

Title (en)  
METHOD FOR COLLECTING 1-CYCLE DATA FOR OUTPUT MEASUREMENT AND COMBUSTION ANALYSIS OF LARGE-SIZED LOW-SPEED 4-STROKE ENGINE

Title (de)  
VERFAHREN DER AUFZEICHNUNG VON DATEN ÜBER EINEN ZYKLUS ZUR MESSUNG DER LEISTUNG UND ZUR VERBRENNUNGSANALYSE EINES LANGSAMLAUFENDEN 4-TAKT-GROSSMOTORS

Title (fr)  
PROCÉDÉ ET ENREGISTREMENT DES DONNÉES PENDANT UN CYCLE MOTEUR POUR MÉSURER LA PUISSANCE ET POUR ANALYSER LA COMBUSTION D'UN MOTEUR 4-TEMPS DE GROSSE CLYINDRÉE

Publication  
**EP 3561270 A3 20200115 (EN)**

Application  
**EP 19170459 A 20190423**

Priority  
KR 20180046998 A 20180423

Abstract (en)  
A method for collecting 1-cycle data for output measurement and combustion analysis of a large-sized low-speed 4-stroke engine according to an embodiment of the present disclosure includes: creating a graph about compression pressure of a predetermined reference cylinder at rotation angles of a crankshaft by blocking fuel for the reference cylinder and collecting compression pressure data from the reference cylinder; creating a graph about pressure change rates of the reference cylinder at rotation angles of the crankshaft by differentiating the compression pressure data collected from the reference cylinder with respect to the rotation angle of the crankshaft; detecting the position of a compression TDC from the graph about the compression change rates of the reference cylinder at the rotation angles of the crankshaft, and storing the rotation angle value of the crankshaft corresponding to the detected position of the compression TDC; determining a start position of an intake/exhaust TDC by adding a rotation angle value of the crankshaft corresponding to 0.5 cycles to the rotation angle value of the crankshaft corresponding to the position of the compression TDC; and collecting compression pressure of the reference cylinder at rotation angles of the crankshaft for one cycle from the start position of the intake/exhaust TDC.

IPC 8 full level  
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CPC (source: EP KR)  
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Citation (search report)  
• [XII] US 2009178473 A1 20090716 - HOSHI SHINYA [JP], et al  
• [XI] WO 2004048762 A1 20040610 - RICARDO CONSULTING ENG [GB], et al  
• [I] US 2008249677 A1 20081009 - KRUGER DUANE D [US]

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DOCDB simple family (application)  
**EP 19170459 A 20190423**; JP 2019082249 A 20190423; KR 20180046998 A 20180423