manner shown.
- Cantilever values, with a safety factor of more than two, are: 1.5 in. 375 ft.-lb.; 2 in. 900 ft.-lb.; 2.5 in. 1500 ft.-lb.; and 3 in. 2500 ft.-lb.
- Tensile strength values, with a safety factor more than two, are: 1.5 in. 1500 lb.;
 2 in. 2000 lb.;
 2.5 in. 2500 lb.;
 3 in. 3000 lb.

4. Storage & Transportation

- a. Store tools in a clean and dry location out of direct sunlight. Tubes, bags, racks, or a tool trailer are recommended. Surfaces should be well padded and secure the tools to prevent damage.
- b. DO NOT store where moisture, oil, caustic chemicals or their vapors, or other degrading material may be present.

5. Disposal

a. Always follow local laws and regulations. The metallic parts can be removed and recycled. The fiberglass pole and other components can be repurposed or disposed of as solid waste (except where prohibited by law).





6. Dimensions

DOLE BLAMETER	Overall Length	WIRE SIZE			
POLE DIAMETER	Overall Length —	Min.	Max		
1.5 in. (38mm)	8 ft. 7.5 in. (2.6m)	0.16 in. (4mm)	2.25 in. (57mm)		
1.5 in. (38mm)	10 ft 7.5 in. (3.2m)	0.16 in. (4mm)	2.25 in. (57mm)		
2 in. (51mm)	8 ft. 8 in. (2.7m)	0.16 in. (4mm)	2.25 in. (57mm)		
2 in. (51mm)	10 ft. 8 in. (3.3m)	0.16 in. (4mm)	2.25 in. (57mm)		
2 in. (51mm)	12 ft. 8 in. (3.9m)	0.16 in. (4mm)	2.25 in. (57mm)		
2 in. (51mm)	10 ft. 8 in. (3.3m)	0.16 in. (4mm)	2.25 in. (57mm)		
2.5 in. (64mm)	12 ft. 8 in. (3.9m)	0.16 in. (4mm)	2.25 in. (57mm)		
2.5 in. (64mm)	14 ft. 8 in. (4.4m)	0.16 in. (4mm)	2.25 in. (57mm)		
2.5 in. (64mm)	17 ft. 2 in. (5.2m)	0.16 in. (4mm)	2.25 in. (57mm)		
3 in. (76mm)	12 ft. 10 in. (3.9m)	0.16 in. (4mm)	2.25 in. (57mm)		
3 in. (76mm)	14 ft. 10 in. (4.5m)	0.16 in. (4mm)	2.25 in. (57mm)		
2.5 in. (64mm)	12 ft. 10 in. (3.9m)	1.50 in. (38mm)	2.88 in. (73mm)		
2.5 in. (64mm)	14 ft. 10 in. (4.5m)	1.50 in. (38mm)	2.88 in. (73mm)		
	1.5 in. (38mm) 2 in. (51mm) 2.5 in. (64mm) 2.5 in. (64mm) 3 in. (76mm) 3 in. (76mm) 2.5 in. (64mm)	1.5 in. (38mm) 8 ft. 7.5 in. (2.6m) 1.5 in. (38mm) 10 ft 7.5 in. (3.2m) 2 in. (51mm) 8 ft. 8 in. (2.7m) 2 in. (51mm) 10 ft. 8 in. (3.3m) 2 in. (51mm) 12 ft. 8 in. (3.9m) 2 in. (51mm) 10 ft. 8 in. (3.9m) 2 in. (51mm) 10 ft. 8 in. (3.9m) 2.5 in. (64mm) 12 ft. 8 in. (3.9m) 2.5 in. (64mm) 14 ft. 8 in. (4.4m) 2.5 in. (64mm) 17 ft. 2 in. (5.2m) 3 in. (76mm) 12 ft. 10 in. (3.9m) 3 in. (76mm) 14 ft. 10 in. (4.5m) 2.5 in. (64mm) 12 ft. 10 in. (3.9m)	Min. 1.5 in. (38mm) 8 ft. 7.5 in. (2.6m) 0.16 in. (4mm) 1.5 in. (38mm) 10 ft 7.5 in. (3.2m) 0.16 in. (4mm) 2 in. (51mm) 10 ft. 8 in. (2.7m) 0.16 in. (4mm) 2 in. (51mm) 10 ft. 8 in. (3.3m) 0.16 in. (4mm) 2 in. (51mm) 10 ft. 8 in. (3.9m) 0.16 in. (4mm) 2 in. (51mm) 10 ft. 8 in. (3.9m) 0.16 in. (4mm) 2 in. (51mm) 10 ft. 8 in. (3.9m) 0.16 in. (4mm) 2.5 in. (64mm) 12 ft. 8 in. (4.4m) 0.16 in. (4mm) 2.5 in. (64mm) 17 ft. 2 in. (5.2m) 0.16 in. (4mm) 3 in. (76mm) 12 ft. 10 in. (3.9m) 0.16 in. (4mm) 0.16 in. (4mm) 0.16 in. (4mm) 1.50 in. (4mm) 1.50 in. (38mm)		

All Epoxiglas™ Pole is manufactured and tested according to ASTM F711, IEC 60855, and CHANCE specifications including 100% electrical testing at the factory.

These instructions do not claim to cover all details or variations concerning installation, operation, or maintenance of this tool. If further information is desired, contact Hubbell Power Systems.

Phone: 573-682-5521

Email: hpsliterature@hubbell.com
Web: hubbellpowersystems.com

Hubbell Power Systems, Inc. reserves the right to make changes to this manual at any time, without notice, and without incurring any obligation.





TRAINING

CHANCE Lineman Grade Tools offers in-person live line training. Learn more and inquire online at https://info.hubbellpowersystems.com/lineman-tools-training.

DISCLAIMER

These products should only be installed, used, or serviced by adequately trained personnel. These instructions are not a substitute for adequate training in the safe use of these products, and they do not address all situations that may be encountered when using these products. When using any product, always read and follow the installation and operating instructions and warnings for the product, all applicable federal, state, and local safety regulations, industry standards, and your employer's internal safety guidelines and operating instructions. Failure to follow applicable safety rules and instructions may result in serious injury, death, and/or property damage.

The user is responsible for the safe installation and use of any product, and must evaluate the conditions at the time of use and consult with their employer's internal safety guidelines or safety experts hired by your employer, as needed.

Hubbell Power Systems, Inc. is not liable for death, serious injury, or property damage resulting from the use of these products in any manner that is inconsistent with the product installation and operating instructions, your employer's internal safety guidelines, or recommendations from safety experts hired by your company.

If further information is desired or if particular problems are encountered which are not sufficiently covered in these instructions, contact Hubbell Power Systems, Inc. for additional information. Operating and installation instructions are available on the Hubbell Power Systems, Inc.





