NATIONAL STANDARDS COMMISSION

CANCELLED Cert. No. 6/1

CERTIFICATE OF APPROVAL No 6/4D/93

This is to certify that the pattern of the

Yamato Weighing Instrument Model R 207

submitted by Yamato Scale Co. Ltd,
5-22 Chaemba-cho,
Akashi, Hyogo, Japan,

has been approved under the Weights and Measures (Patterns of Instruments) Regulations as being suitable for use for trade.

Date of Approval: 13 September 1979

- Capacity 5,010 kg by 5 g with price-computing in 1 c increments to $99,99/kg

The pattern is described in Technical Schedule No 6/4D/93, and in drawings and specifications lodged with the Commission.

The approval is subject to review on or after 3/8/84.

All instruments conforming to this approval shall be marked with the approval number "NSC No 6/4D/93".

Signed

Executive Director

29/9/79

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/93

Pattern: Yamato Weighing Instrument Model R 207

Submittor: Yamato Scale Co. Ltd,
5-22 Chaemba-cho,
Akashi, Hyogo, Japan.

Date of Approval: 13/9/79

Description:

The pattern (Figures 1 and 2) is a self-indicating price-computing weighing instrument of capacity 5,010 kg by 5 g scale interval with price-computing in 1 c increments to $99,99/kg and total price to $500,95. Mass, unit price and price are digitally indicated on both the vendor's and purchaser's sides. The unit price is entered sequentially by ten push-buttons and cancelled by pressing a button marked C.

The load receptor is stayed and supported by the main lever which applies the load to a spring-resistant mechanism (Figures 3 and 4). A graticule on the end of the main lever passes between a light source and a photo-electric cell to form a photo-electric pulse generator, the number of pulses generated being proportional to the deflection of the lever. The pulses are counted and converted to a mass indication and in the computer multiplied by the unit price to allow total price to be indicated.

A tool-operated zero adjustment, which varies the load on a spring resistant connected to the load-receptor support, is accessible from the front of the instrument. A ZERO light illuminates when the instrument is within 0,25 scale interval of zero. A weighing-mechanism locking device is provided on the top of the instrument.

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

Operation of the display test button will cause the indicators to display "8's" as a check that the display is working correctly.

The nameplate is marked with the following data:

Manufacturer's name	
Serial number of instrument	
NSC approval number in the form:	NSC NO 6/4D/93
Accuracy class in the form:	(III)
Maximum capacity in the form:	Max 5,010 kg *
Minimum capacity in the form:	Min 0,1 kg *
Verification scale interval in the form:	d_d = e = 0,005 kg

* These markings are repeated on each reading face.

The instrument is sealed by means of a stamping plug over a retaining screw.

Test Procedure:

1. Accuracy Requirements

The maximum permissible errors are:

± 0,5e for loads between 0 and 500e,
± 1e for loads between 501 and maximum capacity.

2. Zero Balance

Check by means of the Commission's digital zero test (Design Manual No 1, Document 104, Testing Procedure for the Elimination of Rounding Error for Weighing Instruments with Digital Indicators) that, when the ZERO LIGHT is illuminated, zero is set within 0,25e of zero.

3. Price-computing and Mass Circuits

The indications of mass, unit price and price, as listed in Table 1, will indicate that the price-computing and weighing circuits are functioning correctly. The exact figures should be indicated as rounding is effected within the computer.

Note: This test does not establish correct mass indications; a separate test in accordance with the Commission's recommended test procedures for the elimination of rounding errors — Document 104 — is necessary.

4. Level Sensitivity

When the instrument is tilted so that the bubble in the level

indicator moves 2 mm, zero should not change by more than two graduations, and when zero is reset in the tilted position the instrument should satisfy the weighing-accuracy requirements given above.

5. Range of Indication

(a) The maximum mass indicated should not exceed 5,010 kg; above this indicated mass the indicator should be blank;

(b) the minimum mass indicated should be zero; below this indicated mass the indicator should be blank.

6. Locking Device

Check that operation of the locking device causes the indicators to blank out.

TABLE 1

Indicated mass	Price per kg	Price
kg	$	$
0,000	00,00	00,00
0,100	99,90	9,99
0,105	98,99	10,39
0,110	97,99	10,78
0,120	96,99	11,64
0,130	95,99	12,48
0,140	94,99	13,30
0,150	93,99	14,10
0,160	92,99	14,88
0,170	91,90	15,62
0,180	90,98	16,38
0,190	89,88	17,08
0,200	79,77	15,95
0,300	69,66	20,90
0,400	59,55	23,82
0,500	49,44	24,72
0,600	39,33	23,60
0,700	29,22	20,45
0,800	19,11	15,29
0,900	09,01	08,11
1,000	20,33	20,33
1,500	20,98	31,47
2,000	25,99	51,98
2,500	24,98	62,45
3,000	56,99	170,97
3,500	81,98	286,93
4,000	99,89	399,56
5,000	99,00	495,00

Test Procedure — 5,010 kg Instrument
with Unit Price to $99,99/kg

NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/4D/93

CHANGE No 1

The description of the

Yamato Weighing Instrument Model R 207

given in Technical Schedule No 6/4D/93 issued on 29/9/79 is altered by replacing Figure 1 with the attached figure.

