

4. ADMINISTRATION AND OPERATION OF FACILITIES

CHAPTER IV. ADMINISTRATION AND OPERATION OF FACILITIES

4-1 Administration and Operation of CWS


4-1-1 Repair and Maintenance System

The major work at CWS is to get vehicles prepared for operation, however, CWS has machines far more complicated and of far more modern construction than the existing WS, therefore, in order to operate these machines most effectively, there should be employed most appropriate work procedures. The survey team, therefore, established the most appropriate work procedures including the kind and arrangement of machines, the locations of factories, etc.

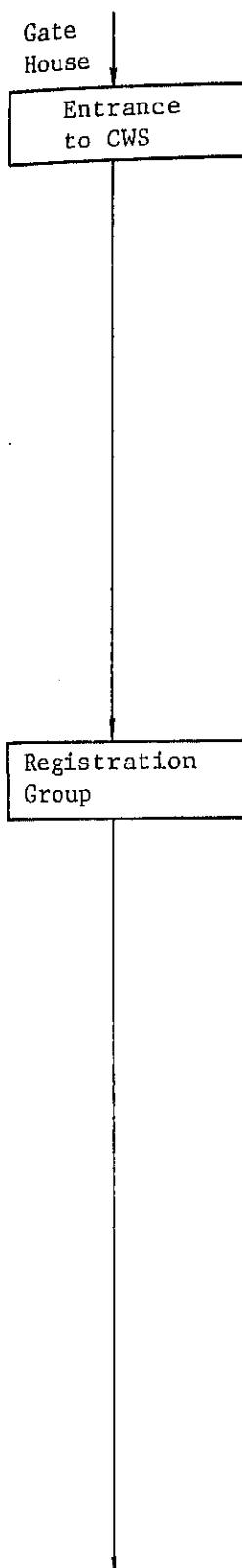
During the performance of work, slips and other documents are issued as required, and as to the issuance of these papers, description will be made later. What is different from this maintenance work is the reclamation work, and especially as to the reclamation of tires, since it is done in a large scale and know-how is required, machine layouts are prepared by the designated makers by taking the work procedures into consideration, and as to the most appropriate work procedures, such makers are required to be responsible for providing technical guidance by themselves. As to the classification of workers made according to their abilities, etc., description is made in detail in 4-1-4, Organization.

Work Procedures for Vehicles to be repaired.

Administration of Vehicles



- o Most of buses and trucks are under control of BRTC, and certificates of registration and stickers notifying beforehand the time of next maintenance are stuck on all vehicles.



- o In order to prevent theft, and foreign substances from entering, inspections are made at this gate house.
- o Entering persons and vehicles are recorded, and entrance certificates are issued to drivers. These certificates must be returned when drivers leave the gate house.
- o Manpower and time consumed
3 gatekeepers are on one shift; inspections and recording: 5 min/vehicle; the number of vehicles inspected at a time: 2 vehicles; slips: entrance certificates.
- o Gatekeepers belong to the Personnel Sub-Division, the Gen. affairs Division.
- o Maintenance Order chart (M.O. chart)
Engine No., chassis No., the travelling length, the depot to which the vehicle belongs are sought from the vehicle registration certificate and a maintenance order number is given.
- o By checking the vehicle maintenance record, the kind of maintenance work for the vehicle is determined, and they shall be mentioned in the maintenance order chart.
- o Administration of the vehicle maintenance records
After completion of each maintenance work, necessary items are obtained from the M.O. chart attached to the vehicle and they are transcribed in the vehicle maintenance record, which is kept.

Car
Washing

o Manpower and time consumed

Personnel: 2 persons/vehicle x 3 files = 6
persons

Recording and administration
of vehicle maintenance record
- 5 persons

Total: 11 persons

Time consumed: Vehicle's entrance - 10 min/
vehicle

Vehicle's exit - 20 min/vehicle

The number of vehicles for
which work is done at a time:
3 vehicles

These personnels belong to the Registration
Group of the Service Div.

- o As per order slips prepared by the receptionist, vehicles are washed; upon completion of washing, the manhours required for the washing are entered in manhour slips, which are attached to the M.O. chart.

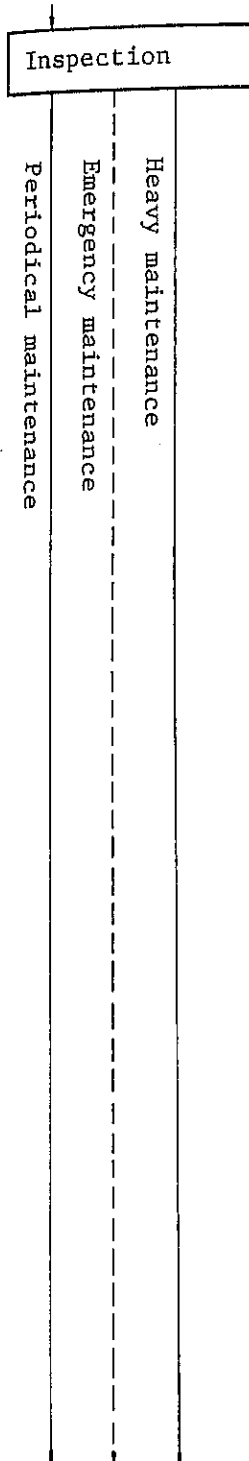
o Manpower and time consumed

Personnel: 4 persons/stall x 4 stalls
= 16 persons + 1 foreman
= 17 persons

Time consumed: 45 min/vehicle: the number of
vehicles for which work is
done at a time: 4 vehicles

- o Slips: Manhour slips, material requisition
slips, etc.

- o These personnels belong to the Registration
Group of Service Division



o As per M.O. chart, acceptance inspections are conducted and the results of the inspections are mentioned in the M.O. chart.

o Upon completion of inspections, the vehicles are turned over to the maintenance shop concerned by telephone call.

The vehicle inspection work is fatally important for the maintenance of vehicles to decide their performance and life. Therefore, the persons engaged in inspection work should be those who are excellent and reliable.

o Manpower and time consumed

Personnel: Inspection staff - 4 persons/stall
 x 4 stalls = 16 persons
 Touch-up - 2 third-class mechanics
 + 1 foreman = 3 persons
 Total: 19 persons + 1 group leader
 = 20 persons

In addition to these persons, one technical advisor is required.

o Slips: Work order slips, manhour slips, material requisition slips, parts order slips.

Time consumed: Periodical maintenance - 30 min/vehicle; heavy maintenance - 40 min/vehicle

o These personnels belong to the Inspection Group of the Services Division.

Periodical Maintenance

Periodical Maintenance

A) Periodical Maintenance Factory of Service Division

- o As per M.O. chart, maintenance work is accomplished, and when necessary, requests are made to other shops for doing other work.
- o As to periodical maintenance work, all matters such as parts used, manhours, manhours required for reclamation, etc. are consolidated at this factory.
- o Upon completion of maintenance work, vehicles are sent for final inspections.
- o Manpower and time consumed

Personnel:

	Mechanics			Fore- man	Staff	Group lead- der	
	1st class	2nd class	3rd class				
Stall	4	3	1	1	1	1	
"	4	3	1				
"	4	3	1				
"	4	3	1	1	1		1
"	4	3	1				
"	4	3	1				
Stall	4	3	1	1	1		

The total number of stalls are 25, which are assigned to 4 Groups: 6 stalls to each No. 1, No. 2 and No. 3 Group, and 7 stalls to No. 4 Group.

After inspection to
Heavy Mtce
Factory

Heavy Mtce

8 persons/stall x 25 stalls + 12 foremen +
12 staffs + 4 Group leaders = 228 persons

1 Shop Manager, 1 Deputy Manager, 1 typist,
2 forklift operators - Total = 233 persons

Time consumed: 5 hrs/vehicle (See Table 4-1)

The number of stalls -

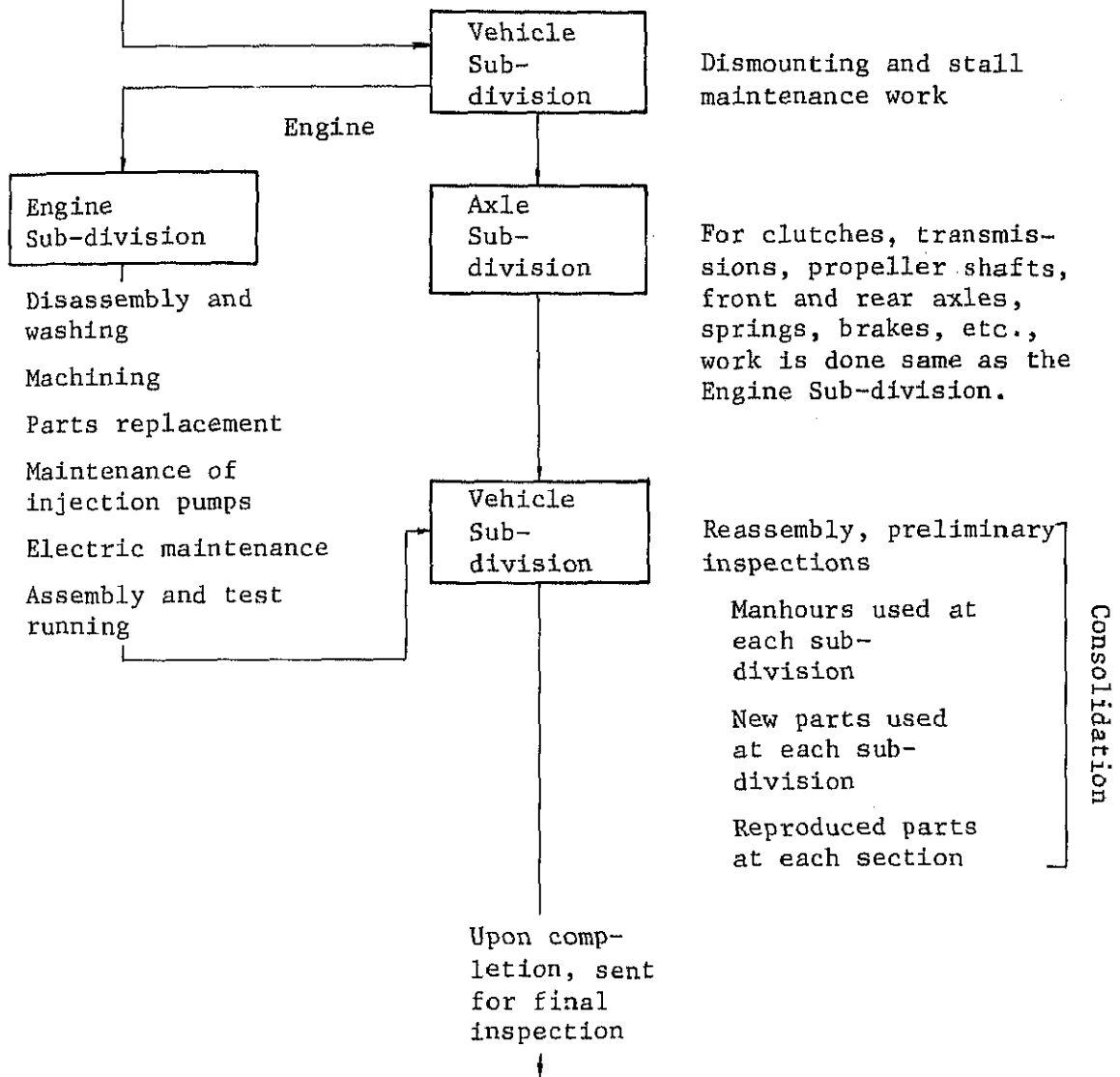
25 stalls

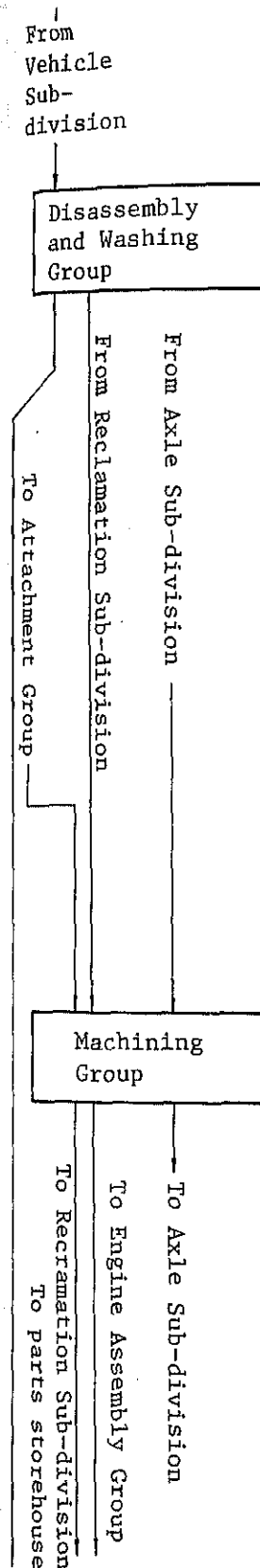
- o Slips: Work order slips, parts order slips,
disposition order slips, material
requisition slips and manhour slips.

These personnel belong to the Periodical
Maintenance Factory of the Service Division.

- o Deliveries of vehicles, upon completion of
inspections, to the shop are made as in the
case of periodical maintenance.
- o As per M.O. chart, parts and components are
dismounted and work requests are made to
other shops.
- o The Vehicle Sub-division performs all main-
tenance work excepting the maintenance of the
portion dismounted and sent other shops from
the stall, and consolidating work concerning
heavy maintenance, namely, as to the parts
used, manhours, reclamation manhours, the
manhour of stalls themselves, etc., and these
consolidation works shall be done based on
every M.O. chart.

- o The Engine Sub-division and the Axle Sub-division perform maintenance work as requested by the Vehicle Sub-division each order number basis, and shall report to the Vehicle Sub-division of the parts used and the manhours consumed. Accordingly, all the work is done as shown below.





C) The Engine Sub-division of the Heavy Maintenance Factory of the Service Division

- o Engines sent from the Vehicle Sub-division are disassembled and washed.
- o Parts requiring process work are sent to the Machining Group and parts not in trouble are sent to the Assembly Group.
- o Manpower and time consumed

Personnel: 1st class mechanics - 6,
 2nd class mechanics - 6,
 3rd class mechanics - 3,
 foreman -1, staff - 1,
 Group leader - 1
 Total: 18

Time consumed: 2 hrs/unit (See Table 4-1)
 3 engines are handled at a time.

- o Slips: Work order slips, manhour slips and material requisition slips.

-
- o All mechanical work such as engine boring, crank shaft grinding, valve sheet finishing, chassis parts processing, etc. shall be done here, as well as parts manufacturing.

- o Manpower and time consumed

Personnel:

1st class	2nd class	3rd class	F/man	Staff	Group leader	Total
23	11	10	2	2	1	49

B) The Vehicle Sub-division of the Heavy Repair Factory of the Service Division

Personnel:	1st class	2nd class	3rd class	F/man	Staff	Group leader
Staff	3	1	2	1	1	1
"	3	2*	2			
"	3	1	2	1	1	1
Stall	3	2*	2			
Total	12	6	8	2	2	1

Total: 31 - 5 groups (155 personnel)

1 Manager of Sub-division, 1 Deputy Manager,
1 typist and 3 forklift operators

All Total: 161 personnel (including
10 personnel who are being
sent from other sections)

- 1) *One of the two workers is sent from the Electric Shop.
- 2) Four stalls compose 1 Group, and 5 Groups compose the Vehicle Sub-division with 20 stalls.

Time consumed: 17.5 hrs/vehicle (See Table 4-1)

- o Slips: Work order slips, parts order slips, disposition order slips, material requisition slips and manhour slips.

Time consumed: (only engine parts) 6 hrs/unit
(See Table 4-1)

The number of main engine parts for which work can be done at a time.

Crank shaft - 3, cylinder head - 6,
boring - 3, honing - 4.

- o Slips: Work order slips, disposition order slips, parts order slips, manhour slips and material requisition slips.

From
Disassembly
and Washing
Group

Attachment
Group

- o Overhauling and adjustment of fuel delivery of the injection pumps shall be done. Overhauling is done for nozzles and adjustment of injection pressure is accomplished.
- o Maintenance is done for starters, dynamos and relays. Some persons are sent to the Vehicle Sub-division for the maintenance of wiring, etc. (Electric Shop)
- o Manpower and time consumed

(Pump Shop)

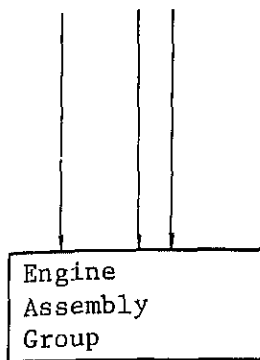
Personnel:

	1st class	2nd class	3rd class	F/man	Staff	Group leader
Pump	4		3	1	2	1
Elect- ric	4	2	2	2		
Nozzle		3				
Total:	8	5	5	3	2	1 = 24

Time consumed: Pump - 5 hrs/unit, Starters
and dynamos - 3 hrs/unit
(See Table 4-1)

The number of pumps for which work can be
done at a time: 5 pumps

From the Attachment Group
From the Machining Group
From the Disassembly and Washing Group



To the Vehicle Sub-division

- o Slips: Work order slips, disposition order slips, Manhour slips, parts order slips and material delivery requisition slips.

-
- o Machined parts, new parts and reclamation parts are collected for the assembly of engines, and non-load operations are conducted. This Group has 10 stalls.
 - o Upon completion of assembly, engines are sent to the Vehicle Sub-division.
 - o Manpower and time consumed

Personnel:

1st 2nd 3rd
class class class

3	1	1	= 5/stall	10 stalls = 50
F/man			1/2 stalls	" 5
Junior staff			1/2 stalls	" 5
Senior staff				2
Group leader				1

Total: 63

Time consumed: 4 hrs (See Table 4-1)

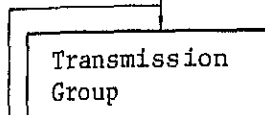
- o Slips: Work order slips, parts order slips, Material requisition slips, manhour slips and disposition order slips.

