Certificate No:
TAD00001J7

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Miscellaneous

with type designation(s)
Spacer Spools, Flanges, Crosses, Tees etc..

Issued to
SRI Energy Inc.
Sugar Land, TX, USA

is found to comply with
DNV-OS-E101 – Drilling facilities, Edition July 2021
DNV statutory interpretations DNV-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2021

Application :

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

Issued at **Houston** on **2023-04-11**
This Certificate is valid until **2028-04-10**.
DNV local unit: **Houston, Approval CMC**

Approval Engineer: **Xiangwen Maggie Wang**

for **DNV**

Mark Miser
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

		Part No.
1	SPACER SPOOL 7-1/16”-3K, OAL-20.06”	S 1197-5-3
2	ASSEMBLY SPACER SPOOL 5-1/8”-5K, O.A.L-26.49”	S 1197-6
3	ASSEMBLY SPACER SPOOL 7-1/16”-3K, O.A.L-34.00”	S 1197-7
4	ASSEMBLY SPACER SPOOL 7-1/16”-3K, O.A.L-22.93”	S 1197-8
5	ASSEMBLY SPACER SPOOL 7-1/16”-3K, O.A.L-41.69”	S 1197-9
6	ASSEMBLY SPACER SPOOL 7-1/16”-3K, O.A.L-30.68”	S 1197-10
7	SPACER SPOOL 7-1/16”-3K, OAL-25.00”	S 1197-11-3
8	ASSEMBLY SPACER SPOOL 7-1/16”-3K, O.A.L-50.31”	S 1197-12
9	ASSEMBLY SPACER SPOOL 7-1/16”-3K, O.A.L-119.69”	S 1197-13
10	ASSEMBLY SPACER SPOOL 5-1/8”-5K, O.A.L-58.95”	S 1197-14
11	SPACER SPOOL 4-1/16”-3K, OAL-13.62”	S 1197-15-3
12	ADAPTER SPOOL, 7-1/16”-3K X 5-1/8”-5K, OAL-12.44”	S 1197-16-3
13	ASSEMBLY FLANGED SPOOL 7-1/16”-5K X 9”5K, O.A.L-58.49”	S 1197-20
14	SPACER SPOOL 5-1/8”-5K, OAL-13.82”	S 1197-29-3
15	ASSEMBLY SPACER SPOOL 7-1/16”-3K, O.A.L-28.12”	S 1197-34
16	SPACER SPOOL 7-1/16”-3K, OAL-11.44”	S 1197-35-3
17	ADAPTER SPOOL 4-1/16”-3K X SPECIAL CONNECTION	S 1197-40-3 & S 1197-40A-3
18	STUDDED TEE, 7-1/16”-3K	S 1191-2
19	STUDDED CROSS, 7-1/16”-3K	S 1191-12
20	STUDDED BLOCK(4-WAY), 4-1/16”-3K	S 1197-1
21	ADAPTER SPOOL STUDDED (3-WAY), 7-1/16”-5K(1W) X 7-1/16”- 3K(2W)	S 1197-3
22	SPACER SPOOL STUDDED(4-WAY), 7-1/16”-3K, OAL-36.68”	S 1197-4
23	STUDDED BLOCK (5W),9”-5K(2W) X 7-1/16”-3K(3W)	S 1197-19
24	ASSY. STUDDED BLOCK(6-WAY), 7-1/16”-3K(3W) X 5-1/8”-3K(2W) X 4-1/16”-3K(1W)	S 1197-21
25	STUDDED BLOCK(3-WAY), 5-1/8”-5K(2W) X 5-1/8”- 3K(1W)	S 1197-23
26	STUDDED BLOCK(3-WAY), 5-1/8”-3K(2W) X 7-1/16”- 3K(1W)	S 1197-24
27	ADAPTER SPOOL STUDDED (5-WAY), 7-1/16”-3K(4W) X 4-1/16”- 3K(1W), OAL-24.84”	S 1197-25
28	STUDDED TEE, 4-1/16”-3K	S 1197-26
29	SPACER SPOOL STUDDED (3-WAY), 7-1/16”-3K, OAL-24.84”	S 1197-28
30	STUDDED TEE, 5-1/8”-5K	S 1197-30
31	SPACER SPOOL STUDDED, 5-1/8”-5K, OAL-28.65”	S 1197-32
32	STUDDED BLOCK(3-WAY), 7-1/16”-3K(2W) X 5-1/8”-5K(1W)	S 1197-33
33	CUSHION FLANGE, 5-1/8”-3K	CF-5003-3
34	CUSHION FLANGE, 5-1/8”-3K, C/W ½” NPT PORT	CFP-5003-3
35	ASSY DOUBLE STUDDED ADAPTER 7-1/16”-3K X 8”CLASS 1500	S 1197-17
36	ASSEMBLY SPACER SPOOL 7-1/16”-3K, O.A.L-28.38”	S 1197-39
37	ASSY COMP,90 DEG ELBOW WITH 2" FIG 1502 MALE AND 2" FIG 1502 FEMALE CONNECTION	S 1197-36A
38	ASSEMBLY FLOW CROSS, 2" FIG-1502 - MALE X FEMALE X FEMALE X FEMALE	S 1197-36B
39	ADAPTER FLANGE,7-1/16”-3K X 2” FIG 1502 FEMALE	S 1197-36-1-3
40	CUSHION FLANGE, 5-1/8”-5K	CF-5005-3

Reference standards

- API 6A, *Specification for Wellhead and Tree Equipment*, 21st Edition
- NACE MR0175/ISO 15156, *Petroleum and Natural Gas Industries – Materials for Use in H_2S – Containing Environments in Oil and Gas Production*, 3rd Edition (all parts)

Application/Limitation

- Max. Working Pressure: 3,000 psi; 5,000 psi
- Test Pressure: 6,000 psi; 7,500 psi
- Design Temperature: -20 °F to 250 °F
- Service: H_2S
- Material Class: EE
- Product Specification Level: 3

- Designation of Systems; Type of Equipment: MPD Manifold

Type Approval documentation

Tests carried out
Pressure test reports submitted April 10th, 2023.

Manufacturing locations
Pudukottai District, Tamil Nadu, India

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 manufacturer's discretion.

Periodical assessment
For retention of the Type Approval, DNV's surveyor shall perform periodical assessment after 2 years (+/- 90 days) and after 3.5 years (+/- 90 days) in accordance with DNV's Class Programme DNV-CP-0338, Section 4.

Other conditions/comments
1. Procedures related to testing, welding, NDT, and other quality control requirements are to be reviewed/approved by DNV's local surveyor.
2. When these components to be installed on a manifold, the design of the manifold shall be reviewed by DNV.
3. DNV ref.: A1317658.

END OF CERTIFICATE