

Title (en)

COMPOSITION AND METHOD FOR PREVENTING OR REDUCING LOW SPEED PRE-IGNITION IN SPARK-IGNITED INTERNAL COMBUSTION ENGINES

Title (de)

ZUSAMMENSETZUNG UND VERFAHREN ZUR VERHINDERUNG ODER VERMINDERUNG DER NIEDRIGGESCHWINDIGKEITSVORZÜNDUNG BEI OTTOMOTOREN

Title (fr)

COMPOSITION ET PROCÉDÉ POUR EMPÊCHER OU RÉDUIRE LE PRÉ-ALLUMAGE À FAIBLE VITESSE DANS DES MOTEURS À COMBUSTION INTERNE À ALLUMAGE PAR ÉTINCELLES

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Application

EP 19721765 A 20190322

Priority

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- US 201862767686 P 20181115
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Abstract (en)

[origin: US2019292473A1] Fuel and lubricant compositions are provided that contain a primary low-speed pre-ignition (LSPI)-reducing additive comprising (i) an amino additive, (ii) an amine additive, (iii) a triazole additive, (iv) a benzamidinium additive, (v) a benzoxazole additive, or (vi) a N=C—X motif additive. Methods for preventing or reducing low speed pre-ignition events in spark-ignited engines using these compositions are also provided.

IPC 8 full level

C10L 1/22 (2006.01); **C10M 133/02** (2006.01)

CPC (source: EP KR US)

C10L 1/1608 (2013.01 - US); **C10L 1/1832** (2013.01 - US); **C10L 1/1857** (2013.01 - US); **C10L 1/1881** (2013.01 - US); **C10L 1/189** (2013.01 - US); **C10L 1/19** (2013.01 - US); **C10L 1/22** (2013.01 - EP KR US); **C10L 1/2222** (2013.01 - US); **C10L 1/232** (2013.01 - US); **C10L 1/233** (2013.01 - US); **C10M 127/04** (2013.01 - US); **C10M 129/02** (2013.01 - US); **C10M 129/24** (2013.01 - US); **C10M 129/26** (2013.01 - US); **C10M 129/70** (2013.01 - US); **C10M 129/76** (2013.01 - US); **C10M 133/02** (2013.01 - EP KR US); **C10M 133/04** (2013.01 - US); **C10M 133/06** (2013.01 - US); **C10M 133/16** (2013.01 - US); **C10M 133/22** (2013.01 - US); **C10M 133/40** (2013.01 - US); **C10M 133/44** (2013.01 - US); **C10M 133/46** (2013.01 - US); **C10M 133/48** (2013.01 - US); **C10M 141/06** (2013.01 - US); **C10M 169/04** (2013.01 - US); **C10L 1/183** (2013.01 - EP KR US); **C10L 1/1857** (2013.01 - EP KR); **C10L 1/1881** (2013.01 - EP KR); **C10L 1/2222** (2013.01 - EP KR); **C10L 1/2225** (2013.01 - EP KR US); **C10L 1/223** (2013.01 - EP KR US); **C10L 1/2235** (2013.01 - EP KR US); **C10L 1/224** (2013.01 - EP KR US); **C10L 1/228** (2013.01 - EP KR US); **C10L 1/2283** (2013.01 - EP KR US); **C10L 1/232** (2013.01 - EP KR); **C10L 1/233** (2013.01 - EP KR); **C10L 10/10** (2013.01 - EP KR US); **C10L 2200/0423** (2013.01 - EP KR US); **C10L 2200/0446** (2013.01 - US); **C10L 2270/023** (2013.01 - EP KR US); **C10M 2203/06** (2013.01 - US); **C10M 2207/00** (2013.01 - US); **C10M 2207/026** (2013.01 - EP KR US); **C10M 2207/08** (2013.01 - EP KR US); **C10M 2207/10** (2013.01 - US); **C10M 2207/262** (2013.01 - EP KR US); **C10M 2207/281** (2013.01 - US); **C10M 2207/284** (2013.01 - US); **C10M 2215/04** (2013.01 - EP KR US); **C10M 2215/042** (2013.01 - EP KR US); **C10M 2215/06** (2013.01 - EP KR US); **C10M 2215/08** (2013.01 - EP KR US); **C10M 2215/082** (2013.01 - EP KR US); **C10M 2215/10** (2013.01 - EP KR US); **C10M 2215/14** (2013.01 - EP KR US); **C10M 2215/22** (2013.01 - EP KR US); **C10M 2215/221** (2013.01 - EP KR US); **C10M 2215/222** (2013.01 - EP KR US); **C10M 2215/223** (2013.01 - EP KR US); **C10M 2215/224** (2013.01 - EP KR US); **C10M 2215/225** (2013.01 - EP KR US); **C10M 2215/26** (2013.01 - US); **C10M 2215/28** (2013.01 - US); **C10M 2215/30** (2013.01 - US); **C10N 2030/10** (2013.01 - US); **C10N 2040/25** (2013.01 - US); **C10N 2040/255** (2020.05 - EP KR US)

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DOCDB simple family (publication)

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