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 6/10B/10

In respect of the pattern of

Howe Richardson Combination Weighbridge and Variants.

Submitted and manufactured by: Howe Richardson Scale Co. Pty. Ltd.,
Denney Street,
Broadmeadow,
New South Wales. 2292.

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 and 2 were approved on 11th March, 1969; variants 3 to 5 were approved on 20th April, 1971.

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

1. are appropriately marked NSC No 6/10B/10; and

2. comply with the General Specifications for Weighing and Measuring Instruments to be Used for Trade.

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Cont'd over

This Certificate comprises:

Pages 1 to 5 dated 28th April, 1971.
Figures 6/10B/10 - 1 to 6 dated 28th April, 1971.

Date of issue 28th April, 1971.

Signed

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

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DESCRIPTION OF PATTERN

The pattern is of a 40-ton Howe Richardson Combination Weighbridge (20 tons per platform). The pattern comprises two 4-section weighbridge baseworks with G-type lever systems described in Certificate No 6/10B/1. Each basework is connected by transfer levers to the single headwork.

The headwork consists of the tape-drive dial mechanism and the unit-weight mechanism described in Certificate No 6/10B/1 fitted to a cabinet housing the combination lever system (see Figures 1 and 2). The two pullrods enter the bottom of the cabinet and connect with the platform balancing levers. Each balancing lever can be engaged with or disengaged from the main headwork pullrod, suspended from the main headwork lever, by means of a hand-operated selecting lever and cam.

Each balancing lever is provided with a weight which, together with a weight on each platform pullrod, produces a definite force on the main pullrod when there is no load on the platform. When the balancing lever is disengaged from the main pullrod, a small weight is added to the main headwork lever to compensate for the removal of the balancing lever force. The compensating weights (see Figure 3) are lowered on to a carrier, suspended from the lever, by the retraction of spring-loaded support rods (see Figure 4) operated through bowden cables (see Figure 5) from the balancing lever-selecting handles.

The system is balanced at zero load in the following sequence:

1. With both platform-selecting handles in the "lock" position both balancing levers will be disconnected from the main pullrod and the compensating weights will be applied to the main headwork lever. The balance of the main headwork lever is then adjusted through an aperture in the left side of the cabinet until the indicator reads zero.

2. With the left-hand platform-selecting handle in the "weigh" position and the right-hand platform-selecting handle in the "lock" position, the left-hand platform-balancing lever is engaged with the main pullrod and the corresponding

compensating weight is disengaged from the main headwork lever; the right-hand balancing lever is disengaged and its compensating weight engaged. The balance weight on the left-hand platform balancing lever is then adjusted until the indicator again reads zero.

3. With the right-hand platform-selecting handle in the "weigh" position and the left-hand handle in the "lock" position, the balance of the right-hand platform-balancing lever is adjusted to give zero indication.

4. Both left-hand and right-hand platform-selecting handles are placed in the "weigh" position connecting both platform-balancing levers to the main pullrod and disengaging both compensating weights; the indicator should now read zero without further adjustment.

The following instructions for zero adjustment are marked on a plate attached to the front of the headwork cabinet (see Figure 6):

INSTRUCTIONS FOR BALANCING

1. Balance headwork by setting platform handle on "lock". Release dial-locking knob, and adjust indicator to zero through left-hand side of cabinet.

2. Balance each platform by setting the platform handle at "weigh" and adjusting the indicator to zero through the aperture on the front of the cabinet.

DESCRIPTION OF VARIANTS

1. Having the G-type lever system of the pattern replaced by O-type or W-type lever systems as described in Certificate No 6/10B/1.

2. Having other capacities up to the maximum approved, for each of the baseworks of the pattern and variant 1.

3. Having the headwork fitted with a photo-electric switch as described in Certificate No 6/10B/1.

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4. Having the headwork fitted with the ticket printer as described in Certificate No 6/10B/1.

5. Having up to two tare bars fitted to the main headwork lever.

GENERAL NOTES

Notice of approval of the pattern and variants 1 and 2 described in this Certificate was given in Memorandum of Approval No 150 dated 17th March, 1969.

No previous notice of approval has been given for variants 3, 4 and 5.

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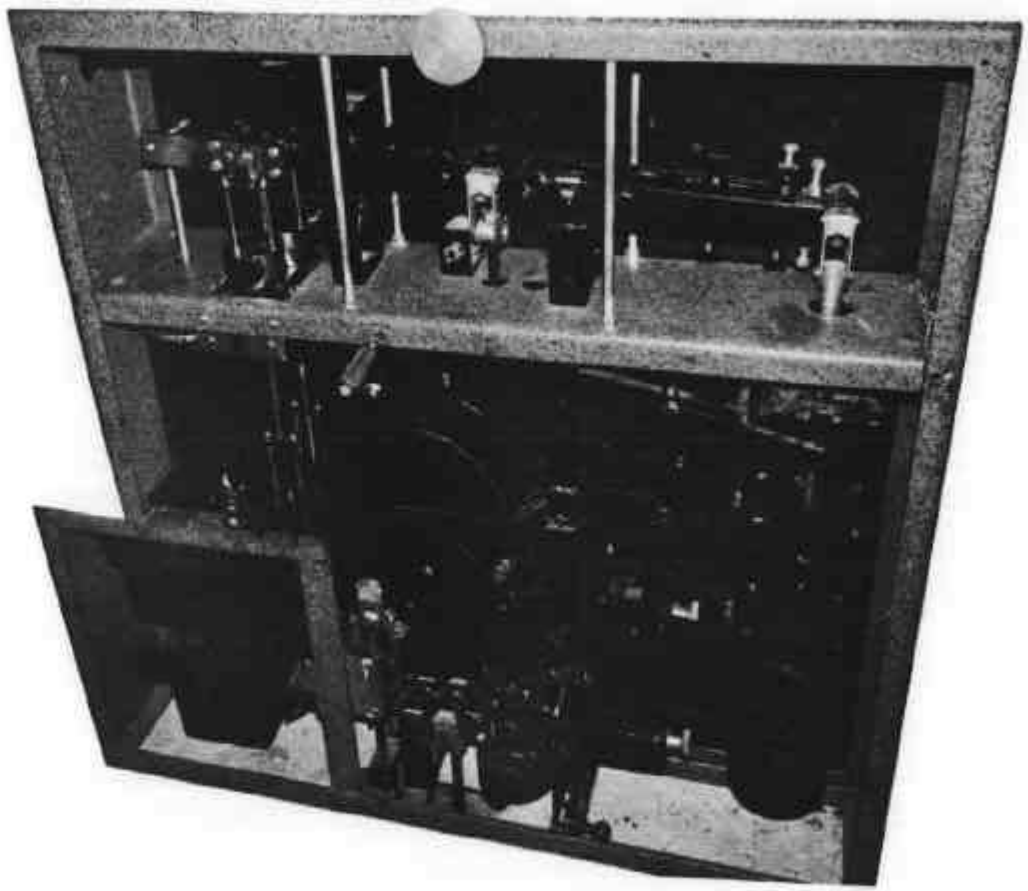
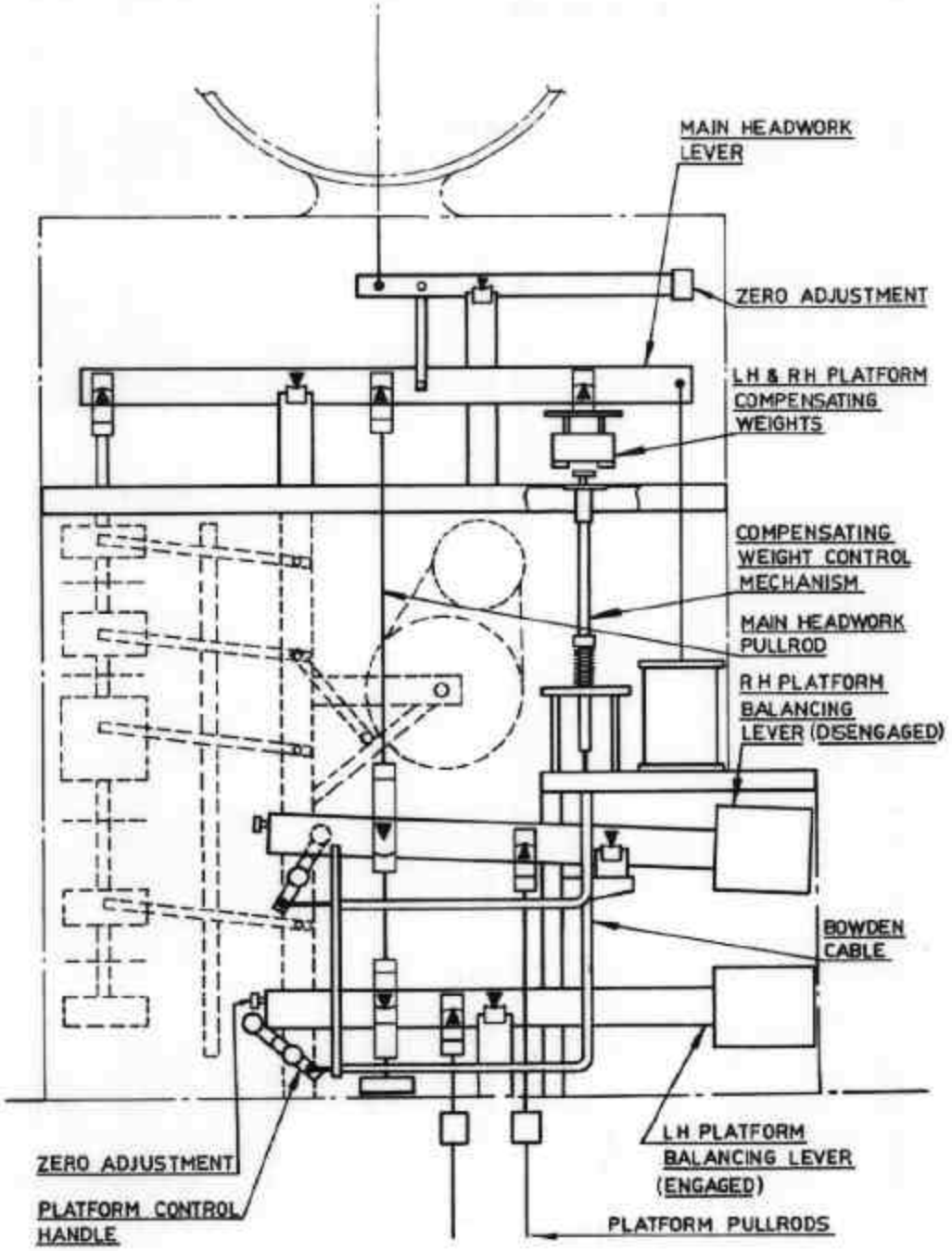
FIGURE 6/10B/10 - 1



