|  |  |  |  |
| --- | --- | --- | --- |
| **1.** | **General** |  |  |
|  | Type | : |  |
|  | Make | : |  |
|  | Model | : |  |
|  | Serial No. | : |  |
|  | Name of manufacturer | : |  |
|  | Year of manufacture | : |  |
|  | Capacity of sprayer, l | : |  |
|  | Working pressure kg/cm2 | : |  |
| **2.** | **Hand operated sprayer specification** |  |  |
|  | Type of pump cylinder |  |  |
|  | Location of pump (externally/ internally fitted) |  |  |
|  | Piston stroke length |  |  |
| **3.** | **Motor** |  |  |
|  | Type | : |  |
|  | Make | : |  |
|  | Serial number | : |  |
|  | Motor operating voltage | : |  |
|  | Max. current | : |  |
|  | Rated speed, rpm | : |  |
| **4.** | **Battery** |  |  |
|  | Type | : |  |
|  | Make | : |  |
|  | Model | : |  |
|  | Serial number | : |  |
|  | Capacity & rating | : |  |
|  | Country of origin | : |  |
|  | Location | : |  |
| **5.** | **Battery Charger** |  |  |
|  | Make | : |  |
|  | Model | : |  |
|  | Input voltage | : |  |
|  | Output voltage | : |  |
|  | Output current | : |  |
|  | Country of origin | : |  |
| **6.** | **Pump** |  |  |
|  | Type | : |  |
|  | Make & Model | : |  |
|  | Sr. no | : |  |
|  | No of plunger | : |  |
|  | Recommend pump speed for spraying (rpm) | : |  |
|  | Suction volume, l/min | : |  |
|  | Working pressure, kg/cm2 | : |  |
|  | Pump discharge at Working pressure | : |  |
|  | Power requirement of Pump, hp | : |  |
|  | Rated pressure, kg/cm2 | : |  |
|  | Pump discharge at Rated pressure | : |  |
|  | Max achievable pressure, kg/cm2 | : |  |
|  | Rated speed, rpm | : |  |
|  | Method of drive | : |  |
|  | Plunger dia. / stroke, mm | : |  |
|  | Volumetric efficiency of pump | : |  |
|  | Country of origin | : |  |
| **7.** | **Chemical Tank** |  |  |
|  | Material | : |  |
|  | Capacity (l) | : |  |
|  | Location | : |  |
| **8.** | **Agitating Device** | : |  |
|  | Type | : |  |
|  | Method of working | : |  |
|  | Method of pressure regulation | : |  |
| **9.** | **Nozzle** |  |  |
|  | Type | : |  |
|  | Discharge rate at 300 kpa pressure | : |  |
|  | - Jet spray pattern | : |  |
|  | - Fine cone spray pattern | : |  |
|  | Spray angle of nozzle at 300 kpa pressure | : |  |
|  | Size of Nozzle & Discharge | : |  |
|  | Number of nozzle | : |  |

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| --- | --- | --- | --- |
| **10.** | **Mounting arrangement** | : |  |
| **11** | **Accessories (for operator’s safety during operation)** | : |  |
|  | Overall Dimensions, mm |  |  |
|  | Height | : |  |
|  | Width | : |  |
|  | Length | : |  |
| **12.** | **Total Mass, kg** |  |  |
|  | **Mass with all accessories and chemical tank empty, kg** | : |  |
| **13.** | **Mass with accessories and chemical tank full, kg** | : |  |
| **14.** | **Identification / Labelling Plate** |  |  |

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| Place : |  | Signature : |  |
|  |  |  |  |
| Dated : |  | Name : |  |
|  |  |  |  |
|  |  | Designation : |  |
|  |  |  |  |
|  |  | Address : |  |

