#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization

1 September 2011 (01.09.2011)

International Bureau (43) International Publication Date





# (10) International Publication Number WO 2011/103654 A1

- (51) International Patent Classification:
- (21) International Application Number:

PCT/CA2010/000696

(22) International Filing Date:

**B60K 15/05** (2006.01)

6 May 2010 (06.05.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2,694,106 23 February 2010 (23.02.2010)

CA

- (72) Inventor; and
- (71) Applicant: TILBURY, George, Micheal [CA/CA]; 21 Souris Street, PO Box 64, Melita, Manitoba R0M 1L0 (CA).

- (72) Inventor; and
- Inventor/Applicant (for US only): TILBURY, Jeffrey, Micheal [CA/CA]; 932 Frenette Avenue, Fort Frances, Ontario P9A 3N4 (CA).
- (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, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,

[Continued on next page]

#### (54) Title: FUEL CAP DUST COVER

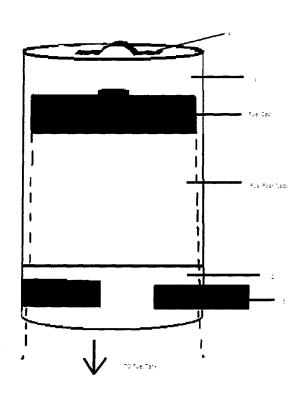


Figure 1. Fuel Cap Dust Cover

(57) Abstract: Devise for covering over the fuel cap and fuelling area (fuel tank filler neck ) for agriculture, construction, industrial, commercial, and forestry equipment that is fuelled by diesel or gas fuel. The devise is made out of material that is fire, water and oil (chemical) resistant or retardant. It is long enough to cover several inches down the fuel tank filler neck area of each piece of equipment in order to keep that area clean from any dirt or debris that might get into the fuel tank upon fuelling that had accumulated on the cap or that area between fuelling. It has a Velcro enclosure system and elastic cuff that would allow it to fit snuggling along the bottom so that it would not fall off when the piece of equipment is in operation.



# 

EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, **Published**: GW, ML, MR, NE, SN, TD, TG).

#### **Declarations under Rule 4.17**:

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

of inventorship (Rule 4.17(iv))

- with international search report (Art. 21(3))
- with amended claims (Art. 19(1))

WO 2011/103654 PCT/CA2010/000696

Title: Fuel cap dust cover

### Specification

• This invention relates to a devise that is placed over the fuel cap and fuel tank filler neck area of any fuel operated machinery (agriculture, commercial, industrial) to ensure these areas remain free of dirt and debris, once the cover is removed.

- It is common for fuel (gas and especially diesel) driven machines (tractors, combines, bulldozers, skidders etc) to have dirt and debris accumulation on the fuel cap and around fuel tank filler neck areas when operating in dirty and dusty conditions. This often results in dirt or debris getting into the fuel tank when the cap is removed which can result in extensive damage to the fuel system and engine of the machine, often requiring costly repair and several days where the machine is not in operation.
- This devise would allow the fuel cap and fuel tank filler neck area to remain free of dirt and debris as it would cover over the cap and this area and upon removal of the devise any dirt or debris that had built up on it can be removed easily by shaking or brushing the devise by hand away from the fuel cap and fuel tank filler neck area before it is then refitted over the fuel cap and fuelling area.

WO 2011/103654 PCT/CA2010/000696

#### Claims

1 • The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

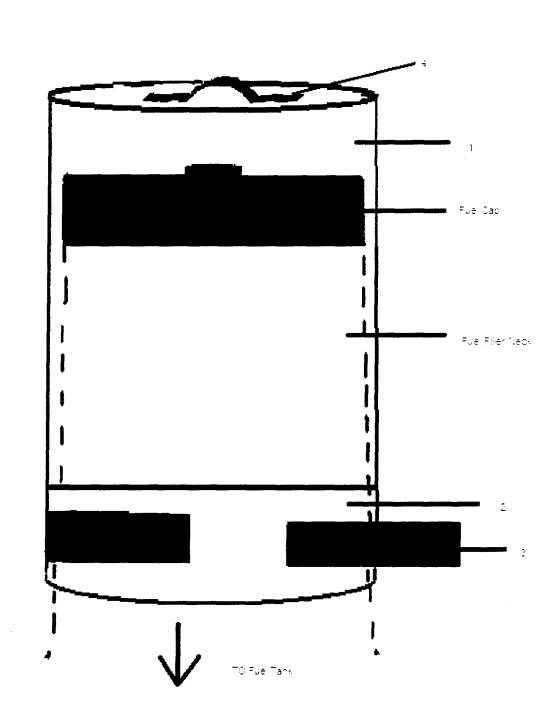
- 2 A manually operable tubular sleeve like devise for covering the fuel cap and the fuel tank filler neck area of any gas and diesel driven agriculture, commercial, forestry and industrial heavy equipment.
- 3 Consists of a 4.5 to 6 inch tubular sleeve like devise made of fire, oil and water resistant/retardant material. Item 1 in Figure 1.
- 4 It has a 1.5 to 2 inch elasticized cuff fitted (Item 2 in Figure 1) with a Velcro closing system (Item 3 in Figure 1) that allows the devise to fit snugly onto the Fuel filler neck so it will not slide off while the machine is in operation.. As well it can be easily removed for fuelling and then replaced on the fuel filler neck area between fuelling.
- 5 It has a 1 inch wide strap handle (Item 4 in Figure 1) on the top of the device, where two fingers can fit under and the device can be easily removed and replaced over the fuel cap and onto the fuel filler neck area
- 6 This devise can be utilized on any fuel filler neck system for several different models and types of gas or diesel fuelled machines within the agricultural, forestry, commercial, industrial sectors with the sole purpose to keep the fuel filler neck and fuel cap area clean of dirt and debris, further preventing it getting into the fuel system when fuelling.

