

Generator set data sheet



Model: C33 D5 (X-Series)
Frequency: 50
Fuel type: Diesel

Spec sheet:	SS23-CPGK
Noise data sheet (open/enclosed):	ND50-OS550/ND50-CS550
Airflow data sheet:	AF50-550
Derate data sheet (open/enclosed):	DD50-OS550/DD50-CS550
Transient data sheet:	TD50-550

Fuel consumption	Standby kVA (kW)				Prime kVA (kW)			
	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
Ratings	33 (26.4)				30 (24)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
gph	0.8	1.2	1.6	2.3	0.8	1.1	1.5	2.0
L/hr	3	4.4	6.1	8.7	2.9	4.1	5.6	7.6

Engine	Standby Rating	Prime Rating
Engine manufacturer	Cummins	
Engine model	X 3.3 G1	
Configuration	4 cycle, in-line, 4 cylinder diesel	
Aspiration	Naturally aspirated	
Gross engine power output, kWm	36	32
BMEP at set rated load, kPa	863.9	767.9
Bore, mm	91.4	
Stroke, mm	127	
Rated speed, rpm	1500	
Piston speed, m/s	6.35	
Compression ratio	18.5:2	
Lube oil capacity, L	6.8	
Overspeed limit, rpm	1725	
Regenerative power, kW	2.4	
Governor type	Mechanical	
Starting voltage	12 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr	40
Maximum fuel inlet restriction, mm Hg	73.66
Maximum fuel inlet temperature, °C	60

Air	Standby Rating	Prime Rating
Combustion air, m ³ /min	2.06	2.06
Maximum air cleaner restriction, kPa	2.5	

Exhaust

Exhaust gas flow at set rated load, m ³ /min	2.29	2.29
Exhaust gas temperature, °C	600	550
Maximum exhaust back pressure, kPa	4.75	

Standard set-mounted radiator cooling

Ambient design, °C	50	
Fan load, kW _m	1.2	
Coolant capacity (with radiator), L	26	
Cooling system air flow, m ³ /sec @ 12.7 mmH ₂ O	106	
Total heat rejection, Btu/min	1653	1539
Maximum cooling air flow static restriction mm H ₂ O	TBC	

Weights*

	Open	Enclosed
Unit dry weight kgs	685	1044
Unit wet weight kgs	860	1219

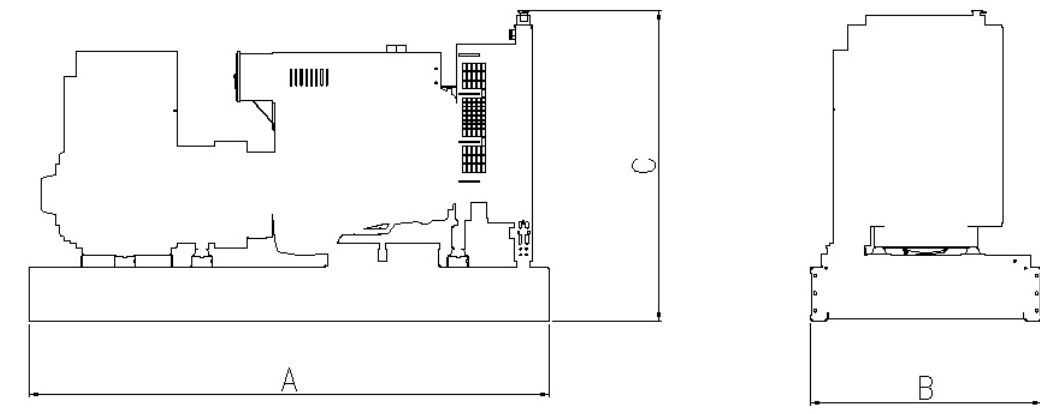
* Weights represent a set with standard features. See outline drawing for weights of other configurations.

Dimensions

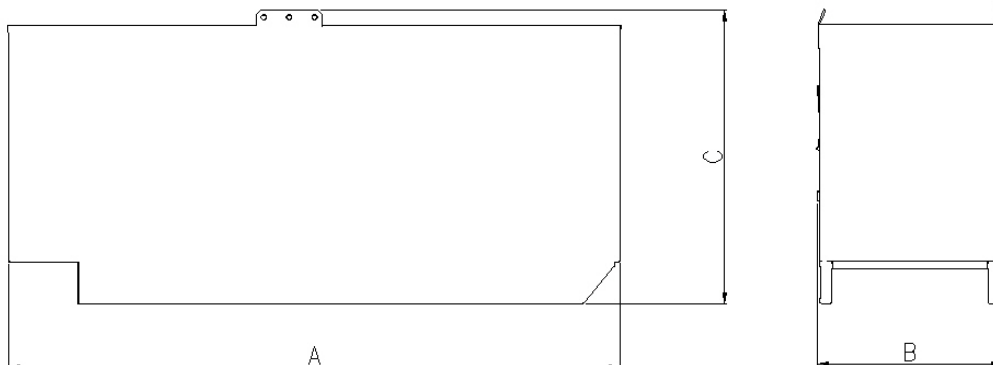
	Length	Width	Height
Standard open set dimensions mm	1753	930	1238
Enclosed set standard dimensions mm	2253	969	1616

Genset outline

Open set



Enclosed set



Outlines are for illustrative purposes only. Please refer to the genset outline drawing for an exact representation of this model.

Alternator data

Connection	Temp rise °C	Duty	Alternator	Voltage
Wye, 3-phase	163/125	S/P	PI144G	380-416V
Wye, 3-phase	125/105	S/P	PI144H	380-440
Wye, 1-phase	163/125	S/P	PI144H	220-240

Ratings definitions

Emergency standby power (ESP):	Limited-time running power (LTP):	Prime power (PRP):	Base load (continuous) power (COP):
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789 and DIN 6271.	Applicable for supplying power to a constant electrical load for limited hours. Limited Time Running Power (LTP) is in accordance with ISO 8528.	Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789 and DIN 6271.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789 and DIN 6271.

Formulas for calculating full load currents:

Three phase output

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

Single phase output

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

See your distributor for more information.

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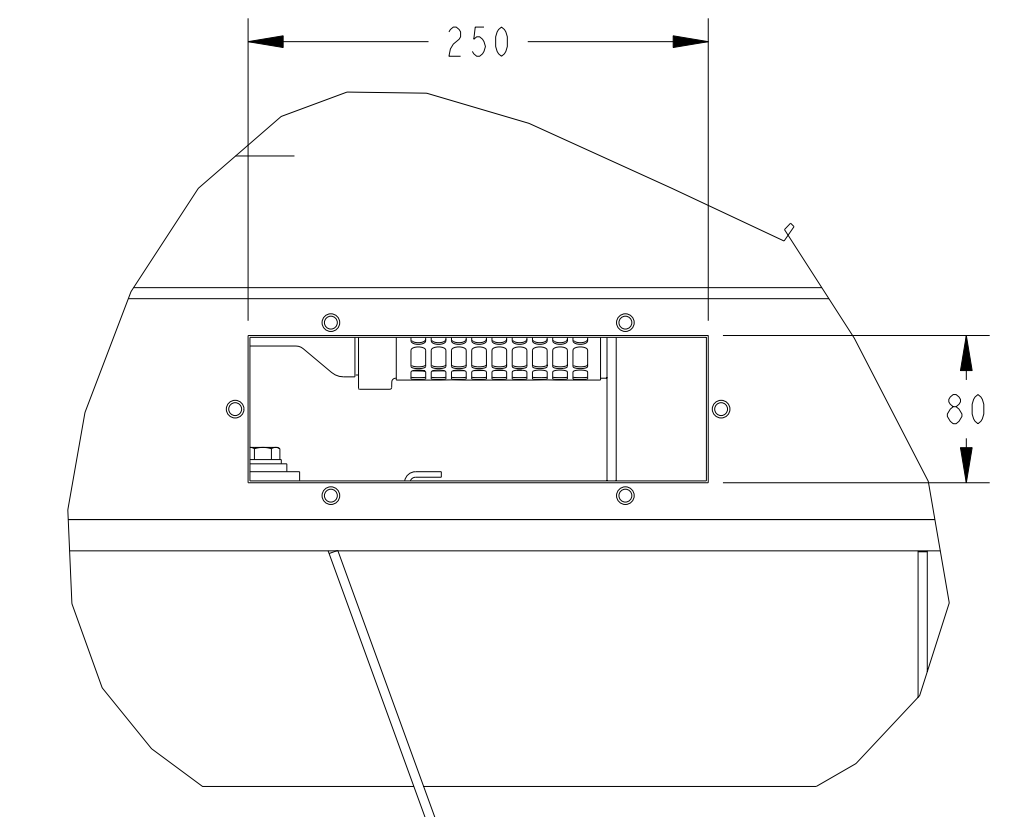
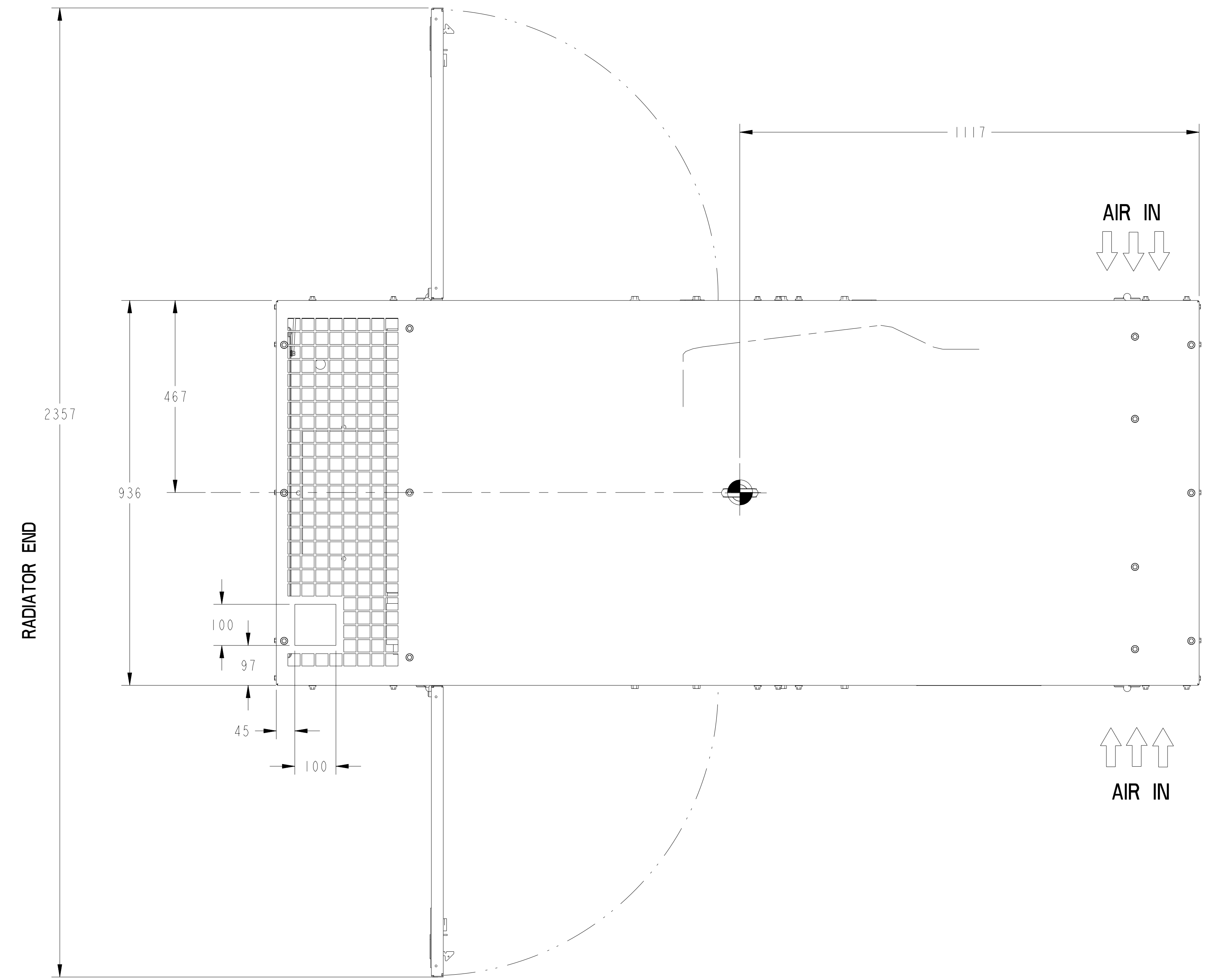


REV. NO.	DATE	BY	CHKD.	APPD.	DATE
ECO-1346671 B	1	SEE ECO FOR CHANGES	DN	SH R. THAKUR	15NOV13

- NOTES:
- ENCLOSURE OUTLINE WITH STANDARD SKID.
 - THIS OUTLINE IS FOR X INTL SPEC ENCLOSED SET.
 - FUEL TANK CAPACITY 170 LTRS APPROX.
 - ENCLOSED GENERATOR SET LIFT ONLY BY SINGLE POINT LIFTING EYE OR BY FORK LIFT FORKS UNDER BEDFRAME.
 - DO NOT USE THE POCKETS TO LIFT THE ENTIRE GENSET.
 - WEIGHTS AND CG DETAILS MENTIONED IN THE WEIGHT DATA TABLE REPRESENTS A GENSET WITH STANDARD FEATURES.
 - CG DETAILS MENTIONED IN THE WEIGHT DATA TABLE REPRESENTS WET CONFIGURATION.

D

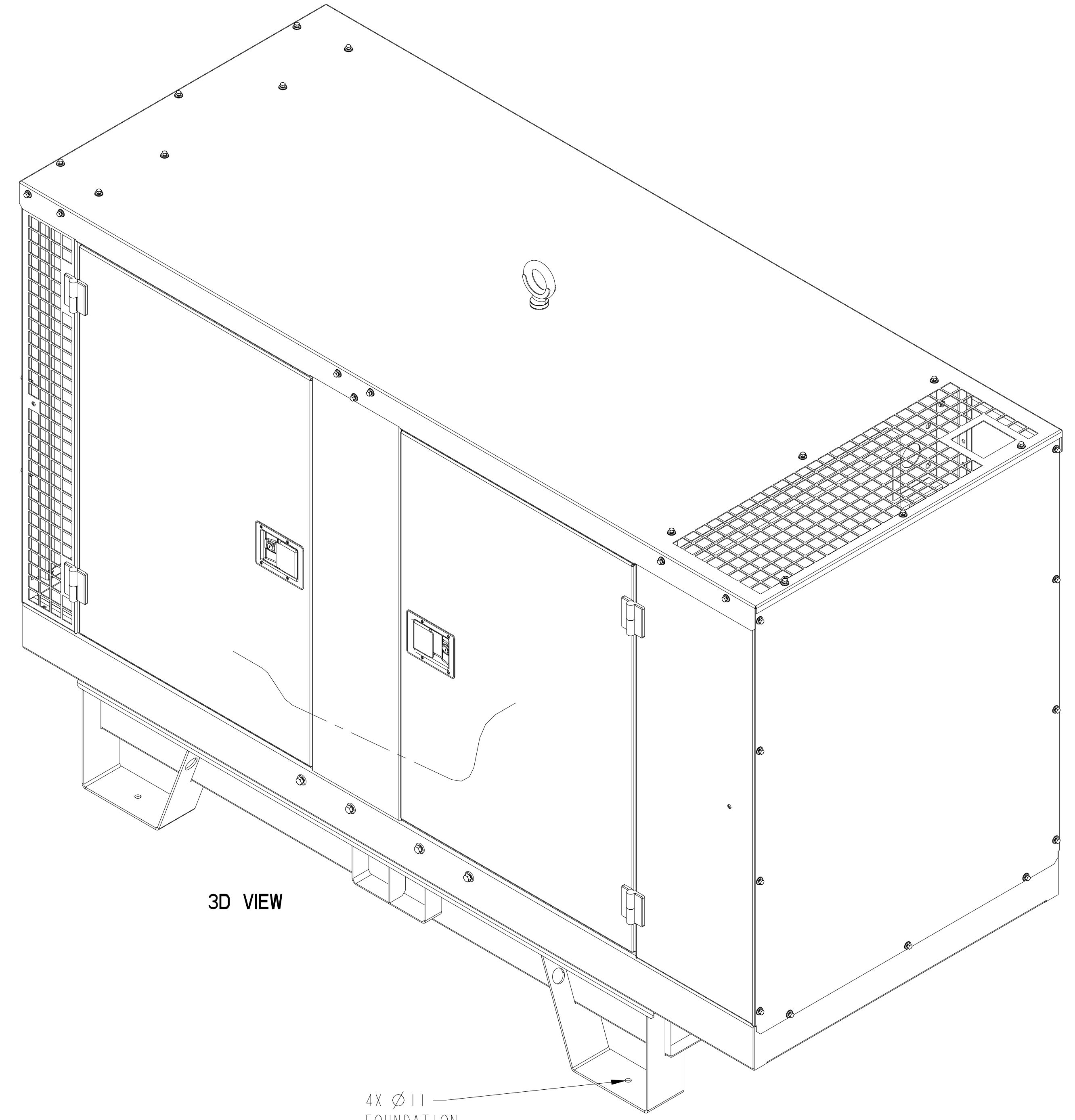
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C

