**Title:** Delineator with Core/Shell Construction

**Abstract:** A traffic delineator comprises a core/shell construction which can help to protect reflective sheeting in the delineator from tampering and vandalism. The delineator may include an outer shell, and an inner core that fits inside the outer shell. Further, a reflective sheet may be applied to an outer surface of the core, the sheet having one or more edges. Aperture(s) may be formed in the outer shell to provide a window region, the window region adapted to expose at least some of the reflective sheet when the inner core is positioned inside the shell. The window region may be configured to avoid exposing at least some of, and in some cases any of, the one or more edges of the sheet. In such cases, the outer shell proximate the window region may cover some, or all, of the sheet edge(s) so that such sheet edge(s) are less accessible to vandals.

Declarations under Rule 4.17:
— as to applicant’s entitlement to claim the priority of the earlier application (Rule 4.17(13))

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))

Date of publication of the international search report: 29 September 2011
INTERNATIONAL SEARCH REPORT

International application No. PCT/KS2010/060209

A. CLASSIFICATION OF SUBJECT MATTER

E01F 9/04(2006.01)i, E01F 9/015(2006.01)i, E01F 9/011(2006.01)i

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)
E01F 9/04; E01F 9/00; E01F 9/01i

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS/KIPO internal & Keywords: outer shell, inner core, first reflective, and sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>KR 20-0304311 Yi (LIM TAE KYU) 15 February 2003 See claims 1-3 and figures 1-3 .</td>
<td>1-4</td>
</tr>
<tr>
<td>A</td>
<td>JP 2002-242130 A (TAKEO GUMI KK) 28 August 2002 See claims 1-3 and figures 1-5 .</td>
<td>1-4</td>
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<tr>
<td>A</td>
<td>JP 3833020 B2 (SEKISUI JUSHI CO., LTD.) 11 October 2006 See claims 1-7 and figures 1-7.</td>
<td>1-4</td>
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</tbody>
</table>

* 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 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
"R" document member of the same patent family

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

Date of the actual completion of the international search
29 JULY 2011 (29.07.2011)

Date of mailing of the international search report
02 AUGUST 2011 (02.08.2011)

Name and mailing address of the ISA/KR
Korean Intellectual Property Office
Government Complex-Daejeon, 189 Cheongsir-ro,
Seo-gu, Daejeon 302-701, Republic of Korea
Facsimile No. 82-42-472-7140

Authorized officer
Shin Seok Hyo
Telephone No. 82-42-481-5806

Form PCT/ISA/210 (second sheet) (July 2009)
INTERNATIONAL SEARCH REPORT

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. 6, 9-14, 17-19
   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:
   A "any preceding claim" described in claims 5, 8, 16 are vague and unclear and leaves the reader in doubt as to the meaning of the technical feature to which it refers, thereby rending the definition of the subject matter of the said claims unclear.
   Accordingly, claims 6, 9-14, 17-19 does not clearly define the matter for which protection is sought.

3. [ ] Claims Nos. 5, 7-8, 15-16
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

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 an additional fee, this Authority did not invite payment of any additional fee.

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.
<table>
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<th>Publication date</th>
<th>Patent family member(s)</th>
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<tr>
<td>KR 20-030431 1 Y1</td>
<td>15.02.2003</td>
<td>None</td>
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<td>JP 2002-242130 A</td>
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