



COMMONWEALTH OF AUSTRALIA

NATIONAL STANDARDS COMMISSION

Weights and Measures
(National Standards)
Act 1960-1966

Weights and Measures
(Patterns of Instruments)
Regulations

Certificate of Approval

CERTIFICATE NUMBER 6/10A/5

This Certificate cancels Certificate No 6/10A/5 dated 2nd March, 1971. *

In respect of the pattern of

Avery Portable Non-self-indicating Tandem Weighbridge and Variants.

Submitted and
manufactured by:

W. & T. Avery (Aust.) Pty. Ltd.,
3-5 Birmingham Avenue,
Villawood,
New South Wales. 2163.

This is to certify that the pattern and variants of the instrument illustrated and described in this Certificate have been examined by the National Standards Commission under the provisions of the abovementioned Regulations and have been approved as being suitable for use for trade.

The pattern and variants 1 to 4 were approved on 10th February, 1971, and variants 5 and 6 were approved on 26th August, 1971.

Approval was granted on condition that all instruments made in conformity with this Certificate:

1. are appropriately marked NSC No 6/10A/5 and, where

* NOTE: Figures 2 to 13 of the previous issue form part of the Certificate and must be retained.

2/9/71

Cont'd over

required by State legislation, with the State approval number also; and

2. comply with the General Specifications for Weighing and Measuring Instruments to be Used for Trade, in respect of that part of the instrument which was not previously approved by a State.

This Certificate comprises:

Pages 1 to 4 dated 2nd September, 1971.

Figure 6/10A/5 - 1 dated 2nd September, 1971.

Figures 6/10A/5 - 2 to 13 dated 2nd March, 1971.

Pursuant to regulation 12 of the abovementioned Regulations, this Certificate is applicable in all States.

Date of issue 2nd September, 1971.

Signed



A person authorised by the Commission to sign Certificates under the abovementioned Regulations.

DESCRIPTION OF PATTERN

The pattern (see Figures 1 and 2) is of a portable non-self-indicating tandem weighbridge of 41 tons capacity. It consists of two baseworks each of 30 tons capacity coupled to a single headwork.

Each basework is assembled in a self-contained steel framework (see Figure 3) fitted with cross-members and brackets upon which the lever fulcrum supports are mounted. The lever system is similar to that described in Certificate No 6/10A/2. Details of the lever system are illustrated (see Figures 4, 5, 6 and 7).

The second-order transfer lever of the left-hand basework extends beyond the base frame to the headwork cabinet.

The right-hand basework has a first-order transfer lever pivoted on a fixed fulcrum stand and extends outside the base frame, where it is coupled by means of three longitudinal transfer levers (see Figure 8) to the transfer lever of the left-hand basework. The two outer longitudinal transfer levers have their fulcrums anchored (see Figures 9 and 10) in self-aligning bearings, while the centre lever has its fulcrum on fixed bearings bracketed from the side of the base frame.

These levers are coupled by self-aligning links and the lengths of the first and second levers are adjustable (see Figure 11); once adjusted they are dowelled in position.

Fine adjustment of the lever ratio is obtained by the use of two set screws which act against flats on the knife-edge holders to rotate the knife-edges.

The platform motion is limited by adjustable screws on the frame which contact buffer blocks on the platform. These are also used to lock the platform during transportation. The side sections of the platforms and the transfer lever extension to the headwork are removable to facilitate handling; the transfer lever extension is dowelled for correct and easy relocation. Lifting eyes are provided on the base frame.

The headwork is a 41-ton full-capacity steelyard as described in Certificate No 6/10A/2. The pullrod (see Figure 12) connects

directly to the load knife-edge of the steelyard.

DESCRIPTION OF VARIANTS

1. In other capacities up to 200 tons.
2. The baseworks replacing the baseworks in any Commission-approved pattern.
3. Having the headwork located in any reasonable position in relation to the baseworks, in which case one or more transfer levers may be used provided they are fully protected.
4. Having only one of the baseworks described in the pattern (see Figure 13).
5. The baseworks replacing the baseworks in any State-approved pattern. *
6. In other capacities up to 200 tonnes.

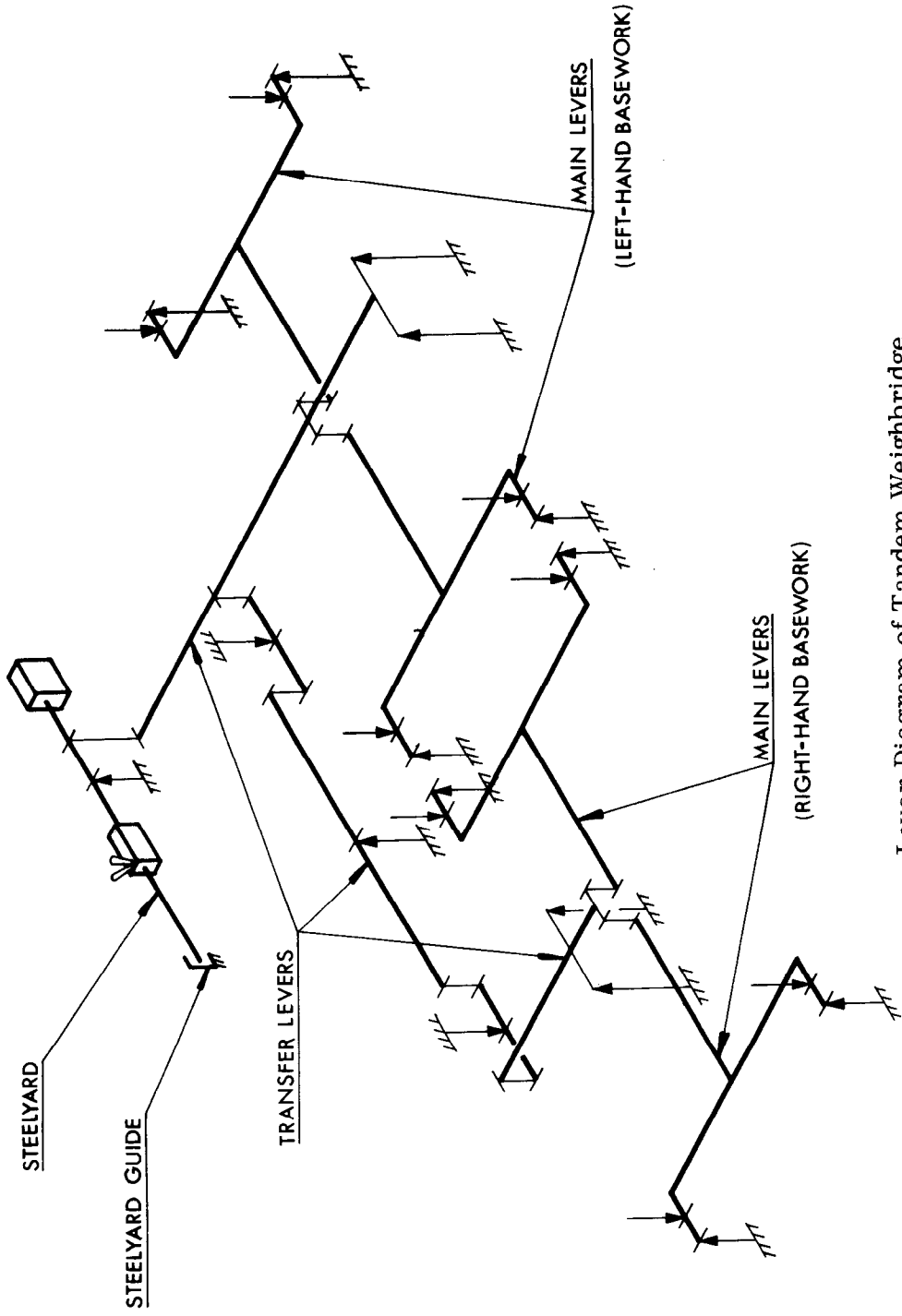
GENERAL NOTES

The provision of vehicular rails, which was included as a variant in the previous issue of the Certificate, has been deleted because the vehicular rails are not significant in determining the suitability of the pattern for use for trade.

A correction has been made to Figure 1.

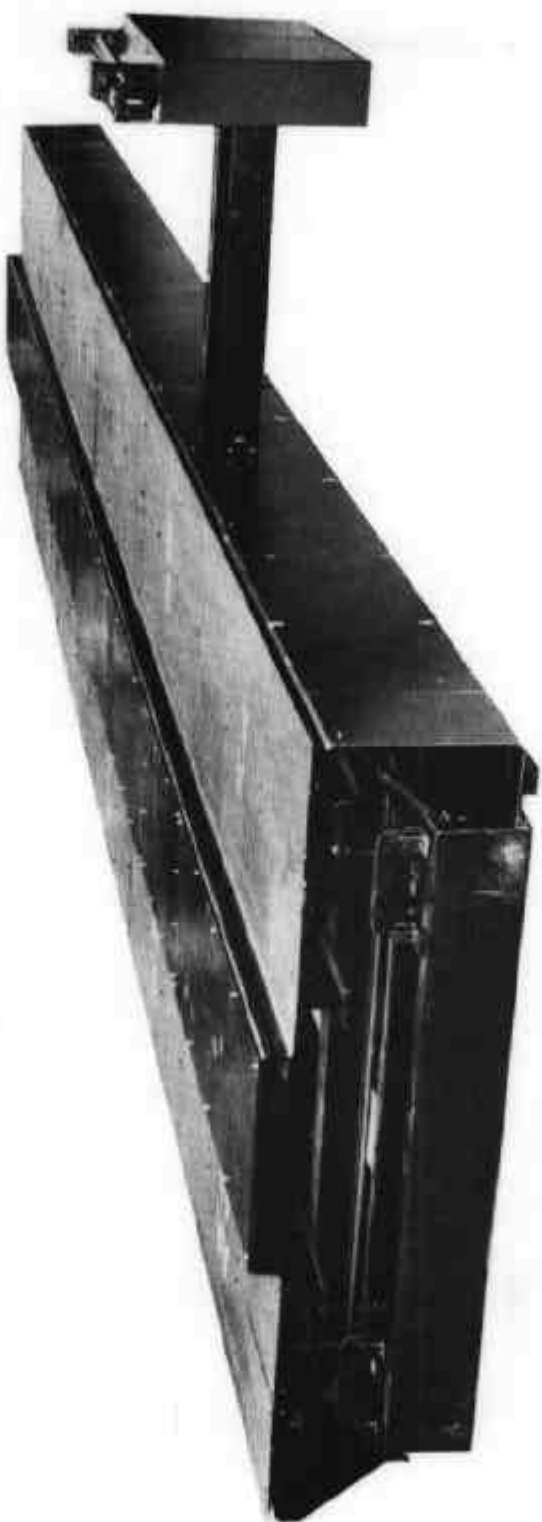
* Approved pursuant to regulation 12.

