

THDF Air Compressed Emergency Escape Breathing Device

Operation Manual

This product has been approved by the Germanischer Lloyd Classification Society / China Classification Society and is in conformity with the documents of the International Fire Safety System Regulations and Marine Equipment Directive (MED).

To operate and maintain the product, the regulations of the operation Manual must be observed, Otherwise the safety of the user will be daggered or the instrument will be damaged.

1. Applicable range

THDF Air Compressed Emergency Escape Breathing Device has two types: THDF10-I/II (2.2L 21Mpa) cylinder and THDF15-I /II(3L 21Mpa) cylinder. It supplies 10 or 15 minutes of constant flow air separately. It can be used to escape when the person is under the environment with noxious gases, harmful gases, smoke or lack of oxygen. It is applicable mainly for the wheel house, engine room, cabinet, recreation room and vertical place of the ship. And it is applicable for other similar dangerous area also.

2. Characteristics

1. THDF series Emergency Escape Breathing Devices has the characteristics of small volume, lightweight. It is simple to operate and easy to use. It can be taken by hand, carried over shoulder or put on the neck by all kinds of user.

2. THDF series urgent breath equipment can provide constant flowing air. The cylinder is filled over 400L air, and comfortable for breathing to the user.



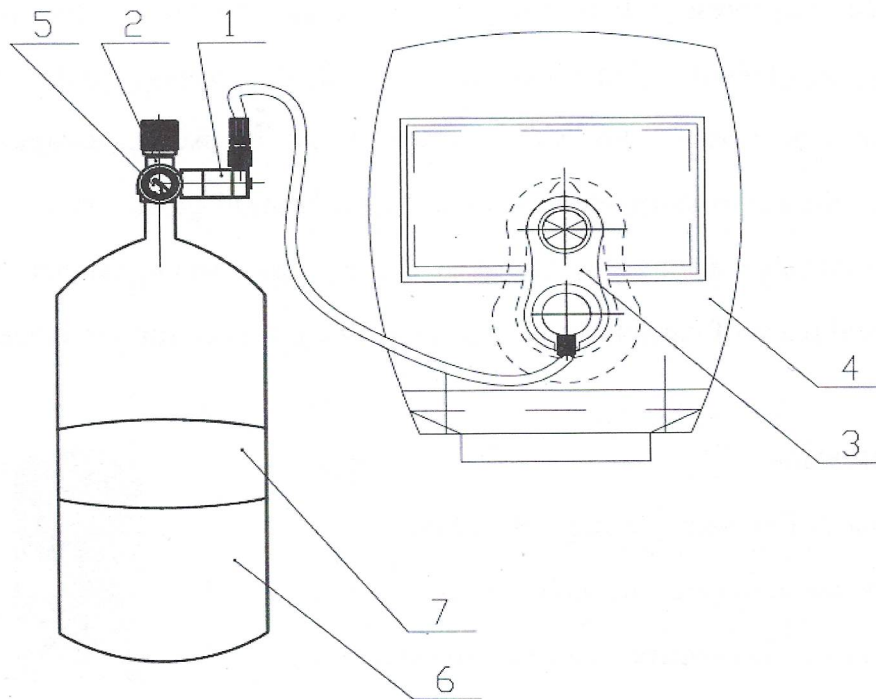
3. Technical Data

NO.	Type	THDF10-I/II	THDF15-I/II
1	Cylinder volume	2.2L	3L
2	Working Pressure	21Mpa	21 Mpa
3	Time of Usage	≥10min	≥15min
4	Air Supply Flow	≥35L/min	≥35L/min
5	Weight	≤6Kg	≤8.5Kg

4. Structure and Working Principle

1. Structure

The product mainly consists of air cylinder, pressure reducer, pressure gauge, air supplying hose, mask and bag.



1. Reducing valve 2. Cylinder valve 3. Air supply valve
 4. Head gear 5. Pressure gauge 6. Cylinder 7. Nameplate

Fig.1 THDF Air Compressed Emergency Escape Breathing Device

2. Working principle

The compressed air in the steel air cylinder of the THDF series Emergency breath equipment goes through the pressure reducer, The reduced air goes out of the valve to be constant flow air, and then goes into mask through air supplying hose to provide the user with clean air for breathing.

5. Usage

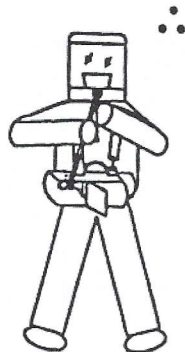
1. Put the bag on the neck (or shoulder, or handle it by hand), and THDF before chest;
2. Open the bag, and take out the mask, and tear off the cover of the air cylinder valve, and then turn on the valve in anticlockwise till completely open;
3. Wear the mask on the head, and make sure the rubber membrane fit the neck, and then fasten the belt;
4. Start to escape.



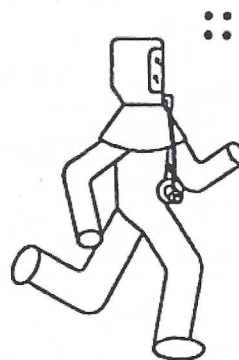
Put the bag on the neck



Take out the mask and turn on the valve



Fasten the belt



Emergency escape

Fig.2 Usage of THDF Air Compressed Emergency Escape Breathing Device

6. Cautions

1. THDF series breath equipment can be used, managed and maintained only by the person after training.

2. Burning the EEED, strike heavily or expose THDF to the sunshine.

3. THDF should be taken to the convenient place for using and the pressure gauge should be put to the window of the bag during spare time.

4. The mask should be folded up standard in the bag.

5. The pressure gauge should be checked each month. If the pressure of the air cylinder is lower than 95% of the working pressure, check the cylinder or recharge the air immediately.

6. Check the air cylinder every five years after the date of production It can be continue to use only after checking up to standard.

7. Checking

Check the THDF seriously after using or every month, and keep the recorder.

Recorder of checking and maintenance for THDF Air Compressed Emergency Escape Breathing Device

Type of product _____ product No. _____ Date of product _____

Parts	Checking items	Result	Checking person
Mask	Complete window		
	Without broken		
	Cleanness		
Pressure gauge	Pressure \geq 95% of the working pressure		
	Without broken		
Air supplying hose	Screw thread tight		
	Without leakage		
Air cylinder	Without clean sunken		
	Without crack		

8. Maintenance

1. Clean the mask seriously after using, and the window screen should be transparent.
2. Fold up dried mask and put it into the bag according to fig.3.
3. Replace a new one immediately if the mask is damaged.
4. Prevent the pressure reducer and exit place from rusty. Treat it immediately if rust occurs.

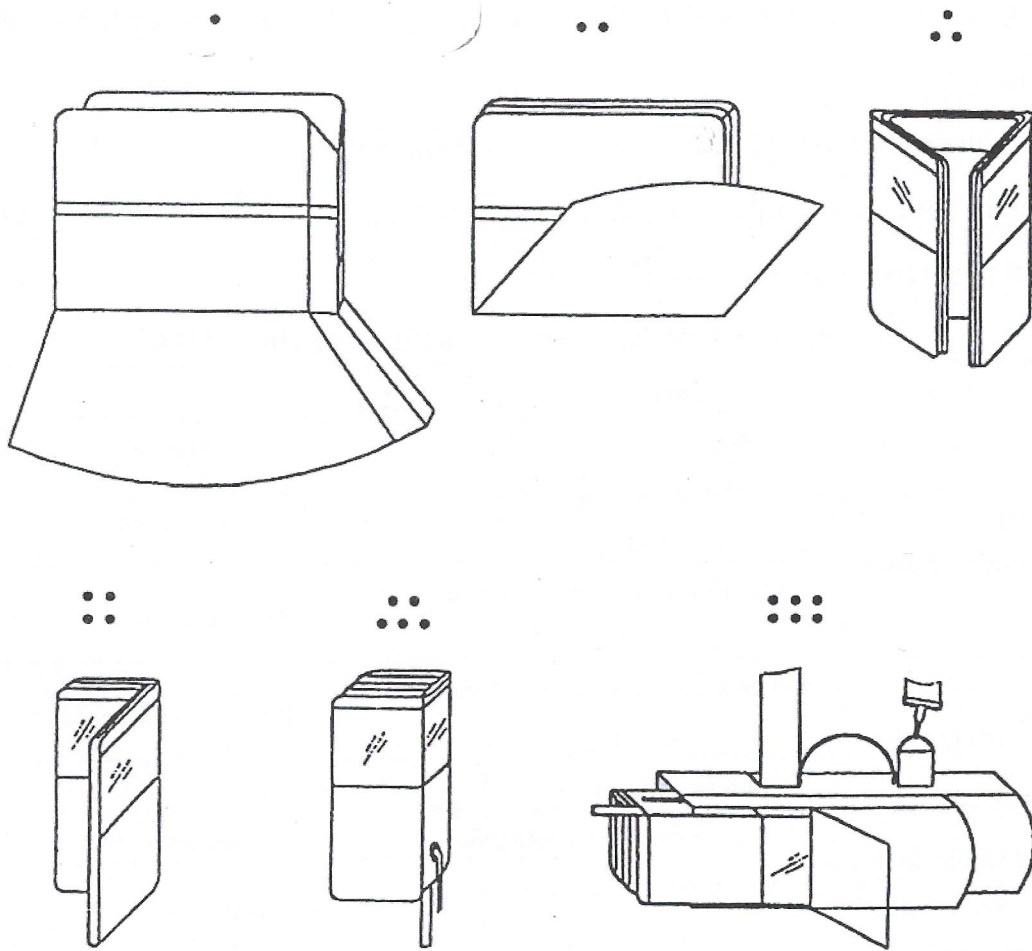


Fig.3 Folding up the mask

9. Air recharge

Caution: the air recharge should be finished by professionals with special equipments.

1. Connect the air cylinder with charger. NO oil on the connecting.
2. Charge the air slowly till 21Mpa . The compressed air should be dried by filter.
3. The air pressure will get down with the temperature going down.

The air cylinder should be recharged additionally in order to guarantee the level of 21Mpa.

4. Do the air proof test to the valve after recharging. Check if the cylinder valve is leakage or not.

Mark the passed air cylinder in order to distinguish them.

Handle with care during charging and transporting. No knocking, striking and no storing in high temperature or cauterization places.

Common troubles and solutions of the THDF

No.	Appearances	Probable reasons	Solutions
1	No pressure of the pressure gauge	No air in the cylinder	Recharge air
		The pressure gauge is damaged	Change a new one
		The air cylinder valve is not open	Open the valve
2	Safety valve	The pressure reducer valve is leakage	Repair the valve
		Safety valve is damaged	Repair the safety valve
3	The whole device is not airtight	Sealing parts are damaged	Check out and replace
		Exit place is not switched off completely	Adjust the valve core
4	No air provided	Exit place is not open	Spring is block, smear the O-type washer with grease
5	Shortage of air provided	The output pressure is too low	Adjust the screw on the pressure reducer to increase the output pressure