



## **On approval of the standard of state service “Dangerous technical devices registration and removal from the register”**

### *Unofficial translation*

Order of the Minister for Investment and Development of the Republic of Kazakhstan dated November 27, 2018 No. 822. Registered with the Ministry of Justice of the Republic of Kazakhstan on November 30, 2018 No. 17845. Abolished by order of the Minister of Industry and Infrastructure Development of the Republic of Kazakhstan dated April 24, 2020 No. 229.

### *Unofficial translation*

**Footnote. Abolished by order of the Minister of Industry and Infrastructure Development of the Republic of Kazakhstan dated 04.24.2020 No. 229 (shall be enforced upon expiry of twenty one calendar days after the day of its first official publication).**

In accordance with subparagraph 1) of Article 10 of the Law of the Republic of Kazakhstan dated April 15, 2013 "On State Services" **I hereby ORDER:**

1. To approve the attached standard of the state service “Dangerous technical devices registration and removal from the register”.

2. The Committee for Industrial Development and Industrial Safety of the Ministry for Investment and Development of the Republic of Kazakhstan, in the manner prescribed by law, shall ensure:

1) state registration of this order with the Ministry of Justice of the Republic of Kazakhstan;

2) sending of this order in Kazakh and Russian languages to the Republican State Enterprise on the Right of Economic Management "Republican Center of Legal Information" within ten calendar days from the date of state registration for official publication and inclusion in the Reference Control Bank of Regulatory Legal Acts of the Republic of Kazakhstan;

3) posting of this order on the Internet resource of the Ministry for Investments and Development of the Republic of Kazakhstan;

4) submission to the Legal Department of the Ministry for Investment and Development of the Republic of Kazakhstan of the information on implementation of measures, in accordance with subparagraphs 1), 2) and 3) of this paragraph within ten working days after the state registration of this order with the Ministry of Justice of the Republic of Kazakhstan.

3. Supervision of the fulfilment of this order shall be entrusted to the Supervising Vice Minister for Investments and Development of the Republic of Kazakhstan.

4. This order shall enter into force upon the expiry of ten calendar days after the day of its first official publication.

Approved  
by order № 822 of the  
Minister for Investments and  
Development  
of the Republic of Kazakhstan,  
dated November 27, 2018

## **Standard of state service “Dangerous technical devices registration and removal from the register”**

### **Chapter 1. General Provisions**

1. The state service “Dangerous technical devices registration and removal from the register” (hereinafter - the state service).

2. The state service standard was developed by the Ministry for Investment and Development of the Republic of Kazakhstan (hereinafter - the Ministry).

3. The public service shall be provided by the territorial departments of the Industrial Development and Industrial Safety Committee of the Ministry (hereinafter - the service provider).

Receipt of request and issue of a result of the state service provision shall be carried out through the office of the service provider.

### **Chapter 2. Procedure for rendering of the public service**

4. The term of rendering of state service:

1) from the day of filing the package of documents to the service provider - 10 (ten) working days;

2) maximum waiting time for filing the package of documents – 15 (fifteen) minutes;

3) maximum allowed service time – 15 (fifteen) minutes.

5. Form of the state service rendering: on paper.

6. The result of the state service rendering – issuance of notification of registration, deregistration of dangerous technical devices.

Form of the state service result rendering: on paper.

7. The state service to individuals and legal entities (hereinafter -the service recipient) shall be provided free of charge.

8. Working hours of the service provider - from Monday to Friday from 9.00 to 18.30, lunch break from 13.00 to 14.30, except weekends and holidays, according to the Labor Legislation of the Republic of Kazakhstan.

Reception of documents and issuance of the result of public services rendering shall be carried out from 9.00 to 17.30 with a lunch break from 13.00 to 14.30.

State service shall be rendered in turn, without an appointment and accelerated service.

The list of documents required for the public services rendering, when the service recipient applies (or his representative by proxy) shall be as follows:

1) an application for registration and deregistration of a dangerous technical device according to the forms in accordance with Annexes 1 and 2 to this state service standard;

2) an identity document (for identification);

3) passport of a vessel under pressure, a boiler (autonomous superheater, economizer), a boiler, a pipeline, a crane, an elevator, a lift by the forms according to Annexes 3, 4, 5, 6, 7, 8 and 9 of this state service standard.

In cases of submission by the service recipient of an incomplete package of documents in accordance with the list provided for in this paragraph, and (or) documents with an expired date, the service provider shall refuse to accept the application.

### **Chapter 3. The procedure for appealing decisions, actions (inaction) of service providers and (or) their officials on the public services rendering issues.**

10. Appealing against decisions, actions (inaction) of the service provider and (or) its officials regarding the provision of public services, a complaint shall be filed in the name of the head of the service provider at the address specified in paragraph 12 of this standard of public services.

The complaint shall be submitted in writing by mail, to the portal of "electronic government" or by personal delivery via the office of the service provider.

In the complaint of the service recipient the following shall be indicated:

if it is a physical person - his/her surname, first name, patronymic name (if available), mailing address;

if it is a legal entity - its name, postal address, reference number and date.

The complaint shall be signed by the service recipient.

Confirmation of the complaint acceptance shall be its registration (stamp, reference number and date) in the office of the service provider with the surname, first name and patronymic (if available) and initials of the person who accepted the complaint, the date and place of receiving the response to the complaint.

When applying via the portal, the information on the appeal procedure may be obtained by calling the Integrated Call Center: 1414, 8 800 080 7777.

When sending a complaint via the portal, the service recipient from the "personal cabinet" shall have access to information about the appeal, which is updated during processing of the request by the service provider (notes on delivery, registration, execution, response to consideration or refusal to consider the complaint).

The complaint of the service recipient received by the service provider shall be subject to review within five working days from the date of its registration.

A motivated answer on the results of the examination shall be sent to the customer by postal service, via the portal of "electronic government" or issued by personal delivery in the office of the service provider.

In case of disagreement with the results of the public service provided, the service recipient can file a complaint with the authorized body for assessment and control of the quality of public services.

The complaint of the service recipient received by the authorized body for the assessment and control of the quality of public services shall be considered within fifteen working days from the date of its registration.

11. In cases of disagreement with the results of the public service provided, the service recipient can apply to the court in accordance with the procedure established by the Legislation of the Republic of Kazakhstan.

#### **Глава 4. Other requirements, taking into account the specifics of the State service rendering**

12. Address of places for rendering of the state service shall be specified on the Internet resource of the service provider: [comprom.mid.gov.kz](http://comprom.mid.gov.kz).

13. Contact telephone numbers of reference services for public services shall be placed on the Internet resource of the service provider: [comprom.mid.gov.kz](http://comprom.mid.gov.kz).

Annex 1  
to order No. 822 of the  
Minister for Investment and  
Development  
of the Republic of Kazakhstan,  
dated November 27, 2018  
Document form  
To the Head

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(name of the

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territorial Department)

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(surname, name, patronymic  
(if available)

#### **Application for registration of dangerous technical device**

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(name of enterprise, organization, last name, first name, patronymic (if available) of an individual, departmental affiliation,

individual identification number, address, zip code, telephone)

I hereby request to put on record

(to register) \_\_\_\_\_

—  
(name, type, kind of dangerous technical device)

factory (serial) № \_\_\_\_\_

—  
manufactured \_\_\_\_\_

—  
(date and year of manufacture, name of manufacturer, country)

Supervision over \_\_\_\_\_ has been organized in full

compliance with (type of dangerous technical device)

Rules for ensuring industrial safety in the operation of load-lifting mechanisms approved by order No. 359 of the Minister for Investment and Development of the Republic

Kazakhstan of December 30, 2014 (registered in the State Register of Regulatory Legal Acts under the number 10332) (hereinafter - the Rules for lifting

mechanisms) and the Rules for ensuring industrial safety during the work with equipment operating under pressure, approved by order No. 358 of the Minister of Investment and Development of the Republic of Kazakhstan of December 30, 2014 (registered in the Register of State Registration of Regulatory Legal Acts under

No. 10303) (hereinafter - the Rules for pressure equipment) (underline as necessary).

There is the trained personnel for servicing dangerous technical devices.

The technical condition of the registered dangerous technical device allows its safe operation.

The person responsible for supervising the safe operation of a dangerous technical device and carrying out technical inspections is appointed by order

№ \_\_\_\_\_ from " \_\_ " \_\_\_\_\_ 20 \_\_\_\_ .

Surname, name, patronymic (if available) \_\_\_\_\_,

position \_\_\_\_\_

—  
Passed the check for the knowledge of the Rules on load-lifting mechanisms and Rules for ensuring industrial safety during work with the

equipment operating under pressure (underline as necessary) and has the Certificate № \_\_\_\_\_,

date, year, name of the issuing organization

\_\_\_\_\_

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The management of the enterprise (organization) guarantees the creation of conditions for the implementation control functions by the

responsible persons, assigned to them in accordance with the Rules on load-lifting mechanisms and the Rules for ensuring industrial safety during the work with equipment operating under pressure (underline as necessary) \_\_\_\_\_

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(position of the head of the organisation, Surname, name, patronymic (if available) \_\_\_\_\_

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Surname, name, patronymic (if available) signature)  
of individual)

" \_\_\_\_ " \_\_\_\_\_ 20 \_\_\_\_.

Annex 2  
to order No. 822 of the  
Minister for Investment and  
Development  
of the Republic of Kazakhstan,  
dated November 27, 2018  
Document form  
To the Head

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(name of the

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territorial Department)

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(surname, name, patronymic  
(if available)

## **Application for deregistration of a dangerous technical device**

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(name of enterprise, organization, last name, first name, patronymic  
(if available) of an individual, departmental affiliation,  
individual identification number, address, zip code, telephone)

I hereby ask you to deregister

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(name, type, kind of dangerous technical device)  
factory (serial) № \_\_\_\_\_

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manufactured

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(date and year of manufacture, name of manufacturer, country)

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(position of the head of the organisation (Surname, name, patronymic (if available)  
Surname, name, patronymic (if available) (signature)  
of individual)  
" \_\_\_ " \_\_\_\_\_ 20 \_\_.

Annex 3  
to order No 822 of the  
Minister for Investment and  
Development  
of the Republic of Kazakhstan,  
dated November 27, 2018  
Document form

**Passport  
of the vessel, working under pressure 1. Certificate of quality of the vessel  
manufacture**

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(name of the vessel)  
Factory № \_\_\_\_\_ manufactured ) \_\_\_\_\_

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(date of manufacture)

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(manufacturer name and address)

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**2. Technical characteristics and parameters**

Name of the vessel's parts			
Operating pressure, MPa kp/cm <sup>2</sup>			
Design pressure, MPa (kp/cm <sup>2</sup> )			
Trial test pressure, MPa (kp/cm <sup>2</sup> )	hydraulic		
	pneumatic		
Ambient operating temperature, °C			
Estimated wall temperature, °C			

Minimum allowable negative wall temperature, °C			
Name of operating environment			
Characteristics of operating environment		Hazard class	
		Explosion hazard	
		Fire hazard	
Corrosion (erosion) allowance, mm			
Capacity, m <sup>3</sup>			
Empty vessel mass 1, kg			
Maximum weight of filled environment 1, kg			
Estimated life of the vessel, years			
1 For vessels with liquefied gases			

### 3. Information about the main parts of the vessel

Name of vessel elements (body, bottom, neck, grids, pipes, vessel jacket)	Quantity, pieces	Dimensions, mm			Basic metal		Information on welding (soldering)		
		Diameter (internal or external)	Wall thickness	Length (height)	Grade	Technical guidance document (GOST (State standard))	Method of connection (welding, soldering)	Type of welding (soldering)	Electrodes, welding wire, solder (type, grade, GOST or NTD)

### 4. Information on fittings, flanges, caps and fasteners

Name	Quantity, pieces.	Dimensions, mm or specification number	Material	
			Grade	GOST (State Standard) (Technical guidance document)

### 5. Data on safety relief devices, main reinforcement, control instruments, safety appliances

Name	Quantity, pieces.	Installation site	Nominal width, mm	Nominal pressure, MPa (kp/cm <sup>2</sup> )	Body material	
					Grade	GOST(State Standard) (Technical guidance document)



## 6. Data on main materials used in the manufacture of the vessel

Material					Data of the mechanical tests according to the certificate or the protocol of factory tests						
					At T = 20°C						
Element name	Grade	Standard (Technical guidance document)	Heat number (lot)	Number and date of the certificate (protocol)	Yield limit Re, MPa (kp/cm <sup>2</sup> )	Ultimate resistance (limit) Rm, MPa (kp/cm <sup>2</sup> )	Percentage extension As, %	Contraction ratio, %	Before aging, j / cm <sup>2</sup> (kgf·m / cm <sup>2</sup> )	After aging, j / cm <sup>2</sup> (kgf·m / cm <sup>2</sup> )	Sample type

Table continuation

Data of the mechanical tests according to the certificate or the protocol of factory tests			Additional data (ultrasonic testing, tests for hardness, the state of the initial heat treatment and others)	Chemical composition according to the certificate or the protocol of factory tests										
At T < 0° C				C	Mn	Si	Cr	Ni	Mo	Cu	Ti	V	S	P
Impact-viscosity, j / cm <sup>2</sup> (kgf·m / cm <sup>2</sup> )	Temperature, °C	Sample type												

## 7. Vessel Body Dimensions Table

Element name	Sketch number	Cross section number	Diameter, mm			Out-of-roundness, %		Straightness error, mm		Edge offset of welded butt joints				
			Nominal outer or inner	Deviation		allowable	measured	allowable	measured	longitudinal		annular		
				allowable	measured					allowable	measured	allowable	measured	

## 8. Results of testing and research of welded joints

The name of an element and a number of the drawing (sketch) indicating the connection for which	Test certificate	Mechanical tests					
		Welded joint			Weld metal		
		Ultimate resistance	Impact-viscosity	Diameter of straightening and bending angle	Ultimate resistance		

the control welded joints were made	(number and date)	Rm, MPa (kp/cm <sup>2</sup> )	Value, j / cm <sup>2</sup> (kgf·m / cm <sup>2</sup> )	Temperature, °C	Sample type	Rm, MPa (kp/cm <sup>2</sup> )	Relative extension As, %	Hardness HB

Table continuation

Mechanical tests				Evaluation	Metallographical tests	Welder's stamp
Heat-affected zone (weld adjacent zone)			Hardness HB			
Impact-viscosity						
Value, j / cm <sup>2</sup> (kgf·m / cm <sup>2</sup> )	Temperature, °C	Sample type			Macro or micro research document number and date	Evaluation

## 9. Data on non-destructive testing of welded joints

Weld designation	Number and date of the inspection document	Method of inspection	Volume of inspection, %	Defects description	Evaluation

## 10. Data on other tests and research 11. Data on heat treatment

Element name	Document number and date	Type of heat treatment	Temperature of heat treatment, °C	Speed, °C/h		Holding time, h	Cooling method
				heating	cooling		

## 12. Data on hydraulic (pneumatic) testing The vessel has successfully passed the following tests

Testing type and conditions		Part of the vessel being tested	
Hydraulic testing	Test pressure, MPa (kp/cm <sup>2</sup> )		
	Test medium		
	Temperature of test medium, °C		
	Holding time, h (min)		
Pneumatic testing	Test pressure, MPa (kp/cm <sup>2</sup> )		
	Holding time, h (min)		

Vessel position at trial	horizontal	vertical
Note: indicate "Yes" in the required column.		

### 13. Conclusion

The vessel is made in accordance with the "Rules for ensuring industrial safety during operation of the equipment working under pressure" and Design and engineering documentation

\_\_\_\_\_ (name, designation and date of approval of the document)

The vessel was subjected to external and internal inspection and hydraulic (pneumatic) test of probation pressure according to section 12 of this passport.

The vessel is recognized as suitable for work with the parameters specified in this passport.

Technical supervisor \_\_\_\_\_  
(signature) (signature decryption)

Stamp (if available)

Head of the Quality Service \_\_\_\_\_  
(signature) (signature decryption)

" \_\_\_\_ " \_\_\_\_\_ 20\_\_

### 14. Information about the location of the vessel

Name of the organization -owner	Location of the vessel	Installation date

### 15. Person who provides good operating condition and safe work of the vessel

Number and date of the order of appointment	Position, surname, name and patronymic of the appointed person	Signature

### 16. Information on installed fixture

Date	Name	Quantity, pieces	Nominal width, mm	Nominal pressure, MPa (kp/cm2))	Material (grade, GOST (State standard) or technical guidance document )	Installation location	Signature of the designated person for good operating condition and safe work of the vessel

### 17. Other data on vessel installation

a) corrosive environment \_\_\_\_\_

—  
b) anti-corrosive coating \_\_\_\_\_

—  
c) thermal insulation \_\_\_\_\_

—  
d) lining \_\_\_\_\_

—  
e) scheme of the vessel connection to the installation (line)  
\_\_\_\_\_

**18. Information on the replacement and repair of the main elements of the vessel and fixtures**

Inspection		Permitted pressure, MPa (kgf / cm <sup>2</sup> )	The date of the next inspection
Date	Results		

**19. Record of inspection results**

Date	Replacement and Repair Information	Signature of the person who conducted the work

**20. The vessel registration**

The vessel registered as № \_\_\_\_ in \_\_\_\_\_

—  
(registration authority) \_\_\_\_\_

—  
pages and \_\_\_\_\_ drawings numbered and tied together in the passport

—  
\_\_\_\_\_

—  
(position of the representative the signature of the person ensuring good condition and safe operation of the vessel)

Stamp (if available) " \_\_\_\_\_ " \_\_\_\_\_ 20\_\_

## Passport of the boiler (autonomous superheater, economizer)

### 1. General data

Name and address of the manufacturer	
Year of manufacture	
Type (model)	
Name and purpose	
Factory number	
Estimated lifetime, years	
Estimated resources, h	
of a boiler	
heating surface	
outlet collector	
superheater	
Estimated number of starts	
cold starting	
hot startup	

