JPRS: 32,070

TT: 65-32563

20 September 1965

086007

(HANDBOOK OF SOVIET STEELS AND ALLOYS)

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

AMPTIAC

U. S. DEPARTMENT OF COMMERCE

CLEARINGHOUSE FOR FEDERAL SCIENTIFIC AND TECHNICAL INFORMATION

JOINT PUBLICATIONS RESEARCH SERVICE
Building Tempo E
Adams Drive, 4th and 6th Streets, S.W.
Washington, D.C. 20443

Price: $3.00

20020327 263

JPRS: 32,070

HANDBOOK OF SOVIET STEELS AND ALLOYS

INTRODUCTION

This handbook presents a listing of Soviet "EI, EP, EYa, and EZh" steels and alloys and their chemical compositions as compiled from USSR scientific and technical publications. No attempt has been made to categorize or classify these materials under any other nomenclature.

The steels and alloys listed here do not include all the known Soviet steels and alloys, but do represent a good cross section of materials used in various branches of Soviet industry.

A few notes are necessary for the reader to gain full benefit of the contents of this handbook. The symbol "EI" (transliterated from Russian and representing the Russian words "Elektrostal'," a steel plant near Moscow) and "Issledovatel'skiy" (experimental), followed by a serial number, in the past has been called a factory designation for experimental steels produced by the Elektrostal' Plant, but the present use of this symbol is not so specific, as indicated by the appearance of the "EP, EYa, and EZh" steels and alloys. Many of the "EP" steels were originally developed as high-quality welding wire where the "P" represented the Russian word "provoloka" (wire). Many of these steels are now produced for purposes other than welding wire, but still retain their "EP" designation. The "EYa" steels are chromium-nickel, austenitic stainless steels comparable to the AISI 300 series while the "EZh" steels are chromium, martensitic and ferritic stainless steels comparable to the AISI 400 series.

In addition to the so-called factory designation, Soviet steels and alloys are also identified by a designation which, in most instances, is an abbreviated nominal composition-designation system. For example, steel EI-530 has an alloy designation Kh18N28M3D3. One familiar with these designations would expect this steel to have a nominal composition of roughly 0.1% C, 17-19% Cr, 27-29% Ni, 2.5-3.5% Mo and 2.5-3.5% Cu. A quick check shows that this steel contains 0.12% C, 17.5-19.5% Cr, 27-29% Ni, 2.5-3.5% Mo and 3.5-4.5% Cu. With the exception of copper, the composition of this steel could be estimated quite accurately. And as stated above, this designation is an abbreviated way of indicating a nominal composition and leaves much to be desired as it does not indicate all the elements contained in the steel or alloy (primarily--manganese and silicon). One must be flexible in his approach when working with this particular designation of steels and alloys and not take anything for granted inasmuch as it is far from being standardized.

The specification column which lists the latest known standard serial numbers for these steels and alloys follows the factory designation and alloy designation columns. This system of standards is quite similar to the ASTM standards. Many of these serial numbers are

GOST (All-Union State Standard) numbers which were updated in 1961 (GOST 5632-61), while some of the older ones carry other standards (TU, MPTU, ChMTU, etc.).

No special effort has been made to fill in the "nearest equivalent" column. Those listed have been mentioned in Soviet literature or U. S. technical publications concerning Soviet materials, or were determined by random comparison with U. S. steels and alloys (on the basis of chemical composition).

Below is a table of transliterated Russian letters and the chemical element which they symbolize. In passing it must be noted that the Soviets do not use the letter "A" to represent any chemical element. However, it is found in many alloy designations as a suffix letter to indicate a high-quality alloy steel (or has so been used in the past). The letter "R" represents boron in alloy designations; however, as a prefix, e. g., R18K5F2 (EI-940), it indicates that the material is a high-speed tool steel.

Table of transliterated Russian letters and the chemical element which they represent.

Letter	Element
B	Niobium
D	Copper
F	Vanadium
G	Manganese
K	Cobalt
Kh	Chromium
M	Molybdenum
N	Nickel
P	Phosphorus
R	Boron
S	Silicon
T	Titanium
Ts	Zirconium
V	Tungsten
Yu	Aluminum
Z	Sulfur
Zh	Iron (in nonferrous alloys)

SOVIET "EI" STEELS AND ALLOYS

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
3	35KhIM		AISI 4337	0.32-0.38	0.30-0.60	0.17-0.37	0.05	0.05	0.80-1.20	1.40-1.80	0.25-0.40								
5	25KhN4			0.25-0.35	0.30-0.60	0.17-0.37	0.040	0.040	0.80-1.10	4.00-4.50									
6				0.25-0.35	0.25-0.60	0.40	0.030	0.030	0.70-1.10	3.30-4.00									
10	25Kh2MFA 25KhMF	GOST 4543-61		0.22-0.29	0.40-0.70	0.17-0.37	0.035	0.030	1.50-1.80	0.40	0.20-0.30			0.15-0.30		0.20			
10	35KhMFA	GOST 4543-48	ASTM A-193 -53aT(B-16)	0.30-0.38	0.40-0.70	0.17-0.37	0.035	0.030	1.00-1.30	0.40	0.20-0.40			0.10-0.20					
14	20KhN4FA	GOST 4543-57		0.17-0.24	0.25-0.55	0.17-0.37	0.035	0.030	0.70-1.10	3.75-4.25				0.15-0.30		0.25			
16	18KhNVA 18Kh4NVA	GOST 4543-57		0.14-0.21	0.25-0.55	0.17-0.37	0.035	0.030	1.35-1.65	4.00-4.50		0.80-1.20							
18	25KhNVA 25KhN4VA	GOST 4543-57		0.21-0.28	0.25-0.55	0.17-0.37	0.035	0.030	1.35-1.65	4.00-4.50		0.80-1.20				0.25			
25	Kh8N36	[illegible] -51	Elinvar	0.40	0.30-0.60	0.50	0.030	0.030	7.3-8.3	36.5-38.5									
36				0.2	(nominal composition)				12	35-37									

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)														
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
40		MPTU 2362-49	AISI 316	0.10	2.0	1.0	0.035	0.020	16.0-19.0	10.0-14.0	2.0-3.0								
41				0.16-0.24	0.25-0.60				2.4-3.3	0.50	0.35-0.55	0.30-0.50		0.60-0.85					
42				0.25					0.2	47.0-49.0									Fe-bal.
59	Kh30		AISI 446	0.15	1.50	0.50	0.035	0.030	26.0-30.0	0.60									
60	Kh13Yu4 Kh13Yu5	GOST	AISI 405	0.15	0.7	1.0	0.035	0.030	12.0-15.0	0.60					3.5-5.5				
	Kh15Yu4 Kh15Yu5	9323-59																	
66			?XCR?																
69	Kh14N14V 4Kh14N14V2M	GOST 5632-51	AMS 5700	0.40-0.50	0.7	0.8	0.030	0.030	13.0-15.0	13.0-15.0	0.25-0.40	2.00 2.75							
69a	Kh14N14VS	GOST 5632-51	AMS 5700	0.40-0.50	0.7	2.75-3.25	0.030	0.030	13-15	13-15	0.25-0.40	1.75-2.25							

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
72	Kh12N7S, Kh13N7S2 3Kh13N7S2	GOST 5632-51	AMS 5705A	0.25-0.37	0.7	2.0-3.0	0.035	0.030	11.5-14.0	6.0-7.5									
75	35KhGS	GOST 4543-48		0.30-0.40	0.80-1.10	1.10-1.40	0.040	0.040	1.10-1.40	0.40									
83	12Kh2N4A	GOST 4543-57	AISI E3316	0.15	0.30-0.60	0.17-0.37	0.025	0.025	1.25-1.65	3.30-3.70						0.20			
84	40KhNMA	GOST 4543-57	AISI 4340	0.37-0.44	0.50-0.80	0.15-0.30	0.025	0.025	0.60-0.90	1.25-1.65	0.15-0.25					0.20			
86	Kh8SM, Kh8S2M	GOST 5632-51		0.35-0.50	0.3-0.7	2.0-3.0			8.0-9.5	0.6	0.2-0.4								
88	8SVM	OST 14958-39		0.8-0.9	0.20-0.40	0.80-1.10	0.030	0.030			0.30-0.50	1.00-1.40							

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
94		ChMTU 2913-51	Hadfield Ni-Mn steel	0.70-0.90	13.0-15.0	0.70	0.100	0.030	0.50	2.75-3.75									
95		ChMTU 2913-51	AISI 302B	0.20-0.30	0.40-0.70	0.030	0.020	17.0-19.0	8.0-10.0										
96	OKh13																		
100	Kh13N4G9 2Kh13N4G9	GOST 5632-61	AISI 202	0.15-0.30	8.0-10.0	0.80	0.060	0.030	12.0-14.0	3.75-5.0									
103		TU 693		0.70-0.85	0.20-0.40	0.30	0.030	0.030	3.20-3.80	0.25									
107	Kh10SN, Kh10S2M, 30Kh10SMA	GOST 5632-51	Croloy 9	0.35-0.45	0.30-0.70	1.90-2.60	0.030	0.025	9.0 10.5	0.50	0.70-0.90								

