



# NATIONAL STANDARDS COMMISSION

## TECHNICAL SCHEDULE No 6/9C/60

Pattern Ultra Weighing Instrument Model 1011

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

Date of Approval: 7 March 1978

All instruments conforming to this approval shall be marked "NSC No 6/9C/60".

### Description:

The pattern is a self-indicating platform weighing instrument of maximum capacity (Max) between 10 kg and 60 kg (see Figures 1 and 2).

The headwork comprises:

1. Headwork cabinet\* fitted with a level indicator (Figure 1).
2. Spring-resistant mechanism (Figures 2 and 3) suspended from an adjustable beam at the top of the cabinet, allowing the zero adjuster to raise or lower the top of the resistant mechanism. A spring-loaded rack drives the indicator over a reading face marked with not less than 500 and not more than 600 scale intervals.

The reading face is marked, for example:

(III)

Max	=	60 kg
Min	=	5 kg
d = e =	=	0,1 kg

3. Hydraulic dashpot connected to the bottom of the resistant mechanism.

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\* NOTE: The upper headwork cabinet may be round, square, octagonal or other shape.

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4. Pullrod connecting the resistant mechanism to the basework.

The basework (Figures 4 and 5) is a two-lever system, suitable for loads up to 75 kg. The short lever connects to the long lever, which in turn connects to the headwork pullrod. The basework is supported by adjustable feet, and is fitted with a level indicator adjacent to which is a notice advising that the instrument must be level when in use.

The approval includes:

1. Mass reading faces on both sides of the headwork.
2. A long headwork cabinet of the form illustrated in Figure 6.
3. The headwork with a main lever, and with or without intermediate levers (Figure 6).
4. The intermediate levers arranged so that the headwork can be used with an overhead load receptor (Figure 7).
5. The headwork with a graduated taring device (Figures 8 and 9). 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 scale intervals and is on the same side of the headwork as the mass reading face.
6. The headwork with one or two graduated or ungraduated tare bars. The graduated tare bars have up to 200 graduations each, and are on the same side of the instrument as the mass reading face (Figure 10).
7. The baseworks of other Commission-approved patterns 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 hopper scale, etc., where the headwork and basework are separate assemblies connected by a mechanical linkage; and
  - (b) the capacity of the instrument is not more than the capacity approved for the basework; and
  - (c) additional transfer levers may be used; and
  - (d) a levelling device and a level indicator are fitted, except for instruments installed in a fixed position or

instruments which satisfy the accuracy requirements and tilt tests specified in Test Procedures when tilted to a slope of 1 in 20 in a longitudinal direction and a transverse direction; and

- (e) 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 will not change by more than two scale intervals, and when zero is reset in the tilted position the instrument will satisfy the accuracy requirements; and
- (f) the instrument is marked with the following approval numbers:

"Headwork NSC No 6/9C/60  
Basework NSC No ....."

#### Test Procedures:

##### 1. Tilt tests for other baseworks

- (a) Tilting at no-load — the zero indication should not vary more than  $2e$  when tilted to a slope of 1 in 20, the zero being first adjusted in the reference (level) position.
- (b) Tilting when loaded — the indication should 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.

##### 2. Accuracy requirements

The maximum permissible error is:

$\pm 0,5e$  for loads between zero and  $500e$  inclusive; and  
 $\pm 1e$  for loads between  $501e$  and  $600e$ .

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NOTE: A non-contact sensing device (photo-cells, proximity switch, etc.) to control peripheral equipment may be fitted. If the device is able to be "turned off" a check should be made that the indication does not change when the device is turned off.



# NATIONAL STANDARDS COMMISSION

CANCELLED

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/9C/60

CHANGE No 1

The description of the

Ultra Weighing Instrument Model 1011

given in Technical Schedule No 6/9C/60 is altered by replacing Figure 10 with the attached figure.

Note: The tare bars may be graduated, or ungraduated.  
The style of graduations, as well as the capacity marking,  
is incorrect on the published figure.

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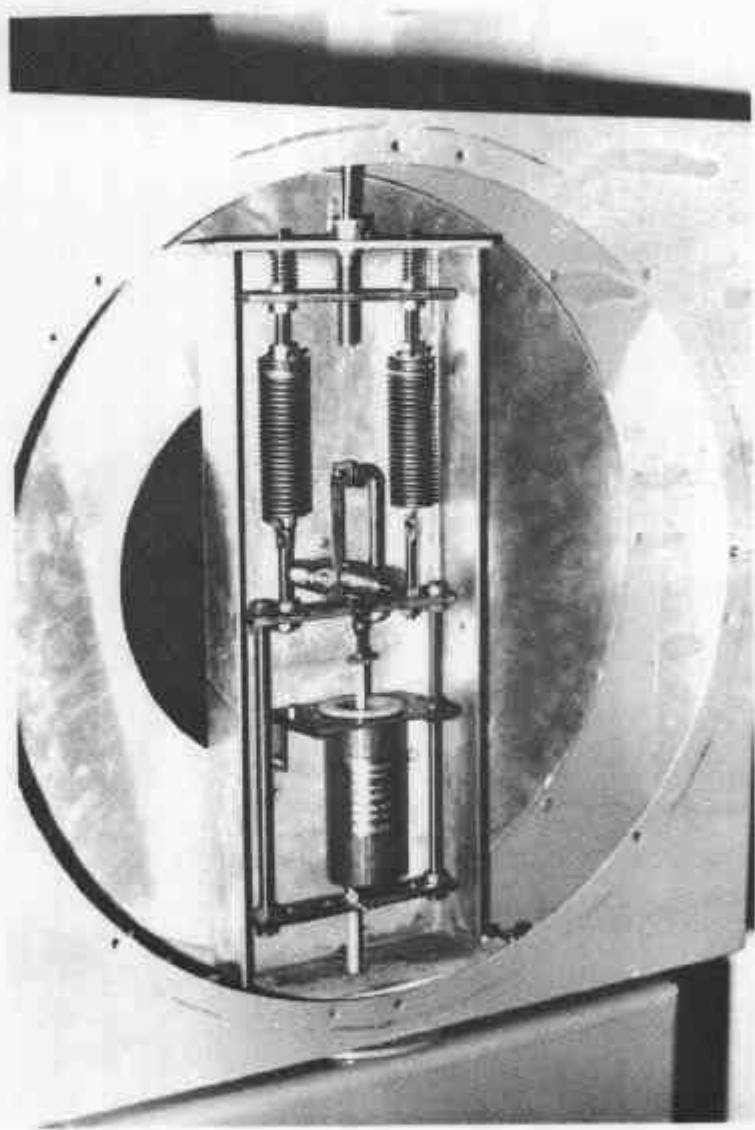
FIGURE 6/9C/60 - 1



Ultra Weighing Instrument Model 1011

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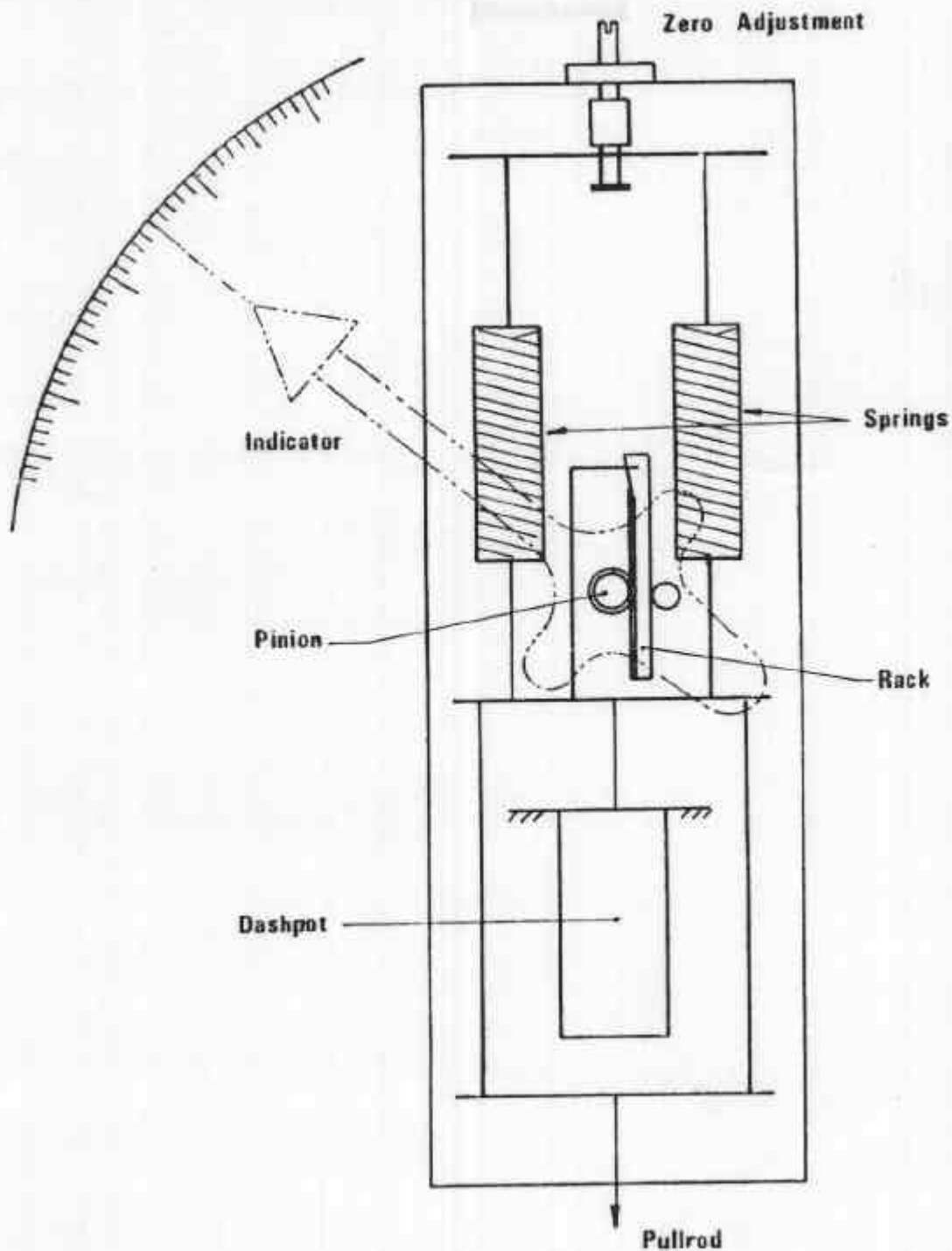
FIGURE 6/9C/60 - 2



