



Technical proposal No

USO-20R1-15 Mixing surge plant

Mobile mixing surge plant is designed for preparing cementing slurries and other process fluids in drilling oil and gas wells, lateral outlets, installing cement plugs and other isolation and repair works in wells.

Actual operations:

1) Autonomous preparation of cementing and other slurries, including from soft containers directly at the drilling site.

2) Pumping the prepared slurry into the well. Pump and stirrers are empowered by auto power unit drive. Stirrers are empowered by hydraulic hydro pump drive with the hydro pumps installed on the power takeoff device of the car gearbox. Plunger pump is empowered by mechanic power takeoff box drive, with the power takeoff device installed on the distributing box.

3) Preparation of a slurry to achieve the required specifications is performed by recirculation method using the in-house pump and mechanical agitators.

USO-20R1-15 Mixing surge plant consist of:

1 - vehicle Chassis KAMAZ 43118; 2 – two-unit displacement tank; 3 – lower operating platform; 4 – upper operating platform; 5 – casing pullers; 6 – turning Head Lights; 7 – plunger pump; 8 – two-unit mixing surge capacity; 9 – slurry level indicator; 10 – LED illumination of samplers; 11 – hydrofeeder Dy 50 mm (2 pcs.); 12 – stirrers; 13 – sampling taker; 14 - discharging nozzles Dy 100 mm (2 pcs.); 16 - hydraulic pressure mixer; 17 – steam supply nozzles; 18 – mixers transfer gearbox; 19 - chain gearing of mixers; 20 - loading pipeline Dy 100 mm; 21 - suction line; 22 - safety valve; 23 - pressure line Dy 50 mm; 24 - recirculation line Dy 50 mm; 25 - hydrostation; 26 - Mixing drive hydromotor.

Parameter name	USO-20R1-15
Mixing tank volume, m ³	7,5 (3,75x2)
Accumulating slurry density up to, g/cm ³	2,5
Allowable fluctuation in slurry density, g/cm ²	0,01
Stirrer specifications:	
- functional principle;	mechanical
- type;	two-shaft auger-drill
- rotation rate min, rot./min.	20-25
Measuring tank volume, m ³	3 (1,5x2)
Plant dimension, mm, max.	
- length	10070
- width	2500
- overall height	3600
Erection base:	
- labeling	43118-3027-50
- gearbox	154
- cargo capacity, tonnes	12,7
- wheel arrangement	6x6
- engine EURO-5	KAMAZ 740.705-300
- maximum capacity, kW	221 (300)
- fuel tanks, L	210+350
- heating up fuel strainer	Fitted
- preheater	Fitted
- wheel-base, mm	4600



- spare wheel

Plunger pump:

- labeling
- plunger diameter, mm
- hydraulic horsepower output, kW
- full pump flow, L/sec
- peak pump pressure, MPa

Power takeoff device on the distributing box upper hatch

Power takeoff device on the gear box

Rear overhang

SIN-32

125

130

25

32

MP24-4208010-05

MP 50-4202010

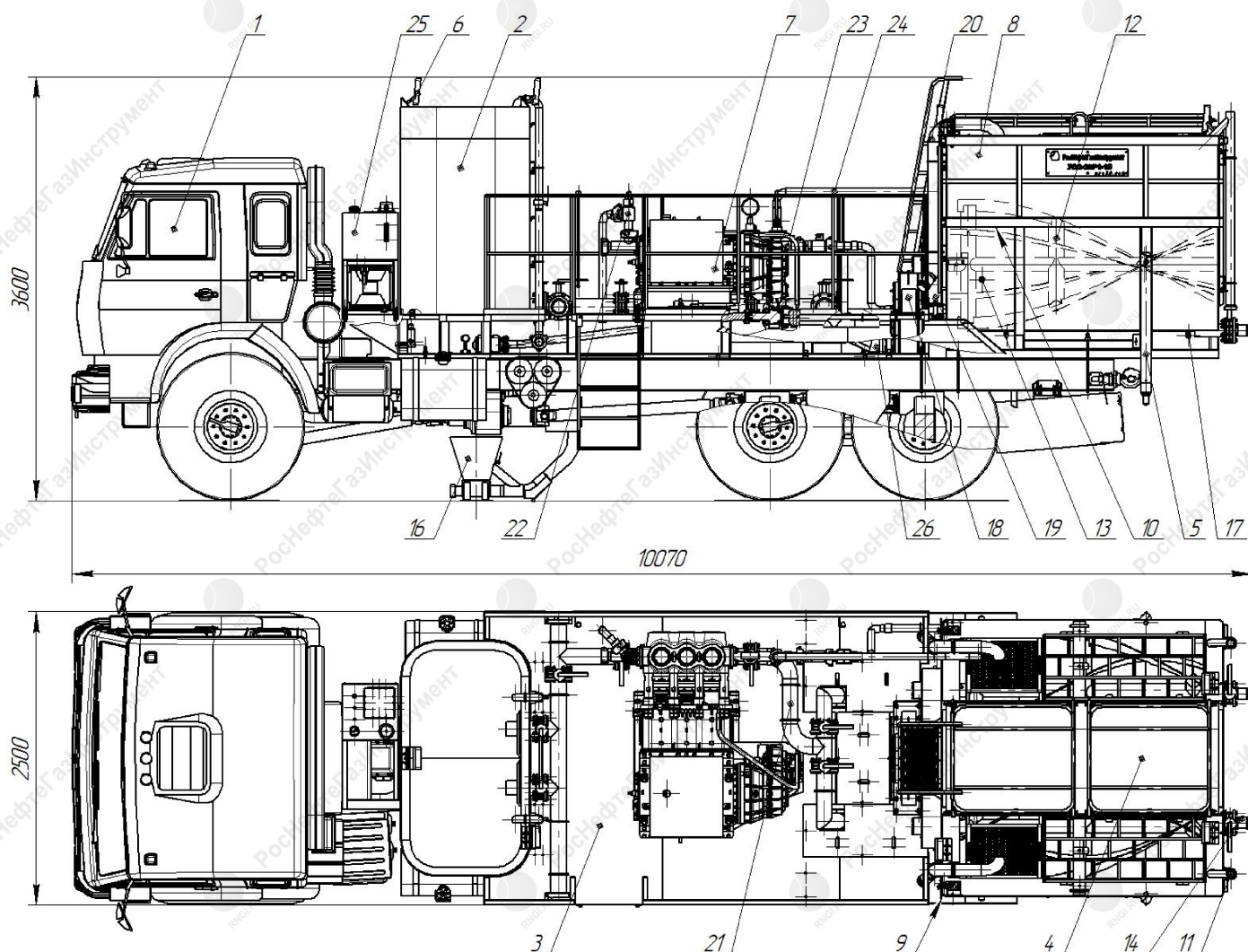


Рис. 1 Mixing surge plant USO-20R1-15.