

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Self-contained compressed-air-operated breathing apparatus

with type designation(s)

Dräger PAS Lite Series, PSS 3000 Series, PSS 4000 Series

Issued to

Draeger Safety UK Limited
Blyth, Northumberland, United Kingdom

is found to comply with

DNV GL rules for classification – Ships

DNV GL offshore standards

DNV GL rules for classification – High speed and light craft

DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations

Application :

Approved for use as self-contained compressed-air-operated breathing apparatus of fire-fighter's outfit.

Approved for entry and work in gasfilled space and for use in accidents involving dangerous goods.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2019-06-14**

This Certificate is valid until **2024-06-13**.

DNV GL local unit: **Manchester**

Approval Engineer: **Michael Oberländer**



for **DNV GL**

Digitally Signed By: Kallies,

Joerg

Location: DNV GL Hamburg, Germany

Signing Date: 24.06.2019

Jörg Kallies

Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

The Dräger PAS Lite Series, PSS 3000 Series and PSS 4000 Series are self-contained breathing apparatus (SCBA) that use an open-circuit breathing system, comprised of a single high pressure air cylinder, a carrying system including shoulder straps and waist belt, lung demand valve and face mask. The user will be alerted by a mechanical and also if fitted, an electronic signal and warning unit, before the volume of the air in the cylinder has been reduced to less than 200 l.

For details of the configuration see Type Examination documentation below.

Application/Limitation

Approved for use as self-contained compressed air breathing apparatus of fire-fighter's outfit in accordance with SOLAS II-2 Reg.10.10.1.2, IBC Code 14.2.2.1 and IBG Code 14.3.2.1.

The SCBA is in compliance with IMO FSS Code Ch.3 Para 2.1.2.1 and 2.1.2.2 as amended by IMO Res. MSC.339(91).

Each SCBA shall be used together with a Dräger lifeline (complying with the requirements of FSS Code Ch.3.2.1.3 and ISO 23269-2 Para 4.28.) as part of the fire-fighters outfit according to FSS Code Ch.3.2.1.

The breathing apparatus shall be used with following class 3, full face masks acc. to EN 136:

- Dräger f2/PA-P, f2/PA-PE or f2/PE/ESA series
- Dräger Panorama Nova-P/PE/ESA, positive pressure
- Dräger FPS 7000P or 7000 ESA

All air cylinders provided for the breathing apparatus shall be interchangeable.

Air cylinders and their valves shall comply with appropriate national regulations.

The volume of air contained in the cylinder shall be at least 1200 l.

The compressed air shall comply with EN 12021.

Each product is to be supplied with its manual for installation, maintenance and use.

Type Examination documentation

Test Reports:

- No.7920/14 dated 2014-01-14 (ISO 23269-2:2011 and ISO 23269-3:2011)
- No. 8278.2 A/15 dated 2015-03 – 2015-05 (DIN EN 137:2007-01)
- No. 8278.3/15 dated 2015-05-26 (ISO 23269-2:2011 and ISO 23269-3:2011)
- No. 8754 A/16 dated 2016-08-25 (EN 137: 2006)
- No. 8754.2 A/16 dated 2016-09-08 (ISO 23269-2:2011)
- No. 8754.3 A/16 dated 2016-09-08 (ISO 23269-3:2011)

All from DEKRA EXAM GmbH, Essen, Germany.

Drawings from manufacturer:

- 3355923 Rev.21 EN 137 Matrix Valved Single Cylinder
- Draeger PAS Lite, PSS3000 & 4000 System Configuration Marine Equipment Directive Matrix SE22212
- Technical data sheet for PAS Lite, PSS 3000 and PSS 4000

Tests carried out

Tests according to ISO 23269-2:2011, ISO 23269-3:2011, EN 136:1998 and EN137:2006

Marking of product

The product or packing is to be indelibly marked in accordance with ISO 23269-2:2011 Para 9 and with name and address of the manufacturer and type designation.

The pressure vessel marking shall include the charging pressure, capacity and stamp of the authorized inspection body.



Job Id: **262.1-031774-1**
Certificate No: **TAF0000185**

Periodical assessment

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Standard for Certification No. 1.2 Type Approval item 4.

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnvgl.com>