

## **Systems Data** Reference Number: EM1694

**CATERPILLAR**°

November 10, 2021 For Help Desk Phone Numbers <u>Click Here</u>

| THE INSTALLED SYSTEM MUST COMPLY WITH THE SYSTEM LIMITS BELOW FOR ALL E<br>TO ASSURE REGULATORY COMPLIANCE. | MISSIONS CERTII | FIED ENGINES |
|---|-----------------|--------------|
| MAXIMUM ALLOWABLE INTAKE RESTRICTION WITH CLEAN ELEMENT   | 15              | IN-H20       |
| MAXIMUM ALLOWABLE INTAKE RESTRICTION WITH DIRTY ELEMENT   | 25              | IN-H20       |
| MAXIMUM PRESSURE DROP FROM COMPRESSOR OUTLET TO<br>MANIFOLD INLET (OR MIXER INLET FOR EGR)                  | 4.4             | IN-HG        |
| MAXIMUM TURBO INLET AIR TEMPERATURE   | 118             | DEG F        |
| MAXIMUM ALLOWABLE STATIC WEIGHT ON AIR INLET  | 3.7             | LB           |
| MAXIMUM ALLOWABLE STATIC BENDING MOMENT ON AIR INLET  | 1.3             | LB-FT        |
| MAXIMUM ALLOWABLE STATIC WEIGHT ON TURBO OUTLET<br>CONNECTION   | 1.5             | LB           |
| MAXIMUM ALLOWABLE STATIC BENDING MOMENT ON TURBO OUTLET<br>CONNECTION                                       | 0.3             | LB-FT        |
| COOLING SYSTEM  |                 |              |
| ENGINE ONLY COOLANT CAPACITY  | 3.8             | GAL          |
| MAXIMUM ALLOWABLE JACKET WATER OUTLET TEMPERATURE   | 219             | DEG F        |
| REGULATOR LOCATION FOR JW (HT) CIRCUIT  | OUTLET          |              |
| MAXIMUM UNINTERRUPTED FILL RATE   | 5.0             | G/MIN        |
| ENGINE SPEC SYSTEM  |                 |              |
| CYLINDER ARRANGEMENT  | INLINE          |              |
| NUMBER OF CYLINDERS   | 6               |              |
| CYLINDER BORE DIAMETER  | 5.1             | IN           |
| PISTON STROKE   | 6.2             | IN           |
| TOTAL CYLINDER DISPLACEMENT   | 763             | CU IN        |
| STANDARD CRANKSHAFT ROTATION FROM FLYWHEEL END  | CCW             |              |
| STANDARD CYLINDER FIRING ORDER  | 1-5-3-6-2-4     |              |
| NUMBER 1 CYLINDER LOCATION  | FRONT           |              |
| STROKES/COMBUSTION CYCLE  | 4               |              |
| EXHAUST SYSTEM  |                 |              |
| THE INSTALLED SYSTEM MUST COMPLY WITH THE SYSTEM LIMITS BELOW FOR ALL E<br>TO ASSURE REGULATORY COMPLIANCE. | MISSIONS CERTI  | FIED ENGINES |
| MAXIMUM ALLOWABLE SYSTEM BACK PRESSURE  | 40              | IN-H20       |
| MANIFOLD TYPE   | DRY             |              |
| FUEL SYSTEM   |                 |              |
| MAXIMUM FUEL FLOW FROM TRANSFER PUMP TO ENGINE  | 88.0            | G/HR         |
| MAXIMUM ALLOWABLE FUEL SUPPLY LINE RESTRICTION  | 8.0             | IN-HG        |
| MAXIMUM ALLOWABLE FUEL TEMPERATURE AT TRANSFER PUMP INLET   | 174             | DEG F        |
| MAXIMUM FUEL FLOW TO RETURN LINE FROM ENGINE  | 65.0            | G/HR         |
| MAXIMUM ALLOWABLE FUEL RETURN LINE RESTRICTION  | 14.8            | IN-HG        |
|   | -               | -            |

| FUEL SYSTEM TYPE   | MEUI             |       |
|--|------------------|-------|
| MAXIMUM TRANSFER PUMP PRIMING LIFT WITHOUT PRIMING PUMP  | 12.1             | FT    |
| MAXIMUM ALLOWABLE FUEL TEMPERATURE AT ENGINE OUTLET  | 225              | DEG F |
| LUBE SYSTEM  |                  |       |
| LUBE SYSTEM OIL COOLER TYPE  | SHELL &<br>TUBE  |       |
| CRANKCASE VENTILATION TYPE   | TO<br>ATMOSPHERE |       |
| MOUNTING SYSTEM  |                  |       |
| CENTER OF GRAVITY LOCATION - X DIMENSION - FROM REAR FACE<br>OF BLOCK - (REFERENCE TM7077)       | 20.9             | IN    |
| CENTER OF GRAVITY LOCATION - Y DIMENSION - FROM CENTERLINE<br>OF CRANKSHAFT - (REFERENCE TM7077) | 9.5              | IN    |
| CENTER OF GRAVITY LOCATION - Z DIMENSION - FROM CENTERLINE<br>OF CRANKSHAFT - (REFERENCE TM7077) | 0.0              | IN    |
| STARTING SYSTEM  |                  |       |
| MINIMUM CRANKING SPEED REQUIRED FOR START  | 100              | RPM   |
| LOWEST AMBIENT START TEMPERATURE WITHOUT AIDS  | 32               | DEG F |