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TWO-STROKE INTERNAL-COMBUSTION ENGINE

Application filed October 20, 1928, Serial No. 313,894, and in Switzerland October 24, 1927.

This invention relates to multi-cylinder two-stroke internal combustion engines and has for its object to provide an engine in which the noise usually caused by the scavenging air pumps will be reduced to a minimum.

According to this invention the casing which connects or unites in a single block the various engine and scavenging pump cylinders is provided with a separate air inlet opening for each scavenging cylinder, this casing being so constructed that it serves to connect the air supply chambers of the individual scavenging cylinders.

One construction according to the invention is diagrammatically illustrated by way of example in the accompanying drawing, wherein:

Fig. 1 is a diagrammatic plan view partially in section on line I—I of Fig. 2 of a construction in accordance with the invention.

Fig. 2 is a diagrammatic cross sectional view on the line II—II of Fig. 1.

The example shown has three engine cylinders arranged above the scavenging pump cylinder b, and the products of combustion are discharged through the exhaust pipe c. The pumps, together with the engine cylinders, are mounted in a casing e by which they are connected together to form a rigid block, and each pump has an inlet valve d. The chambers or free spaces f within the casing from which the pumps draw the scavenging air, communicate with one another as shown at k to form in effect a single suction chamber and the chamber so formed has a separate air inlet opening g for each scavenging pump.

It has been found that this ensures an almost noiseless admission of air through the openings g and therefore a considerable reduction in the noise hitherto made by the scavenging pumps. It will moreover be understood that, if desired, the pump delivery chambers may also be connected together (like the suction chamber f) to form a single or common chamber within the casing e.

I claim:

1. In a multi-cylinder two-stroke internal combustion engine having engine and scavenging pump cylinders, a casing uniting all of said cylinders in a single block, said casing having therein an air inlet opening for each of said pump cylinders and an air supply chamber connecting with all of said pump cylinders.

2. In a multi-cylinder two-stroke internal combustion engine having engine and scavenging pump cylinders, a casing uniting all of said cylinders in a single block, said casing having therein an air inlet opening for each of said pump cylinders and a plurality of inter-connected air supply chambers forming a common air supply chamber connecting with all of said pump cylinders.

In testimony whereof I have affixed my signature.

WERNER TOBLER.