

Title (en)  
TWO-STROKE ENGINE TRANSFER PORTS

Title (de)  
ÜBERSTRÖMSCHLITZE VON ZWEITAKTMOTOR

Title (fr)  
ORIFICES DE TRANSFERT POUR MOTEUR DEUX TEMPS

Publication  
**EP 1556594 A4 20100428 (EN)**

Application  
**EP 03774559 A 20031006**

Priority  

- US 0331470 W 20031006
- US 26493902 A 20021004
- US 45207903 A 20030530

Abstract (en)  
[origin: WO2004033869A2] A two-stroke internal combustion engine including a cylinder; and a piston movably mounted in the cylinder. The cylinder includes an exhaust port and transfer ports. The transfer ports include a first pair of the transfer ports disposed closer to the exhaust port than a second pair of the transfer ports which are disposed further away from the exhaust port. The first pair of transfer ports are angled relative to each other at a first angle of about 70° to about 85 ° and the second pair of transfer ports are angled relative to each other at a second angle of about 120° to about 150°. Directional discharge of scavenged air out of the transfer ports 10 establishes a flow path for the scavenged air to minimize losses of the fresh unburned fuel into the exhaust port.

IPC 1-7  
**F02B 33/04**

IPC 8 full level  
**F02B 25/14** (2006.01); **F02B 25/20** (2006.01); **F02B 33/04** (2006.01); **F02B 63/02** (2006.01); **F02B 75/02** (2006.01)

CPC (source: EP)  
**F02B 25/14** (2013.01); **F02B 25/20** (2013.01); **F02B 33/04** (2013.01); **F02B 63/02** (2013.01); **F02B 2075/025** (2013.01)

Citation (search report)  

- [X] WO 9631691 A1 19961010 - ELECTROLUX AB [SE], et al
- [X] DE 4447215 A1 19950824 - DAIHATSU MOTOR CO LTD [JP]
- [X] DE 19707767 A1 19971106 - KIORITZ CORP [JP]
- [X] US 5870981 A 19990216 - KNAUS KONRAD [DE], et al
- [XD] US 6223705 B1 20010501 - SATO SHIGERU [JP], et al
- See references of WO 2004033869A2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2004033869 A2 20040422; WO 2004033869 A3 20040923**; AU 2003282673 A1 20040504; EP 1556594 A2 20050727; EP 1556594 A4 20100428; EP 1556594 B1 20111221; JP 2006502348 A 20060119

DOCDB simple family (application)  
**US 0331470 W 20031006**; AU 2003282673 A 20031006; EP 03774559 A 20031006; JP 2005501091 A 20031006