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Guideline /

THOROUGH EXAMINATION OF LIFTING TABLES

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1 FOREWORD : IMPORTANT NOTICE FOR THE INSPECTOR

- a) The recommendations and advice contained in this Guidance Note are based on specifications, procedures and other information that have been collected from the FEM from its members. They represent what is, as far as FEM is aware, the best available data at the time of publication on the instruction and use of lift tables in the general conditions described and are intended to provide guidance for such use.
- b) The suitability of this Guidance Note must be determined by the judgement of the person applying it in accordance with the conditions in which use is envisaged and subject to all relevant statutory requirements.
- c) FEM accepts no responsibility for the recommendations, advice, statements and conclusions expressed or implied and gives no warranty, representation or assurance with respect to the accuracy or validity of the same.

2 INTRODUCTION

The law places duties on all persons concerned with lifting tables – both those who provide or make available lifting tables for use at work and those involved working with lifting tables. Lifting equipment, in places where people are at work, is required by legislation transposed from Directive 89/655/EC, as amended by Directive 95/63/EC, on the Use of Work Equipment, to be thoroughly examined by a competent person at periodic intervals.

The purpose of the guidance contained in this document is to inform persons responsible for the safe operation of lifting tables of their duties for ensuring these items are thoroughly examined and maintained, and to achieve consistency of inspection, testing, reporting requirements and periods for inspections and tests. This is in addition to any guidelines recommended by the manufacturer.

3 SCOPE

- 3.1 This Guidance Note specifies the requirements for the thorough examination of lifting tables for raising and/or lowering goods and/or persons associated with the movement of goods carried by the lifting table, for lifting tables irrespective of the drive system, which are designed, constructed and installed in accordance with CEN standard EN 1570-1:2011+A1:2014 and EN 1570-2:2016 plus any future amendments.

NOTE: These lifting tables are intended for the transport of goods and/or persons associated with the movement of goods i.e. not for the movement of passengers.

3.2 This guidance standard does not apply to the following equipment:

- permanently installed lifting tables, serving specific levels of a building and fitted with a car;
- permanently installed lifting tables, serving specific levels of a building, not fitted with a car but with a vertical travel of more than 2.0 m;
- power operated lifting platforms for persons with impaired mobility;
- lifting tables for airport ground equipment;
- lifting tables for marine use;
- mobile elevating work platforms;
- vehicle lifts for maintenance;
- mobile lifting tables used for fire fighting;
- mobile lifting tables used as fork lift trucks, pallet trucks and order pickers;
- mobile lifting tables with a travelling speed of more than 1,6 m/s;
- rail dependent storage and retrieval equipment;
- theatre stage lifts.

4 NORMATIVE REFERENCES

EN 1570-1:2011+A1:2014 Safety requirements for lifting tables serving more than 2 fixed landings of a building, for lifting goods with a vertical travel speed not exceeding 0,15 m/s

EN 1570-2 :2016 Safety requirements for lifting tables serving up to 2 fixed landings of a building, for lifting goods with a vertical travel speed not exceeding 0,15 m/s

EN 45004:1995 General criteria for the operation of various bodies performing inspections

5 DEFINITIONS

5.1 Competent person

A person who has such appropriate practical and theoretical knowledge and experience of lifting tables or who with suitable training as will enable them to detect defects or weaknesses and to assess their importance in relation to the safety and continued use of the lifting table and be in a position either to report them to management or to take remedial action.

The term “competent person” can refer both to individuals and to the companies by whom they are employed.

5.1 Competent person continued

Persons may be suitably trained, for example, by the manufacturer of the lifting table. The choice of the competent person to carry out the examination is at the discretion of the user or owner as long as the person chosen meets the requirement of “competent person”.

Competent persons must be objective in their evaluation from a standpoint of safety (for reference see EN 45004).

5.2 Owners and Occupiers

Owners are expected to take reasonably practical measures to ensure that the premises, as well as any plant provided for use there, are safe and without risk.

NOTE:

In buildings in which there are lifting tables, it is generally clear who has responsibility for providing the lifting table and for ensuring its continued safe use. These may be different people, for example the person who is ‘in control’ of the lifting table may be the owner of the premises in which it is installed or it may be the occupier of those premises. It is the person or company who has control of the lifting table who is considered the owner.

6 DUTIES OF COMPETENT PERSONS

6.1 Initial Thorough Examination

Where lifting tables are permanently installed in relation to other equipment or parts of a building, formal inspections are required by a competent person before the lifting table is first used. When the lifting table operates independently of other equipment or part of a building, a Certificate of Conformity, confirming compliance of the machine with Directive 2006/42/EC issued by the lifting table manufacturer or their authorized agent, will be sufficient.

Note: manufacture in accordance with the current edition of EN1570, including any amendments, will presume conformity with the Directive.

6.2 Thorough Examination

6.2.1 Lifting tables shall be thoroughly examined by a competent person at least once every year.

6.2.2 Lifting tables on which persons travel shall be thoroughly examined by a competent person at least once every six months.

6.3 Examination Assessment

In order to determine which tests should be carried out and with what frequency, the installation in question should be the subject of an assessment that could include the consideration of:

- Design
- Condition
- Usage
- Relevant manufacturers instructions

The results of the assessment may necessitate variations to the nature of the examinations and tests described later in this document and to the frequency with which they are performed.

