Australian Government
National Measurement Institute
Bradfield Road, West Lindfield NSW 2070

Notification of Change
Supplementary Certificate of Approval No S455
Change No 1

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

The following changes are made to the approval documentation for the

Gilbarco Model GPU-90 Hydraulic Unit

submitted by Gilbarco Australia Limited
20 Highgate Street
Auburn NSW 2144.

A. In Supplementary Certificate of Approval No S455 dated 5 July 2005;

1. The Condition of Approval referring to the review of the approval should be amended to read:

   "This approval becomes subject to review on 1 July **2015**, and then every 5 years thereafter."

2. The FILING ADVICE should be amended by adding the following:

   "Notification of Change No 1 dated 21 January 2011"

Signed by a person authorised by the Chief Metrologist to exercise his powers under Regulation 60 of the *National Measurement Regulations 1999*.

Australian Government

National Measurement Institute

12 Lyonpark Road, North Ryde NSW 2113

Supplementary Certificate of Approval

No S455

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

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

Gilbarco Model GPU-90 Hydraulic Unit

submitted by Gilbarco Australia Limited
20 Highgate Street
Auburn NSW 2144.

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 July 2010, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI S455' and only by persons authorised by the submittor.

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Instruments incorporating a component purporting to comply with this approval shall be marked ‘NMI S455’ in addition to the approval number of the instrument.

It is the submittor’s responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

The National Measurement Institute reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

DESCRIPTIVE ADVICE

Pattern: approved 22 June 2005

- A Gilbarco model GPU-90 hydraulic unit designed to replace equivalent hydraulics in an approved Gilbarco fuel dispenser for motor vehicles.

Technical Schedule No S455 describes the pattern.

FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S455 dated 5 July 2005
Technical Schedule No S455 dated 5 July 2005 (incl. Test Procedure)
Figures 1 and 2 dated 5 July 2005

Signed by a person authorised by the Chief Metrologist to exercise his powers under Regulation 60 of the National Measurement Regulations 1999.

TECHNICAL SCHEDULE No S455

Pattern: Gilbarco Model GPU-90 Hydraulic Unit

Submittor: Gilbarco Australia Limited
20 Highgate Street
Auburn NSW 2144

1. Description of Pattern

A Gilbarco model GPU-90 hydraulic unit (Figure 1) designed to replace equivalent hydraulics in an approved Gilbarco fuel dispenser for motor vehicles.

1.1 Field of Operation

The field of operation for the hydraulics is as follows:

- Maximum flow rate, Q_{max} 90 L/min
- Maximum pressure of the liquid, P_{max} 250 kPa
- Minimum pressure of the liquid, P_{min} 140 kPa
- Range of liquid viscosity (at 20°C) 0.5 to 20 mPa.s

1.2 Components of the GPU-90 Unit

- A check valve and a filter/strainer are incorporated upstream of the pump to maintain the unit full of liquid.
- A pump, driven by an external motor, is incorporated upstream of the gas/air separator.
- A gas/air separator is connected to the outlet of the pump. A sump and float-controlled return valve are incorporated to allow any air/gas to be vented via a vent check valve and any accumulated liquid to return to the inlet of the pump.
- The liquid outlet side of the gas/air separator is connected to a pressure control device with pressure relief that leads to the outlet of the GPU-90, and a pressure-activated bypass valve is incorporated, which leads to the inlet of the pump.
- An access point for an air test valve (Figure 2) with provision for sealing, is provided on the GPU-90 for checking the operation of the gas elimination device by allowing air to be introduced to the inlet of the pump during the verification/ certification process.

1.3 Sealing and Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

The access point for the air test valve for the gas elimination device has provision for sealing (Figure 2).

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1.4 Descriptive Markings

Instruments are marked with the following data, together in one location on a data plate:

Manufacturer's identification mark or trade mark	Gilbarco Australia Limited
Manufacturer's designation (model number)	GPU-90
Serial number	.....
Year of manufacture	.....
Pattern approval sign	S455

TEST PROCEDURE

Instruments should be tested in accordance with any tests included in the approval documentation for the system in which the pattern is fitted, and in accordance with any relevant tests specified in the Uniform Test Procedures.

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors applicable for the gas elimination device are:

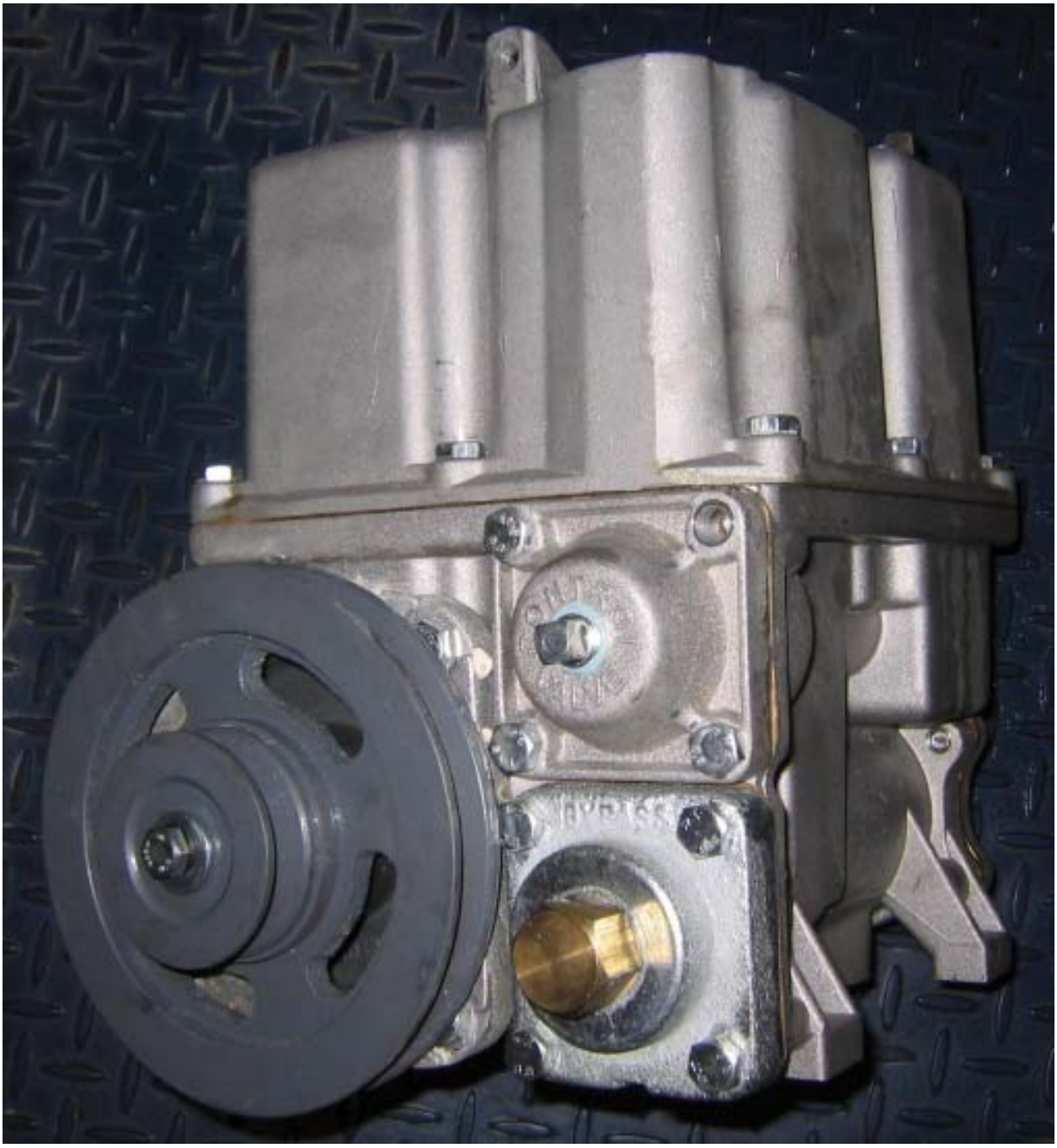
±0.5% for liquids with dynamic viscosity not exceeding 1 mPa.s, e.g. petrol.

±1.0% for liquids with dynamic viscosity exceeding 1 mPa.s, e.g. kerosene.

Air Test

The access point for the air test valve for the gas elimination device should only be opened when the pump is running, and closed before the pump is stopped.

FIGURE S455 – 1



Gilbarco Model GPU-90 Hydraulic Unit

FIGURE S455 – 2

Showing Typical Sealing of Gas Elimination Device Air Test Valve Access Point