

National Standards Commission



Certificate of Approval No 6/9C/200

Issued under Regulation 9
of the
National Measurement (Patterns of Instruments) Regulations

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

Yamato Model DP-5000 Weighing Instrument

submitted by Yamato Scale Co Ltd
(formerly submitted by Yamato Scale Australia)
5/22 Chaembo-cho
Akashi 673 Japan.

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

A handwritten signature in cursive script, appearing to read 'J. Birch'.

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/6/91.
This approval expires in respect of new instruments on 1/6/92.

Instruments purporting to comply with this approval shall be marked NSC No 6/9C/200 and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the drawings and specifications lodged with the Commission 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 the Commission's Document 106.

The values of the performance criteria (maximum number of scale intervals etc.) applicable to the instrument shall be within the limits specified herein and in any approval documentation for the components where they are approved separately.

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

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

DESCRIPTIVE ADVICE

Pattern: approved 27/5/86

- A Yamato model DP-5000 weighing instrument of 60 kg capacity with a verification scale interval of 0.02 kg.

Technical Schedule No 6/9C/200 describes the pattern.

Variant: approved 12/2/87

1. Of various capacities and configurations as listed in Table 1.

Technical Schedule No 6/9C/200 Variation No 1 describes variant 1.

Variants: approved 21/3/90

2. Of 300 kg capacity with up to 3000 verification scale intervals.
3. With a model R208-A1 or R208-A2 indicator.

Technical Schedule No 6/9C/200 Variation No 2 describes variants 2 and 3.

FILING ADVICE

Certificate of Approval No 6/9C/200 dated 3/4/87 is superseded by this Certificate and may be destroyed.

The documentation for this approval now comprises:

Certificate of Approval No 6/9C/200 dated 11/5/90
Technical Schedule No 6/9C/200 dated 7/8/86
Technical Schedule No 6/9C/200 Variation No 1 dated 3/4/87 (incl.
Table 1)
Technical Schedule No 6/9C/200 Variation No 2 dated 11/5/90
Test Procedure No 6/9C/200 dated 7/8/86
Figures 1 and 2 dated 7/8/86
Figure 3 dated 11/5/90



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/9C/200

Pattern: Yamato Model DP-5000 Platform Weighing Instrument

Submittor: Yamato Scale (Australia) Pty Ltd
16 Gertrude Street
Arncliffe NSW 2203

1. Description of Pattern

A platform weighing instrument (Figure 1) of 60 kg capacity with a verification scale interval of 0.02 kg and approved for use with a maximum of 3000 verification scale intervals.

1.1 Basework

The model DP-5000 basework uses a model UH61-100-C3 load cell of 100 kg capacity (Figure 2). The basework is provided with adjustable feet and adjacent to the level indicator is a notice advising that the instrument must be level when in use.

1.2 Indicator

A Yamato model EDI-302 digital indicator is used. (Note: The numeric keyboard is inoperative). The instrument may be fitted with an output socket for the connection of an auxiliary or a peripheral device.

1.2.1 Zero

Zero is automatically corrected to within $\pm 0.25e$ whenever the instrument comes to rest within $0.5e$ of zero. If the instrument comes to rest outside that range but within the zero reset range, zero may be reset by pressing the zero button. The zero light illuminates whenever zero is within $\pm 0.25e$.

1.2.2 Display Check

A display check is initiated whenever power is applied to the instrument.

1.2.3 Tare

A semi-automatic subtractive taring device of up to maximum capacity may be fitted.

1.2.4 Totalising

The instrument may have a memory function allowing successive weighings to be totalised.

1.3 Markings

Instruments are marked with the following data, together in one location:

Manufacturer's name or mark	
Approval number	NSC No 6/9C/200
Serial number	
Accuracy class	(III)
Maximum capacity	Max kg *
Minimum capacity	Min kg *
Verification scale interval	e = d = kg *
Maximum subtractive tare	T = -..... kg
Load cell approval number)	
Headwork approval number) where	
Basework approval number) appropriate	

In addition, instruments shall be marked NOT FOR RETAIL COUNTER USE and INSTRUMENT MUST BE LEVEL WHEN IN USE (or similar wording).

* These markings are repeated adjacent to each reading face, if not already in that vicinity.

1.4 Verification Mark

Provision is made for a verification mark to be applied.

TEST PROCEDURE No 6/9C/200

All load applications 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:

- $\pm 0.5e$ for loads between 0 and 500e;
- $\pm 1.0e$ for loads between 501e and 2000e; and
- $\pm 1.5e$ 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 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 ($\pm 2\%$ approximately). With zero balance indicated apply a load of, say, 2.5% of maximum capacity to the instrument and press the zero button; the instrument should not rezero.

3. Range of Indication

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

4. Load Test

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.

5. Tare Test

The semi-automatic taring device (where fitted) shall be able to reset the mass indicator to zero within $\pm 0.25e$ at any load within its capacity; this may be checked as described for Zero Test

A tare shall not be able to be acquired above the maximum tare range marked on the instrument.



NATIONAL STANDARDS COMMISSION

6/9C/200
3/4/87

TECHNICAL SCHEDULE No 6/9C/200

VARIATION No 1

Pattern: Yamato Model DP-5000 Platform Weighing Instrument

Submittor: Yamato Scale (Australia) Pty Ltd
16 Gertrude Street
Arncliffe NSW 2205

1. Description of Variant 1

Of various capacities and configurations and using the load cells as listed in Table 1.

TABLE 1

Type: Yamato DP-5000 Platform

Maximum capacity (kg)	30	150	300
Minimum capacity (kg)	0.2	1.0	2.0
Minimum value of verification scale interval (kg)	0.01	0.05	0.1
Load cell: Yamato			
- model	UH61-50-C3	UH61-250-C3	UH61-500-C3
- capacity (kg)	50	250	500
Load receptor dimensions (mm)	550 x 350	550 x 350	750 x 500

Approved Capacities



National Standards Commission

TECHNICAL SCHEDULE No 6/9C/200

VARIATION No 2

Pattern: Yamato Model DP-5000 Platform Weighing Instrument

Submitter: Yamato Scale Co Ltd
5/22 Chaembo-cho
Akashi 673 Japan.

1. Description of Variants

1.1 Variant 2

Of 300 kg capacity with up to 3000 verification scale intervals.

1.2 Variant 3

With a model R208-A1 or R208-A2 Indicator (Figure 3) approved for use with up to 1000 verification scale intervals.

These Indicators operate in similar manner to the model EDI-302 Indicator of the pattern, except that the model R208-A1 does not have a totalising facility.



NATIONAL STANDARDS COMMISSION

6/9C/200
7/12/87

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/9C/200

CHANGE No 1

The following change is made to the approval documentation for the
Yamato Model DP-5000 Platform Weighing Instrument

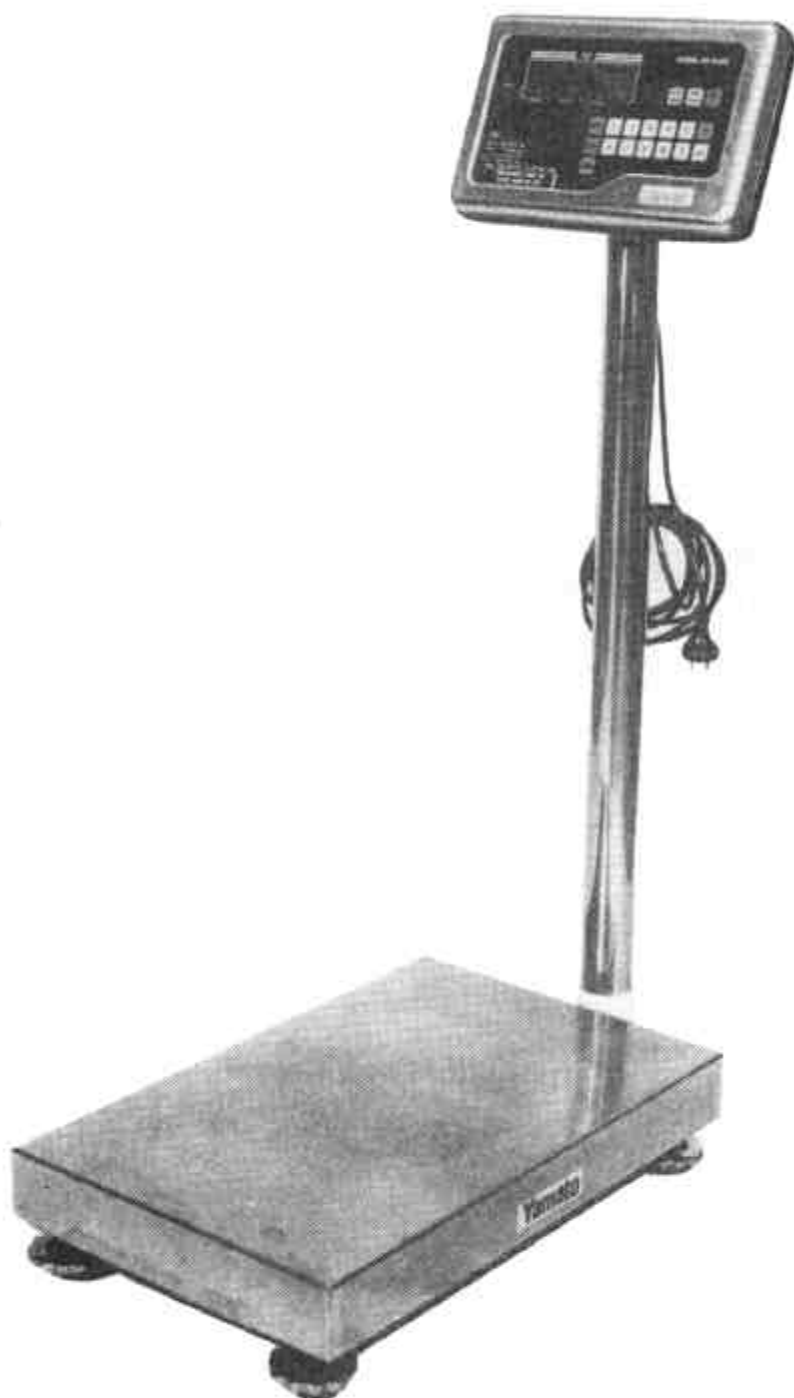
submitted by Yamato Scale (Australia) Pty Ltd
16 Gertrude Street
Arncliffe NSW 2203.

