

Maintenance Alert: Winch Safe Working Loads and Maximum Capacity

It has recently been brought to the attention of the British Drilling Association that, in some cases, there can be significant differences between the stated maximum lifting capability of machine winches from the manufacturers and the actual recorded capacity under testing.

The evidence below shows test results from two Dando 3000s, one Dando 2500 and a Fraste PL 1000kg winch. The images are of the proof load cell tests that show winches having a greater capacity than intended.









Dando 2500

Dando 3000

Dando 3000

Fraste PL

Users of winches on all drilling machines are advised to **check the actual pulling capacity** of all their winches through **a proof load test** at the **first reasonably practicable opportunity**. Evidence suggests that winches in use on land drilling machines may well exceed the safe operating limits of frames, chassis, ropes, and accessories associated with the operation being undertaken.

In addition, it is strongly advised that owners/operators of cable percussion machines refrain from using pulley blocks until the capacity of the main winch is known.

Where a winch's capacity is shown to exceed the manufacturer's stated maximum, the machine and its associated lifting accessories may have been subjected to overload from operation. Considering this, the BDA recommends that the following steps be taken:

- Stop Use: Immediately cease using the winch and its associated accessories for lifting operations. This is crucial to
 prevent accidents or equipment failure.
- 2. Isolate: Isolate the overloaded equipment from other operational equipment to prevent any accidental use.
- 3. **Examination:** Arrange for a competent person, typically a certified lifting equipment examiner, to thoroughly examine and assess the equipment and accessories. This examination will include looking for signs of damage, deformities, or wear that might have occurred due to any potential overload.

The BDA is committed to Improving Standards in Health & Safety, Quality of Workmanship and Technical Proficiency for the Drilling Industry and its Clients.





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- 4. **Certification:** If the competent person finds that the equipment and accessories are still safe for use, they will certify them as such. This certification will be documented, and it will state the equipment's condition and whether it is fit for use.
- 5. **Repair or Replacement:** If the equipment is found to be damaged or unsafe, it should be either repaired to its original specifications by a qualified professional or replaced with new, undamaged equipment. In the case of winches, if their capacity is proven to be more than the manufacturer's stated capacity, they must be limited or restricted so that they are within said stated capacity.
- 6. **Documentation:** Keep records of the inspection, certification, repairs, or replacements for compliance and safety documentation.

Where it is identified that a winch is overpulling, it should not be returned to service until such time as the winch's capacity is adjusted and subsequently proven to be less than or equal to the manufacturer's stated capacity via another proof load test. Any derating or restricting that has occurred must be documented.

Under no circumstances should a machine be used when the winch's capacity is known to exceed the manufacturer's guidelines for either the machine and/or equipment.

Users of cable percussion machines should also ensure that if pulley blocks are utilised the maximum loads exerted on the machine remain within the safe working limits of the machine's frame.





