



Vehicle Recyclers' Association

UK STANDARD FOR
RECLAIMED PARTS
FROM END-OF-LIFE
VEHICLES

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1 INTRODUCTION

- 1.1.1 The reclamation of reusable parts from end-of-life motor vehicles is a long-established process, that seeks to extract value from waste vehicles and is in line with the principles of the circular economy and government's intent to reduce greenhouse gas emissions.
- 1.1.2 The UK vehicle recycling sector has grown substantially over the past decade, with many operators now selling reclaimed parts online through both bespoke and publicly available sales platforms.
- 1.1.3 Traditionally, vehicle recyclers supplied end users directly (so-called business-to-consumer, or B2C, transactions); however, there is now increasing interest in business-to-business transactions (B2B) driven by demand from insurers, fleet operators and garages to use reclaimed parts in repairs.
- 1.1.4 The ever-increasing complexity of motor vehicles and their constituent parts places specific challenges on vehicle recyclers, to ensure that they are appropriately identified, tested, removed and documented. This will become increasingly important in the specification of parts sold through B2B transactions.
- 1.1.5 In addition, some online sales platforms attract sellers who dismantle vehicles without having the appropriate environmental authorisations in place. These sellers operate illegally and should not be allowed to compete with legally run vehicle recyclers.
- 1.1.6 The aim of this standard is therefore to provide end users with the confidence that:
1. The reclaimed vehicle part has been accurately identified, recorded, tested, removed and sold by a vehicle recycler that operates a robust quality management system; and
 2. The reclaimed vehicle part has been marketed and sold by a vehicle recycler that has the appropriate environmental authorisations in place.

2 SCOPE

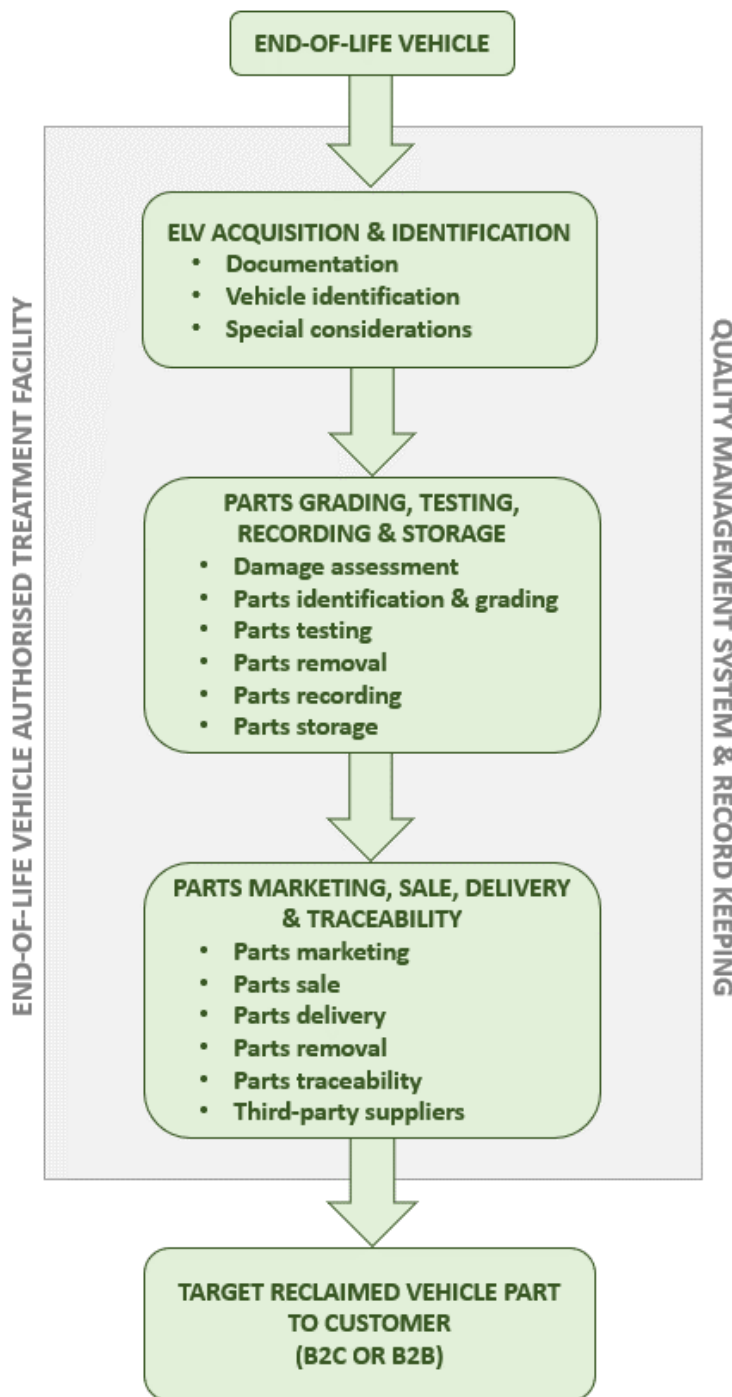
2.1 Inclusions

- 2.1.1 This standard applies to UK-based vehicle recyclers operating at an end-of-life vehicle authorised treatment facility. This standard applies to an individual permitted or licensed¹ authorised treatment facility.
- 2.1.2 Compliance with this standard at a specified authorised treatment facility does not confer compliance at any other authorised treatment facility operated by the same vehicle recycler (i.e. multi-site operators).
- 2.1.3 It covers the removal and re-use of parts removed from end-of-life vehicles for use in the repair of damaged or faulty vehicles.
- 2.1.4 It specifies the requirements for end-of-life vehicle identification, vehicle parts identification, disassembly, testing, electronic resetting to factory defaults (where appropriate), storage and dispatch.
- 2.1.5 It includes requirements for:
- A quality management system;
 - End-of-life vehicle acquisition and identification;
 - Parts grading, testing, recording and storage; and
 - Parts marketing, sale, delivery and traceability.

This is shown schematically in Figure 1.

¹ In England and Wales it is a requirement that an authorised treatment facility holds a relevant environmental permit; in Northern Ireland and Scotland it is a requirement that an authorised treatment facility holds a relevant waste management licence.

Figure 1 – Schematic overview of the scope of this standard



2.2 Exclusions

2.2.1 This standard is not applicable to vehicle and parts recycling businesses that:

- Operate under a waste exemption; and/or
- Sell reclaimed vehicle parts removed by customers directly from vehicles in a dismantling yard (so-called 'do-it-yourself' yards);
- Sell target parts purchased from other vehicle recyclers (parts resellers); and/or
- Metal recyclers that only process recovered metals.

2.2.2 This standard excludes the following types of vehicles:

- Agricultural vehicles;
- Boats;
- Trains; and
- Aircraft.

2.2.3 This standard excludes the following types of vehicle parts²:

- Parts that are damaged and/or show signs of wear and tear that may compromise their safe re-use or repair;
- Part of the donor vehicle's welded body structure;
- Parts that, when re-used, would render the recipient vehicle unfit under the Road Traffic Act (1991) (as amended) or would not pass a Ministry of Transport (MOT) test; and
- Parts that have been subject to recall by the manufacturer and/or the Driver and Vehicle Standards Agency.

² Target parts shall be identified by the customer in accordance with any supply agreement and/or contract. This may necessarily exclude certain part categories outlined in this document.

3 NORMATIVE REFERENCES

- 3.1.1 The following referenced document is indispensable for the application of this document
BS AU 159G:2013 Specification for repairs to tyres for motor vehicles used on the public highway

4 TERMS AND DEFINITIONS

- 4.1.1 For the purposes of this standard, the following terms and definitions apply.

authorised treatment facility (ATF): A UK-based site at which end-of-life vehicles are dismantled and recycled that operates under an appropriate environmental permit or licence issued by the relevant environmental regulator.

bare: A multi-component target part that is supplied on the same basis as new original equipment as supplied by a dealer.

dressed: A bare multi-component target part that is supplied with additional associated components, as specified by the customer or stipulated in the part description.

end-of-life vehicle (ELV): A vehicle that has come to the end of its useful life as a motor vehicle and is categorised as waste, generally due to age, malfunction or accident.

grade: Quality classification of a reclaimed vehicle part based on its condition. Refer to Annex A and B.

inventory management system: A software package used by a vehicle recycler to record and track vehicles and their component target parts on their premises and the customers to which parts have been sold.

legal acquisition: The acquisition of title to property by either descent or purchase.

part identification number: A unique number that is assigned and permanently recorded to every target part so that it is traceable back to the originating vehicle in the recycler's inventory management system.

part worn tyre: A tyre that has previously been fitted to a vehicle wheel.

quality management system: A set of policies, processes and procedures required for planning and execution of a vehicle recycling business, including fulfilment of legal obligations, vehicle processing, quality control and customer service.

recall: The process where a manufacturer or the Driver Vehicle Standards Agency has identified that a vehicle part has a safety issue or defect and is therefore no longer fit for purpose and cannot be sold legally.

reclaimed part: A target vehicle part that has been removed from an end-of-life vehicle and sold for re-use.

stock management system: See 'inventory management system'.

target part: A vehicle part that has demand for re-use and that the vehicle recycler removes from an end-of-life vehicle for re-use. Such a part can also be referred to as a reclaimed, re-usable, recycled or green part.

trained quality control technician: A person that has been trained by an independent training organisation to grade target parts in accordance with this standard.

vehicle: A bus, car, coach, heavy goods vehicle, light commercial vehicle, motorcycle, motorhome or van.

vehicle identification number (VIN): A unique serial number allocated by the vehicle manufacturer to each vehicle upon manufacture in order to identify individual motor vehicles and their constituent parts.

vehicle recycler: A business whose primary purpose consists of purchasing total loss and end-of-life vehicles for the purpose of dismantling them, harvesting and selling the component parts, and other environmentally and legally required recycling processes.

vehicle recycling: The process of dismantling end-of-life vehicles, removing target parts for re-use and scrapping the balance of the non-reclaimable vehicle for conversion into new products.

vehicle registration number: A unique identifying number allocated by the relevant national government agency to each vehicle upon manufacture/sale, and displayed prominently on each vehicle, in order to identify an individual motor vehicle.

vehicle stock number: A unique identifying number attributed to each vehicle that should be assigned and permanently recorded to the vehicle in the recycler's inventory management system.

5 GENERAL REQUIREMENTS

5.1 Vehicle recycling process

- 5.1.1 Used vehicle parts from end-of-life vehicles shall be quality checked, depolluted and dismantled from the vehicle at a specified UK-based ELV authorised treatment facility that complies with the relevant environmental permit or waste management licence³ in accordance with national law. Compliance and environmental protection measures will differ in England, Northern Ireland, Scotland and Wales and are not the subject of this standard.
- 5.1.2 The depollution and recycling of ELVs also presents some specific health and safety hazards. The vehicle recycler shall assess the risks that these present and introduce appropriate control measures in order to comply with relevant UK law.
- 5.1.3 The vehicle recycler shall have access to, and use, the International Dismantling Information System⁴ to identify potentially hazardous items and/or materials and their locations.

³ See Footnote 1

⁴ See: www.idis2.com

5.2 Quality management system

5.2.1 The vehicle recycler shall implement a quality management system, that includes, but is not limited to the following operational areas:

- Written management system/working plan⁵ to comply with relevant environmental regulation;
- Health and safety policy;
- Staff instruction, training and competence;
- Vehicle processing;
- Target parts grading and quality control;
- Stock processing, storage and inventory management;
- Vehicle and component part recall verification, including a process to cater for a recall activated on a part that has already been sold;
- Target parts marketing, sale, warranty, substitution, returns and refunds;
- Customer care, including service performance and the handling of complaints; and
- Information technology, records and data management.

5.2.2 The vehicle recycler shall implement standard operating procedures that cover all operational areas documented within the quality management system.

5.2.3 The quality management system shall be subject to periodic review by senior management. This shall be carried out at least annually.

5.3 Staff instruction, training and competence

5.3.1 All staff involved in the assessment and grading of target parts shall complete and pass a VRAC-approved parts grading training course.

⁵ In England and Wales, the environmental regulators require a written management system; in Northern Ireland and Scotland, the environmental regulators require a working plan.

5.4 Record keeping

5.4.1 The vehicle recycler shall keep records as specified in Sections 6, 7 and 8.

5.4.2 Records shall be kept for a minimum of two years, or longer if required by law, and be made available for auditing purposes.

6 END-OF-LIFE VEHICLE ACQUISITION AND IDENTIFICATION

6.1 Documentation requirements

6.1.1 When an end-of-life vehicle arrives at an ELV-ATF, the vehicle recycler shall complete all necessary vehicle documentation in order to take legal possession and ownership of the vehicle prior to disassembly. Documentation shall include as a minimum:

- Issuance of a certificate of destruction within the timeframe dictated by either government guidance, a contractual service level agreement or upon customer request; and
- Proof of ownership provided by the seller or the last registered keeper of the vehicle.

6.2 Vehicle identification

6.2.1 Upon acceptance at an ELV-ATF, every end-of-life vehicle shall be assigned a unique vehicle stock number. This number shall be recorded and entered into the vehicle recycler's stock or inventory management system.

- 6.2.2 A record of every end-of-life vehicle shall also be linked to its unique vehicle stock number and entered into the vehicle recycler's stock or inventory management system. Details shall include, but are not limited to, the following:
- Vehicle identification number;
 - Vehicle registration number;
 - Manufacturer make;
 - Manufacturer model;
 - Year of manufacture or first registration;
 - Source⁶ of vehicle;
 - Odometer reading (when possible);
 - Dates the vehicle was purchased or acquired, inventoried and dismantled;
 - Salvage Category (if applicable); and
 - Images of the vehicle.

6.3 Special considerations

- 6.3.1 The vehicle recycler shall check every end-of-life vehicle to identify whether it has been assigned to any particular hazard category⁷.
- 6.3.2 The vehicle recycler shall check every end-of-life vehicle from which target parts will be reclaimed to identify whether any parts have been subject to recall by the manufacturer and/or Driver and Vehicle Standards Agency. Vehicle parts that have been subject to recall shall not be marketed and sold. These parts should be permanently marked and easily identifiable as recalled so as not to be mistakenly sold, or otherwise must be scrapped. If parts are not accessible at this time, they must be clearly marked in the inventory management system as being subject to recall and shall not be sold.
- 6.3.3 Details of the vehicle's special considerations shall be recorded in the vehicle recycler's stock or inventory management system.

⁶ This may include, but is not limited to an insurance company, garage, bodyshop, private seller or vehicle manufacturer.

⁷ This may include flood or fire damage, biohazard contamination or an alternative fuel source.

7 PARTS GRADING, TESTING, RECORDING AND STORAGE

7.1 Vehicle damage and defect assessment

- 7.1.1 The vehicle recycler shall assess every end-of-life vehicle for damage and/or defects prior to target parts identification and grading. This shall include, but is not limited to, whether the vehicle has been involved in a collision, subjected to vandalism, water or hail damage, suffered major mechanical and/or electrical fault or failure, or has been recovered following theft.
- 7.1.2 All damage shall be recorded in the vehicle recycler's stock or inventory management system.

7.2 Target parts identification and grading

- 7.2.1 The vehicle recycler shall identify all target⁸ marketable parts on the vehicle.
- 7.2.2 Target parts, including components and/or assemblies, shall be graded and described accurately by a trained quality control technician. Details, including photographs where possible, shall be entered into the vehicle recycler's stock or inventory management system.
- 7.2.3 Grading of every target part shall include an assessment of its quality, the extent of damage (if any) and whether a multi-component part is to be supplied bare or dressed.
- 7.2.4 Target parts grading shall be carried out in accordance with the criteria specified in Annex A, and the grading criteria specified⁹.
- 7.2.5 Multi-Component Parts shall be described as either bare or dressed according to the criteria in Annex B.

⁸ Identification of suitable parts that fall within the scope of this standard shall be at the discretion of the vehicle recycler and will depend upon customer demand and any relevant supply agreement or contract.

⁹ For example, mechanical grading and electrical testing.

7.3 Target parts testing

- 7.3.1 Wherever technically possible, all parts shall be tested for correct operation prior to dismantling.
- 7.3.2 For engines, transmissions, and drivetrains, a visual evaluation of the part shall be completed. This shall include an inspection for cracks or other damage and one or more of the following:
- Hydrocarbon and compression testing; and/or
 - Evaluation of oils and fluids for contamination; and/or
 - Evaluation of a properly working assembly (i.e. a run test).

7.4 Target parts removal

- 7.4.1 Target vehicle parts shall be disconnected or unplugged whenever possible. Part wires and hoses shall not be cut.
- 7.4.2 Upon removal, target vehicle parts shall be cleaned using appropriate materials, wire harnesses unplugged, and cap plugs applied for fluid connections.
- 7.4.3 Target parts shall be moved on-site in a manner that prevents damage and/or deterioration.

7.5 Target parts recording

- 7.5.1 Removed target vehicle parts shall be tagged and/or labelled according to the following requirements:
- A tag and/or label shall be attached to the target part and made visible in a conspicuous location;
 - Each tag or label shall contain a unique part identification number¹⁰ and where possible include the originating vehicle VIN;

¹⁰ Typically, this is in bar or QR code format but may be in any format traceable to the recycler's stock or inventory management system.

- The unique target part identification number shall be linked to the donor end-of-life vehicle and entered into the vehicle recycler's stock or inventory management system such that it is traceable to the donor VIN; and
- The tag and/or label should document the assigned quality grade.

7.6 Target parts storage

- 7.6.1 Target vehicle parts shall be stored in such a manner so as to prevent damage and deterioration¹¹.
- 7.6.2 The vehicle recycler shall store target parts in such a manner that they can be accurately located and reconciled with the unique identification number recorded in the site's stock or inventory management system.

8 TARGET PARTS MARKETING, SALE, DELIVERY AND TRACEABILITY

8.1 Target parts marketing

- 8.1.1 Every target part shall be accurately described, including its part identification number and assigned quality grade in accordance with Annex A.
- 8.1.2 Every target part shall be photographed with at least one image clearly showing the part and any area(s) of damage to support the assigned quality grade in accordance with Annex A.
- 8.1.3 Any unique or unusual feature(s) associated with a target part shall also be accurately described and disclosed in advance to the customer.

¹¹ For example, parts should be stored undercover to avoid weathering, soiling and damage; plastic parts shall be stored to preserve their original shape and prevent scratching, whilst metal parts shall be kept in a dry environment to prevent oxidation (e.g. rusting). Body panels shall not be propped against each other.

8.1.4 The vehicle recycler shall clearly state the terms of business, including timescale for dispatch of the target part, order processing, warranty offered and returns processing. This shall be in accordance with the quality management system as specified in Section 5.2 (Quality Management System).

8.2 Target parts sale

8.2.1 The vehicle recycler shall ensure that the unique target part identification number and VIN is clearly referenced on all document(s) accompanying the sale of every target part¹².

8.2.2 A record of the transaction shall be kept for a minimum of two years or longer if required by law.

8.3 Target parts delivery

8.3.1 The vehicle recycler shall ensure that every target part is inspected prior to dispatch to re-confirm its assigned quality grade and to ensure accuracy of the unique part identification number against the customer's order.

8.3.2 Each target part shall be packaged using suitable materials to prevent damage during delivery.

8.3.3 Each target part shall be placed on the delivery vehicle in a manner to prevent damage during delivery.

8.3.4 Upon the target part leaving the end-of-life vehicle authorised treatment facility, the vehicle recycler shall record this in the site's stock or inventory management system.

¹² This may include the invoice or online transaction reference.

8.4 Target parts warranty

8.4.1 The vehicle recycler shall offer a warranty on every target part. Minimum warranty periods from the date of sale shall be:

- Mechanical target parts: 3 months
- Electrical target parts: 3 months
- Non-mechanical and non-electrical target parts: 12 months
- Batteries and high voltage components: 3 months.

8.5 Target parts traceability

8.5.1 The vehicle recycler shall keep a record of every customer, the part purchased and its unique identification number for a minimum of two years or as required by law to enable notification in the event of a recall by the manufacturer and/or Driver and Vehicle Standards Agency.

8.6 Target parts recalls

8.6.1 The vehicle recycler shall notify every customer who has purchased a part that has been subject to recall immediately after they have been alerted to, or become aware of, the recall. This notification shall include a copy of the original invoice with VIN listed of the recalled part donor vehicle, a letter from the recycler outlining what the recall and hazard is and clear instructions that the customer is to contact their nearest respective vehicle manufacturer or dealership so as to have their vehicle (whose VIN may not be recalled) repaired under the recall.

8.7 Third-party suppliers

8.7.1 A third-party supplier shall be a UK-based end-of-life vehicle authorised treatment facility.

8.7.2 Every target part sourced from a third-party supplier shall be subject to the conditions set out in Sections 6 (End-of-Life Vehicle Acquisition and Identification), 7 (Parts Grading, Testing, Recording and Storage) and 8 (Parts Marketing, Sale, Delivery and Traceability) in this standard.

- 8.7.3 The vehicle recycler shall maintain a record of the third-party supplier and record this on the site's stock or inventory management system.
- 8.7.4 A third-party supplier may also include other authorised treatment facilities operated by the same vehicle recycler that do not comply with this standard¹³.

¹³ This would include, for example, vehicle recyclers that operate multiple ATFs, where target parts are delivered into a central hub that complies with this standard.

9 ANNEX A (NORMATIVE) – VRA TARGET PARTS GRADING CRITERIA

9.1 Purpose

The use of a reclaimed target vehicle part necessarily means that it has been used on its donor vehicle and may therefore be subject to a degree of wear and tear. This annex sets out a methodology developed by the Vehicle Recyclers' Association to enable vehicle recyclers to accurately and consistently grade target vehicle parts based on their quality in order to manage customer expectations, fulfil contractual obligations and comply with consumer law.

9.2 Scope

Target parts have been grouped together based on whether or not they fall into one or more of the following functional categories:

- Mechanical;
- Electrical;
- Appearance sensitive; and/or
- Appearance non-sensitive.

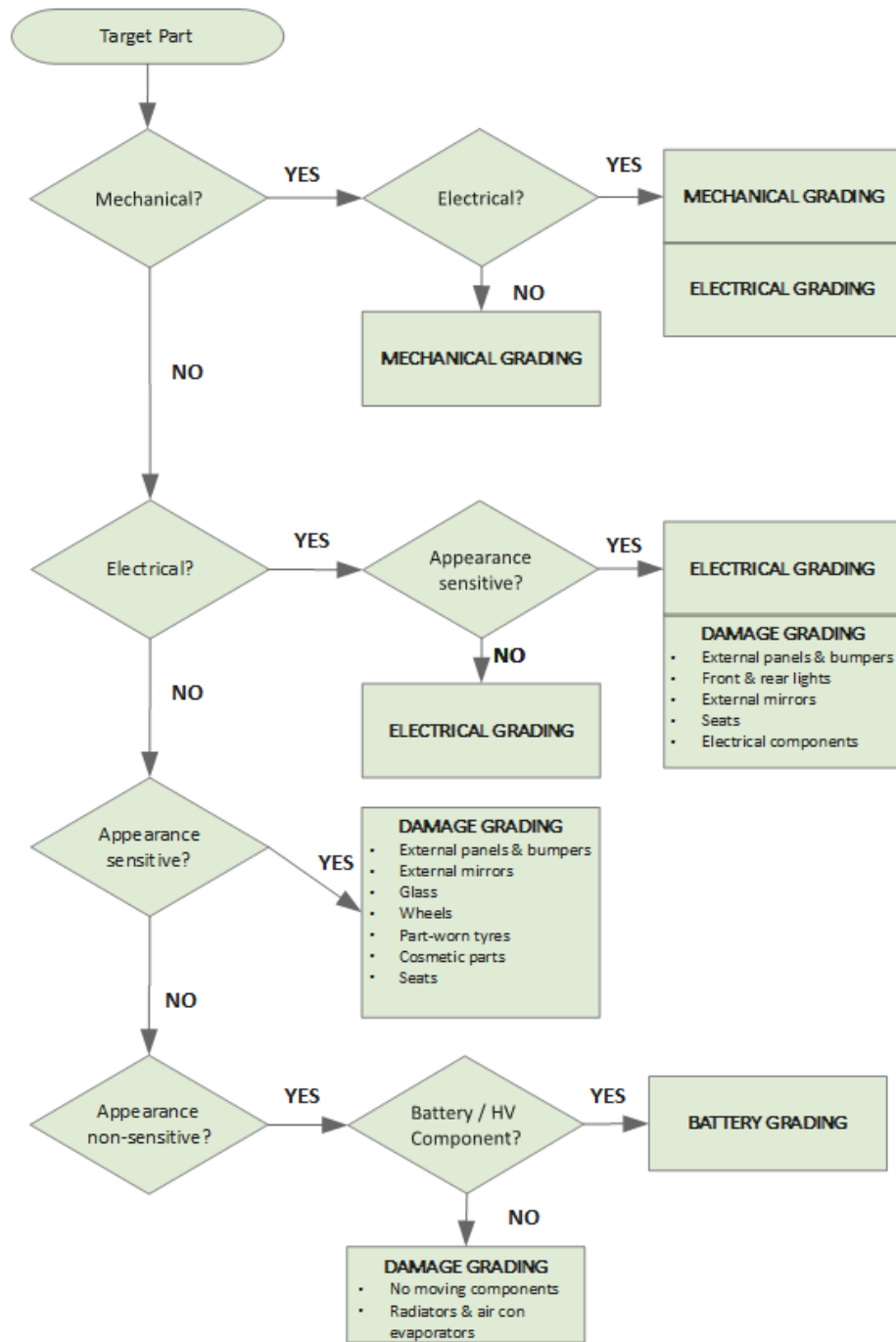
The complexity of modern vehicles means that some components are multifunctional; therefore, a vehicle recycler shall apply the most appropriate product category and grading criteria for that part. A decision-making flow chart is shown in Figure A1.

This annex does not contain an exhaustive list of all vehicle components; the vehicle recycler shall apply the most appropriate product category and grading criteria based on the flow chart (Figure A1).

Target parts shall be identified by the customer in accordance with their own risk preferences and any supply agreement and/or contract they may have with a customer and/or vehicle supplier¹⁴.

¹⁴ This means that some customers, such as insurance companies, may only wish to specify the use of a limited number of target part categories.

Figure A1 – Target parts grading decision flowchart



9.3 Definitions

Appearance Sensitive – A target part that is visible to the customer when *in situ*. It may be an interior or exterior part.

Appearance Non-Sensitive – A target part that is not visible to the customer when *in situ*.

Damage Unit (body panels & wheels) - An area of damage smaller than the area covered by a standard sized credit card (8.5 cm x 5.4 cm).

Electrical – An electrically controlled/operated target part.

Grade A - The highest quality part, with no, or minimal, damage or wear.

Grade B - Contains a small or moderate amount of damage or wear.

Grade C - Contains more than a moderate amount of damage or wear.

Grade U – Target parts that either fall outside of the scope of Grades A, B or C, or whose functionality cannot be tested to operate as intended by the original equipment manufacturer. This grade only applies to specified target parts.

Mechanical - A non-electrically controlled moving target part.

9.4 Exclusions

A target part that is damaged and/or show signs of wear and tear that may compromise its safe re-use or repair shall not be graded.

Target parts that, when re-used, would render the recipient vehicle unfit under the Road Traffic Act (1991) (as amended) or would not pass a Ministry of Transport (MOT) test shall not be graded.

Any sheet metal body parts with the following type of damage or defect shall be excluded:

- Twisted, bent, kinked or deformed structural or reinforcing element; and/or
- Puncture requiring welding; and/or
- Hail damage; and/or
- Previous repair with filler or new outer skin; and/or
- Significant corrosion, for example rusting of a structural seam.

Hammering, straightening or reforming of any kind shall not be undertaken by the vehicle recycler.

Any wheel with the following type of damage shall be excluded:

- Cracks; and/or
- