**SAMPLE**

**SPECIFICATION SHEET OF TRACTOR OPERATED BOOM SPRAYER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1** | | **General** |  |  |
|  | | Name and address of manufacturer | **:** | XXXX |
|  | | Name and address of applicant | **:** | YYYY |
|  | | Type | **:** | Tractor operated sprayer |
|  | | Make | **:** | PQR |
|  | | Model | **:** | CH-10 |
|  | | Brand | **:** | MNC |
|  | | Serial No. | **:** | 170183 |
|  | | Output capacity l/min | **:** | 35 to 50 |
|  | | Year of manufacturer | **:** | 2021 |
|  | | Recommended tractor  power, kW | **:** | 22 and above |
|  | | Country of Origin | **:** | India/other Country |
| **2** | | **Chemical Tank** |  |  |
|  | | Material | **:** | Plastic |
|  | | Capacity, l | **:** | 500 |
|  | | Provision of cover/lid | **:** | Provided/Not provided |
|  | | Provision of indicating level in tank | **:** | Provided/Not provided |
|  | | Level graduations | **:** | Provided/Not provided |
|  | | Strainer at filing hole | **:** | Provided/Not provided |
|  | | Provision of drain plug in tank | **:** | Provided/Not provided |
|  | | Provision of hose reel | **:** | Provided/Not provided |
| **3** | **Pump** | |  |  |
|  | Type | | **:** | Plunger type |
|  | Make & Model | | **:** | XYZ & QR |
|  | Year of manufacture | | **:** | 2021 |
|  | Serial No. | | **:** | 1801720 |
|  | Recommended Pump Speed for spraying, rpm | | **:** | 900 |
|  | Suction volume, l/min | | **:** | 35 to 50 |
|  | Volumetric efficiency, % | | **:** | 85 |
|  | Rated pressure, kg/cm2 | | **:** | 38 |
|  | Pump discharge at rated pressure, l/min | | **:** | 40 |
|  | Working pressure, kg/cm 2 | | **:** | 36 to 45 |
|  | Pump discharge at working pressure, l/min | | **:** | 40 to 50 |
|  | Rated speed, rpm | | **:** | 900 |
|  | Maximum achievable  pressure, kg/cm2 | | **:** | 50 |
|  | Power requirement of pump, hp | | **:** | 4.0 |
|  | Plunger dia/stroke, mm | | **:** | 32/35 |
|  | Method of drive | | **:** | V belt & Pulley |
|  | Pressure regulator | | **:** | Provided/Not provided |
|  | Country of origin | | **:** | India |

|  |  |  |  |
| --- | --- | --- | --- |
| **4** | **Details of power transmission** |  |  |
| **4.1** | **Type** | **:** | Triangular M.S telescopic shaft having two universal joint. |
|  | Safety against over load PTO drive shaft and guard on shaft | **:** | Provided/Not provided |
|  | Guard on belt pulley drive | **:** | Provided/Not provided |
| **5** | **Spray Nozzle** |  |  |
|  | Type | **:** | Hollow cone |
|  | **Discharge rate at 300 kpa pressure, l/min** |  |  |
|  | -Jet spray pattern | **:** | 7 |
|  | -Fine cone spray pattern | **:** | 4 |
|  | Spray angle of nozzle | **:** | 60 |
|  | Spray nozzle designation and marking | **:** | Marked/Not marked |
| **6** | **Boom assembly** |  |  |
|  | Details | : | The boom assembly is made of mild steel tube with retractable M.S. square pipe. The boom is made in 2 piece. Each piece has 4 Adjustable hollow cone type nozzles with two discharge rate. |
|  | **Size of boom, mm** |  |  |
|  | Maximum/Minimum length of spray boom | : | 2845/2100 |
|  | Outer Dia | : | 20 |
|  | Nozzle Spacing | : | 235 |
|  | No. of nozzle | : | 8 (4 each side) |
|  | Provision for folding of boom | : | Provided/ Not provided |
|  | Provision for Height and swath Adjustment | : | Provided/ Not provided |
|  | Provision for changing of direction of spray | : | Provided/ Not provided |
| **7** | **Agitating device** | : | Provided/ Not provided |
| **8** | **Safety wear (For operator safety during operation)** |  | Gloves, goggles, Mask, Ear protector, gum boot, apron & head cap |
| **9** | **Overall dimensions, mm** |  |  |
|  | Length (Without hose) | **:** | 1300 |
|  | Width | **:** | 1450 |
|  | Height | **:** | 1500 |
|  | Hose length, m | **:** | 20 |
| **10** | **Total Mass (Without chemical)** | **:** | 250 |
| **11** | **Marking/Lebeling of machine** | **:** | The labeling plate should be riveted on the body of machine having name & address of manufacturer, country of origin, make, model, year of manufacture, serial number, type, size, required size of prime mover kW, |

|  |  |
| --- | --- |
| **12** | **MATERIAL USED FOR VARIOUS COMPONENTS** |

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| --- | --- | --- |
| **Components** | **Materials (As per IS:11313-2007)** | **Used Material** |
| Pump cylinder | Brass, stainless steel | Brass |
| Pressure chamber | Brass, stainless steel | Stainless steel |
| Piston rod | Stainless steel | Not applicable |
| Piston or plunger | Gunmetal, stainless steel, plastics, Rubber, vegetable tanned leather, chrome tanned leather | Stainless steel |
| Spreader | Brass, stainless steel, plastics | Brass |
| Valve assembly | Brass, Stainless Steel, plastics | Stainless steel |
| Roller pump shaft | Stainless steel | Not applicable |
| Pump rollers | Nylon filled with lead | Not applicable |
| Pressure regulators | Brass, stainless steel | Stainless Steel |
| Suction strainer | Brass, stainless steel, plastics | Stainless steel |
| Strainer body | Brass, plastics | Plastic |
| Gasket | Rubber, PVC, Leather, fiber | PVC |
| Spray nozzles | Brass, stainless steel | Stainless Steel |
| Spray boom | Mild steel, Galvanized, iron Braided rubber | Not applicable |
| Hose | Synthetic rubber, P.V.C | PVC |
| Tank | Galvanized iron, Brass, Fiber glass reinforced plastics. | Plastic |
| Pipe for agitator | Galvanized iron, Brass, PVC | PVC |
| Piston (bucket) screw | Brass, stainless steel | Stainless Steel |
| Crank case | Aluminum alloy | Aluminum alloy |
| Roller pump body | Nickel resistant cast iron | Not applicable |
| Roller pump and plate | Nickel resistant cast iron | Not applicable |
| Roller pump rotor | Nickel resistant cast iron | Not applicable |
| Piston pump crank shaft | Carbon steel | Carbon steel |
| Pump inlet port end fitting | Brass | Brass |
| Piston rod guide | Brass, Aluminum alloy, Gunmetal, Nylon | Not applicable |
| Connecting rod | Carbon steel | Carbon Steel |
| Gudgeon pin | Carbon steel | Carbon steel |
| Big end bearing | Steel coated with tin base white metal | Steel coated with tin base white metal |
| Small end bush | Gunmetal | Gunmetal |

Place:

Date:

Signature------------------------------

Name of applicant-------------------

Designation---------------------------

Address--------------------------------