|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | 1. **SPECIFICATIONS OF BRUSH CUTTER** | | |
| **1.1** | | **General** |  |  |
|  | | Name of machine | **:** |  |
|  | | Type of machine | **:** |  |
|  | | Name of manufacturer and address | **:** |  |
|  | | Name of applicant and address | **:** |  |
|  | | Make | **:** |  |
|  | | Model | **:** |  |
|  | | Sr. No. | **:** |  |
|  | | Brand’s Name | **:** |  |
|  | | Country of origin | **:** |  |
|  | | Year of manufacture | **:** |  |
|  | | Recommended use | **:** |  |
| **1.2** | | **Details of prime mover** |  |  |
|  | | Manufacturer | **:** |  |
|  | | Make | **:** |  |
|  | | Model | **:** |  |
|  | | Type | **:** |  |
|  | | Serial No. | **:** |  |
|  | | Year of manufacture | **:** |  |
|  | | Country of origin | **:** |  |
|  | | Maximum power kW | **:** |  |
|  | | Recommended high idle speed, rpm | **:** |  |
|  | | Recommended low idle speed, rpm | **:** |  |
|  | | Recommended rated speed for field operation, rpm | **:** |  |
|  | | Speed at maximum torque, rpm | **:** |  |
| **1.3** | | **Cylinder and cylinder head** |  |  |
|  | | Number | **:** |  |
|  | | Disposition | **:** |  |
|  | | Bore/stroke, mm | **:** |  |
|  | | Capacity, cc | **:** |  |
|  | | Make of carburetor | **:** |  |
|  | | Type of carburetor | **:** |  |
|  | | Make of spark plug | **:** |  |
|  | | Model of spark plug | **:** |  |
|  | | Spark plug electrode gap.(mm) | **:** |  |
| **1.4** | | **Fuel supply system** |  |  |
|  | | Type of fuel system | **:** |  |
|  | | Material of fuel tank | **:** |  |
|  | | Capacity of fuel tank, (l) | **:** |  |
|  | | Location of fuel tank | **:** |  |
|  | | Type of fuel filter | **:** |  |
|  | | Fuel on/off | **:** |  |
| **1.5** | | **Air cleaner** |  |  |
|  | | Make | **:** |  |
|  | | Type | **:** |  |
|  | | Type of element | **:** |  |
|  | | Location | **:** |  |
|  | | Recommended service schedule, h | **:** |  |
| **1.6** | | **Exhaust system** |  |  |
|  | | Type of silencer | **:** |  |
|  | | Position of silencer | **:** |  |
| **1.7** | | **Lubrication system** |  |  |
|  | | Type | **:** |  |
|  | | Type of lubricant recommended | **:** |  |
|  | | Ratio of mixing of lub. Oil with fuel | **:** |  |
| **1.8** | | **Cooling system** |  |  |
|  | | Type | **:** |  |
| **1.9** | | **Starting system** |  |  |
|  | | Type | **:** |  |
|  | | Ignition system | **:** |  |
|  | | Aid for cold starting | **:** |  |
|  | | Any other provision for easy starting | **:** |  |
| **1.10** | | **Transmission system** |  |  |
|  | | Type | **:** |  |
|  | | Mode of power transmission | **:** |  |
|  | | No of teeth on pinion gear | **:** |  |
|  | | No of teeth on crown | **:** |  |
|  | | Reduction ratio | **:** |  |
|  | | Method of lubrication | **:** |  |
| **1.11** | **Cutting attachments** | |  |  |
|  | Cutter rpm @ 6500 engine rpm by calculation | | **:** |  |
| **1.11.1** | **Nylon rope** | |  |  |
|  | Material | | **:** |  |
|  | Rope size, mm | | **:** |  |
| **1.11.2** | **Triangular blade** | |  |  |
|  | Material | | **:** |  |
|  | Diameter, mm | | **:** |  |
|  | Width, mm  -At tips (away from center) | | **:** |  |
|  | Width of beveled edge, mm | | **:** |  |
|  | Thickness at tip (mm) | | **:** |  |
| **1.12** | **Safety provision** | |  |  |
|  |  | | | |
| **1.13** | **Overall dimensions , mm** | |  |  |
|  | Length (with nylon rope assembly) | | **:** |  |
|  | Length (with triangular blade assembly) | | **:** |  |
|  | Width | | **:** |  |
|  | Height | | **:** |  |
| **1.14** | **Mass, kg** | |  |  |
|  | With triangular blade and grass deflector | | **:** |  |
|  | With nylon rope and grass deflector | | **:** |  |
| **1.15** | **Color of machine** | |  |  |
|  | Engine | | **:** |  |
|  | Chassis | | **:** |  |
|  | Fuel tank | | **:** |  |
| **1.16** | **Marking/Labeling** | | **:** |  |

**ADDITIONAL INFORMATION**

**1. Engine Performance :**

i) Maximum Power kw (Ps)

ii) Rated Power kw(Ps)

iii) Specific fuel consumption corres-

ponding to maximum power

kg/kwh (g/hph)

:

iv) Maximum equivalent crankshaft torque Nm (kgs-m)

v) Back-up torque (%)

vi) Maximum temperatures (ºC)

-Engine oil

-Coolant (water)/liner wall

vii) Lubricating oil consumption (g/kwh)

viii) Coolant consumption (% of total

Coolant capacity)

ix) Smoke level (Bosch No.) :

**2. Mechanical Vibration at steering/**

**hands** :

**3. Air cleaner-oil pullover** :

- Maximum oil pull over (%) :

**4. Noise level :**

- Maximum ambient noise level dB(A) :

- Maximum noise level at the

Operator’s ear level dB(A)

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Critical components** | **Initial Setting** | **Discard**  **Limit** |
| 1 | Cylinder bore dia (mm) |  |  |
| 2 | Piston to cylinder clearance at skirt ,mm |  |  |
| 3 | Piston dia (mm) |  |  |
| 4 | Ring-end gap (mm): |  |  |
|  | -Top compression ring |  |  |
|  | -2nd compression ring |  |  |
|  | -3rd compression ring |  |  |
|  | - Oil ring |  |  |
| 5 | Ring groove clearance (mm): |  |  |
|  | -Top compression ring |  |  |
|  | -2nd compression ring |  |  |
|  | -3rd compression ring |  |  |
|  | - Oil ring |  |  |
| 6 | Clearance of big end bearings (mm) |  |  |
|  | - Diametrical |  |  |
|  | - Axial |  |  |
| 7 | Crankshaft end float (mm) |  |  |
| 8 | Backlash of timing gears |  |  |
| 9 | Backlash of primary gear box gears |  |  |
| 10 | Backlash of secondary gear box gears |  |  |
| 11 | Overall thickness of clutch plate (mm) |  |  |
| 12 | Spring stiffness, N/mm (kgf/mm) |  |  |
|  | Inlet |  |  |
|  | Exhaust |  |  |
| 13 | Clearance between valve guide and valve |  |  |
|  | Stem (mm) |  |  |
|  | Inlet valve |  |  |
|  | Exhaust valve |  |  |

Place:

Date: Signature:…………

Name of the signatory:………

Designation: