

WE ARE CREATING THE NEW-



CREATING THE FUTURE!

**DIESEL ENGINES  
AND DIESEL GENERATORS**



**URAL DIESEL ENGINE PLANT LLC  
(EKATERINBURG, SVERDLOVSK REGION)**

Ural Diesel Engine Plant (UDEP) is a leading Russian manufacturer of a wide range of industrial diesel engines and diesel generators for the shipbuilding, locomotive engineering, small energy and mining sectors.

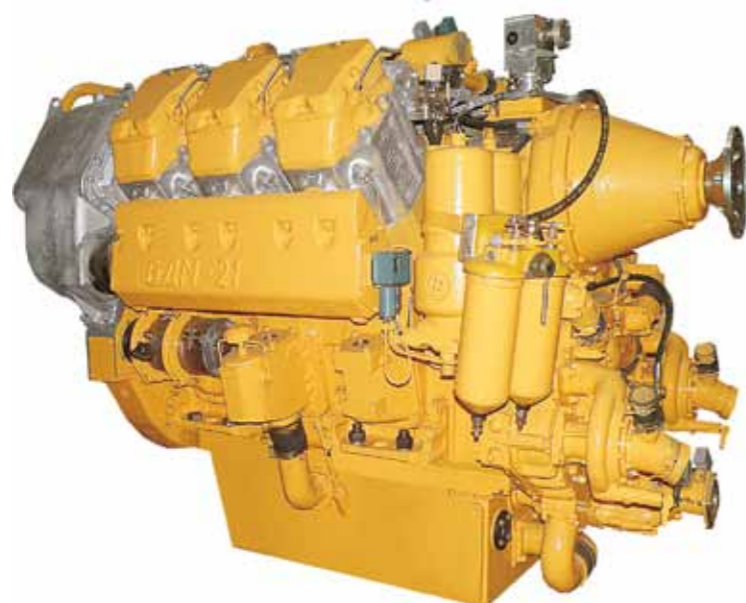
- UDEP was incorporated into Sinara-Transport Machines open joint stock company in 2008.
- 100 diesel engines and diesel generators produced annually.



- 770 people employed.
- 2 bln RUB invested in the development of production.
- UDEP is certified to ISO 9001:2000 and accredited with the Military Maritime Register.
- Pipeline products – a new family of DM-185 700-4900 kW high-speed V-shape diesel engines developed under the National Technological Base federal targeted programme.

# 6DM-21L

LOCOMOTIVE DIESEL ENGINES



## DESCRIPTION

6DM-21L is a turbocharged 603 kW four-stroke 6-cylinder retrofit diesel engine with a 'V' shape cylinder arrangement, direct fuel injection, liquid cooling and intercooler.

## ADVANTAGES

- enhanced reliability;
- better fuel economy;
- improved startability;
- increased hydraulic density of all engine systems.

## SPECIFICATIONS

Parameters	Value
Number and arrangement of cylinders	6V90°
Bore/stroke, mm	210/210
Capacity, kW (hp)	603 (820)
Speed, rpm	1200
Specific fuel consumption, g/kW×h (g/hp×h)	209 (154)
Specific burning oil consumption, g/kW×h (g/hp×h)	1,1 (0,8)
Engine weight, kg	5440±50
Dimensions, mm (length, width, height)	2600×1495×1983
Time between overhauls, m/h	70000

# 8DM-21L

LOCOMOTIVE DIESEL ENGINES



## DESCRIPTION

8DM-21L is a turbocharged 882 kW four-stroke 8-cylinder retrofit diesel engine with a 'V' shape cylinder arrangement, direct fuel injection, liquid cooling and intercooler.

## ADVANTAGES

- enhanced reliability;
- better fuel economy;
- improved startability;
- increased hydraulic density of all engine systems.

## SPECIFICATIONS

Parameters	Value	
	8DM-21L	8DM-217L
Number and arrangement of cylinders	8V90°	
Bore/stroke, mm	210/210	
Capacity, kW (hp)	882 (1200)	930 (1265)
Speed, rpm	1400	
Specific fuel consumption, g/kW×h (g/hp×h)	209 (154)	
Specific burning oil consumption, g/kW×h (g/hp×h)	1,1 (0,8)	
Engine weight, kg	6600±50	
Dimensions, mm (length, width, height)	3065×1500×2202	
Time between overhauls, m/h	70000	

# 12DM-21L

LOCOMOTIVE DIESEL ENGINES



## DESCRIPTION

12DM-21L is a turbocharged 1470 kW four-stroke 12-cylinder retrofit diesel engine with a 'V' shape cylinder arrangement, direct fuel injection, liquid cooling and intercooler.

