NATIONAL STANDARDS COMMISSION

NATIONAL MEASUREMENT (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/4C/50

This is to certify that an approval for use for trade has been granted in respect of the pattern and variants of the

Berkel Model 680CW Weighing Instrument

submitted by Berkel Australia Pty Ltd
19 Evans Street
Burwood Victoria 3125.

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/3/90.
This approval expires in respect of new instruments on 1/3/91.

Instruments purporting to comply with this approval shall be marked NSC No 6/4C/50.

This approval may be withdrawn if instruments are constructed other than in accordance with the drawings and specifications lodged with the Commission.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificates Nos S1/0 and/or S2/0, as appropriate.

Signed

Executive Director

Descriptive Advice

Pattern: approved 1/3/85

- Berkel model 680CW self-indicating weighing instrument of 10 kg capacity with a verification scale interval of 0.005 kg.

Variant: approved 1/3/85

1. With tare being displayed as a minus quantity.

Technical Schedule No 6/4C/50 describes the pattern and variant 1.

Variant: approved 28/10/86

2. Of 15 kg capacity with a verification scale interval of 0.005 kg.

Technical Schedule No 6/4C/50 Variation No 1 describes variant 2.

Variant: approved 13/8/87

3. With a Swedot model 1800 label printer

Technical Schedule No 6/4C/50 Variation No 2 describes variant 3.

..../2

Variants: approved 29/9/87

4. Of 3 kg capacity with a verification scale interval of 0.001 kg.

5. Of 6 kg capacity with a verification scale interval of 0.002 kg.

6. Of 30 kg capacity with a verification scale interval of 0.01 kg.

Technical Schedule No 6/4C/50 Variation No 3 describes variants 4 to 6.

Filing Advice

Certificate of Approval No 6/4C/50 dated 5/1/88 is superseded by this Certificate and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 6/4C/50 dated 2/3/88
Technical Schedule No 6/4C/50 dated 21/5/85
Technical Schedule No 6/4C/50 Variation No 1 dated 20/11/86
Technical Schedule No 6/4C/50 Variation No 2 dated 5/1/88
Technical Schedule No 6/4C/50 Variation No 3 dated 2/3/88
Test Procedure No 6/4C/50 dated 21/5/85
Figure 1 dated 21/5/85
Figure 2 dated 5/1/88

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4C/50

Pattern: Berkel Model 680CW Weighing Instrument

Submittor: Berkel Australia Pty Ltd
19 Evans Street
Burwood, Victoria, 3125

1. Description of Pattern

The pattern (Figure 1) is a self-indicating weighing instrument of 10 kg capacity with 0.005 kg scale intervals.

Output sockets may be provided for the connection of auxiliary and/or peripheral devices.

1.1 Zero

An automatic zero-setting device resets zero within 0.25e, as indicated by the zero light illuminating, whenever the instrument comes to rest within 0.5e of zero.

Additionally, this device will reset zero when the instrument is switched on, provided the instrument is within ±20e of the factory-set reference point.

1.2 Display Check

When power is applied to the instrument, all the indicators display from 0 to 9, then blank, before the instrument zeroes.

1.3 Levelling

The instrument is provided with four adjustable feet and adjacent to the level indicator is a notice advising that the instrument must be level when in use.

1.4 Tare

A semi-automatic subtractive taring device of up to maximum capacity may be fitted in which case a button marked T and a tare light are also fitted.

Pressing the FIX button will enable a tare value to be retained after a weighing, as indicated by a designated light illuminating. This function is cleared by redepressing the FIX button.

1.5 Marking

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

Manufacturer's name or mark	
Serial number of instrument	
NSC approval number	NSC No 6/4C/50
Accuracy class	(III)
Maximum capacity	Max 10 kg *
Minimum capacity	Min 0.1 kg *
Verification scale interval	e = d = 0.005 kg *
Maximum subtractive tare in the form:	T = - .....

* These markings are repeated adjacent to each reading face.

...../2

1.6 Verification Provision

Provision is made for the application of a verification mark.

2. Description of Variant 1

With tare displayed as a minus quantity in which case the instrument is not approved for retail counter use and must be so marked.

TEST PROCEDURE No 6/4C/50

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 501 and 2000e; and
± 1.5e for loads above 2000e.

1. Zero Test

As the automatic device resets zero when the weighing mechanism is in equilibrium within 0.5e of zero, zero should be checked as described in Document 104, with a load equal to, say, 10e 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.

2. Zero Range

The maximum range of operation of the zero setting device should not exceed 4% of the maximum capacity (±2% approximately).

3. Load Test

Test loads are to be applied to the 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.

4. Range of Indication

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

(b) The minimum mass indicated should be zero; below this the indication should be blank, show non-numerical characters or show a negative mass.

5. Taring

The semi-automatic tare function should be able to reset the mass indicator to zero within 0.25e at any load within its capacity. This may be checked as described for Zero Test. A tare should not be able to be acquired above the marked tare capacity.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4C/50

VARIATION No 1

Pattern: Berkel Model 680CW Weighing Instrument

Submittor: Berkel Australia Pty Ltd
19 Evans Street
Burwood Victoria 3125.

1. Description of Variant 2

Of 15 kg capacity with a verification scale interval of 0.005 kg.

This instrument need not be fitted with a zero light.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4C/50

VARIATION No 2

Pattern: Berkel Model 680CW Weighing Instrument

Submittor: Berkel Australia Pty Ltd
19 Evans Street
Burwood Vic 3125

1. Description of Variant 3

The pattern or variants connected to a Swedot model 1800 label printer (Figure 2) which has price-look-up (PLU) facilities and a keyboard which may be used to enter tare values against items in the PLU memory.

1.1 Operation

When a PLU item is selected, the corresponding tare value (if any) is transferred to the weighing instrument. An error message will be displayed if the tare value is not an integral multiple of the verification scale interval. The tare value in the weighing instrument will automatically cancel on removal of a weighed load, unless it has been 'fixed' by use of the FIX key.

1.2 Markings

The weighing instrument shall be marked NOT FOR TRADING DIRECT WITH THE PUBLIC, in addition to markings specified in Technical Schedule No 6/4C/50 dated 21/5/85.

The printer shall be marked with the model number and serial number of the printer, and also with NSC approval number 6/4C/50.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4C/50

VARIATION No 3

Pattern: Berkel Model 680CW Weighing Instrument

Submittor: Berkel Australia Pty Ltd
19 Evans Street
Burwood Victoria 3125

1. Description of Variants

1.1 Variant 4

Of 3 kg capacity with a verification scale interval of 0.001 kg.

Instruments need not be provided with a zero light.

1.2 Variant 5

Of 6 kg capacity with a verification scale interval of 0.002 kg.

Instruments need not be provided with a zero light.

1.3 Variant 6

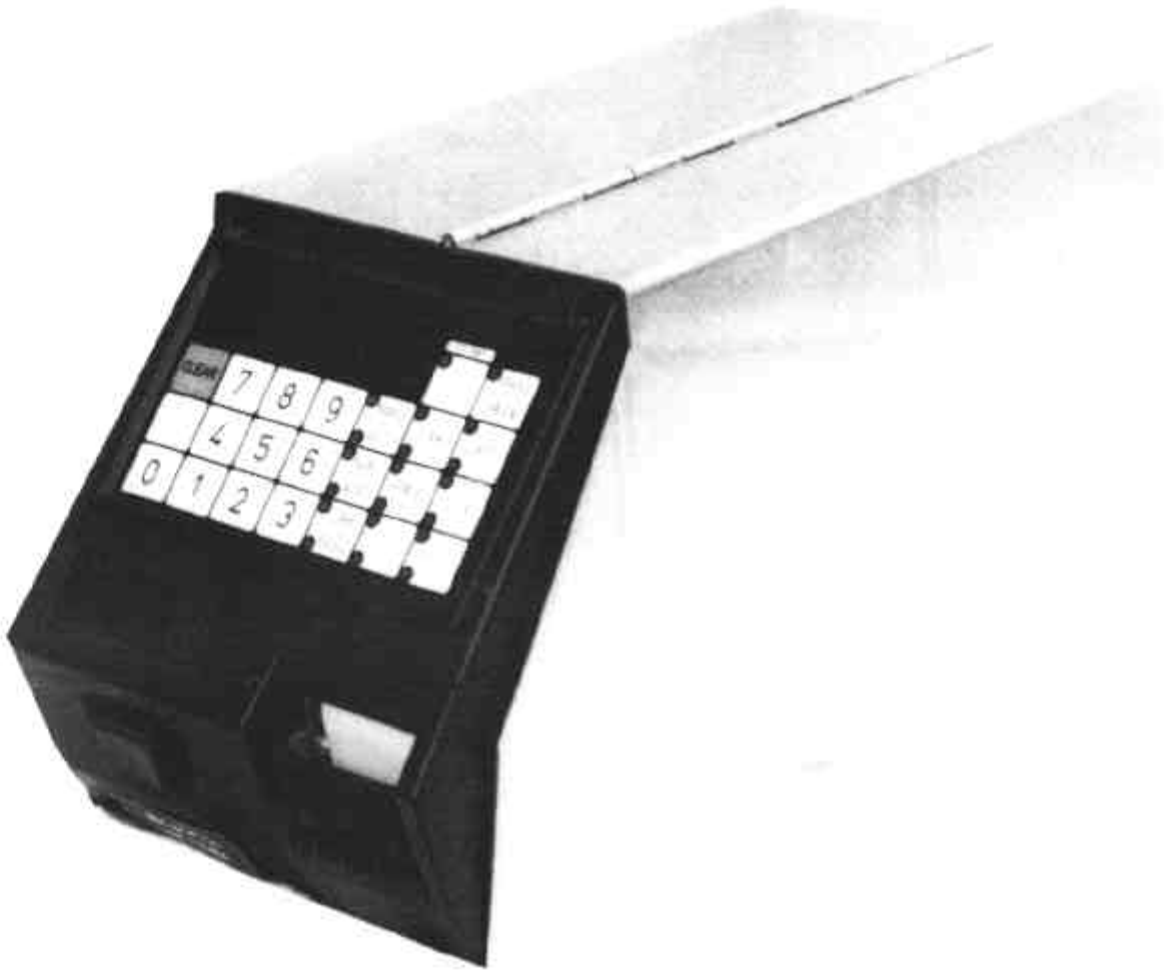
Of 30 kg capacity with a verification scale interval of 0.01 kg.

Instruments need not be provided with a zero light.

FIGURE 6/4C/50 - 1

Berkel Model 680CW

FIGURE 6/4C/50 - 2



Swedot 1800 Printer