**VCA Headquarters**
1 The Eastgate Office Centre
Eastgate Road
Bristol, BS5 6XX
United Kingdom

Switchboard: +44 (0) 117 951 5151
Direct line: +44 (0) 117 952
Main Fax: +44 (0) 117 952 4103
Email: enquiries@vca.gov.uk
Web: www.vca.gov.uk

THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY



E11

COMMUNICATION CONCERNING APPROVAL GRANTED OF A ENGINE TYPE WITH REGARD TO EMISSIONS OR MEASUREMENT OF POWER OF THE ENGINE ONLY, PURSUANT TO REGULATION NO 24.03

Approval No: 24R-030833 Extension 4

1. Trade name or mark of vehicle: Not applicable

2. Trade name or mark of engine: Cummins

3. Vehicle type: Not applicable

4. Engine type: C300 20 Engine Approval No: Not applicable

5. Manufacturer's name and address:

Cummins Engine Company Limited
Yarn Road
Darlington
County Durham
DL1 4PW
United Kingdom

6. If applicable, name and address of manufacturer's representative Not applicable

7. Engine submitted for Type Approval on: As before (21 April 1998)

8. Technical service conducting Approval tests: Vehicle Certification Agency

9. Date of report issued by that service: As before (21 April 1998)



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10. Number of report issued by that service: As before (97/982438-1)

11. Test results:

11.1 Emissions*

11.1.1 Tests at steady speeds:

| Measurement points | Engine Speed n (rpm) | Power P (kW) | Nominal flow G (litres/sec) | Measured absorption values ($m^{-1}$) |
|---|---|---|---|---|
| 1 | 2201 | 222.36 | 152.24 | 0.35 |
| 2 | 2150 | 221.80 | 148.71 | 0.35 |
| 3 | 1720 | 204.80 | 118 | 0.22 |
| 4 | 1450 | 171.40 | 97 | 0.14 |
| 5 | 1400 | 165.54 | 100.29 | 0.17 |
| 6 | 1240 | 143.14 | 96.83 | 0.35 |
| 7 | 1000 | 70.93 | 69.17 | 0.48 |
| | | | | |

For engine type approval, power absorbed by the fan during the tests: Fan not fitted

11.1.2 Free acceleration tests

11.1.2.1 Engine test in accordance with Annex 5 (1): Not applicable

| Percentage of maximum rpm (2) | Percentage of maximum torque at rpm stated (2) | Measured absorption value $m^{-1}$ | Corrected absorption value $m^{-1}$ |
|---|---|---|---|
| 100 | 100 | | |
| 90 | 100 | | |
| 100 | 90 | | |
| 90 | 90 | | |
| 100 | 80 | | |
| 90 | 80 | | |

(2) The lower limit may be that stated by the manufacturer in accordance with this Regulation, part I, paragraph 6.3.4

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11.1.2.2 Engine test according to this Regulation, part I, or vehicle test according to part III [(1)]:

| Inertia | ABS ($m^{-1}$) |
|---|---|
| 2.97 | 1.41 |
| 2.37 | 1.26 |
| 1.77 | 1.09 |
| 1.44 | 1.05 |
| 1.09 | 0.92 |

Rpm at start: 600 rpm

11.2 Stated net maximum power [(1)]: 218.33 kW at 2200 rpm

12. Make and type of opacimeter: Hartridge Mk III

13. Principal characteristics of engine type:

Engine working principle: Four stroke

Number and layout of cylinders: 6 in-line

Cylinder capacity: 8268 $cm^3$

Fuel feed: Indirect injection Direct injection

Supercharging equipment: Yes

14. Approval GRANTED

15. Reason for extension of approval: Addition of assembly plant
(Dongfeng Cummins Engine Company Limited, Automobile Industry Development Zone, Xiangfan, Hubei Province, Republic of China 441004).

16. Place: BRISTOL

17. Date: 16 MARCH 2006

18. Signature:

A. W. STENNING
Head of Product Certification

19. A list of the documents contained in the approval file transmitted to the administrative service which has granted approval is annexed to this communication.



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# CUMMINS ENGINE CO. LTD
# DARLINGTON
# ENGLAND

DIESEL ENGINE TEST

TO

ECE REGULATION 24-03

Engine model (s) ...C300 20

Rated 218.23 kW Net at 2200 rpm
220.60 kW Gross at 2200 rpm

| Extension | Job Number | Description |
|---|---|---|
| 1 | P95-96/3524 | Connection of the Static Injection Timing |
| 2 | P94-95/0353-2 | Revised injectors, compression ratio and injection timing: revised declared performance |
| 3 | CSF070781 | Addition of Chinese Assembly Plant |

Approval Number.....24R-030833 Ext 4
Test Agency.....Vehicle Certification Agency
Job Number.....CSF070781
Date and location of test..... 24th January 1995, Darlington

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**CUMMINS ENGINE COMPANY LTD.**

**EUROPEAN TECHNICAL OPERATIONS**

**DARLINGTON**

Engine Model : C300 20

Job Number : CSF070781

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9.0 Address of Assembly Plants

Cummins Engine Co. LTD.
Yarm Road, Darlington, County Durham
DL1 4PW United Kingdom

Dongfeng Cummins Engine Co.,Ltd
Automobile Industry Develop zone,
Xiangfan, Hubei Province China 441004

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