## ADVANTAGES

- enhanced reliability;
- better fuel economy;
- improved startability;
- increased hydraulic density of all engine systems.

## SPECIFICATIONS

Parameters	Value
Number and arrangement of cylinders	12V90°
Bore/stroke, mm	210/210
Capacity, kW (hp)	1470 (2000)
Speed, rpm	1500
Specific fuel consumption, g/kW×h (g/hp×h)	205 (151)
Specific burning oil consumption, g/kW×h (g/hp×h)	1,1 (0,8)
Engine weight, kg	9470±50
Dimensions, mm (length, width, height)	3867×1514×2351
Time between overhauls, m/h	70000

# DG-880L

# DG-882L

LOCOMOTIVE DIESEL GENERATORS



## DESCRIPTION

DG-880L and DG-882L diesel generators with a capacity of 880 and 882 kW, respectfully, are based on a turbocharged 8DM-21EL (8ChN 21/21) four-stroke 8-cylinder diesel engine with a 'V' shape cylinder arrangement, direct fuel injection, liquid cooling and intercooler.

DG-882L diesel generator is based on 8DM 21EL2 882 kW engine designed to be used as a power unit at TEM14 locomotive manufactured by Lyudinovskiy Locomotive Plant.

## SPECIFICATIONS

Parameters	Value	
	DG-880L	DG-882L
Diesel	8DM-21EL	8DM-21EL2
Traction generator	GS-523MUKhL2	Traction unit A724U2
Current type	AC	
Rated capacity at terminals, kW (hp)	880	882
Continuous rectified current, A	3600	
Rectified pick-up current, A	5000	
Maximum rectified voltage, V	510	
Generator rotor speed, rpm.	1500	
Output voltage frequency range, Hz	35–100	
Dimensions, mm (length, width, height)	5156×1614×1974	4804×1560×2243
Weight with equipment, kg	12500±50	14300
Specific fuel consumption, g/kW×h (g/hp×h)	220 (162)	222 (163)
Specific burning oil consumption, g/kW×h (g/hp×h)	1,1 (0,8)	

# DG-1400L

LOCOMOTIVE DIESEL GENERATORS



## DESCRIPTION

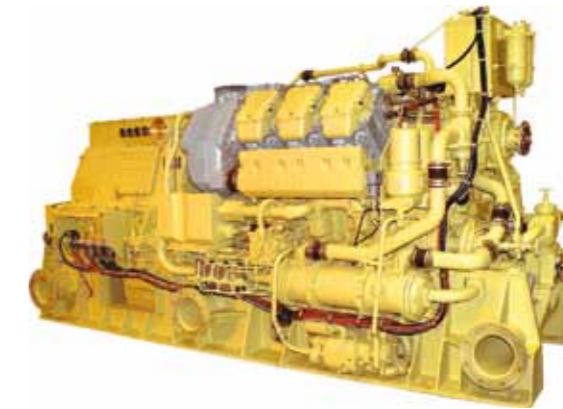
DG-1400L diesel generator with a capacity of 1400 kW is based on a turbocharged 12DM-21EL (12ChN 21/21) four-stroke 12-cylinder diesel engine with a 'V' shape cylinder arrangement, direct fuel injection, liquid cooling and intercooler.

## SPECIFICATIONS

Parameters	Value
Diesel	12DM-21EL (12ChN 21/21)
Traction generator	GST 1400-1500UKhL2
Current type	AC
Rated capacity at terminals, kW	1400
Continuous rectified current, A	6400
Generator rotor speed, rpm.	1500
Dimensions, mm (length, width, height)	5830x1660x2305
Engine weight, kg	16120
Specific fuel consumption, g/kW×h (g/hp×h)	220 (162)
Specific burning oil consumption, g/kW×h (g/hp×h)	1,1 (0,8)

# ADG-630

MARINE APPLICATION DIESEL GENERATORS



## DESCRIPTION

- ADG-630 marine diesel generator is designed as:
- primary, auxiliary or backup power source for vessels with unlimited cruising radius;
- primary or backup independent power source for on-shore power systems.

## ADVANTAGES

- ADG-630 630 kW diesel generator is a robust system used in the shipbuilding sector under the projects that aim to support the development of national military and civil shipbuilding.
- ADG emergency diesel generators are designed to ensure special-purpose performance, vitality and resistance to external factors and built to exacting GOST B standards in terms of reliability and warranty.
- The maintenance of ADG emergency diesel generators can be done by ship's personnel in any emergency situation without seeking the manufacturer's support.

## SPECIFICATIONS

Parameters	Value
Rated kW at output terminals	630
Maximum kW during one hour	693
Diesel	6DM-21 S(6ChN21/21)
Generator	GM2-40M4
Cumulative time in maximum power mode,%	10
Time between maximum power modes, hours (min.)	5
Rated current frequency, Hz	50
Voltage, V	400
Current type	AC, three-phase
Dimensions, mm (length, width, height)	4500x1620x2370
Hours before first re-assembly	12000
Hours between overhauls	30000
Life until discarded, years	30
Specific fuel consumption, g/kW×h (g/hp×h)	228 (168)
Specific burning oil consumption, g/kW×h (g/hp×h)	1,1 (0,8)

# ADG-1000

MARINE APPLICATION DIESEL GENERATORS



## DESCRIPTION

ADG-1000 marine diesel generator is designed as:

- primary, auxiliary or backup power source for vessels with unlimited cruising radius;
- primary or backup independent power source for on-shore power systems.

## ADVANTAGES

- ADG-1000 1000 kW diesel generator is a robust system used in the shipbuilding sector under the projects that aim to support the development of national military and civil shipbuilding.
- ADG emergency diesel generators are designed to ensure special-purpose performance, vitality and resistance to external factors and built to exacting GOST B standards in terms of reliability and warranty.
- The maintenance of ADG emergency diesel generators can be done by ship's personnel in any emergency situation without seeking the manufacturer's support.

## SPECIFICATIONS

Parameters	Value
Rated kW at output terminals	1000
Maximum kW during one hour	1100
Diesel	8DM-21S (8ChN21/21)
Generator	GM4-40M4
Cumulative time in maximum power mode,%	10
Time between maximum power modes, hours (min.)	5
Rated current frequency, Hz	50
Voltage, V	400
Current type	AC, three-phase
Dimensions, mm (length, width, height)	5379×1655×2280
Hours before first re-assembly	5000
Hours between overhauls	15000
Life until discarded, years	25
Specific fuel consumption, g/kW×h (g/hp×h)	245 (180)
Specific burning oil consumption, g/kW×h (g/hp×h)	1,1 (0,8)

# ADG-1000NK

MARINE APPLICATION DIESEL GENERATORS



## DESCRIPTION

ADG-1000NK marine diesel generator is designed as:

- primary, auxiliary or backup power source for vessels with unlimited cruising radius;
- primary or backup independent power source for on-shore power systems.

## ADVANTAGES

- ADG-1000NK 1000 kW diesel generator is a robust system used in the shipbuilding sector under the projects that aim to support the development of national military and civil shipbuilding.
- ADG emergency diesel generators are designed to ensure special-purpose performance, vitality and resistance to external factors and built to exacting GOST B standards in terms of reliability and warranty.
- The maintenance of ADG emergency diesel generators can be done by ship's personnel in any emergency situation without seeking the manufacturer's support.

## SPECIFICATIONS

Parameters	Value
Rated kW at output terminals	1000
Maximum kW during one hour	1100
Diesel	8DM-21SN(8ChN21/21)
Generator	GM4-40M4
Cumulative time in maximum power mode,%	10
Time between maximum power modes, hours (min.)	5
Rated current frequency, Hz	50
Voltage, V	400
Current type	AC, three-phase
Dimensions, mm (length, width, height)	5751×1660×2820
Hours before first re-assembly	9000
Hours between overhauls	36000
Life until discarded, years	60000
Specific fuel consumption, g/kW×h (g/hp×h)	227 (167)
Specific burning oil consumption, g/kW×h (g/hp×h)	1,1 (0,8)

# ADG-1600

MARINE APPLICATION DIESEL GENERATORS



## DESCRIPTION

ADG-1600 marine diesel generator is designed as:

- primary, auxiliary or backup power source for vessels with unlimited cruising radius;
- primary or backup independent power source for on-shore power systems.

## ADVANTAGES

- ADG-1600 1600 kW diesel generator is a robust system used in the shipbuilding sector under the projects that aim to support the development of national military and civil shipbuilding.
- ADG emergency diesel generators are designed to ensure special-purpose performance, vitality and resistance to external factors and built to exacting GOST B standards in terms of reliability and warranty.
- The maintenance of ADG emergency diesel generators can be done by ship's personnel in any emergency situation without seeking the manufacturer's support.

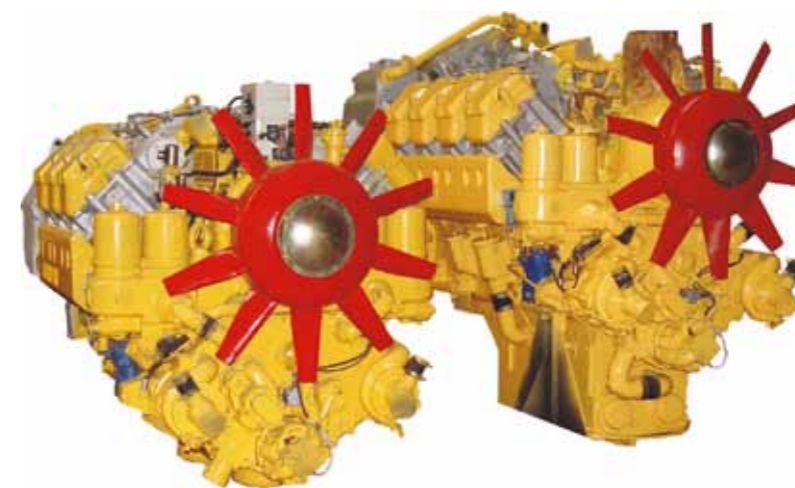
## SPECIFICATIONS

Parameters	Value
Rated kW at output terminals	1600
Maximum kW during one hour	1760
Diesel	12DM-21S(12ChN21/21)
Generator	GM6-40M4
Cumulative time in maximum power mode,%	10
Time between maximum power modes, hours (min.)	5
Rated current frequency, Hz	50
Voltage, V	400
Current type	AC, three-phase
Dimensions, mm (length, width, height)	6722×1928×2370
Hours before first re-assembly	12000
Hours between overhauls	36000
Life until discarded, years	30
Specific fuel consumption, g/kW×h (g/hp×h)	228 (168)
Specific burning oil consumption, g/kW×h (g/hp×h)	1,1 (0,8)

# 6DM-21EM-K

# 8DM-21EM-K

DIESEL ENGINES FOR POWER PLANTS



## DESCRIPTION

6DM-21EM-K, 6DM-21EM-K1 and 8DM-21EM-K diesel engines are designed to drive generators for electricity generation by generating units and at power plants and may be used in the primary and backup power supply.

## SPECIFICATIONS

Parameters	Value		
	6DM-21EM-K	8DM-21 EM-K	6DM-21 EM-K1
Number and arrangement of cylinders	6V90°	8V90°	6V90°
Bore/stroke, mm	210/210	210/210	210/210
Capacity, kW (hp)	550 (750)	1080 (1470)	770 (1047,2)
Speed, rpm	1500	1500	1500
Specific fuel consumption, g/kW×h (g/hp×h)	215 (158)	208 (153)	215 (158)
Specific burning oil consumption, g/kW×h (g/hp×h)	1,1 (0,8)	1,1 (0,8)	1,1 (0,8)
Engine weight, kg	5440±50	6600±50	5440±50
Dimensions, mm (length, width, height)	2745×1495×2093	3206×1495×2170	2745×1495×2093
Time between overhauls, m/h	36000	36000	36000
Hours before re-assembly, m/h	10000	9000	10000
Life until discarded, years	25	25	25

# DM-185

ДВИГАТЕЛЬ НОВОГО СЕМЕЙСТВА ПРОПУЩЕН ПЕРЕВОД



## DESCRIPTION

A lot of engineering work is going on to produce a new family of engines called DM-185 ranging from 700 to 4900 kW under the National Technological Base federal targeted programme. The new family of engines is planned for use in the shipbuilding, locomotive engineering, small energy and mining sectors.

## ADVANTAGES

- High-performance and reliable.
- Increased engine service life.
- Environmentally friendly.
- Efficient.

Application	Generating unit	Rated speed, rpm	Capacity L6 and L8, MW	Capacity V12, V16, V20, MW
Railway engineering	Diesel generator unit	1500	0,7–1,5	1,5–3,5
		1800	0,9–1,8	2,4–3,7
Heavy mining machinery	Diesel generator unit	1900	0,9–1,8	2,0–3,0
Shipbuilding	Diesel generator unit / Geared diesel unit	1500	0,7–1,8	1,5–4,6
		1800		1,8–4,9
		1900		1,8–4,9
Package power plants	Diesel generator unit	1500	0,5–1,5	1,5–2,5
		1800	4,0	
Pumping equipment	Geared diesel unit	1500-1900	1,0–1,5	1,5–2,0
Rigs	Diesel generator unit	1500-1900	1,0–1,5	1,5–2,0

## SPECIFICATIONS

Parameters	Value
Full MW of diesel engines	0,7–4,9
Speed corresponding to full MW, rpm	1500, 1800, 1900
Specific fuel consumption, g/kW×h (max.)	194–198
Specific burning oil consumption, g/kW×h (max.)	0,4
Specific weight, kg/kW	3,7–4,7
In-use life, hours	45000–70000
Cylinder output, kW	120–234
Environmental performance	EU IIIA, IMO 2, Tier 3





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