

# «CamEnergoRemont-Naladka» LLC

«APPROVED»

Deputy Director of  
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## APPRAISAL REPORT

on the efficiency tests of  
TGM-84Б boiler No.3 at Kazan CHP-plant-3  
while running by gas after modernization.

Chief Engineer

A.A.Olynev

Chief Engineer

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Engineer

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**List of the main parameters of boiler unit technical condition No.3,  
Kazan CHP-plant-3  
together with TGM-84B boiler  
year of placing in service – 1972**

№	Parameter	Dimention	Normative values	Operation contition data	
				Before repair	After repair
1.	Steam capacity	tons/hour	420	412.2	420
2.	Temperature of superheated steam	°C	560	554	560
3.	Pressure of superheated steam	kgf/cm <sup>2</sup>	140	135	140
4.	Temperature of feed water	°C	230	230	230
5.	Air suction:				
	into furnace	%	5	12	5
	into the gas duct	%	25	36.4	23.5
6.	Heat loss:				
	with flue gases	%	5.59	6.32	4.84
	into the atmosphere, q <sub>5</sub>	%	0.45	0.72	0.45
7.	Boiler gross efficiency, (given)	%	93.96	92.96	94.71
8.	Specific power consumption for traction and blast	kWatt-hour/Gcal	7.4	7.47	7.55
9.	Excess air coefficient:				
	behind boiler		1.069	1.082	1.045
	behind smoke exhaust		1.32	1.446	1.28
10.	Resistance:		-		
	RAH gas side A/B	mm w.c. (kgf/m <sup>2</sup> )		43/40	125/135
	RAH air side	mm w.c. (kgf/m <sup>2</sup> )		100/55	135/140
11.	Air temperature:				
	before RAH	°C	30	30	30
	after RAH	°C	-	223/238	240/245
12.	Temperature of flue gases:				
	Behind RAH (released gases)	°C	133	138	120
13.	NO <sub>x</sub> content in flue gases (a=1.4)	mg/nm <sup>3</sup>	not more than 290	295	235
14.	Repair costs:				
	-planned -real	thousand roubles			