C

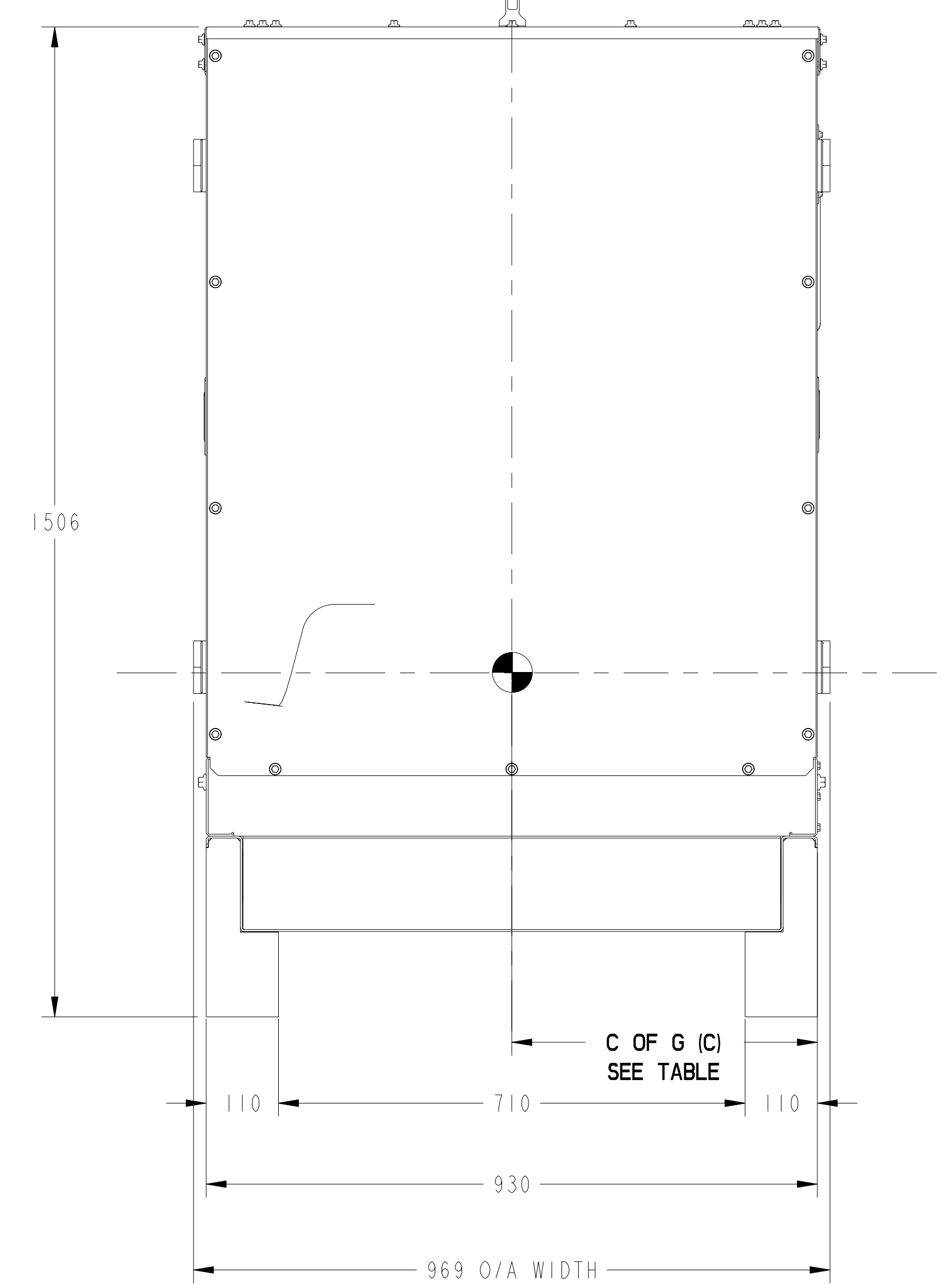
3D VIEW



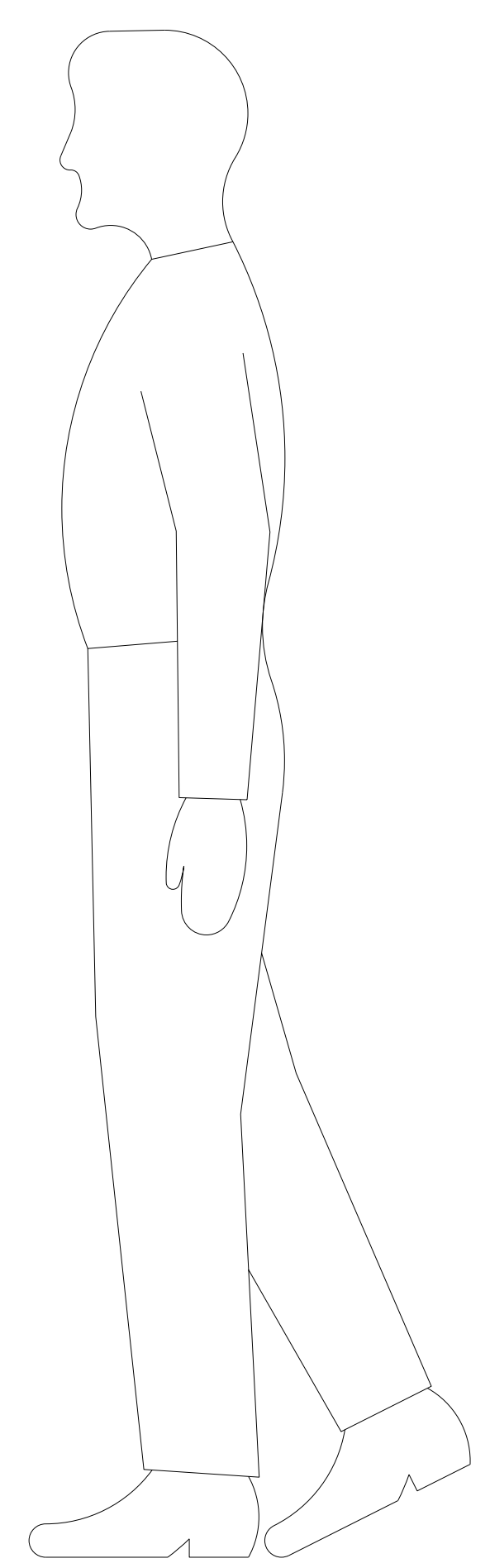
