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# NATIONAL STANDARDS COMMISSION

## WEIGHTS AND MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

### REGULATION 9

#### SUPPLEMENTARY CERTIFICATE OF APPROVAL No S107

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

Veeder-Root Model VR2002AE Price-computing Driveway Flowmeter Indicator

submitted by Veeder-Root (Australia) Pty Ltd  
82 Herald Street  
Cheltenham, Victoria, 3192

are suitable for use for trade when used to replace the price-computing indicator in any Commission-approved driveway flowmeter listed in Table 1.

The approval is subject to review on or after 1/1/86.

Instruments fitted with an indicator purporting to comply with this approval shall be marked NSC No S107 in addition to the approval number of the instrument.

The approval may be withdrawn if instruments are used other than as described in the drawings and specifications lodged with the Commission.

#### Conditions of Approval

1. The pattern or variants 1, 2 or 5 may replace any 4-digit price-computing indicator fitted to any driveway flowmeter listed in Table 1, where:
  - (a) the input shaft rotates at  $4.0 \pm 0.2$  revolutions per litre;
  - (b) the maximum flow rate is 50 L/min except as modified by variant 2; and
  - (c) the driveway flowmeter is not part of a self-serve installation.
2. If the pattern or variants 1, 2 or 5 replaces an electronic price-computing indicator with preset facility, the customer preset panel and indicator must be removed.

In addition to Conditions of Approval 1 and 2, for variant 4 only;

3. The unit price is limited to a maximum of 70.0 c/L.
4. The only mixtures (blends) approved are 100% standard or 100% super i.e. ratios of 0:1 or 1:0 only.

Signed

Executive Director

Descriptive Advice

Pattern: approved 31/3/81

. Veeder-Root model VR2002AE price-computing driveway flowmeter indicator.

Technical Schedule No S107 dated 4/8/81 describes the pattern.

Variants: approved 1/10/81

1. Veeder-Root model VR2001A/1613 and VR2001A/VR101 price-computing driveway flowmeter indicators, with range and flow rate as for the pattern.
2. Pattern and variant 1, with unit price restricted to a maximum of 70.0 c/L, and with flow rate to a maximum of 85 L/min.

Technical Schedule No S107 Variation No 1 dated 2/11/81 describes variants 1 and 2.

Provisional Variant: approved 10/9/82 - expired 1/10/83

3. With large-digit "Dollar" wheels (model VR2004) for self-serve installations.

Technical Schedule No S107 Variation No 2 dated 29/9/82 describes provisional variant 3.

Variant: approved 29/3/83

4. The pattern or variant 1 connected to any blending driveway flowmeter listed in Table 3.

Technical Schedule No S107 Variation No 3 dated 2/5/83 describes variant 4.

Variant: approved 23/9/83

5. With large-digit "Dollar" wheels (model VR2004) as attendant-operated units.

Technical Schedule No S107 Variation No 4 dated 17/10/83 describes variant 5.

Filing Advice

Supplementary Certificate of Approval No S107 dated 2/5/83 is superseded by this Certificate and may be destroyed. The documentation for this approval now comprises:

Supplementary Certificate of Approval No S107 dated 17/10/83  
Technical Schedule No S107 dated 24/4/81 (replaced 4/8/81)  
Technical Schedule No S107 Variation No 1 dated 2/11/81  
Technical Schedule No S107 Variation No 2 dated 29/9/82  
Technical Schedule No S107 Variation No 3 dated 2/5/83 (including Table 3 and Test Procedure)  
Technical Schedule No S107 Variation No 4 dated 17/10/83  
Test Procedure No S107 dated 24/4/81  
Table 1 dated 24/4/81  
Table 2 dated 29/9/82  
Figures 1, 3 and 4 dated 24/4/81  
Figure 2 dated 7/10/80  
Figures 5 to 9 dated 2/11/81  
Figure 10 dated 29/9/82.

17/10/83



# NATIONAL STANDARDS COMMISSION

## TECHNICAL SCHEDULE No S107

Pattern: Veeder-Root Model VR2002AE Price-Computing Driveway Flowmeter Indicator

Submitter: Veeder-Root (Australia) Pty Ltd,  
82 Herald Street,  
Cheltenham, Victoria, 3192.

### 1. Description of Pattern

#### 1.1

The pattern is a Veeder-Root Model No VR2002AE mechanical price-computing indicator intended to be retrofitted to attendant-operated driveway flowmeters in accordance with the conditions of approval listed in the Certificate.

The indicator is similar to the VR101 but has a four-transfer right hand money wheel for unit prices up to 99.9 c/L (Figures 1 and 2).

1.1.1 The digits on all wheels are white on a black background and are 8.5 mm in height. Price wheels 2, 3 and 4 have double digits.

1.1.2 The width of the digits on the unit-price wheels is between 4.5 mm and 4 mm with the exception of the digit '1' which is not less than 1.5 mm wide.

1.1.3 The dial plate is marked with a dollar sign not less than 30 mm high to the left of the price indicator aperture (Figure 1).

1.1.4 The pointer on the price indicator is visible through a cut out at least 10 mm x 10 mm (Figure 1).

1.1.5 The decimal point is positioned mid-height of the digits (Figure 1).

1.1.6 Volume and price indicator apertures are not less than 25 mm in height with the exception of the right hand apertures which are not less than 30 mm in height. Unit-price indicator apertures are not less than 17 mm in height (Figure 1).

1.1.7 There is provision for a hundreds-of-cents unit-price-indicator aperture on the dial plate.

#### 1.2 Range

Volume	999.9 L in 0.1 L increments
Price	\$99.99 in 1 c increments
Unit Price	99.9 c/L in 0.1 c increments
Totaliser	9999999.9 in 0.1 L increments

#### 1.3 Sealing

Sealing will remain the same as described in the Technical Schedules for the unmodified patterns listed in Table 1.

TABLE 1

The computer may be used to replace any existing four-wheel computer in the following certificates, or any existing four-wheel computers covered explicitly by '100 series' Certificates.

The Approval only applies to Driveway Flowmeters used in attendant-operated (stand-alone) applications.

