

Elevating and Amusement Devices Safety Division

Ref. No.:

Date:

June 10, 2022

297 / 22

GUIDELINE

IN THE MATTER OF:

THE TECHNICAL STANDARDS AND SAFETY ACT 2000, S.O. 2000, c. 16

- and -

ONTARIO REGULATION 209/01 (Elevating Devices) made under the

Technical Standards and Safety Act, 2000

- and -

the Elevating Devices Code Adoption Document dated June 1, 2001, as amended by ED CAD 295/21

Subject: Alteration Guideline and Alteration Checklist for CSA B355:19 Platform lifts and

stair lifts for barrier-free access (as amended by 295 / 22)

Distribution: Posted on TSSA website

1. <u>Effective Date</u>

1.1 This Directors Guideline becomes effective August 1, 2022 and is to be used in conjunction with alterations performed under the **CSA B355:19 Platform lifts and stair lifts for barrier–free access**, as adopted in Code Adoption Document (CAD) Amendment 295 / 22.

2. Introduction

- 2.1 The purpose of this Director's Guideline, in conjunction with Code Adoption Document (CAD) Amendment 295 / 22, is to:
 - (a) advise which types of upgrades are classified as alterations;
 - (b) indicate the format of the design submission required (see O.Reg 209/01 s.15), by categorizing the scope of work as "major", "minor A" or "minor B";
 - (c) provide instruction on the use and submittal of the alteration checklist;
 - (d) provide a summarized list of requirements associated with a given alteration scope via a checklist;
 - (e) supplement the adoption of Annex D in **CSA B355:19 Platform lifts and stair lifts for barrier–free access** as detailed in Section 7.3 of the CAD; and
 - (f) identify compliance requirements related to any TSSA specified requirements or TSSA defined alterations.

3. Alterations

- 3.1 Work performed on an elevating device other than worked performed as maintenance, repair, or replacement is an alteration.
- 3.2 This guideline captures the Alteration requirements of 3.1 above and displays these requirements in a checklist format (refer to the Alteration Checklist for B355:19)

3.3 Type of Alteration Work

Columns 3 to 6 of the Alteration Checklist classify the type of work as one of the following types:

- (a) Alteration: Modification / Change (column 3)
 - means a change to the original design or characteristics of a component, assembly or the device as a whole, such as material, strength, size, dimension, rating, setting, function, operational mode, design parameters etc., whereby the change may be made on existing equipment or by substituting new modified equipment.

Note that a change of the component make or model, without any other change, may constitute an alteration under requirements of CAD 295 / 22 or section 7 of this guideline (see item (d) below).

(b) Alteration: Addition (column 4)

means addition of a new component or a design feature, not previously provided e.g. addition of top-of-car operating devices.

(c) Replacement with same (column 5)

means the substituted device, assembly or component is the same as the original and this alteration guideline defines the appropriate submission.

(d) Replacement with different make and model (column 6)

means that the substituted device, assembly or component is the same as the original in its design, performance and safety characteristics, except that it is of a different make and/or model and this alteration guideline defines the appropriate submission.

Note: In addition to the work described in 3.3 and listed in the Alteration Checklist, any other work performed on an elevating device that results in a change to the inherent safety or operational characteristics **constitutes an alteration** per 2.6.2 of the CAD, even though there may be no change in the original design. The list of alterations in the attached Alteration Checklist is not allinclusive.

4. Type of Design Submission

- 4.1 Columns 3, 4, 5, and 6 of the alteration checklist contains information needed to determine the type of submission required.
- 4.2 By selecting the alteration scope (see column 1 of the Alteration checklist, see also **CSA B355:19 Platform lifts and stair lifts for barrier–free access** Annex D as amended by CAD 295 / 22 or section 7 of this guideline), the submission type is identified in columns 3, 4, 5, & 6. These entries may be listed as one of the following:

Major - means Major alteration

Minor A - means Minor alteration type A
Minor B - means Minor alteration type B

Blanks (columns5&6) - work that would not constitute an alteration

mrr - this work may proceed as a maintenance repair and replacement

activity, and no submission is required

n/a - means TSSA has permitted an exception to a compliance requirement

(for the noted alteration scope) however, if another alteration activity

requires compliance, the n/a exemption no longer applies

New - means, not an alteration but a new installation

† - means that no inspection is required following the alteration variance - this activity can only be considered after approval of a variance

Note: The checklist utilizes a star symbol '★' to identify TSSA designated alterations or to identify a supplemental TSSA requirement.

5. Requirements for Design Submissions and Inspections

- 5.1 A design submission or notification (in the case of a Minor B) must clearly specify, for each alteration covered, whether the type of the alteration work is a "modification, "addition", or "replacement".
- Where multiple alterations scopes are undertaken, the "highest ranking" submission shall define the submission type.Example: An alteration combination of Minor B and Major will be designated as a Major alteration.

5.2.1 Major Alteration:

- 5.2.1.1 The design submission shall be registered before the major alteration commences, except as permitted in subsection 7(2) of Ontario Regulation 209/01.
- 5.2.1.2 The alteration shall be inspected by TSSA prior to returning the device to service for public use.

