## **Production**

the act of producing; creation or manufacture.





- the "Manufacturer" is the producer of the product in its final form before being delivered to the customer. Fabricators are involved in making sub-components of the finished product and could be either internal or externally sourced.
- **Fabrication** involves the use of skilled workers. Drawings/specs are given to those workers who decide themselves how best to make it, on what machines, and how long it should take.

**Manufacturing** involves relatively less skill. It relies on a much fewer number of skilled workers to setup the operation (jigs/fixtures, Work instructions, standard times.etc) so that a comparatively larger number of unskilled workers can produce parts in the same quantity and quality.



- Manufacturing is producing many of the same item.
- Fabrication is the <u>making of a unique item or</u> <u>prototype.</u>

Kawasaki manufacture motorbikes, Orange County Choppers fabricate custom bikes.



### Definitions of "manufacture"

- make (something) on a large scale using machinery.
- make, produce, mass-produce, build, construct, assemble, put together

### Definitions of "fabrication"

- the action or process of manufacturing or inventing something.
- the assembly and fabrication of products
- invention, concoction, (piece of) fiction, falsification, lie, untruth, falsehood



### P 21 G

#### 21.A.163 Privileges

- Pursuant to the terms of approval issued under point 21.A.135, the holder of a production organisation approval may:
- (a) perform production activities under this Annex I (Part 21);
- (b) in the case of complete aircraft and upon presentation of a statement of conformity (EASA Form 52) under point 21.A.174, obtain an aircraft certificate of airworthiness and a noise certificate without further showing;
- (c) in the case of other products, parts or appliances, issue authorised release certificates (EASA Form 1) without further showing;
- AMC No. 1 to 21.A.133(b) and (c) Eligibility Link between design and production
- When the design and production organisations are two separate legal entities a
   Direct Delivery Authorisation (DDA) must be available <u>for direct delivery to end users</u> in
   order to guarantee continued airworthiness control of the released parts and appliances.



## P 145

- 145.A.42 Acceptance of components
- (c) The organisation <u>may fabricate</u> a restricted range of parts to be used in the course of <u>undergoing work</u> <u>within its own facilities provided procedures are</u> <u>identified in the exposition</u>.



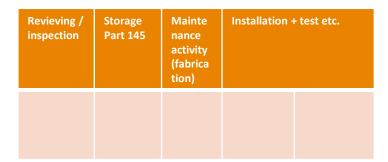
#### Manufacturing Part 21

Design approval holder (TC/STC/ETSO/Changeholder) DOA

# Maintenance activity (fabrication) Part 145

ARRANGEMANG 21.A.133 Fabrication instructions, Maintenance data, etc.

Recieving/ inspection	Storage Part 21	Manu factur ing	Assy/test etc.	



POA= Production organisation approval.

<u>Approved facility certified for repeated production steps</u>.

Holds arrangement with design holder.

Only POA can deliver NEW or PROTOTYPE parts with

EASA Form 1 (21.A.163)

AMO=Maintenance facility.

Fabricating allowed ONLY if procedures are approved in MOE. ONLY for contracted aircraft with CAMO. Typically repairs not in SRM, or SB from TC-holder. Can NOT sell parts outside AMO. Can NOT issue EASA For 1 for NEW or PROTOTYPE Parts.



# Development today!.....

 Some P-145 has approached us, wanting to go from fabrication only for own aircraft, to produce certain limited series of P/N to sell to other P-145:s.

Questions are raised for P 21F:s!

