BIG DAISHOWA KAISER BORING SYSTEM

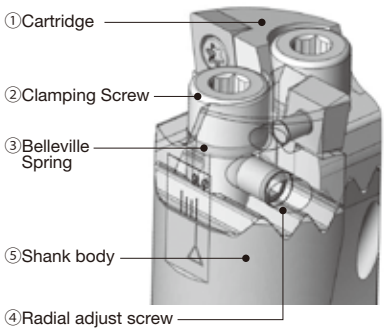
MW HEAD

OPERATION MANUAL

Please read these instructions before use and keep them where the operator may refer to them whenever necessary.

ADJUSTMENT OF BORING DIAMETER

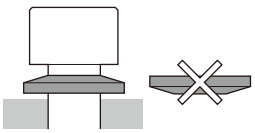
Fig.1



1) Wipe the attaching surfaces of the ⑤Shank body and the ①Cartridge thoroughly with a waste.
2) Put the ③Belleville Spring through the ②Clamping Screw. (Fig.2) Assemble the ①Cartridge on the head with the ②Clamping Screw. At this time, turn the wrench by finger to tighten the ②Clamping Screw, but the ①Cartridge must be able to move smoothly.
3) Turn the ④Radial adjust screw, clockwise so that the ①Cartridge, is pushed out, and adjust the cutting edge to the requested boring diameter.
   ※ If the cartridge is moved too far turn the ④Radial adjust screw counterclockwise, loosen the ②Clamping Screw, and push the ①Cartridge by finger in the direction where the boring diameter is smaller. After this, repeat 2) and the followings.
4) Tighten the ②Clamping Screw securely. Tightening torque 1.8N・m. (1.33 lbf・Ft)
5) Tighten the ④Radial adjust screw again, and ensure that it is not loose.

If the radial adjust screw is loose, the screw may come out during cutting operation.

Fig.2



Direction of Belleville Spring

⚠ CAUTION

- Exchange the Clamping Screw and the Belleville Spring in proper period. In case that they are damaged and still used, it becomes quite hard to adjust the boring diameter, or the cartridge moves during cutting operation, which are very dangerous.
- In order to place an order of replacement parts, refer to the following table and indicate model No., part name and part No.

■ eplacement parts

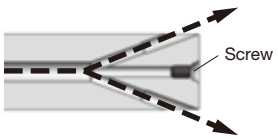
Model No.	②Clamping Screw -2 pc. ③Belleville Spring -2 pc.	③Belleville Spring -4pc.	④Radial adjust screw -5pc.
MW1619	MW16SS	MW16BS	H02503-5P
MW1821			H02504-5P

HOW TO SUPPLY COOLANT

MW shank body has 3 coolant holes. When the holes are plugged depending on the condition of boring operation, coolant can be supplied properly.

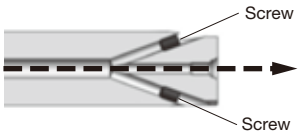
For boring a through hole

Plug a screw (M2.5×4L) into a center hole of the shank body as in the following figure. The amount of coolant to the cutting edges is increased.



For boring a blind hole

Plug screws (M2.5×4L) into 2 cross holes of the shank body as in the following figure. The central coolant supply evacuates chips more smoothly.



⚠ CAUTION

- At the first cutting, try several millimeters of boring and check whether chips are left in the hole. If the chips are left, there is a danger that chips may be jammed at cutting edges and break tools.
- The materials whose chips are easily jammed such as SS steel, low carbon steel and stainless steel, chips may not be evacuated.
- Supply emulsion type of coolant internally. Coolant pressure should be higher than 1.5MPa.
- Carbide shank type is exclusively designed for through-hole-boring.

ADDITIONAL CAUTION

⚠ CAUTION

- Since the insert clamping screw is expendable, exchange them periodically.
- Boring range of the boring head must not be exceeded.
- NEVER conduct boring under unsuitable cutting condition. For recommended cutting condition, refer to the catalogue.
- NEVER continue using the boring head, if it has suffered strong impact by bumping.
- Wear safety glasses during boring operation.
- NEVER exceed the maximum allowable spindle speed of 12,000 RPM.
  This maximum allowable spindle speed is the limit value determined from the structure of the tool. It is not guaranteed to be applicable for actual boring.

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No.0625