

Japan Credit Rating Agency, Ltd. (JCR) announces the following credit rating.

## **THK CO., LTD. (security code: 6481)**

### <Affirmation>

Long-term Issuer Rating:	A+
Outlook:	Stable
Bonds:	A+
Shelf Registration:	Preliminary A+
CP:	J-1

### *Rationale*

- (1) THK CO., LTD. (the "Company") is a leading manufacturer of linear motion ("LM") guides, machine element parts. Pursuing its global operations through an integrated manufacturing/sales system, the Company has built a production structure with four key geographic regions of Japan, the Americas, Europe and Asia. It boasts a market share of over 50% worldwide and approximately 70% in Japan, which indicates its strong competitiveness. The Industrial Machinery Business, with its core LM guides, primarily serves demand from the industrial machinery sector including machine tools, semiconductor/LCD production equipment. The Automotive & Transportation Business mainly produces automobile undercarriage components including the link balls (spherical slide bearings), which have been offered since its foundation. The Company has been expanding its operations, through making former Rhythm Corporation its subsidiary in 2007 and acquiring the linkage and suspension business from former TRW Automotive Inc. in 2015.
- (2) Earnings have been on a recovering trend from the COVID-19 pandemic. Orders in the Industrial Machinery Business are currently trending firmly. It is expected that demand for mainstay LM guides will likely continue to increase going forward, along with the expansion of electronics-related investments and the progress of factory automation. Although the earnings improvement of the Automotive & Transportation Business, which has been incurring losses, remains to be an issue to address, the Company's performance is assumed to stay firm for the foreseeable future, driven by the Industrial Machinery Business. In addition, a solid financial base is maintained. Based on the above, JCR has affirmed the ratings on the Company with Stable outlook.
- (3) For the fiscal year ending December 2022 (FY2022), the Company plans to maintain the recovery trend with an operating income (IFRS) of 43 billion yen, up 42.1% year on year. The Industrial Machinery Business is assumed to steadily capture robust demand through past initiatives to expand production capacity. While there remain concerns about rising transportation costs and steel material prices, the effect of higher revenues in the Business will likely set off the cost increase, and the Company's performance is expected to remain solid. Going forward, JCR will pay attention to whether the Company can further strengthen the earning capacity by developing new fields in the Industrial Machinery Business, etc., and whether it can establish a profitable structure through cost reduction measures and so forth in the Automotive & Transportation Business.
- (4) Financial indices are favorable as shown by the ratio of equity attributable to owners of the parent of 61.6% as of the end of the second quarter of FY2022 (57.2% a year earlier). Moreover, the Company has ample liquidity on hand and has been continuing substantially debt-free operations. Going forward, capital investment aimed at expansion of production facilities, among others, will likely continue, but given its cash flow generation capacity, the impact on its financial structure will be limited, in JCR's view.

Hiroaki Sekiguchi, Seiya Nagayasu

## Rating

Issuer: THK CO., LTD.

### <Affirmation>

Long-term Issuer Rating: A+

Outlook: Stable

Issue	Amount (bn)	Issue Date	Due Date	Coupon	Rating
Bonds no. 11	JPY 10	Feb. 7, 2018	Feb. 7, 2023	0.140%	A+
Bonds no. 12	JPY 10	Feb. 7, 2018	Feb. 7, 2025	0.270%	A+
Bonds no. 13	JPY 10	Feb. 6, 2019	Feb. 6, 2024	0.170%	A+
Bonds no. 14	JPY 10	Feb. 6, 2019	Feb. 6, 2026	0.290%	A+
Bonds no. 15	JPY 10	Feb. 7, 2020	Feb. 5, 2027	0.250%	A+
Bonds no. 16	JPY 10	Sept. 15, 2020	Sept. 15, 2023	0.010%	A+
Bonds no. 17	JPY 10	Sept. 15, 2020	Sept. 12, 2025	0.180%	A+

Shelf Registration: Preliminary A+

Maximum: JPY 50 billion

Valid: two years effective from June 11, 2021

CP: J-1

Maximum: JPY 30 billion

Rating Assignment Date: August 31, 2022

The assumptions for the credit ratings and the definitions of the rating symbols are published as "Types of Credit Ratings and Definitions of Rating Symbols" (January 6, 2014) in Information about JCR Ratings on JCR's website (<https://www.jcr.co.jp/en/>).

