

**IMPORTANT SAFETY INFORMATION**

Please read this manual carefully and follow its instructions. Improper use or failure to follow these instructions could result in serious injury, property damage or death. Operators must be trained and instructed in the safe and proper use and maintenance of this product. Keep this manual for future reference.

The following signal words and meanings are intended to explain the levels of risk associated with this product.

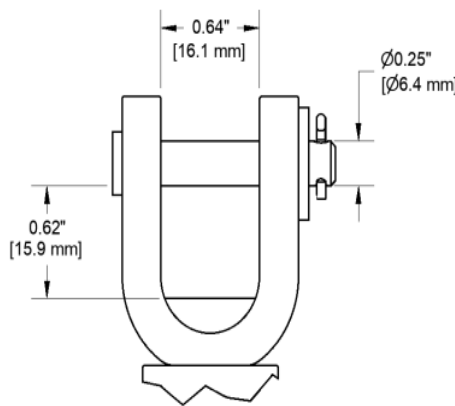
- ⚠ **DANGER:** Indicates a hazardous situation that, if not avoided, **WILL** result in serious injury or death
- ⚠ **WARNING:** Indicates a hazardous situation that, if not avoided, **COULD** result in serious injury or death
- ⚠ **CAUTION:** Indicates a hazardous situation that, if not avoided, **MAY** result in minor or moderate injury

**INSTALLATION**

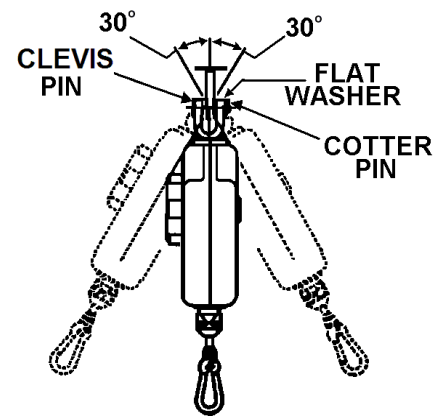
**MOUNTING**

- ⚠ **CAUTION:** **READ INSTRUCTIONS BEFORE USE** To avoid injury: all operators should be instructed in the safe, proper use and maintenance of this product.
- ⚠ **WARNING:** Main support device must have break strength exceeding 6 times weight of load.
- ⚠ **CAUTION:** Use new cotter pin when re-assembling clevis pin.
- ⚠ **CAUTION:** Do not adjust mainspring tension until tool and attachments are suspended from retractor.
- ⚠ **CAUTION:** Mounting retractor in wrong configuration, with cable pulling against guide, can cause premature cable wear and cable to jam inside balancer.

- Attach balancer to main support located above work area with upper mount (swivel fork) and clevis pin. - See **FIG.01**
- Secure clevis pin with washer and cotter pin. - See **FIG.01** for upper mount reference dimensions.
- **NOTE:** Support must allow swivel fork to pivot 30° from vertical axis, perpendicular to clevis pin axis. Retractor must not be pulled sideways more than 30° or exceed free play between support and swivel fork – See **FIG. 02**



**FIG. 01**



**FIG. 02**

## SECONDARY SUPPORT

**CAUTION:** READ INSTRUCTIONS BEFORE USE To avoid injury: all operators should be instructed in the safe, proper use and maintenance of this product.

**CAUTION:** To avoid injury, always install secondary support [Safety Cable or Chain].

**CAUTION:** Do not install secondary support [Safety Chain or Cable] to same structure that supports the retractor.

- Attach end of secondary support [Safety Chain] supplied with Clevis Mount to hole provided on retractor housing [See - FIG. 06] and secure in place by means of Clevis Pin, Washer and Cotter Pin – See FIG. 03.
- Attach other end of the secondary support [Safety Chain] to secondary support structure by means of Carabineer Hook and lock in place the carabineer nut – See FIG. 03.
- Secondary support [Safety Chain] should be as short as possible allowing the retractor to drop no more than 6" or 152mm, if main support would fail.
- Secondary Support [Safety Chain] available from manufacturer as an accessory.

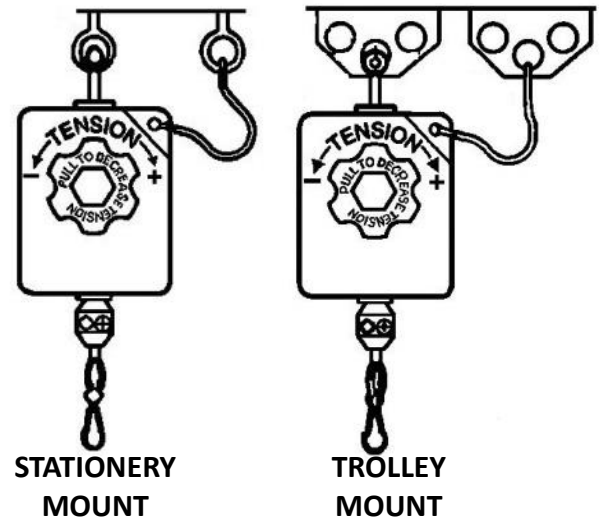


FIG. 03

## OPERATION

### TOOL ATTACHMENT

**CAUTION:** READ INSTRUCTIONS BEFORE USE To avoid injury: all operators should be instructed in the safe, proper use and maintenance of this product.

- Always measure weight of total LOAD tool complete with hoses, cables and fittings] to make sure it is within Weight Capacity of Retractor printed on unit label.
- Lift LOAD [See - Fig. 04] to retractor and attach it to provided tool clip, making sure the spring-loaded latch of tool clip is fully closed.
- Extension cables are available for lowering the position of the tool without reducing active travel.

### CABLE STOP ADJUSTMENT

- Adjusting cable stop is not recommended due to reduction in active travel distance,
- Detailed procedure on how to adjust the cable stop can be obtained by contacting [techsupport@aero-motive.com](mailto:techsupport@aero-motive.com)
- If additional cable extension is required, extension cable assemblies are offered as accessory items.
- Special cables can be offered with specific overhang or unique adjustments. Contact **technical support** for more details.

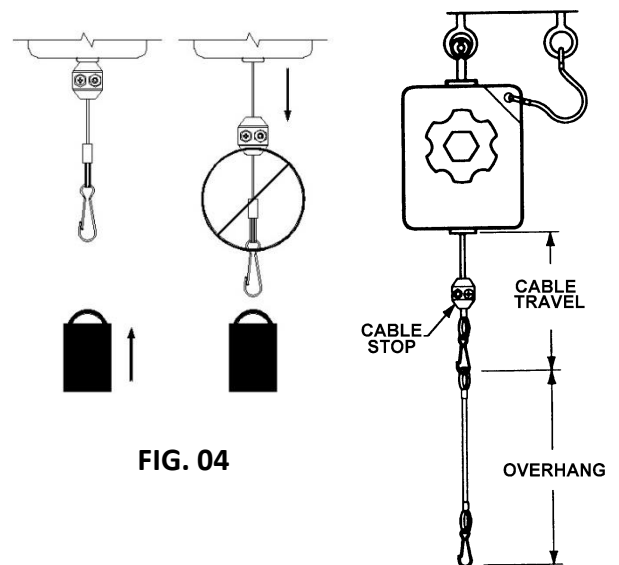


FIG. 04

FIG. 05

## UNIT POWER SPRING TENSION ADJUSTMENT

**CAUTION:** READ INSTRUCTIONS BEFORE USE To avoid injury: all operators should be instructed in the safe, proper use and maintenance of this product.

**WARNING:** CABLE CAN RETURN SUDDENLY To avoid serious injury or death: Load MUST be fully attached to retractor before adjusting tension.

**CAUTION:** Do NOT Over-Tension balancer main spring. This will reduce cable travel and spring life.

### Before making spring tension adjustments please check the following:

- Tool and all accessories are attached to lower tool clip.
- If tool attached to retractor cable descends, there is not enough tension on retractor mainspring.
- If cable stop is tight up against cable guide, there is too much tension on retractor main spring.

### Unit Tension Adjustment

- To increase tension, turn Tension Knob (on the front of the retractor) clockwise or in the “+” direction until desired tension is achieved – See FIG. 06.
- Make sure Tension Knob has engaged back the ratchet teeth on front case before releasing Tension Knob.
- To decrease tension, pull Tension Knob out such as to disengage from ratchet teeth on front of case and turn counter-clockwise or in the “-” direction until pre-load is relieved from cable stop – See FIG. 06.
- Make sure Tension Knob has engaged back the ratchet teeth on front case before releasing Tension Knob.

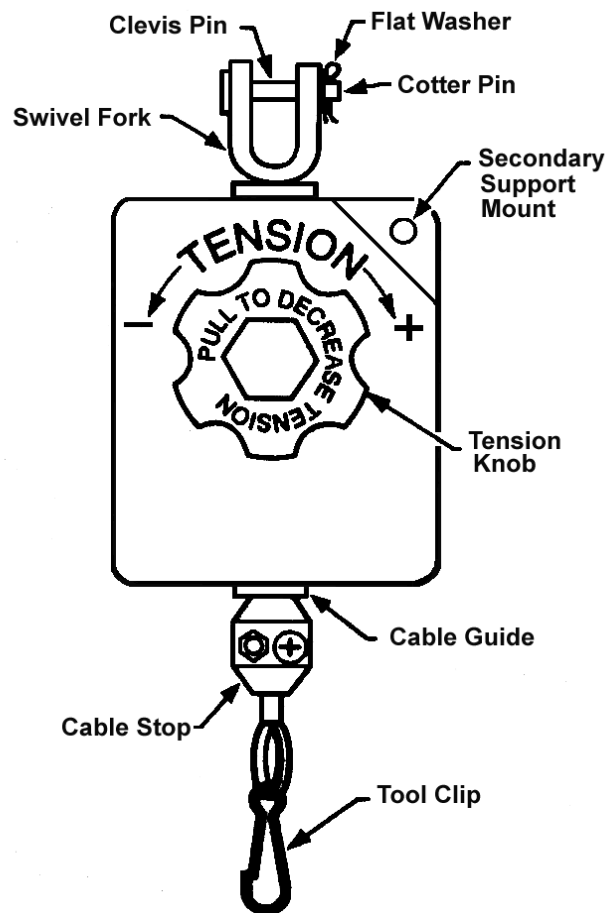


FIG. 06

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