

Thorough Examination & Testing of Loader Cranes

ALLMI Guidance Note 010

By definition, a loader crane is a powered crane comprising a column, which slews about a base, and a boom system which is attached on to the top of the column. The crane is usually fitted on a commercial vehicle (including trailer) with a significant residual load carrying capability. Loader cranes are designed for loading and unloading the vehicle as well as for other duties as specified by the manufacturer in the operator's manual.

Confusion exists over the requirements for the testing of loader cranes, particularly the need for the four yearly overload test.

The four yearly overload test was a legal requirement of the Construction and Use (Lifting) Regulations 1961, but these Regulations were repealed with the advent of the Lifting Operations and Lifting Equipment Regulations (LOLER) in 1998.

LOLER replaced the legal requirement for the four yearly overload test, with the annual Thorough Examination and Inspection, and made it the responsibility of the Competent person, to determine if and when an overload test should be carried out, on the grounds that "the design of certain lifting equipment is such that damage may be caused by conventional overload tests". Loader cranes do not fall into this category, as witnessed by the fact that BS 7121 Part 2 has an entire section devoted to the testing of loader cranes.

Load testing is a requirement of ALLMI and BS 7121 parts 2 and 4.

The **Competent Person** is defined in the Approved Code of Practice for LOLER as having "such appropriate practical and theoretical knowledge and experience of the lifting equipment to be thoroughly examined as will enable them to detect defects or weaknesses and to assess their importance in relation to the safety and continued use of the lifting equipment".

The HSE regards BS 7121 as a most important source of advice, witnessed by the fact that it is referred to 8 times in the LOLER Approved Code of Practice and Guidance. Every competent loader crane examiner should be aware of BS 7121 parts 2 and 4, and if they are not aware of it, they are not "competent" as defined in the Regulations.

Acts of Parliament and Statutory Instruments are legal requirements. Suppliers, Installers and Users all have responsibilities to meet some or all of these requirements. Standards and Codes of Practice are recognised as a method of meeting the requirements of the law.

See the ALLMI Guidance Note 004, Regulations and Standards

BS 7121 "Code of Practice for safe use of cranes" is a recommendation. However, in the event of a prosecution following an accident, the competent person would probably be questioned as to whether the requirements of BS 7121 parts 2 and 4 were applied during the Thorough Examination, and if not, what alternative standards were applied. The failure of a competent person to satisfy the court that an acceptable standard was used during the Thorough Examination would probably result in the competent person being recorded as "incompetent".

LOLER requires lifting equipment to be thoroughly examined by a competent person:

- Before first use, unless the equipment is accompanied by a declaration of conformity made not more than 12 months previously. This declaration of conformity being for the completed equipment and not just for the loader.
- Following the repair or replacement of a structural component.
- When a change of chassis takes place
- When removed and refitted to the original chassis.

Periodic thorough examinations are also required:

- In the case of lifting equipment for lifting persons, or a lifting accessory (e.g. slings, chains, grabs, buckets etc) at least every 6 months;
- In the case of other lifting equipment, at least every 12 months

BS 7121 Part 2 – Recommendations for periodic testing and thorough examination of loader cranes.

Occasion	Minimum test and thorough examination
Before being first taken into service	Full test
Annually after being first put into service	Proof load test of rated capacity +10% at full radius and through the full slewing arc, and a thorough examination
4 years after first being put into service	Full test
8 years after first being put into service	Non-destructive test of structure Full test
After each structural repair or component change	Full test
When chassis is changed	Full test
Is removed and refitted	Full test

ALLMI totally endorses the recommendations of BS 7121 part 2, to be incorporated in the Annual Thorough Examination and inspection required by LOLER.

Reference information.

BS EN 12999 Cranes – Loader Cranes
LOLER Lifting Operations and Lifting Equipment Regulations
PUWER The Provision and Use of Work Equipment Regulations
ALLMI Code of Practice for Installation Application and Operation
BS 7121 Safe use of cranes, Parts 2 and 4.

Disclaimer

This note is for guidance only, it should be studied and the information applied with the assistance of expert advice as necessary. Every effort has been made to ensure the accuracy of the information provided, but no legal liability can be accepted by ALLMI for any errors or omissions, nor for any consequences thereof.