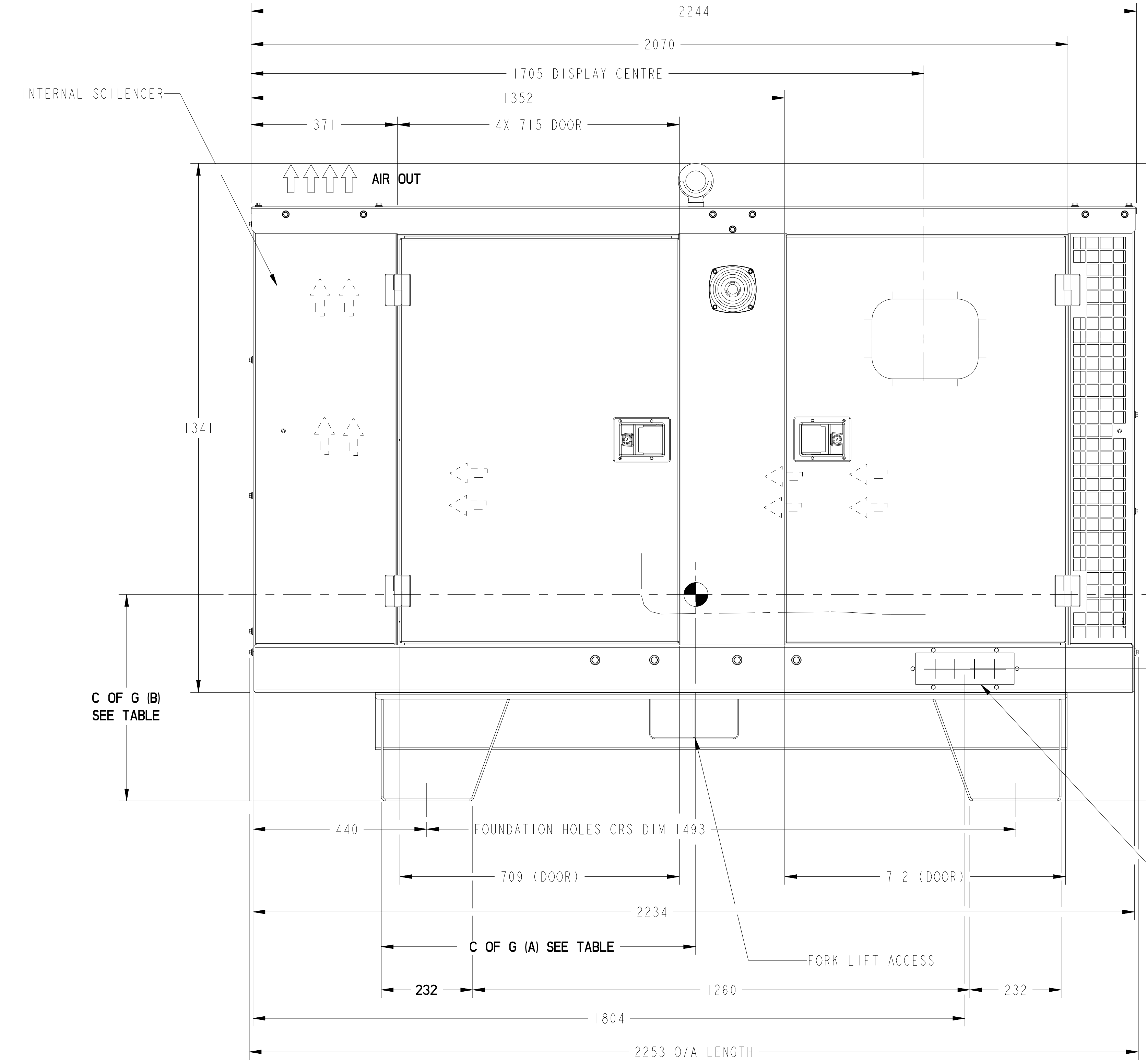
SINGLE POINT LIFT
HOLE Ø40
C OF G UNDER
LIFTING EYE

