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Threading tools—Vocabulary

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Threading tools – Vocabulary

1 Scope This Japanese Industrial Standard specifies the terms, readings and definitions of the threading tools⁽¹⁾ to be used mainly for metal workings in general.

Note (1) The threading tools mean the tools which cut or plastic work the internal threads and external threads (for example, threaded components of nuts, bolts and machine screws, and threaded parts of mechanical instruments, aircraft, automobiles, electronic instruments, watches and clocks, etc.).

Remarks : The standards cited in this Standard are given in Attached Table 1.

2 Classification The terms relating to the threading tools shall be classified into five groups of the taps, thread cutting dies, chasers, thread rolling dies and others according to the types of tools, and further classified respectively as given in the following:

(1) Taps

(1.1) Types of taps

(1.1.1) Classification according to cutting part materials and surface treatments

(1.1.2) Classification according to structure

(1.1.3) Classification according to features of shank

(1.1.4) Classification according to functions or uses

(a) Classification according to manufacturing methods

(b) Classification according to uses

(c) Classification according to types of screw threads

(d) Classification according to flutes

(1.2) Elements of tap

(1.3) Angles of tap

(1.4) Accuracies of tap

(1.5) Damages on cutting parts of tap

(1.6) Taps in general

(2) Thread cutting dies**(2.1) Types of (thread cutting) dies****(2.1.1) Classification according to cutting part materials and surface treatments****(2.1.2) Classification according to structure****(2.1.3) Classification according to functions or uses****(a) Classification according to manufacturing methods****(b) Classification according to uses****(c) Classification according to types of screw threads****(d) Classification according to flutes****(2.2) Elements of (thread cutting) dies****(2.3) Angles of (thread cutting) dies****(2.4) Accuracies of (thread cutting) dies****(2.5) Damages of (thread cutting) die cutting part****(2.6) (Thread cutting) dies in general****(3) Chasers****(3.1) Types of chaser****(3.1.1) Classification according to cutting part materials and surface treatments****(3.1.2) Classification according to structure****(3.1.3) Classification according to functions or uses****(a) Classification according to manufacturing methods****(b) Classification according to uses****(c) Classification according to types of screw threads****(d) Classification according to features of cutting part****(3.2) Elements of chaser****(3.3) Angles of chaser****(3.4) Accuracies of chaser**

(3.5) Damage on cutting part of chaser

(3.6) Chasers in general

(4) Thread rolling dies

(4.1) Types of (thread rolling) die

(4.1.1) Classification according to threaded-part materials and surface treatments

(4.1.2) Classification according to structure

(4.1.3) Classification according to functions or uses

(a) Classification according to manufacturing methods

(b) Classification according to shapes

(c) Classification according to uses

(d) Classification according to types of screw threads

(4.2) Elements of (thread rolling) die

(4.3) Angles of (thread rolling) die

(4.4) Accuracies of (thread rolling) die

(4.5) Damage on threaded part of (thread rolling) die

(4.6) (Thread rolling) dies in general

(5) Others

(5.1) Threading tools

(5.2) Thread milling cutters

3 Reading of names of threading tools The names expressing the types of the threading tools shall be read by combining the corresponding term to the order of type number of threading tool [for example, in the case of taps, (1.1.1) to (1.1.4) (d)] respectively. However, the manufacturing methods are omitted, and the classification according to the types of screw thread shall be read after the classification of cutting part material and surface treatment.

In addition, the type of screw threads may be changed to the designation of screw threads.

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- (1) **Taps** The reading of the names of the taps, when the cutting part material is high speed tool steel, when the structure is solid, welded and brazed, when the feature of shank is straight shank (straight shank, full diameter shank, and necked and relieved shank) and when the flute is straight flute, shall be read by omitting these.

Examples:

Reading	Cutting part material and surface treatment	Type of screw threads	Structure	Feature of shank	Manufacturing method	Use	Flute
Bottoming hand taps for metric coarse threads	(High speed tool steel)	For metric coarse screw threads	(Solid)	(Straight shank)	(Grinding)	Hand and bottoming	(Straight flute)
M3 bottoming hand tap		[M3]					
Bent shank taps for alloy tool steel metric fine screw threads	Alloy tool steel	For metric fine screw threads	(Welding)	Bent shank	(Rolling)	—	(Straight flute)
Spiral taps with oil hole for unified coarse screw threads	(High speed tool steel)	For unified coarse screw threads	(Solid)	(Straight shank)	(Grinding)	With oil hole	Spiral
Taper shank interrupted spiral point taps for cemented carbide metric coarse screw threads	Cemented carbide	For metric coarse screw threads	(Brazing)	Taper shank	(Grinding)	Interruption	Spiral point

- (2) **Thread cutting dies** The reading of the names of thread cutting dies, when the cutting part material is alloy tool steel, when the structure is of solid, and when the flute is straight flute, shall be read by omitting these.

Examples:

Reading	Cutting part material and surface treatment	Type of screw threads	Structure	Manufacturing method	Use	Flute
Adjustable thread cutting round dies with adjusting screw for metric coarse threads	(Alloy tool steel)	For metric coarse screw threads	(Solid)	(cutting)	Adjustable with adjusting screw	(Straight flute)



Reading	Cutting part material and surface treatment	Type of screw threads	Structure	Manufacturing method	Use	Flute
Solid spiral flute thread cutting round dies for high speed tool steel metric fine threads	High speed tool steel	For metric fine screw threads	(Solid)	(cutting)	Solid	Spiral flute
Tipped solid thread cutting round dies for cemented carbide unified coarse threads	Cemented carbide	For unified coarse screw threads	Tipped tool	(Grinding)	Solid	(Straight flute)
1/2-20 UNF sectional dies	(Alloy tool steel)	[1/2-20 UNF]	(Solid)	(cutting)	Sectional	(Straight flute)

(3) **Chasers** The reading of the names of chasers, when the cutting part material is high speed tool steel and when the structure is of solid, shall be read by omitting these.

As to the feature of the cutting part, this shall be omitted.

Examples:

Reading	Cutting part material and surface treatment	Type of screw threads	Structure	Manufacturing method	Use	Feature of cutting part
Die head chasers for alloy tool steel metric coarse threads	Alloy tool steel	For metric coarse threads	(Solid)	(Cutting)	Die head	(Straight cutting edge)
Radial chasers for metric fine threads	(High speed tool steel)	For metric fine threads	(Solid)	(Cutting)	Radial	(Straight cutting edge)
Tangential chasers for parallel pipe threads	(High speed tool steel)	For parallel pipe threads	(Solid)	(Grinding)	Tangential	(Straight cutting edge)
Cemented carbide PT1/8 tipped tool pipe thread chasers	Cemented carbide	[PT1/8]	Tipped tool	(Grinding)	Pipe threads	(Internal round cutting edge)
Collapsible tap chaser for unified fine screw threads	(High speed tool steel)	For unified fine screw threads	(Solid)	(Grinding)	Collapsible tap	(External round cutting edge)

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- (4) **Thread rolling dies** The reading of the names of thread rolling dies, when the threaded part material is alloy tool steel, when the structure is of solid, and when the use is with lead, shall be called by omitting these. However, the classification of shape shall be read after the classification of use.

Examples:

Reading	Threaded part material and surface treatment	Type of screw threads	Structure	Manufacturing method	Use	Shape
Thread rolling round dies for metric coarse threads	(Alloy tool steel)	For metric coarse threads	(Solid)	(Cutting)	(With lead)	Round
Thread rolling flat dies with recess for high speed tool steel metric fine threads	High speed tool steel	For metric fine threads	(Solid)	(Grinding)	With recess	Flat
Crumpling and cutting thread rolling flat dies for cemented carbide unified coarse threads	Cemented carbide	For unified coarse threads	(Solid)	(Grinding)	Crumpling and cutting	Flat
Planetary thread rolling segment dies for high speed tool steel metric coarse threads	High speed tool steel	For metric coarse threads	(Solid)	(Grinding)	Planetary	Segment

4. Terms and definitions The terms of threading tools and the definitions thereof shall be in accordance with the following.

Further, the quantitative symbols, units and English equivalent are given for informative reference.

- Remarks 1. Those attached with () to a part of terms in the term column may be omitted of characters in ().
2. The terms given by gothic types in the definitions are those specified in this Standard.
3. The figures in the definitions are those which indicate examples of structure for informative reference.
4. The symbols and units given in { } in informative reference column are based on the traditional ones.

(1) Taps

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1000	タップ	TAPPU	The tool of external thread type to form the internal threads to the prepared hole mainly by the rotation and the feed compatible with the lead of the screw threads.	tap

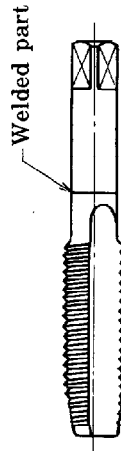
(1.1) Types of taps

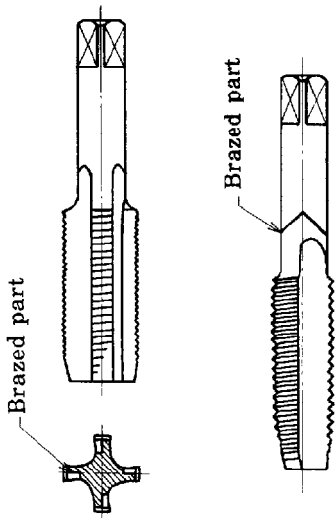
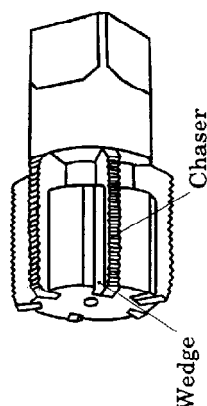
(1.1.1) Classification according to cutting part materials and surface treatments

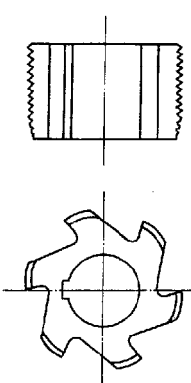
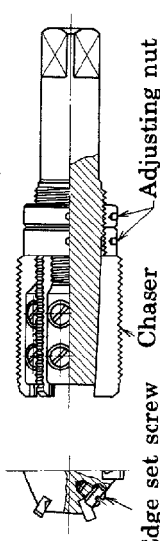
No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1101	合金工具鋼タップ	GÓKIN KÓGUKÓ TAPPU	The taps which have used alloy tool steel for the material of cutting parts .	alloy tool steel tap
1102	高速度(工具)鋼タップ	KÔSOKUDO (KÔGU) KÔ TAPPU	The taps which have used high speed tool steel for the material of cutting parts .	high speed (tool) steel tap
1103	超硬(合金)タップ	TYÔKÓ (GÓKIN) TAPPU	The taps which have used cemented carbide alloy (sintered body mainly constituted of tungsten carbide) for the material of cutting parts .	cemented carbide tap, carbide tap

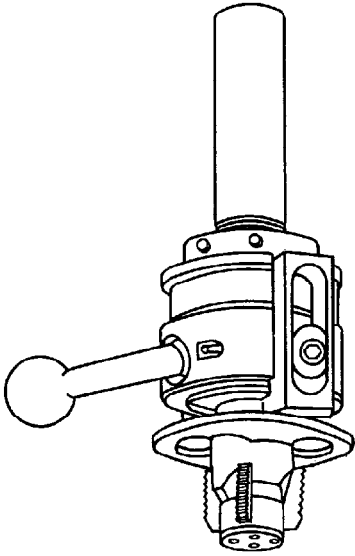
No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1104	コーティングタップ	KÔTINGU TAPPU	The taps which have used the tool material being adhered chemically or physically in single layer or multi-layer on the surfaces of the material of cutting parts , such as titanium nitride, titanium carbide or the like. Remarks: There are high speed steel titanium nitride coated taps, cemented carbide titanium carbide coated taps, etc.	coated tap
1105	窒化处理タップ	TIKKA SYORI TAPPU	The taps of which surfaces of cutting part material have used the nitrided tool material.	nitrided tap
1106	酸化处理タップ	SANKA SYORI TAPPU	The taps which have used oxidized tool material on the surface of cutting part material.	oxidized tap
1107	窒化酸化处理タップ	TIKKA SANKA SYORI TAPPU	The taps which have used nitrided and oxidized tool material on the surface of cutting part material.	nitrided and oxidized tap

(1.1.2) Classification according to structure

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1108	むくタップ	MUKU TAPPU	The tap of which thread part and shank are constituted of the same material, and being made integral. 	solid tap
1109	溶接タップ	YÔSETU TAPPU	The tap of which shank has been welded to the thread part . 	welded tap

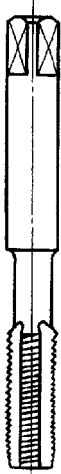
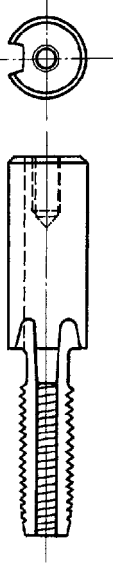
No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1110	ろう付けタップ	RÔZUKE TAPPU	The tap which material of cutting parts has been brazed to the body or shank. 	brazed tap
1111	接ぎ柄タップ	TUGIE TAPPU	The tap of which thread part and shank are jointed with screw thread or the like mechanically. 	sectional type tap
1112	植刃タップ	UEBA TAPPU	The tap being inserted chasers to the body mechanically. 	inserted chaser tap

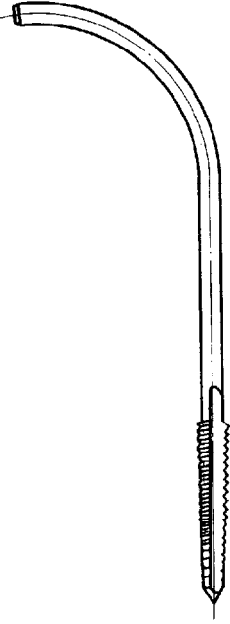
No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1113	シェルタップ	SYERU TAPPU	The tap of which thread part is hollow and is used by being attached to the shank. 	shell tap
1114	エキスパンション タップ	EKISUPANSYON TAPPU	The tap having split flute, and capable of adjusting the thread diameter by screw or dowel. Remarks: It is also called "(WARIMIZO) TYÔSEISIKI TAPPU". 	expansion tap
1115	アジャスタブルタップ	AZYASUTABURU TAPPU	The tap which is capable of adjusting the thread diameter, being inserted the chaser. 	adjustable tap

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1116	コラプシブルタップ	KORAPUSIBURU TAPPU	The tap which is capable of being drawn out from the threaded hole without turning reversely, with the chaser being drawn in inside when the tapping is completed. Remarks: Usually, this is attached with four chasers. 	collapsible tap

(1.1.3) Classification according to features of shank

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1117	ストレーティングタップ	SUTORÊTO SYANKU TAPPU	The tap of which shank is cylindrical shape. 	straight shank tap
1118	フルダイヤメータ ティングタップ	FURU-DAIYA-MÊTA SYANKU TAPPU	The tap of which shank diameter is larger than the thread diameter among the straight shank taps. 	full-diameter shank tap with plain connecting portion

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1119	ネック付きタップ	NEKKU-TUKI TAPPU	The full diameter shank tap with the neck between the thread part and the shank. 	full-diameter shank tap with recess
1120	レリーブシャンクタップ	RERĪBU SYANKU TAPPU	The tap of which shank diameter is smaller than the thread diameter among the straight shank taps. 	relieved-shank tap
1121	テーパシャンクタップ	TĒPA SYANKU TAPPU	The tap of which shank is taper. 	taper shank tap
1122	ペアンタップ	PEAN TAPPU	The tap of which shank has a keyway and is used for special tapping machine. Remarks: There is the tap with internal threads for drawing screw threads. 	pean tap

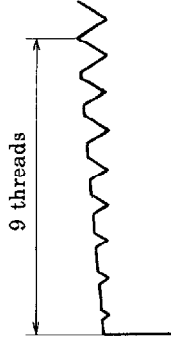
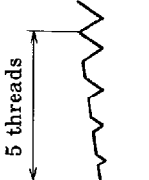
No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1123	ベント (シヤング) タップ	BENTO (SYANKU) TAPPU	The tap which taps nuts continuously without reversing or stopping the machine, having bent shank , to be used in the automatic tapping machine, and the tapped nuts are fed out automatically through the bent shank . 	bent shank tap
1124	ボール溝付きタップ	BÔRU MIZO-TUKI TAPPU	The tap having a groove which contains a ball on the shank , for attaching to the holder. 	ball groove shank tap

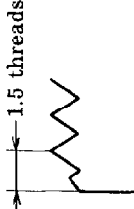
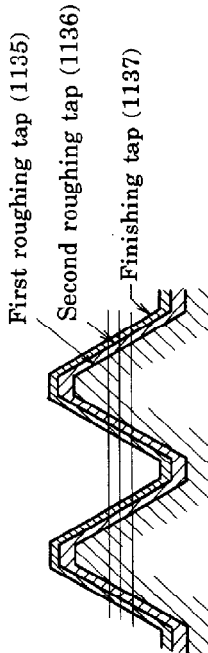
(1.1.4) Classification according to functions or uses

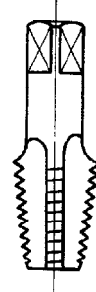
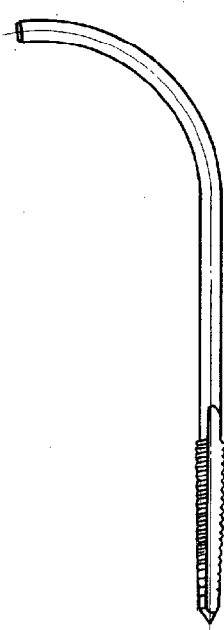
(a) Classification according to manufacturing methods

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1125	研削 (仕上げ) タップ	KENSAKU (SIAGE) TAPPU	The taps of which thread part has been finished by grinding.	ground (thread) tap
1126	切削 (仕上げ) タップ	SESSAKU (SIAGE) TAPPU	The taps of which thread part has been finished by cutting.	cut (thread) tap
1127	転造 (仕上げ) タップ	TENZÔ (SIAGE) TAPPU	The taps of which thread part has been finished by rolling.	rolled (thread) tap

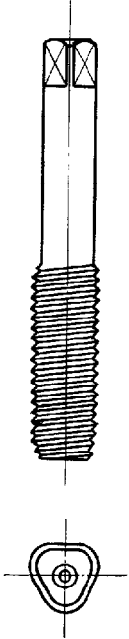
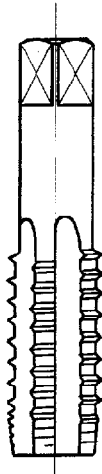
(b) Classification according to uses

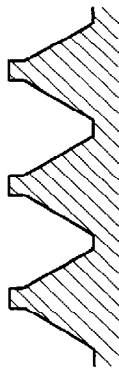
No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1128	ハンドタップ	HANDO TAPPU	The tap to be used generally. The tapping is carried out mainly by machine, but, in some cases, it is used by hand working. Remarks: It is also called "short machine tap". 	hand tap, short machine and hand tap
1129	等径ハンドタップ	TÔKEI HANDO TAPPU	The regular tap among the hand taps. Remarks: Generally, the regular hand taps are classified into taper tap, plug tap and bottoming tap according to the chamfer lengths.	regular hand tap, ordinary hand tap
1130	先タップ	SAKI TAPPU	The tap of nine threads in chamfer length, among the regular hand taps. 	taper (hand) tap
1131	中タップ	NAKA TAPPU	The tap of five threads in chamfer length, among the regular hand taps. 	plug (hand) tap

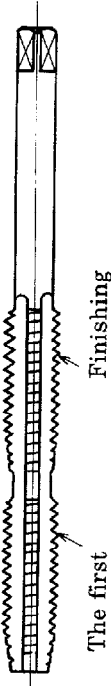
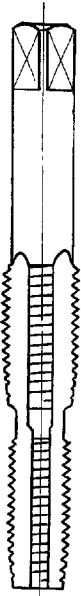
No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1132	上げタップ	AGE TAPPU	The tap of 1.5 threads in chamfer length, among the regular hand taps. 	bottoming (hand) tap
1133	等径タップ	TÔKEI TAPPU	The tap which has been assembled two or more pieces of equal in thread diameter and different in chamfer length as one set.	regular tap
1134	増径タップ	ZÔKEI TAPPU	The tap which has been so made as to finish to the required diameter by the finishing tap , assembling two or more pieces as one set, after increasing its diameter in the order from the first roughing tap .	serial tap
1135	1 番タップ	ITIBAN TAPPU	The tap used in the first tapping among the serial taps .	first roughing tap
1136	2 番タップ	NIBAN TAPPU	The tap used after the first roughing tap has passed, among the serial taps .	second roughing tap
1137	仕上げタップ	SIAGE TAPPU	The tap used in the final finishing among the serial taps. 	finishing tap

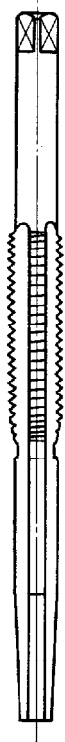
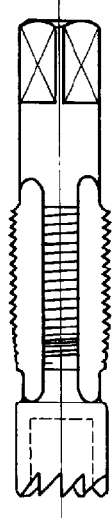
No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1138	ロング (シヤンク) タップ	RONGU (SYANKU) TAPPU	The tap of which shank is longer than that of the hand tap among the straight shank taps . 	long shank tap
1139	テーパタップ	TÉPA TAPPU	The tap of which thread part is tapered and to be used for tapping taper threads. 	taper thread tap
1140	自動ねじ立盤用タップ	ZIDÓ NEZITATEBAN-YÓ TAPPU	The tap used for automatic tapping machine. Remarks 1. The shapes of shanks are different according to the specifications of the tapping machine. 2. See JIS B 4433.  	tap for automatic tapping machine

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1141	ナットタップ	NATTO TAPPU	The tap to be used when the nuts are manufactured mainly by the tapping machine. In comparison with the hand tap, the shank is longer, and the chamfer is also longer. Remarks: See JIS B 4433. 	nut tap
1142	ニブタップ	NIBU TAPPU	The tap to be used by jointing with the bent shank or straight shank, when the nuts are manufactured mainly by the tapping machine. Remarks: See JIS B 4433. 	nib tap
1143	タップパタップ	TAPPA TAPPU	During the tapping operation, that tap having a long shank so as to be capable of storing plural number of tapped nuts. 	tapper tap
1144	プーリタップ	PÛRI TAPPU	The tap of which shank diameter is approximately equal to the outside diameter of threads, and the shank is longer in comparison with the hand tap, and which performs tapping for attaching oil cup or set screw or the like to the boss of the pulley or the like through the hole of the rim. 	pulley tap

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1145	盛上げタップ もりあげタップ	MORIAGE TAPPU	The tap without cutting edge which forms internal threads by plastic working. Remarks 1. There are those with and without oil flute. 2. Those without oil flute are called "fluteless tap". 	thread forming tap, fluteless tap
1146	油穴付きタップ あぶらあなつきタップ	ABURAANA-TUKI TAPPU	The tap having a oil hole in the body. 	oil hole tap
1147	深穴タップ ふかあなタップ	HUKAANA TAPPU	On the occasion of the tapping in a deep hole, that tap having a hole at the core of the tap for exhausting chips. 	deep hole tap, hollow tap
1148	インターラップタップ いんたーらっぷタップ	INTÂRAPPU TAPPU	The tap of which number of flutes is taken as an odd number, and the threads of each land have been removed alternately by one thread. 	interrupted thread tap

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1149	オーバサイズタップ	ÔBASAIZU TAPPU	The generic name of the taps of which thread diameters have been made larger than those of the standard size.	oversize tap
1150	多条ねじタップ	TAZYO NEZI TAPPU	The tap used for working multiple threads. Remarks: There are for 2 start threads, 3 start threads, etc.	multiple thread tap
1151	インサートコイルタップ	INSÂTO KOIRU TAPPU	The tap of which thread diameter has been increased in order to work the internal threads when the insert coil is used.	tap for helical coil wire screw thread insert
1152	種タップ	TANE TAPPU	The tap used for the thread finishing work of external thread working tools such as thread cutting dies and others, having larger number of flutes as compared with the hand tap . 	hob tap
1153	山高タップ	YAMATAKA TAPPU	The tap of which crests have been heightened so as to form particularly larger clearances at the roots of the internal threads. 	supercrest tap

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1154	増径段付きタップ	ZÔKEI DAN-TUKI TAPPU	The tap of which thread part is made successively larger in diameter stepwisely from the tip end to the shank, and to finish to the required diameter at the final part. 	tandem serial tap
1155	異径段付きタップ	IKEI DAN-TUKI TAPPU	The tap having two or more types of different threads in diameter (equal in pitch or number of threads) on the thread part. 	tandem tap
1156	案内付きタップ	ANNAI-TUKI TAPPU	The tap having the pilot part of the same diameter as of the hole, in order to make the hole before threading or basic hole concentric with the axial center of thread. Remarks: There is the tap with pilot threads to be used when working in combination with the lead is required or the like, making coaxial with the previously worked threads. 	pilot tap

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1157	ドリル付きタップ	DORIRU-TUKI TAPPU	The tap having drill part at the tip end, performing the hole before threading drilling and tapping by a single process. 	drill tap
1158	リーマ付きタップ	RÎMA-TUKI TAPPU	The tap having reamer part at the tip end, performing the hole before threading finishing and tapping by a single process. 	reamer tap
1159	ホルソー付きタップ	HÔRUSÔ-TUKI TAPPU	The tap having the hole saw at the tip end, which performs the hole before threading drilling and tapping by a single process, when the tapping of large diameter is processed on the thin plate. 	hole saw tap

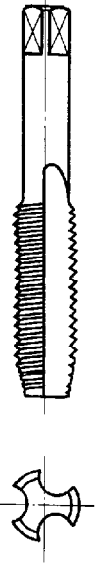
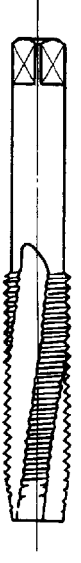
(c) Classification according to types of screw threads

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1160	メートル並目ねじ用 タップ	MÊTORU NAMIMENEZU-YÔ TAPPU	The tap used for tapping of metric coarse screw threads. Remarks: See JIS B 0205 and JIS B 4430.	taps for metric coarse thread

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1161	メートル細目ねじ用 タップ	MÊTORU HOSOMENEZI-YÔ TAPPU	The tap used for tapping of metric fine screw threads. Remarks: See JIS B 0207 and JIS B 4430.	taps for metric fine thread
1162	ユニファイ並目ねじ用 タップ	YUNIFAI NAMIMENEZI-YÔ TAPPU	The tap used for tapping of unified coarse screw threads. Remarks: See JIS B 0206 and JIS B 4432.	taps for unified coarse thread
1163	ユニファイ細目ねじ用 タップ	YUNIFAI HOSOMENEZI-YÔ TAPPU	The tap used for tapping of unified fine screw threads. Remarks: See JIS B 0208 and JIS B 4438.	taps for unified fine thread
1164	ミシン用ねじ用タップ	MISIN-YÔ NEZI-YÔ TAPPU	The tap used for tapping of screw threads for sewing machines. Remarks: See JIS B 0226 and JIS B 4439.	taps for sewing machine thread
1165	管用平行ねじ用タップ	KUDA-YÔ HEIKÔNEZI-YÔ TAPPU	The tap used for tapping of parallel pipe threads. Remarks: See JIS B 0202 and JIS B 4445.	taps for parallel pipe thread
1166	管用テーパねじ用 タップ	KUDA-YÔ TÊPANEZI-YÔ TAPPU	The tap used for tapping of taper pipe threads. Remarks 1. There are taper taps and parallel taps. 2. See JIS B 0203 and JIS B 4446.	taps for taper pipe thread
1167	ミニチュアねじ用 タップ	MINITYUA NEZI-YÔ TAPPU	The tap used for tapping of miniature screw threads. Remarks: See JIS B 0201.	taps for miniature screw thread
1168	電線管ねじ用タップ	DENSENKAN NEZI- YÔ TAPPU	The tap used for tapping of conduit threads. Remarks 1. There are for thick steel conduit threads and thin steel conduit threads. 2. See JIS B 0204.	taps for conduit thread

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1169	メートル台形ねじ用 タップ	MÊTORU DAIKEI NEZI-YÔ TAPPU	The tap used for tapping of metric trapezoidal threads. Remarks: See JIS B 0216.	taps for metric trapezoidal thread
1170	29度台形ねじ用 タップ	29-DO DAIKEI NEZI-YÔ TAPPU	The tap used for tapping of 29° trapezoidal threads. Remarks: See JIS B 0222.	taps for 29° trapezoidal thread
1171	自転車ねじ用タップ	ZITENSYA NEZI-YÔ TAPPU	The tap used for tapping of bicycle threads. Remarks: See JIS B 0225.	taps for cycle thread

(d) Classification according to flutes

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1172	直溝タップ	TYOKUMIZO TAPPU	The tap of which flutes are in parallel to the axis. 	straight fluted tap
1173	(右) スパイラルタップ	(MIGI) SUPAIRARU TAPPU	The tap of which flutes are twisted rightward in respect to the axis. In the case of right hand screw threads, the chips are discharged to the shank side. Remarks: There are the slow, medium and fast according to the angles of spiral flute . 	(right hand) spiral fluted tap

No.	Term (Japanese character)	Reading	Definition	English equivalent (Informative reference)
1174	左スパイラルタップ	HIDARI SPAIRARU TAPPU	The tap of which flutes are twisted leftward in respect to the axis. In the case of right hand screw threads, the chips are discharged in the advancing direction. 	left hand spiral fluted tap
1175	スパイラルポイント タップ	SUPAIRARU POINTO TAPPU	The tap of which flute of the cutting edge side of chamfer has been cut off several crests aslant, so that the chips are discharged easily in the advancing direction. It is also called "point tap". Remarks: There are those with and without the straight flute .  	spiral pointed tap

(1.2) Elements of tap

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1201	呼び	YOBI	The tap is expressed by the symbol denoting the type of screw thread, numeral denoting the nominal diameter, and the pitch or threads per inch , etc. Example: M8, M8 × 1, 1/2 - 13UNC, G1/8	—	nominal designation, nominal size

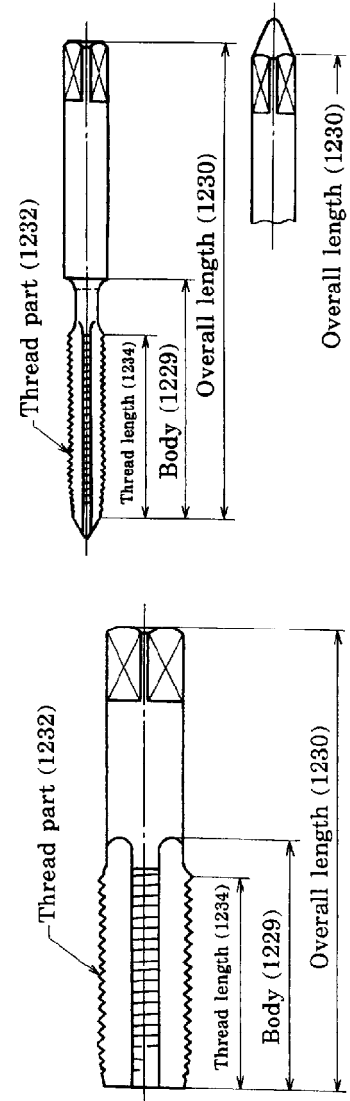
No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1202	基準山形	KIZYUN YAMAGATA	The theoretical thread shape to be referred to determining the actual sectional shape of the threads (see JIS B 0101). Remarks: It is usually mentioned on the sectional shape including the axis of screw threads.	—	basic profile
1203	外径	GAIKEI	The diameter of imaginary cylinder (or cone) contacting the crest of thread.	—	major diameter
1204	外径の基準寸法	GAIKEI NO KIZYUN SUNPÔ	The dimension to be the basis of the permissible limit dimension of major diameter . Remarks: See JIS B 0401 and JIS B 4430.	<i>D</i>	basic major diameter
1205	有効径	YŪKŌKEI	The diameter of imaginary cylinder (or cone) of which width of thread flute becomes equal to the width of thread. In this case, when the pitch is equal to the specified pitch , it is equal to the simple pitch diameter (see JIS B 0101).	—	pitch diameter
1206	単独有効径	TANDOKU YŪKŌKEI	(1) In the case of parallel threads, the diameter of imaginary cylinder of which width of thread flute measured along the axis is $\frac{1}{2}$ the specified pitch . (2) In the case of taper threads, the diameter of the cone of which width of thread flute measured along the taper plane is $\frac{1}{2}$ the specified pitch measured along the taper plane (see JIS B 0101).	—	simple pitch diameter

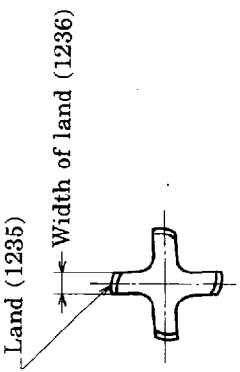
No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1207	有効径の基準寸法	YŪKŌKEI NO KIZYUN SUNPŌ	The dimension to be the basis of the permissible limit dimension of the pitch diameter . Remarks: See JIS B 0401 and JIS B 4430.	d_2	basic pitch diameter
1208	谷の径	TANI NO KEI	The diameter of imaginary cylinder (or cone) tangent to the root of the threads. Remarks: See JIS B 4430.	—	minor diameter
1209	谷の径の基準寸法	TANI NO KEI NO KIZYUN SUNPŌ	The dimension to be the basis of the permissible limit dimension of the minor diameter . Remarks: See JIS B 0401 and JIS B 4430.	d_1	basic minor diameter
1210	公差域	KŌSA IKI	The zone which is situated between the upper tolerance and the lower tolerance.	—	tolerance zone
1211	基準径の位置	KIZYUNKEI NO ITI	The position of the plane perpendicular to axis to indicate the basis diameter in the taper thread tap . Remarks: See JIS B 4446.	—	position of gage plane
1212	とがり山の高さ	TOGARIYAMA NO TAKASA	The height of fundamental triangle. Remarks: See JIS B 0101.	H	fundamental triangle height
1213	ねじ山のアドendum	NEZIYAMA NO ADENDAMU	The radial difference from the pitch diameter to the major diameter . Remarks 1. As to the taper thread tap or the like, the accuracy of thread is determined according to the thread profiles, so that this is used for expressing the state of its thread profile. 2. See JIS B 4446.	—	addendum of thread

