

Kubota Engine Thailand (KET)

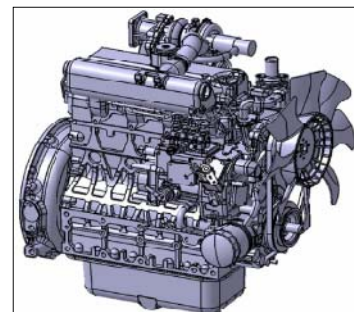
1. Outline

Address	No.360 Moo 3, T.Khao Hinson, A.Phanomsarakarm, Chachoengsao, 24120
Number of employees	387 (Dec, 2020)
Site area	75,856 m ²
Establishment day	24-Feb-11
ISO14001 certification date	3-Jul-2015
Site overview	Manufacturing of vertical type diesel engines



2. Products

Main products



Vertical type Diesel Engines

3. Environmental, Safety and Occupational Health Policy

KUBOTA Engine (Thailand) Co. Ltd (KET), a leading manufacturer of diesel engines for agricultural and industrial machinery recognizes the importance of environmental protection as well as the occupational health and safety of employees, local communities and society overall. The company, therefore, is committed to operate with the environment, safety and employees health in mind. Policies to support this operation as detailed in the following.

1. KET is committed to prevent accidents and occupational diseases by improving working environments which present an unacceptable risk of harm and strictly complies with the company's safety regulations.
2. KET is responsible to society by considering environmental impacts, which are caused by human activities, products including energy saving, as well as the reuse of resources, in its operations. In addition it will continue to protect the environment and prevent pollution.
3. KET has encouraged and supported employees to create a workplace in accordance with the 5S principles to improve operation, safety, and equipment maintenance as well as using an appropriate protective equipment to reduce accidents and prevent occupational diseases.
4. KET continues training activities to educate and create awareness on environmental, safety and occupational health to employees.
5. KET will continue to comply with legal and regulatory requirements related to the environment, safety and occupational health.
6. KET communicates to all employees about its environmental, safety and occupational health policy, including information on the implementation.
7. KET communicates to interested parties about its environment, safety and occupational health policy and accepts comments and complains.
8. KET continues to review objectives, targets, and results of overall operation on environmental, safety and occupational health for better improvement.

4. Environmental performance data (Jan. 2020 to Dec. 2020)

Used amount of energy	Crude oil equivalent KL	2,030
Used amount of water	thousand m ³	10

CO₂ emission*	tons CO ₂ e	3,941
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*CO₂ emissions from energy sources.

Air Pollutant measurement results				
Main smoke and soot generation facilities		Heating furnaces		
	Unit	Control content	Control value	Maximum measured
SOx	ppm	Concentration control	950	2
NOx	ppm	Concentration control	200	15
Particulate	mg/m ³	Concentration control	240	2

Amount of discharge water			
		thousand m ³	No external water discharge
Amount of pollutant in discharge water	COD	kg	-
	Nitrogen	kg	-
	Phosphorus	kg	-

Water pollutant measurement results				
		unit	Control value	Maximum measured
Treated water* (Recycled)	pH	-	5.5 ~ 9.0	7.1, 7.6
	BOD	mg/L	< 20	2.00
	COD	mg/L	<120	47.00
	Nitrogen	mg/L	< 100	2.00
	Phosphorus	mg/L	-	25.00
	Hexavalent chromium	mg/L	< 0.25	<0.10
	Lead	mg/L	< 0.2	<0.05
	COD, total emission control	kg/day	-	1.23
	Nitrogen, total emission control	kg/day	-	0.08
	Phosphorus, total emission control	kg/day	-	0.57
	SS	mg/L	< 50	2.00

Waste discharge	tons	474
Recycling ratio	%	99.4%
VOC emission	tons	1

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5.Environmental Topics

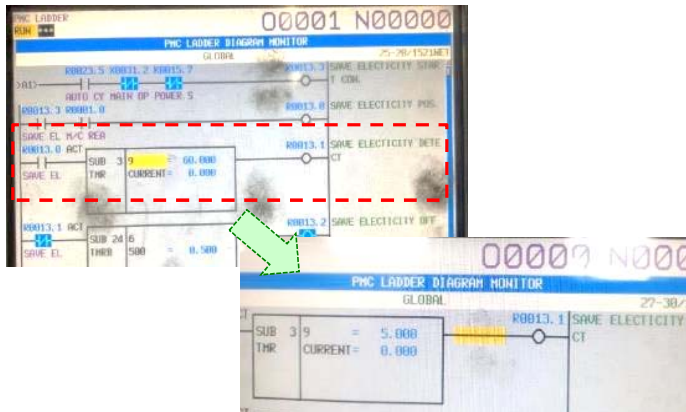
1. Water reduction

1.1 Change the manual water tap to sensor water tap



2. Electrical reduction (Energy Just In Time Concept).

2.1 Adjust operation time for stop conveyor suitably. (Reduce 60 min -> 5 min)



2.2 Install the window film to reduce the sunlight intensity to saving air conditioner consumption.



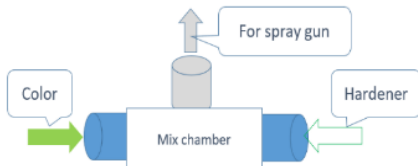
3. Chemical reduction

3.1 Modify 3 way valve to reduce using thinning high VOCs to flushing ransflow system at Painting line

Follow up breakdown: The spray gun was clogged can't paint at spray booth No.1

Root cause

System was clogged(Mix chamber in ransflow No.1) trouble from painting undercoat.



Action :
1 Define the period for cleaning mix chamber, check valve, flow meter by cooperate between ME/MFG-PT
(Start since 3rd July 2021)
Note : ME had trained method to clean parts to MFG-PT.

Example the schedule plan for clearing between ME and MFG-PT.

Month	1	2	3	4	5	6	7	8	9	10	11	12
ME	MFG	ME	MFG	ME	MFG	ME	MFG	ME	MFG	ME	MFG	ME

Note : In month that ME is main incharge as normally PM of ME Dept period 2 months.

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6. Environmental Communication

1. CSR Y 2021

On 25 June 2021 at Ban Mueang Phrong Health Center
Donation of the RO water system cooperates with SKMT.



2. Campaign : Discount coffee and tea costs when using the tumbler. [Campaign the environment month]

On June 2021 at KET.



รับส่วนลด 10 บาท เมื่อ
ใช้แก้วส่วนตัว
ในการซื้อน้ำที่ร้านมินิมาร์ทและร้านลูกชิ้น
เฉพาะวันจันทร์ของเดือนมิถุนายนเท่านั้น
(จำกัดสิทธิ์ 1 ครั้งต่อวันต่อคน)



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3. Eco-challenge activity. [Campaign the environment month]
On June - July 2021 at KET.



Winner of the Eco-challenge [Internal campaign of KET]

