

charging systems

# Bendix® Compressors

ANATOMY OF A **LEGEND**

## Bendix® Compressors

Engineered to perform better, so your fleet performs better.



*For generations, the Bendix name has meant quality, reliability and durability when it comes to your vehicle's air charging system.*



## COMPRESSORS

# The Bendix® Compressor

**Rigorous standards.  
Unparalleled know-how.  
Innovation to suit every  
generation of vehicles.**

**That's why companies across  
the globe stake their fleets  
on Bendix® Compressors.**

Selling compressors for commercial vehicles is nothing like selling shoes or bubble gum. Success can't be bought with big marketing campaigns or hype ... what matters most is real-world performance, reliability and value. Maintaining this philosophy – and delivering on this commitment – has made Bendix an industry leader in air system technology and safety technology for generations.

When you consider that more North American OE manufacturers and fleets specify Bendix air braking products and control systems than any other, you can be certain we're offering unparalleled products and service. And as a key member of the Knorr-Bremse Group, we're the preferred worldwide supplier of commercial vehicle braking systems, active safety technology and energy management solutions.

### **Best Overall Value On The Market**

Bendix compressors offer QS-9000 certified quality, Six Sigma-driven manufacturing, the most knowledgeable technical sales and support teams available, and the longest average life you can buy.

We have a complete line of new and remanufactured compressors for heavy vehicle engines, as well as most industrial applications. To guarantee performance, every unit is individually tested to our exacting standards, and backed by an impressive warranty.

### **Experience Counts – Count on Bendix**

With highly sophisticated Research and Development capabilities and up-to-the-minute expertise from around the globe, Bendix is continuing its legacy of providing reliable, high performing, durable products for your fleet's air charging systems.



BA-921®



BA-922®

**Built for better performance  
today and tomorrow.**

### **BA-921® Compressor**

Lighter in weight and more compact to address OE fit constraints, this dynamic single cylinder compressor utilizes reed valve technology for improved operating efficiency. It is available for a wide range of build platforms, including specialty vocational applications. It features:

- Turbo boost capability of 43.5 psig
- High thru-drive capacity – up to 125 foot pounds
- Improved air quality along with faster system recovery

### **BA-922® Compressor**

When you need maximum air delivery, the BA-922 Big Twin Air Compressor meets the needs of the most demanding commercial and specialty vocational applications. This high air output compressor supplies 32 cfm (at 2100 RPM), and employs many of the same exceptional design elements, including the robust reed valve technology, as its single cylinder cousin, the Bendix BA-921. The powerful BA-922 Compressor also incorporates:

- Standard North American unloader valving – eliminating the special valve requirements normally associated with two-cylinder high output compressor
- A "drive train saver" crankshaft design to help prevent damage to the gear train or auxiliary components
- High thru-drive capacity up to 125 foot pounds
- Improved air quality along with faster system recovery
- Universal SAE BB mounting option

# Air Power Series

**Less oil passage means cleaner air lines, and less downtime for service. That adds up to a more efficient fleet, and a stronger bottom line.**

Compared to a leading competitor, the Bendix® BA-921® and BA-922® Compressors deliver more air at lower discharge temperatures, and – thanks to their optimized piston/ring design – there is less oil passage. So there's less carbon build-up in the compressor, and less contamination, which extends the life of the whole air charging system.

## Piston comparison

Our larger, more robust piston design for better seal and wear resistance. Extra ring means less oil passing, better compression.



- Bendix BA-921**
- 92mm diameter
  - Full geometry
  - Top compression ring for oil passing control



- Competitor**
- 85mm diameter
  - No top compression ring to help reduce oil passing

## Crankshaft

Wider journal width and bearing surfaces for better load distribution and wear resistance. Our crankshaft offers significantly more load-carrying capability.



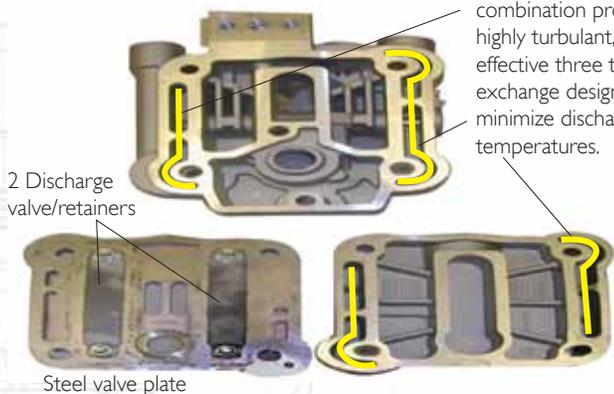
- Bendix BA-921**
- Larger journal width front and rear
  - Oil holes 90 degrees from top and bottom dead center

- Competitor**
- Oil holes at top and bottom dead center
  - Smaller journal width
  - Larger counterbalance

## Cylinder Head comparison

### Bendix Cylinder Head/Cooling & Valve Plate

Bendix head/plate combination provides a highly turbulent, highly effective three tier heat exchange design to minimize discharge air temperatures.



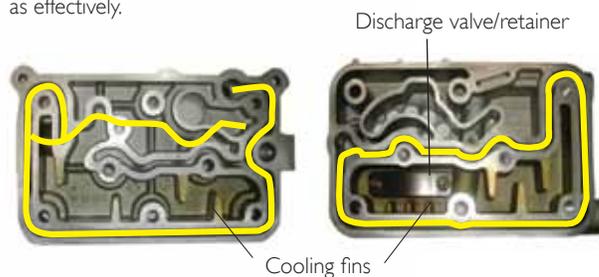
2 Discharge valve/retainers

Steel valve plate

Bendix valve plate cooling close to cylinder, and hottest air, to maximize heat reduction effectiveness

### Competitor Cylinder Head with Integrated Cooling Valve Plate

Competitor design does not reduce discharge air temperature as effectively.



Discharge valve/retainer

Cooling fins

— Coolant path

## Unloader Mechanism

Bendix unload mechanism is serviceable.



Serviceable ESS piston

Serviceable ESS piston cover on cylinder head

**Bendix**



**Competitor**

- Bottom of cooling/valve plate assembly
- Non-serviceable unloader leaf slider; plus more susceptible to carbon build-up

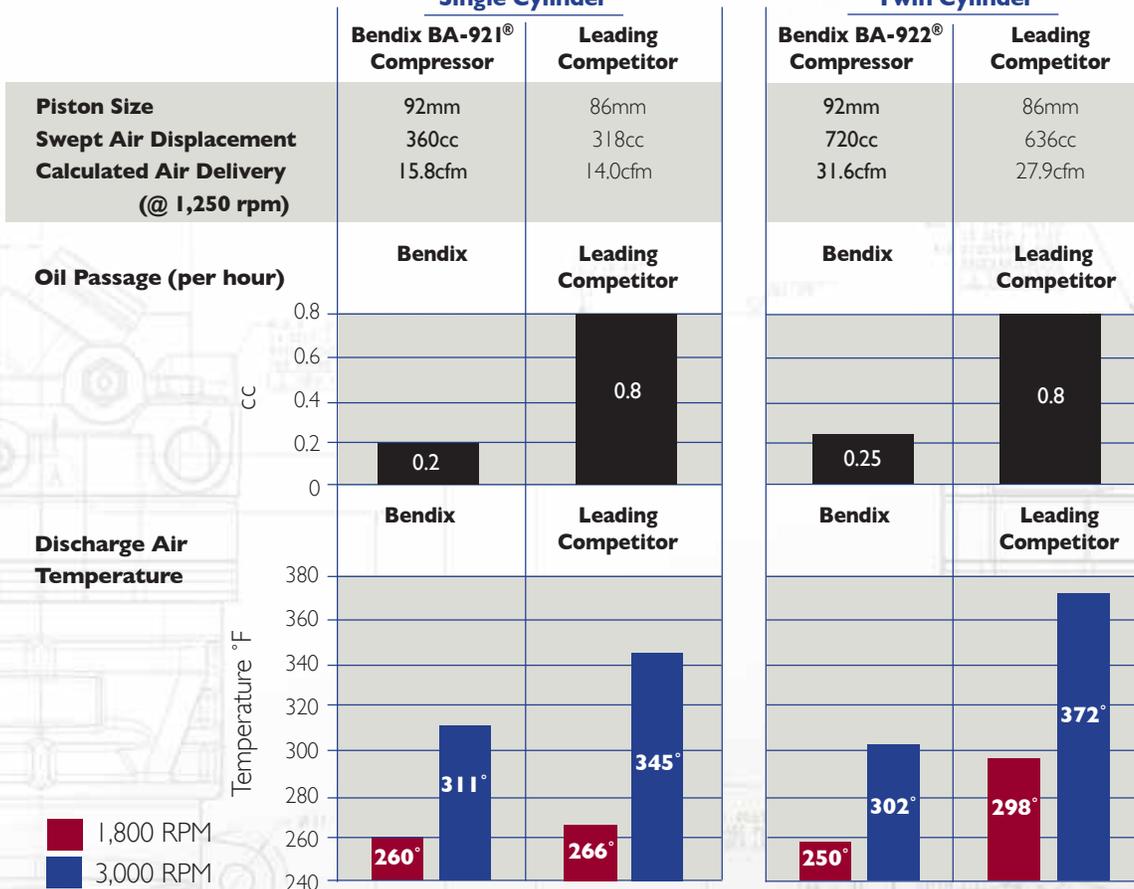
## Engineering Statistics

Bendix® is significantly better in oil passage due to optimized piston/ring design, and generally lower discharge temperatures. This results in less carbon build-up and contamination downstream and less system maintenance in general. The choice is clear.



**Single Cylinder**

**Twin Cylinder**



For over 80 years Bendix has been the industry leader in the design and manufacturing of compressors and components of air braking control systems for on-highway applications. No other manufacturer can offer you "genuine Bendix" quality, power and performance for your vehicles. Put us on your team!

For more information, talk to your Bendix Account Manager, call 1-800-AIR-BRAKE (1-800-247-2725), or visit [www.bendix.com](http://www.bendix.com) today.

