## OMNITEK AQUIRES KEY PATENT FROM NOLOGY ENGINEERING INC.

Omnitek acquires patent # 6,374,816 for a next-generation capacitor ignition device. This new technology can be used on engines with coil-on-plug ignition systems and reduces emissions substantially, while increasing the performance. This low-cost technology has great OE potential and requires virtually no changes to existing engine designs.



# (12) United States Patent Funk et al.

(54) APPARATUS AND METHOD FOR

COMBUSTION INITIATION

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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3.361.932 A

(56) References Cited

### U.S. PATENT DOCUMENTS

1,447,812	Α		3/1923	Otto	
1,756,486	Α		4/1930	Henry	
1,902,541	Α		3/1933	Brown et al.	
2,129,472	Α		9/1938	Lysholm et al.	
2,173,766	Α		9/1939	Ramsey	
2,376,362	Α		5/1945	Kasarjian	
2,378,893	Α		6/1945	Berkey et al.	
2,392,171	Α	*	1/1946	Marsh	315/5
2,415,138	Α		2/1947	Kasarjian	
2,467,534	Α	*	4/1949	Osterman	315/5
2,640,174	Α		5/1953	Short et al.	
2,904,723	Α		9/1959	Altrogge et al.	
2,927,248	Α		3/1960	Ramsay	
3,045,148	Α		7/1962	McNulty	
3,324,347	Α		6/1967	Brugnola	
3,336,506	Α		8/1967	Frank	

1/1968 Campbell

3,683,232 A 8/1972 Baur 3,842,819 A 4,082,980 A 10/1974 Atkins et al. 4/1978 Yoshikawa et al. 4,122,816 A 4,123,688 A 10/1978 Fitzgerald et al. 10/1978 Yoshikawa et al. 4.223,656 A 9/1980 Hamley 4,324,219 A 4,333,125 A 4/1982 Hayashi 6/1982 Hensley et al. 4,333,126 A 4,402,036 A 6/1982 Hensley et al. 8/1983 Hensley et al. 4,549,114 A 4,589,398 A 10/1985 Herden 5/1986 Pate et al. 4,590,536 A 4,613,789 A 5/1986 Gerry 9/1986 Herden et al. 12/1986 Anderson et al. 1/1987 Herden et al. 4.631.451 A 4.658.185 A 4/1987 Albrecht et al. 4,727,891 A 4,746,834 A 3/1988 Schmidt et al. 5/1988 Bauerle et al. 4,751,430 A 5,272,415 A 6/1988 Muller et al. 12/1993 Griswold et al. ... 

\* cited by examiner

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#### 7) ABSTRAC

An apparatus for combustion initiation in an internal combustion engine is provided. A capacitive spark plug boot uses the engine cylinder head as an outer capacitor member. The capacitive spark plug boot contains the inner capacitor member and an insulator. The insulator surrounds the inner capacitor member, with an outer surface of the insulator sized to engage a cylinder head cavity surrounding the spark plug. The capacitor stores electrical energy received from a power source, and delivers it to the spark plug upon formation of a spark.

#### 41 Claims, 8 Drawing Sheets

