



## **IPD Products for Cummins® ISX/QSX ENGINE**

The Standard for Quality, Innovation, Service and Support Since 1955



## IPD, A SAFE AND SECURE INVESTMENT

Since 1955, IPD has lowered engine maintenance costs without sacrificing quality, engine life, or performance, by providing a cost effective and high quality product line alternative. Our robust product line covers a wide range of products for Caterpillar® diesel and natural gas engines, as well as Detroit Diesel® Series 60 and Cummins® ISX/QSX.

IPD recognizes the importance of repairing engines with quality products. Equipment and machines are an investment and source of revenue for owners, and we recognize the importance of keeping them in operation. We use only quality materials, and our 55 plus years of manufacturing experience has taught us how to build quality into our IPD products from the beginning. Moreover, IPD's ISO-based QC process assures that our customers receive products that have passed our high quality assurance standards. Additionally, our comprehensive and clearly stated warranties give our customers peace-of-mind when purchasing IPD products because they know they are covered and protected.

IPD is ISO9001:2008 certified by Lloyd's Register®, is recognized and respected worldwide for high standards of technical competence, impartiality, and independence. This certification, and the requisite compliance with ISO controls and processes, provides our customers the assurance of a consistent experience. The extent to which IPD has developed its ISO process, and made it a part of virtually every aspect of IPD, is an uncommon practice in most companies within the aftermarket parts industry.

You can read more about IPD quality, and learn more about how we differentiate our company, brand, and products, at [www.ipdparts.com](http://www.ipdparts.com). Thank you for taking the time to view this document, we appreciate the opportunity to prove to you what truly sets IPD apart from the competition.



# IPD ISX/QSX PRODUCT LINE

Our product line features many differentiators that set IPD apart from our competition. Listed below are just a few product highlights of the IPD ISX/QSX series engines line.

## **IPDSteel™ One Piece Piston**

Each IPDSteel™ Piston starts with a heat-treated high strength steel casting, a manufacturing process developed by IPD. This process has been extensively tested and successfully proven in many applications since 2003. For the ISX/QSX, IPD offers the latest open and closed skirt profiles depending on application.



## **Main and Rod Bearings**

Our main and rod bearings are of a bi-metal design with a copper/lead alloy, and steel backed for fitment, strength and durability. The layered structure of the bearings provides optimum performance. The result is fatigue strength, seizure resistance, wear resistance, conformability, embeddability, as well as corrosion and cavitation resistance.



## **Gaskets and Gasket Kits**

IPD uses premium materials designed for heavy duty industrial engine applications. Integral valve cover and oil pan seals are composed of a metal core and molded rubber to assure a positive seal. Our one piece head gasket has been designed to be used with flat top cylinder liners, which IPD offers as well.

## **Piston pin**

Piston pins from IPD for Cummins® ISX/QSX are manufactured from a hardened chromium, molybdenum, and nickel alloy steel to produce excellent tensile strength and wear resistance.



## **Cylinder Liners**

IPD cylinder liners for Cummins ISX/QSX applications are induction hardened for improved wear resistance and strength. IPD offers the latest “flat top” liner flange profile that can also be retrofitted to earlier engines in complete sets.

## **Valve Train Components**

IPD is known world-wide for providing the highest quality valve train components throughout our product line. This continues with our ISX/QSX program, such as with our exhaust valves that are made high quality 23-8N material. This material is a austenitic, nitrogen-bearing, chrome-nickel alloy possessing excellent high temperature strength, hardness, and corrosion resistance to combustion by-products. In addition IPD specifies grade 6 Stellite™ facing for wear resistance.

Intake Valves from IPD are created from EN52 valve steel that has mechanical properties such as low rate of fatigue crack growth, and increases in fatigue strength.

