

Summary Report for Individual Task  
551-88M-1314  
Perform Coupling Operations  
Status: Approved

---

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

**Destruction Notice:** None

**Foreign Disclosure: FD5** - This product/publication has been reviewed by the product developers in coordination with the Fort Lee, VA foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

**Condition:** In an operational environment, your unit is preparing for a tactical movement and you are required to stage a semitrailer to the assembly area. Given a tractor and semitrailer (uncoupled) with before-operation maintenance performed and all coupling components lubricated as required, an area large enough to accommodate the operation, chock blocks, hearing protection, ground guides (where available), and work gloves.

**Standard:** Couple, then uncouple, a truck tractor to and from a semitrailer IAW applicable references without causing injury to personnel or damage to equipment.

**Special Condition:** Special Conditions: This task is primarily written for the M915A3/M872A4 Truck Tractor-Semitrailer combination. However, if operating with the M1088 MTV Truck Tractor, follow the steps in the perspective vehicle technical manual (TM) when differences from this task outline occur. Soldier is not evaluated on the movement of the semitrailer, only coupling and uncoupling procedures. **MISSION-READY:** This term refers to the status of the vehicle in which all required preventive maintenance has been conducted, all maintenance worksheets have been completed and no faults noted that render the vehicle as NMC, dispatch form is completed with all required signatures, accident forms are present and legible, and all required BII/AAL is properly stowed on vehicle to include safety equipment, and all forms are located in the equipment records folder located in the designated location in the vehicle.

**Safety Risk:** Medium

**MOPP 4:**

<b>Task Statements</b>
------------------------

**Cue:** In preparation of an upcoming tactical movement, you are required to stage a semitrailer in an assembly area.

<b>DANGER</b>
None

<b>WARNING</b>
WARNING - Do not use trailer handbrake as primary brake to keep tension on coupling system. This will cause undue tension on brakes and coupling which could result in injury to personnel or damage to equipment. Prevent problems with slack in fifth wheel by using good braking habits and adjusting coupling and braking systems properly.
WARNING - Use caution when coupling to semitrailer. BE ALERT for personnel in area. Ensure that hands, arms, and body are clear of potential pinch points. Failure to follow this warning may result in injury to personnel.
WARNING: Use ground guides when backing up to parked semitrailer. Failure to comply may result in injury to personnel or damage to equipment.
WARNING: Do not allow any personnel between tractor and semitrailer during coupling or uncoupling operations. Failure to comply may result in serious injury or death to personnel.

## CAUTION

**CAUTION:**

Always chock the tractor and/or semitrailer wheels during coupling operations to prevent inadvertent movement of tractor or semitrailer. Failure to comply may result in injury to personnel or damage to equipment.

**Remarks:** None

**Notes:** Vehicle operator must ensure the location is clear of personnel and equipment by conducting a 360-degree walkaround of tractor and semitrailer.  
Start position for coupling is with fifth wheel jaws unlocked (open), fifth wheel in LOAD position, and fifth wheel slide control lever in LOCKED position.

## WARNING

### WARNINGS

USE GROUND GUIDE WHEN BACKING UP TO SEMITRAILER. FAILURE TO DO SO MAY RESULT IN INJURY OR DEATH TO PERSONNEL OR DAMAGE TO EQUIPMENT.

### WARNINGS

DO NOT USE SEMITRAILER HANDBRAKE AS PRIMARY BRAKE TO KEEP TENSION ON COUPLING SYSTEM. THIS WILL CAUSE UNDUE TENSION ON BRAKES AND COUPLING WHICH COULD RESULT IN INJURY OR DEATH TO PERSONNEL OR DAMAGE TO EQUIPMENT. PREVENT PROBLEMS WITH SLACK IN FIFTH WHEEL BY USING GOOD BRAKING HABITS AND ADJUSTING COUPLING AND BRAKING SYSTEMS PROPERLY.

USE CAUTION WHEN COUPLING SEMITRAILER. BE ALERT FOR PERSONNEL IN AREA. ENSURE THAT HANDS, ARMS, AND BODY ARE CLEAR OF POTENTIAL PINCH POINTS. FAILURE TO FOLLOW THIS WARNING MAY RESULT IN INJURY OR DEATH TO PERSONNEL.

### CAUTION

Be careful not to run kingpin up fifth wheel ramps as this can damage kingpin and/or fifth wheel.