5.2.2 Minor Alteration type A and B:

5.2.1.1 According to Section 19 of Ontario Regulation 209/01, the design submission shall be submitted for registration not later than 30 days after returning the elevating device to service. Contractors are advised to submit alteration documents in advance of the work start to ensure that no expense will be incurred should the registration of the proposed design or a requested variance be rejected.

Minor A and B alterations are permitted to be returned to service after work completion, however, the contractor who completed the alteration shall ensure that a "special inspection" has been requested within 60 days after returning the elevator to service. The contractor shall arrange and conduct any tests required by the inspector. A registered design submission or notification shall be available at the time of inspection.

5.3 Signatures

- 5.3.1 According to subsection 15.(6) of Ontario Regulation 209/01, all individual documents composing the design submission for any Major or Minor A alteration shall bear the **signature and seal, or electronic equivalent, of the professional engineer** who prepared or approved the design submission.
- 5.3.2 In the case of Minor B alterations, per Ontario Regulation 15.(9), the design submission documents (or Notification) may be signed by an officer or director of the company applying for registration if the officer or director is a mechanic or if the document is signed by a mechanic with an appropriate certificate who either performed or supervised the work to which the design submission relates.
- 5.3.3 Minor B's that are electronically transmitted shall be deemed acceptable provided that the signature box of the Minor B Notification form contains the name, designation and mechanic license number of a registered and licensed mechanic who supervised and is competent to oversee the scope of the minor B alteration. Example: Signature: John Smith, EDM-A, 00999999

5.4 Specification Forms

5.4.1 Alterations should be submitted on the appropriate Specification Sheets (depending on device type) and should itemize all entries that are **Directly** and **Indirectly** affected by the alteration scope.

Example: Cab Interior Modification resulting in an increase in cab weight

- Directly affected are interior finishes and flame ratings
- Indirectly affected are items such as: rope factor of safety (for electric & roped hydraulic elevators) or cylinder column strength (for hydraulic elevators)
- Sufficient details are to be provided to show compliance verification.

A list of altered components must also be summarized on the submission (typically box 4000).

- 5.4.2 Items which are not affected by the alterations should be noted with either:
 - N/C or No Change; or
 - The Original Entry followed by Existing. Example Car Wt.: 300 kg Existing.
- 5.4.3 Where a "major alteration" or "minor alteration" affects only a very few items, the abridged form may be used instead of the full specification form provided clarity of the submission is not compromised. The Abridged form should specify box numbers, descriptions, and new entry values.

 (Example: 1670. Maximum System Pressure: 3445 kPa)
- 5.4.4 Some predefined templates exist for Minor B type alterations and are available from the TSSA web site. These templates shall be utilized where appropriate to ensure all relevant entries are completed and included in the submission. Multiple Minor B notification templates may be utilized to fully cover the scope of work and only one Minor B fee shall apply.

5.5 Submitting an Alteration Checklist

- 5.5.1 The design submission for a Major or Minor A alteration must include an Alteration Checklist to assist in demonstrating compliance with Annex D of the code as amended by CAD 295 / 22 or section 7 of this guideline. The Checklist and must clearly specify the following:
 - (a) The scope of the alteration shall be identified with an 'X' in column 0 adjacent to each column 1 item that is part of the primary scope of the alteration
 - (b) All relevant sub requirements identified in column 2b shall be identified with an 'x' placed in column 0 to signify the sub requirement has been given engineering consideration and/or modified. Optional: If desired items which where given engineering consideration but not changed or deemed not applicable to a given installation may be marked with 'r' to indicate reviewed.
- 5.5.2 An Alteration Checklist is not required for Minor B Notifications.
- 5.5.3 Sections of the Alteration Checklist, which are not included in the scope of the alteration work, may be hidden (using the row-hide feature in excel) in order to display relevant alterations and suppress non-relevant alteration items.
- 5.5.4 To assist our clients in completing the Alteration Checklist, TSSA will post on its Website (www.tssa.org) a fillable version of the Alteration Checklist in excel format (ED-297-22.xlsx).
- 5.5.5 The B355:19 reference numbers, shown in column 1 and which are marked with 'X' in the Alterations Checklist, (also shown in BOLD font), are those items that are required to be shown on the Alteration Data Plate as per Annex D.2.4 of CSA B355:19 Platform lifts and stair lifts for barrier—free access.
- 5.5.6 The attached Alteration Checklist forms part of this guideline.

6 Alteration Checklist

6.1 General

- 6.1.1 The Alteration Checklist provides useful information to contractors, submitting engineers, reviewing engineers and inspectors to assist in determining:
 - the scope of the alteration
 - · requirements associated with specified scope
 - exemptions to a requirement (where n/a is shown)
 - additional TSSA requirements (where ★ is shown)
 - type of submission required (Major, Minor A or B)

6.2 Parts of the Checklist

6.2.1 Column 0:

Submitter's shall mark Column 0 with 'X' to identify the scope and applicable sub-requirements that received engineering consideration.

• Sub-requirements related to the alteration are <u>mandatory</u> and shall be identified with an 'x', except where the sub requirement is unrelated to the device being altered.

6.2.2 Column 1:

Column 1 contains the Alteration section numbers from **CSA B355:19 Platform lifts and stair lifts for barrier–free access** Annex D as amended by CAD 295 / 22, as well as specifically noted TSSA alterations.

TSSA designated requirements or alterations (if provided) are denoted by the ★ symbol.

6.2.3 Column 2a, 2b and 2c:

Column 2 describes the scope and applicable alteration sub requirements.

- Column 2a is the primary title of the alteration activity (e.g. interlocks)
- Column 2b is the list of sub requirements by reference number (e.g. 4.2.3)
- Column 2c is a text description of the referenced sub requirement. (e.g. Limit of travel)

6.2.4 Column 3, 4, 5 and 6:

The headings of Columns 3 to 6 define the "Type of Alteration Work" as Modification Change, Addition, Replacement with Same, and Replacement with Different. See 3.3 of this guideline.

The contents of Columns 3 to 6 define the "Type of Design Submission" as, Major Alteration, Minor A Alteration, or Minor B – Notification. See 4 of this guideline.

Roger Neate.

Director, Ontario Regulation 209/01 (Elevating Devices), appointed under the Technical Standards & Safety Act, 2000



Elevating and Amusement Devices Safety Division

Ref. No.:

297 / 22

Director's Order

Date:

June 10, 2022

IN THE MATTER OF:

THE TECHNICAL STANDARDS AND SAFETY ACT 2000, S.O. 2000, c. 16

- and -

ONTARIO REGULATION 209/01 (Elevating Devices)

- and -

the Elevating Devices Code Adoption Document dated June 1, 2001, as amended by ED CAD 295/22

Subject: Alterations pursuant to CSA B355:19 Platform lifts and stair lifts for barrier-free access

(as amended by 295 / 22)

Distribution: Posted on TSSA website

Pursuant to s.14(1) of the *Technical Standards and Safety Act, 2000*, the Director under O. Reg. 209/01 (Elevating Devices) hereby orders, to protect and promote the safety of Ontarians, that pursuant to his power under section 14(2), any device that undergoes an alteration be used only in accordance with the requirements of this Order and that any alterations to any device be conducted in the manner set forth in this Order:

This Order should be read in conjunction with (the applicable Code), the CAD and the Guideline.

1.0 Alterations

All references are to the CSA B355:19 Platform lifts and stair lifts for barrier–free access (as amended by 295 / 22) except, references denoted with the ★ symbol (as defined in the Guideline) have been prefaced by the relevant **[B355 code reference]** to assist in locating / referencing the additional requirements in this document and on the alteration checklist.

In addition to Annex D of CSA B355:19, the Director orders that alterations (as applicable) comply with the following:

1.1 In addition to section D2.2 Alterations not covered, alterations shall comply with the following:

 $[D.2.2] \pm 1$ Where access restriction is added or removed to align with hazard assessed risk mitigations related to access and usage, the change to access restriction shall be submitted as:

- (a) a Minor A alteration (with schematic) where wiring changes to the device are involved;
- (b) a Minor B alteration where wiring changes to/on the device are not involved.

Note: The requirements in (a) do not include the addition of wiring for video or voice systems if they are not on the device.

1.2 In addition to section D.3.8 Landing doors and gates, alterations shall comply with the following:

 $[D.3.8.] \pm 1$ The removal of a door operator or gate is a minor B alteration.

This Directors Order becomes effective August 1, 2022.

Roger Neate.

Director, Ontario Regulation 209/01 (Elevating Devices), appointed under the Technical Standards & Safety Act, 2000

