

# WIDE RANGE GRIPS

Grip	Outside Diameter	Safe Load (lbs.)
<b>KT4500</b>	.18" - .60" (4.57 mm - 15.2 mm)	<b>5,000</b> (2,268 kg)
<b>KT4650</b>	.16" - .90" (4.00 mm - 23.0 mm)	<b>5,000</b> (2,268 kg)
<b>KT4600</b>	.30" - .80" (7.62 mm - 20.3 mm)	<b>10,000</b> (4,536 kg)
<b>KT4800</b>	.70" - 1.25" (17.8 mm - 31.8 mm)	<b>12,000</b> (5,443 kg)

- Latch helps maintain cable position.
- Large-diameter eye accommodates large hooks on hoists, winches and tackle blocks.
- Designed for use on bare conductor cables.



KT4500



KT4502



KT4650

Cat. No.	Min. to Max. Cable Diameter inches (mm)	Hot Latch	Spring	Locking Handle	Jaw Length	Approx. Weight Each
5,000 lbs. (2,268 kg) Maximum Safe Load						
KT4500	.180" - .600" (4.57 mm - 15.2 mm)		●		4" (101.3 mm)	3.75 lbs. (1.70 kg)
KT4501		●	●	●		
KT4502		●				
KT4650	.160" - .900" (4.00 mm - 23.0 mm)		●		4-1/2" (114 mm)	4.90 lbs. (2.22 kg)
KT4652		●	●			
10,000 lbs. (4,536 kg) Maximum Safe Load						
KT4600	.300" - .800" (7.62 mm - 20.3 mm)		●		5" (127 mm)	7 lbs. (3.18 kg)
KT4601		●	●	●		
KT4602		●				
12,000 lbs. (5,443 kg) Maximum Safe Load						
KT4800	.700" - 1.25" (17.8 mm - 31.8 mm)		●		5-1/8" (130 mm)	9 lbs. (4.1 kg)
KT4801		●	●	●		
KT4802		●				

# Grip Cleaning, Lubricating and Inspecting

The following guidelines have been established to keep all grips in good working condition.

## Cleaning



◀ **Step 1.** Use the Klein Grip Cleaning Wire Brush Set (Cat. No. 25450) or emery cloth to clean the surfaces of grip jaws (photo #1).



▶ **Step 2.** Spray de greaser on the grip jaws, all joints and moving parts (photo #2).



◀ **Step 3.** Use the Klein Grip Cleaning Wire Brush to remove dirt and debris from the grip jaws (photo #3).



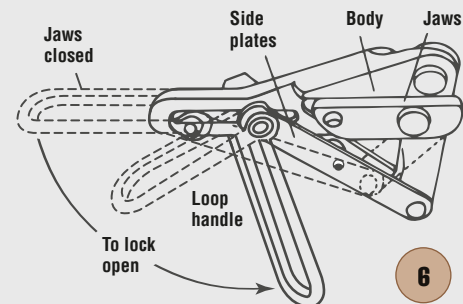
▶ **Step 4.** Wipe grips dry with soft cloth. Repeat all cleaning steps as necessary until grip is completely clean (photo #4).

## Lubricating



◀ **Step 5.** Apply lubricant to all joints and moving parts. Do NOT lubricate gripping surfaces of jaws (photos left #5).

▶ **Step 6.** Carefully inspect jaw condition, proper alignment of jaws and all parts, and possible distortion caused by exceeding safe-load specifications. Grips should operate smoothly. Spring-loaded grips should lock open with loop handle in "Down" position and should close automatically with loop handle "Up." The Klein Parallel Jaw Grip may be tested by opening and closing the jaws by hand, exercising proper caution. All parts and rivets should be checked for distortion (illustration #6).



**Never repair any grip.** Grips that are bent, misaligned or otherwise distorted should be discarded and replaced.

If there is ever a question about the safe condition of any grip, contact Klein Tools Customer Service directly at 847.821.5500 or 800.553.4676 or email [HiSupport@kleintools.com](mailto:HiSupport@kleintools.com).

## Dead-Ending

1. Set up the ratchet hoist and Chicago Grip as shown here.
2. Ratchet the hoist until the cable is lined up with the dead-end fixture.
3. After the tension is approximately where it will need to be after termination, ratchet the hoist a couple more times to accommodate for tension loss after hoist removal. Consult cable specifications to ensure the maximum cable tension is not exceeded.
4. When finished, break the tension using the hoist handle, then use either the handle or drum knob to continue releasing the tension.



## Sagging Using a Dynamometer

1. Set up ratchet hoist, Chicago Grip and dynamometer as shown here.
2. Ratchet the hoist until the dynamometer displays the desired tension. Consult conductors specifications or company procedures to determine the appropriate tension.
3. When finished, break the tension using the hoist handle, then use either the handle or drum knob to continue releasing the tension.



## Splicing

1. Set up ratchet hoist and Chicago Grips as shown here.
2. Connect the KN1500PEX Web Strap Ratchet Hoist to each grip, and ratchet to the desired tension to make the splice.

The cable can now be spliced according to standard work procedures and material guidelines.

3. When finished with the splice, break the tension using the hoist handle, then use either the handle or drum knob to continue releasing the tension.





# Using Two Chicago™ Grips in Tandem

For applications where the maximum load exceeds the safe load of an individual grip, or the cable is at risk of deformation, it is recommended to use two Chicago Grips in tandem. Using two grips in tandem divides the weight load between both grips, allowing for an effective work load increase of 1.5 times the safe load of each individual grip.

For example, two Klein Tools 1628-40 Chicago Grips, each with a maximum safe load of 25,000 lbs. (11,340 kg) individually, have a combined working safe load of 37,500 lbs. (17,009 kg).

In some transmission applications—commonly using the 1628-30, 1628-40 or 1628-50 series Chicago Grips—there is a risk of cable deformation under high tensions. To avoid this risk, Klein Tools recommends using two grips in tandem if:

- **ACSR or AAC conductors** – the load is expected to exceed the lesser of 12,500 lbs. (5,670 kg) or 40% of the conductor tensile strength.
- **ACSS conductors**—the load is expected to exceed the lesser of 10,000 lbs. (4,536 kg) or 40% of the conductor tensile strength.



1. Place each grip on the same conductor, approximately five feet apart.
2. Connect a pulley block (leveling block) to the eye of each grip. This will maintain equal distribution of the weight load between both grips.
3. Connect an anchored chain hoist of appropriate capacity to the block as shown in the image above.
4. Ratchet the chain hoist to the desired tension, as shown in the image below.



**Materials Used:** Klein Tools Chicago Grips, Klein Tools KN1500PEX web strap ratcheting hoist, Dillon Dynamometer, chain hoist, leveling block.

**Disclaimer:** This is not intended to be a definitive instructional manual for completing the applications. Always consult company procedures and material guidelines before attempting any application.