## GOST 1060-83 SEAMLESS COLD FINISHED STEEL TUBES FOR SHIPBUILDING

Tubes to this standard are intended for ship boilers, steam superheaters and oil heaters. Size range and mass per meter length are given in table below.

Table Size range and mass of seamless tubes for shipbuilding

Outside diameter,	T				
1	2.00	2.50	3.00		
17 22 25 29 32 35 36 38 40 42 44.5	0.740 0.986 1.13 - - - - - -	- 1.63 1.82 - 2.07 - 2.31	- 1.92 - 2.37 2.44 2.59 - 2.89 3.07	- - - - - - 2.98 - - 3.54	- - - - - - - - - 3.77
; 45 ; (46)	-	2.62	-	3.67	-
51 57 60	-   -   -	2.99 - -	- - -	- 4.62 4.88	- - -

On agreement tubes with outside diameters 14 to 60 mm and wall thickness 1.6 to 4 mm to GOST 8734-75 or tubes with outside diameters over 60 mm can be produced. Limit tolerances for outside diameter and wall thickness are given below:

Наружный диаметр, мм   Outside diameter, mm	< 30 under 30	[]   30-51   30 to 51	> 51     over 51
Предельные отклонения по DH     Limit tolerance for OD	± 0.2 mm	± 0.3 mm	+0.6% -0.8%
Предельные отклоненияw по   толщине стенки   Limit tolerance for wall   thickness		+8% -10%	

Tube length shall be random 1.5 to 9 m. On the buyer's request tubes shall be delivered in multiple lengths with 5 mm allowance per cut and total length tolerance +10 mm.

Tube curvature per any meter length shall be under 1.5 mm.

Total curvature for tubes with lengths under 6 m shall be under 5 mm, and for lengths over 6 m - under 8 mm.

Tubes to this standard are made of steel grade 10.

Mechanical properties. Tubes shall be delivered in heat treated condition. Tube surfaces shall be free of cracks, laps, cavities, etc.

Tensile strength of tube metal shall be equal or higher than 343 MPa and elongation shall not be lower than 28 %.

Other requirements. Tubes shall withstand hydraulic, expansion and tensile tests.

Tube surface quality inspection and size measurements are accomplished for each tube length in a lot.