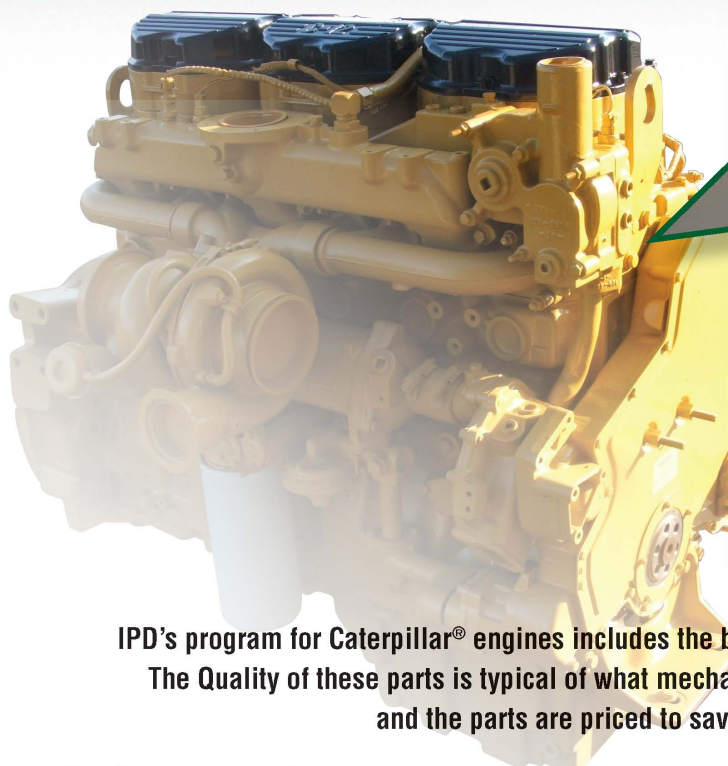




IPD Products for CATERPILLAR® C12 ENGINES



IPD's program for Caterpillar® engines includes the basic overhaul parts necessary to rebuild these engines. The Quality of these parts is typical of what mechanics around the world have come to expect from IPD, and the parts are priced to save you money on your C12 rebuild.

IPD Overhaul kits include:

- ◆ **Cylinder kits including the IPDSteel® articulated, 2 piece pistons** with IPD patented cast steel crown and aluminum skirt, as well as piston pin, rings and liner.
- ◆ **IPD Induction Hardened Liner** for maximum wear resistance.
- ◆ **IPD Rod & Main Bearings** made from heavy-duty/industrial grade materials (not automotive grade).
- ◆ **IPDStyle 1-2-3™ Gasket Sets** which give you all the items you need for a proper In-Frame engine overhaul.

Individual components that are available also include:

- ◆ Camshaft bushings
- ◆ Idler Gear bushing
- ◆ Valves, guides, seats and springs
- ◆ Connecting rod bushings

All packaged in high quality IPD In-Frame overhaul boxes.

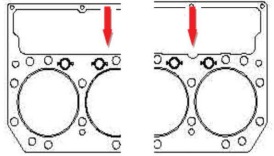
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LLOYD'S REGISTER



IPD PARTS FOR CATERPILLAR® C12 ENGINES

| IPD Part Number | Description | IPD Cylinder Kit Number Included | Engine Serial Ranges | Head Gasket (Scalloped or Straight) |
|---|--------------------------|----------------------------------|----------------------|---|
| IPD IN FRAME C12 OVERHAUL KITS | | | | |
| IF9374/032STR | IN FRAME KIT, TRUCK | PLG1979374 | MBL1-UP | Straight |
| IF2948/002SCL | IN FRAME KIT, TRUCK | PLG1442948 | 9NS1-UP | Scalloped |
| IF2948/002STR | IN FRAME KIT, TRUCK | PLG1442948 | 9NS1-UP | Straight |
| IF2948/022SCL | IN FRAME KIT, TRUCK | PLG1442948 | 2KS1-UP | Scalloped |
| IF2948/022STR | IN FRAME KIT, TRUCK | PLG1442948 | 2KS1-UP | Straight |
| IF9328/012SCL | IN FRAME KIT, TRUCK | PLG1979328 | 1YN1-UP | Scalloped |
| IF9328/012STR | IN FRAME KIT, TRUCK | PLG1979328 | 1YN1-UP | Straight |
| IF2948/052STR | IN FRAME KIT, TRUCK | PLG1979328 | CPD1-UP | Straight |
| IF2948/042STR | IN FRAME KIT, INDUSTRIAL | PLG1442948 | BDL1-UP | Straight |
| IPD Out-of-Frame engine kits also available | | | | SCL = Scalloped head gasket STR = Straight head gasket |

| IPD CYLINDER KITS FOR C12 | | | | |
|--|---------------|-----------------------------|---|--|
| IPD Part Number | Description | Compression Ratio of Piston | Comments | |
| PLG1442948 | CYLINDER KITS | 16:25:1 | PLG kit contains: crown, skirt, rings, pin, retainers, liner and seal. See above for application by engine serial number | |
| PLG1979328 | CYLINDER KITS | 16:0:1 | | |
| PLG1979374 | CYLINDER KITS | 16:2:1 | | |
| IPD Engine and PLG kits applicable to applications with less than 500BHP | | | | |

| IPD STYLE 123™ IN FRAME GASKET SETS FOR C12 APPLICATIONS | | | | |
|--|-------------------|---|----------------------|---|
| IPD Part Number | REMARKS |  | Engine Serial Ranges | Head Gasket (Scalloped or Straight) |
| C12002SCLNLS | TRUCK ENGINE | | Shown | 9NS |
| C12002STRNLS | TRUCK ENGINE | 9NS | | Straight |
| C12022SCLNLS | TRUCK ENGINE | 2KS | | Scalloped |
| C12022STRNLS | TRUCK ENGINE | 2KS | | Straight |
| C12012STRNLS | TRUCK ENGINE | 1YN | | Straight |
| C12012SCLNLS | TRUCK ENGINE | 1YN | | Scalloped |
| C12032STRNLS | TRUCK ENGINE | MBL | | Straight |
| C12052STRNLS | TRUCK ENGINE | CPD | | Straight |
| C12042STRNLS | INDUSTRIAL ENGINE | BDL | | Straight |
| Injector o-rings are <u>not included</u> in IPD Style 1-2-3 Gasket Sets IPD Style 1-2-3 Out-of-Frame gasket sets also available Additional OE Style gasket sets are also available | | | | SCL = Scalloped head gasket STR = Straight head gasket |

| IPD ENGINE BEARINGS AND BUSHINGS FOR C12 APPLICATIONS | | | | |
|--|-------------------------|---------------------|----------------------|--------------|
| IPD Part Number | Description | Quantity per Engine | Engine Serial Ranges | Comments |
| 2110588 | MAIN BEARING, STANDARD | 3 | ALL | |
| 1280382 | MAIN BEARING, .50 MM | AS REQUIRED | ALL | |
| 2110587 | MAIN BEARING, STANDARD | 4 | ALL | |
| 1280400 | MAIN BEARING, .50 MM | AS REQUIRED | ALL | |
| 2463144 | THRUST PLATE | 2 | ALL | |
| 1161089 | ROD BEARING, STANDARD | 6 | ALL | |
| 1280395 | ROD BEARING, .50 MM | AS REQUIRED | ALL | |
| 1152972 | BUSHING, CONNECTING ROD | 6 | ALL | |
| 9M2418 | BUSHING, IDLER GEAR | 1 | ALL | |
| 2165584 | CAM BEARING | 1 | ALL | Rear |
| 2165585 | CAM BEARING | 1 | ALL | Front |
| 2165583 | CAM BEARING | 5 | ALL | Intermediate |

IPD VALVE TRAIN PARTS FOR C12 APPLICATIONS

| IPD Part Number | Quantity per Engine | ENGINE SERIAL NUMBER RANGE | | | | | |
|-----------------|---------------------|----------------------------|---------|---------|---------|----------|-----------|
| | | MBL1-UP | BDL1-UP | 9NS1-UP | 1YN1-UP | 2KS1-348 | 2KS349-UP |
| GUIDE, VALVE | 24 | 1008150 | 1008150 | 1008150 | 1008150 | 1323214 | 1008150 |
| LOCK, VALVE | 48 | 2A4429 | 2A4429 | 2A4429 | 2A4429 | 2A4429 | 2A4429 |
| SPRING, INNER | 24 | 2414441 | 2414441 | 2414441 | 2414441 | 2414441 | 2414441 |
| SPRING, OUTER | 24 | 2140586 | 2140586 | 2140586 | 2140586 | 2140586 | 2140586 |
| VALVE, INTAKE | 12 | 1929213 | 1929213 | 1929213 | 7E9578 | 7E9578 | 1929213 |
| VALVE, EXHAUST | 12 | 1337029 | 1337029 | 1337029 | 1337029 | 1337029 | 1337029 |

Note: All IPD valves are made of materials designated for this application

IPD MISCELLANEOUS PARTS FOR C12 APPLICATIONS

| IPD Part Number | Description | IPD Part Number | Description | IPD Part Number | Description |
|-----------------|----------------------------|-----------------|---------------|-----------------|---------------------------|
| 5S8543 | BEARING, OIL PUMP DRIVE | 0L1026 | PLUG, CORE | 1979251 | PISTON PIN |
| 7C3095 | REGULATOR 190 (THERMOSTAT) | 3B0623 | PLUG, CORE | 1979341 | PISTON RING, COMPRESSION |
| 3S9643 | SEAL, THERMOSTAT | 1B3867 | BALL BEARING | 2168570 | PISTON RING, INTERMEDIATE |
| 7C8292 | ISOLATOR | 1B8705 | KEY, WOODRUFF | 2382704 | PISTON RING, OIL CONTROL |
| 6I1638 | BASE, INJECTOR POSITIONING | | | | |



Please continue to check with your IPD Customer Service Center or our free IPD e-newsletter available at www.ipdparts.com for updates to our coverage on all of our product lines

IPD IS AN ISO9001:2008 CERTIFIED COMPANY



IPD TORRANCE CALIFORNIA STEEL PISTON MANUFACTURING FACILITY IS ISO9001:2008 CERTIFIED BY LLOYD'S REGISTER



IPDSteel® patented cast steel articulated pistons are manufactured using state of the art CNC equipment at IPD's Torrance California facilities under our ISO9001:2008 certified program.

IPD'S ENGINE PARTS PROGRAM INCLUDES PRODUCTS FOR OLDER AND NEWER APPLICATIONS.

IPD offers the most extensive application coverage in the aftermarket, stretching into engines made over a 5 decade period.

Here is a quick list of the applications currently included in the IPD product line:

| | | | | |
|------|-------|-------|-------|------------------|
| D333 | D3114 | D3412 | G3304 | C7 |
| D342 | D3116 | D3508 | G3306 | C9 |
| D343 | D3126 | D3512 | G3406 | C10/3176C |
| D346 | D3204 | D3516 | G3408 | C12 |
| D348 | D3208 | G342 | G3412 | C15 |
| D353 | D3304 | G353 | G3508 | C18 |
| D379 | D3306 | G379 | G3512 | Cummins ISX/QSX |
| D398 | D3406 | G398 | G3516 | DD60 Series |
| D399 | D3408 | G399 | G3520 | <i>and more!</i> |

IPD

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