Total number of personnel assigned at the Engine Sub-division

Disassembly and Washing Group	18
Machining Group	49
Attachment Group	24
Assembly Group	63
1 Manager, 1 Depty Manager, and 1 typist	3
Total:	157

D) The Axle Sub-division of the Heavy Repair
Factory of the Service Division

From the Vehicle Sub-division
or from the Periodical
Maintenance Factory

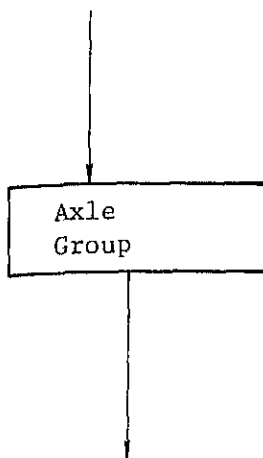


- o Clutches, transmissions and propeller shaft sent from the Vehicle Sub-division or from the Periodical Maintenance Shop are disassembled, inspected, put in order and reassembled. When necessary, requests are made to the Machine Group of the Engine Sub-division for machining.
- o Upon completion of work, each reassembled component is sent back to the concerned sub-divisions.
- o Manpower and time consumed

Personnel:

1st class	2nd class	3rd class	F/man	Staff	Group leader	Total
10	2	6	2	2	1	23

Time consumed: Clutch overhaul - 2 hrs,
propeller shaft overhaul -
1.5 hrs and transmission
overhaul - 3 hrs
(See Table 4-1)



- o Slips: Work order slips, parts order slips, material requisition slips, manhour slips and disposition order slips.

-
- o The same work as accomplished by the Transmission Group is done for front and rear axles, brakes, springs and steerings.

- o Manpower and time consumed

Personnel:

1st class	2nd class	3rd class	F/man	Staff	Group leader	Total
12	6	6	2	3	1	30

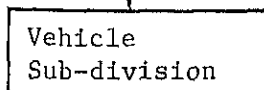
Time consumed: Rear axle overhaul - 4 hrs,
brakes - 1 hr, front axle -
1 hr (See Table 4-1)

- o Slips: Same as the slips at the Transmission Group

The total number of personnel assigned at the Axle Sub-division

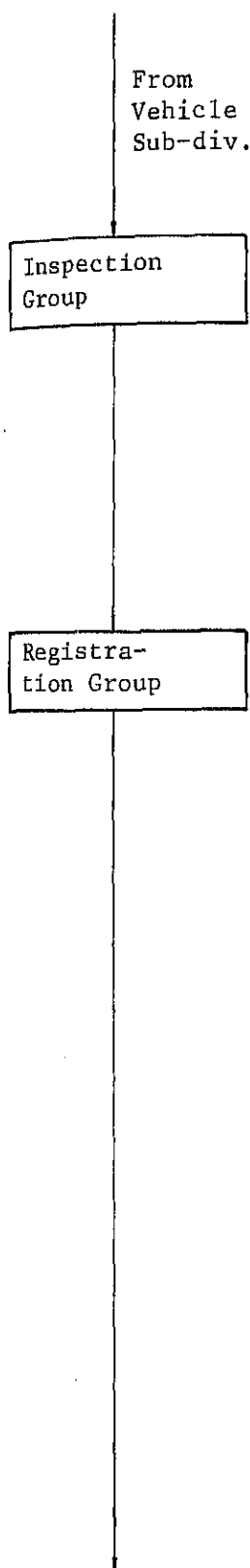
Transmission	23
Axle	30
1 Manager, 1 Deputy Manager and 1 typist	3
Total:	56

Repaired components
from concerned
sub-divisions



To Final
Inspection

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- o Upon completion of maintenance/repair work, components are mounted on the vehicles. Then, vehicles are sent to the inspection group after oiling, greasing, adjustment and preliminary inspections are carried out by Vehicle Sub-division.



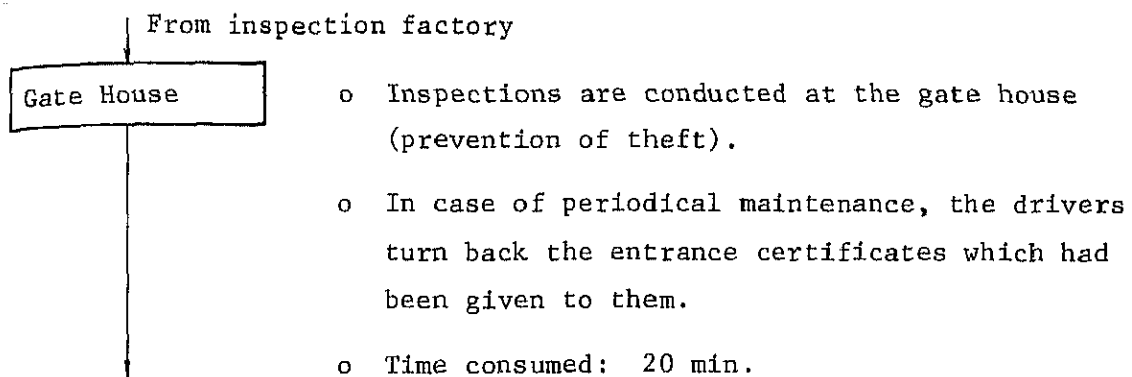
- o For the manhours consumed and the parts used at each shops and sent to this sub-division are totalled on every order number basis.
- o Time consumed: 3 hrs

- o Final inspections are conducted; for the vehicles not passed the inspection, responsible persons of the concerned work are called for touch-up work, or such vehicles are returned back to the shops concerned for repeated maintenance work.
- o Time consumed: 1 hr

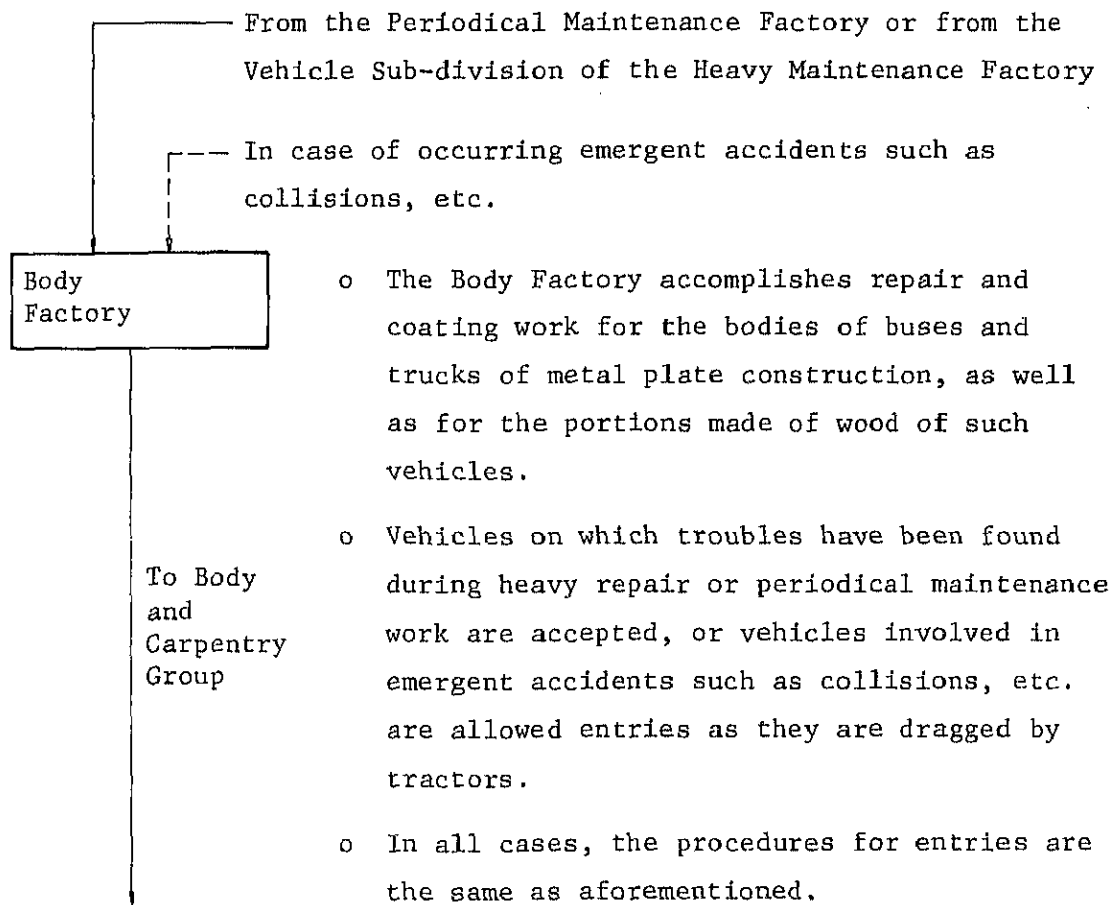
- o Upon confirmation of the passage of inspection, entires are made in the vehicle history record from the M.O. chart, as to necessary matters.
- o M.O. charts are obtained via the Accounting Sub-division and the Service Manager, and they are kept at the Registration Group for a period of 2 years.
- o Signature is taken in the vehicle history record before vehicle come back to depot.
- o Stickers (shown below) are pasted on the front of each vehicle, notifying beforehand of the date of next maintenance.

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Periodical maintenance



E) The Body Factory of the Service Division



Body and
Carpentry
Group

- o Repair work is accepted for sheet metal plates and frames.
- o Replacement of floor plates (wood or iron), repairing of wood portions of cargo decks, and repairing of other wood portions are accepted.
- o Repair work for the interior of buses and repairing of seat are carried out.
- o Due to the nature of these groups' work, conveyer system is not able to apply. Different repair work of each vehicle is a big feature here.
- o Manpower and time consumed

Personnel:

1st class	2nd class	3rd class	F/man	Staff	Group leader	Total
17	12	10	3	3	1	46

Stalls: There are 7 stalls and one each foreman is responsible for supervising 2 stalls.

- o Slips: Parts order slips, work order slips, material requisition slips, disposition order slips and manhour slips.

Painting
Group

- o For the rust proofing, painting is done. Some vehicles come to this group for painting purposes only, while, some other vehicles make entries to receive rust-preventive painting after they were repaired at the Body and Carpentry Groups.

- o Under-coating work is accepted. The nature of this group is the same as the Body and Carpentry Group.

- o Manpower

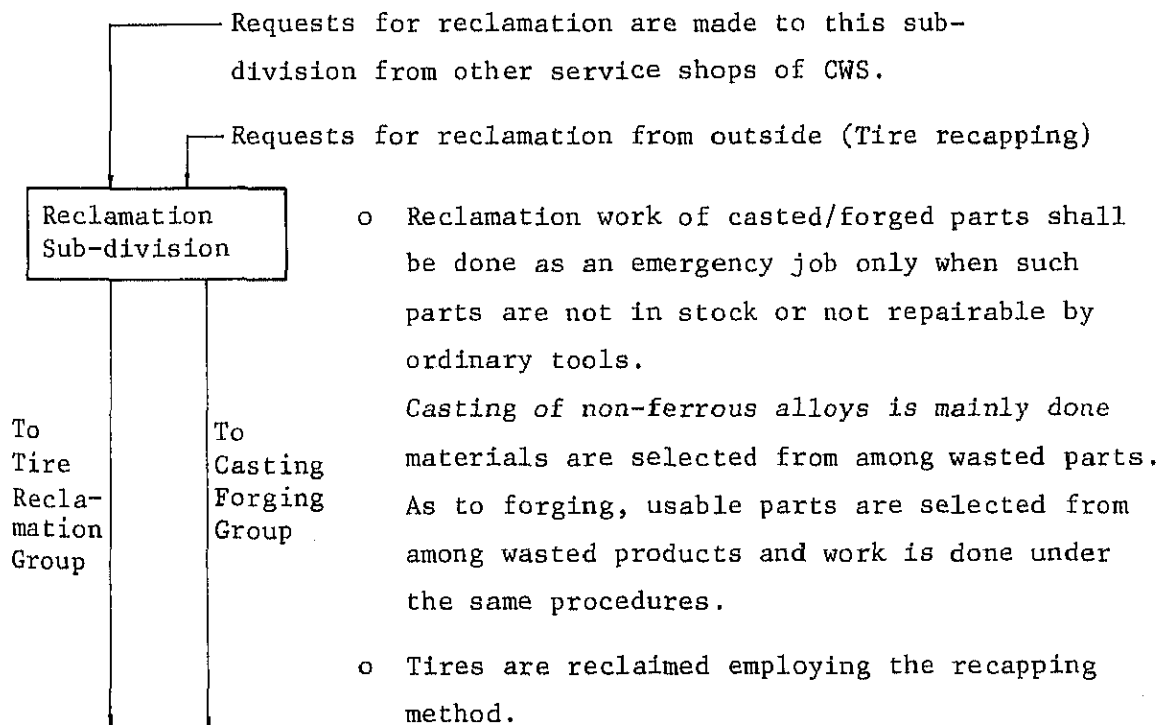
Personnel:

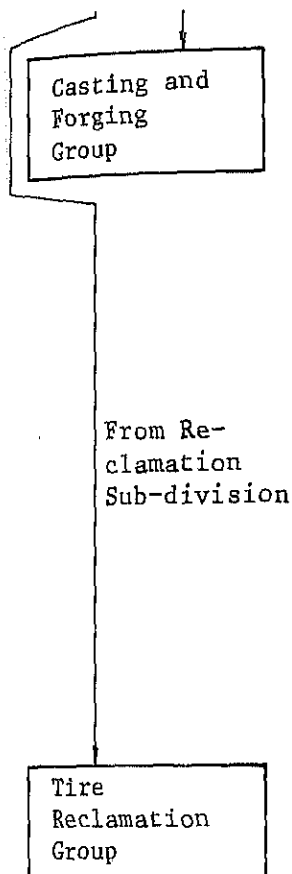
1st class	2nd class	3rd class	F/man	Staff	Group leader	Total
10	6	5	5	2	1	26

Number of stalls: There are 6 stalls, one each foreman supervises 3 stalls.

- o Slips: Material requisition slips, work order slips, and manhour slips.

F) The Reclamation Sub-division of the Parts Division





- o Casting work is done using wasted aluminum and copper parts as material.
- o Modification and reforming are done by forging, and Machining materials are produced.
- o Manpower

Personnel:

1st class	2nd class	3rd class	F/man	Staff	Group leader	Total
2	10		2	2	1	17

One foreman is in charge of forging and another is responsible for casting.

- o Slips: Material requisition slips and manhour slips

- o Among the reclamation works, the tire reclamation is the most important one. The work is conveyor system basis and also can carry the work independently. For this reason, all equipments are jointly installed, and this factory can be called as productive plant. Since tire reclamation work is based on sophisticated technical know-how, the manufacturer which arranged the plant and supplied equipments is responsible to offer the guarantee on the plant and technical guidance appropriately.

As to concrete reclamation processes, the makers concerned should work out plans and use them by themselves; description of which is omitted here. If construction and operations are not done without satisfying the above-mentioned conditions, it is likely that failure is invited.

Registration
and washing

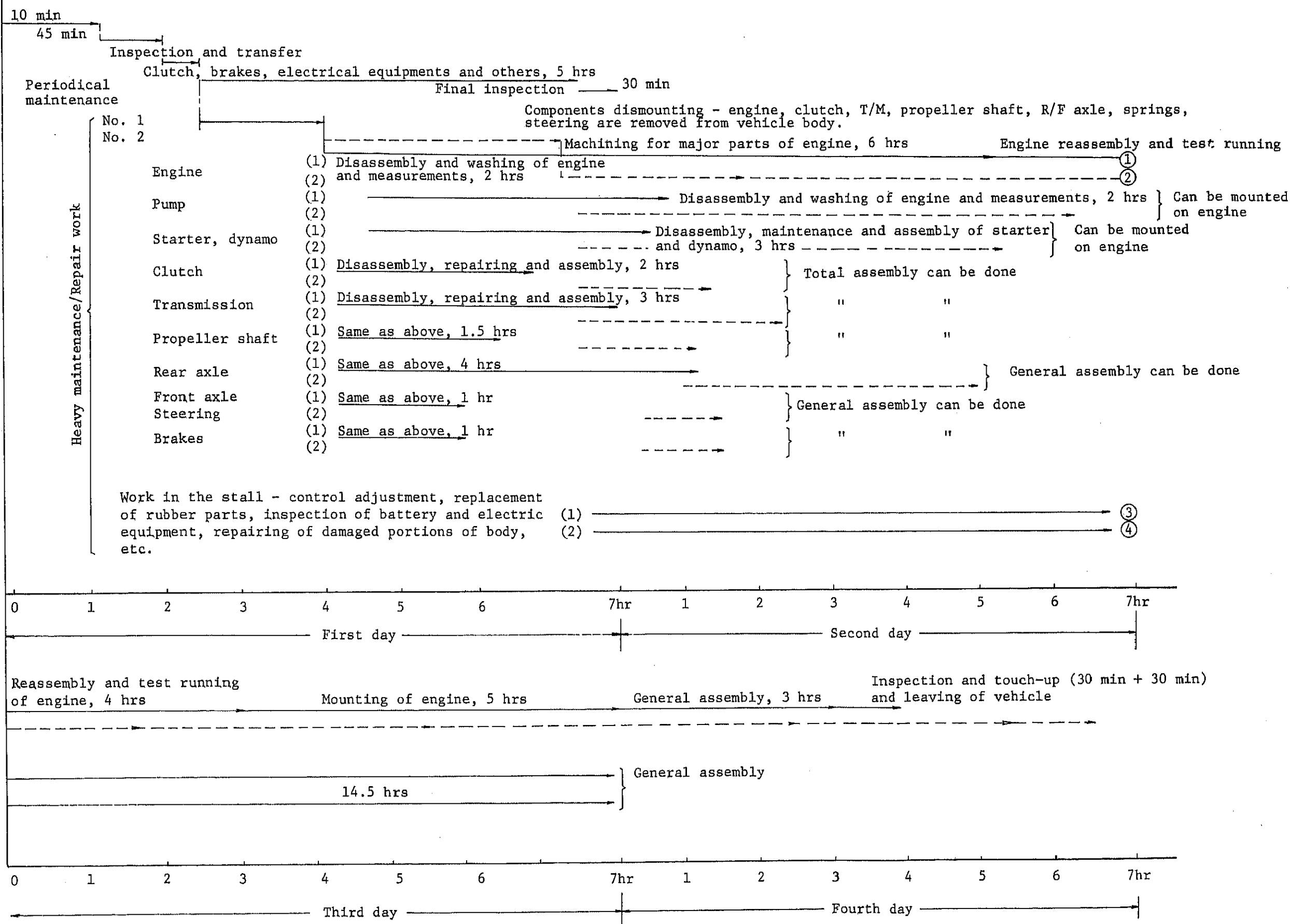


Table 4-1 Maintenance Work Chart

o Manpower

Personnel:

1st class	2nd class	3rd class	F/man	Staff	Group leader	Total
6	14	9	4	5	1	39

- o Slips: Material requisition slips, manhour slips, disposition order slips and work order slips.

