NATIONAL STANDARDS COMMISSION

NATIONAL MEASUREMENT (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/9C/91

This is to certify that an approval has been granted that the pattern and variants of the

Brecknell Model 551 CUB Weighing Instrument

submitted by Brecknell Australia
3-5 Birmingham Avenue
Villawood NSW 2163

are suitable for use for trade.

Conditions of Approval

This approval is subject to review on or after 1/5/89.

Instruments purporting to comply with this approval shall be marked NSC No 6/9C/91.

This approval may be withdrawn if instruments are constructed and used other than in accordance with the drawings and specifications lodged with the Commission.

The number of scale intervals applicable to the weighing instrument shall be no greater than the number of verification scale intervals approved for the basework, or the load cell, or the headwork, whichever is the smallest.

The load cells used shall be subject to regular certification by the Commission.

Signed

Executive Director

Descriptive Advice

Pattern: approved 13/6/85

. Brecknell model 551 CUB self-indicating weighing instrument of up to 120 kg capacity.

Variants: approved 13/6/85

1. With the headwork replaced by a Commission-approved load cell and digital indicator.
2. With the basework replaced by other Commission-approved lever baseworks.

Technical Schedule No 6/9C/91 describes the pattern and variants.

Filing Advice

The documentation for this approval comprises:

Certificate of Approval No 6/9C/91 dated 15/8/85
Technical Schedule No 6/9C/91 dated 15/8/85
Test Procedure No 6/9C/91 dated 15/8/85
Figures 1 and 2 dated 15/8/85

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/9C/91

Pattern: Brecknell Model 551 CUB Weighing Instrument

Submittor: Brecknell Australia
3-5 Birmingham Avenue
Villawood NSW 2163

1. Description of Pattern

A self-indicating platform weighing instrument (Figure 1) with a maximum capacity of 120 kg.

1.1 Headwork

A spring-resistant mechanism, having either oil-filled or air dashpots, and connected to a single or double-sided dial indicator approved for use with up to 600 scale intervals.

1.2 Basework

The basework (Figure 2) comprises a load receptor fitted with self-aligning bearings, supported on two main levers, one of which connects to the pullrod. The main levers are suspended by swinging links from the frame. The basework is fitted with adjustable feet and adjacent to the level indicator is a notice advising that the instrument must be level when in use.

1.3 Markings

The instrument is marked with the following data, together in one location:

Manufacturer's name or mark	
Model number	
Serial number of the instrument	
Approval number	NSC No 6/9C/91
Accuracy class	(III)
Maximum capacity in the form:	Max .....kg
Minimum capacity in the form:	Min .....kg
Verification scale interval in the form:	e = d = ...kg

1.4 Verification

Provision is made for a verification mark to be applied.

2. Description of Variants

2.1 Variant 1

With the headwork of the pattern replaced by a Commission-approved load cell and digital indicator in which case the instrument is suitable for use with up to 3000 scale intervals.

2.2 Variant 2

With the basework of the pattern replaced by other Commission-approved lever baseworks in which case the instrument is suitable for use with up to 600 scale intervals.

TEST PROCEDURE No 6/9C/91

Some of the following tests only apply to instruments with digital indication.

All load applications to the instrument should be in accordance with the Commission's recommended testing procedure for the elimination of rounding error as set out in Document 104.

The maximum permissible errors are:

± 0.5e for loads between 0 and 500e;
± 1.0e for loads between 501e and 2000e; and
± 1.5e for loads above 2000e.

1. Zero Range

Check that the range of the zero adjustment is not more than 4% of the maximum capacity (± 2% approximately). With zero balance indicated, apply a load of, say, 2.5% of maximum capacity to the instrument, and adjust the zero control; the instrument should not rezero.

2. Zero Test

(a) Check by means of Document 104, that when the zero light is lit, zero is set within 0.25e.

(b) As the automatic zero tracking device resets zero when the weighing mechanism is in equilibrium within 0.5 scale interval of zero, zero should be checked, with a load equal to, say, 10 scale intervals on the load receptor. The indications with 0.25e and 0.75e additional mass on the load receptor will then be 10e and 11e respectively.

3. Range of Indication

(a) The maximum mass indicated should not exceed the maximum capacity (Max) by more than 10 scale intervals; above this indicated mass the indicator should blank or show non-numerical characters.

(b) Below zero the indication may blank or the mass will be indicated, prefixed by a minus sign.

