FM 10-12

DEPARTMENT OF THE ARMY FIELD MANUAL

DEPARTMENT OF THE ARMY • NOVEMBER 1951

DEPARTMENT OF THE ARMY FIELD MANUAL
FM 10-12

QUARTERMASTER

PARTS COMPANY

DEPARTMENT OF THE ARMY • NOVEMBER 1951

United States Government Printing Office
Washington : 1951

DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., *28 November 1951*

FM 10–12, is published for the information and guidance of all concerned.

[AG 322 (29 Aug. 51)]

BY ORDER OF THE SECRETARY OF THE ARMY:

OFFICIAL:
WM. E. BERGIN
Major General, USA
The Adjutant General

J. LAWTON COLLINS
Chief of Staff
United States Army

DISTRIBUTION:
Tech Svc (1); AFF (10); AA Comd (5); OS Maj Comd (20); Base Comd (10); MDW (5); Log Comd (5); A (20); CHQ (2); D (2); R 10 (2); Bn 10 (2); Sch (2) except USMA (20); Gen Dep (5); Dep (except Sec of Gen Dep) (5); T/O & E 10–22 (2); 10–127 (15); SPECIAL DISTRIBUTION.
For explanation of distribution formula, see SR 310–90–1.

CONTENTS

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. PURPOSE

This manual provides information necessary for the efficient functioning of the Quartermaster Parts Company (T/O & E 10–127).

2. SCOPE

This manual explains the mission, organization, and operation of the quartermaster parts company.

Section II. THE UNIT

3. MISSION

The mission of the quartermaster parts company is to provide stock control and storage of spare parts for the repair of all quartermaster mechanical equipment and of equipment for which the Quartermaster Corps has spare parts supply responsibility.

4. ASSIGNMENT AND CONTROL

a. Communications Zone.

(1) In the communications zone, the quartermaster parts company is normally assigned to a Headquarters and Headquarters Company, Quartermaster Base Depot (T/O & E ~~10–520–1~~), for operational control. The company is normally attached to a quartermaster battalion assigned to the depot for administrative control.

(2) A stock control section and a storage section, which usually operate together, may be attached to an advanced or filler depot when the entire company is not required (fig. 1). When these two sections operate separately from the company, they are under the immediate supervision of a section sergeant from one of the two sections and usually under the administrative and operational control of the office of the depot commander.

b. Combat Zone.

(1) In the combat zone, the quartermaster parts company is normally assigned to Headquarters and Headquarters Detachment, Quartermaster Battalion (T/O & E 10–536). The company may be assigned or attached by the theater commander to an army group, army, corps, or task force commander operating in a combat zone, if the tactical or logistical situation makes such assignment or attachment necessary.

(2) When the entire quartermaster parts company is not required for operating in the combat zone, a stock control and a storage section of the company may be attached to a quartermaster army depot for operation of the parts section.

(3) A stock control section and a storage section of the quartermaster parts company operating in the communications zone may be detached and directed to assist in army quartermaster depot operations in the combat zone (fig. 1). The sections are then under

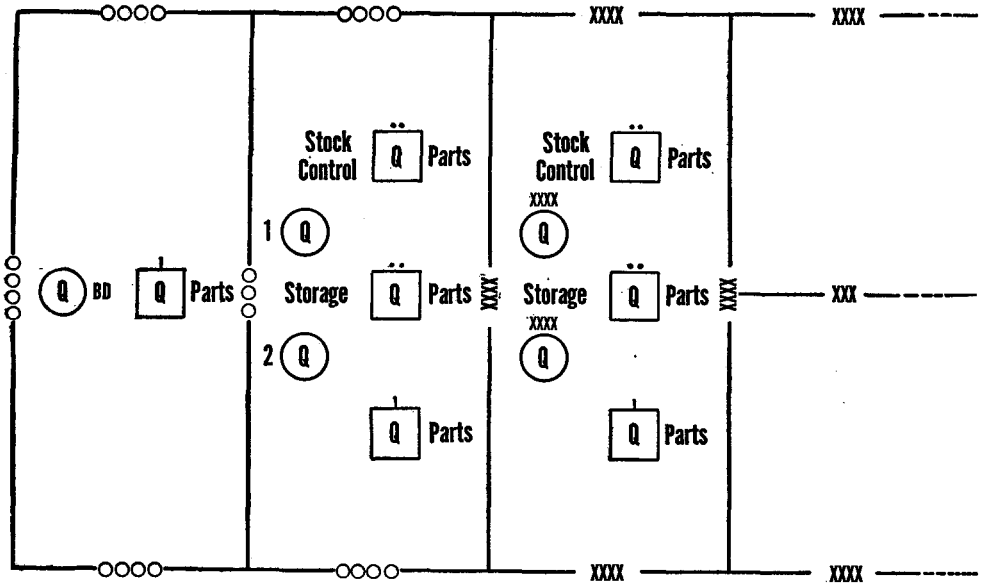

Figure 1. Assignment of quartermaster parts company in base and advance sections of communications zone and in the army service area.

the command of the army commander and may be placed under the supervision of a headquarters and headquarters detachment, quartermaster battalion.

5. RELATED UNITS

a. Headquarters and Headquarters Company, Quartermaster Base Depot. The headquarters and headquarters company, quartermaster base depot exercises command and furnishes supply supervision for the quartermaster parts company and other assigned units.

b. Headquarters and Headquarters Company, Quartermaster Group. At a large quartermaster base depot, a Headquarters and Headquarters Company, Quartermaster Group (T/O & E 10–22), may be assigned the control of the parts company and other attached troops when the number of the attached troops exceeds the capacity of the quartermaster base depot unit. The quartermaster group may also be used by the army quartermaster to control the quartermaster parts company and other units at army depots.

c. Headquarters and Headquarters Detachment, Quartermaster Battalion. The headquarters and headquarters detachment, quartermaster battalion, may supervise and coordinate the administration, training, operation, and supply of the parts company and its sections whether the parts company and sections are operating in a communications zone or at an army depot.

d. Quartermaster Clothing and General Supplies Depot Company. The Quartermaster Clothing and General Supplies Depot Company (T/O & E 10–

227), and the quartermaster parts company will usually be located in the same area. Effective liaison between the general supplies section of the quartermaster clothing and general supplies depot company and the quartermaster parts company will insure greater efficiency of the parts company. When only sections of the parts company are required, they will be attached to the clothing and general supplies depot company or to an operating platoon of the company.

e. Quartermaster Reclamation and Maintenance Company. The Quartermaster Reclamation and Maintenance Company (T/O & E 10–237) provides field maintenance for common items of quartermaster equipment. The quartermaster parts company supplies parts to the reclamation and maintenance company for the repair of quartermaster mechanical equipment. Overages on serviceable parts accumulated from salvage operations by the quartermaster reclamation and maintenance company may be turned over to the parts company.

f. Quartermaster Salvage Company. The Quartermaster Salvage Company (T/O & E 10–187) receives, classifies, and supervises the evacuation of all classes of salvage. The quartermaster parts company accepts worn-out parts from using units in exchange for replacement parts. At regular intervals the parts company then turns in these worn-out parts to the quartermaster salvage company to be salvaged.

g. Quartermaster Service Company. The Quartermaster Service Company (T/O & E 10–67) will furnish labor for the quartermaster parts company as required. Personnel of the service company are used for handling spare parts, storing the parts in ware-

houses, loading and unloading vehicles, and sorting and stacking parts.

6. CAPABILITIES

The quartermaster parts company can normally handle the quartermaster spare parts requirements of a depot having a support capacity not exceeding 400,000 troops.

CHAPTER 2

TRAINING

Section I. TRAINING OF INDIVIDUALS

7. GENERAL

The purpose of individual training is to prepare each soldier in the quartermaster parts company to perform his duties efficiently. Individual training accustoms the soldier to share in military teamwork and prepares him for the next higher job in the company. Every soldier in the company is given basic military training and advanced individual training. Normally, such training is accomplished concurrently when possible at training centers. Basic military training emphasizes individual physical conditioning, discipline, adjustment to Army life, and development of soldierly qualities. Advanced individual training develops in the soldier facility in the use of tools, skills, and equipment and teaches him to work effectively as a member of a military team. Basic military and advanced individual training will conform to AFF ATP 10–239* (Mobilization). A sample minimum training schedule is given in appendix II.

8. SCHOOL TRAINING

School training, which is given at Army training schools, consists of basic or advanced technical training in specialized subjects. The training may be given in a service school or in a school organized

*Available from continental army headquarters.

by the company commander in the company training area.

a. Service Schools. The company commander may recommend the platoon leaders through channels for attendance at service schools. Noncommissioned officers and enlisted specialists should be encouraged to submit applications for attendance at appropriate service schools. Procedures for obtaining quotas for attendance are outlined in instructions issued by higher headquarters. DA Pamphlet 20–21 lists schools and the prerequisites for attendance. Special courses are directed from time to time by the Office of the Quartermaster General, and the unit commander will be notified when such courses are planned.

b. Company Schools. Company schools are an important means of training personnel to meet the requirements of the training program. These schools provide military training for the noncommissioned officers and for the enlisted specialists. The company schools also provide instruction in new doctrine and in the use and care of new equipment. Preparation for field and operational exercises are conducted in the company schools. If lack of time and facilities prevent the sending of noncommissioned officers and enlisted specialists to service schools, refresher training will be conducted in company schools.

9. TRAINING PROGRESS CHART

The commander of the company will make a detailed study of the training that each man has had and then devise a plan to overcome individual deficiencies. A chart (fig. 2), containing a list of the company personnel and the various phases of the training program, will be prepared. This chart will

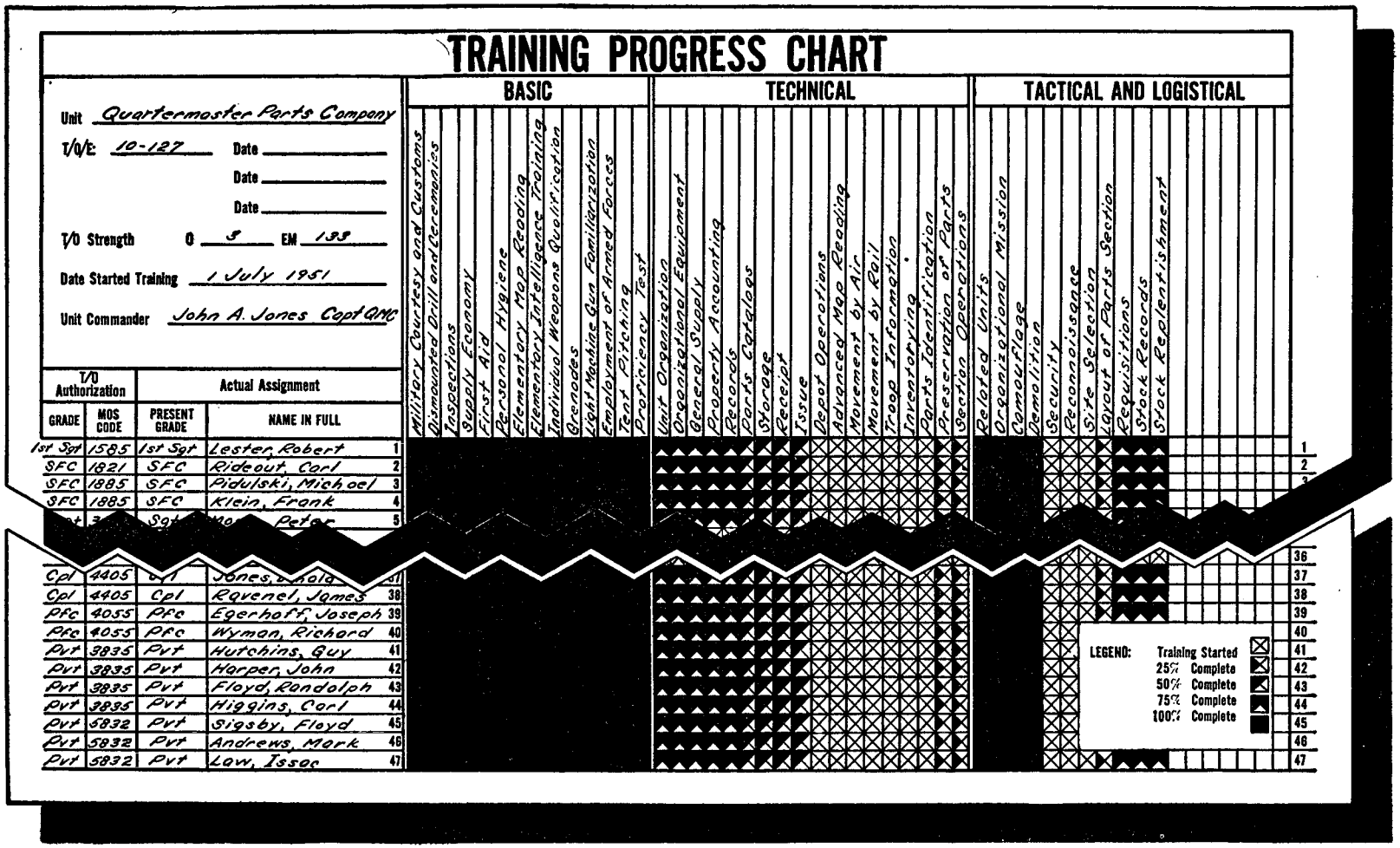

Figure 2. Training progress chart.

974275—51 (facing p. 8)

reflect the status of training of each individual of the company.

Section II. UNIT TRAINING

10. GENERAL

The purpose of unit training is to develop within the company high standards of proficiency and teamwork (app. III).

a. Basic Unit Training.

(1) During basic unit training the company will conduct technical operations under simulated tactical conditions. The objective of the training will be to weld together a team of specialists capable of providing stock control and storage of spare parts required for the repair of all quartermaster mechanical equipment.

(2) Training of company headquarters personnel will emphasize administration, messing, supply, and unit motor maintenance.

(3) Personnel of the stock control platoon will be trained to use and prepare records and forms pertaining to quartermaster parts stock control. They will also be trained in the fundamentals of requisitioning and maintenance of stock levels; in the use of QM supply catalogs, appropriate technical manuals, and bulletins; and in the receipt, editing, and processing of requisitions. Accuracy in keeping records will be stressed. Appendix IV lists publications other than supply catalogs which may be referred to frequently by partsmen.

(4) Personnel of the storage platoon will be trained to receive, inspect, store, and issue parts for the repair of all quartermaster mechanical equipment. Effective storage methods and the care and preservation of parts will be stressed. Identification of high mortality parts should be taught, as well as the use of the QM supply catalogs. A partial list of high mortality parts is given in appendix V.

b. Advanced Unit Training. Advanced unit training is designed to provide advanced training in field operations. Permission to train under this program will be given only after prescribed basic courses have been completed by the unit.

11. ON-THE-JOB TRAINING

a. General. On-the-job training will be given to each soldier when advanced individual training has qualified him for his particular assignment. Maximum use should be made of demonstrations and individual and group performance. Training should be conducted in accordance with the Department of the Army methods presented in FM 21–5 and with the policies and procedures prescribed in Army training programs.

b. Points for Emphasis. The following points should be emphasized during the training period:

(1) *Nomenclature of equipment.* Since thousands of parts of quartermaster mechanical equipment are handled by personnel of the parts company, supply personnel must understand the importance of correct nomenclature. The correct nomenclature for

equipment is found in QM supply catalogs. Clerks and partsmen must be familiar with the appearance, identity, and use of quartermaster equipment and spare parts and with the use of QM supply catalogs. See DA Supply Catalog QM 1.

(2) *Interchangeability of parts.* Personnel assigned the duties of filling requests for parts or of requisitioning parts must be familiar with quartermaster supply catalogs listing interchangeability of parts. These catalogs should be kept up to date and notation made on locator cards of interchangeabilities not recorded in the catalogs but listed in supply letters or in informal memoranda from general depots or from The Quartermaster General.

(3) *Civilian and prisoner of war labor.* Personnel should receive instruction in military-civilian relations and in the supervision of prisoners of war used for labor.

(4) *Supply economy.* During training, personnel of the parts company should be impressed with the necessity of requisitioning in quantities no greater than necessary, so that the company will maintain only the approved level of supply. The personnel must know how to make use of enemy material when it is available and how to protect that material from damage. They must be familiar with the interchangeability of common parts.

12. CADRE TRAINING

The cadre is the key group of personnel necessary to establish and train a new unit. Since cadre training is an essential part of preparation for combat, cadre understudies must be trained concurrently for all key positions. The company is provided with a cadre of 23 enlisted persons.

13. TRAINING REQUISITES

a. Soldierly Qualities. Soldierly qualities must be stressed primarily in all training. Efforts will be made to develop control, discipline, familiarity with weapons, and precise and orderly habits. Specialist training will make the trainee familiar with all phases of his job and prepare him to fill the next higher job in his unit. However, specialized training will never interfere with his training as a soldier. *The soldier-specialist must be ready to serve as a soldier at any time.*

b. Other Requisites. The basic principles of hygiene and sanitation, safety, and security will be emphasized throughout the training. Physical training and hardening exercises will be stressed. Chain of command principles will be impressed upon personnel through training exercises in leadership, military courtesy, and drill.

CHAPTER 3

ORGANIZATION AND EQUIPMENT

Section I. ORGANIZATION

14. SECTION

The quartermaster parts company consists of three sections in each of the two platoons (fig. 3). The section is the smallest operating unit of the company.

15. PLATOON

The company has two platoons: a stock control platoon and a storage platoon. Each platoon consists of a platoon headquarters and three sections.

16. COMPANY

The quartermaster parts company consists of company headquarters, a stock control platoon, and a storage platoon.

Section II. EQUIPMENT

17. SPECIALIZED ORGANIZATIONAL EQUIPMENT

The specialized organizational equipment for the quartermaster parts company consists of the fork lift truck, hand truck, gravity roller conveyors, electric lighting equipment, and the spare parts cabinet.

a. Fork Lift Truck.

(1) *Description.* The fork lift truck provided by T/O & E 10–127 is a gasoline-powered, pneumatic-tired, four-wheeled automotive unit which enables one man to pick up a unit load, carry it to its destination, and stack it

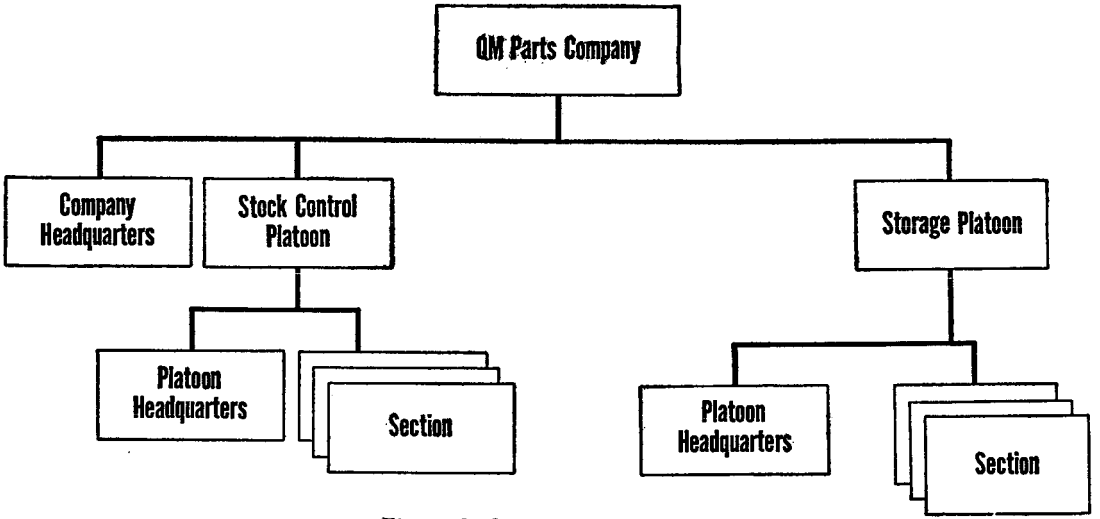

Figure 3. Organizational chart.

as high as the capacity of the truck permits (5 to 14 feet). The load is carried in front of the truck on a two-tine fork, which is moved vertically on a supporting frame by either a mechanical or a hydraulic lift mechanism. The supporting frame and the fork can be tilted forward 3° from the vertical to pick up the load and backward about 12° from the vertical to aid in balancing the lifted load.

(2) *Capacity.* The fork lift truck authorized for the parts company has a lifting height of 144 inches and a carrying capacity of 3,500 pounds.

(3) *Use.* The most efficient use of the fork lift truck is in handling palletized loads of 2,000 pounds or more. However, it is often used to move items which, because of their size or shape, cannot be palletized.

b. Hand Truck.

(1) *Description.* The hand truck is a frame supported at one end by two rubber-tired steel wheels and at the other end by two handles held by the operator. A steel nose iron is attached to the lower end of the frame to aid in picking up and supporting the load. A clamp is usually mounted at the top of the frame to secure certain items while the truck is in motion. For use in narrow aisles the wheels may be arranged in the "western" pattern so that they are inside the width of the frame. In the "eastern" pattern, the framework is tapered at the lower end and the wheels are placed on the out-

side. The truck can be equipped with safety brakes that operate against the outside surfaces of the wheels.

(2) *Capacity.* The hand truck has a maximum capacity of 600 pounds.

(3) *Use.* The hand truck is used chiefly to transport small quantities of spare parts over distances not exceeding 150 feet in one direction. It is useful in handling odd-shaped packages and in moving materials in narrow aisles and in other confined storage areas. It is used to best advantage in connection with powered equipment to move packages which, because of their shape and small number, do not require the use of mechanical equipment.

c. Gravity Roller Conveyor.

(1) *Description.* The gravity roller conveyor is a continuous platform of evenly spaced rollers that turn freely in the frame of the platform. The rollers are usually placed above the frame so that packages wider than the width of the conveyor can be carried. Roller diameters range from ½ inch to 3 inches, with the size of the rollers in a conveyor varying with the weight of the load to be carried. The roller conveyor is a simple device on which packages can be rolled downgrade, pushed on the level, or pushed upgrade. When rolling packages downgrade, a fall of 3 inches in each 10-foot section is usually enough to overcome the friction in the roller bearings. The roller conveyor can be adapted to many situations.

Both straight and curved sections may be hinged to clear the way for cross traffic. Spur and converging sections may be used where one conveyor is to branch into several others or where a number of conveyors converge. Supports with 15-inch arms are provided by the table of equipment.

(2) *Capacity.* Capacity will depend upon the number of conveyor units installed. The physical layout of the installation, the character and volume of the materials to be handled, and the number of points in the installation that the conveyor is to serve will influence capacity.

(3) *Use.* The gravity roller conveyor is generally used in a warehouse or depot or wherever a heavy flow of packages is to be moved over a definite line of travel. Single sections may be used anywhere to load and unload trucks and boxcars.

d. Electric Lighting Equipment. Power for electric lighting is furnished by two No. 4 sets of electric lighting equipment. Each set consists of a 5-kilowatt, 120-volt, 60-cycle, 1-horsepower, alternating-current, gasoline-powered generator, together with tools and accessories (ENG 6 460–04). The electric lighting equipment serves the depot storage area and the company headquarters. When temporary lines are set up to unload boxcars, the lines must be high enough not to interfere with the fork lift trucks.

e. Spare Parts Cabinet.

(1) *Description.* The spare parts cabinet furnished the company by T/O & E 10–127 is constructed of green-enameled steel and

wood and weighs 296 pounds. It has a hinged top for the removal of drawers and locking bars to lock in the drawers. The cabinet measures 36¾ inches wide, 39 inches high, and 22 25/32 inches deep. The 11 large drawers measure 9 9/16 inches high, 10 13/16 inches wide, and 22⅜ inches deep. Each of the three small drawers is 3 inches high, 10 13/16 inches wide, and 22⅜ inches deep. Drawers have adjustable dividers. The maximum load of the cabinet should not exceed 750 pounds.

(2) *Capacity.* The maximum drawer load of the cabinet is 60 pounds. The top compartment is designed for gaskets and light nonmetallic parts.

(3) *Use.* The cabinet may be used for depot storage or may be adjusted to fit available transportation to serve as a delivery truck for spare parts.

18. TRANSPORTATION EQUIPMENT

Trucks and a water tank trailer are assigned to the parts company according to T/O & E 10–127. The equipment is for the internal use of the company in performing its administrative and operating tasks. Additional transportation may be requisitioned as required through higher headquarters.

19. PROVISION OF EQUIPMENT

The specialized organizational equipment (par. 17) that is authorized the quartermaster parts company is distributed as follows:

a. Section.

(1) *Fork lift truck.* Each of the three sections of the storage platoon is authorized one fork lift truck.

(2) *Hand truck.* Each of the three sections of the storage platoon is authorized three 2-wheel, barrel hand trucks.

(3) *Gravity roller conveyors.* Each of the three sections of the storage platoon is authorized fifteen 10-foot sections of the gravity roller conveyor and five of the 45° curved sections.

b. Platoon. The platoon headquarters of the storage platoon is authorized one set of electric lighting equipment.

c. Company.

(1) *Electric lighting equipment.* Company headquarters is authorized one set of electric lighting equipment. The set will be used as needed by either the company headquarters or the platoon headquarters of the operating platoon.

(2) *Spare parts cabinet.* Company headquarters is authorized one spare parts cabinet.

Section III. MAINTENANCE OF EQUIPMENT

20. MAINTENANCE RESPONSIBILITY

A definite maintenance responsibility rests upon each member of the quartermaster parts company. All officers and noncommissioned officers will see that instructions and procedures for maintenance operations, published in AR 750–5 and in Department of the Army lubrication orders, are strictly complied

with by all personnel under their immediate supervision.

21. ORGANIZATIONAL MAINTENANCE

a. Purpose. The purpose of organizational maintenance is to detect and correct minor defects before they grow into major defects. The following procedures are necessary for organizational maintenance:

(1) First echelon organizational maintenance, consisting of daily and weekly maintenance services performed by all operators through observance of rules contained in Department of the Army technical manuals, lubrication orders, and other publications listed in appendix I.

(2) Second echelon organizational maintenance, consisting of weekly, monthly, quarterly, and semiannual maintenance services performed by organization mechanics.

b. Responsibility. The company commander must see that instructions and procedures for organizational maintenance operations are strictly complied with by all personnel under his control. He must also see that each individual user, wearer, or operator of equipment within his command is trained in the organizational maintenance of equipment.

22. MAINTENANCE OF MATERIALS-HANDLING EQUIPMENT

The maintenance of materials-handling equipment (par. 17) will be performed in accordance with the provisions of the lubrication orders. The fork lift

trucks will be maintained by the fork lift truck operators and by the company wheel-vehicle mechanic under the supervision of the motor corporal.

23. MOTOR MAINTENANCE

The motor vehicles assigned to the parts company (par. 18) will be maintained by the drivers and company wheel-vehicle mechanic under the supervision of the motor corporal. First echelon organizational maintenance on organic motor vehicles will be performed by the drivers. Second echelon organizational maintenance will be performed by the motor corporal and wheel-vehicle mechanic assigned to company headquarters. Procedures prescribed in AR 700–105, TM 37–2810, and in appropriate vehicle technical manuals will be followed. (App. I.)

24. MAINTENANCE RECORDS

The prescribed maintenance records for motor vehicles and materials-handling equipment will be kept by the motor corporal. AR 700–105 lists approved forms for motor vehicle maintenance and AR 700–240 lists maintenance forms used for materials-handling equipment.

25. SPARE PARTS AND TOOLS FOR MAINTENANCE

a. Allowances. Authorized initial allowances of spare parts and tools for company equipment will be supplied upon activation of the company. Company supply personnel will maintain the authorized stock level by requisition from or exchange with the designated supplying organization.

b. Requisitions. Requisitions for spare parts for quartermaster mechanical equipment will be sub-

mitted to the stock control platoon of the parts company and the parts will be furnished by the storage platoon. Requisitions for all spare parts should contain the make, model, and serial or series number of the equipment, as well as the official stock number and nomenclature of all items required.

CHAPTER 4

DUTIES OF PERSONNEL

26. SECTION

Personnel of all the sections (fig. 4) should be familiar with nomenclature of supplies, proper handling and storing, and supply principles.

a. Stock Control Sections.

(1) *Section chief.* The section chief is the senior noncommissioned officer of the section. He supervises the work of the section. He supervises the preparation and routing of reports and the maintenance of stock levels. He must be able to direct the preparation, consolidation, and editing of requisitions; the initiation of shipping documents; and the preparation of reports for higher echelons. He should work in close cooperation with the section chief of the storage platoon in estimating stock requirements.

(2) *Senior stock record clerk.* The senior stock record clerk is assistant to the section chief. He is trained to perform all duties performed by the section chief and supervises the work of the section when the company is operating a second shift. The senior stock record clerk supervises the work of the stock record clerks.

(3) *Senior supply clerks.* The senior supply clerks will edit and process requisitions and supervise the supply clerks in these operations.

(4) *Stock record clerks.* The stock record clerks will maintain the stock record cards, checking stock cards with actual count of items, and process requisitions under the supervision of the senior supply clerks.

(5) *Supply clerks.* The supply clerks prepare typed data and written records and reports for the section, as well as perform general clerical duties.

b. Storage Sections.

(1) *Section sergeant.* The section sergeant is in immediate charge of the receipt, storage, and issue of spare parts and personally supervises all methods of storing. He supervises the duties of the staff of storage-operating personnel. He must be able to plan the storage of spare parts and determine where previously unstocked parts will be located. He should be able to provide storage plans to meet emergencies and to provide security. He controls the issue of scarce items for the company commander.

(2) *Parts specialists.* The parts specialists receive, store, and issue spare parts for quartermaster mechanical equipment. Since parts being received are listed on shipping documents, the parts specialists check the spare parts against the documents to insure receipt and correct identification and then store the parts in bins, in cabinets, and on racks. Parts are issued in accordance with requisitions processed by the stock control platoon. The parts specialists periodically take inventory. They must have a thor-

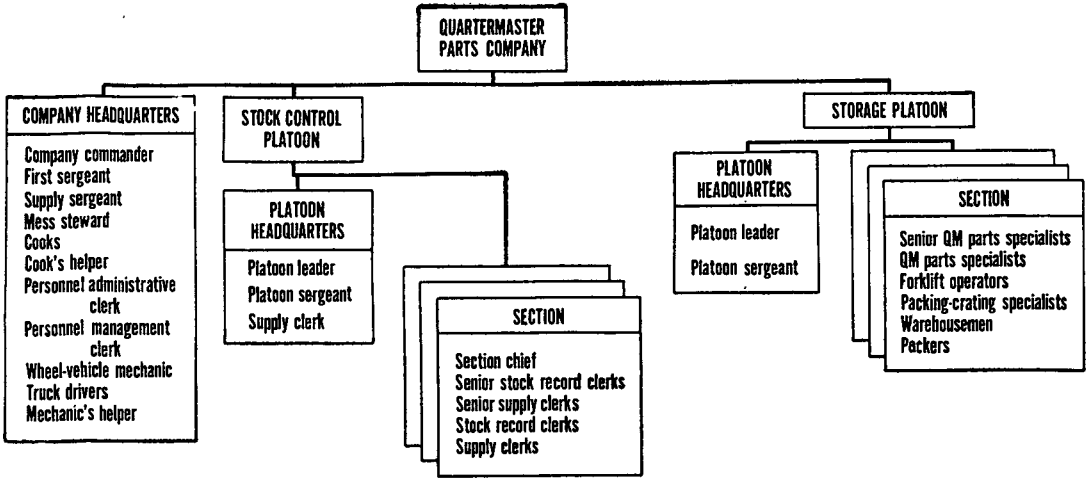

Figure 4. Distribution of personnel in the quartermaster parts company.

ough knowledge of parts, including description, nomenclature, and interchangeability. They must be familiar with the Army supply system and with Department of the Army Supply Catalogs, QM Supplement.

(3) *Warehousemen.* The warehousemen assist the parts specialists in the storage of parts and in obtaining parts from bins for issue.

(4) *Packing and crating specialists.* The packing and crating specialists must be able to construct packing cases. In addition, they should be able to construct bins and receptacles for storing spare parts, and to repair and alter buildings where spare parts are to be stored.

(5) *Packer.* The packer packs, crates, and prepares items for shipment. He should be trained in the methods used by the Army in preserving spare parts from damage.

(6) *Fork lift truck operator.* The fork lift truck operator is trained to operate and maintain the fork lift truck.

27. PLATOON HEADQUARTERS

The stock control platoon and the storage platoon are supervised by platoon leaders (lieutenants). The personnel of platoon headquarters coordinate and direct the operations of the subordinate sections and are responsible for a constant flow of spare parts to communications zone and army troops.

a. Stock Control Platoon.

(1) *Platoon leader.* The platoon leader of the stock control platoon supervises the operations of the platoon and the subordinate sec-

tions. He is responsible for proper training and discipline. Since the sections may be detached, when necessity arises, to operate at distant depot points, the platoon leader must be sure that the sections are in readiness for separate operation. The platoon leader of the stock control section must be familiar with office procedures in the preparation, routing, and filing of reports and records and the maintenance of stock levels. He must also be familiar with the operations in the storage platoon and with security measures in case of enemy attack.

(2) *Platoon sergeant.* The platoon sergeant of the stock control platoon assists the platoon leader in the performance of duties. He assumes the duties of the platoon leader if the occasion arises. He should be thoroughly familiar with the duties performed by the personnel of the stock control platoon.

(3) *Supply clerk.* The supply clerk obtains necessary supplies for the operation of the stock control sections and platoon headquarters by preparing requisitions and forwarding them to the appropriate supply agency. He may also assist the stock control sections in estimating stock requirements.

b. Storage Platoon.

(1) *Platoon leader.* The platoon leader of the storage platoon should be familiar with procedures for the receipt, storage, and issue of spare parts for quartermaster mechanical equipment. He must be familiar with the duties of all personnel of the platoon. He

should make every effort to facilitate the flow of parts through the depot by studying and adjusting work load assignments in the sections.

(2) *Platoon sergeant.* The platoon sergeant assists the platoon leader in the performance of duties and may assume the duties of the platoon leader in emergencies. The sergeant should be thoroughly familiar with quartermaster stock receipt, storage, and issue procedures.

28. COMPANY HEADQUARTERS

Company headquarters, under command of the company commander (a captain), takes care of the housekeeping functions of the company and provides the supply and mess facilities for company personnel (fig. 4).

a. Company Commander.

(1) The company commander is responsible for the administration, instruction, training, discipline, security, and operations of the company. He is assisted in the performance of his duties by the company officers, the first sergeant, the mess steward, the supply sergeant, and the motor corporal. In the absence of the company commander, one of the platoon leaders will serve as commander.

(2) The company commander is responsible for efficient operations of the quartermaster parts company, as follows:

(*a*) Proper receipt, storage, care, maintenance, and issue of spare parts.

(*b*) Supervision of the loading and unloading of spare parts.

(*c*) Proper marking of all shipments.

(*d*) Timely transmission through prescribed channels of information with respect to shipments.

(*e*) Maintenance of all records.

(*f*) Maintenance of stock levels by requisition. Stock levels to be maintained will normally be prescribed by higher authority, but, in the absence of directives, the company commander is responsible for fixing stock levels. However, the company commander should recommend any necessary adjustments based on actual experience.

b. Administrative Personnel.

(1) *First sergeant.* The first sergeant is the noncommissioned administrative assistant to the company commander. He transmits all orders of the company commander to the enlisted personnel and acts as the liaison between them and the company commander. He must have a thorough understanding of his unit, its operation, and its relation to other units. He must have a personal knowledge of the men in the company and should be well acquainted with their individual training and capabilities.

(2) *Company personnel management clerk.* The company personnel management clerk performs various clerical and typing duties for the company. He prepares the morning re-

port, keeps the sick book, files records, and types correspondence.

(3) *Personnel administrative clerk.* The personnel administrative clerk prepares the pay records and miscellaneous personnel reports. He is also responsible for personnel classification and other miscellaneous clerical duties.

c. Supply Sergeant. The supply sergeant is assistant to the company commander in all matters pertaining to supply within the unit. He is in immediate charge of the receipt, storage, and issue of individual and organizational clothing and equipment and expendable supplies. He prepares requisitions for supplies, checks supplies received and issued, and reports to the company commander any discrepancies noted in quantity or quality.

d. Motor Personnel. The wheel-vehicle mechanic, assisted by a mechanic helper, performs the necessary second echelon maintenance on company vehicles and gasoline warehousing equipment.

e. Food Service Personnel.

(1) *Mess steward.* The mess steward supervises the food service personnel and plans the use of available facilities to provide for any type of operation. He must make satisfactory messing arrangements for the company when it is operating on more than one daily shift and for a section when it is under operational control of another headquarters and operating at a distance.

(2) *Cooks.* The cooks work under the supervision of the mess steward and prepare food

for company personnel in accordance with the Army daily menu.

(3) *Cook's helper.* The cook's helper assists the cooks in the preparation and serving of food.

CHAPTER 5

PREPARATION FOR OPERATIONS

Section I. RECONNAISSANCE AND SITE SELECTION

29. RECONNAISSANCE

a. Communications Zone.

(1) In the communications zone, reconnaissance for the site of the base depot in which the quartermaster parts company will operate will usually be made by the representatives of the theater quartermaster.

(2) When the parts company (or sections) is operating in the advance section of the communications zone, reconnaissance for site of the advance depot will usually be made by representatives of the advance section quartermaster. After the general area for the site has been determined, a further reconnaissance to determine the most desirable location within the general area will be made by the commander of the battalion headquarters to which the parts company is assigned or attached. In some instances a reconnaissance will be made by the commander of the parts company together with the commander of the clothing and general supplies depot company or with commanders of other companies to be assigned to the advance depot.

b. Combat Zone. When the quartermaster parts company is operating in the combat zone, reconnais-

sance for the site of the depot will usually be made by representatives of the army quartermaster. A further reconnaissance for the most desirable location within the general area will be made as indicated in *a* above.

30. SITE SELECTION

The following factors are to be considered in selecting the site for a depot:

a. The ground should be fairly level, firm, and well drained.

b. The depot must be on the best all-weather road net available, with access to all units to be served.

c. The depot should be on or near a standard gage railroad with adequate siding facilities.

d. The site should be large enough for all operations and for dispersion of supplies against enemy attack.

e. Existing buildings should be camouflaged to conceal depot characteristics from air observation.

f. The depot site should be within easy hauling distance from a navigable body of water and from an airstrip.

g. The site should have adequate water facilities for fighting fires.

Section II. PLANNING FOR OPERATIONS

31. DETERMINATION OF REQUIREMENTS

A determination of spare parts requirements is necessary in planning for the operation of the parts company. These requirements are based on the following:

a. Population Lists. Population lists, which are prepared by orders from higher headquarters, show

the totals of each make, model and serial number of most quartermaster mechanical equipment. In some instances models only or stock numbers only may be available; however, some identifying information must be compiled in order that the total parts mission may be determined. These population lists will include mechanical equipment in the hands of T/O & E units and other equipment in the area obtained by class IV issue. A listing of troop organizations within the area to be served will be of assistance; however, the equipment to be maintained for these organizations may not necessarily be in accordance with the items authorized in the T/O & E. For this reason it is imperative that organizations to be served by the depot report the makes, models, etc., on hand in order that proper parts may be obtained for depot stock. It cannot be overemphasized that this population list is the basis for requisitioning and that failure to compile an accurate population list will inevitably result in parts on hand for models not in the supply area and no parts on hand for models in the area. Close coordination between the spare parts company and the organization within the depot which requisitions equipment is highly desirable as this is a means of obtaining information relative to population increases. This population list is further required by the commander of the parts company to determine the approximate amount of storage space required.

b. Authorized Reserve Supplies. Normally, the authorized reserve of spare parts is established by competent orders based on experience records in the theater or on anticipated activities. These authorized reserves, or stock levels, are changed only by com-

petent orders, which may be based on recommendations of the commanding officer of the parts company or other competent authority. Where no records are available, the QM 7, 8, and 7 & 8 catalogs, listing the allowances of spare parts for all maintenance echelons, may be used as a guide to initial stock levels. While the first requisitions submitted to supply agencies are based on the above procedure, all future requisitions required to maintain reserves are based on actual issues made by the company.

32. LAYOUT PLAN FOR PARTS SECTION

A layout plan (fig. 5) should be prepared for the parts section before the stock is placed or arranged. The company commander should be sure that he has adequate space available within the storage area to disperse stocks properly so that items will be protected against damage from air attack. The following factors should be considered in planning the layout of the parts section of a depot:

a. Office. For control purposes, the office of the parts section should be located near the entrance to the warehouse or in a warehouse near the entrance to the warehouse area.

b. Bin Area for Small Items. A bin area should be provided for storing small items, which are stored in bins or in spare parts cabinets.

c. Parts Common Area. Interchangeable parts listed in the QM 5–3 series should be stored in one location in a warehouse in the parts common area.

d. Flammable Items Area. Flammable items should be stored in an isolated area with fire-fighting equipment readily available.

e. Scarce Items Area. The area for storing scarce items or items subject to pilferage should be located so that it can be under constant surveillance of responsible personnel. A locked room or space surrounded by concertina wire should be provided.

f. Bulky Items Area. Bulky items can be stored under paulins in the open storage area.

g. Bin Area for Frequently Used Items. The area for items carried in large quantities and frequently issued should be in a convenient location.

h. Receiving and Shipping Areas. Both a receiving and a shipping area should be provided within the warehouse if possible. These areas should be planned to allow a free flow of items that are being received or shipped or that are being both received and shipped simultaneouly.

i. Packing and Crating Areas. The packing and the crating areas should be located convenient to the shipping area. These areas may be shared with the clothing and general supplies depot company.

33. ESTIMATING SIZE OF A PARTS STORAGE AREA

The parts company commander may be required to estimate the size of a depot section necessary to supply spare parts to using units. The following is an estimate of the area in the communications zone required to store 40 measurement tons (19 short tons) of quartermaster spare parts:

a. One measurement ton (MT) equals 40 cubic feet. Therefore, 40 MT of spare parts equals 1,600 cubic feet.

b. Spare parts require approximately 90 percent covered storage and 10 percent open storage. Therefore, 1,600 cubic feet of spare parts would require

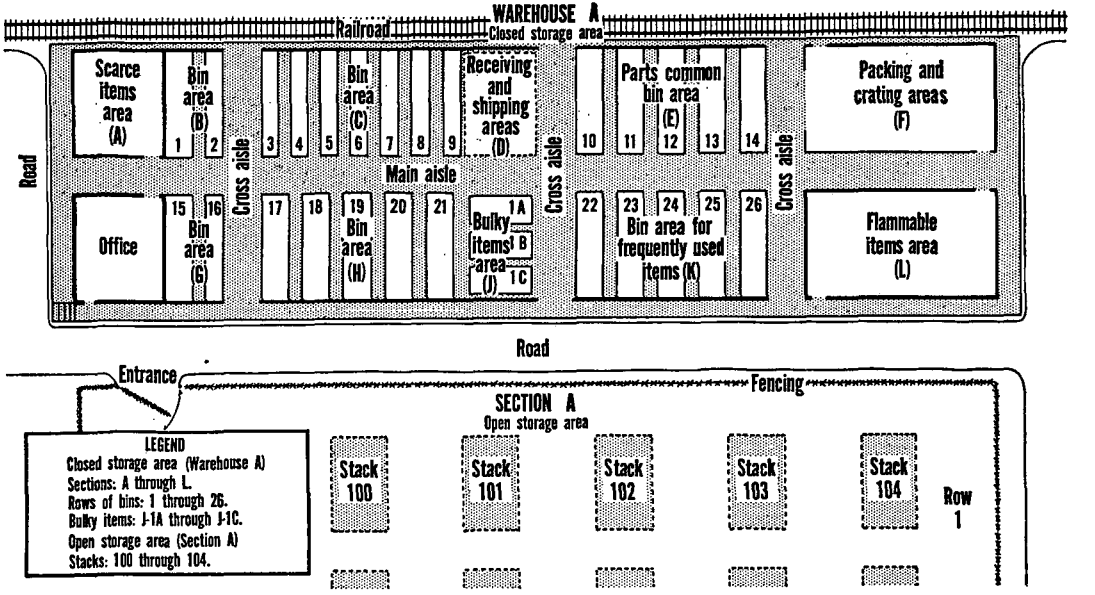

Figure 5. Suggested layout plan for a parts section of a depot.

1,440 cubic feet of covered storage and 160 cubic feet of open storage.

c. Bins are assumed to be 7 feet high. Therefore, 1,440 cubic feet divided by 7 equals 205 square feet, the net usable area of covered storage required. Since open stacks are assumed to be 6 feet high, 160 cubic feet divided by 6 equals 26 square feet, the net usable area of open storage required.

d. The factor for computation of gross covered storage area is 1.40. Therefore, 205 square feet times 1.40 equals 287 square feet, gross storage area required for covered storage. The factor for computation of gross open storage area is 1.50. Therefore, 26 square feet times 1.50 equals 39 square feet, gross storage area required for open storage.

e. The factor for the computation of the site area for covered storage is 2. Therefore, 287 square feet times 2 equals 574 square feet, site area required for covered storage. The factor for computation of the site area for open storage is 1.50. Therefore, 39 square feet times 1.50 equals 59 square feet, site area required for open storage.

f. Assume the total covered storage area required is 600 square feet and the total open storage area required is 60 square feet, making a total of 660 square feet. Then the site area required for 40 measurement tons of quartermaster spare parts would be 660 square feet.

CHAPTER 6

OPERATIONS OF THE UNIT

Section I. METHODS OF OPERATING

34. OPERATIONS OF SECTIONS

Six sections of the quartermaster parts company are provided to take care of stock control and storage. When operating under the platoon headquarters, the sections are supervised by the platoon leaders and housekeeping functions are provided by company headquarters. When operating separately from the platoon (normally with a quartermaster clothing and general supplies depot company), the sections are controlled by the unit command (such as office of the depot commander) under which the two sections are operating, and the housekeeping functions are provided by this command.

a. Stock Control Sections. The three sections of the stock control platoon compose the bookkeeping element of the company. The sections are concerned with the preparation of reports and maintenance of stock records, requisitioning, and the maintenance of stock levels. When three sections are operating together, one section is responsible for receipt, one for storage, and the third for issue. When one section is detached from the company and is operating at a subdepot, all the bookkeeping functions are maintained by that section.

b. Storage Platoon Sections. The three sections of the storage platoon when operating at a base depot or army depot are concerned with the receipt, stor-

age, and issue of spare parts to using units. In such situations, one section is responsible for receipt, one for storage, and the third for issue. When the need arises, personnel of the sections may be combined under the supervision of the platoon leader to perform one function, such as receiving, storing, or issuing spare parts. Where the parts company is operating one or several warehouses at subdepots for spare parts, the storage section attached to the subdepot will be responsible for the receipt, storage, and issue of parts for the subdepot to which it is attached.

35. PROCUREMENT OF SPARE PARTS

a. Requisition. The section of a depot operated by the quartermaster parts company normally procures parts by requisition. If the company is operating at a base depot, requisitions for the required parts are submitted to the continental United States. If the company (or sections) is operating at an intermediate or advance depot in the communications zone, requisitions are submitted to a base depot. If the company (or sections) is operating at an army depot, requisitions are submitted through channels to the appropriate communications zone depot.

b. Local Sources. Usable spare parts from equipment damaged or worn out during operations may be distributed to the parts company by the quartermaster reclamation and maintenance company. In certain instances, spare parts that cannot be duplicated in the theater or requisitioned promptly from the continental United States may be manufactured at civilian plants in the theater of operations and turned over to the parts company for storage and issue.

36. LEVEL OF SUPPLY

a. Minimum. The minimum level of supply is the quantity of supplies (quantitively expressed in days of supply for each item authorized for stockage) required to sustain operations during any reasonably anticipated interruption of supply lines. In other words, it is a reserve for emergencies. The parts company will make every effort to maintain a minimum level of supply of spare parts for using units.

b. Operating. The operating level of supply of spare parts is the quantity of parts (quantitively expressed in days of supply for each item authorized for stockage) required to sustain operations between successive replenishment shipments.

c. Maximum. The maximum level of supply is the sum of the minimum level and operating level and is the maximum quantity of supplies (quantitively expressed in days of supply for each item authorized for stockage) that the parts company is authorized to have on hand.

37. STOCK CONTROL PROCEDURES

Stock control procedures within the stock control platoon and its sections will conform to those established by theater or Department of the Army directives.

a. Stock Replenishment.

(1) The personnel in charge of the locator file in the stock control platoon will make out stock replenishment requests when stocks approach or go below minimum levels. This reorder point is an arbitrary level of stock on hand plus dues-in at or below which

requisitions for replenishment are submitted. The supply sergeant of the platoon headquarters will consolidate the requests and prepare a requisition to be sent to the appropriate supply headquarters.

(2) Quantities of each item requisitioned will be determined by adding the totals authorized for maximum level, plus order-shipping time, plus unfilled dues-out, *less* the totals of items on-hand, plus established dues-in. The orders and shipping time for oversea requisitions, which is established by higher headquarters, is based on length of time from the initiation of the requisition to the receipt of the spare parts by the parts company. A serial number will be placed on all requisitions originating in the spare parts section of the depot, and the requisitions will be recorded on the due-in document register. Incoming shipping documents will be checked against the proper requisitions originated in the depot. Uncompleted requisitions will be held for follow-up action until supplies ordered are received.

b. Requisitions From Units Being Served. The procedure in stock control platoon headquarters for filling requisitions for parts from units being served will be as follows:

(1) A serial number will be placed on each requisition received and the requisition recorded in the requisition control and credit voucher register.

(2) Each requisition will be edited to determine whether—

(*a*) Nomenclature of items is in conformity with DA supply catalog nomenclature.

(*b*) Grouping of items is correct.

(*c*) Adequate descriptions of the required spare parts are furnished (including both QM stock numbers and manufacturers' numbers if necessary).

(*d*) Amounts being requisitioned are within prescribed allowances.

(*e*) Item is available for issue.

(*f*) Vehicle strength, make, model, and serial or series of equipment are cited in the requisition.

(3) The editor should check the line items and indicate the action taken by code symbol after each line item. If enough stock is on hand to supply the amount requested, he will place a check mark after the item concerned. At the same time, he will drop the appropriate quantity from the stock record card and the applicable voucher number.

(4) The original and a copy of the incoming requisition (edited) will be forwarded to the storage platoon to be used as a tally-out.

(5) A copy of the requisition will be filed in the suspense file until the requisition has been filled, whereupon the copy and the signed original will be filed with the other completed requisitions.

(6) Where a using unit is a section of a parts company operating at a subdepot, requisitioning and processing procedures will

generally conform to (1) through (4) above.

c. Back Orders. When a requisition cannot be completely filled from available stocks, the stock control platoon will proceed as follows:

(1) Determine whether a substitute part is available for issue.

(2) Issue against the requisition all substitute parts that are available.

(3) Place requisitions unfilled due to nonavailability of supply in active back order files, and check the files at each 10-day interval against appropriate tally-ins or stock records.

(4) Show position for back order items on stock status reports and periodic requisitions.

(5) Notify requisitioning organizations when back-order parts are received. For organizations that usually call at the depot, the back order requisitions will be filled and items segregated awaiting call of organization. If no action is taken by a requisitioning organization within 15 days, the parts will revert to stock and the back order will be canceled.

(6) Remove back order requisitions from file and forward them to the appropriate command when an organization moves from the area of supply responsibility. Included with the back order requisitions will be complete statements of supply action taken and the date on which items are expected to become available. The moving organization should advise the depot holding the

back order requisitions of the destination of the unit.

(7) Review back orders remaining unfilled at the end of 90 days, and cancel them with the concurrence of the requisitioning organizations. Where the need for items continues to exist, a new requisition may be submitted that gives the priority date of the original requisition. A statement should be included that items have been on back order since the date of original requisition.

d. Responsibility for Back Orders.

(1) *Parts company commander.* The commander of the parts company is responsible for—

(*a*) The maximum use of suitable interchangeable parts and substitutes, to reduce the number of back-order requisitions.

(*b*) Constant check of back order requisitions against stock records to assure that the requisitioning organization is notified without delay as soon as parts become available.

(*c*) Verifying, at reasonable intervals, to see that requisitioning organization desires the back order to be kept active.

(2) *Requisitioning organization commander.* Commanders of requisitioning organizations are responsible for—

(*a*) Informing the parts company, at the time the requisition is presented, when unfilled items are not to be placed on back order.

(*b*) Requesting the parts company to cancel

the back order requisition before any item on back order is re-requisitioned.

(*c*) Notifying the parts company when items on back order are no longer required.

(*d*) Notifying the parts company when a move is to take place and indicating the disposition desired on the back order requisition.

e. Duties of Clerks. The stock control clerks of the stock control platoon conform to procedures prescribed by the company commander. Generally, the procedures will consist of—

(1) Editing of requisition from units being served.

(2) Maintenance of voucher registers, as prescribed by the theater commander.

(3) Preparation of stock record cards for all spare parts items handled by the company.

(4) Posting locations of parts on the cards together with information obtained from valid vouchers. These vouchers consist of shipping documents; inventory reports; survey reports; and any improvised forms used to expedite supply.

(5) Preparation of requisitions for stock replenishment. Such requisitions are prepared at predetermined dates when stock levels approach the established minimum level of supply (par. 36*a*) or at the discretion of the commander.

38. STORAGE PROCEDURES

Personnel assigned to the storage platoon headquarters and its sections are responsible for prepar-

ing and organizing storage areas, for preparing replenishment requests, and for receiving, storing, maintaining, tagging, packing, and issuing parts. The storage plan conforms to the plan of the company commander. Operations of the storage platoon must be adjusted to meet the supply situation, and the organization of personnel kept as flexible as possible. Storage personnel, even though they are normally assigned to one section and to one specific job, must understand the work of all sections and be prepared to shift jobs readily.

a. Storage Planning.—Basic warehousing methods should be followed as far as practicable. (App. I.) Wherever possible, existing storage facilities should be used, but on many occasions improvisations for the protection of supplies must be made. Considerable time and effort must be given to the planning of space layout, including bin storage areas, reserve stock areas, and areas for storage of subassemblies and bulky parts.

(1) *Fast-moving items.* Fast-moving items should be stored in areas where trips from bins or cabinets will be as short as possible.

(2) *Heavy items.* Heavy items should be stored where the flooring capacity is greatest and, if possible, near the packing and crating areas. Parts stored in the open should also be accessible to the packing and crating areas.

(3) *Repacking and shipping.* Provision should be made for any repacking and shipping of spare parts from storage. Items should not be allowed to clutter up the areas, but

should be moved directly from the carrier to the storage areas.

(4) *Reserve storage.* Reserve storage should be provided for items that are not needed immediately and cannot be stored in bins. Such items may be stored on box pallets. If possible, reserve items should be stored on the tops of bins and in any available space between beams. Large items such as engines should be stacked in bays in covered storage or under paulins in open storage.

(5) *Safety.* Items should be placed in such a way as to avoid damage to the items and injury to depot personnel. Items should not project from a bin, rack, shelf, or platform.

(6) *Items affected by water.* Items subject to deterioration will be kept off the ground or damp floor. Items affected by water must be stacked on dunnage and protected from dripping or condensation. The company is provided with 24 paulins to protect supplies in open storage against the weather. Each of the three sections of the storage platoon has 8 paulins.

(7) *Items subject to pilferage.* Articles likely to be stolen will be stored in rooms that can be locked. If such rooms are not available, heavy wire netting or other suitable material may be used to form inclosures that can be locked.

b. Methods Of Storage.

(1) *Bins.* Four sizes of bins are required for the storage of parts (fig. 6). In many

cases, bins must be improvised from boxes and crates and may be constructed in units of 10 for easier location of items. When setting up bins, one vacant bin compartment will be left in every four compartments, if possible, to allow for proper placing of new parts. Bins should be arranged according to the parts to be stored and not according to catalog numbers. For bin identification, see *c* below. In the combat zone, parts should be stored in crates and boxes that can be moved by hand for quick and easy moving.

(2) *Cabinets.* Cabinets will be used for storing small items.

(3) *Stacks.* Stacks will be used when parts are to be stored in containers that can be palletized. Covered storage is preferred for stacks. When stored outside, the stacks should be located on firm level ground convenient to the parts warehouse.

(4) *Arrangement of items.* In the storage area spare parts are arranged according to size, classification, expected rate of issue, and dimensions of the storage area.

c. Identification. Warehouses should be lettered or numbered consecutively. Sections and blocks within warehouses should be numbered consecutively as well as rows of bins (fig. 7). Individual bins should be numbered as well as the shelves of the bins. Parts in bins should be identified by bin tags. At least one item in the bin should always be tagged to show the correct nomenclature and this item should be the last one removed from the bin. The use of

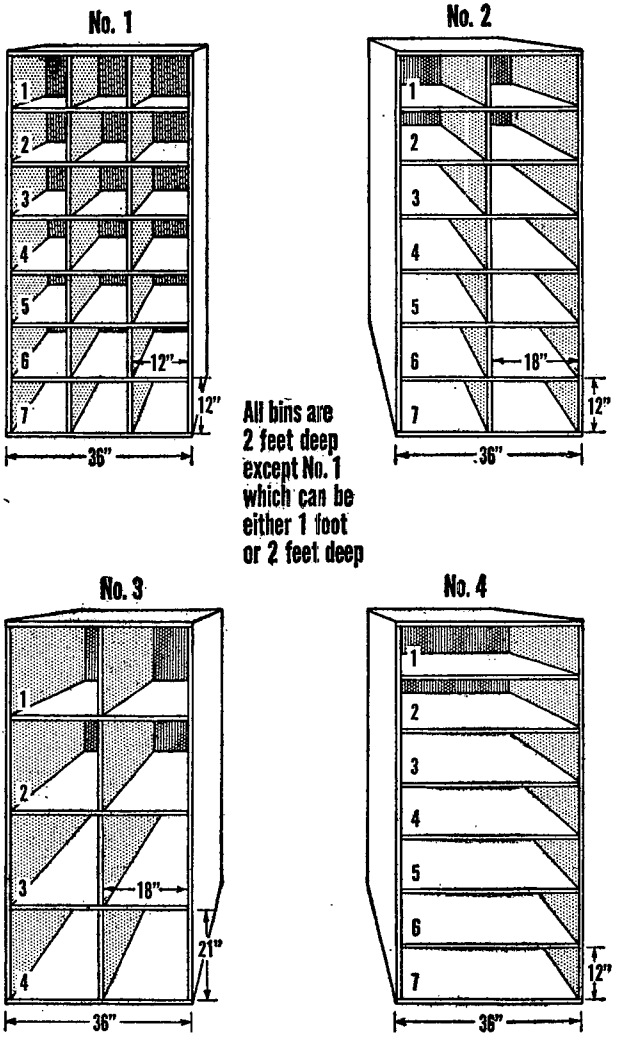

Figure 6. Bin dimensions for a parts company.

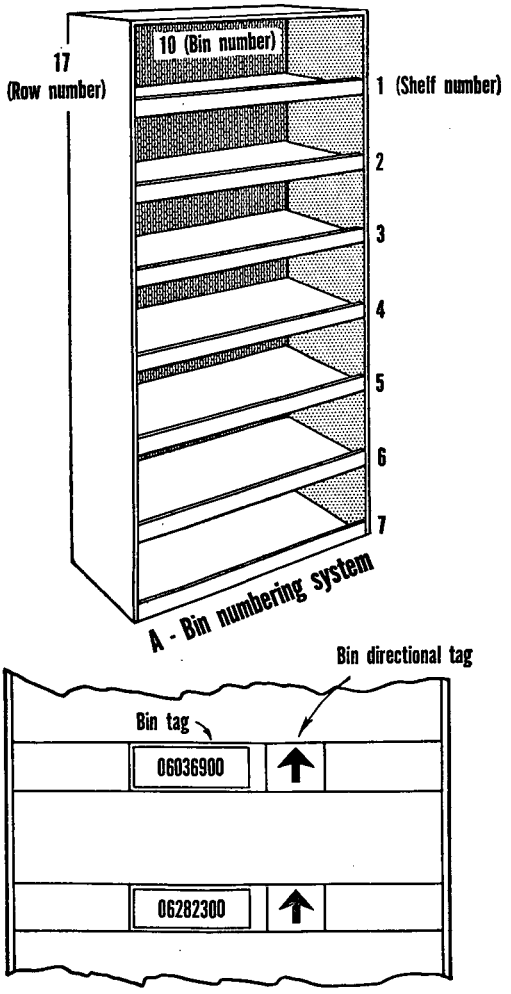

Figure 7. Bin numbering system and directional tags.

bin directional tags (fig. 7) will help to decrease mistakes in shipping. Where parts are stacked or stored in bulk, the location should be identified by warehouse or section, bay, row, and stack. A storage tag for bulk parts should be prepared, showing QM number, part number, and nomenclature.

d. Locator System. Exact locations of all items will be shown on the stock locator cards filed in the storage platoon headquarters (par. 61). Personnel of platoon headquarters will place location information on the shipping document going to the storage section.

e. Lighting. Bins, cabinets, and rooms should be well lighted. Adequate lighting increases the volume of supplies that can be handled in a given time by increasing the ease with which checking, sorting, and piling may be performed. Adequate lighting also reduces discrepancies that develop from incorrect checking and shipping, and reduces damage from breakage and other causes. Lighting plans must comply with blackout requirements.

39. STORAGE OF SPECIAL ITEMS

a. Spare Engines. Spare engines should be kept in closed storage and in suitable containers. Storage conditions should permit turning the crankshaft for periodic cylinder wall slushing. Wooden or metal plugs will be kept inserted in spark plug holes. Openings to the engine crankcase or manifolds that may be exposed by removal of accessories, such as the carburetor, starter, or generator, should be closed to keep out foreign matter and moisture. Whenever possible, engines should be stored complete with all accessories and ready for installation.

b. Bearings. Bearings should be kept in the original containers until ready for use. New bearings should be thoroughly coated with a preservative, wrapped in greaseproof wrapping paper, and placed in a carton. The cartons should not be stacked too high lest the weight crush the lower cartons. A bearing showing signs of rough usage or excess dirt should be inspected by qualified technical inspectors to determine its serviceability.

c. Electrical Units. Electrical units, such as generators, starters, coils, voltage control units, magnetos, and distributors, should be kept clean and the finished surfaces slushed with oil. Distributor interrupters and heads should be wrapped in wax or grease paper when separately stored. Regulators and relay units should be put in waterproof paper containers. Instruments should be carefully stored and wrapped in moisture-proof paper. Rubber electrical cord connected to electrical equipment should be wiped clean of oil and grease before being stored.

d. Paper Gaskets. Thin paper gaskets and paper gasket material should be kept impregnated with light oil to prevent shrinkage and drying.

e. Copper Tubing. Copper tubing should be hung on pegs on the wall to prevent its being struck by heavy moving objects. Short lengths of tubing may be stored in bins.

f. Wire. Wire should be stored in a dry place and hung on wall pegs. Wire that is wrapped in compact lengths may be stored in bins.

g. Rubber Tubing. Rubber tubing should be stored in a cool, dark place and kept free from all grease and oil.

40. COVERED STORAGE

a. Use of Space. Since covered storage is always inadequate in the theater of operations, every cubic foot of available space in the parts warehouse should be carefully used.

b. Space Requirements. Factors to be considered in computing the storage space necessary for a parts warehouse are—

(1) *Quantity of parts to be stored.* In considering the quantity of spare parts to be warehoused (par. 31), the maximum operating level of supply on hand at any one time must be taken into account.

(2) *Storage space units.* A standard rectangular storage space unit is the most practical for general storage. The size of the unit depends on the dimension of the storage floor and the location of the aisles.

(3) *Minimum aisle space.* Aisle space should be reduced to the minimum required for handling and checking the stock. The aisles should be wide enough for the fork lift trucks to be used with safety.

(4) *Layout space.* The space required for the receiving and shipping areas, the packing area, the office, and for storage must be considered.

(5) *Construction features.* The location of entrances, aisles, posts, platforms, windows, and other similar features should not interfere with but should facilitate the handling of stores.

(6) *Percentage of usable space.* The average

net usable space in any warehouse may be estimated roughly as 60 percent of the total gross space, leaving 24 percent for aisles or lost space and 16 percent as a safety factor.

c. Safe Floor Loads. When covered storage with floors is provided, safe floor loads must be considered. Where the floor load is doubtful, a competent engineer should be consulted to establish floor load capacity. Floors should have a minimum safe load capacity of 250 pounds per square foot.

41. OPEN STORAGE

Bulky parts, items not easily damaged by weather, and assemblies that cannot readily be stored under covered storage will be stored in an uncovered area under paulins. When covered with paulins, the tops of the stacks should be slanted so the water will drain off. For open storage, dunnage can be made of lumber, logs, railroad ties, pallets, or steel matting. The items in open storage should be accessible to the shipping area, with aisles provided where needed. However, items that may lose their serviceability in open storage will be placed in covered storage.

42. PACKING AND CRATING

a. Areas. The packing and crating areas should be convenient to each other and should be located as close to the shipping area as possible. In some instances the packing area may be located close to the supplies that will require the most packing.

b. Packing Procedure.

(1) Personnel concerned with packing should be familiar with the packing methods explained in appropriate Joint Army-Navy

Specifications and in current bulletins of the Quartermaster Corps. (App I.)

(2) Since some parts may lose coverings and containers during shipment to the depot, or since the coverings may become damaged, several packers may be assigned to a processing section of the packing area.

c. Crating Procedure.

(1) In the crating area, crates should be made for bulk shipments or for shipments of items by rail or truck to distant points. Containers will be marked in accordance with instructions in appendix I.

(2) Spare parts pertaining to only one piece of equipment will be packed, wherever possible, in the same container, and marked to indicate the piece of equipment as follows:

SPARE PARTS
FOR TRUCK, FORK LIFT
MHE 92

(3) Parts with common usage (parts used in two or more major items) will be packed in containers and marked for the two or more major items to which the parts pertain.

43. LABOR

Additional personnel required to operate the parts section of the depot may be obtained through channels from quartermaster service companies, from civilian labor, or from prisoner of war sources.

a. Civilian Labor. The authority for hiring and paying civilian workers will come from higher headquarters. If necessary, provision should be

made for training civilian labor in the work. Civilians with specialized training and background should, whenever possible, be given tasks employing their skill.

b. Prisoner of War Labor. Prisoner of war labor may be employed in the depot in accordance with the provisions of the Geneva convention. Work for prisoners of war must have no direct relation to war operations. Prisoners of war are not permitted to transport any material intended for combat units. They are organized into formal groups or units and are under the supervision of PW noncommissioned officers.

44. OPERATING SHIFTS

When the parts company is provided with an ample labor supply, the parts section of the depot may be operated on a daily schedule of three 8-hour shifts. If the labor supply is small, the parts section may be operated on a daily schedule of two 12-hour shifts or on a daily schedule of two 8-hour shifts. The daily schedule of three 8-hour shifts provides a 16-hour work day for shift 1 and an 8-hour work day for shift 2 on alternate days and on 8-hour work day for each shift on week ends. The weekly schedule should be alternated, shift 1 starting at 0001 hour on one Monday and shift 2 starting at 0001 hour the next Monday. The schedule may be as follows:

Table I. Shift Schedule

Hours	Shifts						
	Mon	Tue	Wed	Thu	Fri	Sat	Sun
0001–0800	1	2	1	2	1	2	1
0800–1600	2	1	2	1	2	1	2
1600–2400	1	2	1	2	1		

45. PERSONNEL FOR SHIFTS

Personnel qualifications are always the basis for planning shifts. Since qualifications differ widely, the following plan for distribution of personnel is a recommendation only. When the parts company is to operate around the clock on a schedule of two 12-hour shifts, personnel affected by shifts may be distributed as follows:

a. Company Headquarters. The company commander, first sergeant, mess steward, and truck driver should perform their duties on a schedule conforming to prevailing conditions. Other personnel may be scheduled on shifts as follows:

Table II. Personnel Distribution for Two Shifts

Personnel	Shift 1	Shift 2
Supply sergeant	X	
Cook	X	
Cook		X
Personnel administrative clerk	X	
Cook	X	
Cook		X
Personnel management clerk		X
Cook's helper	X	
Wheel-vehicle mechanic	X	
Mechanic helper	X	

b. Stock Control Platoon.

(1) *Platoon headquarters.* The platoon leader, platoon sergeant, and supply clerk should perform their duties on a schedule conforming to prevailing conditions.

