

Only Emergency Generator Maker



This is GPC

GPC

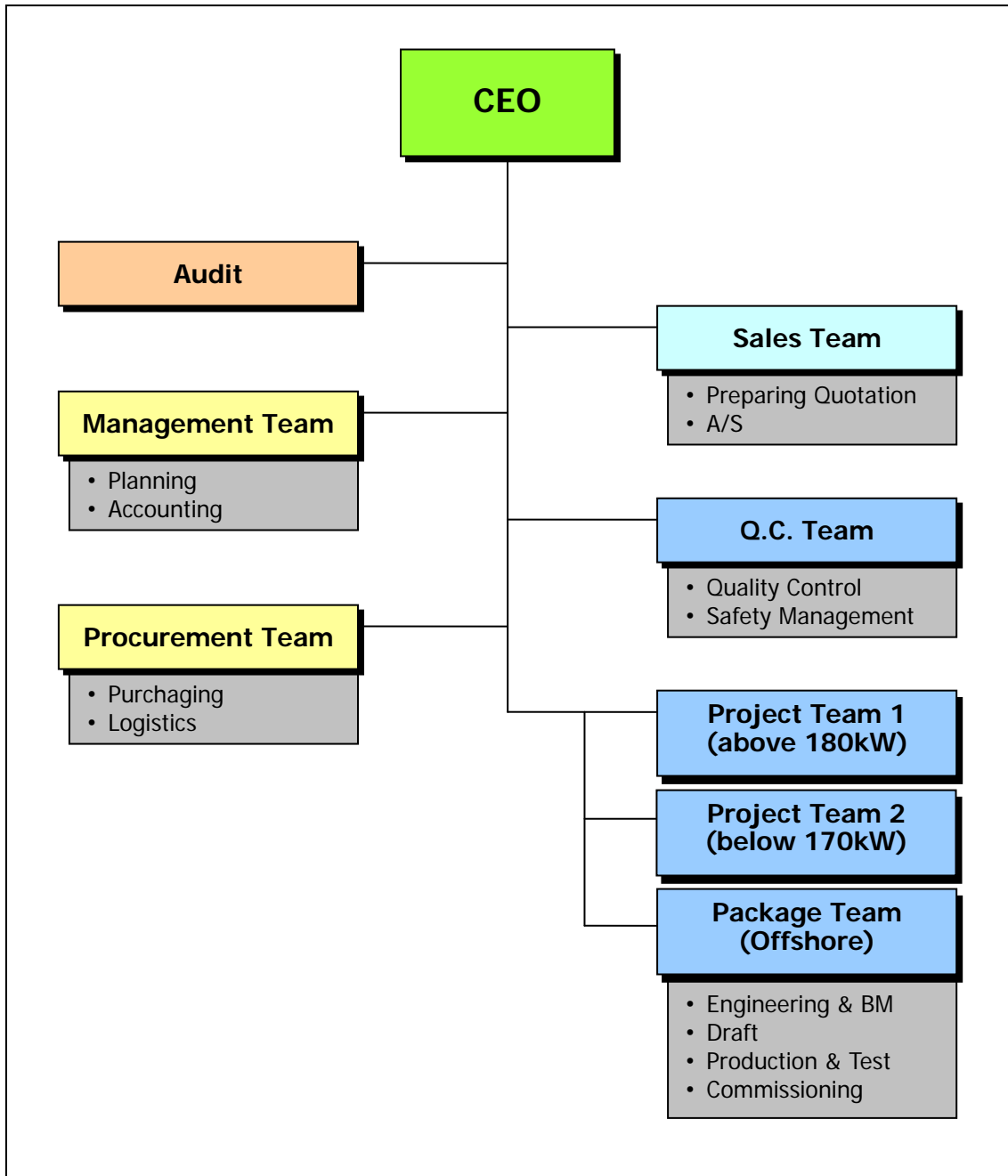
<http://www.gpckorea.com>

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- Organization
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- Characteristics of Emergency Generator
- Specification
- Starting System
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- Suggestion

◎ History

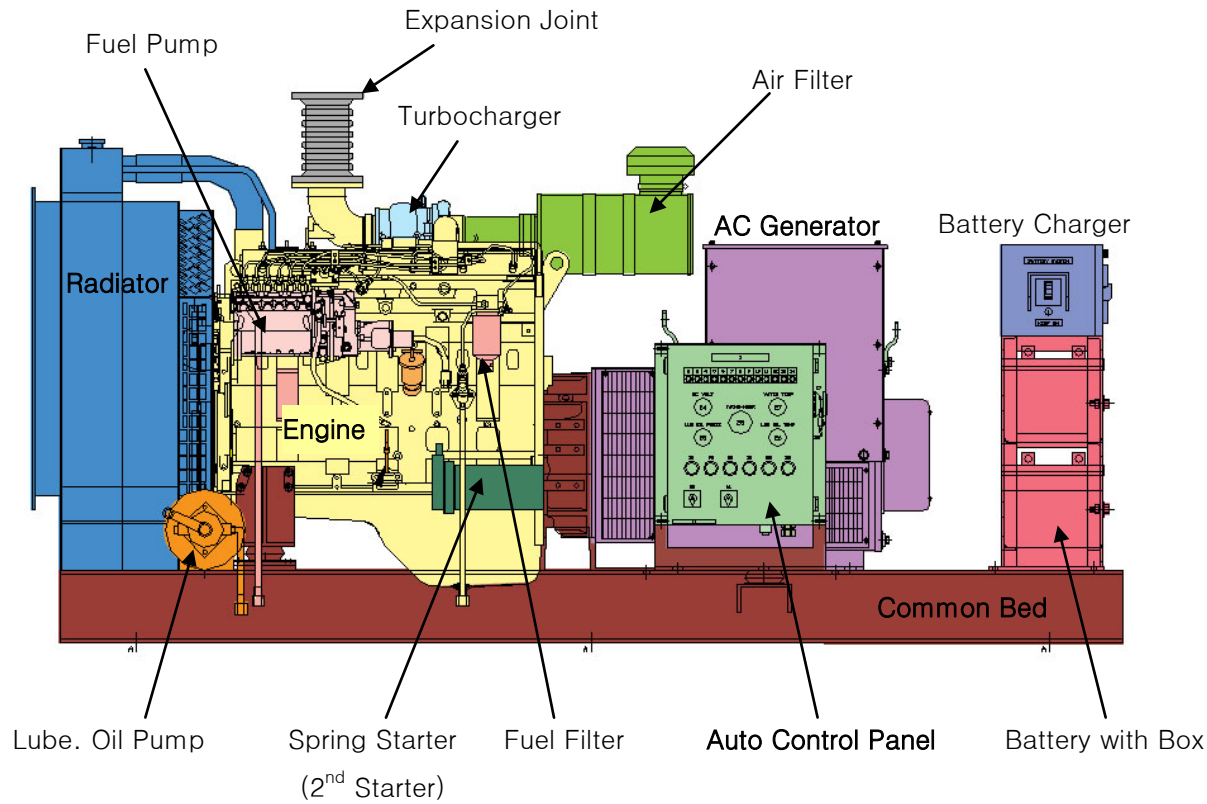
- 2002.08 Establishment
- 2002.11 Vendor of Daewoo Shipbuilding Marine Engineering Co.
- 2003.02 Vendor of Hanjin Heavy Industries & Construction Co.
- 2003.06 Vendor of Shin-a(SLS) Shipbuilding Co
- 2003.09 ISO 9001
- 2004.05 Vendor of Hyundai Mipo Docking Co
- 2004.06 Installation of 800kW test load
- 2004.12 Vendor of Samsung Heavy Industries Co
- 2005.02 Vendor of Hyundai Heavy Industries Co
- 2005.03 Installation of 1,200kW test load
- 2006 10 Production of 910kW Emergency Generator for LNG Ship
- 2007 05 Production of Dead Ship Generator 350kW(690V)
- 2007 09 Moved to the new plant & office
- 2008 06 New line-up with Doosan Infracore marine diesel engine
- 2008 08 Shanghai(China) Office Open
- 2008 12 Delivery of 140kW Emergency Generator set for USC
- 2009 06 Development of Digital type control panel
for Marine Emergency Diesel Generator
- 2009 10 Order of 280kW Emergency Generator for VLCC from IHI-MU
- 2010 05 Delivery of VSP 275kW Generator Package for WHRP Platform

◎ Organization



Outline of Emergency Generator

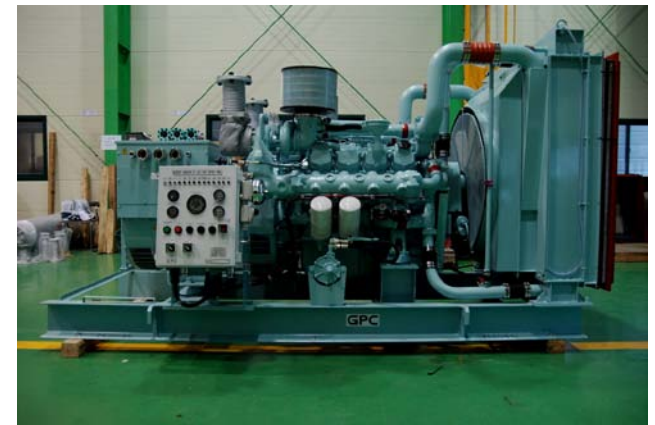
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Emergency Generator set



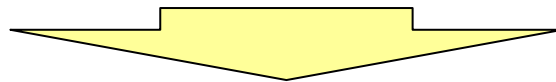
130kW Emergency Diesel Generator Set



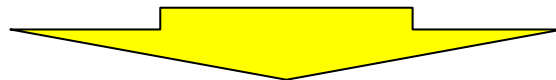
300kW Emergency Diesel Generator Set

Special requirement for Emergency Generator

- **PRIME MOVER**
 - Marine Prime Rating
 - High speed diesel engine
 - Mechanical Governor
- **DUAL STARTING SYSTEM**
- **AUTHORIZED CLASS SOCIETY CERTIFICATION**
- **TECHNICAL DOCUMENT**
 - Discussion / Approval / Working / Final Drawing



PROFFESIONAL ENGINEERING COMPANY



- **CUSTOMER ORIENTED**
- **DEVELOPING PROJECT EXECUTION**
 - On time
 - Meet to budget
- **CUSTOMER ACCEPTANCE AND FEED-BACK SYSTEM**
- **ACTIVE QUALITY AND PROCESS**
 - Improvement system

◎ DOOSAN INFRACORE DIESEL ENGINE

▪ 60Hz, 1,800rpm, 450V, IP23, Insulation Class "H" with Temperature rise "F"

| Output (kW) | Diesel Engine | | AC Generator | Remark |
|-------------|---------------|-----|----------------|---------------------------------|
| | Model | kW | Leroy Somer | |
| 80 | AD136TI | 138 | 44.2 VS3 C6/4 | 2,600×1,150×1,550(mm) / 1,600kg |
| 90 | AD136TI | 138 | 44.2 S7 C6/4 | 2,800×1,150×1,550(mm) / 1,700kg |
| 100 | AD136TI | 138 | 44.2 S7 C6/4 | 2,800×1,150×1,550(mm) / 1,700kg |
| 105 | AD136TI | 138 | 44.2 S75 C6/4 | 2,850×1,150×1,550(mm) / 1,750kg |
| 120 | AD136TI | 138 | 44.2 M95 C6/4 | 2,850×1,150×1,550(mm) / 1,800kg |
| 125 | AD136TI | 138 | 44.2 M95 C6/4 | 2,850×1,150×1,550(mm) / 1,800kg |
| 130 | AD086TI | 186 | 44.2 L12 C6/4 | 2,900×1,400×1,550(mm) / 1,800kg |
| 150 | AD086TI | 186 | 46.2 M3 C6/4 | 2,900×1,400×1,550(mm) / 1,700kg |
| 160 | AD086TI | 186 | 46.2 M3 C6/4 | 2,900×1,400×1,550(mm) / 1,700kg |
| 180 | AD126TI | 247 | 46.2 L6 C6/4 | 3,000×1,450×1,550(mm) / 2,500kg |
| 200 | AD126TI | 247 | 46.2 L6 C6/4 | 3,000×1,450×1,550(mm) / 2,500kg |
| 250 | AD158TI | 353 | 46.2 VL12 C6/4 | 3,050×1,500×1,750(mm) / 3,000kg |
| 300 | AD158TI | 353 | 47.2 VS2 C6/4 | 3,050×1,500×1,750(mm) / 3,100kg |
| 350 | AD180TI | 441 | 47.2 S4 C6/4 | 3,100×1,550×1,600(mm) / 3,850kg |
| 400 | AD180TI | 441 | 47.2 M7 C6/4 | 3,100×1,550×1,600(mm) / 3,950kg |
| 450 | AD222TI | 530 | 47.2 M7 C6/4 | 3,250×1,550×1,850(mm) / 4,250kg |
| 500 | AD222TI | 530 | 49.1 S4 C6/4 | 3,250×1,550×1,850(mm) / 4,450kg |

Specification of Emergency Generator

GPC

- 50Hz, 1,500rpm, 380V, IP23, Insulation Class "H" with Temperature rise "F"

| Output (kW) | Diesel Engine | | AC Generator | Remark |
|-------------|---------------|-----|----------------|---------------------------------|
| | Model | kW | Leroy Somer | |
| 70 | AD136TI | 115 | 44.2 VS45 C6/4 | 2,600×1,150×1,550(mm) / 1,600kg |
| 80 | AD136TI | 115 | 44.2 S7 C6/4 | 2,800×1,150×1,550(mm) / 1,700kg |
| 90 | AD136TI | 115 | 44.2 S75 C6/4 | 2,800×1,150×1,550(mm) / 1,750kg |
| 100 | AD136TI | 115 | 44.2 M95 C6/4 | 2,850×1,150×1,550(mm) / 1,800kg |
| 105 | AD086TI | 151 | 44.2 M95 C6/4 | 2,900×1,400×1,550(mm) / 1,800kg |
| 120 | AD086TI | 151 | 46.2 M3 C6/4 | 2,900×1,400×1,550(mm) / 1,700kg |
| 125 | AD086TI | 151 | 46.2 M3 C6/4 | 2,900×1,400×1,550(mm) / 1,700kg |
| 130 | AD086TI | 151 | 46.2 M3 C6/4 | 2,900×1,400×1,550(mm) / 1,700kg |
| 150 | AD126TI | 206 | 46.2 L6 C6/4 | 3,000×1,450×1,550(mm) / 2,500kg |
| 160 | AD126TI | 206 | 46.2 L6 C6/4 | 3,000×1,450×1,550(mm) / 2,500kg |
| 180 | AD126TI | 206 | 46.2 L9 C6/4 | 3,000×1,450×1,550(mm) / 2,600kg |
| 200 | AD158TI | 302 | 46.2 L9 C6/4 | 3,050×1,500×1,750(mm) / 3,000kg |
| 250 | AD158TI | 302 | 47.2 VS2 C6/4 | 3,050×1,500×1,750(mm) / 3,100kg |
| 300 | AD180TI | 357 | 47.2 S5 C6/4 | 3,100×1,550×1,600(mm) / 3,850kg |
| 350 | AD222TI | 446 | 47.2 M7 C6/4 | 3,250×1,550×1,850(mm) / 4,250kg |
| 400 | AD222TI | 446 | 47.2 L9 C6/4 | 3,250×1,550×1,850(mm) / 4,350kg |

LEROY SOMER : EMERSON™

CUMMINS GENERATOR : NEWAGE-STAMFORD

Secondary Starting

| Output(kW) | 60 ~ 100 | 120 ~ 170 | 180 ~ 220 | 250 ~ 500 | Remarks |
|------------------|----------|-----------|-----------|-----------|---------|
| Battery | | | | | |
| Spring | | | | | |
| Hydraulic | | | | | |
| Air | | | | | |



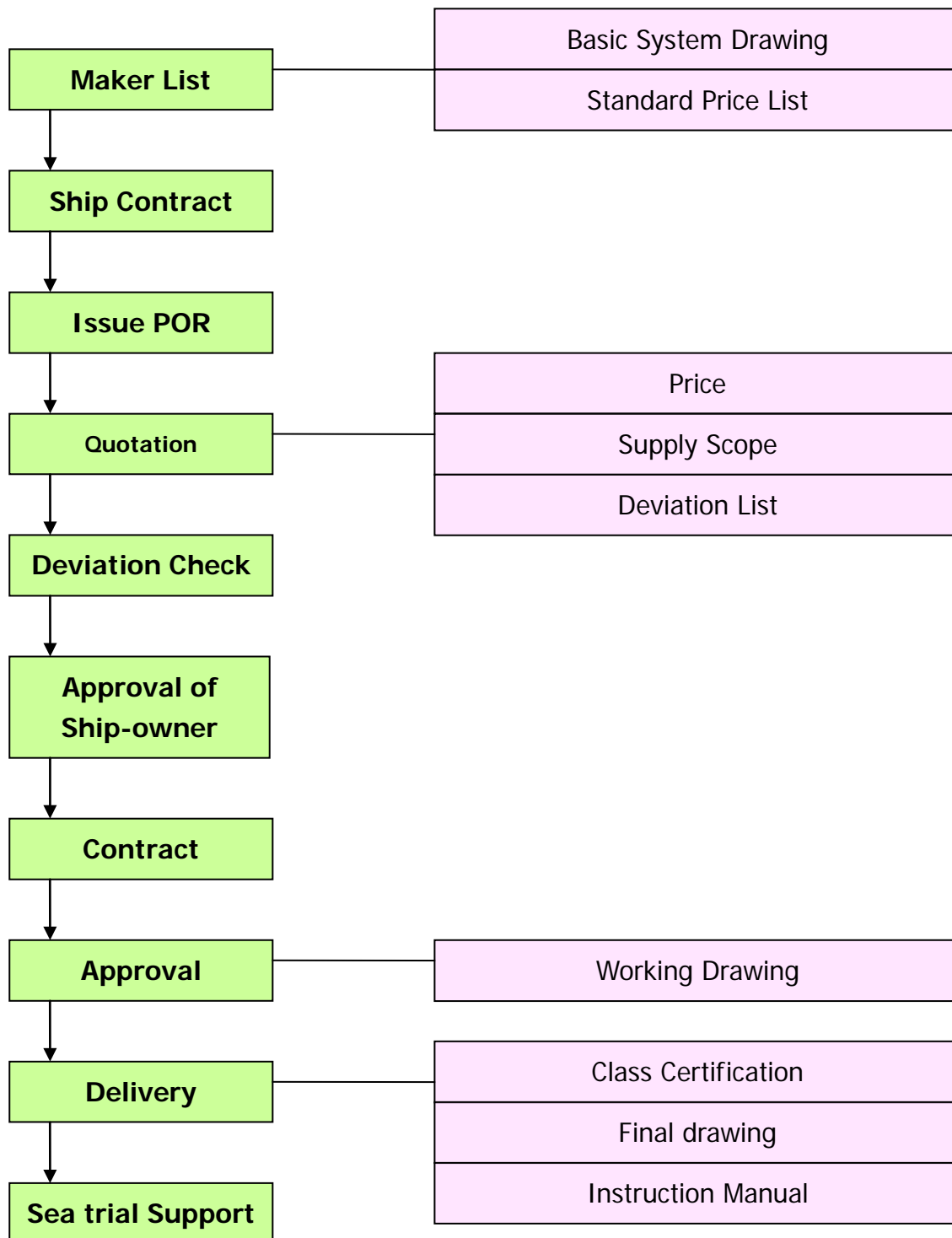
Maker Standard

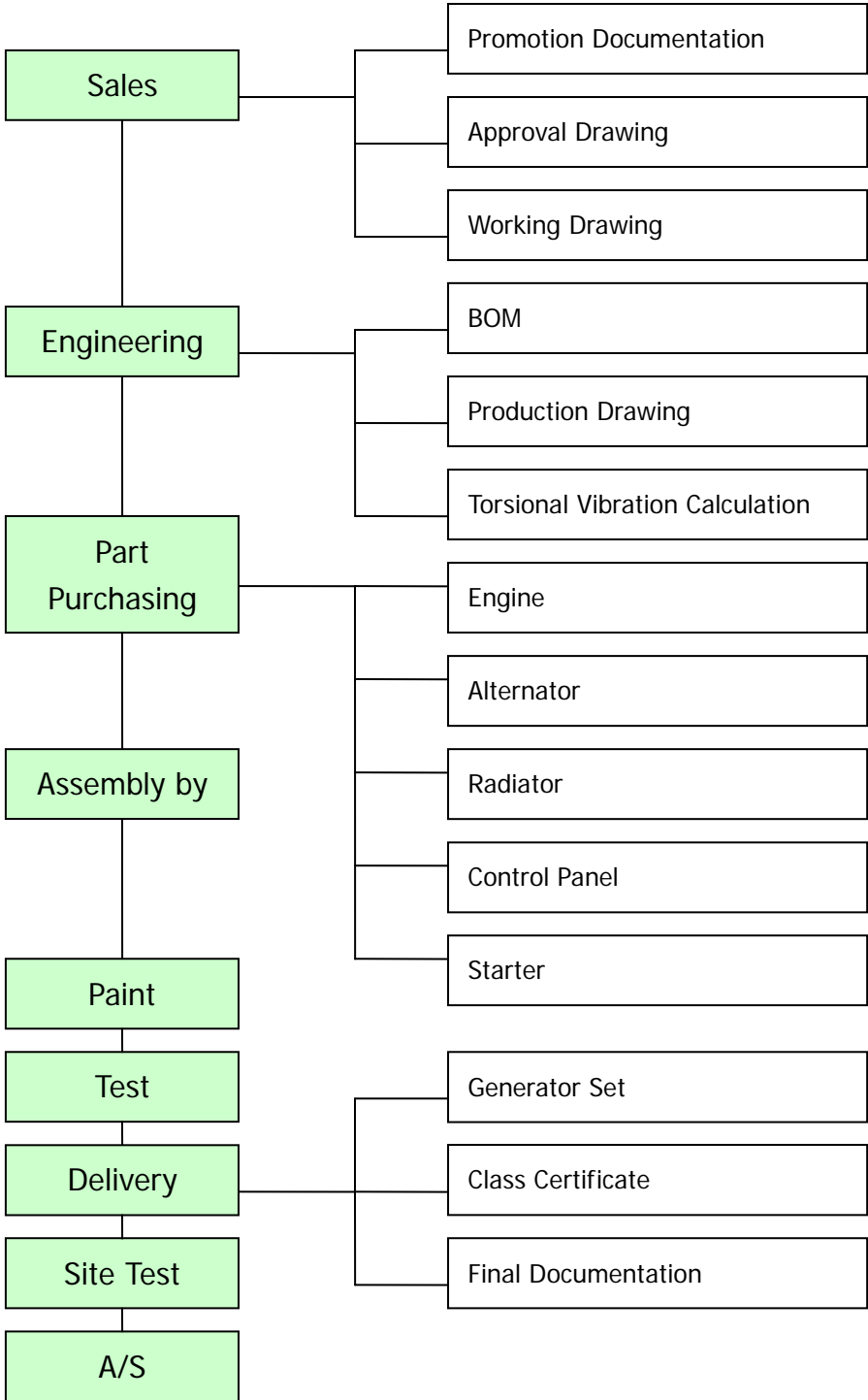


Maker Option

※ PRIMARY STARTING METHOD : ELECTRIC BATTERY SYSEM

| Unit Name | Supplier | Remarks |
|-----------------------------|--|-------------|
| Diesel Engine | Doosan Infracore | Korea |
| Alternator | Emerson Leroy Somer Newage-Stamford | FR/CN UK |
| Hydraulic Starting | Prestolite KTI | UK USA |
| Air Starting | Ingersoll Rand TDI | USA USA |
| Spring Starting | Startwell | UK |
| Electric Starter | Delco-Remy | USA |
| Vibration Isolator | Trelleborg Rubber Design | NL UK |
| Radiator | Daeheung Radiator | Korea |
| Common bed | Doosung | Korea |
| Coolant Heater | KMC | Korea |
| Silencer Expansion joint | Daedong | Korea |
| Battery Charger | KMC / KOMECO | Korea |
| Control Panel | KMC / KOMECO | Korea |







1. Facility site 3,000 m²
 - Workshop & test area 1,000 m²
 - Office : 170 m²
2. Lift Capacity : 15 ton Crane, 10 ton Crane
3. Test Equipment 5 Set
 - 3.1 Control Panel
 - 3.2 Resistor Load Bank : 1,200 kW
 - 3.3 Temperature and Pressure Alarm Tester
 - 3.4 Recorder for governor test, Vibrationmeter, etc.
4. Assembly : Torque Wrench, etc (380set)
5. Paint Booth : 50 m²
6. Others
 - 6.1 Bench Drill Machine, Hand Grinder, Cutter, etc
 - 6.2 CO₂ Welding Machine, etc

ACTIVITY OF GPC

- SATISFY TO REQUIREMENT OF CUSTOMER
- MORE COMPACT SIZE
- VARIETY OF OPTION
- MINIMUM OVER-HEAD COST

THE ONLY ONE EMERGENCY GENERATOR MAKER

ADVANTAGE OF CUSTOMER

- PURCHASING EMERGENCY GENERATOR SET
AT REASONABLE PRICE
- SAVING LABOR FROM STANDARDIZATION
- JUST ON TIME