The working processes at this CWS have been described as above; since the working processes are complicated, foreign advisers are being assigned at the sub-division and group as is deemed necessary.

Heavy Maintenance Factory	1
Regular Maintenance Factory	1
Car Body Maintenance Factory	1
Reclamation Sub-division (Tires)	1
Inspection Group	1
Parts Manager	1

All foreign advisers should be familiar with the aforementioned working processes.

4-1-2 Parts Control System

The construction of CWS parts storehouse and the management and operation of the storehouse should basically be done in accordance with the description made below.

- (A) The space of the storehouse should be large enough to store the quantity of parts which can be used by CWS for a period of 3 to 4 months for the purpose of conducting CWS's repair/maintenance work. What the Survey Team could know was only one thing, namely that, to procure maintenance parts, periods between 6 to 12 months are required from the point of order issuance for parts to the point of receiving them at the storehouse. In consideration of the local climate and environmental conditions, survey team determined that the inventory for ordinary use should be enough to cover 3 months or so, and that, in addition to such inventory, an interim inventory should be kept to cover about 3 months' use as the situation of the orders issued is kept.
- (B) In order to get smooth parts control, it is essential that the average quantities of respective parts necessary for CWS regular operations should be known, and that planned ordering should be effected. (See Fig. 4-2)

Orders should be placed at a time when the inventory has reduced to the point of ordering which had been inferred beforehand; the quantity of parts on which an order is to be placed should principally cover approximately 3 months' consumption, and in determining such quantity, the quantity remaining as on the expected date of receipt of parts should be taken into consideration. When orders are placed in such manner, making an inventory must be done frequently and placing of orders should be made repeatedly, however, CWS abilities to control the stock will be improved, and the suppliers will be benefitted by the regular ordering,

resulting in the improvement of their abilities to counter such orders efficiently.

When the inventories have reduced to the points as shown in the Attached Table 4-2 (Standard Inventory), orders are to be placed; this shall be ruled as a CWS standard, and administration should be effected by checking this table.

- (C) Demands for delivery of parts should be made by maintenance factories using forms as established by CWS each time when parts are given, entries should be made in the shelf card provided on the shelf as to the quantity of parts given, the remaining quantity of stock, etc. These shelf cards are provided on a by-parts basis.

Also, in case when parts have been taken out of the stock erroneously, these parts should be taken back; concerning the handling of these parts, provisions should be made.

- (D) Concerning the storing of parts, care shall be exercised so as to prevent the effects of moisture, dust, sunlight, etc. considering the characteristics of parts; and to take parts which had been purchased earlier, out of the storehouse earlier is the principle.

- (E) As to parts for which maintenance and/or replacement can be done at BRTC depots, for example, tires, head lamps, air cleaners, elements, fan belts, etc., such items shall be clarified and kept at depots at all times, by so doing, the minimum quantity of parts can be stored at CWS storehouse.

- (F) Also, as to consumption goods, submaterials, etc. used at maintenance factories, there shall be provisions respectively, designating such items which should be controlled at the storehouse, thus clarifying the location of responsibility. (There should be clarification between office supplies and building repair materials.)

(G) As to old parts replaced by fresh ones, which are discharged from maintenance factories, and used parts, etc., provisions shall be laid down to make classification and selection as to whether such parts can be reclaimed, or should be abandoned or sold; as to parts capable of being reclaimed, reclamation shall be done according to the stipulated procedure, and the reclaimed parts are inspected and marked properly, indicating that they were reclaimed parts, and then they are placed in the parts storehouse.

In this case, it is essential that consideration be given to the improvement of reclamation technics as well as improvement of inspection and judging technics.

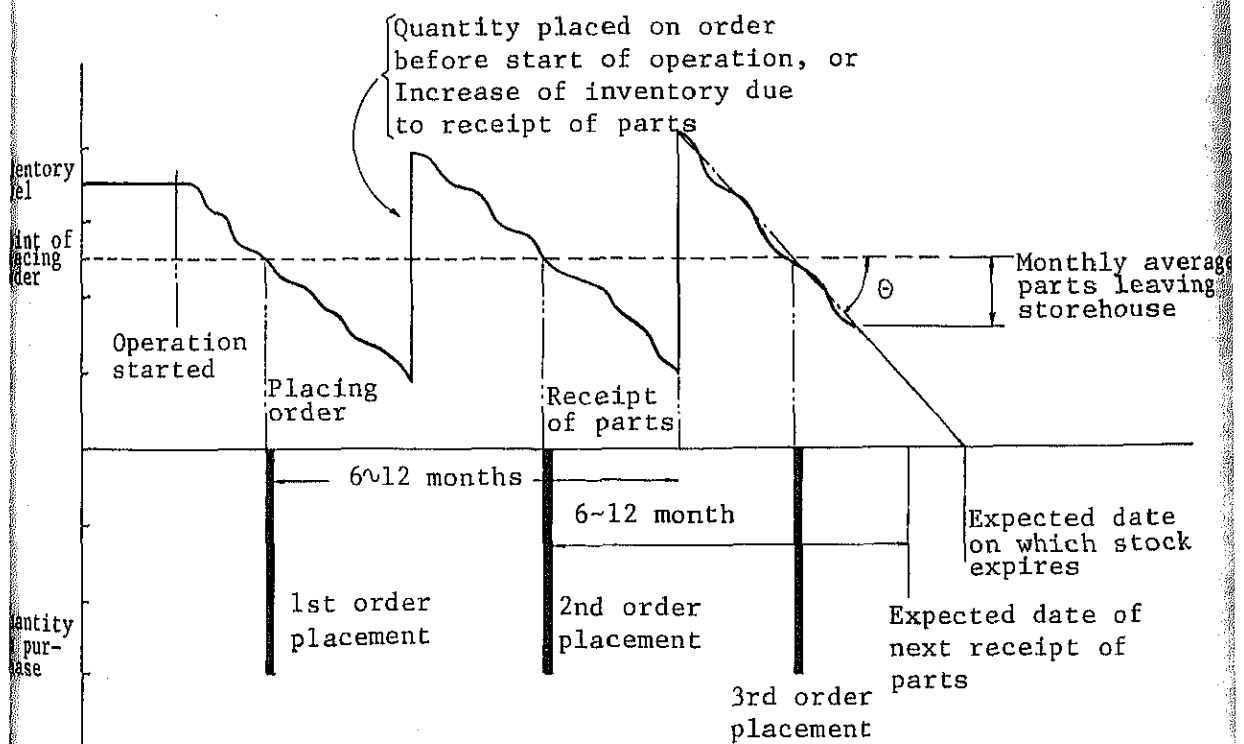


Fig. 4-2 Change in Inventory Level

A) Parts Storehouse Inside Layout and Principle in the Use of Facilities

The layout for the inside of a parts storehouse is as shown in Fig. 4-3. As to classification of parts for each model of vehicles, parts are classified roughly as shown in the figure, and they are placed on their own shelves within above mentioned classification. The arrangement of parts and shelves has been worked out with an intention as described below.

- (i) Heavy parts are taken into, and from, the stock room using forklifts, therefore, these parts are liable to get dusty and damp, and since it seems difficult to adopt perfect measures to prevent dust and moisture, this room shall be separated from ordinary rooms. To be stored in this room will be axle assemblies, wheels, etc.
- (ii) Most of electric equipment are constructed of plastic or semi-conductive materials, therefore, a place near the wall on the north side of the storehouse was selected, so as to prevent direct sunlight and rapid changes of temperature.
- (iii) Since engine parts and brake parts are expected to be taken out most frequently, a place near to the office and exit from which parts are carried out was selected for these parts, thus facilitating efficient accomplishment of daily business.

For these parts, attention should be paid so as not to get them dusty and/or damp, and in the case of rubber and plastic parts, these should be kept avoiding direct sunlight.

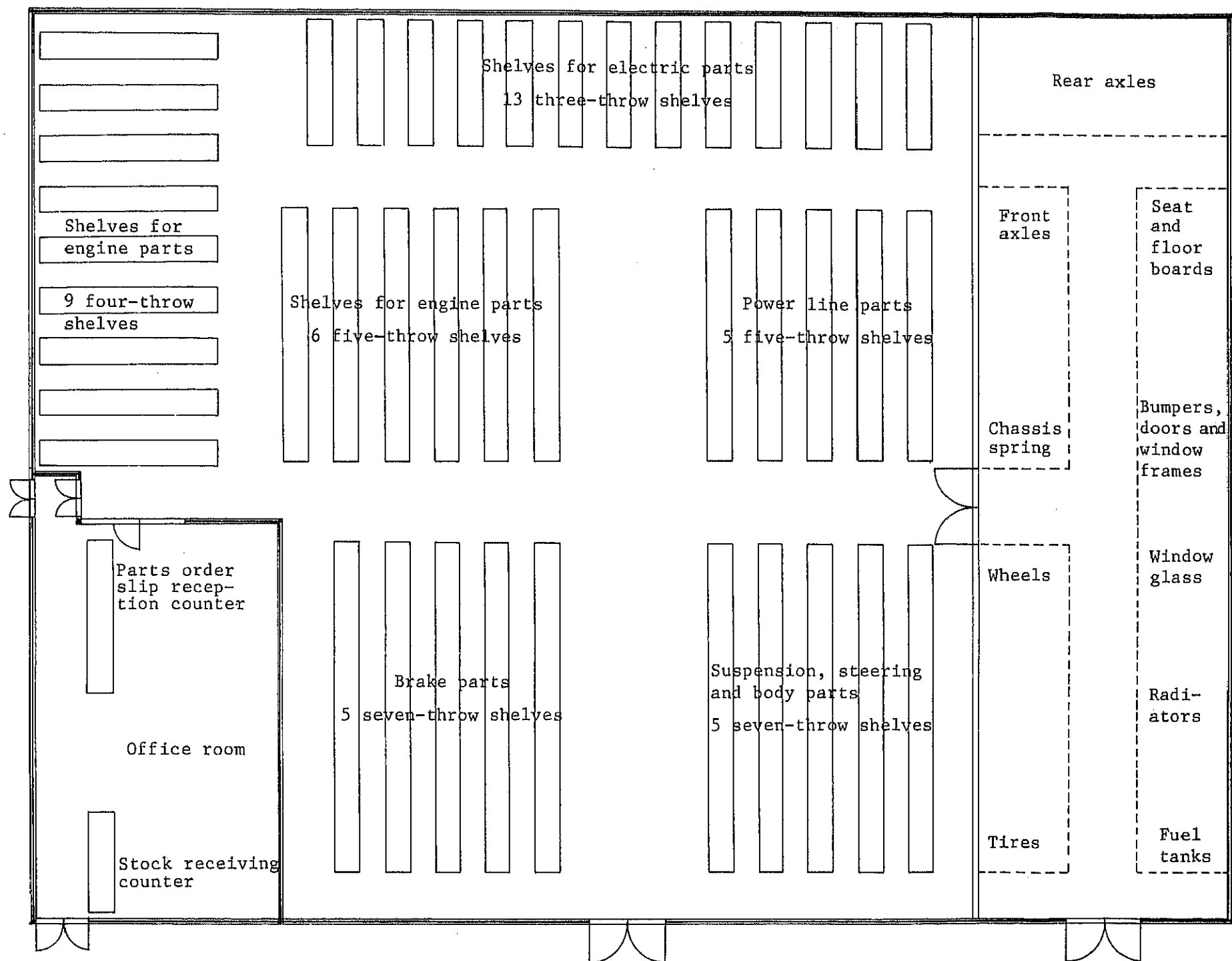


Fig. 4-3 Parts Storehouse Inside Layout

- (iv) A card in which a parts number, a parts name, models of vehicles for which parts concerned are used, etc. are shown, is placed on each shelf. Even in the case of same parts, it is essential that care should be exercised so that parts taken into the storehouse earlier may be taken out earlier.
- (v) In the ceiling, skylights are built, which are used to change the air in the storehouse when the atmospheric air temperature gets low and its humidity is low. Ceiling fans will be used when there is a fear of dew being formed on the metal surface in the storehouse, due to the rise of humidity in the storehouse.

B) Stock Control

Stock control shall always be done deliberately, at least, heavy and periodical maintenance parts should not be out of stock. In order to keep inventory sufficient, data shall be prepared on a by-parts basis as follows.

- (i) Monthly average quantity of parts delivered (On a by-parts basis)
- (ii) Duration required for parts to be received after placing an order, on a by model of vehicle and by-major parts basis

These data shall constantly be corrected based on the latest results so as to make them more reliable.

By utilizing these data as a basis, points at which orders are to be placed (remaining stock at a time when order placement is started) shall be determined on a by-model of vehicle and by-parts basis. (See Standard Inventory Table) Each time when parts are taken out of the storehouse, the remaining stock is compared with the order placement point, and when the inventory level has reached the point, orders shall be placed. (See Attached Table 4-4).

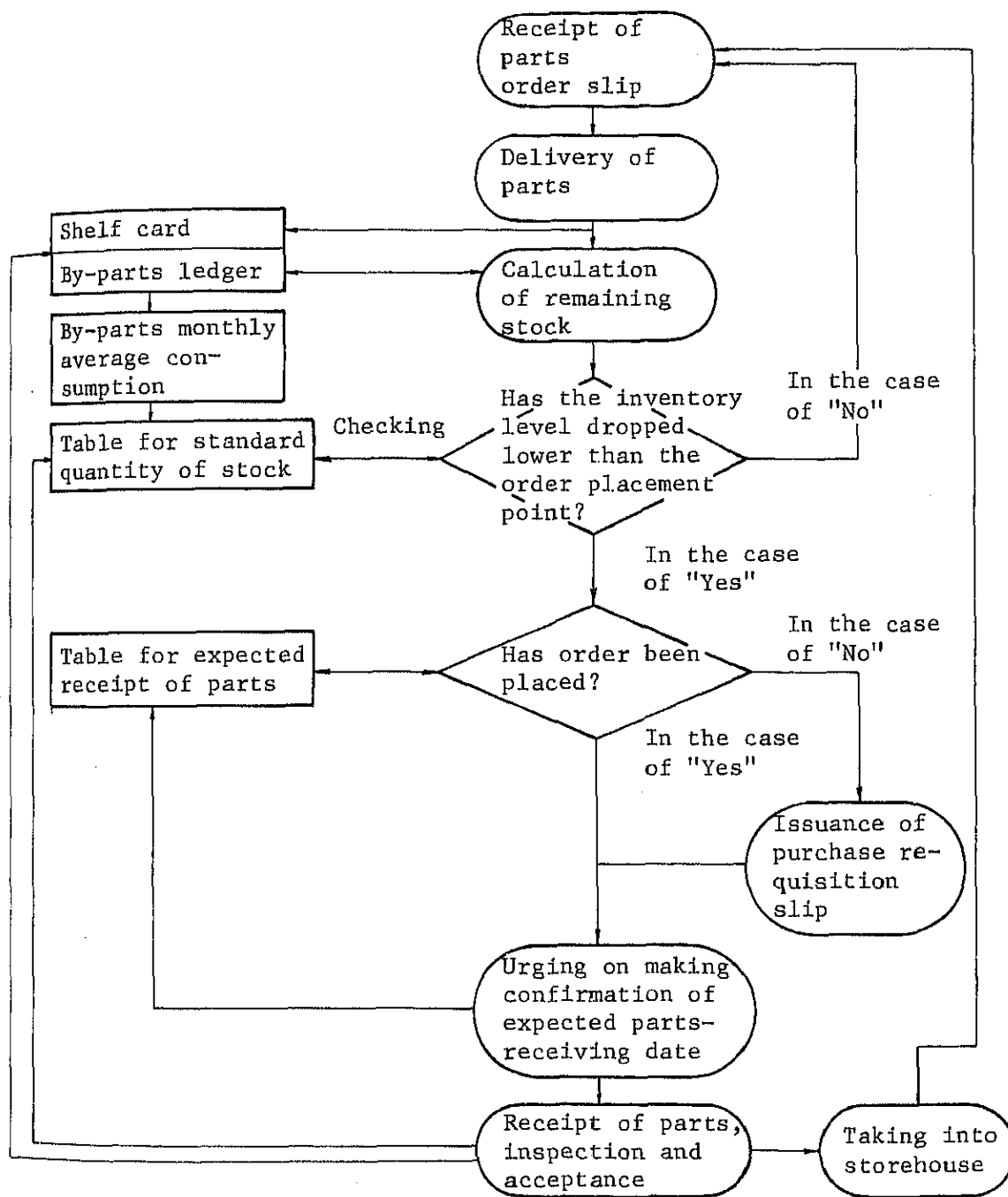
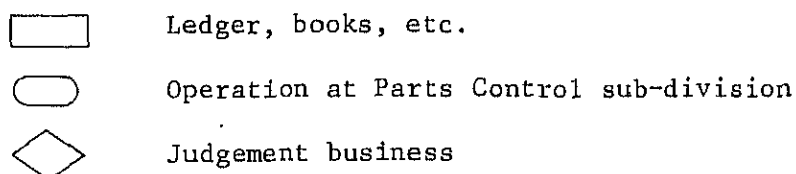


Fig. 4-4 Procedures for Stock Control



When orders are placed, of course, the budget, which had been allocated according to the number of vehicles possessed, should allow the purchase of parts. Most important is to secure safety through periodical repair and maintenance, and maintain the performance of vehicles, reliance thereon and prolong the lives thereof. In view of this meaning, a parts purchase budget should, therefore, be secured.

When parts are taken out of the storehouse, order of delivery should be made with slips on which Vehicle Maintenance order number is shown expressly, if a slip fails to show such number, taking-out parts from the storehouse shall not be permitted. The costs of parts which are taken out shall be divided on a by-V.M.O. number basis, and the results obtained through this division are used in demanding the payment of the maintenance cost.

C) Classification of Used Parts

As to the treatment of used parts and faulty parts produced when vehicles have been repaired and put in order again, such parts shall generally be classified and treated as below.

(i) When parts are removed from vehicles and engines at the place of work, judgement shall be made on individual parts and they shall be classified as follows.

(a) Parts to be abandoned (For example, worn brake linings, clutch facings, disconnected electric bulbs, diodes, degenerated brake hoses, rubber cups, filter elements, oil seals, etc.)

(b) Parts capable of being reclaimed into materials, or sold (For example, worn bearing metals, of engine bushings, copper products, aluminium products, etc.)

- (c) Parts capable of being reclaimed or repaired (For example, starter motors, alternators, fuel injection pumps, tires, etc.)
- (ii) For safety's sake, parts to be abandoned shall be destroyed so that they shall not be used again in error.
- (iii) Parts which can be used as materials shall be collected on a by-material basis, and such materials shall be reclaimed or sold according to the stipulated method.
- (iv) As to parts which can be repaired or reclaimed at CWS, they shall be classified into two categories; one - parts to be repaired immediately shall be repaired on the very day and mounted again; another - parts to be reclaimed shall be transferred to the Reclamation Sub-division, and after they were reclaimed at the sub-division, they shall be taken into the storehouse.
- (v) Stipulated marks shall be stuck on reclaimed parts, which will serve as identification marks, and also as data for analyzing troubles in the future.
- (vi) It is desirable that functional or appearance inspections be carried out on reclaimed parts in the presence of storehouse staffs before they are taken into the storehouse. In any case, the Manager in charge of reclamation shall be responsible for the quality of reclaimed parts.

D) Operation of Control System

In order to operate the above system, the Parts Control Sub-division shall perform its business as follows.

- (i) The Storage House Group positions at the office room of the parts storehosue, 2 group leaders and 11 staffs, who will engage in (a) taking parts out of the storehouse; (b) confirmation of the quantity of stock; and

(c) confirmation and arrangement of parts taken in: etc. For doing such business, 13 workers (including 1 forklift operator) are assigned at the storehouse, they will engage in the taking-in and taking-out of parts.

The personnels assigned in these groups will take the charge of preparation of shelf cards and by-parts ledgers. Also they will be responsible for the control and arrangement and ordering of parts stored in the storehouse, as well as for the cleaning of the storehouse.

- (ii) The Planning Group will consist of 1 group leader and 6 staffs, who will engage in the issuance of purchase requisition slips and the preparation of expected parts-receiving tables, etc. The responsibility to prevent running-out of stock lies on this Group and the Control Group.
- (iii) The Control Group will consist of 1 group leader and 6 staffs, who will responsible for the grasping of the monthly average quantity of parts used, and the preparation of standard stock tables (points at which purchase orders are to be issued); for the control of flow of slips; responsible for the administration of preparation of slips and ledgers; etc.
- (iv) To secure budgets for parts purchasing is absolutely essential for a smooth operation of this system. Data necessary for the calculation of the total amount of budgets are prepared at the Planning Group and the Control Group.

E) Reclaimed Parts Control System

The Control Group of the Reclamation Sub-division will consist of 1 group leader and 7 staffs, who will control parts awaiting reclamation, and other materials, etc. The used parts sent from shops with disposition order slips shall be reconfirmed at this Control Group, and as shown in Fig. 4-5, they shall be forwarded for abandonment, material reclamation or for parts reclamation.

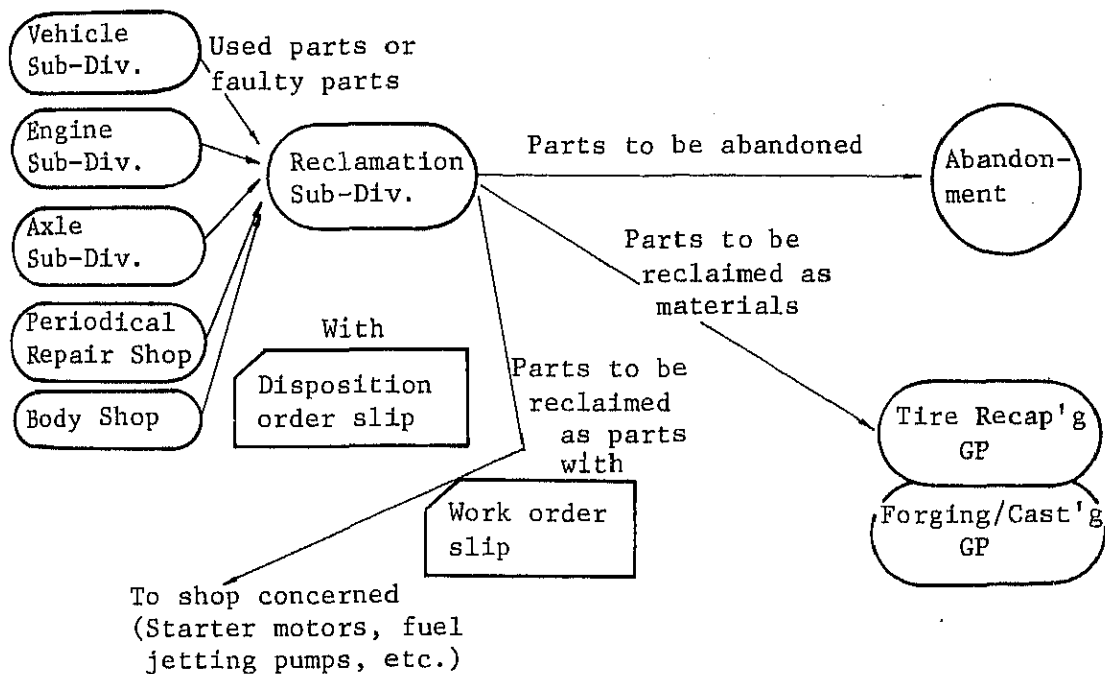


Fig. 4-5 Disposition of Used Parts

In this case, when the Reclamation Sub-division issues work order slips, the instruction numbers to be used in the purchase requisition slips issued by the Parts Control Sub-division will be used in place of V.M.O. numbers. By the use of this number, reclamation of parts and materials in excess of necessity can be avoided.

Standard Inventory Table

Notice; This table is for reference only and shall be adjusted through actual work.

Parts Item	Parts No.		Remarks
Engine Parts			
1. Piston & Piston Pins		100	
2. Piston Rings		360	
3. Cylinder Liners & O Rings		100	
4. Connecting Rods		30	
5. Crank Shafts		20	
6. Cam Shaft		20	
7. Bearings - Crank Shafts		360	
Cam Shafts		360	
8. Valves (Int. & Exh.)		50	
9. Valves Guides		30	
10. Tappets & Rocker Arms		30	
11. Valve Stem Seals		360	
12. Valve Springs		30	
13. Valve Seats		30	
14. Cylinder Head Gaskets		360	
15. Fuel Injection Pumps		10	
16. Plungers		100	
17. Nozzles		100	
18. Fuel Filters (element)		750	Also, store in each Depot
19. Air Cleaners (element)		750	"
20. Oil Filters (element)		750	"

Parts Item	Parts No.	Remarks
21. Water Pumps		20
22. Oil Pumps		20
23. Radiators & Caps		50
24. Thermostats		20
25. Cooling Fans & Pulley		50
26. Fan Belts		300
		Also, store in each Depot
27. Radiator Hoses & Crips		300
28. Fuel Pipes		20
29. Cylinder Brocks		3
30. Cylinder Head Ass'y		10
31. Cylinder Head Bolts Connecting Rod Bolts		50
32. Fly Wheels		30
33. Manifold, intake		10
" , exhaust		10
34. Oil Pans		10
35. Engine Mounts		300
36. Gaskets, Water Pumps		360
" , Manifolds		360
" , Oil Pans		360
37. Water Pump Bearing		30

Parts Item	Parts No.		Remarks
Transmission & Drive Parts			
1. Clutch Assemblys		30	
2. Clutch Pressure Plates		100	
3. Clutch Discs, Facings		2000	
4. Clutch Covers		20	
5. Clutch Springs		100	
6. Clutch Master Cylinders		50	
" Operating Cylinders		50	
7. Rubber Cups, Master Cylind.		500	
" , Operating Cylind.		500	
8. Transmission Assemblys		10	
9. " Gears & Shafts		30	
10. Universal Joints		50	
11. Propeller Shafts		5	
12. Oil Seals		300	
13. Bearings		100	
14. Differential Gears		5	
15. Rear Axles		5	
" Case		5	
16. Wheels		50	
17. Tyres		120	Also, store in each Depot
18. Hub Bolts & Nuts		120	"
19. Bearings, Rear Axles		50	
" , Front Axles		50	
20. Oil Seals, Rear Axles		360	
" , Front Axles			

Parts Item	Parts No.		Remarks
21. Tyre-valves		150	Also, store in each Depot
22. Drain Plugs, T/M		50	
" , Diff. Case			
" , Oil Pan			
" , Radiator			
Steering & Suspension			
1. Steering Shaft Ass'y		10	
2. Steering Wheels		10	
3. Steering Gear Boxes		10	
4. Front Axles		10	
5. King Pins or Ball Joints		50	
6. Tie-rods, Tie-rod ends, Drag Links, Pitman Arms, etc.		50	
7. Leaf Springs - Front		50	
" - Rear			
8. Shock Absorbers		50	
9. Spring Shackle Pins		50	
" Bushings			

Parts Item	Parts No.		Remarks
Brake Parts			
1. Brake Linings & Rivets		2000	
2. Brake Drums		20	
3. Brake Shoes Ass'y		100	
4. Master Cylinder		20	
" Repair Kit		2000	
5. Wheel Cylinder		50	
" Repair Kit		2000	
6. Brake Hoses		2000	
7. Power Brake Repair Kit		2000	
8. Parking Brake Cable		100	
9. Brake Back Plate Ass'y		20	
10. Brake Pipes		50	
Electrical Equipments			
1. Starting Motors		10	
" Repair Kit		200	
2. Generators		10	
" Repair Kit		200	
3. Regulators		200	
4. Glaw Plugs		200	
5. Starter Switches		100	
6. Batteries		50	
7. Battery Cables & Terminals		50	
8. Battery Fluid		50	
9. Lighting Switches		20	
10. Switches - other repair use		20	
11. Fuses		100	Also, store in each Depot
12.			

Parts Item	Parts No.		Remarks
13. Relays for Horns & Others		200	
14. Horns		100	
15. Flasher Units		200	
16. Head Lamps		200	Also, store in each Depot
17. Tail Lamps		200	"
18. Lamp Bulbs		200	"
19. Reflex Reflectors		100	"
20. Windshield Wiper Motors		200	"
21. Windshield Wiper Blades		200	"
22. Rear View Mirrors		100	"
23. Speedometers		50	
24. " Flexible Shafts		2000	
25. Fuel Gauges Sender Units		100	
26. Other Gauges & Indicators		100	
Chassis Parts			
1. Fuel Tanks		5	
2. Fuel Pipes		3	
3. Mufflers		30	
4. Exhaust Pipes		30	
5. Window Glass, front		20	
" sides		5	
" rear		10	
6. Window Frame, sides		5	
7. Weather Strip, front		20	
rear		10	
8. Doors		5	

Parts Item	Parts No.		Remarks
9. Door Hinges & Locks		5	
10. Bumpers, front, rear		10	
11. Body Panels		3	
12. Body Ventilation		3	
13. Pedals, accelerator		5	
, brake		5	
, clutch		5	
14. Levers, Parking Brake		5	
15. Instrument Panel		5	
16. Wood, for floor repair		10	
17. Seats, passenger		5	
" driver		5	
19. Vinyl-sheet, for seat repair		10	
20. Electric Cable, for repair		3	

Material of Consumption

Fuels

Diesel engine oil

Gear oil

Grease

Body Paints

" , under coat

Solvent for Paints

Brake Fluid

Solder for electric
repair

4-1-3 Forms and Slips

Slips and other documents to be issued in the course of CWS management and operation

Formats of slips and other documents issued in the course of maintenance and repair operations in BRTC, and their flow are extremely complex at present and, as a result, not only the processing of those documents takes a long time but directly related operations are delayed. Since the situation is such as this, one can hardly say that slips and other documents are serving their purposes originally intended. The existing method is far from efficient. Accordingly, it was decided that the document control system adopted by Japanese service shops, etc. would be introduced for the control system of documents and slips to be used in CWS in order to promote more efficient management and operation of CWS taking the local condition into account.

a. Functions of slips and other documents

In accordance with the flow of repair and maintenance, a variety of slips and other documents are issued from related organizational elements and these slips and documents should satisfy the following functions.

- (1) Ordering and guiding works
- (2) Clarifying decision, work performed and responsibility
- (3) Minimizing error and illegal actions
- (4) Notifying related organizational elements of necessary information
- (5) Clarifying progress status and result of work and furnishing data for management to managers concerned
- (6) Retaining required data for the future use

Taking the above functions thoroughly into consideration, the issuance, flow, processing, formats, etc. of documents were exemplarily concluded as follows to assure efficient control of repair and maintenance operations in CWS.

The system established here is not definitive and should serve to provide a basis on which a better system is to be established in order to promote efficiency of various procedures through the application to actual business.

b. Outline of document (slips) control & management system

Documents, such as slips, etc., control/management system at CWS shall be basically operated as follows.

- (1) Prior to the establishment of document forms system (hereinafter this term will be used), understanding and cooperation of CWS executives and the assignment or presence of the promoter are essential. Effective control and operation of the system depend heavily on the senior officers who clearly understand the objective, effect, application method, etc. of the document forms system. Furthermore, the system must match the works in practice. Only then, the system can firmly establish itself in the control and operation of repair and maintenance in CWS.
- (2) The person responsible for the forms control (Manager of Sub-division) shall be appointed and shall be vested with the authority to act promptly when existing forms are to be modified or a new form must be developed.
- (3) It is also essential for the success of the system to appoint the persons in charge who honestly accomplishes assigned duties. He should be trained appropriately.
- (4) Forms to be used in CWS are of many kinds, but those may be classified into the following broad categories.

- (a) Those kept at one place without being routed and requiring additional entries.
 - (b) Those that are routed to one organizational element after another to convey information or causes a job to be done.
- (5) The organizational element originating forms shall follow the rules mentioned below.
- (a) Not to use forms which have not been registered formally.
 - (b) To make invalid form without signatures of the person who prepared it (grade 3 or higher) and group leader or Manager of sub-division (when monetary transaction is involved) of each organizational element concerned.
 - (c) Routing and retention of forms shall be the responsibility of the Manager of Sub-division or Manager of Factory.
- (6) Other general matters
- (a) Each slip shall be printed form.
 - (b) Paper size and quality for slips are not specified, but those shall be determined in accordance with the purpose and use taking the filling method into account.
 - (c) For copying slips, writing without carbon paper or the use of carbon backed paper is preferable, but the use of carbon paper may be allowed taking the local condition into account.
 - (d) Entries in slips shall be made in English using figures and specified symbols.

c. Forms to be used in CWS

It is considered necessary to have the following documents for the smooth control and operation of various businesses in the flow of repair and maintenance operations in CWS.

- . Vehicle history record
- . Maintenance order chart
- . Work order slip
- . Monhour slip
- . Part/material requisition slip
- . Part/material release slip

Note: Documents with are those kept at one place.

Documents with are those to be routed to
organizational elements concerned.

d. Forms control/operation in detail

(1) Vehicle history record

The vehicle history record records the maintenance history of BRTC-owned vehicles for the control purpose and for the use in scheduling CWS business operation.

Originated at: Registration group

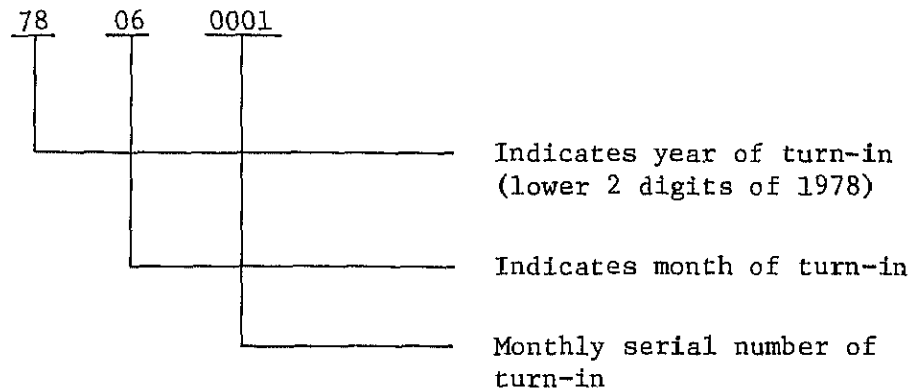
Retained at: Same as above

Retention period: Until the vehicle is condemned.
(forms shall be banded together
with staples)

Processing procedure:

- (i) Originate slip or pick up the
the slip from the file issued
beforehand, referring BRTC's
chassis No. at the time of
vehicle turn-in for maintenance
and enter the necessary information.

- (ii) Enter order No. (order No. shall be written as follows)



- (iii) Turn-in vehicles shall be classified into heavy repair, periodical maintenance and emergency repair.
- (iv) Originate maintenance order chart and send it to the next process together with vehicle.
- (v) Upon completion of maintenance, enter specified information in the vehicle history record referring to the maintenance order chart, manhour slip and part order slip and file these slips appropriately except the manhour slip which is to be routed to the accounting subdivision.

Note: To facilitate identification of maintenance/repair category, heavy and emergency repair shall be entered in red and periodical maintenance and others in black.

The format of vehicle history record is shown in Fig. 4-6.

(2) Maintenance order chart

This form is for ordering repair/maintenance work to other organizational elements and recording progress status and result of work done, responsibility of each element, etc. This form shall be routed to organizational elements together with turn-in vehicle along the main flow of repair/maintenance in CWS.

Originated at: Registration group

Retained at: Same as above.

Retention period: 2 years (Until next heavy maintenance)

Processing procedure:

Registration group

- (i) Originate this chart at time of vehicle turn-in for maintenance and enter specified information referring to vehicle history record.
- (ii) Route work order slip and this chart to next organizational element, i.e. washing group, together with vehicle.
- (iii) Complete all columns before releasing vehicle, transcribe information into vehicle history record, put signature and keep appropriately.

Fig. 4-6 Vehicle History Format

[illegible]

[Notes on filling]

1. This form shall be filled by the Registration Group member at the time of vehicle turn-in and release.
2. Periodical maintenance and others shall be filled in black and heavy and emergency maintenances in red.
3. Information to be entered in "Outline of Maintenance Work" shall be as much detailed as possible (required manhours, replaced parts names, etc.)

Fig. 4-6 Vehicle History Format

Inspection group (Preliminary inspection)

- (i) Check each part in accordance with maintenance category and enter work order to next organization element in accordance with vehicle condition in appropriate symbols.
- (ii) Upon completion of inspection, put signature and send it to the next element with vehicle. Prepare manhour slip and attach it to the chart.

