|  |  |  |  |
| --- | --- | --- | --- |
| **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 |  |

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