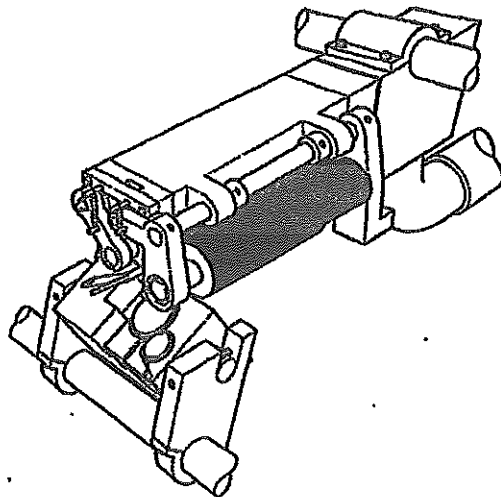


Patent Report



P A T E N T R E P O R T

An important and time consuming part of our design programme has been to study all the published patents relating to friction spinning.

The disclosures in G.B. 1,231,198, now lapsed, and even earlier disclosures going as far back as 1960, have prevented anybody obtaining any fundamental friction spinning patents in which only one of the two friction rollers is perforated. This is the system as applied to the Spinwell.

Dr. Fehrer from Austria does have certain fundamental patents relating to the use of two perforated friction rollers for which Schlaffhorst and Suessen of West Germany have jointly acquired exclusive rights.

We consider there are far greater difficulties in achieving a commercial friction spinning system using two perforated rollers.

From discussions held with Schlaffhorst and Suessen, it was quite apparent to us that the difficulties they are experiencing are consistent with following this route into friction spinning.

An objective of our design has been to ensure that we do not infringe any of the patent claims still in force, whilst at the same time not restricting the use of features which we wished to include in our own spinning unit design.

The following list of patents are those we consider to be important and which we have paid particular attention to.

ADVANCED FRICTION SPINNING UNIT

Belroy

EXISTING PATENTS

HOLLINGSWORTH (U.K.)

| BRITISH | EUROPEAN | UNITED STATES |
|--------------|------------|---------------|
| GB 2 042 599 | EP 0034427 | US 4 315 398 |
| GB 2 062 023 | EP 0052412 | US 4 367 623 |
| GB 2 074 201 | EP 0062404 | US 4 372 109 |
| GB 2 094 843 | EP 0098380 | US 4 380 892 |
| GB 2 141 448 | EP 0125341 | US 4 392 343 |
| | EP 0132045 | US 4 399 650 |
| | | US 4 404 792 |
| | | US 4 441 310 |
| | | US 4 522 022 |

OTHER RELEVANT PATENTS

United States patents

| | | |
|--------------|--------------|--------------|
| US 3 375 649 | US 4 165 600 | US 4 567 722 |
| US 3 635 006 | US 4 168 601 | US 4 570 434 |
| US 3 685 267 | US 4 202 163 | US 4 570 435 |
| US 3 874 154 | US 4 222 222 | US 4 573 312 |
| US 3 972 173 | US 4 241 574 | US 4 601 166 |
| US 4 050 228 | US 4 249 368 | US 4 601 167 |
| US 4 060 966 | US 4 281 507 | US 4 606 186 |
| US 4 107 909 | US 4 327 545 | US 4 606 187 |
| US 4 109 454 | US 4 334 400 | US 4 617 790 |
| US 4 130 983 | US 4 420 928 | US 4 617 792 |
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United Kingdom patents

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| GB 1 231 198 | GB 2 011 956 |
| GB 1 434 140 | GB 2 019 452 |
| GB 1 456 414 | GB 2 022 152 |
| GB 1 520 652 | GB 2 023 196 |
| GB 1 524 659 | GB 2 155 509 |
| GB 1 599 101 | GB 2 156 391 |
| GB 2 001 113 | GB 2 164 668 |