



Double-sided plough
APH-352



Instructions for use

-CONTENTS-

Page

1. Application.....	2
2. Technical description.....	2
3. Technical data.....	2
4. Safety instructions.....	3
5. Instructions for operating.....	3
6. Maintenance and attendance.....	5
7. Instructions for ordering spare parts.....	5
8. Guarantee conditions.....	6

1-USE

Double -sided plough – **APH-352** – is used for ploughing when using gear-box with axle DSK-317/S, which has driving unit PJ GCV 190 of GLOBAL system. It is connected behind the gear-box with axle DSK-317/S which is provided with hinged implements. It should be used for ploughing with maximum width of 18 cm and maximum depth of 20 cm.

2-TECHNICAL DESCRIPTION

Plough carrier is cast of malleable cast iron – it has got two arms on both front and rear sides – they are vertical to each other. Two ploughing bodies are fixed on rear arms (left one and right one). They are formed of trashrack bar, scrape-away device with spring and of plough blade. On front arms there are knife spurs. Another vertical arm is on the upper surface in front of plough carrier, it has locking pin and a spring. Rotary pin passes through the central part of plough carrier. Rotary pin is with central part only one body. This pin has got the surfaces for connecting to the implement. A flange with 2 circle grooves is welded in front of the rotary pin, they are provided with arresting stops, witch are locked with nuts. Arresting stops have got the grooves, into which the locking pin is engaged for limiting of set extreme position of ploughing bodies.

3-TECHNICAL DATA

Length	590 mm
Width	720 mm
Height	460 mm
Width of bite	180 mm
Depth of ploughing	200 mm
Mass	25 kg

4-SAFETY INSTRUCTIONS

All safety regulations come out from the instructions which are mentioned in the instructions for use of Gearbox with axle DSK- 317/S.

- Double-sided plough **APH-352** can be operated only by persons who are older than 18 years, and were instructed about the attendance. Attendance must keep all safety regulations and measures which are mentioned in the instruction for attendance.
- Double-sided plough **APH-352** which is driven by a walking driver mustn't move along the public roads.
- Driver of transporting assemblies must have driving license (at least A or B or T category).
- When working, it is not allowed to be in the space in front of the plough, to load it by standing on it or sitting on it.
- Plough mustn't be adjusted and controlled in the course of driving.
- All adjustments and setting of machine must be made when the machine is under still conditions.
- Working safe slope inclination is maximum 7 °

Don't forget that the operating person or user is responsible for the accidents or threatening which can be caused by the equipment for other people or for their property.

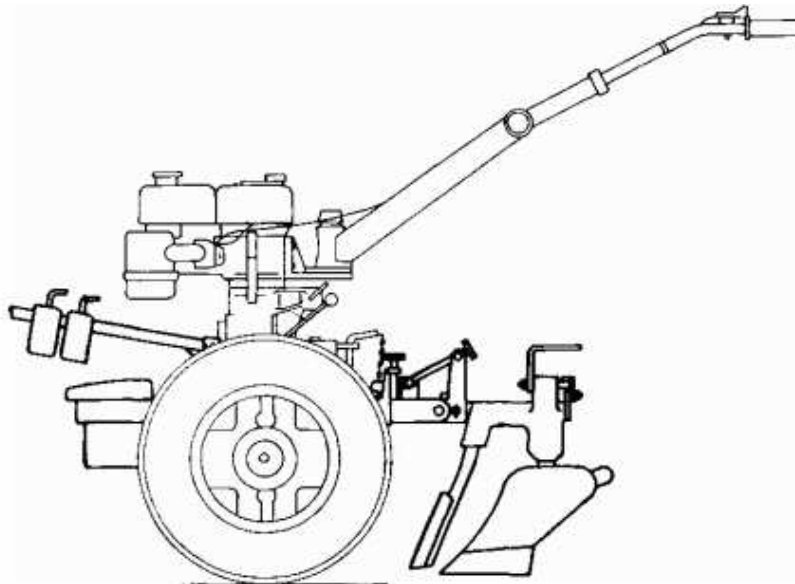
5-INSTRUCTIONS FOR OPERATION

Double-sided plough **APH-352** is to be connected into the connecting part of implement equipment of gearbox with axle DSK-317/S. Connecting, itself, is to be made under the help of rotary pin which is to be pushed into the fork of connecting body, pin with locking split-pin is to be used for its safe condition (from the fixed suspension on the box).

How to prepare the machine for ploughing:

Ploughing is made with geared first stage. When ploughing with double-sided plough **APH-352** we use the hinged equipment (see instructions for DSK-317/S).

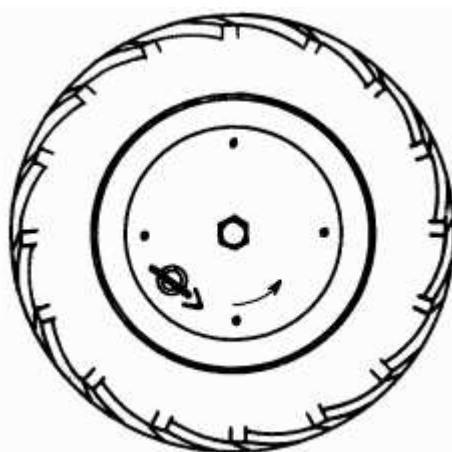
DOUBLE-SIDED PLOUGH APH-352 CONNECTED WITH DRIVING UNIT – NO.1



We do not recommend to set the stop screws to their stop condition when ploughing – otherwise there is solid connection, which makes guiding of the machine complicated. When ploughing, we adjust the small loading weights in such a way that the machine- when the plough is pulled out – would be close to the balance. This is to be made when ploughing is made on the plane surface. In every case we push the arresting screw button, which makes possible to gear only the first stage or reverse stage.

How to make ploughing:

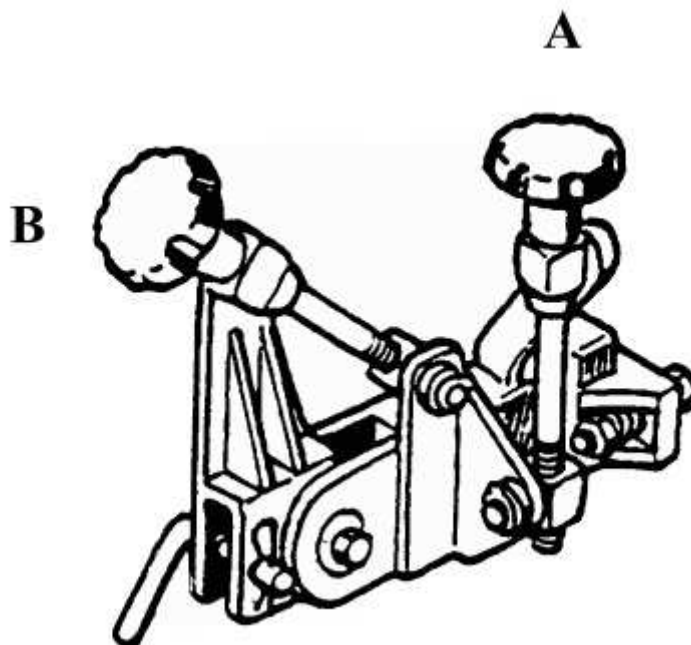
We make the ploughing with engaged first gear and with lock button pulled-in. Prior to ploughing with double-sided plough *APH-352* when looking in the direction of drive the hubs are to be set into idle-run position (figure 2).

IDLE-RUN POSITION OF HUB – NO.2

Correct function of idle-run position of the hub is to be checked in such a way that we drive the machine and we swing-out the hand-bars to the right and to the left while the catches must be flap (jump-out). First furrow can be passed through. At the end of field, the plough is to be lifted under the help of hand-bars and the machine is to be driven for approx.1 meter. On that wheel, with which we want to make the turn, we adjust the hinged position. The catch on the plough is to be released and the ploughing body is to be turned-over. Reverse stage is to be geared, then we slightly lift the machine under the help of hand-bars and with adding of small gas is turned round backward. Only one wheel is driven here and the machine is turned into requested direction. Then we again gear the first stage, bring the machine into furrow and set the plough and both idle-run positions. Any further turning is repeated at the end of furrow. Idle-run hubs are to be adjusted before starting ploughing. Stop-screws on setting body must have the clearance of 6-8 mm. Force mustn't be used, just motor power can be employed. When making the second furrow it will be necessary to make the adjustment of ploughing body as one wheel of drive will run along the field while the second inside the furrow which has been just ploughed. We use adjustable stops on the plough an adjustment body. We set the position of ploughing body by the adjusting body. Ploughing body must always be in vertical position toward the soil even if the machine runs inclined to one side. Two hand-wheels are on adjusting body – the inclination of ploughing body is controlled by them (figure 3A) and also the depth of ploughing (figure 3B). With these both wheels it is possible to set the vertical and horizontal position of plough. Setting of ploughing depth and of vertical position of ploughing body under the help of stops is made when the machine is in still condition.

Adjustment of spur on plough:

Spur is fixed before each body. In difficult overgrown soils the spur separates the belt of soil which is then turned over by ploughing body. Correctly adjusted spur is approx. 30 mm above the peak of ploughing body. On stony soils we adjust the spur a bit lower to prevent the stones from jamming between the spur and ploughing body.

SETTING OF PLOUGHING DEPTH AND INCLINATION OF PLOUGHING BODY – NO. 3**6-MAINTENANCE AND ATTENDANCE**

To reach maximum satisfaction when operating double-sided plough *APH-352* we recommend that the following instructions are kept:

- To check the proper tight condition of screws, nuts, especially during first fifty operating hours.
- Worn-out ploughing blades of spur must be sharpened in time and those which are broken must be replaced with new ones.
- When making the repair use always the original spare parts.
- When the machine is shut-down and of operation, lubricate the working surfaces of scrape-away devices, of ploughing blades and of spurs with oil or with lube-grease.
- Storing is to be arranged on dry places. Scratched spots are to be painted and protected against corrosion.

7-INSTRUCTION FOR ORDERING SPARE PARTS

For the benefit of yourselves and for meeting of your requirements we ask you to mention in all your orders the following items:

- Type of machine, manufacturing number and the year of production (indicated on manufacturing label).
- Correct number – as indicated by the manufacturer- in the list of spare parts and correct name

- Exact number of ordered pieces, for search item separately.
- In case that you are not sure that the number and name of the part in question is correct, kindly send the original, may be already damaged part for our reference.
- Correct address to which the spare parts are to be delivered.
- Required way of despatch (by normal post or by express).
- Legible signature of ordering person, who can be contacted if some explanation is necessary, together with his phone number.
- Order the requested spare parts with the nearest supplier, authorized with the sale of them.

8-GUARANTEE CONDITIONS

- Manufacturer guarantees the design, quality and completeness of delivered machine. Its function is guaranteed only under the condition that the machine is operated in correspondence with these instructions.
- Guarantee doesn't cover the protecting equipment against the overloading of the machine, the defects caused by natural wear, by wrong storing conditions or by unskilled attendance or if the defects are caused by the purchaser or the third person.
- Guarantee expires with the accident of the machine which wasn't caused by the defect originating with the manufacturer or with any intervention to the machine without prior approval of supplier.
- Detailed description of guarantee conditions is mentioned in guarantee certificate which is enclosed to the machine and also in technical terms.