Elevating and Amusement Devices Safety Program	Ref. No.: 301 / 23
DIRECTOR'S SAFETY ORDER	Date: April 30, 2023

IN THE MATTER OF:

Technical Standards and Safety Act 2000, S.O. 2000, c. 16

- and -

Ontario Regulation 209/01 (Elevating Devices)

Re: Dover Counterweight Frame Cracks and Repair

Under the authority of s. 14 of the *Technical Standards and Safety Act, 2000*, the Director for the purposes of O. Reg. 209/01 (Elevating Devices) hereby orders that:

1. Application and Compliance Timeline

1.1. Dover-Turnbull counterweight frames for high-speed elevators manufactured between 1977 and 1983 with the "U" type crosshead (top beam) section shall;

a) be assessed for cracking of the upright stiles,
b) have the welds of the top beam assessed per attached TKE Technical Bulletin ***Dover-Turnbull Canada Counterweight Frames Date: December 05, 2022,*** (CWT frame part # 360442),
c) be retrofitted with TK Elevator retrofit kit # T17752-120;
   i. if cracks are evident or
   ii. if the crosshead is welded incorrectly

1.2. All Owners and licensees shall ensure that their installations are;
a) assessed not later than **October 15, 2023**
b) retrofitted (if necessary) not later than **April 15, 2024.**

1.3. Devices not in conformance with 1.2b) shall be removed from service until the necessary upgrades are performed.

2. Retrofitting

2.1. Where it is determined that a counterweight has deficiencies as described in the attached TKE Technical Bulletin, the owner shall engage a registered elevating devices contractor whose scope of work includes traction elevators, to alter the counterweight with the retrofit kit referenced in TK Elevator Installation instructions Dover CWT REINFORCEMENT (attached).

3. Alteration Scope and Design Submission

3.1. Where a repair is undertaken, in accordance with INSTALLATION INSTRUCTIONS DOVER CWT REINFORCEMENT Document No.: T17752-011, the contractor shall submit a Minor A Alteration, referencing B44-19 alteration requirement 8.7.2.22.

3.2. All individual documents comprising a design submission shall bear the signature and seal, or the electronic equivalent, of the professional engineer who prepared or approved the design submission. (see O.Reg. 209/01 for complete requirements regarding Alterations).

3.3. The contractor who performed the alteration shall also request an inspection within the timelines defined in the regulation (O.Reg. 209/01).

Note: Copies of registered design submissions should reside with the device and/or device owner.

Any person involved in an activity, process or procedure to which this document applies shall comply with this document.

This order is effective immediately.

DATED this 30th day of April 2023.

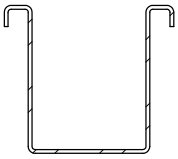
Roger Neate
Director, O.Reg 209/01 (Elevating Devices)

TKE Technical Bulletin

Dover-Turnbull Canada Counterweight Frames	Date: December 05, 2022	Page: 1/2

Applies To:

Dover-Turnbull Canada counterweight (CWT) frames for High-speed Elevators manufactured between 1977 and 1983 with a “U” type crosshead (top beam) section. CWT Frame Part #360442



“U” Type Crosshead (top beam)

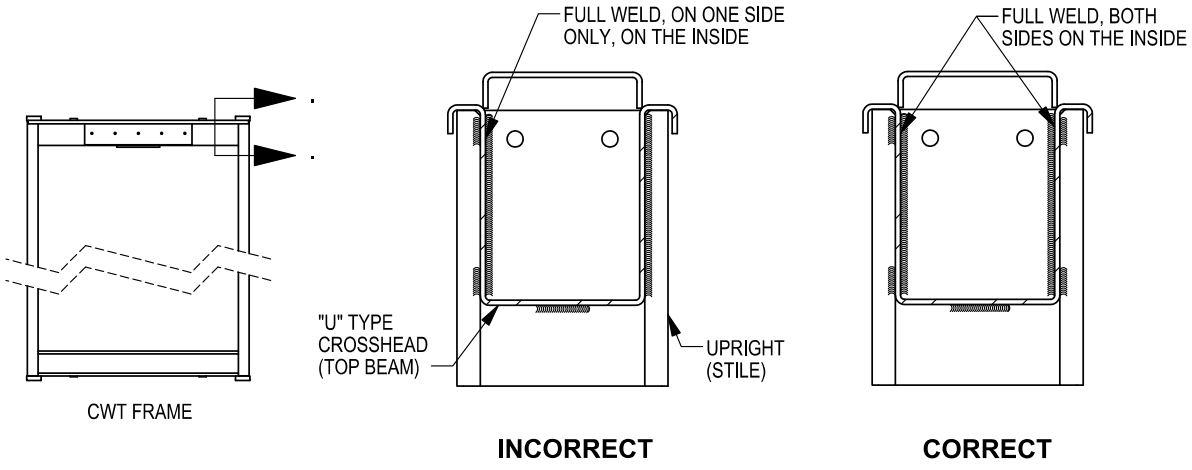
Service Requirement:

Inspect and apply retrofit if required.

Problem:

We recently found that some Dover-Turnbull Canada counterweight frames have developed cracks on the uprights (stiles) near the top weld with the crosshead. This is due high stresses developed in the cracked region because of asymmetrical welds between the crosshead and the upright.

When welded properly, the crosshead is welded to the upright by a full weld on each side on the inside of the crosshead web, and two intermittent (1in long) on the outside. The improperly welded crosshead will have only one side the crosshead web welded on the inside.

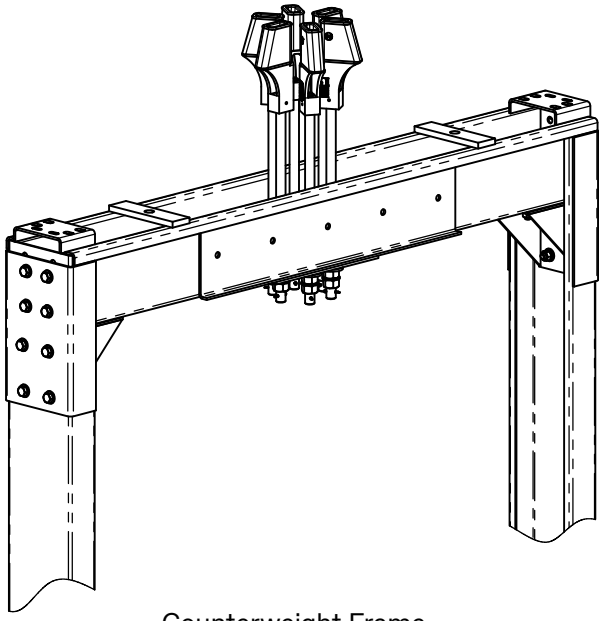


If the crosshead is welded incorrectly, it needs to be reinforced to prevent high stresses.

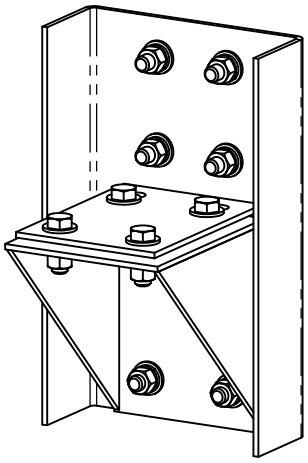
TK ELEVATOR (CANADA) LIMITED | 270 Finchdene Square | Toronto, ON, M1X 1B3 | Canada | **P** +1 416 291-2000 | www.tkelevator.com/ca

Solution:

Install a reinforcement bracket kit #T17752-120 at the top corners of the CWT frame.



Counterweight Frame



Reinforcement bracket.
See Kit #T17752-120

If you have questions or need assistance, please contact Parts Order Canada at 416 291 2000. Ensure that you have the original Turnbull job number.

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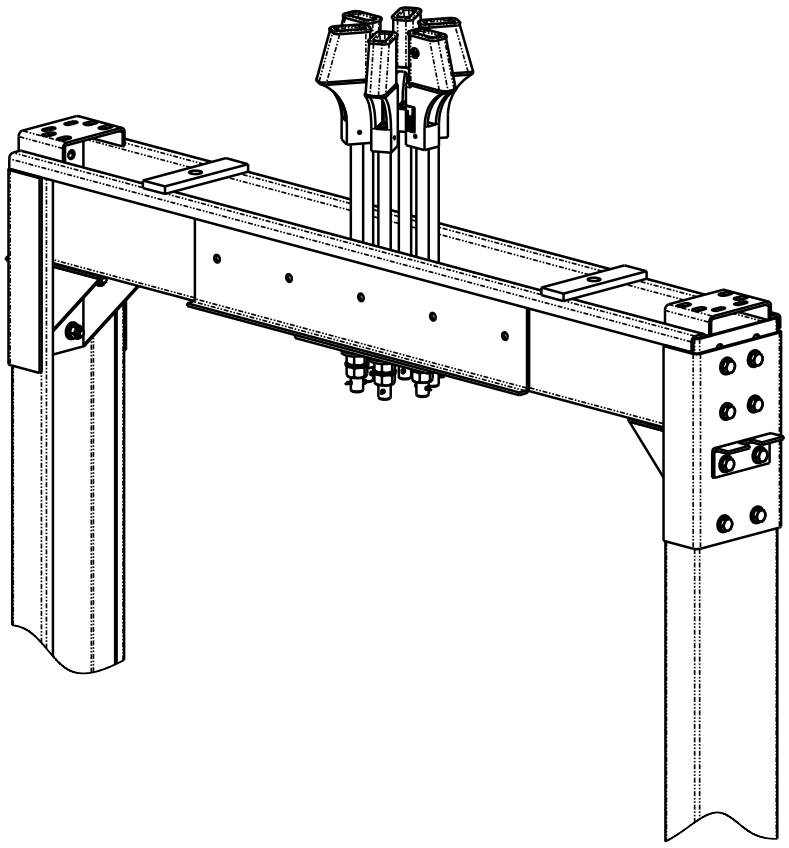
INSTALLATION INSTRUCTIONS
DOVER CWT REINFORCMENT

Document No.: T17752-011, Rev -



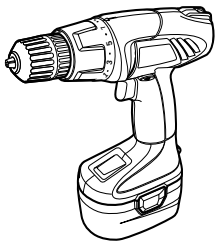
CWT #360442
Retrofit kit #T17752-120

TK Elevator
270 Finchdene Square
Toronto, Ontario M1X1A5
Telephone: (416) 291-2000

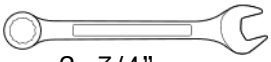
Table of Contents

1. Recommended Tools:

1.1. Hand Drill
1.2. Wrench, ratch, and socket for ½" hex bolts.
1.3. 9/16" Drill bit
1.4. Scaffold to reach top of CWT.



Mag Drill



2x 3/4"

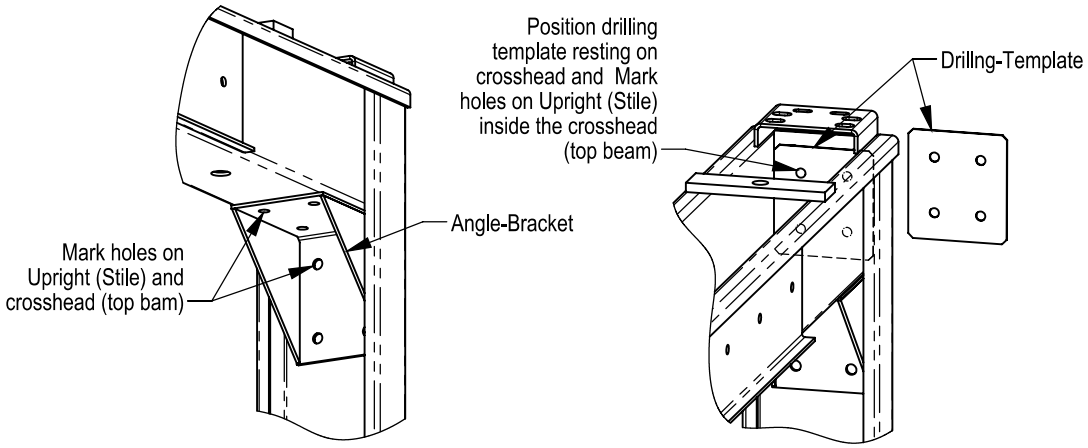
9/16"
(0.562")

2. Safety Precautions

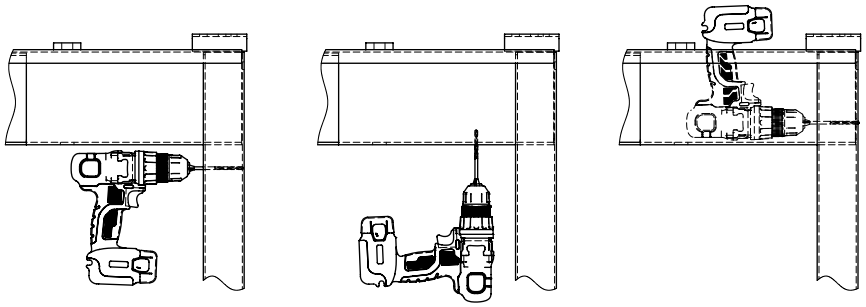
2.1. Follow the TKE standard safety procedures (10FPP, PPE, Barricades…).
2.2. Fall protection if required.
2.3. Work to be done in accordance with TKE safety procedures.

3. Reinforcement Bracket Installation

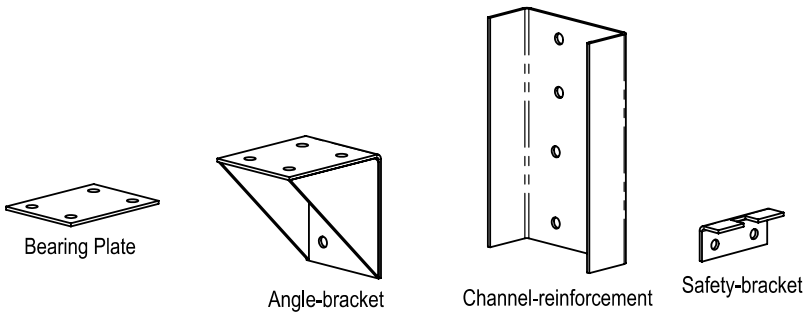
3.1. Without removing guiding means, use the angle-bracket as template and the drilling template provided to mark up the location of the holes to be drilled.

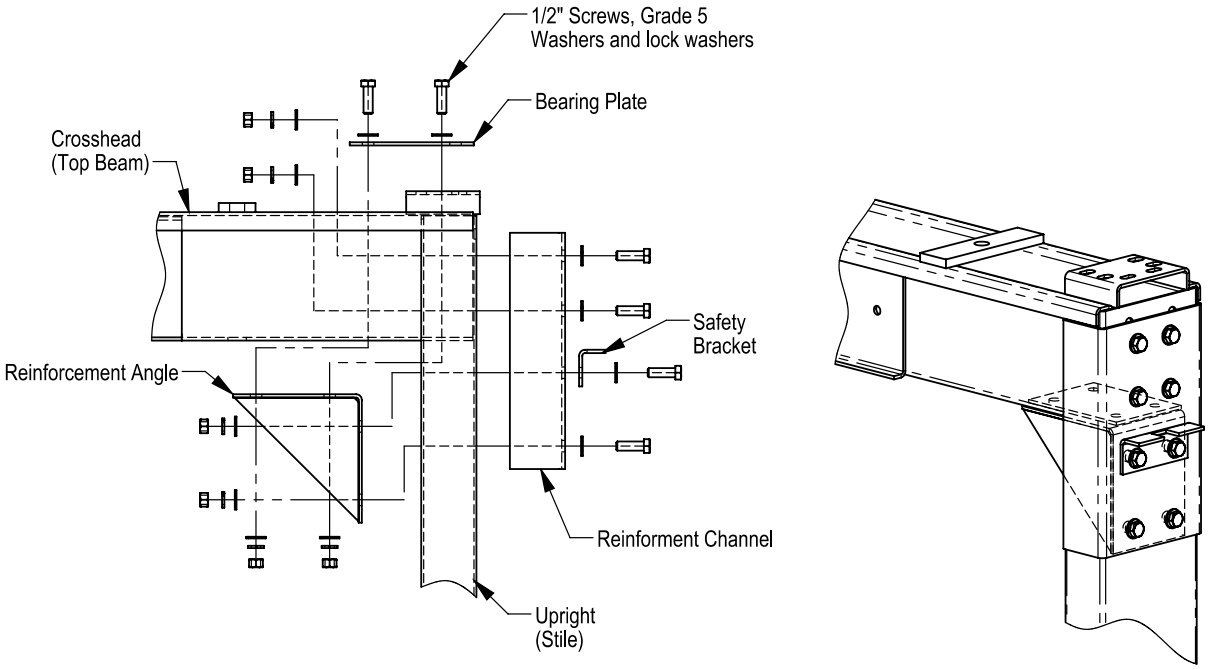


3.2. Drill 12X Ø9/16” (0.562”) holes on the marked-up locations.



3.1. Install the Angle-Bracket, Channel-Reinforcement, Bearing-plate, and safety bracket as shown.





3.2. Repeat installation on the other side.