(Final inspection)

- (i) Check if maintenance has been performed as instructed at preliminary inspection and correct minor defects. For a major defect, call responsible stall and cause it to be readjusted.
- (ii) Upon completion of inspection, put signature and send it to next element with vehicle. Prepare manhour slip and parts order slip and attach these slips to the chart.

Each stall

- (i) Perform work as instructed as a result of preliminary inspection and enter work done in maintenance order chart in symbol.

- (ii) Upon completion of work, put signature and send chart to the next element with vehicle. Prepare manhour slip and parts order slip to be attached to the chart.

Others

Comment shall be entered in "Remarks" column by each organizational element.

Format: Refer to Fig. 4-7 for the format of maintenance order chart.

Flow of maintenance order chart: Refer to Table 4-12.

(3) Work order slip

This slip is for requesting work to other organizational element when partial repair, machining or other action has become necessary in the course of maintenance work in each stall or shop.

Prepared at: Sub-division and group concerned

Retained at: Requested sub-division and group

Retention period: 2 years

Processing procedure:

Originating element

- (i) Prepare slip each time of work request, fill in specified information and send the slip to the addressee, together with parts/materials/components. Note; The originator shall prepare manhour slip to be attached thereto.

Requested element

- (i) Finish work not later than the specified deadline in accordance with work order slip and enter required manhours and other specified information in the manhour slip.
- (ii) Retain work order slip and return the item with manhour slip to the requester.

Format:

Refer to Fig. 4-8.

Fig. 4-7

MAINTENANCE ORDER CHART

Classification of Maintenance Work		BRTC Identification No.		Assigned Depot	
Heavy Repair		Vehicle Model - Make			
Periodical Repair		Engine No.	Chassis No.	Mileage	km/mile
Emergency Repair		Date of Acceptance		Date of Completion	
Others		Previous Maintenance Date - Classification of Maintenance Work			

AXLE, WHEELS & SUSPENSION

Maintenance Items	Maintenance Period (in month)								Maintenance Instructions	Maintenance Work	Final Inspection
	3	6	9	12	15	18	21	24			
Overhaul; Rear axle (if necessary)								0			
Overhaul; Front axle (if necessary)								0			
Check spring for damage	0	0	0	0	0	0	0	0			
Overhaul; Suspension (if necessary)								0			
Check front wheel hub bearing for looseness	0	0	0	0	0	0	0	0			
Check rear wheel hub bearing for looseness	0	0	0	0	0	0	0	0			

Remarks:

STEERING

Maintenance Items	Maintenance Period (in month)								Maintenance Instructions	Maintenance Work	Final Inspection
	3	6	9	12	15	18	21	24			
Check steering wheel play and looseness	0		0		0		0				
Check for looseness in mount			0				0				
Check steering linkage for damage, looseness and excessive play	0		0		0		0				
Check clearance between knuckles and front axle	0		0		0		0				
Check wheel alignment								0			
Check right and left turning circle								0			
Check clearance between king pins and bearings			0				0				

Remarks:

SERVICE & PARKING BRAKE

Maintenance Items	Maintenance Period (in month)								Maintenance Instructions	Maintenance Work	Final Inspection
	3	6	9	12	15	18	21	24			
Check function of brake system	0	0	0	0	0	0	0	0			
Reface brake linings	0	0	0	0	0	0	0	0			
Check brake drums for wear and reface, if necessary								0			
Check brake hoses				0				0			
Check parking brake lever travel allowance and linings for wear	0	0	0	0	0	0	0	0			
Check parking brake drum for wear and damage								0			
Check for looseness in mount of parking brake								0			
Check rod and cable for damage and loose connection	0	0	0	0	0	0	0	0			

Indication of type of work using symbols

The type of work should be indicated in the "Maintenance Instructions", "Maintenance Work" and "Final Inspection" columns using the symbols as explained below.

Example: The symbols represent the type of work as shown below:

Type of Work Engine overhauling

D + O/H + L + A

Work of Engine removal and installation

Work of Engine overhauling

Work of lubricating

Work of adjustment

Explanation of symbols used in "Maintenance Instructions", "Maintenance Work" and "Final Inspection" columns

(Complete)

Cleared through final inspection

A

(Adjustment)

Entire work involved in completing adjustment operation to maintain normal function

K

(Inspection)

A visual check to be made at exterior to find fault, damage or wear of the parts

(Repair)

Entire work involved in correcting bending, distortion, cutting and grinding of parts

D

(Removal and Installation)

Removal and installation of parts (including inspection and adjustment)

X

(Replacement)

Work needed for removal and replacement of parts that are beyond adjustment or correction (including inspection and adjustment)

O/H

(Overhaul)

Entire work involved in complete disassembly, inspection, correction, replacement, re-assembly and adjustment of an assembly (Excluding removal and installation)

W

(Disassembly)

Entire work involved in disassembly, inspection, reassembly and adjustment of an assembly (Excluding removal and installation)

T

(Retightening)

Work of retightening

C

(Cleaning)

Work of cleaning

L

(Lubricating)

Work of lubricating

B

(Sheet metal work)

Entire work involved in correcting convex, concavity, bending and distortion of parts

P

(Painting)

Paint work to be performed in conformity with specifications

CLUTCH, TRANSMISSION & PROP. SHAFT

Maintenance Items	Maintenance Period (in month)								Maintenance Instructions	Maintenance Work	Final Inspection
	3	6	9	12	15	18	21	24			
Overhaul; clutch	0	0	0	0	0	0	0	0			
Check for looseness in gear control mechanism				0				0			
Check splines for excessive wear			0				0	0			
Check for looseness in bearings and related parts		0				0		0			

Remarks:

ELECTRICAL EQUIPMENT

Maintenance Items	Maintenance Period (in month)								Maintenance Instructions	Maintenance Work	Final Inspection
	3	6	9	12	15	18	21	24			
Check specific gravity of electrolyte				0				0			
Check function of starter				0				0			
Check starter brushes for wear	0	0	0	0	0	0	0	0			
Check generator brushes for wear	0	0	0	0	0	0	0	0			
Check function of charging system	0	0	0	0	0	0	0	0			
Check terminals of wiring harness for damage and loose connections	0	0	0	0	0	0	0	0			

Remarks:

ENGINE

Maintenance Items	Maintenance Period (in month)								Maintenance Instructions	Maintenance Work	Final Inspection
	3	6	9	12	15	18	21	24			
Overhaul; Engine								0			
Check easiness of engine starting and abnormal noise	0	0	0	0	0	0	0	0			
Check idling speed and acceleration	0	0	0	0	0	0	0	0			
Check exhaust smoke (while varying engine speed)	0	0	0	0	0	0	0	0			
Valve clearance check		0		0		0		0			
Clean fuel tank and strainer			0			0		0			
Check nozzle injection pressure and spraying condition	0	0	0	0	0	0	0	0			
Check fuel feed pump	0	0	0	0	0	0	0	0			
Check function of brake system related parts		0		0		0		0			

Remarks:

BODY & CHASSIS

Maintenance Items	Maintenance Period (in month)								Maintenance Instructions	Maintenance Work	Final Inspection
	3	6	9	12	15	18	21	24			
Check condition of body panel damage and looseness				0				0			
Check condition of interior parts				0				0			
Check operating condition of lights, indicators, and gauges	0	0	0	0	0	0	0	0			
Check and lubricate each lubricating points	0	0	0	0	0	0	0	0			

Remarks:

	Registration	Pre Inspection	Vehicle Sub Division	Final Inspection	Registration
Signed by					
Date					

Work order slip			Order No.	
To:		From:		
Vehicle model	Engine No.	Chassis No.	Desired deadline	
Description of work	Work record			
	Work	No. of persons	Time spent	Date of completion
Remarks:		Total manhours: M/H		
Requester's signature:		Signature requested side:		
Work accomplished at (Date):		Delivered at (Date):		
<p>[Notes on filling]</p> <ol style="list-style-type: none"> 1. This slip shall be originated by the requester in combination with the manhour slip. 2. Insert a carbon paper between this slip and manhour slip before entering. <div style="display: flex; justify-content: space-between; margin-top: 10px;"> Form No. Retention period; 2 years </div>				

. Flow of work order slip: Refer to Fig. 4-12.

Fig. 4-8 Work Order Slip Format

(4) Manhour slip

The manhour slip shall be prepared by each activity that performed maintenance work to indicate manhours required for the work and shall be prepared for each work done. This slip is intended to be used as a data for cost accounting and shop management.

Prepared at: Sub-division and group

Retained at: Accounting sub-division thru registration group.

Retention period: 1 year

Processing procedure:

Originating element

- (i) Since work order slip and man-hour slip are delivered from the requester in combination, enter work accomplished and total man-hours in each slip.
- (ii) Retain completed work order slip and return the manhour slip entered actual manhours to the requester together with parts/components.

Receiving activity

Receive the parts/components with manhour slip. Upon completion of work, deliver the manhour slip attached to maintenance order chart to the next related activity.

Note; When the activity is not to receive maintenance order chart, this slip shall be routed to related activities.

Format: Refer to Fig. 4-9.

Manhour slip		Order No.					
To:		From:					
Vehicle model	Engine No.	Chassis No.	Desired deadline				
<div style="display: flex;"> <div style="width: 30%; padding: 5px;">Description of work</div> <div style="width: 30%; padding: 5px;">Work</div> <div style="width: 40%; padding: 5px;"> <div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 5px;">Work record</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">No. of persons</th> <th style="width: 25%;">Time spent</th> <th style="width: 50%;">Date of completion</th> </tr> </thead> <tbody> <tr> <td style="height: 100px;"></td> <td></td> <td></td> </tr> </tbody> </table> </div> </div>		No. of persons	Time spent	Date of completion			
No. of persons	Time spent	Date of completion					
Remarks:		Total manhours: M/H					
Requested by:		Work done by:					
Date of work request:		Date of delivery:					
<p>[Notes on entry]</p> <ol style="list-style-type: none"> 1. This slip shall be prepared by the requester in combination with the work order slip. Record of work accomplished shall be entered by the activity that performed work. 2. Prior to the entry, insert a carbon paper between this ship and work order slip. <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div></div> <div>Form No.</div> <div>Retention period; 1 year</div> </div>							

. Flow of manhour slip: Refer to Fig. 4-12.

Fig. 4-9 Manhour Slip Format

(5) Part/material order slip and part/material release slip

These slips are originated when each activity requests issue of automotive parts and material required for the maintenance operation to the Storage Group, Parts Control Sub-division. Two slips are paired. The second copy is called the release slip and is used for the communication from the Storage Group to the Control Group.

Prepared by: Each group of each shop

Retained at: Order slip Registration Group
Release slip Accounting Group

Retention period: 1 year

Processing procedure:

Each group of each shop;

Originate the slip for each order No. of maintenance work, enter specified information in the form and deliver to the Storehouse Group.

Storehouse Group;

Verify Order No., enter quantity actually released and attach order slip to the item. Deliver the release slip to the Accounting Group through the Control Group. Transcribe data onto the shelf card, parts ledger, etc.

Each group of each shop;

When parts are assembled after maintenance, attach the order slip returned with the new parts to manhour slip and combine them with maintenance order chart.

Format: Refer to Fig. 4-10.

(6) Disposition order slip

This slip is for requesting action such as reclamation or disposal of weard off/damaged parts determined to be incapable of being processed or repaired within the period specified in accordance with the maintenance order chart at the time of vehicle repair or maintenance.

Originated at: Each sub-division and each group

Retained at: Reclamation sub-division (original)
Each sub-division each group (copy)

Retention period: 1 year

Processing procedure:

Originating activity

- (i) Prepare the slip in duplicate (original and copy) each time parts requiring disposition occur and enter specified information such as disposition category (disposal, reuse as material, and reclamation), originator's signature, date, item description, quantity, originator's comment, etc.
- (ii) Deliver disposition order slip to Reclamation Sub-division with the item.

Reclamation Sub-division

- (i) Upon reception of disposition order slip and the item from activity, determine the category of disposition referring to

originator's comment, prepare work order slip for item to be reclaimed and deliver it to the shop concerned with the item.

- (ii) Enter specified data in 2 copies of disposition order slip, return the copy to the requester and retain the original.
- (iii) Reclaimed parts are returned to Reclamation Sub-division with manhour slip. After intra-sub-division processing, deliver the item to Parts Division with manhour slip from shop.

Format:

Refer to Fig. 4-11.

Fig. 4-11 Disposition Order Slip

Copy

Original

Disposition Order Slip

(Disposition, Reuse as Material and Parts Reclamation)

Order No. _____

To: Reclamation Sub-division		Received by (signature):	
		Date:	
Issued at:		Issued by (signature):	
		Date:	
Vehicle model	Engine No.	Chassis No.	

Part name, part No.	Quantity	Requester's decision	Decision of Reclamation Sub-division