FIGURE 6/10A/5 - 1



Lever Diagram of Tandem Weighbridge

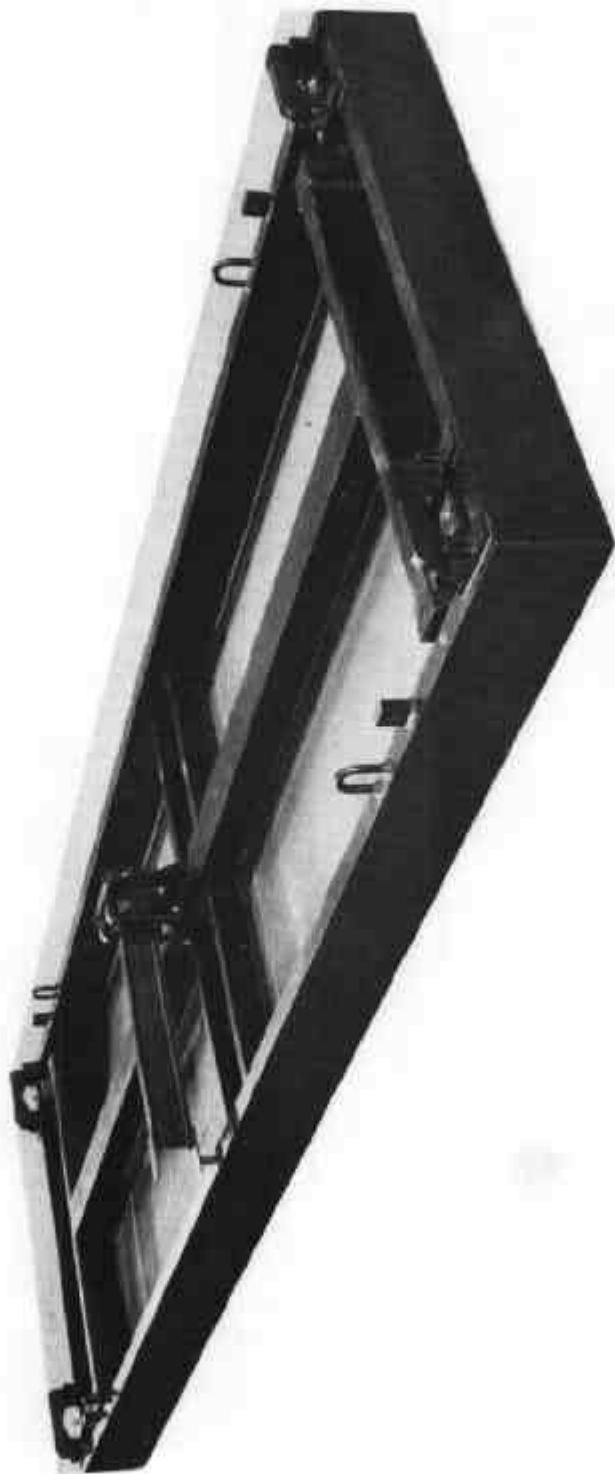
FIGURE 6/10A/5 - 2



Tandem Weighbridge

2/3/71

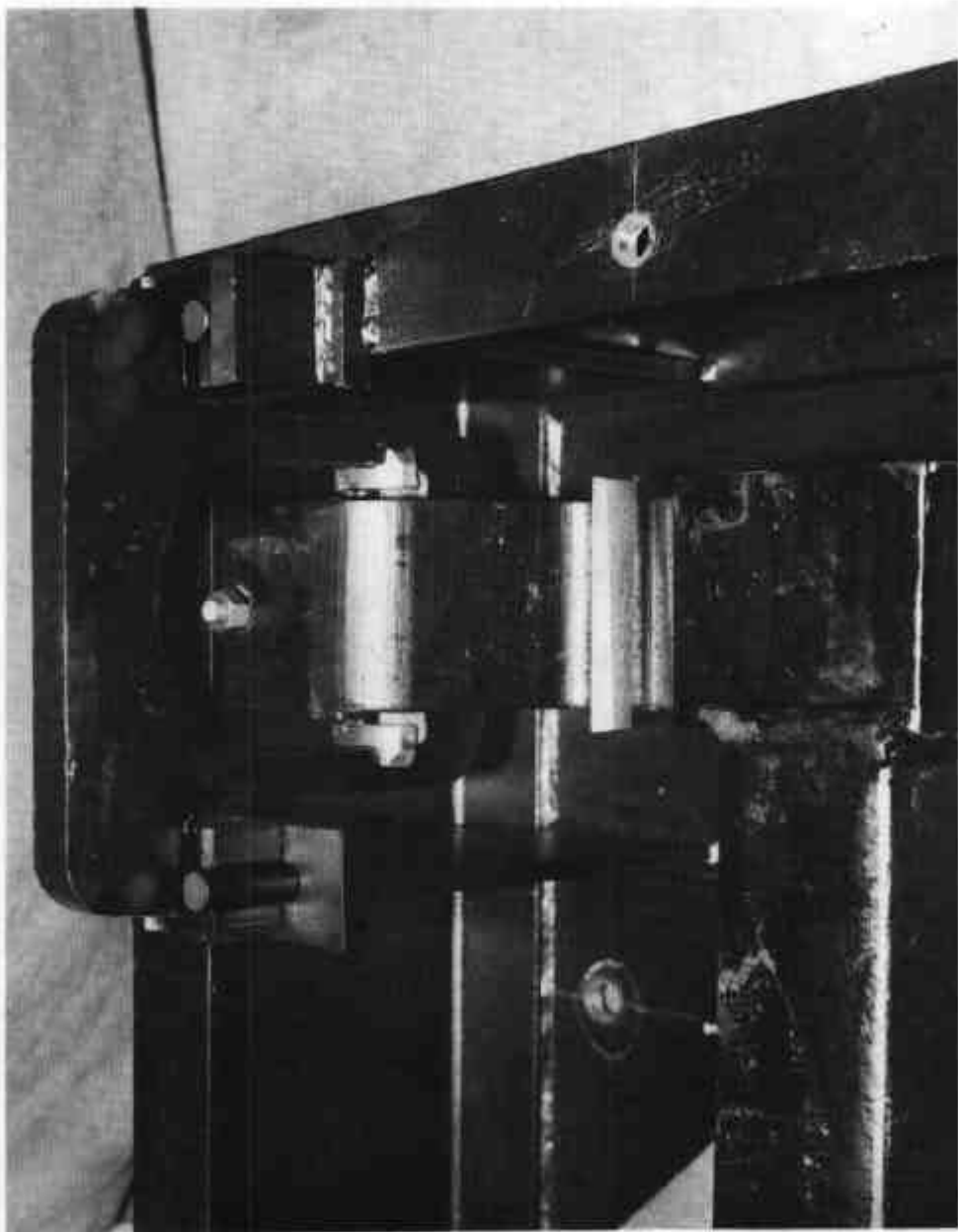
FIGURE 6/10A/5 - 3



Left-hand Basework Frame and Lever System

2/3/71

FIGURE 6/10A/5 - 4



Main Lever Fulcrum Swinging Link

2/3/71

C

FIGURE 6/10A/5 - 5

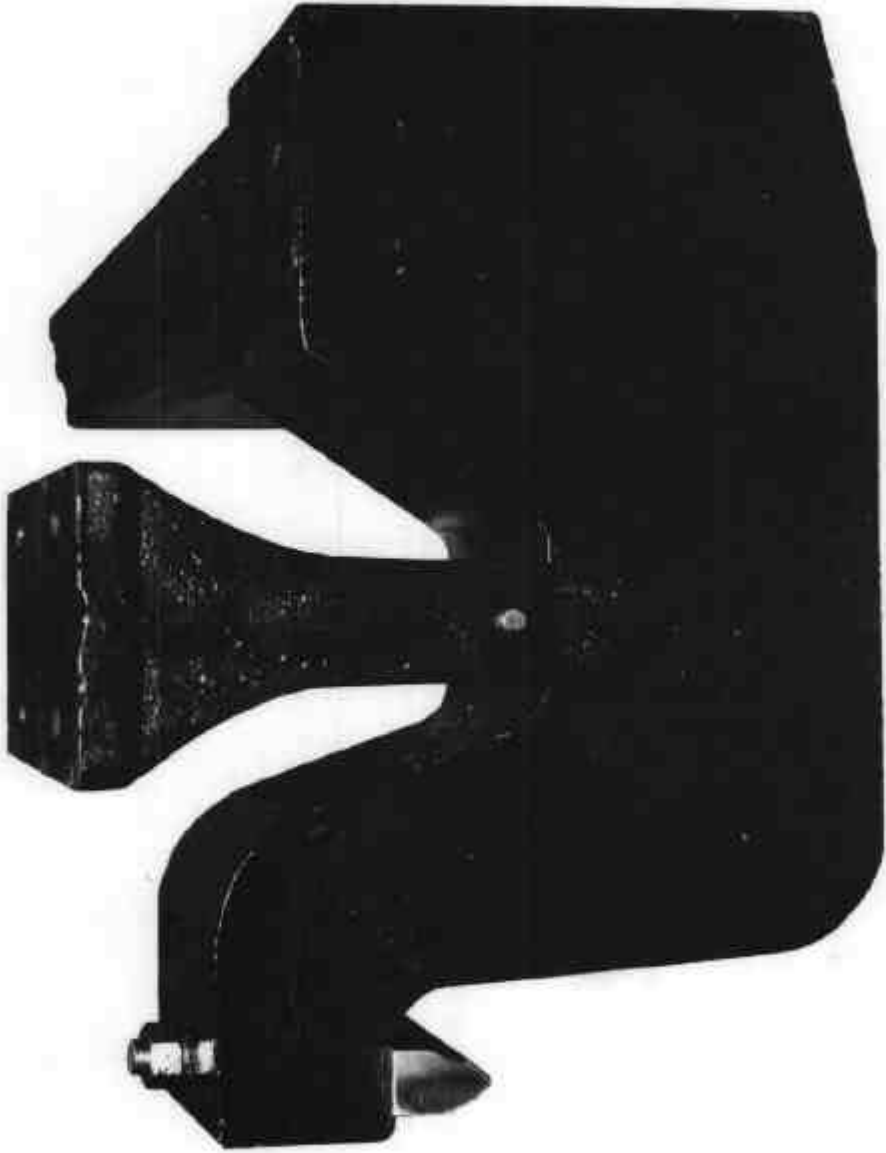


Main Lever Fulcrum Swinging Link