B

B



INTERNAL SCILENCER



A

A

GENSET MODEL	ENGINE	WEIGHT AND CG DETAILS		CG LOCATION		
		GENSET DRY WEIGHT (Kg)	GENSET WET WEIGHT (Kg)	DIM A	DIM B	DIM C
C33D5	X3.3 G1	1044.5	1219.5	862.6	621.9	462.1
C38D5	X3.3 G1	1057.0	1232.0	869.2	620.8	462.1
C30D6	X3.3 G2	1044.5	1219.5	862.6	621.9	462.1
C35D6	X3.3 G2	1057.0	1232.0	869.2	620.8	462.1

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS

±0.1	0.00-4.99	+0.15/-0.08
±0.2	5.00-9.99	+0.20/-0.10
±0.3	10.00-17.49	+0.25/-0.13
±0.38	17.50-24.99	+0.30/-0.13

DO NOT SCALE PRINT

DATE: 10-12-07

SCALE: 5/32

ANG TOL: ± 1.0°

PROPERTY OF CUMMINS POWER GENERATION GROUP

DRN: S_HAWAL
CHKD: M_DIXIT
APPD: Y_JOSHI

DATE: 10-12-07

FOR INTERPRETATION FIRST USE IN CHARTIMAN

SITE CODE: CIL

REV: E

0500-4997

CUMMINS POWER GENERATION
GENSET OUTLINE

SHEET 1 OF 1

Part A019X850 B

Description	Legacy Name	External Regulations	Application Status	Release Phase Code	Security Classification	Alternates
OUTLINE,GENSET	0500-4997	None	Production & Service	Production	Public	

Part Specifications :A019X850 B

Name	Description	Legacy Name
A030B356	SPECIFICATION,MATERIAL	CES10903
A024R092	DRAWING,ENGINEERING	0500-4997