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PRI-SAFETY

HANGZHOU PRI-SAFETY FIRE TECHNOLOGY CO., LTD

**Mining Machine
Automatic Fire Suppression Systems**

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1. Temperature Sensor Model/Solenoid Valve



2. Detection Tube Model/Pneumatic Valve



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• 01 Product Description

• 02 Product Certificate

• 03 Product Application

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PART 01

Product Description

Mining Machine Automatic Fire Suppression Systems
(Temperature Sensor / Solenoid Valve)

A

Description of Mining Machine Fire Suppression Systems.

1. Product Features.

- Fast detection and high efficiency
 - Rechargeable
 - Adapted to harsh environments
 - Lightweight, not burdensome to equipment
- Simple installation and maintenance
 - Suitable for heavy duty mining machine
 - Control panel shows real-time temperature
 - Available in many agents: foam, novect1230, water mist, dry powder, FM200,etc

2. Parameters

PRI-SAFETY Mining Machine Fire Suppression Systems	
Brand Name	PRI-SAFETY
Capacity	6L, 9L, 12L, 18L, 20L, 25L, 50L—FOAM (18L for 4CBM Engine Room) 6kg, 9kg, 12kg, 18kg, 25kg, 50kg---Dry Powder (9kg for 4CBM Engine Room)
Agent	Foam / Dry Powder
Working Pressure	14Bar
Testing Pressure	27Bar
Cylinder Material	Steel red painting Or Stainless Steel 304
Certificate	UN ECE R107 , CE
System Activated Temperature	140 or Customized Temperature

Note:

For Vehicle Engine Room, we can choose different fire agents, such as Water, AFFF3% Foam, FM200, or Dry Powder agents. The different systems are with different discharge tube and nozzles.

3. Product Activated Principle.

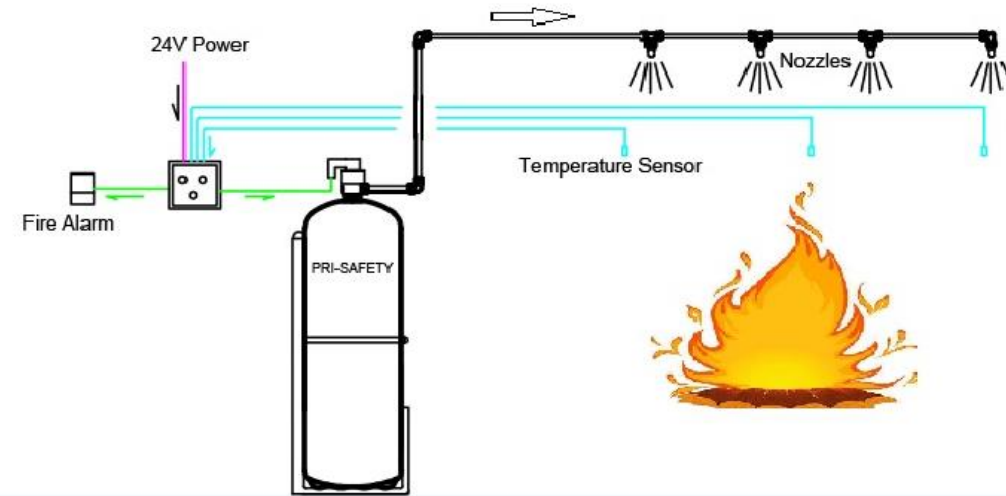
1). Temperature Sensor Model/Solenoid Valve

Step1: There is 3 temperature sensor installed in the engine room, temperature sensor feedback the the temperature to the control panel. The control panel can indicate the temperature at anytime. The control panel was installed in the driver room, driver can see the temperature at anytime.

Step2: Once the Temperature of engine room increase to 100°C, the control panel will activate the fire alarm. Driver will stop and check the situation. If necessary, driver will push the manual button on the control panel to activate the system.