	1	2a 2b	2c	3	4	5	6
īδ			Iteration Checklist for Director's Order 297/22		Type of Alter		
B35	B355:19	^	(see also Guideline 297/22)	Alte	ration	Replace	ment with
5	Reference	Scono	of Alteration - B355:19 as amended by CAD 295/22	Modification			Different
Ë	Number	Эсоре	Part, Section or Requirement	Change	Addition	Same	Make/Model
Conforms to B355	Number		Fait, Section of Requirement	Ť			
		Job Reference:			Type of Submiss	sion Required	
X	D.2.1	General Altera	ation requirements				
X			requirements to acceptance inspection per Annex A				
x			A				
	D.2.2	Alterations not spe	cifically covered in appendix D				
	D.Z.Z	D.2.2	Shall not reduce Level of safety below previously existing	consult TSS	A engineering		
		D.2.2	Shall hot reduce Level of safety below previously existing	consult 100	A criginoching		
	[D 0 0] + 1	[D 0 0] + 4	abanga ta access/usaga rectrictions		h a lavo		
	[D.2.2] ★1	[D.2.2] ★1	change to access/usage restriction;		below		
			a) includes wiring changes to the device	Minor A	Minor A		
			include schematic of changes				
			b) does not include wiring changes to the device	Minor B	Minor B		
	D.2.3	Welding					
		Welding of parts which	ch support: car, drive m/c, trusses, girders, tracks	Major	Major		
		4.7	Welding Design				
			(a) Steel Structure, CSA W59				
			(b) Aluminum, CSA W59.2				
		6.6.1.6	Field Welding of pressure piping / fittings				
		•	3 1 3 3 3				
	D.2.4	Alteration Data Pla	te				
X		Data plate shall inclu					
X		Data plato oriali iriola	a) name of contractor				
			b) date of alteration				
X			,				
X			c) applicable items in this Checklist (mark with X)				
X			d) edition of standard used for the alteration				
		,					
	D.3.1	Travel (Increase or					
		Enclosed Vertical Pla		Major	Major		
		Unenclosed Vertical	Platform Lift	Major	Major		
		Stair Chair Lift		Major	Major		
		Stair Platform Lift		Major	Major		
		4.1.3	Protection against falling from the platform at landing				
		4.2.1	travel				
		4.2.3	Limit of travel				
		5.1.3	Unenclosed vertical platform lifts				
		5.3.	Mechanical Limits				
		5.4.1	Under-platform access				
		5.6.1	Guide Rails				
		7.2.5.	Safeties and Overspeed governor				
		7.2.5.2	Alternative safety device				
		7.6.2.1c)	Barrier Arm				
		7.6.2.10)	Platform gate				
		8.4.4	Normal-terminal landing stopping device				
			- · · · · · · · · · · · · · · · · · · ·				
		8.5.3	final terminal-stopping switches				
	D 0 6	1					
	D.3.2		ation (change in inclination)				
		Stair Chair Lift		Major	Major		
		Stair Platform Lift		Major	Major		
		4.2.5	Inclination (angle not to exceed 45 degrees)				
		4.1.2b)	fall or tripping protection				
7							
			nge in)				
	D.3.3	Rated speed (char					
	D.3.3	Rated speed (char change in rated spee		Major	Major		
	D.3.3		d	Major	Major		
	D.3.3	change in rated spee	d Rated Speed	Major	Major		
	D.3.3	change in rated spee 4.3 6.6.5	d Rated Speed Speed-limiting devices	Major	Major		
	D.3.3	change in rated spee 4.3 6.6.5 7.2.5	d Rated Speed Speed-limiting devices Safeties and overspeed governor	Major	Major		
	D.3.3	change in rated spee 4.3 6.6.5	d Rated Speed Speed-limiting devices	Major	Major		

	1	2a 2b	2c	3	1	5	6
10	'		· ·	J	Type of Alter		O
335		Al	teration Checklist for Director's Order 297/22	Alte	ration		ement with
t E	B355:19		(see also Guideline 297/22)]
ms i	Reference	Scope	of Alteration - B355:19 as amended by CAD 295/22	Modification	Addition	Same	Different
for	Number		Part, Section or Requirement	Change			Make/Model
Conforms to B355		Job Reference:			Type of Submis	sion Required	<u>.</u>
	D.3.4	Canacity rated Ina	d or carriage weight (change to)		,		
	D.0.4	Change in Capacity	a of carriage weight (change to)	Major	Major		
		. ,	Al.	-	-		
		Change in Rated Loa		Major	Major		
		Change in carriage w	_	Major	Major		
		Table 1	Capacity, rated load and size				
		4.5	Capacity, rated load and size				
		4.5.4	Display max. capacity and rated load on carriage				
		4.6	Safety factors				
		★ 5.6	Guide Rails				
		★ D.2.3	Welding				
		6.1.3	Drive unit brakes				
		6.6.2.2	Check valve				
		6.8	Friction drive				
		7.2.1.	Carriage construction				
		7.2.5	Safeties and overspeed governor				
		7.3.1	Platform construction				
		9	Date Plate and signs				
		•	- m				
	D.3.5	Platform size (char	nge to)			1	
	D.0.0	change to platform si		Major	Major		
		Table 1	Capacity, rated load and size	iviajoi	iviajoi		
			• •				
		4.4	Type of carriage (requirements changes based on carriage type)				
		4.6	Safety factors				
		D.2.3	Welding				
	D.3.6	Lighting					
		Alteration to lighting		Minor B	Minor A	mrr	Minor B
		4.8.1	Lighting illumination and location				
		4.8.2	Lighting for totally enclosed vertical platform lift				
		4.8.3	Emergency lighting				
	D.3.7	Runways	Emergency lighting				
	D.3.1		on of a runway enclosure wall	Major	Major		
			•	iviajoi	iviajoi		
		5.1.2	Enclosed vertical platform lifts				
			Minimum height of 1070 mm above the top landing				
		5.1.2(b)	Conform to 5.1.1				
		5.1.2(c)	equipped with landing doors or gate conforming to Clause 5.2.				
┖╗		5.1.3	Unenclosed vertical platform lifts				
		5.1.4	Enclosed stair platform lifts				
		5.5.1	Horizontal Clearance - vertical platform lifts			I	
			1				
		Lift added to existing	enclosed runway	N	ew		
		B355-19		.,			
		5.5	Horizontal clearances			I	
		5.5	Horizontal clearances				
$\vdash\vdash$	D 2 C	Londing desire	moton				
	D.3.8	Landing doors and		Minne	N 42: A		Mina
	D.3.8.1	·	nent to a landing door or gate	Minor B	Minor A		Minor B
		★ 4.1.4.4	Projections from the internal surfaces				
		5.2.1.1	strength, vision panel, and fire rating				
		5.2.2	height and width				
		5.2.3	door or gate interlock				
		5.2.4	testing and certification of Interlocks / locks				
			÷				
\vdash	D.3.8.2	power added to a doc	or or gate	Minor A	Minor A		Minor B
\vdash	D.U.U.Z		-	WILLIOT A	IVIII IOI A		ם וטווווטו
\vdash		5.2.1.3 (a)	timing from close to fully open of swing doors/gates				
\vdash		5.2.1.3 (b)	force to stop the movement of the swingdoors/gates				
		8.1.1	electrical equipment and wiring meets Section 38 OESC				
		8.1.2	electrical equipment meets B44.1/A17.5				
\Box							
	[D.3.8.]★1	Remove door/gate op	perator	Minor B			

	1	2a 2b	2c	3	4	5	6	
55			Alteration Checklist for Director's Order 297/22		Type of Alter	ation Work		
Conforms to B355	B355:19		(see also Guideline 297/22)	Alte	eration	Replace	ement with	
s to	Reference	Sco	pe of Alteration - B355:19 as amended by CAD 295/22	Modification			Different	
Ĕ	Number	300	Part, Section or Requirement	Change	Addition	Same	Make/Model	
outc	Number							
ŭ		Job Reference: Type of Sc						
	D.3.9	Door or gate into	erlock					
		Door or gate interle	ock is altered					
		Replacement/addi	tion of interlock with the different type (fixed or retiring cam or solenoid	Minor A	Minor A	mrr	Minor A	
		5.2.3	door or gate interlock,					
		5.2.4	testing and certification of Interlocks / locks					
		5.2.5.11	Examination of operation (engagement)					
		8.3.3.3	doors or gates openable within 50mm of landing					
		8.4.2	Protection in case of failure (solenoid interlock)					
		8.5.8	Door or gate interlock contacts					
		8.1.1	electrical equipment and wiring meets Section 38 OESC					
		8.1.2	electrical equipment meets B44.1/A17.5					
		0.1.2	ologinoar oquipmoni mooto B 1 il militi					
	D.3.10	Under platform (nit)					
	D.3.10	underplatfrom alte						
		a) pit drains and si		Minor A	Minor A			
		5.4.2 f)	•	WIII IOI A	WILLIOL A			
		,	prevent ground water entry					
		5.4.2 g)	drains and sumps to the plumbing code	N 45	N.4' A			
		b) pit access		Minor A	Minor A			
		5.4.2	Under-platform access (where pit >300mm deep)					
		c) pit illumination		Minor B	Minor B			
		4.8	Lighting					
		d) pit stop switch		Minor A	Minor A			
		8.5.9	Runway stop device					
		e) pit depth		Minor B	Minor B			
		5.4.2	Under-platform access (where pit >300mm deep)					
		f) access to under	side of platform	Minor B	Minor B			
	D.3.11	Drive unit (drive	unit is altered)					
		All Drive unit		Major		mrr	Major	
		6.1	Requirements for all drive units					
		6.1.6	Drive unit enclosure					
		8.1	Electrical equipment - General					
	D.3.12		of carriage in case of emergency					
		_	carriage is altered or added	Major	Major	mrr	Minor B	
		6.1.4.1	not accessible inside					
		6.1.4.2	smooth hand wheel					
		6.1.4.3	instructions					
		6.1.4.4	direction indications					
		6.1.4.5	brake release					
		6.1.4.6	safe and convenient access					
		6.1.4.7	means to prevent automatic operation					
		8.5.11	Manual moving device switch					
			-					
	D.3.13	Suspension wire	rope					
		Change no. of rope		Major	N/A			
		Change in rope ma						
		Change in rope dia						
		6.2.1	Suspension wire rope					
		6.2.2	Winding Drum					
		6.2.3	Sheaves					
		8.5.5	Slack belt or chain drive, drum, sheave, and safeties switches					
		0.5.5	Glack belt of Ghain Give, Grunn, Sheave, and Saleties Switches					
	D.3.14	Suspension cha	in					
	D.J. 14	Change to a difference		Major	N/A			
				-	N/A N/A			
		Change to a difference 6.4.1.2		Major	IN/A			
			roller chain to B29.100					
		6.4.1.3	Link strength equal chain strength					

	1	2a	2b	2c	3	4	5	6
B355	D255-40		Alto	eration Checklist for Director's Order 297/22	Alte	Type of Altera		ment with
nforms to	B355:19 Reference Number		Coops of Autoration Docor to ac amonada by CAD 200722	Modification Change	Addition	Same	Different Make/Model	
S		Job	Reference:			Type of Submiss	ion Required	

