

**EQUIPMENT SERVICEABILITY CRITERIA
FOR
GENERATOR SET, ELECTRIC, PORTABLE, DED, SKID MTD, 100 KW
120/208, 240/460 VAC, 3 PHASE, 60 HZ
CONVERTIBLE TO 83KW, 240/416 VAC, 3 PHASE, 50 HZ,
LIQUID COOLED, CONSOLIDATED DIESEL MDL 4115;
JETA MDL MD100815-W; HOLT BROS MDL HB3333; DETROIT DIESEL
MDL 6910A; AND 200 KW 50/60 HZ MDL SF20MD/CIED,
ALLIS CHALMERS MDL 25000-4444650**

Headquarters, Department of the Army, Washington, D.C., 13 August 1973

Section	I	INSTRUCTIONS.....	Paragraph
			1-4
Section	II	GENERATOR SET EVALUATION PROCEDURE	5-6

***This manual supersedes** TM5-6100-215-ESC, 13 Aug. 1973

TM 5-6100-215-ESC

Section I. INSTRUCTIONS

1. Purpose. This manual furnishes the user a procedure for evaluating the equipment to perform its primary mission for 90 days with normal maintenance support. Application of this procedure does not eliminate or reduce the requirement for prescribed maintenance service on the equipment and does not authorize replacement of components.

2. Definitions. *a. Equipment Category GREEN.* Equipment free of condition that would limit the reliable performance of its primary mission for a period of 90 days of operation.

b. Equipment Category AMBER. Operationally ready equipment that possesses a limiting factor(s) which may curtail a reliable performance of its primary mission for a period of 90 days of operation.

c. Equipment Category RED. Equipment unable to perform its primary mission immediately or possessing an unacceptable reliability for sustained performance (90 days) of its primary mission.

3. General Instructions *a.* This technical manual, unless classified, will be filed with the equipment log book.

NOTE

Preventive maintenance checks and services and troubleshooting tables in the applicable TM 5 manual are to be used in conjunction with this TM when performing the evaluation Also applicable LO 5 is required.

b. This evaluation will actually be performed on the item(s) being rated by operator/crew.

c. Equipment serviceability criteria items covered in this manual, but not authorized to the evaluating organization shall not be rated.

d. Authorized items not on hand will be given lowest color rating authorized for that item.

e. This equipment is rated in the basis of capability for immediate operation and amount of wear life remaining on the components. The rating is not meaningful unless each check is made with the utmost care and accuracy.

f. Record the evaluation results on DA Form 2404, (Equipment Inspection and Maintenance Worksheet), using a separate sheet for each multiple-aspect equipment, subsystem, and/or component, including those evaluated by separately published equipment serviceability criteria technical manuals. The blocks will be completed as shown below:

(1) BLOCK 1. Insert the organizational designation of the unit performing the evaluation.

(2) BLOCK 2. Insert item name and model.

(3) BLOCK 3. Insert the Federal Stock Number.

(4) BLOCK 4. Insert the hours equipment has been operated as of the date of the evaluation.

(5) BLOCK 5. Insert the standard six digit calendar date that equipment serviceability criteria evaluation is performed.

(Example: 3 January 1969 would be 690103).

(6) BLOCK 6. Insert the letters "ESC."

(7) BLOCK 7. Insert the equipment serviceability criteria technical manual number and its date of issue.

(8) Column a. Insert the checkpoint item number.

(9) Column b. Place each obtained color rating opposite the item to which it applies. (insert "**GREEN**," "**AMBER**" or "**RED**" as applicable.)

(10) Column c. Briefly describe each test item.

(11) Obtain the color rating for each subsystem by tasking the lowest color rating given.

(12) BLOCKS 8 and 9. Self explanatory.

(13) BLOCK 10. Insert the overall equipment color categorization.

(14) The color category for the overall equipment will not be rated any higher than the lowest rated item. The color rating will be kept current by recording changes as they occur, on DA Form 2404.

(15) Staple all forms applying to the same system together, with those which apply to the basic system on top.

h. Determine and record the appropriate rating for each check-point, each subsystem/component, and the system. The color rating for multiple-aspect equipment will be the

lowest rating recorded for a subsystem/component.

NOTE

If an URGENT modification work order has not been applied to any authorized equipment, the equipment and the system will be rated "**RED**".

i. Subsystems and components will be separately color rated.

j. A color rating will be assigned for the overall system.

4. Reporting of Equipment Publication Improvements.

The reporting of errors, omissions and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028, (Recommended Changes to DA Publications) and forwarded to Commander, U. S. Army Mobility Equipment Command, ATTN: AMSME-MP, St. Louis, MO 63120.

Section II. GENERATOR SET EVALUATION PROCEDURE

5. Evaluation Requirements. Before inspecting the generator sets, insure that fuel, lubricating oils and battery levels are adequate and that the generator set will, without damage, operate satisfactorily to perform the requirements of this evaluation.

6. Procedures. All information will be determined by actual inspection and operation of the equipment. Evaluate each item listed aid record the proper color rating on DA Form 2404 as described in Section I. All operator/crew preventive maintenance checks and service shall be performed prior to evaluation.

ITEM 1. Modification Work Orders (MWOs)

PROCEDURE	RATINGS		
	GREEN	AMBER	RED
Determine if all URGENT MWOs have been applied. Refer to DA Form 2408-5 in the Log Book.	All URGENT MWOs have been applied.		One or more URGENT MWOs have not been applied.

ITEM 2. Batteries — Inspection

Inspect for obvious defects which could make the batteries unserviceable, such as; cracked or broken cases or burned posts.	Batteries crank engine at normal cranking speed. All batteries present.		One or more batteries missing or will not crank engine.
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ITEM 3. Engine Operation — Inspection and Operation

Start engine. During idling period check for smooth operation. After preliminary warm up period, accelerate engine to maximum governed speed and check engine response to acceleration. Detect any erratic operation. Slow engine down and listen for any unusual noise or	Operates properly.	Detectable noise or vibration. Operates properly.	Excessive noise or vibration. Not operating properly or inoperative.
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PROCEDURE	RATINGS		
	GREEN	AMBER	RED
vibration that might indicate damaged or worn parts.			
ITEM 4. Leakage — Inspection and Operation			
With engine running inspect the fuel lines, lubricating oil lines, fuel tank, filters, engine crankcase area and liquid coolant system if applicable.	No leakage (may be moist to touch but no droplet formation).	Less than 3 drops in a 5 minute period.	More than 3 drops in 5 minutes or visible cracks.
ITEM 5. Instruments and Controls — Inspection and Operation			
During preliminary warm-up period inspect to determine whether they are functioning properly. Start and stop and field flash switches, throttle, controls, oil pressure gage, ammeter, voltmeter, hourmeter, frequency meter, frequency control, voltage adjust rheostat, selector switches, governor control, main circuit breaker and temperature gage if applicable.	All items operate properly.	One or more items not listed in RED that are not operating properly or missing.	Field flash switch or oil pressure gage not operating properly, inoperative or missing.
ITEM 6. Generator Component Assembly — Inspection and Operation			
During operation of engine, determine that generator functions properly. Detect any unusual noise or vibration that might indicate damaged or worn parts.	Operates properly.	Detectable noise or vibration. Operates properly.	Excessive noise or vibration. Not operating or inoperative.

PROCEDURE	RATINGS		
	GREEN	AMBER	RED
ITEM 7. Engine Oil Consumption			
Determine how many quarts of oil were consumed during the last 100 hours of operation. If less than 100 hours have been accumulated since last oil change, use data between previous changes. Do not consider amount of oil used in making change.	0-49	50 or over	
ITEM 8. Engine Hours of Operation (DA Form 2408-1 or 2408-10)			
Determine the hours engine has been in operation since new or overhaul. If hourmeter has been replaced, add hours at time of replacement to present hourmeter reading for total hours of engine operation since new or overhaul.	0-4500	4501 or over	

b. Rating.

- (1) Determine if any **AMBER** ratings were recorded.
- (2) Determine if any **RED** ratings were recorded.
- (3) The color rating will be the lowest rating recorded.

By Order of the Secretary of the Army:

Official:


VERNE L. BOWERS,
*Major General, United States Army,
The Adjutant General*

CREIGHTON W. ABRAMS,
*General, United States Army
Chief of Staff*

Distribution:

To be distributed in accordance with DA Form 12-25D, Operator maintenance requirements for 100 KW, 60 HZ Utility, 200 KW, 60 HZ Precise Power. Generator Sets.

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