Datasheet for the decision
of 27 June 2013

Case Number: T 1862/09 - 3.5.02
Application Number: 03729345.3
Publication Number: 1470617
IPC: H01R 3/00, B62J 39/00, B62J 9/00
Language of the proceedings: EN

Title of invention: Vehicle accessory power connector

Applicant: Swiatek, John A. Cowles, Ronald D.

Headword: -

Relevant legal provisions:
RPBA Art. 13(3)
EPC Art. 56

Keyword:
"Late-filed requests not admitted"
"Inventive step - main and third auxiliary requests (no)"

Decisions cited: -

Catchword: see points 3. and 4. of the reasons
Case Number: T 1862/09 - 3.5.02

DECISION of the Technical Board of Appeal 3.5.02 of 27 June 2013

Appellant: Swiatek, John A.  
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Decision under appeal: Decision of the Examining Division of the European Patent Office posted 23 March 2009 refusing European patent application No. 03729345.3 pursuant to Article 97(2) EPC.

Composition of the Board:  
Chairman: M. Ruggiu  
Members: M. Léouffre  
P. Mühlens
Summary of Facts and Submissions

I. The applicants lodged an appeal, received on 2 June 2009, against the decision of the examining division, posted on 23 March 2009, on the refusal of the European patent application No. 03 729 345.3.

II. The examining division held that the set of claims, then on file, did not meet the requirements of Articles 52(1) and 56 EPC in the light of document D1 = US 4 261 634 A.

III. With the statement setting out the grounds of appeal, received on 31 July 2009, the appellants requested that the contested decision be set aside and that a patent be granted on the basis of the request filed on 12 January 2009, on which the decision under appeal was based.

IV. In a communication attached to the summons to oral proceedings, dated 20 March 2013, the board expressed its preliminary opinion that claim 1 might infringe the requirements of Article 123(2) EPC and that the subject-matter of claim 1 could lack an inventive step having regard to documents:
   D2 = DE 3 201 325 A; or
   D6 = US 5 001 779 A.

V. With letter dated 27 Mai 2013 the appellants maintained their main request and filed three auxiliary requests. On 24 June 2013 the appellants informed the board that they would not attend the oral proceedings scheduled for 27 June 2013.
VI. Oral proceedings took place as scheduled in the absence of the appellants. The appellants had requested in writing that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 9 of the request filed with letter dated 12 January 2009 (main request) or on the basis of one of the first, second or third auxiliary requests filed with letter dated 27 May 2013.

VII. Main request

Claim 1 of the main request reads as follows:

"A motorcycle accessory power connector for simply and safely accessing a motorcycle electrical power system on a motorcycle including a horn mounting bracket, a steering bar and a pair of passenger foot peg rests, wherein said connector provides a convenient means to utilize the electrical system of the motorcycle to power accessories requiring electrical power such as cell phones, battery chargers, audio systems, and a variety of other plug-in accessories without having to partially or wholly disassemble the motorcycle in order to access the motorcycle electrical power system, comprising:

    at least one low voltage power socket (50 or 60) for receiving a plug-in jack (40) from an accessory, said power socket (50 or 60) being selected from the group consisting of automotive cigarette sockets, standard DIN 4165 connectors and cable mounted type two-pin SAE connectors;

    at least one electrical connector (90, 92) with electrical terminals to access and connect the electrical power supply without having to partially or
wholly disassemble the motorcycle each time in order to access the power supply for the plug-in accessories;

at least one wire (20) for providing electrical communication between the power socket and the electrical connector, said wire having an amperage requirement greater than about 0.0 amps and up to about 24.0 amps; and

characterised in that the connector further comprises a bracket (175) for securing the motorcycle accessory power connector to the motorcycle whereby access to the electrical system of the motorcycle is easily and safely accessible, and

said bracket (175) being adapted to be mounted in direct contact to the horn mounting bracket (182) to receive and secure the at least one low voltage power socket to the motorcycle for easy access of plugging in a jack from an accessory allowing for easy connection of accessories while the driver is operating the motorcycle."

Claims 2 to 9 are dependent on claim 1.

VIII. First auxiliary request

Claim 1 of the first auxiliary request reads as follows:

"A motorcycle accessory power connector for simply and safely accessing a motorcycle electrical power system on a motorcycle including a horn mounting bracket (184) and a horn mounting stud (180) and a nut (188) installed over the horn mounting stud (180), wherein said connector provides a convenient means to utilize the electrical system of the motorcycle to
power accessories requiring electrical power such as cell phones, battery chargers, audio systems, and a variety of other plug-in accessories without having to partially or wholly disassemble the motorcycle in order to access the motorcycle electrical power system, comprising:

at least one low voltage power socket (50 or 60) for receiving a plug-in jack (40) from an accessory, said power socket (50 or 60) being selected from the group consisting of automotive cigarette sockets, standard DIN 4165 connectors and cable mounted type two-pin SAE connectors;

at least one electrical connector (90, 92) with electrical terminals to access and connect the electrical power supply without having to partially or wholly disassemble the motorcycle each time in order to access the power supply for the plug-in accessories;

at least one wire (20) for providing electrical communication between the power socket and the electrical connector, said wire (20) having an amperage requirement greater than about 0.0 amps and up to about 24.0 amps; and

characterised in that the connector further comprises a bracket (175) for securing the motorcycle accessory power connector to the horn mounting bracket (184) of the motorcycle whereby access to the electrical system of the motorcycle is easily and safely accessible;

said bracket (175) having an elliptical shape being tapered from a first end to a second end;

said bracket (175) defining a first hole (172) disposed adjacent said first end for receiving said power socket (50 or 60); and
said bracket (175) defining a second hole (178) disposed adjacent said second end for receiving the horn mounting stud (180) to dispose said bracket (175) being adapted to be mounted in direct contact with the horn mounting bracket (182) and allow the nut (188) to be installed over the horn mounting stud (180) to receive and secure said bracket (175) and said at least one low voltage power socket to the motorcycle for easy access of plugging in a jack from an accessory allowing for easy connection of accessories while the driver is operating the motorcycle."

Claims 2 to 7 are dependent on claim 1.

Claim 8 of the first auxiliary request reads:

"A motorcycle accessory power connector for simply and safely accessing a motorcycle electrical power system on a motorcycle including an engine mount (190) and a passenger side foot peg rest (145), wherein said connector provides a convenient means to utilize the electrical system of the motorcycle to power accessories requiring electrical power such as cell phones, battery chargers, audio systems, and a variety of other plug-in accessories without having to partially or wholly disassemble the motorcycle in order to access the motorcycle electrical power system, comprising:

at least one low voltage power socket (50 or 60) for receiving a plug-in jack (40) from an accessory, said power socket (50 or 60) being selected from the group consisting of automotive cigarette sockets, standard DIN 4165 connectors and cable mounted type two-pin SAE connectors;
at least one electrical connector (90, 92) with electrical terminals to access and connect the electrical power supply without having to partially or wholly disassemble the motorcycle each time in order to access the power supply for the plug-in accessories;

at least one wire (20) for providing electrical communication between the power socket and the electrical connector, said wire (20) having an amperage requirement greater than about 0.0 amps and up to about 24.0 amps; and

classified in that the connector further comprises a mounting bracket (142) for securing the motorcycle accessory power connector to the engine mount (190) or the passenger side foot peg rest (145) of the motorcycle whereby access to the electrical system of the motorcycle is easily and safely accessible;

said mounting bracket (142) being L-shaped and extending from a first end to a second end;

said mounting bracket (142) defining a first hole disposed adjacent said first end for receiving said power socket (50 or 60); and

said mounting bracket (142) defining a second hole (178) disposed adjacent said second end for receiving a bolt (152 or 192) to dispose said mounting bracket (142) in direct contact with the engine mount (190) or the passenger side foot peg rest (145) and allow the bolt (152 or 192) to secure said mounting bracket (142) and said at least one low voltage power socket (50 or 60) to the motorcycle for easy access of plugging in a jack from an accessory allowing for easy connection of accessories while the driver is operating the motorcycle."
Claim 9 of the first auxiliary request reads:

"A motorcycle tank bag (240) for carrying and electrically connecting vehicle accessories with plug-in jacks, comprising:

a tank bag (240) including a compartment for holding vehicle accessories and other articles;

the tank bag (240) adapted for securing the tank bag (240) to gasoline tank of a motorcycle;

a power outlet flange (245) secured to the tank bag (240) by a backing plate (275), said power outlet flange (245) being adapted to receive and secure at least one power output connector in a location on the tank bag (210) for easy access of plugging in a jack from a vehicle accessory;

at least one power input connector located within the compartment of the tank bag, said connector being selected from the group consisting of a SAE two-pin connector (10), a cigarette lighter socket (50), a DIN 4165 connector (40 or 60), or combinations thereof;

a wiring harness (20) connected to the power input connector;

at least one battery terminal connector (25) for electrically connecting a vehicle battery to the tank bag (240) and the power input connector contained therein; and

at least one power output connector for receiving the plug-in jacks of the desired vehicle accessories, said power output connector being selected from the group consisting of cigarette lighter sockets, DIN 4165 sockets, audio input sockets, and two pin SAE connectors;

such that the tank bag (240) can be secured to the vehicle, and electrical connections may be made through
the tank bag (240) to various vehicle accessories without having to disassemble any or all of the vehicle to get to its battery to power the accessory."

Claims 10 to 12 are dependent on claims 9.