### 2. Technical specifications and parameters

Calculated types of fuel and their calorific value MJ / kg, (kcal / kg)	
Starting fuel and its calorific value, MJ / kg, (kcal / kg)	
Calculated pressure, MPa (kgf / cm <sup>2</sup> )	
in a drum	
in the terminal header of superheater	
Calculated temperature of superheated steam (liquid), ° C	
Steam capacity, t / h (kg / s)	
Heating capacity, MJ / h (kcal / h)	
Thermal power, W	
Heating surface of a steam boiler, m <sup>2</sup>	
Evaporative	
Superheater	
Intermediate superheater	
Economizer	
Heating surface of the boiler, m <sup>2</sup>	
Volume, m <sup>3</sup>	Steam boiler natural-circulation water with the maximum permissible level of water in the drum **

			steam with the maximum permissible level of water in the drum
			steam with the maximum permissible level of water in the drum
		monotube	steam
			water
Water boiler			

### 3. Data on safety valves (devices)

Type of safety valve	Quantity	Installation location	Valve section area, mm <sup>2</sup>	Coefficient of steam consumption alpha_s or liquid alpha_l	Opening start pressure and opening start pressure range, MPa (kgf / cm <sup>2</sup> )
1	2	3	4	5	6

Note. It shall be filled by the manufacturer of the boiler (autonomous superheater, economizer). For boilers, please specify the list of devices to protect against the increase in pressure (or temperature).

### 4. Water Level Indicator Data

Water Level Indicator type	Quantity	Installation location
1	2	3
Direct action		
Remote action		

### 5. Data on main reinforcement

Name of reinforcement	Quantity	GOST (State Standard) or technical guidance document (grade)	Nominal width, mm	Nominal pressure, MPa (kp/cm <sup>2</sup> )	Working parameters		Material of the body		Installation location
					Pressure, MPa (kp/cm <sup>2</sup> )	Temperature, °C	Grade	GOST or NTD	
1	2	3	4	5	6	7	8	9	10

### 6. Data on the main equipment for measurement, control, alarm, regulation and automatic protection

Name	Quantity	Type (grade)	GOST (State Standard) or technical guidance document
1	2	3	4

Note. It shall be filled in by the manufacturer of the boiler (autonomous superheater, economizer) in case of equipment supply together with the boiler. In other cases, it shall be filled by the owner of the boiler.

## 7. Feedwater or circulation pumps

Pump type	Manufacturer	Quantity	Maximum allowable water temperature at the inlet to the feed pump, °C	Parameters		Pump drive type (steam, electric, etc.)
				Nominal feed m / h <sup>3</sup>	Pump head at nominal feed, MPa (kgf / cm <sup>2</sup> )	
1	2	3	4	5	6	7

Note. It shall be filled by the manufacturer of the boiler (autonomous superheater, economizer) in case of supply of feed or circulation pumps together with the boiler. For power units of thermal power plants, it shall be filled by the owner of the boiler.

## 8. Data on the boiler main elements, made of sheet steel

Name (boiler shell, head or body, tube-sheet, flue tubes)	Quantity	Size, mm			Material	
		Inner diameter	Wall thickness	Length or height	Steel grade	GOST (State Standard) or technical guidance document
1	2	3	4	5	6	7

Table continuation

Data on welding			Data on heat treatment			
Welding type	Electrodes and welding wire (type, grade)	Method and control volume	Treatment type	Heat treatment temperature, °C	Soaking period	Cooling method
8	9	10	11	12	13	14

## 9. Data on the boiler elements, made of pipes

Name (collector, pipe, pipeline, elbow, transition, assembly welded pipe elements)	Quantity	Size, mm			Material	
		Outer diameter	Wall thickness	Length	Steel grade	GOST (State Standard) or technical guidance document
1	2	3	4	5	6	7

Table continuation

Data on welding			Heat treatment data			
Type	Electrodes and welding wire (type, grade, GOST (State Standard) or technical guidance document)	Method and control volume	Type	Heat treatment temperature, °C	Soaking period	Cooling method

8	9	10	11	12	13	14

## 10 Data on fittings, covers, flat bottoms, transitions, flanges with fasteners (bolts, studs, nuts)

Name	Number	Dimensions, mm, or specification number	Material	
			Steel grade	GOST (State Standard) or technical guidance document
1	2	3	4	5

Note. Fittings shall be indicated with an internal diameter of 36 mm and more.

## 11. The results of measurements of boilers' bodies, drums, collectors, which were made of sheet steel or forgings

Name of the boiler element	Form number	Section number (after 1 m length)	Outer(inner) diameter		
			Horizontal	Vertical (at an angle 90°)	Out of roundness, %
1	2	3	4	5	6

Note: For drums with inner diameter less than 1500 mm and working pressure less than 6 MPa (60 kgf / cm<sup>2</sup>), this table shall not be required to be filled.

## 12. Manufacturer's conclusion

On the basis of carried out tests and trials, the following information shall be verified:

1. The elements of the boiler or boiler as an assembly are made according to the project-design documentation developed by project organization

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(name of the organization-developer of the design documentation)

2. The elements of the boiler or boiler as an assembly have been tested and meet the above standards and technical documentation.

3. The elements of the boiler or boiler as an assembly have been subjected to trial pressure testing \_\_\_\_ MPa (kgf / cm<sup>2</sup>).

4. The pipe elements of the boiler have been subjected to measuring control for deviation from the size and shape and for permeability.

5. Elements of the boiler or boiler as an assembly are recognized as suitable for working with the parameters specified in this passport.

Technical Manager Head of Technical Quality Control of the Manufacturer



(surname, name, patronymic (if any) (surname, name, patronymic (if any) signature, stamp)

" \_\_\_ " \_\_\_\_\_ 20 \_\_\_

The passport contains drawings of the longitudinal and transverse sections and a plan of the boiler indicating the main dimensions and calculations on strength of the boiler elements working under pressure: drums, collectors, pipes of heating surfaces and pipelines within the boiler, built-in separators of direct flow boilers, outer cyclones, desuperheaters, etc.

### 13. Data on boiler location

Name of the organisation	Boiler location (address of the owner)	Installation date
1	2	3

### 14. A person ensuring proper condition and safe operation of the boiler

Number and Date of the Purpose order	Position, surname, name, patronymic (if any)	Date of the Rules knowledge check	Signature
1	2	3	4

### 15. Information about installed reinforcement (during repair or reconstruction)

Name	Installation date	Quantity	Nominal width, mm, type, grade	Nominal pressure, MPa (kp/cm <sup>2</sup> )	Material		Installation location	Signature of the person ensuring proper condition and safe operation
					Grade	GOST or NTD		
1	2	3	4	5	6	7	8	9

### 16. Replacement and Repair Information of the boiler parts, operating under pressure

Document date and number	Replacement and Repair Information	Signature of the person ensuring proper condition and safe operation
1	2	3

Note: Documents confirming the quality of the newly installed (instead of worn-out) elements of the boiler, used in the repair of materials, electrodes, welding, are stored on a par with the passport.

**17. Drawings of the boiler room (plan, cross-section and longitudinal section) and the certificate of installation quality are attached to the passport**

**18. The results of the inspection**

Inspection Date	The results of the inspection and signature of the person who conducted the inspection	Permitted pressure, MPa (kgf / cm <sup>2</sup> )	The date of the next inspection
1	2	3	4

**19. Registration**

Boiler (autonomous superheater, economizer) registered as № \_\_\_\_\_  
in \_\_\_\_\_

(registered authority) certificate of registration attached to the passport)

In total \_\_\_\_\_  
pages and \_\_\_\_\_ drawings are numbered and tied together on \_\_\_\_\_ sheets and  
separate documents on \_\_\_\_\_ sheets according to the attached inventory.

