RUSSIAN MARITIME REGISTER OF SHIPPING

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RULES

FOR THE CLASSIFICATION AND CONSTRUCTION OF MOBILE OFFSHORE DRILLING UNITS

PART I

CLASSIFICATION

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RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF MOBILE OFFSHORE DRILLING UNITS

Rules for the Classification and Construction of Mobile Offshore Drilling Units (the MODU Rules) of Russian Maritime Register of Shipping (RS, the Register) have been approved in accordance with the established approval procedure and come into force on 1 September 2023.

The present Rules are based on the latest version of the Rules for the Classification, Construction and Equipment of Mobile Offshore Drilling Units and Fixed Offshore Platforms, 2022, taking into account the amendments and additions developed immediately before publication.

The procedural requirements, unified requirements, unified interpretations and recommendations of the International Association of Classification Societies (IACS) and the relevant resolutions of the International Maritime Organization (IMO) have been taken into consideration.

The Rules set down specific requirements for MODU, consider the recommendations of the Code for the Construction and Equipment of Mobile Offshore Drilling Units, 2009 (2009 MODU Code) (IMO resolution A.1023(26), as amended) and supplement the Rules for the Classification and Construction of Sea-Going Ships and the Rules for the Equipment of Sea-Going Ships.

The Rules are published in the following parts:

Part I "Classification";
Part II "Hull";
Part III "Equipment, Arrangements and Outfit";
Part IV "Stability";
Part V "Subdivision";
Part VI "Fire Protection";
Part VII "Machinery Installations and Machinery";
Part VIII "Systems and Piping";
Part IX "Boilers, Heat Exchangers and Pressure Vessels";
Part X "Electrical Equipment";
Part XI "Refrigerating Plants";
Part XII "Materials";
Part XIII "Welding";
Part XIV "Automation";
Part XV "Safety Assessment";
Part XVI "Signal Means";
Part XVII "Life-Saving Appliances";
Part XVIII "Radio Equipment";
Part XIX "Navigational Equipment";
Part XX "Equipment for Prevention of Pollution".

REVISION HISTORY
(purely editorial amendments are not included in the Revision History)

For this version, there are no amendments to be included in the Revision History.

1 GENERAL

1.1 APPLICATION

1.1.1 The requirements of the MODU Rules cover all self-propelled and non-self-propelled floating units, drilling ships, which are designed for the exploration/extraction of natural resources beneath the seabed and for other activities.

1.1.2 Technical requirements apply to all machinery, devices, apparatuses and equipment installed on board the MODU, whose normal operating conditions ensure the required safety of the unit as a whole in all modes of operation.

1.1.3 The drilling and production equipment (for recovery, refinement and transporting the products from the wells), as well as technological solutions related to the safety of drilling and well operation, shall be in conformity with the requirements of state bodies engaged in safety supervision in the oil and gas industry.

When performing technical supervision of drilling and process equipment by the Register, use may be made of the Rules for the Oil-and-Gas Equipment of Floating Offshore Oil-and-Gas Product Units, Mobile Offshore Drilling Units and Fixed Offshore Platforms[1] on a voluntary basis.

Compliance with the requirements of the OGE Rules waive fulfillment of the state supervisory body mandatory requirements for drilling and process equipment at the stage of its design, manufacture and operation.

[1] Hereinafter referred to as "the OGE Rules".

1.2 DEFINITIONS AND EXPLANATIONS

1.2.1 For the purpose of the MODU Rules, the following definitions have been adopted.

Module block is a functionally complete section of the topside, e.g. energy, accommodation, production, etc. module blocks.

Drilling ship is a ship with a drilling unit.

Upper deck is a watertight structure upon which the topside is located and from which the freeboard is measured.

Topside consists of superstructures, deckhouses and other similar structures used for accommodating personnel, equipment, systems and devices which ensure the structure operation in accordance with the purpose. A topside is generally formed from module blocks.

Sea depth is a vertical distance measured from the seabed to the average water level plus the total height of the astronomical and storm tides.

Additional requirements are those not contained in the MODU Rules, which are put forward by the Register during its classification activities.

Accommodation area is the area of a MODU used for attendants accommodation.

Drilling area is the area of a MODU in which equipment for the drilling of wells is installed.

Clearance is a vertical distance measured from the average level of calm water plus the total height of the astronomical and storm tides to the lower section of the supporting deck or the topside of the platform.

Leg is a watertight, partially tight or vertical truss structure which takes up external loads and the weight of superimposed structures and equipment.

Helicopter facility is a MODU component used for helicopter landing and maintenance.

Ice resistance is a capability of a unit to withstand the ice load.

Surface unit (SU) is a unit with a MODU-, drilling ship- or barge-type displacement hull not intended for exploration/production of seabed resources.

Mobile offshore drilling unit (MODU) is a vessel capable of engaging in drilling operations for the exploration or for exploitation of resources beneath the seabed such as liquid or gaseous hydrocarbons, sulphur or salt.

Tension leg platform (TLP) is a unit having considerable surplus buoyancy under operating conditions, which is kept at a drilling location/recovery site with tensioned anchor ties fixed on the seabed.

Submersible unit is a column-stabilized unit supported by the seabed in operating condition.

Underwater pontoon is a flat-bottomed watertight structure with vertical sides.

Semi-submersible MODU is a column-stabilized MODU which is afloat when in operating condition and which is kept in the horizontal plane by means of anchors, thrusters or other positioning equipment.

Semi-submersible unit is a column-stabilized offshore platform, which is afloat when in operating condition and which is kept in the horizontal plane by means of anchors, thrusters or other positioning equipment and which performs operations other than drilling, hydrocarbon production, storage or processing.

Buoyancy/stability pontoon is a watertight structure not forming part of the construction, which is temporarily fitted on it or on its module/supermodule to ensure buoyancy and/or stability.

Mode of operation is a condition or manner in which a MODU may operate or function while on a drilling location/recovery site or in transit. The modes of operation of a MODU include the following:

operating condition is a condition wherein a MODU is on location for the purpose of conducting drilling or other similar operations, and combined environmental and operational loadings are within appropriate design limits established for such operations;

severe storm condition is a condition wherein a MODU may be subjected to the most sever environmental loading for which it is designed. Drilling operations are assumed to be discontinued;

transit condition is a condition wherein a MODU is moving from one geographical location to another.

Self-elevating MODU is a MODU which movable legs capable of raising its hull above the surface of the sea and lowering it back into the sea.

Self-elevating unit is an offshore platform which has movable legs capable of raising its hull above the surface of the sea and lowering it back into the sea and operations other than drilling, hydrocarbon production, storage or processing.

Supermodule consists of two or more modules joined together and thus forming a transportable unit.

Transportable unit is a structure or section thereof which is transported on inland waterways and/or on the sea.

2 CLASS OF MODU

2.1 GENERAL

2.1.1 MODU is covered by the requirements of 2.1 of Part I "Classification" of the Rules for the Classification and Construction of Sea-Going Ships[1].

[1] Hereinafter referred to as "the RS Rules/C".

2.2 CLASS NOTATION

2.2.1 The class notation assigned by the Register to a mobile offshore drilling unit consists of the character of classification and distinguishing marks and descriptive notations defining structure and purpose of a ship or floating facility.

2.2.2 The character of classification assigned by the Register to a mobile offshore drilling unit consists of distinguishing marks:

KM⊛, **KM★**, **(KM)★** for self-propelled MODU;

KE⊛, **KE★**, **(KE)★** for non-self-propelled MODU with total power output of prime movers above 100 kW.

2.2.3 Depending on the classification society under whose supervision and according to whose Rules the ship or floating facility was built, the character of classification is established as follows:

.1 MODU built according to the Rules and under the Register technical supervision are assigned a class notation with the character of classification: **KM⊛** or **KE⊛**;

.2 MODU, which were as a whole (or their hull, or machinery installation, or machinery, or equipment) built and/or manufactured according to the Rules and under the supervision of another classification society recognized by the Register, when classed with the Register, are assigned a class notation with the character of classification: **KM★** or **KE★**;

.3 MODU, which were as a whole (or their hull, or machinery installation, or machinery, or equipment) built and/or manufactured without the supervision of a classification society recognized by the Register or without the supervision of any classification society at all, when classed with the Register, are assigned a class notation with the character of classification: **(KM)★** or **(KE)★**.

2.3 SUBDIVISION DISTINGUISHING MARKS

2.3.1 At owner's request, a drilling ship is assigned one of the following subdivision distinguishing marks in its class notation: 1 or 2. In this case the drilling ship shall also comply with the requirements of Part V "Subdivision" of the RS Rules/C.

2.4 DISTINGUISHING AUTOMATION MARKS

2.4.1 If the automation equipment of the main machinery installation and/or electric power plant of MODU complies with the requirements of Part XIV "Automation" of the MODU Rules one of the following automation marks shall be added to the MODU character of classification depending on the extent of automated functions and features of automation facilities, namely:

.1 **AUT1** — the extent of automation functions allows to ensure operation of machinery (propulsion) and/or electric power plant with unattended machinery spaces and main machinery control room;

.2 **AUT2** — the extent of automation functions allows to ensure operation of machinery (propulsion) and/or electric power plant with one operator in the engine room and with unattended machinery spaces;

.3 **AUT1-ICS**, **AUT2-ICS** — automated functions, as specified for distinguishing automation marks **AUT1** or **AUT2**, respectively, are implemented with the use of integrated computerized monitoring and control system meeting the relevant requirements of Section 5 of Part XIV "Automation" of the MODU Rules. Along with that, the electronic information provided to the operating personnel and control functions at control stations are implemented with the use of the common redundant information network.

2.4.2 If MODU is fitted with a dynamic positioning system complying with the requirements of Section 7 of Part XIV "Automation" of the MODU Rules, one of the following distinguishing marks is added to the MODU character of classification: **DYNPOS-1**, **DYNPOS-2**, **DYNPOS-3.**

2.4.3 If MODU is fitted with the automated control system for power equipment of position mooring systems complying with the requirements of 8.1 and 8.2 of Part XIV "Automation" of the MODU Rules, the distinguishing mark **POSIMOOR** is added to the MODU character of classification.

2.4.4 If MODU is fitted with the automated control system for power equipment of position mooring system complying with the requirements of 8.1 and 8.2 of Part XIV "Automation" of the MODU Rules when applying thrusters complying with the requirements of Section 7 of Part XIV "Automation" of the MODU Rules, the distinguishing mark **POSIMOOR-TA** is added to the MODU character of classification.

2.4.5 If a self-propelled MODU is fitted with the main electric propulsion plant complying with the requirements of Section 17 of Part X "Electrical Equipment" of the MODU Rules, the distinguishing mark **EPP** is added to the MODU character of classification.

2.5 DESCRIPTIVE NOTATION IN THE CLASS NOTATION

2.5.1 If the design of a MODU is basically the same as one of those defined under 1.2 of this Part and if it complies with the relevant requirements of the MODU Rules, one of the following descriptive notations is added to the character of classification depending on the MODU design:

MODU self-elevating;
MODU semi-submersible;
MODU submersible;
MODU tension leg;
Self-elevating unit;
Semi-submersible unit;
Drilling ship;
Drilling barge;
Ice-resistant.

The descriptive notation in the class notation shall be in English. At the shipowner's discretion it may be written in two languages: English and Russian.

2.5.2 If drilling or process equipment of MODU meets the requirements of the OGE Rules, the descriptive notations in accordance with 6.3.1 of Part I "General Regulations for Technical Supervision" of the OGE Rules may be added to the character of classification:

.1 in case of manufacture and mounting of oil-and-gas equipment under the Register technical supervision as well as under the Register technical supervision in service:

drilling (RS) — with a drilling rig fitted;
subsea system (RS) — with delivery of production from underwater production systems;
subsea pipeline (RS) — with delivery (offloading) of production via a subsea pipeline;
oil production/treatment (RS) — with an oil production and/or treatment system fitted;
gas production/treatment (RS) — with a gas and gas condensate production and/or treatment system fitted;
oil and gas production/treatment (RS) — with an oil and gas joint production and/or treatment system fitted;

.2 in case of manufacture and mounting of oil-and-gas equipment without the Register technical supervision, but at the Register technical supervision in service, the symbol **(RS)** is deleted from descriptive notations.

2.6 DESIGNATION OF THE OPERATING AREA AND CONDITIONS

2.6.1 If a MODU is designed to operate in a particular area and the maximum loads due to wind, waves, ice and currents are considered for this area, the area, loads and ice strengthening shall be indicated in the Classification Certificate.

2.7 DINSTINGUISHING MARKS IN THE CLASS NOTATION

2.7.1 Upon request of the party, applying for the classification and/or review of the technical documentation and upon agreement with the Register, MODU may be assigned distinguishing marks specified in 2.2 of Part I "Classification" of the RS Rules/C.

3 SURVEY PROCEDURE AND SCOPE

3.1 SURVEY SCHEDULE AND TYPES

3.1.1 Initial surveys.

The following types of initial surveys of MODU are performed by the Register:

surveys which are carried out during construction of MODU under the Register technical supervision;

surveys of MODU built under the supervision of another classification society or any other competent organization.

3.1.2 Survey of MODU in service.

3.1.2.1 The requirements for survey of MODU in service are specified in the appropriate sections of the Rules for the Classification Surveys of Ships in Service and the Guidelines on Technical Supervision of Ships in Service.

3.2 INITIAL SURVEYS DURING CONSTRUCTION

3.2.1 During construction, the MODU shall be surveyed by the Register in the scope prescribed by the MODU Rules and the Guidelines on Technical Supervision of Ships under Construction, according to the technical documentation (given in Section 4 of this Part) approved by the Register.

3.2.2 The date of MODU survey upon completion of construction is the date of actual completion of survey and issue by the Register of a MODU Classification Certificate (as per form 3.1.2) and other ship's documents (as applicable).

4 TECHNICAL DOCUMENTATION

4.1 DESIGN DOCUMENTATION

4.1.1 General requirements.

The requirements of 3.1 of Part I "Classification" of the RS Rules/C apply to MODU.

Before commencement of construction, the technical documentation referred to in 4.1.2 — 4.1.11 of this Part of the MODU Rules, 3.2.11 and 3.3 of Part I "Classification" of the RS Rules/C, 1.4 of the Rules for the Cargo Handling Gear of Sea-Going Ships, 1.4.1 of the Load Line Rules for Sea-Going Ships shall be submitted to the Register for review and approval.

4.1.2 Ship's general documentation.

Letter identification and abbreviations:

A — Approved;

AG — Agreed;

FI — For information;

TD — Technical design;

PAD — Plan approval documentation;

DD — Detailed (design) documentation.

No.	Description of documentation	Stamp	TD	DD	PAD	Remarks
.1	Technical specification	FI	●		●	
.2	General arrangement plan with configuration of the unit	FI	●		●	
.3	List of main equipment suppliers	FI		●	●	
.4	List of deviations from the RS rules (with references to the relevant RS letters of their approval, refer to 1.3.4 of the General Regulations for the Classification and Other Activity, if any)	AG	●	●	●	The possibility of deviations shall be agreed with the RS Head Office and approved by the RS Director General
.5	Engineering analysis of the alternative design and arrangements	AG	●		●	
.6	Operating manual	FI		●	●	Refer to Section 10 of Annex 44 to the Guidelines on Technical Supervision of Ships in Service

4.1.3 Hull documentation.

Submitted drawings shall exactly define the scantlings, structure, types and sorts of material, as well as configuration of hull structures and particular features of welding. Where possible drawings shall contain the following information:

No.	Description of documentation	Stamp	TD	DD	PAD	Remark
.1	Strength analysis of structure and separate elements for specification load conditions and environmental conditions	AG	●		●	
.2	Information on forces induced by wind, water, current, mooring and other loads from environment which are taken into account while performing the analysis of joint strength	AG	●		●	
.3	Analysis of working loads caused by the drilling derrick and its relevant appliances in the supporting structure, as well as other significant loads of the same type	AG	●		●	
.4	Calculations which prove fitness of structure and cargo handling gear components for transmission of forces arising between the support and the hull	AG	●		●	
.5	Assessment of the unit resistance to overturning when it stands on the seabed	AG	●		●	
.6	Results of relevant model tests which may be used for justification or refinement of calculations	FI	●		●	
.7	Midship section plan, transverse, longitudinal sections and types (with indication of main particulars and other necessary scantlings, position of the watertight bulkheads, spacing between members)	A	●		●	
.8	Drawings of longitudinal and transverse bulkheads, tank wash bulkheads (for tanks the heights of overflow and air pipes shall be indicated)	A	●		●	
.9	Shell expansion (with indication of positions and dimensions of openings in shell plating; for drilling ships strengthened for navigation in ice — edges of the ice belt and corresponding forward and aft draughts)	A	●		●	
.10	Deck and platform plans, including helideck (with indication of design loads, positions and dimensions of openings, their strengthening)	A	●		●	
.11	Drawings of superstructures and deckhouses	A	●		●	
.12	Drawings of pontoons, footings, stability blocks	A	●		●	
.13	Drawings of supports and stringers	O	●		●	
.14	Drawings of bracing members	A	●		●	
.15	Drawings of legs	A	●		●	

No.	Description of documentation	Stamp	TD	DD	PAD	Remark
.16	Drawings of structure in way of elevating arrangements	A	●		●	
.17	Drawings of stability and intermediate columns	A	●		●	
.18	Hull typical structural details	A		●	●	Listed typical details shall comply with those shown on structural drawings specified in 4.1.3.8 — 4.1.3.21 of this Part. The remaining information shall comply with the shipbuilding quality standards for the hull structure during new construction agreed at the kick-off meeting with the shipyard (refer to 2.7 of the Guidelines on Technical Supervision of Ships under Construction) and shall be reviewed by the RS Branch Office for technical supervision during construction
.19	Drawings of sections and assemblies of the main hull and superstructures (including decks, transverse and longitudinal bulkheads, sides, bottom, double bottom (with table of positions of manholes and other openings), integral tanks outside double bottom)	A		●		
.20	Hull blocks plan	AG		●		
.21	Table of MODU hull welding	A	●	●	●	If the information listed herein is stated to the full in the drawings of MODU hull, then submission of the table of welding is not required. For TD stage, general technical requirements for welding and choice of welding consumables grades are submitted
.22	Plans of weld control	A		●	●	

No.	Description of documentation	Stamp	TD	DD	PAD	Remark
.23	Specification of protective coatings	A	●	●	●	At the TD stage, the designer specifies general requirements for protective coatings in the specification

4.1.4 Documentation on arrangements, equipment and outfit.

No.	Description of documentation	Stamp	TD	DD	PAD	Remark
.1	Arrangement plans of openings in hull, superstructures, deckhouses and subdivision bulkheads, including data on coamings height and type of closing appliances	A	●	●	●	
.2	General arrangement plans: steering gear (with drawings of rudder and rudder stock), anchor arrangement, drilling ships mooring arrangement, towing arrangement, self-elevating MODU jacking system, arrangements for lifting and lowering of columns of submersible sea water pumps, self-elevating MODU fixing and position-keeping arrangements; masts and their rigging	A	●	●	●	
.3	Calculation of arrangements: steering gear (with drawings of rudder and rudder stock), anchor arrangement, drilling ships mooring arrangement, towing arrangement, self-elevating MODU jacking system, arrangements for lifting and lowering of columns of submersible sea water pumps, self-elevating MODU fixing and position-keeping arrangements; masts and their rigging; strength calculation of closing appliances (for reference purposes)	AG	●		●	
.4	Arrangements and equipment test program	A		●	●	
.5	General arrangement plans with indication of main characteristics of exits, doors, corridors, stairways and vertical ladders, means of access to cargo and other spaces as well as general arrangement plans with essential assemblies and parts of guard rails s	A	●	●	●	
.6	General view of cargo handling gear with indication of its principal characteristics, arrangement on board the ship and securing of the cargo handling gear in the stowed for sea position.	A	●	●	●	
.7	List of emergency outfit	AG		●	●	
.8	MODU general arrangement plan with indication of escape routes and emergency exits to the open deck	A	●	●	●	

