

## Technical Data Sheet

<b>Customer:</b> GE Power and Water	<b>Attn:</b> Thomas G. Szudajski	<b>Date:</b> 1/16/2014
<b>GT Assy No.</b> 5592/AS	<b>Customer No:</b> TBD	<b>Proposal:</b> KEP-2013-0024
<b>Application</b> Continuous Duty Gensets		<b>Prepared</b> Katina Pepera
<b>Engine</b> Waukesha L5794GSI VHP @ 1380 BHP @ 1200 RPM		<b>Quote:</b> Q14-G6661-4

### LTA PERFORMANCE GT#-5592/RA

<b>LTA Heat Rejection:</b>	11539 <i>BTU/Min</i>	<b>Flow Height:</b>	93.88 <i>in.</i>
<b>(Safety Factor)</b>	15 %	<b>No-Flow Height:</b>	85.00 <i>in.</i>
<b>Flow Rate:</b>	79 <i>GPM</i>	<b>Core Depth:</b>	2.47 <i>in.</i>
<b>Fluid Type:</b>	0/100 <i>Glycol/H<sub>2</sub>O</i>	<b>Core Type:</b>	N4090
<b>Fluid Temperature In:</b>	147.8 <i>F</i>		Copper, 9.0 <i>FPI</i>
<b>Fluid Temperature Out:</b>	130.0 <i>F</i>		Non-Louvered, Dimpled
<b>Ambient Temperature:</b>	110.0 <i>F</i>		Plate Fin
<b>Cooling Air Temperature In:</b>	120.0 <i>F</i>	<b>No. of Passes:</b>	2
<b>Cooling Air Temperature Out:</b>	127.1 <i>F</i>		
<b>Internal Pressure Drop @ Design Point:</b>	3.2 <i>PSI</i>		
<b>Cooling Air Flow Required:</b>	89850 <i>SCFM @</i>	0.61 <i>in- H<sub>2</sub>O</i>	
<b>Limiting Ambient Temperature:</b>	110 <i>F</i>		

### JW PERFORMANCE GT#-5592/RJ

<b>JW Heat Rejection:</b>	58210 <i>BTU/Min</i>	<b>Flow Height:</b>	93.88 <i>in.</i>
<b>(Safety Factor)</b>	15 %	<b>No-Flow Height:</b>	85.00 <i>in.</i>
<b>Flow Rate:</b>	450 <i>GPM</i>	<b>Core Depth:</b>	6.00 <i>in.</i>
<b>Fluid Type:</b>	0/100 <i>Glycol/H<sub>2</sub>O</i>	<b>Core Type:</b>	H8105
<b>Fluid Temperature In:</b>	180.0 <i>F</i>		Copper, 10.5 <i>FPI</i>
<b>Fluid Temperature Out:</b>	164.1 <i>F</i>		Non-Louvered, Dimpled
<b>Ambient Temperature:</b>	110.0 <i>F</i>		Plate Fin
<b>Cooling Air Temperature In:</b>	127.1 <i>F</i>	<b>No. of Passes:</b>	1
<b>Cooling Air Temperature Out:</b>	162.9 <i>F</i>		
<b>Internal Pressure Drop @ Design Point:</b>	4.1 <i>PSI</i>		
<b>Cooling Air Flow Required:</b>	89850 <i>SCFM @</i>	1.79 <i>in- H<sub>2</sub>O</i>	
<b>Limiting Ambient Temperature:</b>	110.0 <i>F</i>		

### FAN DATA<sup>2</sup>

<b>Fan Manufacturer:</b> WACO	<b>External Static</b>	0.50 <i>in- H<sub>2</sub>O</i>
<b>Fan Model:</b> 9-72-WHISPR RP22	<b>Elevation</b>	500 <i>ft.</i>
<b>Fan Diameter:</b> 72 <i>in.</i>	<b>Blade Angle</b>	18 °
<b>Number of Blades:</b> 9	<b>Fan Speed:</b>	954 <i>RPM</i>
<b>Draft Type:</b> Blower	<b>Fan Tip Speed:</b>	17982 <i>FPM</i>
<b>Match Point Air Flow:</b> 99500 <i>SCFM @</i> 3.35 <i>in- H<sub>2</sub>O</i>	<b>Drive Type</b>	Belt
<b>Theoretical Air Flow:</b> 89850 <i>SCFM @</i> 2.90 <i>in- H<sub>2</sub>O</i>	<b>Drive Ratio</b>	0.795:1
<b>Fan Derate:</b> 0.90	<b>Fan Power Draw</b>	88.9 <i>HP @ Std.</i>
<b>Noise<sup>3</sup>:</b> 88.9 <i>dBa @25ft</i>		79.7 <i>HP @ Design</i>

<sup>2</sup> Multi-Wing America has provided their sizing program to General ThermoDynamics for general use and assistance with our Mutual Customers. The performance enclosed is contingent upon Multi-Wing America verifying fan performance upon order placement.