Alteration Checklist for Director's Order 297/22 (see also Guideline 297/22) Reference Number Scope of Alteration - B355:19 as amended by CAD 295/22 Part, Section or Requirement Job Reference: D.3.15 Hydraulic equipment a) Power unit and pump 6.6 Hydraulic drive 6.6.1 General requirements 6.6.2 Valves 6.6.3 Piping requirements 6.6.4 Connections and fittings 6.6.5 Speed-limiting devices 6.6.6 Levelling device, anti-creep 6.6.7 Safety bulkhead 6.6.8 Pressure Sensor 6.6.9 Telescopic plunger guides	Modification Change	_Type of Alteration Addition Type of Submis	Replace Same	Different Make/Model
D.3.15 Hydraulic equipment a) Power unit and pump 6.6 Hydraulic drive 6.6.1 General requirements 6.6.2 Valves 6.6.3 Piping requirements 6.6.4 Connections and fittings 6.6.5 Speed-limiting devices 6.6.6 Levelling device, anti-creep 6.6.7 Safety bulkhead 6.6.8 Pressure Sensor	Modification Change T	Addition	Same ssion Required	Different Make/Model
D.3.15 Hydraulic equipment a) Power unit and pump 6.6 Hydraulic drive 6.6.1 General requirements 6.6.2 Valves 6.6.3 Piping requirements 6.6.4 Connections and fittings 6.6.5 Speed-limiting devices 6.6.6 Levelling device, anti-creep 6.6.7 Safety bulkhead 6.6.8 Pressure Sensor	Change T		ssion Required	Make/Model
D.3.15 Hydraulic equipment a) Power unit and pump 6.6 Hydraulic drive 6.6.1 General requirements 6.6.2 Valves 6.6.3 Piping requirements 6.6.4 Connections and fittings 6.6.5 Speed-limiting devices 6.6.6 Levelling device, anti-creep 6.6.7 Safety bulkhead 6.6.8 Pressure Sensor	T		ssion Required	
D.3.15 Hydraulic equipment a) Power unit and pump 6.6 Hydraulic drive 6.6.1 General requirements 6.6.2 Valves 6.6.3 Piping requirements 6.6.4 Connections and fittings 6.6.5 Speed-limiting devices 6.6.6 Levelling device, anti-creep 6.6.7 Safety bulkhead 6.6.8 Pressure Sensor		Type of Submis		
a) Power unit and pump 6.6 Hydraulic drive 6.6.1 General requirements 6.6.2 Valves 6.6.3 Piping requirements 6.6.4 Connections and fittings 6.6.5 Speed-limiting devices 6.6.6 Levelling device, anti-creep 6.6.7 Safety bulkhead 6.6.8 Pressure Sensor	Minor A		Minor B	Minor B
a) Power unit and pump 6.6 Hydraulic drive 6.6.1 General requirements 6.6.2 Valves 6.6.3 Piping requirements 6.6.4 Connections and fittings 6.6.5 Speed-limiting devices 6.6.6 Levelling device, anti-creep 6.6.7 Safety bulkhead 6.6.8 Pressure Sensor	Minor A		Minor B	Minor B
6.6 Hydraulic drive 6.6.1 General requirements 6.6.2 Valves 6.6.3 Piping requirements 6.6.4 Connections and fittings 6.6.5 Speed-limiting devices 6.6.6 Levelling device, anti-creep 6.6.7 Safety bulkhead 6.6.8 Pressure Sensor				
6.6.2 Valves 6.6.3 Piping requirements 6.6.4 Connections and fittings 6.6.5 Speed-limiting devices 6.6.6 Levelling device, anti-creep 6.6.7 Safety bulkhead 6.6.8 Pressure Sensor				
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6.6.6 Levelling device, anti-creep 6.6.7 Safety bulkhead 6.6.8 Pressure Sensor				
6.6.7 Safety bulkhead 6.6.8 Pressure Sensor				
6.6.8 Pressure Sensor				
6.6.9 Telescopic plunger guides				
6.6.10 Operation dependent on electric power supply				
8.1 Electrical equipment - General				
8.1.1 electrical equipment and wiring meets Section 38 OESC				
8.1.2 electrical equipment meets B44.1/A17.5				
h) Under the feet	B.4 - 1		N.C	N.4-:
b) Hydraulic jack	Major		MinorA	Major
6.6.1 General requirements for components under fluid pressure				
c) Plunger	Major		Minor A	Minor A
6.6.1.1 Factor of safety	iviajoi		IVIIIIVI A	IVIII IOI A
6.6.1.2 Material				
6.6.1.4 Component proof test				
6.6.1.5 Component markings				
6.6.1.6 Field welding				
6.6.9 Telescopic plunger guides				
d) Cylinder	Major		Minor A	Minor A
6.6.1.1 Factor of safety				
6.6.1.2 Material				
6.6.1.4 Component proof test				
6.6.1.5 Component markings				
6.6.1.6 Field Welding of pressure piping / fittings				
6.6.4.2 Grooved pipe fittings				
6.6.7 Safety bulkhead				
a) leaves a madic v v v v v v v	B.4 - 1			
e) Increase working pressure	Major			
6.6.1.3 Working Presssure				
6.6.1.4 Component proof test 6.6.1.5 Connection and fitting				
6.6.1.6 Connection and fitting 6.6.1.6 Field Welding of pressure piping / fittings				
6.6.1.7 Flexible hose and fitting assemblies				
6.6.2 Valves				
6.6.3 Piping Requirements				
6.6.4 Connections and fittings				
6.6.5 Speed-limiting devices				
6.6.6 Levelling device, anti-creep				
6.6.7 Safety Bulkhead				
6.6.8 Pressure Sensor				
6.6.9 Telescopic plunger guides				
f) Valves, pressure piping, and fittings	Major		Minor B	Minor B
6.6.1 General requirements for components under fluid pressure				
6.6.2 Valves				
6.6.3 Connection and fittings				
6.6.4 Connections and fittings				
6.6.5 Speed-limiting devices				
6.6.6 Levelling device, anti-creep				

	1	2a	2b	2c	3	4	5	6		
B355			Alteration Checklist for Director's Order 297/22			Type of Alteration Work Alteration Replacement				
Conforms to	B355:19 Reference Number	erence Scope of Alteration - B355:19 as amended by CAD 295/22	· · · · · · · · · · · · · · · · · · ·	Modification Change	Addition	Same	Different Make/Model			
ပိ		Job F	Reference:			Type of Submiss	sion Required	I		
		_	5.6.8 5.6.10	Pressure Sensor Operation dependant on electric power supply						
		g) Pipes	and hoses		Minor A	Minor A	Minor B	Minor B		
		6	5.6.1 5.6.3 5.6.4	General requirements for components under fluid pressure Piping Requirements Connections and fittings						
		h) Press	sure sensor			Minor A	mrr	Minor A		
		6	5.6.8	Pressure sensor						
		i) Speed	d-limiting devi	ces	Minor B	Minor B	mrr	Minor B		
		6	5.6.5	Speed-limiting devices						
	D.3.16	Electric	cal equipmer	nt						
		8	3	Controller and EPD	Major		Major	Major		

	1	2a	2b	2c	3	4	5	6
22		Za		eration Checklist for Director's Order 297/22	3	Type of Altera		Ů
Conforms to B355	B355:19		Ait	(see also Guideline 297/22)	Alte	ration	Replace	ement with
s to	Reference		Scope o	of Alteration - B355:19 as amended by CAD 295/22	Modification	A -1-1141	0	Different
form	Number			Part, Section or Requirement	Change	Addition	Same	Make/Model
Con		Jol	Reference:			Type of Submiss	ion Required	
×	_		•					
Tests Mark with 'X'		3355:1 eferen		Indicate which Annex A testings are required for the				
Tes ark v		ereren Numbe		specified Alteration Scope from Above				
Σ								
	A.2 a)	GENE						
		i)	Hazards					
			4.1.1	General - no defects, adequate strength, suitable quality				
			4.1.2	Protection against hazards				
			4.1.3	Protection against falling from the platform at landing				
		ii)	4.1.4 Travel	Obstructions and projections				
		,	4.2.1	Travel				
			4.2.3	Limits of travel				
		iii)	Floor Penetrat					
		,	4.2.2	Travel				
			4.2.3					
		iv)	Data Plate and	Signs				
		,	9	Data plate and signs				
			9.1	Data plate				
				Under-platform sign				
			9.3	Markings of data plate and sign				
			9.4	Markings of landing zone for an enclosed vertical platform lift				
	A.2 b)	DRIV						
		i)	Rated Speed					
			4.3	Rated Speed				
		ii)	Power Transm					
		:::\	6.1.2 Brake with 125	Power Transmission				
		iii)	6.1.3	Drive unit brakes				
		iv)	Enclosure	Drive unit brakes				
		14)	6.1.6	Drive unit enclosure				
		v)	type of drive, a					
		-,	6.2	Suspension wire rope, winding drums, sheaves, protection and gu	arding, and	traction		
			6.3	Rack and pinion drive	g, cu			
			6.4	Chain and chain sprocket drive				
			6.5	Screw and nut drive				
			6.6	Hydraulic drive				
			6.7	Rope chain and rope sprocket drives				
	A.2 c)	RUNV						
		i)	Enclosure					
			5.1	Runway enclosures				
		ii)	Landing Doors					
			5.2	Landing doors and gates				
			8.5.8	Door or gate interlock contacts				
		iii)	Mechanical Li					
		is d	5.3	Mechanical limits				
		iv)	Under-platforn					
		W	5.4 Guide Rails	Under-platform access				
		v)	5.6	Guide rails				
		vi)	Guards at Ceil					
$\vdash \vdash \vdash$		VI)	5.7	Stair lift guards at ceiling intersections				
			J.,	Jan gadras at soming intorsocitoris				

	1	2a	2b	2c	3	4	5	6
10		Za	·		3	Type of Altera	-	
B355			Al	teration Checklist for Director's Order 297/22	Alte	eration		ement with
to E	B355:19			(see also Guideline 297/22)		ĭ		
Conforms to	Reference		Scope	of Alteration - B355:19 as amended by CAD 295/22	Modification Change	Addition	Same	Different Make/Model
ufo.	Number			Part, Section or Requirement	Change			iviake/iviouei
Co		Jol	b Reference:		•	Type of Submiss	ion Required	
	A.2 d)	CARF	RIAGE					
		i)	Capacity, Rat	ed Load, and Size				
			4.5	Capacity, rated load, and size				
		ii)	Enclosure					
			7.5.3	Guard (enclosure) - Standing platform				
			7.6.2	Guard (enclosure) - Wheelchair platform				
			7.7.2	Guard (enclosure) - Wheelchair-and-attendant platform				
		iii)	Sensitive Edd	les or Surfaces				
		•	7.2.4	Sensitive edges or sensitive surfaces				
			8.5.4	Sensitive edge and sensitive surface switches				
		iv)	Safeties with	125% rated load				
		,	7.2.5.1 c)	Safeties shall be capable of stopping and holding the carriage loa	ded with 12	5% of the rat	ted load	
			8.5.5	Slack belt or chain drive, drum, sheave, and safeties switches		0,0 00		
		v)	Foldable Com	· · · · · · · · · · · · · · · · · · ·				
		٠,	7.2.6.2	Stair platform lifts with foldable or movable components (except the	he seat) sha	ll he incanah	ale of hein	n started
			8.5.6	Foldable, rotatable, or hinged component contacts	ne seat) sna	iii be ii leapak	ole of bell	g started
		vi)	Rotatable Cha	- · · · · · · · · · · · · · · · · · · ·				
		¥1 <i>)</i>	7.4.3.1	If a chair is rotatable, an electrical protective contact conforming t	to Clause 9 F	5 6 chall bo i	orovidod	
			8.5.6	•	to Clause 6.	J.O SHAII DE I	Jiovided	
		·*::\		Foldable, rotatable, or hinged component contacts				
		vii)	7.6.2.1 c)	I leave leaved at a in platforms lift. however the barrant was a second at a second and a second at a				
			,	Unenclosed stair platform lift - have retractable passenger restrai	ning arms			
			8.5.7	Gate and passenger restraining arm contacts				
		viii)	Gate	DI W				
			7.7.3	Platform gate				
			8.5.7	Gate and passenger restraining arm contacts				
		ix)	Safety Flaps					
			7.6.3	Rollaway protection				
			7.6.5	Ramps, flaps, and hinged-edge stops				
			8.5.6	Foldable, rotatable, or hinged component contacts				
		x)	Handgrips or	Handrails				
			7.5.2	Handgrips				
			7.7.5	Handrails				

		0-	O.					
10	1	2a	2b	2c	3	Type of Alter	5 ation Work	6
B35!	D055 40			teration Checklist for Director's Order 297/22		Alteration Replacement wit		
to I	B355:19			(see also Guideline 297/22)	Modification			Different
i i	Reference Number		Scope	of Alteration - B355:19 as amended by CAD 295/22 Part, Section or Requirement	Change	Addition	Same	Make/Model
Conforms to B355	Number	la.	b Reference:	Fait, Section of Requirement		Erman of Ordersion	i D i	
ပ	A 2 a)		ARANCES			Type of Submiss	sion Required	1
	A.2 e)	_	Vertical					
		i)	4.1.5	Vertical clearance				
		ii)	Horizontal	vertical clearance				
		11)	5.5	Horizontal clearances				
			7.2.3.2		any nart of the	a fivad inata	llation	
		iii)	at Landings	Protection on carriages - clearance of not less than 50 mm from a	any part or th	ie lixed irista	allation	
		111)	7.5.4	Clearances at landings - Standing platform				
			7.6.4	Clearances at landings - Standing platform Clearances at landings - Wheelchair platform				
			7.7.4	Clearances at landings - Wheelchair-and-attendant platform				
	A.2 f)	FLFC	CTRICAL EQUIP					
	A.2 1)	i)		Current Reading				
		-,		The following marking requirements shall apply: rated voltage and	d current (ac	or dc)		
			5.2.4.2.	Connections for and test of electrical parts	a oao (ao	0. 40)		
			5.2.5.3.2	AC-rated locking devices shall have their electrical parts connected	ed to an indu	ctive circuit		
			5.2.5.3.3	DC-rated locking devices shall have their electrical parts connected				
			5.2.5.7	Insulation test				
		ii)	Voltage, Fuse	s, Disconnecting Means				
			8.1	Electrical equipment and wiring shall conform to				
		iii)	Operating De	vices				
			8.2	Operation and operating devices				
		iv)	Alarm and Wa	rning Signals				
			8.3	Alarm and warning signal				
		v)	Control Equip	oment				
			8.4	Control and control equipment				
		vi)	Emergency S	top Device				
			7.3.2 b)	Platform ceilings - solid and capable of sustaining a load of				
			8.5.2	Emergency stop device				
			8.5.9	Runway stop device				
		vii)		I-Stopping Devices				
			8.5.3	Final terminal-stopping switches				