

## 2. 呼び番号 Formulation of bearing numbers

転がり軸受の呼び番号は、軸受の形式、主要寸法、寸法・回転精度、内部すきま、その他の仕様を表示する呼び名であり、基本番号と補助記号とから構成されている。

一般に多く用いられる軸受の主要寸法は、ISO 規格の主要寸法全体計画に準拠している場合が多く、それらの標準軸受の呼び番号は、JIS B 1513（転がり軸受の呼び番号）に規定されている。

軸受の仕様を細かく区分する必要があるため、ISC では JIS 以外の補助記号も併用している。

基本番号・補助記号の配列及び内容を表 2 に示す。なお、接触角記号及び補助記号については、該当する記号を左から順に配列する。

Bearing numbers are alphanumeric combinations that indicate the bearing type, boundary dimensions, internal clearance, dimensional and running accuracies, and other related specifications. They consist of basic numbers and supplementary symbols. The boundary dimensions of commonly used bearings mostly conform to the organizational concept of ISO, and the bearing numbers of these standard bearings are specified by JIS B 1513 (Designation for rolling bearings). Due to a need for more detailed classification, ISC uses auxiliary symbols other than those specified by JIS.

Basic numbers, supplementary symbols, and the meanings of common numbers and symbols are listed in Table 2 (Pages 8 and 9). The contact angle symbols and other supplementary designations are shown in successive columns from left to right in Table 2. For reference, five examples of bearing numbers are shown on Page 9.

表 2 軸受の呼び番号の内容と配列 Table 2 Formulation of bearing numbers

| 基本番号 Basic numbers               |  |  |  | 補助記号 Supplementary symbols |   |                        |   |                                    |  |                                      |
|----------------------------------|--|--|--|----------------------------|---|------------------------|---|------------------------------------|--|--------------------------------------|
| 軸受系列記号<br>Bearing series symbols |  | 内径又は共通番号<br>Bore number of size number |  | 材料記号<br>Materials symbol   |   | 保持器記号<br>Cage symbol   |   | シール・シールド記号<br>Seals・shields symbol |  |                                      |
| 記号<br>Number                     | 内容<br>Meaning  | 記号<br>Number                           | 内容<br>Meaning  | 記号<br>Number               | 内容<br>Meaning   | 記号<br>Number           | 内容<br>Meaning                           | 記号<br>Number                       | 内容<br>Meaning  |                                      |
| 68<br>69<br>60<br>62<br>63       | 単列深溝玉軸受<br>Single-row deep groove ball bearings  | 1<br>2<br>3<br>:                       | 軸受内径 1mm<br>Bearing bore 1mm<br>軸受内径 2mm<br>Bearing bore 2mm<br>軸受内径 3mm<br>Bearing bore 3mm   | 省略<br>Omitted              | SUJ2<br>(高炭素クロム軸受鋼)<br>High carbon chromium bearing steel SUJ2<br>Equivalent to ASTM A295 52100   | J<br>(省略)<br>(Omitted) | 鋼板打抜き波形保持器<br>Pressed steel ribbon cage | Z<br>Z1                            | } 片側鋼板シールド付き<br>Shield on one side only  |                                      |
| F68<br>F69<br>F60<br>F62<br>F63  | フランジ付き<br>深溝玉軸受<br>Deep groove ball bearings with flanged outer rings  | 1X<br>:<br>2X<br>:                     | 軸受内径 1.2mm<br>もしくは 1.5mm<br>Bearing bore 1.2mm or 1.5mm<br>軸受内径 2.5mm<br>Bearing bore 2.5mm  | -H-                        | 軌道輪、転動体が<br>ステンレス鋼<br>Stainless steel SUS440C<br>Equivalent to SAE J405 51440C  | W<br>(省略)<br>(Omitted) | 鋼板打抜き冠形保持器<br>Pressed steel snap cage   | ZZ<br>ZZ1                          |  | } 両側鋼板シールド付き<br>Shield on both sides |
| MR<br>MF<br>MT                   | 特定寸法軸受<br>メートル系<br>Special metric design<br>単列深溝玉軸受<br>Single-row deep groove ball bearings<br>フランジ付き深溝玉軸受<br>Deep groove ball bearings with flanged outer rings<br>薄肉形深溝玉軸受<br>Thin-section deep groove ball bearings               | 84<br>:<br>148<br>:                    | 軸受外径 8mm<br>軸受内径 4mm<br>Brg O.D. 8mm<br>Brg bore 4mm<br>軸受外径 14mm<br>軸受内径 8mm<br>Brg O.D. 14mm<br>Brg bore 8mm   | S                          | 特定寸法軸受の<br>軌道輪、転動体が<br>ステンレス鋼<br>ただし、配列は<br>軸受系列記号の<br>前に置く。<br>Stainless steel for special metric and inch designs<br>"S" is prefix to series symbol | T12<br>T1X             | プラスチック保持器<br>Plastic snap cage          | D<br>:<br>DD<br>:<br>V<br>:<br>VV  | 片側接触<br>ゴムシール付き<br>Contact rubber seal on one side only<br>両側接触<br>ゴムシール付き<br>Contact rubber seals on both sides<br>片側非接触<br>ゴムシール付き<br>Non-contact rubber seal on one side only<br>両側非接触<br>ゴムシール付き<br>Non-contact rubber seals on both sides |                                      |
| R<br>RW<br>FRW                   | インチ系<br>単列深溝玉軸受<br>Inch design single-row deep groove ball bearings<br>内輪広幅形<br>深溝玉軸受<br>Deep groove ball bearings with extended inner rings<br>フランジ付き内輪<br>広幅形深溝玉軸受<br>Deep groove ball bearings with extended inner rings, flanged | 133<br>:<br>155<br>:<br>2<br>:         | 軸受外径 4.762mm<br>(3/16 インチ)<br>軸受内径 2.380mm<br>(3/32 インチ)<br>Brg O.D. 4.762mm<br>(3/16inch)<br>Brg bore 2.380mm<br>(3/32inch)<br>軸受外径 7.938mm<br>(5/16 インチ)<br>軸受内径 3.967mm<br>(5/32 インチ)<br>Brg O.D. 7.938mm<br>(5/16inch)<br>Brg bore 3.967mm<br>(5/32inch)<br>軸受外径 9.525mm<br>(3/8 インチ)<br>軸受内径 3.175mm<br>(1/8 インチ)<br>Brg O.D. 9.525mm<br>(3/8inch)<br>Brg bore 3.175mm<br>(1/8inch) |                            |   |                        |   |                                    |  |                                      |

(例) Examples of bearing numbers

|     |      |       |     |     |     |     |    |     |     |                        |                        |
|-----|------|-------|-----|-----|-----|-----|----|-----|-----|------------------------|------------------------|
| (1) | 681X |       | T12 | ZZ  | MC3 | ER  | P4 | AF2 | Q   | → 681XT12ZZMC3ERP4AF2Q |                        |
| (2) | 624  | -H-   |     | ZZ  | MC2 |     | P5 | NS7 | L   | → 624-H-ZZMC2P5NS7L    |                        |
| (3) | MR84 |       | J   | ZZ  | MC3 |     | P5 | PS2 | S   | → MR84JZZMC3P5PS2S     |                        |
| (4) | S    | MF148 |     | T12 | DD  | MC4 |    | P5  | NS7 | L                      | → SMF148T12DDMC4P5NS7L |
| (5) | S    | R2    |     | J   | ZZ  | MC3 | E  | 7P  | LG2 | K                      | → SR2JZZMC3E7PLG2K     |

| 補助記号 Supplementary symbols           |  |                            |                |  |                                  |                          |  |                                    |                          |  |  |  |   |
|--------------------------------------|--|----------------------------|----------------|--|----------------------------------|--------------------------|--|------------------------------------|--------------------------|--|--|--|---|
| 内部すきま記号<br>Internal clearance symbol |  | 音響記号<br>Noise level symbol |                | 精度記号<br>Accuracy class symbol  |                                  | 潤滑記号<br>Lubricant symbol |  | 潤滑量記号<br>Lubricant quantity symbol |                          |  |  |  |   |
| 記号<br>Number                         | 内容<br>Meaning                                | 記号<br>Number               | 内容<br>Meaning  | 記号<br>Number   | 内容<br>Meaning                    | 記号<br>Number             | 内容<br>Meaning  | 記号<br>Number                       | 内容<br>Meaning            |  |  |  |   |
| MC1                                  | MC2 すきまより小<br>Clearance less than MC2        | 省略<br>Omitted              | 標準<br>Standard | 省略<br>Omitted  | JIS 0 級<br>Normal                | AF2                      | オイル<br>Oil   | Q                                  | 潤滑油<br>浸漬<br>Oil soaking |  |  |  |   |
|                                      | MC3 すきまより小<br>Clearance less than MC3        |                            | E              |  | 標準より低騒音<br>Quieter than standard |                          | P5   |                                    | JIS 5 級<br>CLASS 5       | NS7  | 広温度範囲グリース<br>Wide temperature range grease               | K  | グリース封入量<br>L より少ない<br>Grease packed less than L |
|                                      | MC3 標準的なすきま<br>Upgrade normal clearance      |                            | ER             |  | E より低騒音<br>Quieter than E        |                          | P4   |                                    | JIS 4 級<br>CLASS 4       | PS2  | 低温、<br>低トルクグリース<br>Low temperature,<br>Low torque grease | L  | グリース封入量<br>S より少ない<br>Grease packed less than S |
|                                      | MC4 MC3 すきまより大<br>Clearance greater than MC3 |                            |                |  | 省略<br>Omitted                    |                          | ANSI/ABMA<br>ABEC1   |                                    | MLS                      | 高温、高速用グリース<br>High temperature,<br>High speed grease | S  | グリース標準封入量<br>Standard grease packing quantity  |   |
|                                      | MC5 MC4 すきまより大<br>Clearance greater than MC4 |                            |                |  | 5P                               |                          | ANSI/ABMA<br>計器用精密玉軸受<br>Instrument ball bearings<br>inch design<br>CLASS 5P |                                    | ECE                      | 導電性グリース<br>Conductive grease                         | H  | グリース封入量<br>S より多い<br>Grease packed more than S |   |
|                                      | MC6 MC5 すきまより大<br>Clearance greater than MC5 |                            |                |  | 7P                               |                          | ANSI/ABMA<br>計器用精密玉軸受<br>Instrument ball bearings<br>inch design<br>CLASS 7P |                                    | LG2                      | 低発塵グリース<br>Low refuse grease                         | M  | グリース封入量<br>H より多い<br>Grease packed more than H |   |
|                                      |  |                            | 9P             | ANSI/ABMA<br>計器用精密玉軸受<br>Instrument ball bearings<br>inch design<br>CLASS 9P |                                  |                          |  |                                    |                          |  |  |  |   |

選定に際しては ISC にご相談ください。  
When selecting these specifications,  
please consult ISC.