



# KAWASAKI HEAVY INDUSTRIES, LTD.

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AHTS	PSV	FPSO	Drill Ship	Semi-sub
		▶		

## Product



### Kawasaki Boiler for FPSO / FLNG

Since 1880 to date, Kawasaki delivered many various land boilers and marine boilers to the world. Through a series of experiences of designing such boilers, accumulated technology expertise from both land and marine boilers are integrated into Kawasaki reliable boiler for FPSO / FLNG.

#### Applied technologies from Marine Boilers

Boiler Compact Design Philosophy, Structural design technology for Vessel Motion and Deliver as Modularized Boiler, Control for fuel change over, Applicable to various class.

#### Applied technologies from Land Boilers

Combustion technology for various fuel type including low calorific fuel, Design technology for High Pressure & High Temperature steam conditions and Long life Design. Control technology of load change and Coordinated control of a number of boilers.

#### Dedicated Facility for Modularized Boiler

Through manufacturing experiences of 7 Boilers for FLNG Prelude, Kawasaki has dedicated facility for modularized boiler, which can realize continuous and / or simultaneous manufacturing of a number of boilers.

### Features

- Robust, Reliability  
 Proven Stable operation, Proven Construction, Long term operation, Explosion-proof performance
- Fuel Flexibility  
 Wide flexibility for applicable fuel including Low calorific fuel (CO<sub>2</sub> / N<sub>2</sub> rich gas from well)

- Easy & Optimized Operation  
 Stable Operation, Quick & Easy Fuel Switch Over (Gas to Oil and vice versa), Quick Load change realized by Kawasaki original system
- Optimized Installation Technique  
 Supplied main equipment of boiler as "Packaged"
- Maintenance Friendly  
 Low maintenance cost & Easy maintenance design

### Product Range and Applicable Fuels / Certifications / Rules

- Steam Capacity : ~ 220 ton/hour
- Steam Pressure : ~ 70 barg
- Steam Temperature : ~ 525 Degree C
- Applicable Fuel : Natural Gas, Low calorific associated gas etc., MGO, MDO
- Flexibility for Classification : Major class such as LR / ABS / NK / BV and DNV / GL
- Applicable Rules : NR13, IECEx, API

## Record

### Reference Project

Kawasaki Boiler for FLNG / FPSO has delivered and been installed into the world's first Floating LNG facility, "Shell Prelude FLNG" as the largest size ever in the capacity for marine use.

### Boiler for FLNG Prelude

- UFE Type 220 x 7 Units
- Steam Capacity / Pressure / Temperature: 220 t/h x 69 barg x 480 degC
- Fuel : Gas or Diesel Oil
- Dimension ( W / L / H ) : 11 x 13 x 15 m ( approx. )
- Weight : 500 ton per 1 unit ( approx. )

## Package

Kawasaki can offer boiler for FLNG / FPSO use with below items.

- (1) Main Boiler
- (2) Piping Skids ( between boiler and turbine )
- (3) Forced Draught Fan
- (4) Burner Management System etc.

### Certifications / Applicable rules

