

ZAO VNIITneft
R&D Institute for OCTG Design and Operation
Private Stock Company

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LINE PIPE

OPERATION MANUAL

REVISION No. 1

DEVELOPED by:

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_____ «___», 2011

Samara, 2011

1 Add the following normative documents to Table 3:

Table 3 – Normative Documents Regulating the Manufacture and Delivery of Seamless Pipe

Normative Document	Pipe Size		Steel Grade	Pipe Grade
	Outside Diameter, mm	Wall Thickness, mm		
TU 14-3P-113-2010 Seamless steel pipe for gas pipelines under a working pressure up to 22.15 MPa, inclusive.	57-426	4.0-28.0	-	K48, K52, K54, K56, K60
	60.3-406.4	3.9-28.0		X52, XS6, X60 X65, X70

2 Add the following data to Table 4:

Table 4 - Seamless Line Pipe. Mechanical properties

Normative Document	Steel Grade	Pipe Grade	Ultimate Tensile Strength, $\sigma_U, \text{N/mm}^2$	Yield strength, $\sigma_Y, \text{N/mm}^2$	σ_Y/σ_U	Elongation, $\delta_5, \%$	Impact Strength, J/cm^2		
			min.	max.		min.	min.		
TU 14-3P-118-2011**		X65/SMLS 450FD	535-655	450-570	0.90	20	KCV ⁻³² 130 longitud. (for pipe Ø 114.3 mm)	KCV ⁻³² 130 transverse	Shear fracture percent. 85% min.
TY 14-3P-113-2010**		K48	290	470	0.85	21	KCU ⁻⁴⁰ 120 longitud.	KCV ⁻⁴⁰ 90 transverse	Shear fracture percentage 85% min. at minus 40°C
		K52	390	510	0.90	20			
		K54	415	530	0.90	20			
		K56	450	550	0.90	20			
		K60	485	590	0.90	20			
		X5Z	360	460	0.90	20			
		X56	390	490	0.90	20			
		X60	415	520	0.90	20			
		X65	450	535	0.90	20			
		X70	485	570	0.90	20			

3 Add the following items to Section 8:

98 TU 14-3P-113-2010 Seamless steel pipe for gas pipelines under a working pressure up to 22.15 MPa, inclusive.

Certified the foregoing Document to be a true, complete, and accurate English translation of the original document translated from Russian by the INTERSERVICE translation agency.


A. Itskovich
Director