C

2/3/71

FIGURE 6/10A/5 - 6

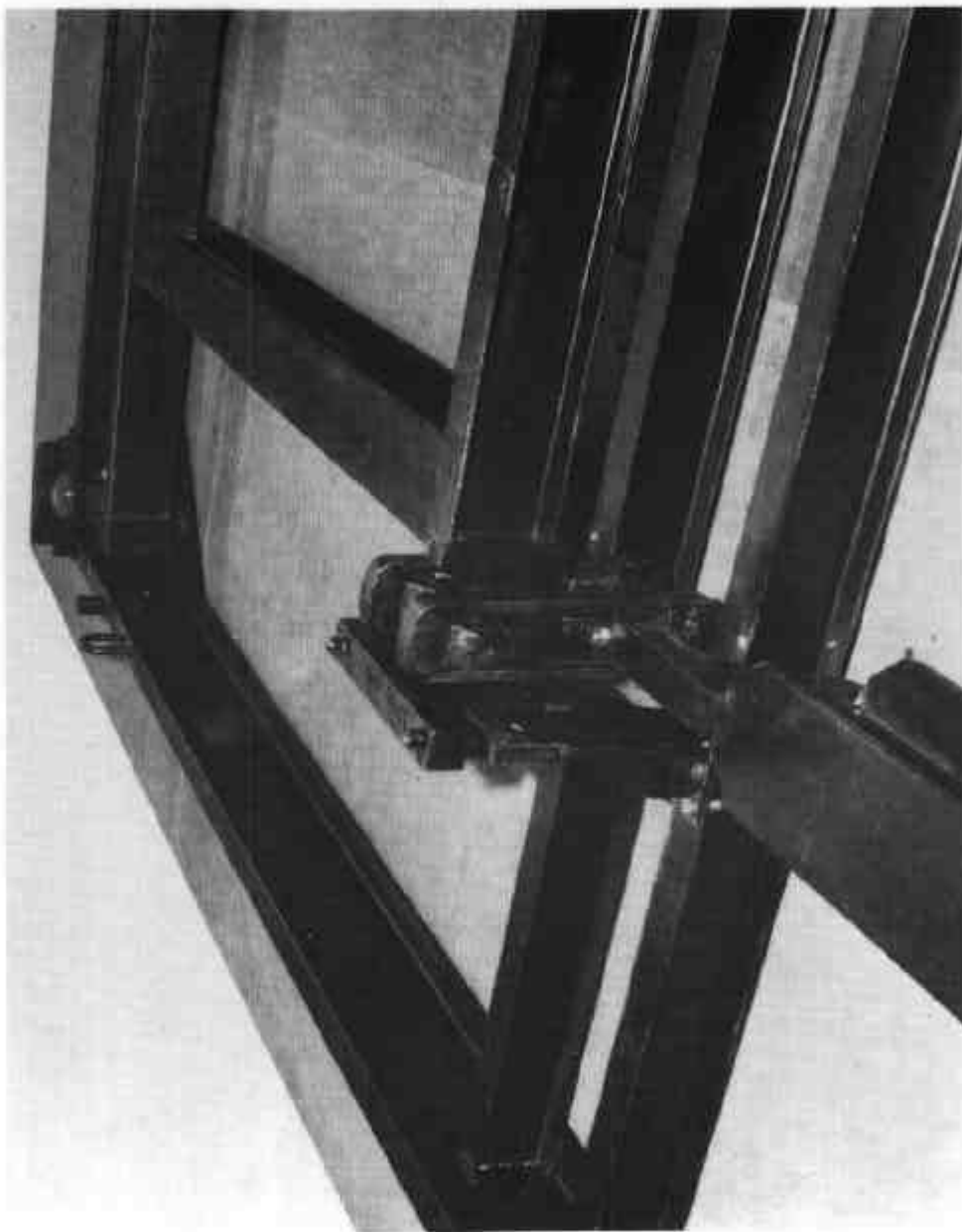


Platform Support Pillar



2/3/71

FIGURE 6/10A/5 - 7



Left-hand Basework Transfer Lever Fulcrum and Self-aligning Links from Main Lever

