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[Continued on next page]

(54) Title: ELECTRIC POWER ASSIST MODULE FOR STEERING SYSTEM

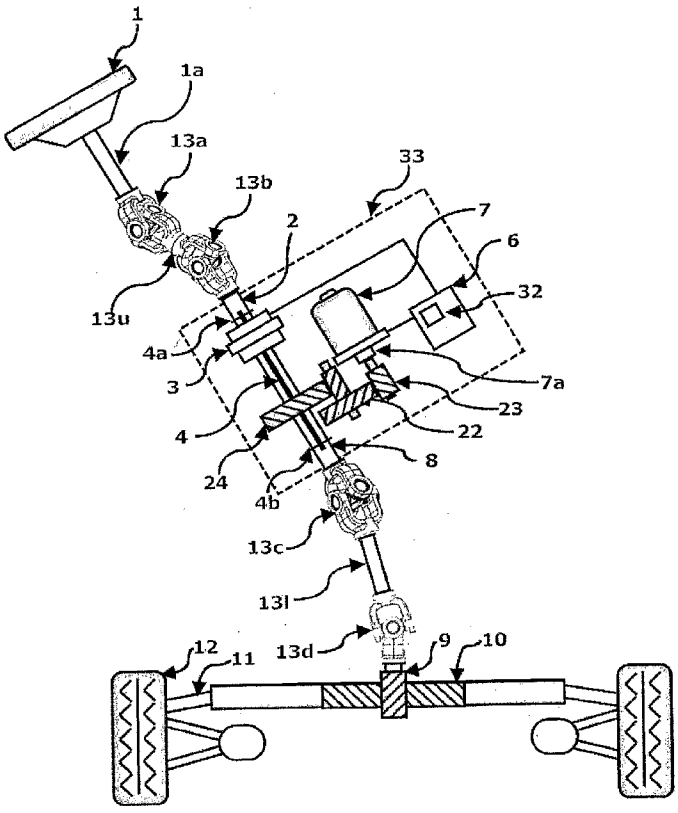


FIG. 3

(57) Abstract: The present invention provides an electric power assist module for a steering system comprising an electric power assist module having an integrated housing to accommodate the torque sensor, motor and electronic control unit (ECU), wherein a helical gear train including a pinion, an intermediate gear and steering gear are provided to transfer the motion from said motor to output steering shaft coupled to input shaft through torsion bar dowelled at one end at the output shaft and other end at the input shaft.

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PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to the identity of the inventor (Rule 4.17(i))*

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report*

(88) Date of publication of the international search report:
9 April 2009

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IN07/00377

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **B62D 5/04**(2006.01)

USPC: 180/443
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)
U.S. : 180/443, 444, 446

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)
US-PGPUB, USPAT, USOCR, EPO, JPO, DERWENT

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,029,659 (Saito) 9 July 1991 (09.07.1991)	1-2
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Y		9,10, 12
Y	US 6,227,064 (Nakamura) 8 May 2001 (08.05.2001), column 8, lines 29-31.	9
Y	US 2006/0259221 (Murty et al.) 16 November 2006, paragraph 16, lines 4-6.	10
Y	US 6,988,027 (Yuda et al.) 17 January 2006 (17.01.2006)	12

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent 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
17 June 2008 (17.06.2008)

Date of mailing of the international search report
30 JUL 2008

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IN07/00377

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.: 13
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:
Please See Continuation Sheet

3. ☒ Claims Nos.: 3-8 and 11
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:

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 additional fees, this Authority did not invite payment of any 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.:

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.

Continuation of Box II Reason 2:
Claim 13 is objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claim 13 is indefinite for the following reason(s): the claim merely refers to the figures, without claiming any structure, in violation of PCT Rule 6.2(a).