

# PBT1 PORTABLE MANDREL DRIVER

## OPERATION INSTRUCTIONS

### 1. MANDREL INSERTION AND EXTRACTION

If one mandrel is already installed, separate the mandrel and adapter group, removing the two screws that subject it (the wedge will rest in the mandrel driver).



Turn counter clock wise the mandrel feed nut in order to extract the wedge and the wedge hook. When we have practice, will not be necessary the complete extraction of the wedge hook. Only we must to place it evened with the driver and we can extract and insert the wedge doing a small wedge inclination and pressure.



To put one new mandrel, follow the next steps:

1. Choose the suitable mandrel and adapter in function of the diameter.

ATTENTION: The mandrel wedge must to be modified cutting the lash as we can see in the picture.



Original wedge



Modified wedge

2. Assembly the mandrel body in the adapter.

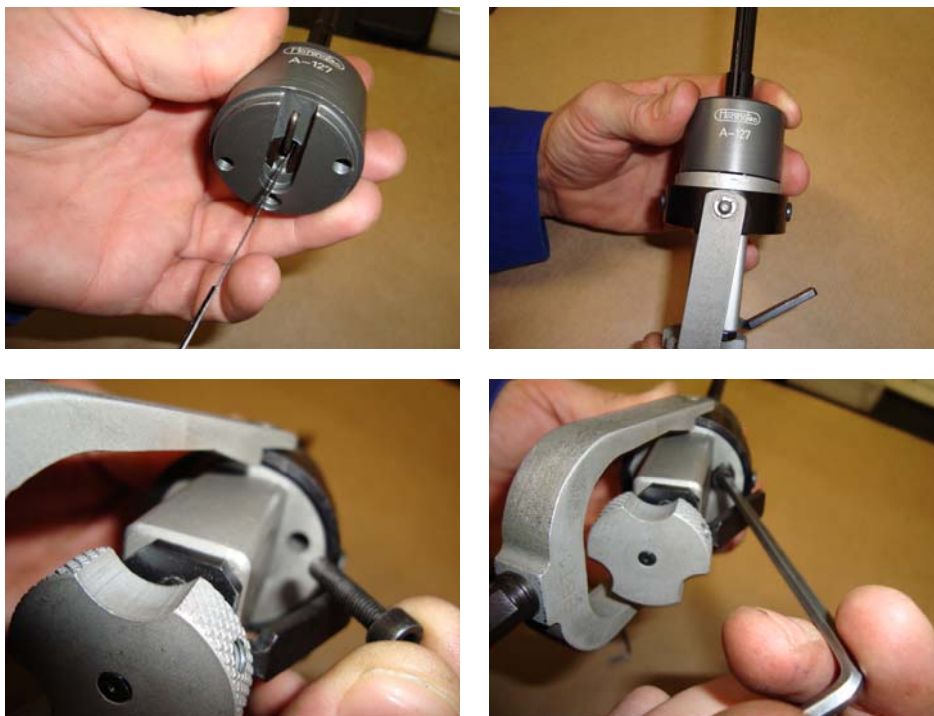


Place the mandrel and lock as it is indicated in the precedent pictures. Ensure that the mandrel has been introduced to the deep end.

3. Couple the wedge hook to the wedge and unscrewing the mandrel feed nut, introduce the hook (plus wedge) in the internal of the driver until the wedge head rests evened with the driver.



4. Introduce the wedge (assembled in the driver) in the mandrel paying attention to the positioning pin and lock the two screws to fix the adapter to the mandrel driver. Introduce the wedge on the right of the stone retention wire.



5. To ensure that it is correctly assembled, pushing the lateral lever the wedge must to move in the mandrel driver direction and if we release the lever, the wedge must to advance. All this movement must to be done in an easy form. If we found any mechanical impediment we must to disassembly and revise.



6. Introduce the suitable honing stone putting it slightly inclined as indicated in the picture in order to ensure that the retention stone wire doesn't rests under the stone. Next press the end part of the stone to fit correctly the stone.



7. Exercising one small pressure above the stone, when we press the lateral lever the stone must to expand and when we release the lever, the stone must to retract.

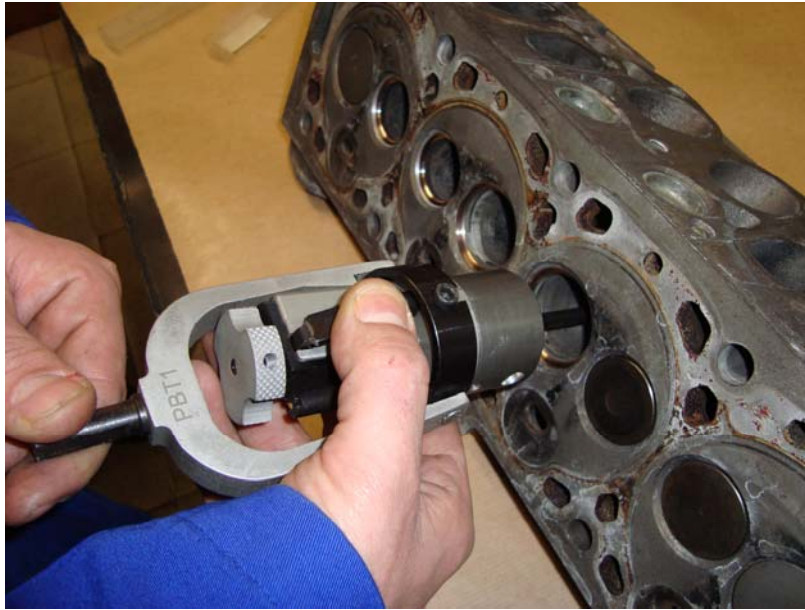




## 2. REGULATION AND HONING INSTRUCTIONS

### A. Regulation.

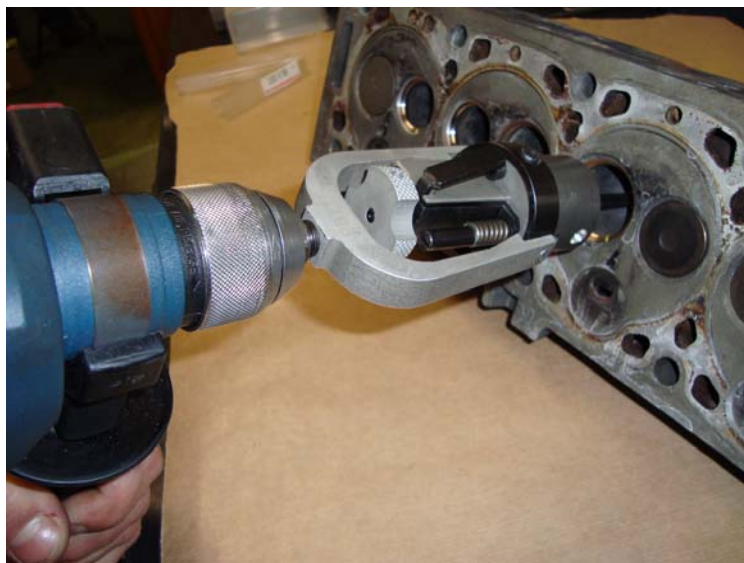
1. With the driver disassembled of the portable drill, introduce the mandrel in the hole. It can be necessary retract the stones by the feed nut and do a small hand pressure above the stones.
2. Expand until to detect pressure between the mandrel and the surface to be honed and give a half extra tour to the feed nut.



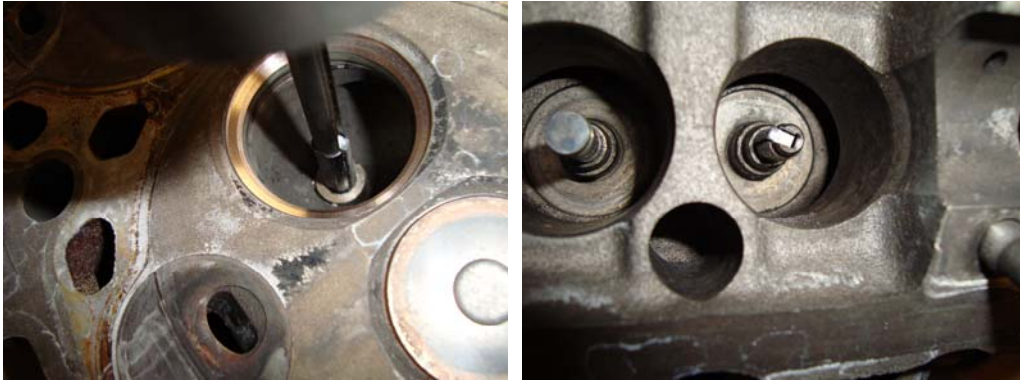
3. Pushing the lever, the mandrel must to rest without pressure and must to be easy to extract them from the hole. The main function of this lever is to release the pressure to extract the mandrel of the hole during the honing process without loosing the measure.

### B. Honing process.

1. Couple the mandrel driver to the portable drill. It is recommended to work at 400-600 r.p.m.



2. Press the lever and introduce the mandrel in the hole. Verify that when we release the lever, the mandrel exercises pressure in the surface.
3. Start the portable drill moving axially in the form that the stone surpass 1/3 of its length for each part of the piece.



4. As the diameter will increase and the stone wears, expand the stone by means of the rear feed nut.
5. To regulate the pressure exercised we can give more or less tension to the pressure spring. As more compression of the spring more stone pressure.



6. Lubricate the piece and the mandrel with HONINGTEC OHB-14 honing oil.