

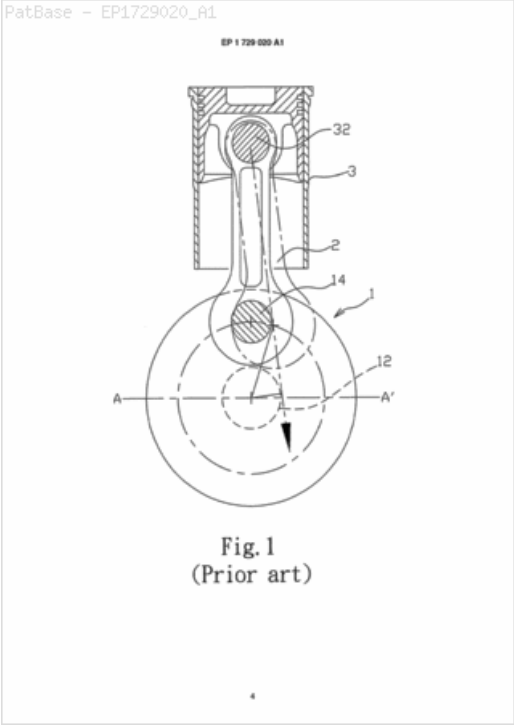
Search history

Search 1: STAC=(crank* AND engine AND piston AND link) and PD<20160729 and IC=(F16C3* OR F16H21* OR F02B41* OR F02B75*) (Results 961)
Search 2: 1 AND (FT = (thrust W2 force#) OR moment* OR torque) (Results 416)
Search 3: 2 AND FT = ((reduce# OR save#) W5 (fuel OR gas)) (Results 68)
Search 4: 3 AND (FT = high* W5 efficien*) (Results 36)

Title: ELASTIC **CRANK** WITH AN OPEN FRAME STRUCTURE FOR **ENGINE**

Abstract: Source: EP1729020A1 [EN] A **crank** (4) for use in an **engine** is disclosed to have an open frame structure formed of a first **crank** member (41) and a second **crank** member (42), a **crank** pin (46) extended from the first **crank** member (41) at one side and connected to the **piston** (6) of the **engine** through a **link** (5), a shaft (48) extended from the second **crank** member (42) at an opposite side for output of **thrust force** received from the **piston** (6), and a first **moment** point (43) and a second **moment** point (44), which first **moment** point (43) being disposed at an elevation lower than the second **moment** point (44) when the **crank** pin (46) is in its uppermost position, i.e. closest to the cylinder of the **piston**, and being the bearing point to receive the **thrust force** from the **piston** (6) through the **link** (5). The **thrust force** of the **piston** (6) during its operation is concentrated on the first **moment** point (43) to rotate the **crank** efficiently.

Classifications:
International (IPC 8-9): F02B41/04 F02B75/32
F16C3/22 (Advanced/Invention);
F02B41/00 F02B75/32 F16C3/04 (Core/Invention)
CPC: F16C3/22
European: F16C3/22



Family:

Publication number	Publication date	Application number	Application date
EP1729020 A1	20061206	EP20050011926	20050602

Priority:

EP20050011926 20050602

Probable Assignee: MEYER SIEGFRIED

Assignee(s): (std): MEYER SIEGFRIED

Inventor(s): (std): MEYER SIEGFRIED

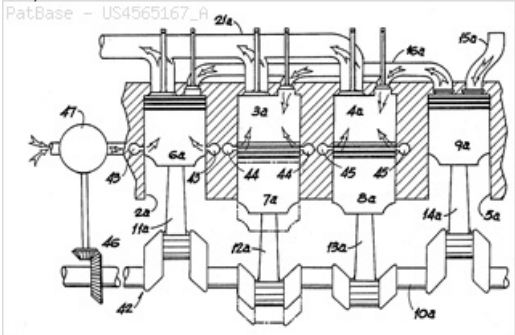
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

Title: Internal combustion **engine**

Abstract: Source: US4565167A [EN] The invention is concerned with a method of deriving mechanical work from a combustion gas in an internal combustion **engine** and reciprocating internal combustion **engines** for carrying out the method. The method includes the steps of compressing an air charge in a compressor of the **engine**, transferring the compressed charge to a power chamber of the **engine** such that no appreciable drop in charge pressure occurs during transfer and admission to the power chamber, causing a predetermined quantity to produce a combustible mixture, causing the mixture to be ignited at substantially maximum pressure within the power chamber and allowing the combustion gas to expand against a **piston** operable in the power chamber substantially beyond its initial volume.