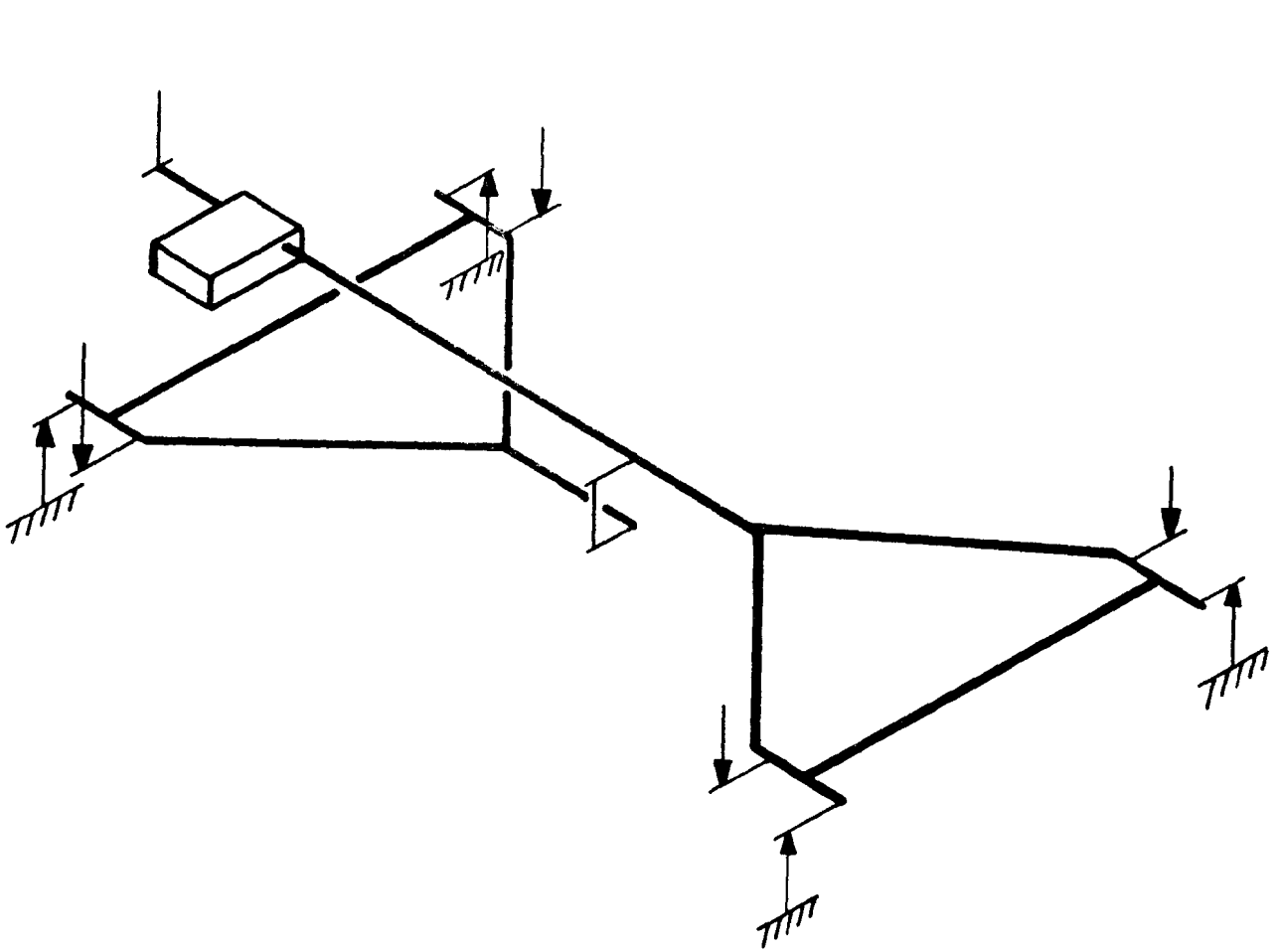
4. Test Loads

Test loads are to be applied to the complete weighing instrument increasing in not less than 5 approximately equal steps to maximum capacity, followed by decreasing loads in not less than 5 approximately equal steps to zero load.

FIGURE 6/9C/91 - 1

Brecknell Model 551 CUB

FIGURE 6/9C/91 - 2



Bracknell 551 CUB - Schematic of Lever Mechanism