Quad Lifting Frame Operation

Pre-amble

It is the responsibility of the person in charge of the lifting operation to ensure that they are familiar with the lifting procedure. They need to be mature, physically able to use the hoist and have been trained to use the lifting equipment. Juniors must not operate the lifting equipment unless under supervision.

The lifting equipment has been designed to have adequate strength for the expected load, i.e. one explorer quad with blades. Do not attempt to lift loads greater than the explore boat and ancillary lifting equipment items. The lifting equipment is not designed to lift people, either independently or in the quad.

Lowering the quad

1 Visual checks prior to operation

- the winch crank handle is secure.
- lifting cable is correctly wound onto the winch drum,
- there are at least three windings on the winch drum,
- the lifting cables are seated in the pulley wheels,
- the lifting beams are horizontal and at the same height.

2 Check safety cable is under tension.

Safety cable is attached to retaining hook, which is at ground level to the right of the bow. The safety latch should be seated.

3 Position wheeled trolley/trestles under quad.

One in front of bow rigger, the other to rear of stroke rigger. Neither should be under the lifting slings.

4 Turn crank handle clockwise until tension is removed from safety cable.

This allows safety cable to be detached.

5 Remove hand pressure from crank handle.

The winch's automatic load pressure break will have engaged.

6 Detach safety cable from the retaining hook.

This can only be done if there is no tension in the safety cable.

7 Turn crank handle anti-clockwise until quad is resting on the trolley/trestles.

As the quad lowers, check the position of the trolley/trestles. Lifting beams should be sitting level on saxboards and the pulleys should remain in the upright position. The system is not designed to lower the quad to the floor of the container.

8 Unhook the two slings from the lifting hooks.

9 Turn crank handle clockwise to raise the lifting beams with the eye bolts.
This should provide sufficient clearance to remove the quad from the container; beware the step down from the container.

Storing quad

1 Visual checks prior to operation

- no significant water in the quad.
- the winch crank handle is secure.
- the lifting cables are seated in the pulley wheels.

2 Position quad under the lifting beams
System is designed with bow ball positioned about 20cm from the back wall. The stern trestle should be to the rear of the stroke rigger.

3 Feed slings through riggers to hang vertically.

4 Turn crank handle anti-clockwise until lifting beams sit level on the saxboards.
Ensure eye bolts secured to the underside of the beams do not impact the riggers or saxboards.

5 Attach end of slings to their respective lifting hooks.
Slings must not be twisted and safety latches correctly seated.

6 Slowly turn crank handle clockwise in a controlled manner.
Ensure the beams lift evenly and are level. Provide sufficient clearance for the second quad to be pushed into the container.

7 Attach safety cable to retaining hook.

8 Slowly turn crank handle anti-clockwise.
Eventually the tension will return to the safety cable.

Longer term inspection

1 Security of retaining bolts on the winch.
2 Check for any oil or grease contamination on the winch spur.
3 Check for any oil or grease contamination on the load pressure break.
4 Check lifting cables for any damage.
5 Check shackles, associated nuts and split pins are all secure.
6 Check slings are in good condition and correctly seated in their lifting hooks.
7 Check safety latch on the lifting hooks are present and seated correctly.

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