

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Accumulators**

with type designation(s)

IP-5.00-6000 Accumulator, Diaphragm Style, 5.0 Gallon Capacity, 6000 psi

Issued to

Hydril USA Distribution, LLC
Houston TX, United States

is found to comply with

DNVGL-OS-E101 – Drilling plant, Edition July 2015

DNVGL-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2015

Application :

See Page 2

This Certificate is valid until **2021-05-30**.

Issued at **Houston** on **2016-05-31**

for **DNV GL**

DNV GL local station: **Approval CMC – Houston**

Approval Engineer: **M. Kevin Mandeville Jr.**

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Christian 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.

Job Id:
Certificate No: **TAD00000CG**

The following design codes and standards were used as reference :

ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, 2015 Edition

Product description

5.0 Gal accumulator, diaphragm style, rated for 6ksi with a base part number 3111120-07016-01.

Application/Limitation

<u>Design Parameter</u>	<u>Value</u>	<u>Equivalent</u>
Max Internal Working Pressure	6000 psi	413.7 bar
Max Internal Test Pressure	9000 psi	620.5 bar
Min Design Temperature	-20 °F	- 29 °C
Max Design Temperature	650 °F	343 °C
Internal Corrosion Allowance	0.125 in	3mm
External Corrosion Allowance	0 in	0mm
Type of Service	Standard	
Radiograph	100%	
PWHT	Yes	

Type Approval documentation

Marking of product

For traceability the following marking is to be carried out on each product:

1. Serial No.
2. Manufacturer's Name or trademark
3. Additional marking at the manufacturer's discretion

Certificate Retention Survey

For retention of the Type Approval Certificate, DNV GL's surveyor shall perform a survey every second year in accordance with DNV GL's Class Programme DNVGL-CP-0388, 2015 edition.

Other conditions/comments

- DNV GL Ref. Project No. PP150830-02

END OF CERTIFICATE