

Certificate of Compliance

Certificate: 1336612 **Master Contract:** 160732 (081519_0_000)

Project: 70078081 **Date Issued:** 2016-06-16

Issued to: Oleo International Holdings Limited

Grovelands Estate Longford Rd Exhall Coventry, CV7 9NE UNITED KINGDOM

Attention: Darren Nicholls

The products listed below are eligible to bear the CSA Mark shown



Issued by: Wendy Zhw

Wendy Zhu, Ph. D., P. Eng.

PRODUCTS

CLASS - C241106 - ELEVATOR EQUIPMENT-Oil Buffers

Oil buffers with gas spring return:

<u>Model</u>	Rated Speed m/s	Max Striking Speed m/s	Min Load <u>kg</u>	Max Load <u>kg</u>	Stroke "S" mm
- Type SLB.1					
SLB 16.1	1.60	1.84	450	3100	173
SLB 18.1	1.80	2.07	450	3100	219
SLB 20.1	2.03	2.34	450	3100	279
- Type SLB.2					
SLB 16.2	1.60	1.84	450	4545	173
SLB 18.2	1.80	2.07	450	4545	219
SLB 20.2	2.03	2.34	450	4545	279
SLB 25.2	2.54	2.92	450	4545	435

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- Type SEB.2					
SEB 16.2	1.60	1.84	450	4545	173
SEB 18.2	1.80	2.07	450	4545	219
SEB 20.2	2.03	2.34	450	4545	279
SEB 25.2	2.54	2.92	450	4545	435
- Type LB					
LB 16.003	1.60	1.84	500	8330	203
LB 18.001	1.80	2.07	500	8330	249
LB 20.001	2.03	2.34	500	8330	300
LB 23.001	2.30	2.65	500	8330	387
LB 25.003	2.54	2.92	500	8330	462
LB 32.002	3.15	3.62	700	8330	699
LB 35.001	3.56	4.09	1000	8330	881
LB 40.001	4.06	4.67	1000	8330	1141
LB 50.001	5.09	5.85	1500	7500	1740
LB 55.001	5.61	6.45	1250	7500	2109
LB 60.001	6.09	7.01	1500	10000	2504
LB 65.001	6.61	7.6	2000	10000	3039
*LSB10.1	1	1.15	370	2000	70



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<u>Model</u>	Rated Speed m/s	Max Striking Speed m/s	Min Load <u>kg</u>	Max Load <u>kg</u>	Stroke "S"mm
- *LSB Series					
LSB 10.A LSB 16.B LSB 18.B LSB 20.B LSB 25.B	1.0 1.6 1.8 2.03 2.54	1.15 1.84 2.07 2.33 2.87	380 450 450 450 450	3250 3250 3250 3250 3250	74.3 175.5 221.5 279.0 435.0
- MLB Series					
MLB 13.1 MLB 16.1 MLB 18.1 MLB 20.1 MLB 25.1 MLB 32.1 MLB 35.3	1.30 1.60 1.80 2.03 2.54 3.15 3.56	1.50 1.84 2.07 2.33 2.88 3.62 4.09	450 450 450 450 450 450 600	5500 5500 5500 5500 5500 5500	120 173 219 279 435 679 881
MLB 40.3	4.06	4.67	600	5500	1141

*Note: Mechanical Spring Return.

APPLICABLE REQUIREMENTS

CSA B44-10 / ASME A17.1-2010 - Safety Code for Elevators and Escalators CSA TIL No. M-05 - Interim Certification Requirements for Elevator Oil Buffers

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

All marking required by CSA are marked on a permanently mechanically attached or adhesively affixed metal nameplate located on the oil buffer readily accessible for review after installation of the equipment. The Adhesive Transfer Tapes is 468MP with Adhesive 200MP from 3M (UL# MH17478). The contents consist of:

- Submittor's name (Oleo International);
- Model designation (labeled 'Oil Buffer Type');

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- Maximum and minimum load (kg);
- Maximum striking speed (m/s);
- Stroke (mm)
- Composition of gas, for gas-spring return type only
- CSA Monogram with the adjacent indicator "CSA B44-M90, CSA B44-**, and/or ASME A17.1-####"

Where ** is replaced by 94, 00, 04, 07, or 10, and #### is replaced by 1990, 1993, 1996, 2000, 2004, 2007, or 2010 (indicating the edition of the standard)

Oil specifications:

- Type;
- Viscosity range stated in Saybolt Seconds Universal (SSU) at 38°C;
- Viscosity index number;
- Pour point in °C;

Instructions (see 'Operation Manual'):

- Mount vertically before filling;
- Minimum oil level is;
- Oil volume (litres).

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Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
70078081	2016-06-16	Update report to update illustrations.
1580166	2004-10-21	Report Corrections, Customer Visit