

Safety & Operating Procedures

TIDYNE Marine Lift Appliance · Rev. 02

1. Scope

This document defines the mandatory safety and operating procedures for the TIDYNE marine lift appliance. All personnel involved in operation, supervision, or maintenance of the device must read, understand, and follow these procedures. This document is governed by TIDYNE Inc.

2. Pre-Operation Inspection

- Visually inspect mounting hardware, pad eye/shackle, and clamp interface for damage or corrosion.
- Verify wire rope is clean, free of kinks, broken strands, or excessive wear.
- Confirm battery state-of-charge is at least 50% before commencing operations. Connect 110V secondary charger if below threshold.
- Verify all three brake subsystems (B1 Motor, B2 Band, B3 Gravity) report status green via the control unit.
- Confirm telemetry uplink is active and anomaly detection is armed.
- Test e-stop function before first personnel transfer of each shift.

3. Personnel Transfer Procedure

1. Ensure designated lifting/lowering zone is clear of obstructions and personnel below.
2. Person being transferred must wear an approved personnel transfer harness, securely connected to the TIDYNE hook.
3. Operator activates controlled descent at standard speed (3.2 ft/sec).
4. Maintain visual and radio contact with person in transit throughout the descent or ascent cycle.
5. On contact with deck or platform, allow load to fully settle before disconnecting harness.
6. Return hook to stowed position. Log cycle in operations record.

4. Cargo Transfer Procedure

1. Verify load does not exceed 400 lb / 180 kg working load limit.
2. Use only certified slings, shackles, and lifting attachments rated for the load.
3. Confirm load is balanced and secured before commencing lift.
4. No personnel may transit under a suspended load at any time.
5. Lower load fully and disconnect rigging before clearing the zone.

5. Emergency Procedures

5.1 Loss of Power During Lift

In the event of total loss of primary power during a lift, the B3 gravity brake automatically engages and holds the load. The onboard backup battery powers the control unit for a minimum of 30 minutes, allowing controlled descent to a safe position. Connect the 110V secondary charger if backup is also depleted.

5.2 Brake Anomaly Alert

If the control unit reports a B1 or B2 brake anomaly, immediately complete the current cycle at reduced speed, do not initiate further cycles, and contact TIDYNE Inc. service support at solutions@tidyne.com before resuming operations.

5.3 Emergency Stop

The red e-stop button on the control unit immediately halts all motion and engages all three brakes. Use in any situation where personnel safety is in question. Reset only after the cause has been identified and cleared.

6. Prohibited Use

- Lifting loads exceeding 400 lb / 180 kg working load limit.
- Operation in sea states beyond the device's certified envelope.
- Use by untrained or unauthorized personnel.
- Operation with any brake subsystem reporting fault.
- Modification of the device without written approval from TIDYNE Inc.

7. Training & Authorization

Only personnel who have completed the TIDYNE operator training program and hold a valid certification card may operate the device. Training is provided by TIDYNE Inc. and is included with every lease. Recertification is required every 24 months or following any major firmware update.