### NOTES:

Truck and semitrailer must be aligned.

Use a ground guide if one is available.

### CAUTION

Fifth wheel lube plates and trailer kingpin plate must be cleaned and dried prior to coupling. Failure to follow this caution could damage fifth wheel and/or trailer.

## CAUTION

- Semitrailer wheels must be blocked and semitrailer brakes locked to prevent damage to tractor or semitrailer by uncontrolled sliding of fifth wheel.
- If towing M871 semitrailer or M967/M969/M1062 fuel tankers, rear mud flaps must be removed and stowed in brackets provided. Failure to do so will cause equipment damage.
- Tractor trucks have the capability to turn greater than 90°. Care must be taken to avoid hitting semitrailer with tractor when turning more than 90°.
- Operator must use caution when cresting hills which cause the tractor truck to have a nose down angle greater than 4° with respect to towed semitrailer. Damage to vehicle or loss of control could occur.

### CAUTION

Be careful not to run kingpin up fifth wheel ramps as this can damage kingpin and/or fifth wheel.

Remarks: Reference for these steps is TM 9-2320-302-10, WP 0005

#### 1. Couple semitrailer.

Note: Start position for coupling is with fifth wheel jaws unlocked (open), fifth wheel in LOAD position, and fifth wheel slide control lever in LOCKED position.

##### a. Emplace chock blocks under semitrailer.

(1) Level Ground. Place one chock block in front of the wheel and behind the opposing wheel on the same axle.

(2) Uphill. Place both chock blocks behind the rear axle of the semitrailer.

(3) Downhill. Place chock blocks in front of forward-most axle on semitrailer.

##### b. Ensure that fifth wheel ramps are level with, or slightly below, the angle of the pickup ramps.

## CAUTION

### CAUTION

Ensure that centerline of tractor and centerline of semitrailer are aligned during coupling operation.

##### c. Position the truck tractor.

Note: See truck-semi trailer alignment graphic. Centerline must be aligned.

(1) Start truck tractor (see TM).

(2) Sound horn (if tactically permissible).

(3) Using ground guide if available, align centerline of tractor with centerline of semitrailer.

d. Ensure that semitrailer is picked up with fifth wheel ramps. If kingpin comes in too high, it will not engage the fifth wheel properly. Adjust semitrailer height as needed.

e. Slowly back tractor under semitrailer kingpin plate. Stop when kingpin plate is touching guide ramps. Semitrailer kingpin should be centered as closely as possible in throat of fifth wheel.

f. Connect air hoses and light cables.

(1) Remove tether from air hoses.

(2) Remove air hoses from bracket.

(3) Remove 12V or 24V intervehicular electrical cable from tool box.

(4) Connect intervehicular electrical cable to appropriate receptacle.

## CAUTION

### CAUTION

Ensure the service air hose from the tractor is connected to the service coupling, the emergency air hose, and to the emergency coupling on the semitrailer.

### WARNING

AIRBRAKE SHUTOFF MUST BE OPEN AT ALL TIMES DURING THE NORMAL OPERATION OF THE TRACTOR AND THE SEMITRAILER. SEMITRAILER BRAKES MUST BE FUNCTIONAL. FAILURE TO DO THIS MAY CAUSE INJURY OR DEATH TO PERSONNEL.

(5) Connect air hoses to semitrailer.

(6) If trailer is ABS-equipped, connect ABS electrical cable (M915A3 old model).

(7) Push semitrailer air supply control knob IN, open semitrailer supply valve, and set semitrailer control valve hand brake.

g. Back slowly until fifth wheel locks firmly to kingpin.

h. Check kingpin connection and fifth wheel slide locks by pulling tractor gently forward against locked semitrailer brakes or blocked wheels. As resistance is felt, select transmission shift selector Reverse (R) pushbutton and gently back tractor to verify fifth wheel slide locks in both directions. When resistance is felt, select transmission shift selector Neutral (N) pushbutton and set parking brake.

i. Visually check that fifth wheel jaws close around kingpin.

j. Place fifth wheel slide control lever in UNLOCK position to disengage two slide locking plungers.

k. Drive tractor slowly backward to position fifth wheel in HAUL position.

l. Place fifth wheel slide control lever to LOCKED position to engage slide locking plungers. Ensure slide locking plungers engage.

m. Verify that primary lock release handle and secondary lock release handle are in.

