22

WEREHOUSE ACTIVITIES

There are a series of important activities which take place to ensure effective operations flow within the warehouse. In general, warehouse activity consists of receiving, putting away, storage, packing, and shipping. Receiving is an operation that involves the assignment of trucks to dock and the scheduling and execution of unloading Activities. This activity includes material handling activities verifying the location of the product material and the placement of the product. Shipping is an activity that involves scheduling and assignment of trucks to docks the orders, packing after picking and loading of trucks. After goods are received and before goods are shipped, a series of internal warehouse activities take place to ensure an effective flow through the warehouse and to organise and maintain company inventories. In large warehouses, these different handling tasks can be separated by departments, and the integration managed by a directed workflow.

A modern warehouse provides various ways of adding value to the product. The Warehouse Management System controls two sets of operations:

- On the Operations front the system manages, controls and directs all operations including receiving processes, put away processes, order processing, inventory allocation, picking process, packing process and finally shipment along with inventory updating.
- On the inventory front, the system maintains inventory in the warehouse at Zone & individual location level, SKU level, pallet wise, carton wise and unit level inventories for multiple customers and allows specific inventory attributes and parameters to be built in to manage, allocate or block the inventory.

LEARNING OUTCOMES

After studying this lesson the learner:

- explains the various activities of warehouse;

- identifies the details of receiving in warehouse;
- classifies the picking types in warehouse;
- lists the details of packaging in warehouse;
- finds the reading labels in warehouse;
- summarizes the terms like shipping or dispatch..

22.1 ACTIVITIES IN A WAREHOUSE

Fig. 22.1: **Warehouse activities**

The main activities of a warehouse are as under:

- Receiving the goods
- Loading and Unloading
- Picking goods
- Packing the goods
- Dispatching the shipment
- Returns Management
- The value addition at the warehouse
- The quality check at the warehouse

22.1.1 Receiving

It is an act of handling products into a warehouse and putting it into the right storage location. Products should be received via an Advance Shipping Notice (ASN) from a supplier whether the product is single or an object or liquid or in carton packing or crates or in pallet packing. With the help of ASN the consignment can be easily tracked in the

system. Some customers require it as an inventory to be delivered at one point, whereas some may require the consignment to be delivered at a specific location before the inventory is even updated. Hence the system is set up entirely based on customer needs. Here techniques to be adopted suitably which helps in optimising the receiving of goods, so that the delivery can be made smoothly and the customers are never disappointed without the product.

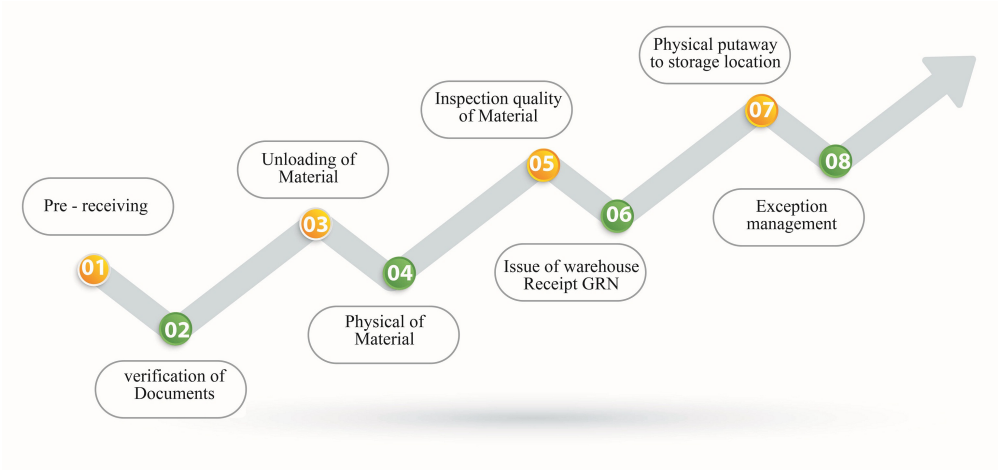

Fig. 22.2: **Receiving goods**

Sorting: Sorting of the goods can be performed both upon receipt of goods and when the goods are sent out. Goods are sorted according to the customer needs, place of delivery and accordingly sent for transportation to the end user.

22.1.2 Loading and Unloading

Loading is the process of outing the material into a truck, container or a train. Loading has to be done in a fashion that there is no damage during the transit. In case of multi point delivery, the load which needs to be unloaded first needs to be loaded last. The loading supervisor has to take care of both stowing and lashing. Any empty space in the vehicle has to be plugged to ensure zero damage during transit. The time taken to take the vehicle is also critical. During month end when the dispatches get bunched it is critical to keep the loading time to minimum without compromising on quality.