ORIGINAL CERTIFICATE

5/6A/7A

5/6A/12

5/6A/13

5/6A/30

5/6A/37

5/6A/48

In addition to the above, those attendant-operated driveway flowmeters covered by the following certificates, provided that:

- (1) The pulse transmitter is disabled, or
- (2) the device connected to the output of the pulse transmitter is not in use for trade, or
- (3) modifications are made to the pulse transmitter to comply with the money shaft of the VR2002AE:

5/6A/24

5/6A/35

5/6A/44

5/6A/45

5/6A/55

5/6A/56

5/6A/62

5/6A/66

TEST PROCEDURE No S107

1. The test procedure will remain the same as described in the Technical Schedules of the unmodified patterns listed in Table 1.
2. In addition, set the unit price to 90,0 c/L and deliver exactly 2,00; 3,00; 4,00; 5,00; 6,00; 7,00 and 8,00 litres. For each delivery the error in the price indication should be within 1 c of the quantity obtained by multiplying the unit price (90,0 c/L) by the quantity delivered.
3. The flow rate of the driveway flowmeter should be checked to be not more than 50,0 L/min.
4. Check that, after setting, each price-posting wheel cannot be moved in either direction by more than 1 mm from the centre of the aperture.



# NATIONAL STANDARDS COMMISSION

## CANCELLATION OF PROVISIONAL VARIANT

### CERTIFICATE OF APPROVAL No S107

This is to certify that Provisional Variant 3 of Approval No S107 for the pattern and variants of the

Veeder-Root Model VR2002AE Price-computing Driveway Flowmeter Indicator

submitted by Veeder-Root (Australia) Pty Ltd  
82 Herald Street  
Cheltenham, Victoria, 3192

will expire in respect of new instruments on 1/10/83.

Instruments purporting to comply with Provisional Variant 3 (i.e. model VR2004 computers in self-serve installations) and which were verified on or before that date may, with the concurrence of the State or Territorial verifying authorities, be submitted for reverification.

Signed

Executive Director

17/10/83



# NATIONAL STANDARDS COMMISSION

## TECHNICAL SCHEDULE No S107

### VARIATION No 1

Pattern: Veeder-Root Model VR2002AE Price Computing Indicator

Submittor: Veeder-Root (Australia) Pty Ltd,  
82 Herald Street,  
Cheltenham, Victoria, 3192.

#### 1. Description of Variants

##### 1.1 Variant 1

###### 1.1.1

Veeder-Root Models VR2001A/1613 and VR2001A/VR101 price computing indicators (Figures 5, 6, 7 and 8). These indicators are, respectively, modified VR1613 and VR101 price-computing indicators. Both have the VR2002AE counter section, with the VR101 variator price indicating section updated to incorporate steel link gears and narrow-figured price-posting wheels as used on the VR2002AE (Figure 9). The description of the faceplate and digits is the same as that for the pattern.

###### 1.1.2 Range

As per pattern.

###### 1.1.3 Sealing

As per pattern.

##### 1.2 Variant 2

###### 1.2.1

The pattern and variant 1 with the flow rate increased to 85 litres per minute. The maximum unit price setting is restricted to 70 cents per litre.

###### 1.2.2 Range

Same as for pattern but with:

Unit Price	70.0 c/L in 0.1c increments
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###### 1.2.3 Sealing

As per pattern.



# NATIONAL STANDARDS COMMISSION

## TECHNICAL SCHEDULE No S107

### VARIATION No 2

Pattern: Veeder-Root Model VR2002AE Price-computing Indicator

Submitter: Veeder Root (Australia) Pty Ltd,  
82 Herald Street,  
Cheltenham, Victoria, 3192.

#### 1. Description of Provisional Variant 3

The pattern and variants 1 and 2 fitted with large digit "Dollar" wheels (Figure 10) and known as model VR2004, and subject to the Conditions of Approval.

Installation of such instruments is restricted to the sites listed below.

Table 2

NSW	180 Victoria Road, and Moodie Street, Rozelle	(4 Hoses)
	Burwood Road and Milton Street, Burwood	(4 Hoses)
	River Road, and Sphinx Avenue, Revesby	(6 Hoses)
Vic	Yarra and Ryrie Streets, Geelong	(4 Hoses)
	Canterbury Road, Canterbury	(4 Hoses)
	Princes Highway and Franklin Street, Traralgon	(4 Hoses)
	Princes Highway and Longwarry Street, Drouin	(4 Hoses)
	Burwood Highway, Knoxfield	(4 Hoses)
	Doncaster and Victoria Roads, Doncaster	(4 Hoses)
Qld	Albion Road and Molenman Street, Albion	(4 Hoses)
	Creek and Cavendish Roads, Mt Gravatt	(4 Hoses)
SA	Reedbeds, Fulham	(5 Hoses)
	794 Military Road, Taperoo	(5 Hoses)
WA	Belmonts Street, Belmont	(6 Hoses)
NSW	1013 Pacific Hwy, Shannon (Total)	
VIC	Shannon & Anderson Sts, Geelong (Total)	
Qld	500 Campbell St, Mt Shalton (5)	
	James St, Geelong (Total)	

29/9/82





# NATIONAL STANDARDS COMMISSION

## TECHNICAL SCHEDULE No S107

### VARIATION No 3

Pattern: Veeder-Root Model VR2002AE Price-computing Driveway Flowmeter Indicator

Submitter: Veeder-Root (Australia) Pty Ltd  
82 Herald Street  
Cheltenham, Victoria, 3192.

#### 1. Description of Variant 4

The pattern or variant 1 fitted to any blending driveway flowmeter listed below and subject to Conditions of Approval 1, 6 and 7.

Table 3

<u>Approval Number</u>	<u>Flowmeter</u>
5/6A/11	Gilbarco T142A
5/6A/26	Gilbarco T169A
5/6A/28	Wayne T60B
5/6A/31	Wayne 605
5/6A/39	Gilbarco T169A
5/6A/47	Gilbarco T169C and T169D
5/6A/100	Gilbarco T142A and T144A

#### TEST PROCEDURE

This variant is to be tested in accordance with the approval documents of the instruments to which it is connected, with the exception that the only approved blend ratios are 0:1 and 1:0 i.e. 100% standard or 100% super.



# NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No S107

VARIATION No 4

Pattern: Veeder-Root Model VR2002AE Price-computing Driveway Flowmeter  
Indicator

Submittor: Veeder-Root (Australia) Pty Ltd  
82 Herald Street  
Cheltenham, Victoria, 3192.

1. Description of Variant 5

The pattern or variants 1 or 2 fitted with large digit "Dollar" wheels (Figure 10) and known as model VR2004, subject to the Conditions of Approval, and used only as attendant-operated units.

17/10/83



# NATIONAL STANDARDS COMMISSION

## NOTIFICATION OF CHANGE

### CERTIFICATE OF APPROVAL No S107

#### CHANGE No 1

The following change is made to the description of the

Veeder-Root Model VR2002AE Price-Computing Indicator

given in Technical Schedule No S107 dated 24/4/81:

- (a) Page 1 is replaced by the attached page 1 in which paras 1.1.7 and 1.3 have been re-written.
- (b) Figure 4 is added. (This is Figure PS107 - 3 re-issued).

