

# TYPE EXAMINATION CERTIFICATE

Certificate No:  
**BGN18-9115**

**This is to certify:**

**That the Personnel Lift Unit**

with type designation(s)  
**1145-4-N**

Issued to

**Safe Transfer A/S**  
**Fiskerihavnsgade 30, Esbjerg, Denmark**

is found to comply with

**Application :**

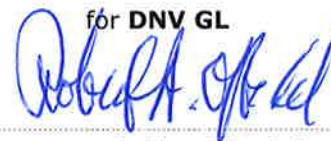
**NORSOK R-002:2017 "Lifting equipment" as per Annex A, group A.7 "Personnel transfer carriers"**

Issued at **Bergen** on **2018-08-07**

This Certificate is valid until **2023-08-06**.  
DNV GL local station: **Esbjerg Verification**

Approval Engineer: **Valentyn Skudra**



for DNV GL  


**Robert Anfinn Oftedal**  
**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 Examination Certificate and not to the approval of equipment/systems installed.



## Product description

- WLL: 1230 kg
  - o Includes 4 of passengers, each of weight 100kg and baggage 40kg
  - o Includes tare weight of 670kg
- Dynamic factor: 3,14 (ref NORSOK R-002:2017, annex F)
- Partial safety factor: 1,34
- Risk coefficient: 1,5
- Material factor: 1,25
- Horizontal impact at: 2 m/s
- Vertical impact at: 4 m/s
- Significant wave height: 3 m (NLS: non life saving condition)  
6 m (LS: life saving condition)
- Operating temperatures: -20°C to +70°C.
- Maximum mean wind velocity: 10 m/s (NLS)  
17 m/s (LS).

## Application/Limitation

Following important aspects are underlined within the certificate:

- The equipment is intended for Off-board and on-board lifting/ with persons.
- This certificate covers design of the equipment.  
Manufacturing survey, Overload (3 x WLL), Functional tests are to be performed by manufacturer and witnessed by DNV GL for each piece produced if a product certificate is needed.  
Note: if floater is changed from the one referred in this certificate (dr. no. 49030 and 49039) - floating tests are to be remade.
- Influence of the vertical impact (ref. NORSOK R-002:2017 "lifting equipment", annex A, p. A.8) on the basket's structure was not documented by design calculations. Real drop test was performed and witnessed by DNV GL as a compensative measure. Ref. Verification statement N14JSJX, rev. 01, from 01.05.2018 by Oddur Björnsson

## Type Examination documentation

Ref. is made to DNV GL Design verification report, no. 2017-5513, rev. 0 for information regarding the verification carried out. Following documents were reviewed:

Document number	Revision	Document title
11031.03.3390.02	rev. 5	Workshop drawing
11031.03.3390.01	rev. 3	General arrangement drawing
49038	A	Basket Data Plate
	V01	SE1035 - Basket -Calculation report acc. Norsok R-002-201
	26.07.2018	SE1035 -Basket - Norsok R002-2017 rule calcs
	N/A	JEGS Performance Products Pro High Back II Race Seat (datasheet)
13-6148 (PCG3547)	N/A	Vetus pedestal (datasheet)
49031	4	Bumper ring, quarter
09-0128	3	Compensator for Norsok basket, Certex
H71682	N/A	Compensator, certificate
S35 188 85	C	Ringkette
H68984	N/A	Ringkette
49030	N/A	Boyancy tank
49039 udv. flyder" (Danhill)		Floater, stability
	From 27.06.2018 (in PDF)	Guidlines 1145-4-N
N/A	From 07.06.2017 (in PFD)	NORSOK Basket Risk Assessment
49-001		Testprocedure
49-002		Design details

## Tests carried out

Type testing:

- Report for incomplete certification ref. no. A0379970, from 10.04.2017 by Lukasz Blawat

Overload test:

- DNV GL visit report no. 201802069, from 01.06.2018 by Anders Aalund

Manufacturing Survey:

- Report for incomplete certification ref. no. A0379970, from 10.04.2017 by Lukasz Blawat

Drop test and floating test:

- Verification statement N14JSJX, rev. 01, from 01.05.2018 by Oddur Björnsson



Job Id: **262.1-027519-1**  
Certificate No: **BGN18-9115**

## **Marking of product**

Marking shall be implemented in accordance with the NORSOK R-002, item:

- The business name and full address of the manufacturer,
- Designation of the lifting equipment,
- Designation of series or type,
- Serial number,
- The year of construction, that is the year in which the manufacturing process is completed,
- Any legal marking (e.g. CE-marking) if applicable

## **Certificate Retention Survey**

For retention of the Type Examination, DNV GL surveyor shall perform a survey every second year and before expiry date of this certificate in order to verify that the conditions of the type examination are complied with.

**END OF CERTIFICATE**