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Datasheet for the decision of 11 September 2025

Case Number: T 1950/23 - 3.3.02

Application Number: 16159334.8

Publication Number: 3072949

IPC: C10M141/10, C10N30/06

Language of the proceedings: EN

Title of invention:
LUBRICATING OIL COMPOSITION FOR CONSTRUCTION MACHINES

Patent Proprietor:
Chevron Japan Ltd.

Opponent:
Afton Chemical Corporation

Relevant legal provisions:
EPC Art. 56
EPC R. 43(3)
RPBA 2020 Art. 12(6)

Keyword:
Inventive step - (yes)
Late-filed objection

Decisions cited:
G 0002/21, T 0021/81, T 0231/97, T 1989/21

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Case Number: T 1950/23 - 3.3.02

D E C I S I O N
of Technical Board of Appeal 3.3.02
of 11 September 2025

Appellant: (Opponent)	Afton Chemical Corporation 500 Spring Street Richmond, Virginia 23219 (US)
Representative:	Boult Wade Tennant LLP Salisbury Square House 8 Salisbury Square London EC4Y 8AP (GB)
Respondent: (Patent Proprietor)	Chevron Japan Ltd. Atago Green Hills MORI Tower 18F 2-5-1, Atago Minato-ku Tokyo 105-6218 (JP)
Representative:	Haseltine Lake Kempner LLP One Portwall Square Portwall Lane Bristol BS1 6BH (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 2 October 2023 concerning maintenance of the European Patent No. 3072949 in amended form.**

Composition of the Board:

Chairman	M. O. Müller
Members:	P. O'Sullivan
	B. Burm-Herregodts

Summary of Facts and Submissions

I. The appeal of the opponent (hereinafter appellant) lies from the decision of the opposition division according to which European patent 3 072 949 in amended form (main request) met the requirements of the EPC.

II. An opposition was filed *inter alia* on the grounds for opposition under Article 100(a) EPC in combination with Article 56 EPC.

III. The following documents *inter alia* were submitted during opposition proceedings:

D1 EP 1 548 090 A1
D4 KSEA Letters, Vol. 36, No. 1 (Serial No. 202), October 2007
D5 US 5,922,657
D6 WO 00/73406 A1
D7 EP 1 918 356 A1
D10 Declaration of Donald Bell concerning HiTEC®-633 dispersant dated 13 October 2021
D11 Declaration of Gregory James concerning HiTEC®-511T dated 20 October 2021
D12 Ciba product selection guide for the lubricant industry
D16 Experimental report: Shell 4-ball welding load test - David Edwards, 13 October 2021
D17 Experimental report: Carey Lehner, 17 March 2023

IV. According to the contested decision, the set of claims of the main request involved an inventive step over D7 as closest prior art. Experimental tests D17 submitted by the appellant were not admitted into the

proceedings. Inventive step starting from other documents proposed by the appellant as closest prior art, including D1, was not addressed, as these documents were seen as less relevant than D7.

V. With the grounds of appeal the appellant submitted the following documents:

D19: US 2010/0152078 A1
D20: EP 1 988 146 A2

VI. With letter dated 21 October 2024 the appellant submitted the following documents:

D21: "Lubricant Additives, Chemistry and Applications", second edition (2009), page 215
D22: Komatsu test specification

VII. In appeal proceedings, the appellant contested that the claimed subject-matter involved an inventive step starting from D7. Furthermore, the claimed subject-matter also lacked inventive step starting from D1, which was at least an equally suitable closest prior art document as D7.

VIII. Third party observations pursuant to Article 115 EPC were submitted anonymously on 23 May 2024.

IX. In a communication pursuant to Article 15(1) RPBA, the board provided its preliminary considerations.

X. Oral proceedings by videoconference took place as scheduled on 11 September 2025 in the presence of both parties.

XI. Requests relevant to the present decision

The appellant (opponent) requested that the decision under appeal be set aside and that the European patent be revoked in its entirety.

The respondent (patent proprietor) requested that the appeal be dismissed, implying maintenance of the patent on the basis of the set of claims of the main request submitted with the letter dated 21 March 2022, which was found allowable by the opposition division.

