

551-88U-1495
Check Track Gage and Cross Level
Status: Approved

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the Transportation School, Fort Lee, VA foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Conditions: Assigned as a Railway Specialist with the requirement to advise COCOM/Host Nation personnel on how to check track gage and cross level, given track gauge, cross level, references, Personal Protective Equipment, completed risk assessment, System Special Instructions (SSI), day or night, in all weather conditions, and in an operational environment. Some iterations of this task should be performed in MOPP 4.

Standards: Measure track gage and elevation without causing injury to personnel or damage to rail in accordance with GCOR and Basic Training Manual for Brakemen and Switchmen.

Special Conditions: None

Safety Risk: Low

MOPP 4: Sometimes

Task Statements

Cue: Your ERC team has been tasked to advise COCOM/Host Nation personnel on how to check gage and cross level.

DANGER

None

WARNING

None

CAUTION

Working around live tracks is always dangerous. Follow all safety procedures outlined in the GCOR and ATP 4-14.

Remarks: None

Notes: None

Performance Steps

CAUTION

Look in both directions before entering between tracks to work.

1. Measure distance between rails.

Note: Common causes of wide gage are improper rail installation, poor tie condition, curve wear in rail, high lateral forces (curves, turnouts), and loose joints.

WARNING

Tracks should be measured at a minimum around frogs, turn outs, rail crossings, or where there is any indication of lateral movement.

a. Visually inspect track for areas around turnout or switchpoint that tend to be out of gage.

b. Insert track gage into line rail 5/8 inch below rail head.

Remarks: Gage measurements shall include any evidence of lateral movement under load.

c. Measure the distance between the two rails, measured at right angles to the rails.

d. Track should be gaged to the stand 56 1/2 inches on tangent track including allowable deviations.

WARNING

Always step over rail as it is a potential trip hazard.

2. Determine cross level difference in elevation.

Note: On tangent track the designated cross level is zero.

a. Adjust both steps on cross level until they contact rail head surface.

b. Set your gage measure on cross level to 56 1/2 inches while still sitting on top of rail (not at joint).

c. Turn cross level measurement adjustment knob to level bubble and determine deviation.

d. Record the difference in elevation between the top surfaces of the two rails.

3. Report information to supervisor.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Mark each performance measure either GO or NO-GO. The Soldier must complete all steps to receive a GO for each measure. All measures must be marked GO to receive an overall GO on the task. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

Evaluation Preparation: Ensure that all materials required to perform the task are available. Tell the Soldier that he/she will be evaluated on checking track gage and cross level.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Measured distance between rails.			
2. Determined cross level difference in elevation.			
3. Reported information to supervisor.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ATP 4-14	EXPEDITIONARY RAILWAY CENTER OPERATIONS http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp4_14.pdf	Yes	No
	BASIC TRAINING MANUAL	Basic Training Manual for Brakemen and Switchmen	Yes	Yes
	GCOR	General Code of Operating Rules (GCOR), Seventh Edition	Yes	No
	UFC 4-860-03	Unified Facilities Criteria (UFC): Railroad Track Maintenance & Safety Standards	Yes	No

TADSS : None

Equipment Items (LIN):

LIN	Name
NA1520	Case, Ear Plug
DA3045	Boots, Safety
DA159T	Vest Safety RV-1
HA4052	Safety Glasses, Revision Sawfly E
J68064	GLOVES LTHR MN WORK 1

Material Items (NSN) :

Step ID	NSN	LIN	Title	Qty
1.	4910-00-799-8732		Gage, Wear, Track End	1
1.	5220-01-496-3692		GAGE,TRACK WEAR	1
1.	8415-00-279-2198		Helmet, Safety, Orange, Size 6-1/2 to 8	1
1.	5120-00-243-2878		Tape, Measuring	1
2.	1285-00-761-4258		LEVEL SET	1

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card.

AR 200-1 delineates TRADOC responsibilities to integrate environmental requirements across DOTMLPF and ensures all training procedures, training manuals, and training doctrine includes sound environmental practices and considerations. The Army's environmental vision is to be a national leader in environmental and natural resource stewardship for present and future generations as an integral part of all Army missions. Environmental protection is never completed. Continuously be alert to ways to protect our environment and reduce waste.

Leaders must ensure that their unit has an active and strong environmental program. They must understand the laws and know what actions to take. Leaders bring focus, direction, and commitment to environmental protection. Commanding officers should ensure the following environmental programs are in place and are being maintained:

- Hazardous materials program.
- Hazardous waste program.
- Hazardous communications program.
- Pollution prevention and hazardous waste minimization recycling program.
- Spill prevention and response plan program.

Safety: In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC).

Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW current CBRN doctrine. All operations will be performed to protect and preserve Army personnel and property against accidental loss. Procedures will provide for public safety incidental to Army operations and activities and safe and healthful workplaces, procedures, and equipment. Observe all safety and/or environment precautions regarding electricity, cable, and lines. Provide ventilation for exhaust fumes during equipment operation and use hearing protection when required IAW AR 385-10, the Clean Air Act (CAA) and the CAA amendments, and the OSHA Hazard Communication standard.

Accidents are an unacceptable impediment to Army missions, readiness, morale, and resources. Decision makers at every level will employ risk management approaches to effectively preclude unacceptable risk to the safety of personnel and property affiliated with this task.

- (a) Take personal responsibility.
- (b) Practice safe operations.
- (c) Recognize unsafe acts and conditions.
- (d) Take action to prevent accidents.
- (e) Report unsafe acts and conditions.
- (f) Work as a team.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks : None

Knowledges :

Knowledge ID	Knowledge Name
K-551-T-0001	Knowledge of rail track standards
K-551-T-0003	Knowledge of track geometry standards
K-551-P-0126	Knowledge of securing track and setting out blue flag
K-551-U-0039	Knowledge of track inspections
K-551-E-0074	Knowledge of railroad terminology

Skills :

Skill ID	Skill Name
301-S-238	Determine the gauge of a railroad.

ICTL Data : None