

Title (en)

SMOKE REDUCING ADDITIVES FOR TWO-CYCLE ENGINE LUBRICANT-FUEL MIXTURE.

Title (de)

RAUCHVERRINGERND ADDITIVE FÜR SCHMIERSTOFF-, BRENNSTOFFMISCHUNGEN IN ZWEIKREIS-BRENNKRAFTMASCHINEN.

Title (fr)

ADDITIFS DIMINUANT L'EMISSION DE FUMEE POUR MELANGE DEUX TEMPS CARBURANT/LUBRIFIANT.

Publication

EP 0580587 A4 19950222 (EN)

Application

EP 92903743 A 19911218

Priority

- US 9109599 W 19911218
- US 63483590 A 19901227
- US 63483690 A 19901227
- US 63498490 A 19901227

Abstract (en)

[origin: WO9212224A1] A lubricant-fuel mixture containing an amine salt and/or amide of a benzoic acid or thiobenzoic acid derivative, an amine salt of a phosphoric acid derivative, or certain quaternary ammonium hydroxides is effective in reducing the smoke emitted during operation of a two-cycle internal combustion engine.

IPC 1-7

C10M 133/04

IPC 8 full level

C10L 1/14 (2006.01); **C10L 1/22** (2006.01); **C10L 1/222** (2006.01); **C10L 1/224** (2006.01); **C10L 1/24** (2006.01); **C10L 1/26** (2006.01);
C10L 10/08 (2006.01); **C10M 133/06** (2006.01); **C10M 133/16** (2006.01); **C10M 135/12** (2006.01); **C10M 135/18** (2006.01);
C10M 169/04 (2006.01); **C10L 1/18** (2006.01); **C10L 1/20** (2006.01); **C10L 1/30** (2006.01); **C10N 30/00** (2006.01); **C10N 40/26** (2006.01);
F02B 75/02 (2006.01)

CPC (source: EP)

C10L 1/222 (2013.01); **C10L 1/224** (2013.01); **C10L 1/2425** (2013.01); **C10L 1/2625** (2013.01); **C10L 1/2658** (2013.01); **C10L 10/02** (2013.01);
C10M 133/06 (2013.01); **C10M 133/16** (2013.01); **C10M 135/12** (2013.01); **C10M 135/18** (2013.01); **C10L 1/14** (2013.01);
C10L 1/1832 (2013.01); **C10L 1/1883** (2013.01); **C10L 1/189** (2013.01); **C10L 1/201** (2013.01); **C10L 1/306** (2013.01); **C10M 2215/04** (2013.01);
C10M 2215/044 (2013.01); **C10M 2215/08** (2013.01); **C10M 2215/082** (2013.01); **C10M 2215/26** (2013.01); **C10M 2215/28** (2013.01);
C10M 2219/06 (2013.01); **C10M 2219/066** (2013.01); **C10M 2223/047** (2013.01); **C10N 2040/25** (2013.01); **C10N 2040/251** (2020.05);
C10N 2040/255 (2020.05); **C10N 2040/26** (2013.01); **C10N 2040/28** (2013.01); **F02B 2075/025** (2013.01)

Citation (search report)

- [X] US 3951829 A 19760420 - MULLEN THEODORE R, et al
- [X] US 4090971 A 19780523 - HOKE DONALD IRVIN
- [XY] WO 8707637 A2 19871217 - LUBRIZOL CORP [US]
- [XY] BE 777944 R 19720502 - DU PONT
- [Y] US 4002437 A 19770111 - BROECKX WILLY P, et al
- [XY] US 3035905 A 19620522 - KELLER JAMES L
- See references of WO 9212224A1

Designated contracting state (EPC)

GB IT

DOCDB simple family (publication)

WO 9212224 A1 19920723; CA 2097326 A1 19920628; EP 0580587 A1 19940202; EP 0580587 A4 19950222; EP 0580587 B1 19970521;
JP H06507650 A 19940901

DOCDB simple family (application)

US 9109599 W 19911218; CA 2097326 A 19911218; EP 92903743 A 19911218; JP 50338392 A 19911218