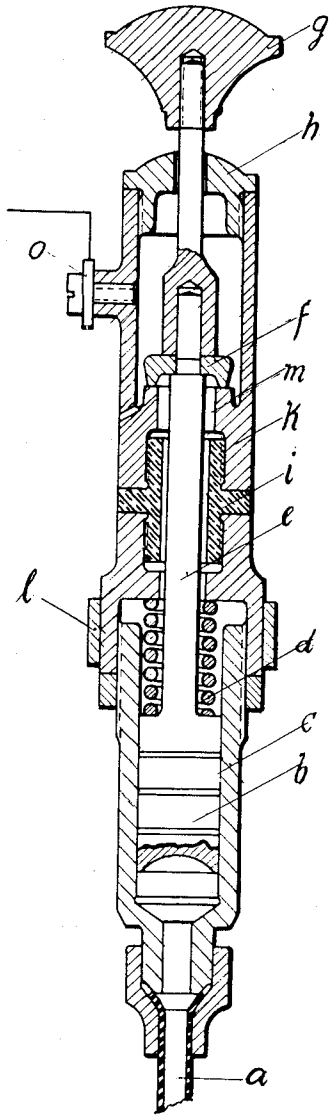
Jan. 16, 1934. A. LEKNER 1,944,012

OIL PRESSURE ACTUATED SWITCH

Filed March 8, 1932



INVENTOR.
A. LEKNER
By
ATTY.

Patented Jan. 16, 1934 1,944,012

UNITED STATES PATENT OFFICE

1,944,012

OIL PRESSURE ACTUATED SWITCH

Adolf Lekner, Prague, Czechoslovakia

Application March 8, 1932, Serial No. 597,616, and in Czechoslovakia November 8, 1930

2 Claims. (Cl. 200—82)

The object of this invention is a device through which the operator of a combustion engine equipped with a pressure lubrication system is instantly informed when the pressure lubrication system is inoperative.

The advantage of the present invention resides in the fact that in case the lubrication fails, any defect in a combustion engine is safely avoided in such a manner that on reduction of oil pressure, due to a failure in the lubrication, the combustion engine is brought to stop in a reliable way. In combustion engines in which the ignition of explosive mixture is effected electrically, said stoppage of the combustion engine is caused at the magneto ignition system through shunting the electric circuit which serves for igniting the explosive mixture, so that the ignition spark will not be produced.

The drawing shows a central vertical section of the invention.

Referring to the drawing the pressure of lubricating oil supplied through a tube *a* acts upon a piston *b* reciprocating in a cylinder *c* against the resistance of a spring *d*.

The cylinder in which the spring piston together with its piston rod reciprocates is divided through an insulating insert *i* in two parts *k* and *l* electrically insulated from each other. The upper part *k* is connected with one pole of the magneto ignition circuit through a terminal *o* and the other part *l* of the cylinder is grounded.

When the pressure of lubricating oil is normal the piston together with its piston rod and a metal contact *f* is held against the action of the spring *d* in raised position in which position the contact *f* does not press against its seat *m*, so that the upper part *k* of the cylinder with which one pole of the magneto circuit is connected is not electrically connected with the lower part *l*, so that the magneto can effect ignition in a normal way. When the pressure of oil is reduced the spring will bring the cylinder into lower position as indicated in the drawing, the contact *f* will connect the upper part *k* of the cylinder with the lower part 1 thereof over the piston rod *a*, so that the magneto is shunted or short-circuited and cannot effect ignition of the explosive mixture. The engine will be brought to stop and thus an eventual failure in the lubrication will be announced. In starting the engine the contact *f* is raised through a handle *g* or the like, so that the magneto can normally ignite, the handle *g* being so long held in withdrawn position until the engine will produce a sufficient oil pressure to hold the contacts *f* and *m* apart.

In combustion and other engines having pressure lubrication, where an engine is not started through igniting an explosive mixture, the effect of electric current may be utilized also for controlling the state of lubrication of the engine, so that into this circuit closed or opened a signalling device indicating the state of lubrication is connected or the engine is brought to stop through a suitable means.

It is obvious that various constructional modifications are allowed without departing from the spirit of the invention.

What I claim is:

1. An oil pressure actuated switch comprising a cylinder formed of upper and lower sections, an insulating means connecting and electrically separating said sections, a piston carried in the lower section and actuated by the oil pressure, a spring for forcing the piston against the oil pressure, a piston rod connected to said piston and extending into the upper section, means carried by said rod to contact with the upper section when the piston is in a lowered position, whereby the piston rod acts as the contact member between the upper and lower sections of the cylinder, and manually operated means for breaking contact between the rod and upper cylinder section.

2. An oil pressure actuated switch according to claim 1, wherein the insulating means is a sleeve formed of insulating material and having a central exterior annular flange, said sleeve fitting into the upper and lower sections of the cylinder.

ADOLF LEKNER.