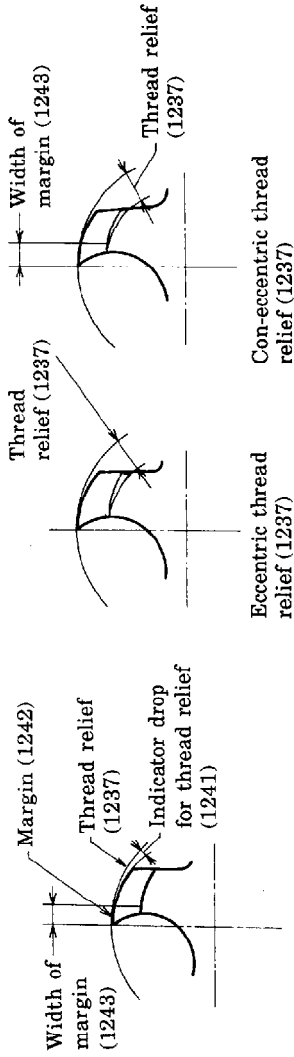
No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1214	ねじ山のデデンダム	NEZIYAMA NO DEDENDAMU	The radial difference from the pitch diameter to the minor diameter . Remarks 1. As to the taper thread tap or the like, the accuracy of thread is determined according to thread profiles, so that this is used for expressing the state of its thread profile. 2. See JIS B 4446.	—	deddendum of thread
1215	アデンダムの基準寸法	ADENDAMU NO KIZYUN SUNPÔ	The basic height of addendum of thread .	h_a	basic size of addendum
1216	デデンダムの基準寸法	DEDENDAMU NO KIZYUN SUNPÔ	The basic height of deddendum of thread .	h_d	basic size of deddendum
1217	ピッチ	PITTI	In the section including the axis of thread, the distance measured in parallel to the axis between the corresponding two points of threads neighboring each other (see JIS B 0101).	p	pitch
1218	リード	RÎDO	When it turns around along the helix of the thread, the advancing distance in axial direction (see JIS B 0101).	—	lead
1219	(24.5 mm につき) 山数	(24.5 mm NI TUKI) YAMASŪ	The value when 25.4 mm is divided by the pitch (see JIS B 0101).	n	threads per inch
1220	ねじ山の角度	NEZIYAMA NO KAKUDO	The included angle of adjacent two flanks measured in a sectional shape including the axis of thread. It is also called "whole angle of screw thread". Remarks: See JIS B 0101.	α	included angle of thread

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1221	山の半角	YAMA NO HANKAKU	The angle of flank in the screw thread of symmetrical section shape. It is equal to half the included angle of thread .	$\alpha/2$	half angle of thread
1222	山の頂	YAMA NO ITADAKI	The face connecting the flanks of both sides of thread (see JIS B 0101).	—	crest
1223	山の丸み	YAMA NO MARUMI	When a circular arc portion exists at the crest , the radius of this portion.	—	crest radius
1224	谷底	TANIZOKO	The face which connects the flanks at both sides of the thread flute (see JIS B 0101).	—	root
1225	谷の丸み	TANI NO MARUMI	When a circular arc portion exists at the root , the radius of this portion.	—	root radius
1226	フランク	HURANKU	The face which connects the crest and the root . In the sectional form containing the axis, it generally becomes a straight line (see JIS B 0101).	—	flank
1227	右ねじ	MIGI NEZI	When viewed in axial direction, such a thread which goes away from the observer by tracing in clockwise direction (in right-handed turn) (see JIS B 0101).	—	right-hand thread
1228	左ねじ	HIDARI NEZI	When viewed in axial direction, such a thread which goes away from the observer by tracing in counter-clockwise direction (in left-handed turn). (see JIS B 0101).	—	left-hand thread
1229	ボディ	BODÉ	The fundamental part of the tap which forms the cutting edge in itself, or the whole including the part which holds the blade or tips. In the case of the tap of shank type, the portion from the front end of the shank to the tip end of the thread part .	—	body

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1230	全長	ZENTYÔ	The length measured usually from the tip end of the cutting part to the shank end in parallel to the axis.	L	overall length
1231	刃部	HABU	The portion which takes part directly in cutting work of the tap . It consists of the cutting edge , cutting face and clearance.	—	cutting part
1232	ねじ部	NEZIBU	The part where the thread containing the chamfer exists.	—	thread part
1233	ねじ部の径	NEZIBU NO KEI	The major diameter , pitch diameter and minor diameter at the place where the thread part is the largest. Remarks: The major diameter , pitch diameter and minor diameter at the position of gauge plane in the taper thread tap .	—	thread diameter
1234	ねじ部の長さ	NEZIBU NO NAGASA	The length of thread part measured in parallel to the axis.	l	thread length



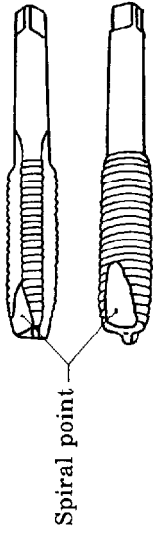
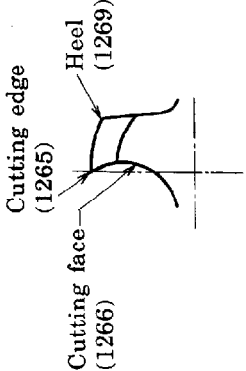
No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1235	ランド	RANDO	The part having the width of dike shape from the cutting edge to the heel .	—	land
1236	ランド幅	RANDO HABA	The width of the part from the cutting edge to the heel with the dike shaped thread.	<i>t</i>	width of land
 Land (1235) Width of land (1236)					
1237	ねじ山の逃げ	NEZIYAMA NO NIGE	The formed relief being processed to the thread from the cutting edge to the heel in the land . Remarks: According to the taking methods of relief, there are the eccentric thread relief, concentric thread relief, etc.	—	thread relief
1238	ノレリーフねじ	NÔ RERÎHU NEZI	The thread having no thread relief in the land .	—	no relief thread, concentric
1239	外径の逃げ	GAIKEI NO NIGE	The relief being processed on the crest of the full thread part .	—	major diameter relief
1240	逃げなし外径	NIGENASI GAIKEI	The thread being processed with radial relief only to the flank and minor diameter .	—	no relief major diameter

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1241	ねじ山の逃げ量	NEZIYAMA NO NIGERYÔ	The decreasing amount of the radius from the centre of tap to the thread between the cutting edge and the heel . Remarks: There are also those of which relief amounts of the major diameter and pitch diameter of thread are different.	S_t	indicator drop for thread relief
1242	マージン	MÂZIN	The reliefless portion on the relief face in the radial direction of the thread on the land .	—	margin
1243	マージン幅	MÂZIN HABA	The width of the margin measured in perpendicular to the cutting edge .	t_m	width of margin
					
1244	バックテーパー	BAKKU TÊPA	The relief in axial direction where the diameter has been made smaller towards the shank from the tip end of the thread part .	B_t	back taper
1245	食付き部	KUITUKIBU	The portion to lead the tap itself during cutting, when the tap leads into a workpiece.	—	chamfer, lead

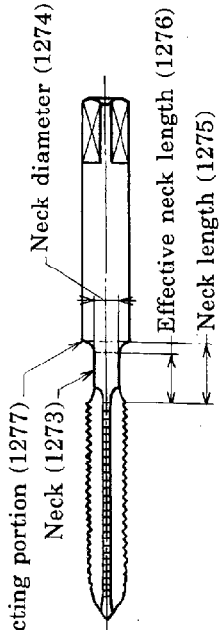
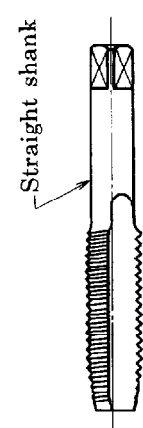
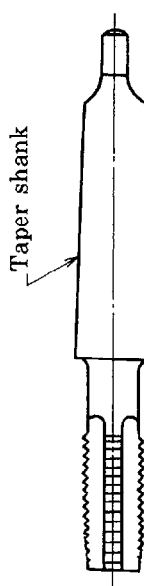
No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1246	食付き部の長さ	KUITUKIBU NO NAGASA	The length of chamfer measured in parallel to the axis.	l_c	chamfer length, lead length
1247	食付き部の山数	KUITUKIBU NO YAMASŪ	The number of threads within the chamfer length .	n_c	number of cham- fered threads, number of lead threads
1248	食付き部の先端径	KUITUKIBU NO SENTANKEI	The minimum diameter of the tip cutting edge of the chamfer .	d_p	chamfer point diameter
1249	食付き部の逃げ	KUITUKIBU NO NIGE	In the chamfer , the relief being processed from the cutting edge to the heel .	—	chamfer relief
1250	食付き部の逃げ量	KUITUKIBU NO NIGERYŌ	In the chamfer , the amount of reduction of the radius from the centre of the tap up to the crest , between the cutting edge and the heel .	S_c	indicator drop for chamfer relief
1251	食付き部の面取り	KUITUKIBU NO MENTORI	The beveling being processed at the tip of the chamfer .	—	chamfer bevel
1252	完全(ねじ)山部	KANZEN (NEZI) YAMABU	The portion having the shape of complete thread.	—	full thread part, complete thread portion
1253	完全(ねじ)山部の長さ	KANZEN (NEZI) YAMABU NO NAGASA	The length of full thread part measured in paral- lel to the axis. Remarks: Generally, the length subtracted the cham- fer length from the thread length .	l_t	full thread length, complete thread length

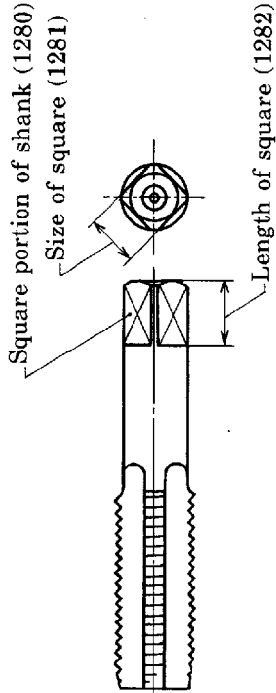
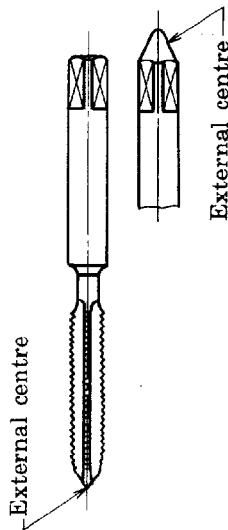
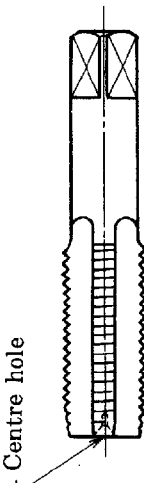
No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1254	溝	MIZO	The concaved portion for discharging the cutting chips between the neighboring cutting edge and heel .	—	flute
1255	溝数	MIZOSU	The number of flutes .	Z	number of flutes
1256	溝の長さ	MIZO NO NAGASA	The length of flute measured in parallel to the axis.	l_f	flute length
1257	溝の切上げ	MIZO NO KIRIAGE	The portion corresponding to the sweep of the tool, when working the flute of the tap .	—	cutter sweep
1258	溝幅	MIZOHABA	The width across the flute over the section perpendicular to the axis.	t_f	width of flute
1259	溝底の径	MIZOSOKO NO KEI	The diameter of imaginary cylinder (or cone) contacting the bottom of the flute .	d_f	core diameter, web diameter

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
			Flute (1254) Core diameter (1259) Width of flute (1258) Cutter sweep (1257)		
1260	溝底のテーパ	MIZOSOKO NO TEPA	The taper where the core diameter becomes gradually larger from the tip towards the shank .	—	taper of core diameter, taper of web diameter
1261	直溝	TYOKUMIZO	The flute parallel to the axis of the tap. Straight flute	—	straight flute
1262	ねじれ溝	NEZIREMIZO	The flute spiral to the axis of the tap. Remarks: There are right-handed spiral flute and left-handed one. Spiral flute	—	spiral flute, helical flute

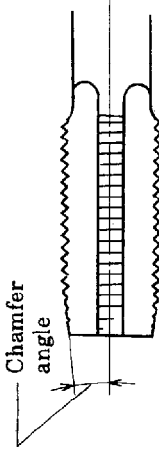
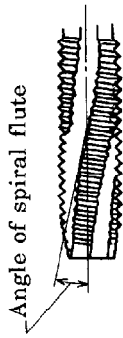
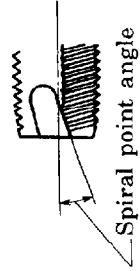
No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1263	スパイラルポイント	SUPAIRARU POINTO	The portion being applied with the spiral flute to the chamfer .  Spiral point	—	spiral point
1264	溝のリード	MIZO NO RIDO	In the case of the spiral flute , the distance to travel in axial direction when the axis turns once along the flute .	f_1	flute lead
1265	切れ刃	KIREHA	The portion where the cutting face connects with the relief.	—	cutting edge
1266	すくい面	SUKUIMEN	The face to be the main body conducting the cutting. The chips scratch over this face.	—	cutting face
1267	レーキ	RÊKI	The cutting face of which shape is a plane surface.	—	rake
1268	フック	HUKKU	The cutting face of which shape is a curved surface.	—	hook
1269	ヒール	HÎRU	That portion which constitutes the connection of the relief and the flute .	—	heel
			 Cutting edge (1265) Rake (1267) Hook (1268) Cutting face (1266) Heel (1269)		

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1270	シャンク	SYANKU	The grip of the tap . This is to be held in using.	—	shank
1271	シャンク径	SYANKU KEI	The diameter of the shank .	d	shank diameter
1272	シャンクの長さ	SYANKU NO NAGASA	The length of the shank measured in parallel to the axis.	l_s	shank length
The diagram shows a cross-section of a tap. The central part is labeled 'Shank (1270)'. The diameter of this central part is indicated by a dimension line and labeled 'Shank diameter (1271)'. The length of the shank is indicated by a dimension line and labeled 'Shank length (1272)'. The shank is shown with a threaded section at one end and a tapered section at the other.					
1273	ネック	NEKKU	Due to the necessity on manufacturing or using the tap , the constricted portion being provided between the thread part and shank . The neck is a part of the body .	—	neck
1274	ネックの径	NEKKU NO KEI	The diameter of the cylindrical part of the neck .	d_n	neck diameter
1275	ネックの長さ	NEKKU NO NAGASA	The length of the neck measured in parallel to the shaft.	l_n	neck length
1276	有効ネックの長さ	YŪKŌ NEKKU NO NAGASA	The length subtracted the connecting portion from the neck length .	l_{ne}	effective neck length
1277	つながり部	TUNAGARIBU	The tapered portion connecting from the cylindrical part of the neck to the shank .	—	connecting portion

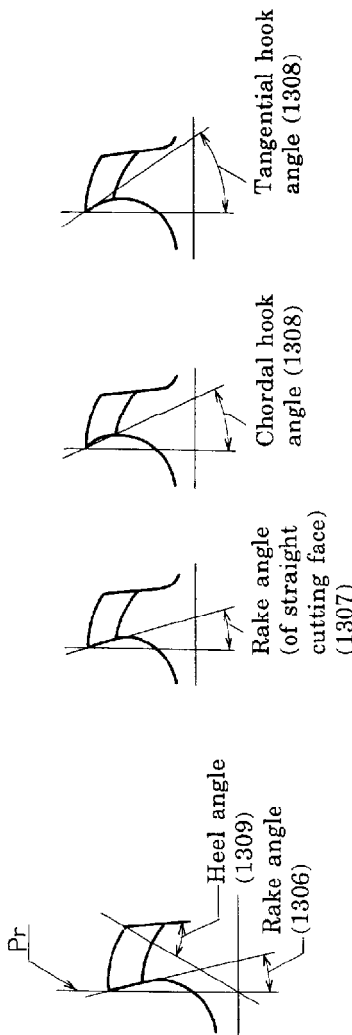
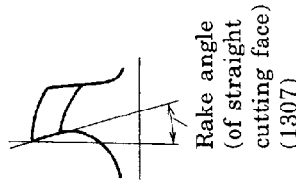
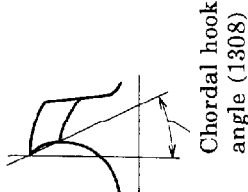
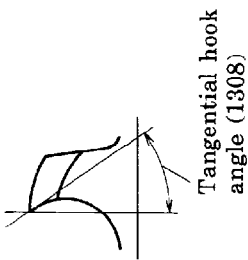
No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
			 Connecting portion (1277) Neck (1273) Neck diameter (1274) Effective neck length (1276) Neck length (1275)		
1278	ストレートシャンク	SUTORÊTO SYANKU	The cylindrical shank.  Straight shank	—	straight shank
1279	テーパシャンク	TÊPA SYANKU	The conical shank.  Taper shank	—	taper shank
1280	シャンク四角部	SYANKU SIKAKUBU	The square portion being attached to the end of the straight shank. Remarks: See JIS B 4002.	—	square portion of shank, driving square portion of shank
1281	シャンク四角部の幅	SYANKU SIKAKUBU NO HABA	The distance between corresponding two faces of the square portion of shank.	K	size of square

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1282	シャンク四角部の 長さ	SYANKU SIKAKUBU NO NAGASA	The length of the square portion of shank . 	l_k	length of square
1283	突出しセンタ	TUKIDASI SENTA	The prescribed protruded portion to be used for supporting the tap in the machine working and measuring. 	—	external centre
1284	センタ穴	SENTA ANA	The prescribed hole to be used for supporting the tap in the machine working and measuring. 	—	internal centre, centre hole

(1.3) Angles of tap

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1301	ねじ山の逃げ角	NEZIYAMA NO NIGEKAKU	The angle to express the inclination of relief of the thread of the tap in respect to the finishing face of the thread to be cut.	α_r	thread relief angle
1302	食付き角	KUITUKI KAKU	The angle between the chamfer and axis. 	κ	chamfer angle, lead angle
1303	食付き部の逃げ角	KUITUKIBU NO NIGEKAKU	The angle to express the inclination of relief of the chamfer in respect to the finishing face of the thread to be cut.	α_c	chamfer relief angle
1304	溝のねじれ角	MIZO NO NEZIREKAKU	The angle included between the flute and the straight line in parallel to the axis passing through its one point. 	σ	angle of spiral flute, angle of helical flute
1305	スパイラルポイント角	SUPAIRARU POINTO KAKU	The angle of spiral flute of the spiral point. 	λ	spiral point angle

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1306	すくい角	SUKUIKAKU	The angle to express the inclination of the cutting face in respect to the basic face (Pr) (see JIS B 0170). Remarks: The angle of generic name of the rake angle and hook angle .	γ	rake, rake angle
1307	レーキ角	RÊKI KAKU	The rake angle when the cutting face is the rake .	γ_r	rake angle (of straight cutting face)
1308	フック角	HUKKU KAKU	The angle included between the centre line passing through the cutting edge and the straight line connecting the cutting edge on the cutting face with the root of thread on a section perpendicular to the axis, or the angle included between its centre line and the tangent of the cutting face at the cutting edge . Remarks: The former is called "chordal hook angle", and the latter is called "tangential hook angle".	γ_h	hook angle, rake angle of curved cutting face
1309	ヒール角	HÎRU KAKU	On the section perpendicular to the axis, the angle included between the centre line passing through the heel and the tangent of flute face passing through the heel .	γ_b	heel angle

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
			 Rake angle (of straight cutting face) (1307)  Chordal hook angle (1308)  Tangential hook angle (1308)		

(1.4) Accuracy of tap

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1401	等級	TÔKYÛ	Accuracy characteristics classified by the accuracies of thread , tolerances on shank diameter , and tolerance values of run out.	—	tolerance class
1402	ねじ部の精度	NEZIBU NO SEIDO	The accuracy according to the tolerances, tolerance values and tolerance positions of thread diameter , as well as tolerances on pitch and tolerances on half angle of thread .	—	accuracy of thread

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1403	ねじ部の振れ	NEZIBU NO HURE	The difference between the maximum value and minimum value of radial dimension in perpendicular direction to axis of tip end of thread part , when the tap has been rotated taking both centres as reference.	δ_r	run out on thread
1404	食付き部の振れ	KUITUKIBU NO HURE	The difference between the maximum value and minimum value of radial dimension in perpendicular direction to axis of chamfer cutting edge , when the tap has been rotated taking both centres as reference.	δ_r	run out on chamfer
1405	シャンクの振れ	SYANKU NO HURE	The difference between the maximum value and minimum value of radial dimension of the shank , when the tap has been rotated taking both centres as reference.	δ_r	run out on shank
1406	曲がり	MAGARI	The maximum value of error between the ideal axial centre and the actual axial centre.	δ_a	deflection

(1.5) Damages on cutting parts of tap

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1501	摩耗	MAMÔ	Gradual decrement generated on the cutting part .	—	wear
1502	食付き逃げ面摩耗	KUITUKI NIGEMEN MAMÔ	The wear generated on the relief of the chamfer .	VB	chamfer flank wear
1503	食付き部ねじ山コーナ摩耗	KUITUKIBU NEZIYAMA KÔNA MAMÔ	The wear generated on the edge line of the relief of the chamfer and the flank .	—	—

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				Quantitative symbol	English equivalent
1504	山頂摩耗	SANTYÔ MAMÔ	The wear generated on the crest of the full thread part .	—	crest wear
1505	すくい面摩耗	SUKUIMEN MAMÔ	The wear generated on the cutting face .	—	face wear
1506	クレータ摩耗	KURÊTA MAMÔ	Among the face wears , the wear generated hollows.	<i>KT</i>	crater
1507	チップイング	TIPPINGU	The small chipping generated on the cutting edge .	—	chipping
1508	欠損	KESSON	The large chipping generated on the cutting part or thread part .	—	—
1509	破損	HASON	The fracture extending to a large range of cutting part or thread part .	—	fracture of cutting part
1510	折損	SESSON	The breakage generated on the body or the shank .	—	breakage
1511	はく離	HAKURI	(1) The scale shaped loss generated on the cutting part or thread part . (2) In the case of the coated taps , the peeling of coated film generated due to cutting.	—	flaking