Significant Model Changes: HD Compressors

Date	Description	Models
Feb 2007	Roller Bearings & S3R Seal	HD600 AND HD900 Series
July 2001	ANSI Flanged Heads	HD361C, HD362C, HD363C HD601B, HD602B, HD603B
Jan 1999	New Baseplate	160 and 170 Series
Jan 1996	New Wrist Pin Bearings	HD100 and HD300 Series
Dec 1995	Oil Filters	HD Series
May 1994	New Crankcases	HD100 & HD300 Series
May 1993	New Crankcases	HD600 Series

ROLLER BEARINGS & S3R SEAL: HD600 AND HD900 SERIES (Feb 2007)

Effective immediately, all Blackmer HD600 and HD900 series compressors now have a split roller bearing on the wrist pin in place of a brass bushing. In addition, a new oil control seal (S3R) has been incorporated into the lower packing box. These changes are now standard construction. Parts lists and IOM's are available from the Blackmer website.

All HD600 models now have a revision code 'C':

HD602C	HDL602C	HDL642C	HD612C	HDL612C
HD603C	HDL603C	HDL643C	HD613C	HDL613C
HDS602C			HDS612C	

The HD900 models now have a revision code of 'B':

HD942B HDL942B

Advantages of upgrades

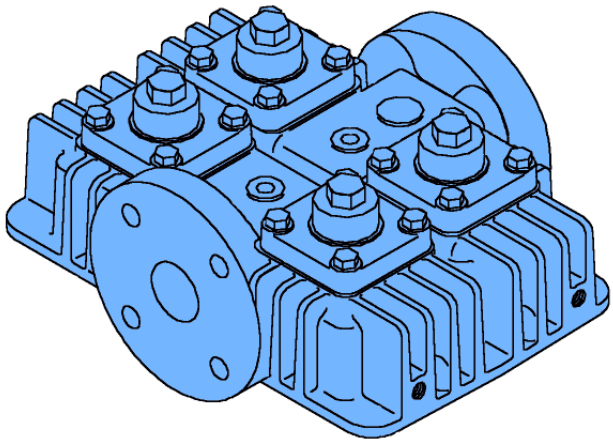
- These models are now free of all yellow metals
- Roller bearings provide longer life under high rod load applications
- Superior wrist pin lubrication is assured under all load conditions
- Enhanced oil control with the addition of the S3R seal

Parts Interchangeability Considerations

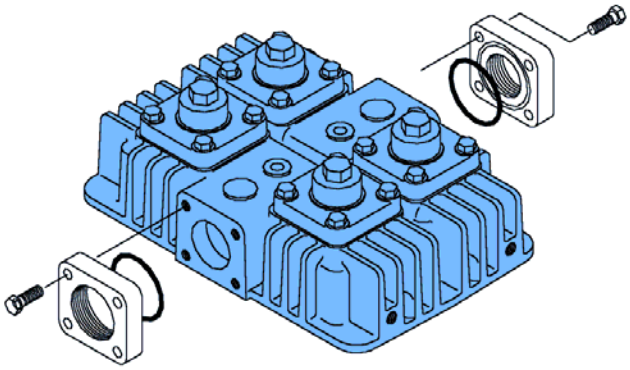
All previous HD600B and HD900A Series compressors can use the new roller bearing and S3R seal by replacing the Connecting Rod Assemblies and Packing Boxes. The S3R seal **must** be installed if converting to the roller bearing design. A roller bearing may not be installed in place of a bushing; the entire connecting rod **must** be replaced. No other changes are needed. Connecting rod assemblies with bronze bushings and previous design packing boxes will continue to be available as repair parts.

ANSI Flanged Heads: **(July 2001)**

HD361C, HD362C, HD363C
HD601B, HD602B, HD603B



ANSI Flanged



4-bolt Flanged Head

The cylinder head used on the HD360C and HD600B series compressors is being changed to an ANSI flanged design. By providing an industry standard ANSI flange, we will more readily meet the specifications requested by our customers.