Unloading is the process of taking out the cargo from the truck. It is required when the cargo reaches the warehouse. Mishandling of the goods while unloading can lead to damage of goods, hence it is one of the most critical tasks of warehousing operations. Unloading can be done manually or with the help of forklifts depending on the nature of cargo. Any mishandling may lead to damage to the cargo and subsequently heavy loss. Hence unloading must be always done through trained personnel only and must be continuously monitored.

22.1.3 Picking

Picking is an important process in the warehouse. The purpose of existence of the warehouse is to fulfil the customer orders. Picking is the process of retrieving the material as per the order received.

There are various methods of Picking. The warehouse can apply discreet picking when the number of orders is not large. Batch picking allows the goods to be picked in batches and then segregated as per individual orders. In case of zone wise picking, the warehouse is divided into various zones and each zone assigned to individual pickers. Each order travels through various zones, and each picker fulfils his part of the order. In case of Wave picking, the orders are released in waves at standard schedules. One of the most important parts in picking is the picking accuracy. The warehouse needs to continuously monitor the picking accuracy and creates the system of makers-checkers to ensure zero errors.

22.1.4 Packing

There are many ways in which goods can be packed within the distribution centres. Instead of digging deep into the packing process, let's follow some important rules of successful packing:

- Consignments must be packed taking care of their size, numbers, temperature, toxicity, cost, fragility, cleanliness and other statutory requirements.
- Checking Picking Accuracy and Quality checks should be a part of the packing process.
- If the goods are picked from different zones within the warehouse, then they must be easily combined to ensure completeness of the order.

22.1.5 Dispatching

A proper flow of operations ensures timely dispatch of goods as and when it is required to be loaded into the trucks. Hence the dispatch manager therefore must maintain equilibrium and plan out packing and dispatching schedules according to vehicle pickup times. It should not be that goods are ready too early creating a clutter in the storage area, nor should they be too late delaying the whole process of loading and dispatching, which in turn will give late deliveries. An important part of the dispatching process is correct documentation. The dispatch supervisor must ensure that all the correct documents are travelling along with the shipment.

22.1.6 Returns

This is one thing which none of the companies will ever want to happen. But returns are an intricate part of all businesses, and the number of returns is increasing day by day for most of the organisations, especially due to the e-commerce revolution. Major concern is when the return is only for one of the items only.

Following rules must be taken care of to minimise the complexities in return of items:

- When the goods are returned customers should be given Return Management Authorization which says what is returned and why it has been returned.
- All returns must be in synchronisation with the item details, tallying the product code and its invoice number in the system.
- Organisations should have a well-designed process beforehand which should dictate what is to be done with the returned item, as to whether it has to be taken back into stock, or repaired or destroyed or recycled or sent back to the manufacturer etc.
- All details must be entered into the system once goods are returned clearly mentioning as to why goods are returned back.
- Stock should be updated when the returned goods are taken back into the stock. Returns are a crucial part of any business. A systematic process must be in place which records the whole transaction and credit process accurately.

22.1.7 Value-Adding

In this section products are kitted, assembled, relabeled, modified, graded or subject to some other value adding process. The value adding part is about performing work on the product to make it 'ready for sale. This can be a complex process especially when too many items are clubbed to form a new item. Certain products require certain value addition to be done at the warehouse. Agricultural commodities may require grading of the goods. Kiting is a common service at the warehouse, for running promotional schemes. Warehouses may be required to do labelling. The prospective buyers can inspect the goods kept in a warehouse.

22.1.8 Quality Check

Quality check is a process of testing the units and ascertaining if they are within the guidelines for the final product. The main reason for the testing is to ascertain if any corrective measures are to be adopted in the manufacturing of the item. Good quality check always ensures to meet consumer demands and deliver better quality products.

INTEXT QUESTIONS 22.1

1. What is receiving activity in a warehouse
2. In what ways value addition is carried out in warehouse
3. _____ is increasing day by day due to e-commerce also

   a. returns b. shipping

   c. picking d. checking

22.2 DETAILS OF RECEIVING

1. Compile the Correct Metrics

In absence of correct metrics, the warehouse receiving process will be completely shut down, and it will be difficult to set up an effective system. Metrics to gather include:

- Total time taken to shift materials from the system to end user
- Faulty reports
- Utilisation of Dock
- Issues in shipping from supplier

2. Pre-Receiving

Before the beginning of the receiving process, you will need to establish and enforce receiving requirements for suppliers and shippers. The target should be to make available the cargo as quickly and efficiently as possible. Prerequisites for packaging include:

- Positioning of Labels
- Information on Labels
- Whether cargo is loose or palletized
- Quantity of packages per pallet
- Number of items in each carton
- Package size and weight should be as per the norms dictated

3. Labour and Booking

For a successful warehouse receiving process, a proper amount of man hours must be allocated. The number of shipments coming to the warehouse should tally with the workload. Labour cost is the highest warehouse operational cost, hence evaluate this cost properly and accordingly schedule the labour shifts.

