



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE

Certificate No. TA19417M

This is to certify that the undernoted product(s) has/have been approved in accordance with the relevant requirements of 12.3.3, Part D of the “Rules for the Survey and Construction of Steel Ships”(hereinafter referred to as “the Rules”) and Chapter 9, Part 6 of the “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use”.

This certificate is issued to

Manufacturer :	Hansun Engineering Co., Ltd.
Product description :	Mechanical Joints (Compression Couplings (Bite Type))
Type designation(s) :	S-LOK BITE-DIN 2353 BITE-JIS B2351
Approval No. :	14FV103B
Valid until :	23 July 2024

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 24 July 2019.

T. Shimada
General Manager
Machinery Department

• Max. Working Pressure and Sizes

< S-LOK >

Size	Max. Working Pressure (psi)		
	Stainless Steel	Carbon Steel	Brass
1/8"	10,900	10,900	3,600
3/16"	10,200	10,200	3,400
1/4"	10,200	10,200	3,500
5/16"	8,000	8,000	2,700
3/8"	6,500	6,500	2,200
1/2"	6,700	6,700	2,200
5/8"	6,000	6,000	1,900
3/4"	5,800	5,800	1,800
7/8"	4,800	4,800	1,500
1"	4,700	4,700	1,500
1 1/4"	4,900	4,900	1,500
1 1/2"	4,900	4,900	1,500

< BITE – JIS B2351 >

Size (mm)	Max. Working Pressure (bar)		
	Stainless Steel	Carbon Steel	Brass
6 ~ 15	500	500	350
16 ~ 22	400	400	280
25 ~ 28	350	350	245
30 ~ 38	250	250	175
40 ~ 42	210	210	147

< BITE – DIN 2353 >

Series	Stainless Steel		Carbon Steel		Brass	
	Size (mm)	Max. Pressure (bar)	Size (mm)	Max. Pressure (bar)	Size (mm)	Max. Pressure (bar)
LL	6 ~ 8	100	6 ~ 8	100	6 ~ 8	70
L	6 ~ 15	250	6 ~ 18	315	6 ~ 18	220.5
	18 ~ 22	160	—	—	—	—
	28 ~ 42	160	22 ~ 42	160	22 ~ 42	112
S	6 ~ 14	360	6 ~ 14	630	6 ~ 14	441
	16 ~ 25	400	16 ~ 30	400	16 ~ 30	280
	30 ~ 38	315	38	315	38	220.5

• Max. Temperature

Stainless Steel	649 °C
Carbon Steel	426 °C
Brass	205 °C

• Applicable Shipboard Systems

Fuel oil, Lubricating oil, Hydraulic oil, Fresh water, Sea water, Gas, Air, Steam

• Type Approval Test

Tightness test, Vibration test, Pressure pulsation test, Burst pressure test, Pull-out test, Vacuum test, Repeated assembly test

• Limitation

- The installation of mechanical joints is to be in accordance with the manufacturer's assembly instructions and 12.3.3, Part D of the Rules.
- Where special tools and gauges are required for installation of the joints, these are to be supplied by the manufacturer.

• Reference Documents

- "Leak – Proof Flow & Control Solution Partner (S-LOK Tube Fittings)"
- "Leak – Proof Flow & Control Solution Partner (BITE – JIS B2351 Tube Fittings)"
- "Leak – Proof Flow & Control Solution Partner (BITE – DIN 2353 Tube Fittings)"

• Production Test

The joints used for piping belonging to Group I & II defined by 12.1.3, Part D of the Rules are to be subjected to hydraulic test in the presence of the Society's surveyor in accordance with 12.6.1, Part D of the Rules.

• Notice

Any significant changes in design or construction of the above items may render this certificate invalid.

- The End -