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(54) Title: PISTON ASSEMBLY AND CONNECTING ROD HAVING A PROFILED WRIST PIN BORE THEREFOR

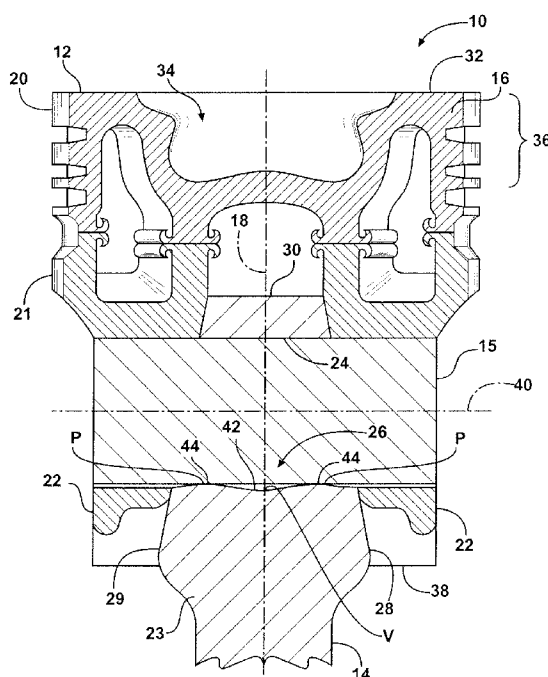


FIG. 3

(57) Abstract: A piston assembly and connecting rod therefor is provided. The connecting rod has an elongate body extending to an end for operable attachment to a piston. The end has a wrist pin bore extending between opposite sides of the body. The wrist pin bore has a wavy profile extending between the sides. The wavy profile has at least one concave surface with a valley extending along a circumferential direction of the wrist pin bore and convex surfaces having peaks extending along a circumferential direction of the wrist pin bore on laterally opposite sides of the valley. The peaks and valleys cooperate to form a smooth load gradient and uniform lubrication flow across the interface region between the wrist pin bore and the wrist pin extending therethrough.



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PCT/US2008/086122**A. CLASSIFICATION OF SUBJECT MATTER*****F02F 3/00(2006.01)i, F16J 1/16(2006.01)i, F16J 1/14(2006.01)i***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: F02F3/00, F16C 7/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models since 1975

Japanese utility models and applications for utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS(KIPO internal) & keywords: connecting rod, pin bore(hole)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 17-140220 A (NISSAN MOTOR CO., LTD.) 2005.06.02. See paragraphs 5-10, claims 1, 2, 12, figures 1, 5, abstract.	1-17
A	JP 17-256917 A (DAIDO METAL CO., LTD.) 2005.09.22. See paragraphs 28-33, figures 1, 3, 4.	1-17
A	WO 99/005423 A1 (VOLKSWAGEN AKTIENGESELLSCHAFT) 1999.02.04. See figure 6.	1-17
A	WO 2006/054142 A1 (MAHLE TECHNOLOGY INC. et al.) 2006.05.26. See paragraph 37, figures 3A, 3B.	1-17

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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