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Datasheet for the decision of 31 March 2011

Case Number: T 2069/09 - 3.2.08

Application Number: 99942054.0

Publication Number: 1104503

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Language of the proceedings: EN

Title of invention:
Control cables

Applicant:
Transdigm, Inc.

Opponent:
-

Headword:
-

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 54(1)(2)

Keyword:
"Novelty (yes)"
"Remittal to first instance (yes)"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 2069/09 - 3.2.08

D E C I S I O N
of the Technical Board of Appeal 3.2.08
of 31 March 2011

Appellant: Transdigm, Inc.
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Representative: Neill, Alastair William
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 30 March 2009 refusing European patent application No. 99942054.0 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: T. Kriner
Members: M. Alvazzi Delfrate
U. Tronser

Summary of Facts and Submissions

I. With its decision posted on 30 March 2009 the examining division refused European Patent application No. 99 942 054.0, on the grounds that the subject-matter of claim 1 lacked novelty in view of

D1: FR-A- 2 012 320.

II. The appellant (applicant) lodged an appeal against this decision on 28 May 2009, paying the appeal fee on the same day. The statement setting out the grounds for appeal was filed on 29 July 2009.

III. The appellant requests that the appealed decision be set aside and that the case be remitted to the department of first instance for prosecution on the basis of the claim as filed with letter dated 25 March 2011.

IV. The claim reads as follows:

"A reciprocating control cable assembly comprising:
a casing (40) with two support tubes (62) attached to the ends of said casing (40);
a control cable (20), comprising a flexible core (22) and an armor wrap (24), mounted within and adapted for reciprocation within said casing (40), said cable (20) having a first end extending from a first end of said casing (40), and having a second end extending from a second end of said casing (40), at least one of said ends extending from said casing (40) into one of said support tubes (62);

a first fitting attached to said first end of said cable (20) being permanently attached to an end of said control cable (20) within one of said support tubes (62) and extending beyond one of said support tubes (62), said permanently attached fitting having a projected width no greater than the inner diameter of said casing (40);
said permanently attached fitting comprising a rod (28) having an outer diameter substantially equal to the outer diameter of said armor wrap (24) and an axial bore (34) in an end of said rod (28), said bore (34) having a diameter substantially equal to the outer diameter of said flexible core (22) and defining an annular shell surrounding said axial bore (34), with an end of said flexible core (22) extending into said axial bore (34), and said annular shell being swaged to attach said fitting to said cable (20);
at least one seal assembly comprising an enlarged end (66) of the support tube (62), and a seal member (96) biased against said enlarged end (66); and
a seal assembly (110) mounted on an outer end of one of the support tubes (62) so that said end rod (28) extends through said seal assembly (110), said seal assembly (110) comprising an inner seal that seals said rod (28) and an outer seal that protects said inner seal from contamination;
characterised by:
a second fitting attached to said second end of said cable (20) said second fitting also being permanently attached to an end of said control cable (20) within one support tube (62) and extending beyond said support tube (62), said permanently attached second fitting having a projected width no greater than the inner diameter of said casing (40);

said second permanently attached fitting also comprising a rod (28) having an outer diameter substantially equal to the outer diameter of said armor wrap (24) and an axial bore (34) in an end of said rod (28), said bore (34) having a diameter substantially equal to the outer diameter of said flexible core (22) and defining an annular shell surrounding said axial bore (34), with an end of said flexible core (22) extending into said axial bore (34), and said annular shell being swaged to attach said fitting to said cable (20);

a seal assembly (110) mounted on an outer end of one of the support tubes (62) so that said end rod (28) extends through said seal assembly (110), said seal assembly (110) comprising an inner seal that seals said rod (28) and an outer seal that protects said inner seal from contamination;

at least one seal assembly comprising an enlarged end (66) of the support tube (62), and a seal member (96) biased against said enlarged end (66);

a connecting member (38) connected to said second permanently attached fitting by a threaded connection outside said support tube, said permanently attached fitting (38) having a threaded end (32) for attaching to the connecting member (38);

and whereby said permanently attached fittings can be pulled through said casing (40) and out of either end of said casing (40) to remove said control cable (20) for examination, repair or replacement."

Reasons for the Decision

1. The appeal is admissible.

2. D1 discloses (see in particular Figures 4 and 12) a reciprocating control cable assembly comprising:
a casing (13,14,15) with a support tube (46) attached to an end of said casing; a control cable (10), comprising a flexible core (18a) and an armor wrap (30), mounted within and adapted for reciprocation within said casing, said cable having a first end extending from a first end of said casing (see Figure 4), and having a second end extending from a second end of said casing (not shown but necessary to operate the cable), at least one of said ends extending from said casing into said support tube (see Figure 4);
a first fitting (45) attached to said first end of said cable being permanently attached to an end of said control cable within said support tube and extending beyond said support tube (see Figure 4), said permanently attached fitting comprising a rod (see Figure 4) having an outer diameter substantially equal to the outer diameter of said armor wrap (see page 5, line 4-7) and an axial bore (49) in an end of said rod, said bore (34) having a diameter substantially equal to the outer diameter of said flexible core and defining an annular shell surrounding said axial bore, with an end of said flexible core extending into said axial bore (see Figure 12), and said annular shell being swaged to attach said fitting to said cable (see page 13, lines 9-14); and a seal assembly comprising an enlarged end of the support tube, and a seal member biased against said enlarged end (see Figure 4 and page 12, line 12-16).

3. However, D1 does not disclose a seal assembly mounted on an outer end of one of the support tubes so that said end rod extends through said seal assembly and comprising an inner seal that seals said rod and an outer seal that protects said inner seal from contamination.

Moreover, D1 does not disclose that the first fitting has a projected width no greater than the inner diameter of said flexible casing. According to D1 (see page 5, line 4-7) the outer diameter of the rod is substantially equal to the outer diameter of the control cable. This does not disclose, however, that said diameter is exactly equal. Figures 4 and 12 do not show either that the rod 45 has a diameter equal to the cable 10. Rather on the contrary, the passage on page 12, lines 31-34 discloses that there is a dimensional difference between the rod and the cable 10, albeit relatively small. According to D1 the purpose of the choice of the dimension of the rod is to allow its sliding within the tube 46. No mention is made of the possibility of sliding within the flexible casing.

Furthermore, D1 does not describe the configuration of the second end of the cable. Hence, it discloses neither a second support tube attached to the second end of the cable nor the features according to the characterising portion of the claim.

Therefore, D1 does not disclose that the permanently attached fitting can be pulled through said casing and out of either end of said casing to remove said control cable for examination, repair or replacement.

Hence, the subject-matter of claim 1 is novel in view of D1.

4. As the appealed decision was based solely on the ground that the claimed assembly lacked novelty in view of D1 and did not deal with the issue of inventive step, the board finds it appropriate to remit the case to the department of first instance for further prosecution.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance for further prosecution on the basis of the claim as filed with letter dated 25 March 2011.

The Registrar: The Chairman:

V. Commare T. Kriner