CANCELLED

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/3

This Certificate replaces Certificate No 6/10A/3 dated 12 May 1970. *

In respect of the pattern of

Toledo Non-self-indicating Weighing Instrument of 21-ton Capacity and Variants.

Submitted and manufactured by:

Toledo-Berkel Pty Ltd,
525 Graham Street,
Port Melbourne,
Victoria. 3207.

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 some variants were approved on 23 July 1968, and further variants were approved on 30 July 1973 (see Figure 12).

Approval was withdrawn for one variant on 6 May 1970 (see Figure 12).

The pattern and variants:

1. are marked "NSC No 6/10A/3" and, where required by State

* NOTE: Figures 6/10A/3 - 1 to 8 of the previous issue form part of the Certificate and must be retained.

Cont'd over

legislation, with the State approval number also; and

2. comply with the General Specifications for Measuring Instruments to be Used for Trade in respect of those parts which were not previously approved by a State.

This Certificate comprises:

Pages 1 to 4 dated 16 August 1973.
Figures 6/10A/3 - 1 to 8 dated 12 May 1970.
Figures 6/10A/3 - 9 to 12 dated 16 August 1973.

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

Date of issue 16 August 1973.

Signed

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

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DESCRIPTION OF PATTERN

The pattern (see Figure 1) is of a non-self-indicating weighing instrument of 21-tons capacity. It comprises a two-section basework connected to a steelyard resistant through an intermediate lever, as tabulated in Figure 12.

The steelyard comprises a major poise and scale graduated to 20 tons x 1 ton and a minor poise and scale graduated to 1 ton x 14 lb.

DESCRIPTION OF VARIANTS

The columns marked "Variants" in Figure 12 tabulate the combinations of components which make up variants of the pattern, the capacities of which are limited by the capacities of the lever systems described.

DESCRIPTION OF COMPONENTS

1. Two-section lever system (see Figures 3, 4 and 5) — the load receptor is supported on the load knife-edges of two pairs of second-order main levers by means of a parallel-link suspension. The fulcrum stands, on which the main levers pivot, have fixed bearings. The nose-end knife-edges of the main levers are coupled to the load knife-edges of two longitudinal levers through links fitted with self-aligning bearings. The longitudinal levers are similar in design to the main levers except for the nose-end knife-edges, which are adjustable. The longitudinal levers connect with a single transverse lever of similar design which is connected by a vertical pullrod to the headwork. All levers are fitted with self-gauging knife-edges which are locked in position by force-fit serrated keys.

   The capacity is limited to 32 tonnes.

2. Four-section lever system — the lever system is similar to that described in Component 1 except that there are four pairs of main levers and four longitudinal levers. The capacity is limited to 76 tonnes.

3. Transfer levers — one or more additional fully protected transfer levers connect the basework and headwork.

4. Load-receptor stays (see Figures 9 and 10) — the load receptor is fitted with one longitudinal and two transverse flexible stays which restrict its motion to the vertical direction. The stays are bolted to fixed brackets.

5. Basework of State* or Commission-approved pattern.

6. Pullrod rubber shock absorber (see Figure 11) — the headwork pullrod is fitted with a rubber block mounted between two plates to reduce vibration transmitted from the load receptor to the headwork.

†7. Epex coin-operated unit — an Epex Model 666-75 coin-operated unit, described in Certificate No 5/6A/19, controls the power supply to the optional indicator and ticket-printing devices included in Component 9.

8. Non-self-indicating headwork (see Figures 6, 7 and 8) — the headwork consists of a full-capacity steelyard with major and minor poises. The major poise is set in notches with a notch-protection bar mounted on the back of the steelyard. The minor poise is continuously adjustable on a scale and is locked in position by means of a knurled thumb screw.

   The pullrod from the basework is connected directly to the steelyard or through up to three intermediate levers located in the headwork cabinet. Details of the load and fulcrum knife-edges of the steelyard are shown in Figure 8.

9. Self-indicating headwork — comprises the pendulum-resistant mechanism and any one of the forms of indicators, ticket printers, cabinets, unit-weight mechanisms and other headwork components as described in Certificate No 6/9C/2.

GENERAL NOTES

This Certificate has been re-arranged and now includes a compatibility table. The unit weights, tare bars and photo-electric switches have been included in the component describing the self-indicating headwork.

* Approved pursuant to regulation 12.

† Approval withdrawn 6 May 1970.

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Notice of approval of the self-indicating headwork and the unit-weight system approved in Certificate No 6/9C/2, referred to in variants 3 and 4, was given in Memorandum of Approval No 48 dated 8th December, 1966.

Notice of approval of the coin-operated unit approved in Certificate No 5/6A/19, referred to in variant 8, was given in Memorandum of Approval No 35 dated 17th November, 1966.

FIGURE 6/10A/3 - 1

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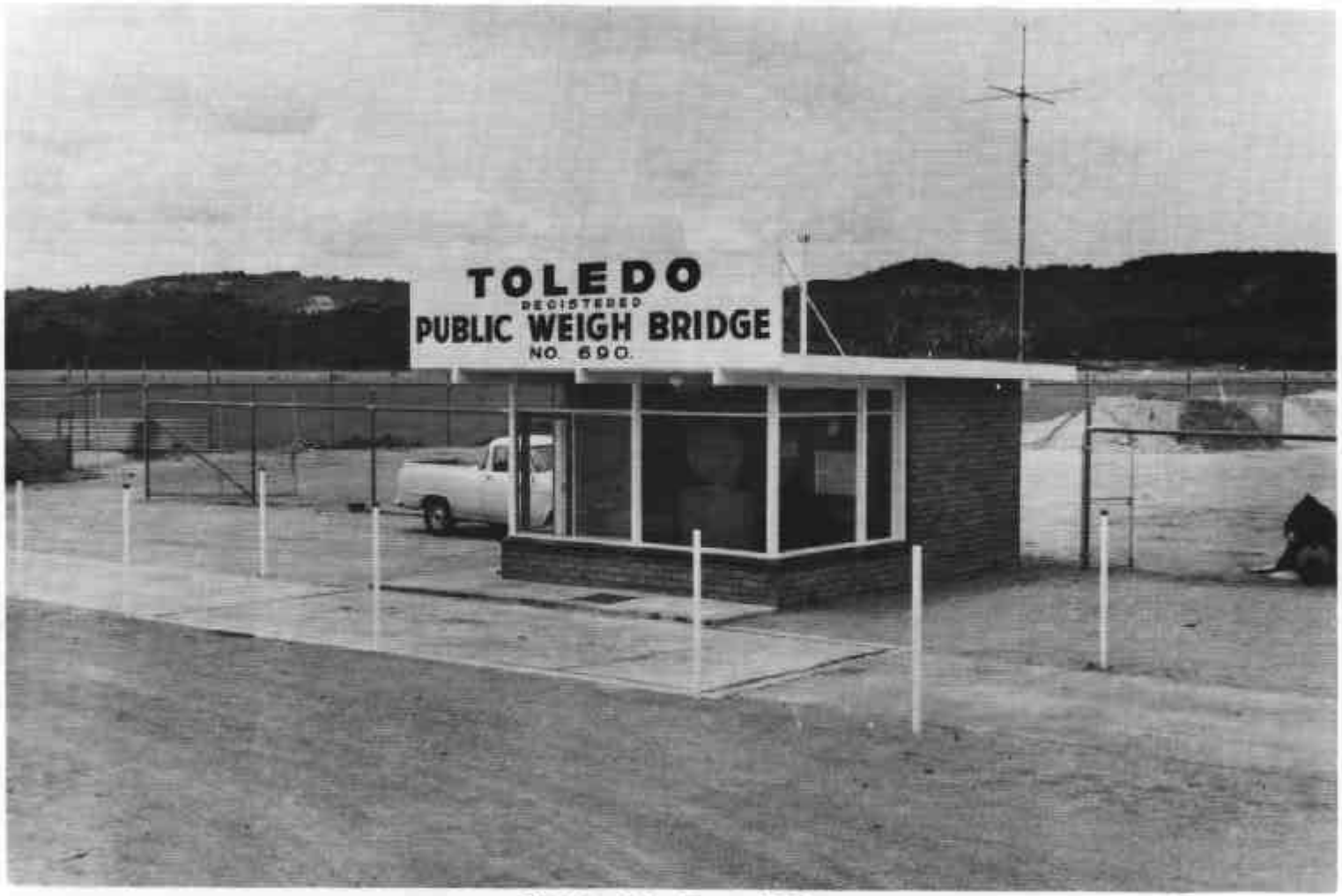
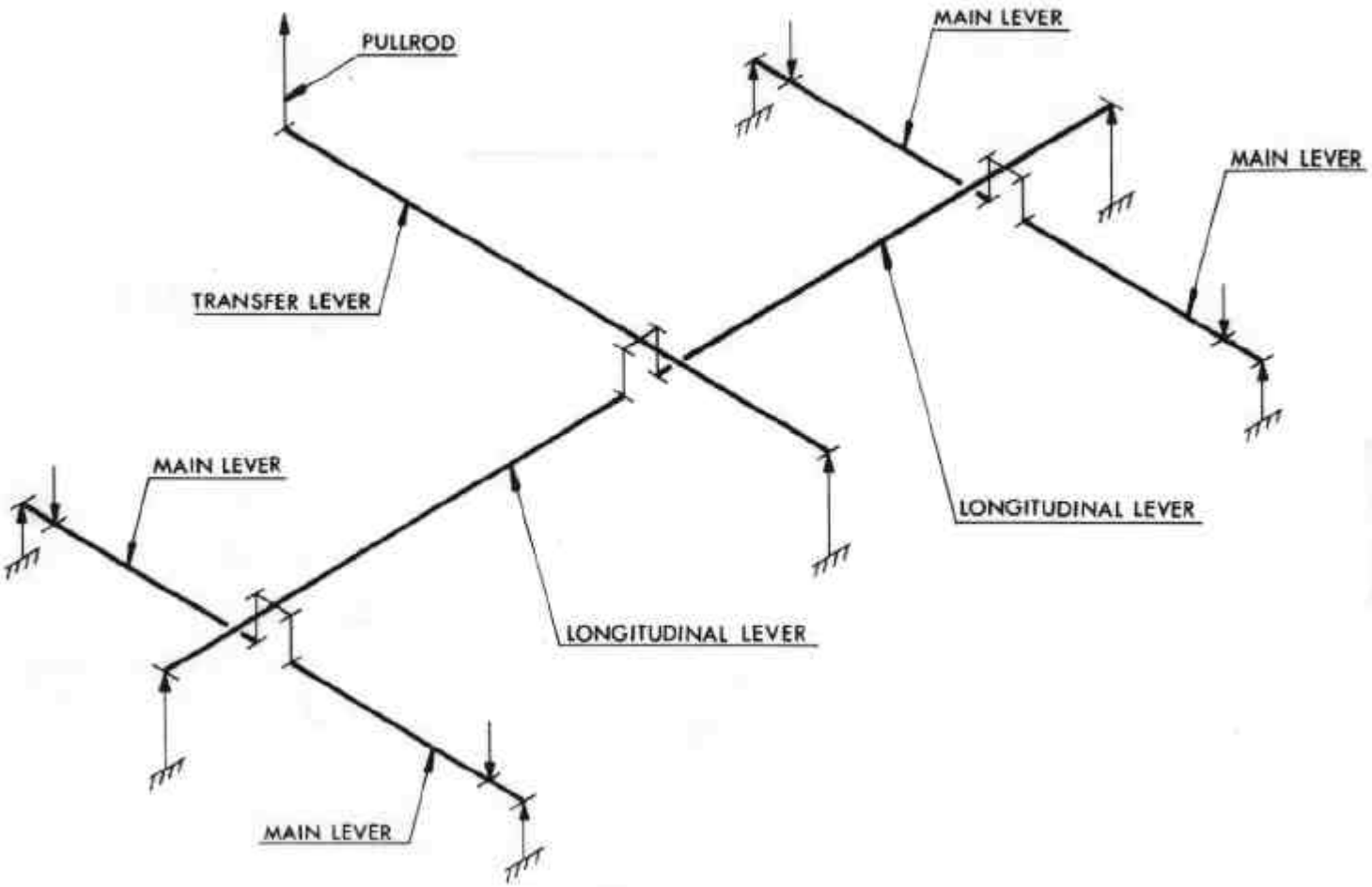


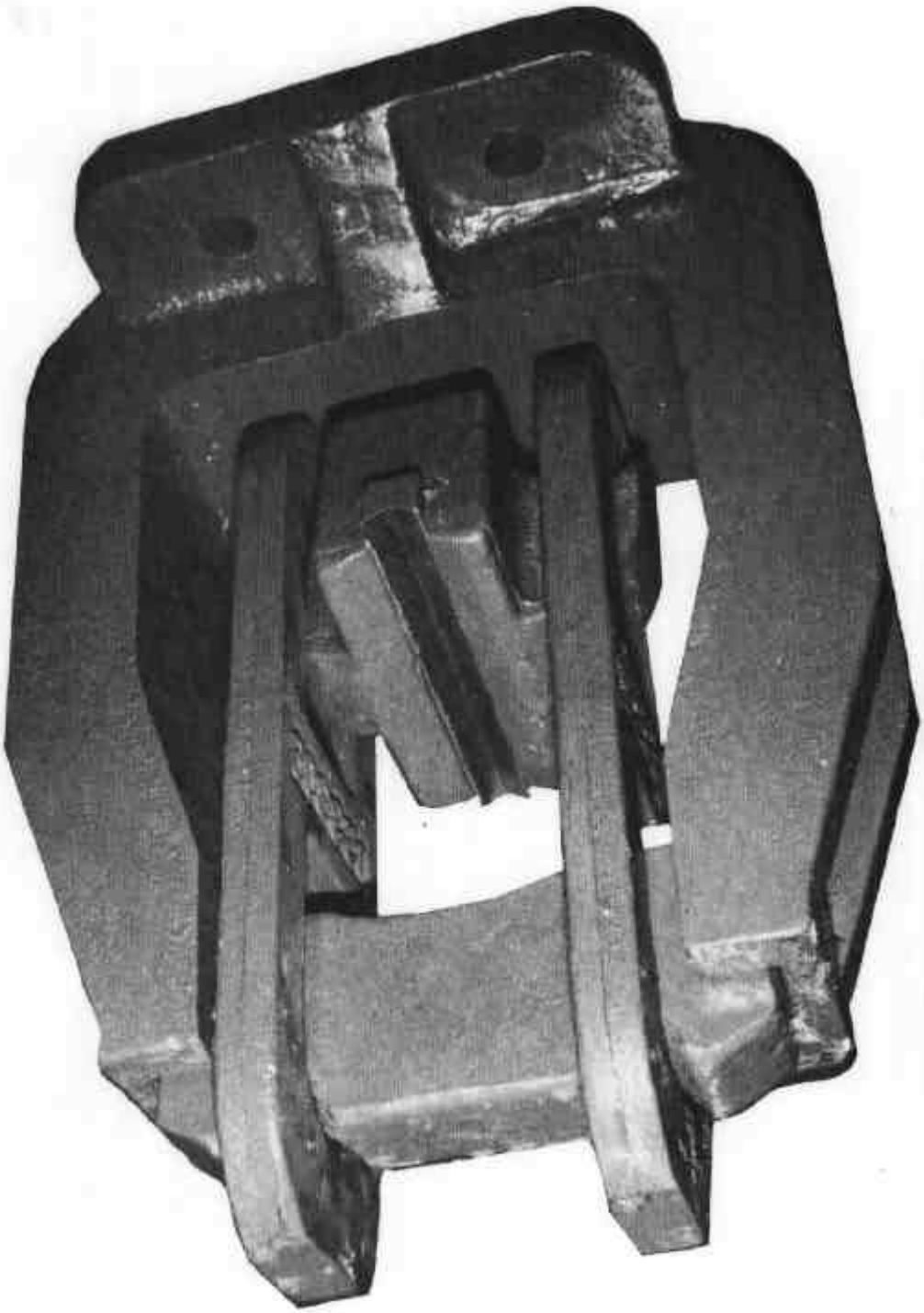
Weighbridge Type 4320

FIGURE 6/10A/3 - 2



Lever System

FIGURE 6/10A/3 - 3



Parallel Link Suspension

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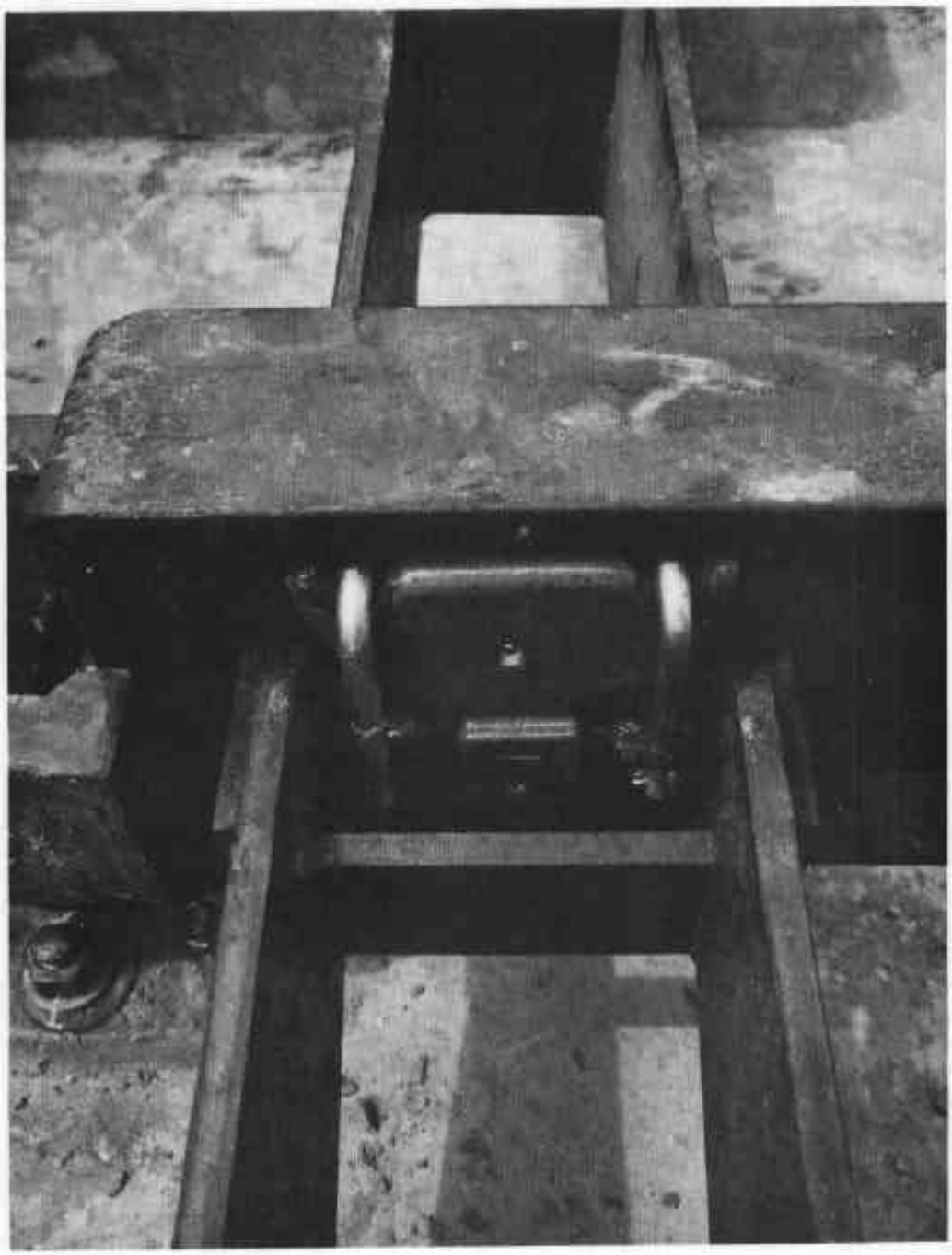
FIGURE 6/10A/3 - 4



Longitudinal Lever Coupling

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FIGURE 6/10A/3 - 5

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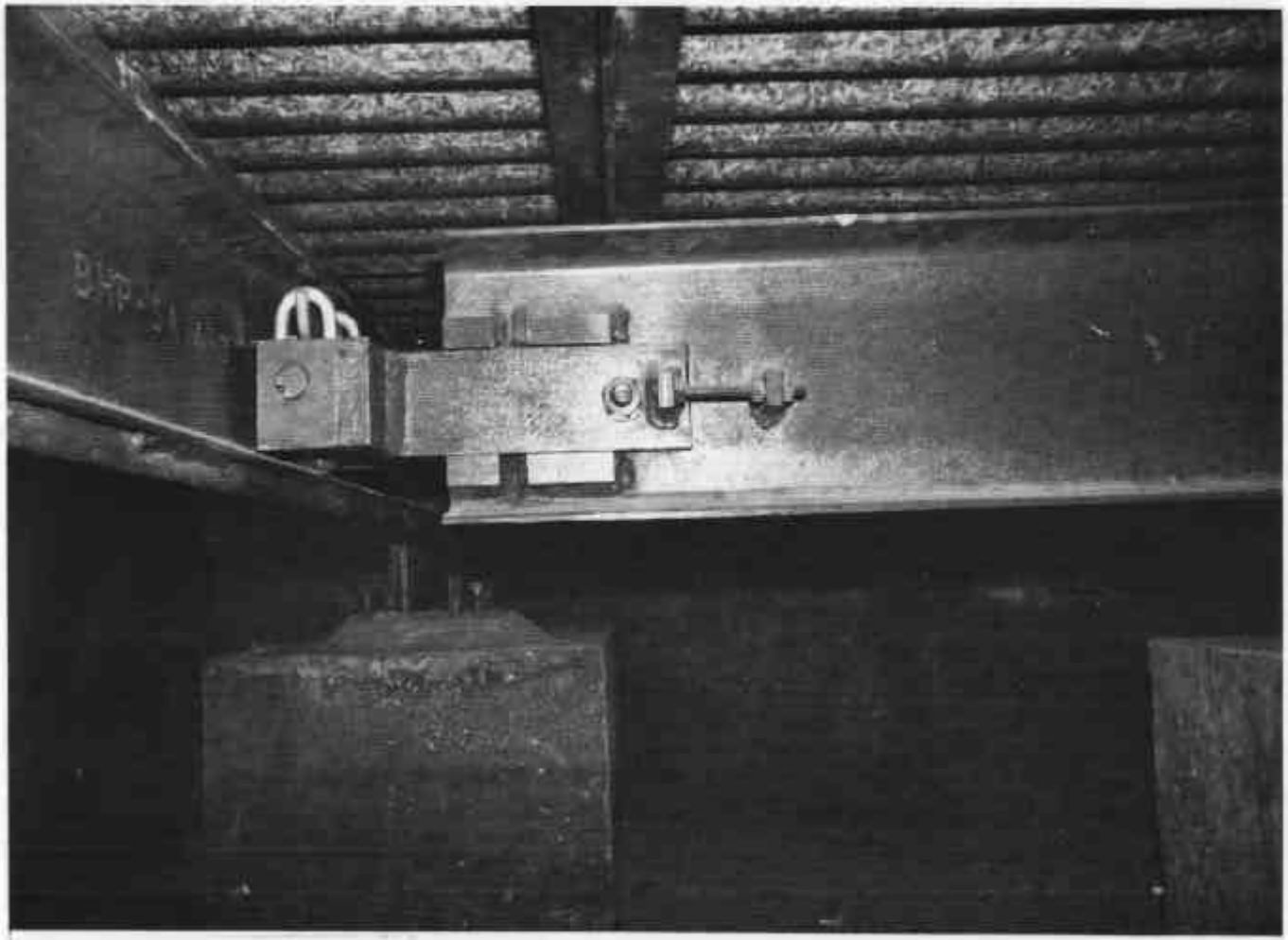
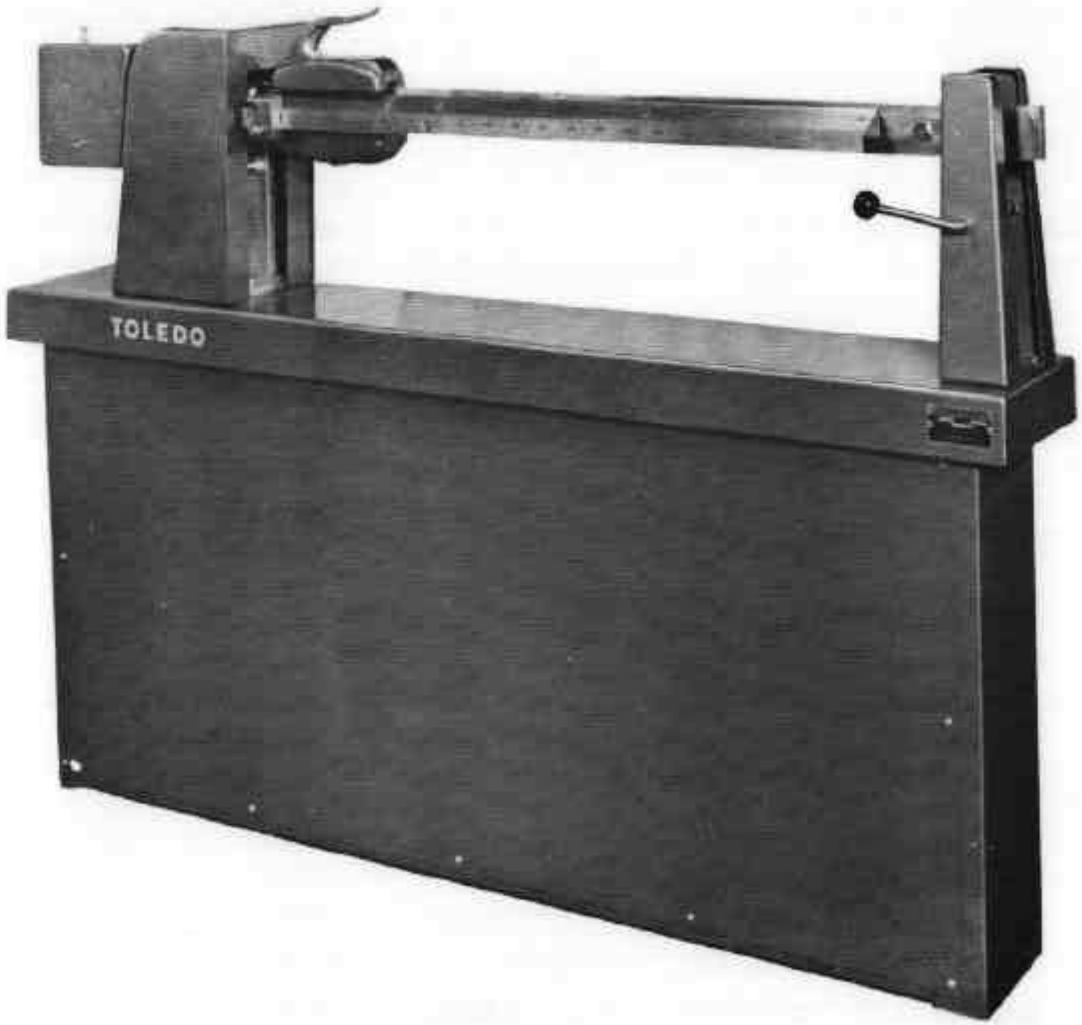


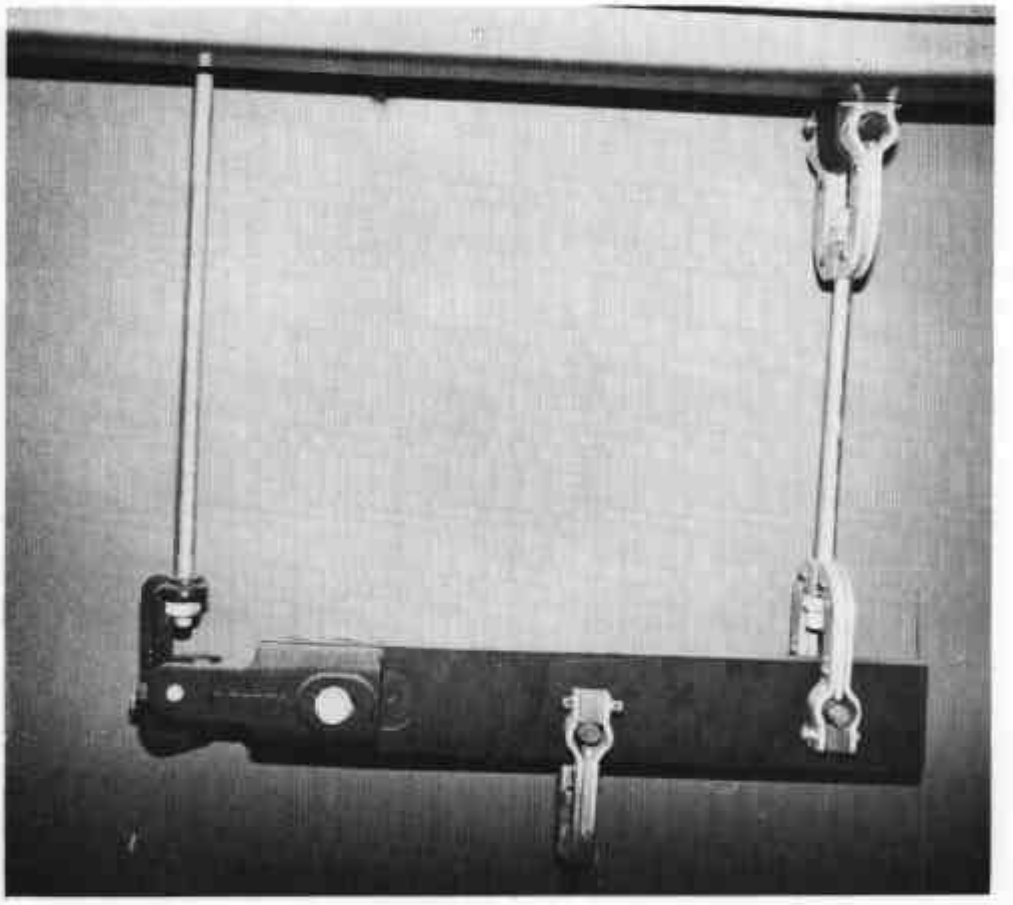
Longitudinal Lever Adjustable Nose-end

FIGURE 6/10A/3 - 6



Full Capacity Steelyard Headwork

FIGURE 6/10A/3 - 7



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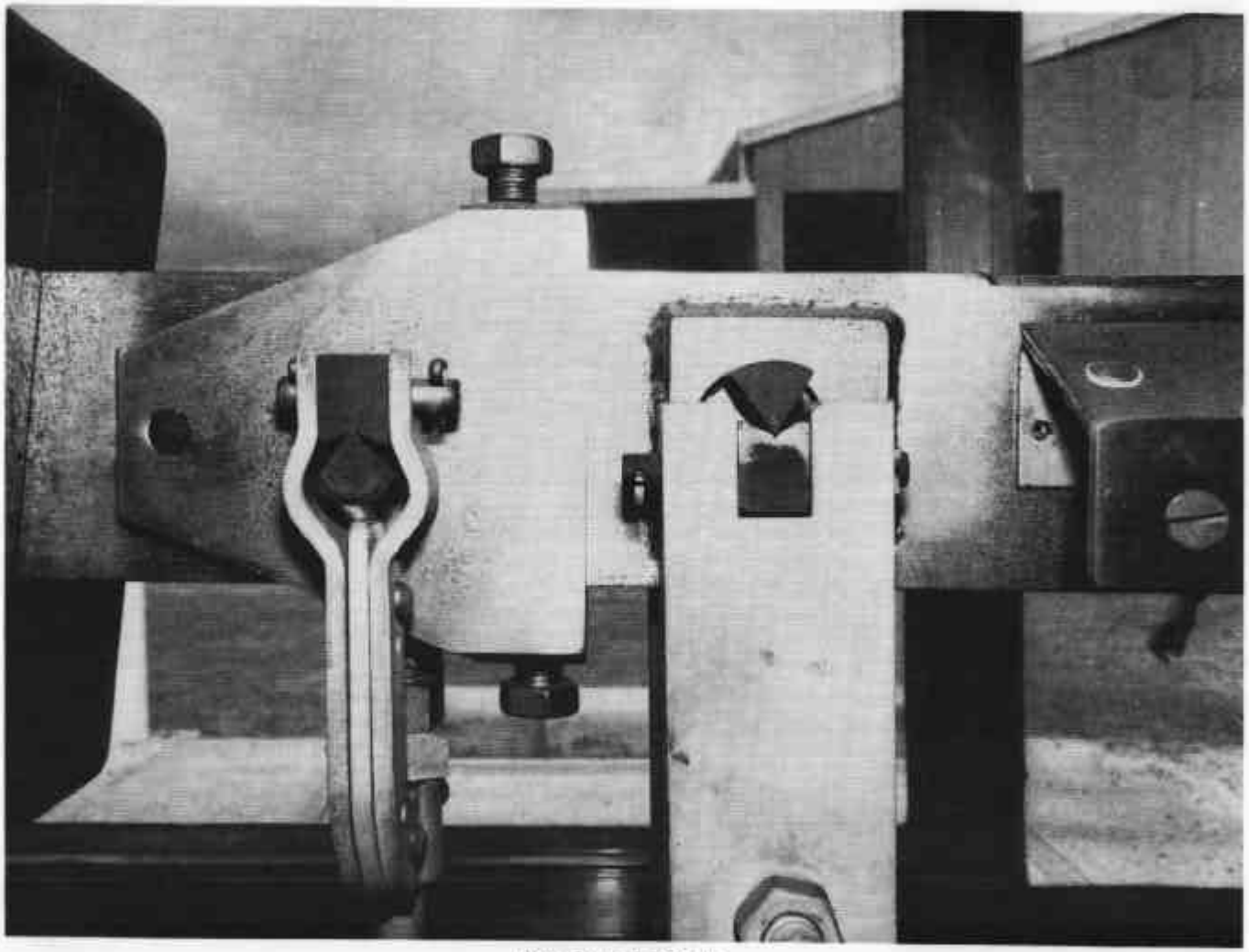
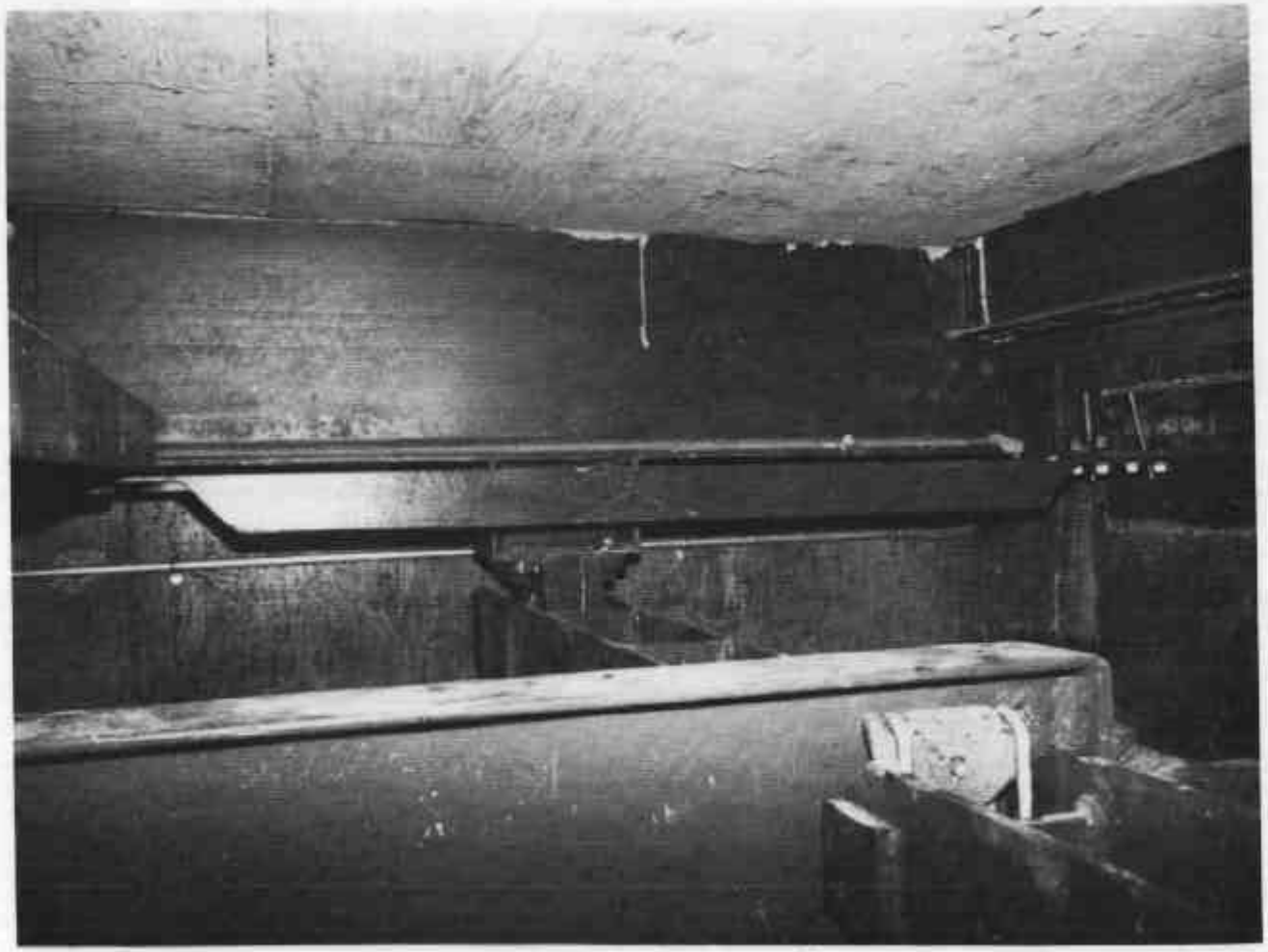
Intermediate Lever - Headwork Cabinet

FIGURE 6/10A/3 - 8



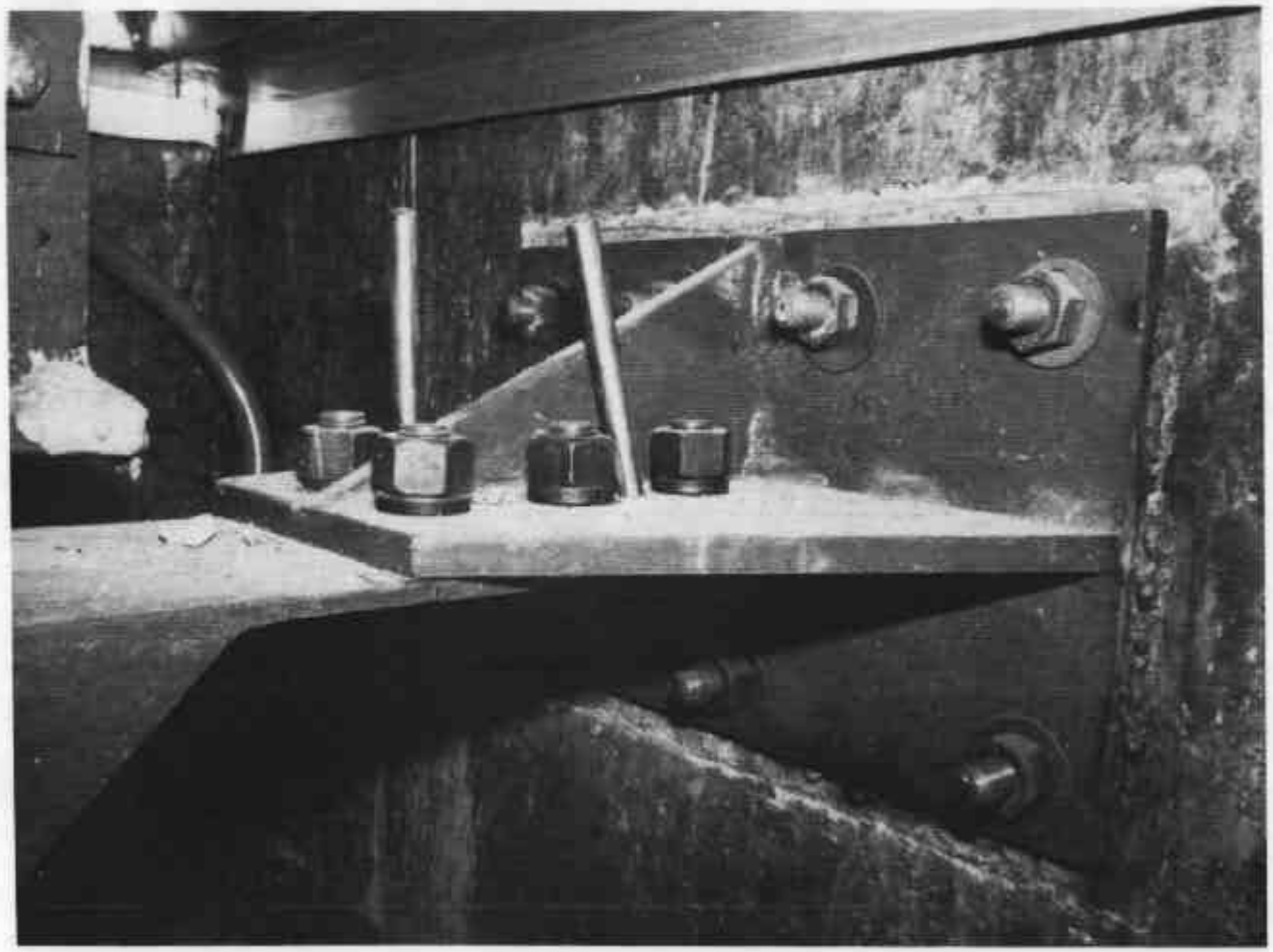
Steelyard Pivots

FIGURE 6/10A/3 - 9



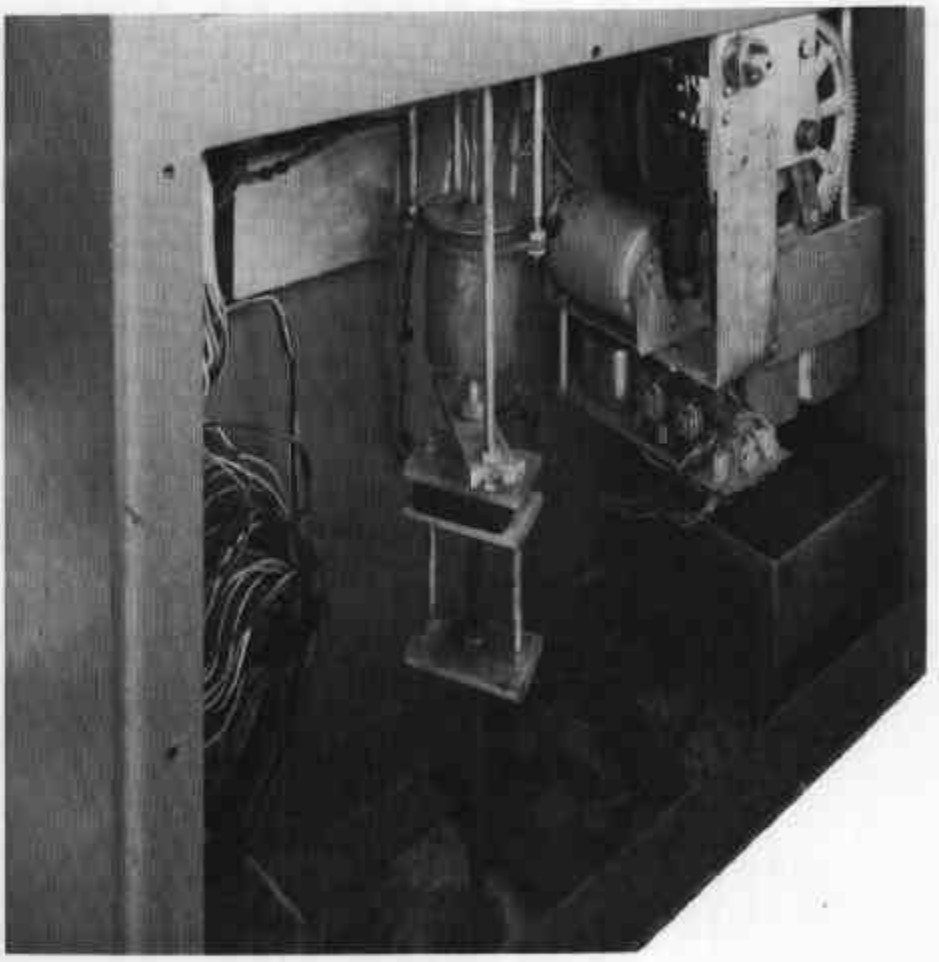
Longitudinal Load-receptor Stay

FIGURE 6/10A/3 - 10



Load-receptor Stay Bracket

FIGURE 6/10A/3 - 11



Headwork Cabinet showing Pullrod Shock Absorber

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1	2	3	4	5	6	7	8
	COMPONENTS	DATE APPROVED	FOOT-NOTES	PATTERN	VARIANTS		
					1	2	3
	BASEWORK COMPONENTS						
1	2-section lever system (Figures 3, 4 & 5)	23 JULY 68		*	A	A	
2	4-section lever system	23 JULY 68			A	A	
3	Transfer levers	23 JULY 68			‡	‡	
4	Load-receptor stays (Figures 9 & 10)	23 JULY 68			‡	‡	‡
	BASEWORKS						
5	Basework of State or Commission-approved pattern	30 JULY 73					*
	HEADWORK COMPONENTS						
6	Pullrod rubber shock absorber (Figure 11)	23 JULY 68				‡	‡
[7	Epex coin-operated unit]	[23 JULY 68]	[2]			[‡]	
	HEADWORKS						
8	Non-self-indicating headwork (Figures 6, 7 & 8)	23 JULY 68		*	*		
9	Self-indicating headwork	23 JULY 68	1			*	*

* - indicates required components
A - indicates alternative component, one of which is required
‡ - indicates optional component
[ ] - approval withdrawn

FOOTNOTES

1 - the limitations on compatibility of the headwork components tabulated in Figure 1 of Certificate No 6/9C/2 are also applicable to this Certificate
2 - approval withdrawn on 6 May 1970

Compatibility Table for Components Described in this Certificate