

Special Award for TPM Achievement Komatsu Undercarriage Indonesia Indonesia, Bekasi, West Java

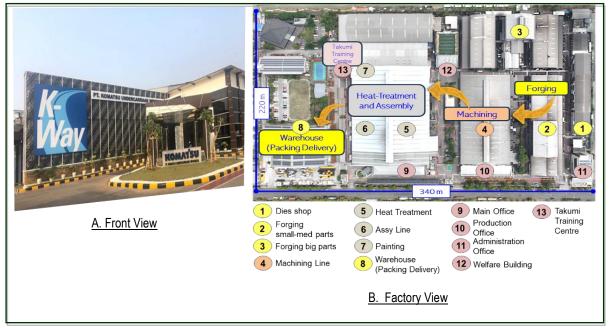
1. Organization Profile

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 34,204 m². KUI has two main plants, Forging Plant and Assembly Plant.

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



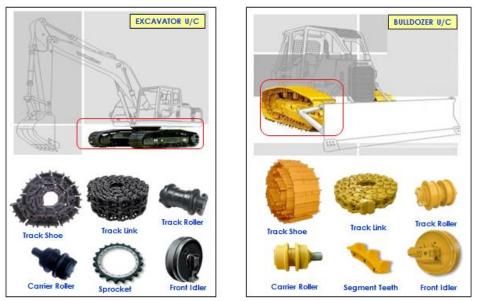
1.1 KUI's Factory

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 (U/C) components are supporting component for hydraulic excavator and bulldozer such as Track Shoe, Track

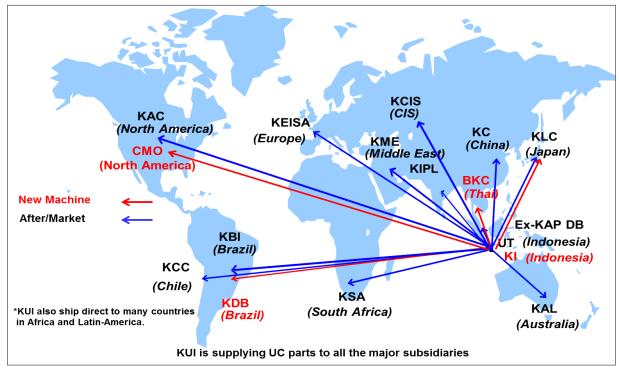


Rollers, Idlers, Sprocket, Segment-Teeth, etc. These parts are categorized as consumable parts.



1.2 Undercarriage (U/C) 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 55% including distributors and subsidiaries and another 45% for domestic customers. Total production capacity of KUI is 16,800-unit track link/year with 1,267 employees by the end of year 2018. KUI has received ISO 9001:2015, 14001:2015 and ISO 45001:2018 accreditations.

2. Milestones on the Journey of Manufacturing Excellence

To achieve its vision of becoming a world-class undercarriage company, the organization must address key operational gaps that impact efficiency, productivity, and competitiveness.

Starting from the background, Internal Factor and External Factor as the gap implementing Total Productive Maintenance (TPM) is essential. TPM will enhance equipment reliability, reduce downtime, and optimize production efficiency. By embedding a culture of proactive maintenance and continuous improvement, the company can strengthen its competitive position, increase productivity, and deliver superior customer solutions.

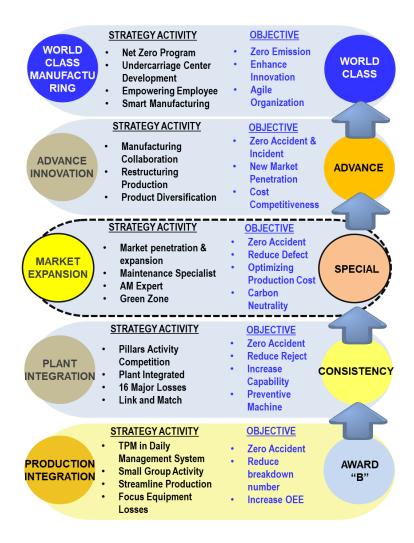
VISION	To be the world class Undercarriage company, valuable for the Nation and its stakeholder.						
MISSION	 Provide the best solution to the customer. Contribute to the Nation development. Continuously improving competence in harmony with employee, business partners, and society. 						
BACKGROUND	 INTERNAL FACTORS: Integrated Production & Facilities Near To The Market Completed Product Range Integrated Research & Development Strong Value: 3C, Integrity, Innovation Insufficient Supplier Capability Less Efficiency In Operation Late To Fulfill New Required Capability Slow Respond Development Product 	 EXTERNAL FACTORS: Carbon Neutrality Economic Recovery Industrial 4.0 Digitalization & Diversity Business Sector Trend Global Cross Sourcing Coverage Government Regulation Tighter Competition Potential Cost Increase (Energy, Material, Labor). Establish Competitor Factory Logistic Issue 					
OBJECTIVE	Providing Undercarriage solution to best support						

1.4 KUI Vision-Mission-Objective

Strategy initiatives TPM are essential to achieve long-term sustainability and maintain competitiveness in an evolving market. Market Penetration as key part of defined company strategy supported by three critical elements:

- Market Expansion which aim to broaden presence in existing or new markets,
- New Product Development focuses on developing new products to meet market demand.
- Cost Competitiveness aims to maintain a competitive position in market





1.5 TPM Strategy Toward World Class Manufacturing

Strategic for achieving World-Class Manufacturing, structured into five progressive stages. Each stage outlines strategic activities and their corresponding objectives, leading towards operational excellence:

- 1. Production Integration
- 2. Plant Integration
- 3. Market Expansion
- 4. Advance Innovation
- 5. World Class Manufacturing

The journey towards World Class Manufacturing begins with stabilizing the production process in implementing TPM, followed by increasing efficiency, expanding the market, and innovation. The goal is to achieve a sustainable, lean, agile, and competitive manufacturing system that meets the needs and delivers customer satisfaction.



3. Benefit Achieved

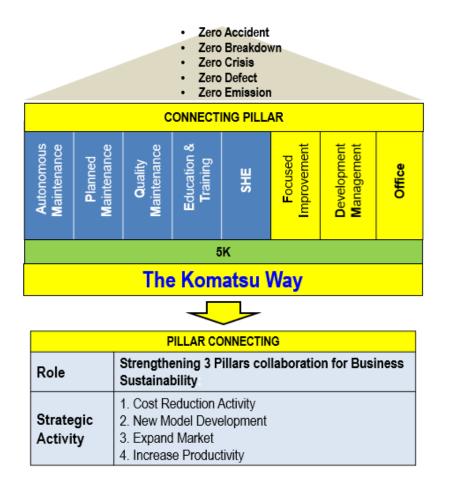
	INDICATORS		Unit	2013 (BM)	Plan	EXCELLENCE AWARD-B		SPECIAL AWARD			ADVANCE	WORLD CLASS
					Actual	2018	2021	2022	2023	2024 (end of Sept.)	2027	2030
			_		Plan	0	0	0	0	0	0	0
SAFETY	LTA		Freq.	1	Actual	0	0	1	0	0		
					Plan	0	0	0	0	0	0	0
	NON-LTA		Freq.	1	Actual	5	2	2	1	2		
2	Zero Violation		%	0	Plan	0	0	0	0	0	0	0
LAW					Actual	0	0	0	0	0		
TΥ	Customer Satisfaction	Min. %	74	Plan	75	85	85	85	85	92	95	
	Index			Actual	75	89	90	92	92			
	Claim Customer		%	0.15	Plan	0.21	0.14	0.11	0.14	0.14	0.13	0.12
					Actual	0.14	0.12	0.11	0.14	0.13		0.112
QUALITY	Defect Reject Rate		%	0.31	Plan	0.21	0.21	0.21	0.20	0.19	0.18	0.17
a					Actual	0.27	0.20	0.19	0.19	0.17	0.10	
			%		Plan	N/A	N/A	N/A	N/A	12.9	10.9	9.0
	Defe	ect Repair Rate		N/A	Actual	N/A	N/A	13.97	13.55	12.00	10.0	0.0
					Plan							
					(BP)	160.3	110.8	201.5	241.2	175.5	298.0	400.0
	Sales	%	130.5	Plan (MYO)	176.3	146.8	220.3	184.1	196.5			
				Actual	179.1	173.8	238.7	186.8	98.8			
	Marketshare Global	%	25	Plan	28	35	38	40	45	50	57	
			70	20	Actual	30	36	42	42	45		
		Forging	%	62	Plan	63	81	79	79	84	84	85
					Actual	63	81	79	79	84	80	00
RΥ	Heat-Treatment	%	82	Plan Actual	85 79	86 88	88 89	88 85	86 88	89	90	
DELIVERY				Plan	80	83	84	84	84	85	87	
DE	Machining	%	72	Actual	75	84	84	83	84	00	07	
	Assembly	%	81	Plan	85	85	86	88	88	89	90	
				Actual	85	88	88	87	87			
	Due du estivitu	Kg/Man/H	71	Plan	75	71	110	97	75	98	107	
	Productivity			Actual	79	107	94	73	93			
	MTTR		Hour	3.5	Plan	3.5	2.3	1.9	1.9	1.9	1.5	1.0
					Actual	2.3	1.9	2.2	2.1	1.8		
	MTBF		Hour	496	Plan	496	511	523	523	523	760	760
					Actual	511	523	456	504	758		
COST	Profitability Cost Reduction Ratio		Index %	100	Plan	132.7	55.1	130.6	129.6	130.6	153.0	152.0
					Actual	106.1	84.7	123.5	177.6	172.4	100.0	102.0
					Plan	3	7.6	9.3	11.1	12.8	14.6	16.3
					Actual	4.6	9.3	9.3	11.1	12.8	14.0	10.5
ENVIRONMENT	CO2 Reduction Index (Ton/In-House Production Value).		%	42	Plan	51	53	52	55	58	65	70
					Actual	52	47	53	57	60		
	Water Reduction (M3/in-House Production		%	28.0	Plan	36	55	56	60	66	68	70
	Valu			2510	Actual	57	51	52	60	67		

The company is progressively moving towards World-Class Manufacturing by enhancing safety, quality, efficiency, sustainability, and market growth. The KPI trends suggest successful implementation of TPM aligning with strategic goals.



3. Key to our Manufacturing Excellence

The Connecting Pillar in TPM serves as a link and enabler for seamless collaboration across different elements of the production system. By integrating TPM strategies with the Connecting Pillar, companies can effectively achieve goals such as cost reduction, innovation, market expansion, and productivity improvement, ensuring World-Class Manufacturing and long-term sustainability.



6. Contact

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