

US0D10890978

(12) United States Design Patent (10) Patent No.:

Cress et al.

(10) Patent No.: US D1,089,097 S

(45) Date of Patent: ** Aug. 19, 2025

(54) SPARK PLUG

(71) Applicant: CATERPILLAR INC., Peoria, IL (US)

(72) Inventors: **James Cress**, West Lafayette, IN (US); **Steffen Kuhnert**, Heidelberg (DE)

(73) Assignee: CATERPILLAR INC., Peoria, IL (US)

(**) Term: 15 Years

(21) Appl. No.: 29/920,015

(22) Filed: Dec. 7, 2023

Related U.S. Application Data

(63) Continuation of application No. 29/796,311, filed on Jun. 23, 2021, now abandoned.

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

USPC **D13/127**

(58) Field of Classification Search

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

D47,941 S	S	*	10/1915	Witter D13/127
D99,869 S	S	*	6/1936	Jackson D13/127
2,900,547	A		8/1959	Engel
3,239,710	A	*	3/1966	Toporzysek H01T 13/14
				313/143
4.029,986	A		6/1977	Lara
5,258,684	A	*	11/1993	Matesco H01T 13/04
, ,				439/127
5,554,908	A		9/1996	Kuhnert

(Continued)

FOREIGN PATENT DOCUMENTS

CN 307645537 11/2022 CN 307830090 2/2023 (Continued)

OTHER PUBLICATIONS

Grainger. Link: https://www.grainger.com/product/NGK-SPARK-PLUGS-NGK-Spark-Plug-35PP18?searchQuery=35PP18&searchBartrue. Visited Dec. 20, 2024. NGK Spark Plugs NGK Spark Plug, BPR5ES: NGK Spark Plug, BPR5ES, For 5NUG4, For 91119400 (Year: 2024).*

(Continued)

Primary Examiner — Lauren D McVey (74) Attorney, Agent, or Firm — Finnegan, Henderson, Farabow, Garrett & Dunner, LLP

(57) CLAIM

The ornamental design for a spark plug, as shown and described

DESCRIPTION

FIG. 1 is a front, left, top perspective view of a spark plug showing my new design;

FIG. 2 is a rear, left, bottom perspective view thereof;

FIG. 3 is a front elevation view thereof;

FIG. 4 is a rear elevation view thereof;

FIG. 5 is a right side view thereof;

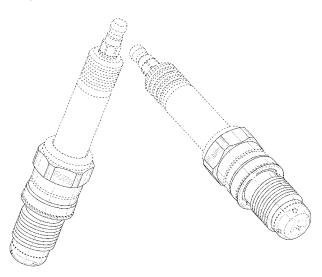
FIG. 6 is a left side view thereof;

FIG. 7 is a top plan view thereof; and,

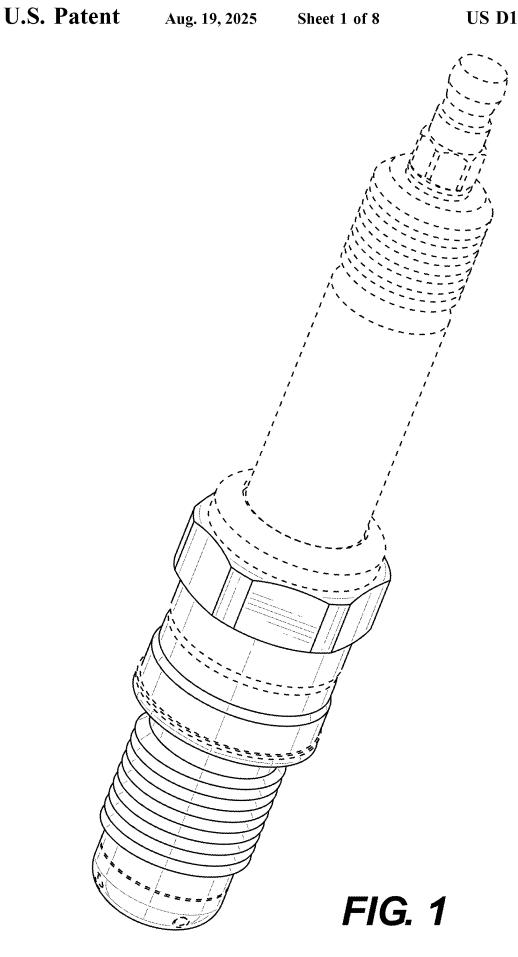
FIG. 8 is a bottom plan view thereof.

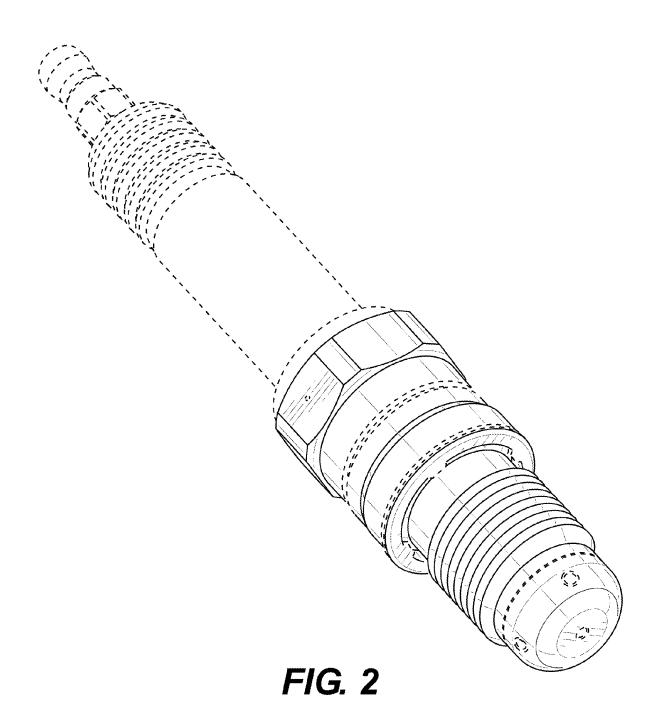
The broken lines of even length immediately adjacent to the shaded areas shown in FIGS. 1-8 depict the bounds of the claimed design, while all other broken lines are directed to the environment. The broken lines form no part of the claimed design.

1 Claim, 8 Drawing Sheets



(56)	References Cited				FOREIGN PATENT DOCUMENTS		
	U.S.	. PATENT	DOCUMENTS	DE	102020205320 A1 10/2021		
				\mathbf{EP}	0675272 B1 8/1997		
	5,829 S	1/2001	Kim	\mathbf{EP}	1311041 A2 * 5/2003 H01T 13/20		
6,583	3,539 B1 *	6/2003	Zamora H01T 13/32	EP	1701419 A1 9/2006		
			313/143	\mathbf{EP}	2413442 B1 10/2016		
	4,136 S 3		Vesecky D13/127	EP	3118952 B1 3/2021		
7,040	0,280 B1 *	5/2006	Drake F02B 23/101	GB	2327459 A 1/1999		
			123/298	GB	2325492 B 2/2000		
7,922	2,551 B2	4/2011	Tozzi	JP	H6140124 A 2/2002		
D670	0,246 S 3	11/2012	Lykowski D13/127	JP RU	3164783 U 12/2010 00056126 * 1/2005		
8,857	7,396 B2	10/2014	Giffels	WO	00056126 * 1/2005 WO-00/17973 A1 3/2000		
9,093	3,823 B2	7/2015	Sakakura	WO	WO-2009123482 A1 * 10/2009 H01T 13/54		
9,166	5,378 B2	10/2015	Alfonso	WO	WO-2010/043544 A1 4/2010		
9,225	5,151 B2	12/2015	Douglas	WO	WO-2014/043657 A2 3/2014		
D775	5,075 S	12/2016	Aishima	wo	WO-2018/213264 A2 11/2018		
9,859	9,688 B1	1/2018	Gerstner	wo	WO-2024132643 A1 * 6/2024 H01T 13/20		
9,929	9,539 B2	3/2018	Maul	., 0	77 0 202 11320 13 111 07202 1 11011 13/20		
9,982	2,588 B2	5/2018	Schafer		OTHER PURPLES TO A TO		
10,145	5,292 B1	12/2018	Cress		OTHER PUBLICATIONS		
10,938	8,187 B1	3/2021	Cress	T.:			
11,418	8,013 B1 *	8/2022	Yang H01T 13/54		parts. Link: https://www.fridayparts.com/spark-plug-7306-		
2005/012	7809 A1	6/2005	Lindsay		702-for-caterpiller-cat-engine-g3512-g3516-g3508-g3608-		
2005/026	4153 A1	12/2005	Hanashi		-g3616-generator-sr4-sr4b. Visited Dec. 20, 2024. Spark Plug		
2009/007	2694 A1	3/2009			479-7702 for Caterpiller CAT Engine G3512 G3516 G3508		
	9502 A1	7/2009	Suzuki		3 G3612 G3616 Generator SR4 SR4B (Year: 2024).*		
2009/030			Nunome		ing world. Link: https://www.campingworld.com/honda-		
2015/019	4793 A1*	* 7/2015	Yamanaka H01T 13/54		tor-replacement-spark-plug-47915.html?gQT=1. Visited Dec.		
			313/141		24. Honda Generator Replacement Spark Plug (Year: 2024).*		
2016/025	4650 A1	9/2016		AP Se	ervice and Parts, R6GC1-77 Torch Prechamber Spark Plug		
	5898 A1		Schafer	(Year:	2023), accessed Aug. 23, 2023, from https://apserviceandparts.		
2018/021		8/2018			/ignition/spark-plugs-and-accessories/r6gc1-77-torch-prechamber-		
2019/037			Brubaker		plug/ (5 pages).		
2020/022		7/2020			illar PEHJ0260-01 Product Brochure (Year: 2017), accessed		
2020/038			Herriges	as ear	ly as Sep. 8, 2023 from http://s7d2.scene7.com/is/content/		
	5485 A1		Resnick		illar/CM20170314-57227-01981 (2 pages).		
2023/002			Resnick		parts, Spark Plug T16EPR-U Caterpillar/Mitsubishi 213573		
2023/023	8781 A1*	* 7/2023	Resnick H01T 13/34		2023), accessed Aug. 23, 2023, from https://intellaparts.com/		
			313/118		73/caterpillar-2i3573-spark-plug-t16epr-u.html?queryID=		
2023/025	3765 A1*	8/2023	Resnick H01T 13/20	2d0dc:	58cfe6312f5c83655ab36a51a2c (3 pages).		
			313/141				
2024/006	3611 A1*	2/2024	Resnick H01T 13/20	* cite	d by examiner		





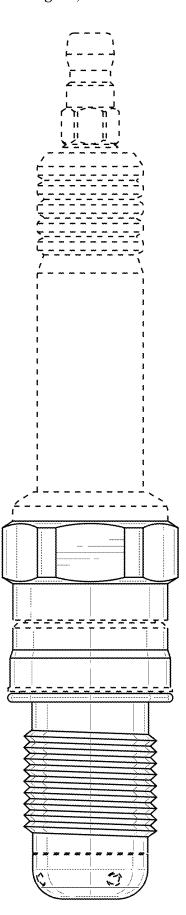


FIG. 3

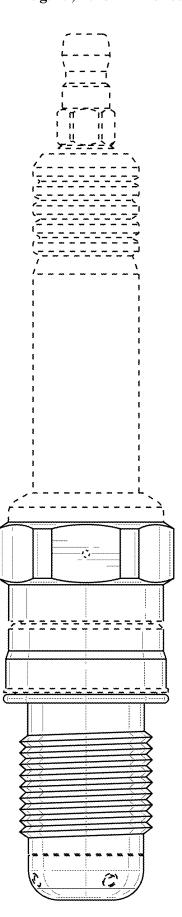


FIG. 4

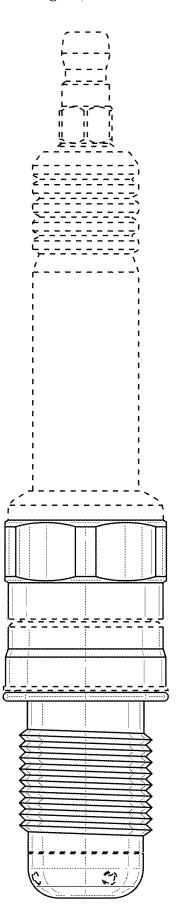


FIG. 5

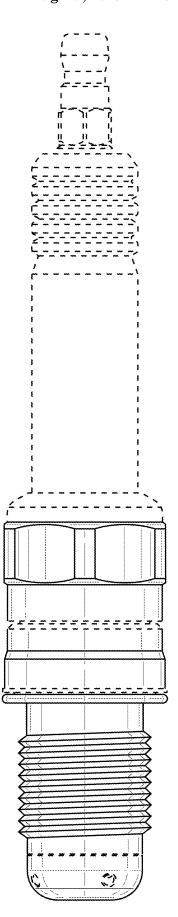


FIG. 6

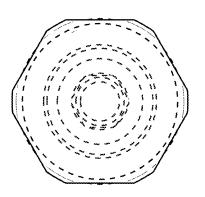


FIG. 7

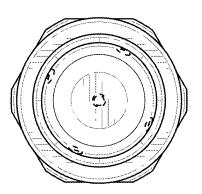


FIG. 8