1. **HANSHIN DIESEL ENGINE (MAIN ENGINE) * 1 SET**

   Engine Model: LH28RG  
   Engine No.: LH28-32  
   Max. Continuous Power: 735KW (1000PS)  
   Engine Speed: 353R.P.M.  
   No. of Cylinder: 6  
   Cylinder-bore*stroke: 280*460mm  
   Weight: 16500Kgs  
   Manufactured Year: 1986  

   Fuel Injection Pump: Zexel: 104265-4091  
   Governor: Zexel: RHD6-PC 105856-2910  

   Turbo-Charger Niigata  
   Type: NHP23CH  
   No: 23106  
   Specification: RC/FB3-313/YH-71  
   Max. Speed: 34500R.P.M.  
   Max. Temp.: 650℃

2. **NIIGATA DIESEL ENGINE (MAIN ENGINE) * 1 SET**

   Engine Model: 6M26AGTE  
   Engine No.: 56742  
   Max. Continuous Power: 1000PS  
   Engine Speed: 375R.P.M.  
   Weight: 13200Kgs  
   Manufactured Month/Year: 12/1996  

   Fuel Injection Pump: Zexel: 104216-3111  
   Governor: Zexel: RHD6-PC 105856-2910  

   Exhaust Turbine Turbo-Charger Niigata  
   Man  
   B&W  

   Model: NR20/R  
   Engine No.: 60759  
   Specification: RL/65-C47/78-D67  
   Max. Speed: 40400min  
   Max. Temp.: 650℃
3. WARTSILA NSD (MAIN ENGINE) * 2 SET

   Engine Model: 6L20  
   SPEC. No.: 271096  
   Engine No.: 8900/8901  
   990KW  16.7r/s  1000r/min  
   Manufactured: 107198/107199

   Governor:

   Turbo-Charger:

   Clutch: REINTJES

4. YANMAR DIESEL ENGINE (MAIN ENGINE) * 1 SET

   Engine Model: 6NHL-ETP  
   Engine No.: 3024FJH  
   Max. Continuous Power: 780PS  
   Speed of Crank Shaft: 1800R.P.M.  
   Manufactured Month/Year:

   Fuel Injection Pump:
   Governor:

   Turbo-Charger:
5. YANMAR DIESEL ENGINE (GENERATOR SET) *3 SETS

Engine Model: 6N21L-EV
Engine No.: 5043FTR/5044FTR/5045FTR
Max. Continuous Rating: 800KW
Speed of Crank Shaft: 720R.P.M.
Manufactured Year/Month: 2006/09

Fuel Injection Pump:
Governor: NZ61 758510-61460

Turbo-Charger: ABB Turbo Systems Ltd
CH 5401 Baden
Type: TPS48D01 HT474150
$n_{M_{max}}$: 1049 1/S $t_{M_{max}}$: 650℃
$n_{B_{max}}$: 996 1/S $t_{B_{max}}$: 620℃
SISO11 175kg 8 50 50
Year 2006 Made in Switzerland

Generator: TAIYO ELECTRIC CO., LTD.
Model: FE547C-10
Phase: 3
Output: 875KVA
Poles: 10
Speed: 720 min⁻¹
Frequency: 60Hz
Volts: 450V
AMP.S: 1123A
Excit. volts: 94.3V
Excit. AMP.S: 103A
Rule: ABS.CR
Mach. No. 265669
Mass: 3750Kg
Date of Manufactured: 2006 Aug.
6. YANMAR DIESEL ENGINE (GENERATOR SET) *1 SET  NO.2

Engine Model: 6N21AL-UN
Engine No.: 2736FTH
Max. Continuous Rating: 960PS
Speed of Crank Shaft: 900RPM
Manufactured Year/Month: 1999

Fuel Injection Pump:
Governor:

Turbo-Charger: I.H.I. RH183
  Turbo Spec.: C51207 D02208 T05110 H52616
  Serial no.: RH257883

Generator:
  Model:
  Phase:
  Output:
  Poles:
  Speed:
  Frequency: 60Hz
  Volts: 440V
  AMP.S:
  Excit. volts:
  Excit. AMP.S:
  Rule:
  Mach.
  Mass:
  Date of Manufactured:
7. YANMAR DIESEL ENGINE (GENERATOR SET) *2 SETS  NO.1 NO.3

Engine Model: 6N21AL-EN
Engine No.: 2972FTK/2973FTK
Max. Continuous Rating: 780KW
Speed of Crank Shaft: 900R.P.M.
Manufactured Year/Month: 2000

Fuel Injection Pump:
Governor:

Turbo-Charger: I.H.I. RH183
   NO. 1
   Turbo Spec.: C51207 D02208 T03110 H52616
   Serial no.: RH260281
   NO. 3
   Turbo Spec.: C51207 D02208 T03110 H52116
   Serial no.: RH258341

Generator:
   Model:
   Phase:
   Output:
   Poles:
   Speed:
   Frequency: 60Hz
   Volts: 440V
   AMP.S:
   Excit. volts:
   Excit. AMP.S:
   Rule:
   Mach.
   Mass:
   Date of Manufactured:
8. GENERATOR FOR YANMAR 6N18AL-EN USE

Generator: For YANMAR 6N18AL-EN use
Cont rating: 897HP  Speed of chrank shaft: 1000rpm
Engine no. 2366FSR

BRUSHLESS A.C. GENERATOR

Model: FE45C-6
No. Phases: 3/4W  Rating: Cont.  Excit. No. of phases: 3
Output: 750KVA  P.F.: 0.8  Excit. output: 15.5KVA
Frequency: 50Hz  No. of poles: 6  Excit. P.F.: 0.95
Volt.s: 380/220V  AMP.S.: 1140A  Excit. Frequency: 100Hz
R.P.M.: 1000rpm  Ambient Temp.: 40°C  Excit. no. of poles: 12
Insulation: ARMATURE F Class • Field F Class  Excit. Volt.S: 87.7V
Rule: JIS JEC.JEM  MATCH.NO.241422E  Excit. AMP.S.: 102A
Total weight: 3160KG  Date: 1998

TAIYO ELECTRIC CO., LTD.
9. YANMAR DIESEL ENGINE (Engine only) * 1 SET

   Engine Model: M220L-SX
   Engine No.: 1190FTK
   Max. Continuous Rating: 900PS
   Speed of Crank Shaft: 720R.P.M.
   Manufactured Year: 1991

   Fuel Injection Pump:
   Governor:

   Turbo-Charger: VTR201

10. YANMAR DIESEL ENGINE (GENERATOR SET) *1 SET

   Engine Model: M220AL-SN
   Engine No.: 1298FTJ
   Max. Continuous Rating: 1060PS
   Speed of Crank Shaft: 900R.P.M.
   Manufactured Date/Month/Year: 11/April/1990

   Fuel Injection Pump:
   Governor:

   Turbo-Charger:
   Generator: NISHISHIBA ELECTRIC CO.,
       Phase: 3
       Type: NTAKL
       Output: 750KVA
       Poles: 8
       R.P.M.: 900
       Volts: 6600V
       AMP.S:
       HZ: 60
       Serial No.: 181033A1A
       Weight:
       Date of Manufactured: 2003
11. YANMAR DIESEL ENGINE (GENERATOR SET) *1 SET

Engine Model: M200AL-ST
Engine No.: 0790FNG
Max. Continuous Rating: 830PS
Speed of Crank Shaft: 900R.P.M.
Manufactured Year:

Fuel Injection Pump:
Governor: WOODWARD Part No.8562-403 Serial No.2088444

Turbo-Charger: VTR161
Generator: NISHISHIBA ELECTRIC CO.,
   Phase: 3
   Type: NTAKL
   Output: 500KVA
   Poles: 8
   R.P.M.: 900
   Volts: 445
   AMP.S: 649
   HZ: 60
   Serial No: 250767A1A
   Date of Manufactured: NOV. 1985
12. YANMAR DIESEL ENGINE (GENERATOR SET) *2 SETS

Engine Model: M200AL-DT
Engine No.: 0789FNG/0791FNG
Max. Continuous Rating: 660PS
Speed of Crank Shaft: 900R.P.M.
Manufactured Year:

Fuel Injection Pump:
Governor: WOODWARD Part No. 8562-403 Serial No. 2088445/2088443

Turbo-Charger: VTR160
Generator: NISHISHIBA ELECTRIC CO.,
  Phase: 3
  Type: NTAKL
  Output: 500KVA
  Poles: 8
  R.P.M.: 900
  Volts: 445
  AMP.S: 649
  HZ: 60
  Serial No: 250767A1A
  Date of Manufactured: NOV. 1985
13. YANMAR DIESEL ENGINE (GENERATOR SET) *1 SET

Engine Model: 6EY18AL
Engine No.: 1363FXK
Max. Continuous Rating: 615KW
Speed of Crank Shaft: 900min⁻¹
Manufactured Year/Month: 2010-03

Fuel Injection Pump:
Governor:
  TYPE: NZ61          SERIAL NO.: 00-21
  Oil P:1.2
  BASE ASS’Y.CODE: 75851 9-61 460
  HYDRAULIC OIL: SAE40

Turbo-Charger:
  Type: MITSUBISHI MET18SRC        DATE: FEB 2010
  SPEC.: CV1E43DW111KP60
  MAX.CONT.SPEED: 59800 min
  MAX.CONT.GAS TEMP: 580°C

Generator:

  **BRUSHLESS A.C. GENERATOR**

<table>
<thead>
<tr>
<th>GENERATOR</th>
<th><strong>BRUSHLESS EXCITER</strong></th>
</tr>
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<tbody>
<tr>
<td>Model: FE547A-8</td>
<td>RATING: Cont.</td>
</tr>
<tr>
<td>OUTPUT: 700KVA</td>
<td>NO. OF PHASES: 3</td>
</tr>
<tr>
<td>SPEED: 900 min⁻¹</td>
<td>P.F.: 0.8</td>
</tr>
<tr>
<td>FREQUENCY: 60 Hz</td>
<td>NO. OF POLES: 8</td>
</tr>
<tr>
<td>VOLTS: 450 V</td>
<td>AMB. TEMP.: 50°C</td>
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<tr>
<td>AMP.S: 898 A</td>
<td>INSULATION CLASS</td>
</tr>
<tr>
<td>EXCIT.VOLTS: 87.3 V</td>
<td>ARMATURE: F</td>
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<tr>
<td>EXCIT.AMP.S: 83.4 A</td>
<td>SPACE HEATER OUTPUT: 484W</td>
</tr>
<tr>
<td>RULE: DNV</td>
<td>ENCLOSURE: IP23</td>
</tr>
<tr>
<td>MACH.NO.277668</td>
<td>MASS: 2920 kg</td>
</tr>
</tbody>
</table>

TAIYO ELECTRIC CO., LTD.
14. YANMAR DIESEL ENGINE (MAIN ENGINE) *2 SETS

Engine Model: S165L-ST
Engine No.: 
Max. Continuous Rating: 550HP
Speed of Crank Shaft: 
Manufactured Year: 

Fuel Injection Pump: 
Governor: 

Turbo-Charger: 
Generator: 

15. YANMAR DIESEL ENGINE (GENERATOR SET) *1 SET

Engine Model: S165L-UT
Engine No.: 
Max. Continuous Rating: 480HP
Speed of Crank Shaft: 
Manufactured Year: 

Fuel Injection Pump: 
Governor: 

Turbo-Charger: 
Generator: 

16. YANMAR DIESEL ENGINE (GENERATOR SET) *1 SET

Engine Model: S165L-T
Engine No.: 
Max. Continuous Rating: 300HP
Speed of Crank Shaft: 
Manufactured Year: 

Fuel Injection Pump: 
Governor: 

Turbo-Charger: 
Generator: 
17. YANMAR DIESEL ENGINE (GENERATOR SET) *1 SET

Engine Model: 4CHL-T
Engine No.: 000545
Max. Continuous Rating: 50PS
Speed of Crank Shaft: 1800R.P.M.
Manufactured Year:

Fuel Injection Pump:
Governor:

Turbo-Charger:
Generator:
    Phase: 3
    Type:
    Output: 40KVA
    Poles:
    R.P.M.:
    Volts: 220V
    AMP.S:
    HZ: 60
    Serial No:
    Date of Manufactured:
18. WARTSILA DIESEL ENGINE (GENERATOR SET) *1 SET

Genset type: 645W4L20
Genset number: PAAE087989
Manufactured: 11-2007

kWe: 645  kVA: 806  r/min: 900  Classification: LR
kW(Mech): 680  V(AC): 450  Hz: 60

Fuel Injection Pump:
Governor:

Turbo-Charger: ABB Turbo Systems Ltd
CH. 5401 Baden
Type: TPS48E01  HT483657
n_{M_{max}}: 1046  l/S  t_{M_{max}}: 650℃
n_{B_{max}}: 983  t_{B_{max}}: 620℃
175kg  12  50  50
Year 2007  Made in Switzerland

Generator:
19. WARTSILA DIESEL ENGINE (GENERATOR SET) *1 SET

Genset type: 645W4L20
Genset number: PAAE019594
Manufactured: 05/2005
kWe: 645  kVA: 806  r/min: 900  Classification: ABS
Voltage: 450  Frequency: 60

Fuel Injection Pump:
Governor:

Turbo-Charger: ABB Turbo Systems Ltd
CH.5401 Baden
Type: TPS48E01  HT483657
nMmax: 1046 1/S  tMmax: 650°C
nBmax: 983  tBmax: 620°C
175kg  12  50  50
Year 2007  Made in Switzerland

Generator:
< TURBOCHARGER STOCK LIST >

1. **Type**: BBC / VTR714A-32 (Used)
   - Type: 714A-32
   - \( n_{\max} : 175 \text{ 1/S} \)
   - No.HT135188
   - \( t_{\max} : 650^\circ \text{C} \)
   - Specification: STLK16
   - V 11111 R 04110
   - W 12104 E 03109 U 032
   - L 18100 T 11100

2. **Type**: IHI / VTR354A-32 (Used)
   - Type: VTR354A-32
   - \( \text{No.} : 162014 \)
   - \( \text{Part no.} : 21900 \)
   - 03 1 17 06 2 04 1 11
   - 1 4 08 03 1 16
   - 14 1 01 1

3. **Model**: IHI / VTR354A-11 (For Niigata 18V32CLX Use)
   - Part name: Shaft Rotor ass’y (Reconditioned, Used)

4. **Model**: IHI / VTR201-2 (Genuine, New)
   - Engine Type: AKASAKA K28FD
   - Serial No: Xi138612
   - Specification: PF8T 16.6 IV CH70W3P

5. **Model**: IHI / VTR201 (Genuine, New)
   - Engine Type: YANMAR T240/T220
   - Part name: Shaft Rotor ass’y (W/NK Mark)
   - Part no.: NY465642

6. **Model**: IHI / VTR200 (Genuine, New)
   - Engine Type: AKASAKA 6MH25SSR
   - Serial No: Xi135617
   - Specification: LZB4S 262 II CH54AWE
7. **Model**: IHI / VTR200 (Genuine, New)
   - **Engine Type**: DAIHATSU DL-22
   - **Serial No**: Xi300578
   - **Specification**: HZB7B14.2 II CH47AW3P

8. **Model**: IHI / VTR160 (Genuine, New)
   - **Engine Type**: YANMAR S185L
   - **Serial No**: Xi300499S
   - **Specification**: HZB4S208 II C29AW3P

9. **Type**: ABB / TPL65-A10 (Genuine, New)
   - **Engine Type**: WARTSILA NSD W6L32
   - **ABB Turbo Systems LTD**
   - **Type**: TPL65-A10 HT448653
   - **Max Cont Speed**: 520 1/S
   - **Max Cont Gas Temp**: 680
   - **Max Cont Speed**: 494 1/S
   - **Max Cont Gas Temp**: 650°C
   - **1 885KG 12/50/50 Year**

10. **Model**: MET42SC (Used)
    - **Engine Type**: HITACHI B&W 6L35MC
    - **Serial No**: 12048
    - **Mfg Date**: Mar 2009
    - **Specification**: BC2F37ES6M
    - **Max Cont Speed**: 22700rpm
    - **Max Cont Gas Temp**: 580°C

11. **Model**: NHP30AL (Used)
    - **Engine Type**: NIIGATA 6M31AGT
    - **Serial No**: 30199
    - **Specification**: RCD/F3-370/F100
    - **RPM**: 27500RPM
12. **Model: NHP25AL (For Niigata 6M26AFT/6M28AFT Use)**

   Part name: Shaft Rotor ass’y (Genuine, New)

13. **Model: NHP20AL (Used)**

   Engine Type:
   Serial No: 20632
   Specification: RC/H3-274/E-39
   RPM: 37800RPM
   Max. Temp.: 650℃

14. **Model: NHP20AL (Used)**

   Engine Type:
   Serial No: 20974
   Specification: RC/F3-278/YF51
   RPM: 37800RPM
   Max. Temp.: 650℃