



(51) International Patent Classification:

B60Q 1/26 (2006.01) *B60R 1/12* (2006.01)
B60Q 3/258 (2017.01)

(21) International Application Number:

PCT/EP2018/058137

(22) International Filing Date:

29 March 2018 (29.03.2018)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2017901169 31 March 2017 (31.03.2017) AU
10 2017 130 246.8
15 December 2017 (15.12.2017) DE

(71) Applicant: **MOTHERSON INNOVATIONS COMPANY LIMITED** [GB/GB]; 35 Great St. Helen's, London EC3A 6AP (GB).

(72) Inventors: **BELCHER, Simon**; 5 Garden Street, South Plympton, South Australia 5038 (AU). **MESENTER, Jacob Heath**; 53 Craig Street, Richmond, South Australia 5033 (AU).

(74) Agent: **WEBER-BRULS, Dorothée**; Jones Day, Nexttower, Thurn-und-Taxis-Platz 6, 60313 Frankfurt am Main (DE).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR,

(54) Title: REAR VIEW ASSEMBLY FOR A MOTOR VEHICLE WITH INTERCHANGEABLE APPROACH LAMP

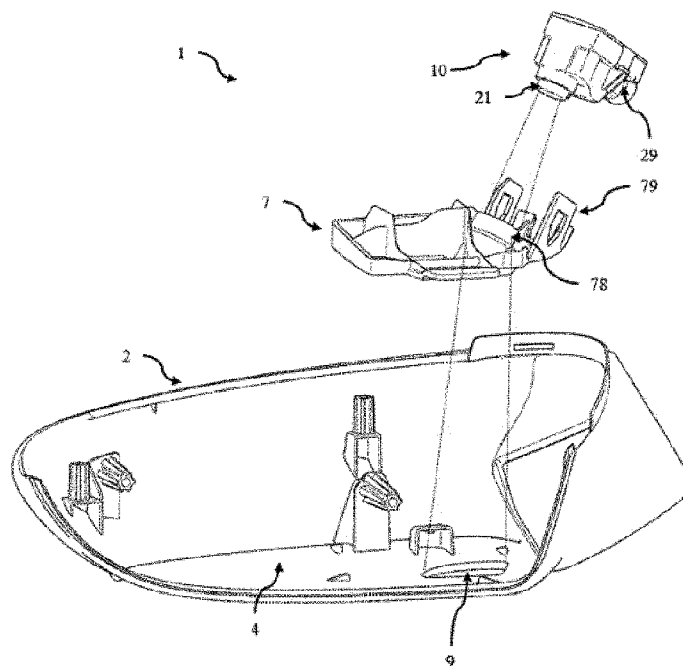


Figure 1C

(57) Abstract: The invention refers to a system for providing interchangeable approach lamps for use with an external rear view assembly (1), the system comprising: a first approach lamp module (11) comprising a first housing comprising an aperture for receiving a power cable; a first set of mounting surfaces located on the first housing (29), a first printed circuit board (26) and a first light source (24) mounted on the first printed circuit board (26), a first optical assembly (21, 23) mounted to receive light from the first light source (24) and comprising a first light exiting surface (21) projecting out of the front face of the first housing; and a second approach lamp module (12) comprising a projection assembly for projecting a logo or a mask. In use, each of the first approach lamp module (11) and the second approach lamp module (12) are mounted in the same location in the side mirror assembly (1) and project light through an external aperture (9) in the side mirror assembly (1) to allow interchanging of the approach lamp modules (11, 12). The invention also

KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, 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).

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)*)

(88) Date of publication of the international search report:

03 January 2019 (03.01.2019)

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2018/058137

A. CLASSIFICATION OF SUBJECT MATTER

INV. B60Q1/26 B60Q3/258 B60R1/12
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)

B60Q B60R

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 9 434 313 B2 (GENTEX) 6 September 2016 (2016-09-06)	1-4,6, 10,12,16
Y	column 3, line 25 - column 6, line 12	5,7-9, 11,13-15
X	----- US 2015/224919 A1 (SOBECKI JUSTIN E [US] ET AL) 13 August 2015 (2015-08-13) paragraphs [0026] - [0028]	1-4,10, 16
A	----- US 2017/066379 A1 (HERRMANN ANDREAS [DE] ET AL) 9 March 2017 (2017-03-09) paragraphs [0037] - [0059]	1-4,10, 16
Y	----- ES 2 458 428 A1 (FICO MIRRORS SA [ES]) 5 May 2014 (2014-05-05) figure 1	5
	----- -/-	



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 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

6 November 2018

Date of mailing of the international search report

26/11/2018

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

Rapp, Alexander

INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2018/058137

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002/126497 A1 (PASTRICK TODD W [US]) 12 September 2002 (2002-09-12) figure 26 -----	7
Y	WO 2016/012651 A1 (RODRIGUEZ BARROS ALEJANDRO [ES]) 28 January 2016 (2016-01-28) figures 1, 6, 11, 18 -----	8,9,11, 13-15
A	US 8 072 318 B2 (LYNAM NIAL R [US]; LINDAHL JOHN O [US]; DONNELLY CORP [US]) 6 December 2011 (2011-12-06) figures 3A, 3B -----	5

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2018/058137

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.:

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-4, 10, 16

The invention relates to a system comprising a first and second approach lamp module, each comprising mounting surfaces and the details of those mounting surfaces. The features have the technical effect of facilitating the attachment and detachment of the module thereby solving the technical problem of making replacement of such modules more efficient.

2. claims: 1, 5

The invention relates to a system comprising a first and second approach lamp module and an interfacing component, providing the technical effect of adapting the lamp module to the rear view assembly thereby solving the technical problem of facilitating mounting the lamp module to different rear view assemblies.

3. claims: 1, 6-9, 11

The invention relates to a system comprising a first and second approach lamp module, each comprising an optical assembly and the details of those assemblies. The features provide the technical effect of guiding light from the light source to the light exiting aperture thereby solving the technical problem of efficient exploitation of the light generated by the light source.

4. claims: 12-15

The invention relates to an approach lamp module comprising an adjusting device. This features provides the technical effect of allowing translational or rotational adjustment of the module thereby solving the technical problem of adapting the module to the rear view device.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2018/058137

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 9434313	B2	06-09-2016	CN 103347737 A 09-10-2013
		DE 202012013353 U1 01-07-2016	
		EP 2675659 A2 25-12-2013	
		KR 20140001114 U 20-02-2014	
		US 2012206930 A1 16-08-2012	
		WO 2012112536 A2 23-08-2012	

US 2015224919	A1	13-08-2015	NONE

US 2017066379	A1	09-03-2017	EP 3139711 A1 08-03-2017
		US 2017066379 A1 09-03-2017	

ES 2458428	A1	05-05-2014	CN 103786650 A 14-05-2014
		ES 2458428 A1 05-05-2014	

US 2002126497	A1	12-09-2002	DE 69621880 D1 25-07-2002
		DE 69621880 T2 20-02-2003	
		DE 69633803 D1 09-12-2004	
		DE 69633803 T2 10-11-2005	
		EP 0738627 A2 23-10-1996	
		EP 1172257 A2 16-01-2002	
		JP H0948284 A 18-02-1997	
		US 5497306 A 05-03-1996	
		US 5669704 A 23-09-1997	
		US 5879074 A 09-03-1999	
		US 6086229 A 11-07-2000	
		US 6296379 B1 02-10-2001	
		US 2002126497 A1 12-09-2002	
		US 2005110630 A1 26-05-2005	
		US 2008123358 A1 29-05-2008	
		US 2009251914 A1 08-10-2009	
		US 2011013410 A1 20-01-2011	
		US 2012008332 A1 12-01-2012	
		US 2012320618 A1 20-12-2012	
		US 2013207799 A1 15-08-2013	

WO 2016012651	A1	28-01-2016	ES 2561133 A1 24-02-2016
		US 2017210282 A1 27-07-2017	
		WO 2016012651 A1 28-01-2016	

US 8072318	B2	06-12-2011	AT 363413 T 15-06-2007
		AU 2002251807 A1 19-08-2002	
		DE 60220379 T2 24-01-2008	
		EP 1363810 A2 26-11-2003	
		ES 2287266 T3 16-12-2007	
		US 2002159270 A1 31-10-2002	
		US 2007109807 A1 17-05-2007	
		US 2008186724 A1 07-08-2008	
		US 2008225538 A1 18-09-2008	
		US 2010045790 A1 25-02-2010	
		US 2012086808 A1 12-04-2012	
		US 2014226009 A1 14-08-2014	
		US 2016264052 A1 15-09-2016	
		US 2017297490 A1 19-10-2017	
		WO 02062623 A2 15-08-2002	
