Regulations of 21 December 2017 No. 2381 on cranes and lifting operations on mobile offshore units

Legal basis: Laid down by the Norwegian Maritime Authority on 21 December 2017 under the Act of 16 February 2007 No. 9 on ship safety and security (Ship Safety and Security Act) sections 2, 9, 11, 12, 13, 14, 16, 21, 41, 43 and 45, cf. Formal Delegation of 16 February 2007 No. 171 and Formal Delegation of 31 May 2007 No. 590.
EEA references: The EFTA Surveillance Authority (ESA) has been notified of the Regulations pursuant to the requirements of Act of 17 December 2004 No. 101 on European notification of technical rules (EEA Hearing Act) and the EEA Agreement Annex II Chapter XIX point 1 (Directive 98/34/EC as amended by Directive 98/48/EC).
Amendments: Amended by Regulations of 24 January 2022 No. 118, 27 March 2023 No. 459, 14 February 2024 No. 280.

Section 1
Scope of application

(1) These Regulations apply to Norwegian mobile offshore units.
(2) These Regulations do not apply to davits used for evacuation and life-saving appliances.

Section 2
Definitions

For the purpose of these Regulations, the following definitions shall apply:
a) "offshore cranes": cranes used for external and internal lifting on the unit;
b) "deck cranes": cranes only used for internal lifting on the unit;
c) "recognised classification society": any classification society with which the Ministry has entered into an agreement, cf. section 41 second paragraph of the Ship Safety and Security Act;
d) "MOU classification society": a recognised classification society with which there is a supplementary agreement for carrying out supervision of mobile offshore units. These classification societies are:
i) American Bureau of Shipping (ABS)
ii) DNV
iii) Lloyd’s Register of Shipping (LR).

Amended by Regulation of 27 March 2023 No. 459.

Section 3
Competent company type A-1 and competent person type B-1

(1) A competent company type A-1 is required to have:
a) adequate expertise about cranes, which includes hydraulics, strength and structure, automation, and electronics
b) a management system
c) access to relevant software for strength and structural calculations and
d) updated checklists and procedures for crane examinations.
(2) A competent person type B-1 is required to have:
a) relevant vocational education
b) relevant experience and
c) updated checklists and procedures for crane examinations.
(3) Application for approval pursuant to the first and second paragraphs shall be submitted to the Norwegian Maritime Authority.
(4) Before an individual can be approved as a competent person type B-1, the person concerned must pass a practical test.

Section 4
The validity of approvals as competent company type A-1 and competent person type B-1

(1) The approval is valid only when the competent company type A-1 or the competent person type B-1 is listed on the Norwegian Maritime Authority's overview of approved competent companies and persons.
(2) If, upon request, the competent company type A-1 or the competent person type B-1 does not demonstrate compliance with section 3 first or second paragraph, the Norwegian Maritime Authority may delete the competent company or person from the overview.

Section 5
Documentation

(1) Initial examinations, annual examinations, five-yearly examinations and all tests and examinations after repairs or alterations of the crane or lifting equipment shall be documented in the control book (ILO Form No. 1).
(2) The control book and certificates shall be filed either in an electronic system or in a paper-based system.

(3) The documentation shall be available on board.

(4) The documentation, including history, in the electronic system shall be protected from overwriting, deletion and changes.

(5) The electronic system shall:

a) have electronic signature

b) clearly identify the person who completed the examination and the document date

c) have the data saved in a secure database and

d) have a recovery function.

Section 6
Crane manual

Cranes shall have a manual with information on:

a) preparation for operation

b) start-up

c) maintenance

d) repairs

e) modification and dismantling of equipment and systems

f) limitations during normal and emergency operations, such as:

i) safe working load (SWL)

ii) safe working moment under static and dynamic stresses

iii) maximum wind force

iv) maximum heel

v) design temperatures and

vi) brakes

g) safety systems

h) diagrams for electrical, hydraulic and pneumatic equipment

i) the most highly stressed components

j) traceability of material

k) welding design

l) scope of NDT, and

m) certification.

Section 7
Certificates for cranes and loose lifting equipment

(1) Offshore cranes, deck cranes and loose lifting equipment shall have a certificate.

(2) Certificates for offshore and deck cranes shall be issued on ILO Form No. 2.

(3) Certificates for loose lifting equipment, with the exception of wire rope, shall be issued on ILO Form No. 3.

(4) Certificates for wire rope being used as loose lifting equipment shall be issued on ILO Form No. 4.

Section 8
Construction of cranes

(1) Offshore cranes shall be constructed with a level of safety corresponding to:

a) EN 13852-1:2013 “Part 1: General-purpose offshore cranes” or

b) DNVGL-ST-0378, May 2016 “Standard for offshore and platform lifting appliances”. Alternatively, a standard with an equivalent level of safety from another MOU classification society may be used.

(2) Offshore cranes approved for personnel lifts shall have an emergency operation system which is available within one minute.

(3) Offshore cranes for which delivery contract was placed before 1 January 2018 are exempt from the requirement of the second paragraph, but the company must be able to document that the safety of the personnel is ensured.

(4) Deck cranes shall be constructed according to a recognised standard issued by:

a) an MOU classification society or

b) NS/EN/BS/API/DIN/NFPA/ISO/CEN/IEC. Alternatively, a standard issued by an equivalent standardisation body may be used.

(5) Stairways, ladders, handrails, access openings and gratings on offshore and deck cranes shall comply with section 14 of the Regulations of 4 September 1987 No. 856 on the construction of mobile offshore units.

Section 9
Loose lifting equipment

(1) Loose lifting equipment for offshore cranes shall comply with NORSOK R-002, Edition 3, March 2017 "Lifting Equipment" Annexes C and F or a standard with the same scope and level of safety.

(2) Loose lifting equipment for deck cranes shall comply with NORSOK R-002, Edition 3, March 2017 "Lifting Equipment" Annex C or a standard with the same scope and level of safety.

Section 10
Fibre rope

Fibre rope being used in offshore or deck cranes or as loose lifting equipment shall comply with:

a) DNVGL-ST-0378, May 2016 “Standard for offshore and platform lifting appliances” Chapter 5.2.6, or a standard with the same scope and level of safety; and

b) the recommendations and specifications of the crane supplier.

Section 11
Lifts

Personnel and cargo lifts shall be designed, constructed, installed, inspected and equipped in accordance with an MOU classification society’s rules for lifts on ships. Additional requirements from ISO 8383 “Lifts on ships – Specific Requirements” shall be included.

Section 12
Lift trucks and other mobile lifting appliances

(1) Lift trucks and other mobile lifting appliances shall be fitted with a horn, mirrors, at least one 2 kg powder fire extinguisher and protection against objects falling onto the driver's seat.

(2) Lift trucks and other mobile lifting appliances used in a potentially explosive atmosphere shall be certified for such use.

(3) Coamings or other equally efficient arrangements around openings flush with decks, ramps, etc. shall comply with section 14 item 2.10 of the Regulations of 4 September 1987 No. 856 on the construction of mobile offshore units.

(4) Lift trucks and other mobile lifting appliances shall have a load chart.

(5) If there are any restrictions regarding where lift trucks and other mobile lifting appliances may operate, information thereon shall be displayed in the lifting appliance. Alternatively, restrictions may be marked on deck.

Section 13
Certificate of competence for operators of cranes, lift trucks and other mobile lifting appliances

(1) Operators of offshore cranes shall have certificate of competence G5 or equivalent.

(2) Operators of deck cranes shall have certificate of competence G20 or equivalent.

(3) Operators of lift trucks and other mobile lifting appliances shall have relevant certificate of competence.

Section 14
Crane foundation

The foundations of offshore and deck cranes shall be approved by an MOU classification society.

Section 15
Scope of initial examination of cranes

(1) The initial examination shall include a test load with loose scales or water weights. The test weights shall be verified. The weights shall be hoisted, lowered and swung at full speed. The crane arm radius shall be varied. Braking of the movements shall be tested and the test shall comprise all crane movements that might occur in practice.

(2) The test load of offshore and deck cranes shall comply with the standard pursuant to which the crane is constructed, cf. section 8.

Section 16
Execution of initial examination of cranes

(1) The initial examination of offshore cranes shall be conducted by:

a) a competent company type A-1 when the crane is constructed in accordance with section 8 first paragraph (a); or

b) the MOU classification society which owns the standard when the crane is constructed in accordance with section 8 first paragraph (b).

(2) The initial examination of deck cranes shall be conducted by:

a) a competent company type A-1 when the crane is constructed in accordance with sections 8 fourth paragraph (b); or

b) the MOU classification society which owns the standard when the crane is constructed in accordance with section 8 fourth paragraph (a).

(3) A competent company type A-1 which conducts the initial examination pursuant to the first and second paragraph (a) cannot be the same as the company which constructed the crane.

(4) Loose lifting equipment used during the initial examination shall be certified.

(5) The company shall ensure that the competent company type A-1 that conducts the examination pursuant to the first paragraph (a) and second paragraph (a) is listed on the Norwegian Maritime Authority's overview of approved competent companies.

Amended by Regulation of 24 January 2022 No. 118.

Section 17
Scope of annual examination of cranes

The annual examination of offshore and deck cranes shall:

a) be conducted in accordance with the guidelines of the crane supplier;

b) at least comprise function testing of the crane and visual control of elongation, wear and tear, corrosion and formation of cracks and fractures.

