



WELDING CONSUMABLE CERTIFICATE

Certificate No.: 727977-3521905-001

Report No.: UL3521905

Port of ULSAN, KOREA

Date: 31 AUGUST 2018

THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF CHOSUN WELDING CO., LTD., ATTEND THEIR PLANT AT ULSAN, KOREA, ON THE 31ST DAY OF AUGUST, 2018 AND ON SUBSEQUENT DATES, IN ORDER TO CARRY OUT A PLANT SURVEY OF FACILITIES AND ASSOCIATED QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND TO WITNESS AND REPORT ON THE INITIAL APPROVAL TESTING OF WELDING CONSUMABLES; AND,

THAT THE FACILITY IS CONSIDERED CAPABLE OF PROVIDING AN ACCEPTABLE UNIFORM PRODUCT, AND THAT EACH WELDING CONSUMABLE LISTED BELOW WAS FOUND IN COMPLIANCE WITH THE SPECIFICATION INDICATED AND IS ELIGIBLE TO BE PLACED ON THIS BUREAU'S APPROVED WELDING CONSUMABLES LIST IN THE FLUX CORED ARC WELDING SECTION:

<u>TRADE NAME</u>	<u>SPECIFICATION</u>	<u>GRADE OR CLASS</u>	<u>SHIELDING GAS</u>	<u>POSITION</u>	<u>CURRENT/ POLARITY</u>	<u>SIZE</u>
CSF-71LF	ABS	3YSAH5 3Y400SAH10	100% CO2	All, V-Down	DC(+)	1.2~1.6mm



JIN-WON, KIM SURVEYOR

Note: This Certificate evidences compliance with one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a fuller description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.



ABS

WELDING CONSUMABLE CERTIFICATE

Certificate No.: 727977-3480352-001

Report No.: UL3480352

Port of ULSAN, KOREA

Date 17 OCTOBER 2018

THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF CHOSUN WELDING CO., LTD., ATTEND THEIR PLANT AT ULSAN, KOREA, ON THE 10TH DAY OF APRIL, 2018 AND ON SUBSEQUENT DATES, IN ORDER TO CARRY OUT A PLANT SURVEY OF FACILITIES AND ASSOCIATED QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND TO WITNESS AND REPORT ON THE ANNUAL APPROVAL TESTING OF WELDING CONSUMABLES; AND,

THAT THE FACILITY IS CONSIDERED CAPABLE OF PROVIDING AN ACCEPTABLE UNIFORM PRODUCT, AND THAT EACH WELDING CONSUMABLE LISTED BELOW WAS FOUND IN COMPLIANCE WITH THE SPECIFICATION INDICATED AND IS ELIGIBLE TO BE PLACED ON THIS BUREAU'S APPROVED WELDING CONSUMABLES LIST IN THE FLUX CORED ARC WELDING SECTION:

TRADE NAME	SPECIFICATION	GRADE OR CLASS	SHIELDING GAS	POSITION	CURRENT/ POLARITY	SIZE
CSF-71T	ABS	2SAH10 2YSAH10	100% CO2	All, V-Down	DC(+)	1.2~1.6
CSF-71T	ABS	2YSAH10	75%Ar+25%CO2	All, V-Down	DC(+)	1.2~1.6
CSF-71LF	ABS	3YSAH10	75%Ar+25%CO2	All, V-Down	DC(+)	1.2~1.6
CSF-71SRM	ABS	4YSA(H10)	75%Ar+25%CO2	All, V-Down	DC(+)	1.2~1.6
CSM-70T	ABS	2SAH10 2YSAH10	100% CO2	F	DC(+)	1.2~1.6
CSF-71U	ABS	3YSAH10	100% CO2	All, V-Down	DC(+)	1.2~1.6
CSM-70U	ABS	3YSAH5	100%CO2	F	DC(+)	1.2~1.6
CSF-71S	ABS	4Y400SAH5	100% CO2	All, V-Down	DC(+)	1.2~1.6
CSF-81T	ABS	2YSAH10	100% CO2	All, V-Down	DC(+)	1.2~1.6
CSF-460S	ABS	5YQ460SAH5	100% CO2	All, V-Down	DC(+)	1.2~1.4
CSF-500S	ABS	5YQ500SAH5	100% CO2	All, V-Down	DC(+)	1.2~1.4
CSF-550S	ABS	5YQ550SAH5	100%CO2	All, V-Down	DC(+)	1.2~1.4
CSF-81K2	ABS	5Y400SAH5	100% CO2	All, V-Down	DC(+)	1.2~1.6
CSF-308L	AWS A5.22	E308LT0-1	100% CO2	F	DC(+)	1.2~1.6
CSF-309L	AWS A5.22	E309LT0-1	100% CO2	F	DC(+)	1.2~1.6
CSF-316L	AWS A5.22	E316LT0-1	100% CO2	F	DC(+)	1.2~1.6
CSF-309MoL	AWS A5.22	E309LMoT0-1	100% CO2	F	DC(+)	1.2~1.6
CSF-308LP	AWS A5.22	E308LT1-1	100% CO2	ALL, V-Down	DC(+)	1.2~1.6
(Manufacturer's guaranteed minimum CVN 34J at -196°C)						
CSF-309LP	AWS A5.22	E309LT1-1	100% CO2	ALL, V-Down	DC(+)	1.2~1.6
CSF-316LP	AWS A5.22	E316LT1-1	100% CO2	ALL, V-Down	DC(+)	1.2~1.6
(Manufacturer's guaranteed minimum CVN 34J at -196°C)						
CSF-2209P	AWS A5.22	E2209T1-1	100% CO2	ALL, V-Down	DC(+)	1.2~1.6



 Yu-Sik Lee, SURVEYOR

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