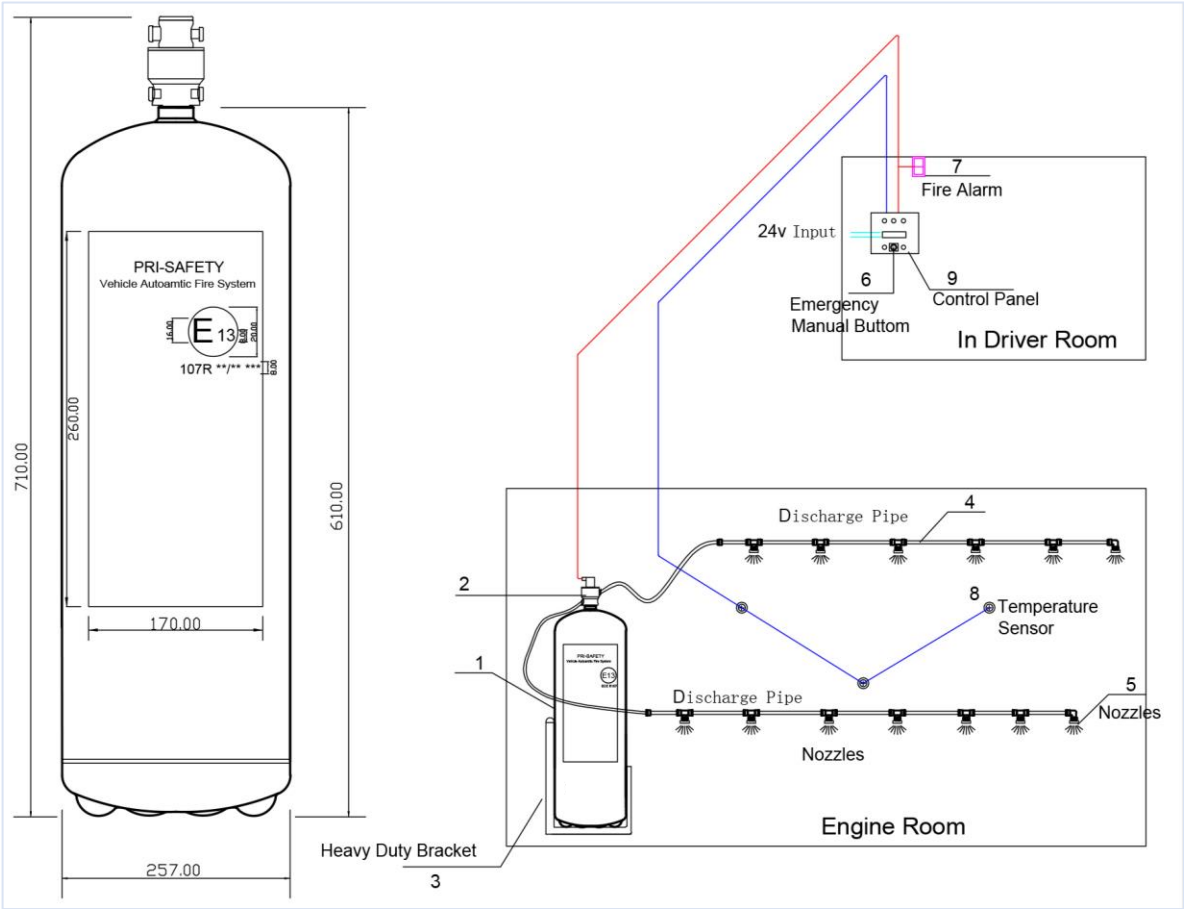
Step3: Once the temperature still increasing, and reach to 140°C, the temperature sensor feedback the signal to control panel, the control panel will activate the solenoid Valve, the solenoid Valve open and discharge agent to extinguish fire.

DRAWING FOR REFERENCE



The temperature sensor send temperature signal to control panel, the control panel can indicate the temperature at anytime, once temperature reach 100 °C, the fire alarm was activated. Once the temperature reach 140°C, control panel will send signal to electric valve to open it. Then the agent was discharged from discharge tube and nozzles. On the control panel, there is a manual button and test button, reset button, in Emergency pushing the manual button can activate the fire system too.

Diagram of R107 Systems for Temperature Sensor Model.



- Single Bottle
- Temperature Sensor

Main Component

Electrical and manual valve

System Tank with Bracket

Electrical Head Valve

Discharge Pipe

Nozzles

Fire Alarm

Temperature Sensor

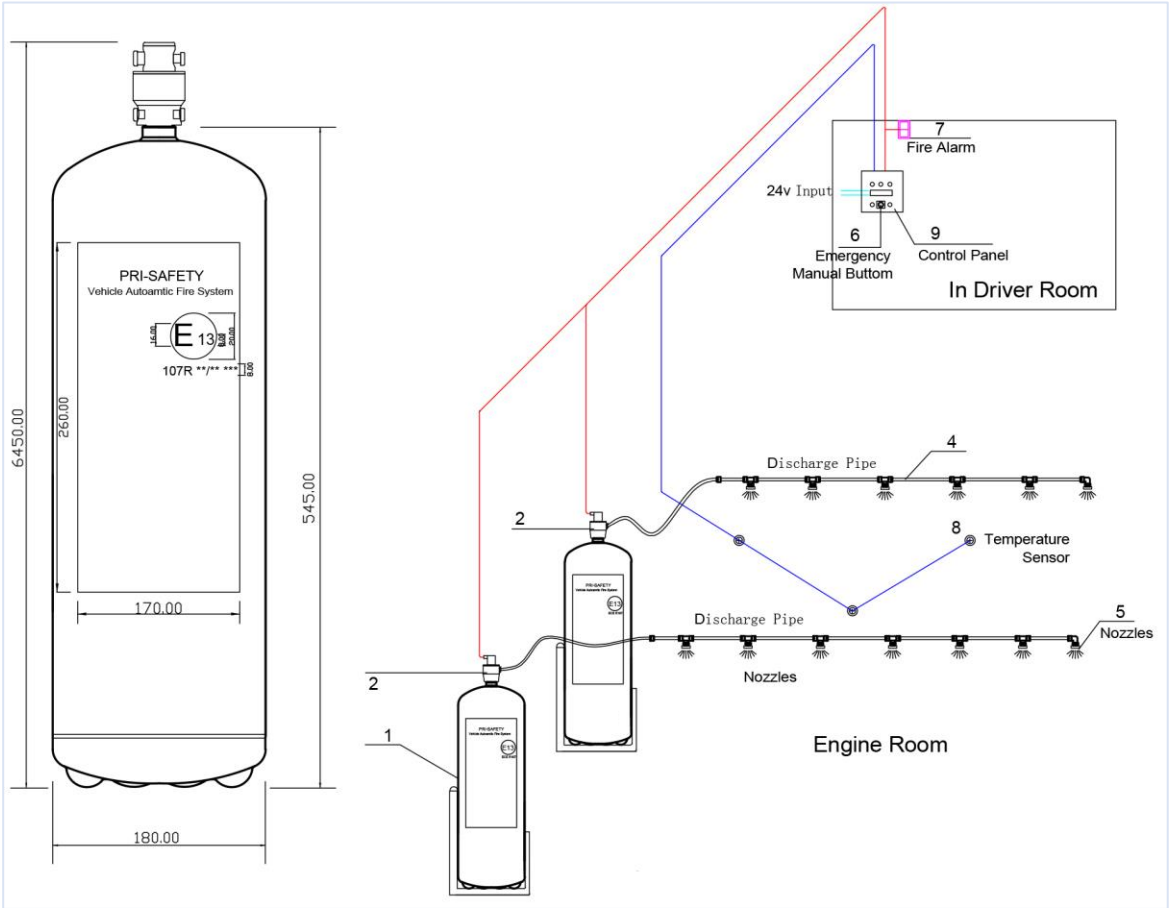
Control Panel

Fittings



Diagram of R107 Systems for Temperature Sensor Model.

- 2~3 Bottle
- Temperature Sensor



Main Component

Electrical and manual valve

System Tank with Bracket

Electrical Head Valve

Discharge Pipe

Nozzles

Fire Alarm

Temperature Sensor

Control Panel

Fittings



3. Product Activated Principle.

2. Detection Tube Model/Pneumatic Valve

Step1:

Detection Tube ruptures to hole when temperature reach 140°C, and release pressure through the hole.(Or pushing the manual button of detection tube,pressure releasing from themanual button.)

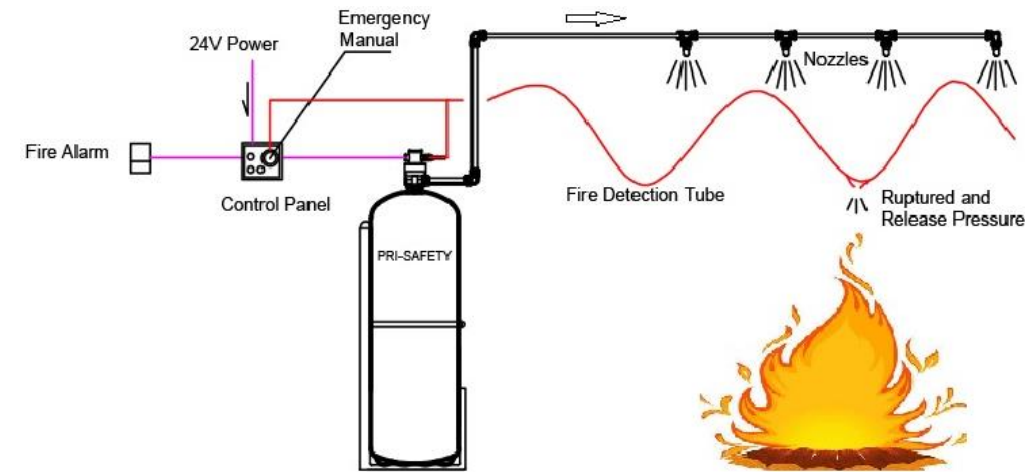
Step2:

The resulting drop in pressure causes the head valve to be activated. At the same time the fire arlar was activated.
Valve was opened and agent was discharged through the discharge tubing to the nozzles.

Step3:

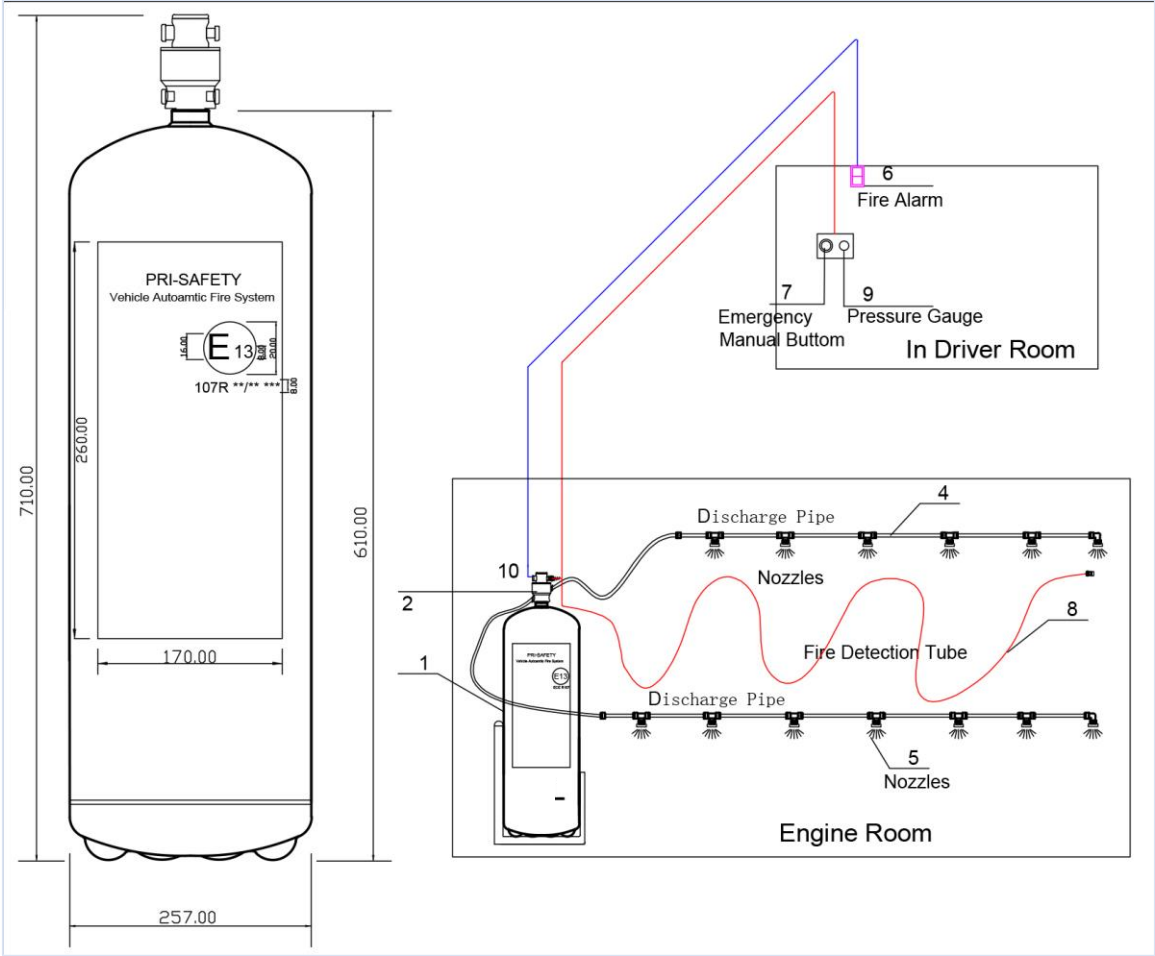
Agent covering the area and suppressing the fire quickly and thoroughly.
This system is totally automatic and is totally independent of electricity.

DRAWING FOR REFERENCE



Inside the Pneumatic valve there is a piston, it divide the valve cavity to 2 parts. The upper cavity connect to detection tube, the lower cavity connect to bottle. The pressure of the 2 side of the piston is same. During the fire, Once the detection tube detected fire and ruptured one hole to release the pressure. Then the pressure of 2 side of the piston happen different, the piston was moved to up, and the outlet port of the valve was opened, and agent was discharged from the pipe and nozzles. At the same time, the pressure switch send final to fire alarm, the fire alarm was activated. On the control panel, there is a manual button and test button, reset button. In emergency Pushing the manual button can activate the fire system too.

Diagram of R107 Systems for Detection Tube Model.