Outline of the rating methodology is shown as "JCR's Rating Methodology" (November 7, 2014) in Information about JCR Ratings on JCR's website (<https://www.jcr.co.jp/en/>).

A preliminary rating is a credit rating assigned as a preliminary evaluation while material terms for issue to be rated are not yet finalized. When the issuing terms are finalized, JCR will confirm them and will assign a credit rating anew. The rating level of the final rating may be different from that of the preliminary rating, depending on the final content of the terms, etc.

## Japan Credit Rating Agency, Ltd.

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JCR publishes its press releases regarding the rating actions both in Japanese and in English on the same day. In case that it takes time to translate rating rationale, JCR may publicize the summary version, which will be replaced by the full translated version within three business days. (Regarding Structured Finance products, JCR only publicize the summary version in English.)



## INFORMATION DISCLOSURE FORM

Japan Credit Rating Agency, Ltd.

### Disclosure Required by Paragraph (a)(1)(ii) of Rule 17g-7

Issuer:	THK CO.,LTD.
Rating Publication Date:	September 5, 2022

**1** The Symbol, Number, or Score in the Rating Scale used to Denote Credit Rating Categories and Notches and, the Identity of the Obligor or the Identity and a Description of the Security or Money Market Instrument as Required by Paragraph (a)(1)(ii)(A) of Rule 17g-7

- Please see the news release. If the credit rating is a private rating, please see the report for private rating.

**2** The version of the procedure or methodology used to determine the credit rating; as Required by Paragraph (a)(1)(ii)(B) of Rule 17g-7

- Please see the news release. If the credit rating is a private rating, please see the report for private rating.

**3** The Main Assumptions and Principles used in Constructing the Procedures and Methodologies used to Determine the Credit Rating as Required by Paragraph (a)(1)(ii)(C) of Rule 17g-7

- The credit rating methodology assumes, in principle, to be applied to assess the likelihood of a given debt payment in light of its issuer's condition and business environment, etc. in the relevant future. There is certain limitation, however, in the time horizon that the rating foresees.
- The credit rating methodology assumes, in principle, that the factors posted in the below are particularly important for such likelihood to be determined, and that the rating determination is made by evaluating each of them not only quantitatively but also employing qualitative analyses.

**A) Business Bases**

The likelihood of a given debt payment is highly conditional to its issuer's business bases - how they can be maintained/ expanded into the future and thereby secure earnings and cash flows in adequacy and in a sustainable way.

**B) Financial Grounds and Asset Quality**

The likelihood of debt payment is highly dependent on the degree of the issuer's indebtedness and loss absorption capacity in terms of equity capital. Also notable is that a financial institution might see a significant loss of financial grounds as a result of changes in value of the assets under its possession.

**C) Liquidity Positions**

The likelihood of debt payment is highly dependent on the adequacy of the issuer's cash and other sources of repayment (liquidity positions).

D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The likelihood of debt payment is affected one way or the other by the issuer's related parties such as parent company, subsidiary, guarantor, and the government of the issuer's business domicile, etc. - by their own conditions and/ or position of support/ assistance for the issuer.

E) Order of Seniority in Debt Payment

The likelihood of debt payment can be different between given debts of the same issuer. The likelihood of debt payment for an individual debt is dependent on the issuer's discretion, and/ or its rank relative to other debts of the same issuer in the order of seniority in principal/ interest payment which is determined by design as financial product or by laws, etc.

4 The Potential Limitations of the Credit Rating as Required by Paragraph (a)(1)(ii)(D) of Rule 17g-7

- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- The objective of the credit rating herewith presented does not include any concerns other than the likelihood of debt payment, such as risks of price changes, market liquidity, etc.
- The credit rating herewith presented is necessary to be reviewed along with possible changes of the issuer of rated objects in its business performance and/ or circumstances which include regulatory environment, and hence subject to possible alteration.

5 Information on the Uncertainty of the Credit Rating as Required by Paragraph (a)(1)(ii)(E) of Rule 17g-7

- The information used for the determination of credit rating as herewith presented is obtained by JCR from the issuer of rated objects and other sources that JCR trusts in terms of accuracy and reliability but possibly contains errors due to human, non-human or other causes. Consequently, the credit rating determined on the grounds of such information does not constitute, explicitly or implicitly, any representation or warrant of JCR on the information itself or any consequences of its use in terms of accuracy, relevance, timeliness, wholeness, market value, or usefulness for any specific purposes.

6 Use of Due Diligence Services of a Third Party in Taking the Rating Action as Required by Paragraph (a)(1)(ii)(F) of Rule 17g-7

- There is no use of any third-party due diligence service in the determination of the credit rating herewith presented.

7 Use of Servicer or Remittance Reports to Conduct Surveillance of the Credit Rating Required by Paragraph (a)(1)(ii)(G) of Rule 17g-7

- There is no use of any servicer or remittance report to conduct surveillance of the credit rating herewith presented.

8 The Types of Data Relied Upon for the Purpose of Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(H) of Rule 17g-7

- The information posted in the below, which includes data, is used for the determination of the credit rating herewith presented.

A) Audited financial statements presented by the rating stakeholders

B) Explanations of business performance, management plans, etc. presented by the rating stakeholders

## 9 Overall assessment of the Quality of Information Available and Considered in Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(I) of Rule 17g-7

- JCR holds its basic policies for securing the quality of information as a base of due diligence for the determination of credit ratings. The information used as a base for the determination of credit rating herewith presented satisfies such policies, which include the audit by an independent auditor, the warranty made by the issuer, the publication by the issuer, some independent media or, otherwise, JCR analyst's scrutiny, etc.
- JCR sees no particular weakness in the quality of information used for the determination of the credit rating herewith presented as compared to the information used in other cases of the credit rating for comparable issuers or ratable objects.
- If the credit rating is an Indication, please see the report for Indication.

## 10 Information Relating to Conflicts of Interest as Required by Paragraph (a)(1)(ii)(J) of Rule 17g-7

- JCR receives payment of compensation for the determination of the credit rating herewith presented from either one of those parties who are issuer, underwriter, depositor or sponsor.
- JCR did not receive in the last fiscal year in the past payment of compensation from the same party for any kind of JCR's service other than the determination of public or private credit rating, such as one in the ancillary business.

## 11 Explanation or Measure of the Potential Volatility of the Credit Rating as Required by Paragraph (a)(1)(ii)(K) of Rule 17g-7

### A) Business Bases

The credit rating is subject to alteration if there is improvement or deterioration of the issuer's business bases, since its revenue, etc. may improve or deteriorate by the change in its business management policies, clients' preferences, competitive situation, or a technological innovation. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the business bases is large.

### B) Financial Grounds and Asset Quality

The credit rating is subject to alteration if the issuer increases/ decreases its debt/ capital or vice versa and thereby makes its individual debt payment liability less or more bearable and its loss absorption capacity into the future decreased or increased. Also, the changes in the quality of asset under the issuer's holding may affect the credit rating, since such changes could raise or lower the likelihood of future loss of the issuer's financial grounds. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the financial grounds and/ or asset quality is large.

### C) Liquidity Positions

The credit rating is subject to alteration if there is a change in the issuer's financial management policy or in the relations with fund procurement sources and the change thereby makes its liquidity positions improve or deteriorate. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is large.

**D) Related Parties' Status and Stance of Support/ Assistance for the Issuer**

The credit rating is subject to alteration if there is a change in the issuer's parent company or subsidiary, guarantor or other provider of credit enhancement, or the government of the issuer's business domicile, or other related parties' own conditions and/ or position of support/ assistance for the issuer, and the change thereby makes its business bases, financial grounds and/ or liquidity positions improve or deteriorate, and/ or making the effectiveness of guarantee and other credit enhancement improve or deteriorate. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large.

