machine

work station

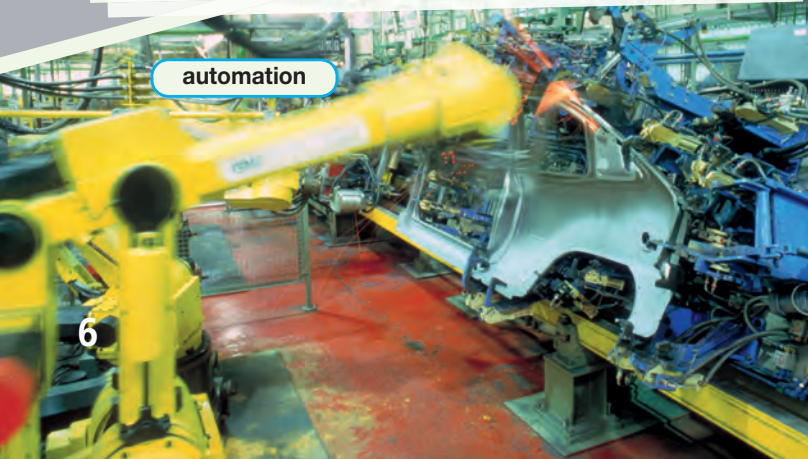assembly line

The Importance of Production Logistics

By Leonard Harris

Production logistics are all about inventory **control**. Good production logistics create a lean manufacturing process. This, in turn, helps manufacturers cut production costs.

Production logistics ought to involve the latest **technology**. This ensures proper **movement** along the supply chain. Manufacturers need to have the most efficient **machines**. Orderly **processes** also ensure that each **work station** gets the proper materials. These standards prevent a **bottleneck** on the **assembly line**.

The goals of production logistics are simple. First, it wants to **streamline material flow**. This guarantees that all raw materials and components are used properly. Second, it manages inventory up to the **point of use**.

When done properly, production logistics drastically reduces supply chain costs. Often, logisticians will require the use of detailed procedures and **automation**. Automation helps things get done more quickly. However, more detailed procedures require human workers. People are necessary on every assembly line. They can watch for slow-downs or errors in production.

automation

Get ready!

❶ **Before you read the passage, talk about these questions.**

1   What is the purpose of production logistics?
2   What is "track and trace," and when is it used?

Reading

❷ **Read the article. Then, mark the following statements as true (T) or false (F).**

1   __ Orderly processes and good technology can prevent bottlenecks.
2   __ Production logistics manage inventory up to the assembly line.
3   __ Automation and human labor are necessary on an assembly line.

Vocabulary

❸ **Match the words or phrases (1-8) with the definitions (A-H).**

1   __ streamline   5   __ automation
2   __ bottleneck   6   __ work station
3   __ point of use   7   __ assembly line
4   __ material flow   8   __ track and trace

A   a system of machines, workers, and equipment
B   to determine the previous and current locations of an item
C   something that slows or stops the progress of materials
D   an assigned space in which an employee performs daily operations
E   to organize and bring up to date
F   the control of a device or system using mechanical or electronic tools
G   the transportation of raw materials, parts, and products down a supply chain
H   the place at which a product is implemented

4 Fill in the blanks with the correct words: *machine*, *process*, *technology*, *movement*, *control*.

1 Our production department examined the efficiency of each _____ in the factory.

2 Rand Systems uses the latest _____ for data processing.

3 Logisticians _____ the flow of materials from warehouses to loading docks.

4 Human labor is essential to the _____ of creating new products.

5 Outdated systems are often to blame when the _____ of materials slows down.

5 🎧 Listen and read the article again. Why are laborers needed on the assembly line?

Listening

6 🎧 Listen to a conversation between a logistician and a production manager. Choose the correct answers.

1 Why does the woman want to track and trace products?
- A It doesn't incur higher costs.
- B It will be easier to control products.
- C Materials need tracking numbers.
- D Money will be saved by using a machine.

2 What can be inferred from the man's last comment?
- A He wants to start tracking and tracing.
- B He wants to hire additional labor.
- C He is worried about higher costs.
- D He likes the idea of using barcodes.

7 🎧 Listen again and complete the conversation.

Logistician:	I think it might be a good idea to start **1** _____ _____ _____ our products.
Manager:	Oh? Why do you say that?
Logistician:	Well, it'll help us better **2** _____ _____ _____ .
Manager:	True. We have had some trouble in the past with materials getting lost.
Logistician:	Right. We can't afford any disruption in the **3** _____ _____ _____ .
Manager:	But how will this **4** _____ work?
Logistician:	Each product is assigned a tracking number and a barcode. The barcode is scanned before the product leaves our warehouse.
Manager:	Can we assign that task to **5** _____ , or will we require human labor?
Logistician:	I think a **6** _____ can perform that task.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I think it might be a good idea to start ...

It'll help us better control ...

Can we assign that task to ... or will we require ...?

Student A: You are a logistician. Talk to Student B about:
- track and trace
- why the new process is needed
- using automation or human labor

Student B: You are a production manager. Talk to Student A about implementing track and trace.

