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CERTIFICATE OF APPROVAL No 6/9A/4

VARIATION No 1

This is to certify that the following modifications of the patterns of the Mercury Weighing Instrument Model 522D.

approved in Certificate of Approval No 6/9A/4 dated 10 September 1974 submitted by Mercury Scale Co. Pty Ltd,  
32 Dew Street,  
Thebarton, South Australia, 5031,

have been approved under the Weights and Measures (Patterns of Instruments) Regulations as being suitable for use for trade.

Date of Approval: 21 October 1976

The approved modifications, described in Technical Schedule No 6/9A/4 - Variation No 1 and in drawings and specifications lodged with the Commission, provide for:

1. a capacity of up to 6200 kg;
2. up to 3100 graduations on the steelyard;
3. other Commission-approved baseworks.

The approval of these modifications is subject to review on or after 1 April 1978.

All instruments conforming to this approval shall be marked with the approval number "NSC No 6/9A/4".

Signed

  
Executive Officer



# NATIONAL STANDARDS COMMISSION

## TECHNICAL SCHEDULE No 6/9A/4

Pattern: Mercury Model 522D Steelyard Weighing Instrument

Submitter: Mercury Scale Co. Pty Ltd,  
32 Dew Street,  
Thebarton, South Australia, 5031.

Date of Approval: 10 September 1974

All instruments conforming to this approval shall be marked "NSC No 6/9A/4".

### Description:

The pattern (see Figure 1) is a Mercury Model 522D full-capacity-steelyard portable weighing instrument of maximum capacity 2400 kg.

The resistant is a full-capacity steelyard with up to 2400 graduations (see Figure 2). The major bar is notched and numbered and the minor bar has a maximum of 100 graduations over a length of not less than 0,3 m.

The basework lever system is shown in Figures 3 and 4. The steelyard faces away from the load receptor when the platform size prevents an operator in front of the platform from readily setting the poise and reading the indicated weight.

The approval includes the instrument of maximum capacity 1200 kg with the basework lever system illustrated in Figures 5, 6 and 7.



# NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/9A/4

VARIATION No 1

Pattern: Mercury Weighing Instrument Model 522D

Submittor: Mercury Scale Co. Pty Ltd,  
32 Dew Street,  
Thebarton, South Australia, 5031.

Date of Approval of Variation: 21 October 1976

The modification described in this Schedule applies to the patterns described in Technical Schedule No 6/9A/4 dated 13 March 1975.

All instruments conforming to this approval shall be marked "NSC No 6/9A/4".

Description:

The approved modifications provide for:

1. A three-lever basework for loads up to 6200 kg. The basework (see Figures 8 and 9) consists of two main levers and a transfer lever mounted on a pedestal attached to the base frame, supporting the load receptor on two ball-suspension units (see Figure 7(a)). An intermediate lever is fitted in the headwork (see Figure 10).
2. Up to 3100 graduations on the full-capacity steelyard; the minor bar has a maximum of 100 graduations over a length of not less than 0,3 m.
3. Baseworks of other Commission-approved patterns replacing the baseworks described in the patterns and subsequent variations, provided that:
  - (a) the basework\* is of an instrument conventionally known as a platform weighing machine, weighbridge or hopper scale, etc., where the headwork and basework are separate assemblies

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\* The basework must fully conform with the Commission approval; no extra force breakdown or transfer levers may be fitted other than those approved.

connected by a mechanical linkage;

- (b) the capacity of the instrument is not more than the capacity approved for the basework;
- (c) a levelling device and an indicator are fitted except for instruments installed in a fixed position, or instruments which satisfy the following:

tilting at no-load — the zero indication does not vary more than  $2e$  when the instrument is tilted to a slope of 1 in 20, the zero being first adjusted in the reference (level) position; and

tilting when loaded — the indication of weight does not vary more than  $e$  when the instrument is tilted to a slope of 1 in 20, the indication at zero being adjusted in the reference position before tilting and in the tilted position before reloading;

- (d) if a level indicator is required its sensitivity shall be such that, when the instrument is tilted so that the bubble in the level indicator moves 2 mm, the zero should not change by more than two graduations, and when zero is reset in the tilted position the instrument should satisfy the weighing-accuracy specification, that is,  $\pm \frac{1}{2}$  graduation for the first 500 graduations,  $\pm 1$  graduation for graduations over 500 and up to 2000, and  $\pm 1\frac{1}{2}$  graduations over 2000 graduations;
- (e) when a mass equal to  $e$  is placed on the instrument at equilibrium, loaded or unloaded, the index shall permanently displace at least -

2 mm for Class 3 instruments with a maximum capacity not greater than 30 kg;

5 mm for Class 3 instruments with a maximum capacity greater than 30 kg;

- (f) the instrument is marked:

"Approval Numbers

Headwork NSC No 6/9A/4

Basework NSC No .....

