



Australian Government
**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

Cancellation
Certificate of Approval
No 6/9C/285

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that the approval for use for trade granted in respect of the

CAS Model DB-IIF Weighing Instrument

submitted by CAS Corporation
19 Kanap-Ri, Gwangjoek-Myun
Yangju-Si, Kyunggi-Do
Republic of Korea

has been cancelled in respect of new instruments as from 1 March 2011.

Signed by a person authorised by the Chief Metrologist
to exercise his powers under Regulation 60 of the
National Measurement Regulations 1999.

A handwritten signature in black ink, consisting of a series of loops and flourishes, positioned to the right of the signature text.



Australian Government

**National Measurement
Institute**

12 Lyonpark Road, North Ryde NSW 2113

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CAS Model DB-IIF Weighing Instrument

submitted by CAS Corporation
19 Kanap-Ri, Gwangjoek-Myun
Yangju-Si, Kyunggi-Do
Republic of Korea.

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 August 2010, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/9C/285' and only by persons authorised by the submitter.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

The National Measurement Institute reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0/A.

This approval shall NOT be used in conjunction with General Certificate No 6B/0.

DESCRIPTIVE ADVICE

Pattern: approved 26 July 2005

- A CAS model DB-IIF self-indicating single interval weighing instrument with a maximum capacity of 60 kg.

Variant: approved 26 July 2005

1. Certain other models of the DB-IIF single or multi-interval series as listed in Table 1.

Technical Schedule No 6/9C/281 describes the pattern and variant 1.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/9C/285 dated 9 September 2005

Technical Schedule No 6/9C/285 dated 9 September 2005 (incl. Table 1 and Test Procedure)

Figures 1 to 3 dated 9 September 2005

Signed by a person authorised by the Chief Metrologist to exercise his powers under Regulation 60 of the National Measurement Regulations 1999.

A handwritten signature in black ink, appearing to be 'J. H. T.', located in the bottom right corner of the page.

TECHNICAL SCHEDULE No 6/9C/285

Pattern: CAS Model DB-IIF Weighing Instrument

Submittor: CAS Corporation
19 Kanap-Ri, Gwangjoek-Myun
Yangju-Si, Kyunggi-Do
Republic of Korea

1. Description of Pattern

A CAS model DB-IIF self-indicating single interval weighing instrument (Table 1 and Figure 1) with a maximum capacity of 60 kg and a verification scale interval of 0.02 kg.

Instruments are not to be used for trading direct with the public, and are so marked. Instruments are powered by AC mains supply (240 V 50 Hz).

1.1 Basework

The CAS model DB-IIF basework (Figure 2) has the load receptor directly supported by a single load cell. The load receptor has maximum nominal dimensions of 380 x 510 mm.

1.2 Load Cell

A CAS model BC-60DS load cell of 60 kg maximum capacity is used.

1.3 Indicator

A CAS model DB-IIF digital indicator with a single vacuum fluorescent display is used.

Instruments may be fitted with output sockets (output interfacing capability) for the connection of peripheral and/or auxiliary devices.

1.3.1 Additional Management Functions

The instrument also has provision for additional management functions such as the setting of target values and limits ('HI OK LO' display), percentage, counting, etc. and has buttons and displays associated with these functions.

The additional functions (other than the indications of measured mass, i.e. gross, tare, net, totals, displayed either on the indicator or on an auxiliary or peripheral device) are not approved for trade use.

NOTE: If an alternative unit (lb/kg) function is fitted it must be inoperative.

1.3.2 Zero

Zero is automatically corrected to within $\pm 0.25e$ whenever power is applied and whenever the instrument comes to rest within $0.5e$ of zero.

The initial zero-setting device of the pattern has a nominal range of not more than 20% of the maximum capacity of the instrument.

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

1.3.3 Tare

A semi-automatic subtractive taring device of up to the 59.98 kg capacity may be fitted.

1.3.4 Display Check

A display check is initiated whenever power is applied.

1.4 Levelling

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

1.5 Sealing Provision

Provision is made for access to the calibration adjustments to be prevented by sealing the access cover on the rear of the indicator by either a destructible adhesive label or a wire and lead seal (Figure 3).

1.6 Verification/Certification Provision

Provision is made for a verification/certification mark to be applied.

1.7 Markings and Notices

(a) Instruments carry the following markings:

Manufacturer's mark, or name written in full	CAS, Corporation
Indication of accuracy class	Ⓜ
Pattern approval mark for the instrument	6/9C/285
Maximum capacity	<i>Max</i> kg *
Minimum capacity	<i>Min</i> kg *
Verification scale interval	<i>e</i> = kg *
Tare capacity	<i>T</i> = - kg
Serial number of the instrument

* These markings shall also be shown near the display of the result if they are not already located there.

(b) In addition, instruments not greater than 100 kg capacity shall carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

2. Description of Variant 1

Certain other models and capacities of the DB-IIF series of single or multi-interval instruments as listed in Table 1.

TABLE 1

(i) Single interval instruments:

Maximum capacity, kg	60	150	300
Value of verification scale interval, kg	0.02	0.05	0.1

(ii) Multi-interval instruments:

Capacity of each interval range, kg	30/60	60/150	150/300
Value of verification scale intervals, kg	0.01/0.02	0.02/0.05	0.05/0.1
Maximum platform size, #A or #B	#A	#A	#B
Maximum tare capacity, kg	59.98	149.95	299.9
Load cell model numbers: CAS:	BC-60DS	BC-150DS	BC-300DS

Note: Platform size #A = 380 x 510 mm, and size #B = 500 x 640 mm

Approved Capacities of DB-IIF Series Instruments

TEST PROCEDURE

Instruments should be tested in accordance with any relevant tests specified in the Uniform Test Procedures.

Maximum Permissible Errors at Verification/Certification

For single range instruments, the maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads, m , expressed in verification scale intervals, e , are:

- $\pm 0.5 e$ for loads $0 \leq m \leq 500$;
- $\pm 1.0 e$ for loads $500 < m \leq 2\,000$; and
- $\pm 1.5 e$ for loads $2\,000 < m \leq 10\,000$.

For multi-interval instruments with verification scale intervals of e_1, e_2, \dots , apply e_1 for zero adjustment, and for maximum permissible errors apply e_1, e_2, \dots , as applicable for the load.