Writing

9 Use the conversation from Task 8 to fill out the memo from a production manager to employees regarding track and trace.
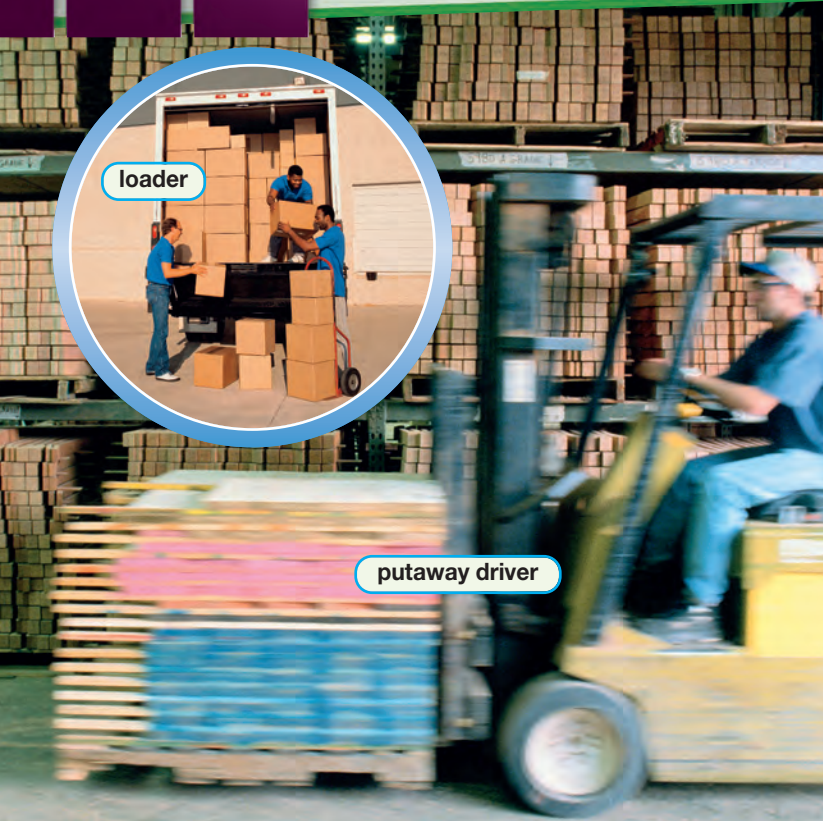
memo

To: All Employees   Date: _____
From: _____ , Production Manager

Hello All,
_____
_____
_____

loader

putaway driver

Get ready!

1 **Before you read the passage, talk about these questions.**

1 What happens at a distribution center?
2 Who works at a distribution center?

Reading

2 **Read the email. Then, choose the correct answers.**

1 What is the main purpose of the email?
   A to identify areas where fewer workers are needed
   B to improve overall efficiency at the warehouse
   C to change the customer service department
   D to remind workers that the busy season is coming

2 Which of the following types of workers does the distribution center NOT need to hire?
   A vendors   **C** lumpers
   B receivers   **D** unloaders

3 How can delivery times be improved?
   A by asking vendors for feedback
   B by filling online orders first
   C by breaking up shipments
   D by retraining putaway drivers

Vocabulary

3 **Place the words or phrases from the word bank under the correct headings.**

WORD BANK

lumper   loader   receiver
order filler   unloader

Unpacks Trucks	Inventories Items	Works on Orders
_____	_____	_____
_____	_____	_____

To: JMetcalf@VGDistributionCenter.com
From: RaulS@LogiCare.com
Subject: Upcoming holidays

Jessica,

As you know the holiday season is approaching. This means increased inventory at the **distribution center**. I have just finished analyzing data for past holiday seasons. I wanted to share my findings with you. My goal is to increase efficiency. This will enable us to better **serve** our customers.

I would like to recommend hiring additional seasonal help. I know that you always hire temporary workers. However, my data has identified a number of understaffed areas. This season we need more: **unloaders**, **receivers**, **lumpers**, and **loaders**. These are the most urgent deficits we need to fix. In addition, it might be advisable to hire **putaway drivers** and **haulers**. We could also use more **order fillers** and **replenishment drivers**.

Previously, the distribution center has focused on **retail distribution**. This holiday season more consumers are shopping online. Therefore it would be wise to expand **direct-to-customer** services.

Finally, according to **vendor** feedback, delivery times are too slow. I would suggest **breaking up** shipments. That way, if one item is delayed, part of the shipment arrives on time.

Let's talk in a few days to discuss the details.

Raul

order filler

unloader

4 Fill in the blanks with the correct words or phrases from the word bank.

break up   direct-to-customer
distribution center   hauler   putaway driver
replenishment driver   retail distribution
served   vendors

1 The _____ used his forklift to place the goods into the rack.

2 The distribution center focused on _____ orders rather than retail orders.

3 The distribution center _____ a number of major retail stores.

4 The _____ transferred the products from the receiving dock to the storage racks.

5 The worker needed to _____ the large shipment into smaller ones.

6 The _____ served many branches of the same store.

7 Large stores often sell products that come from hundreds of different _____ .

8 The warehouse did not deal with direct-to-consumer shipments, just _____ .

9 The _____ moved products from the racks to the 'pick slot'.

5 🎧 Listen and read the email again. In what area could the distribution center expand?