2/3/71

FIGURE 6/10A/5 - 8



Longitudinal Transfer Levers

2/3/71

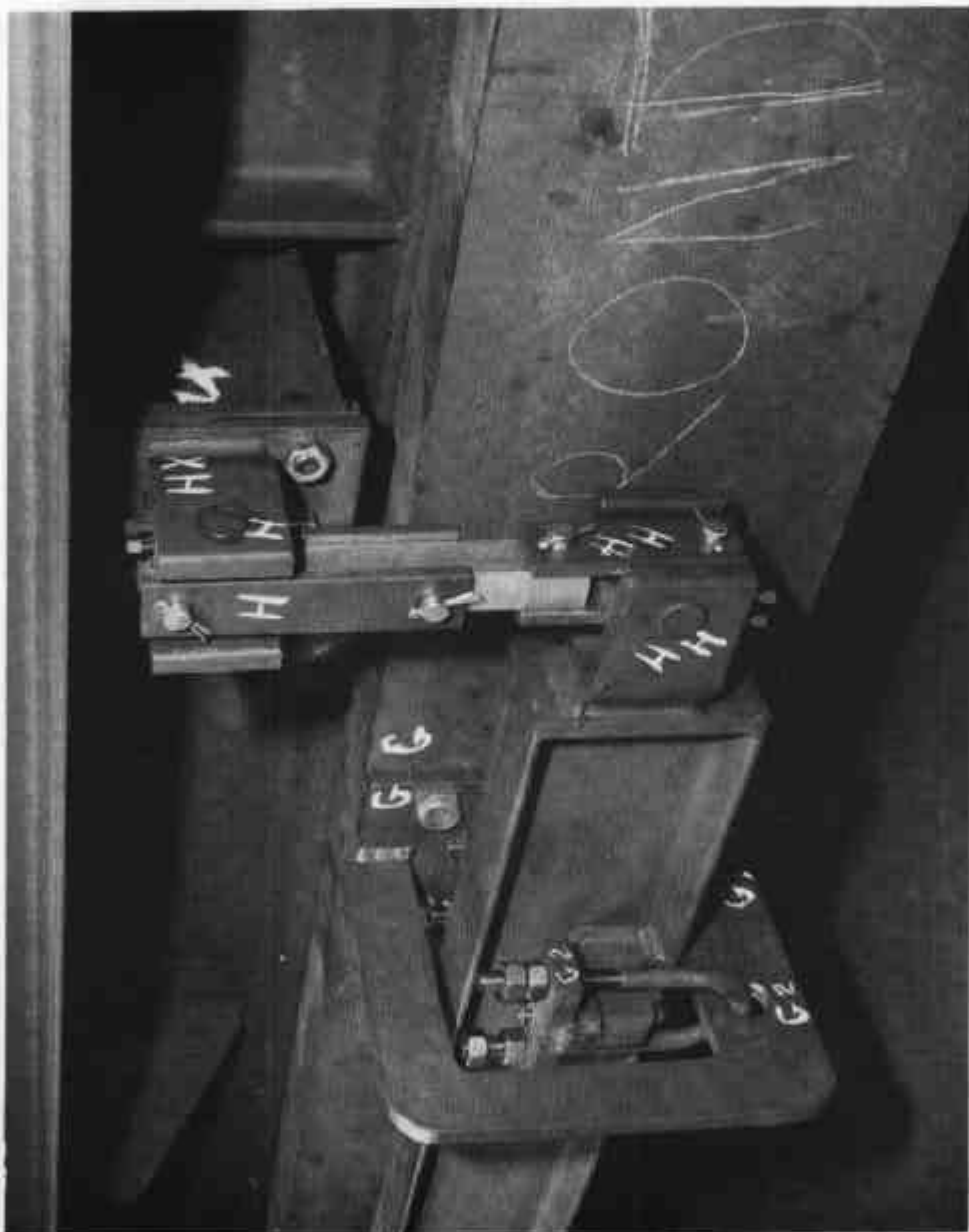
FIGURE 6/10A/5 - 9



Left-hand Longitudinal Transfer Lever

2/3/71

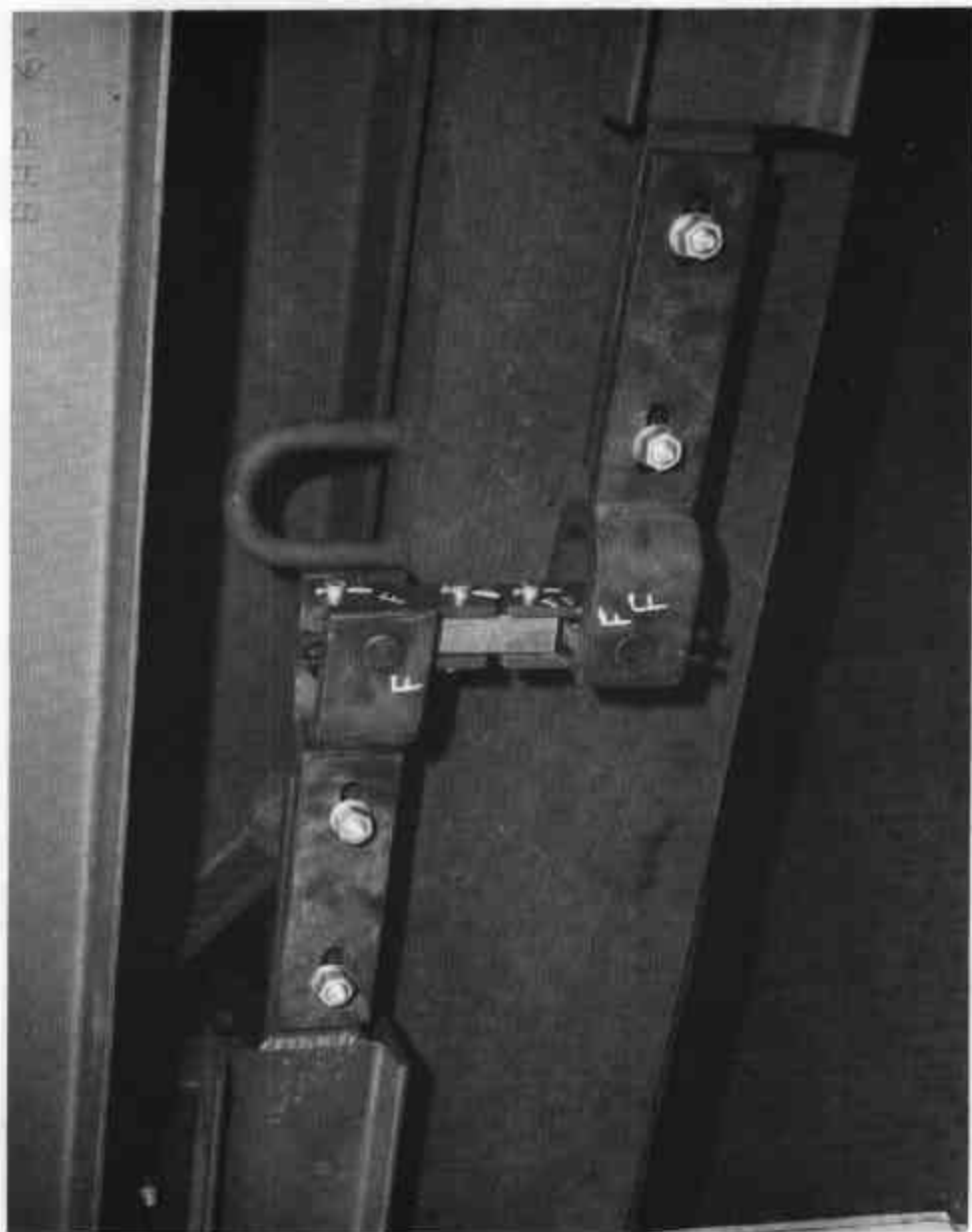
FIGURE 6/10A/5 - 10



Coupling between Right-hand Basework Transfer Lever and the
Longitudinal Transfer Lever