Combination Headwork Cabinet (Front View)

FIGURE 6/10B/10 - 2



Combination Headwork Cabinet (Rear View)

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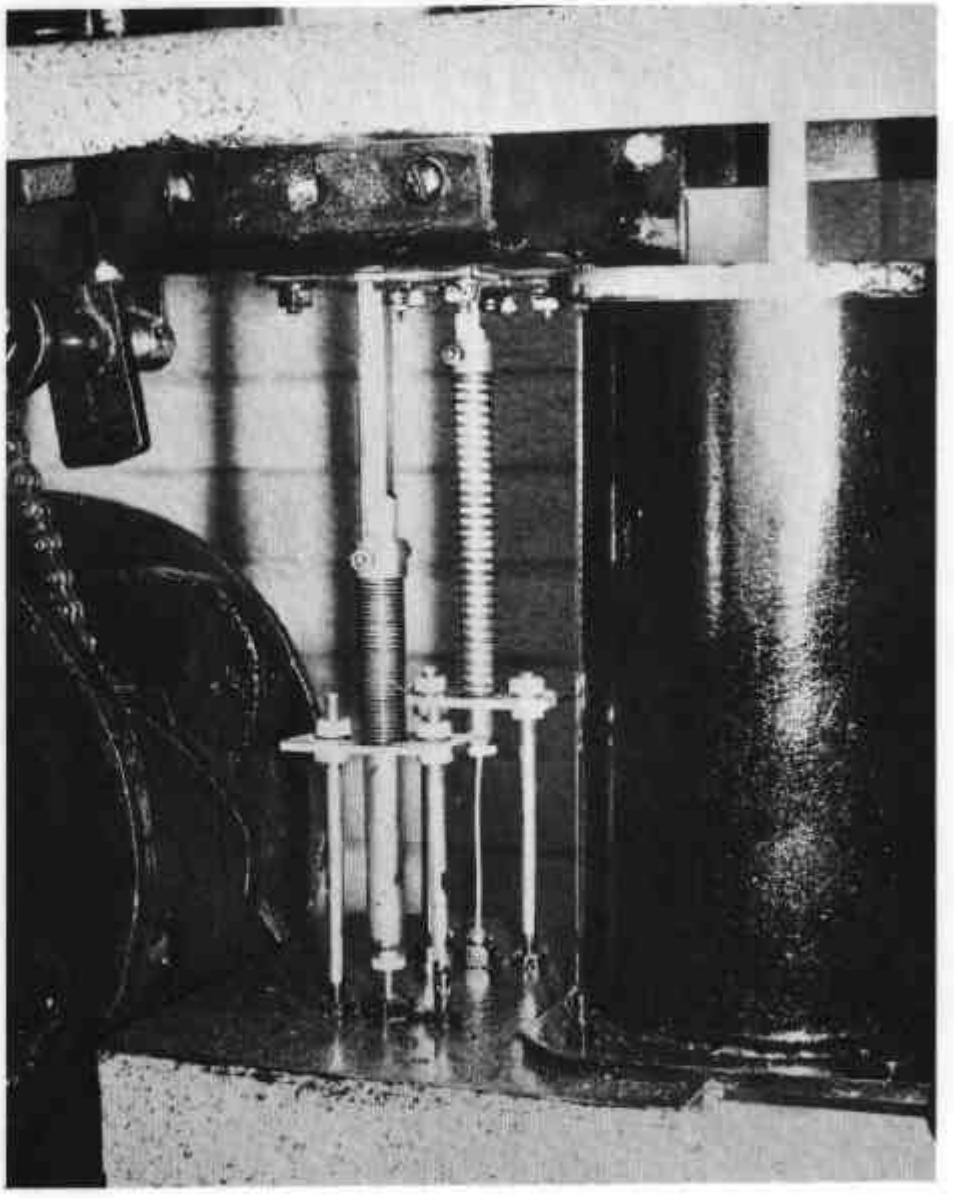
FIGURE 6/10B/10 - 3

Compensating Weights and Main Headwork Lever (Rear View)

FIGURE 6/10B/10 - 4



Compensating Weights Support Rods (Rear View)

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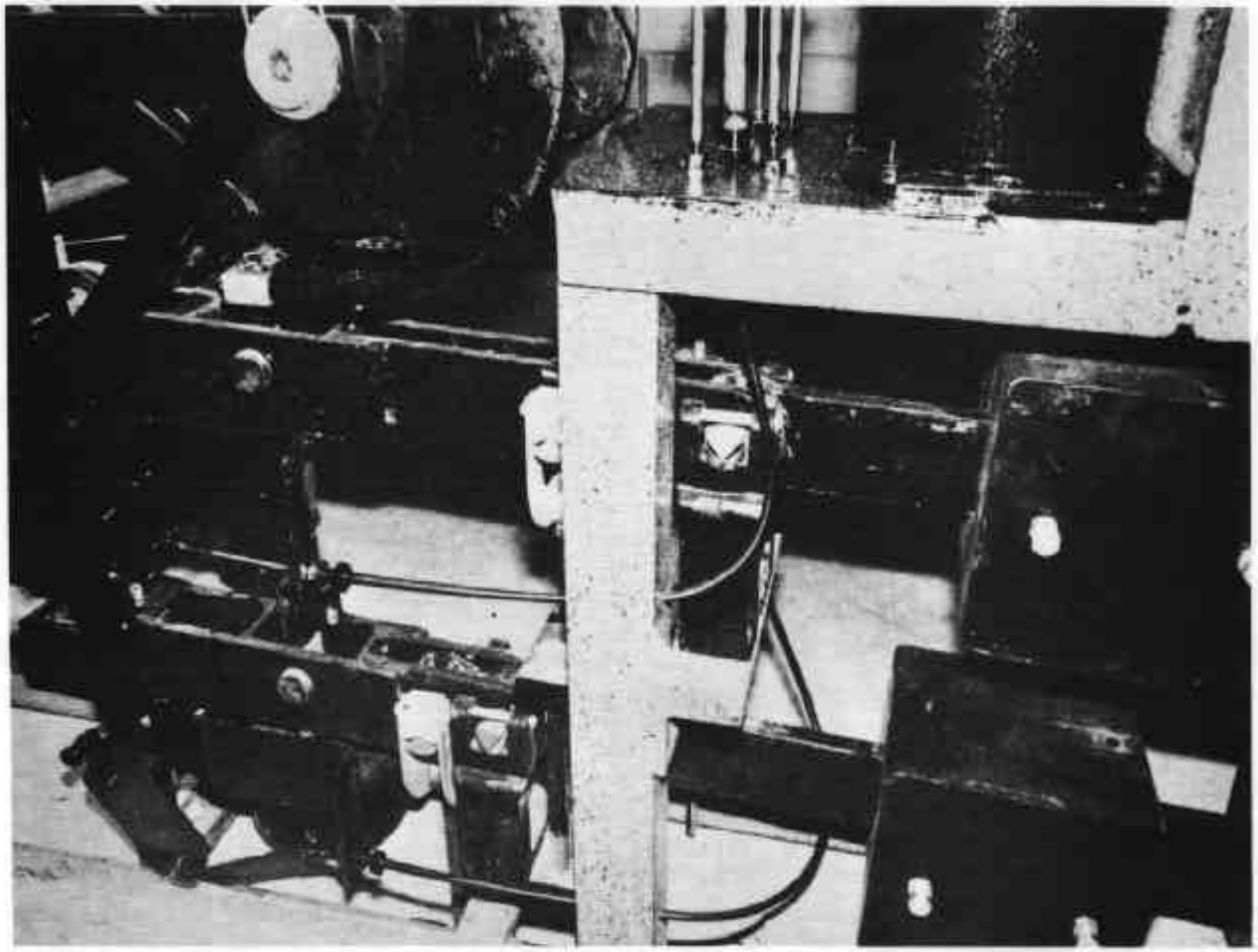
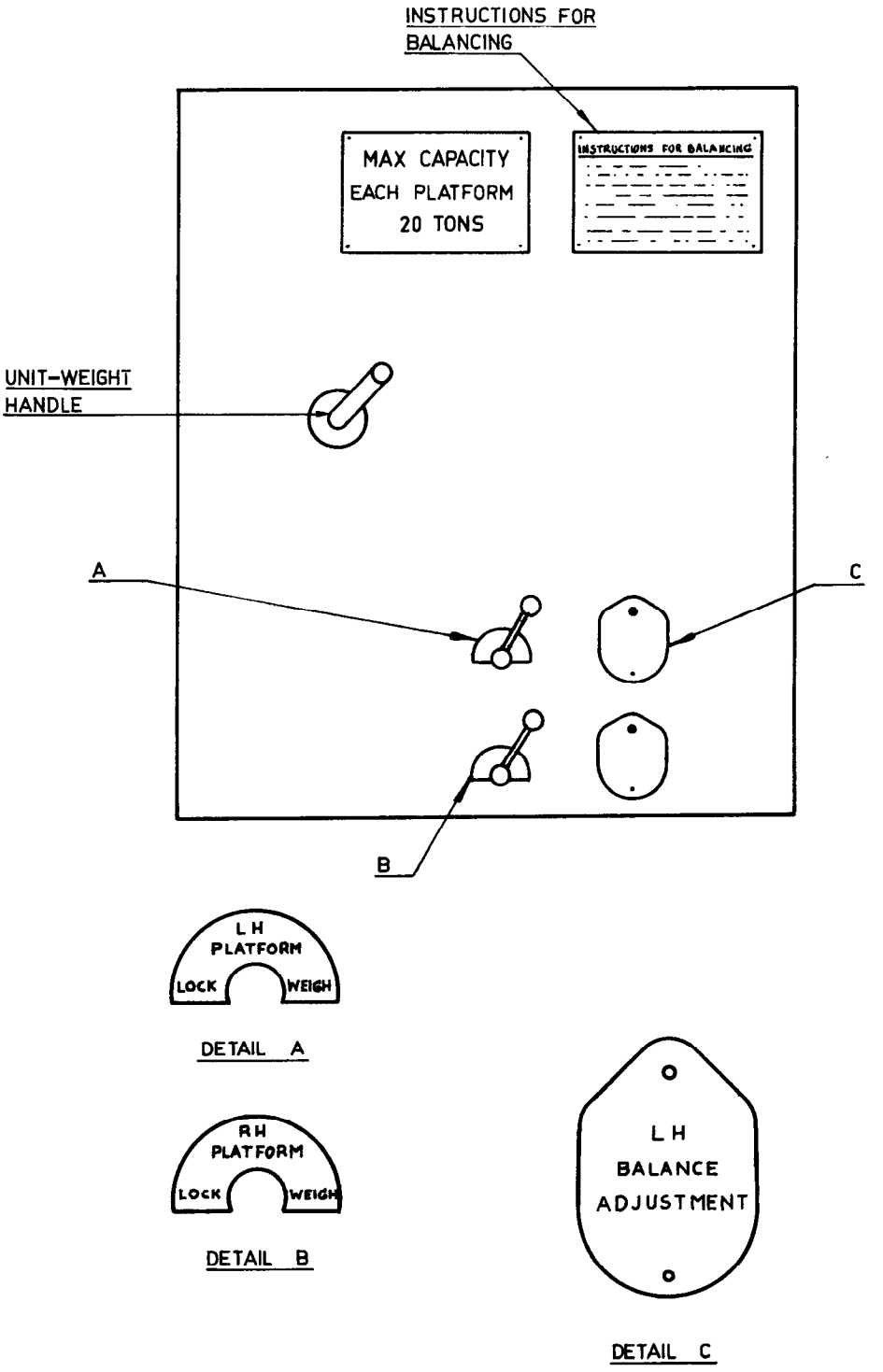
FIGURE 6/10B/10 - 5



Bowden Cables Controlling Compensating Weights (Rear View)

FIGURE 6/10B/10 - 6



Front Panel — Combination Headwork Cabinet

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