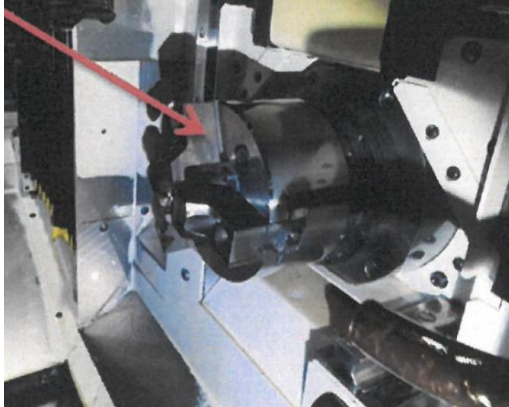


No.	009-24
job classification	modification
target machine	CNC Auto-lathe

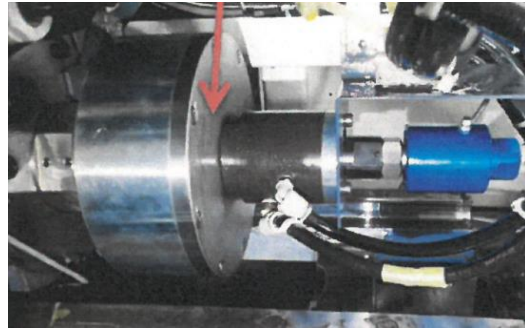
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Manufacturer	CITIZEN
Model	MC20
Task	Chuck & cylinder replacement

【 Overview of repair machines : Chuck & cylinder replacement for auto-lathe】

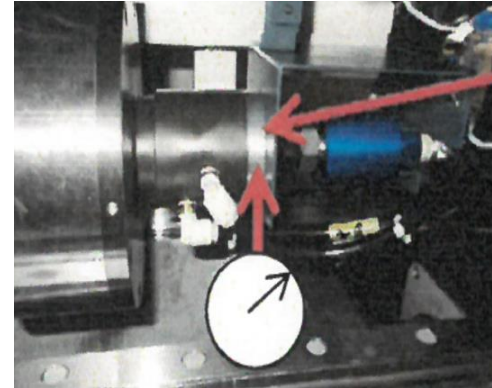


【Installation of chuck】



【Cylinder installation】

【 Key points of the exchange operation : Installation and accuracy check based on manufacturer's standards】



【Cylinder & journal runout: within 5μ】

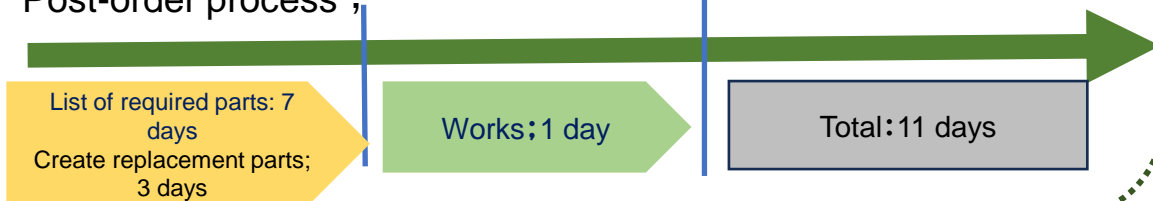


【Confirmation of vibration by balancer device】

【 Implementation details and approximate man-hours 】

- ◆ Accuracy inspection according to manufacturer's standards
- ◆ Check runout of journals for coolant in spindle as well as chuck cylinder.
- ◆ Balancing at maximum spindle speed by balancer device (within 2μ)

Post-order process ;



【 Overview of replacement works 】

Preliminary inspection and preparation

- ◆ If a balancer device is required, the balancer device(device of the chuck manufacturer). should be prepared by the customer
- ◆ It is necessary to confirm the availability of technical data for parts other than the chuck & cylinder (drawbar & back plate, etc.).

Works

- ◆ If parts are ready, the installation can be replaced in one day.

Factors causing additional items

- ◆ If fabricated parts are required, technical data must be provided by the manufacturer.