IX. Second auxiliary request

The second auxiliary request is limited to claims 1 to 8 of the first auxiliary request.

X. Third auxiliary request

The third auxiliary request is limited to claims 1 to 7 of the first auxiliary request.

XI. The appellants essentially argued that:

the aim of the invention according to the main request was to provide a power connector having a bracket adapted to be mounted to the horn mounting bracket of a motorcycle. The securing of a power connector on the horn mounting bracket was inventive, as it did not require any modification of the motorcycle, and allowed easy connection of the accessories while the driver was operating the motorcycle.

Starting from D1 which related to other kinds of vehicles, namely automobiles and boats, having structures and compactness different from the structure and compactness of a motorcycle, the man skilled in the art would not have been led to find a position for the bracket that allowed, without modifying the motorcycle, easy connection of the accessories while the driver was operating the motorcycle.
The invention specified in claim 1 was commercially successful all over the world.

The bracket of the embodiment on which claim 1 of the main request was based, was disclosed as an "elliptical mounting bracket". However the related passage of the description (page 13, line 18 to page 14, line 9) did not contain any statement that the feature according to which the mounting bracket was elliptical was essential.

Nevertheless, in reaction to the preliminary opinion of the board indicating that claim 1 of the main request might contravene Article 123(2) EPC, auxiliary requests were filed wherein the bracket was specified as elliptical in claim 1.

The first and second auxiliary requests comprised a plurality of independent claims (claims 1, 8 and 9) which fell within the exception of paragraph (c) of Rule 29(2) EPC 1973 as they were directed to alternative solutions to the same problem of allowing easy and safe access to a motorcycle electrical power system even though the driver would be operating the motorcycle.

Claims 1, 8 and 9 were not obviously derivable from the available prior art.
Claims 1 and 8 (first and second auxiliary requests) focussed on the specific structure of the power connector mounting bracket. None of the cited documents disclosed a mounting bracket. Claims 1 and 8 were therefore new and involved an inventive step (Article 56 EPC).
The subject-matter of claim 9 of the first auxiliary request, which was directed to a motorcycle tank bag, differed from documents D2 and D6 by the specific features of a power outlet flange and a backing plate. Claim 9 was therefore not obvious in light of documents D2 and D6.

Finally, claims 9 to 12 of the first auxiliary request, which corresponded to originally filed claims 9 to 12, were covered by the European search report. Hence claims 9 to 12 complied with Rule 137(5) EPC.

Second and third auxiliary requests were filed as precautionary measures in case an objection according to Rule 29(2) EPC 1973 would be raised.

**Reasons for the decision**

1. The appeal is admissible.

2. Main request

2.1 A problem with the known "Battery tender" power connector for motorcycle is that if not in use, it flaps in the wind (cf. published application WO 03/058763 A2 at page 2, lines 27 to 33). Hence solutions have been sought to fix the power connector.

A possible solution is to provide the power connector inside a tank bag as proposed in D2, which discloses a motorcycle including a horn (implicit), a steering bar, a pair of passenger foot peg rests and a tank bag comprising power connectors (cf. page 4, paragraph 3).
for safe and easy access to the motorcycle electrical power system while the driver is operating the motorcycle (cf. page 3, paragraph 3). Access to the motorcycle electrical power system is possible without having to partially or wholly disassemble the motorcycle in order to access the motorcycle electrical power system (cf. page 3, last sentence of paragraph 3). The power connector in the tank bag may provide a convenient means to utilize the electrical system of the motorcycle to power accessories requiring electrical power such as radios, electronic instruments and audio systems (cf. page 4).

It comprises implicitly
- at least one electrical connector with electrical terminals to access and connect the electrical power supply,
- at least one wire for providing electrical communication between the power socket and the electrical connector, the wire having necessarily an amperage requirement greater than about 0.0 amps and up to the nominal current output of the battery of the motorcycle, which may be in the range of 24.0 amps, and
- at least one low voltage power socket for receiving a plug from the accessory.

Without exercising any inventive activity, a person skilled in the art would select the socket from the group consisting of cigarette sockets, standard DIN 4165 connectors and cable mounted type two-pin SAE connectors, since these are standard sockets for automotive vehicles.
2.2 The subject-matter of claim 1 differs further from D2 in that the connector comprises a bracket (175) adapted to be mounted in direct contact to a horn mounting bracket (182) to receive and secure the at least one low voltage power socket to the motorcycle for easy access of plugging in a jack from an accessory allowing for easy connection of accessories while the driver is operating the motorcycle.

2.3 Actually small accessories, like small portable phones, or heater vests do not need to be placed in a tank bag. Theses accessories need solely a power supply (cf. description of the application page 3, lines 2 to 6) in form of a power connector with a socket accessible to the driver.

2.4 The socket should however not flap in the wind (cf. problem mentioned at item 2.1) when not in use and should remain accessible without having to partially or wholly disassemble the motorcycle each time the accessory needs to be plugged-in. Hence the socket should be fixedly mounted to the motorcycle at an appropriate accessible place.

2.5 Different solutions are used on existing motorcycles to mount and support accessories, among which snap-in clips or mounting brackets (cf. sentence bridging description pages 13 and 14 of the application). If the horn is at an appropriate position, accessible to the driver when operating the motorcycle, which is apparently the case on an Harley Davidson motorcycle, the horn position is one of a plurality of positions a person of ordinary skill could choose to mount the socket without exercising inventive skill.
The horn of an Harley Davidson is mounted on a bracket. It would therefore be obvious for a person of ordinary skill to apply the same mounting solution to the socket. For economical reasons the person of ordinary skill would also use the stud 180 used to fix the horn mounting bracket to fix simultaneously the bracket used for the socket.

He would arrive thereby at the solution of claim 1 in an obvious manner. The board is not convinced that the commercial success of the subject-matter of claim 1 necessarily signals that this subject-matter was not obvious. Indeed commercial success could derive from the fact that the inventors might be the only ones offering an appealing solution for mounting a socket on an Harley Davidson. Hence claim 1 of the main request does not involve an inventive step in the sense of Article 56 EPC.

3. Admissibility of the appellants' first and second auxiliary requests filed after oral proceedings were arranged.

The first and second auxiliary requests comprise independent claims which are directed to a motorcycle power connector mounted to an engine mount or a passenger side foot peg rest (claim 8) and a motorcycle tank bag (claims 9 to 12).

Securing a power connector to the engine mount or to the passenger side foot peg rest of the motorbike was never claimed before. Neither was a tank bag having a power outlet flange (245), and a backing plate (275) contrary to what the applicant assumed.

Claims 8 to 12 of the first auxiliary request and claim 8 of the second auxiliary request thus constitute
an unexpected development of the case and raise issues which the board cannot reasonably be expected to deal with without adjournment of the oral proceedings (cf. RPBA Article 13(3)).

The first and second auxiliary requests are therefore not admitted into the proceedings.

4. **Admissibility of the appellants' third auxiliary requests filed after oral proceedings were arranged.**

Claim 1 of the main request recites "said bracket (175) being adapted to be mounted in direct contact to the horn mounting bracket (182)". This feature was based on an embodiment of the description using an "elliptical mounting bracket" suitable to be mounted in direct contact with the horn of an Harley Davidson (cf. description of the published international application at page 13, paragraph 3 and the paragraph bridging pages 13 and 14 and figures 10A and 10B).

In its communication, the board expressed doubts about claim 1 of the main request fulfilling the requirements following from Article 123(2) EPC because the specific characteristics of the bracket and the horn, namely the elliptical bracket and the horn of an Harley Davidson had not been incorporated in claim 1 of the main request.

In the third auxiliary request the appellants aim at remedying to the potential objection according to Article 123(2) EPC and specify the bracket as "having an elliptical shape being tapered from a first end to a second end". The board has therefore decided to admit the third auxiliary request is into the proceedings (cf. Case Law of the Boards of Appeal of the European
5. **Article 56 EPC (Third auxiliary request)**

Claim 1 of the third auxiliary request is based on claim 1 of the main request and specifies further:

"said bracket (175) having an elliptical shape being tapered from a first end to a second end;  
said bracket (175) defining a first hole (172) disposed adjacent said first end for receiving said power socket (50 or 60); and  
said bracket (175) defining a second hole (178) disposed adjacent said second end for receiving the horn mounting stud (180) to dispose said bracket (175) and  
(to) allow the nut (188) to be installed over the horn mounting stud (180) to receive and secure said bracket (175) and said at least one low voltage power socket to the motorcycle".

A person of ordinary skill having recognised the horn as being a suitable position for a connector, would obviously think of mounting the socket onto the motorcycle with mounting means similar to the horn mounting means. He would therefore use a similar bracket. For economical reason he would make use of the stud and the nut already used for fixing the horn mounting bracket. Hence he would provide the bracket with a first hole for the stud, and use the nut to secure both brackets simultaneously. The bracket being a generally flat element and the cable connector or socket having a general cylindrical form, it appears
obvious to provide the bracket with a second hole having a diameter adapted to the socket. Finally, in order to avoid injuries to persons coming into contact with the bracket and the socket when plugging in a jack, a person of ordinary skill would suppress the sharp edges or angles of the bracket. He would therefore choose a rounded shape. An elliptical shape tapered from one end to the second end is a design having such rounded shape, which allows saving material, and in which no inventive step shall be seen. The subject-matter of claim 1 of the third auxiliary request is therefore obvious to a skilled person in the sense of Article 56 EPC. The third auxiliary request is therefore also not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: A. Counillon

The Chairman: M. Ruggiu

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