

EQUIPMENT SERVICEABILITY CRITERIA
FOR
COMPRESSOR, RECIPROCATING, AIR, POWER DRIVEN, HIGH PRESSURE
4 CFM AND UP, 1000 PSI AND UP
GROUP I - FOUR WHEEL MTD, PNEUMATIC TIRES, GED,
DAVEY MDL P-4, JOY MDLS 15HGPS-MSI AND 15HGP9-MSI, JOY MDL
WK-80 15H1, JOY MDL 415HGP3-MSI, INGERSOLL-RAND MDL P4R 15 G-J,
STEWART-WARNER MDL 12021A
GROUP II - FOUR WHEEL MTD, PNEUMATIC TIRES, EMD,
DAVEY MDL RPC-15, JOY MDL 415 HEP-2
GROUP III- TWO WHEEL MTD, PNEUMATIC TIRES, GED,
WALTER KIDDE MDLS 892960 AND 893811,
STEWART-WARNER MDLS 3800219, 3800219-1 AND 43040-301-01

Headquarters. Department of the Army, Washington, DC, 20 June 1973

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*This manual supersedes TM 5-4300-208-ESC, 23 May 1969.

TM 5-4300-208-ESC

Section I. INSTRUCTIONS

1. Purpose. This manual furnishes the user with a procedure for evaluating the readiness condition of the equipment to perform satisfactorily its primary mission for 90 days with normal maintenance support

NOTE

Application of this procedure, however, 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 conditions 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.

d. Color Rating. When color ratings are designated for an item, the scoring is determined by AMBER being lower than GREEN and RED being the lowest rating.

e. Multiple-Aspect Equipment. Equipment of one logistic manager which contains subsystems, end items, or components of another logistics manager.

3. General Instructions. a. This technical manual will be Filed in the equipment log binder. If classified this technical manual will be filed in accordance with provisions of AR 380-5.

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

c. Authorized subsystems and components of multiple-aspect equipment requiring evaluation but which are not available at the organization shall be given the lowest color rating authorized for that item.

d. Equipment covered in this manual requiring 2. serviceability checks but not authorized to the evaluating organization shall not be rated.

e. This equipment is rated on the basis of capability for immediate operation and amount of wear life remaining on limited life 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 item of equipment, subsystem and/or component, including those evaluated by separately published ESC manuals. The blocks will be completed in accordance with TM 38-750.

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

h. Subsystems and components will be separately color coded.

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

4. Special Instructions. There are no special Instructions required for this ESC.

5. Reporting of Errors. You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2, direct to: Commander, U.S. Army Tank automotive and Armaments Command, ATTN: AMSTA-MMAA Warren, MI48397-5000. A reply will be furnished to you.

Section II. COMPRESSOR EVALUATION REQUIREMENTS AND PROCEDURES

6. Evaluation Requirements. a. Before inspecting the compressor, insure that fuel, lubrication and compressor oils, water and battery levels are adequate and that the compressor will, without damage, operate satisfactorily to perform the requirements of this evaluation.

b. The information for items 1 through 17 is obtained by physical inspection and practical operation of the equipment.

7. Procedure. Information to be determined from equipment log, visual and operational inspection. Evaluate each item listed and record the proper color rating on DA Form 2404 as described in Section I.

Item 1. Modification Work Order (MWO) (DA Form 24018-5)

PROCEDURE	RATINGS		
	GREEN	AMBER	RED
Determine if all pertinent URGENT MWOs have been applied.	All pertinent URGENT MWOs have been applied.	One or more URGENT MWOs have not been	applied.

Item 2. Brakes, Parking - Inspection and Operation

Operate to determine that parking brake functions properly and that levers or linkage does not bind.	Operates properly.	Operates properly. No adjustment remaining.	Parking brake inoperative.
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Item 3. Tires - Inspection

Determine the average tire tread depth remaining for each tire. Measure tread at center of wearing surface. Inspect all tires for general condition and serviceability.	Each tire tread depth measures more than 1/8 inch.	One or more tires measure less than 1/8 inch in tread depth.	One or more tires flat, missing or unserviceable.
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PROCEDURE	RATINGS		
	GREEN	AMBER	RED
Item 4. Axle, Wheels, Drawbar and Steering - Inspection			
Check axle, wheels, drawbar and steering for proper functioning. Inspect for bent members, breaks, cracks and/or broken welds.	Functions properly.	Functions properly. Minor cracks, loose hardware.	Not functioning properly. Broken components or missing hardware.
Item 5. Frame and Mounting - Inspection			
Inspect frame for bent members, breaks, cracks or broken welds. Check for loose or missing hardware.	No broken welds, cracked or broken component. No loose or missing hardware.	Minor cracks or breaks, loose hardware.	Broken welds, cracked or broken components, missing hardware.
Item 6. Batteries - Inspection			
Inspect for obvious defects that make batteries unserviceable. (Cracked cases, burned, broken or loose posts). NOTE Applicable to Group 1 only.	Batteries crank engine at normal speed. batteries present.		One or more batteries missing or will not crank engine.
Item 7. V-Belts - Inspection			
Inspect generator, fan and compressor drive belts. NOTE Applicable to Groups 1 and 2 only.	No visible cracks or fraying.	Detectable cracks, fraying or no adjustment remaining.	Broken or missing belts.

PROCEDURE	RATINGS		
	GREEN	AMBER	RED
Item 8. Heaters - Inspection and Operation (Applicable to Winterized Units only)			
<p>Inspect heaters, blowers, motors, fuel pump, lines and hoses for proper functioning, unusual noise or vibration. Also inspect all switches, circuit breakers, and indicator lights for proper functioning.</p> <p>NOTE Applicable to Group 1 only.</p>	Operates properly.	Detectable noise or vibration. Operates properly.	Excessive noise or vibration. Not operating properly or inoperative.
Item 9. Engine Operation - Inspection and Operation			
<p>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 vibration that might indicate damaged or worn parts.</p> <p>NOTE Applicable to Groups 1 and 3.</p>	Operates properly.	Detectable noise or vibration. Operates properly.	Excessive noise or vibration. Not operating properly or inoperative.
Item 10. Electric Motor - Inspection and Operation			
<p>Operate to determine that motor functions properly.</p> <p>NOTE Applicable to Group 2 only.</p>	Functions properly.	Unusual noise, vibration or overheating.	Excessive noise or vibration. Not operating properly or inoperative.

PROCEDURE	RATINGS		
	GREEN	AMBER	RED
Item 11. Instruments and Controls - Inspection and Operation			
During preliminary warm up period, inspect to determine whether they are functioning properly. Engine oil pressure, ammeter, fuel gage, tachometer, compressor interstage pressure and air receiver gauges and hour-meter. Also inspect speed and pressure regulator valves, controls, cables and linkage, air cleaner restriction indicators and automatic shutdown switches and solenoids.	All items function properly.	One or more items not listed in RED that are not operating properly.	Oil or air pressure gages or valves missing or not functioning properly.
Item 12. Compressor - Inspection and Operation			
During operation of the engine, determine that the compressor functions properly at rated pressure. 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 properly or inoperative.
Item 13. Leakage - Inspection and Operation			
With engine and compressor running, inspect fuel lines, fuel filter, lubricating oil lines, engine and compressor crankcase areas. NOTE Engine applicable to Groups 1 and 3.	No visible leakage. (May be moist to touch, but no drop formation.)	Less than 3 drops in 5 minutes.	More than 3 drops in 5 minutes or visible cracks.

PROCEDURE	RATINGS		
	GREEN	AMBER	RED
Item 14. Compressor Air Lines, Piping, Valves and Receiver - Inspection and Operation			
With compressor operating, inspect for leakage by observing air pressure gages, or by audible detection.	No leakage.	Detectable leakage.	Excessive leakage impairs operation.
Item 15. Clutch			
Operate equipment to determine function (clutch chatters or slips or linkage is binding). NOTE Applicable to Group 1 only.	Operates properly. Clutch adjustment remaining.	Operates properly. No adjustment remaining.	Not operating properly (slipping or chattering) Clutch inoperative.
Item 16. Compressor Lubrication Oil Consumption (DA Form 24081)			
Determine how many quarts of oil were consumed during the last 50 hours of operation. If less than 50 hours have accumulated since last oil change, use data between previous changes. Do not consider amount of oil used in making oil change or servicing of filters. *Applicable to Group 1 and 2. **Applicable to Group 3. ***Winterized units utilizing OES oil will increase oil consumption as indicated by triple asterisk.	* 0 - 3/4 Qt. **0 - 3/4 Pt. *** 0 - 1 Qt.	*1 Qt. or over. **1 Pt. or over. *** 1 1/2 Qt. or over.	

PROCEDURE	RATINGS		
	GREEN	AMBER	RED
Item 17. Engine Oil Consumption (DA Form 2408-1)			
<p>Determine how many quarts of oil were consumed during the last *50 hours, **25 hours of operation. If less than 50 hours, **25 hours have been accumulated since last oil change, use data between previous changes. Do not consider amount of oil used in making oil change.</p> <p>*Applicable to Group 1.</p> <p>**Applicable to Group 3 with the exception of Walter Kidde Model 892960 (2 cycle engine requiring oil/gasoline mixture).</p> <p>***Winterized units utilizing OES oil will increase oil consumption as indicated by triple asterisk.</p>	<p>*Qts./50 hrs. 0- 3</p> <p>***Qts./50 hrs. 0 -5</p> <p>**Qts./25 hrs. 0- 3/4</p> <p>*** Qts./25 hrs. 0 - 1</p>	<p>4 or over.</p> <p>6 or over.</p> <p>1 or over.</p> <p>1/2 or over.</p>	
Item 18. Engine Hours of Operation (DA Form 2408-1 or 2408-10)			
<p>Determine the hours engine has been in operation since new or overhaul. If hour-meter has been replaced, add hours at time of replacement to present hourmeter reading for total hours of engine operation since new or overhaul.</p> <p>NOTE</p> <p>Applicable to Groups 1 and 3 only.</p>	<p>0 - 4500</p>	<p>4501 or over.</p>	

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:

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

Official:

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


Distribution:

To be distributed in accordance with DA Form 12-26A, Operator maintenance requirements for Air Compressors, High Pressure, 15 CFM, Under 15 CFM, Over 15 CFM, Engine Driven.

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PIN: 026177-000

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