CANCELLED 0/3 31-12-90

NATIONAL STANDARDS COMMISSION

CERTIFICATE OF APPROVAL No 6/14B/7

This is to certify that the pattern of the

Parsons Hopper Weighing Instrument

submitted by CSR Ltd,
Pyrmont Refinery,
Bowman Street,
Pyrmont, New South Wales, 2009,

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

Date of Approval: 5 April 1976

The approval is limited to one instrument, Serial No 7146, located at CSR Ltd, Pyrmont.

The pattern is described in Technical Schedule No 6/14B/7, and in drawings and specifications lodged with the Commission.

The instrument conforming to this approval is marked with the approval number "NSC No 6/14B/7".

Signed

Executive Director

14/4/80

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/14B/7

Pattern: Parsons Hopper Weighing Instrument

Submittor: CSR Ltd,
Pyrmont Refinery,
Bowman Street,
Pyrmont, New South Wales, 2009.

Description of Pattern:

The pattern (Figures 1 and 2) is a partially self-indicating hopper weigher of capacity 37 500 kg with a proportional-weight steelyard-resistant mechanism. The steelyard is graduated to 1500 kg by 50 kg scale intervals (Figure 3). A motor-driven poise automatically balances the steelyard for each load and tares the hopper after each load is delivered. The movement of the automatic poise and the emptying and filling of the hopper are controlled by interlocks and limit switches.

A combined digital and analogue-overweight totaliser (Figure 4) connected to the automatic poise sums the quantities indicated by the poise in each weighing. A discharge counter records the number of hopper loads weighed (Figure 4). The total weighed quantity is equal to the number of hopper loads weighed multiplied by the value of the proportional weight on the steelyard, plus the overweight quantity indicated by the totaliser. A manual poise and eight proportional weights are provided for weighing the residue in the hopper at the end of a batch. The proportional weights are marked with their equivalent mass, the symbol kg and the symbol of proportionality, and are the following sizes:

2 equivalent to 10 000 kg
2 equivalent to 5000 kg
2 equivalent to 2000 kg
2 equivalent to 1000 kg.

The headwork is contained within a locked enclosure.

The load receptor is in the form of a hopper. The lever system (Figure 2) comprises two main levers with a long arm at one end and two shorter arms which carry the fulcrum and load knife-edges. The load receptor is supported directly on the load knife-edges (Figure 5).

The fulcrum knife-edges are supported by swinging links from fulcrum stands (Figure 6).

The load receptor is fitted with test-weight receptors allowing a test load of 28 x 250 kg weights to be located on the load receptor.

Test Procedure:

1. Accuracy Requirements

   The maximum permissible errors are:

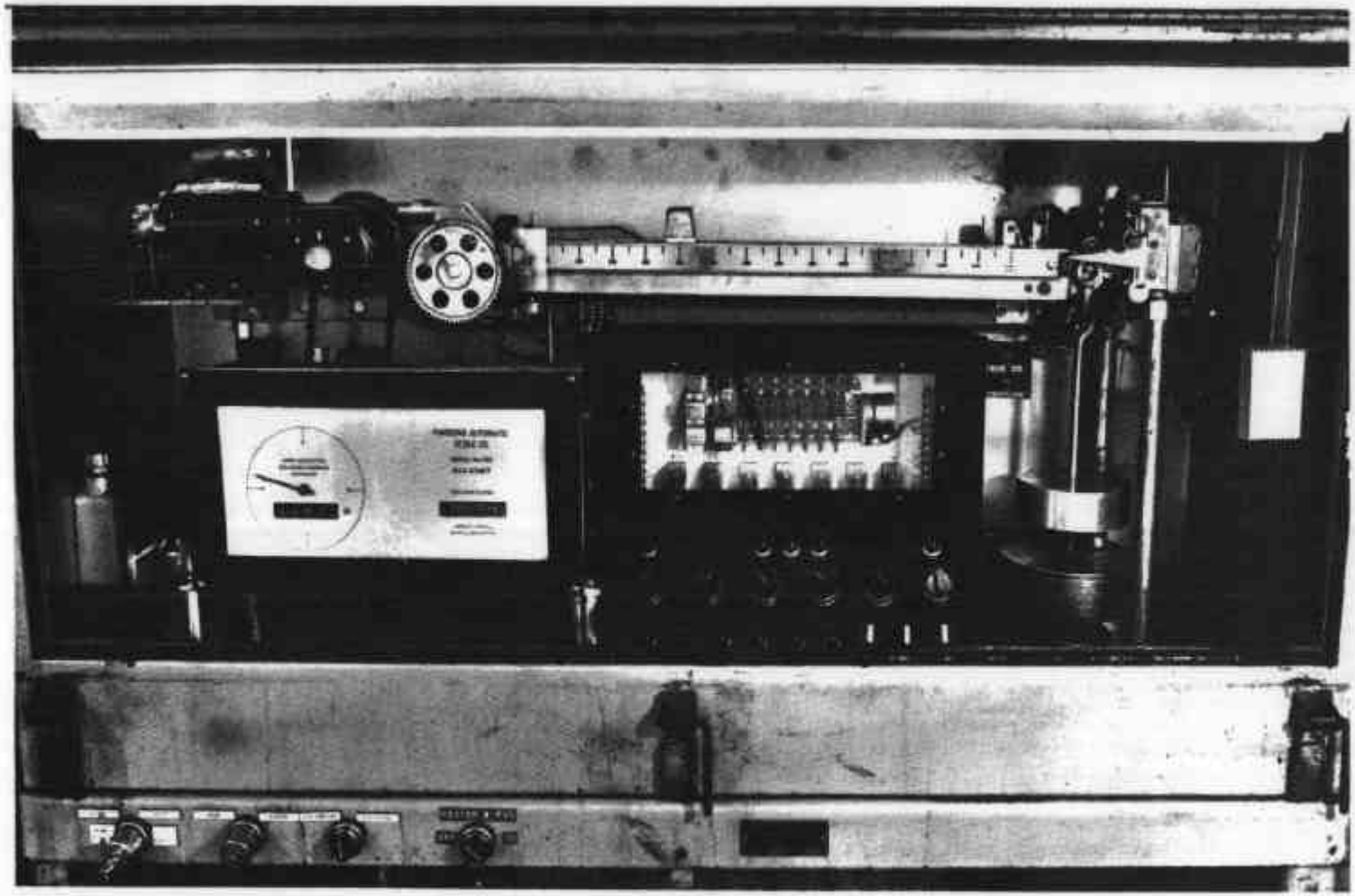
   ± 0,5e for loads between 0 and 500e;
   ± 1e for loads between 501 and 2000e;
   ± 1,5e for loads above 2000e.

2. Zero adjustment - with the hopper empty lift the tare lever off the top of the steelyard. Balance the steelyard by rotating the automatic-poise drive motor by hand to move the automatic poise. Balance is indicated by a fixed indicator and a balance mark on the end of the steelyard.

3. Accuracy - separately place each 250 kg test weight on the hopper and with the tare lever lifted check the accuracy of the steelyard and the proportional weights up to 7000 kg. Using the automatic cycle check the ability of the instrument to automatically determine the value of the 7000 kg load. By substitution of the test weights with a dead load continue the tests up to 37 500 kg.

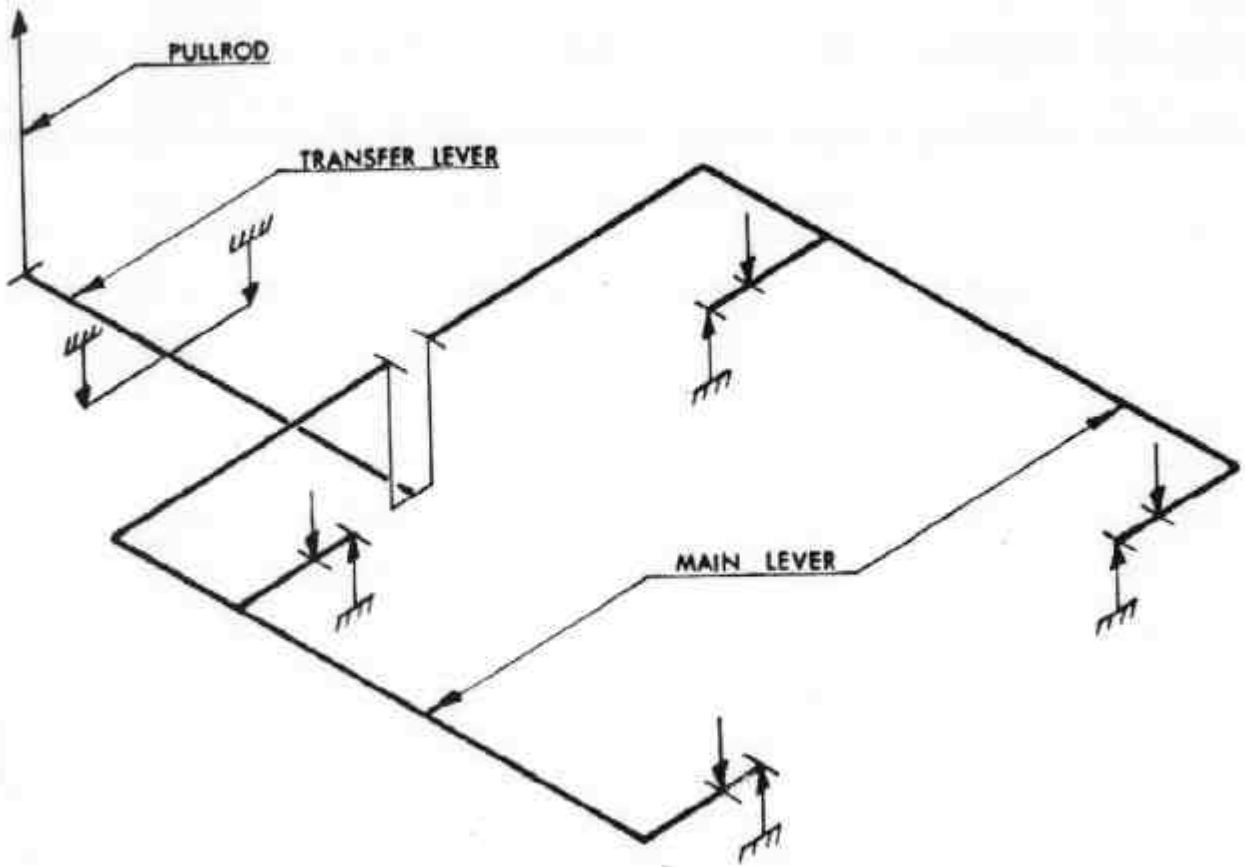
   Again using the automatic cycle check the ability of the instrument to automatically determine the value of known loads which have been determined normally.

Figure 6/14B/7 - 1



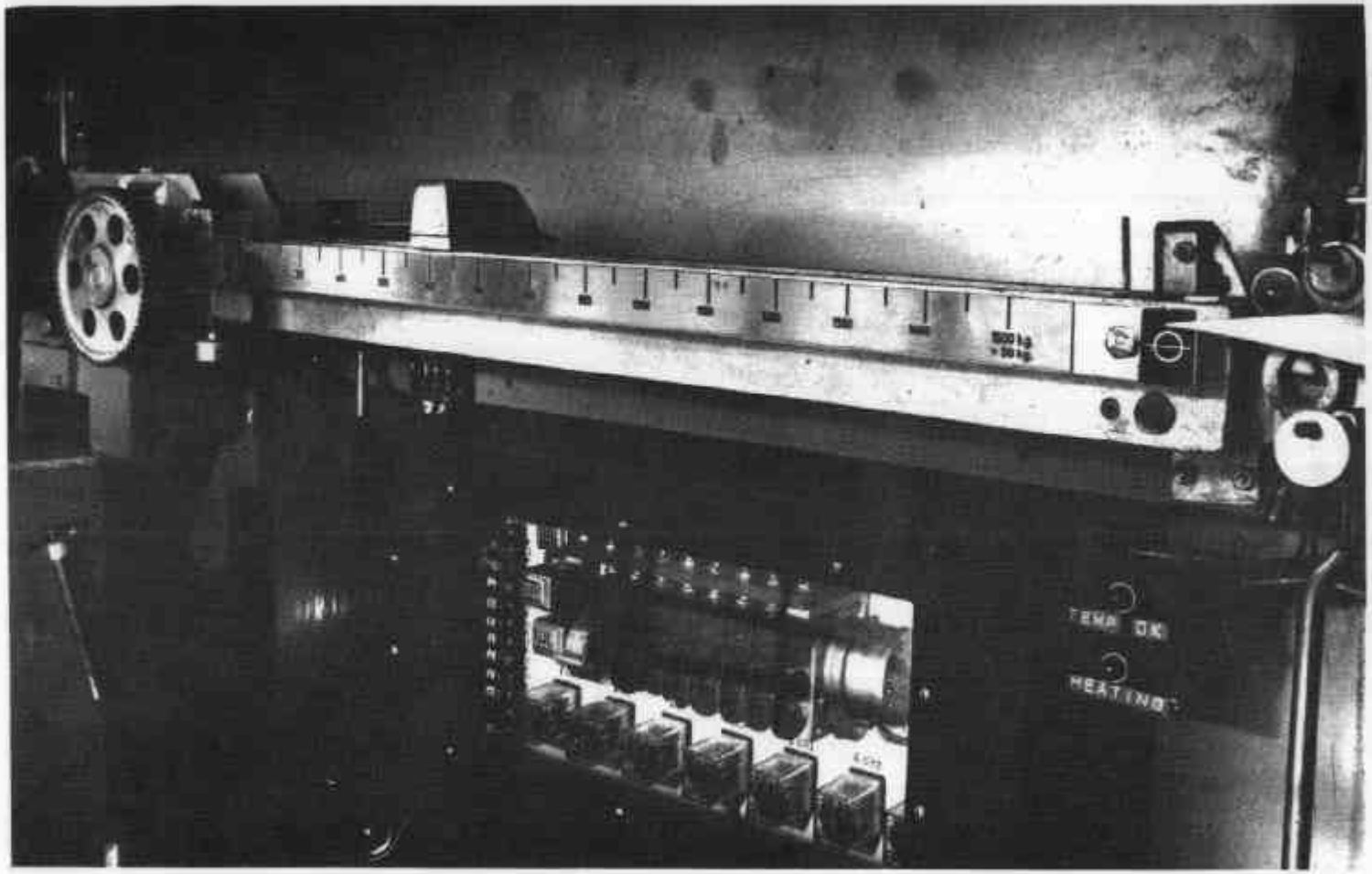
Parsons Hopper Weighing Instrument

Figure 6/14B/7 - 2



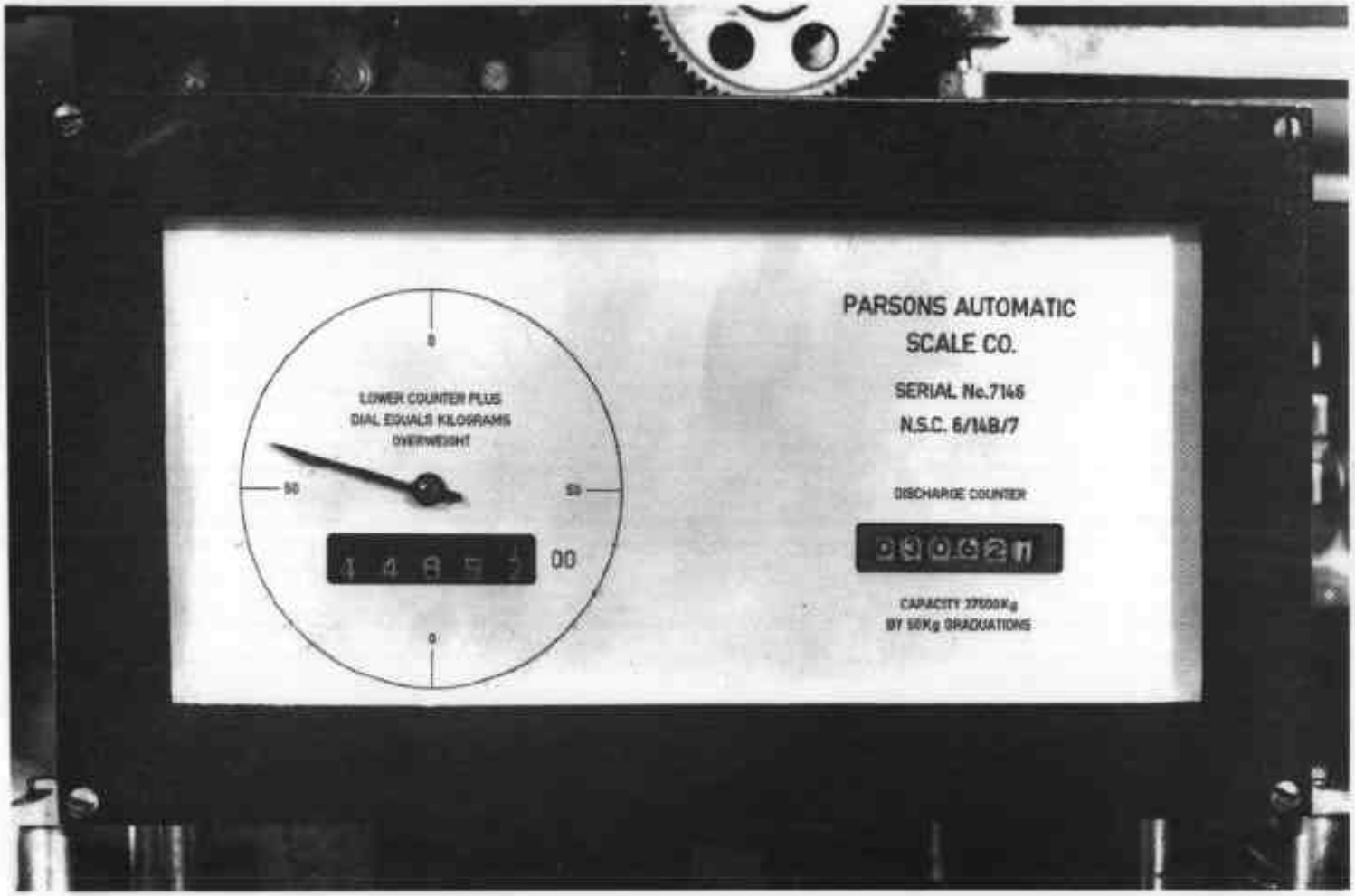
Lever Mechanism - Schematic Diagram

Figure 6/14B/7 - 3



Graduated Steelyard

Figure 6/14B/7 - 4



Combined Analogue and Digital Overweight Totaliser

Figure 6/14B/7 - 5

Load Receptor Supported on Knife Edges

Figure 6/14B/7 - 6

Fulcrum Stand and Swinging Link