

AIE (UK) Ltd

Counterfeit Materials

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(Document Not Controlled When Printed)
UNRESTRICTED Commercial in Confidence

Counterfeit Materials



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Definition



Counterfeit Work: Work that is or contains items *misrepresented* as having been designed and/or produced under an approved system or other acceptable method. This term also includes approved work that has reached a design life limit or has been damaged beyond possible repair, but is altered or misrepresented as acceptable.

Definition



Examples of counterfeit parts include, but are not limited to:

- Parts which do not contain the proper internal construction (die, manufacturer, wire bonding, etc.) consistent with the ordered part
- Parts which have been used, refurbished or reclaimed, but represented as new product
- Parts which have different package style or surface plating/finish than the ordered parts
- Parts sold with modified labeling or markings intended to misrepresent the part's form, fit, function, or grade

References



- SAE AS5553 – Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition
- SAE AS6174 – Counterfeit Material; Assuring Acquisition of Authentic and Conforming Material

Rationale: These standards were created in response to a significant and increasing volume of counterfeit materiel entering the supply chain, posing significant performance, reliability, and safety risks.

These standards were created to provide uniform requirements, practices and methods to improve the likelihood of only acquiring authentic and conforming materiel of any type in any industry sector.

Procurement Risk Mitigation



- Purchase from the Approved Suppliers List (ASL)
- **APPROVED SUPPLIER:** Suppliers that are formally assessed by the current design activity or the original manufacturer, determined to be a trusted source that will reliably provide authentic and conforming material, and entered on a register of approved suppliers.
- Procure directly from original manufacturers, authorised suppliers or other legally authorised sources, where applicable.

Procurement Risk Mitigation



- Assess supplier before admittance to ASL through an initial audit, survey, demonstrated adherence and/or certification to higher level quality standards (AS9100, ISO 9001) and historical experience review activities.
- Assess ability for supplier to maintain deliveries.
- Flow down appropriate Counterfeit Part requirements to Suppliers.
- Flow down appropriate documentation requirements to Suppliers. (e.g. CofC, Test Data, NDT Results, Material Certifications...).
- Flow down appropriate traceability requirements.

Risk Chart



LOWEST RISK

SOURCE OF SUPPLY

ORIGINAL COMPONENT MFG OR CERTIFIED MANUFACTURER

AUTHORISED DISTRIBUTOR

ORIGINAL EQUIPMENT MANUFACTURER / CONTRACT MANUFACTURER

INDEPENDENT DISTRIBUTOR WITH QUALIFIED PROCEDURES OR REPUTATION

UNKNOWN SOURCE



DEGREE OF RISK

GREATEST RISK

Counterfeit Detection



Documentation Review:

- When required, the supplier should provide an unbroken chain of documentation (certifications, packing slips, etc.) tracing the movement of the material back to through the supply chain to origin, and certification that the material has not been salvaged, reclaimed, otherwise used, or previously rejected for any reason.

Counterfeit Detection



Any Certificates of Conformance or other documentation should be examined for authenticity and applicability to the delivered materiel, including:

- Lot and/or date codes on the packaging match the lot and/or heat numbers on raw materials.
- Review of logos, trademarks and other identifying marks to ensure they match manufacturers' marks as applicable.
- Changes to or irregularities in the documentation and/or paper trail.
- Part number marked on the material does not match the part number on the Purchase Order and the certifications.
- Materials are inconsistent with the description on the supplied documentation.
- Serial number issues or duplication as applicable.

Counterfeit Detection



Visual examinations: Examples of suspect counterfeiting include, but are not limited to:

- Altered or unexplained markings, stampings, mouldings, and engravings.
- Improper surface treatment or signs of refurbishment without being identified as refurbished material.
- Re-marked, smeared or illegible bar codes.
- Faceplates and nameplates showing signs of removal and re-installation.
- Altered labels and tags.
- Signs of re-painting or re-coating.
- Other signs of re-used materials such as oil stains, signs of rework, erosion, wear, dents and scrapes, etc.

Control of Suspect Material



Suspect or Confirmed Counterfeit Material: In the event that inspections/tests, or product failure experiences indicate that material may be counterfeit, the following steps should be implemented:

- Physically identify the material as suspect/counterfeit material.
- Physically segregate the material from acceptable non-suspect material and place in quarantine. Quarantine should consist of physical barriers and controlled access. Make sure suspect materials are “RED TAGGED”.
- Do not return the material to the supplier for refund, replacement, etc., except under controlled conditions which would preclude re-sale of the suspect counterfeit material into the supply chain, and to allow the supplier to conduct internal investigation.

Control of Material

- Confirm conclusively the authenticity of the material. This may include further tests, communications with the material's supposed manufacturer, third-party analysis, etc.
- Upon confirmation that material is counterfeit, identify and place on "Hold" all potential additional counterfeit material in storage and installed in product pending disposition by appropriate authorities.
- Report counterfeit material in accordance with guidelines provided in Appendix G, Reporting of AS6147.
- The known counterfeit material should be scrapped or mutilated (using a method that prevents its re-use by others).

Control of Material

Scrap Material

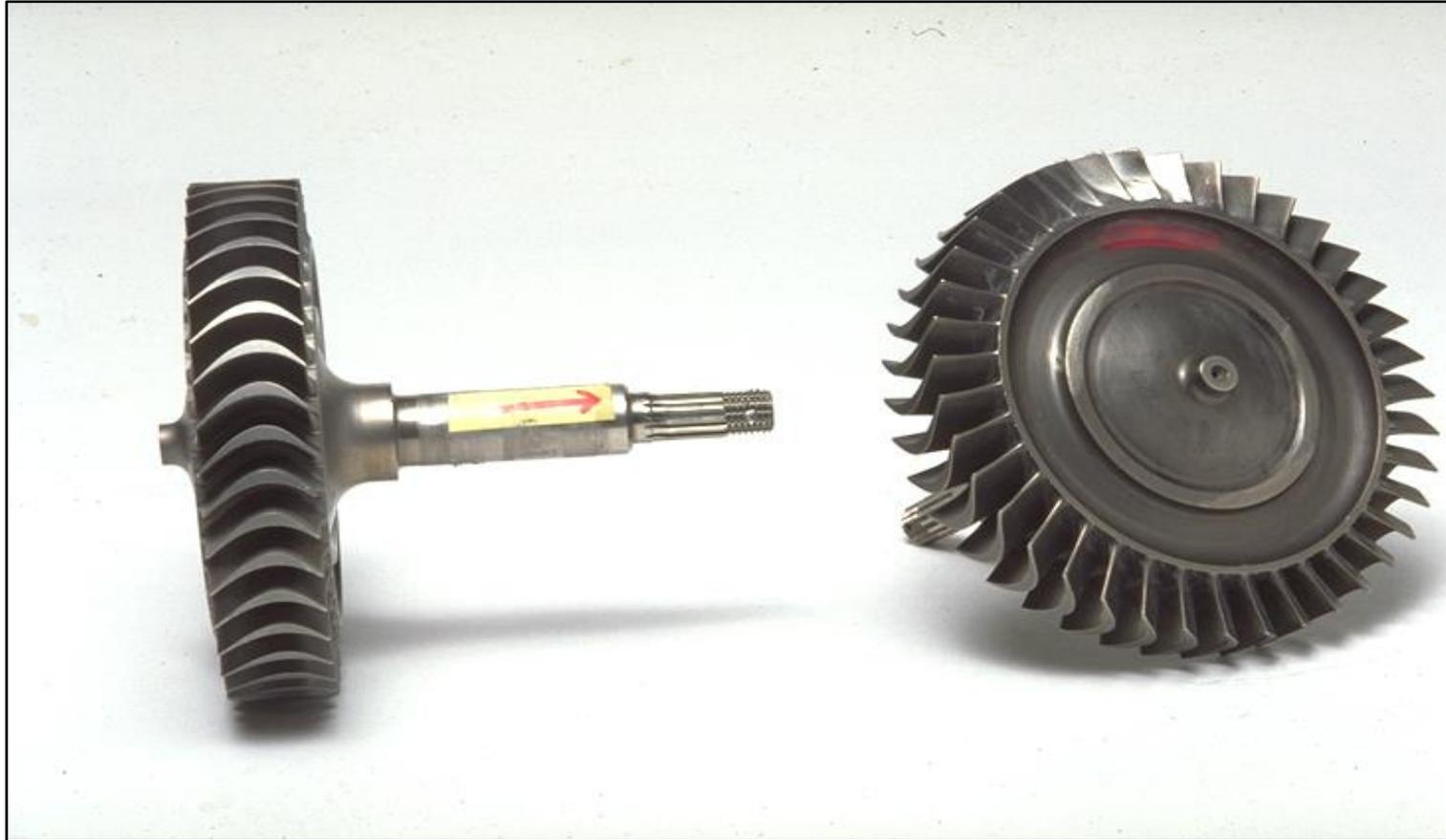
- Material that has been found to be non-conforming or otherwise unsuitable for use should be physically identified (e.g., tag, label, mark), segregated from conforming material, and rendered unusable by physical destruction (e.g., grinding, breaking, or crushing) prior to disposal.

Control of Material

Return Material

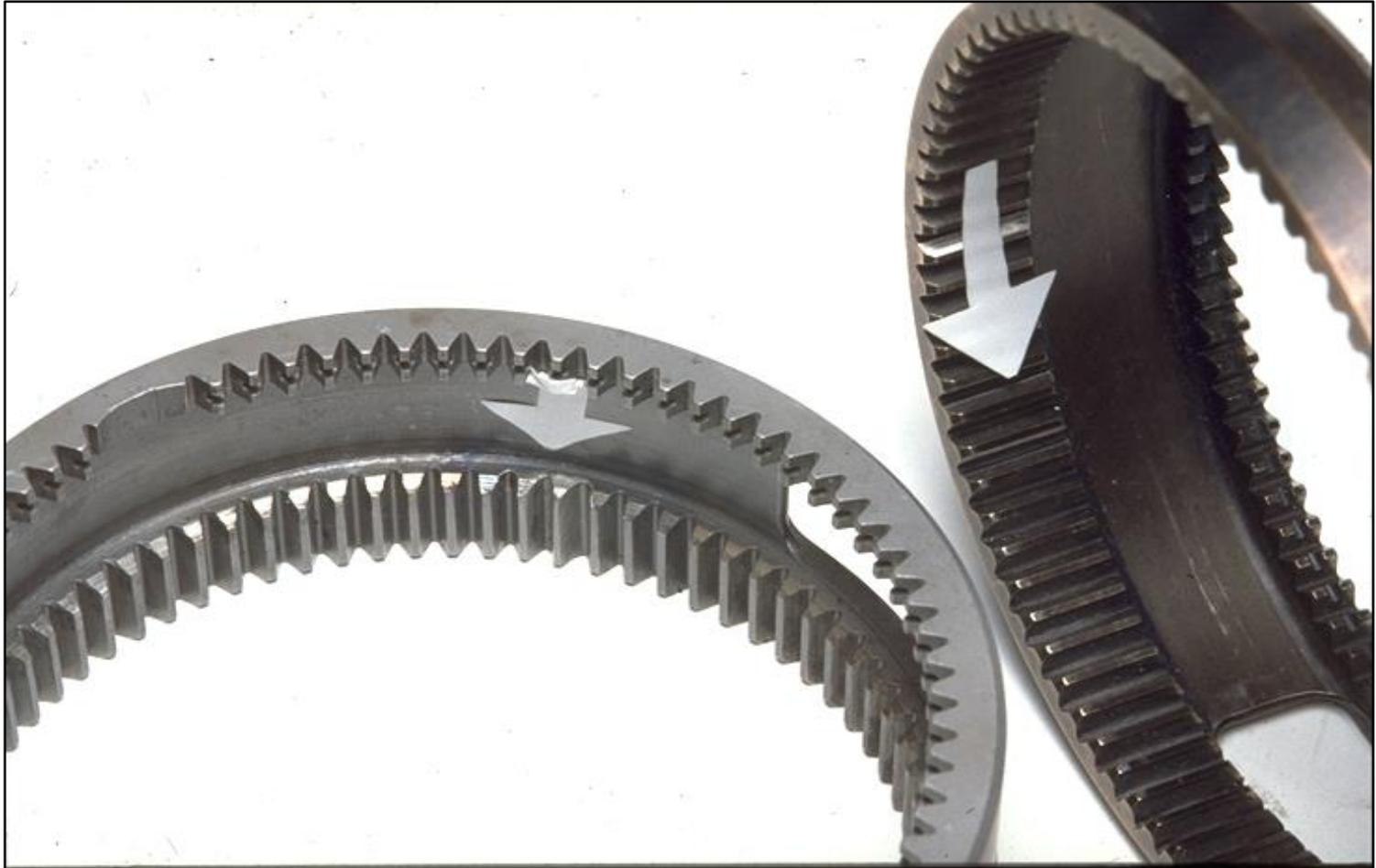
- In order to mitigate the risk of counterfeit material returning to the supply chain through supplier acceptance of returns, steps should be taken to maintain traceability / authenticity. The following information should be provided to the supplier at the time of return.
- Part/lot/heat/item/date code/number of material to be returned.
- Name of manufacturer.
- Purchase order number under which material was supplied.
- Quantity to be returned.
- Reason for return.

Turbine wheels



**SOLD AS NEW WITH TWISTED SPLINE AND
INSTRUCTIONS TO SEAT WITH HAMMER AND BLOCK OF WOOD**

Gears



GEARS MADE TO LOOK NEW AGAIN

Bolts



**BOLT HEAD ON LEFT MISSING MANUFACTURE LOGO
TO VERIFY ITS AUTHENTICITY**

X-Ray Examination

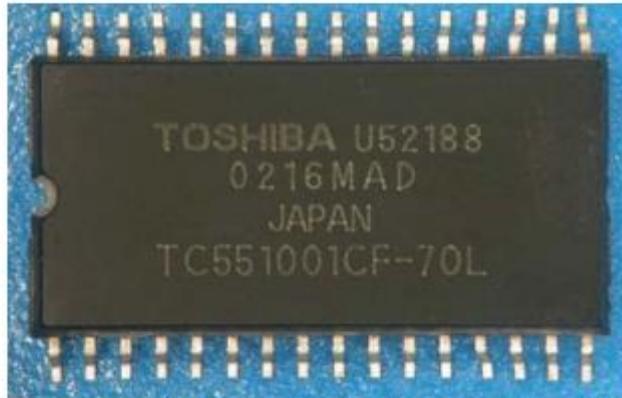


Figure 1(a): Optical photographs of two packages with same date code show very similar markings, but mold marks are missing on one device.



Figure 1(b)

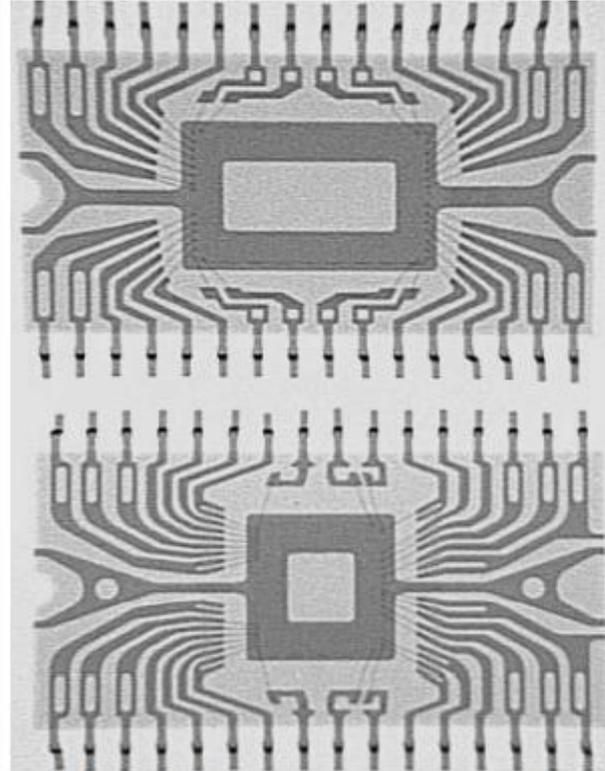
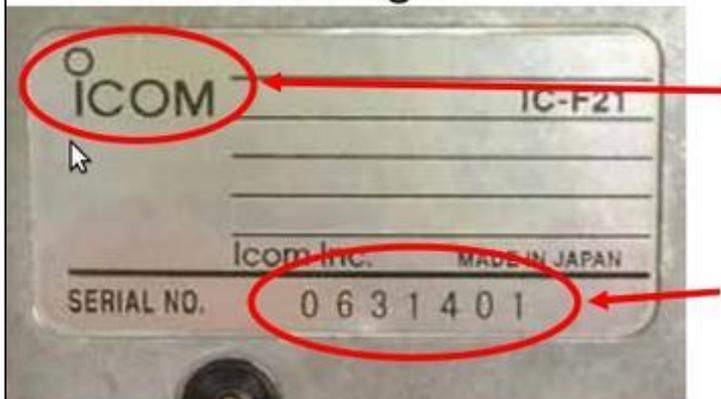


Figure 1(c): X-ray inspection of packages in 1(a) and 1(b) indicates two products that are clearly different. One has been re-marked and mixed in with authentic components to prevent detection.

Visual Examination

IC-F21

Icom original



Counterfeit



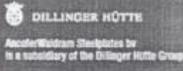
1. Icom logo

The shape of the counterfeit's Icom logo is different from the one of the Icom original.

2. Serial number

The counterfeit does not have serial number.

Material Certificate



DILLINGER HÖTTE
AncoferWaldram Steelplates bv
is a subsidiary of the Dillinger Hütte Group



**ANCOFER
WALDRAM
STEEL PLATES**

Structural strength in heavy steel plates

**Ancofer Waldram is not a
Steel Mill**

PURCHASER: CO150.00 NO. : _____

COMMODITY: HOT ROLLED STEEL

CERTIFICATE NO. : 85995 DATE: 2013.09.20

NO.	STEEL GRADE	HEAT NO.	REF NO.	SIZE THICKNESS*WIDTH	WEIGHT	TENSILE	YIELD	ELONGA-	COLD	IMPACT		
						STRENGTH	STRESS	TION	BEND	TEST		
						MPa	MPa	%	TEST	J		
1	A-36	8599650	705504859	60.00*2000*6000	96.500	440	315	33	OK			
TOTAL WEIGHT (T) :					96.500							
CHEMICAL COMPOSITION %												
NO.	C	Si	Mn	P	S	Cr	Ni	Cu	Al	Ti	v	Nb
1	0.13	0.17	1.21	0.024	0.0150							
REMARK												

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**The Steel Mill Logo is missing. The mfg name
is always identified.**