**E) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract**

The credit rating is subject to alteration if there is a change in the rated debt's status in the order of seniority relative to other debts caused by the improvement/ deterioration of the issuer's financial condition. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large. Also, in case of the financial products for which non-payment of interest/ principal is contractually permissible, the credit rating is subject to alteration if and when the likelihood of such non-payment is projected to increase or decrease. The resultant alteration of the credit rating could be by a notch but often as much as a few notches.

**F) Rise and Fall in General Economy and Markets**

The credit rating is subject to alteration if there is a rise/ fall in the general economy and/ or the markets inducing the issuer's revenues/ expenses to increase/ decrease and vice versa, etc. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is exceptionally large.

**G) Various Events**

The credit rating is subject to alteration on occurrence of various events, such as change in the issuer's major shareholders, M&A and other organizational change, accident, violation of the law, litigation, legal/ regulatory change, natural disaster, etc., which are unforeseeable at the time when the credit rating is determined, causing a significant change on the issuer's business bases, financial grounds, etc. The resultant alteration of the credit rating could be by a notch but more often than not as much as a few notches.

**12**

Information on the Content of the Credit Rating, Including the Historical Performance of the Credit Rating and the Expected Probability of Default and the Expected Loss in the Event of Default as Required by Paragraph (a)(1)(ii)(L) of Rule 17g-7

- Historical records of the credit rating herewith presented are posted in the end of this paper.
- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- Facts of the probability of default are posted as Form NRSRO Exhibit 1 on the JCR website under the URL:

<https://www.jcr.co.jp/en/service/company/regu/nrsro/>

**13**

Information on the Sensitivity of the Credit Rating to Assumptions Made as Required by Paragraph (a)(1)(ii)(M) of Rule 17g-7

**A) Business Bases**

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's business bases and powers of earning or cash flow generation, etc. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's business bases on some drastic change in the operational environments, etc.

**B) Financial Grounds and Asset Quality**

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's financial grounds and asset

quality. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's financial grounds and/ or asset quality on some drastic change in its business bases.

C) Liquidity Risks

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's liquidity positions. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's liquidity positions on some drastic change in its financial management policy or relations with fund procurement sources, etc.

D) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the order of seniority in repayment of interests and principal. JCR assumes the resultant change of the credit rating is most likely by a notch. The change could be as much as a few notches if the issuer's financial structure differs so much and thereby the balance between debts shifted so greatly. Rating change is also possible in case of the financial products for which non-payment of interest/ principal is contractually permissible, if and when the assumptions made at the time of its determination turns out to be inaccurate. The change of the credit rating is assumed to be by a notch but often as much as a few notches.

E) Rise and Fall in General Economy and Markets

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the prospects of general economy and markets. JCR expects the change should be most likely by a notch but could be as much as a few notches, should the economy or the markets change so greatly.

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Information on the Representations, Warranties, and Enforcement Mechanisms of an Asset-backed Security as Required by Paragraph (a)(1)(ii)(N) of rule 17g-7

- The credit rating herewith presented is not for an ABS product, and hence no relevant issue.

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## The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
THK CO., LTD.	Issuer(Long-term)	February 7, 2006	A+	Stable
THK CO., LTD.	Issuer(Long-term)	January 5, 2007	A+	Stable
THK CO., LTD.	Issuer(Long-term)	January 15, 2008	A+	Stable
THK CO., LTD.	Issuer(Long-term)	January 9, 2009	A+	Stable
THK CO., LTD.	Issuer(Long-term)	January 22, 2010	A+	Stable
THK CO., LTD.	Issuer(Long-term)	April 18, 2011	A+	Stable
THK CO., LTD.	Issuer(Long-term)	June 11, 2012	A+	Stable
THK CO., LTD.	Issuer(Long-term)	April 18, 2013	A+	Stable
THK CO., LTD.	Issuer(Long-term)	June 20, 2014	A+	Stable
THK CO., LTD.	Issuer(Long-term)	June 1, 2015	A+	Stable
THK CO., LTD.	Issuer(Long-term)	August 3, 2016	A+	Stable
THK CO., LTD.	Issuer(Long-term)	July 12, 2017	A+	Stable
THK CO., LTD.	Issuer(Long-term)	September 7, 2018	A+	Positive
THK CO., LTD.	Issuer(Long-term)	September 24, 2019	A+	Positive
THK CO., LTD.	Issuer(Long-term)	August 27, 2020	A+	Stable
THK CO., LTD.	Issuer(Long-term)	August 30, 2021	A+	Stable
THK CO., LTD.	CP	April 6, 2001	J-1	
THK CO., LTD.	CP	February 13, 2002	J-1	
THK CO., LTD.	CP	January 23, 2003	J-1	
THK CO., LTD.	CP	January 26, 2004	J-1	
THK CO., LTD.	CP	March 10, 2005	J-1	
THK CO., LTD.	CP	February 7, 2006	J-1	
THK CO., LTD.	CP	January 5, 2007	J-1	
THK CO., LTD.	CP	January 15, 2008	J-1	
THK CO., LTD.	CP	January 9, 2009	J-1	
THK CO., LTD.	CP	January 22, 2010	J-1	
THK CO., LTD.	CP	April 18, 2011	J-1	
THK CO., LTD.	CP	June 11, 2012	J-1	
THK CO., LTD.	CP	April 18, 2013	J-1	
THK CO., LTD.	CP	June 20, 2014	J-1	
THK CO., LTD.	CP	June 1, 2015	J-1	
THK CO., LTD.	CP	August 3, 2016	J-1	
THK CO., LTD.	CP	July 12, 2017	J-1	
THK CO., LTD.	CP	September 7, 2018	J-1	
THK CO., LTD.	CP	September 24, 2019	J-1	
THK CO., LTD.	CP	August 27, 2020	J-1	
THK CO., LTD.	CP	August 30, 2021	J-1	
THK CO., LTD.	Shelf Registration	June 11, 2021	A+	
THK CO., LTD.	Shelf Registration	August 30, 2021	A+	
THK CO., LTD.	Bonds no.11	January 31, 2018	A+	
THK CO., LTD.	Bonds no.11	September 7, 2018	A+	
THK CO., LTD.	Bonds no.11	September 24, 2019	A+	
THK CO., LTD.	Bonds no.11	August 27, 2020	A+	
THK CO., LTD.	Bonds no.11	August 30, 2021	A+	
THK CO., LTD.	Bonds no.12	January 31, 2018	A+	
THK CO., LTD.	Bonds no.12	September 7, 2018	A+	
THK CO., LTD.	Bonds no.12	September 24, 2019	A+	
THK CO., LTD.	Bonds no.12	August 27, 2020	A+	
THK CO., LTD.	Bonds no.12	August 30, 2021	A+	
THK CO., LTD.	Bonds no.13	January 30, 2019	A+	
THK CO., LTD.	Bonds no.13	September 24, 2019	A+	
THK CO., LTD.	Bonds no.13	August 27, 2020	A+	
THK CO., LTD.	Bonds no.13	August 30, 2021	A+	
THK CO., LTD.	Bonds no.14	January 30, 2019	A+	
THK CO., LTD.	Bonds no.14	September 24, 2019	A+	
THK CO., LTD.	Bonds no.14	August 27, 2020	A+	
THK CO., LTD.	Bonds no.14	August 30, 2021	A+	
THK CO., LTD.	Bonds no.15	January 31, 2020	A+	
THK CO., LTD.	Bonds no.15	August 27, 2020	A+	
THK CO., LTD.	Bonds no.15	August 30, 2021	A+	
THK CO., LTD.	Bonds no.16	September 8, 2020	A+	
THK CO., LTD.	Bonds no.16	August 30, 2021	A+	



## The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
THK CO., LTD.	Bonds no.17	September 8, 2020	A+	
THK CO., LTD.	Bonds no.17	August 30, 2021	A+	

## Attestation Required by Paragraph (a)(1)(iii) of Rule 17g-7

I, Shigenobu Tonomura, have responsibility to this Rating Action and to the best of my knowledge:

- A) No part of the credit rating was influenced by any other business activities.
- B) The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated.
- C) The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

殿村 成信

Shigenobu Tonomura

General Manager of Corporate Rating Department II

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