**CHECKING OF MATERIAL OF CONSTRUCTION**

**(BATTERY OPERATION MODE)**

|  |  |  |
| --- | --- | --- |
| **Components** | **Materials (As per IS:11313-2007)** | **Observation** |
| 2. | 3. | 4. |
| Pump cylinder | Brass, stainless steel, engg. Plastic |  |
| Pressure chamber | Brass, stainless steel, engg. Plastic |  |
| Piston rod | Stainless steel, engg. plastic |  |
| Piston or plunger | Gunmetal, stainless steel, plastics, Rubber, vegetable tanned leather, chrome tanned leather |  |
| Spreader | Brass, stainless steel, plastics |  |
| Valve assembly | Brass, Stainless Steel, plastics |  |
| Roller pump shaft | Stainless steel |  |
| Pump rollers | Nylon filled with lead |  |
| Pressure regulators | Brass, stainless steel |  |
| Suction strainer | Brass, stainless steel, plastics |  |
| Strainer body | Brass, plastics |  |
| Gasket | Rubber, PVC, fibre |  |
| Spray nozzles | Brass, stainless steel |  |
| Spray boom | Mild steel, Galvanized, iron Braided rubber |  |
| Hose | Synthetic rubber, P.V.C |  |
| Tank | Galvanized iron, Brass, Fiber glass reinforced plastics, plastics |  |
| Pipe for agitator | Galvanized iron, Brass, PVC |  |
| Piston (bucket) screw | Brass, stainless steel |  |
| Crank case | Aluminium alloy |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Roller pump body | Nickel resistant cast iron |  |
|  | Roller pump and plate | Nickel resistant cast iron |  |
|  | Roller pump rotor | Nickel resistant cast iron |  |
|  | Piston pump crank shaft | Carbon steel |  |
|  | Pump inlet port end fitting | Brass |  |
|  | Piston rod guide | Brass, Aluminium alloy, Gunmetal, Nylon |  |
|  | Connecting rod | Carbon steel |  |
|  | Gudgeon pin | Carbon steel |  |
|  | Big end bearing | Steel coated with tin base white metal |  |
|  | Small end bush | Gunmetal |  |
| **Materials of components of spray lance, (as per IS: 3652-1995)** | | | |
|  | Spray lance | Brass, plastic, stainless steel |  |
|  | **Material of construction of nozzle component** | | |
|  | -Body and cap | Brass, Engineering plastic, Stainless steel |  |
| - Swirl core | Brass, stainless steel, Engg. Plastics, |  |
|  | -Disc, tip, | Brass, ceramic, stainless steel, |  |
| -Spindle, coupling nut & gland nut | Brass, Engg. Plastics, Stainless steel |  |
|  | **Material of construction of cut-off device** | | |
|  | -Body, valve seat, gland nut, cap & collar, Valve stem | Brass, Engineering plastic, stainless steel |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Nipple | Brass, Engineering plastic, stainless steel |  |
| -Valve | Brass, synthetic rubber, stainless steel, plastic |  |
| -Strainer | Brass, , stainless steel, plastic |  |
| -Operating knob | Brass, Engineering plastic, |  |
| - Operating trigger | Steel, Engineering plastic |  |
| -Spring | Stainless steel, |  |
| -Gasket | Synthetic rubber, fibre, PVC |  |
| -Gland seal | PVC |  |
| -Gland packing | Asbestos rope |  |
|  | **Material of construction of other components as per IS: 3906-1995** | | | |
|  | Lid or cap | Brass, Plastic, Stainless steel |  |
| Strap | Woven web cotton/ synthetic yarn |  |
| Skirt/ stand | Steel, plastic |  |
|  | Strap buckle | Steel, Engg. Plastic |  |
| Cushion | Foam rubber, foam plastic |  |

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| Place : |  | Signature : |  |
|  |  |  |  |
| Dated : |  | Name : |  |
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|  |  | Designation : |  |
|  |  |  |  |
|  |  | Address : |  |