Spring-resistant mechanism

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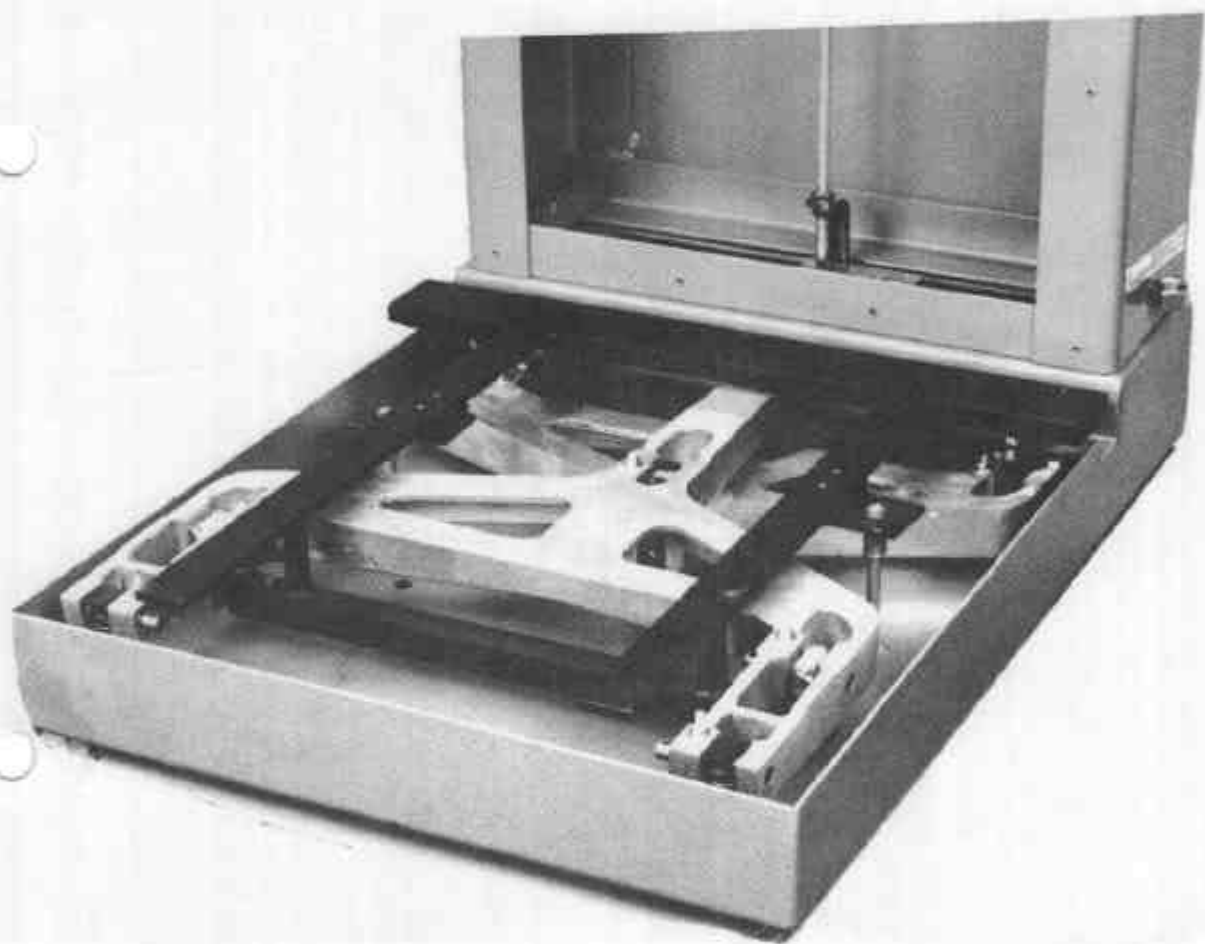
FIGURE 6/9C/60 - 3



Spring-resistant Mechanism — Schematic Diagram

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FIGURE 6/9C/60 - 4

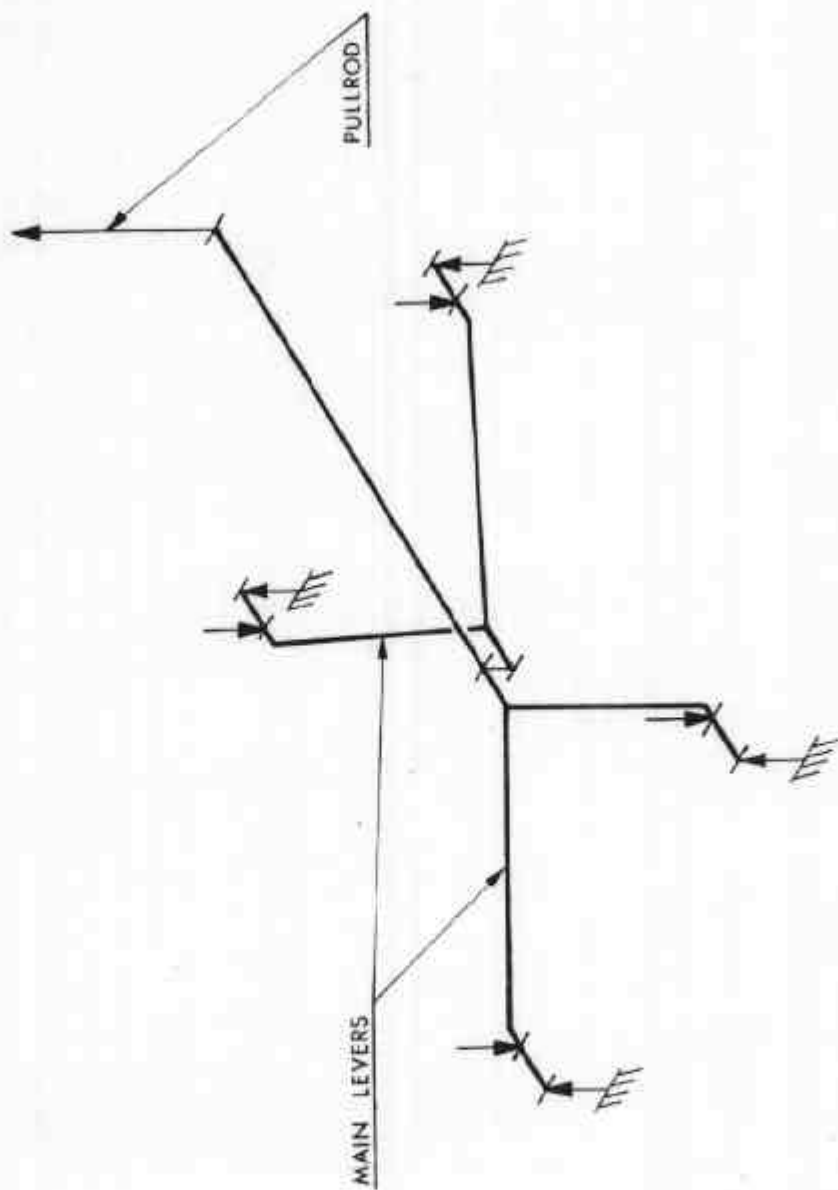


Basewórk

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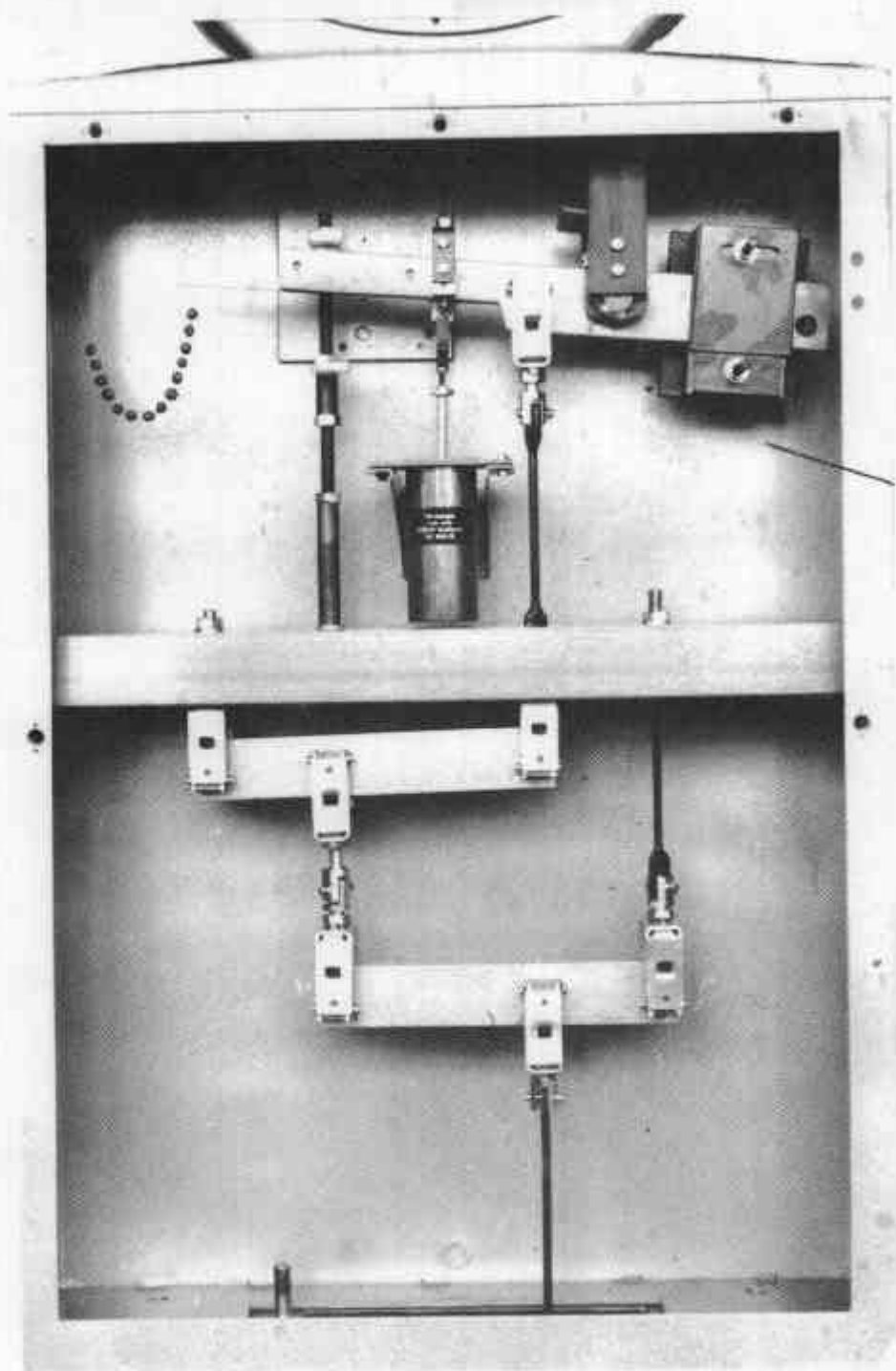


FIGURE 6/9C/60 - 5



Basework - Schematic Diagram

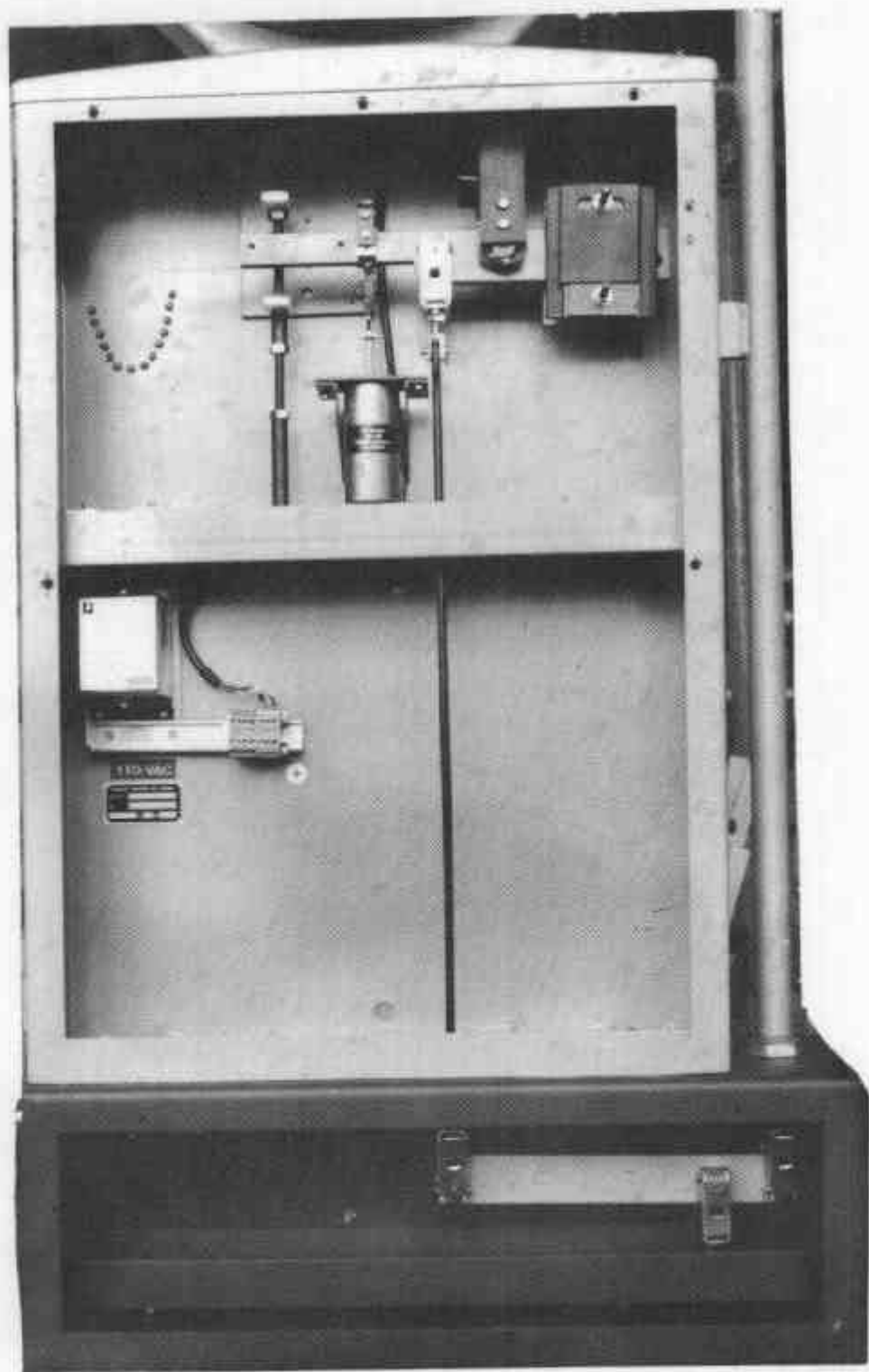
FIGURE 6/9C/60 - 6



Lower Headwork with Long Cabinet, Main and Intermediate Levers.

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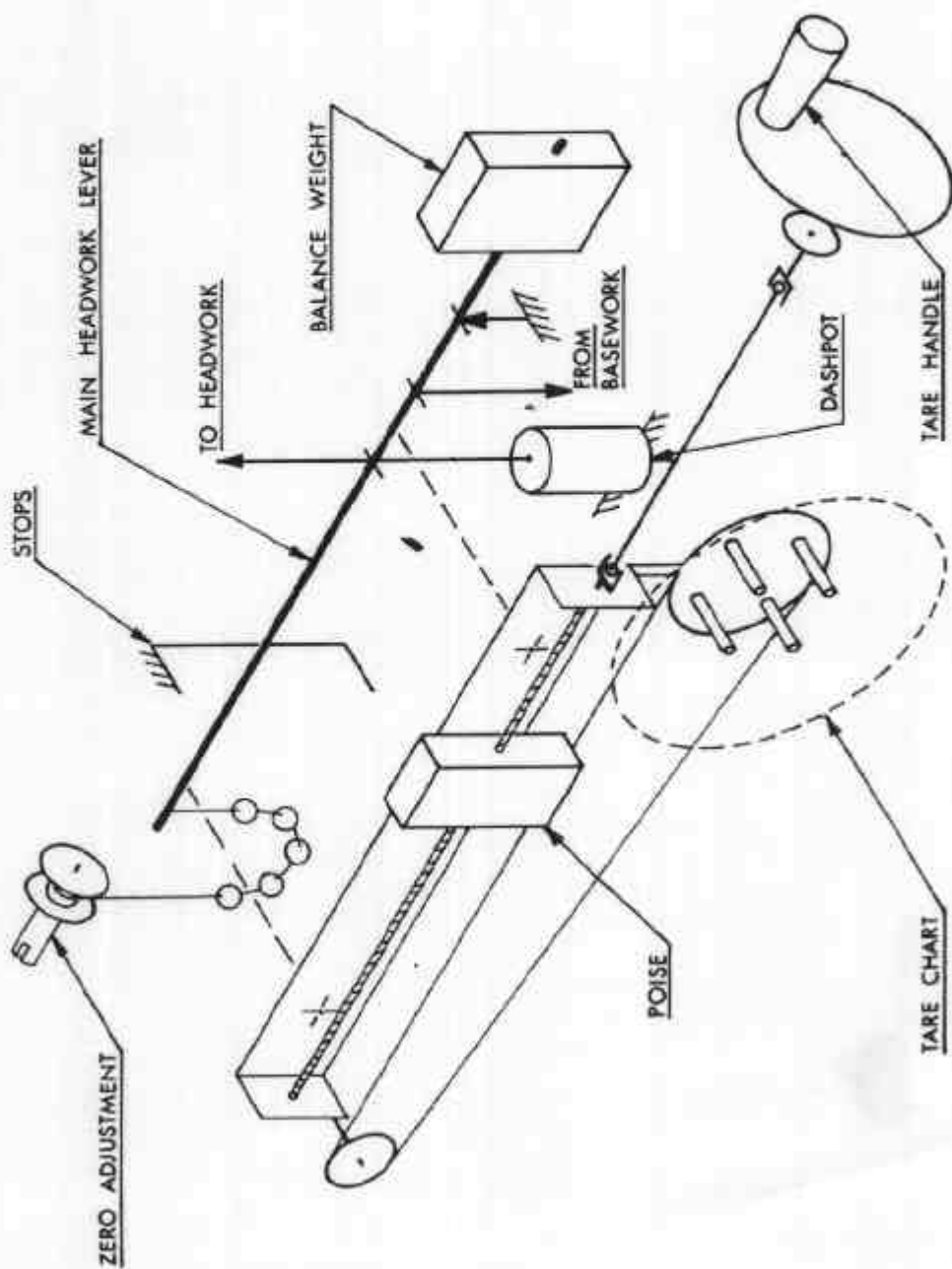
FIGURE 6/9C/60 - 7



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

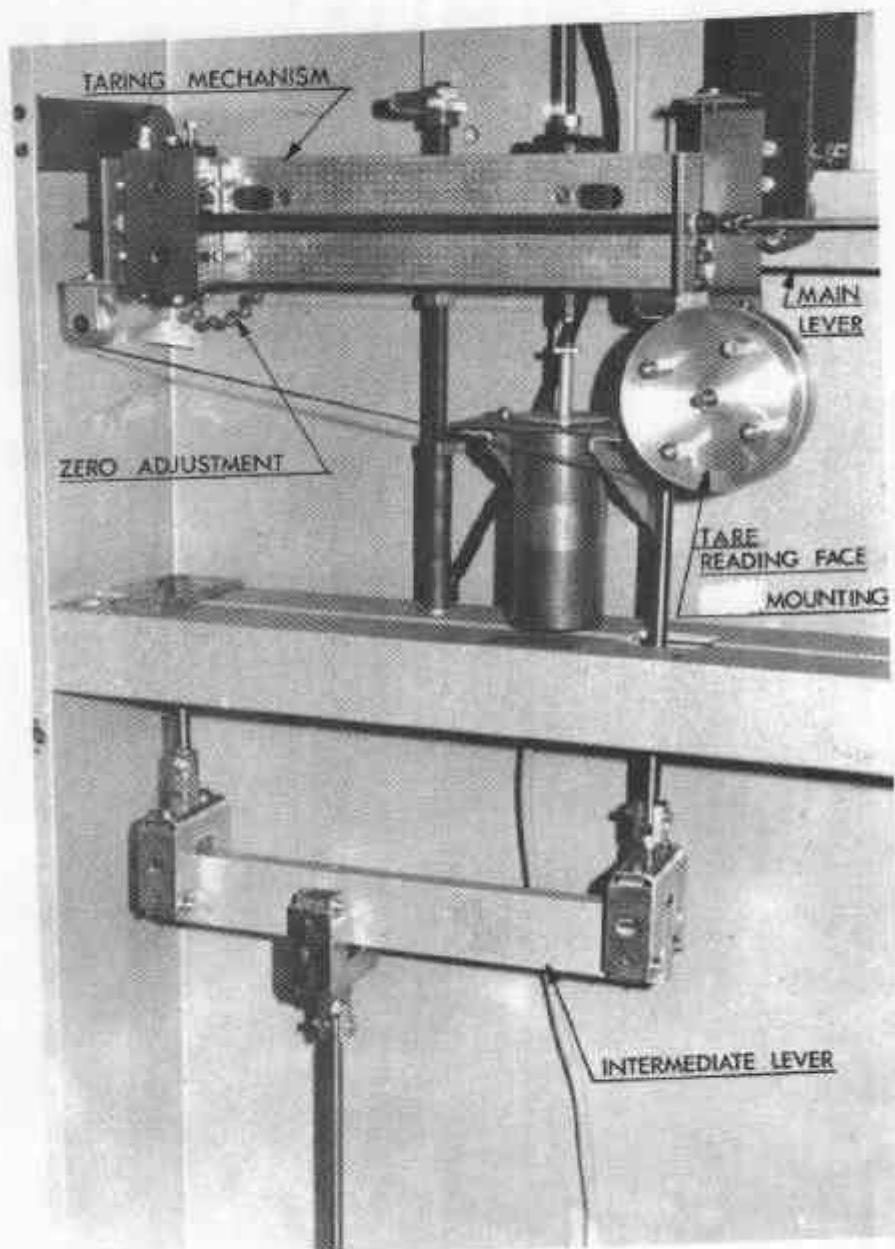
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FIGURE 6/9C/60 - 8



