MATERIALS of CONSTRUCTION

Models
HD161C HD162C HD163C
HD172C HD173C HDL172C HDL173C

	Standard	Optional
Cylinder, Head, Valve Cap	Ductile Iron ASTM A536, 65-45-12	Ductile Iron, TNT-12 Treated ASTM A536, 65-45-12
Distance Piece and Crosshead Guide	Ductile Iron ASTM A536, 65-45-12	
Connecting Rod	Ductile Iron ASTM A536, 60-40-18	
Crosshead	Gray Iron, ASTM A48	
Crankshaft	Ductile Iron ASTM A536, 100-70-03	
Pistons	Steel	Steel, TNT-12 Treated
Crankcase, Flywheel Bearing Carrier	Gray Iron ASTM A48	
Valve Seats & Stops	Steel, TNT-12 Treated	
Valve Plates and Valve Springs	Stainless Steel, TNT-12 Treated	
Piston Rods	Steel, Black surface to 60 Rc	Chrome Oxide Coated
Packing Box	Steel	Steel, TNT-12 Treated
Wrist Pin	Hardened Steel	
Piston Rings	Glass & Moly Filled PTFE	Poly Filled PTFE
Piston Ring Expanders	Stainless Steel	
Rod Packing	PTFE V-Rings	
Bearings, Crank	Tapered Roller	
Bearings, Rod	Babbitt Lined Steel Backed	
Bearing, Wrist Pin	Steel Needle Bearing	
Metal Gaskets	Iron	
Other Gaskets	Fiber	
O-rings	Buna-N	PTFE, FKM, Neoprene Ethylene-Propylene

Models

HD361C, HD362C, HD363C
HD372C, HD373C, HDL372C
HD602C, HD603C
HD612C, HD613C

HDL362C, HDL363C
HDL372C, HDL373C
HDL602C, HDL603C
HDL612C, HDL613C

	Standard	Optional
Cylinder, Head, Valve Cap & Valve Cover Plate	Ductile Iron, ASTM A536, 65-45-12	Ductile Iron, TNT-12 Treated ASTM A536, 65-45-12
Distance Piece and Crosshead Guide	Ductile Iron, ASTM A536, 65-45-12	
Connecting Rod	Ductile Iron, ASTM A536, 60-40-18	
Crankshaft	Ductile Iron, ASTM A536, 100-70-03	
Pistons	Steel	Steel, TNT-12 Treated
Crankcase, Crosshead, Flywheel, Bearing Carrier	Gray Iron, ASTM A48	
Valve Seats & Stops	Ductile Iron	Ductile Iron - TNT-12 Treated, Stainless Steel
Valve Plates	PEEK (Poly Ether Ether Ketone)	Stainless Steel
Valve Springs	Stainless Steel	
Piston Rods	Steel, Black surface to 60 Rc	Chrome Oxide Coated
Packing Box	Steel	Steel - TNT-12 Treated
Wrist Pin	Hardened Steel	
Piston Rings	Glass & Moly Filled PTFE	Poly Filled PTFE
Piston Ring Expanders	Stainless Steel	
Rod Packing	PTFE V-Rings	
Bearings, Crank	Tapered Roller	
Bearings, Rod	Babbitt Lined Steel Backed	
Bearing, Wrist Pin	Steel Needle Bearing	
Valve Gaskets	Iron	
Other Gaskets	Fiber	
O-rings	Buna-N	PTFE, FKM, Neoprene, Ethylene-Propylene
Suction Valve Unloader Body, Piston, and Plunger	Stainless Steel	
Intercooler, Air-Cooled 2-stage: Liquid-Cooled 2-Stage:	--- Brass Shell & Tube	Finned Steel Tube Stainless Steel Shell & Tube

MODELS

HDL322C
HDL342C, HDL343C
HDL642C, HDL643C

	Standard	Optional
Cylinder, Head, Valve Cap & Valve Cover Plate	Ductile Iron, ASTM A536, 65-45-12	Ductile Iron, TNT-12 Treated ASTM A536, 65-45-12
Distance Piece and Crosshead Guide	Ductile Iron, ASTM A536, 65-45-12	
Connecting Rod	Ductile Iron, ASTM A536, 60-40-18	
Crankshaft	Ductile Iron, ASTM A536, 100-70-03	
Pistons	Steel	Steel, TNT-12 Treated
Crankcase, Crosshead, Flywheel, Bearing Carrier	Gray Iron, ASTM A48	
Valves	Stainless Steel	Ductile Iron, w/ PEEK plates and Stainless Steel Springs or Ductile Iron - TNT-12 Treated w/ PEEK plates & SS Springs
Piston Rods	Steel, Black surface to 60 Rc	Chrome Oxide Coated
Packing Box	Steel	Steel - TNT-12 Treated
Wrist Pin	Hardened Steel	
Piston Rings	Glass & Moly Filled PTFE	Poly Filled PTFE
Piston Ring Expanders	Stainless Steel	
Rod Packing	PTFE V-Rings	
Bearings, Crank	Tapered Roller	
Bearings, Rod	Babbitt Lined Steel Backed	
Bearing, Wrist Pin	Steel Needle Bearing	
Valve Gaskets	Iron	
Other Gaskets	Fiber	
O-rings	Buna-N	PTFE, FKM, Neoprene, Ethylene-Propylene
Suction Valve Unloader Body, Piston, and Plunger	Stainless Steel	

MODELS

HD942B, HDL942B

	Standard	Optional
Cylinder, Head, Piston, Valve Cover Plate,Valve Cap	Ductile Iron, ASTM A536, 65-45-12	Ductile Iron, TNT-12 Treated ASTM A536, 65-45-12
Crosshead Guide	Ductile Iron, ASTM A536, 65-45-12	
Connecting Rod	Ductile Iron, ASTM A536, 60-40-18	
Crosshead	Gray Iron, ASTM A48	
Crankshaft	Ductile Iron, ASTM A536, 100-70-03	
Crankcase, Flywheel, Bearing Carrier	Gray Iron ASTM A48	
Valve Seats & Stops	Ductile Iron	Ductile Iron - TNT-12 Treated, Stainless Steel
Valve Plates	PEEK	Stainless Steel
Valve Springs	Stainless Steel	
Piston Rods	Steel, Black Surface to 60 Rc	
Packing Box	Steel	Steel - TNT-12 Treated
Wrist Pin	Hardened Steel	
Piston Rings	Glass & Moly Filled PTFE	Poly Filled PTFE
Piston Ring Expanders	Stainless Steel	
Rod Packing	PTFE	
Bearings, Crank	Tapered Roller	
Bearings, Rod	Babbitt Lined Steel Backed	
Bearing, Wrist Pin	Steel Needle Bearing	
Valve Gaskets	Iron	
Other Gaskets	Fiber	
O-rings	Buna-N	PTFE, FKM, Neoprene Ethylene-Propylene
Suction Valve Unloader Body, Piston, and Plunger	Stainless Steel	

CONNECTION SIZES and TYPES

All Connections are Flange Type except those marked 'Tapped'

Model		Standard	Optional
HD161C, HD162C	Inlet	3/4" NPT, tapped	
HD163C **HDS162C**	Outlet	3/4" NPT, tapped	
HD361C	Inlet	1-1/2" ANSI 300#	
HD362C, HDL362C **HD363C, HDL363C** **HDS362C**	Outlet	1-1/2" ANSI 300#	
HDL322C, HDL342C	Inlet	1-1/2" ANSI 600#	
HDL343C	Outlet	1-1/2" ANSI 600#	
HD602C, HDL602C	Inlet	2" ANSI 300#	
HD603C, HDL603C **HDS602C**	Outlet	2" ANSI 300#	
HDL642C	Inlet	2" ANSI 600#	
HDL643C	Outlet	2" ANSI 600#	
HD942B	Inlet	2" ANSI 300#	
HDL942B	Outlet	2" ANSI 300#	
HD172C, HDL172C	Inlet, Stage 1	3/4" NPT, tapped	
HD173C, HDL173C **HDS172C**	Outlet, Stage 2	3/4" NPT, tapped	
HD372C, HD373C	Inlet, Stage 1	1-1/4" NPT, tapped	
HDS372C	Outlet, Stage 2	1" NPT, tapped	
HDL372C **HDL373C**	Inlet, Stage 1	1-1/4" NPT, tapped	
	Outlet, Stage 1 Inlet, Stage 2	Steel, 3/4" NPT	Steel, 1" NPT Steel Weld, 3/4",1"
	Outlet, Stage 2	1" NPT, tapped	
HD612C, HDL612C **HD613C, HDL613C** **HDS612C**	Inlet, Stage 1	DI*, 2" NPT	DI*, 1-1/2" NPT Steel Weld, 1-1/2", 2"
	Outlet, Stage 1 Inlet, Stage 2	Steel, 1" NPT	Steel Weld, 1"
	Outlet, Stage 2	DI*, 1-1/2" NPT	DI*, 2" NPT Steel Weld, 1-1/2", 2"

* DI = Ductile Iron, ASTM A536, 65-45-12

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