



PHARMA DEVILS

PRODUCTION DEPARTMENT

STANDARD OPERATING PROCEDURE

Department: Production

SOP No.:

Title: Cleaning and Operation of Electric Stacker

Effective Date:

Supersedes: Nil

Review Date:

Issue Date:

Page No.:

Vernacular SOP: No

1.0 **OBJECTIVE:**

1.1 To lay down a procedure for Cleaning and Operation of Electric Stacker.

2.0 **SCOPE:**

2.1 This procedure is applicable to the Cleaning and Operation of Electric Stacker in the Production Area.

3.0 **RESPONSIBILITY:**

3.1 Technical Associate : Cleaning and Operation

3.2 Production Officer / Executive : Checking Cleaning and Operation

3.3 Head Production : SOP Compliance

4.0 **DEFINITION (S):**

4.1 NA

5.0 **PROCEDURE:**

5.1 **CLEANING:**

5.1.1 Replace "To be Cleaned" status label with "Under Cleaning" status label from the equipment as per SOP "Status labeling".

5.1.2 Turn control Key to "OFF" position.

5.1.3 Ensure that electric Stacker is empty and no bin/IPC/pallets are present on the machine.

5.1.4 Clean the tiller arm, operating switches, motor and hydraulic system cover, lifting assembly, forks, platform and castor wheels with dry lint free cloth.

5.1.5 Wipe hydraulic system cover, lifting assembly, forks, platform and castor wheels with squeezed wet lint free cloth.

5.1.6 Scrub the adhered material with squeezed wet lint free cloth.

5.1.7 Clean the outer parts, hydraulic system cover, lifting assembly, forks, and platform and castor wheels with dry lint free cloth.

5.1.8 Check and ensure the equipment is visually clean and affix "CLEANED" status label as per SOP "Status labeling".



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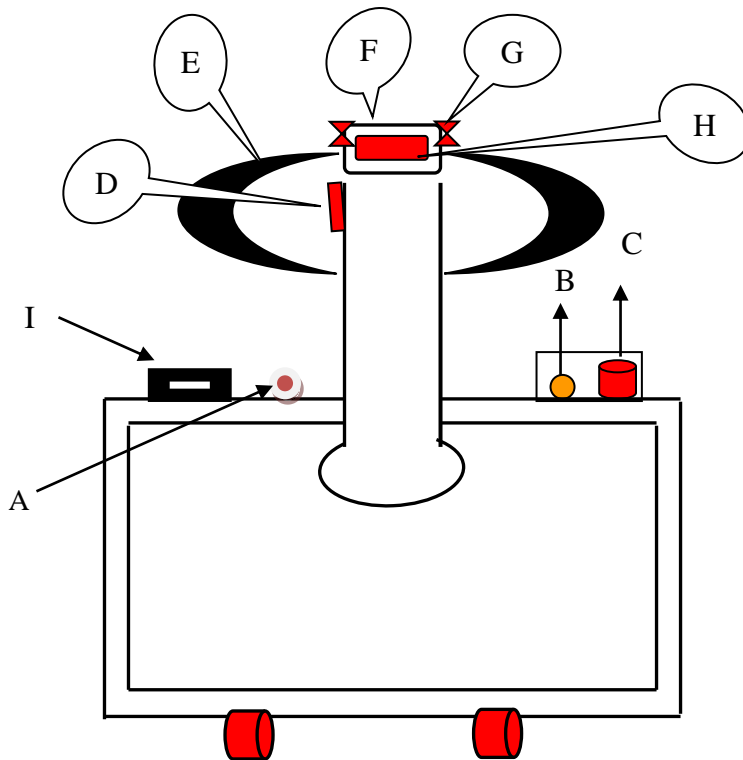
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5.1.9 **Frequency:** Once in a day or when required.

5.2 Schematic of Battery Operated Stacker



A	Emergency power cut-off switch
B	Key switch
C	Battery discharge digital indicator
D	Push Button
E	Tiller arm
F	Safety Reverse Button
G	Liver for moving Stacker (Toggle switch)
H	Horn
I	Charging

5.3 OPERATION:

5.3.1 Machine Setting:

5.3.2 Ensure that the lifter truck is in cleaned condition before use.

5.3.3 Remove the "CLEANED" label and Affix "Under process" label duly filled and signed on the equipment.

5.3.4 Ensure that the battery level is in healthy condition i.e. above 20%.

5.3.5 Pull up the red emergency button (A) power cut-off switch.

5.3.6 Insert the key in lock (B) and turn clockwise to **ON** position.

5.3.7 Pull down the tiller arm button (E) to driving position.

5.3.8 At driving position a click sound will come which indicates that the main contractor and Electro-magnetic brake has been connected.



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Note: The tiller arms have 3 speeds forward and 3 speeds reversed. Release tiller arm to return to neutral position.

