Cert. No. 2

CANCELLED

NATIONAL STANDARDS COMMISSION

WEIGHTS & MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 5/6A/70

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

Wayne Epitronic Driveway Flowmeter System

submitted by Kelvinator Australia Limited
Petroleum Equipment Division
Abbotts Road
Dandenong South, Victoria, 3175

are suitable for use for trade.

The approval is subject to review on or after 1/7/85.

Instruments purporting to comply with this approval shall be marked NSC No 5/6A/70.

The approval may be withdrawn if instruments are used other than in accordance with drawings and specifications lodged with the Commission.

Signed

Executive Director

Descriptive Advice

Pattern: approved 4/7/78

- Epitronic system with driveway flowmeter models EAS1, EAS2, EAS1D, EAS2D, EAS1H, EAS2H.

Variants:

1. Each driveway flowmeter as an individual pattern (approved (4/7/78).
2. With volume and price displays inhibited until the volume measured is 0.05 L (approved 19/3/79).
3. Each driveway flowmeter without hose mast (approved 19/3/79).
4. Each driveway flowmeter without circuitry for connecting to self-serve console (approved 14/8/79).
5. Epitronic Mk II post-pay and pre-pay system with models EBS1, EBS1D and EBS2 driveway flowmeters (approved 28/5/80).

Technical Schedule No 5/6A/70 dated 17/6/80 describes the pattern and variants 1 to 5.

Variant: approved 7/8/80

6. Driveway flowmeters of the ECC and EDC series as attendant-operated and with Eclipse MVR 79S indicator.

Technical Schedule No 5/6A/70 Variation No 1 dated 20/8/80 describes variant 6.

21/11/83

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Variants:

7. Driveway flowmeters of the ECC and EDC series with Eclipse MVR 79S indicator, fitted with electro-mechanical totaliser (approved 29/10/80).

8. Driveway flowmeter model EAS1DH with key-operated switch (approved 14/11/80).

Technical Schedule No 5/6A/70 Variation No 2 dated 5/12/80 describes variants 7 and 8.

Variants: approved 11/5/81

9. Driveway flowmeters of the EDS and ECS series with Epitronic or Epitronic Mk II control console.

10. With larger liquid crystal display and modified top housing.

Technical Schedule No 5/6A/70 Variation No 3 dated 5/6/81 describes variants 9 and 10.

Variant: approved 1/11/83

11. Various models of driveway flowmeters of this approval in an alternative housing.

Technical Schedule No 5/6A/70 Variation No 4 dated 21/11/83 describes variant 11.

Filing Advice

Certificate of Approval No 5/6A/70 dated 5/6/81 is superseded by this Certificate and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 5/6A/70 dated 21/11/83
Technical Schedule No 5/6A/70 dated 17/6/80 (including Test Procedure)
Technical Schedule No 5/6A/70 Variation No 1 dated 20/8/80 (including Test Procedure)
Technical Schedule No 5/6A/70 Variation No 2 dated 5/12/80
Technical Schedule No 5/6A/70 Variation No 3 dated 5/6/81
Technical Schedule No 5/6A/70 Variation No 4 dated 21/11/83
Test Procedure No 5/6A/70 Variation No 3 pages 1 and 2 dated 5/6/81 (replaced 25/9/81)
Test Procedure No 5/6A/70 Variation No 3 pages 3 and 4 dated 5/6/81
Figures 1 and 59 to 63 dated 5/6/81
Figures 2 to 8 and 13 and 14 dated 12/9/78
Figures 9, 10, 12 and 17 dated 17/6/80 (re-issued 29/8/80)
Figures 11, 15 and 18 to 38 dated 17/6/80
Figure 16 dated 23/4/79
Figures 39 to 49 and 51 to 56 dated 20/8/80
Figure 50 dated 20/8/80 (replaced 12/6/81)
Figures 57 and 58 dated 5/12/80.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/70

Pattern: Wayne Driveway Flowmeter System Epitronic

Submittor: Wayne Pumps Australia Pty Ltd,
29 Anzac Highway,
Keswick, South Australia, 5035.

1. Description of Pattern:

The pattern is a post-payment and pre-payment self-serve driveway flowmeter comprising:

- up to 16 driveway flowmeters,
- Epitronic post-payment control console (Figure 2), or
- Epitronic Mk II post-payment and pre-payment control console (Figure 11),
- purchaser's indicator (Figure 12).

1.1 Driveway Flowmeter:

1.1.1 Range:

Volume:	999,99 L in 0,01 L increments
Unit price:	99,9 c/L in 0,1 c/L increments
Price:	$999,99 in 1c increments
Totalizer volume:	999999 L in 1 L increments

1.1.2 Nozzle:

ZVA Slimline (Figures 24, 25)
Wayne P7775 with external anti-drain valve (Figures 26, 27)
Ljungmans 83427 with external anti-drain valve (Figures 28, 29)
OPW1A (Figures 30, 31)
OPW1AS (Figures 32, 33)
STM 363 (Figures 34, 35)
EMCO 200A (Figures 36, 37)

Operating-lever latch mechanism may be omitted to allow the nozzle to comply with the requirements of other Statutory Authorities.

Nozzle pump interlock starting lever (Figure 38).

1.2 Sealing:

- Driveway-flowmeter computer - stamping plug as illustrated in Figure 13.
- Pulse generator unit (Figures 9 and 10).
- Meter and gas-separation test valve (Figures 14 and 16).
- Epitronic control console with interconnecting cable (Figure 15).
- Epitronic Mk II control console with interconnecting cable (Figure 17).

1.3 Marking:

The nameplate is marked with the following data:

Manufacturer's name
Serial number
Year of manufacture
NSC approval number
Maximum flow rate
Minimum flow rate
Type of liquid
Maximum operating pressure

2. Description of Variants:

Refer to Figure 1 for identification.

2.1 Each driveway flowmeter as an individual pattern.

2.2 With volume and price displays inhibited until the volume measured is 0,05 L.

2.3 Each driveway flowmeter without hose mast.

2.4 Model EAS1, etc., without circuitry for connecting to self-serve console, and known as Model EAC1, etc.

2.5 Epitronic Mk II post-payment and pre-payment system with EBS1, EBS1D and EBS2 Driveway Flowmeters.

3. Test Procedures:

3.1 Flowmeter performance

For each driveway flowmeter:

(a) record the unit price set and the operating mode selected (console mode or attendant mode) for returning instrument to normal use after testing;

(b) select attendant mode;

(c) carry out the following tests:

(i) Accuracy - the maximum permissible error at any flow rate between maximum and 15 L/min is ± 0,3%.

(ii) Gas-separation (instrument without gas detector) - the progressive opening of the gas-separation test valve should allow flow rate to be reduced to, say, 90%, 80%, 70%, etc., of full flow rate, until either the flow rate becomes less than the minimum of 15 L/min or the flow stops due to the pump losing prime. For all tests prior to reaching the opening of the gas-separation test valve at which the flow rate is less than 15 L/min, or the delivery stops due to the pump losing prime, the error caused by the admitted air should not exceed 0,5% of the quantity delivered.

(iii) Gas-separation (instrument with gas detector) - the progressive opening of the gas-separation test valve will reduce the flow rate, then cause the flow of liquid to abruptly stop. This may occur before the the flow rate drops to, say, 90% of full flow. Prior to reaching the opening of the gas-separation test valve at which the delivery stops, the error caused by the admitted air should not exceed 0,5% of the quantity delivered.

(iv) Hose-dilation - deliver a small quantity of liquid. With the pump stopped, open the nozzle to reduce the pressure in the hose to the anti-drain valve retaining pressure and then close the nozzle. Zero the volume indicator, start the pump and, after allowing not less than 30 seconds for the hose to fully dilate, and with the pump still running, read the quantity indicated on the volume indicator. This quantity should not exceed 0,05 L; on instruments inhibited below 0,05 L it will be zero.

3.2 Price-computing and Volume Circuits

These tests may be done in conjunction with the Flowmeter Performance Test.

Note: The approval includes two types of computers - Uninhibited and Inhibited - the test procedures for which differ slightly. Models with Inhibited computers (Variant 2) do not display volume and price below 0,05 L.

Before commencing these tests, establish the computer type either by slowly delivering product and observing if the volume and price displays are inhibited until the volume reaches 0,05 L, or alternatively, by switching the price-computation test and mode-selection switch to the stop position, waiting until the indications reset to zero, and then turning the switch to slow test and observing the first figure to appear in the volume indicator. This will be 0,06 L for Inhibited models.

In turn for each driveway flowmeter:

(a) Place the price-computation test and mode-selection switch in the stop position, wait until the indicators reset to zero, then remove the nozzle from its hang-up and set the unit-price thumb-wheel switches to, say, 30,0 c/L.

The volume and price indications will remain at zero and then 30,0 c/L will be shown on the unit-price indicator.

(b) Return the nozzle to its hang-up and then select by means of the test switch either slow or fast position, as appropriate, and then stop position, to achieve an indicated volume of between 7,49 and 7,54 L.

The price will be $2,25 for an indicated volume of 7,49 L, 7,50 L or 7,51 L, or $2,26 for an indicated volume of 7,52 L, 7,53 L or 7,54 L.

(c) Set the unit price to 30,1 c/L and then remove the nozzle from its hang-up.

The indications of volume and price should not change and after a delay of up to 3 seconds the unit price will change from 30,0 to 30,1 c/L.

(d) With the nozzle still off its hang-up set the unit price to 30,4 c/L.

The volume indicator will not change, the unit-price indicator will change from 30,1 to 30,4 c/L, and an error signal flashing 2 will replace the price indication.

(e) Return the nozzle to its hang-up.

After about 3 seconds the volume and price indicators will reset to zero and 30,4 c/L will remain indicated.

(f) Select attendant mode of operation.

Uninhibited Computers	Inhibited Computers
The indications will remain for 15 to 20 seconds then go blank except for a flashing 3 on the price indication. The indications blank and flashing 3 will remain for 1 minute.	The price and volume indications will remain zero and the unit price indication will change to show the original unit price recorded in 1(a), for up to 30 seconds, then go blank except for a flashing 3 on the price indication. The indications blank and flashing 3 will remain for 1 minute.

(g) During the 1-minute blank period, reset the unit price to that noted in 1(a).

After the 1-minute blank period, the volume indicator will be zero, the unit price indicated will be as set and as noted in 1(a), and the price indicator will be a flashing "3".

(h) Remove nozzle and after not less than 3 seconds replace the nozzle.

The indications will go through the reset sequence, blank and 8's, then the volume and price indicators will be zero and the unit price will be as noted in 1(a).

3.3 Amount Preset Delivery Function

These tests may be done in conjunction with the flowmeter performance tests.

In turn for each driveway flowmeter:

(a) Set the price to 99,9 c/L using the thumb-wheel switches on the pulse generator unit. After a delay of up to 30 seconds the driveway flowmeter displays will go blank and the "3" will flash on the price indicator for approximately 1 minute.

(b) After 1 minute lift the nozzle from its hang-up. After approximately 3 seconds the driveway flowmeter will show all 8's, blank and zero, at which time the pump motor will start.

(c) By means of the keyboard on the side of the instrument enter a $10,00 delivery.

(d) Deliver this amount by keeping the nozzle fully open. The driveway flowmeter will slow down to approximately one tenth of its full flow rate for the last 0,3 L delivered and stop at the exact amount selected on the price indicator.

(e) Replace the nozzle in its hang-up and repeat (c) and (d) at least 3 times.

(f) Return the unit price setting to that noted in 1(a).

3.4 Epitronic System (Self-serve Post-paid Mode)

Note: In order to allow the service station to continue to function while these tests are carried out, a number, for example half, of the driveway flowmeters may be isolated by switching to attendant mode while the remainder are tested in console mode.

(a) Ensure that the console mode is selected at the driveway flowmeters to be tested.

(b) At the control console select console mode of operation.

(c) Press a driveway-flowmeter select button and check that all of the seven-bar digit indicators indicate the numeral 8.

(d) Authorise all the driveway flowmeters to be tested by pressing the authorise button for the appropriate driveway flowmeters.

(e) For each flowmeter -

(i) deliver sufficient liquid to cause the price and quantity indicators on the computer to move significantly off zero;

(ii) stop the pump motor by returning the nozzle to its hang-up bracket;

(iii) record the pump number and the price indicated on the computer; and

(iv) remove each nozzle from its hang-up bracket and check that the computer does not reset to zero and the pump motor does not start.

(f) At the control console press the select button for each driveway flowmeter in turn and check each price display against the price recorded for each driveway flowmeter (refer step (e) (iii) above). The price displayed should be exactly the price indicated on the driveway flowmeter.

(g) Authorise a driveway flowmeter as in step 4(d) and deliver sufficient liquid to cause the price indicators to move significantly off zero and, without returning the nozzle to its hang-up -

(i) check that operation of the emergency stop on the console causes the pump motor to stop.

Note: The pump motors of driveway flowmeters being used in attendent mode will not stop.

(ii) check that pressing any authorise button will cancel the emergency stop condition. The pressing of the authorise button on the console will have the following effect:

Uninhibited Computers	Inhibited Computers
The pressing of the authorise button will not cause the flowmeter to reset or the pump motor to start. Every transaction taking place on a driveway flowmeter in console mode of operation at the time of the emergency stop should be terminated, as a delivery from a driveway flowmeter cannot be restarted without losing the record of the transaction. To restart the flowmeter it will be necessary to lift the nozzle and press the select and authorise buttons.	The pressing of the authorise button will cause the pump motor to restart and the transaction to continue without loss of the record of the transaction prior to pressing the emergency stop unless the nozzle has been returned to its hang-up position after the operation of the emergency stop.

Return the nozzle to its hang-up position.

Note: Each driveway flowmeter must be separately reauthorised for use after an emergency stop.

3.5 Epitronic Mk II (Self-serve Pre-paid Mode)

(a) The following test only applies if the remote indicator is plugged in the console:

(i) At the control console select prepay mode.

(ii) At the console select a driveway flowmeter and enter a value of product to be delivered, by the 0-9 keyboard, say, $2,00; then authorise the driveway flowmeter by pressing the LOAD key.

(iii) Repeat (ii) for a number of driveway flowmeters.

(iv) For each driveway flowmeter:

- the preset indicator will indicate the prepaid value;
- make a delivery: the driveway flowmeter will automatically stop when the exact value indicated by the preset indicator is reached.

(v) Repeat (ii) for at least one driveway flowmeter.

(vi) Make a delivery and return the nozzle to its hang-up before the delivery is completed.

(vii) Remove the nozzle; the pump should not restart.

(viii) At the console select the driveway flowmeter authorised in (v).

The difference between the prepaid value and the amount delivered will be indicated on the console price indicator. The prepaid amount and amount delivered will be indicated on the customer indicator.

(ix) Try to authorise the driveway flowmeter in (v): this should be impossible for at least 3 minutes.

(x) Disconnect the remote indicator and repeat (ii): no indication should show on the console. That is, the instrument cannot be selected to a prepay mode unless the remote indicator is connected to the console.

(b) Price-setting functions:

Note: A driveway flowmeter will not accept a unit price change from the console until the nozzle has been hung up and the driveway flowmeter is in the idle state.

(i) Record the price schedule in use as shown on the NORMAL page of the console.

(ii) Select PAGE 2 by;

- pressing the PAGE ZERO button - Page 00 will be displayed;
- press PAGE FORWARD button until Page 2 is displayed;

(iii) Change schedule as follows:

- enter new price schedule. Up to 5 seconds after the ENTER DATA button has been pressed, the authorise lights of each driveway flowmeter will start flashing;
- press the AUTHORISATION button for each driveway flowmeter. Up to 30 seconds later the number 3 will start flashing on the total-price indicator for 1 minute, the unit price and volume indicator will blank. The flashing number 3 is repeated on the total-price indicator on the console.

(iv) During the 1 minute time delay authorise a driveway flowmeter and attempt a delivery. No delivery should be possible from the driveway flowmeter.

(v) After the 1 minute delay the new unit price and zero volume will be displayed with the flashing "3" in the dollar indicator. Lift the nozzle. Select and authorise each driveway flowmeter. The number 3 will stop flashing and after the computer has reset the pump motor will start.

(vi) Return the console to the schedule recorded in (ii).

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/70

VARIATION No 1

Pattern: Wayne Driveway Flowmeter System 'Epitronic'

Submittor: Wayne Pumps Australia Pty Ltd,
29 Anzac Highway,
Keswick, South Australia, 5035.

1. Description of Variants

1.1 Variant 6

Attended Driveway Flowmeter, models listed below, with Eclipse electronic computer model MVR 79S. The following Wayne Driveway Flowmeters are covered by this variant:

Model ECC1 (Figure 39)	Model EDC1 (Figure 43)
Model ECC2 (Figure 40)	Model EDC2 (Figure 44)
Model ECC1D (Figure 41)	Model EDC1D (Figure 45)
Model ECC1H (Figure 42)	Model EDC1H (Figure 46)
Model ECC1DH (Figure 42)	Model EDC1DH (Figure 46)

Series ECC are without preset; series EDC have preset.

Figure 1 summarises the features of these driveway flowmeters for visual identification and replaces Figure 1 of Technical Schedule 5/6A/70.

1.1.1 Range

As listed in Technical Schedule No 5/6A/70 issued 17/6/80 with the exception:

Totaliser volume: 99999 L in 1 L increments

1.1.2 Totaliser

The electronic volume totalising function is operated by either pressing the button marked TOTES on the front of the computer, or by maintaining pressure on the light switch push button (Figures 47, 48).

The total volume and money will be indicated on the LITRES and DOLLARS indicators with the unit price indicator showing the calibration factor 'K', which is not relevant to pattern approval.

The internal batteries of the instrument are checked every time the TOTES button is operated: if the batteries are low, all the decimal markers on the price indicator will be illuminated (Figure 49).

1.1.3 Sealing

(1) Driveway flowmeter computer and stamping plug as illustrated in Figure 50.

(2) Meter and gas separation test valve as illustrated in Figures 14 and 16.

2. Test Procedures

Test procedures appropriate for each model are listed in Figure 1.

Flowmeter Performance

As for original Technical Schedule ~~approved 28/5/80~~ dated 17/6/80.

Add new test procedures as below:

3.6 Price-computing and Volume Circuits for Eclipse Computer

This model of computer is inhibited which means it does not display volume and price below 0,05 L. This can be observed by maki a slow delivery of product and observing that the volume and price displays are inhibited until the volume reaches 0,05 L or alternatively by selecting test mode by pressing the TEST button once, waiting until the indications reset to zero and then pressing the SLOW TEST button and observing that the first figure to appear in the volume indicator is 0,06 L.

For each driveway flowmeter:

(a) Wait 15 seconds from the last sale and with the nozzle hung up press the TEST button once and release button. Displays will blank and then show all 8's and then all 0's and the word TEST will appear on the display.

(b) Remove the nozzle and change the price to say, 30,0 cents per litre. The price may be changed by simultaneously pressing the PRICE and UP or DOWN buttons.

(c) Hang up the nozzle and press the FAST TEST or SLOW TEST buttons to display a volume between 7,49 litres and 7,54 litres. The price will be $2,25 for 7,49 litres, 7,50 litres or 7,51 litres or $2,26 for an indicated volume of 7,52 litres, 7,53 litres or 7,54 litres.

(d) Lift off the nozzle and alter price to 30,6 cents per litre; an error 2 should flash in the price indicator.

(e) Change the price back to the original value and press the TEST button once. The displays will now clear, show all 8's and the motor will start-up.

(f) Hang up the nozzle.

3.7 Preset Delivery - Eclipse Computers

For each driveway flowmeter:

(a) Set the price to 99,9 cents per litre. The price setting may be changed by simultaneously pressing the PRICE and UP or DOWN buttons. A code 3 designating a price change, will flash for up to 90 seconds after the start of the price change procedure. At the completion of the 90 seconds the new price will be displayed and the dollars and litre displays will show all 0's.

(b) After 3 seconds lift the nozzle from its hang-up. The driveway flowmeter will show all 8's and then zero, at which time the pump motor will start.

(c) By means of the keyboard on the side of the instrument enter a $10,00 delivery.

(d) Deliver this amount by keeping the nozzle full open. The driveway flowmeter will slow down to approximately one tenth of its full flow rate for the last 0,3 litre delivered and stop at the exact amount selected on the price indicator.

(e) Replace the nozzle to its hang-up and repeat (c) and (d) at least 3 times.

(f) Return the unit price to that noted in 3.1(a).

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/70

VARIATION No 2

Pattern: Wayne Driveway Flowmeter System 'Epitronic'

Submittor: Wayne Pumps Australia Pty Ltd,
29 Anzac Highway,
Keswick, South Australia, 5035.

1. Description of Variants

1.1 Variant 7

Provision of an optional electro-mechanical totaliser on driveway flowmeter Models ECC and EDC series. These driveway flowmeters are fitted with Eclipse MVR 79S price-computing indicators which have a built-in electronic totaliser. When the electro-mechanical totaliser (Line Model MCU) is fitted to the side of the MVR 79S in these driveway flowmeters, the built-in electronic totaliser will be rendered inoperative (Figure 58).

1.2 Variant 8

An optional Interlock Key Switch fitted to driveway flowmeter Model EAS1DH. This switch provides the facility for the driveway flowmeter to be locked-out to eliminate unauthorised sales and would be used on attendant-operated driveway flowmeters only, that is with the mode switch on the pulse generator set to ATTENDED.

When the key-switch (Figure 57) is in the ATTENDED position, normal operation will result. When the nozzle is lifted, the driveway flowmeter indicator will reset to zero and the pump motor will start. When the nozzle is hung-up the pump motor will stop. This cycle will be repeated each time the nozzle is lifted and replaced.

When the key-switch is in the AUTHORISE position, a transaction from that driveway flowmeter is not possible without authorisation. To authorise the driveway flowmeter the key must be inserted and turned to the ATTENDED position, then back to the AUTHORISE position and the key removed. If the nozzle is lifted at this time, the driveway flowmeter indicator will reset to zero and the pump motor will start and a transaction can be made. When the nozzle is replaced a further transaction is not possible until the driveway flowmeter is again authorised.

The driveway flowmeter can be authorised with or without the nozzle in the hung-up position.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/70

VARIATION No 3

Pattern: Wayne Driveway Flowmeter System 'Epitronic'

Submittor: Wayne Pumps Australia Pty Ltd,
29 Anzac Highway,
Keswick, South Australia, 5035.

1. Description of Variants

1.1 Variant 9

Up to 16 driveway flowmeters (models listed below) with Eclipse electronic computer model MVR 79S, interfaced with either the Epitronic post-payment control console (Figure 2) or the Epitronic Mk II post-payment and pre-payment control console (Figure 11).

The following driveway flowmeter models are covered by this variant:

Model EDS1	(Figure 43)	Model ECS1	(Figure 39)
Model EDS2	(Figure 44)	Model ECS2	(Figure 40)
Model EDS1D	(Figure 45)	Model ECS1D	(Figure 41)
Model EDS1H	(Figure 46)	Model ECS1H	(Figure 42)
Model EDS1DH	(Figure 46)	Model ECS1DH	(Figure 42)

Series ECS are without customer preset panels and, when interfaced with the Epitronic Mk II control console, 'prepay' mode is inhibited. Series EDS have customer preset panels.

Figure 1 summarises the features of these driveway flowmeters for visual identification and replaces Figure 1 of Technical Schedule No 5/6A/70, dated 20/8/80.

1.1.1 Range

As listed in Technical Schedule No 5/6A/70 dated 17/6/80 with the exception:

Totaliser volume: 99999 L in 1 L increments.

1.1.2 Totaliser

The volume totalising function is operated by either pressing the button marked TOTES on the front of the computer, or by maintaining pressure on the light switch push button (Figures 47 and 48).

The total volume and price will be indicated on the LITRES and DOLLARS indicators with the unit price indicator showing the calibration factor 'K', which is not relevant to pattern approval.

The internal batteries of the instrument are checked every time the TOTES button is operated; if the batteries are low, all the decimal markers on the price indicator will be illuminated(Figure 49 the caption of which should read: Dollar Indicator Showing Battery Low Condition).

1.1.3 Sealing

(1) Driveway flowmeter and stamping plug as illustrated in Figure 50.

(2) Meter and gas-separation test valve as illustrated in Figures 14 and 16.

(3) Epitronic control console with interconnecting cable as in Figure 15 and Epitronic Mk II console and interconnecting cable as in Figure 17.

1.2 Variant 10

Driveway flowmeter Models EFS, EGS, EFC and EGC series. These four series of driveway flowmeters differ from existing approved driveway flowmeters only in that they have larger liquid crystal displays and modified top housings. In addition to new instruments, this variant provides for the modification of existing driveway flowmeters, in which case the modified driveway flowmeters will be marked with the new model number.

The following driveway flowmeter models are covered by this variant:

Model							
	EFS1	(Figure 59)	EFC1	(Figure 59)	EGS1	(Figure 61)
	EFS1H	(Figure 59)	EFC1H	(Figure 59)	EGS1D	(Figure 61)
	EFS1D	(Figure 59)	EFC1D	(Figure 59)	EGS2	(Figure 62)
	EFS1DH	(Figure 59)	EFC1DH	(Figure 59)	EGC1	(Figure 61)
	EFS2	(Figure 60)	EFC2	(Figure 60)	EGC1D	(Figure 61)
					EGC1H	(Figure 61)
					EGC1DH	(Figure 61)
					EGC2	(Figure 62)

Figure 63 summarises the features of these driveway flowmeters for visual identification.

Series EFS are self-serve driveway flowmeters with no preset in which case 'prepay' mode is inhibited when interfaced with the Epitronic Mk II console.

Series EGS are self-serve driveway flowmeters with customer preset.

Series EFC are attended driveway flowmeters without customer preset.

Series EGC are attended driveway flowmeters with customer preset panels.

TEST PROCEDURE No 5/6A/70

VARIATION No 3

Test procedures for each model are listed in Figure 1, in addition to which add the following:

3.8 Price computing and Volume Circuits for Eclipse Computer

This model of price-computing indicator is inhibited, which means it does not display volume and price below 0.05 L. This can be observed by making a slow delivery of product and observing that the volume and price displays are inhibited until the volume delivered reaches 0.05 L.

(a) Note the price per litre set on each driveway flowmeter and the mode of operation, that is, console or attended.

(b) At the driveway flowmeter set the mode of operation to ATTENDED by use of the selection switch. At the console set mode of operation to POST-PAY (marked CONSOLE on Mk I console) by use of the key switch.

(c) Wait 15 seconds from the last sale and with the nozzle hung-up press the TEST button on the driveway flowmeter indicator once and release the button. The displays will blank, then show all 8's, then all 0's, and the word TEST will appear on the display. The unit price indicator will show the unit price setting for that driveway flowmeter as recorded in (a).

Note: The nozzle must be hung-up to change into TEST mode and removed to change out of TEST mode.

(d) Remove the nozzle and change the unit price to 30.0 cents per litre. The price may be changed by simultaneously pressing the PRICE and the UP or DOWN buttons. If the volume indications change as well this is because contact has not been made with both the PRICE and the UP or DOWN buttons. The indications on the price and volume indicators can be zeroed by depressing the paddle switch and then releasing.

(e) Hang-up the nozzle and after the computer has blanked, shown all eights and reset to zero, press the FAST or SLOW TEST button to display a volume between 7.49 litres and 7.54 litres. The price will be $2.25 for 7.49, 7.50 or 7.51 litres, or $2.26 for 7.52, 7.53 or 7.54 litres. (If an indication beyond this volume is achieved by mistake lift the nozzle and return the price per litre to that noted in (a). Press TEST button once and release. Hang-up the nozzle and recommence the test at (c)).

(f) Remove the nozzle and alter the price per litre to 30.6 cents per litre; the figure 2 should flash in the price indicator, indicating an error.

(g) Change the unit price back to the original value as recorded in (a).

(h) Press the TEST button once and release. The displays will now clear, display all 8's, reset to zero and the pump motor will start.

(i) Hang-up the nozzle.

(j) Press the TOTES button on the driveway flowmeter indicator, or the optional remote totalising button on the side panel of the driveway flowmeter, and check the decimal markers on the price indicator. If they show between each figure, the batteries need immediate replacement.

(k) Return the console and driveway flowmeter to the mode recorded in 3.1(a).

3.9 Preset Delivery Tests

For each driveway flowmeter note the price setting and then:

(a) At the driveway flowmeter select ATTENDED (manual) mode of operation.

(b) Set the price per litre to 99.9 cents per litre by simultaneously pressing the PRICE and UP or DOWN buttons. After the price change procedure, a code 3, designating a price change, will flash for up to 90 seconds, at the completion of which the new price will be displayed and the dollars and litre displays will show all 0's.

(c) After the 90 sec delay, lift the nozzle from its hang-up. The driveway flowmeter indicator will blank, show all 8's, then reset to zero, and the pump motor will start.

(d) By means of the customer preset panel on the side of the instrument enter a $10.00 delivery.

(e) Deliver this amount with the nozzle fully open. The pump on the driveway flowmeter will slow down to approximately one-tenth of its full flow rate for the last 0.3 litres delivered and stop at the exact amount selected on the price indicator.

(f) Replace the nozzle in its hang-up and repeat (d) and (e) at least 3 times.

(g) Return the unit price setting and the mode of operation at the driveway flowmeter to that recorded in 3.8(a).

3.10 Epitronic System with Mk I or Mk II Consoles - MVR 79S Eclipse (Self-serve Post-pay mode)

The following test procedure will check whether the system is operating in accordance with the approved design:

Note: In order to allow the service station to continue to function while these tests are carried out, a number, for example half, of the driveway flowmeters may be isolated by switching to attended (manual) mode while the remainder are tested in console mode.

(a) Ensure that the CONSOLE mode is selected at those driveway flowmeters to be tested.

(b) At the control console select CONSOLE (POST-PAY) mode of operation by use of the key switch.

(c) In turn, press each STATUS button and check that all of the seven-bar digit indicators indicate the numeral 8.

For each driveway flowmeter:

(d) Lift the nozzle - the AUTHORISATION light should flash; authorise the driveway flowmeter by pressing the AUTHORISATION button.

(e) Deliver sufficient liquid to cause the price and quantity indicators on the driveway flowmeter to move significantly off zero.

(f) Stop the pump motor by returning the nozzle to its hang-up.

(g) Record the driveway flowmeter number and the price indicated on the driveway flowmeter.

(h) Remove the nozzle from its hang-up position and check that the price-computing indicator does not reset to zero and that the pump motor does not start. (AUTHORISATION and STATUS lights will be illuminated). Hang-up the nozzle.

(i) At the control console press the STATUS button for the driveway flowmeter and check the display price against the price recorded at the driveway flowmeter (refer (g)).

(j) Authorise a driveway flowmeter as in (d) and deliver sufficient liquid to cause the price indicator to move significantly off zero. Cease delivery but do not return the nozzle to its hang-up.

(k) Check that operation of the EMERGENCY STOP button on the control console causes all pump motors in use to stop and the AUTHORISATION and STATUS lights to illuminate.

Note: The pump motors of driveway flowmeters being used in MANUAL mode will not stop.

(l) If not an Epitronic Mk I console proceed to (n), otherwise check that when the AUTHORISATION button is pressed this will not cause the price computing indicator or the driveway flowmeter to reset to zero or the pump motor to restart, but should cancel the EMERGENCY STOP light.

Note: Pressing any AUTHORISATION button will cancel the EMERGENCY STOP condition; it will not restart any of the driveway flowmeters.

(m) All transactions taking place on driveway flowmeters in CONSOLE mode at the time of use of the emergency STOP should be terminated by hanging-up the nozzle, and paid off by pressing the STATUS button, as a delivery from a driveway flowmeter cannot be restarted without losing the record of the transaction up to the time of the EMERGENCY STOP. Proceed to (o).

(n) For the Epitronic Mk II console, check that when the AUTHORISATION button is pressed the price-computing indicator on the driveway flowmeter does not reset to zero and that the pump motor restarts to allow the delivery to continue.

Note: Pressing any AUTHORISATION button will cancel the EMERGENCY STOP condition only for that driveway flowmeter, and will extinguish the emergency stop light. The AUTHORISATION button for each driveway flowmeter in use in console mode has to be pressed to allow re-authorisation and the continuance of the delivery.

(o) Return the nozzle to its hang-up.

(p) Return the system to the mode of operation as recorded in 3.1(a).

3.11 Epitronic Mk II - MVR 79S Eclipse (Self-serve Pre-Pay mode)

The following test only applies if the remote indicator is plugged into the console:

(a) With all nozzles hung-up and all transactions completed, at the console select PRE-PAY by the key switch. All driveway flowmeters in CONSOLE mode are now able to be used in PRE-PAY mode operation.

(b) At the console select a driveway flowmeter by pressing the STATUS button, enter the value of product to be delivered by the 0-9 keyboard, say $2.00, and then press the LOAD button. $2.00 will be displayed on the console, the customer's preset panel and customer's indicator.

(c) Repeat (b) for a number of driveway flowmeters.

(d) For each driveway flowmeter authorised in (b) and (c):

Lift the nozzle and make a delivery. The driveway flowmeter will automatically stop when the exact value indicated by the preset indicator is reached. Hang-up the nozzle. The STATUS light for that driveway flowmeter will flash for approximately 5 seconds and then extinguish.

(e) Repeat (b) for at least one driveway flowmeter.

(f) Make a delivery and return the nozzle to its hang-up before the delivery is completed.

(g) Remove the nozzle; the pump should not restart.

(h) At the console press the STATUS button corresponding to the driveway flowmeter selected in (e).

The difference between the amount prepaid and that delivered will be indicated on the console price indicator preceded by a minus sign. The customer's indicator will display the amount delivered, the amount prepaid and the driveway flowmeter number. The STATUS light will be flashing and the driveway flowmeter will not be able to be authorised for at least 3 minutes. The customer's preset indicator on the driveway flowmeter will retain the amount prepaid for the 3 minutes.

(i) Disconnect the customers indicator and repeat (b); no indication should show on the console. That is the instrument cannot be used in prepay mode without the customer indicator connected to the console. Reconnect the customer's indicator.

(j) Price-setting functions - press the NORMAL button and record the price schedule number.

Note: A driveway flowmeter will not accept a unit price change from the console until the nozzle has been hung-up and the driveway flowmeter is in the idle state.

(k) Press the PAGE ZERO button and then press PAGE FORWARD button until page 2 is displayed.

(l) Choose a new price schedule and enter it via the keyboard, then press the ENTER DATA button. Approximately 5 seconds after the ENTER DATA button has been pressed the AUTHORISATION lights of each driveway flowmeter will start flashing.

(m) Press the AUTHORISATION button for each driveway flowmeter. The number 3, signifying a unit price change, will flash in the total price indicator on the computer and control console for approximately 90 seconds. No delivery should be possible for this 90 seconds. After the 90 seconds the number 3 will disappear and the system will return to operational state.

(n) Return the console to the price schedule recorded in (j).

(o) Return the console and driveway flowmeters to the mode of operation as recorded in 3.1(a).

TEST PROCEDURE No 5/6A/70

VARIATION No 3

Test procedures for each model are listed in Figure 1, in addition to which add the following:

3.8 Price computing and Volume Circuits for Eclipse Computer

This model of price-computing indicator is inhibited, which means it does not display volume and price below 0.05 L. This can be observed by making a slow delivery of product and observing that the volume and price displays are inhibited until the volume delivered reaches 0.05 L.

(a) Note the price per litre set on each driveway flowmeter and the mode of operation, that is, console or attended.

(b) At the driveway flowmeter set the mode of operation to CONSOLE by use of the selection switch. At the console set mode of operation to POST-PAY (marked Console on Mk I console) by use of the key switch.

(c) Wait 15 seconds from the last sale and with the nozzle hung-up press the TEST button on the driveway flowmeter indicator once and release the button. The displays will blank, then show all 8's, then all 0's, and the word TEST will appear on the display. The unit price indicator will show the unit price setting for that driveway flowmeter as recorded in (a).

Note: The nozzle must be hung-up to change into TEST mode and removed to change out of TEST mode.

(d) Remove the nozzle and change the unit price to 30.0 cents per litre. The price may be changed by simultaneously pressing the PRICE and the UP or DOWN buttons. If the volume indications change as well this is because contact has not been made with both the PRICE and the UP or DOWN buttons. The indications on the price and volume indicators can be zeroed by depressing the paddle switch and then releasing.

(e) Hang-up the nozzle and after the computer has blanked, shown all eights and reset to zero, press the FAST or SLOW TEST button to display a volume between 7.49 litres and 7.54 litres. The price will be $2.25 for 7.49, 7.50 or 7.51 litres, or $2.26 for 7.52, 7.53 or 7.54 litres. (If an indication beyond this volume is achieved by mistake lift the nozzle and return the price per litre to that noted in (a). Press TEST button, then the AUTHORISATION button on the console. The pump motor will start. Hang-up the nozzle and recommence the test at (c)).

(f) Remove the nozzle and alter the price per litre to 30,9 cents per litre; the figure 2 should flash in the price indicator, indicating an error.

(g) Change the unit price back to the original value as recorded in (a).

(h) Press the TEST button and then on the console press the AUTHORISATION button corresponding to the driveway flowmeter under test. The displays will now clear, display all 8's, reset to zero and the pump motor will start.

(i) Hang-up the nozzle and cancel the status light on the console.

(j) Press the TOTES button on the driveway flowmeter indicator, or the optional remote totalising button on the side panel of the driveway flowmeter, and check the decimal markers on the price indicator. If they show one between each figure, the batteries need immediate replacement.

(k) Return the console and driveway flowmeter to the mode recorded in 3.1(a).

3.9 Preset Delivery Tests

For each driveway flowmeter note the price setting then:

(a) At the driveway flowmeter select ATTENDED (manual) mode of operation.

(b) Set the price per litre to 99.9 cents per litre by simultaneously pressing the PRICE and UP or DOWN buttons. After the price change procedure, a code 3, designating a price change, will flash for up to 90 seconds, at the completion of which the new price will be displayed and the dollars and litre displays will show all 0's.

(c) After the 90 sec delay, lift the nozzle from its hang-up. The driveway flowmeter indicator will blank, show all 8's, then reset to zero, and the pump motor will start.

(d) By means of the customer preset panel on the side of the instrument enter a $10.00 delivery.

(e) Deliver this amount with the nozzle fully open. The pump on the driveway flowmeter will slow down to approximately one-tenth of its full flow rate for the last 0.3 litres delivered and stop at the exact amount selected on the price indicator.

(f) Replace the nozzle in its hang-up and repeat (d) and (e) at least 3 times.

(j) Return the unit price setting and the mode of operation at the driveway flowmeter to that recorded in 3.8(a).

3.10 Epitronic System with Mk I or Mk II Consoles - MVR 79S Eclipse (Self-serve Post-pay mode)

The following test procedure will check that the system is operating in accordance with the approved design:

Note: In order to allow the service station to continue to function while these tests are carried out, a number, for example half, of the driveway flowmeters may be isolated by switching to attended (manual) mode while the remainder are tested in console mode.

(a) Ensure that the CONSOLE mode is selected at those driveway flowmeter to be tested.

(b) At the control console select CONSOLE (POST-PAY) mode of operation by use of the key switch.

(c) In turn, press each STATUS button and check that all of the seven-bar digit indicators indicate the numeral 8.

For each driveway flowmeter:

(d) Lift the nozzle - the AUTHORISATION light should flash; authorise the driveway flowmeter by pressing the AUTHORISATION button.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/70

VARIATION No 4

Pattern: Wayne Epitronic Driveway Flowmeter System

Submittor: Kelvinator Australia Limited
Petroleum Equipment Division
Abbotts Road
Dandenong South, Victoria, 3175.

1. Description of Variant 11

Various models of the ECC, EDC, ECS and EDS series of driveway flowmeters in alternative round housings in which case the prefix E of the model number is replaced by M (e.g. model ECC1 becomes MCC1).

NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 5/6A/70

CHANGE No 1

The description of the

Wayne Driveway Flowmeter System Epitronic

given in Technical Schedule No 5/6A/70 issued on 17/6/80 is altered by:

Replacing Figures 5/6A/70-9
5/6A/70-10
5/6A/70-12
5/6A/70-17

Note: Sealing of the pulse generator unit is from underneath, with a lead and wire seal through the threaded end of the bolt, and not through the head as previously illustrated in Figures 9 and 10.

Signed

Executive Director

29/8/80

FG

NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 5/6A/70

CHANGE No 2

The following change is made to the description of the

Wayne Driveway Flowmeter System "Epitronic"

given in Technical Schedule No 5/6A/70 Variation No 1 dated 20/8/80:

On page 3, test 3.6 (e) is altered to read:

(e) Change the price back to the original retail value as recorded in 3.1 (a), and press the TEST button once. The displays will now clear, show all 8's and the motor will start up.

Signed

Acting Executive Director

23/2/81

PS

NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 5/6A/70

CHANGE No 3

The following change is made to the description of the

Wayne Driveway Flowmeter System "Epitronic"

given in Technical Schedule No 5/6A/70 Variation No 1 dated 20/8/80:

Figure 50 is replaced by the attached Figure 50, which illustrates an improved method of sealing.

Signed

Executive Director

Note: The original Figure 50 should be destroyed; all instruments must be modified to comply with the new figure at the next verification.

12/6/81

NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 5/6A/70

CHANGE No 4

The following changes are made to the description of the

Wayne Driveway Flowmeter System "Epitronic"

given in Technical Schedule No 5/6A/70:

1. Variation No 1

In paragraph 3.6(d), change 30.6 cents per litre to read 30.9 cents pe litre.

2. Variation No 3

In paragraph 3.8(f), change 30.6 cents per litre to read 30.9 cents per litre.

Signed

Raymond Nash

Acting Executive Director

10/8/81

RS

NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 5/6A/70

CHANGE No 5

The following changes are made to the description of the

Wayne Driveway Flowmeter System "Epitronic"

given in Technical Schedule No 5/6A/70 Variation No 3 dated 5/6/81:

1. Pages 1 and 2 of the Test Procedure are replaced by the attached pages 1 and 2 in which alterations are made to paragraphs 3.8(b), (e), (h) and (i).

2. On page 4 of the Test Procedure, in paragraph (m), 3rd line, the words "and control console" are deleted.

The original pages 1 and 2 of this Test Procedure should be destroyed.

Signed

Executive Director

25/9/81

PS

NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 5/6A/70

CHANGE No 6

The following change is made to the description of the

Wayne Driveway Flowmeter System "Epitronic"

given in Technical Schedule No 5/6A/70:

The recent re-issue of page 1 of Test Procedure No 5/6A/70, Variation No 3, (under the heading Change No 5), was not amended to comply with Change No 4 for this document.

Paragraph 3.8 (f) of this Test Procedure should therefore be amended to read 30.9 cents per litre.

Signed

Executive Director

4/11/81

FIGURE 5/6A/70 - 1

Model	Single	Dual	Maximum flow rate L/min	Product for which approved	Attendant operated	Epi-tronic console	Epi-tronic Mk II console	Customer's indicator	Fig No.	Hydraulic diagram No.	Test Procedure No.
EAS1	*	NA	55	Petrol	*	*	*	+	3	6	3.1,3.2,3.4
EAS2	NA	*	55	Petrol	*	*	*	+	4	6	3.1,3.2,3.4
EAS1D	*	NA	55	Diesel	*	*	*	+	5	7,8	3.1,3.2,3.4
EAS1H	*	NA	80	Petrol	*	*	*	+	5	7,8	3.1,3.2,3.4
EAS1DH	*	NA	80	Diesel	*	*	*	+	5	7,8	3.1,3.2,3.4
EAC1	*	NA	55	Petrol	*	NA	NA	NA	3	6	3.1,3.2
EAC2	NA	*	55	Petrol	*	NA	NA	NA	4	6	3.1,3.2
EAC1D	*	NA	55	Diesel	*	NA	NA	NA	5	7,8	3.1,3.2
EAC1H	*	NA	80	Petrol	*	NA	NA	NA	-	7,8	3.1,3.2
EAC1DH	*	NA	80	Diesel	*	NA	NA	NA	-	7,8	3.1,3.2
EBS1	*	NA	55	Petrol	*	*	*	+	18	21	3.1,3.2,3.3,3.4,3.5
EBS2	NA	*	55	Petrol	*	*	*	+	19	22	3.1,3.2,3.3,3.4,3.5
EBS1D	*	NA	55	Diesel	*	*	*	+	20	23,8	3.1,3.2,3.3,3.4,3.5
ECC1	*	NA	55	Petrol	*	NA	NA	NA	39	51	3.1,3.6
ECC1D	*	NA	55	Diesel	*	NA	NA	NA	41	52,8	3.1,3.6
ECC1H	*	NA	80	Petrol	*	NA	NA	NA	42	52,8	3.1,3.6
ECC1DH	*	NA	80	Diesel	*	NA	NA	NA	42	52,8	3.1,3.6
ECC2	NA	*	55	Petrol	*	NA	NA	NA	40	53	3.1,3.6
EDC1	*	NA	55	Petrol	*	NA	NA	NA	43	54	3.1,3.6,3.7
EDC1D	*	NA	55	Diesel	*	NA	NA	NA	45	55,8	3.1,3.6,3.7
EDC1H	*	NA	80	Petrol	*	NA	NA	NA	46	55,8	3.1,3.6,3.7
EDC1DH	*	NA	80	Diesel	*	NA	NA	NA	46	55,8	3.1,3.6,3.7
EDC2	NA	*	55	Petrol	*	NA	NA	NA	44	56	3.1,3.6,3.7
EDS1	*	NA	55	Petrol	*	*	*	+	43	54	3.1,3.8,3.9,3.10,3.11
EDS1D	*	NA	55	Diesel	*	*	*	+	45	55,8	3.1,3.8,3.9,3.10,3.11
EDS1H	*	NA	80	Petrol	*	*	*	+	46	55,8	3.1,3.8,3.9,3.10,3.11
EDS1DH	*	NA	80	Diesel	*	*	*	+	46	55,8	3.1,3.8,3.9,3.10,3.11
EDS2	NA	*	55	Petrol	*	*	*	+	44	56	3.1,3.8,3.9,3.10,3.11
ECS1	*	NA	55	Petrol	*	*	*	+	39	51	3.1,3.8,3.9,3.10
ECS2	NA	*	55	Petrol	*	*	*	+	40	53	3.1,3.8,3.9,3.10
ECS1D	*	NA	55	Diesel	*	*	*	+	41	52,8	3.1,3.8,3.9,3.10
ECS1H	*	NA	80	Petrol	*	*	*	+	42	52,8	3.1,3.8,3.9,3.10
ECS1DH	*	NA	80	Diesel	*	*	*	+	42	52,8	3.1,3.8,3.9,3.10

Driveway Flowmeter Identification Table

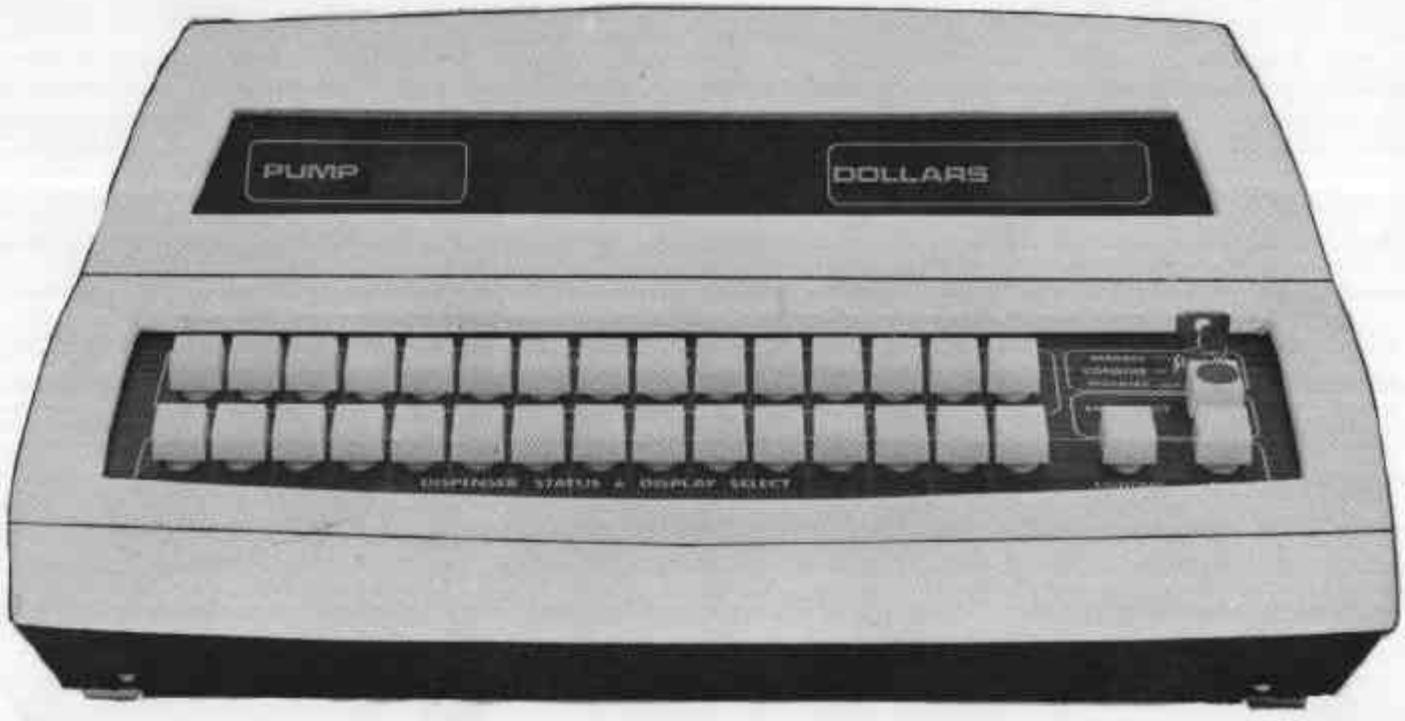
* - approved

NA - not approved

+ - the customer's indicator is mandatory for prepayment mode, and for post-payment mode in New South Wales only.

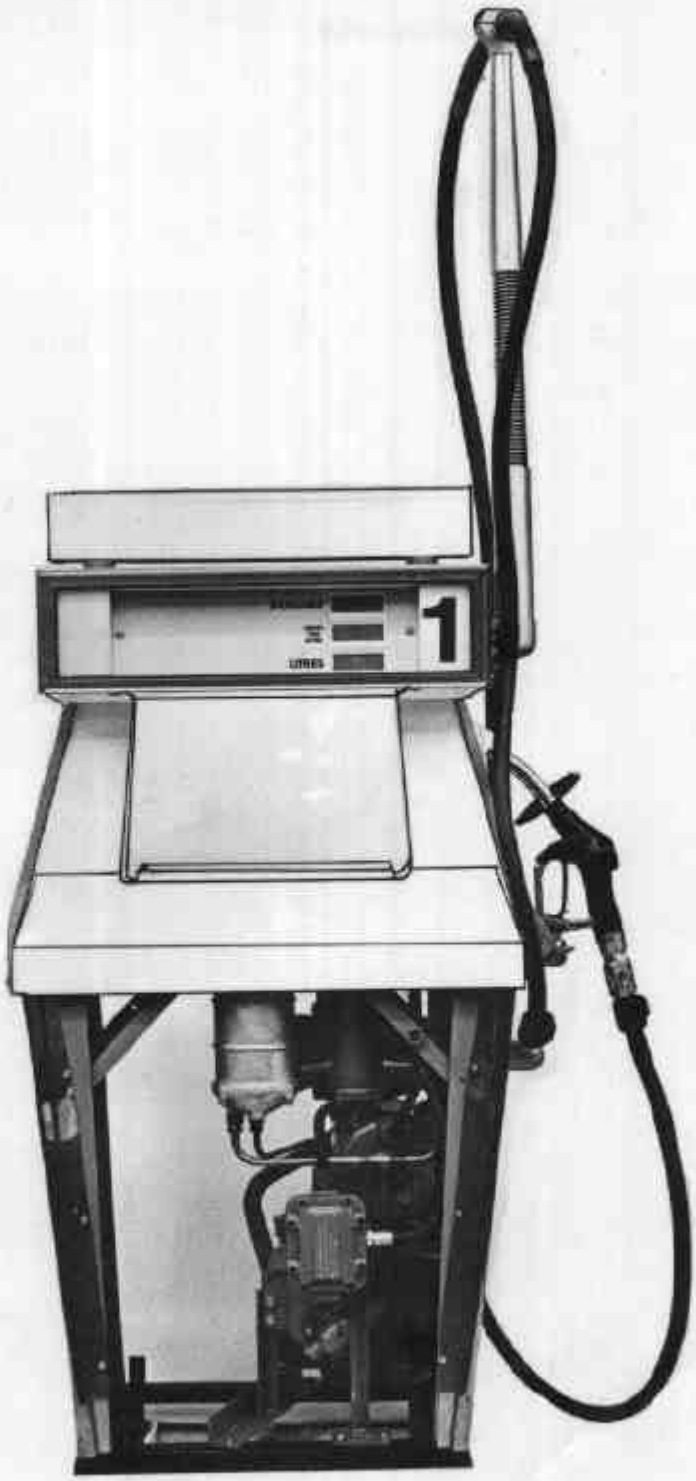
FIGURE 5/6A/70 - 2

12/9/78



Epitronic Control Console

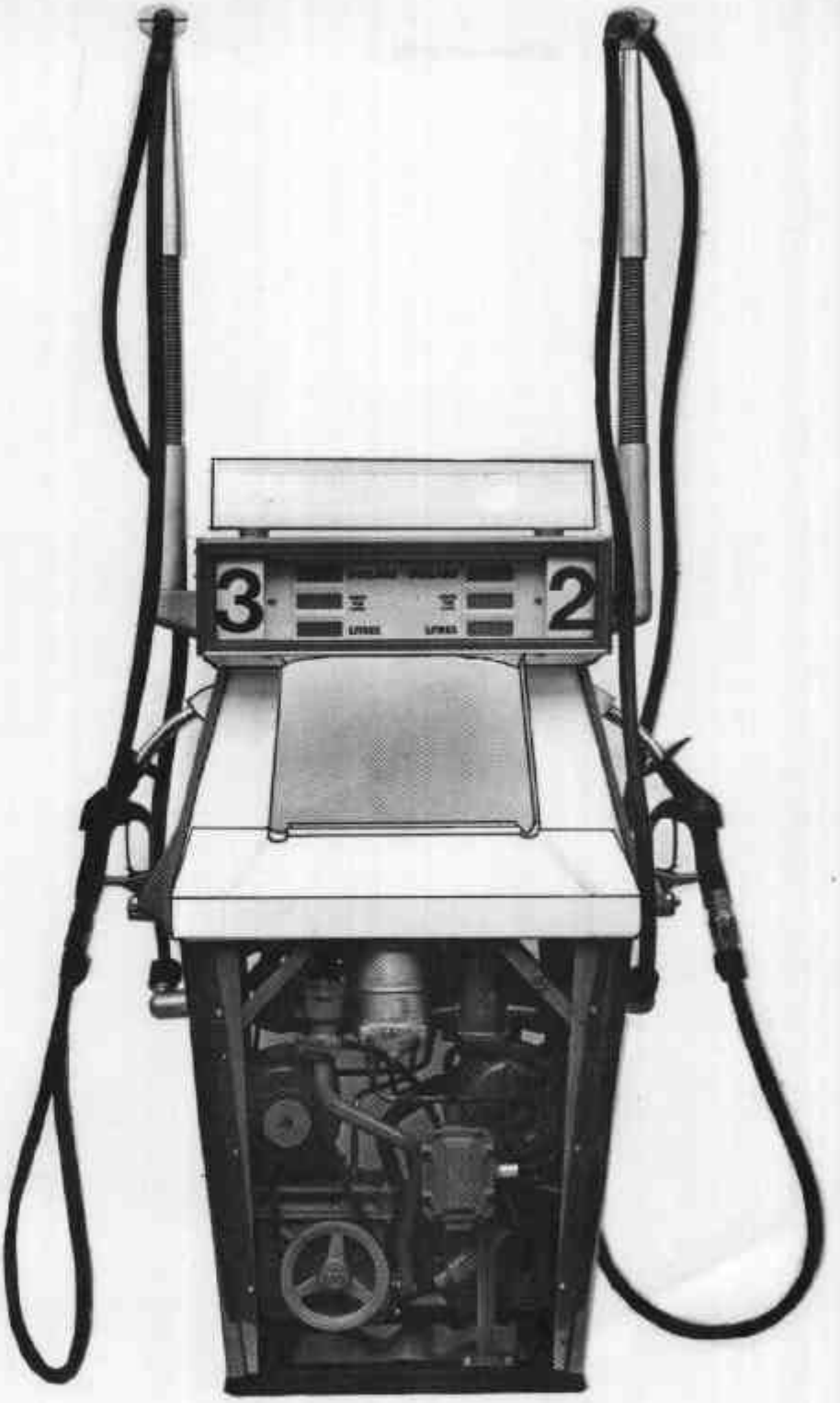
FIGURE 5/6A/70 - 3



Wayne Single Driveway Flowmeter Model EAS1

12/9/78

FIGURE 5/6A/70 - 4



Wayne Dual Driveway Flowmeter Model EAS2

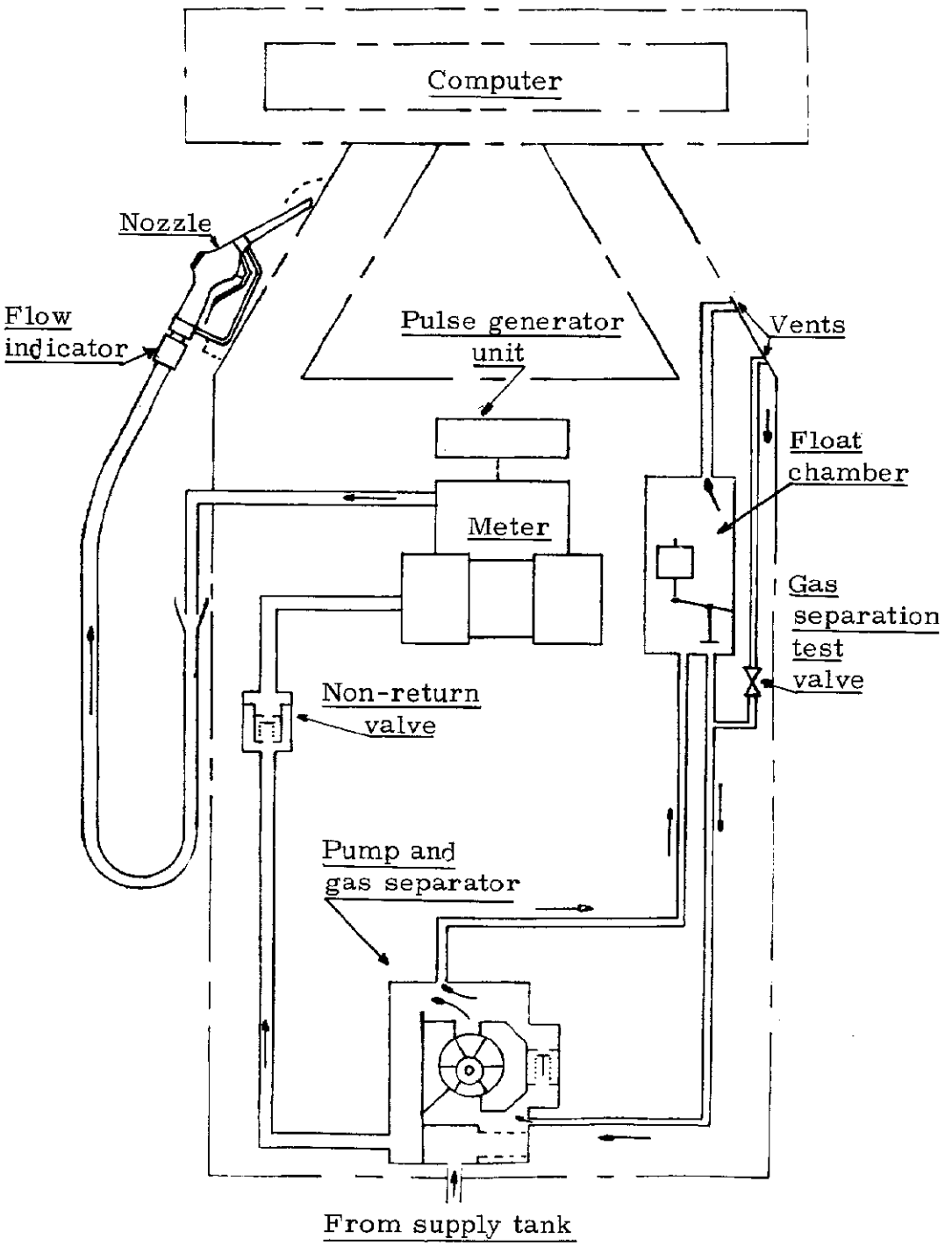
12/9/78

FIGURE 5/6A/70 - 5

Wayne Single Driveway Flowmeter Model EASID EASIH EASIDH

12/9/78

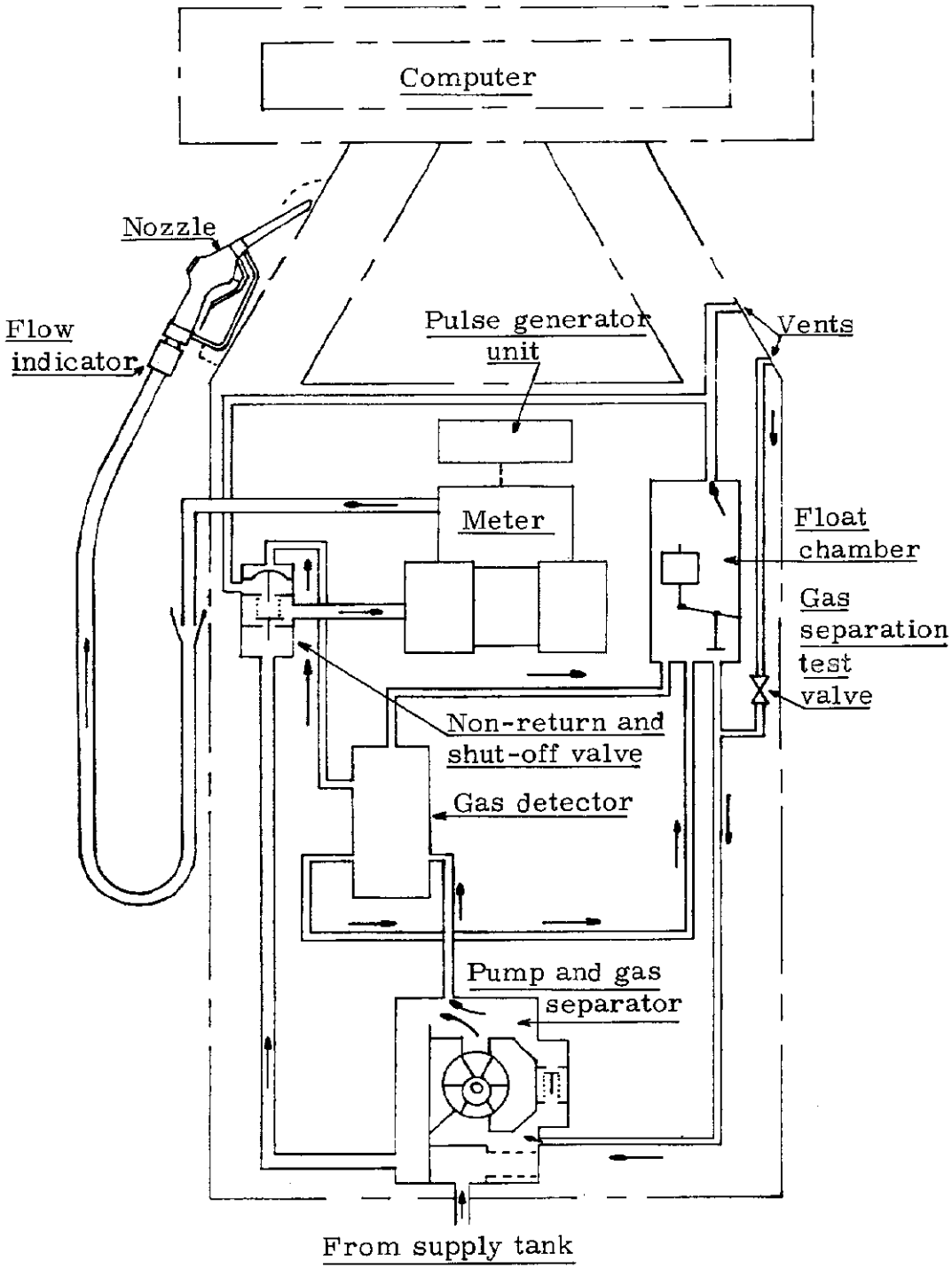
FIGURE 5/6A/70 - 6



Hydraulic Diagram Model EAS1

12/9/78

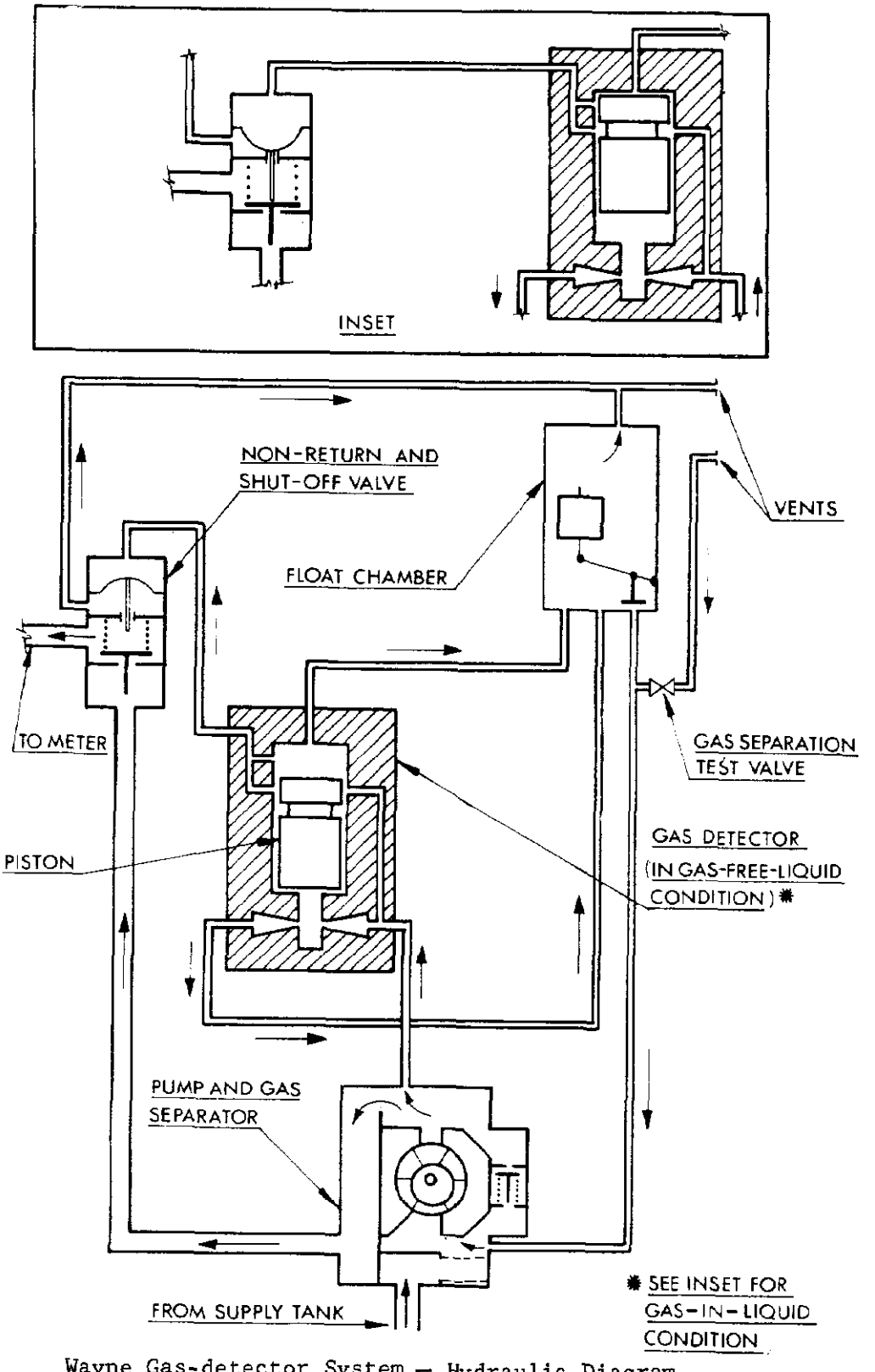
FIGURE 5/6A/70 - 7



Hydraulic Diagram Model EAS1D

12/9/78

FIGURE 5/6A/70 - 8

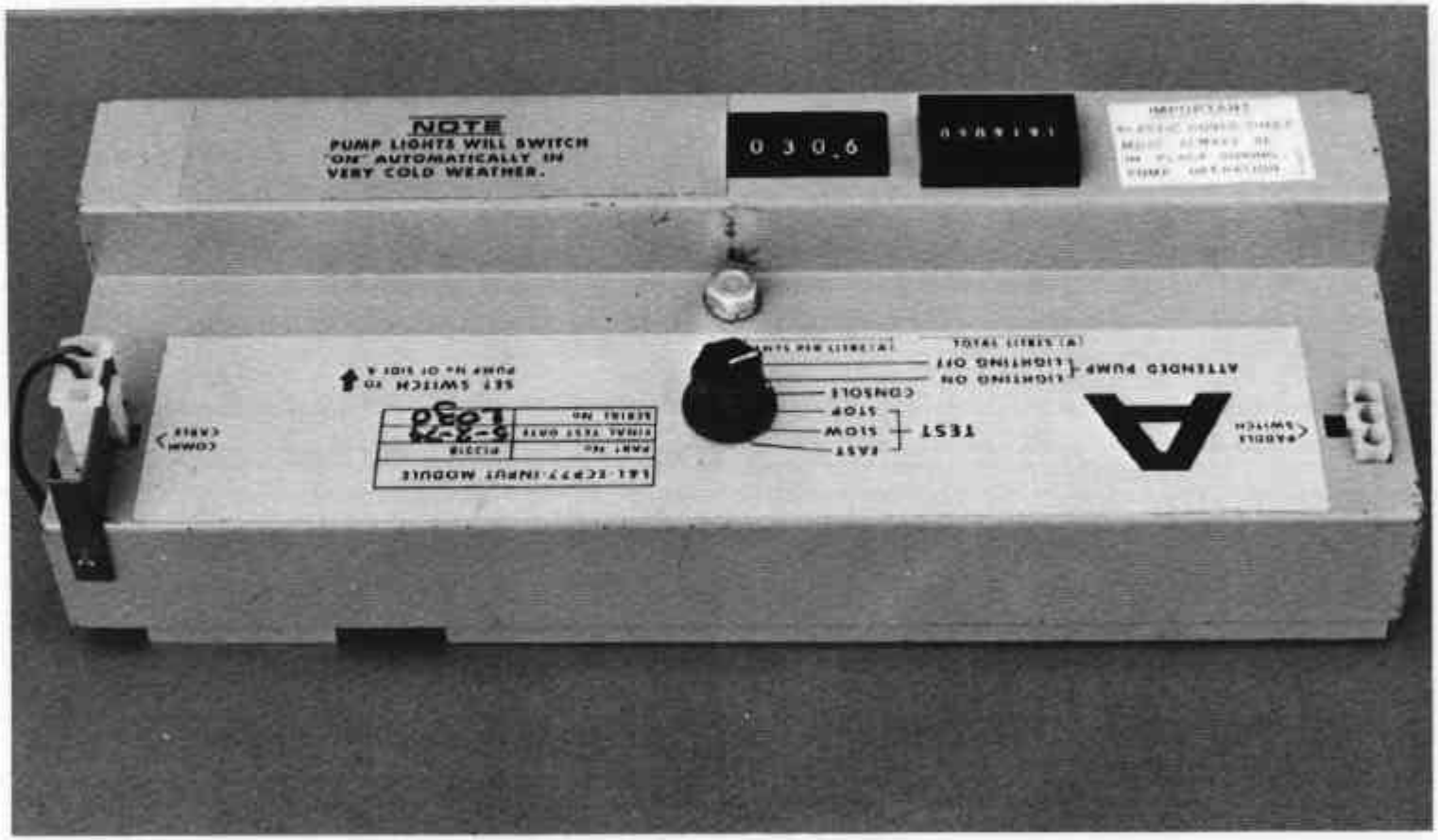


Wayne Gas-detector System — Hydraulic Diagram

12/9/78

FIGURE 5/6A/70 - 9

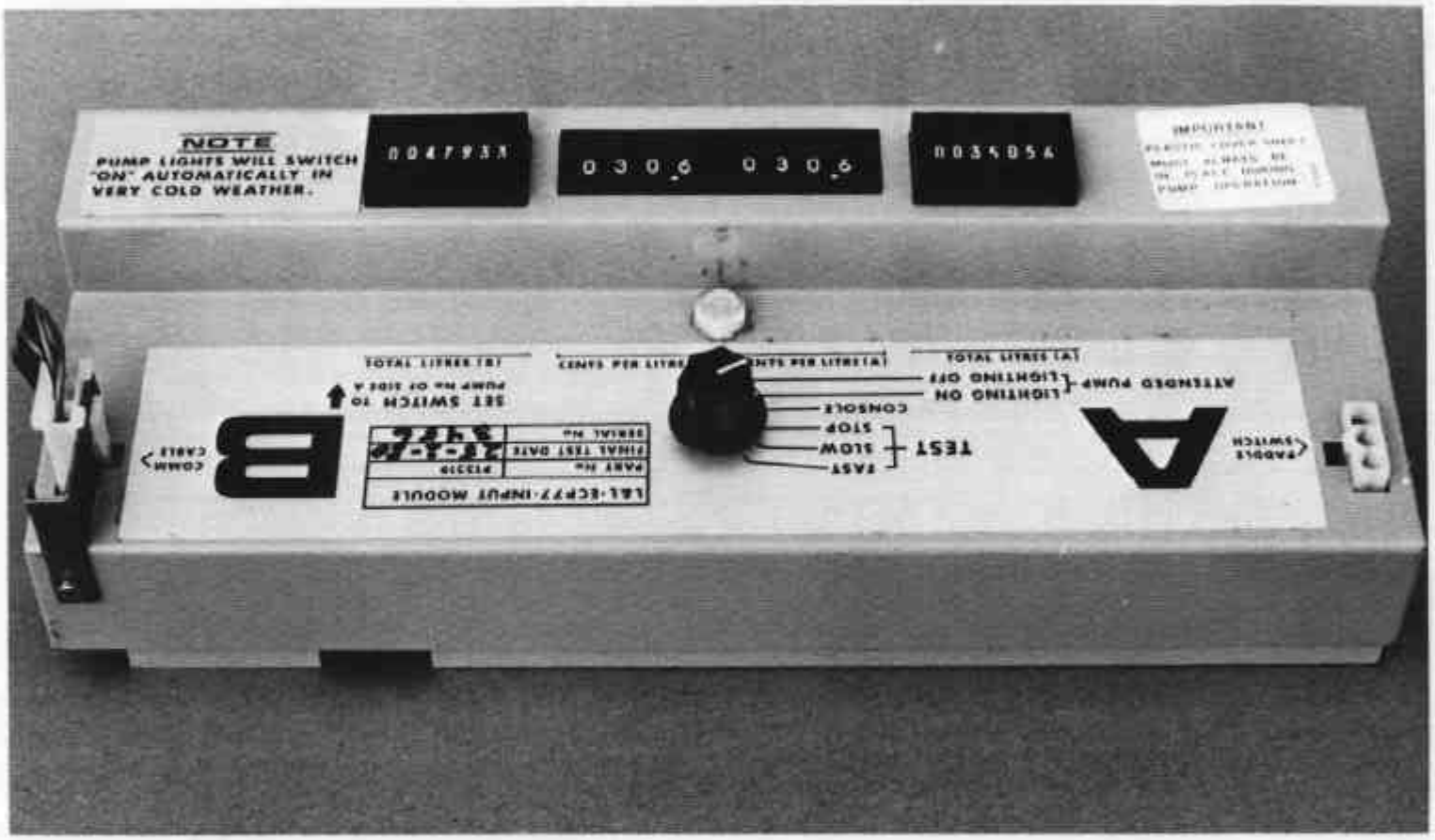
17/6/80
(re-issued 29/8/80)



Pulse Generator Unit (Single)

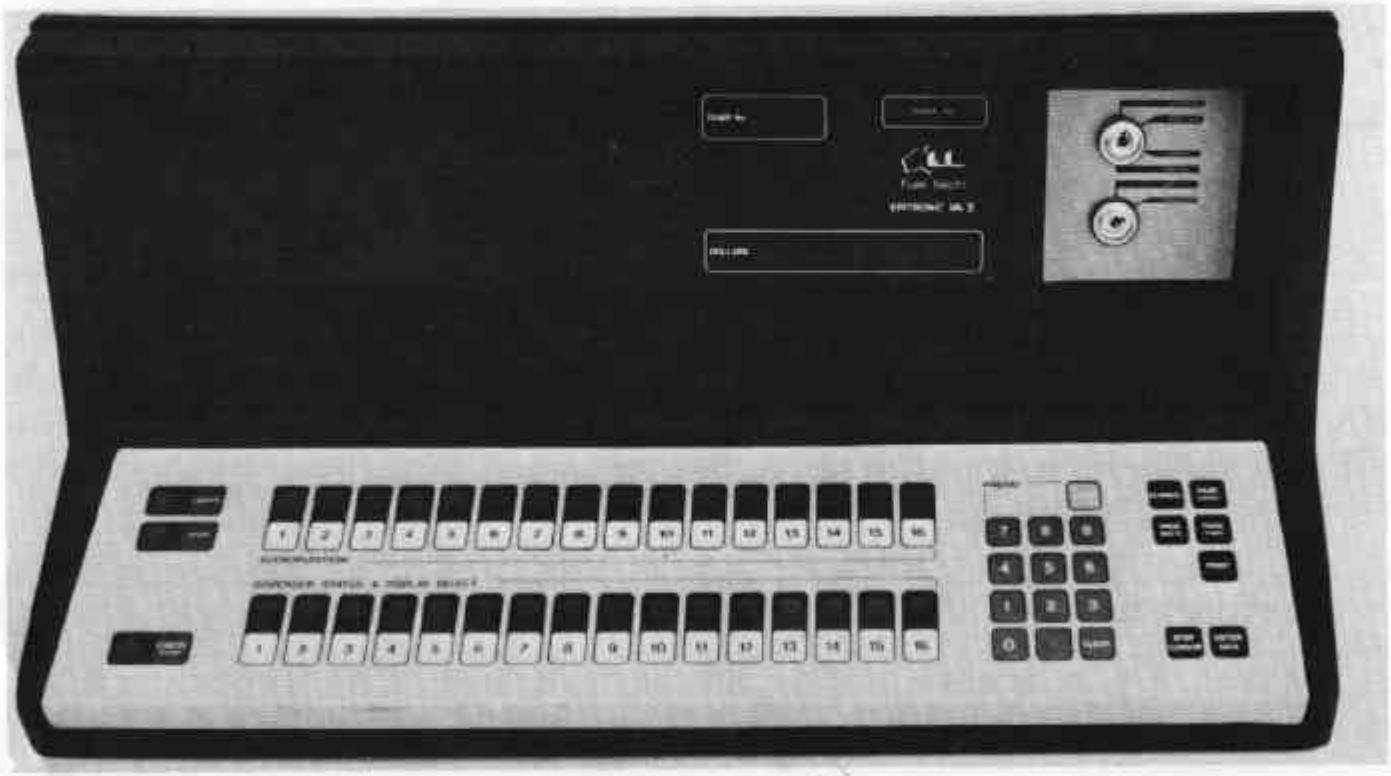
17/6/80
(re-issued 29/8/80)

FIGURE 5/6A/70 - 10



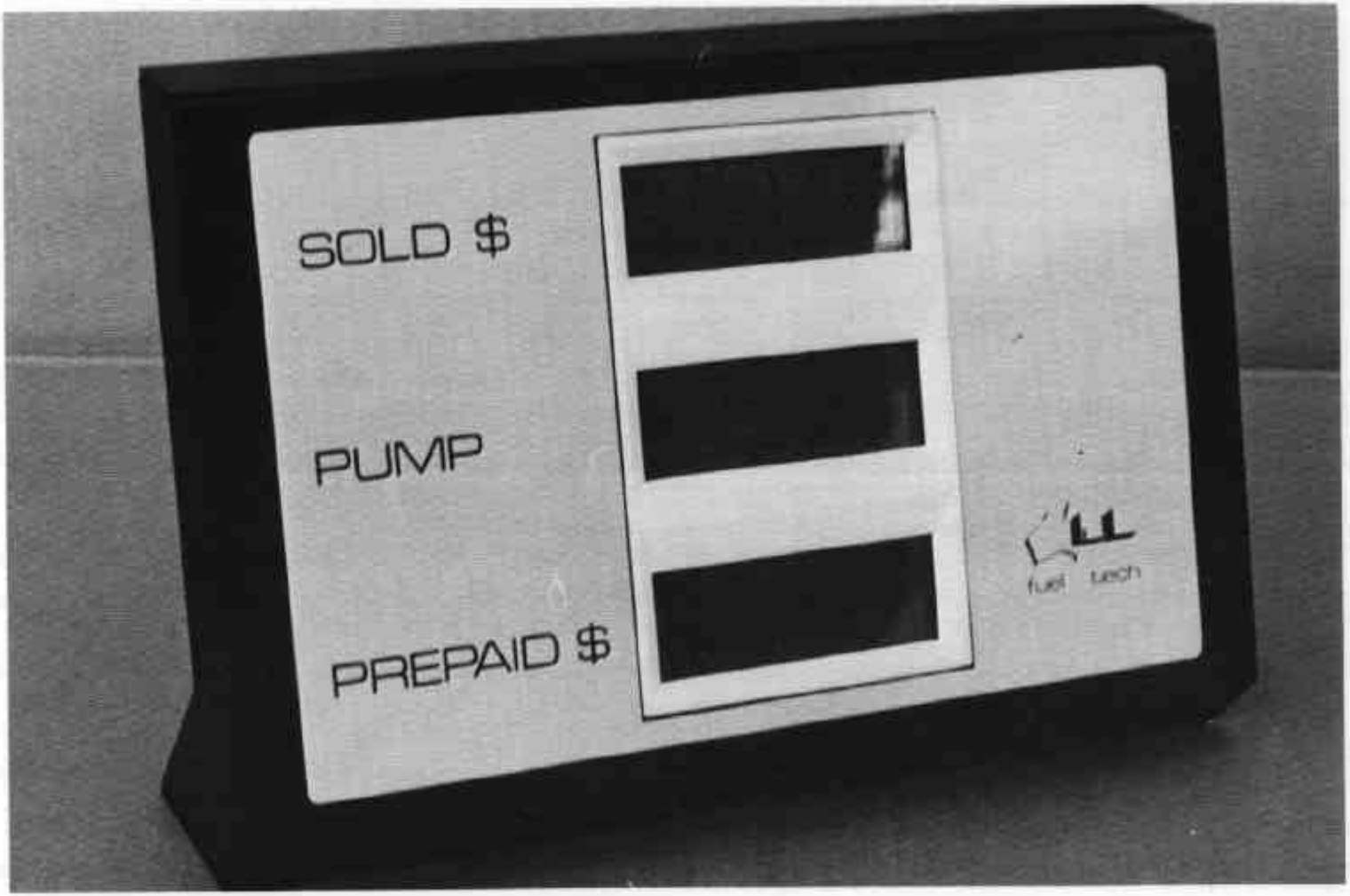
Pulse Generator Unit (Dual)

FIGURE 5/6A/70 - 11

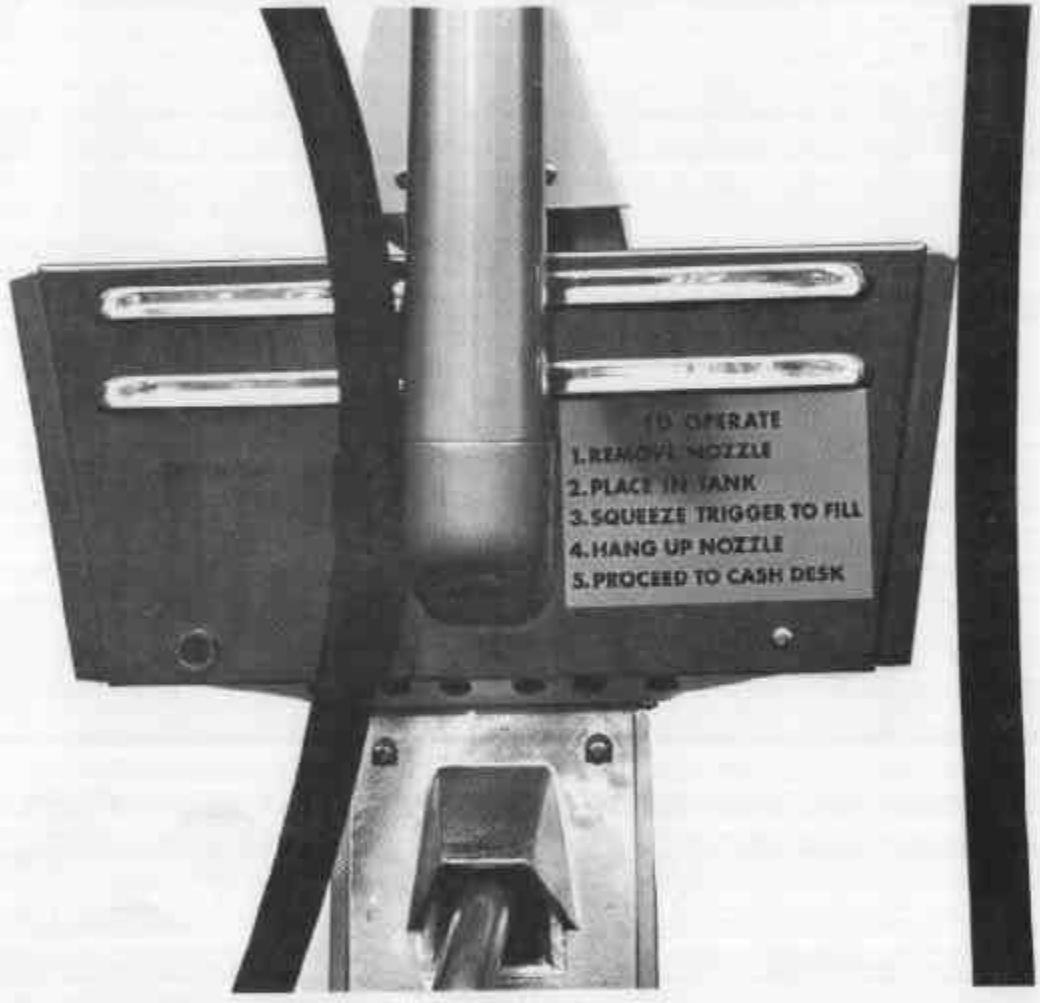


Epitronic Mk II Console

FIGURE 5/6A/70 - 12

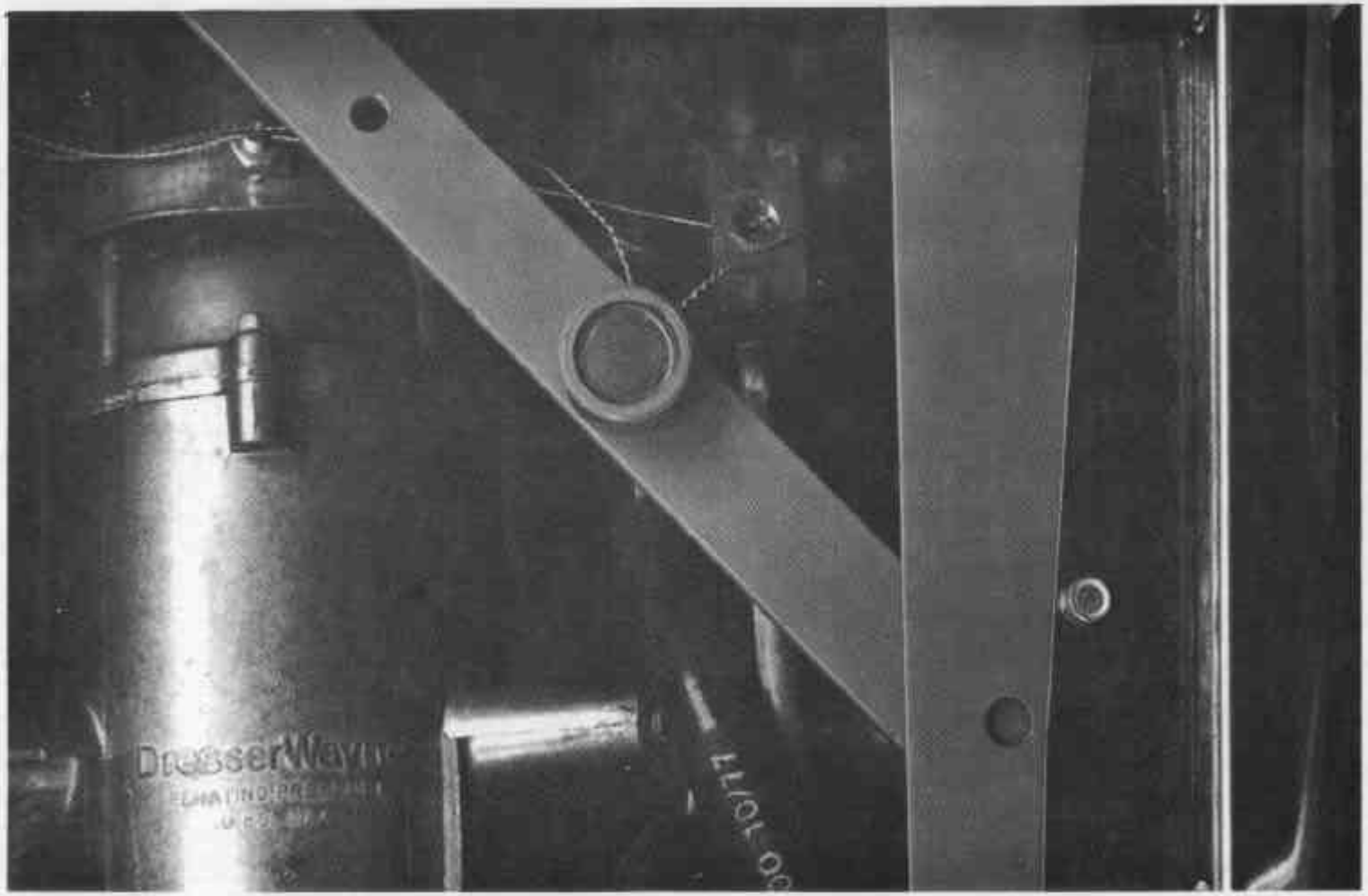


Purchaser's Indicator

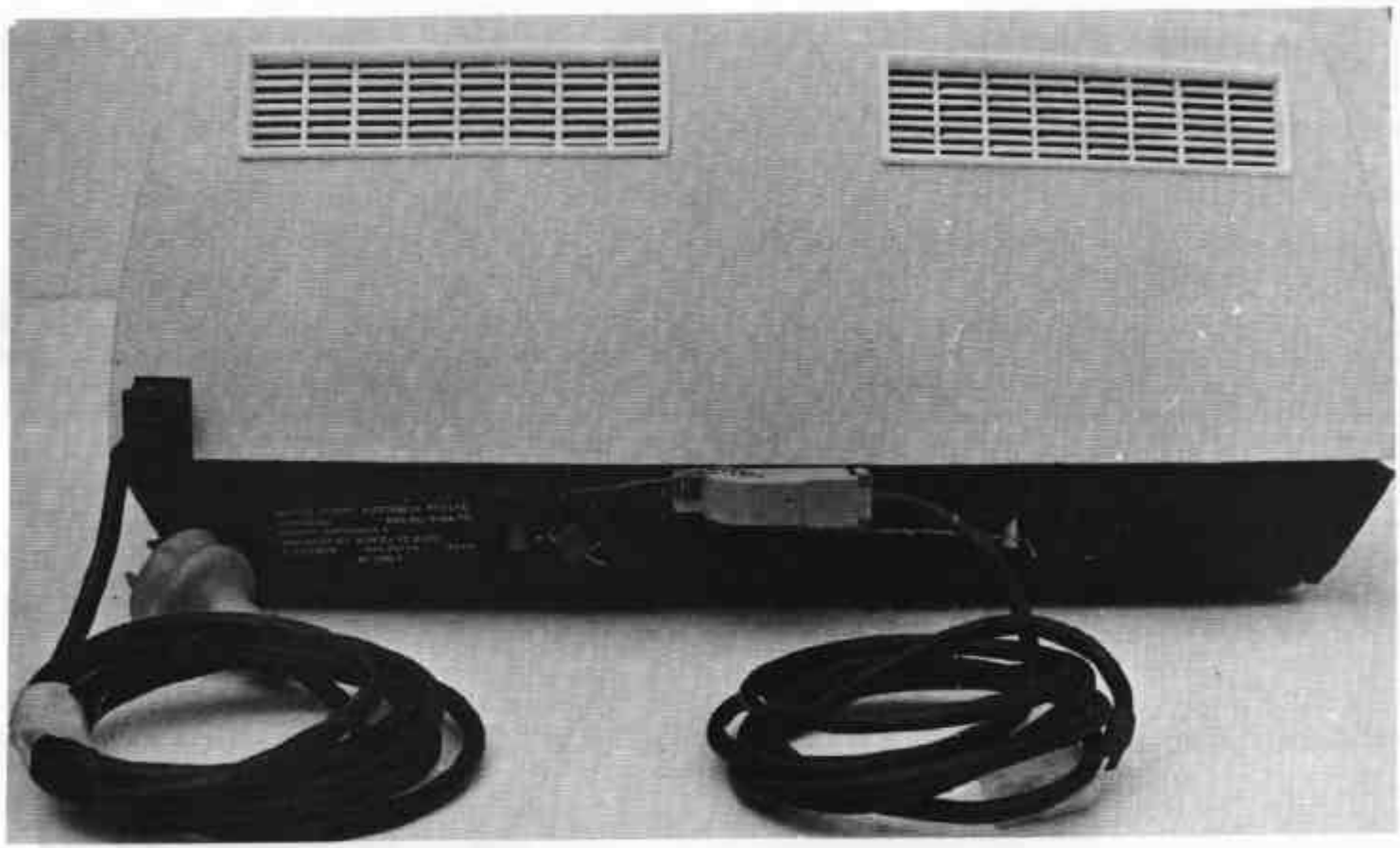


Sealing of Computer Unit

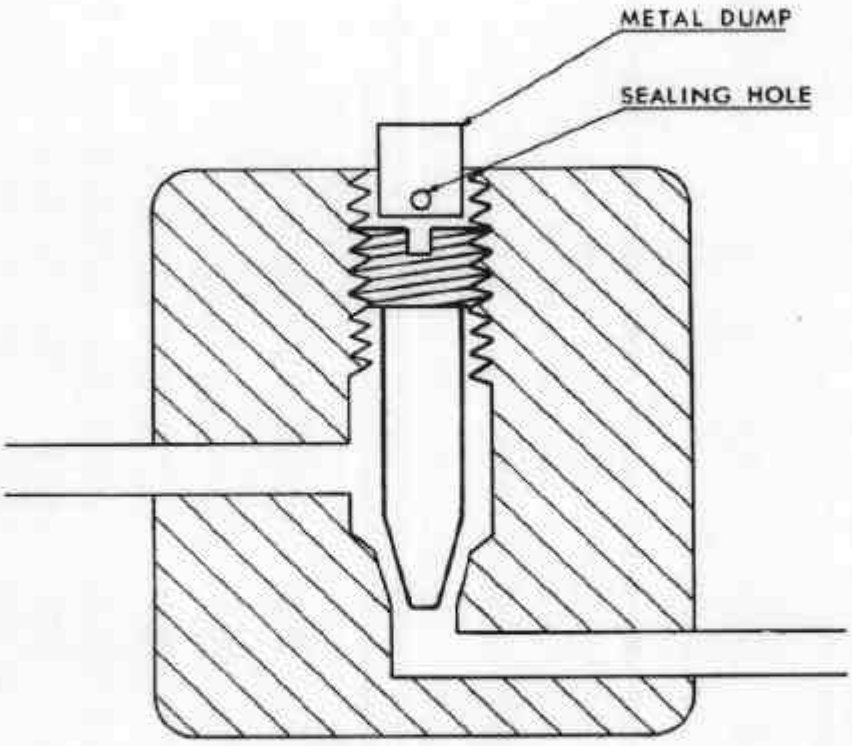
FIGURE 5/6A/70 - 14



Gas Separation Test Valve

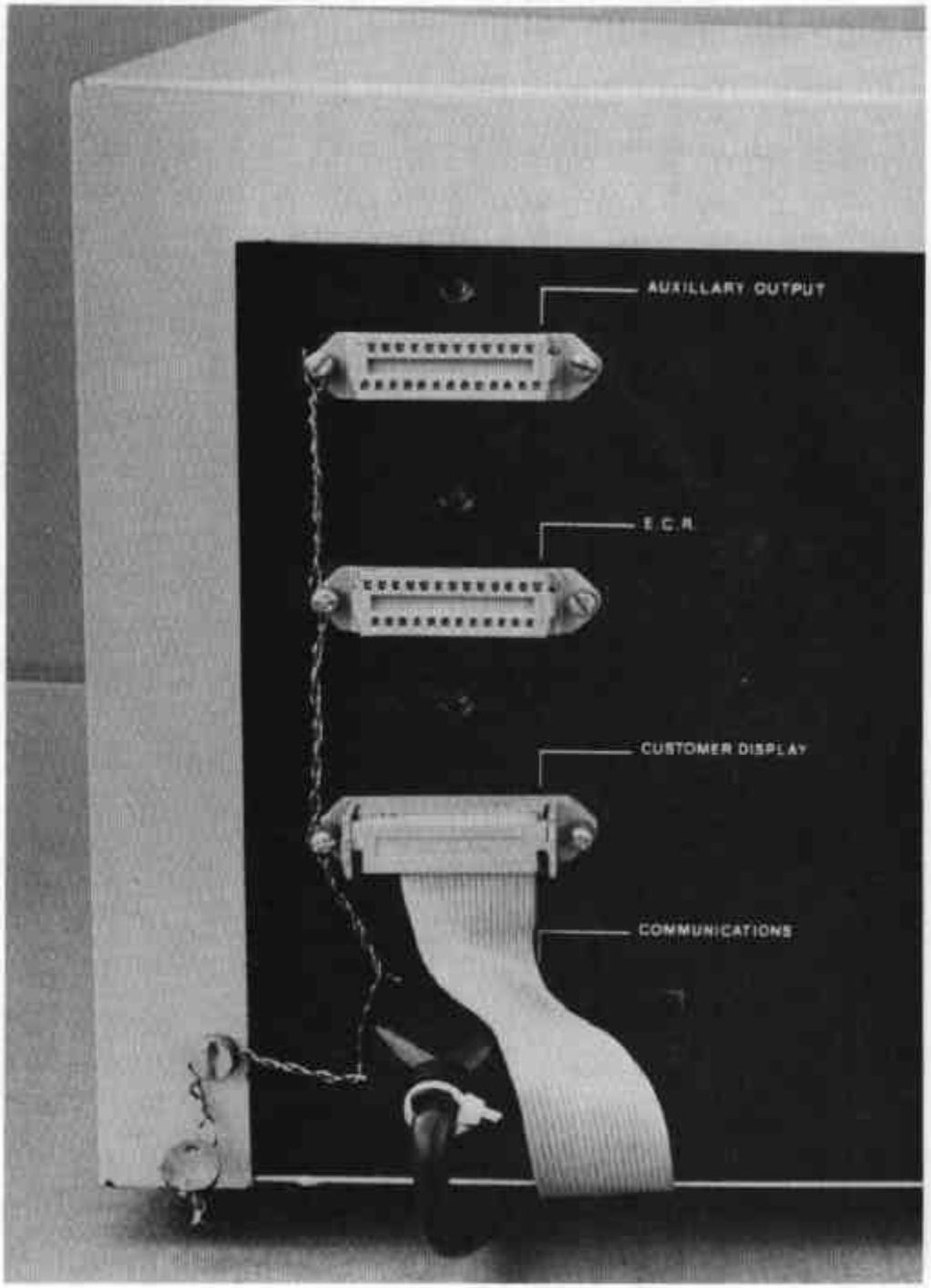


Epitronic Control Console Showing Sealing



Gas-separator Test Valve — Schematic Diagram

FIGURE 5/6A/70 - 17



Epitronic Mk II Control Console
Showing Sealing

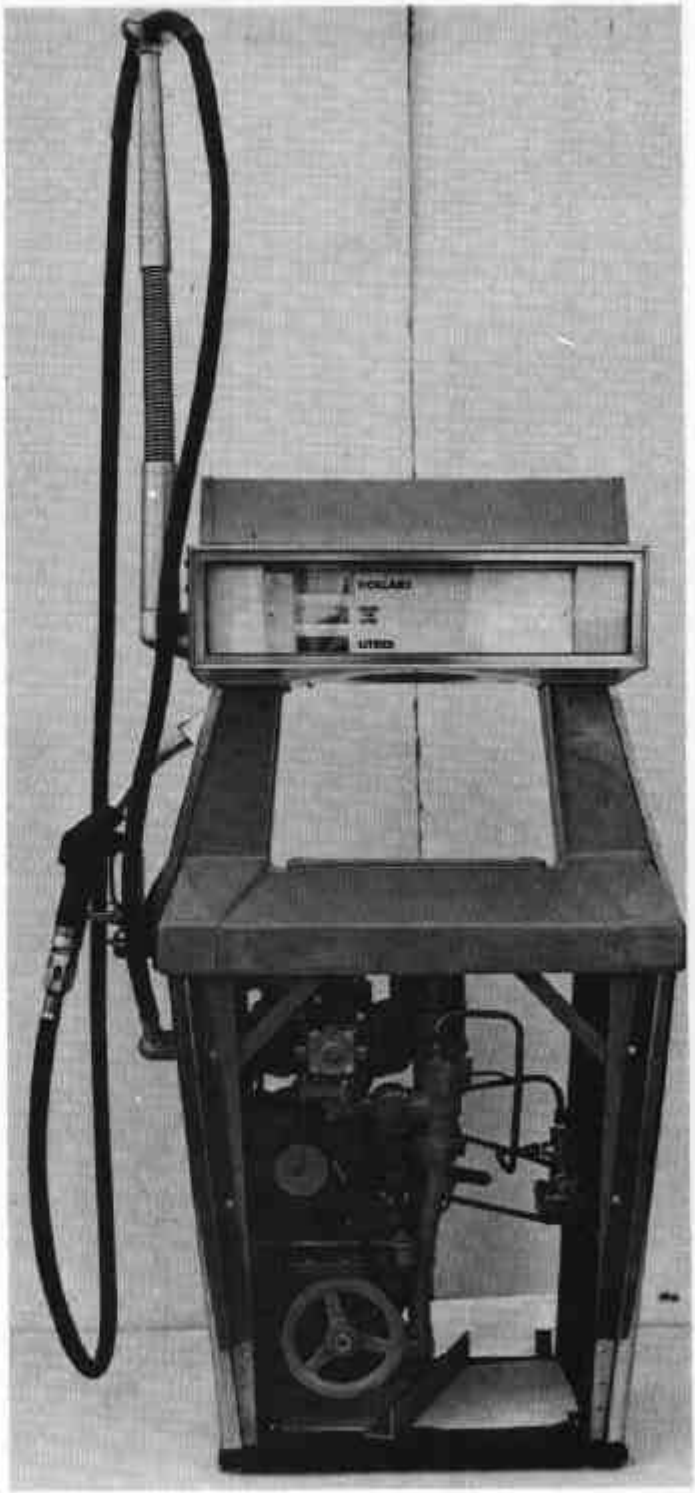
17/6/80
(re-issued 29/8/80)

Wayne Driveway Flowmeter EBS1

Wayne Driveway Flowmeter Model EBS2

17/6/80

FIGURE 5/6A/70 - 20



Wayne Driveway Flowmeter Model EBS1D

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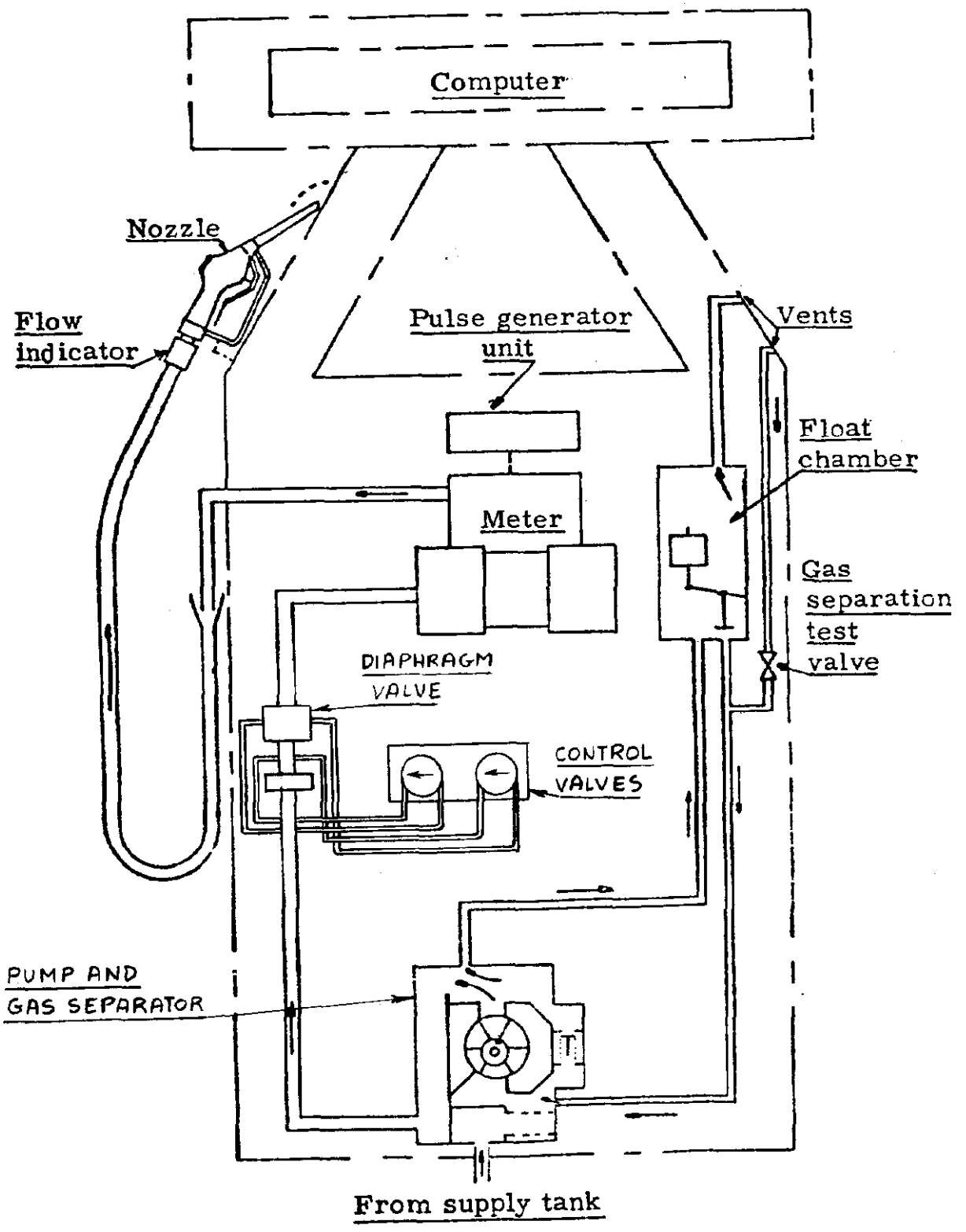
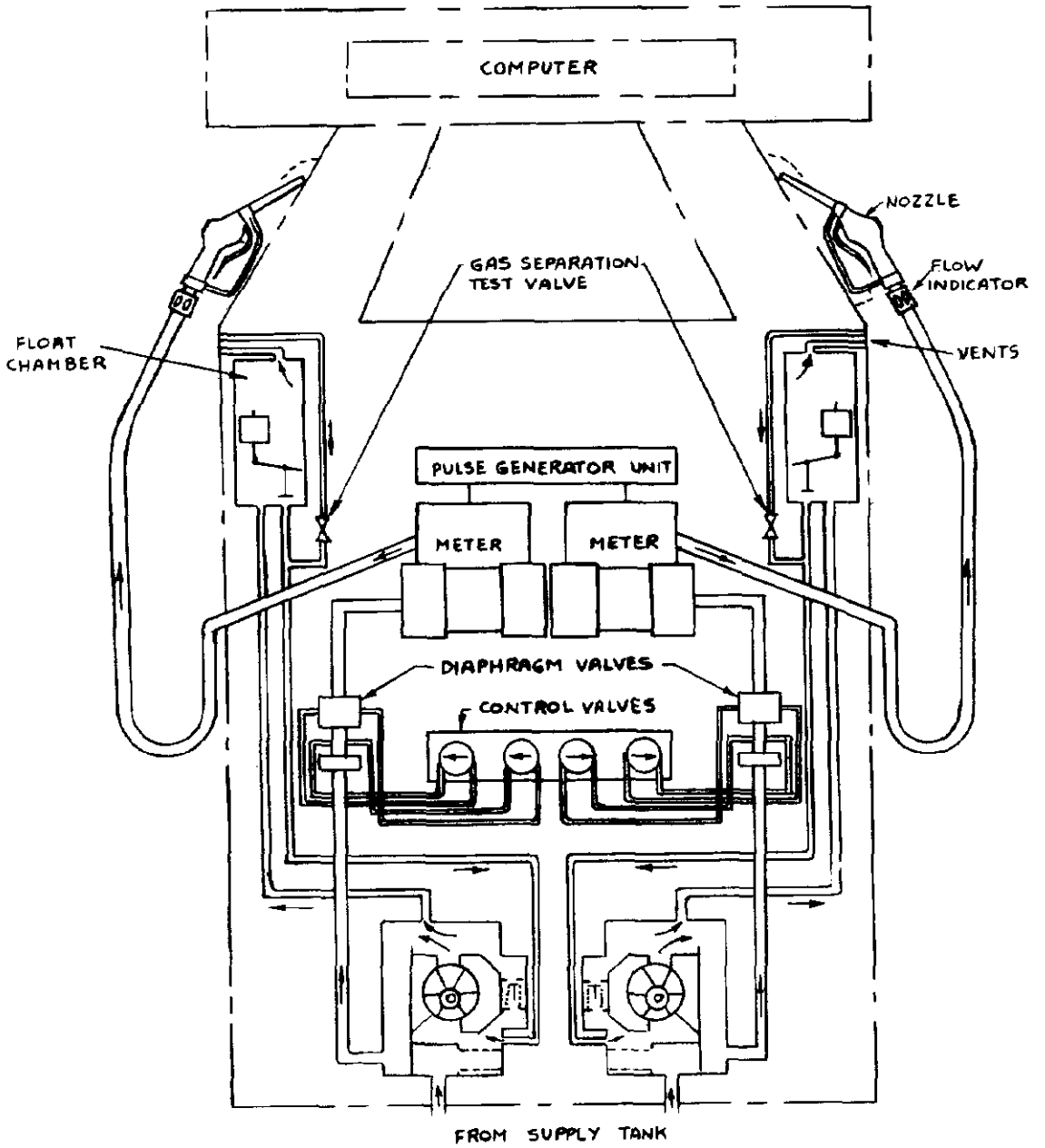


Hydraulic Diagram Model EBS1

17/6/80

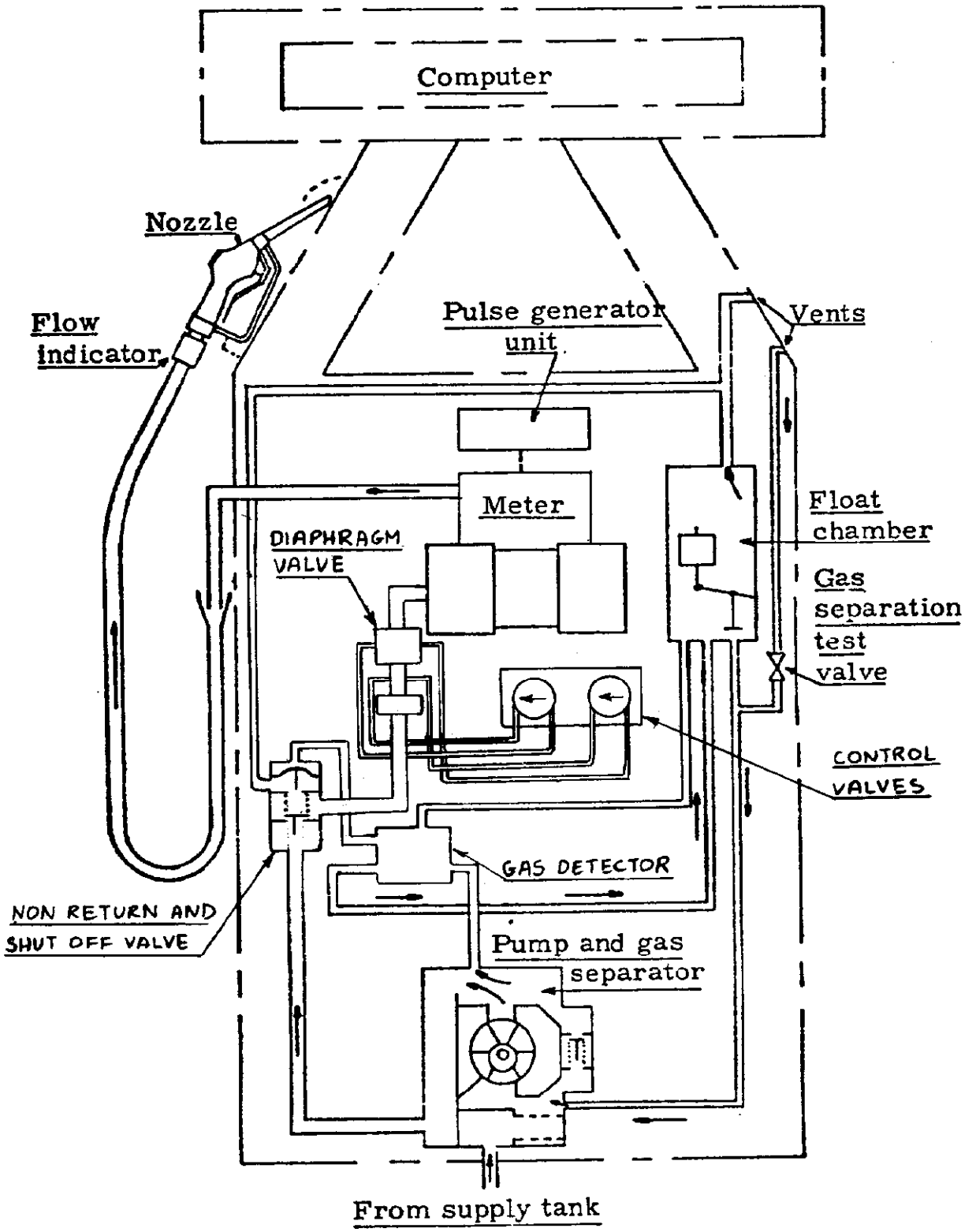
FIGURE 5/6A/70 - 22



Hydraulic Diagram Model EBS2

17/6/80

FIGURE 5/6A/70 - 23



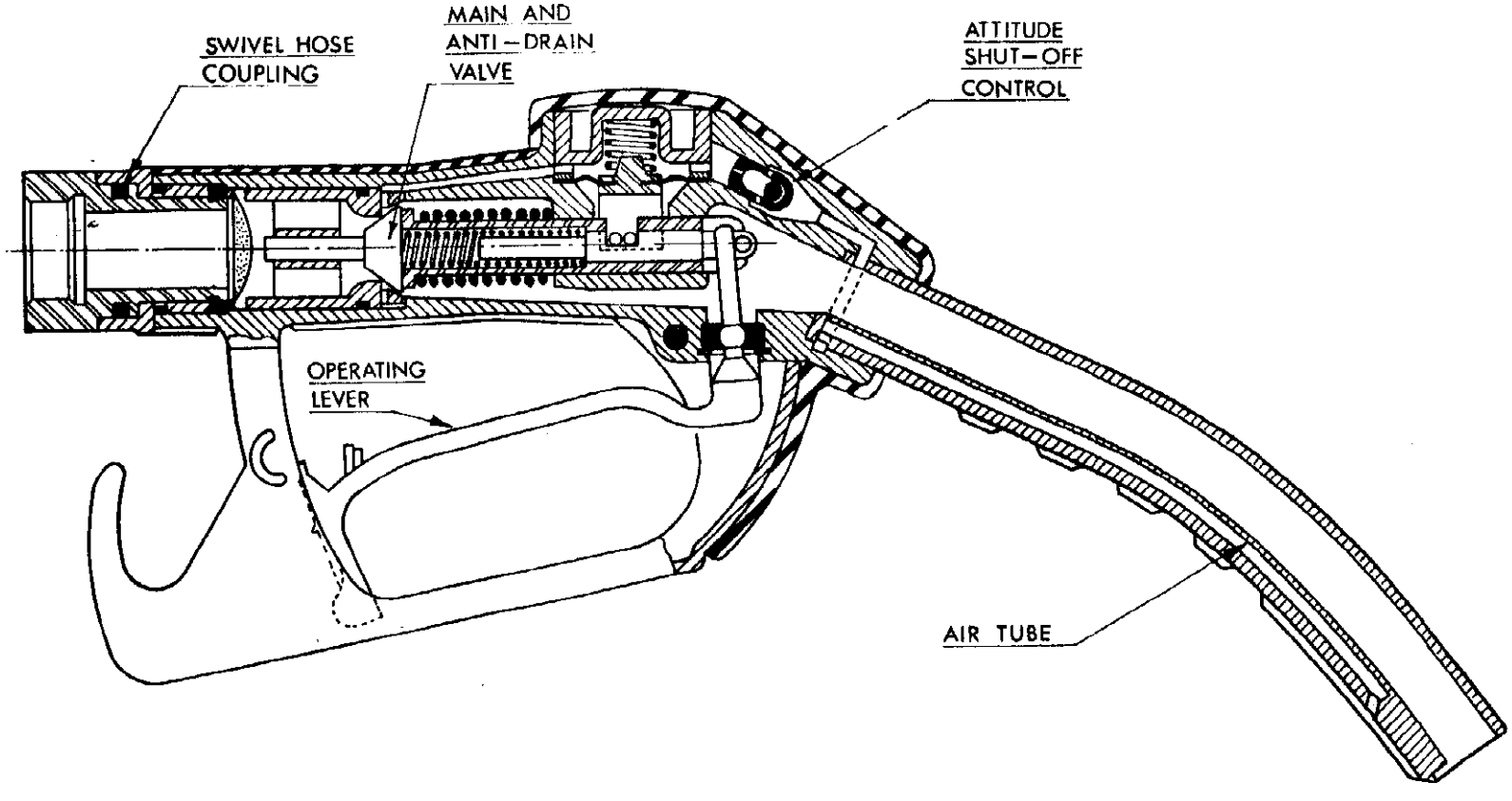
Hydraulic Diagram Model EBS1D

17/6/80

FIGURE 5/6A/70 - 24

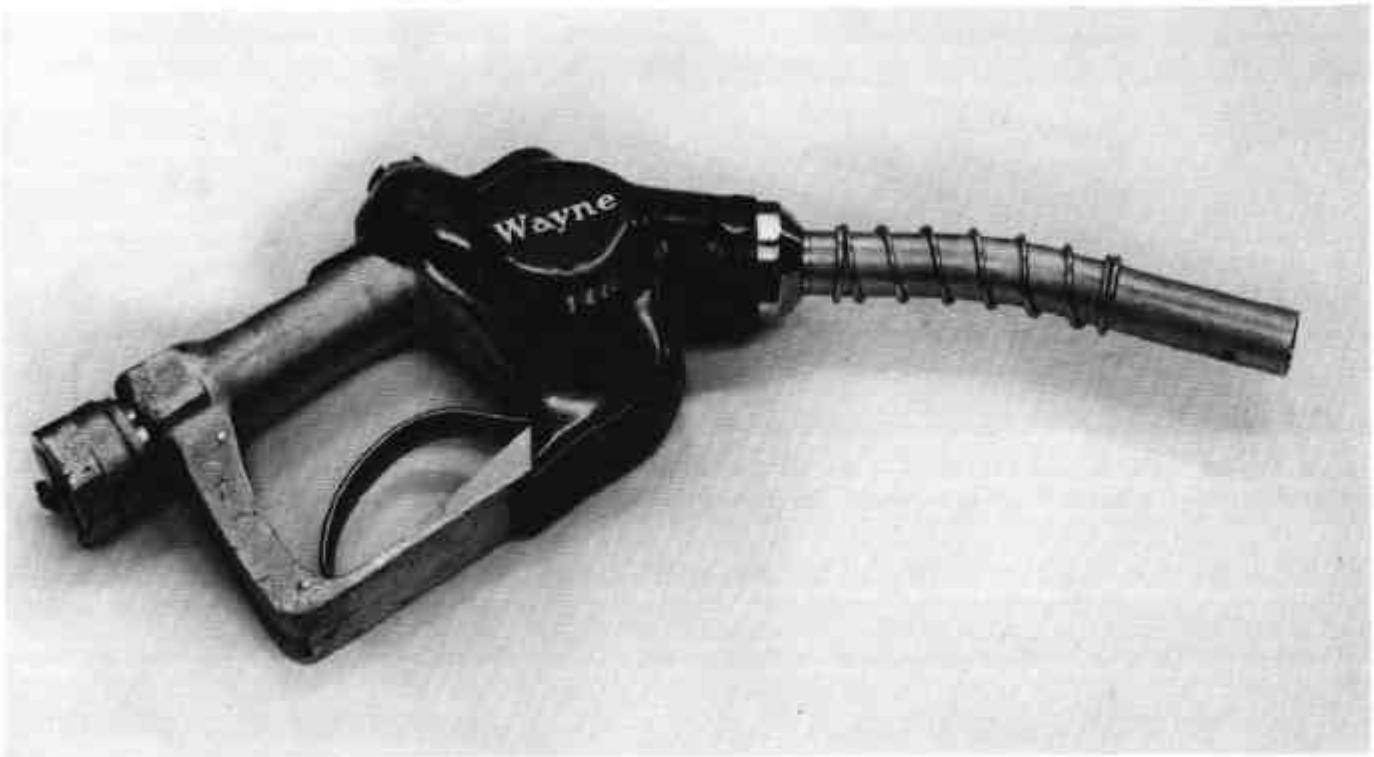
ZVA Slimline Automatic Hose Nozzle

FIGURE 5/6A/70 - 25



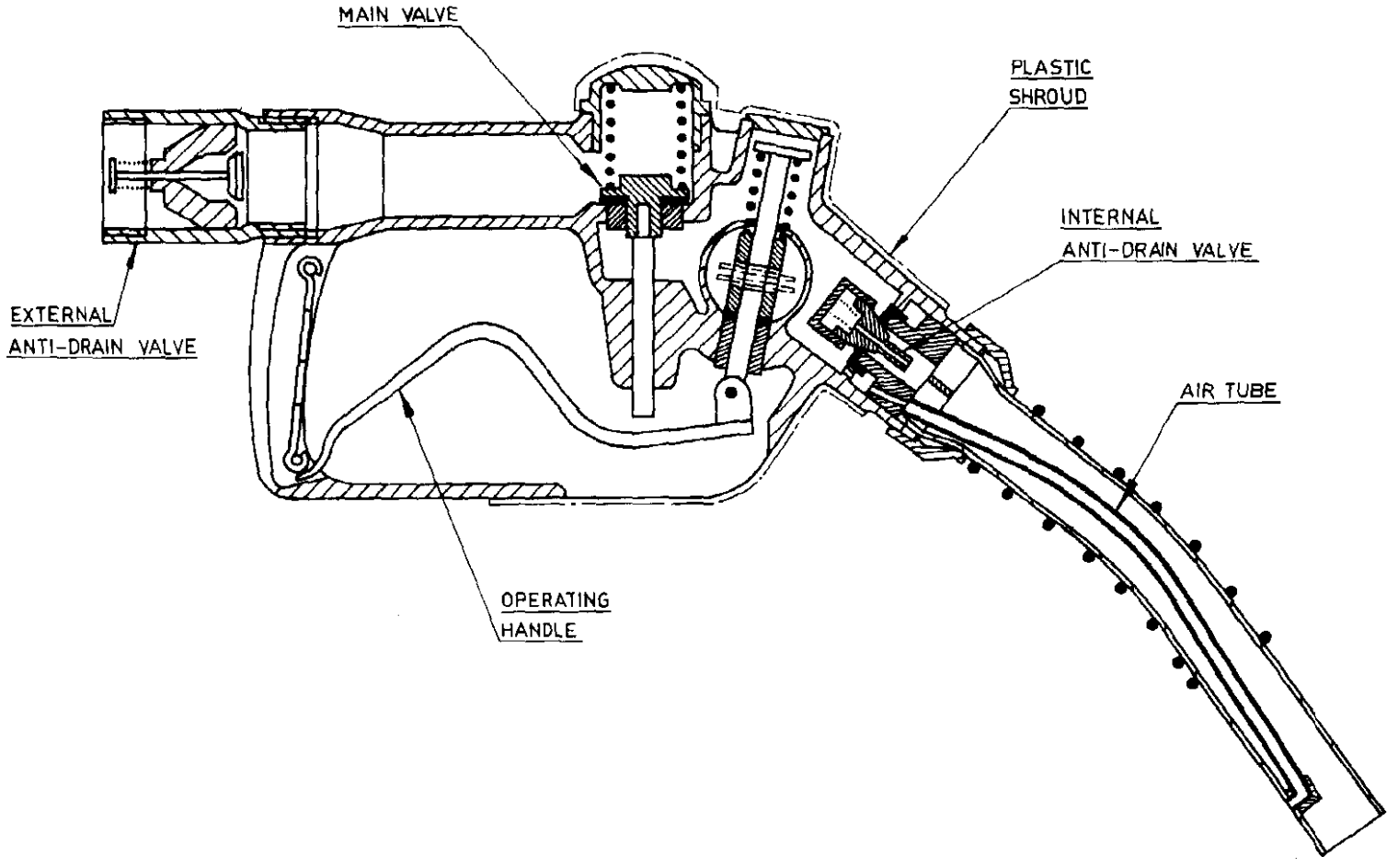
ZVA Slimline Automatic Hose Nozzle

FIGURE 5/6A/70 - 26



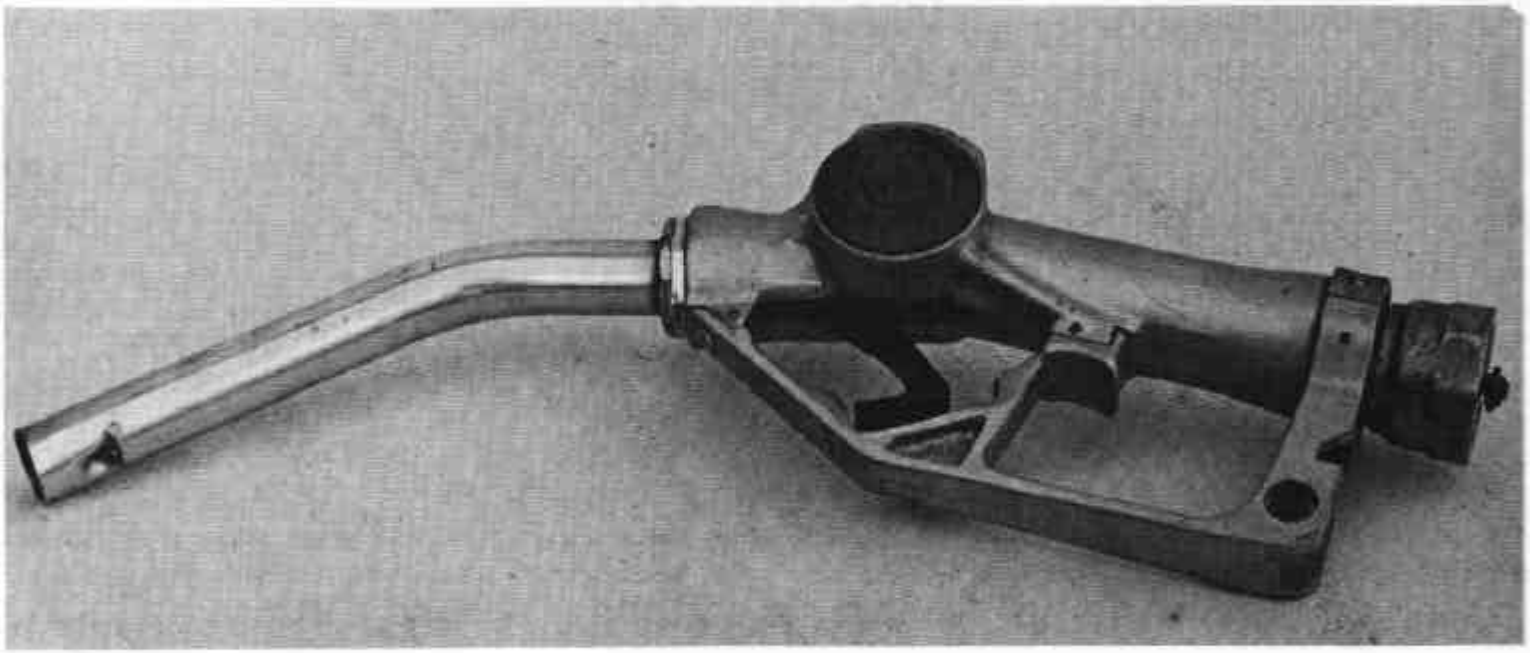
Wayne P7775 Hose Nozzle
Fitted with External Anti-drain Valve

FIGURE 5/6A/70 - 27



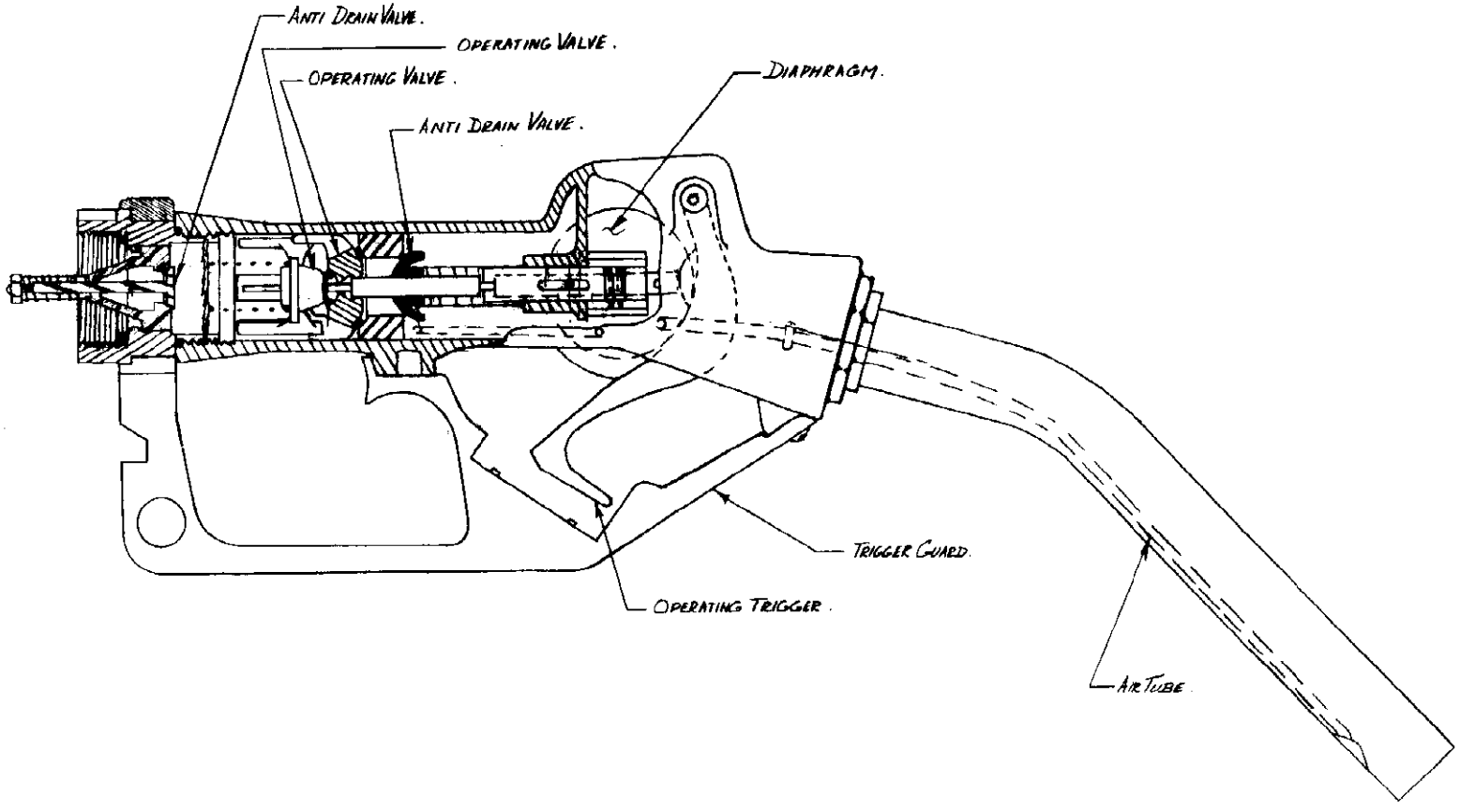
Wayne P7775 Hose Nozzle
Fitted with External Anti-drain Valve

FIGURE 5/6A/70 - 28



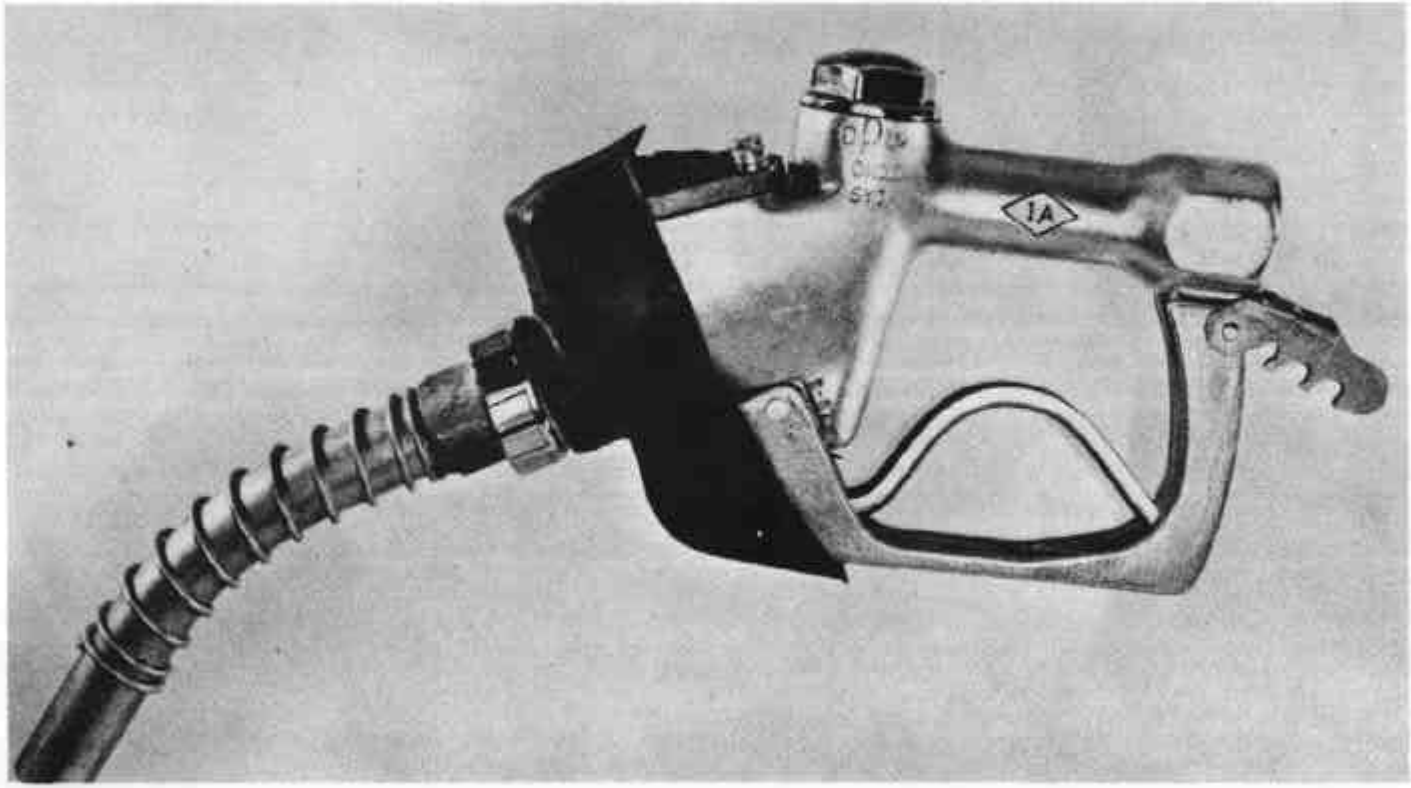
Ljungmans Nozzle 83427 Hose Nozzle
with External Drain Valve

FIGURE 5/6A/70 - 29



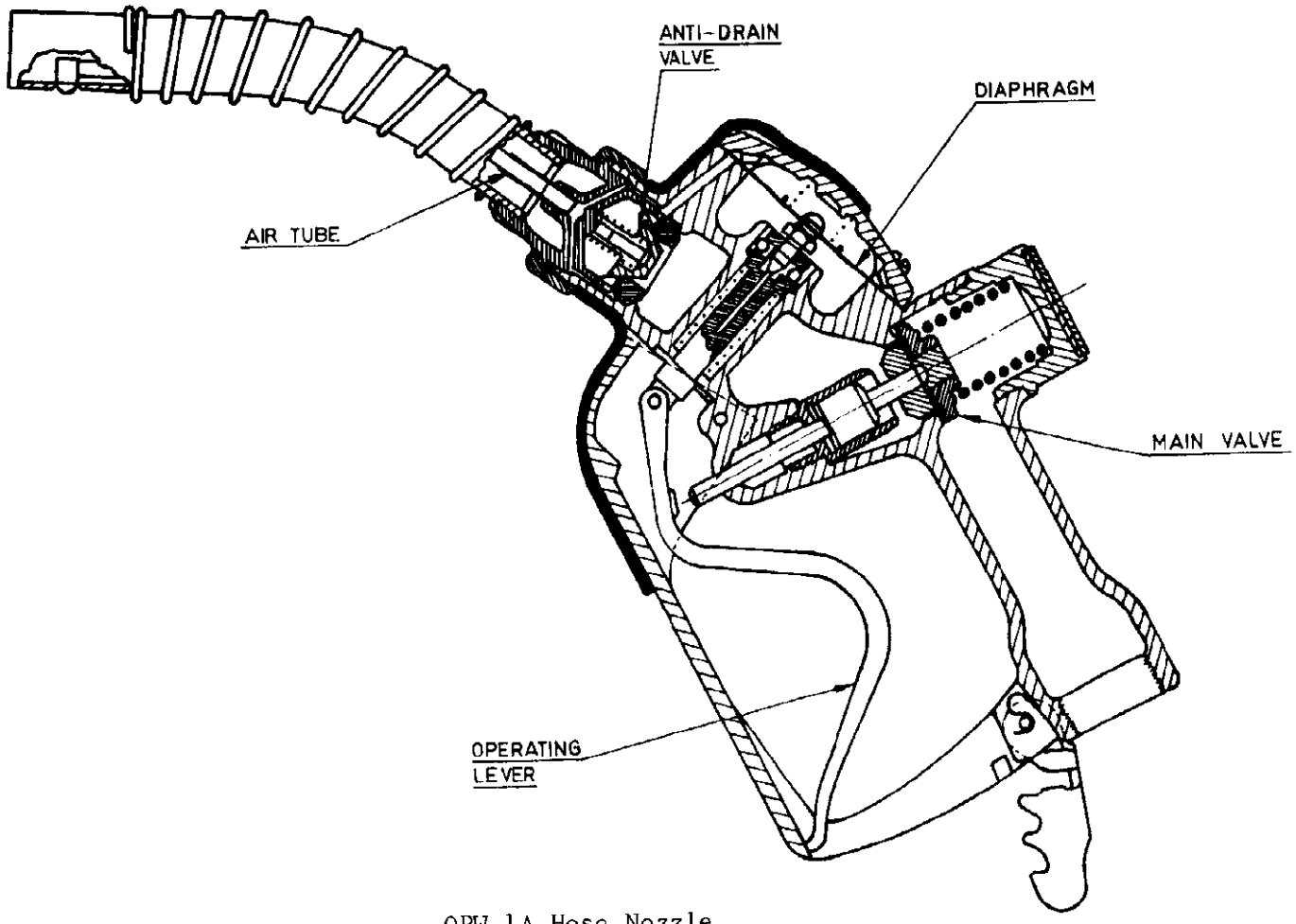
Ljungmans 83427 Nozzle with External
Anti-drain Valve - Schematic Diagram