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as r...)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
114	18KhNV			0.14-0.21	0.25-0.55	0.15-0.30	0.05	0.05	1.35-1.65	4.00-4.50		0.80-1.20							
116				0.75-0.85		1.50-1.80			9.50-10.80		(nominal composition)			1.00-1.35					
119	(stainless)																		
121				0.32-0.42	0.20-0.40	0.35	0.030	0.030	4.75-5.75			4.0-5.0						0.4-0.5	
122				0.40		1.91			15.26 (actual analysis)	14.9			0.38						Nb 2.12
123		TU 635		0.15-0.25	0.40-0.80	1.7-2.3	0.030	0.030	14.0-16.0	12.0-14.0		1.8-2.2	0.5-1.5						
126				0.41	0.50	0.65			13.39 (actual analysis)	36.85		2.4							

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
132	[illegible]12M3T [illegible]12M3T	GOST 5632-51	AISI 317T	0.12	2.0	0.8	0.035	0.030	16.0-19.0	11.0-14.0	3.0-4.0								
142	70S2Kh[illegible]	GOST 2052-53	AISI 9260	0.65-0.75	0.40-0.60	0.15-0.30	0.035	0.030	0.20-0.40	0.30									
150	Kh3M		ASTM A199-58T (T-2)	0.12-0.18	0.2-0.5	0.5			2.5-3.0	0.6	0.3-0.4			0.2-0.3					
151	Kh6M, 12Kh6M		ASTM A199-58T (T-5)	0.15	0.50	0.50	0.030	0.030	5.0-6.5	0.6	0.45-0.60			0.1-0.25					
160	4Kh8V2	GOST 5950-51		0.35-0.45	0.20-0.40	0.35	0.030	0.030	7.00-9.00	0.25		2.00-3.00							
161		MPTU 2594-60	AISI N16	0.55-0.65	0.30-0.60	0.30-0.60	0.030	0.030	6.50 7.50	0.30	0.25-0.35	6.50-7.50		0.30					

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)														
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
171	Kh17N13M2T	GOST 5632-51	AISI 316T	0.12	2.0	0.8	0.035	0.030	16.0-19.0	11.0-14.0	2.0-3.0		0.3-0.6						
172	Kh12FN			1.0-1.5	0.40	0.35	0.040	0.030	11.0-13.0	0.9-1.6				2.0-2.6					
173				0.90-1.00	0.40	0.35	0.040	0.035	8.0-10.0	0.6		2.0-3.0		1.0-1.6					
179	30KhGS, 30KhGSA	GOST 4543-57		0.25-0.35	0.80-1.10	0.80-1.20	0.040	0.040	0.80-1.10	0.25						0.20			
181	Kh25	GOST 5632-51	AISI 446	0.20	0.80	1.00	0.035	0.030	23.0-27.0	0.60									
183	Kh19NM		AISI 316	0.14	2.0	0.80	0.035	0.030	17.0-20.0	8.0-10.0	2.5-3.0								
184	R4			0.80-1.00	0.40	0.50	0.040	0.035	7.0 9.0	0.35		3.5 4.8		1.0-1.5					
186	15NM	GOST 4543-48	AISI 4615-	0.10 0.18	0.40-0.70	0.17-0.37	0.040	0.040	0.30	1.50-2.00	0.20-0.30					0.30			

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
193		TU 193	AISI S-1	0.70-0.85	0.20-0.40	0.40-0.70	0.030	0.030	1.10-1.40	0.25		2.00-2.70							
195	15KhGSA 20KhGS	GOST 4543-57		0.17-0.23	0.80-1.10	0.90-1.20	0.035	0.035	0.80-1.10	0.25						0.20			
203	Kh14G14V			0.35-0.45	13.0-15.0	1.40-1.80	0.030	0.030	13.0-15.0			2.0-2.8							
211	Kh20N14S, Kh20N-14S2, 1Kh20N14S2	GOST 5632-61		0.20	1.50	2.0-3.0	0.035	0.030	19.0-22.0	12.0-15.0									

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
229	Kh8, 9Kh18	GOST 5632-51	AISI 440C	0.90-1.00	0.70	0.80	0.035	0.030	17.0-19.0	0.60									
240	Kh14N14SV2M		AMS 5700			Composition same as for EI-695													
241	Kh14	GOST 5632-51	AISI 420	0.15	0.70	0.60	0.030	0.030	13.0-15.0	0.60									
243				1.0-1.2	0.40	0.35	0.040	0.030	10.0-13.0	0.9-1.6	3.0-4.0			2.0-2.6					
244				1.0-1.15	0.40	0.35	0.040	0.030	10.0-12.0	0.9-1.6			0.3-0.6	2.0-2.6					
256	G13, G13L	GOST 2176-57	Hadfield steel	0.9-1.3	11.5-14.5	0.5-1.0	0.12	0.05	0.5	0.5									
257	1Kh14N14V2M	GOST 5632-51		0.15	0.7	0.8	0.035	0.030	13.0-15.0	13.0-15.0	0.45-0.60	2.0-2.75							
257a	1Kh14N14V2MT	GOST 5632-51		0.15	0.7	0.8	0.035	0.030	13.0-15.0	13.0-15.0	0.45-0.60	2.0-2.75	0.4-0.6						
258			AISI L4	0.95-1.05	0.95-1.15	0.25-0.40	0.03	0.03	0.95-1.15										

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)														
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
260				0.90-1.05	0.40	0.35	0.040	0.030	4.0-5.0	0.40	3.2-4.0			2.0-2.6					
261	Kh25S3N	GOST 5632-51	AISI 446	0.35	0.7	2.5-3.5	0.035	0.030	23.0-27.0	0.7-1.3									
262	R-9	GOST 5952-51		0.85-0.95	0.40	0.40	0.030	0.030	3.8-4.4	0.4	0.3	8.50-10.00		2.00-2.60					
268	Kh17N2	GOST 5632-61	AISI 431	0.11-0.17	0.80	0.80	0.030	0.025	16.0-18.0	1.5-2.5									
269	55G5N20	ChMTU 2913-51		0.50-0.60	4.0-5.5	0.60	0.050	0.030	0.25	18.5-21.5									
271		MPTU 2493-50		0.37-0.47	0.50-0.80	1.60-2.00	0.040	0.040	0.25	0.30									
273		ChMTU 254		0.35-0.42	0.80-1.10	0.17-0.37	0.035	0.035	1.20-1.50	0.50									
274	15Kh2G2T	ChMTU 254		0.13-0.18	1.40-1.70	0.17-0.37	0.035	0.035	1.50-1.80	0.50			0.06-0.12						
275	40Kh2GM	ChMTU 254		0.35-0.42	0.70-1.10	0.17-0.37	0.035	0.035	1.50-1.80	0.50	0.25-0.40								

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
276				1.00-1.15	0.40	0.40	0.040	0.030	3.80-4.40	0.35	2.30 2.90	2.20-2.90		2.20-2.80					
277				1.10-1.25	0.40	0.35	0.040	0.030	3.80-4.60	0.40	2.30 2.90			2.80-3.30					
278	N35KhV			0.70-0.80	2.0-3.0	0.60	0.04	0.030	7.0-9.0	33.0 35.0		3.0-4.0							
283	Kh25N20S2	GOST 5632-61	AMS 5652A AISI 310B	0.20	1.5	2.0-3.0	0.035	0.020	23.0-27.0	18.0-21.0									
284				0.90-1.10	0.40	0.35	0.040	0.030	4.00 5.00	0.40	3.70-4.50	3.00-3.70		2.00-2.60					
288	35KhGS	GOST 4543-48						(Same as EI-75)											
289	65S2V2A, 65SV2A	GOST 2052-53		0.60-0.70	0.70-1.00	1.50-2.00	0.035	0.030	0.030	0.40		0.80-1.20							
290				0.90-1.05	0.40	0.40	0.040	0.035	3.60-4.30	0.35	2.60-3.30	2.60-3.30		1.50-2.00					
292	0Kh25Yu5	GOST 5632-61		0.06	0.70	1.20	0.035	0.030	23.00 27.00	0.60			0.20		4.50-6.50				

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
29.				1.50-1.65	0.15-0.40	0.70-0.95	0.03	0.25	0.03	0.5									
298			AISI M2	0.80-0.95	0.40	0.35	0.040	0.030	3.70-4.50	0.40	4.0-4.5	5.0-6.0		2.0-2.6					
307		ChMTU 2913-51	AISI 310B	0.20	0.20-0.70	1.2-2.0	0.035	0.030	24.0-27.0	18.0-21.0									
308				0.07-0.12	0.80	1.4-2.0	0.035	0.030	8.0-11.0	0.30					0.40-0.70				
330	Kh20G5N6MF 4Kh18N5G5MV	ChMTU 254		0.12	4-6	(Estimated composition)			19-21	5-7	0.2-0.4	0.8-1.3							
349	Kh18N4G6	ChMTU 254		0.35-0.45	3.00-5.00	1.40-2.00	0.040	0.030	17.00-20.00	5.00-7.00									
353				0.90-1.00	0.40	0.35	0.040	0.030	10.0-12.0	0.50-1.20				2.40-2.80					

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
315				0.78-0.88	0.40	0.35	0.040	0.030	7.90-9.10	0.90-1.20				2.40 2.80					
316	Kh25N11			0.20	2.0	1.0	0.035	0.030 (Estimated	22-26	10-12 composition)									
318	OKhl7Nu5	GOST 5632-61		0.06	0.70	0.60	0.035	0.030	16.0 19.0	0.60			0.20		4.00-6.00				
319	Kh23N13 Kh25N15	GOST 5632-61		0.20	2.00	1.00	0.035	0.025	22.0-25.0	12.0-15.0									
325	6KhS	GOST 5950-51		0.60-0.75	0.40	0.60-1.00	0.030	0.030	1.00-1.30	0.25									
328		TU779		0.40-0.50	1.35-1.65	0.80-1.30	0.030	0.030	2.50-3.00	0.25		0.80-1.20		0.20-0.40					
329				0.40-0.50	0.40	0.80-1.20	0.030	0.030	11.0-12.5	0.50		1.30-1.80		0.70-0.90					
330				0.40-0.50	0.20-0.40	1.10-1.70	0.030	0.030	6.0-8.5	0.50	0.60-0.80	1.20-1.60							

HX No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
3[illegible]	[illegible]20			0.25	2.0	1.0	0.03[illegible]	0.030	24.0-27.0	19.0-22.0									
3[illegible]		ChNEU 217		0.25	1.2-1.8	0.6	0.03[illegible]	0.030	20-2[illegible]	bal.					0.06				Fe-1.7 Cu-0.3-
3[illegible]				1.40-1.50	0.15-0.40	0.70-0.95	0.03	0.025	0.08	0.2		* (*0.4-0.6 total)	*			*			
3[illegible]				0.42			(Actual analysis)		15	7	0.8			1.7					N-7%
3[illegible]	[illegible]25[illegible], [illegible]25[illegible]	GOST 5632-61		0.12	0.70	1.20	0.03[illegible]	0.030	23.00-27.00	0.60			0.50		4.50-6.50				
3[illegible]	[illegible]17[illegible], [illegible]17[illegible]5	GOST 5632-61		0.12	0.70	1.20	0.03[illegible]	0.030	16.00-19.00	0.60			0.50		4.00-6.00				
3[illegible]		GOST 5632-51		0.7-0.8	0.40	0.40	0.03[illegible]	0.030	4.0-4.6-	0.35	0.3	8.5-10.0[illegible]		1.3-1.7					

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
349	Kh28 (EI-27)	GOST 5632-61	AISI 446	0.15	0.80	1.00	0.035	0.025	27.0-30.0	0.60									
358	40KhGNVA			0.35-0.45	0.65-0.95	0.17-0.37	0.03	0.03	0.75-1.05	0.60-0.90		0.50-0.80							
358	40KhGNVM			0.35-0.45	0.56-0.95	0.17-0.37	0.03	0.03	0.75-1.05	0.60-0.90	0.15-0.25								
359	KhGS	GOST 5950-51		0.95-1.10	0.80-1.20	0.50-1.00	0.030	0.030	1.40-1.80	0.25									
366				1.30-1.45	0.30-0.50	1.0-1.25	0.030	0.025	0.08	0.20		* (*0.2-0.4 total)	*							
369	15KhGNVA	ChMTU 320-60		0.12-0.19	0.65-0.95	0.17-0.37	0.03	0.03	0.75-1.05	0.60-0.90		0.50-0.80								
369	15KhGNVMA	ChMTU 320-60		0.12-0.19	0.65-0.95	0.17-0.37	0.03	0.03	0.75-1.05	0.60-0.90	0.15-0.25									
370	30KhGNVA			0.24-0.34	0.65-0.95	0.17-0.37	0.03	0.03	0.75-1.05	0.60-0.90		0.50-0.80								

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
379	30Kh[illegible]			0.24-0.34	0.65-0.95	0.17-0.37	0.03	0.03	0.75-1.05	0.60-0.90	0.15-0.25								
378	4Kh18N2M						0.08-0.15	0.15-0.25			0.7-0.9								
380				0.80-0.95	0.40	0.35	0.040	0.035	7.0-9.0	0.6-0.9		2.0-2.5		2.4-2.8					
381				0.82-0.92	0.40	0.35	0.040	0.035	6.0-7.0	0.40		3.5-4.5		2.8-3.2					
382				0.80-0.90	0.40	0.35	0.040	0.035	4.5-5.5	0.40		4.0-5.0		1.8-2.3					
383				0.27-0.37	0.20-0.40	0.35	0.035	0.035	3.0-4.0	0.50				1.80-2.40					
386				0.85 0.95	0.40	0.30	0.040	0.030	4.0-5.0	0.35		4.0-5.0		1.5-2.0	0.50-0.80				
388	Kh15G7N7MF 4Kh15G7N7MF	GOST 5632-61		0.38-0.47	6.0-8.0	0.9-1.4	0.04[illegible]	0.020	14.0-16.0	6.0-8.0	0.65-0.95			1.5-1.9					

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
394				0.50-0.60	0.20-0.35	0.15-0.30	0.030	0.030	0.40-0.60	0.30				0.15-0.35					
395	[illegible] Kh[illegible]	GOST	Timken	0.12	1.0-2.0	0.50-1.00	0.030	0.030	15.0-17.5	24.0-27.0	5.5-7.0								N-0.10-0.20
	Kh15N26M5 Kh16N25M6Az																		
397								(same as EI-132)											
398	Kh18N11B	GOST 5632-51		0.10	2.0	1.0	0.035	0.030	17.0-20.0	9.0-13.0									Nb-8xC% up to 1.1% max
400	Kh18N12M	ChMTU 5216-55		0.07	1.5	1.5	0.035	0.030	16.0-19.0	11.0-14.0	2.0-3.0								
401	[illegible]-1Mo [illegible]-Mo	MPTU 2362-49		0.10	2.0	1.0	0.035	0.020	16.0-19.0	10.0-14.0	2.0-3.0								
402	OKh18N12B	GOST 5632-61		0.08	1.00-2.00	0.80	0.035	0.020	17.0-19.0	11.0-13.0									Nb-8xC% up to 1.1% max
402M				0.12					16.0-18.0	9.5-11.0	0.9-1.2								Nb-0.7-1.1
403				0.12	0.90-1.50	0.70-1.20	0.035	0.020	16.0-19.0	14.0-17.0	2.0-2.6								Nb-0.9-1.3

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
h04	Kh12[illegible]G 1Kh12[illegible]Yu	GOST 5632-61		0.07-0.12	0.70	1.2-2.0	0.030	0.025	11.5-14.0	0.5					1.0-1.8				
h05	1Kh16N13M2B			0.12	0.50	0.50-0.80	0.030	0.025	15.0-17.0	12.5-14.5	2.0-2.5								Nb-0.9-1.3
h06	1Kh16N12M3B 1Kh15N15M2B			0.12	0.50	0.80-1.00	0.030	0.030	15.0-17.0	12.5-14.5	1.5-2.0								Nb-0.9-1.3
h09	(stainless)																		
h13		ChMTU 5216-55		0.12	5.00-6.00	1.80-2.60	0.05	0.03	18.00-21.00	6.50-8.00									
h14				0.27-0.35	5.00-6.50	1.80-2.60	0.050	0.030	18.00-21.00	6.50-8.00									
h15	20Kh3MVF 20Kh3MVFV 20Kh3MVFA	MPTU 2362-49		0.16-0.24	0.25-0.60	0.40	0.035	0.030	2.4-3.3	0.5	0.35-0.55	0.30-0.50		0.60-0.85					
h16	VK-36			0.35-0.45					18-21	18-22		4.5						45	Fe-1-3%
h17	Kh23N18	GOST 5632-51	AISI 310	0.2	2.00	1.00	0.035	0.030	22.0-25.0	17.0-20.0									
h18	KhN75, Kh15N75			0.12	1.0	0.8			13.0-15.0	≥75									Fe-9.0%

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)														
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
421			Nimonic 75					(same as EI-435)											
422	KhN80T Kh20N80T3	GOST 5632-51	Nimonic 80	0.08	0.5	1.0	0.020	0.015	19.0-23.0	bal.			2.0-2.9		0.4-1.1	0.2			Fe-2.5%
423				0.6-0.7	8.0-9.0	0.2-0.4	0.030	0.030	2.5-3.2	8.0-9.0									
424				0.10-0.16	0.40-0.90	0.40-0.90	0.030	0.030	14.0-16.0	28.0-32.0			1.5-2.0						
428	Kh6SYu	GOST 5632-61		0.15	0.50	1.20-1.80	0.030	0.025	5.50-7.70	0.30			0.20		0.70-1.10				
429		ChMTU 5212-55		0.15-0.25	6.0-7.0	0.5	0.035	0.030	11.0-15.0	10.0-13.0									
431				0.25-0.35	0.20-0.40	0.35	0.030	0.030	2.20-2.70	0.25		4.0-5.0		0.50-0.80					
432	KhN77TYuR	GOST 5632-61		0.10	1.00-2.00	0.80	0.035	0.020	16.0-18.0	12.0-14.0	3.0-4.0		0.30-0.60						
434	KhN10K			0.32-0.42	0.50-1.20	0.50-1.20	0.035	0.030	12.0-14.0	11.5-13.5	1.8-2.4	2.5-3.5	0.06-0.15	0.05-0.10				9.0-11.0	Nb-1.0-1.5
435	Kh20N80T, KhN75T KhN78, KhN78T	GOST 5632-61	Nimonic 75	0.12	0.70	0.80	0.020	0.015	19.0-22.0	bal.			0.15-0.35						Fe-6%

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
437			Nimonic 80					(Same as EI 422)											
438	KhN77Yu	GOST 5632-61		0.06	0.4	0.6	0.015	0.007	19.0-22.0	bal.			2.3-2.7		0.55-0.95				Fe-1.0% Ce-0.01%
438R	KhN77YuR	GOST 5632-61		0.06	0.40	0.60	0.015	0.007	19.0-22.0	bal.			2.3 2.7		0.55-0.95		0.01	Ce 0.01	Fe-4% Ce-0.01
439	Kh25T	GOST 5632-61	AISI 446	0.15	0.80	1.0	0.035	0.025	24-27	0.6			5x%C up to 0.8						
442	KhN70	GOST 5632-61	Nichrome	0.07	0.5	0.8	0.02	0.02	29-31	bal.					0.15				Fe-5.0
444								(nominal composition)	20	bal.	4		2.5		0.7				
445	KhN67MVYu			0.08	0.5	0.6	0.015	0.010	17-20	bal.	4-5	4-5	2.5		1-1.5		0.01		Fe-4 Ce-0.01
445R	Kh18N67V5M5TeYuR			0.08	0.5	0.6	0.015	0.01	17.0-20.0			4.0-5.0	2.2-2.8	4.0-5.0	1.0-1.5		0.01		Fe-4.0% Ce-0.01
443	1Kh18N12M2T Kh18N12M2T Kh17N13M2T	GOST 5632-61		0.10	1-2	0.8	0.035	0.020	16-18	12-14	1.8-2.5		0.3-0.6						

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
452	Kh18N10(N)			0.12	1-2	0.80	0.035	0.020	17-19	9-11									Se or Te 0.18-0.35
453	12Kh2MB			0.12	0.4-0.7	0.4-0.7	0.035	0.030	2.1-2.6	0.30	0.8-1.0								Mn-1.3
457	Kh20T (similar to EI-657)			0.09	0.54	0.46	0.027	0.012	25.05 (actual analysis)				0.30						
459				0.12	5.5-7.0	1.0	0.055	0.030	14.0-16.0	12.0-14.0									
460	NM20		HastelloyA	0.12	1.5	1.0	0.03	0.03		55-59	18-21								Fe 18-22
461	NM30		HastelloyB	0.12	1.0	1.0			1.0	67-69	24-33								Fe-3-7
462				0.05	1.0-2.0	0.20	0.030	0.030	45.0-48.0										
464		TU 908		0.12	1.88	0.53	(actual analysis)		20.48										
465				0.15	0.50	1.25-2.0	0.035	0.030	22.5-25.0	0.50				1.5-2.25					

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
467				0.05	1.0-2.0	0.20	0.030	0.030		48.0-51.0									
469	Kh18N9B 1Kh18N9B	GOST 2246-54		0.06-0.12	1.60-2.0	0.15-0.45	0.035	0.020	17-20	8.8-10.8									Nb-0.75-1.05
473				0.15		(nominal composition)			10.0-12.0	33.5-37.0									
474		MRTU 4157-53	AISI 414	0.20-0.30	0.80-1.20	0.50	0.08-0.15	0.15-0.25	12.0-14.0	1.5-2.0									
478	Kh20N10G6			0.12	5.0-7.0	1.0	0.040	0.030	18.0-22.0	9.0-11.0									
468	4Kh12N8G8MFB			0.34-0.40	7.5-9.5	0.9-1.4	0.035	0.030	11.5-13.5	7.0-9.0	1.1-1.4			1.25-1.55					Nb-0.25-0.45
482	Kh15N13G6			0.12	5.0-7.0	1.0	0.040	0.030	14.0-16.0	12.0-14.0									
483	Kh16N14G6			0.12	5.0-7.0		0.030	0.030	14.0-16.0	12.0-14.0									
434	Kh18SYu	GOST 5632-61		0.15	0.50	1.00-1.50	0.035	0.025	17.0-20.0						0.70-1.20				

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
495				0.10	3.5-5.0	0.40	0.025	0.020	19.0-21.0	9.0-11.0									
496	0Kh13, 08Kh13	GOST 5632-61	AISI 403	0.08	0.60	0.60	0.030	0.025	11-13										
499	Kh28N Kh28FN	ChMTU 3296-55	AISI 446	0.15	0.5	1.0	0.035	0.030	27-30	1.0-1.7									N_2-0.15-0.22
500	16Kh2GN2VA			0.14-0.19	1.10-1.40	0.17-0.37	0.035	0.035	1.70-2.10	1.70-2.10		0.50-0.80							
500	16Kh2GN2VMA			0.14-0.19	1.10-1.40	0.17-0.37	0.035	0.035	1.70-2.10	1.70-2.10	0.15-0.25								
502				0.10	5.0-7.0	0.85	0.020	0.020	18.0-22.0	9.0-11.0									
503	G9N9, 50N9G9			0.45-0.55	0.8-9.0	0.17-0.37			0.2	8.0-9.0									
503	N9KhG9			0.50-0.65	7.5-9.5	0.7			3.8-4.5	8.0-10.0									
504		TU 752		0.12	1.50	0.90	0.035	0.030	16.0-18.0	11.0-14.0	2.0-2.8					2.5-3.5			

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
505	Kh18N9B	ChMTU 5050-55		0.10	1.0-2.0	0.80	0.035	0.030	18.0-20.0	9.0-11.0									Nb-1.8-2.3%
511				0.92	0.27	0.92	(actual analysis)		7.29			3.66		1.41	1.0				
515				0.9-1.1	0.6	0.6	0.03	0.03	12-14.5	0.5	1.4-1.8								
519	25Kh2GNTA	ChMTU 4543-57		0.23-0.29	0.80-1.30	0.20-0.50	0.025	0.025	1.30-1.70	0.90-1.40			0.6-1.2			0.20			
530	Kh18N28M3D3	GOST 5632-51		0.12	1.0	1.0	0.030	0.020	17.5-19.5	27.0-29.0	2.5-3.5					3.5-4.5			
530	Kh18N28M3D4T	MPTU 2677-50		0.12	1.0	1.0	0.030	0.020	17.5-19.5	27.0 30.0	2.5 3.5		0.7						
531	12Kh2NTB			0.8-0.12	0.80-0.70	0.40-0.70	0.035	0.030	2.1-2.6	0.30	0.5-0.7		0.1	0.2-0.3					Nb-0.5-0.8%

No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
552	Kh23N23M3D3	GOST 5632-51		0.10	0.25-0.50	0.50-1.0	0.035	0.030	22.0-25.0	22.0-25.0	2.5-3.5					2.5-3.5			
553		ChMTU 4542-54		0.12	1.5-2.0	1.4-2.0	0.030	0.020	19.0-22.0	9.0-11.0									
554	Kh25N12			0.20	2.0	1.0	0.035 (estimated	0.030 composition)	22-26	11-13									
555	95KhGS	GOST 1435-54		0.95-1.05	0.7-1.0	0.5-0.8			1.0-1.3										
556	Kh25N13B	ChMTU 5050-55		0.12	1.0-2.0	0.80	0.035	0.020	23.0-26.0	12.0-14.0									Nb-1.0 -1.55%
559				0.05	0.45	0.13	(nominal composition)		16.2	Bal.					3.3				Fe-3.3
559A	KhN60Yu Kh16N60Yu3	GOST 5632-61		0.10	0.30	0.80	0.020	0.020	15.0-18.0	55.0-58.0					2.80-3.50				Fe-0.1 Ce-0.05

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
563																			
567	15Kh3MA	ChMTU 4689-54		0.15	0.40-0.70	0.17-0.37	0.035	0.030	2.5-3.0	0.40	0.20-0.30								
569	10NM			0.12	0.40-0.70	0.15-0.35	0.030	0.030	0.2	1.0-1.5	0.4-0.55								
572	3Kh19N9MVBT 2Kh18N9VT	GOST 5632-61		0.28-0.32	0.8-1.5	0.8		0.30	18.0-20.0	8.0-10.0	1.0-1.5	1.0-1.5	0.2-0.5						Nb-0.2-0.5%
574	N34KhGB	TU 639		0.7-0.8	2-3	0.5	0.04	0.03	7-9	33-35		2-4							
575	12KhMF 12Kh1MF	ChMTU 2579-54		0.08-0.15	0.4-0.7	0.17-0.37	0.030	0.025	0.9-1.2	0.25	0.25 0.35			0.15-0.30		0.20			
576	Kh5VF, 12Kh5VF	ChMTU 2987-51		0.15	0.30	0.40-0.60	0.025	0.025	4.0-6.0	0.30		0.40-0.70		0.50-0.80		0.25			

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
578	Kh3MF	MPTU 4220-53		0.15-0.20	0.25-0.50	0.40	0.030	0.030	2.5-3.0	0.25	0.50-0.70	0.50-0.80		0.05					
579	Kh3MVF	ChMTU 4803-54	0.	0.16-0.22	0.25-0.50	0.40	0.030	0.030	2.5-3.0	0.25	0.35-0.50	0.30-0.50		0.70-0.85					
580	Kh3MVFB	ChMTU		0.16-	0.25-	0.40	0.030 (actual analysis)	0.030	2.87		0.48	9.40		0.40					Nb-0.65
580	ChKh17N16M3T	GOST 5632-61		0.08	2.0	0.20-0.80	0.030	0.030	16.0-18.0	15.0-17.0	3.0-3.5		0.3-0.5						
581																			
582				0.05-0.10	0.55-0.85	0.15-0.30			0.7-1.0	1.4-1.8	0.20-0.30								
586	35KhVYuA	GOST 4543-57		0.35-0.43	0.20-0.40	0.17-0.37	0.035	0.030	1.50-1.80			0.20-0.40			0.40-0.70				
589				0.44-0.52	6.0-9.0	0.8			11.0-1.40	7.0-9.5		3.3-4.2		2.1-2.5					Nb-1.1-1.4
590				0.34-0.42	7.0-10.0	0.7			11.5-14.5	5.5-6.5		2.80 3.4		1.55-1.8					Nb-1.0-1.4
592	1Kh16N13M3 (Kh16N13M3B) (1Kh16N13M3T)	ChMTU 5483-56		0.06-0.13	0.7	0.6			15-17	12-15	2.50-3.25		(0.5)						(Nb-1.25)

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
593	OKh23Yu5A	GOST 9232-59		0.05	0.30	0.60	0.015	0.015	21.5-23.5						4.50-5.10				
593	KhN70MVTYuB	GOST 5632-61		0.12	0.5	0.6	0.015	0.010	16.0-19.0	bal.	4.0-6.0	2.0-3.5	1.9-2.8	0.1-0.5	1.0-1.7		0.1		Fe-5 Ce-0.2 Nb-0.5-1.5
602	KhN75MBTYu	GOST 5632-61		0.10	0.40	0.80	0.020	0.012	19.0-22.0	bal.	1.80-2.30		0.35-0.75		0.35-0.75				Nb-0.90-1.30 Fe-8
603	KhNKh	GOST 5950-51		1.05-1.15	0.20-0.40	0.15-0.35			0.40-0.70										
605	OKh18N9S			0.09	0.89	1.8	(actual analysis)		18.3	9.1			0.25						
606	OKh18N9F2S OKh19N9F2S 05Kh19N9G3S2	ChMTU 3378-53		0.07	1.0-2.0	1.3-1.8	0.030	0.030	18.0-20.0	8.0-10.0				2.2-2.7					
606A				0.07	0.70	1.30-1.80	0.030	0.030	18.0-20.0	8.0-10.0				2.20-2.70					
607	KhN80TBYu			0.08	1.0	0.8	0.015	0.01	15.0-18.0	bal.			1.8-2.3		0.5-1.0				Fe-3.0 Nb-1.0-1.5
607A				0.08	1.0	0.8	0.020	0.020	15-17	bal.			1.4-1.8		0.5-1.0				Fe-3.0 Nb-1.0-1.5
608	Kh25N14S2			0.12	2.0 (estimated composition)	2.0			24-28	13-15									

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
612	Kh15N35, KhN35VT Kh15N35VT Kh15N35V3T 1Kh15N36V2T	GOST 5632-61	AISI 330Ti	0.12	1.0-2.0	0.6	0.020	0.020	14.0-16.0	34.0-38.0		2.8-3.5	1.1-1.5						
612A				0.15	(composition lies within indicated limits)				10-20	30-40			1.1 1.5						
612K				0.10	1.0-2.0	0.5	0.020	0.020	14.0-16.0	34.0-38.0		2.8-3.5	1.2-1.6						
613	Kh20N10G6T	ChMTU		0.10	6.0-8.0	0.60-1.00	0.030	0.025	18.0-22.0	8.0-10.0			0.60-0.90						
616	10KhGSMNT			0.40	1.0-1.3	0.4-0.7	0.030	0.030	0.4-0.7	1.5-2.0	0.20-0.30		0.1						
617	KhN70VMTYu			0.12	0.5	0.6	0.015	0.010	13.0-16.0	bal.	2.0-4.0	5.0-7.0	1.8-2.3	0.1-0.5	1.7-2.3		0.02		Fe-5.0 Ce-0.02
617A							(same as for EI-826)												
618	ZhS-3			0.06	0.35	0.65	0.015	0.007	19.0-22.0	bal.			2.3-2.7		0.55-0.95		0.005-0.003		Fe-1.0

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
6[illegible]6	OKh27Yu5A	GOST 5632-61		0.05	0.3	0.6		0.015	26-28	0.6					5.0-5.8				
627				(nominal composition)					30.0						5.50				
6[illegible]8	Kh23N28M2T Kh23N27M2T ([illegible])	GOST 5632-61		0.10	0.80	0.80	0.030	0.020	22.0-25.0	26.0-29.0	1.5-2.5		0.70			0.50			
629	Kh23N28M3D3			0.10	0.6	0.8	0.035	0.030	22-25	26-29	2.5-3.5					3.0-4.0			
6[illegible]		ChMTU 4881-54		0.06	0.40	0.35	0.030	0.020	0.30	30.0-32.0								4.5-6.5	
6[illegible]	N31K5, N30K4D									30-32 (nominal composition)						1.5		4-6	
636	Kh18TFM			0.12	2.0	1.0			17-20	0.50 (estimated composition)	1.0		1.0	1.0					
639			Hastelloy B				(Similar to EI-461)												
643				0.30	0.8	1.0	0.025	0.020	1.0	2.6		0.9	0.08		0.1				

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	N	Co	Others
G35	Kh17N, OKh17T	GOST 5632-51		0.08	0.70	0.80	0.035	0.035	16-18				5% to 0.8% max						
G37	OKh18N9S2			0.06	1.00-2.00	2.0-2.75	0.030	0.020	18.0-20.0	8.0-10.0									
G39	OKh18N9FBS Kh18N9F2SB	GOST 3211-52		0.07	1.0-2.0	1.3-1.8			18.0-20.0	8.0-10.0				1.3-1.8					Nb-1.0-1.2
G70								(same as for EI-437B)											
G52	KhN70Yu	GOST 5632-61	Inconel 702	0.10	0.3	0.8	0.02	0.02	26-29	bal.					2.6-3.5				Fe-1 Ce-0.03 Pb-0.01
G54																			
G57	Kh28AN (similar Kh28FN to EI-457)	GOST 5632-61		0.15	1.50	1.00	0.035	0.025	25.0-28.0	1.00-1.70									N-0.18-0.25

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
659	23Kh2NTA			0.19-0.25	0.30-0.70	0.17-0.37			1.6-2.4	0.8-1.2		1.0-1.4		0.15-0.23					
661				0.95-1.05					3.8-4.2		1.0-1.2	17-19		2.0-2.5				7.5-8.5	
662		ChMTU 4910-54		0.06-0.13	1.0-1.7	0.30	0.030	0.020	16.0-18.0	12.5-14.5	1.8-2.3	0.80-1.20						2.8-3.2	
673				0.13	1.0	0.5		(Nominal composition)	19.5	20.0	3.2	2.5						19	Nb-1.2
680	1Kh16N13M2B							(same as EI-405)											
681	13G2Kh	ChMTU 3626-53		0.15	1.6-1.9	0.12	0.030	0.030	1.2-1.5										
683		ChMTU 3626-53		0.10	1.6-1.9	0.12	0.030	0.030			0.40-0.50								

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
691		ChMTU 4176-53		0.06	1.0	0.60	0.030	0.020	17.-0 19.0	10.0-12.0									
692		MPTU 4270-53		0.06-0.13	1.0-1.7	0.30	0.030	0.020	16.5-18.5	12.5-14.0	2.1-2.6								
693	38KhNV	MPTU 4272-53		0.35-0.42	0.30-0.60	0.17-0.37	0.040	0.040	1.25-1.65	1.35-1.75		0.60-0.90							
	Khl5N35VMT------ KhN35VMT (Khl5N35V2MBTR)	GOST 5632-51		0.12	1.0	0.6	0.020	0.020	12.0-16.0	32.0-36.0	2.0-3.0	2.3-3.3	1.1-1.5				0.020		Ce-0.25
	(Khl5N35VMT2) (Khl5N35V3T)- (same as EI-612)												2%						
692	(Khl5N35V3B) (Khl5N35VBT)												0%						(Nb-1) (Nb-1%)
	(Khl5N35VMK5) (Khl5N35VMK10)												2% 2%					5-6% 9-10%	
693	N48Kh	ChMTU 5019-55		0.05	0.30-0.70	0.15-0.40	0.030	0.020	0.70-1.10	48.0-49.5						0.15			Fe-bal.
694	Khl4N16B 1Khl3N16B	ChMTU 2966-51		0.07-0.12	1.0-2.0	0.60	0.035	0.025	13.0-15.0	14.0-17.0									Nb-0.9-1.3
695	1Khl3N18V2B Khl4N18V2B	ChMTU 2966-51		0.07-0.12	1.0-2.0	0.60	0.035	0.025	13.0-15.0	18.0-20.0		2.0-2.75							Nb-0.9-1.3
695R	1Khl3N18V2BR Khl4N18V2BR Khl4N18V3BR	GOST 5632-61		0.07 0.12	1.0-2.0	0.60	0.035	0.020	13.0-15.0	18.0-20.0		2.0-2.75					0.005		Nb-0.9-1.3

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
[illegible]	Kh10N20M2R Kh12N20T3R	GOST 5632-61		0.10	1.0	1.0			10.0-12.5	18.0-21.5			2.6-3.2		0.8		0.003 0.02		
6[illegible]		GOST 5632-61		0.10	1.0	1.0			10.0-12.5	18.0-21.0			2.3-2.8		0.5		0.003		
6[illegible]	Kh12N20T3MR	GOST 5632-61		0.10	0.6	0.6			10.0-12.5	21.0-25.0	1.0-1.6		2.2-2.6		0.8		0.008 0.02		
701				0.70	1.55	0.30	0.03	0.021 (actual analysis)	2.75			9.2		0.50					
702	N36KhTYu, 36NKhTYu			0.05	0.8-1.2	0.5			11-13	34-36			2.8-3.2		0.6-0.8				
703	KhN38VT Kh22N38V3T	GOST 5632-61		0.06-0.12	0.70	0.80	0.030	0.020	20.0-23.0	35.0-39.0		2.80-3.50	0.70-1.20		0.50				
705	R9K5	GOST 9373-60		0.80-0.90	0.40	0.40	0.030	0.030	3.80-4.40	0.40		9.0-10.5		1.60-2.00				5.0-6.0	
706	R9F5	GOST 9373-60		1.4-1.5	0.40	0.40	0.035	0.035	3.80-4.40	0.40	0.30	9.0-10.0		4.4-5.0					
711	Kh14G14N3T 1Kh14N3G13T	GOST 5632-61		0.10	13-15	0.80	0.035	0.025	13-15	2.5-3.5	5xC -0.2 0.6max								Nb-0.60-0.90

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
722	12Kh2NVFA			0.09-0.16	0.3-0.70	0.17-0.37			1.9-2.40	0.8-1.20	0.15-0.25	1.0-1.40		0.18-0.28					
723				0.07	0.57	0.46	(actual analysis)		14.95	16.45	0.8	2.63					0.01		Nb-0.86
724				0.06	0.55	0.46	(actual analysis)		15.58	16.45	0.75	2.60							Nb-0.83 N-0.1
718				0.06	1.56	0.47	(actual analysis)		18.0	13.1	0.68		0.58	0.51			0.01		
722	70S3KhMVA			0.71	0.51	2.49	0.018 (actual analysis)	0.02	0.62		0.2	0.6							
723	25Kh2MLF, TsZh-4 25Kh2MFA, 25KhMF	ChMTU 5664-56		0.22-0.30	0.50-0.80	0.17-0.37	0.030	0.030	2.1-2.5		0.90-1.1			0.30-0.60					
723	25KhMFB			0.22-0.30	0.50-0.80	0.17-0.37	0.030	0.030	2.1-2.5		0.90-1.1			0.3-0.5					Nb-0.5-0.8
724	1Kh16N13B Kh16N13V	ChMTU 2884		0.07-0.12	0.8-1.5	0.7	0.035	0.035	15.0-17.0	12.5-14.5									Nb-10xC to 1.4% max
725	Kh15N35V5T------ KhN35VT	GOST 5632-61		0.10	1.0	0.6		14.0-16.0	35.0-38.0		4.0-5.0	1.1-1.5							Ce-0.02 (0.005B)
	(Kh15N35V5TR) (KhN35VTR)																		
725A							(same as EI-164)												

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
728	1Kh13N18V2BR Kh14N18V3BR			0.08-0.12	1.0-2.0	0.6	0.020	0.025	13-15	18-20		2.0-2.75					0.02		Nb-0.9-1.3 Ce-0.2
729				0.18-0.23	17.0-20.0	0.8	0.1	0.03	12.0-14.0	0.5				0.5-0.8					
732	OKh20N14S2	GOST 5632-61		0.08	1.50	2.00-3.00	0 035	0.025	19.0-22.0	12.0-15.0									
734		GOST 5632-61		0.34-0.40	7.0-9.0	0.3-0.8			11.5-13.5	4.5-6.5	1.1-1.4			1.25-1.55			0.008		
736	13Kh14NVFRA	ChMTU 5319-57		0.10-0.16	0.6	0.6	0.030	0.030	13-16	2.8-3.4		1.6-2.2	0.05	0.18-0.28					
736	13Kh14N2VFR	C MTU 5319-57		0.10-0.16	0.6	0.6	0.030	0.030	13-16	1.9-		1.8-2.4					0.005		
743								(same as EI-381)											

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
787				0.17	0.48	0.19	0.028	0.028	12.4 (actual analysis)	0.60	1.08			0.27					
788				0.18	0.50	0.16	0.018	0.010	12.3	0.68		0.98		0.27					
789				0.17					12.0 (nominal composition)	0.65									Zr-0.6
793	40KhNR	ChMTU 5635-56		0.35-0.42	0.6-0.9	0.17-0.37	0.040	0.040	0.6-0.9	0.4-0.8							0.002-0.005		
794				0.09	0.79	0.20	0.023	0.016	10.78 (actual analysis)	0.20	0.73			0.21					Nb-0.25
795	Kh11V1		AISI 422	0.13	0.79	0.38	0.012	0.018	10.85 (actual analysis)	0.31	0.73	2.05		0.09					Nb-0.37
796	1Kh12V2MF	GOST 5632-61		0.10-0.17	0.50-0.80	0.50	0.030	0.025	11.0-13.0		0.60-0.90	1.70-2.20		0.15-0.30					
797	1Kh12V4MF	GOST 563261	AISI 422	0.10-0.15	0.60-0.80	0.20-0.35	0.030	0.030	10.5-12.5		0.60-0.80	3.7-4.2		0.20-0.30					
765 765	KhN70V[illegible]F Kh15N70V5M4Yu2TR			0.11 0.9					14.6 14.5 (actual analysis)	bal. bal.	4.17 4.2	5.05 5.2	1.22 1.3		1.85 1.94		0.009		Fe-0.76
766A				0.15					10-25 (nominal composition)	60			1-3		4-6				

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
772	Kh13N16V (Kh13N16VR			0.07-0.12	1.0-2.0	0.6	0.030	0.025	13.0-15.0	14.0-17.0			0.6-1.0				(0.10)		Ce-0.020
773	Kh13N18V2R Kh13N18V2TR			0.07-0.12	1.0-2.0	0.6	0.030	0.025	13.0-15.0	18.0-20.0		2.0-2.75	0.6-1.0				0.002		Ce-0.020
775	1Kh16N13B Kh16N13B			0.07-0.12	0.8-1.7				15-17	12-14									Nb-10xC up to 1.25%
783				0.05	0.77	0.24		(actual analysis)	8.95	2.34	1.65		0.37	0.59					
786	OKh14N28V3T3YuR Kh14N25V3T3YuR	GOST 5632-61		0.08	0.60	0.60			13-15	26-29		2.8-3.5	2.4-3.2		0.5-1.00		0.20		
787	KhN35VTYu Kh15N35V3T3YuR OKh15N35V3T3YuR	GOST 5632-61		0.08.	0.60	0.60	0.020	0.012	12.0-16.0	33.0-37.0		2.80-3.50	2.40-3.20		0.70-1.40		0.020		
790				0.94-1.04	0.50	0.90			(nominal composition)										
793	1Kh18N9TYu	ChMTU 5257-55		0.09	2.0	0.8	0.03	0.03	17-20	8-11			1.1-1.3		0.6-0.8				

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
799	OS[illegible]1VF			0.10	2.0	1.0	0.03 (estimated	0.03	10-12 composition)			1-2	0.5						
800				0.1-0.17	0.8-1.3	0.5			10-12	0.5-1.0	0.6-0.8			0.2-0.4					Nb-0.4-0.7
800A																			
801	25Kh11M3F																		
802	1Kh12VNMF	GOST 5632-61		0.12-0.18	0.5-0.9	0.4			11.0-13.0	0.4-0.8	0.5-0.7	0.7-		0.15-0.30					
802	15Kh12VNF	MPTU 4909-54		0.11-0.18	0.6-1.0	0.4	0.030	0.030	11.0-13.0	0.5-1.0	0.4-0.6	0.7-1.0		0.15-0.30					
808	Kh6VF			1.0-1.15	0.45	0.35			5.5-7.0			1.1 1.15		0.5-0.7					
811	1Kh21N5T Kh22N5T 1Kh21N5B	GOST 5632-61		0.09-0.14	0.80	0.80	0.03	0.025	20-22	4.8-5.8			5xC--0.02 to 0.6max						Nb-5xC 0.02 to 0.03 max
812																			
813	1Kh25N25TR Kh25N25TR Kh24N25T	GOST 5632-61		0.07-0.12	1.00-2.00	0.80-	0.03	0.020	23.0-26.0	24.0-27.0			1.10-1.60				0.010		

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
825				0.85-0.95	0.35-	0.70-0.90			7.00-9.00	0.30		2.00-2.50		2.40 2.80					
826		GOST 5632-61		0.12	0.5	0.6	0.015	0.09	13.0-16.0	bal.	2.5-4.0	5.0-7.0	1.7-2.2		2.4-2.9		0.015		Fe-5.0 Co-0.02
827			Nimonic	0.02		0.14			9.6 (actual analysis)	bal.	9.6								Fe-1.37
828	(Nickel-base alloy)																		
835	Kh25N16G7AR	GOST 5632-61		0.12	5.00-7.00	1.00	0.035	0.020	23.0-26.0	15.0-18.0							0.020		N-0.3-0.45
839				0.40-0.50	16-18	0.30-0.70	0.06	0.03	0.50	0.50					2.40-3.50				
842	OOKh15N10	GOST		0.09	0.60	0.80			17-19	9-11									
846	(stainless)			0.2-0.3													0.1-0.8		

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
847	Kh16N15V3B Kh16N15V3B	GOST 5632-61		0.09	0.60	0.80	0.035	0.020	15.0-17.0	14.0-16.0	2.50-3.00								Nb-0.06-0.09
851	1Kh14N19V3B			0.12	0.8	0.8			15.0	20.0									Nb-1.30 N-0.07
852	(stainless)																		
853	Kh16G2M2			0.12	2.0	3.0	0.03	0.03	15-17 (estimated		1 composition)								Nb-2
854	Cr-Ni austenitic																		
859	Kh16N25M6A	ChMTU 5595-56		0.12	0.8-1.0	0.4	0.03	0.03	14-16	24-26	5-6								
867		GOST 5632-61		0.1	0.3	0.6			8.5-10.5	bal.	9-11.5	4-6		4.2-4.9			0.02	4-6	Fe-4.0 Ce-0.02
868	Kh13N14GS4B			0.10	0.50	0.80	0.013	0.013	23.5-26.5	bal.		13.0-16.0	0.30-0.70		0.50				Fe-4%
869				0.8	1.0	0.8	0.020	0.020	14-17	bal.			1.5-1.9		1.1-1.4		0.005	Zr 0.003	Fe-3.0 Nb-1.0-1.5

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
873				0.06	0.91	0.32	0.02	0.016	16.73 (actual analysis)	bal.			1.85		0.88				1.0-2.45
870	Kh17N4A9 Kh17G9A[illegible]	GOST 5632-61		0.12	8.0-10.5	0.8-	0.035	0.020	16-18	3.5-4.5									N-0.15-0.25
883	Kh13N[illegible]GSkB			0.12	2.0	3-5	0.03	0.03	12-14 (estimated	13-15 composition)									Nb-1
893																			
894		GOST 5632-61		0.1	0.8	1.0	0.03	0.03	21-24	bal.	0.6-1.2	4.5-6.5	0.8-1.2		2.3-3.0				Fe-10
898				0.05-0.10	1.8-2.2	0.20-0.45			18.5-20.5	8-10				1.3-1.8					Nb-1.0-1.4
902	Kh19N10M3B			0.10	1.0-2.0	0.6			18-20	9-11	2.0-3.0								Nb-0.9-1.3
903				0.30-0.40	16.0 18.0	0.50	0.030	0.030	0.60	0.50					4.75-5.50				

FT No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
904	Kh15N9Yu (SN-2)	GOST 5632-61		0.09	0.80	0.80	0.035	0.025	14-16	7-9.4					0.70-1.30				
905	08Kh25N5TGLF			0.07	0.40	0.33	0.007	0.009	24.2 (actual analysis)	4.92	0.11		0.10	0.11					N-0.20
906	Heating-resisting, High-carbon SS																		
907	" " "																		
908	" " "																		
909	20KhlUMLFl			0.18-0.25	0.25-0.50	0.15-0.35			1.0-1.3	0.4	0.8-1.2			0.7-0.9					V/C=2.7-5.0
913				0.10-0.15	0.4-0.7	0.15-0.35	0.03	0.03	1.7-2.2	0.3	0.4-0.6		0.05-0.10	0.20-0.35					
914	OKh18N10T	GOST 5632-61		0.08	1-2	0.80			17-19	9-11			0.50-0.60						
915	R14F4	GOST 5952-60		1.2-1.3	0.4	0.4	0.03	0.03	4.0-4.6	0.4-	0.3	13.0-14.5		3.5-4.1					
916	R18F2, R18F	GOST 5952-51		0.85-0.95					3.8-4.4			17.5-19.0		1.8-2.2					
917	R18F2M	GOST 9373-60		0.85-0.95	0.4	0.4	0.03	0.03	3.8-4.4	0.4	0.5-0.7	17.5-19.0		1.8-2.2					
918	R24F			0.85-0.95					4.0-4.6		0.4	22.0-24.0		1.8-2.2					

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
919	R9K10	GOST 9573-60		0.8-0.9	0.4	0.4	0.03	0.03	3.8-4.4	0.4	0.3	9.0-10.5		1.6-2.2				9.5-10.5	
920	R9K10F			0.9-1.0					3.8-4.4			9.0-10.5		2.2-2.6				9.5-10.5	-
9[illegible]				0.45	14.12	2.4	0.040	0.011	17.3		-		0.48						
925	Kh17N5M3 (SN-3)		AM 350	0.06-0.10	0.7	0.7	0.035	0.020	16-17.5	4.5-5.5	3.0-3.5								
926	(Beryllium steel)																		
929	VZh 36-300	GOST 5632-61		0.12	0.5	0.5			9-12	Bal.	4-6	4.5-6.5	1.4-2.0	0.2-0.8	3.6-4.5		0.02	12-16	Fe-5 Pa-0.1
931	R10K5F5, R10F5K5	GOST 5952-51		1.45-1.55	0.4	0.4	0.03	0.03	4.0-4.6	0.4	0.3	10-0-11.5		4.4-5.0				5.5-6.5	
937				0.47-0.55	0.2	0.2	0.04	0.04	0.15	0.25			0.1-0.2						

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
940	Kh8[illegible]52	GOST 5952-51		0.8-0.9	0.4	0.4	0.03	0.03	3.8-4.4	0.4	0.3	17.5-19.0		2.0-2.5				5.0-5.5	
943	OKh[illegible]27M3D3T OKh23[illegible]M3D3T [illegible]	GOST 5632-61		0.06	0.80	0.80	0.035	0.020	22-25	26-29			0.4-0.7			2.5-3.5			
944																			
945	(Dio steel)																		
946	25Kh18N3V2	ChMTU 533-61		0.21-0.28	0.7	0.3-0.8	0.030	0.030	17.0-19.0	7.5-8.5		2.0-2.5							
952	15Kh12VMF	GOST 5632-61		0.11-0.18	0.6-1.0	0.40	0.030	0.030	11.0-13.0	0.5-1.0	0.4-1.6	0.7-1.0		0.15-0.30					
953	KhNTF			0.09	0.79	0.024	0.016	18.75 (actual analysis)	11.0				1.05		1.05				
954	Kh25N5TMF			0.09	0.44	0.63	0.028	0.024	24.3	5.35	0.10		0.10	0.11					N-0.044
956	4Kh4VFM			0.35-0.45	0.20-0.40	0.6-1.0	0.03	0.03	4.0-5.0		0.40-0.60	3.5-4.5		0.30-0.60					

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	V	Ti	V	Al	Cu	B	Co	Others
959	40[illegible]2MS	ChMTU 91-53		0.35-0.45	0.35	0.8-1.2	0.03	0.03	4.5-5.5	0.3		1.6-2.4		0.03					
959	4[illegible]5M	ChMTU 91-58		0.35-0.45	0.35	0.5			2-3	0.3	0.4-0.6	4.5-5.5		0.8-1.2					
961	1[illegible] 13[illegible]2NVFA	GOST 5632-61		0.10-0.16	0.60	0.60	0.030	0.025	10.5-12.0	1.5-1.8	0.35-0.60	1.60 2.00		0.18-0.30					
962	10Kh12N2VMF 10Kh12NVMF			0.09 0.13	0.6	0.6	0.03	0.025	10.5-12.0	1.4-1.8	0.35-0.50	1.50-2.0		0.19-0.30			0.004		
962A	15Kh12NMVFA																		
971	95KhGSVF			0.95-1.02	0.7-1.0	0.7-1.0			0.7-1.0			0.8-1.0							
973	Kh17N7Yu	GOST 5632-61		0.09	0.80	0.80	0.035	0.025	16-18	6.50-7.50					0.80-1.30				

EI No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
992																			
993	Kh12VMBR 2Kh12VMB[illegible]	GOST 5632-61	AISI 422	0.12-0.22	0.25-0.50	0.25-0.30	0.025	0.025	11-13		0.4-0.6	0.4-0.7		0.15-0.35			0.003		[illegible]-0.2-0.4
994				0.1					5.2 (actual analysis)		0.75	1.0		0.3					
995	(Nickel-base alloy)									bal.									Be-1.9-2.5

