



**CERTIFICATE OF APPROVAL OF WELDING  
CONSUMABLE FOR SHIP CONSTRUCTION**

**COPY**

This certificate is issued to the company named below. The welding consumable or combination described has been tested in accordance with the requirements of Lloyd's Register for use in ship construction. This approval is subject to annual tests being carried out in accordance with the requirements of Lloyd's Register. The continued validity of this approval will be confirmed by appropriately dated Annual Reapproval Certificates issued to the company.

Name of Company: ***NIPPON STEEL & SUMIKIN WELDING CO LTD  
CHIBA PLANT (NARASHINO), JAPAN***

Type of Welding Consumable: ***Section 5 - Flux-Cored Wire/Gas Shield***

Trade Name: ***NSSW SF-80A/80%Ar-20%CO<sub>2</sub>***

Welding Position: ***Downhand, horizontal-vertical, vertical upward and overhead only.***

Joint Type: ***Butt and Fillet Welding.***

Grade: ***4Y69, suitable for welding steel Grade(s) EH69, EH62 (and any corresponding strength grade(s) of lower toughness), using semi-automatic flux cored arc welding. (Approved also for automatic multirun welding in the downhand position only.)***

Remarks: ***Approved low hydrogen consumable, conforming to standard H5.  
Approved for wires of 1.2mm diameter only.***

Date: ***30 May 2017***

Valid until: ***30 May 2018***

A handwritten signature in black ink, appearing to read 'J S Nirankari', written over a horizontal line.

**J S Nirankari**

Principal Specialist to Lloyd's Register EMEA  
A member of the Lloyd's Register group