

NEUMAN & ESSER

New and Improved – 560hs

560hs: Why the development?



Build upon NEA’s experience with custom and engineered to order applications with difficult gases:

- Downstream compressor robustly developed for difficult applications.
 - Based on slow-speed and foundation mounted compression.
- N. America has developed into a “packaging” market for high-speed and lower-speed models

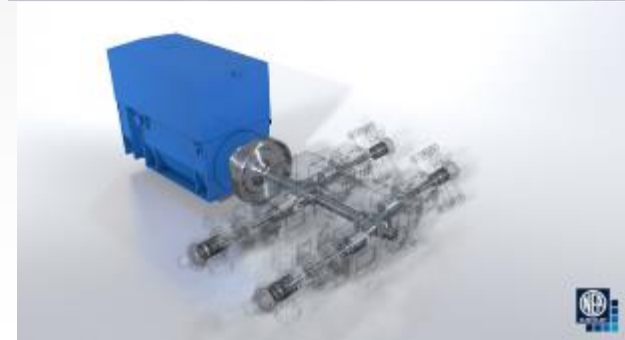
Downstream Models		40	30	63	130	190	320hs	300	320	500
High-Speed Models		n/a	80hs	150hs	250hs	n/a	320hs	560hs	700hs	1500hs
Specifications	Power (BHP / kW)	215 160	1,930 1,440	3,620 2,700	6,035 4,500	9,175 6,840	11,345 8,460	13,520 10,080	20,760 15,480	41,035 30,600
	Max Rod Load (API combined rating) (LBS / kN)	9,000 40	18,000 80	33,700 150	56,200 250	85,400 380	105,700 470	126,000 560	193,300 860	382,200 1,700
	Max Speed (RPM) (lube or non lube)	1,000	1,800	1,800	1,200	1,000	1,200	1,200	750	750
	Max Discharge Pressure (PSIG / BARG)	4,500 310	15,000 1,000	15,000 1,000	15,000 1,000	15,000 1,000	15,000 1,000	15,000 1,000	15,000 1,000	15,000 1,000
	Max Stroke (IN / MM)	3.9 100	4.7 120	6.7 170	7.1 180	9.6 245	6.9 175	11.0 280	14.8 375	17.7 450
	Available Throws	1	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	2,4,6	2,3,4,6	2,3,4,6	2,4,6,8
	Configuration	vertical	horizontal vertical	horizontal vertical V-type	horizontal vertical V-type	horizontal vertical	horizontal	horizontal vertical	horizontal vertical	horizontal

*Approximate values - not for detailed design purposes.

560hs: Why the development?



Target and optimize the compressor for the larger BHP engines / motors for 1,000RPM:



COMPRESSOR SPECIFICATIONS	560hs
Max Power (BHP / kW)	10,000 7,500
Max Rod Load (API combined rating) (LBS / kN)	126,000 560
Max Speed (RPM) (lube or non lube)	1,200
Max Discharge Pressure (PSIG / BARG)	15,000 1,000
Max Stroke (IN / MM)	6.9 175
Available Throws	2,4,6
Configuration	horizontal

*Approximate values - not for detailed design purposes.

560hs: Goals of the development



Build upon NEA's experience with API 618 robust compressor designs:

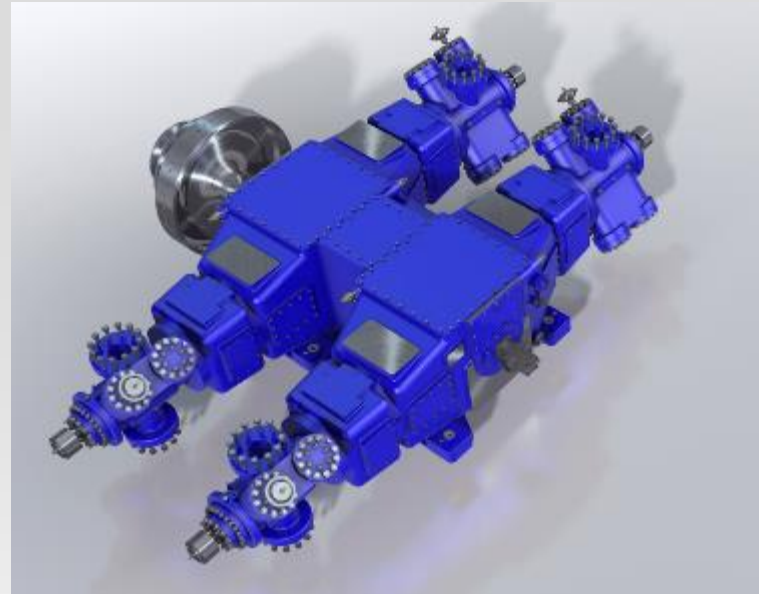
- Stay true to Reliability through design. Do not “cheapen” the product at the sacrifice of reliability.
- Industry leading power and capacity per throw modeled through KO3.
- Utilize NEA USA's time proven OEM packaging model.



560hs: Materials of Construction



Component	Material
Frame	Nodular Iron
Cylinder	Forged Steel or Nodular Iron
Cylinder Liner (if furnished)	Centrifugal Cast Iron
Piston	Cast Iron
Piston Rod	Stainless Steel
Crankshaft	Forged Steel
Main Bearings	Galvanic
Crank Pin Bearings	Galvanic
Connecting Rod	Forged Steel
Crosshead	Cast Steel w/ Babbit Surface
Crosshead Pin	Forged Steel
Crosshead Pin Bushing	Lead-Bronze

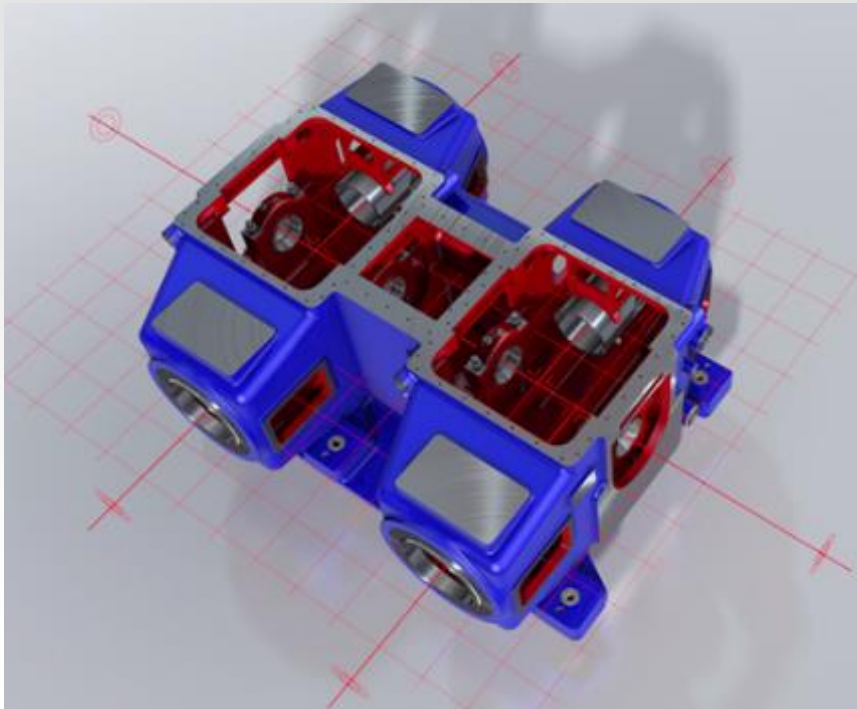


560hs: Frame Highlights



NEA's robust one-piece crankcase:

- Always truly flat, square and ready for packaging upon arrival.
- Custom machined surfaces available for upgraded instrumentation.
- **GAS LOAD RATING: 173,000 lbs**
- Frame lubrication provided by independent stainless steel header and tubing system.

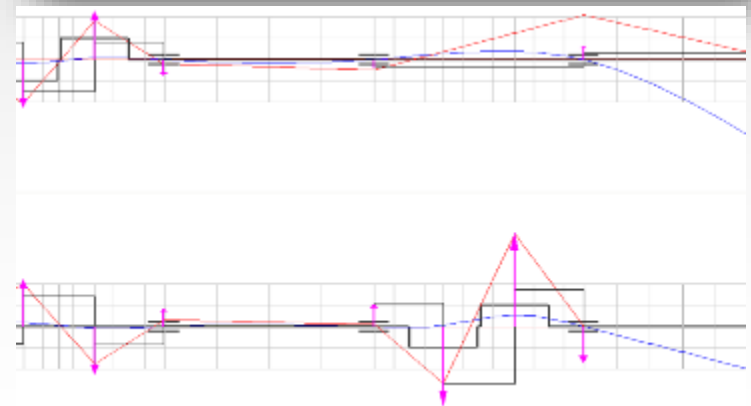
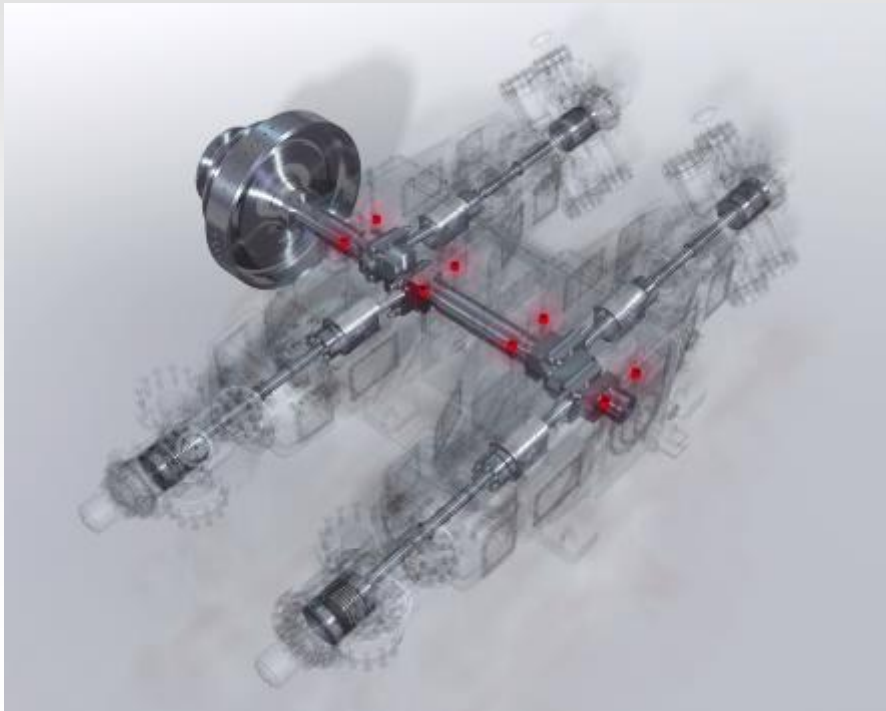


560hs: Frame Highlights



Main Bearings & Drivetrain:

- No parting lines on the highest loaded area.
- Tri-metal construction.
- Locked into place with a screw (no detents).
- Hydraulic bolted main journals.
- TORSIONAL STUDY BY NEA

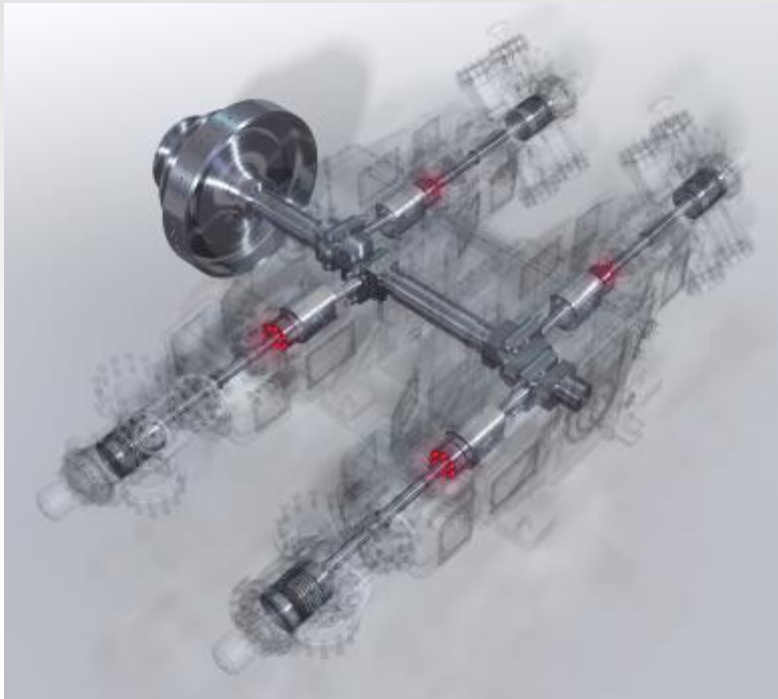


560hs: Frame Highlights



Stainless steel piston rods:

- Hydraulic bolted, flanged connection onto the crosshead.
- Ease of Use and Efficient.
- Uniform Loading and Increase in Thread Life
- Safer to Use



560hs: Utilizing NEA's time proven business model



25 years in the USA:

- Sales, applications, engineering, service and parts located in Katy, Texas

