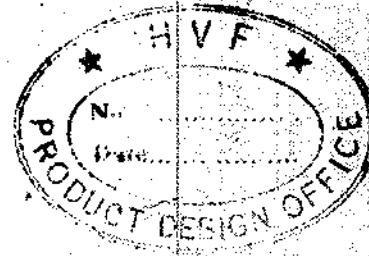


MASTER COPY

891

Issued to
CNC&V
on 5/11/93



USSR STATE STANDARD

METAL AND ALLOY CASTINGS

DIMENSIONS AND MASS TOLERANCES AND MACHINING

ALLOWANCES

GOST 26645 - 85

SA

Translated by	Authenticated by	ARMoured VEHICLE PROJECT
MANUEL		AVADI
Date	Compiled by	SPECIFICATION No.
25-11-92	P.H.RAMANATHAN D.K.SHARAN	GOST 26645 - 85
	Approved by	
	D.K.SHARAN 26/11/92	
	Page No. 1 OF 71	

(B&W)**MASTER COPY****CONTENTS**

1.	GENERAL	1
2.	TOLERANCE FOR DIMENSIONS, SHAPE, LOCATION AND IRREGULARITIES OF CASTING SURFACE.	4
3.	TOLERANCE FOR THE MASS OF CASTING	10
4.	ALLOWANCE FOR MACHINING OF CASTING	11
5.	DESIGNATION OF ACCURACY OF CASTING	36
6.	CHECKING THE ACCURACY OF CASTING	38
APPENDIX 1. CLASSES OF DIMENSIONAL ACCURACY OF CASTING		40
APPENDIX 2. DEGREE OF WARPAGE FOR THE ELEMENTS OF CASTING		44
APPENDIX 3. DEGREE OF ACCURACY FOR THE SURFACE OF COATING		45
APPENDIX 4. ROUGHNESS FOR THE SURFACE OF CASTING		49
APPENDIX 5. CLASSES OF ACCURACY FOR THE MASS OF CASTING		51
APPENDIX 6. SERIES OF ALLOWANCE FOR MACHINING OF CASTING		56
APPENDIX 7. ACCURACY OF MACHINING AND ALLOWANCES FOR CASTING		57
APPENDIX 8. COMMON TOLERANCES FOR THE ELEMENTS OF CASTING		60
APPENDIX 9. TERMS, USED IN THE PRESENT STANDARD AND THEIR DEFINITIONS.		67

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	Sheet

MASTER COPY

U S S R STATE STANDARD

METAL AND ALLOY CASTINGS. DIMENSIONS

AND MASS TOLERANCES AND MACHINING
ALLOWANCES.

GOST 26645 - 85

Date of introduction 01-07-88
For castings, released and assimilated 01-01-90
by production.

The present standard pertains to castings made from ferrous and non-ferrous metals and alloys and sets forth the tolerances for the dimensions, shape, location and surface irregularities, tolerances for mass and machining allowances.

(Amended edition, Amendment No. 1)

1. GENERAL

1.1. Nominal dimension of casting should be taken as equal to the nominal dimension of the component for the unmachined surfaces and equal to the sum of mean dimension of the component and to the total allowance for machining - for the machined surfaces.

For determination of nominal dimensions of castings, technological laps are taken into account.

1.2. Nominal mass of casting should be taken as equal to the mass of casting with the nominal dimensions.

Procedure for determination of nominal mass is specified in the branch technical documents.

AI	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET
						2

1.3. The manufacturer stipulates the technological laps and specifies them in the drawings of casting or component, indicating the dimension of casting.

1.4. Norms of accuracy are established for casting as a whole, its individual surfaces and dimensions.

1.5. Accuracy of casting as a whole is characterized by the dimensional accuracy of casting, degree of warpage, degree of accuracy of surfaces, accuracy class for mass.

Classes of dimensional accuracy for mass of casting should be strictly adhered to. Using of other indices for the accuracy of casting, and if necessary, the specific requirements for accuracy of the casted components, depending upon their purpose and operating condition, are specified in the branch standard technical documents.

1.6. Norms for accuracy of castings; classes of dimensional accuracy, degree of warpage, degree of accuracy of surfaces, classes of accuracy of mass, as well as series of tolerances for machining, for different technological processes and conditions of manufacture and machining of castings are given in Appendix 1-7.

For individual dimensions and surfaces of castings, relatively more rigid norms of accuracy, than for the casting on the whole, may be specified.

1.7. Datum surfaces (marking base) and locating point of primary machining of surfaces should be specified in the casting drawing (or in the drawing with the applied dimensions of casting).

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET
						3

1.8. Terms, used in the present standard and their definitions are given in Appendix 9.

2. TOLERANCES OF DIMENSIONS, SHAPES, LOCATION
AND IRREGULARITIES OF CASTING SURFACES

2.1. Tolerances of linear dimensions of castings changable and unchangable by machining, should correspond to those specified in Table 1.

Alt	SHEET	NO. OF DOCUMENT	SIGNATURE	DATE

GOST 26645 - 85

SHEET

4

TABLE-1

TABLE 1

No. Sheet No. of document Signature Date	Interval of nominal dimensions, mm.	Tolerances for dimensions of castings, mm, max, for accuracy class.																				
		1	2	3r	3	4	5r	5	6	7r	7	8	9r	9	10	11r	11	12	13r	13	14	15
from (a) up to above	(b)	0.06	0.08	0.10	0.12	0.15	0.20	0.24	0.32	0.40	0.50	0.64	0.8	1.0	1.2	1.5	2.0	—	—	—	—	—
4	6	0.07	0.09	0.11	0.14	0.18	0.22	0.28	0.36	0.44	0.56	0.70	0.9	1.1	1.4	1.8	2.2	2.8	4.0	5.0	5.6	7
6	10	0.08	0.10	0.12	0.16	0.20	0.24	0.32	0.40	0.50	0.64	0.80	1.0	1.2	1.6	2.0	2.4	3.2	4.0	5.0	6.4	8
10	15	0.09	0.11	0.14	0.18	0.22	0.28	0.36	0.44	0.56	0.70	0.90	1.1	1.4	1.8	2.2	2.8	3.6	4.4	5.6	7	11
15	25	0.10	0.12	0.16	0.20	0.24	0.32	0.40	0.50	0.64	0.80	1.00	1.2	1.6	2.0	2.4	3.2	4.0	5.0	6.4	8	10
25	40	0.11	0.14	0.18	0.22	0.28	0.36	0.44	0.56	0.70	0.90	1.10	1.4	1.8	2.2	2.8	3.6	4.4	5.6	7.0	9	11
40	63	0.12	0.16	0.20	0.24	0.32	0.40	0.50	0.64	0.80	1.00	1.20	1.6	2.0	2.4	3.2	4.0	5.0	6.4	8.0	10	12
63	100	0.13	0.18	0.22	0.28	0.36	0.44	0.56	0.70	0.90	1.10	1.40	1.8	2.2	2.8	3.6	4.4	5.6	7.0	9.0	11	14
100	160	0.14	0.20	0.24	0.32	0.40	0.50	0.64	0.80	1.00	1.20	1.60	2.0	2.4	3.2	4.0	5.0	6.4	8.0	10.0	12	16
160	250	—	—	0.28	0.36	0.44	0.56	0.70	0.90	1.10	1.40	1.80	2.2	2.8	3.6	4.4	5.6	7.0	9.0	11.0	14	18
250	400	—	—	0.32	0.40	0.50	0.64	0.80	1.00	1.20	1.50	2.00	2.4	3.2	4.0	5.0	6.4	8.0	10.0	12.0	16	20
400	630	—	—	—	—	0.56	0.70	0.90	1.10	1.40	1.80	2.20	2.8	3.6	4.4	5.6	7.0	9.0	11.0	14.0	16	22
630	1000	—	—	—	—	—	0.80	1.00	1.20	1.60	2.00	2.40	3.2	4.0	5.0	6.4	8.0	10.0	12.0	16.0	20	24
1000	1600	—	—	—	—	—	—	1.40	1.80	2.20	2.80	3.6	4.4	5.6	7.0	9.0	11.0	14.0	16.0	20.0	24	32
1600	2500	—	—	—	—	—	—	—	2.00	2.40	3.20	4.0	5.0	6.4	8.0	10.0	12.0	16.0	20.0	24	32	40
2500	4000	—	—	—	—	—	—	—	—	3.20	3.60	4.4	5.6	7.0	9.0	11.0	14.0	16.0	20.0	24.0	32.0	40
4000	6300	—	—	—	—	—	—	—	—	5.0	6.4	8.0	10.0	12.0	16.0	20.0	24.0	32.0	40	48	56	
6300	10000	—	—	—	—	—	—	—	—	—	8.0	10.0	12.0	16.0	20.0	24.0	32.0	40	50	64	80	
10000	—	—	—	—	—	—	—	—	—	—	12.0	16.0	20	24	32	40	50	64	80	—	—	

Slanting
For

tapered and contoured surfaces-given by co-ordinates from the same locating point or datum surface, tolerances for the highest nominal value from the dimensions may be fixed.

Tolerances of dimensions, specified in Table 1, do not take into account the tolerance of shape and location of casting surfaces, other than those specified in points 2.6 - 2.8.

2.2. Tolerances of dimensions of casting elements, formed by two-half-moulds or a halfmould and a core are specified by the corresponding class of dimensional accuracy of casting.

Tolerances of dimensions, formed by one portion of casting mould or one core, are fixed at class 1,2 more accurate.

Tolerances of dimensions, formed by three or more portions of casting mould, several moulds or movable elements of the mould, as well as tolerance for the thickness of walls, formed by two and more portions of the mould or by mould and core, are fixed at class 1,2 more coarse.

2.3. Tolerances of dimensions for castings from the initially machined surface upto the cast surface should correspond to Table 1. Classes of their accuracy and designation in the drawings are specified by the standard-technical documents.

2.4. Tolerances of angular dimension while converting to linear dimensions should not exceed the values, specified in Table 1 for the linear dimensions of corresponding accuracy classes.

2.5. Tolerances for shape and location of surfaces of castings

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE

GOST 26645 - 85

SHEET

6

(deviation from rectilineal flatness, parallelism, squareness, of the given profile) in the diametrical expression should correspond to those specified in Table 2.

Tolerances for shape and location given in Table 2, do not take into account the drafts, designated in compliance with GOST 3212-80 and tolerances as per points 2.6, 2.7.

2.6. Tolerances of roundness, alignment, symmetry intersection and axes, positional tolerances in the diametrical expression should not exceed the tolerances for the dimensions, specified in Table 1.

2.7. Tolerance for shift of casting along the parting plane in diametrical expression is specified as per Table 1 on the level of class of dimensional accuracy of casting as per the nominal dimension of the relatively thin casting from the walls, going out to the joint or crossing it.

2.8. Tolerance for shift, caused by skewness of core, is specified in the diametrical expression as per Table 1 for accuracy class 1, 2 of the dimensional accuracy of casting, as per the nominal dimension of the relatively thin casting from the walls, shaped with the core.

2.9. Common tolerances for the elements of castings considering the combined influence of the tolerance of dimension from the surface upto the base and tolerances for shape and location of surface, are given in Table 16, Appendix 8.

2.10. Tolerances for the irregularities of the surfaces of

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SEET
						7

castings should correspond to those specified in Table 3.

2.11. For the machined surfaces of castings, symmetrical location of tolerance zones are specified; for the unmachined surfaces, symmetric and non-symmetric (partial and full) location of tolerance zones of dimensions, shape and location are specified;

Symmetrical location of tolerance zones for the irregularities of surfaces of castings is specified.



Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE

GOST 26645 - 85

SHEET

8

TABLE-2

Nominal dimension of section of casting being standardized, mm.	Tolerance of mould and location of casting elements, mm. max. for degrees of warpage for the casting elements.										
	1	2	3	4	5	6	7	8	9	10	11
from above upto											
Ca. 125 > 160	0.12	0.16	0.20	0.24	0.32	0.40	0.50	0.64	0.80	1.00	1.20
> 160 > 200	0.16	0.20	0.24	0.32	0.40	0.50	0.64	0.80	1.00	1.20	1.50
> 200 > 250	0.20	0.24	0.32	0.40	0.50	0.64	0.80	1.00	1.20	1.50	2.00
> 250 > 315	0.24	0.32	0.40	0.50	0.64	0.80	1.00	1.20	1.50	2.00	2.40
> 315 > 400	0.32	0.40	0.50	0.64	0.80	1.00	1.20	1.50	2.00	2.40	3.20
> 400 > 500	0.40	0.50	0.64	0.80	1.00	1.20	1.50	2.00	2.40	3.20	4.00
> 500 > 630	0.50	0.64	0.80	1.00	1.20	1.50	2.00	2.40	3.20	4.00	5.00
> 630 > 800	0.64	0.80	1.00	1.20	1.50	2.00	2.40	3.20	4.00	5.00	6.40
> 800 > 1000	0.80	1.00	1.20	1.50	2.00	2.40	3.20	4.00	5.00	6.40	8.00
> 1000 > 1200	1.00	1.20	1.50	2.00	2.40	3.20	4.00	5.00	6.40	8.00	10.00
> 1200 > 1600	1.20	1.50	2.00	2.40	3.20	4.00	5.00	6.40	8.00	10.00	12.00
> 1600 > 2000	1.50	2.00	2.40	3.20	4.00	5.00	6.40	8.00	10.00	12.00	16.00
> 2000 > 2500	2.00	2.40	3.20	4.00	5.00	6.40	8.00	10.00	12.00	16.00	20.00
> 2500 > 3150	2.40	3.20	4.00	5.00	6.40	8.00	10.00	12.00	16.00	20.00	24.00
> 3150 > 4000	3.20	4.00	5.00	6.40	8.00	10.00	12.00	16.00	20.00	24.00	32.00
> 4000 > 5000	4.00	5.00	6.40	8.00	10.00	12.00	16.00	20.00	24.00	32.00	40.00
> 5000 > 6300	5.00	6.40	8.00	10.00	12.00	16.00	20.00	24.00	32.00	40.00	50.00
> 6300 > 8000	6.40	8.00	10.00	12.00	16.00	20.00	24.00	32.00	40.00	50.00	64.00
> 8000 > 10000	8.00	10.00	12.00	16.00	20.00	24.00	32.00	40.00	50.00	64.00	80.00
> 10000	10.00	12.00	16.00	20.00	24.00	32.00	40.00	50.00	64.00	80.00	—

Note: - For the nominal dimension of the being standardized section, for determining the tolerances, shape and location should be taken as the maximum from the dimensions of the being standardized section for the element of casting, for which deviation of shape and location of surface are specified.

9
SHEET

TABLE-3

Tolerance for unevenness of surfaces of casting, mm, max, for degrees of accuracy for surfaces of casting.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
0,05	0,05	0,08	0,10	0,12	0,16	0,20	0,24	0,32	0,40	0,50	0,64	0,80	1,0	1,2	1,6	2,0	2,4	3,2	4,0	5,0	6,4

3. TOLERANCES FOR THE MASS OF CASTINGS

- 3.1. Tolerances for the mass of castings should correspond to those specified in Table 4.
- 3.2. Symmetrical location of tolerance zone for mass relative to the rated mass is specified.

REF	26645 - 85
SHEET	10

4. ALLOWANCES FOR MACHINING OF CASTINGS.

4.1. Allowances for machining (for the side) is designated differentially for each surface of casting being-machined.

4.1.1. Minimum casting allowance for machining of casting surface is designated in compliance with Table 5 for elimination of irregularities and defects of cast surface and reducing of surface finish, when the necessity for improving of accuracy of dimensions, shape and location of surface being-machined is absent.

4.1.2. Common allowance is designated in compliance with Table 6 for the elimination of dimension errors, shape and location, irregularities and defects of the surface being machined, formed during manufacture of casting and subsequent steps of its machining, for improving the accuracy of the casting element being machined.

4.2. Total allowances are designated as per the full values of common tolerances in all instances other than those specified in points 4.2.1. and 4.2.2.

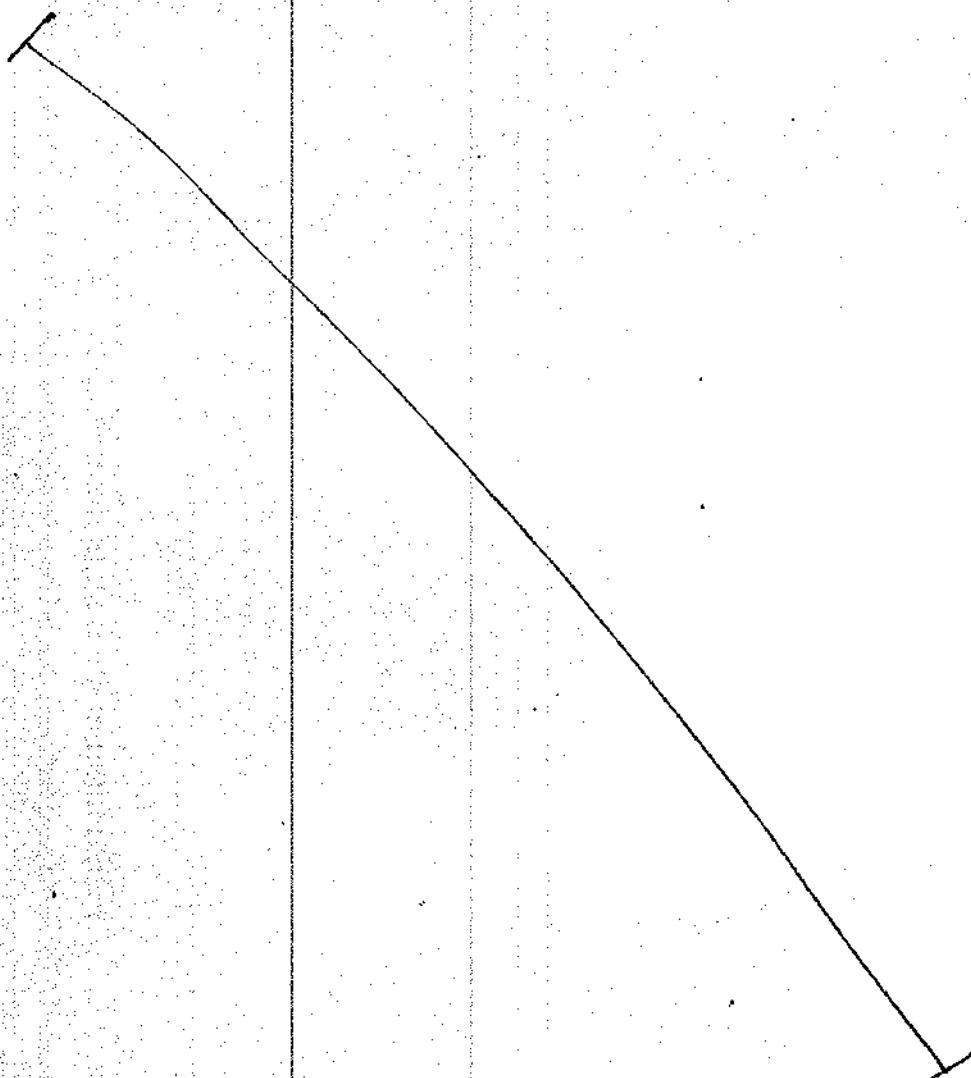
4.2.1. Common allowances for the rotation surfaces and opposite surfaces, used as mutual locating points during their machining, are designated as per the half values of common tolerances for casting for the corresponding diameters or for the distance between the opposite surfaces of casting.

4.2.2. For individual machining of castings with their mounting by adjusting the surface being-machined relative to the nominal surface, allowances are designated as per the half values of

ALF	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET
						11

tolerance of shape and location of surface being machined with one sided deviations of shape and location of surface relative to the nominal and full tolerance of shape and location with double sided deviations of shape and location of the surface-being-machined relative to the nominal surface of casting.

4.3. Common tolerance for designating the allowance is determined for the dimensions from the surface being machined to the locating point of machining in this case tolerances of dimensions of casting, changed by machining, is determined as per the nominal dimensions of the component.



1	2	3	4	5	6
AIR	SHEET	NO. OF DOCUMENT	SIGNATURE	DATE	

GOST 26645 - 85

SHEET

12

TABLE - 4

Alt. SHEET No. OF DOCUMENT SIGNATURE DATE	Rated mass of casting, kg.	Tolerance for the mass of casting, %, max. For the accuracy classes for the mass of casting.																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
	from above up to W ₀ > 10	0.1	1.6	2.0	2.4	3.2	4.0	5.0	6.4	8.0	10.0	12.0	16.0	20.0	24.0	32.0	—	—	—	
	above C ₅	0.1 > 0.4	1.2	1.6	2.0	2.4	3.2	4.0	5.0	6.4	8.0	10.0	12.0	16.0	20.0	24.0	32.0	—	—	—
	0.4 > 1.0	1.0	1.2	1.6	2.0	2.4	3.2	4.0	5.0	6.4	8.0	10.0	12.0	16.0	20.0	24.0	32.0	—	—	—
	1.0 > 4.0	1.0	1.2	1.6	2.0	2.4	3.2	4.0	5.0	6.4	8.0	10.0	12.0	16.0	20.0	24.0	32.0	—	—	—
	4.0 > 10.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10.0 > 40.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40.0 > 160.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	160.0 > 400.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	400.0 > 1000.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	1000.0 > 4000.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	4000.0 > 10000.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10000.0 > 40000.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40000.0 > 100000.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	100000.0 > —	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Note: Tolerances for the mass of castings are given in percentage from the rated mass of castings.

TABLE - 5

Series of allowance for casting.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Minimum casting allowance for the side, mm, max.	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.6	2.0	2.5	3.0	4.0	5.0	6.0	8.0	10.0

SERIAL
13

4.4. For the unstandardized requirements for accuracy of shape and location of machined surfaces of casting, common allowances are specified as per points 4.2, 4.2.1, 4.2.2 as per the tolerances of dimensions of casting from the surface being machined to the locating point of machining.

4.5. Values of total allowance for each gap of common tolerances given in different lines of Table 6 and corresponding rough, semi-finished, finished and thin machining are selected depending upon the ratio between the required accuracy for the machined surface of the component and the initial accuracy for the surface of casting, given in Table 7, for errors of dimensions and in Table 8 for errors of shape and location of surfaces of component and casting; value of allowance, corresponding to the relatively more accurate machining is taken finally.

4.6. Total allowances for castings, machined at the mean level of accuracy for machining are given in Table 6.

Based on the technical level of machining technology, increased or decreased values of allowances should be designated as per Table 15, Appendix 7.

1 SHEET
1 OF 4
GOST 26645 - 85

TABLE 6

No. Series No. of drawing No. of part	Common tolerance for the element of surface, mm	Type of finish machining	Common allowance for the side, mm, max. for the series of allowance for the casting.								
			1	2	3	4	5	6	7	8	9
	upto 0.10	Черновая Rough Полуфинишная fine Тонкая Thin	0.2	0.2	0.4	0.5	0.5	0.7	0.9	—	—
	from above: 0.10 to 0.11	Черновая Rough Полуфинишная fine Наслойка finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	upto 0.11 to 0.12	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	from above: 0.11 to 0.12	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	upto 0.12 to 0.13	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	from above: 0.12 to 0.13	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	upto 0.13 to 0.14	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	from above: 0.13 to 0.14	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	upto 0.14 to 0.15	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	from above: 0.14 to 0.15	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	upto 0.15 to 0.16	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	from above: 0.15 to 0.16	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	upto 0.16 to 0.18	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	from above: 0.16 to 0.18	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	upto 0.18 to 0.20	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
	from above: 0.18 to 0.20	Черновая Rough Полуфинишная fine Чистовая finished	0.2	0.3	0.4	0.5	0.6	0.7	0.8	—	—
6 26645 5 85		Черновая Thin	0.3	0.5	0.6	0.7	0.8	0.9	1.0	—	—
15		Тонкая Thin	0.4	0.5	0.6	0.7	0.8	0.9	1.0	—	—

Contd... table-6

No. OF DOCUMENT SHEET	SIGNATURE DATE	Common tolerance for the element of surface, mm.	Type of finish machining.	Common allowance for the side, mm. max. for the series of allowance for the casting.								
				10	11	12	13	14	15	16	17	18
		upto 0,10	Черновая Rough Чистовая finish Тонкая thin	-	-	-	-	-	-	-	-	-
		upto semi	Черновая Rough Получистовая finished Чистовая finished Тонкая thin	-	-	-	-	-	-	-	-	-
from above		Ca. 0,10 до 0,11	Черновая Rough Получистовая finished Чистовая finished Тонкая thin	-	-	-	-	-	-	-	-	-
from above		upto Ca. 0,11 до 0,12 semi	Черновая Rough Получистовая finished Чистовая finished Тонкая thin	-	-	-	-	-	-	-	-	-
from above		upto semi Ca. 0,12 до 0,14	Черновая Rough Получистовая finished Чистовая finished Тонкая thin	-	-	-	-	-	-	-	-	-
from above		upto semi Ca. 0,14 до 0,16	Черновая Rough Получистовая finished Чистовая finished Тонкая thin	-	-	-	-	-	-	-	-	-
from above		upto semi Ca. 0,16 до 0,18	Черновая Rough Получистовая finished Чистовая finished Тонкая thin	-	-	-	-	-	-	-	-	-
from above		upto semi Ca. 0,18 до 0,20	Черновая Rough Получистовая finished Чистовая thin Тонкая thin	1,8	1,9	2,1	2,1	2,1	2,1	2,1	2,1	2,1

CAST 26645-85

16

Contd... table - 6

Art. SHEET NO. OF DOCUMENT SIGNATURE DATE	Common tolerance for the element of surface, mm.	Type of finish machining	Common allowance for the side, mm, max. for the series of allowance for the casting.								
			1	2	3	4	5	6	7	8	9
	upto semi from above Ca. 0.20 до 0.22	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0.3 0.3 0.4 0.4	0.4 0.4 0.5 0.5	0.4 0.5 0.6 0.6	0.6 0.6 0.7 0.7	0.6 0.7 0.8 0.8	0.8 0.8 0.9 0.9	0.9 1.1 1.1 1.1	1.1 1.4 1.4 1.4	1.4 1.6 1.6 1.6
	upto semi from above Ca. 0.22 до 0.24	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0.3 0.3 0.4 0.4	0.4 0.4 0.5 0.5	0.5 0.5 0.6 0.6	0.6 0.7 0.7 0.7	0.7 0.8 0.8 0.8	0.8 0.8 0.9 0.9	1.0 1.1 1.1 1.2	1.1 1.4 1.4 1.5	1.4 1.6 1.6 1.7
	upto semi from above Ca. 0.24 до 0.28	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0.3 0.3 0.5 0.5	0.4 0.5 0.7 0.6	0.5 0.6 0.7 0.7	0.6 0.7 0.8 0.8	0.7 0.8 0.9 0.9	0.8 0.9 1.0 1.0	1.0 1.1 1.2 1.2	1.2 1.4 1.4 1.5	1.4 1.6 1.7 1.7
	upto semi from above Ca. 0.28 до 0.32	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0.3 0.3 0.5 0.5	0.4 0.5 0.6 0.7	0.5 0.6 0.7 0.8	0.6 0.7 0.8 0.9	0.6 0.7 0.8 0.9	0.8 0.9 1.0 1.0	1.0 1.1 1.2 1.1	1.2 1.4 1.5 1.3	1.4 1.6 1.7 1.8
	upto semi from above Ca. 0.32 до 0.36	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0.3 0.3 0.5 0.6	0.4 0.5 0.7 0.7	0.5 0.6 0.8 0.8	0.6 0.7 0.9 0.9	0.7 0.8 0.9 0.9	0.8 0.9 1.0 1.0	1.1 1.2 1.3 1.1	1.2 1.3 1.4 1.3	1.4 1.5 1.7 1.8
	upto semi from above Ca. 0.36 до 0.40	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0.4 0.4 0.6 0.6	0.5 0.6 0.7 0.8	0.6 0.7 0.8 0.8	0.7 0.8 0.9 0.9	0.8 0.9 1.0 1.0	0.9 1.0 1.1 1.1	1.1 1.2 1.3 1.1	1.3 1.4 1.5 1.4	1.5 1.6 1.7 1.8
	upto semi from above Ca. 0.40 до 0.44	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0.4 0.4 0.6 0.7	0.5 0.7 0.8 0.8	0.6 0.8 0.9 0.9	0.7 0.9 1.0 1.0	0.8 0.9 1.0 1.0	0.9 1.1 1.1 1.1	1.1 1.3 1.2 1.2	1.3 1.4 1.5 1.4	1.5 1.6 1.8 1.9

POST 26645 - 85

17
SHEET

Contd... table- 6

No.	Sheet No. of document	Signature date	Common tolerance for the element of surface, mm	Type of finish machining	Common allowance for the side, mm, max. for the series of allowance for the casting.									
					10	11	12	13	14	15	16	17	18	
			upto from above 0,20 до 0,22	semi Черновая Получистовая Чистовая Тонкая	Rough finished finished Thin	1,8 1,9 2,1 2,1	1 1 1 —	1 1 1 —	— — — —	— — — —	— — — —	— — — —	— — — —	
			upto from above 0,22 до 0,24	semi Ча. 0,22 до 0,24	Черновая Получистовая Чистовая Тонкая	Rough finished finished Thin	1,8 1,9 2,1 2,1	2,2 2,4 2,5 2,5	2,6 3,0 3,2 3,3	— — — —	— — — —	— — — —	— — — —	— — — —
			upto from above 0,24 до 0,28	semi Ча. 0,24 до 0,28	Черновая Получистовая Чистовая Тонкая	Rough finished finished Thin	1,8 2,0 2,1 2,2	2,2 2,4 2,5 2,6	2,7 3,0 3,2 3,3	— — — —	— — — —	— — — —	— — — —	— — — —
			upto from above 0,28 до 0,32	Ча. 0,28 до 0,32	Черновая Получистовая Чистовая Тонкая	Rough finished finished Thin	1,8 2,1 2,2 2,3	2,2 2,4 2,6 2,7	2,7 3,1 3,1 3,4	— — — —	— — — —	— — — —	— — — —	— — — —
			upto from above 0,32 до 0,36	Ча. 0,32 до 0,36	Черновая Получистовая Чистовая Тонкая	Rough finished finished Thin	1,9 2,1 2,3 2,3	2,3 2,5 2,7 2,7	2,7 3,1 3,3 3,4	— — — —	— — — —	— — — —	— — — —	— — — —
			upto from above 0,36 до 0,40	Ча. 0,36 до 0,40	Черновая Получистовая Чистовая Тонкая	Rough finished finished Thin	1,9 2,1 2,3 2,4	2,3 2,5 2,7 2,8	2,8 3,2 3,3 3,4	— — — —	— — — —	— — — —	— — — —	— — — —
			upto from above 0,40 до 0,44	Ча. 0,40 до 0,44	Черновая Получистовая Чистовая Тонкая	Rough finished finished Thin	1,9 2,2 2,4 2,5	2,3 2,6 2,7 2,8	2,8 3,1 3,4 3,4	— — — —	— — — —	— — — —	— — — —	— — — —

Contd. table - 6

AM. SHEET NO. OF DRAWING	DRAWING DATE	Common toler- ance for the element of surface, mm	Type of finish machining	Common allowance for the side, mm, max, for the series of allowance for the casting.								
				1	2	3	4	5	6	7	8	9
		from above upto semi Cs. 0,44 to 0,50	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0,6 0,6 0,7 0,8	0,5 0,7 0,8 0,9	0,7 0,8 0,9 1,0	0,8 0,9 1,0 1,1	0,9 1,0 1,1 1,2	1,0 1,1 1,2 1,3	1,2 1,3 1,4 1,5	1,4 1,5 1,7 1,8	1,6 1,8 1,9 2,0
		from above upto semi Cs. 0,50 to 0,56	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0,5 0,7 0,8 0,9	0,6 0,8 <br;>0.9 1.0</br;>	0,7 1.0 1.1 1.2	0,8 1.0 1.1 1.3	0,9 1.1 1.2 1.4	1.0 1.2 1.3 1.4	1.2 1.4 1.5 1.6	1.4 1.7 1.9 2.0	1.6 1.8 1.9 2.1
		from above upto semi Cs. 0,56 to 0,64	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0,5 0,8 0,9 1,0	0,7 0,9 1,0 1,1	0,8 1.0 1.1 1.2	0,9 1.1 1.2 1.3	1,0 1.2 1.3 1.4	1,1 1.3 1.4 1.5	1,3 1.5 1.6 1.7	1,5 1.8 1.9 2.0	1,7 2.0 2.1 2.2
		from above upto semi Cs. 0,64 to 0,70	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0,6 0,8 0,9 1,1	0,7 0,9 1,1 1,3	0,8 1.1 1.3 1.4	0,9 1.2 1.3 1.5	1,0 1.3 1.4 1.6	1,1 1.4 1.5 1.6	1,3 1.6 1.8 1.9	1,5 1.9 2.1 2.2	1.7 2.1 2.2 2.3
		from above upto semi Cs. 0,70 to 0,80	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0,6 0,9 1,1 1,2	0,8 1.1 1.2 1.3	0,9 1.2 1.3 1.4	1,0 1.3 1.4 1.5	1,1 1.4 1.5 1.6	1,1 1.4 1.5 1.7	1,4 1.7 1.8 1.9	1,6 2.0 2.1 2.3	1.8 2.0 2.1 2.4
		from above upto semi Cs. 0,80 to 0,90	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0,7 1,1 1,2 1,4	0,8 1.2 1.3 1.4	0,9 1.3 1.4 1.5	1,0 1.4 1.5 1.6	1,0 1.4 1.5 1.6	1,1 1.5 1.6 1.8	1,2 1.6 1.8 1.9	1,4 1.7 1.9 2.1	1,6 2.0 2.2 2.4
		from above upto semi Cs. 0,90 to 1,00	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0,8 1,2 1,3 1,5	0,9 1.3 1.4 1,6	1,0 1.4 1.5 1,7	1,1 1.5 1.6 1,8	1,2 1.6 1.7 1,9	1,3 1.7 1.8 2,0	1,5 1.9 2.0 2,2	1,7 2,1 2,3 2,5	1,9 2,4 2,5 2,7

4854-26645-85

19

Contd. table - 6.

All SHEET NO. OF DOCUMENT	Signature	DATE	Common tolerance for the element of surface, mm	Type of finish machining	Common allowance for the side, mm, max, for the series of allowance for the casting.								
					10	11	12	13	14	15	16	17	18
from above	upto semi	Ca. 0,44 до 0,50	Черновая Rough	2,0	2,4	2,8	3,4	4,4	5,3	—	—	—	—
			Получистовая finished	2,2	2,6	3,3	3,8	4,8	5,8	—	—	—	—
			Чистовая finished	2,4	2,8	3,5	3,9	5,2	6,2	—	—	—	—
			Тонкая Thin	2,5	2,9	3,6	4,1	5,3	6,3	—	—	—	—
from above	upto semi	Ca. 0,50 до 0,56	Черновая Rough	2,0	2,4	2,9	3,4	4,4	5,5	—	—	—	—
			Получистовая finished	2,2	2,7	3,3	3,8	4,9	6,8	—	—	—	—
			Чистовая finished	2,5	2,9	3,4	4,0	5,1	6,1	—	—	—	—
			Тонкая Thin	2,6	3,0	3,6	4,3	5,5	6,3	—	—	—	—
from above	upto semi	Ca. 0,56 до 0,64	Черновая Rough	2,1	2,4	2,9	3,5	4,4	5,5	6,6	—	—	—
			Получистовая finished	2,4	2,8	3,4	3,9	5,0	6,0	7,1	—	—	—
			Чистовая finished	2,6	3,0	3,6	4,1	5,3	6,3	7,3	—	—	—
			Тонкая Thin	2,7	3,1	3,8	4,3	5,4	6,5	7,6	—	—	—
from above	upto semi	Ca. 0,64 до 0,70	Черновая Rough	2,1	2,5	3,0	3,4	4,5	5,4	6,5	8,5	—	—
			Получистовая finished	2,4	2,8	3,5	3,9	5,0	6,0	7,1	9,3	—	—
			Чистовая finished	2,6	3,1	3,6	4,1	5,3	6,3	7,5	9,8	—	—
			Тонкая Thin	2,8	3,1	3,9	4,4	5,6	6,6	7,8	9,8	—	—
from above	upto semi	Ca. 0,70 до 0,80	Черновая Rough	2,2	2,6	3,1	3,6	4,6	5,6	6,5	8,5	—	—
			Получистовая finished	2,5	2,9	3,6	4,0	5,2	6,2	7,3	9,3	—	—
			Чистовая finished	2,8	3,1	3,8	4,3	5,4	6,5	7,5	9,8	—	—
			Тонкая Thin	2,9	3,4	4,0	4,5	5,8	6,7	7,8	10,0	—	—
from above	upto semi	Ca. 0,80 до 0,90	Черновая Rough	2,2	2,6	3,2	3,7	4,6	5,6	6,7	8,5	10,5	—
			Получистовая finished	2,5	3,1	3,7	4,1	5,3	6,3	7,3	9,5	11,5	—
			Чистовая finished	2,9	3,4	3,9	4,4	5,6	6,7	7,8	9,8	12,0	—
			Тонкая Thin	3,1	3,4	4,1	4,6	5,8	6,9	8,0	10,5	12,5	—
from above	upto semi	Ca. 0,90 до 1,00	Черновая Rough	2,3	2,7	3,1	3,6	4,8	5,6	6,7	8,8	10,5	—
			Получистовая finished	2,7	3,2	3,8	4,3	5,3	6,3	7,5	9,5	11,5	—
			Чистовая finished	3,0	3,5	4,0	4,5	5,8	6,7	7,8	10,0	12,0	—
			Тонкая Thin	3,1	3,6	4,3	4,8	6,0	6,9	8,0	10,5	12,5	—

6834 2645-85

Sheet 20

Contd. table-6.

No. of document sheet No. of document series date	Common toler- ance for the element of surface, mm	Type of finish machining	Common allowance for the side, mm, max, for the series of allowance for the casting.								
			1	2	3	4	5	6	7	8	9
from above	upto semi Ca. 1,00 до 1,40	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0,8 1,1 1,4 1,6	0,9 1,3 1,4 1,6	1,1 1,4 1,6 1,8	1,2 1,4 1,6 1,9	1,3 1,6 1,8 2,0	1,4 1,6 1,9 2,1	1,6 1,9 2,1 2,3	1,8 2,2 2,4 2,5	2,0 2,4 2,6 2,7
from above	upto semi Ca. 1,10 до 1,20	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	0,9 1,2 1,5 1,7	1,0 1,3 1,6 1,8	1,1 1,4 1,7 1,9	1,2 1,5 1,8 2,0	1,3 1,6 1,9 2,1	1,4 1,7 2,0 2,1	1,6 1,9 2,2 2,4	1,8 2,3 2,5 2,7	2,0 2,4 2,6 2,8
from above	upto semi Ca. 1,20 до 1,40	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	1,1 1,5 1,6 1,9	1,2 1,6 1,7 2,0	1,3 1,7 1,8 2,2	1,4 1,8 2,1 2,3	1,5 1,9 2,3 2,6	1,6 1,9 2,3 2,6	1,8 2,2 2,5 2,9	2,0 2,5 2,7 3,2	2,1 2,7 3,0 3,2
from above	upto semi Ca. 1,40 до 1,60	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	1,2 1,7 1,8 2,1	1,3 1,8 1,9 2,2	1,4 1,9 2,1 2,4	1,5 2,0 2,2 2,5	1,6 2,1 2,4 2,6	1,7 2,2 2,5 2,7	1,9 2,4 2,6 2,9	2,1 2,7 3,0 3,1	2,3 2,9 3,1 3,4
from above	upto semi Ca. 1,60 до 1,80	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	1,2 1,8 1,9 2,2	1,3 1,9 2,0 2,3	1,4 1,9 2,1 2,4	1,5 2,0 2,2 2,5	1,6 2,1 2,4 2,6	1,7 2,2 2,5 2,7	1,9 2,4 2,6 2,9	2,1 2,7 3,1 3,4	2,3 2,9 3,1 3,6
from above	upto semi Ca. 1,80 до 2,00	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	1,3 2,1 2,3 2,6	1,4 2,1 2,4 2,7	1,5 2,2 2,6 2,8	1,6 2,2 2,6 2,9	1,7 2,3 2,6 3,0	1,8 2,4 2,6 3,1	2,0 2,6 2,8 3,4	2,2 3,0 3,1 3,6	2,4 3,1 3,3 3,8
from above	upto semi Ca. 2,00 до 2,20	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	1,5 2,1 2,6 2,9	1,6 2,3 2,6 3,0	1,7 2,4 2,7 3,1	1,8 2,4 2,9 3,1	1,9 2,5 2,9 3,3	2,0 2,7 3,0 3,4	2,2 2,8 3,0 3,6	2,4 3,2 3,3 3,9	2,6 3,4 3,6 4,1

2057 2645-3
CJ

21
sheet

Contd. ... table 6.

SHEET
22

Cast 26645 - 85

Common tolerance for the element of surface, mm		Type of finish machining	Common allowance for the side, mm, max. for the series of allowance for the casting.									
from above	upto semi		10	11	12	13	14	15	16	17	18	
	upto semi	Ca. 1.00 до 1.10	Черновая Rough Получистовая Finished Чистовая Thin	2.4 2.6 3.1 3.4	2.7 3.8 3.8 4.1	3.3 4.3 4.6 4.9	3.8 4.4 4.6 4.9	4.8 5.4 5.8 6.0	5.8 6.3 6.7 7.1	6.7 7.5 7.8 8.3	8.8 9.5 10.0 10.5	10.5 11.5 12.0 12.5
	upto semi	Ca. 1.10 до 1.20	Черновая Rough Получистовая Finished Чистовая Thin	2.4 2.9 3.1	2.8 3.4 3.6	3.4 3.9 4.3	3.8 4.4 4.8	4.8 5.4 5.8	5.8 6.5 6.9	6.9 7.5 8.0	8.8 9.8 10.0	11.0 12.0 12.5
	upto semi	Ca. 1.20 до 1.40	Черновая Rough Получистовая Finished Чистовая Thin	2.5 3.1 3.4	2.9 3.4 3.9	3.5 4.1 4.5	3.9 4.4 4.8	4.9 5.4 5.8	6.0 6.7 7.1	6.9 7.8 8.3	9.0 9.8 10.5	11.0 12.0 12.5
	upto semi	Ca. 1.40 до 1.60	Черновая Rough Получистовая Finished Чистовая Thin	2.7 3.3 3.6	3.1 3.6 4.1	3.6 4.2 4.6	4.0 4.5 5.1	4.9 5.6 6.1	6.0 6.7 7.1	6.9 7.8 8.3	9.0 9.8 10.5	11.0 12.0 13.0
	upto semi	Ca. 1.60 до 1.80	Черновая Rough Получистовая Finished Чистовая Thin	2.7 3.5 3.8	3.2 3.8 4.3	3.7 4.4 4.8	4.1 5.2 5.3	5.2 6.5 6.6	6.2 7.1 7.5	7.1 8.0 8.5	9.0 10.0 11.0	11.0 12.0 13.0
	upto semi	Ca. 1.80 до 2.00	Черновая Rough Получистовая Finished Чистовая Thin	2.8 3.6 4.0	3.3 4.0 4.4	3.8 4.6 5.0	4.3 5.0 5.4	5.1 6.1 6.7	6.1 7.1 7.8	7.3 8.3 8.8	9.3 10.5 11.0	11.0 12.0 13.0
	upto semi	Ca. 2.00 до 2.20	Черновая Rough Получистовая Finished Чистовая Thin Тонкая Thin	3.0 3.8 4.3 4.6	3.4 4.1 4.6 5.0	3.9 4.8 5.1 5.6	4.4 5.2 5.8 6.1	5.5 6.3 6.9 7.3	6.3 7.3 8.0 8.3	7.3 8.5 9.0 9.5	9.5 10.5 11.0 12.0	11.5 12.5 13.0 14.0

All SHEET No. OF DOCUMENTS SIGNATURE DATE

Contd. - table - 6

All SHEET No. of document	Signature	Date	Common tolerance for the element of surface, mm	Type of finish machining	Common allowance for the side, mm. max. for the series of allowance for the casting.								
					1	2	3	4	5	6	7	8	9
				Rough	1.6	1.7	1.8	1.9	2.0	2.1	2.3	2.5	2.7
				Черновая finished	2.4	2.5	2.6	2.6	2.8	2.9	3.1	3.4	3.6
				Получистовая finished	2.7	2.8	2.9	3.1	3.2	3.3	3.5	3.8	3.9
				Чистовая finished	3.1	3.1	3.3	3.4	3.4	3.6	3.8	4.1	4.3
				Тонкая Thin									
				Rough	1.8	1.9	1.9	2.1	2.2	2.3	2.5	2.6	2.9
				Черновая finished	2.6	2.7	2.8	2.9	3.0	3.1	3.3	3.6	3.8
				Получистовая finished	2.9	3.0	3.2	3.4	3.5	3.6	3.8	4.0	4.3
				Чистовая finished	3.3	3.2	3.3	3.4	3.5	3.6	3.8	4.1	4.4
				Тонкая Thin	3.5	3.6	3.7	3.8	3.8	3.9	4.1	4.4	4.6
				Rough	1.9	2.1	2.2	2.3	2.4	2.5	2.6	2.9	3.1
				Черновая finished	2.9	3.0	3.1	3.3	3.4	3.6	4.0	4.1	4.5
				Получистовая finished	3.2	3.4	3.6	3.8	3.9	4.0	4.1	4.5	4.6
				Чистовая finished	3.4	3.6	3.6	3.8	3.9	4.0	4.1	4.5	5.0
				Тонкая Thin	3.8	3.9	4.0	4.1	4.3	4.3	4.5	4.8	5.0
				Rough	2.2	2.3	2.4	2.6	2.6	2.7	2.9	3.1	3.3
				Черновая finished	3.3	3.4	3.4	3.6	3.6	3.8	4.0	4.3	4.5
				Получистовая finished	3.6	3.9	4.0	4.1	4.3	4.4	4.6	4.9	5.2
				Чистовая finished	3.9	4.0	4.1	4.3	4.3	4.4	4.6	4.9	5.5
				Тонкая Thin	4.3	4.4	4.4	4.5	4.6	4.8	4.9	5.3	5.5
				Rough	2.4	2.5	2.6	2.7	2.8	2.9	3.2	3.4	3.6
				Черновая finished	3.6	3.8	3.9	4.0	4.1	4.3	4.4	4.8	4.9
				Получистовая finished	4.3	4.4	4.4	4.6	4.6	4.8	4.9	5.3	5.5
				Чистовая finished	4.6	4.7	4.8	4.9	5.0	5.1	5.3	5.4	5.6
				Тонкая Thin	4.8	4.9	5.0	5.2	5.1	5.3	5.4	5.8	6.0
				Rough	2.5	2.6	2.7	2.8	2.9	3.0	3.3	3.5	3.7
				Черновая finished	3.8	3.9	4.0	4.1	4.3	4.3	4.5	4.8	5.0
				Получистовая finished	4.5	4.6	4.8	4.8	4.9	5.0	5.1	5.4	5.8
				Чистовая finished	4.9	5.0	5.2	5.3	5.3	5.5	5.6	6.0	6.2
				Тонкая Thin									
				Rough	2.9	3.0	3.1	3.1	3.3	3.4	3.6	3.8	4.0
				Черновая finished	4.3	4.4	4.4	4.5	4.6	4.8	4.9	5.3	5.5
				Получистовая finished	5.0	5.1	5.3	5.3	5.4	5.6	5.8	6.0	6.3
				Чистовая finished	5.6	5.8	5.8	6.0	6.0	6.2	6.3	6.7	6.9
				Тонкая Thin									

Cost 26645-85

SHEET
23

Contd....table- 6

AM. SHEET NO. OF DOCUMENT	SHEET NO.	DATE	Common toler- ance for the element of surface, mm	Type of finish machining	Common allowance for the side, mm, max, for the series of allowance for the casting.								
					10	11	12	13	14	15	16	17	18
from above	upto semi Cs. 2,20 до 2,40			Черновая Rough	3,1	3,4	4,0	4,6	5,4	6,5	7,6	9,5	11,5
				Получистовая finished	4,0	4,4	5,0	5,4	6,5	7,5	8,8	11,0	13,0
	upto semi Cs. 2,40 до 2,80			Чистовая finished	4,4	4,9	5,5	6,0	7,1	8,3	9,3	11,5	13,5
				Тонкая Thin	4,8	5,1	5,8	6,3	7,5	8,5	9,8	12,0	15,0
from above	upto semi Cs. 2,80 до 3,20			Черновая Rough	3,8	3,6	4,1	4,6	5,6	6,7	7,8	9,8	11,5
				Получистовая finished	4,3	4,8	5,2	5,8	6,1	7,5	8,5	9,5	11,5
	upto semi Cs. 3,20 до 3,60			Чистовая finished	4,8	5,2	5,8	6,1	6,7	8,0	9,0	10,0	12,5
				Тонкая Thin	5,2	5,4	6,1	6,7	8,0	9,0	10,0	12,5	14,5
from above	upto semi Cs. 3,60 до 4,00			Черновая Rough	3,4	3,9	4,4	4,9	5,8	6,9	7,8	9,8	12,0
				Получистовая finished	4,6	5,0	5,8	6,0	7,1	8,3	9,3	11,5	13,5
	upto semi Cs. 4,00 до 4,40			Чистовая finished	5,1	5,6	6,1	6,7	7,8	8,8	9,8	12,0	14,5
				Тонкая Thin	5,4	5,8	6,5	7,1	8,3	9,3	10,5	12,5	15,0
from above	upto semi Cs. 4,40 до 5,00			Черновая Rough	3,6	4,1	4,8	5,2	6,2	7,1	8,0	10,0	12,0
				Получистовая finished	4,9	5,3	5,8	6,3	7,5	8,5	9,5	11,5	14,0
	upto semi Cs. 5,00 до 5,60			Чистовая finished	5,6	6,0	6,5	7,1	8,3	9,3	10,5	12,5	15,0
				Тонкая Thin	6,0	6,3	7,1	7,5	8,8	9,8	11,0	13,0	15,5
from above	upto semi Cs. 5,60 до 6,20			Черновая Rough	3,9	4,3	4,8	5,3	6,3	7,3	8,3	10,5	12,5
				Получистовая finished	5,3	5,8	6,3	6,7	7,5	8,5	9,5	11,5	14,0
	upto semi Cs. 6,20 до 6,80			Чистовая finished	5,8	6,3	6,8	7,5	8,8	9,8	10,5	12,0	14,0
				Тонкая Thin	6,5	6,9	7,5	8,0	9,3	10,5	11,5	13,5	16,0
from above	upto semi Cs. 6,80 до 7,40			Черновая Rough	4,0	4,4	4,9	5,5	6,5	7,5	8,5	10,5	12,5
				Получистовая finished	5,5	5,8	6,3	6,9	8,0	9,0	10,0	12,0	14,5
	upto semi Cs. 7,40 до 8,00			Чистовая finished	6,1	6,7	7,3	7,8	9,0	9,8	11,0	13,0	15,5
				Тонкая Thin	6,7	7,1	7,8	8,3	9,5	10,5	11,5	14,0	16,0
from above	upto semi Cs. 8,00 до 8,60			Черновая Rough	4,4	4,8	5,3	5,8	6,7	7,8	8,8	11,0	16,0
				Получистовая finished	5,8	6,3	6,9	7,3	8,5	9,5	10,5	12,5	14,5
	upto semi Cs. 8,60 до 9,20			Чистовая finished	6,7	7,1	7,8	8,3	9,5	10,5	11,5	14,0	16,0
				Тонкая Thin	7,3	7,8	8,5	9,0	10,0	11,0	12,0	14,5	16,5

COST 26645 - 85

24
sheet

Contd. - table 6

All sheet no. of document	Signature	Date	Common tolerance for the element of surface, mm.	Type of finish machining	Common allowance for the side, mm., max., for the series of allowance for the casting.									
					1	2	3	4	5	6	7	8	9	
			upto Ca. 5,00 до 5,60	semi Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	—	3,3 4,9 5,8 6,3	3,4 5,0 5,8 6,5	3,4 5,2 6,0 6,7	3,6 5,1 6,0 6,7	3,6 5,3 6,2 6,9	3,9 5,4 6,3 6,9	4,1 5,8 6,7 7,3	4,3 6,0 6,9 7,5	
from above			upto Ca. 5,60 до 6,40	semi Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	—	3,8 5,1 6,1 6,9	3,9 5,3 6,3 7,1	4,0 5,3 6,3 7,1	4,1 5,7 6,5 7,3	4,3 5,8 6,7 7,3	4,4 6,0 7,1 7,8	4,6 6,3 7,1 8,0	4,8 6,3 7,3 8,0	
from above			upto Ca. 6,40 до 7,00	semi Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	—	— — — —	4,3 5,8 6,9 7,8	4,3 6,0 7,1 7,8	4,4 6,0 7,1 7,8	4,5 6,2 7,3 8,0	4,8 6,3 7,5 8,3	4,9 6,7 7,8 8,5	5,2 6,9 8,0 8,8	
from above			upto Ca. 7,00 до 8,00	semi Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	—	— — — —	4,8 6,5 8,0 8,5	4,8 6,5 8,0 8,8	4,9 6,7 8,3 8,8	5,0 6,7 8,3 8,8	5,1 6,9 8,5 9,0	5,5 7,3 8,8 9,3	5,6 7,5 9,0 9,5	
from above			upto Ca. 8,00 до 9,00	semi Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	—	— — — —	— 7,3 9,0 9,8	5,3 7,5 9,0 9,8	5,4 7,5 9,3 9,8	5,6 7,5 9,3 9,8	5,8 7,8 9,3 10,0	6,0 8,0 9,8 10,0	6,1 8,3 9,8 10,5	6,1 8,3 9,8 10,5
from above			upto Ca. 9,00 до 10,00	semi Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	—	— — — —	— 8,3 9,8 11,0	6,0 8,3 9,8 11,0	6,2 8,5 9,8 11,0	6,3 8,5 9,8 11,0	6,5 8,5 10,0 11,5	6,5 9,0 10,5 11,5	6,7 9,0 10,5 12,0	
from above			upto Ca. 10,00 до 11,00	semi Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	—	— — — —	— 8,5 10,0 11,0	6,6 8,8 10,0 11,0	6,5 8,8 10,0 11,5	6,7 8,8 10,5 11,5	6,9 9,3 10,5 12,0	7,1 9,3 10,5 12,0	7,1 9,3 10,5 12,0	

4851 26645-85

Sheet
25

Contd. table 6.

AII SHEET NO. OF DOCUMENTS	SIGNATURE	DATE	from above	Common tolerance for the element of surface, mm.	Type of finish machining.	Common allowance for the side, mm, max, for the series of allowance for the casting.								
						10	11	12	13	14	15	16	17	18
				upto semi	Черновая Rough	4,8	5,2	5,6	6,2	7,1	8,0	9,0	11,0	13,0
				Ca. 5,00 до 6,00	Получистовая finished	6,3	6,7	7,3	8,0	9,0	9,8	11,0	13,0	15,0
				upto semi	Чистовая finished	7,3	7,8	8,3	8,8	10,0	11,0	12,0	14,5	16,5
				Ca. 5,00 до 6,00	Тонкая Thin	8,0	8,3	9,0	9,5	11,0	12,0	13,0	15,0	17,5
			from above	upto semi	Черновая Rough	5,1	5,6	6,2	6,6	7,5	8,5	9,5	11,5	13,5
				Ca. 5,00 до 6,00	Получистовая finished	6,7	7,1	7,8	8,3	9,3	10,5	11,5	13,5	15,5
				upto semi	Чистовая finished	7,3	8,3	8,8	9,3	10,5	11,5	12,5	16,0	17,0
				Ca. 5,00 до 6,00	Тонкая Thin	8,5	9,0	9,8	10,0	11,5	12,5	13,5	16,0	18,0
			from above	upto semi	Черновая Rough	5,4	6,0	6,5	6,9	8,0	9,0	9,8	12,0	14,0
				Ca. 6,00 до 7,00	Получистовая finished	7,3	7,5	8,3	8,8	9,8	11,0	12,0	14,0	16,0
				upto semi	Чистовая finished	8,5	8,8	9,5	9,8	11,0	12,0	13,0	16,5	17,5
				Ca. 6,00 до 7,00	Тонкая Thin	9,3	9,5	10,5	11,0	12,0	13,0	14,0	16,5	18,5
			from above	upto semi	Черновая Rough	6,0	6,5	6,9	7,5	8,5	9,5	10,5	12,5	14,5
				Ca. 7,00 до 8,00	Получистовая finished	7,8	8,3	8,8	9,3	10,5	11,5	12,5	14,5	17,0
				upto semi	Чистовая finished	9,5	9,8	10,5	11,0	12,0	13,0	14,0	16,5	18,5
				Ca. 7,00 до 8,00	Тонкая Thin	10,0	10,5	11,0	11,5	13,0	14,0	15,0	17,5	19,5
			from above	upto semi	Черновая Rough	6,5	6,9	7,5	8,0	9,0	9,8	11,0	13,0	15,0
				Ca. 8,00 до 9,00	Получистовая finished	8,8	9,0	9,8	10,0	11,0	12,0	13,5	15,5	17,5
				upto semi	Чистовая finished	10,5	10,5	11,5	12,0	13,0	14,0	15,0	17,5	19,5
				Ca. 8,00 до 9,00	Тонкая Thin	11,0	11,5	12,5	13,0	14,0	15,0	16,0	18,5	20,5
			from above	upto semi	Черновая Rough	7,3	7,5	8,0	8,5	9,5	10,5	11,5	13,5	15,5
				Ca. 9,00 до 10,00	Получистовая finished	9,5	9,8	10,5	11,0	12,0	13,0	14,0	16,5	18,5
				upto semi	Чистовая finished	11,0	11,5	12,0	12,5	14,0	15,0	16,0	18,0	20,5
				Ca. 9,00 до 10,00	Тонкая Thin	12,5	12,5	13,5	14,0	15,0	16,0	17,0	19,5	22,0
			from above	upto semi	Черновая Rough	7,5	8,0	8,5	9,0	9,8	11,0	12,0	14,0	16,0
				Ca. 10,00 до 11,00	Получистовая finished	9,8	10,0	10,5	11,0	12,5	13,5	14,5	16,5	18,5
				upto semi	Чистовая finished	11,5	12,0	12,5	13,0	14,0	15,0	16,0	18,5	20,5
				Ca. 10,00 до 11,00	Тонкая Thin	12,5	13,0	13,5	14,0	15,5	16,5	17,5	19,5	22,0

GOST 26645-85

26

SER

Contd... table 6

AP SHEET NO. OF DOCUMENT SERIAL NO.	Common tolerance for the element of surface, mm	Type of finish machining	Common allowance for the side, mm, max. for the series of allowance for the casting.								
			1	2	3	4	5	6	7	8	9
From above	upto semi Св. 11 до 12,00	Черновая Rough	—	—	—	—	7,1	7,3	7,5	7,5	7,6
		Получистовая finished	—	—	—	—	9,3	9,6	9,8	10,0	10,0
		Чистовая finished	—	—	—	—	11,0	11,0	11,5	11,5	12,0
		Тонкая Thin	—	—	—	—	12,5	12,5	13,0	13,0	13,5
From above	upto semi Св. 12,00 до 14,00	Черновая Rough	—	—	—	—	—	8,5	8,5	8,8	9,0
		Получистовая finished	—	—	—	—	—	11,0	11,5	11,5	12,0
		Чистовая finished	—	—	—	—	—	12,5	13,0	13,0	13,5
		Тонкая Thin	—	—	—	—	—	14,5	14,5	15,0	15,0
From above	upto semi Св. 14,00 до 16,00	Черновая Rough	—	—	—	—	—	—	9,5	9,5	9,8
		Получистовая finished	—	—	—	—	—	—	12,0	12,5	12,5
		Чистовая finished	—	—	—	—	—	—	15,0	15,0	15,5
		Тонкая Thin	—	—	—	—	—	—	16,5	17,0	17,0
From above	upto semi Св. 16,00 до 18,00	Черновая Rough	—	—	—	—	—	—	—	10,5	11,0
		Получистовая finished	—	—	—	—	—	—	—	13,5	14,0
		Чистовая finished	—	—	—	—	—	—	—	15,5	16,0
		Тонкая Thin	—	—	—	—	—	—	—	16,0	16,5
From above	upto semi Св. 18,00 до 20,00	Черновая Rough	—	—	—	—	—	—	—	11,6	11,5
		Получистовая finished	—	—	—	—	—	—	—	14,5	15,0
		Чистовая finished	—	—	—	—	—	—	—	17,5	17,5
		Тонкая Thin	—	—	—	—	—	—	—	19,5	20,0
From above	upto semi Св. 20,00 до 22,00	Черновая Rough	—	—	—	—	—	—	—	—	13,0
		Получистовая finished	—	—	—	—	—	—	—	—	16,5
		Чистовая finished	—	—	—	—	—	—	—	—	19,5
		Тонкая Thin	—	—	—	—	—	—	—	—	21,0
From above	upto semi Св. 22,00 до 24,00	Черновая Rough	—	—	—	—	—	—	—	—	14,0
		Получистовая finished	—	—	—	—	—	—	—	—	17,5
		Чистовая finished	—	—	—	—	—	—	—	—	21,0
		Тонкая Thin	—	—	—	—	—	—	—	—	23,5

ГОСТ 26645-85

27

Contd ... table - 6

No. SHEET NO. OF DOCUMENT	DATE	Common toler - ance for the element of surface, mm	Type of finish machining	Common allowance for the side, mm, max, for the series of allowance for the casting.								
				10	11	12	13	14	15	16	17	18
from above	upto semi	Ca. 11,00 до 12,00	Черновая Rough Получистовая finished Чистовая Finished Тонкая Thin	8,3 10,5 12,5 14,0	9,5 11,0 12,5 14,5	9,0 11,5 13,5 15,0	9,5 12,0 14,0 16,0	10,5 13,0 16,0 18,5	11,5 14,0 16,0 17,5	12,5 15,0 17,0 19,0	14,5 17,5 19,5 21,0	16,5 19,5 21,0 23,5
from above	upto semi	Ca. 12,00 до 14,00	Черновая Rough Получистовая finished Чистовая Finished Тонкая Thin	9,5 12,0 14,0 15,5	9,8 12,5 14,5 16,0	10,5 13,0 16,5 18,5	11,0 13,5 16,5 19,5	12,0 15,0 17,5 20,5	13,0 16,0 18,5 20,5	14,0 17,0 19,5 23,0	16,0 19,0 21,0 25,0	18,0 21,0 23,0 25,0
from above	upto semi	Ca. 14,00 до 16,00	Черновая Rough Получистовая finished Чистовая Finished Тонкая Thin	10,5 13,5 16,0 18,0	11,0 13,5 16,5 18,0	11,5 14,5 17,0 19,0	12,0 15,0 17,5 19,5	13,0 16,0 18,0 20,5	14,0 17,0 19,0 22,0	15,0 18,0 21,0 22,5	17,0 20,0 23,0 25,0	19,0 22,0 25,0 27,0
from above	upto semi	Ca. 16,00 до 18,00	Черновая Rough Получистовая finished Чистовая Finished Тонкая Thin	11,5 14,5 16,5 19,0	12,0 15,0 17,0 19,5	12,5 15,5 17,5 20,0	13,0 16,0 18,0 20,5	14,0 17,0 19,0 22,0	15,0 18,0 21,0 22,5	16,0 19,0 21,0 24,0	18,0 21,0 23,5 26,0	20,0 23,5 26,0 28,0
from above	upto semi	Ca. 18,00 до 20,00	Черновая Rough Получистовая finished Чистовая Finished Тонкая Thin	12,5 15,5 18,5 20,5	12,5 15,5 18,5 21,0	13,0 16,5 19,5 22,0	13,5 17,0 20,0 22,0	14,5 17,0 21,0 23,5	15,5 18,0 21,0 24,0	16,5 19,0 22,0 25,0	18,5 21,0 23,0 28,0	20,5 23,5 26,0 30,0
from above	upto semi	Ca. 20,00 до 22,00	Черновая Rough Получистовая finished Чистовая Finished Тонкая Thin	13,5 17,0 20,0 22,0	14,0 17,5 20,5 22,5	14,5 18,0 21,0 23,5	15,0 18,5 21,0 24,0	16,0 19,5 22,5 25,0	17,0 20,5 23,5 26,0	18,0 22,0 25,0 27,0	20,0 24,0 27,0 29,0	22,0 26,0 29,0 31,5
from above	upto semi	Ca. 22,00 до 24,00	Черновая Rough Получистовая finished Чистовая Finished Тонкая Thin	15,0 18,0 22,0 24,0	15,0 18,5 22,0 25,0	15,5 19,0 22,5 25,0	16,0 19,5 23,0 26,0	17,0 21,0 24,0 27,0	18,0 22,0 25,0 28,0	19,0 23,0 26,5 29,0	21,0 25,0 28,5 31,5	23,0 27,0 30,5 33,5

GOST 26645-85

28

Contd ... table-6

A4 SHEET NO. OF DOCUMENT	SIGNATURE DATE	Common toler - ance for the element of surface, mm.	Type of finish machining	Common allowance for the side, mm, max, for the series of allowance for the casting.								
				1	2	3	4	5	6	7	8	9
		from above	upto semi Ca. 24,00 до 28,00	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	-	1	1	1	1	1	1	16,5 20,5 23,5 26,0
		from above	upto semi Ca. 28,00 до 32,00	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	-	1	1	1	1	1	1	19,0 23,5 26,0 30,0
		from above	upto semi Ca. 32,00 до 36,00	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	-	1	1	1	1	1	1	-
		from above	upto semi Ca. 36,00 до 40,00	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	-	1	1	1	1	1	1	-
		from above	upto semi Ca. 40,00 до 44,00	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	-	1	1	1	1	1	1	-
		from above	upto semi Ca. 44,00 до 50,00	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	-	1	1	1	1	1	1	-
		from above	upto semi Ca. 50,00 до 56,00	Черновая Rough Получистовая finished Чистовая finished Тонкая Thin	-	1	1	1	1	1	1	-

GOST 26645-85

Sheet
29

Contd... table C

No. SHEET No. OF DOCUMENT SHEET No.	Common tolerance for the element of surface, mm.	Type of finish machining	Common allowance for the side, mm, max, for the series of allowance for the casting.								
			10	11	12	13	14	15	16	17	18
from above	upto semi Ca. 24,00 до 28,00	Rough	17,0	17,5	18,0	16,5	19,5	20,5	21,0	23,5	25,0
		finished	21,0	21,0	22,0	22,5	23,5	25,0	26,0	28,0	30,0
		finished	24,0	24,0	25,0	25,0	26,5	28,0	29,0	30,5	33,5
		Thin	26,5	27,0	28,0	28,0	29,0	30,5	31,5	33,5	35,5
from above	upto semi Ca. 28,00 до 32,00	Rough	19,0	19,5	20,0	20,5	22,0	22,5	23,5	26,0	28,0
		finished	23,5	24,0	25,0	25,0	26,5	27,0	28,0	30,5	32,5
		finished	26,5	27,0	28,0	28,0	29,0	30,5	31,5	33,5	36,5
		Thin	30,5	30,5	31,5	32,5	33,5	34,5	35,5	37,5	40,0
from above	upto semi Ca. 32,00 до 36,00	Rough	21,0	22,0	22,5	23,0	24,0	25,0	26,0	28,0	30,0
		finished	26,5	27,0	27,0	28,0	29,0	30,0	31,5	33,5	35,5
		finished	30,5	30,5	31,5	31,5	33,5	34,5	35,5	37,5	40,0
		Thin	33,5	34,5	34,5	35,5	36,5	37,5	39,0	41,0	42,5
from above	upto semi Ca. 36,00 до 40,00	Rough	23,5	24,0	25,0	25,0	26,0	27,0	28,0	30,0	32,5
		finished	29,0	30,0	30,0	30,5	31,5	32,5	33,5	36,5	37,5
		finished	32,5	33,5	33,5	34,5	35,5	36,5	37,5	40,0	42,5
		Thin	37,5	37,5	39,0	39,0	40,0	41,0	42,5	45,0	47,5
from above	upto semi Ca. 40,00 до 44,00	Rough	—	26,0	26,5	27,0	28,0	29,0	30,0	32,5	34,5
		finished	—	32,5	33,5	34,5	35,5	36,5	37,5	39,0	41,0
		finished	—	36,5	37,5	37,5	39,0	40,0	41,0	44,0	46,0
		Thin	—	39,0	40,0	40,0	41,0	42,5	44,0	46,0	47,5
from above	upto semi Ca. 44,00 до 50,00	Rough	—	30,0	30,0	30,5	31,5	32,5	33,5	35,5	37,5
		finished	—	36,5	37,5	37,5	39,0	40,0	41,0	42,5	45,0
		finished	—	41,0	42,5	42,5	44,0	45,0	46,0	47,5	50,0
		Thin	—	44,0	44,0	45,0	46,0	47,5	47,5	50,0	53,0
from above	upto semi Ca. 50,00 до 56,00	Rough	—	—	33,5	33,5	34,5	35,5	36,5	39,0	41,0
		finished	—	—	42,5	42,5	44,0	44,0	45,0	47,5	50,0
		finished	—	—	47,5	47,5	49,0	50,0	50,0	53,0	54,5
		Thin	—	—	50,0	50,0	51,5	53,0	53,0	56,0	58,0

4007-26645-85

30
Sheet

Contd. . . table 6

Contd... tabl. 6

Common allowance for the side, mm, max, for the series of allowance for the casting!

		common tolerance for the element of surface, mm		Common allowance for the side, mm, max, for the series of allowance for the casting!								
		Type of finish machining		10	11	12	13	14	15	16	17	18
from above	upto Cs. 56.00 до 64.00	Черновая Получистовая Чистовая Тонкая	Rough Finished Finished Thin	—	39.0 46.0 50.0 53.0	39.0 47.5 51.5 54.5	40.0 47.5 53.0 54.5	41.0 47.5 53.0 56.0	42.5 49.0 53.0 56.0	44.0 51.5 58.0 58.0	46.0 53.0 58.0 60.0	
from above	upto Cs. 64.00 до 70.00	Черновая Получистовая Чистовая Тонкая	Rough Finished Finished Thin	—	— 42.5 50.0 56.0	— 42.5 51.5 56.0	— 44.0 51.5 58.0	— 47.5 53.0 58.0	— 49.0 56.0 61.5	— 56.0 61.5 65.0	— 58.0 63.0 67.0	
from above	upto Cs. 70.00 до 80.00	Черновая Получистовая Чистовая Тонкая	Rough Finished Finished Thin	— — — —	— 47.5 56.0 61.5	— 47.5 56.0 63.0	— 49.0 56.0 63.0	— 50.0 58.0 65.0	— 51.5 58.0 67.0	— 51.5 61.5 69.0	— 53.0 67.0 73.0	

Note:-

NOTE: For each gap of tolerance, total values of total allowance are given in different lines for all steps of machining; rough; rough and semi-finished; rough, semifinished and finished; rough, semi-finished, finished and thin.

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE
-----	-------	-----------------	-----------	------

GOST 26645-85

SHEET
32

4.7. For castings of small-scale and individual production, increased values of allowances, corresponding to the gaps of common tolerances, given in Table 6 in lines 1 and 2 accordingly may be designated below the gap of effective tolerance.

4.8. Values of allowances, given in Table 6, are the limit values for the specified accuracy norms of casting. Upon agreement between the customer and the manufacturer, the reduced values of allowances may be designated in comparison with the ones specified in Table 6. If it is necessary to designate, increased values of allowances for the individual surfaces of castings, corresponding accuracy norms for the surface being machined; degree of accuracy for the surface, accuracy class for the dimension from the base or degree of warpage of the surface should be improved.

4.9. In individual special instances of technological process for machining of castings (multi-stage machining with intermediate heat treatment or intermediate assembly of blanks) increased common allowances may be designated in comparison with the ones specified in Table 6. The corresponding regulations are specified in the standard technical documents.

ALF	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SEET
						33

Table 7

Tolerance of dimension
for casting.

Relation between the tolerances of dimension of component and casting from the datum surface of machining upto the surface being machined.

Upto 0.5

Above 0.4	Rough
" 0.15 upto 0.4	Semi-finished
" 0.10 " 0.15	finished
" 0.10	Thin

From above 0.5 upto 1.0

Above 0.3	Rough
" 0.1 upto 0.3	Semi-finished
" 0.05 " 0.1	finished
" 0.05	Thin

From above 1.0 upto 2.0

Above 0.2	Rough
" 0.1 upto 0.2	Semi-finished
" 0.05 " 0.1	finished
" 0.05	Thin

From above 2.0 upto 5.0

Above 0.15	Rough
" 0.05 upto 0.15	Semi-finished
" 0.02 " 0.05	finished
" 0.02	Thin

From above 5.0

Above 0.10	Rough
" 0.05 upto 0.10	Semi-finished
" 0.02 " 0.05	finished
" 0.02	Thin

4.10. In the branch standard-technical document for separate groups of castings, simplified methods for designating the allowances for machining should be specified, provided their values of allowances, specified by the present standard,

do not exceed the corresponding values of allowances specified by the present standard.

1/1	1/1	1/1	1/1	1/1
1/1	1/1	1/1	1/1	1/1
1/1	1/1	1/1	1/1	1/1
1/1	1/1	1/1	1/1	1/1
1/1	1/1	1/1	1/1	1/1

GOST 26645 - 85

SHEET

34

Table 8

Tolerance of dimension for casting.	Relation between the tolerances of dimension of component and casting from the datum surface of machining upto the surface being machined.	Type of finish machining
upto 0.5	Above 0.4 " 0.10 upto 0.4 " 0.02 " 0.10 " 0.02	Rough Semi-finished finished Thin
From above 0.5 upto 1.0	Above 0.3 " 0.10 upto 0.3 " 0.02 " 0.10 " 0.02	Rough Semi-finished finished Thin
From above 1.0 upto 2.0	Above 0.20 " 0.05 upto 0.20 " 0.01 " 0.05 " 0.01	Rough Semi-finished finished Thin
From above 2.0 upto 5.0	Above 0.10 " 0.02 upto 0.10 " 0.005 " 0.02 " 0.005	Rough Semi-finished finished Thin
From above 5.0	Above 0.05 " 0.01 upto 0.05 " 0.002 " 0.01 " 0.002	Rough Semi-finished finished Thin

Notes:

1. For the unspecified tolerances of shape and location of the being machined surface of casting, their total value is to be taken as equal to 25% of the tolerance of the dimension from the datum surface upto the surface of casting being machined.
2. For the unspecified tolerances of shape and location of the machined surface of component their total value is to be taken as equal to 50% of the tolerance of the dimension from the datum surface upto the machined surface of the component.

AM	SHEET	NO. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET
						35

5. Designation of accuracy of castings

5.1. In the technical requirements of the drawing of casting or component with the applied dimensions of castings, norms for the accuracy of castings should be specified. They are given in the following order: class of dimensional accuracy, degree of warpage, degree of accuracy for the surfaces, accuracy class for the mass and tolerance for the shift of casting.

Example of conventional designation of accuracy of casting for 8th class dimensional accuracy, 5th degree of warpage, 4th degree of accuracy for surfaces, 7th class of accuracy for mass with the tolerance of shift 0.8 mm is as follows;

Accuracy of casting 8-5-4-7 C_M 0.8 GOST 26645 - 85.

Unstandardized parameters for accuracy of castings are replaced by zeroes, and the designation of shift is omitted. For example;

Accuracy of casting 8-0-0-7 GOST 26645-85.

In the technical requirements of drawings of cast component, abbreviated nomenclature of accuracy norms of casting may be specified, in this case, classes of dimension compulsorily pointed out.

For example;

Accuracy of casting 8-0-0-7 GOST 26645 - 85.

5.2. In the technical requirements drawing of casting or component with the applied dimensions of casting, values of nominal mass of the component, allowances for machining, technological laps and mass of casting should be specified in the order given below:

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET
						36

Example of designation of nominal mass, uniform for the component - 20.35 kg, for allowances for machining - 3.15 kg, for technological laps - 1.35 kg; for casting - 24.85 kg is as follows; Mass 20.35-0-1.35-20.70 GOST 26645-85

or

Mass 20.35-0-0-20.35 GOST 26645-85.

In the technical requirements of drawing of cast component is specified.

5.3. Non-symmetric positioning of tolerance zone of casting is designated by dimensioning of limit deviations directly; for symmetric positioning of tolerance zone, limit deviations of dimension need not be specified.

5.4. For the requirements towards the accuracy of individual dimensions of casting, differing from the designated common inscription, their limit deviations are specified.

5.5. For the requirements towards the accuracy of shape and location of individual surfaces of casting, differing from the designated common inscription, tolerances of shape and location of these surfaces are specified in compliance with GOST 2.308-79.

5.6. Allowances are designated in the drawings in compliance with GOST 2.423. Allowances for machining and technological allowances are designated in the drawings separately section 1-5 (Amended edition Issue No. 1).

ALL	SHEET	No. OF DOCUMENT	SIGNATURE	DATE

GOST 26645 - 85

SHEET

37

6. Checking the Accuracy of Castings.

6.1. Types (complete, random and so on) and methods of tests, accurate parameters, dimension being checked (reference dimensions) and nomenclature of tolerances being checked and allowances of castings are specified in the branch scientific-technical documents or in the casting drawing or in the drawing of the component with the applied dimensions of casting. The dimensions being checked should be specified from the datum surface.

6.2. In the drawing of casting or the component with the applied dimensions of casting, compliance of designated tolerances to the accuracy of casting, compliance of allowances for machining, - to the values of tolerances and accuracy norms of casting is checked.

6.3. Compliance of casting to the given class of dimensional accuracy is determined as per the reference dimension with the accuracy class having the maximum deviation from the class assigned for it. Accuracy classes for the dimensions of types 1 and 3 are applied to the accuracy class for dimensions of type 2.

6.4. Compliance of surface of casting to the given degree of accuracy is determined as per the height of surface irregularities (Table 3) and surface finish (Table 12, Appendix 4), during non-concidence of the located values, the bigger one from them should be taken. Compliance of casting to the given degree of surface accuracy for casting as a whole is determined as per the relatively more rough one from among the surfaces with

ALF	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET 38

conversion of the values of upper surfaces towards the side ones during pouring.

6.5. Compliance of casting to the given degree of warpage is determined as per the element of casting with maximum degree of warpage.

6.6. Compliance of casting to the given class of accuracy of mass is determined as per the value of the actual mass of casting.

6.7. In special instances using of castings having accuracy characteristics, deviating from those specified in the drawing is permitted, upon agreement between the manufacturer and the customer. In this case, actual accuracy of the casting is to be determined and pointed-out the technical documents section 6. (Introduced additionally Issue No. 1).

Alt	SHEET	NO. OF DOCUMENT	SIGNATURE	DATE

GOST 26645 - 85

SHEET

39

Special Appendix 1

Classes of dimensional accuracy of castings

Table 9

Technological process of casting.	Maximum overall dimension of casting, mm.	Type of alloy			
		Non-ferrous, light, not being heat-treated alloys.	Not-being heat-treat ed, ferrous and non-ferrous high melting alloys, being heat treated non-ferrous, light alloys.	Being heat-treated ferrous and non-ferrous high melting alloys.	Being heat-treated steel alloys.
(1)	(2)	(3)	(4)	(5)	(6)
Pressure-die castings in metallic moulds and as per burnt-pattern casting using low heat dispersing, heat resisting materials (fused quartz, corundum and so on).	upto 100 from above 100 " 250 " 250	3T-6 3-7T 4-7 5T-8	3-7T 4-7 5T-8 5-9T	4-7 5T-8 5-9T	5T-8 5-9T 6-9
Burnt-pattern casting using heat-resistant quartz materials.	from upto 100 above 100 " 250 " 250 " 630	3-7 4-8 5T-9T 5T-9T 5-9	4-8 5T-9T 5-9	5T-9T 5-9 6-10 6-10	5-9 6-10 7T-11T
Precision-investment casting using heat resisting quartz materials.	from upto 100 above 100 " 250 " 250 " 630 " 1600 " 1600 " 4000	4-8 5T-9T 5-9 6-10 7T-11T 7-11 7-11 7T-11T 7-11 8-12 8-12 9T-13T 9-13	5-9 5-9 6-10 7T-11T 7-11 7-11 7T-11T 7-11 8-12 8-12 9T-13T 9-13	6-10 7T-11T 7-11 8-12 8-12 9T-13T 9-13	6-10 7T-11T 7-11 8-12 8-12 9T-13T 9-13

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE
-----	-------	-----------------	-----------	------

Cont. Table 9

(1)	(2)	(3)	(4)	(5)	(6)
Low-pressure-die-casting and without sand cores in the metal mould.	upto from above 100 " 250 " 250 " 630 " 630 " 1600 " 1600 " 4000	100 5T-9T 5-9 6-10 7T-11T 7-11 8-12 9T-13T 9-13	5-9 6-10 7T-11T 7-11 8-12 9T-13T 9-13	6-10 7T-11T 7-11 8-12 9T-13T 9-13	7T-11T 7-11 8-12 9T-13T 9-13
Casting in low silica green sand from moulds made from less damp (upto 2.8%) and high-strength compounds (more than 160kPa or 1.6 kg/cm ²), having high or uniform consolidation upto the hardness of not less than 90 units.	upto from above 100 " 250 " 250 " 630 " 630 " 1600 " 1600 " 4000 " 4000 " 10000	100 5-10 6-11T 7T-11 7-12 8-13T 9T-13 9-13 10-14 11T-14	6-11T 7T-11 7-12 8-13T 9T-13 9-13 10-14 11T-14	6-11T 7T-11 7-12 8-13T 9T-13 9-13 10-14 11T-14	7T-11 7-12 8-13T 9T-13 9-13 10-14 11T-14
Gasified pattern casting in sand moulds.	—	—	—	—	—
Casting in moulds solidified in contact with the cold equipment.	upto from above 100 " 250 " 250 " 630 " 630 " 1600 " 1600 " 4000 " 4000 " 10000	100 5-10 6-11T 7T-11 7-12 8-13T 9T-13 9-13 10-14 11T-14	6-11T 7T-11 7-12 8-13T 9T-13 9-13 10-14 11T-14	6-11T 7T-11 7-12 8-13T 9T-13 9-13 10-14 11T-14	7-12 8-13T 9T-13 9-13 10-14 11T-14
Low-pressure-die-casting and in metal-mould with sand cores.	—	—	—	—	—
Casting in facing metal mould.	—	—	—	—	—

AIR	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET
						4

Cont. Table 9

(1)	(2)	(3)	(4)	(5)	(6)
Casting in low silica green sand mould from compounds with dampness from 2.8 to 3.5% and strength from 120 to 160 kPa (from 1.2 to 1.6 kg/cm ²), with average level of consolidation upto the hardness of not less than 80 units.	upto 100 from	6-11T 7T-11	7-12	8-13T	
Centrifugal casting (inner surfaces)	above 100 " 250 " 630 " 1600 " 1600 " 4000 " 4000	" 250 " 630 " 1600 " 4000 " 10000	7T-11 7-12 8-13T 9T-13 9-13 10-14 10-14 11T-14	8-13T 9T-13 9-13 10-14 10-14 11T-14	9T-13 9-13 10-14 10-14 11T-14 11-15
Casting in mould solidified in contact with the hot equipment.					
Casting in vacuum - film sand mould.					
Casting in low silica green sand mould from compounds having dampness from 3.5 to 4.5% and strength from 60 to 120 kPa from 0.6 to 1.2 kg/cm ²) with the level of consolidation upto the hardness not less than 70 units.	upto 100 from	7T-11 7-12	8-13T	9T-13	
Casting in shell moulds from thermoeactive compounds.	above 100 " 250 " 630 " 1600 " 1600 " 4000 " 4000	" 250 " 630 " 1600 " 4000 " 10000	8-13T 9T-13 9-13 10-14 10-14 11T-14 11-15	9T-13 9-13 10-14 10-14 11T-14 11-15 12-15	
Casting in moulds, solidified without contact with the equipment without heat drying.					
Casting in moulds from fluid type self-hardening compounds.					
Casting in low-silica green sand dried and dry moulds.					
All	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85
					SHEET 42

Cont. Table 9

Casting in low-silica green sand moulds from highly damp (more than 4.5%) less strong (upto 60 kPa or 0.6 kg/cm²) compounds with low level of consolidation upto hardness below 70 units.

	2	3	4	5	6
from	upto 100	7-12	8-13T	9T-13	9-13
above	100 "	250	8-13T	9T-13	9-13
"	250 "	630	9T-13	9-13	10-14
"	630 "	1600	9-13	10-14	11T-14
"	1600"	4000	10-14	11T-14	11-15
"	4000"	10000	11T-14	11-15	12-15
"	10000		11-15	12-15	13T-16

Notes:

1. Ranges of classes of dimensional accuracy of castings, ensured by different technological processes of casting are given in the Table. Their lower values are related to the simple castings and conditions of mass-automatized production, the higher ones - to the complex castings of individual and small - scale production - the mean ones - to the castings of mean complexity and conditions of mechanized series production.
2. In Table 9-14, alloys with temperature of fusing below 700°C (973K) are referred for non ferrous low-melting alloys, for non-ferrous high-melting alloys - alloys with fusing temperature above 700°C (973K) are referred.
3. In Table 9-14, alloys with a density upto 3.0 g/cm³ are referred for light alloys, and alloys with density above 3.0 g/cm³ are referred for hard alloys.

ALN	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET
						43

Degree of warpage for the element of casting

Table 10

Relation of minimum dimension of the element of casting to the maximum (thickness or height to the length of the element of casting)

Degree of warpage for the element of casting

		Multiple moulds		Expandable mould	
		Castings, not being heat treated	Castings, heat treated after straightening	Castings, not being heat treated	castings, heat treated after straightening
Above 0.200		1-4	2-5	3-6	4-7
From above 0.100 upto	0.200	2-5	3-6	4-7	5-8
" 0.050 "	0.100	3-6	4-7	5-8	6-9
" 0.025 "	0.050	4-7	5-8	6-9	7-10
	" 0.025	5-8	6-9	7-10	8-11

Notes:

1. Lower values from the ranges of degrees of warpage are referred for the simple castings made from light-non-ferrous alloys; greater values - to the complex castings made from ferrous alloys.
2. Degree of warpage of casting, shown in the drawing, should be taken as per its element with maximum degree of warpage.

Appendices 1,2 (Amended edition, issue No. 1)

GOST 26645 - 85

SHEET

44

Accuracy degree for casting surfaces

Table 11

Alt	Sheet	No. of Document	Signature

GOST 26645 - 85

1

45

Alt.	SHEET	No. OF DOCUMENT	SIGNATURE	DATE		GOST 26645 - 85		46

(1)	(2)	(3)	(4)	(5)	(6)
Casting in low-silica green sand moulds from compounds with dampness ranging from 2.8 to 3.5% and strength from 120 to 160 kPa (from 1.2 to 1.6 kg/cm ²) with mean level of consolidation upto the hardness not less than 80 units.	upto 100 " 250 9-16 10-17 11-18 From above 100 " 250 9-16 10-17 11-18 12-19 " 250 " 630 10-17 11-18 12-19 13-19 " 630 " 1600 11-18 12-19 13-19 14-20 " 1600 " 4000 12-19 13-19 14-20 15-20 " 4000 " 10000 13-19 14-20 15-20 16-21				
Casting in solidified dry or dried sand moulds, painted with coatings on water base, applied with a brush or with self-drying coatings, applied by spraying or by dipping.					
Casting in low-silica, green-sand moulds made from compounds with a dampness ranging from 3.5 to 4.5% and strength from 60 to 120 kPa (from 0.6 to 1.2 kg/cm ²) with the level of consolidation upto the hardness not less than 70 units.	upto 100 " 250 9-16 10-17 11-18 12-19 From above 100 " 250 10-17 10-17 11-18 12-19 " 250 " 630 11-18 12-19 13-19 14-20 " 630 " 1600 12-19 13-19 14-20 15-20 " 1600 " 4000 13-19 14-20 15-20 16-21 " 4000 " 10000 14-20 15-20 16-21 17-21				
Casting in solidified dry or dried sand moulds, painted with self-drying or self-solidifying coatings, applied with a brush.	From above upto 100 " 250 9-16 10-17 11-18 12-19 " 250 " 630 10-17 10-17 11-18 12-19 " 630 " 1600 11-18 12-19 13-19 14-20 " 1600 " 4000 12-19 13-19 14-20 15-20 " 4000 " 10000 13-19 14-20 15-20 16-21				

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE
-----	-------	-----------------	-----------	------

Cont... of Table 11

(1)	(2)	(3)	(4)	(5)	(6)
Casting in low-silica green sand moulds made from highly damp (above 4.5%) and less strong (upto 69 kPa or 0.6 kg/cm ²) compounds with low level of consolidation upto the hardness below 70 units.	from upto 100 above 100 " 250 " 250 " 630 " 630 " 1600 " 1600 " 4000 " 4000 " 10000	100 250 " 630 " 1600 " 4000 " 10000	10-17 11-18 12-19 13-19 14-20 15-20 15-20 16-21 16-21 17-21 18-22 19-22	11-18 12-19 13-19 14-20 15-20 16-21 16-21 17-21 17-21 18-22 19-22	12-19 13-19 14-20 15-20 16-21 17-21 18-22 19-22
Casting in solidified, dry or dried unpainted sand moulds.					
Casting in moulds made from fluid self-solidifying compounds.					

NOTE: Ranges of degrees of accuracy for the surface of castings, maintained by different technological processes of casting are given in the Table. Lower ones among the values are referred for simple castings and for the conditions of mass-automatized production, the higher values - are applicable for the complex castings of individual and small-scale production, the middle ones - are applicable for castings of mean complexity and for the conditions of mechanized batch production.

ALP	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET
						48

Surface finish of castings.

Compliance between the surface finish and accuracy degrees for the surfaces of castings is given in Table 12.

Table 12.

Surface finish	Value of surface finish for the accuracy degrees of casting surface.										
	1	2	3	4	5	6	7	8	9	10	11
Arith- metic mean devia- tion of the pro- file	2.0	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	20.0
Ra, micron, not exceed- ing.	-	-	-	-	-	-	-	-	-	-	-
Height of un- even- ness of profile Rz. micron, not exceed- ing.	-	-	-	-	-	-	-	-	-	-	-

All	SHEET	No. OF DOCUMENT	SIGNATURE	DATE

Contd... Table 12

Value of surface finish for the accuracy degrees of casting surfaces.

Surface finish

18 13 14 15 16 17 18 19 20 21 22

Arithmetic mean

deviation of the

profile Ra, 32.0 25.0 40.0 50.0 63.0 80.0 100.0

micron, not

exceeding.

Height of unevenness of profile - - - - -
 Rz, micron, not exceeding.

GOST 26645 - 85

AIR	SHEET	NO. OF DOCUMENT	SIGNATURE	DATE

SHEET
50

Special Appendix 5 Accuracy class for the mass of castings

Table 13

Cont... of Table 13

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE
-----	-------	-----------------	-----------	------

(1)

(2)

(3)

(4)

(5)

(6)

Burnt-pattern-casting, using heat-resistant quartz materials.

upto 1.0"

from above 1.0"

10 "

100 "

3T

9T

3T

9T

3T

10

10

100

4

11T

5T

11

5T

12

5T

11

5T

11

5T

Precision investment casting, using heat-resisting quartz materials.

upto 1.0"

from above 1.0"

10 "

100 "

3T

9T

3T

10

10

100

4

11T

5T

11

5T

12

5T

13

7T

13

7T

13

5T

Low-pressure die casting and without sand cores in the metal mould.

upto 1.0"

from above 1.0"

10 "

100 "

5T

11T

4

11

5T

12

5T

13

7T

13

7T

13

7T

13

7T

13

7T

13

5T

Casting in low silica green sand moulds made from less damp (upto 2.8%) and highly-strong compounds (more than 160 kpa or 1.6 kg/cm²), having high or uniform consolidation upto hardness of not less than 90 units.

upto 1.0"

from above 1.0"

10 "

100 "

5T

11T

4

11

5T

12

5T

13

7T

13

7T

13

7T

13

7T

13

7T

13

5T

Contd...of Table 13

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE

(1)

(2)

(3)

(4)

(5)

(6)

Gasified pattern casting in
sand moulds

Casting into moulds, solidified in contact with the cold equipment.	upto 1.0 " 10 " 100 " 1000 " 10000 " 100000	4 - 11 5T - 12 5 - 13T 6 - 13 7T - 14 7 - 15
	" 10 " 100 " 1000 " 10000 " 100000	5 - 13T 6 - 13 7T - 14 7 - 15
		6 - 13 7T - 14 7 - 15
		8 - 15 9T - 16 9 - 16

Low-pressure die casting, and
in metal mould with sand
cores.

Casting in facing metal mould.

Casting in low silica green sand
moulds from compounds having
dampness from 2.8 upto 3.5% and
strength from 120 to 160 kPa
(from 1.2-1.6 kg/cm²) with the
mean level of consolidation upto the hardness not less than
80 units.

Centrifugal casting (inner surfaces)
Casting in moulds, solidified in
contact with the hot equipment.

GOST 26645 - 85

SHEET
53

Contd. . . of Table 13

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE

Casting in shell moulds.

Casting in vacuum film sand mould.

Casting in low silica green sand moulds made from compounds with a dampness from 3,5 to

4,5% and strength from with the level of consolidation upto the hardness not less than 70 units.

Casting in shell moulds from thermoreactive compounds.

Casting in moulds, solidified without contact with the equipment without heat drying.

Casting in low-silica green sand dried and dry moulds.

Casting in moulds made from fluid type self hardening compounds.

(1)	(2)	(3)	(4)	(5)	(6)
upto 1.0	5-13T	6-13	7T-14	7-15	7-15
" 10 "	10	6-13	7T-14	7-15	8-15
" 100 "	100	7T-14	7-15	8-15	9T-16
" 1000 "	1000	7-15	8-15	9T-16	9-16
" 10000 "	10000	8-15	9T-16	9-16	10-16
" 100000 "	100000	9T-16	9-16	10-16	11T-16

Contd.... of Table 13

Note: Ranges of classes of dimensional accuracy of castings, ensured by different technological processes of casting are given in the Table. Their lower values are related to the simple compact castings and to the conditions of mass - automatized production, the higher ones to the complex castings of individual and small-scale production, the mean ones - to the castings of mean complexity and to the conditions of mechanized series production.

Special Appendix 6

Allowance ranges for machining of the castings.

Table 14

Accuracy degree for the surface	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15	16
Ranges of allowance	1-2	1-3	1-4	2-5	3-6	4-7	5-8	6-9	7-10

Accuracy degree for the surface	17	18	19	20	21	22
Ranges of allowance	8-11	9-12	10-13	11-17	12-15	13-16

GOST 26645 - 85

AN	SHEET	NO. OF DOCUMENT	SIGNATURE	DATE

SHEET
56

Notes:

1. Lower values of series of allowances from the ranges of their values should be taken for the being-heat-treated castings from the non-ferrous low-melting alloys, the higher values - for castings made from malleable cast iron, the mean ones - for the castings made from grey and high-duty cast iron, being heat-treated castings made from steel and non-ferrous high-melting alloys.
 2. For the upper surfaces of castings for individual and small-lot-production, manufactured in different shapes, may be used magnified by 1-3 units of value for the allowance range during pouring.

Special Appendix 7
ACCURACY OF MACHINING AND ALLOWANCES OF CASTINGS.

1. Level of accuracy of machining, achieved on the basis of technical level of technology for machining, is given in Table 15.

GOST 26645 - 85

Sheet

57

Table 15

Characteristics of metal-working equipment.

Accuracy level of machining at the following accuracy degree of machines.

Automatized equipment, fitted with the devices for stabilizing and monitoring of accuracy of machining.

Automatized equipment (machine sets and machines with CNC, transfer lines from the transfer machine with CNC and flexible production modules and so on)

Unautomatized equipment.

Normal

High

High

Medium

Increased

Reduced

Medium.

Note:

Machines of normal accuracy as per GOST 8-82 machines with increased accuracy, high accuracy, extra-high accuracy as per GOST 8-82 should belong to the high degree of accuracy for machines.

2. values of allowances, given in Table 6 of the standard, should be used for the medium level of accuracy for machining (Table 15).

For the increased or high level of accuracy of machining, values of allowances, corresponding to the intervals of common tolerances given in Table 6 on 1 and 2 lines accordingly above the interval of actual tolerance and for the - to 1 line

1	2	3	4	5
AIR	SHEET	No. OF DOCUMENT	SIGNATURE	DATE

GOST 26645 - 85

58

below the interval of actual tolerance should be taken into account.

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE
-----	-------	-----------------	-----------	------

GOST 26645 - 85

SHEET
59

Common tolerance for casting
elements, mm

Общие допуски элементов отливок

Обязательное

мм

Таблица 16
TABLE - 16

Tolerance of the dimension from the surface Допуск размера от по- верхности до базы to the datum surface.		Tolerance of mould and location of the Dопуск формы и расположения поверхности surface.	Common tolerance for the element of casting, not Общий допуск элемента отливки, не более exceeding.
upto до 0,01	from above	upto до 0,01 Св. 0,01 » 0,02	0,02 0,03
upto до 0,02	from above	upto до 0,01 Св. 0,01 » 0,02 » 0,02 » 0,03 » 0,03 » 0,04	0,02 0,03 0,04 0,05
upto до 0,03	from above	upto до 0,01 Св. 0,01 » 0,02 » 0,02 » 0,03 » 0,03 » 0,04 » 0,04 » 0,05 » 0,05 » 0,06	0,03 0,04 0,05 0,06 0,07 0,08
upto до 0,04	from above	upto до 0,01 Св. 0,01 » 0,03 » 0,03 » 0,04 » 0,04 » 0,05 » 0,05 » 0,06 » 0,06 » 0,08	0,04 0,05 0,06 0,07 0,08 0,11
upto до 0,05	from above	upto до 0,01 Св. 0,01 » 0,03 » 0,03 » 0,04 » 0,04 » 0,05 » 0,05 » 0,06 » 0,06 » 0,08 » 0,08 » 0,10	0,05 0,06 0,07 0,08 0,09 0,11 0,14
upto до 0,06	from above	upto до 0,02 Св. 0,02 » 0,03 » 0,03 » 0,04 » 0,04 » 0,05 » 0,05 » 0,06 » 0,06 » 0,08 » 0,08 » 0,10 » 0,10 » 0,12	0,06 0,07 0,08 0,09 0,10 0,12 0,14 0,16
upto до 0,08	from above	upto до 0,02 Св. 0,02 » 0,04 » 0,04 » 0,05 » 0,05 » 0,06 » 0,06 » 0,08 » 0,08 » 0,10 » 0,10 » 0,12 » 0,12 » 0,16	0,08 0,09 0,10 0,11 0,14 0,16 0,18 0,22

мм

Tolerance of the dimension from the surface верхности до базы to the datum surface	Tolerance of mould Допуск формы and location of the surface	Common tolerance for the element of casting Общий допуск элемента не более not exceeding.
upto до from above Св. 0,08 до 0,10	upto До 0,02 from above Св. 0,02 » 0,04 » 0,04 » 0,06 » 0,06 » 0,08 » 0,08 » 0,10 » 0,10 » 0,12 » 0,12 » 0,16 » 0,16 » 0,20	0,10 0,11 0,12 0,14 0,16 0,18 0,22 0,28
upto до from above Св. 0,10 до 0,12	upto До 0,02 from above Св. 0,02 » 0,06 » 0,06 » 0,08 » 0,08 » 0,10 » 0,10 » 0,12 » 0,12 » 0,16 » 0,16 » 0,20 » 0,20 » 0,24	0,12 0,14 0,16 0,18 0,20 0,24 0,28 0,32
upto до from above Св. 0,12 до 0,16	upto До 0,03 from above Св. 0,03 » 0,06 » 0,06 » 0,10 » 0,10 » 0,12 » 0,12 » 0,16 » 0,16 » 0,20 » 0,20 » 0,24 » 0,24 » 0,32	0,16 0,18 0,20 0,22 0,28 0,32 0,36 0,44
upto до from above Св. 0,16 до 0,20	upto До 0,03 from above Св. 0,03 » 0,08 » 0,08 » 0,12 » 0,12 » 0,16 » 0,16 » 0,20 » 0,20 » 0,24 » 0,24 » 0,32 » 0,32 » 0,40	0,20 0,22 0,24 0,28 0,32 0,36 0,44 0,56
upto до from above Св. 0,20 до 0,24	upto До 0,06 from above Св. 0,06 » 0,12 » 0,12 » 0,16 » 0,16 » 0,20 » 0,20 » 0,24 » 0,24 » 0,32 » 0,32 » 0,40 » 0,40 » 0,48	0,24 0,28 0,32 0,36 0,40 0,50 0,56 0,64

mm

Tolerance of the dimension from the surface
Допуск размера от по-
верхности до базы
to the datum surface.

Tolerance of mould and location of the surface.
Допуск формы и расположения
поверхности

Common tolerance for the element of casting, not exceeding.
Общий допуск элемента
отливки, не более

from above	upto	from above	upto	from above	upto	from above	upto	from above	upto	from above	upto	from above	upto	from above	upto	from above	upto	from above	upto	
	Св. 0,24 до 0,32		до 0,06																	
			Св. 0,06 > 0,12																	
			> 0,12 > 0,20																	
			> 0,20 > 0,24																	
			> 0,24 > 0,32																	
			> 0,32 > 0,40																	
			> 0,40 > 0,50																	
			> 0,50 > 0,64																	
	Св. 0,32 до 0,40		до 0,08																	
			Св. 0,08 > 0,16																	
			> 0,16 > 0,24																	
			> 0,24 > 0,32																	
			> 0,32 > 0,40																	
			> 0,40 > 0,50																	
			> 0,50 > 0,64																	
			> 0,64 > 0,80																	
	Св. 0,40 до 0,50		до 0,12																	
			Св. 0,12 > 0,24																	
			> 0,24 > 0,32																	
			> 0,32 > 0,40																	
			> 0,40 > 0,50																	
			> 0,50 > 0,64																	
			> 0,64 > 0,80																	
			> 0,80 > 1,00																	
	Св. 0,50 до 0,64		до 0,12																	
			Св. 0,12 > 0,24																	
			> 0,24 > 0,40																	
			> 0,40 > 0,50																	
			> 0,50 > 0,64																	
			> 0,64 > 0,80																	
			> 0,80 > 1,00																	
			> 1,00 > 1,20																	
			> 1,20 > 1,28																	
	Св. 0,64 до 0,80		до 0,20																	
			Св. 0,20 > 0,40																	
			> 0,40 > 0,50																	
			> 0,50 > 0,64																	
			> 0,64 > 0,80																	
			> 0,80 > 1,00																	
			> 1,00 > 1,20																	
			> 1,20 > 1,60																	

GOST 26645-85

62

мм

Tolerance of the dimension from the surface to the datum surface.		Tolerance of mould and location of the surface	Common tolerance for the element of casting not exceeding.
from above	upto Св. 0,80 до 1,00	from above До 0,24 » 0,40 » 0,64 » 0,80 » 1,00 » 1,20 » 1,60 » 2,00	1,00 1,10 1,20 1,40 1,60 1,80 2,20 2,80
from above	upto Св. 1,00 до 1,20	from above До 0,32 » 0,64 » 0,80 » 1,00 » 1,20 » 1,60 » 2,00 » 2,40	1,20 1,40 1,60 1,80 2,00 2,40 2,80 3,20
from above	upto Св. 1,20 до 1,60	from above До 0,40 » 0,80 » 1,00 » 1,20 » 1,60 » 2,00 » 2,40 » 3,20	1,60 1,80 2,00 2,20 2,40 2,80 3,60 4,40
from above	upto Св. 1,60 до 2,00	from above До 0,40 » 0,80 » 1,20 » 1,60 » 2,00 » 2,40 » 3,20	2,00 2,20 2,40 2,80 3,20 3,60 4,40 5,60
from above	upto Св. 2,00 до 2,40	from above До 0,64 » 1,20 » 1,60 » 2,00 » 2,40 » 3,20 » 4,00	2,40 2,80 3,20 3,60 4,00 4,40 5,60 6,40

ГОСТ 26645-85 С. 45
 Contd.; table- 16
 Продолжение табл. 16

мм

Допуск размера от по- верхности до базы		Допуск формы и расположения поверхности	Общий допуск элемента отливки, не более
from above	upto Св. 2,40 до 3,20	from above До 0,80 Св. 0,80 » 1,60 » 1,60 » 2,00 » 2,00 » 2,40 » 2,40 » 3,20 » 3,20 » 4,00 » 4,00 » 5,00 » 5,00 » 6,40	3,20 3,60 4,00 4,40 5,00 5,60 7,00 9,00
from above	upto Св. 3,20 до 4,00	from above До 1,00 Св. 1,00 » 1,60 » 1,60 » 2,40 » 2,40 » 3,20 » 3,20 » 4,00 » 4,00 » 5,00 » 5,00 » 6,40 » 6,40 » 8,00	4,00 4,40 5,00 5,60 6,40 7,00 9,00 11,00
from above	upto Св. 4,00 до 5,00	from above До 1,20 Св. 1,20 » 2,40 » 2,40 » 3,20 » 3,20 » 4,00 » 4,00 » 5,00 » 5,00 » 6,40 » 6,40 » 8,00 » 8,00 » 10,00	5,00 5,60 6,40 7,00 8,00 9,00 11,00 14,00
from above	upto Св. 5,00 до 6,40	from above До 1,20 Св. 1,20 » 2,40 » 2,40 » 4,00 » 4,00 » 5,00 » 5,00 » 6,40 » 6,40 » 8,00 » 8,00 » 10,00 » 10,00 » 12,00 » 12,00 » 12,80	6,40 7,00 8,00 9,00 10,00 12,00 14,00 16,00 18,00
from above	upto Св. 6,40 до 8,00	from above До 2,00 Св. 2,00 » 4,00 » 4,00 » 5,00 » 5,00 » 6,40 » 6,40 » 8,00 » 8,00 » 10,00 » 10,00 » 12,00 » 12,00 » 16,00	8,00 9,00 10,00 11,00 12,00 14,00 18,00 22,00

Gost 26645-85

мм

Tolerance of the dimension from the surface to the datum surface		Tolerance of mould form "location" and location of the surface	Common tolerance for the element of casting, not exceeding.	
up to from above	Св. 8,00 до 10,00	from above Допуск формы "расположения" и расположения поверхности от по- верхности до базы и расположения поверхности от по- верхности до базы	до 2,40 Св. 2,40 » 4,00 » 4,00 » 6,40 » 6,40 » 8,00 » 8,00 » 10,00 » 10,00 » 12,00 » 12,00 » 16,00 » 16,00 » 20,00	10,00 11,00 12,00 14,00 16,00 18,00 22,00 28,00
up to from above	Св. 10,00 до 12,00	from above	до 3,20 Св. 3,20 » 6,40 » 6,40 » 8,00 » 8,00 » 10,00 » 10,00 » 12,00 » 12,00 » 16,00 » 16,00 » 20,00 » 20,00 » 24,00	12,00 14,00 16,00 18,00 20,00 24,00 28,00 32,00
up to from above	Св. 12,00 до 16,00	from above	до 4,00 Св. 4,00 » 8,00 » 8,00 » 10,00 » 10,00 » 12,00 » 12,00 » 16,00 » 16,00 » 20,00 » 20,00 » 24,00 » 24,00 » 32,00	16,00 18,00 20,00 22,00 24,00 28,00 36,00 44,00
up to from above	Св. 16,00 до 20,00	from above	до 5,00 Св. 5,00 » 8,00 » 8,00 » 12,00 » 12,00 » 16,00 » 16,00 » 20,00 » 20,00 » 24,00 » 24,00 » 32,00 » 32,00 » 40,00	20,00 22,00 24,00 28,00 32,00 36,00 44,00 56,00
up to from above	Св. 20,00 до 24,00	from above	до 6,40 Св. 6,40 » 12,00 » 12,00 » 16,00 » 16,00 » 20,00 » 20,00 » 24,00 » 24,00 » 32,00 » 32,00 » 40,00 » 40,00 » 48,00	24,00 28,00 32,00 36,00 40,00 44,00 56,00 64,00

мм

Tolerance of the dimension from the surface
Допуск размера от по-
верхности до базы
to the datum surface.

Tolerance of mould and location of the element of casting, not
Допуск формы и расположения
поверхности

Common tolerance for the element of casting, not
Общий допуск элемента
отливки, не более
exceeding

from above	upto	from above	upto	
	Св. 24,00 до 32,00		До 8,00	32,00
			Св. 8,00 » 16,00	36,00
			» 16,00 » 20,00	40,00
			» 20,00 » 24,00	44,00
			» 24,00 » 32,00	50,00
			» 32,00 » 40,00	56,00
			» 40,00 » 50,00	70,00
			» 50,00 » 64,00	90,00
from above	upto	from above	upto	
	Св. 32,00 до 40,00		До 10,00	40,00
			Св. 10,00 » 16,00	44,00
			» 16,00 » 24,00	50,00
			» 24,00 » 32,00	56,00
			» 32,00 » 40,00	64,00
			» 40,00 » 50,00	70,00
			» 50,00 » 64,00	90,00
			» 64,00 » 80,00	110,00
from above	upto	from above	upto	
	Св. 40,00 до 50,00		До 12,00	50,00
			Св. 12,00 » 24,00	56,00
			» 24,00 » 32,00	64,00
			» 32,00 » 40,00	70,00
			» 40,00 » 50,00	80,00
			» 50,00 » 64,00	90,00
			» 64,00 » 80,00	110,00
			» 80,00 » 100,00	140,00
from above	upto	from above	upto	
	Св. 50,00 до 64,00		До 12,00	64,00
			Св. 12,00 » 24,00	70,00
			» 24,00 » 40,00	80,00
			» 40,00 » 50,00	90,00
			» 50,00 » 64,00	100,00
			» 64,00 » 80,00	120,00
			» 80,00 » 100,00	140,00
			» 100,00 » 120,00	160,00
			» 120,00 » 128,00	180,00
from above	upto	from above	upto	
	Св. 64,00 до 80,00		До 20,00	80,00
			Св. 20,00 » 40,00	90,00
			» 40,00 » 50,00	100,00
			» 50,00 » 64,00	110,00
			» 64,00 » 80,00	120,00
			» 80,00 » 100,00	140,00
			» 100,00 » 120,00	180,00
			» 120,00 » 160,00	220,00

TERMS, USED IN THE PRESENT STANDARD AND THEIRDEFINITION

1. Nominal dimension of the component (casting) - dimension, specified in the drawing of component (casting).
2. Mean dimension of the component - dimension of the component corresponding to the mean of its tolerance zone.
3. Type of dimensions of casting - sum total of the dimensions of casting, characterised by similar design and technological specifications for shaping their accuracy. Dimensions of type 1 - dimensions of the casting elements, formed by one portion of mould or with one core.
Dimensions of type 2 - dimensions of the casting elements, formed by two-semi moulds or by a semi-mould and a core (including the dimensions, coming-out to the parting-line of casting or intersecting it).
Dimensions of type 3 - dimensions of the casting elements, formed by three and more parts of mould, by several cores or by movable elements of mould, as well as thickness of walls, formed by two and more portions of mould or by a mould and by a core.
4. Actual dimension of casting - actual local dimension, measured by two-point method.
5. Tolerance for shift of element of casting along the parting plane - difference of limit deviations of the positions of the parts of casting element, shaped into different half-moulds.

Alt	SHEET	No. OF document	SIGNATURE	DATE
-----	-------	-----------------	-----------	------

GOST 26645 - 85

SHEET

67

6. Common tolerance of the casting element - complex tolerance, including the tolerance of dimension from the surface to the datum surface and independently designated tolerances of mould and location of the being standardized section of the surface.

7. Unevenness of the surface of casting - sum-total of alternating projections and cavities on the surface of casting. Unevenness of the surface of casting is subdivided into roughness (microunevenness) and waviness (mesounevenness).

8. Surface roughness - as per GOST 2789 - 73 and GOST 25142-82. Roughness of surfaces - sum-total of repeated unevenness of smaller value (microunevenness).

Pitch line of the microprofile of the surface serves as the datum line for determining the parameters of surface roughness. The following designations are used: Ra, micron - mean arithmetic deviation of the microprofile of surface; Rz, micron - height of unevenness of the profile (upto 10 point).

9. Waviness of surface - as per СЭВ 3951 - 73.

Waviness of surface - is the sum-total of the repeating surface irregularities of medium value (mesoirregularities) that is irregularities of surface with a pitch, exceeding the datum line, on which surface - roughness of the given surface is measured.

Pitch line of the surface profile serves as the datum line for determining the values of parameters.

Base length for measuring the waviness of surfaces of castings is taken as equal to 4-10 to the base lengths for measuring the roughness, but not less than 5 pitches of waviness

Alt	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET
						68

and not exceeding 100 mm.

Waviness occupies an intermediate position between the roughness and deviations of shape of surface.

10. Tolerance of surface irregularities of casting - is the maximum height of the mesoirregularity of the surface of casting.

11. Allowance for machining - thickness of metal, layer, removable from the surface of casting during its machining for ensuring the given dimensions, shape, location, waviness and roughness of surface for the component.

12. Common allowance is the total allowance for all steps of machining, corresponding to the tolerance zone mean of the component and casting.

13. Minimum casting allowance is the allowance, required for ensuring the given requirements for quality (roughness, waviness and non-defectiveness) of the surface of component and depending upon the thickness of surface layer to be removed during machining, roughness and waviness for the surface of casting. Surface defects of casting should not exceed the limits of minimum casting tolerance.

14. Surface layer of casting (component) - is the metal layer having a changable composition (during shaping or preceding machining), microstructure and properties, possessing increased resistance to cutting edge machining.

15. Technological lap is the local or irregular increase of the body of casting in comparison with the drawing of cast component having the normative allowances for machining, called for the

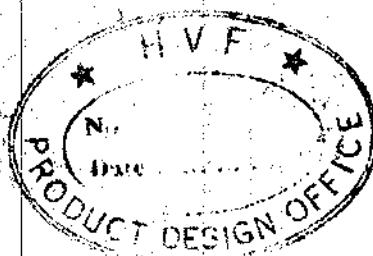
AI	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	GOST 26645 - 85	SHEET
						69

- by the specialties of casting technology. The following are referred under technological lapses; allowances, ensuring the quidged crystallizing of casting; allowances, smoothing the local depressions and projections; allowances and adaptions compensating the distortion of configuration of casting under the effect of the stress, occurring during cooling; impasseable holes; shrinkable ribs; drafts.
16. Parameters for the accuracy of casting are the generalized accuracy characteristics of the dimensions, surfaces or castings accuracy of dimensions and surfaces of casting including the accuracy class for the dimension, degree of accuracy for the warpage for the element of casting, degree of accuracy for the surface, as well as shift of element of casting and series of surface, as well as shift of element of casting and series of casting including the accuracy class for the dimension, degree of casting including the accuracy class for the surfaces and surfaces of casting as a whole.
17. Norms for accuracy of casting are the requirements for the accuracy parameters of casting as a whole include the accuracy of dimensions and surfaces of casting allowing for the surface of casting.
18. Types of machining; rough, semifinishing, finishing and thinning of casting.
- They differ from each other as per the accuracy being ensured design-technical specifications, operating conditions and manufacturing norms are established depending upon the purpose.
- Accuracy norms are established upon the purpose, level of values for the accuracy parameters of casting.
- Design-technical specifications, operating conditions and manufacturing norms are ensured by the accuracy being ensured

and the surface finish.

Number of technological steps, required for carrying-out each type of operation, depends upon the conditions of operation and specific features of the casting and the being-machined surface.

Appendix - 3 - 9 (Introduced additionally Issue No. 1).



Alt	Sheet	No. of document	Signature	Date	GOST 26645 - 85	Sheet 71