**TECHNICAL SPECIFICATIONS FOR POWER WEEDER**

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| --- | --- | --- | --- |
| 1 | **General:** |  |  |
| Type of machine | **:** |  |
| Make | **:** |  |
| Model | **:** |  |
| Brand name | **:** |  |
| Serial no. | **:** |  |
| Name and address of manufacturer | **:** |  |
| Name and address of applicant | **:** |  |
| Year of manufacture | **:** |  |
| Country of origin | **:** |  |
| 2 | **Details of prime mover:** |  |  |
| Name and address of manufacturer | **:** |  |
| Type | **:** |  |
| Make | **:** |  |
| Model | **:** |  |
| Sr. No. | **:** |  |
| Country of origin | **:** |  |
| Year of manufacturer | **:** |  |
| **Engine speed (recommended setting), rpm:** | | |
| High idle speed | **:** |  |
| Low idle speed | **:** |  |
| Rated speed | **:** |  |
| Speed at maximum torque | **:** |  |
| No load engine speed for field operation, if any | **:** |  |
| Whether the prime mover has already been tested by authorized testing centre (Yes/No) | **:** |  |
| If yes, then specify the valid test report No. and upload the copy of test report | **:** |  |
| 3 | **Cylinder & cylinder head:** |  |  |
| Number | **:** |  |
| Disposition | **:** |  |
| Bore/stroke, mm | **:** |  |
| Capacity, cc | **:** |  |
| Type of valve | **:** |  |
| **Valve clearance (mm):** |  |  |
| Inlet  Exhaust | **:**  **:** |  |
| Compression ratio | **:** |  |

