

**INSTRUCTION MANUAL** 

# Mechanical Pokers







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#### **Foreword**

These operating and maintenance instructions are part of your machine.

They provide necessary information to operate your machine safely and properly.

They also contain information on required operating, maintenance and repair measures.

Carefully read the operating and maintenance instructions before taking your machine into operation.

Please observe the safety regulations strictly and follow all instructions to ensure safe operation.

The description of the individual operating steps including the notes on safety to be followed can be found in chapter "Operation"

Ensure the compliance with the specified operating, maintenance and repair measures to maintain the functional safety of your machine.

Do not service or repair your machine by yourself to avoid harming persons or damaging material or environment.

The machine must only be serviced and repaired by qualified and authorised personnel.

Contact our customer service to carry out the required maintenance work or necessary repairs.

In case of operating errors, inadequate maintenance or the use of unapproved fuels and lubricants all warranty claims will become null and void.

For your own personal safety you should only use original parts from REDLINE.

For your machine we offer service kits to make maintenance easier.

In the course of technical development we reserve the right for technical modifications without prior notification.

These operating and maintenance instructions are also available in other languages.

Apart from that, you can also order the spare parts catalogue against the serial number of your machine.

The above notes do not constitute an extension of the warranty and liability conditions specified in the general sales and delivery conditions of REDLINE GmbH.

We wish you successful work with your REDLINE machine.

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## **Operation Manual - Safety Instruction**

## **Safety Instruction**

- Laws governing safety aspects on machinery may vary between countries, but thefollowing guides will be useful to all operators:
- Before starting, carefully read the machine maintenance and operating manual and followall the instructions.
- Use unleaded fuel only, for gasoline engines.
- Never operate the machine without the belt guard.
- Keep hand and feet away from moving parts while the machine is running.
- Do not operate the machine in closed places and inflammable environment.
- Operating the machine is advisable only with good lighting conditions.
- Hearing protection must be worn.
- Foot protection must be worn.
- Do not touch hot surfaces.



# Operation Manual - SAFETY INSTRUCTION-QUICK GUIDE

| No. | Pictogram | Meaning   |
|-----|-----------|---|
| 1a  |           | Use unleaded fuel only, for gasoline engines                    |
| 1b  |           | Hearing protection must be worn.                                |
| 1c  |           | Users should carefully follow any operating instructions given. |
| 1d  |           | Wear boots  |

# Operation Manual -SAFETY INSTRUCTION-QUICK GUIDE

| No. | Pictogram | Meaning   |
|-----|-----------|---|
| 2   |           | WARNING! Ensure that the vibrator does not come into contact with fixed surfaces. Ensure that the flexible tube does not come into contact with hot or sharp surfaces   |
| 3   |           | Stay Alert! Watch what you are doing. Use common sense. NEVER operate the vibrator motor when you are tired or while under the influence of drugs, alcohol, or medication   |
| 5   |           | Replace worn or damaged parts with replacement parts designed and Recommended for use by REDLINE DYNAPAC. Any servicing, other than that covered in this instruction manual, should be REDLINE DYNAPAC performed by an authorized Service Representative. |
| 7   |           | Do not operate the machine in closed places and inflammable environments Do not touch hot surfaces. Store in a dry place, not accessible to children. Maintain the tools carefully.   |

# **Operation Manual - Technical Specifications**

# **Technical Specifications**

| Discrption            | NEEDLE TYPE |       |       |
|-----------------------|-------------|-------|-------|
| Disciption            | RP30        | RP45  | RP60  |
| NEDEDLE               | 32          | 45    | 60    |
| DIA. mm               | 32          |       |       |
| LENGTH                | 5.5         | 5.5   | 5.5   |
| M.                    | 3.3         | 3.3   | 5.5   |
| FREQUENCY             | 12500       | 12000 | 11300 |
| V.P.M.                |             |       |       |
| CENTRIFUGAL FORCE (N) | 1980        | 3890  | 4350  |
|                       | 1, 2,       |       |       |
| WEIGHT                | 15          | 16.5  | 18    |
| KG                    | .5          | 10.5  | .0    |

## **CAUTION:**

Do not run the vibrator for long periods of time when not submersed in concrete Do not allow the vibrator head to be in contact with bottom of the mould or the reinforcing bar for long periods of time.

Do not use the poker to move the concrete sideways.

## **Transport**

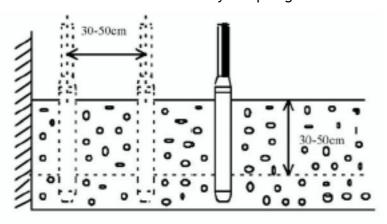
## 1 Transport to work site

- To avoid burns or fire hazards, let engine cool before transporting machine or storing indoors.
- Turn fuel valve to the off position and keep the engine level to prevent fuel from spilling.
- Tie the machine to the vehicle to prevent sliding or tipping over.

## 3 Operation

#### 3.1 VIBRATION OF THE CONCRETE:

- 1. Couple the poker vibrator to the drive unit
- 2. Switch the drive unit power then check for vibration from the immersion vibrator
- 3. Allow vibrator to sink under its own weight and then remove vibrator
- 4. Dip the vibrator and take out at regular intervals
- 5. The vibrator should be reinserted close enough to last location so the radius of action overlaps last one.
- 6. The vibrator should be lowered or inserted vertically in the concrete.
- 7. After the concrete is compacted, the vibrator should be withdrawn slowly at the rate of 7.5 to 8 cm/sec. as this speed will fill the hole caused due to withdrawal of vibrator without any air being entrapped.
- 8. Now the vibrator is inserted at another point at a distance of 50 cm to 100 cm or 45 cm to 75 cm. However this distance depends on the shape of the form work and amount of reinforcement. This distance should be kept uniform
- 9. The time of compaction by the internal vibrator depends on the Slump
- 10. Usually from 5 to 30 seconds of compaction is sufficient
- 11. For some mixes up to 120 seconds compaction is required.
- 12. The vibrator should be immersed vertically
- 13. Vibrator should not be used to push concrete laterally
- 14. The vibrator shouldn't touch the inside of the form work & the reinforcement.
- 15. The vibrator should never be kept running for long when it is not in the concrete.
- 16. The tube should never be bent at a very sharp angle



## Operation Manual - Important Advice

## **Important Advice**

The manufacturer declines all responsibility for loss or damage resulting from misuse or any modification or alteration that does not conform to the manufacturer's original specifications.

At the workstation, the sound pressure level may exceed 85 db (A). In this case individual protection measures must be taken.

## 1 Spare parts ordering:

When ordering spare parts, please mention machine serial no., part no. and description.

## 2 Scrapping:

In the event of deterioration and scrapping of the machine, the following items must be disposed of in accordance with the requirements of the legislation in force.

#### 3 Main materials:

1. Engine: Aluminum (AL), Steel (AC), Copper (CU), Polyamide (PA)

2. Machine: Steel sheet (AC)



The instructions for use and spare parts found in this document are for information only and are not binding. As part of our product quality improvement policy, we reserve the right to make all technical modifications without prior notice.

## 4 Maintenance schedule:

| Check all external screw connections for tight fit approx. 8 hours after first operation. |  |                         |
|---|--|-------------------------|
| Parts   | Maintenance  | Maintenance<br>interval |
| Air<br>filter   | Check for external damage and tight fit.  Check foam and filter insert clean or replace if necessary.              |                         |
| Engine<br>oil /<br>other<br>parts   | Check oil level, top up if necessary. Remove all dirt, stones etc. from the compactor after each day of operation. | Daily                   |
| Belt  | Check tension and wear - replace if necessary.   | Weekly                  |
| Engine  | See engine manufacturers handbook  |                         |

# Operation Manual - Important Advice

# 5 Maintenance

## 5.1 Do's And Don't:

| Sl.no | DO's  | Don't  |
|-------|---|--|
| 1     | Drive unit pokers (petrol, Diesel, and<br>Electric) is Designed to work with<br>units lying on the Floor  | Do not operate and work with drive units. Without lying on the floor.  |
| 2     | Read the engine instructions manual before working with the engine  | Do not operate and work with engines without reading the manual instructions booklet                         |
| 3     | Pay attention to warning stickers, information stickers, and hot surfaces.  | Never touch hot surfaces. Non-attention to warnings and information stickers may Couse Serious injuries      |
| 4     | Pay attention to cable joints. Use proper standard cables for wire extension  | Using non-standard cables may cause serious electric injury  |
| 5     | While using an electric motor proper earthing must be done and ensure the earth wires are grounded properly to the earth                                    | Without using an earth connection in the electric motor may lead to electrical injury                        |
| 6     | While moving the unit from the place it is mandatory to stop the electric motor remove the drive unit from the coupling then move the unit to another place | Moving the drive unit with pokers from one place to another place may injuries and accidents.                |
| 7     | In the case of operating with electric motors pay attention to the direction of motor   | Using and working with an electric motor in opposite directions may cause bearing damage and machine damage. |
| 8     | Push up the poker coupling into the drive unit and then lock the upper coupling Before work   | Without locking the drive unit coupling in the drive unit may cause serious injuries /damages.               |
| 9     | Always ensure the drive coupling is firmly attached to the poker vibrator coupling before commencing the work   | An unlocked/unbalanced drive unit and poker vibrator may cause serious damage and injuries                   |
| 10    | Raise the engines to speed to maximum RPM as recommended by the manufacturer  | Never operate and work with poker vibrators with low RPM   |
| 11    | Operate the poker vibrator head slightly hitting on the hard surface and check for vibrations.  | Never Work with pokers without observing vibrations  |
| 12    | Use poker Vibrations for compacting concrete  | Do not use poker vibration to distribute the concrete  |

# Operation Manual - Important Advice

# 5 Maintenance

## 5.1 Do's And Don't:

| 13 | Use concrete layer surfaces below 30 to 50 cm thickness for compacting concrete   | Distribute concrete evenly in layers of not 30-50cm thickness.                                      |
|----|---|---|
| 14 | While working push the poker vibrator 8-10 times (for 45mm poker at 360 to 450 mm intervals) to get maximum cohesion                                  | Using the poker vibrator below 8-10 times may not give the perfect cohesion and concrete compaction |
| 15 | Push the poker Vibrator about 15cm into the previous layer to get maximum cohesion  | Pushing the poker vibrator below 15cm into the previous layer may not give maximum cohesion.        |
| 16 | The poker vibrator head should be introduced vertically   | Never use the poker vibrator head horizontally while working on concrete floors                     |
| 17 | While working on concrete floors the poker vibrator should be introduced At an angle to improve the contact surface between the vibrator and concrete | Don't use a poker vibrator on vertical surfaces.  |
| 18 | Always work with a poker vibrator with an angle to get angular contact between the vibrator and concrete  | It's forbidden to work with pokers with too<br>Much bending (about 90°)                             |
| 19 | After finishing the concrete compaction work take out the vibrator from the concrete surface then off the engine/motor                                | Never off the poker vibrator while working inside the concrete surface.                             |