\_\_\_\_\_  
(position, surname, name, patronymic of the person, (signature)  
providing security)

Stamp of the organisation (if available)

Annex 5  
to order No. 822 of the  
Minister for Investment and  
Development  
of the Republic of Kazakhstan,  
dated November 27, 2018  
Document form

Estimated type of fuel and its calorific value, MJ / kg (kcal / kg)	
Type of furnace. Furnace heat release volume, MJ / (m <sup>3</sup> x h)	
Fuel consumption, m <sup>3</sup> / h (t / h)	
Type and characteristics of the furnace installation (burners)	
Heating surface, m <sup>2</sup>	
volume, m <sup>3</sup>	
Data on the position of the lowest liquid level	According to the drawing №
Steam boiler	
Working pressure, MPa (kgf / cm <sup>2</sup> )	
Design pressure, MPa (kgf / cm <sup>2</sup> )	



No	Type of safety valves	Quantity	Installation location	Inside nominal diameter, mm	Cross-sectional area taken when calculating the capacity, mm <sup>2</sup>	Coefficient of consumption of steam, gas alpha <sub>s</sub> or liquid alpha <sub>l</sub>	Opening start pressure and opening start pressure range, MPa (kgf / cm <sup>2</sup> )	Passport number (certificate)
1	2	3	4	5	6	7	8	9

#### 4. Liquid Level Indicator Data

No	Level indicator type	Indicators number	Installation location	Valid operating parameters		Number of the Passport (certificate)
				Pressure, MPa (kgf / cm <sup>2</sup> )	Temperature, °C	
1	2	3	4	5	6	7
	Direct action					
	Remote action					

#### 5. Data on main reinforcement

No	Name of reinforcement and its position number on the drawing	Quantity	Standard Designation	Inside nominal diameter, mm	Nominal pressure, MPa (kp/cm <sup>2</sup> )	Working parameters		Material of the body		Number of the Passport (certificate)
						Pressure, MPa (kgf / cm <sup>2</sup> )	Temperature, °C	Grade	Standard Designation	
1	2	3	4	5	6	7	8	9	10	11

#### 6. Type and basic data on the equipment supplied with the boiler for measuring, control, alarm, regulation and automatic protection

#### 7. Data on heat carrier

Name of the heat carrier (chemical formula or manufacturer)
Maximum allowable application temperature, °C
Auto-ignition temperature in open space, °C
Solidification temperature, °C
Boiling point or initial boiling point at 0.1013 MPa (1 kgf / cm <sup>2</sup> ), °C
Heat of vaporization, kJ / kg
Viscosity within the application temperature, Pa x s
Lower limit of explosive concentration at 0.1013 MPa (1 kgf / cm <sup>2</sup> ), °C
The change (curve) of the boiling point depending on the pressure
Data on the physical-chemical properties that have a harmful effect on the human body
Other data affecting the safe operation of the boiler (for example, corrosion activity, etc.)



**Table continuation**

Edge offset of welded butt joints		Out-of-roundness, %		Deviation of the longitudinal section profile, mm		Out of flat, mm	
circular		permissible	measured	permissible	measured	permissible	measured
permissible	measured						
9	10	11	12	13	14	15	16

Note. The sketch of the element is attached

**11. The results of tests and control of welded joints**

№	Name of the element and number of the drawing, sketch (with indication of connections for which control connections were made)	Certificate number and date	Mechanical tests							Metallographic analysis		Welder's stamp	
			Welded joint				Weld metal			Evaluation	Number and Date of macro or micro research document		Evaluation
			sigma <sub>-B</sub> , MPa (kgf / mm <sup>2</sup> )	Impact strength, (40), j / cm <sup>2</sup> (kgf·m / cm <sup>2</sup> )	Sample type	Diameter of sending and angle bend	sigma <sub>-B</sub> , MPa (kgf / mm <sup>2</sup> )	delta <sub>-5</sub> , %					
1	2	3	4	5	6	7	8	9	10	11	12	13	

Notes: 1. The sketches shall be attached (if necessary) indicating the location of welded joints, micrographs of structures with a description of the latter.

2. When replacing the test of welded joints of pipes for impact strength by a test for flattening or bending, the results shall be entered into the "Impact strength" chart.

3. In the "Evaluation" charts, the reference shall be made to the relevant regulatory and technical documentation.

**12. Data on non-destructive testing of welded joints**

№	The name of the element and the number of drawing (sketch)	Method of control	Volume of control	Detected defects	Evaluation	
1	2	3	4	5	6	7

**13. Other tests and studies 14. Data on heat treatment**

№	Heat treatment

	Name of the element	Number of drawing	Number and Date of certificate of heat treatment	Grade of material	Type of heat treatment	Heating rate, °C/h	temperature, °C	Soaking time, h	Cooling rate, °C	Cooling method
1	2	3	4	5	6	7	8	9	10	11

## 15. Other data 15.1. The results of hydraulic tests

No	Name of the element	Test pressure, MPa (kp/cm <sup>2</sup> )	Soaking time, min	Water temperature, °C	Date	Evaluation
1	2	3	4	5	6	7

Note. When conducting a hydraulic test after installation at the boiler installation site, the test report shall be drawn up by the organization that conducted the test and shall be attached to the passport.

## 15.2. Data relating to devices for heat carrier extinguishing in case of its ignition

## 15.3. Data on the device cooling the furnace in the event of an accident

## 16. Manufacturer Conclusion

On the basis of carried out trials and tests, the following information shall be verified:

1. The elements of the boiler or boiler as an assembly are made according to the project-design documentation developed by project organization

---

\_\_\_\_\_ (name of the organization-developer of the design documentation)

2. The elements of the boiler or boiler as an assembly have been tested and meet the above standards and technical documentation.

3. The elements of the boiler or boiler as an assembly have been subjected to trial pressure testing \_\_\_\_\_ MPa (kgf / cm<sup>2</sup>).

4. The pipe elements of the boiler have been subjected to measuring control for deviation from the size and shape and for permeability.

5. Elements of the boiler or boiler as an assembly are recognized as suitable for working with the parameters specified in this passport.

Technical Manager Head of Technical Quality Control

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\_\_\_\_\_ (surname, name, patronymic (if any) (surname, name, patronymic (if any) signature, stamp)

" \_\_\_\_\_ " \_\_\_\_\_ 20\_\_

The passport contains drawings of the longitudinal and transverse sections and a plan of the boiler indicating the main dimensions and calculations on strength of the boiler elements working under pressure: drums, collectors, pipes of heating surfaces and pipelines within the boiler, built-in separators of direct flow boilers, outer cyclones, desuperheaters, etc.

## 17. Data on boiler location

Name of the organisation	Boiler location (address of the owner)	Installation date
1	2	3

## 18. A person ensuring proper condition and safe operation of the boiler

Number and Date of the Purpose order	Position, surname, name, patronymic (if any)	Date of the Rules knowledge check	Signature
1	2	3	4

## 19. Information about installed reinforcement (during repair or reconstruction)

Name	Quantity	Nominal width, mm, тип, марка	Nominal pressure, MPa (кг/см <sup>2</sup> )	Material		Installation location	Signature of the person ensuring proper condition and safe operation
				Grade	GOST (State Standard) or technical guidance document		
1	2	3	4	5	6	7	8

## 20. Replacement and Repair Information of the boiler parts, operating under pressure

Date and number of the document	Replacement and Repair Information	Signature of the person ensuring proper condition and safe operation
1	2	3

Note: Documents confirming the quality of the newly installed (instead of worn-out) elements of the boiler, used in the repair of materials, electrodes, welding, shall be stored on a par with the passport.

## 21. Drawings of the boiler room (plan, cross-section and longitudinal section) and the certificate of installation quality shall be attached to the passport

## 22. The results of the inspection

Inspection Date	The results of the inspection and signature of the person who conducted the inspection	Permitted pressure, MPa (кг / см <sup>2</sup> )	The date of the next inspection
1	2	3	4



## 23. Registration

Boiler (autonomous superheater, economizer) registered as № \_\_\_\_\_  
in \_\_\_\_\_

\_\_\_\_\_ (registered authority)

\_\_\_\_\_ pages and drawings numbered and tid together in the passport on \_\_\_\_\_ sheets  
and separate documents on \_\_\_\_\_ sheets according to the attached inventory.

\_\_\_\_\_  
(position, surname, name, patronymic of the person, (signature)  
providing security)

Stamp of the organisation (if available)

Annex 6  
to order No. 822 of the  
Minister for Investment and  
Development  
of the Republic of Kazakhstan,  
dated November 27, 2018  
Document form

## Pipeline passport

registration number \_\_\_\_\_

\_\_\_\_\_ Name and address of the pipeline owner's organization

\_\_\_\_\_ Purpose of the pipeline \_\_\_\_\_

\_\_\_\_\_ Workspace \_\_\_\_\_

\_\_\_\_\_ Operating environment parameters:

pressure, MPa (kgf / cm<sup>2</sup>) \_\_\_\_\_

\_\_\_\_\_ temperature, ° C \_\_\_\_\_

\_\_\_\_\_ Estimated lifetime, years \* \_\_\_\_\_

\_\_\_\_\_ Estimated resource, h \* \_\_\_\_\_

Estimated number of starts \_\_\_\_\_

— The list of schemes, drawings, certificates and other documents for manufacture and installation of the pipeline, submitted during registration  
\_\_\_\_\_

— Stamp location (if available) \_\_\_\_\_

— Signature of the organization technical management (pipeline owner)  
" \_\_\_\_ " \_\_\_\_\_ 20 \_\_\_\_

\* Shall be filled according to the project organization information.

**The person who provides good condition and safe operation of the pipeline**

Number and Date of the Purpose order	Position, surname, name, patronymic	Date of the knowledge test of the boiler inspection rules	Signature of the Responsible Person
1	2	3	4

**Records of the pipeline repair and reconstruction**

Date of the record	The list of works carried out during the repair and reconstruction of the pipeline; Date of carrying out	Signature of the Responsible Person
1	2	3

**Records of pipeline inspection results**

Date of the inspection	Inspection results	The date of the next inspection
1	2	3

\_\_\_\_\_ in total \_\_\_\_\_ pages and drawings \_\_\_\_\_ are numbered and tied together on \_\_\_\_\_ sheets

\_\_\_\_\_ (position of the registering person and his signature)

Stamp of the organisation (if available)

" \_\_\_\_ " \_\_\_\_\_ 20 \_\_\_\_ .

Annex 7  
to order No. 822 of the  
Minister for Investment and  
Development  
of the Republic of Kazakhstan,  
dated November 27, 2018  
Document form

The passport shall be published in a rigid cover on sheets of format 210 x 297 mm  
Passport format of the printing edition shall be 218x296 mm  
Passport cover

---

— (crane name)

---

— (crane index) passport\*

---

— (passport designation)

\* This passport shall be a model, on the basis of which the manufacturer must compile a passport for the type of cranes produced by him according to the regulatory documentation of the parent organization, including the list of information contained in this sample, only those that relate to this type of crane. If necessary, the passport shall include additional information characterizing the specificity of the produced crane. The passport shall be filled in the State and Russian languages.

Title page

Place of the trademark (emblem) of the enterprise

---

— (name of manufacturer)

---

— (name, type of crane)

---

— (crane index) passport

---

— (passport designation)

---

— (registration number)

When transferring the crane to another owner or renting the crane with the owner's functions transfer, this passport shall be transferred along with the crane.

Back title page

## Attention of the crane owner!

1. The owner of the crane shall always have a passport on hand or it shall always be kept in the organization (at the enterprise, in the cooperative, joint-stock company, partnership, private person) that has received the land for rent, together with the functions of the owner.

2. The crane operating permit shall be obtained in the manner prescribed by the Rules for Construction and Safe Operation of Cranes.

3 \_\_\_\_\_

—  
(other information that requires special attention of the crane owner)

page. 1

## A place for drawing a general view of the crane in working position with basic dimensions indicating

format 210 x 297 (218 x 290) MM

1. General information

1.1. Manufacturer and its address \_\_\_\_\_

—  
1.2. Type of crane \_\_\_\_\_

—  
1.3. Crane index \_\_\_\_\_

—  
(indicate its execution)

1.4. Factory number \_\_\_\_\_

—  
1.5. Year of manufacture \_\_\_\_\_

—  
1.6. Purpose of the crane \_\_\_\_\_

—  
\_\_\_\_\_

—  
1.7. Classification Group (mode) of the crane \_\_\_\_\_

—  
1.7.1. Classification Group (mode) of mechanisms: \_\_\_\_\_

—  
\_\_\_\_\_

main hoist \_\_\_\_\_

auxiliary hoist \_\_\_\_\_

change in radius \_\_\_\_\_

crane movement \_\_\_\_\_

trolley movement \_\_\_\_\_

crane swing \_\_\_\_\_

1.8. Type of drive \_\_\_\_\_

(for jib self-propelled cranes indicate the type of drive mechanism movement and mechanisms located on the turntable)

1.9. Environment in which the crane can be operated:

temperature \_\_\_\_\_ ° C.

relative humidity \_\_\_\_\_

explosion hazard \_\_\_\_\_

fire hazard \_\_\_\_\_

Other characteristics of the environment as needed \_\_\_\_\_

1.10. Permissible wind speed, m / s:

for working conditions (including wind gusts), the corresponding threshold actuation of the anemometer installed on the crane ) \_\_\_\_\_

for the working condition of the crane, not equipped with an anemometer, at a height of 10 m \_\_\_\_\_

for the idle state of the crane at a height of 10 m \_\_\_\_\_

(for modular cranes, data for specific versions shall be given)

1.11. Permissible slope of the site for the installation of a boom of self-propelled

crane,% (degrees):

when working with outriggers \_\_\_\_\_

—  
when working without outriggers

1.12. Requirements for the site on which the movement of a crane with a cargo shall be allowed:

pressure on the ground (specific), Pa (kg / cm<sup>2</sup>) \_\_\_\_\_

—  
slope,% (degrees) \_\_\_\_\_

—  
1.13 Limiting the simultaneous execution of work operations  
\_\_\_\_\_  
\_\_\_\_\_

—  
1.14. Electric current, voltage and number of phases:  
power circuit \_\_\_\_\_

—  
control circuit \_\_\_\_\_

—  
working light circuit \_\_\_\_\_

—  
repair lighting circuit \_\_\_\_\_

—  
**2. Main technical data and characteristics of the crane**

2.1. Main characteristics of the crane \*:  
maximum lifting capacity of the main hoist, t

\_\_\_\_\_

—  
maximum lifting capacity of the auxiliary hoist, t

\_\_\_\_\_

—  
lifting capacity at maximum boom reach, t \_\_\_\_\_

—  
maximum load moment, m \_\_\_\_\_

—

- maximum height of the hoist, m \_\_\_\_\_
- lifting height at maximum reach m \_\_\_\_\_
- maximum lowering depth, m \_\_\_\_\_
- maximum boom reach, m \_\_\_\_\_
- boom reach with maximum load capacity, m \_\_\_\_\_
- minimum boom reach, m \_\_\_\_\_
- crane span, m \_\_\_\_\_
- cantilever outreach, m \_\_\_\_\_

\* For modular cranes, the data shall be provided for specific versions, for jib self-propelled cranes - for the main boom.

2.2. Load-lifting characteristics (compiled for all combinations of work conditions of the crane, which are provided for its operation)

Load-lifting characteristics

Place for tables, graphs and diagrams of the crane load-lifting characteristics

High-altitude characteristics

Place for tables, graphs and diagrams of the crane lift heights

2.2.1. Maximum weight of the load with which the boom section extension shall be allowed

, t (boom design shall be indicated : telescopic, telescopic

with extension, with mechanical extension, as well as working on outriggers or without them)

---



---

2.2.2. The maximum mass of the load with which a movement of the self-propelled boom crane shall be allowed, t (indicate state of the site, movement speed, boom position relative to the axis of motion) \_\_\_\_\_

2.3. Geometric parameters of the crane:

base, m \_\_\_\_\_

outrigger base, m \_\_\_\_\_

rut, m \_\_\_\_\_

tail radius, m \_\_\_\_\_

(shall be indicated when the counterweight is in pushed-in or pulled-out position)

turning radius, m \_\_\_\_\_

smallest radius of curvature of the curved section of the rail track, m

Place for a crane scheme and tables with values of basic crane dimensions and parameters of its maneuverability \*

\* it shall be compulsorily performed for jib self-propelled cranes.

2.4. Speed \_\_\_\_\_

(for mechanisms with multiple speed,

indicate all their values or the changes range )

### Speed of lifting, lowering and landing of a load, m / s (m / min)

Parts of line	Speed of the main lift			Speed of auxiliary lift		
	nominal	increased**	landing	nominal	increased**	landing

\*\* Specify the conditions under which work with the increased speed shall be allowed (or ensured)

Traveling speed, m / s (m / min or km / h):

crane with a load on the hook \_\_\_\_\_

crane without load (working) \_\_\_\_\_

transport speed (under its own power) \_\_\_\_\_



(indicate speed range \_\_\_\_\_

— from min to max)  
crane transport (in tow) \_\_\_\_\_

— cargo trolley with a load of maximum weight \_\_\_\_\_

— extension / retracting of boom section \_\_\_\_\_

— changes of handling radius(average) \_\_\_\_\_

— rotational speed rad / s (rpm) \_\_\_\_\_

— (indicated for all implements of working equipment)

2.5. Time for full change of handling radius (for main boom):  
from min to max, c (min) \_\_\_\_\_

— from min to max, c (min) \_\_\_\_\_

— 2.6. Swing angle, rad (degree) \_\_\_\_\_

— 2.7. Gradeability, rad (degree) \_\_\_\_\_

— (shall be indicated for all options  
\_\_\_\_\_

— of transportation or their range)

2.8. Place of control: \_\_\_\_\_

— when working \_\_\_\_\_

— during installation and testing \_\_\_\_\_

— when moving a jib self-propelled crane:  
in operation \_\_\_\_\_

— in transport mode \_\_\_\_\_

—

on outriggers \_\_\_\_\_

2.9. Control method (indicate control methods: mechanical, electric, hydraulic, pneumatic, etc., as applied to a specific mechanism or group of mechanisms) \_\_\_\_\_

2.10. The method of current lead to the crane and mechanisms \_\_\_\_\_

2.11. Stability characteristics \_\_\_\_\_

Load moment, kN·M (m·m)	Load stability	Own stability
Holding $M_u$ , * (during outreach), m		
Tipping over $M_0$ * (during outreach), m		

\* The value of the moments characterizing the load and its own stability shall be indicated for the working equipment and the position of the boom (outreach)  $M$ , when the ratio of moments is closest to 1 (one).

