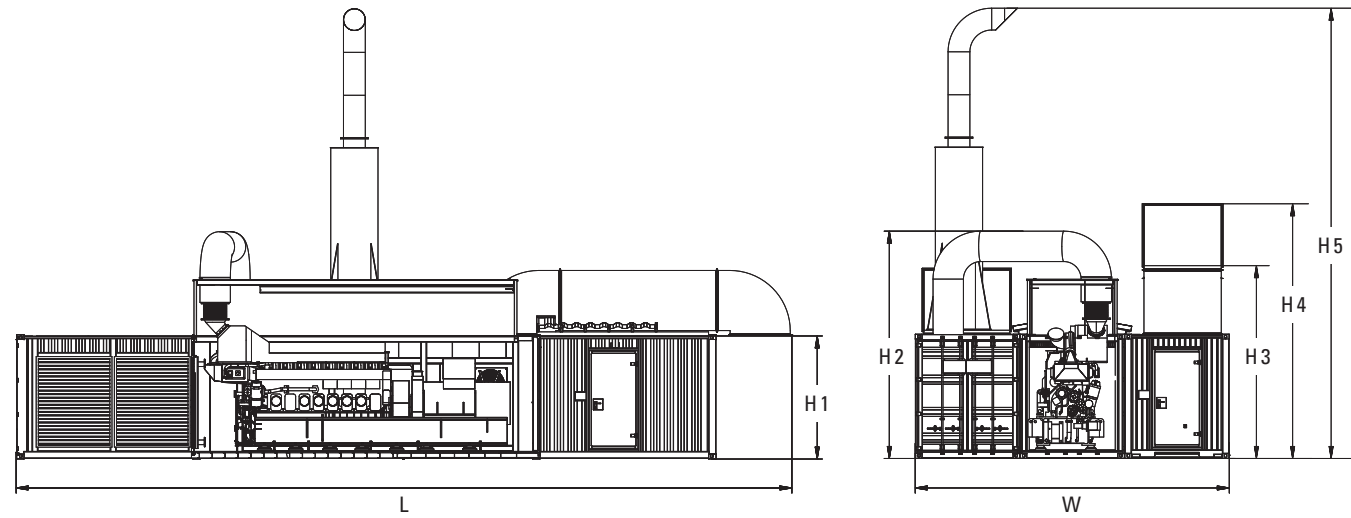


# Technical Data – Crude Oil Arctic Container CM20 Power Box

Special containers are available for ambient conditions up to +30°C with as low as -40°C.  
Please contact your local Cat Dealer.



Length (mm)	Width (mm)	Height 1 (mm)	Height 2 (mm)	Height 3 (mm)	Height 4 (mm)	Height 5 (mm)
18,100	7,300	2,900	5,300	4,500	6,000	10,500

Dimensions are approximate values and subject to project specifics.

## Transport dimensions

	Length (mm)	Width (mm)	Height (mm)
Engine container	12,192	2,438	3,300
Auxiliary container	12,192	2,438	2,896

Type	Power kW	Power kW <sup>e*</sup>	rpm	Hz	Fuel consumption g/kWh <sup>**</sup>
9CM20C	1,530	1,469	900	60	187
9CM20C	1,710	1,642	1,000	50	190
8CM20C	1,360	1,306	900	60	187
8CM20C	1,520	1,459	1,000	50	190
6CM20C	1,020	979	900	60	187
6CM20C	1,140	1,074	1,000	50	190

\* based on 96% efficiency and 0.8 Power Factor.

\*\* According to ISO 3046/1.

Fuel based on Cat Crude Oil specification limit values.



## Caterpillar Global Petroleum

### Headquarters

**Caterpillar Inc.**  
Global Petroleum  
13105 N.W. Freeway  
Suite 1100  
Houston, Texas 77040-6321  
Phone: (+1) 713-329-2207  
Telefax: (+1) 713-895-4280

### Europe, Africa, Middle East and CIS

**Caterpillar Commercial Northern Europe Ltd.**  
Global Petroleum  
OTV House  
Wokingham Road, Rounds Hill  
Bracknell, Berkshire  
United Kingdom, RG42 1 NG  
Phone: (+44) 1344 782 920  
Telefax: (+44) 1344 782 930

**Caterpillar Motoren GmbH & Co. KG**  
Global Petroleum  
Falckensteiner Str. 2  
D-24159 Kiel, Germany  
Phone: (+49) 431 3995 3004  
Telefax: (+49) 431 3995 5004

**Caterpillar CIS LLC**  
R82 Sadovnicheskaya Str.  
Moscow 113035, RF  
Phone: (+7-495) 755 6811  
Telefax: (+7-495) 785 5688

### Asia Pacific

**Caterpillar China Investment Co., Ltd.**  
Global Petroleum  
Room 1801 Caterpillar Tower  
No. 8 Wangjing Street  
Beijing 100102, P.R. China  
Phone: (+86-10) 5921 0521  
Telefax: (+86-10) 5921 0022

**Caterpillar Asia Pte., Ltd.**  
Global Petroleum  
14 Tractor Road  
Singapore 627973  
Phone: (+65) 6828 7333  
Telefax: (+65) 6828 7414

For more information please visit our website:  
[www.catoilandgasinfo.com](http://www.catoilandgasinfo.com)

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Leaflet No. 726GP - 12.13 - e - L+S - VM3  
LEDW0023-01

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# Power wherever it is needed – CM20 Power Box

Generate electricity anywhere you go!



BUILT FOR IT.™



# The Everywhere-Power-Solution – CM20 Power Box

Caterpillar, the leader in power generation solutions for diverse applications and site conditions, now adds a new component to its portfolio of flexible customer solutions – the CM20 Power Box. This arctic container solution for Crude Fuel Oil and Heavy Fuel Oil is perfect for the power range expansion of small electrical plants in regions where transport and installation are difficult.

Easy, modular expansion, ready mobilization, and the low operating cost of Crude Fuel Oil or Heavy Fuel Oil make the power box solution an easy choice. And, our long-term experience in containerized solutions ensures customers of a reliable power source for many years to come.

## Ready-to-use-system

The module design is the result of careful attention to detail and years of experience in the onshore industry.

This comprehensive solution combines and optimizes efficiency, reliability, and environmental performance.

Heat recovery from jacket water and exhaust gas maximizes the efficiency.

The power module is equipped with a local control system so it can be operated easily from the power box container with variable master and slave selection.

## CM20 Generator Set

- Lube Oil System
  - Engine Mounted Lube Oil Pump
  - Lube Oil Tank in Baseframe
  - Lube Oil Pre-Lube System
  - Lube Oil Separator
- Starting Air System
  - Compressor\*
  - Receiver 500 L\*
- Fuel System
  - Crude Oil Separator
  - Crude Oil Day Tank
  - Diesel Oil Day Tank
  - Oil Heater

## Benefits

The following benefits of using this concept should be considered in the site evaluation:

- lower operating cost of Crude Fuel Oil or Heavy Fuel Oil instead of Diesel Fuel Oil.
- easy transportation and installation of containerized equipment under difficult site conditions.
- minimal on-site work if site conditions are difficult.
- fast track execution of project if needed.

- Safety System
  - Nitrogen Membrane Generator
  - Gas Detectors \*\*
  - Fire Fighting System \*\*
- Cooling System
  - Engine Mounted Pumps
  - 2 Circuit Cooling System
  - Radiator Unit
- Cooling Water
  - Pre Heater
  - Temperature Controller
  - Expansion Tank
- Air System
  - Ventilation Unit
  - Recirculation Unit
  - Air Filter Including Silencer

- high flexibility for customer requirements through added features to the standard container arrangement.
- easy adaption of this solution for other fuel applications or site requirements.
- easy maintenance due to container interconnection.
- easy maintenance due to container interconnection.

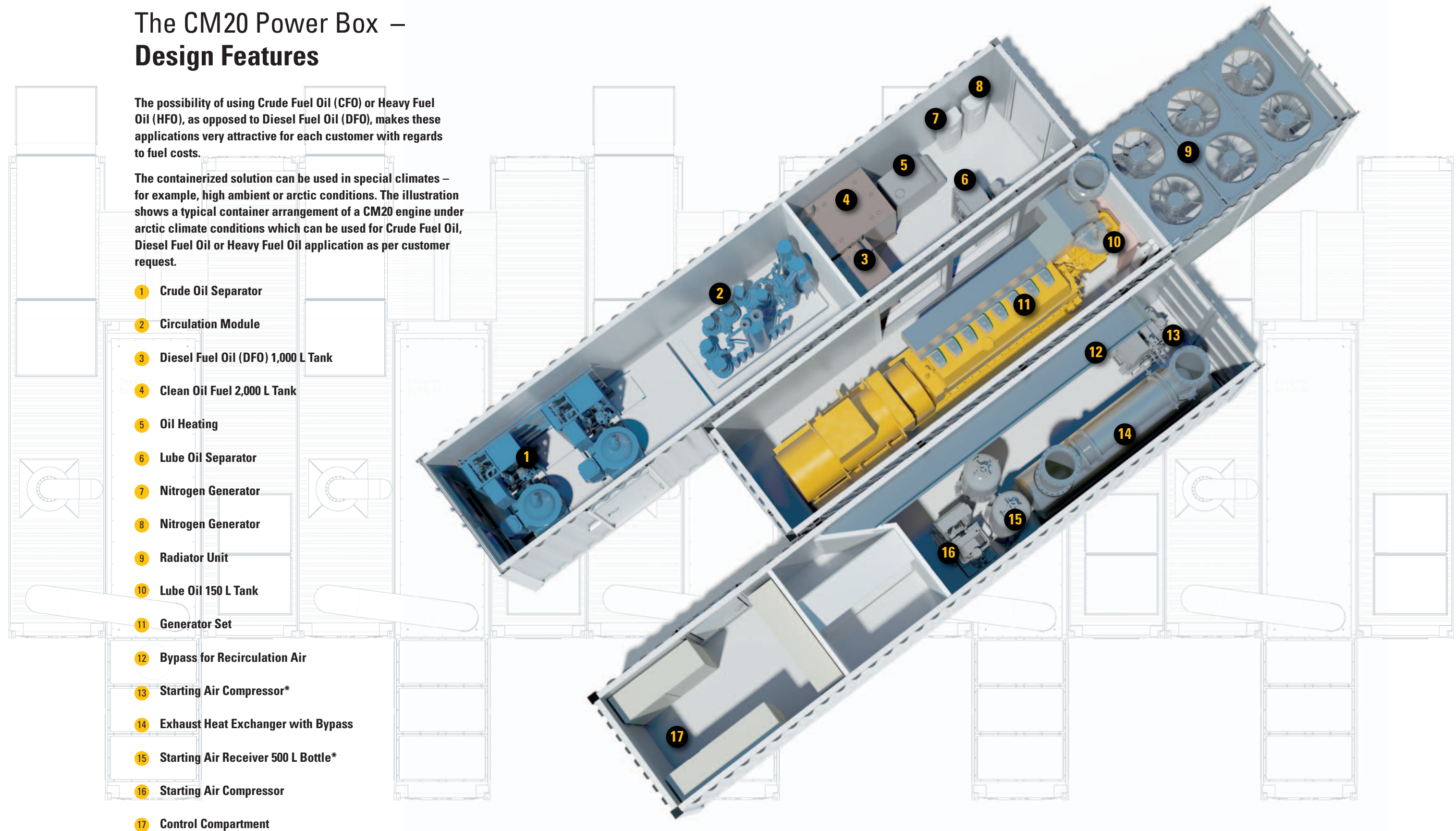
- Exhaust System
  - Silencer
  - Exhaust Heat Exchanger
  - Heat Exchanger Bypass
  - Stack Including Piping
- Control
  - Generator Set Control
  - Load Charing
  - (Variable Master/Slave)
  - MCC
- Available on Request:
  - Containerized Diesel Fuel Oil Storage Tank
  - Containerized Crude Fuel Oil Storage Tank
  - Pre Pressure Module

\* One unit in multi container installation.  
\*\* Required in case of using Crude Fuel Oil.

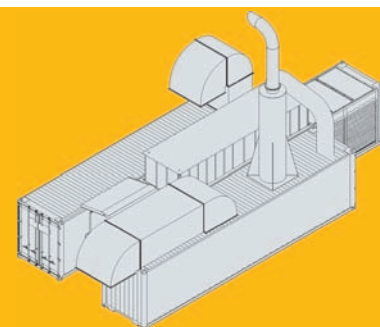
# The CM20 Power Box – Design Features

The possibility of using Crude Fuel Oil (CFO) or Heavy Fuel Oil (HFO), as opposed to Diesel Fuel Oil (DFO), makes these applications very attractive for each customer with regards to fuel costs.

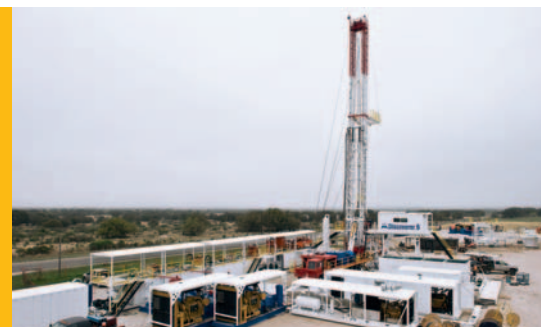
The containerized solution can be used in special climates – for example, high ambient or arctic conditions. The illustration shows a typical container arrangement of a CM20 engine under arctic climate conditions which can be used for Crude Fuel Oil, Diesel Fuel Oil or Heavy Fuel Oil application as per customer request.



- 1 Crude Oil Separator
- 2 Circulation Module
- 3 Diesel Fuel Oil (DFO) 1,000 L Tank
- 4 Clean Oil Fuel 2,000 L Tank
- 5 Oil Heating
- 6 Lube Oil Separator
- 7 Nitrogen Generator
- 8 Nitrogen Generator
- 9 Radiator Unit
- 10 Lube Oil 150 L Tank
- 11 Generator Set
- 12 Bypass for Recirculation Air
- 13 Starting Air Compressor\*
- 14 Exhaust Heat Exchanger with Bypass
- 15 Starting Air Receiver 500 L Bottle\*
- 16 Starting Air Compressor
- 17 Control Compartment



Designed and Manufactured by „Ferk Aggregatbau GmbH“, official Caterpillar Packager



Ready for 6, 8, 9 CM20 C

