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(54) Title: DISPLAY SYSTEMS AND METHODS FOR VEHICLE

(57) Abstract: The present application discloses systems and methods to present information to recreational vehicle riders and to provide customizable visual information to recreational vehicle riders. The present application further discloses systems and methods to connect and transmit audio information between a driver portable communication device and a driver audio interface device through the recreational vehicle and audio information between a passenger portable communication device and a passenger audio interface device.

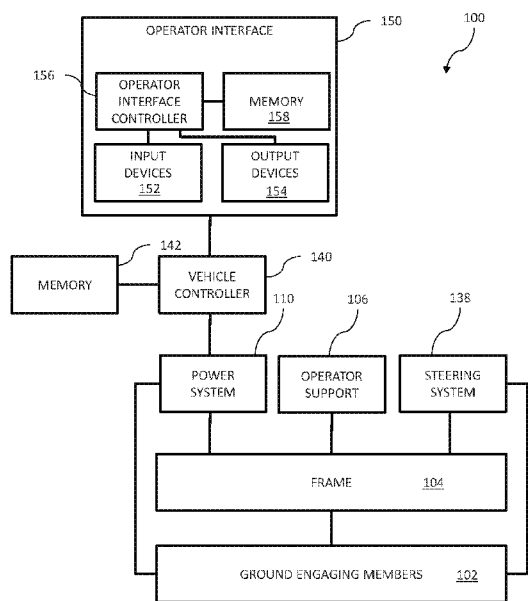


FIG. 1



MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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04 January 2018 (04.01.2018)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2017/033918

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-33

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

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| International application No PCT/US2017/033918 |
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|---|--|-----------------------|--|--|
| A. CLASSIFICATION OF SUBJECT MATTER INV. G09G1/00 G09G5/00 ADD. | | | | |
| According to International Patent Classification (IPC) or to both national classification and IPC | | | | |
| B. FIELDS SEARCHED | | | | |
| Minimum documentation searched (classification system followed by classification symbols) B60K B60W G09G B60Q | | | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched | | | | |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, WPI Data | | | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | | | |
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. | | |
| X | US 2013/293364 A1 (RICCI CHRISTOPHER P [US] ET AL) 7 November 2013 (2013-11-07) page 1, paragraph 5 - page 5, paragraph 42; claims; figures ----- | 1-33 | | |
| Y | EP 2 873 546 A1 (YAMAHA MOTOR CO LTD [JP]) 20 May 2015 (2015-05-20) page 1, paragraph 3 - page 5, paragraph 14; claims; figures ----- | 1-33 | | |
| Y | US 2016/004418 A1 (LEE JIA [KR] ET AL) 7 January 2016 (2016-01-07) page 1, paragraph 3 - page 2, paragraph 50; claims; figures ----- | 1-33 | | |
| Y | US 2011/196578 A1 (STROHMAIER JASON M [US] ET AL) 11 August 2011 (2011-08-11) the whole document ----- | 1-33 | | |
| <input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex. | | | | |
| * Special categories of cited documents : <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed </td> <td style="width: 50%; border: none; vertical-align: top;"> "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family </td> </tr> </table> | | | "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family |
| "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family | | | |
| Date of the actual completion of the international search | Date of mailing of the international search report | | | |
| 13 September 2017 | 05/12/2017 | | | |
| Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016 | Authorized officer Damjanovic, Zarko | | | |

INTERNATIONAL SEARCH REPORT

Information on patent family members

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|---|
| International application No PCT/US2017/033918 |
|---|

| Patent document cited in search report | A1 | Publication date | Patent family member(s) | Publication date |
|--|----|------------------|-------------------------|------------------|
| US 2013293364 | A1 | 07-11-2013 | NONE | |
| | | | | |
| EP 2873546 | A1 | 20-05-2015 | EP 2873546 A1 | 20-05-2015 |
| | | | JP 2015085850 A | 07-05-2015 |
| | | | | |
| US 2016004418 | A1 | 07-01-2016 | KR 101575648 B1 | 08-12-2015 |
| | | | US 2016004418 A1 | 07-01-2016 |
| | | | | |
| US 2011196578 | A1 | 11-08-2011 | CA 2774051 A1 | 11-08-2011 |
| | | | CN 102742265 A | 17-10-2012 |
| | | | EP 2471261 A1 | 04-07-2012 |
| | | | JP 5527749 B2 | 25-06-2014 |
| | | | JP 2013518768 A | 23-05-2013 |
| | | | US 2011196578 A1 | 11-08-2011 |
| | | | WO 2011097076 A1 | 11-08-2011 |
| | | | | |

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-33

A recreational vehicle for operation by an operator, comprising a plurality of ground engaging members; a frame supported by the plurality of ground engaging members; a prime mover supported by the frame and operatively coupled to at least one of the plurality of ground engaging members to power movement of the recreational vehicle; a steering system supported by the frame and operatively coupled to at least a portion of the plurality of ground engaging members to move the portion of the plurality of ground engaging members relative to the frame, the steering system including a steering member adapted to be grasped by the operator of the recreational vehicle, the steering member being movable relative to the frame characterized in that a user interface system supported by the frame, the user interface system including a display, the display being configurable to display a first screen layout, the first screen layout including at least a first region having a first region layout selected from at least one pre-defined groups of region layouts and a second region having a second region layout selected from the at least one predefined groups of region layouts.

2. claims: 34-37

A recreational vehicle for use by a driver and at least a first passenger, the driver having a driver portable communication device and a driver audio interface device having a microphone and a speaker, the first passenger having a first passenger portable communication device and a first passenger audio interface device having a microphone and a speaker, the recreational vehicle comprising a plurality of ground engaging members; a frame supported by the plurality of ground engaging members; a prime mover supported by the frame and operatively coupled to at least one of the plurality of ground engaging members to power movement of the recreational vehicle; a steering system supported by the frame and operatively coupled to at least a portion of the plurality of ground engaging members to move the portion of the plurality of ground engaging members relative to the frame, the steering system including a steering member adapted to be grasped by the operator of the recreational vehicle, the steering member being movable relative to the frame; and at least one controller supported by the frame, characterized in that the at least one controller being adapted to be operatively coupled to the driver portable communication device, the driver audio interface device, the passenger portable communication device, and the passenger audio interface device, the at least one controller being configured to communicate audio

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

information between the driver portable communication device and the driver audio interface device through the at least one controller and to communicate audio information between the passenger portable communication device and the passenger audio interface device through the at least one controller.