Flange Sizes	
HD361C, HD362C, HD363C	1.5”, 300# ANSI
HD601B, HD602B, HD603B	2”, 300# ANSI

The model numbers remain HD361C, HD362C, HD363C and HD601B, HD602B, HD603B.

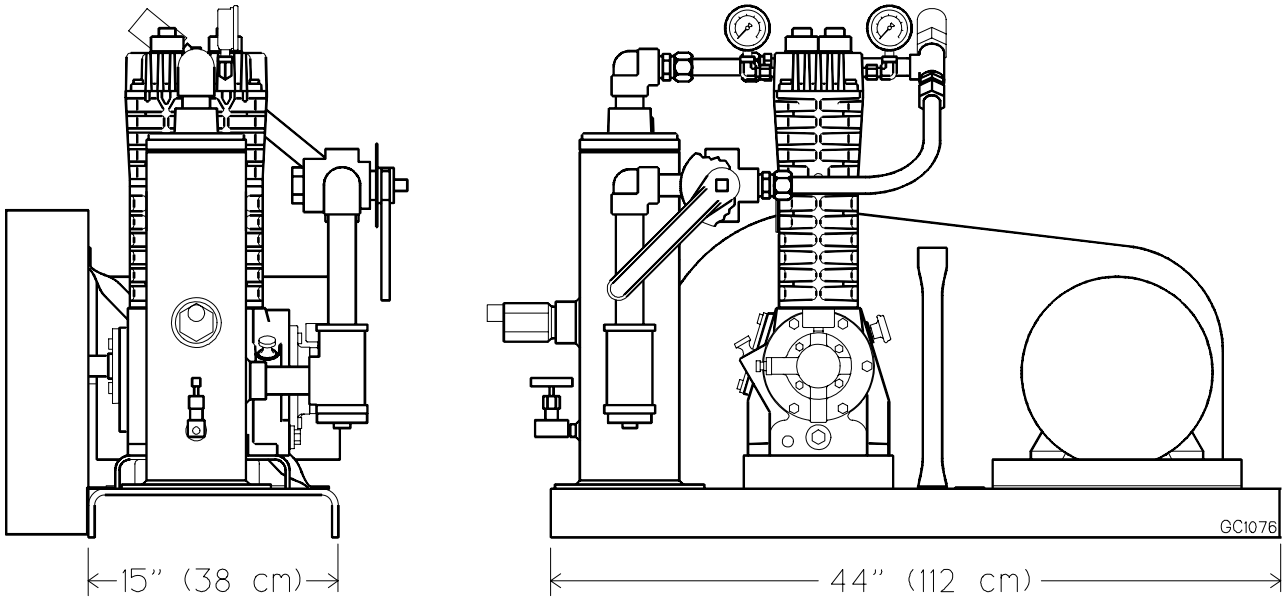
The 4-bolt flanged style head will be available as a replacement part. The new ANSI flanged head will bolt into the place of the 4-bolt flanged head, although some small changes to the piping will be needed to accommodate the flanges.

This change will take place with units shipping in July 2001.

New Baseplate For All 160 and 170 Series Compressors (Jan 1999)

The baseplate used on all 160 and 170 series compressors is being lengthened from 42” (107 cm) to 44” (112 cm). The extra 2” is being added at the motor end to better accommodate the mounting of the motor slide base.

No part numbers will change as the 42” version will no longer be available except as a special order part. This change will take place in January 1999.



New Wrist Pin Bearings for HD100 and HD300 Series Compressors (Jan 1996)

All HD100 and HD300 series compressors now have a roller bearing on the wrist pin in place of a brass bushing as standard construction.

To note this change, these models are now revision code 'C':

HD161C	HD361C			
HD162C	HD362C	HD172C	HD372C	HDL372C
HD163C	HD363C	HD173C	HD373C	HDL373C

ADVANTAGES

These models are now free of all yellow metals.

Roller bearings provide longer life under high rod load applications.

Adequate wrist pin lubrication is assured under all load conditions.

