

State of California
Department of Food and Agriculture
Division of Measurement Standards

Certificate Number: 3176(e)-02
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California Type Evaluation Program
Certificate of Approval
for Measuring Devices

For:

Retail Motor Fuel Dispenser
Positive Displacement, Volume Only
Models: 9100 and 9100A Series*
Total Volume: 999.9 Volume Units

Submitted by:

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Standard Features and Options

* The suffixes which may appear following the basic model designations are described on Pages 2 and 3.

Basic Model	Feature	Flow Rate (gpm)
9140X**-Suffix	Super Speed Dispenser <u>DIESEL FUEL ONLY</u>	8-40
9150-Suffix	Super Speed Dispenser	6-50
9152X**-Suffix 9122-Suffix	Standard Speed Dispenser	7-15
9153X**-Suffix 9123-Suffix	High Speed Dispenser	7-22

** The "X" means: Blank (old dispenser housing) and "A" (new dispenser housing)

- Nozzles island oriented
- VeederRoot Model 101 registers
- Power reset
- Mechanical totalizer up to 999 999.9 volume units

NOTE: The Models 9122 and 9123 have these additional features:

- Nozzles lane-oriented
- VeederRoot register Model 150504
- Mechanical reset with interlock
- Compact design

This device was evaluated under the California Type Evaluation Program (CTEP) and was found to comply with the applicable technical requirements of California Code of Regulations for "Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: March 12, 2002

Mike Cleary, Director

Gasboy International, Inc.
Retail Motor Fuel Dispenser
Models: 9100 and 9100A Series

Model Designation: The 9100/9100A Series is designated with suffixes. The specific characters in the model designation are represented in the table below.

Suffixes		
K*	+	Mechanical keytrol mounted on the side of a chassis
KC*	+	Mechanical keytrol mounted on the top of a chassis
EK*	+++	Electrical keytrol mounted on the top of a chassis
GEK*	+	Electrical keytrol, added or remotely mounted
C	+	Equipped with a pulsar and switch-detect wire for Cardtrol Fuel Management Systems
F	+++	Equipped with an external filter
L	+++	Equipped with a lighted dial face
LS	+	Equipped with a lighted dial face and switch
PP	+++	Equipped with a pulsar and slow-down valve for use with prepay/postpay consoles
S	+++	Equipped with a satellite hose outlet
SS	+++	Equipped with a stainless steel cabinet
TP	+	Equipped with a ticket printer
VR	+	Equipped for Stage II vapor recovery
TW-1	+++	Twin, 1 manifolded fuel supply inlet
TW-2	+++	Twin, 2 fuel supply inlets
RDX	+	Equipped for use as a dispenser supplied by a submersible pump
MS	+	Master satellite combination
CC	++	Pulser, volume wheel, 100:1
CX	++	Pulser, volume wheel, 10:1
G	++	Imperial gallon registration
H	++	High hose retriever
I	++	Internal hose retriever
P	++	Includes satellite as part of unit
R	++	Liters registration
SSA	++	Stainless steel front and rear panels only
SSTS	++	Stainless steel top and sides only
TPA	++	Mechanical ticket printer, accumulative
TPZ	++	Mechanical ticket printer, zero start
2	++	230 VAC operation
5	++	50 Cycle operation
TW1M	++	Twin, high speed manifold fuel supply inlet
X	+++	Equipped for use as a dispenser supplied by a submersible pump
HC	+++	High capacity

+ 9100 Series ++ 9100A Series +++ Both Series

* NOTE: Numbers appearing after these suffixes indicate the number of keys/totalizers available on the keytrols.

Application: For retail use in dispensing gasoline and diesel motor fuel with approved and compatible associated equipment in applications that are suitable for volume only dispensers.

May be used with Phase II vapor recovery equipment when the systems and components are certified and the dispensers comply with zero set-back interlock requirements.

Gasboy International, Inc.
Retail Motor Fuel Dispenser
Models: 9100 and 9100A Series

Identification: The metal identification badge is riveted to the side of the dispenser.

Sealing: The meter adjustment mechanism is accessed by removing the metal seal pin on top of the meter cover and turning the index disc to increase or decrease the delivery amount. A wire security seal can be threaded through the seal pin to prevent removal of the meter cover.

Operation:

- Model 9140A Series dispensers contain two Tokheim Model 898K meters that simultaneously drive one gear train to advance one mechanical register.
- Model 9150 Series dispensers contain one Liquid Controls Model M5 meter.
- Model 9152 Series dispensers contain one Tokheim Model 898K meter.
- Model 9153 Series dispensers contain one Tokheim Model 898K meter. Pumping unit and piping are larger than Model 9152A Series dispensers.
- Models 9122 and 9123 are compact dispensers designed for above ground fuel storage tanks.

An optional ticket printer may be mounted on top of the dispenser. A single ticket is held in the printer slot by a vertical pin until the transaction is recorded. A transaction is recorded by manually turning the printer knob one revolution. Tickets are obtained by opening the printer housing and manually retrieving an individual ticket. The "Zero Start" ticket printer will reset to zero at the start of the next transaction. When the dispensers are provided with the ticket printer option, the unit of measurement must be shown on the ticket.

Dispensers may be equipped with a manually operated crank. In case of a power loss, the hand crank is inserted into a shaft on the side of the dispenser and manually turned until delivery is complete.

Test Conditions: This certificate supersedes Certificate of Approval Number 3176(d)-97 and is issued to add AV gas to the approved products for dispensers in this series using Tokheim Model 898K meters. The evaluation was conducted on a 9140A Series dispenser. Tests were conducted at the high and the low end of the rated flow range. During a 40 day permanence period, 5 543 gallons were dispensed. Previous test conditions are listed below for reference.

Certificate of Approval Number 3176(d)-97: This certificate superseded and replaced Certificate of Approval Number 3176(c)-95 and was issued to include the Model 9100A Series dispenser. The 9100A Series is identical to the 9100 Series except for the re-engineered dispenser housing. This certificate is issued without additional testing and is based upon the evaluation of the 9100 Series dispenser and information provided by the manufacturer.

Certificate of Approval Number 3176(c)-95: Dispenser Models 9122 and 9123 were added to this certificate after successful field testing. Both devices were tested initially and 30 days later. Tests were made at three different flow rates to evaluate the dispensers condensed configuration. The air eliminators were also tested.

**Gasboy International, Inc.
Retail Motor Fuel Dispenser
Model: 9100A Series**

Test Conditions: (Continued)

Certificate of Approval Number 3176(b)-93: The Model 9150 consists of the internal components from the approved Gasboy Model 150 pump being installed into a Gasboy 9100 Series cabinet shell. The measuring element is a Liquid Controls (LC) Model M5 meter.

Certificate of Approval Number 3176(a)-90: The original evaluation of this device series used Gilbarco meters and was performed over a six month period for Certificate of Approval Number 1997-81. Four regular gasoline dispensers dispensed from 22 682 to 26 853 gallons, and four diesel fuel dispensers dispensed from 8 445 to 25 986 gallons for a 40 day permanence test. Updates have since been made for additional suffixes and twin configurations based upon information provided by the manufacturer.

These models were also evaluated using Tokheim meters for Certificate of Approval Number 2372(a)-89. Two dispensers using unleaded gasoline dispensed from 9 718 to 35 000 gallons.

Another evaluation of this device series was performed using LC meters for Certificate of Approval Number 1907(b)-88. One super speed dispenser with a satellite dispensed 65 540 gallons of diesel.

The dual Tokheim meter configuration was approved based upon testing two dispensers using diesel fuel during a 24 day permanence period. One gear train is driven by the two meters at the same time to advance one mechanical indicator. Tests were made at three flow rates to certify the configuration for the range of 8 gpm to 40 gpm. One dispenser measured 17 608 gallons and the other measured 34 727 gallons.

Certificate of Approval Number 3176-89: This device series is approved based upon information provided by the manufacturer and testing performed on similar device series [Certificates of Approval Numbers 1997(b)-88 and 2372(a)-88].

The results of the evaluations and information from the manufacturer indicate the dispensers comply with applicable requirements.

Type Evaluation Criteria Used: Title 4, California Code of Regulations, 2002 Edition

Tested By: Tom Michel (CA) and Gary Castro (CA)

Reviewed By: Dan Reiswig [3176(e)-02]