

# IPD parts for Caterpillar® G3306 Engines

| VALVE TRAIN AND CYLINDER HEAD COMPONENTS                    |             |           |   |
|---|-------------|-----------|---|
| DESCRIPTION   | PART NUMBER | QTY. REQ. | COMMENTS                                |
| <b>Engine Serial # 7Y 1 - Up ( Short Valve ) G6X 1 - Up</b> |             |           |   |
| Valve , Exhaust   | 2W2877      | 6         | Short Style 5.470"                      |
| Valve , Intake  | 2W2621      | 6         | Short Style 5.470"                      |
| Guide, Intake & Exhaust                                     | 4W9176      | 12        | With Correct Serial and Arrangement #'s |
| Guide, Intake & Exhaust                                     | 7E1551      | 12        | With Correct Serial and Arrangement #'s |
| Insert, Valve Seat Exhaust                                  | 7N1649      | 6         |   |
| Insert, Valve Seat Intake                                   | 5S7218      | 6         | 7Y 1 - 283                              |
| Insert, Valve Seat Intake                                   | 1070268     | 6         | 7Y 284 - Up                             |
| Valve Lock  | 2A4429      | 24        |   |
| Rotocoil  | 1031800     | 12        | Turbocharged                            |
| Rotocoil  | 1W5300      | 12        | Natural Aspirated ( Includes 6N7174 )   |
| Shield  | 6N7174      | 12        |   |
| Nut, Rocker Arm Adjusting                                   | 1B4203      | 12        |   |
| Spring, Valve   | 7S7144      | 12        |   |
| Valve Lifter  | 7S3161      | 12        |   |
| Water Director Seal Ring                                    | 9Y1798      | 18        |   |
| Water Director Seal Ring                                    | 7N8018      | 6         |   |
| Plug, Cup   | 3B0623      | 6         |   |
| Spark Plug Adapter  | 7N1743      | 6         |   |
| Spark Plug Adapter Gasket                                   | 2N7174      | 6         | Metal Gasket                            |
| Spark Plug Adapter Seal                                     | 7S3206      | 6         |   |
| <b>Engine Serial # 7Y 1 - Up ( Long Valve )</b>             |             |           |   |
| Valve , Exhaust   | 7W7491      | 6         | Long Style 6.400"                       |
| Valve , Intake  | 7W7490      | 6         | Long Style 6.400"                       |
| Guide, Intake & Exhaust                                     | 9Y7895      | 12        |   |
| Intake Valve Guide Seal                                     | 7W9143      | 6         | 7Y 2856 - Up                            |
| Spacer, Valve Guide   | 7W7488      | 12        |   |
| Insert, Valve Seat Exhaust                                  | 7N1649      | 6         |   |
| Insert, Valve Seat Intake                                   | 5S7218      | 6         | 7Y 1 - 283                              |
| Insert, Valve Seat Intake                                   | 1070268     | 6         | 7Y 284 - Up                             |
| Valve Lock  | 2A4429      | 24        |   |
| Rotocoil  | 1031800     | 12        | Turbocharged                            |
| Rotocoil  | 1W5300      | 12        | Natural Aspirated ( Includes 6N7174 )   |
| Shield  | 6N7174      | 12        |   |
| Spring, Valve   | 7S7144      | 12        |   |
| Valve Lifter  | 7S3161      | 12        |   |
| Water Director Seal Ring                                    | 9Y1798      | 18        | 7Y 2079 - Up                            |
| Plug, Cup   | 3B0623      | 6         |   |
| Spark Plug Adapter  | 7N1743      | 6         |   |
| Spark Plug Adapter Gasket                                   | 2N7174      | 6         | Metal Gasket                            |
| Spark Plug Adapter Seal                                     | 7S3206      | 6         |   |

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| <b>GASKET SETS AND MISCELLANEOUS GASKETS</b> |                    |                  |                                     |
|--|--------------------|------------------|-------------------------------------|
| <b>DESCRIPTION</b>                           | <b>PART NUMBER</b> | <b>QTY. REQ.</b> | <b>COMMENTS</b>                     |
| Overhaul Gasket Set                          | 306341             | 1                | 7Y 1 - Up Turbocharged              |
| Overhaul Gasket Set                          | 306351             | 1                | 7Y 1 - Up Non Turbocharged          |
|  |                    |                  |                                     |
| In Frame Overhaul Set                        | 306342             | 1                | 7Y 1 - Up Turbocharged              |
| In Frame Overhaul Set                        | 306352             | 1                | 7Y 1 - Up Non Turbocharged          |
|  |                    |                  |                                     |
| Cylinder Head Gasket Set                     | 306343             | 1                | 7Y 1 - Up Turbocharged              |
| Cylinder Head Gasket Set                     | 306353             | 1                | 7Y 1 - Up Non Turbocharged          |
|  |                    |                  |                                     |
| Oil Pan Gasket                               | 1694199            | 1                | Sump to Plate                       |
| Oil Pan Plate Gasket                         | 1694200            | 1                | Plate to Cylinder Block             |
|  |                    |                  |                                     |
| Valve Cover Gasket, Cork                     | 8S1605             | 1                | If Long Valves Order 1 Additional   |
| Valve Cover Seal, Molded                     | 1331247            | 1                | If Long Valves Order 1 Additional   |
|  |                    |                  |                                     |
| <b>ENGINE BEARINGS AND BUSHINGS</b>          |                    |                  |                                     |
| Main Bearing Standard                        | 2323233            | 7                |                                     |
| Main Bearing .010"                           | 8N8225             | A/R              |                                     |
| Main Bearing .020"                           | 8N8226             | A/R              |                                     |
| Main Bearing .030"                           | 8N8227             | A/R              |                                     |
|  |                    |                  |                                     |
| Rod Bearing Standard                         | 4W5739             | 6                |                                     |
| Rod Bearing .010"                            | 8N8221             | A/R              |                                     |
| Rod Bearing .020"                            | 8N8222             | A/R              |                                     |
| Rod Bearing .030"                            | 8N8223             | A/R              |                                     |
|  |                    |                  |                                     |
| Thrust Plate                                 | 6N8940             | 2                | .185 " Thick 7Y 1 - 290             |
| Thrust Plate                                 | 9S3037             | 2                | .232 " Thick                        |
| Thrust Plate                                 | 1003652            | 2                | .215 " Thick 7Y 291 - Up G6X 1 - Up |
|  |                    |                  |                                     |
| Cam Bearing                                  | 7M4046             | 4                |                                     |
| Cam Bearing                                  | 9M5477             | 1                |                                     |
|  |                    |                  |                                     |
| Bushing, Connecting Rod                      | 8N0702             | 6                | Straight Rod 7Y 1 - 437             |
| Bushing, Connecting Rod                      | 8N1985             | 6                | Tapered Rod 7Y 238 - Up G6X 1 - Up  |
|  |                    |                  |                                     |
| <b>CYLINDER KITS AND COMPONENTS</b>          |                    |                  |                                     |
| Piston and Liner Assembly                    | PLG4P2654          | 6                | 10.5 : 1 CR                         |
| Piston and Liner Assembly                    | PLG4P2655          | 6                | 8.1 : 1 CR                          |
|  |                    |                  |                                     |
| Piston Body                                  | 4P2654             | 6                | 10.5 : 1 CR                         |
| Piston Body                                  | 4P2655             | 6                | 8.1 : 1 CR                          |
|  |                    |                  |                                     |
| Ring Group                                   | 3300RS5            | 6                | 1 Each 4P2656, 4P2657, 4P2658       |

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| <b>CYLINDER KITS AND COMPONENTS Continued</b>  |             |           |  |
|--|-------------|-----------|--|
| DESCRIPTION  | PART NUMBER | QTY. REQ. | COMMENTS                               |
| Liner, Cylinder  | 1105800     | 6         |  |
| Pin, Piston  | 7N9804      | 6         | 1.50" Pin                              |
| Retainer, Piston Pin   | 9H4015      | 12        |  |
| Gasket Kit (Liner O Rings and Seal)  | 5P8768      | 6         | Includes 3 5S6670 and 1 2W6134         |
| Connecting Rod   | 8N1984      | 6         | Tapered Rod, NEW                       |
| <b>Pistons will fit only NEW STYLE tapered connecting rods</b>   |             |           |  |
| <b>COOLING SYSTEM COMPONENTS</b>   |             |           |  |
| Regulator, Water Temperature 175'  | 1118010     | 1         | 175 Degree                             |
| Regulator, Water Temperature 190'  | 1167577     | 1         | 190 Degree                             |
| Gasket, Regulator  | 7N0944      | 2         |  |
| Water Pump, NEW  | 1727767     | 1         | With correct serial & arrangement #'s  |
| Water Pump Overhaul Kit  | IPD7055     | A/R       | See Note                               |
| Water Pump Overhaul Kit  | IPD1616     | A/R       | See Note                               |
| Water Pump Rebuild Kit   | 1W7054      | A/R       | 7Y 1-408 with shaft # 1P9929           |
| Water Pump Rebuild Kit   | 1W7055      | A/R       | 7Y 409 - 1613 - up with shaft # 7N5899 |
| Water Pump Rebuild Kit   | 8T1616      | A/R       | 7Y 1614 - up with shaft # 2W7255       |
| Impeller, Water Pump   | 7N5910      | 1         | Use With 7N5899 and 2W7255 Shafts      |
| Seal Group, Water Pump   | 1313815     | 1         | Use With 8T1616 Kit                    |
| Seal Group, Water Pump   | 4W3864      | 1         | Use With 1W7054 and 1W7055 Kit         |
| Seal, Water Pump Oil   | 8H9520      | 1         | 7Y 1-408 with shaft # 1P9929           |
| Seal, Water Pump Oil   | 8C5210      | 1         | 7Y 409 - Up                            |
| Shaft, Water Pump  | 2W7255      | 1         | Included in 8T1616 Kit                 |
| Shaft, Water Pump  | 1P9929      | 1         | Included in 1W7054 Kit                 |
| Shaft, Water Pump  | 7N5899      | 1         | Included in 1W7055 Kit                 |
| Bearing, Water Pump Drive Gear   | 1B3867      | 1         |  |
| Bearing, Water Pump Drive Gear   | 6H3957      | 1         |  |
| <b>IPD Overhaul Kit contains shaft, bearings, seals, and gaskets for complete overhaul and mounting.</b> |             |           |  |

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| <b>OIL SYSTEM COMPONENTS</b>                                    |                    |                  |                               |
|---|--------------------|------------------|-------------------------------|
| <b>DESCRIPTION</b>  | <b>PART NUMBER</b> | <b>QTY. REQ.</b> | <b>COMMENTS</b>               |
| Oil Pump Group  | 6I1346             | 1                | New, Double Stage             |
| Oil Pump Repair Kit   | IPD1346RK          | 1                | For 6I1346 Oil Pump           |
| Shaft, Assembly   | 8S0493             | 1                |                               |
| Shaft, Assembly   | 2P6245             | 1                |                               |
| Gear, Oil Pump  | 6N1036             | 2                | 8 Teeth                       |
| Valve, Pressure Relief  | 4P3546             | 1                |                               |
| Key   | 1B8709             | 1                |                               |
|   |                    |                  |                               |
| Bolt  | 0S1591             | 1                |                               |
| Valve, Pressure Relief  | 4P3546             | 1                |                               |
| <b>Oil Pump Part For Both Single and Double Stage Oil Pumps</b> |                    |                  |                               |
| Oil Pump Idler Bushing  | 1969988            | 1                |                               |
| Bearing   | 8S6511             | 4                |                               |
| Idler Bushing   | 1950302            | 1                |                               |
| Oil Pump Idler Shaft  | 2P1170             | 1                |                               |
| <b>MISCELLANEOUS COMPONENTS</b>                                 |                    |                  |                               |
| <b>Crankshaft Components</b>                                    |                    |                  |                               |
| Crankshaft  | 2W7458             | 1                | New                           |
| Crankshaft Seal, Rear   | 4W0452             | 1                |                               |
| Crankshaft Seal, Front  | 9Y9895             | 1                |                               |
| Crankshaft Wear Sleeve, Rear                                    | 2P3858             | 1                |                               |
| Plugs   | 9F2247             | 6                |                               |
| <b>Camshaft Components</b>                                      |                    |                  |                               |
| Camshaft Kit  | 4P2942             | 1                | Contains Camshaft and Lifters |
| Camshaft  | 7E9980             | 1                | New                           |
| Lifters   | 7S3161             | 12               |                               |
| Camshaft Lock   | 8S1491             | 1                |                               |
| <b>Cylinder Block Repair</b>                                    |                    |                  |                               |
| Sleeve, Counterbore Salvage                                     | 5P1622             | A/R              | " L " Type                    |