Classifications:

International (IPC 8-9): F02B1/04 F02B3/00 F02B3/06 F02B33/22 F02B33/30 F02B33/32 F02B33/44 F02B41/00 F02B41/06 F02B47/00 F02B75/18 F02B75/20 (Advanced/Invention); F02B1/04 F02B3/06 F02B75/18 (Advanced/Non-invention); F02B33/00 F02B33/02 F02B33/44 F02B41/00 F02B75/00 (Core/Invention); F02B1/00 F02B3/00 (Core/Non-invention)
International (IPC 1-7): F02B3/00 F02B33/00 F02B33/06 F02B33/22 F02B41/04 F02B41/06 F02B47/00 F02B75/02 F02D13/02
CPC: F02B1/04 F02B3/06 F02B33/22 F02B33/30 F02B33/32 F02B33/44 F02B41/00 F02B75/20 F02B2075/1812 F02B2075/182 F02B2275/34
European: F02B33/22 F02B33/30 F02B33/32 F02B33/44 F02B41/00 F02B75/20 R02B1/04 R02B275/34 R02B3/06 R02B75/18C3 R02B75/18C5
US: 123/560 123/70R 417/364



Family:

Publication number	Publication date	Application number	Application date
AU198279257 A1	19820812	AU19820079257	19820107
BR8200376 A	19821123	BR19820000376	19820125
CA1188938 A1	19850618	CA19820395298	19820201
DE3280068 D1	19900125	DE19823280068	19820129
EP0057591 A2	19820811	EP19820300475	19820129
EP0057591 A3	19831102	EP19820300475	19820129
EP0057591 B1	19891220	EP19820300475	19820129
JP1797603 C3	19931028	JP19820013426	19820201
JP4080213 B4	19921218	JP19820013426	19820201
JP57181923 A2	19821109	JP19820013426	19820201
US4565167 A	19860121	US19840612660	19840521

Priority:

CA19820395298 19820201 US19810230752 19810202 US19840612660 19840521
US19810327922 19811208

Probable Assignee: BRYANT C C

Assignee(s): (std): BRYANT CLYDE C ; BRYANT C C ; KURAIIDO SHII BURIANTO

Assignee(s): BRYANT CC ; BRYANT CLYDE C EAST POINT GA US

Inventor(s): (std): BRYANT CLYDE C ; KURAIIDO SHII BURIANTO

Inventor(s): BRYANT CLYDE C EAST POINT GA US ; CLYDE C BRYANT

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; RIDOUT AND MAYBEE LLP

Designated states: DE FR GB IT SE

Title: VARIABLE EXPANSION-RATIO **ENGINE**

Abstract: Source: US2007209630A [EN] A variable expansion-ratio **engine** includes an expansion-ratio adjuster configured to adjust an expansion ratio; a load detector configured to detect an **engine** load; and a controller configured to control the expansion-ratio adjuster. The controller controls the expansion ratio such that the expansion ratio at the time when the load is below a predetermined load value is set lower than that at the time when the load is equal to the predetermined load value.

Classifications:

International (IPC 8-9): F01B31/14 F01B9/04 F01L1/34 F01L1/356 F01L13/00 F01L13/08 F02B75/04 F02B75/32 F02D15/00 F02D15/02 F02D17/02 F02F3/00 F16C3/28 F16C7/00

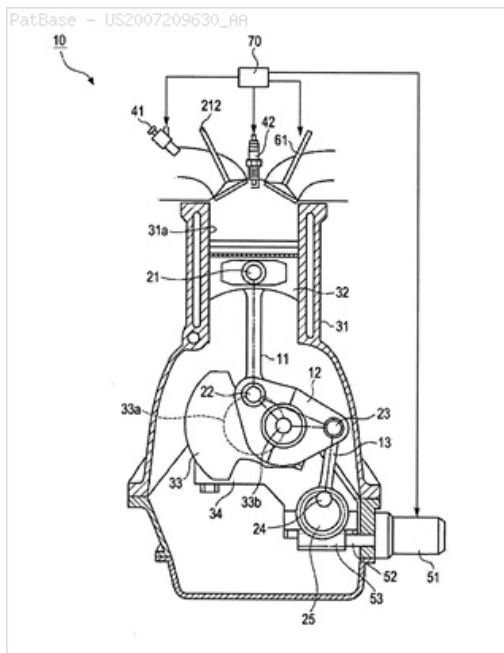
F16H21/34 (Advanced/Invention);

F01B31/00 F01B9/00 F01L1/34 F01L13/00 F01L13/08 F02B75/00 F02B75/32 F02D15/00 F02D17/00 F02F3/00 F16C3/04 F16C7/00 F16H21/00 (Core/Invention)

CPC: Y02T10/18 F01L1/3442 F01L1/022 F01L13/0026 F01L2013/0073 F01L2800/00 F02B75/048 F02D13/0211 F02D13/0249 F02D15/02 F02D15/04

European: F01L1/02A F01L1/344E F01L13/00D2E F02B75/04E F02D13/02A2F F02D15/02 F02D15/04 R01L1/02A R01L13/00D10B R01L800/00 R02D13/02A4 R02D13/02A4P R02D13/02E4 R02D15/02

