Certificate No: LR22487165TA
Issue Date: 16/11/2022
Expiry Date: 15/11/2027

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	**Kobelt Manufacturing Co. LTD**
Address	8238 - 129th Street, Surrey, V3W 0A6, Canada
Place of Production	Kobelt Manufacturing Co. LTD 8238 - 129th Street, Surrey, V3W 0A6, Canada
Type	Power Assisted Hydraulic Steering System
Description	Hydraulic Servo Cylinders
Trade Name	Models 7085, 7147 and 7065
Application	Marine steering applications
Specified Standard	Lloyd's Register Rules and Regulations for the Classification of Ships, July 2022, Pt.5, Chapter.19
Ratings	see Appendix 1
Other Conditions	1. The application and suitability of the steering cylinders as part of a steering gear system will be reviewed on a case-by-case basis subject to compliance

Praveen Dwarakanath

Specialist-Engineering Systems to Lloyd's Register Canada Limited
A member of the Lloyd's Register group

237 Brownlow Avenue, Suite 200, Dartmouth, NS.
B3B2C7, Canada

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Type Approval Certificate

with applicable LR Rules.

2. Seals and gaskets shall be qualified and capable of functioning at the specified design parameters and retained fluid. Supporting documents are to be to satisfaction of the Attending Surveyor.

3. Fittings, flexible hoses, soft seated valves/cartridges, measuring devices, solenoids are outside the scope of this Type Approval. They are to be certified for marine applications and document evidence are shown to the satisfaction of the Attending Surveyor.

4. The hydraulic cylinder model 7065 has been Type Approved as per LR Type Approval Certificate#01/60132(E4) Issue#1 dated 08 Feb 2019.

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 Canada Limited of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 14/60018

The Design Appraisal Document LR22487165TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Hydraulic Servo Cylinders

Appendix 1

1. 7085- cylinder details:

Hydraulic Cylinder Maker's Designation	7085 (Balanced & Unbalanced)
Hydraulic Cylinder Stroke, **inches**	10,12,16,20
Servo Valves Maker's Designation	7085-SA
Maximum Working Pressure, **bar**	69
Relief Valve Design Pressure, **bar**	86.3
Hydrostatic Test Pressure, **bar**	129.4
Temperature range, **deg Celsius**	0-50

2. 7065-cylinder details:

Hydraulic Cylinder Maker's Designation	7065 (Balanced)
Hydraulic Cylinder Stroke, **inches**	10,12, & 16
Servo Valve Type	7247-SAC
Maximum Working Pressure, **bar**	83
Relief Valve Design Pressure, **bar**	103
Hydrostatic Test Pressure, **bar**	154.5
Temperature range, **deg Celsius**	0-50

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3. 7147-cylinder details:

Hydraulic Cylinder Maker's Designation	7147 (Balanced)
Hydraulic Cylinder Stroke, **inches**	7.5,10, 12
Servo Valve Maker's Designation	7247-SAC
Maximum Working Pressure, **bar**	69
Relief Valve Design Pressure, **bar**	86.3
Hydrostatic Test Pressure, **bar**	129.4
Temperature range, **deg Celsius**	0-50

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