5.3.9 By using toggle switch button (**G**) move the electric Stacker. Turn toggle switch to clockwise direction slowly to move lifter truck in forward direction. Whereas to move electric Stacker in backward direction turn toggle switch slowly to anti clockwise direction.

5.3.10 The speed increased proportionally as the toggle switch is turned away from neutral position.

5.3.11 Handle the direction of electric Stacker using tiller arm, turn tiller arm to left direction to move electric Stacker in left direction and turn to right direction for moving to right side direction.

5.3.12 Move the electric Stacker to area from where IPC/bin/pallet which needs to load. Use horn (**H**) to caution people and negotiating corners while driving in corridor.

5.3.13 Push the fork lifting downward by push button (**D**) to make lifting forks position at a level from which level IPC/bin/ pallet need to elevate.

5.3.14 Now move the electric Stacker forward slowly and stop at a position where lifting forks are appropriately engaged below the location of IPC/bin/pallet lifting position.

5.3.15 For standard braking release the tiller arm, release tiller arm it swings back to its vertical position thereby activating the electro-magnetic brake which bring the equipment to immediate halt.

Note: Recommended braking method is to reverse the drive motor's direction of rotation. This can be achieved by moving the toggle switch to the opposite direction of travel. The speed of this reversal of the motor's direction of rotation is controlled by electronic speed controller and is adjustable.

5.3.16 Lift the IPC/bin/pallet up to appropriate height by slowly pushing the fork-lifting button upward.

5.3.17 During lifting ensure proper alignment of IPC/bin/pallet.

5.3.18 Move slowly electric Stacker from lifting position in forward or reverse direction using toggle switch as per space availability for movement and transfer the IPC/bin/pallet from one cubicle to other or desired location.

5.3.19 After arrival at destination area, make position of Electric Stacker accurate where lifted IPC/bin/pallet needs to unload.

5.3.20 Unload the IPC/bin/pallet slowly by pushing lifting button downward for moving lifting forks downward.



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- 5.3.21 When IPC/bin/pallet rests on surface/discharge station properly, stop moving lifting fork for further downward and slowly reverse the electric Stacker so that lifting forks get complete out from IPC/bin/pallet.
- 5.3.22 Now lift the forks up to appropriate height and move the electric Stacker out from the area.
- 5.3.23 List of authorized persons for operation of Electrical stacker to be attached/affixed with Electrical stacker as per Annexure I; "List of authorized persons for operation of Electrical stacker"; Format.
- 5.3.24 Master copy shall be submitted in quality assurance and controlled copy shall be issued for display on the Electrical Stacker.
- 5.3.25 List of authorized persons for operation of electrical stacker shall be prepared by ensuring the completion of training and appropriate operational skills.
- 5.3.26 List of authorized persons shall be updated on every addition or deletion of persons Annexure - I List of authorized persons for operation of electrical stacker shall be issued and update the present authorized person.
- 5.4 **Battery Charging:**
- 5.4.1 Dot matrix LCD and bar coding indicates the remaining energy level in battery, Battery energy level must always remain above 20% otherwise as a safety feature electro-magnetic brake will not be release.
- 5.4.2 Connect the battery charger terminals with electric Stacker battery terminals (I).
- 5.4.3 Connect the battery charger with power source.
- 5.4.4 Switch on the power source, Green color LED glows on battery charger indicating starting of charging process.
- 5.4.5 Amber color LED glows when battery 80% charged while red color LED glows when battery 100% charged.
- 5.4.6 Disconnect the battery charger from power source first then disconnect the terminals from electric Stacker battery.
- 5.5 **Safety and Precautions:**
- 5.5.1 Do not drive outside the stacking operation.
- 5.5.2 Do not put foot or hand under or into the lifting mechanism.
- 5.5.3 Do not allow other person than the operator to stand in front of or behind the truck when it is moving or lifting.
- 5.5.4 Do not overload the truck.



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- 5.5.5 Do not push or pull loads.
5.5.6 Do not use truck with unstable, unbalanced loads.
5.5.7 Keep watching the condition of load. Stop operating the truck if load becomes unstable.
5.5.8 Do not supply to charger with AC voltage other than 100V to 220 V.

6.0 ABBREVIATION (S):

- 6.1 IPA : Iso Propyl Alcohol
6.2 SOP : Standard Operating Procedure
6.3 V : VOLT
6.4 % : Percentage

7.0 REFERENCES (S):

- 7.1 **SOP:** Status Labeling.

8.0 ANNEXURE (S):

Annexure no.	Title of Annexure	Format no.	Mode of Execution
Annexure I	List of authorized persons for operation of electrical stacker		Template

9.0 DISTRIBUTION:

- 9.1 Master Copy : Quality Assurance.
9.2 Controlled Copy (S) : Production Department (01), Quality Assurance (01)
9.3 Reference Copy (S) : Production Department (2)

10 REVISION HISTORY:

S.No.	Version No.	Change Control No.	Reason (s) For Revision	Details of revision	Effective Date
1.	00	PR# 76017	New SOP	NA	

