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Applicant: EXXON CHEMICAL PATENTS INC. 200 Park Avenue Florham Park New Jersey 07932(US)

2 Inventor: Munsell, Monroe Wallwork
180 Sutton Drive
Berkeley Heights New Jersey 07922(US)
Inventor: Finn, Richard Francil
64 Juniper Way
Basking Ridge New Jersey 07920(US)

Representative: Northover, Robert Frank et al ESSO Chemical Limited Esso Chemical Research Centre P.O. Box 1
Abingdon Oxfordshire, OX13 6BB(GB)

- 6 Determination of metal source in used oil.
- © A tracer metal, which is not present in engine parts subject to wear, is used to ascertain the source of metals in used oil as between lubricating oil additives and other sources, particularly wear of engine parts.

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EUROPEAN SEARCH REPORT

ΕP 86 30 6424

DOCUMENTS CONSIDERED TO BE RELEVANT				
Category	•	n indication, where appropriate, ant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CI.4)
D,A	JOURNAL OF THE A OF LUBRICATION E 34, no. 11, Nove pages 625-628; J "Comprehensive 1 programs: A cost preventive maint * Page 625, colu	NGINEERS, vol. mber 1978, , .E. STEENBERGEN: ube oil analysis -effective enance tool"	1,3,4,	C 10 M 177/00 G 01 N 33/28 F 01 M 11/10
D,A	US-A-2 744 069 * Clams 1,9 *	- (M. VAN LOON)	5	-
D,A	EP-A-O 024 145 * Clams 1,16; page 24, line 5	page 23, line 4 -	7,8	
!				TECHNICAL FIELDS SEARCHED (Int. Cl.4)
				SEARCHED (Int. Cl.4)
				C 10 M G 01 N F 01 M F 16 N
	The present search report has b	een drawn up for all claims		
Place of search Date of completion of the search				Examiner
X: particularly relevant if taken alone after the fi Y: particularly relevant if combined with another D: document document of the same category L: document A: technological background			r principle under atent document, filing date nt cited in the ap nt cited for other of the same pate	SAERT L.D.C. Ilying the invention but published on, or plication reasons ent family, corresponding

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