

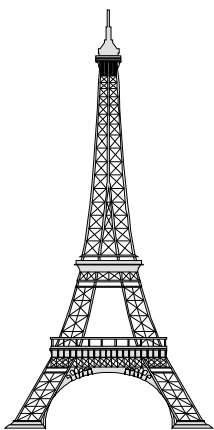
WHAT IS ONE OFF PRODUCTION?

One off production is the manufacture of a single product/item.

This can include large scale projects, such as a bridge, ship, stadium, multi-storey building or tower, Other examples of one offs are - specialist jewellery, made to measure clothing, bespoke furniture and many more.

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Specialist companies manufacturing 'one offs', usually employ skilled staff.



TOWER
STRUCTURE



SPECIALIST
JEWELLERY



BESPOKE
CHAIR

EXAMPLE - ONE OFF PRODUCT

This folding lounge chair is a 'one off' product. It has been manufactured by a skilled worker. Specialist tools and equipment have been used.

This is the only lounge chair of its type, every part has been hand made.



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MORE EXAMPLES

PROTOTYPES
SPECIALIST MODELS
HANDMADE ITEMS
SPECIALIST ENGINEERING
ONE OFFS

CHARACTERISTICS OF ONE OFF PRODUCTION



1. Small specialist companies.
2. A skilled workforce - eg. engineering / cabinet making.
3. Specialist materials often used.
eg. specialist modelling materials.
4. High quality products manufactured.
5. Products expensive, due to the level of skill required to manufacture them and cost of specialist materials.
6. A high standard of quality control.
7. Products manufactured for a specialist market / clientele.

WHAT IS BATCH PRODUCTION?

When tens, hundreds or even thousands of the same product, are manufactured on a production line, this is called Batch Production.

Batch production takes place on a production line. A production line is one stage of manufacture followed by another stage. A production line can be made up of several or hundreds of different stages. www.technologystudent.com Companies tend to order batches of products. Customers usually order one.

SPECIAL EDITION
CAR

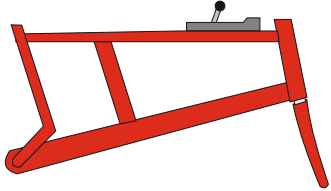


KNOCKDOWN
FURNITURE



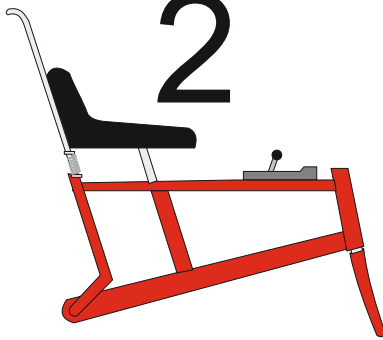
BICYCLE - BATCH PRODUCTION

1



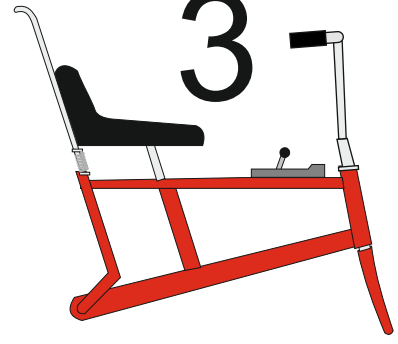
GEAR STICK
FITTED

2



REAR
FITTED

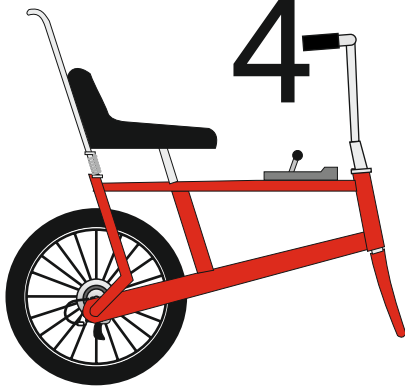
3



HANDLE BARS
FITTED

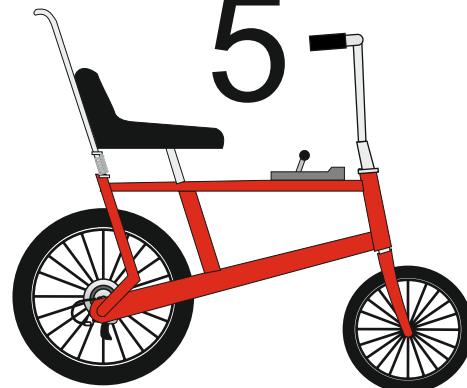
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4



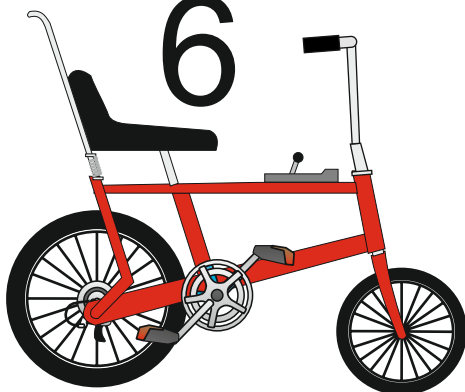
REAR WHEEL
FITTED

5



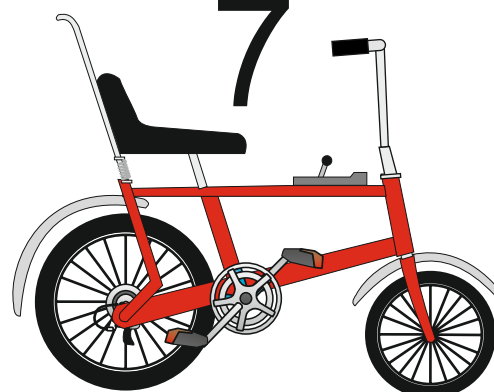
FRONT WHEEL
FITTED

6



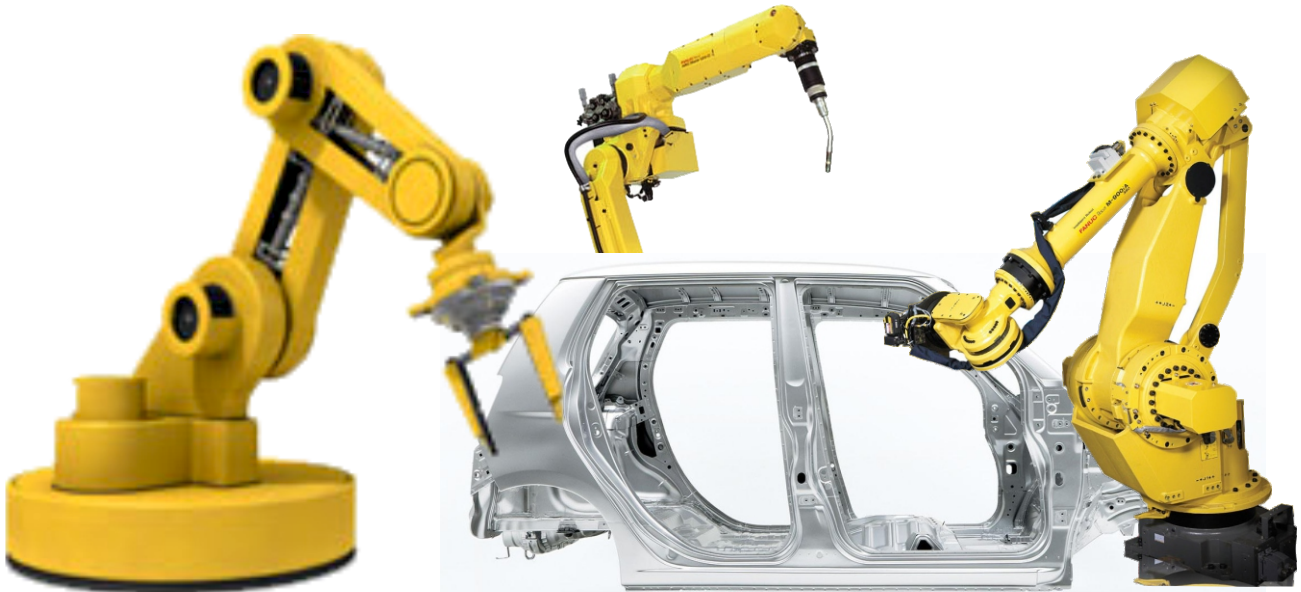
SPROCKETS
FITTED

7



MUD GUARDS
FITTED

CHARACTERISTICS - BATCH PRODUCTION



Production line is set up.

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One task for each stage of manufacture.

Semi skilled or unskilled workers -
Flexible workforce.

Production line can manufacture
different products.

Production line runs for a limited time.

WHAT IS CONTINUOUS PRODUCTION?

When a product is continuously manufactured, 24 hours a day and 365 days a year, on a production line, this is called Continuous Production.

Continuous production usually takes place on a semi automated production line. It often involves 'shifts' of workers, so that manufacturing is non-stop.

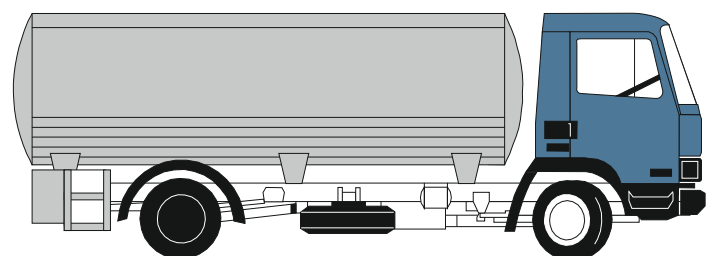
Continuous production ensures that there is a continuous supply of a product with no interruptions or interruptions kept to a minimum.

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NEWSPAPER PULP



CHEMICALS



NEWSPAPER PRINT- CONTINUOUS PRODUCTION

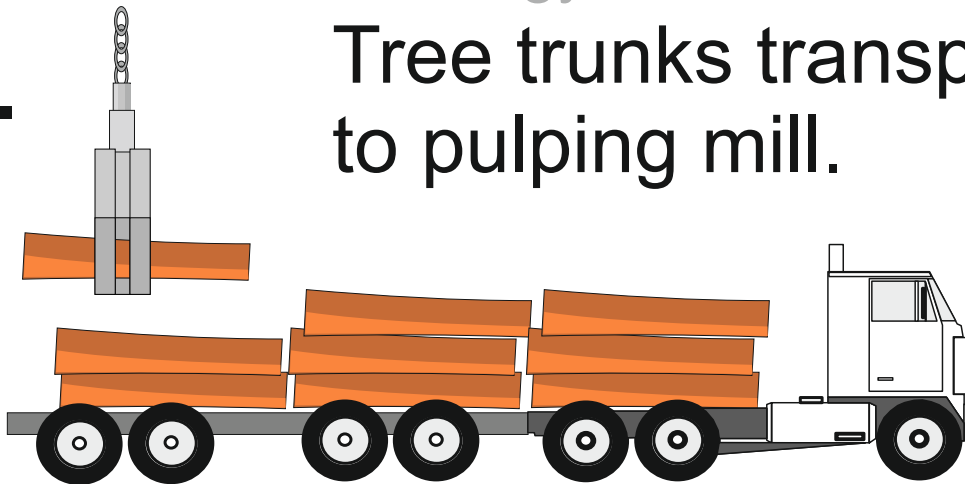
1.



Pine / spruce trees cut down.

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3.



Tree trunks transported to pulping mill.

4.



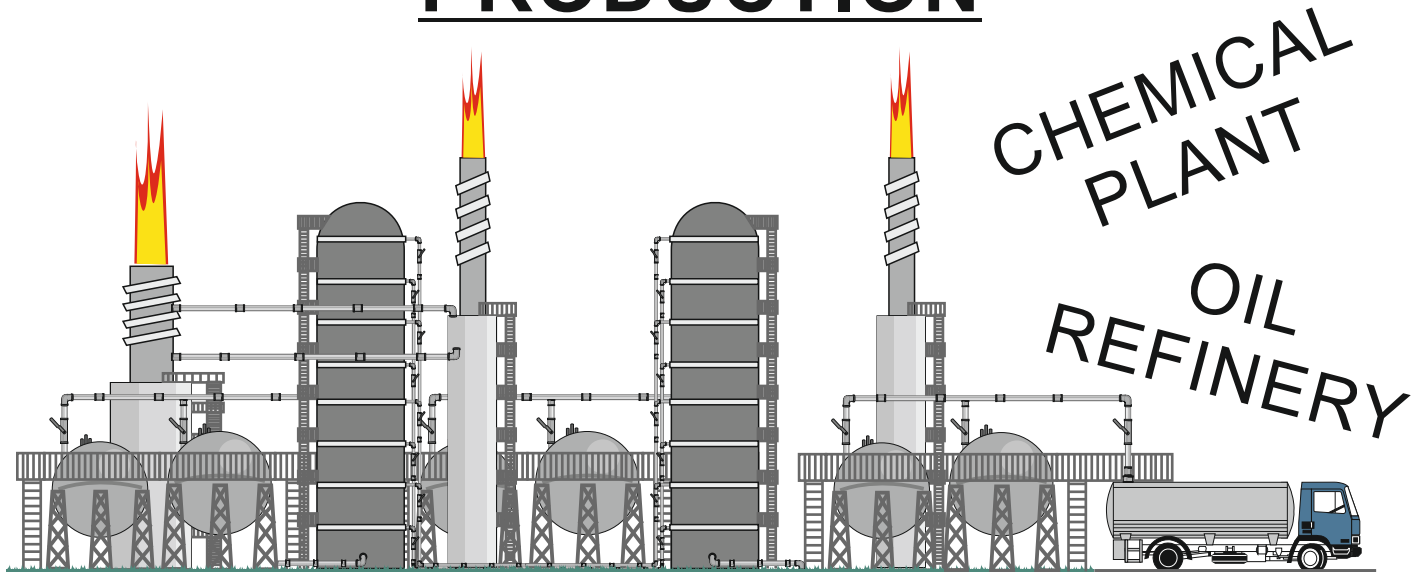
Wood processed into pulp.

STARCH
+
AGENTS

5. Newsprint manufactured in large rolls - for newspapers.



CHARACTERISTICS - CONTINUOUS PRODUCTION



Semi-automated production line.

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Skilled and unskilled workers.

Production line runs 24 hours a day,
365 days a year.

A high level of investment in machinery
and equipment.

Quality control at every stage of
production.

WHAT IS JUST IN TIME (JIT) ?

Just in Time, is a system of organisation used by some manufacturers.

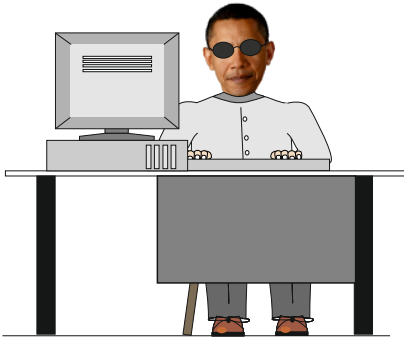
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JIT, also called Lean Manufacture, is a system that relies on purchasing just enough materials to manufacture a batch of products, once an order from a customer has been placed. Over ordering or storing materials is not permitted.

JIT aims to eliminate waste and to speed up the supply of products to the customer.

JIT relies on the manufacturing company having a very good business relationship with suppliers and distributors. Delays must not happen.

JUST IN TIME - AN EXAMPLE



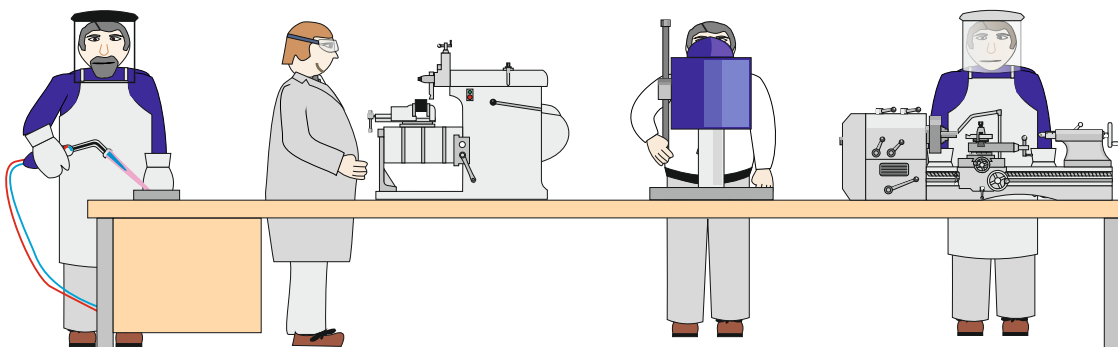
Order for batch of manufactured products arrives. Materials for production line ordered.

Materials arrive within 24 hours.

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Materials pass down the production line and the batch is manufactured.



Batch distributed to customer.



JUST IN TIME COMPANIES

TOYOTA



HARLEY DAVIDSON



DELL



APPLE

