

# Ton-Tel™ Single-Axle Weighbridge

*Built to Last in a Tough Environment  
Designed for High Traffic Flows*

**Griffith  
Elder**



## Introduction

The Ton-Tel™ Single-Axle weighbridge is an accurate weighing system which will weigh any type of vehicle regardless of its length or the number of axles it has. As a vehicle moves across the platform at slow speed an electronic control computes and logs the weight of every axle.

The heavy duty construction has been built to work in harsh conditions and is particularly suited to installations where high volumes of traffic are being weighed.

## Close Coupled Axles

The platform has been specifically designed to take all combinations of axles. Single axles, tandem and tri-axle combinations are easily weighed because the electronics can capture the weights of every axle individually.

Close coupled axles with spring or air suspension are no problem to the weighbridge which will take individual axles of up to 30 tonnes each.

## Law Enforcement

A range of indicators and computer software is available for the Ton-Tel™ which allow authorities to choose the best system for their enforcement needs. The Ton-Tel™ is particularly suited to use where compliance with legislation is important as 'overspeed' weights are automatically detected so that vehicles cannot be presented with incorrect weighing tickets.

The policy of Griffith Elder is to produce only top quality products incorporating the latest technological advances. Particular emphasis is placed on product reliability and durability and so the company undertakes all its own design and manufacture in order to maintain the essential high level of quality control.

**Griffith Elder and Company Ltd**  
1 Oaklands Park  
Bury St Edmunds  
Suffolk  
IP33 2RW  
United Kingdom

Telephone: +44 1284 763616  
Fax: +44 1284 700822  
Email: [sales@griffith-elder.com](mailto:sales@griffith-elder.com)  
Internet: [www.griffith-elder.com](http://www.griffith-elder.com)

## Ton-Tel™ Single-Axle Dynamic Weighbridge

**Griffith  
Elder**



### Dynamic Weighing

In-motion (dynamic) weighing is an established feature of axle weighing and was originally developed by Griffith Elder in the early 1980s. It is the basis of the Ton-Tel™ system and today with modern, state of the art electronic circuits it provides the highest accuracy for weighing individual axles.

As a vehicle drives over the weighbridge in low gear the axles are automatically recorded on the move. The electronics calculates the actual weight of each axle as it passes over the platform and immediately displays the weight.

Automatic operation of the weighbridge allows a driver to weigh without the need for a specialist operator to be present. A unique electronic zeroing system ensures that the correct weight is achieved for each axle and that zero adjustment between weighings is not required.

### Large Display

The weight of the axles can be shown on a large external display with 100 mm high white digits making the information visible to the driver immediately. At the end of the weighing the display will show the gross weight of the vehicle. The large display is fully waterproof in a stainless steel housing. The display shows zero when the platform is idle and shows a row of dashes when an overspeed is detected.

### Traffic Light

A green traffic light shows that the platform is at zero and indicates to the driver that the weighbridge is ready to drive over. If an overspeed is detected the light immediately turns to red and stays red until the vehicle has left the weighbridge. When the traffic light is used in conjunction with the large display the function can be changed for vehicle control and is especially useful for law enforcement sites.



**Griffith Elder and Company Ltd**  
1 Oaklands Park  
Bury St Edmunds  
Suffolk  
IP33 2RW  
United Kingdom

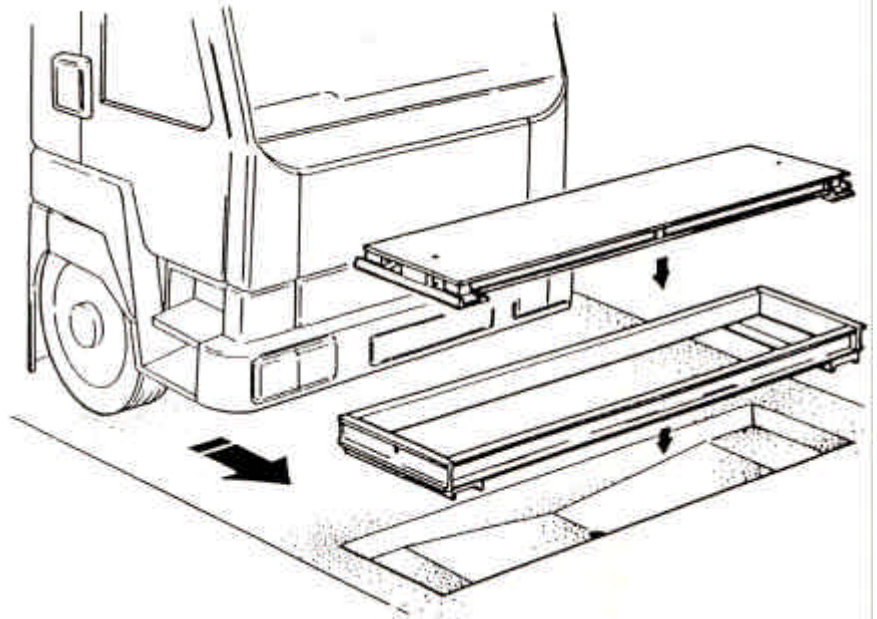
Telephone: +44 1284 763616  
Fax: +44 1284 700822  
Email: [sales@griffith-elder.com](mailto:sales@griffith-elder.com)  
Internet: [www.griffith-elder.com](http://www.griffith-elder.com)



# Ton-Tel™ Single-Axle Weighbridge

*Easy to Install, Easy to Maintain*

**Griffith  
Elder**



## Installation

Griffith Elder recognise that siting of a single axle weighbridge is of prime consideration and so we offer an advisory service for location, backed up by easy to follow instructions and technical assistance.

There are two essential rules which must be followed when weighing axles, namely: a) the weighing platform must be recessed into the ground at a prepared site and b) the approach and exit to the weighing platform need to be level to the full length of the longest vehicle to be weighed. Accuracy will be compromised if the approach and exit roadways are not completely level within normal concreting tolerances. Use of our pit frame simplifies the construction and ensures that the weighbridge is located correctly.

The Griffith Elder guide for installation is a comprehensive manual which describes in detail the whole civil works operation. Our civil engineering team are able to give advice and we can also provide a complete turn-key package, undertaking all aspects of the installation and commissioning.

## Maintenance

Where the Ton-Tel™ single axle weighbridge is to be used for law enforcement purposes Griffith Elder personnel can train your staff in calibration, regular check-up procedures and maintenance schedules. We provide on-going support so that the equipment will give many years of trouble free service.

The Ton-Tel™ is designed with cost of maintenance in mind and has a record, since Griffith Elder designed the first dynamic single axle weighbridge using strain-gauge loadcells in 1982, of very low total cost of ownership. All products are committed to an extensive field assessment programme after development, both at pre-production and final production level which enables us to maintain our reputation of supplying equipment which will have a long and trouble free life.

**Griffith Elder and Company Ltd**  
1 Oaklands Park  
Bury St Edmunds  
Suffolk  
IP33 2RW  
United Kingdom

Telephone: +44 1284 763616  
Fax: +44 1284 700822  
Email: [sales@griffith-elder.com](mailto:sales@griffith-elder.com)  
Internet: [www.griffith-elder.com](http://www.griffith-elder.com)

# Ton-Tel™ Single-Axle Dynamic Weighbridge Construction and Specifications

## Griffith Elder



## Construction

The strength of the Ton-Tel™ single axle weighbridge is the single piece welded platform. High quality steel beams form the superstructure and the platform deck is 10 millimetre flat plate to ensure optimum rigidity. The heavy duty construction and simplicity of design make the Ton-Tel™ a weighbridge which will last for many years.

The four sensors which actually detect the weight on the platform are welded stainless steel loadcells that have been designed by and are manufactured by Griffith Elder. The robust design gives high reliability, low maintenance and long service life, whilst still providing very high accuracy for the weighing function.

An electronic controller takes the signals from the loadcells and turns them into weights. This is done right there in the platform so that there is no distortion of the result because of long cable runs. The signal which is sent to the computer or terminal is digital and so is immune to interference of the type typically found in less advanced products.

A single low voltage cable comes from the platform to a terminal which may be a simple indicator or a sophisticated computer. Each has its merits according to the purpose of the weighbridge, but both are made to be robust and serve the purpose of weighing many vehicles quickly and easily. Traffic lights, large display and other ancillaries like vehicle transponders and traffic control barriers are controlled from the terminal so that the weighing function is separate from the display and reporting functions.

## Specifications

Maximum axle weight	30 tonnes.
Maximum gross weight of vehicle	100 tonnes.
Static accuracy	+/- 20 kg.
Dynamic accuracy	+/- 50 kg per axle or +/- 1% whichever is the lesser.
Indicator resolution	10 kg.
Speed of operation	up to 10 km/hr (max) recommended 3 to 5 km/hr.
Power requirements	110/220 v ac; 50/60 hz.
Platform dimensions	3.0 x 0.7 x 0.2 m.
Platform type	welded construction, mild steel epoxy coated.
Loadcells	9 tonne capacity each, stainless steel, Sealed to IP68.
Electronics	Microprocessor weighing control sealed to IP68.
Approach and exit roadways	20 metres (min).
Operating temperature range	-10°C to +60°C

**Griffith Elder and Company Ltd**  
1 Oaklands Park  
Bury St Edmunds  
Suffolk  
IP33 2RW  
United Kingdom

Telephone: +44 1284 763616  
Fax: +44 1284 700822  
Email: sales@griffith-elder.com  
Internet: www.griffith-elder.com