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54 **Close-coupled unitized power system assembly.**

57 A closely coupled power system assembly is disclosed in which a rotary lobe device (42), such as a pump, blower or a fan, is closely coupled to a variable speed drive (21) or gear-type hydraulic motor. Close coupling is accomplished by incorporating adaption structure for the two counter rotating shafts (44, 46) of the rotary lobe device (42) into the variable speed drive train (61) or hydraulic motor so that bearings (66, 67), gears (62, 63, 64), seals (49) and the like perform a dual function.

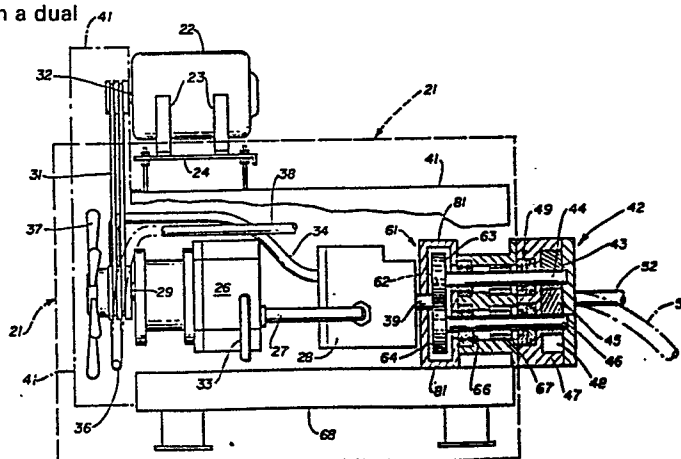


Fig. 1



| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                     |                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                 |                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Category                                                                                                                                                                                                                | Citation of document with indication, where appropriate, of relevant passages                                                                                                           | Relevant to claim                                                                                                                                                                                                                                                               | CLASSIFICATION OF THE APPLICATION (Int. Cl. 3) |
| Y                                                                                                                                                                                                                       | DE-A-2 637 410 (GEBR. NETSCH)<br><br>* page 1, claim 1; page 8, 3 last paragraphs; page 9, figures 1,2 *                                                                                | 1,2,5,6,7                                                                                                                                                                                                                                                                       | F 04 C 11/00<br>F 01 C 13/04                   |
| A                                                                                                                                                                                                                       |                                                                                                                                                                                         | 3                                                                                                                                                                                                                                                                               |                                                |
| Y                                                                                                                                                                                                                       | US-A-2 618 225 (MAPES)<br><br>* column 1, line 40 - column 2, line 19; column 2, line 40 - column 3; figures; column 5, line 8 - column 6, line 3 *                                     | 1,2,4-8                                                                                                                                                                                                                                                                         |                                                |
| Y                                                                                                                                                                                                                       | US-A-2 635 552 (DALE)<br><br>* column 1, line 45 - column 2, line 9; column 2, lines 18-24; column 3, line 5 - column 5, line 12; figures; column 6, lines 20-47; column 7, lines 3-7 * | 1,2,5-8                                                                                                                                                                                                                                                                         |                                                |
| Y                                                                                                                                                                                                                       | FR-A-2 109 922 (ATLAS COPCO)<br>* page 3, line 28 - page 5, line 17; figures 1,2 *                                                                                                      | 1,4-8                                                                                                                                                                                                                                                                           |                                                |
| The present search report has been drawn up for all claims                                                                                                                                                              |                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                 |                                                |
| Place of search<br>THE HAGUE                                                                                                                                                                                            |                                                                                                                                                                                         | Date of completion of the search<br>21-09-1984                                                                                                                                                                                                                                  | Examiner<br>KAPOULAS T.                        |
| <b>CATEGORY OF CITED DOCUMENTS</b>                                                                                                                                                                                      |                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                 |                                                |
| X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                                                                                                                                         | T : theory or principle underlying the invention<br>E : earlier patent document but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br><br>& : member of the same patent family, corresponding document |                                                |

