

1  
**THE BASIC PACKAGING  
OF CERTIFIED INDUSTRIAL DIESEL ENGINES**

**D-246.1 series industrial diesel engines**

Rated output  $N_e=42$  kW. Rated speed =1500 min<sup>-1</sup>.

4-cylinder. Naturally aspirated. REPUBLIC OF BELARUS TECHNICAL CONDITIONS  
101326441.141-2004.

**D-246.1-89M Basic model.**

- fuel injection pump “MOTORPAL” (Czech Republic) with electro-magnetic stop valve 24V
- starter 24V, inductor-type charge alternator 28V, glow plugs 23V
- push fan Ø456 mm (engine-to-radiator air flow direction)
- flywheel housing SAE3, flywheel SAE 11 ½
- COF (centrifugal oil filter)

---

**D-246.1-89**

The same as **D-246.1-89M**, but equipped with fuel injection pump CJSC “RAAZ AMO ZIL” (city of Roslavl, Russia)

**D-246.1-115** The same as **D-246.1-89**. Attached to the engine is water radiator

---

**D- 246.1-80**

The same as **D- 246.1-89**. The difference:

- mechanical stop through the air between air cleaner and intake manifold

-----  
**D-246.1-81M**

The difference from D-246.1-89M:

- without alternator
- integrated Liquid-oil heat exchanger (LOHE) with non-separable oil filter instead of COF

---

**D-246.1-90 M**

The difference from D- 246.1-89M:

- without fan
- without flywheel housing, flywheel with pins (tractor-type)
- non-separable oil filter instead of centrifugal oil filter

**D-246.1-90** the same as **D- 246.1-90 M**, but with fuel injection pump CJSC “RAAZ AMO ZIL”

**D- 246.1-95** the same as **D- 246.1-90**, but electric equipment 12V

---

**D- 246.1-91M**

The difference from D-246.1-89M:

- without fan
- non-separable oil filter instead of centrifugal oil filter

**D-246.1-91** the same as **D-246.1-91M**, but with fuel injection pump CJSC «RAAZ AMO ZIL»

**D-246.1-82M** the same as **D-246.1-91M**, but electric equipment 12V

**D-246.1-82** the same as **D-246.1-82M**, but with fuel injection pump CJSC «RAAZ AMO ZIL»

---

**D- 246.1-83**

The difference from D-246.1-89M:

- fuel injection pump CJSC «RAAZ AMO ZIL» (city of Roslavl, Russia)
- tractor-type fan Ø456 mm.
- non-separable oil filter instead of centrifugal oil filter

---

**D-246.1-84M**

The difference from D-246.1-89M:

- push fan Ø510 mm.
- flywheel housing SAE3 with 2 holes Ø19 for speed sensors,
- non-separable oil filter instead of centrifugal oil filter

**D-246.1-84** the same as **D-246.1-84M**, but with fuel injection pump CJSC «RAAZ AMO ZIL»

---

**D- 246.1-97**

The difference from D-246.1-89M:

- fuel injection pump CJSC «RAAZ AMO ZIL»
  - electric equipment 12V
- 

**D- 246.1-100**

The difference from D- 246.1-89M:

- fuel injection pump CJSC «RAAZ AMO ZIL» (city of Roslavl, Russia) with electro-magnetic stop valve 24V
  - Liquid-oil heat exchanger with replaceable non-separable oil filter
  - 4 sensors: alarm and in current condition, 2 sensors for oil and 2 for water
- 

**D- 246.1-108**

The same as **D-246.1-100** with water radiator added

---

**D- 246.1-109**

The same as **D- 246.1-100**, but without Spare Parts & Accessories Kit.

---

**D- 246.1-115**

The difference from D- 246.1-89M:

- fuel injection pump CJSC «RAAZ AMO ZIL»
  - water radiator is attached
- 

**D- 246.1-126**

The same as 246.1-89M + 4 sensors+ oil filter instead of COF (centrifugal oil filter)  
-2 belts are attached, 2 fine fuel filters, 2 oil filters, water radiator, oil radiator

---

**D- 246.1-128**

The same as 246.1-89M + sensors for water, oil, air + Liquid-oil heat exchanger with oil filter instead of COF; 12V electric equipment  
-water radiator is attached

---

**D-246.2 series industrial diesel engines**

Rated output  $N_e=54$  kW. Rated speed  $=1500$  min<sup>-1</sup>.

4-cylinder. Turbocharged. REPUBLIC OF BELARUS TECHNICAL CONDITIONS 101326441.141-2004.

**D- 246.2-92 Basic model**

- fuel injection pump CJSC «RAAZ AMO ZIL» with electro-magnetic valve 24V
  - starter 24V, inductor-type alternator 28V, glow plugs 23V
  - push fan Ø456 mm.
  - flywheel housingSAE3, flywheel SAE 11 ½
  - COF (centrifugal oil filter)
- 

**D- 246.2-93M**

The difference from D- 246.2-92

- fuel injection pump «MOTORPAL»
- Liquid-oil heat exchanger instead of COF

**D- 246.2-93** The same as D- 246.2-93M, but with fuel injection pump CJSC «RAAZ AMO ZIL»

**D- 246.2-38** The same as D- 246.2-93 but with 4 sensors for water and oil.

---

**D- 246.2-53**

The difference from D-246.2-92:

- LIQUID-OIL HEAT EXCHANGER with non-separable oil filter instead of COF
  - 4 sensors installed
-

**D- 246.2-118**

The difference from D- 246.2-92:

-water radiator is attached

---

**D- 246.3 series industrial diesel engines**

Rated output  $N_e=65$  kW. Rated speed  $=1500$  min<sup>-1</sup>.

4-cylinder. Turbocharged with industrial cooling. REPUBLIC OF BELARUS TECHNICAL CONDITIONS 101326441.141-2004.

**D- 246.3-94 Basic model**

-fuel injection pump CJSC «RAAZ AMO ZIL» with electro-magnetic valve 24V

-starter 24V, inductor-type alternator 28V, glow plugs 23V

-push fan Ø456 mm.

-flywheel housing SAE3, flywheel SAE 11 ½

-COF (centrifugal oil filter)

**D- 246.3-121**

The same as **D- 246.3-94** but with water radiator attached

---

**D-246.4 series industrial diesel engines**

Rated output  $N_e=77$  kW. Rated speed  $=1500$  min<sup>-1</sup>.

4-cylinder. Turbocharged with industrial cooling. REPUBLIC OF BELARUS TECHNICAL CONDITIONS 101326441.141-2004.

**D- 246.4-85**

-fuel injection pump CJSC «RAAZ AMO ZIL» with electro-magnetic valve 24V

-starter 24V, inductor-type alternator 28V, glow plugs 23V

-push fan Ø456 mm.

-flywheel housing SAE3, flywheel SAE 11 ½

-COF

---

**D- 246.4-85M**

The same as D- 246.4-85, but with fuel injection pump «MOTORPAL»

---

**D- 246.4-86**

The difference from D- 246.4-85

- tension roller instead of charge alternator

- LIQUID-OIL HEAT EXCHANGER with replaceable oil filter

**D- 246.4-86M** The same as D- 246.4-86, but with fuel injection pump «MOTORPAL»

---

**D- 246.4-87**

The difference from D-246.4-85:

-tractor-type fan Ø510 mm

-coarse fuel filter is not installed

**D- 246.4-87 M**

The same as **D- 246.4-87**, but with fuel injection pump «MOTORPAL»

---

**D- 246.4-88**

The difference from D- 246.4-85:

- without fan

**D- 246.4-88M**

The same as **D- 246.4-88** but with fuel injection pump «MOTORPAL»

---

**D- 246.4-101**

The same as **D- 246.4-88**, LIQUID-OIL HEAT EXCHANGER with non-separable replaceable oil filter is additionally installed

**D- 246.4-101M** The same as D-246.4-101, but with fuel injection pump «MOTORPAL»

---

**D-246.4-65M**

The difference from D-246.4-85:

- fuel injection pump «MOTORPAL»
- push fan Ø510 mm
- flywheel housing no SAE3 with 2 holes Ø19 speed sensors
- electric equipment 24V

**D-246.4-65P**

The same as **D-246.4-65M**, but with fuel injection pump PAA3

---

**D-246.4-103**

The same as **D-246.4-85** but with the differences as below:

- LIQUID-OIL HEAT EXCHANGER

**D- 246.4-103M** the same as D-246.4-103, but with fuel injection pump «MOTORPAL»

---

**D-246.4-106**

The difference from D- 246.4-85:

- LIQUID-OIL HEAT EXCHANGER
- 4 sensors (water, oil)

**D-246.4-107**

The same as **D- 246.4-106**+water radiator is attached

**D-246.4-107M**

The same as **D-246.4-107** but with fuel injection pump «MOTORPAL»

---

**D-246.4-110**

The difference from D- 246.4-85:

- LIQUID-OIL HEAT EXCHANGER
  - 4 sensors (water, oil)
- 

**D-246.4-124**

The difference from the basic D-246.4-85

- water radiator is attached
- 

**D-246.4-127**

The difference from the basic D-246.4-85

- c fuel injection pump «MOTORPAL»
- 4 sensors (water, oil)
- oil filter instead of COF,

### **D- 266.2 series industrial diesel engines**

Rated output  $N_e=95$  kW. Rated speed =1500 min<sup>-1</sup>.

6-cylinder. Turbocharged with industrial cooling. REPUBLIC OF BELARUS TECHNICAL CONDITIONS 101326441.143-2004.

**D-266.2-05 Basic model**

- fuel injection pump «YAZDA» with electro-magnetic valve 24V
  - starter 24V, inductor-type alternator 28V, glow plugs 23V
  - push fan Ø510 mm. (engine-to-radiator air flow direction )
  - flywheel housing SAE3, flywheel SAE 11 ½
  - COF (centrifugal oil filter) and non-separable oil filter
  - oil filter with replaceable filter element
  - LIQUID-OIL HEAT EXCHANGER
- 

**D-266.2-04**

The difference from **D- 266.2-05**

- branch 265-1307047
- without fan

-intake manifold branch is directed upwards and aside (upwards at 90° )

---

**D-266.2-31**

The difference from **D- 266.2-05** – front support 260.4-1001001/002

---

**D-266.2-32**

The difference from **D- 266.2-05:**

- sensors installation
  - no exhaust pipe and compensator
- 

**D-266.2-41**

The difference from **D- 266.2-05:**

- fuel injection pump «MOTORPAL»
- 

**Series industrial diesel engines D- 266.3**

Rated output  $N_e=115$  kW. Rated speed  $=1500$  min<sup>-1</sup>.

6-cylinder. Turbocharged with industrial cooling. REPUBLIC OF BELARUS TECHNICAL CONDITIONS 101326441.143-2004.

**D-266.3-08      Basic model**

the packaging is similar to **D-266.2-05**

---

**D-266.3-42**

The difference from **D-266.3-08:**

- fuel injection pump «MOTORPAL»
  - added are charged air cooler and water radiator
- 

**D- 266.4 series industrial diesel engines**

Rated output  $N_e=127$  kW. Rated speed  $=1500$  min<sup>-1</sup>.

6-cylinder. Turbocharged with industrial cooling. REPUBLIC OF BELARUS TECHNICAL CONDITIONS 101326441.143-2004.

**D-266.4-11.....Basic model**

the packaging is similar to **D-266.3-08** или **D-266.2-05** , but different are water pump intake branches.

**D-266.4-30M**

The difference from D-266.4-11:

- equipped with fuel injection pump «MOTORPAL»
- without fan
- without alternator

**D-266.4-33**

The difference from D-266.4-11:

- front supports have been changed
- 

**D-266.4-35**

The difference from D-266.4-11:

- additionally, charged air cooler is attached
- 

**D-266.4-36**

The difference from D- 266.4-11:

- flywheel housing SAE3 with 2 additional holes Ø19 for speed sensors
- 

**D-266.4-37**

The difference from D-266.4-11:

- additionally, charged air cooler is attached
  - additionally, water radiator is attached
- 

#### **D-266.4-38**

The difference from D-266.4-11:

- equipped with fuel injection pump «MOTORPAL»
- 

#### **D- 266.4-39**

The difference from D-266.4-11:

- equipped with fuel injection pump «MOTORPAL»
  - additionally, charged air cooler is attached
  - additionally, water radiator is attached 100A-1301100
- 

#### **D-266.4-40**

The difference from D-266.4-11:

- sensors are installed

**D- 266.4-40M** The same as D- 266.4-40, but with «MOTORPAL» added

---

#### **D-266.4-43**

The difference from D-266.4-11:

- additionally, water radiator is attached
  - equipped with fuel injection pump «MOTORPAL»
- 

#### **D-266.4-44**

The difference from D-266.4-11:

- equipped with fuel injection pump «MOTORPAL»
- 4 sensors installed (water, oil)

#### **Note:**

1. Provided here is the basic engines packaging. The engine builds also differ in Spare Parts & Accessories Kits contents, attached mounting parts and units and air cleaner installation (except for D-246.1 and D-246.2 series, where the air cleaner is mounted on the engine), charged air cooler mounting parts, consumable parts and units etc.

2. With D-266 series also different are the builds with regard to front support types and water pump intake branches.

All the engines specified herein are not equipped with hydraulic gear pump and pneumatic compressor and they do not have operation hours counter.