FIGURE 5/6A/70 - 30



OPW 1A Hose Nozzle

FIGURE 5/6A/70 - 31

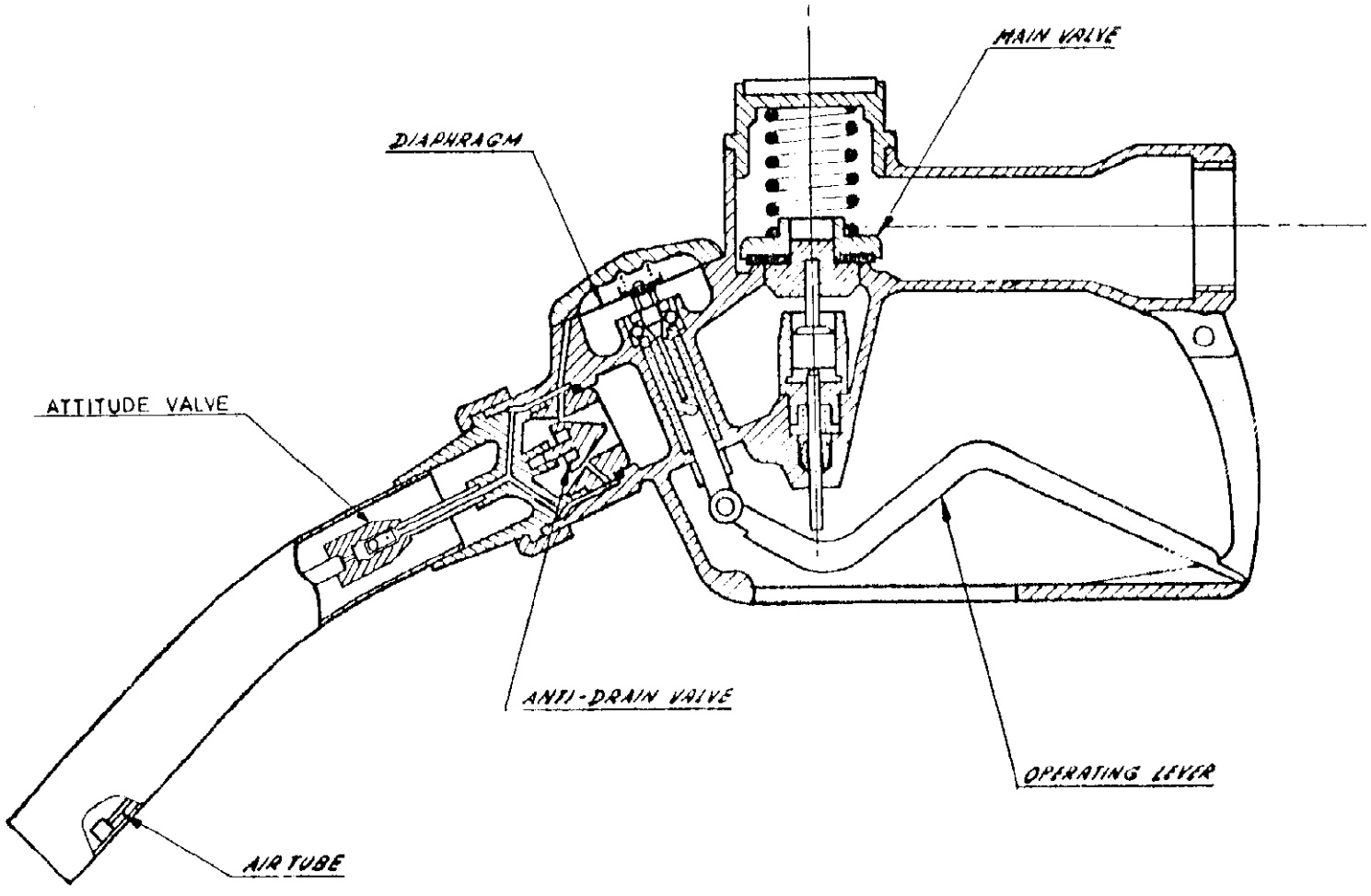


OPW 1A Hose Nozzle

FIGURE 5/6A/70 - 32

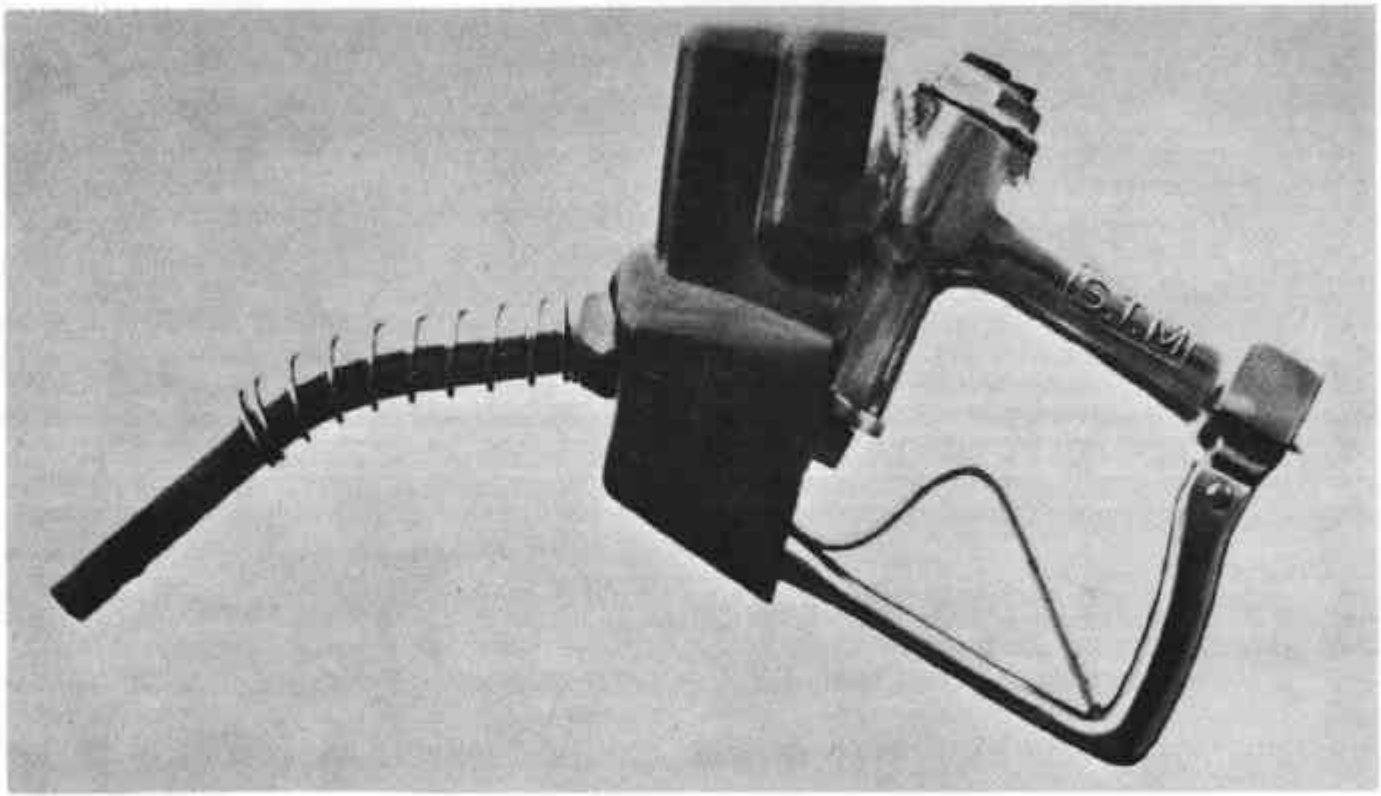
OPW 1AS Automatic Hose Nozzle

FIGURE 5/6A/70 - 33



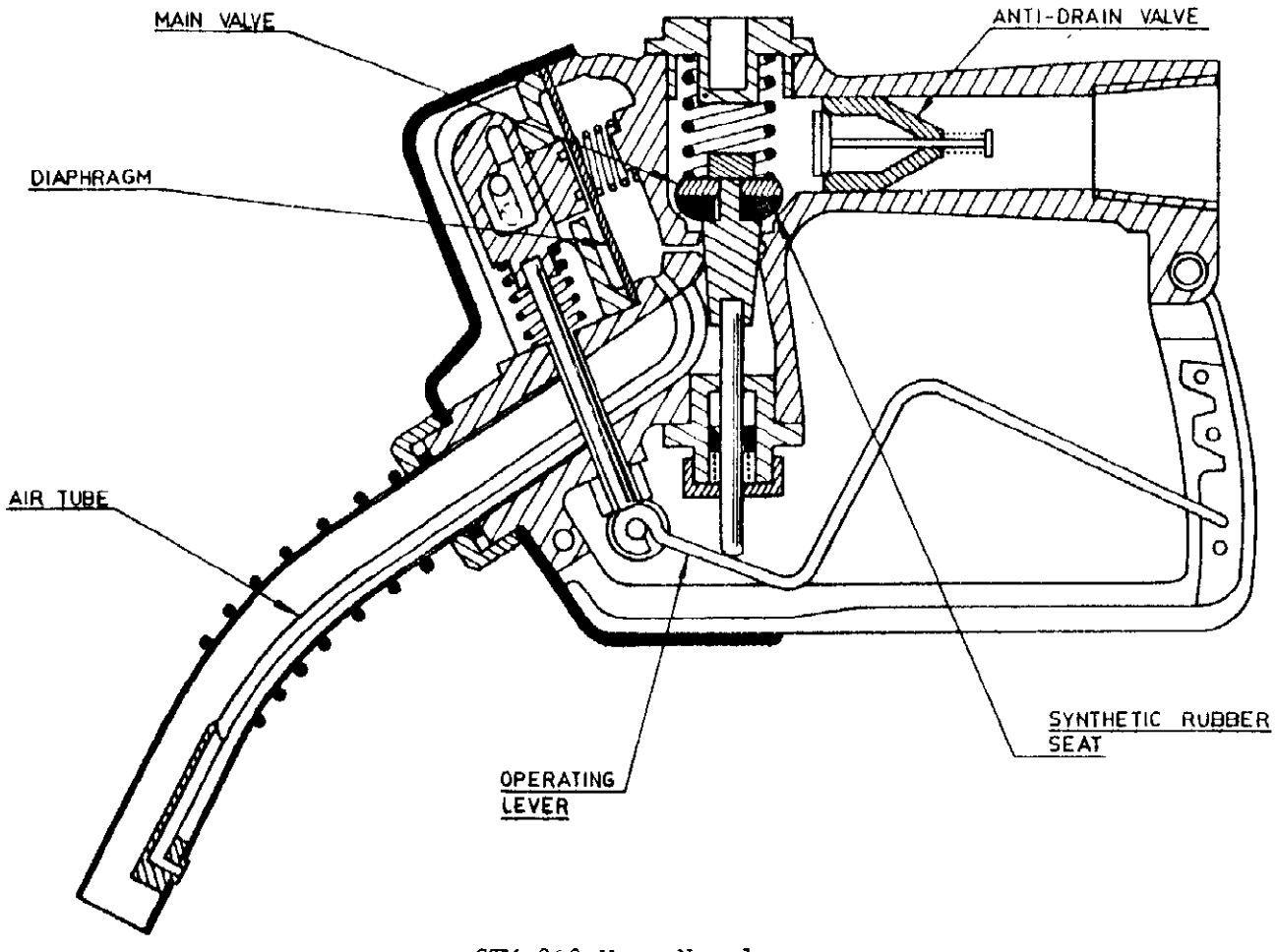
OPW 1AS Automatic Hose Nozzle - Schematic Diagram

FIGURE 5/6A/70 - 34



STM 363 Hose Nozzle

FIGURE 5/6A/70 - 35

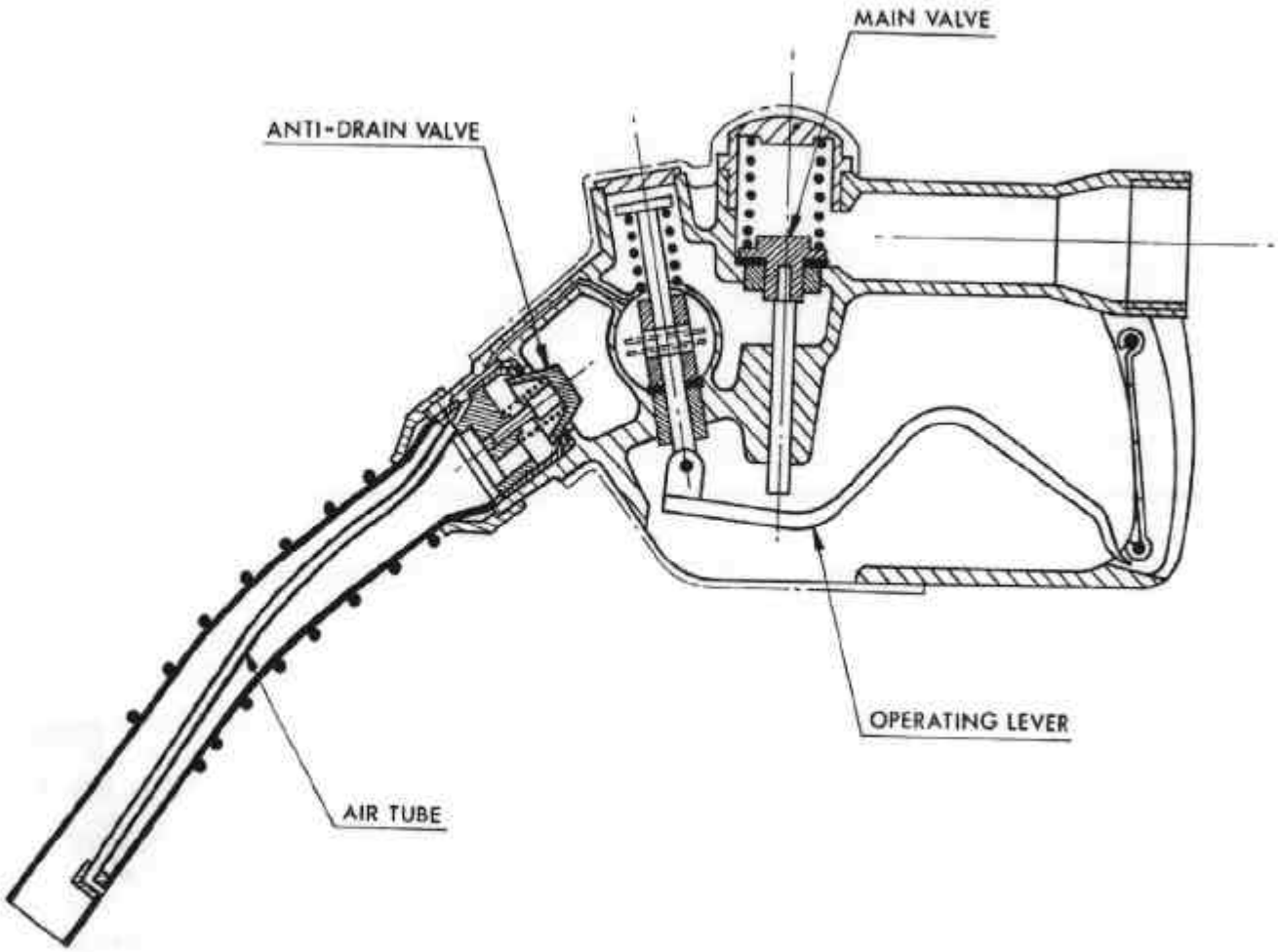


STM 363 Hose Nozzle

FIGURE 5/6A/70 - 36

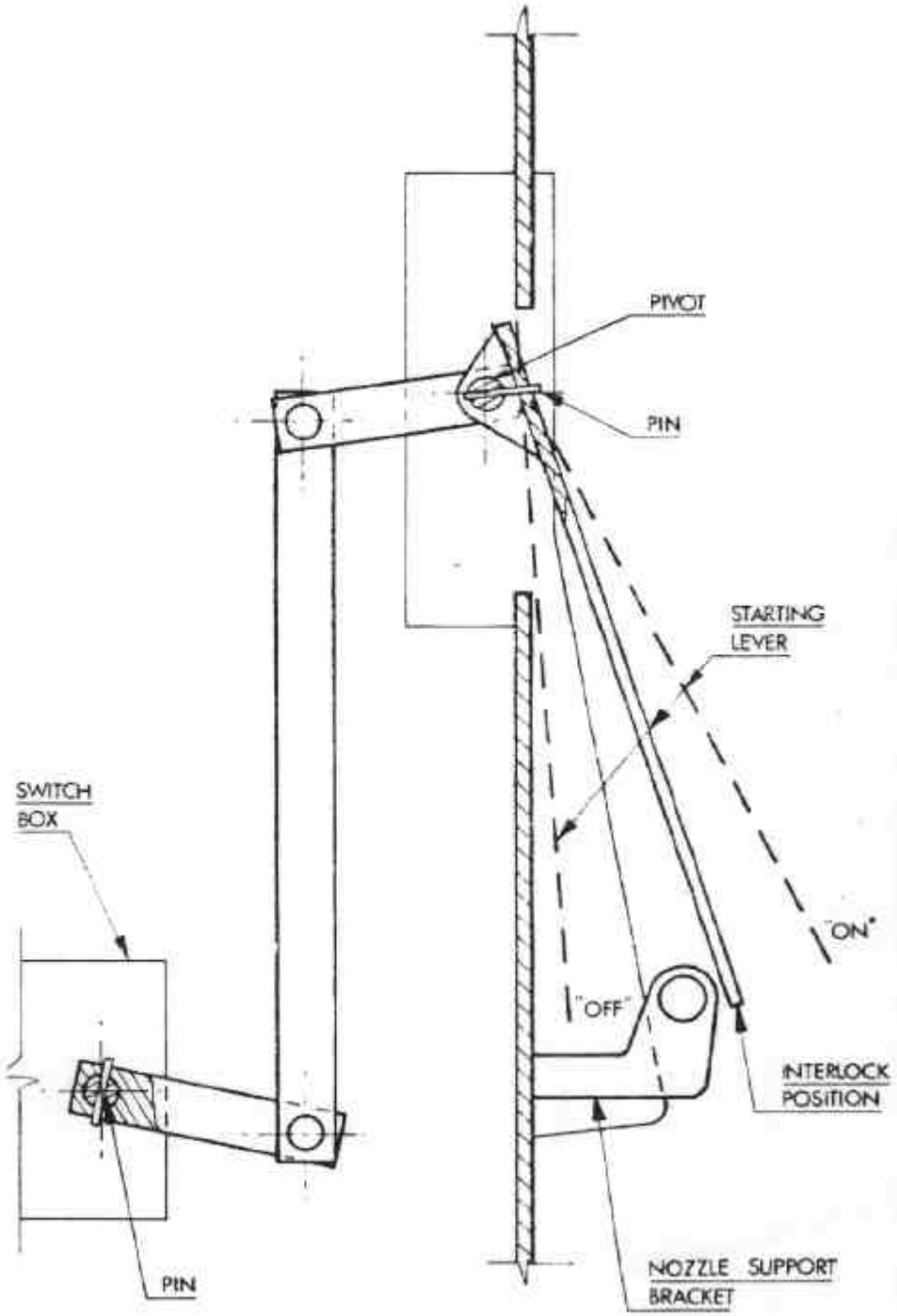
EMCO 200A Automatic Hose Nozzle

FIGURE 5/6A/70 - 37



EMCO 200A Nozzle - Schematic Diagram

FIGURE 5/6A/70 - 38



Wayne - Starting-lever Interlock

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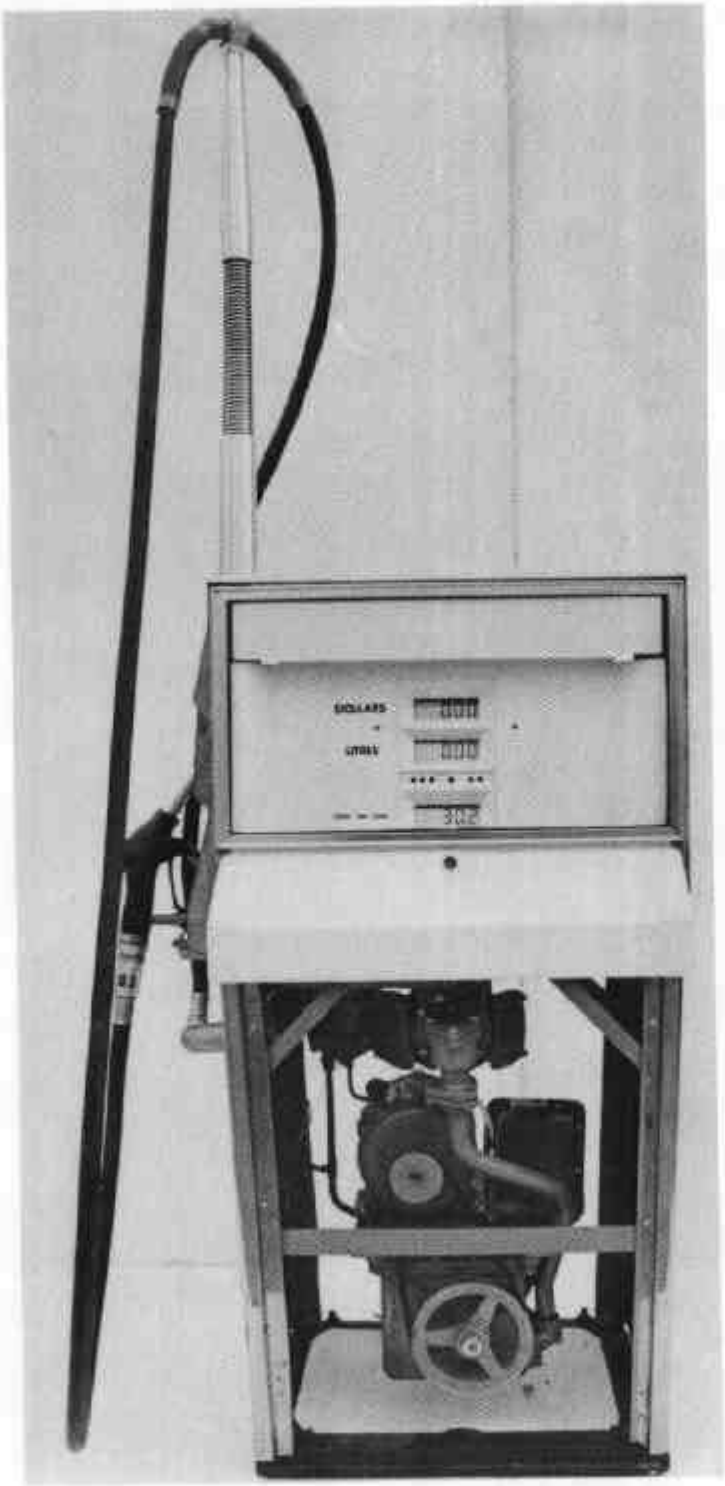
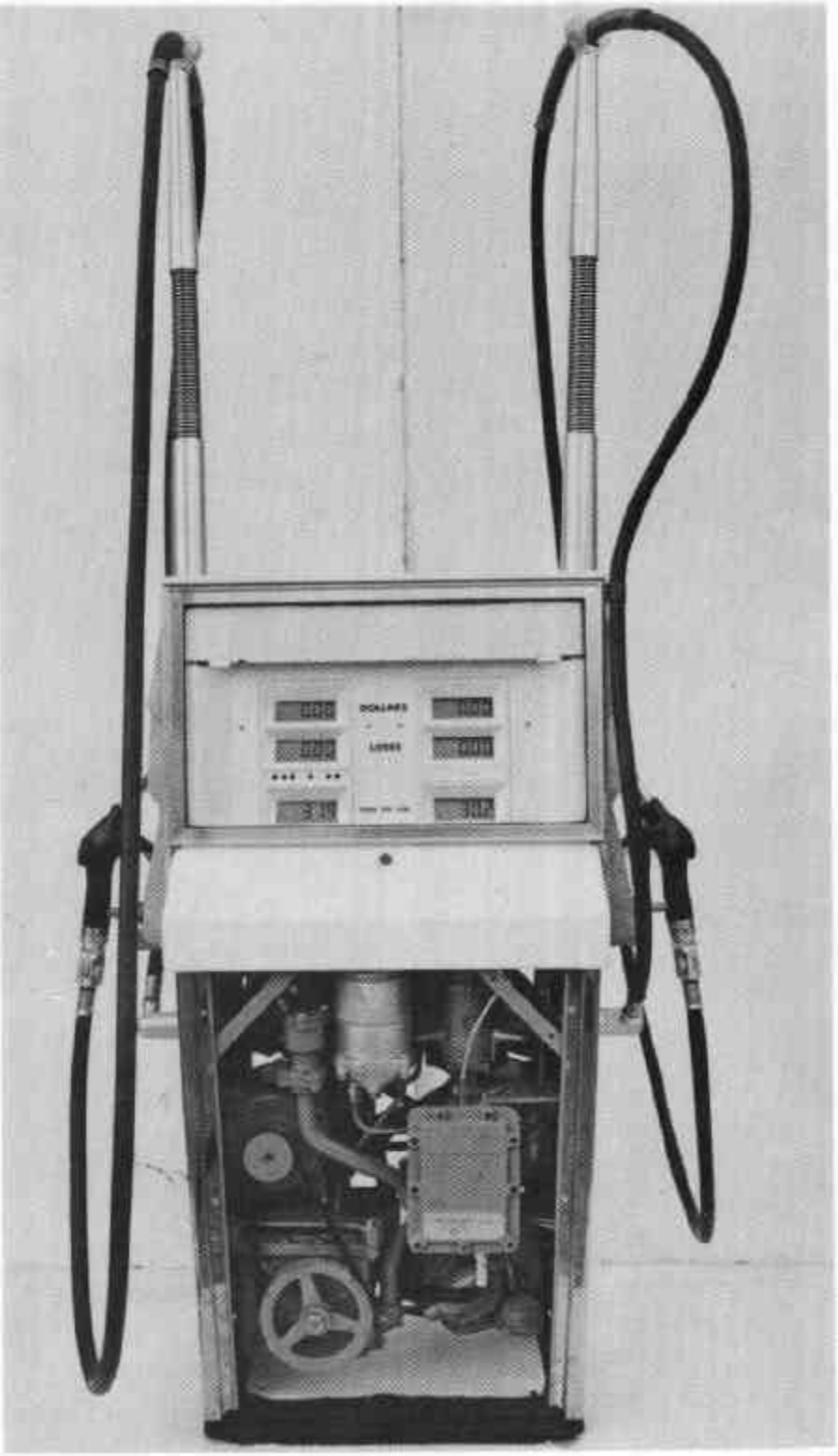
FIGURE 5/6A/70 - 39



Model ECC1

20/8/80

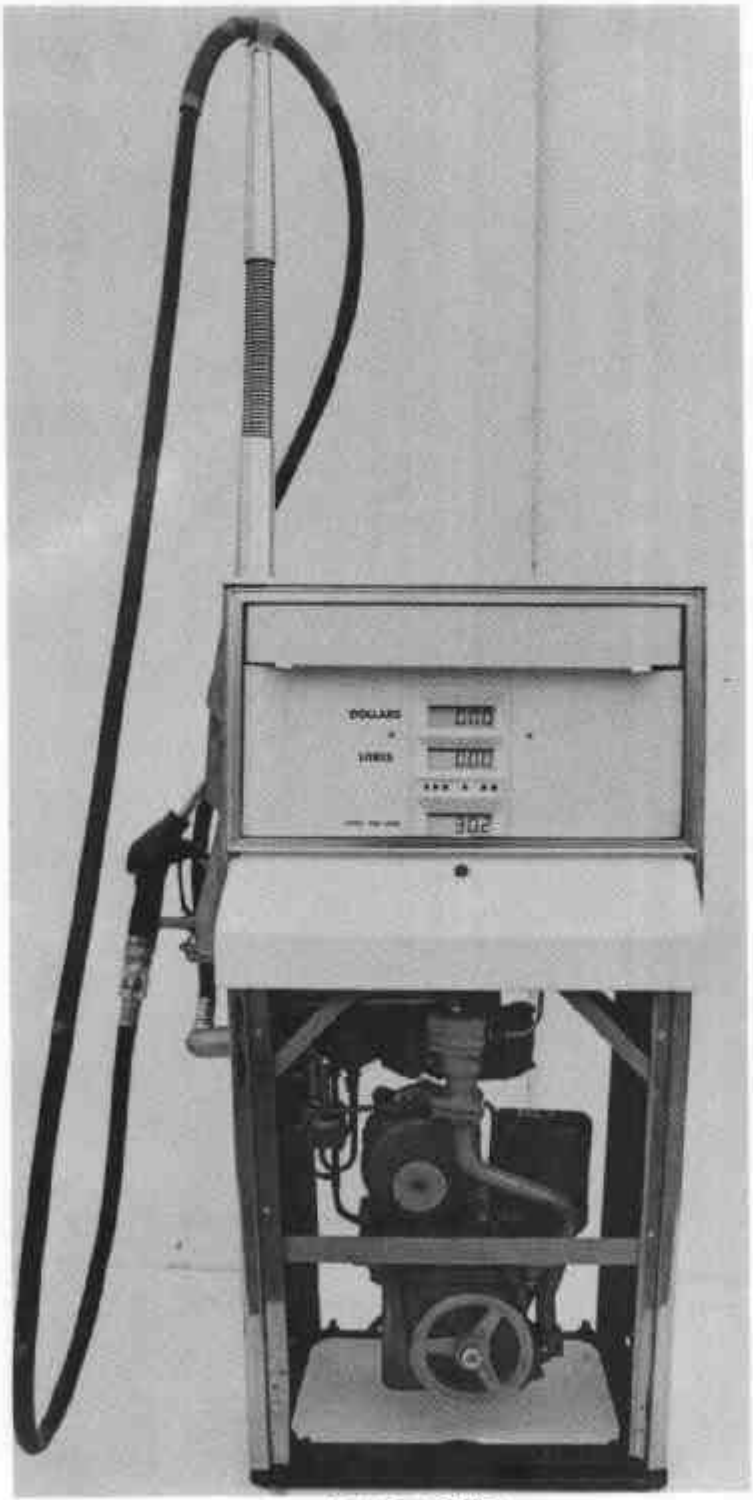
FIGURE 5/6A/70 - 40



Model ECC2

20/8/80

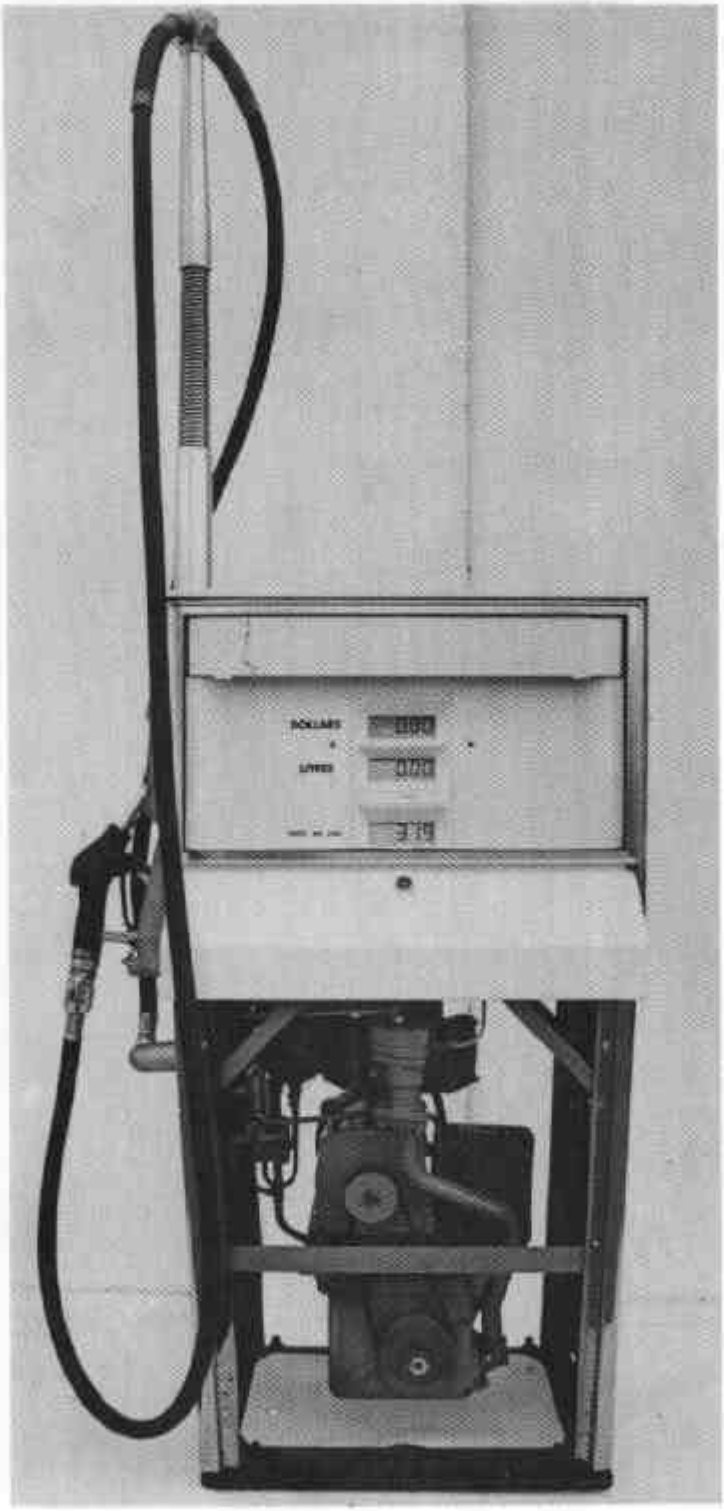
FIGURE 5/6A/70 - 41



Model ECC1D

20/8/80

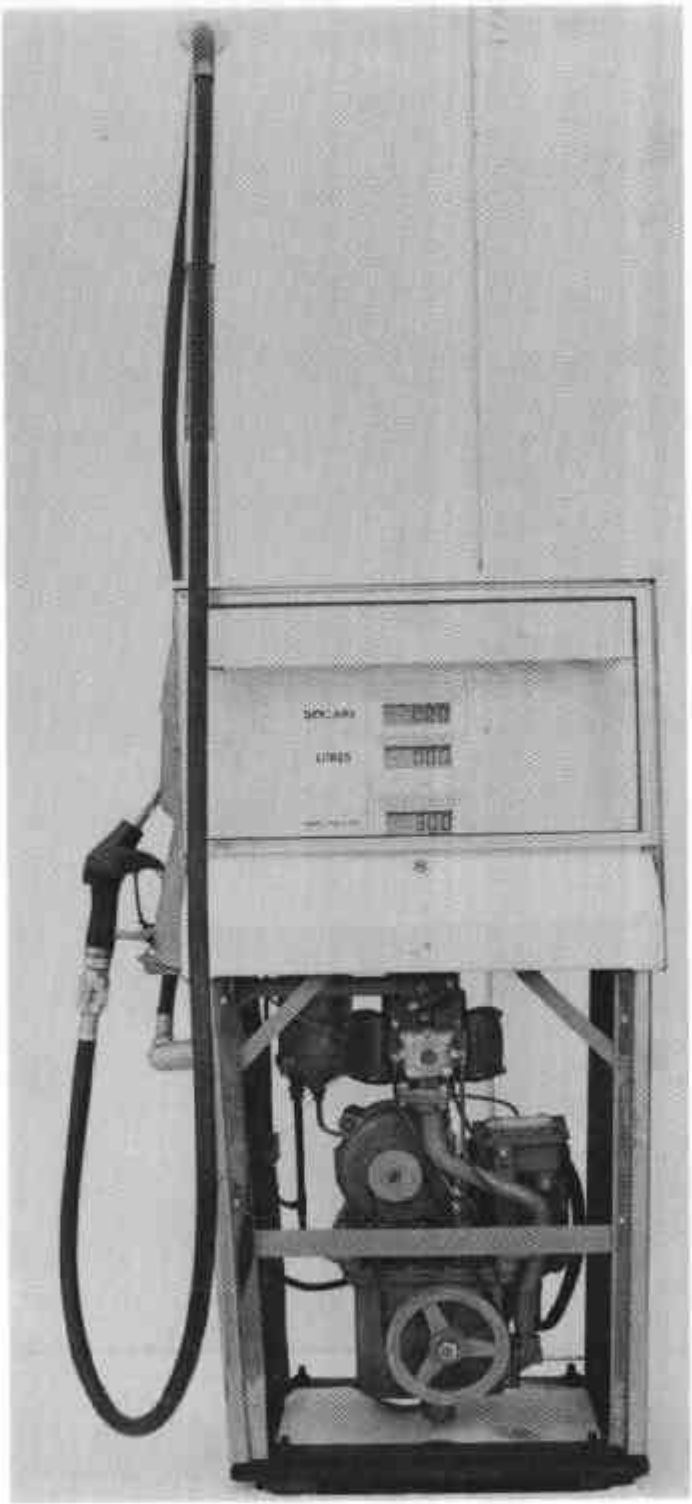
FIGURE 5/6A/70 - 42



Models ECC1H and ECC1DH

20/8/80

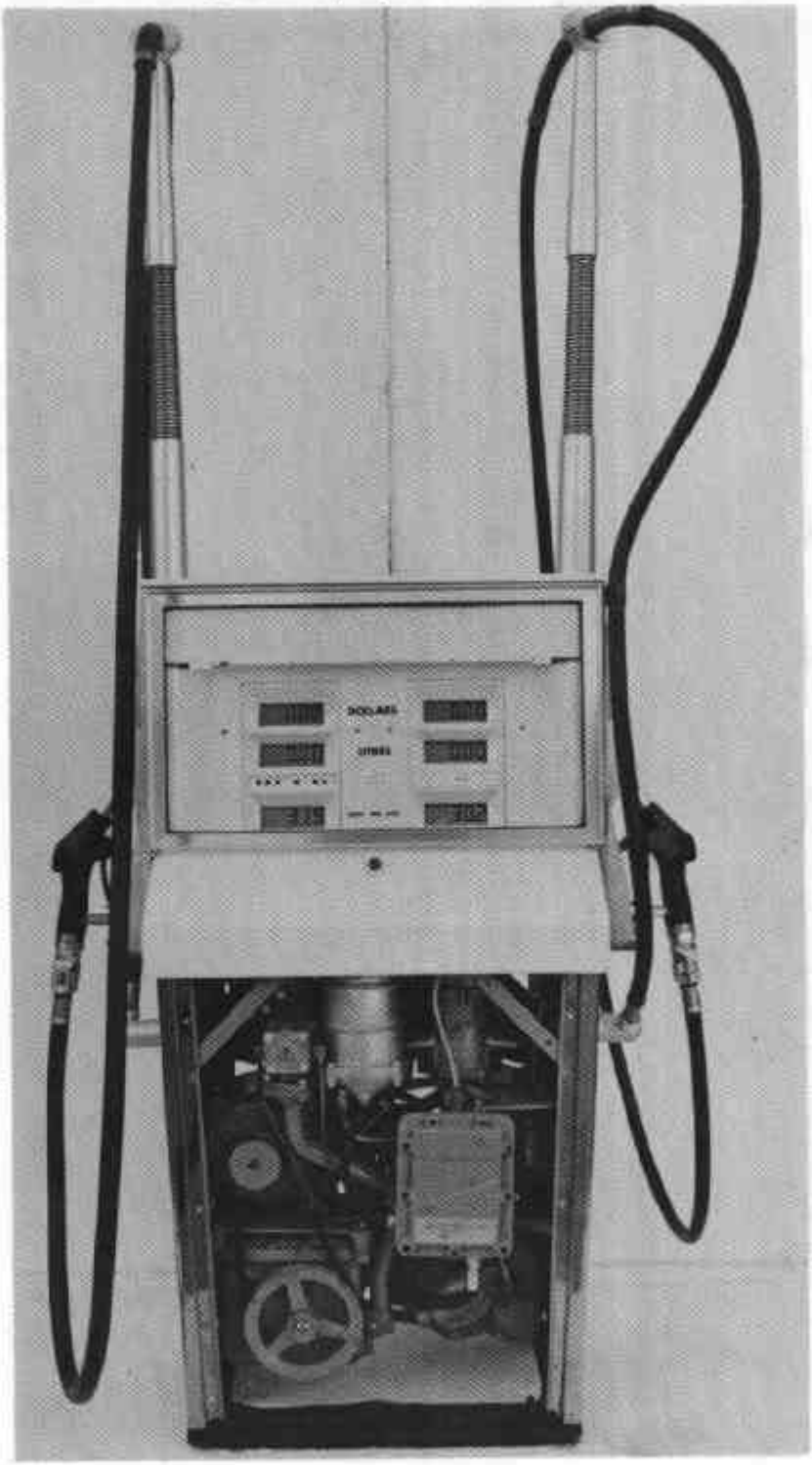
FIGURE 5/6A/70 - 43



Model EDC1

20/8/80

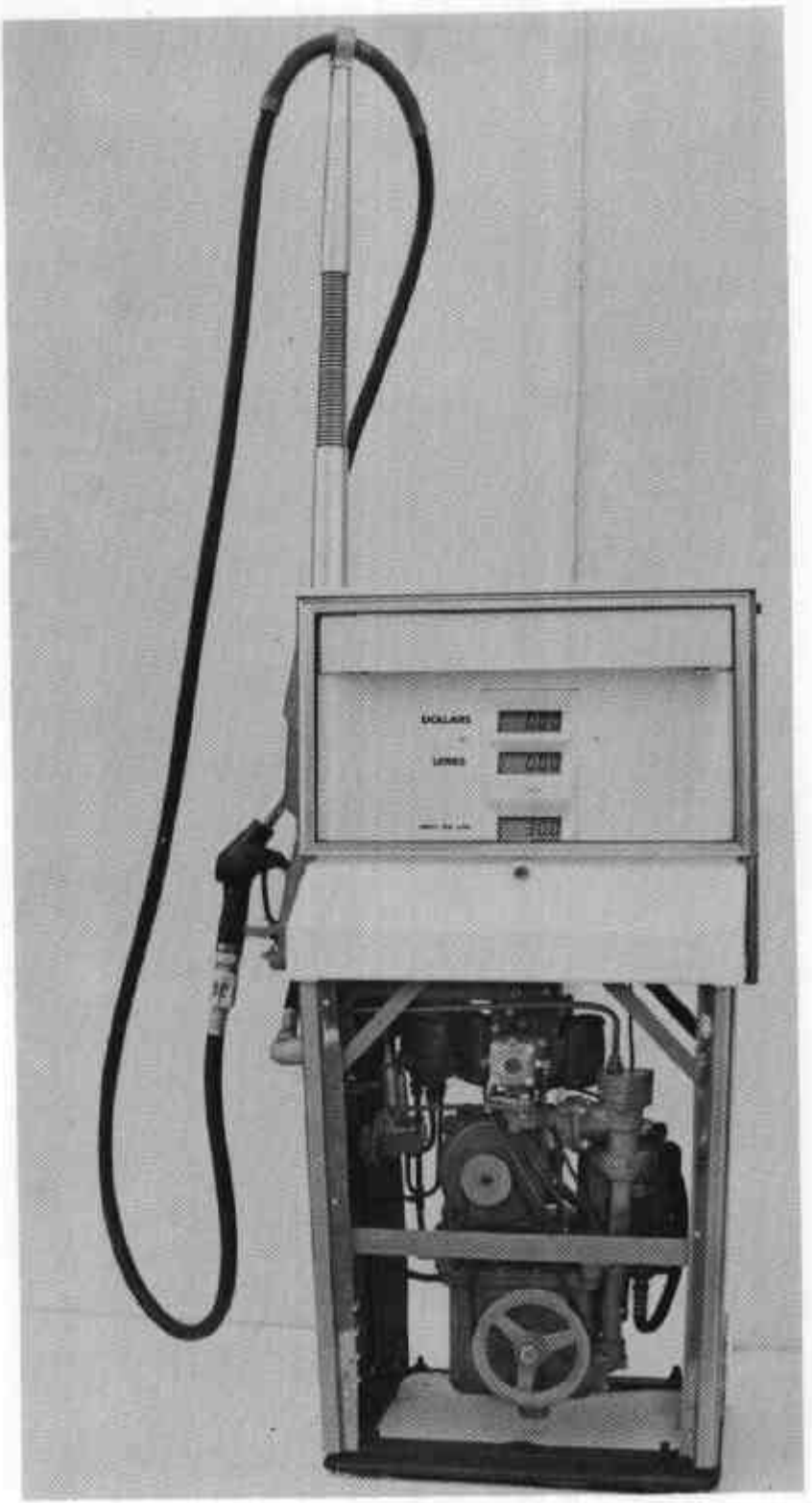
FIGURE 5/6A/70 - 44



Model EDC2

20/8/80

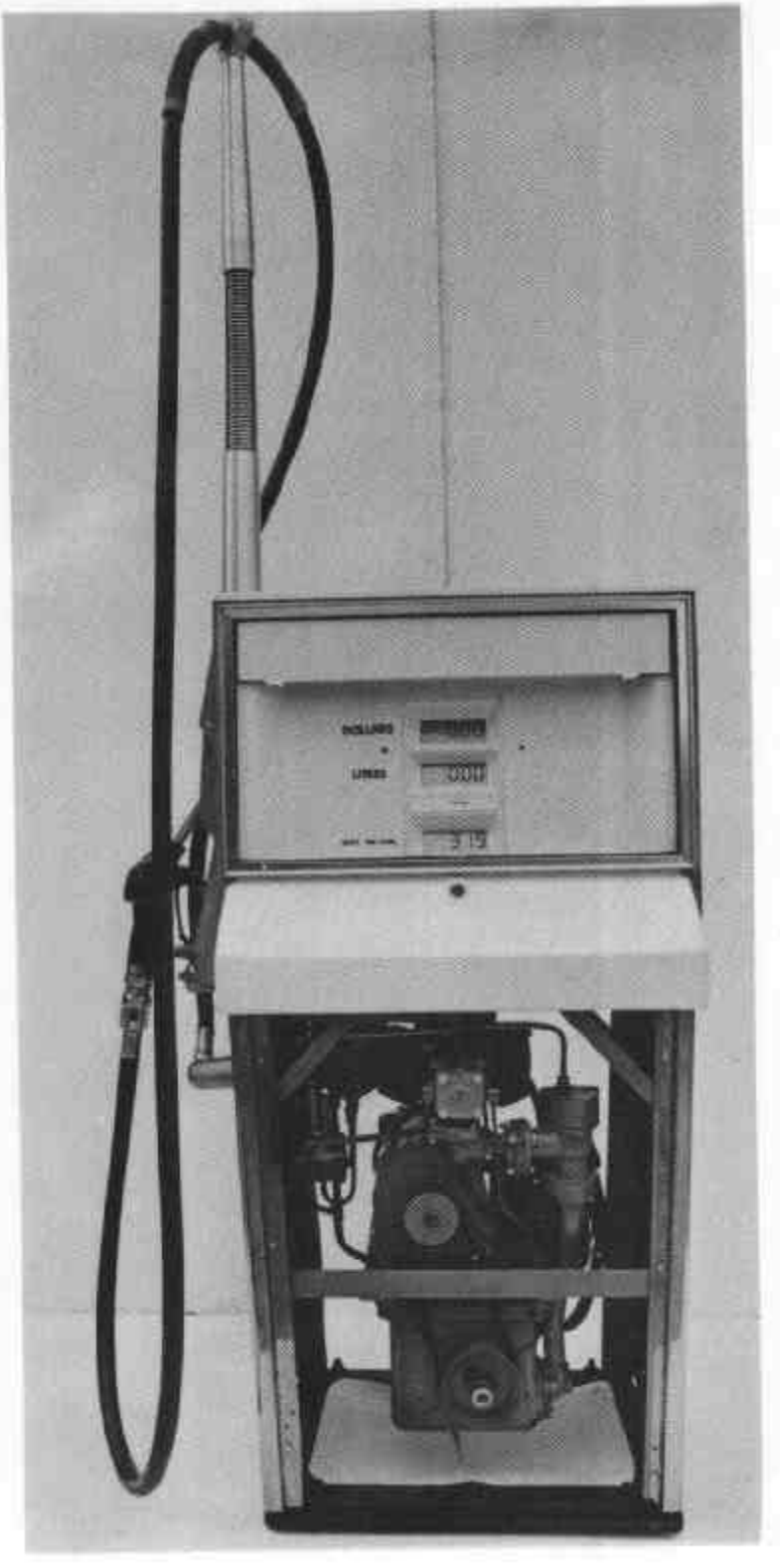
FIGURE 5/6A/70 - 45



Model EDC1D

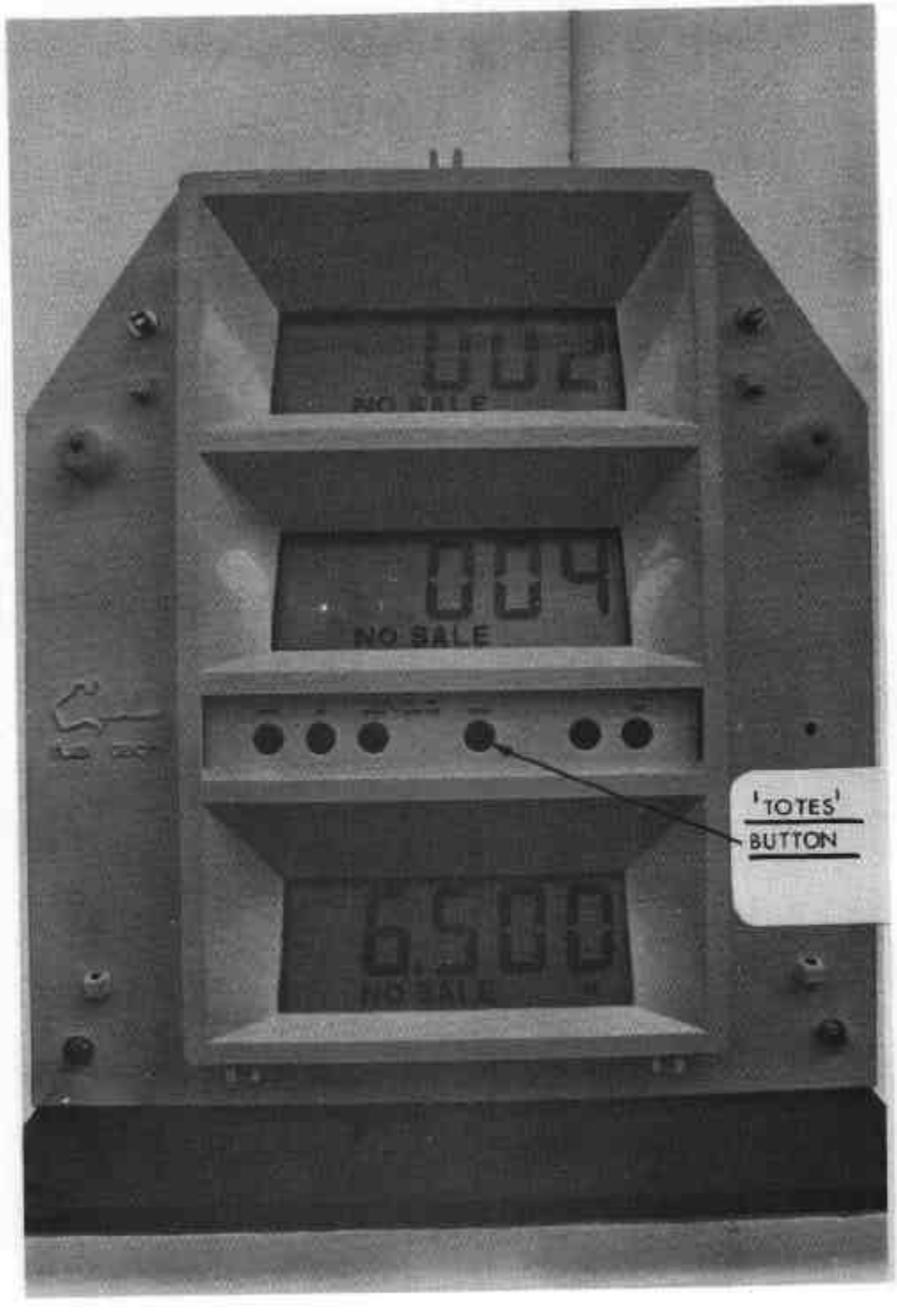
20/8/80

FIGURE 5/6A/70 - 46



Models EDC1H and EDC1DH

FIGURE 5/6A/70 - 47



Button Panel - Eclipse Computer

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FIGURE 5/6A/70 - 48

Driveway Flowmeter Showing Light Switch

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FIGURE 5/6A/70 - 49

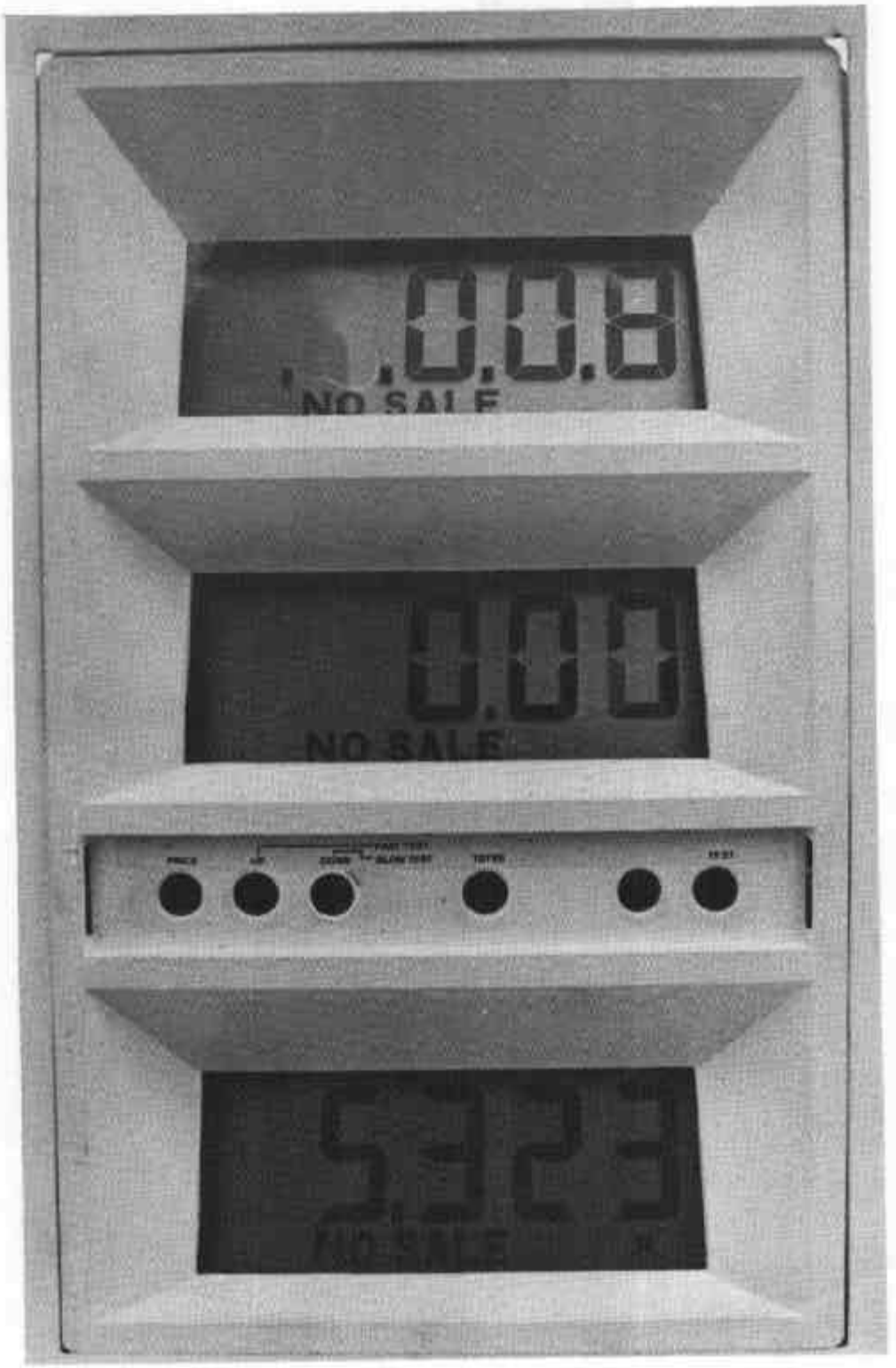

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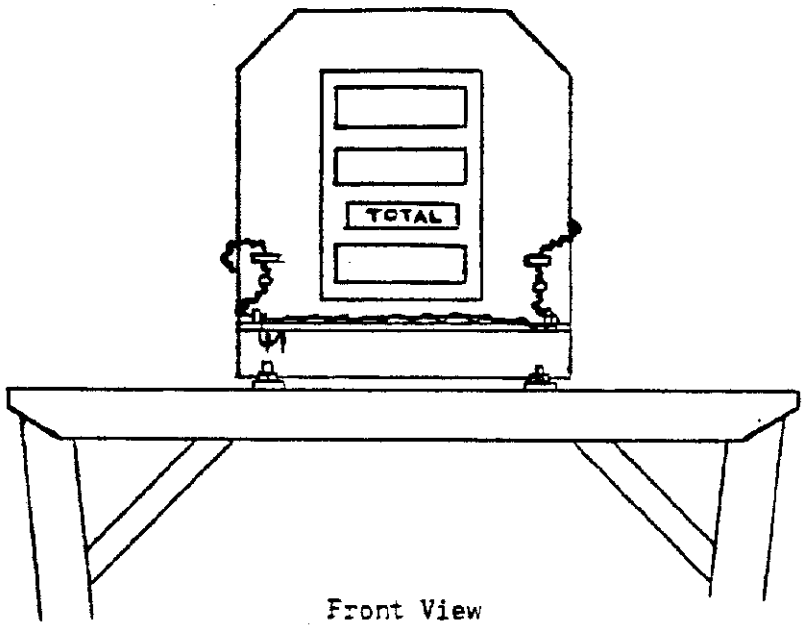
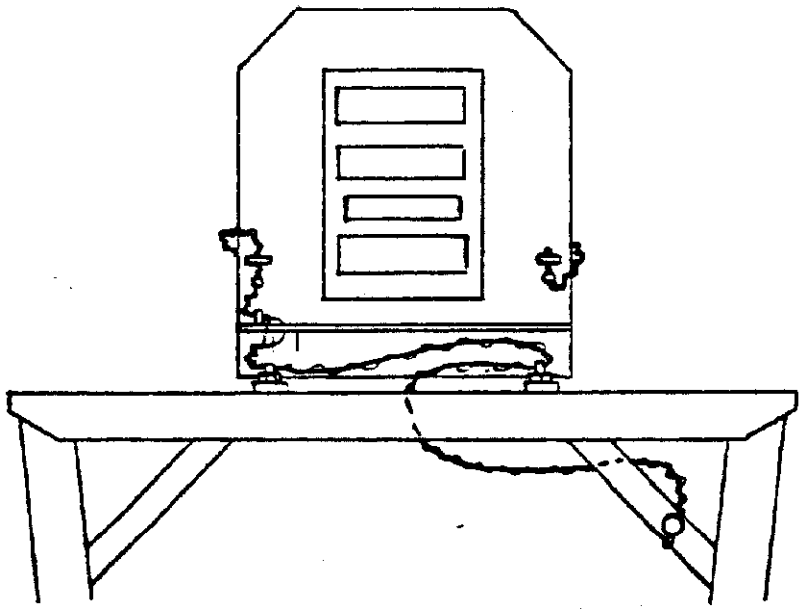
FIGURE 5/6A/70 - 50



Front View



Rear View

Computer Sealing ECC-EDC Pumps

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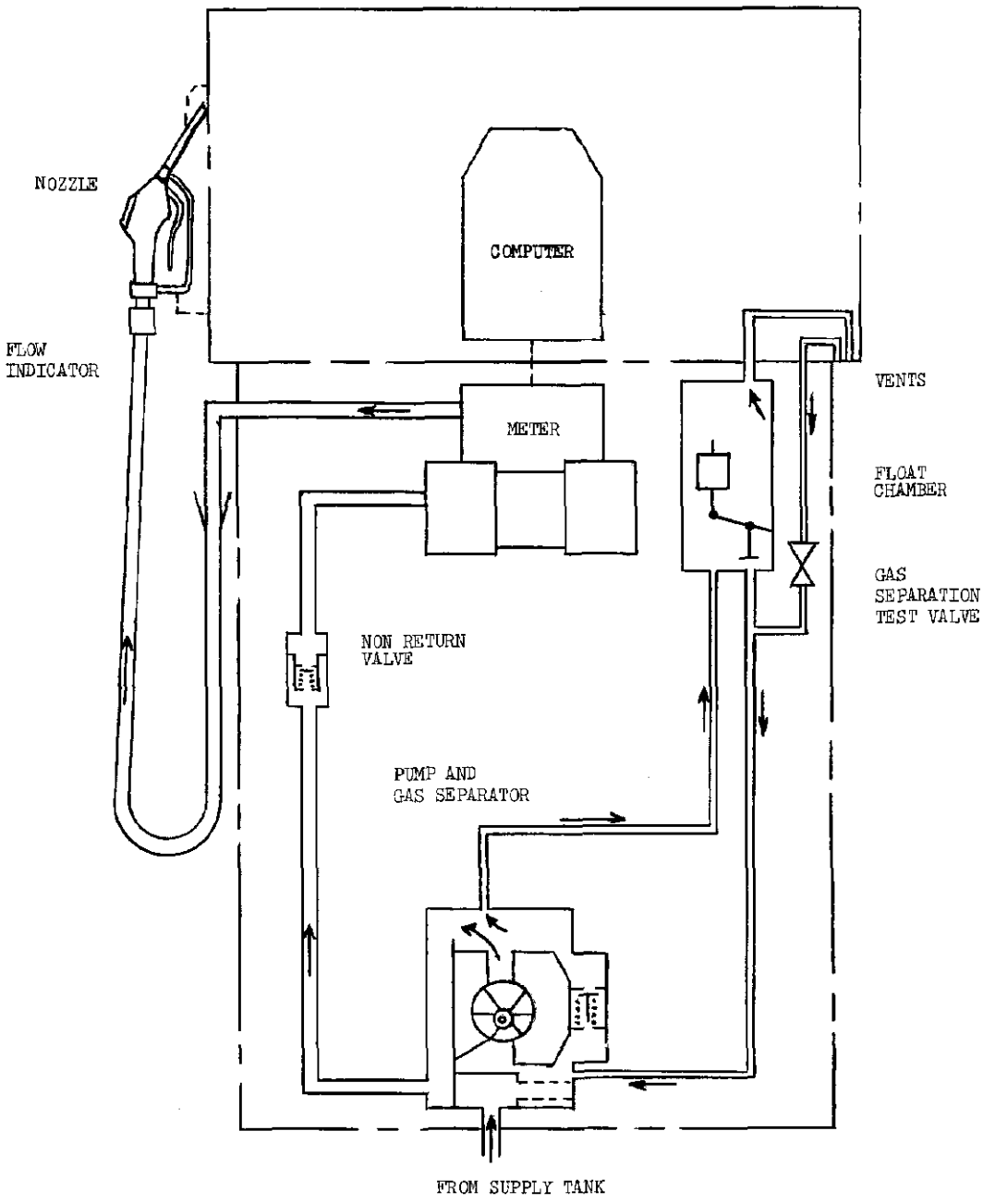
(reploced 12/6/81)

FIGURE 5/6A/70 - 51



Hydraulic Diagram Model ECC1

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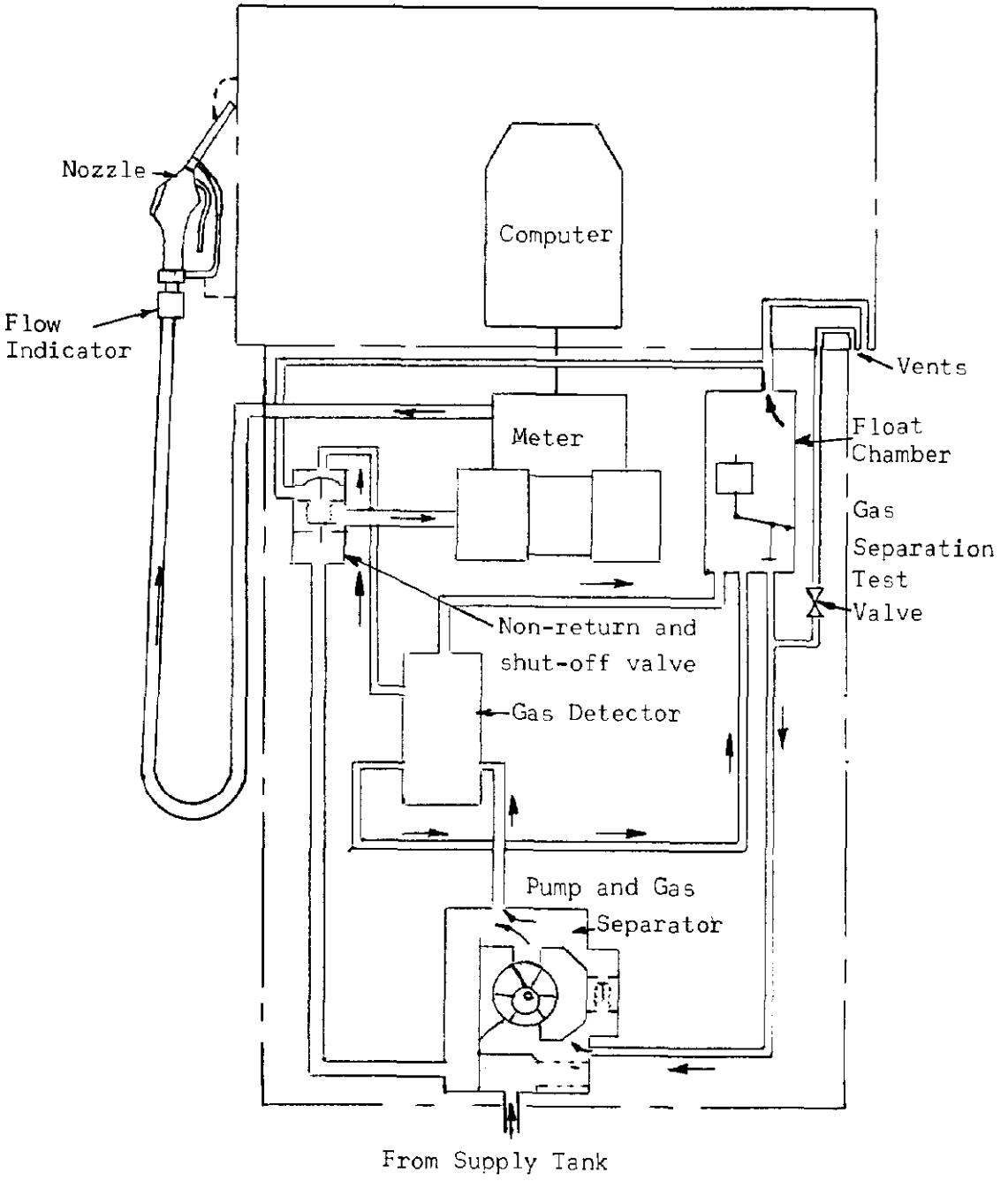
FIGURE 5/6A/70 - 52



Hydraulic Diagram Model ECC1D, ECC1H and ECC1DH

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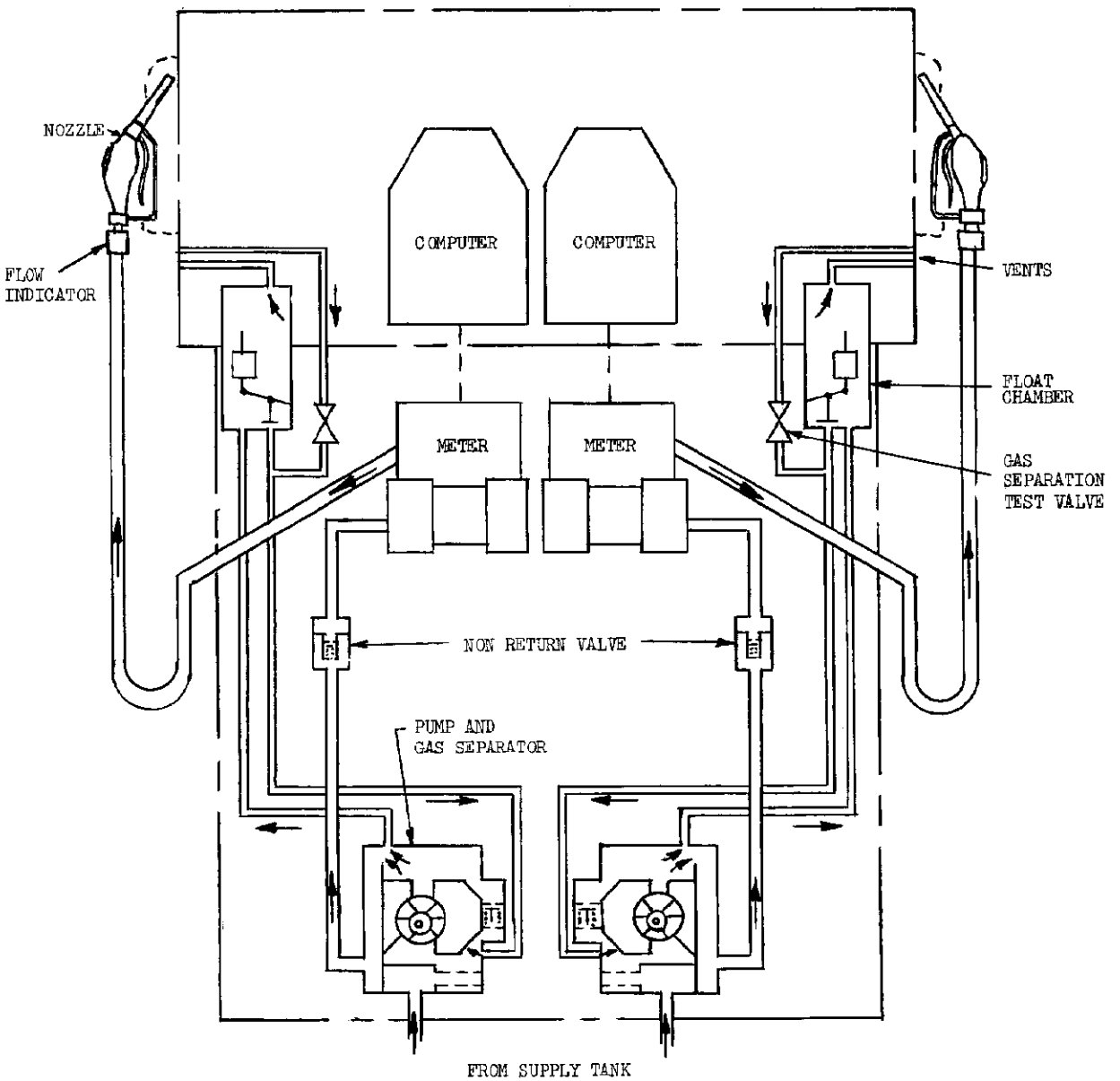
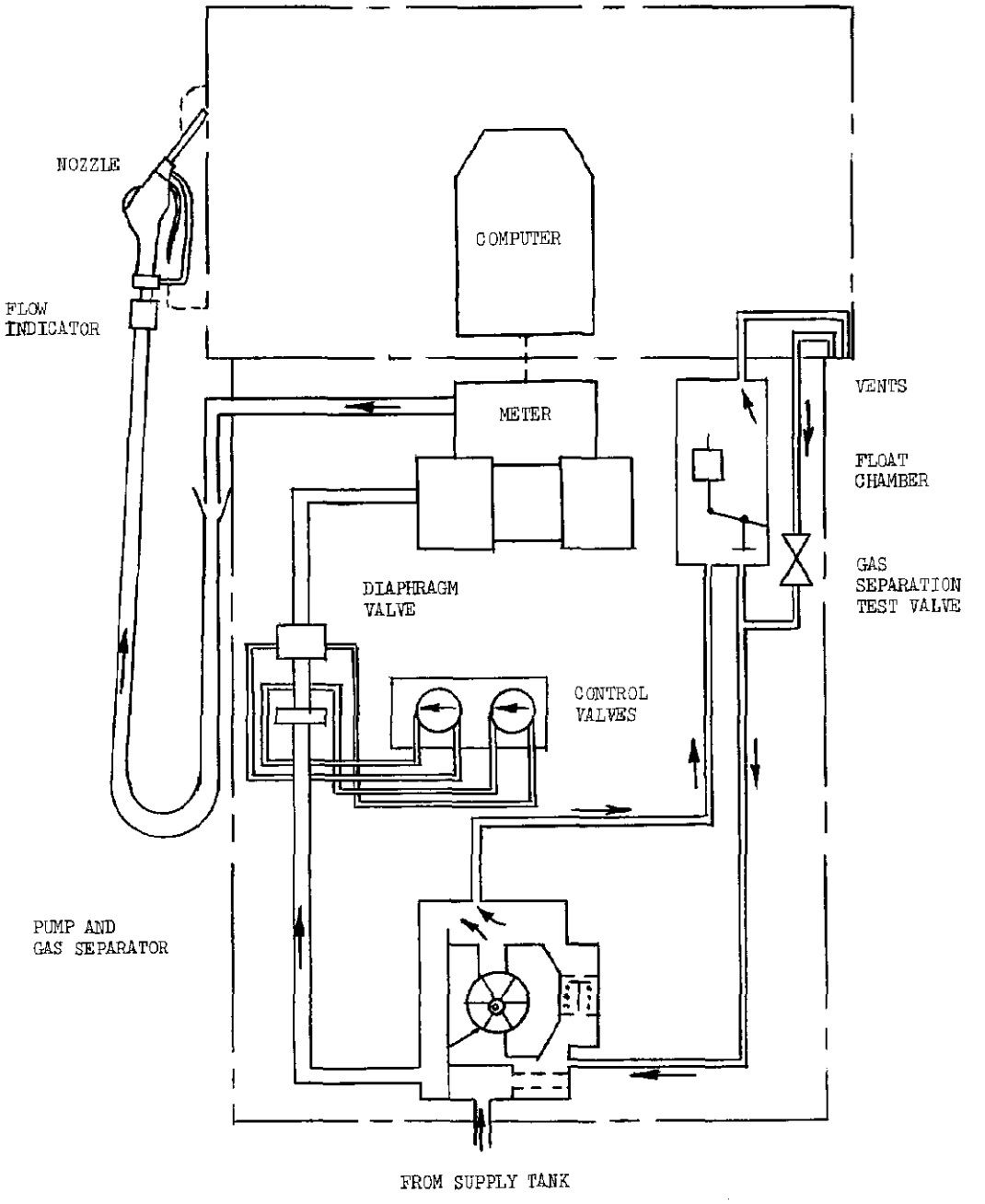
FIGURE 5/6A/70 - 53



Hydraulic Diagram Model ECC2

20/8/80

FIGURE 5/6A/70 - 54



Hydraulic Diagram Model EDC1

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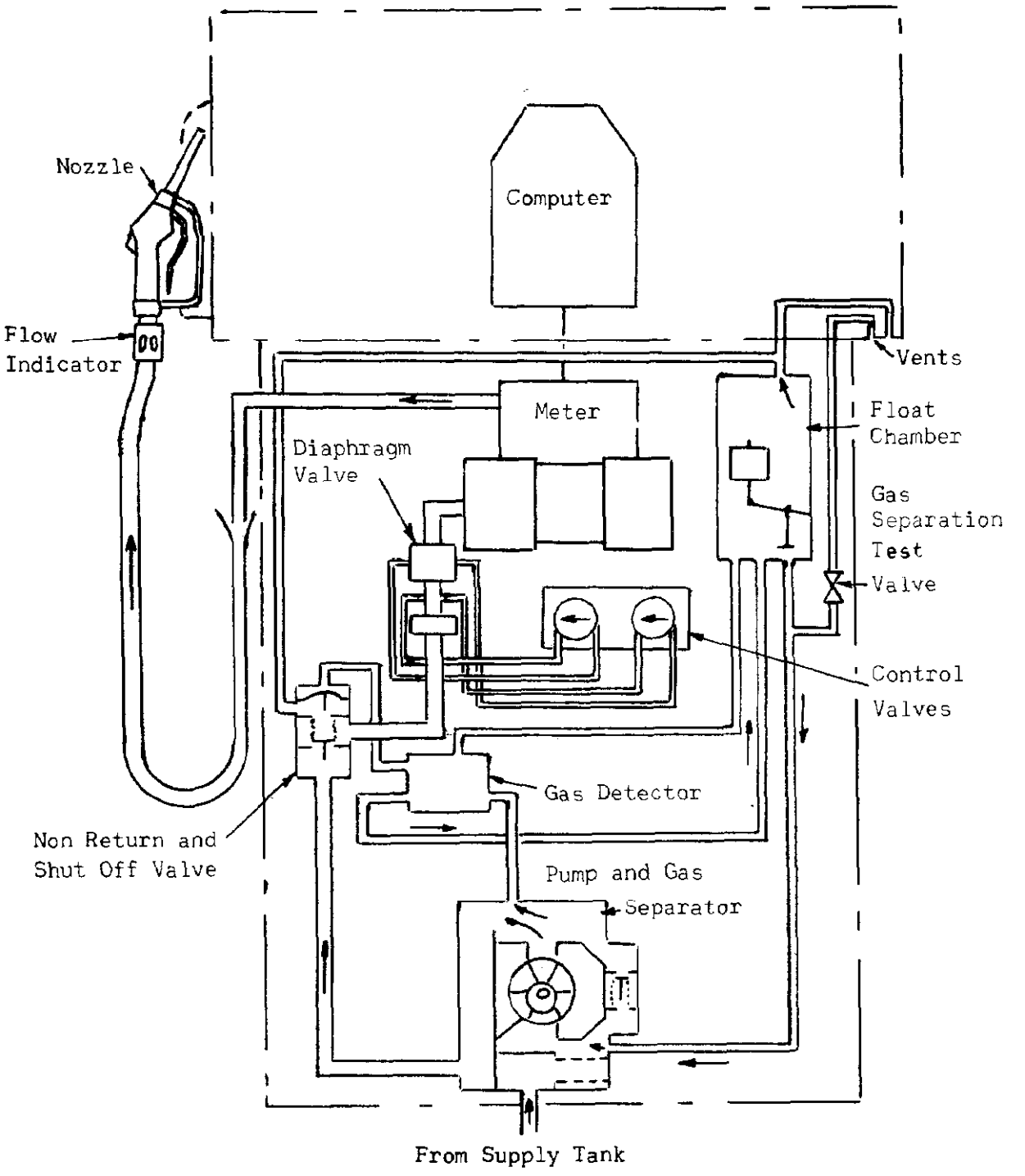
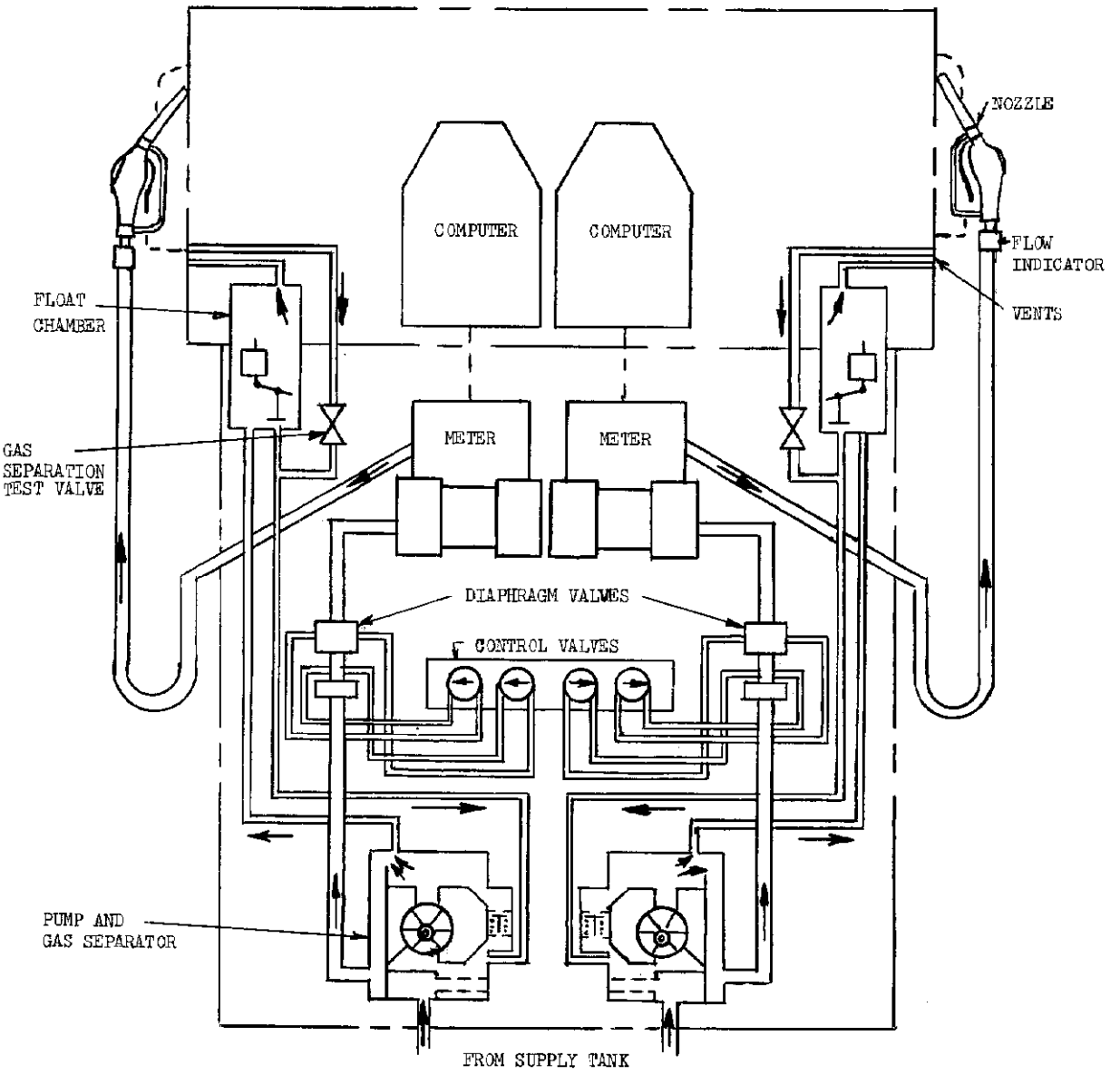
FIGURE 5/6A/70 - 55



Hydraulic Diagram Model EDC1D, EDC1H and EDC1DH

20/8/80

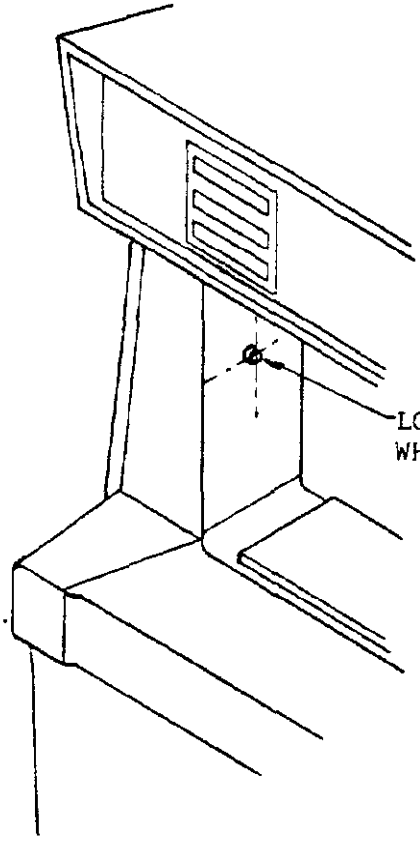
FIGURE 5/6A/70 - 56



Hydraulic Diagram Model EDC2

20/8/80

FIGURE 5/6A/70 - 57



EAS1DH showing location of key-switch

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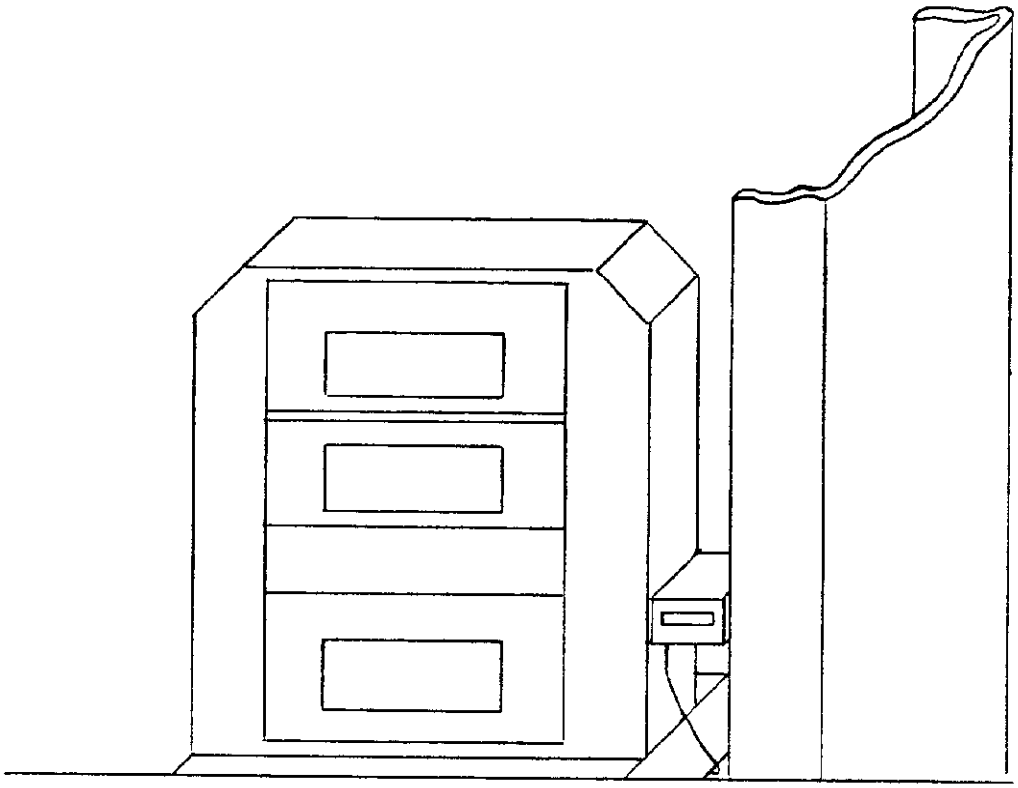

Electro-mechanical Totaliser Mounted on the Side Support of the Driveway Flowmeter Viewed through a hole in the Dial Plate

FIGURE 5/6A/70 - 59

Wayne Driveway Flowmeter Models EFS1, EFS1H, EFS1D, EFS1DH,
EFC1, EFC1H, EFC1D, EFC1DH

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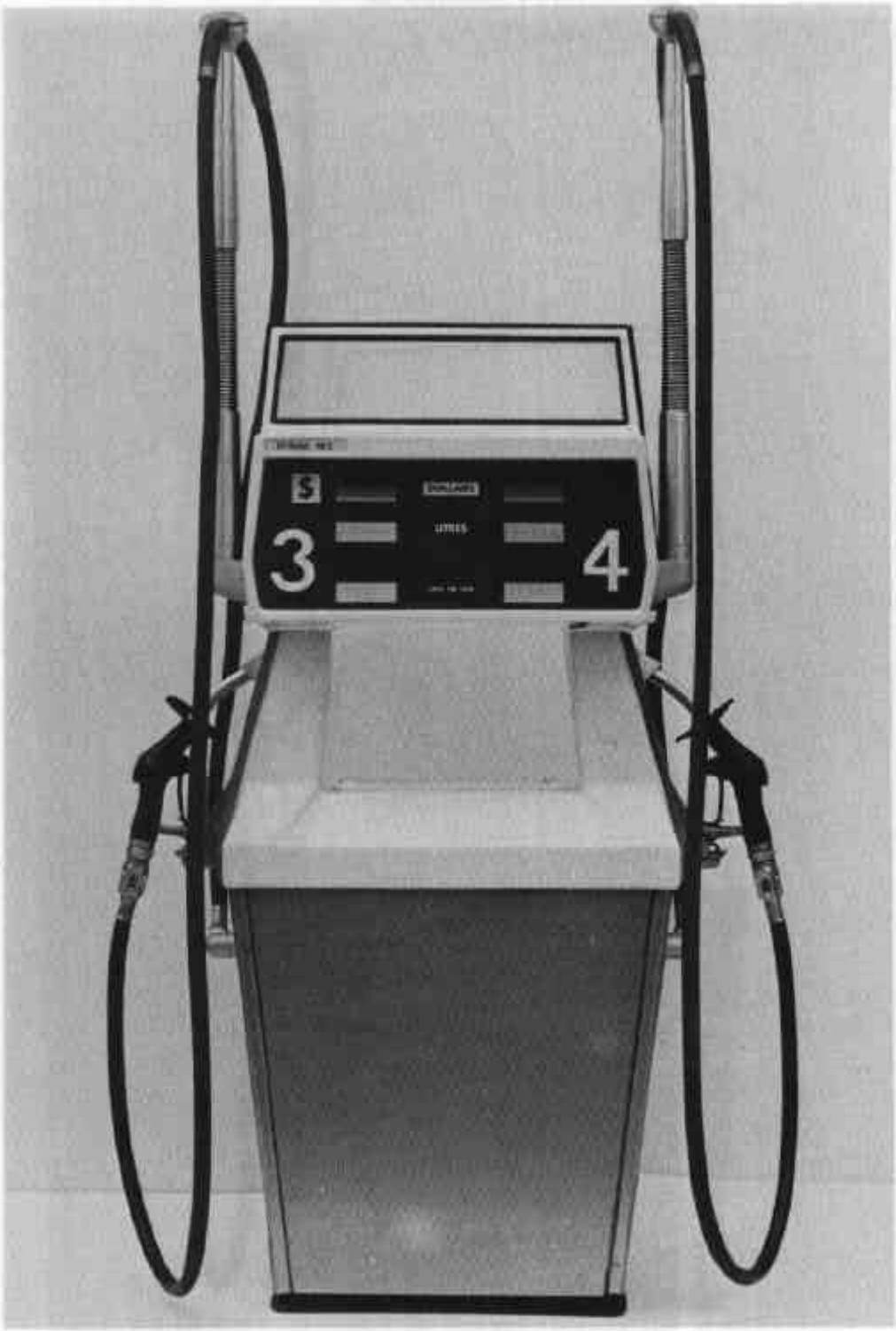
FIGURE 5/6A/70 - 60



Wayne Driveway Flowmeter Models EFS2, EFC2

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FIGURE 5/6A/70 - 61

Wayne Driveway Flowmeter Models EGS1, EGS1D, EGC1, EGC1D
EGC1H, EGC1DH

5/6/81

FIGURE 5/6A/70 - 62

Wayne Driveway Flowmeter Models EGC2 and EGS2

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Model	Single	Dual	Maximum flow rate L/min	Product for which approved	Attendant operated	Epi-tronic console	Epi-tronic Mk II console	Customer's indicator	Fig No.	Hydraulic diagram No.	Test Procedure No.
EFS1	*	NA	55	Petrol	*	*	*	+	59	6	3.1,3.2,3.4
EFS1H	*	NA	80	Petrol	*	*	*	+	59	7,8	3.1,3.2,3.4
EFS1D	*	NA	55	Diesel	*	*	*	+	59	7,8	3.1,3.2,3.4
EFS1DH	*	NA	80	Diesel	*	*	*	+	59	7,8	3.1,3.2,3.4
EFS2	NA	*	55	Petrol	*	*	*	+	60	6	3.1,3.2,3.4
EFC1	*	NA	55	Petrol	*	NA	NA	NA	59	6	3.1,3.2
EFC1H	*	NA	80	Petrol	*	NA	NA	NA	59	7,8	3.1,3.2
EFC1D	*	NA	55	Diesel	*	NA	NA	NA	59	7,8	3.1,3.2
EFC1DH	*	NA	80	Diesel	*	NA	NA	NA	59	7,8	3.1,3.2
EFC2	NA	*	55	Petrol	*	NA	NA	NA	60	6	3.1,3.2
EGS1	*	NA	55	Petrol	*	*	*	+	61	21	3.1,3.2,3.3,3.4,3.5
EGS1D	*	NA	55	Diesel	*	*	*	+	61	23,8	3.1,3.2,3.3,3.4,3.5
EGS2	NA	*	55	Petrol	*	*	*	+	62	22	3.1,3.2,3.3,3.4,3.5
EGC1	*	NA	55	Petrol	*	NA	NA	NA	61	21	3.1,3.2,3.3
EGC1D	*	NA	55	Diesel	*	NA	NA	NA	61	23,8	3.1,3.2,3.3
EGC1H	*	NA	80	Petrol	*	NA	NA	NA	61	23,8	3.1,3.2,3.3
EGC1DH	*	NA	80	Diesel	*	NA	NA	NA	61	23,8	3.1,3.2,3.3
EGC2	NA	*	55	Petrol	*	NA	NA	NA	62	22	3.1,3.2,3.3

Driveway Flowmeter Identification Table

* - approved

NA - not approved

+ - the customer's indicator is mandatory for prepayment mode, and for post-payment mode in New South Wales only.