Certificate No: LR26228515TA
Issue Date: 10/05/2026
Expiry Date: 09/05/2031

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**NAKAKITA SEISAKUSHO CO., LTD.**
Address	1-1 Fukonominamicho, Daito, Osaka, 574-0075, Japan
Place of Production	Nihon Automatic Controller Mfg. Co., Ltd. 1-2 Fukonominamicho, Daito, Osaka, 574-0075, Japan
Type	Actuator
Description	NS PAC-80U Series:- PAC-80U-01, PAC-80U-02, PAC-80U-03, PAC-80U-04, PAC-80U-05, PAC-80U-06, PAC-80U-07, PAC-80U-08, PAC-80U-09, PAC-80U-10 NS PAC-80Z Series:- PAC-80Z-01, PAC-80Z-02, PAC-80Z-03, PAC-80Z-04, PAC-80Z-05, PAC-80Z-06, PAC-80Z-07, PAC-80Z-08, PAC-80Z-09, PAC-80Z-10
Trade Name	Hydraulic Valve Actuator
Application	Marine use. To drive quarter turn valves from full one side to a fail-safe fully the other side position.
Specified Standard	Lloyd's Register (LR) Rules and Regulations for the Classification of Ships (July 2025), Part 5, Chapters 13 & 15 and Part 6, Chapter 1.

Downloaded Copy

Yasushi Sawada

Engineering - Machinery - Lead Specialist to
Lloyd's Register Group Limited
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Type Approval Certificate

Ratings	Moment arm	: 35 to 135 mm
	Design Pressure	: 98.1 bar (PAC-80U), 137.3 bar (PAC-80Z)
	Maximum Torque Rating	: 475.5 to 29,350 Nm (PAC-80U), 665.3 to 41,060 Nm (PAC-80Z)

Other Conditions

Where installed on a ship classed or intended to be classed with LR the following conditions are applicable:

1) The materials are to satisfy the requirements of the Rules for the Manufacture, Testing and Certification of Materials of LR Rules and Regulations for the Classification of Ships

2) The Valves, actuators and controls are to be installed in accordance with LR approved plans and the manufacturer's instructions, and tested to LR's Surveyor's satisfaction.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Group Limited of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR21215395TA

The Design Appraisal Document LR26228515TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Downloaded Copy

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.