

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [] To Chairmen
(D) [X] No distribution

**Datasheet for the decision
of 25 August 2009**

Case Number: T 0697/07 - 3.2.07

Application Number: 95919557.9

Publication Number: 0721383

IPC: B07B 1/00

Language of the proceedings: EN

Title of invention:

Mobile screening apparatus

Patentee:

Extec Screens and Crushers Limited

Opponents:

POWERSCREEN INTERNATIONAL DISTRIBUTION LIMITED
METSO MINERALS INDUSTRIES, Inc.

Headword:

-

Relevant legal provisions:

EPC Art. 56

Relevant legal provisions (EPC 1973):

-

Keyword:

"Inventive step: no (all requests)"

Decisions cited:

-

Catchword:

-



Case Number: T 0697/07 - 3.2.07

D E C I S I O N
of the Technical Board of Appeal 3.2.07
of 25 August 2009

Appellant:
(Patent Proprietor) Extec Screens and Crushers Limited
Hearthcote Road
Swadlincote
Derbyshire DE11 9DU (GB)

Representative:
Neilson, Martin Mark
Urquhart-Dykes & Lord LLP
Tower North Central
Merrion Way
Leeds LS2 8PA (GB)

Respondent 01:
(Opponent 01) POWERSCREEN INTERNATIONAL DISTRIBUTION LIMITED
Coalisland Road
Dungannon, Co.
Tyrone
Northern Ireland B171 4DR (GB)

Representative:
Gosnall, Toby
Barker Brettell LLP
138 Hagley Road
Edgbaston
Birmingham B16 9PW (GB)

Respondent 02:
(Opponent 02) METSO MINERALS INDUSTRIES, Inc.
3073 South Chase Avenue
Milwaukee
Wisconsin 53207 (US)

Representative:
Price, Nigel John King
J.A. Kemp & Co.
14 South Square
Gray's Inn
London WC1R 5JJ (GB)

Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 12 March 2007 revoking European patent No. 0721383 pursuant to Article 102(1) EPC.**

Composition of the Board:

Chairman: H. Meinders
Members: K. Poalas
 E. Dufrasne

Summary of Facts and Submissions

- I. The appellant (patent proprietor) lodged an appeal against the decision of the Opposition Division revoking the European patent No. 0 721 383.

Two oppositions had been filed against the patent as a whole based on Article 100(a) EPC (lack of novelty and lack of inventive step), on Article 100(b) EPC (insufficient disclosure) and on Article 100(c) EPC (unallowable amendments).

The Opposition Division found that the subject-matter of claim 1 according to the main request did not involve an inventive step.

- II. The following document of the opposition proceedings is of relevance for the present decision:

D10: US-A-4861461.

- III. In the annex to the summons to oral proceedings the Board informed the parties *inter alia* that "[a]s far as it concerns claim 1 of the main request the Board tends to follow the Opposition Division's conclusion, further as supported by the respondents, that the subject-matter of claim 1 does not involve an inventive step over D10" and "[a]s regards the inventive step of the subject-matter of claim 1 according to the auxiliary request the Board, considering that the added feature of claim 1 is known from both D2 and D10, remarks that the inventive step arguments directed to the subject-matter of claim 1 according to the main request are

also applicable to the subject-matter of claim 1 according to the auxiliary request".

- IV. With its letter dated 15 July 2009 the appellant withdrew its request for oral proceedings and stated that it would not attend and would not be represented at the oral proceedings scheduled.
- V. With its communication dated 30 July 2009 the Board informed the parties that the scheduled oral proceedings would not be cancelled and that the Board intended to reach a final decision at these proceedings.
- VI. Oral proceedings before the Board were thus held on 25 August 2009 in the absence of the appellant.
- (a) The appellant requested in the written proceedings that the decision under appeal be set aside and that the patent be maintained according to the main or according to the first auxiliary request, both requests filed with letter dated 26 June 2007.
- (b) The respondents (opponents 01 and 02) requested that the appeal be dismissed.
- VII. Claim 1 according to the **main request** reads as follows:
- "A self-propelled screening apparatus (10) which comprises:
- a support frame (11) having a longitudinal axis and a pair of opposed sides;
- power driven moving means (15) supporting said frame (11) and operable to move the apparatus over the ground, the moving means comprising endless tracks (15);

a screening device (12) located above said moving means;
a hopper (13) mounted above the screening device (12)
and arranged to receive a supply of bulk material and
to discharge the material to said screen so that the
latter can separate the bulk material into screened
portions comprising a portion which is too large to
pass through the screen and a portion which passes
through the screen;

the hopper (13) and the screening device (12) being
located directly above the endless tracks (15); and,
a discharge conveyor (14) mounted on said support frame
(11) and being arranged to project from the screening
device (12) in a direction longitudinally of the
support frame (11), the discharge conveyor having a
receiving end which is arranged to receive material
which has passed through the screen and being operable
to discharge such material via its discharge end (14a),
the discharge conveyor being operable to discharge at
least one separated portion of screened material while
the apparatus is stationary as well as along a required
deposition zone while the apparatus is being moved by
said moving means;

characterised in that:

the screen is arranged to discharge the material which
is too large to pass through the screen directly on to
the ground adjacent one of the sides of the support
frame".

Claim 1 according to the **auxiliary request** corresponds
to claim 1 according to the main request having after
the expression "the discharge conveyor being operable
to discharge at least one separated portion of screened
material" the following feature added:

"in a direction longitudinally of the discharge conveyor".

VIII. The arguments of the appellant and of the two respondents are summarised and dealt with in the reasons for the decision for the sake of brevity.

Reasons for the Decision

1. *Main request: Claim 1 - Inventive step (Article 56 EPC)*

1.1 The Opposition Division in its reasoning under point 5.4 concerning lack of inventive step for the subject-matter of claim 1 stated that the subject-matter of claim 1 differs from D10 as closest prior art only in that

(a) a hopper is mounted above the screen

and in that

(b) the power driven means are constituted as endless tracks.

It concluded that "[s]ince there is no functional relationship between these differentiating features, it is enough to show that the individual features are obvious".

It further concluded that:

"(a) The provision of a hopper mounted above the screen to facilitate loading of material onto the screen and

prevent spillage over the edges is obvious for a skilled person since it is generally known in the prior art e. g. D2 (see col. 3, l. 3-6 and figure 5) and D3 to D7 and D9. Moreover, the hopper of D2 is identical to that of the opposed patent",

that:

"(b) It is disclosed in D10 that the machine can be self-propelled by means of an engine for driving the wheels 13 (see col.2, l. 57-59). Furthermore, it is disclosed that the machine must be operative in uneven or hilly terrain (see col. 1, l. 47-49) and that the towing vehicle has endless tracks (col. 2, l. 49- 52)",

and finally that:

"Since the towing vehicle is provided with endless tracks to be operative in uneven or hilly terrain a hint is given to replace the self-propelled wheels 13 by endless tracks, when the machine is self-propelled by means of an engine. Hence, it is obvious to replace the self-propelled wheels 13 by endless tracks. That the apparatus of D10 should be able to be transported by road (see col. 2, l. 47-49) is not seen as a barrier to substituting endless tracks in place of wheels, as rubber tracks are perfectly capable of being used on road surfaces".

1.2 The Board sees no reason to deviate from the above mentioned findings of the Opposition Division.

1.3 The Board notes that in its grounds of appeal the appellant did not contest the Opposition Division's

finding that the provision of a hopper mounted above the screen to facilitate loading of material onto the screen and prevent spillage over the edges is obvious for the skilled person.

