|  |  |
| --- | --- |
|  | 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: