



CANCELLED

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/9C/43

Pattern: Toledo 8202-8130 Weighing Instrument

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

Date of Approval: 14 November 1975

Condition of Approval:

All instruments conforming to this approval shall be marked "NSC No 6/9C/43".

Description:

The pattern is a self-indicating bench platform weighing instrument (see Figures 1 and 2) of maximum capacity 10 kg. It comprises a weighing unit with a load cell resistant mechanism and an electronic weight indicator displaying up to 2500 increments.

The load receptor is supported on a bracket mounted below the main lever and connected by a parallel linkage to maintain the load receptor horizontal (see Figure 3). The resistant mechanism is a 6,5-kg cantilever type load cell connected to the nose-end of the main lever (see Figure 4). The lever ratio is selected so that at maximum capacity the force applied to the load cell is between 25 N and 65 N (2,5 to 6,5 kgf).

The weighing unit is provided with a level indicator and three adjustable feet. Adjacent to the level indicator is a notice advising that the instrument must be level when in use.

The weight indicator type 8130 (see Figure 1) converts the output from the load cell into a digital weight indication of up to 2500 increments. Zero is set by a screwdriver adjustment. A zero-check push-button displays zero in 1/5-graduation increments. Lights indicate when the weight

displayed is below zero or the load is above capacity; the indicator is blank when the load is above capacity.

An output socket provides digital information to peripheral equipment. The output is inhibited by the motion detector until the signal sampled in successive counting periods is the same; that is, the instrument is in equilibrium, and also when the zero-check push-button is operated. The use of peripheral equipment will not affect the operation of the instrument.

The 8130 weight indicator is retained in its cabinet by a lead-and-wire seal as it is too fragile for a stamping-plug seal. The serial number of the load cell and the cable from the load cell are sealed to the weight indicator (see Figure 5).

The headwork or basework of this instrument is not interchangeable with other approved headworks or baseworks.

The instrument is marked adjacent to the weight-reading face, for example:

(III)

Max = 10 kg
Min = 0,10 kg
 d_d = 0,005 kg

and "not for retail counter use".

Special Tests:

1. Zero Balance -- When the indicator is adjusted to zero with the zero-check push-button depressed, it should indicate zero when the zero-check push-button is released.
2. Level Sensitivity -- When the instrument is tilted so that the bubble in the level indicator moves 2 mm, the zero should not change by more than 2 graduations 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 500 graduations, ± 1 graduation for graduations over 500 and up to 2000, and $\pm 1\frac{1}{2}$ graduations for graduations over 2000.

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3. Load-cell Creep --- Leaving a maximum-capacity load on the load receptor for a period of 30 minutes should not cause the weight indicated to be incorrect, and on removal of the load the weight indicated should be zero $\pm 0.25 d_d$.
 $\pm 0.5 d_d$
 4. Motion-detector Sensitivity --- Removal from the load receptor at any load of a load equal to 1,5 increments should cause the weight indicator to go blank for a perceptible period before indicating the new load.
 5. Test Loads --- The application of the test loads specified in Table 1 and the display of these loads within the applicable tolerance is one method of checking that the instrument operates in accordance with the approved design.

TABLE 1

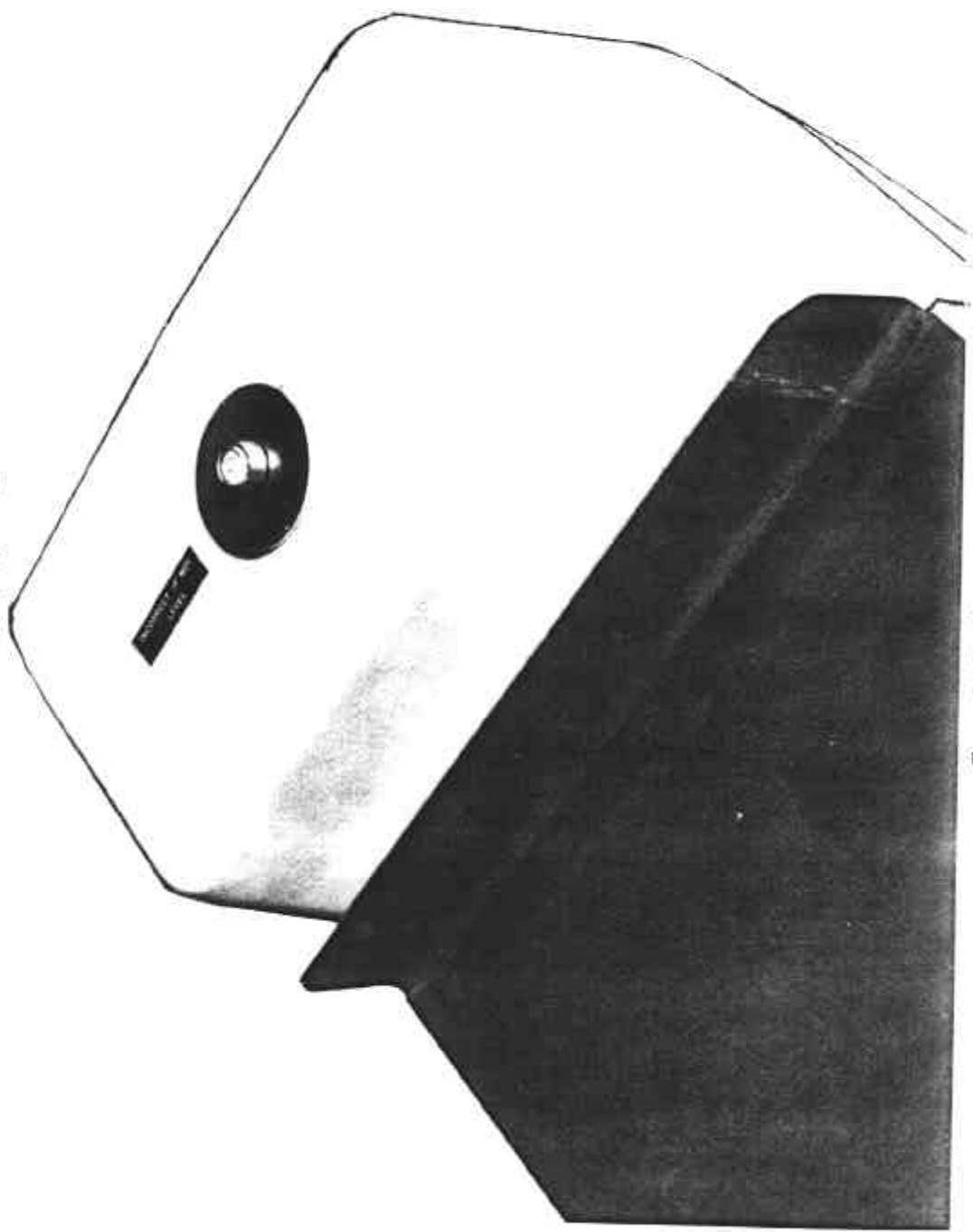
Test Load in Graduations*

0	10	25	60	120	250	698,5
1	12	30	70	140	300	798,5
2	14	35	80	160	350	898,5
3	16	40	90	180	400	998,5
4	18	45	100	200	450	1198,5
5	20	50			500	1398,5
6						1598,5
7						1798,5
8						1998,5
9						2498

* Test Load = Number of graduations x graduation value

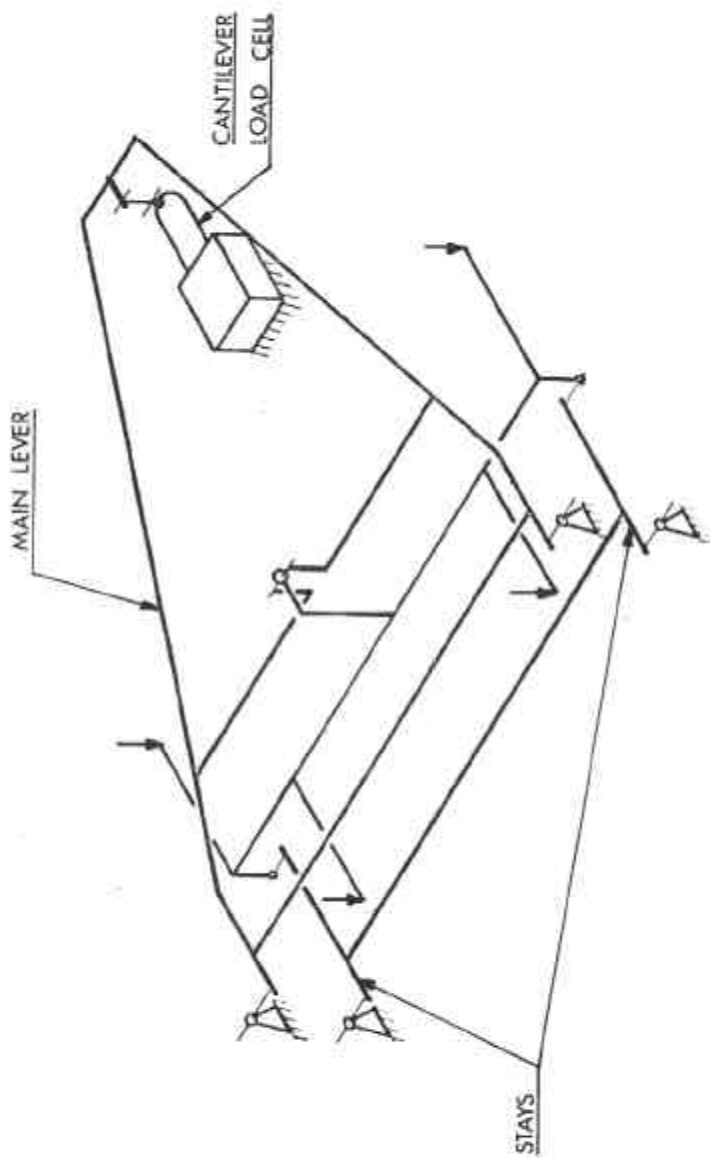
Note: The test load should include a test at capacity, less the tolerance and less 0,5 graduation

FIGURE 6/9C/43 - 2



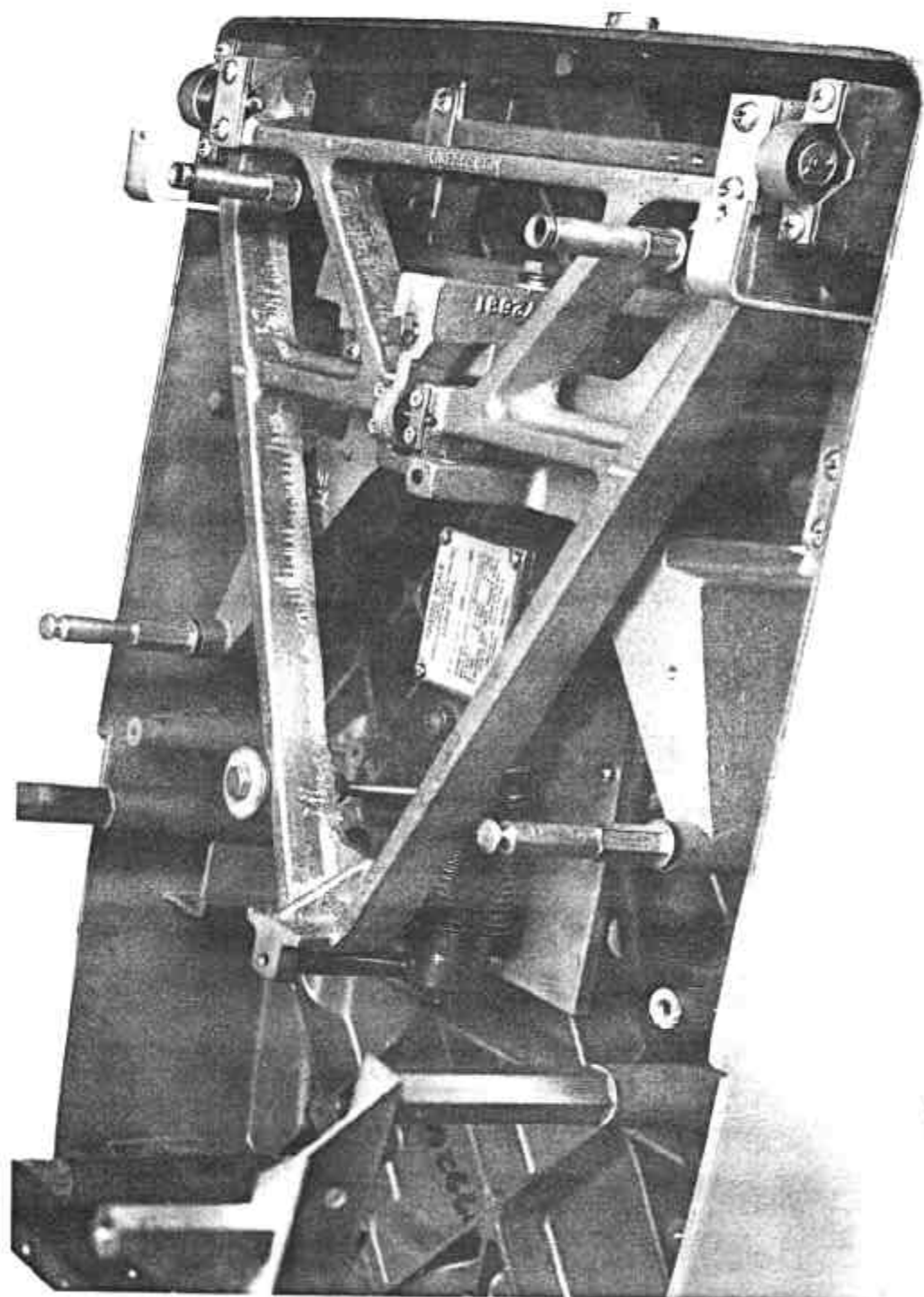
Level Indicator

FIGURE 6/9C/43 - 3



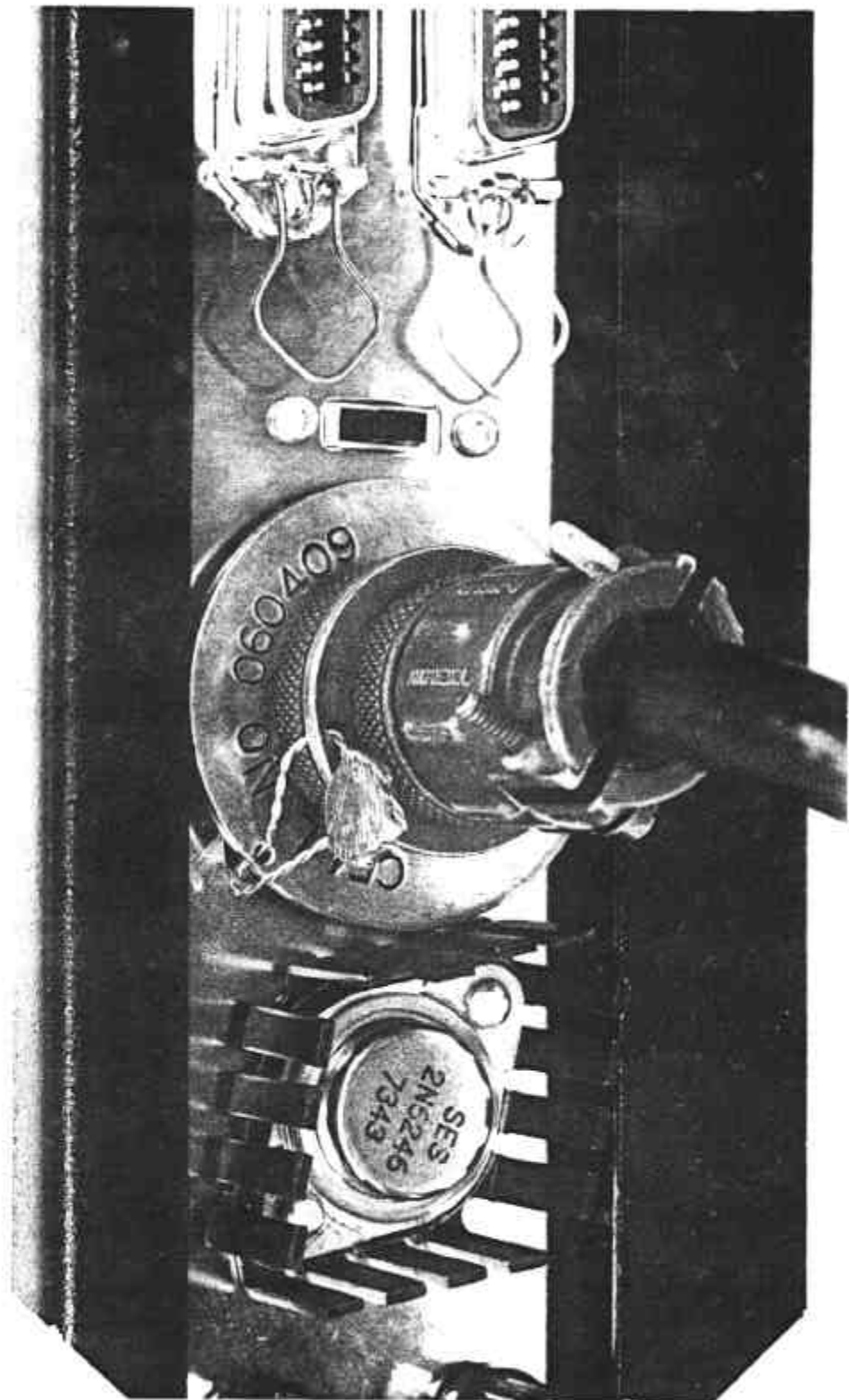
Toledo 8202 Lever System -- Schematic Diagram

FIGURE 6/9C/43 - 4



Load Cell Resistant Mechanism

FIGURE 6/90/43 - 5



Toledo 8130 --- Load Cell Serial Number and Sealing of Load Cell Cable