



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: T01.02-  
HQ002115

型式认可证书  
CERTIFICATE OF TYPE APPROVAL

证书编号/Certificate No. FS14T00021

兹证明本证书所述制造厂生产的下列产品能够满足下面列明认可标准的要求。

This is to certify that the following products produced by the manufacturer stated in the certificate can meet the requirements of the approval standards listed below.

认可产品/ Product Approved

机械接头  
Mechanical Joints

制造厂/ Manufacturer

HANSUN ENGINEERING CO., LTD.

HANSUN ENGINEERING CO.,LTD.

27, Noksansandan 361-ro, Gangseo-gu, Busan, Korea

27, Noksansandan 361-ro, Gangseo-gu, Busan, Korea

附加标志/ Notations

无/Nil.

认可标准/ Approval Standard

1. 中国船级社《钢质海船入级规范》(2012)及其修改通报第3篇 第2章  
Chapter 2, Part Three of CCS Rules for the Classification of Sea-going Steel Ships 2012 and its Amendments

证书有效期至/ This Certificate is valid until 2018年10月23日 / Oct. 23, 2018

发证机构  
Issued by

中国船级社釜山分社  
CCS Busan Branch

签发日期  
Date

2014年10月24日  
Oct. 24, 2014

本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页纸张时，则所有证书页为一个整体，必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。本认可证书不代表本社对个体产品质量的检验。有关各方对所持证书的真实性有疑问时，可以向本社检验机构咨询。  
This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



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FS93785036  
N<sup>o</sup> 14137763



**产品明细/ Product Description**

机械接头/Mechanical Joints 型号/Modle	: 1.S-LOK Tube fittings; 2.Bite type tube fittings for JIS B2351; 3.Bite type tube fittings for DIN 2353;
材料/Material	: Stainless Steel; Carbon Steel; Brass;
规格/Specification	: See Additional Pages

**批准的图纸和设计计算书/ Approved Drawings and Design Calculations**

图纸批准号/ Drawings Approval No. : NP14A00394, NP14A00395, NP14A00396

**产品认可试验报告/ Approval Test Report**

试验报告编号/Test Report No. : HSET-CCS-001  
 试验报告日期/Test Report Date : 2014-10-17  
 试验单位/ Laboratory : HANSUN ENGINEERING CO., LTD.  
 试验单位地址/ Test Address : 27, Noksansandan 361-ro, Gangseo-gu, Busan, Korea

**产品适用范围/ Application of the Product**

Marine System: Flammable Fluids, Inert gas, Sea water, Fresh water, Sanitary/drains/scuppers, Sounding/vent, Miscellaneous.

**认可保持条件/ Maintenance Requirements of Approval**

1. 型式认可后, 如果产品及其重要零部件的设计、所用材料或制造方法有所改变, 且影响到产品的主要特性、特征; 或产品的性能指标有所更改, 且超过认可的范围, 则有关图纸和文件应经检验机构审批。并在检验机构认为必要时, 经本社检验人员见证有关试验和进行检查, 其结果应能证实仍符合认可条件。  
After type approval, if there are changes to the design, materials used or manufacturing method of the product and important components and such changes affect major characteristics and properties of the product, or property indexes of the product are changed and exceed the scope of approval, related drawings and documents are to be examined and approved by the concerned survey office. Where deemed necessary by the survey office, the surveyor to the Society will go to witness relevant tests and conduct inspection and the results should be able to demonstrate compliance with the approval conditions.
2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。  
The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.
3. 认可证书有效期内, 如果出现可能导致本社取消认可的情况, 工厂应及时采取有效的纠正措施。  
Within the validity of the approval certificate, if cases occur that may cause the Society to withdraw the approval, the manufacturer should take corrective actions in a prompt and effective manner.
4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。  
Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

**认可后的产品检验方式/ Method of Product Inspection after Approval**

按照规范每批抽样检验的产品/The product inspected by sampling in term of the rules:

认可后的产品检验应由本社验船师根据本社规范规定每批抽样按批准的产品检验计划进行检验, 经检验合格后由本社颁发产品证书。

After approval, product inspection should be carried out by sampling by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Product Certificate will be issued by the Society upon satisfactory inspection.

**对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components**

产品如下原材料和零部件应由本社认可的制造厂生产/The following materials and components of the product should be manufactured by the factory approved by the Society: 无/Nil.



产品如下原材料和零部件应经本社检验，持有本社产品证书/The following materials and components of the product should be inspected and certificated by the Society:/Nil.

产品如下原材料和零部件的制造厂清单，经本社批准方可变更/The list of manufacturer for the following materials and components of the product should not be changed without the Society's approval:/Nil.

**责任声明/Statement of Responsibility**

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证，并且不对与本社授权或检验无关的各方负责，不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。

The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

**其他/Others**

本认可产品为不含弹性和橡胶密封的机械接头，型式试验项目中不包含耐火试验。

The approval products are mechanical joints without resilient and elastomeric seals, fire endurance test not included in the type approval test items.

本社已审核了产品厂无石棉声明，但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。

The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society. However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.

中国船级社釜山分社

CCS Busan Branch



\*\*\*\*\*本证书正文完/ End of Text\*\*\*\*\*

注：本证书含有附页，共3页

Note: The certificate is attached with 3 additional page(s)



### Product Description

#### 1. S-LOK Tube fittings

Material	Stainless Steel, Carbon Steel, Brass		
Pipe O.P.	1/8 inches ~1-1/2 inches		
Max. working Pressure (depending on size)	Stainless Steel	33.78MPa ~75.15MPa	
	Carbon Steel	33.78MPa ~75.15MPa	
	Brass	10.34MPa ~24.82MPa	
Temperature Range	Stainless Steel	-196℃ ~649℃	
	Carbon Steel	-53℃ ~426℃	
	Brass	-40℃ ~205℃	
Types and Design			
Type Description	Fitting Designation	Type Description	Fitting Designation
Tube to Tube Union	SU,SL,SUR,ST,SX,SUB	Plug and Cap	SP,SC
Tube to Male Pipe	SMC-N/R/G,SMCT,SOM,SMCB,SLBM, SLM,STRM.STBM	Tube Insert	SI
Tube to Female Pipe	SCF,SCG,SCBF,SLF,STRF,STBF	Nut	SN
Stub Tube Connector	SR,SAB,SAM,SAF,SCP,SCR	Front Ferrule	SFF
Tube to AN Tube	SUA,SUBA,SAA	Back Ferrule	SFB
Tube to SAE O-ring Seal	SMCS,SLS,SLBS,STRS,STBS,SCOS,SCOP	Ferrule Set	SFS
Tube to Weld End	SCW,SLW,SCSW,SLSW		



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## 2. Bite type tube fittings for JIS B2351

Material	Stainless Steel, Carbon Steel, Brass		
Pipe O.P.	6mm ~42mm		
Max. working Pressure	Stainless Steel	21.0MPa ~50.0MPa	
	Carbon Steel	21.0MPa ~50.0MPa	
	Brass	14.7MPa ~35.0MPa	
Temperature Range	Stainless Steel	-20℃ ~300℃	
	Carbon Steel	-23℃ ~300℃	
	Brass	-20℃ ~200℃	
Types and Design			
Type Description	Fitting Designation	Type Description	Fitting Designation
Straight Union	BU	Plug	BP
Union Elbow	BL	Nut	BN
Union Tee	BT	Sleeve	BS
Straight Bulkhead Union	BBU	Hose Male Union	BHUM
Bulkhead Elbow	BBL	Hose Female Union	BHUF
Long Male Connector	BLMC	Hose Bulkhead Male Union	BHBM
Male Connector	BMC-R/G,BOM	Hose Bulkhead Female Union	BHBF
Male Elbow	BLM	Hose Male Elbow	BHLM
Long Male Elbow	BLLM	Hose Female Elbow	BHLF
O-Seal Male Elbow	BOLM	Hose Bulkhead Male Elbow	BHBLM
Banjo Elbow	BSLM	Hose Bulkhead Female Elbow	BHBLF
Male Branch Tee	BBTM	Welding Connector	BCW
Male Run Tee	BRTM	Welding Bulkhead Union	BBUW
Bulkhead Female Connector	BBFC	Adapter	BA-R
Female Connector	BFC	Adapter(for Copper Gasket)	BA-G
Gauge Connector	BGC	Reducer	BR
Female Elbow	BLF	Positionable Elbow	BLA
Female Branch Tee	BBTF	Positionable Branch Tee	BBTA
Female Run Tee	BRTF	Positionable Run Tee	BRTA
Jig	BJ	Air Purge Valve(tube end)	BAP-A
Cap	BC	Air Purge Valve(thread end)	BAP-2



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## 3. Bite type tube fittings for DIN 2353

Material	Stainless Steel, Carbon Steel, Brass	
Pipe O.P.	6mm ~ 42mm	
Max. working Pressure	Stainless Steel	10.0MPa ~ 63.0MPa
	Carbon Steel	10.0MPa ~ 63.0MPa
	Brass	7.0MPa ~ 44.1MPa
Temperature Range	Stainless Steel	-60℃ ~ 400℃
	Carbon Steel	-40℃ ~ 120℃
	Brass	-60℃ ~ 175℃
Types and Design		
Type Description	Fitting Designation	
Tube to Tube	DDU,DDL,DDUR,DDT,DDC,DDTR,DDBU,DDBUW,DDBL	
Tube to Female Port	DDOM-U/M,DDMC-R/G/M/GED/MED/N,DDML-R/M	
Tube to Male Thread	DDFC-G/M	
Tube to Tube Port(adjustable fitting)	DDLA,DDBTA,DDRTA,DDEW,DDET,DDEL,DDKOR,DDR,DDRED	
Tube Port to Female Port	DDA-GED/MED,DDEGE-G/M	
Tube Port to Tube Port	DDUE	
Banjo Fitting	DDSWVE-G/M,DDWH-G/M,DDTH-G/M	
Gauge Connector & Test Couplings	DDGC-G,DDGE-G,DDGA-G,DDGMA,DDEMA3	
Weld Fitting	DDAS,DDASK,DDAK,DDAKR	
Adaptor	DMFAD,DMFAE,DMFAD-ED,DMFAE-ED	
Plug and Caps	DDVSTI-GED/MED,DDVSTI,DDVKA,DDCA	
Cutting Ring	DDS	
Nut	DDN	

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