2.12 Mass of the crane and its main parts, t:  
the constructive mass of the crane (for a jib self-propelled crane shall be indicated with main boom) \_\_\_\_\_

crane mass total (for a jib self-propelled crane shall be indicated with the main boom in a full ready state) \_\_\_\_\_

Counterweight mass \_\_\_\_\_

Ballast mass \_\_\_\_\_

Mass of the main crane assembly parts transported separately \_\_\_\_\_

Weight of crane in transport position \_\_\_\_\_

2.13. Estimated wheel load on the rail, kN (tf) \_\_\_\_\_

2.14. Load of chassis axis on the base in transport position

Execution of crane	Load, kN (ts)		
	total	front axis	rear axis

2.15. Average ground pressure, Pa (for crawler cranes)

---

2.16. Other information as needed (for example, data on metal, ballast drawings, etc.) \_\_\_\_\_

### 3. Technical data and characteristics of assemblies and parts

3.1. Engines of power plants and mechanisms

3.1.1. Internal combustion engines (parameter values at sea level);  
appointment \_\_\_\_\_

\_\_\_\_\_ type and symbol \_\_\_\_\_

\_\_\_\_\_ rated power, kW (hp) \_\_\_\_\_

\_\_\_\_\_ rotating frequency, rad / s (rpm) \_\_\_\_\_

\_\_\_\_\_ maximum torque, N · m (kgf · m) \_\_\_\_\_

\_\_\_\_\_ rotating frequency rad / s (rpm) \_\_\_\_\_

\_\_\_\_\_ specific fuel consumption, g / kW · h \_\_\_\_\_

\_\_\_\_\_ starter: type and symbol \_\_\_\_\_

\_\_\_\_\_ power, kW (HP) \_\_\_\_\_

\_\_\_\_\_ air filter type \_\_\_\_\_

\_\_\_\_\_ fuel tank capacity, l \_\_\_\_\_

\_\_\_\_\_ rechargeable batteries: type and symbol \_\_\_\_\_

\_\_\_\_\_ voltage, P \_\_\_\_\_

\_\_\_\_\_ nominal capacity, \_\_\_\_\_

\_\_\_\_\_ quantity \_\_\_\_\_

\_\_\_\_\_

specific energy consumption per hour of crane operation, kWh / h \_\_\_\_\_

connection to the engine with transmission:

type \_\_\_\_\_

designation \_\_\_\_\_

hour meter, designation \_\_\_\_\_

### 3.12. Generators and electric motors

Parameters	Electric motors of the power plant	Generators	Electric drive mechanism
Purpose (mechanism on which the engine is installed)			
Type and symbol			
Type of the current			
Voltage, V			
Rated current, A			
Frequency, Hz			
Rated power, kW			
Rotational frequency, rad / s (rpm) PV, % for 10 min			
Execution (normal, waterproof, explosion-proof, fireproof etc.)			
Protection degree according to GOST 17494			
Type of connection to the engine with transmission:			
name			
type and designation			

### 3.1.3. Total rated power of electric motor, kW

### 3.1.4. Hydraulic pumps and motors

Parameters	Hydraulic pump	Hydraulic motors
Purpose		
Quantity		
Type and symbol		
Ultimate moment, N · m (for hydraulic motor)		
Rated power consumption, kW (for hydraulic pumps)		
Nominal pressure of the working fluid - discharge pressure, Pa (kgf / cm <sup>2</sup> )		
Nominal production flow (consumption) l / min		
Rotational frequency, rad / s (rpm)		
Direction of rotation		

### 3.1.5. Hydraulic cylinders:

Purpose

Quantity \_\_\_\_\_

Type and symbol \_\_\_\_\_

Hydraulic cylinder diameter, mm \_\_\_\_\_

piston stroke, m \_\_\_\_\_

force, kN (ts) \_\_\_\_\_

nominal pressure of working fluid - discharge pressure, Pa (kgf / cm<sup>2</sup>)  
\_\_\_\_\_

fluid grade \_\_\_\_\_

3.2. Schemes \_\_\_\_\_

3.2.1. Electrical schematic diagram

Place for the scheme

3.2.1.1. List of electrical equipment elements

Designation on scheme	Name and brief technical description	Type	Quantity	Note

3.2.1.2. Electric wiring diagrams

Place for the diagram

3.2.2. Hydraulic circuit diagram

Place for the scheme

3.2.2.1. List of hydraulic equipment

Designation on scheme	Name and brief technical description	Type	Quantity	Note

3.2.3. Pneumatic schematic diagram

Place for the scheme

3.2.3.1. List of elements of pneumatic equipment

Designation on scheme	Name and brief technical description	Type	Quantity	Note

3.2.4. Kinematic scheme (the kinematic scheme shall specify the installation of bearings, a list of which shall be issued as a specification for the scheme)

Place for the scheme

### 3.2.4.1. Characteristics of gear trains

Position number on scheme	Designation in the drawing	Name of details	Unit, mm	Teeth quantity	Material, grade	Heat treatment (hardness of teeth)

### 3.2.4.2. Characteristics of chain sprockets

Position number on scheme	Designation in the drawing	Name of details	Unit, mm	Teeth quantity	Material, grade	Heat treatment (hardness of teeth)

### 3.2.4.3. Characteristics of reduction gearboxes

Position number on scheme	Name, type	Designation in the drawing	Gear ratio

### 3.2.4.4. Characteristics of the brakes:

the mechanism where the brake is installed \_\_\_\_\_

— number of brakes \_\_\_\_\_

— type, system (automatic, controlled, normally open or closed, shoe brake, disk-shaped, etc.)  
\_\_\_\_\_

— diameter of brake pulley, disc, mm \_\_\_\_\_

— braking factor of margin:  
of cargo winch \_\_\_\_\_

— of boom hoist \_\_\_\_\_

— brake drive:  
type \_\_\_\_\_

— tension, H \_\_\_\_\_

— progress of the executive body, mm \_\_\_\_\_

— brake path of the mechanism \_\_\_\_\_

3.2.5. Schemes of reeving and characteristics of ropes and chains (schemes of reeving of cargo polypasts for main and auxiliary hoists, polypasts of boom hoists, jib, etc.; diagrams shall indicate the sizes of drums, blocks and methods of ropes and chains fastening)

Place for schemes

3.2.5.1. Characteristics of the ropes (completed according to the certificate of the rope manufacturer):

purpose of the rope (main, auxiliary hoist, boom, etc.)

\_\_\_\_\_

— The rope design and designation of the standard \_\_\_\_\_

— diameter, mm \_\_\_\_\_

— length, m \_\_\_\_\_

— temporary resistance of wires to breaking,  $N / mm^2$  \_\_\_\_\_

— breaking strength of the rope as a whole, \_\_\_\_\_

— estimated rope tension, kN \_\_\_\_\_

— utilization factor (ultimate factor of safety):  
estimated \_\_\_\_\_

— normative \_\_\_\_\_

— coating of the wire surface (ozh, g, s according to GOST (State Standard))

3.2.5.2. The characteristic of chains ( shall be filled under certificates of the enterprise - manufacturer of the chain

chain purpose and designation on the scheme \_\_\_\_\_

— chain design and designation of the standard \_\_\_\_\_

— diameter (gauge) of a link or diameter of a roller, mm \_\_\_\_\_

— chain pitch, mm \_\_\_\_\_

— chain length, m \_\_\_\_\_

— breaking strength of the chain as a whole, \_\_\_\_\_

—

estimated rope tension, kN \_\_\_\_\_

coefficient of ultimate factor of safety:

estimated \_\_\_\_\_

normative \_\_\_\_\_

3.3. Load-gripping devices (shall be filled in by the certificates of the enterprise-manufacturer )

3.3.1. Hooks: mechanisms \_\_\_\_\_

type (single-horned, double-horned, forged, lamellar, etc.)

number of hook and designation of the standard

rated load capacity, t \_\_\_\_\_

factory number (certificate, year of manufacture) \_\_\_\_\_

image of the Technical Control Department stamp of the crane manufacturer

3.3.2. Grab buckets:

type \_\_\_\_\_

bucket capacity,  $m^3$  \_\_\_\_\_

the type of materials for which transshipment the grapple is intended and their maximum bulk mass,  $kN / m^3$  ( $ts / m^3$ ).

weight of grapple, tons \_\_\_\_\_

mass of material to be scooped, t \_\_\_\_\_



factory number \_\_\_\_\_

image of Technical Control Department stamp \_\_\_\_\_

3.3.3. Cargo electromagnets:

type \_\_\_\_\_

current supply source:

type \_\_\_\_\_

power, kWt \_\_\_\_\_

supply current:

type \_\_\_\_\_

voltage, V \_\_\_\_\_

electromagnet mass, t \_\_\_\_\_

lifting force, kN (ts) \_\_\_\_\_

lifting materials:

chips \_\_\_\_\_

scrap metal \_\_\_\_\_

cast iron ingots \_\_\_\_\_

maximum temperature of the lifted load, ° C \_\_\_\_\_

factory number \_\_\_\_\_

image of TCD stamp \_\_\_\_\_

3.3.4. Other load gripping devices (spreaders, automatic grippers, etc.)

3.4. Devices, safety devices and signaling devices. Safety

Equipment

3.4.1. Limit switches \*

					Position number
--	--	--	--	--	-----------------

Type: lever spindle, etc. (electrical circuit)	Mechanism with which the switch is functionally connected (Installation location)	Distance from the crane load-lifting equipment, trolley up to the stop at the time of engine shutdown (m, deg, etc.)	Blocking	Quantity	on the schematic electrical diagram

\* For jib self-propelled cranes, the table shall be filled with all types and versions of the working equipment supplied with the crane.

