OPERATION INSTRUCTIONS

Multi Cutter GB

Instructions Manual

MULTI CUTTER GB

The cutting tool *Multi Cutter GB* is deigned to amend a few types of gearbox housings which are often subject to a defect of bearing bed on the left side. This defect means that the middle joint head is placed on the left side of the gearbox by means of a bearing and is subject to high vibration and loaded with high transverse forces triggered by running joint. As a result of this, after a longer period of time, the bearing bed trips to such an extent that there appears high relief and opening oval. Repair is based on de-cutting the whole to the largest possible, without increasing the diameter, and then placing a special reduction socket which allows to recover sleeve seating state to a nominal dimension.

What a set includes

A package includes :

1-Cutting tools *Multi Cutter GB*
2-a set of nine blades
APKT113504PDFR-G2
3-mounting screws with 2.5 mm blades
4-T8 spanner
5-Connector 10mm
6-Oiler
7-Three mounting screws 8 mm.
8-Technical description and service instructions

Before the operation

After opening the package with the cutting tool *Multi Cutter GB* , first, it is necessary to remove the thick anti-corrosive layer from its surface. If you use chemical, degreasing agents (solvents), it is necessary to remember to protect the outer layers with a sponge or cloth soaked in oil or other anti-corrosive agent. **Between the mobile disk of a pin 4 and element no. 3, there is a slot in which, it is necessary to insert a few oil droplets with an oiler. Next, by means of the same tool, it is necessary to lubricate the mobile head pin from the external side (of the aluminum pin in the form of a disk) and from the side of the head through a hole discharging chippings. Additionally, on the outer layer of the housing, there is a lubricating hole to which a cone oiling tip must be inserted, powerfully tightened up and then oil must be pumped in.** Upon each of the aforementioned head pin lubricating activities, it is necessary to manually turn and shift the head in order to spread oil.

The next activity is one screwing of three cutting plates (blades). In the middle part of the box, there are three screws, which allow to mount blades with a key T8, which is a part of the set. When performing this activity, you must pay attention so that all cutting plates are pressed against the head sockets with their lower surface, otherwise the dimension or the quality of the treated surface can be unsatisfactory. Each cutting plate (blade) in case of injury or we can unscrew it and then turn 180 degrees and repeatedly mount, whereas it is recommended that plates with different operation times , which means that if we turn one plate, then two another as well.

Additional information

Before any use of the tool, it is always necessary to lubricate the head pin.

Start of operation

Gearbox removed from the car

After removal of the axis, we mount in it its place the *Multi Cutter GB* tool, by means of a hole discharging chippings from the bottom by means of three screws in the set. The use of other screws can cause a decentralisation of the hole as well as it can damage the tool. Using a spanner, we screw in all three screws, leaving about 1 mm margin and next we screw all of them home in turns and screw them all up. It is necessary to remember that during the assembly, t**he cutter head must stay in a backward position (hidden)**, otherwise it can damage blades.

In order to speed up the tool, it is necessary to have a driller, best one with 700 to 1000 W, which can reach 2500 rotations per minute. Place a connector, that is part of the set, on the mandrel of the drill machine. It is also necessary to have a tubular spanner 19. A 19 key must be placed on the hexagonal tool tip, keeping the external part with one hand, push pins of the aluminum disk towards yourself. Next, the connector tip in the form of a square is placed in the 19 tubular spanner and then the drill can be switched on. Use high rotations on the right. After reaching the good rotation speed, push the drill with one hand and pull gently the pin with the other hand, the cutter head is placed deeper and deeper in the treated bearing bed.

One must know that in any case while pulling the drill, the head must not be stopped, otherwise blades will become damaged. These actions are performed until the moment when we can feel that the distant element mounted in the aluminum disk has touched the tool housing.

One must pay particular attention to avoid having a hand screwed in by the drill if the head gets blocked as well as having our or another person's finger injured as a result of incidental putting it in the chip discharging hole.

Gearbox placed in the car

The *Multi Cutter GB* has been designed to be used to repair the bearing seating without removing the gearbox of dhe a car. The rule of operation on the car is case of a removed gearbox. However, it is necessary to use a standard extension mounted between the connector and tubular spanner 19. It is necessary to remember that due to safety reasons, under any circumstances, no jointed spanners or extension must be used.

The elements (parts) of the car, which must be removed in order to achieve access to the bearing seating:

1-wheel
2-cardan
3-inner plastic wheel housing

Additionally, it is necessary to unscrew a few screws on the chassis of suspension MacPherson from the side of the engine chamber in order to lower it and then tilt it to obtain necessary room to perform work.

Additional information

Before the of mounting of the tool *Multi Cutter GB* on the gearbox, it is necessary to protect the differentia mechanism hole against chippings or other contaminations.

After each use of the tool, the steel elements must be protected with oil or anti-corrosive agent.

When treatment is finished, unscrew the three *Multi Cutter GB* screws from the gearbox housing, remembering to pull aside the aluminum pin disk with a hand when disassembling the tool, keep the cutter head in a hidden position.

Cleaning and conservation

After each use, the tool must be cleaned from chips remains and other potential contaminations.

All steel surfaces must be protected with a layer of an oil or other anti-corrosive agent.

Before each use, the head pin must be always lubricated. (look chapter “Before the operation”)

Rules Safety

While cutting, one must keep particular attention not to twist an arm by the drill in case of head blocking.

During cutting, you must not hold the housing because in case of inserting a finger into a hole, discharging chips can lead to its permanent lost or a serious injury.

In any case, you must not use joint tools with *Multi Cutter GB* drive. It can result in blocking, one of the tools and then falling out at high force, which in consequence can cause serious injuries.

Do not use more than one extension because it can cause high vibrations and, in consequence, a blocking followed by an arm twist made by the drill which can lead to a permanent disability.

Instruction film http://www.sppeyer.com/mcgb.mp4

MULTI CUTTER GB was produced
in cooperation with
ASGB Automatic Service (Poland)
end AutoGB (France)

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