In Table 1 of Technical Schedule No 6/9C/200 Variation No 1 dated 3/4/87, the maximum capacity for the 30 kg instrument, which uses the UH61-50-C3 load cell, should be changed to read 31 kg.

Signed

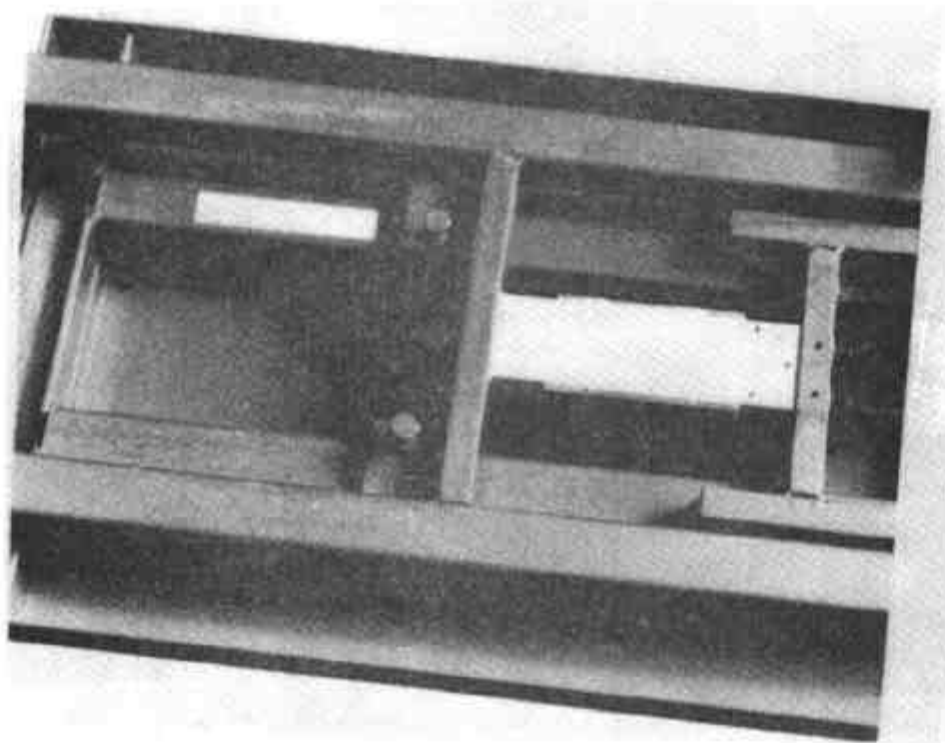
Executive Director

FIGURE 6/9C/200 - 1

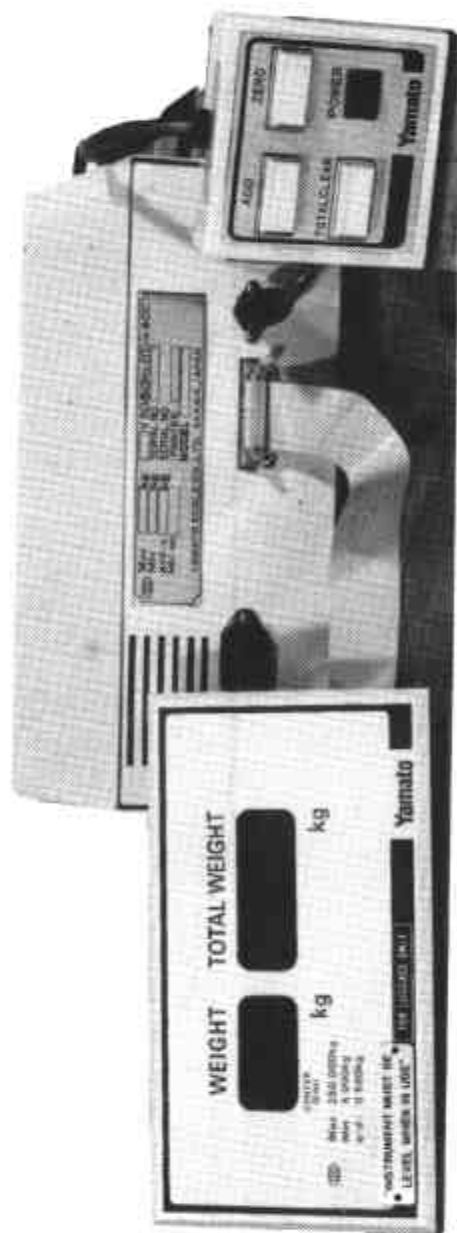


Yamato DP-5000

FIGURE 6/9C/200 - 2



With Load Cell Cover Removed



Typical R208-A2 Indicator