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# **RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

**Part P**

**Mobile Offshore Drilling Units and  
Special Purpose Barges**

**RULES**

**2020 AMENDMENT NO.1**

Rule No.47 30 June 2020

Resolved by Technical Committee on 22 January 2020

An asterisk (\*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

AMENDMENT TO THE RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

“Rules for the survey and construction of steel ships” has been partly amended as follows:

**Part P MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES**

**Chapter 11 MACHINERY INSTALLATIONS**

**11.1 General**

**11.1.2 General**

Sub-paragraphs -1(9) and (40) have been amended as follows.

**1** For machinery installations other than those used for solely for the operation which is the purpose of the unit, relevant requirements in **Part D** listed in the following **(1)** to **(40)** as well as the requirements in this Chapter are to be applied.

((1) to (8) are omitted.)

(9) **Chapter 2, Part D ~~Diesel~~ Reciprocating Internal Combustion Engines**

((10) to (39) are omitted.)

(40) **Chapter ~~2124~~, Part D Spare Parts, Tools and Instruments**

Sub-paragraphs -2(9) to (13) have been amended as follows.

**2** For machinery installations used solely for the operation which is the purpose of the unit, relevant requirements in **Part D** listed in the following **(1)** to **(25)** as well as the requirements in **11.1.3** and **11.1.4** are to be applied.

((1) to (8) are omitted.)

(9) **2.2.2-4, Part D ~~Diesel~~ Reciprocating Internal Combustion Engines - Materials, Construction and Strength - Construction, Installation and General**

(10) **2.2.2-5, Part D ~~Diesel~~ Reciprocating Internal Combustion Engines - Materials, Construction and Strength - Construction, Installation and General**

(11) **2.2.2-6 ~~Diesel~~ Reciprocating Internal Combustion Engines - Materials, Construction and Strength - Construction, Installation and General**

(12) **2.4, Part D ~~Diesel~~ Reciprocating Internal Combustion Engines - Safety Devices**

(13) **2.5.4, Part D ~~Diesel~~ Reciprocating Internal Combustion Engines - Associated Installations - Fuel Oil Arrangements**

((14) to (25) are omitted.)

**11.1.15 Additional Requirements for the Unit which has the Main Propulsion Machinery\***

Sub-paragraphs -2 and -3 have been amended as follows.

**2** Units are to be ~~Tested~~ tested at sea trial in accordance with the following **(1)** to **(5)**.

(1) ~~Machinery installations are to be verified at the sea trials that they have normal functions and~~

~~are free from detrimental vibrations. No abnormalities in the operating conditions of machinery or the behaviour of ships during sea trial are to be confirmed in accordance with 2.3.1, Part B.~~

- (2) ~~In the astern trial, an order for full astern is issued while the unit is running ahead at the speed specified in 2.1.8, Part A, whereby reversing operation from ahead run to full astern run is to be carried out as fast as possible. Astern tests are to be carried out in accordance with 2.3.1, Part B. In this case, astern operation is to be continued until the astern speed (rotational speed in rpm) is stabilized for diesel units, or for the period of 15 minutes after the order of astern for steam turbine units, gas turbine units and electric propulsion units respectively, whereby †The astern performance and stopping performance are to be verified and the test results are to be recorded and are to be made available on board for use as a guidance for unit manoeuvres.~~
- (3) In units having multiple propellers, the unit navigating and manoeuvring performance with one or more propellers inoperative is to be verified, as well as the test results recorded are to be available on board for the use as a guidance for unit manoeuvres.
- (4) When the unit is provided with supplementary means for manoeuvring or stopping, performance test of such means is to be carried out, and the test records are to be available on board for the use as a guidance for unit manoeuvres.

(5) The Society may require, when deemed necessary, other tests than those specified in 11.1.15

**3** When the machinery listed in the following (1) to (4) is singly fitted on board, special consideration is to be given to the reliability of the machinery and its components. For units in which unconventional machinery is used as the main propulsion machinery and propulsion shafting system, provision of additional machinery capable of ensuring the unit to proceed at a navigable speed in the possible event of failure of the machinery may be requested by the Society.