Each of the above approved modifications include the requirement for appropriate capacity markings adjacent to the steelyard, for example:

III

Max	=	6200 kg
Min	=	100 kg
d = e	=	2 kg



25/3/88

## NATIONAL STANDARDS COMMISSION

### NOTIFICATION OF CHANGE

### VARIOUS CERTIFICATES OF APPROVAL

The following changes are made to the approval documentation for the approvals listed overleaf

submitted by Mercury Weighing and Control Systems Pty Ltd  
32 Dew Street  
Thebarton SA 5031.

In the Certificates and Technical Schedules listed, the following changes should be made:

- 1) The submittor should be changed to read;  
  
A & D Mercury Pty Ltd  
  
(the address remains unchanged)
  
- 2) Any Mercury instrument or component of an instrument approved in the documentation, may now also be known as "AND Mercury" or similar.

Signed

Executive Director

APPROVAL      PATTERN**TYPE:** weighing instruments counter scales

6/3/007      Model 92  
 6/3/008      Model 131

**TYPE:** counter machines semi-self-indicating

6/4A/012      Model 304A

**TYPE:** counter machines freely-suspended < 30 kg (spring scales)

6/5/011      Model 211 DA

**TYPE:** weighing instruments non-self-indicating

6/9A/001      Models 692 and 682  
 6/9A/004      Model 522D  
 6/9A/007      Model 211  
 6/9A/008      Model 600

**TYPE:** weighing instruments self-indicating

6/9C/005      Model 211D  
 6/9C/013      Up to 2500 lb or 1200 kg  
 6/9C/066      Model 522 AL  
 6/9C/067      Model SM100/479/522D  
 6/9C/081      Model SB-LP 1200  
 6/9C/088      Model 522D LT-10K

**TYPE:** weighbridges self-indicating

6/10B/040      Model WB-LT  
 6/10B/045A      Model RVB-H20

**TYPE:** automatic weighing instruments (except belt conveyors)

6/14B/012      Model HSD automatic hopper

**TYPE:** overhead weighing instrument (suspended load or receptor)

6/18/005      With 211DA headwork  
 6/18/017      Model OHT 500

**TYPE:** digital indicators

S114      Model 579  
 S128      Model 1300  
 S132      Model 900  
 S161      Model AD4316  
 S199      Model AD-4321

**TYPE:** load cells

S117      Interface model SM25-12 kg  
 S163      Transducers model B5112.1K  
 S221      HBM model TRT-50 (Mercury model TRT3K-50)

