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(54) **Fuel pump display**

(57) A fuel dispenser has a first display for showing the volume of fuel dispensed. The fuel dispenser comprises means for showing data on at least one previous filling at the fuel dispenser.

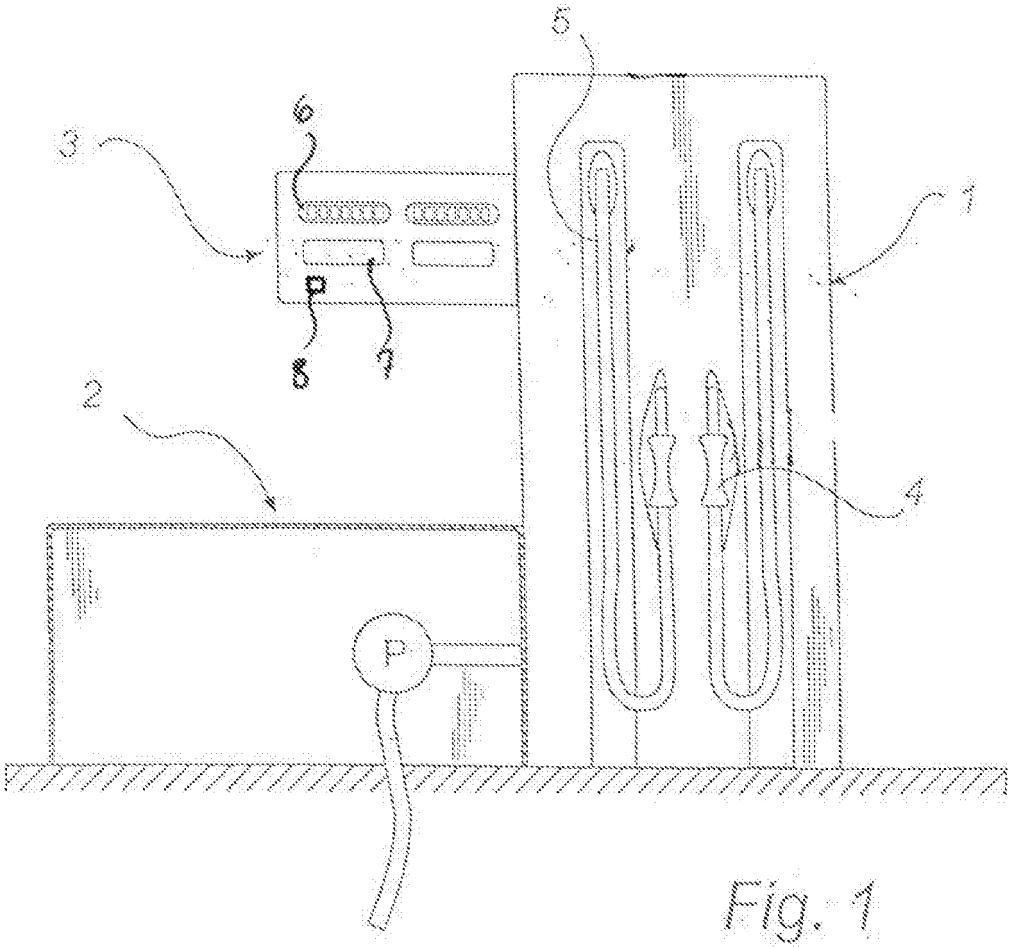

Fig. 1

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Description

Technical Field of the Invention

[0001] The present invention relates to a fuel dispenser having a first display for showing the volume of fuel dispensed.

Background Art

[0002] For fuelling systems, there are regulations requiring the possibility of tracking historical refuellings from a specific fuel dispenser, necessitating a storage of data on the last ten refuellings. Fuel dispensing systems are therefore known in which it is possible to retrieve data on the last ten refuelling operations of a fuel dispenser, primarily regarding the volume of fuel dispensed. This information is stored in the fuel dispenser, such that it may be retrieved by the system, e.g. after a power failure. The information can thus be displayed via a computer in the petrol station.

[0003] One problem with this system is that it relies on a connection between the fuel dispenser and the rest of the system.

Summary of the Invention

[0004] An aim of the present invention is to provide a fuel dispenser which solves the abovementioned problems. A specific aim is to reduce the dependence on the connection between the fuel dispenser and the system.

[0005] This aim is achieved by means of a fuel dispenser as claimed in claim 1.

[0006] The inventive fuel dispenser comprises means for showing data on at least one previous filling at the fuel dispenser. Thus, data on previous fillings can be displayed independently of the system to which the fuel dispenser is connected.

[0007] In the fuel dispenser, the first display may be arranged to show the volume of fuel during a filling operation and to show the data on said at least one previous filling. In this manner one and the same display can be used for showing both current and historical data, thus limiting the number of components.

[0008] The fuel dispenser may otherwise comprise a second display for showing the data on said at least one previous filling. Thus, current data can be shown at the same time as historical data.

[0009] In one embodiment the fuel dispenser comprises a button arranged to activate the showing of the volume of said at least one previous filling. This makes it easy to show historical data on the fuel dispenser.

[0010] The data on the previous fillings may include the volume dispensed and the amount to be paid for that volume. Thus, earlier transactions may easily be tracked.

Brief Description of the Drawings

[0011] The invention will be described in more detail with reference to the appended schematic drawing, which shows an example of a presently preferred embodiment of the invention.

[0012] Fig 1 is front view of a fuel dispenser according to the invention.

Detailed Description of Preferred Embodiments of the Invention

[0013] The fuel dispenser or fuel pump assembly of Fig. 1 has a column 1, a pump housing 5 and a display unit 3. The fuel dispenser 1 is connected to an underground fuel container (not shown). When filling up the tank of a vehicle, the fuel is pumped from the underground container by means of a pump P, to the column 1, through a fuel hose 5 and out of a nozzle 4.

[0014] During filling, the volume of fuel pumped out of the nozzle 4 and into the vehicle tank is counted up on the volume display 6 and the amount to pay for this volume is simultaneously counted up on the money display 7. The display unit 3 also has a button 8 for displaying historical filling data.

[0015] When data on a previous filling is to be displayed, the button 8 is depressed and the numbers shown on the volume display 6 and the money display 7 are replaced by the numbers representative of the previous filling. By depressing the button 8 several times it is possible to toggle between the stored fillings, normally the last ten fillings. After the oldest filling has been shown, the latest filling is once again shown. After a period of inaction, the volume display 6 and the money display 7 may return to the data of an ongoing filling or turn blank if no filling is in progress.

[0016] In an alternative embodiment, the display unit has a separate display for showing data on previous fillings, separate from the one used during filling. The display unit may also have more buttons, e.g. one for each stored filling.

[0017] It is of course possible to store another number of historical fillings, more or less than ten.

[0018] It is also possible to show more or less data on previous fillings than on an ongoing filling, e.g. showing only the volume of previous fillings, but during filling normally showing both volume and amount to pay.

[0019] Instead of using a button, it is possible to use any other means for signalling to the display unit to show historical data, e.g. a remote control.

[0020] The display for historical data could also be arranged to show all of the stored data at the same time.

Claims

1. A fuel dispenser having a first display for showing the volume of fuel dispensed,

characterised in that it comprises means for showing data on at least one previous filling at the fuel dispenser.

2. A fuel dispenser as claimed in claim 1, wherein the first display is arranged to show the volume of fuel during a filling operation and to show the data on said at least one previous filling.

3. A fuel dispenser as claimed in claim 1, further comprising a second display for showing the data on said at least one previous filling.

4. A fuel dispenser as claimed in any one of claims 1-3, further comprising a button arranged to activate the showing of the volume of said at least one previous filling.

5. A fuel dispenser as claimed in any one of the preceding claims, wherein the data on said at least one previous filling include the volume dispensed and the amount to be paid for that volume.

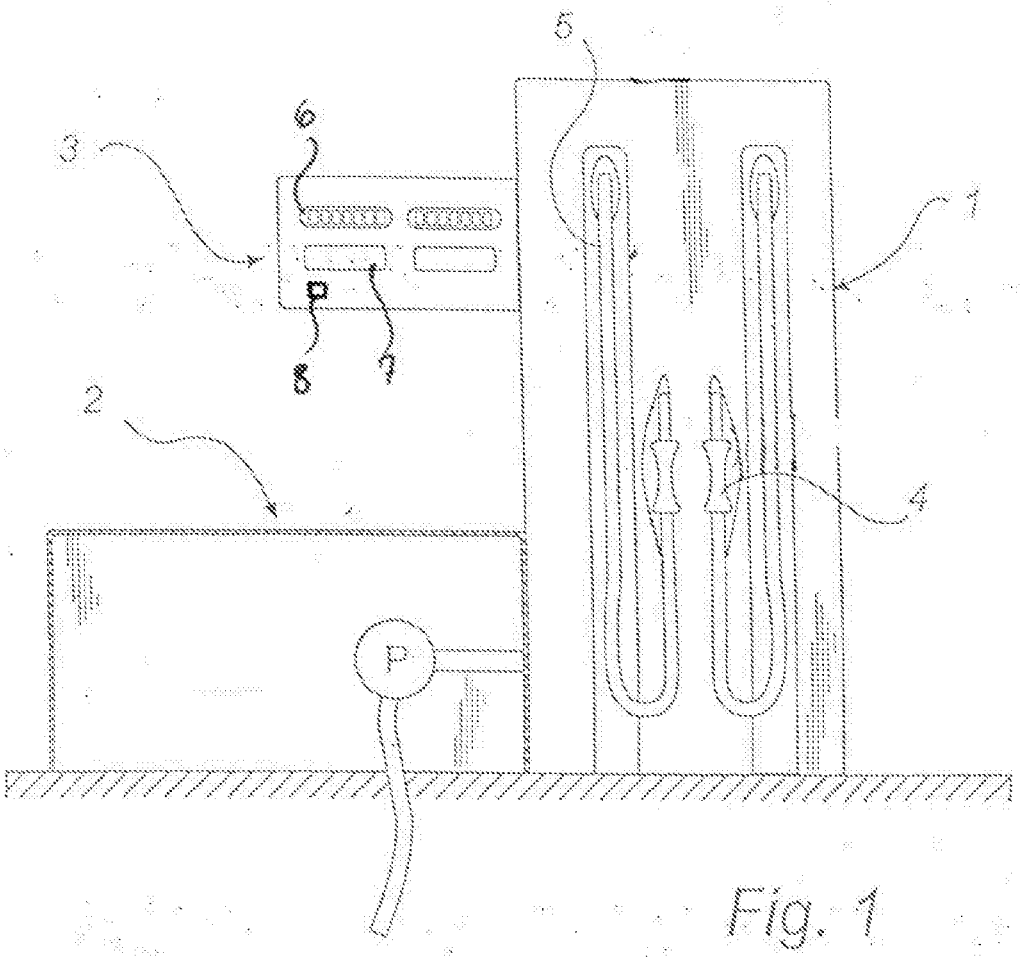

Fig. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 06 12 4158

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2003/158626 A1 (GOGGIN WILLIAM [US] ET AL) 21 August 2003 (2003-08-21) * paragraphs [0021], [0024], [0027]; figure 1 * -----	1-5	INV. G07F13/00 B67D5/00 G07F13/02
X	US 2004/204999 A1 (NEGLEY SCOTT R [US] ET AL) 14 October 2004 (2004-10-14) * the whole document * -----	1-5	

TECHNICAL FIELDS SEARCHED (IPC)

G07F
B67D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	12 February 2007	Liendl, Martin

CATEGORY OF CITED DOCUMENTS

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12-02-2007

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003158626 A1	21-08-2003	NONE	
US 2004204999 A1	14-10-2004	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82