7 EXAMINATION, TESTING, REPORTS AND RECORD KEEPING

A series of recommended examinations and tests must be carried out at annually and, if carrying persons, every six months as set out in the Annex. Some items need to be further examined at 5 and 10 year intervals as specified in clause 8 of this document.

7.1 Examinations and Testing

Thorough examinations should be carried out by a competent person(s). The objective is to determine whether the condition of the lifting table is such that it can continue to be used safely by all persons with access to it.

7.2 Testing

In cases where there are grounds for concern and the condition of the lifting table and key components cannot be ascertained or substantiated by documentary evidence, the competent person may require tests to be carried out on various key components.

7.3 Record Keeping

The lifting table owner is responsible for ensuring that copies of all current Reports of Examinations and Certificates of Tests are retained.

8 KEY COMPONENTS

The list of key components specifically mentioned in this section is not exhaustive. Whilst every effort has been made to include as many key components as practicable, competent persons should be aware that particular lifting table designs may include additional key components not featured here.

8.1 Electrical System

8.1.1 Earth Continuity

It should be verified that the earthing of all metalwork enclosing electrical conductors is continuous and that an earth fault will not create an unsafe condition. It is recommended that this verification be carried out at intervals not exceeding 10 years.

8.1.2 Electrical Safety Devices

In order to verify that electrical safety devices are in efficient working order, a functional test of each of these devices should be undertaken at every thorough examination.

8.1.3 Guard Interlocks

In order to verify that electrical and electro-mechanical guard and landing door interlocks are in efficient working order, a functional test of each of these devices should be undertaken at every thorough examination.

8.2 Drive Systems

8.2.1 Mechanical Drives

8.2.1.1 Gear Box

Where there is evidence of excessive or exceptional wear it may be necessary to request the removal of casings or covers to permit internal examination of the drive/gearbox. It is recommended that this verification be carried out at intervals not exceeding 10 years.

Unless there is evidence to indicate that attention is required at more frequent intervals, it is recommended that shafts and plain bearings are examined every 10 years.

8.2.2 Hydraulic Drives

8.2.2.1 Power Unit

The integrity of the hydraulic system should be determined by a pressure test of 1 minute duration at 110 % of normal working pressure.

It is recommended that this verification be carried out at intervals not exceeding 5 years.

8.2.2.2 Hydraulic Cylinders

Each cylinder should be visually inspected to ascertain whether there is any wear or leakage that could reduce its integrity.

In some circumstances, as a result of undertaking an assessment of the lifting table installation, it may be ascertained that the cylinder is situated within a hostile environment, creating a hazard. Should there be a high risk of

catastrophic failure of the cylinder it should be removed from the mountings for examination at intervals not exceeding 10 years.

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8.2.2.3 Hydraulic Rupture Valves

Where a system provides a facility for proving the satisfactory operation of the rupture valve, i.e. the provision of a manually operated by-pass valve, this test should be carried out.

It is recommended that this verification be carried out at intervals not exceeding 5 years.

8.2.2.4 Pipe Work

All visible pipe work, including joints and fittings, should be examined for wear and leakage.

8.2.2.5 Anti Creep Devices

Electrical anti creep devices should be tested for satisfactory operation every year.

8.3 Mechanical Devices (Pawl Devices)

Linkages and all moving parts of any mechanical device should be checked at every thorough examination for free and effective operation and for any signs of deterioration and wear.

It is recommended that a rated load test be carried out at intervals not exceeding 10 years.

8.4 Scissor Mechanism

Scissor mechanisms including all pivots, shafts, roller wheels or shoes, bearings, shaft retainers, welds and structural members should be checked at every thorough examination.

Where it is apparent that major repairs to the scissor mechanism have been carried out, it is recommended that a rated load test be undertaken as required in EN 1570 unless documentary evidence shows that this has been performed.

8.5 Safety Support Devices

The presence, condition and function of the device system to support the lifting table in its raised position should be examined and deployed during each thorough examination.

8.6 Mechanical Guarding

Protective guarding such as roller blinds, chain link curtains, rigid screens, gates and barriers should be examined for correct operation, completeness and damage that would impair its safety function during every thorough examination.

ANNEX 1 – CHECK LIST

Thorough examination of Lifting Tables				
User	Location			
	Manufacturer/Model			
	Serial No./Year of Manufacture			
	Date of installation or initial examination			
				Years since installation or initial examination
	No.	VISUAL CHECK	TEST CHECK	Remarks/Comments
8.1 ELECTRICAL SYSTEM				
Earth Continuity	8.1.1			
Electrical Safety Devices	8.1.2			
Guard Interlocks	8.1.3			
8.2 DRIVE SYSTEMS				
Mechanical Drives	8.2.1			
Ger Box	8.2.1.1			
Hydraulic Drives	8.2.2			
Power Unit	8.2.2.1			

Hydraulic Cylinders	8.2.2.2			
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**ANNEX 1 – CHECK
LIST continued**

Rupture Valves	8.2.2.3			
Pipe Work	8.2.2.4			
Anti Creep Devices	8.2.2.5			
8.3 MECHANICAL (PAWL) DEVICES				
8.4 SCISSOR MECHANISM				
8.5 SAFETY SUPPORT DEVICES				
8.6 MECHANICAL GUARDING				
Organization:				Checked:
				Name:
				Date:

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