The respondent also requested that the following not be admitted into proceedings:

- documents D17, D19, D20, D21 and D22,

- the appellant's submissions also relying on D15 that the problem relied on by the respondent in view of D1 as closest prior art is not solved across the scope of claim 1: more specifically that there is no limitation in claim 1 of the main request on the amount and the degree of branching of the detergent and that this amount and degree of branching matter for the claimed composition's properties,

- book extract D21 and the related submission that an extreme pressure additive should contain sulphur, such that it was not surprising that comparative examples B and C of the patent, which have no or less sulphur, perform worse in the context of any technical effect over D7,

- the appellant's submission that the comparison of examples 5 and 7 with comparative example A of the

patent did not show an effect linked to the molecular weight of the succinimide dispersant (c), since these examples differed in more than the molecular weight, and

- the appellant's submissions related to the amounts of the detergent not being in claim 1 and the phenate being the primary driver for an acceptable coefficient of friction.

XII. For the relevant party submissions, reference is made to the reasons for the decision set out below.

Reasons for the Decision

1. Third party observations - Article 115 EPC

1.1 Third party observations dated 23 May 2024 were filed anonymously. The respondent requested that they be disregarded.

1.2 It is established case law (see Case Law of the Boards of Appeal, 11th Edition, III.N.2.4, third paragraph) that third party observations filed anonymously in inter-partes appeal proceedings are deemed not to be filed and are disregarded on formal grounds, *inter alia* in order to preclude possible abuse by a party to the proceedings.

1.3 This view was expressed preliminarily both in the board's communication pursuant to Article 15(1) RPBA as well as during oral proceedings, and no counter-arguments were submitted, in particular by the appellant. The board therefore sees no reason to take a different stance.

Main request - Inventive step, Article 56 EPC

2. The appellant submitted that the claimed subject-matter lacked inventive step starting from either of documents D1 or D7.

2.1 The patent relates to zinc-free lubricating oil compositions useful as transmission oils for construction machines exhibiting both improved friction characteristics and extreme pressure performance even without ZnDTP, which can cause clogging of the clutches under extraordinary surface pressure and high temperature conditions, decreasing the friction coefficient (patent, paragraphs [0001] to [0003]). According to paragraph [0027], the term "construction machines" refers to off-road heavy duty vehicles and off-road vehicles and/or machinery including but not limited to excavators, dozers, loaders, chip spreaders, pavers, compactors and cranes.

2.2 Claim 1 of the main request reads as follows:

"*A zinc-free transmission oil composition for construction machinery comprising:*

(a) a major amount of an oil of lubricating viscosity,
(b) at least 0.25 wt.% of a dithiophosphorylated carboxylic acid compound, and
(c) 1 to 20 wt.% of a succinimide dispersant derived from a polyisobutylene group of 1200 number average molecular weight or less, and
a detergent selected from sulfonate, phenate or a mixture thereof."

3. Starting from D1

3.1 D1 is concerned with lubricant compositions having improved anti-corrosion and fatigue performance (D1, paragraphs [0001] and [0007]). Possible applications of the lubricant compositions of D1 include its use in automotive, heavy-duty truck and bus manual transmissions, as well as automotive transmission fluids (paragraph [0012]).

3.2 According to the contested decision, there was no need to address inventive step starting from D1, as it was a less relevant starting point than D7 (decision point 6.4).

3.3 The appellant contested this conclusion, arguing that D1, and in particular example 23 thereof, was a suitable starting point for the assessment of inventive step of the subject-matter of claim 1.

3.4 Based on the assumption, in the appellant's favour, that example 23 of D1 represents a suitable starting point in the assessment of inventive step, the board came to the conclusion below that the subject-matter of claim 1 involves an inventive step. No reasons are therefore required as to the selection of this disclosure as a starting point.

3.5 It is furthermore noted in the same context that the appellant submitted documents D19 and D20 in support of its arguments that example 23 of D1 represents a suitable starting point. The respondent requested that these documents not be admitted into appeal proceedings. Since, as set out above, the suitability of D1 as a starting point was accepted by the board,

there is no need for the board to address the admittance of these documents.

4. Distinguishing features

4.1 Example 23 of D1 (paragraph [0094], table 4) relates to a lubricant composition comprising an oil of lubricating viscosity and *inter alia* 1.0 wt.% "AW2" and 1.0 wt.% "DISP1" (for the amounts, see paragraph [0089]).

4.2 "AW2" refers to "HiTEC®-511 T" from Ethyl Corporation, an alkyl thiophosphate ester (D1, paragraph [0086]), otherwise known as "Irgalube 353" (e.g. D11). "DISP1" refers to "HiTEC®-633", a polyolefin amide alkeneamine from Ethyl Corporation (D1, paragraph [0088]), which is a succinimide dispersant derived from a polyisobutylene having a number average molecular weight of less than 1,000 (e.g. D10).