Section 18
Scope of five-yearly examination of cranes

(1) The five-yearly examination of offshore and deck cranes shall be conducted in accordance with the guidelines of the crane supplier.

(2) The examiner shall consider complete disassembly and dismantling of devices and equipment even if this is not required pursuant to the guidelines from the crane supplier. The examiner shall take into account age, use, estimated service life, history and, if applicable, condition monitoring in order to find any elongation, wear and tear, corrosion and formation of cracks and fractures.

Section 19
Execution of annual and five-yearly examination of cranes

(1) The annual and five-yearly examination of offshore cranes shall be conducted by:

a) a competent company type A-1 or a competent person type B-1 when the crane is constructed in accordance with section 8 first paragraph (a); or

b) the MOU classification society which owns the standard when the crane is constructed in accordance with section 8 first paragraph (b).

(2) The annual and five-yearly examination of deck cranes shall be conducted by:

a) a competent company type A-1 or a competent person type B-1 when the crane is constructed in accordance with section 8 fourth paragraph (b); or

b) the MOU classification society which owns the standard when the crane is constructed in accordance with section 8 fourth paragraph (a).

(3) The company shall ensure that the competent company type A-1 or the competent person type B-1 that conducts the examination pursuant to the first paragraph (a) and second paragraph (a) is listed on the Norwegian Maritime Authority's overview of approved competent companies and persons.

Section 20
Examination after overload of or damage to cranes

(1) After overload of or damage to offshore and deck cranes, the crane supplier's guidelines for examination after overload or damage shall be followed. Overload means exceedance of SWL (related to R_0) as defined in EN 13852-1:2013 Chapter 3.29.

(2) After overload or damage, offshore cranes shall be examined by:

a) a competent company type A-1 when the crane is constructed in accordance with section 8 first paragraph (a); or

b) the MOU classification society which owns the standard when the crane is constructed in accordance with section 8 first paragraph (b).

(3) After overload or damage, deck cranes shall be examined by:

a) a competent company type A-1 when the crane is constructed in accordance with section 8 third paragraph (b); or

b) the MOU classification society which owns the standard when the crane is constructed in accordance with section 8 third paragraph (a).

(4) The company shall ensure that the competent company type A-1 that conducts the examination pursuant to the second paragraph (a) and third paragraph (a) is listed on the Norwegian Maritime Authority's overview of approved competent companies.

Section 21

Examination and certification of loose lifting equipment

(1) The company shall ensure that persons issuing certificates pursuant to section 7 third and fourth paragraphs have sufficient competence. The competence shall as a minimum include a G11K certificate of competence or equivalent as an authorised lifting equipment inspector.

(2) Loose lifting equipment shall be tested with test loads in accordance with table 1 before being put into service for the first time, after damage or if damage is suspected:

Item	**Safe Working Load (SWL)**	**Test loads**
Single sheave blocks	Up to and including 25 tonnes	4 x SWL
Single sheave blocks with beckets	Up to and including 25 tonnes	6 x SWL
Chains, rings, hooks, shackles, swivels, multiple sheave blocks, etc.	Up to and including 25 tonnes	2 x SWL
Chains, rings, hooks, shackles, swivels, multiple sheave blocks, single sheave blocks, etc.	Up to and including 30 tonnes	55 tonnes
	Up to and including 35 tonnes	65 tonnes
	Up to and including 40 tonnes	70 tonnes
	Up to and including 45 tonnes	75 tonnes
	Up to and including 50 tonnes	85 tonnes
	Up to and including 55 tonnes	90 tonnes
	Up to and including 60 tonnes	95 tonnes
	Up to and including 65 tonnes	100 tonnes
	Up to and including 70 tonnes	110 tonnes
	Up to and including 75 tonnes	115 tonnes
	Up to and including 80 tonnes	120 tonnes
	Up to and including 85 tonnes	125 tonnes
	Up to and including 90 tonnes	130 tonnes
	Up to and including 95 tonnes	135 tonnes
	Up to and including 100 tonnes	145 tonnes
	Up to and including 110 tonnes	155 tonnes
	Up to and including 120 tonnes	165 tonnes
	Up to and including 130 tonnes	175 tonnes
	Up to and including 140 tonnes	190 tonnes
	Up to and including 150 tonnes	200 tonnes
	Up to and including 160 tonnes	215 tonnes

	Up to and including 170 tonnes	230 tonnes
	Up to and including 180 tonnes	240 tonnes
	Above 180 tonnes	1.33 x SWL
Wire rope		Breaking load
Yokes or similar		2.0 x SWL

Table 1

Section 22
Pad eyes

(1) Pad eyes shall be constructed with a safety factor relative to the safe working load (SWL) specified in table 2:

SWL	**Safety factor**
Up to 5 tonnes	2.0
From 5 to 20 tonnes	1.75
Above 20 tonnes	1.5

Table 2

(2) The company shall ensure that the person who examines pad eyes has sufficient qualifications within structure and NDT.