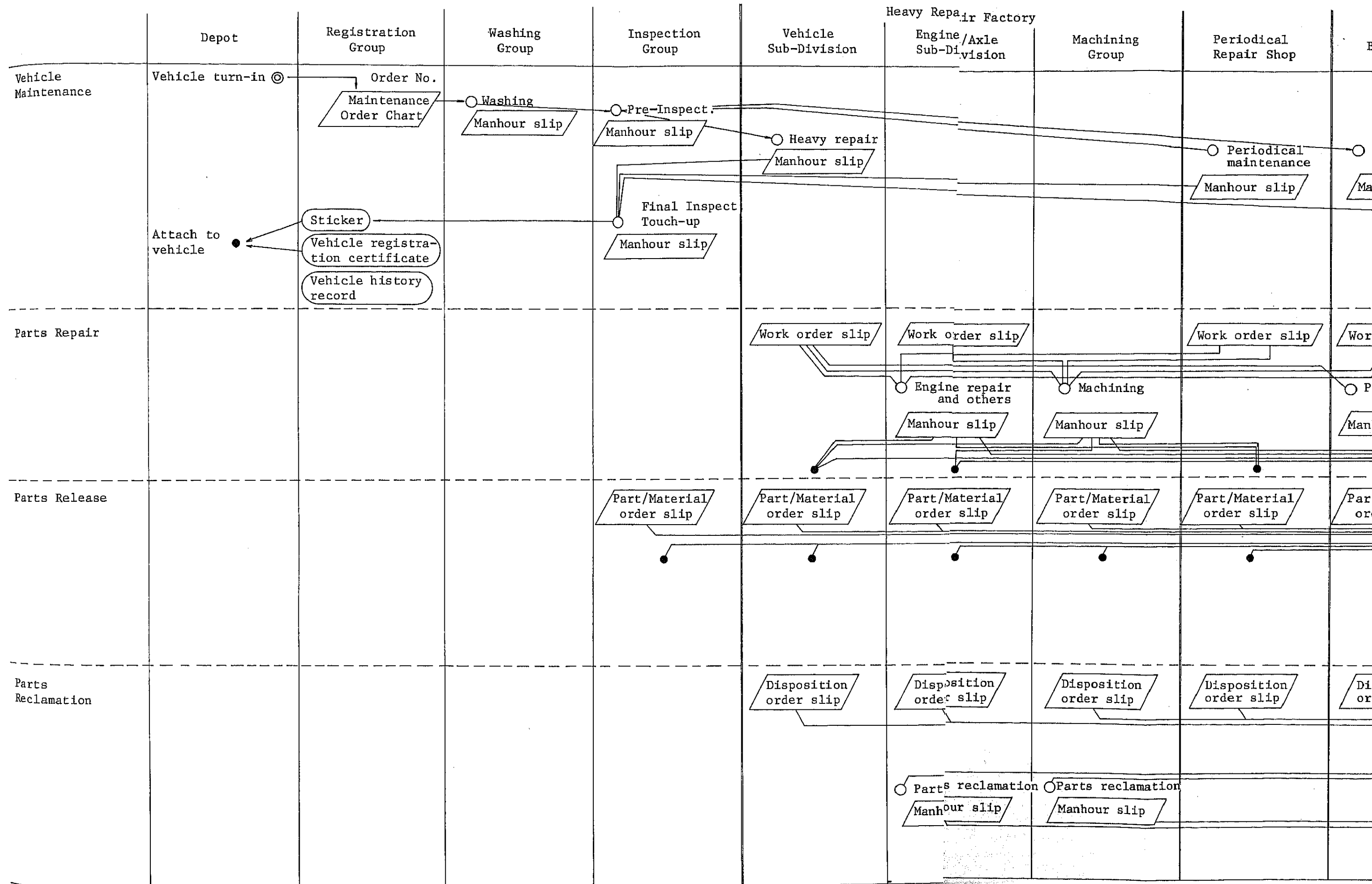
Remarks _____

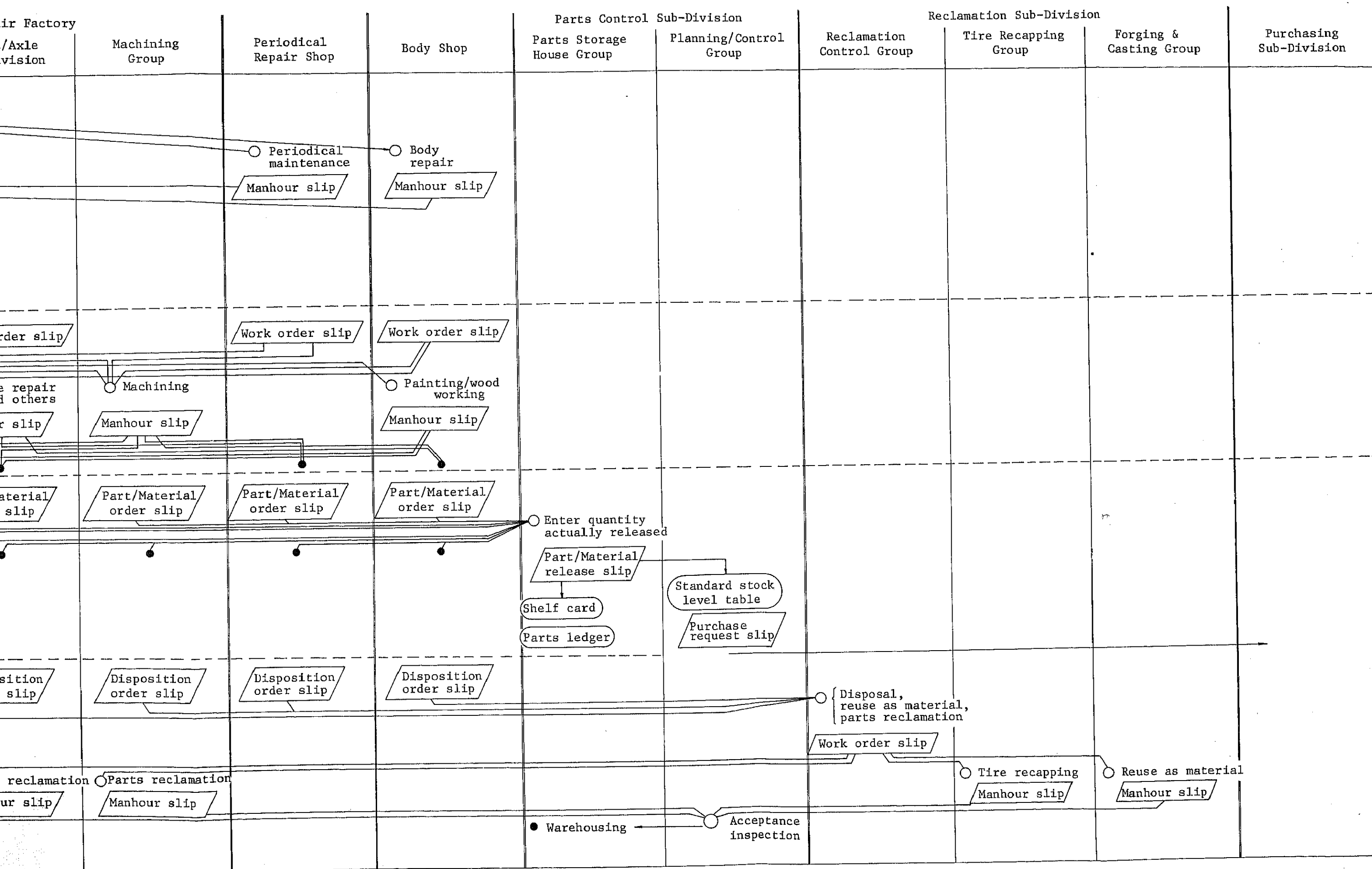
Form No. _____ Retention period: 1 year

. Flow of disposition request slip: Refer to Table 4-12

Fig. 4-11 Disposition Order Slip

Table 4-12 DOCUMENT FLOW CHART





4-1-4 Organization

A. The Service Regulations of CWS Organization

The operation of the work and employees described in 4-1-1 through 4-1-3 shall be done with an established organization and under the stipulated directions. At each Division, Sub-division and Group, there is a head, who has the responsibility to accomplish its work within the scheduled limits, and is vested with authority to make its operations smooth. To achieve the objective given to his Division/Sub-division/Group, the head exercises his authority in the performance of the work assigned to his Division/Sub-division/Group. In the case of large-scaled repair plants like CWS. There are certain Division/Sub-division/Groups which are in charge of indirect service work such as purchasing of goods, administration of employees, etc, so that the whole operation of CWS can be done smoothly and effectively. This organization called an indirect organization. The Survey Team has established a CWS organization by combining indirect sections, which should be as small as possible, with direct sections. This organization is as shown in Chart 4-13.

According to this Chart, there are 3 Divisions under the General Manager, such as the Services Division, Parts Division and General Affairs Division, and also there is the Accounting Sub-division, which is in a position equal to that of these Divisions and is controlled by the General Manager directly. Each Factory of each Division has Sub-division, and the Division Manager controls Sub-division Manager directly; and these Sub-divisions have Group respectively; the Sub-division Managers accomplish their work as they are directing the personnel assigned at their division. As the output of a Sub-division is depend upon the ability and leadership of its Manager, his position is actually most important in CWS for the accomplishment of the work assigned.

General Manager 1
Vice General Manager 1

Service Division		Vice General Manager 1										Secretary 2												Parts Division																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Under the General Manager, a total of 1,022 personnel are assigned; at the so-called indirect section, namely the Accounting Sub-division and General Affairs Division, including the General Manager, 215 personnel out of the total number of the personnel are assigned; and this is equal to 26% of all employee including direct sections such as service Division and Parts Division.

Each Sub-division and Group in the organization accomplishes part of the total work, and it is essential to clarify what work is to be done in the Sub-division and Group; clarification of which is called "The Service Regulations of C.W.S Organization" and detailed description is mentioned here based on Chart 4-13. In the establishment of this Service Regulation as no care was exercised to the following matters, due attention is called.

- 1) In this Service Regulation, the domestic laws of Bangladesh are not reflected.
- 2) In this Service Regulation, the religious customs are not reflected.

Accordingly, to make some revisions may become necessary after this Service Regulations has been put into effect, however, to make fundamental revisions may not be necessary.

The Service Regulations of CWS Organization

Chapter I - General

- Article 1: The General Manager of CWS shall exercise general control over the whole CWS and T.I.; he, by directly commanding the Managers of Divisions, the principal of T.I. and Manager of Accounting Sub-division, shall serve CWS so that it can exhibit its function to the maximum.
- Article 2: The Vice General Manager shall assist the General Manager, and during the absence of the General Manager, he shall perform the business of the General Manager.
- Article 3: The General Manager, as necessities arise, may determine to establish Divisions or Sub-divisions, or abolish them, or to effect changes in them; he may also put his determination into practice. He shall appoint Manager of Division and Manager of Sub-division as well as dismiss them.
- Article 4: If necessary, CWS may establish positions of Deputy Manager of Division and Sub-division as well as Project Leaders. Appointment to, and dismissal from, these positions are made by the General Manager.

Chapter II - Service Division

- Article 5: The Manager Service Division shall exercise general control over the whole Services Division, he, by directly commanding Managers of Factory and Sub-divisions, shall make his Division exhibit its function to the maximum. In order to attain this objective, he can make modifications in the Sub-divisions and Groups or to abolish them, or determine as to personnel affairs and wages, he may report such determination to the General Manager.

(Heavy Repair Factory)

Article 6: The Manager of Heavy Maintenance Factory shall exercise general control over the whole of the Heavy Maintenance Factory; he, by directly commanding Managers of Sub-divisions, shall make the Factory exhibit its function to the maximum. In order to attain this objective, he may determine to make modifications in the Sub-divisions and Groups, or to abolish them, or determine as to personnel affairs and wages, and he may report his determination to the Manager, Service Division.

Article 7: (1) The Vehicle Sub-division shall perform the work to remove components from maintenance vehicles and then mount repaired components onto the vehicles, as well as this Sub-division is responsible for the maintenance of disassembled vehicles and for doing welding work in the stalls therefor.

(2) In the Vehicle Sub-division, there shall be placed Groups as follows, and these Groups shall perform the work as mentioned below.

No. 1, No. 2, No. 3, No. 4 and No. 5 Stall Groups

All these Groups shall be responsible for working out schedules and advancing them, and for making material and work arrangements, as well as responsible for the transportation of goods in process and finished components/parts.

(3) The Manager of Sub-division shall direct Group Leaders and Staffs, and make adjustment between other Divisions/Sub-divisions and within the Sub-division so that the work may be done smoothly. By so doing, he shall make his Sub-division exhibit its function to the maximum. In order to attain this objective, he may make assessment concerning modifications or

abolishment of his Groups, personnel affairs and wages, and report it to the Manager of Factory. He also may request for the supply of materials and submaterials, and for an increase in personnel, etc. under his signature.

- (4) The Deputy Manager of Sub-division shall assist the Manager of Sub-division, and during the absence of the Manager of Sub-division, he shall take the responsibility of the Manager of Sub-division.
- (5) The Group Leaders shall work out work plans for their Groups together with their stuffs, and advance such plans, by so doing, they shall make efforts toward the promotion of work efficiency. In order to attain this objective, leaders make assessment of personnel, wages of stuffs and mechanics and report the results to the Manager of Sub-division.

Staffs shall assist their Group Leaders, and issue necessary documents; they shall make efforts toward the progress of their Group's work, work out work schedules and put them into practice, as well as they shall endeavor to eliminate troubles, and give guidance to Foremen.

- Article 8:
- (1) The Engine Sub-division shall be responsible for the washing and disassembly of engines, doing Machinery work and replacement of parts for engines, as well as responsible for the assembly work and test runnings for such engines.
 - (2) In the Engine Sub-division, there shall be placed Groups as follows, the responsibilities of these Groups are as mentioned below.

A) Disassembly and Washing Group

This Group shall be responsible for working out work plans and work processes concerning engine washing and disassembly, check of parts, for the working out work schedules and advancing thereof; and for making material and work arrangements.

B) Machining Group

This Group is responsible for machining process required for repair work and parts reclamation; for working out work processes and work schedules, and for the advancement thereof; as well as responsible for making material and work arrangements.

C) Assembly Group

This Group is responsible for doing assembly work for engines and doing test runnings for them; for working out work procedures and schedules necessary for such assembly and test runnings; as well as responsible for preparing material and work arrangements.

D) Attachment Group

- i) Responsible for the disassembly and inspection of injection pumps and nozzle checking, replacement of parts, assembly and adjustment, for working out work plans and schedules and advancement thereof; as well as for preparing material and work arrangements.
- ii) As to electric equipment such as dynamos, starters and various kind of relays, responsible for accomplishing the matters mentioned above.

- (3) The responsibilities and authority of the Manager of Sub-division are the same as stipulated in Article 7-(3), concerning the above-mentioned work.
- (4) The responsibilities and authority of the Deputy Manager are the same as stipulated in Article 7-(4), concerning the above-mentioned work.
- (5) The responsibilities and authority of the Group Leaders and Staffs are the same as stipulated in Article 7-(5), concerning the above-mentioned work.

Article 9: (1) The Axle Sub-division is responsible for the disassembly, washing and assembly of clutches, transmissions, propeller shafts, front and rear axles and springs; and for doing process and replacement work therefor.

- (2) In this Sub-division, there shall be placed Groups as follows, and these Groups shall perform the work as mentioned below.

A) Transmission Group

Responsible for disassembly, washing and assembly of clutches, transmissions and propeller shafts, for doing process work and replacement of parts therefore, for working out work plans and schedules and advancement thereof, and for preparing material and work arrangements.

B) Axle Group

Responsible for disassembly, washing and assembly of front and rear axles, foot brakes, springs and steering equipments, for doing process work and replacement of parts therefor, and for preparing material and work arrangements.

- (3) The responsibilities and authority of the Manager of Sub-division are the same as mentioned in Article 7-(3), concerning above mentioned work.
- (4) The responsibilities and authority of the Deputy Manager are the same as stipulated in Article 7-(4), concerning above mentioned work.
- (5) The responsibilities and authority of the Group Leaders and staffs are the same as stipulated in Article 7-(5), concerning above mentioned work.

(The Periodical Maintenance Factory)

Article 10: The responsibilities and authority of the Manager of Periodical Maintenance Factory are the same as stipulated in Article 6; in addition to this, he shall have the responsibilities and authority of the Manager of Sub-division as stipulated in Article 7-(3), concerning his work mentioned below.

- Article 11: (1) The Periodical Repair Factory is responsible for doing check and maintenance for periodical maintenance vehicles - chiefly their components as determined beforehand; this Factory shall transfer its work to other factories as the occasion may demand; and shall do mounting work for such components after their maintenance work was completed; as well as responsible for performing general maintenance work, welding work, etc.
- (2) In the Periodical Repair Factory, Groups shall be placed as follows, and these Groups shall perform work as mentioned below.

No. 1, No. 2, No. 3 and No. 4 Stall Groups

Each Groups shall be responsible for working out work plans and schedules and advancement thereof, for preparing material and work arrangements, as well as for the transportation of goods in process and finished components/parts.

- (3) The responsibilities and authority of the Deputy Manager of Factory are the same as stipulated in Article 7-(4), as to the work concerned.
- (4) The responsibilities and authority of the Group Leaders and Staffs are the same as stipulated in Article 7-(5), as to the work concerned.

(Body and Painting Factory)

Article 12: The responsibilities and authority of the Manager of Body and painting Factory are the same as stipulated in Article 6, concerning the work of this Factory; in addition to such responsibility and authority, he shall also have the responsibilities and authority as stipulated in Article 7-(3), as to the work concerned.

- Article 13: (1) The Body and painting Factory is responsible for doing repair work for periodical maintenance and heavy repair vehicles as well as for other vehicles needing repair due to emergent accidents such as collisions, etc., including the repair of the body, wooden portions and the inside of the vehicles, as well as painting.
- (2) In this Factory, there shall be placed Groups as follows, and their responsibilities are as mentioned below.

A) Sheet Metal and Carpentry Group

This Group is responsible for doing repair work for the sheet metals of the body, for accomplishing modification work for the frames, and repair work for the wooden portions on the floor, as well as responsible for working out work plans and schedules and advancement thereof, and for preparing material and work arrangements.

B) Painting Group

This Group is responsible for doing painting and rust-preventive coating for bodies and other portions; for working out work plans and schedules and advancement thereof; and for preparing material and work arrangements.

- (3) The responsibilities and authority of the Deputy Manager are the same as stipulated in Article 7-(4), concerning above mentioned work.
- (4) The responsibilities and authority of the Group leaders and staffs are the same as stipulated in Article 7-(5), concerning above mentioned work.

(Registration)

Article 14: (1) The Registration Group shall be responsible for the registration work for all vehicles needing maintenance, for the preparation of vehicle history records in which all the maintenance work given to vehicles until they are disused is entered, for urging BRTC on taking vehicles needing maintenance, for the administration of the vehicle history records, as well as responsible for doing washing work for vehicles.

This Group is under immediate control of the Manager of Service Division.

- (2) In the Registration Group, there shall be placed Teams as follows, and their responsibilities are as mentioned below.

A) Registration Team

Responsible for the registration of vehicles brought in, making classification thereof, and for the preparation and keeping of vehicle history records, and for the preparation of lists

of vehicles needing maintenance, as well as responsible for conducting investigations and taking statistics of vehicles subjected to maintenance.

B) Car Washing Team

Responsible for doing washing work for vehicles coming for receiving maintenance prior to their entries to the factories.

(3) The responsibilities and authority of the Registration Group Leader shall be the same as stipulated in Article 7-(3) and (5), concerning the above-mentioned work.

(4) The responsibilities and authority of the Staffs are the same as stipulated in Article 7-(5), concerning the above-mentioned work.

(Inspection)

Article 15: (1) The Inspection Group shall be responsible for doing preliminary inspections, final inspections and simple repairs for vehicles needing maintenance. This Group is under immediate control of the Manager of Service Division. As to the judgement made by this Group concerning inspections, etc., no ones, including the General Manager, are allowed to have objections.

(2) In the Inspection Group, there shall be placed Teams as follows, and the responsibilities of these Teams are as mentioned below.

A) Inspection Team

Responsible for conducting preliminary inspections, pointing out major portions on which maintenance work should be effected, and making entries thereof; as well as responsible for conducting final inspections to judge as to whether the maintenance has been effected perfectly.

B) Touch-up Team

Responsible for doing small maintenance which pointed out while final inspection, and for giving oil, grease and fuels to the vehicles.

(3) The responsibilities and authority of the Group Leader are the same as stipulated in Article 7-(3) and (5), concerning the above-mentioned work.

(4) The responsibilities of the Staffs are the same as stipulated in Article 7-(5), concerning the above-mentioned work.

Chapter III - Parts Division

Article 16: The responsibilities and authority of the Manager of Parts Division are the same as stipulated in Article 5, concerning the work of this Department.

Article 17: (1) The Parts Control Sub-division shall be responsible for accepting parts and taking them into, and taking them out, the storehouse; as well as responsible for taking records of such work; etc.

(2) In the Parts Control Sub-division, there shall be placed Groups as follows, and their responsibilities are as mentioned below.

A) Control Group

Responsible for working out plans for the whole of this Division and effecting control thereupon, for acknowledging overs and shorts of parts, for making adjustment between this Division and other Divisions, for the administration of work schedules, as well as responsible for performing general affairs business within the Division.

B) Storehouse Groups (No. 1 and No. 2 Groups)

These Groups are responsible for taking parts

into the storehouse and taking out parts therefrom, and for recording such movements of parts in the record, for reporting to the Control Group on the shortage of parts, as well as responsible for doing general administration business concerning the storehouse and oil and grease storehouse.

C) The Planning Group

Responsible for the preparation of parts purchasing lists on by-order issuance basis, and the preparation of purchasing schedules, etc.

- (3) The responsibilities and authority of the Manager of Sub-division, Deputy Manager, Group Leader and Staffs are the same as stipulated in Article 7-(3), (4) and (5), concerning the above-mentioned work.

Article 18: (1) The Reclamation Sub-division shall be responsible for accomplishing reclamation work for tires and metal parts.

- (2) In the Reclamation Sub-division, there shall be placed Groups as follows, and their responsibilities are as mentioned below.

A) The Tire Reclamation Group

Responsible for working out procedures necessary for reclamation of tires work plans and schedules and advancement thereof; and responsible for preparing material and work arrangements.

B) The Casting and Forging Group

Responsible for working out work methods concerning casting and forging of metal parts, for working out work plans and schedules and advancement thereof; as well as preparing material and work arrangements.

C) The Control Group

Responsible for making negotiations concerning acceptance and delivery plans for reclamation parts and concerning inspections thereof, as well as concerning schedules therefor.

- (3) The responsibilities and authority of the Manager of Sub-division, Deputy Manager, Group Leaders and Staffs shall be the same as stipulated in Article 7-(3), (4) and (5), concerning the above-mentioned work.

Article 19: (1) The Purchasing Sub-division shall be responsible for purchasing parts, materials, oils, etc. from abroad and within Bangladesh.

- (2) In this Sub-division, there shall be placed Groups as follows, and their responsibilities are as mentioned below.

A) Foreign Parts Group

Responsible for making negotiations concerning prices and schedules when purchases are made from abroad; and for making correspondence abroad.

B) Domestic Parts Group

Responsible for matters concerning prices of, and schedules for, parts, oils and materials, and also sub-materials having direct relations to the maintenance/repair, which are procured in Bangladesh; as well as responsible for making correspondence.

C) The Planning Group

Responsible for making calculations of purchasing budgets and making a request therefore, and for

doing follow-up of the results of expenses used,
etc.

- (3) The responsibilities and authority of the Manager of Sub-division, Deputy Manager, Group Leaders and Staffs are the same as stipulated in Article 7-(3), (4) and (5), concerning their work concerned.

Chapter IV - The General Affairs Division

Article 20: The responsibilities and authority of the Manager of Division shall be the same as stipulated in Article 5, concerning the work of this Division.

Article 21: (1) The General Affairs Sub-division shall be responsible for performing work concerning general affairs matters and documents, as well as concerning matters not related to the work of other Divisions and Sub-divisions.

- (2) In the General Affairs Sub-division there shall be Groups as follows, and their responsibilities are as mentioned below.

A) General Affairs Group

This Group shall be responsible for performing general affairs matters such as the reception of visitors, purchase of books, administration of organization, administration of written instructions, acceptance and delivery (within CWS) of incoming documents including newspapers, etc.

B) The Document Group

Responsible for the issuance of official documents, the issuance of CWS instructions, etc.

- (3) The Responsibilities and authority of the Manager of Sub-division, Deputy Manager, Group Leaders and

Staffs are the as stipulated in Article 7-(3), (4) and (5), concerning the above-mentioned work.

Article 22: (1) The Personnel Sub-division shall responsible for the administration of matters concerning the employees.

(2) In the Personnel Sub-division, there shall be placed Groups as follows, and their responsibilities are as mentioned below.

A) The Personnel Group

Responsible for matters concerning employment, dismissal, reward and punishment, diligence and indolence, wages and adjustment thereof, business travel expenses, totalling of hours worked, of the employees, etc.

B) The Welfare Groups (No. 1 and No. 2 Groups)

Responsible for the control of cafeteria, telephones, fast aid, for the purchase, use and control of items having no direct relations to work, such as medicines, paper, stationary, furniture and fixtures, etc., and responsible for the calculation of budgets concerned and execution thereof.

C) The Security Group

Responsible for the guard of CWS, checking entries and exits, and keeping watch on the working hours of the employees, as well as responsible for matters concerning prevention of fires.

(3) The responsibilities and authority of the Manager of Sub-division, Deputy Manager, Group Leaders and Staffs are the same as stipulated in Article 7-(3), (4) and (5), concerning the above-mentioned work.

- Article 23: (1) The Facilities Sub-division shall be responsible for the installation of equipment, construction of buildings and manufacturing, installation of zigs, etc., doing repair work therefore, and for the maintenance,, operation of the air compressor rooms, etc.
- (2) In this Sub-division, there shall be placed Groups as follows, their responsibilities are as mentioned below.
- A) The Facilities Group
- Responsible for the installation of machines, zigs and other equipment and the repairs thereof; for the purchase of necessary parts and materials; for the calculation and execution of budgets, and responsible for the operation, maintenance of the compressor room, etc.
- B) The Building and Repair Group
- Responsible for the establishment of structures and drinking water and drainage systems, and maintenance thereof, and doing other civil engineering works, for the manufacture and repair of fixtures within CWS, for the elimination of disused and abandoned articles, and responsible for the calculation and execution of budgets and follow-up thereof, etc.
- (3) The responsibilities and authority of the Manager of Sub-division, Deputy Manager, Group Leaders and Staffs are the same as stipulated in Article 7-(3), (4) and (5), concerning the above-mentioned work.

Chapter V - Accounting Sub-division

Article 24: The Accounting Sub-division shall be under direct control of the General Manager of CWS, and the responsibilities and authority of Manager shall be the same as stipulated in Article 5, concerning the work of this Sub-division.

Concerning the responsibilities and authority of the Deputy Manager, the provisions of Article 7-(3) shall apply.

Article 25: (1) This Sub-division shall be responsible for the preparation of CWS and T.I. budgets and execution thereof, the calculation of the cost, and for the receipt and payment of cash, for the receipt and issuance of checks and promissory notes, etc.

(2) In this Sub-division, there shall be placed Groups as follows, and their responsibilities are as below.

A) The Accounting Group

Responsible for making entries in the general ledger, fixed asset book and auxiliary suspense account book and safe keeping thereof; for the calculation of the cost; for the preparation of Division's budgets and other budgets and execution thereof, and responsible for making applications for the obtainment of foreign currencies; as well as responsible for the procurement of funds.

B) The Cashing Group

Responsible for making demands for payment outside of the CWS, for making cash disbursements covering business travel expenses and others with cash book; for making payments to sellers in Taka/dollars; for the issuance of checks and

promissory notes; and also responsible for the
payment of wages in tie up with banks, etc.

Addition Rules

This Service Regulations shall become effective as on 19 .

B. The Shop Regulations of CWS Employee

According to the Chart 4-13 in the foregoing "The Service Regulations of CWS Organization", the responsibilities and authority of the Managers of Divisions, Sub-divisions and Group Leaders, etc. were established.

In order to have the employees act orderly, in addition to the Service Regulations in which provisions are laid down regarding in what manner employees should engage in their work, how to encounter and deal with personal matters of the employees, concerning the employment and dismissal of, and holidays for, etc., it is essential that there should be rules which control lateral relations between employees, which are common to all the employees.

This control system is called the Shop Regulations of CWS employee which are very important for the managers to control employees. Because CWS has as many as 1,000 employees, but all of them should share hardships and benefits equally at different positions. Therefore, if some of them receive special benefits, the group life would certainly be hurt. If the employees are treated like this, it poses a significant minus factor for the CWS in displaying its abilities.

Accordingly, the Shop Regulations, which must be observed faithfully by all personnel at CWS, up from the General Manager down to sweepers and peon, and it should be called a kind of constitution regulating the group life within CWS.

Here description is made of the Shop Regulations, however, no heed was paid to the following points during the course of making this regulation, therefore, due attention is called to such points.

- 1) In this Shop Regulation, no domestic laws of Bangladesh are reflected.
- 2) No religious customs were reflected in this Shop Regulation.

Therefore, in putting this regulation into practice, necessities of effecting revisions in it may arise, however, there may be effected no fundamental revisions in this regulation.

The Shop Regulations of CWS Employee

Chapter I - General

(Purpose)

Article 1: This Regulation provides for matters concerning the performance of work by CWS employees.

(Priority of Bangladesh domestic laws)

Article 2: If Bangladesh domestic laws stipulate otherwise expressly than the provisions of this Regulation, the Bangladesh law shall have priority over this Regulation.

(Definitions)

Article 3: (1) The employees who are called so in this Regulation are those who have been employed by CWS through labor agreement with no duration of employment specified.

(2) As to the grouping of employees, kind of job, work system and grading, provisions should be made separately.

(Obligations to observe)

Article 4: Employees shall observe this Regulation and perform their duties in compliance with instructions of their superiors.

Chapter II - Employment

(Age)

Article 5: Those who are employed newly shall be aged between 13 and 35, however, in case of specific necessity, this limitation shall not apply.

(Screening and employment)

Article 6: (1) Applicants for employment shall submit the following documents to CWS, examinations shall be given to such applicants, and those who have been considered appropriate will be employed.

- 1) Statement of personal history
 - 2) One's own declaration
 - 3) Graduation certificate and scholastic achievement certificate
 - 4) Health certificate
 - 5) License card and other certificates
 - 6) Picture taken not before than 6 months
- (2) A term of 2-weeks after employment shall be a trial employment term, however, in the case of persons possessing special skill or career, no such trial term shall be instituted.

(Documents to be submitted by those employed)

Article 7: (1) Those who have been employed shall conclude labor agreement with CWS, and at the same time submit there-to the following documents.

- 1) Statement showing one's status of life (including family members)
 - 2) Certificate by guarantors - One signed copy each from 2 guarantors
 - 3) Other documents as required by CWS
- (2) Of the description in the documents mentioned in the foregoing documents, if any changes have occurred, a report shall be submitted immediately.

Chapter 3 - Duty

(Working hours and rest hours)

Article 8: (1) The working hours and rest hours for the employees shall be as follows.

	Working hours	Rest hours
1)	From 0830 to 1200 From 1230 to 1630	From 1200 to 1230
2)	From 0830 to 1230 From 1300 to 1630	From 1230 to 1300

- (2) When the working hours and rest hours are inconvenient due to the nature of work, provisions are laid down separately.
- (3) When any changes are to be made temporarily in the working and rest hours mentioned in the foregoing 1 and 2 Subparagraphs due to the situation of work changes may be made accordingly.
- (4) Employees shall be given a 10-minute rest appropriately one each in the morning and in the afternoon.

(Overtime)

Article 9: (1) For the sake of convenience on the part of the CWS, if employees have to work outside the hours provided for in Article 8, they may be permitted to do so.

- (2) When employees work outside the stipulated working hours, a rest is given as follows.

From 1630 to 1700

- (3) Due to the nature of work, if the application of the provisions of Paragraph (2) above is difficult, provisions shall be made separately.
- (4) When temporary changes are to be made in the provisions of the foregoing Paragraphs (2) and (3) for the sake of convenience on the part of the CWS, the working hours may be changed.

(Work during emergency)

Article 10: Due to unavoidable reasons, for example, disasters, etc., if temporary necessities have arisen, employees may be required to work outside the stipulated working hours or at midnight as the necessity may demand.

(Watch, call, attendance or leaving in the middle of working hours and lay off)

Article 11: For the sake of convenience on the part of the CWS, employees may be required to be on watch, to be called, to come to work or leave from duty in the middle of working hours, or to leave from service during a definite period of time.

(Special handling)

Article 12: Due to the following unavoidable reasons, when employees have been absent from work, have been later in coming to work, or have been leaving earlier than usual, or when they have gone outside the CWS on private business, these employees are treated as they have worked normally, however, as to wages, provisions shall be made separately.

- 1) When employees have been injured or taken ill on business and medical treatment is required.
- 2) When employees have been injured on the way to, or from work, due to accidents, and when they are required to get medical treatment.
- 3) When employees have been absent from duty in order to exercise their civil rights, namely voting, etc., with their superiors' prior approval.
- 4) When employees have been absent from work to fulfill their public obligations with their superiors' permission.

- 5) When employees exercise their duties as a witness, an expert witness, a reference or as a juryman.
- 6) For the purpose of preventing contagious diseases, when employees have been prohibited to go to work.
- 7) When an employee has fallen a victim of natural calamity, and when his absence has specifically been approved.
- 8) In other cases not provided in the foregoing Subparagraphs, when the CWS has approved to treat employees with the provisions laid down in one of the foregoing Subparagraphs.

(Badges, etc.)

Article 13: Employees shall bear at all times badges, name plates, uniforms including caps, etc., as stipulated by the CWS.

(Formality)

Article 14: When employees come to work, leave their work, go out and work outside the CWS, they shall comply with the formality.

(Prohibition of working)

Article 15: When employees fall under one of the following Subparagraphs, they may be prohibited against coming to work, or they may be directed to leave their work earlier than usual.

- 1) When an employee has been recognized to be corrupting public morals, disturbing public order or to be detrimental to hygiene.
- 2) When an employee is possessing firearms or arms, or when he is bringing with him an article not necessary for his performance of work.
- 3) Employees who have been prohibited by the laws of Bangladesh or by this Regulation.

(Procedures for absence)

- Article 16: (1) When employees wish to be absent from work due to illness or injury, they shall report it to their superiors, complying with the stipulated procedures. However, in case when they have no time to do so, they may be allowed to report immediately after the fact.
- (2) If absence continues for 7 consecutive days, employees shall submit, in addition to the report provided for in the foregoing Paragraph, a medical certificate prepared by the physician designated by CWS (The said certificate shall also be signed by the employee's guarantor).

(Inspection of carrying articles)

- Article 17: When employees wish to take in or take out articles other than those used daily, they, after going through the stipulated procedures, shall get inspections by security personnel.

(Prohibition on political activities within the CWS's premises)

- Article 18: (1) No employees shall be permitted to engage in political or religious activities within the CWS premises.
- (2) When an employee wishes to conduct a gathering, make a speech or broadcasting, or when he wishes to post or distribute printed matter, or engage in a signature-taking campaign within the CWS premises, such employee shall obtain a CWS permission in advance.

Chapter IV - Transfer and Change in Places of Work

- Article 19: (1) For the sake of convenience on the part of the CWS, employees may be ordered to transfer to other jobs.
- (2) In the case of transfer or a change in working places, employees thus ordered shall not be allowed to refuse the order unless they have due reasons.

- (3) When employees have been ordered to transfer to other cities, they shall proceed to their new working places within 2 weeks reckoning as from the date of order.

Chapter V - Transfer Outside the CWS

Article 20: (1) For the sake of convenience on the part of the CWS, employees may be ordered to transfer to other Government Agencies, etc.

- (2) In the case of such transfer, the provisions of Article 19-2) and 3) shall apply.

Chapter VI - Holidays and Vacations

Article 21: The holidays are as follows.

- 1) Sundays
- 2) Flag and festival days designated by the nation
- 3) Other days as designated by the CWS

Due to the nature of work, i.e., security duty, etc., when the application of the holidays stipulated in the aforementioned Subparagraphs is not feasible, provisions will be laid down separately.

(Transfer of holidays and work on holidays)

Article 22: For the sake of convenience on the part of the CWS, employees may be ordered to rest on other days than the holidays stipulated in the aforementioned Article, or they may be ordered to work on holidays within the scope of necessities. When temporarily necessary due to disaster, etc., this provision for holidays shall also apply.

However, in principle, employees who worked on holidays may be given rests on work days in lieu of the holidays within 7 days.

(Annual paid vacation)

Article 23: (1) Employees are given vacations with pay during a period of one year as stipulated in the following Table.

1)	Year	No. of days
	Year of employment	Provided separately
	2nd year	14 days
	3rd year	14 "
	4th year	14 "
	5th year	15 "
	6th year	16 "
	7th year	17 "
	8th year	18 "
	9th year	19 "
	10th year and there- after	20 "

The year of employment

From January to May	6 days
From June to September	3 days
From October to December	None

- 2) The days not taken as vacation during the year concerned may be forwarded to next year.
- 3) When a request is made to take paid leave, if granting thereof hinders the normal operation of work, the employee may be asked to take leave on some other day.

(Transfer, marriage and mourning leave)

Article 24: Employees are allowed to take transfer, marriage and mourning leave as follows, however, as to wages, provisions will be made separately.

(1) When changing the places of residence is required due to transfer

A) Employees having a family Less than 5 days

B) Singles Less than 3 days

(2) When employees get married Less than 5 days

(3) Mourning leave Based on the principle of Islamism, provisions will be made separately.

Chapter VII - Wages and Travel Expenses

(Wages)

Article 25: As to wages, an increases in payment, etc., stipulation will be made separately.

(Travel Expenses)

Article 26: When employees make a travel on business within Bangladesh, travel expenses and other expenses are given according to the provisions stipulated separately.

Chapter VIII - Safety and Hygiene

(Prevention of Accidents)

Article 27: Employees, in compliance with the directions issued by the Safety and Hygiene Supervisor, shall observe the matters provided in order to prevent accidents, and further, they shall endeavor to keep their working places safe.

(Steps to be taken when accidents have occurred)

Article 28: When employees have found the occurrence of an accident such as a fire, etc., or when they have felt a danger of the occurrence of such accidents, they shall report it to their superiors or to other appropriate persons without dealy, and then they shall act as directed by such persons. However, they, in emergency, shall take expedient measures, and then report it to superiors immediately.

(Steps to be taken when attacked by illness or injured within the premises)

Article 29: When employees have fallen ill or have been injured within the CWS premises, they shall report it to their superiors, and shall receive their directions.

(Limits on working in the case of illness or injury)

Article 30: When employees have fallen under one of the following Subparagraphs, they shall be refused to work.

- 1) When employees have been attacked by contagious disease and have no physician's certificate verifying their safety.
- 2) When employees have gone mad.
- 3) When employees have impaired their health and they have been recognized that their conditions will become serious as they work.
- 4) When employees have been recognized to be inappropriate to work.

(Steps to be taken when a person living together with an employee has been attacked by contagious illness)

Article 31: When an employee's family member or a person living together with him has been attacked by a contagious disease, or when such person is suspected to be so, the employee shall report it to his superior, and act as directed by him.

Chapter IX - Illness due to work or injury sustained during work

(Compensatory benefits)

Article 32: When employees have been injured while performing their duty, or have become ill due to their work, expenses necessary for the treatment of such injury or disease shall be borne by the CWS as provided for separately.

In the regulations stipulated separately, limits of liability to be borne and responsibilities of their joint sureties are shown.

Chapter X - Commendation

Article 33: When employees have come under one of the following Subparagraphs, they are commended in accordance with the provisions laid down separately.

- 1) When a device invented by employees is benefittable technically, or clerically, and the results of the use of such device have proven excellent.
- 2) When employees have completed epoch-making work, contributing immensely to the operation of the CWS.
- 3) When employees are highly skilled and enthusiastic toward the performance of their work, thus becoming an example of other employees.
- 4) When employees have performed a good conduct to the honor of CWS, thus becoming an example of other employees.
- 5) When employees have prevented the occurrence of accidents such as a fire, or when they have shown distinguished service in emergency.
- 6) When employees have been recognized to have acted in a way equal to the act mentioned in the foregoing Subparagraphs.

(Long service commendation)

Article 34: Employees who have been employed at CWS for a period of many years without interruption will be commended to reward their services in accordance with the stipulation established separately.

Chapter XI - Disciplinary Punishment

Article 35: Included in disciplinary punishments are riprimand, a

reduction in pay and suspension from duty, as well as disciplinary dismissal. These punishments shall be effected according to the following provisions.

- 1) In the case of reprimand, a written explanation shall be submitted, thus warning them of future conduct.
- 2) In the case of a reduction in pay, a written explanation is submitted, and the employee's pay shall be reduced by 10% for one month, warning him of future conduct.
- 3) In the case of suspension from duty, a written explanation is submitted; their attendance shall be suspended for a period less than 10 days, and payment shall not be made for the suspension period, thus warning them of future conduct. Demotion may also be effected depending on the circumstances involved.
- 4) In the case of disciplinary dismissal, employees shall be dismissed on the spot without giving them a previous notice period and payment.

When employees have been punished according to the provisions made in Subparagraphs 1) to 4) of the foregoing Article, if these employees had caused monetary or physical damage to CWS, they shall be caused to compensate for such damage together with their joint sureties.

(Scope of application)

Article 36: In case when employees have fallen under one of the following Subparagraphs, they shall be punished by means of reprimand punishment, a reduction in pay or suspension from duty.

- 1) Absence without permission, disregarding the procedures provided for in this Regulation.