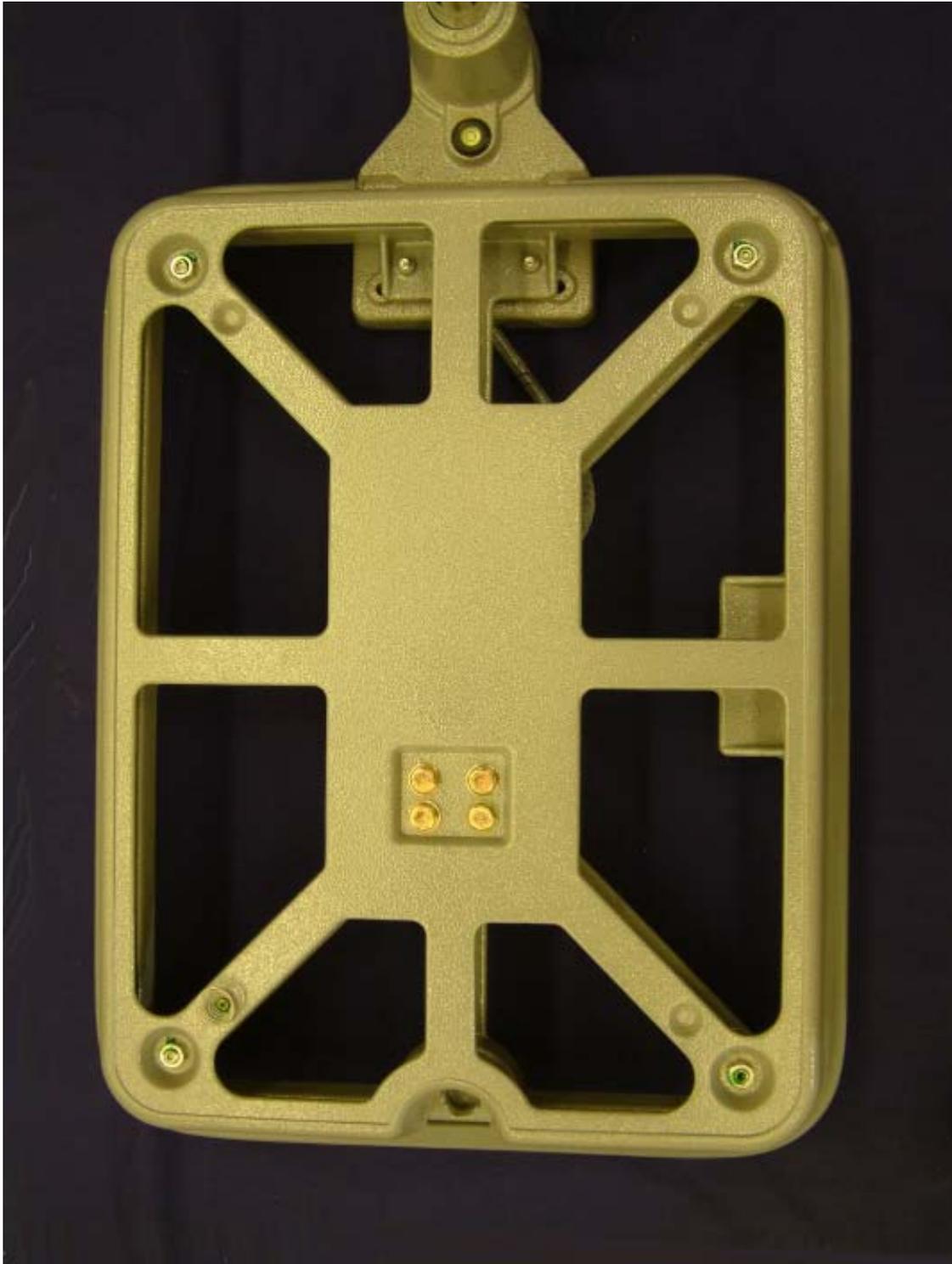
FIGURE 6/9C/285 – 1



CAS Model DB-IIF Weighing Instrument

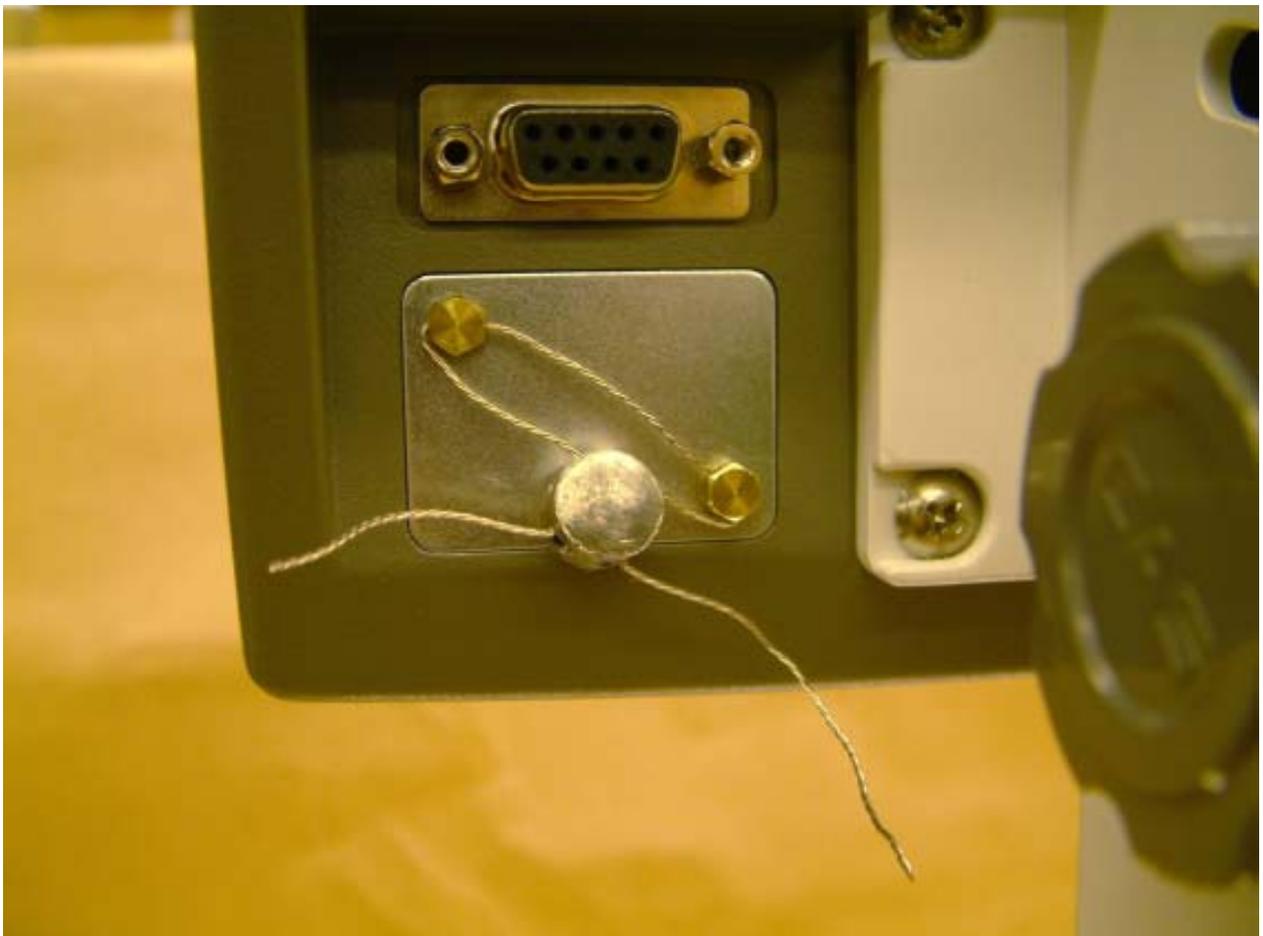
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FIGURE 6/9C/285 – 2



Typical CAS Model DB-IIF Basework

FIGURE 6/9C/285 – 3



Showing Sealing of The Calibration Access Cover