

Title (en)

Ignition prevention valve for gas or oil heated devices.

Title (de)

Zündsicherungsventil für gas- oder ölbeheizte Geräte.

Title (fr)

Soupape de sécurité d'allumage pour équipements chauffés à mazout ou à gaz.

Publication

**EP 0046843 A1 19820310 (DE)**

Application

**EP 81103519 A 19810508**

Priority

DE 3031114 A 19800816

Abstract (en)

1. Ignition safety valve for gas- or oil-heated equipment, having an electro-magnet (32), which is controlled by a heat sensor heated by a flame and whose armature (36) is pressed by a return spring (40) against a closing element (21) of the valve (20), which sits on a double arm rocking lever (24) on which a closing spring (28) has a snap action, the rocking lever (24) being supported in one end position on the valve seat via the closing element (21), and in the other end position, on the magnet poles (34) of the electro-magnet (32) via the armature (36), and, in addition, having a hand operated setting element (44) which acts via a push rod (45) on the rocking lever (24) and transfers the latter into the end position in which the valve (20) is open and the armature (36) is in contact with the poles of the magnet (34), and from which end position the rocking lever (24) is rocked back by means of the combined forces of the return spring (40) and the closing spring (28) whenever the retention force of the electro-magnet (32) is less than or falls below a specified value, characterised in that the push rod (45) of the hand operated setting element (44) is located in a known manner near the valve and magnet axis and acts on the rocking lever (24) via a slide (52) which is displaceably supported on the rocking lever (24), is pressed by a spring (60) radially against the part (41) rigidly connected to the armature (36) and is provided with a stop surface (55) allocated to the push rod (45), which stop surface moves out of the path of movement of the push rod (45) as long as the armature (36) is adhering to the poles of the magnet (34) when the valve is closed.

Abstract (de)

Das Zündsicherungsventil hat ein Schließglied (21), welches an einem federbelasteten Kipphebel (24) angelenkt ist, der schnappend zwischen zwei stabilen Endlagen bewegbar ist. In der einen Endlage stützt sich der Kipphebel (24) über das Schließglied (21) am Ventilsitz und in der anderen Enlage über den Anker (36) eines Zündsicherungsmagneten (32) an dessen Magnetpolen (34) ab. Am Kipphebel (24) ist ein Schieber (52) gelagert, über welchen ein Handstellglied (44) auf den Kipphebel (24) einwirkt. Die Stellung des Schiebers (52) ist vom axialen Abstand zwischen Schließglied (21) und Anker (36) abhängig. Wenn während der sogenannten Schließzeit der Zündsicherung das Ventil geschlossen ist, der Anker (36) jedoch noch an den Magnetpolen haftet, nimmt der Schieber (52) eine Stellung ein, in welcher das Stellglied (44) nicht auf den Kipphebel (24) einzuwirken vermag. Dadurch ist das Ventil gegen vorzeitiges Wiedereinschalten während der Schließzeit der Zündsicherung verriegelt.

IPC 1-7

**F23N 5/10**; **F23Q 9/14**

IPC 8 full level

**F23N 5/10** (2006.01); **F23Q 9/14** (2006.01)

CPC (source: EP)

**F23N 5/107** (2013.01)

Citation (search report)

- US 3597138 A 19710803 - RAY WILLIAM A
- DE 1729891 B2 19711230 - THEOBALD ETS A
- DE 1205923 B 19651202 - VAILLANT JOH KG
- US 2675508 A 19540413 - RAY WILLIAM A
- AT 205714 B 19591010 - FRIEDR SIEMENS WERKE AG
- US 2726716 A 19551213 - RUSSELL WILLIAM J

Cited by

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