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Datasheet for the decision of 20 May 2026

Case Number: T 1107/24 - 3.5.06

Application Number: 20743470.5

Publication Number: 3991033

IPC: G06F9/4401, B60R16/02, G06F21/57

Language of the proceedings: EN

Title of invention:
METHODS AND APPARATUS FOR STARTUP PROCESSES FOR A POWER MACHINE

Applicant:
Doosan Bobcat North America, Inc.

Headword:
Limited functionality/DOOSAN BOBCAT

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no)

Decisions cited:
G 0001/24

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Case Number: T 1107/24 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 20 May 2026

Appellant: (Applicant)	Doosan Bobcat North America, Inc. 250 East Beaton Drive West Fargo, ND 58078 (US)
Representative:	Vossius & Partner Patentanwälte Rechtsanwälte mbB Siebertstraße 3 81675 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted/electronically transmitted on 20 February 2024 refusing European patent application No. 20743470.5 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	M. Müller
Members:	G. Zucka
	A. Jimenez

Summary of Facts and Submissions

I. The appeal is against the decision by the examining division, dispatched with reasons on 20 February 2024, to refuse European patent application 20743470.5, on the basis that the main request did not meet the requirements of Article 123(2) EPC and auxiliary requests 1 to 3 did not meet the requirements of Article 56 EPC.

II. The following documents cited during the first instance proceedings are referred to in the present decision:

D1: US 6 343 237 B1;

D2: Damien Stolarz: "Reducing OS Boot Times for In-Car Computer Applications | Linux Journal", 22 April 2004, XP055728781.

III. A notice of appeal was received on 11 April 2024, the appeal fee being paid on the same day. A statement of grounds of appeal was received on 20 June 2024.

IV. The appellant requested that the decision under appeal be set aside and a patent granted on the basis of the claims of the main request or one of auxiliary requests 1 to 3 underlying the decision under appeal, the latter ones being re-filed with the statement of grounds of appeal, or on the basis of the claims of one of auxiliary requests 4 or 5 filed with the statement of grounds of appeal.

V. The board issued a summons to oral proceedings. In a communication under Article 15(1) RPBA, the board set

out its preliminary opinion, according to which the appealed decision should be upheld.

VI. On 20 April 2026, the appellant filed a new auxiliary request 1 and renumbered the existing auxiliary requests 1 to 5 to respectively auxiliary requests 2 to 6. They also filed new auxiliary requests 1' to 6'.

VII. The appellant requests that the decision under appeal be set aside and a patent be granted on the basis of the claims of the main request underlying the decision under appeal or of auxiliary request 1 filed with letter of 20 April 2026, or one of auxiliary requests 2 to 6, filed as auxiliary requests 1 to 5 with the statement of grounds of appeal, or one of auxiliary requests 1' to 6' filed with letter of 20 April 2026, each of the auxiliary requests 1' to 6' immediately following the corresponding auxiliary request 1 to 6.

VIII. The further text on file is:

description pages
1 to 24 as published;

drawing sheets
1 to 6 as published.

IX. Claim 1 of the main request reads as follows:

"A method (300) of operating a power machine (200) with a display (286), the method comprising:
initiating (310) an initialization process for the display (286), the initialization process including a startup process (312) for the display (286), during which the display (286) is configured to not receive user input for control of the power machine (200);

automatically placing (320) the power machine (200) in a startup mode during the initialization process;

providing (330) limited access to power machine functionality according to permissions (332) of the startup mode; and

after the initialization process is completed, requesting (352) a passcode to allow access to additional power machine functionality."

X. Claim 1 of auxiliary request 1 differs from that of the main request in that the passcode is "to be entered in the display (286)".

XI. Claim 1 of auxiliary request 2 differs from that of the main request in that the wording "not configured to receive" substitutes the wording "configured to not receive".

XII. Claim 1 of auxiliary request 3 differs from that of auxiliary request 2 in that "the permissions (332) of the startup mode do not permit any hydraulic operations (336)".

XIII. Claim 1 of auxiliary request 4 differs from that of auxiliary request 3 in that "the permissions (332) of the startup mode include operation (334) of a power source (222) of the power machine (200)".

XIV. Claim 1 of auxiliary request 5 differs from that of auxiliary request 4 in that the provision of limited access to power machine functionality is "for one or more systems that are available for operation even before the initialization process for the display (286) is completed".

XV. Claim 1 of auxiliary request 6 differs from that of auxiliary request 5 in that "the startup mode operates as a temporary security bypass mode during the initialization process for the display (286)".

XVI. Claim 1 of auxiliary request 1' is identical to that of auxiliary request 1.

XVII. Claim 1 of auxiliary requests 2' to 6' differs from that of respectively auxiliary requests 2 to 6 in that the passcode is "to be entered in the display (286)".

XVIII. The wording of the other claims of the main and the auxiliary requests are not relevant for the present decision.

XIX. At the end of the oral proceedings, the chairman announced the board's decision.

Reasons for the Decision

1. *The application*

The application relates to a method of operating a power machine (claim 1), to an operating system for a power machine (claim 5), and to a power machine (claim 11). Examples of power machines are loaders, excavators, utility vehicles, tractors, and trenchers (description, par. [0001]).

The application aims to deal with the problem of a delay in system start-up due to the requirement of

providing a code to unlock functionality of the power machine (pars [0001] and [0002] of the description).

The claimed subject-matter solves this by providing limited functionality access during the start-up mode in accordance with certain permissions (claims 1 and 11) or selectively (claim 5), followed in claim 1, but not in claims 5 and 11, by requesting a passcode to allow access to additional functionality.

2. *Added subject-matter; Article 123(2) EPC*

2.1 According to the appealed decision (point 10), claim 1 of the main request contains added subject-matter (Article 123(2) EPC), since the added feature "configured to not receive user input" is not disclosed in the application as originally filed, the expression not having the same meaning as "not configured to receive user input" in original claim 5, which the applicant declared to form the basis for this amendment.

2.2 In its preliminary opinion of 30 January 2023, the board expressed the view that the issue would rather be one of clarity (Article 84 EPC) than added subject-matter (Article 123(2) EPC). The issue was, however, left undecided at the oral proceedings before the board.

For the purpose of assessing the presence of an inventive step, the expression "configured to not receive user input" was taken to mean the same as "not configured to receive user input". It was interpreted so that it could mean either that measures are taken expressly to prevent such input, or user input is

simply not yet possible due to the display being initialised.

3. *Clarity (Article 84 EPC) and interpretation of claims*

In its preliminary opinion of 30 January 2023 (point 5.), the board had raised a number of clarity issues. These were left open at the oral proceedings.

In particular, the objections relating to the differences between the independent claims were not decided upon. The differences between the "initialization process", the "startup process" and the "startup mode" in the method according to claim 1 were glossed over, but the method according to claim 1 was interpreted in accordance with the appellant's understanding as specifying an initial phase during which no input to the display is possible where it normally is. It was also assumed that no input at all is possible during that initial phase, not only input "for control of the power machine", which also means that the distinction, if any, between functionality relating to "control of the power machine" and "power machine functionality" did not have to be defined.

As regards the "power machine functionality", the board noted that the description in par. [0031] contained a pertinent definition. To the appellant's benefit, the board took this definition into account in its analysis of inventive step (see especially point 8.3 below), but did not have to decide whether this was required by way of claim interpretation according to G 1/24.

4. *Main request - inventive step; Article 56 EPC*

4.1 As far as claim 1 of the main request is concerned, the closest prior art is given by methods for operating a power machine with a display. One such method is disclosed in D1.

4.2 D1 discloses a method for operating a power machine with a display (see abstract).

The method comprises initiating an initialisation process for the display, the initialisation process including a start-up process for the display.

The wording in D1, column 7, lines 33 to 36 ("As soon as system 70 is powered up [...], the screen [...] is displayed") may give the impression that the powering up and the display of the screen happen instantaneously. However, in practice the system software would need time to start, to generate from code or from memory the text which first needs to be displayed on the screen, and to translate this text into pixels which appear on the screen. Other processes may also take place during this powering up phase, e.g. an automatic upgrade of the system software.

During this initial phase, i.e. before the system is fully powered up and a screen is displayed, the display in D1 is necessarily not (yet) configured to receive (or phrased differently: configured not to receive) user input for control of the power machine.

4.3 After the initialisation process is completed, the method of D1 requests a passcode to allow access to some power machine functionality which is under

password control; see D1, column 7, lines 34 to 37 and column 11, lines 12 to 14.

4.4 D1 does not unambiguously disclose a "start-up mode" during the initialisation process, with limited access to power machine functionality according to permissions of the start-up mode.

4.5 According to the appellant (statement of grounds of appeal, page 8, last paragraph), these features lead to a more flexible control of the power machine: limited access to functionality of the power machine is possible even before the display is fully initialised.

The board accepts that the problem to be solved in view of the disclosure of D1 may be formulated in such manner.

4.6 The board is of the opinion that the skilled person will want to solve this problem, not simply because it renders the power machine available for some control even before the display has been initialised, thus improving its usability, but also because it may be imperative or desirable to carry out certain functions even before the display is initialised.

The initialisation process may for instance not complete or be very slow to complete, and it may be necessary to carry out certain operations beforehand, e.g. turning on the orange flashing light or other lights on the machine.

Or the operator of the machine may wish to perform some simple operations that do not need to be controlled via

the display, such as heating up the engine or switching on the radio.

4.7 The board holds that, for this reason, the skilled person will consider to render some functionality of the power machine available even before the initialisation process of the display has completed, or even if no control at all is possible (yet) via the display.

The set of functions which are accessible in this manner, e.g. using physical controls such as buttons and levers, would be part of the design of the power machine. This design may also leave room for some choices regarding which functions are available (and possibly to whom) to be made manually by some administrator or automatically according to certain criteria. In any case, regardless of whether said available functions are immutable or subject to choice, the fact that, at a given moment, a selection of functions is available means that some "permissions" of the start-up mode would at least implicitly exist by design or by choice.

4.8 The board does not agree with the appellant's submission, made during the oral proceedings before the board, that a skilled person who wishes certain functions to be available earlier would limit themselves to implement measures, such as disclosed in document D2, to speed up the boot process of the display. The board considers the provision of physical controls, such as buttons and levers, with which the person skilled in the area of power machines such as a loader or an excavator is bound to be familiar, also to be a straightforward solution - arguably even more

straightforward than an optimisation of the software which controls the display.

4.9 The skilled person would, therefore, arrive at the subject-matter of claim 1 of the main request without the need for an inventive step.

4.10 The board consequently concludes that the main request does not satisfy the requirements of Article 56 EPC.

5. *Auxiliary request 1*

Claim 1 of auxiliary request 1 differs from that of the main request in that the passcode is "to be entered in the display (286)". This feature is disclosed in D1 (column 7, lines 34 to 37). Auxiliary request 1, therefore, does not satisfy the requirements of Article 56 EPC.

6. *Auxiliary request 2*

Claim 1 of auxiliary request 2 differs from that of the main request in that the wording "not configured to receive" substitutes the wording "configured to not receive". The board takes both to have the same meaning in the context of its inventive step analysis (see 2.2 above). Auxiliary request 2, therefore, does not satisfy the requirements of Article 56 EPC.

7. *Auxiliary request 3*

7.1 Claim 1 of auxiliary request 3 differs from that of auxiliary request 2 in that "the permissions (332) of the startup mode do not permit any hydraulic operations (336)".

7.2 The operations on the power machine in D1 include hydraulic operations (see abstract). Such operations are part of the standard operations of the power machine that normally would be controlled via the display (see figure 5A). There is *a priori* no reason why the skilled person would select hydraulic operations as part of operations that must be available before the display is fully initialised (see point 4.6 above).

The skilled person would, therefore, normally not include hydraulic operations in the selected "permissions" for the start-up mode. An explicit decision to exclude hydraulic operations would, in the board's judgment, at any rate not be taken by the skilled person implementing a method to operate a power machine but by the person giving such task to the skilled person, as part of the design specifications which cannot be taken into account when assessing the presence of an inventive step.

Even if, as submitted by the appellant during the oral proceedings before the board, the decision to exclude hydraulic operations were based on security considerations, such decision would still not be taken by the skilled person but by the person giving them the task of implementing the method. The latter person would base their decision for instance on existing security protocols or on liability considerations.

The board additionally notes in this regard that if only hydraulic operations are excluded and not other operations that are equally security-relevant, e.g. moving the power machine, the intended goal of increased security would not be achieved. The sole exclusion of hydraulic operations, therefore, is to be

considered an arbitrary limitation that, in itself, does not solve any specific technical problem.

7.3 The board consequently holds that auxiliary request 3 does not satisfy the requirements of Article 56 EPC.

8. *Auxiliary request 4*

8.1 Claim 1 of auxiliary request 4 differs from that of auxiliary request 3 in that "the permissions (332) of the startup mode include operation (334) of a power source (222) of the power machine (200)".

8.2 The board considers that, as part of some operations such as heating the engine, the operation of a power source would be required. The skilled person would, therefore, consider including operation of a power source of the power machine in the selected "permissions" for the start-up mode.

8.3 The appellant argued that the definition of "power machine functionality" given in par. [0031] of the description would exclude a mere provision of power. According to the board, however, the skilled person would interpret the wording "access to power from a power source" in that paragraph as including also a provision of power. The wording "and so on" in the first sentence of par. [0031], furthermore, indicates that a very broad meaning of the definition was indeed intended.

8.4 The board consequently holds that auxiliary request 4 does not satisfy the requirements of Article 56 EPC.

9. *Auxiliary request 5*

9.1 Claim 1 of auxiliary request 5 differs from that of auxiliary request 4 in that the provision of limited access to power machine functionality is "for one or more systems that are available for operation even before the initialization process for the display (286) is completed".

9.2 According to the board, it goes without saying that any access to power machine functionality would only make sense for systems that are available for operation. This change, therefore, does not affect the board's reasoning on inventive step.

9.3 The board consequently holds that auxiliary request 5 does not satisfy the requirements of Article 56 EPC.

10. *Auxiliary request 6*

10.1 Claim 1 of auxiliary request 6 differs from that of auxiliary request 5 in that "the startup mode operates as a temporary security bypass mode during the initialization process for the display (286)".

10.2 According to the board, a selection of certain operations that may be carried out before the display is initialised (see point 4.7 above) in itself already constitutes a form of "security bypass". This change, therefore, does not affect the board's inventive step reasoning.

10.3 The board consequently holds that auxiliary request 6 does not satisfy the requirements of Article 56 EPC.

11. *Auxiliary request 1'*

Claim 1 of auxiliary request 1' is identical to that of auxiliary request 1.

12. *Auxiliary requests 2' to 6'*

Claim 1 of auxiliary requests 2' to 6' differs from that of respectively auxiliary requests 2 to 6 in that the passcode is "to be entered in the display (286)", i.e. the same amendment as introduced in claim 1 of auxiliary request 1, the feature being disclosed in D1 (column 7, lines 34 to 37). Auxiliary requests 2' to 6', therefore, do not satisfy the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

L. Stridde M. Müller

Decision electronically authenticated