- Single Bottle
- Fire Detection Tube

Main Component

System Tank with Bracket

Automatic Valve

Discharge Pipe

Nozzles

Emergency Manual Button

Fire Alarm

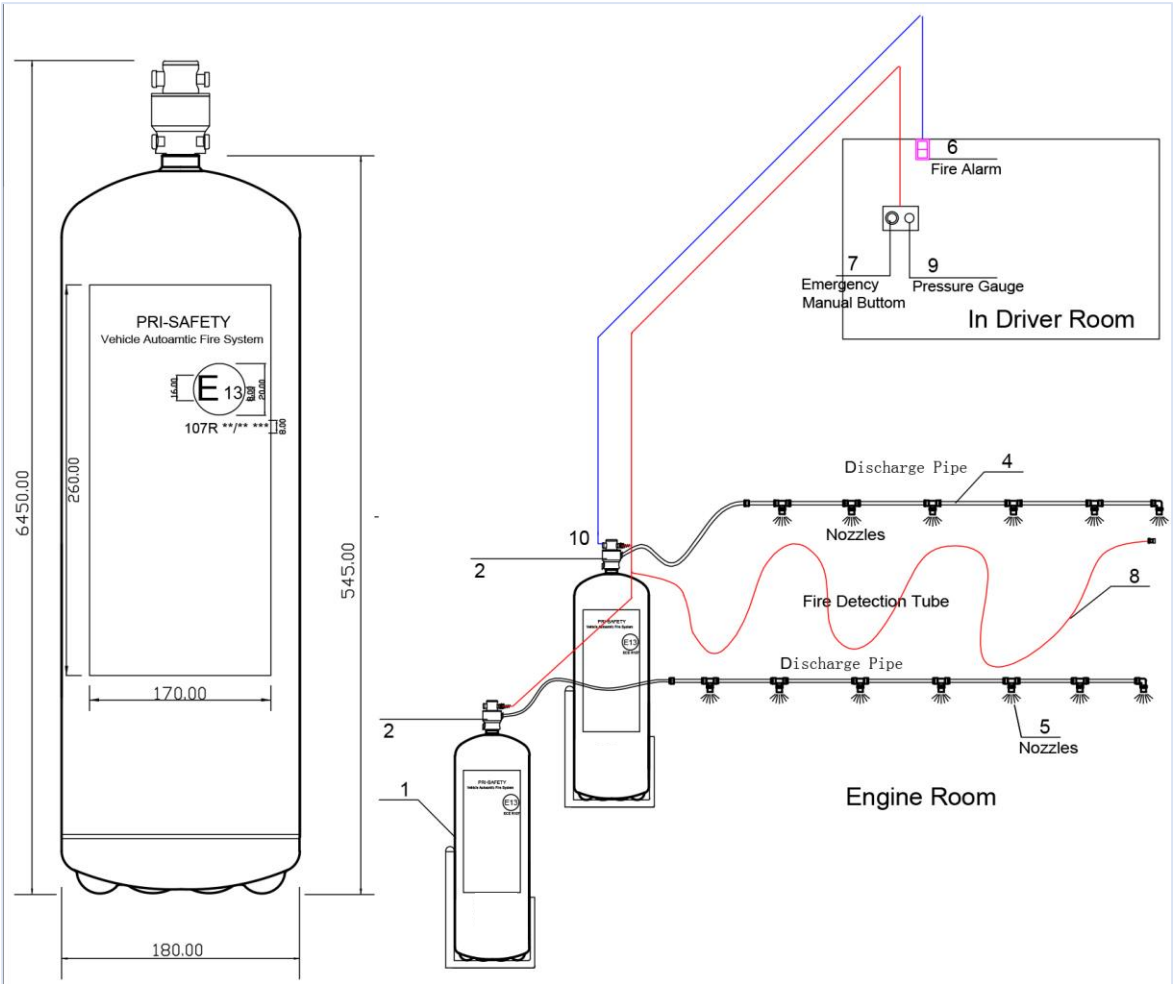
Fire Detection Tube

Fittings



Diagram of R107 Systems for Detection Tube Model.