(2) *Sections.* The senior stock record clerk can be used as leader of Shift 2. Personnel in each section may be scheduled on shifts as follows:

Personnel	Shift 1	Shift 2
Section chief	X	
Sr. stock record clerk		X
Sr. supply clerk	X	X
Sr. supply clerk	X	
Stock record clerk	X	X
Stock record clerk	X	X
Stock record clerk		X
Supply clerk	X	X
Supply clerk	X	X
Supply clerk	X	X

c. Storage Platoon.

(1) *Platoon headquarters.* The platoon leader and platoon sergeant should perform their duties on a schedule conforming to prevailing conditions.

(2) *Sections.* A senior parts specialist can be used as leader of Shift 2. Personnel in each section may be scheduled on shifts as follows:

Personnel	Shift 1	Shift 2
Section chief	X	
Sr. QM parts specialist	X	X
QM parts specialist	X	X
QM parts specialist	X	X
Forklift operator	X	
Packing-crating specialist	X	X
Warehouseman	X	X
Warehouseman	X	X
Warehouseman	X	X
Warehouseman	X	
Packer	X	X
Packer	X	X

Section II. RECEIVING AND ISSUING SPARE PARTS

46. SOURCES

a. Communications Zone. When assigned to a headquarters and headquarters company, quartermaster base depot, the parts company will issue spare parts obtained by the depot from the continental United States or from sources within the theater of operations. (Par. 35.)

b. Combat Zone. When operating in the combat zone under control of a headquarters and headquarters detachment, quartermaster battalion, the parts company (or detached sections) will issue spare parts obtained by army depots from the communications zone (par. 35).

47. RECEIVING SPARE PARTS

a. Advance Information. Advance information on a shipment of spare parts is given in an advance

copy of the Army shipping document. This advance copy is routed through the stock control platoon to the storage platoon. The section sergeant in the storage platoon establishes locations for the spare parts and provides the location information to the stock control section. When no advance copy of the shipping document is available, location information must be put on the copy which accompanies the shipment.

b. Arrival. A shipment of spare parts may arrive in freight cars or trucks or by mail. When the shipment arrives, the section sergeant in the storage platoon assigns a debit voucher number from the debit voucher assignment register to the shipping document received with the shipment.

c. Unpacking or Unloading.

(1) As the stock is unpacked or unloaded, a package tally is made on the shipping document accompanying the shipment, and any discrepancies noted on the advance copy. After the tally is made, the shipment is recapitulated and the checker's signature entered.

(2) When spare parts are received by truck, every effort will be made to unload the truck immediately. The section sergeant will tell the driver where to back in. To reduce handling, the spare parts should always be unloaded at the door that is nearest the point of storage.

(3) Incoming parts in damaged containers are checked for damage or loss by designated receiving personnel. All damaged or lost

items are reported to the stock control section. (App. I.)

d. Location of Spare Parts. In conformity with general policies of the company commander, the section sergeant will decide whether an item is to be stored in warehouse, shed, or open space; how much space is required; and, if the stock is binnable, the size of bin to be used. The location at which he stores a particular item depends upon the number of items to be stored, the protection required, the mortality rate, and the space available. The section sergeant also plans for the storage of parts not previously stocked, parts to be relocated, and parts to be consolidated.

e. Condition of Spare Parts. Spare parts should be put in storage only when in a satisfactory condition and should be kept in a usable condition. When wrappings are broken or torn, they must be repaired or the contents must either be repacked or transferred to a broken issue area for special handling.

48. DISPOSAL OF WORN-OUT PARTS

Worn-out parts turned in on an exchange basis by units being served are stored temporarily, until they can be transported to the quartermaster salvage depot for disposal. A record of the number of pounds or tons of the salvage received and shipped is maintained by the parts company.

49. ISSUING SPARE PARTS

a. Communications Zone. In the communications zone, the parts company (or sections) issues parts to those units designated by higher headquarters to re-

ceive the parts from the depot to which the company is assigned. Spare parts may be issued locally to those units operating near the depot. Nearby units may be issued parts urgently needed by means of a truck operating from the depot. Bulk shipments by rail, truck, or air will be prepared from requisitions on regular schedule and forwarded to using units within the area being served by the parts company.

b. Combat Zone. In the combat zone, the parts company (or sections) issues spare parts to divisional units, corps units, army units, and separate battalions. When directed by higher authority, the company or its sections may issue spare parts to Air Force units. Local issue will be an important phase of operations. In many cases, presentation of the worn-out part to the parts section will be sufficient evidence of need and the item will be supplied without requirement of written requisition. A parts company or section operating in the combat zone must be prepared to move supplies rapidly when depot locations are changed.

c. Procedure. Normally, procedure for issuing spare parts will be as directed by appropriate base or army commanders. The procedure usually is as follows:

(1) When a requisition is received by the stock control section (frequently brought by the unit requesting parts), it is edited by a stock control clerk.

(2) The approved requisition is sent to the the storage section, where parts specialists make up the shipment. This may be done from the loose-issue area, where certain quantities of all parts are kept, or from the

reserve supply in warehouses and storage areas. Small parts may be placed in bags or boxes with the appropriate identifying tag.

(3) The parts to be issued are checked, consolidated, and loaded on carriers.

(4) Shipping documents are prepared. If a representative of the receiving unit is present, he signs a retained copy of the shipping document certifying to the receipt of the parts.

(5) Stock record cards are posted to indicate the issue of the parts.

(6) Records in the stock locator are adjusted to indicate any space available in bins.

50. PROPERTY ACCOUNTING

No formal accounting of spare parts is required in the combat zone. An accurate system of informal accounting is essential, however, for successful accomplishment of the company's mission. When parts are issued to a unit, the receiving officer of the unit or his representative signs a receipt for them. The parts company will honor any type of authorized request for parts made by those responsible for supplying combat units. However, the normal method of requisitioning spare parts is used whenever practicable, following policies of the theater commander. Publications containing Army doctrine in regard to property accounting are listed in appendix I. Procedures outlined in theater directives will be used for property accounting.

51. INVENTORYING

The maintaining of an accurate system of accounting requires that accurate inventories be taken at frequent intervals. The procedures outlined below may be followed:

a. Preparation of Count Slips.

(1) Inventory count slips should be prepared on card stock 2¼ by 4 inches, and should show item, serial number, stock number, quantity, location, and unit of measure.

(2) The stock control clerk in the stock control section will—

(*a*) Assign a serial number to each count slip.

(*b*) Enter an appropriate stock number on each count slip.

(*c*) Forward the count slips to the inventory team in the storage section.

(3) A supply of blank count slips, serially numbered, will be furnished the inventory team to be used for items for which no inventory count slip has been furnished.

b. Count Slip Register. As the stock control clerk assigns serial numbers to count slips, he will prepare a count slip register for control purposes. The register will list the serial numbers assigned to count slips forwarded to the inventory team. It will be used by the stock control clerk to check off the completed count slips as they are returned by the inventory team (*g* below).

c. Posting Stock Location to Count Slip.

(1) Upon receipt of the prepared count slips from the stock control clerk, the inventory team will indicate on each the physical

location of the stock, as indicated by the master stock locator.

(2) From the supply of blank, serially numbered count slips received from the stock control clerk, the inventory team will prepare one count slip for each location whenever the master stock locator indicates—

(*a*) A single stock item is stored in more than one warehouse location.

(*b*) An item is stocked for which no count slip has been received from the stock control clerk.

(3) Blank count slips will be used in serial number sequence to facilitate their control.

(4) When assured that a separate count slip exists for each warehouse location of each stock item, as indicated by the master stock locator, the inventory team will proceed with pretagging operations.

d. Pretagging.

(1) When items are stored in sectioned drawers of storage cabinets, the count slip will be put in the compartment with the appropriate stock item. When parts are stored in bins or containers, the count slip will be attached in a conspicuous place.

(2) If, during the pretagging operation, an item is found for which no count slip has been prepared, the tagger will prepare one.

(3) When assured that each stock item in each warehouse location has been pretagged, the inventory team will proceed with the physical count.

e. Physical Count.

(1) The physical count will be accomplished by the inventory team either by actual count of the stock items or by weighing the items on a ratio scale.

(2) If at any time during the physical count an item is found for which no count slip has been prepared, the inventory team will prepare one.

(3) As the physical count is completed on each item, the quantity will be entered on each count slip.

f. Stock Locator Reconciliation.

(1) As the physical count is completed on each count slip, the inventory team will compare the warehouse location indicated thereon with the warehouse location indicated on the master locator card. The master locator card will be adjusted so that it accurately reflects the location of each item stocked.

(2) The inventory team will forward completed count slips to the stock control clerk.

g. Check-off in the Count-Slip Register. As completed count slips are received from the inventory team, the stock control clerk will check off the serial numbers in the count slip register. All count slips must be accounted for, including recount slips, blank unused count slips, and those voided through mutilation or error.

h. Stock Record Balances.

(1) As completed count slips are checked off in the count slip register, the stock control clerk will file them by stock number in

numerical sequence to correspond with the sequence of stock record cards.

(2) Quantities indicated on count slips will be compared with quantities reflected on master stock record cards.

(3) When the quantity given on the count slip agrees with the stock record balance, action will be taken as described in *j*(3) below. When the quantity does not agree with the stock record balance, action will be taken as described in *i* below.

i. Recount.

(1) Physical recount of stock will be made when the total quantity indicated on all count slips for each stock item does not agree with the quantity indicated on the master stock record card. At the discretion of the company commander, exceptions will be made when the discrepancy is of small quantity, the monetary value of the item in question is negligible and, in his opinion, the cost of man hours expended on a recount would exceed the value of the quantity in discrepancy.

(2) When a recount is necessary, the stock control clerk will prepare a recount slip, using an unnumbered, blank count slip. The stock number and the warehouse location of the item to be recounted will be entered on the recount slip. The recount slip will be assigned the same serial number as the original count slip, with an alphabetic suffix added to indicate the recount. For example, if a recount is necessary on Count Slip No. 12345, the first recount slip is assigned serial num-

ber 12345–A; if a second recount is necessary, the second recount slip is assigned serial number 12345–B. Succeeding recounts continue in alphabetic sequence.

(3) The recount slip will be forwarded to the inventory clerk and this action recorded in the count slip register by the control clerk.

(4) The inventory team will make the physical recount of the item in question and return the recount slip to the stock control clerk.

(5) The stock control clerk will refer to the count slip register and relate the recount slip to the original count slip.

(6) Recount of a stock item will continue to be made by the platoon leader until he is satisfied with the physical count.

j. Reconciliation and Adjustment.

(1) When all count and recount slips have been received and accounted for and quantities indicated thereon have been compared with stock record balances, the stock control clerk will begin preparation of the inventory adjustment report.

(2 When the total quantity of all count slips or recount slips covering each stock item does not agree with the stock record balance for that item, appropriate entry will be made on the inventory adjustment report. The inventory adjustment report with appropriate voucher number will be forwarded to the officer designated by the depot commander to review and act upon these reports. The officer so designated will either approve the report or take such other action

as the circumstances require, such as requiring a recount or a report of survey.

(3) When the total quantity of all count slips or recount slips for each stock item is in agreement with the stock record balance for that item, appropriate entry will be made on the stock record card.

(4) The new balances on the inventory adjustment report will be posted to the stock record cards.

(5) All count slips, recount slips, the count slip register, and the inventory adjustment report will be filed by the stock control clerk as supporting documents to the accountable stock record.

Section III. IDENTIFYING SPARE PARTS

52. GENERAL

A unit spare part or group of parts wherever and however stored must always be clearly marked for identification. Marking must be such as to make it impossible for the identification to be accidentally removed from the part. The marking must permit the parts specialists to identify the spare part promptly without disturbing any preventive treatment, wrapper, or seal. All marking must be clearly and legibly written.

53. PARTS TAG

a. During Storage. The parts tag will be used by the parts company. It should be prepared and attached to at least one item in each group stored in bins and cabinets and should be attached to larger assemblies. Where small packaged items are too

small for a tag, the tag can be placed in the storage compartment with them. While parts common such as nuts, bolts, and rivets need not be individually tagged, a parts tag should be attached to several of the parts or several tags distributed throughout the storage container. Parts tags will contain information as to quartermaster stock number, manufacturer's stock number, nomenclature, and location.

b. During Distribution. When an order is being filled and parts specialists are laying out items for issue or shipment, at least one item in each group should be tagged with the parts tag. The parts tag will not only assist the parts specialists in keeping items that are being distributed to various organizations from becoming mixed, but will also assist the personnel of the receiving organization in identifying the items.

Section IV. IDENTIFYING UNIDENTIFIED SPARE PARTS

54. GENERAL

To properly identify spare parts, a parts identifier must know the function of the parts, together with their correct stock numbers and nomenclature. In order to find the correct stock numbers and nomenclature of all parts, he must be able to find any one of the 40,000 spare parts listed in the Quartermaster Supply Catalog. Any skilled mechanic can recognize spare parts, but without the stock numbers and nomenclature he cannot properly identify them.

55. CLASSIFYING UNIDENTIFIED PARTS

Unidentified parts are classified as numbered and unnumbered parts. Numbered parts have a legible number stamped on them; unnumbered parts do not.

Some parts, however, show numbers that are not listed in any publication. These are the manufacturer's processing numbers, and parts having such numbers should be classified as unnumbered parts. Parts numbers should not be confused with casting numbers, which are the manufacturer's processing numbers, or with assembly numbers, which are numbers assigned to items assembled from several parts. Since numbered parts can usually be identified more quickly than unnumbered parts, the numbered parts should be identified first and then returned to stock.

56. IDENTIFYING NUMBERED PARTS

Identifying numbered parts is not difficult when QM 5–2–1 and 5–2–2 can be used. In the QM 5–2–1 and 5–2–2 catalogs and supplements, all spare parts that have been assigned QM stock numbers are listed in QM stock number sequence. By referring the number found on the part to the part number given in the catalog, the QM stock number can be found and correct identification can be made. In the same way, the nomenclature and part number may be obtained from QM stock numbers which are listed alphabetically in QM 5–3–1 and 5–3–2 and supplements.

57. IDENTIFYING UNNUMBERED PARTS

a. Consultation. As the first step in identifying unnumbered parts, the identifier should consult with a skilled mechanic if the company is operating near a quartermaster reclamation and maintenance company. The mechanic may know the equipment and model for which the part was manufactured. Partsmen may also be consulted, since from frequent

handling of the parts they often remember the numbers of the parts or the bin in which the parts are stored.

b. Catalogs. When no one can be found who can identify the part, the quartermaster supply catalogs should be used. In order to use the catalogs effectively, however, the identifier must be thoroughly familiar with quartermaster major items of equipment. If the identifier knows quartermaster mechanical equipment, he usually can connect the part with a major item. By determining the major item to which the part belongs, the identifier can narrow down his search to a particular QM 7, 7 & 8, or 8 catalog. He then may decide that the component assembly within the major item contains his particular part. If he gets this far, the identifier needs only to turn to the proper catalog and find the part. If an illustration is not given in the catalog, he should compare the part with another similar part that has been correctly identified.

c. Characteristics.

(1) Since the shape of a part is always a clue to identification, each part should be examined carefully and each peculiarity of shape noted.

(2) The apparent function of the part may often be determined by the construction of the part. A part with teeth is usually a gear.

(3) The size of the part may indicate to which of two similar major items it belongs. The camshaft of one gasoline wheeled tractor may be similar in design except for size to the camshaft of another gasoline wheeled

tractor. On some parts it may be necessary to use a measuring instrument, such as a micrometer, to determine certain characteristics and make comparisons.

(4) The identifier must familiarize himself with the metallic composition of parts in certain major items. He should know whether the part is made of brass, steel, copper, or other metals. Electrical parts are often made of copper.

(5) The finish of the part may be a clue to its identity. The identifier should note whether the part is painted, hardened, cast, polished, or rough. A rough surface indicates the outside of a part.

d. Comparison. A part may be identified by comparing it with one already identified, although many differences in size are invisible to the naked eye. When all other methods to identify a part have failed, this method should be used.

58. PREVENTING LOST IDENTITY

Since most parts lose their identity because of carelessness in handling, the following precautions should be taken:

a. If only one of a large group of parts has a parts tag, every spare part taken from this group should have a parts tag attached to it.

b. Every shipment should be handled carefully and properly identified with parts tags.

c. When parts are removed temporarily from bins, they should always be replaced in the same bins.

d. Before partsmen store items in a bin, they should check the numbers of the items in the bin to

see that they are the same as the numbers of the items being stored.

e. All writing and printing on records and parts tags must be legible.

f. Loose or damaged parts tags should be replaced.

g. Unidentified parts should not be allowed to accumulate into larger piles than necessary.

