

There are several different methods for attaching a thimble eye to a main suspension line (wire rope). Some shops use factory swage connections, hand swage connections or fist grip® clamps. The use of fist grip® clamps for the termination of a main suspension line is a long standing practice in our industry, but is it your best choice?

Fist grip® clamps have probably been used mostly due to convenience. They are widely available and can be installed by your own people. If you compare the pros and cons of these items against factory swaging for your main suspension lines, there is a good case for switching.

Fist grip®-PROS

- Locally available for less than \$10 each (3 needed).
- Thimble cost is extra.
- No extra labor charges from outside processors.
- Already used for tieback lines.
- Very familiar to riggers, most understand safety considerations.
- When properly installed, wire rope retains 80% of its rated strength.
- Proven to be dependable.

Fist grip®-CONS

- Must follow manufacturer's specific process for installation which requires special tools.
- Must be torqued to a specific foot pound rating with a torque wrench.
- There is no way to correctly install these without a torque wrench.
- If not properly installed, the rope retains less than 50% of its rated strength.
- Must be retorqued immediately after putting the intended load on the wire rope.
- Must be retorqued every day with a torque wrench.
- Failing to follow the manufacturer's procedures can lead to injury or death
- Operator has daily responsibility for the security of the wire rope termination.

Factory Swaged Connections

- Available from your local wire rope vendor for about \$6-15, thimble included, only one needed.
- When properly installed this connection retains up to 90% of the rated strength of the wire rope.
- Inspection process is very simple.
- Essentially maintenance free
- When performed by a qualified outside vendor, liability exposure is reduced.
- No need to retorque or use any special tools.

Summary: Swaged Connections vs. Fist grip®

- Fist grip® termination connections can cost \$14-20, with a \$2 thimble for parts alone, no labor or installation is included
- Factory swaged termination connections range from \$6-15, thimble, labor and installation is included
- Clamps degrade more of the wire rope breaking strength capacity when properly installed in comparison to factory swaging.
- When clamps are incorrectly installed, not properly maintained or inspected, the remaining breaking strength of the wire rope may not hold the load imposed by the hoist under certain conditions.
- Liability exposure can be significantly reduced by using factory swaged terminations.

For more information on issues related to fist grip® use consult Power Climber technical bulletin SI-041.

Tips and Tricks

- Many of the new electrical contactors inside of hoists have more than one A2 coil connection. This can save you some time when rewiring an electrical box. Pay attention to the labeling of each connection on a contactor coil, as it is possible to hook wires up to the same connection on opposite sides of the contactor.- *Ken Peterson - Scaffold Service, St. Paul MN*
- Laminate your electrical schematics so that they last longer when being used in the shop.

Did You Know?

- Remember: Any parts being returned to Power Climber must have an RMR number on the outside of the package and must be pre-authorized by calling John Purtle at Power Climber.
- To simplify the process of rebuilding an air motor, Power Climber has built a special air tool. This part (P/N 8-0240) has an accompanying procedure that explains how to rebuild the air motor.

Fist grip® clamps are a registered product of the Crosby Group®, Inc

For questions or comments, contact Customer Service at 1-800-560-CLIMB (2546) or customerservice@safeworks.com.

Power Climber®
365 Upland Drive
Seattle, WA 98188 USA

Phone: 1-800-560-2546
E-mail: CustomerService@SafeWorks.com
Internet: www.PowerClimber.com

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