



LMT Tool Systems

THE PERFORMANCE TEAM

Competitive Tooling for Engine Manufacture

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LMT Tool Systems

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Key Process In Engine Manufacture

发动机加工的关键部位及工艺

1. Cam bore (Finish operation)

凸轮轴孔精加工

2. Crank bore (Finish operation)

曲轴孔精加工

3. Cylinder bore (Finishing operation)

气缸孔精加工

4. Valve seat and guide bush (Finish operation)

阀座导管孔的精加工

Cam bore finish operation 凸轮轴孔精加工

1. Line boring bar for cam bore finish operation

凸轮轴孔精加工采用线镗刀形式。

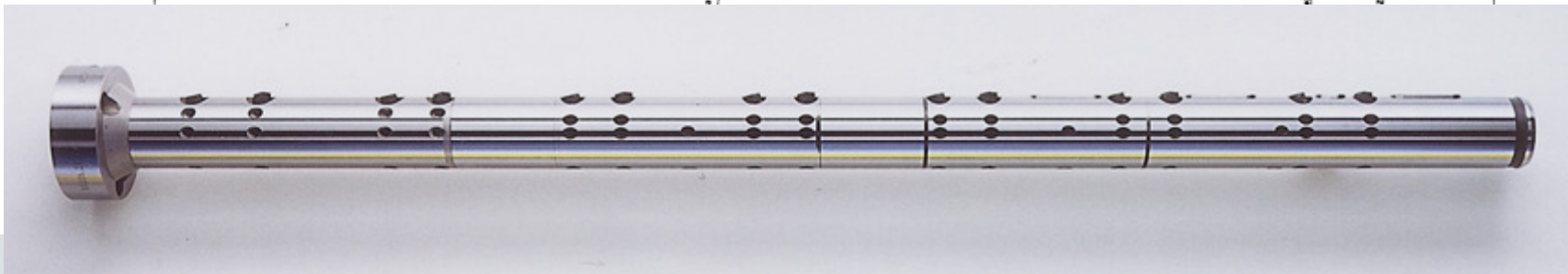
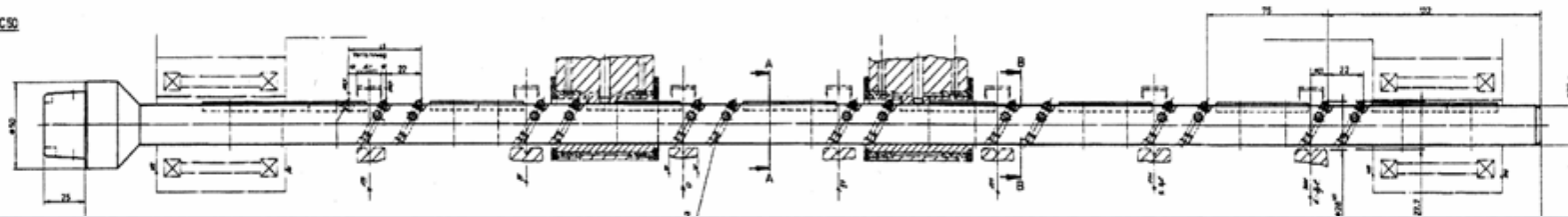
2. Line boring bar can be used both at machine center and special purpose machine

凸轮轴线镗刀既可以用在加工中心，也可以用在专机上。

3. Highlight : Plug-in Cartridge, ISO cartridge, Twin-cartridge, MAC ; Sleeve bearing on the boring bar, Capability of damping system and carbide bar.

特点：镶片式刀夹，ISO刀夹，双子星刀夹，微调精镗单元，多种刀夹形式。内置滚针轴承式镗杆。内置减震块及部分硬质合金抗震设计。

DIN 59853 - HSK - C50



Crank bore finish operation

曲轴孔精加工

1. Line boring bar for Crank bore finish operation

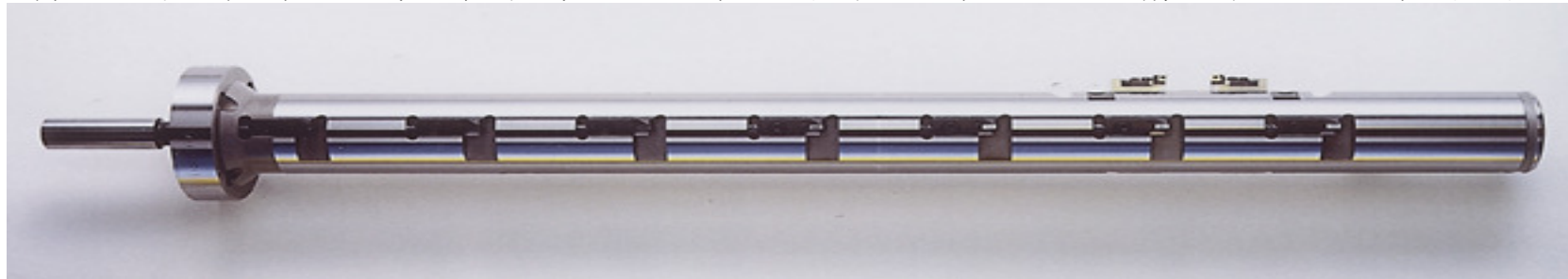
曲轴孔精加工采用线镗刀形式

2. Line boring bar can be used both at machine center and special purpose machine.

曲轴孔用线镗刀既可用在加工中心又可用在专机线上。

3. Highlight : Plug-in cartridge, ISO cartridge, MAC, Twin-cartridge available. Two sliders with 4 cartridges for thrust face machining available, Both Crank bore and thrust face finish operation can be done by one complex line boring bar.

