

## MODULAR RATIOS AND ASSEMBLIES

At AutoGear, the part numbers for modular countershaft Gearboxes, Gearbox Kits, and Gearsets all contain three digit 'Ratio Codes' (charted below).



### RATIO CODES FOR GEARBOXES, GEARBOX KITS, AND GEARSETS

| M23 RATIOS      | 4TH GEAR | 3RD GEAR | 2ND GEAR | 1ST GEAR (1)  |
|-----------------|----------|----------|----------|---------------|
| 314             | 1.000    | 1.729    | 2.225    | 2.984 (2.994) |
| 324             | 1.000    | 1.593    | 2.225    | 2.984 (2.994) |
| 334             | 1.000    | 1.468    | 2.225    | 2.984 (2.994) |
| 344             | 1.000    | 1.353    | 2.225    | (-2.994)      |
| 315             | 1.000    | 1.729    | 2.043    | 2.984 (2.994) |
| 325             | 1.000    | 1.593    | 2.043    | 2.984 (2.994) |
| 335 (3) M23Z    | 1.000    | 1.468    | 2.043    | 2.984 (2.994) |
| 345             | 1.000    | 1.353    | 2.043    | (-2.994)      |
| 316             | 1.000    | 1.729    | 1.879    | (-2.994)      |
| 326             | 1.000    | 1.593    | 1.879    | (-2.994)      |
| 336             | 1.000    | 1.468    | 1.879    | (-2.994)      |
| 346             | 1.000    | 1.353    | 1.879    | (-2.994)      |
| 214             | 1.000    | 1.483    | 1.908    | 2.559 (2.568) |
| 224 (2) (3)     | 1.000    | 1.366    | 1.908    | 2.559 (2.568) |
| 234             | 1.000    | 1.259    | 1.908    | 2.559 (2.568) |
| 244             | 1.000    | 1.160    | 1.908    | (-2.568)      |
| 215             | 1.000    | 1.483    | 1.752    | 2.559 (2.568) |
| 225 M23W        | 1.000    | 1.366    | 1.752    | 2.559 (2.568) |
| 235             | 1.000    | 1.259    | 1.752    | 2.559 (2.568) |
| 245             | 1.000    | 1.160    | 1.752    | (-2.568)      |
| 216             | 1.000    | 1.483    | 1.611    | (-2.568)      |
| 226             | 1.000    | 1.366    | 1.611    | (-2.568)      |
| 236             | 1.000    | 1.259    | 1.611    | (-2.568)      |
| 246             | 1.000    | 1.160    | 1.611    | (-2.568)      |
| 114 M23 (2) (3) | 1.000    | 1.274    | 1.640    | 2.199 (2.207) |
| 124             | 1.000    | 1.174    | 1.640    | 2.199 (2.207) |
| 134             | 1.000    | 1.082    | 1.640    | 2.199 (2.207) |
| 144             | 1.000    | 0.997    | 1.640    | (-2.207)      |
| 115             | 1.000    | 1.274    | 1.506    | 2.199 (2.207) |
| 125 M23X        | 1.000    | 1.174    | 1.506    | 2.199 (2.207) |
| 135             | 1.000    | 1.082    | 1.506    | 2.199 (2.207) |
| 145             | 1.000    | 0.997    | 1.506    | (-2.207)      |
| 116             | 1.000    | 1.274    | 1.385    | (-2.207)      |
| 126             | 1.000    | 1.174    | 1.385    | (-2.207)      |
| 136             | 1.000    | 1.082    | 1.385    | (-2.207)      |
| 146             | 1.000    | 0.997    | 1.385    | (-2.207)      |

Notes:

- (1) M22 and M23 ratios differ in 1st gear only, the latter shown in parenthesis.
- (2) SCCA 'American Sedan' approved gearsets.
- (3) This gearset offers nearly identical RPM drops between gears, so-called 'Geometric' spacing.

## MODULAR RATIOS AND ASSEMBLIES



Prefixes ('Product Codes') tell us whether the item is a:

**Gearbox** ('18- 000-')  
**Gearbox kit** ('18-400-')  
**Gearset** ('18-410-')

For example, '18-000-122' is a complete M22X gearbox, '18-400-222' is an unassembled M22W Gearbox kit, and '18-410-332' is an M22Z Gearset.

Suffixes ('Option Codes') refine the specification. There are two sets, one for Gearboxes and Gearbox kits, and a second for Gearsets.

### OPTION CODES FOR GEARBOXES AND GEARBOX KITS

| GEARBOX OPTION CODE | INPUT SPLINE | OUTPUT SPLINE | ROLLER 1ST |
|---------------------|--------------|---------------|------------|
| NO X-CODE USED      | 26 OILSEAL   | 32            | YES        |
| -1X                 | 26 NUT       | 32            | YES        |
| -2X                 | 26 OILSEAL   | 27            | YES        |
| -3X                 | 26 NUT       | 27            | YES        |
| -4X                 | 10 NUT       | 32            | YES        |
| -6X                 | 10 NUT       | 27            | YES        |
| -8X                 | 26 OILSEAL   | 32            | NO         |
| -9X                 | 26 NUT       | 32            | NO         |
| -10X                | 26 OILSEAL   | 27            | NO         |
| -11X                | 26 NUT       | 27            | NO         |
| -12X                | 10 NUT       | 32            | NO         |
| -14X                | 10 NUT       | 27            | NO         |

### OPTION CODES FOR GEARSETS

| GEARSET OPTION CODE | INPUT SPLINE | ROLLER 1ST |
|---------------------|--------------|------------|
| NO X-CODE USED      | 10 NUT       | NO         |
| -1X                 | 10 NUT       | YES        |
| -2X                 | 26 OILSEAL   | NO         |
| -3X                 | 26 OILSEAL   | YES        |
| -4X                 | 26 NUT       | NO         |
| -5X                 | 26 NUT       | YES        |



# UNIT COUNTERSHAFT GEARBOXES AND GEARSETS



Prefixes ('Product Codes') tell us whether the item is a:

**Gearbox** ('18-000-'),  
**Gearbox kit** ('18-400-1')  
**Gearset** ('18-410-1')

For example, '18-000-003' is a complete M22X gearbox, '18-400-002' is an unassembled M22W Gearbox kit, and '18-410-033' is an M22Z Gearset.

Suffixes ('Option Codes') refine the specification. There are two sets, one for Gearboxes and Gearbox kits, and a second for Gearsets.

## OPTION CODES FOR GEARBOXES AND GEARBOX KITS

| GEARBOX OPTION CODE | INPUT SPLINE | OUTPUT SPLINE | ROLLER 1ST |
|---------------------|--------------|---------------|------------|
| NO X-CODE USED      | 26 OILSEAL   | 32            | YES        |
| -1X                 | 26 NUT       | 32            | YES        |
| -2X                 | 26 OILSEAL   | 27            | YES        |
| -3X                 | 26 NUT       | 27            | YES        |
| -4X                 | 10 NUT       | 32            | YES        |
| -6X                 | 10 NUT       | 27            | YES        |
| -8X                 | 26 OILSEAL   | 32            | NO         |
| -9X                 | 26 NUT       | 32            | NO         |
| -10X                | 26 OILSEAL   | 27            | NO         |
| -11X                | 26 NUT       | 27            | NO         |
| -12X                | 10 NUT       | 32            | NO         |
| -14X                | 10 NUT       | 27            | NO         |

## OPTION CODES FOR GEARSETS

| GEARSET OPTION CODE | INPUT SPLINE | ROLLER 1ST |
|---------------------|--------------|------------|
| NO X-CODE USED      | NUT          | NO         |
| -1X                 | NUT          | YES        |
| -2X                 | OILSEAL      | NO         |
| -3X                 | OILSEAL      | YES        |

## UNIT COUNTERSHAFT GEARBOXES AND GEARSETS

At AutoGear, the part numbers for unit countershaft Gearboxes, Gearbox Kits, and Gearsets all contain three digit 'Ratio Codes' (charted below).



### RATIO CODES FOR GEARBOXES, GEARBOX KITS AND GEARSETS

| COMMON NAME | MAIN DRIVE SPLINES | GEAR BOX | GEAR SET | 4TH GEAR | 3RD GEAR | 2ND GEAR | 1ST GEAR |
|-------------|--------------------|----------|----------|----------|----------|----------|----------|
| M22Z        | 10                 | 008      | 033      | 1.000    | 1.468    | 2.043    | 2.984    |
| M22Z        | 26                 | 008      | 034      | 1.000    | 1.468    | 2.043    | 2.984    |
| M22W        | 10                 | 002      | 007      | 1.000    | 1.366    | 1.752    | 2.559    |
| M22W        | 26                 | 002      | 008      | 1.000    | 1.366    | 1.752    | 2.559    |
| M22         | 10                 | 001      | 003      | 1.000    | 1.274    | 1.640    | 2.199    |
| M22         | 26                 | 001      | 004      | 1.000    | 1.274    | 1.640    | 2.199    |
| M20         | 10                 | 004      | 009      | 1.000    | 1.461    | 1.880    | 2.521    |
| M20         | 26                 | 004      | 011      | 1.000    | 1.461    | 1.880    | 2.521    |

