

**DIRECTORATE GENERAL BORDER ROADS**

**GENERAL MAINTENANCE INSTRUCTION NO. 130**

**ON**

**SPECIAL OPERATING INSTRUCTION UNDER ARDOUS CONDITIONS**

**OF**

**SNOW OPERATING ROLBA R-1200 MONOFORCE**

**INSTRUCTION**

1. Employing the ROLBA R -1200 MONOFORCE to clear ice formation of varying thickness (they may be very thick in some places) and hard frozen to the road surface, requires great skill and a special technique to warrant the best performance of the machine without causing excessive wear of cutter blades, scrapers and skids, in spite of the particular strain they have to stand.

**AIM**

2. The aim of this instruction is to adopt correct procedure of operating the equipment under arduous conditions, so that the life of the equipment can be prolonged.

3. **All Projects/Units :-** To ensure that this instruction is strictly adhered by all operators as per details given below.

**DETAILS**

4. The details of the special operating instruction is under arduous condition is given as per Appendix 'A' to this instruction.

**SPECIAL OPERATING INSTRUCTIONS**

**SNOW CLEARANCE WITH THE ROLBA R- 1200 MONOFORCE UNDER ARDOUS CONDITION**

The operator should bear the following advice in mind (numbers of items and indication of levers to be manipulated corresponding to illustrations and designations contained on pards 31 & 32 of operator's manual).

- (1) increase revolving speed of cutter rotors (Item 3, control lever cutter drive) according to thickness of ice formation (maximum speed for 4-5" blank or hard ice).
- (2) Tilt plough head forward (item 32, forward tilting contact lever) to approach blades of cutter rotter to approx. U16"-3/32" off road surface. After operating the pressure device (see explanation under point 3) the cutter blades will slightly touch the road surface. If the plough head were titled too much the blades would severely and continuously strike the road surface when the plough head is pressed down.
- (3) Press plough head down (item E9, lifting/lowering control lever) but only as far as conditions require it, otherwise abnormal wear of cutter blades, scraper and skids would be caused. Excessive pressure must not be avoided. The pressure must not be increased as long as the plough head does not mount onto the ice formation. The best way to synchronize the two movement 2and 3 (forwarded tilting and pressing) is to make the adjustment on a snow free road, prior to proceeding to the actual clearance job.
- (4) Adpt the advance speed also to the operating conditions (item 18 control lever vehicle drive ) ; better drive at lower speed than too fast.
- (5) To deviate more engine power for the actual ice breaking job, to the minimum absolutely necessary (item 2 control lever impeller drive). The impeller should at the distance required.
- (6) Such particular jobs demand the operator's closest attention. He has to watch constantly that the forwarded titled and pressed down plough head does not strike the road surface violently. Especially the down-pressure must frequency be corrected to the strict minimum; in order to avoid excessive wear.

The ice-clearing job strains cutter blades, scraper and skids considerably. They will however suffer little wear if they do not touch the road surface continuously under great down-pressure and at excessively high driving speed.

The ROLBA R-1200MON OF ORCE is designed and suited also for ice breaking jobs. It is up to the driver to avoid excessive wear by correct and careful operation.

Cleaning avalanche snow and snow slides possibly mingled with hard objects (stones, wood, of varying size) requires also a special teach quid in order to avoid damage and excessive wear. Such jobs demand greatest care and the operator should observe the following advice strictly :-

- (1) Adapt revolving speed of cutter dums (item 3, control lever cutter drive) to prevailing conditions. The speed should be kept down to the strict minimum.
- (2) Speed of impeller, too, should be slowed down to minimum (item 2, control lever impeller drive).
- (3) Do not tilt the plough head forward.
- (4) Do not prep the plough –head down.
- (5) Advance slowly. Step and reverse **instantly** when cutter blades touch hard object of some size. **Hold control lever for vehicle drive (item 18) constantly in your hand to enable oui drest reaction.**
- (6) Order auxiliary staff to remove object in snow. Reverse machine for enough to allow them to work undisturbed and safely.
- (7) Avalanche sounding rods may help to detect large objects hidden in the snow at 20-30 meters ahead of the operating machine. The extract sites of such objects should be marked by wooden or plastic sticks. When the machine approaches the site, reduce speed until you see or perceive the object. Proceed as mentioned under points 5 and 6.

By careful and alert operation the drive can avoid severe damage and excessive wear, even under most arduous working conditions, without any substantial loss in performance of the machine. It requires however, good experience in manipulating the machine. Therefore, only sufficiently experienced drivers should be charged with such jobs.

The ROLBA R-1200 MONOFORCE renders excellent service even under hardest operating conditions. It is, however, neither a bulldozer nor a rock crusher nor a road surfacer. If used on such jobs, damage and excessive wear of the machine are unavoidable.

**Please instruct the Operators with particular care for such special job, by so doing you will not only protect the equipment but also avoid expensive repairs.**