WO 2011/103654 PCT/CA2010/000696

# AMENDED CLAIMS received by the International Bureau on 15 December 2010 (15.12.2010)

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

- 1. A manually operable tubular sleeve like devise for covering the fuel cap and the fuel tank filler neck area of any gas and diesel driven agriculture, commercial, forestry and industrial heavy equipment. The purpose of the devise is to keep the fuel filler neck and fuel cap areas clean of dirt and debris between fuelling.
- 2. Consists of a 4.5 to 6 inch tubular sleeve like devise made of fire, oil and water resistant/retardant material. In order to fit snugly onto the fuel filler neck so it will not slide off while the machine is in operation, the devise has a 1.5 to 2 inch elasticized cuff fitted with a Velcro closing system. This type of closing system enables the devise to be easily removed for fuelling and then replaced on the fuel filler neck area between fuelling. To allow the operator to remove and replace the devise over the fuel filler neck and fuel cap areas, the devise has a 1 inch wide strap handle on the top section of it, where two fingers can fit under and the device for access.
- 3. This devise can be utilized on any fuel filler neck system for several different models and types of gas or diesel fuelled machines within the agricultural, forestry, commercial, industrial sectors with the sole purpose to keep the fuel filler neck and fuel cap area clean of dirt and debris, further preventing it getting into the fuel system when fuelling.



PCT/CA2010/000696

Figure 1. Fuel Cap Dust Cover

#### INTERNATIONAL SEARCH REPORT

International application No. PCT/CA2010/000696

# A. CLASSIFICATION OF SUBJECT MATTER

IPC: **B60K 15/05** (2006.01)

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)

IPC: B60K 15/05 , B60K 15/04

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used) Epoque and the Canadian Patent database using keywords: fuel, cap, flexible, dust, cover, sleeve, gas, closure

#### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP6156096A (TAKU, I.) 13 June 1994 (13-06-1994) *figure 4 and abstract*	1,2,3,5,6
А	JP10217778A (ITO, T.) 08 August 1998 (08-08-1998) *whole document*	1-6
А	WO9720747A1 (HARRIS et al.) 12 June 1997 (12-06-1997) *whole document*	1-6
А	CN2866226Y (WU,B.) 07 February 2007 (07-02-2007) *whole document*	1-6
А	JP2004142526A (NAKASHIN, W.) 20 May 2004 (20-05-2004) *whole document*	1-6
А	JP8061082A (HAMOKA, T.) 05 March 1996 (05-03-1996) *whole document*	1-6

[]	Further	documents are listed in the continuation of Box C.	[x]	See patent family annex.
*	Specia	al categories of cited documents :	"T"	later document published after the international filing date or priority
"A"	docum to be o	nent defining the general state of the art which is not considered of particular relevance		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
"E"	earlier filing	application or patent but published on or after the international date	"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
"L"	docun cited t specia	nent which may throw doubts on priority claim(s) or which is o establish the publication date of another citation or other I reason (as specified)	"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
"O"	docun	nent referring to an oral disclosure, use, exhibition or other means	&.''	
"P"	docum the pr	nent published prior to the international filing date but later than ority date claimed	æ	document member of the same patent family
Date of the actual completion of the international search		Date of mailing of the international search report		
11 August 2010 (11-08-2010)		12 November 2010 (12-11-2010)		
Name and mailing address of the ISA/CA		Authorized officer		
Canadian Intellectual Property Office				
Place du Portage I, C114 - 1st Floor, Box PCT		Arthur Gary Grant (819) 953-9698		
50 Victoria Street			•	
Gatineau, Quebec K1A 0C9				
Facs	imile N	o.: 001-819-953-2476		

Form PCT/ISA/210 (second sheet ) (July 2009)

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No. PCT/CA2010/000696

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date	
JP6156096A	03-06-1994	JP6156096A	03-06-1994	
JP10217778A	18-08-1998	JP10217778A	18-08-1998	
WO9720747A1	12-06-1997	AT215044T DE755348T1 DE69521309D1 DE69521309T2 DE69620226D1 DE69620226T2 EP0755348A1 EP0755348A1 EP0755348B1 EP0868361A1 EP0868361A4 EP0868361A4 EP0868361B1 JP9512770T JP3882196B2 JP2005047497A JP4139799B2 JP200501682T US5480055A US5794806A US6095363A WO9530592A1	15-04-2002 15-01-1998 19-07-2001 02-05-2002 02-05-2002 24-10-2002 29-01-1997 27-05-1998 13-06-2001 07-10-1998 16-06-1999 27-03-2002 22-12-1997 14-02-2007 24-02-2005 27-08-2008 15-02-2000 02-01-1996 18-08-1998 01-08-2000 16-11-1995	
CN2866226Y	07-02-2007	CN2866226Y	07-02-2007	
JP2004142526A	20-05-2004	JP2004142526A	20-05-2004	
JP8061082A	05-03-1996	JP8061082A JP3248653B2	05-03-1996 21-01-2002	