3.4.2. Load-lifting limiter:

mechanisms disabled by the limiter \_\_\_\_\_

— designation (grade, type, modification) and serial number \_\_\_\_\_

— system \_\_\_\_\_

— maximum overload point at which \_\_\_\_\_

— limiter is triggered,% \_\_\_\_\_

— availability of sound, light warning signalling \_\_\_\_\_

— overload at which the warning signal is activated \_\_\_\_\_

3.4.3. Security contacts

Installation location (cabin, remote control, weathervan frame, etc.)	Type	Purpose	Position number on the schematics electrical diagram

3.4.4. Stops and buffers:

mechanisms which restrict movement \_\_\_\_\_

— of support stops construction (rigid, spring, hydraulic, etc.) \_\_\_\_\_

— maximum stroke, mm \_\_\_\_\_

— (for spring hydraulic and other moving structures) \_\_\_\_\_

— \_\_\_\_\_

— \_\_\_\_\_

Installation location \_\_\_\_\_

of the buffers:  
construction (rigid, spring, hydraulic, etc.)

maximum stroke, mm (for spring hydraulic and etc. buffers)

### 3.4.5. Other safety devices

Name	Type, grade, drive method	Purpose
DPC (device of crane protection against dangerous voltage)		
Anemometer (wind alarm)		
Anti-theft devices		
Parking brake		
Caterpillar trucks stoppers		
Imbalance limiter of the travelling gantry crane		
Other safety devices		

### 3.4.6. Indicators

Name	Type	Purpose
Load-lifting and radius indicator		
The crane tilt indicator		
Indicator of load on the crane load-gripping part		
Other information indicators		

### 3.4.7. Signal and communication devices

Name	Type, designation, device system	Purpose, trigger conditions
Radio station		
Sound signal		
Overall light signaling		
Other devices		

### 3.5. Cabins:

location \_\_\_\_\_

purpose \_\_\_\_\_

type, constructive type (open, closed, and so on. n.)

number of seats \_\_\_\_\_

type, characteristic of glazing \_\_\_\_\_

insulation characteristic (thermal, sound insulation, etc.) \_\_\_\_\_

— characteristics of microclimate systems in the cabin  
(ventilation, heating, air conditioning, etc.) \_\_\_\_\_

— characteristic of a seat \_\_\_\_\_

— other equipment (wipers, fire extinguishers, etc.)

3.6. Data on the metal of the main elements of the crane metalwork

(filled in by certificates of the manufacturer of the material)

Name and designation of angles and elements	Type, thickness of metal, standard	Material grade, category, group, strength class	Material grade standard	Certificate number

4. Document of Acceptance (certificate)

Crane \_\_\_\_\_

(name, type, index)

Serial number \_\_\_\_\_

— manufactured in accordance with technical standards \_\_\_\_\_

— The crane was tested according to the program \_\_\_\_\_

— and recognized as suitable for operation with the parameters specified in the passport \*  
\_\_\_\_\_

— Warranty period \_\_\_\_\_ months.

Service life at 1,5-shift work in the passport mode \_\_\_\_\_ years

Resource before the first overhaul \_\_\_\_\_ hours

Stamp place \_\_\_\_\_

(signature)

\* It shall be filled in cases when the manufacturer sends the crane in assembled form or if the company makes a complete assembly of the crane.

5. Documentation supplied by the manufacturer

5.1. Documentation included in the crane passport:

1) installation diagram of the ballast and counterweight with an indication of permission by the mass and the deviation of the plates gravity center, precautionary coloring and inscriptions applied to the plates;

2) drawings of ballast and counterweight.

5.2. The documentation supplied with the crane passport:

1) the passport (instruction) of the load-lifting limiter (load moment) and the scheme of its action;

2) a passport (formular) and instructions for installation and operation of the device recording parameters of the crane;

3) vehicle chassis passport;

4) passport of the internal combustion engine;

5) passport (instructions) of equipment and safety devices ;

6) instruction manual of the crane;

7) crane installation manual;

8) instructions for the rail track installation;

9) an album of drawings of wearing parts;

10) a list of spare parts, tools and accessories;

11) an album of electrical drawings (if necessary);

12) other documents (if necessary).

#### Data on the crane location\*

The name of the enterprise (organization) - the owner of the crane or surname and initials of the private person	The crane location (address of the owner)	Installation date

\* At least 2 pages.

Information on appointment of engineering and technical workers responsible for maintaining the crane in good condition\*

Number and Date of the appointment order or contract with the organization	Surname, initials	Position	Number and validity of the certificate	Signature

\* At least 5 pages.

Information on the repair of metal structures, replacement of mechanisms, ropes, load-gripping body \*

Date	Information on the nature of repair and replacement of elements of the crane	Data on acceptance of the crane from repair (Date, document number)	Signature of the technical engineer responsible for the maintenance of the crane in good condition

\* At least 6 pages.

Note: Documents confirming the quality of the newly installed mechanisms, ropes and other elements of the crane, as well as the materials used in the repair (metal rolling, electrodes, welding wire, etc.) and the conclusion on the quality of welding, shall be stored along with the passport.

Record of the results of the technical inspection\*

Date of inspection	Results of inspection	The date of the next inspection (partial and full)

\* At least 32 pages.

Note: In the same section, the results of a special inspection of a crane that has spent a standard service life (technical resource) are recorded.

Registration

(separate page)

Crane is registered as № \_\_\_\_\_

in \_\_\_\_\_

\_\_\_\_\_ (registered authority)

In total, \_\_\_\_\_ pages has been numbered \_\_\_\_\_ sheets tied together in the passport

Including the drawings on \_\_\_\_\_ sheets

Stamp of the organisation (if available) \_\_\_\_\_

(signature, position)

\_\_\_\_\_ (Date) (surname, initials of the registrant)

Annex 8  
to order No. 822 of the  
Minister for Investment and  
Development  
of the Republic of Kazakhstan,  
dated November 27, 2018  
Document form

## Passport of the elevator

Permission to use the elevator from " \_\_\_\_ " \_\_\_\_\_ № \_\_\_\_\_

\_\_\_\_\_ issued by \_\_\_\_\_

\_\_\_\_\_ (name of issuing authority)

### 1. General information

Manufacturer (supplier)	
Type and model of elevator	
Factory number	
Month and year of manufacture	
Allowable temperature (minimum and maximum) (° C) in: 1 . engine 2. lift shaft	
Environment in which the elevator can be operated (relative humidity, dust saturation, aggressive, explosive, fire hazardous)	

Regulatory documents, according to which the elevator is made (Rules, GOST (State Standard), regulatory documents, etc.)			
Assigned lifetime			
Rated load capacity, kg			
Number of passengers (max)			
Nominal speed of the moving cabin			
Cabin speed in "revision mode", m / s			
Control system			
Number of stops			
The number of the elevator shaft doors			
Hoisting height, m			
Electrical circuits	Kind of current	Voltage, V; ( $\pm$ )	Frequency, Hz
On the elevator introduction device			
Power circuit: 1. elevator drive 2. door drive			
Control circuit			
Lighting circuit for 1. lift cabins 2. shaft 3. repair work			
Alarm circuit			

## 2. Main technical data and characteristics of elevator equipment

### 1. Winch

Type (geared, gearless, with traction sheave, with friction pulley, winding drum, with an asterisk)
Serial number
Year of manufacture
Gear ratio
Center distance of transmission, mm
Rated torque at the output shaft, Nm
Diameter of leading body, mm
Diameter of the side block mm
Weight, kg

### 2. Brake

Type (shoe, disc, cone-, etc.)
Diameter of brake pulley (disk, drum), mm
Braking torque, N / m

### 3. Electric motors

Purpose	Electric motor	
	of winch	of door drive

Type		
Kind of current		
Voltage, V		
Rated current, A		
Frequency Hz		
Power, kWt		
Permissible overheating of the motor windings (° C) (insulation class)		
Rotation frequency, rpm		
Duty cycle (%)		
Inclusions per hour		
Execution (normal waterproof, dustproof, marine, etc.) indicating the degree of protection		
Weight, kg		

#### 4. Shaft doors:

Construction (swing, sliding, combined, single, double or multi-flaps)	
The size of the doorway in the light (width x height), mm	
Opening / closing method (manual, semi-automatic, automatic)	

#### 5. Cabin

Internal dimensions, m m width depth height	
Door construction (hinged, sliding, single, double or multi-flaps)	
The method of opening or closing doors (manual, semi-automatic automatic)	
Door drive (electric hydraulic, pneumatic, spring, etc.)	
Cabin type (through passage, not through)	
Weight, kg	

#### 6. Counterweight

Weight, kg (assembled)	
------------------------	--

#### 7. Traction and counterbalancing elements

Name	Traction elements			Counterbalancing elements
	Cabin	Counterweight	Stopper	
Kind (rope, chain etc.)				
Type (filled in according to the documentation of the traction element manufacturer)				
Construction (filled in according to the documentation of the traction element manufacturer)				
Symbol				
Diameter, pitch, dimensions, mm				
Number of items, pcs				
The length of one element, including the length required for fastening, m				



Breaking strength (breaking load), H				
Reserve strength ratio (for traction elements)				

### 3. Safety devices

#### 8. Mechanical devices

Name and characteristics		Cabin	Counterweight
Catchers	Type (sharp, sharp with shock-absorbing way, smooth braking, designation)		
	Powered by(speed limiter,a device triggered by slack of all traction ropes)		
Speed limiter	type (centrifugal, pendulum and etc.) designation		
	Speed of the cabin(counterweight) at which the speed limiter is activated, m / s		
	M a x i m u m Minimum		
Buffer	Type (fixed stop, energy-storage type, energy-dispersive etc.)		
	Height in free state, mm		
	Quantity, pieces		

#### 9. Electrical safety devices installed in the elevator

C a b i n	L e v e l	C o n t r o l :
1. at the lowest floor		platform
2. at the highest floor platform		
Control of the shaft door closing		
Automatic lock control of the shaft door		
Control of the closing of the shaft door leaf that is not equipped with a lock		
Control of the shaft's emergency door closing		
Control of closing the door for maintenance in the shaft		
Control of the inspection hatch closing in the shaft		
Control of closing the cabin door		
Control of shaft door closing		
Control on cabin speed limiter actuation		
Control on reset of the cab speed limiter to starting position		
To stop the elevator (switch, "Stop" button)		
Catcher actuation control		
Control of breakage or relative movement of traction elements		
Control on break or slack of the rope in the speed limiter		
Tension control of the balancing ropes		
Monitoring the device operation on limiting the tension device's surge of the balancing ropes		
Control on accession of the removable device for manual movement of the cabin (the position of the removable steering wheel)		
Control on return of energy-dispersive type buffer to its original position		
Disconnection of control circuits from the lift shaft		

Disconnection of control circuit from the lift pit
Disconnection of control circuits from the block room
Monitoring the position of the service platform
Blocking device position control

### 10. The list of documents attached to the elevator passport

The title of document	Document designation	Number of pages
Installation drawing		
Schematic diagram with a list of elements		
List of operational documents		

Annex 9  
to order No. 822 of the  
Minister for Investment and  
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of the Republic of Kazakhstan,  
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Document form

## Passport of the lift

Title page

Place of the trademark (emblem) of the enterprise

Country \_\_\_\_\_

\_\_\_\_\_

(name of manufacturer)

\_\_\_\_\_

(name, type of lift())

\_\_\_\_\_

(lift index)

passport \_\_\_\_\_

\_\_\_\_\_

(passport designation)

Registration number \_\_\_\_\_

\_\_\_\_\_

When transferring the lift (skylift) to another owner or renting the lift with the owner's functions transfer, this passport shall be transferred along with the lift.

Attention of the lift owner!

1. A passport shall be kept at all times with the owner of the lift or in the organization (at the enterprise, cooperative, joint-stock company, partnership, private person) who has received the lift for rent, together with the functions of the owner.

2.1. \_\_\_\_\_

2.2. \_\_\_\_\_

3. \_\_\_\_\_

(other information that requires special attention of the lift owner)

List of documentation supplied with the crane passport

Document name	Document designation	Number of pages
Technical description and instruction manual of the lift		
Technical passport		
The user manual of the car		
Album of the fast wearing parts		
SPTA Set List		

**1. General data**

1.1. Enterprise-manufacturer	
1.2. Type of the lift	
1.3. Factory number	
1.4. Year of manufacture	
1.5. Purpose of the lift	
1.6. Design of the working equipment	
1.7. Design of the undercarriage	
1.8. Type of drive	

1.9. Environment where a lift can operate: temperature - the highest the lowest, relative air humidity, explosion hazard fire hazard	C %
1.10. Permissible wind speed at a height of 10 m: for the working condition of the lift	

## 2. Main technical data and characteristics of assembly units and parts 2.1 Engines of power plants. Engines (engine) of internal combustion


### 2.2. General data

2.1.1. Load capacity, kg * (N)	
2.1.2. Working lifting height, m *	
2.1.3. Radius, m*	
2.1.4. Base, m	
2.1.5. Front and rear wheel track, m	
2.1.6. Ground clearance, m	
2.1.7. Minimum turning radius, m	
2.1.8. The maximum slope which is overcome by a lift,%	
2.1.9. Maximum transport speed of the lift movement, m / s (km / h)	
2.1.10. Support contour, m	
2.1.11. Time of lifting an elevator cradle to the greatest height,	
2.1.12 Maximum rotational speed of the turning part, s-1 (rpm)	
2.1.13. Angle of rotation, deg.	

2.1.14. Place for control				
2.1.15. Control method (electric, hydraulic)				
2.1.17.	Control	fuel	consumption	mode:
transport	mode,	l	/ 100	km
working mode, l / hour				
2.1.18. Stability coefficient				
2.1.19. Weight of the lift, kg				

\* The lift service area shall be given in the passport.

## 2.3 Rechargeable batteries

3.2.1. Type and symbol				
3.2.2. Voltage, V				
3.2.3. Nominal capacity, f				
3.2.4. Number				

## 3.4. Electric motor (electric motors)

3.3.1 Purpose				
3.3.2. Type and symbol				
3.3.3.	Kind	of	current	
3.3.4. Voltage, V				
3.3.5. Rated current, A				
3.3.6. Frequency, Hz				

## 3.4. Hydraulic pumps and motors

3.4.1. Purpose				
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3.4.2. Quantity, ps.
3.4.3. Type and symbol
3.4.4. Ultimate moment, N · m
3.4.5. Nominal pressure of working fluid – (discharge pressure), Pa (kgf / cm <sup>2</sup> )
3.4.6. Nominal production flow ( consumption) l / min)

### 3.5. Hydraulic cylinders:

3.5.1. Purpose
3.5.2. Quantity, ps.
3.5.3. Type and symbol
3.5.4. Rod diameter, mm
3.5.5. Piston stroke, mm
3.5.6. Force, kN (ts)
3.5.7. Nominal pressure of working fluid – (discharge pressure), Pa (kgf / cm <sup>2</sup> )

### 3.6. Steel ropes

3.6.1. Purpose of the rope (tracking system, rope system, etc.)
3.6.2. Rope design and designation of the standard
3.6.3. Diameter, mm
3.6.4. Length, mm
3.6.5. Temporary resistance of wires to breaking, N /
3.6.6. Breaking strength of the rope as a whole, H
3.6.7. Ultimate coefficient of safety: by rules / in fact

\* Filled according to the documentation of the organisation-supplier

### 3.7. Characteristic of chains

3.7.1. Chain purpose
3.7.2. Chain design and designation of the standard
3.7.3. Diameter (gauge) of a link or diameter of a roller, mm
3.7.4. Chain pitch, mm
3.7.5. Chain length, mm (links number, p-s)
3.7.6. Breaking strength of the chain, κH
3.7.7. Estimated rope tension, kN
3.7.8. Ultimate coefficient of safety

### 3.8. Characteristics of gear trains

Name of assembly unit	Designation in the drawing	Name	Unit, mm	Teeth number	Material	Heat treatment (hardness of teeth)

### 3.9. Characteristics of chain sprockets

Name of assembly unit	Normative document number or designation in the drawing	Name	Unit, mm	Teeth number	Material	Heat treatment (hardness of teeth)

### 3.10. Load-gripping devices\*

3.10.1. Hook (single-horned, etc.)
3.10.2. Designation of the normative document and number of hook by the standard
3.10.3. Rated load capacity, kg
3.10.4. Factory number

3.10.5. image of the Technical Control Department stamp

\* Filled according to the documentation of the organisation-supplier

### 3.11. Brakes:

3.11.1. Mechanism where the brake is installed

3.11.2. Type of the brake

## 4. Safety device

4.1. Device against overloads

4.2. The tracking system of the cradle orientations in vertical position

4.3. Device for limiting service area

4.4. The locking device of the lifting and rotation of the boom when lift is not set on supports

4.5. Device for blocking the lifting of supports at the working position of the boom

4.6. Device on emergency lowering a cradle in case of failure of the hydraulic system or engine

4.7. Device protecting additional supports of the lift from spontaneous moving during the lift operation

4.8. Device of index of a tilt angle of the elevator

4.9. The device of the engine emergency stop with control from a cradle and from the lower panel

4.10. Anemometer (for lifts with a lifting height of 22 m)

### 4.1. Signal and communication devices

name	type	purpose	Installation location

## 5. Data on the metal of the main (design) elements of the lift metal structures\*

Name and designation of	Type, thickness of metal, the designation	Material grade, category,	The designation of the regulatory	Electrodes, welding wire (type, grade), the



the assembly unit	of the regulatory document	group, strength class	document on the material grade	Certificate number	designation of the regulatory document
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