4.1.5 Documentation on stability.

No.	Description of documentation	Stamp	TD	DD	PAD	Remark
.1	Lines drawing, coordinate table of lines	AG	●		●	
.2	Corner point coordinate table for compartments and tanks	AG	●		●	
.3	Preliminary calculation of stability containing: tables of hydrostatic particulars; tables of cross-curves of stability including drawing of the buoyant hull; mass tables for various loading conditions with indication of distribution of stores and liquid ballast in tanks, as well as data on displacement, centre of gravity and trim; diagrams of windage area and calculations of heeling moments; calculation of motion amplitudes; calculation of mass of ice, snow, angles of flooding corrections for free surface effect of liquid cargoes and stores; righting lever curves and results of stability verification in accordance with the MODU Rules; diagrams of permissible heights of the centre of gravity of the object	AG	●		●	
.4	Drawing showing the location of the solid cargo with a specification containing information on the weight of each ballast group and the coordinates of the centre of gravity	AG		●	●	
.5	Guidance for the ballast system arrangement plan	AG	●		●	
.6	Freeboard plan containing: maximum draught; arrangement of openings and closing appliances, which contribute to the watertight integrity of external boundaries, with an indication of the height of coamings and type of closing appliances (external doors, hatches; scuttles and windows, scuppers and freeing ports, bottom and side valves of sea water systems, sewage system, etc.; air pipes and ventilation heads, closures of ventilation ducts, skylights, etc.); arrangement plan of means for protection of the crew (bulwark, guard rails, gangways, passageways, etc.)	AG	●		●	If all necessary information is stated in the plans and diagrams required by 3.2.3.1, 3.2.3.16, 3.2.9.1.8, 3.2.9.1.10 and 3.2.9.1.13 of Part I "Classification" of the RS Rules/C, the freeboard plan may not be submitted
.7	Freeboard calculation and drawings of the load line mark	AG	●		●	
.8	Drawing for hull marking with the load line mark, deck line, lines to be used with the load line mark, mark of assigning Authority, etc.	A		●		

4.1.6 Documentation on subdivision.

No.	Description of documentation	Stamp	TD	DD	PAD	Remark
.1	Damage trim and stability calculations, including righting lever curves	AG	●		●	
.2	Plan of watertight compartments with indication of: arrangement of openings and types of their closing appliances; arrangement of equalization devices	AG	●		●	

4.1.7 Documentation on fire protection.

No.	Description of documentation	Stamp	TD	DD	PAD	Remark
.1	Structural fire protection plan with indication of categories of spaces in accordance with 2.1.2.3.2 of Part VI "Fire Protection" of the MODU Rules, fire barriers, openings in fire-protective divisions, doors and other closures in fire-resisting and fire-retarding divisions	A	●	●	●	
.2	Diagrams of fire extinguishing systems on MODU (with indication of pumps/pumping units, fire extinguishing installations, foam concentrate tanks, etc.), fire control stations and control stations	A	●	●	●	
.3	Fire detection and fire alarm system and gas detection and alarm systems	A	●	●	●	
.4	Diagrams and calculations of fire extinguishing systems	A	●	●	●	
.5	Calculations required by 2.1.1.4 and 2.1.1.10 of Part VI "Fire Protection" of the RS Rules/C	A	●	●	●	
.6	Scheme of insulation	A	●	●	●	
.7	Scheme of deck coverings	A	●	●	●	
.8	Scheme of linings and ceilings	A	●	●	●	
.9	List of fire-fighting outfit, spare parts and tools	AG		●	●	
.10	Preliminary fire plan	AG		●	●	

4.1.8 Documentation on machinery installation and boiler plants.

No.	Description of documentation	Stamp	TD	DD	PAD	Remarks
.1	General arrangement plans of machinery and equipment in the machinery spaces of category A, as well as in the emergency diesel generator spaces (refer to 1.2 of Part VII "Machinery Installations" of the MODU Rules) with indication of exits	A	●	●	●	
.2	Drawings of the main control room for remote control of jacking system and fixing arrangements of self-elevating MODU, principal diagrams of control units with description of working principles, interlocking systems, protection and signalling	A	●	●	●	
.3	Diagram of propeller control systems	A	●	●	●	
.4	Drawings and calculation of the self-elevating MODU jacking mechanisms	A	●	●	●	
.5	Drawings of seatings and attachment fittings of the main machinery, boilers and shaft bearings as far as they may be applicable to MODU and drilling ships	A		●	●	

4.1.9 Documentation on automation equipment.

No.	Description of documentation	Stamp	TD	DD	PAD	Remark
.1	Technical documentation specified in 3.2.8.1 of Part I "Classification" of the RS Rules/C as far as it may be applicable to MODU and drilling ships	A/AG	●	●	●	
.2	Technical documentation specified in 3.2.8.2 of Part I "Classification" of the RS Rules/C as far as it may be applicable to MODU and drilling ships	A/AG	●	●	●	
.3	Diagrams and drawings of automation systems of jacking mechanisms of self-elevating MODU	A	●	●	●	
.4	Diagrams and drawings of automation systems of submersion and raising system of semi-submersible MODU	A	●	●	●	
.5	Diagrams and drawings of automation systems of submersible sea water pumps and of their lifting and lowering arrangements installed on self-elevating MODU	A	●	●	●	
.6	Diagrams and drawings of automation systems of windlasses, winches and other deck machinery	A	●	●	●	
.7	Diagrams and drawings of MODU draught, heel, trim measuring and recording devices, etc.	A	●	●	●	
.8	Diagrams and drawings of other automation systems of essential machinery and arrangements (as required by the Register) according to 3.2.8.2 of Part I "Classification" of the RS Rules/C as far as they may be applicable to MODU and drilling ships	A	●	●	●	