(3) Pad eyes shall be examined before being put into service for the first time and if weakened structure or fastening point of the pad eye is suspected.

(4) Pad eyes with SWL equal to or less than three tonnes shall be examined by:

a) assessing the dimensioning of the pad eye; and

b) visual inspection of the pad eye, structure and fastening point. Random NDT shall be carried out when deemed necessary.

(5) Pad eyes with SWL above three tonnes shall be examined by carrying out:

a) load tests of all pad eyes and random NDT; or

b) NDT of all pad eyes and random load tests.

(6) When a load test of pad eyes is being carried out, table 3 shall be complied with.

SWL	**Test weights for load-testing**
Up to 20 tonnes	1.25 x SWL
From 20 to 50 tonnes	5 tonnes + SWL
Above 50 tonnes	1.10 x SWL

Table 3

(7) Pad eyes shall have individual or group marking. The marking must include SWL and may e.g. consist of signs in each area with several identical pad eyes or a colour code system that separates between pad eyes with different SWL in the same area.

(8) The location, SWL and loading direction of the pad eyes shall be documented.

Section 23
Material handling

Material handling to and from the unit and movement of load internally on the unit shall be carried out in accordance with NORSOK R-002, Edition 3, March 2017 "Lifting equipment" Annex B. The company shall assess the scope of the material handling plan in relation to the need. The company’s assessment shall be documented.

Section 24
Use of wire rope and loose lifting equipment

(1) The use, servicing and replacement of wire ropes used in offshore or deck cranes or as loose lifting equipment shall comply with NS-ISO 4309:2010 "Cranes – Wire ropes – Care and maintenance, inspection and discard" or a standard with the same scope and level of safety.

(2) Loose lifting equipment for offshore or deck cranes shall be used, examined and stored in accordance with NORSOK R-003, Edition 3, June 2017 “Safe use of lifting equipment” Chapter 7 or NORSOK R-003, Edition 2, July 2004 “Safety use of lifting equipment” Chapter 7 or a standard with the same scope and level of safety.

Section 25
Use of cranes and other lifting appliances

(1) Cranes and other lifting appliances shall be used in accordance with the relevant requirements of NORSOK R-003, Edition 3, June 2017 "Safe use of lifting equipment " Chapter 6 or NORSOK R-003, Edition 2, July 2004 "Safe

use of lifting equipment " Chapter 6. On a foreign continental shelf, the shelf authority’s requirements for use of cranes and other lifting appliances may as an alternative be followed if these requirements have equivalent scope.

(2) Personnel lifting operations shall only be carried out using cranes and lifting appliances certified for lifting personnel.

(3) Personnel lifting operations shall be conducted in accordance with the relevant requirements of NORSOK R-003, Edition 3, June 2017 "Safe use of lifting equipment " Chapter 5 or NORSOK R-003, Edition 2, July 2004 "Safe use of lifting equipment " Chapter 5. When transferring personnel to and from the unit, the following shall in addition apply:

a) the transfer should only take place when warranted by special circumstances;

b) the offshore installation manager shall approve the transfer in consultation with the safety representative(s);

c) the transfer shall be carried out within the weather restrictions imposed by the certificates of the lifting equipment. When weather restrictions are not set out in the certificate(s), the requirements laid down in NS-EN 13852-1:2013 paragraph 7.2.5 shall be met.

Section 26
Exemptions

(1) The Norwegian Maritime Authority may exempt a mobile offshore unit from one or more of the requirements of the Regulations if the company applies for an exemption in writing and one of the following conditions is met:

a) the company establishes that the requirement is not essential and that the exemption is justifiable in terms of safety;

b) the company establishes that compensating measures will maintain the same level of safety as the requirement of these Regulations;

c) the company establishes that the requirement hinders the development and use of innovative solutions when such solutions will maintain the same level of safety as required by these Regulations.

(2) A statement from the safety representative(s) shall be attached to the application for exemption.

Section 27
Transitional provision

Mobile offshore units may, until the next certificate issue, comply with the requirements that applied at the time of the last certificate issue, unless otherwise provided by the individual provision.

Amended by Regulations of 24 January 2022 No. 118, 14 February 2024 No. 280.

Section 28
Entry into force

These Regulations enter into force on 1 January 2018. As from the same date, the Regulations of 4 July 2007 No. 854 on deck cranes, etc. on mobile offshore units are repealed.