NATIONAL STANDARDS COMMISSION

WEIGHTS AND MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/4D/220 CANCELLED

This is to certify that an approval has been granted by the Commission that the pattern of the

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Bizerba Model PV Price-computing Label-printing Weighing Instrument

submitted by Bizerba-Werke
Wilhelm-Kraut-Strasse 41
D-7460 Balingen 1
Federal Republic of Germany

is suitable for use for trade.

The approval is subject to review on or after 1/6/88.

Instruments purporting to comply with this approval shall be marked NSC No 6/4D/220.

Relevant drawings and specifications are lodged with the Commission.

Signed
Raymond Keele
Acting Executive Director

Descriptive Advice

Pattern: approved 22/4/83

. Bizerba model PV price-computing weighing and labelling instrument of 6 kg capacity by 0.002 kg scale intervals, with price computing to $99.99/kg and total price to $599.94.

Filing Advice

The documentation for this approval comprises:

Certificate of Approval No 6/4D/220 dated 19/5/83
Technical Schedule No 6/4D/220 dated 19/5/83
Test Procedure No 6/4D/220 dated 19/5/83
Figures 1 to 3 dated 19/5/83.

19/5/83

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/220

Pattern: Bizerba Model PV Price-computing Label-printing Weighing Instrument

Sumittor
Bizerba-Werke
Wilhelm-Kraut-Strasse 41
D-7460 Balingen 1
Federal Republic of Germany

1. Description of Pattern

The pattern is a self-indicating price-computing label-printing weighing instrument incorporated in a belt conveyor system and known as Bizerba model PV (Figure 1).

Maximum conveyor speed is 60 packages/minute.

Capacity	6.000 kg
Scale interval	0.002 kg
Tare	-398 g
Unit price	to $99.99/kg in 1 c increments
Price	to $599.94 in 1 c increments

1.1 Weighing Unit

A model F3 spring-resistant weighing unit (Figure 2) of capacity 6 kg by 0.002 kg scale intervals.

1.2 Indicator Unit

The indicator (Figure 3) displays gross mass (net mass is shown on the label).

1.3 Tare

A digital tare is selected by thumb-wheel switches (Figure 3); range is 0 to 398 grams in 2 g increments. The value of the tare is displayed on the thumbwheel switches.

1.4 Zero

A zero adjustment, provided on the front of the weighing unit, can be used to set zero within 0.25e indicated by the ZERO light illuminating.

1.5 Label Printer

A label produced by the instrument shows net mass.

1.6 Markings

Instruments are marked with the following data grouped on the indicator face:

Manufacturers name or mark	
Serial number	
NSC approval number	NSC No 6/4D/220
Accuracy class	(III)
Maximum capacity	Max = 6 kg
Minimum capacity	Min = 0.040 kg
Verification scale interval	e = d = 0.002 kg
Maximum subtractive tare	T = -398 g

In addition, the serial numbers of the indicator unit, the weighing unit and the label printer are grouped together next to the stamping plug (Figure 2).

1.7 Levelling

1.7.1

The pattern is provided with adjustable feet. The weighing unit is set level and the conveyor unit is adjusted accordingly.

1.7.2

The weighing unit is fitted with a level indicator. The weighing unit and the indicator unit are each marked with a notice that the instrument must be level when in use.

TEST PROCEDURE No 6/4D/220

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.

Accuracy Requirements

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. Static Tests

1.1 Zero Test

Check by means of Document 104 that when the ZERO light illuminates, zero is set within 0.25e.

1.2 Zero Range

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

1.3 Price-computing Accuracy

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

1.4 Range of Indication

(a) The maximum mass indicated should not exceed the maximum capacity (Max) by more than 10e; above this the indicator should be blank.

(b) Below zero the indicator should be blank.

1.5 Load Test

Test loads are applied to the instrument, with the first load equal to minimum capacity, increasing in not less than 5 approximately equal steps to maximum capacity, followed by decreasing loads of not less than 5 approximately equal steps to zero load. The instrument should display these loads within the above accuracy requirements.

1.6 Level Sensitivity

Note: This test may be completed in conjunction with Test 2.2.

When the instrument is tilted so that the bubble in the level indicator moves 2 mm, the indication of zero should not change by more than 2e, and when, in the tilted position, it is manually reset, the instrument when loaded should satisfy the accuracy requirements on Page 1.

2. Dynamic Tests

Tickets should be obtained, if possible, for the following tests.

2.1 Load Test

Test loads are to be applied to the instrument in not less than 5 steps to maximum capacity, as per 1.5.

2.2 Level Sensitivity

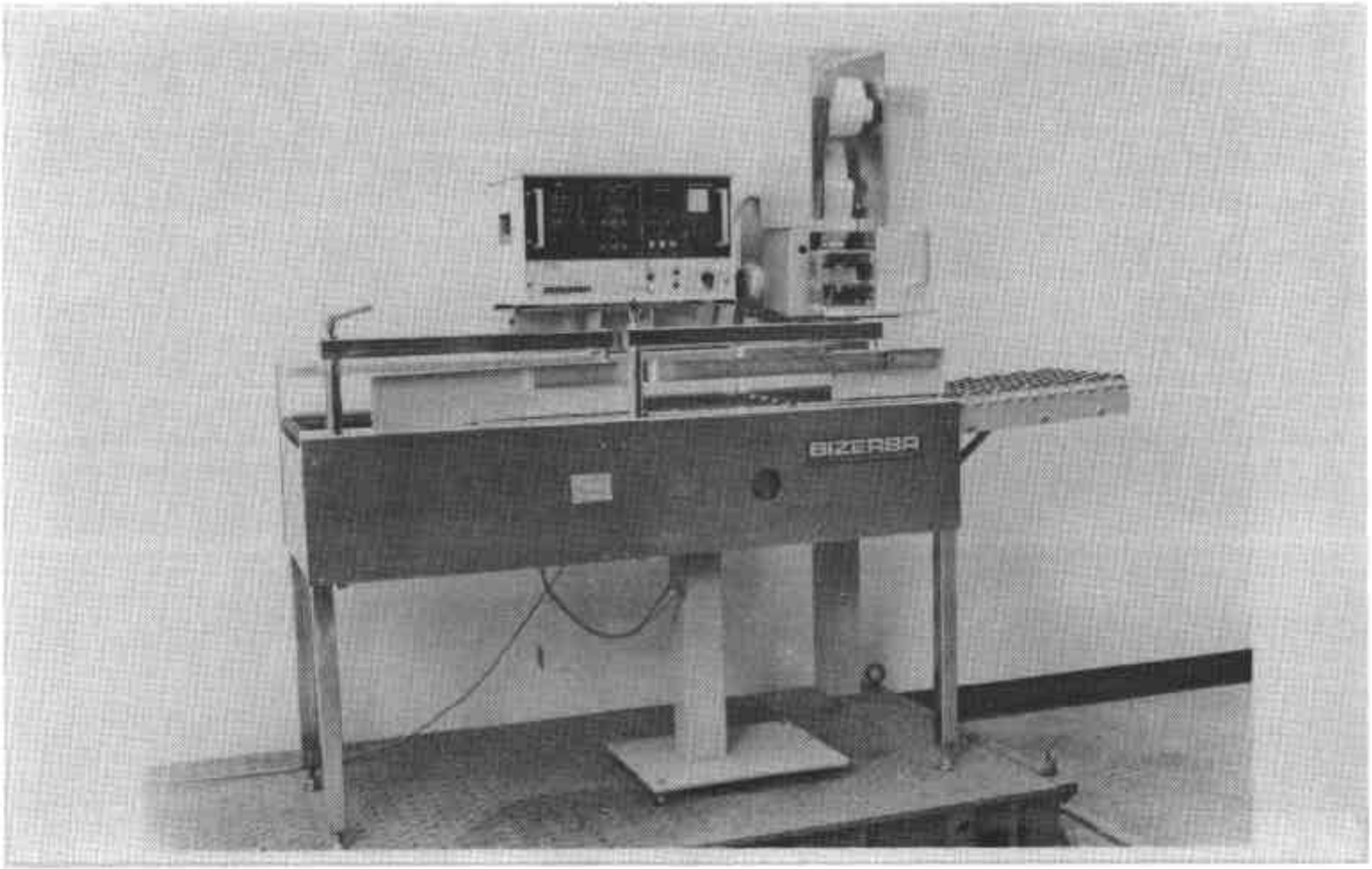
Having completed test 1.6, and with instrument in the tilted position, apply 5 test loads to the instrument with the first load equal to minimum capacity.

The instrument should display these loads within the accuracy requirements on Page 1.

Table 1

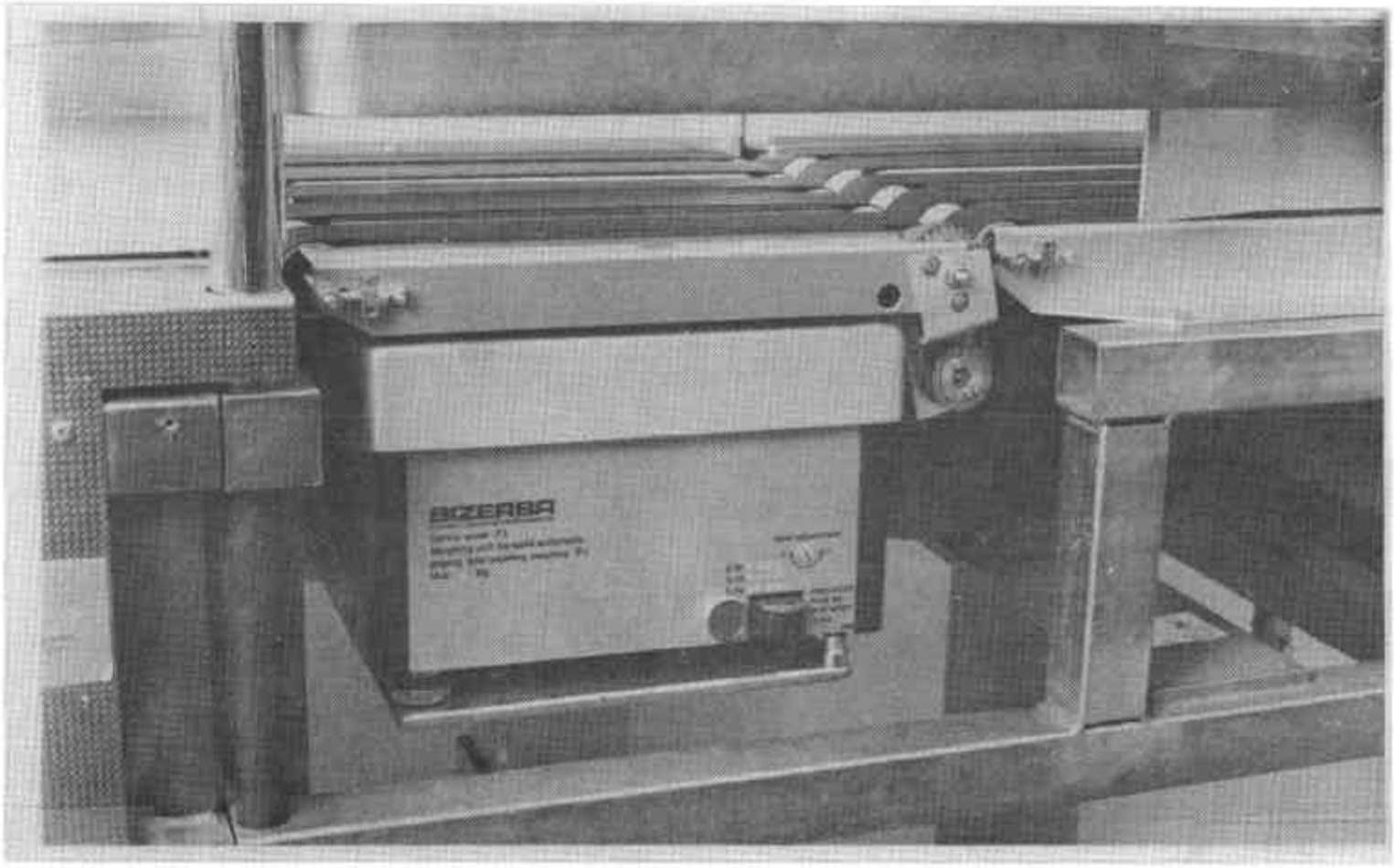
Indicated Mass $	Unit Price $	Price $
0.000	0.00	000.00
0.150	77.93	011.69
5.000	94.53	472.65
5.500	97.63	536.97
6.000	99.99	599.94

FIGURE 6/40/220 - 1



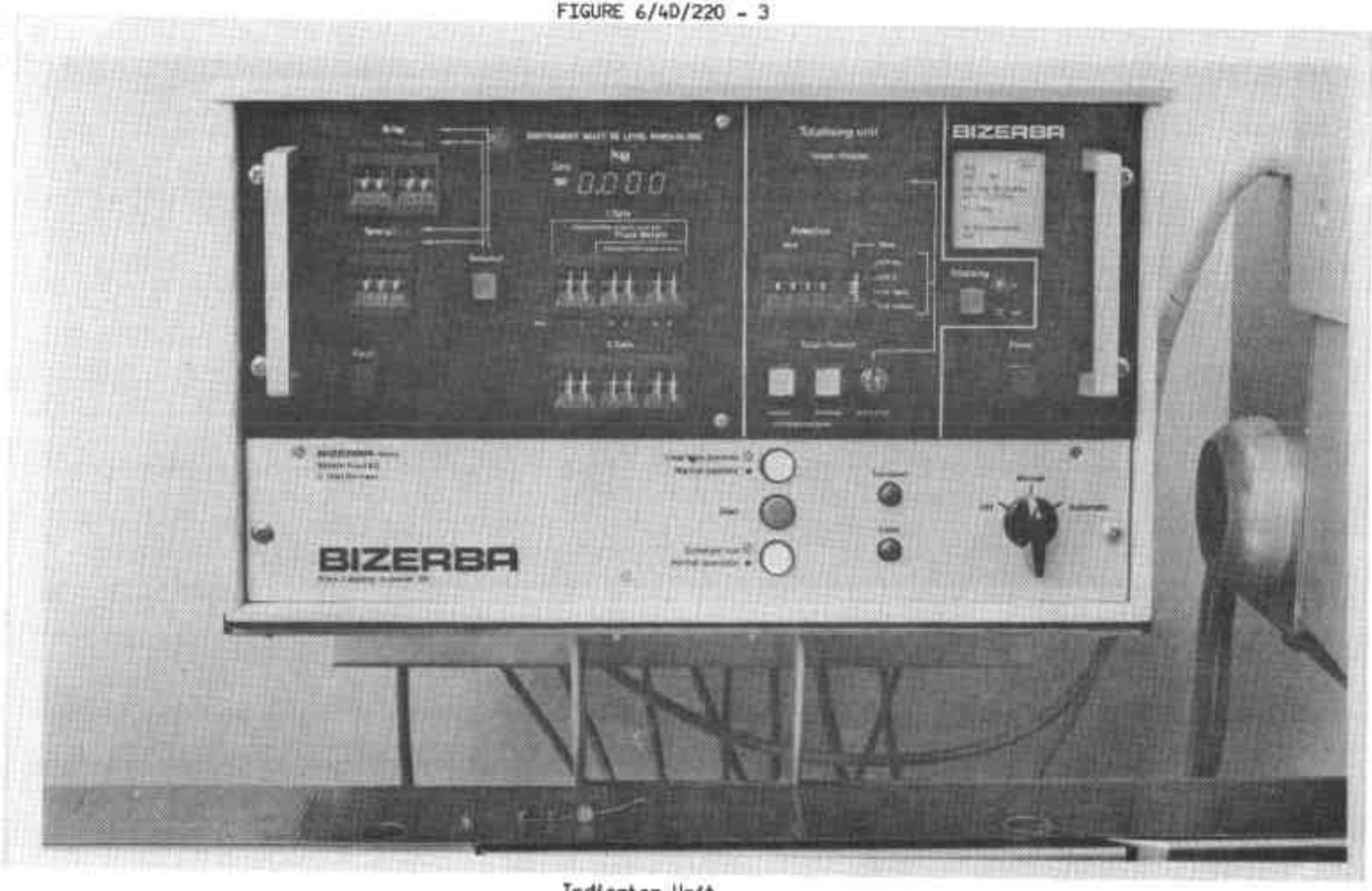
Bizerba Model PV

FIGURE 6/4D/220 - 2



Weighing Unit

FIGURE 6/40/220 - 3



Indicator Unit