Precautions on Using the LM Guide

[Handling]
(1) Please use at least two people to move any product weighing 20 kg or more, or use a dolly or another conveyance. Doing so may cause injury or damage.
(2) Do not disassemble the parts. This will result in loss of functionality.
(3) Tilting an LM block or LM rail may cause them to fall by their own weight.
(4) Take care not to drop or strike the LM Guide. Doing so may cause injury or damage. Giving an impact to it could also cause damage to its function even if the product looks intact.
(5) Do not remove the LM block from the LM rail during setup.
(6) Do not insert hands or fingers into the mounting holes on the LM rail, as they could get caught between the rail and the LM block, resulting in injury.
(7) To ensure personal safety, wear gloves and protective footwear when handling this product.

[Precautions on Use]
(1) Prevent foreign material, such as cutting chips or coolant, from entering the product. Failure to do so may cause damage.
(2) If the product is used in an environment where cutting chips, coolant, corrosive solvents, water, etc., may enter the product, use bellows, covers, etc., to prevent them from entering the product.
(3) Do not use this product if the external temperature exceeds 80°C. Unless the unit is specially designed to be heat-resistant, exposure to such temperatures may deform or damage plastic and rubber parts.
(4) If foreign material such as cutting chips adheres to the product, replenish the lubricant after cleaning the product.
(5) Micro-strokes tend to obstruct oil film to form on the raceway in contact with the rolling element, and may lead to fretting corrosion. Take consideration using grease offering excellent fretting prevention. It is also recommended that a stroke movement corresponding to the length of the LM block be made on a regular basis to make sure oil film is formed between the raceway and rolling element.
(6) Do not use undue force when fitting parts (pin, key, etc.) to the product. This may generate permanent deformation on the raceway, leading to loss of functionality.
(7) If, for operational reasons, it becomes absolutely necessary to remove the LM block from the LM rail and reattach it, a special mounting jig must be used for this purpose. (The mounting jig is not included with standard versions of the product. To obtain one, please contact THK.)
(8) Position the mounting jig so that one end abuts the end of the LM rail. When the rail and the jig are exactly aligned, the LM block can be loaded onto the rail.
(9) Take care to keep the LM block straight. Loading the block at an angle can introduce foreign matter, damage internal components, or cause balls to fall out.
(10) The LM block must contain all its internal rolling elements (balls) when mounted on the LM rail. Using a block with any balls removed may result in premature damage.
(11) Please contact THK if any balls fall out of the LM block; do not use the block if any balls are missing.
(12) If the LM Guide breaks due to an accident or other cause, the block may come off of the rail and fall. For the safe use of this product, take precautions such as adding a mechanism to prevent the block from falling.

(13) Insufficient rigidity or accuracy of mounting members causes the bearing load to concentrate on one point and the bearing performance will drop significantly. Accordingly, give sufficient consideration to the rigidity/accuracy of the housing and base and strength of the fixing bolts.

(14) When removing the LM block from the LM rail and then replacing the block, an LM block mounting/removing jig that facilitates such installation is available. Contact THK for details.

[Lubrication]
(1) Thoroughly remove anti-rust oil and feed lubricant before using the product.
(2) Do not mix different lubricants. Mixing greases using the same type of thickening agent may still cause adverse interaction between the two greases if they use different additives, etc.
(3) When using the product in locations exposed to constant vibrations or in special environments such as clean rooms, vacuum and low/high temperature, use the grease appropriate for the specification/environment.
(4) When lubricating the product having no grease nipple or oil hole, apply grease directly on the raceway and stroke the product several times to let the grease spread inside.
(5) The consistency of grease changes according to the temperature. Take note that the slide resistance of the LM Guide also changes as the consistency of grease changes.
(6) After lubrication, the slide resistance of the LM Guide may increase due to the agitation resistance of grease. Be sure to perform a break-in to let the grease spread fully, before operating the machine.
(7) Excess grease may scatter immediately after lubrication, so wipe off scattered grease as necessary.
(8) The properties of grease deteriorate and its lubrication performance drops over time, so grease must be checked and added properly according to the use frequency of the machine.
(9) Although the lubrication interval may vary according to use conditions and the service environment, lubrication should be performed approximately every 100 km in travel distance (three to six months). Set the final lubrication interval/amount based on the actual machine.
(10) If the mounting orientation is other than horizontal use, the lubricant may not reach the raceway completely. For the mounting orientation and the lubrication, see 24-2, respectively.
(11) When adopting oil lubrication, the lubricant may not be distributed throughout the LM block depending on the mounting orientation of the block. Contact THK in advance for details.

[Storage]
When storing the LM Guide, enclose it in a package designated by THK and store it in a room in a horizontal orientation while avoiding high temperature, low temperature and high humidity. After the product has been in storage for an extended period of time, lubricant inside may have deteriorated, so add new lubricant before use.

[Disposal]
Dispose of the product properly as industrial waste.