# Conductor Support Equipment

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Liv	Live-Line Work Minimum Approach Distances						
				Dista	ance		
Nomin	Nominal Voltage		Phase-to	o-ground	Phase-to-phase		
in K	ilovol	ts	expo	sure	expo	sure	
Phase	-to-Ph	nase	(ftin.)	(m)	(ftin.)	(m)	
0.05	to	1.0	*	*	*	*	
1.1	to	15.0	2-1	0.64	2-2	0.66	
15.1	to	36.0	2-4	0.72	2-7	0.77	
36.1	to	46.0	2-7	0.77	2-10	0.85	
46.1	to	72.5	3-0	0.90	3-6	1.05	
72.6	to	121	3-2	0.95	4-3	1.29	
138	to	145	3-7	1.09	4-11	1.50	
161	to	169	4-0	1.22	5-8	1.71	
230	to	242	5-3	1.59	7-6	2.27	
345	to	362	8-6	2.59	12-6	3.80	
500	to	550	11-3	3.42	18-1	5.50	
765	to	800	14-11	4.53	26-0	7.91	

- Distances agree with OSHA guidelines in Table R-6 of the Federal Register published 1/31/94. These distances take into consideration the highest switching surge an employee will be exposed to on any system with air as the insulating medium and the maximum voltages shown.
- The clear live-line tool distance shall equal or exceed the values for the indicated voltage ranges.
- \*Avoid contact.

NOTE: Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice. 

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## Wire Tong Applications

The following information is intended to aid in selecting the proper Wire Tongs for a particular application and greatest

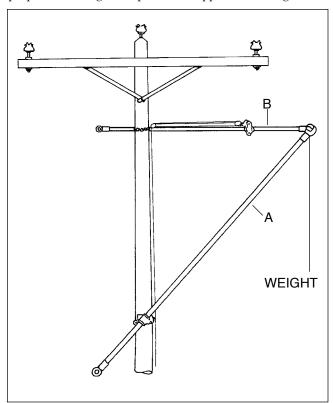


Figure 1 — Wire Tongs with saddles and wire tong blocks clamp on holding stick.

load. Four popular methods of application are shown on these pages.

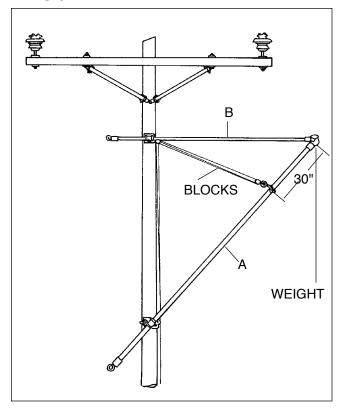


Figure 2 — Wire Tong with saddles and swivel wire tong band on lift stick.

#### WORKING LOADS FOR CHANCE WIRE TONGS\*

				Maximum	Maxi	mum Wire	e Size and	Span
	Pole Diame	ter (inches)		Working Load	(In	Feet)	(Level (	Ground)
Figure	Epox	iglas	Type	(lb. per	A(	CSR	Cop	per
No.	A	В	Support	Conductor)	Size	Span	Size	Span
	2 x 12	$1^{1/2} \times 10$	Saddles	275	4/0	700	4/0	300
1	$2^{1/2} \times 12$	1 <sup>1</sup> / <sub>2</sub> x 10	Lever Lift	475	4/0	1200	4/0	500
	2 x 12	1½ x 10	Saddles	275	4/0	700	4/0	300
2	$2^{1/2} \times 12$	1½ x 10	Lever Lift	475	4/0	1200	4/0	500

<sup>\*</sup>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.

#### For suggested minimum clearances for hot line tools on various system voltages see Cover page.

#### NOTE:

- (1) SUPPORTS—Maximum recommended load for Saddles is 800 pounds. The Lever Lift will exceed the strength of Wire Tongs when load is properly applied in line with the 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, it may be sufficient to use the total weight of the span on each side as the maximum working load. This does not apply to hilltop structures where special analysis must be made to determine the load.
- When the 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 a larger Wire Tong.
- (3) EPOXIGLAS® WORKING LOADS The maximum working loads given for Epoxiglas Wire Tongs are based on a pole deflection of approximately one inch when used in the manner shown. The cantilever values, with a safety factor of more than two, are:  $1^1/2^{"}$  375 ft.-lb.  $2^{"}$  900 ft.-lb. $2^1/2^{"}$  1500 ft.-lb.  $3^{"}$  2500 ft.-lb. The tensile strength values with a safety factor of more than two are:  $1^1/2^{"}$  1500 lb.  $2^{"}$  2000 lb.  $2^1/2^{"}$  2500 lb. and  $3^{"}$  3000 lb.



## **Wire Tong Applications**

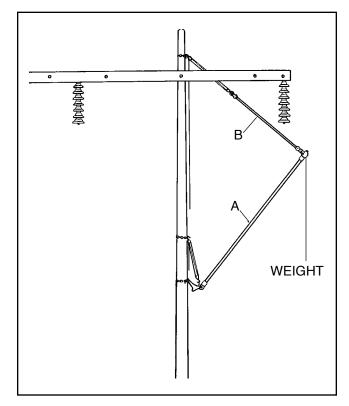


Figure 3— Wire Tongs, lever lift, link stick, and rope blocks used on heavy conductors.

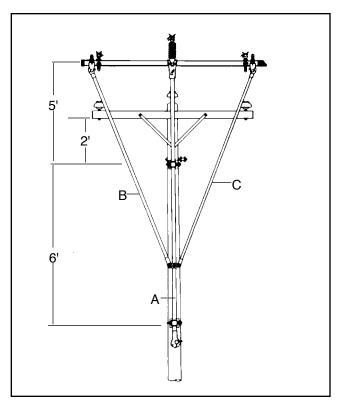


Figure 4— Three Phase Lift Set where all three wires are lifted at once.

#### **WORKING LOADS FOR CHANCE WIRE TONGS**

					Maximum	Maxi	mum Wire	e Size and	Span
Figure	Pole	Diameter (in	ches)		Working Load	(In	Feet)	(Level (	Ground)
Figure No.		Epoxiglas		Type	(lb. per	AC	CSR	Cop	per
140.	A	В	С	Support	Conductor)	Size	Span	Size	Span
3	2 x 12	$1^{1}/_{2}$			350	4/0	850	4/0	375
	$2^{1/2} \times 12$	$1^{1}/_{2}$		Lever Lift	1000	397.5	1150	250	850
4	21/2 x 12	2 x 8	2 x 8	Saddles	225+*	4/0	550	4/0	230

<sup>\*</sup>With max. lift of 5' above saddle, max. unbalance of 225 lb. on one side.

#### For suggested minimum clearances for hot line tools on various system voltages see Cover page.

#### NOTE:

- (1) SUPPORTS—Maximum recommended load for Saddles with extensions, is 800 pounds. The Lever Lift will exceed the strength of Wire Tongs when load is properly applied in line with the 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, it may be sufficient to use the total weight of the span on each side as the maximum working load. This does not apply to hilltop structures where special analysis must be made to determine the load.
- When the 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 a larger Wire Tong.
- (3) EPOXIGLAS® WORKING LOADS The maximum working loads given for Epoxiglas Wire Tongs are based on a pole deflection of approximately one inch when used in the manner shown. The cantilever values, with a safety factor of more than two, are:  $1^1/2^n 375$  ft.-lb.  $2^n 900$  ft.-lb.  $2^1/2^n 1500$  ft.-lb.  $3^n 2500$  ft.-lb. The tensile strength values with a safety factor of more than two are:  $1^1/2^n 1500$  lb.  $2^n 2000$  lb.  $2^1/2^n 2500$  lb. and  $3^n 3000$  lb.



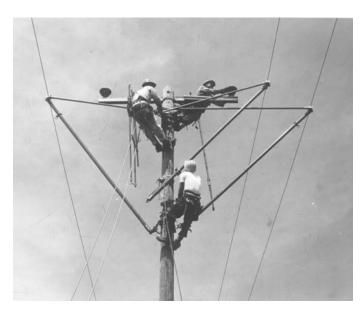
## Wire Tongs

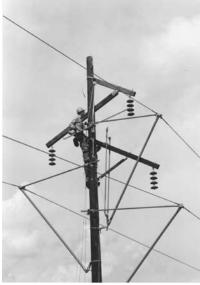
Chance Wire Tongs have many applications for moving and holding live conductors clear of the working area, for flat crossarm and/or ridge pin-construction, on horizontal post insulator structures, all types of suspension insulator lines, as auxiliary arm braces, and in EHV construction for brace pole or ladder positioning guides.

A whole family of clamps, attachments, saddles and lever lifts allow the wire tongs to be adapted specifically to the mechanical requirements of various maintenance jobs.

Chance Wire Tongs are made with Epoxiglas® poles. The castings are made of heat treated aluminum alloy, separated by bronze wear rings.

The wide range jaws on the head can be clamped tightly on the conductor by turning the stick from a position beyond the minimum working clearances (see page 2202). A large head is available on two sizes of tongs where extremely large conductors are encountered.





For working loads of Chance Wire Tongs as an aid to selecting the proper size for a particular application, see pages 2202 and 2203 (Note 3).

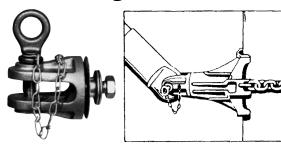
Catalog	Pole Dia.	Overall	Wire	Size	Approx.
No.	& Length	Length	Min.	Max.	Weight
H46458	11/2 x 8'	8' 71/2"	0.16"	2.25"	7 lb./ 3.2 kg.
H464510	1¹/2 x 10'	10' 71/2"	0.16"	2.25"	8 lb./ 3.6 kg.
H46468	2" x 8'	8' 8"	0.16"	2.25"	11 lb./ 5.0 kg.
H464610	2" x 10'	10' 8"	0.16"	2.25"	12 lb./ 5.4 kg.
H464612	2" x 12'	12' 8"	0.16"	2.25"	14 lb./ 6.3 kg.
H464710	2 <sup>1</sup> / <sub>2</sub> " x 10'	10' 8"	0.16"	2.25"	16½ lb./ 7.4 kg.
H464712	2 <sup>1</sup> / <sub>2</sub> " x 12'	12' 8"	0.16"	2.25"	18½ lb./ 8.3 kg.
H464714	2 <sup>1</sup> / <sub>2</sub> " x 14'	14' 8"	0.16"	2.25"	20½ lb./ 9.2 kg.
H464716	Spliced 21/2" x 16'	17' 2"	0.16"	2.25"	28 lb./12.6 kg.
C4000171	3" x 12'	12' 10"	0.16"	2.25"	30 lb./13.5 kg.
C4000172	3" x 14'	14' 10"	0.16"	2.25"	35 lb./15.9 kg.
H467712	2 <sup>1</sup> / <sub>2</sub> " x 12'	12' 10"	1.50"	2.88"	23 lb./10.4 kg.
H467714	2 <sup>1</sup> / <sub>2</sub> " x 14'	14' 10"	1.50"	2.88"	25 lb./11.3 kg.



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## Wire-Tong Saddle Clevis



This clevis is used to attach the butt ring of a wire tong, used as a brace for an auxiliary crossarm, to a wire tong saddle . . . so the wire tong can be pivoted to engage the wire tong arm stirrup. Thus the wire tong can be attached after the arm has been secured to the pole.

Cat. No.	Description	Weight
M474014	Wire Tong Saddle Clevis	14 oz./ 3 kg.

### WIRE TONG BAND

Two screws clamp the band to the wire tong. Each screw is threaded into a half of the band and engages a slot in the opposite half, permitting the halves of the band to be separated by a sliding action without removing the screws. The hinge ring slides on the band, permitting rotation of the wire tong when the tong is supported by rope blocks. For positive insulation between rope blocks and live conductors, install the band the minimum distance or more for voltage class (see table on page 2202).

Cat. No.	For Pole Dia.	Weight
M17293	11/2"	11/2 lb./0.7 kg.
M1729	2"	15/8 lb./0.7 kg.
M17291	21/2"	1 <sup>3</sup> / <sub>4</sub> lb./0.8 kg.
M17292	3"	17/s lb./0.8 kg.

### WIRE TONG BLOCKS CLAMP

Use the Chance Wire Tong Blocks Clamp where pull is in line with pole. The Wire Tong Blocks Clamp is secured to the wire tong under tension. Rope blocks are connected to the ring of the clamp. This method of application places the force of the pull in line with the top wire tong . . . assisting in pulling heavy conductors back in position.

Cat. No.	For Pole Dia.	Weight
M4743	11/2"	25/8 lb./1.2 kg.

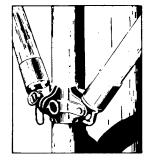
#### **WIRE TONG SWIVEL**

When two wire tongs are hooked side-by-side on a conductor, that portion of the conductor between the tong heads may kink, because the weight of the conductor pushes down on the lift tong and pulls outward on the holding tong. By attaching the swivel to the lift tong and the holding tong hooked into the clevis attachment, there is only one tong hooked on the conductor, and since the clevis pivots to permit the tongs to assume correct positions, there is no kinking of the conductor.

Cat. No.	For Pole Dia.	Weight
M4745	2"	1½ lb./.07 kg.
M47451	21/2"	1 <sup>3</sup> / <sub>4</sub> lb./.08 kg.

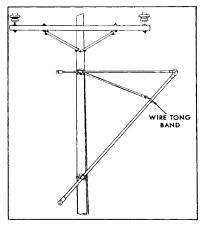
## **Wire-Tong Pole Clevis**



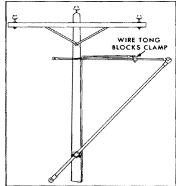


The Wire Tong Pole Clevis clamps around the vertical wire tong supporting an auxiliary crossarm, and engages the butt rings of the two wire tongs used as side braces.

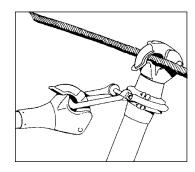
Cat. No.	Size	Weight
M17285	21/2"	2 <sup>1</sup> / <sub>2</sub> lb./1.1 kg.
C4000345	3"	3³/4 lb./1.7 kg.















# **Wire-Tong Saddles**



M474010W



M474018W



M47405W







## **Strong Aluminum Alloys**



M47412

**Pole Clamp** 



C4000073

**Extension** 

 $Chance\ Pole\ Type\ Wire\ Tong\ Saddles\ are\ made\ of\ lightweight\ aluminum$ for handling ease. These rugged heat-treated saddles will support a maximum of 1000 pounds (450kg) without the extension.

The clamp is set far enough away from the base to give ample clearance for most jobs. Where additional clearance is required, the Chance Wire Tong Saddle Extension can be easily bolted to the saddle. This heat-treated aluminum-alloy extension is 4 inches (100mm) long and has a tested working load rating of 800 pounds (360kg).

### **Easily Applied**

The Wheel Type fasteners are easy to apply, hold the saddle firmly in place, and prevent riding down and excessive play.

The Wheel Tightener has the advantage of being able to fit into close places such as between crossarm braces, under guy wires, etc.

Catalog No.	Description	Approx. Weight
M47403W	Saddle and Tightener and 1½" (37.5mm) clamp	10 lb. 1 oz./4.56 kg.
M47404W	Saddle and Tightener and 2" (50mm) clamp	10 lb. 5 oz./4.68 kg.
M47405W	Saddle and Tightener and 21/2" (62.5mm) clamp	10 lb. 9 oz./4.80 kg.
M47409W	Saddle and Tightener and 3" (75mm) clamp	10 lb. 12 oz./4.90 kg.
M474010W	Saddle and Tightener less clamp	8 lb. /3.60 kg.
M474015W	Saddle Wheel Tightener and Clevis	6 lb. 11 oz./3.03 kg.
M474016W	Saddle, Tightener, 11/2" (37.5mm) clamp & extension	11 lb. 1 oz./5.01 kg.
M474017W	Saddle, Tightener, 2" (50mm) clamp & extension	11 lb. 5 oz./5.13 kg.
M474018W	Saddle, Tightener, 21/2" (62.5mm) clamp & extension	11 lb. 9 oz./5.24 kg.
M474019W	Saddle, Tightener, 3" (75mm) clamp & extension	11 lb. 12 oz./5.33 kg.
M474020W	Saddle, Tightener, extension less clamp	9 lb. /4.08 kg.
C4000073	Wire Tong Saddle Extension	1 lb. /0.45 kg.
M47411	$1^{1}/2$ " (37.5mm) pole clamp only	2 lb. 1 oz./0.93 kg.
M47412	2" (50mm) pole clamp only	2 lb. 5 oz./1.04 kg.
M47413	$2^{1/2}$ " (62.5mm) pole clamp only	2 lb. 9 oz./1.20 kg.
M47415	3" (75mm) pole clamp only	2 lb. 12 oz./1.25 kg.

#### **CHAIN TIGHTENERS & EXTENSIONS**

For building wire tong holding assemblies, or for replacement. Wheel tightening action makes a tool easy to apply . . . holds it firmly in place . . . prevents riding down and excess play. Wheel tightener has spring take-up.

Maximum workload is 2,500 pounds for both tools. Extension Chain increases length of the Chain Tightener so it can be used on large diameter poles.

Catalog No.	Description	Weight
M1848W	Wheel Tightener Assembly (36" Chain)	5 <sup>3</sup> / <sub>4</sub> lb./2.6 kg.
M1847	18" Extension Chain	15/8 lb./ .7 kg.
M18473	36" Extension Chain	3 lb./1.4 kg.
M18474	48" Extension Chain	4 lb./1.9 kg.
M18476	72" Extension Chain	6 lb./2.8 kg.
070358P	Wheel Tightener Only	3 <sup>1</sup> / <sub>2</sub> lb./1.8 kg.

#### **CROSSARM TYPE SADDLE**

The Chance Crossarm Wire Tong Saddle is used on underbuilt arms when working space is limited or crowded with pole saddle(s). The pivoting action of the saddle swivel and pole clamp attachment provides a universal-joint action which allows complete freedom of movement of the wire tong . . . in any direction . . . and without binding. Saddle shown does not include pole clamps, shown on page 2206. Maximum work load is 500 pounds.

Catalog No.	Fits Crossarms	Weight
M4744	3" x 41/4" to 4" x 8"	6 lb./2.7 kg.

#### **TOWER TYPE SADDLE**

The Chance Tower Type Wire Tong Saddle is used to support wire tongs or boom poles on towers. The saddle is securely fastened to the angle-iron tower leg by four hooks tightened by wing nuts. A clevis which bolts through the pivot lug permits rope blocks to be fastened so that they will pivot with the wire tong or boom pole. Saddle shown does not include pole clamps, shown on page 2206. **Fits angles 3" x 3" to 7" x 7".** 

Catalog N	Description	Weight
M4742	Tower Saddle Less Clamp with regular hooks	11.25 lb./5.1 kg.
T4001413	Tower Saddle with small and large hooks	13.25 lb./6 kg.

#### WIRE TONG STIRRUP

Standard equipment with Chance Auxiliary Arms, the Stirrup may be ordered separately for replacement parts, for attaching Wire Tong Braces to the Arm.

Catalog No.	Description	Weight
C4000331	Wire Tong Stirrup	1¹/4 lb/0.55 kg.

#### ROPE SNUBBING BRACKET

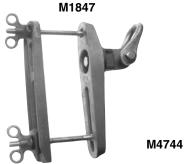
An easy way to prevent line snarls by snubbing all hand or light block lines to this bracket, mounted at the base of the pole to the six different rings. Bracket has a maximum total working load of 1,000 pounds.

Catalog No.	Description	Weight
M1846W	Bracket with wheel tightener and 36" Chain	7½ lb/3.4 kg.





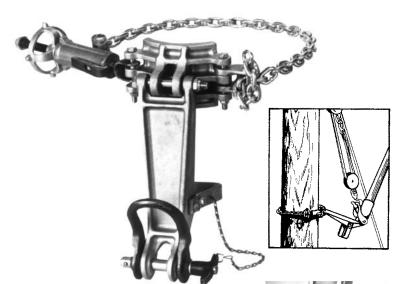








# **Lever-Lift Wire Tong Support**



M4760W



M47602

**Double Type** 



Lever Lift Wire Tong Supports are employed where working space on the pole is limited, or on H-frame or heavy suspension insulator construction for raising or lowering conductors with wire tongs. As a general practice, the Lever Lift should be used in place of Wire Tong Saddles where loads exceed 500 pounds.

A wire tong is attached to the Single Type by simply removing the cotter key, sliding the shaft to the side, placing the butt ring of the tong into the fork, shooting the shaft through, and replacing the cotter key. For the Double Type, remove the wing nuts, slip butt rings of the two wire tongs on the shaft extensions and replace wing nuts.

Made of a high strength aluminum alloy, these lever Lifts are light in weight . . . and easy to handle. They provide a **total conductor lift of 20**<sup>3</sup>/<sub>4</sub> **inches**, and will support any size of wire tong. When two Lever Lifts are required, one at each side of the pole, they can be attached at virtually the same height.

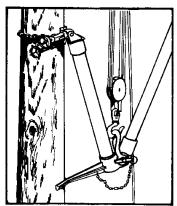
An arbor adapter is available to convert the Single Type Lever Lift to a Double Type when desired.

Each Lever Lift is equipped with a clevis for attaching rope blocks. The clevis, used at the end of the Lever Lift for attaching the lower rope blocks, will rotate on the same pin that holds the wire tong(s), permitting freedom of movement.

		*** 1 .	
		Working	
Catalog		Load	
No.	Description	Per Tong	Weight
M4760W	Single Type	1000 lb.	14½ lb./
	Lever Lift		$6.5~\mathrm{kg}$ .
M47601W	Double Type	750 lb.	15½ lb./
	Lever Lift		7.0 kg.
M47602	Arbor Adapter	_	1³/4 lb./
			.8 kg.



C4001016



### Epoxiglas® Base

Epoxiglas Lever Lift Wire Tong Supports are for the same application as aluminum-base units, but are normally used on higher transmission voltages where more lifting space is required. Epoxiglas unit has a **total conductor lift of 36 inches.** The arbor adapter (M47602) shown above can be used to convert an Epoxiglas lever lift into a double lift for tow wire tongs.

The Epoxiglas member is 36" long and provides the same working load per tong as the aluminum units.

		Working	
		Load	
Catalog No.	Description	per Tong	Weight
C4001016	Epoxiglas Lever Lift	1000 lb.	18 lb./8.1 kg.

## **Dual Auxiliary Arm**

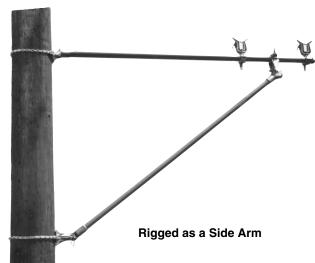




The Dual Auxiliary Arm is designed for use where a changeout of poles, crossarms or insulators is necessary; the standard Chance Epoxiglas® tools are lightweight and easily rigged. On regular construction, or alley arm construction, this tool can be used as a side arm. Movable wireholders can be spaced for minimum conductor travel from the crossarm to the temporary arm, yet the arm is long enough for use as a lifting arm with the use of three standard Chance Wiretongs.

When the Dual Auxiliary Arm is used on voltages above 15 kV, additional wireholder insulation must be used; and when the arm is to support energized conductors, during rain, or for a period of time when unforeseen rain could be possible, it is recommended that insulators be added to the wireholders for added protection against tracking on the arm. It is also recommended that when the arm is to be left up overnight or during a period of possible rain, the arm should be wiped down with a silicone-treated cloth.

Catalog No.	Description	Weight
C4000075	Dual Auxiliary Arm, 10 ft., with	33 lb./
	Wheel Binder & 1" Fork Wireholder	14.9 kg.



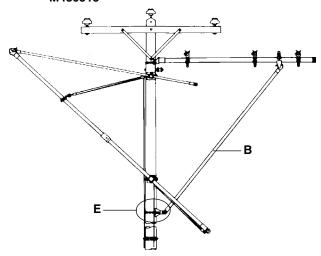


To upgrade the dual auxiliary arm for  $34~\rm kV$  applications add three M48057 insulators to the fork type wireholders or replace the lower voltage wireholders with three M480515 wireholders.

All of the auxiliary arm wireholders are the self-latching type. As the conductor is lowered into the wireholder, it trips a safety latch locking the conductor into the wireholder. The latch must be swiveled with an insulated hand tool to release the conductor.





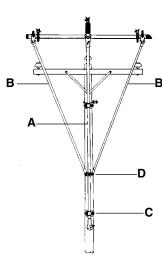


### **Accessory Tools Required For Side Arm Application**

One **B** 2" x 8' Wire Tong H46468

One **E** Pole Type Saddle with Clevis M474015W

Plus necessary insulated hand held tools.



#### **Accessory Tools Required For Lifting Arm Application**

One **A** 2<sup>1</sup>/<sub>2</sub>" x 16' Wire Tong H464716

Two  $\,$  B  $\,$  2" x 8' Wire Tong  $\,$  H46468  $\,$ 

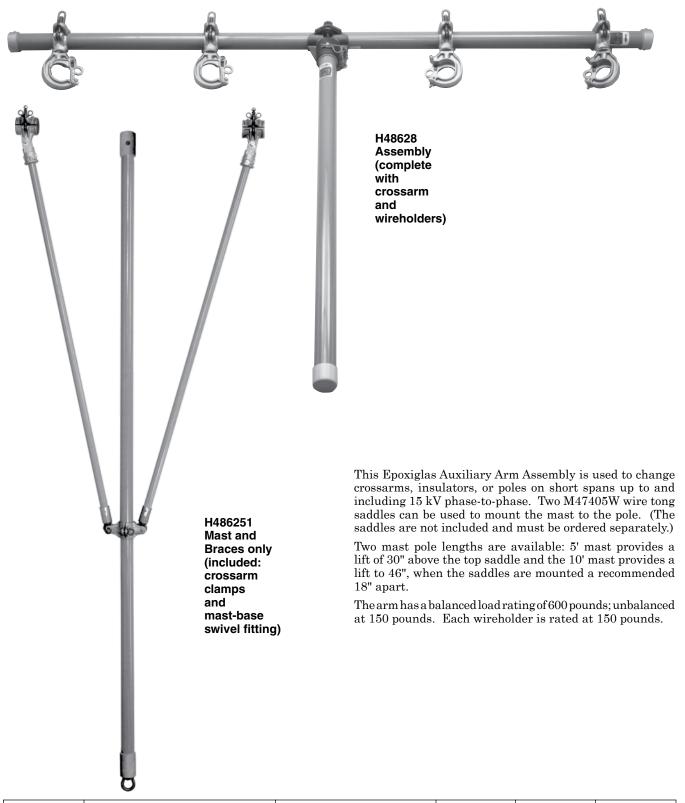
Two **C** Pole Type Saddles with Extension M474018W and 2<sup>1</sup>/<sub>2</sub>" Pole Clamps

One **D**  $2^{1/2}$ " Pole Clevis M17285

Plus necessary insulated hand held tools.



# **Rubber-Glove Auxiliary Arm**



Catalog		Wireholders		Mast Pole	Crossarm	
No.	Description	Qty.	Capacity	Size	Pole Size	Weight
H48628	Auxiliary Arm Assembly	4	21/2" Max.	21/2" x 4'11"	21/2" x 8'	42 lb./18.9 kg.
H486251	Mast & Braces	None	N/A	21/2" x 10'	None	37 lb./16.65 kg.

## **Extension Arm**





The Epoxiglas® Extension Arm is designed for use on voltages up to and including 15 kV where reconductoring or insulator replacement is necessary. The Epoxiglas Extension Arm can be used on voltages up to 34.5 kV providing the wireholders are fitted with M48057 insulators. The Extension Arm is suspended under the crossarm by brackets to enable to conductor to be removed from the original crossarm and placed in the wireholder mounted on the Epoxiglas Extension Arm.



wireholders. Order insulators separately.

Catalog	Epoxiglas Arm	No. of	Fits Maximum	Max. Vertical	
No.	Dia. & Length	Wireholders	Crossarm Size	Loading Per Wireholder	Weight
H480060	21/2" x 5'	1	3 <sup>3</sup> / <sub>4</sub> " x 4 <sup>3</sup> / <sub>4</sub>	150 lb.	11½ lb./6.2 kg.
H480072	21/2" x 6'	2	33/4" x 43/4"	150 lb.	13 lb./5.9 kg.
C4001310	3" x 6'	2	3 <sup>3</sup> / <sub>4</sub> " x 4 <sup>3</sup> / <sub>4</sub> "	300 lb.	24 lb./ 10.9 kg.
			& 6" x 6"		
T4032417	21/2" x 6'	2	3 <sup>3</sup> / <sub>4</sub> " x 4 <sup>3</sup> / <sub>4</sub> "	150 lb.	15 lb./6.75 kg.
			& 6" x 6"		

## **Temporary Conductor Support**

### **Crossarm Mounting**

This Support Tool clamps to the crossarm, adjusting to crossarms from  $3^{1/4}$ " x 4" to 6" x 6". The C-clamp is made of heat treated aluminum and can be installed with a Grip-All clampstick. Working load: 150 lb.

Catalog		
No.	Description	Weight
C4000517	Conductor Support, Crossarm	31/2 lb./1.6 kg.

### **Pole Mounting**

This Chance Epoxiglas® temporary conductor support is used to hold energized distribution conductors during replacement of poles or repair or replacement of pole top and stand-off insulators; it is furnished with wheel tightener for poles up to 14" in diameter.

Fork-type,  $1^1/2$ " wireholder is standard equipment or the  $2^1/2$ " diameter Epoxiglas standoff, accommodating conductor sizes up to 1" in diameter. Working load: 150 lb. per wireholder.\*

For  $34.5\,\mathrm{kV}$  or when the tool is to support an energized conductor overnight or during periods of expected rain, M48057 insulators should be added to the wireholders (see above).

Catalog		
No.	Description	Weight
*H4809W	Single Conductor Support	20 lb./ 9 kg.
C4001509	Two Conductor Supports	22 lb./10 kg.

<sup>\*200</sup> lb. total load capacity for H4809W.

C4000517



For 34.5 kV or when the tool is left overnight, an M48057 insulator should be installed.



M48057





C4001509 (48" long Epoxiglas arm)



## **Temporary Conductor Supports**

- D-buckle strap on ratchet pole binder
- Single- and double-wireholder models

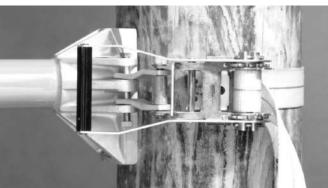


A new D-shaped buckle on the strap free end adds speed and convenience. Hanging a temporary conductor support with this innovation involves just hooking the buckle in the clasp on bracket and cinching the strap with the ratchet handle.

#### Easy operation, replacement for chain binders

With a strap-type ratchet-action mount rather than a chain binder, these temporary conductor supports otherwise are the same as on Chance catalog page 2211. The strap and ratchet assembly may be ordered alone for retrofit, below.

Polyester strap offers advantage of less stretch than nylon for this application. With 10,000-lb. rated tensile strength, 2"-wide strap comes in 44" length to fit most structures. Wide handle opening on rapid-action ratchet permits easy operation, even with rubber gloves and leather protectors.



### **Applications**

Epoxiglas® insulated temporary conductor supports are used to hold energized distribution conductors during replacement of poles or repair and replacement of pole-top and stand-off insulators.

Fork-type wireholder accepts up to 1"-diameter conductor. Working load: 150 lb. per wireholder on T4001939 only.

For systems higher than 15 kV or when the tool is to support an energized conductor overnight or during periods of expected rain, M48057 insulators should be added to the wireholders (see Chance catalog page 2211).



Strap Binder Kit T4002007





**Ordering Information** 

## Strap Binder Kit complete with D-buckle and Ratchet Mechanism

Catalog No.	Description	Weight
T4002007	D-Buckle Strap Binder only	4¹/2 lb./2 kg.

Strap-Type Temporary Conductor Supports Epoxiglas® pole: 2½" diameter

Catalog No.	Description	Weight
*T4001940	30" - One Conductor Support	14 lb./6.3 kg.
T4001939	48" - Two Conductor Supports	18 lb./8.1 kg.

<sup>\*200</sup> lb. total load capacity for T4001940.



## **Corner Restraint Bracket Tool**

- For insulator changes on running-corners
- Helps isolate pole and hoist during maintenance
- D-buckle on strap quickly mounts ratchet pole binder

### **Designed for special application**

Especially for energized changeout of insulators on distribution running-corner poles, this tool adds efficiency. In combination with a strap hoist, the Corner Restraint Bracket Tool helps control each phase conductor while insulators are changed.

Throughout maintenance procedures, the bracket helps restrain the conductor while repairs are made. It also acts as a load restraint for the hoist to pull the conductor back in for reconnection to the insulator string.

### Simple, practical hot-line procedure

For maintenance by hotsticks or rubber-glove techniques, the Corner Restraint Bracket assists in isolating the strap hoist from the pole, a potential ground. It also avoids cutting a short section from a poleguard cover-up or using (and possibly damaging) a rubber blanket as a pad between the strap and the pole.

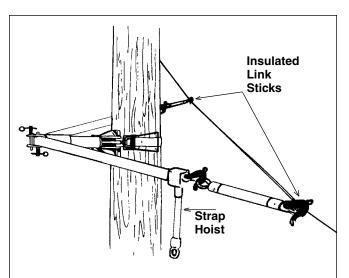
To insulate the strap hoist, two 6"- or 12"-long link sticks connect the hoist's hooks to hot-line grips on the conductor. Poleguards and rubber cover-up are required to isolate the phase being worked from ground and other phase potentials.

Maximum Load Rating: 2,000 lb. (900 kg.)

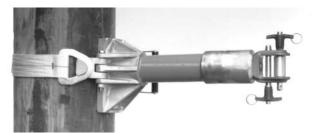
Epoxiglas® member: 21/2" diameter, 6" clear length

### **Ordering Information**

Catalog No.	Description	Weight
T4002272	Corner Restraint Bracket	13 <sup>3</sup> / <sub>4</sub> lb. / 6.2 kg.



Bracket rigged on guy side of pole: Used where the conductor is pulled in only a short distance toward the pole.

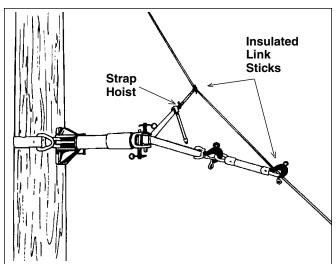


Dual-pin/single-roller set-up lets you rig the bracket for mounting on either side of the pole. So strap always rides on the roller, place roller on appropriate push-button pin.



## Quick, easy mounting

The D-shaped buckle on the mounting strap free end adds speed and convenience. To hang the Corner Restraint Bracket, just hook the buckle over the clasp on the base and cinch the strap with the ratchet handle.



Bracket rigged on conductor side of pole: Used where the conductor must be pulled in a considerable distance toward the pole.