GM MEDIUM DUTY AIR COMPRESSORS SPECIFICATIONS

GENERAL INFORMATION
KK3 AIR COMPRESSOR

The Haldex 292 is a single-cylinder, water-cooled compressor design that raises the bar for demanding engine applications. It boasts: high drive-thru capacity, high turbo-charging capability with backflow prevention, and excellent delivery performance.

FEATURES	BENEFITS
High air output	• Provides adequate air for Medium Duty Applications
Single cylinder	• Provides high air delivery capacity in a smaller package size
Inlet backflow prevention	• Prevents cylinder pressure spikes to travel into engine intake
Aluminum head	• Less weight, reduced operation noise
Reed valves	• Higher efficiency, lower exhaust temperature
Thru-hardened crank	• Elevated drive-thru torque
Pressure relief valve	• Prevents compressor seize if exhaust line freezes
Flexible inlet plumbing	• Capable of naturally aspirated or turbocharged operation

STANDARD SPECIFICATIONS
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Swept Air Displacement (cfm) at 1250 rpm	12.9
FAD (scfm) @ 1800 rpm, 0 psig inlet, 116 psig Head	10.9
Max Compressor Speed – rpm	3000
Horsepower requirement	
Max HP required Loaded @ 1800 rpm, 0 psig inlet, 120 psig head	3.9
Max Unload HP @ 1800 rpm, 0 psig inlet, 120 psig	0.7
Durability	
B10 Life when used on Medium Duty Engine @ 50% duty cycle (miles)	500,000
Duty Cycle	
Maximum percentage loaded (%)	50
Speed	
Maximum rotation speed (rpm)	3000
Maximum instantaneous Over Speed (rpm)	3600
Coolant	
Recommended Min. Line Size I.D. (mm)	13
Min. Flow Rate @ 600 rpm	0.4 gpm (1.8L)
Min. Flow Rate @ 1800 rpm	1.6 gpm (7.3L)
Max Temperature to Compressor	200 F (93 C)
Inlet Port Thread	M18X1.5
Outlet Port Thread	M18X1.5
Oil	
Inlet Port Thread	M12X1.5
Min. Supply Line Size I.D. (mm)	4
Min. Drain Line Size (mm)	13
Min. Pressure @ Low Idle (psig)	10 psi (.7 bar)
Min. Pressure @ High Idle (psig)	15 psi (1.0 bar)
Max Temperature to Compressor	240 F (116 C)
Air	
Min. Supply Line Size I.D. (mm)	16
Min. Discharge Line Size I.D. (mm)	16
Max Inlet Temperature	150 F (65.6 C)
Max Discharge Temperature	400 F (204 C)
Inlet Port Location (top, side, front, rear)	Front
Inlet Port Thread	M27X2
Discharge Location (top, side, front, rear)	Front
Outlet Port Thread	M27X2
Max Inlet Pressure @ Compressor rpm	15 psig (1.0 bar)
Max. Inlet Depression (in H2O)	20
Min. Inlet Filtration (microns)	40
Unloader	
Min. Line size I.D. (mm)	4
Pressure Required to Unload	80 psig (5.5 bar)
Port Thread Size	M12X1.5
Drive Through	
Max Drive through Capability	125 lb-ft
Spline drive defined	11 tooth 16
Crankshaft Material	Forged Steel
Max Installation Tilt-Aft	10° from drain
Max Installation Rotation	45° Flange Mt.

GENERAL INFORMATION
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- The compressor is driven by the vehicle engine and is operating continuously while the engine is running. Actual compression of air is controlled by the compressor unloading mechanism and the governor. The governor is generally mounted on the compressor and maintains the brake system air pressure to a preset maximum and minimum pressure level.
- The function of the air compressor is to provide and maintain air under pressure to operate devices in the air brake and/or auxiliary air systems.
- The Tu-Flo 550 is a two cylinder, single stage, reciprocating compressor with a rated displacement of 18 cubic feet of air per minute 1250 RPM.
- Since all Tu-Flo 550 Compressors are connected to the engine's pressurized oil system, a continuous flow of oil is provided to the compressor, which is eventually returned to the engine. Oil is fed into the compressor in various ways, for example: through the rear end cover, the drive end of the crankshaft or through the front flange adapter. An oil passage in the crankshaft conducts pressurized oil to the precision sleeve main bearings and to the connecting rod bearings. Splash lubrication of the cylinder bores, connecting rod wrist pin bushings, and the ball type main bearings and to the connecting rod bearings. Splash lubrication of the cylinder bores, connecting rod wrist pin bushings, and the ball type main bearings, on some models, is obtained as oil is forced out around the crankshaft journals by engine oil pressure.
- Air flowing through the engine compartment from the action of the engine's fan and the movement of the vehicle assists in cooling the crankcase. Coolant flowing from the engine's cooling system through connecting lines enters the head and passes through the head's water jacket and back to the engine. Proper cooling is important in maintaining discharge air temperatures below the maximum 400 degrees recommended.

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Average Weight	53 lbs.
Number of Cylinders	2
Bore size	2.78 in.
Stroke	1.5 in.
Displacement at 1250 RPM	13.2 CFM
Maximum recommended RPM	3000 RPM
Minimum coolant flow (water-coolant at Maximum RPM	2.5 GPM
Minimum RPM	.5 GPM
Approximate horsepower required at 1250 RPM at 120 PSIG (naturally aspirated) Turbocharge limits	2.5
Maximum inlet air temperature	250° F
Maximum RPM and boost pressure, Maximum discharge air temperature	400° F
Minimum pressure required to unload (naturally aspirated)	60 PSIG
Minimum oil pressure required at engine killing speed	15 PSIG
Minimum oil pressure required at maximum governed engine speed	15 PSIG
Minimum discharge – line size	1 / 2 in. I.D.
Minimum coolant – line size	3 / 8 in. I.D.
Minimum oil – supply line size	3 / 16 in. I.D.
Minimum oil – return line size	1 / 2 in. I.D.
Minimum air – inlet line size	.5 / 8 in. I.D.
Minimum unloader – line size	3 / 16 in. I.D.