Listening

6 🎧 Listen to a conversation between a manager and a logistician. Mark the following statements as true (T) or false (F).

1 ___ The woman found the email useful.

2 ___ The distribution center needs replenishment drivers more urgently than haulers.

3 ___ The main priority is hiring loaders, unloaders, lumpers, and receivers.

7 🎧 Listen again and complete the conversation.

Manager:	Hi, Raul. I wanted to talk about the email you sent.
Logistician:	Good to hear from you, Jessica. So what did you think about **1** _____ _____ ?
Manager:	Well, things are always hectic here **2** _____ _____ _____ .
Logistician:	I **3** _____ _____ .
Manager:	We definitely need to **4** _____ _____ _____ . Your email helped me prioritize the positions. So thank you.
Logistician:	I'm glad it was useful. Did you have any questions?
Manager:	Actually, I did. You identified the key understaffed areas. But can you expand on the **5** _____ _____ _____ _____ hires?
Logistician:	Sure. I know there are always **6** _____ _____ . If money is tight, hire the putaway drivers and haulers first.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

What did you think ...?

Can you expand on ...? / I predict that ...

Student A: You are a manager. Talk to Student B about:
- the recommendations
- workers to be hired
- order of urgency

Student B: You are a logistician. Talk to Student A about the email.

Writing

9 Use the email and the conversation from Task 8 to write an employment advertisement for the distribution center. Include details about the distribution center, descriptions of the positions available, and the nature of the positions.

customs invoice [N-COUNT-U7] A **customs invoice** is a document that is required by customs in which the exporter gives information about the goods so that customs can determine the value of the shipment.

dangerous goods declaration [N-COUNT-U7] A **dangerous goods declaration** is a document that certifies that the hazardous cargo being transported has been packaged, labeled, and declared according to shipping regulations.

data acquisition [N-COUNT-U1] **Data acquisition** is the process of collecting and converting real-world data for use in computer information systems.

data entry [N-COUNT-U1] **Data entry** is the process of entering information into a computerized information system.

deadhead leg [N-COUNT-U8] A **deadhead leg** is a trip that is made without any goods in transport.

decode [V-T-U2] To **decode** a message is to convert it from a code or signal into a format that others can read.

dedicated cargo operator [N-COUNT-U9] A **dedicated cargo operator** is a company that only transports cargo.

deductible [N-COUNT-U6] A **deductible** is a set amount of money a person or company pays before an insurance company pays out a larger sum in compensation for loss or damage of property.

default [V-I-U13] To **default** is to not fulfill an obligation.

delay [N-COUNT-U5] A **delay** is the period of time that someone or something is slowed down, causing a late arrival.

diagram [N-COUNT-U8] A **diagram** is a drawing that shows the layout of something.

direct-to-customer [ADJ-U3] If something is **direct-to-customer**, it is sent straight to the customer rather than being sent to a retail store which then sells the item to the customer.

dishonest [ADJ-U14] If someone is **dishonest**, he or she does not tell the truth.

disruption [N-COUNT-U13] A **disruption** is an unexpected break in a process.

distribution center [N-COUNT-U3] A **distribution center** is a type of warehouse or specialized building that is used to store products before they are sent to retailers, wholesalers, or consumers.

dock bumper [N-COUNT-U4] A **dock bumper** is a piece of rubber along the sides and top of a bay door to prevent damage to the dock or truck trailers.

dock leveler [N-COUNT-U4] A **dock leveler** is a platform that can be raised or lowered which serves as a bridge between the truck and the dock.

dock light [N-COUNT-U4] A **dock light** is a movable light which is used for illuminating the interior of a truck trailer during loading.

dock seal [N-COUNT-U4] A **dock seal** is a foam block which a truck trailer presses against during loading which helps keep out cold, rain, or snow when exterior bays are used.

double decker [N-COUNT-U11] A **double decker** is a trailer that has a second floor space allowing for more cargo to be loaded and transported.

double-stack car [N-COUNT-U10] A **double-stack car** is a railroad car designed to carry two shipping containers stacked one on top of the other.

dry bulk carrier [N-COUNT-U12] A **dry bulk carrier** is a ship that is used to transport coal, grain, or other loose substances.

duty [N-COUNT-U5] A **duty** is a tax placed on goods, especially ones that are imported or exported.

efficiency [N-UNCOUNT-U15] **Efficiency** refers to the ratio of the useful output compared to the energy input needed to operate a machine or system.

emission [N-COUNT-U15] An **emission** is a substance such as a gas or fluid that is discharged into the air from a living organism or a machine.

empty miles [PHRASE-U15] **Empty miles** are miles driven by an empty cargo transport vehicle.

environment [N-COUNT-U15] The **environment** includes all air, soil, and water conditions surrounding a living creature, company, or community.

excise [N-COUNT-U5] An **excise** is a tax placed on domestic goods within a country.

exclusion [N-COUNT-U6] An **exclusion** is something that is not covered by an insurance policy.