- 2~3 Bottle
- Fire Detection Tube



Main Component

System Tank with Bracket

Automatic Valve

Discharge Pipe

Nozzles

Emergency Manual Button

Fire Alarm

Fire Detection Tube

Fittings



PART 02

Product Certificate

Automatic Fire Suppression Systems on Vehicles with UNECE R107 Approved



B

Product Certificate

CERTIFICATE
◆ CERTIFICATE ◆ CERTIFICATE



CERTIFICATE OF CONFORMITY

EU - Pressure equipment (PED) -
No. CTB170623002Q-ZS

Applicant : Hangzhou PRI-SAFETY Fire Technology Co.,Ltd
Address : No.50 , Nanpanjiang, Da'an Village, Chongxian Street, Yuhang District, Hangzhou
Manufacturer : Hangzhou PRI-SAFETY Fire Technology Co.,Ltd
Address : No.50 , Nanpanjiang, Da'an Village, Chongxian Street, Yuhang District, Hangzhou
Product : Direct and Indirect Type Automatic&Manual Fire Suppression Systems(Kitchen Fire Systems/Vehicle Fire Systems/Electric Equipment Fire Systems)
Trade Name : PRI-SAFETY
Model(s) : 1L,2L,3L,4L,5L,6L,9L,12L,20L,25L
Test Report No. : CTB170623002Q
Test Standards : EN 3-7; 2004+A1: 2007

The tests that base on the above designated product Complies with the essential requirements of Council Directive 2014/68/EU relating to the making available on the market of pressure equipment (recast).
The test results apply only to the particular sample tested and to the specific tests carried out.
The CE markings as shown below can be affixed on the product after preparation of necessary technical documentation.
Other relevant Directives have to be observed.



Simon Lee, Design Engineer
July 04, 2017



Shenzhen CTB Testing Technology Co., Ltd
Add: First floor, E building, Huayang Technology Industry Park, Gushu Village, Bao'an District, Shenzhen City, P.R.C.
Web: <http://www.ctb-lab.com> Tel: 4008-258-120 Email: ctb@ctb-lab.com



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de la Mobilité
et des Travaux publics
Département de la mobilité
et des transports

SOCIÉTÉ NATIONALE DE
CERTIFICATION ET D'HOMOLOGATION
s.n.c.
Registre de Commerce: B 27180
L-4070 Bertrange



Référence: E13*107R08/02*0074*00
Annexes: - Rapport Technique
- Fiche de Renseignements du constructeur
Bertrange, le 30 octobre 2020



Communication concernant 2^{de}
Communication concerning 2nd

- DELIVRANCE D'UNE HOMOLOGATION
APPROVAL GRANTED
- EXTENSION D'HOMOLOGATION
APPROVAL-EXTENDED
- REFUS D'HOMOLOGATION
APPROVAL-REFUSED
- RETRAIT D'HOMOLOGATION
APPROVAL-WITHDRAWN
- ARRÊT DÉFINITIF DE LA PRODUCTION
PRODUCTION DEFINITELY DISCONTINUED

d'un type de composant en vertu du Règlement N° 107
of a type of a component with regard to Regulation N° 107

Numéro d'homologation:
Approval number: E13*107R08/02*0074*00

SECTION I
Section I

1.	Marque (raison sociale du constructeur): Make (trade name of manufacturer):	PRI-SAFETY
2.	Type: Type:	PRI-DCP-09-12
3.	Moyens d'identification du type, s'il est indiqué sur le composant: Means of identification of type if marked on the component:	printed on the adhesive sticker
3.1	Emplacement de cette marque d'identification: Location of that marking:	adhesive sticker on the cylinder, with the marking printed on it
4.	Nom et adresse du constructeur: Name and address of manufacturer:	Hangzhou PRI-SAFETY Fire Technology Co., Ltd. 2F-4# , NO.11 Xinghu Road, Yuhang District, Hangzhou, China
5.	Le cas échéant, nom et adresse du représentant du constructeur: If applicable, name and address of manufacturer's representative:	not applicable
6.	Emplacement et mode de fixation de la marque d'homologation de type: Location and method of affixing of the Type-Approval mark:	adhesive sticker on the cylinder, with the marking printed on it

Page 1 of 4



CERTIFICATE OF QUALITY MANAGEMENT SYSTEM CERTIFICATION

Certificate No.: 19817QG081R1S
Unified Social Credit Code /Organization Code:91330110MA28033Y3U

We hereby certify that the organization:
Hangzhou PRI-SAFETY Fire Technology Co.,Ltd.
Is in conformity with Quality Management System Standard:
GB/T19001-2016 idt ISO9001:2015
The certificate is valid to the following product(s)/service:
**Fire fighting equipment (fire extinguishers) manufacturing (limited to
exportation)**

Registration Address: 2F-4#, NO.11 Xinghu Road, Yuhang District, Hangzhou, China
Business Address: 2F-4#, NO.11 Xinghu Road, Yuhang District, Hangzhou, China

Date of Initial Issuance: Jul 20, 2017
Date of Renewal: Aug 21, 2020
Date of Expiration: Jul 19, 2023



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C178-M



Issued By: *Mingyuan Zhou*

valid within the period of validity of various state administrative licensing and certification licensing
validity of the certificate the certified organization must accept and pass the regular surveillance audit
copy of certificate please visit our website at www.cnca.gov.cn or login to CNAS website at www.cnca.gov.cn/cn scan QR code



Beijing Xinjiyuan Certification Co.,Ltd.
Address:Room.1201,North Area,11th Floor,Building 122,Nanhui East Garden,
Chaoyang District,Beijing City,China (Post Code:100102)



PART 03

Product Application

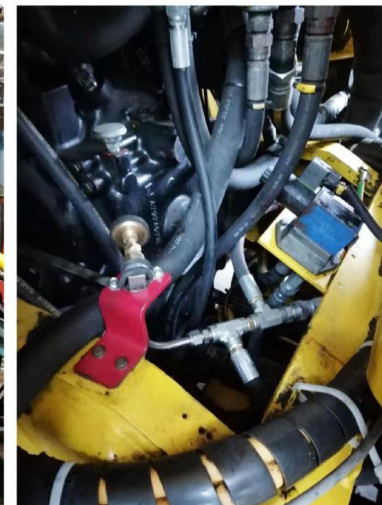
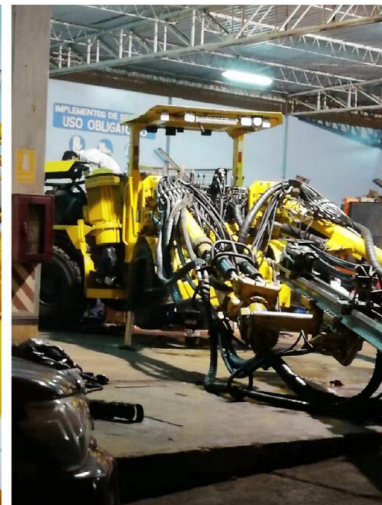
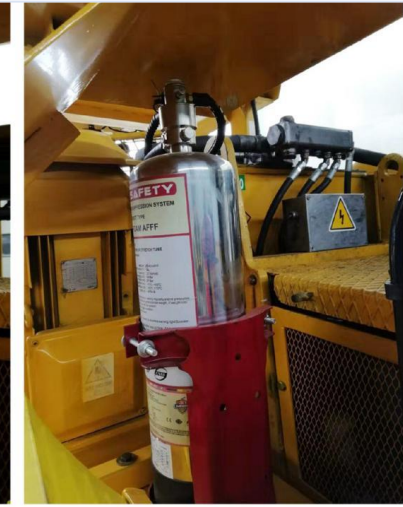
Mining Machine Automatic Fire Suppression Systems
(Temperature Sensor / Solenoid Valve)

C



Product Application

Application on
mining machine





PART 04

Product Packing

Mining Machine Automatic Fire Suppression Systems
(Temperature Sensor / Solenoid Valve)

D



Strict Inspection

Each Products will be tested and inspected before packing to make sure each products are in correct situation and good quality.



High Quality Wooden Box

Export with high quality wooden box.

PRI-SAFETY

HANGZHOU PRI-SAFETY FIRE TECHNOLOGY CO., LTD

THANKS

Mining Machine Automatic Fire Suppression Systems

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