

#### 4. (A) – A/C Power

- The battery analyzer/charger should be plugged in when the Zephyr is not in use. This device monitors battery charge levels and is designed to keep them in an optimal state of charge.
- **DO NOT** plug the charger in while the unit is **IN USE**. Contrary to popular belief, this does not keep the batteries from discharging and can cause the charger to overheat.

#### 5. (P) – Pin/Groove Measurements

- A pin (or pins depending on the measuring device) is used to determine wear on the capstan grooves. The two ways to measure these grooves are:
    - 7" micrometer (requires two pins)
    - Zephyr measuring fixture (requires one pin). This measuring fixture is available via Zephyr's P/N ZMT-100-1 Zephyr Maintenance Kit.
  - Measurements need to be taken on a routine basis (depending on usage) because when capstan grooves become excessively worn, they are no longer able to grip the cable as they should.
  - Like the issue mentioned above when the Urethane gets hard, the more worn the grooves become, the less the capstans can "grip" the cable. If the capstans cannot adequately grip the cable, the cable will slip (the higher the load applied, the more slippage will occur). And the more the cable slips on the capstans during operation, the more likely unintended twist can occur, even to the point of damaging a cable.
  - **Current Service Bulletins** mention pin/groove measurements every 30 days, with four measurements on each groove (0° or keyway, 90°, 180°, and 270°). For 3-groove capstans, that's 12 measurements on each capstan (or 24 measurements total for each Zephyr). For 4-groove capstans, that's 32 measurements for each Zephyr. Look for this to change in the near future from "every 30 days" to something a little more maintainer-friendly, based on Zephyr usage.
- One additional note is that 2-3 drops of oil should be placed in the proper location every 30 days, in order to keep the capstan chain oiled.

## 2022 Zephyr Training Schedule

Zephyr is proud to be able to continue to offer their customers in-house **no-cost** training. The training is designed to provide the highest level of success using the Rescue Hoist Ground Support Equipment (RHGSE) to new and existing users.

**Training is now limited to one day with a maximum of 10 students to ensure proper social distancing.**

These classes are not only geared to train the user on the RHGSE, but also to provide a means of sharing valuable experiences and lessons-learned from within the Rescue Hoist Community.

Zephyr does have a **minimum** class size of five trainees. If that minimum is not met, they will need to

cancel and transfer existing reservations to a future training date. All registrants will be notified via email four weeks prior to the scheduled training date to confirm attendance.

Training can be provided on all versions of the RHGSE (Manual, Electric, and/or Hydraulic), depending on the needs of the attendees. An online registration form is available at:

<https://zephyrintl.com/services/>

**Scheduled 2022 Class Dates:**

- Thursday May 12, 2022
- Thursday July 14, 2022
- Thursday, September 15, 2022
- Thursday November 17, 2022

**Start Time:** 8:00 am

**Location:** 5015 Enoch Road, Conway, SC 29526

**Attire:** Dress casual and appropriately for hands-on training. Military uniforms are not necessary, but **please wear long pants and closed shoes for shop environment.**

Lunch and snacks will be provided. **Attendees should inform the staff at Zephyr if there are any known food allergies.**

**Training Agenda:**

- The training will start with a classroom session covering:
  - Introduction to the equipment to explain the basics of the RHGSE and the basics of the rescuewire rope care.
  - Theory of Operation will cover the technical details of how the RHGSE equipment works:
    - Tensioning System
    - Wire Rope Storage System
    - Cleaning, Drying and Lubrication System
    - Magnetic Inspection System
  - Benefits to User:
    - Cost control and enhanced airworthiness benefits are explained in detail
  - When to use the RHGSE:
    - Covering the different types of inspections that the RHGSE will accomplish and when to perform them.
- The rest of the training will be hands-on training on how to use the RHGSE, the Magnetic Inspection System, and the maintenance tasks associated to keep the equipment functioning as designed. This part of the training requires each trainee to operate the RHGSE through at least one complete evolution.
  - Detailed operation steps are provided and explained thoroughly.
  - Will train in interpreting the data recorded by the onboard Magnetic Inspection System.
  - Basic maintenance activities are explained and demonstrated.

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**Email Zephyr for more information and/or to reserve a seat:** [info@zephyrintl.com](mailto:info@zephyrintl.com)

NOTE: There is no cost for this training, but Zephyr does appreciate patches from the different organizations to add to their display.

**2022 Breeze-Eastern Hoist Workshop Schedule**

Breeze-Eastern is pleased to provide in-house NO COST training on the BL-29900-30-1 external rescue hoist.

This training takes place at Breeze-Eastern's manufacturing facility in Whippany, NJ, (fly in to Newark) and includes two days of comprehensive maintenance training. All attendees receive a Certificate of Training from Breeze-Eastern at the completion of training.

**Training Dates:**

- THU/FRI, 8-9 JUN 2022
- THU/FRI, 14-15 SEP 2022
- THU/FRI, 14-15 DEC 2022

**Training Syllabus:**

- Hoist, Cable, Hook, and Hoist Device Known Issues and Best Practices
- Hoist Maintenance
  - Resources
  - Controller (removal and installation)
  - Motor (removal and installation)
  - Oil Check and Service (discussion)
  - Hook, Spring & Bumper (removal, disassembly, installation)
  - Cable (removal and installation)
  - Pressure Roller (removal and installation)
  - Roller Housing (removal and installation)
  - Cable Cut System (replacement of components)
  - Cyclocentric (adjustment of limit switches)
  - Limit Switches (Emergency Full-Out, Full-Out, Slow-Out, Slow-In, Override, and Full-In)
  - Tension Roller (removal and installation)

Minimum class attendance is three students. Less than three students will likely mean that students will need to be rescheduled for a later workshop.

Maximum attendance is generally limited to ten (10).

You can check availability of classes and register for classes at: <https://verticalift.com/breeze-sign-up/>

## Registration on the Breeze-Eastern Portal

Registration on the Breeze-Eastern portal comes with a number of benefits, mainly that you will be notified whenever a change is posted to a document that you have access to.

Such documents may include:

- TD 01-006 (Operations and Maintenance Manual (OMM) for the BL-29900-30-series hoists)
- TD 06-006 (TE-131-1 Hoist Maintenance Fixture)
- TD 13-004 (TE-120 Stackable Weight System)
- TD 17-001 (Lighted Bumper)
- TD 17-003 (Four-Strand Cable)
- TD 18-001 (Lift Bag Kit)

The portal is found at the following link: <https://portal.breeze-eastern.com/>

Unlike some other portals, this one does not allow self-registration.

Registration is generally limited to those that have been through either the in-house training at Breeze-Eastern, or via Breeze-Eastern's training partner – Vertical Lift Consulting.

However, if you use this hoist and feel you should be granted access to these documents, you can submit a technical support request to the following email address: [techsupport@Breeze-Eastern.com](mailto:techsupport@Breeze-Eastern.com)

Be sure to include your unit designation, hoist model number (i.e., BL-29900-30-1), and hoist serial numbers as justification for accessing the portal. The request should be initiated using a government-based email address (i.e., @army.mil) and NOT a personal address (like gmail). This is to protect, to the extent possible, unauthorized access to proprietary information.

NOTE: The use of the hoist maintenance fixture, the stackable weight system, the lighted bumper, and the Lift Bag Kit **DO NOT** require an AWR. The use of the four-strand cable is governed by AWR 2292. The use of TD 01-006 is **FOR INFORMATIONAL PURPOSES ONLY**.

## MEDEVAC Points of Contact

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