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## LSC Compressor Versions / Serial Numbers

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When servicing or replacing LSC compressors one must be aware of the differences between compressor versions and variations therein.

<u>VERSION</u>	<u>DATES</u>	<u>DESCRIPTIONS</u>
A	'65 to 72	DB designed Howden manufactured compressor
B	'72 to 75	DB manufactured parts. Oil supply manifold to balance piston cover
C	'75 only	Same as "B" version with new castings enabling internal oil porting
D	'75 to 85	Internal oil porting for all bearings, & balance piston ("D" Version models built as RMF and FRC up to July 1997)
E (163mm)	Apr '85	Helical groove shaft rotary indicator, injection oil through unloader cylinder (inlet cover end), bulkhead, and spindle to slide-valve
E (204 & 255)	Feb '85 to Dec '89	<b><u>Early "E" version:</u></b> <ul style="list-style-type: none"> <li>• Helical grooved shaft with tail (054379 series)</li> <li>• Spindle without internal bronze bearing (054139 series)</li> <li>• Piston with outboard indicator pin (054084 series)</li> <li>• Unloader cylinder without access hole</li> </ul>
E (204 & 255)	Dec '89 to Apr '94	<b><u>Mid "E" version:</u></b> <ul style="list-style-type: none"> <li>• Helical grooved shaft without tail (054854 series)</li> <li>• Spindle with internal bronze bearing (054873 series)</li> <li>• Piston with outboard indicator pin (054084 series)</li> <li>• Unloader cylinder without access hole</li> </ul>
E (204 & 255)	Apr '94 to Present	<b><u>Late "E" version:</u></b> <ul style="list-style-type: none"> <li>• Helical grooved shaft without tail (054854 series)</li> <li>• Spindle with internal bronze bearing (054873 series)</li> <li>• Piston with inboard indicator pin (05549X series)</li> <li>• Unloader cylinder with access hole</li> </ul>
F (255mm)	Apr '93	255mm F Version screw compressor begins production with features that include: <ul style="list-style-type: none"> <li>• Field serviceable sleeve bearings</li> <li>• Inlet bearing oil drain</li> <li>• Relocated Vapor Injection port to optimize for max capacity</li> </ul>
F (255mm)	Oct '94	Bellows shaft seal added for better reliability and performance to close couple 255mm models

<u>Version</u>	<u>Dates</u>	<u>Descriptions</u>
F (255mm)	Dec '97	Bellows shaft seal added for better reliability and performance to all 255mm models both close couple and open drive. (255mm compressors built in 1978 or prior cannot be converted to a Bellows Shaft Seal unless the Discharge Cover is Replaced.)
F (204mm)	May '97	204mm F Version compressor begins production with features that include: <ul style="list-style-type: none"> <li>• Field serviceable sleeve bearings</li> <li>• Inlet bearing oil drain</li> <li>• Relocated Vapor Injection port to optimize for max capacity</li> <li>• Bellows shaft seal used for better reliability and performance</li> </ul>

### Serial Numbers

'65 to '72	"A" versions with basic serial number: e.g. 70B-005 (year, month - sequential #)
72 to '79 75A-002B	The last digit indicated compressor version, e.g.: <b>B</b> = B version open-drive (B1 = snap rings replace locknuts on unloader spindle, BU = 255's with <b>U</b> nsymmetrical rotor profile)
76E-006 <b>CC</b> 76M-015 <b>DQ</b>	<b>CC</b> = 204 C version while using up <b>C</b> ircular profile rotors. <b>DQ</b> = D version with non-standard options.
'80 to '85 85D <b>8</b> 00084	Added build level and product code for all product lines. Dropped digit for compressor version (moved to model number) e.g.: <b>8</b> = LSC product line <b>0</b> = New compressor (1 = R&R, 6 = RMF)
'85 to '97 85F800129 <b>G</b>	Added letter code to indicate motor manufacture for hermetics e.g.: <b>G</b> = New General Electric Motor (D = open drive)
'97 to present AFD- <b>A</b> 0058-00	New serial number system <b>AF</b> = month and year code D = Product code (LSC) A = Build level and location (i.e. New at West Hartford) 0058 = sequential build by product (i.e. for LSC's) 00 = motor manufacture (open drive)

### Unloader

A, B	Rotary indicator and potentiometer with cable linkage
B, C, D	Linear indicator with microswitches hard mounted to unloader piston
D	Linear potentiometer
E	Rotary indicator with potentiometer and/or microswitches via helical groove shaft
Early "E" version	Long thin support with capseal
Mid "E" version	Bronze bearing support
Late "E" version & "F"	New reversed piston with access hole in cylinder for field reassembly

**Oil Connections**

- A Independent feed from main oil line to various locations. C4 is bal. pst. supply only.
- B, C, D Main feed to C4, balance piston cover, manifold from cover to various ports.
- D, E, F C4 relocated to side of compressor, old location renamed C12. Internal porting for bearing supply from C4.

**Bearings**

- A - F Thrust bearings the same
- A - E Journal bearings the same, pressed in and machined in place
- F Field serviceable sleeve bearings

**Shaft Seal**

- A - E 163mm & 204mm used same seal housing
- A, B 255mm seal housings: HSG 119, 139, 144 long seal housing, short seal housing
- C - E & some F 255mm same seal housing (Compressors built in 1978 or prior can not use Bellows Shaft seal as is.)
- F New seal housing for bellows seal
- 8-1, 8B Shaft seal with two neoprene o-rings seal to shaft
- 9B Teflon wedge seal to shaft.
- Bellows Cartridge type design pre-mounted on a sleeve. It has a primary seal of a stationary mating ring and a rotating sealing face. The bellows itself and an O-Ring seal accomplish the secondary seal. Lipseal added to maintain a flooded seal cavity