BOVIET "EP" SHEETS AND ALLOYS

EP No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
17	1Kh12N4V2MR	GOST 5632-61		0.07 0.12	1.0-2.0	0.6	0.03	0.03	15.0-18.0	13.0-15.0		2.0-2.75					0.01		Nb-0.9-1.3 Ce-0.020
19	Kh21AN3																		
20	Kh22N5AG9			0.05-0.09	8.0-10.0	0.8	0.035	0.030	21.0-23.0	4.5-5.5									N-0.35 0.45
21																			
26	1Kh18N2AG5			0.01	4-6	0.8	0.035	0.030	17-20	1.5-2.5									
27																			
33						(same	as EI-696M)												
38	Kh12N22T3MR	GOST 5632-61		0.10	0.60	0.60	0.020	0.010	10.0-12.5	21.0-25.0	1.00-1.60		2.60-3.20		0.80		0.02		
39																			

TP No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
44	25Kh[illegible]R			0.20-0.30	0.5 0.8				1.0-1.5	0.5		0.8-1.1			0.7-1.0		0.005		Nb-0.1-0.2
45	1Kh14N18V2B2																		
46	2Kh14N16V2																		
48		ChMTU 358-60		0.40-0.50	0.9-1.20	1.0-1.3			22.0-24.0	4.5-5.5	2.5-3.0								
51				0.05	0.8-1.2	0.5			11.5-13.5	34.5-36.5	4.5-6.0		2.8-3.2		0.9-1.2				
52				0.05	0.8-1.2	0.5			11.5-13.5	34.5-36.5	7.5-8.5		2.8-3.2		0.9-1.2				
53	0Kh21N5T	GOST 5632-61		0.08	0.80	0.80	0.035	0.025	20-22	4.8-5.8			0.3-0.6						
54	0Kh21N6M2T	GOST 5632-61		0.08	0.80	0.80	0.035	0.025	20-22	5.5-6.5	1.8-2.5		0.2-0.5						
55	0Kh17N5G9AB	GOST 5632-61		0.08	13.5-15.5	0.6			16-18	4.5-5.5									Nb-0.8
56	10Kh16N4BA																		

EP No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
75	2Kh13NV2F 23Kh13NVMFA	ChMTU 456-61		0.2	2.0	1.0	0.03	0.03 (estimated	12-14 composition)	1-2	1	1		0.5					
79	Kh25N12T			0.12	2.0	1.0	0.3	0.3	24-26	11-13			0.5						
81	4Kh4V3F			0.35-0.45	0.8-1.2	0.7-1.0	0.04	3.6-4.1	0.3		2.5-3.0		0.2-0.4						
87	06Kh25N12TYu Kh25N12TYu	ChMTU 168-59		0.07	0.8	0.6-1.0	0.03	0.03	24-26	11-13			0.6-0.9		0.4-0.8				
88	08Kh15N23G7V7M2	ChMTU		0.10	6-8	0.35	0.03	0.03	14-16	22-25	2-3	7-8							
89	05Kh20N11M3TB Kh19N10M3TB	ChMTU 170-59	AISI 318	0.07	0.8	0.5-1.0	0.03	0.03	19-21	10-11	2.5-3.5		0.06-0.09						Nb-0.5-0.9
105		GOST 5632-61		0.1	0.6	0.6			12.0-15.0	33.0-37.0	3.0-3.8		2.0-2.6		2.4-3.2		0.01		Ce-0.1

EP No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	V	Ti	V	Al	Cu	B	Co	Others
166	Kh20N25V5M3ER (VZE-100)			0.1	1.5	0.6			19-22	25-30	2.8-3.5	4.8-6.0					0.005		N-0.15-0.3 Nb-0.7-1.3
167	20Kh22N15G7TA	ChMTU 275-60		0.18-0.25	6-8	0.35	0.025	0.025	19-22	14-16			0.6-1.0						N-0.25-0.45
168	08Kh20N10S2BIYu	ChMTU 276-60		0.10	1.0-2.0	2.0-2.5	0.03	0.03	19-21	8-10			0.5-1.0		0.3-0.7				Nb-10.6-1.0
163	08Kh15N30G7V3T			0.08	6-8	1.0	0.03	0.02	14-16	29-31	(estimated composition)	2-4	0.5						
164	Kh25N24V4T							(same as EI-725A)											
168	(Austenitic)																0.37		
169																	0.53		
170																	0.69		

EP No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unle[illegible] given [illegible])															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al		B	Co	Others
[illegible]																	0.36		
[illegible]		ChMTU 320-60		0.11 0.17	0.65- 0.95	0.40- 0.80			1.3- 1.7	1.6- 2.0	0.20- 0.35	0.60- 1.0							
188	20ChN3MFTR			0.17- 0.24	0.50	0.35			0.9- 1.4	0.5			0.05- 0.12	0.7- 1.1					B-0.005
199	(Nickel-base alloy)																		
200	[illegible]											6-7							
202	(same as EI-445R)																		
207			Permendur 2-V	0.03	0.20	0.10	0.015	0.010 (approximate composition)		0.20				1.8				50	

EP No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)														
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
232	Kh14G14N	GaMTU 444-61		0.12	13.0-15.0	0.80	0.035	0.020	13.0-15.0	1.0-1.5									
233	Kh17AG14	GOST 5632-61		0.15	13.5-15.5	0.80	0.035	0.020	16.0-18.0	0.60									N-0.30-0.40
234	Kh21N3T EKh21N3T			0.06	1.6	0.45			21.0 (actual analysis)	3.4			0.26						
235	Kh15N5D2T																		
239	Kh17G21N15T			0.1	20.0-22.0	0.8	0.045	0.03	16.0-18.0	14.0-16.0			0.35-0.70						
234	06Kh14N19G8V6M3B	ChMTU 399-61																	
235	06Kh15N30G8V7M3T	ChMTU 400-61		0.08	7.0-8.5	0.35			14-16	34-36	3.0-4.0	7.5-8.5	1.3-1.8						
236	06Kh14N19G8V6M3T Yu	ChMTU 401-61																	

EP No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
245	(similar to EP-317)	ChMTU [illegible] 801-62																	Ferro-Ce 0.30-0.45
257																			
263				0.10	0.4-0.6	0.2-0.8	0.02	0.035	30-33	7-9					0.15				
278								(Equivalent to EI-835)											
283	Kh16[illegible]			0.05-0.09	1.0	0.7	0.035	0.02	15.5-17.5	5-8									
302	Kh1[illegible]					(Similar to [illegible]--chromium replaced by silicon)													

EP No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)														
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
311	VNS-6																		
317	[illegible] to EP-245	ChMTU/TsNIIChermet 639-62																	Ce-0.8
342	EK43										3	6		2					
367	Kh15N65M15																		
379	Kh15N55M16V		HastelloyC	0.08	0.2	1.0	0.02	0.02	14.5-16.5	Bal.	15-17	3-4.5		0.35				2.5	Fe-7
376	OKh16N15M3B																		

MP No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
300	[illegible]	ChMTU 846-63																	
381	[illegible]	ChMTU 847-63																	
383	08Kh15N30G6V3BR	ChMTU 668-62																	
389	Kh25N12BRYu																		
398	Kh17G9AN5MA																0.4-0.6		
400																			
435																			

MT No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
459		ChMTU/ TsNIIChM 850-63																	
463	Sv-04N3M	ChMTU/ TsNIIChM 852-63																	
467	Kh15N25V5T2R																		
495	N70M27		Hastelloy B	0.03	0.5	1.0				Bal	25-29								Fe-1.5
495	N70M27F			0.05	0.5	0.5				Bal	25-29			1.4-1.7					Fe-4.0
531	Kh16N25M2R																		

SOVIET "EKa" S[illegible]

Type No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
0	[illegible] OKh18N10	GOST 5632-61	AISI 304	0.07	2.0	0.8	0.035	0.030	16.0-19.0	9.0-11.0									
1	1Kh18N9 Kh18N9	GOST 5632-61	AISI 302	0.14	2.0	0.8	0.035	0.030	17.0-20.0	8.0-11.0									
1T	1Kh18N9T 1Kh18N10T	GOST 5632-61	AISI 321	0.12	2.0	0.8	0.035	0.030	17.0-20.0	8.0-9.5			0.5-0.7						
2	2Kh18N9	GOST 5632-61		0.13-0.21	2.0	0.8	0.035	0.030	17.0-20.0-	9.0-11.0									
3S	Kh18N25S2 4Kh18N25S2	GOST 5632-61		0.32-0.40	1.50	2.00-3.00	0.035	0.020	17.0-19.0	23.0-26.0									

Alloy No.	Alloy Designation	Specification	Nearest Equivalent	Chemical Composition, percent (maximum unless given as range)															
				C	Mn	Si	P	S	Cr	Ni	Mo	W	Ti	V	Al	Cu	B	Co	Others
1	1Kh13	GOST 5632-61		0.09-0.15	0.60	0.60	0.030	0.025	12-14										
2	2Kh13	GOST 5632-61		0.16-0.24	0.60	0.60	0.030	0.025	12-14										
3	3Kh13	GOST 5632-61		0.25-0.34	0.60	0.60	0.035	0.030	12-14	0.6									
4	4Kh13	GOST 5632-61		0.35-0.45	0.60	0.60	0.035	0.030	12-14	0.6									
17	Kh17	GOST 5632-61	AISI 430	0.12	0.70	0.80	0.035	0.025	16-18	0.6									
27	Kh28							(Same as EI-349)											

CSO: 1879-D

- END -