- n. Check semitrailer lights.
- o. Lift and secure semitrailer landing gear and stow float pads.
- p. Stow wheel chocks.

## **WARNING**

Use caution when uncoupling from semitrailer. BE ALERT for personnel in area. Ensure that hands, arms, and body are clear of potential pinch points. Failure to follow this warning may result in injury to personnel.

### 2. Uncouple semitrailer.

- a. Stop truck and semitrailer.
- b. Shift transmission to (N) neutral.
- c. Chock the semitrailer wheels.

(1) When parking uphill, place chock blocks behind the rear wheels on both sides of the semitrailer.

(2) When parking downhill, place chock blocks in front of forward-most axle on semitrailer.

(3) When parking on level ground, place a chock block firmly in front of a wheel on one side of the axle and firmly behind one wheel on the other side.

- d. Pull semitrailer air valve OUT.

## **CAUTION**

Lower landing gear until a small space can be seen between bottom of trailer fifth wheel lube plates. Damage will occur if trailer edge drags across fifth wheel lube plates.

- e. Apply parking brake.
- f. Remove float pads from stowage brackets and place under landing support legs.
- g. Lower the landing support legs.

## **CAUTION**

To prevent damage to air hoses and electrical cables between trailer couplings, ensure air hose and cable ends are placed in storage bracket.

- h. Set semitrailer hand brake control valve and close semitrailer air supply valve.
- i. Disconnect and stow air hoses and the intervehicular cable.

- j. If connected, disconnect and stow ABS electrical cable (M915A3 Old model).
- k. Place fifth wheel slide control lever to UNLOCKED position.
- l. Drive tractor forward to position fifth wheel to LOAD position.
- m. Place fifth wheel slide control lever to LOCKED position. Ensure slide locking plungers engage.
- n. Pull secondary lock release handle out and lift to engage catch.
- o. Pull primary lock release handle out.
- p. Release parking brake and slowly pull forward until semitrailer clears fifth wheel.
- q. Stop and set parking brake.

(Asterisks indicates a leader performance step.)

**Evaluation Guidance:** Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If any performance measure is failed, tell the soldier what was done wrong and how to do it correctly.

**Evaluation Preparation:** Provide for the Soldier either a M915A3/M872A4 tractor-semitrailer combination (uncoupled) or an M915A5/M872A4 tractor-semitrailer combination (uncoupled), flat ground for the operation, hearing protection, safety briefing and task requirements.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Coupled Semitrailer.			
a. Blocked semitrailer wheels.			
b. Ensured that fifth wheel ramps were level with, or slightly below, the angle of the pickup ramps.			
c. Positioned truck-tractor.			
(1) Started truck-tractor (see TM).			
(2) Sounded horn (if tactically permitted).			
(3) Positioned truck-tractor inline with centerline of semitrailer.			
d. Slowly backed tractor under semitrailer kingpin plate. Stopped when kingpin plate was touching guide ramps. Semitrailer kingpin was centered as closely as possible in throat of fifth wheel.			
e. Ensured that semitrailer was picked up with fifth wheel ramps. If kingpin came in too high, it would not have engaged in fifth wheel correctly. Adjusted semitrailer if needed.			
f. Connected air hoses and light cables.			
g. Backed up slowly until fifth wheel locked firmly to kingpin.			
h. Visually checked that fifth wheel jaws closed around kingpin.			
i. Placed fifth wheel slide control lever in UNLOCK position to disengage two slide locking plungers.			
j. Drove tractor slowly backward to position fifth wheel in HAUL position.			
k. Placed fifth wheel slide control lever to LOCKED position to engage slide locking plungers. Ensured slide locking plungers engaged.			
l. Verified that primary lock release handle and secondary lock release handle were in.			
m. Checked semitrailer lights.			
n. Stowed wheel chocks.			
o. Lifted and secured semitrailer landing gear and stowed float pads.			
2. Uncoupled semitrailer.			
a. Stopped truck and semitrailer.			
b. Shifted transmission into N (Neutral).			
c. Blocked semitrailer wheels.			
d. Pulled semitrailer air supply valve OUT.			
e. Applied parking brake.			
f. Placed float pads under semitrailer landing gear and lowered landing gear.			
g. Set semitrailer hand brake control valve and closed semitrailer air supply valve.			
h. Disconnected and stowed semitrailer air hoses and intervehicular cables.			
i. Connected tether to air hoses.			
j. If connected, disconnected and stowed ABS electrical cable (M915A3 old model).			
k. Placed fifth wheel slide control lever to UNLOCKED position.			
l. Drove tractor forward to position fifth wheel to LOAD position.			
m. Placed fifth wheel slide control lever to LOCKED position. Ensured slide locking plungers engaged.			
n. Pulled secondary lock release handle out and lifted to engage catch.			
o. Pulled primary lock release handle out.			
p. Released parking brake and slowly pulled forward until semitrailer cleared fifth wheel.			
q. Stopped and set parking brake.			

