

ГОСТ 20365-74*

Группа Г23
2400-0060
2400-1000

ГОСУДАРСТВЕННЫЙ СТАНДАРТ СОЮЗА ССР

ПРОТЯЖКИ КРУГЛЫЕ ПЕРЕМЕННОГО РЕЗАНИЯ ДИАМЕТРОМ ОТ 14 ДО 90 мм

Конструкция и размеры

Broaches round of variable cutting of diameters from 14 to 90 mm.
Design and dimensions

Дата введения 1976-01-01

Постановлением Государственного комитета стандартов Совета Министров СССР от 17 декабря 1974 г. N 2739 срок введения установлен с 01.01.76

Проверен в 1981 г.

ВЗАМЕН МН 4172-62

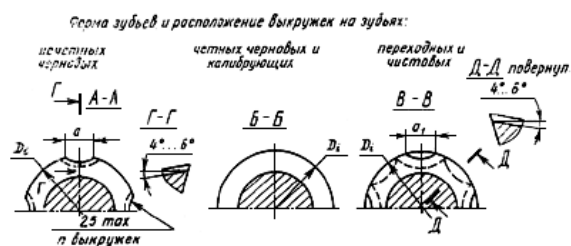
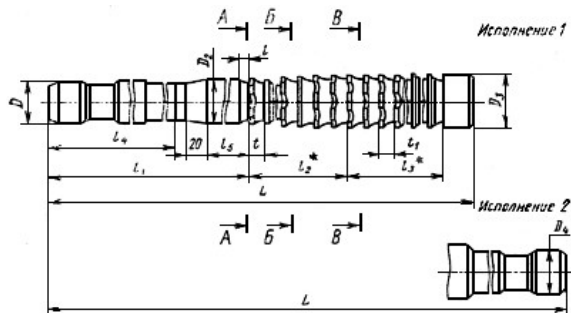
* ПЕРЕИЗДАНИЕ март 1983 г. с Изменениями N 1, N 2, N 3, утвержденными в августе 1977 г., июне 1981 г., мае 1982 г. (ИУС N 9 - 1977 г., ИУС N 9 - 1981 г., ИУС N 8 - 1982 г.)

ВНЕСЕНО [Изменение N 4](#), утвержденное и введенное в действие Постановлением Госстандарта СССР от 23.09.87 N 3624 с 01.02.88

Изменение N 4 внесено изготовителем базы данных по тексту ИУС N 1, 1988 год

1. Настоящий стандарт распространяется на протяжки универсального назначения переменного резания, равной стойкости черновой и чистовой частей, предназначенных для обработки цилиндрических отверстий диаметром от 14 до 90 мм.

2. Конструкция и размеры протяжек должны соответствовать указанным на черт.1 и в табл.1, 2.



* Размеры для справок

Черт.1

Черт.1 (Измененная редакция, [Изм. N 4](#)).

Таблица 1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|---------------------|------|-------|-------|-------|-----|-----|-------|
| | | | Номин . | Поле допуск а | | | | | | | |
| 2400-0061 | | 1 | 14,00 | $H 7$ | 12 | 13,4 | 14,0 | 12 | 460 | 4 | 255 |
| 2400-0062 | | 2 | | | | | | | 560 | | |
| 2400-1001 | | 1 | | $H 8$ | | | | | 460 | | |
| 2400-1002 | | 2 | | | | | | | 560 | | |
| 2400-0063 | | 1 | | $H 9$ | | | | | 460 | | |
| 2400-0064 | | 2 | | | | | | | 560 | | |
| 2400-0065 | | 1 | 13,76 | $H 7$ | 13,1 | 13,76 | 460 | 460 | 4 | 255 | |
| 2400-0066 | | 2 | | | | | | 560 | | | |
| 2400-0067 | | 1 | 14,00 | $H 7$ | 13,4 | 14,00 | 515 | 515 | 4 | 265 | |
| 2400-0068 | | 2 | | | | | | 615 | | | |
| 2400-1003 | | 1 | | $H 8$ | | | | 515 | | | |
| 2400-1004 | | 2 | | | | | | 615 | | | |
| 2400-0069 | | 1 | | $H 9$ | | | | 515 | | | |
| 2400-0070 | | 2 | | | | | | 615 | | | |

| | | | | | | | | | |
|-----------|--|---|-------|-----|------|-------|-----|---|-----|
| 2400-0071 | | 1 | 13,76 | H 7 | 13,1 | 13,76 | 530 | | |
| 2400-0072 | | 2 | | | | | 630 | | |
| 2400-0073 | | 1 | 15,00 | H 7 | 14,4 | 15,00 | 460 | | 255 |
| 2400-0074 | | 2 | | | | | 560 | | |
| 2400-1005 | | 1 | | H 8 | | | 460 | | |
| 2400-1006 | | 2 | | | | | 560 | | |
| 2400-0075 | | 1 | | H 9 | | | 460 | | |
| 2400-0076 | | 2 | | | | | 560 | | |
| 2400-0077 | | 1 | 14,76 | H 7 | 14,1 | 14,76 | 460 | | |
| 2400-0078 | | 2 | | | | | 560 | | |
| 2400-0079 | | 1 | 15,00 | H 7 | 14,4 | 15,00 | 580 | 5 | 270 |
| 2400-0080 | | 2 | | | | | 680 | | |
| 2400-1007 | | 1 | | H 8 | | | 580 | | |

Продолжение табл. 1

Размеры в мм

| Обозначение протяжек | l_2 | l_3 | l_4 | l_5 | Зубья протяжек | | | | | Выкружки | | |
|-------------------------|-------|-------|-------|-------|--------------------------|-----|-----------------------|---------------------------|-------|------------------------|----------|------------|
| | | | | | Черновые и переходные | | | Чистовые и калибрующие | | Число выкружек » | α | α_1 |
| | | | | | Число зубье в | z | Номер профиля * | Число зубье в | z_1 | | | |

| | | | | | | | | | | | | | | | | | | | | |
|-----------|-----|-------|----|----|----|----|----|-----|---|--|--|--|--|--|--|--|--|--|--|--|
| 2400-0075 | 98 | 88,5 | | | 14 | | | 16 | | | | | | | | | | | | |
| 2400-0976 | | | | | | | | | | | | | | | | | | | | |
| 2400-0077 | | | | | | | | | | | | | | | | | | | | |
| 2400-0078 | | | | | | | | | | | | | | | | | | | | |
| 2400-0079 | 162 | 113,0 | 40 | 18 | 9 | 4У | 16 | 6,0 | 3 | | | | | | | | | | | |
| 2400-0080 | | | | | | | | | | | | | | | | | | | | |
| 2400-1007 | | | | | | | | | | | | | | | | | | | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|---------------------|-----|-------|-------|-------|-----|-----|-------|
| | | | Номин . | Поле допуск а | | | | | | | |
| 2400-1008 | | 2 | 15,00 | H 8 | 12 | 14,4 | 15,00 | 12 | 680 | 5 | 270 |
| 2400-0081 | | 1 | | H 9 | | | | | 580 | | |
| 2400-0082 | | 2 | | | | | | | 680 | | |
| 2400-0083 | | 1 | 14,76 | H 7 | | 14,1 | 14,76 | | 600 | | |
| 2400-0084 | | 2 | | | | | | | 700 | | |
| 2400-0085 | | 1 | 16,00 | H 7 | 14 | 15,4 | 16,00 | | 490 | 4 | 265 |
| 2400-0086 | | 2 | | | | | | | 590 | | |
| 2400-1009 | | 1 | | H 8 | | | | | 490 | | |

| | | | | | | | | | | | | | |
|-----------|-----|------|----|----|---|---|----|---|---|--|--|-----|-----|
| 2400-1012 | | | | | | | | | | | | | |
| 2400-1013 | | | | | | | | | | | | | |
| 2400-0093 | | | | | | | | | | | | | |
| 2400-0094 | | | | | | | | | | | | | |
| 2400-0095 | 162 | | | 18 | | | | | | | | | |
| 2400-0096 | | | | | | | | | | | | | |
| 2400-0097 | 112 | 88,5 | 30 | 16 | 7 | 4 | 16 | 5 | 3 | | | 4,5 | 3,0 |
| 2400-0098 | | | | | | | | | | | | | |
| 2400-1014 | | | | | | | | | | | | | |
| 2400-1015 | | | | | | | | | | | | | |
| 2400-0099 | | | | | | | | | | | | | |
| 2400-0100 | | | | | | | | | | | | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|---------------------|-----|-------|-------|-------|-----|-----|-------|
| | | | Номин | Поле допуск а | | | | | | | |
| 2400-0101 | | 1 | 16,76 | $H 7$ | 14 | 16,1 | 16,76 | 12 | 500 | 4 | 265 |
| 2400-0102 | | 2 | | | | | | | 600 | | |
| 2400-0103 | | 1 | 17,00 | $H 7$ | | 16,4 | 17,00 | | 580 | 5 | 280 |

| | | | | | | | | | | | | |
|-----------|-----|-------|-----|----|----|---|---|----|-----|---|---|-----|
| 2400-0109 | 98 | 88,5 | 195 | 30 | 14 | 7 | 5 | 16 | 5,0 | 3 | 5 | 3,5 |
| 2400-0110 | | | | | | | | | | | | |
| 2400-1018 | | | | | | | | | | | | |
| 2400-1019 | | | | | | | | | | | | |
| 2400-0111 | | | | | | | | | | | | |
| 2400-0112 | | | | | | | | | | | | |
| 2400-0113 | 112 | | | | 16 | | | | | | | |
| 2400-0114 | | | | | | | | | | | | |
| 2400-0115 | 144 | 113,0 | | 50 | 16 | 9 | 6 | 16 | 6,0 | 3 | | |
| 2400-0116 | | | | | | | | | | | | |
| 2400-1021 | | | | | | | | | | | | |
| 2400-1022 | | | | | | | | | | | | |
| 2400-0117 | | | | | | | | | | | | |
| 2400-0118 | | | | | | | | | | | | |
| 2400-0119 | 162 | | | | 18 | | | | | | | |
| 2400-0120 | | | | | | | | | | | | |
| 2400-0127 | 128 | 96,5 | | 30 | 16 | 8 | 5 | 16 | 5,5 | 3 | | |

Продолжение табл.1

Размеры в мм

| Обозначение протыжек | Применяемость | Исполнение | Диаметр отверстия | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|-----|-------|-------|-------|-----|-----|-------|
|-------------------------|---------------|------------|----------------------|-----|-------|-------|-------|-----|-----|-------|

| | | | Номин | Поле допуск а | | | | | | | |
|-----------|--|---|---------|---------------------|----|------|-------|----|-----|-----|-----|
| 2400-0128 | | 2 | (19,00) | H 7 | 16 | 18,1 | 19,00 | 12 | 615 | 5,0 | 260 |
| 2400-1023 | | 1 | | H 8 | | | | | 515 | | |
| 2400-1024 | | 2 | | | | | | | 615 | | |
| 2400-0129 | | 1 | | H 9 | | | | | 515 | | |
| 2400-0130 | | 2 | | | | | | | 615 | | |
| 2400-0131 | | 1 | 18,72 | H 7 | | 17,8 | 18,72 | | 515 | | |
| 2400-0132 | | 2 | | | | | | | 615 | | |
| 2400-0133 | | 1 | (19,00) | H 7 | | 18,1 | 19,00 | | 650 | 5,5 | 280 |
| 2400-0134 | | 2 | | | | | | | 750 | | |
| 2400-1025 | | 1 | | H 8 | | | | | 650 | | |
| 2400-1026 | | 2 | | | | | | | 750 | | |
| 2400-0135 | | 1 | | H 9 | | | | | 650 | | |
| 2400-0136 | | 2 | | | | | | | 750 | | |
| 2400-0137 | | 1 | 18,72 | H 7 | | 17,8 | 18,72 | | 650 | | |
| 2400-0138 | | 2 | | | | | | | 750 | | |
| 2400-0139 | | 1 | (19,00) | H 7 | | 18,1 | 19,00 | | 710 | | 300 |
| 2400-0140 | | 2 | | | | | | | 810 | | |
| 2400-1027 | | 1 | | H 8 | | | | | 710 | | |

| | | | | | | | | | | | | |
|-----------|--|--|--|--|--|--|--|--|--|--|--|--|
| 2400-1031 | | | | | | | | | | | | |
|-----------|--|--|--|--|--|--|--|--|--|--|--|--|

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|---------------------|-----|-------|-------|-------|-----|-----|-------|
| | | | Номин . | Поле допуск а | | | | | | | |
| 2400-0147 | | 1 | 20,00 | H_9 | 16 | 19,1 | 20,00 | 12 | 550 | 5,5 | 270 |
| 2400-0148 | | 2 | | | | | | | 650 | | |
| 2400-0149 | | 1 | 19,72 | H_7 | | 18,8 | 19,72 | | 550 | | |
| 2400-0150 | | 2 | | | | | | | 650 | | |
| 2400-0151 | | 1 | 20,00 | H_7 | 18 | 19,1 | 20,00 | 18 | 710 | | 300 |
| 2400-0152 | | 2 | | | | | | | 810 | | |
| 2400-1032 | | 1 | | H_8 | | | | | 710 | | |
| 2400-1033 | | 2 | | | | | | | 810 | | |
| 2400-0153 | | 1 | | H_9 | | | | | 710 | | |
| 2400-0154 | | 2 | | | | | | | 810 | | |
| 2400-0155 | | 1 | 19,72 | H_7 | | 18,8 | 19,72 | | 710 | | |
| 2400-0156 | | 2 | | | | | | | 810 | | |
| 2400-0157 | | 1 | (21,00) | H_7 | | 19,9 | 21,00 | | 580 | | 270 |
| 2400-0158 | | 2 | | | | | | | 680 | | |

| | | | | | | | | | | | | | |
|-----------|-----|-----|-----|----|----|----|---|----|---|---|-----|-----|-----|
| 2400-0147 | 144 | 113 | 195 | 40 | 16 | 9 | 6 | 16 | 6 | 3 | 6 | 5 | 3,5 |
| 2400-0148 | | | | | | | | | | | | | |
| 2400-0149 | | | | | | | | | | | | | |
| 2400-0150 | | | | | | | | | | | | | |
| 2400-0151 | 240 | 129 | 200 | 65 | 24 | 10 | 6 | 16 | 7 | 5 | | | |
| 2400-0152 | | | | | | | | | | | | | |
| 2400-1032 | | | | | | | | | | | | | |
| 2400-1033 | | | | | | | | | | | | | |
| 2400-0153 | | | | | | | | | | | | | |
| 2400-0154 | | | | | | | | | | | | | |
| 2400-0155 | | | | | | | | | | | | | |
| 2400-0156 | | | | | | | | | | | | | |
| 2400-0157 | 162 | 126 | 195 | 40 | 18 | 9 | 6 | 18 | 6 | 3 | 5,5 | 4,0 | |
| 2400-0158 | | | | | | | | | | | | | |
| 2400-1034 | | | | | | | | | | | | | |
| 2400-1035 | | | | | | | | | | | | | |
| 2400-0159 | | | | | | | | | | | | | |
| 2400-0160 | | | | | | | | | | | | | |
| 2400-0161 | | | | | | | | | | | | | |
| 2400-0162 | | | | | | | | | | | | | |
| 2400-0163 | 288 | 145 | 200 | 65 | 24 | 12 | 7 | 16 | 8 | 5 | | | |

| | | | | | | | | | | |
|-----------|--|---|-------|-----|----|------|-------|-----|-----|-----|
| 2400-0175 | | 1 | 22,00 | H 7 | | 20,9 | 22,00 | 760 | 7,0 | 310 |
| 2400-0176 | | 2 | | | | | | 860 | | |
| 2400-1041 | | 1 | | H 8 | | | | 760 | | |
| 2400-1042 | | 2 | | | | | | 860 | | |
| 2400-0177 | | 1 | | H 9 | | | | 760 | | |
| 2400-0178 | | 2 | | | | | | 860 | | |
| 2400-0179 | | 1 | 21,72 | H 7 | | 20,6 | 21,72 | 760 | | |
| 2400-0180 | | 2 | | | | | | 860 | | |
| 2400-0181 | | 1 | 24,00 | H 7 | 22 | 22,9 | 24,00 | 580 | 6,5 | 270 |
| 2400-0182 | | 2 | | | | | | 680 | | |
| 2400-1043 | | 1 | | H 8 | | | | 580 | | |
| 2400-1044 | | 2 | | | | | | 680 | | |
| 2400-0183 | | 1 | | H 9 | | | | 580 | | |
| 2400-0184 | | 2 | | | | | | 680 | | |
| 2400-0185 | | 1 | 23,72 | H 7 | | 22,6 | 23,72 | 580 | | |
| 2400-0186 | | 2 | | | | | | 680 | | |
| 2400-0187 | | 1 | 24,00 | H 7 | | 22,9 | 24,00 | 720 | 7,0 | 320 |
| 2400-0188 | | 2 | | | | | | 820 | | |

Продолжение табл.1

Размеры в мм

| | | | | | | | | | | | | | |
|-----------|-----|-----|-----|----|----|----|---|----|---|---|--|-----|-----|
| 2400-0180 | | | | | | | | | | | | | |
| 2400-0181 | 140 | 144 | 195 | 40 | 14 | 10 | 7 | 18 | 7 | 4 | | 6,0 | 4,5 |
| 2400-0182 | | | | | | | | | | | | | |
| 2400-1043 | | | | | | | | | | | | | |
| 2400-1044 | | | | | | | | | | | | | |
| 2400-0183 | | | | | | | | | | | | | |
| 2400-0184 | | | | | | | | | | | | | |
| 2400-0185 | | | | | | | | | | | | | |
| 2400-0186 | | | | | | | | | | | | | |
| 2400-0187 | 182 | 180 | 225 | 60 | 14 | 13 | 8 | 18 | 9 | 5 | | 6 | 4,5 |
| 2400-0188 | | | | | | | | | | | | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|--------------|-----|-------|-------|-------|-----|-----|-------|
| | | | Номинал | Поле допуска | | | | | | | |
| 2400-1045 | | 1 | 24,00 | H 8 | 22 | 22,9 | 24,0 | 18 | 720 | 7,0 | 320 |
| 2400-1046 | | 2 | | | | | | | 820 | | |
| 2400-0189 | | 1 | | H 9 | | | | | 720 | | |
| 2400-0190 | | 2 | | | | | | | 820 | | |

| | | | | | | | | | |
|-----------|--|---|-------|-----|------|-------|-----|-----|-----|
| 2400-0191 | | 1 | 23,72 | H 7 | 22,6 | 23,72 | 720 | | |
| 2400-0192 | | 2 | | | | | 820 | | |
| 2400-0193 | | 1 | 25,00 | H 7 | 23,9 | 25,00 | 580 | 6,5 | 270 |
| 2400-0194 | | 2 | | | | | 680 | | |
| 2400-1047 | | 1 | | H 8 | | | 580 | | |
| 2400-1048 | | 2 | | | | | 680 | | |
| 2400-0195 | | 1 | | H 9 | | | 580 | | |
| 2400-0196 | | 2 | | | | | 680 | | |
| 2400-0197 | | 1 | 24,72 | H 7 | 23,6 | 24,72 | 580 | | |
| 2400-0198 | | 2 | | | | | 680 | | |
| 2400-0199 | | 1 | 25,00 | H 7 | 23,9 | 25,00 | 825 | 8,0 | 345 |
| 2400-0200 | | 2 | | | | | 925 | | |
| 2400-1049 | | 1 | | H 8 | | | 825 | | |
| 2400-1051 | | 2 | | | | | 925 | | |
| 2400-0201 | | 1 | | H 9 | | | 825 | | |
| 2400-0202 | | 2 | | | | | 925 | | |
| 2400-0203 | | 1 | 24,72 | H 7 | 23,6 | 24,72 | 825 | | |
| 2400-0204 | | 2 | | | | | 925 | | |
| 2400-0205 | | 1 | 26,00 | H 7 | 24,9 | 26,00 | 580 | 6,5 | 270 |
| 2400-0206 | | 2 | | | | | 680 | | |
| 2400-1052 | | 1 | | H 8 | | | 580 | | |

| | | | | | | | | | | | |
|-----------|--|---|---------|-----|----|------|-------|----|-----|-----|-----|
| 2400-0208 | | 2 | 26,00 | H 9 | 22 | 24,9 | 26,00 | 18 | 680 | 6,5 | 270 |
| 2400-0209 | | 1 | 25,72 | H 7 | | 24,6 | 25,72 | | 580 | | |
| 2400-0210 | | 2 | | | | | | | 680 | | |
| 2400-0211 | | 1 | 26,00 | H 7 | | 24,9 | 26,00 | | 825 | 8,0 | 345 |
| 2400-0212 | | 2 | | | | | | | 925 | | |
| 2400-1054 | | 1 | | H 8 | | | | | 825 | | |
| 2400-1055 | | 2 | | | | | | | 925 | | |
| 2400-0213 | | 1 | | H 9 | | | | | 825 | | |
| 2400-0214 | | 2 | | | | | | | 925 | | |
| 2400-0215 | | 1 | 25,72 | H 7 | | 24,6 | 25,72 | | 825 | | |
| 2400-0216 | | 2 | | | | | | | 925 | | |
| 2400-0217 | | 1 | (27,00) | H 7 | 25 | 25,9 | 27,00 | 25 | 560 | 6,5 | 270 |
| 2400-0218 | | 2 | | | | | | | 675 | | |
| 2400-1056 | | 1 | | H 8 | | | | | 560 | | |
| 2400-1057 | | 2 | | | | | | | 675 | | |
| 2400-0219 | | 1 | | H 9 | | | | | 560 | | |
| 2400-0220 | | 2 | | | | | | | 675 | | |
| 2400-0221 | | 1 | 26,72 | H 7 | | 25,6 | 26,72 | | 560 | | |
| 2400-0222 | | 2 | | | | | | | 635 | | |
| 2400-0223 | | 1 | (27,00) | H 7 | | 25,9 | 27,00 | | 820 | 8,0 | 340 |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|---------------------|-----|-------|-------|-------|-----|-----|-------|
| | | | Номин . | Поле допуск а | | | | | | | |
| 2400-0229 | | 1 | 28,00 | $H 7$ | 25 | 26,9 | 28,00 | 25 | 560 | 6,5 | 270 |
| 2400-0230 | | 2 | | | | | | | 675 | | |
| 2400-1061 | | 1 | 28,00 | $H 8$ | 25 | 26,9 | 28,00 | 25 | 560 | 6,5 | 270 |
| 2400-1062 | | 2 | | | | | | | 675 | | |
| 2400-0231 | | 1 | 28,00 | $H 9$ | 25 | 26,9 | 28,00 | 25 | 560 | 6,5 | 270 |
| 2400-0232 | | 2 | | | | | | | 675 | | |
| 2400-0233 | | 1 | 27,72 | $H 7$ | 25 | 26,6 | 27,72 | 25 | 560 | 6,5 | 270 |
| 2400-0234 | | 2 | | | | | | | 675 | | |
| 2400-0235 | | 1 | 28,00 | $H 7$ | 25 | 26,9 | 28,00 | 25 | 820 | 9,5 | 345 |
| 2400-0236 | | 2 | | | | | | | 935 | | |
| 2400-1063 | | 1 | 28,00 | $H 8$ | 25 | 26,9 | 28,00 | 25 | 820 | 9,5 | 345 |
| 2400-1064 | | 2 | | | | | | | 935 | | |
| 2400-0237 | | 1 | 28,00 | $H 9$ | 25 | 26,9 | 28,00 | 25 | 820 | 9,5 | 345 |
| 2400-0238 | | 2 | | | | | | | 935 | | |
| 2400-0239 | | 1 | 27,72 | $H 7$ | 25 | 26,6 | 27,72 | 25 | 820 | 9,5 | 345 |
| | | 2 | | | | | | | 935 | | |

| | | | | | | | | | | |
|-----------|--|---|-------|-----|----|------|-------|-----|-----|-----|
| 2400-0257 | | 1 | 31,66 | H 7 | | 30,5 | 31,66 | 580 | | |
| 2400-0258 | | 2 | | | | | | 695 | | |
| 2400-0259 | | 1 | 32,00 | H 7 | | 30,8 | 32,00 | 820 | 9,5 | 365 |
| 2400-0260 | | 2 | | | | | | 935 | | |
| 2400-1072 | | 1 | | H 8 | | | | 820 | | |
| 2400-1073 | | 2 | | | | | | 935 | | |
| 2400-0261 | | 1 | | H 9 | | | | 820 | | |
| 2400-0262 | | 2 | | | | | | 935 | | |
| 2400-0263 | | 1 | 31,66 | H 7 | | 30,5 | 31,66 | 820 | | |
| 2400-0264 | | 2 | | | | | | 935 | | |
| 2400-0265 | | 1 | 34,00 | H 7 | 32 | 32,8 | 34,00 | 600 | 6,5 | 295 |
| 2400-0266 | | 2 | | | | | | 715 | | |
| 2400-1074 | | 1 | | H 8 | | | | 600 | | |
| 2400-1075 | | 2 | | | | | | 715 | | |
| 2400-0267 | | 1 | | H 9 | | | | 600 | | |
| 2400-0268 | | 2 | | | | | | 715 | | |

Продолжение табл.1

Размеры в мм

| | | | | | | |
|-------------------------|-------|-------|-------|-------|----------------|----------|
| Обозначение протяжек | l_2 | l_3 | l_4 | l_5 | Зубья протяжек | Выкружки |
|-------------------------|-------|-------|-------|-------|----------------|----------|

| | | | | | | | | | | | | |
|-----------|-----|-----|-----|----|----|----|---|----|---|---|-----|-----|
| 2400-0262 | | | | | | | | | | | | |
| 2400-0263 | | | | | | | | | | | | |
| 2400-0264 | | | | | | | | | | | | |
| 2400-0265 | 140 | 129 | 225 | 35 | 14 | 10 | 7 | 16 | 7 | 4 | 6,5 | 5,0 |
| 2400-0266 | | | | | | | | | | | | |
| 2400-1074 | | | | | | | | | | | | |
| 2400-1075 | | | | | | | | | | | | |
| 2400-0267 | | | | | | | | | | | | |
| 2400-0268 | | | | | | | | | | | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|---------------------|-----|-------|-------|-------|-----|-----|-------|
| | | | Номин | Поле допуск а | | | | | | | |
| 2400-0269 | | 1 | 33,66 | H_7 | 32 | 32,5 | 33,66 | 25 | 600 | 6,5 | 295 |
| 2400-0270 | | 2 | | | | | | | 715 | | |
| 2400-0271 | | 1 | 34,00 | H_7 | | 32,8 | 34,00 | | 820 | 9,5 | 365 |
| 2400-0272 | | 2 | | | | | | | 935 | | |
| 2400-1076 | | 1 | | H_8 | | | | | 820 | | |
| 2400-1077 | | 2 | | | | | | | 935 | | |

| | | | | | | | | | |
|-----------|--|---|---------|-----|------|-------|-----|-----|-----|
| 2400-0273 | | 1 | | H 9 | | | 820 | | |
| 2400-0274 | | 2 | | | | | 935 | | |
| 2400-0275 | | 1 | 33,66 | H 7 | 32,5 | 33,66 | 820 | | |
| 2400-0276 | | 2 | | | | | 935 | | |
| 2400-0277 | | 1 | (35,00) | H 7 | 33,8 | 35,00 | 600 | 6,5 | 295 |
| 2400-0278 | | 2 | | | | | 715 | | |
| 2400-1078 | | 1 | | H 8 | | | 600 | | |
| 2400-1079 | | 2 | | | | | 715 | | |
| 2400-0279 | | 1 | | H 9 | | | 600 | | |
| 2400-0280 | | 2 | | | | | 715 | | |
| 2400-0281 | | 1 | 34,66 | H 7 | 33,5 | 34,66 | 600 | | |
| 2400-0282 | | 2 | | | | | 715 | | |
| 2400-0283 | | 1 | (35,00) | H 7 | 33,8 | 35,00 | 820 | 9,5 | 365 |
| 2400-0284 | | 2 | | | | | 935 | | |
| 2400-1081 | | 1 | | H 8 | | | 820 | | |
| 2400-1082 | | 2 | | | | | 935 | | |
| 2400-0285 | | 1 | | H 9 | | | 820 | | |
| 2400-0286 | | 2 | | | | | 935 | | |
| 2400-0287 | | 1 | 34,66 | H 7 | 33,5 | 34,66 | 820 | | |
| 2400-0288 | | 2 | | | | | 935 | | |
| 2400-0289 | | 1 | 36,00 | H 7 | 34,8 | 36,00 | 600 | 6,5 | 295 |

| | | | | | | | | | | | | |
|-----------|--|---|-------|-----|----|------|-------|----|-----|-----|-----|--|
| 2400-1095 | | 2 | | | | | | | | 945 | | |
| 2400-0301 | | 1 | 38,00 | H 7 | 36 | 36,8 | 38,00 | 36 | 600 | 6,5 | 295 | |
| 2400-0302 | | 2 | | | | | | | 725 | | | |
| 2400-1096 | | 1 | | H 8 | | | | | 600 | | | |
| 2400-1097 | | 2 | | | | | | | 725 | | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | l_2 | l_3 | l_4 | l_5 | Зубья протяжек | | | | | | Выкружки | | |
|-------------------------|-------|-------|-------|-------|--------------------------|-------|-----------------------|---------------------------|---------|-----------------------|------------------------|----------|------------|
| | | | | | Черновые и переходные | | | Чистовые и калибрующие | | | Число выкружек % | α | α_1 |
| | | | | | Число зубье в | ξ | Номер профиля * | Число зубье в | ξ_1 | Номер профиля * | | | |
| 2400-0290 | 140 | 129 | 225 | 35 | 14 | 10 | 7 | 16 | 7 | 4 | 8 | 7,0 | 5,0 |
| 2400-1083 | | | | | | | | | | | | | |
| 2400-1084 | | | | | | | | | | | | | |
| 2400-0291 | | | | | | | | | | | | | |
| 2400-0292 | | | | | | | | | | | | | |
| 2400-0293 | | | | | | | | | | | | | |
| 2400-0294 | | | | | | | | | | | | | |
| 2400-0295 | 224 | 177 | 265 | 85 | 16 | 14 | 10 | 16 | 10 | 7 | | | |