FIGURE 6/9A/4 - 1



Mercury Model 522

13/3/75

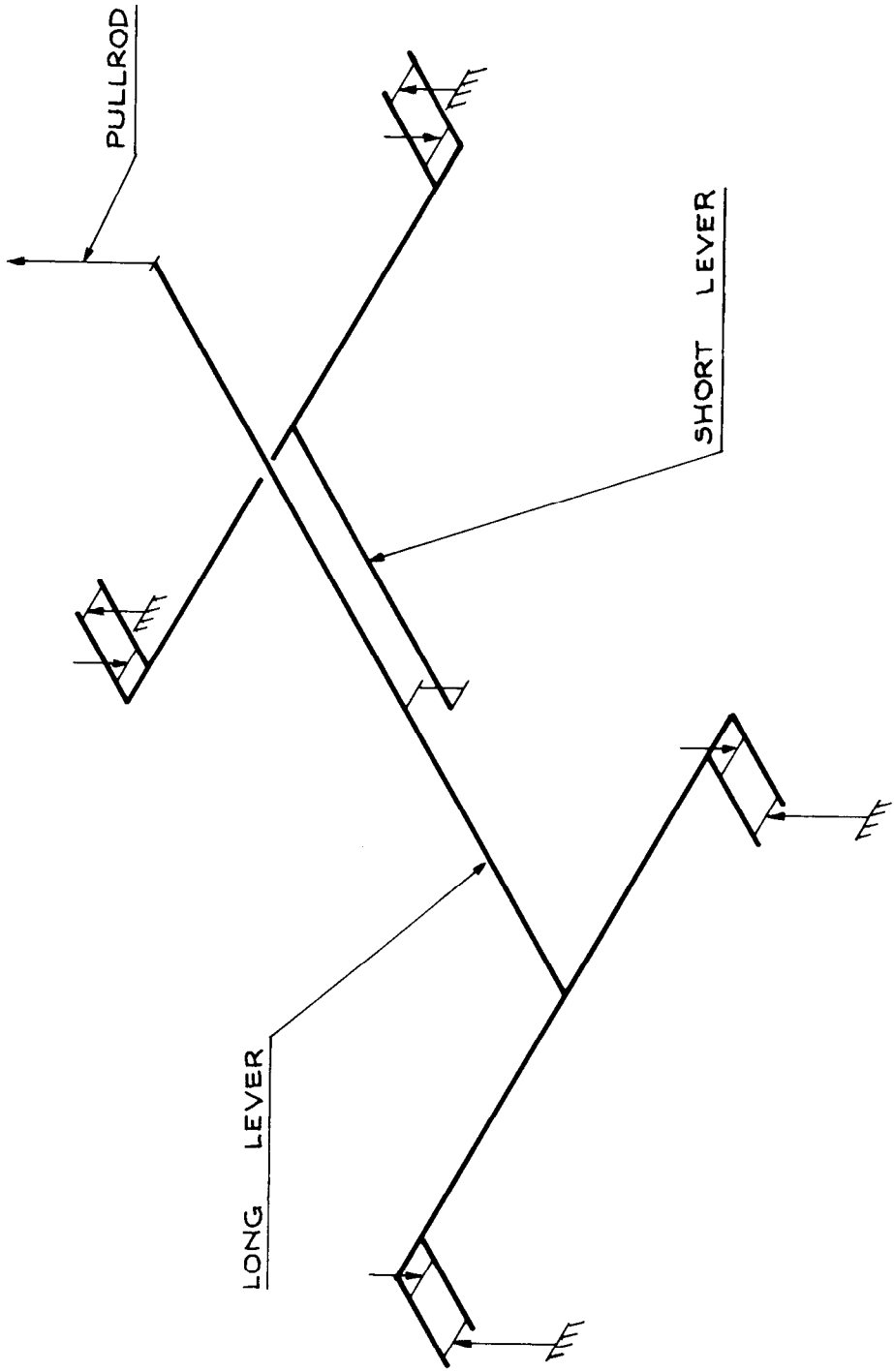
FIGURE 6/9A/4 - 2



Steelyard and Poise

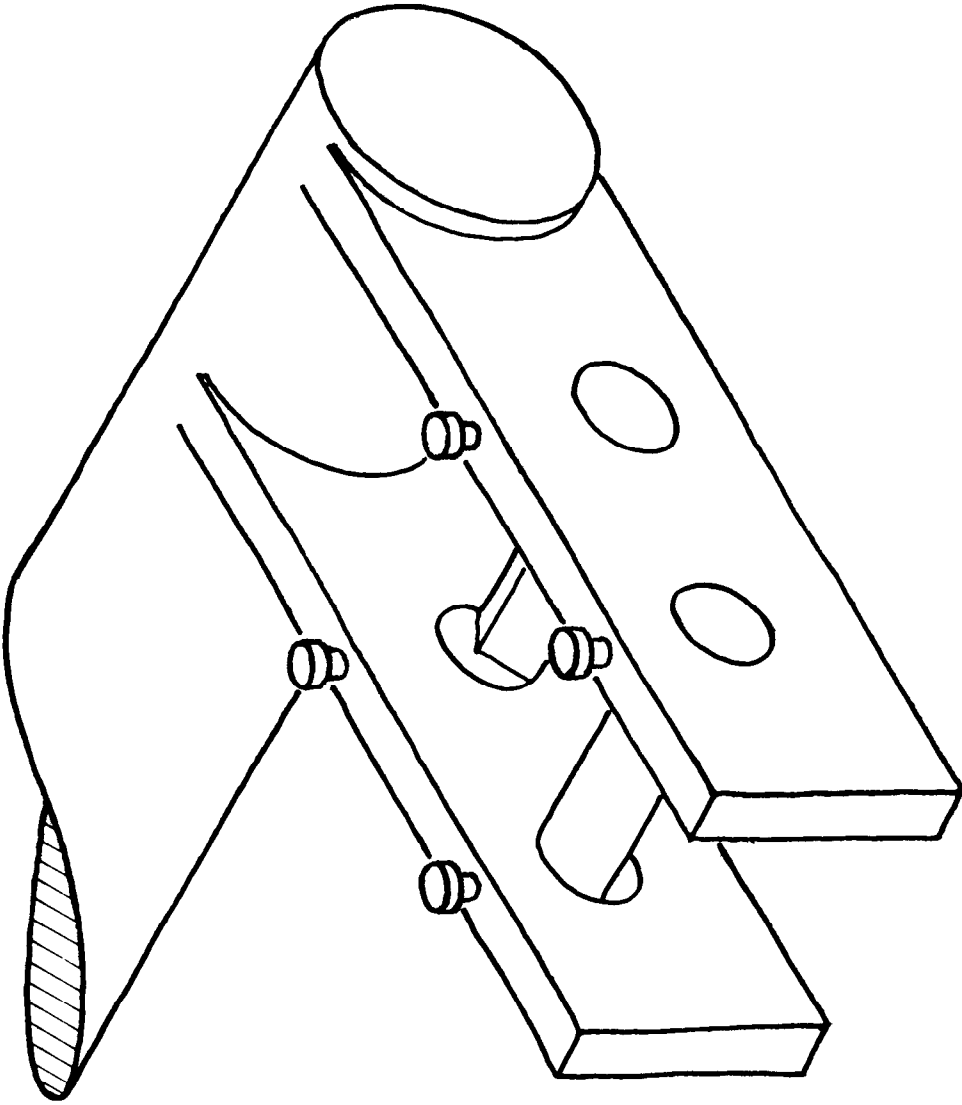


FIGURE 6/9A/4 - 3



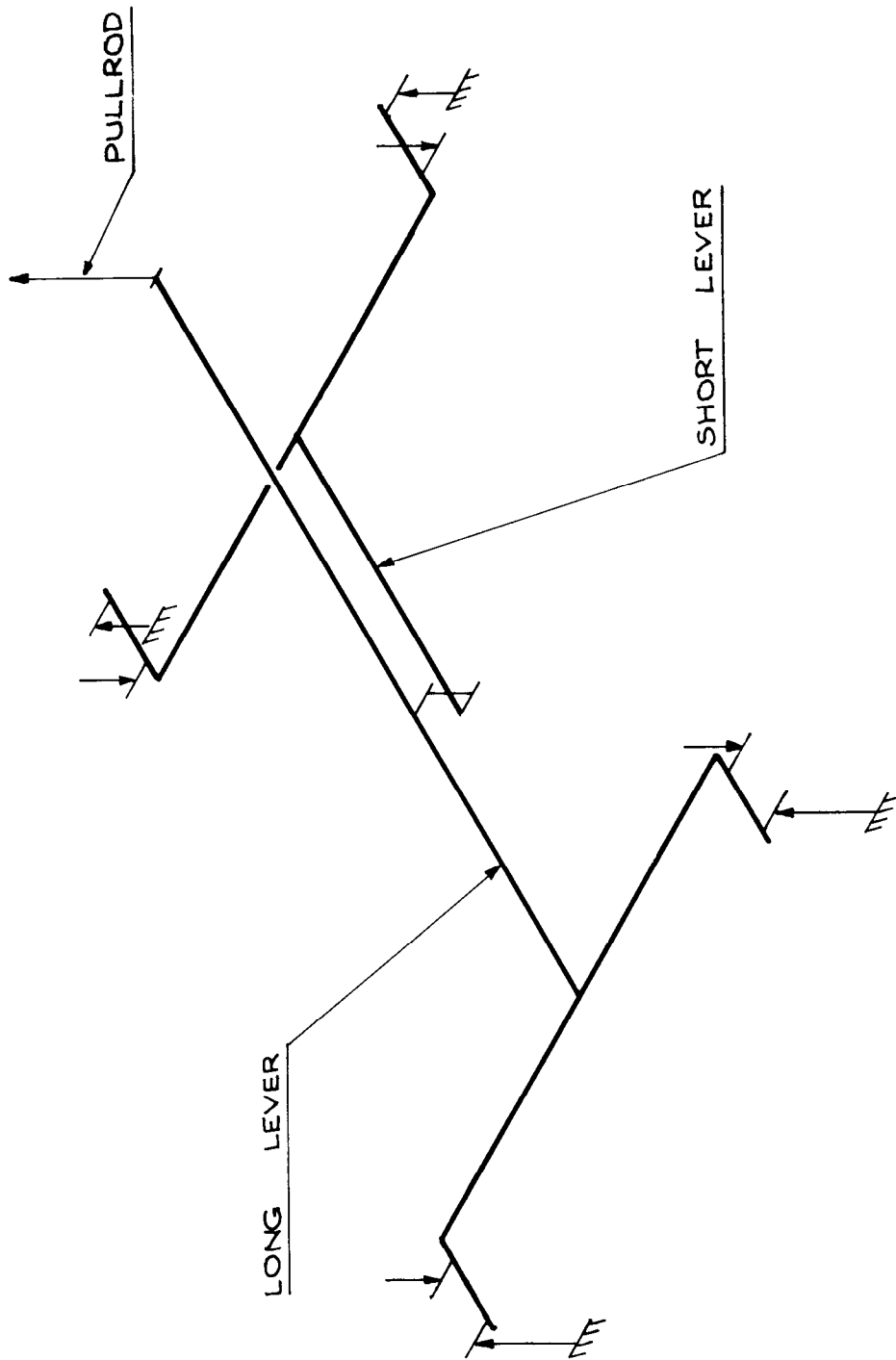
Basework Lever Diagram — 2400 kg