Signed

**ACTING** Executive Director

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# NATIONAL STANDARDS COMMISSION

## NOTIFICATION OF CHANGE

### SUPPLEMENTARY CERTIFICATE OF APPROVAL No S107

#### CHANGE No 2

The following change is made to the description of the Veeder-Root Model VR2002AE Price-computing Indicator

given in Technical Schedule No S107 Variation No 2 dated 29/9/82:

Add to Table 2:

NSW	1013 Pacific Highway, Berowra	(Total)
Vic	Shannon and Aberdeen Streets, Geelong	(Mobil)
Qld	522 Sanford Road, Mitchelton	(BP)
	Bruce Highway, Burpengary	(Total)

Signed

Executive Director



# NATIONAL STANDARDS COMMISSION

## NOTIFICATION OF CHANGE

### SUPPLEMENTARY CERTIFICATE OF APPROVAL No S107

#### CHANGE No 3

The following change is made to the approval documentation for the

Veeder-Root Model VR2002AE Price-computing Driveway Flowmeter Indicator

submitted by Veeder-Root (Australia) Pty Ltd  
82 Herald Street  
Cheltenham Victoria 3192

In Technical Schedule No S107 Variation No 3 dated 2/5/83, the third entry in Table 3 has an incorrect flowmeter model number and should be amended to read:

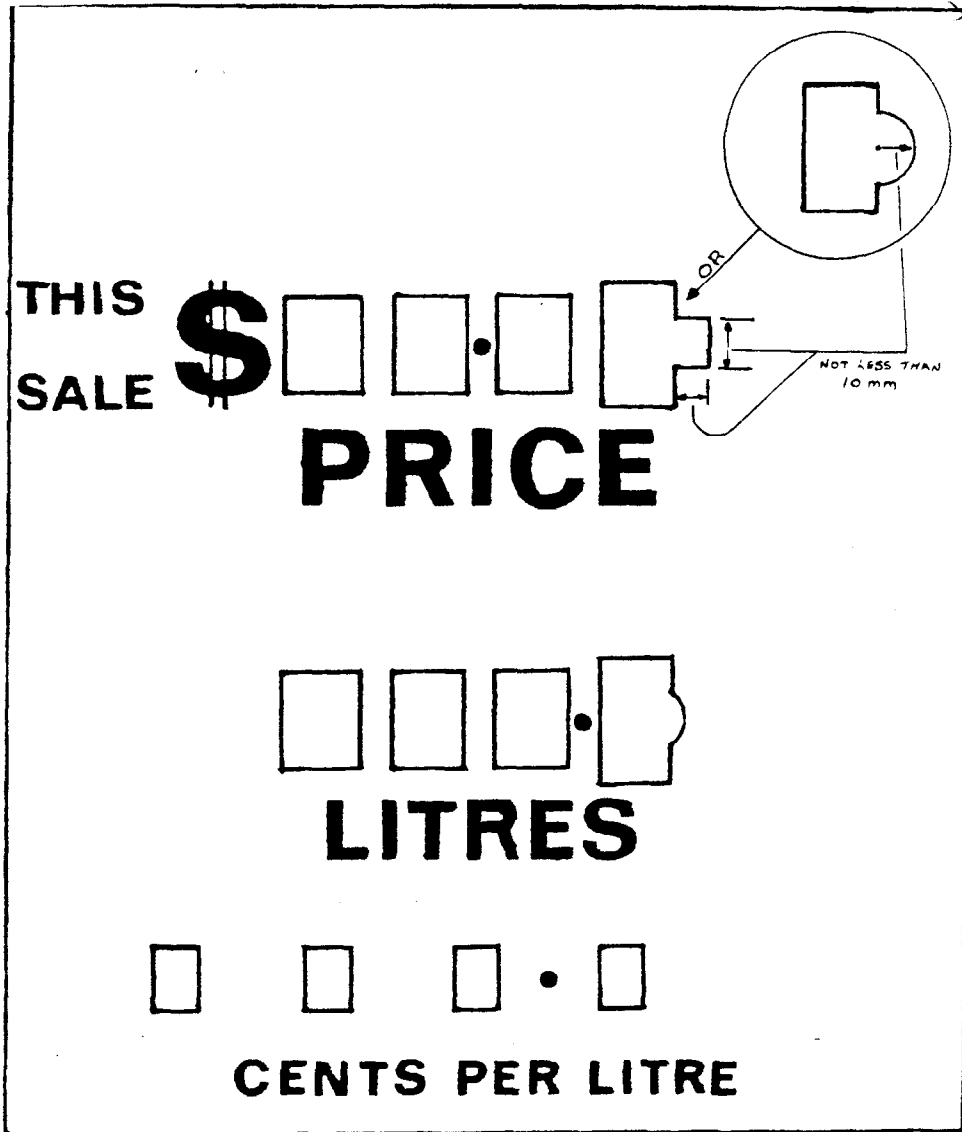
"5/6A/28

Wayne 750B"

Signed

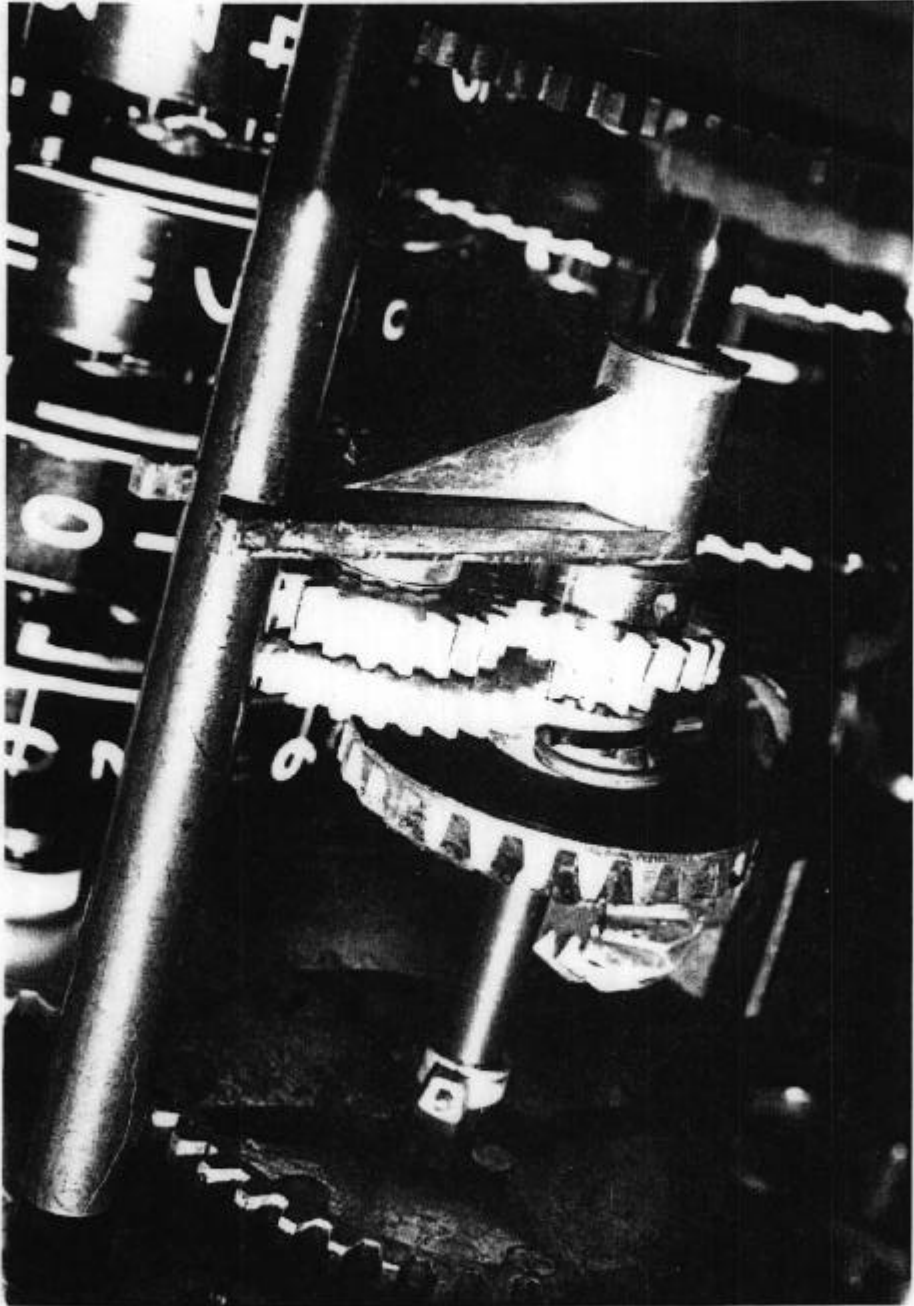
Executive Director

FIGURE S107 - 1



VR2002AE Sample Faceplate

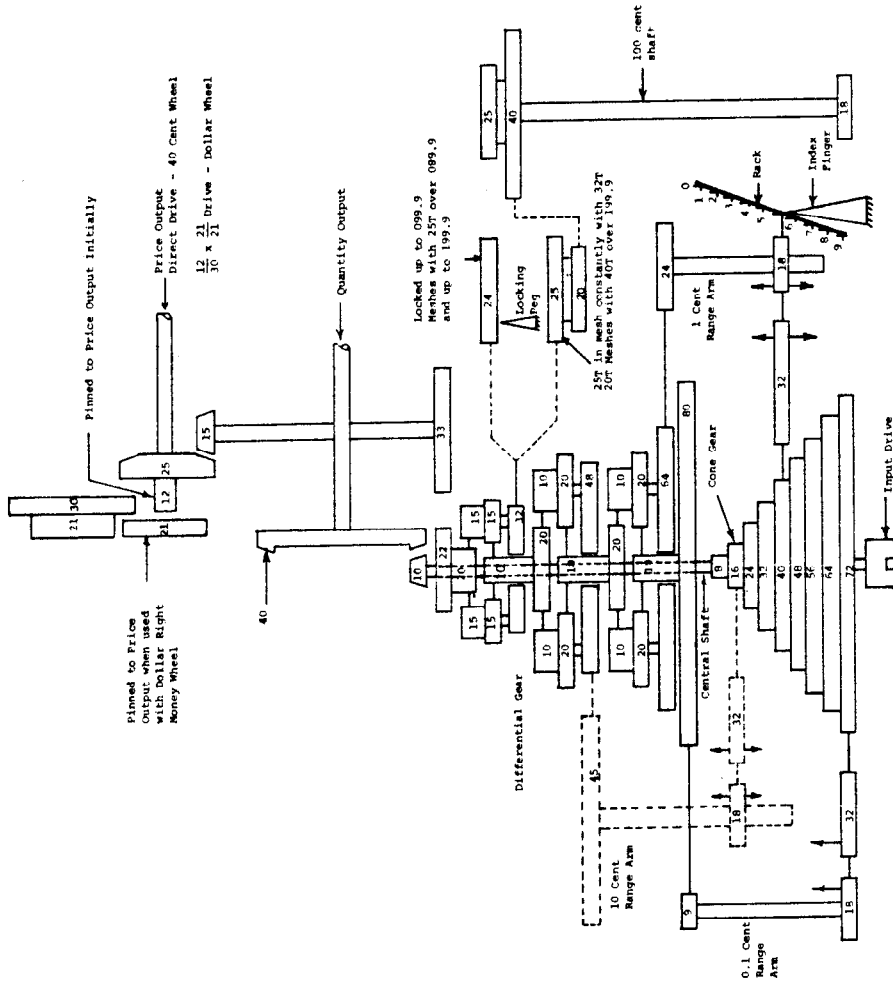
