

2. Precautions on Using the Cross-Roller Ring

Handling

- (1) The separable inner or outer ring is fastened in place using special rivets, bolts or nuts when delivered. When installing it to the system, do not disassemble it. Also, erroneously installing the spacer retainer will significantly affect the rotational performance of the system. Do not disassemble the bearing.
- (2) The matching mark of the inner or outer ring may be slightly misaligned when delivered. In that case, loosen the bolts that secure the inner or outer ring, and correct the alignment using a plastic hammer or the like, before installing it to the housing (let the securing rivets follow the housing).
- (3) When installing or removing the Cross-Roller Ring, do not apply force to the securing rivets or the bolts.
- (4) When mounting the presser flange, take into account the dimensional tolerances of the parts so that the flange firmly holds the inner and outer ring from the side.
- (5) Dropping or hitting the Cross-Roller Ring may damage it. Giving an impact to it could also cause damage to its function even if the product looks intact.

Lubrication

- (1) Since each Cross-Roller Ring unit contains high-quality lithium soap group grease No. 2, you can start using the product without replenishing grease. However, the product requires regular lubrication since it has a smaller internal space than ordinary roller bearings and because the rollers need frequent lubrication due to their rolling contact structure.
To replenish grease, it is necessary to secure greasing holes that lead to the oil grooves formed on the inner and outer rings. As for the lubrication interval, normally replenish grease of the same group so that it is distributed throughout the interior of the bearing at least every six to twelve months.
When the bearing is filled up with grease, the initial rotation torque temporarily increases. However, surplus grease will run off of the seals and the torque will return to the normal level in a short period.
The thin type does not have an oil groove. Secure an oil groove inside the housing for lubrication.
- (2) Do not mix lubricants of different physical properties.
- (3) In locations exposed to constant vibrations or in special environments such as clean rooms, vacuum and low/high temperature, normal lubricants may not be used. Contact **THK** for details.
- (4) When planning to use a special lubricant, contact **THK** before using it.

Precautions on Use

- (1) Entrance of foreign matter may cause functional loss. Prevent foreign matter, such as dust or cutting chips, from entering the system.
- (2) When desiring to use the system at temperature of 80°C or higher, contact **THK** in advance.
- (3) If planning to use the Cross-Roller Ring in an environment where a coolant penetrates into the product, contact **THK**.
- (4) If foreign matter adheres to the product, replenish the lubricant after cleaning the product with clean white kerosene.
- (5) When using the product in locations exposed to constant vibrations or in special environments such as clean rooms, vacuum and low/high temperature, contact **THK** in advance.