PARTS INTERCHANGEABILITY CONSIDERATIONS

HD100 Series

All previous HD100 Series compressors can use the new roller bearing by replacing the connecting rod assemblies with the new version. A roller bearing may not be installed in place of a bushing, the entire connecting rod must be replaced. No other changes are needed. Connecting rod assemblies with bronze bushings will continue to be available.

HD300 Series

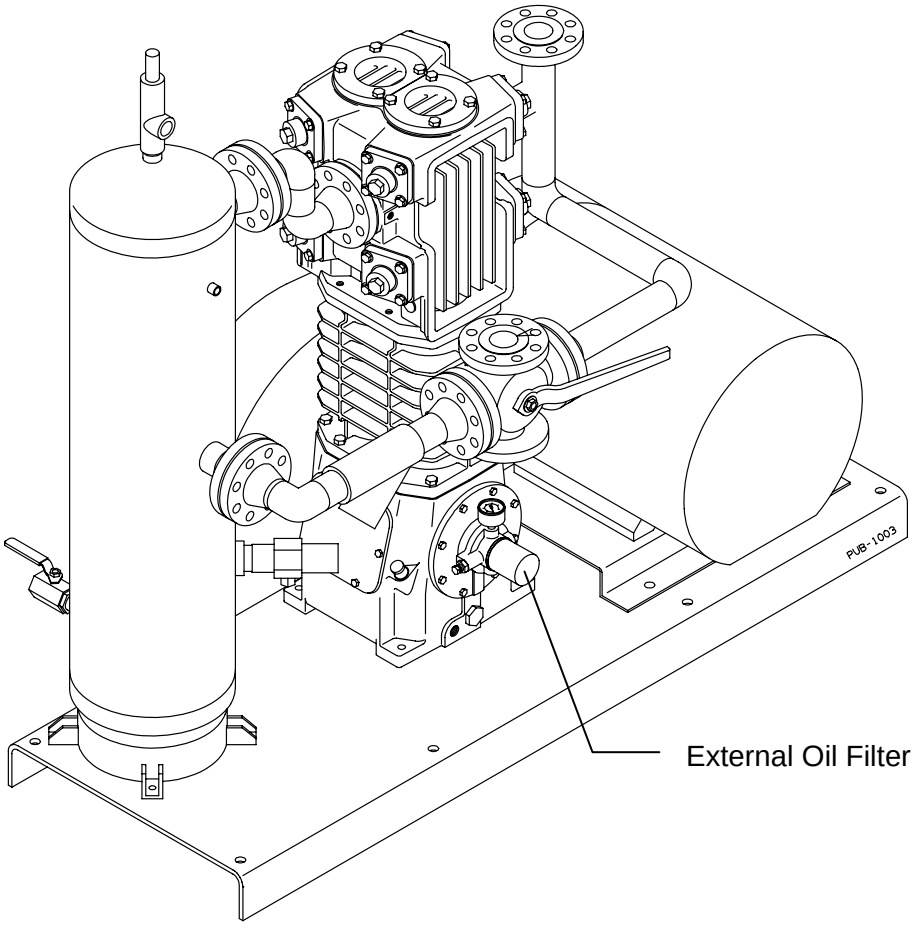
In addition to the roller bearings, these units now have a 1" wrist pin in place of the 7/8" wrist pin used previously. Upgrading a previous model will require replacing the connecting rod assemblies, wrist pins, wrist pin plugs, and X-Head/Piston Rod Assemblies. All parts for previous models will continue to be available.

‘HD’ COMPRESSOR OIL FILTERS (Dec 1995)

All Blackmer ‘HD’ compressors are now fitted with an external automotive type spin-on oil filter as standard equipment. The filter provides extended protection in severe duty service and will normally double the time between oil changes.

The 10th position of the 11 character ID number shown on the compressor nameplate indicates whether an external oil filter is installed.

Code	Description
A	Standard Crankshaft
B	Extended Crankshaft
C	Standard Crankshaft with Oil Filter
D	Extended Crankshaft with Oil Filter



NEW CRANKCASES FOR ALL HD100 & HD300 SERIES COMPRESSORS (May 1994)

All new orders for the models listed below will specify a new style crankcase. These models will be noted with a "B" suffix in the model number.

	Single-Stage	Two-Stage	
	Air-Cooled	Air-Cooled	Liquid-Cooled
Single-Seal	HD161B	--	--
Double-Seal	HD162B	HD172B	--
Triple-Seal	HD163B	HD173B	--
Single-Seal	HD361B	--	--
Double-Seal	HD362B	HD372B	HDL372B
Triple-Seal	HD363B	HD373B	HDL373B

The new crankcases offer a number of benefits:

- **Self reversing oil pump** with optional external filter.
- Oil pump drive design eliminates the bronze oil pump bushing.
- Larger main bearings for longer life.
- Common bearings, oil pump, and other parts mean more complete interchangeability and fewer parts to stock.
- The HD160 and HD170 series are now rated for 10 HP drivers.

Mounted units (B, TU, TC, LU and LC) have the same dimensions as previous versions. If a new compressor is to replace an existing unit, no changes to the baseplate or piping should be required. Bare compressors (CO) will have the same dimensions as previous models although the flywheel pitch diameter changes from 15.6" to 16.0". The larger flywheel reduces the compressor speed 2½%.

The model HD162B will also include packing box changes as well as a new crankcase. The previous separate distance piece and upper and lower packing boxes will be replaced by a single crosshead guide-distance piece and a single packing cartridge. This new packing cartridge will contain both upper and lower packing sets. This basic design has been used on the larger 300 and 600 series compressors for some time.

Except for the HD162B packing & distance piece parts, all parts above the crankcase such as valves, pistons, rings, cylinders, seals, crossheads, connecting rods, etc. are completely interchangeable between older and newer styles. Gasket sets will include extra gaskets to allow their use in units with either style crankcase.

Individual crankcase parts are **not** interchangeable. An entire 'B' crankcase assembly may be fitted to an older machine. Most parts for the previous versions will continue to be offered.

NEW CRANKCASES FOR ALL HD600 SERIES COMPRESSORS (May 1993)

All HD600 series compressors are now (May 93) being built with a new crankcase. These models will now have a "B" suffix in the model number to indicate the new crankcase:

	Single-Stage		Two-Stage	
	Air-Cooled	Liquid-Cooled	Air-Cooled	Liquid-Cooled
Single-Seal	HD601B	-	-	
Double-Seal	HD602B	HDL602B	HD612B	HDL612B
Triple-Seal	HD603B	HDL603B	HD613B	HDL613B

The new crankcase is the same as that used on the 942 series and offers a number of benefits:

- Larger bearings for greater load carrying capability.
- **Self reversing oil pump** with optional external filter.
- Oil pump drive design eliminates the bronze oil pump bushing.
- Larger HP rating, now 40HP.
- Larger footprint for greater stability.
- Greater oil capacity for slightly cooler operation.
- Extended crankshaft for direct drive operation is standard on single-stage versions.

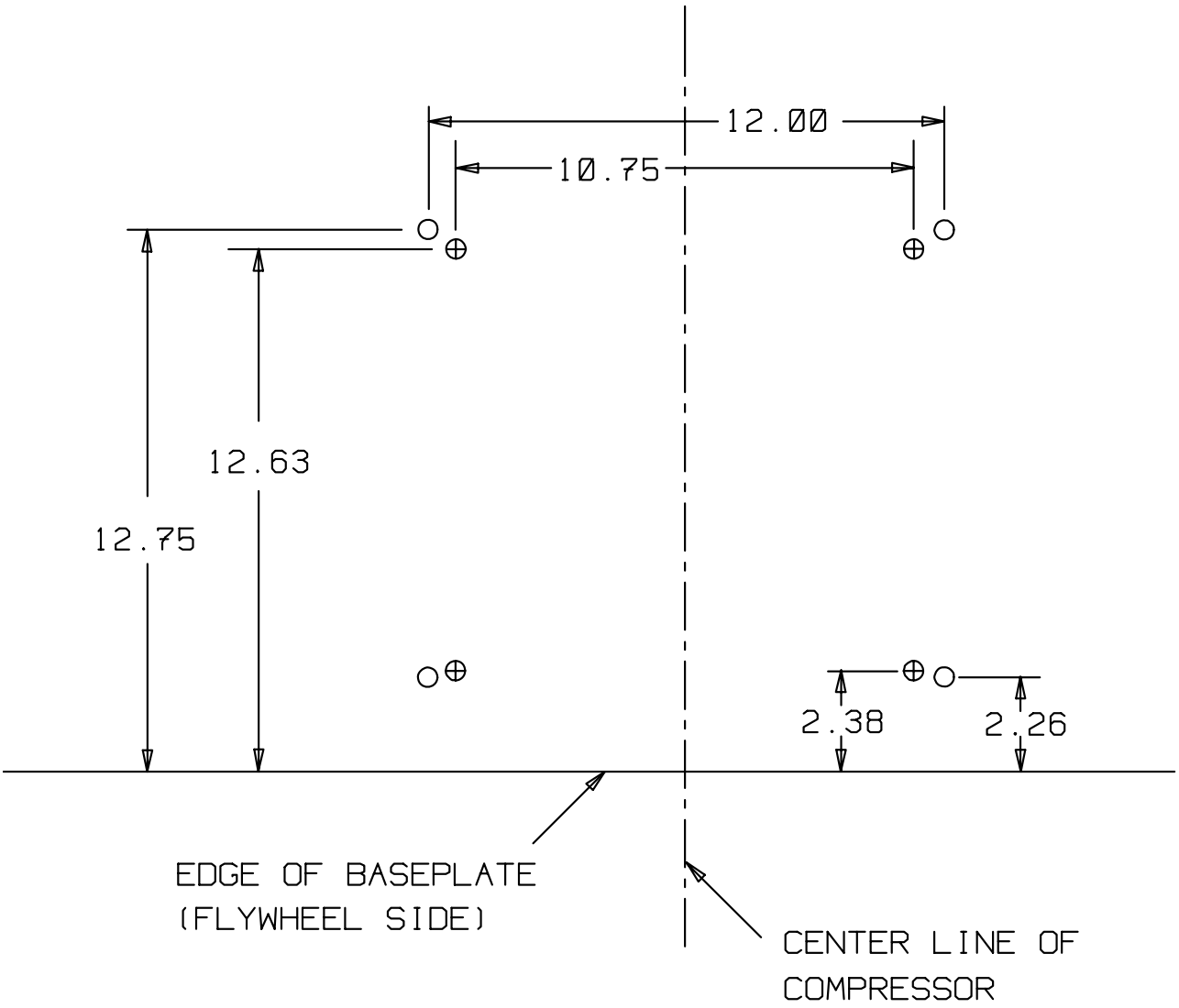
Mounted units (B, TU, TL, LU and LC) will all have the same dimensions as previous versions. Bare compressors (CO) have a larger mounting bolt pattern, a larger crankshaft and larger flywheel, but all other dimensions will remain the same.

If a new compressor is to be mounted in place of an existing unit, redrilling the mounting holes will be required. Piping connection locations are unchanged; the longer crank and larger flywheel will fit inside Blackmer beltguards.

Parts in the upper part of the compressor such as valves, pistons, rings, cylinders, and seals are completely interchangeable between older and newer styles. Gasket sets will include extra gaskets to allow their use in units in either style crankcase.

Parts **not** interchangeable include the crankcase parts, connecting rod assemblies, crosshead assemblies and flywheel. If a new crankcase is to be fitted to an older machine, the crankcase assembly with flywheel, connecting rods and crossheads all have to be changed. Parts for the previous versions will continue to be offered.

ANCHOR BOLT LOCATIONS
600A VS 600B SERIES
COMPRESSORS



⊕ 600A SERIES

○ 600B SERIES