



Colorado Dept. of Public Health & Environment  
APCD-SS-B1  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

2/20/14

Dear Sir or Madam

We respectfully request that the attached application and fee be included in the permit application # 13AR2946 in package # 299581. If you have any questions please feel free to contact me. Thank you in advance for your assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "S. Casebolt", with a long, sweeping horizontal line extending to the right.

Shannon L Casebolt  
Regional Environmental Compliance Manager  
703-726-2904 office  
703-728-5725 mobile  
scasebolt@equinix.com



# GEN SET PACKAGE PERFORMANCE DATA [DM8260]

APRIL 02, 2008

For Help Desk Phone Numbers [Click here](#)

Performance Number: DM8260

Change Level: 01

|                                                          |                                  |                             |
|----------------------------------------------------------|----------------------------------|-----------------------------|
| Sales Model: 3512CDITA                                   | Combustion: DI                   | Aspr: TA                    |
| Engine Power:<br>1500 W/F EKW 1560 W/O F EKW<br>2,206 HP | Speed: 1,800 RPM                 | After Cooler: ATAAC         |
| Manifold Type: DRY                                       | Governor Type: ADEM3             | After Cooler Temp(F): 122   |
| Turbo Quantity: 4                                        | Engine App: GP                   | Turbo Arrangement: Parallel |
| Hertz: 60                                                | Engine Rating: PGS               | Strategy:                   |
| Rating Type: STANDBY                                     | Certification: EPA TIER-2 2006 - |                             |

## General Performance Data 1

| GEN<br>W/F<br>EKW | PERCENT<br>LOAD | ENGINE<br>POWER<br>BHP | ENGINE<br>BMEP<br>PSI | FUEL<br>RATE<br>LB/BHP-<br>HR | FUEL<br>RATE<br>GPH | INTAKE<br>MFLD<br>TEMP<br>DEG F | INTAKE<br>MFLD P<br>IN-HG | INTAKE<br>AIR<br>FLOW<br>CFM | EXH<br>MFLD<br>TEMP<br>DEG F | EXH<br>STACK<br>TEMP<br>DEG F | EXH<br>GAS<br>FLOW<br>CFM |
|-------------------|-----------------|------------------------|-----------------------|-------------------------------|---------------------|---------------------------------|---------------------------|------------------------------|------------------------------|-------------------------------|---------------------------|
| 1,500.0           | 100             | 2206                   | 307                   | 0.333                         | 104.8               | 121.6                           | 78.0                      | 4,573.3                      | 1,150.7                      | 763.5                         | 11,060.6                  |
| 1,350.0           | 90              | 1983                   | 276                   | 0.337                         | 95.3                | 116.4                           | 72.6                      | 4,382.6                      | 1,105.7                      | 728.6                         | 10,294.2                  |
| 1,200.0           | 80              | 1768                   | 246                   | 0.343                         | 86.7                | 113.5                           | 67.4                      | 4,184.8                      | 1,071.9                      | 710.1                         | 9,655.0                   |
| 1,125.0           | 75              | 1662                   | 231                   | 0.346                         | 82.1                | 111.9                           | 64.0                      | 4,050.6                      | 1,054.9                      | 701.8                         | 9,277.2                   |
| 1,050.0           | 70              | 1556                   | 217                   | 0.349                         | 77.5                | 110.5                           | 60.2                      | 3,898.7                      | 1,037.7                      | 694.4                         | 8,867.5                   |
| 900.0             | 60              | 1349                   | 188                   | 0.353                         | 67.9                | 107.4                           | 51.6                      | 3,542.1                      | 1,002.4                      | 683.1                         | 7,970.5                   |
| 750.0             | 50              | 1144                   | 159                   | 0.355                         | 58.1                | 107.6                           | 41.1                      | 3,083.0                      | 965.3                        | 682.5                         | 6,935.8                   |
| 600.0             | 40              | 943                    | 131                   | 0.359                         | 48.3                | 108.3                           | 30.6                      | 2,627.4                      | 923.9                        | 683.4                         | 5,908.1                   |
| 450.0             | 30              | 737                    | 103                   | 0.367                         | 38.6                | 107.2                           | 21.1                      | 2,203.6                      | 858.6                        | 668.7                         | 4,894.6                   |
| 375.0             | 25              | 632                    | 88                    | 0.375                         | 33.9                | 106.3                           | 17.1                      | 2,016.5                      | 811.6                        | 649.0                         | 4,407.3                   |
| 300.0             | 20              | 526                    | 73                    | 0.387                         | 29.1                | 105.3                           | 13.4                      | 1,847.0                      | 755.8                        | 621.9                         | 3,930.5                   |
| 150.0             | 10              | 310                    | 43                    | 0.442                         | 19.6                | 103.3                           | 7.3                       | 1,578.6                      | 609.8                        | 526.5                         | 3,040.6                   |

## Heat Rejection Data

| GEN<br>W/F<br>EKW | PERCENT<br>LOAD | REJ TO<br>JW<br>BTU/MN | REJ TO<br>ATMOS<br>BTU/MN | REJ TO<br>EXHAUST<br>BTU/MN | EXH<br>RCOV<br>TO 350F<br>BTU/MN | FROM<br>OIL CLR<br>BTU/MN | FROM<br>AFT CLR<br>BTU/MN | WORK<br>ENERGY<br>BTU/MN | LHV<br>ENERGY<br>BTU/MN | HHV<br>ENERGY<br>BTU/MN |
|-------------------|-----------------|------------------------|---------------------------|-----------------------------|----------------------------------|---------------------------|---------------------------|--------------------------|-------------------------|-------------------------|
| 1,500.0           | 100             | 35,032.0               | 7,052.0                   | 75,466.0                    | 35,316.0                         | 11,260.0                  | 27,411.0                  | 93,551.0                 | 225,034.0               | 239,707.0               |
| 1,350.0           | 90              | 32,757.0               | 6,711.0                   | 68,358.0                    | 30,767.0                         | 10,237.0                  | 24,966.0                  | 84,111.0                 | 204,561.0               | 217,925.0               |
| 1,200.0           | 80              | 30,653.0               | 6,369.0                   | 62,841.0                    | 27,809.0                         | 9,327.0                   | 22,464.0                  | 74,954.0                 | 186,078.0               | 198,248.0               |
| 1,125.0           | 75              | 29,515.0               | 6,256.0                   | 59,827.0                    | 26,274.0                         | 8,815.0                   | 20,871.0                  | 70,462.0                 | 176,297.0               | 187,784.0               |
| 1,050.0           | 70              | 28,378.0               | 6,085.0                   | 56,699.0                    | 24,738.0                         | 8,303.0                   | 19,222.0                  | 66,026.0                 | 166,288.0               | 177,150.0               |
| 900.0             | 60              | 25,819.0               | 5,801.0                   | 50,273.0                    | 21,611.0                         | 7,279.0                   | 15,639.0                  | 57,211.0                 | 145,814.0               | 155,369.0               |
| 750.0             | 50              | 23,146.0               | 5,516.0                   | 43,562.0                    | 18,767.0                         | 6,256.0                   | 11,658.0                  | 48,510.0                 | 124,602.0               | 132,734.0               |
| 600.0             | 40              | 20,359.0               | 5,289.0                   | 36,909.0                    | 16,037.0                         | 5,175.0                   | 7,734.0                   | 39,980.0                 | 103,731.0               | 110,498.0               |
| 450.0             | 30              | 17,402.0               | 4,834.0                   | 29,970.0                    | 12,796.0                         | 4,152.0                   | 4,663.0                   | 31,278.0                 | 82,916.0                | 88,376.0                |
| 375.0             | 25              | 15,867.0               | 4,550.0                   | 26,501.0                    | 10,976.0                         | 3,640.0                   | 3,526.0                   | 26,786.0                 | 72,680.0                | 77,400.0                |
| 300.0             | 20              | 14,274.0               | 4,265.0                   | 22,919.0                    | 9,042.0                          | 3,128.0                   | 2,559.0                   | 22,293.0                 | 62,386.0                | 66,481.0                |
| 150.0             | 10              | 10,805.0               | 3,810.0                   | 15,696.0                    | 4,948.0                          | 2,104.0                   | 1,251.0                   | 13,137.0                 | 42,027.0                | 44,757.0                |

### EXHAUST Sound Data: 6.6 FEET

| GEN W/F<br>EKW | PERCENT<br>LOAD | OVERALL<br>SOUND<br>DB(A) | OBCF<br>63HZ DB | OBCF<br>125HZ<br>DB | OBCF<br>250HZ<br>DB | OBCF<br>500HZ<br>DB | OBCF<br>1000HZ<br>DB | OBCF<br>2000HZ<br>DB | OBCF<br>4000HZ<br>DB | OBCF<br>8000HZ<br>DB |
|----------------|-----------------|---------------------------|-----------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| 1,500.0        | 100             | 117                       | 107             | 122                 | 118                 | 110                 | 108                  | 109                  | 109                  | 107                  |
| 1,350.0        | 90              | 116                       | 106             | 121                 | 117                 | 109                 | 107                  | 108                  | 108                  | 106                  |
| 1,200.0        | 80              | 115                       | 105             | 120                 | 116                 | 108                 | 106                  | 107                  | 107                  | 105                  |
| 1,125.0        | 75              | 114                       | 104             | 119                 | 115                 | 107                 | 106                  | 107                  | 107                  | 105                  |
| 1,050.0        | 70              | 114                       | 104             | 119                 | 115                 | 107                 | 105                  | 106                  | 106                  | 104                  |
| 900.0          | 60              | 112                       | 103             | 117                 | 113                 | 105                 | 104                  | 105                  | 105                  | 103                  |
| 750.0          | 50              | 111                       | 101             | 116                 | 112                 | 104                 | 103                  | 104                  | 104                  | 102                  |
| 600.0          | 40              | 110                       | 100             | 115                 | 111                 | 103                 | 101                  | 103                  | 103                  | 101                  |
| 450.0          | 30              | 108                       | 99              | 113                 | 109                 | 101                 | 100                  | 101                  | 101                  | 99                   |
| 375.0          | 25              | 108                       | 98              | 113                 | 109                 | 101                 | 99                   | 100                  | 100                  | 98                   |
| 300.0          | 20              | 107                       | 97              | 112                 | 108                 | 100                 | 98                   | 99                   | 99                   | 97                   |
| 150.0          | 10              | 104                       | 95              | 109                 | 105                 | 97                  | 96                   | 97                   | 97                   | 95                   |

### EXHAUST Sound Data: 23.0 FEET

| GEN W/F<br>EKW | PERCENT<br>LOAD | OVERALL<br>SOUND<br>DB(A) | OBCF<br>63HZ DB | OBCF<br>125HZ<br>DB | OBCF<br>250HZ<br>DB | OBCF<br>500HZ<br>DB | OBCF<br>1000HZ<br>DB | OBCF<br>2000HZ<br>DB | OBCF<br>4000HZ<br>DB | OBCF<br>8000HZ<br>DB |
|----------------|-----------------|---------------------------|-----------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| 1,500.0        | 100             | 103                       | 95              | 111                 | 106                 | 97                  | 95                   | 96                   | 96                   | 93                   |
| 1,350.0        | 90              | 102                       | 94              | 110                 | 104                 | 96                  | 94                   | 95                   | 95                   | 92                   |
| 1,200.0        | 80              | 101                       | 93              | 109                 | 103                 | 95                  | 93                   | 94                   | 94                   | 91                   |
| 1,125.0        | 75              | 101                       | 92              | 109                 | 103                 | 94                  | 93                   | 93                   | 93                   | 91                   |
| 1,050.0        | 70              | 100                       | 92              | 108                 | 102                 | 94                  | 92                   | 93                   | 93                   | 90                   |
| 900.0          | 60              | 99                        | 90              | 107                 | 101                 | 93                  | 91                   | 92                   | 92                   | 89                   |
| 750.0          | 50              | 98                        | 89              | 106                 | 100                 | 91                  | 90                   | 91                   | 90                   | 88                   |
| 600.0          | 40              | 97                        | 88              | 105                 | 99                  | 90                  | 89                   | 89                   | 89                   | 86                   |
| 450.0          | 30              | 95                        | 86              | 103                 | 97                  | 89                  | 87                   | 88                   | 88                   | 85                   |
| 375.0          | 25              | 94                        | 86              | 102                 | 96                  | 88                  | 86                   | 87                   | 87                   | 84                   |
| 300.0          | 20              | 93                        | 85              | 101                 | 95                  | 87                  | 85                   | 86                   | 86                   | 83                   |
| 150.0          | 10              | 91                        | 83              | 99                  | 93                  | 85                  | 83                   | 84                   | 84                   | 81                   |

Scanned by: 5102-68/21000000

**EXHAUST Sound Data: 49.2 FEET**

| GEN W/F<br>EKW | PERCENT<br>LOAD | OVERALL<br>SOUND<br>DB(A) | OBCF<br>63HZ DB | OBCF<br>125HZ<br>DB | OBCF<br>250HZ<br>DB | OBCF<br>500HZ<br>DB | OBCF<br>1000HZ<br>DB | OBCF<br>2000HZ<br>DB | OBCF<br>4000HZ<br>DB | OBCF<br>8000HZ<br>DB |
|----------------|-----------------|---------------------------|-----------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| 1,500.0        | 100             | 97                        | 88              | 105                 | 99                  | 90                  | 89                   | 89                   | 89                   | 86                   |
| 1,350.0        | 90              | 96                        | 87              | 104                 | 98                  | 89                  | 88                   | 88                   | 88                   | 85                   |
| 1,200.0        | 80              | 95                        | 86              | 103                 | 97                  | 88                  | 87                   | 87                   | 87                   | 84                   |
| 1,125.0        | 75              | 94                        | 85              | 102                 | 96                  | 88                  | 86                   | 87                   | 87                   | 84                   |
| 1,050.0        | 70              | 94                        | 85              | 102                 | 96                  | 87                  | 86                   | 86                   | 86                   | 83                   |
| 900.0          | 60              | 92                        | 84              | 100                 | 95                  | 86                  | 84                   | 85                   | 85                   | 82                   |
| 750.0          | 50              | 91                        | 83              | 99                  | 93                  | 85                  | 83                   | 84                   | 84                   | 81                   |
| 600.0          | 40              | 90                        | 81              | 98                  | 92                  | 83                  | 82                   | 83                   | 82                   | 80                   |
| 450.0          | 30              | 88                        | 80              | 96                  | 91                  | 82                  | 80                   | 81                   | 81                   | 78                   |
| 375.0          | 25              | 88                        | 79              | 96                  | 90                  | 81                  | 80                   | 80                   | 80                   | 77                   |
| 300.0          | 20              | 87                        | 78              | 95                  | 89                  | 80                  | 79                   | 79                   | 79                   | 76                   |
| 150.0          | 10              | 84                        | 76              | 92                  | 87                  | 78                  | 76                   | 77                   | 77                   | 74                   |

**MECHANICAL Sound Data: 3.3 FEET**

| GEN W/F<br>EKW | PERCENT<br>LOAD | OVERALL<br>SOUND<br>DB(A) | OBCF<br>63HZ DB | OBCF<br>125HZ<br>DB | OBCF<br>250HZ<br>DB | OBCF<br>500HZ<br>DB | OBCF<br>1000HZ<br>DB | OBCF<br>2000HZ<br>DB | OBCF<br>4000HZ<br>DB | OBCF<br>8000HZ<br>DB |
|----------------|-----------------|---------------------------|-----------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| 1,500.0        | 100             | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 1,350.0        | 90              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 1,200.0        | 80              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 1,125.0        | 75              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 1,050.0        | 70              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 900.0          | 60              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 750.0          | 50              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 600.0          | 40              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 450.0          | 30              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 375.0          | 25              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 300.0          | 20              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |
| 150.0          | 10              | 115                       | 118             | 127                 | 118                 | 109                 | 102                  | 101                  | 98                   | 102                  |

### MECHANICAL Sound Data: 23.0 FEET

| GEN W/F<br>EKW | PERCENT<br>LOAD | OVERALL<br>SOUND<br>DB(A) | OBCF<br>63HZ DB | OBCF<br>125HZ<br>DB | OBCF<br>250HZ<br>DB | OBCF<br>500HZ<br>DB | OBCF<br>1000HZ<br>DB | OBCF<br>2000HZ<br>DB | OBCF<br>4000HZ<br>DB | OBCJ<br>8000HZ<br>DB |
|----------------|-----------------|---------------------------|-----------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| 1,500.0        | 100             | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 1,350.0        | 90              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 1,200.0        | 80              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 1,125.0        | 75              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 1,050.0        | 70              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 900.0          | 60              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 750.0          | 50              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 600.0          | 40              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 450.0          | 30              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 375.0          | 25              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 300.0          | 20              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |
| 150.0          | 10              | 101                       | 104             | 113                 | 104                 | 95                  | 89                   | 89                   | 86                   | 90                   |

### MECHANICAL Sound Data: 49.2 FEET

| GEN W/F<br>EKW | PERCENT<br>LOAD | OVERALL<br>SOUND<br>DB(A) | OBCF<br>63HZ DB | OBCF<br>125HZ<br>DB | OBCF<br>250HZ<br>DB | OBCF<br>500HZ<br>DB | OBCF<br>1000HZ<br>DB | OBCF<br>2000HZ<br>DB | OBCF<br>4000HZ<br>DB | OBCF<br>8000HZ<br>DB |
|----------------|-----------------|---------------------------|-----------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| 1,500.0        | 100             | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 1,350.0        | 90              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 1,200.0        | 80              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 1,125.0        | 75              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 1,050.0        | 70              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 900.0          | 60              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 750.0          | 50              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 600.0          | 40              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 450.0          | 30              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 375.0          | 25              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 300.0          | 20              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |
| 150.0          | 10              | 95                        | 98              | 107                 | 98                  | 89                  | 83                   | 83                   | 81                   | 84                   |

## EMISSIONS DATA

EPA TIER-2 2006 - \*\*\*\*\* B5  
Gaseous emissions data measurements are consistent with those described in  
EPA 40 CFR PART 89 SUBPART D and ISO 8178 for measuring HC, CO, PM, and NOx

Gaseous emissions values are WEIGHTED CYCLE AVERAGES and are in compliance  
with the following non-road regulations:

| LOCALITY          | AGENCY/LEVEL | MAX LIMITS - g/kW-hr       |
|-------------------|--------------|----------------------------|
| -----             | -----        | -----                      |
| U.S. (incl Calif) | EPA/TIER-2   | CO:3.5 NOx + HC:6.4 PM:0.2 |

|                                                    |                  |
|----------------------------------------------------|------------------|
| EXHAUST STACK DIAMETER                             | 8 IN             |
| WET EXHAUST MASS                                   | 21,100.4 LB/HR   |
| WET EXHAUST FLOW (762.80 F STACK TEMP )            | 11,071.16 CFM    |
| WET EXHAUST FLOW RATE ( 32 DEG F AND 29.98 IN HG ) | 4,321.00 STD CFM |
| DRY EXHAUST FLOW RATE ( 32 DEG F AND 29.98 IN HG ) | 3,958.78 STD CFM |
| FUEL FLOW RATE                                     | 105 GAL/HR       |

# **RATED SPEED "Not to exceed data"**

| GEN<br>PWR<br>EKW | PERCENT<br>LOAD | ENGINE<br>POWER<br>BHP | TOTAL<br>NOX (AS<br>NO2)<br>LB/HR | TOTAL<br>CO<br>LB/HR | TOTAL<br>HC<br>LB/HR | PART<br>MATTER<br>LB/HR | OXYGEN<br>IN<br>EXHAUST<br>PERCENT | DRY<br>SMOKE<br>OPACITY<br>PERCENT | BOSCH<br>SMOKE<br>NUMBER |
|-------------------|-----------------|------------------------|-----------------------------------|----------------------|----------------------|-------------------------|------------------------------------|------------------------------------|--------------------------|
| 1,500.0           | 100             | 2206                   | 28.9800                           | 3.9500               | .7100                | .2000                   | 10.2000                            | .8000                              | 1.2800                   |
| 1,125.0           | 75              | 1662                   | 14.7100                           | 2.4400               | .7800                | .2000                   | 11.5000                            | .9000                              | 1.2800                   |
| 750.0             | 50              | 1144                   | 9.6800                            | 3.3200               | .7400                | .3000                   | 12.2000                            | 1.9000                             | 1.2800                   |
| 375.0             | 25              | 632                    | 7.2600                            | 4.0700               | .5800                | .3800                   | 13.2000                            | 3.3000                             | 1.2800                   |
| 150.0             | 10              | 310                    | 5.6300                            | 3.8300               | .6700                | .2300                   | 15.2000                            | 2.0000                             | 1.2800                   |

# **RATED SPEED "Nominal Data"**

| GEN<br>PWR<br>EKW | PERCENT<br>LOAD | ENGINE<br>POWER<br>BHP | TOTAL<br>NOX (AS<br>NO2)<br>LB/HR | TOTAL<br>CO<br>LB/HR | TOTAL<br>HC<br>LB/HR | TOTAL<br>CO2<br>LB/HR | PART<br>MATTER<br>LB/HR | OXYGEN<br>IN<br>EXHAUST<br>PERCENT | DRY<br>SMOKE<br>OPACITY<br>PERCENT | BOSCH<br>SMOKE<br>NUMBER |
|-------------------|-----------------|------------------------|-----------------------------------|----------------------|----------------------|-----------------------|-------------------------|------------------------------------|------------------------------------|--------------------------|
| 1,500.0           | 100             | 2206                   | 24.1500                           | 2.1900               | .5300                | 2,262.3               | .1400                   | 10.2000                            | .8000                              | 1.2800                   |
| 1,125.0           | 75              | 1662                   | 12.2600                           | 1.3600               | .5900                | 1,764.4               | .1400                   | 11.5000                            | .9000                              | 1.2800                   |
| 750.0             | 50              | 1144                   | 8.0700                            | 1.8400               | .5500                | 1,242.0               | .2100                   | 12.2000                            | 1.9000                             | 1.2800                   |
| 375.0             | 25              | 632                    | 6.0500                            | 2.2600               | .4400                | 720.0                 | .2700                   | 13.2000                            | 3.3000                             | 1.2800                   |
| 150.0             | 10              | 310                    | 4.6900                            | 2.1300               | .5000                | 410.8                 | .1600                   | 15.2000                            | 2.0000                             | 1.2800                   |

### Altitude Capability Data(Corrected Power Altitude Capability)

| Ambient Operating Temp. | 50 F     | 68 F     | 86 F     | 104 F    | 122 F    | NORMAL   |
|-------------------------|----------|----------|----------|----------|----------|----------|
| <b>Altitude</b>         |          |          |          |          |          |          |
| 0 F                     | 2,206 hp | 2,206 hp | 2,206 hp | 2,206 hp | 2,206 hp | 2,206 hp |
| 984 F                   | 2,206 hp | 2,206 hp | 2,206 hp | 2,206 hp | 2,206 hp | 2,206 hp |
| 1,640 F                 | 2,206 hp | 2,206 hp | 2,206 hp | 2,206 hp | 2,198 hp | 2,206 hp |
| 3,281 F                 | 2,206 hp | 2,206 hp | 2,206 hp | 2,135 hp | 2,069 hp | 2,206 hp |
| 4,921 F                 | 2,206 hp | 2,146 hp | 2,075 hp | 2,009 hp | 1,946 hp | 2,142 hp |
| 6,562 F                 | 2,088 hp | 2,017 hp | 1,951 hp | 1,888 hp | 1,830 hp | 2,036 hp |
| 8,202 F                 | 1,962 hp | 1,895 hp | 1,833 hp | 1,774 hp | 1,719 hp | 1,934 hp |
| 9,843 F                 | 1,843 hp | 1,780 hp | 1,721 hp | 1,666 hp | 1,615 hp | 1,836 hp |
| 10,499 F                | 1,796 hp | 1,735 hp | 1,678 hp | 1,624 hp | 1,573 hp | 1,798 hp |

**The powers listed above and all the Powers displayed are Corrected Powers**

#### Identification Reference and Notes

|                                                |            |                                               |                       |
|------------------------------------------------|------------|-----------------------------------------------|-----------------------|
| <b>Engine Arrangement:</b>                     | 2673949    | <b>Lube Oil Press @ Rated Spd(PSI):</b>       | --                    |
| <b>Effective Serial No:</b>                    | EBG00100   | <b>Piston Speed @ Rated Eng SPD (FT/Min):</b> | 2,173.2               |
| <b>Primary Engine Test Spec:</b>               | 0K7015     | <b>Max Operating Altitude(FT):</b>            | 3,937.0               |
| <b>Performance Parm Ref:</b>                   | TM5739     | <b>PEEC Elect Control Module Ref</b>          |                       |
| <b>Performance Data Ref:</b>                   | DM8260     | <b>PEEC Personality Cont Mod Ref</b>          |                       |
| <b>Aux Coolant Pump Perf Ref:</b>              |            |                                               |                       |
| <b>Cooling System Perf Ref:</b>                | DM1298     | <b>Turbocharger Model</b>                     | GTB4708 52T/50EI-0.96 |
| <b>Certification Ref:</b>                      | EPA TIER 2 | <b>Fuel Injector</b>                          | 2664387               |
| <b>Certification Year:</b>                     | 2006       | <b>Timing-Static (DEG):</b>                   | --                    |
| <b>Compression Ratio:</b>                      | 14.7       | <b>Timing-Static Advance (DEG):</b>           | --                    |
| <b>Combustion System:</b>                      | DI         | <b>Timing-Static (MM):</b>                    | --                    |
| <b>Aftercooler Temperature (F):</b>            | 122        | <b>Unit Injector Timing (MM):</b>             | 64.3                  |
| <b>Crankcase Blowby Rate(CFH):</b>             | 2,203.6    | <b>Torque Rise (percent)</b>                  | --                    |
| <b>Fuel Rate (Rated RPM) No Load (Gal/HR):</b> | 9.9        | <b>Peak Torque Speed RPM</b>                  | --                    |
| <b>Lube Oil Press @ Low Idle Spd(PSI):</b>     | --         | <b>Peak Torque (LB/FT):</b>                   | --                    |

**Reference  
Number: DM8260**

EPA TIER-2 2006 B5

**Parameters  
Reference: TM5739**

GEN SET - PACKAGED - DIESEL

**TOLERANCES:**

AMBIENT AIR CONDITIONS AND FUEL USED WILL AFFECT THESE VALUES.  
EACH OF THE VALUES MAY VARY IN ACCORDANCE WITH THE FOLLOWING  
TOLERANCES.

|                                 |     |     |
|---------------------------------|-----|-----|
| ENGINE POWER                    | +/- | 3%  |
| EXHAUST STACK TEMPERATURE       | +/- | 8%  |
| GENERATOR POWER                 | +/- | 5%  |
| INLET AIR FLOW                  | +/- | 5%  |
| INTAKE MANIFOLD PRESSURE - GAGE | +/- | 10% |
| EXHAUST FLOW                    | +/- | 6%  |
| SPECIFIC FUEL CONSUMPTION       | +/- | 3%  |
| FUEL RATE                       | +/- | 5%  |
| HEAT REJECTION                  | +/- | 5%  |
| HEAT REJECTION EXHAUST ONLY     | +/- | 10% |

**CONDITIONS:**

ENGINE PERFORMANCE IS CORRECTED TO INLET AIR STANDARD CONDITIONS  
OF 99 KPA (29.31 IN HG) AND 25 DEG C (77 DEG F).

THESE VALUES CORRESPOND TO THE STANDARD ATMOSPHERIC PRESSURE AND  
TEMPERATURE IN ACCORDANCE WITH SAE J1995. ALSO INCLUDED IS A  
CORRECTION TO STANDARD FUEL GRAVITY OF 35 DEGREES API HAVING A  
LOWER HEATING VALUE OF 42,780 KJ/KG (18,390 BTU/LB) WHEN USED AT  
29 DEG C (84.2 DEG F) WHERE THE DENSITY IS 838.9 G/L (7.002  
LB/GAL).

THE CORRECTED PERFORMANCE VALUES SHOWN FOR CATERPILLAR ENGINES WILL  
APPROXIMATE THE VALUES OBTAINED WHEN THE OBSERVED PERFORMANCE  
DATA IS CORRECTED TO SAE J1995, ISO 3046-2 & 8665 & 2288 & 9249 &  
1585, EEC 80/1269 AND DIN70020 STANDARD REFERENCE CONDITIONS.

ENGINES ARE EQUIPPED WITH STANDARD ACCESSORIES; LUBE OIL, FUEL  
PUMP AND JACKET WATER PUMP. THE POWER REQUIRED TO DRIVE  
AUXILIARIES MUST BE DEDUCTED FROM THE GROSS OUTPUT TO ARRIVE AT THE  
NET POWER AVAILABLE FOR THE EXTERNAL (FLYWHEEL) LOAD. TYPICAL  
AUXILIARIES INCLUDE COOLING FANS, AIR COMPRESSORS, AND CHARGING  
ALTERNATORS.

RATINGS MUST BE REDUCED TO COMPENSATE FOR ALTITUDE AND/OR AMBIENT  
TEMPERATURE CONDITIONS ACCORDING TO THE APPLICABLE DATA SHOWN ON  
THE PERFORMANCE DATA SET.

GEN SET - PACKAGED - DIESEL

**ALTITUDE:**

ALTITUDE CAPABILITY - THE RECOMMENDED REDUCED POWER VALUES FOR  
SUSTAINED ENGINE OPERATION AT SPECIFIC ALTITUDE LEVELS AND AMBIENT  
TEMPERATURES.

COLUMN "N" DATA - THE FLYWHEEL POWER OUTPUT AT NORMAL AMBIENT  
TEMPERATURE.

AMBIENT TEMPERATURE - TO BE MEASURED AT THE AIR CLEANER AIR INLET  
DURING NORMAL ENGINE OPERATION.

NORMAL TEMPERATURE - THE NORMAL TEMPERATURE AT VARIOUS SPECIFIC  
ALTITUDE LEVELS IS FOUND ON TM2001.

THE GENERATOR POWER CURVE TABULAR DATA REPRESENTS THE NET  
ELECTRICAL POWER OUTPUT OF THE GENERATOR.

GENERATOR SET RATINGS  
EMERGENCY STANDBY POWER (ESP)

OUTPUT AVAILABLE WITH VARYING LOAD FOR THE DURATION OF AN EMERGENCY OUTAGE. AVERAGE POWER OUTPUT IS 70% OF THE ESP RATING. TYPICAL OPERATION IS 50 HOURS PER YEAR, WITH MAXIMUM EXPECTED USAGE OF 200 HOURS PER YEAR.

STANDBY POWER RATING

OUTPUT AVAILABLE WITH VARYING LOAD FOR THE DURATION OF AN EMERGENCY OUTAGE. AVERAGE POWER OUTPUT IS 70% OF THE STANDBY POWER RATING. TYPICAL OPERATION IS 200 HOURS PER YEAR, WITH MAXIMUM EXPECTED USAGE OF 500 HOURS PER YEAR.

PRIME POWER RATING

OUTPUT AVAILABLE WITH VARYING LOAD FOR AN UNLIMITED TIME. AVERAGE POWER OUTPUT IS 70% OF THE PRIME POWER RATING. TYPICAL PEAK DEMAND IS 100% OF PRIME RATED EKW WITH 10% OVERLOAD CAPABILITY FOR EMERGENCY USE FOR A MAXIMUM OF 1 HOUR IN 12. OVERLOAD OPERATION CANNOT EXCEED 25 HOURS PER YEAR.

CONTINUOUS POWER RATING

OUTPUT AVAILABLE WITH NON-VARYING LOAD FOR AN UNLIMITED TIME. AVERAGE POWER OUTPUT IS 70-100% OF THE CONTINUOUS POWER RATING. TYPICAL PEAK DEMAND IS 100% OF CONTINUOUS RATED EKW FOR 100% OF OPERATING HOURS.

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Caterpillar Confidential: **Green**  
Content Owner: Alan Scott  
Web Master(s): PSG Web Based Systems Support  
Current Date: Wednesday, April 02, 2008 9:19:31 AM  
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## Sales and Service Detail



**4GM00624**

**Arrangement No:** 128-2845  
**Mfg Model:** 3508B  
**Mktg Model Year:** 2000  
**Prod Family:** ZN 3500 Engines  
**Sims Prod Family:** 61 Generator Set Engines  
**Source Facility:** 88 Lafayette Plant  
**Principle Work:** C71 Communications

**Build Date:** 03Aug2000  
**Factory Ship Date:** Not Applicable  
**Dealer/Invoiced Ship Date:** 22Aug2000  
**Sales Date:** 08Jan2001  
**Delivery Date:** 27Mar2001  
**Selling Dlr:** H380  
**Owner CIs:** A

### Engine Information

**Specifications**  
2T-8404

**Application**  
F Standby Power



## Sales and Service Detail



| View Image | Add Image  | Group Number     | Part Causing Failure       | Repairing Dealer | Service Meter Measurement | Repair Date            | Sims Ticket Received   | Claim Received                 |
|------------|------------|------------------|----------------------------|------------------|---------------------------|------------------------|------------------------|--------------------------------|
|            | Add<br>Add | 121-6202<br>7769 | 155-3832<br>No Part Number | E255<br>E250     | 270 Hours<br>235 Hours    | 09Nov2012<br>07May2010 | SIMS Rcvd<br>SIMS Rcvd | No Claim Rcvd<br>No Claim Rcvd |



## Sales and Service Detail



| der Number | Dealer Claim Number | Service Claim Number | Comment                           |
|------------|---------------------|----------------------|-----------------------------------|
|            |                     |                      | Failed Dvr<br>Fps - Reason Code 4 |