

# London Underground



## Plant Approval Certificate Track plant or equipment

Engineer's Plant, submitted for LU Plant Approval, shall comply with the relevant EC Directive(s).

Engineer's Plant, will be assessed against the appropriate LU Plant standards, numbered:

**S1171** All Plant – Acceptance, Use and Maintenance,

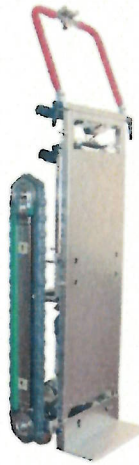
**S1172** On Track Machines – Design and Acceptance,

**S1173** On Track Plant – Design and Acceptance,

**S1174** Non - Railborne Plant – Design and Acceptance.

The LU Product Sponsor shall ensure that items submitted for approval comply with the above standards.

Compliance with other standards, Industry Best Practice and LU specific requirements shall be specified in the Plant Approval certificate.



- Description:** Battery powered stair climber on rubber tracks.
- Make:** ZONZINI
- Model:** Skipper
- Unique Number:** 1924, 1925 & 1887.
- Type of Operation:** Transporting materials on LU stairs, escalators and level surfaces which have been assessed and approved to support the loads imparted by the loaded stair climber. The maximum permitted load is 200kg.
- Area of Operation:** On LU property, during Engineering Hours, in dry conditions.
- Operational Limitations or Conditions:**
1. The Zonzini Skipper stair climber (the stair climber) must have an EC certificate and carry the CE mark.
  2. The stair climber must be subjected to routine maintenance, have a valid maintenance certificate and be marked with a "Next Service Due" Date or operating hours limit.
  3. The Stair climber must be in good working order.
  4. The Stair climber may only be used by trained and certificated competent operators.
  5. The signage on the Stair climber must comply with BS EN ISO 12100:2010 clause 6.4.4, and must include the following: the year of manufacture, a unique identification number, the name and address of the manufacturer and a contact telephone number of a representative in the U.K. The stair climber must be marked with its tare weight, the maximum permitted load and the steepest gradient which it may negotiate. The centre of gravity of the load must lie within the tracks of the stair climber.
  6. Warnings must be readily understood by users in the U.K. and should be displayed in pictogram format in preference to written format.
  7. If the Stair climber has to be carried on a trolley, the trolley must be LU approved with fail safe brakes.
  8. The competent operator will be responsible for securing the load on the Stair climber and must ensure that the load is butting against the front plate. The front plate must always be at the low end

- of the Stair climber when it is on stairs or on a gradient. Loads of known weight may only be transported.
9. The ratchet straps used to secure the load must be checked visually for cuts, fraying and other damage which could reduce its rated loading of the strap. Damaged straps must not be used. The ratchet mechanism must be in good working order.
  10. The on-board lead acid battery must be fully charged (all green lights illuminated). Pre use checks must confirm the charge condition of the battery.
  11. A fully charged spare battery and other appropriate spares must be held at an accessible location close to the work site. Batteries must be charged with battery chargers supplied or approved by Zonzini.
  12. The stair climber must not be stored on site during Traffic Hours.
  13. CO2 and AFFF fire extinguishers must be readily available in the working area. Dry powder must not be used.
  14. The area of operation and the tracks of the Stair climber must be dry.
  15. Emergency recovery of the Stair climber must be covered in the Safe System of Work.
  16. No repairs may be carried out on the stair climber on site.

**Other Information:** Note 1: Protection rating for the motor: IP20 (no protection from liquid)  
 Note 2: Maximum gradient: 30 degrees.

**Type of Approval:** Limited Operational Approval - Specific Item of Plant

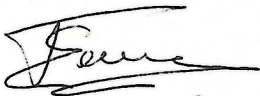
**Weight:** 80kg Tare.

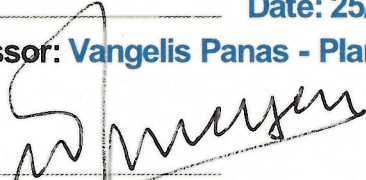
**Powered By:** Battery (24V)

**Documents to be Read as Part of This Certificate:** 1. The Site specific Safe System of Work.  
 2. The Use of Plant Safety Plan.

**Period of Certification** 30/09/2023

**Certificate Number** Plant/9598\_Rev.03

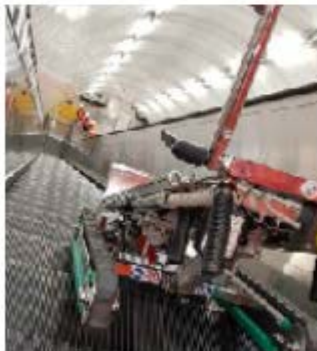
**Signed:**  **Date: 25/09/2018**  
**Assessor: Vangelis Panas - Plant Engineer**

  
**Approver: WJ Meyers - Senior Plant Engineer**

# What's that, Skipper?

Something needs carrying down an escalator?

16 October 2018 - Corporate



After six months of tests and trials, through collaboration with TfL teams in Commercial Development and Engineering, we have met the challenge of safely transporting our 98-inch screens down escalators. The modified Zonzini Skipper (pictured) can now be used on all our stations.

This innovative approach was needed because the escalator is the only way to deliver the screens. Manually handling it exceeded the maximum safe weight we can impose on the escalator – and we aspire to eliminate manual handling for safety reasons.

Tylaar Haran, Programme manager for Commercial Development, stated, 'successful innovation requires a healthy dose of action'.

Chris Savva, Senior Construction manager for Commercial Development, headed up the action group – a collective collaboration between TfL, Exterion Media, Telent and Coral Communications. He said, 'Collectively we have succeeded in securing a viable vertical transportation option for our programme and also for the maintenance of our assets in the future'.

This is a great example of a collective and collaborative approach solving a TfL challenge. Special thanks goes to the LU plant approval team – Vangelis Panas, LU Plant Engineer, and Bill Meyers, LU Senior Plant Engineer – for their hard work and dedication. A special thanks to Dr Tony Miller, Mechanical-Structural Lead for Escalators Engineer for his vast knowledge and guidance in achieving this goal. Thanks to Zonzini for modifying the plant especially for TfL and for their patience throughout the test and trial period.