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Certification of Crane Operators

WEA Guidelines B.2.1.1

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These WEA Guidelines give information about the rules relating to the Crane Operator's Certificate and the Danish Working Environment Authority's administrative practice in the area.

They are based on Executive Order No. 509 of 15 October 1976 on the Certification of Crane Operators, as subsequently amended.

1. In what cases is a Crane Operator's Certificate required?

1.1. Certificate required

A certificate is required to operate mechanically driven cranes that are capable of lifting a load free of the supporting surface beneath it and that are able to perform one or more mechanical movements in addition to the raising and lowering action.

Note: "Mechanical movement" implies that power is delivered from an engine or motor or via hydraulic or pneumatic systems. Accordingly, a certificate is not required to operate pulley tackle or overhead travelling cranes, for example, regardless of how great a load they can lift, provided they are powered only for raising and lowering and their horizontal movement is effected manually.

1.2. Certificate not required

A certificate is not required in the following six cases:

1. When it is impossible for the operator or any other person to be hurt by the load falling or swinging.

Note: This will normally require the crane to work in a completely fenced-off area, which people cannot enter.

2. Serial lifting with lifting equipment designed or adapted for the purpose, for example, lifting of uniform items as part of a defined work process. The lifting height must not exceed 1.5m measured from the surface beneath to the lowest point of the load.
3. When the weight of the load always remains within the supporting area of the crane (e.g. overhead travelling cranes), so that the load does not exert a tipping moment on the crane, and the maximum permitted load does not exceed 5000 kg.
4. For bracket cranes for workshop use etc., having a maximum permitted load not exceeding 5000 kg.

Note: The 5000 kg limit in points 3 and 4 can be satisfied by overhead travelling cranes and similar lifting equipment able to lift more than 5000 kg if they are fitted with an automatic load limiter that stops all movements of the crane if an attempt is made to lift a load of over 5000 kg. The load limiter may be equipped with a key-operated switch to enable the crane to be used for loads of over 5000 kg by a certified operator.

In addition, the markings of a crane with a permitted load of up to 7500 kg may be changed to show a maximum permitted load of 5000 kg if the agreement of the Danish Working Environment Authority is obtained.

5. For lorry-mounted cranes rated at not over 8 Tm.

6. For lifting equipment on board ships.

Note: When persons on shore are engaged by the ship to operate its lifting equipment, no Crane Operator's Certificate is required.

1.3. Other exceptions

In addition to the above six exceptions, it is not the Danish Working Environment Authority's practice to require a certificate for testing a crane for the purpose of checking that everything is working properly after erection or repair.

2. Issue of the Crane Operator's Certificate

Crane Operator's Certificates are issued to persons who

- are at least 18 years old;
- have a satisfactory medical certificate; and
- have passed a theoretical and practical examination in crane operation.

2.1. Taking the examination

The examination is taken at an AMU Adult Vocational Training Centre, normally on completion of a course.

Note: Persons who are already experienced crane operators – for example, because they have worked as operators in another country – can normally take the examination without taking a course first.

Persons who hold a Crane Operator's Certificate obtained in another country will be able to exchange it for a Danish certificate if it can be shown with reasonable certainty that they have undergone training and passed a similar examination to the Danish one.

3. Six classes of certificate

There are six classes of Crane Operator's Certificate:

A. Rotary tower cranes (building cranes), harbour cranes, slewing cranes, gantry cranes, shipyard cranes and similar.

B. Mobile cranes.

C. All other cranes requiring an operator's certificate except those mentioned below at D, E or G.

D. Lorry-mounted cranes rated at over 8 Tm, up to and including 25 Tm.

E. Lorry-mounted cranes rated at over 25 Tm.

G. Construction plant used as a crane.

A class A certificate also covers class C cranes.

A class B certificate also covers class C cranes and construction plant used as a crane.

A class B certificate obtained before 1 January 2000 also covers class D and class E cranes.

A class D certificate also covers construction plant used as a crane.

A class E certificate also covers class D cranes and construction plant used as a crane.

Short courses are available for persons who hold a certificate of one class and wish to obtain a certificate of another class. There are also courses to allow old-style class D and class E certificates to be changed to be valid for up to 25 Tm and for over 50 Tm, respectively.

Note: There exist so many different types of cranes that it is not possible to list them all in this Guide. The list of types given above is therefore not exhaustive.

3.1. Definition according to stability

- A mobile crane has a variable counterweight that must be adjusted to the weight of the load. The counterweight moves round as the crane slews. In other words, the stability can be kept constant all the way round as the crane rotates. If the load is moved outwards or its weight is increased in relation to the counterweight, the stability is reduced and this may give rise to a risk that the crane will tip.
- A lorry-mounted crane uses the lorry's and the crane's own weight, and possibly a part or all of the load carried on the lorry, as counterweight. The weight of the lorry and its load does not follow the slewing of the crane. In other words the stability is not constant as the crane rotates, and this can give rise to a risk of tipping.

Some harbour cranes (e.g. certain container cranes) and shipyard cranes (e.g. large portal cranes) only require a class C certificate.

Tractor-mounted cranes used for loading and unloading of goods require a class D certificate if the permitted load exceeds 8 Tm and is less than or equal to 25 Tm, and a class E certificate if the permitted load exceeds 25 Tm.

Tractor-mounted cranes being used for work other than loading and unloading, for example erection work or combined lifts, require a class D certificate up to 25 Tm and a class E certificate when the permitted load is over 25 Tm.

Telescopic loaders adapted and used for crane work require a class D certificate up to 25 Tm and a class E certificate over 25 Tm.

Dragline machines used as cranes require a class B certificate.

Construction plant that is occasionally used as a crane in the course of its normal working operations is excepted from the requirement that the operator must hold a Crane Operator's Certificate if the following conditions are satisfied:

- No persons must be in the immediate vicinity of the load when it is being lifted, moved and deposited.
- The load must not be lifted more than about 1 metre above the ground.
- The machine must be inspected and maintained in accordance with the supplier's instructions.
- The supplier's instructions for use and maintenance must be on the machine.

Straddle trucks normally require a class C certificate. In exceptional cases, e.g. moving containers where there are no persons in the area and the containers are kept low, the requirement for a certificate may be waived.

Trucks on which a crane jib has been mounted must only be operated by persons who hold a class B fork lift truck operator's certificate. The truck operator must have undergone a course in load attachment.

4. Transitional arrangements

4.1. Lorry-mounted cranes

Persons who have obtained a class B certificate after 1 January 2000 and who can demonstrate that they have received training in the operation of lorry-mounted cranes at a level equivalent to the class B certificate training programmes in effect before 1 January 2000 can be granted a dispensation allowing them to operate lorry-mounted cranes.

4.2. Telescopic loaders

Operators who can demonstrate more than one year's experience of operating construction machines must have enrolled on a course to obtain a class D or class E certificate before 1 August 2001.

Operators who cannot demonstrate one year's experience or more of operating construction machines must have enrolled on a course to obtain a class D or class E certificate before 1 February 2001.

4.3. Construction plant adapted for use as a crane

Operators who can demonstrate more than one year's experience of operating construction machines must have enrolled on a course to obtain a class G certificate before 1 August 2001.

Operators who cannot demonstrate more than one year's experience of operating construction machines must not operate construction machines adapted for use as a crane without having first obtained a class G certificate.

5. Revocation of Crane Operator's Certificate

A Crane Operator's Certificate may be revoked by the Danish Working Environment Authority if there are grounds to regard the operator as unfitted to operate cranes by reason of gross negligence or for reasons of health.

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