Taring Mechanism and Main Headwork Lever — Schematic Diagram

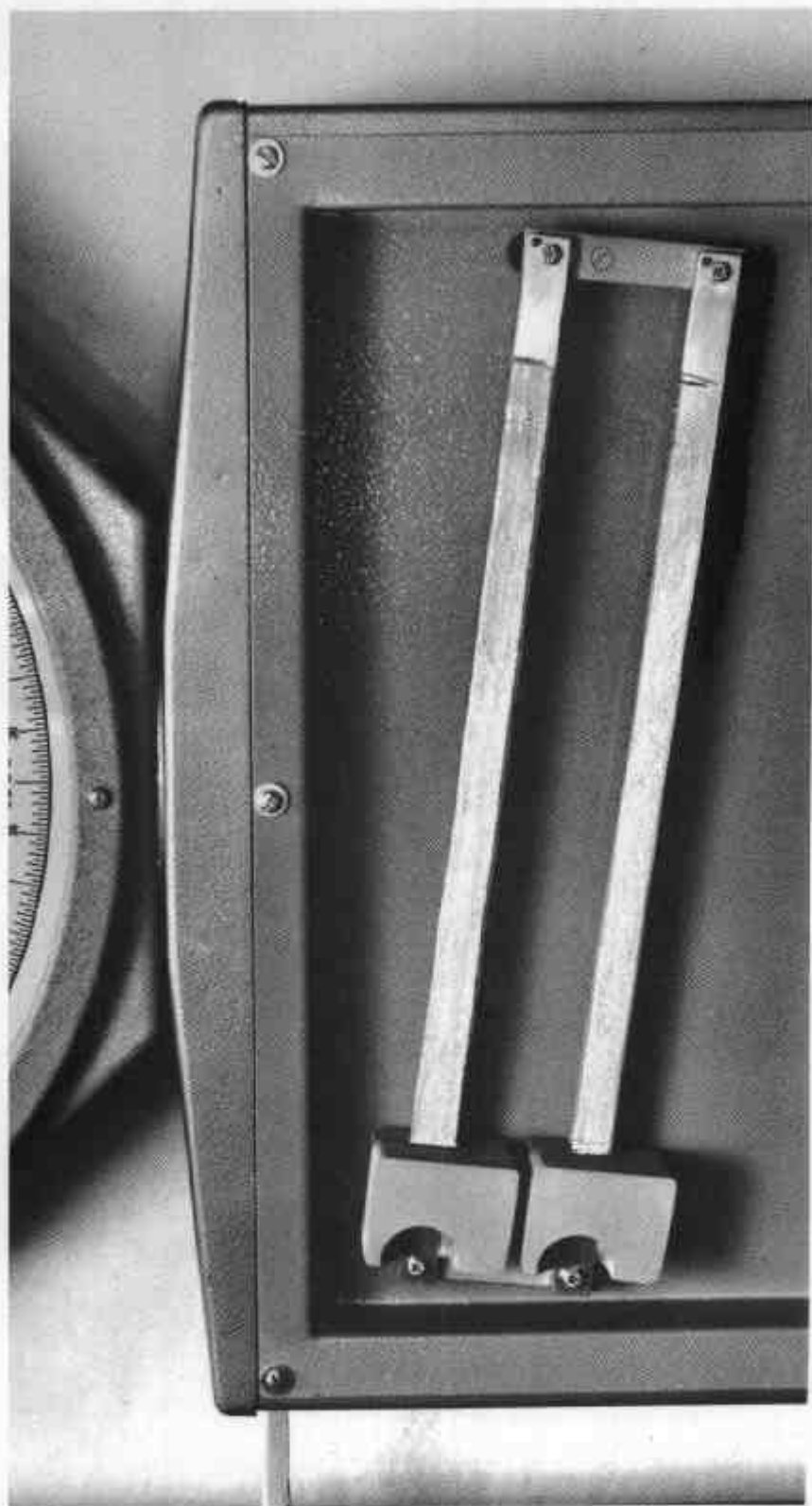
FIGURE 6/9C/60 - 9



Taring Mechanism, Main Headwork Lever and Intermediate Lever.

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FIGURE 6/9C/60 - 10



Non-graduated Tare Bars

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(Replacement page dated 22/6/79)