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CERTIFICATE OF APPROVAL No 6/9C/38

VARIATION No 1

This is to certify that the following modifications of the patterns of the

Ultra Weighing Instrument with Busch Model 7001 Headwork

approved in Certificate No 6/9C/38 dated 4 July 1974

submitted by Ultra Scales Pty Ltd,  
33-35 Judge Street,  
Sunshine, Victoria, 3020,

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

Dates of Approval: 20 July 1976, 21 October 1976, and 18 August 1977

The approved modifications, described in Technical Schedule No 6/9C/38 - Variation No 1 and in drawings and specifications lodged with the Commission, provide for:

1. tare bars;
2. other Commission-approved baseworks;
3. a basework of capacity 5000 kg.

The approval is subject to review on or after 1 July 1979.

All instruments conforming to this approval shall be marked with the approval number "NSC No 6/9C/38".

Signed

  
Executive Officer



# NATIONAL STANDARDS COMMISSION

## TECHNICAL SCHEDULE No 6/9C/38

Pattern: Busch 7001 Weighing Instrument

Submittor: Ultra Scales Pty Ltd,  
33 Judge Street,  
Sunshine, Victoria, 3020.

Date of Approval: 4 July 1974

All instruments conforming to this approval shall be marked "NSC No 6/9C/38".

### Description:

The pattern (see Figure 1) is of a platform weighing instrument of up to 500-kg capacity, including tare, with an optically projected reading face (weight chart).

The headwork comprises:

1. Headwork cabinet (see Figures 1 and 2) fitted with a level indicator.
2. Double-pendulum-resistant mechanism (see Figures 2 and 3). One pendulum carries a transparent graticule marked with a maximum of 3000 graduations which are projected on to a ground-glass reading face. A pointer on the other pendulum passes over an undenominated scale.
3. Main headwork lever (see Figures 4 and 5). A zero-adjustment device comprising a string threaded through several small balls is connected between the end of the main lever and a take-up spool on the cabinet.
4. Taring device (see Figures 4 and 5). The poise is moved by a threaded shaft which is rotated through a series of universal joints by a handle on the side of the cabinet. The tare-reading face has a maximum of 400 graduations and is on the same side of the headwork as the weight-reading face.

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5. Intermediate lever(s) (see Figure 5) between the main headwork lever and the basework.

The basework (see Figures 6 and 7) is a two-lever system; the short lever connects to the long lever which in turn connects to the pullrod. The platform support (see Figure 8) is mounted on double ball-suspension units fitted with load bearings which bear on the lever load knife-edges. The maximum capacity of the basework is 500 kg. The basework frame is fitted with four adjustable levelling feet.

The approval includes:

1. The headwork with or without intermediate levers. The intermediate levers may be arranged as illustrated in Figures 9 and 10.
2. The headwork with or without the taring device. When no taring device is fitted the reading face may be on both sides of the headwork.



# NATIONAL STANDARDS COMMISSION

## TECHNICAL SCHEDULE No 6/9C/38

### VARIATION No 1

Pattern: Ultra Weighing Instrument with Buscn Model 7001  
Headwork

Submittor: Ultra Scales Pty Ltd,  
33-35 Judge Street,  
Sunshine, Victoria, 3020.

Dates of Approval of Variation: 20 July 1976, 21 October 1976,  
and 18 August 1977

The modifications described in this Schedule apply to the pattern described in Technical Schedule No 6/9C/38 dated 5 December 1974.

All instruments conforming to this approval shall be marked "NSC No 6/9C/38".

### Description:

The approved modifications provide for:

1. one or two graduated or ungraduated tare bars; the graduated tare bars have up to 200 graduations (see Figure 11), and are on the same side of the instrument as the weight reading face;
2. other Commission-approved baseworks replacing the basework described in the pattern, provided that -
  - (a) the basework is of an instrument conventionally known as a platform weighing machine, weighbridge or nopper scale, etc., where the headwork and basework are separate assemblies 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

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instruments which satisfy the following accuracy requirements and indication limits when tilted to a slope of 1 in 20:

Accuracy Requirements

- (i)  $\pm 0,5e$  for loads between zero and 500e inclusive;
- (ii)  $\pm 1e$  for loads between 500e exclusive and 2000e inclusive;
- (iii)  $\pm 1,5e$  for loads greater than 2000e;

Indication Limits

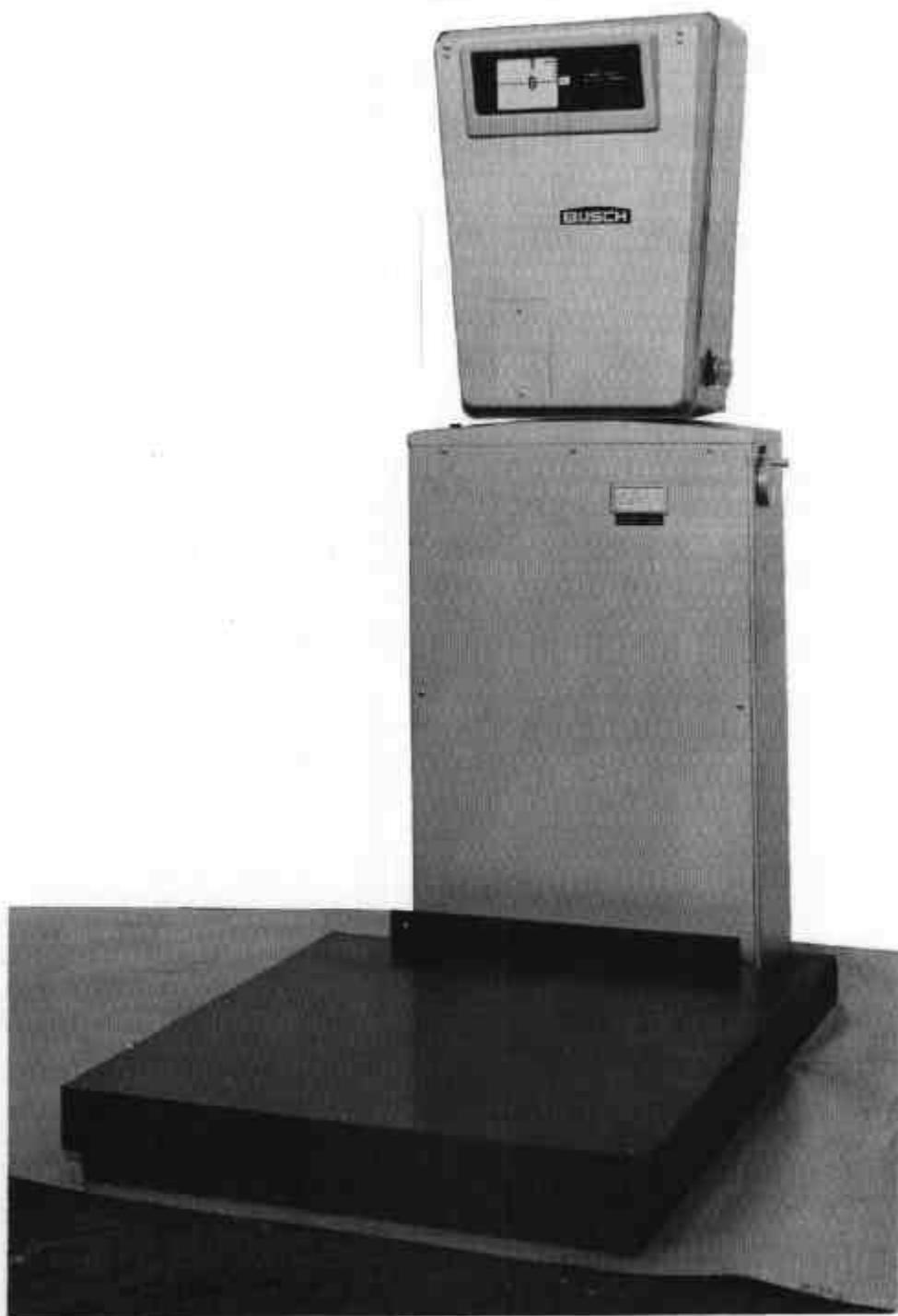
- (i) Tilting at no-load — the zero indication does not vary more than  $2e$  when tilted to a slope of 1 in 20, the zero being first adjusted in the reference (level) position; and
  - (ii) Tilting when loaded — the indication does not vary more than  $e$  when tilted to a slope of 1 in 20, the indication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

"Approval Numbers

Headwork NSC No 6/9C/38  
 Basework NSC No .....

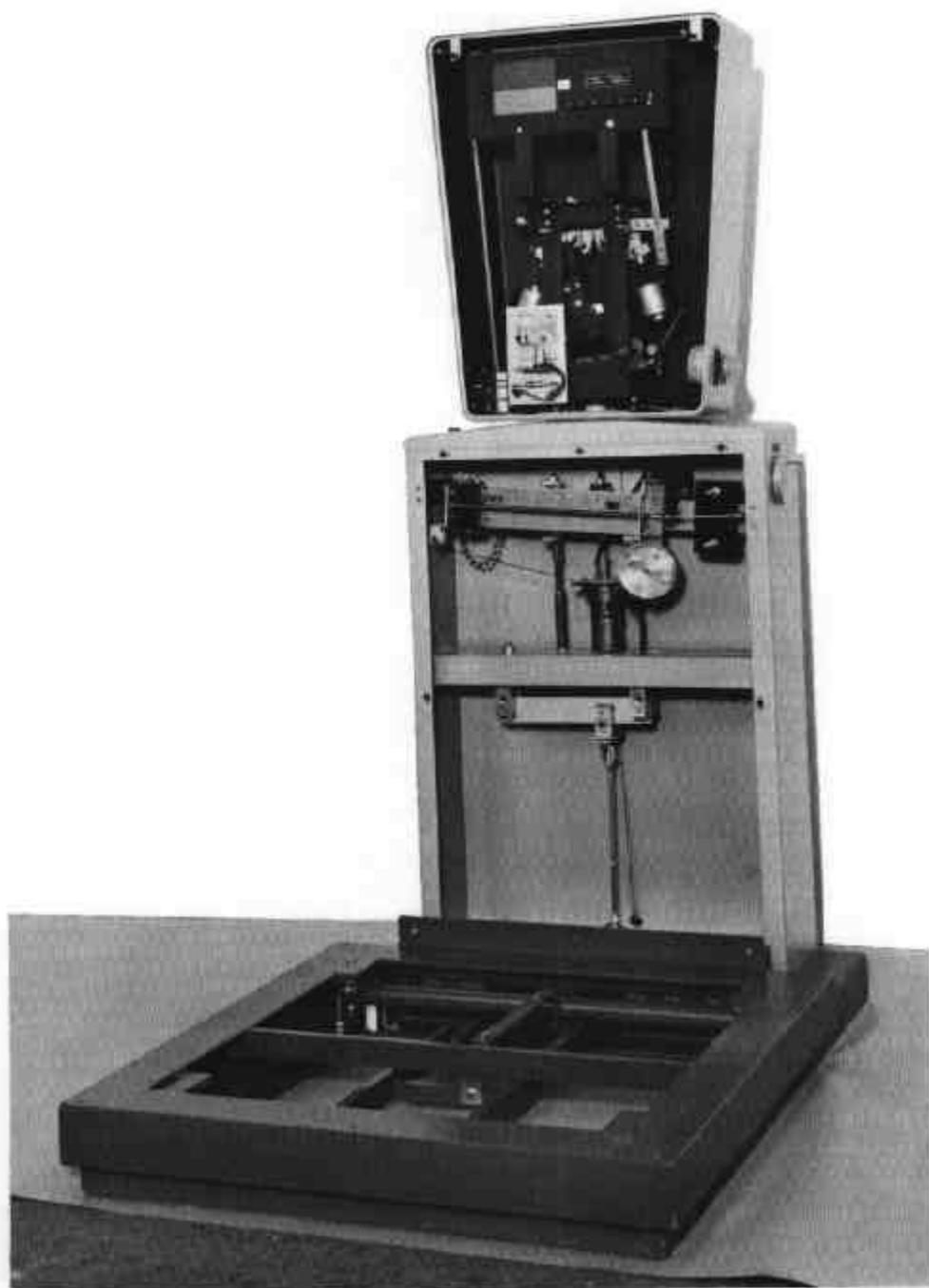
3. A two-lever basework of capacity up to 5000 kg (see Figure 12).

FIGURE 6/9C/38 - 1



Busch 7001 Weighing Instrument  
(Instrument illustrated has 0, 20-kg graduations)

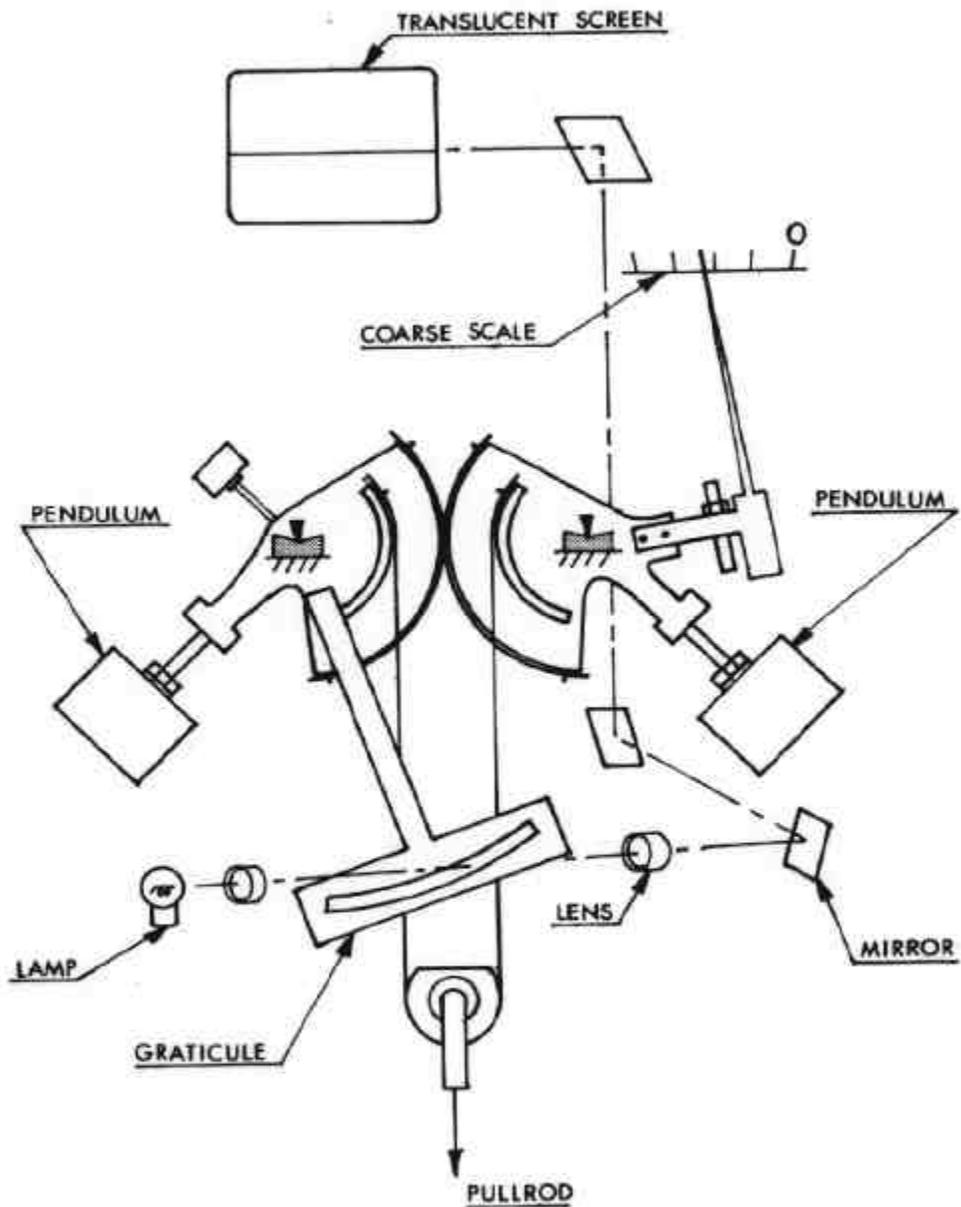
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Busch 7001 Weighing Instrument

5/12/74

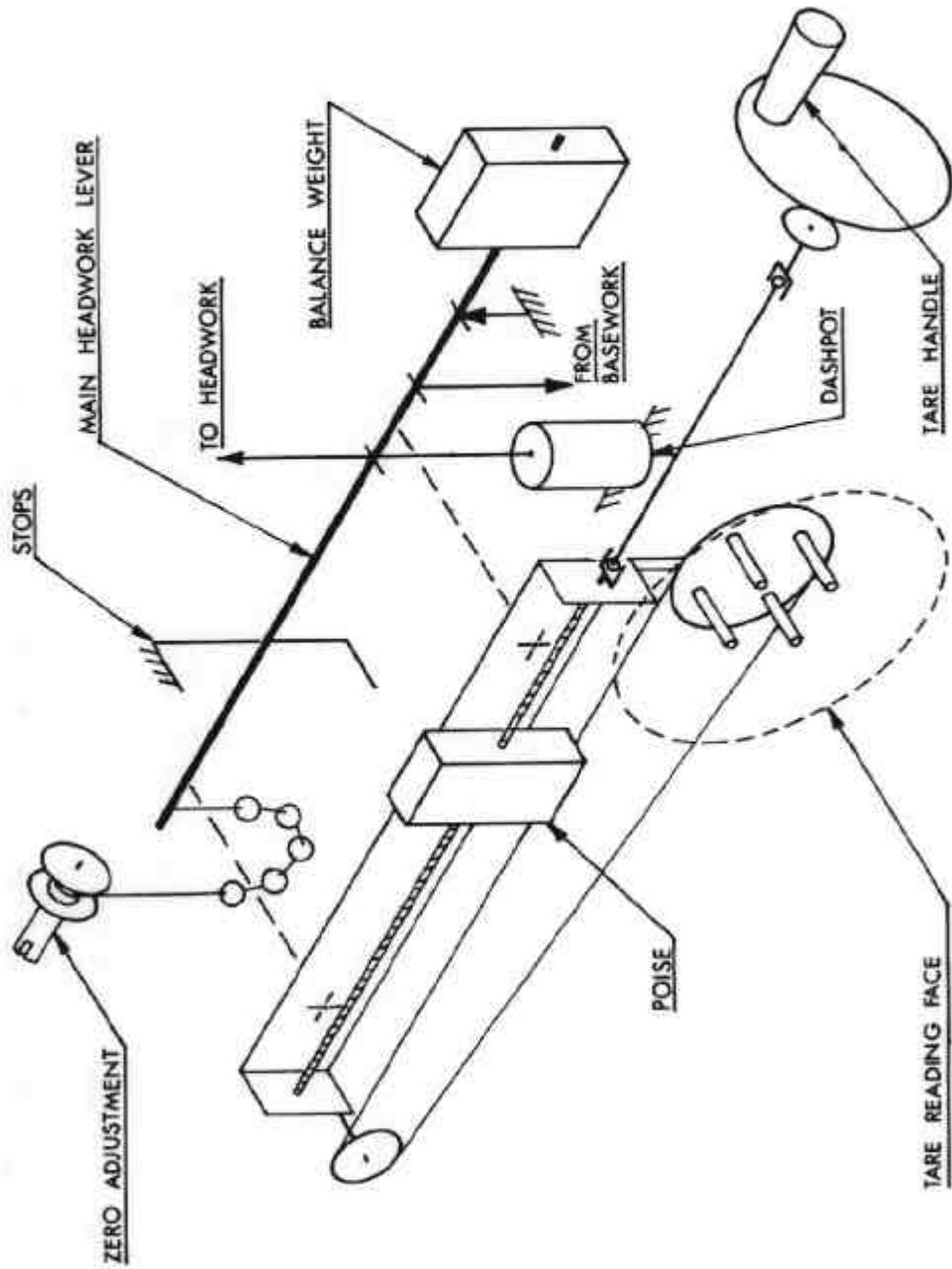
FIGURE 6/9C/38 - 3



Resistant-mechanism and Optical-projection System —  
Schematic Diagram

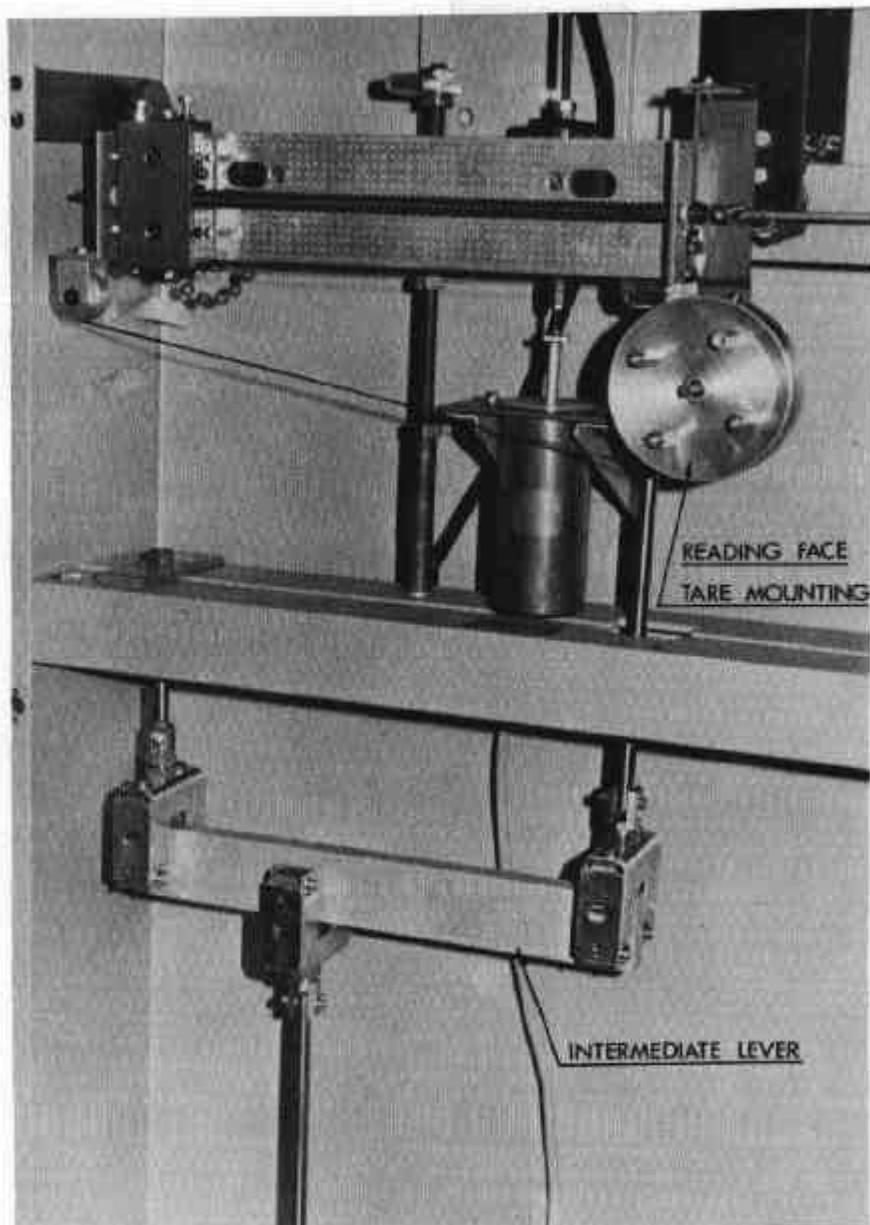
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FIGURE 6/9C/38 - 4



Taring Mechanism and Main Headwork Lever — Schematic Diagram

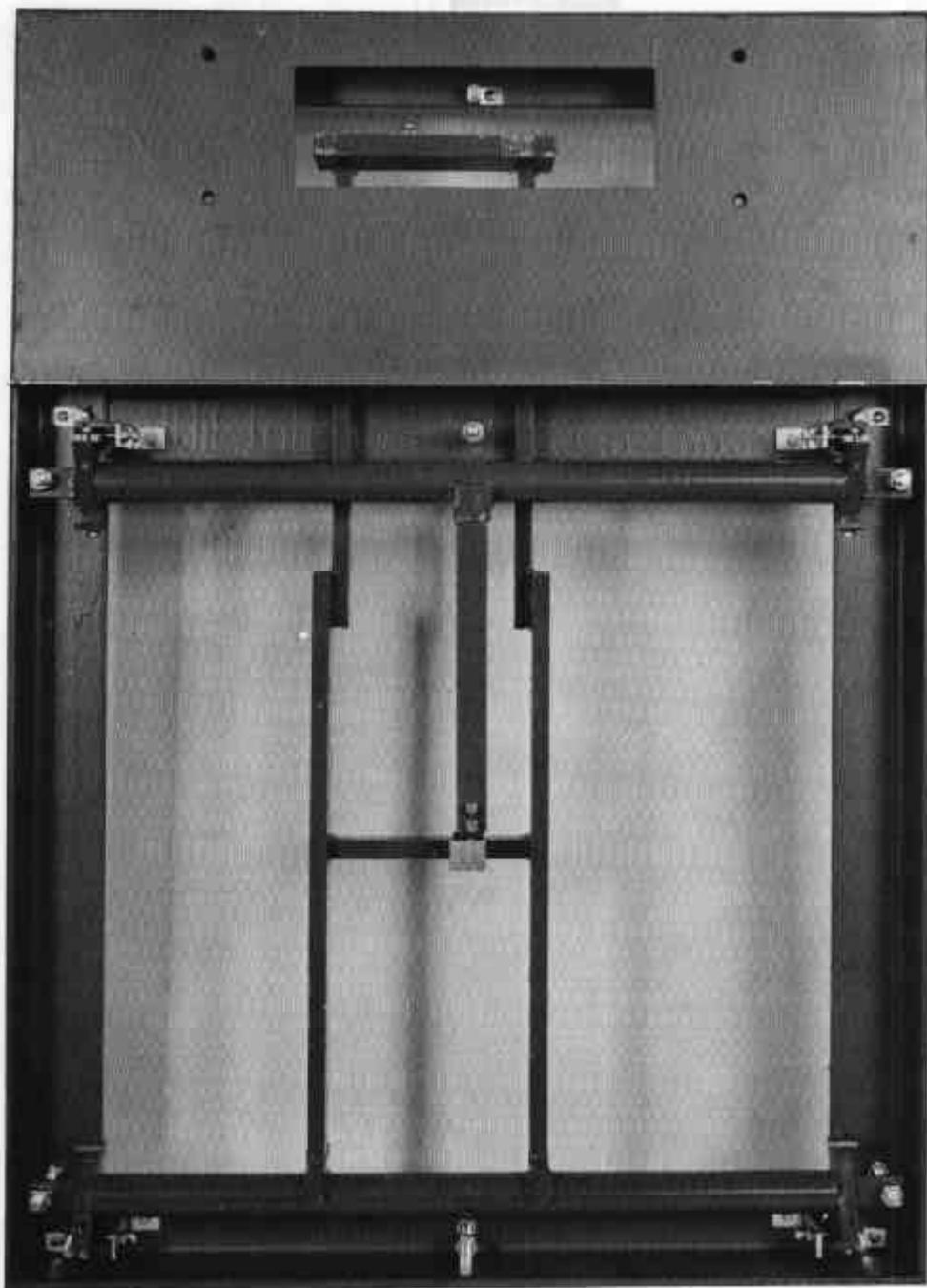
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Taring Mechanism, Main Headwork Lever and Intermediate  
Lever

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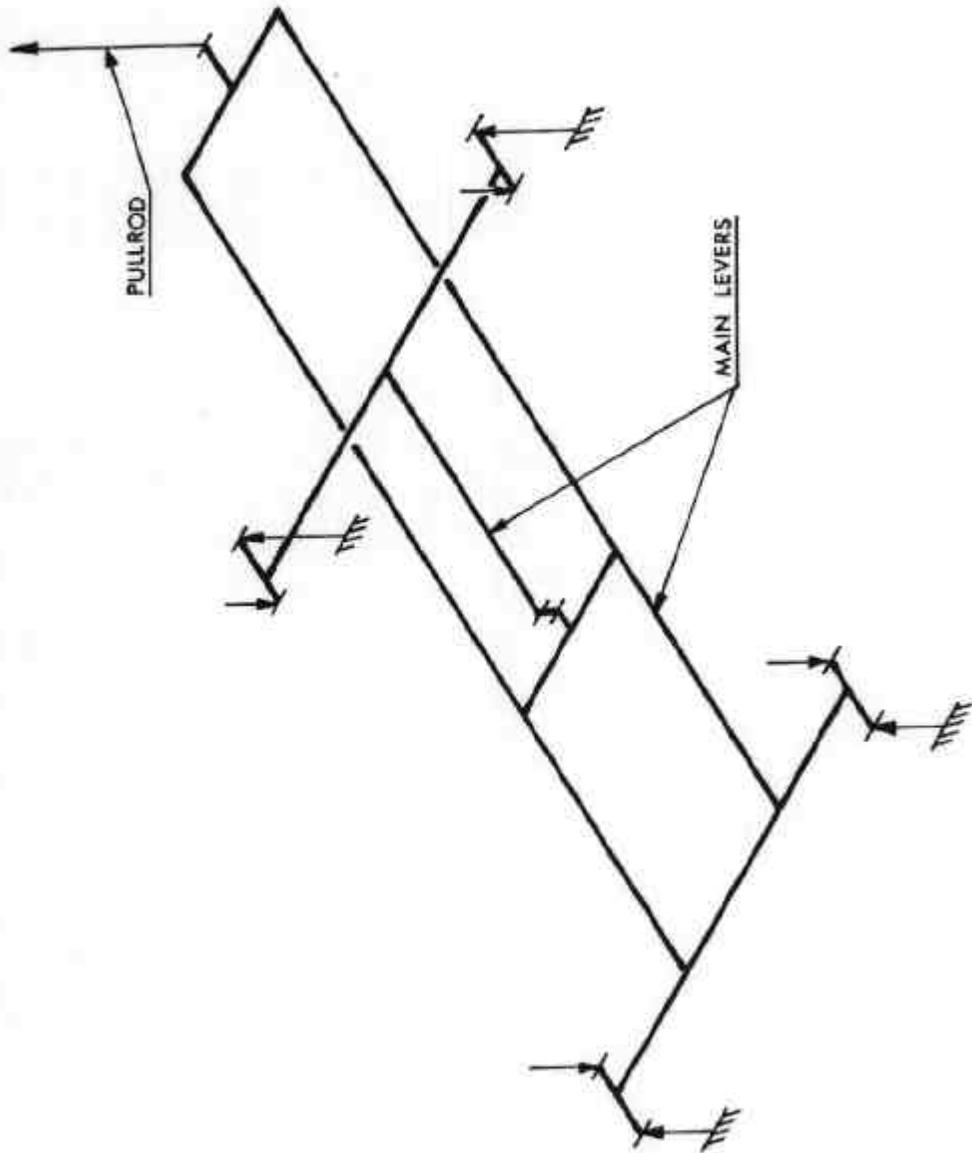
FIGURE 6/9C/38 - 6



Basework Lever System

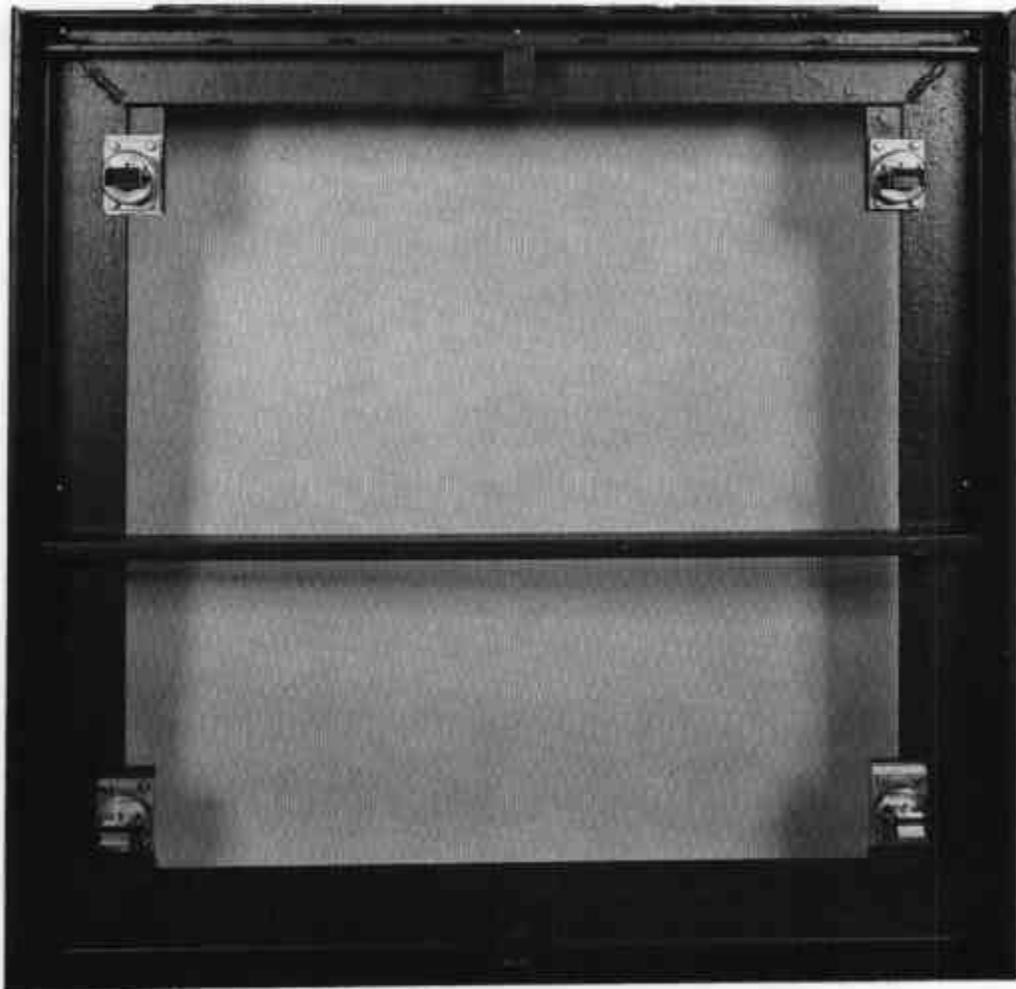
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FIGURE 6/9C/38 - 7



Basework Lever System - Schematic Diagram

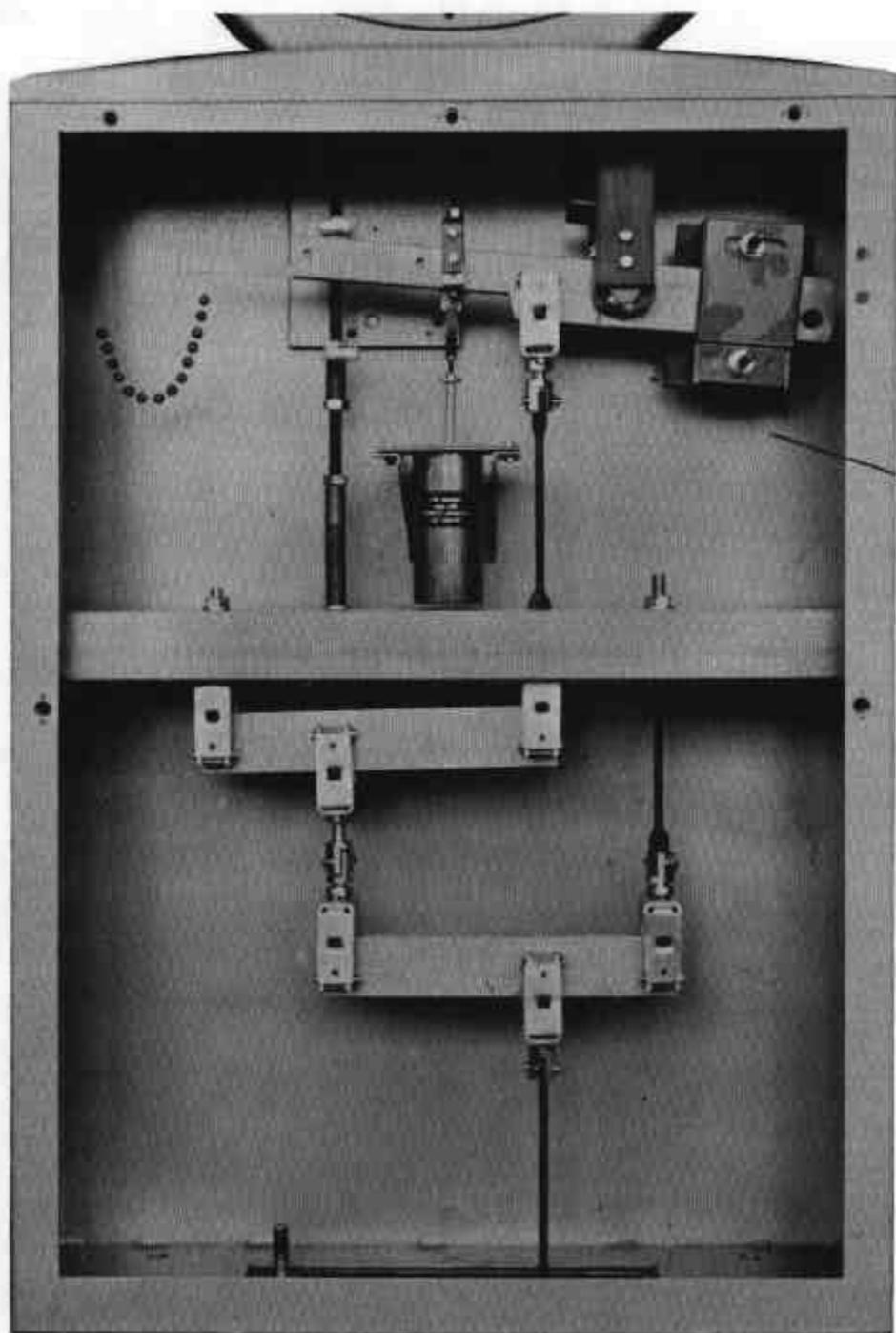
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Platform Support

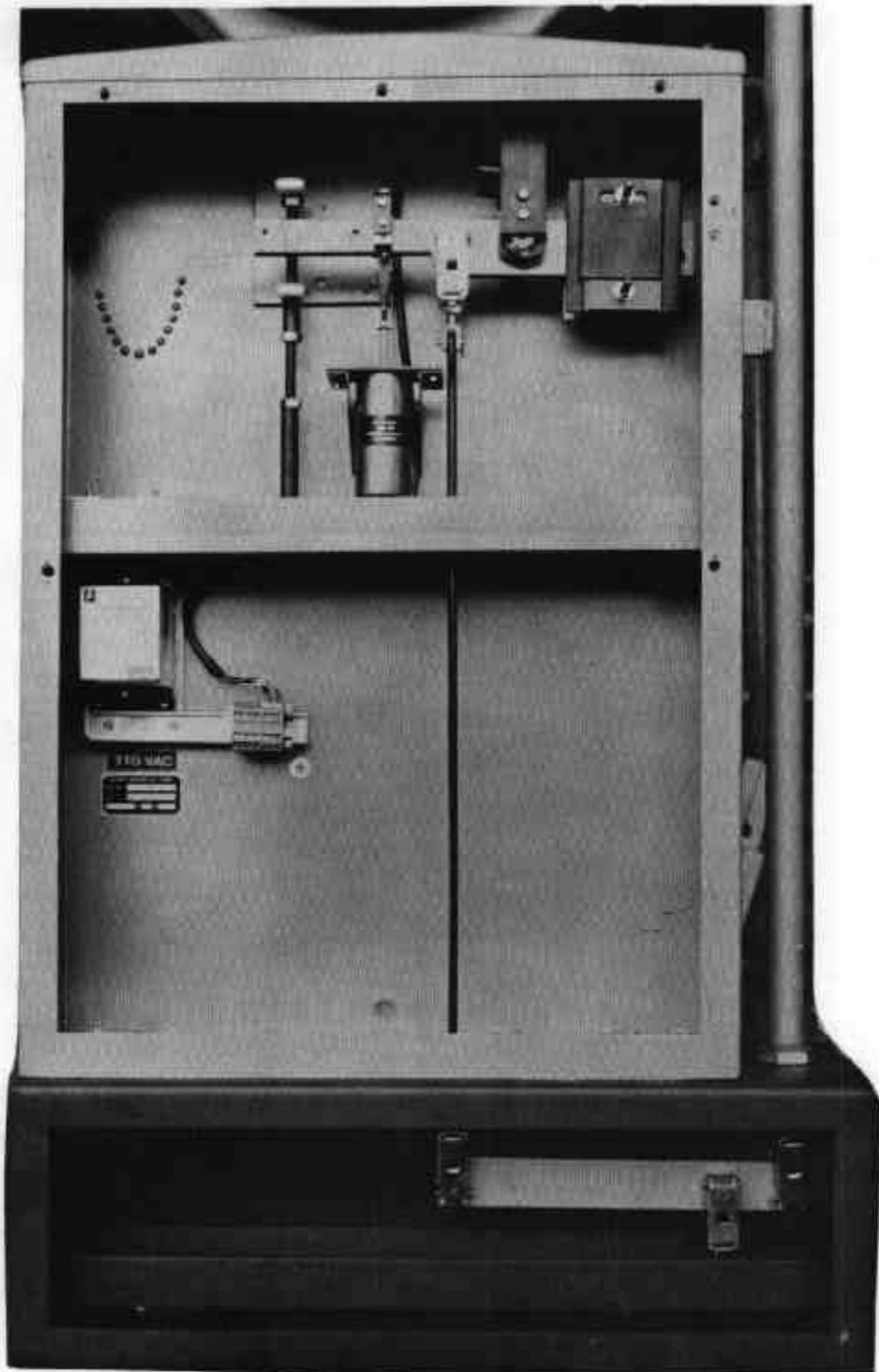
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FIGURE 6/9C/38 - 9