Section V. RECORDS AND REPORTS

59. INTERNAL RECORDS

Processing of papers in the parts section of a depot operated by the quartermaster parts company is kept to a minimum in order to expedite the receipt, storage, and distribution of spare parts. The company commander will be responsible for keeping the following document files, as required by operations:

a. Due-in Document File. The due-in document file must be referred to in order to find out whether an item or items that are due in will be available or nonavailable when issue or shipment is made. Documents kept in the due-in document file may be letters, requisitions, purchase orders, teletype messages, back-order lists, car arrival reports, contracts, vendors' or Army shipping documents, reports of shipments, or similar papers. The due-in register (DA AGO Form R–5614), which indicates items due in with expected delivery dates, will be kept with the due-in document file.

b. Debit Voucher File. The debit voucher file contains records of incoming shipments. In this file may be vendors' shipping documents, Army shipping documents, or other related papers. A master debit voucher register (DA AGO Form R–5174)

DUE-IN DOCUMENT REGISTER

PARTS SECTION DEPOT Q-19

DOCUMENT IDENTIFICATION NUMBER	DATE REC'D	CONTRACT NO. PURCHASE ORDER NO. SHIPPING ORDER NO. DELIVERY ORDER NO.	CONSIGNOR (CONTRACTOR-DEPOT-STATION)	ITEMS OR REMARKS
851	30 Aug	Rqn 5-6742	52d Gen Depot	Due Out 20 Sep
852	30 Aug	Rqn 2094	52d Gen Depot	
853	31 Aug	Rqn 2095	52d Gen Depot	
854	1 Sep.	teletype 31 Aug 51	103d Gen Depot	603d Rclm & Maint Co.

DA AGO Form R-5614, 1 January 1950

Figure 8. Due-in document register (DA AGO Form R-5614).

MASTER DEBIT VOUCHER REGISTER

PARTS SECTION DEPOT 2-19

VOUCHER NUMBER	DATE POSTED	RECEIVING DOCUMENT IDENTIFICATION NUMBER	CONSIGNOR	REMARKS
12734	30 Aug	A.S.D. 9625-1	52d Gen Depot	Item: Starter Assembly
12735	30 Aug	A.S.D. 9626-1	52d Gen Depot	Item: reclassembly hose
12736	30 Aug	A.S.D. 9627	52d Gen Depot	Tally O.K.
12737	30 Aug	A.S.D. 9629	52d Gen Depot	Tally O.K.

WD AGO FORM NO. R-5174 25 September 1945

Figure 9. Master debit voucher register (DA AGO Form R-5174).

974275°—51——6

and debit voucher assignment register (DA AGO Form R–5173) should be maintained with the debit voucher file.

c. Unserviceable Property File. The unserviceable property file, which is maintained by the company, lists items that cannot be used by the depot. Since these items are sent to the quartermaster salvage company to be either reclaimed or junked, salvage item records may be included in this file.

d. Credit Voucher File. The credit voucher file, which contains records of outgoing shipments, consists of the requisition suspense file and the completed requisition file. Included in this file may be copies of requisitions for spare parts from unit being served, copies of extract requisitions, purchase requests, notices of delayed items, notices of nonavailability, Army and vendors' shipping documents, and allied papers. A requisition control and credit voucher register (DA AGO Form R–5175) should be maintained. Upon receipt of a requisition or shipping order, the documents will be registered and assigned a voucher number.

e. Property Audit File. The property audit file, which contains shipping documents, is required by the company when operating in the communications zone. The documents should be maintained in the same sequence as requisition files and segregated by consignee for purposes of audit.

f. Shortage Report File. A shortage report file is required when quantities of spare parts received are in excess of or less than quantities stated on shipping documents. Copies of shipping documents and related papers may be kept in this file.

DEBIT VOUCHER ASSIGNMENT REGISTER
PARTS SECTION DEPOT 3-19

VOUCHER NUMBER	DATE AS'G'D	RECEIVING DOCUMENT IDENTIFICATION NUMBER	REMARKS	VOUCHER NUMBER	DATE AS'G'D	RECEIVING DOCUMENT IDENTIFICATION NUMBER	REMARKS
142	30 Aug	A.S.D. 3857	Tally O.K.				
143	30 Aug	A.S.D. 3858	Tally O.K.				
144	30 Aug	A.S.D. 3859	Tally O.K.				
145	30 Aug	A.S.D. 3860	Gaskets No Tally				

WD AGO FORM NO. R-5173 25 September 1945

Figure 10. Debit voucher assignment register (DA AGO Form R-5173).

DATE 30 Aug 51 REQUISITION CONTROL AND CREDIT VOUCHER REGISTER NO. 36

PARTS SECTION, DEPOT Q-19

VOUCHER NUMBER	SUB-VOUCHER NUMBER	STATION AND REQUISITION NUMBER	FROM	DATE TO WHSE	REQUIRED DATE	DATE OF SHIP-MENT	DATE OF DUE OUT RE-LEASE	REMARKS
5304	1	304 REM 4-315	52d Gen Dep	30 Aug	5 Sep.	4 Sep.	4 Sep	Due Out 1 Sep.
5305		405 Ldrg 811	52d Gen Dep.	30 Aug	21 Sep.	19 Sep.	18 Sep.	
5306		304 REM 4-316	103d Gen Dep.	30 Aug	21 Sep	19 Sep	18 Sep.	
5307		407 REM 712	52d Gen Dep	30 Aug	21 Sep.	19 Sep.	18 Sep.	

WD AGO FORM NO. R-5175 25 September 1945

Figure 11. Requisition control and credit voucher register (DA AGO Form R-5175).

g. Inventory Adjustment Report Voucher File. The inventory adjustment report voucher file contains the inventory adjustment report when its use is required in the communications zone. Overages and shortages are shown on this report. An inventory adjustment report voucher register may be prepared to list identification numbers. A number will be used for each inventory adjustment report prepared.

h. Due-Out Suspense File. The due-out suspense file, which is maintained by the company, contains documents which are filed pending the filling of the requisitions.

60. STOCK RECORD CARDS

Stock record cards should be set up for each spare parts item carried in stock, except for interchangeable parts carried under a single stock number. The stock record card shows the date, voucher number, amount received, amount shipped, and balance on hand. Each entry on the stock record card must be supported by a voucher, which serves as authority for increasing or decreasing balances. DA AGO Form 421 or a similar form should be used.

61. STOCK LOCATOR CARDS

Stock locator cards, filed in numerical sequence by QM number, should be prepared to show the location of items by warehouse, section, row, and stack for bulk items and by row and bin for binnable items. The cards should also give the nomenclature, QM number, part number, and manufacturer's code.

62. REPORTS TO HIGHER HEADQUARTERS

The reports required of the quartermaster parts company are normally prescribed by headquarters of army or the communications zone section as follows:

a. Stock Status Report. A stock status report is prepared by the company and submitted to army or communications zone periodically as prescribed. Information on the stock status report includes but need not be limited to balances on hand, issues, dues-in, and dues-out.

b. Storage Data Report. A storage data report, which is prepared periodically, usually indicates the amount and kind of storage space occupied and the amount and kind of storage space available.

c. Work Output Report. The work output report is compiled by the company in order to show the progress being made. The report may reflect average work accomplishment per man and reports of total tonnages and man hours.

Section VI. OPENING-UP, TAKING-OVER, AND CLOSING-OUT OPERATIONS

63. OPENING-UP OPERATIONS

The company commander on opening up a parts section of a depot will—

a. Cooperate with the depot commander in selecting a proper site for operations, including an adequate bivouac site or quarters for personnel.

b. Work out the standing operating procedure for the new mission.

c. Obtain general information about the units to be served.

d. Estimate the number of vehicles to be serviced and the number of parts required for initial operations.

e. Prepare estimate of civilian or prisoner of war labor required, if such labor is available and initial work loads require their use.

f. Notify higher headquarters and units which are to be served when operations are ready to begin.

64. TAKING-OVER OPERATIONS

The company commander on taking over the operations of the parts section of a depot will—

a. Acquaint himself with the mission and standing operating procedure of the depot.

b. Check security, fire protection, and camouflage measures established for the depot.

c. Establish contacts with higher headquarters and commanders of units being served.

d. Check inventory against property, equipment, and supplies.

e. Secure transfer of unit funds.

f. Check roster against the table of organization.

g. Check morning report against the roster.

65. CLOSING-OUT OPERATIONS

The company commander on closing out the operations of the parts company at a depot will—

a. Comply with orders from higher headquarters.

b. Notify higher headquarters of the exact time when operations will stop. If the company or sections thereof are assigned to a new area, the company commander should notify the higher headquarters concerned when operations will begin in the new area.

c. Prepare a plan for movement by rail or truck and instruct company personnel concerning the provisions.

d. See that all equipment is loaded properly.

e. See that latrines are closed and that the area is thoroughly policed.

CHAPTER 7

SECURITY, CAMOUFLAGE, AND DEMOLITION

66. SECURITY

a. Company Security. The commander of the quartermaster parts company, in cooperation with the commander of the depot to which the parts company is assigned, will develop plans for the security of the company.

(1) *Pilferage and Sabotage.* The commander of the parts company is responsible for providing enough guards for protection against pilferage and sabotage.

(2) *Fire.* The commander of the parts company is responsible for the preparation of plans to prevent or combat fires. A unit fire marshal will be designated and all personnel will be instructed in fire-prevention and fire-fighting measures.

b. Bivouac Security. The company commander determines the bivouac location of the company in accordance with instructions of the administrative command to which the company is attached. By use of a tactical defense plan the bivouac is secured against all forms of enemy attack. The company commander determines the over-all defense of the unit. When sections are operating separately, the over-all defense is planned by the unit to which the sections are attached. The following measures should be taken for the defense of the quartermaster parts company:

(1) Dispersion of vehicles, personnel, and equipment.
(2) Posting of adequate guards and gas sentries.
(3) Construction of slit trenches, prone shelters, foxholes, and other hasty fortifications.
(4) Assignment of specific defense tasks to all personnel of the unit, with rehearsals of these tasks.
(5) Assignment of personnel for demolition duties.

c. Individual Security.

(1) Each man in the quartermaster parts company must be skilled in the use of the carbine and familiar with the construction of foxholes, slit trenches, or similar hasty fortification.
(2) Protection of the individual soldier against chemical attack requires thorough training in the identification of toxic gases and in the use of the gas mask and other protective equipment issued to the individual soldier.
(3) For information on the detection and deactivation of mines and booby traps, see DA Pamphlet 21–23.

67. CAMOUFLAGE

Concealment of personnel, equipment, and storage supplies from enemy observation by the effective use of camouflage is the principal defense of the quartermaster parts company (app. I).

a. Spare Parts. When spare parts are stored in buildings, care must be used to avoid signs of activ-

ity. When spare parts are stored in the open, camouflage nets may be draped over the parts.

b. Installation. Tents used to store spare parts should be placed under cover or made to fit into the terrain. Tents can be made to blend with hedges or bushes by the use of nets. Access to buildings or tents must be carefully planned to avoid making new paths.

68. DEMOLITION

Except in emergencies, destruction of any material is a command function to be acted upon only after authority is granted by higher headquarters. Demolition must be as rapid and simple as possible and must render all spare parts and equipment unserviceable.

a. Metal Items. Throw small metal items into any available body of water. The water should be deep enough to make salvaging difficult and unlikely. Break, bend, or smash tools.

b. Machinery. Break generators, buffers, gears, and shafts with sledge hammers or axes. Use rifle, grenade, and rocket fire to add to the damage. Pour gasoline on items and ignite.

c. Laundry Spare Parts. Smash gears and pipes; then drench with gasoline and burn.

d. Refrigeration Spare Parts. Use a sledge hammer to break up valves, engine parts, pipes, and coils.

e. Sterilization Equipment. Use a sledge hammer, pick, or ax to smash pipes, gages, or electrical parts; then pour gasoline over items and burn.

f. Bath Spare Parts. Smash showerheads and pipes with a sledge hammer or ax.

g. Bakery Equipment Spare Parts. Destroy heater

parts with heavy blows of a sledge hammer or pick and smash miscellaneous parts of the field range.

h. Vehicles and Warehousing Equipment. Use an ax or a sledge hammer to demolish vehicles. Smash the carburetor, spark plugs, distributor coil, valves, transmission, and engine block. Use an ax on trailer tires. Destroy warehousing equipment that cannot be saved by fire, explosives, or axes.

CHAPTER 8

MOVEMENT

Section I. MOTOR

69. REQUIREMENTS

The quartermaster parts company is not provided with enough organic vehicles to transport all of its personnel and equipment simultaneously. When the company is to be moved by motor transport, the transportation section of the base depot or of the army to which the company is assigned or attached will coordinate movement arrangements. These arrangements will normally consist of furnishing and supervising necessary motor units, rendering assistance in preparation of the movement schedule and tables, and coordinating traffic control in conjunction with the traffic control agencies of its own and higher headquarters. Normally, items of materials handling equipment are moved by rail.

a. Company. Transportation requirements to move the equipment of the company are given in appendix VI. Personnel can be transported in the five organically assigned trucks plus 2½-ton 6 by 6 trucks.

b. Sections. When a section of the stock control platoon and a section of the storage platoon are to be moved as a unit without the fork lift truck, three 2½-ton 6 by 6 cargo trucks will be required. Twenty-five men will be transported in one truck, and the remaining men and the equipment will be transported in the second and third trucks. When the fork lift truck is to be moved, a truck with at least 161.5 inches inside body length (the length of the fork lift truck) will be required.

70. PLAN FOR MOVEMENT

a. Administrative Arrangements. When orders are received to move the personnel of the quartermaster parts company or its sections to a new location, the company commander will make the necessary administrative arrangements within the company. He will obtain necessary additional trucks from the base depot or from army and will organize the personnel into groups to fit the transportation provided. All equipment that will be transported will be packed, marked, and properly loaded on the trucks. The company commander will assemble the personnel of the convoy, outline and discuss the route to be followed, established march security, and assign specific march duties to personnel. The plan for motor movement will include provisions for mess, medical care, and rest en route. When the convoy has reached its destination, the company commander (or the platoon leader if sections are being moved) will make plans for the unloading of equipment and reuniting of troops and equipment.

b. Assignment of Jobs.

(1) *Drivers.* Drivers will drive the vehicles to which they are normally assigned. When trucks other than organic make the trip, they will be driven by personnel provided by higher authority.

(2) *Reconnaissance Party.* A reconnaissance party should be designated to select halting and quartering areas in advance.

(3) *Clean-Up Party.* A clean-up party will be designated to inspect quartering areas and halt sites after they have been evacuated by the convoy.

c. Rate of March. When tactical considerations do not interfere, the following may be used as a guide in planning an average day's motor march:

(1) Preparation for march (including time for breakfast, inspection of vehicles, and breaking of camp): 1 hour.
(2) Running time (including all halts except noon halt): 7 to 8 hours.
(3) Halt for midday meal and refueling: 1 hour.
(4) Inspection and servicing of vehicles after arrival at camp: 1 hour.
(5) Average convoy speed should be about 25 miles per hour. The individual vehicle should not exceed 35 miles per hour.

d. Quartering. If the trip is over 200 miles, the maximum distance for a day's travel by truck, shelter must be provided. The shelter may be in bovouac, in a friendly camp or cantonment, or in billet. The requirements for quartering are accessibility, protection against the weather, an adequate supply of water, good natural drainage, firm dry soil and freedom from sources of disease.

Section II. RAIL

71. REQUIREMENTS

The transportation requirements for movement of the quartermaster parts company by rail will be provided for by the Transportation Corps. Approximate car requirements for the company based on United States military railway car standards are as follows:

a. Company. Requirements for movement of the

company personnel and all equipment are four standard pullman cars or troop sleepers, one 40-foot boxcar, two 42-foot flatcars, and one 50-foot flatcar.

b. Sections. Requirements for movement of a section of the stock control platoon and a section of the storage platoon are one standard pullman car or troop sleeper, part of one flatcar (for the fork lift truck), and one-half of one boxcar.

72. PLAN FOR MOVEMENT

a. General.

(1) As soon as the commander of the quartermaster parts company receives orders to move his company or a section of the company by rail, he will submit to the appropriate transportation officer in the communications zone a letter containing the following information:

(*a*) Orders or instructions authorizing the movement.

(*b*) Name and number of the organization.

(*c*) Numerical strength of officers, enlisted men, and vehicles.

(*d*) Amount of company or section property and the authorized and checkable baggage.

(*e*) Date and place of entraining.

(*f*) Approximate car requirements (par. 71).

(2) The transportation officer will notify the company commander where the rail cars will be placed and when the cars will be ready for loading.

b. Entraining Officer. The company commander will detail one platoon leader to serve as entraining officer, whose duties are as follows:

(1) To examine the approaches of the entraining point so that entraining may proceed without confusion, delay, or interruption.
(2) To supervise the loading of personnel and property.
(3) To take the necessary measures to insure speedy and satisfactory loading.
(4) To collect and transmit checkers' lists to the appropriate transportation officer.
(5) To make necessary assignments of men to cars. Normally, the entraining officer will allow only one entrance to each car and will instruct the men entering the cars to proceed directly to their assigned space.

c. Train Transportation Officer. The company commander will detail the platoon leader selected as entraining officer to be train transportation officer, whose duties are as follows:

(1) To make a record of written orders for transportation.
(2) To account for all personnel on the train.
(3) To prepare a bill of lading for organizational equipment in accordance with instructions in AR 55–145. This bill of lading will usually be turned over to the transportation officer at the destination.
(4) To designate one noncommissioned officer as checker for each car. The checker will list the property loaded and record the data required for the preparation of the bill of lading.

d. Baggage Detail. The company commander will see that a baggage detail is formed to load and unload the baggage.

e. Guard Detail. The company commander will see that a guard detail is formed. At least two men should ride in an unsealed boxcar to guard the company or section property.

f. Mess Provisions. The company commander should find out whether troops should carry rations with them or whether he should make other provisions for meals. In the theater of operations, stations are usually provided along the route for meals and relaxation.

g. Orders. The company commander will issue orders to his company in conformity with AR 55–155.

h. Delays. The company commander (or the platoon leader, if the sections are moving separately from the company) will maintain a complete record of delays en route. The record should include any occurrences that compel the use of railway equipment after the scheduled hour of arrival at destination. Such a record will answer questions that may arise as to the improper use of railway facilities.

i. Inspection. The company commander (or platoon leader) will make an inspection of railway equipment that has been vacated in order to determine whether any railway property has been damaged or unlawfully removed. He will report the results of this inspection to the commanding officer of the new home station.

j. Detraining. Troops should be told the arrival time so they will be ready to detrain promptly. The officers and guard detail will detrain first. The baggage detail will be left behind to unload the baggage and bring up the property. When the quartering area is distant from the detraining point, property should be unloaded by the entire company or section

to save time. If practicable, noncommissioned officers who acted as checkers when loading will serve in the same capacity when unloading.

73. PACKAGING

a. General.

(1) *Requirements.* The commander of the quartermaster parts company must be certain that all company equipment for rail shipment is packaged and packed to withstand unusual transportation, handling, and climatic conditions. He will see that each shipment conforms to all the requirements necessary to insure its arrival at its destination in sound condition.

(2) *Precautions.* Field ranges, fuel containers, and other items in which gasoline or other solvents are used, must be drained and flushed before being boxed and crated. A certificate that this action has been taken will be attached to crates containing the items and to the packing list.

b. Shipping Containers.

(1) *Weight.* Containers should be as light as possible consistent with the nature of the item, conditions of handling and distribution, and manner of use in order to permit handling by the smallest number of individuals.

(2) *Cubage.* Shipping containers should have a minimum cubage in order to conserve shipping and storage space. Cubage can be reduced by disassembling projecting parts, arranging them compactly, wrapping and

packaging them, and placing them securely within the shipping container. No part should be removed unless it can be readily reassembled.

c. Packaging Procedures.

(1) *Wrapping.* Commercial wrapping paper will be used, when possible, to wrap items.

(2) *Tying.* Twine should be used in tying packages, interior containers, and articles that are to be packed in shipping containers.

(3) *Bolting.* Items that do not completely fill shipping containers should be bolted to prevent movement inside the containers. Items having projecting parts that might be broken or might puncture the container should be rigidly supported or suspended. The clearance between projecting parts and the inside face of the container should be at least an inch.

74. BLOCKING AND BRACING

TM 9–840 contains information for blocking and bracing the ¾-ton 4 x 4 cargo truck M37 and utility truck M42 for rail shipment. The same information may be adapted to prepare the water tank trailer and 2½-ton 6 x 6 cargo truck for shipment. Blocking and bracing the fork lift trucks for shipment is described in appendix VII.

Section III. AIR

75. REQUIREMENTS

a. Orders. Orders for movement of the parts company by air will be issued by higher authority to

the company commander and to the commander of the air task force supplying transportation. The orders will normally comprise—

(1) Composition of the unit.
(2) Designation of departure airport.
(3) Date and hour transport begins.
(4) Destination.

Note. If this information is secret, the headquarters issuing the orders will classify it as such.

(5) Method of movement from present site and quartering arrangements at or near the airport.
(6) Restrictions on amount or type of equipment and supplies to be carried.
(7) Probable length of time during which the unit must be self-sufficient.
(8) Provision of subsequent supplies.

b. Company Commander's Report. The company commander will prepare a report for the Air Force commander. The report will contain the following information:

(1) Strength and composition of the unit.
(2) Total weight of supplies and equipment.
(3) Nomenclature, cubage, weight, and number of bulky items.
(4) Amount of baggage.

76. PLAN FOR MOVEMENT

a. Information.

(1) *Initial.* In compliance with orders from higher authority, the company commander will compile information on the following:

(*a*) Method of loading desired.

(*b*) Initial operations at destination, such as ground transportation or tactical dispersion.

(2) *Destination.* If orders do not include specific items of supply and equipment that must be excluded from air shipment, the company commander will determine the tentage, equipment, vehicles, and supplies available at destination.

b. Procedure. The following operations must be considered by the company commander:

(1) Movement of the unit or sections of the unit from its present location to the vicinity of departure airport, for which marching and loading tables will be necessary.

(2) Movement to loading points at departure airport.

(3) Loading of trucks to correspond to the loading of airplanes.

(4) Movement to loading points, with consideration given to time, route, traffic control, loading arrangements, and guides.

(5) Loading of airplanes.

c. Packaging and Packing. Procedures for packaging and packing are similar to those discussed in paragraph 73.

d. Personnel and Baggage. Preparations for movement of personnel and baggage will be determined by the type of airplanes used. Baggage may be carried in the same plane as personnel or in a separate plane.

APPENDIX I

REFERENCES

1. ADMINISTRATION

AR 220–70, Companies—General Provisions.
AR 340–15, Correspondence and Messages.
SR 320–5–1, Dictionary of United States Army Terms.
SR 320–50–1, Authorized Abbreviations.
SR 340–15–1, Correspondence.
TM 12–250, Administration.
TM 12–255, Administrative Procedures.

2. DEMOLITION

FM 5–25, Explosives and Demolitions.
TB QM 27, Demolition of Quartermaster Supplies and Equipment.

3. FOOD SERVICE

TM 10–402, Mess Management.
TM 10–405, The Army Cook.
TM 10–407, Cutting of Beef.
TM 10–408, Cutting and Preparing Lamb.
TM 10–412, Recipes.
SB 10–260, Master Menu.
TF MISC 7532, Food Service Activities.
TF 10–1291, Conservation of Food.

4. INDEXES

DA Supply Catalog QM 1 Introduction and Index.
FM 21–8, Military Training Aids.

SR 110–1–1, Index of Army Motion Pictures and Film Strips.

SR 310–20–3, Index of Training Publications.

SR 310–20–4, Index of Technical Manuals, Technical Regulations, Technical Bulletins, Supply Bulletins, Lubrication Orders, Modification Work Orders, Tables of Organization and Equipment, Reduction Tables, Tables of Allowances, Tables of Organization, and Tables of Equipment.

SR 310–20–5, Index of Administrative Publications.

SR 310–20–6, Index of Blank Forms and Army Personnel Classification Tests.

5. MOTOR OPERATION AND MAINTENANCE

FM 25–10, Motor Transport.

TM 9–840, ¾-Ton 4 x 4 Cargo Truck M37, Utility Truck M42, Ambulance Truck M43, and Telephone Installation Light Maintenance and Cable Splicing Truck, V–41, Dodge.

TM 9–883, 1-Ton, 2-Wheel Cargo and Water Trailers.

TM 21–300, Driver Selection, Training, and Supervision, Wheeled Vehicles.

TM 21–305, Driver's Manual.

TM 37–2810, Motor Vehicle Inspection and Preventive Maintenance Services.

AR 750–5, Maintenance Responsibilities and Shop Operations.

LO 9–883–1, Trailer, 1-Ton Payload, 2-Wheel, Water Tank, 250-Gal.

DA Supply Catalog ORD 7–8–9 SNL G–508, Truck, 2½-Ton 6 x 6 (GMC).

DA Supply Catalog ORD 7–8 SNL G–527, Trailer, 1-Ton, 2-Wheel, Water Tank, 250-Gal.

DA Supply Catalog ORD—*SNL G–740, Truck, ¼-Ton, 4 x 4 Utility, M38.

DA Supply Catalog ORD—*SNL G–741 Truck, ¾-Ton, 4 x 4, Cargo, M37.

TF 9–1258, Lubrication of Military Vehicles—Part I: Principles of Lubrication.

TF 9–1417, Lubrication of Military Vehicles—Part II: Methods of Lubrication.

TF 9–1418, Lubrication of Military Vehicles—Part III: Maintenance of Equipment.

6. PACKING AND PRESERVING SPARE PARTS

TM 9–850, Cleaning, Preserving, Sealing and Related Materials Issued for Ordnance Matériel.

TM 9–2854, Instruction Guide, Ordnance Packaging and Shipping (Posts, Camps, and Stations).

SR 746–30–5, Army Marking Directive.

SB 10–76, Marking and Identification of Processed Spare Parts.

TB 5–9713–1, Preparation for Export Spare Parts for Corps of Engineers Equipment.

7. PROPERTY ACCOUNTING

AR 35–6520, Property Accountability and Responsibility.

AR 35–6560, Receipt, Shipment, and Issue of Property.

*See ORD 1, for published catalogs of the Ordnance section of the Department of the Army Supply Catalog.

AR 735–150, Accounting for Lost, Damaged, and Destroyed Property.
SR 735–150–1, Accounting for Lost, Damaged, or Destroyed Property.
SR 745–45–5, Report of Damaged or Improper Shipment.
TM 38–403, Station Supply Procedure.

8. SPECIAL OPERATIONS

FM 31–25, Desert Operations.
FM 70–10, Mountain Operations.
FM 70–15, Operations in Snow and Extreme Cold.
FM 72–20, Jungle Warfare.

9. STORAGE

TM 10–250, Storage of Quartermaster Supplies.
FS 10–110, Warehousing—Part I: Aisle Arrangement.
FS 10–111, Warehousing—Part II: Bins, Racks, and Box Pallets.
FS 10–112, Warehousing—Part III: Safety Precautions.

10. SUPPLY

AR 711–20, Supply Economy.
FM 10–10, Quartermaster Service in Theater of Operations.
FM 10–13, Quartermaster Reference Data.

11. TRAINING

FM 5–32, Land Mine Warfare.
FM 20–15, Tents and Tent Pitching.
FM 21–5, Military Training.

FM 21–18, Foot Marches.
FM 21–20, Physical Training.
FM 21–75, Combat Training of the Individual Soldier and Patrolling.
FM 22–5, Drills and Ceremonies.
FM 23–7, U. S. Carbine, Caliber .30, M1 and M1A1.
FM 26–5, Interior Guard Duty.
TM 5–267, Camouflage.
TF 5–12, Map Reading.
TF 5–649, Camouflage Principles.
TF 7–143, Infantry Drill—The Squad.
TF 7–2023, Interior Guard Duty—The Sentinel.

12. WAREHOUSING EQUIPMENT

TM 10–1619, Quartermaster Materials Handling Equipment.
TM 10–1640, Truck, Fork Lift, Gasoline (Clark "Planeloader").
LO 10–1640, Truck, Fork Lift, Gasoline (Clark "Planeloader").
FS 10–165, Second Echelon Maintenance of Materials Handling Equipment—Part I.
FS 10–166, Second Echelon Maintenance of Materials Handling Equipment—Part II.
FS 10–167, Second Echelon Maintenance of Materials Handling Equipment—Part III.

APPENDIX II

MINIMUM TRAINING SCHEDULE

1. GENERAL

The following minimum training schedule is planned to give systematic and progressive training for personnel of the quartermaster parts company. Only essential matter required to train the soldier for his place in a team in the shortest possible time consistent with efficiency is given in the schedule. The subjects, based on a 480-hour training schedule, are furnished as a guide only and must be varied to meet the immediate training requirements.

2. BASIC INDIVIDUAL TRAINING—ENTIRE COMPANY (110 HOURS)

Hours	Lessons	Essential study references	Training aids
3	Military Courtesy and Customs.	AR 260–10, AR 600–25, AR 600–35, SR 600–40–1, FM 22–5, FM 26–5.	TF 21–2048.
2	Employment of the Armed Forces.	FM 100–5, FM 100–10, FM 100–15	
12	Dismounted Drills and Ceremonies.	FM 22–5	TF 7–249, TF 7–560, TF 7–561, TF 7–1436.
6	Inspections, including Clothing, Tent Pitching, Bivouacs, and Patrolling.	AR 40–205, AR 220–70, AR 600–40, AR 850–5, FM 22–5, TM 8–220, TM 9–1275.	
6	Supply Economy and Care of Clothing, Equipment, and Quarters.	SR 750–212–1, AR 615–40, AR 711–20, AR 735–150, AR 850–5, SR 32–20–1, SR 725–10–2, SR 735–150–1, FM 21–15, FM 23–5, FM 23–7, TB QM 32 (use with FM 21–15), SR 735–7–2.	GTA 21–9, GTA 21–10, TF Misc. 1113, FS 12–4.
4	First Aid	FM 21–11	GTA 8–1, GTA 8–5.
1	Personal Hygiene	FM 21–10	GTA 8–17, TF 8–155.

8	Elementary Map Reading	FM 21–25, FM 21–30, FM 21–75	TF 21–2071, TF 21–2072, TF 21–2073.
2	Elementary Intelligence Training.	FM 30–5	TF 30–1523, TF 30–2012.
37	Individual Weapons Qualification (Carbine).	AR 775–10, SR 385–310–1, FM 23–7	FS 9–97, FS 9–155, FS 9–156, GTA 9–1, GTA 9–61, TF 7–652, TF 7–969, TF 7–1094, TF 7–1100, TF 7–1101, TF 9–1172, TF 9–1206, TF 9–1445.
6	Grenades (All Types)	FM 23–30	
15	Light Machine Gun Familiarization.	FM 23–55	
8	Proficiency testing		

3. UNIT TRAINING (316 HOURS)

Hours	Lessons	Essential study references	Training aids
12	Unit Organization	T/O&E 10–127. FM 10–10, FM 10–12, FM 10–53.	
12	Organizational Equipment	TM 38–402, TM 10–1619	
4	General Supply	TM 12–250, TM 12–255, TM 38–402	GTA 10–1.
1	Movement by Air	FM 10–12, TM 71–210, PAM 29–16	
1	Movement by Rail	FM 10–12, SR 55–705–25	TF 10–1239, TF 10–1240.
3	Troop Information	AR 355–20	Armed Forces Talks.
14	Advanced Map Reading	FM 21–25, FM 21–26, FM 21–30	TF 21–2071, TF 21–2072, TF 21–2073, TF 21–2074, TF 21–2075, GTA 5–12.
	Stock Control Platoon		
38	Property Accounting	FM 10–12 AR 755–5 AR 35–6520, AR 35–6680, AR 35–6700.	
6	Records	FM 10–12, TM 12–250, TM 12–255, TM 38–403.	
42	Parts Catalogs	SR 310–20–2. DA Supply Catalog, QM Supplement.	

	Storage Platoon		
10	Property Accounting	FM 10–12, AR 755–5, AR 35–6520, AR 35–6680, AR 35–6700, AR 35–6720.	
5	Records	FM 10–12. TM 12–250, TM 12–255, AR 755–5, TM 38–403.	
13	Parts Catalog	SR 310–20–2. DA Supply Catalog, QM Supplement.	
4	Storage	FM 10–12, TM 10–250, TM 38–402	
10	Receipt	FM 10–12, TM 10–250	
10	Issue	FM 10–12. TM 10–250	
	Methods of Instruction		
3	Introduction to Teaching	FM 21–5	
1	Methods of Presentation	FM 21–5	
2	The Conference	FM 21–5	
5	Effective Demonstration	FM 21–5	
4	Methods of Application	FM 21–5	
14	Storage	FM 10–12, TM 10–250, TM 38–402	FS 10–110, FS 10–111, FS 10–112.

Hours	Lessons	Essential study references	Training aids
20	Receipt	FM 10–12, TM 10–250	TF 10–1530.
20	Issue	FM 10–12, TM 10–250	
62	Depot Operations	FM 10–12	

4. CADRE TRAINING (54 HOURS)

Hours	Lessons	Essential study references	Training aids
4	Organization	T/O&E 10–127, FM 10–10, FM 10–12	
5	Organizational Equipment	TM 38–402 TM 10–1619	TF 10–2095.
4	General Supply	TM 12–250, TM 12–255, TM 38–403	
7	General Storage	AR 35–6560, FM 10–12, TM 10–250	
1	Student Class-room Control	FM 21–5	
3	Principles of Testing	FM 21–5	
6	Lesson Planning	FM 21–5	
2	Training Aids	FM 21–5	
4	Effective Speech	FM 21–5	
18	Practical Exercise		

APPENDIX III

UNIT PROFICIENCY STANDARDS

1. BASIC

a. Do the men have knowledge of first aid?

b. Are the men trained in map reading?

c. Are the men trained in proper conduct if captured?

d. Are the men trained in the use of gas masks?

e. Are the men oriented in the mission of the unit?

f. Are the men trained in the proper use of their weapons?

g. Has each man completed his basic military training?

h. Do the men understand and are they trained in supply economy?

2. TECHNICAL

Are the personnel able to perform their primary mission? (Determine by spot check of the special tasks set up for each.)

a. First sergeant.

b. Mess steward.

c. Supply sergeant.

d. Cook.

e. Company personnel management clerk.

f. Personnel administrative clerk.

g. Wheel vehicle mechanic.

h. Light truck driver.

i. Mechanic helper.

j. Platoon sergeant.

k. Supply clerk.

l. Section chief.
m. Senior stock record clerk.
n. Senior supply clerk.
o. Stock record clerk.
p. Supply clerk.
q. Senior quartermaster parts specialist.
r. Quartermaster parts specialist.
s. Fork lift operator.
t. Packing-crating specialist.
u. Warehouseman.
v. Packer.

3. HOUSEKEEPING AND SUPPLY

a. Is the unit supply section trained to function properly?

b. Is the unit mess section trained to function properly?

c. Is the unit administrative section trained to function properly?

4. PRACTICAL TEST

Set up problems involving conduct of the unit in the following operations:

a. Setting Up of Spare Parts Depot.

(1) Does the site afford the best facilities for properly serving the units drawing on the company for spare parts?

(2) Are roads and road conditions used to advantage?

(3) Are parts stored properly and protected against the weather?

b. Defense of Bivouac.

(1) Is the plan of defense tactically sound?

(2) Are all personnel armed with their permanently assigned weapons?

(3) Does the plan for issue of arms and ammunition adequately meet the requirements of speed and safety and of the proper safeguarding of weapons?

(4) Is the plan adequate for defense against ground troops, paratroops, and air attacks?

c. Demolition.

(1) Is the demolition plan both tactically and technically sound?

(2) Are all personnel acquainted with the demolition plan and capable of performing their mission?

d. Showdown Inspection.

(1) Is organizational equipment complete and serviceable?

(2) Is individual equipment complete and serviceable?

e. Unit Performance. With due consideration to the above problems, determine the following:

(1) Can the unit perform its primary mission?

(2) Can the unit service a designated number of troops?

(3) Can the platoon perform its primary mission when it is operating as a separate unit?

f. Ground Action. Set up a problem involving the unit in offensive ground action as a combat rifle unit (covering tactical training of infantry soldier). Can the unit perform this mission in a satisfactory way?

g. Operation and Maintenance. Check operation and maintenance of the organizational equipment of the unit as follows:

(1) Are the vehicles properly operated?
(2) Is the equipment properly maintained?
(3) Is preventive maintenance practiced?
(4) Are technical maintenance and operation instructions provided for each vehicle?

APPENDIX IV

PUBLICATIONS USEFUL TO PARTSMEN

1. CLOTHING AND EQUIPMENT REPAIR MACHINES

TM 10–262, Shoe Repair Machines (Landis and American).

TM 10–263, Clothing and Textile Repair Sewing Machines.

TM 10–264, Overedge, Tack Button, and Snap Fastener Machines.

2. KITS

TM 10–632, Kits, Fingerprint.

TM 10–633, Canvas Repair Kit.

3. LAUNDRY EQUIPMENT

TM 10–351, Operating Instructions and Parts List, Mobile Laundry Unit W 950–QM–3270.

TM 10–354, Quartermaster Fixed Laundry Organization, Operation, and Equipment.

TM 10–1613, Maintenance Manual and Parts List, Semitrailer, 2-Wheel Mobile Laundry Unit Gramm SL–226.

TM 10–1670, Laundry, Portable, Skid-Mounted, Gasoline—Electric (Prosperity).

TM 10–1680, Laundry, Mobile, Two-Trailer type (US Hoffman 8 American Machines, 8 Metals HLM and TLM).

TM 10–1689, Machines, Washing, Laundry Domestic (Thor).

4. BATH AND DISINFESTATION

TM 10–1616, Bath Unit, Field, Mobile, 24 Shower-Head (Orr and Semower 2B–24 and 3B–24).

TM 10–1668, Delousing Equipment, Gasoline (Defiance).

TM 10–1691, Chamber Fumigation, Methyl Bromide, Portable, Gasoline Operated, Type I.

TM 10–1695, Chamber Fumigation Methyl-Bromide, Nonportable (Walter Haertel).

TM 10–1696, Bath Unit, Field, Mobile, 24 Showerhead (Cleaver-Brooks E C–8D).

5. REFRIGERATION AND ICE CREAM

TM 10–1307, Maintenance Manual, and Parts List, Semitrailer Two-Wheel (2DT) 10-Ton Gross Refrigerator, Trailmobile Model TD–42.

TM 10–1417, Combined Maintenance Manual and Parts List, Refrigerated Semitrailer Thermo Wing Model QMC–1043.

TM 10–1608, Maintenance Manual and Parts List, Semitrailer, 2-Wheel (2DT) Refrigerator, Trailmobile Model TD–42.

TM 10–1609, Operation and Technical Manual and Parts List, Semitrailer, Two-Wheel, 10-Ton Refrigerator Model SR–120, Gramm.

TM 10–1611, Operation and Maintenance 10-Ton Refrigerator Van, Semitrailer.

TM 10–1614, Maintenance Manual and Parts List, Semitrailer Refrigerating Unit, Contract No. W950–QM–4935.

TM 10–1618, Parts List and Maintenance Manual, Semitrailer, 6-Ton Van Body, 2-Wheel (2DT), Model T–8.

TM 10–1625, Refrigerator, Field, Portable (26½ cu. ft.).

TM 10–1634, Refrigeration Unit, Portable (125 cu. ft.).

TM 10–1673, Refrigerator, Semitrailer, Two-Wheel, Lightweight, Brown Industries.

TM 10–1674, Semitrailer, 2-Wheel, 10-Ton Gross, Refrigerator (Hyde Corp.).

TM 10–1681, Refrigerator, Portable, Chest Type (25 cu. ft.).

TM 10–1706, Ice Cream Plant, Portable, 2½–40 Gallons.

TM 10–1707, Portable Ice Cream Plants, 2½–40 gallons, Electric motor gear drive.

5. PETROLEUM EQUIPMENT

TM 10–1135, Maintenance Manual and Parts List, Portable, Gasoline Dispenser, Habhegger (Model PD–1 and PD–1A).

TM 10–1660, Pump, Gasoline Dispensing, Mobile, (Habhegger PM 100) Gasoline Engine-Driven, 100–GPM.

TM 10–1693, Pump, Gasoline Dispensing, Mobile, Gasoline Engine-Driven, 100–GPM.

TM 10–1697, Cleaner, Drum, Portable, Gasoline Engine-Driven (Heil).

6. BAKERY EQUIPMENT

TM 10–1699A, Mixing and Make-Up Machinery Trailer of the Bakery Unit Mobile, M–1945.

TM 10–1699C, Oven Trailer of Bakery Unit, Mobile, M–1945.
TM 10–1699D, Flour Sifter.
TB 10–400–4, Care of Outfit Burner, Pot Type.

7. STOVES, RANGES, AND HEATERS

TM 10–701, Range, Field M–1937.
TM 10–702, Heater, Immersion Type for Car, Corrugated.
TM 10–704, Heater, Water, Immersion, Gasoline Operated for Tank Trailers.
TM 10–1621, Heater, Tent, Gasoline, Herman-Nelson Model GT 3000–20.
TB 10–400–5, Stove, Cooking, Gasoline, M–1942, One-Burner (Modified) (Stock No. 65–H–2881).

8. OFFICE MACHINES

TM 37–305, Typewriter Maintenance.
TB QM 14, Installation, Operation, and Repair of International payroll machines.

9. MATERIALS HANDLING EQUIPMENT

TM 10–1619, Quartermaster Materials Handling Equipment.
TM 10–1622, Trucks, Fork Lift, Gasoline, Clark, Utilitruc, Cleveland (6000).
TM 10–1623, Tractor Case, Model VAIW.
TM–10–1626, Truck Forklift Gasoline (Towmotor Lt 40 & Lt 44).
TM 10–1627, Truck Forklift, Towmotor Models Lt 46, Lt 50, Lt 53, Lt 56, Lt 62, Lt 72 (Gasoline).

TM 10–1628, Truck, Forklift, Vaughn, Model TAW.

TM 10–1637, Tractor, Wheeled Gasoline (Clark–Clarktor 6).

TM 10–1638, Truck, Forklift, Clark Carloader (Gasoline) Stacks, Tops.

TM 10–1639, Truck, Forklift, Gasoline (Clark Model Clipper).

TM 10–1640, Truck, Forklift, Clark Model Planeloader (Gasoline).

TM 10–1641, Tractor (Wheeled) Clark, Model Clark B (Gasoline).

TM 10–1642, Truck, Forklift Models 15 HT, 18 HT & 19 HT (Gasoline) Ross Carrier.

TM 10–1643, Truck Straddle, Ross Carrier, Models 90–7956 & 90–7056 (Gasoline).

TM 10–1644, Crane (Wheeled) Hyster, Model KB Harry Krane (Gasoline).

TM 10–1651, Truck, Forklift, (Electric Sparkproof) Automatic Transportation Company Model THTFL.

TM 10–1661, Tractor (Wheeled) Hebard, A–3 Victory (Gasoline).

TM 10–1662, Tractor (Wheeled) Hebard J–233 & J 233N (Gasoline).

TM 10–1663, Crane (Wheeled) Hughes–Keenan MC–4 (on International Harvester I–9 Tractor) (Gasoline).

APPENDIX V

QUARTERMASTER HIGH MORTALITY SPARE PARTS

The following is a partial list of quartermaster high mortality spare parts; that is, quartermaster parts which require the most frequent replacements during field use:

Item	*Catalog*
Can, water, 5-gallon	QM 7 & 8–MISC 44
Gasket, can, water, 5-gallon.	
Container, round, food, insulated, M–1941	QM 5–64
Gasket, container, round, insulated, M–1941.	
Container, food, insulated, M–1944	QM 5–64
Gasket, container, food, insulated, M–1944, insert cover.	
Gasket, container, food, insulated, M–1944, outer cover.	
Heater, immersion type, for cans, corrugated	QM 7 & 8–MISC 45
Burner, downdraft, 3¼" diameter, without fittings.	
Valve, gasoline.	
Lantern, gasoline, leaded fuel	QM 7 & 8–MISC 1A
Generator assembly.	
Globe, heat-resisting glass.	
Wrench, with pricker.	
Range, field, M–1937	QM 5–65
Brush, steel, wire.	
Cap, filler tube, fuel tank, with plug.	
Cleaner, front generator tube, converted type.	
Cleaner, slot burner.	
Generator, fire unit, converted type.	
Gland, packing, valve, air, fuel, or flame.	
Hose, pump, air pressure, complete.	
Jet, fuel, flame valve.	
Jet, metering, mixture valve.	

Item	*Catalog*
Packing, valve stem.	
Plate, splash.	
Tube, fuel, converted type.	
Tube, fuel or air, long.	
Tube, manifold.	
Stove, cooking, gasoline, M–1942, one burner	QM 7 & 8–MISC 41
Generator assembly.	

APPENDIX VI

TRANSPORTATION REQUIREMENTS FOR QUARTERMASTER PARTS COMPANY

Equipment		Transportation requirements for movement of equipment [1]				Gross weight in short tons (2,000 pounds)	Transportation cubage required	
Category	Code	Highway (number of 2½-ton trucks) [2]	Rail (number of cars)				Cubic feet	Measurement tons
			Box 40-foot	Flat 42-foot	Flat 50-foot			
Hq, kitchen, and maintenance equipment	[3] 1	1	1/10	------	------	2. 5	304	7. 6
Organizational equipment	[4] 2	1	½	------	------	3. 5	1, 610	40. 00
Standard vehicles	[5] 3	------	------	1	1	11. 8	3, 275	81. 9
Special equipment	[6] 4	7	------	1	------	16. 5	3, 509	87. 7
Total	------	9	------	2	1	34. 3	8, 698	217. 2

[1] Transportation must be furnished for 3 fork-lift trucks.

[2] Trucks are in addition to T/O & E vehicles for movement of equipment.

[3] Equipment in T/O & E 10-127 defined as Minimum Essential Equipment (SR 55-720-1) and listed in paragraph 19 of the SR as equipment to be shipped TAT (to accompany troops).

[4] Equipment shown in T/O & E 10-127 less: (1) Code 1 equipment; (2) equipment carried on the individual, such as carbines, compasses, watches; and (3) standard vehicles, special equipment, and those tools and accessories shipped with vehicles and special equipment.

[5] Comprises all standard vehicles listed in T/O & E 10-127.

[6] Comprises all equipment items except those that are listed as codes 1, 2, and 3 under Equipment.

APPENDIX VII

BLOCKING AND BRACING THE FORK LIFT TRUCK FOR RAIL MOVEMENT

METHOD 1

Place eight blocks (A), one to the front and one to the rear of each wheel (fig. 12). Nail the heel of each block to the car floor with five fortypenny nails. Toenail that part of each block under the tread to the car floor with two fortypenny nails. After using suitable cushioning material between blocks and wheels, such as burlap or waterproof paper, put two blocks (B) against the outside face of each wheel. Nail the lower block to the car floor with three fortypenny nails and the top block to the lower block with three fortypenny nails. Pass four strands (two wrappings) of No. 8 gauge black annealed wire (C) around each prong of the fork at the front of the fork lift truck and through a stake pocket on the railroad car. Tighten the wires enough to remove slack.

METHOD 2

Place four blocks (C), one to the front and one to the rear of each set of wheels (fig. 13). These blocks are to be at least 8 inches wider than the overall width of the vehicle at the car floor. Using 16 blocks (D), put two against blocks (C) to the rear of each wheel. Nail the lower cleat to the floor with three fortypenny nails and the top cleat to the cleat below with three fortypenny nails. Nail four cleats (E) on the outside of each wheel to the top of each

block (C) with two fortypenny nails. Use suitable cushioning material between the cleats and tires. Pass four strands (two wrappings) of No. 8 gauge black annealed wire (F) around each prong of the fork at the front of the fork lift truck and through a stake pocket on the flat car. Tighten the wires enough to remove slack.

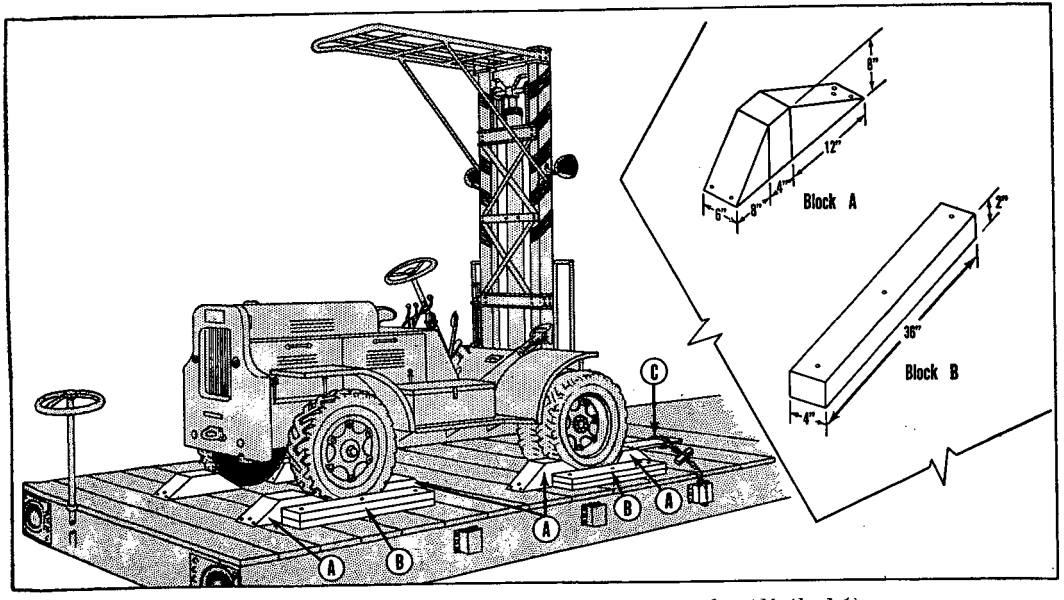

Figure 12. Blocking and bracing the fork lift truck—(Method 1).

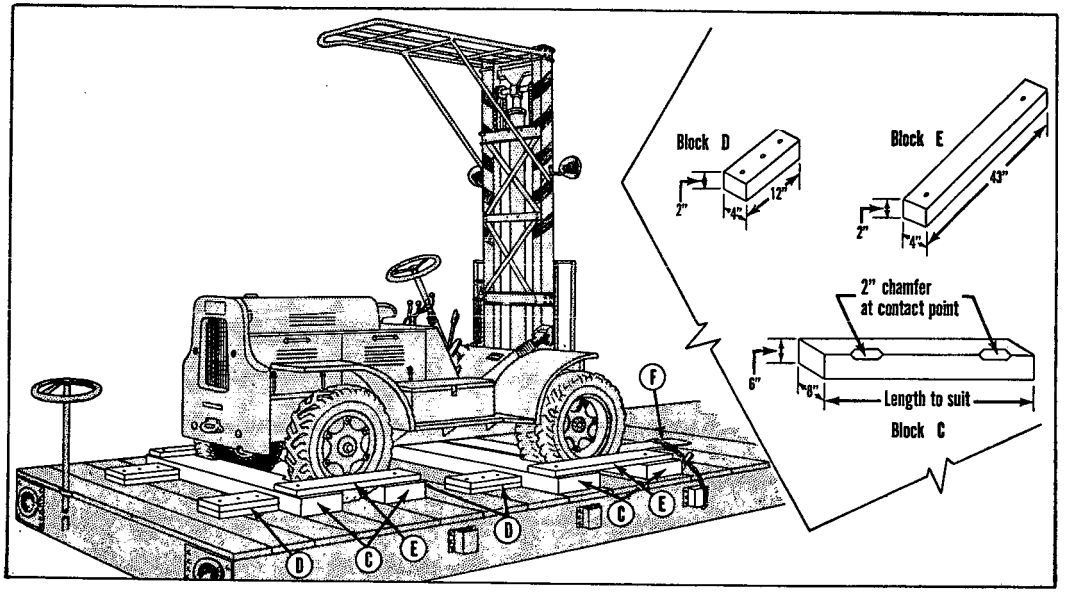

Figure 13. Blocking and bracing the fork lift truck—(Method 2)

INDEX