Note: The instrument has ten price-entry buttons and a cancellation button.

5/11/79

29/9/79
(Replaced 5/11/79)

FIGURE 6/4D/93 - 1

Yamato Model R 207

FIGURE 6/4D/93 - 2

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Yamato Model R 207 — Purchaser's Side

FIGURE 6/4D/93 - 3

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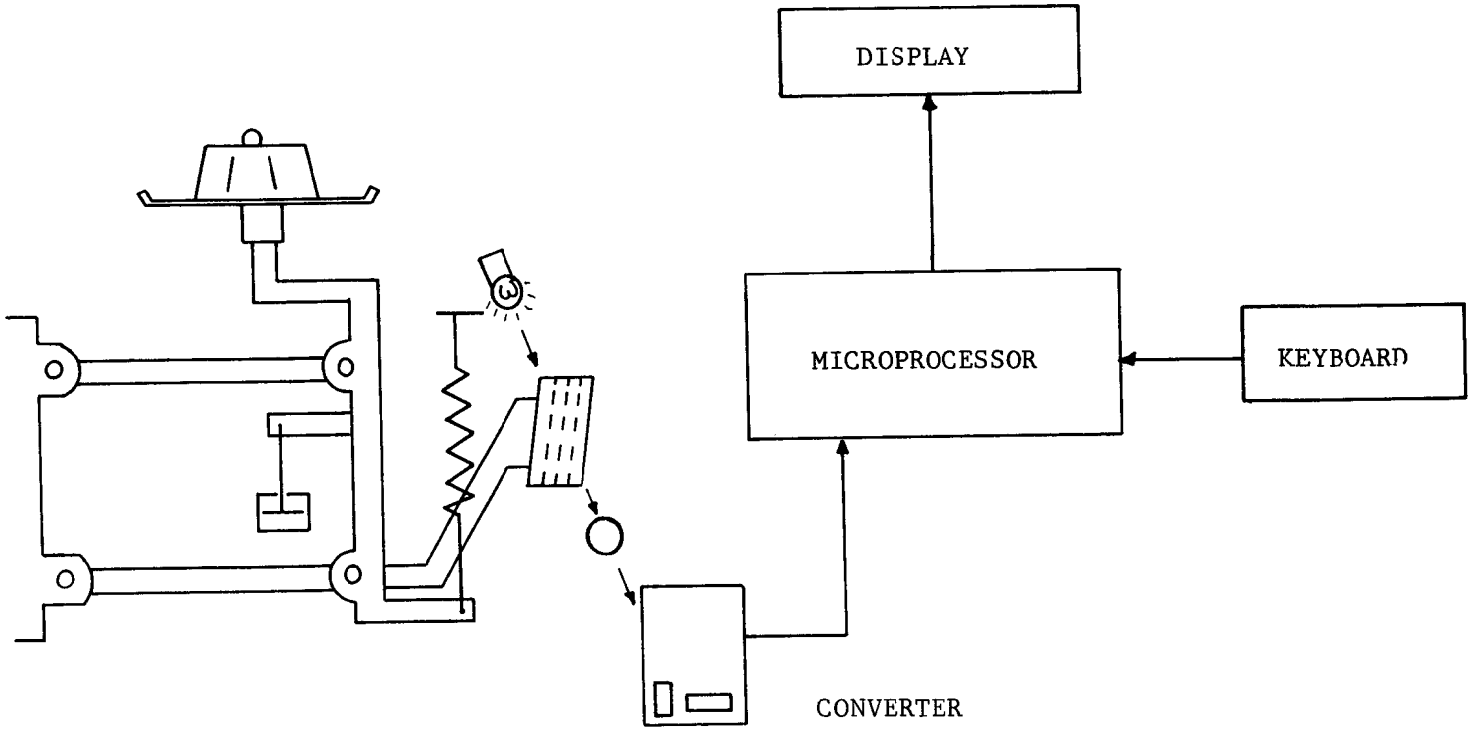
Yamato Model R 207 with Cover Removed

FIGURE 6/4D/93 - 4



Yamato Model 207 — Schematic Diagram