

### **Standard Information**

Standard Number: ASME A18.1

**Standard Name:** Safety Standard for Platform Lifts and Stairways Chairlifts **Standard Edition and Issue Date:** 6<sup>th</sup> Edition Dated September 12, 2014 **Date of Previous Revision to Standard:** 5<sup>th</sup> Edition Dated October 31, 2011

### Effective Date of New/Revised Requirements

#### Effective Date (see Schedule below): March 31, 2017

#### Impact, Overview, Fees and Action Required

**Impact Statement:** A review of all Listing Reports is necessary to determine which products comply with new/revised requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

**Overview of Changes:** The changes with respect to the previous revision include additional requirements to vertical platform lifts, inclined platform lifts, driving means, and qualification of inspectors. Specific details of new/revised requirements are found in table below.

If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).

**Schedule:** So that shipping of products with Listing Marks will not be interrupted, an *approximate* schedule has been established to ensure Listing Reports are found compliant by Effective Date:

- July 29, 2016 = 8 Month Report Review Intertek will review all Reports. Update if compliance is verified or issue Findings Letter/Quote for any re-evaluations needed
- September 30, 2016 = 6 Month Quote Cut-off Quotes returned for necessary re-evaluations
- March 31, 2017 = Effective Date ATM Suspended for all non-compliant Reports

**Fees:** An initial review of Listing Report (s) will be covered by a direct billing project and will be invoiced at not more than \$1000 per report.

#### **Client Action Required:**

**Information** – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements do not apply to your product (s).

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



### **Description of New/Revised Technical Requirements**

Clause	Verdict	Comment
		The revision below is to clarify that routine, periodic, and acceptance inspections and
		tests are required on existing equipment.
-	-	
		Additions to existing requirements are <u>underlined</u> below.
1.1	Info	Scope
1.1.3	Info	Application. This Standard applies to new installations only except Part 10, which
		The revisions below are to remove the allowance of the upperment dears to be leasted up
		to 75 mm (3 in ) from the edge of the landing sill and duplicating the language for the
		location of the other doors thus requiring flush mounted doors at all landings. This will
		remove the hazard created by the ledge at the upper most floors, which may cause a
-	-	wheelchair to overturn on its descent and prevent the potential for anyone from standing
		on the ledge.
		Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined out</del>
	Info	Vertical Diatform Lifta
2	Info	Vertical Flationin Lins Pupway Enclosure Provided
2.1.1	IIIIO	The runway entrance shall be guarded at the upper landing by a door of upperforated
		construction not wider than the platform plus 25 mm (1 in ). The door shall be self-closing
		and at least 1 100 mm (42 in.) high. The runway side of the door and sill shall present a
2.1.1.2		smooth surface. The door shall be located not more than 75 mm (3 in.) from the platform
		sill. The lift side of the door and sill shall present a smooth surface located not closer than
		10 mm (0.375 in.) nor more than 20 mm (0.75 in.) from the access edge of the platform
		floor.
2.1.2	Info	Partial Runway Enclosure Provided
		The runway entrance shall be guarded at the uppermost landing by a door of
		unperforated construction not wider than the entrance to the platform plus 25 mm (1 in.).
		The door shall be self-closing and at least 1 100 mm (42 in.) high. The door shall be
		located not more than 75 mm (3 in.) from the platform sill. The lift side of the door and sill
		shall present a smooth surface located not closer than 10 mm (0.375 ln.) hor more than 20 mm (0.375 in.) from the appeare edge of the pletform floor
213	Info	Runway Enclosure Not Provided
2.1.0	niio	The runway entrance shall be guarded at the upper landing by a door of upperforated
		construction. The door shall be self-closing, at least 1 100 mm (42 in.) high and
		withstand, without permanent deformation, a force of 550 N (125 lbf) applied on a 100
2.1.3.1		mm (4 in.) by 100 mm (4 in.) area. The door shall be located not more than 75 mm (3
-		in.) from the platform sill. The lift side of the door and sill shall present a smooth surface
		located not closer than 10 mm(0.375 in.) nor more than 20 mm (0.75 in.) from the access
		edge of the platform floor.
2.1.4	Info	Courtroom Lifts
		The runway entrance shall be guarded at the uppermost landing by a door of unperforated
		construction. The door shall be self-closing or power-operated, at a height not less than
0.4.4.4		900mm(36 in.), and withstand, without permanent deformation, a force of 550 N (125 lbf)
2.1.4.1		applied on any 100 mm (4 in.) by 100 mm (4 in.) area. The door shall be located not
		response of the analysis of the second set of th
		present a smooth surface located not closer than 10 mm (0.375 ln.) nor more than 20 mm (0.75 in.) from the access odde of the platform floor
		min (0.75 m.) from the access edge of the platform floor.



Clause	Verdict	Comment
		The revisions below are to add the requirement for collection of oil leakage to roped- hydraulic and chain-hydraulic lifts, as they are no less susceptible to packing gland
-	-	leakage than direct plunger hydraulic lifts. Language consistent with A17.1 is added,
		may be reclaimed, and to prohibit the container from overflowing, which can lead to a
		hazardous condition in the area underneath the lift.
		Hydraulic Driving Machines. Direct-plunger hydraulic driving machines, where used,
2.3.2		shall conform to the requirements of para. 8.1, except para. 8.1.2.
		Roped-hydraulic and chain-hydraulic machines shall also conform to the requirements of
8	Info	para. 8.1 except for paras. 8.1.1, 8.1.3, <u>and</u> 8.1.4.3 <del>, and 8.1.4.7</del> .
0	IIIO	Collection of Oil Leakage Means shall be provided to collect for removal any oil
		leakage from the cylinder packing gland. The amount collected before removal shall not
8.1.4.7		exceed 20 L (5 gal). The container shall be covered and shall not be permitted to
		overflow.
		Research data from the State University of New York – Buffalo IDeA Center and the UK
		indicate that a minimum rated load of 250 kg (550 lb) will accommodate an estimated 90"
		percentile of users of powered wheelchairs in the U.S. (see attached memos). The corresponding section regarding inclined platform lifts is also included, as the increase in
		minimum rated load is viewed as achievable for this equipment and installation settings.
		Increasing the minimum rated load will increase safety, in that the lifts will be able to
-	-	handle typical current day users and mobility bases and reduce the chances of
		overloading. Additionally, increasing the minimum rated load to 250 kg will harmonize
		A18.1 with EN81-41 and EN81-40, respectively.
		Additions to existing requirements are underlined and deletions are shown lined out
		below.
2.7	Info	Capacity, Speed, and Travel
		Limitation of Load, Speed, and Travel. The rated load shall be not less than 200 250
		kg ( $450, 550$ lb) nor more than 475 kg (1,050 lb). Platforms with a floor greater than 1.4 $m^2$ (15 $f^2$ ) shall have a roted load of not loop than 240 kg (750 lb). Platforms with a floor
		(15  H) shall have a fated load of hot less than 340 kg (750 lb). Flation is with a field of a field state than 1.7 m2 (18 ft <sup>2</sup> ) shall have a rated load of not less than 475 kg (1.050 lb). The
2.7.1		lift shall be capable of sustaining and lowering a load as specified in Fig. 9.7. The rated
		speed shall not exceed 0.15 m/s (30 ft/min). Travel of lifts conforming to paras. 2.1.1 and
		2.1.2 shall not exceed 4 250 mm (168 in.). Travel of lifts conforming to para. 2.1.3 shall
		not exceed 1 500 mm (60 in.). Travel of lifts conforming to para. 2.1.4 shall not exceed
		600 mm (24 in.).
3	Info	Inclined Platform Lifts
3.7	Info	Limitations of Canacity Load and Speed. The capacity shall be one person. The
3.7.1		rated load shall be not less than 200 250 kg (450 550 lb) and not greater than 340 kg (750
		b). Platforms with a floor area greater than $1.4 \text{ m}^2$ (15 ft <sup>2</sup> ) shall have a rated load of 340
		kg (750 lb). The lift shall be capable of sustaining and lowering a load as specified in Fig.
		9.7. The rated speed measured along the incline shall not exceed 0.15 m/s (30 ft/min).



Clause	Verdict	Comment
-	-	The revisions below are to clarify that other types of standby power may be used on lifts, but if the standby power source is to be used in lieu of manual operation complying with 2.10.10, it must meet certain criteria. Reworded the criteria to equally weight building and battery power sources and insure both systems are capable of cycling the lift under full load for five cycles. Added a requirement for automatic transfer similar to the requirement in A17.1 and the IBC building code for elevators. Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined out</del> below.
2.12		Standby Power Lifts shall be permitted to have standby power to raise or lower the lift. Where the standby power is to be used in lieu of manual operation complying with Requirement <u>2.10.10, it</u> Lifts equipped with standby power shall comply with this rule <u>2.12.1 through</u> <u>2.12.3</u> .
2.12.1		<b>Standby Power</b> <u>Source</u> . Except where permitted by 2.12.1.1, the <u>The</u> lift shall be powered by a standby power system from the building <u>or from a rechargeable battery</u> power system.
<del>2.12.1.1</del> <u>2.12.2</u>		<b>Operation</b> Battery Power. A lift equipped with rechargeable battery power <u>The standby</u> power system shall be capable of cycling the lift under full load for five cycles minimum after building power is removed shall be permitted.
2.12.3		<b>Transfer.</b> The transfer between the normal and the standby power system shall be automatic.
-	-	To provide consistency with Section 2. To clarify that other types of standby power may be used on lifts, but if the standby power source is to be used in lieu of manual operation complying with 3.10.10, it must meet certain criteria. Reworded the criteria to equally weight building and battery power sources and insure both systems are capable of cycling the lift under full load for five cycles. Added a requirement for automatic transfer similar to the requirement in A17.1 and the IBC building code for elevators Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined out</del> below.
3.12		Standby Power Lifts shall be permitted to have standby power to raise or lower the lift. Where the standby power is to be used in lieu of manual operation complying with Requirement <u>3.10.10, it Lifts equipped with standby power</u> shall comply with this rule <u>3.12.1 through</u> <u>3.12.3</u> .
3.12.1		<b>Standby Power</b> <u>Source</u> . Except where permitted by 3.12.1.1, the <u>The</u> lift shall be powered by a standby power system from the building <u>or from a rechargeable battery</u> <u>power system</u> .
<del>3.12.1.1</del> 3.12.2		<u>Operation</u> Battery Power. A lift equipped with rechargeable battery power <u>The</u> <u>standby power system shall be</u> capable of cycling the lift under full load for five cycles minimum after building power is removed shall be permitted.
3.12.3		Transfer. The transfer between the normal and the standby power system shall be automatic.



Clause	Verdict	Comment
-	-	Manual operation to move a lift to a terminal landing is typically a slow process performed with a manual hand crank. Requiring all lifts installed to 3.6.8.2 to be capable of being manually folded would reduce the obstruction in the circulation path in less time during an emergency situation. Clarification is added to indicate that the arms as well as the platform itself must be capable of being folded, and must remain in the folded position, in order to eliminate the obstruction in the circulation path. Added a new reference to Requirement 3.12, to be consistent with 2.10.10 by allowing standby power in lieu of manual operation and to clarify where to find the standby (emergency) power requirements.
2.6	Info	Delow.
3.6.8.2.5		Means shall be provided to manually fold the platform and passenger restraining arms. The platform and passenger restraining arms shall remain in the folded position after bains manually folded
2 10	Info	Operating Devices and Control Equipment
3.10	IIIO	Manual Operations Means shall be provided to permit authorized personnel from a
3.10.10		position outside the platform to raise or lower the platform manually along the path of travel, <u>unless standby (emergency) power complying with Requirement 3.12</u> is provided. The means to raise or lower the platform shall be capable <u>of moving the platform to a landing</u> . For lifts installed in compliance with para. 3.6.8.2, means shall be provided to manually fold the platform unless the lift can be manually moved to a dedicated storage location that is provided at the upper or lower terminal landing away from the circulation path.
-	-	Revised language reflects ASME's recent decision to discontinue accreditation of certifying organizations and allows organizations to seek accreditation elsewhere while continuing certification of inspectors and inspection supervisors to the QEI-1 Standard. Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined out</del> below.
10	Info	Routine, Periodic, and Acceptance Inspections and Tests
10.1.4		<b>Qualification of Inspectors.</b> All inspectors shall meet the qualification requirements of ASME QEI-1. Inspectors and inspection supervisors shall be certified <u>in accordance with</u> the requirements of ASME QEI-1 by an <u>accredited</u> , independent organization concerned with personnel certification. organization accredited by ASME in accordance with the requirements of ASME QEI-1.
		CUSTOMERS PLEASE NOTE: This Table and column "Verdict" can be used in determining how your current or future production is or will be in compliance with new/revised requirements.