| | | | | | | | | | | | | | | |
|-----------|-----|-----|-----|----|----|----|----|----|----|---|--|-----|-----|--|
| 2400-0296 | | | | | | | | | | | | | | |
| 2400-1085 | | | | | | | | | | | | | | |
| 2400-1086 | | | | | | | | | | | | | | |
| 2400-0297 | | | | | | | | | | | | | | |
| 2400-0298 | | | | | | | | | | | | | | |
| 2400-0299 | | | | | | | | | | | | | | |
| 2400-0300 | | | | | | | | | | | | | | |
| 2400-1087 | 140 | 129 | 225 | 35 | 14 | 10 | 7 | 16 | 7 | 4 | | 7,5 | 5,5 | |
| 2400-1088 | | | | | | | | | | | | | | |
| 2400-1089 | | | | | | | | | | | | | | |
| 2400-1091 | | | | | | | | | | | | | | |
| 2400-1092 | 224 | 177 | 265 | 80 | 16 | 14 | 10 | 16 | 10 | 7 | | | | |
| 2400-1093 | | | | | | | | | | | | | | |
| 2400-1094 | | | | | | | | | | | | | | |
| 2400-1095 | | | | | | | | | | | | | | |
| 2400-0301 | 140 | 129 | 225 | 35 | 14 | 10 | 7 | 16 | 7 | 4 | | | | |
| 2400-0302 | | | | | | | | | | | | | | |
| 2400-1096 | | | | | | | | | | | | | | |
| 2400-1097 | | | | | | | | | | | | | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|---------------------|-----|-------|-------|-------|-----|-----|-------|
| | | | Номин | Поле допуск а | | | | | | | |
| 2400-0303 | | 1 | 38,00 | $H 9$ | 36 | 36,8 | 38,00 | 36 | 600 | 6,5 | 295 |
| 2400-0304 | | 2 | | | | | | | 725 | | |
| 2400-0305 | | 1 | 37,66 | $H 7$ | | 36,5 | 37,66 | | 600 | | |
| 2400-0306 | | 2 | | | | | | | 725 | | |
| 2400-0307 | | 1 | 38,00 | $H 7$ | | 36,8 | 38,00 | | 830 | 9,5 | 380 |
| 2400-0308 | | 2 | | | | | | | 955 | | |
| 2400-1098 | | 1 | | $H 8$ | | | | | 830 | | |
| 2400-1099 | | 2 | | | | | | | 955 | | |
| 2400-0309 | | 1 | | $H 9$ | | | | | 830 | | |
| 2400-0310 | | 2 | | | | | | | 955 | | |
| 2400-0311 | | 1 | 37,66 | $H 7$ | | 36,5 | 37,66 | | 830 | | |
| 2400-0312 | | 2 | | | | | | | 955 | | |
| 2400-0313 | | 1 | 40,00 | $H 7$ | | 38,8 | 40,00 | | 640 | 7,0 | 315 |
| 2400-0314 | | 2 | | | | | | | 765 | | |
| 2400-1101 | | 1 | | $H 8$ | | | | | 640 | | |
| 2400-1102 | | 2 | | | | | | | 765 | | |
| 2400-0315 | | 1 | | $H 9$ | | | | | 640 | | |

| | | | | | | | | | |
|-----------|--|---|-------|-----|------|-------|------|----|-----|
| 2400-0333 | | 1 | | H 9 | | | 900 | | |
| 2400-0334 | | 2 | | | | | 1025 | | |
| 2400-0335 | | 1 | 41,66 | H 7 | 40,4 | 41,66 | 900 | | |
| 2400-0336 | | 2 | | | | | 1025 | | |
| 2400-0337 | | 1 | 45,00 | H 7 | 43,7 | 45,00 | 665 | 7 | 335 |
| 2400-0338 | | 2 | | | | | 790 | | |
| 2400-1109 | | 1 | | H 8 | | | 665 | | |
| 2400-1111 | | 2 | | | | | 790 | | |
| 2400-0339 | | 1 | | H 9 | | | 665 | | |
| 2400-0340 | | 2 | | | | | 790 | | |
| 2400-0341 | | 1 | 44,66 | H 7 | 43,4 | 44,66 | 665 | | |
| 2400-0342 | | 2 | | | | | 790 | | |
| 2400-0343 | | 1 | 45,00 | H 7 | 43,7 | 45,00 | 900 | 11 | 415 |
| 2400-0344 | | 2 | | | | | 1025 | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | l_2 | l_3 | l_4 | l_5 | Зубья протяжек | | | | | Выкружки | | |
|-------------------------|-------|-------|-------|-------|--------------------------|-----|---------------------------|----------------|-------|------------------------|----------|------------|
| | | | | | Черновые и переходные | | Чистовые и калибрующие | | | Число выкружек » | α | α_1 |
| | | | | | Число зубье | t | Номер профиля | Число зубье | t_1 | | | |

| | | | | | | | | | | |
|-----------|--|---|-------|-----|----|------|-------|------|----|-----|
| 2400-1116 | | 1 | | H 9 | | | | 665 | | |
| 2400-1117 | | 2 | | | | | | 790 | | |
| 2400-1118 | | 1 | | H 7 | | | | 900 | 11 | 415 |
| 2400-1119 | | 2 | | | | | | 1025 | | |
| 2400-1121 | | 1 | | H 9 | | | | 900 | | |
| 2400-1122 | | 2 | | | | | | 1025 | | |
| 2400-0349 | | 1 | 48,00 | H 7 | 45 | 46,7 | 48,00 | 665 | 7 | 335 |
| 2400-0350 | | 2 | | | | | | 790 | | |
| 2400-1123 | | 1 | | H 8 | | | | 665 | | |
| 2400-1124 | | 2 | | | | | | 790 | | |
| 2400-0351 | | 1 | | H 9 | | | | 665 | | |
| 2400-0352 | | 2 | | | | | | 790 | | |
| 2400-0353 | | 1 | 47,66 | H 7 | | 46,4 | 47,66 | 665 | | |
| 2400-0354 | | 2 | | | | | | 790 | | |
| 2400-0355 | | 1 | 48,00 | H 7 | | 46,7 | 48,00 | 900 | 11 | 415 |
| 2400-0356 | | 2 | | | | | | 1025 | | |
| 2400-1125 | | 1 | | H 8 | | | | 900 | | |
| 2400-1126 | | 2 | | | | | | 1025 | | |
| 2400-0357 | | 1 | | H 9 | | | | 900 | | |

Размеры в мм

| Обозначение протяжек | l_2 | l_3 | l_4 | l_5 | Зубья протяжек | | | | | | Выкружки | | |
|-------------------------|-------|-------|-------|-------|--------------------------|-------|-----------------------|---------------------------|---------|-----------------------|-------------------------------|----------|------------|
| | | | | | Черновые и переходные | | | Чистовые и калибрующие | | | Число выкружек α | α | α_1 |
| | | | | | Число зубье в | ξ | Номер профиля * | Число зубье в | ξ_1 | Номер профиля * | | | |
| 2400-1112 | 224 | 193 | 290 | 90 | 14 | 16 | 11 | 16 | 11 | 7 | 10 | 7,0 | 5,0 |
| 2400-1113 | | | | | | | | | | | | | |
| 2400-0345 | | | | | | | | | | | | | |
| 2400-0346 | | | | | | | | | | | | | |
| 2400-0347 | | | | | | | | | | | | | |
| 2400-0348 | | | | | | | | | | | | | |
| 2400-1114 | 176 | 129 | 260 | 40 | 16 | 11 | 8 | 16 | 7 | 4 | | 7,5 | 5,5 |
| 2400-1115 | | | | | | | | | | | | | |
| 2400-1116 | | | | | | | | | | | | | |
| 2400-1117 | | | | | | | | | | | | | |
| 2400-1118 | 224 | 193 | 290 | 90 | 14 | 16 | 11 | 16 | 11 | 7 | | | |
| 2400-1119 | | | | | | | | | | | | | |
| 2400-1121 | | | | | | | | | | | | | |
| 2400-1122 | | | | | | | | | | | | | |
| 2400-0349 | 176 | 129 | 260 | 40 | 16 | 11 | 8 | 16 | 7 | 4 | | | |

| | | | | | | | | | |
|-----------|--|---|-------|-----|------|-------|------|----|-----|
| 2400-0361 | | 1 | 50,00 | H 7 | 48,7 | 50,00 | 665 | 7 | 335 |
| 2400-0362 | | 2 | | | | | 790 | | |
| 2400-1127 | | 1 | | H 8 | | | 665 | | |
| 2400-1128 | | 2 | | | | | 790 | | |
| 2400-0363 | | 1 | | H 9 | | | 665 | | |
| 2400-0364 | | 2 | | | | | 790 | | |
| 2400-0365 | | 1 | 49,66 | H 7 | 48,4 | 49,66 | 665 | | |
| 2400-0366 | | 2 | | | | | 790 | | |
| 2400-0367 | | 1 | 50,00 | H 7 | 48,7 | 50,00 | 900 | 11 | 415 |
| 2400-0368 | | 2 | | | | | 1025 | | |
| 2400-1129 | | 1 | | H 8 | | | 900 | | |
| 2400-1131 | | 2 | | | | | 1025 | | |
| 2400-0369 | | 1 | | H 9 | | | 900 | | |
| 2400-0370 | | 2 | | | | | 1025 | | |
| 2400-0371 | | 1 | 49,66 | H 7 | 48,4 | 49,66 | 900 | | |
| 2400-0372 | | 2 | | | | | 1025 | | |
| 2400-0373 | | 1 | 52,00 | H 7 | 50,6 | 52,00 | 665 | 7 | 335 |
| 2400-0374 | | 2 | | | | | 790 | | |
| 2400-1132 | | 1 | | H 8 | | | 665 | | |
| 2400-1133 | | 2 | | | | | 790 | | |
| 2400-0375 | | 1 | | H 9 | | | 665 | | |

| | | | Номинал | Поле допуска | | | | | | | |
|-----------|--|---|---------|--------------|----|------|-------|----|------|----|-----|
| 2400-0379 | | 1 | 52,00 | H 7 | 45 | 50,6 | 52,00 | 36 | 925 | 11 | 415 |
| 2400-0380 | | 2 | | | | | | | 1050 | | |
| 2400-1134 | | 1 | | H 8 | | | | | 925 | | |
| 2400-1135 | | 2 | | | | | | | 1050 | | |
| 2400-0381 | | 1 | | H 9 | | | | | 925 | | |
| 2400-0382 | | 2 | | | | | | | 1050 | | |
| 2400-0383 | | 1 | 51,60 | H 7 | | 50,2 | 51,60 | | 925 | | |
| 2400-0384 | | 2 | | | | | | | 1050 | | |
| 2400-1136 | | 1 | 53,00 | H 7 | | 51,6 | 53,00 | | 665 | 7 | 335 |
| 2400-1137 | | 2 | | | | | | | 790 | | |
| 2400-1138 | | 1 | | H 8 | | | | | 665 | | |
| 2400-1139 | | 2 | | | | | | | 790 | | |
| 2400-1141 | | 1 | | H 9 | | | | | 665 | | |
| 2400-1142 | | 2 | | | | | | | 790 | | |
| 2400-1143 | | 1 | 52,60 | H 7 | | 51,2 | 52,60 | | 665 | | |
| 2400-1144 | | 2 | | | | | | | 790 | | |
| 2400-1145 | | 1 | 53,00 | H 7 | | 51,6 | 53,0 | | 925 | 11 | 415 |
| 2400-1146 | | 2 | | | | | | | 1050 | | |
| 2400-1147 | | 1 | | H 8 | | | | | 925 | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|---------------------|-----|-------|-------|-------|------|-----|-------|
| | | | Номин | Поле допуск а | | | | | | | |
| 2400-1155 | | 2 | 55,0 | $H 8$ | 45 | 53,6 | 55,0 | 36 | 790 | 7 | 335 |
| 2400-0387 | | 1 | | $H 9$ | | | | | 665 | | |
| 2400-0388 | | 2 | | | | | | | 790 | | |
| 2400-0389 | | 1 | 54,6 | $H 7$ | | 53,2 | 54,6 | | 665 | | |
| 2400-0390 | | 2 | | | | | | | 790 | | |
| 2400-0391 | | 1 | 55,0 | $H 7$ | | 53,6 | 55,0 | | 925 | 11 | 415 |
| 2400-0392 | | 2 | | | | | | | 1050 | | |
| 2400-1156 | | 1 | | $H 8$ | | | | | 925 | | |
| 2400-1157 | | 2 | | | | | | | 1050 | | |
| 2400-0393 | | 1 | | $H 9$ | | | | | 925 | | |
| 2400-0394 | | 2 | | | | | | | 1050 | | |
| 2400-0395 | | 1 | 54,6 | $H 7$ | | 53,2 | 54,6 | | 925 | | |
| 2400-0396 | | 2 | | | | | | | 1050 | | |
| 2400-1158 | | 1 | 56,0 | $H 7$ | | 54,6 | 56,0 | | 665 | 7 | 335 |
| 2400-1159 | | 2 | | | | | | | 790 | | |

| | | | | | | | | | |
|-----------|--|---|--------|------------|------|------|------|----|-----|
| 2400-0403 | | 1 | (58,0) | <i>H 7</i> | 56,6 | 58,0 | 950 | 11 | 435 |
| 2400-0404 | | 2 | | | | | 1075 | | |
| 2400-1178 | | 1 | | <i>H 8</i> | | | 950 | | |
| 2400-1179 | | 2 | | | | | 1075 | | |
| 2400-0405 | | 1 | | <i>H 9</i> | | | 950 | | |
| 2400-0406 | | 2 | | | | | 1075 | | |
| 2400-0407 | | 1 | 57,6 | <i>H 7</i> | 56,2 | 57,6 | 950 | | |
| 2400-0408 | | 2 | | | | | 1075 | | |
| 2400-0409 | | 1 | 60,0 | <i>H 7</i> | 58,6 | 60,0 | 690 | 7 | 350 |
| 2400-0410 | | 2 | | | | | 815 | | |
| 2400-1181 | | 1 | | <i>H 8</i> | | | 690 | | |
| 2400-1182 | | 2 | | | | | 815 | | |
| 2400-0411 | | 1 | | <i>H 9</i> | | | 690 | | |
| 2400-0412 | | 2 | | | | | 815 | | |
| 2400-0413 | | 1 | 59,6 | <i>H 7</i> | 58,2 | 59,6 | 690 | | |
| 2400-0414 | | 2 | | | | | 815 | | |
| 2400-0415 | | 1 | 60,0 | <i>H 7</i> | 58,6 | 60,0 | 950 | 11 | 440 |

Продолжение табл.1

Размеры в мм

| | | | | | | |
|-------------------------|-------|-------|-------|-------|----------------|----------|
| Обозначение протяжек | l_2 | l_3 | l_4 | l_5 | Зубья протяжек | Выкружки |
|-------------------------|-------|-------|-------|-------|----------------|----------|

| | | | | | | | | | | |
|-----------|-----|-----|-----|----|----|----|----|----|----|---|
| 2400-0409 | 176 | 129 | 275 | 40 | 16 | 11 | 8 | 16 | 7 | 4 |
| 2400-0410 | | | | | | | | | | |
| 2400-1181 | | | | | | | | | | |
| 2400-1182 | | | | | | | | | | |
| 2400-0411 | | | | | | | | | | |
| 2400-0412 | | | | | | | | | | |
| 2400-0413 | | | | | | | | | | |
| 2400-0414 | | | | | | | | | | |
| 2400-0415 | 256 | 193 | 315 | 90 | 16 | 16 | 11 | 16 | 11 | 7 |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|---------------------|-----|-------|-------|-------|------|-----|-------|
| | | | Номин . | Поле допуск а | | | | | | | |
| 2400-0416 | | 2 | 60,0 | $H 7$ | 45 | 58,6 | 60,0 | 36 | 1075 | 11 | 440 |
| 2400-1183 | | 1 | | $H 8$ | | | | | 950 | | |
| 2400-1184 | | 2 | | | | | | | 1075 | | |
| 2400-0417 | | 1 | | $H 9$ | | | | | 950 | | |
| 2400-0418 | | 2 | | | | | | | 1075 | | |
| 2400-0419 | | 1 | 59,6 | $H 7$ | | 58,2 | 59,6 | | 950 | | |

| | | | | | | | | | | | |
|-----------|--|---|------|-----|----|------|------|----|------|----|-----|
| 2400-0420 | | 2 | | | | | | | 1075 | | |
| 2400-0421 | | 1 | 63,0 | H 7 | 50 | 61,6 | 63,0 | 50 | 690 | 7 | 350 |
| 2400-0422 | | 2 | | | | | | | 815 | | |
| 2400-1185 | | 1 | | H 8 | | | | | 690 | | |
| 2400-1186 | | 2 | | | | | | | 815 | | |
| 2400-0423 | | 1 | | H 9 | | | | | 690 | | |
| 2400-0424 | | 2 | | | | | | | 815 | | |
| 2400-0425 | | 1 | 62,6 | H 7 | | 61,2 | 62,6 | | 690 | | |
| 2400-0426 | | 2 | | | | | | | 815 | | |
| 2400-0427 | | 1 | 63,0 | H 7 | | 61,6 | 63,0 | | 950 | 11 | 440 |
| 2400-0428 | | 2 | | | | | | | 1075 | | |
| 2400-1187 | | 1 | | H 8 | | | | | 950 | | |
| 2400-1188 | | 2 | | | | | | | 1075 | | |
| 2400-0429 | | 1 | | H 9 | | | | | 950 | | |
| 2400-0430 | | 2 | | | | | | | 1075 | | |
| 2400-0431 | | 1 | 62,6 | H 7 | | 61,2 | 62,6 | | 950 | | |
| 2400-0432 | | 2 | | | | | | | 1075 | | |
| 2400-0433 | | 1 | 65,0 | H 7 | | 63,6 | 65,0 | | 690 | 7 | 350 |
| 2400-0434 | | 2 | | | | | | | 815 | | |
| 2400-1189 | | 1 | | H 8 | | | | | 690 | | |

| | | | | | | | | | | | | | | | | | | | | | |
|-----------|-----|-----|-----|----|----|----|----|----|----|---|--|--|--|--|--|--|--|--|-----|-----|--|
| 2400-0425 | | | | | | | | | | | | | | | | | | | | | |
| 2400-0426 | | | | | | | | | | | | | | | | | | | | | |
| 2400-0427 | 256 | 193 | 315 | 90 | 16 | 16 | 11 | 16 | 11 | 7 | | | | | | | | | | | |
| 2400-0428 | | | | | | | | | | | | | | | | | | | | | |
| 2400-1187 | | | | | | | | | | | | | | | | | | | | | |
| 2400-1188 | | | | | | | | | | | | | | | | | | | | | |
| 2400-0429 | | | | | | | | | | | | | | | | | | | | | |
| 2400-0430 | | | | | | | | | | | | | | | | | | | | | |
| 2400-0431 | | | | | | | | | | | | | | | | | | | | | |
| 2400-0432 | | | | | | | | | | | | | | | | | | | | | |
| 2400-0433 | 176 | 129 | 275 | 40 | 16 | 11 | 8 | 16 | 7 | 4 | | | | | | | | | 8,5 | 6,5 | |
| 2400-0434 | | | | | | | | | | | | | | | | | | | | | |
| 2400-1189 | | | | | | | | | | | | | | | | | | | | | |
| 2400-1191 | | | | | | | | | | | | | | | | | | | | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|--------------|-----|-------|-------|-------|-----|-----|-------|
| | | | Номинал | Поле допуска | | | | | | | |
| 2400-0435 | | 1 | 65,0 | H 9 | 50 | 63,6 | 65,0 | 50 | 690 | 7 | 350 |

| | | | | | | | | | |
|-----------|--|---|------|-----|------|------|------|----|-----|
| 2400-0436 | | 2 | | | | | 815 | | |
| 2400-0437 | | 1 | 64,6 | H 7 | 63,2 | 64,6 | 690 | | |
| 2400-0438 | | 2 | | | | | 815 | | |
| 2400-0439 | | 1 | 65,0 | H 7 | 63,6 | 65,0 | 975 | 11 | 450 |
| 2400-0440 | | 2 | | | | | 1100 | | |
| 2400-1192 | | 1 | | H 8 | | | 975 | | |
| 2400-1193 | | 2 | | | | | 1100 | | |
| 2400-0441 | | 1 | | H 9 | | | 975 | | |
| 2400-0442 | | 2 | | | | | 1100 | | |
| 2400-0443 | | 1 | 64,6 | H 7 | 63,2 | 64,6 | 975 | | |
| 2400-0444 | | 2 | | | | | 1100 | | |
| 2400-0445 | | 1 | 70,0 | H 7 | 68,6 | 70,0 | 750 | 8 | 350 |
| 2400-0446 | | 2 | | | | | 875 | | |
| 2400-1194 | | 1 | | H 8 | | | 750 | | |
| 2400-1195 | | 2 | | | | | 875 | | |
| 2400-0447 | | 1 | | H 9 | | | 750 | | |
| 2400-0448 | | 2 | | | | | 875 | | |
| 2400-0449 | | 1 | 69,6 | H 7 | 68,2 | 69,6 | 750 | | |
| 2400-0450 | | 2 | | | | | 875 | | |
| 2400-0451 | | 1 | 70,0 | H 7 | 68,6 | 70,0 | 1060 | 12 | 165 |
| 2400-0452 | | 2 | | | | | 1185 | | |

| | | | | | | | | | | | | |
|-----------|-----|-----|-----|-----|----|----|----|----|----|---|-----|-----|
| 2400-0442 | | | | | | | | | | | | |
| 2400-0443 | | | | | | | | | | | | |
| 2400-0444 | | | | | | | | | | | | |
| 2400-0445 | 192 | 145 | 275 | 40 | 16 | 12 | 9 | 16 | 8 | 5 | 9,0 | 7,0 |
| 2400-0446 | | | | | | | | | | | | |
| 2400-1194 | | | | | | | | | | | | |
| 2400-1195 | | | | | | | | | | | | |
| 2400-0447 | | | | | | | | | | | | |
| 2400-0448 | | | | | | | | | | | | |
| 2400-0449 | | | | | | | | | | | | |
| 2400-0450 | | | | | | | | | | | | |
| 2400-0451 | 288 | 225 | 320 | 110 | 16 | 18 | 12 | 16 | 13 | 9 | | |
| 2400-0452 | | | | | | | | | | | | |
| 2400-1196 | | | | | | | | | | | | |
| 2400-1197 | | | | | | | | | | | | |
| 2400-0453 | | | | | | | | | | | | |
| 2400-0454 | | | | | | | | | | | | |
| 2400-0455 | | | | | | | | | | | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | l_1 |
|-------------------------|---------------|------------|----------------------|-----------------|-----|-------|-------|-------|------|-----|-------|
| | | | Номинал | Поле допуска | | | | | | | |
| 2400-0456 | | 2 | 69,6 | $H 7$ | 50 | 68,2 | 69,6 | 50 | 1185 | 12 | 465 |
| 2400-1198 | | 1 | 71,0 | $H 7$ | | 69,6 | 71,0 | | 750 | 8 | 350 |
| 2400-1199 | | 2 | | 875 | | | | | | | |
| 2400-1201 | | 1 | | $H 8$ | | | | | 750 | | |
| 2400-1202 | | 2 | | 875 | | | | | | | |
| 2400-1203 | | 1 | | $H 9$ | | | | | 750 | | |
| 2400-1204 | | 2 | | 875 | | | | | | | |
| 2400-1205 | | 1 | 70,6 | $H 7$ | | 69,2 | 70,6 | | 750 | | |
| 2400-1206 | | 2 | 875 | | | | | | | | |
| 2400-1207 | | 1 | 71,0 | $H 7$ | | 69,6 | 71,0 | | 1060 | 12 | 465 |
| 2400-1208 | | 2 | | 1185 | | | | | | | |
| 2400-1209 | | 1 | | $H 8$ | | | | | 1060 | | |
| 2400-1211 | | 2 | | 1185 | | | | | | | |
| 2400-1212 | | 1 | | $H 9$ | | | | | 1060 | | |
| 2400-1213 | | 2 | | 1185 | | | | | | | |
| 2400-1214 | | 1 | 70,6 | $H 7$ | | 69,2 | 70,6 | | 1060 | | |
| 2400-1215 | | 2 | 1185 | | | | | | | | |

| | | | | | | | | | | |
|-----------|-----|-----|-----|-----|----|----|----|----|----|---|
| 2400-0463 | 288 | 225 | 350 | 110 | 16 | 18 | 12 | 16 | 13 | 9 |
| 2400-0464 | | | | | | | | | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | h_1 |
|-------------------------|---------------|------------|----------------------|-----------------|------|-------|-------|-------|------|-----|-------|
| | | | Номинал | Поле допуска | | | | | | | |
| 2400-1218 | | 1 | 75,0 | $H 8$ | 63 | 73,5 | 75,0 | 50 | 1070 | 12 | 495 |
| 2400-1219 | | 2 | | | | | | | 1195 | | |
| 2400-0465 | | 1 | 74,6 | $H 9$ | 73,1 | 74,6 | 73,1 | 74,6 | 1070 | 12 | 495 |
| 2400-0466 | | 2 | | | | | | | 1195 | | |
| 2400-0467 | | 1 | 74,6 | $H 7$ | 73,1 | 74,6 | 73,1 | 74,6 | 1070 | 12 | 495 |
| 2400-0468 | | 2 | | | | | | | 1195 | | |
| 2400-0469 | | 1 | 80,0 | $H 7$ | 78,5 | 80,0 | 78,5 | 80,0 | 825 | 8 | 400 |
| 2400-0470 | | 2 | | | | | | | 950 | | |
| 2400-1221 | | 1 | 79,6 | $H 8$ | 78,1 | 79,6 | 78,1 | 79,6 | 825 | 8 | 400 |
| 2400-1222 | | 2 | | | | | | | 950 | | |
| 2400-0471 | | 1 | 79,6 | $H 9$ | 78,1 | 79,6 | 78,1 | 79,6 | 825 | 8 | 400 |
| 2400-0472 | | 2 | | | | | | | 950 | | |
| 2400-0473 | | 1 | 79,6 | $H 7$ | 78,1 | 79,6 | 78,1 | 79,6 | 825 | 8 | 400 |

| | | | | | | | | | | |
|-----------|--|---|-------|-----|--|------|-------|------|-----|-----|
| 2400-0474 | | 2 | | | | | | 950 | | |
| 2400-0475 | | 1 | 80,00 | H 7 | | 78,5 | 80,00 | 1130 | 12 | 495 |
| 2400-0476 | | 2 | | | | | | 1255 | | |
| 2400-1223 | | 1 | | H 8 | | | | 1130 | | |
| 2400-1224 | | 2 | | | | | | 1255 | | |
| 2400-0477 | | 1 | | H 9 | | | | 1130 | | |
| 2400-0478 | | 2 | | | | | | 1255 | | |
| 2400-0479 | | 1 | 79,60 | H 7 | | 78,1 | 79,60 | 1130 | | |
| 2400-0480 | | 2 | | | | | | 1255 | | |
| 2400-0481 | | 1 | 85,00 | H 7 | | 83,5 | 85,00 | 875 | 9,5 | 425 |
| 2400-0482 | | 2 | | | | | | 1000 | | |
| 2400-1225 | | 1 | | H 8 | | | | 875 | | |
| 2400-1226 | | 2 | | | | | | 1000 | | |
| 2400-0483 | | 1 | | H 9 | | | | 875 | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | l_2 | l_3 | l_4 | l_5 | Зубья протяжек | | | | | | Выкружки | | |
|----------------------|-------|-------|-------|-------|-----------------------|-----|-----------------|------------------------|-------|-----------------|--------------------|-----|-------|
| | | | | | Черновые и переходные | | | Чистовые и калибрующие | | | Число выкружек z | a | a_1 |
| | | | | | Число зубьев v | t | Номер профиля * | Число зубьев v_1 | t_1 | Номер профиля * | | | |

| | | | | | | | | | | | | | | |
|-----------|-----|-----|-----|----|----|----|----|----|----|---|--|--|-----|-----|
| 2400-0479 | | | | | | | | | | | | | | |
| 2400-0480 | | | | | | | | | | | | | | |
| 2400-0481 | 224 | 177 | 330 | 60 | 16 | 14 | 10 | 16 | 10 | 7 | | | 9,5 | 7,5 |
| 2400-0482 | | | | | | | | | | | | | | |
| 2400-1225 | | | | | | | | | | | | | | |
| 2400-1226 | | | | | | | | | | | | | | |
| 2400-0483 | | | | | | | | | | | | | | |

Продолжение табл.1

Размеры в мм

| Обозначение протяжек | Применяемость | Исполнение | Диаметр отверстия | | D | D_2 | D_3 | D_4 | L | l | h_1 |
|-------------------------|---------------|------------|----------------------|---------------------|-----|-------|-------|-------|------|-----|-------|
| | | | Номин | Поле допуск а | | | | | | | |
| 2400-0484 | | 2 | 85,00 | H_9 | 63 | 83,5 | 85,00 | 50 | 1000 | 9,5 | 425 |
| 2400-0485 | | 1 | 84,54 | H_7 | | 83,0 | 84,54 | | 875 | | |
| 2400-0486 | | 2 | | | | | | | 1000 | | |
| 2400-0487 | | 1 | 85,00 | H_7 | | 83,5 | 85,00 | | 1135 | 12 | 510 |
| 2400-0488 | | 2 | | | | | | | 1260 | | |
| 2400-1227 | | 1 | | H_8 | | | | | 1135 | | |
| 2400-1228 | | 2 | | | | | | | 1260 | | |
| 2400-0489 | | 1 | | H_9 | | | | | 1135 | | |

| | | | | | | | | | | |
|-----------|--|---|-------|-----|------|-------|----|------|----|-----|
| 2400-0490 | | 2 | | | | | | 1260 | | |
| 2400-0491 | | 1 | 84,54 | H 7 | 83,0 | 84,54 | | 1135 | | |
| 2400-0492 | | 2 | | | | | | 1260 | | |
| 2400-0493 | | 1 | 90,00 | H 7 | 88,5 | 90,00 | | 975 | 11 | 455 |
| 2400-0494 | | 2 | | | | | | 1100 | | |
| 2400-1229 | | 1 | | H 8 | | | | 975 | | |
| 2400-1231 | | 2 | | | | | | 1100 | | |
| 2400-0495 | | 1 | | H 9 | | | | 975 | | |
| 2400-0496 | | 2 | | | | | | 1100 | | |
| 2400-0497 | | 1 | 89,54 | H 7 | 88,0 | 89,54 | | 975 | | |
| 2400-0498 | | 2 | | | | | | 1100 | | |
| 2400-0499 | | 1 | 90,00 | H 7 | 88,5 | 90,00 | 63 | 1240 | 14 | 530 |
| 2400-0500 | | 2 | | | | | | 1380 | | |
| 2400-1232 | | 1 | | H 8 | | | | 1240 | | |
| 2400-1233 | | 2 | | | | | | 1380 | | |
| 2400-0501 | | 1 | | H 9 | | | | 1240 | | |
| 2400-0502 | | 2 | | | | | | 1380 | | |
| 2400-0503 | | 1 | 89,54 | H 7 | 88,0 | 89,54 | | 1240 | | |
| 2400-0504 | | 2 | | | | | | 1380 | | |

| | | | | | | | | | | | | | |
|-----------|-----|-----|-----|-----|----|----|----|----|----|----|--|----|---|
| 2400-0496 | | | | | | | | | | | | | |
| 2400-0497 | | | | | | | | | | | | | |
| 2400-0498 | | | | | | | | | | | | | |
| 2400-0499 | 360 | 241 | 365 | 130 | 18 | 20 | 13 | 16 | 14 | 10 | | 10 | 8 |
| 2400-0500 | | | | | | | | | | | | | |
| 2400-1232 | | | | | | | | | | | | | |
| 2400-1233 | | | | | | | | | | | | | |
| 2400-0501 | | | | | | | | | | | | | |
| 2400-0502 | | | | | | | | | | | | | |
| 2400-0503 | | | | | | | | | | | | | |
| 2400-0504 | | | | | | | | | | | | | |

* Номер профиля зубьев протяжек указан в рекомендуемом приложении 2.

Таблица 1 (Измененная редакция, [Изм. N 4](#)).

Пример условного обозначения протяжки длиной $L=900$ мм для обработки отверстия диаметром $45 H7$, группы заточки II (приложение 1) исполнения 1:

Протяжка 2400-0343 II ГОСТ 20365-74

Таблица 2

Размеры в мм

| Обозначение протяжек | | 2400-0061; 2400-0062 | 2400-1001; 2400-1002 | 2400-0063; 2400-0064 | 2400-0065; 2400-0066 | 2400-0067; 2400-0068 | 2400-1003; 2400-1004 | 2400-0069; 2400-0070 | 2400-0071; 2400-0072 | 2400-0073; 2400-0074 | 2400-1005; 2400-1006 | 2400-0075; 2400-0076 | |
|--|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 14 H 7 | 14 H 8 | 14 H 9 | 13,76 H 7 | 14 H 7 | 14 H 8 | 14 H 9 | 13,76 H 7 | 15 H 7 | 15 H 8 | 15 H 9 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 13,490 | 13,490 | 13,490 | 13,190 | 13,470 | 13,470 | 13,470 | 13,170 | 14,490 | 14,490 | 14,490 |
| | | 2 | 13,470 | 13,470 | 13,470 | 13,170 | 13,450 | 13,450 | 13,450 | 13,150 | 14,470 | 14,470 | 14,470 |
| | | 3 | 13,580 | 13,580 | 13,580 | 13,280 | 13,540 | 13,540 | 13,540 | 13,240 | 14,580 | 14,580 | 14,580 |
| | | 4 | 13,560 | 13,560 | 13,560 | 13,260 | 13,520 | 13,520 | 13,520 | 13,220 | 14,560 | 14,560 | 14,560 |
| | | 5 | 13,670 | 13,670 | 13,670 | 13,370 | 13,610 | 13,610 | 13,610 | 13,310 | 14,670 | 14,670 | 14,670 |
| | | 6 | 13,650 | 13,650 | 13,650 | 13,350 | 13,590 | 13,590 | 13,590 | 13,290 | 14,650 | 14,650 | 14,650 |
| | | 7 | 13,760 | 13,760 | 13,760 | 13,460 | 13,680 | 13,680 | 13,680 | 13,380 | 14,760 | 14,760 | 14,760 |
| | | 8 | 13,740 | 13,740 | 13,740 | 13,440 | 13,660 | 13,660 | 13,660 | 13,360 | 14,740 | 14,740 | 14,740 |
| | | 9 | 13,850 | 13,850 | 13,850 | 13,550 | 13,750 | 13,750 | 13,750 | 13,450 | 14,850 | 14,850 | 14,850 |
| | | 10 | 13,840 | 13,840 | 13,830 | 13,530 | 13,730 | 13,730 | 13,730 | 13,430 | 14,840 | 14,840 | 14,830 |
| | | 11 | 13,890 | 13,890 | 13,900 | 13,640 | 13,820 | 13,820 | 13,820 | 13,520 | 14,890 | 14,890 | 14,900 |
| | | 12 | | | 13,890 | 13,630 | 13,800 | 13,800 | 13,800 | 13,500 | | | 14,890 |
| | Чисто- вых | 13 | 13,930 | 13,930 | 13,940 | 13,680 | 13,880 | 13,890 | 13,890 | 13,590 | 14,930 | 14,930 | 14,940 |
| | | 14 | | | | | 13,870 | 13,880 | 13,880 | 13,570 | | | |
| | | 15 | 13,960 | 13,960 | 13,970 | 13,720 | 13,920 | 13,930 | 13,930 | 13,640 | 14,960 | 14,960 | 14,970 |
| | | 16 | | | | | | | | 13,630 | | | |
| | | 17 | 13,980 | 13,980 | 14,000 | 13,740 | 13,960 | 13,960 | 13,970 | 13,680 | 14,980 | 14,980 | 15,000 |
| | | 18 | | | | | | | | | | | |
| | | 19 | 14,000 | 14,000 | 14,020 | 13,760 | 13,980 | 13,980 | 14,000 | 13,720 | 15,000 | 15,000 | 15,020 |
| | | 20 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0061; 2400-0062 | 2400-1001; 2400-1002 | 2400-0063; 2400-0064 | 2400-0065; 2400-0066 | 2400-0067; 2400-0068 | 2400-1003; 2400-1004 | 2400-0069; 2400-0070 | 2400-0071; 2400-0072 | 2400-0073; 2400-0074 | 2400-1005; 2400-1006 | 2400-0075; 2400-0076 | |
|--|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 14 H 7 | 14 H 8 | 14 H 9 | 13,76 H 7 | 14 H 7 | 14 H 8 | 14 H 9 | 13,76 H 7 | 15 H 7 | 15 H 8 | 15 H 9 | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 14,010 | 14,017 | 14,033 | 13,770 | 14,000 | 14,000 | 14,020 | 13,740 | 15,010 | 15,017 | 15,033 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 14,018 | 14,027 | 14,043 | 13,778 | 14,010 | 14,017 | 14,033 | 13,760 | 15,018 | 15,027 | 15,043 |
| | | 24 | | | | | | | | | | | |
| | Калиб- рующих | 25 | 14,018 | 14,027 | 14,043 | 13,778 | 14,018 | 14,027 | 14,043 | 13,770 | 15,018 | 15,027 | 15,043 |
| | | 26 | | | | | | | | | | | |
| | | 27 | | | | | 14,018 | 14,027 | 14,043 | 13,778 | | | |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | | 13,778 | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | |
| | | 39 | | | | | | | | | | | |
| | | 40 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0077; 2400-0078 | 2400-0079; 2400-0080 | 2400-1007; 2400-1008 | 2400-0081; 2400-0082 | 2400-0083; 2400-0084 | 2400-0085; 2400-0086 | 2400-1009; 2400-1011 | 2400-0087; 2400-0088 | 2400-0089; 2400-0090 | 2400-0091; 2400-0092 | 2400-1012; 2400-1013 | |
|--|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 14,76 H 7 | 15 H 7 | 15 H 8 | 15 H 9 | 14,76 H 7 | 16 H 7 | 16 H 8 | 16 H 9 | 15,76 H 7 | 16 H 7 | 16 H 8 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 14,190 | 14,460 | 14,460 | 14,460 | 14,160 | 15,470 | 15,470 | 15,470 | 15,170 | 15,470 | 15,470 |
| | | 2 | 14,170 | 14,440 | 14,440 | 14,440 | 14,140 | 15,450 | 15,450 | 15,450 | 15,150 | 15,450 | 15,450 |
| | | 3 | 14,280 | 14,520 | 14,520 | 14,520 | 14,220 | 15,540 | 15,540 | 15,540 | 15,240 | 15,540 | 15,540 |
| | | 4 | 14,260 | 14,500 | 14,500 | 14,500 | 14,200 | 15,520 | 15,520 | 15,520 | 15,220 | 15,520 | 15,520 |
| | | 5 | 14,370 | 14,580 | 14,580 | 14,580 | 14,280 | 15,610 | 15,610 | 15,610 | 15,310 | 15,610 | 15,610 |
| | | 6 | 14,350 | 14,560 | 14,560 | 14,560 | 14,260 | 15,590 | 15,590 | 15,590 | 15,290 | 15,590 | 15,590 |
| | | 7 | 14,460 | 14,640 | 14,640 | 14,640 | 14,340 | 15,680 | 15,680 | 15,680 | 15,380 | 15,680 | 15,680 |
| | | 8 | 14,440 | 14,620 | 14,620 | 14,620 | 14,320 | 15,660 | 15,660 | 15,660 | 15,360 | 15,660 | 15,660 |
| | | 9 | 14,550 | 14,700 | 14,700 | 14,700 | 14,400 | 15,750 | 15,750 | 15,750 | 15,450 | 15,750 | 15,750 |
| | | 10 | 14,530 | 14,680 | 14,680 | 14,680 | 14,380 | 15,730 | 15,730 | 15,730 | 15,430 | 15,730 | 15,730 |
| | | 11 | 14,640 | 14,760 | 14,760 | 14,760 | 14,460 | 15,820 | 15,820 | 15,820 | 15,520 | 15,820 | 15,820 |
| | | 12 | 14,630 | 14,740 | 14,740 | 14,740 | 14,440 | 15,800 | 15,800 | 15,800 | 15,500 | 15,800 | 15,800 |
| | | 13 | 14,680 | 14,820 | 14,820 | 14,820 | 14,520 | 15,880 | 15,890 | 15,890 | 15,590 | 15,890 | 15,890 |
| | | 14 | | 14,800 | 14,800 | 14,800 | 14,500 | 15,870 | 15,880 | 15,880 | 15,570 | 15,870 | 15,880 |
| | Чисто- вых | 15 | 14,720 | 14,880 | 14,880 | 14,880 | 14,580 | 15,920 | 15,930 | 15,930 | 15,640 | 15,920 | 15,930 |
| | | 16 | | 14,870 | 14,870 | 14,870 | 14,560 | | | 15,630 | | | |
| | | 17 | 14,740 | 14,920 | 14,920 | 14,920 | 14,640 | 15,960 | 15,960 | 15,970 | 15,680 | 15,960 | 15,960 |
| | | 18 | | | | | 14,630 | | | | | | |
| | | 19 | 14,760 | 14,960 | 14,960 | 14,960 | 14,680 | 15,980 | 15,980 | 16,000 | 15,720 | 15,980 | 15,980 |
| | | 20 | | | | | | | | | | | |

Продолжение табл.2

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1018; 2400-1019 | 2400-0111; 2400-0112 | 2400-0113; 2400-0114 | 2400-0115; 2400-0116 | 2400-1021; 2400-1022 | 2400-0117; 2400-0118 | 2400-0119; 2400-0120 | 2400-0127; 2400-0128 | 2400-1023; 2400-1024 | 2400-0129; 2400-0130 | 2400-0131; 2400-0132 | |
|--|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 18 H 8 | 18 H 9 | 17,76 H 7 | 18 H 7 | 18 H 8 | 18 H 9 | 17,76 H 7 | 19 H 7 | 19 H 8 | 19 H 9 | 18,72 H 7 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 17,480 | 17,480 | 17,180 | 17,470 | 17,470 | 17,470 | 17,170 | 18,220 | 18,220 | 18,220 | 17,920 |
| | | 2 | 17,460 | 17,460 | 17,160 | 17,450 | 17,450 | 17,450 | 17,150 | 18,200 | 18,200 | 18,200 | 17,900 |
| | | 3 | 17,560 | 17,560 | 17,260 | 17,540 | 17,540 | 17,540 | 17,240 | 18,340 | 18,340 | 18,340 | 18,040 |
| | | 4 | 17,540 | 17,540 | 17,240 | 17,520 | 17,520 | 17,520 | 17,220 | 18,320 | 18,320 | 18,320 | 18,020 |
| | | 5 | 17,640 | 17,640 | 17,340 | 17,610 | 17,610 | 17,610 | 17,310 | 18,460 | 18,460 | 18,460 | 18,160 |
| | | 6 | 17,620 | 17,620 | 17,320 | 17,590 | 17,590 | 17,590 | 17,290 | 18,440 | 18,440 | 18,440 | 18,140 |
| | | 7 | 17,720 | 17,720 | 17,420 | 17,680 | 17,680 | 17,680 | 17,380 | 18,580 | 18,580 | 18,580 | 18,280 |
| | | 8 | 17,700 | 17,700 | 17,400 | 17,660 | 17,660 | 17,660 | 17,360 | 18,560 | 18,560 | 18,560 | 18,260 |
| | | 9 | 17,800 | 17,800 | 17,500 | 17,750 | 17,750 | 17,750 | 17,450 | 18,700 | 18,700 | 18,700 | 18,400 |
| | | 10 | 17,780 | 17,780 | 17,480 | 17,730 | 17,730 | 17,730 | 17,430 | 18,680 | 18,680 | 18,680 | 18,380 |
| | | 11 | 17,880 | 17,880 | 17,580 | 17,820 | 17,820 | 17,820 | 17,520 | 18,820 | 18,820 | 18,820 | 18,520 |
| | | 12 | 17,870 | 17,870 | 17,560 | 17,800 | 17,800 | 17,800 | 17,500 | 18,800 | 18,800 | 18,800 | 18,500 |
| | | 13 | 17,920 | 17,930 | 17,640 | 17,890 | 17,890 | 17,890 | 17,590 | 18,890 | 18,890 | 18,890 | 18,600 |
| | | 14 | | | 17,630 | 17,880 | 17,880 | 17,880 | 17,570 | 18,800 | 18,880 | 18,880 | 18,590 |
| | Чисто- вых | 15 | 17,960 | 17,970 | 17,680 | 17,930 | 17,930 | 17,930 | 17,650 | 18,930 | 18,930 | 18,940 | 18,640 |
| | | 16 | | | | | | 17,640 | | | | | |
| | | 17 | 17,980 | 18,000 | 17,720 | 17,960 | 17,960 | 17,970 | 17,690 | 18,960 | 18,970 | 18,980 | 18,680 |
| | | 18 | | | | | | | | | | | |
| | | 19 | 18,000 | 18,020 | 17,740 | 17,980 | 17,980 | 18,000 | 17,720 | 18,980 | 18,990 | 19,010 | 18,700 |
| | | 20 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1018; 2400-1019 | 2400-0111; 2400-0112 | 2400-0113; 2400-0114 | 2400-0115; 2400-0116 | 2400-1021; 2400-1022 | 2400-0117; 2400-0118 | 2400-0119; 2400-0120 | 2400-0127; 2400-0128 | 2400-1023; 2400-1024 | 2400-0129; 2400-0130 | 2400-0131; 2400-0132 | |
|--|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 18 H 8 | 18 H 9 | 17,76 H 7 | 18 H 7 | 18 H 8 | 18 H 9 | 17,76 H 7 | 19 H 7 | 19 H 8 | 19 H 9 | 18,72 H 7 | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 18,017 | 18,033 | 17,760 | 18,000 | 18,000 | 18,020 | 17,740 | 19,000 | 19,010 | 19,030 | 18,720 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 18,027 | 18,043 | 17,770 | 18,010 | 18,017 | 18,033 | 17,760 | 19,011 | 19,023 | 19,042 | 18,731 |
| | | 24 | | | | | | | | | | | |
| | Калиб- рующих | 25 | 18,027 | 18,043 | 17,778 | 18,018 | 18,027 | 18,043 | 17,770 | 19,021 | 19,033 | 19,052 | 18,741 |
| | | 26 | | | | | | | | | | | |
| | | 27 | | | 17,778 | 18,018 | 18,027 | 18,043 | 17,778 | 19,021 | 19,033 | 19,052 | 18,741 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | 17,778 | | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | - | - | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | |
| | | 39 | | | | | | | | | | | |
| | | 40 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0133; 2400-0134 | 2400-1025; 2400-1026 | 2400-0135; 2400-0136 | 2400-0137; 2400-0138 | 2400-0139; 2400-0140 | 2400-1027; 2400-1028 | 2400-0141; 2400-0142 | 2400-0143; 2400-0144 | 2400-0145; 2400-0146 | 2400-1029; 2400-1031 | 2400-0147; 2400-0148 | |
|--|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 19 H 7 | 19 H 8 | 19 H 9 | 18,72 H 7 | 19 H 7 | 19 H 8 | 19 H 9 | 18,72 H 7 | 20 H 7 | 20 H 8 | 20 H 9 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 18,190 | 18,190 | 18,190 | 17,890 | 18,170 | 18,170 | 18,170 | 17,870 | 19,220 | 19,220 | 19,220 |
| | | 2 | 18,170 | 18,170 | 18,170 | 17,870 | 18,150 | 18,150 | 18,150 | 17,850 | 19,190 | 19,190 | 19,190 |
| | | 3 | 18,280 | 18,280 | 18,280 | 17,980 | 18,240 | 18,240 | 18,240 | 17,940 | 19,340 | 19,340 | 19,340 |
| | | 4 | 18,260 | 18,260 | 18,260 | 17,960 | 18,220 | 18,220 | 18,220 | 17,920 | 19,310 | 19,310 | 19,310 |
| | | 5 | 18,370 | 18,370 | 18,370 | 18,070 | 18,310 | 18,310 | 18,310 | 18,010 | 19,460 | 19,460 | 19,460 |
| | | 6 | 18,350 | 18,350 | 18,350 | 18,050 | 18,290 | 18,290 | 18,290 | 17,990 | 19,430 | 19,430 | 19,430 |
| | | 7 | 18,460 | 18,460 | 18,460 | 18,160 | 18,380 | 18,380 | 18,380 | 18,080 | 19,580 | 19,580 | 19,580 |
| | | 8 | 18,440 | 18,440 | 18,440 | 18,140 | 18,360 | 18,360 | 18,360 | 18,060 | 19,550 | 19,550 | 19,550 |
| | | 9 | 18,550 | 18,550 | 18,550 | 18,250 | 18,450 | 18,450 | 18,450 | 18,150 | 19,700 | 19,700 | 19,700 |
| | | 10 | 18,530 | 18,530 | 18,530 | 18,230 | 18,430 | 18,430 | 18,430 | 18,130 | 19,670 | 19,670 | 19,670 |
| | | 11 | 18,640 | 18,640 | 18,640 | 18,340 | 18,520 | 18,520 | 18,520 | 18,220 | 19,820 | 19,820 | 19,820 |
| | | 12 | 18,620 | 18,620 | 18,620 | 18,320 | 18,500 | 18,500 | 18,500 | 18,200 | 19,790 | 19,790 | 19,790 |
| | | 13 | 18,730 | 18,730 | 18,730 | 18,430 | 18,590 | 18,590 | 18,590 | 18,290 | 19,890 | 19,890 | 19,890 |
| | | 14 | 18,710 | 18,710 | 18,710 | 18,410 | 18,570 | 18,570 | 18,570 | 18,270 | 19,870 | 19,870 | 19,880 |
| | | 15 | 18,820 | 18,820 | 18,820 | 18,520 | 18,660 | 18,660 | 18,660 | 18,360 | 19,930 | 19,930 | 19,940 |
| | | 16 | 18,800 | 18,800 | 18,800 | 18,500 | 18,640 | 18,640 | 18,640 | 18,340 | | | |
| | | 17 | 18,880 | 18,890 | 18,900 | 18,600 | 18,730 | 18,730 | 18,730 | 18,430 | 19,960 | 19,970 | 19,980 |
| | | 18 | 18,870 | 18,880 | 18,890 | 18,590 | 18,710 | 18,710 | 18,710 | 18,410 | | | |
| | | 19 | 18,920 | 18,930 | 18,940 | 18,630 | 18,800 | 18,800 | 18,800 | 18,500 | 19,980 | 19,990 | 20,010 |
| | | 20 | | | | | 18,780 | 18,780 | 18,780 | 18,480 | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протыжек | | 2400-0133; 2400-0134 | 2400-1025; 2400-1026 | 2400-0135; 2400-0136 | 2400-0137; 2400-0138 | 2400-0139; 2400-0140 | 2400-1027; 2400-1028 | 2400-0141; 2400-0142 | 2400-0143; 2400-0144 | 2400-0145; 2400-0146 | 2400-1029; 2400-1031 | 2400-0147; 2400-0148 | |
|--|-------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 19 H 7 | 19 H 8 | 19 H 9 | 18,72 H 7 | 19 H 7 | 19 H 8 | 19 H 9 | 18,72 H 7 | 20 H 7 | 20 H 8 | 20 H 9 | |
| Диаметры зубьев D_i номеров | Чистых | 21 | 18,960 | 18,970 | 18,980 | 18,680 | 18,870 | 18,870 | 18,870 | 18,570 | 20,000 | 20,010 | 20,030 |
| | | 22 | | | | | 18,860 | 18,860 | 18,860 | 18,560 | | | |
| | | 23 | 18,980 | 18,990 | 19,010 | 18,700 | 18,910 | 18,920 | 18,920 | 18,620 | 20,011 | 20,023 | 20,042 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 19,000 | 19,010 | 19,030 | 18,720 | 18,950 | 18,960 | 18,960 | 18,660 | 20,021 | 20,033 | 20,052 |
| | | 26 | | | | | | | | | | | |
| | | 27 | 19,011 | 19,023 | 19,042 | 18,731 | 18,980 | 18,990 | 19,000 | 18,700 | 20,021 | 20,033 | 20,052 |
| | | 28 | | | | | | | | | | | |
| | 29 | 19,021 | 19,033 | 19,052 | 18,741 | 19,000 | 19,010 | 19,025 | 18,720 | | | | |
| | 30 | | | | | | | | | | | | |
| | Калибрующих | 31 | 19,021 | 19,033 | 19,052 | 18,741 | 19,013 | 19,023 | 19,042 | 18,733 | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | 19,023 | 19,033 | 19,052 | 18,743 | | | |
| | | 34 | | | | | | | | | | | |
| 35 | | | | | | 19,023 | 19,033 | 19,052 | 18,743 | | | | |
| 36 | | | | | | | | | | | | | |
| 37 | | - | - | - | - | | | | | | | | |
| 38 | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протыжек | | 2400-0149; 2400-0150 | 2400-0151; 2400-0152 | 2400-1032; 2400-1033 | 2400-0153; 2400-0154 | 2400-0155; 2400-0156 | 2400-0157; 2400-0158 | 2400-1034; 2400-1035 | 2400-0159; 2400-0160 | 2400-0161; 2400-0162 | 2400-0163; 2400-0164 | 2400-1063*; 2400-1037 | |
|--|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------|
| Диаметр отверстия | | 19,72 H 7 | 20 H 7 | 20 H 8 | 20 H 9 | 19,72 H 7 | 21 H 7 | 21 H 8 | 21 H 9 | 20,72 H 7 | 21 H 7 | 21 H 8 | |
| Диаметры зубьев D_i номеров | Черных и переходных | 1 | 18,920 | 19,170 | 19,170 | 19,170 | 18,870 | 20,020 | 20,020 | 20,020 | 19,720 | 19,990 | 19,990 |
| | | 2 | 18,890 | 19,140 | 19,140 | 19,140 | 18,840 | 19,990 | 19,990 | 19,990 | 19,690 | 19,960 | 19,960 |
| | | 3 | 19,040 | 19,240 | 19,240 | 19,240 | 18,940 | 20,140 | 20,140 | 20,140 | 19,840 | 20,080 | 20,080 |
| | | 4 | 19,010 | 19,210 | 19,210 | 19,210 | 18,910 | 20,110 | 20,110 | 20,110 | 19,810 | 20,050 | 20,050 |
| | | 5 | 19,160 | 19,310 | 19,310 | 19,310 | 19,010 | 20,260 | 20,260 | 20,260 | 19,960 | 20,170 | 20,170 |
| | | 6 | 19,130 | 19,280 | 19,280 | 19,280 | 18,980 | 20,230 | 20,230 | 20,230 | 19,930 | 20,140 | 20,140 |
| | | 7 | 19,280 | 19,380 | 19,380 | 19,380 | 19,080 | 20,380 | 20,380 | 20,380 | 20,080 | 20,260 | 20,260 |
| | | 8 | 19,250 | 19,350 | 19,350 | 19,350 | 19,050 | 20,350 | 20,350 | 20,350 | 20,050 | 20,230 | 20,230 |
| | | 9 | 19,400 | 19,450 | 19,450 | 19,450 | 19,150 | 20,500 | 20,500 | 20,500 | 20,200 | 20,350 | 20,350 |
| | | 10 | 19,370 | 19,420 | 19,420 | 19,420 | 19,120 | 20,470 | 20,470 | 20,470 | 20,170 | 20,320 | 20,320 |
| | | 11 | 19,520 | 19,520 | 19,520 | 19,520 | 19,220 | 20,620 | 20,620 | 20,620 | 20,320 | 20,440 | 20,440 |
| | | 12 | 19,490 | 19,490 | 19,490 | 19,490 | 19,190 | 20,590 | 20,590 | 20,590 | 20,290 | 20,410 | 20,410 |
| | | 13 | 19,600 | 19,590 | 19,590 | 19,590 | 19,290 | 20,740 | 20,740 | 20,740 | 20,440 | 20,530 | 20,530 |
| | | 14 | 19,580 | 19,560 | 19,560 | 19,560 | 19,260 | 20,710 | 20,710 | 20,710 | 20,410 | 20,500 | 20,500 |
| | | 15 | 19,640 | 19,660 | 19,660 | 19,660 | 19,360 | 20,830 | 20,840 | 20,850 | 20,550 | 20,620 | 20,620 |
| | | 16 | | 19,630 | 19,630 | 19,630 | 19,330 | 20,810 | 20,820 | 20,830 | 20,530 | 20,590 | 20,590 |
| | Чистых | 17 | 19,680 | 19,730 | 19,730 | 19,730 | 19,430 | 20,880 | 20,890 | 20,900 | 20,600 | 20,710 | 20,710 |
| | | 18 | | 19,700 | 19,700 | 19,700 | 19,400 | | | | | 20,680 | 20,680 |
| | | 19 | 19,700 | 19,800 | 19,800 | 19,800 | 19,500 | 20,920 | 20,930 | 20,940 | 20,640 | 20,800 | 20,800 |
| | | 20 | | 19,770 | 19,770 | 19,770 | 19,470 | | | | | 20,770 | 20,770 |

* Соответствует оригиналу. - Примечание изготовителя базы данных.

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0149; 2400-0150 | 2400-0151; 2400-0152 | 2400-1032; 2400-1033 | 2400-0153; 2400-0154 | 2400-0155; 2400-0156 | 2400-0157; 2400-0158 | 2400-1034; 2400-1035 | 2400-0159; 2400-0160 | 2400-0161; 2400-0162 | 2400-0163; 2400-0164 | 2400-1036; 2400-1037 | | |
|--|--------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|--------|
| Диаметр отверстия | | 19,72 H 7 | 20 H 7 | 20 H 8 | 20 H 9 | 19,72 H 7 | 21 H 7 | 21 H 8 | 21 H 9 | 20,72 H 7 | 21 H 7 | 21 H 8 | | |
| Диаметры зубьев D_i номеров | Чистых | 21 | 19,720 | 19,870 | 19,870 | 19,870 | 19,570 | 20,960 | 20,970 | 20,980 | 20,680 | 20,870 | 20,870 | |
| | | 22 | | 19,850 | 19,850 | 19,850 | 19,550 | | | | | 20,850 | 20,850 | |
| | | 23 | 19,731 | 19,910 | 19,920 | 19,920 | 19,620 | 20,980 | 20,990 | 21,010 | 20,700 | 20,920 | 20,920 | |
| | | 24 | | | | | | | | | | | | |
| | | 25 | 19,741 | 19,950 | 19,960 | 19,960 | 19,660 | 21,000 | 21,010 | 21,030 | 20,720 | 20,960 | 20,960 | |
| | | 26 | | | | | | | | | | | | |
| | | Калибрующих | 27 | 19,741 | 19,980 | 19,990 | 20,000 | 19,700 | 21,011 | 21,023 | 21,042 | 20,731 | 20,980 | 20,990 |
| | | | 28 | | | | | | | | | | | |
| | | | 29 | | 20,000 | 20,010 | 20,025 | 19,720 | 21,021 | 21,033 | 21,052 | 20,741 | 21,000 | 21,010 |
| | | | 30 | | | | | | | | | | | |
| | 31 | | | 20,011 | 20,023 | 20,042 | 19,731 | 21,021 | 21,033 | 21,052 | 20,741 | 21,011 | 21,023 | |
| | 32 | | | | | | | | | | | | | |
| | 33 | | - | 20,021 | 20,033 | 20,052 | 19,741 | | | | | 21,021 | 21,033 | |
| | 34 | | | | | | | | | | | | | |
| | 35 | | | 20,021 | 20,033 | 20,052 | 19,741 | | | | | 21,021 | 21,033 | |
| | 36 | | | | | | | | | | | | | |
| | 37 | | | | | | | | | | | | | |
| | 38 | | | | | | | | | | | | | |
| | 39 | | | | | | | | | | | | | |
| | 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0165; 2400-0166 | 2400-0167; 2400-0168 | 2400-0169; 2400-0170 | 2400-1038; 2400-1039 | 2400-0171; 2400-0172 | 2400-0173; 2400-0174 | 2400-0175; 2400-0176 | 2400-1041; 2400-1042 | 2400-0177; 2400-0178 | 2400-0179; 2400-0180 | 2400-0181; 2400-0182 | |
|--|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 21 H 9 | 20,72 H 7 | 22 H 7 | 22 H 8 | 22 H 9 | 21,72 H 7 | 22 H 7 | 22 H 8 | 22 H 9 | 21,72 H 7 | 24 H 7 | |
| Диаметры зубьев D_i номеров | Черновых и переходных | 1 | 19,990 | 19,690 | 21,020 | 21,020 | 21,020 | 20,720 | 21,020 | 21,020 | 21,020 | 20,720 | 23,070 |
| | | 2 | 19,960 | 19,660 | 20,990 | 20,990 | 20,990 | 20,690 | 20,990 | 20,990 | 20,990 | 20,690 | 23,040 |
| | | 3 | 20,080 | 19,780 | 21,140 | 21,140 | 21,140 | 20,840 | 21,140 | 21,140 | 21,140 | 20,840 | 23,240 |
| | | 4 | 20,050 | 19,750 | 21,110 | 21,110 | 21,110 | 20,810 | 21,110 | 21,110 | 21,110 | 20,810 | 23,210 |
| | | 5 | 20,170 | 19,870 | 21,260 | 21,260 | 21,260 | 20,960 | 21,260 | 21,260 | 21,260 | 20,960 | 23,410 |
| | | 6 | 20,140 | 19,840 | 21,230 | 21,230 | 21,230 | 20,930 | 21,230 | 21,230 | 21,230 | 20,930 | 23,380 |
| | | 7 | 20,260 | 19,960 | 21,380 | 21,380 | 21,380 | 21,080 | 21,380 | 21,380 | 21,380 | 21,080 | 23,580 |
| | | 8 | 20,230 | 19,930 | 21,350 | 21,350 | 21,350 | 21,050 | 21,350 | 21,350 | 21,350 | 21,050 | 23,550 |
| | | 9 | 20,350 | 20,050 | 21,500 | 21,500 | 21,500 | 21,200 | 21,500 | 21,500 | 21,500 | 21,200 | 23,750 |
| | | 10 | 20,320 | 20,020 | 21,470 | 21,470 | 21,470 | 21,170 | 21,470 | 21,470 | 21,470 | 21,170 | 23,730 |
| | 11 | 20,440 | 20,140 | 21,620 | 21,620 | 21,620 | 21,320 | 21,620 | 21,620 | 21,620 | 21,320 | 23,830 | |
| | 12 | 20,410 | 20,110 | 21,590 | 21,590 | 21,590 | 21,290 | 21,590 | 21,590 | 21,590 | 21,290 | | |
| | 13 | 20,530 | 20,230 | 21,740 | 21,740 | 21,740 | 21,440 | 21,740 | 21,740 | 21,740 | 21,440 | 23,890 | |
| | 14 | 20,500 | 20,200 | 21,710 | 21,710 | 21,710 | 21,410 | 21,710 | 21,710 | 21,710 | 21,410 | | |
| | 15 | 20,620 | 20,320 | 21,830 | 21,840 | 21,850 | 21,550 | 21,830 | 21,840 | 21,850 | 21,550 | 23,930 | |
| | 16 | 20,590 | 20,290 | 21,810 | 21,820 | 21,830 | 21,530 | 21,810 | 21,820 | 21,830 | 21,530 | | |
| | 17 | 20,710 | 20,410 | 21,880 | 21,890 | 21,900 | 21,600 | 21,880 | 21,890 | 21,900 | 21,600 | 23,960 | |
| | 18 | 20,680 | 20,380 | | | | | | | | | | |
| | 19 | 20,800 | 20,500 | 21,920 | 21,930 | 21,940 | 21,640 | 21,920 | 21,930 | 21,940 | 21,640 | 23,980 | |
| | 20 | 20,770 | 20,470 | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0165; 2400-0166 | 2400-0167; 2400-0168 | 2400-0169; 2400-0170 | 2400-1038; 2400-1039 | 2400-0171; 2400-0172 | 2400-0173; 2400-0174 | 2400-0175; 2400-0176 | 2400-1041; 2400-1042 | 2400-0177; 2400-0178 | 2400-0179; 2400-0180 | 2400-0181; 2400-0182 | | |
|--|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|--|
| Диаметр отверстия | | 21 H 9 | 20,72 H 7 | 22 H 7 | 22 H 8 | 22 H 9 | 21,72 H 7 | 22 H 7 | 22 H 8 | 22 H 9 | 21,72 H 7 | 24 H 7 | | |
| Диаметры зубьев D_i номеров | Черновых и переходных | 21 | 20,880 | 20,580 | 21,960 | 21,970 | 21,980 | 21,680 | 21,960 | 21,970 | 21,980 | 21,680 | 24,000 | |
| | | 22 | 20,860 | 20,560 | | | | | | | | | | |
| | | 23 | 20,930 | 20,630 | 21,980 | 21,990 | 22,010 | 21,700 | 21,980 | 21,990 | 22,010 | 21,700 | 24,011 | |
| | | 24 | | | | | | | | | | | | |
| | Чистых | 25 | 20,970 | 20,670 | 22,000 | 22,010 | 22,030 | 21,720 | 22,000 | 22,010 | 22,030 | 21,720 | 24,021 | |
| | | 26 | | | | | | | | | | | | |
| | | 27 | 21,000 | 20,700 | 22,011 | 22,023 | 22,042 | 21,731 | 22,011 | 22,023 | 22,042 | 21,731 | 24,021 | |
| | | 28 | | | | | | | | | | | | |
| | | 29 | 21,025 | 20,720 | 22,021 | 22,033 | 22,052 | 21,741 | 22,021 | 22,033 | 22,052 | 21,741 | | |
| | | 30 | | | | | | | | | | | | |
| | | 31 | 21,042 | 20,731 | 22,021 | 22,033 | 22,052 | 21,741 | 22,021 | 22,033 | 22,052 | 21,741 | | |
| | | 32 | | | | | | | | | | | | |
| | | 33 | 21,052 | 20,741 | | | | | | | | | | |
| | | 34 | | | | | | | | | | | | |
| | | Калибрующих | 35 | 21,052 | 20,741 | | | | | | | | | |
| | | | 36 | | | | | | | | | | | |
| | | | 37 | | | | | | | | | | | |
| | | | 38 | | | | | | | | | | | |
| | | | 39 | | | | | | | | | | | |
| | | | 40 | | | | | | | | | | | |

Продолжение табл.2

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0199; 2400-0200 | 2400-1049; 2400-1051 | 2400-0201; 2400-0202 | 2400-0203; 2400-0204 | 2400-0205; 2400-0206 | 2400-1052; 2400-1053 | 2400-0207; 2400-0208 | 2400-0209; 2400-0210 | 2400-0211; 2400-0212 | 2400-1054; 2400-1055 | 2400-0213; 2400-0214 | |
|--|-------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 25 H 7 | 25 H 8 | 25 H 9 | 24,72 H 7 | 26 H 7 | 26 H 8 | 26 H 9 | 25,72 H 7 | 26 H 7 | 26 H 8 | 26 H 9 | |
| Диаметры зубьев D_i номеров | Чистых | 21 | 24,960 | 24,970 | 24,970 | 24,670 | 26,000 | 26,010 | 26,030 | 25,720 | 25,960 | 25,970 | 25,980 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 24,980 | 24,990 | 25,000 | 24,700 | 26,011 | 26,023 | 26,042 | 25,731 | 25,980 | 25,990 | 26,010 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 25,000 | 25,010 | 25,025 | 24,720 | 26,021 | 26,033 | 26,052 | 25,741 | 26,000 | 26,010 | 26,030 |
| | | 26 | | | | | | | | | | | |
| | | 27 | 25,011 | 25,023 | 25,042 | 24,731 | 26,021 | 26,033 | 26,052 | 25,741 | 26,011 | 26,023 | 26,042 |
| | | 28 | | | | | | | | | | | |
| | | 29 | 25,021 | 25,033 | 25,052 | 24,741 | | | | | 26,021 | 26,033 | 26,052 |
| | | 30 | | | | | | | | | | | |
| | Калибрующих | 31 | 25,021 | 25,033 | 25,052 | 24,741 | | | | | 26,021 | 26,033 | 26,052 |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | - | - | - | - | | | | | | | |
| | | 38 | | | | | | | | | | | |
| | | 39 | | | | | | | | | | | |
| | | 40 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0215; 2400-0216 | 2400-0217; 2400-0218 | 2400-1056; 2400-1057 | 2400-0219; 2400-0220 | 2400-0221; 2400-0222 | 2400-0223; 2400-0224 | 2400-1058; 2400-1059 | 2400-0225; 2400-0226 | 2400-0227; 2400-0228 | 2400-0229; 2400-0230 | 2400-1061; 2400-1062 | |
|--|---------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 25,72 H 7 | 27 H 7 | 27 H 8 | 27 H 9 | 26,72 H 7 | 27 H 7 | 27 H 8 | 27 H 9 | 26,72 H 7 | 28 H 7 | 28 H 8 | |
| Диаметры зубьев D_i номеров | Черных и переходных | 1 | 24,710 | 26,080 | 26,080 | 26,080 | 25,780 | 26,010 | 26,010 | 26,010 | 25,710 | 27,080 | 27,080 |
| | | 2 | 24,680 | 26,050 | 26,050 | 26,050 | 25,750 | 25,980 | 25,980 | 25,980 | 25,680 | 27,050 | 27,050 |
| | | 3 | 24,820 | 26,260 | 26,260 | 26,260 | 25,960 | 26,120 | 26,120 | 26,120 | 25,820 | 27,260 | 27,260 |
| | | 4 | 24,790 | 26,230 | 26,230 | 26,230 | 25,930 | 26,090 | 26,090 | 25,090* | 25,790 | 27,230 | 27,230 |
| | | 5 | 24,930 | 26,440 | 26,440 | 26,440 | 26,140 | 26,230 | 26,230 | 26,230 | 25,930 | 27,440 | 27,440 |
| | | 6 | 24,900 | 26,410 | 26,410 | 26,410 | 26,110 | 26,200 | 26,200 | 26,200 | 25,900 | 27,410 | 27,410 |
| | | 7 | 25,040 | 26,620 | 26,620 | 26,620 | 26,320 | 26,340 | 26,340 | 26,340 | 26,040 | 27,620 | 27,620 |
| | | 8 | 25,010 | 26,590 | 26,590 | 26,590 | 26,290 | 26,310 | 26,310 | 26,310 | 26,010 | 27,590 | 27,590 |
| | | 9 | 25,150 | 26,780 | 26,780 | 26,780 | 26,490 | 26,450 | 26,450 | 26,450 | 26,150 | 27,780 | 27,780 |
| | | 10 | 25,120 | 26,760 | 26,760 | 26,770 | 26,470 | 26,420 | 26,420 | 26,420 | 26,120 | 27,760 | 27,760 |
| | | 11 | 25,260 | 26,860 | 26,870 | 26,880 | 26,580 | 26,560 | 26,560 | 26,560 | 26,260 | 27,860 | 27,870 |
| | | 12 | 25,230 | | | | | 26,530 | 26,530 | 26,530 | 26,230 | | |
| | | 13 | 25,370 | 26,920 | 26,930 | 26,940 | 26,640 | 26,670 | 26,670 | 26,670 | 26,370 | 27,920 | 27,930 |
| | | 14 | 25,340 | | | | | 26,640 | 26,640 | 26,640 | 26,340 | | |
| | | 15 | 25,480 | 26,960 | 26,970 | 26,980 | 26,680 | 26,780 | 26,780 | 26,780 | 26,480 | 27,960 | 27,970 |
| | | 16 | 25,450 | | | | | 26,750 | 26,750 | 26,750 | 26,450 | | |
| | | 17 | 25,590 | 26,980 | 26,990 | 27,010 | 26,700 | 26,880 | 26,880 | 26,890 | 26,590 | 27,980 | 27,990 |
| | | 18 | 25,570 | | | | | 26,860 | 26,860 | 26,870 | 26,570 | | |
| | | 19 | 25,640 | 27,000 | 27,010 | 27,030 | 26,720 | 26,920 | 26,930 | 26,940 | 26,640 | 28,000 | 28,010 |
| | | 20 | | | | | | | | | | | |

* Соответствует оригиналу. - Примечание изготовителя базы данных.

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0215; 2400-0216 | 2400-0217; 2400-0218 | 2400-1056; 2400-1057 | 2400-0219; 2400-0220 | 2400-0221; 2400-0222 | 2400-0223; 2400-0224 | 2400-1058; 2400-1059 | 2400-0225; 2400-0226 | 2400-0227; 2400-0228 | 2400-0229; 2400-0230 | 2400-1061; 2400-1062 | |
|--|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 25,72 H 7 | 27 H 7 | 27 H 8 | 27 H 9 | 26,72 H 7 | 27 H 7 | 27 H 8 | 27 H 9 | 26,72 H 7 | 28 H 7 | 28 H 8 | |
| Диаметры зубьев D_i номеров | Чистых | 21 | 25,680 | 27,011 | 27,023 | 27,042 | 26,731 | 26,960 | 26,970 | 26,980 | 26,680 | 28,011 | 28,023 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 25,700 | 27,021 | 27,033 | 27,052 | 26,741 | 26,980 | 26,990 | 27,010 | 26,700 | 28,021 | 28,033 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 25,720 | 27,021 | 27,033 | 27,052 | 26,741 | 27,000 | 27,010 | 27,030 | 26,720 | 28,021 | 28,033 |
| | | 26 | | | | | | | | | | | |
| | | 27 | 25,731 | | | | | 27,011 | 27,023 | 27,042 | 26,731 | | |
| | | 28 | | | | | | | | | | | |
| | | 29 | 25,741 | | | | | 27,021 | 27,033 | 27,052 | 26,741 | | |
| | | 30 | | | | | | | | | | | |
| | Калиб- рующих | 31 | 25,741 | - | - | - | - | 27,021 | 27,033 | 27,052 | 26,741 | - | - |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
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| | | 39 | | | | | | | | | | | |
| | | 40 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0231; 2400-0232 | 2400-0233; 2400-0234 | 2400-0235; 2400-0236 | 2400-1063; 2400-1064 | 2400-0237; 2400-0238 | 2400-0239; 2400-0240 | 2400-0241; 2400-0242 | 2400-1065; 2400-1066 | 2400-0243; 2400-0244 | 2400-0245; 2400-0246 | 2400-0247; 2400-0248 | |
|--|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 28 H 9 | 27,72 H 7 | 28 H 7 | 28 H 8 | 28 H 9 | 27,72 H 7 | 30 H 7 | 30 H 8 | 30 H 9 | 29,72 H 7 | 30 H 7 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 27,080 | 26,780 | 27,050 | 27,050 | 27,050 | 26,750 | 29,080 | 29,080 | 29,080 | 28,780 | 29,050 |
| | | 2 | 27,050 | 26,750 | 27,020 | 27,020 | 27,020 | 26,720 | 29,050 | 29,050 | 29,050 | 28,750 | 29,020 |
| | | 3 | 27,260 | 26,960 | 27,200 | 27,200 | 27,200 | 26,900 | 29,260 | 29,260 | 29,260 | 28,960 | 29,200 |
| | | 4 | 27,230 | 26,930 | 27,170 | 27,170 | 27,170 | 26,870 | 29,230 | 29,230 | 29,230 | 28,930 | 29,170 |
| | | 5 | 27,440 | 27,140 | 27,350 | 27,350 | 27,350 | 27,050 | 29,440 | 29,440 | 29,440 | 29,140 | 29,350 |
| | | 6 | 27,410 | 27,110 | 27,320 | 27,320 | 27,320 | 27,020 | 29,410 | 29,410 | 29,410 | 29,110 | 29,320 |
| | | 7 | 27,620 | 27,320 | 27,500 | 27,500 | 27,500 | 27,200 | 29,620 | 29,620 | 29,620 | 29,320 | 29,500 |
| | | 8 | 27,590 | 27,290 | 27,470 | 27,470 | 27,470 | 27,170 | 29,590 | 29,590 | 29,590 | 29,290 | 29,470 |
| | | 9 | 27,790 | 27,490 | 27,650 | 27,650 | 27,650 | 27,350 | 29,770 | 29,770 | 29,770 | 29,490 | 29,650 |
| | | 10 | 27,770 | 27,470 | 27,620 | 27,620 | 27,620 | 27,320 | 29,750 | 29,750 | 29,750 | 29,470 | 29,620 |
| | | 11 | 27,880 | 27,580 | 27,780 | 27,790 | 27,800 | 27,500 | 29,860 | 29,870 | 29,880 | 29,580 | 29,780 |
| | | 12 | | | 27,760 | 27,770 | 27,780 | 27,480 | | | | | 29,760 |
| | | 13 | 27,940 | 27,640 | 27,860 | 27,870 | 27,880 | 27,580 | 29,920 | 29,930 | 29,940 | 29,640 | 29,860 |
| | | 14 | | | | | | | | | | | |
| | Чистых | 15 | 27,980 | 27,680 | 27,920 | 27,930 | 27,940 | 27,640 | 29,960 | 29,970 | 29,980 | 29,680 | 29,920 |
| | | 16 | | | | | | | | | | | |
| | | 17 | 28,010 | 27,700 | 27,960 | 27,970 | 27,980 | 27,680 | 29,980 | 29,990 | 30,010 | 29,700 | 29,960 |
| | | 18 | | | | | | | | | | | |
| | | 19 | 28,030 | 27,720 | 27,980 | 27,990 | 28,010 | 27,700 | 30,000 | 30,010 | 30,030 | 29,720 | 29,980 |
| | | 20 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0231; 2400-0232 | 2400-0233; 2400-0234 | 2400-0235; 2400-0236 | 2400-1063; 2400-1064 | 2400-0237; 2400-0238 | 2400-0239; 2400-0240 | 2400-0241; 2400-0242 | 2400-1065; 2400-1066 | 2400-0243; 2400-0244 | 2400-0245; 2400-0246 | 2400-0247; 2400-0248 | |
|--|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 28 H 9 | 27,72 H 7 | 28 H 7 | 28 H 8 | 28 H 9 | 27,72 H 7 | 30 H 7 | 30 H 8 | 30 H 9 | 29,72 H 7 | 30 H 7 | |
| Диаметры зубьев D_i номеров | Чистых | 21 | 28,042 | 27,731 | 28,000 | 28,010 | 28,030 | 27,720 | 30,011 | 30,023 | 30,042 | 29,731 | 30,000 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 28,052 | 27,741 | 28,011 | 28,023 | 28,042 | 27,731 | 30,021 | 30,033 | 30,052 | 29,741 | 30,011 |
| | | 24 | | | | | | | | | | | |
| | Калиб- рующих | 25 | 28,052 | 27,741 | 28,021 | 28,033 | 28,052 | 27,741 | 30,021 | 30,033 | 30,052 | 29,741 | 30,021 |
| | | 26 | | | | | | | | | | | |
| | | 27 | | | 28,021 | 28,033 | 28,052 | 27,741 | | | | | 30,021 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1067; 2400-1068 | 2400-0248; 2400-0250 | 2400-0251; 2400-0252 | 2400-0253; 2400-0254 | 2400-1069; 2400-1071 | 2400-0255; 2400-0256 | 2400-0257; 2400-0258 | 2400-0259; 2400-0260 | 2400-1072; 2400-1073 | 2400-0261; 2400-0262 | 2400-0263; 2400-0264 | | |
|--|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|--------|
| Диаметр отверстия | | 30 H 8 | 30 H 9 | 29,72 H 7 | 32 H 7 | 32 H 8 | 32 H 9 | 31,66 H 7 | 32 H 7 | 32 H 8 | 32 H 9 | 31,66 H 7 | | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 29,050 | 29,050 | 28,750 | 30,990 | 30,990 | 30,990 | 30,690 | 30,970 | 30,970 | 30,970 | 30,670 | |
| | | 2 | 29,020 | 29,020 | 28,720 | 30,960 | 30,960 | 30,960 | 30,660 | 30,940 | 30,940 | 30,940 | 30,640 | |
| | | 3 | 29,200 | 29,200 | 28,900 | 31,180 | 31,180 | 31,180 | 30,880 | 31,140 | 31,140 | 31,140 | 30,840 | |
| | | 4 | 29,170 | 29,170 | 28,870 | 31,150 | 31,150 | 31,150 | 30,850 | 31,110 | 31,110 | 31,110 | 30,810 | |
| | | 5 | 29,350 | 29,350 | 29,050 | 31,370 | 31,370 | 31,370 | 31,070 | 31,310 | 31,310 | 31,310 | 31,010 | |
| | | 6 | 39,320* | 29,320 | 29,020 | 31,340 | 31,340 | 31,340 | 31,040 | 31,280 | 31,280 | 31,280 | 31,280 | 30,980 |
| | | 7 | 29,500 | 29,500 | 29,200 | 31,560 | 31,560 | 31,560 | 31,260 | 31,480 | 31,480 | 31,480 | 31,480 | 31,180 |
| | | 8 | 29,470 | 29,470 | 29,170 | 31,530 | 31,530 | 31,530 | 31,230 | 31,450 | 31,450 | 31,450 | 31,450 | 31,150 |
| | | 9 | 29,650 | 29,650 | 29,350 | 31,750 | 31,750 | 31,750 | 31,420 | 31,650 | 31,650 | 31,650 | 31,650 | 31,350 |
| | | 10 | 29,620 | 29,620 | 29,320 | 31,730 | 31,730 | 31,730 | 31,400 | 31,620 | 31,620 | 31,620 | 31,620 | 31,320 |
| | | 11 | 29,790 | 29,800 | 29,500 | 31,860 | 31,860 | 31,860 | 31,520 | 31,780 | 31,790 | 31,790 | 31,790 | 31,450 |
| | | 12 | 29,770 | 29,780 | 29,480 | | | | | 31,760 | 31,770 | 31,770 | 31,770 | 31,430 |
| | | 13 | 29,870 | 29,880 | 29,580 | 31,920 | 31,920 | 31,920 | 31,580 | 31,860 | 31,870 | 31,880 | 31,880 | 31,520 |
| | | 14 | | | | | | | | | | | | |
| | | 15 | 29,930 | 29,940 | 29,640 | 31,960 | 31,960 | 31,960 | 31,620 | 31,920 | 31,930 | 31,940 | 31,940 | 31,580 |
| | | 16 | | | | | | | | | | | | |
| Чисто- вых | 17 | 29,970 | 29,980 | 29,680 | 31,980 | 32,000 | 32,000 | 31,640 | 31,960 | 31,970 | 31,980 | 31,620 | | |
| | 18 | | | | | | | | | | | | | |
| | 19 | 29,990 | 30,010 | 29,700 | 32,000 | 32,020 | 32,030 | 31,660 | 31,980 | 32,000 | 32,010 | 31,640 | | |
| | 20 | | | | | | | | | | | | | |

* Соответствует оригиналу. - Примечание изготовителя базы данных.

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1067; 2400-1068 | 2400-0249; 2400-0250 | 2400-0251; 2400-0252 | 2400-0253; 2400-0254 | 2400-1069; 2400-1071 | 2400-0255; 2400-0256 | 2400-0257; 2400-0258 | 2400-0259; 2400-0260 | 2400-1072; 2400-1073 | 2400-0261; 2400-0262 | 2400-0263; 2400-0264 | |
|--|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 30 H 8 | 30 H 9 | 29,72 H 7 | 32 H 7 | 32 H 8 | 32 H 9 | 31,66 H 7 | 32 H 7 | 32 H 8 | 32 H 9 | 31,66 H 7 | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 30,010 | 30,030 | 29,720 | 32,015 | 32,030 | 32,052 | 31,675 | 32,000 | 32,020 | 32,035 | 31,660 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 30,023 | 30,042 | 29,731 | 32,025 | 32,039 | 32,062 | 31,685 | 32,015 | 32,030 | 32,052 | 31,675 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 30,033 | 30,052 | 29,741 | 32,025 | 32,039 | 32,062 | 31,685 | 32,025 | 32,039 | 32,062 | 31,685 |
| | | 26 | | | | | | | | | | | |
| | Калиб- рующих | 27 | 30,033 | 30,052 | 29,741 | | | | | 32,025 | 32,039 | 32,062 | 31,685 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
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| 37 | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0265; 2400-0266 | 2400-1074; 2400-1075 | 2400-0267; 2400-0268 | 2400-0269; 2400-0270 | 2400-0271; 2400-0272 | 2400-1076; 2400-1077 | 2400-0273; 2400-0274 | 2400-0275; 2400-0276 | 2400-0277; 2400-0278 | 2400-1078; 2400-1079 | 2400-0279; 2400-0280 | |
|--|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 34 H 7 | 34 H 8 | 34 H 9 | 33,66 H 7 | 34 H 7 | 34 H 8 | 34 H 9 | 33,66 H 7 | 35 H 7 | 35 H 8 | 35 H 9 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 32,990 | 32,990 | 32,990 | 32,690 | 32,970 | 32,970 | 32,970 | 32,670 | 33,990 | 33,990 | 33,990 |
| | | 2 | 32,960 | 32,960 | 32,960 | 32,660 | 32,940 | 32,940 | 32,940 | 32,640 | 33,960 | 33,960 | 33,960 |
| | | 3 | 33,180 | 33,180 | 33,180 | 32,880 | 33,140 | 33,140 | 33,140 | 32,840 | 34,180 | 34,180 | 34,180 |
| | | 4 | 33,150 | 33,150 | 33,150 | 32,850 | 33,110 | 33,110 | 33,110 | 32,810 | 34,150 | 34,150 | 34,150 |
| | | 5 | 33,370 | 33,370 | 33,370 | 33,070 | 33,310 | 33,310 | 33,310 | 33,010 | 34,370 | 34,370 | 34,370 |
| | | 6 | 33,340 | 33,340 | 33,340 | 33,040 | 33,280 | 33,280 | 33,280 | 32,980 | 34,340 | 34,340 | 34,340 |
| | | 7 | 33,560 | 33,560 | 33,560 | 33,260 | 33,480 | 33,480 | 33,480 | 33,180 | 34,560 | 34,560 | 34,560 |
| | | 8 | 33,530 | 33,530 | 33,530 | 33,230 | 33,450 | 33,450 | 33,450 | 33,150 | 34,530 | 34,530 | 34,530 |
| | | 9 | 33,750 | 33,750 | 33,750 | 33,420 | 33,650 | 33,650 | 33,650 | 33,350 | 34,750 | 34,750 | 34,750 |
| | | 10 | 33,730 | 33,730 | 33,730 | 33,400 | 33,620 | 33,620 | 33,620 | 33,320 | 34,730 | 34,730 | 34,730 |
| | | 11 | 33,860 | 33,860 | 33,860 | 33,520 | 33,780 | 33,780 | 33,780 | 33,450 | 34,860 | 34,860 | 34,860 |
| | | 12 | | | | | 33,760 | 33,770 | 33,770 | 33,430 | | | |
| | | 13 | 33,920 | 33,920 | 33,920 | 33,580 | 33,860 | 33,880 | 33,880 | 33,520 | 34,920 | 34,920 | 34,920 |
| | | 14 | | | | | | | | | | | |
| | Чисто- вых | 15 | 33,960 | 33,960 | 33,960 | 33,620 | 33,920 | 33,940 | 33,940 | 33,580 | 34,960 | 34,960 | 34,960 |
| | | 16 | | | | | | | | | | | |
| 17 | | 33,980 | 34,000 | 34,000 | 33,640 | 33,960 | 33,980 | 33,980 | 33,620 | 34,980 | 35,000 | 35,000 | |
| 18 | | | | | | | | | | | | | |
| 19 | | 34,000 | 34,020 | 34,030 | 33,660 | 33,980 | 34,000 | 34,010 | 33,640 | 35,000 | 35,020 | 35,030 | |
| 20 | | | | | | | | | | | | | |

Продолжение табл.2

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0297; 2400-0298 | 2400-0299; 2400-0300 | 2400-1087; 2400-1088 | 2400-1089; 2400-1091 | 2400-1092; 2400-1093 | 2400-1094; 2400-1095 | 2400-0301; 2400-0302 | 2400-1096; 2400-1097 | 2400-0303; 2400-0304 | 2400-0305; 2400-0306 | 2400-0307; 2400-0308 | |
|--|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 36 H 9 | 35,66 H 7 | 37 H 7 | 37 H 9 | 37 H 7 | 37 H 9 | 38 H 7 | 38 H 8 | 38 H 9 | 37,66 H 7 | 38 H 7 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 34,970 | 34,670 | 35,990 | 35,990 | 35,970 | 35,970 | 36,990 | 36,990 | 36,990 | 36,690 | 36,970 |
| | | 2 | 34,940 | 34,640 | 35,960 | 35,960 | 35,940 | 35,940 | 36,960 | 36,960 | 36,960 | 36,660 | 36,940 |
| | | 3 | 35,140 | 34,840 | 36,180 | 36,180 | 36,140 | 36,140 | 37,180 | 37,180 | 37,180 | 36,880 | 37,140 |
| | | 4 | 35,110 | 34,810 | 36,150 | 36,150 | 36,110 | 36,110 | 37,150 | 37,150 | 37,150 | 36,850 | 37,110 |
| | | 5 | 35,310 | 35,010 | 36,370 | 36,370 | 36,310 | 36,310 | 37,370 | 37,370 | 37,370 | 37,070 | 37,310 |
| | | 6 | 35,280 | 34,980 | 36,340 | 36,340 | 36,280 | 36,280 | 37,340 | 37,340 | 37,340 | 37,040 | 37,280 |
| | | 7 | 35,480 | 35,180 | 36,560 | 36,560 | 36,480 | 36,480 | 37,560 | 37,560 | 37,560 | 37,260 | 37,480 |
| | | 8 | 35,450 | 35,150 | 36,530 | 36,530 | 36,450 | 36,450 | 37,530 | 37,530 | 37,530 | 37,230 | 37,450 |
| | | 9 | 35,650 | 35,350 | 36,750 | 36,750 | 36,650 | 36,650 | 37,750 | 37,750 | 37,750 | 37,420 | 37,650 |
| | | 10 | 35,620 | 35,320 | 36,730 | 36,730 | 36,620 | 36,620 | 37,730 | 37,730 | 37,730 | 37,400 | 37,620 |
| | | 11 | 35,790 | 35,450 | 36,860 | 36,860 | 36,780 | 36,790 | 37,860 | 37,860 | 37,860 | 37,520 | 37,780 |
| | | 12 | 35,770 | 35,430 | | | 36,760 | 36,770 | | | | | 37,760 |
| | | 13 | 35,880 | 35,520 | 36,920 | 36,920 | 36,860 | 36,880 | 37,920 | 37,920 | 37,920 | 37,590 | 37,860 |
| | | 14 | | | | | | | | | | | |
| | | 15 | 35,940 | 35,580 | 36,960 | 36,960 | 36,920 | 36,940 | 37,960 | 37,960 | 37,960 | 37,620 | 37,920 |
| | | 16 | | | | | | | | | | | |
| | Чисто- вых | 17 | 35,980 | 35,620 | 36,980 | 37,000 | 36,960 | 36,980 | 37,980 | 38,000 | 38,000 | 37,640 | 37,960 |
| | | 18 | | | | | | | | | | | |
| | | 19 | 36,010 | 35,640 | 37,000 | 37,030 | 36,980 | 37,010 | 38,000 | 38,020 | 38,030 | 37,660 | 37,980 |
| | | 20 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0297; 2400-0298 | 2400-0299; 2400-0300 | 2400-1087; 2400-1088 | 2400-1089; 2400-1091 | 2400-1092; 2400-1093 | 2400-1094; 2400-1095 | 2400-0301; 2400-0302 | 2400-1096; 2400-1097 | 2400-0303; 2400-0304 | 2400-0305; 2400-0306 | 2400-0307; 2400-0308 | | |
|--|---------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|--------|
| Диаметр отверстия | | 36 H 9 | 35,66 H 7 | 37 H 7 | 37 H 9 | 37 H 7 | 37 H 9 | 38 H 7 | 38 H 8 | 38 H 9 | 37,66 H 7 | 38 H 7 | | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 36,035 | 35,660 | 37,015 | 37,052 | 37,000 | 37,035 | 38,015 | 38,030 | 38,052 | 37,675 | 38,000 | |
| | | 22 | | | | | | | | | | | | |
| | | 23 | 36,052 | 35,675 | 37,025 | 37,062 | 37,015 | 37,052 | 38,025 | 38,039 | 38,062 | 37,685 | 38,015 | |
| | | 24 | | | | | | | | | | | | |
| | | 25 | 36,062 | 35,685 | 37,025 | 37,062 | 37,025 | 37,062 | 38,025 | 38,039 | 38,062 | 37,685 | 38,025 | |
| | | 26 | | | | | | | | | | | | |
| | | Калиб- рующих | 27 | 36,062 | 35,685 | | | 37,025 | 37,062 | | | | | 38,025 |
| | | | 28 | | | | | | | | | | | |
| | | | 29 | | | | | | | | | | | |
| | | | 30 | | | | | | | | | | | |
| | 31 | | | | | | | | | | | | | |
| | 32 | | | | | | | | | | | | | |
| | 33 | | | | | | | | | | | | | |
| | 34 | | | | | | | | | | | | | |
| | 35 | | | | | | | | | | | | | |
| | 36 | | | | | | | | | | | | | |
| | 37 | | | | | | | | | | | | | |
| | 38 | | | | | | | | | | | | | |
| | 39 | | | | | | | | | | | | | |
| | 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | | 2400-1098; 2400-1099 | 2400-0309; 2400-0310 | 2400-0311; 2400-0312 | 2400-0313; 2400-0314 | 2400-1101; 2400-1102 | 2400-0315; 2400-0316 | 2400-0317; 2400-0318 | 2400-0319; 2400-0320 | 2400-1103; 2400-1104 | 2400-0321; 2400-0322 | 2400-0323; 2400-0324 |
|--|---------------------------------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Диаметр отверстия | | | 38 H 8 | 38 H 9 | 37,66 H 7 | 40 H 7 | 40 H 8 | 40 H 9 | 39,66 H 7 | 40 H 7 | 40 H 8 | 40 H 9 | 39,66 H 7 |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 36,970 | 36,970 | 36,670 | 39,000 | 39,000 | 39,000 | 38,700 | 38,940 | 38,940 | 38,940 | 38,640 |
| | | 2 | 36,940 | 36,940 | 36,640 | 38,970 | 38,970 | 38,970 | 38,670 | 38,910 | 38,910 | 38,910 | 38,610 |
| | | 3 | 37,140 | 37,140 | 36,840 | 39,200 | 39,200 | 39,200 | 38,900 | 39,080 | 39,080 | 39,080 | 38,780 |
| | | 4 | 37,110 | 37,110 | 36,810 | 39,170 | 39,170 | 39,170 | 38,870 | 39,050 | 39,050 | 39,050 | 38,750 |
| | | 5 | 37,310 | 37,310 | 37,010 | 39,400 | 39,400 | 39,400 | 39,100 | 39,220 | 39,220 | 39,220 | 38,920 |
| | | 6 | 37,280 | 37,280 | 36,980 | 39,370 | 39,370 | 39,370 | 39,070 | 39,190 | 39,190 | 39,190 | 38,890 |
| | | 7 | 37,480 | 37,480 | 37,180 | 39,600 | 39,600 | 39,600 | 39,300 | 39,360 | 39,360 | 39,360 | 39,060 |
| | | 8 | 37,450 | 37,450 | 37,150 | 39,570 | 39,570 | 39,570 | 39,270 | 39,330 | 39,330 | 39,330 | 39,030 |
| | | 9 | 37,650 | 37,650 | 37,350 | 39,770 | 39,780 | 39,780 | 39,440 | 39,500 | 39,500 | 39,500 | 39,200 |
| | | 10 | 37,620 | 37,620 | 37,320 | 39,750 | 39,760 | 39,760 | 39,420 | 39,470 | 39,470 | 39,470 | 39,170 |
| | | 11 | 37,790 | 37,790 | 37,450 | 39,860 | 39,870 | 39,880 | 39,520 | 39,640 | 39,640 | 39,640 | 39,340 |
| | | 12 | 37,770 | 37,770 | 37,430 | | | | | 39,610 | 39,610 | 39,610 | 39,310 |
| | | 13 | 37,880 | 37,880 | 37,520 | 39,920 | 39,930 | 39,940 | 39,580 | 39,780 | 39,780 | 39,780 | 39,450 |
| | | 14 | | | | | | | | 39,760 | 39,760 | 39,760 | 39,430 |
| | | 15 | 37,940 | 37,940 | 37,580 | 39,960 | 39,970 | 39,980 | 39,620 | 39,860 | 39,870 | 39,860 | 39,520 |
| | | 16 | | | | | | | | | | | |
| | Чисто- вых | 17 | 37,980 | 37,980 | 37,620 | 39,980 | 40,000 | 40,010 | 39,640 | 39,920 | 39,930 | 39,920 | 39,580 |
| | | 18 | | | | | | | | | | | |
| | | 19 | 38,000 | 38,010 | 37,640 | 40,000 | 40,020 | 40,035 | 39,660 | 39,960 | 39,970 | 39,960 | 39,620 |
| | | 20 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | | 2400-1098; 2400-1099 | 2400-0309; 2400-0310 | 2400-0311; 2400-0312 | 2400-0313; 2400-0314 | 2400-1101; 2400-1102 | 2400-0315; 2400-0316 | 2400-0317; 2400-0318 | 2400-0319; 2400-0320 | 2400-1103; 2400-1104 | 2400-0321; 2400-0322 | 2400-0323; 2400-0324 | |
|--|------------------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | | 38 H 8 | 38 H 9 | 37,66 H 7 | 40 H 7 | 40 H 8 | 40 H 9 | 39,66 H 7 | 40 H 7 | 40 H 8 | 40 H 9 | 39,66 H 7 | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 38,020 | 38,035 | 37,660 | 40,015 | 40,030 | 40,052 | 39,675 | 39,980 | 40,000 | 40,000 | 39,640 | |
| | | 22 | | | | | | | | | | | | |
| | | 23 | 38,030 | 38,052 | 37,675 | 40,025 | 40,039 | 40,062 | 39,685 | 40,000 | 40,020 | 40,030 | 39,660 | |
| | | 24 | | | | | | | | | | | | |
| | | 25 | 38,039 | 38,062 | 37,685 | 40,025 | 40,039 | 40,062 | 39,685 | 40,015 | 40,030 | 40,052 | 39,675 | |
| | | 26 | | | | | | | | | | | | |
| | Калиб- рующих | 27 | 38,039 | 38,062 | 38,685 | | | | | | 40,025 | 40,039 | 40,062 | 39,685 |
| | | 28 | | | | | | | | | | | | |
| | | 29 | | | | | | | | | 40,025 | 40,039 | 40,062 | 39,685 |
| | | 30 | | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | | |
| | | 39 | | | | | | | | | | | | |
| | | 40 | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | | 2400-0325; 2400-0326 | 2400-1105; 2400-1106 | 2400-0327; 2400-0328 | 2400-0329; 2400-0330 | 2400-0331; 2400-0332 | 2400-1107; 2400-1108 | 2400-0333; 2400-0334 | 2400-0335; 2400-0336 | 2400-0337; 2400-0338 | 2400-1109; 2400-1111 | 2400-0339; 2400-0340 |
|--|---------------------------------|----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Диаметр отверстия | | | 42 H 7 | 42 H 8 | 42 H 9 | 41,66 H 7 | 42 H 7 | 42 H 8 | 42 H 9 | 41,66 H 7 | 45 H 7 | 45 H 8 | 45 H 9 |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 40,880 | 40,880 | 40,880 | 40,580 | 40,910 | 40,910 | 40,910 | 40,610 | 43,880 | 43,880 | 43,880 |
| | | 2 | 40,850 | 40,850 | 40,850 | 40,550 | 40,880 | 40,880 | 40,880 | 40,580 | 43,850 | 43,850 | 43,850 |
| | | 3 | 41,060 | 41,060 | 41,060 | 40,760 | 41,120 | 41,120 | 41,120 | 40,820 | 44,060 | 44,060 | 44,060 |
| | | 4 | 41,030 | 41,030 | 41,030 | 40,730 | 41,090 | 41,090 | 41,090 | 40,790 | 44,030 | 44,030 | 44,030 |
| | | 5 | 41,240 | 41,240 | 41,240 | 40,940 | 41,330 | 41,330 | 41,330 | 41,030 | 44,240 | 44,240 | 44,240 |
| | | 6 | 41,210 | 41,210 | 41,210 | 40,910 | 41,300 | 41,300 | 41,300 | 41,000 | 44,210 | 44,210 | 44,210 |
| | | 7 | 41,420 | 41,420 | 41,420 | 41,120 | 41,540 | 41,540 | 41,540 | 41,240 | 44,420 | 44,420 | 44,420 |
| | | 8 | 41,390 | 41,390 | 41,390 | 41,090 | 41,510 | 41,510 | 41,510 | 41,210 | 44,390 | 44,390 | 44,390 |
| | | 9 | 41,600 | 41,600 | 41,600 | 41,300 | 41,750 | 41,750 | 41,750 | 41,420 | 44,600 | 44,600 | 44,600 |
| | | 10 | 41,570 | 41,570 | 41,570 | 41,270 | 41,730 | 41,730 | 41,730 | 41,400 | 44,570 | 44,570 | 44,570 |
| | | 11 | 41,770 | 41,770 | 41,780 | 41,440 | 41,850 | 41,850 | 41,850 | 41,520 | 44,770 | 44,770 | 44,780 |
| | | 12 | 41,750 | 41,750 | 41,760 | 41,420 | | | | | 44,750 | 44,750 | 44,760 |
| | | 13 | 41,860 | 41,870 | 41,880 | 41,520 | 41,910 | 41,910 | 41,910 | 41,580 | 44,860 | 44,870 | 44,880 |
| | | 14 | | | | | | | | | | | |
| | | 15 | 41,920 | 41,930 | 41,940 | 41,580 | 41,950 | 41,950 | 41,950 | 41,620 | 44,920 | 44,930 | 44,940 |
| | | 16 | | | | | | | | | | | |
| | Чисто- вых | 17 | 41,960 | 41,970 | 41,980 | 41,620 | 41,980 | 41,990 | 41,990 | 41,640 | 44,960 | 44,970 | 44,980 |
| | | 18 | | | | | | | | | | | |
| | | 19 | 41,980 | 42,000 | 42,010 | 41,640 | 42,000 | 42,010 | 42,030 | 41,660 | 44,980 | 45,000 | 45,010 |
| | | 20 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0325; 2400-0326 | 2400-1105; 2400-1106 | 2400-0327; 2400-0328 | 2400-0329; 2400-0330 | 2400-0331; 2400-0332 | 2400-1107; 2400-1108 | 2400-0333; 2400-0334 | 2400-0335; 2400-0336 | 2400-0337; 2400-0338 | 2400-1109; 2400-1111 | 2400-0339; 2400-0340 | |
|-------------------------------------|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 42 H 7 | 42 H 8 | 42 H 9 | 41,66 H 7 | 42 H 7 | 42 H 8 | 42 H 9 | 41,66 H 7 | 45 H 7 | 45 H 8 | 45 H 9 | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 42,000 | 42,020 | 42,035 | 41,660 | 42,015 | 42,030 | 42,052 | 41,675 | 45,000 | 45,020 | 45,035 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 42,015 | 42,030 | 42,052 | 41,675 | 42,025 | 42,039 | 42,062 | 41,685 | 45,015 | 45,030 | 45,052 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 42,025 | 42,039 | 42,062 | 41,685 | 42,025 | 42,039 | 42,062 | 41,685 | 45,025 | 45,039 | 45,062 |
| | | 26 | | | | | | | | | | | |
| | Калиб- рующих | 27 | 42,025 | 42,039 | 42,062 | 41,685 | | | | | 45,025 | 45,039 | 45,062 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0341; 2400-0342 | 2400-0343; 2400-0344 | 2400-1112; 2400-1113 | 2400-0345; 2400-0346 | 2400-0347; 2400-0348 | 2400-1114; 2400-1115 | 2400-1116; 2400-1117 | 2400-1118; 2400-1119 | 2400-1121; 2400-1122 | 2400-0349; 2400-0350 | 2400-1123; 2400-1124 | |
|-------------------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 44,66 H 7 | 45 H 7 | 45 H 8 | 45 H 9 | 44,66 H 7 | 47 H 7 | 47 H 9 | 47 H 7 | 47 H 9 | 48 H 7 | 48 H 8 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 43,580 | 43,910 | 43,910 | 43,910 | 43,610 | 45,880 | 45,880 | 45,910 | 45,910 | 46,880 | 46,880 |
| | | 2 | 43,550 | 43,880 | 43,880 | 43,880 | 43,580 | 45,850 | 45,850 | 45,880 | 45,880 | 46,850 | 46,850 |
| | | 3 | 43,760 | 44,120 | 44,120 | 44,120 | 43,820 | 46,060 | 46,060 | 46,120 | 46,120 | 47,060 | 47,060 |
| | | 4 | 43,730 | 44,090 | 44,090 | 44,090 | 43,790 | 46,030 | 46,030 | 46,090 | 46,090 | 47,030 | 47,030 |
| | | 5 | 43,940 | 44,330 | 44,330 | 44,330 | 44,030 | 46,240 | 46,240 | 46,330 | 46,330 | 47,240 | 47,240 |
| | | 6 | 43,910 | 44,300 | 44,300 | 44,300 | 44,000 | 46,210 | 46,210 | 46,300 | 46,300 | 47,210 | 47,210 |
| | | 7 | 44,120 | 44,540 | 44,540 | 44,540 | 44,240 | 46,420 | 46,420 | 46,540 | 46,540 | 47,420 | 47,420 |
| | | 8 | 44,090 | 44,510 | 44,510 | 44,510 | 44,210 | 46,390 | 46,390 | 46,510 | 46,510 | 47,390 | 47,390 |
| | | 9 | 44,300 | 44,750 | 44,750 | 44,750 | 44,420 | 46,600 | 46,600 | 46,750 | 46,750 | 47,600 | 47,600 |
| | | 10 | 44,270 | 44,730 | 44,730 | 44,730 | 44,400 | 46,570 | 46,570 | 46,730 | 46,730 | 47,570 | 47,570 |
| | | 11 | 44,440 | 44,850 | 44,850 | 44,850 | 44,520 | 46,770 | 46,780 | 46,850 | 46,850 | 47,770 | 47,770 |
| | | 12 | 44,420 | | | | | 45,750 | 46,760 | | | 47,750 | 47,750 |
| | | 13 | 44,520 | 44,910 | 44,910 | 44,910 | 44,580 | 46,860 | 46,880 | 46,910 | 46,910 | 47,860 | 47,870 |
| | | 14 | | | | | | | | | | | |
| | | 15 | 44,580 | 44,950 | 44,950 | 44,950 | 44,620 | 46,920 | 46,940 | 46,950 | 46,950 | 47,920 | 47,930 |
| | | 16 | | | | | | | | | | | |
| | Чисто- вых | 17 | 44,620 | 44,980 | 44,990 | 44,990 | 44,640 | 46,960 | 46,980 | 46,980 | 46,990 | 47,960 | 47,970 |
| | | 18 | | | | | | | | | | | |
| 19 | | 44,640 | 45,000 | 45,010 | 45,030 | 44,660 | 46,980 | 47,010 | 47,000 | 47,020 | 47,980 | 47,000 | |
| 20 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0341; 2400-0342 | 2400-0343; 2400-0344 | 2400-1112; 2400-1113 | 2400-0345; 2400-0346 | 2400-0347; 2400-0348 | 2400-1114; 2400-1115 | 2400-1116; 2400-1117 | 2400-1118; 2400-1119 | 2400-1121; 2400-1122 | 2400-0349; 2400-0350 | 2400-1123; 2400-1124 | |
|-------------------------------------|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 44,66 H 7 | 45 H 7 | 45 H 8 | 45 H 9 | 44,66 H 7 | 47 H 7 | 47 H 9 | 47 H 7 | 47 H 9 | 48 H 7 | 48 H 8 | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 44,660 | 45,015 | 45,030 | 45,052 | 44,675 | 47,000 | 47,035 | 47,015 | 47,052 | 48,000 | 48,020 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 44,675 | 45,025 | 45,039 | 45,062 | 44,685 | 47,015 | 47,052 | 47,025 | 47,062 | 48,015 | 48,030 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 44,685 | 45,025 | 45,039 | 45,062 | 44,685 | 47,025 | 47,062 | 47,025 | 47,062 | 48,025 | 48,039 |
| | | 26 | | | | | | | | | | | |
| | Калиб- рующих | 27 | 44,685 | | | | | 47,025 | 47,062 | | | 48,025 | 48,039 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

Продолжение табл.2

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1129; 2400-1131 | 2400-0369; 2400-0370 | 2400-0371; 2400-0372 | 2400-0373; 2400-0374 | 2400-1132; 2400-1133 | 2400-0375; 2400-0376 | 2400-0377; 2400-0378 | 2400-0379; 2400-0380 | 2400-1134; 2400-1135 | 2400-0381; 2400-0382 | 2400-0383; 2400-0384 | |
|-------------------------------------|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 50 H 8 | 50 H 9 | 49,66 H 7 | 52 H 7 | 52 H 8 | 52 H 9 | 51,6 H 7 | 52 H 7 | 52 H 8 | 52 H 9 | 51,6 H 7 | |
| Диаметры зубьев D_1 номеров | Чисто- вык | 21 | 50,030 | 50,052 | 49,675 | 52,010 | 52,020 | 52,040 | 51,610 | 52,010 | 52,020 | 52,045 | 51,610 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 50,039 | 50,062 | 49,685 | 52,020 | 52,036 | 52,064 | 51,620 | 52,020 | 52,036 | 52,064 | 51,620 |
| | | 24 | | | | | | | | | | | |
| | Калиб- рующих | 25 | 50,039 | 50,062 | 49,685 | 52,030 | 52,046 | 52,074 | 51,630 | 52,030 | 52,046 | 52,074 | 51,630 |
| | | 26 | | | | | | | | | | | |
| | | 27 | | | | 52,030 | 52,046 | 52,074 | 51,630 | 52,030 | 52,046 | 52,074 | 51,630 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | - | - | - | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1136; 2400-1137 | 2400-1138; 2400-1139 | 2400-1141; 2400-1142 | 2400-1143; 2400-1144 | 2400-1145; 2400-1146 | 2400-1147; 2400-1148 | 2400-1149; 2400-1151 | 2400-1152; 2400-1153 | 2400-0385; 2400-0386 | 2400-1154; 2400-1155 | 2400-0387; 2400-0388 | |
|-------------------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| Диаметр отверстия | | 53 H 7 | 53 H 8 | 53 H 9 | 52,6 H 7 | 53 H 7 | 53 H 8 | 53 H 9 | 52,6 H 7 | 55 H 7 | 55 H 8 | 55 H 9 | |
| Диаметры зубьев D_1 номеров | Черно- вых и пере- ходных | 1 | 51,80 | 51,800 | 51,80 | 51,40 | 51,81 | 51,810 | 51,81 | 51,41 | 53,80 | 53,800 | 53,80 |
| | | 2 | 51,76 | 51,760 | 51,76 | 51,36 | 51,77 | 51,770 | 51,77 | 51,37 | 53,76 | 53,760 | 53,76 |
| | | 3 | 52,00 | 52,000 | 52,00 | 51,60 | 52,02 | 52,020 | 52,02 | 51,62 | 54,00 | 54,000 | 54,00 |
| | | 4 | 51,96 | 51,960 | 51,96 | 51,56 | 51,98 | 51,980 | 51,98 | 51,58 | 53,96 | 53,960 | 53,96 |
| | | 5 | 52,20 | 52,200 | 52,20 | 51,80 | 52,23 | 52,230 | 52,23 | 51,83 | 54,20 | 54,200 | 54,20 |
| | | 6 | 52,16 | 52,160 | 52,16 | 51,76 | 52,19 | 52,190 | 52,19 | 51,79 | 54,16 | 54,160 | 54,16 |
| | | 7 | 52,40 | 52,400 | 52,40 | 52,00 | 52,44 | 52,440 | 52,44 | 52,04 | 54,40 | 54,400 | 54,40 |
| | | 8 | 52,36 | 52,360 | 52,36 | 51,96 | 52,40 | 52,400 | 52,40 | 52,00 | 54,36 | 54,360 | 54,36 |
| | | 9 | 52,60 | 52,600 | 52,60 | 52,20 | 52,65 | 52,650 | 52,65 | 52,25 | 54,60 | 54,600 | 54,60 |
| | | 10 | 52,56 | 52,560 | 52,56 | 52,17 | 52,61 | 52,610 | 52,61 | 52,21 | 54,56 | 54,560 | 54,56 |
| | | 11 | 52,78 | 52,780 | 52,78 | 52,38 | 52,79 | 52,800 | 52,80 | 52,39 | 54,78 | 54,780 | 54,78 |
| | | 12 | 52,76 | 52,760 | 52,76 | 52,36 | 52,77 | 52,780 | 52,78 | 52,37 | 54,76 | 54,760 | 54,76 |
| | | 13 | 52,87 | 52,870 | 52,88 | 52,47 | 52,87 | 52,880 | 52,89 | 52,47 | 54,87 | 54,870 | 54,88 |
| | | 14 | | | | | | | | | | | |
| | | 15 | 52,93 | 52,930 | 52,94 | 52,53 | 52,93 | 52,940 | 52,95 | 52,53 | 54,93 | 54,930 | 54,94 |
| | | 16 | | | | | | | | | | | |
| | Чисто- вых | 17 | 52,97 | 52,970 | 52,98 | 52,57 | 52,97 | 52,980 | 52,99 | 52,57 | 54,97 | 54,970 | 54,98 |
| 18 | | | | | | | | | | | | | |
| 19 | | 52,99 | 53,000 | 53,01 | 52,59 | 52,99 | 53,000 | 53,02 | 52,59 | 54,99 | 55,000 | 55,01 | |
| 20 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1136; 2400-1137 | 2400-1138; 2400-1139 | 2400-1141; 2400-1142 | 2400-1143; 2400-1144 | 2400-1145; 2400-1146 | 2400-1147; 2400-1148 | 2400-1149; 2400-1151 | 2400-1152; 2400-1153 | 2400-0385; 2400-0386 | 2400-1154; 2400-1155 | 2400-0387; 2400-0388 | |
|-------------------------------------|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 53 H 7 | 53 H 8 | 53 H 9 | 52,6 H 7 | 53 H 7 | 53 H 8 | 53 H 9 | 52,6 H 7 | 55 H 7 | 55 H 8 | 55 H 9 | |
| Диаметры зубьев D_i номеров | Чисто- вык | 21 | 53,01 | 53,020 | 53,04 | 52,61 | 53,01 | 53,020 | 53,045 | 52,61 | 55,01 | 55,020 | 55,04 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 53,02 | 53,036 | 53,064 | 52,62 | 53,02 | 53,036 | 53,064 | 52,62 | 55,02 | 55,036 | 55,064 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 53,03 | 53,046 | 53,074 | 52,63 | 53,03 | 53,046 | 53,074 | 52,63 | 55,03 | 55,046 | 55,074 |
| | 26 | | | | | | | | | | | | |
| | Калиб- рующих | 27 | 53,03 | 53,046 | 53,074 | 52,63 | 53,03 | 53,046 | 53,074 | 52,63 | 55,03 | 55,046 | 55,074 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | - | - | - | - | - | - | - | - | - | - | - |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0389; 2400-0390 | 2400-0391; 2400-0392 | 2400-1156; 2400-1157 | 2400-0393; 2400-0394 | 2400-0395; 2400-0396 | 2400-1158; 2400-1159 | 2400-1161; 2400-1162 | 2400-1163; 2400-1164 | 2400-1165; 2400-1166 | 2400-1167; 2400-1168 | 2400-1169; 2400-1171 | |
|-------------------------------------|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 54,6 H 7 | 55 H 7 | 55 H 8 | 55 H 9 | 54,6 H 7 | 56 H 7 | 56 H 8 | 56 H 9 | 55,6 H 7 | 56 H 7 | 56 H 8 | |
| Диаметры зубьев D_i номеров | Черно- вык и пере- ходных | 1 | 53,40 | 53,81 | 53,810 | 53,81 | 53,41 | 54,80 | 54,800 | 54,80 | 54,40 | 54,81 | 54,810 |
| | | 2 | 53,36 | 53,77 | 53,770 | 53,77 | 53,37 | 54,76 | 54,760 | 54,76 | 54,36 | 54,77* | 54,770 |
| | | 3 | 53,60 | 54,02 | 54,020 | 54,02 | 53,62 | 55,00 | 55,000 | 55,00 | 54,60 | 55,02 | 55,020 |
| | | 4 | 53,56 | 53,98 | 54,980 | 53,98 | 53,58 | 54,96 | 54,960 | 54,96 | 54,56 | 54,98 | 55,980 |
| | | 5 | 53,80 | 54,23 | 54,230 | 54,23 | 53,83 | 55,20 | 55,200 | 55,20 | 54,80 | 55,23 | 55,230 |
| | | 6 | 53,76 | 54,19 | 54,190 | 54,19 | 53,79 | 55,16 | 55,160 | 55,16 | 54,76 | 55,19 | 55,190 |
| | | 7 | 54,00 | 54,44 | 54,440 | 54,44 | 54,04 | 55,40 | 55,400 | 55,40 | 55,00 | 55,44 | 55,440 |
| | | 8 | 53,96 | 54,40 | 54,400 | 54,40 | 54,00 | 55,36 | 55,360 | 55,36 | 54,96 | 55,40 | 55,400 |
| | | 9 | 54,20 | 54,65 | 54,650 | 54,65 | 54,25 | 55,60 | 55,600 | 55,60 | 55,20 | 55,65 | 55,650 |
| | | 10 | 54,16 | 54,61 | 54,610 | 54,61 | 54,21 | 55,57 | 55,570 | 55,57 | 55,16 | 55,61 | 55,610 |
| | | 11 | 54,38 | 54,78 | 54,800 | 54,80 | 54,38 | 55,78 | 55,780 | 55,78 | 55,38 | 55,79 | 55,800 |
| | | 12 | 54,36 | 54,76 | 54,780 | 54,78 | 54,36 | 55,76 | 55,760 | 55,76 | 55,36 | 55,77 | 55,780 |
| | | 13 | 54,47 | 54,87 | 54,880 | 54,89 | 54,47 | 55,87 | 55,870 | 55,88 | 55,47 | 55,87 | 55,880 |
| | | 14 | | | | | | | | | | | |
| | | 15 | 54,53 | 54,93 | 53,940* | 54,95 | 54,53 | 55,93 | 55,930 | 55,94 | 55,53 | 55,93 | 55,940 |
| | | 16 | | | | | | | | | | | |
| | Чисто- вык | 17 | 54,57 | 54,97 | 54,980 | 54,99 | 54,57 | 55,97 | 55,970 | 55,98 | 55,57 | 55,97 | 55,980 |
| 18 | | | | | | | | | | | | | |
| 19 | | 54,59 | 54,99 | 55,000 | 55,02 | 54,59 | 55,99 | 56,000 | 56,01 | 55,59 | 55,99 | 56,000 | |
| 20 | | | | | | | | | | | | | |

* Соответствует оригиналу. - Примечание изготовителя базы данных.

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0389; 2400-0390 | 2400-0391; 2400-0392 | 2400-1156; 2400-1157 | 2400-0393; 2400-0394 | 2400-0395; 2400-0396 | 2400-1158; 2400-1159 | 2400-1161; 2400-1162 | 2400-1163; 2400-1164 | 2400-1165; 2400-1166 | 2400-1167; 2400-1168 | 2400-1169; 2400-1171 | |
|-------------------------------------|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 54,6 H 7 | 55 H 7 | 55 H 8 | 55 H 9 | 54,6 H 7 | 56 H 7 | 56 H 8 | 56 H 9 | 55,6 H 7 | 56 H 7 | 56 H 8 | |
| Диаметры зубьев D_i номеров | Чисто- вык | 21 | 54,61 | 55,01 | 55,020 | 55,045 | 54,61 | 56,01 | 56,020 | 56,040 | 55,61 | 56,01 | 56,020 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 54,62 | 55,02 | 55,036 | 55,064 | 54,62 | 56,02 | 56,036 | 56,064 | 55,62 | 56,02 | 56,036 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 54,63 | 55,03 | 55,046 | 55,074 | 54,63 | 56,03 | 56,046 | 56,074 | 55,63 | 56,03 | 56,046 |
| | 26 | | | | | | | | | | | | |
| | Калиб- рующих | 27 | 54,63 | 55,03 | 55,046 | 55,074 | 54,63 | 56,03 | 56,046 | 56,074 | 55,63 | 56,03 | 56,046 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | - | - | - | - | - | - | - | - | - | - | - |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1172; 2400-1173 | 2400-1174; 2400-1175 | 2400-0397; 2400-0398 | 2400-1176; 2400-1177 | 2400-0399; 2400-0400 | 2400-0401; 2400-0402 | 2400-0403; 2400-0404 | 2400-1178; 2400-1179 | 2400-0405; 2400-0406 | 2400-0407; 2400-0408 | 2400-0409; 2400-0410 | |
|-------------------------------------|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| Диаметр отверстия | | 56 H 9 | 55,6 H 7 | 58 H 7 | 58 H 8 | 58 H 9 | 57,6 H 7 | 58 H 7 | 58 H 8 | 58 H 9 | 57,6 H 7 | 60 H 7 | |
| Диаметры зубьев D_1 номеров | Черно- вых и пере- ходных | 1 | 54,81 | 54,41 | 56,80 | 56,800 | 56,80 | 56,40 | 56,81 | 56,810 | 56,81 | 56,41 | 58,80 |
| | | 2 | 54,77 | 54,37 | 56,76 | 56,760 | 56,76 | 56,36 | 56,77 | 56,770 | 56,77 | 56,37 | 58,76 |
| | | 3 | 55,02 | 54,62 | 57,00 | 57,000 | 57,00 | 56,60 | 57,02 | 57,020 | 57,02 | 56,62 | 59,00 |
| | | 4 | 54,98 | 54,58 | 56,96 | 56,960 | 56,96 | 56,56 | 56,98 | 56,980 | 56,98 | 56,58 | 58,96 |
| | | 5 | 55,23 | 54,83 | 57,20 | 57,200 | 57,20 | 56,80 | 57,23 | 57,230 | 57,23 | 56,83 | 59,20 |
| | | 6 | 55,19 | 54,79 | 57,16 | 57,160 | 57,16 | 56,76 | 57,19 | 57,190 | 57,19 | 56,79 | 59,16 |
| | | 7 | 55,44 | 55,04 | 57,40 | 57,400 | 57,40 | 57,00 | 57,44 | 57,440 | 57,44 | 57,04 | 59,40 |
| | | 8 | 55,40 | 55,00 | 57,36 | 57,360 | 57,36 | 56,96 | 57,40 | 57,400 | 57,40 | 57,00 | 59,36 |
| | | 9 | 55,65 | 55,25 | 57,60 | 57,600 | 57,60 | 57,20 | 57,65 | 57,650 | 57,65 | 57,25 | 59,60 |
| | | 10 | 55,61 | 55,21 | 57,57 | 57,570 | 57,57 | 57,16 | 57,61 | 57,610 | 57,61 | 57,21 | 59,56 |
| | 11 | 55,80 | 55,39 | 57,78 | 57,780 | 57,78 | 57,38 | 57,79 | 57,800 | 57,80 | 57,39 | 59,78 | |
| | 12 | 55,78 | 55,37 | 57,76 | 57,760 | 57,76 | 57,36 | 57,77 | 57,780 | 57,78 | 57,37 | 59,76 | |
| | 13 | 55,89 | 55,47 | 57,87 | 57,880 | 57,88 | 57,47 | 57,87 | 57,880 | 57,89 | 57,47 | 59,87 | |
| | 14 | | | | | | | | | | | | |
| | 15 | 55,95 | 55,53 | 57,93 | 57,940 | 57,94 | 57,53 | 57,93 | 57,940 | 57,95 | 57,53 | 59,93 | |
| | 16 | | | | | | | | | | | | |
| | Чисто- вых | 17 | 55,99 | 55,57 | 57,97 | 57,980 | 57,98 | 57,57 | 57,97 | 57,980 | 57,99 | 57,57 | 59,97 |
| | | 18 | | | | | | | | | | | |
| | | 19 | 56,02 | 55,59 | 57,99 | 58,000 | 58,01 | 57,59 | 57,99 | 58,000 | 58,02 | 57,59 | 59,99 |
| | | 20 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1172; 2400-1173 | 2400-1174; 2400-1175 | 2400-0397; 2400-0398 | 2400-1176; 2400-1177 | 2400-0399; 2400-0400 | 2400-0401; 2400-0402 | 2400-0403; 2400-0404 | 2400-1178; 2400-1179 | 2400-0405; 2400-0406 | 2400-0407; 2400-0408 | 2400-0409; 2400-0410 | |
|-------------------------------------|-------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| Диаметр отверстия | | 56 H 9 | 56,6 H 7 | 58 H 7 | 58 H 8 | 58 H 9 | 57,6 H 7 | 58 H 7 | 58 H 8 | 58 H 9 | 57,6 H 7 | 60 H 7 | |
| Диаметры зубьев D_1 номеров | Чисто- вых | 21 | 56,045 | 55,61 | 58,01 | 58,020 | 58,040 | 57,61 | 58,01 | 58,020 | 58,045 | 57,61 | 60,01 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 56,064 | 55,62 | 58,02 | 58,036 | 58,064 | 57,62 | 58,02 | 58,036 | 58,064 | 57,62 | 60,02 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 56,074 | 55,63 | 58,03 | 58,046 | 58,074 | 57,63 | 58,03 | 58,046 | 58,074 | 57,63 | 60,03 |
| | | 26 | | | | | | | | | | | |
| | Калиб- рую щих | 27 | 56,074 | 55,63 | 58,03 | 58,046 | 58,074 | 57,63 | 58,03 | 58,046 | 58,074 | 57,63 | 60,03 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | |
| | | 39 | | | | | | | | | | | |
| | | 40 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1181; 2400-1182 | 2400-0411; 2400-0412 | 2400-0413; 2400-0414 | 2400-0415; 2400-0416 | 2400-1183; 2400-1184 | 2400-0417; 2400-0418 | 2400-0419; 2400-0420 | 2400-0421; 2400-0422 | 2400-1185; 2400-1186 | 2400-0423; 2400-0424 | 2400-0425; 2400-0426 | |
|-------------------------------------|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| Диаметр отверстия | | 60 H 8 | 60 H 9 | 59,6 H 7 | 60 H 7 | 60 H 8 | 60 H 9 | 59,6 H 7 | 63 H 7 | 63 H 8 | 63 H 9 | 63,6 H 6 | |
| Диаметры зубьев D_1 номеров | Черно- вых и пере- ходных | 1 | 59,800 | 58,80 | 58,40 | 58,81 | 58,810 | 58,81 | 58,41 | 61,80 | 61,800 | 61,80 | 61,40 |
| | | 2 | 58,760 | 58,76 | 58,36 | 58,77 | 58,770 | 58,77 | 58,37 | 61,76 | 61,760 | 61,76 | 61,36 |
| | | 3 | 59,000 | 59,00 | 58,60 | 59,02 | 59,020 | 59,02 | 58,62 | 62,00 | 62,000 | 62,00 | 61,60 |
| | | 4 | 58,960 | 58,96 | 58,56 | 58,98 | 58,980 | 58,98 | 58,58 | 61,96 | 61,960 | 61,96 | 61,56 |
| | | 5 | 59,200 | 59,20 | 58,80 | 59,23 | 59,230 | 59,23 | 58,83 | 62,20 | 62,200 | 62,20 | 61,80 |
| | | 6 | 59,160 | 59,16 | 58,76 | 59,19 | 59,190 | 59,19 | 58,79 | 62,16 | 62,160 | 62,16 | 61,76 |
| | | 7 | 59,400 | 59,40 | 59,00 | 59,44 | 59,440 | 59,44 | 59,04 | 62,40 | 62,400 | 62,40 | 62,00 |
| | | 8 | 59,360 | 59,36 | 58,96 | 59,40 | 59,400 | 59,40 | 59,00 | 62,36 | 62,360 | 62,36 | 61,96 |
| | | 9 | 59,600 | 59,60 | 59,20 | 59,65 | 59,650 | 59,65 | 59,25 | 62,60 | 62,600 | 62,60 | 62,20 |
| | | 10 | 59,560 | 59,56 | 59,16 | 59,61 | 59,610 | 59,61 | 59,21 | 62,56 | 62,560 | 62,56 | 62,16 |
| | | 11 | 59,780 | 59,78 | 59,38 | 59,79 | 59,800 | 59,80 | 59,39 | 62,78 | 62,780 | 62,78 | 62,38 |
| | | 12 | 59,760 | 59,76 | 59,36 | 59,77 | 59,780 | 59,78 | 59,37 | 62,76 | 62,760 | 62,76 | 62,36 |
| | | 13 | 59,870 | 59,88 | 59,47 | 59,87 | 59,880 | 59,89 | 59,47 | 62,87 | 62,870 | 62,88 | 62,47 |
| | | 14 | | | | | | | | | | | |
| | | 15 | 59,930 | 59,94 | 59,53 | 59,93 | 59,940 | 59,95 | 59,53 | 62,93 | 62,930 | 62,94 | 62,53 |
| | | 16 | | | | | | | | | | | |
| | Чисто- вых | 17 | 59,970 | 59,98 | 59,57 | 59,97 | 59,980 | 59,99 | 59,57 | 62,97 | 62,970 | 62,98 | 62,57 |
| | | 18 | | | | | | | | | | | |
| | | 19 | 60,000 | 60,01 | 59,59 | 59,99 | 60,000 | 60,02 | 59,59 | 62,99 | 63,000 | 63,01 | 62,59 |
| | | 20 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1181; 2400-1182 | 2400-0411; 2400-0412 | 2400-0413; 2400-0414 | 2400-0415; 2400-0416 | 2400-1183; 2400-1184 | 2400-0417; 2400-0418 | 2400-0419; 2400-0420 | 2400-0421; 2400-0422 | 2400-1185; 2400-1186 | 2400-0423; 2400-0424 | 2400-0425; 2400-0426 | | |
|-------------------------------------|-------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|---|
| Диаметр отверстия | | 60 H 8 | | | | | | | | | | | | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 60,020 | 60,04 | 59,61 | 60,01 | 60,020 | 60,045 | 59,61 | 63,01 | 63,020 | 63,04 | 62,61 | |
| | | 22 | | | | | | | | | | | | |
| | | 23 | 60,036 | 60,064 | 59,62 | 60,02 | 60,036 | 60,064 | 59,62 | 63,02 | 63,036 | 63,064 | 62,62 | |
| | | 24 | | | | | | | | | | | | |
| | | 25 | 60,046 | 60,074 | 56,63 | 60,03 | 60,046 | 60,074 | 59,63 | 63,03 | 63,046 | 63,074 | 62,63 | |
| | Калиб- рую щих | 26 | | | | | | | | | | | | |
| | | 27 | 60,046 | 60,074 | 59,63 | 60,03 | 60,046 | 60,074 | 59,63 | 63,03 | 63,046 | 63,074 | 62,63 | |
| | | 28 | | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | | |
| | | 33 | - | - | - | - | - | - | - | - | - | - | - | - |
| | | 34 | | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | | |
| | | 39 | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0427; 2400-0428 | 2400-1187; 2400-1188 | 2400-0429; 2400-0430 | 2400-0431; 2400-0432 | 2400-0433; 2400-0434 | 2400-1189; 2400-1191 | 2400-0435; 2400-0436 | 2400-0437; 2400-0438 | 2400-0439; 2400-0440 | 2400-1192; 2400-1193 | 2400-0441; 2400-0442 | |
|-------------------------------------|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| Диаметр отверстия | | 63 H 7 | | | | | | | | | | | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 61,81 | 61,810 | 61,81 | 61,41 | 63,80 | 63,800 | 63,80 | 63,40 | 63,81 | 63,810 | 63,81 |
| | | 2 | 61,77 | 61,770 | 61,77 | 61,37 | 63,76 | 63,760 | 63,76 | 63,36 | 63,77 | 63,770 | 63,77 |
| | | 3 | 62,02 | 62,020 | 62,02 | 61,62 | 64,00 | 64,000 | 64,00 | 63,60 | 64,02 | 64,020 | 64,02 |
| | | 4 | 61,98 | 61,980 | 61,98 | 61,58 | 63,96 | 63,960 | 63,96 | 63,56 | 63,98 | 64,980 | 63,98 |
| | | 5 | 62,23 | 62,230 | 62,23 | 61,83 | 64,20 | 64,200 | 64,20 | 63,80 | 64,23 | 64,230 | 64,23 |
| | | 6 | 62,19 | 62,190 | 62,19 | 61,79 | 64,16 | 64,160 | 64,16 | 63,76 | 64,19 | 64,190 | 64,19 |
| | | 7 | 62,44 | 62,440 | 62,44 | 62,04 | 64,40 | 64,400 | 64,40 | 64,00 | 64,44 | 64,440 | 64,44 |
| | | 8 | 62,40 | 62,400 | 62,40 | 62,00 | 64,36 | 64,360 | 64,36 | 63,96 | 64,40 | 64,400 | 64,40 |
| | | 9 | 62,65 | 62,650 | 62,65 | 62,25 | 64,60 | 64,600 | 64,60 | 64,20 | 64,65 | 64,650 | 64,65 |
| | | 10 | 62,61 | 62,610 | 62,61 | 62,21 | 64,56 | 64,560 | 64,56 | 64,16 | 64,61 | 64,610 | 64,61 |
| | | 11 | 62,79 | 62,800 | 62,80 | 62,39 | 64,78 | 64,780 | 64,78 | 64,38 | 64,79 | 64,790 | 64,80 |
| | | 12 | 62,77 | 62,780 | 62,78 | 62,37 | 64,76 | 64,760 | 64,76 | 64,36 | 64,77 | 64,770 | 64,78 |
| | | 13 | 62,87 | 62,880 | 62,89 | 62,47 | 64,87 | 64,870 | 64,88 | 64,47 | 64,87 | 64,880 | 64,89 |
| | | 14 | | | | | | | | | | | |
| | 15 | 62,93 | 62,940 | 62,95 | 62,53 | 64,93 | 64,930 | 64,94 | 64,53 | 64,93 | 64,940 | 64,95 | |
| | 16 | | | | | | | | | | | | |
| | Чисто- вых | 17 | 62,97 | 62,980 | 62,99 | 62,57 | 64,97 | 64,970 | 64,98 | 64,57 | 64,97 | 64,980 | 64,99 |
| | | 18 | | | | | | | | | | | |
| | | 19 | 62,99 | 63,000 | 63,02 | 62,59 | 64,99 | 65,000 | 65,01 | 64,59 | 64,99 | 65,000 | 65,02 |
| 20 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0427; 2400-0428 | 2400-1187; 2400-1188 | 2400-0429; 2400-0430 | 2400-0431; 2400-0432 | 2400-0433; 2400-0434 | 2400-1189; 2400-1191 | 2400-0435; 2400-0436 | 2400-0437; 2400-0438 | 2400-0439; 2400-0440 | 2400-1192; 2400-1193 | 2400-0141*; 2400-0442 | | |
|-------------------------------------|-------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------|---|
| Диаметр отверстия | | 63 H 7 | | | | | | | | | | | | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 63,01 | 63,020 | 63,045 | 62,61 | 65,01 | 65,020 | 65,04 | 64,61 | 65,01 | 65,020 | 65,045 | |
| | | 22 | | | | | | | | | | | | |
| | | 23 | 63,02 | 63,036 | 63,064 | 62,62 | 65,02 | 65,036 | 65,064 | 64,62 | 65,02 | 65,036 | 65,064 | |
| | | 24 | | | | | | | | | | | | |
| | | 25 | 63,03 | 63,046 | 63,074 | 62,63 | 65,03 | 65,046 | 65,074 | 64,63 | 65,03 | 65,046 | 65,074 | |
| | Калиб- рую щих | 26 | | | | | | | | | | | | |
| | | 27 | 63,03 | 63,046 | 63,074 | 62,63 | 65,03 | 65,046 | 65,074 | 64,63 | 65,03 | 65,046 | 65,074 | |
| | | 28 | | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | | |
| | | 33 | - | - | - | - | - | - | - | - | - | - | - | - |
| | | 34 | | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | | |
| | | 39 | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | |

* Соответствует оригиналу. - Примечание изготовителя базы данных.

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0443; 2400-0444 | 2400-0445; 2400-0446 | 2400-1194; 2400-1195 | 2400-0447; 2400-0448 | 2400-0449; 2400-0450 | 2400-0451; 2400-0452 | 2400-1196; 2400-1197 | 2400-0453; 2400-0454 | 2400-0455; 2400-0456 | 2400-1198; 2400-1199 | 2400-1201; 2400-1202 | |
|-------------------------------------|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 64,6 H 7 | 70 H 7 | 70 H 8 | 70 H 9 | 69,6 H 7 | 70 H 7 | 70 H 8 | 70 H 9 | 69,6 H 7 | 71 H 7 | 71 H 8 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 63,41 | 68,80 | 68,800 | 68,80 | 68,40 | 68,80 | 68,800 | 68,80 | 68,40 | 69,80 | 69,800 |
| | | 2 | 63,37 | 68,76 | 68,760 | 68,76 | 68,36 | 68,76 | 68,760 | 68,76 | 68,36 | 69,76 | 69,760 |
| | | 3 | 63,62 | 69,00 | 69,000 | 69,00 | 68,60 | 69,00 | 69,000 | 69,00 | 68,60 | 70,00 | 70,000 |
| | | 4 | 63,58 | 68,96 | 68,960 | 68,96 | 68,56 | 68,96 | 68,960 | 68,96 | 68,56 | 69,96 | 69,960 |
| | | 5 | 63,83 | 69,20 | 69,200 | 69,20 | 68,80 | 69,20 | 69,200 | 69,20 | 68,80 | 70,20 | 70,200 |
| | | 6 | 63,79 | 69,16 | 69,160 | 69,16 | 68,76 | 69,16 | 69,160 | 69,16 | 68,76 | 70,16 | 70,160 |
| | | 7 | 64,04 | 69,40 | 69,400 | 69,40 | 69,00 | 69,40 | 69,400 | 69,40 | 69,00 | 70,40 | 70,400 |
| | | 8 | 64,00 | 69,36 | 69,360 | 69,36 | 69,96 | 69,36 | 69,360 | 69,36 | 69,96 | 70,36 | 70,360 |
| | | 9 | 64,25 | 69,60 | 69,600 | 69,60 | 69,20 | 69,60 | 69,600 | 69,60 | 69,20 | 70,60 | 70,600 |
| | | 10 | 64,21 | 69,56 | 69,560 | 69,56 | 69,16 | 69,56 | 69,560 | 69,56 | 69,16 | 70,56 | 70,560 |
| | | 11 | 64,39 | 69,78 | 69,780 | 69,78 | 69,38 | 69,78 | 69,780 | 69,78 | 69,38 | 70,78 | 70,780 |
| | | 12 | 64,37 | 69,76 | 69,760 | 69,76 | 69,36 | 69,76 | 69,760 | 69,76 | 69,36 | 70,76 | 70,760 |
| | | 13 | 64,48 | 69,87 | 69,870 | 69,88 | 69,47 | 69,87 | 69,870 | 69,88 | 69,47 | 70,87 | 70,870 |
| | | 14 | | | | | | | | | | | |
| | | 15 | 64,53 | 69,93 | 69,930 | 69,94 | 69,53 | 69,93 | 69,930 | 69,94 | 69,53 | 70,93 | 70,930 |
| | | 16 | | | | | | | | | | | |
| Чисто- вых | 17 | 64,57 | 69,97 | 69,970 | 69,98 | 69,57 | 69,97 | 69,970 | 69,98 | 69,57 | 70,97 | 70,970 | |
| | 18 | | | | | | | | | | | | |
| | 19 | 64,59 | 69,99 | 70,000 | 70,01 | 69,59 | 69,99 | 70,000 | 70,02 | 69,59 | 70,99 | 71,000 | |
| | 20 | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0443; 2400-0444 | 2400-0445; 2400-0446 | 2400-1194; 2400-1195 | 2400-0447; 2400-0448 | 2400-0449; 2400-0450 | 2400-0451; 2400-0452 | 2400-1196; 2400-1197 | 2400-0453; 2400-0454 | 2400-0455; 2400-0456 | 2400-1198; 2400-1199 | 2400-1201; 2400-1202 | |
|-------------------------------------|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 64,6 H 7 | 70 H 7 | 70 H 8 | 70 H 9 | 69,6 H 7 | 70 H 7 | 70 H 8 | 70 H 9 | 69,6 H 7 | 71 H 7 | 71 H 8 | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 64,61 | 70,01 | 70,020 | 70,04 | 69,61 | 70,01 | 70,020 | 70,045 | 69,61 | 71,01 | 71,020 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 64,62 | 70,02 | 70,036 | 70,064 | 69,62 | 70,02 | 70,036 | 70,064 | 69,62 | 71,02 | 71,036 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 64,63 | 70,03 | 70,046 | 70,074 | 69,63 | 70,03 | 70,046 | 70,074 | 69,63 | 71,03 | 71,046 |
| | | 26 | | | | | | | | | | | |
| | Калиб- рующих | 27 | 64,63 | 70,03 | 70,046 | 70,074 | 69,63 | 70,03 | 70,046 | 70,074 | 69,63 | 71,03 | 71,046 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | | | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | - | - | - | - | - | - | - | - | - | - | - |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| 37 | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1203; 2400-1204 | 2400-1205; 2400-1206 | 2400-1207; 2400-1208 | 2400-1209; 2400-1211 | 2400-1212; 2400-1213 | 2400-1214; 2400-1215 | 2400-0457; 2400-0458 | 2400-1216; 2400-1217 | 2400-0459; 2400-0460 | 2400-0461; 2400-0462 | 2400-0463; 2400-0464 | |
|-------------------------------------|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| Диаметр отверстия | | 71 H 9 | 70,6 H 7 | 71 H 7 | 71 H 8 | 71 H 9 | 70,6 H 7 | 75 H 7 | 75 H 8 | 75 H 9 | 74,6 H 7 | 75 H 7 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 69,80 | 69,40 | 69,80 | 69,800 | 69,80 | 69,40 | 73,70 | 73,700 | 73,70 | 73,30 | 73,72 |
| | | 2 | 69,76 | 69,36 | 69,76 | 69,760 | 69,76 | 69,36 | 73,66 | 73,660 | 73,66 | 73,26 | 73,68 |
| | | 3 | 70,00 | 69,60 | 70,00 | 70,000 | 70,00 | 69,60 | 73,90 | 73,900 | 73,90 | 73,50 | 73,94 |
| | | 4 | 69,96 | 69,56 | 69,96 | 69,960 | 69,96 | 69,56 | 73,86 | 73,860 | 73,86 | 73,46 | 73,90 |
| | | 5 | 70,20 | 69,80 | 70,20 | 70,200 | 70,20 | 69,80 | 74,10 | 74,100 | 74,10 | 73,70 | 74,16 |
| | | 6 | 70,16 | 69,76 | 70,16 | 70,160 | 70,16 | 69,76 | 74,06 | 74,060 | 74,06 | 73,66 | 74,12 |
| | | 7 | 70,40 | 70,00 | 70,40 | 70,400 | 70,40 | 70,00 | 74,30 | 74,300 | 74,30 | 73,90 | 74,38 |
| | | 8 | 70,36 | 69,96 | 70,36 | 70,360 | 70,36 | 69,96 | 74,26 | 74,260 | 74,26 | 73,86 | 74,34 |
| | | 9 | 70,60 | 70,20 | 70,60 | 70,600 | 70,60 | 70,20 | 74,50 | 74,500 | 74,50 | 74,10 | 74,60 |
| | | 10 | 70,56 | 70,16 | 70,56 | 70,560 | 70,56 | 70,16 | 74,46 | 74,460 | 74,46 | 74,06 | 74,56 |
| | | 11 | 70,78 | 70,38 | 70,78 | 70,780 | 70,78 | 70,38 | 74,68 | 74,680 | 74,68 | 74,28 | 74,78 |
| | | 12 | 70,76 | 70,36 | 70,76 | 70,760 | 70,76 | 70,36 | 74,64 | 74,640 | 74,64 | 74,24 | 74,76 |
| | | 13 | 70,88 | 70,47 | 70,87 | 70,870 | 70,88 | 70,47 | 74,80 | 74,810 | 74,80 | 74,40 | 74,87 |
| | | 14 | | | | | | | 74,78 | 74,790 | 74,78 | 74,38 | |
| | | 15 | 70,94 | 70,53 | 70,93 | 70,930 | 70,94 | 70,53 | 74,87 | 74,880 | 74,90 | 74,47 | 74,93 |
| | | 16 | | | | | | | | | | | |
| | | | Чисто- вых | 17 | 70,98 | 70,57 | 70,97 | 70,970 | 70,98 | 70,57 | 74,93 | 74,940 | 74,96 |
| 18 | | | | | | | | | | | | | |
| 19 | 71,01 | 70,59 | | 70,99 | 71,000 | 71,02 | 70,59 | 74,97 | 74,980 | 75,00 | 74,57 | 74,99 | |
| 20 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1203; 2400-1204 | 2400-1205; 2400-1206 | 2400-1207; 2400-1208 | 2400-1209; 2400-1211 | 2400-1212; 2400-1213 | 2400-1214; 2400-1215 | 2400-0457; 2400-0458 | 2400-1216; 2400-1217 | 2400-0459; 2400-0460 | 2400-0461; 2400-0462 | 2400-0463; 2400-0464 | |
|-------------------------------------|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| Диаметр отверстия | | 71 H 9 | 70,6 H 7 | 71 H 7 | 71 H 8 | 71 H 9 | 70,6 H 7 | 75 H 7 | 75 H 8 | 75 H 9 | 74,6 H 7 | 75 H 7 | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 71,04 | 70,81 | 71,01 | 71,020 | 71,045 | 70,81 | 74,99 | 75,000 | 75,03 | 74,59 | 75,01 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 71,064 | 70,62 | 71,02 | 71,036 | 71,064 | 70,62 | 75,01 | 75,020 | 75,05 | 74,61 | 75,02 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 71,074 | 70,63 | 71,03 | 71,046 | 71,074 | 70,63 | 75,02 | 75,036 | 75,064 | 74,62 | 75,03 |
| | | 26 | | | | | | | | | | | |
| | Калиб- рующих | 27 | 71,074 | 70,63 | 71,03 | 71,046 | 71,074 | 70,63 | 75,03 | 75,046 | 75,074 | 74,63 | 75,03 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | | | 75,03 | 75,046 | 75,074 | 74,63 | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | | | | | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | |
| | | 39 | | | | | | | | | | | |
| | | 40 | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1218; 2400-1219 | 2400-0465; 2400-0466 | 2400-0467; 2400-0468 | 2400-0469; 2400-0470 | 2400-1221; 2400-1222 | 2400-0471; 2400-0472 | 2400-0473; 2400-0474 | 2400-0475; 2400-0476 | 2400-1223; 2400-1224 | 2400-0477; 2400-0478 | 2400-0479; 2400-0480 | |
|-------------------------------------|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 75 H 8 | 75 H 9 | 74,6 H 7 | 80 H 7 | 80 H 8 | 80 H 9 | 79,6 H 7 | 80 H 7 | 80 H 8 | 80 H 9 | 79,6 H 7 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 73,720 | 73,72 | 73,32 | 78,70 | 78,700 | 78,70 | 78,30 | 78,70 | 78,700 | 78,70 | 78,30 |
| | | 2 | 73,680 | 73,68 | 73,28 | 78,66 | 78,660 | 78,66 | 78,26 | 78,66 | 78,660 | 78,66 | 78,26 |
| | | 3 | 73,940 | 73,94 | 73,54 | 78,90 | 78,900 | 78,90 | 78,50 | 78,90 | 78,900 | 78,90 | 78,50 |
| | | 4 | 73,900 | 73,90 | 73,50 | 78,86 | 78,860 | 78,86 | 78,46 | 78,86 | 78,860 | 78,86 | 78,46 |
| | | 5 | 74,160 | 74,16 | 73,76 | 79,10 | 79,100 | 79,10 | 78,70 | 79,10 | 79,100 | 79,10 | 78,70 |
| | | 6 | 74,120 | 74,12 | 73,72 | 79,06 | 79,060 | 79,06 | 78,66 | 79,06 | 79,060 | 79,06 | 78,66 |
| | | 7 | 74,380 | 74,38 | 73,98 | 79,30 | 79,300 | 79,30 | 78,90 | 79,30 | 79,300 | 79,30 | 78,90 |
| | | 8 | 74,340 | 74,34 | 73,94 | 79,26 | 79,260 | 79,26 | 78,86 | 79,26 | 79,260 | 79,26 | 78,86 |
| | | 9 | 74,600 | 74,60 | 74,20 | 79,50 | 79,500 | 79,50 | 79,10 | 79,50 | 79,500 | 79,50 | 79,10 |
| | | 10 | 74,560 | 74,56 | 74,16 | 79,46 | 79,460 | 79,46 | 79,06 | 79,46 | 79,460 | 79,46 | 79,06 |
| | | 11 | 74,790 | 74,79 | 74,37 | 79,68 | 79,680 | 79,68 | 79,28 | 79,68 | 79,680 | 79,68 | 79,28 |
| | | 12 | 74,770 | 74,77 | 74,35 | 79,64 | 79,640 | 79,64 | 79,24 | 79,64 | 79,640 | 79,64 | 79,24 |
| | | 13 | 74,880 | 74,89 | 74,46 | 79,80 | 79,800 | 79,82 | 79,40 | 79,80 | 79,800 | 79,82 | 79,40 |
| | | 14 | | | | 79,78 | 79,780 | 79,80 | 79,38 | 79,78 | 79,780 | 79,80 | 79,38 |
| | | 15 | 74,940 | 74,95 | 74,52 | 79,87 | 79,880 | 79,90 | 79,47 | 79,87 | 79,880 | 79,90 | 79,47 |
| | | 16 | | | | | | | | | | | |
| | | | Чисто- вых | 17 | 74,980 | 74,99 | 74,56 | 79,93 | 79,940 | 79,96 | 79,53 | 79,93 | 79,940 |
| 18 | | | | | | | | | | | | | |
| 19 | 75,000 | 75,02 | | 74,59 | 79,97 | 79,980 | 80,00 | 79,57 | 79,97 | 79,980 | 80,00 | 79,57 | |
| 20 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-1218; 2400-1219 | 2400-0465; 2400-0466 | 2400-0467; 2400-0468 | 2400-0469; 2400-0470 | 2400-1221; 2400-1222 | 2400-0471; 2400-0472 | 2400-0473; 2400-0474 | 2400-0475; 2400-0476 | 2400-1223; 2400-1224 | 2400-0477; 2400-0478 | 2400-0479; 2400-0480 | | |
|-------------------------------------|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|--|
| Диаметр отверстия | | 75 H 8 | 75 H 9 | 74,6 H 7 | 80 H 7 | 80 H 8 | 80 H 9 | 79,6 H 7 | 80 H 7 | 80 H 8 | 80 H 9 | 79,6 H 7 | | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 75,020 | 75,045 | 74,61 | 79,99 | 80,000 | 80,03 | 79,59 | 79,99 | 80,000 | 80,03 | 79,59 | |
| | | 22 | | | | | | | | | | | | |
| | | 23 | 75,036 | 75,064 | 74,62 | 80,01 | 80,020 | 80,05 | 79,61 | 80,01 | 80,020 | 80,05 | 79,61 | |
| | | 24 | | | | | | | | | | | | |
| | | 25 | 75,046 | 75,074 | 74,63 | 80,02 | 80,036 | 80,064 | 79,62 | 80,02 | 80,036 | 80,064 | 79,62 | |
| | Калиб- рующих | 27 | 75,046 | 75,074 | 74,63 | 80,03 | 80,046 | 80,074 | 79,63 | 80,03 | 80,046 | 80,074 | 79,63 | |
| | | 28 | | | | | | | | | | | | |
| | | 29 | | | | 80,03 | 80,046 | 80,074 | 79,63 | 80,03 | 80,046 | 80,074 | 79,63 | |
| | | 30 | | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | | |
| | | 33 | - | - | - | | | | | | | | | |
| | | 34 | | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | | |
| | | 38 | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0481; 2400-0482 | 2400-1225; 2400-1226 | 2400-0483; 2400-0484 | 2400-0485; 2400-0486 | 2400-0487; 2400-0488 | 2400-1227; 2400-1228 | 2400-0489; 2400-0490 | 2400-0491; 2400-0492 | 2400-0493; 2400-0494 | 2400-1229; 2400-1231 | 2400-0495; 2400-0496 | |
|-------------------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 85 H 7 | 85 H 8 | 85 H 9 | 84,54 H 7 | 85 H 7 | 85 H 8 | 85 H 9 | 84,54 H 7 | 90 H 7 | 90 H 8 | 90 H 9 | |
| Диаметры зубьев D_i номеров | Черно- вых и пере- ходных | 1 | 83,720 | 83,720 | 83,72 | 83,220 | 83,690 | 83,690 | 83,69 | 83,190 | 88,720 | 88,720 | 88,72 |
| | | 2 | 83,680 | 83,680 | 83,68 | 83,180 | 83,650 | 83,650 | 83,65 | 83,150 | 88,680 | 88,680 | 88,68 |
| | | 3 | 83,940 | 83,940 | 83,94 | 83,440 | 83,880 | 83,880 | 83,88 | 83,380 | 88,940 | 88,940 | 88,94 |
| | | 4 | 83,900 | 83,900 | 83,90 | 83,400 | 83,840 | 83,840 | 83,84 | 83,340 | 88,900 | 88,900 | 88,90 |
| | | 5 | 84,160 | 84,160 | 84,16 | 83,660 | 84,070 | 84,070 | 84,07 | 83,570 | 89,160 | 89,160 | 89,16 |
| | | 6 | 84,120 | 84,120 | 84,12 | 83,620 | 84,030 | 84,030 | 84,03 | 83,530 | 89,120 | 89,120 | 89,12 |
| | | 7 | 84,380 | 84,380 | 84,38 | 83,880 | 84,260 | 84,260 | 84,26 | 83,760 | 89,380 | 89,380 | 89,38 |
| | | 8 | 84,340 | 84,340 | 84,34 | 83,840 | 84,220 | 84,220 | 84,22 | 83,720 | 89,340 | 89,340 | 89,34 |
| | | 9 | 84,600 | 84,600 | 84,60 | 84,100 | 84,450 | 84,450 | 84,45 | 83,950 | 89,600 | 89,600 | 89,60 |
| | | 10 | 84,560 | 84,560 | 84,56 | 84,060 | 84,410 | 84,410 | 84,41 | 83,910 | 89,560 | 89,560 | 89,56 |
| | | 11 | 84,770 | 84,780 | 84,78 | 84,300 | 84,640 | 84,640 | 84,64 | 84,140 | 89,770 | 89,780 | 89,78 |
| | | 12 | 84,750 | 84,760 | 84,76 | 84,280 | 84,600 | 84,600 | 84,60 | 84,100 | 89,750 | 89,760 | 89,76 |
| | | 13 | 84,860 | 84,880 | 84,88 | 84,400 | 84,780 | 84,800 | 84,81 | 84,310 | 89,860 | 89,870 | 89,88 |
| | | 14 | | | | | 84,760 | 84,780 | 84,79 | 84,290 | | | |
| | | 15 | 84,920 | 84,940 | 84,94 | 84,460 | 84,870 | 84,890 | 84,90 | 84,400 | 89,920 | 89,930 | 89,94 |
| | | Чисто- вых | 17 | 84,960 | 84,980 | 84,98 | 84,500 | 84,930 | 84,950 | 84,96 | 84,460 | 89,960 | 89,970 |
| | 18 | | | | | | | | | | | | |
| 19 | 84,990 | | 85,020 | 85,02 | 84,530 | 84,970 | 84,990 | 85,00 | 84,500 | 89,990 | 90,010 | 90,02 | |
| 20 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0481; 2400-0482 | 2400-1225; 2400-1226 | 2400-0483; 2400-0484 | 2400-0485; 2400-0486 | 2400-0487; 2400-0488 | 2400-1227; 2400-1228 | 2400-0489; 2400-0490 | 2400-0491; 2400-0492 | 2400-0493; 2400-0494 | 2400-1229; 2400-1231 | 2400-0495; 2400-0496 | |
|-------------------------------------|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 85 H 7 | 85 H 8 | 85 H 9 | 84,54 H 7 | 85 H 7 | 85 H 8 | 85 H 9 | 84,54 H 7 | 90 H 7 | 90 H 8 | 90 H 9 | |
| Диаметры зубьев D_i номеров | Чисто- вых | 21 | 85,010 | 85,030 | 85,055 | 84,550 | 84,990 | 85,010 | 85,03 | 84,530 | 90,010 | 90,030 | 90,055 |
| | | 22 | | | | | | | | | | | |
| | | 23 | 85,025 | 85,044 | 85,077 | 84,565 | 85,010 | 85,030 | 85,06 | 84,550 | 90,025 | 90,044 | 90,077 |
| | | 24 | | | | | | | | | | | |
| | | 25 | 85,035 | 85,054 | 85,087 | 84,575 | 85,025 | 85,044 | 85,077 | 84,565 | 90,035 | 90,054 | 90,087 |
| | | 26 | | | | | | | | | | | |
| | Калиб- рующих | 27 | 85,035 | 85,054 | 85,087 | 84,575 | 85,035 | 85,054 | 85,087 | 84,575 | 90,035 | 90,054 | 90,087 |
| | | 28 | | | | | | | | | | | |
| | | 29 | | | | | 85,035 | 85,054 | 85,087 | 84,575 | | | |
| | | 30 | | | | | | | | | | | |
| | | 31 | | | | | | | | | | | |
| | | 32 | | | | | | | | | | | |
| | | 33 | - | - | - | - | | | | | | | |
| | | 34 | | | | | | | | | | | |
| | | 35 | | | | | | | | | | | |
| | | 36 | | | | | | | | | | | |
| | | 37 | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

Продолжение табл.2

Размеры в мм

| Обозначение протяжек | | 2400-0497; 2400-0498 | 2400-0499; 2400-0500 | 2400-1232; 2400-1233 | 2400-0501; 2400-0502 | 2400-0503; 2400-0504 | |
|----------------------------------|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 89,54 H 7 | 90 H 7 | 90 H 8 | 90 H 9 | 89,54 H 7 | |
| Диаметры зубьев D_i номеров | Черновых и переходных | 1 | 88,220 | 88,690 | 88,690 | 88,69 | 88,190 |
| | | 2 | 88,180 | 88,650 | 88,650 | 88,65 | 87,150 |
| | | 3 | 88,440 | 88,880 | 88,880 | 88,88 | 88,380 |
| | | 4 | 88,400 | 88,840 | 88,840 | 88,84 | 88,340 |
| | | 5 | 88,660 | 89,070 | 89,070 | 89,07 | 88,570 |
| | | 6 | 88,620 | 89,030 | 89,030 | 89,03 | 88,530 |
| | | 7 | 88,880 | 89,260 | 89,260 | 89,26 | 88,760 |
| | | 8 | 88,840 | 89,220 | 89,220 | 89,22 | 88,720 |
| | | 9 | 89,100 | 89,450 | 89,450 | 89,45 | 88,950 |
| | | 10 | 89,060 | 89,410 | 89,410 | 89,41 | 88,910 |
| | | 11 | 89,300 | 89,640 | 89,640 | 89,64 | 89,140 |
| | | 12 | 89,280 | 89,600 | 89,600 | 89,60 | 89,100 |
| | | 13 | 89,400 | 89,780 | 89,790 | 89,80 | 89,310 |
| | | 14 | | 89,760 | 89,770 | 89,78 | 89,290 |
| | | 15 | 89,460 | 89,870 | 89,880 | 89,89 | 89,410 |
| | | 16 | | | | | |
| | Чистовых | 17 | 89,500 | 89,930 | 89,940 | 89,95 | 89,470 |
| | | 18 | | | | | |
| | | 19 | 89,530 | 89,970 | 89,980 | 89,99 | 89,510 |
| | | 20 | | | | | |

Продолжение табл.2

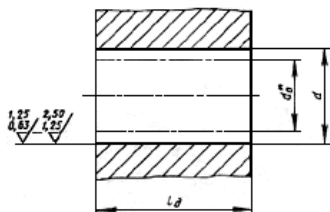
Размеры в мм

| Обозначение протяжек | | 2400-0497; 2400-0498 | 2400-0499; 2400-0500 | 2400-1232; 2400-1233 | 2400-0501; 2400-0502 | 2400-0503; 2400-0504 | |
|----------------------------------|-------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Диаметр отверстия | | 89,54 H 7 | 90 H 7 | 90 H 8 | 90 H 9 | 89,54 H 7 | |
| Диаметры зубьев D_i номеров | Чистовых | 21 | 89,550 | 89,990 | 90,010 | 90,03 | 89,530 |
| | | 22 | | | | | |
| | | 23 | 89,565 | 90,010 | 90,030 | 90,06 | 89,550 |
| | | 24 | | | | | |
| | | 25 | 89,575 | 90,025 | 90,044 | 90,077 | 89,565 |
| | | 26 | | | | | |
| | Калибрующих | 27 | 89,575 | 90,035 | 90,054 | 90,087 | 89,575 |
| | | 28 | | | | | |
| | | 29 | | 90,035 | 90,054 | 90,087 | 89,575 |
| | | 30 | | | | | |
| | | 31 | | | | | |
| | | 32 | | | | | |
| | | 33 | - | | | | |
| | | 34 | | | | | |
| | | 35 | | | | | |
| | | 36 | | | | | |
| | | 37 | | | | | |
| | | 38 | | | | | |
| | | 39 | | | | | |
| | | 40 | | | | | |

Таблица 3 (Измененная редакция, Изм. N 4).

