



MOM/OSHD/2024-04

17 APR 2024

To: Authorised Examiners (Lifting Equipment)
Crane Owners
Project Developers
Occupiers of Workplaces
All Interested Parties

MOBILE CRANE LOAD TEST

1 Under regulation 21(1) of the Workplace Safety and Health (General Provisions) Regulations, no lifting machine shall be used unless an authorised examiner has:

- (a) Tested and examined the lifting machine¹; and
- (b) Issued and signed a certificate of test and examination, specifying the safe working load of the lifting machine.

2 Load tests are checks on the crane's strength and stability, and structural integrity for safe crane operations. The crane, including all its load-bearing components², must be load tested in the different configurations it will be used in. Load tests on mobile cranes are to be conducted before any use, should any one of the following scenarios occur:

- (a) Whenever there is any disassembly and assembly of the mobile crane (including first use)
- (b) Any replacement, addition, alteration, modification to the mobile crane's use of load-bearing components or attachments (except for swing away fly jib stowed on mobile crane's boom)
- (c) An increase in the maximum Safe Working Load
- (d) After a major repair
- (e) Lying dormant more than one year
- (f) Re-registration to a new owner
- (g) At least once every four years (from the date of last load test).

3 The authorised examiner must ensure that:

- (a) the crane is load tested at its minimum working radius to verify the maximum Safe Working Load (SWL),
- (b) the crane is load tested at its maximum working radius to check the crane's stability,
- (c) the SWL shall be determined based on the test load³ and shall not exceed the values permitted by the manufacturer as stated in the manufacturer's load chart, and

¹ [Workplace Safety and Health Circular No. MOM/OSHD/2020-01 "EXAMINATION AND TESTING REQUIREMENTS FOR STATUTORY LIFTING EQUIPMENT" issued on 19 Jun 2020.](#)

² Such as main hook, auxiliary hook, fly jib and booms of different lengths.

³ [Workplace Safety and Health Circular No. OSD/ ENG CIR / LE 1/03 "Load Testing of Cranes" issued on 1 Apr 2003.](#) For changing of wire ropes, refer to SS 536-2023 for details of inspection and load test.

(d) the configurations the load test was conducted for (such as fly jib, main hook, auxiliary hook, whichever are applicable) are clearly stated on the certificate of test and examination.

4 The authorised examiner may conduct additional tests as necessary to validate load test results. He/she is however, not permitted to reduce or replace stipulated tests in the preceding paragraph.

5 After the load tests, the authorised examiner must examine the crane to check that there are no visible cracks, permanent deformations or damages, loose or damaged connections, or other visible conditions that could affect the function and safety of the crane.

Updating the Crane's Load Chart

6 If the crane is not load tested to its full operation or capacity range as stated in the manufacturer's load chart, the authorised examiner shall make the necessary revisions to the crane's load chart to clearly show the permitted operation and capacity range based on the test loads conducted, and communicate this information to the crane owner. The load chart shall be made available to the crane operator e.g. displayed in the crane's cabin.

7 For queries and clarifications, please contact the MOM Contact Centre at 6438 5122 or mom_oshd@mom.gov.sg.



JAIME LIM

for Commissioner for Workplace Safety and Health
Occupational Safety and Health Division
Ministry of Manpower

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