**CHECKING OF MATERIAL OF CONSTRUCTION**

**(HAND OPERATION MODE)**

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| --- | --- | --- | --- | --- | --- | --- |
| **Observations for various requirements specified in standard.** | | | | | | |
| **Table – 1: Material of construction of various components.**  **(**Cl 4.1 IS 3906:1995) | | | | | | |
| Clause No. | Components | | Specified requirement | | Used Material | |
|  | Tank | | Brass, Plastic, Stainless steel | |  | |
|  | Lid or cap | | Brass, Plastic, Stainless steel | |  | |
|  | Pressure chamber | | Brass, Plastic, Stainless steel | |  | |
|  | Pump Cylinder | | Brass, Plastic with brass lining, Engg. Plastic, Stainless Steel | |  | |
|  | Guide | | Brass, Engg. Plastic, stainless steel | |  | |
|  | Hose nut | | Brass, Engg. Plastic, stainless steel | |  | |
|  | Hose nipple | | Brass, Engineering plastic, stainless steel | |  | |
|  | Agitator | | Plastic | |  | |
|  | Piston rod | | Brass, stainless steel | |  | |
|  | Crank | | Steel, Engineering plastic | |  | |
|  | Hose ferrule/clip | | Steel | |  | |
|  | Strainer | | Stainless steel, plastic, Brass | |  | |
|  | Handle | | Steel | |  | |
|  | Operating lever | | Steel | |  | |
|  | Handle pivot | | Steel | |  | |
|  | Handle Grip | | Plastic | |  | |
|  | Piston | | Chrome tunnel leather, PVC | |  | |
|  | Spreader | | Brass, stainless steel, plastic | |  | |
|  | Strap | | Woven web cotton/ synthetic yarn | |  | |
|  | Hose | | PVC | |  | |
|  | Gasket | | Synthetic rubber, PVC, fibre | |  | |
|  | Valve seat | | Brass, stainless steel,  engg. plastic | |  | |
|  | valve | | Brass, stainless steel,  engg. plastic | |  | |
|  | Skirt/ stand | | Steel, plastic | |  | |
|  | Strap buckle | | Steel, Engg. Plastic | |  | |
|  | Cushion | | Foam rubber, foam plastic | |  | |
|  | | **Material of construction of nozzle component** | | | | |
|  | | -Body and cap | | Brass, Engineering plastic, Stainless steel | |  |
| - Swirl core | | Brass, stainless steel, Engg. Plastics, | |  |
|  | | -Disc, tip, | | Brass, ceramic, stainless steel, | |  |
| -Spindle, coupling nut & gland nut | | Brass, Engg. Plastics, Stainless steel | |  |
|  | | **Material of construction of cut-off device** | | | | |
|  | | -Body, valve seat, gland nut, cap & collar, Valve stem | | Brass, Engineering plastic, stainless steel | |  |
|  | | Nipple | | Brass, Engineering plastic, stainless steel | |  |
| -Valve | | Brass, synthetic rubber, stainless steel, plastic | |  |
| -Strainer | | Brass, , stainless steel, plastic | |  |
| -Operating knob | | Brass, Engineering plastic, | |  |
| - Operating trigger | | Steel, Engineering plastic | |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | -Spring | Stainless steel, |  |
| -Gasket | Synthetic rubber, fibre, PVC |  |
| -Gland seal | PVC |  |
| -Gland packing | Asbestos rope |  |
|  | Lid or cap | Brass, Plastic, Stainless steel |  |
| Strap | Woven web cotton/ synthetic yarn |  |
| Skirt/ stand | Steel, plastic |  |
|  | Strap buckle | Steel, Engg. Plastic |  |
| Cushion | Foam rubber, foam plastic |  |

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| Place : |  | Signature : |  |
|  |  |  |  |
| Dated : |  | Name : |  |
|  |  |  |  |
|  |  | Designation : |  |
|  |  |  |  |
|  |  | Address : |  |