DNV·GL

Certificate No:
TAM00000MU

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Air Compressor

with type designation(s)
NEA-SAPS - 3SEV63-162/142/78, BLUESAPS - 3TEV63-200/142/78

Issued to
Neuman & Esser Maschinenfabrik Wurzen GmbH
Wurzen, Germany

is found to comply with
DNV GL rules for classification – Ships

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Type	Max. working press.:	Operating media:
NEA-SAPS - 3SEV63-162/142/78	**126, 140, 175 and 207 barg**	**Air, Nitrogen**
BLUESAPS - 3TEV63-200/142/78	**126, 140, 175 and 207 barg**	**Air, Nitrogen**

Issued at **Hamburg** on **2017-11-02**
This Certificate is valid until **2022-11-01**.
DNV GL local station: **Essen**

Approval Engineer: **Christian Kaemmer**

for **DNV GL**

Olaf Drews
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

3-stage, double acting, reciprocating V-type compressor

- NEA-SAPS: oil lubricated
- BLUESAPS: oil-free operated

Delivered in five versions (48, 51, 54, 57, 62) to implement different delivery rates of air or nitrogen, with max working pressure 126, 140, 175 and 207 barg. The compressor will be used in electric (E) and diesel (D) powered units.

Type approval is valid for the bare compressor without safety- or monitoring devices and for the interconnecting piping for air, nitrogen, oil and cooling water.

The reciprocating compressor is normally delivered as part of a complete compressor package, comprising a screw compressor, a piston compressor, coolers, separators, and interconnecting piping mounted on a skid.

Application

NEA-SAPS				
Stage	**1**	**2**	**3**	
Safety valve setting	40	100	228	[bara]
Cylinder diameter	162	142	78	[mm]
Suction pressure	15	36	84	[bara]
Discharge pressure	37	89	176	[bara]
	37	93	208	[bara]
BLUESAPS				
Stage	1	2	3	
Safety valve setting	45	107	228	[bara]
Cylinder diameter	200	142	78	[mm]
Suction pressure [1)]	11,5	40	89	[bara]
Discharge pressure [1)]	40	89	127	[bara]
Suction pressure [2)]	11,5	40	91	[bara]
Discharge pressure [2)]	40	91	141	[bara]
Suction pressure [3)]	11,5	40	94	[bara]
Discharge pressure [3)]	40	94	176	[bara]
Suction pressure [4)]	11,5	41	97	[bara]
Discharge pressure [4)]	41	97	208	[bara]
1) For discharge pressure 127 [bara] 2) For discharge pressure 141 [bara] 3) For discharge pressure 176 [bara] 4) For discharge pressure 208 [bara]				

NEA-SAPS						
Version	**62 E or D**	**57 E or D**	**54 E or D**	**51 E or D**	**48 E or D**	
Capacity	62,7	57	54	51	48	[m3/minute]
Stroke	150	143	140	138	133	[mm]
Shaft power	406 1) 433 2)	363 1) 387 2)	346 1) 368 2)	337 1) 357 2)	306 1) 325 2)	[kW]
Shaft speed	1200	1200	1200	1200	1200	[rpm]
1) For discharge pressure 176 [bara] 2) For discharge pressure 208 [bara]						

BLUESAPS						
Version	**62 E**					
Capacity	62,7					[m3/minute]
Stroke	140					[mm]
Shaft power	397 3) 410 4) 438 5) 461 6)					[kW]
Shaft speed	1200					[rpm]
3) For discharge pressure 127 [bara] 4) For discharge pressure 141 [bara] 5) For discharge pressure 176 [bara] 6) For discharge pressure 208 [bara]]						

Marking of product

- Manufacturer's name or trademark and type designation

Periodical Assessment

For retention of the type approval certificate periodical assessments shall be carried out at production places by DNVGL surveyor.
The objective of the periodical assessment is to verify that the design and production conditions for the type approval have not been altered.

Main scope of the assessment:
- verification of the production and quality control system
- review of quality control documentation of recent deliveries
- review of drawings in production to verify any design changes which may have an impact on data specified in the type approval certificate, performance and range of application
- verification of the product marking

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE