NATIONAL STANDARDS COMMISSION

NATIONAL MEASUREMENT (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

SUPPLEMENTARY CERTIFICATE OF APPROVAL No S233

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

Gilbarco Model TMS15 Driveway Flowmeter Control Console

submitted by Gilbarco Aust. Ltd
12-38 Talavera Road
North Ryde NSW 2113.

CONDITIONS OF APPROVAL
General:

This approval is subject to review on or after 1/1/93.
This approval expires in respect of new instruments on 1/1/94.

Instruments purporting to comply with this approval shall be marked NSC No S233.

This approval may be withdrawn if instruments are constructed other than as described in the drawings and specifications lodged with the Commission.

Auxillary devices used with this instrument shall comply with the requirements of General Supplementary Certificate Nos S1/0 and/or S2/0, as appropriate.

Special:

This instrument may only be used for central unit price setting of driveway flowmeters which have been Commission-approved with that facility and which are not fitted with a Gilbarco Calcopac driveway flowmeter indicator.

For Provisional Variant 3;

This approval is subject to review on or after 1/2/90.
This approval expires in respect of new instruments on 1/2/91.

The submittor shall notify the Commission prior to installation of the first system purporting to comply with Provisional Variant 3.

Signed

J. Birch

Executive Director

Descriptive Advice

Pattern: approved 4/12/87

- Gilbarco model TMS15 driveway flowmeter control console.

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Variant: approved 4/12/87

1. Without the remote purchaser's indicator.

Technical Schedule No S233 describes the pattern and variant 1.

Variant: approved 12/1/89

2. Controlling up to 32 Commission-approved Gilbarco driveway flowmeters.

Variant: provisionally approved 12/2/89

3. Two consoles connected in a network.

Technical Schedule No S233 Variation No 1 describes variants 2 and 3.

Filing Advice

Supplementary Certificate of Approval No S233 dated 16/3/88 is superseded by this Certificate and may be destroyed. The documentation for this approval now comprises:

Supplementary Certificate of Approval No S233 dated 30/3/89
Technical Schedule No S233 dated 16/3/88
Technical Schedule No S233 Variation No 1 dated 30/3/89 (incl. Test Procedure)
Test Procedure No S233 dated 16/3/88
Figure 1 dated 16/3/88

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No S233

Pattern: Gilbarco Model TMS15 Driveway Flowmeter Control System.

Submittor: Gilbarco Aust. Ltd
12-38 Talavera Road
North Ryde NSW 2113.

1. Description of Pattern

The pattern is a Gilbarco model TMS15 control console (Figure 1) which may be used in any Commission-approved driveway flowmetering system with up to 16 Gilbarco driveway flowmeters and with other facilities including:

- an electronic funds transfer (EFT) facility;
  (Note: The EFT facility is not subject to Pattern Approval)
- a vendor's indicator and a remote purchaser's indicator;
- central unit price setting (refer to the Conditions of Approval);
- a preset facility which may be used for prepay transactions;
- a grade selection facility; and
- a printer for both the vendor's journal record and purchaser's receipt.

1.1 Cash Register

The console incorporates cash register facilities and these shall not interact with the console in any way which would cause an incorrect indication of the measured volume or price.

1.2 Remote Purchaser's Indicator

This is located near the control console and repeats the control console indications when the system is in prepay or postpay modes.

1.3 Communication Interconnection Box

This allows the operator to electrically disconnect any of the driveway flowmeters from the console.

1.4 Dual-memory Facility

This facility allows two purchasers to operate simultaneously.

1.4.1 Operation

The first purchaser carries out the delivery of fuel and the transaction data (including the pump number) is indicated on both the purchaser's and vendor's indicators. After a period of at least 15 seconds, and once the first purchaser has hung-up the nozzle but before the first transaction has been completed, a second purchaser can be authorised for the same flowmeter. The details of the first transaction are stored in the console memory and can be shown on both the vendor's and purchaser's displays.

The details of the first delivery will be displayed whenever the flowmeter SELECT button is pressed. Operation of the CURRENT/STORED button will allow the second transaction to be displayed on the purchaser's display. The status of the transaction is indicated on the vendor's display.

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The transactions are completed by using the flowmeter SELECT button and CURRENT/STORED button to display the sale appropriate to the purchaser on both the vendor's and purchaser's indicators and then completing the transaction.

1.4.2 Limitations

Only one transaction may be stored in each memory at any time.

1.5 Markings

The console is marked with the following data, together in one location:

Manufacturer's name or mark
Serial number
Model number
NSC approval number S233

1.6 Verification Provision

Provision is made for a verification mark to be applied.

2. Description of Variant 1

Without the remote purchaser's indicator connected to the console, in which case the system cannot be used in prepay mode.

NATIONAL STANDARDS COMMISSION

TEST PROCEDURE No S233

The following tests should be conducted in conjunction with any tests specified in the approval documents for the driveway flowmeters to which this instrument is connected.

1. Postpay Mode (including dual-memory test)

i) At the console select and authorise a number of driveway flowmeters and make a delivery.

ii) The status indicator for each flowmeter involved will be flashing slowly and the console indications will repeat the indications of the flowmeter computer by its identification number.

iii) Authorise each flowmeter by pressing the flowmeter SELECT button and the AUTHORISE button. The status indicator for each flowmeter will now glow steadily indicating that the flowmeter has been reauthorised.

iv) For each flowmeter reauthorised in (iii):

- deliver sufficient fuel to cause the price and quantity indicators to move significantly off zero;
- stop the flowmeter by returning the nozzle to its hang-up; and
- record the details of the delivery.

v) At the console, the status indicators of the flowmeters involved will be flashing slowly. Observe that the indications from the first transaction (i) are still displayed as well as indications from the second transaction (iv).

vi) Using the pump SELECT buttons, observe that as each pump is selected, the indications observed in (i) are displayed in reverse video and are repeated on the purchaser's indicator.

vii) Using the CURRENT/STORED button, observe that the indications from the second transaction for that flowmeter are displayed in reverse video and are repeated on the purchaser's indicator.

viii) For one of the flowmeters involved, call up a transaction display and complete the transaction by pressing the FUEL button and then a payment-media (CASH, CREDIT or CHEQUE) button. Observe that the status indicator is still illuminated.

ix) Complete the other transaction for the flowmeter in (viii) by displaying the transaction and pressing the FUEL button and then a payment-media button. The status indicator will then not be illuminated.

2. Prepay Mode

The operation in prepay mode is very similar to that described in (1) above.

i) At the console, authorise a flowmeter by pressing the flowmeter SELECT button and the AUTHORISE button.

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ii) While the delivery is continuing, attempt to authorise a prepaid transaction (by selecting the flowmeter, entering a cash value via the keyboard, pressing the FUEL button, and then a payment-media button). This should not be possible.

iii) Complete the first delivery and return the nozzle to its hang-up position. The illuminated status indicator will now flash slowly.

iv) Authorise a prepaid transaction for the flowmeter as in (ii) in the second memory using the CURRENT/STORED button. The console will accept the authorisation and issue a receipt indicating acceptance of the price, which flowmeter is to be used, and the time and date. The status indicator will glow steadily. Check that the preset value is showing on the console and on the flowmeter preset display panel.

v) Lift the nozzle and deliver fuel. Observe that the flowmeter stops on the preset value, and that when the nozzle is returned to its hang-up position, no amount is due at the console for this transaction.

vi) Complete the first transaction as in paragraph 1(viii).

vii) Repeat steps 2(i) to 2(iv) for another driveway flowmeter.

viii) Lift the nozzle and deliver fuel but return the nozzle to its hang-up before the prepaid value is reached. Observe that the status indicator is flashing slowly indicating incomplete transactions and that details of each transaction are displayed.

ix) Complete the transactions. Observe that the details on the receipt issued and the console indications are the same.

Try to reauthorise the flowmeter. This should not be possible for at least 3 minutes from the time that the nozzle is hung-up on the flowmeter used for the prepaid transaction.

(x) If there is a driveway flowmeter on site to which a preset panel and indicator are not fitted and/or there is no remote purchaser's indicator connected, attempt to authorise a prepay delivery at the console. This should not be possible.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No S233

VARIATION No 1

Pattern: Gilbarco Model TMS15 Driveway Flowmeter Control Console.

Submittor: Gilbarco Aust. Ltd
12-38 Talavera Road
North Ryde NSW 2113.

1. Description of Variants

1.1 Variant 2

Controlling up to 32 compatible Commission-approved Gilbarco driveway flowmeters.

1.2 Variant 3

Two TMS15 consoles connected in a network enabling the following operations to be processed by either console:

- flowmeter status and authorisation;
- pump stop and emergency stop;
- sales transactions;
- central unit price setting (refer to the Conditions of Approval); and
- management functions.

TEST PROCEDURE

The following tests should be conducted in conjunction with any tests specified in the approval documents for the driveway flowmeters to which this instrument is connected.

For the networked system (Variant 3) the following tests are in addition to those in Test Procedure No S233 dated 16/3/88:

1. Postpay Mode

(a) Conduct test 1. Postpay Mode performing steps (v), (vi) and (vii) for both consoles.

(b) In step (ix), observe that the status indicator is not illuminated on either console.

2. Prepay Mode

At step (iv), for the same flowmeter, attempt to authorise a prepaid transaction at the second console; this should not be possible.

National Standards Commission

NOTIFICATION OF CHANGE

SUPPLEMENTARY CERTIFICATE OF APPROVAL No S233

CHANGE No 1

The following change is made to the approval documentation for the

Gilbarco Model TMS15 Driveway Flowmeter Control System

submitted by Gilbarco Aust. Ltd
12-38 Talavera Road
North Ryde NSW 2113.

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

In Technical Schedule No S233 dated 16/3/88, clause 1.2 Remote Purchaser's Indicator is amended by adding:

"This indicator may be as shown in Figure 2 or may be in an alternative housing with a different type of display."

National Standards Commission

NOTIFICATION OF CHANGE

SUPPLEMENTARY CERTIFICATE OF APPROVAL No S233

CHANGE No 2

The following changes are made to the approval documentation for the

Gilbarco Model TMS15 Driveway Flowmeter Control System

submitted by Gilbarco Aust. Ltd
12-38 Talavera Road
North Ryde NSW 2113.

1. The Provisional status of Variant 3 is hereby removed and the following amendments are made:

   In Supplementary Certificate of Approval No S233 dated 30/3/89;

   (a) On page 1, the Special Conditions of Approval relating to Provisional Variant 3 should be deleted.

   (b) On page 2, the reference to Variant 3 should be amended to read, in part;

   Variant: provisionally approved 12/2/89 - approved 15/12/92

2. The Pattern (model TMS15) may now also be known as a model TCR 15. This amendment should be made to all references to 'TMS15' in the Technical Schedule dated 16/3/88, and in the Supplementary Certificate and Technical Schedule Variation No 1 both dated 30/3/89.

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

National Standards Commission

NOTIFICATION OF CHANGE

SUPPLEMENTARY CERTIFICATE OF APPROVAL No S233

CHANGE No 3

The following change is made to the approval documentation for the

Gilbarco Model TMS 15 Driveway Flowmeter Control System

submitted by Gilbarco Aust. Ltd
12-38 Talavera Road
North Ryde NSW 2113.

In Supplementary Certificate of Approval No S233 dated 30/3/89, the Condition of Approval referring to the expiry of the approval should be amended to now read:

"This approval expires in respect of new instruments on 1/7/94."

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

FIGURE S233 - 1

Gilbarco TMS15 Console