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| ASIA        |      |                                 |         |           |              |          |                   |           |               |
|-------------|------|---------------------------------|---------|-----------|--------------|----------|-------------------|-----------|---------------|
| Engine Type | C.C. | Vehicle Model & Chassis Type    | Cyl.No. | Posi-tion | Size(mm) D×B | Material | Surface Treatment | Ring Type | Part NO.      |
| CD800 JADE  | 800  | Towner                          | 3       | 1         | 70×1.2       | ST       | N                 | B-IW      | AA100-11-120  |
|             |      |                                 |         | 2         | 70×1.5       | ACI      | P                 | NM        |               |
|             |      |                                 |         | 0         | 70×2.8       | ST       | N                 | SLF       |               |
| SH3.6L      |      | TRADE FRONTIER2.5               | 4       | 1         | 100X2.0      | ST       | N                 | B         | K4Y1-11-SCO   |
|             |      |                                 |         | 2         | 100X2.0      | ACI      | P                 | IW        |               |
|             |      |                                 |         | O         | 100X3.0      | ST       | N                 | FM        |               |
| EM100       | 9419 |                                 | 6       | 1         | 124×2.806    | ST       | Cr1               | T-B       | EA1522-2010AS |
|             |      |                                 |         | 2         | 124×2.5      | ACI      | Cr1               | IW        |               |
|             |      |                                 |         | 3         | 124×3.0      | ACI      | Cr1               | IWU       |               |
|             |      |                                 |         | 0         | 124×5.0      | ST       | N                 | FM        |               |
| DAIHATSU    |      |                                 |         |           |              |          |                   |           |               |
| Engine Type | C.C. | Vehicle Model & Chassis Type    | Cyl.No. | Posi-tion | Size(mm) D×B | Material | Surface Treatment | Ring Type | Part NO.      |
| EB          | 547  | Mira                            |         | 1         | 62×1.2       | ACI      | Cr1               | R         | 130121-87206  |
|             |      |                                 |         | 2         | 62×1.5       | ACI      | P                 | R         |               |
|             |      |                                 |         | O         | 62×2.8       | ST       | Cr1               | SLF       |               |
| EF          | 660  | Kancil Rusa Charade             | 3       | 1         | 68×1.2       | ACI      | Cr1               | R         | 13011-87E02   |
|             |      |                                 |         | 2         | 68×1.5       | ACI      | P                 | R         |               |
|             |      |                                 |         | O         | 68×2.8       | ST       | Cr1               | SLF       |               |
| CB          | 993  | Charade G10 EG10 CB10 CB20 CB50 | 3       | 1         | 76×1.5       | ACI      | Cr1               | R         | 13011-87701   |
|             |      |                                 |         | 2         | 76×1.5       | ACI      | P                 | R         |               |
|             |      |                                 |         | O         | 76×2.8       | ST       | Cr1               | SLF       |               |
| DAEWOO      |      |                                 |         |           |              |          |                   |           |               |

| Engine Type     | C.C. | Vehicle Model & Chassis Type    | Cyl.No. | Posi-tion | Size(mm) D×B | Mate-rial | Surface Treatment | Ring Type | Part NO.      |
|-----------------|------|---------------------------------|---------|-----------|--------------|-----------|-------------------|-----------|---------------|
| 3EA YSE F6B     | 600  | Tico Matiz                      | 3       | 1         | 68.5×1.2     | ST        | N                 | B         | 12141-78B00   |
|                 |      |                                 |         | 2         | 68.5×1.5     | ACI       | P                 | M         |               |
|                 |      |                                 |         | 0         | 68.5×2.8     | ST        | N                 | SLF       |               |
| SOHC DOHC       | 1500 | Leman 1.5L Lanos Espresso Cielo | 4       | 1         | 76.5×1.5     | ACI       | Gr                | B         | NP960         |
|                 |      |                                 |         | 2         | 76.5×1.5     | ACI       | Fe                | NM        | 0.25:NP1015   |
|                 |      |                                 |         | O         | 76.5×3.0     | ST        | Cr                | SLF       | 0.50:NP1016   |
| 2848T           |      |                                 | 8       | 1         | 128×3.306    | DCI       | Cr                | B         | 65.02503-8252 |
|                 |      |                                 |         | 2         | 128×3.306    | ACI       | Cr                | NM        |               |
|                 |      |                                 |         | 0         | 128×5.0      | ACI       | Cr                | DSF       |               |
| HYUNDAI         |      |                                 |         |           |              |           |                   |           |               |
| Engine Type     | C.C. | Vehicle Model & Chassis Type    | Cyl.No. | Posi-tion | Size(mm) D×B | Material  | Surface Treatment | Ring Type | Part NO.      |
| H100 D4BA T-ENG | 2500 | Porter                          | 4       | 1         | 91.1×2.0     | ST        | N                 | B         | 23040-42200   |
|                 |      |                                 |         | 2         | 91.1×2.0     | ACI       | Cr1               | M         |               |
|                 |      |                                 |         | 0         | 91.1×3.0     | ST        | N                 | FM        |               |
| D4BF M-CAR      |      |                                 | 4       | 1         | 91.1×2.49    | ST        | N                 | ET-B      | 23040-42850   |
|                 |      |                                 |         | 2         | 91.1×1.94    | ACI       | Cr1               | ET-M      |               |
|                 |      |                                 |         | 0         | 91.1×4.0     | ST        | N                 | FM        |               |
| 1 TON (OLD)     |      |                                 | 4       | 1         | 91.1×2.5     | ST        | N                 | B         | 23040-42000   |
|                 |      |                                 |         | 2         | 91.1×2.0     | ACI       | P                 | M         |               |
|                 |      |                                 |         | 0         | 91.1×4.0     | ST        | N                 | FM        |               |
| H100            |      |                                 | 4       | 1         | 91.1×2.0     | ST        | N                 | B         | 23040-42210   |
|                 |      |                                 |         | 2         | 91.1×2.0     | ACI       | Cr1               | M         |               |
|                 |      |                                 |         | 0         | 91.1×3.0     | ST        | N                 | FM        |               |
| H3.5            |      |                                 | 4       | 1         | 100×3.0      | DCI       | Cr1               | T-B-IW    | 23040-41400   |
|                 |      |                                 |         | 2         | 100×2.0      | ACI       | Cr1               | IW        |               |
|                 |      |                                 |         | 0         | 100×4.0      | ST        | N                 | FM        |               |
| D4AF 3TON       |      |                                 | 4       | 1         | 100×3.0      | ST        | Cr1               | ET-B      | 23040-41060   |
|                 |      |                                 |         | 2         | 100×2.0      | ACI       | Cr                | IW        |               |
|                 |      |                                 |         | 0         | 100×5.0      | ST        | N                 | FM        |               |

|            |       |  |   |   |           |     |     |        |             |
|------------|-------|--|---|---|-----------|-----|-----|--------|-------------|
| D4AF       | 3567  |  | 4 | 1 | 104×3.0   | ST  | Cr1 | ET-B   | 23040-41200 |
|            |       |  |   | 2 | 104×2.0   | ACI | Cr1 | IW     |             |
|            |       |  |   | 0 | 104×4.0   | ST  | N   | FM     |             |
| D6BR 6D16  | 7545  |  | 6 | 1 | 118×3.0   | ST  | Cr1 | B      | 23040-93000 |
|            |       |  |   | 2 | 118×2.5   | ACI | Cr1 | IW     |             |
|            |       |  |   | 0 | 118×4.0   | ST  | N   | FM     |             |
| 6D22-OLD   | 11149 |  | 6 | 1 | 130×3.306 | ST  | Cr1 | T-B    | 23040-83000 |
|            |       |  |   | 2 | 130×3.0   | ACI | Cr1 | IW     |             |
|            |       |  |   | 0 | 130×6.0   | ACI | Cr1 | DSF/FM |             |
| 6D22 (NEW) | 11149 |  | 6 | 1 | 130×3.306 | ST  | Cr1 | T-B    | 23040-83030 |
|            |       |  |   | 2 | 130×3.0   | ACI | p   | IW     |             |
|            |       |  |   | 0 | 130×4.0   | ST  | N   | FM     |             |
| D8AX       | 16031 |  | 8 | 1 | 135×3.306 | DCI | Cr1 | T-B    | 23040-72020 |
|            |       |  |   | 2 | 135×3.0   | ACI | Cr1 | IW     |             |
|            |       |  |   | 3 | 135×3.0   | ACI | Cr1 | IWU    |             |
|            |       |  |   | 0 | 135×4.0   | ST  | Cr1 | FM     |             |
| 8DC-OLD    |       |  | 8 | 1 | 135×3.306 | DCI | Cr1 | T-B    | 23040-72000 |
|            |       |  |   | 2 | 135×3.0   | ACI | Cr1 | IW     |             |
|            |       |  |   | 3 | 135×3.0   | ACI | Cr1 | IWU    |             |
|            |       |  |   | 0 | 135×6.0   | ACI | Cr1 | FM     |             |

| HINO        |      |                              |         |           |              |          |                   |           |                          |
|-------------|------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|--------------------------|
| Engine Type | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size(mm) D×B | Material | Surface Treatment | Ring Type | Part NO.                 |
| W04D        | 4009 | Ranger 3.5T                  | 4       | 1         | 104×2.5      | DCI/ST.  | Cr1 P/Ox          | R-B       | 13011-1973<br>13011-2540 |
|             |      |                              |         | 2         | 104×2.0      | ACI      | P                 | IF        |                          |
|             |      |                              |         | O         | 104×5.0      | ACI/ST.  | Cr1/N             | DSF/FM    |                          |
| W06D        | 5759 | AC Rainbow                   | 6       | 1         | 104×2.5      | DCI/ST.  | Cr1 P/Ox          | R-B       | 13011-1983               |
|             |      |                              |         | 2         | 104×2.0      | ACI      | P                 | IF        |                          |
|             |      |                              |         | O         | 104×5.0      | ACI/ST.  | Cr1/N             | DSF/FM    |                          |

|          |      |                                                  |   |   |           |         |          |        |                           |
|----------|------|--------------------------------------------------|---|---|-----------|---------|----------|--------|---------------------------|
| HO6C-TA  | 6486 | Ranger 4.25T FD                                  | 6 | 1 | 108×2.806 | DCI/ST. | Cr1      | T-B    | 13011-1961                |
|          |      |                                                  |   | 2 | 108×2.5   | ACI     | P        | IF     |                           |
|          |      |                                                  |   | 3 | 108×2.5   | ACI     | Cr1      | B-IW   |                           |
|          |      |                                                  |   | O | 108×5.0   | ST.     | N        | FM     |                           |
| Ho7C     | 6443 | Ranger 4D Rangers5 Ranger 7D<br>Truck KLS D KP6D | 6 | 1 | 110×3.0   | DCI/ST. | Cr1 P/Ox | R-B    | 13011-2070A<br>13011-2090 |
|          |      |                                                  |   | 2 | 110×2.5   | ACI     | P        | IF     |                           |
|          |      |                                                  |   | 3 | 110×2.5   | ACI     | Cr1      | IWU    |                           |
|          |      |                                                  |   | O | 110×5.0   | ACI/ST. | Cr2 P/N  | DSF/FM |                           |
| Ho7CT    | 6728 | Ranger SD                                        | 6 | 1 | 110×2.806 | DCI     | Cr1      | T-B    | 13011-2672A               |
|          |      |                                                  |   | 2 | 110×2.0   | ACI     | Cr4      | IF     |                           |
|          |      |                                                  |   | 3 | 110×2.5   | ACI     | Cr1      | IWU    |                           |
|          |      |                                                  |   | O | 110×4.0   | ST.     | N        | FM     |                           |
| Jo7 Jo8C | 7961 |                                                  | 6 | 1 | 114×3.0   | DCI     | Cr1      | R-B    | 13011-2960A               |
|          |      |                                                  |   | 2 | 114×2.0   | ACI     | Cr4      | IF     |                           |
|          |      |                                                  |   | O | 114×4.0   | ST.     | Cr1      | FM     |                           |
| EP100    | 8821 | Supper Dolphin FN288 11.5T                       | 6 | 1 | 120×3.306 | DCI     | Cr1      | T-B    | 13011-2370A               |
|          |      |                                                  |   | 2 | 120×3.0   | ACI     | Cr1      | IW     |                           |
|          |      |                                                  |   | 3 | 120×2.5   | ACI     | Cr1      | IWU    |                           |
|          |      |                                                  |   | O | 120×5.0   | ST.     | N        | FM     |                           |
| EM100    | 9419 | Supper Dolphin FH228 8T                          | 6 | 1 | 124×2.806 | DCI/ST. | Cr1 Ox   | T-B    | 13011-1921                |
|          |      |                                                  |   | 2 | 124×3.0   | ACI     | Cr1      | IF     |                           |
|          |      |                                                  |   | 3 | 124×3.0   | ACI     | Cr1      | IWU    |                           |
|          |      |                                                  |   | O | 124×5.0   | ST.     | N        | FM     |                           |
| M10U     | 9880 | Bus Blue ribon HU                                | 6 | 1 | 127×3.306 | DCI     | Cr1      | T-B    | 13011-2250A               |
|          |      |                                                  |   | 2 | 127×3.0   | ACI     | Cr1      | IF     |                           |
|          |      |                                                  |   | 3 | 127×3.0   | ACI     | Cr1      | IWU    |                           |
|          |      |                                                  |   | O | 127×5.0   | ACI     | Cr1      | DSF    |                           |

|                     |       |                                                                            |   |   |           |         |          |        |                            |
|---------------------|-------|----------------------------------------------------------------------------|---|---|-----------|---------|----------|--------|----------------------------|
| EF500 EG100         | 14886 | Trck/KB500D KS320 ZM102<br>TC541<br>Bus/RV530P 550P<br>Tractor/WG300 HF350 | 8 | 1 | 135×3.306 | DCI/ST. | Cr1 P/Ox | T-B    | 13011-1131                 |
|                     |       |                                                                            |   | 2 | 135×3.5   | ACI     | P        | IF     |                            |
|                     |       |                                                                            |   | 3 | 135×3.5   | ACI     | Cr1      | IWU    |                            |
|                     |       |                                                                            |   | O | 135×6.0   | ACI     | Cr1      | DSF    |                            |
| EF550               | 16250 | Truck FS,FR,FN,SH,RU                                                       | 8 | 1 | 135×3.306 | DCI     | Cr1      | T-B    | 13011-2700<br>13011-2010A  |
|                     |       |                                                                            |   | 2 | 135×3.5   | ACI     | Cr4/P    | IW     |                            |
|                     |       |                                                                            |   | 3 | 135×3.5   | ACI     | Cr1      | B1-TUC |                            |
|                     |       |                                                                            |   | O | 135×5.0   | ACI/ST. | Cr1      | DSF/FM |                            |
| K13C                | 12882 | Truck Ranger<br>Super Dolphine<br>PROFIA                                   | 6 | 1 | 135×3.306 | DCI     | Cr1      | T-B    | 13011-3090A                |
|                     |       |                                                                            |   | 2 | 135×3.5   | ACI     | Cr4/P    | IW     |                            |
|                     |       |                                                                            |   | 3 | 135×3.5   | ACI     | Cr1      | B1-TUC |                            |
|                     |       |                                                                            |   | O | 135×5.0   | ACI/ST. | Cr1      | DSF/FM |                            |
| EK100 EK200 EK130-T | 13267 | Truck TC303D KF301D<br>ZM103D KB501D<br>KS321                              | 6 | 1 | 137×3.306 | DCI     | Cr1      | T-B    | 13011-1011                 |
|                     |       |                                                                            |   | 2 | 137×3.5   | ACI     | P        | IW     |                            |
|                     |       |                                                                            |   | 3 | 137×3.5   | ACI     | Cr1      | B1-TUC |                            |
|                     |       |                                                                            |   | O | 137×6.0   | ACI     | Cr1      | DSF    |                            |
| EF750               | 15920 | Tractor HE HH TC                                                           | 8 | 1 | 137×3.306 | DCI     | Cr1      | T-B    | 13011-1121                 |
|                     |       |                                                                            |   | 2 | 137×3.5   | ACI     | P        | IW     |                            |
|                     |       |                                                                            |   | 3 | 137×3.5   | ACI     | Cr1      | B1-TUC |                            |
|                     |       |                                                                            |   | O | 137×6.0   | ACI     | Cr1      | DSF    |                            |
| F17C F17E           | 17238 | FS. FR. RU FN. FW. SH                                                      | 8 | 1 | 139×3.306 | DCI     | Cr1      | T-B    | 13011-2810A<br>13011-3150A |
|                     |       |                                                                            |   | 2 | 139×3.5   | ACI     | Cr1      | IF     |                            |
|                     |       |                                                                            |   | 3 | 139×3.5   | ACI     | Cr1      | B1-TUC |                            |
|                     |       |                                                                            |   | O | 139×5.0   | ACI/ST. | Cr1      | DSF/FM |                            |
| F20C                | 19688 | Ranger Truck Super dolphin<br>PROFIA: FS                                   | 8 | 1 | 146×3.306 | DCI     | Cr1      | T-B    | 13011-2792A                |
|                     |       |                                                                            |   | 2 | 146×3.5   | ACI     | Cr1      | IF     |                            |
|                     |       |                                                                            |   | 3 | 146×3.5   | ACI     | Cr1      | IF     |                            |
|                     |       |                                                                            |   | O | 146×5.0   | ST.     | Cr1      | FM     |                            |
| ISUZU               |       |                                                                            |   |   |           |         |          |        |                            |

| Engine Type    | C.C.      | Vehicle Model & Chassis Type                                                          | Cyl.No. | Posi-tion | Size(mm) D×B | Material | Surface Treatment | Ring Type | Part NO.                       |
|----------------|-----------|---------------------------------------------------------------------------------------|---------|-----------|--------------|----------|-------------------|-----------|--------------------------------|
| C190           | 1951      | Elf 150 For Chromared Liner                                                           | 4       | 1         | 86×2.5       | ACI      | P                 | M         | 8-94104-949-0                  |
|                |           |                                                                                       |         | 2         | 86×2.0       | ACI      | P                 | NM        |                                |
|                |           |                                                                                       |         | O         | 86×5.0       | ACI      | CR1               | SSF       |                                |
| C240           | 2369      | ELF 250 For Chromed Liner                                                             | 4       | 1         | 86×2.5       | ACI      | Cr3               | M         | 5-12121-021-0                  |
|                |           |                                                                                       |         | 2         | 86×2.0       | ACI      | P                 | NM        |                                |
|                |           |                                                                                       |         | O         | 86×5.0       | ACI      | CR1               | SSF       |                                |
| C223           | 2238      | Rodio Bighorn For Cromed Liner                                                        | 4       | 1         | 88×2.0       | ACI      | P                 | R-B       | 8-94253-736-0                  |
|                |           |                                                                                       |         | 2         | 88×2.0       | ACI      | P                 | NM        |                                |
|                |           |                                                                                       |         | O         | 88×4.0       | ACI      | CR1               | DSF       |                                |
| 4JA-1 4JB-1    | 2771      | Truck Elf 150                                                                         | 4       | 1         | 93×2.0       | ACI      | P                 | R(B)      | 8-94247-867-1                  |
|                |           |                                                                                       |         | 2         | 93×2.0       | ACI      | P                 | NM        |                                |
|                |           |                                                                                       |         | O         | 93×4.0       | ACI      | ICR               | DSF       |                                |
| 4BA1           | 2775      | Elf TLD34,44.54 TLD26.64                                                              | 4       | 1         | 98×2.0       | ACI      | Cr3               | R-B       | 5-12181-025-0                  |
|                |           |                                                                                       |         | 2         | 98×2.0       | ACI      | P                 | NM        |                                |
|                |           |                                                                                       |         | O         | 98×4.0       | ACI      | CR1               | DSF       |                                |
| 4BB1 4BD1 4BC1 | 3595 3268 | Elf Journey                                                                           | 4       | 1         | 102×3.0      | ACI      | Cr3               | M         | 5-12181-024-1<br>5-12121-004-0 |
|                |           |                                                                                       |         | 2         | 102×2.5      | ACI      | P                 | NM        |                                |
|                |           |                                                                                       |         | O         | 102×5.0      | ACI      | ICR               | DSF       |                                |
| 6BB1 6BD1      | 5393      | Truck<br>SBR320,380.400 450,500.680<br>JBR FBR370 YBR360 310<br>Tractor VBR320 VBR322 | 6       | 1         | 102×3.0      | ACI      | Cr3               | M         | 5-12181-023-2                  |
|                |           |                                                                                       |         | 2         | 102×2.5      | ACI      | P                 | NM        |                                |
|                |           |                                                                                       |         | O         | 102×5.0      | ACI      | CR1               | DSF       |                                |
| 4BE1 6BF1      | 3636 6130 | Elf 2T Forward                                                                        | 4<br>6  | 1         | 105×3.0      | ACI      | Cr3               | R-B       | 8-94418-918-0<br>5-12121-006-0 |
|                |           |                                                                                       |         | 2         | 105×2.5      | ACI      | P                 | NM        |                                |
|                |           |                                                                                       |         | O         | 105×5.0      | ACI      | ICR               | DSF       |                                |
| 6BG1 4BG1      | 6494 4329 | Forward (FRS12) Elf                                                                   | 4<br>6  | 1         | 105×3.0      | ACI      | Cr3               | R-B       | 1-12121-065-0<br>8-97123-833-0 |
|                |           |                                                                                       |         | 2         | 105×2.5      | ACI      | P                 | NM        |                                |
|                |           |                                                                                       |         | O         | 105×4.0      | ACI      | Cr4               | DSF       |                                |

|                       |             |                              |         |           |              |          |                   |           |                                             |
|-----------------------|-------------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|---------------------------------------------|
| 4HF1                  | 4334        | Truck Elf                    | 4       | 1         | 112×3.0      | DCI      | Cr4               | R         | 8-97028-691-0                               |
|                       |             |                              |         | 2         | 112×2.5      | ACI      | Cr1               | NM        |                                             |
|                       |             |                              |         | O         | 112×4.0      | ST.      | N                 | FM        |                                             |
| 4HF1                  | 4334        | Elf NPR66                    | 4       | 1         | 112×3.0      | ST.      | Cr1               | ET-B      | 8-97109-462-0                               |
|                       |             |                              |         | 2         | 112×2.5      | ACI      | Cr1               | NM        |                                             |
|                       |             |                              |         | O         | 112×4.0      | ST.      | N                 | FM        |                                             |
| 8PA1                  | 9971        | Truck SKS390 SKW520          | 8       | 1         | 115×3.0      | DCI      | Cr4               | R-B       | 1-12181-060-0                               |
|                       |             |                              |         | 2         | 115×2.5      | ACI      | Cr1               | NM        |                                             |
|                       |             |                              |         | O         | 115×6.0      | ACI      | Cr1               | DSF       |                                             |
| 10PA1                 | 12464       | Truck Bus SRZ440 CRA650      | 10      | 1         | 115×3.0      | DCI      | Cr4               | R-B       | 12181-016/CYL                               |
|                       |             |                              |         | 2         | 115×2.5      | ACI      | Cr1               | NM        |                                             |
|                       |             |                              |         | O         | 115×6.0      | ACI      | Cr1               | DSF       |                                             |
| 12PA1                 | 14957       | Truck VTR300 VRZ440 VTR290   | 12      | 1         | 115×3.0      | DCI      | Cr4               | R-B       | 12181-016/CYL                               |
|                       |             |                              |         | 2         | 115×2.5      | ACI      | Cr1               | NM        |                                             |
|                       |             |                              |         | O         | 115×6.0      | ACI      | Cr1               | DSF       |                                             |
| 6SA-1 6SA-T           | 8413        | Truck Forward 200PS          | 6       | 1         | 115×3.0      | ACI      | Cr4               | R         | 1-12121-070-0                               |
|                       |             |                              |         | 2         | 115×2.5      | ACI      | Cr1               | NM        |                                             |
|                       |             |                              |         | O         | 115×4.0      | ACI      | Cr1               | DSF       |                                             |
| 6SD1 6SD1TC           | 9839        | Forward CXG23                | 6       | 1         | 120×3.5      | ACI      | Cr4               | R         | 1-12121-077-0                               |
|                       |             |                              |         | 2         | 120×2.5      | ACI      | Cr1               | NM        |                                             |
|                       |             |                              |         | O         | 120×5.0      | ST.      | Cr                | FM        |                                             |
| 6RA1,2 6RB1,2<br>6RBX | 12023 13741 | Truck SHM.CXM                | 6       | 1         | 135×4.0      | DCI      | Cr1.              | R         | 1-12121-037(6RA1,B1)<br>1-12121-087-2(6RBX) |
|                       |             |                              |         | 2         | 135×2.5      | ACI      | Cr1               | NM        |                                             |
|                       |             |                              |         | O         | 135×5.0      | ACI      | Cr                | DSF       |                                             |
| KIA                   |             |                              |         |           |              |          |                   |           |                                             |
| Engine Type           | C.C.        | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size(mm) D×B | Material | Surface Treatment | Ring Type | Part NO.                                    |
| B1 (UNLEADED)         | 1000        | `86 Pride 1100 POP           | 4       | 1         | 68×1.2       | ST       | Cr1               | B         | KK1Y-11-SCO                                 |
|                       |             |                              |         | 2         | 68×1.5       | ACI      | P                 | NM        |                                             |
|                       |             |                              |         | 0         | 68×3.0       | ST       | Cr1               | SLF       |                                             |

|              |      |          |   |   |              |     |     |      |                            |
|--------------|------|----------|---|---|--------------|-----|-----|------|----------------------------|
| B3           | 1300 |          | 4 | 1 | 71×1.2       | ST  | Cr1 | B    | K1Y0-11-SCO<br>K1Y1-11-SCO |
|              |      |          |   | 2 | 71×1.5       | ACI | P   | NM   |                            |
|              |      |          |   | 0 | 71×3.0       | ST  | Cr1 | SLF  |                            |
| SF K2400     | 2400 | Bongo    | 4 | 1 | 92×2.4       | ACI | Cr1 | B    | K7Z0-11-SCO                |
|              |      |          |   | 2 | 92×2.4       | ACI | P   | M    |                            |
|              |      |          |   | 0 | 92×4.0       | ST  | N   | FM   |                            |
| SS/SUTCK2700 | 2700 | Besta    | 4 | 1 | 92×2.85      | ACI | Cr1 | T-B  | K4Z0-11-SCO<br>K480-23-206 |
|              |      |          |   | 2 | 92×2.4       | ACI | P   | M    |                            |
|              |      |          |   | 0 | 92×4.0       | ST  | N   | FM   |                            |
| K4100        |      |          | 6 | 1 | 92.025×2.383 | DCI | Cr1 | B    | OK8Y1-11-SCO               |
|              |      |          |   | 2 | 92.025×2.383 | ACI | Cr1 | IW   |                            |
|              |      |          |   | 0 | 92.025×4.763 | ST  | N   | FM   |                            |
| ZB K4100     |      |          | 6 | 1 | 92.025×2.383 | ST  | Cr1 | B    | OK8Y1-11-SCO               |
|              |      |          |   | 2 | 92.025×2.383 | ACI | Cr1 | IW   |                            |
|              |      |          |   | 0 | 92.025×4.763 | ST  | N   | FM   |                            |
| RFA          | 2400 | HI BESTA | 4 | 1 | 93×2.0       | ST  | Cr1 | B-IW | VNY1-11-SCO                |
|              |      |          |   | 2 | 93×2.0       | ACI | Cr1 | IW   |                            |
|              |      |          |   | 0 | 93×3.0       | ST  | N   | FM   |                            |
| JS K2700     |      |          | 4 | 1 | 94.5×2.0     | ST  | Cr1 | B    | K6Z1-11-SCO                |
|              |      |          |   | 2 | 94.5×2.0     | ACI | Cr1 | IW   |                            |
|              |      |          |   | 0 | 94.5×3.0     | ST  | N   | FM   |                            |
| J3           |      | CARNIVAL | 4 | 1 | 97.1×2.0     | ST  | N   | ET-B | K5Z1-11-SCO                |
|              |      |          |   | 2 | 97.1×2.0     | ACI | Cr1 | IW   |                            |
|              |      |          |   | 0 | 97.1×3.0     | ST  | N   | FM   |                            |
| K3000        |      |          | 4 | 1 | 98×2.0       | ST  | Cr1 | B-IW | K7Z1-11-SCO                |
|              |      |          |   | 2 | 98×2.0       | ACI | Cr1 | IW   |                            |
|              |      |          |   | 0 | 98×3.0       | ST  | N   | FM   |                            |
| SH3          |      |          | 4 | 1 | 100×2.5      | DCI | Cr1 | B    | K4Y0-11-SCO                |
|              |      |          |   | 2 | 100×2.0      | ACI | Cr1 | IW   |                            |
|              |      |          |   | 0 | 100×4.5      | ACI | Cr1 | DSF  |                            |

|             |       |                              |         |           |              |          |                   |           |                   |
|-------------|-------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|-------------------|
| K-3500 SH3  |       |                              | 4       | 1         | 100×2.5      | ST       | Cr1               | B         | OK4Y-11-SCO       |
|             |       |                              |         | 2         | 100×2.0      | ACI      | Cr1               | IW        |                   |
|             |       |                              |         | 0         | 100×4.5      | ST       | N                 | FM        |                   |
| K-3600 SH   | 3600  |                              | 4       | 1         | 100×2.0      | ST       | Cr1               | B         | K4Y1-11-SCO       |
|             |       |                              |         | 2         | 100×2.0      | ACI      | Cr1               | IW        |                   |
|             |       |                              |         | 0         | 100×3.0      | ST       | N                 | FM        |                   |
| H07C        | 6728  |                              | 6       | 1         | 110×3.0      | DCI      | Cr4               | B         | OK8Y0-11-SCO      |
|             |       |                              |         | 2         | 110×2.5      | ACI      | P                 | IW        |                   |
|             |       |                              |         | 3         | 110×2.5      | ACI      | Cr1               | IWU       |                   |
|             |       |                              |         | 0         | 110×5.0      | ACI      | Cr1               | DSF       |                   |
| EF750       | 16745 |                              | 8       | 1         | 137×3.306    | DCI      | Cr1               | T-B       | AA92A-11-120      |
|             |       |                              |         | 2         | 137×3.5      | ACI      | P                 | IW        |                   |
|             |       |                              |         | 3         | 137×3.5      | ACI      | Cr1               | IWU       |                   |
|             |       |                              |         | 0         | 137×6.0      | ACI      | Cr1               | DSF       |                   |
| KOMATSU     |       |                              |         |           |              |          |                   |           |                   |
| Engine Type | C.C.  | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size(mm) D×B | Material | Surface Treatment | Ring Type | Part NO.          |
| S4D95       | 3260  | Bulldozer                    | 4       | 1         | 95×2.2       | DCI      | Cr1               | T         | 6202-32-2200/cyl. |
|             |       |                              |         | 2         | 95×2.0       | ACI      | P                 | R         |                   |
|             |       |                              |         | O         | 95×4.0       | ST.      | Cr1 P/N           | FM        |                   |
| S6D95       | 4890  | Bulldozer                    | 6       | 1         | 95×2.5       | DCI      | Cr1               | T         | 6207-31-2200/cyl. |
|             |       |                              |         | 2         | 95×2.0       | ACI      | P                 | M         |                   |
|             |       |                              |         | O         | 95×4.0       | ACI      | Cr1 P/N           | FM        |                   |
| 6D95        | 4890  | Bulldozer                    | 6       | 1         | 95×2.0       | ACI      | Cr1               | B         | 6204-31-2202      |
|             |       |                              |         | 2         | 95×2.0       | ACI      | P                 | M         |                   |
|             |       |                              |         | O         | 95×4.0       | ST.      | Cr1               | FM        |                   |
| SA1D95      | 4890  | Bulldozer                    | 4 6     | 1         | 95×2.5       | DCI      | Cr1               | T-B       | 6207-31-2400      |
|             |       |                              |         | 2         | 95×2.2       | ACI      | Cr1               | KT        |                   |
|             |       |                              |         | O         | 95×4.0       | ST.      | Cr1               | FM        |                   |

|        |       |           |        |   |             |         |     |        |                                  |
|--------|-------|-----------|--------|---|-------------|---------|-----|--------|----------------------------------|
| S6D95  | 4890  | Bulldozer | 6      | 1 | 95×2.5      | DCI     | Cr1 | T-B    | 6207-31-2500                     |
|        |       |           |        | 2 | 95×2.2      | ACI     | Cr1 | ET-M   |                                  |
|        |       |           |        | O | 95×4.0      | ST.     | Cr1 | FM     |                                  |
| 6D102  |       | Bulldozer | 6      | 1 | 102×3.0     | DCI     | Cr1 | ET-B   | 6732-31-2300                     |
|        |       |           |        | 2 | 102×2.0     | DCI     | Cr1 | ET-M   |                                  |
|        |       |           |        | O | 102×4.0     | ACI     | Cr1 | DSF    |                                  |
| S6D105 | 6490  | Bulldozer | 6      | 1 | 105×3.0     | DCI     | Cr1 | T-B    | 6137-31-2040                     |
|        |       |           |        | 2 | 105×2.5     | ACI     | Cr1 | ET-M   |                                  |
|        |       |           |        | O | 105×5.0     | ST.     | Cr1 | FM     |                                  |
| 6D105  | 6490  | Bulldozer | 4<br>6 | 1 | 105×3.0     | DCI     | Cr1 | T-B    | 6136-31-2030<br>6136-31-2010     |
|        |       |           |        | 2 | 105×2.5     | ACI     | P   | ET-M   |                                  |
|        |       |           |        | O | 105×5.0     | ACI/ST. | Cr1 | DSF/FM |                                  |
| 6D108  |       |           | 6      | 1 | 108×2.5     | DCI     | Cr1 | T-B    | 6221-31-2200                     |
|        |       |           |        | 2 | 108×2.53    | DCI     | Cr1 | KT     |                                  |
|        |       |           |        | O | 108×4.0     | ST.     | Cr1 | FM     |                                  |
| S6D110 | 7130  | Bulldozer | 6      | 1 | 110×3.0     | DCI     | Cr1 | T-B    | 6138-32-2200                     |
|        |       |           |        | 2 | 110×2.5     | ACI     | Cr1 | ET-M   |                                  |
|        |       |           |        | O | 110×5.0     | ST.     | Cr1 | FM     |                                  |
| 6D125  | 11040 | Bulldozer | 6      | 1 | 125×2.4     | DCI     | Cr1 | T-B    | 6150-31-2030/cyl.                |
|        |       |           |        | 2 | 125×2.4     | ACI     | Cr1 | KT     |                                  |
|        |       |           |        | 3 | 125×4.0     | ACI/ST. | Cr1 | DSF/FM |                                  |
| 4D130  | 8490  | Bulldozer | 4      | 1 | 130×3.5     | DCI     | Cr1 | R-B    | 6114-30-2303<br>6114-30-2403/cyl |
|        |       |           |        | 2 | 130×2.5     | ACI     | Cr1 | IF     |                                  |
|        |       |           |        | O | 130×5.5     | ACI     | Cr1 | DSF    |                                  |
| NH220  | 12170 | Bulldozer | 6      | 1 | 130.18×3.78 | DCI     | Cr1 | T-B    | 6620-31-2020<br>6620-31-2030/cyl |
|        |       |           |        | 2 | 130.18×3.61 | DCI     | p   | T-IW   |                                  |
|        |       |           |        | 3 | 130.18×3.61 | DCI     | p   | T-IW   |                                  |
|        |       |           |        | O | 130.18×6.12 | ACI     | Cr1 | DSF    |                                  |

|                          |                |           |     |   |             |     |       |      |                                   |
|--------------------------|----------------|-----------|-----|---|-------------|-----|-------|------|-----------------------------------|
| NT855                    |                | Bulldozer | 6   | 1 | 139.7×3.595 | DCI | Cr1   | T-B  | 6710-31-2023<br>6710-31-2033/cyl  |
|                          |                |           |     | 2 | 139.7×2.878 | DCI | Cr1/P | T-IW |                                   |
|                          |                |           |     | 3 | 139.7×2.878 | DCI | P     | T-IW |                                   |
|                          |                |           |     | O | 139.7×4.75  | ACI | Cr1   | DSF  |                                   |
| 6D140                    | 15200          | Bulldozer | 6   | 1 | 140×2.4     | DCI | Cr1   | T-B  | 6211-31-2031<br>6211-31-2032/cyl. |
|                          |                |           |     | 2 | 140×2.4     | DCI | Cr1   | IW   |                                   |
|                          |                |           |     | O | 140×4.0     | ST  | Cr1   | DSF  |                                   |
| 4D155 6D155              | 12840<br>19260 | Bulldozer | 4 6 | 1 | 155×4.0     | DCI | Cr1   | T-B  | 6125-31-2022<br>6128-31-2023      |
|                          |                |           |     | 2 | 155×3.5     | DCI | Cr1   | IF   |                                   |
|                          |                |           |     | O | 155×6.0     | ACI | Cr1   | DSF  |                                   |
|                          |                |           |     | O | 155×5.0     | ACI | Cr1   | DSF  |                                   |
| S4D155 S6D155<br>SA6D155 | 12840<br>19260 | Bulldozer | 4 6 | 1 | 155×3.68    | DCI | Cr1   | T-B  | 6125-31-2030<br>6128-31-2060      |
|                          |                |           |     | 2 | 155×3.548   | DCI | Cr1   | KT   |                                   |
|                          |                |           |     | O | 155×4.737   | ACI | Cr1   | DSF  |                                   |

#### KUBOTA

| Engine Type | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Material | Surface Treatment | Ring Type | Part NO.        |
|-------------|------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|-----------------|
| ET95        |      | agriculture engine           | 1       |           | 86.00        |          |                   |           | 81-14921-210501 |
| ET110       |      | agriculture engine           | 1       |           | 92.00        |          |                   |           | 81-1T041-98511  |
| ET80        |      | agriculture engine           | 1       |           | 84.00        |          |                   |           | 81-14911-210501 |

#### MAZDA

| Engine Type | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size(mm) D×B | Material | Surface Treatment | Ring Type | Part NO.                   |
|-------------|------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|----------------------------|
| R2          | 2184 | Bongo                        | 4       | 1         | 86×2.0       | DCI      | Cr1               | IF-B      | R2B6-11-SCO                |
|             |      |                              |         | 2         | 86×2.0       | ACI      | P                 | IW        |                            |
|             |      |                              |         | O         | 86×4.0       | ACI      | Cr1               | DSF       |                            |
| SL          | 3455 | Trader Titan                 | 4       | 1         | 100×2.5      | DCI /ST  | Cr1               | ET-B      | SL01-23-206                |
|             |      |                              |         | 2         | 100×2.0      | ACI      | Cr1               | IW        |                            |
|             |      |                              |         | O         | 100×4.5      | ACI /ST  | Cr1/GN            | DSF/FM    |                            |
| HA          | 2977 | Trader Titan E3000 WE WOF1   | 4       | 1         | 95.025×2.383 | DCI /ST  | Cr1               | B         | 1363-23-206<br>SE01-23-206 |
|             |      |                              |         | 2         | 95.025×2.383 | ACI      | Cr1/P             | IW        |                            |
|             |      |                              |         | O         | 95.025×4.763 | ACI /ST  | Cr1/GN            | DSF/FM    |                            |

| MITSUBISHI  |              |                                                       |         |           |                 |           |                   |           |                            |
|-------------|--------------|-------------------------------------------------------|---------|-----------|-----------------|-----------|-------------------|-----------|----------------------------|
| Engine Type | C.C.         | Vehicle Model & Chassis Type                          | Cyl.No. | Posi-tion | Size(mm)<br>D×B | Mate-rial | Surface Treatment | Ring Type | Part NO.                   |
| 4G64        | 2350         | Delica                                                | 4       | 1         | 86.5×1.2        | ST.       | N                 | R-B       | MD192815                   |
|             |              |                                                       |         | 2         | 86.5×1.5        | ACI       | P                 | NM        |                            |
|             |              |                                                       |         | O         | 86.5×2.8        | ST.       | Cr1               | SLF       |                            |
| 4G54 4G54B  | 2555         | Jeep Debonair<br>Galant Σ,Sapporo Dodge<br>Challenger | 4       | 1         | 91.1×2.0        | DCI       | Cr1               | R-B       | MD107813                   |
|             |              |                                                       |         | 2         | 91.1×2.0        | ACI       | Cr1               | M         |                            |
|             |              |                                                       |         | o         | 91.1×4.0        | ST.       | Cr1               | SLF       |                            |
| 4D55        | 2346         | Galant A167 Galant Sapporo                            | 4       | 1         | 91.1×2.5        | DCI /ST.  | Cr1 P/ OX         | R-B       | MD050395                   |
|             |              |                                                       |         | 2         | 91.1×2.0        | ACI       | Cr1               | M         |                            |
|             |              |                                                       |         | 3         | 91.1×4.0        | ST.       | N                 | FM        |                            |
| 4D55T 4D56  | 2346         | Galant A167 L300,L038P,8P                             | 4       | 1         | 91.1×2.5        | DCI /ST.  | Cr1 P/ OX         | ET-B      | MD050390                   |
|             |              |                                                       |         | 2         | 91.1×2.0        | ACI       | Cr1               | ET-M      |                            |
|             |              |                                                       |         | 3         | 91.1×4.0        | ST.       | N                 | FM        |                            |
| 4DR5 6DR5   | 2346 3983    | Rosa T44 T44B Fork Lift FD60                          | 4 6     | 1         | 92×2.5          | DCI       | Cr1               | ET-B      | 31717-12012<br>31617-02012 |
|             |              |                                                       |         | 2         | 92×2.0          | ACI       | P                 | M         |                            |
|             |              |                                                       |         |           | 92×2.0          | ACI       | P                 | M         |                            |
|             |              |                                                       |         | O         | 92×4.5          | DCI /ST.  | Cr1/N             | DSF/FM    |                            |
| 4D30        | 3298         | Truck FE111-121-211<br>Bus/be211 Rosa                 | 4       | 1         | 100×3.0         | DCI       | Cr1               | ET-B      | ME012070<br>ME012010       |
|             |              |                                                       |         | 2         | 100×2.0         | ACI       | Cr1               | IF        |                            |
|             |              |                                                       |         | O         | 100×5.0         | DCI /ST.  | Cr2               | DSF/FM    |                            |
| 6D31 6D31T  | 4948         | Truck FK330                                           | 6       | 1         | 100×3.0         | DCI       | Cr1               | ET-B      | ME999717                   |
|             |              |                                                       |         | 2         | 100×2.0         | ACI       | Cr1               | IF        |                            |
|             |              |                                                       |         | O         | 100×5.0         | ACI       | Cr2               | DSF       |                            |
| 4D31T 6D31T | 3567<br>4948 | Truck FE434 Canter<br>Truck FK330,FE434               | 4       | 1         | 100×3.0         | DCI /ST.  | Cr1               | ET-B      | ME997398<br>ME999783       |
|             |              |                                                       |         | 2         | 100×2.0         | ACI       | Cr1               | IF        |                            |
|             |              |                                                       |         | O         | 100×4.0         | ACI /ST.  | Cr2               | DSF/FM    |                            |

|            |       |                                                                          |   |   |           |          |        |        |                                              |
|------------|-------|--------------------------------------------------------------------------|---|---|-----------|----------|--------|--------|----------------------------------------------|
| S6KT       | 6380  |                                                                          | 6 | 1 | 102×3.0   | DCI      | Cr1    | ET-B   |                                              |
|            |       |                                                                          |   | 2 | 102×2.0   | ACI      | Cr1    | ET-M   |                                              |
|            |       |                                                                          |   | 0 | 102×4.0   | DCI /ST  | N      | DSF/FM |                                              |
| 4D32       | 3567  | Canter                                                                   | 4 | 1 | 104×3.0   | DCI      | Cr4    | ET-B   | ME997318                                     |
|            |       |                                                                          |   | 2 | 104×2.0   | ACI      | Cr1    | IW     |                                              |
|            |       |                                                                          |   | 0 | 104×4.0   | ST       | Cr1    | DSF/FM |                                              |
| 4D34T      | 3907  |                                                                          | 4 | 1 | 104×2.806 | DCI/ST   | Cr1    | T-B    | ME997240                                     |
|            |       |                                                                          |   | 2 | 104×2.0   | ACI      | Cr1    | IW     |                                              |
|            |       |                                                                          |   | 0 | 104×4.0   | ST       | Cr1/FM | FM     |                                              |
| 4D33       | 4214  | Canter                                                                   | 4 | 1 | 108×3.0   | DCI      | Cr1    | B      | ME996378                                     |
|            |       |                                                                          |   | 2 | 108×2.0   | ACI      | Cr1    | IW     |                                              |
|            |       |                                                                          |   | 0 | 108×4.0   | ACI /ST  | Cr1    | DSF/FM |                                              |
| 6D14       | 6557  | Truck FK115·115H·115J<br>FK115K·115DK T656ZR FM215<br>Bus MK115·<br>115H | 6 | 1 | 110×3.0   | DCI      | Cr1    | ET-B   | ME032260<br>ME032071<br>ME032404<br>ME032458 |
|            |       |                                                                          |   | 2 | 110×2.5   | ACI      | Cr1    | IW     |                                              |
|            |       |                                                                          |   | 0 | 110×5.0   | ACI /ST. | Cr1 N  | DSF/FM |                                              |
| 6D15       | 6919  |                                                                          | 6 | 1 | 113×3.0   | DCI      | Cr1    | ET-B   | ME032403                                     |
|            |       |                                                                          |   | 2 | 113×2.5   | ACI      | Cr1    | IW     |                                              |
|            |       |                                                                          |   | 0 | 113×5.0   | DCI /ST. | Cr1 N  | DSF/FM |                                              |
| 6D16       | 7545  | FUSO FK417<br>FK517                                                      | 6 | 1 | 118×3.0   | DCI      | Cr1    | B      | ME999540                                     |
|            |       |                                                                          |   | 2 | 118×2.5   | ACI      | Cr1    | IW     |                                              |
|            |       |                                                                          |   | 0 | 118×4.0   | DCI /ST. | Cr N   | DSF/FM |                                              |
| 6D16T      | 7545  |                                                                          | 6 | 1 | 118×2.806 | DCI      | Cr1    | T-B    | ME999549                                     |
|            |       |                                                                          |   | 2 | 118×2.5   | ACI      | Cr1    | IW     |                                              |
|            |       |                                                                          |   | 3 | 118×4.0   | DCI /ST. | Cr1 N  | DSF/FM |                                              |
| 6D22 6D22T | 11149 | Truck FFT318 FP318<br>Bus MP118 MP518 Fork Lift                          | 6 | 1 | 130×3.306 | DCI      | Cr1    | T-B    | ME052124<br>ME052787<br>30917-20010          |
|            |       |                                                                          |   | 2 | 130×3.0   | ACI      | Cr1    | IW     |                                              |
|            |       |                                                                          |   | 0 | 130×6.0   | ACI /ST. | Cr1 N  | DSF/FM |                                              |
| 6D22       |       |                                                                          | 6 | 1 | 130×3.306 | DCI /ST. | Cr1    | T-B    | ME995467                                     |
|            |       |                                                                          |   | 2 | 130×3.0   | DCI      | Cr4    | IW     |                                              |
|            |       |                                                                          |   | 0 | 130×4.0   | DCI /ST. | Cr1 N  | DSF/FM |                                              |

|             |       |                                                                         |         |           |              |          |                   |           |                                           |
|-------------|-------|-------------------------------------------------------------------------|---------|-----------|--------------|----------|-------------------|-----------|-------------------------------------------|
| 8DC91 8DC9T | 16031 | Truck C388FU 11.5 ton<br>FV 10.75ton/FT EW Bus MS                       | V-8     | 1         | 135×3.306    | DCI      | Cr1               | T-B       | ME0062230<br>ME062018                     |
|             |       |                                                                         |         | 2         | 135×3.0      | ACI      | Cr1               | IW        |                                           |
|             |       |                                                                         |         | 3         | 135×3.0      | ACI      | Cr1               | IFU       |                                           |
|             |       |                                                                         |         | O         | 135×6.0      | ACI /ST. | Cr1               | DSF/FM    |                                           |
| 8DC9T       | 16031 |                                                                         | V-8     | 1         | 135×3.306    | DCI      | Cr1               | T-B       | ME090758                                  |
|             |       |                                                                         |         | 2         | 135×3.0      | ACI      | Cr1               | IW        |                                           |
|             |       |                                                                         |         | 3         | 135×3.0      | ACI      | Cr1               | IFU       |                                           |
|             |       |                                                                         |         | O         | 135×4.0      | ACI /ST. | Cr N              | DSF/FM    |                                           |
| NISSAN      |       |                                                                         |         |           |              |          |                   |           |                                           |
| Engine Type | C.C.  | Vehicle Model & Chassis Type                                            | Cyl.No. | Posi-tion | Size(mm) D×B | Material | Surface Treatment | Ring Type | Part NO.                                  |
| H20         | 1982  | Cedric 130 V130 W130 Junior 41<br>Caball C142 DC142 Cipper<br>Bus GC240 | 4       | 1         | 87.2×2.0     | ACI      | Cr1               | M         | 12033-14601<br>12033-Y4460<br>12033-R9023 |
|             |       |                                                                         |         | 2         | 87.2×2.5     | ACI      | P                 | M         |                                           |
|             |       |                                                                         |         | 0         | 87.2×4.0     | ST       | Cr                | SLF       |                                           |
| Z24         | 2400  | Datsun Truck                                                            | 4       | 1         | 89×1.5       | ST       | N                 | B         | 12033-10W00<br>12033-30W10                |
|             |       |                                                                         |         | 2         | 89×1.5       | ACI      | Cr1               | M         |                                           |
|             |       |                                                                         |         | O         | 89×4.0       | ST       | Cr1               | SLF       |                                           |
| TD25        | 2500  |                                                                         | 4       | 1         | 92.9×2.5     | DCI      | Cr1               | B         | 12033-44G10                               |
|             |       |                                                                         |         | 2         | 92.9×2.0     | DCI      | Cr1               | IW        |                                           |
|             |       |                                                                         |         | O         | 92.9×4.0     | ST       | Cr1               | DSF/FM    |                                           |
| TD27        | 2700  |                                                                         | 4       | 1         | 96×2.5       | DCI      | Cr1               | BF        | 12033-44G11                               |
|             |       |                                                                         |         | 2         | 96×2.0       | DCI      | Cr1               | IW        |                                           |
|             |       |                                                                         |         | O         | 96×4.0       | ST       | Cr1 N             | DSF/FM    |                                           |
| FD6         | 5654  |                                                                         | 6       | 1         | 100×3.0      | DCI      | Cr1               | B         | 12040-Z5028                               |
|             |       |                                                                         |         | 2         | 100×2.0      | ACI      | Cr1               | IW        |                                           |
|             |       |                                                                         |         | 0         | 100×4.5      | ACI      | Cr1               | DSF/FM    |                                           |
| FE6         | 7000  |                                                                         | 6       | 1         | 108×3.0      | DCI      | Cr1               | ET-B      | 12040-Z5505                               |
|             |       |                                                                         |         | 2         | 108×2.0      | ACI      | Cr1               | IW        |                                           |

|             |       |                                                  |         |           |              |          |                   |           |                                                               |
|-------------|-------|--------------------------------------------------|---------|-----------|--------------|----------|-------------------|-----------|---------------------------------------------------------------|
|             |       |                                                  |         | O         | 108×4.0      | DCI/ST.  | Cr1 N             | DSF/FM    |                                                               |
| ND6         | 6842  | CK10 PRX102                                      | 6       | 1         | 110×4.0      | ACI      | Cr1               | B         | 12040-90127<br>12040-95006<br>12040-95004/lcy1                |
|             |       |                                                  |         | 2         | 110×3.0      | ACI      | Cr1               | M         |                                                               |
|             |       |                                                  |         | O         | 110×5.0      | DCI/ST.  | Cr1               | DSF/FM    |                                                               |
| NE6         | 7000  | U.S.A. Spec.                                     | 6       | 1         | 110×3.0      | DCI      | Cr1               | ET-B      | 12040-95012<br>12040-95013<br>12040-95029                     |
|             |       |                                                  |         | 2         | 110×2.5      | DCI      | Cr1               | IW        |                                                               |
|             |       |                                                  |         | 0         | 110×4.0      | DCI/ST.  | Cr1 N             | DSF/FM    |                                                               |
| PD6         | 10308 | CB20 CK20 TK20<br>U20 TFA21                      | 6       | 1         | 125×5.0      | ACI      | Cr1               | B         | 12040-90029<br>12040-96007<br>12040-96009<br>12040-90026      |
|             |       |                                                  |         | 2         | 125×3.5      | ACI      | Cr1               | IW        |                                                               |
|             |       |                                                  |         | 0         | 125×5.0      | ACI      | Cr1               | DSF/FM    |                                                               |
| PD6T        | 10308 | CW41                                             | 6       | 1         | 125×4.0      | DCI      | Cr1               | T-B       | 12040-90228<br>12040-96129<br>12040-96125<br>12000-96005/lcy1 |
|             |       |                                                  |         | 2         | 125×3.5      | ACI      | Cr1               | IW        |                                                               |
|             |       |                                                  |         | 0         | 125×5.0      | ACI/ST.  | Cr1/FM            | DSF/FM    |                                                               |
| PE6         | 11670 | CK30 CK31 CV31<br>CD32                           | 6       | 1         | 133×4.0      | DCI      | Cr1               | T-B       | 12040-96128<br>12040-90225<br>12040-90227<br>12040-96028      |
|             |       |                                                  |         | 2         | 133×3.5      | ACI      | Cr1               | IW        |                                                               |
|             |       |                                                  |         | 0         | 133×6.0      | DCI/ST.  | Cr1               | DSF/FM    |                                                               |
| PE6T        | 11670 | CD45                                             | 6       | 1         | 133×4.0      | DCI      | Cr1               | ET-B      | 12040-96225<br>12040-96512<br>12040-96228<br>12040-96510/lcy1 |
|             |       |                                                  |         | 2         | 133×3.5      | ACI      | Cr1               | IW        |                                                               |
|             |       |                                                  |         | O         | 133×6.0      | DCI/ST.  | Cr1               | DSF/FM    |                                                               |
| RD8         | 14313 | Bus CD52 CW50 CW51 CW52<br>RA50 RA51 TWA52 WD151 | V-8     | 1         | 135×4.0      | DCI      | Cr1               | B         | 12040-97126<br>12040-90325<br>12040-97008<br>12040-97025      |
|             |       |                                                  |         | 2         | 135×3.0      | ACI      | Cr1               | IW        |                                                               |
|             |       |                                                  |         | O         | 135×6.0      | ACI/ST.  | Cr1               | DSF/FM    |                                                               |
| RE8         | 15000 |                                                  | 8       | 1         | 135×3.0      | DCI      | Cr1               | B         | 12040-97074                                                   |
|             |       |                                                  |         | 2         | 135×3.0      | ACI      | Cr1               | IW        |                                                               |
|             |       |                                                  |         | 0         | 135×5.0      | ACI/ST.  | Cr1               | DSF/FM    |                                                               |
| RF8         | 17000 |                                                  | 8       | 1         | 138×2.5      | DCI      | Cr1               | IW-B      | 12040-97072                                                   |
|             |       |                                                  |         | 2         | 138×2.5      | ACI      | Cr1               | IW        |                                                               |
|             |       |                                                  |         | 0         | 138×4.0      | ACI/ST.  | Cr1 N             | DSF/FM    |                                                               |
| SUZUKI      |       |                                                  |         |           |              |          |                   |           |                                                               |
| Engine Type | C.C.  | Vehicle Model & Chassis Type                     | Cyl.No. | Posi-tion | Size(mm) D×B | Material | Surface Treatment | Ring Type | Part NO.                                                      |

|              |     |                   |   |   |          |     |     |      |                              |
|--------------|-----|-------------------|---|---|----------|-----|-----|------|------------------------------|
| F5A          | 543 | Fronte 550        | 3 | 1 | 62×1.5   | DCI | Cr1 | B    | 12140-73000                  |
|              |     |                   |   | 2 | 62×1.5   | ACI | P   | M    |                              |
|              |     |                   |   | 0 | 62×2.8   | ST  | Cr1 | SLF  |                              |
| F8A          | 797 |                   | 4 | 1 | 62×1.2   | ST  | Cr1 | IW-B | 12140-85050                  |
|              |     |                   |   | 2 | 62×1.2   | ACI | P   | NM   |                              |
|              |     |                   |   | 0 | 62×2.8   | ST  | n   | SLF  |                              |
| F10A         | 970 | Jimmy             | 4 | 1 | 65.5×1.5 | ST  | N   | B    | 12140-75111 12140-75110/lcy1 |
|              |     |                   |   | 2 | 65.5×1.5 | ACI | P   | M    |                              |
|              |     |                   |   | 0 | 65.5×2.8 | ST  | Cr1 | SLF  |                              |
| SS80 Y64 Y65 | 800 | Alto Fronte       | 3 | 1 | 68.5×1.5 | ACI | Cr1 | R    | 12140-78411/cyl.             |
|              |     |                   |   | 2 | 68.5×1.5 | ACI | P   | R    |                              |
|              |     |                   |   | 0 | 68.5×2.8 | ST  | Cr1 | SLF  | 12140-78412/cyl.             |
| F6A          | 657 | Alut YA1 Alut Van | 3 | 1 | 65×1.2   | ACI | Cr1 | R    | 12140-50E50                  |
|              |     |                   |   | 2 | 65×1.2   | ACI | P   | R    |                              |
|              |     |                   |   | 0 | 62×2.5   | ST  | Cr1 | SLF  |                              |
| F8B          | 800 | Y64 SS80          | 3 | 1 | 68.5×1.5 | ACI | Cr1 | R    | 12140-78411/cyl.             |
|              |     |                   |   | 2 | 68.5×1.5 | ACI | P   | R    |                              |
|              |     |                   |   | 0 | 68.5×2.8 | ST  | Cr1 | SLF  | 12140-78412/cyl.             |

## TOYOTA

| Engine Type | C.C. | Vehicle Model & Chassis Type          | Cyl.No. | Posi-tion | Size(mm) D×B | Material | Surface Treatment | Ring Type | Part NO.                          |
|-------------|------|---------------------------------------|---------|-----------|--------------|----------|-------------------|-----------|-----------------------------------|
| 2E 3E       | 1300 | Corona 1300 R-EE106V                  | 4       | 1         | 73×1.5       | DCI      | Cr1               | IF-B      | 13011-11040                       |
|             |      |                                       |         | 2         | 73×1.5       | ACI      | P                 | IW        |                                   |
|             |      |                                       |         | 3         | 73×3.0       | ACI      | Cr1               | DSF       |                                   |
| 5A          | 1498 | Corona                                | 4       | 1         | 78.7×1.2     | DCI      | Cr1               | R         | 13011-15130                       |
|             |      |                                       |         | 2         | 78.7×1.5     | ACI      | P                 | NM        |                                   |
|             |      |                                       |         | 0         | 78.7×3.0     | ST       | P                 | DSF       |                                   |
| 12R         | 1600 | Corona Hilux Hiace Corona-Van Toyoace | 4       | 1         | 80.5×2.0     | DCI      | Cr1               | R-B       | 13011-31091, 31070,-31061, -31060 |
|             |      |                                       |         | 2         | 80.5×2.0     | ACI      | Cr1               | M         |                                   |
|             |      |                                       |         | 0         | 80.5×4.0     | ST       | Cr1               | SLF       |                                   |

|                     |                   |                                     |   |   |          |       |     |      |                                                            |
|---------------------|-------------------|-------------------------------------|---|---|----------|-------|-----|------|------------------------------------------------------------|
| 5K                  | 1486              | Cornana-Van                         | 4 | 1 | 80.5×1.5 | ST    | N   | R    | 13011-13040 -13050<br>-13090                               |
|                     |                   |                                     |   | 2 | 80.5×1.5 | ACI   | P   | NM   |                                                            |
|                     |                   |                                     |   | O | 80.5×4.0 | ST    | Cr1 | SLF  |                                                            |
| 6R 7R 8R            | 1707 1591<br>1858 | Corona Corona-Mark II               | 4 | 1 | 86×2.0   | DCI   | Cr1 | R    | 13011-33030, -33022, -<br>33021, -33020, -<br>33010        |
|                     |                   |                                     |   | 2 | 86×2.5   | ACI   | P   | NM   |                                                            |
|                     |                   |                                     |   | O | 86×4.0   | ST    | Cr1 | SLF  |                                                            |
| 1Y 2Y 3Y            | 1600 2000         | Hi-Lux Town Ace                     | 4 | 1 | 86×1.5   | DCI   | Cr1 | R    | 13011-71010 -71020, -<br>71030, -71033, -71040             |
|                     |                   |                                     |   | 2 | 86×1.5   | ACI   | P   | NM   |                                                            |
|                     |                   |                                     |   | O | 86×4.0   | ST    | Cr1 | SLF  |                                                            |
| 1RZ                 | 1998              | Hi-Lux Town Ace                     | 4 | 1 | 86×1.75  | DCI   | Cr1 | R    | 13011-75010, -75020                                        |
|                     |                   |                                     |   | 2 | 86×1.5   | DCI   | Cr1 | M    |                                                            |
|                     |                   |                                     |   | O | 86×4.0   | ST    | Cr1 | SLF  |                                                            |
| 2C (Diesel)         | 1974              | Corona Carina Carolla<br>Master Ace | 4 | 1 | 86×2.0   | ST    | N   | ET-B | 13011-64060, -64110,<br>-64150                             |
|                     |                   |                                     |   | 2 | 86×2.0   | ACI   | Cr1 | M    |                                                            |
|                     |                   |                                     |   | O | 86×4.0   | DCI   | Cr1 | DSF  |                                                            |
| 4Y                  | 2200              | For Leaded                          | 4 | 1 | 91×1.5   | DCI   | Cr1 | R-B  | 13011-73030, -73020, -<br>73031, -73032, -<br>73040        |
|                     |                   |                                     |   | 2 | 91×1.5   | ACI   | Cr1 | M    |                                                            |
|                     |                   |                                     |   | O | 91×4.0   | ST    | Cr1 | SLF  |                                                            |
| 2L-T,2L-TE (Diesel) | 2446              | Crown Chaser Corona Mark II         | 4 | 1 | 92×2.0   | ST    | N   | ET   | 13011-54090, -<br>54060,-54050, -<br>54061, -54062, -54100 |
|                     |                   |                                     |   | 2 | 92×2.0   | ACI   | Cr1 | M    |                                                            |
|                     |                   |                                     |   | O | 92×4.0   | Steel | N   | FM   |                                                            |
| 3L                  | 2779              | Toyo-Ace Hilux Hiace Van<br>Wagon   | 4 | 1 | 96×2.0   | ST    | N   | ET   | 13011-54120                                                |
|                     |                   |                                     |   | 2 | 96×2.0   | ACI   | Cr1 | M    |                                                            |
|                     |                   |                                     |   | O | 96×4.0   | ST    | N   | FM   |                                                            |
| 5L                  | 3000              |                                     | 4 | 1 | 99.5×2.0 | ST    | N   | ET   | 13011-54130                                                |
|                     |                   |                                     |   | 2 | 99.5×1.5 | ACI   | Cr1 | M    |                                                            |
|                     |                   |                                     |   | O | 99.5×4.0 | ST    | N   | FM   |                                                            |
| 2RZ                 | 2438              | Hi-Ace RZH101G                      | 4 | 1 | 95×1.75  | DCI   | Cr1 | R-B  | 13011-75030                                                |
|                     |                   |                                     |   | 2 | 95×1.5   | ACI   | P   | M    |                                                            |
|                     |                   |                                     |   | O | 95×4.0   | ST    | Cr1 | SLF  |                                                            |

|                                         |      |                              |         |           |              |           |                   |           |                      |
|-----------------------------------------|------|------------------------------|---------|-----------|--------------|-----------|-------------------|-----------|----------------------|
| 2B (Diesel)                             | 3186 |                              |         | 1         | 98×2.526     | DCI       | Cr1               | ET        | 13011-57010          |
|                                         |      |                              |         | 2         | 98×2.526     | ACI       | P                 | NM        |                      |
|                                         |      |                              |         | O         | 98×4.5       | ACI       | Cr1               | SLF       |                      |
| BMW                                     |      |                              |         |           |              |           |                   |           |                      |
| Engine Type                             | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.             |
| M21                                     |      |                              | 4       | 1         | 80×2.5       | DCI       | Cr1               | T         | 081 69 NO(MAHLE)     |
|                                         |      |                              |         | 2         | 80×2.0       | ACI       | P                 | IFU       | 06-133100-<br>(60mm) |
|                                         |      |                              |         | O         | 80×3.5       | ACI       | Cr1               | DSF       |                      |
| 320i,520i<br>320/A,520/AM60<br>323i,M60 |      |                              | 4       | 1         | 80×1.5       | DCI       | Cr1 P             | IW        |                      |
|                                         |      |                              |         | 2         | 80×2.0       | ACI       | P                 | NM        |                      |
|                                         |      |                              |         | O         | 80×3.5       | ACI       | P                 | DSF       |                      |
| CHRYSLER                                |      |                              |         |           |              |           |                   |           |                      |
| Engine Type                             | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.             |
| CHEROKEE-1992                           |      |                              | 4       | 1         | 98.425×2.0   | DCI       | P Mo              | IF(B)     |                      |
|                                         |      |                              |         | 2         | 98.425×2.0   | ACI       | P                 | IFU       |                      |
|                                         |      |                              |         | O         | 98.425×4.5   | Steel     | N                 |           |                      |
| CHEROKEE-1996                           |      |                              | 4       | 1         | 98.425×1.5   | ACI       | P Mo              | R-B       |                      |
|                                         |      |                              |         | 2         | 98.425×1.5   | ACI       | P                 | IFU       |                      |
|                                         |      |                              |         | O         | 98.425×4.5   | Steel     | N                 |           |                      |
| CITROEN                                 |      |                              |         |           |              |           |                   |           |                      |
| Engine Type                             | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.             |
| 475/TU/CZ/M/Z/2K                        |      |                              | 4       | 1         | 75×1.75      | DCI       | Mo                | R-B       | 039 64 No(MAHLE)     |
|                                         |      |                              |         | 2         | 75×2.0       | ACI       |                   | NM        |                      |
|                                         |      |                              |         | O         | 75×3.0       | ACI       |                   | SSF       |                      |
| 478                                     |      |                              | 4       | 1         | 78.5×1.5     | DCI       | P Cr1             | R-B       |                      |
|                                         |      |                              |         | 2         | 78.5×1.5     | ACI       |                   | NM        |                      |
|                                         |      |                              |         | O         | 78.5×3.0     | ACI       |                   | SSF       |                      |
| 478                                     |      |                              | 4       | 1         | 78.5×1.5     | DCI       | Mo                | R-B       |                      |
|                                         |      |                              |         | 2         | 78.5×1.5     | ACI       |                   | NM        |                      |
|                                         |      |                              |         | O         | 78.5×3.0     | ACI       |                   | SSF       |                      |

| CUMMINS                    |        |                              |         |           |              |           |                   |           |              |
|----------------------------|--------|------------------------------|---------|-----------|--------------|-----------|-------------------|-----------|--------------|
| Engine Type                | C.C.   | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.     |
| 6BT                        |        |                              | 6       | 1         | 102×3.0      | DCI       | Cr1               | T-B       |              |
|                            |        |                              |         | 2         | 102×2.35     | ACI       | P                 | IF        |              |
|                            |        |                              |         | O         | 102×4.0      | ACI       | Cr1               | DSF       |              |
| 6CT                        |        |                              | 6       | 1         | 114×3.5      | DCI       | Cr1 SiB           | IW-B      |              |
|                            |        |                              |         | 2         | 114×3.0      | ACI       | P                 | IWU       |              |
|                            |        |                              |         | O         | 114×4.0      | ACI       | Cr1               | DSF       |              |
| NH220                      |        |                              | 6       | 1         | 130.18       | DCI       | Cr1               |           |              |
|                            |        |                              |         | 2         | 130.18       | DCI       | Cr1               |           |              |
|                            |        |                              |         | O         | 130.18       | ACI       | Cr1               |           |              |
| NH250 NT855                |        |                              | 6       | 1         | 139.7×3.9    | DCI       | Mo                | T-B       |              |
|                            |        |                              |         | 2         | 139.7×3.0    | DCI       | P Cr1             | KT20      |              |
|                            |        |                              |         | 3         | 139.7×3.0    | DCI       | P                 | T-M       |              |
|                            |        |                              | 8       | O         | 139.7×4.75   | ACI       | Cr2 P             | F-V       |              |
| NH250A                     |        |                              | 6       | 1         | 139.7×3.76   | DCI       | P Cr1             | T-B       |              |
|                            |        |                              |         | 2         | 139.7×2.9    | DCI       | P                 | KT20      |              |
|                            |        |                              |         | 3         | 139.7×2.78   | DCI       | P                 | T-M       |              |
|                            |        |                              | 8       | O         | 139.7×4.75   | ACI       | P Cr1             | F-V       |              |
| V265,V300 V6E-195, VT6-280 |        |                              | 6       | 1         | 139.7×3.7    | DCI       | Cr1               | ET-B      |              |
|                            |        |                              |         | 2         | 139.7×2.85   | DCI       | Cr1               | ET(IW)    |              |
|                            |        |                              |         | O         | 139.7×4.75   | ACI       | Cr1               | ET(IW)    |              |
| K19                        |        |                              | 6       |           | 158.75×3.75  | DCI       | Cr1 P             | T-B       |              |
|                            |        |                              |         |           | 158.75×3.75  | DCI       | Cr1 P             | T-IF      |              |
|                            |        |                              |         |           | 158.75×4.75  | ACI       | Cr1 P             | DSF(FM)   |              |
| DAF                        |        |                              |         |           |              |           |                   |           |              |
| Engine Type                | C.C.   | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.     |
|                            | 6240CC |                              | 6       | 1         | 104.17X3.0   | DCI       | Cr1               | ET-B      | 40 43279(PC) |
|                            |        |                              |         | 2         | 104.17X2.5   | ACI       | Cr1               | T-M       |              |
|                            |        |                              |         | O         | 104.17X4.0   | ACI       | Cr1               | DSF       |              |

|                  |  |  |   |   |           |     |     |     |                    |
|------------------|--|--|---|---|-----------|-----|-----|-----|--------------------|
| R46310 (DAF1800) |  |  | 6 | 1 | 118×3.5   | DCI | Cr1 | T-B | 213 01 No(MAHLE)   |
|                  |  |  |   | 2 | 118×3.0   | ACI | Cr1 | M   | 80 00048 10000(KS) |
|                  |  |  |   | 3 | 118×3.0   | ACI | Cr1 | M   |                    |
|                  |  |  |   | O | 118×6.0   | ACI | Cr1 | DSF |                    |
| R46320           |  |  | 6 | 1 | 130×3.175 | ACI | Cr1 | T-B |                    |
|                  |  |  |   | 2 | 130×3.16  | ACI | Cr1 | M   |                    |
|                  |  |  |   | 3 | 130×3.16  | ACI | Cr1 | M   |                    |
|                  |  |  |   | O | 130×6.34  | ACI | Cr1 | DSF |                    |
| R46330           |  |  | 6 | 1 | 130×4.0   | DCI | Mo  | T-B |                    |
|                  |  |  |   | 2 | 130×3.14  | ACI | Cr1 | M   |                    |
|                  |  |  |   | O | 130×4.0   | ACI | Cr1 | DSF |                    |

#### DEUTZ

| Engine Type           | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO. |
|-----------------------|------|------------------------------|---------|-----------|--------------|-----------|-------------------|-----------|----------|
| F4L912 F6L912         |      |                              | 6       | 1         | 100×3.0      |           |                   |           |          |
|                       |      |                              |         | 2         | 100×2.5      |           |                   |           |          |
|                       |      |                              |         | O         | 100×5.0      |           |                   |           |          |
| BFL913 TURO           |      |                              | 6       | 1         | 102×3.0      |           |                   |           |          |
|                       |      |                              |         | 2         | 102×2.5      |           |                   |           |          |
|                       |      |                              |         | 3         | 102×2.5      |           |                   |           |          |
|                       |      |                              |         | O         | 102×5.0      |           |                   |           |          |
| FL413 F6-8-10-12 L413 |      |                              | 8       | 1         | 120×3.0      |           |                   |           |          |
|                       |      |                              |         | 2         | 120×3.0      |           |                   |           |          |
|                       |      |                              |         | 3         | 120×3.0      |           |                   |           |          |
|                       |      |                              |         | O         | 120×6.0      |           |                   |           |          |

#### FORD

| Engine Type | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Material | Surface Treatment | Ring Type | Part NO. |
|-------------|------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|----------|
|-------------|------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|----------|

|                                                            |      |                              |         |           |              |           |                   |           |                   |
|------------------------------------------------------------|------|------------------------------|---------|-----------|--------------|-----------|-------------------|-----------|-------------------|
| REIHENMOTOR,DIES<br>EL.2.41 8142.61<br>30F8,32F8 1978-1985 |      |                              | 4       | 1         | 93×3.0       | DCI       | Cr1               | R         | 00798(MAHLE)      |
|                                                            |      |                              |         | 2         | 93×2.0       | ACI       | P                 | NM        | 800006940000 (KS) |
|                                                            |      |                              |         | O         | 93×4.0       | ACI       | Cr1               | DSF       |                   |
| R4000                                                      |      |                              | 6       | 1         | 100×2.38     | DCI       | P                 | R(B)      |                   |
|                                                            |      |                              |         | 2         | 100×2.38     | ACI       | P                 | M         |                   |
|                                                            |      |                              |         | 3         | 100×2.38     | ACI       | P                 | M         |                   |
|                                                            |      |                              |         | O         | 100×         | Steel     | P                 | SLF       |                   |
|                                                            |      |                              |         | O         | 100×4.75     | ACI       | P                 | S         |                   |
| 2C7596                                                     |      |                              | 4       | 1         | 100×2.38     | ACI       | P                 | RB)       | 40215 STD-.010    |
|                                                            |      |                              |         | 2         | 100×2.38     | ACI       | P                 | M         |                   |
|                                                            |      |                              |         | 3         | 100×2.38     | ACI       | P                 | M         |                   |
|                                                            |      |                              |         | O         | 100×4.75     | Steel     | P                 | SLF       |                   |
|                                                            |      |                              | 6       | O         | 100×4.75     | ACI       | P                 | M         |                   |
| 3000                                                       |      |                              | 3       | 1         | 106.68X2.38  | DCI       |                   | R-B       | 40407090 (PC)     |
|                                                            |      |                              |         | 2         | 106.68X2.38  | ACI       |                   | R-B       |                   |
|                                                            |      |                              |         | 3         | 106.68X2.38  | ACI       |                   | R         |                   |
|                                                            |      |                              | 4       | O         | 106.68X4.76  | ACI       |                   | DSF       |                   |
| 201cu.in. Diesel<br>Eng.201DF                              |      |                              | 4       | 1         | 111.76×2.381 | DCI       | Cr1               | R-B       |                   |
|                                                            |      |                              |         | 2         | 111.76×2.381 | ACI       | Cr1               | IW        |                   |
|                                                            |      |                              |         | 3         | 111.76×2.381 | DCI       | P                 | IW        |                   |
|                                                            |      |                              |         | O         | 111.76×4.763 | ACI       | Cr1 P             | DSF       |                   |
| HILLMAN                                                    |      |                              |         |           |              |           |                   |           |                   |
| Engine Type                                                | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.          |
| 487QF                                                      |      | AVENGER 1600CC               | 4       | 1         | 87.4×2.0     |           | Cr                |           | CA2973            |
|                                                            |      |                              |         | 2         | 87.4×2.0     |           | P                 |           |                   |
|                                                            |      |                              |         | 0         | 87.4×4.0     |           |                   |           |                   |
| 481QB                                                      |      | HUNTER 1725CC                | 4       | 1         | 81.539×1.98  |           | Cr                |           | CA.4043           |
|                                                            |      |                              |         | 2         | 81.539×1.98  |           | P                 |           |                   |
|                                                            |      |                              |         | 0         | 81.539×3.97  |           |                   |           |                   |

| IVECO       |      |                              |         |           |              |           |                   |           |                                                             |
|-------------|------|------------------------------|---------|-----------|--------------|-----------|-------------------|-----------|-------------------------------------------------------------|
| Engine Type | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.                                                    |
| 045-10      |      |                              | 4       | 1         | 93×3.0       | DCI       | Cr1               | T-B       | 730 2093 EZ 730 2094 EZ 730 2095 EZ 730 2096 EZ 730 2097 EZ |
|             |      |                              |         | 2         | 93×2.0       | F14       | Mo                | IWU       |                                                             |
|             |      |                              |         | O         | 93×3.0       | ACI       | Cr1               | DSF       |                                                             |
| 045-10      |      |                              | 4       | 1         | 93×3.0       | DCI       | Cr1               | T-B       |                                                             |
|             |      |                              |         | 2         | 93×2.0       | ACI       | P                 | IWU       |                                                             |
|             |      |                              |         | O         | 93×3.0       | ACI       | Cr1               | DSF       |                                                             |
| 2.4L        |      |                              | 4       | 1         | 93×3.0       | DCI       | Cr1               | T-B       |                                                             |
|             |      |                              |         | 2         | 93×2.0       | F14       | P                 | M         |                                                             |
|             |      |                              |         | O         | 93×3.0       | ACI       | Cr1               | DSF       |                                                             |
| 2.8L        |      |                              | 4       | 3         | 94.5×2.5     | DCI       | Cr1               | T(B)      |                                                             |
|             |      |                              |         | 4         | 94.5×2.0     | ACI       | P                 | M         |                                                             |
|             |      |                              |         | O         | 94.5×2.5     | ACI       | Cr1               | DSF       |                                                             |
|             |      |                              | 6       | 1         | 137×4.0      | DCI       | Cr1               | T(B)      | R46840(AE)                                                  |
|             |      |                              |         | 2         | 137×3.0      | ACI       | P                 | R         |                                                             |
|             |      |                              |         | 3         | 137×3.0      | ACI       | P                 | N-G       |                                                             |
|             |      |                              |         | O         | 137×5.5      | ACI       | Cr1 P             | DSF       |                                                             |
|             |      |                              | 6       | 1         | 137×4.0      | DCI       | Cr1 SiB           | T(B)      | R47220(AE)                                                  |
|             |      |                              |         | 2         | 137×3.0      | DCI       | Cr1 SiB           | IW        |                                                             |
|             |      |                              |         | O         | 137×5.5      | ACI       | Cr1               | DSF       |                                                             |
| LAND-ROVER  |      |                              |         |           |              |           |                   |           |                                                             |
| Engine Type | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Material  | Surface Treatment | Ring Type | Part NO.                                                    |
|             |      |                              | 4       | 1         | 90.475×1.8   | DCI       | P                 | R-B       |                                                             |
|             |      |                              |         | 2         | 90.475×1.8   | ACI       | P                 | M         |                                                             |
|             |      |                              |         | O         | 90.475×4.73  | ACI       | P                 | G         |                                                             |
| LEYLAND     |      |                              |         |           |              |           |                   |           |                                                             |
| Engine Type | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.                                                    |

|               |      |                              |         |           |              |          |                   |           |                          |
|---------------|------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|--------------------------|
|               | 6540 |                              | 6       | 1         | 107.21X3.43  | DCI      | CrI               | ET-B      |                          |
|               |      |                              |         | 2         | 107.21X3.43  | ACI      |                   | IW-B      |                          |
|               |      |                              |         | O         | 107.21X6.35  | ACI      |                   | SLF       |                          |
|               |      |                              |         | O         | 107.21X6.35  | ACI      |                   | S         |                          |
| MAN           |      |                              |         |           |              |          |                   |           |                          |
| Engine Type   | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Material | Surface Treatment | Ring Type | Part NO.                 |
| MAN o846      |      |                              | 6       | 1         | 108×2.5      | ACI      | Cr1 P             | B         | 227 52 No (MAHLE)        |
|               |      |                              |         | 2         | 108×2.5      | ACI      | P                 | N         | 80 00154 1 0000 (KS)     |
|               |      |                              |         | O         | 108×5.0      | ACI      | Cr1 P             | DSF       | 06-280000-10<br>(COETZE) |
| MAN 2156      |      |                              | 6       | 1         | 121×3.5      | ACI      | Cr1 P             | T-B       | 228 40 Vo (MAHLE)        |
|               |      |                              |         | 2         | 121×3.0      | ACI      | P                 | IF        | 80 00148 1 0000 (KS)     |
|               |      |                              |         | 3         | 121×3.0      | ACI      | P                 | N         | 06-274800-10<br>(COETZE) |
|               |      |                              |         | O         | 121×5.5      | ACI      | Cr1 P             | DSF       |                          |
| MAN 2356      |      |                              | 6       | 1         | 123×3.5      | ACI      | Cr1 P             | T-B       | 80 00149 1 0000 (KS)     |
|               |      |                              |         | 2         | 123×3.0      | ACI      | P                 | IF        | 06-282100-10<br>(COETZE) |
|               |      |                              |         | 3         | 123×3.0      | ACI      | P                 | N         |                          |
|               |      |                              |         | O         | 123×5.5      | ACI      | Cr1 P             | DSF       |                          |
| 228/82 Turbo  |      |                              | 6       | 1         | 125×3.5      | DCI      | Cr1               | T-B       | 228 82 NO (MAHLE)        |
|               |      |                              |         | 2         | 125×3.0      | ACI      | P                 | NM        | 80 00154 1 0000 (KS)     |
|               |      |                              |         | O         | 125×5.0      | ACI      | Cr1 P             | DSF       |                          |
| 228/05 Normol |      |                              | 6       | 1         | 125×3.0      | ACI      | Cr1               | T-B       | 228 05 NO (MAHLE)        |
|               |      |                              |         | 2         | 125×3.0      | ACI      |                   | NM M      | 80 00151 1 0000 (KS)     |
|               |      |                              |         | O         | 125×5.0      | ACI      | Cr1               | DSF       | 06-874400-20<br>(COETZE) |
| 228/90        |      |                              | 6       | 1         | 128×3.5      | DCI      | Cr1 P             | T-B       | 228 90 No (MAHLE)        |
|               |      |                              |         | 2         | 128×3.0      | ACI      | P                 | M         | 80 001551 0000 (KS)      |
|               |      |                              |         | O         | 128×5.0      | ACI      | Cr1               | DSF       |                          |
| MERCEDES-BENZ |      |                              |         |           |              |          |                   |           |                          |
| Engine Type   | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Material | Surface Treatment | Ring Type | Part NO.                 |

|                                                                     |  |  |   |   |           |     |       |      |                                                   |
|---------------------------------------------------------------------|--|--|---|---|-----------|-----|-------|------|---------------------------------------------------|
|                                                                     |  |  | 4 | 1 | 87×2.0    | DCI | Cr1   | R-B  | M246790(PC)                                       |
|                                                                     |  |  |   | 2 | 87×2.0    | ACI | P     | N    |                                                   |
|                                                                     |  |  |   | O | 87×4.0    | ACI | Cr1   | DSF  |                                                   |
|                                                                     |  |  | 4 | 1 | 87×2.0    | DCI | Cr1   | R-B  | M204900(PC)                                       |
|                                                                     |  |  |   | 2 | 87×2.0    | ACI | P     | N    |                                                   |
|                                                                     |  |  |   | O | 87×4.0    | ACI | Cr1   | DSF  |                                                   |
|                                                                     |  |  | 4 | 1 | 87×3.0    | DCI | Cr1   | R-B  | M295710(PC)                                       |
|                                                                     |  |  |   | 2 | 87×2.0    | ACI | P     | N    |                                                   |
|                                                                     |  |  |   | O | 87×4.0    | ACI | Cr1   | DSF  |                                                   |
|                                                                     |  |  | 4 | 1 | 87×3.0    | DCI | Cr1   | R-B  | M334220(PC)                                       |
|                                                                     |  |  |   | 2 | 87×2.0    | ACI | P     | N    |                                                   |
|                                                                     |  |  |   | O | 87×4.0    | ACI | Cr1   | DSF  |                                                   |
| OM601, OM602                                                        |  |  | 4 | 1 | 87×2.0    | DCI | Cr1 P | R-B  | 002 08 NO(MAHLE)                                  |
|                                                                     |  |  |   | 2 | 87×2.0    | F14 | P     | IF   | 06-183200-<br>(GEOTZE)                            |
|                                                                     |  |  |   | O | 87×3.0    | ACI | P     | DSF  | 06-183207-<br>(GEOTZE)                            |
| 1973-78 2197CC<br>Eng.200,220D                                      |  |  | 4 | 1 | 87×2.0    | DCI | Cr1 P | IF-B | 06-170700-<br>00(GEOTZE)                          |
|                                                                     |  |  |   | 2 | 87×2.0    | ACI | P     | IW   |                                                   |
|                                                                     |  |  |   | O | 87×4.0    | ACI | P     | DSF  |                                                   |
| 200D,220D,<br>OM615,913 3RING<br>PISTON                             |  |  | 4 | 1 | 87×3.0    | DCI | Mo P  | IW-B | 06-170600-<br>00(GEOTZE) 06-<br>170607-00(GEOTZE) |
|                                                                     |  |  |   | 2 | 87×2.0    | ACI | P     | IF   |                                                   |
|                                                                     |  |  |   | O | 87×4.0    | ACI | P     | DSF  |                                                   |
| COMP.                                                               |  |  | 4 | 1 | 88.05×2.0 | ACI | P     | IF-N |                                                   |
|                                                                     |  |  |   | 2 | 88.05×2.0 | ACI | P     | IF-N |                                                   |
|                                                                     |  |  |   | 3 | 88.05×2.5 | ACI | P     | N    |                                                   |
|                                                                     |  |  |   | O | 88.05×5.0 | ACI | P     | S    |                                                   |
| 1988-91<br>OM601,D23(4cyl.)<br>OM603,D35A(TURBO<br>,970 3.5L(6cyl.) |  |  | 4 | 1 | 89×2.5    | DCI | Cr1 P | IF-B | 06-743100-<br>00(GOETZE)                          |
|                                                                     |  |  |   | 2 | 89×2.0    | ACI | P     | IF   |                                                   |
|                                                                     |  |  |   | 0 | 89×3.0    | ACI | Cr1 P | DSF  |                                                   |

|                                                                           |  |  |   |   |           |     |       |      |                          |
|---------------------------------------------------------------------------|--|--|---|---|-----------|-----|-------|------|--------------------------|
| 1980-on 109E,200T<br>M10Z Eng.                                            |  |  | 4 | 1 | 89×1.75   | DCI | Cr1 P | IF-B |                          |
|                                                                           |  |  |   | 2 | 89×2.0    | ACI | P     | NM   |                          |
|                                                                           |  |  |   | 0 | 89×3.5    | ACI | Cr1 P | DSF  |                          |
| COMP. M24                                                                 |  |  | 4 | 1 | 90×2.5    | ACI | P     | M    | 004 14 Vo(MAHLE)         |
|                                                                           |  |  |   | 2 | 90×2.5    | ACI | P     | N    | 800 00182 1 1000<br>(KS) |
|                                                                           |  |  |   | 3 | 90×2.5    | ACI | P     | N    |                          |
|                                                                           |  |  |   | O | 90×4.0    | ACI | P     | G    |                          |
| COMP.                                                                     |  |  | 1 | 1 | 90×2.5    | ACI | P     | NM   | 06-404500-<br>00(GOETZE) |
|                                                                           |  |  |   | 2 | 90×2.5    | ACI | P     | NM   |                          |
|                                                                           |  |  |   | O | 90×4.0    | ACI | P     | DSF  |                          |
| 1974-85 2404CC<br>Diesel Eng.240D<br>2971CC<br>OM616,OM617,300SD<br>Turbo |  |  | 4 | 1 | 91×3.0    | DCI | Cr1 P | IW-B | 06-876300-<br>00(GOETZE) |
|                                                                           |  |  |   | 2 | 91×2.0    | ACI | P     | IW   |                          |
|                                                                           |  |  |   | O | 91×4.0    | ACI | Cr1 P | DSF  |                          |
| OM617.910/912                                                             |  |  | 5 | 1 | 91×3.0    | DCI | Mo    | IF-B | M270440(PC)              |
|                                                                           |  |  |   | 2 | 91×2.0    | ACI | Mo    | IF-B |                          |
|                                                                           |  |  |   | O | 91×4.0    | ACI | Cr1   | DSF  |                          |
|                                                                           |  |  | 4 | 1 | 91.5×3.0  | DCI | Cr1 P | IW-B | 06-173807-<br>20(GOETZE) |
|                                                                           |  |  |   | 2 | 91.5×2.0  | ACI | Mo P  | IW   |                          |
|                                                                           |  |  |   | O | 91.5×4.0  | ACI | Cr1 P | DSF  |                          |
|                                                                           |  |  | 1 | 1 | 91.5×3.0  | DCI | Mo    | IF-B | M002360(PC)              |
|                                                                           |  |  |   | 2 | 91.5×2.0  | ACI | Mo    | IW   |                          |
|                                                                           |  |  |   | O | 91.5×4.0  | ACI | Cr1   | DSF  |                          |
| M102, E2.3                                                                |  |  | 4 | 1 | 95.5×1.75 | DCI | Cr1 P | IF-B | 002 77 NO(MAHLE)         |
|                                                                           |  |  |   | 2 | 95.5×2.0  | ACI | P     | NM   | 80 00189 4 0 000(KS)     |
|                                                                           |  |  |   | O | 95.5×3.5  | ACI | Cr1P  | DSF  |                          |

|                                                                               |  |              |   |   |          |     |           |        |                                    |
|-------------------------------------------------------------------------------|--|--------------|---|---|----------|-----|-----------|--------|------------------------------------|
| 1964-0n5675cc<br>Eng.126 H.P.OM352<br>1964-<br>On3780ccEng.60,80,1<br>00 H.P. |  |              | 6 | 1 | 97×3.0   | DCI | Cr1 Tin   | T-B    | 000 45 NO(MAHLE)                   |
|                                                                               |  |              |   | 2 | 97×3.0   | ACI |           | M      | 80 00109 1 0 000(KS)               |
|                                                                               |  |              |   | 3 | 97×3.0   | ACI |           | NM     | 06-174300-<br>36(GOETZE)           |
|                                                                               |  |              |   | O | 97×5.5   | ACI | Cr1       | DSF    | 06-178800-<br>46(GOETZE)           |
|                                                                               |  |              |   | O | 97×5.5   | ACI |           | D      | 004 51 NO                          |
| OM314,OM352 Turbo                                                             |  |              | 6 | 1 | 97×2.5   | DCI | Mo P      | T-B    | 022 50 Vo(MAHLE)                   |
|                                                                               |  |              |   | 2 | 97×2.5   | ACI | Mo P      | IW     | 80 00191 1 1 000(KS)               |
|                                                                               |  |              |   | O | 97×4.0   | ACI | Cr1 P     | DSF    |                                    |
| OM441 OM442                                                                   |  | COMP. RINGS. | 1 | 1 | 100X2.50 | ACI | CrI       | R      |                                    |
|                                                                               |  |              |   | 2 | 100X2.50 | ACI |           | N      |                                    |
|                                                                               |  |              |   | O | 100X2.50 | ACI | CrI       | DSF    |                                    |
| OM360                                                                         |  |              | 6 | 1 | 115×3.5  | DCI | Cr1 (Mo)  | TB     | 80 00110 10 000(KS)                |
|                                                                               |  |              |   | 2 | 115×3.0  | ACI | Mo        | IF     | 06-176400-<br>36(GOETZE)           |
|                                                                               |  |              |   | O | 115×5.5  | DCI | Cr1       | DSF    | 005 11 NO(MAHLE)                   |
| OM412 OM401                                                                   |  |              | 6 | 1 | 125×3.0  | DCI | Mo        | T-B    | 06-176800-<br>36(GOETZE)           |
|                                                                               |  |              |   | 2 | 125×3.0  | ACI | Cr1 P(Mo) | NM IWU | 06-176000-<br>36(GOETZE)           |
|                                                                               |  |              |   | O | 125×4.0  | ACI | Cr1       | DSF    | 80 0019411 000(KS)                 |
| OM401                                                                         |  |              | 6 | 1 | 125×3.0  | DCI | Cr1 (Mo)  | T-B    | 003 45 Vo(MAHLE)                   |
|                                                                               |  |              |   | 2 | 125×3.0  | ACI | (P)       | NM M   | 003 45 Go(MAHLE)                   |
|                                                                               |  |              |   | O | 125×6.0  | ACI | Cr1       | DSF    | 80 00193 110 000(KS)<br>06-176800- |
| D2840                                                                         |  |              | 6 | 1 | 128×4.0  | DCI | Cr1 P     | T-B    |                                    |
|                                                                               |  |              |   | 2 | 128×3.0  | ACI | P         | M      |                                    |
|                                                                               |  |              |   | O | 128×4.0  | ACI | Cr1 P     | DSF    |                                    |
| OM422                                                                         |  |              | 6 | 1 | 128×3.0  | DCI | Mo        | T-B    | 003 66 VO(MAHLE)                   |
|                                                                               |  |              |   | 2 | 128×3.0  | ACI | Mo        | NM     | 80 00195 11000(KS)                 |
|                                                                               |  |              |   | O | 128×4.0  | ACI | Cr1       | DSF    | 06-181700-<br>36(GOETZE)           |
| OM422                                                                         |  |              | 6 | 1 | 128×3.0  | DCI | Mo P      | T-B    | 08-179300-<br>10(GOETZE)           |
|                                                                               |  |              |   | 2 | 128×3.0  | ACI | Cr1 P     | IWU    |                                    |
|                                                                               |  |              | 8 | O | 128×4.0  | ACI | Cr1 P     | DSF    |                                    |

|                                        |      |                              |         |           |              |          |                   |           |                      |
|----------------------------------------|------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|----------------------|
| OM422                                  |      |                              | 6       | 1         | 128×3.0      | DCI      | Mo                | T-B       | 003 76 No(MAHLE)     |
|                                        |      |                              |         | 2         | 128×3.0      | ACI      | Cr1               | IWU       |                      |
|                                        |      |                              | 8       | O         | 128×4.0      | ACI      | Cr1               | DSF       |                      |
| OM355, OM346 Truck                     |      |                              | 6       | 1         | 128×3.5      | DCI      | Mo(Cr1)           | T-B       | 003 54 VO (MAHLE)    |
|                                        |      |                              |         | 2         | 128×3.5      | ACI      | P                 | IF        | 003 54 V2(MAHLE)     |
|                                        |      |                              |         | 3         | 128×3.5      | ACI      | P                 | NM        | 003 54 V3(MAHLE)     |
|                                        |      |                              |         | O         | 128×6.5      | ACI      | Cr1               | DSF       | 80 00196 1 1 000(KS) |
| OM443                                  |      |                              | 6       | 1         | 130×3.0      | DCI      | Cr1 P             | T-B       | 003 78 NO(MAHLE)     |
|                                        |      |                              |         | 2         | 130×3.0      | ACI      | Cr1 P             | IWU       | 80 00197 1 0 000(KS) |
|                                        |      |                              |         | O         | 130×4.0      | ACI      | Cr1               | DSF       | 06-742300-           |
| OPEL                                   |      |                              |         |           |              |          |                   |           |                      |
| Engine Type                            | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Material | Surface Treatment | Ring Type | Part NO.             |
| 1.6L/SE/ SZ/SV                         |      |                              | 6       | 1         | 79×1.2       | DCI      | Cr1 P             | R-B       | 011 08 No/N1/N2      |
|                                        |      |                              |         | 2         | 79×1.5       | ACI      | P                 | NM        | 80 00207 4 0000(KS)  |
|                                        |      |                              |         | O         | 79×3.0       | ACI      | Cr1 P             | DSF       |                      |
| 1.8E/NE/NZ/NV/S                        |      |                              | 4       | 1         | 84.8×1.5     | DCI      | Cr1 P             | R-B       | 011 62 N2/N4(MAHLE)  |
|                                        |      |                              |         | 2         | 84.8×1.5     | ACI      | P                 | NM        |                      |
|                                        |      |                              |         | O         | 84.8×3       | ACI      | Cr1 P             | DSF       |                      |
| OMEGA                                  |      |                              | 4       | 1         | 86×1.5       | DCI      | Cr1 P             | R-B       | 011 58 NO (MAHLE)    |
|                                        |      |                              |         | 2         | 86×1.5       | ACI      | P                 | NM        | 80 00212 4 0000 (KS) |
|                                        |      |                              |         | O         | 86×3.0       | ACI      | Cr1 P             | DSF       |                      |
| PEUGEOT                                |      |                              |         |           |              |          |                   |           |                      |
| Engine Type                            | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Material | Surface Treatment | Ring Type | Part NO.             |
| 1969-75 1288CC<br>Eng.304,304S         |      |                              | 4       | 1         | 76×1.75      |          | Cr1               |           | 021 78 Vo (MAHLE)    |
|                                        |      |                              |         | 2         | 76×2.0       |          |                   |           | 40 42625(PC)         |
|                                        |      |                              |         | O         | 76×4.0       |          |                   |           |                      |
| 1977-84<br>204GL,304L,LS,SLS,30<br>5SR |      |                              | 4       | 1         | 78×1.75      | DCI      | Cr1               | R-B       | 039 69 NO (MAHLE)    |
|                                        |      |                              |         | 2         | 78×2.0       | ACI      |                   | M         | 40 42625(PC)         |
|                                        |      |                              |         | O         | 78×4.0       | Steel    |                   |           |                      |

|                                                            |  |  |   |   |         |       |      |      |                         |
|------------------------------------------------------------|--|--|---|---|---------|-------|------|------|-------------------------|
| 480/M232250<br>(Diesel)                                    |  |  | 4 | 1 | 80×2.0  | DCI   | Mo P | IF-B | 011 54 NO (MAHLE)       |
|                                                            |  |  |   | 2 | 80×2.0  | ACI   | P    | M    | 40 43218(PC)            |
|                                                            |  |  |   | O | 80×3.0  | ACI   | Cr1  | DSF  | 80 00224 4 0000 (KS)    |
| 483/M270460<br>(Diesel)                                    |  |  | 4 | 1 | 83×2.0  | DCI   | Cr1  | R-B  | 039 24 NO (MAHLE)       |
|                                                            |  |  |   | 2 | 83×2.0  | ACI   |      | M    | 80 00037 4 0000 (KS)    |
|                                                            |  |  |   | O | 83×3.0  | ACI   | Cr1  | DSF  | 40 43186(PC)            |
| 483A/M333230 (Gas)                                         |  |  | 4 | 1 | 83×1.75 | DCI   | Cr1  | R-B  | 039 76 NO (MAHLE)       |
|                                                            |  |  |   | 2 | 83×1.75 | ACI   |      | M    | 80 00036 4 0000 (KS)    |
|                                                            |  |  |   | O | 83×4.0  | Steel |      | SLF  | 40 4318880(PC)          |
| 1960-70 1618cc<br>Eng.404,Berline<br>Grand Tourism         |  |  | 4 | 1 | 84×2.0  | DCI   | Cr1  | M    | 039 29 VO (MAHLE)       |
|                                                            |  |  |   | 2 | 84×2.0  | ACI   |      | M    |                         |
|                                                            |  |  |   | 0 | 84×4.5  | Steel |      | SLF  |                         |
| 486                                                        |  |  | 4 | 1 | 86×2.0  | DCI   | Mo P | R-B  | M320520(PC)             |
|                                                            |  |  |   | 2 | 86×2.0  | ACI   |      | M    |                         |
|                                                            |  |  |   | 0 | 86×4.0  | ACI   | Cr1  | DSF  |                         |
| 1971-89 1971cc<br>Eng.504,505                              |  |  | 4 | 1 | 88×1.5  | DCI   | Cr1  | R-B  | 039 53 VO (MAHLE)       |
|                                                            |  |  |   | 2 | 88×2.0  | ACI   |      | M    | 80 00038 4 1 000 (KS)   |
|                                                            |  |  |   | 0 | 88×4.0  | Steel |      | SLF  | 40 42742(PC)            |
| 404LD                                                      |  |  | 4 | 1 | 88×2.0  | ACI   | Cr1  | R-B  | 40 42028(PC)<br>M266080 |
|                                                            |  |  |   | 2 | 88×2.0  | ACI   |      | M    |                         |
|                                                            |  |  |   | 3 | 88×2.0  | ACI   |      | M    |                         |
|                                                            |  |  |   | O | 88×4.5  | Steel |      | SLF  |                         |
| 1969-77 2112cc<br>Eng.XDP90,54PS,22,2<br>:1,404,504 Diesel |  |  | 4 | 1 | 90×2.0  |       | Cr1  |      | 40 39094 0(PC)          |
|                                                            |  |  |   | 2 | 90×2.0  |       |      |      |                         |
|                                                            |  |  |   | 3 | 90×2.0  |       |      |      |                         |
|                                                            |  |  |   | O | 90×4.5  |       |      |      |                         |

|                                                   |  |  |   |   |        |     |         |       |               |
|---------------------------------------------------|--|--|---|---|--------|-----|---------|-------|---------------|
| 1978-81<br>2304ccEng.Diesel<br>504,505D w/o Turbo |  |  | 4 | 1 | 94×2.0 | DCI | Cr1     | R     | 40 430300(PC) |
|                                                   |  |  |   | 2 | 94×2.0 | ACI | P       | IF NM |               |
|                                                   |  |  |   | O | 94×4.0 | ACI | Cr1     | DSF   |               |
| 494/ Mo55710                                      |  |  | 4 | 1 | 94×3.0 | DCI | Cr1(Mo) | T-B   | 40 43125(PC)  |
|                                                   |  |  |   | 2 | 94×2.0 | ACI | Mo      | IW-B  |               |
|                                                   |  |  |   | O | 94×4.0 | ACI | Cr1     | DSF   |               |

| Engine Type                                                 | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Material | Surface Treatment | Ring Type | Part NO.           |
|-------------------------------------------------------------|------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|--------------------|
| 4A.203DEng.S/N<br>2939036-on For Late<br>Piston 6.305D Eng. |      |                              | 4       | 1         | 91.491×2.37  | DCI      | Cr1(Mo) P         | R         | 043 21 VO (MAHLE)  |
|                                                             |      |                              |         | 2         | 91.491×2.40  | ACI      | P                 | IF        | 41158058 (PERKINS) |
|                                                             |      |                              |         | 3         | 91.491×3.15  | ACI      | P                 | NM        |                    |
|                                                             |      |                              | 6       | O         | 91.491×6.35  | ACI      | Cr1               | DSF       |                    |
|                                                             |      |                              |         | O         | 91.491×6.35  | ACI      | P                 | S         |                    |
|                                                             |      |                              | 4       | 1         | 91.48×2.38   | ACI      | Cr1               | R         | 68501(PERKINS)     |
|                                                             |      |                              |         | 2         | 91.48×2.38   | ACI      | P                 | R         |                    |
|                                                             |      |                              |         | 3         | 91.48×2.38   | Steel    | P                 |           |                    |
|                                                             |      |                              | 6       | O         | 91.48×6.33   | Steel    | Cr1               |           |                    |
|                                                             |      |                              |         | O         | 91.48×6.33   | ACI      | P                 | S         |                    |
| 236,A4.236,A6.4.236<br>Diesel Eng.6.354Eng.                 |      |                              | 4       | 1         | 98.48×2.38   | DCI      | Cr1 P             | R         | 043 48 NO (MAHLE)  |
|                                                             |      |                              |         | 2         | 98.48×2.38   | ACI      | P                 | IW        | 41158041 (PERKINS) |
|                                                             |      |                              |         | 3         | 98.48×2.38   | ACI      | P                 | IW        |                    |
|                                                             |      |                              |         | O         | 98.48×6.33   | ACI      | Cr1               | DSF       |                    |
|                                                             |      |                              | 6       | O         | 98.48×6.33   | ACI      | P                 | S         |                    |
|                                                             | 3990 |                              | 4       | 1         | 100.00X3.50  | DCI      | Cr1(Mo)           | T-B       | 40436130 (PC)      |
|                                                             |      |                              |         | 2         | 100.00X2.50  | ACI      |                   | NM        |                    |
|                                                             |      |                              |         | O         | 100.00X4.00  | ACI      | Cr1               | DSF       |                    |
|                                                             | 3990 |                              | 4       | 1         | 100.00X2.50  | DCI      | Cr1(Mo)           | R-B       | 40433870 (PC)      |
|                                                             |      |                              |         | 2         | 100.00X2.50  | ACI      |                   | IFU       |                    |
|                                                             | 5985 |                              | 6       | O         | 100.00X4.00  | ACI      | Cr1               | DSF       |                    |

|                                                                            |           |                              |         |           |              |          |                   |           |                                         |
|----------------------------------------------------------------------------|-----------|------------------------------|---------|-----------|--------------|----------|-------------------|-----------|-----------------------------------------|
|                                                                            | 3990      |                              | 4       | 1         | 100.00X3.00  | DCT      | CrI(Mo)           | T-B       | 40433880 (PC)                           |
|                                                                            |           |                              |         | 2         | 100.00X2.50  | ACI      |                   | IFU       |                                         |
|                                                                            | 5985      |                              | 6       | O         | 100.00X4.00  | ACI      | CrI               | DSF       |                                         |
|                                                                            | 4067      |                              | 4       | 1         | 101.05X2.50  | DCI      | CrI(Mo)           |           | 41158022 (PERKINS)                      |
|                                                                            |           |                              |         | 2         | 101.05X2.50  | ACI      |                   |           |                                         |
|                                                                            |           |                              |         | O         | 101.05X5.00  | ACI      | CrI               |           |                                         |
| A4.248 Diesel Eng.<br>6.372 Eng.                                           | 4065 6100 |                              | 4       | 1         | 101.05×2.38  | ACI      | Cr1               |           | 4181A009 (PERKINS)<br>043 30 NO (MAHLE) |
|                                                                            |           |                              |         | 2         | 101.05×2.38  | ACI      | Cr1               |           |                                         |
|                                                                            |           |                              |         | 3         | 101.05×2.38  | ACI      | Cr1               |           |                                         |
|                                                                            |           |                              | 6       | O         | 101.05×6.33  | ACI      | Cr1               |           |                                         |
|                                                                            |           |                              | 6       | 1         | 137.17X3.17  | DCT      | CrI(Mo)           | T-B       | 4043385 (PC)                            |
|                                                                            |           |                              |         | 2         | 137.17X3.22  | DCT      | CrI               | R-B       |                                         |
|                                                                            |           |                              |         | O         | 137.17X4.76  | ACI      | CrI               | DSF       |                                         |
| RENAULT                                                                    |           |                              |         |           |              |          |                   |           |                                         |
| Engine Type                                                                | C.C.      | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Material | Surface Treatment | Ring Type | Part NO.                                |
| 1968-72 1289cc<br>Eng.LeCar,R5R10,R12,<br>R15,1300Series 1970<br>Staffette |           |                              | 4       | 1         | 73×1.75      | DCI      | Cr1               | R-B       | 021 34 VO (MAHLE)                       |
|                                                                            |           |                              |         | 2         | 73×2.0       | ACI      | P                 | IF        |                                         |
|                                                                            |           |                              |         | O         | 73×4.0       | Steel    |                   | SLF       |                                         |
| 1983-87 1397cc<br>Eng.Alliance LeCar<br>R16                                |           |                              | 4       | 1         | 76×1.75      |          | Cr1               |           | 021 78 Vo (MAHLE)                       |
|                                                                            |           |                              |         | 2         | 76×2.0       |          |                   |           | 80 00230 4 0000 (KS)                    |
|                                                                            |           |                              |         | O         | 76×4.0       |          |                   |           | 40 425160(PC)                           |
|                                                                            |           |                              | 4       | 1         | 78×1.75      | DCI      | Cr1               | R-B       |                                         |
|                                                                            |           |                              |         | 2         | 78×2.0       | ACI      | P                 | M         |                                         |
|                                                                            |           |                              |         | O         | 78×3.0       | Steel    |                   | SLF       |                                         |
| 1983-On 1595cc<br>Eng.R9D,R11D                                             |           |                              | 4       | 1         | 78×2.0       | DCI      | Cr1               | R-B       | 021 08 NO (MAHLE)                       |
|                                                                            |           |                              |         | 2         | 78×2.0       | ACI      | P                 | M         | 80 00231 4 0000 (KS)                    |
|                                                                            |           |                              |         | O         | 78×3.0       | ACI      | Cr1               | DSF       | 40 432160(PC)                           |
| R18/20/21/25/30                                                            |           |                              | 4       | 1         | 86×2.5       | DCI      | Mo                | T-B       | 021 84 NO (MAHLE)                       |
|                                                                            |           |                              |         | 2         | 86×2.5       | ACI      |                   | N         | 80 00235 4 0000 (KS)                    |
|                                                                            |           |                              |         | O         | 86×4.0       | ACI      | Cr1               | DSF       | 40 431440(PC)                           |

|                                        |      |                              |         |           |              |           |                   |           |                   |
|----------------------------------------|------|------------------------------|---------|-----------|--------------|-----------|-------------------|-----------|-------------------|
| 1985-On<br>R18,R20,Fuego,Medal<br>lion |      |                              | 4       | 1         | 88×1.75      |           | Cr1               |           | 2C4488(Hastings)  |
|                                        |      |                              |         | 2         | 88×2.0       |           |                   |           | 42994(PC)         |
|                                        |      |                              |         | O         | 88×4.0       |           | Cr1               |           |                   |
| RVI                                    |      |                              |         |           |              |           |                   |           |                   |
| Engine Type                            | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Material  | Surface Treatment | Ring Type | Part NO.          |
| M261440                                |      |                              | 4       | 1         | 102×3.0      | DCI       | Cr1               | T-B       | 592 30 NO (MAHLE) |
|                                        |      |                              |         | 2         | 102×2.5      | ACI       | P                 | M         | 40 42925(PC)      |
|                                        |      |                              |         | O         | 102×5.0      | ACI       | Cr1               | DSF       |                   |
| M331310                                |      |                              | V8 or 6 | 1         | 135×3.5      | DCI       | Cr1               | T         | 40 431410U(PC)    |
|                                        |      |                              |         | 2         | 135×3.0      | ACI       | Cr1               | M         |                   |
|                                        |      |                              |         | O         | 135×4.0      | ACI       | Cr                | DSF       |                   |
| M357710                                |      |                              | V8 or 6 | 1         | 135×3.5      | DCI       | Mo                | T-B       | 40 43141(PC)      |
|                                        |      |                              |         | 2         | 135×3.0      | ACI       | Cr1               | M         |                   |
|                                        |      |                              |         | O         | 135×4.0      | ACI       | Cr1               | DSF       |                   |
| SAVIEN                                 |      |                              |         |           |              |           |                   |           |                   |
| Engine Type                            | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.          |
| M197230                                |      |                              | 4       | 1         | 98×3.0       |           | Cr1               |           | 40 43091(PC)      |
|                                        |      |                              |         | 2         | 98×2.5       |           |                   |           |                   |
|                                        |      |                              |         | O         | 98×4.0       |           | Cr1               |           |                   |
| M313230                                |      |                              | 4       | 1         | 98×3.0       |           | Cr1               |           | 40 430910(PC)     |
|                                        |      |                              |         | 2         | 98×2.5       |           |                   |           |                   |
|                                        |      |                              |         | O         | 98×4.5       |           | Cr1               |           |                   |
| M229000                                |      |                              | 4       | 1         | 102×3.0      | DCI       | Cr1               | T-B       | 40 42873(PC)      |
|                                        |      |                              |         | 2         | 102×2.5      | ACI       | P                 | M         |                   |
|                                        |      |                              |         | 3         | 102×2.5      | ACI       | P                 | M         |                   |
|                                        |      |                              |         | O         | 102×5.0      | ACI       | Cr1               | DSF       |                   |
| STEYR                                  |      |                              |         |           |              |           |                   |           |                   |

| Engine Type                                                        | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.             |
|--------------------------------------------------------------------|------|------------------------------|---------|-----------|--------------|-----------|-------------------|-----------|----------------------|
|                                                                    |      |                              | 6       | 1         | 126×3.5      | DCI       | Mo P              | T-B       |                      |
|                                                                    |      |                              |         | 2         | 126×3.0      | ACI       | P                 | M         |                      |
|                                                                    |      |                              |         | O         | 126×4.0      | ACI       | Cr1               | DSF       |                      |
| VOLKSWAGEN                                                         |      |                              |         |           |              |           |                   |           |                      |
| Engine Type                                                        | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.             |
| 1977-92 1471cc<br>Eng.Diesel<br>Rabbit,Golf Turbo<br>JettaD,Passat |      |                              | 4       | 1         | 76.5×1.75    | DCI       | Cr1               | R-B       | 029 80 NO (MAHLE)    |
|                                                                    |      |                              |         | 2         | 76.5×2.0     | ACI       | P                 | M         | 80 00006 11 000 (KS) |
|                                                                    |      |                              |         | O         | 76.5×3.0     | ACI       | Cr1               | DSF       | 40 43065(PC)         |
| JETTA                                                              |      |                              | 4       | 1         | 81×1.5       | DCI       | Cr1               | IW-B      |                      |
|                                                                    |      |                              |         | 2         | 81×1.75      | ACI       | P                 | NM        |                      |
|                                                                    |      |                              |         | O         | 81×2.0       | DCI       |                   | DSF       |                      |
| JETTA                                                              |      |                              | 4       | 1         | 81×1.5       | DCI       | Mo                | R-B       |                      |
|                                                                    |      |                              |         | 2         | 81×1.75      | ACI       | P                 | NM        |                      |
|                                                                    |      |                              |         | O         | 81×2.0       | DCI       |                   | DSF       |                      |
| SANTANA AUDI                                                       |      |                              | 4       | 1         | 81×1.5       | DCI       | Cr1               | IW-B      |                      |
|                                                                    |      |                              |         | 2         | 81×1.75      | ACI       | P                 | NM        |                      |
|                                                                    |      |                              |         | O         | 81×2.0       |           |                   |           |                      |
| PASSAT B4                                                          |      |                              | 4       | 1         | 81×1.5       | DCI       | Cr1               | R-B       |                      |
|                                                                    |      |                              |         | 2         | 81×1.75      | ACI       | Cr1 P             | NM        |                      |
|                                                                    |      |                              |         | O         | 81×3.0       | Steel     | Ox                | SLF       |                      |
| PASSAT B5                                                          |      |                              | 4       | 1         | 81×1.5       | DCI       | Cr1               | R-B       |                      |
|                                                                    |      |                              |         | 2         | 81×1.75      | ACI       | P                 | NM        |                      |
|                                                                    |      |                              |         | O         | 81×2.0       | ACI       |                   | DSF       |                      |
| VOLVO                                                              |      |                              |         |           |              |           |                   |           |                      |
| Engine Type                                                        | C.C. | Vehicle Model & Chassis Type | Cyl.No. | Posi-tion | Size DIA(MM) | Mate-rial | Surface Treatment | Ring Type | Part NO.             |
| TD100A                                                             |      |                              | 6       | 1         | 120.65×2.385 |           |                   |           |                      |
|                                                                    |      |                              |         | 2         | 120.65×3.16  |           |                   |           |                      |
|                                                                    |      |                              |         | 3         | 120.65×3.16  |           |                   |           |                      |
|                                                                    |      |                              |         | 0         | 120.65×4.74  |           |                   |           |                      |

|        |  |  |   |   |               |  |  |  |  |
|--------|--|--|---|---|---------------|--|--|--|--|
| TD100B |  |  | 6 | 1 | 120.65×2.385  |  |  |  |  |
|        |  |  |   | 2 | 120.65×3.16   |  |  |  |  |
|        |  |  |   | 0 | 120.65×4.74   |  |  |  |  |
| TD120G |  |  | 6 | 1 | 130.175×2.385 |  |  |  |  |
|        |  |  |   | 2 | 130.175×3.16  |  |  |  |  |
|        |  |  |   | 0 | 130.175×4.74  |  |  |  |  |