# **Muncie Transmission Information**

## Ratios that were available

| Model | Application | Input spline | Counter shaft OD | 1 <sup>st</sup> gear ratio | 2 <sup>nd</sup> gear ratio | 3 <sup>rd</sup> gear ratio | 4 <sup>th</sup> gear |
|-------|-------------|--------------|------------------|----------------------------|----------------------------|----------------------------|----------------------|
| M20   | 1963-65     | 10           | 7/8" only        | 2.56                       | 1.91                       | 1.48                       | 1.00                 |
| M20   | 1965-74     | 10 or 26     | 1" only          | 2.52                       | 1.88                       | 1.46                       | 1.00                 |
| M21   | 1963-65     | 10 or 26     | 7/8" only        | 2.20                       | 1.64                       | 1.28                       | 1.00                 |
| M21   | 1965-1974   | 10 or 26     | 1" only          | 2.20                       | 1.64                       | 1.28                       | 1.00                 |
| M22   | 1967-1974   | 10 or 26     | 1" only          | 2.20                       | 1.64                       | 1.28                       | 1.00                 |

### **Muncie information**

## Case casting numbers

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Casting #: 3831704
                                         7/8" Counter shaft pin (207 input bearing)
                    Years: 1963 Only
Casting #: 3839606
                    Years: 1963 - 1964
                                         7/8" Counter shaft pin
                                         7/8" Counter shaft pin
Casting #: 3851325
                    Years: 1964 - 1965
                                         7/8" Counter shaft pin
Casting #: 3864848
                    Years: 1965 only
Casting #: 3864_
                    Years: 1965 only
                                         7/8" Counter shaft pin (last 3 digits milled off)
Casting #: 3885010
                    Years: 1965 - 1967
                                          1"
                                              Counter shaft pin
                                          1"
Casting #: 3925660
                    Years: 1968 - 1970
                                              Counter shaft pin
Casting #: 3925661
                    Years: 1970 - 1974
                                          1"
                                              Counter shaft pin (used in some early 1975 cars)
                                  Ratios of the M20, M21, M22
Year 1963-1965
                                              Ratio: 2.56 / 1.91 / 1.48 / 1.00 / 3.16
                  Type: M20
                               Rings: None
Year 1966-1974
                  Type: M20
                               Rings: Two
                                              Ratio: 2.52 / 1.88 / 1.46 / 1.00 / 3.11
Year 1963-1974
                                              Ratio: 2.20 / 1.64 / 1.28 / 1.00 / 2.27
                  Type: M21
                               Rings: One
Year 1967-1974
                  Type: M22
                               Rings: None
                                             Ratio: 2.20 / 1.64 / 1.28 / 1.00 / 2.27
                        Input Shaft Tooth and Spline Count Related to Year
Year 1963-1965
                                                 Spline: 10
                                                                 Tooth Count: 24
                   Type: M20
                                 Rings: None
Year 1966-1970
                   Type: M20
                                 Rings: Two
                                                  Spline: 10
                                                                 Tooth Count: 21
                                 Rings: Two
                                                  Spline: 26
Year 1970-1974
                   Type: M20
                                                                 Tooth Count: 21
Year 1963-1970
                   Type: M21
                                 Rings: One
                                                 Spline: 10
                                                                 Tooth Count: 26
Year 1970-1974
                   Type: M21
                                 Rings: One
                                                 Spline: 26
                                                                 Tooth Count: 26
Year 1967-1970
                   Type: M22
                                 Rings: None
                                                 Spline: 10
                                                                 Tooth Count: 26
Year 1969-1974
                   Type: M22
                                 Rings: None
                                                 Spline: 26
                                                                 Tooth Count: 26
```

#### **Important Notes**

Some input shafts produced by General Motors and After-market Company's have no identifying rings on them. The rings originally corresponded with rings or grooves on the cluster gear so that the assembler matched a one or two ring input with a one or two ring cluster. When regular production was stopped in 1974, GM stopped making inputs with these marks, possibly to save machining costs. Tail housing casting numbers 3857584 (1966-1970 27 spline tails) and 3978764 (1970-1974 32 spline tails) had passenger side speedometer outputs, all others used drivers side speedometer outputs. All 32 spline tails had the passenger side speedometer output.

#### **Serial and VIN Numbers**

Serial numbers on the Muncie 4 speeds begin with the letter "P". The serial number includes a date code of when the transmission was assembled. Serial numbers from 1963 to 1966 included just the month and day. P0101 would indicate January 1st. From 1967 to 1968 the serial number got a year designator and a letter designator for the month such as P7D27, meaning April 27 for the 1967 model year. One thing to remember, if you have a Muncie dated with a September to December build date, the transmission was actually assembled the prior year. An example would be the date code P9R12C, this is for a 1969 production car, the R stands for October and 12 stands for the day. This means this Muncie was assembled October 12, 1968 for the 1969 model year. 1969 to 1974 Muncie's got a ratio designator at the end of the serial number. Another example is P4K31B, this works out to be July 31, 1974, M21 ratio.

| Month     | Code | Chart |
|-----------|------|-------|
| 111011111 | Couc | CHALL |

| January  | Letter: A | Mav    | Letter: E | September | Letter: P | Ratio Code Chart |           |  |
|----------|-----------|--------|-----------|-----------|-----------|------------------|-----------|--|
| February | Letter: B | -      | Letter: H | -         | Letter: R | Letter: A        | M20 Ratio |  |
| March    | Letter: C |        | Letter: K |           | Letter: S | Letter: B        | M21 Ratio |  |
| April    | Letter: D | August | Letter: M | December  | Letter: T | Letter: C        | M22 Ratio |  |