

Annex 1

ESSENTIAL CHARACTERISTICS OF THE ENGINE AND INFORMATION  
 CONCERNING THE CONDUCT OF TESTS 1/

1. Description of the engine
  - 1.1. Make . . . . .
  - 1.2. Type . . . . .
  - 1.3. Cycle: four-stroke/two-stroke 2/
  - 1.4. Number and arrangement of cylinders . . . . .
  - 1.5. Bore . . . . . mm
  - 1.6. Stroke . . . . . mm
  - 1.7. Cylinder capacity . . . . . cm<sup>3</sup>
  - 1.8. Compression ratio 3/ 4/ . . . . .
  - 1.9. Drawings of the combustion chamber and of the piston, including the piston rings . . . . .
  - 1.10. System of cooling . . . . .
  - 1.11. Supercharger: with/without 2/ description of the system . . . . .
  - 1.12. Device for recycling crank-case gases (description and diagrams) . . . . .
  - 1.13. Air filter: drawings, or makes and types . . . . .
  - 1.14. System of lubrication (two-stroke engines - separate or by mixture) . . . . .
  
2. "Additional anti-pollution devices" (if any, and if not covered by another heading)  
 Description and diagrams . . . . .
  
3. Air intake and fuel feed
  - 3.1. Description and diagrams of air intakes and their accessories (dashpot, heating device, additional air intakes, etc.) . . . . .

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1/ In the case of unconventional engines and systems, particulars equivalent to those mentioned here shall be supplied.  
2/ Strike out what does not apply.  
3/ "Compression ratio" = volume combustion chamber + cylinder capacity  
 . volume combustion chamber  
4/ Specify the tolerance.

- 3.2. Fuel feed
  - 3.2.1. by carburetor(s) 1/ . . . . . number . . . . .
  - 3.2.1.1. Make . . . . .
  - 3.2.1.2. Type . . . . .
  - 3.2.1.3. Settings 2/
    - 3.2.1.3.1. Jets . . . . . ) (
    - 3.2.1.3.2. Venturis . . . . . ) (Curve of fuel
    - 3.2.1.3.3. Float-chamber level . . . . . ) or (delivery plotted
    - 3.2.1.3.4. Weight of float . . . . . ) (against air flow 1/ 2/
    - 3.2.1.3.5. Float needle . . . . . ) (
    - 3.2.1.4. Manual/automatic choke 1/ . . . . . closure setting 2/ . . . . .
    - 3.2.1.5. Feed pump
      - Pressure 2/ . . . . . or characteristic diagram 2/ . . . . .
  - 3.2.2. by injector 1/
    - 3.2.2.1. Pump
      - 3.2.2.1.1. Make . . . . .
      - 3.2.2.1.2. Type . . . . .
      - 3.2.2.1.3. Delivery . . . mm<sup>3</sup> per stroke a pump speed of . . . r.p.m. 1/ 2/  
 or characteristic diagram 1/ 2/ . . . . .
    - 3.2.2.2. Injector(s)
      - 3.2.2.2.1. Make . . . . .
      - 3.2.2.2.2. Type . . . . .
      - 3.2.2.2.3. Calibration . . . . . bars 1/ 2/  
 or characteristic diagram 1/ 2/
- 4. Valve timing
  - 4.1. Timing for mechanically operated valves
    - 4.1.1. Maximum lift of valves and angles of opening and closing in  
 relation to dead centres . . . . .  
 . . . . .  
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1/ Strike out what does not apply.  
2/ Specify the tolerance

- 4.1.2. Reference and/or setting clearance 1/ . . . . .
- 4.2. Distribution by ports
- 4.2.1. Volume of crank-case cavity with piston at tdc . . . . .
- 4.2.2. Description of reed valves if any (with dimensioned drawing) .
- 4.2.3. Description (with dimensioned drawing) of inlet ports, scavenging  
and exhaust, with corresponding timing diagram . . . . .
  
- 5. Ignition
- 5.1. Distributor(s)
- 5.1.1. Make . . . . .
- 5.1.2. Type . . . . .
- 5.1.3. Ignition advance curve 2/ . . . . .
- 5.1.4. Ignition timing 2/ . . . . .
- 5.1.5. Contact-point gap 2/ . . . . .
  
- 6. Exhaust system
- Description and diagrams . . . . .
  
- 7. Additional information on test conditions
- 7.1. Lubricant used . . . . .
- 7.1.1. Make . . . . .
- 7.1.2. Type . . . . .  
(State percentage of oil in mixture if lubricant and fuel mixed)
- 7.2. Sparking plugs
- 7.2.1. Make . . . . .
- 7.2.2. Type . . . . .
- 7.2.3. Spark-gap setting . . . . .
- 7.3. Ignition coil . . . . .
- 7.3.1. Make . . . . .
- 7.3.2. Type . . . . .
- 7.4. Ignition condenser . . . . .
- 7.4.1. Make . . . . .
- 7.4.2. Type . . . . .

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- 7.5. Idling system. Description of setting and relevant requirements in accordance with paragraph 5.2.1.2.1. . . . .
- 7.6. Carbon monoxide content by volume in the exhaust gas, with the engine idling . . . per cent (manufacturer's standard) . . . .
  
- 8. Engine performance
- 8.1. Idling speed . . . . . r.p.m. 1/
- 8.2.2 Engine speed at maximum power . . . . . r.p.m. 1/
- 8.3. Maximum power . . . . . kW ECE

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1/ Specify the tolerance



- 11. Date of report issued by that service . . . . .
- 12. Number of report issued by that service . . . . .
- 13. Approval granted/refused 1/ . . . . .
- 14. Position of approval mark on the vehicle . . . . .
- 15. Place . . . . .
- 16. Date . . . . .
- 17. Signature . . . . .
- 18. The following documents, bearing the approval number shown above, are annexed to this communication:
  - 1 copy of annex 1, duly completed and accompanied by the drawings and diagrams referred to.
  - 1 photograph of the engine and its compartment;
  - 1 copy of the test report.

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1/ Strike out what does not apply.