US: 123/197.4 123/197.400P 123/48.00R 123/48B 123/48R 123/78.00ES 123/78.00FS 123/78E 123/78F 123/78R 123/90.15



Family:

Publication number	Publication date	Application number	Application date
DE602007001251 D1	20090723	DE200760001251T	20070311
EP1835151 A2	20070919	EP20070103901	20070311
EP1835151 A3	20071114	EP20070103901	20070311
EP1835151 B1	20090610	EP20070103901	20070311
JP2007278272 A2	20071025	JP20060329864	20061206
JP5114046 B2	20130109	JP20060329864	20061206
US2007209630 AA	20070913	US20070716886	20070312
US7334547 BB	20080226	US20070716886	20070312

Priority:

JP20060067855 20060313 JP20060329864 20061206

Probable Assignee: NISSAN MOTOR CO LTD

Assignee(s): (std): NISSAN MOTOR

Assignee(s): NISSAN MOTOR CO ; NISSAN MOTOR CO LTD ; NISSAN MOTOR COMPANY LIMITED

Inventor(s): (std): HIRATANI KOJI ; HIRAYA KOJI ; HIYOSHI RYOSUKE ; TANAKA DAISUKE ; TSUCHIDA HIROBUMI ; TSUCHIDA HIROFUMI

Agent(s): RADER FISHMAN AND GRAUER PLLC ; GLOBAL IP COUNSELORS LLP

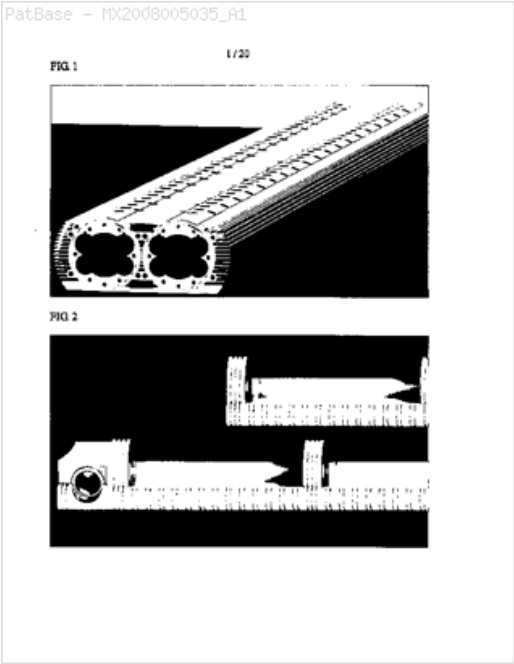
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL PL PT RO SE SI SK TR YU

Title: LOWER CONSUMPTION INNER COMBUSTION **ENGINE** OF ONE-STROKE CYCLE OR FOUR-STROKE CYCLE.

Abstract: THE LOWER CONSUMPTION INNER COMBUSTION **ENGINE** OF ONE- OR FOUR- STROKE CYCLE: REDUCES APPROXIMATELY 50 PERCENT OF THE GASOLINE, ETHANOL OR HYDROGEN CONSUMPTION, WITH REGARD TO THE CURRENT **ENGINES** (IN THE SAME RATIO AND WITHOUT REDUCING POWER), UPON SUBSTANTIALLY REDUCING THE REVOLUTIONS, THE INVENTION INCLUDING AN ELECTROMAGNETIC OPERATION IN THE WHOLE VALVES THEREOF, AS WELL AS A STOP AND MOVE-FORWARD SYSTEM ACTUATED BY COILS WHICH DRIVE MAGNETS LOCATED IN **CRANKSHAFTS** AND CONNECTING RODS IN ORDER TO STOP OR START MOTION, FOLLOWED BY THE IGNITION EXPLOSIONS. THE REVERSE IS INCLUDED IN THE **ENGINE**. THE **ENGINE** COMPRISES TWO CYLINDERS INCREASED IN LENGTH, WHICH ARE HORIZONTALLY LOCATED AT THE CENTRAL AND LOWER PORTION LENGTHWISE THE VEHICLE IN ORDER TO PROVIDE AN IMPROVED CENTER OF GRAVITY. EACH CYLINDER CONTAINS TWO GROUPS OF **PISTONS** FOR INCREASING THE EXPLOSION SITES, BOTH GROUPS OF **PISTONS** BEING LOCATED ONE ABOVE THE OTHER IN OPPOSITE DIRECTIONS, **CRANKSHAFTS** BEING CONNECTED TO EACH END PORTION OF THE CYLINDERS, THUS OBTAINING A DOUBLE TRACTION. EACH GROUP OF **PISTONS** IS LINEARLY MOVED IN OPPOSITE DIRECTION TO THE REMAINING GROUP OF **PISTONS** OF THE SAME CYLINDER, THUS USING BOTH SIDES OF THE TRAVEL THEREOF. THE PRESENT INVENTION PROVIDES A REDUCED WEAR AND AN IMPROVED COOLING SYSTEM. FOR SPORTIVE VEHICLES A CHANGE FROM FOUR-STROKE TO ONE-STROKE CYCLE IS PERFORMED DURING TRAVEL, THEREBY OBTAINING DOUBLE POWER WITHOUT INCREASING REVOLUTIONS OR WEIGHT.

Classifications:

International (IPC 8-9): F02B75/24 (Advanced/Invention);
F01L9/00 F01L9/04 F02B75/00 (Core/Invention)



Family:

Publication number	Publication date	Application number	Application date
MX2008005035 A1	20091008	MX20080005035	20080408

Priority:

MX20080005035 20080408

Probable Assignee:

ORTIZ MARIO MUNOZ

Assignee(s): (std):

ORTIZ MARIO MUNOZ

Assignee(s):

MARIO MUNOZ ORTIZ

Inventor(s): (std):

ORTIZ MARIO MUNOZ

Inventor(s):

MARIO MUNOZ ORTIZ

Title: INTERNAL COMBUSTION **ENGINE**

Abstract: Source: US4461151A [EN] A turbocharged internal combustion **engine** in which a substantially constant output power is provided over a wide range of **engine** speeds. A turbocharger is utilized which provides its maximum output at an intermediate **engine** speed. A rotary valve is provided in the intake manifold passages for each of the cylinders of the **engine**. The valve is rotated at half the speed of the **crankshaft** with the phase of the valve controlled in accordance with a predetermined **engine** parameter such as the intake manifold pressure, the exhaust manifold pressure, or the speed of rotation of the **engine**.

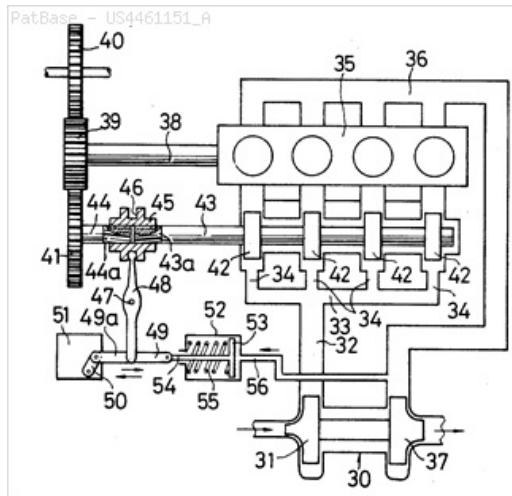
Classifications:

International (IPC 8-9): F01L7/14 F02B29/08 F02B37/00 F02D21/08 F02D23/02 F02D37/00 F02D9/16 (Advanced/Invention); F02B1/04 F02B75/12 (Advanced/Non-invention); F01L7/00 F02B29/00 F02B37/00 F02D21/00 F02D23/00 F02D37/00 F02D9/08 (Core/Invention); F02B1/00 F02B75/00 (Core/Non-invention)

International (IPC 1-7): F01L1/34 F01L15/08 F01L15/20 F01L31/18 F02B29/08 F02B37/00 F02B37/04 F02D23/02 F02D9/02 F02D9/12 **CPC:** F02M26/01 F01L7/14 F02B1/04 F02B29/083 F02B37/00 F02B2075/125 F02D13/0242 F02D13/0273 F02D21/08 F02D23/02 F02D37/00 Y02T10/144 Y02T10/146

European: F01L7/14 F02B29/08A F02B37/00 F02D21/08 F02D23/02 F02D37/00 R02B1/04 R02B75/12D R02D13/02E R02D13/02N R02M25/07R

US: 123/405 123/568.14 123/569 60/611

**Family:**

Publication number	Publication date	Application number	Application date
DE3017471 A1	19801113	DE19803017471	19800507
DE3017471 C2	19861218	DE19803017471	19800507
FR2456214 A1	19801205	FR19800010073	19800506
FR2456214 B1	19860905	FR19800010073	19800506
GB2050505 A1	19810107	GB19800015152	19800507
GB2050505 B2	19830907	GB19800015152	19800507
JP1483992 C3	19890227	JP19790054720	19790507
JP55148932 A2	19801119	JP19790054720	19790507
JP63015459 B4	19880405	JP19790054720	19790507
US4461151 A	19840724	US19820395381	19820706

Priority:

JP19790054720 19790507 US19800145540 19800501

Probable Assignee: KANESAKA TECHNICAL INST LTD NO 8 2 WATERIDAMUKAI CHO KAWASAKI KU KAWASAKI SHI KANGAWA JAPAN

Assignee(s): (std): KANESAKA GIJUTSU KENKYUSHO KK ; KANESAKA TECH INST ; KOMATSU MFG CO LTD ; KOMATSU SEISAKUSHO

Assignee(s): KANESAKA TECHNICAL INSTITUTE LTD ; KOMATSU LTD ; KANESAKA TECHNICAL INSTITUTE LTD KAWASAKI KANAGAWA JP ; KANESAKA TECHNICAL INST ; KANESAKA TECHNICAL INST LTD ; KANESAKA TECHNICAL INST LTD NO 8 2 WATERIDAMUKAI C ; KANESAKA TECHNICAL INST LTD NO 8 2 WATERIDAMUKAI CHO KAWASAKI KU KAWASAKI SHI KANGAWA JAPAN

Inventor(s): (std): KANESAKA HIROSHI

Inventor(s): KANESAKA HIROSHI KAWASAKI KANAGAWA JP ; HIROSHI KANESAKA

Title: TWO-STROKE INTERNAL COMBUSTION **ENGINE** WITH VARIABLE COMPRESSION RATIO AND AN EXHAUST PORT SHUTTER AND A METHOD OF OPERATING SUCH AN **ENGINE**

Abstract: Source: US2012283932A [EN] A two-stroke internal combustion **engine** for varying the compression ratio and the area of an exhaust port of a cylinder includes at least one **piston** reciprocable within a cylinder, an exhaust port opened and closed by the **piston** during the reciprocal motion thereof, moveable shutter means for varying the effective area of the exhaust port, a compression ratio variation mechanism for varying a compression ratio of the cylinder, sensor means for measuring one or more operating characteristics of the **engine** and for generating signals corresponding thereto, and a control unit which processes the signals generated by the sensor means and controls the motion of the shutter means accordingly and controls the compression ratio variation mechanism to vary the compression ratio of the cylinder; wherein the **engine** can operate with a compression ratio in the range 30:1 to 50:1.

Classifications:

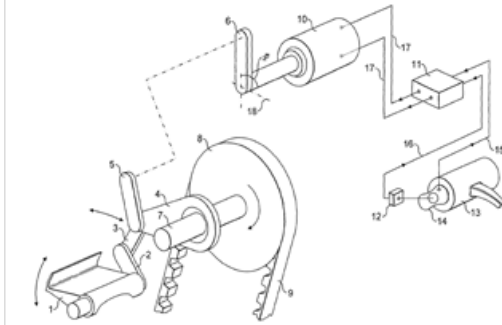
International (IPC 8-9): F02B23/00 F02B23/10 F02B25/20 F02B27/06 F02B7/02 F02B75/04 F02D13/02 F02D15/04 F02D19/08 F02D43/00 F02D45/00 F02D9/04 (Advanced/Invention)

CPC: F02D9/04 Y02T10/18 F02D13/0284 F02B25/14 F02B27/06 F02B75/042 F02B2075/025 F02D15/04 F02D41/006 F02D41/3035 F02D2400/04 Y02T10/146 Y02T10/47

European: F02B25/14 F02B27/06 F02B75/04A1 F02D13/02R2 F02D15/04 F02D41/00F6D R02B75/02S2 R02D400/04 R02D41/30C2D

US: 701/103

PatBase - US2012283932_AA



Family:

Publication number	Publication date	Application number	Application date
CN102725496 A	20121010	CN201080058610	20101104
EP2496809 A1	20120912	EP20100777075	20101104
GB200919330 A0	20091223	GB20090019330	20091104
GB2475068 A1	20110511	GB20090019330	20091104
GB2475068 B2	20140625	GB20090019330	20091104
JP2013510261 T2	20130321	JP20120537443T	20101104
US2012283932 AA	20121108	US20100508016	20101104
WO11055118 A1	20110512	WO2010GB02036	20101104

Priority:

GB20090019330 20091104 WO2010GB02036 20101104

Probable Assignee: LOTUS CARS LTD

Assignee(s): (std): BLUNDELL DAVID ; LOTUS CAR ; TURNER JAMES WILLIAM GRIFFITH

Assignee(s): LOTUS CARS LIMITED ; LOTUS CARS LTD

Inventor(s): (std): TURNER JAMES WILLIAM GRIFFITH ; DAVID BLUNDELL ; BLUNDELL DAVID ; GRIFFITH TURNER JAMES WILLIAM

Inventor(s): JAMES WILLIAM GRIFFITH TURNER

Agent(s): PLUCKROSE ANTHONY WILLIAM; YKI PATENT ATTORNEYS; PLUCKROSE ANTHONY WILLIAM ET AL

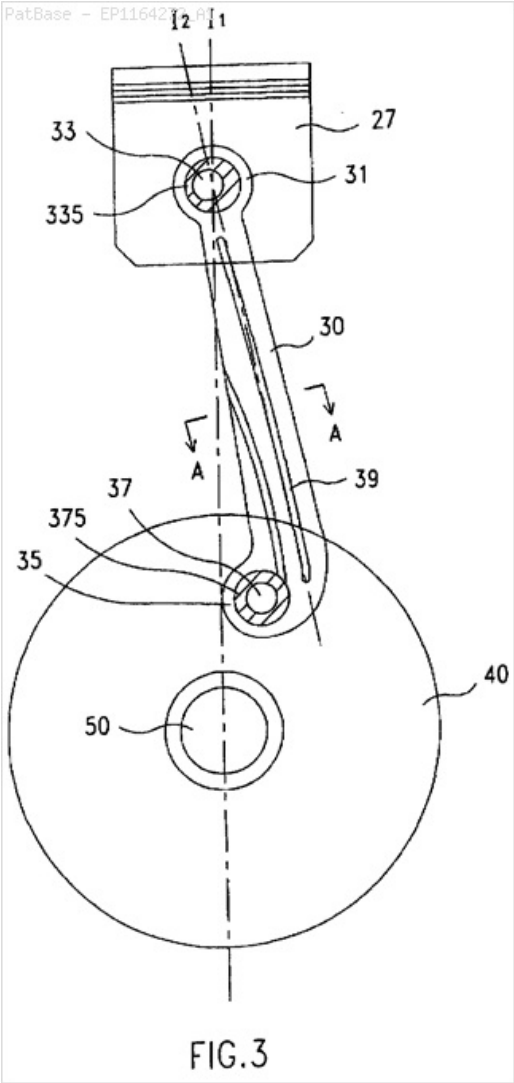
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: INTERNAL COMBUSTION ENGINE

Abstract: Source: EP1164272A1 [EN] An internal combustion engine, which includes a cylinder (10) having an intake valve (11), an exhaust valve (13), a fuel injection valve (15) and an ignition plug, a piston (17) reciprocated in the cylinder (10), a link (30) having a top end (33) mounted with the axle bush (335) and coupled to a bearing at the piston (27) and a bottom eye (35) end at the opposite end thereof mounted with an axle bush (335), a power output axle bearing (50), a crank shaft (40) coupled between the power output axle bearing (50) and the link (30), the crank shaft (40) having a fixed bearing (37) at one end coupled to the axle bush (375) in the bottom eye end (35) of the link (30), and at least one flange rod (69) longitudinally mounted on the surface of the link (30) and extended from the bottom of the top eye (33) end to the top of the bottom eye (35) end.

Classifications:

International (IPC 8-9): F02B41/00 F02B75/32 F02F7/00 (Advanced/Invention); F02B41/00 F02B75/32 F02F7/00 (Core/Invention)
International (IPC 1-7): F02B41/00 F02B75/32 F02F7/00
CPC: F16C7/023 F02B75/32 F02B41/00 F02F7/0019 F16C2360/22
European: F02B41/00 F02B75/32 F02F7/00A9



Family:

Publication number	Publication date	Application number	Application date
DE60020535 D1	20050707	DE20006020535	20000615
DE60020535 T2	20060202	DE20006020535T	20000615
EP1164272 A1	20011219	EP20000305068	20000615
EP1164272 B1	20050601	EP20000305068	20000615

Priority:

EP20000305068 20000615

Probable Assignee:

MEYER SIEGFRIED

Assignee(s): (std):

MEYER SIEGFRIED

Inventor(s): (std):

MEYER SIEGFRIED

Designated states:

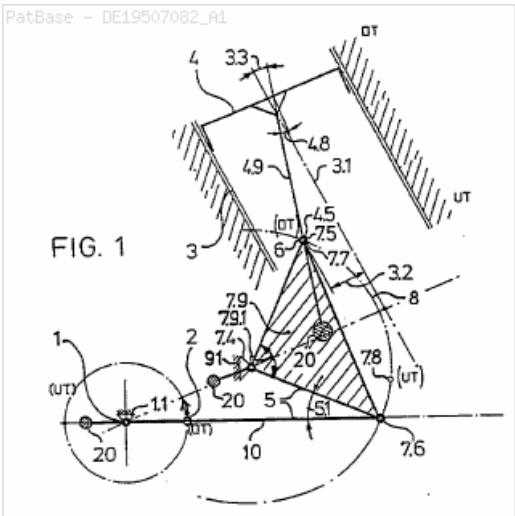
CH DE FR GB IT LI

Title: Orbitally elevator gear for cam operating system used in internal combustion **engines**

Abstract: Source: DE19507082A1 [DE] (Claim 1) 1. Orbitales Hubgetriebe fuer insbesondere Verbrennungskraftmaschinen, dessen Hub zur Achse eines Sonnenrades (1) exzentrisch umlaufenden Mitnehmers mit einer Kurbel (2) ausgefuehrt ist und fuer den Zylinder (3) ein bereichsweise gefuehrter Kolben (4) besteht, der zusammen mit einem Knickhebel (5) an einem die Fuehrung vermittelnden Koerper (6) mit der Massgabe angreift, dass sich eine Einwirkung auf die Bewegungsbahn ergibt, wobei der Kolben in Antriebsverbindung mit einem schwingenden Getriebeelement (7) steht, und dabei ferner Kammern wechselnden Rauminhaltes bildet, waehrend der Kolben gefuehrt ist und der Knickhebel seine Knickstellung durchlauft, dadurch gekennzeichnet, dass der Kolben (4) waehrend seiner Bewegung in eine Bahn gesteuert ist, deren Form und Dimension durch einen Gelenkpunkt der Koppel (6) vorgegeben wird, und dass waehrend des Umlaufes die Kolbenbewegung entlang der Bahn durch den oberen Totpunkt (OT) und den unteren Totpunkt (UT) begrenzt wird, die durch den Abstand des Koppelgelenkpunktes in den Totlagenwinkeln der Kurbel definiert ist, wobei das zur kinematischen Kette gehoerende und der Koppel (6) mittelbar oder unmittelbar benachbarte Getriebeelement relativ zur Kurbel (2) eine Schwingbewegung ausfuehrt.

Machine translation: (Claim 1) 1 Orbital screw jack for particular internal combustion **engines**, whose travel to the axis of a sun wheel (1) eccentric rotating agitator with a **crank** (2) executed, and for the cylinder (3) a regionally guided **piston** (4) is given, together with an articulated lever (5) at one of the leadership of mediating body (6) with the proviso attacks that an effect is on the path of motion, the **piston** being drivingly connected with a swinging gear element (7) is, while also forming chambers changing room contents, while the **piston** is guided and the articulated lever begins traversing its articulated position, wherein the **piston** (4) during its movement is controlled in a trajectory that is the shape and dimension by a hinge point of the coupling (6) given, and that during the revolution of the **piston** movement along the track limited by the upper dead center (TDC) and bottom dead center (BDC), is defined by the distance between the coupling pivot point in the Totlagenwinkeln the **crank**, with the for the kinematic chain of belonging and the coupling (6) indirectly or directly adjacent transmission element relative to the **Crank** (2) a vibrating motion.

Classifications:
International (IPC 8-9): F02B41/00 F02B75/32 F16H21/32 (Advanced/Invention);
F02B41/00 F02B75/32 F16H21/00 (Core/Invention)
International (IPC 1-7): F02B75/32 F16H21/18
CPC: F02B41/00 F02B75/32 F16H21/32
European: F02B41/00 F02B75/32 F16H21/32



Family:

Publication number	Publication date	Application number	Application date
DE19507082 A1	19960912	DE19951007082	19950301

Priority:

DE19951007082 19950301

Probable Assignee: OBIEGLO HELMUT

Assignee(s): (std): OBIEGLO HELMUT ; ZIMMER KLAUS

Assignee(s): ZIMMER KLAUS 40599 DUESSELDORF DE ; OBIEGLO HELMUT 40591 DUESSELDORF DE

Inventor(s): (std): OBIEGLO HELMUT ; ZIMMER KLAUS

Inventor(s): ZIMMER KLAUS 40599 DUESSELDORF DE ; OBIEGLO HELMUT 40591 DUESSELDORF DE

Title: Improvements in compression-ignition **engines**

Abstract: Source: GB699176A [EN] 699,176. **Pistons**. HUC, M. R. E. Feb. 22, 1950 [Feb. 23, 1949], No. 4608/50. Class 122(i) [Also in Group XXVII] Cooling air is alternately drawn into and expelled from a lower enlarged portion 29 of an internal combustion **engine** cylinder Cb through ports 31 and cools the **piston**.

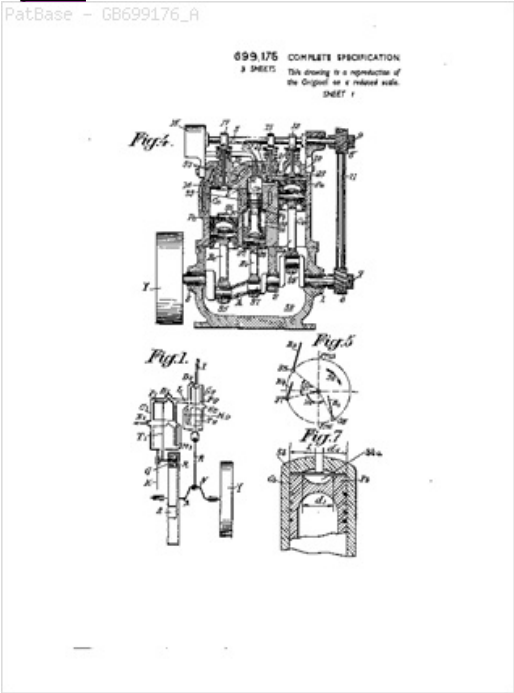
Classifications:

International (IPC 8-9): F02M67/00 (Advanced/Invention)

International (IPC 1-7): F02B41/08

CPC: F02B2720/25 F02M67/00

European: F02M67/00 R02B720/25



Family:

Publication number	Publication date	Application number	Application date
GB699176 A	19531104	GB19500004608	19500222

Probable Assignee: MARCEL REMY ETIENNE HUC

Assignee(s): (std): MARCEL REMY ETIENNE HUC

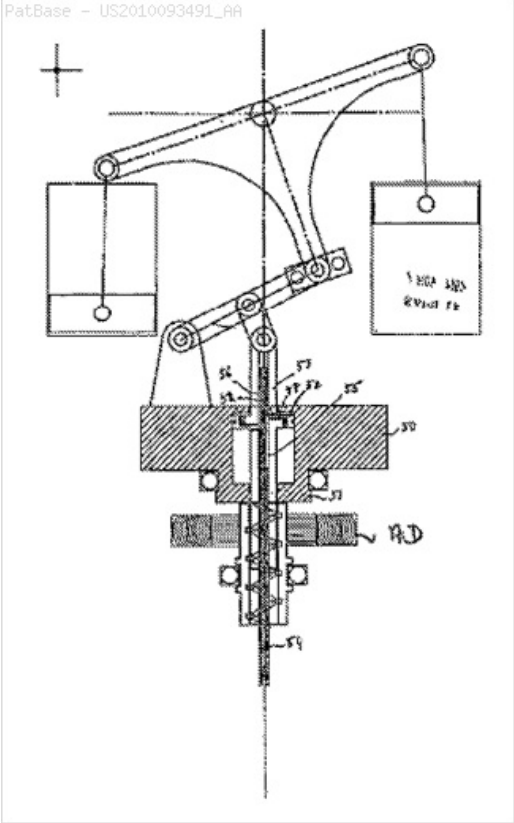
Title: DEVICE FOR CONVERTING LINEAR MOTION INTO A ROTATIONAL MOTION IN AN ADJUSTABLE WAY

Abstract: Source: US2010093491A [EN] A device includes a driving or driven rotating shaft (AM) of axis (XX'), at least one **piston** (P1) which slides in a cylinder (C1) of axis (X1X1') separate from the axis (XX'), an oscillating structure (SO) having a protuberance of axis (YY') and being able to oscillate by a universal joint that prohibits its rotation about the axis (YY'), at least one **link** rod which transmits the forces between the **piston** and a point (CS'1, CS'2) on the oscillating structure such that when the **piston** (P1) moves, the axis (YY') sweeps a cone of axis (XX'), a **crankshaft** (V) turning about the axis (XX'), articulated connection (F) between the oscillating structure (SO) and the **crankshaft** (V), an adjusting device which causes the connection means to pivot, resulting in a variation in the level of compression or cylinder capacity of the device.

Classifications:

International (IPC 8-9): F02B75/32 F02D15/02 F02N15/00 F04B9/02 F16H21/20 F16H21/22 F16H23/02 (Advanced/Invention); F02B75/32 F02D15/00 F02N15/00 F04B9/02 F16H21/00 F16H23/00 (Core/Invention)
CPC: Y10T74/18208 Y10T477/71 F01B3/0005 F01B3/0002 F01B3/0023 F01B9/04 F02B75/26 F02G2254/00 F16H23/02 F16H23/08
European: F01B3/00A F01B3/00A2 F01B3/00A4G F01B9/04 F02B75/26 F16H23/02 F16H23/08 R02G254/00
US: 477/167 477/167P 74/44 74/44S

PatBase - US2010093491_AA



Family:

Publication number	Publication date	Application number	Application date
EP2066922 A2	20090610	EP20070858382	20070925
FR2906332 A1	20080328	FR20060008457	20060926
FR2906332 B1	20090508	FR20060008457	20060926
US2010093491 AA	20100415	US20070443038	20070925
WO08037893 A2	20080403	WO2007FR01572	20070925
WO08037893 A3	20080529	WO2007FR01572	20070925

Priority:

FR20060008457 20060926 WO2007FR01572 20070925

Probable Assignee: ROBERT JEAN CHRISTIAN SOC

Assignee(s): (std): ROBERT JEAN CHRISTIAN ; ROBERT JEAN CHRISTIAN SOC ; ROBERT JEAN CHRISTIAN

Assignee(s): SOCIETE ROBERT JEAN CHRISTIAN ; JEAN CHRISTIAN ROBERT

Inventor(s): (std): ROBERT JEAN CHRISTIAN ; ROBERT JEAN CHRISTIAN

Inventor(s): JEAN CHRISTIAN ROBERT

Agent(s): CABINET MOUTARD; YOUNG AND THOMPSON; DE SAINT PALAIS ARNAUD

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW