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## EUROPEAN PATENT APPLICATION

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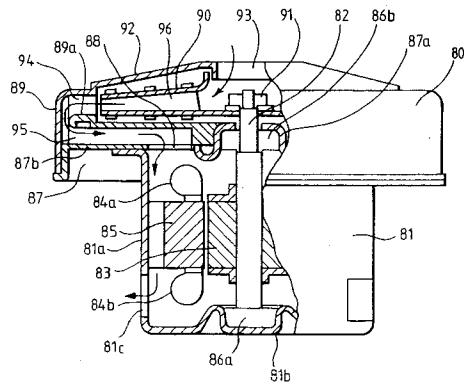
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54 **Vacuum cleaner having an impeller and diffuser.**

57 A vacuum cleaner blower assembly has a blower motor (81), a vaned centrifugal impeller (90) driven by the blower motor (81) and an air diffuser (89) radially beyond the periphery of the impeller. In order to improve air flow efficiency at the impeller inlet and outlet, the air diffuser (89) has vanes (94) with an inlet angle in the range 1 to 4°.

**EP 0 602 007 A3**



*Fig. 1.*



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## EUROPEAN SEARCH REPORT

Application Number

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                          |                                                                                                                                      |                                                | EP 94101775.8                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|
| Category                                                                                                                                                                                                                                                                     | Citation of document with indication, where appropriate, of relevant passages                                                        | Relevant to claim                              | CLASSIFICATION OF THE APPLICATION (Int. Cl.5) |
| A                                                                                                                                                                                                                                                                            | <u>AT - B - E 1 967</u><br>(BLACK & DECKER INC.)<br>* Fig. 8 *                                                                       | 1                                              | A 47 L 5/22<br>A 47 L 9/00                    |
| A                                                                                                                                                                                                                                                                            | EP - A - 0 148 523<br>(SHOP-VAC CORP.)<br>* Fig. 3 *                                                                                 | 3                                              |                                               |
| A                                                                                                                                                                                                                                                                            | DE - B - 2 101 628<br>(SOCIETE ALSACIENNE DE<br>CONSTRUCTIONS ATOMIQUES DE<br>TELECOMMUNICATIONS ET<br>D'ELECTRONIQUE)<br>* Fig. 2 * | 1                                              |                                               |
| A                                                                                                                                                                                                                                                                            | DE - B - 2 552 466<br>(DEERE & CO.)<br>* Fig. 2 *                                                                                    | 1                                              |                                               |
|                                                                                                                                                                                                                                                                              |                                                                                                                                      |                                                | TECHNICAL FIELDS<br>SEARCHED (Int. Cl.5)      |
| Refund: 50 %                                                                                                                                                                                                                                                                 |                                                                                                                                      |                                                | A 47 L 5/00<br>A 47 L 9/00<br>F 04 D 29/00    |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                   |                                                                                                                                      |                                                |                                               |
| Place of search<br>VIENNA                                                                                                                                                                                                                                                    |                                                                                                                                      | Date of completion of the search<br>17-10-1994 | Examiner<br>BENCZE                            |
| CATEGORY OF CITED DOCUMENTS                                                                                                                                                                                                                                                  |                                                                                                                                      |                                                |                                               |
| 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>& : member of the same patent family, corresponding document |                                                                                                                                      |                                                |                                               |



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Application Number

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                             |                                                | EP 94101775.8                                                                              |
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| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <u>AT - B - E 1 967</u><br>(BLACK & DECKER INC.)<br>* Fig. 8 *                                                                              | 1                                              | A 47 L 5/22<br>A 47 L 9/00                                                                 |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <u>EP - A - 0 148 523</u><br>(SHOP-VAC CORP.)<br>* Fig. 3 *                                                                                 | 3                                              |                                                                                            |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <u>DE - B - 2 101 628</u><br>(SOCIETE ALSACIENNE DE<br>CONSTRUCTIONS ATOMIQUES DE<br>TELECOMMUNICATIONS ET<br>D'ELECTRONIQUE)<br>* Fig. 2 * | 1                                              |                                                                                            |
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