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6/4D/92A
18/8/86



NATIONAL STANDARDS COMMISSION

NATIONAL MEASUREMENT (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/4D/92A

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

Yamato Model R-400 Weighing Instrument

submitted by Yamato Scale (Australia) Pty Ltd
16 Gertrude Street
Arncliffe NSW 2205.

This Certificate is issued upon completion of a review of NSC approval No 6/4D/92.

Conditions of Approval

This approval is subject to review on or after 1/8/91

Instruments purporting to comply with this approval shall be marked NSC No 6/4D/92A.

This approval may be withdrawn if instruments are constructed and used other than in accordance with the drawings and specifications lodged with the Commission.

Signed

Executive Director

Descriptive Advice

Pattern: approved 2/7/86

- A self-indicating price-computing weighing instrument of 15 kg capacity with a verification scale interval of 0.005 kg.

Variants: approved 2/7/86

- Without price-computing, of 15 kg capacity with a verification scale interval of 0.005 kg and known as a model M-401.
- Without price-computing, of 30 kg capacity with a verification scale interval of 0.01 kg and known as a model M-401.

Technical Schedule No 6/4D/92A describes the pattern and variants.

Filing Advice

The documentation for this approval comprises:

Certificate of Approval No 6/4D/92A dated 18/8/86
Technical Schedule No 6/4D/92A dated 18/8/86
Test Procedure No 6/4D/92A dated 18/8/86
Figures 1 and 2 dated 18/8/86



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/92A

Pattern: Yamato Model R-400 Weighing Instrument

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

1. Description of Pattern

A self-indicating price-computing weighing instrument (Figure 1) of 15 kg capacity with a verification scale interval of 0.005 kg, unit price to \$99.99/kg and price to \$999.99. The instrument may be fitted with an output socket for the connection of a peripheral or an auxiliary device and may also be fitted with a remote display.

1.1 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 is reset by use of the tool-operated zero device at the front of the instrument. The zero light is illuminated whenever zero is within $\pm 0.25e$.

1.2 Display Check

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

1.3 Tare

A semi-automatic subtractive taring device of up to 0.995 kg capacity may be fitted.

1.4 Markings

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

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No 6/4D/92A
Accuracy class	III
Maximum capacity	Max kg *
Minimum capacity	Min kg *
Verification scale interval	e = d = kg *
Maximum subtractive tare	T = - kg

* Repeated adjacent to each reading face if not already in that vicinity.

1.5 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.

1.6 Verification Provision

Provision is made for a verification mark to be applied.

2. Description of Variants

2.1 Variant 1

Without price-computing, of 15 kg capacity with a verification scale interval of 0.005 kg and known as a model M-401. The instrument may be fitted with a semi-automatic subtractive taring device of up to 0.995 kg capacity.

2.2 Variant 2

Without price-computing, of 30 kg capacity with a verification scale interval of 0.01 kg and known as a model M-401. The instrument may be fitted with a semi-automatic subtractive taring device of up to 9.990 kg capacity.

TEST PROCEDURE No 6/4D/92A

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 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 (± 2% approximately). With zero balance indicated apply a load of, say, 2.5% of maximum capacity to the instrument and operate the zero device; the instrument should not rezero.

3. Load Test

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

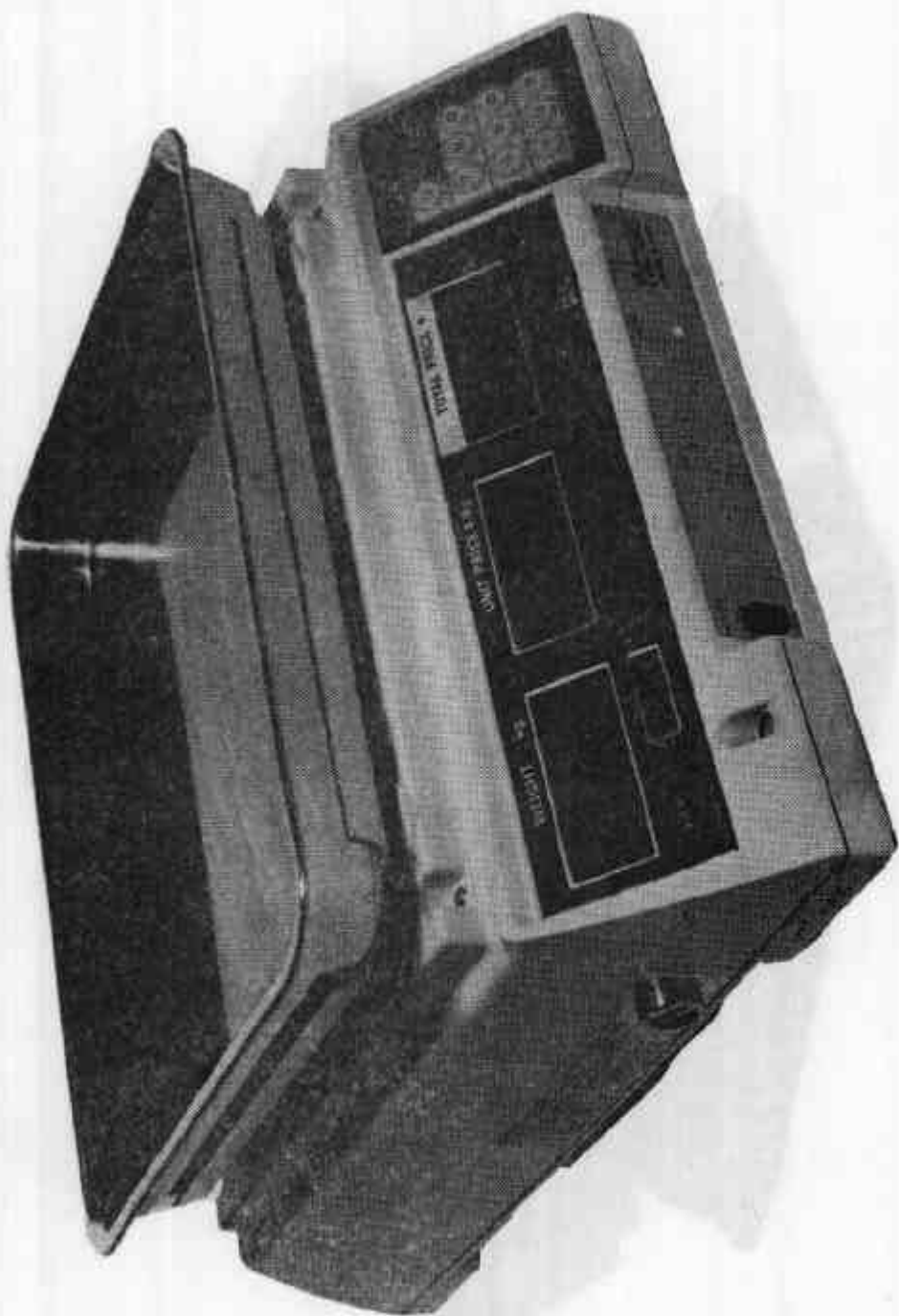
4. Range of Indication

- (a) The maximum mass indicated should not exceed the marked maximum capacity 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 or show non-numerical characters.

5. Taring

The 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.

FIGURE 6/40/92A - 1

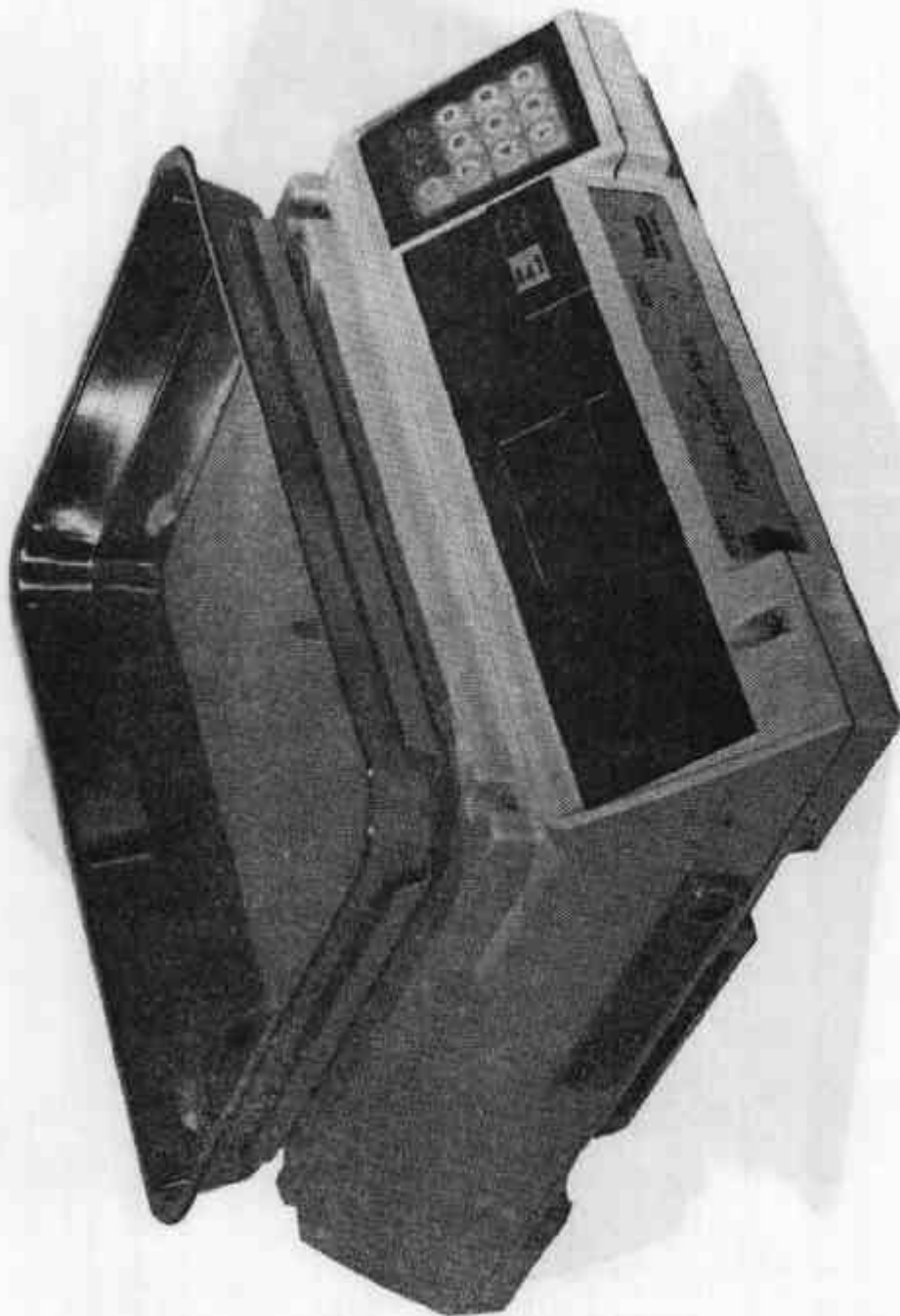


Model R400 - Vendor's Side

6/40/92A
18/8/86

6/4D/92A
18/8/86

FIGURE 6/4D/92A - 2



Made 1 M-401