4.3 It was undisputed that "AW2" and "DISP1" in example 23 of D1 respectively met the requirements of components (b) and (c) of claim 1 of the main request. It was thus also undisputed that the subject-matter of claim 1 of the main request is distinguished from the composition of example 23 of D1 solely in the presence (in claim 1) of "a detergent selected from sulfonate, phenate, or a mixture thereof".

5. Objective technical problem

5.1 It is undisputed that the patent does not disclose a technical effect specifically linked to this distinguishing feature.

5.2 The respondent submitted that the effect of the distinguishing feature was an improvement in extreme pressure performance. Evidence of this effect was provided by the appellant's experimental tests D16, submitted in opposition proceedings.

5.3 D16 discloses a set of example compositions. The compositions of examples 1 and 6 of D16 (page 2, table 1) differ solely in that example 6 comprises 1.0 wt% high overbased 300 TBN Ca alkylbenzene sulfonate detergent, a detergent as defined in claim 1, while example 1 is absent any detergent. In the Shell 4-ball welding test, the composition of example 6 displays a better performance (i.e. a higher load before welding) than that of example 1, indicating an improvement in extreme pressure performance linked to the presence of a detergent as defined in claim 1.

5.4 Hence, independently of the fact that the "target welding load" of 1960N set out in paragraph [0101] is not met, D16 indicates that improved extreme pressure performance can be achieved by using a detergent as required by claim 1.

5.5 The appellant did not contest that this effect was demonstrated in D16 as described above, but rather argued that it could not be derived from the application as filed. Therefore, in view of Enlarged Board of Appeal decision G 2/21, it could not be relied upon for inventive step, and hence also not in the formulation of the objective technical problem underlying claim 1.

5.6 The board disagrees. Order 2 of G 2/21 reads as follows:

"*A patent applicant or proprietor may rely upon a technical effect for inventive step if the skilled person, having the common general knowledge in mind, and based on the application as originally filed, would derive said effect as being encompassed by the technical teaching and embodied by the same originally disclosed invention.*"

5.7 As argued by the respondent, the effect of improved extreme pressure performance is derivable from the application as filed. Specifically, page 1, lines 20 to 22 states that the lubricating compositions of the invention exhibit both improved friction characteristics and extreme pressure performance, even without ZnDTP.

5.8 Page 20, lines 15 to 22 of the application as filed (corresponding to paragraph [0072] of the patent) states that the lubricating oil compositions may further comprise additives that can impart or improve any desirable property of the lubricating composition. Such additives are listed on page 20, lines 22 to 27 and include detergents. Detergents are mentioned in this list as one of many possible additives.

5.9 However, further disclosures in the application as filed point to the specific importance of detergents in the claimed lubricating compositions: claim 7, which is dependent on claim 1, stipulates that the composition further comprises a detergent selected from sulfonate, phenate, or a mixture thereof. Claim 8 is the only other claim dependent on claim 1 and related to a further additive, namely a friction modifier. Since

dependent claims are generally directed to preferred embodiments of the invention (Rule 43(3) EPC), this indicates a higher ranking for detergents and friction modifiers as additives over other additives listed in the application as filed. Furthermore, the lubricant compositions of all examples (table 1, page 31) comprise either a sulfonate or phenate detergent, and it is demonstrated for the inventive examples that adequate extreme pressure performance can be achieved in the Shell 4-ball test (page 31, table 1, final row). Therefore there is a link in the application as filed between the compositions of claim 7 and the effect of extreme pressure performance set out on page 1 as stated above.

5.10 In this context the board acknowledges, as argued by the appellant, that it is not deducible from the application as filed that the extreme pressure performance is improved by way of the distinguishing feature over D1, namely the presence of a detergent as claimed. However, as set out for example in T 1989/21 (point 3.3.16 of the reasons), once the technical effect, in the present case extreme pressure performance, is derivable from the application as filed in the sense of G 2/21 as set out above, then its improvement is also to be regarded as implicitly derivable.

5.11 It is to be noted in this respect that D1 was cited with the appellant's notice of opposition and thus was not part of the procedure up to the grant of the patent. In a patent application, the applicant may choose to address distinguishing features of the invention compared to prior art known to the applicant at the time, and include comparative data showing an improvement over said prior art, where appropriate. It

is however not uncommon in opposition proceedings for patent proprietors to be confronted with newly cited prior art, the disclosure of which is distinguished from the claimed subject-matter in a different technical feature to that distinguishing said subject-matter from the prior art known at the time the application was drafted.

5.12 In this regard, it is not reasonable to expect patent applicants, at the time of drafting the application, to safeguard against the citation of then unknown prior art, for example in opposition proceedings, by providing comparative data showing an improvement for all potential distinguishing features over all potentially later cited closest prior art documents. Not only would this be unreasonably burdensome, it would also suffer from the shortcoming that not knowing the nature of the disclosure of the newly cited closest prior art, the information required to set up appropriate comparative tests representative thereof would not be at hand.

5.13 As a consequence, it would be an overly strict interpretation of G 2/21 to require that the application as filed demonstrate that the improvement of a technical effect disclosed in the application as filed and relied on by the patent proprietor is specifically attributed to the distinguishing feature. In such a situation, it would suffice for opponents to cite new prior art differing in the distinguishing feature compared to the prior art known when the application was drafted to invalidate the patent. More specifically, since relying on post-published data would be excluded under such a strict interpretation of G 2/21, such patents would be likely to face revocation.

5.14 Consequently, based on the application as filed, the skilled person would derive the effect of improved extreme pressure performance as being encompassed by the technical teaching and embodied by the originally disclosed invention, as required by the order of G 2/21. Hence, this effect may be relied upon for inventive step, and consequently in the formulation of the objective technical problem underlying claim 1.

5.15 The appellant's further submissions in relation to the the technical effect of improved extreme pressure performance were either not admitted or failed to convince the board.

5.15.1 First, the appellant submitted that there was no limitation in claim 1 of the main request to the amount of detergent and the degree of branching thereof. It was common general knowledge, for example in view of book excerpt D15, that these factors affected a lubricant composition's properties. It was therefore not credible that the effect of improved extreme pressure performance was achieved for all amounts and degrees of branching covered by claim 1.

5.15.2 The respondent requested that this objection not be admitted into appeal proceedings on the ground that it had not been raised in opposition proceedings.

5.15.3 According to Article 12(6) RPBA, the board shall not admit *inter alia* objections which should have been submitted in the proceedings leading to the decision under appeal, unless the circumstances of the appeal case justify their admittance.

5.15.4 The appellant conceded that it had not raised the objection concerned in written proceedings before the opposition division. However, it had been raised by the appellant at oral proceedings before the opposition division.

5.15.5 As stated by the respondent however, there is no record in the minutes of oral proceedings nor in the decision under appeal that the objection was raised during oral proceedings. In the absence of any evidence in the file that this objection was raised in opposition proceedings, the mere statement of the appellant to this effect is not sufficient. Hence the board considers that this objection was submitted for the first time in appeal proceedings, namely with the appellant's statement of grounds of appeal.

5.15.6 The board notes that the present main request was first submitted as main request by the respondent with the letter dated 21 March 2022, approximately 15 months before oral proceedings before the opposition division. Hence, the appellant had had sufficient time in advance of oral proceedings to submit the objection related to the amount of detergent and the degree of branching thereof in writing. It follows that the objection could and should have been submitted during opposition proceedings.

5.15.7 Since the board could not identify any particular circumstances of the present appeal case which could justify the admittance thereof, and none were submitted by the appellant, the board decided pursuant to Article 12(6) RPBA not to admit the appellant's submissions.

5.16 Second, the appellant submitted that the effect of improved extreme pressure performance was demonstrated in D16 only for a sulfonate detergent, specifically a "high overbased 300 TBN CA alkylbenzene sulfonate". No evidence was presented that the same effect could be achieved with phenate detergents, also included within the scope of claim 1 of the main request. Hence, also for this reason, it was not credible that the effect of improved extreme pressure performance was achieved across the entire scope of claim 1.

5.16.1 The board disagrees for the reasons provided by the respondent. Specifically, even though no comparative data is provided for phenate detergents, the nature of detergents in general is similar. Hence, in the absence of evidence to the contrary, the same effect would be expected for phenate detergents. This expectation is also supported by the examples in the patent, of which specifically the compositions of examples 1 and 6 only comprise a phenate detergent, yet display equal extreme pressure performance (in the Shell 4-ball test) to those compositions also comprising a sulfonate detergent (example 2 to 5).

5.17 Consequently, the objective technical problem underlying claim 1 of the main request starting from D1 may be formulated as proposed by the respondent, namely as the provision of a transmission oil having improved extreme pressure performance.

6. Obviousness

6.1 The appellant argued that the improvement in extreme pressure performance constituted a mere "bonus effect", because the detergents recited in claim 1 were widely known in the art to be included in transmission oils

and to provide other advantages, such as neutralising acids, minimising deposit formation and altering frictional properties (e.g. D15, page 139, final 3 lines).

6.2 This argument is not convincing. A bonus effect can only be acknowledged where the distinguishing feature is already obvious *per se* for a different purpose, and the additional effect merely incidental (Case Law of the Boards of Appeal, 11th edition, I.D.10.8.1; e.g. T 21/81, T 231/97). In the present case, there is no indication that a specific but different objective technical problem to that formulated above is solved by the inclusion, in the composition of example 23 of D1, of the detergents recited in claim 1. Furthermore, even if the detergents recited in claim 1 are routinely used in transmission oil compositions as argued by the appellant, there is no evidence that they represent a "one-way street" solution to any particular technical problem, i.e. that faced with said technical problem, the skilled person would inevitably be led to the detergents recited in claim 1 as the solution thereto. Thus the appellant's "bonus effect" argument must fail.

6.3 In the absence of any further argument from the appellant, and since the board is not aware of any suggestion in the cited prior art that the above defined objective technical problem can be solved by including the claimed detergent, the subject-matter of claim 1, and by extension claims 2 to 9 of the main request involves an inventive step over D1.

7. Starting from D7 as closest prior art

7.1 Admittance

7.1.1 The respondent requested that the following submissions relevant to inventive step starting from D7, submitted with the appellant's letter dated 21 October 2024, not be admitted into appeal proceedings:

- book extract D21 and the related submission that an extreme pressure additive should contain sulphur, such that it was not surprising that comparative examples B and C of the patent, which have no or less sulphur, perform worse in the context of any technical effect over D7 (points 5.25 to 5.27 of said letter),

- that the comparison of Examples 5 and 7 with comparative Example A of the patent did not show an effect linked to the molecular weight of the succinimide dispersant (c), since these examples differed in more than the molecular weight (points 5.14 to 5.21 of said letter), and

- the submissions related to the amounts of the detergent not being in claim 1 and the phenate being the primary driver for an acceptable coefficient of friction (paragraph 5.13 of said letter).

7.1.2 The appellant's letter dated 21 October 2024 was submitted after the respondent's reply to the statement of grounds of appeal. At least the provisions of Article 12(6) RPBA therefore apply.

7.1.3 According to Article 12(6) RPBA, the board shall not admit requests, facts, objections or evidence which should have been submitted in the proceedings leading to the decision under appeal, unless the circumstances of the appeal case justify their admittance.

7.1.4 The appellant submitted that the above submissions were justified on the basis that they represented a reply to the respondent's arguments, detailed in point 36 of the respondent's reply to the grounds of appeal, related to the experimental data provided by the examples of the patent.

7.1.5 The board does not share this view. As indicated by the respondent and not disputed by the appellant at oral proceedings before the board, the same arguments concerning the examples of the patent were submitted by the respondent in opposition proceedings at the earliest possible opportunity, namely with points 27 and 28 of the reply to the notice of opposition. Since there is no reason why the above submissions could not have been submitted by the appellant in response to the reply to the notice of opposition, it follows that these submissions could and should have been submitted during opposition proceedings.

7.1.6 The appellant further argued that the above submissions were justified as they represented mere developments of the case.

7.1.7 The board disagrees. The first of the above submissions involves new evidence and allegations of fact based thereon, while the second and third submissions concern new allegations of fact. All submissions concern new facts not previously addressed in opposition

proceedings, and hence do not represent a mere development of issues already under discussion.

7.1.8 In view of these considerations, the board decided not to admit the appellant's submissions detailed above into the appeal proceedings pursuant to Article 12(6) RPBA.

8. Closest prior art

8.1 It is undisputed that D7 represents a suitable starting point for the assessment of inventive step of the claimed subject-matter. D7 concerns transmission lubricating oil compositions suitable for a continuously variable transmission equipped with a slip-controlled wet clutch and a metal belt, which have excellent anti-wear properties and excellent anti-shudder properties (D7, paragraph [0001]).

8.2 The appellant argued that starting from example 6 of D7 (table 1, page 13), the subject-matter of claim 1 lacked inventive step. Example 6 relates to a zinc-free transmission oil composition comprising 0.28 wt% of a phosphorous-containing anti-wear agent B, namely di-2-ethylhexylphosphite (table 1, legend, reference number 6), and 3 wt.% of an ashless dispersant A, namely polybutenyl succinimide (table 1, legend, reference number 7).

9. Distinguishing features

9.1 It is undisputed that the subject-matter of claim 1 is distinguished from example 6 of D7 in that:

- the composition of example 6 of D7 does not contain a dithiophosphorylated carboxylic acid

compound as required by claim 1, component (b), and

- there is no explicit disclosure in D7 that the polybutenyl succinimide dispersant of the composition of example 6 is derived from a polyisobutylene group of 1200 number average molecular weight or less, as required by component (c) of claim 1.

10. Objective technical problem

10.1 Effect linked to component (b) of claim 1

10.1.1 The respondent submitted that a technical effect linked to component (b) of claim 1 was demonstrated by a comparison of example 1 and comparative example B of the patent (Table 1, page 14).

10.1.2 The board agrees. These examples differ only in that example 1 comprises 0.3 wt.% dithiophosphosphorylated carboxylic acid (Irgalube® 353; patent, paragraph [0096]) according to component (b) of claim 1, while comparative example B comprises 0.5 wt.% "Duraphos DBHP", which is dibutyl hydrogen phosphite (patent, paragraph [0099]), not according to any component defined in claim 1. The test results in table 1 of the patent demonstrate improvements in frictional properties in the micro-clutch test (0.186 for example 1 versus 0.173 for comparative example B) as well as improvements in extreme pressure performance using the Shell 4-ball test (1960 N for example 1 versus 1568 N for comparative example B). Hence, both effects can be derived from the distinguishing feature of component (b) over example 6 of D7.

10.2 The appellant's arguments to the contrary failed to convince the board.

10.2.1 First, it was argued that comparative example B of the patent did not fairly represent example 6 of D7 because the respective examples comprised different phosphorous compounds, namely dibutyl hydrogen phosphite in comparative example B and di-2-ethylhexyl phosphite in example 6 of D7.

10.2.2 The board disagrees. These hydrogen phosphite compounds are very similar in structure and would thus be expected to behave similarly. Furthermore, as noted by the respondent, dibutyl hydrogen phosphite used in comparative example B of the patent is also used in example 1 of D7. The test data provided in table 1 of D7 for examples 1 (with dibutyl hydrogen phosphite) and 6 (with di-2-ethylhexyl phosphite) provides identical results for anti-shudder and wear, such that the skilled person would not attribute different technical effects to the respective phosphite compounds. Hence, the use of dibutyl hydrogen phosphite in comparative example B of the patent, in the absence of evidence to the contrary, is considered a fair representation of the disclosure of example 6 of D7. Comparative example B can therefore be invoked to demonstrate a technical effect linked to the distinguishing feature.

10.2.3 Second, the appellant argued on the basis of experimental evidence D16 and D17 that even if the alleged technical effects demonstrated by the examples of the patent as set out above were accepted, they were not displayed across the entire scope of the claim, and hence could not be relied on in the formulation of the objective technical problem underlying claim 1.

10.2.4 The board disagrees with this view.

10.2.5 D16 discloses the results of subjecting two compositions falling within the scope of claim 1 (examples 6 and 7) to the Shell 4-ball welding load test (the test used to measure extreme pressure performance in table 1 of the patent). These compositions both displayed results in this test which fell below the target welding load of 1960 N set out in paragraph [0101] of the patent.

10.2.6 D17 is also an experimental report submitted by the appellant before the opposition division. D17 discloses the results of subjecting three compositions falling within the scope of claim 1 to the Komatsu micro-clutch test (the test used to measure the coefficient of friction in table 1 of the patent). These compositions all displayed friction coefficients below 0.130, and hence failed to meet the criterion for passing the Komatsu test set out in paragraph [0100] of the patent.

10.2.7 As stated by the respondent, although D16 and D17 disclose compositions falling within the scope of claim 1 of the main request, they lack any comparative examples, let alone comparative examples representative of D7. Hence, neither D16 nor D17 can contradict the evidence of a technical effect vis à vis D7 provided in Table 1 of the patent as set out above.

