

Title (en)  
Engine cylinder cutout system.

Title (de)  
Zylinder-Abschaltsystem für Brennkraftmaschinen.

Title (fr)  
Système pour la mise hors service des cylindres d'un moteur à combustion interne.

Publication  
**EP 0037269 A1 19811007 (EN)**

Application  
**EP 81301342 A 19810327**

Priority  
CA 348753 A 19800328

Abstract (en)  
A novel engine cylinder cutout system for internal combustion engines, e.g., gasoline engines, or diesel engines, is provided herein. The system may be operated either by fluids, e.g., pneumatic or hydraulic, or mechanically. The system includes a plurality of uncoupling devices (20) (equal in number to the number of cylinders or valves in the engine) for selectively coupling or uncoupling valve operators (14) from their respective driving member (23). Fluid or mechanical shifting mechanisms (37, 47) are selectively actuated to provide variation of valve operation from normal cycles allowing the valves (15) to be opened or closed as required, to cut off operation (to uncouple selective one or ones of the operators) so that selected exhaust valves are open while the associated selected intake valves are closed. A retentive control means (39, 49) is provided responsive to the status of vehicle operating parameters for randomly initiating operation of shifting mechanism (37, 47) associated with each such uncoupling device (20) for random initial activation thereof thereby selectively cutting out one or more cylinders to assure operation of the cylinders in the engine a substantially even average amount of time. This cutout system can desirably operate independently of the oil pressure system of the engine, although it can also use such system. The retentive control means also assures even cutout of the cylinders during different sequences of operation so that engine wear is reduced, and any such wear is even.

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Citation (search report)  
• US 4050435 A 19770927 - FULLER JR HAROLD L, et al  
• US 4151824 A 19790501 - GILBERT RAYMOND D [US]  
• US 4146006 A 19790327 - GARABEDIAN ARTHUR  
• US 3518976 A 19700707 - THUESEN NIEL C  
• US 4129109 A 19781212 - MATSUMOTO JUNICHIRO  
• US 4161166 A 19790717 - ROZNOVSKY FRANK B [US]  
• US 2948274 A 19600809 - GEORGE WOOD

Cited by  
DE102007013947A1; DE19914045A1; GB2122682A; DE4244711A1; EP0211170A1; EP0396154A3; EP0302288A1; CN108439274A; EP0990776A1; US5555861A; GB2386923A; GB2386923B; DE10307549B4; EP0495260A3; DE102005004731A1; FR2526484A1; AT520278A1; AT520278B1; GB2317202A; EP0583583A3; US5429079A; FR2544390A1; US6772724B2; US6748916B2; WO9322543A1

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