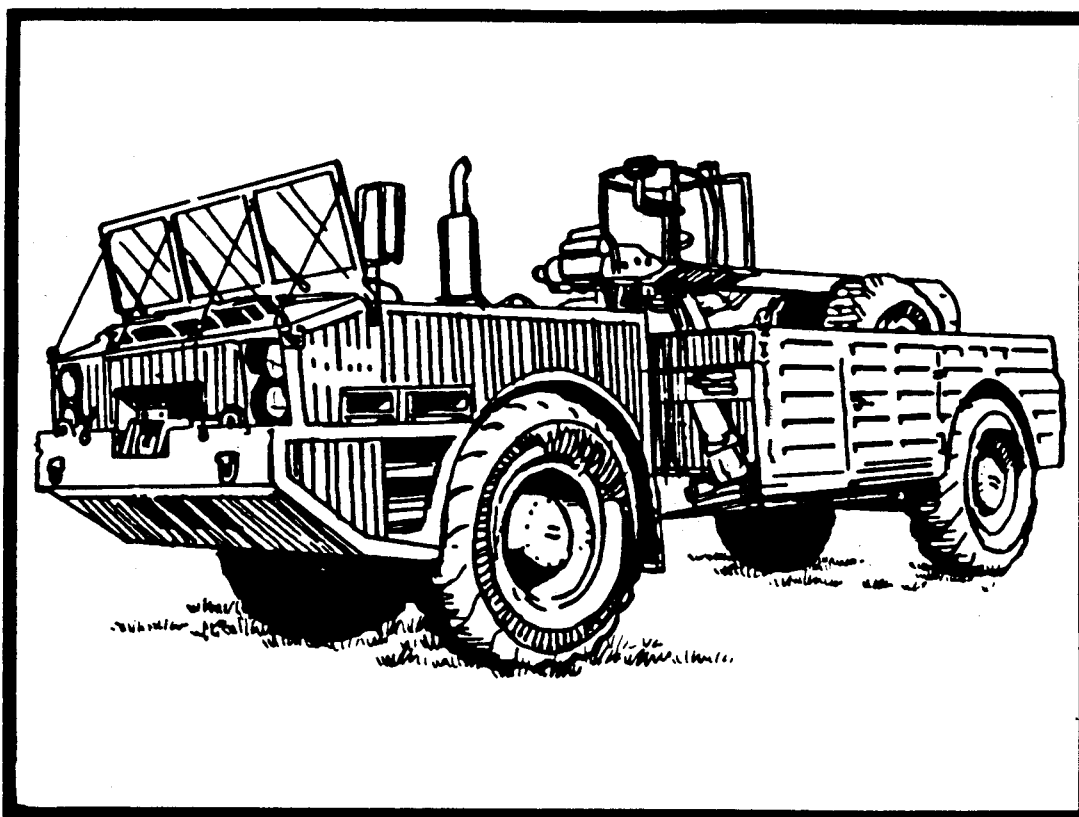
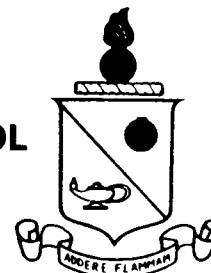


RECOVER A DISABLED VEHICLE WITH A 10-TON WRECKER (M553)

TEC Lesson 499-091-1903-A



PRODUCED BY
US ARMY ORDNANCE CENTER AND SCHOOL
ABERDEEN PROVING GROUND, MD



STUDENT/SUPERVISOR INSTRUCTIONS AND PRETEST/POSTTEST
ARE CONTAINED WITHIN THIS LESSON.

**READ THE STUDENT/SUPERVISOR INSTRUCTIONS CAREFULLY.
BE SURE YOU UNDERSTAND THEM COMPLETELY
BEFORE CONTINUING THE LESSON.**

STUDENT/SUPERVISOR INSTRUCTIONS

AUDIENCE

- MOS 63S10 skill level 1 soldiers.

TRAINING OBJECTIVES

Given the necessary materials and equipment, the soldier will be able to

- recover a disabled vehicle with a 10-ton wrecker.

MATERIAL/EQUIPMENT/PERSONNEL REQUIRED

- Disabled vehicle (10-ton or less).
- Basic issue items (BII).
- 10-ton wrecker (M553).
- Applicable tools.
- FM 20-22.
- TM 9-2320-233-10.
- TM 5-725.
- Pencil, paper, and this lesson.
- One assistant.

TIME REQUIRED

- Individual mode: 1 hour.
- Group mode: 1 hour.

REFERENCES (with change(s) if applicable)

- FM 20-22.
- TM 9-2320-233-10.
- TM 5-725.

STUDENT INSTRUCTIONS

- Take the pretest for this lesson before you begin the lesson. If you pass it, you need not take the lesson.
- Be sure you have all materials, equipment, and personnel required to complete this lesson.
- Take this lesson.
- Observe all warnings and take safety precautions.
- Follow instructions. Do not take shortcuts!
- Take the posttest. If you do not pass it, take the lesson and the test again.
- Do not write in this booklet.

SUPERVISOR INSTRUCTIONS

- Be sure that the student has the material, equipment or personnel required to complete this lesson.
- Record starting and stopping times.
- Allow the student 30 minutes to complete the test.

PRETEST/POSTTEST

Type of Lesson: **Ordnance**
MOS: **63S10**

TEC Lesson
499-091-1903-A

RECOVER A DISABLED VEHICLE WITH A 10-TON WRECKER (M553)

Directions to the Test Administrator:

The soldier is to be given the pretest and posttest in a field or shop environment. It's important that the soldier select and use the proper technical publications. The test should be performed in accordance with safety precautions.

The following test items are to be furnished to the soldier by the test administrator:

- Disabled vehicle (10 ton or less).
- M553 (10-ton wrecker).
- BII.

The following items are to be selected by the soldier during the test:

- FM 20-22 with change(s) if applicable.
- TM 9-2320-10 with change(s) if applicable.
- TM 5-725 with change(s) if applicable.
- Pencil and paper.

Pretest Directions

Prior to administering the pretest, the test administrator should say to the soldier:

"You will be allowed one attempt to pass this test. You must perform the task with no mistakes. If you receive a "NO GO" on a task element, you will be stopped and directed to take this lesson."

The test administrator will then read the test item to the soldier. (The test item follows the posttest directions below.)

PRETEST/POSTTEST (continued)

Posttest Directions

The soldier is to be allowed three attempts to pass this test.
The soldier may use notes while taking the posttest.

If the soldier receives a "NO GO" on a task element, the test administrator should offer corrective guidance and allow the soldier to continue the attempt. If the soldier receives a second "NO GO" or is having obvious difficulty, the test administrator is to stop the attempt and inform the soldier of the mistake(s). The test administrator will then direct the soldier to review the lesson and take the posttest again.

Prior to administering the posttest, the test administrator should say to the soldier:

"You have three attempts to pass this test. You may use any notes you have during the test."

The test administrator should then read the test item to the soldier.

TEST ITEM:

"After selecting the appropriate technical manuals, you will recover a disabled vehicle with a 10-ton wrecker (M553). You have 1 hour to complete this task. Remember, you must do the following:

- a. Select and use tools properly.
- b. Select and use publications properly.
- c. Follow procedures outlined in this lesson.
- d. Observe safety precautions.
- e. Complete task within the allotted time.

Do you have any questions?

WARNING: Never back the wrecker without using a ground guide. Damage to the wrecker or to the surrounding property and equipment or serious personal injury could result.

PRETEST/POSTTEST ANSWER KEY/CHECKLIST

School: **Ordnance**
MOS: **63S10**

TEC LESSON
499-091-1903-A

RECOVER A DISABLED VEHICLE WITH A 10-TON WRECKER (M553)

Each student must correctly perform all steps. A time limit of one hour is allowed. If the student does not correctly perform all steps, he should take/retake this lesson.

While recovering a disabled vehicle with a 10-ton wrecker, did the soldier:

1. Select and use TM correctly?
2. Select and use tools correctly?
3. Place the wrecker in the recovery position?
4. Lock the transmission in neutral?
5. Lock the steering?
6. Set the handbrake?
7. Install the field chock?
8. Engage the hydraulic pump?
9. Start the engine?
10. Set the rpm to 1,500 to 1,700 using the governor control?
11. Set the CRANE SWITCH to ON?

Go	No Go	Go	No Go	Go	No Go

PRETEST/POSTTEST ANSWER KEY/CHECKLIST

School: **Ordnance**
MOS: **63S10**

TEC LESSON
499-091-1903-A

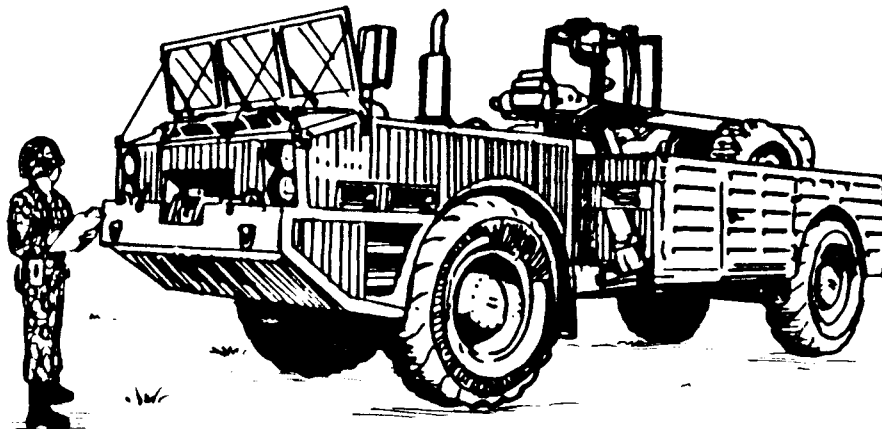
	Go	No Go	Go	No Go	Go	No Go
12. Set the crane wrecker switch to ON?						
13. Connect the remote control cable?						
14. Turn on the winch control switch?						
15. Select the proper winch speed?						
16. Pay out the winch cable?						
17. Connect the rigging to the vehicle to be towed?						
18. Attach winch cable to rigging?						
19. Tighten tension on winch cable and recheck rigging?						
20. Recover the disabled vehicle?						
21. Disconnect the disabled vehicle?						
22. Pay in winch cable?						
23. Turn off winch control and crane wrecker switches, stop vehicle engine?						
24. Disconnect the rigging and stow the BII?						
25. Observe safety precautions?						
26. Complete the task in the allotted time?						

OVERVIEW

The 10-ton wrecker is one of a series of trucks called goers. The 10-ton wrecker has a tractor body and a trailer body, which are jointed in the middle. The jointing lets each vehicle section roll by itself.

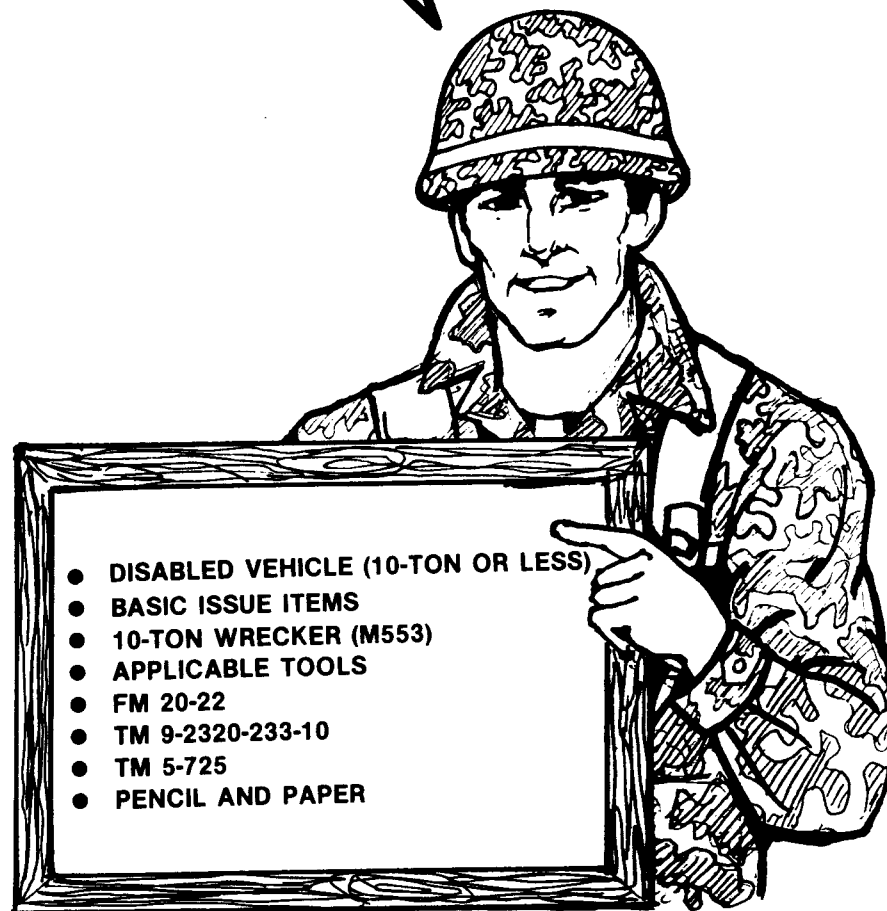
WARNING

Never put yourself between the tractor body and the trailer body when the Goer is moving. Serious injury or death can result.



To take this lesson, you'll need all items listed in the student/supervisor instructions in the "MATERIAL/EQUIPMENT/PERSONNEL REQUIRED" and REFERENCES sections.

Remember, when using the technical manuals (TM), always make sure each is the latest edition.

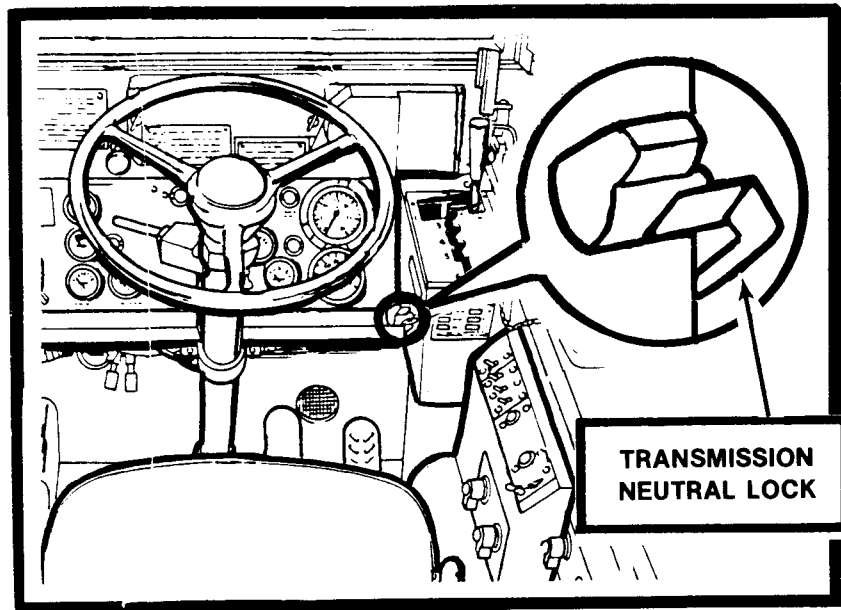




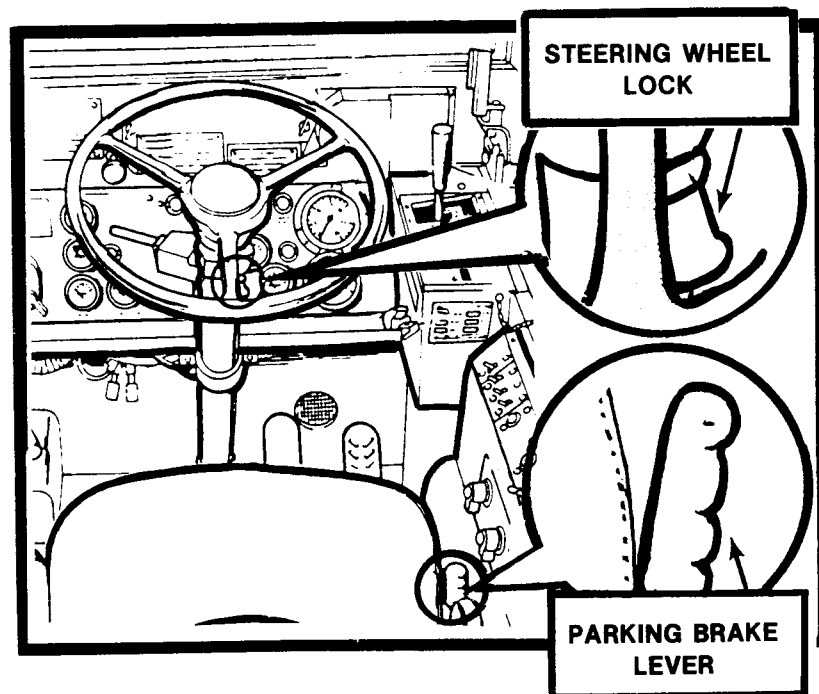
Place the wrecker in the recovery position. Here the disabled mired vehicle is an M817 5-ton dump truck.

WARNING

Never back the wrecker without using a ground guide. Damage to the wrecker or to the surrounding property and equipment or serious personal injury could result.



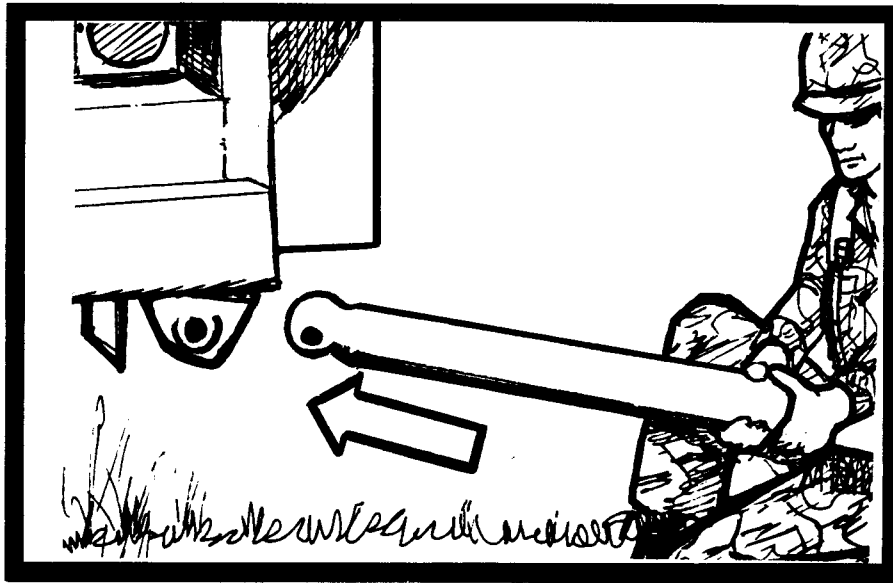
After placing the wrecker in recovery position, place the transmission lever in neutral and lock it with the transmission lever lock.



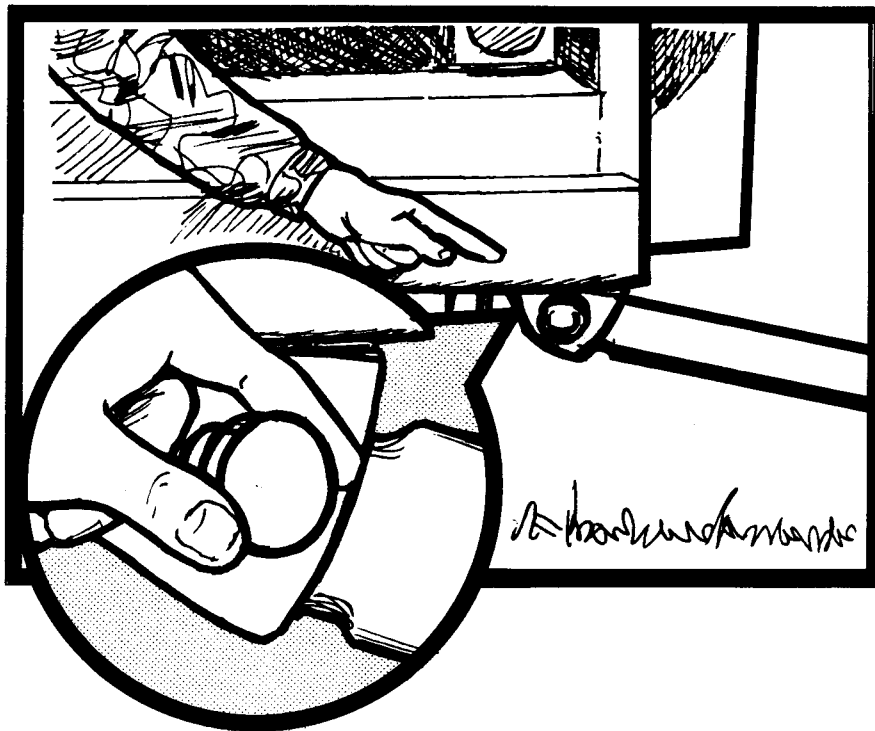
As the 10-ton wrecker operator, you are responsible for making sure the disabled vehicle is recovered without damaging the equipment or causing personal injury.

So do the following before going any further with recovery:

1. Lock the steering.
2. Lock the handbrake.

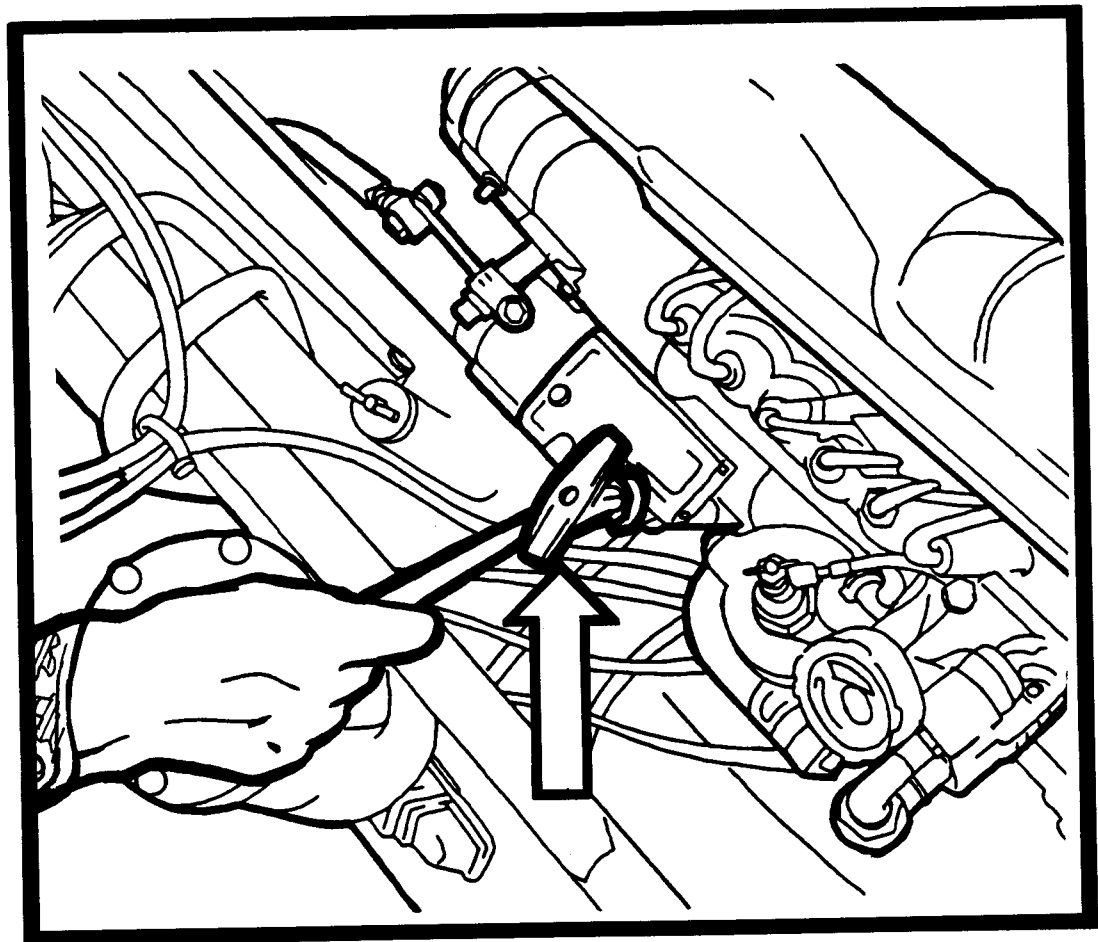


Prepare the wrecker for recovery operations by doing the following:
Remove retaining pins and install the field chocks in the sockets at the back of the wrecker trailer.

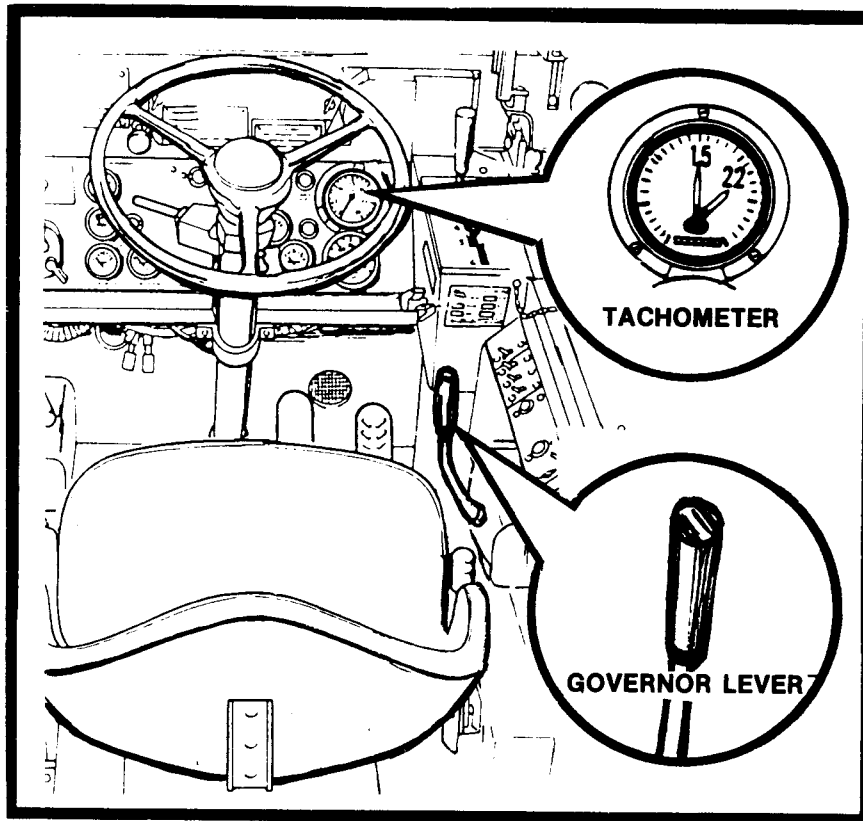


Secure the field chocks in the sockets with the retaining pins.

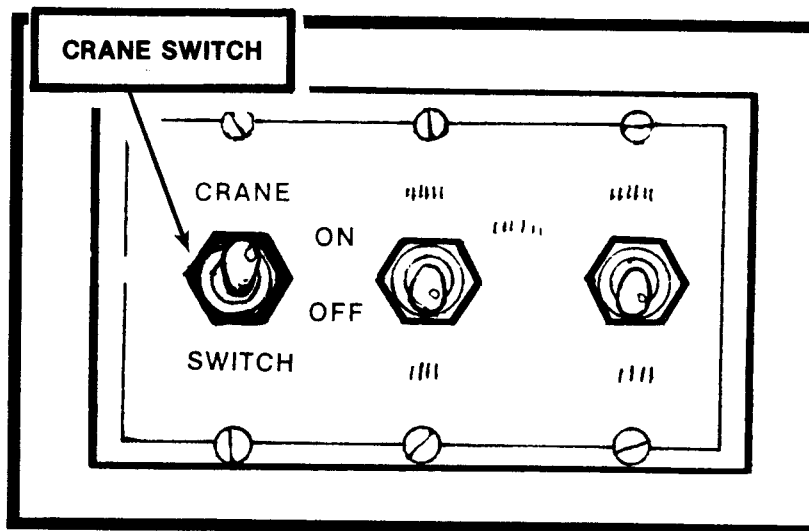
Next, you engage the hydraulic pump handle. This requires two people. Have an assistant (in the driver's compartment) pull the accelerator pedal up; hold the engine shutoff switch down; turn the master switch on; and momentarily engage the starter. While the starter is being momentarily engaged, push down on the hydraulic pump handle in the engine compartment until it's engaged. Turn the handle right or left to lock it.



Start the engine. Then using the governor control lever, set the engine rpm between 1,500 and 1,700.



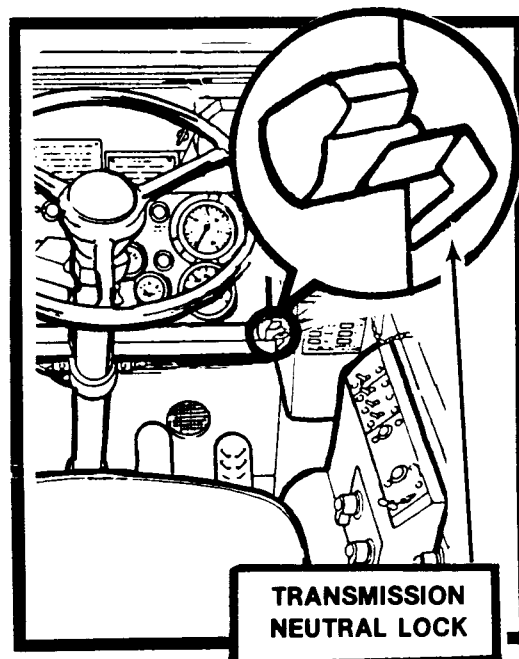
On the instrument panel, set the CRANE SWITCH to ON



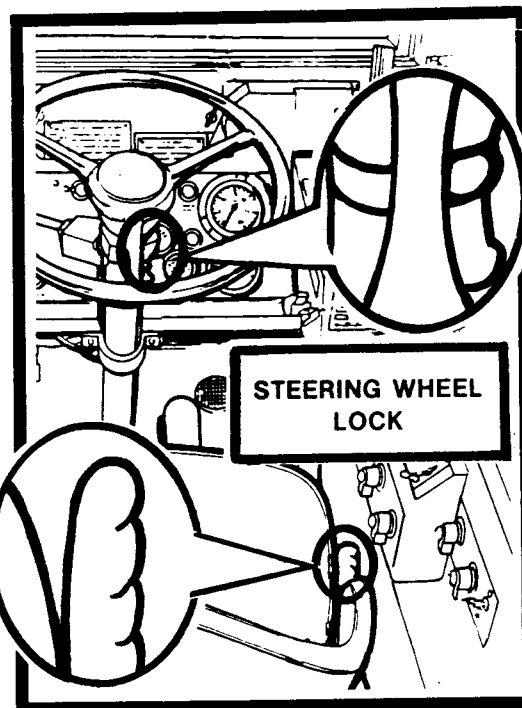
STOP! Take a practice exercise.

PRACTICE EXERCISE 1

1. In which position should the transmission neutral lock be placed?



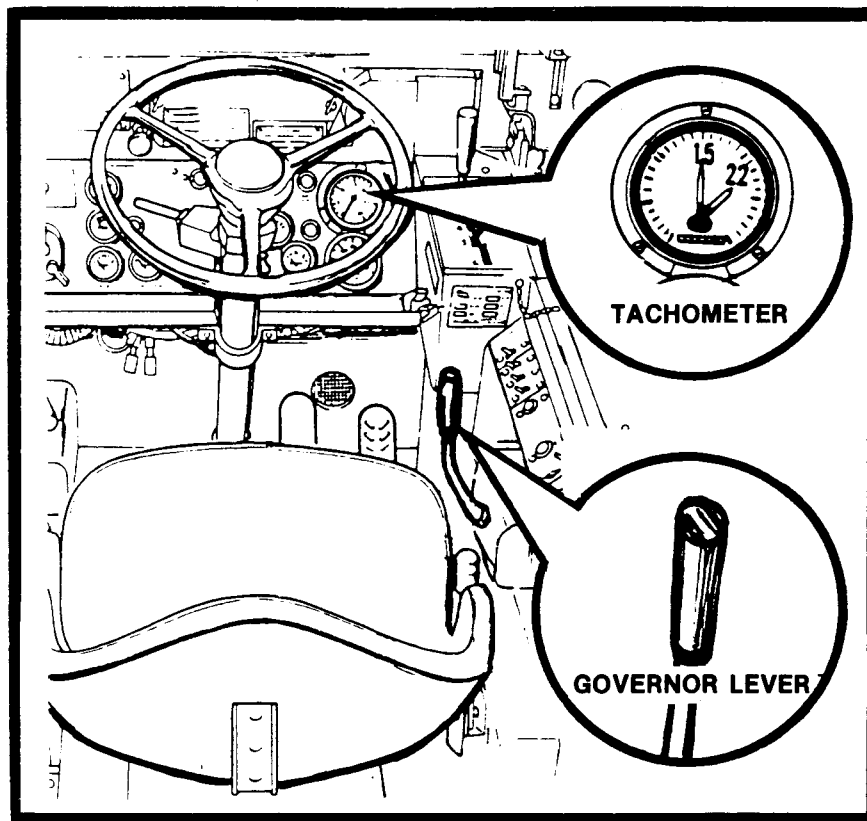
2. What should you do to the steering?



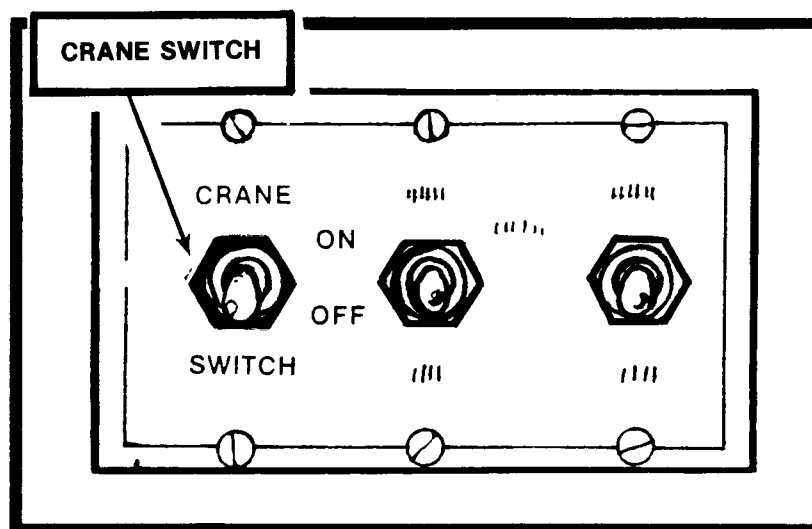
3. What should you do to the hand-brake?



4. At what rpm should the engine be set for you to perform recovery operations?



5. Should the CRANE SWITCH be set to ON or OFF?



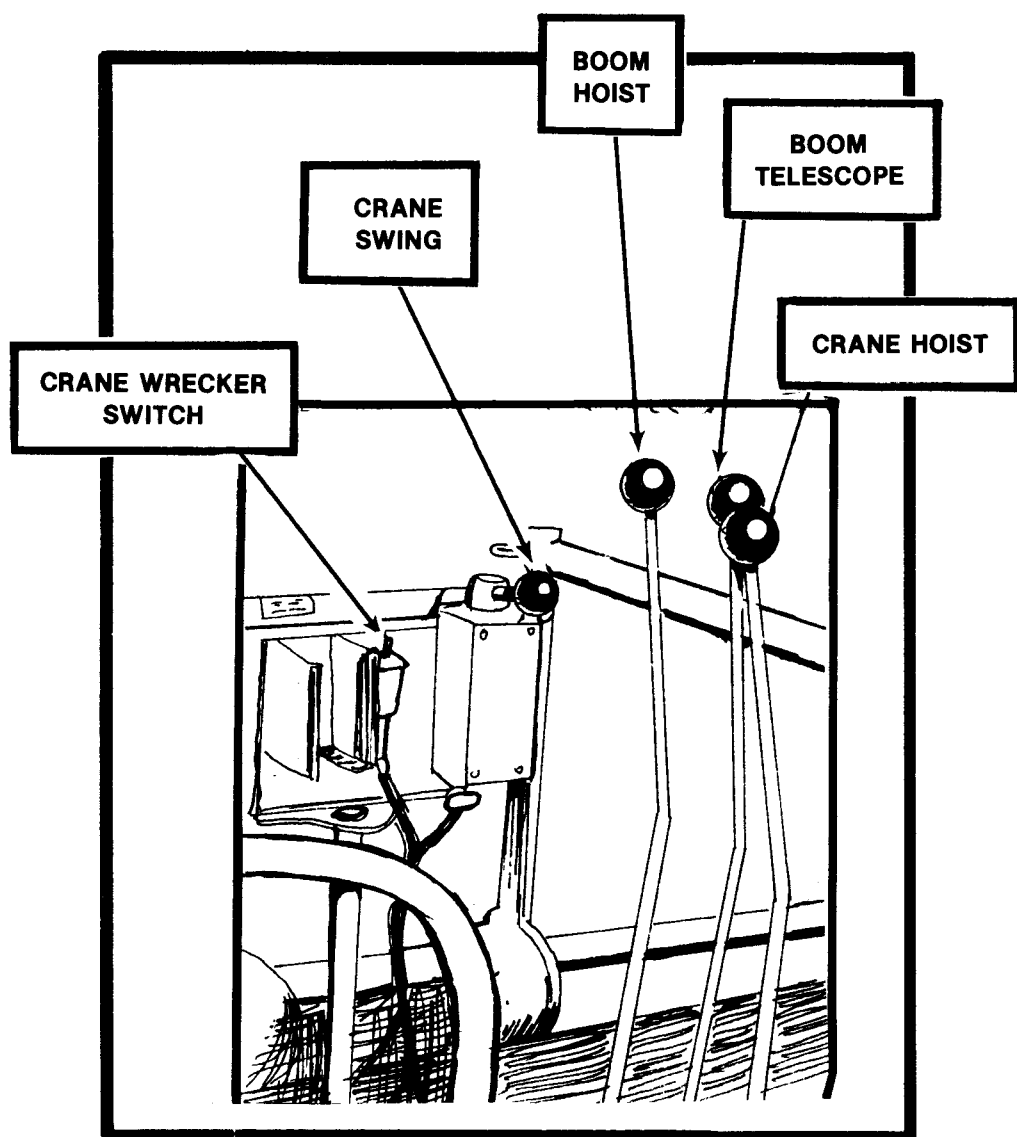
ANSWERS TO PRACTICE EXERCISE 1

Check your answers with these.

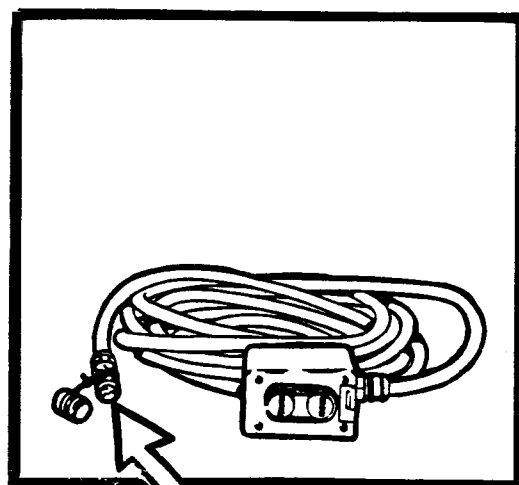
1. The transmission neutral lock should be placed in the locked position.
2. **Lock** the steering.
3. **Lock** the handbrake.
4. Using the governor control lever, set the rpm between 1,500 and 1,700.
5. Set the CRANE SWITCH to ON.

If any of your answers were wrong, study this part of the lesson again. If all of your answers were right, continue with the lesson.

Your next step is to set the crane wrecker switch to ON. The crane wrecker switch is left of the crane operator's seat.



Connect the remote control cable to the electrical outlet on the left rear trailer wall. The remote control cable is connected by screwing the cable connector onto the vehicle's outlet.



REMOTE
CONTROL
OUTLET

Set the WINCH control SWITCH to ON

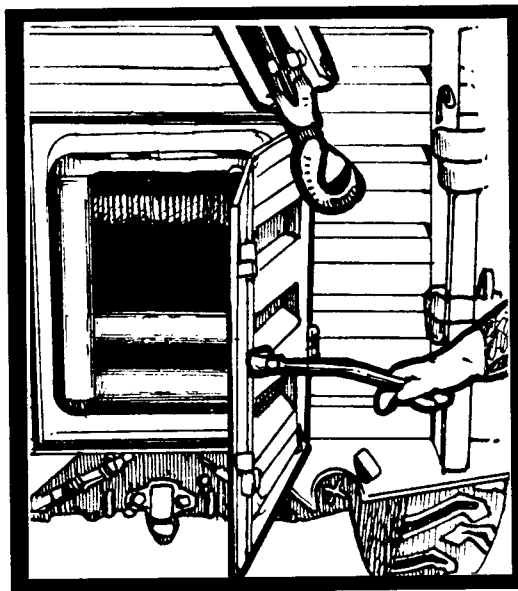
WINCH
CONTROL
SWITCH

WINCH
CONTROL
LEVER

Using the WINCH CONTROL lever, select low winch speed. To do this, move the winch control lever to the position near the Goer's middle, not toward the trailer wall.

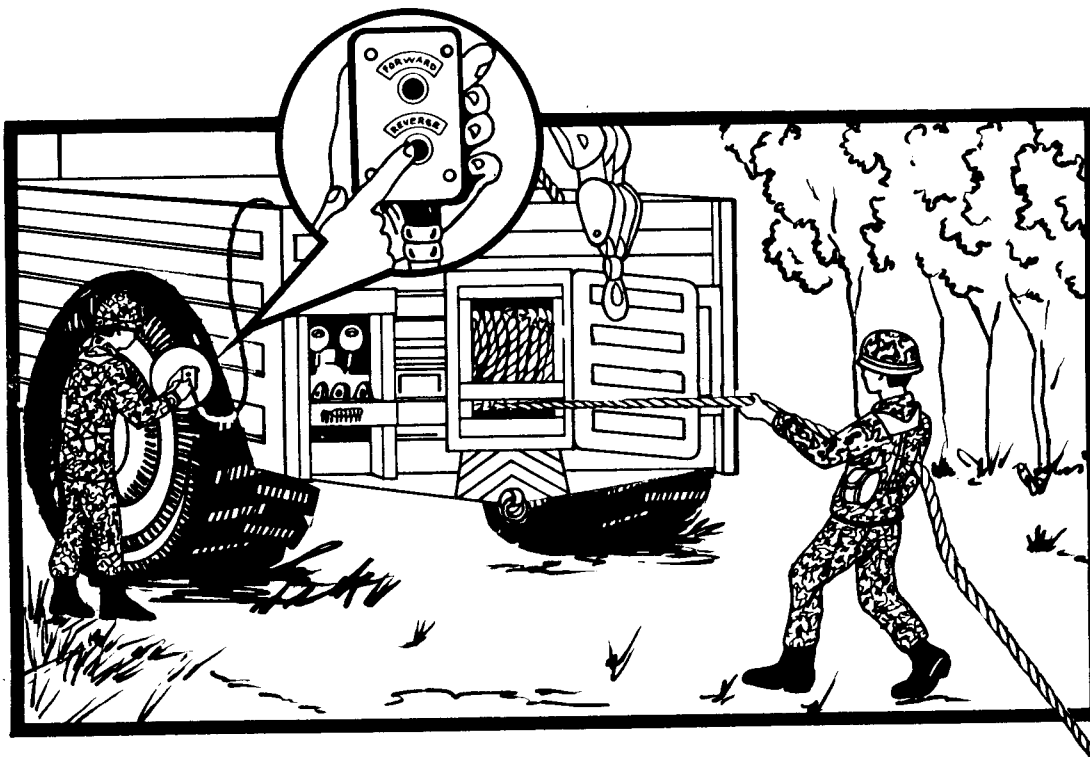
NOTE: It may be necessary to tap the reverse button on the remote control to release the winch control lever so it can be moved from the neutral to low position.

Open the back door of the wrecker to get to the winch cable.



CAUTION: Always wear gloves when performing the next procedure.

Have an assistant push the reverse button on the remote control cable to pay out the winch cable, while you lead the cable to the disabled vehicle.



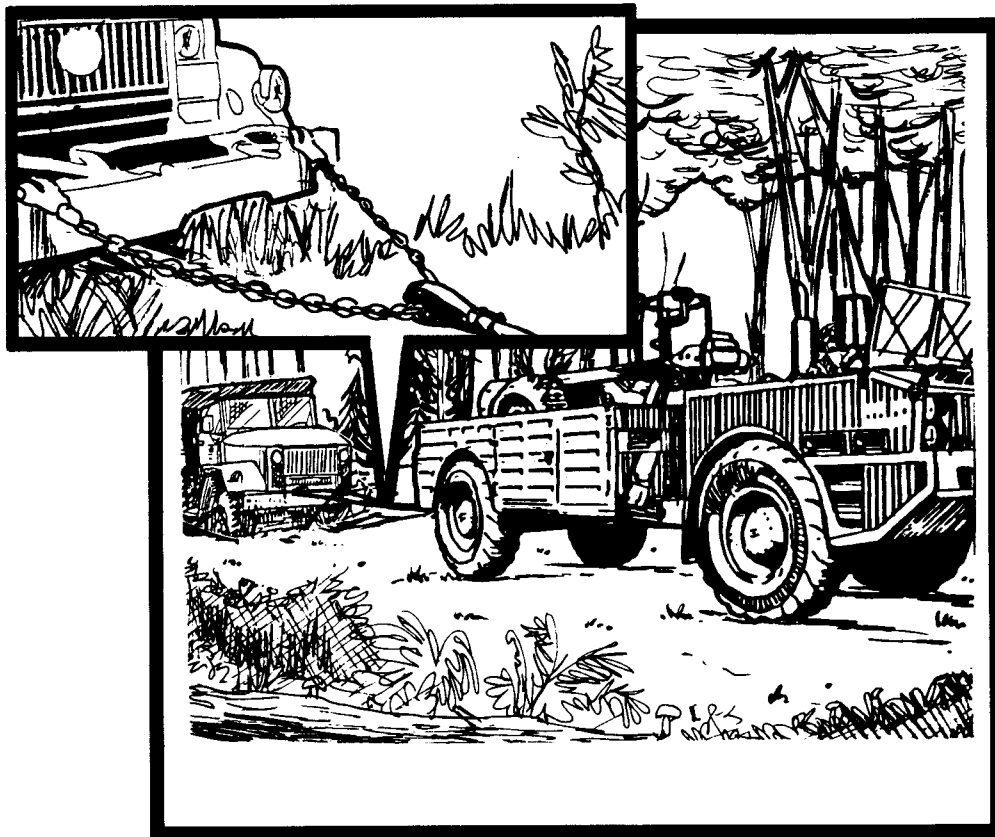
Connect the rigging to the lifting shackles on the front of the vehicle to be towed.

The type of rigging used will depend upon the conditions and weight of the disabled vehicle.

NOTE: Make sure the disabled vehicle's transmission is set in neutral and its handbrake is released.

After correct rigging is connected to the disabled vehicle, connect the winch to the rigging. Using the remote control, tighten the tension of the cable **and recheck rigging** to make sure it's secure.

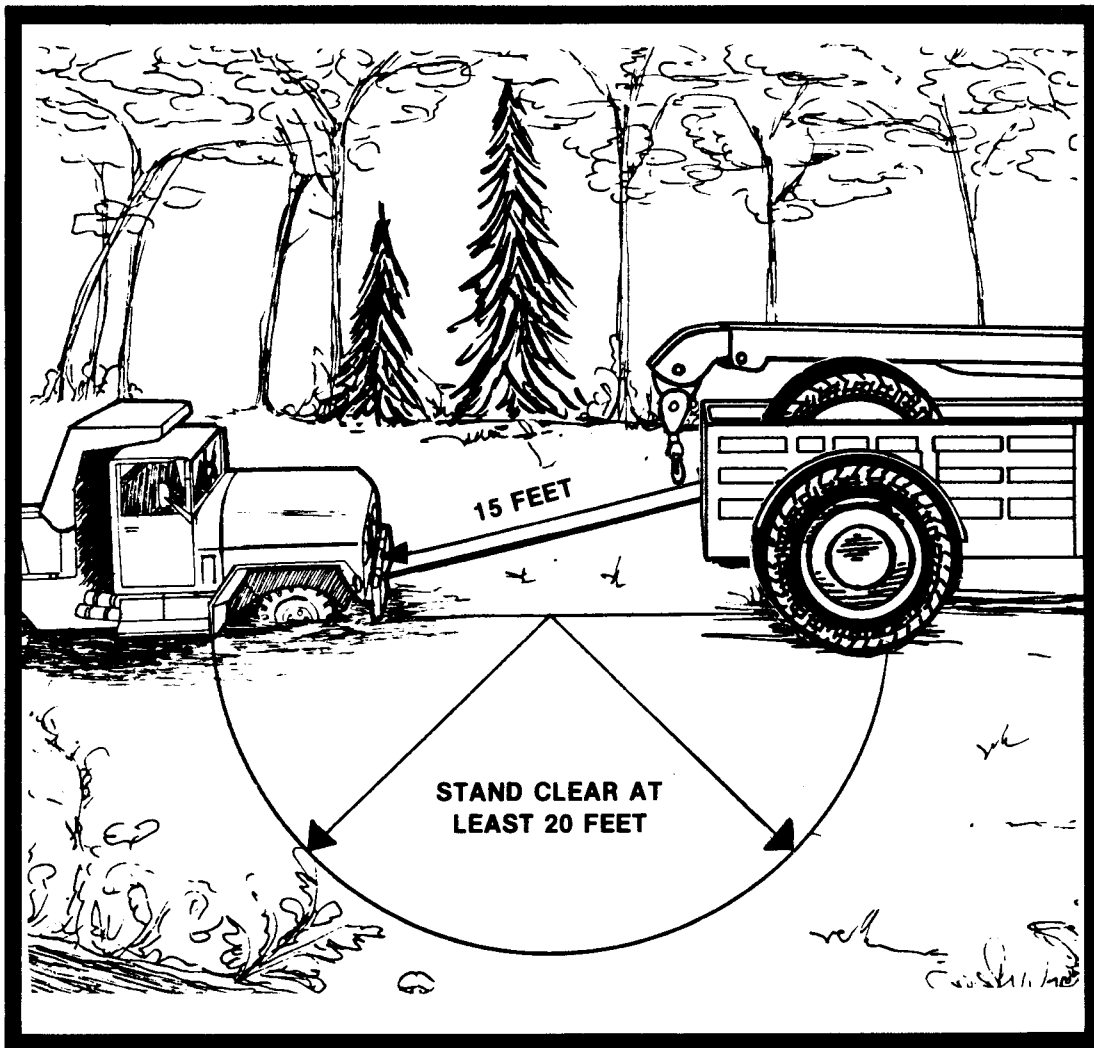
Now push the forward button on the remote control and recover the vehicle.



NOTE: If the vehicle being recovered is operational, have an assistant assist winching recovery operations by starting the truck, engaging the gears, and driving it out with the aid of the wrecker's winch.

There is always a possibility that the winch cable could snap, so observe the following caution:

CAUTION: Have all personnel stand clear of the winch cable. If the cable is paid out 25 feet, have personnel stand clear at least 30 feet. If the cable is paid out 15 feet, have the personnel stand clear at least 20 feet. The number of feet you stand clear should equal the number of feet of paid out cable, plus 5 feet.



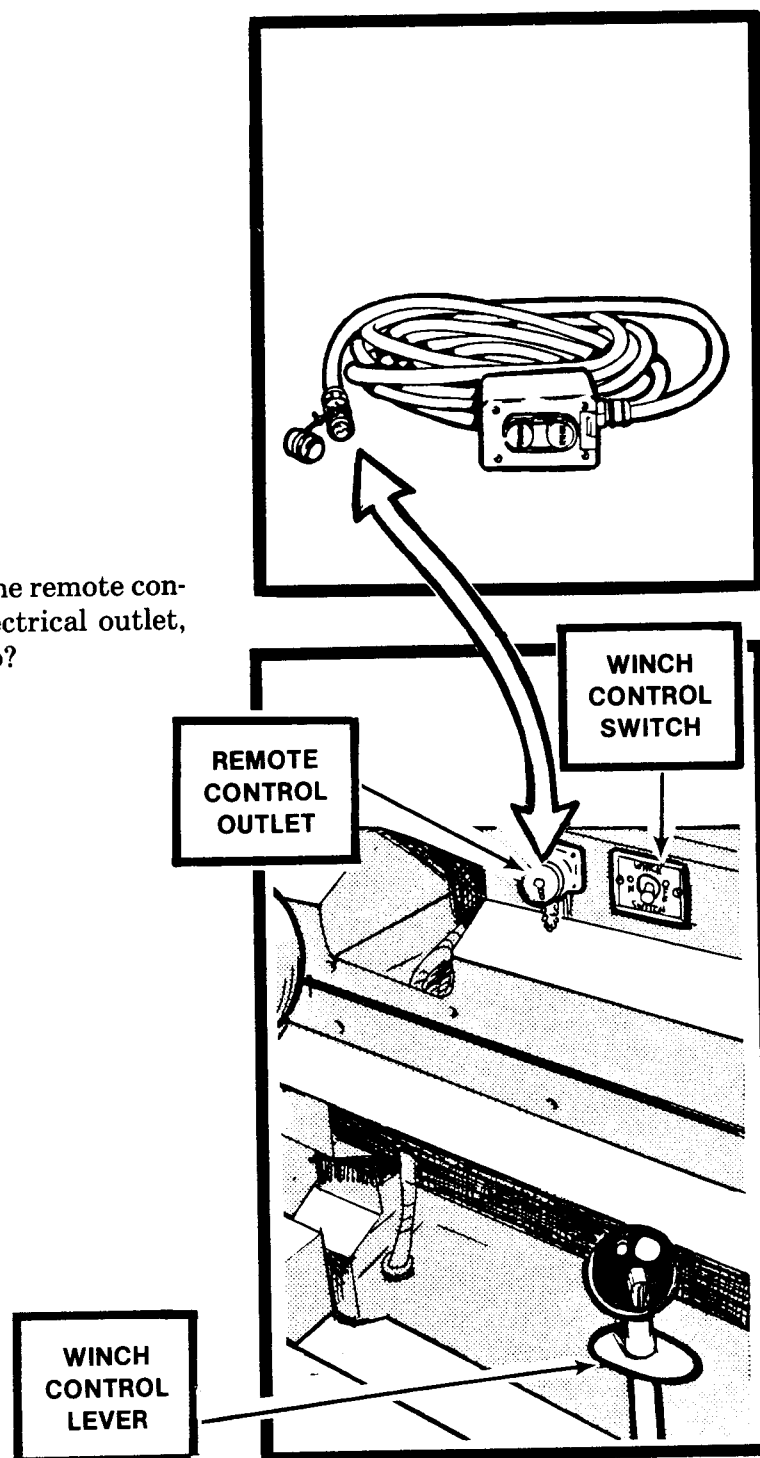
When recovery operations are completed, follow these procedures.

1. DISCONNECT THE DISABLED VEHICLE.
2. PAY IN WINCH CABLE.
3. PLACE WINCH CONTROL SWITCH LEVER IN NEUTRAL.
4. RETURN WINCH CONTROL SWITCH TO "OFF" POSITION.
5. DISCONNECT REMOTE CONTROL CABLE.
6. TURN "OFF" CRANE WRECKER AND CRANE SWITCHES, STOP VEHICLE ENGINE.
7. DISCONNECT RIGGING AND STOW BII.

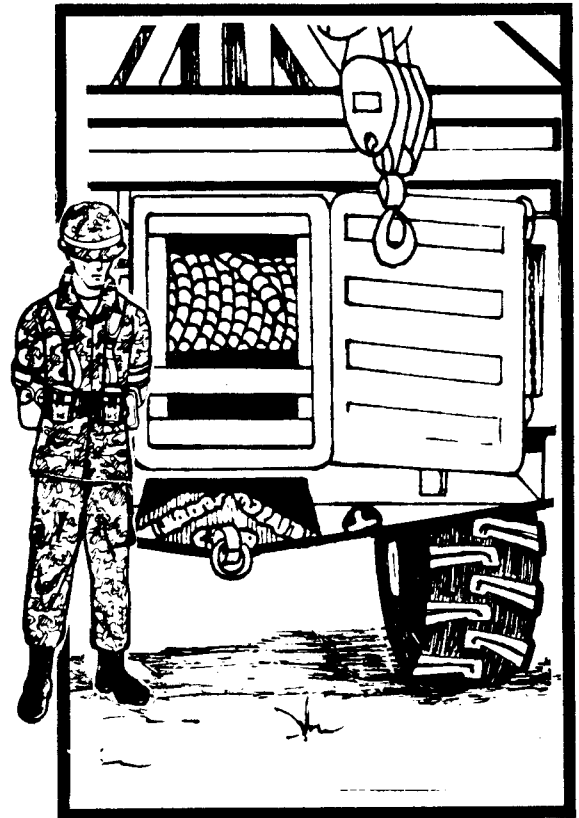
STOP! Take a practice exercise.

PRACTICE EXERCISE 2

1. After you connect the remote control cable to the electrical outlet, what should you do?



2. How do you pay out the winch cable?



3. What six steps should you take after you recover the vehicle?

AFTER THE VEHICLE IS RECOVERED,

YOU SHOULD:

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____

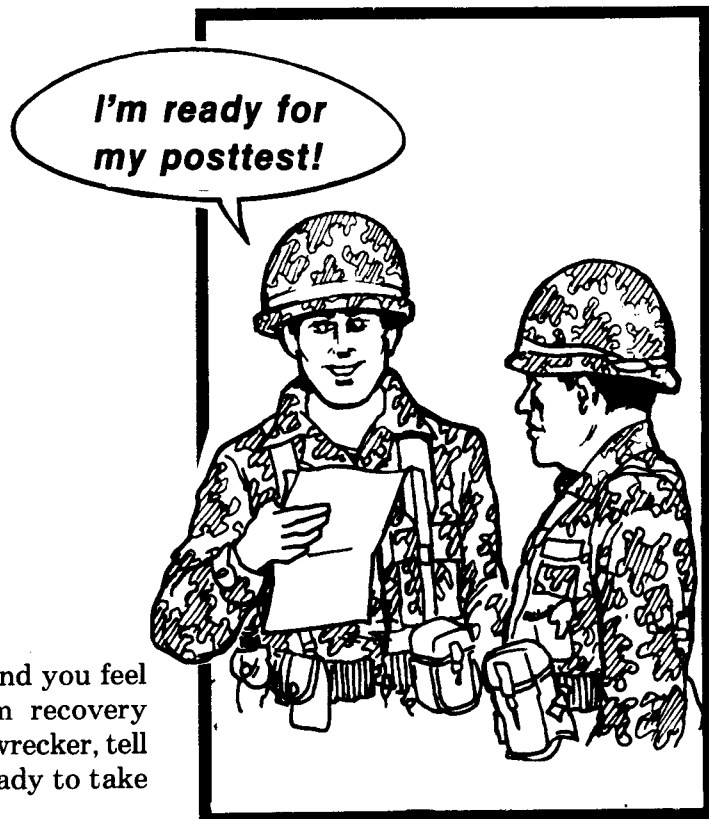
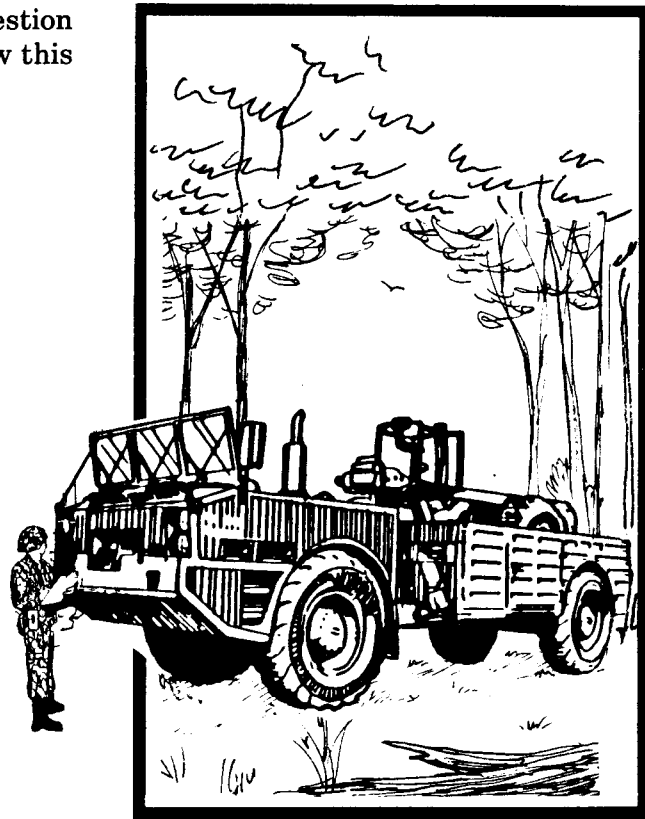
ANSWERS TO PRACTICE EXERCISE 2

Check your answers with these.

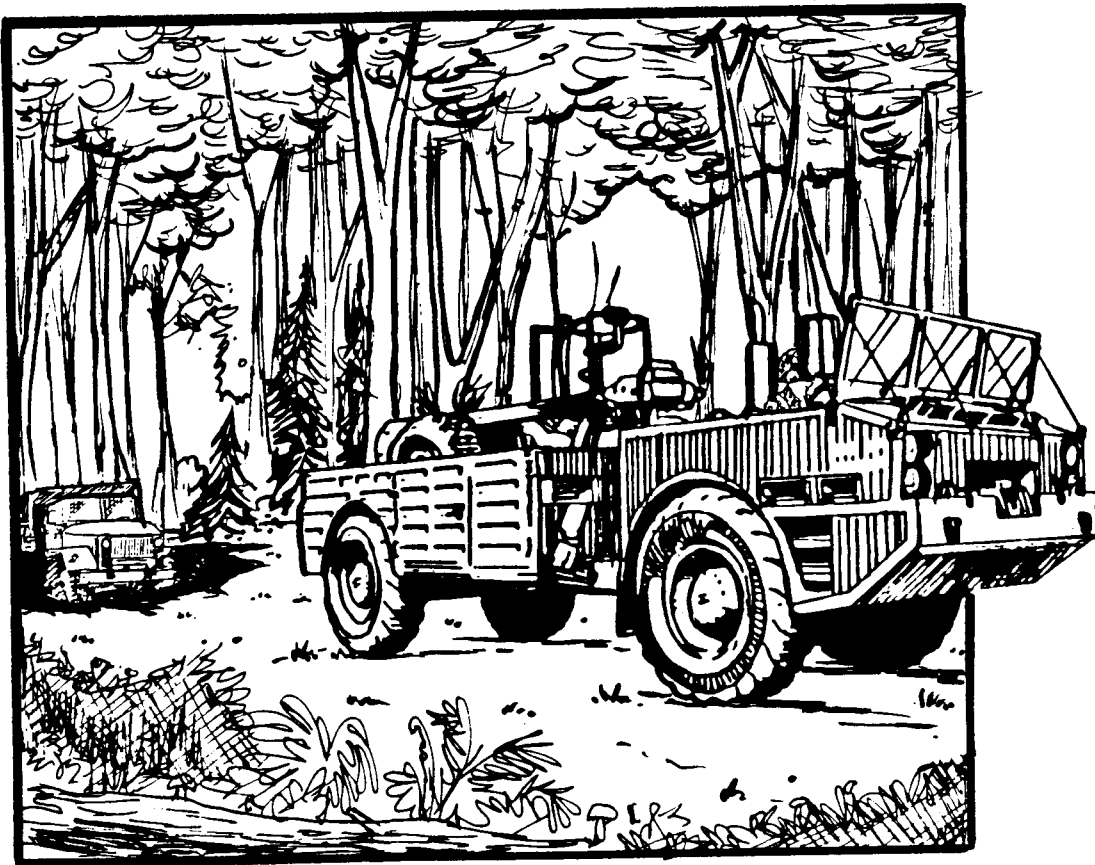
1. After you connect the remote control cable to the electrical outlet, set the **WINCH control SWITCH to ON.**
2. You pay out the winch cable by using the remote control cable.
3. After the vehicle is recovered:
 - a. Disconnect the disabled vehicle.
 - b. Pay in winch control.
 - c. Place winch control lever in neutral.
 - d. Return winch control switch to "OFF" position.
 - e. Disconnect remote control cable.
 - f. Turn "OFF" crane wrecker and crane switches, stop vehicle engine.
 - g. Disconnect rigging and stow BIL.

If any answer was wrong, study this part of this lesson again.

If you had trouble with any question or procedure, go back and review this lesson.



If you have no questions and you feel you are ready to perform recovery operations with the 10-ton wrecker, tell your supervisor you are ready to take the posttest.



This completes TEC lesson 499-091-1903-A, Recover a Disabled Vehicle With a 10-Ton Wrecker.

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