FIGURE 107 - 2



Money cross shaft VR2002AE

7/10/80

FIGURE S107 - 3

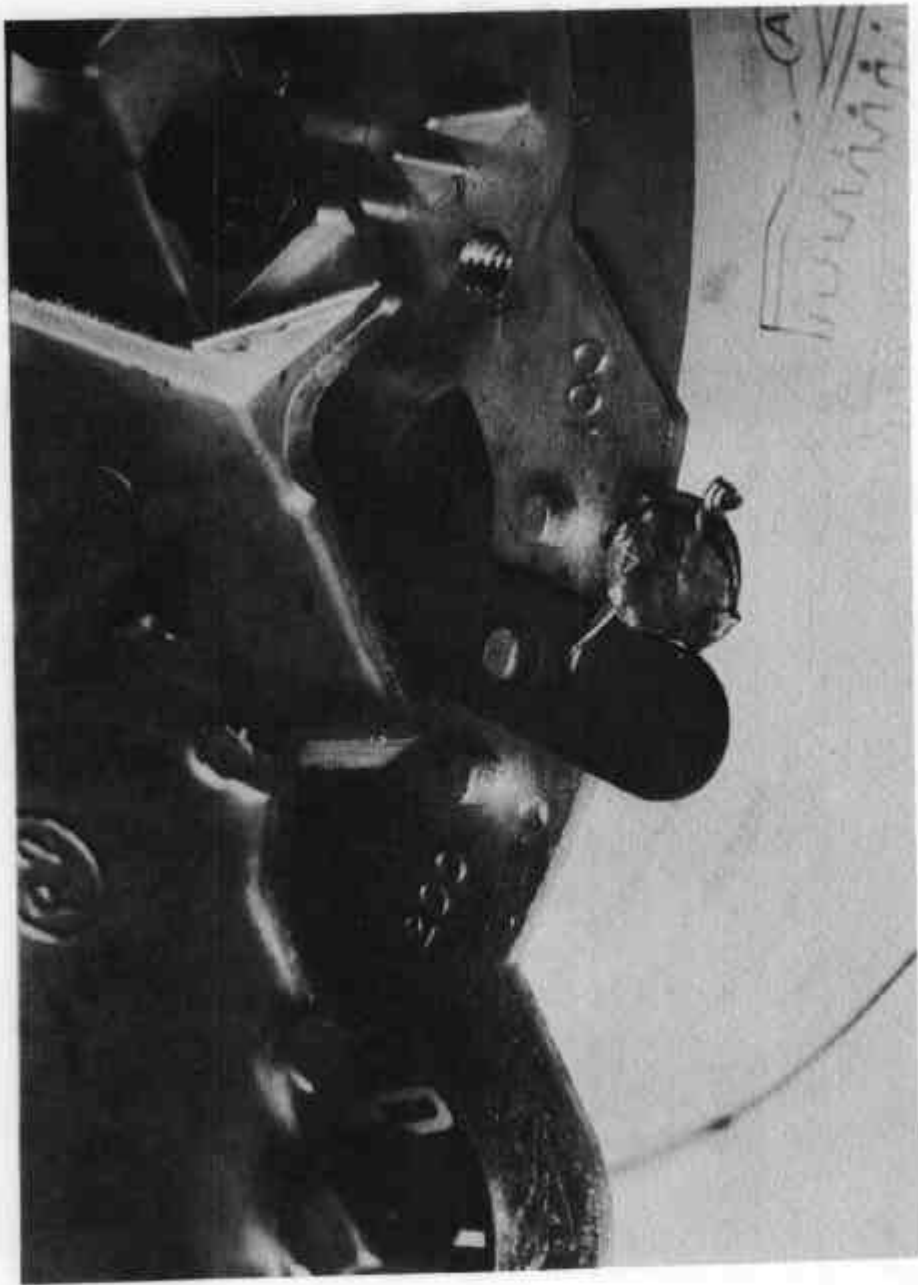


PRS353

VR2002AE Gear Assembly - Schematic Diagram

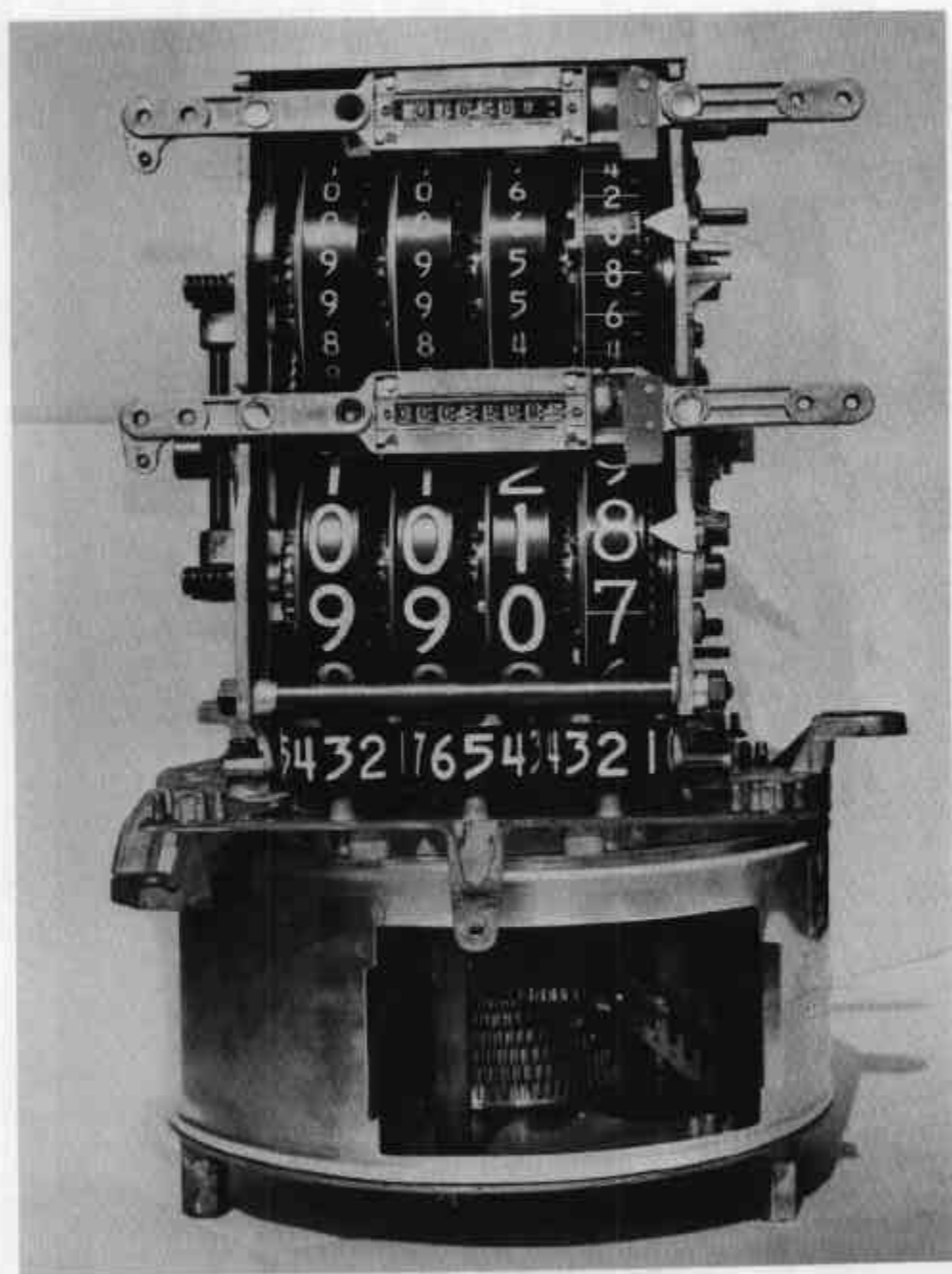


FIGURE S107 - 4



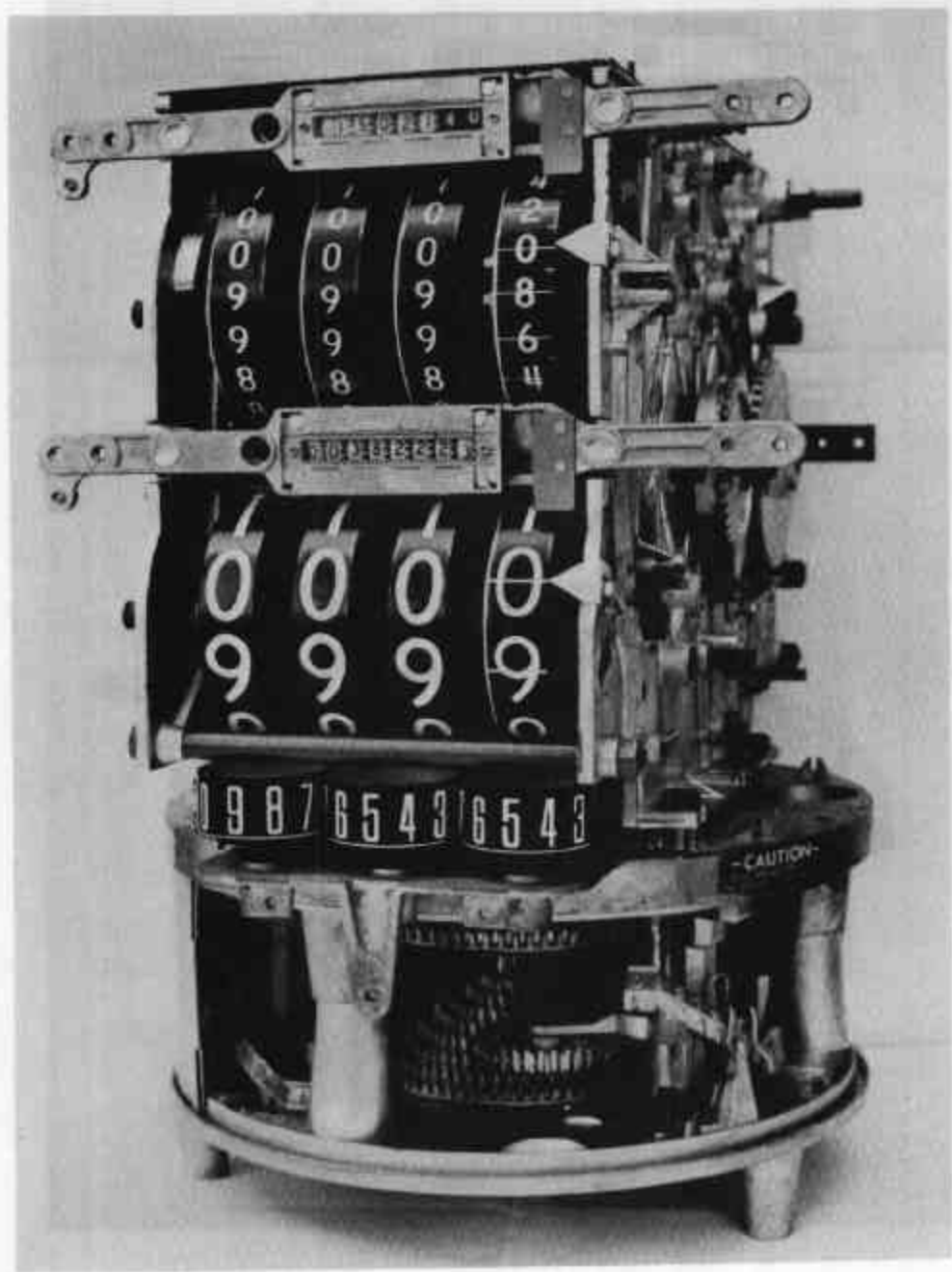
Sealing of S1/L unit price wheel on VR2002AE

FIGURE S107 - 5



Yeeder-Root Model VR2001A/1613

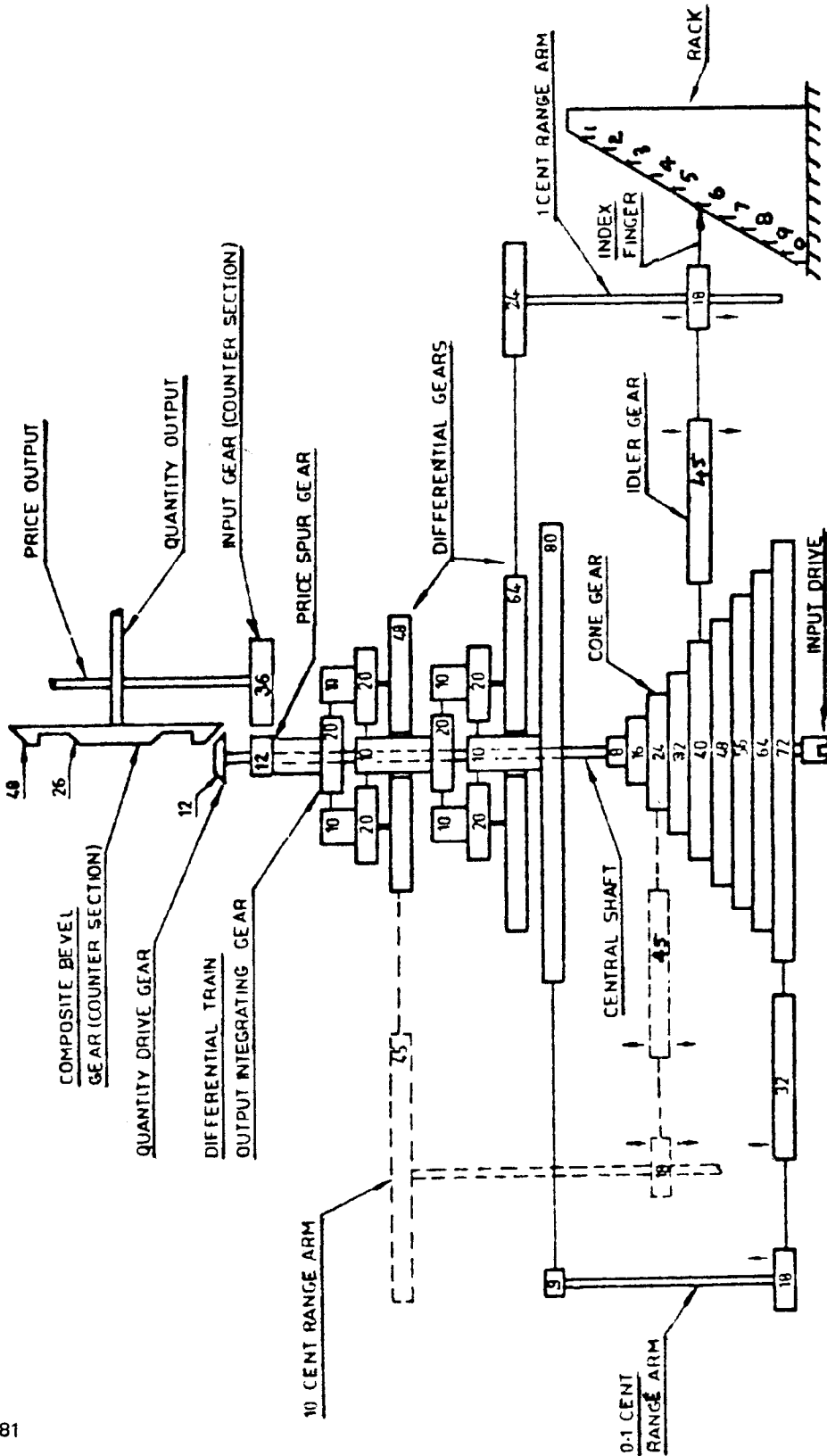
FIGURE S107 - 6



Veeder-Root Model VR2001A/VR101

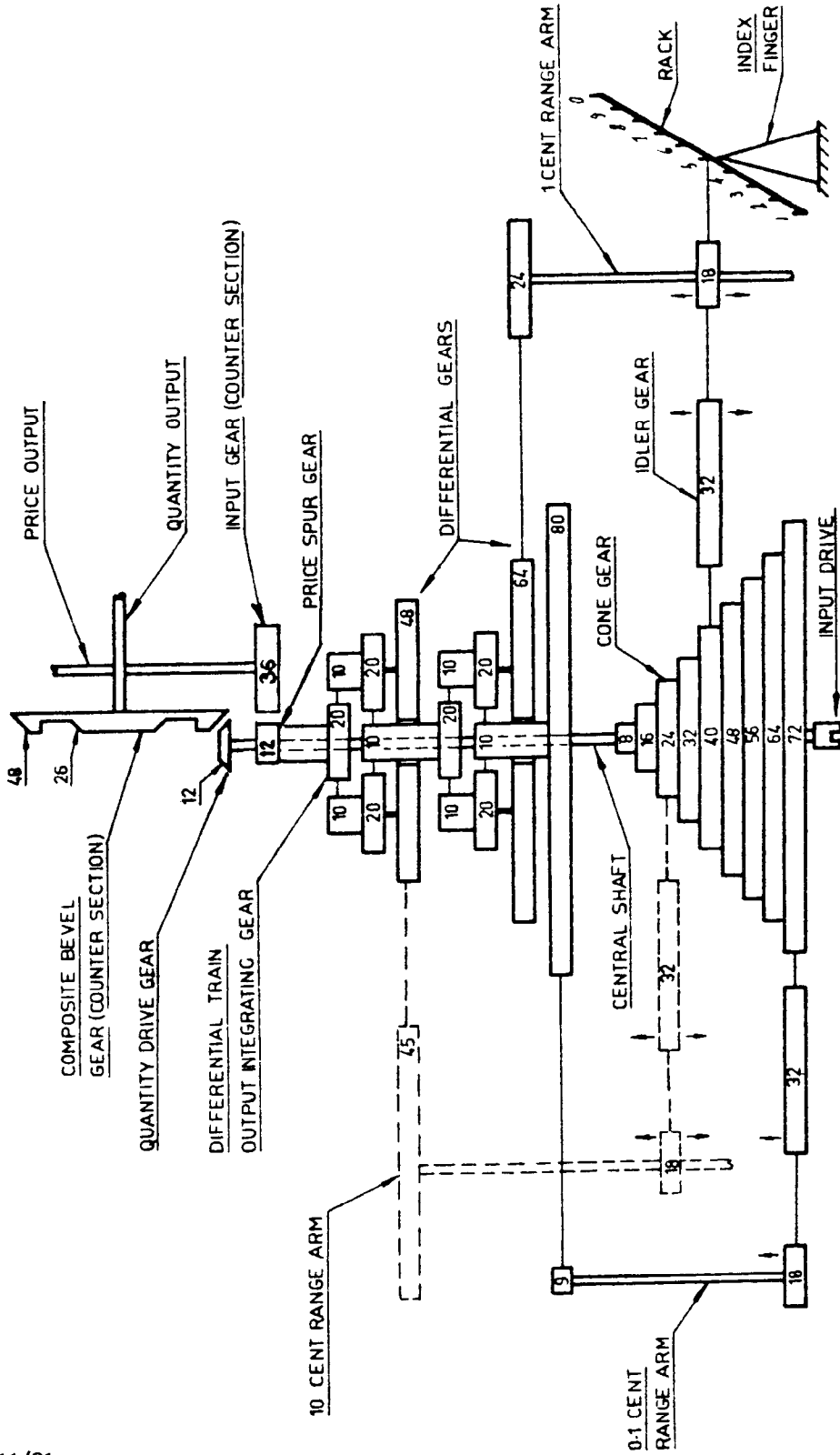
2/11/81

FIGURE S107 - 7



VR2001A/1613 Gear Assembly - Schematic Diagram

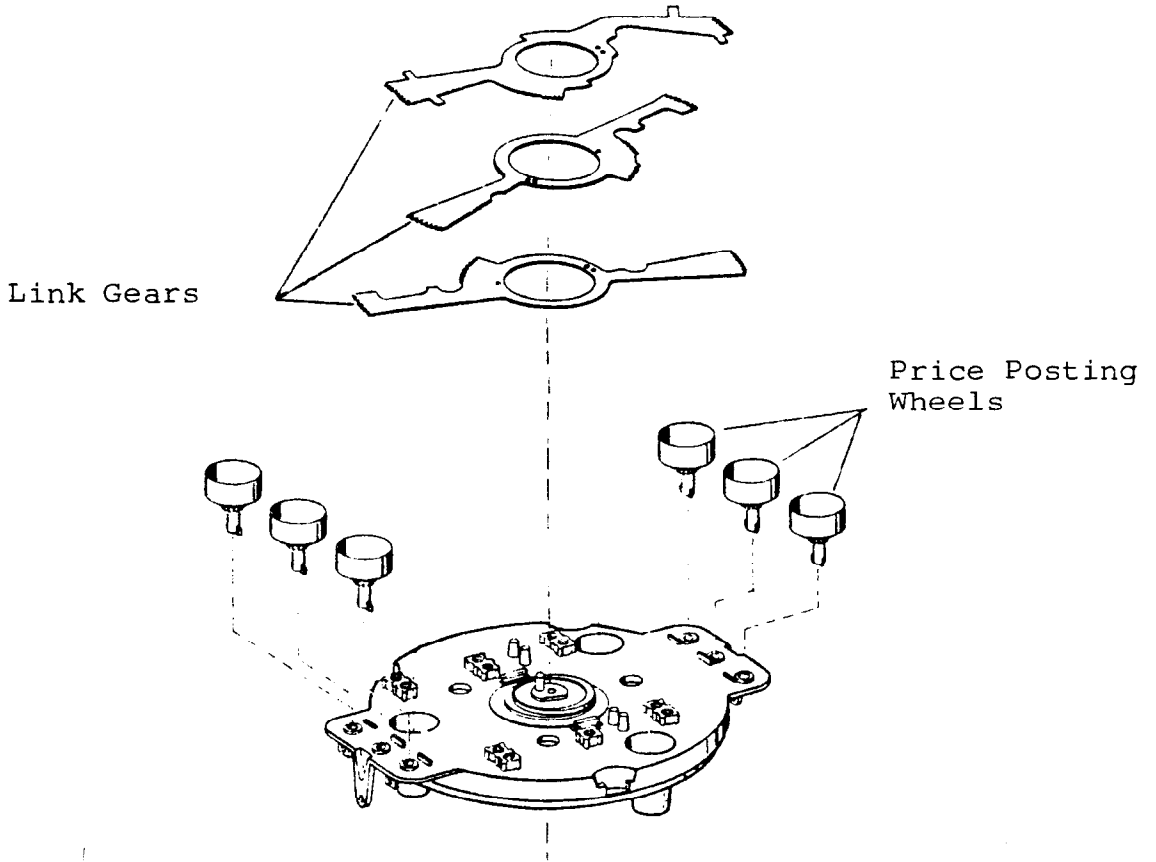
FIGURE S107 - 8



2/11/81

VR2001A/VR101 Gear Assembly - Schematic Diagram

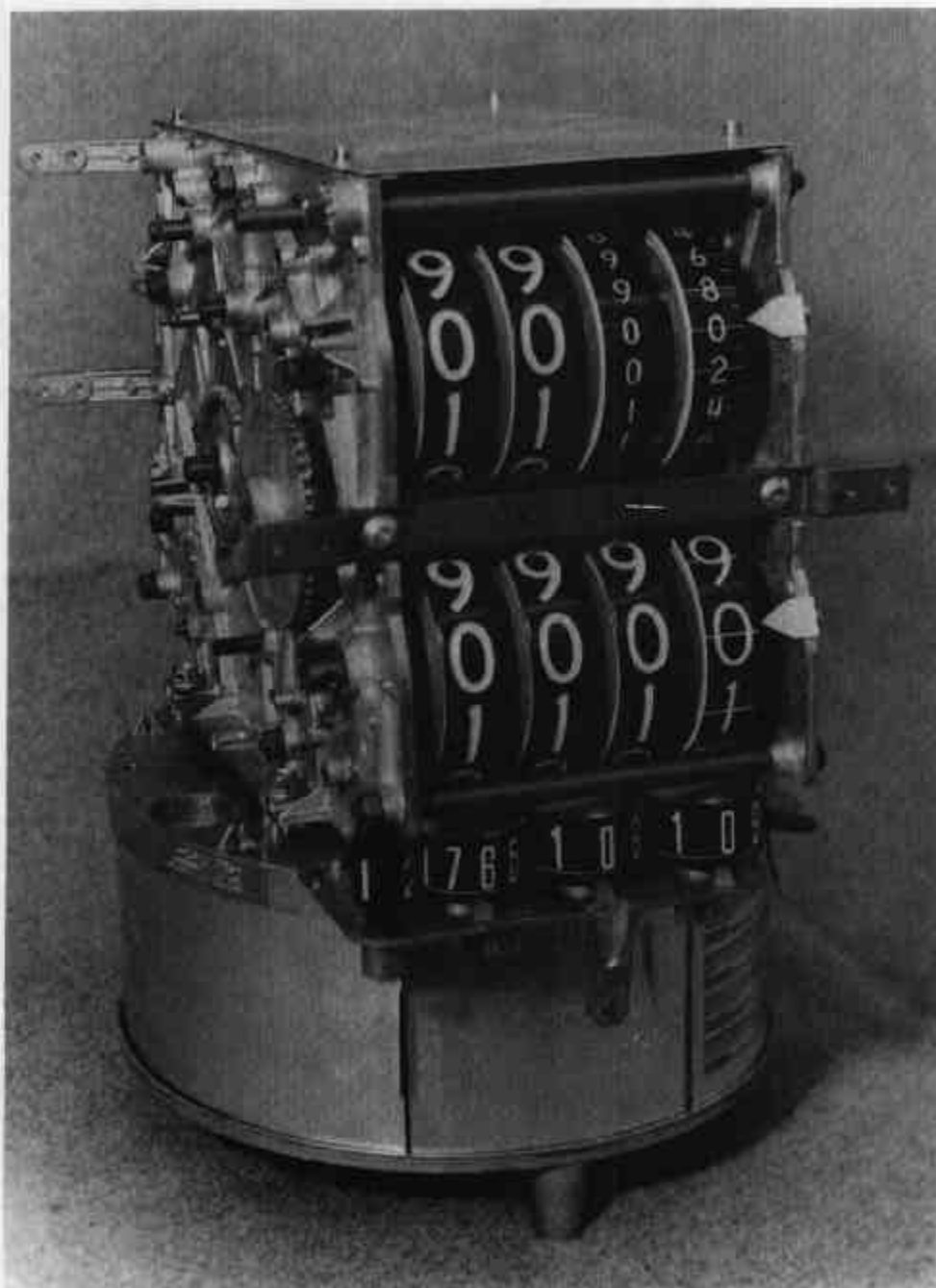
FIGURE S107 - 9



VR2001A/VR101 Modifications to include Steel Link Gears and Narrow Figured  
Price Posting Wheels

2/11/81

FIGURE S107-10



Model VR2004 - Large Digit "Dollar" Wheels

29/9/82