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

Publication

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Application

EP 19721765 A 20190322

Priority

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- IB 2019052366 W 20190322

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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Designated extension state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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