

CREW DAILY PMCS
For
COMBAT VEHICLE, ANTI-TANK
IMPROVED TOW VEHICLE
M901A1(2350-01-103-5641)

WARNING

To prevent possible injury to personnel or damage to equipment, before using condensed PMCS, you must be experienced in using PMCS in TM 9-2350-259-10 (M901A1), TM 11-5820-498-12 and/or TM 11-5820-401-10-2 (Communication Equipment), TM 9-1005-224-10 (M60 Machine Gun), TM 9-1425-450-12 (TOW 2).

This is a crew condensed daily PMCS checklist. The check sequence numbers herein correspond to those checks listed in TM 9-2350-259-10. If you have any questions, refer to appropriate TM or to your leader.

Approved for public release-
distribution is unlimited

HEADQUARTERS, DEPARTMENT OF THE ARMY

9 October 1990

NOTE

An asterick indicates a non-mission capable (NMC) fault.

NOTE

- While performing PMCS:
 - Check all bolts, nuts, and screws for looseness, breaks, or missing.
 - Check for broken welds.
 - Check electrical connections for cracked or broken wire or loose connectors.
 - Check hoses end fluid lines for wear, damage, end leaks.
- For any special operation refer to TM 9-2350-259-10.
- When working in/around the carrier, follow all safety procedures.
- der coordinates all duric end after PMCS.
- Checkmark each item where any fault is noted.
- Record all faults on DA Form 2404.
- Provide equipment readiness status to your immediate leader.
- Refer to TM 9-2350-259-10 for Weekly and Monthly PMCS.

BEFORE OPERATION CHECKS CARRIER COMMANDER

- ★ 1. Check exterior above shroud for damaged or missing items. Ensure all items are properly secured.
- ★ 2. Check fixed fire extinguisher pull handle and seal.
- 3. Check for leaks, loose hull access and drain plugs.

CAUTION

**Check all flexible air intake ducts.
Do not operate carrier if damage exists.**

- ★ 4. Check inside front power plant compartment for leaks and damage.
 - a. Air intake duct (holes or tears)
 - b. Fuel lines (leaks)
 - c. Coolant hoses (leaks)
 - d. Oil lines (leaks)

CAUTION

Close filler cap after checking level.

- ★ 5. Check oil levels.
 - a. Differential
 - b. Final drive
- ★ 6. Check universal joints.
- ★ 7. Cold weather operations:
 - a. Check coolant heater for leaks.
 - b. Check air box heater accumulator.

WARNING

Make sure the power plant compartment front access door and trim vane are closed and secure before continuing your PMCS.

- ★ 8. Check for damaged and missing items on deck.
Ensure all items are secure.

WARNING

Make sure machine gun is clear and locked and barrel is free of obstructions.

- 9. Check machine gun end mount.
 - a. Machine gun end mount (do functional check).
 - b. Linked end secured.

BEFORE OPERATIONAL CHECKS DRIVER

- ★ 10. Check damage to:
 - b. Roadwheels
 - c. Torsion bars
 - d. Roadwheel arms
 - e. Sprockets
 - f. Track shrouds
- ★ 11. Check exterior for leaks:
 - a. Roadwheel hubs
 - b. Idler wheel hubs.

WARNING

Check coolant level when engine is cold. Never try to check coolant level after carrier has been running and engine is still hot.

- ★
- ★ 12. Check coolant level.

WARNING

Do not operate carrier if portable or fixed fire extinguishers are missing, discharged, or seal not intact.

- ★
- ★ 13. Check fixed fire extinguisher and control seat.
- ★ 14. Check rear power plant compartment for leaks:
 - a. Fuel lines.
 - b. Coolant hoses.
 - c. Oil lines.
 - d. Air intake ducts.

CAUTION

Carrier must be on level surface for proper oil/fluid reading.

- ★
- ★ 15. Check oil/fluid levels:
 - a. Transmission (cold)
 - b. Engine
 - c. Transfer gear case
 - d. Fan tower
 - e. Ramp
- ★ 16. Check instrument panel warning lights condition.

WARNING

Hatch yoke assembly could fail if it gets caught on the ledge behind it. Watch for it.

- ★
- ★ 17. Check operation of driver hatch.

WARNING

When vehicle is moving, pushing down on steering lever lock buttons can cause brake(s) to be locked. Personnel can be killed or injured. Perform steering and braking PMCS only when the engine is stopped.

When steering and braking occurs before 1" notch or after 4" notch on the quadrant, vehicle can skid and crash, personnel can be killed or injured. If steering and braking is not between 2nd and 3rd notch, do not operate vehicle. Notify Organizational Maintenance.

WARNING

If left and right steering levers position are not within one notch difference when both are pulled to the fully applied position, vehicle can skid and crash. Personnel can be killed or injured. Do not operate vehicle. Notify Organizational Maintenance.

- ★
- ★
- 18. Check steering and braking controls.
- 19. Cold weather operations: heck air box heater.

BEFORE OPERATION CHECKS GUNNER

- ★
- 20. Check for serviceability, missing parts, damaged pins or connectors.
 - a. Nightsight coolant (TOW).
 - b. Spare nightsight power conditioner batteries (TOW II).
 - c. Nightsight batteries (TOW).
 - d. Nightsight battery power conditioner (TOW II).

CAUTION

On TOW, a coolant cartridge must be installed on the nightsight at all times.

- ★
- 21. Check for dirt, missing parts, and damaged pins or connectors.
 - a. Daysight/tracker.
 - b. Nightsight.

NOTE

Carrier commander provides assistance on check 22.

- ★
- 22. Check that nightsight BRT and CTRS actuator assembly is securely mounted to bracket and ail items that cause adjustment to night sight are serviceable.
- ★
- 23. Check gunner station position.
 - a. Hydraulic oil level and condition.
 - b. Hydraulic leaks.
 - c. Gunner control is secured.
 - d. Azimuth drive is secured.

- e. Track and slew brakes are secured.
- f. Hatch cover and seat operations.

BEFORE OPERATION CHECKS LOADER

- ★
- ★
- 24. Check carrier fuel tank valves and lines for leaks.
- 25. Check portable fire extinguisher seal.

NOTE

Assist gunner on TOW PMCS.

DURING OPERATION CHECKS CARRIER COMMANDER

- ★
- 26. Check carrier communication equipment:
 - a. Check radio equipment to ensure it is working and mounted properly.
 - b. Check intercom system.

WARNING

Do not operate personnel heater if any fuel leak is found in heater or in heater fuel lines.

- ★
- 27. Check personnel heater end personnel heater fuel lines.

NOTE

Assist driver and loader on PMCS for vehicle lights.

DURING OPERATION CHECKS DRIVER

WARNING

Carbon monoxide gas is deadly poison. Make sure all power plant access panels are closed and vehicle is ventilated before starting the engine.

CAUTION

If temperature goes above 200 degrees F (93.3 degrees C), turn off engine and notify Organizational Maintenance.

- ★
- 28. Check instruments and warning lights.

- ★ 29. Check air cleaner restriction indicator.
- ★ 30. Check lights:
 - a. Headlights.
 - b. Instrumental panel.
 - c. Turn signal.
 - d. Blackout drive.

WARNING

Do not look directly into infrared lights.

- e. Infrared lights.
- f. Stoplight.

- ★ 31. Check heaters (only if needed in operation).
 - a. Personnel heater.
 - b. Personnel heater electrical circuits.
 - c. Coolant heater.
 - d. Coolant heater electrical circuits.

WARNING

- **Engine must be stopped to do steering/braking PMCS.**
- **Do not press steering lock buttons when vehicle is moving.**
- **Steering levers must engage in 2nd or 3rd notch of quadrant.**
-

CAUTION

Stop carrier before shifting into reverse.

- ★ 32. Check steering, braking, shifting, and throttle controls.

DURING OPERATION CHECKS GUNNER

- ★ 33. Perform lamp test.
- ★ 34. Perform MGS Self Test (TOW) position 1 and positions 3 through 6.
- ★ 35. Perform checkout of erection of launcher.
- ★ 36. Check hydraulic cylinders detente for burrs or dirt.
- ★ 37. Bleed down turret hydraulic pressure. Recheck oil.
- ★ 38. Perform checkout of triggers.
- ★ 39. Check operation of turret.
 - a. Traversing/slewing.
 - b. Elevation/depression. (MGS Self Test 2)

- ★ 40. Check launch tubas end hatch tire interrupt circuitry
- ★
- ★ 41. Perform checkout of selection and arming of missiles.
- ★ 42. Perform checkout of launcher elevation and depression fire interrupt circuitry.
- ★ 43. Perform checkout of ITA alignment and boresighting.
- ★ 44. Perform MGS system checkout. (TOW II)
- ★ 45. Stow launcher.
 - a. Brackets are secure.
 - b. Rubber bumpers are intact.
 - c. Launcher stows properly.

AFTER OPERATION CHECKS CARRIER COMMANDER

- ★ 46. Service smoke grenade launcher after firing.

NOTE
Assist driver and gunner on suspension
PMCS.

AFTER OPERATION CHECKS DRIVER

WARNING
Make sure carrier is on level surface
and brakes are set and locked.
Reinstall panel after oil check.

- ★ 47. Check transmission oil level (with engine running).
- ★ 48. Check engine shut down.
- ★ 49. Drain contamination from fuel filters.

WARNING
Hubs, final drive housing, and shock
absorbers can heat up enough to
burn you.

- ★ 50. Check for overheating and/or damage to:
 - a. Road wheels and idler wheels.
 - b. Final drive bearing.
 - c. Sprockets.
 - d. Shock absorbers.
 - e. Track shoes and pins.
 - f. Road wheel arms and torsion barn.

- * 51. Check wheel hubs for damage, leaks, and missing grease fittings or valves.
- *

**AFTER OPERATION CHECKS
GUNNER**

- * 52. Check fuel tank filler cap.
- * 53. Service and clean M60 machine gun.

**AFTER OPERATION CHECKS
LOADER**

NOTE

Assist driver and carrier commander on suspension PMCS.

By order of the Secretary of the Army

CARL E. VUONO

*General, United States Army
Chief of Staff*

Official:

THOMAS F. SIKORA

*Brigadier General, United States Army
The Adjutant General*

Distribution:

To be distributed in accordance with DA Form 12-37,
Operator Maintenance requirements for improved TOW Vehicle
TM 9-2350-259-10-PMC.

NOTES

☆ GPO : 1991 0 - 298-734

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THE METRIC SYSTEM AND EQUIVALENTS

LENGTH MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
 1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
 1 Kilogram = 1000 Grams = 2.2 lb.
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

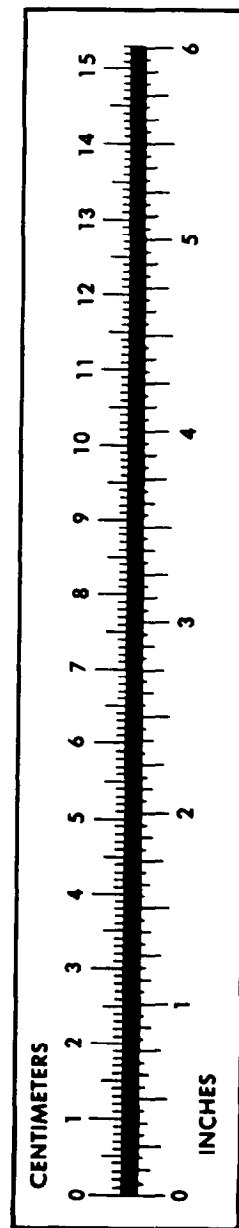
TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
Quarts	Liters	0.473
Gallons	Liters	0.946
Ounces	Liters	3.785
Pounds	Grams	28.349
Short Tons	Kilograms	0.454
Pound-Feet	Metric Tons	0.907
Pounds per Square Inch	Newton-Meters	1.356
Miles per Gallon	Kilopascals	6.895
Miles per Hour	Kilometers per Liter	0.425
	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
Liters	Gallons	0.264
Milligrams	Ounces	0.035
Grams	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621



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