2/3/71

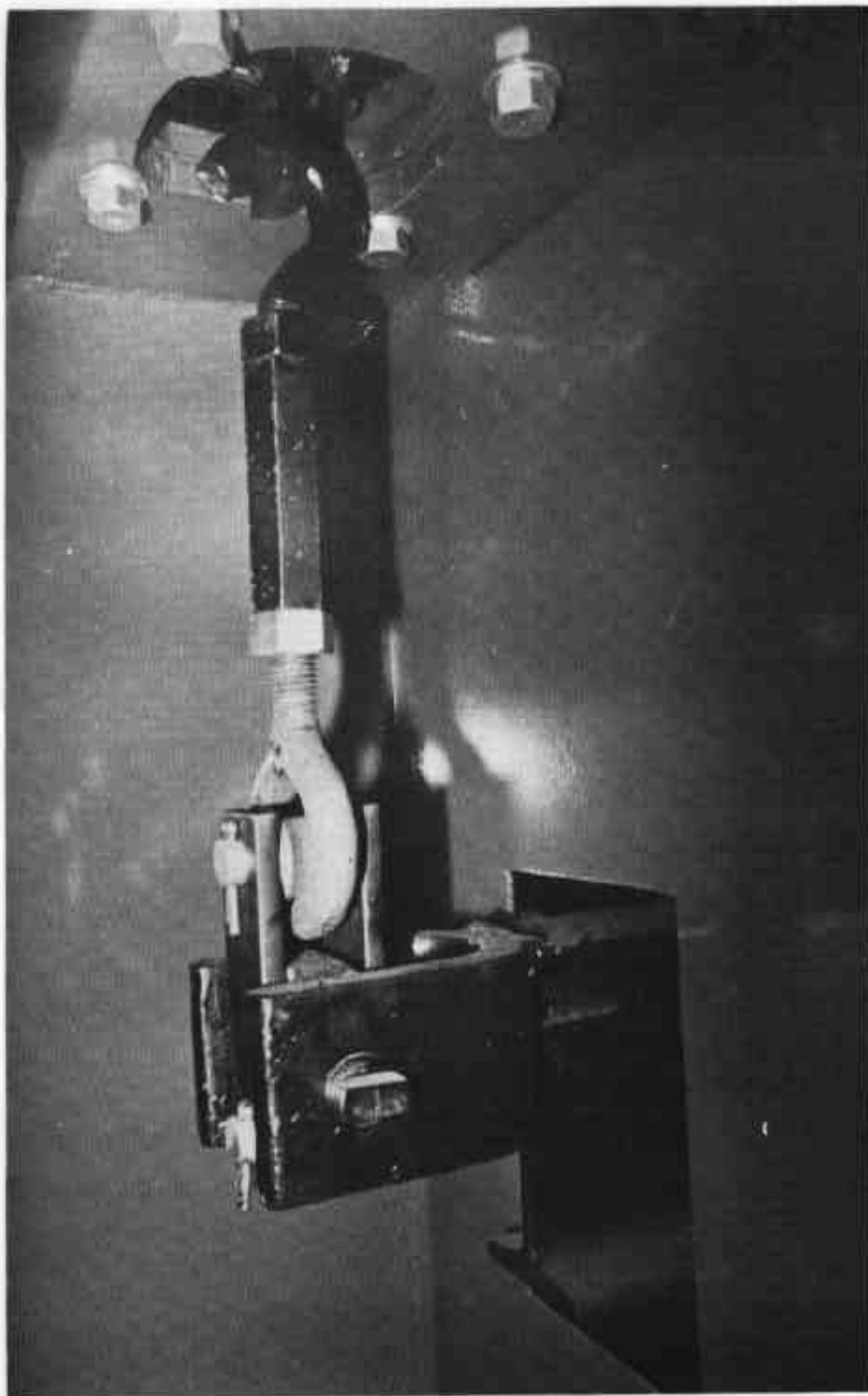
FIGURE 6/10A/5 - 11



Longitudinal Transfer Levers - Showing Adjustable Ends
before Dowelling

2/3/71

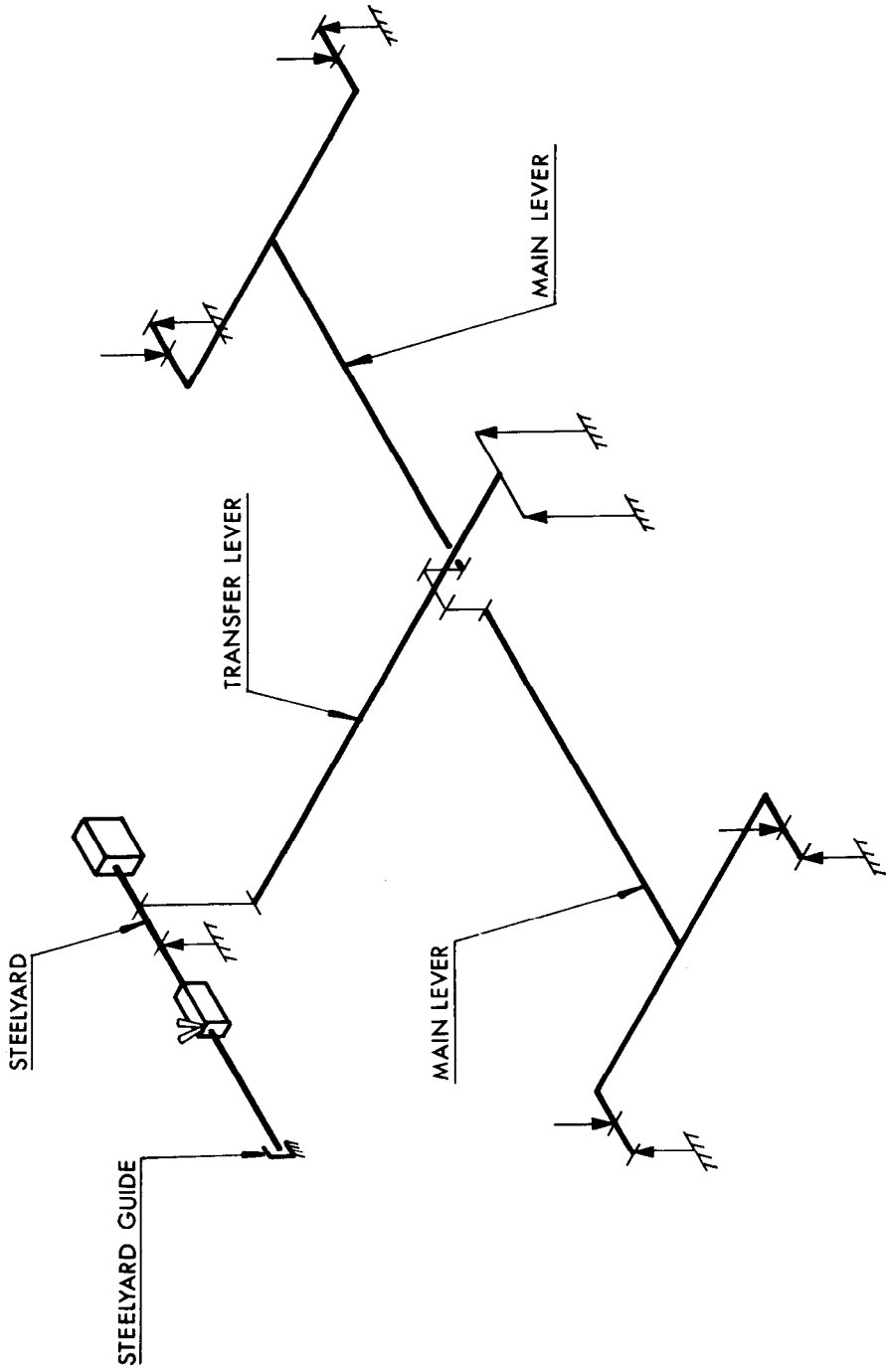
FIGURE 6/10A/5 - 12



Transfer Lever Nose-end and Pullrod

2/3/71

FIGURE 6/10A/5 - 13



2/3/71

Single Basework Portable Weighbridge Lever Diagram