- 2) Lack of enthusiasm toward performance of work, or the state of performance of work is poor.
- 3) During working hours, when employees have left their places of work frequently with no due reasons.
- 4) When it has been found that employees have submitted false reports, notices or other documents, or when, as a result of such falsehood, led them to wrong deeds.
- 5) When employees, without CWS permission, have held gatherings, delivered speeches, or engaged in broadcasting, or posted or distributed printed matter, or when they have engaged in signature-taking campaigns, or they have engaged in similar acts, within the CWS premises.
- 6) When employees have damaged or lost through error CWS structures, equipment, machines or other articles or money.
- 7) Without permission, when employees have entered places to where entries are prohibited by CWS.
- 8) When employees have violated regulations and rules stipulated for the prevention of accidents or for hygienic purposes, or when they have acted against directions issued for the purpose same as above.
- 9) When employees have engaged in gambles, selling or buying of articles, or they have done similar deeds, within CWS premises.
- 10) When employees have impaired their honor and reputation as CWS employees through illegal acts.
- 11) When employees at supervisory positions have failed in exercising their authority duly to guide and control their subordinates.
- 12) As to matters not mentioned in the foregoing Subparagraphs, when employees have failed in observing the

regulations or rules, or when they have acted in a way similar to the description in all of the foregoing Subparagraphs.

(Disciplinary dismissal)

Article 37: In case when employees have come under one of the following Subparagraphs, they shall be subjected to disciplinary dismissal, however, when it is recognized that they have some room for taking the circumstances into consideration, they may just be subjected to suspension from duty.

- 1) When employees, without permission, have taken out CWS money or articles, or stolen thereof, or suspected of such act, or when they have attempted to do so.
- 2) For the sake of self-profit, when employees, in relation to their duty, have received money or goods or other profits from outside the CWS, or when they have attempted to do so.
- 3) When employees have repaired their own articles or manufactured articles for themselves, or when they had other employee repair or manufacture such things.
- 4) Within the premises or at facilities, when employees have handled fire carelessly, or when they have made a fire without permission.
- 5) Without due reasons, when employees have been absent from work for a period longer than 2 weeks.
- 6) When employees have been absent from work frequently, or when they have markedly been lacking enthusiasm toward performance of their work.
- 7) When employees have been employed by falsifying their personal history.
- 8) When employees have been employed outside the CWS without permission.

- 9) Without due reasons, when employees have resisted to their superiors' directions or their business orders.
- 10) When employees have assaulted, or threatened other employees, or when they have interfered with the performance of work thereof.
- 11) When employees have reported falsely on matters related the business of CWS, etc., and impaired the honor and credit thereof, or when they have attempted to do so.
- 12) When employees have destroyed CWS structures, equipment, machines or materials, etc. intentionally or through a serious error, causing CWS serious damage.
- 13) When employees have impaired other person's honor.
- 14) Even after being disciplined several times, when employees have shown no sign of repentance.
- 15) When employees have behaved objectionally in a way similar to what was mentioned in the foregoing Sub-paragraphs.

Chapter XII - Dismissal and Retirement

Article 38: When employees have come under one of the following Sub-paragraphs, they shall be dismissed, and in such case, the CWS will give them dismissal certificates.

- 1) As to the employees who come under Subparagraphs 2, 3, 4 of Article 30, when it is deemed appropriate to dismiss them.
- 2) When employees have been absent for a period of 12 months due to non-occupational injury or illness. When employees had been absent from work and after coming back to work, if they have failed again to attend within one month period, they shall be considered to have been absent consecutively.

- 3) In the case of employees receiving accident allowance due to occupational injury or illness, when their term eligible for receiving the said allowance has expired as stipulated in the laws of Bangladesh.

Article 39: When employees have met their 55th birthdays, the age limit provisions shall apply to them; on the dates as mentioned below, they are to retire from their services. However, these employees will be allowed to remain in their services if the CWS considers it specially necessary to have them work still thereafter.

Those employees who have become 55 years old between
November 1st and April 30th next year:

(Previous notice and procedures for retirement)

- (2) When employees wish to retire from their services for their own convenience's sake, they, in principle, shall submit written requests to their superiors 14 days prior to the date on which they wish to retire.

Article 41: (1) When employees retire or when they have been dismissed, all articles they had borrowed from CWS shall be returned.

- (2) In the certificate provided for in Article 38, there should be description as to the term of employment, kind of work, position and wages. This certificate shall be prepared and given on the request of employees going to leave CWS.

Additional Rules

1. This Regulation shall come into effect as on .
2. Before this Regulation is put into practice, detailed rules shall be stipulated as to necessary matters.
3. In the case of employees who are in the trial period as provided for in Article 6, the provisions of Articles 23, 38 and 39 shall not apply.

C. The Work Grouping and Classification Regulations of CWS employee

The Shop Regulations mentioned in Paragraph B show the rules which should be observed by CWS employees in service. And a task to position employees, which derives from the Shop Regulations, is very important.

Employees should be positioned properly according to their history, education, experiences, age, etc., and jobs most suited to them should be assigned. If this positioning and assignment are done in an appropriate manner, the morale of the employees will surely be enhanced. Contained in this Regulation are the classification of employees on a by-function basis, and giving them grades appropriately, also contained is the method by which promotion of grade is effected, and other important matters. However, as like what was stated in the foregoing Paragraphs A and B, there may be effected some revisions in this Regulation in the future according to the domestic circumstances in Bangladesh.

The Work grouping and classification Regulation of CWS Employees

(Purpose)

Article 1: The purpose of this Regulation is to define matters concerning work grouping, kind of jobs, occupational system and classification based on the provisions in Article 3-(2) of the Shop Regulations.

(Work-grouping)

Article 2: (1) Based on the nature of work employees are classified into the following 4 groups.

- 1) Administrative work group
- 2) Clerical and technical work group
- 3) Mechanical work group
- 4) Special work group

(2) The definitions of the work groups classified in the foregoing Paragraph are as follows.

1) Administrative Work Group

Classified in this group are those who, as leader of Group (above Group) have the responsibility and authority to control the business of their group, they also exercise guidance over their subordinates and conduct training.

2) Clerical and Technical Work Group

Classified in these Groups are those who, mainly with their expert knowledge and practical knowledge as a basis, engage in planning, adjustment, studies, guidance negotiations, practicing, etc., and those who engage in jobs which are necessary for supporting such works.

3) Mechanical Work Group

Those who, mainly with their expert skill and practical knowledge as a basis, engage in disassembly, assembly, adjustment, operation, manufacturing, washing, etc., and those who engage in jobs necessary for supporting such jobs.

4) Special Work Group

Those who, with a special knowledge, experiences, skill, etc. as a basis, engage in special jobs, such as fork-lift operation, safety preservation, taking care of dining rooms and dormitories.

(Group Assignment and change of group)

Article 3: (1) According to the works in which employees are engaged, employees shall be placed under one of the work groups as stipulated in Article 2-(2).

(2) There shall be changes in employees' work groups due to appointment to administrative positions, transfers and changes in places of work, which is called a change of group.

(3) The change of group provided for in the foregoing Paragraph shall be effected as follows.

- A) Changes to administrative work group shall be effected at a time when employees are appointed to administrative position. (leader or manager)
- B) As to other changes, competent employees shall be selected, and changes shall be effected, in principle, as on the 1st day of each month.

(Kind of job)

Article 4: (1) Those who belong to the Mechanical Work Group and Special Work Group shall be given jobs as follows.

- A) Inspection mechanic Inspection mechanic make inspections of vehicles repaired, and products produced at CWS.
- B) Finishing mechanic Finishers give finishing job articles to be repaired and products produced at CWS.
- C) Machining mechanic Machining mechanics make processing on articles and to be repaired and products using machines.
- D) Arc Welder Welders make processing on articles to be repaired and products using welding machines.
- E) Casting machanic Casting mechanics do metal casting and produce materials.
- F) Forging mechanic Forging mechanics, by forging metals, are engaged in production and repair.

- G) Sheet metal mechanic Sheet metal mechanics, by processing sheet metals, are engaged in repairing work or in the production of articles.
 - F) Wood mechanic Wood mechanics, by processing wood, are engaged in repair work or in the production of articles.
 - G) Sewing mechanic Sewing mechanics, by processing vinyl and cloth, are engaged in repair work or in the production of articles.
 - H) Painting mechanic Painters are engaged in painting and undercoating.
 - I) Electric mechanic Electricians are engaged in the handling and repairing of electric equipment.
 - J) Transporter Transporters are engaged in the transportation of articles.
 - K) Miscellaneous service man Miscellaneous service men are engaged in work not mentioned in the foregoing Subparagraphs.
- (3) Included in the Special Work Group are:
- A) Guard Guardmen are engaged in the guarding for CWS, as well as engaged in fire-fighting and emergency operations.
 - B) Cook Cooks are engaged in the preparation of meals and administration of dining rooms.

C) Dormitory worker Dormitory workers are engaged
in cleaning and administra-
tion of dormitories.

(Grades)

Article 5: (1) Grading is instituted in each work group.

(2) Grading in the Administrative Work Group is shown as follows.

1st class	Group leaders, and Deputy Manager of Sub-division
2nd class	Managers of subdivision and those in equivalent positions
3rd class	Managers of factory or equivalent, Deputy Manager of Division
4th class	Deputy General Manager, Manager of divisions and Principal
5th class	General Manager

(3) In the Clerical and Technical Work Groups, the following grading is instituted.

Technical	1st class, 2nd class, 3rd class and 4th class (Those who are in the 4th class are entitled engineers.)
Clerical	1st class, 2nd class, 3rd class and 4th class (Those who are in the 4th class are entitled Officers.)

Notwithstanding the above grading, high school and short-term college graduates shall be started with 1st class; university graduates with 2nd class.

(4) The grading for the Mechanical and Special Work Groups shall be as follows.

1st class, 2nd class, 3rd class and Foreman

(Promotion)

- Article 6: (1) Employees shall be given classes as provided for in the foregoing Article in consideration of the jobs/works taken by them and the results of performance evaluation.
- (2) Upgrading by promotion means the advancement to the immediately upper class within the same work group.
- (3) In the case of Administrative Work Group, the performance evaluation mentioned in the foregoing Paragraph (1) shall be made by the Superior concerned; those who are considered competent enough shall be appointed to administrative positions and upgrading effected. In effecting promotion, employees' abilities shall be considered alone, not considering the years served by them in their class.
- (4) In the case of Clerical and Technical Work Group, consideration shall be given, for upgrading, to the results of evaluation mentioned in the foregoing paragraph (1) as well as to the following conditions.
- i) An employee can read and write Bengalese and English, and can speak both languages very well.
- ii) The years during which an employee has stayed with present class should not be less than the years shown below, and further, of the years, he should have engaged in a job/work for one year, which should have originally been taken by an employee with higher than his present class.
- | Class | 1st | 2nd | 3rd | 4th |
|-------|-----|-----|-----|---------------|
| Years | 4 | 3 | 3 | Not specified |
- iii) The days not attended by an employee for one year period (4 days of late coming and/or early leaving are counted as one day of absence) shall not be more than 20 days.
- iv) Evaluation shall be made by the employee's immediate

superior, and the evaluation standards are shown in the Attached Table (1).

- (5) As for the Mechanical and Special Work Groups, an employee should satisfy the conditions mentioned below, in addition to the evaluation mentioned in the foregoing Paragraph (1).

i) An employee can understand Bengalese literature and can also write Bengalese sentences, or he can understand English literature and can also write English sentences. To be eligible for the promotion to the 3rd class and foreman, he should be able to satisfy both conditions.

- ii) The years mentioned in the Subparagraph ii) of Paragraph (4) are as shown below.

Class	1st	2nd	3rd	Foreman
Years	5	5	not specified	not specified

- iii) As to other conditions, the provisions in Subparagraphs iii) and iv) of Paragraph (4) above shall apply.

- iv) Prior to upgrading, candidates shall get a training course at the annexed Training Institute.

(Changes in the Work Group and Job Kind)

- Article 7: (1) For the sake of convenience on the part of the CWS, there may be effected changes in the Work Group and in the kind of job.
- (2) When a change is effected in the same work group, the change should incidentally be accompanied by a change in the job kind, however, in this case; no change in class shall principally be effected.
- (3) Changes from a certain work group to another group shall be effected as shown below.

Technical Work Group → Administrative Work Group

Appointment to a position of
administration is accompanied.

Mechanical Work Group ⇄ Special Work Group

When employee is assigned a new work in other group, the class given to the employee will be interim. His abilities shall be evaluated 6 months afterward, and the class granted provisionally shall be made a formal class.

(Employment of new graduates)

Article 8: (1) The Work Groups and Classes for new graduates are as shown below.

Clerical and technical work groups	Technical	1st class candidates	High school and short-term college graduate	One year apprenticeship
		2nd class candidates	University graduate	"
	Clerical	1st class candidates	High school and short-term college graduate	"
		2nd class candidates	University graduate	"

Note: After one year of apprenticeship, the newly-employed personnel are requested to write a treatise. After evaluation of the paper, 1st class or 2nd class shall be granted accordingly.

(2) The minimum schooling required for the Mechanical or Special Work Group shall be graduation from an middle school. After 6-month apprenticeship, a 1st class grade shall be granted to those who have been recognized to be appropriate.

Article 9: As for those employed at any time other than the regular employment time, a 6-month apprenticeship term shall be instituted; upon termination of this term, evaluation shall be made on their abilities, and then determination shall be made to grant them grades formally.

Work Group and Grade List

1. Performance Evaluation Standards for Administrative, Clerical and Technical Work Groups

1) Evaluation for the Administrative Work Group shall be made by the General Manager.

2) Evaluation Standards for Clerical and Technical Work Groups

	Evaluation standards	Knowledge technical employees should have
1st class	Based on superior's detailed directions, or based on work performance standards, if available, the employee can perform work accurately and speedily.	Basic automobile engineering Acquisition of theory of repairing equipment Acquisition of chemical knowledge of oils and greases Acquisition of traffic Regulations
2nd class	Based on superior's general directions, an employee can perform work; even when such directions are not given, he can perform work speedily based on work performance standards.	Acquisition of standard measuring and repairing technics Acquisition of work administration methods Study of efficient promotion methods The above are the requirements which should be met, in addition to the requirements mentioned above for 1st class employees.
3rd class	Based on superior's general directions, the employee should have judgement power to perform all work. He should have practical experiences and expert knowledge. He also should make efforts to find former examples.	In addition to the requirements mentioned above for 1st and 2nd class employees, the employee should be able to find troubles and detect the causes thereof, he must acquired maintenance equipment repair methods.

	Evaluation standards	Knowledge technical employees should have
4th class	The employee should have advanced knowledge, judgment and negotiation power, by which he can generalize the whole group as he himself performs work based on superior's general directions, and as he is engaged in negotiations and subordinate training.	Acquisition of performance evaluation methods, for mechanical work group employees.

In making evaluation, the following matters are taken into consideration.

Working attitude, understanding power, work performance ability, determination power, cooperativeness, enthusiasm toward making improvement and attentiveness

In the case of 3rd class employees and above, the following matters are also taken into consideration.

Leadership, administrative ability and assistant ability

2. Performance Evaluation Standards for Mechanical Work and Special Work Groups

The Mechanical Work and Special Work Groups are divided into job kind respectively, therefore, evaluation is made on a by-job kind basis.

	Evaluation standards	Practical skills and knowledge which employees in the Mechanical Work Group should have
1st class	The employees, based on superior's detained directions and with the assistance of manuals and other advices, can perform assigned job accurately and speedily.	<p>Basic knowledge on maintenance work and methods for working skillfulness required for repeated works</p> <p>Knowledge on the construction and operation of equipment for which maintenance is done</p> <p>Accurate knowledge on, and methods for, the maintenance of such equipment</p>
2nd class	Based on superior's general directions and using manuals only, the employees can perform work completely. When manuals are not available, he can perform by making reference to former examples.	<p>In addition to the requirements mentioned above:</p> <p>Acquisition of knowledge on the main components of automobiles and knowledge on the operation thereof</p> <p>Acquisition of maintenance knowledge on the main components of automobiles, as well as acquisition of disassembly and repairing technics for automobiles.</p>
3rd class	The employee has experiences and administration abilities by which he can accomplish work perfectly, based on superior's general directions and as he directs subordinates.	In addition to the requirements mentioned above, the employee should have technics to diagnosis troubles and detect causes therefor; technics to maintain repairing equipment; and measuring technics.

	Evaluation standards	Practical skills and knowledge which employees in the Mechanical Work Group should have
Foreman	Based on superior's directions, the employee can provide guidance and training to the employees in the group concerned, thus leading to the efficient accomplishment of the group's work.	In addition to the requirements mentioned above, the employee should have knowledge on work administration and efficiency. He should be acquainted with performance evaluation methods.

- i) As the the knowledge required on mechanical work personnel belonging to the tire Recapping Shop, stipulation is made separately.
- ii) In making evaluation, consideration is given to the following matters.

1st class personnel	Working attitude, attentiveness, cooperativeness, positiveness toward improvement and assisting ability
2nd class personnel and over	In addition to the above matters - understanding power, determination power, leadership and administration ability

D) Others

By the Service Regulations and Work Grouping and classification Regulation, the status and duties of the employees assigned at CWS have been made clear. For instance, the status and duties of a certain mechanic working at the disassembly and washing group, Engine sub-division, Heavey Maintenance Factory, is: 2nd class finishing mechanic at disassembly and Washing group, Engine sub division, Heavy Maintenance Factory, Services Division, and he is a finishing mechanic in mechanical work group. Wages should be determined based

on his status and work, etc. If his wages should be determined unfairly, lowering of efficiency might surely be invited. In checking his wages, due consideration should be exercised as to whether he is faithfully observing the matters provided for in the Shop Regulations. In order to have the employee promote his efficiency by rewarding his work accomplishment with fair wages, there should necessarily be established regulations on wages including promotion thereof.

There should also be established regulations and rules on travel expenses, commendation, dispatch to other organization, supply of working clothes, shoes, etc. Through the establishment of these regulations and rules, and through fair operations thereof, all the employees are able to be treated fairly in accordance with their status, schooling and experiences, thus leading to the bringing of an environment under which all the employees can engage in their work with no anxiety. In this Report, nothing was mentioned about the details of such regulations and rules. It is hoped that detailed regulations and rules will be established by the side of Bangladesh.

In the Paragraph 4-1-1 and 4-1-2, descriptions were made on the flow of operations and explanations were given about slips to be prepared and the flow thereof. And as to in what manner such slips should be administered, and as to in what way human control should be exercised practically at respective groups, nothing was stated in the Report. There are matters to be handled in the future. It is thought that the regulations and rules being put in practice in Japan may not be suitable in Bangladesh, therefore, as to the establishment of such regulations and rules, all matters should be determined by those who are in charge of the establishment and operation of CWS, considering the domestic circumstances in Bangladesh.

