## Data on KUBOTA Group Overseas Production Sites 2020 Kubota Engine Thailand (KET)

### 1.Outline

2.Products Main

Main products

Address	No.360 Moo 3, T.Khao Hinson,				
	A.Phanomsarakarm, Chachoengsao, 24120				
Number of employees		392 (Dec, 2019)			
Site area		75,856 m²			
Establishment day		24-Feb-11			
ISO14001		3-Jul-2015			
certification date					
Site overview					
	Manufacturing of vertical type diesel engines				



#### 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.

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.

KET will continue to comply with legal and regulatory requirements related to the environment, safety and occupational health.
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. 2019 to Dec. 2019)

Used amount of energy		Crude oil	2,195				
Used amount of water		equivalent KL thousand m <sup>3</sup>	13				
				1			
CO <sub>2</sub> emission* tons CO <sub>2</sub> e *CO <sub>2</sub> emissions from energy sources.		4,221		<u>]</u>			
Air Pollutant measurement results							
Main smoke and soot generation facilities		Heating furnaces					
Unit		Control content	Control value Maximum measured				
SOx ppm		Concentration control	950	5			
NOx ppm		Concentration control	200	29			
Particulate mg/m <sup>3</sup>		Concentration control	240	10			
				N	ten die elemente		
Amount of discharge water		thousand m <sup>3</sup>	No external water discharge				
Amount of pollutant in discharge water		COD	kg	-			
		Nitrogen	kg	-			
Phosphorus		kg	-				
Water pollutant measurement results							
Water pollu	tant measurement results				1		
Water pollu			unit	Control value			
Water pollu	рН		-	5.5 ~ 9.0	6.9, 7.5		
Water pollu	рН BOD		- mg/L	5.5 ~ 9.0 < 20	6.9, 7.5 2		
Water pollu	pH BOD COD		- mg/L mg/L	5.5 ~ 9.0 < 20 <120	6.9, 7.5 2 42		
Water pollu	pH BOD COD Nitrogen		- mg/L mg/L mg/L	5.5 ~ 9.0 < 20	6.9, 7.5 2 42 2		
Water pollu	pH BOD COD Nitrogen Phosphorus		- mg/L mg/L mg/L mg/L	5.5 ~ 9.0 < 20 <120	6.9, 7.5 2 42 2 12		
Treated water*	pH BOD COD Nitrogen Phosphorus Hexavalent chromium		- mg/L mg/L mg/L mg/L mg/L	5.5 ~ 9.0 < 20 < 120 < 100 - < 0.25	6.9, 7.5 2 42 2 12 <0.10		
Treated	pH BOD COD Nitrogen Phosphorus Hexavalent chromium Lead		- mg/L mg/L mg/L mg/L	5.5 ~ 9.0 < 20 <120 < 100 -	6.9, 7.5 2 42 2 12		
Treated water*	pH BOD COD Nitrogen Phosphorus Hexavalent chromium Lead COD, total emission contro		- mg/L mg/L mg/L mg/L mg/L	5.5 ~ 9.0 < 20 < 120 < 100 - < 0.25	6.9, 7.5 2 42 2 12 <0.10		
Treated water*	pH BOD COD Nitrogen Phosphorus Hexavalent chromium Lead COD, total emission contro Nitrogen, total emission con	ntrol	- mg/L mg/L mg/L mg/L mg/L	5.5 ~ 9.0 < 20 < 120 < 100 - < 0.25	6.9, 7.5 2 42 2 12 <0.10 <0.05		
Treated water*	pH BOD COD Nitrogen Phosphorus Hexavalent chromium Lead COD, total emission contro Nitrogen, total emission col Phosphorus, total emission	ntrol	- mg/L mg/L mg/L mg/L mg/L kg/day	5.5 ~ 9.0 < 20 < 120 < 100 - < 0.25 < 0.2 -	6.9, 7.5 2 42 2 12 <0.10 <0.05 1.0 0.1 0.3		
Treated water*	pH BOD COD Nitrogen Phosphorus Hexavalent chromium Lead COD, total emission contro Nitrogen, total emission con	ntrol	- mg/L mg/L mg/L mg/L mg/L kg/day kg/day	5.5 ~ 9.0 < 20 < 120 < 100 - < 0.25 < 0.2 -	6.9,7.5 2 42 2 12 <0.10 <0.05 1.0 0.1		
Treated water* (Recycled)	pH BOD COD Nitrogen Phosphorus Hexavalent chromium Lead COD, total emission contro Nitrogen, total emission col Phosphorus, total emission	ntrol	- mg/L mg/L mg/L mg/L mg/L kg/day kg/day kg/day mg/L	5.5 ~ 9.0 < 20 <120 < 100 - < 0.25 < 0.2 - - -	2 42 2 12 <0.10 <0.05 1.0 0.1 0.3		
Treated water* (Recycled)	pH BOD COD Nitrogen Phosphorus Hexavalent chromium Lead COD, total emission contro Nitrogen, total emission co Phosphorus, total emission SS	ntrol control	- mg/L mg/L mg/L mg/L mg/L kg/day kg/day kg/day mg/L	5.5 ~ 9.0 < 20 <120 < 100 - < 0.25 < 0.2 - - - < 50	6.9, 7.5 2 42 2 12 <0.10 <0.05 1.0 0.1 0.3		

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### **5.Environmental Topics**



2. Electrical reduction (Energy Just In Time Concept). 2.1 Reduce electricity of water pump 1 unit at QA Unten.



2.2 Install the "Air con Saver" to reduce air condition consumption.



1.2 Reduce pressure water supply and change water saving tap.

2.3 Change the fluorescent lamp to LED lamp at office area.



Fluorescent lamp 40 W/lamp



2.4 Reduce electricity of OEM line DB-73/2 panel



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### 6. Environmental Communication

1. Green Industry award level 4

KET is given the Green Industry award level 4 from the government as the factory has a green culture.



 Campaign : Discount coffee and tea costs when using the tumbler. [Campaign the environment month] On June 2020 at KET.