FIGURE 6/9A/4 - 4



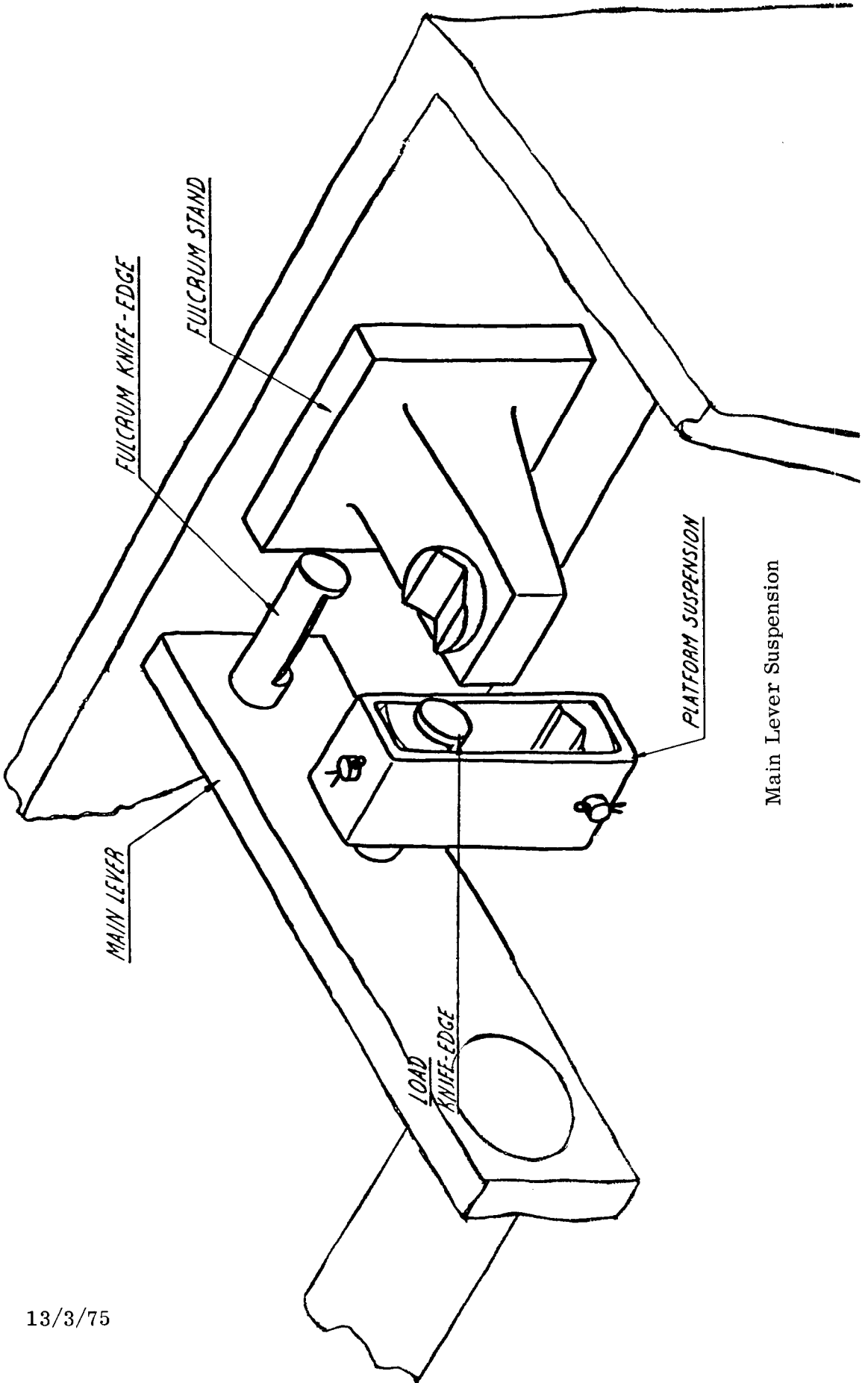
Main Lever Load and Fulcrum Knife-edges Supported between Side-plates