Lower Headwork with Two Intermediate Levers and  
without a Taring Device

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Lower Headwork with Intermediate Lever  
Arranged for Use with Overhead Load Receptor

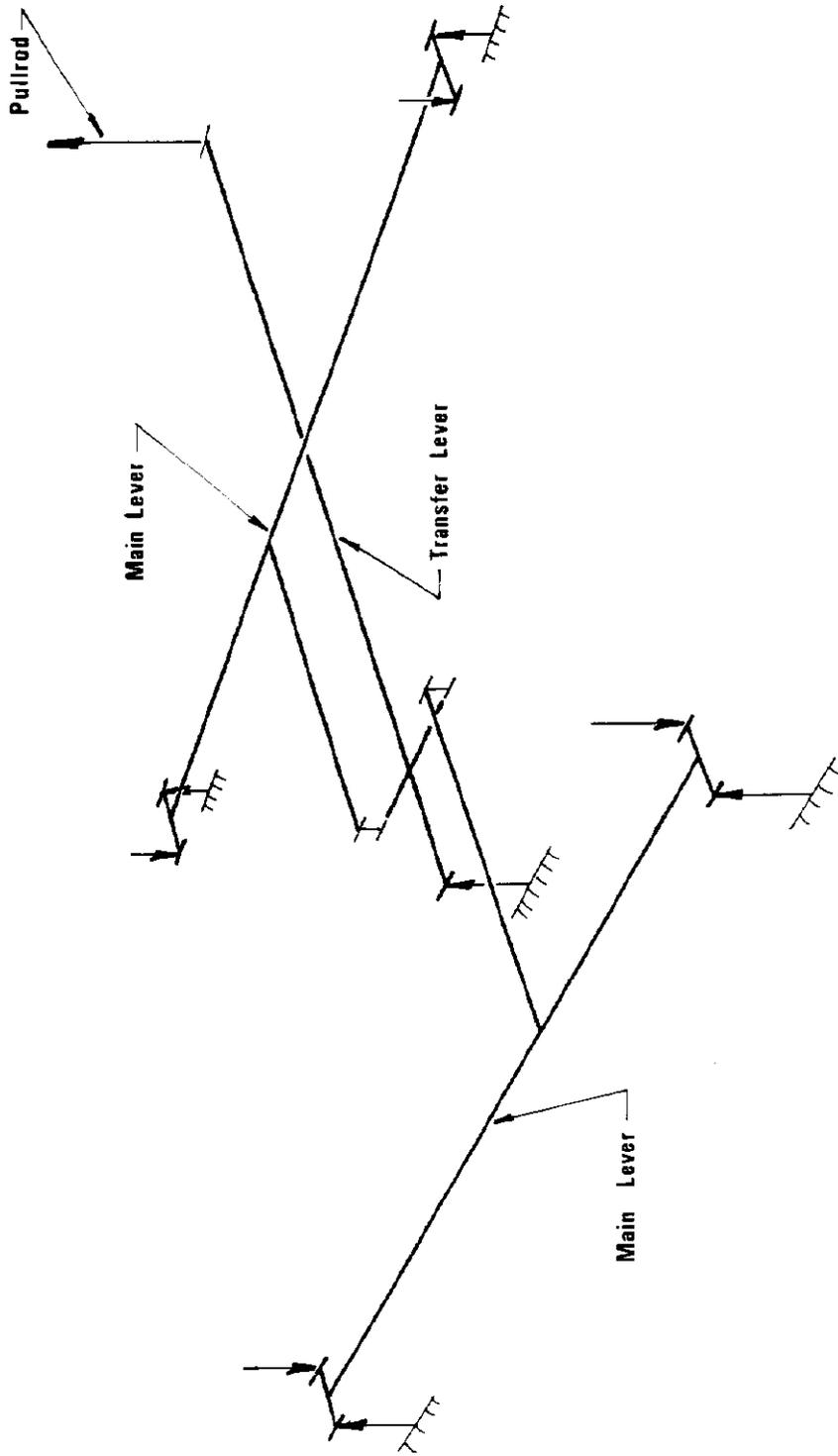
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Busch Model 7001 Headwork with Tare Bars

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FIGURE 6/9C/38 - 12



5000-kg Basework — Schematic Diagram

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