## QUICK REFERENCE GUIDE FOR IPD ISX AND QSX PRODUCTS

DESCRIPTION	IPD PART NUMBER	QTY REQUIRED	NOTES
<b>IN-FRAME KITS</b>			
In-Frame Kit <b>IPDSteel™</b> Piston	IF1879/96	1	Includes 1 Piece <b>IPDSteel™</b> Pistons (Closed Skirt, EGR), Liners with Seals, Ring Sets, Piston Pins, Retainers, Rod and Main Bearings, Bypass Plunger Valve, Head Gasket Set, Pan Gasket and P/U Tube O-ring. <b>Must be used with drilled connecting rods.</b>
In-Frame Kit <b>IPDSteel™</b> Piston	IF9894/96	1	Includes 1 Piece <b>IPDSteel™</b> Pistons (Open Skirt, EGR with Radius Bowl), Liners with seals, Ring Sets, Piston Pins, Retainers, Rod and Main Bearings, Bypass Plunger Valve, Head Gasket Set, Pan Gasket and P/U Tube O-ring. <b>Must be used with drilled connecting rods.</b>
In-Frame Kit <b>IPDSteel™</b> Piston	IF9895/95	1	Includes 1 Piece <b>IPDSteel™</b> Pistons (Open Skirt with Chamfer Bowl), Liners with Seals, Ring Sets, Piston Pins, Retainers, Rod and Main Bearings, Bypass Plunger Valve, Head Gasket Set, Pan Gasket and P/U Tube O-Ring. <b>Must be used with drilled connecting rods.</b>
In-Frame Kit <b>IPDSteel™</b> Piston	IF5966/95	1	Includes 1 Piece <b>IPDSteel™</b> (Closed Skirt with Large 2.250" Center Bowl Configuration), Liners with Seals, Ring Sets, Piston Pins, Retainers, Rod and Main Bearings, Bypass Plunger Valve, Head Gasket Set, Pan Gasket and P/U Tube O-Ring. <b>Must be used with drilled connecting rods.</b>
In-Frame Kit <b>IPDSteel™</b> Piston	IF5967/95	1	Includes 1 Piece <b>IPDSteel™</b> (Closed Skirt with Small 1.930" Center Bowl Configuration), Liners with Seals, Ring Sets, Piston Pins, Retainers, Rod and Main Bearings, Bypass Plunger Valve, Head Gasket Set, Pan Gasket and P/U Tube O-Ring. <b>Must be used with drilled connecting rods.</b>
Re-Ring In-Frame O/H Kit	IF4089154/95	1	For early style 2 Piece Articulated Pistons that use the 4089154 ring sets. Includes Liners with Seals, Ring Sets, Retainers, Rod Bearings(for drilled rods), Main Bearings, Bypass Plunger Valve, Head Gasket Set, Pan Gasket and P/U Tube O-Ring. <b>Does NOT include Piston Crowns, Skirts, or Piston Pins.</b>
Re-Ring In-Frame O/H Kit	IF4089406/95	1	For 1 Piece Non-EGR Pistons that use the 4089406 ring sets. Includes Liners with Seals, Ring Sets, Pins, Retainers, Rod Bearing(for drilled rods), Main Bearings, Bypass Plunger Valve, Head Gasket Set, Pan Gasket and P/U Tube O-Ring. <b>Does NOT include Pistons.</b>
Re-Ring In-Frame O/H Kit	IF4089406/96	1	For 1 Piece EGR Pistons that use the 4089406 ring sets. Includes Liners with Seals, Ring Sets, Pins, Retainers, Rod Bearing(for drilled rods), Main Bearings, Bypass Plunger Valve, Head Gasket Set, Pan Gasket and P/U Tube O-Ring. <b>Does NOT include Pistons.</b>
<b>PISTON KITS AND COMPONENTS</b>			
Piston & Liner Assembly	PLG2881879	6	Includes 1 Piece Steel Piston (Closed Skirt, EGR. #2882630), Liner with Seal, Pin, Retainers & Ring Set. Use in Full Sets Only. <b>Do Not Mix Piston numbers. Must be used with drilled connecting rods.</b>
Piston & Liner Assembly	PLG4089894	6	Includes 1 Piece Steel Piston (Open Skirt, EGR with Radius Bowl. #4923743),Liner with Seal, Pin, Retainers & Ring Set. Use in Full Sets Only. <b>Do Not Mix Piston numbers. Must be used with drilled connecting rods.</b>
Piston & Liner Assembly	PLG4089895	6	Includes 1 Piece Steel Piston (Open Skirt with Chamfer Bowl. #4923744),Liner with Seal, Pin, Retainers & Ring Set. Use in Full Sets Only. <b>Do Not Mix Piston numbers. Must be used with drilled connecting rods.</b>
Piston & Liner Assembly	PLG4955966	6	Includes 1 Piece Steel Piston (Closed Skirt with Large 2.250" Center Bowl Configuration. #2863938), Liner with Seal, Pin, Retainers & Ring Set. Use in Full Sets Only. <b>Do Not Mix Piston numbers. Must be used with drilled connecting rods.</b>
Piston & Liner Assembly	PLG4955967	6	Includes 1 Piece Steel Piston (Closed Skirt with Small 1.930" Center Bowl Configuration. #2863939),Liner with Seal, Pin, Retainers & Ring Set. Use in Full Sets Only. <b>Do Not Mix Piston numbers. Must be used with drilled connecting rods.</b>

## QUICK REFERENCE GUIDE FOR IPD ISX AND QSX PRODUCTS

DESCRIPTION	IPD PART NUMBER	QTY REQUIRED	NOTES
Liner Kit	4089153	6	"Flat-Top" Liner with Seal
Ring Group	4089406	6	For 1 Piece Steel Pistons Only
Ring Group	4089154	6	For 2 Piece Articulated Pistons Only
Piston Pin	4923748	6	
Retainer, Piston Pin	3064305	12	
Liner O-Ring	3678738	6	

### ENGINE BEARINGS AND BUSHINGS

Main Bearing Set, Std	3800298	1	Standard
Main Bearing Set, .25mm	4089845	1	.25mm
Rod Bearing, Std	4089405	6	Standard for drilled and non-drilled rods. 6 per engine.
Rod Bearing Kit, .25mm	4090016	1	.25mm, for drilled and non-drilled rods. 1 kit per engine.
Cam Bushing	3680580	4	Left Bank
Cam Bushing 0.030" O.D.	3680580OS	4	Left Bank. 0.030" O/S O.D.
Cam Bushing 0.030" O.D.	3680581OS	3	Left Bank. 0.030" O/S O.D.
Cam Bushing	3680581	3	Left Bank
Cam Bushing	4026423	7	Right Bank

### VALVE TRAIN PARTS

Valve, Exhaust	4101454	12	20 degree
Valve, Intake	4965868	12	20 degree
Valve, Spring	3679551	24	
Valve Guide	4026657	12	
Valve Lock	3680883	48	
Seal, Valve Stem	4026791	24	Intake and Exhaust
Seal, Valve Stem	4026660	12	Intake
Seat, Valve Spring	3680318	12	
Insert, Valve Seat-Intake	3679537	12	
Insert, Valve Seat-Intake	3679659	12	Cobalt based with Stellite
Insert, Valve Seat-Exhaust	3104445	12	
Sleeve, Injector	3412352	6	

### GASKET SETS, GASKETS & SEALS

Gasket Set, Upper	4955595	1	Non-EGR Engines. Use only with "Flat-Top" liners
Gasket Set, Upper	4955596	1	EGR Engines. Use only with "Flat-Top" liners
Gasket, Oil Pan	4026684	1	
Seal, O-Ring	3678756	1	Oil Pick Up Tube O-Ring

### MISCELLANEOUS ITEMS

Plunger, Bypass Valve	3820320	1	
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*IPD continues to expand Cummins® ISX/QSX product coverage, please contact your IPD Regional Manager, Customer Service Representative, or our web site at [www.ipdparts.com](http://www.ipdparts.com) for updates.*

# IPD ENGINE MODEL SUMMARY

## CATERPILLAR®

D3508 / D3512 / D3516 / D3524  
G3508 / G3512 / G3516/ G3520  
D3406 / D3408 / D3412  
D3406E /D3408E/ D3412E  
G3406 / G3408 / G3412  
D3304 / D3306 / D333  
G3304 / G3306 / G333  
3204 / 3208  
3114 / 3116 / 3216  
3064 / 3066

D379 / D398 / D399  
G379 / G398 / G399  
D353 / G353  
D339 / D342 / G342  
D343 / D346 / D348  
C15  
C12  
C10 / 3176C  
C9

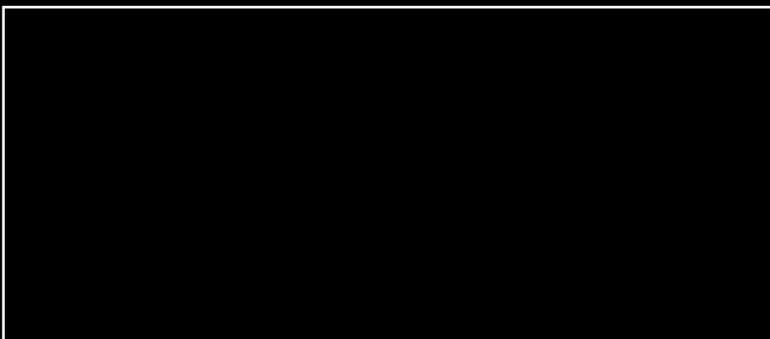
## DETROIT DIESEL®

60 Series

## CUMMINS®

ISX/QSX

IPD brand quality products distributed by:



# IPD

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