FIGURE 6/9A/4 - 5



Base work Lever Diagram -- 1200 kg

FIGURE 6/9A/4 - 6



Main Lever Suspension

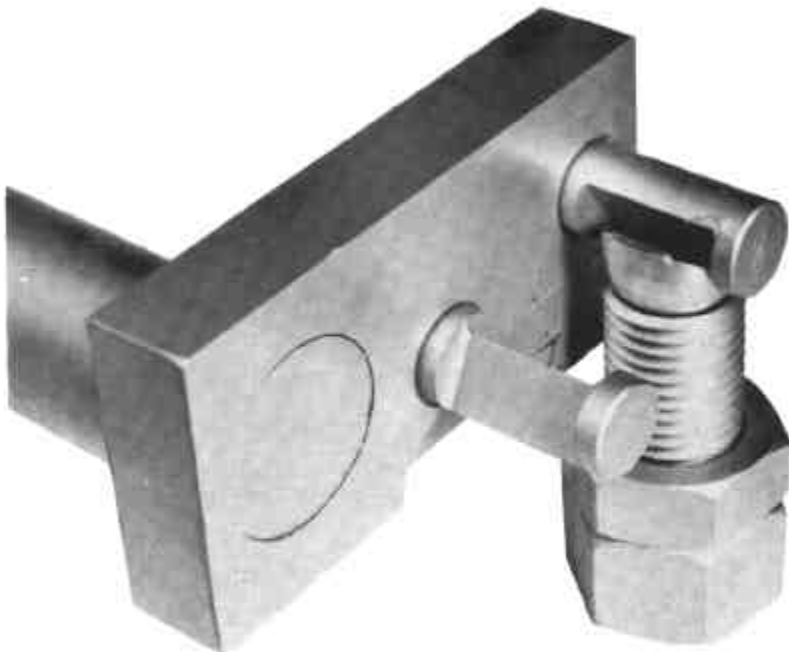
FIGURE 6/9A/4 - 7



(a) Platform Suspension

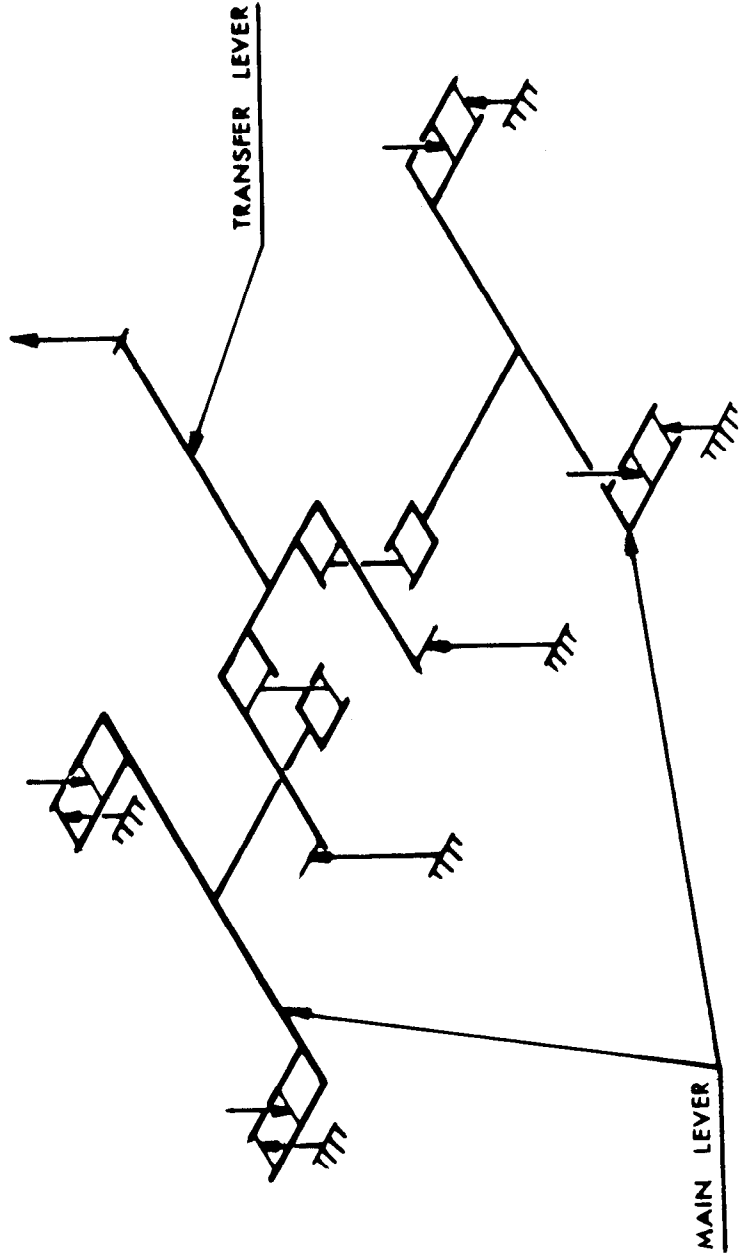


(b) Lever Fulcrum Suspension



(c) Lever Fulcrum Suspension

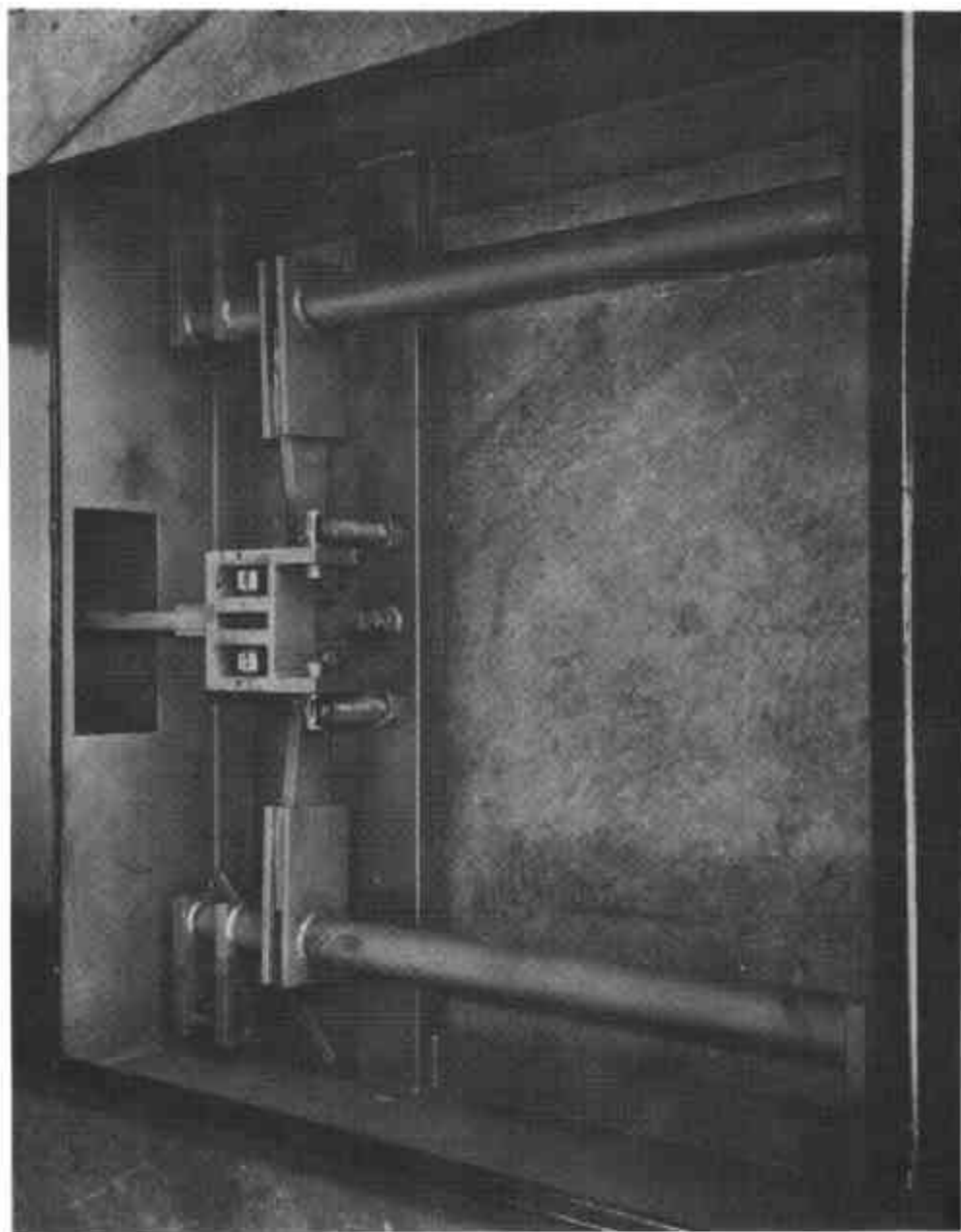
FIGURE 6/9A/4 - 8



6200-kg Capacity Three-level Basework — Schematic Diagram

12/5/77

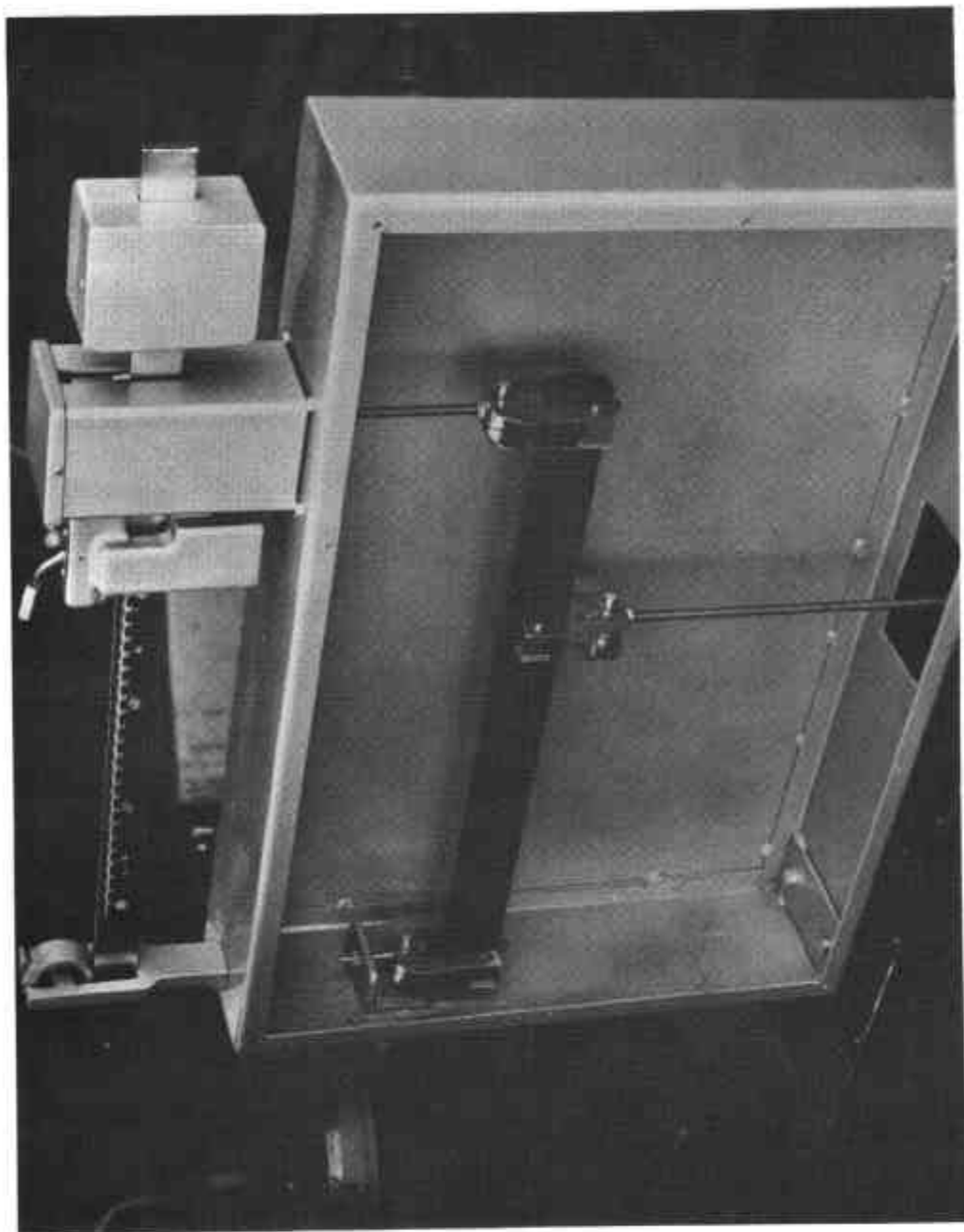
FIGURE 6/9A/4 - 9



6200-kg Capacity Three-lever Basework

12/5/77

FIGURE 6/9A/4 - 10



6200 - kg Capacity Headwork

12/5/77