- (1) For ~~diesel~~ units in which reciprocating internal combustion engines are used as main propulsion machinery (excluding electric propulsion ships):  
~~Diesel~~ Reciprocating internal combustion engines used as the main propulsion machinery, high elastic couplings, reduction gears and propulsion shafting systems
- (2) For ~~steam turbine~~ units in which steam turbine engines are used as main propulsion machinery (excluding electric propulsion ships):  
Steam turbine engines used as the main propulsion machinery, main boilers, main condenser, reduction gears and propulsion shafting systems
- (3) For ~~gas turbine~~ units in which gas turbine engines are used as main propulsion machinery (excluding electric propulsion ships):  
Gas turbine engines used as the main propulsion machinery, compressors, combusters, reduction gears and propulsion shafting systems
- (4) For electric propulsion units (as specified in 5.1.1-1, Part H, hereinafter the same in this Part):  
Propulsion motors, reduction gears and propulsion shafting systems

## EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 July 2020.
2. Notwithstanding the amendments to the Rules, the current requirements apply to ships for which the date of contract for construction is before the effective date.

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# **GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

## **Part P Mobile Offshore Drilling Units and Special Purpose Barges**

**GUIDANCE**

**2020 AMENDMENT NO.1**

Notice No.26      30 June 2020

Resolved by Technical Committee on 22 January 2020

Notice No.26 30 June 2020

AMENDMENT TO THE GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

“Guidance for the survey and construction of steel ships” has been partly amended as follows:

**Part P MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES**

Amendment 1-1

**P11 MACHINERY INSTALLATIONS**

**P11.1 General**

**P11.1.15 Additional Requirements for the Unit which has the Main Propulsion Machinery**

Sub-paragraph -1 has been amended as follows.

1 ~~The programme shown in Table P11.1.15-1 is to be used as a standard for trials of diesel engines at dock or sea. In this case~~ In the application of 11.1.15-2.(1), Part P of the Rules, other tests and open-up inspections of cylinders of reciprocating internal combustion engines used as main propulsion machinery may be required when considered necessary by the Society.

Table P11.1.15-1 has been deleted.

~~Table P11.1.15-1 Programme for Sea (Dock) Trials of Diesel Engines~~

Test items	Use of engines		
	Main engines of diesel units <sup>(4)</sup>	Main engines of electric propulsion units <sup>(2)</sup>	Engines driving generators or auxiliaries (excluding auxiliary machinery for specific use, etc.) <sup>(2)</sup>
<del>110% power run<sup>(3)</sup></del>	<del>30 minutes at engines speed in accordance with nominal propeller curve</del>	<del>30 minutes at <math>n_0</math> (<math>n_0</math> is the rated engines speed)</del>	<del>Capability of supplying 110% power is to be demonstrated</del>
<del>100% power (rated power) run<sup>(4)</sup></del>	<del>4 hours at engines speed in accordance with nominal propeller curve</del>	<del>4 hours at <math>n_0</math></del>	<del>4 hours at <math>n_0</math><sup>(4)(5)</sup> (100% power run is to be included)</del>
<del>Normal continuous cruise power run<sup>(4)</sup></del>	<del>2 hours at engines speed in accordance with nominal propeller curve</del>	<del>2 hours at <math>n_0</math></del>	
<del>75% power run</del>	<del>An adequate time at engine speed in accordance with propeller curve (one or two items may be omitted)</del>	<del>An adequate time at <math>n_0</math> (one or two items may be omitted)</del>	
<del>50% power run</del>			
<del>25% power run</del>			
<del>Minimum on load speed run</del>	<del>⊖</del>	<del>==</del>	<del>==</del>
<del>Starting manoeuvres</del>	<del>⊖<sup>(6)</sup></del>	<del>⊖</del>	<del>⊖</del>
<del>Reversing run</del>	<del>10 minutes or a duration until being stable in engine speed whichever is longer, at not less than <math>0.7 n_0</math></del>		<del>==</del>
<del>Unattended machinery space operation<sup>(7)</sup></del>	<del>⊖</del>	<del>⊖</del>	<del>⊖</del>
<del>Suitability for fuels to be burnt<sup>(8)</sup></del>	<del>⊖</del>	<del>⊖</del>	<del>⊖</del>
<del>Performance of monitoring, alarm and safety devices</del>	<del>⊖</del>	<del>⊖</del>	<del>⊖</del>

~~Notes:~~

- ~~(1) In case of controllable pitch propellers, the tests with various propeller pitches are to be included.~~
- ~~(2) The tests are to be performed at rated speed with a constant governor setting and to be based on the rated electrical powers of the driven generators.~~
- ~~(3) The tests may be dispensed with where deemed appropriate by the Society in consideration of the test results of shop test specified in D2.6.1-1 and so on.~~
- ~~(4) The time for the tests may be shorter (however, the tests at 100% power run for main engines are to be conducted for not less than one hour) where deemed appropriate by the Society in consideration of the test results of shop test specified in D2.6.1-1 and so on.~~
- ~~(5) The loads of tests may be modified where it is difficult to give the required loads on the engines.~~
- ~~(6) The test is to be conducted in such a procedure that ahead and astern manoeuvres for direct reversible engines and starting and stopping manoeuvres for non reversible engines are alternately continued until it becomes impossible to start without replenishment.~~
- ~~(7) The test is applied only to units intended to be registered as units provided with operating systems for unattended machinery spaces.~~
- ~~(8) The test is applied only when residual or other special fuels are intended to be burnt. Where the suitability has already been demonstrated at the shop trial specified in D2.6.1-1 or where deemed appropriate by the Society, the~~

~~test may be dispensed with.~~

## P12 ELECTRICAL INSTALLATIONS

### P12.1 General

#### P12.1.8 Additional Requirements for the Unit which has the Main Propulsion Machinery

Sub-paragraphs -1 and -2 have been amended as follows.

1 In ~~a units propelled by diesel~~ in which reciprocating internal combustion engines are used as main propulsion machinery (excluding electric propulsion ships), the generator driven by the propulsion plant provided on board the unit is to comply with the requirements listed in the following **(1) to (5)** if it is provided as one of main source of electrical power specified in **12.1.5-1, Part P of the Rules**.

((1) to (5) are omitted.)

2 In ~~a units propelled by diesel~~ in which reciprocating internal combustion engines are used as main propulsion machinery (excluding electric propulsion ships), the generator driven by the propulsion plant provided on board the unit in addition to the main source of electrical power required by **12.1.5-1, Part P of the Rules** is to comply with the requirements listed in the following **(1) and (2)**.

((1) and (2) are omitted.)

#### EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 1 July 2020.
2. Notwithstanding the amendments to the Guidance, the current requirements apply to ships for which the date of contract for construction is before the effective date.

## **P11 MACHINERY INSTALLATIONS**

### **P11.1 General**

#### **P11.1.15 Additional Requirements for the Unit which has the Main Propulsion Machinery**

Sub-paragraph -2 has been amended as follows.

**2** Unconventional machinery referred to in **11.1.15, Part P of the Rules** ~~is~~ means waterjet propulsion systems and azimuth thrusters specified in the requirements in **Chapters 19 and 20 of Part D of the Rules** as well as the machinery with novel design features specified in **1.1.3, Part D of the Rules**.

#### **EFFECTIVE DATE AND APPLICATION (Amendment 1-2)**

- 1.** The effective date of the amendments is 1 July 2020.
- 2.** Notwithstanding the amendments to the Guidance, the current requirements apply to waterjet propulsion systems or azimuth thrusters whose applications for approval are submitted to the Society before the effective date installed on ships for which the date of contract for construction is before the effective date.