DNV·GL

Certificate No:
TAP000000C

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Tank Washing Machine

with type designation(s)
SC 90T2

Issued to
SCANJET MARINE AB
SJÖBO, Sweden

is found to comply with
Det Norske Veritas' Rules for Classification of Ships
MARPOL 73/78 Annex 1, Reg. 13 B (2) and IMO Revised Spec. Res. A. 446 (XI) 4.2

Application :

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

Design:	**Fixed installed tank washing machine, single nozzle, media driven by means of a fixed installed turbine with an integrated programmable drive unit**
Performance data:	**Depending on size, see certificate page 2**

This Certificate is valid until **2019-07-29**.

Issued at **Høvik** on **2015-07-30**

for **DNV GL**

DNV GL local station: **Malmö**

Approval Engineer: **Jens Rogge**

Dag Sæle-Nilsen
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.

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Product description

Fixed installed tank washing machine, single nozzle, media driven by means of a fixed installed turbine with an integrated programmable drive unit

Materials:
Main parts in contact with cargo are made of austenitic stainless steel AISI 316L (or equivalent) and bronze, with teflon/viton (sealings and bearings).
Driving unit cover material alternative GRP or bronze

Nozzle sizes:
Single type, dia. 20, 22, 24, 26, 28, 29, 30, 32, and 34 mm

Application/Limitation

Performance data:

Nozzle diameter [mm]	*Pressure [bar]*	*Flow [m3/hr]*	*Max. Effective Jet Length [m]*	*Nozzle diameter [mm]*	*Pressure [bar]*	*Flow [m3/hr]*	*Max. Effective jet Length [m]*
20	6	40	30	29	6	72	33
	8	46	32		8	82	35
	10	51	35		10	92	38
	12	55	37		12	100	40
22	6	46	30	30	6	77	33
	8	53	32		8	87	35
	10	59	35		10	97	38
	12	65	37		12	106	40
24	6	53	31	32	6	83	33
	8	61	33		8	95	35
	10	68	36		10	105	38
	12	74	38		12	114	40
26	6	61	32	34	6	89	32
	8	70	34		8	103	34
	10	78	36		10	114	37
	12	86	38		12	125	39
28	6	69	33				
	8	79	35				
	10	88	38				
	12	96	40				

Performance is based upon test requirements that meet DNV TA-Program 785.70, item 3.2.

This type approval is based on examination of drawings and tests carried out. Drawings showing number, location and supporting arrangement of the tank washing machine are to be submitted for each installation on board.

No product certificate is required.

Type Approval documentation
Tests carried out

Performance tests carried out in presence of DNV surveyor.

Marking of product

For traceability to this type approval the products are at least to be marked with:
- Manufacturer's name or trade mark
- Type designation

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform a retention survey at least every second year – inclusive survey before the expiry date of this certificate - to verify that the conditions of the type approval are complied with.

This certificate replaces previous Type Approval Certificate No. P-13865.