(Измененная редакция, Изм. N 2, Изм. N 3, Изм. N 4).

3. Размеры протягиваемого отверстия и усилие протягивания должны соответствовать указанным на черт.2 и в табл.3.



* Размер для справок.

Черт.2

Таблица 3

Размеры в мм

| Обозначение протяжек | Номинальный диаметр отверстия | | Длина протягивания l_d | | Усилие протягивания F^P , Н (кгс) при переднем угле γ | | | |
|-------------------------|----------------------------------|-----------------------------|----------------------------------|-----------------------------|---|-----------------|---------------------|-----------------|
| | После протягивания d | до протягивания d_0 | Сталь и алюминиевые сплавы | Чугун, бронза, латунь | | 20° | 15° | 10° |
| | | | | | | Номин . | Поле допуск а | |
| 2400-0061 | 14,00 | 13,4 | $H 11$ | 15-34 | 15-34 | 10000 (1020) | 11200 (1140) | 13420 (1365) |
| 2400-0062 | | | | | | | | |
| 2400-1001 | | | | | | | | |
| 2400-1002 | | | | | | | | |
| 2400-0063 | | | | | | | | |
| 2400-0064 | | | | | | | | |
| 2400-0065 | 13,76 | 13,1 | | | | | | |
| 2400-0066 | | | | | | | | |
| 2400-0067 | 14,00 | 13,4 | | 26-44 | 26-44 | 10300 (1050) | 11600 (1180) | 13450 (1370) |
| 2400-0068 | | | | | | | | |
| 2400-1003 | | | | | | | | |
| 2400-1004 | | | | | | | | |
| 2400-0069 | | | | | | | | |
| 2400-0070 | | | | | | | | |
| | | | | | | | | |

| | | |
|-----------|-------|------|
| 2400-0071 | 13,76 | 13,1 |
| 2400-0072 | | |
| 2400-0073 | 15,00 | 14,4 |
| 2400-0074 | | |
| 2400-1005 | | |
| 2400-1006 | | |
| 2400-0075 | | |
| 2400-0076 | | |
| 2400-0077 | 14,76 | 14,1 |
| 2400-0078 | | |
| 2400-0079 | 15,00 | 14,4 |
| 2400-0080 | | |
| 2400-1007 | | |
| 2400-1008 | | |
| 2400-0081 | | |
| 2400-0082 | | |
| 2400-0083 | 14,76 | 14,1 |
| 2400-0084 | | |
| 2400-0085 | 16,00 | 15,4 |
| 2400-0086 | | |
| 2400-1009 | | |

| | | | | |
|-------|-------|-----------------|-----------------|-----------------|
| | | | | |
| 15-34 | 15-34 | 11000 (1120) | 12300 (1250) | 14400 (1470) |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| 22-53 | 22-53 | 9300 (950) | 10600 (1080) | 12850 (1310) |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| 15-40 | 15-48 | 11300 (1150) | 12700 (1300) | 15300 (1560) |
| | | | | |
| | | | | |
| | | | | |

| | | | | | | | |
|-----------|-------|------|-------|-------|-----------------|-----------------|-----------------|
| | | | | | | | |
| 2400-1011 | | | | | | | |
| 2400-0087 | | | | | | | |
| 2400-0088 | | | | | | | |
| 2400-0089 | 15,76 | 15,1 | | | | | |
| 2400-0090 | | | | | | | |
| 2400-0091 | 16,00 | 15,4 | 22-63 | 22-75 | 15200 (1550) | 17200 (1750) | 20400 (2080) |
| 2400-0092 | | | | | | | |
| 2400-1012 | | | | | | | |
| 2400-1013 | | | | | | | |
| 2400-0093 | | | | | | | |
| 2400-0094 | | | | | | | |
| 2400-0095 | 15,76 | 15,1 | | | | | |
| 2400-0096 | | | | | | | |
| 2400-0097 | 17,00 | 16,4 | 15-40 | 15-48 | 12050 (1230) | 13550 (1380) | 16250 (1655) |
| 2400-0098 | | | | | | | |
| 2400-1014 | | | | | | | |
| 2400-1015 | | | | | | | |
| 2400-0099 | | | | | | | |
| 2400-0100 | | | | | | | |
| 2400-0101 | 16,76 | 16,1 | | | | | |

| | | | | | | | |
|-----------|-------|------|-------|-------|-----------------|-----------------|-----------------|
| 2400-0102 | | | | | | | |
| 2400-0103 | 17,00 | 16,4 | 22-63 | 22-75 | 16100 (1640) | 18150 (1850) | 21600 (2210) |
| 2400-0104 | | | | | | | |
| 2400-1016 | | | | | | | |
| 2400-1017 | | | | | | | |
| 2400-0105 | | | | | | | |
| 2400-0106 | | | | | | | |
| 2400-0107 | 16,76 | 16,1 | | | | | |
| 2400-0108 | | | | | | | |
| 2400-0109 | 18,00 | 17,4 | 15-40 | 15-40 | 14350 (1460) | 16100 (1640) | 19050 (1940) |
| 2400-0110 | | | | | | | |
| 2400-1018 | | | | | | | |
| 2400-1019 | | | | | | | |
| 2400-0111 | | | | | | | |
| 2400-0112 | | | | | | | |
| 2400-0113 | 17,76 | 17,1 | | | | | |
| 2400-0114 | | | | | | | |
| 2400-0115 | 18,00 | 17,4 | 24-67 | 24-67 | 14950 (1520) | 16900 (1720) | 20100 (2050) |
| 2400-0116 | | | | | | | |
| 2400-1021 | | | | | | | |

| | | | | | | | | |
|-----------|---------|------|-------|-------|-----------------|-----------------|-----------------|--|
| 2400-1022 | | | | | | | | |
| 2400-0117 | | | | | | | | |
| 2400-0118 | | | | | | | | |
| 2400-0119 | 17,76 | 17,1 | | | | | | |
| 2400-0120 | | | | | | | | |
| 2400-0127 | 19,00 | 18,1 | 17-40 | 17-40 | 18150 (1850) | 19950 (2040) | 22900 (2340) | |
| 2400-0128 | | | | | | | | |
| 2400-1023 | | | | | | | | |
| 2400-1024 | | | | | | | | |
| 2400-0129 | | | | | | | | |
| 2400-0130 | | | | | | | | |
| 2400-0131 | 18,72 | 17,8 | | | | | | |
| 2400-0132 | | | | | | | | |
| 2400-0133 | (19,00) | 18,1 | 22-67 | 22-67 | 19500 (2000) | 21900 (2240) | 25600 (2610) | |
| 2400-0134 | | | | | | | | |
| 2400-1025 | | | | | | | | |
| 2400-1026 | | | | | | | | |
| 2400-0135 | | | | | | | | |
| 2400-0136 | | | | | | | | |
| 2400-0137 | 18,72 | 17,8 | | | | | | |
| 2400-0138 | | | | | | | | |

| | | |
|-----------|---------|------|
| 2400-0139 | (19,00) | 18,1 |
| 2400-0140 | | |
| 2400-1027 | | |
| 2400-1028 | | |
| 2400-0141 | 19,00 | 18,1 |
| 2400-0142 | | |
| 2400-0143 | 18,72 | 17,8 |
| 2400-0144 | | |
| 2400-0145 | 20,00 | 19,1 |
| 2400-0146 | | |
| 2400-1029 | | |
| 2400-1031 | | |
| 2400-0147 | | |
| 2400-0148 | | |
| 2400-0149 | 19,72 | 18,8 |
| 2400-0150 | | |
| 2400-0151 | 20,00 | 19,1 |
| 2400-0152 | | |
| 2400-1032 | | |
| 2400-1033 | | |

| | | | | |
|-------|--------|-----------------|-----------------|-----------------|
| 50-85 | 50-100 | 19750 (2030) | 22600 (2320) | 27150 (2780) |
| 50-85 | 50-100 | 19900 (2030) | 22700 (2320) | 27300 (2780) |
| 19-53 | 19-63 | 23000 (2340) | 25600 (2600) | 29000 (2950) |
| 30-90 | 30-100 | 21300 (2170) | 24100 (2460) | 28700 (2920) |

| | | | | | | | |
|-----------|---------|------|-------|--------|-----------------|-----------------|-----------------|
| 2400-0153 | | | | | | | |
| 2400-0154 | | | | | | | |
| 2400-0155 | 19,72 | 18,8 | | | | | |
| 2400-0156 | | | | | | | |
| 2400-0157 | (21,00) | 19,9 | 19-53 | 19-63 | 24100 (2460) | 26500 (2700) | 30500 (3100) |
| 2400-0158 | | | | | | | |
| 2400-1034 | | | | | | | |
| 2400-1035 | | | | | | | |
| 2400-0159 | | | | | | | |
| 2400-0160 | | | | | | | |
| 2400-0161 | 20,72 | 19,6 | | | | | |
| 2400-0162 | | | | | | | |
| 2400-0163 | (21,00) | 19,9 | 40-90 | 40-100 | 24500 (2500) | 27400 (2810) | 32400 (3290) |
| 2400-0164 | | | | | | | |
| 2400-1036 | | | | | | | |
| 2400-1037 | | | | | | | |
| 2400-0165 | | | | | | | |
| 2400-0166 | | | | | | | |
| 2400-0167 | 20,72 | 19,6 | | | | | |
| 2400-0168 | | | | | | | |

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|-----------|-------|------|-------|--------|-----------------|-----------------|-----------------|
| 2400-0169 | 22,00 | 20,9 | 19-53 | 19-63 | 25300 (2580) | 27700 (2820) | 32000 (3250) |
| 2400-0170 | | | | | | | |
| 2400-1038 | | | | | | | |
| 2400-1039 | | | | | | | |
| 2400-0171 | | | | | | | |
| 2400-0172 | | | | | | | |
| 2400-0173 | 21,72 | 20,6 | | | | | |
| 2400-0174 | | | | | | | |
| 2400-0175 | 22,00 | 20,9 | 40-85 | 40-100 | 29500 (3000) | 32500 (3300) | 37400 (3790) |
| 2400-0176 | | | | | | | |
| 2400-1041 | | | | | | | |
| 2400-1042 | | | | | | | |
| 2400-0177 | | | | | | | |
| 2400-0178 | | | | | | | |
| 2400-0179 | 21,72 | 20,6 | | | | | |
| 2400-0180 | | | | | | | |
| 2400-0181 | 24,00 | 22,9 | 21-53 | 21-68 | 37600 (3810) | 41400 (4200) | 46800 (4740) |
| 2400-0182 | | | | | | | |
| 2400-1043 | | | | | | | |
| 2400-1044 | | | | | | | |
| 2400-0183 | 24,00 | 22,9 | 21-53 | 21-63 | 37600 | 41400 | 46800 |

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|-----------|-------|------|--------|--------|-----------------|-----------------|-----------------|
| 2400-0200 | | | | | | | |
| 2400-1049 | | | | | | | |
| 2400-1051 | | | | | | | |
| 2400-0201 | | | | | | | |
| 2400-0202 | | | | | | | |
| 2400-0203 | 24,72 | 23,6 | | | | | |
| 2400-0204 | | | | | | | |
| 2400-0205 | 26,00 | 24,9 | 21-53 | 21-63 | 36500 (3700) | 40000 (4060) | 45400 (4610) |
| 2400-0206 | | | | | | | |
| 2400-1052 | | | | | | | |
| 2400-1053 | | | | | | | |
| 2400-0207 | | | | | | | |
| 2400-0208 | | | | | | | |
| 2400-0209 | 25,72 | 24,6 | | | | | |
| 2400-0210 | | | | | | | |
| 2400-0211 | 26,00 | 24,9 | 40-110 | 40-135 | 41200 (4180) | 46800 (4740) | 52800 (5360) |
| 2400-0212 | | | | | | | |
| 2400-1054 | | | | | | | |
| 2400-1055 | | | | | | | |
| 2400-0213 | | | | | | | |

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|------------|---------|------|--------|--------|-----------------|-----------------|-----------------|
| 2400-0214 | | | | | | | |
| 2400-0215 | 25,72 | 24,6 | | | | | |
| 2400-0216 | | | | | | | |
| 2400-0217 | (27,00) | 25,9 | 21-46 | 21-63 | 37500 (3800) | 40900 (4150) | 46200 (4680) |
| 2400-0218 | | | | | | | |
| 2400-1056 | | | | | | | |
| 2400-1057 | | | | | | | |
| 2400-0219 | | | | | | | |
| 2400-0200* | | | | | | | |
| 2400-0221 | 26,72 | 25,6 | | | | | |
| 2400-0222 | | | | | | | |
| 2400-0223 | (27,00) | 25,9 | 40-120 | 40-135 | 52700 (5350) | 58100 (5900) | 66800 (6800) |
| 2400-0224 | | | | | | | |
| 2400-1058 | | | | | | | |
| 2400-1059 | | | | | | | |
| 2400-0225 | | | | | | | |
| 2400-0226 | | | | | | | |
| 2400-0227 | 26,72 | 25,6 | | | | | |
| 2400-0228 | | | | | | | |
| 2400-0229 | 28,00 | 26,9 | 21-46 | 21-63 | 38800 (3940) | 42400 (4300) | 47800 (4850) |
| 2400-0230 | | | | | | | |

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| 2400-1061 | | | | | | | |
| 2400-1062 | | | | | | | |
| 2400-0231 | | | | | | | |
| 2400-0232 | | | | | | | |
| 2400-0233 | 27,72 | 26,6 | | | | | |
| 2400-0234 | | | | | | | |
| 2400-0235 | 28,00 | 26,9 | 40-120 | 40-135 | 58100 (5900) | 64500 (6550) | 73000 (7440) |
| 2400-0236 | | | | | | | |
| 2400-1063 | | | | | | | |
| 2400-1064 | | | | | | | |
| 2400-0237 | | | | | | | |
| 2400-0238 | | | | | | | |
| 2400-0239 | 27,72 | 26,6 | | | | | |
| 2400-0240 | | | | | | | |
| 2400-0241 | 30,0 | 28,9 | 21-46 | 21-63 | 41500 (4220) | 45200 (4600) | 51100 (5200) |
| 2400-0242 | | | | | | | |
| 2400-1065 | | | | | | | |
| 2400-1066 | | | | | | | |
| 2400-0243 | | | | | | | |
| 2400-0244 | | | | | | | |

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| 2400-0245 | 29,72 | 28,6 | | | | | | |
| 2400-0246 | | | | | | | | |
| 2400-0247 | 30,00 | 28,9 | | 40-95 | 40-135 | 55200 (5610) | 61300 (6230) | 68800 (7090) |
| 2400-0248 | | | | | | | | |
| 2400-1067 | | | | | | | | |
| 2400-1068 | | | | | | | | |
| 2400-0249 | | | | | | | | |
| 2400-0250 | | | | | | | | |
| 2400-0251 | 29,72 | 28,6 | | | | | | |
| 2400-0252 | | | | | | | | |
| 2400-0253 | 32,00 | 30,8 | H 12 | 21-46 | 21-63 | 56000 (5700) | 60700 (6170) | 68400 (6960) |
| 2400-0254 | | | | | | | | |
| 2400-1069 | | | | | | | | |
| 2400-1071 | | | | | | | | |
| 2400-0255 | | | | | | | | |
| 2400-0256 | | | | | | | | |
| 2400-0257 | 31,66 | 30,5 | | | | | | |
| 2400-0258 | | | | | | | | |
| 2400-0259 | 32,00 | 30,8 | | 40-105 | 40-135 | 67300 (6850) | 73000 (7450) | 83000 (8420) |
| 2400-0260 | | | | | | | | |

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| 2400-1072 | | | | | | | |
| 2400-1073 | | | | | | | |
| 2400-0261 | | | | | | | |
| 2400-0262 | | | | | | | |
| 2400-0263 | 31,66 | 30,5 | | | | | |
| 2400-0264 | | | | | | | |
| 2400-0265 | 34,00 | 32,8 | 21-46 | 21-63 | 59500 (6050) | 64600 (6570) | 72400 (7390) |
| 2400-0266 | | | | | | | |
| 2400-1074 | | | | | | | |
| 2400-1075 | | | | | | | |
| 2400-0267 | | | | | 59000 (6050) | 64500 (6570) | 72300 (7390) |
| 2400-0268 | | | | | | | |
| 2400-0269 | 33,66 | 32,5 | | | | | |
| 2400-0270 | | | | | | | |
| 2400-0271 | 34,00 | 32,8 | 40-115 | 40-135 | 80000 (8150) | 87500 (8900) | 98500 (10070) |
| 2400-0272 | | | | | | | |
| 2400-1076 | | | | | | | |
| 2400-1077 | | | | | | | |
| 2400-0273 | | | | | | | |
| 2400-0274 | | | | | | | |
| 2400-0275 | 33,66 | 32,5 | | | | | |

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|-----------|-------|------|--------|--------|-----------------|-----------------|-------------------|
| 2400-1084 | | | | | | | |
| 2400-0291 | | | | | | | |
| 2400-0292 | | | | | | | |
| 2400-0293 | 35,66 | 34,5 | | | | | |
| 2400-0294 | | | | | | | |
| 2400-0295 | 36,00 | 34,8 | 40-115 | 40-145 | 84000 (8600) | 92500 (9450) | 104000 (10660) |
| 2400-0296 | | | | | | | |
| 2400-1085 | | | | | | | |
| 2400-1086 | | | | | | | |
| 2400-0297 | | | | | | | |
| 2400-0298 | | | | | | | |
| 2400-0299 | 35,66 | 34,5 | | | | | |
| 2400-0300 | | | | | | | |
| 2400-1087 | 37,00 | 35,8 | 21-46 | 21-63 | 65000 (6600) | 70000 (7150) | 78700 (8040) |
| 2400-1088 | | | | | | | |
| 2400-1089 | | | | | | | |
| 2400-1091 | | | | | | | |
| 2400-1092 | 37,00 | 35,8 | 40-100 | 40-145 | 81700 (8330) | 88600 (9060) | 100000 (10260) |
| 2400-1093 | | | | | | | |
| 2400-1094 | | | | | | | |

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| 2400-1095 | | | | | | | | |
| 2400-0301 | 38,00 | 36,8 | 21-46 | 21-63 | 66000 (6750) | 72000 (7350) | 81000 (8260) | |
| 2400-0302 | | | | | | | | |
| 2400-1096 | | | | | | | | |
| 2400-1097 | | | | | | | | |
| 2400-0303 | | | | | | | | |
| 2400-0304 | | | | | | | | |
| 2400-0305 | 37,66 | 36,5 | | | | | | |
| 2400-0306 | | | | | | | | |
| 2400-0307 | 38,00 | 36,8 | 40-100 | 40-145 | 84000 (8560) | 90600 (9300) | 103000 (10540) | |
| 2400-0308 | | | | | | | | |
| 2400-1098 | | | | | | | | |
| 2400-1099 | | | | | | | | |
| 2400-0309 | | | | | | | | |
| 2400-0310 | | | | | | | | |
| 2400-0311 | 37,66 | 36,5 | | | | | | |
| 2400-0312 | | | | | | | | |
| 2400-0313 | 40,00 | 38,8 | 24-58 | 24-85 | 73200 (7500) | 79000 (8100) | 88500 (9080) | |
| 2400-0314 | | | | | | | | |
| 2400-1101 | | | | | | | | |
| 2400-1102 | | | | | | | | |

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| 2400-0315 | | | | | | | |
| 2400-0316 | | | | | | | |
| 2400-0317 | 39,66 | 38,5 | | | | | |
| 2400-0318 | | | | | | | |
| 2400-0319 | 40,00 | 38,8 | 40-130 | 40-160 | 87000 (8900) | 96000 (9800) | 109000 (11160) |
| 2400-0320 | | | | | | | |
| 2400-1103 | | | | | | | |
| 2400-1104 | | | | | | | |
| 2400-0321 | | | | | | | |
| 2400-0322 | | | | | | | |
| 2400-0323 | 39,66 | 38,5 | | | | | |
| 2400-0324 | | | | | | | |
| 2400-0325 | 42,00 | 40,7 | 24-58 | 24-85 | 70000 (7150) | 75800 (7750) | 85000 (8731) |
| 2400-0326 | | | | | | | |
| 2400-1105 | | | | | | | |
| 2400-1106 | | | | | | | |
| 2400-0327 | | | | | | | |
| 2400-0328 | | | | | | | |
| 2400-0329 | 41,66 | 40,4 | | | | | |
| 2400-0330 | | | | | | | |

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| 2400-0345 | | |
| 2400-0346 | | |
| 2400-0347 | 44,66 | 43,4 |
| 2400-0348 | | |
| 2400-1114 | (47,00) | 45,7 |
| 2400-1115 | | |
| 2400-1116 | | |
| 2400-1117 | | |
| 2400-1118 | 47,00 | 45,7 |
| 2400-1119 | | |
| 2400-1121 | | |
| 2400-1122 | | |
| 2400-0349 | 48,00 | 46,7 |
| 2400-0350 | | |
| 2400-1123 | | |
| 2400-1124 | | |
| 2400-0351 | | |
| 2400-0352 | | |
| 2400-0353 | 47,66 | 46,4 |
| 2400-0354 | | |
| 2400-0355 | 48,00 | 46,7 |

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| 24-58 | 24-85 | 78000 (7950) | 85000 (8660) | 96000 (9770) |
| 40-118 | 40-160 | 119000 (12120) | 130000 (13200) | 145600 (14800) |
| 24-58 | 24-85 | 79400 (8100) | 87000 (8850) | 98000 (9980) |
| 40-118 | 40-160 | 121500 | 131300 | 148000 |

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| | | | | | (12400) | (13400) | (15050) |
| 2400-0356 | | | | | | | |
| 2400-1125 | | | | | | | |
| 2400-1126 | | | | | | | |
| 2400-0357 | | | | | | | |
| 2400-0358 | | | | | | | |
| 2400-0359 | 47,66 | 46,4 | | | | | |
| 2400-0360 | | | | | | | |
| 2400-0361 | 50,00 | 48,7 | 24-58 | 24-85 | 83000 (8450) | 90600 (9220) | 102000 (10400) |
| 2400-0362 | | | | | | | |
| 2400-1127 | | | | | | | |
| 2400-1128 | | | | | | | |
| 2400-0363 | | | | | | | |
| 2400-0364 | | | | | | | |
| 2400-0365 | 49,66 | 48,4 | | | | | |
| 2400-0366 | | | | | | | |
| 2400-0367 | 50,00 | 48,7 | 40-118 | 40-160 | 127000 (12950) | 138500 (14100) | 155500 (15780) |
| 2400-0368 | | | | | | | |
| 2400-1129 | | | | | | | |
| 2400-1131 | | | | | | | |
| 2400-0369 | | | | | | | |

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| 2400-0370 | | |
| 2400-0371 | 49,66 | 48,4 |
| 2400-0372 | | |
| 2400-0373 | 52,00 | 50,6 |
| 2400-0374 | | |
| 2400-1132 | | |
| 2400-1133 | | |
| 2400-0375 | | |
| 2400-0376 | | |
| 2400-0377 | 51,60 | 50,2 |
| 2400-0378 | | |
| 2400-0379 | 52,00 | 50,6 |
| 2400-0380 | | |
| 2400-1134 | | |
| 2400-1135 | | |
| 2400-0381 | | |
| 2400-0382 | | |
| 2400-0383 | 51,60 | 50,2 |
| 2400-0384 | | |
| 2400-1136 | 53,00 | 51,6 |

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| 24-58 | 24-85 | 95000 (9700) | 103000 (10500) | 115500 (11800) |
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| 40-118 | 40-160 | 132300 (13500) | 144400 (14700) | 162000 (16500) |
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| 24-58 | 24-85 | 97000 (9900) | 105000 (10700) | 117500 (12020) |

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| 2400-1137 | | | | | | | |
| 2400-1138 | | | | | | | |
| 2400-1139 | | | | | | | |
| 2400-1141 | | | | | | | |
| 2400-1142 | | | | | | | |
| 2400-1143 | 52,60 | 51,2 | | | | | |
| 2400-1144 | | | | | | | |
| 2400-1145 | 53,00 | 51,6 | 40-118 | 40-160 | 135000 (13750) | 147000 (15000) | 164000 (16760) |
| 2400-1146 | | | | | | | |
| 2400-1147 | | | | | | | |
| 2400-1148 | | | | | | | |
| 2400-1149 | | | | | | | |
| 2400-1151 | | | | | | | |
| 2400-1152 | 52,60 | 51,2 | | | | | |
| 2400-1153 | | | | | | | |
| 2400-0385 | 55,00 | 53,6 | 24-58 | 24-85 | 101000 (10300) | 109000 (11140) | 122000 (12480) |
| 2400-0386 | | | | | | | |
| 2400-1154 | | | | | | | |
| 2400-1155 | | | | | | | |
| 2400-0387 | | | | | | | |
| 2400-0388 | | | | | | | |

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| 2400-0389 | 54,60 | 53,2 |
| 2400-0390 | | |
| 2400-0391 | 55,0 | 53,6 |
| 2400-0392 | | |
| 2400-1156 | | |
| 2400-1157 | | |
| 2400-0393 | | |
| 2400-0394 | | |
| 2400-0395 | 54,6 | 53,2 |
| 2400-0396 | | |
| 2400-1158 | 56,0 | 54,6 |
| 2400-1159 | | |
| 2400-1161 | | |
| 2400-1162 | | |
| 2400-1163 | | |
| 2400-1164 | | |
| 2400-1165 | 55,6 | 54,2 |
| 2400-1166 | | |
| 2400-1167 | 56,0 | 54,6 |
| 2400-1168 | | |

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| 40-118 | 40-160 | 140000 (14240) | 152000 (15500) | 172000 (17500) |
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| 24-58 | 24-85 | 102500 (10450) | 111000 (11350) | 125000 (12700) |
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| 40-118 | 40-160 | 142500 (14500) | 155000 (15800) | 173500 (17650) |

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| 2400-1169 | | | | | | | |
| 2400-1171 | | | | | | | |
| 2400-1172 | | | | | | | |
| 2400-1173 | | | | | | | |
| 2400-1174 | 55,6 | 54,2 | | | | | |
| 2400-1175 | | | | | | | |
| 2400-0397 | (58,0) | 56,6 | 24-58 | 24-85 | 106000 (10800) | 115500 (11750) | 129000 (13160) |
| 2400-0398 | | | | | | | |
| 2400-1176 | | | | | | | |
| 2400-1177 | | | | | | | |
| 2400-0399 | | | | | | | |
| 2400-0400 | | | | | | | |
| 2400-0401 | 57,6 | 56,2 | | | | | |
| 2400-0402 | | | | | | | |
| 2400-0403 | (58,0) | 56,6 | 40-118 | 40-160 | 147000 (15000) | 160000 (16340) | 180000 (18380) |
| 2400-0404 | | | | | | | |
| 2400-1178 | | | | | | | |
| 2400-1179 | | | | | | | |
| 2400-0405 | | | | | | | |
| 2400-0406 | | | | | | | |

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| 2400-1186 | | | | | | | | |
| 2400-0423 | | | | | | | | |
| 2400-0424 | | | | | | | | |
| 2400-0425 | 62,6 | 61,2 | | | | | | |
| 2400-0426 | | | | | | | | |
| 2400-0427 | 63,0 | 61,6 | 40-125 | 40-170 | 161500 (16400) | 172000 (17500) | 196000 (20000) | |
| 2400-0428 | | | | | | | | |
| 2400-1187 | | | | | | | | |
| 2400-1188 | | | | | | | | |
| 2400-0429 | | | | | | | | |
| 2400-0430 | | | | | | | | |
| 2400-0431 | 62,6 | 61,2 | | | | | | |
| 2400-0432 | | | | | | | | |
| 2400-0433 | 65,0 | 63,6 | 24-58 | 24-85 | 118800 (12100) | 129000 (13180) | 145000 (14750) | |
| 2400-0434 | | | | | | | | |
| 2400-1189 | | | | | | | | |
| 2400-1191 | | | | | | | | |
| 2400-0435 | | | | | | | | |
| 2400-0436 | | | | | | | | |
| 2400-0437 | 64,6 | 63,2 | | | | | | |

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| 2400-0438 | | | | | | | |
| 2400-0439 | 65,0 | 63,6 | 40-130 | 40-185 | 186500 (19000) | 197500 (20100) | 226000 (23100) |
| 2400-0440 | | | | | | | |
| 2400-1192 | | | | | | | |
| 2400-1193 | | | | | | | |
| 2400-0441 | | | | | | 197000 (20100) | 227000 (23100) |
| 2400-0442 | | | | | | | |
| 2400-0443 | 64,6 | 63,2 | | | | | |
| 2400-0444 | | | | | | | |
| 2400-0445 | 70,0 | 68,6 | 26-63 | 26-95 | 128500 (13100) | 139000 (14200) | 156000 (15880) |
| 2400-0446 | | | | | | | |
| 2400-1194 | | | | | | | |
| 2400-1195 | | | | | | | |
| 2400-0447 | | | | | | | |
| 2400-0448 | | | | | | | |
| 2400-0449 | 69,6 | 68,2 | | | | | |
| 2400-0450 | | | | | | | |
| 2400-0451 | 70,0 | 68,6 | 42-170 | 42-215 | 214000 (21800) | 231000 (23600) | 260000 (26470) |
| 2400-0452 | | | | | | | |
| 2400-1196 | | | | | | | |

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| 2400-1197 | | | | | | | |
| 2400-0453 | | | | | | | |
| 2400-0454 | | | | | | | |
| 2400-0455 | 69,6 | 68,2 | | | | | |
| 2400-0466* | | | | | | | |
| 2400-1198 | 71,0 | 69,6 | 26-63 | 26-95 | 131000 (13350) | 141500 (14400) | 158000 (16120) |
| 2400-1199 | | | | | | | |
| 24 00-1201 | | | | | | | |
| 2400-1202 | | | | | | | |
| 2400-1203 | | | | | | | |
| 2400-1204 | | | | | | | |
| 2400-1205 | 70,6 | 69,2 | | | | | |
| 2400-1206 | | | | | | | |
| 2400-1207 | 71,0 | 69,6 | 42-170 | 42-215 | 217000 (22100) | 236000 (24000) | 263000 (26860) |
| 2400-1208 | | | | | | | |
| 2400-1209 | | | | | | | |
| 2400-1211 | | | | | | | |
| 2400-1212 | | | | | | | |
| 2400-1213 | | | | | | | |
| 2400-1214 | 70,6 | 69,2 | | | | | |
| 2400-1215 | | | | | | | |

| | | | | | | | |
|-----------|-------|-------|--------|--------|-------------------|-------------------|-------------------|
| 2400-0487 | 85,00 | 83,5 | 42-190 | 42-230 | 274000 (28000) | 296000 (30100) | 333000 (34000) |
| 2400-0488 | | | | | | | |
| 2400-1227 | | | | | | | |
| 2400-1228 | | | | | | | |
| 2400-0489 | | | | | | | |
| 2400-0490 | | | | | | | |
| 2400-0491 | 84,54 | 83,0 | | | | | |
| 2400-0492 | | | | | | | |
| 2400-0493 | 90,00 | 88,5 | 40-120 | 40-175 | 240900 (24600) | 259000 (26400) | 290200 (29730) |
| 2400-0494 | | | | | | | |
| 2400-1229 | | | | | | | |
| 2400-1231 | | | | | | | |
| 2400-0495 | | | | | | | |
| 2400-0496 | | | | | | | |
| 2400-0497 | 89,54 | 88,00 | | | | | |
| 2400-0498 | | | | | | | |
| 2400-0499 | 90,00 | 88,5 | 45-220 | 45-250 | 288000 (29400) | 313000 (31900) | 350800 (35880) |
| 2400-0500 | | | | | | | |
| 2400-1232 | | | | | | | |
| 2400-1233 | | | | | | | |
| 2400-0501 | | | | | | | |

| | | | | | | | |
|-----------|-------|------|--|--|--|--|--|
| 2400-0502 | | | | | | | |
| 2400-0503 | 89,54 | 88,0 | | | | | |
| 2400-0504 | | | | | | | |

* Соответствует оригиналу. - Примечание изготовителя базы данных.

Примечание. Размеры, заключенные в скобки, по возможности не применять.

4. Наибольшая расчетная сила протягивания P указана для обработки деталей из стали I-V групп обрабатываемости (по приложению 3). Для определения усилия протягивания для закаленных сталей и других материалов величину P следует умножить на коэффициент K , указанный в табл.4.

Таблица 4

| Обрабатываемый материал | Твердость HB | K |
|---|--------------|-----|
| Стали I-V групп обрабатываемости в закаленном состоянии | <285 | 1,2 |
| | 285...336 | 1,3 |
| | 336...375 | 1,4 |
| Инструментальные легированные, быстрорежущие стали и сталь марки ШХ15 | 204...229 | 1,4 |
| Чугуны VI и VII групп обрабатываемости | <229 | 0,5 |
| | ≥ 229 | 0,7 |
| Бронзы, латуни VIII и IX групп обрабатываемости | <110 | 0,4 |
| Алюминиевые сплавы X группы обрабатываемости | ≤ 100 | 0,4 |

3, 4. (Измененная редакция, Изм. N 1).

5. Центровые отверстия - по [ГОСТ 14034-74](#).

6. Хвостовики протяжек типа 2 исполнения 1 или 3 - по [ГОСТ 4044-70](#).

(Измененная редакция, Изм. N 3).

IT16

7. Неуказанные предельные отклонения размеров: валов - $\frac{h}{16}$; остальных $\pm \frac{2}{2}$.

(Измененная редакция, Изм. N 1, [Изм. N 4](#)).

8. Группы заточки, форма передней грани зубьев протяжек указаны в приложении 1.

9. Форма и размеры профиля зубьев протяжек указаны в приложении 2 (рекомендуемом).

10. Задний угол зубьев протяжек должен быть:

черновых и переходных 3°;

чистовых 2°;

калибрующих 1°.

11. Выкружки на переходных и чистовых зубьях следует располагать в шахматном порядке друг к другу и к первому зубу последней черновой секции.

12. По заказу потребителя допускается изготавливать протяжки с узкими стружкоразделительными канавками на чистовых зубьях.

13. По заказу потребителя допускается изменять общую длину протяжки за счет изменения длины до первого зуба l_1 и за счет изменения длины заднего хвостовика для протяжек исполнения 2.

14. Группы обрабатываемости протягиваемых материалов указаны в приложении 3 (справочном).

15. Для протягивания отверстий в деталях из стали V группы обрабатываемости протяжки с подачей более 0,05 мм на сторону применять не рекомендуется.

16 (Исключен, [Изм. N 4](#)).

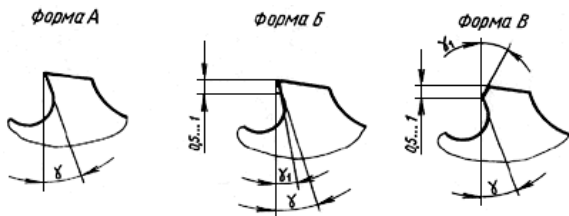
17. Типовой чертеж протяжки указан в справочном приложении 5.

18. Остальные технические требования - по ГОСТ 9126-76.

ПРИЛОЖЕНИЕ 1. ГРУППЫ ЗАТОЧКИ И ФОРМА ПЕРЕДНЕЙ ГРАНИ ЗУБЬЕВ ПРОТЯЖЕК

ПРИЛОЖЕНИЕ 1

1. Группы заточки, форма передней грани и величина переднего угла черновых, переходных, чистовых и калибрующих зубьев протяжек должны соответствовать указанным на чертеже и в таблице.



| Группа заточки | Передний угол | | | | | Рекомендуемые материалы по группам обрабатываемости |
|----------------|------------------------------|----------|-------------------------------|----------|------------|--|
| | черновых и переходных зубьев | | чистовых и калибрующих зубьев | | | |
| | форма | γ | форма | γ | γ_1 | |
| I | A | 20°* | A | 20°* | - | Стали I групп обрабатываемости, алюминиевые сплавы X групп обрабатываемости |
| II | | 15°* | | 18°* | - | Стали II и III групп обрабатываемости |
| III | | 10° | | 10° | - | Стали IV и V групп обрабатываемости |
| IV | | 10° | B | 10° | 0-5° | Чугун ковкий VI и VII групп обрабатываемости |
| V | | 10° | B | 10° | 0-5° | Чугун серый VI и VII групп обрабатываемости, бронза, латунь VIII и IX групп обрабатываемости |

* Для протяжек диаметром до 20 мм, а также любого диаметра при высоте профиля зубьев $\frac{1}{2} < 2,5$ мм, допускается передний угол $\gamma = 10^\circ$;

для протяжек диаметром свыше 20 до 30 мм - $\gamma = 12^\circ$.

(Измененная редакция, [Изм. N 4](#)).

2. Группы обрабатываемости материалов указаны в справочном приложении 3.

(Измененная редакция, Изм. N 1).

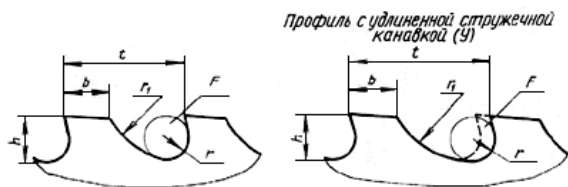
ПРИЛОЖЕНИЕ 2 (рекомендуемое). ФОРМА И РАЗМЕРЫ

ПРОФИЛЯ ЗУБЬЕВ ПРОТЯЖЕК

ПРИЛОЖЕНИЕ 2

Рекомендуемое

1. Форма и размеры профиля зубьев протяжек указаны на черт.1 и табл.1.



Черт.1

Таблица 1

Размеры в мм

| Номер профиля | l | h | r | b | r_1 | Активная площадь, F , м ² |
|---------------|-----|-----|-----|-----|-------|--|
| 1 | 4,0 | 1,6 | 0,8 | 1,5 | 2,5 | 1,77 |
| 2 | | 1,8 | 0,9 | 1,2 | 2,8 | 2,54 |
| 3 | | 2,0 | 1,0 | 1,5 | 3,0 | 3,14 |
| 1 | 4,5 | 1,6 | 0,8 | 2,0 | 2,5 | 1,77 |
| 2 | | 1,8 | 0,9 | 1,7 | 2,8 | 2,54 |
| 3 | | 2,0 | 1,0 | 1,5 | 3,0 | 3,14 |
| 1У | 5,0 | 1,6 | 0,8 | 2,2 | 2,5 | 1,77 |
| 2 | | 1,8 | 0,9 | | 2,8 | 2,54 |
| 3 | | 2,0 | 1,0 | 2,0 | 3,0 | 3,14 |
| 1У | 5,5 | 1,6 | 0,8 | 2,5 | 2,5 | 1,77 |
| 2 | | 1,8 | 0,9 | 2,7 | 2,8 | 2,54 |
| 3 | | 2,0 | 1,0 | 2,5 | 3,0 | 3,14 |

| | | | | | | |
|----|-----|-----|-----|-----|-----|------|
| 2Y | 6,0 | 1,8 | 0,9 | 2,7 | 2,8 | 2,54 |
| 3 | | 2,0 | 1,0 | 3,0 | 3,0 | 3,14 |
| 4 | | 2,5 | 1,3 | 2,0 | 4,0 | 4,90 |
| 3Y | 7,0 | 2,0 | 1,0 | 3,5 | 3,0 | 3,14 |
| 4 | | 2,5 | 1,3 | 3,0 | 4,0 | 4,90 |
| 5 | | 3,0 | 1,5 | 2,3 | 5,0 | 7,10 |
| 4 | 8,0 | 2,5 | 1,3 | 4,0 | 4,0 | 4,90 |
| 5 | | 3,0 | 1,5 | 3,3 | 5,0 | 7,10 |
| 6 | | 3,6 | 1,8 | 2,5 | 5,5 | 9,60 |
| 4Y | 9 | 2,5 | 1,3 | 4,0 | 4,0 | 4,9 |
| 5 | | 3,0 | 1,5 | 4,3 | 5,0 | 7,1 |
| 6 | | 3,6 | 1,8 | 3,5 | 5,5 | 6,6 |
| 5Y | 10 | 3,0 | 1,5 | 4,3 | 5,0 | 7,1 |
| 6 | | 3,6 | 1,8 | 4,5 | 5,5 | 9,6 |
| 7 | | 4,0 | 2,0 | 3,5 | 6,0 | 12,6 |
| 6Y | 11 | 3,6 | 1,8 | 4,5 | 5,5 | 9,6 |
| 7 | | 4,0 | 2,0 | | 6,0 | 12,6 |
| 8 | | 4,5 | 2,3 | 4,0 | 7,0 | 15,9 |
| 7 | 12 | 4,0 | 2,0 | 5,5 | 6,0 | 12,6 |
| 8 | | 4,5 | 2,3 | 5,0 | 7,0 | 15,9 |
| 9 | | 5,0 | 2,5 | 4,0 | 8,0 | 19,6 |

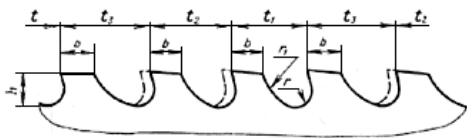
| | | | | | | |
|-----|----|-----|-----|-----|------|------|
| | | | | | | |
| 7Y | 13 | 4,0 | 2,0 | 5,5 | 6,0 | 12,6 |
| 8 | | 4,5 | 2,3 | 6,0 | 7,0 | 15,9 |
| 9 | | 5,0 | 2,5 | 5,0 | 8,0 | 19,6 |
| 8Y | 14 | 4,5 | 2,3 | 6,0 | 7,0 | 15,9 |
| 9 | | 5,0 | 2,5 | | 8,0 | 19,6 |
| 10 | | 6,0 | 3,0 | 4,5 | 10,0 | 28,3 |
| 8Y | 15 | 4,5 | 2,3 | 6,0 | 7,0 | 15,9 |
| 9 | | 5,0 | 2,5 | 7,0 | 8,0 | 19,6 |
| 10 | | 6,0 | 3,0 | 5,5 | 10,0 | 28,3 |
| 9Y | 16 | 5,0 | 2,5 | 7,0 | 8,0 | 19,6 |
| 10 | | 6,0 | 3,0 | 6,5 | 10,0 | 28,3 |
| 11 | | 7,0 | 3,5 | 5,0 | 11,0 | 38,5 |
| 9Y | 17 | 5,0 | 2,5 | 7,0 | 8,0 | 19,6 |
| 10 | | 6,0 | 3,0 | 7,5 | 10,0 | 28,3 |
| 11 | | 7,0 | 3,5 | 6,0 | 11,0 | 38,5 |
| 10 | 18 | 6,0 | 3,0 | 8,5 | 10,0 | 28,3 |
| 11 | | 7,0 | 3,5 | 7,0 | 11,0 | 38,5 |
| 12 | | 8,0 | 4,0 | 6,0 | 12,0 | 50,3 |
| 10Y | 19 | 6 | 3,0 | 8,5 | 10 | 28,3 |
| 11 | | 7 | 3,5 | 8,0 | 11 | 38,5 |

| | | | | | | |
|-----|----|----|-----|------|----|------|
| 12 | | 8 | 4,0 | 7,0 | 12 | 50,3 |
| 11 | 20 | 7 | 3,5 | 9,0 | 11 | 38,5 |
| 12 | | 8 | 4,0 | 8,0 | 12 | 50,3 |
| 13 | | 9 | 4,5 | 6,0 | 14 | 63,6 |
| 11Y | 21 | 7 | 3,5 | 9,0 | 11 | 38,5 |
| 12 | | 8 | 4,0 | 9,0 | 12 | 50,3 |
| 13 | | 9 | 4,5 | 7,0 | 14 | 63,6 |
| 11Y | 22 | 7 | 3,5 | 9,0 | 11 | 38,5 |
| 12Y | | 8 | 4,0 | 9,0 | 12 | 50,3 |
| 13 | | 9 | 4,5 | 8,0 | 14 | 63,6 |
| 12Y | 24 | 8 | 4,0 | 9,0 | 12 | 50,3 |
| 13 | | 9 | 4,5 | 10,0 | 14 | 63,6 |
| 14 | | 10 | 5,0 | 8,5 | 16 | 78,5 |
| 12Y | 25 | 8 | 4,0 | 10,0 | 12 | 50,3 |
| 13Y | | 9 | 4,5 | 10,0 | 14 | 63,6 |
| 14 | | 10 | 5,0 | 9,5 | 16 | 78,5 |
| 12Y | 26 | 8 | 4,0 | 10,5 | 12 | 50,3 |
| 13Y | | 9 | 4,5 | 10,0 | 14 | 63,6 |
| 14 | | 10 | 5,0 | 10,5 | 16 | 78,5 |
| 13Y | 28 | 9 | 4,5 | 10,5 | 14 | 63,6 |
| | | | | | | |

| | | | | | | |
|-----|----|----|-----|------|----|-------|
| 14У | | 10 | 5,0 | 10,5 | 16 | 78,5 |
| 15 | | 12 | 6,0 | 9,5 | 20 | 113,1 |
| 13У | 30 | 9 | 4,5 | 12 | 14 | 63,6 |
| 14У | | 10 | 5,0 | | 16 | 78,5 |
| 15 | | 12 | 6,0 | 11,5 | 20 | 113,1 |
| 13У | 32 | 9 | 4,5 | 12,0 | 14 | 63,6 |
| 14У | | 10 | 5,0 | | 16 | 78,5 |
| 15У | | 12 | 6,0 | | 20 | 113,1 |

Примечание. Удлиненная форма профиля У выполняется тем же резцом при его продольном перемещении.

2. Шаги чистовых и калибрующих зубьев (t_1 ; t_2 ; t_3) неравномерные и устанавливаются в соответствие с черт.2 и табл.2.



Черт.2

Таблица 2

мм

| t | t_3 | t_2 | t_1 |
|-----|-----------|-------------|-------|
| 4,0 | - | - | 4,0 |
| 4,5 | - | - | 4,0 |
| 5,0 | - | - | 4,0 |
| 5,5 | t_{1+1} | $t_{1+0,5}$ | 4,0 |

| | | | |
|------|-------------|-------------|------|
| 6,0 | | | 4,5 |
| 7,0 | | | 5,0 |
| 8,0 | | | 5,5 |
| 9,0 | ξ_{1+2} | ξ_{1+1} | 6,0 |
| 10,0 | | | 7,0 |
| 11,0 | | | |
| 12,0 | | | 8,0 |
| 13,0 | | | 9,0 |
| 14,0 | | | 10,0 |
| 15,0 | | | 11,0 |
| 16 | | | 11 |
| 17 | | | 12 |
| 18 | | | 13 |
| 19 | | | 14 |
| 20 | | | |
| 21 | | | 15 |
| 22 | | | 16 |
| 24 | | | 17 |
| 25 | | | 18 |
| 26 | | | 19 |
| 28 | | | 20 |

| | | | |
|----|-----------|-----------|----|
| 30 | t_{1+4} | t_{1+2} | |
| 32 | | | 22 |

Примечание. Размеры профиля чистовых и калибрующих зубьев h ; b ; r ; r_1 устанавливаются в зависимости от шага t_1 для всех трех шагов одинаковые. Форма профиля зубьев протяжек для шагов t_2 и t_3 удлиненная.

(Измененная редакция, Изм. N 1).

ПРИЛОЖЕНИЕ 3 (справочное). ГРУППЫ ОБРАБАТЫВАЕМОСТИ ПРОТЯГИВАЕМЫХ МАТЕРИАЛОВ

ПРИЛОЖЕНИЕ 3
Справочное

1. Группы обрабатываемости сталей указаны в табл.1.

Таблица 1

| Материал | Группы обрабатываемости | | | | |
|--|-------------------------|-----------|-----------|-----------|-----------|
| | I | II | III | IV | V |
| Марка | Твердость НВ | | | | |
| A12, A20, A30 по ГОСТ 1414-75 | ≤ 229 | - | - | - | - |
| 10, 15, 20, 25 по ГОСТ 1050-74* | ≤ 229 | - | - | - | - |
| 30, 35, 40, 45, 50 по ГОСТ 1050-74* | ≤ 255 | 255...285 | 285...321 | 321...364 | - |
| * На территории Российской Федерации действует ГОСТ 1050-88 . - Примечание изготовителя базы данных. | | | | | |
| 65, 70, 80 по ГОСТ 14959-79 | ≤ 229 | 229...255 | 255...285 | 285...321 | 321...364 |
| 15Г, 20Г, 30Г по ГОСТ 4543-71 | ≤ 241 | 241...269 | 269...302 | - | - |

| | | | | | |
|--|-------|-----------|-----------|-----------|-----------|
| 40Г, 45Г, 50Г, 35Г2, 45Г2, 50Г2 по ГОСТ 4543-71 | ≤ 229 | 229...255 | 255...285 | 285...321 | 321...364 |
| 60Г, 65Г, 70Г по ГОСТ 14959-79 | - | ≤ 241 | 241...269 | 269...321 | 321...340 |
| 15Х, 15ХА, 20Х, 30Х по ГОСТ 4543-71 | ≤ 255 | 255...302 | - | - | - |
| 35Х, 30ХРА, 38ХА, 40Х, 45Х, 50Х по ГОСТ 4543-71 | ≤ 229 | 229...269 | 269...302 | 302...340 | 340...364 |
| 33ХС, 38ХС, 40ХС по ГОСТ 4543-71 | - | ≤ 229 | 229...269 | 269...302 | 302...340 |
| 18ХГ, 20ХГР, 40ХГТР по ГОСТ 4543-71 | ≤ 229 | 229...269 | 269...321 | 321...340 | 340...364 |
| 12ХН2, 12ХН3А, 12Х2Н4А, 20ХН, 20ХНР, 20ХН3А, 20Х2Н4А, 30ХН3А, 40ХН, 45ХН, 50ХН по ГОСТ 4543-71 | ≤ 241 | 241...269 | 269...302 | 302...321 | 321...364 |
| 15ХФ по ГОСТ 4543-71 | ≤ 229 | 229...269 | 269...302 | 302...321 | 321...364 |
| 40ХФА по ГОСТ 4543-71 | - | ≤ 255 | 255...285 | 285...321 | 321...340 |
| 15ХМ по ГОСТ 4543-71 | ≤ 229 | 229...269 | 269...302 | 302...340 | - |
| 30ХМА, 35ХМ по ГОСТ 4543-71 | - | ≤ 229 | 229...269 | 269...321 | 321...340 |
| 20ХГНР, 38ХГН по ГОСТ 4543-71 | ≤ 241 | 241...269 | 269...302 | 302...321 | 321...364 |
| | ≤ 229 | 229...255 | 255...285 | 285...302 | 302...321 |
| 20ХГСА, 25ХГСА, 30ХГС, 35ХГС по ГОСТ 4543-71 | - | ≤ 229 | 229...269 | 269...321 | 321...340 |
| 20ХН4ФА по ГОСТ 4543-71 | - | - | ≤ 255 | 255...285 | 285...321 |
| 25Х2Н4МА, 18Х2Н4МА по ГОСТ 4543-71 | - | - | ≤ 255 | 255...285 | 285...321 |
| 40Х2Н2МА, 38Х2Н2МА по ГОСТ 4543-71 | - | ≤ 229 | 229...269 | 269...302 | 302...340 |

| | | | | | |
|--|-------|-----------|-----------|-----------|-----------|
| 14Х2Н3МА, 20ХН2М по ГОСТ 4543-71 | - | - | ≤ 255 | 255...269 | 269...321 |
| 40ХН2МА по ГОСТ 4543-71 | - | - | ≤ 269 | 269...321 | 321...340 |
| 38Х2МЮА, 38Х2Ю по ГОСТ 4543-71 | - | - | ≤ 269 | 269...302 | 302...340 |
| 18ХГТ по ГОСТ 4543-71 | ≤ 255 | 255...302 | 302...321 | - | - |
| 30ХГТ, 35ХГФ, 40ХГТР по ГОСТ 4543-71 | ≤ 229 | 229...269 | 269...302 | 302...321 | 321...340 |
| 15ХГН2ТА по ГОСТ 4543-71 | ≤ 229 | 229...269 | 269...302 | 302...321 | - |
| ШХ15 по ГОСТ 801-78 | - | - | - | ≤ 229 | - |
| Р9, Р18 по ГОСТ 19265-73 | - | - | - | - | 207...255 |

2. Группы обрабатываемости чугуна, сплавов и цветных металлов указаны в табл.2.

Таблица 2

| Материал | | Группы обрабатываемости | | | | |
|---|--|-------------------------|-----------|------|----|---|
| Наименование | Марка | VI | VII | VIII | IX | X |
| | | Твердость НВ | | | | |
| Чугун серый | СЧ15, СЧ18, СЧ21-40, СЧ24, СЧ40 по ГОСТ 1412-85 | ≤ 197 | 197...269 | - | - | - |
| Чугун ковкий (ферритный) | КЧ30-6, КЧ33-8, КЧ35-10, КЧ37-12 по ГОСТ 1215-79 | ≤ 163 | - | - | - | - |
| Чугун ковкий (со структурой зернистого перлита) | КЧ45-7 по ГОСТ 1215-79 | ≤ 217 | - | - | - | - |
| Чугун ковкий | КЧ50-5, КЧ55-4 по ГОСТ 1215-79 | - | 179...269 | - | - | - |

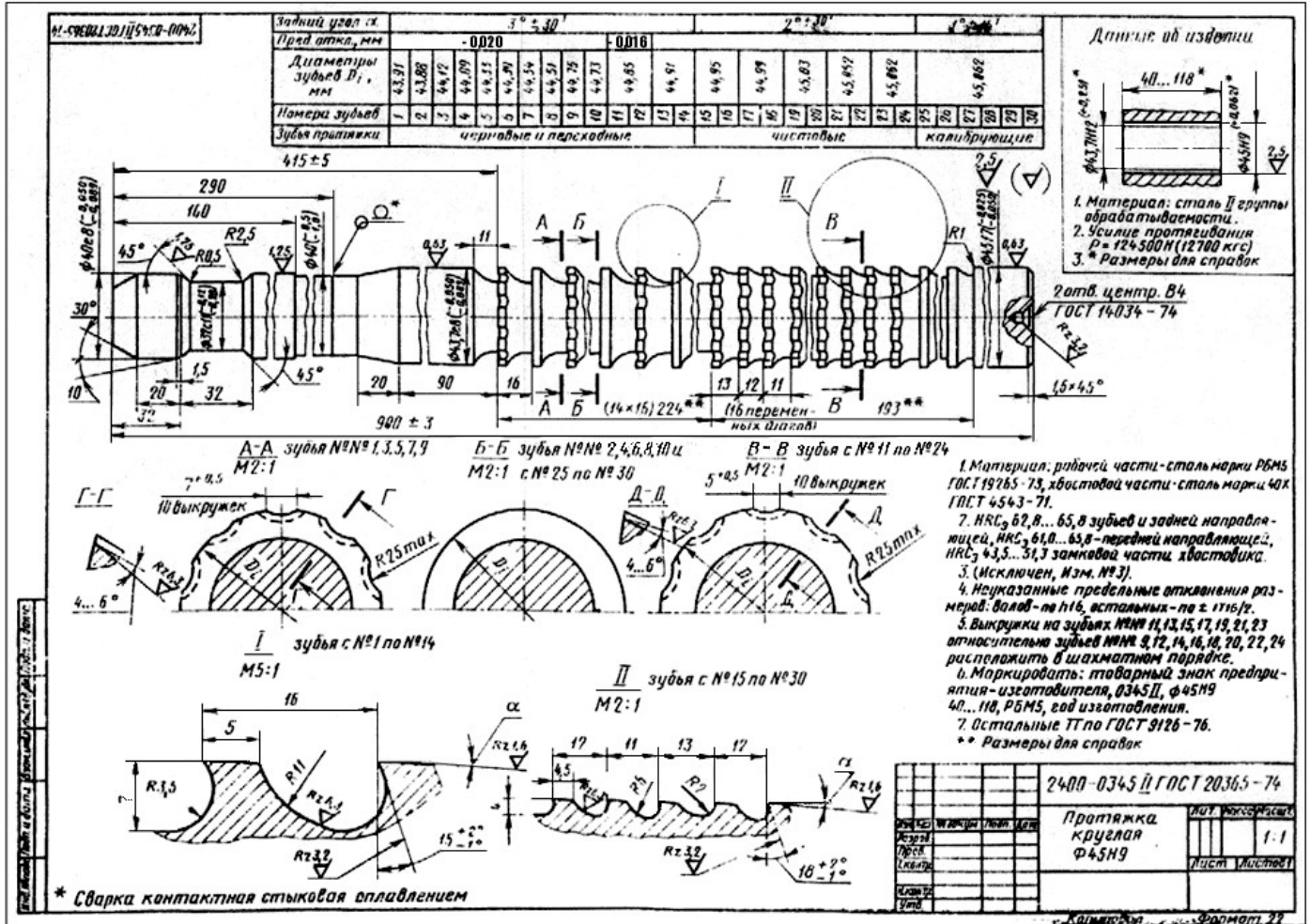
| | | | | | | |
|---|---|-----------|---|----------|-----------|----------|
| Чугун серый антифрикционный | АЧС-1, АЧС-2, АЧС-3 по ГОСТ 1585-85 | 160...229 | - | - | - | - |
| Чугун ковкий антифрикционный | АЧК-1, АЧК-2 по ГОСТ 1585-85 | 167...217 | - | - | - | - |
| Бронзы безоловянные | БР.А5, БР.А7, БР.АЖ9-4, БР.АЖМЦ-10-3-1,5, Бр.КМЦ3-1, Бр.КН1-3 по ГОСТ 18175-78 , БрА9Ж3Л, БрА10Ж4Н4Л по ГОСТ 493-79 | - | - | 65...140 | 140...200 | - |
| Бронзы оловянные | БрО5Ц5С5, БрО3Ц12С5, БрО3Ц7С5Н1 по ГОСТ 613-79 ; Бр.ОЦС4-4-2,5 по ГОСТ 5017-74 | - | - | <70 | - | - |
| | Бр.ОФ6,5-0,15, Бр.ОФ4-0,25 по ГОСТ 5017-74 | - | - | <130 | 130...200 | - |
| Латунь | ЛЦ16К4, ЛЦ40С, ЛЦ38Мц2С2 по ГОСТ 17711-80* Л63, Л68, Л70, ЛА77-2 ЛМц58-2, ЛМЦА57-3-1, ЛО62-1, ЛС59-1, ЛАЖ60-1-1 по ГОСТ 15527-70* | - | - | - | <160 | - |
| <p>* На территории Российской Федерации действуют ГОСТ 17711-93 и ГОСТ 15527-2004, соответственно. - Примечание изготовителя базы данных.</p> | | | | | | |
| Алюминиевые сплавы | АЛ1, АЛ2, АЛ3, АЛ4, АЛ5, АЛ6, АЛ7, АЛ8, АЛ9, АК5М7, АЛ11, АЛ13, АК7М2, АК4М4, АЛ16В, АК4М2Ц6, АЛ18В по ГОСТ 2685-75; Д1, Д16, АВ, АД, АД1, АМц, В95, АК4, АК6, АК8 по ГОСТ 4784-74* | - | - | - | - | 50...100 |
| <p>* На территории Российской Федерации действует ГОСТ 4784-97. - Примечание изготовителя базы данных.</p> | | | | | | |

(Измененная редакция, Изм. N 1, [Изм. N 4](#)).

ПРИЛОЖЕНИЕ 4. (Исключено, [Изм. N 4](#)).

ПРИЛОЖЕНИЕ 5 (справочное). ТИПОВОЕ ОФОРМЛЕНИЕ ЧЕРТЕЖА ПРОТЯЖКИ

ПРИЛОЖЕНИЕ 5
Справочное



(Измененная редакция, Изм. N 1, Изм. N 3, Изм. N 4).

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