Manufacturer: JSC «POZHTECHNIKA» Belarus, 210602, Vitebsk, M. Gorky Str., 145, ptc01.com

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OPERATING MANUAL PBAK.634234.005 RE

CARBON DIOXIDE CO2 MOBILE MARINE FIRE EXTINGUISHER INEI

Manufacturer´s warranty	The service life of fire extinguisher	Refilling period – every
4 YEARS	20 YEARS	5 YEARS

ONE FREE REFILING OF FIRE EXTINGUISHER INEI DURING THE WARRANTY PERIOD

THANK YOU FOR BUYING MOBILE FIRE EXTINGUISHER INEI®

INEI® mobile fire extinguishers are manufactured in accordance with Belarus and Russian standards of safety and quality and meet the most stringent requirements for the fire protection means.

All mobile **INEI®** fire extinguishers are manufactured from reliable components and are charged with high-quality extinguishing media under the continuous supervision of qualified specialists.

You have purchased a mobile fire extinguisher of professional designation designed to suppress and localize fires in oil refineries, oil and gas production and chemical enterprises, airports, transport and military facilities.

The fire extinguisher **INEI®** is perfect for protecting your house or household structures on your site since it has a set of important functional characteristics:

EFFECTIVE – capable to extinguish flammable liquid and electrical equipment up to 10000 V;

ALL-WEATHER – can be stored and used in outdoor conditions year-round at a temperature range -40 °C... +50 °C;

ALWAYS READY FOR USAGE – the body of a fire extinguisher is always pressurized;

MOBILE – due to an ergonomic trolley, it rolls effortlessly over long distances and easily manages to overcome obstacles;

READ THE OPERATING MANUAL CAREFULLY BEFORE USING THE MOBILE FIRE EXTINGUISHER. PLEASE KEEP THIS MANUAL FOR THE DURATION OF USE.

Fire extinguishers must be repaired and recharged only in specialized organizations with all necessary licenses and permits and only in accordance with the technical documentation of the manufacturer.

WARNING! The opening or disassembly of mobile fire extinguishers by persons who do not have the appropriate licenses and permits is strictly prohibited.

This operating manual presents information on the design and functions of carbon dioxide CO2 mobile fire extinguisher INEI and as a reference guide for cases of its intended usage.

A sample identification code to order the fire extinguisher: Carbon Dioxide CO2 OU-10-BCE Marine INEI Fire Extinguisher

1. INTENDED USE

1.1 Carbon dioxide CO2 mobile fire extinguishers INEI are designed for installation in agencies and units of emergency situations, as safety equipment for companies and institutions of national economy, vehicles, and in domestic environments as primary fire protection equipment for fires of class B (Flammable Liquid), class C (Flammable Gas) and class E (Electrical Equipment up to up to 10000 V).

1.2 The fire extinguishers are not designed for alkali and alkaline earth metal fires that can burn with no airflow.

2. TECHNICAL CHARACTERISTICS

2.1 Technical characteristics are presented in Table 1.

Table 1 – Technical Characteristics

Parameter name/Value	OU-10 Marine	OU-15 Marine	OU-25 Marine	OU-50 Marine
1. Operating pressure(design) in the fire extinguisher cylinder at 20±20 C, MPa (kgf/cm2)	5,8 (58)			
2. Firefighting agent stream duration, s, no less than	15			
3. Firefighting agent stream length, m, no less than	4			
4. Firefighting agent (carbon dioxide CO2 per GOST 8050) weight, kg	10-0,5	15-0,75	25-1,25	50-2,5
5. Class B fire extinguishing capacity, no less than	70B	89B	113B	144B
6. Weight of the fire extinguisher in running order, kg	45±5	61,2±6,8	102,7±11,4	196,4±21,8
7. Date of the next recharging, years, no more than	5			
8. Operating temperature range, °C	-40 °C...+ 50 °C			
9. Dimensions, mm, not more than: height cylinder diameter width along the axis	 965 2x140 420	 1100 220 380	 1500 220 480	 1500 2x220 700
10. Service life, years, no less than	20			

3. DELIVERY SET

3.1 The delivery set is specified in Table 2.

Table 2 – Delivery set.

Item name	OU-10	OU-15	OU-25	OU-50
Fire extinguisher (charged cylinder with a sealed lock and release device), pcs.	2	1	1	2
Spray hose with discharge horn, pc.	1	1	1	1
Operating Manual (passport), pc.	1	1	1	1
Manifold, pc.	1	-	-	1
Trolley or chassis (complete with clamps, wheels, fasteners), pcs.	1	1	1	1

3.2 If the fire extinguisher shipped disassembled, the spray hose with discharge horn shall be connected to the fire extinguisher lock and release device or to the manifold. The fire extinguisher must be assembled with the trolley using mounting kit and clamps.

4. DESIGN

4.1 4.1 The fire extinguisher consists of:

- steel body mounted on the trolley or chassis ,
- lock and release device (hereinafter referred to as LRD), screwed into the body and allowing to repeatedly interrupt and resume the supply of the extinguishing agent;
- spray hose with discharge horn used to sent extinguishing agent to the source of ignition.

5. OPERATING PRINCIPLE

5.1 The principle of operation of the mobile carbon dioxide fire extinguishers INEI is based on the use of pressure created by the saturated steam of carbon dioxide, which is also a fire extinguishing agent, for the discharge of its liquid phase into the source of ignition.

5.2 When the user removes the pin and presses onto the LRD top handle, the LRD valve is opened and the pressurized fire extinguishing agent (carbon dioxide CO2) goes through the syphon tube, the LRD, and the sprayer onto the center of ignition. To stop the agent stream, LRD top handle should be returned to its initial position.

6. FIRE EXTINGUISHING PROCEDURE

6.1 Outdoor fires must be extinguished on the windward side.

6.2 Firefighting agent stream must be sent to the base of the flame.

6.3 The fire extinguisher must not be turned more than 30° from the vertical axis.

6.4 Extinguishing of the fires of all electrical systems up to 10000 V shall be done at a distance not less than 2 meters between the extinguisher discharge horn and the live parts.

7. SAFETY MEASURES

7.1 Never touch the discharge horn when extinguishing a fire as you may get a cold burn.

7.2 Firefighting agent stream may cause static electricity on the discharge horn.

7.3 After using fire extinguisher indoors, the room shall be ventilated since carbon dioxide in concentrations more than 5% (92 g/m3) has a detrimental effect on the human body: it reduces the volume of oxygen in the air and can cause oxygen deficiency and suffocation.

7.4 Fire extinguishers may be used to extinguish electrical fires at 10000 V from the distance of at least 2 m.

7.5 Actuating range of the LRD safety device membrane is 18 MPa to 22 MPa.

7.6 DO NOT:

- use fire extinguishers if they have dents, bulges and cracks on the fire extinguisher

cylinder or the lock and release device, or when the structural integrity of the LRD or the cylinder is compromised;

- perform any maintenance when the fire extinguisher cylinder is pressurized;
- hit the fire extinguisher;
- direct the firefighting agent stream towards people standing nearby;

8. OPERATION PROCEDURE

8.1 Fire extinguisher activation procedure described on the label.

8.2 Fire extinguisher users must be familiar with the rules of operation and use of fire extinguishers.

8.3 Operating temperature range is specified in the Table 1.

8.4 Placement and operation of fire extinguishers on facilities must be carried out strictly in accordance with the requirements of TKP 295-2011, GOST 12.4.009, GOST-R 59641-2021, "Industrial Safety Rules for Hazardous Production Facilities Using Equipment Operating under Excessive Pressure" (RF), "Rules for Ensuring Industrial Safety of Equipment Operating Under Excessive Pressure" (RB) and the instructions of this manual.

8.5 Fire extinguishers must be located on the protected facility in such a way that ensures they are protected from direct sunlight, heat flow, mechanical impact and other adverse factors – vibrations, corrosive media, excess moisture, etc.

8.6 Fire extinguishers must be clearly visible and easily accessible in case of a fire.

8.7 Fire extinguishers must not be installed in locations where temperatures are beyond the temperature range specified on the fire extinguisher.

8.8 A maintenance log card shall be created for each fire extinguisher installed at the facility (commissioned), with the corresponding entry made therein.

Each fire extinguisher shall be assigned a serial number, which is to be marked on the extinguisher itself. A corresponding entry regarding the commissioning of the extinguisher shall be made in the Fire Protection Systems Operation Logbook of the facility.

8.9 Fire extinguishers must undergo regular maintenance inspections.

8.10 Regular inspection is necessary to check the condition of fire extinguishers, to control installation locations and that the fire extinguishers are properly secured, that they can be easily approached, and that operating instructions for fire extinguishers positioned correctly and legible.

8.11 Inspections and condition assessments of fire extinguishers shall be carried out by licensed organizations or certified individual contractors authorized to perform such work under applicable law. These inspections must be conducted at least once a year.

8.12 Inspections shall include a visual check and verification for any leakage of the extinguishing agent. All findings and actions taken must be documented in the fire protection system maintenance log.

Fire extinguishers must be decommissioned and sent to specialized organizations for maintenance (repairs, recharging) in case any of the following irregularities have been found: dents, chips or deep cracks on the cylinder or the lock and release device of the fire extinguisher; considerable damage done to protective and paint-and-lacquer coating; absence of clear and understandable labeling; absence of stamps for fire extinguishing cylinder reexamination; absence of a seal or pin; unsatisfactory condition of the firefighting agent sprayer: signs of mechanical damage, corrosion, welding burr or other factors preventing firefighting agent from being released from the fire extinguisher freely; firefighting agent leak is more than 5% from initial mass per year.

The control of the leakage from the fire extinguisher is determined by weighing. The weight of the charge with tolerance is indicated on the label. The structural mass (the mass of the cylinder with LRD and without charge) is engraved on the LRD.

8.13 In facilities of high fire risk (A-class rooms) or in case fire extinguishers are subject to such adverse factors as positive or negative temperatures approaching limit values (more than 40 °C or less than 35 °C), air humidity over 90% (at 25 °C), corrosive media, vibrations, etc., fire extinguishers must be inspected and checked for firefighting agent leaks at least once every 6 months.

9. RECHARGING

9.1 Fire extinguishers must be recharged after they have been completely or partially used, in case visual inspection revealed any irregularities (see paragraph 8.13), or if the volume of charge leaked exceeds 50 g per year.

9.2 Fire extinguishers must be recharged at least once every 5 years after manufacturing date.

9.3 Water vapor content in the carbon dioxide must be no more than 0,006% by weight.

9.4 Carbon dioxide used as the firefighting agent must be at least first grade and have all necessary supporting documentation. The fire extinguishing agent used for works according to the requirements of the Register must be approved by the Register and be safe for humans.

9.5 It is necessary to carry out tests, including hydraulic tests, of the body and parts of the fire extinguisher at least once every 5 years.

9.6 An appropriate entry regarding the recharging of the fire extinguisher shall be made in the Fire Protection Systems Operation Logbook of the facility.

WARNING! Fire extinguishers must be repaired and recharged only in specialized organizations with all necessary licenses and permits and only in accordance with the technical documentation of the manufacturer.

10. TRANSPORTATION AND STORAGE

10.1 Transportation and storage procedure must correspond to operating conditions and requirements of GOST 15150. Fire extinguishers may be transported by road and rail transport in accordance with Transportation rules established for a specific type of transport.

10.2 Fire extinguishers must be protected during transportation and storage against mechanical damage, temperatures above 50 °C, direct sunlight, atmospheric precipitation, moisture and corrosive media.

11. SAMPLE MAINTENANCE DOCUMENTATION

11.1 Table 3 (recommended) — Fire Extinguisher Maintenance Log Card Format

1. Serial number assigned to the extinguisher		6. Manufacturer's serial number	
2. Date of placement of the extinguisher at the protected site		7. Date of manufacture	
3. Location of the extinguisher installation		8. Date of next scheduled recharge	
4. Type and model of the extinguisher		9. Service life of the extinguisher	
5. Manufacturer of the extinguisher		10. Responsible person and signature	

11.2 Table 4 (recommended) — Fire Protection Systems Operation Logbook Format for Maintenance and Servicing of Fire Extinguishers

Serial number and model of the extinguisher		Date of extinguisher recharge	
Date of testing, recharging, or repair; organization performing the maintenance or repair		Brand (concentration) of the extinguishing agent used	
		Inspection results after recharging	
Results of inspection and pressure testing		Date of next scheduled recharge	
Date of next scheduled test		Position, surname, initials, and signature of the responsible person	

12.CERTIFICATION INFORMATION

12.1 Certification information is specified in Table 5 and Table 6.

Table 5 – Russian Maritime Registry of Shipping Type Approval Certificate

Fire Extinguisher	The Authority issuing the certificate: Russian Maritime Registry of Shipping, Osipovichi
OU-25 Marine OU-50 Marine	CTO № 20.00080.125 Type Approval Certificate (valid until 26.08.2025г.)

Table 6 – Certification information

Fire Extinguisher	The Authority issuing the certificate: Pozhtest Certification Authority for the Federal State Institution All-Russian Scientific Research Institute for Fire Fighting Defense in the Ministry of Emergency Situations of Russia, Balashikha
OU-10 Marine OU-15 Marine OU-25 Marine OU-50 Marine	№ ЕАЭС RU C-BY.ЧС13.В.00376/21 Certificate of conform (valid until 26.11.2026)

13. CERTIFICATE OF ACCEPTANCE

Carbon dioxide fire extinguishers "INEI" comply with the technical specifications of ТУ РБ 28832140.005-99, TR EAEU 043/2017, are marked with an acceptance stamp and are recognized as fit for use. The month and year of manufacture are indicated on the label located at the top of the case.

Fire extinguisher label:

Release date:

Date of sale _____ Stamp of acceptance _____

14. MANUFACTURER WARRANTY

14.1 Fire extinguisher warranty period shall be 36 months after selling date but no more than 48 months after manufacturing date.

14.2 The Manufacturer guarantees that any faults found by the consumer during the warranty period shall be corrected no later than one month after the Manufacturer is notified of said fault.

14.3 The manufacturer guarantees the compliance of the fire extinguisher with ТУ РБ 28832140.005-99, TR EAEU 043/2017, provided that the user complies with the operation, transportation, and storage rules.

14.4 The Manufacturer shall not be liable in the following case:

- non-compliance with rules of operation by the extinguisher owner;
- factory seal is missing;
- presence of mechanical damages;
- decorative and protective coverings damages;

14.5 Expiry of the Fire extinguisher recharge date is not a warranty case.

15. RECYCLING

15.1 At the end of their service life, fire extinguishers must be recycled.

15.2 Recycling of fire extinguishers is carried out by specialized organizations with all necessary licenses and permits.

MANUFACTURER'S CERTIFICATE (MC) OF PRODUCT COMPLIANCE WITH THE RS REQUIREMENTS

ПБАК.634234.016МС

Place of survey: **Vitebsk, Republic of Belarus**

Manufacturer: **JSC «Pozhtechnika»**

This is to certify that the products listed below have been manufactured, surveyed and tested in accordance with rules of Russian Maritime Register of Shipping.

Product: **Mobile stored pressure dry powder fire extinguishers: see item 13**

Test information: **test report №.УОТК00000000_____ (Acceptance testing of products)**

Serial№: **see item 13**
Date of Manufacture: **see item 13**

Technical specification: **ТУ РБ 28832140.005-99 (am.10); General arrangement drawings: ПБАК.634234.016 СБ, ПБАК.634234.017 СБ; Operation manual: ПБАК.634234.005 РЭ; Testing program – were approved by RS letter №125-318-2-176534 of 22.07.2020**

The product complies: **P.5.1.11 of Part VI of Rules for the Classification and Construction of Sea-Going Ships (2020); s.4.3 of Part IV of Rules for the Technical Supervision During Construction of Ships and Manufacture of Materials and Products for Ships (2020); ps.2.1 Chapter 4 of International Code for Fire Safety Systems (Resolution MSC.98(73)); Technical Regulation Concerning the Safety of Sea Transport Items**

Type Approval Certificate: **20.00080.125**

Validity Type Approval Certificate: **26.08.2020 – 26.08.2025**

RS brand: **not required**

The items is labeled with a conformity mark:

This Certificate is issued on the basis of the Manufacturer's quality control system certificate **№ 23.44.01.00057.125 (01.11.2023-23.10.2025)**

On behalf of Manufactured: **see item 13**