



NEW LOCOMOTIVE INSPECTION AND TIGHTENING PROGRAM

Prior to placing a new locomotive in service, it is important that certain equipment inspections be made. After limited service (approximately one month) it is essential that an additional inspection be made and equipment tightened to proper torque values. Such attention will have a definite bearing on continued successful operation.

This bulletin outlines the procedures and inspections that should be performed progressively until completed, with accurate records kept of initial inspection and tightening. Since this bulletin covers all models of locomotives having varying equipment, certain of the items listed may not be applicable.

Before proceeding with the initial inspection, remove all protective coverings that were applied to protect the locomotive for shipment.

BEFORE SERVICE INSPECTION AND TIGHTENING

MECHANICAL	REMARKS
1. ENGINE	
a. Lubricating oil	Fill engine crankcase with approved oil.
b. Governor	Check oil level. Should be between marks on sight glass.
c. Top deck	Inspect for loose parts and foreign material. With engine running, check for proper lubrication.
2. AIR INTAKE SYSTEM	
a. Engine air filter	Check oil level. Should be centered in bull's-eye at idle. Check aspirator cutoff.
3. COOLING SYSTEM	Fill cooling water system. Use EMD approved water treatment. M.I. 1748.
4. AIR COMPRESSOR	Check oil level.

*This bulletin supersedes previous issues of this number.

MECHANICAL	REMARKS
5. SPEED RECORDER	Check oil level. Refer to manufacturer's bulletin.
6. TRUCKS	
a. Traction motor support bearings	Check oil level. Fill to 6-1/2". Capacity 12-1/2 pints.
b. Armature bearings (Oil type only)	Add six ounces of oil to each bearing per specifications in M.I. 1756.
c. Gear case	Check grease level.
d. Journal boxes	
1. Roller bearing	Check oil level.
2. Friction type	Add oil.
ELECTRICAL	REMARKS
7. ELECTRICAL ROTATING EQUIPMENT	
a. Main generator	(a, b, and c) Inspect commutators and brushes. Replace broken or chipped brushes using same grade and type as removed.
b. Traction motors	
c. Auxiliary generator	
d. AR10 alternator	Check diode fuse indicating pins.
8. ELECTRICAL CABINETS	
a. Contactors, relays and switches	Check wiring connections for tightness and check for proper operation.
b. Terminal boards, resistors and rheostats	Check connections for tightness.
c. Fuses	Test and install fuses.
9. BATTERIES	Connect battery leads. Check battery water level and specific gravity. Maintain records.

ELECTRICAL	REMARKS
10. AUXILIARY GENERATOR	Check auxiliary generator voltage. Should be $74 \pm 1/2$ volt.
11. ALARM AND SAFETY DEVICES	
a. Low oil pressure	(a through j) Test for correct operation.
b. High oil suction	
c. High temperature	
d. No power (auxiliary AC)	
e. Overspeed trip	
f. Ground relay	
g. Engine protector	
h. Excitation limit	
i. Turbocharger auxiliary pump	
j. Fault detection relay	
12. INERTIAL AIR FILTER MOTOR	Check for correct rotation.
13. MOVEMENT TEST	Movement test locomotive in single and in multiple operation.

AFTER-SERVICE INSPECTION AND TIGHTENING

Perform All Operations Listed After Approximately One Month Of Service

MECHANICAL	REMARKS
14. ENGINE TIGHTENING	
a. Connecting rod basket bolts - upper and lower	Tighten to correct torque value. Engine Maintenance Manual.
15. ENGINE INSPECTION	
a. Air box	(a, b, and c) Engine Maintenance Manual. Make visual inspection.
b. Oil pan	
c. Top deck	

MECHANICAL	REMARKS
16. ENGINE CONTROLS AND ADJUSTMENTS a. Injector timing b. Injector rack setting c. Engine speed d. Lash adjusters	(a, b, c, and d) Check settings. Refer to Engine Maintenance Manual for correct settings.
17. EQUIPMENT RACK a. Temperature switch	Tighten all bolts, nuts and connections on equipment rack. Press test buttons to check fan operation.
18. FUEL SYSTEM a. Filters	Change or clean all fuel filters.
19. LUBE OIL SYSTEM a. Change lube oil filter elements b. Change soak back filter element c. Change turbocharger oil filter element d. Lube oil strainers	Remove and clean lube oil strainers. Engine Maintenance Manual.
20. AIR INTAKE SYSTEM a. Check oil level in engine air filter	

ELECTRICAL	REMARKS
21. ELECTRICAL a. Contactors b. Relays c. Switches	Visually inspect all contactors, relays and switches. Check for broken, pinched, loose or burned wires. Visually inspect all slider type resistors for burns.
22. LOCOMOTIVE CONTROL	Make sequence check. Movement test in single and multiple unit operation.