**WORK INSTRUCTIONS FOR\_** **KAMBORE, PIPE AND DRAIN CLEANING MACHINE**

**Responsibility:** Drain cleaning In charge

**Identified Hazards**:

1. Fall of a person
2. Contact lime sludge
3. Nonuse of PPE
4. Improper house keeping
5. Inadequate local lighting
6. Electric shock
7. Entanglement with cleaning coil
8. Impact of moving machinery

**Significant aspect**

Lime, graphite, sludge.

**Procedure:**

1. Unauthorized operation or repair of any equipment is a punishable offence
2. Ensure that all personnel involved in the activity (Including contractor workmen) are trained in safe working procedures.
3. Personnel working in the area (drain cleaning) must wear safety goggle, hand gloves, safety helmet, and safety shoes while working.
4. Machine should be safely handled/ transported by two persons to the place of use.
5. Do not wet the machine.
6. Do not use Machine for the drains which are carrying electric cables.

**OPERATING INSTRUCTIONS**

1. **Preparing machine**

Warning: Plug in power supply only when instructed to do so.

Caution: Cable may knot up to due to excessive overrun into mains or septic tank. If this occurs, cable cannot be pulled back. To prevent this, approximate distance between inlets and the main sewer or septic tank must be made known.

Where the mains are 300mm or larger diameter, cable overrun must not exceed 2 to 3 meters.

1. Position machine about .5m away from the line opening.

2. Attach rear guide hose to the machine.

3. Insert into front of machine, the required no’s of cable suctions and push through rear guide hose until about 30cms of cable remain out of in the front. Couple cable section one at a time.

4. Snap on suitable auger onto the cable and ensure that it is well secured. The machine is now ready for operation.

**B**. **Cable applications**

* The cable supplied is suitable for use in lines.
* To secure cable, which is already in the line while another cable is being fed into machine, we suggest that the cable should be looped at the opening of the lines having quite a fall.

1. **Operating the machine**

* Ensure the motor switch is in ‘OFF’ position.
* Push cable by hand as far as it will go.
* Pull out more cable from the machine so as to from a half circle between the machine and the inlet.
* Hold cable lightly with the gloved hand and switch on motor in the forward position.
* The motor run idle and the cable remains free.
* Push down on top up the loop with the gloved hand pull down clutch handle with a snap.
* Gradual engaging of the clutch will result in a weak cable grip and causes unwarranted wear on the clutch jaws as well as the cable.
* Disengage clutch and pull out 150mm to 200mm of cable from the machine.

1. **Always use gloves when handling cables**
2. **To remove a tool which is stuck in obstruction**

1. Release clutch handle immediately

2. Switch ‘OFF’ motors and allow it to come to complete halt.

3. Reverse motors by switching in on in reverse direction.

4. Engage clutch and release same as soon as the tools are free of obstruction.

5. The machine is used in a reverse in direction only to release tool of obstruction.

**E**. **Removal of cable from a pipeline.**

1. Switch on motor in forward direction.

2. Using gloves hold the cable against the edge clutch. The cable will thread out automatically.

3. Release clutch handle when a loop forms between the inlet and the machine. Push back the loop from between the inlet and the machine. Push back the looped cable through the machine.

4. Disconnect each cable through the machine.

5. Repeat step 1 to 4 until complete cable is pulled out.

6. Switch ‘OFF’ motor and remove the power line.

**Note:** Flush cables and couplings thoroughly after each use. Store cables in their carries provided.

The UP series allows mounting one carrier with four cables sections onto its frame.

**For safety precautions please refer Manual available with machine.**

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