4.1.10 Documentation on systems and piping.

No.	Description of documentation	Stamp	TD	DD	PAD	Remark
.1	Technical documentation specified in 3.2.9.1 of Part I "Classification" of the RS Rules/C as far as it may be applicable to MODU and drilling ships	A/AG	●	●	●	
.2	Technical documentation specified in 3.2.9.2 of Part I "Classification" of the RS Rules/C as far as it may be applicable to MODU and drilling ships	A/AG	●	●	●	
.3	Hydraulic system diagram for drives of self-elevating MODU jacking mechanisms and fixing arrangements	A	●	●	●	
.4	Hydraulic system diagram for lifting and lowering mechanisms of columns of submersible pumps	A	●	●	●	
.5	Self-elevating MODU sea water supply system diagram	A	●	●	●	
.6	Diagram of fuelling and fuel transfer systems	A	●	●	●	
.7	Ventilation system diagram with indication of watertight and fire-fighting bulkheads, location of fire dampers, ventilation capacity and air changes per hour for some spaces and hazardous zones, as well as pressure in some rooms in these zones	A	●	●	●	
.8	Strength calculations for hydraulic system for drives of self-elevating MODU jacking mechanisms and fixing arrangements	A	●		●	
.9	Diagram of emergency mud dumping system	A	●	●	●	
.10	Layout diagrams for systems of technological complex and drilling rig	A		●	●	

4.1.11 Documentation on electrical equipment.

No.	Description of documentation	Stamp	TD	DD	PAD	Remark
.1	Technical documentation specified in 3.2.10.1 and 3.2.10.2 of Part I "Classification" of the RS Rules/C as far as it may be applicable to MODU and drilling ships	A/AG	●	●	●	
.2	Diagrams and drawings of electric drives of jacking system of self-elevating MODU	A	●	●	●	
.3	Diagrams and drawings of electric drives of raising and submersion system of semi-submersible MODU	A	●	●	●	
.4	Diagrams and drawings of electric drives of arrangements for lifting and lowering columns of submersible sea water pumps	A	●	●	●	
.5	Diagrams and drawings of alarm systems specified in Section 7 of Part X "Electrical Equipment" of the MODU Rules	A	●	●	●	
.6	Plan of dividing the unit into hazardous zones with a register of electrical and mechanical equipment installed in each zone (including technological and drilling equipment) with indication of closures of some rooms	A	●	●	●	
.7	Diagram of emergency selective de-energizing of the electric drives	AG	●	●	●	

4.2 TECHNICAL DESIGN DOCUMENTATION FOR CONVERSION OR RECONSTRUCTION

4.2.1 Before conversion or reconstruction of MODU the documentation for those parts of hull, machinery and equipment of the drilling unit which are subject to conversion and reconstruction shall be submitted to the RS Head Office for review and approval.

4.2.2 If a new machinery and arrangements significantly varying from those initial ones and covered by the requirements of the MODU Rules are mounted on the drilling unit which is in operation it is necessary to submit to the Register an additional technical documentation on these new machinery and installations for review and approval in the scope required for the drilling unit (refer to 4.1).

4.3 WORKING PLANS FOR MODU UNDER CONSTRUCTION

4.3.1 When specifying the scope of detailed documentation to be submitted for review to the RS Branch Office carrying out technical supervision during construction of MODU, the applicable requirements of Section 3 of Part I "Classification" of the RS Rules/C shall be met taking into account the MODU features specified in 4.1 of this Part. For those types of MODU for which the requirements are missing or partially available in the MODU Rules, additional documents or data may be required as deemed necessary by the Register.

Russian Maritime Register of Shipping

Rules for the Classification and Construction of Mobile Offshore Drilling Units
Part I
Classification

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