10.2.8 The board acknowledges that the compositions of the examples in D16 and D17 fail to meet the desired performance criteria set out in the patent (paragraphs [0101] and [0100]) for the Shell 4-ball welding and Komatsu micro-clutch tests. However, this does not constitute evidence that, compared to D7, the technical

effects demonstrated in the patent for component (b) cannot be obtained across the scope of claim 1.

10.2.9 Consequently, D16 and D17 do not contradict the effects demonstrated by a comparison of example 1 and comparative example B of the patent as set out above.

10.3 Effect linked to the distinguishing feature in component (c) of claim 1

10.3.1 The respondent submitted that evidence of a technical effect linked to a polybutenyl succinimide dispersant derived from a polyisobutylene group of 1200 number average molecular weight or less was provided by a comparison of examples 5 and 7 with comparative example A of the patent (Table 1, page 14).

10.3.2 The board agrees. Specifically, the compositions of examples 5 and 7 differ from that of comparative example A only in the nature of the dispersant, present in all compositions at 3.0 wt.%. The composition of example 5 comprises a succinimide derived from 1000 MW polyisobutylene (dispersant 1), while that of example 7 comprises an ethylene carbonate treated bis-succinimide derived from 1000 MW polyisobutylene (dispersant 3). On the other hand, the composition of comparative example A comprises bis-succinimide derived from 1300 MW polyisobutylene (dispersant 2) (patent, table 1 and paragraph [0097]), i.e. above the upper limit of 1200 number average molecular weight recited in claim 1.

10.3.3 The tests in table 1 of the patent demonstrate that the compositions of example 5 and 7 display both a higher friction coefficient than comparative example A (0.135, 0.181 and 0.124, respectively) as well as better

extreme pressure performance (1960, 1960 and 1568, respectively.

10.3.4 Hence, both effects can be derived from the distinguishing feature of component (c) over example 6 of D7.

10.3.5 Similarly to its argument submitted in relation to the distinguishing feature of component (b), the appellant referred to D16 and D17 as evidence that the technical effects relied on were not demonstrated across the scope of the claim. These arguments however fail for the same reasons as set out by the board above.

10.3.6 Consequently, the objective technical problem underlying claim 1 of the main request starting from D7 is therefore the same as proposed by the respondent, namely the provision of a transmission oil with improved (i.e. increased) friction properties and extreme pressure performance.

11. Obviousness

11.1 During oral proceedings before the board, the appellant submitted arguments in relation to obviousness only with regard to a less ambitious objective technical problem to that set out above, namely the provision of of an alternative transmission oil composition to that of D7. The appellant argued that the solution to that problem would have been obvious starting from D7 in combination with D4, D5, D6 or D12.

11.1.1 In response, the respondent argued that none of D4, D5, D6 or D12 comprised any teaching, hint or motivation to the skilled person that the more ambitious objective technical problem, formulated by the respondent above,

could be solved by the distinguishing features of claim 1, specifically that those features would provide increased friction and improved extreme pressure performance in a transmission oil composition.

11.1.2 The appellant did not challenge this statement, and when specifically asked whether it wished to submit any arguments regarding obviousness of the subject-matter of claim 1 if the objective technical problem were formulated more ambitiously as above, it referred to its written submissions.

11.1.3 No relevant written submission was however identified by the board, in particular specifically relating to the question of obviousness in the event that the objective technical problem is formulated as set out above. In this regard, the board is not obliged to search the appellant's submissions and attempt to construct the relevant arguments from related objections on file (for example, from the arguments on obviousness related to the less ambitious problem formulated by the appellant). Such an assessment would run contrary to the board's obligation to remain impartial.

11.2 In the absence of any counter-arguments to the respondent's position that none of D4, D5, D6 or D12 would motivate the skilled person to the solution set out in claim 1, the board can only concur. Hence, the subject-matter of claim 1 involves an inventive step starting from D7 as closest prior art.

11.3 Since this conclusion, which is favourable to the respondent, was reached taking into account the appellant’s arguments based on D17, there is no need

for the board to decide on the respondent's request not to admit D17 into the proceedings.

12. In conclusion, the subject-matter of claim 1 of the main request involves an inventive step vis à vis D7 pursuant to Article 56 EPC. The same applies by extension to dependent claims 1 to 8 and independent claim 9 directed to a method using the composition as claimed in any preceding claim.

13. The set of claims of the main request is allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Wille M. O. Müller

Decision electronically authenticated