



EUROPEAN PATENT APPLICATION

Application number : **94304089.9**

Date of filing : **07.06.94**

Int. Cl.⁵ : **C10M 169/06,**
// (C10M169/06, 117:04,
143:12), C10N50:10

Priority : **10.06.93 US 75184**

Date of publication of application :
21.12.94 Bulletin 94/51

Designated Contracting States :
BE DE FR GB IT LU NL

Date of deferred publication of search report :
18.01.95 Bulletin 95/03

Applicant : **EXXON RESEARCH AND
ENGINEERING COMPANY**
P.O.Box 390,
180 Park Avenue
Florham Park, New Jersey 07932-0390 (US)

Inventor : **Slack, David A.**
273 Laurentian Crescent
Sarnia, Ontario N7S 4W4 (CA)
Inventor : **Stewart, David M.**
270 Thames Crescent
Sarnia, Ontario N7S 5C9 (CA)

Representative : **Somers, Harold Arnold et al**
ESSO Engineering (Europe) Ltd.
Patents & Licences
Mailpoint 72
Esso House
Ermyrn Way
Leatherhead, Surrey KT22 8XE (GB)

Grease composition.

- A grease composition, having improved water resistance, adhesion and low temperature pumpability properties, which comprises
- (a) from 50 to 98 wt%, based on grease, of a lubricating oil ;
 - (b) from 1 to 30 wt%, based on grease, of a thickener ; and
 - (c) from 0.5 to 2.0 wt%, based on grease of polymer selected from either a defined block copolymer of the structure A-B, or a hydrogenated star-shaped polymer having a poly(divinylbenzene) nucleus and at least seven hydrogenated polyisoprene arms linked to said nucleus.

The grease has an apparent viscosity of less than about 3500 poise (350 Pa.s) at 20 sec⁻¹.



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 94 30 4089

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
X	US-A-5 158 694 (WAYNICK) 27 October 1992 * col 8, lines 8-24 and lines 54-59; col 21, lines 22-30; Examples 33,35,38-42, 44,47; col 45, line 68; col 46, line 11; Claims 1,10 *	1-4,6	C10M169/06 //(C10M169/06, 117:04, 143:12), C10N50:10
X	DE-A-26 54 661 (SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V.) 8 June 1977 * page 3, lines 4-28; page 5, line 6 and lines 16-27; Page 10, Table I, Greases V,VI; Example 3 and Table III *	1-4	
Y	* page 4, line 7 - line 17 * ** numbering of the pages as published **	1,5	
Y	US-A-4 156 673 (ECKERT) 29 May 1979 * Claims *	1,5	
X	US-A-5 207 935 (WAYNICK) 4 May 1993 * column 17, lines 45-48; Examples 20,21,25-31 *	1,2,4	
A	US-A-3 728 261 (MITACEK) 17 April 1973 * whole document *	1-4	TECHNICAL FIELDS SEARCHED (Int.Cl.5)
D,A	US-A-3 772 196 (SHELL OIL COMPANY) 13 November 1973	1-4	C10M
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 17 November 1994	Examiner Kazemi, P
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.92 (P04C01)