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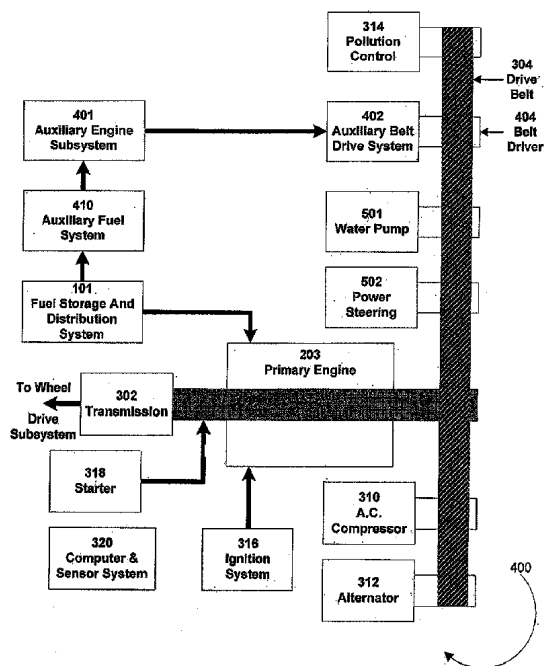

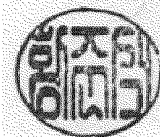


Figure 11

(57) Abstract: The present disclosure teaches a fuel efficient method for powering a vehicle. The total peak power requirements for a moving vehicle under a set of performance criteria are divided into at least two subgroups. A primary engine is provided with a size and output to provide for the peak power for one of the at least two subgroups and one or more auxiliary engines or auxiliary engine subsystems are provided with a size and output to provide for up to the peak power for the remaining one or more subgroups.

A. CLASSIFICATION OF SUBJECT MATTER		
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B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) IPC: F02B, F02D		
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 model since 1975 Japanese utility models and applications for utility model since 1975		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS (KIPO internal) & Keywords : "efficient", "subgroup", "primary engine", "auxiliary engine"		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 4825663 A (NIJJAR, P. S. et al.) 02 May 1989 See claims 1-4 and figures 1-2	12-15 1-11, 16-19
X A	US 5177978 A (BROWN, C. D.) 12 January 1993 See claims 1-20 and figure 1	12-15 1-11, 16-19
X A	US 2002/0189564 A1 (BIESS, L. J. et al.) 19 December 2002 See claims 1-16 and figures 1-6	12-15 1-11, 16-19
X A	US 6179078 B1 (BELLOSO, G. M.) 30 January 2001 See claims 1-5 and figures 1-4	12-15 1-11, 16-19
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family
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