**Supporting Reference(s):**

Step Number	Reference ID	Reference Name	Required	Primary
	TM 9-2320-302-10	OPERATORS MANUAL FOR TRUCK, TRACTOR, LINE HAUL: 52,000 GVWR, 6X4, M915A3 (NSN 2320-01-432-4847)	Yes	Yes
	TM 9-2320-366-10-1	OPERATORS INSTRUCTIONS MANUAL FOR M1083 SERIES, 5-TON, 6X6, MEDIUM TACTICAL VEHICLES (MTV) VOLUME NO. 1 OF 2 TRK, CAR., MTV, M1083 W/WN (NSN 2320-01-360-1895) (EIC: BT3) W/O WN (2320-01-354-3386) (EIC: B	No	No
	TM 9-2320-366-10-2	OPERATORS INSTRUCTIONS MANUAL FOR M1083 SERIES, 5-TON, 6X6, MEDIUM TACTICAL VEHICLES (MTV) VOLUME NO. 2 OF 2 TRK, CAR., MTV, M1083 W/WN (2320-01-360-1895) (EIC: BT3) W/O WN (2320-01-354-3386) (EIC: BR2)	No	No
	TM 9-2320-426-10	Truck, Tractor, Line Haul, M915A5, 6X4	Yes	Yes
	TM 9-2320-426-10 (Change 002 - 5/17/2013)	Operator's Manual for Truck, Tractor, Line Haul: 66,000 GVWR, 6X4, M915A5 (NSN: 2320-01-552-2922)	Yes	Yes
	TM 9-2330-358-14&P	OPERATORS, UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) FOR SEMITRAILER, TACTICAL, DUAL PURPOSE BREAKBULK/CONTAINE	No	No
	TM 9-2330-359-14&P	OPERATORS, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS) FOR SEMITRAILER, FLATBED: BREAKBULK/CONTAINER TRANSPORTER, 34 TON M872 (T	Yes	No
	TM 9-2330-386-14&P	OPERATORS, ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS) FOR SEMITRAILER, TACTICAL, DUAL PURPOSE, BREAKBULK/CONTAINER TRANSPORTER	No	Yes

**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 FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT. It is the responsibility of all soldiers to be and active participant in environmental conservation. Every effort must be made to reduce or eliminate environmental contamination from the use of vehicles and equipment.

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. 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 FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. Adhere to all WARNINGS and CAUTIONS in the technical manual

applicable to this procedure.

**CAUTION:**

Always chock the tractor and/or semitrailer wheels during coupling operations to prevent inadvertent movement of tractor or semitrailer. Failure to comply may result in injury to personnel or damage to equipment.

**WARNING:**

Airbrake shutoff valves must be open at all times during normal operation of tractor and semitrailer for brakes to be functional.

**WARNING:**

Use ground guides when backing up to parked semitrailer. Failure do comply may result in injury to personnel or damage to equipment.

**Risk Assessment:**

A supervisor should always perform a composite risk assessment before conducting this operation in order to identify associated risks and control measures. Appropriate risk signature required with terminal risk level IAW ATP 5-19.

**Prerequisite Individual Tasks :**

<b>Task Number</b>	<b>Title</b>	<b>Proponent</b>	<b>Status</b>
551-88M-1364	Operate Vehicle with Standard, Automatic/Semiautomatic Transmission	551 - Transportation (Individual)	Approved
551-88M-1352	Perform Preventive Maintenance Checks	551 - Transportation (Individual)	Approved

**Supporting Individual Tasks :** None

**Supported Individual Tasks :** None

**Supported Collective Tasks :** None