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| 4 | **Fuel supply system:** |  |  |
| Type of fuel feed | **:** |  |
| 4.1 | **Fuel tank:** |  |  |
| Material | **:** |  |
| Capacity of fuel tank, l | **:** |  |
| Location of fuel tank | **:** |  |
| Provision for draining of sediments/ water | **:** |  |
| Fuel filter | **:** |  |
| Fuel on/off | **:** |  |
| 4.2 | **Governor:** |  |  |
| Make | **:** |  |
| Model | **:** |  |
| Type | **:** |  |
| 4.3 | **Carburetor:** |  |  |
| Make | **:** |  |
| Type | **:** |  |
| 5.0 | **Fuel injection pump (If applicable):** |  |  |
| Type | **:** |  |
| Make | **:** |  |
| Model | **:** |  |
| Sr. No. | **:** |  |
| Method of drive | **:** |  |
| 6 | **Fuel Injector (If applicable):** |  |  |
| Type | **:** |  |
| Make | **:** |  |
| Model | **:** |  |
| Sr. No. | **:** |  |
| Injection pressure, MPa | **:** |  |
| Injection timing | **:** |  |
| 7 | **Air intake system:** |  |  |
| 7.1 | **Pre-cleaner:** | **:** |  |
| 7.2 | **Air cleaner:** |  |  |
| Type | **:** |  |
| Make and model | **:** |  |
| Location | **:** |  |
| Recommended service schedule | **:** |  |
| Recommended grade of oil | **:** |  |
| 8 | **Exhaust:** |  |  |
| Type of silencer | **:** |  |
| Location of silencer | **:** |  |
| Spark arresting device, if any | **:** |  |
| 9 | **Lubrication system:** |  |  |
| Type | **:** |  |
| Oil filter | **:** |  |
| Oil capacity, l | **:** |  |
| Recommended grade of lubricant oil | **:** |  |
| Oil change period, h | **:** |  |
|  | Minimum permissible lubricating oil pressure (kg/cm2) | **:** |  |
| 10 | **Cooling system:** |  |  |
| Type | **:** |  |
| Dia. of blower, mm | **:** |  |
| No. of vanes | **:** |  |
| 11 | **Starting system:** |  |  |
| Type | **:** |  |
| Ignition system | **:** |  |
| Any other provision for easy starting | **:** |  |
| Aid for cold starting | **:** |  |
| 12 | **Spark plug:** |  |  |
| Make | **:** |  |
| Model | **:** |  |
| Spark plug electrode gap, mm | **:** |  |
| 13 | **Power Transmission system:** |  |  |
| Type | **:** |  |
| 13.1 | **Clutch:** |  |  |
| Make | **:** |  |
| Type of clutch | **:** |  |
| Number of friction plate | **:** |  |
| Dia. of friction plate, mm | **:** |  |
| Thickness, mm | **:** |  |
| Method of operation | **:** |  |
| Location of operation | **:** |  |
| 13.2 | **Transmission system:** |  |  |
| Type | **:** |  |
| Make | **:** |  |
| No. of speed | **:** |  |
| Grade of oil | **:** |  |
| Oil capacity, l | **:** |  |
| Oil change period, h | **:** |  |
| 13.2.1 | **Rotary gear box:** |  |  |
| Type | **:** |  |
| No. of teeth on drive pinion | **:** |  |
| No. of teeth on driven crown | **:** |  |
| Reduction ratio | **:** |  |
| No. of teeth on drive pinion | **:** |  |
| No. of teeth on driven crown | **:** |  |
| Reduction ratio | **:** |  |
| Oil capacity, l | **:** |  |
| Oil change period, h | **:** |  |
| **No. of engine revolution in one revolution of rotor shaft:** | | |
| L – 1 | **:** |  |
| H – 1 | **:** |  |
| Reverse gear | **:** |  |
| 14 | **Rotor:** |  |  |
| 14.1 | **Rotor cover:** |  |  |
| Material | **:** |  |
| Length, mm | **:** |  |
| Width, mm | **:** |  |
| Thickness, mm | **:** |  |
| Method of fixing | **:** |  |
| 14.2 | **Rotor shaft:** |  |  |
| Material | **:** |  |
| Type of rotor axle | **:** |  |
| Width across flat of rotor axle, mm | **:** |  |
| Length of shaft, mm | **:** |  |
| Length of extension shaft, mm | **:** |  |
| No. of flanges | **:** |  |
| Type of flanges | **:** |  |
| Size of flanges, mm | **:** |  |
| Thickness of flange, mm | **:** |  |
| Distance between two flanges, mm | **:** |  |
| No. of blades on each flange | **:** |  |
| Overall length of rotor, mm | **:** |  |
| Diameter of rotor with blades, mm | **:** |  |
| Method of fixing of blade | **:** |  |
| No. of disc | **:** |  |
| Diameter of disc, mm | **:** |  |
| 14.3 | **Rotor blades:** |  |  |
| Number | **:** |  |
| Type | **:** |  |
| Material | **:** |  |
| Thickness, mm | **:** |  |
| Width of beveled edge, mm | **:** |  |
| No. and size of hole on each blade for fixing it to the flanges, mm | **:** |  |
| Arrangement of blades on the axle | **:** |  |
| 15 | **Depth control mechanism:** |  |  |
| Type | **:** |  |
| No. of flat | **:** |  |
| Material | **:** |  |
| Size of flat (L x W x T), mm | **:** |  |
| Provision for depth adjustment | **:** |  |
| 16 | **Steering handle bar:** |  |  |
| Material | : |  |
| Dia. of pipe, mm | : |  |
| No. of hand grips | : |  |
| Length of grip, mm | : |  |
| Material of grip | : |  |
| Dia. of grip, mm | : |  |
| Provision for handle height adjustment | : |  |
|  | Height of handle bar from ground level, mm | : |  |
| Provision for angle adjustment | : |  |
| Stand | : |  |
| Transport wheel | : |  |
| Type | : |  |
| Make | : |  |
| Number  Size, mm | : |  |
| Recommended pressure at 150 kg load, kPa | : |  |
| 17 | **Controls** |  |  |
| At LHS | : |  |
| At RHS | : |  |
| 18 | **Overall dimensions, mm:** |  |  |
| Length | : |  |
| Width | : |  |
| Height | : |  |
| Mass, kg | : |  |
| 19 | **Color of machine** |  |  |
| Engine  Main drive cover & transmission system | :  :  : |  |
| Rotary drive cover | : |  |
| Fuel tank | : |  |
| Handle bar |  |  |
| 20 | **Labeling /Identification plate** |  |  |
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| **ADDITIONAL INFORMATION** | | | |
| 1. **Engine Performance:** | | | |
|  | Maximum Power, kW (Ps) | : |  |
|  | Rated Power, kW (Ps) | : |  |
|  | Specific fuel consumption corresponding to maximum power, kg/kWh (g/hph) | : |  |
|  | Maximum equivalent crankshaft torque Nm, (kgs-m) | : |  |
|  | Back-up torque (%) | : |  |
|  | **Maximum temperatures (ºC):** |  |  |
| -Engine oil | : |  |
| -Coolant (water)/liner wall | : |  |
|  | Lubricating oil consumption (g/kWh) | : |  |
|  | Coolant consumption (% of total Coolant capacity) | : |  |
|  | Smoke level (Bosch No.) | : |  |
| **2.** | Mechanical Vibration at steering/  hands (micron) | : |  |
| **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) | : |  |

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| **Sl. No.** | **Critical engine 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 (mm) |  |  |
| 9 | Backlash of primary gear box gears (mm) |  |  |
| 10 | Backlash of secondary gear box gears (mm) |  |  |
| 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: Signature: ------------------------------------------

Date: Name of the applicant: ---------------------------

Designation: ---------------------------------------

Address: -------------------------------------------