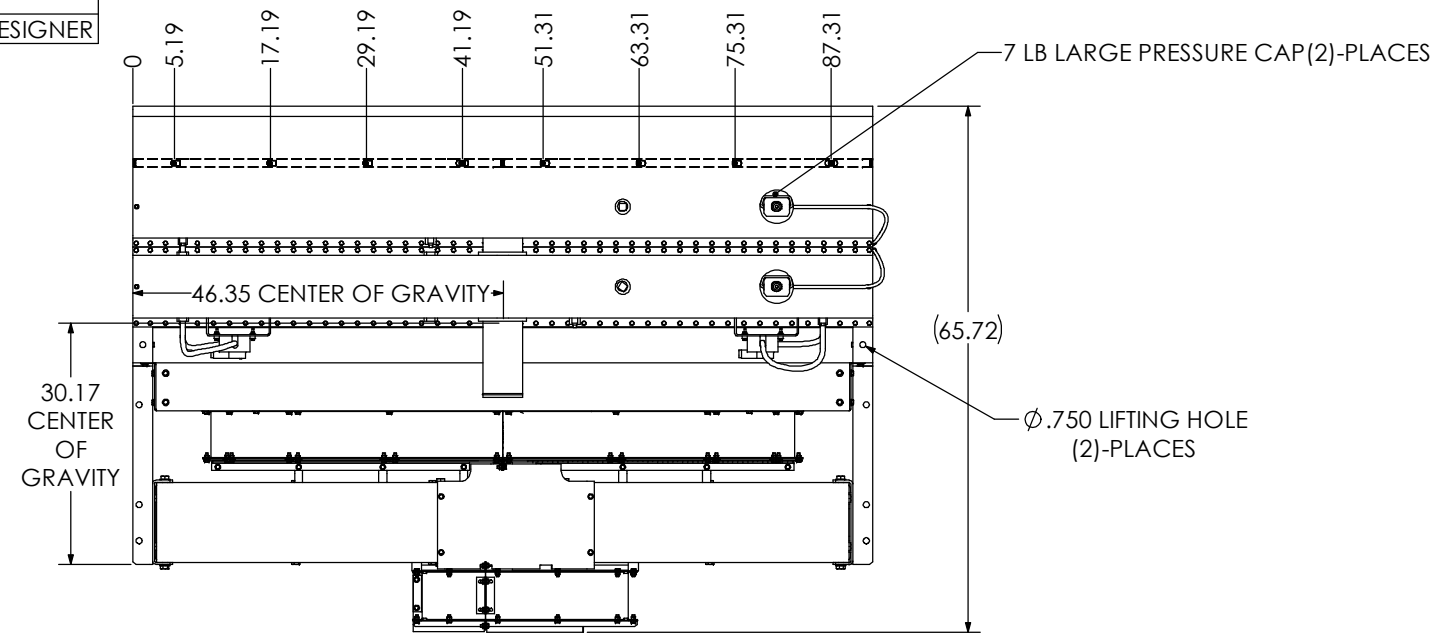
<sup>3</sup> Fan only, free field; Radiator system typically adds 3 dBA to 10 dBA depending on installation site.

**MISCELLANEOUS**

- Unit been sized with 110 deg F ambient + 10 deg F for a 120 deg F ambient to after cooler cores. Any additional temperature rise above 10 deg F may be detrimental to this system's performance.
- JW Flow Rate of 450 GPM, JW Top Tank Temperature of 180 deg F, and a calculated JW heat rejection of 50617 BTU/MIN was taken from the Waukesha VHP Series Four Gas Engine Extender Series Performance Datasheet Bulletin 7058 0710) and Water Jacket Pump Curve Ref Number 5136-34 dated 4/01.
- AC Flow Rate of 79 GPM, AC Bottom Tank Temperature of 130 deg F, and calculated AC heat rejection of 10,034 BTU/MIN was taken from VHP Series Four Gas Engine Extender Series Performance Datasheet Bulletin 7058 0710) and Auxiliary Pump Curve Ref Number 6543-36 dated 7/99.
- Estimated overall dimensions are 115.32"H x 92.50" W x 60.00"D (includes core guards, sides, and tanks)
- JW and LTA heat rejections include 15% safety factor.
- Cooler configuration is stacked core arrangement with top to bottom connections.
- Unit was sized for multi-unit application where the unit must be 1.5 fan diameter spacing between other units.
- The total External static pressure loss used is 0.50" H2O for engine restrictions. Any additional pressure losses exceeding 0.50" will cause cooling performance deficiencies

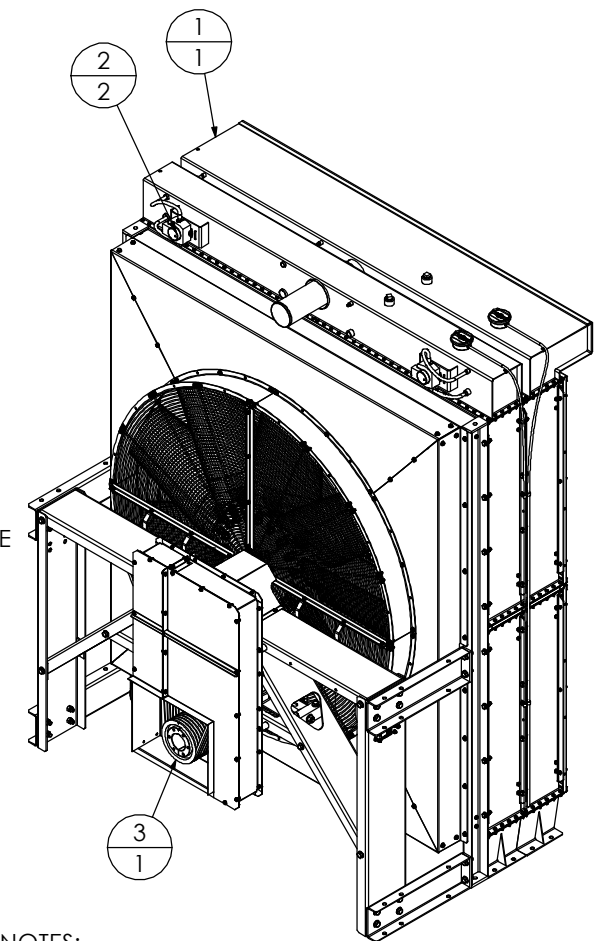
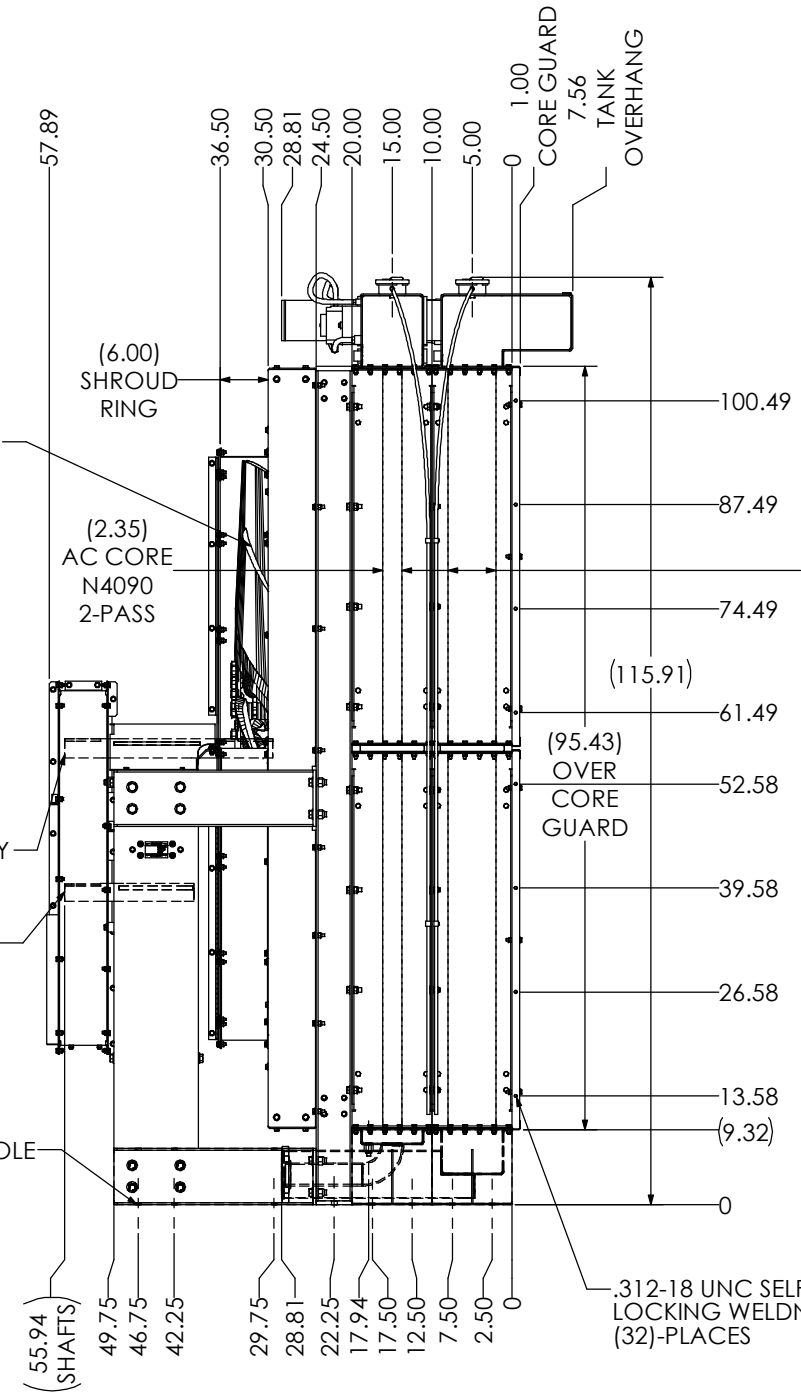
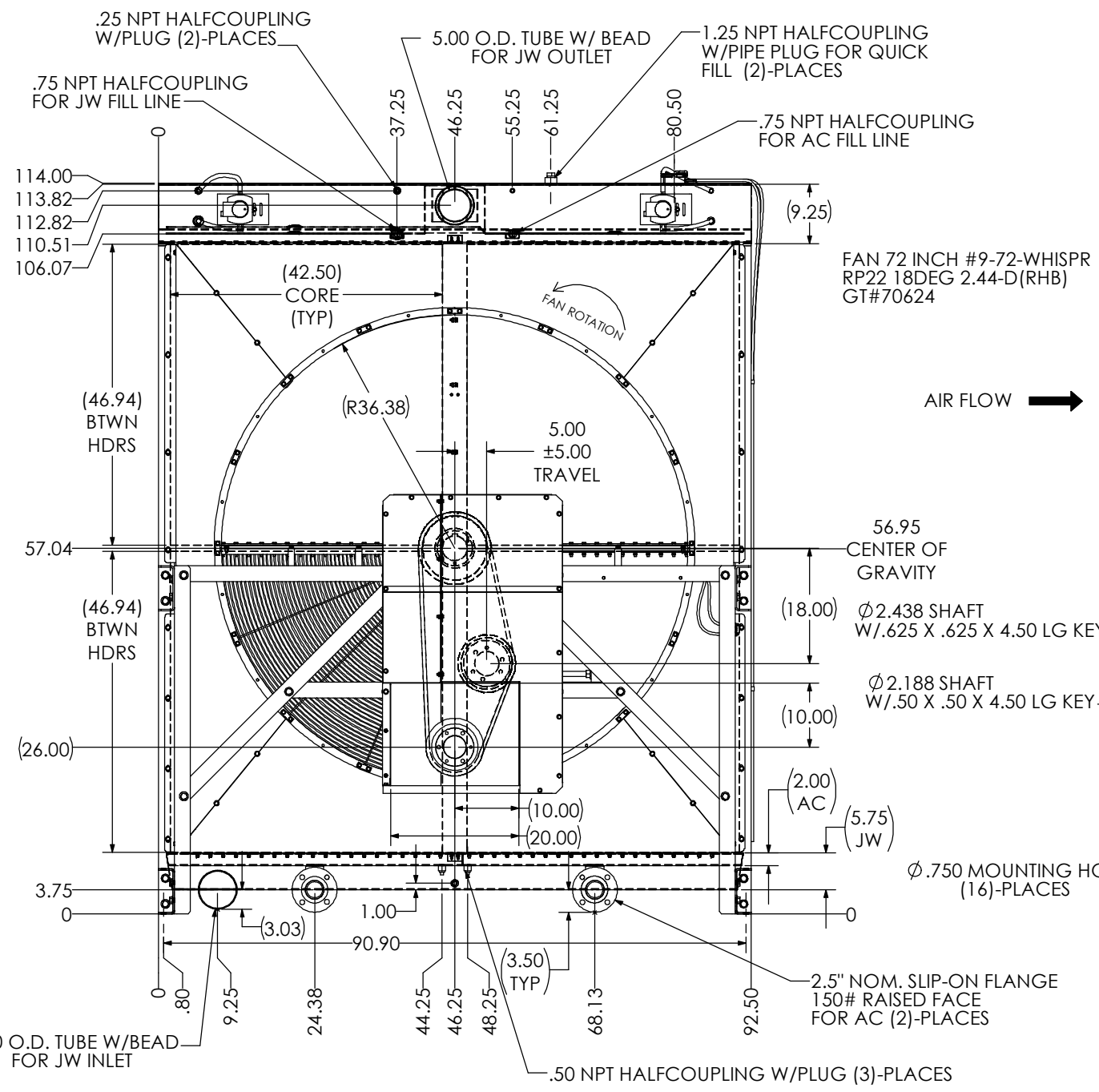
REVISIONS			
REV.	ECN #	DATE	DESIGNER

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	5592	BOLTED LG RAD ASSY (B)	1
2	2890B-LSG	LEVEL SWITCH GAGE	2
<b>SHIP LOOSE ITEM</b>			
3	5592-DK	DRIVE KIT (F55 954 RPM)	1



DRIVE KIT INFORMATION  
 ENGINE RPM: 1200  
 FAN RPM: 954  
 FAN POWER DRAW  
 88.9 HP @STD  
 79.7 HP @DESIGN

2890B/LSG NOTES:  
 FLOAT OPERATED LEVEL GAUGE W/ SPDT SWITCH  
 RATED: 10A @125 VAC  
 .05A @125 VDC  
 10A @ 30 VDC



- NOTES:
- 55 SQ. FT. F-SERIES.
  - DRIVE KITS SHOWN FOR REFERENCE ONLY, TO BE SHIPPED LOOSE.
  - ESTIMATED RJ CAPACITY = 69.90 GAL. W/ 15.95 GAL OF EXPANSION.
  - ESTIMATED RA CAPACITY = 36.09 GAL. W/ 7.44 GAL OF EXPANSION.

COATING: BLACK (B)  
 ESTIMATED UNIT DRY WEIGHT = 4444 LBS.

GENERAL TOLERANCE		STANDARD TOLERANCE		CUSTOMER REF.	
SUPERSEDE STANDARD TOLERANCES AND ARE:		UNLESS OTHERWISE SPECIFIED ARE:		CUSTOMER REF.	
MTG FEATURE SIZE	+/- .03	2 PLACE DIMENSIONS:	+/- .19	CUSTOMER:	EPG
MTG LOCATION	+/- .13	3 PLACE DIMENSIONS:	+/- .063	CUSTOMER NUMBER:	F55-48-1P/JW-2PAC-AS
MTG HOLE LOCATION CTR-CTR	+/- .08	ALL DIMENSIONS SHOWN ARE IN INCHES		DRAWING NO.:	5592-AS
CONNECTION SIZE	+/- .03	ALL ANGLED DIMENSIONS ARE REFERENCE		ISSUE NO.:	P-03
CONNECTION LOCATION	+/- .25	THIRD ANGLE PROJECTION		DESCRIPTION:	BOLTED LG RAD ASSY (B)
CONNECTION CTRN-CTR	+/- .13			SCALE:	1:12
THIS PRINT IS PROPERTY OF COVARD GT AND/OR ITS SUBSIDIARIES AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS		DATE:	1/6/2013	SHEET:	1 of 1
		DESIGNED BY:	WC	DRAWN BY:	WC

PART NO. 5592/AS