- 1.4 The appellant presented in the grounds of appeal under the headings "The Invention" and "Discussion of teachings of D10" the following arguments:

"Essentially, the invention is a compact self-propelled screening apparatus, and the "compactness" provided by the invention has been defined by reciting in the claim that the superstructure 11, screening device 12 and hopper 13 are effectively arranged in a vertical stack above the endless crawler tracks 15. This feature derives from the claimed requirement in line 11 that "the hopper 13 and the screening device 12 being located directly above the endless tracks".

Thus, it is a highly manoeuvrable machine, given that its overall length is not much greater than the endless tracks (excluding the discharge conveyor 14), and which is very considerably different from the massive lengthy, wide and unwieldy piece of apparatus shown in D10, as will be argued in more detail below.

This discloses a pipeline padding vehicle and which is primarily a towed vehicle running on transport wheels 12 and 13. There is a teaching in column 2 at line 57 [of D10] that the vehicle may be "self-propelled and include a suitable engine for driving either the wheels 12 or 13". However, even if D10 were to be provided with endless tracks to replace the wheels 12 and 13, this would still not result in the inherent

"compactness" provided by the claimed invention, having the vertical stack comprising superstructure 11, screening device 12 and hopper 13 above the endless crawler tracks 15 in the invention."

- 1.5 The Board cannot follow the arguments of the appellant and, concurring with the respondents, finds as follows:

The term "compact" is absent from claim 1, nor does the claim impose any limitation on the horizontal extent of the frame 11, screening device 12 and the hopper 13, in respect of the horizontal extent of the endless tracks 15.

This can be derived from the fact that claim 1 merely requires the hopper 13 and the screening device 12 to be "located directly above" the endless tracks and "power driven moving means (15) supporting said frame (ii)", i.e. it states which parts are located above which other parts. Neither of these references imply any limitation in the horizontal extension of the frame, hopper or screening device in comparison with the endless tracks, leading to an implication of "compactness" of the overall apparatus.

The appellant states further that the apparatus according to claim 1 "is a highly manoeuvrable machine, given that its overall length is not much greater than the endless tracks (excluding the discharge conveyor 14), and which is very considerably different from the massive lengthy, wide and unwieldy piece of apparatus shown in D10".

Again, neither a "highly manoeuvrable machine" nor a specific relationship between the overall length of the apparatus and the endless tracks, nor a specific length, width or grade of handiness of the apparatus and its constituent parts are present in claim 1. According to the Board the appellant reads into the claim limitations which are actually not explicitly present, nor implied.

Therefore, the above-mentioned arguments of the appellant cannot provide any support in respect of the presence of inventive step in the subject-matter of claim 1.

- 1.6 The appellant presented under the heading "Argument against hypothetical replacement of wheels 12, 13 [of the apparatus of D10] by endless tracks" the following further arguments:

"Significantly, apart from D10 not having a vertical stack equivalent to 11, 12 and 13 in the invention, it does not have endless tracks, neither is it self-propelled. It is primarily a towed apparatus, although there is description in the text of being self-propelled. However, it is not a simple matter of replacing the transport wheels 13 by endless crawler tracks. If you were to do this, it would be quite impossible to rotate the screen and discharge conveyor in order to do this, and it would be quite impossible to rotate the screen and discharge conveyor from the inline transport position of Figure 1 to the laterally extending operative position of Figure 2.

The opposition division equates the longitudinal conveyor 31 of D1 [should be D10] to the claimed discharge conveyor 14 of the invention during the analysis of claim 1, but we submit this is not a proper comparison. Claim 1, at lines 7 onwards require the claimed discharge conveyor 14 to have a discharged end 14a (which necessarily will be spaced longitudinally beyond the end of the claimed support frame 11) "to discharge at least one separated portion of screened material...along a required deposition zone"....

In D10, the discharge end of conveyor 31 clearly does not meet a) the geometrical construction defined by claim 1 nor b) the claimed functional performance requirement. Instead, conveyor 31 delivers material to transverse discharge conveyor 98 which discharges the material transversely of the longitudinal axis of D10, and "along the required deposition zone" solely by virtue of the forward movement of the entire screening apparatus. (...)

The pipeline padding machine of D10 would not allow for a centrally mounted track assembly as the only means of support, even if such a hypothetical construction should be contemplated by the man of ordinary skill in the art, when following the teachings of the reference. The machine would require tracks on a turntable mechanism at least at one end. Maintaining the discharge head of the conveyor in line with the trench would then cause manoeuvrability issues associated by the necessary position of the tracks and the relatively cumbersome dimensions of the machine.

As mentioned above, it is conceded that the teachings in D10 does include suggestion that a power pack could be utilised to power the machine. However, there are no provisions for such a power pack within the current envelope of the design. The inclusion of an integral power pack would therefore further increase the dimensions of the machine, further increasing the disparity between it and the compact arrangement of the invention. As shown by the drawings of the preferred embodiment of the invention, the hopper 13 and screening device 12 are located directly above the endless tracks 15, and the overall support frame 11 is short in length and narrow in width.

This is markedly different from D10 which could scarcely be more different from the compact and therefore easily manoeuvrable machine of the invention. D10 teaches a structure which clearly is not easily manoeuvrable, and which has an overall frame which is of substantially greater length and width in relation to its grate G, hopper 26 and screens 94 (which are not arranged directly one above the other as per the claimed invention anyway).

The compact design provided by the invention allows it to be supported on a simple track assembly centred on its point of gravity. This allows for an extremely manoeuvrable machine which could be utilised in a trench in-fill procedure following an "erratic" course. The machine disclosed in D10 would have to overcome some major design/control issues to achieve anything approaching the level of manoeuvrability and compactness provided by the invention.

The invention therefore provides an extremely stable machine due to its compact design with the main weight and loading area all arranged over the endless tracks. The machine of D10 has questionable stability due to the large unsupported and none counterbalanced discharge conveyor".

- 1.7 The Board again cannot follow the arguments presented by the appellant and, concurring with the position taken by the respondents, finds as follows:

Firstly, the repetitious references to the claimed apparatus being necessarily of compact built find their discussion in point 1.5 above.

Secondly, although the drawings of D10 show the apparatus as being provided with two sets of wheels 12, 13 and in a towed arrangement, the description of D10 states at lines 49-59 of column 2 that "when in use and being drawn along a pipeline trench, the frame section 10 can be coupled to a rough terrain vehicle such as a tractor having endless treads. The vehicle frame F is supported by a suitable suspension system including members 11, by front wheels 12 and rear wheels 13. As Fig. 4 particularly indicates, frame F also includes a front section and a rear section 15. If desired, the vehicle V may be self-propelled and include a suitable engine driving either the wheels 12 or 13".

This means that D10 explicitly discloses the possibility of the wheels 13 underneath the grate G being replaced with driven wheels so as to make the apparatus self-propelled. It also discloses (at lines 51-52 of column 2) that the towing vehicle is a

vehicle such as a tractor which for rough terrain has endless treads as driven moving means.

Therefore it is obvious to provide endless tracks in place of the wheels 13 if the apparatus of D10 in the self-propelled alternative is to be used on rough terrain, which is in any case the main use for the apparatus of D10.

Thirdly, the Board fails to see why the replacement of the transport wheels 13 by endless tracks would make it "quite impossible to rotate the screen and discharge conveyor from the inline transport position of Figure 1 to the laterally extending operative position of Figure 2". This could be presumably the case if one would attempt to replace both wheel sets 12 and 13 with a single pair of endless tracks. However, the relevant disclosure of D10 refers to either the wheels 12 or the wheels 13 being driven. In the apparatus of D10 one would in any case not provide a single set of endless tracks replacing both the forward and rearward wheel sets 12, 13, because the respective front section 14 and rear section 15 of the frame F to which they are attached need to be capable of telescopic movement with respect to each other as described in the paragraph bridging columns 2 and 3 of D10. It seems therefore that the appellant argues for an arrangement which the skilled person would not have chosen on the basis of the disclosure of D10.

Below frame 22 there is enough space for the self-powered unit as disclosed at lines 49-59 of column 2 of D10, even equipped with endless tracks, to replace the rearward wheel set 13 without obstructing the rotation

of the screen and discharge conveyor, or affecting the manoeuvrability of the apparatus, for that matter.

The result of the above, in any case, is the arrangement of the screening device G and the hopper 26 to be located directly above the endless tracks, the latter supporting frame 22, all as claimed in claim 1.

Further, the appellant's statement that "the discharge end of conveyor 31 clearly does not meet a) the geometrical construction defined by claim 1 nor b) the claimed functional performance requirement" is incorrect.

Following the wording of claim 1, D10 provides the following disclosure: the conveyor 31 of the apparatus of D10 projects from the screening device G in a direction longitudinally of the support frame 22. The conveyor 31 has a receiving end (the right hand end as shown in Fig. 4) which is arranged to receive material which has passed through the screen G and is operable to discharge this material via its discharge end (the left hand end as shown in Fig. 4). This conveyor 31 is operable to discharge at its discharge end a separated portion of screened material (on to the centre of the screen 94, see lines 29-31 of column 6 of D10) while the apparatus is stationary. However, this discharge is also performed when the apparatus is being moved by the moving means (see lines 33-38 of column 6). In both cases the discharge is on the centre of the screen 94, which is the "deposition zone" as required by claim 1 as nowhere does the claim require that the "deposition zone" is the final destination of the screened material, i.e. on the ground.

In any case, the "deposition zone" can just as well be the trench 142, as the wording of claim 1 ("operable to discharge ... along a required deposition zone") allows also for an additional conveyor belt or screen between the discharge end of the longitudinal conveyor 31 and the point at which that material contacts the ground, such as screens 94 and 95 and the discharge conveyor 98.

The appellant's statement that conveyor 31 delivers material to transverse discharge conveyor 98 which discharges the material transversely of the longitudinal axis of the apparatus of D10 appears to consider the latter conveyor as the claimed discharge conveyor. As the claim does not require a specific direction of movement of the conveyor, but only to be "operable to discharge ... along a required deposition zone", it is exactly the movement of the apparatus along the trench 142, as acknowledged by the appellant, that fulfils this requirement.

Finally, the appellant's reference to the design of the invention allowing it "to be supported on a simple track assembly centred on its point of gravity", cannot support its position either, as this finds no basis in claim 1.

- 1.8 For the above-mentioned reasons, the subject-matter of claim 1 of the main request does not involve an inventive step and thus does not fulfil the requirements of Article 56 EPC.

2. *Auxiliary request: Claim 1 - Inventive step
(Article 56 EPC)*

2.1 Claim 1 of the first auxiliary request includes over claim 1 of the main request the additional feature that the separated portion of screened material is discharged "in a direction longitudinally of the discharge conveyor" while the apparatus is stationary as well as along a required deposition zone while the apparatus is being moved by said moving means.

2.2 The Board notes that this wording allows for the interpretation that the direction longitudinally of the discharge conveyor applies to both the apparatus being stationary and it moving along a required deposition zone. In this context the Board finds that while the apparatus is stationary, the longitudinal conveyor 31 of D10 certainly discharges the separated portion of screened material in a direction longitudinally of itself onto the screen 94. The same situation arises when the apparatus is moved along the deposition zone, conveyor 31 continuing to function as before.

Accordingly, said additional feature is known from the apparatus described in D10 and it cannot therefore contribute to the presence of an inventive step.

2.3 For the above-mentioned reasons the subject-matter of claim 1 according to the auxiliary request does not involve an inventive step and thus does not fulfil the requirements of Article 56 EPC.

3. Given the fact that the subject-matter of claim 1 according to the auxiliary request does not involve an

inventive step the Board does not need to examine whether the subject-matter of claim 1 according to the auxiliary request meets the requirements of Article 123(2) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

G. Nachtigall

H. Meinders