



US009362799B2

(12) **United States Patent**
More

(10) **Patent No.:** **US 9,362,799 B2**
(45) **Date of Patent:** **Jun. 7, 2016**

(54) **ACOUSTIC COVERING FOR A GENERATOR SET ENCLOSURE WITH PRESSURE SENSITIVE ADHESIVE**

(71) Applicant: **Cummins Power Generation IP, Inc.**,
Minneapolis, MN (US)

(72) Inventor: **Shashikant Ramdas More**, Coon
Rapids, MN (US)

(73) Assignee: **CUMMINS POWER GENERATION IP, INC.**, Minneapolis, MN (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 4 days.

(21) Appl. No.: **14/252,263**

(22) Filed: **Apr. 14, 2014**

(65) **Prior Publication Data**

US 2015/0292200 A1 Oct. 15, 2015

(51) **Int. Cl.**

G10K 11/162 (2006.01)

G10K 11/168 (2006.01)

F02B 77/13 (2006.01)

H02K 5/24 (2006.01)

F02B 63/04 (2006.01)

G10K 11/16 (2006.01)

F02B 77/11 (2006.01)

(52) **U.S. Cl.**

CPC **H02K 5/24** (2013.01); **F02B 63/04** (2013.01);
G10K 11/162 (2013.01)

(58) **Field of Classification Search**

CPC E04B 1/8218; G10K 11/16; G10K 11/162;
G10K 11/168; F02B 77/11; F02B 77/13
USPC 181/284, 200, 204, 202, 205, 198, 293

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,069,413	A *	2/1937	Leadbetter	.....	B60R 13/0212	181/290
2,192,516	A *	3/1940	Cunnington	.....	428/158	
2,294,125	A *	8/1942	Niedermeier	.....	181/200	
3,176,789	A *	4/1965	Lighter	.....	181/290	
3,881,569	A *	5/1975	Evans, Jr.	.....	181/200	
3,963,094	A *	6/1976	Nowikas	.....	E04B 1/8218	181/198
3,967,693	A *	7/1976	Okawa	.....	181/284	
4,351,870	A *	9/1982	English, Jr.	.....	
4,469,736	A *	9/1984	Machholz	.....	428/159	
4,477,505	A *	10/1984	Warnaka	.....	428/160	
4,733,750	A *	3/1988	Poirier et al.	.....	181/202	
5,014,815	A *	5/1991	Arcas et al.	.....	181/213	
5,076,631	A *	12/1991	Lord, Jr.	.....	B60R 13/02	296/37.8
5,134,014	A *	7/1992	Zaima et al.	.....	428/186	
5,151,018	A *	9/1992	Clendenin et al.	.....	417/312	

(Continued)

FOREIGN PATENT DOCUMENTS

EP	1024054	A2 *	8/2000	.....	B60R 13/02
GB	2216081	A *	10/1989	.....	B60R 13/08
GB	2292786	A *	3/1996	.....	G10K 11/168

Primary Examiner — Edgardo San Martin

(74) *Attorney, Agent, or Firm* — Foley & Lardner LLP

(57)

ABSTRACT

A housing for a generator set includes an enclosure within which the generator set is disposed. The housing further includes a covering including a substantially flat top face and a bottom face comprising a plurality of undulations. The bottom face is disposed between the top face and the enclosure. Each of the plurality of undulations has a peak atop which an adhesive bead is positioned. The adhesive bead is responsive to pressure exerted thereon. Each of the undulations is in contact with the enclosure via a respective adhesive bead.

30 Claims, 3 Drawing Sheets

