0474-

TH/15-1 型压缩空气紧急逃生呼吸装置

TH/15-1 Emergency Escape Breathing Device

产品说明书

Instructions



上海方展消防科技有限公司

SHANGHAI FANGZHAN FIRE TECHNOLOGY CO., LTD

Instructions

TH/15-1 Emergency Escape Breathing Device (Hereinafter referred to as EEBD) is a self-protective breathing apparatus for people in distress to escape and self-protect. Only operated properly,it can help users escape from accident spot safely within effective use of time.

Life is precious. Please prepare escape devices in yourwork environment and know their functions and instructions.

Warnings!

1.This product is for escape only, not for entering or returning to environment unable to breathe;

2.This product is not for escape from water;

3.This product is for trained adults of physical fitness only;

4.Always make sure that the time of escape routes should be less than continuous working time of the product.

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Ⅰ、Summary

1.1 Main purposes

TH/15-1 Emergency Escape Breathing Device is a self-contained compressed air breathing apparatus, mainly used for emergency escape from the environment that can not breathe.

1.2 Applicable environment

1.2.1 Environment such as Smoke, hypoxia,by toxic gas, smog, steam, etc.

1.2.2 Environment of temperature of -30℃～60℃, relative humidity of 0～100%，atmospheric pressure of 0.7bar～1.25bar.

1.3 Implementation standards

This product is tested qualified and meets with the ISO 23269-1:2008 standards and the EU Marine Equipment Directive (MED) 96/98 EC requirements, the 2000 amendments to the 1974 SOLAS Convention Chapter 11-2 / 13.3.4 and the International Fire Safety Systems (FSS) rules Chapter3. 2.2.

1.4 Product Features

1.4.1. This product is designed as International Maritime Organization (IMO) requirements, it can work more than 15

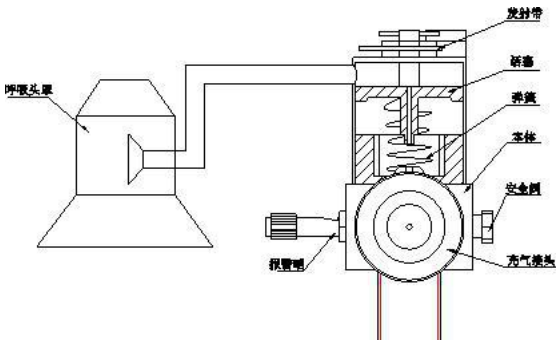
minutes,and it weighs light, easy to operate, and without complicated operations.The user only need to wear the hood rapidly, then the emergency escape breathing device will supply the air automatically.

1.5 Main performance indicators

Table 1

Cylinder Volume	3.0L
Charging pressur	210bar±10bar
Duration time	≥15 min
Alarm time	≥1 min
Amount of Air release	≥630L
Whole set weight (With gas)	≤7.5kg

Ⅱ、Device structures



1.Pull the emission band, internal piston will move under the strenght of pistion, push the piston, then the cylinder valve is opened.The gas output is constant current, air flow is more than 35L/m, output pressure is 0.4-0.9mpa.

2.There is an alarm device inside the cylinder valve, when the air pressure is less than 1MPA, the piston is under the strength of string,O ring will back to the inside alarm hole. Then the gas will go through the alarm device and the alarm sound.

Ⅲ、Wearing Sketch



1. Check the pressure on pressure gauge, observe the cylinder capacity and pull apart the seal.



2. Put on the bag



3.Take out the face mask rapidly and wear it from the head down, and be noticed that transparent window is in the front and the shawl covers the shoulders.



4. Quickly fled the scene of the accident

Ⅳ、Inspections and maintenances

The escape breathing device should be checked for at least a quarter in the spare time.

4.1 Daily inspections

4.1.1 Check every components of the emergency escape breathing device and see if there is damage;

4.1.2 Observe pressure gauge reading, and make sure the air pressure inside the cylinder should be no lower than 210bar(20℃). Once lower than 210bar, the cylinder must be charging, but the pressure can't be exceed the rated value.

***Note: Due to thermal expansion and contraction of compressed air, the air in the air pressure will change with the change of environment temperature. The temperature is too low or the temperature is too high pressure appears to be a normal phenomenon.For room temperature 20℃, the air pressure inside is 210 bar. The corresponding relationship between temperature and pressure is shown in Table 2

Table 2

Temperature	Pressure inside the cylinder (Bar)	Temperature	Pressure inside the cylinder (Bar)
-30℃	160	20℃	210
-20℃	170	30℃	220
-10℃	180	40℃	230
0℃	190	50℃	240
10℃	200	60℃	250

4.2 Daily maintenances

4.2.1 Cylinder

a. Avoid collision, scratch and pound; avoid high-temperature baking, freezing, and sun exposure; repair peeling paint and prevent sidewall rust;

b. Use it according to date marked; do pressure test once every three years and be qualified before use;

c. Inflate timely after use for next use;

4.2.2 Decompression device

Do not disassembly during use. Once repairing, re-adjust the chamber pressure and flow.

4.3 Notes

(1)The device should be placed in a dry, clear, easy-to-access place wherethere is no direct sunlight;

(2)The device should not come close to any grease or other corrosive liquid;

(3)The cylinder should do pressure test once every three years in manufacturer or government authority and be qualified before use;

(4)The device should avoid heavy pressing,high-temperature baking,freezing and sun exposure;

(5）Train relevant personnel before using the device;

(6)Once there is failure or damaged parts, repair them in manufacturer or its authorized agencies;

(7) No filling oxygen to the cylinder to avoid accidents;

(8)Inflate the cylinder to 210 bar first and after cooling, re-inflate to 210 bar to ensure use time;

(9) Compressed air for breathing should be clean, free of odor and meet the following requirements:

CO no more than 5.5mg/m

CO no more than 900mg/m

Oil no more than 0.5mg/m

Water no more than 50mg/m

(10)The device should not be used for fire fighting, into an hypoxia empty tank or liquid cargo, or for fire fighters;

(11) No take off the hood before the cylinder valve pin is not pulled;

(12) If need to take off the hood to check, please be sure to seperate the connection hook from hood.After checking, please reconnect the hook with hood.

Ⅴ、Fault Diagnosis and Solutions

Faults	Causes	Solutions
Air leakage at cylinder valve	Valve disc rupture,pressure cap screw loose, O-ring aging	Replace disc,tighten pressure cap, replace O-ring
No indicate on pressure gauge	Pressure gauge damaged,leakage,air hose block or air leakage	Replace gauge or air hose
Air leakage at connection parts	O-ring aging or damaged	Replace ne O ring
Damage on face mask and bag	Aging or damaged	Replace new face maskand bag

Ⅵ、Complete Set of Escape Device

Complete sets include:

1) Escape device one set

2) Device bag one piece

3) Device packing carton one piece

3) Attachment papers one set

Ⅶ、Transportation and storage

7.1 Transportation

No rain exposure, not putting in one carriage with oil, flammable, corrosive media, and handle it gently;

7.2 Storage

Place the device in dry, clear, easy-to-access place where the relative humidity is less than 80%, away from the heat by not less than 1.m; and avoid sunexposure;

Ⅷ、Maintenance

8.1 Product warranty

The escape device(EEBD) is within warranty of six months from leaving the factory; if exceeding six months, maintenance costs are

responsible for the user; users should do the repair in the manufacturer or authority approved repair station;

8.2 Maintenance

User should, according to related agencies' requirements, check the escape device(EEBD) periodically, establish record card; if any problems occur, solve them in time. Please refer to chapter V--Fault identification and solutions. When replacing pressure gauge, do the following:

a. Open the EEBD cylinder valve pin, clear the air inside the cylinder;

b. Use a wrench to remove the pressure gauge;

c. Replace a new one, and tighten it;

d. Use air compressor or charging unit ,please be sure that the air compressor is up to 200bar, then open the valve hand wheel to charge, fill in the gas to 210bar (20℃) first,and after cooling, re-filling the gas to 210.

e. Put the cylinders into water to check the air gastightness;

f. Connected the qualified cylinders with medium-pressure air hose, connect the hood with cylinder valve pin, and then put the whole set EEBD into bag.

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