

CERTIFICATE OF APPROVAL No 6/4C/17

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This is to certify that the patterns of the

Mettler Pl63 Weighing Instrument

submitted by Watson Victor Ltd,  
95-99 Epping Road,  
North Ryde, New South Wales, 2113,

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

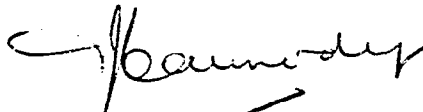
Date of Approval: 3 February 1976

The patterns are described in Technical Schedule No 6/4C/17, and in drawings and specifications lodged with the Commission.

The approval is subject to review on or after 1 February 1981.

All instruments conforming to this approval shall be marked with the approval number "NSC No 6/4C/17".

Signed



Executive Officer



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## NATIONAL STANDARDS COMMISSION

### TECHNICAL SCHEDULE No 6/4C/17

Pattern: Mettler Pl63 Weighing Instrument

Submittor: Watson Victor Ltd,  
95-99 Epping Road,  
North Ryde, New South Wales, 2113.

Date of Approval: 3 February 1976

#### Condition of Approval:

All instruments conforming to this approval shall be marked "NSC No 6/4C/17".

#### Description:

The pattern (see Figure 1) is a partially self-indicating weighing instrument (balance) of capacity 159,99 grams by 0,01-gram graduations (e)\*.

The instrument is a single-pan beam balance with the load receptor and four removable substitution weights of 10, 20, 40 and 80 grams balanced by a fixed load (see Figures 2 and 3). The total value of the substitution weights removed from the beam is displayed in 10-gram steps on a flash dial prefixing an optically projected scale of 9,9-gram capacity by 0,1-gram graduations (see Figure 1).

The complementary reading device of capacity 0,099 grams by 0,001-gram increments ( $d_4$ ) allows the operator to manually adjust the position of the 9,9-gram scale so as to indicate in 0,001-gram increments the distance between the index (pointer) and the 0,1-gram scale mark with an accuracy greater than that of visual interpolation.

A knob on the front of the instrument allows up to 10 grams of tare to be applied to the beam through a spring resistant. When tare is selected a "flag" marked T moves over an ungraduated tare scale. The flag is not visible until tare is selected.

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\* Verification graduation value  $e = 0,01$  gram; the graduation value of the last digit of the complementary reading device, which is differentiated from the other digits, is not significant to verification.

A knob-operated zero adjustment is provided at the base of the instrument, which is also provided with a level indicator and three feet, two of which are adjustable. Adjacent to the level indicator is a notice advising that the instrument must be level when in use.

A knob-operated locking device is accessible beneath the instrument. The cover is sealed on the instrument by a lead-and-wire seal as the instrument is too fragile for a stamping-plug seal.

The instrument is marked:

- (a) adjacent to the weight indicator —

II

Max	=	159,99 g	
Min	=	0,50 g	
e	=	0,01 g	
d <sub>c</sub>	=	0,001 g	
T	=	+ 10 g,	and

- (b) "not for retail counter use".

### Special Tests:

#### Level Sensitivity

1. When the instrument is tilted to a slope of 1 in 500 the bubble in the level indicator should move at least 2 mm.
2. When the instrument is tilted so that the bubble in the level indicator moves 2 mm, 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 5000 graduations and  $\pm 1$  graduation for graduations over 5000.

#### Tare Indicator

The "flag" indicating tare has been selected should be fully visible when any tare value greater than 0,25 of a verification graduation (e) is selected.

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\* The weighing-accuracy specification refers to the verification-graduation value  $e = 0,01$  gram; the graduation value of the last digit of the complementary reading device, which is differentiated from the other digits, is not significant to verification.

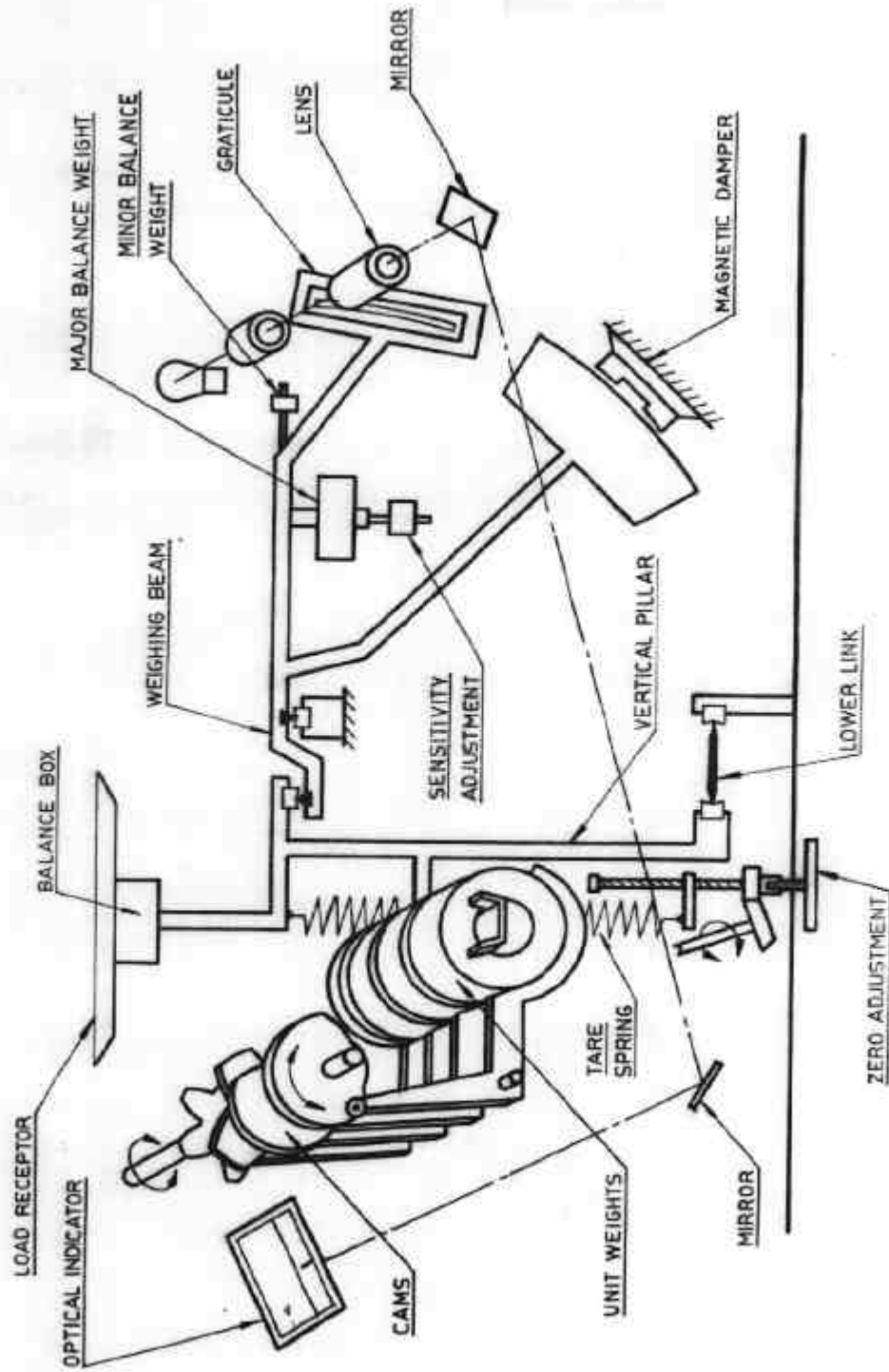
FIGURE 6/4C/17 - 1



Mettler P163

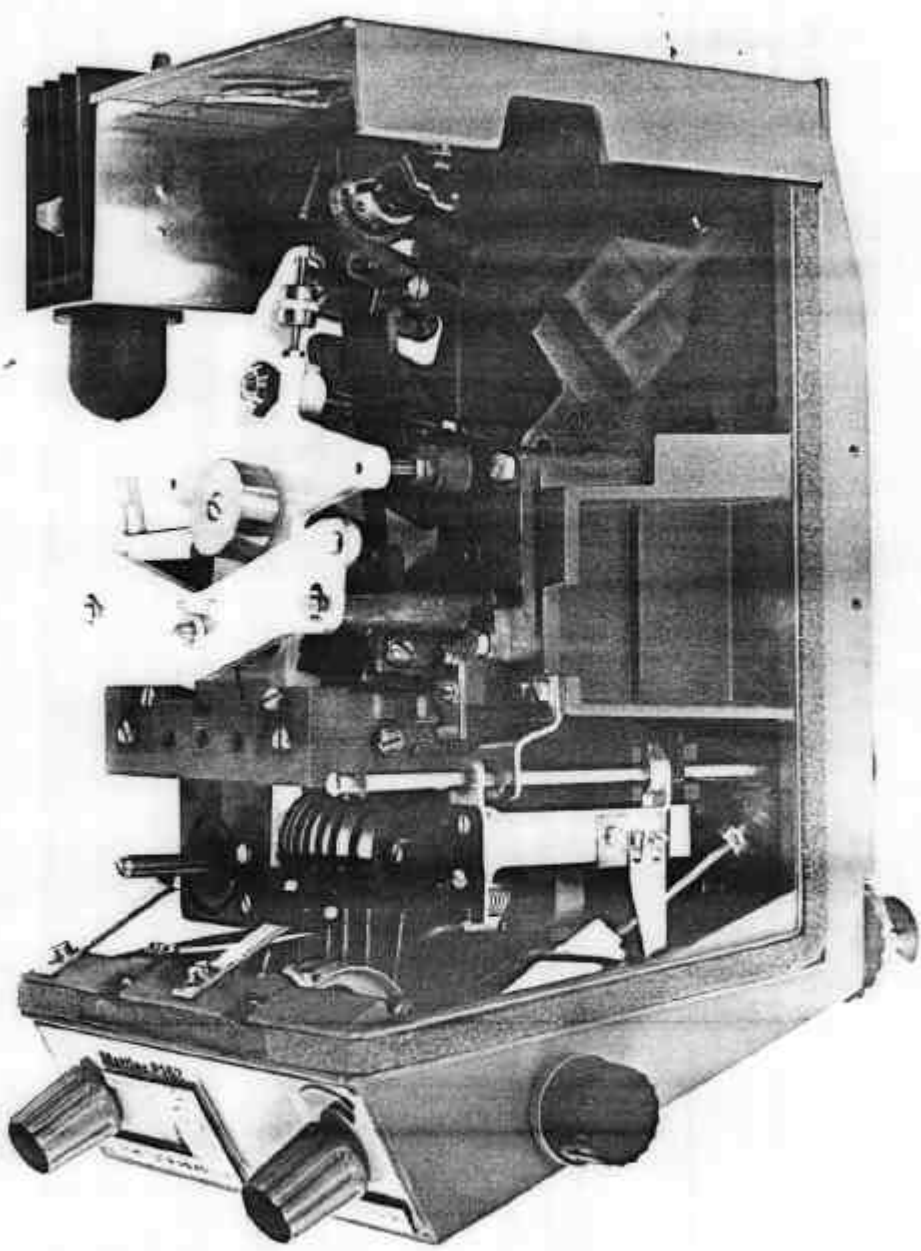
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FIGURE 6/4C/17 - 2



Mettler P163 — Schematic Diagram

FIGURE 6/4C/17 - 3



Mettler P163