

COMPANY PROFILE

PT KOMATSU UNDERCARRIAGE INDONESIA



Special Award for TPM Achievement

TOTAL PRODUCTIVE MAINTENANCE

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Komatsu Undercarriage Indonesia

Indonesia, Bekasi, West Java

1. Company Profile

PT. Komatsu Undercarriage Indonesia (KUI) is formed by 2 companies – PT Komatsu Forging Indonesia (PT KOFI) and PT Komatsu Undercarriage Indonesia (PT. KUI) - which was merged on Jan 2, 2012. PT. KOFI (previous name is PT Hokuriku United Forging Industry) was established on Jan 20, 1992, and PT KUI (old) was established on Nov 9, 2000.

KUI's factory is located at Jl. Jababeka XI Blok H-16 Cikarang Industrial Estate, Bekasi 17530 West Java, Indonesia. KUI has land area approximately 74,306 m² with building area is 40,283 m². KUI has two main plants, Forging Plant and Assembly Plant.

KUI operates some major equipment to maintain the overall equipment effectiveness and efficiency in the production.

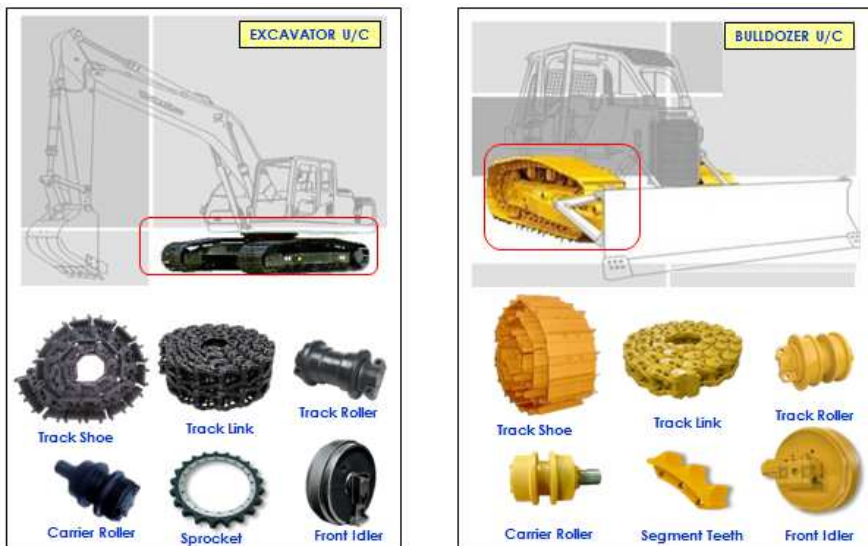
Major equipment in Forging Factory such as Forging Line, Heat Treatment Line and Link Machining Line. Major equipment in Assembly Factory such as: Part Machining, Induction Quenching Tempering (IQT), and Assembly (Link, Roller, and Idler).



1.1 KUI's Factory

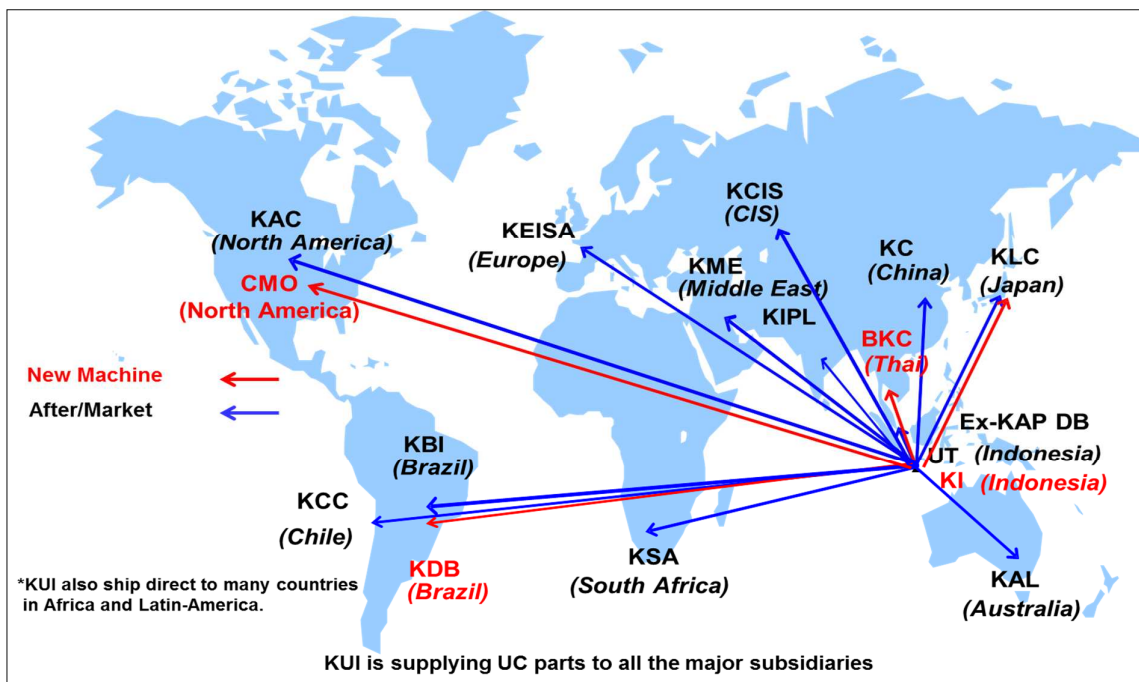
KUI is the first undercarriage company which built the outside from Komatsu Japan; the main reason is because Indonesia is strategic market for Komatsu.

Under Komatsu Ltd. as parent company, KUI produces and supplies undercarriage components mostly for mining and construction equipment. Undercarriage components are supporting component for hydraulic excavator and bulldozer such as Track Shoe, Track Rollers, Idlers, Sprocket, Segment-Teeth, etc. These parts are categorized as consumable parts.



1.2 Undercarriage Products

KUI supports Komatsu Group of all over the world by supplying undercarriage component for hydraulic excavator and bulldozer.



1.3 KUI's Shipping Destination

KUI sales to overseas customers approximately 64% including distributors and subsidiaries and another 36% for domestic customers. Total production capacity of KUI is 16,800 unit track link/year with 894 employees as of end October, 2020. KUI has received ISO 9001:2015, 14001:2015 and OHSAS 18001:2007 and ISO 45001:2020 accreditations.

2. Milestones on the Journey of Manufacturing Excellence

	1993 - 1995	1996 - 2000	2001 - 2005	2006 - 2010	2011 - 2015	2015 - 2018	2019-2021	2022-2023
MANUFACTURING DEVELOPMENT	1993: Forging Hammer 1.3 & 1.5T	1996-1997: Forging Hammer 3T & Press 1500	2006: Forging Hammer 6T	2011: Forging Hammer 6.6T	2019: Forging Hammer 11T	2022: Improve Forging Air Drop Model to hydraulic		
	1996-1997 & 2003: Link Heat Treatment (Small & Mid Size)	2005: Link Heat Treatment (Big Size)	2023: Integrated Line Heat-treatment Automation					
	1996: Dies Making	2004: Dies 3D Modeling	2020: HMC Masterlink					
	1996: Link Machining & IQT (Mid Size)	2006: Link Machining & IQT (Big Size)	2019: Integrated Idler Machine Automation					
PRODUCT DEVELOPMENT	Small size Link PC25 - PC100 D20 - D30	Middle size Link PC200, PC3000 D65	Mid size Link Assy PC200/300, D65 Roller Assy PC200/300/PC400, D65	Big size Link Assy D155/D375 Big size Roller Assy D155, PC3000/PC4000 Idler Assy D65 & D85 Teeth D516/165/65/D155	Big size Link Assy D275/375, PC2000 Big size Roller Assy D275/D375, PC2000 Idler Assy Big size D155/D375 & PC1250/2000 Teeth Big size D275/D375	Forging Big size Component Roller DF Forging D65, D85, D155, D275, D375 Big size Sprocket PC800, PC1250, PC2000	More Bigger size Undercarriage Component Roller DF Forging, Develop PC200 C-Spec Model PC500-TR/CR PC500 Track Link Big size Roller Assy D475 TR/CR, TEETH	
ISO				2006: ISO 9001 2008: ISO 14001		2016: OHSAS 8001		2020: ISO 45001
TPM					2013: Kick Off TPM & setup Pilot 2013 - 2018: Expand TPM Activities	2018: TPM Excellence Award B	2019 - 2021: TPM Excellence in Consistent Award	2022: TPM Special Awards

1.4 History Equipment Management

Since its first establishment in 1993, KUI has a forging and heat treatment process as core production competencies. Year by year the production capacities have increased due to increasing demand from the markets. On year 2001, KUI expand production process by assembly process, therefore KUI has complete production process since raw material until finish product.

KUI's products also have been developed from the small size to middle size and since 2006 KUI started to develop big size products and become more increase every year.

KUI has opportunity to grasp demand from big undercarriage market together with distributor and Komatsu affiliates, by getting support from Komatsu Ltd., but on the other side KUI also face very tight price competition against the other brands.

Concerning the above condition, in 2013 KUI decide to start to implement TPM activities to enhance production productivity, cost reduction program, human resource development and safety for all employees as the priority.

On year 2015, KUI expand TPM activities to machines production for most popular models in phase TPM Excellence B Category.

As of Company commitment became TPM as of production way of working we continue to implement 8 Pillar TPM in 2019 to level-up our operation in Excellence in Consistent TPM commitment.

As the result, KUI can improve the following company performances:

1. Number of accidents drastically decrease
2. Overall Equipment Efficiency (OEE) gradually increase
3. Number of breakdowns become more decrease
4. Competency of employees more increase part of people development.
5. Sustainable to achieve cost reduction.

KUI will continue to challenge in Special Award TPM Achievement level TPM with established new pillar: Connecting Pillar with the purpose improve and expand business regarding supply chain management issued and keep increased the profitability.

3. Benefit Achieved

KUI Management Policy continuously deploying TPM activity as of top guidance in all aspect Safety, Law, Quality, Delivery, Cost (S, L, Q, D, C) in every department to build in the way of working TPM by best practice in accordance with the management indicators.

The management indicators S, L, Q, D, C in periodically reviewed by top management and Pillars Leader (General Manager Level). In this moment management get aspect tangible and intangible to evaluate management organization become more competitiveness. KUI set up Key Performance Indicators (KPI) & Key Activity Indicators (KAI) in reviewing TPM Implementation in every Pillars to driven TPM implementation toward World Class Manufacturing business organization.

4. Key to our Manufacturing Excellence

The keys of success TPM implementation are:

1. Policy Deployment (Hoshitenkai) with total involvement all employees
2. Enhance and promote continuous improvement activities for all employees.
3. Regular review TPM activity result to meet company's strategic performance and business result.

Company Vision of KUI: *"To be the World Class Undercarriage Company, valuable for the nation and its stakeholders"*.

Company Mission of KUI:

- *Provide the best solution to the customer.*
- *Contribute to the nation development.*
- *Continuously improving competence in harmony with employee, business partners and society*

To deploy the Company's Vision and Mission into all TPM activities in KUI, the company defines TPM Policy as below:

- *Safety, Health, Environment and Compliance*
- *Build in Quality*

- Operational Factory Improvement
- Cost Improvement
- People Development

5. Achievement Record

Category	Index	Unit	BM (Kick-Off 2013)	Actual Status (2023)	Target (2024)	Remarks
S	Number of work-related accidents requiring days off work	Cases/ year	1	0	0	
S	Number of work-related accidents not requiring days off work	Cases/ year	2	1	0	
P	Productivity for main products	Ton/Man.Hour	N/A	73	80	
P	OEE (Overall Equipment Effectiveness)					
	Forging & Dies Section	%	62	78	81	
	Heat-Treatment Section	%	77	84	85	
	Machining Section	%	77	83	84	
	Assembly Section	%	81	83	85	
P	Number of breakdowns	Breakdowns/ year	2301	1719	1366	
P	MTBF	Hour	310	610	677	
P	MTTR	Hour	2.1	3.3	1.6	
Q	Customer Claim Ratio	%	0.148	0.142	0.140	
Q	In-line defect rate (scrap)	%	0.31	0.19	0.18	
Q	In-line defect rate (rework)	%	19	7	6	
C	Cost index	(Cost/Revenue)	90.2	87.9	87.5	
D	Production Lead time (VSM PC200).	Days	7.3	7.3	7	
D	Delivery performance	%	97	92	100	
M	Number of Employee Suggestions	Number/year	11	776	1078	

End of the report
- THANK YOU -