

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
31 December 2003 (31.12.2003)

PCT

(10) International Publication Number
WO 2004/000587 A3

(51) International Patent Classification⁷: **B60H 1/00**,
1/24, B60J 1/20, 7/22

(21) International Application Number:
PCT/US2003/019417

(22) International Filing Date: 20 June 2003 (20.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/390,375 21 June 2002 (21.06.2002) US

(71) Applicant (for all designated States except US):
TRANSPEC, INC. [US/US]; 7205 Sterling Ponds
Court, Sterling Heights, MI 48312 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HAIGH, James, A.**
[US/US]; 53411 Hunters Crossing Drive, Shelby Town-
ship, MI 48315 (US). **IMINSKI, Richard, J.** [US/US];
28412 Roy Street, St. Clair Shores, MI 48081 (US).
TRUSCOTT, Philip, K. [US/US]; 1526 Lake Metamora
Drive, Metamora, MI 48455 (US).

(74) Agent: **FODALE, Francis, J.**; Reising, Ethington,
Barnes, Kisselle, P.C., Post Office Box 4390, Troy, MI
48099 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

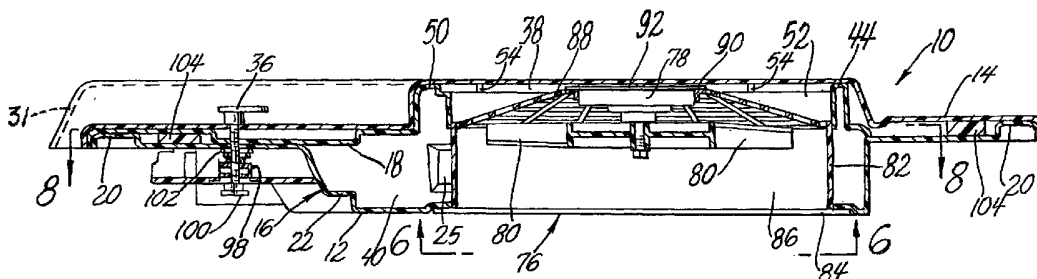
Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
18 March 2004

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: VENT ASSEMBLY WITH SINGLE PIECE COVER



(57) Abstract: A vent assembly has a base and a single piece cover that is attached to the base to form a housing. A partition inside the housing forms an upper compartment that communicates with an outlet at the rear of the cover and a lower compartment that communicates with an inlet through the base. The compartments communicate via an opening through the partition. The partition provides an exhaust passage from the opening to the outlet at the rear of the cover and a barrier to the flow of water from the outlet back to the opening. The partition and cover provide a drain passage from the exhaust passage back to the outlet in case water accumulates near the opening. The vent assembly may be static or include a fan unit to provide a powered vent assembly. Either may be used as the hatch of a combined vent and escape hatch assembly.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/19417

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B06H 1/00, 1/24; B60J 1/20, 7/22

US CL : 454/136, 141, 142, 162, 128, 129

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. : 454/136, 141, 142, 162, 128, 129

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,918,972 A (VAN BELLE) 06 July 1999 (06.07.1999), entire document	1-22
Y	US 4,895,065 A (LAMPARTER) 23 January 1990 (23.01.1990), entire document	1-22
Y	US 4,690,040 A (BARNETT) 01 September 1987 (01.09.1987), entire document	1-22
A	US 5,054,377A (MOCHEL et al) 08 October 1991 (08.10.1991), entire document	1-22
A	US 4,090,436 A (WRIGHT) 23 May 1978 (23.05.1978), entire document	1-22
A	US 2,211,367A (DAVEY) 13 August 1940 (13.08.1940), entire document	1-22



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:		"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
"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier application or patent published on or after the international filing date	"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
"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)	"&"	document member of the same patent family
"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		

Date of the actual completion of the international search

18 December 2003 (18.12.2003)

Date of mailing of the international search report

20 JAN 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703)305-3230

Authorized officer

Linda Sholl

Telephone No. 703-308-1078