4. Shipment Identification

An inventory clerk should be always present as soon as a delivery truck arrives at the unloading dock and receives the shipment properly. Any discrepancy in order should be immediately reported to the concerned authorities before he signs the delivery receipt and accepts the shipment. For this the inventory clerk should undergo proper training and he has to have a good command over the handling process.

5. Product Count

After the inventory clerk signs the shipping notice, warehouse staff should start the unloading process and count the product received to ensure that the correct number of the shipment has been sent to the warehouse. Every pallet should be opened and counted and proper invoice slips should be there in each pallet so that a proper synchronisation is there between products received and purchase department.

6. Damage Replaced

The inventory clerk should check if any product is damaged during the transit, if any damaged product is found it should be kept safely aside and inform the delivery driver for picking it again and arrange for necessary replacements. Each item should be checked thoroughly so that the correct number of replaced items can be reported.

7. Receiving Documentation

All products should be given unique inventory numbers before stocking them into the shelves. Inventory clerks should input the product information into the data system of the warehouse which should be in synchronisation with all the other departments which require the similar information. All the written documentation should be filed properly by the inventory clerk for auditing purposes.

8. Label Correctly

Labelling methods are changing constantly. It is not the same as it was 10 years ago. It is different today than it was 10 years ago, and it is constantly changing. Due to the use of computers now there is bar-coding, ID scanning, pallet management, and more. Because of these improvements it has become necessary to ensure that labelling is accurate. If the

label looks different from the earlier one it should be properly checked. The labelling personnel should be properly trained and he should be at pace with the current labelling system.

9. Error-Ready Replenishment Process

A replenishment process ensures the re-order of items in the warehouse in 2-, 4-, or 6-week intervals. In order to have an efficient and productive warehouse receiving process a replenishment process should leave room for error. If the replenishment process is error free customers will not suffer due to defective items received or if miscounts are made.

10. Be Thorough with the Inspection

A successful receiving process is the one which has a proper inspection process for handling incoming and outgoing goods. This process helps to address issues of all the vendors, shippers and other handlers and accordingly can be escalated even. Formats used in receiving of goods are as under Categorizing / grouping items with similar properties. The Receiving Supervisor is responsible for receiving all the inbound material, put-away till GRN.

INTEXT QUESTIONS 22.2

1. What is pre receiving
2. Why product count is done
3. _____ is a correct metrics gathered in the receiving process
   a. Numbers of container
   b. Faulty reports
   c. Number of Dock
   d. Issues from customer

22.3 PICKING TYPES

Picking is an extremely important warehousing process. This stage drives the productivity of the whole dispatch and ordering process and makes it one of the most critical processes in supply chain management. The first decision in the picking is the decision to decide the methodology of processing the orders. There are two broad ways to achieve this:

1. **Discrete Order Picking -** In this method one order is picked at a time. This method is common when travel is not a major factor and when customer orders average one to a few products. For example, the warehouse received orders as under: The picker will first go and pick for order 1. After completing order 1 he will complete order 2 and henceforth one by one for each order. The picker moves to collect the products necessary for one order. This is a simple method of order picking which requires sending a picker around the warehouse with an order list and a box or container. The picker pulls each item, following the most efficient route. This method is used when the line items and quantity per order is less.

Fig. 22.3: **Picking Types**

2. **Batch Picking -** In this method multiple orders are picked in one go. Fox example warehouse receives 3 orders as under: In Batch picking, the picker instead of picking each order individually, picks in bulk. He will pick7 units each for SKUI and 2 and 15 units of SKU3. After doing the bulk picking, he will then divide into individual orders. Following factors need to be considered in determining whether to go for batch picking or individual order picking methodology.

a. Percentage of orders that contain full cases. In case the percentage of orders consisting, full orders exceeds 50% the batch picking method is recommended. In case it is less than 25% the individual order method is recommended. For a share between 25 to 50% a hybrid or either system can be used based on other criteria.

b. Line-item characteristics of the orders. If sixty percent and more orders have line items of 5 and less it is recommended to go for an individual order system.

There are three more methods of picking as under:

4. **Wave Picking -** Wave picking is a process that combines discrete and batch picking together. Sets of similar orders are picked and fulfilled in scheduled time frames or in waves. Real-time orders are downloaded as they are received. Orders accumulated for specific picking times and transport routes are called 'waves'. The warehouse manager decides how the wave of the orders to be released depends upon the load factor. Waves generally have orders with similar SKUs or in close proximity or could have similar shipping deadlines. Wave picking is commonly used in the E-commerce industry for fulfilling customer orders.

5. **Zone Picking -** Zone picking consists of different employees assigned to different zones within a warehouse and only picking items located in their specific zone. This order picking has each worker in charge of a section and pulls from her section to fill incoming orders. The box may move through several sections until the order is complete, often along a conveyor belt.

   For example: If an order comes through that requires items from Zone A and Zone B. the picker in Zone A. will gather his items and pass on the order to the picker in zone B to complete the order. This is ideal for large businesses with a high rate of inventory turnover. With increasing online orders, companies are increasingly installing picking apparatus such as put walls, put-to-light systems, goods-to-person systems and cross-belt sortation systems, to cope with the larger volume of small orders.

6. **Cluster picking-** is a piece picking process that lets you pick items for multiple orders at the same time by clustering them into pick clusters

Following are some of the other factors to be considered in determining the right picking system

a. The pick location assigned to each product should be based on the 80/20 rule. This means that fast-moving products should be in picking locations that hold more stock.

b. You should be able to move a product into or out of its picking location easily as the level of its activity moves up or down over time. The physical setup of the picking system should minimise the travel time of the pickers whenever possible. The same is true with the method of picking used.

c. The picking method should minimise the number of times the products must be handled before they are placed into the final cartons used for shipping.

7. Pick List

Pick list is a document containing the list of materials to be picked for shipping orders. A pick list usually has a number of line items to be picked up by a picker, sometimes it may have a single line item and may vary up to the order requirement.

A. Different Forms of Pick List

a. **Computer Generated Pick List:** This is the most common type of a pick list generated using a computer and printed using a printer and a copy is handed over to a picker to perform a picking activity.

b. **Automated Pick List:** The information regarding picking and the details of items to be picked will be communicated to a picker through a 'Handheld device'. The screen in the device will display the details of the pick list. The device and the computer will be connected through Wi-Fi connectivity (wireless). Below mentioned sample figure depicts an automated pick list using a hand-held device. Handheld scanners can really help when it comes to picking-taking away a lot of the human error which comes into play when performing repetitive tasks.

INTEXT QUESTIONS 22.3

1. How many types of picking you have learnt
2. What are the different forms of picking list
3. _____ is used in automated pick list
   a. Handheld device
   b. pickers
   c. computer
   d. none of these

22.4 DETAILS OF PACKAGING

Packaging is the science, art and expertise of enclosing or defending goods for distribution, storage, sale, and use. Packaging also refers to the procedure of designing, evaluating, and producing packages. Packaging can be portrayed as a coordinated system of organising commodities for transport, warehousing, logistics, sale, and end use. Packaging contains, protects, preserves, transports, informs, and sells.

If packages are poorly packed, the possibility of damage increases greatly. The shipping carton should be of such strength that it cannot be bent or crushed easily, and it should be packed so that the products will not shift during transit. The equipment needed in the packing area includes tape machines, box knives, shrink wrap ma- chine, strapping machine and various stamps. If you do not use a conveyor system, you will need a packing table. Returns from the customer should be closely monitored to find the returns related to poor packing and the process should be improved accordingly.

22.4.1 Importance of Proper Packaging

A. **Physical guard -**The substances enclosed in the package may need defence from, among other things such as mechanical shock, vibration, electrostatic discharge, compression, temperature, etc.

B. **Barricade protection -** A barrier to oxygen, water vapour, dust, etc., is often essential.

Permeation is a critical factor in design. Some packages hold desiccants or oxygen absorbers to assist extend shelf life, where Customised atmospheres or controlled atmospheres are also sustained in some food packages. Keeping the contents hygienic, fresh, sterile and safe for the duration of the intended shelf life is a chief function. A barrier is also executed in cases where separation of two materials prior to end use is necessary as in the case of special paints, glues, medical fluids, etc. At the consumer end, the packaging barrier is broken or measured amounts of material are removed for mixing and subsequent end use.

C. **Containment -** Small objects are typically grouped together in one package for reasons of storage and selling efficiency. For instance, a single box of 1000 pencils needs fewer physical handling than 1000 sole pencils. Liquids, powders, and granular materials need containment.

D. **Information diffusion -** Packing communicates how to use, transport, recycle, or dispose of the package or product. With pharmaceuticals, food, medical, and chemical products, some kinds of information are necessary by government legislation. Some packages and their labels also are used for track and trace purposes. Most objects include their serial and lot figures on the packaging, and in the case of food products, medicine, and some chemicals the packaging often contains an expiry/best-before date, usually in a shorthand form. Packages may specify their production material with a symbol.

E. **Marketing -** Packaging and labels can be used by marketers to persuade prospective buyers to acquire a product. Package graphic blueprint and physical design have been imperative and frequently evolving phenomena for numerous decades, Marketing

communications and graphic design are functional to the surface of the package and often to the spot of sale display. Most packaging is planned to replicate the brand's message and uniqueness.

Security packing can play a significant position in tumbling the safety hazards of shipment. Convenience Packages can have attributes that insert convenience in distribution, handling, stacking, display, sale, opening, reclosing, using, dispensing, reusing, recycling and simplicity of disposal

F. **Positioning -** Packing is increasingly used to go beyond marketing to brand positioning with the materials used and design chosen key to the storytelling element of brand development.

22.4.2 Packaging options

A. **Air shrinks packaging -** When you apply heat, shrink wrap shrinks tightly over the product.

B. **Skin packaging -** A heated film is draped over a product and onto an underlying layer and a vacuum then draws the film down onto the package, securing it.

C. **Stretch wrapping -** A highly stretchable plastic film wrapped around items. The elastic keeps the items together.

D. **Blister packaging -** Several types of pre-formed plastic packaging used for small consumer goods such as lip balm, foods, and pharmaceuticals.

E. **Overwrapping-**Functional over an article or over another structure of packaging made from plastic or paper.

F. **Clamshell packaging -** A clamshell is a one-piece container consisting of two halves connected by a hinge area which allows the formation to come together to store products such as fruit.

For all kinds of packaging, there are diverse types of packages. The different kinds of packages can be categorised into two groups:

G. **Retail containers:** These containers guard food or the content from diverse damages and at the same time they promote the product for retail sale. For instance, glass bottles, sachets, over-wrapped plastic bottles, metal cans, etc. They can be used for home storage also.

H. **Shipping containers:** These containers hold and protect food and other objects during Distribution and transport or any other marketing task. For example, sacks

stretch, or shrink wrapped containers corrugated fibreboard cartons, drums, barrels, crates, and foil bags.

22.4.3 Packaging Material

The various types of packaging material generally used are as under:

- Paper & Board
- Glass
- Metals
- Plastics
- Wood
- Bamboo
- Cork

1. **Paper & Board -** Paper is extensively used because it costs little, holds its shape, and is simply decorated. Commercially available paper is mostly made from cellulose fibre from pulped wood, but can also be prepared from other sources such as cotton, straw, sisal and hemp. All are recyclable. Packaging formed using paper and board comprises cartons, labels, leaflets, tubes, corrugated cases, rigid boxes and pulp packs.

2. **Glass -** Commercially-available glass is prepared from silica, sodium carbonate and calcium carbonate. Other composites can be supplementary to give colour, sparkle or heat shock confrontation. Glass is an admired and constructive packaging material because it is:

- Inert
- Sterilisable
- Barrier to moisture and gas
- Pressure resistant to a degree
- Can be moulded into a variety of shapes
- Transparent making the product visible
- Glass is also highly recyclable

The clearest drawback is fragility and the hazard of broken glass. The precision of glass can be a difficulty where the product is degraded by light. Glass can be directly decorated but is most commonly labelled.

3. **Metals -** The metals used in packaging are predominantly tin-plate or aluminium and are used to make food and drink cans, aerosol cans, tubes, drums and slip or hinged lid Drums. Aluminium is used for drinks cans, closures, trays, tubs and tubes. As foil it can be used in multi- laminate structures or as a blister pack or container seal.

   Metal can be oppressed to fabricate the following packaging uniqueness:

   - Strong and rigid
   - Barrier to gas and moisture
   - Pressure resistant
   - Temperature and pressure resistant / tolerant.
   - Corrosion resistance via coatings
   - Sterilizable
   - Directly decorated or labelled

The boundaries of metal packaging are in weight and shapes attainable, particularly when compared to plastics. Aluminium packaging for finished products

4. **Plastics -** This is the most widespread packaging material and, at the same time, one of the most complicated to dispose of. The factors universal to all plastics are that they are light, strong and economical to manufacture. It is for these reasons that they are used so much, as a substitute to cardboard glass packaging materials. Plastics can be used as single materials or in amalgamation. Their properties vary considerably but usually include:

   - Lightweight
   - Easily moldable into almost limitless shapes
   - Can produce rigid containers or flexible films.
   - Can be impact resistant
   - Directly decorated or labelled
   - Heat sealable

The comparative demerits of plastics are naturally polymer specific and the accurate choice of polymer can to a realistic degree mitigate the weakness.

5. **Wood -** Typically used for pallets and crates (heavy duty goods). Some lidded or hinged boxes are produced. e.g., cigars, gifts, tea, cheese. High price spirits use wood and little caps incorporate wood.

6. **Bamboo -** Bamboo is emerging as a packaging material. Bamboo packaging assists to diminish environmental impacts and encourage a healthier planet. This reduces packaging-related carbon footprint. Bamboo is the fastest mounting woody plant in the earth. Bamboo packaging is eco friendly and can be composted after use.

7. **Cork -** Cork has a long background as a packaging material. Companies that are looking to be more eco-friendly or vegan are turning to cork as an alternative use for packaging. Cork comes from the dead cells that gather on the outer surface of cork oak trees. It's also extremely resilient as it can be pressed to 40% of its volume and still return to its original size when released. Another great aspect is that it's fire-resistant; flames only char the surface and don't generate toxic fumes. One of the bonuses of using cork is that it is entirely natural, recyclable and biodegradable. In fact, it's actually recognized as one of the most ecologically friendly materials available.

22.4.4 Packaging Machines

There are numerous kinds of packaging machines existing such as strapping machines. Wrapping machines, filling machines, sealing machines, coding machines and labelling machines. The packing machines are available in different varieties and are as follows:

- Bottle packing
- Conveyors packing Machines
- Cleaning packing
- Cup filling and sealing
- Drying Machinery
- Food processing packing
- Labelling packing
- Handling packing
- Packing tube machine
- Container Machinery
- Coding and Marking
- Cartooning packing
- Closing packing
- Filling packing
- Form fill seal packing
- Multifunction machine
- Inspection packing
- Pouch filling machine.

- Pharmaceutical processing packing machine
- Pure pack packing machines
- Strapping Machines
- Wrapping machines
- Palletizing and depalletizing packing machine
- Sterilisation machines.
- Vacuum packing machines

INTEXT QUESTIONS 22.4

1. What is security packaging
2. What is blister packing
3. List any two packing machines
4. _____ decrease the risks of pilferage and easy for resale of products
   a. Packaging
   b. Picking
   c. Receiving
   d. sorting

22.5 READING LABELS

A. Meaning: Labelling or Packaging label is any written, electronic, or graphic communication on the package or on a separate but associated label.

B. Definition: Labelling is a part of branding and enables product identification. It is printed information that is bonded to the product for recognition and provides detailed information about the product. Customers make the decision easily at the point of purchase seeing the labelling of the product.

Reading label may be classified into following

a. BRAND LABEL - is a brand alone applied to a product or to the package

b. GRADE LABEL- identifies the quality of a product by a letter, numbers or words.

c. **DESCRIPTIVE LABEL-** placing on the label details such as component parts of the products, chemical analysis, weight, size, use of artificial colour, the percentage, age, use of product, directions etc.

d. **INFORMATIVE LABEL-** it contains fuller instruction on the use and care of the product. It may contain recipes, instructions for clearing and other information of similar nature.

22.5.1 Functions of Labelling

The different functions of labelling are as follows:

- **Defines the product and its contents:** A label is informative about the product's usage and caution to be taken while using the product.
- **Recognition of product:** Labelling assists in the identification of the product. Example, the brand name of a biscuit will help one choose from the rest of the confectionery items available.
- **Assorting of products:** It means classification or grading of products according to different categories in the market. Example, soaps are categorised as dry hair, normal hair and oily hair types and cater to consumers in the market with the dry, normal and oily scalp, respectively.
- **Assists promotion of products:** It gives the customer the reason to purchase the product. Example, it attracts the attention of the consumer by displaying messages such as *10% free' or 'save rupees 10' message in its packets.
- **In compliance with the law:** Labels should strictly abide by the law, Example, as the statutory warning on its package; Cigarettes should have 'Smoking is injurious to health.

22.5.2 Warehouse Labels

Labelling the warehouse is a key factor of warehouse plan that is frequently overlooked by warehouses and allocation centres. Why do you need warehouse labels? Warehouse inventory tags and barcode labels provide the foundation for an efficient warehouse operation.

A. **Efficient navigation:** Attached with warehouse signage resolutions, warehouse position labels such as long-range retro-reflective barcode labels and warehouse bottom labels make it simple for employees to navigate the facility, cutting down on travel time and traffic congestion in aisles.

B. Streamlined processes: Warehouse rack labels streamline picking and stocking processes by taking the guesswork (and potential human error) out of identifying the proper storage locations for needed inventory.

C. Improved tracking accuracy: Transportable storage containers like totes, trays, and pallets can be complex to track, but strong warehouse label solutions propose simple identification of every moveable container, making it simple to identify the right inventory without wasting time with physical data searches.

D. Get the right products to the right place: Workers can scan freight to locations in real time and quickly and accurately identify the precise location of freight when in staging aisles.

INTEXT QUESTIONS 22.5

1. What are grade labels?
2. What are warehouse labels?
3. _____ assists in the identification of the product

   a. Labelling b. Storing

   c. Handling d. warehousing

22.6 SHIPPING OR DISPATCH

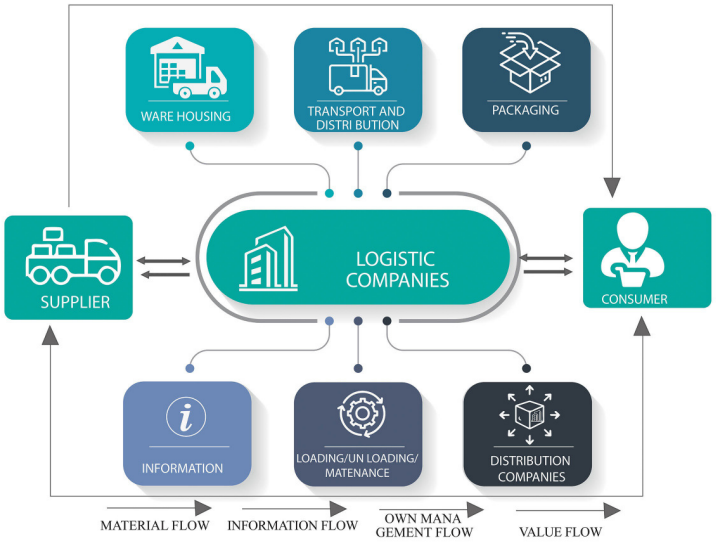

Fig. 22.4: **Dispatching Process**

Shipping is the last stage of dispatch, where the cargo is prepared for the requested mode of transit. The tasks performed usually include weighing each carton, labelling the carton, recording shipment information in a manifest system, and applying address labels generated by the manifest system. This stage also includes the generation of the transit documents. If the shipment is travelling by Sea, it will require a Bill of Lading and Airway Bill in case of Air. If the shipment is moving with the country by Road, it will require a Lorry Receipt (LR). In case of a courier, a courier docket is prepared.

The packages may be sorted based on different modes of transport, or based on different carriers or based on different destinations. The carriers are invited and they pick up the shipment assigned to them. The carrier person also counts the packages assigned to him and tallied with the delivery note or the invoice.

The successful art of dispatch lies in the operation's ability to have goods ready for departure, just in time for carriers to load their trucks. The DC manager must therefore balance and forecast packing and dispatching according to carrier pick-up times. Goods that are ready too early, for example, will clutter staging areas, while dispatches that are late, will delay loading and potentially cause late deliveries.

22.6.1 Warehouse dispatch document checklist

- Dispatch invoice/Delivery challan/Dispatch Note
- Dispatch waybills
- Tally sheets (loading)
- Warehouse inspection reports
- Lorry Receipts from the Transporters/Bill of Lading for Sea / Airway Bill for Air

22.6.2 Delivery/Dispatch Note

The Delivery note or Dispatch note is a document that goes with the cargo after they are loaded into the truck. It is a mandatory document in business operations in many countries. This document is prepared by the supplier dispatch department before sending the cargo to the customer. It contains important details about the order placed and other important order details. The delivery note contains the details of quantity placed and not the value of the goods, because many times the supplier does not want to take the risk of disclosing his product prices to the forwarder or any other party involved in movement of goods. Packing list can be an additional document. The following fields appear in a delivery note.

Compulsory fields:

- Invoicing and Delivery address or sold to and Ship to fields
- Delivery note number and the date it was issued
- Product Code and Description
- Product quantity and measurement unit
- Total Gross and Net weight
- Remarks or Comments.
- Delivery terms

INTEXT QUESTIONS 22.6

1. List any two dispatch documents
2. What is a dispatch note?
3. _____ is required if shipment is moving through sea

   a. Bill of lading

   b. Bill of airway

   c. Courier docket

   d. Lorry receipt

WHAT YOU HAVE LEARNT

Receiving

Receiving is the act of handling products into a warehouse and putting it into the right storage location. Products should be received via an Advance Shipping Notice (ASN) from a supplier whether the product is single or an object or liquid or in carton packing or crates or in pallet packing. With the help of ASN the consignment can be easily tracked in the system.

Sorting	Sorting of the goods can be performed both upon receipt of goods and when the goods are sent out. Goods are sorted according to the customer needs, place of delivery and accordingly sent for transportation to the end user.
Loading	Loading is the process of outing the material into a truck, container or a train. Loading has to be done in a fashion that there is no damage during the transit.
Unloading	Unloading is the process of taking out the cargo from the truck. It is required when the cargo reaches the warehouse
Picking	Picking is the process of retrieving the material as per the order received. The goods once picked need to be packed before delivering to the final customer
Shipping / Dispatch	Shipping is the last stage of dispatch, where the cargo is prepared for the requested mode of transit. The tasks performed usually include weighing each carton, labelling the carton, recording shipment information in a manifest system, and applying address labels generated by the manifest system.

KEY WORDS

Receiving	Advance Shipping Notice	Sorting
Loading	Unloading	Picking
Packing	Labelling	Dispatch
Consumer		

TERMINAL EXERCISE

1. List the warehouse activities
2. What is a return

3. Give any two benefits of quality check
4. What is picking accuracy
5. What is sorting
6. What is labour and booking
7. What is a pick list?
8. Brief about loading and unloading
9. What is knitting
10. What is the need for a quality check?
11. What is dispatch
12. Give the packaging options
13. Explain any two-packaging material
14. What is informative label
15. Explain Quality check procedure in warehouse
16. What is Receiving, Sorting and Loading
17. What rules minimise the complexity in return
18. Explain the importance of packaging
19. What is the function of labelling and why warehouse labelling is needed?
20. What are the compulsory and optional fields that appear in the delivery note?
21. Explain the shipping process

ANSWERS TO INTEXT QUESTIONS

22.1

1. It is an act of handling products into a warehouse and putting it into the right storage location.

2. Products are kitted, assembled, relabeled, modified, graded or subject to some other value adding process. The value adding part is about performing work on the product to make it 'ready for sale.

3. Option a.

22.2

1. Before the beginning of the receiving process, it is necessary to establish and enforce receiving requirements for suppliers and shippers. The target should be to make available the cargo as quickly and efficiently as possible.

2. After the inventory clerk signs the shipping notice, warehouse staff should start the unloading process and count the product received to ensure that the correct number of the shipment has been sent to the warehouse.

3. Option b.

22.3

1. Types of picking

    2. Discrete Order Picking

    3. Batch Picking

    4. Wave Picking

    5. Zone Picking

2. Forms of pick list

    1. Computer Generated Pick List

    2. Automated Pick List

3. Option a.

22.4

1. Security packing can play a significant position in tumbling the safety hazards of shipment. Packages can be engineered to assist decrease the risks of package pilferage or and resale of products

2. Blister packaging - Several types of pre-formed plastic packaging used for small consumer goods such as lip balm, foods, and pharmaceuticals

3. Any two packing machines

    a. Container Machinery

    b. Conveyors packing Machines

4. Option a.

22.5

1. GRADE LABEL-identifies the quality of a product by a letter, numbers or words.

2. Warehouse inventory tags and barcode labels provide the foundation for an efficient warehouse operation

3. Option a.

22.6

1. Dispatch documents

    Dispatch waybills

    Tally sheets

2. The Delivery note or Dispatch note is a document that goes with the cargo after they are loaded into the truck. It is a mandatory document in business operations in many countries. This document is prepared by the supplier dispatch department before sending the cargo to the customer

3. Option a.

DO AND LEARN

The warehouse activities that are carried out for a company that manufactures processed milk products could be discussed and the students could take the responsibility of each activity in groups and document the procedure they should follow for the processed milk products and discuss with the teachers.

ROLE PLAY

The warehouse activities involved differ for various companies and product types. Chandran is a manager in a mobile trading company that requires warehouse facilities. The company supplies mobile phones to the showrooms / retail shops of Tamil Nadu. Subbain is a small-scale producer of millet cookies and he utilises warehouse facilities for trading his produce to branded retail outlets all over the state. Both met together and started discussing how efficiently they could satisfy the consumers with least cost involved.

Two students could assume their roles and discuss the procedure they want to follow that results in customer satisfaction and cost reduction.

Chandran: ….

Subbain: …….