特点：多种刀夹形式，镶片式，ISO刀夹，双子星刀夹，MAC精镗单元。4刀夹双滑块车止推面



Cylinder Bore Finish Operation

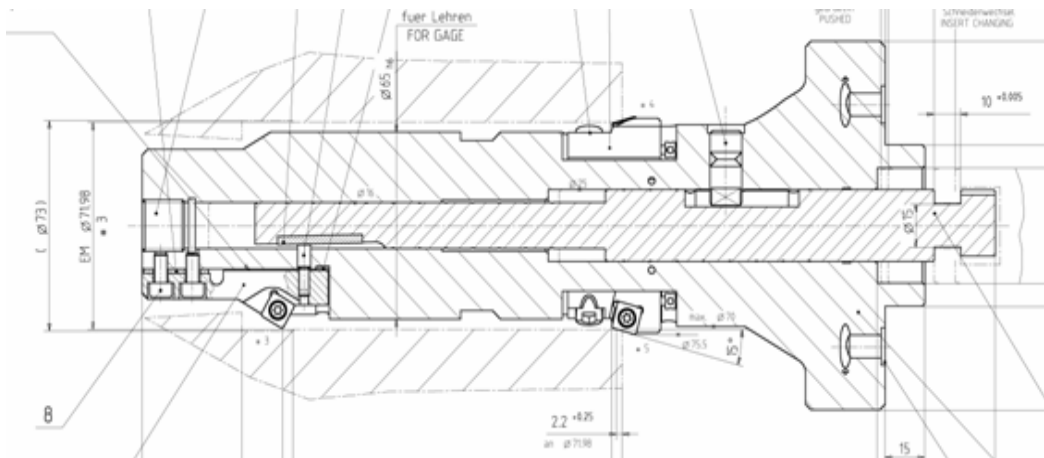
缸孔精加工

1. **Complex tooling with slider and draw bar system or pump-off system for cylinder bore finish operation.**

气缸孔精加工采用复合机构镗杆（拉杆或展开式机构配合滑块）

2. **Highlight : slider with draw-bar system or pump-off system , according to machine center or special purpose machine . Capability of three cartridges working together for finish boring same diameter.**

特点：拉杆机构及展开机构配合滑块，两套机构根据加工中心或专机的特性选配。高精度镗杆的制造可实现3刀夹同时精镗同一直径，在保证精度的同时，提高了加工效率。



Valve Seat and Guide Bush Finish Operation

阀座导管孔精加工：

1. Finish operation of parent hole of Valve seat and Guide bush.

阀座及导管母孔精加工

1.1 Complex tooling of multi-step reamer and single blade reamer.

多刃及单刃铰刀复合刀具

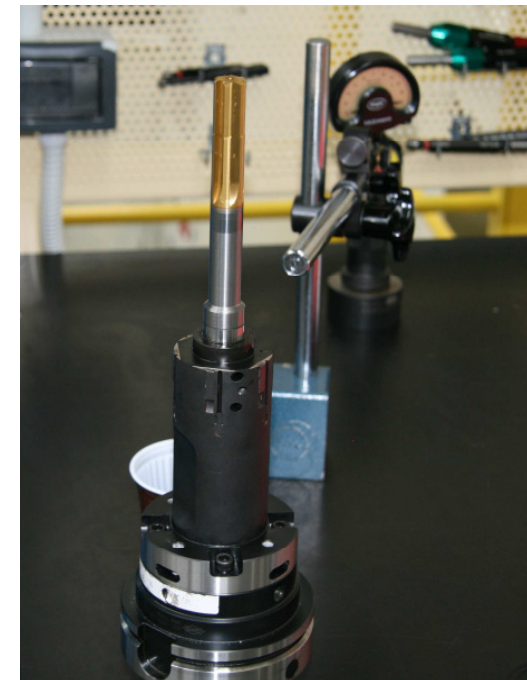
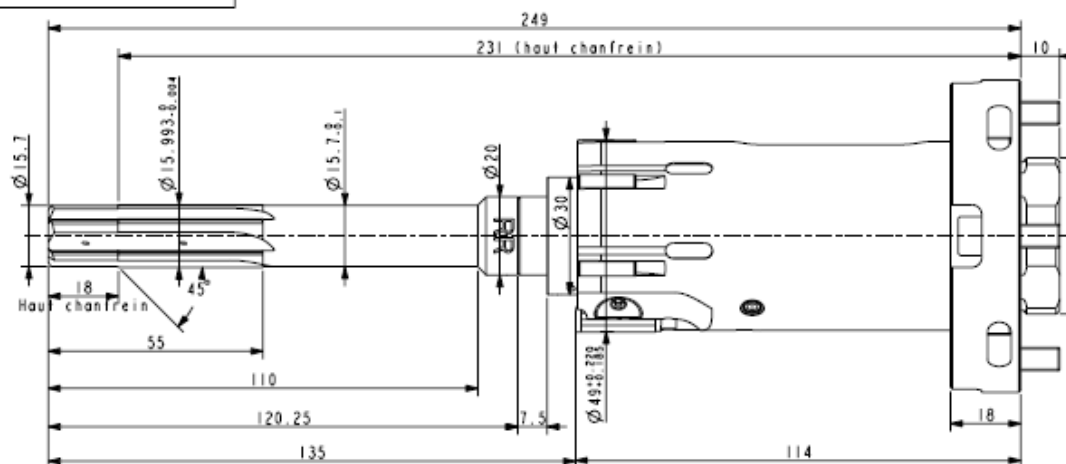
1.2 Multi-step reamer for pilot machining of guide bush and finish boring guide bush.

阶梯铰刀加工导引及精铰导管。

1.3 Single blade reamer for finish boring valve seat.

单刃铰刀精校座圈

PLAN CLIENT



Valve Seat and Guide Bush Finish Operation

阀座导管孔精加工

2. Finish operation of valve seat ring and guide bush

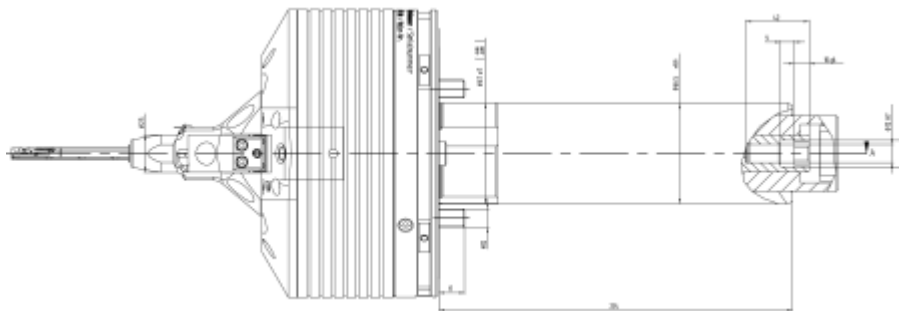
座圈导管孔压套后精加工

2.1 Complex tooling with slider and draw-bar or pump-off system for valve seat ring and guide bush finish operation

复合刀具系统(拉杆或是弹簧机构),用于压套后的座圈及导管精加工。

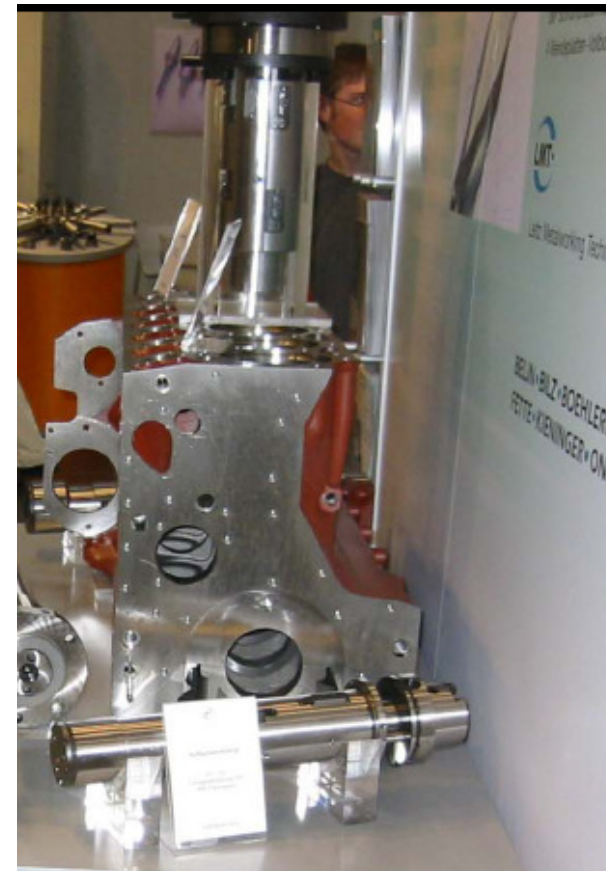
2.2. Complex tooling system with high accuracy, meeting the small run-out tolerance demand between Valve seat ring and guide bush.

高精度刀体机构, 保证导管及座圈严格的跳动公差。



LMT TOOLS-The Complete Solution Supplier For Key Process in Engine Manufacture

LMT-TOOLS 发动机关键加工部位的方案配套供应商。



Thank you for your attention !