
Portable ladders for fire service use

ICS: 13.220.10



Mauritius Standards Bureau

Moka

Gr 16

This national standard is the identical implementation of EN 1147:2010 and is adopted with the permission of CEN, Rue de Stassart 36, B-1050 Brussels.

National foreword

This Mauritian Standard is identical with the European Standard **EN 1147:2010**, *Portable ladders for fire service use*. It was adopted by the Mauritius Standards Bureau in 2013 on the recommendation of the **Mechanical Engineering Standards Committee** through its **Subcommittee on ladders** and approval of the **Standards Council** on **20 February 2013**. It was notified in the Government Gazette on **23 March 2013***

For the purposes of this standard the following changes should be made:

- (i) the words 'European Standard' should be read as 'Mauritian Standard';
- (ii) the 'decimal comma' should be replaced by the 'decimal point';
- (iii) Clause 3 – to insert the following statement as a note:
- 'feet' is also known locally as 'shoes'

The following Mauritian Standards are identical to the European Standards, which are referenced in the adopted standard:

European Standard	Corresponding Mauritian Standard
EN 131-2:2010 , <i>Ladders — Part 2: Requirements, testing, marking</i>	MS EN 131-2:2010 , <i>Ladders — Part 2: Requirements, testing, marking</i>

*General Notice No 772 of 2013



COPYRIGHT PROTECTED DOCUMENT

© MSB 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying or posting on the internet or an intranet, without permission in writing from Mauritius Standards Bureau at the address below

Mauritius Standards Bureau
Villa Road
Moka, Mauritius
Telephone + (230) 433 3648
Fax + (230) 433 5051/ 433 5150
E-mail *msb@intnet.mu*

Contents

		Page
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Categorization	8
5	Dimensions and total masses	9
	5.1 Length	9
	5.2 Width between stiles	9
	5.3 Mass	9
6	Rungs	9
7	Extending ladder requirements	11
	7.1 Force	11
	7.2 Lines	11
	7.3 Cables	11
	7.4 Additional safety requirements	11
	7.5 Pawls	11
8	Fittings	11
	8.1 Hooks	11
	8.2 Feet	12
	8.3 Wheels	12
9	Stabilizing means	12
10	Poles	12
11	Materials and finishes	12
12	Marking	13
13	Performance requirements	14
	13.1 Deflection – All ladders	14
	13.2 Deflection – Compulsory pole	15
	13.3 Other tests	15
14	General test parameters	15

Annex A (normative) Deflection test: applicable to all ladders not covered by Annex B except hook ladders (non-destructive)	17
Annex B (normative) Deflection test: applicable to 3-person compulsory pole ladder (nondestructive)	20
Annex C (normative) Rung torque test: all ladders (non-destructive)	23
Annex D (normative) Pole test (non-destructive)	23
Annex E (normative) Horizontal test: applicable to all ladders not covered by Annex F except hook ladders (destructive)	25
Annex F (normative) Horizontal test: applicable to 3-person compulsory pole ladder (destructive)	26
Annex G (normative) Pawl test: applicable to all extension ladders (destructive)	27
Annex H (normative) Rescue ladder rung test: applicable to all rescue ladders (destructive)	28
Annex I (normative) Access ladder rung test: applicable to all access ladders (destructive)	29
Annex J (normative) Hook rung and ladder integrity test: for tip-loaded hooks (destructive)	30
Annex K (normative) Hook rung and ladder integrity test: for mid-loaded hooks (destructive)	31
Annex L (normative) Foot side strength test: ground standing ladders (destructive)	32
Annex M (informative) Recommendations for test frequency, repair, servicing and design considerations	33
M.1 Inspection and maintenance	33
M.2 Non-destructive test schedule	33
M.3 Design	34
Annex N (informative) Information and recommendations for user safety	35
Annex O (informative) A-deviations	36
Bibliography	37

Introduction

This European Standard is based on the performance of portable fire and rescue service ladders in normal use and includes safety requirements. A safety factor of the order of 3:1 has been used and the mass of a firefighter including personal equipment and breathing apparatus has been taken as 108 kg.

The standard sets out minimum and/or maximum values within which the customer may specify his own requirements.

In preparing this standard it has been recognized that the operational use of portable ladders varies throughout Europe.

PREVIEW

1 Scope

This European Standard specifies requirements, test methods and performance criteria for portable ladders for fire and rescue service use and associated purposes.

The tests in this European Standard are type tests and not periodical tests.

Non-portable ladders for fire and rescue service use are excluded from this standard.

NOTE For ladders for other uses see EN 131 (all parts).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 131-2:1993, *Ladders — Requirements, testing, marking*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 access ladder

ladder designed for gaining access

NOTE Access ladders are not recommended for rescue by carry-down or carry-up.

3.2 angle of pitch

angle between the horizontal plane and the underside of the stiles of the ladder in use

3.3 cable

wire rope for mechanically extending and housing an extension ladder

3.4 carry-down and carry-up

lifting of the whole weight of another person

3.5 compulsory pole ladder

ladder where the use of poles to support the ladder is mandatory

3.6 distance between rungs

distance measured in the middle line between the stiles from the upper edge of a rung to the upper edge of an adjacent rung

3.7 extending ladder

ladder consisting of two or more sliding sections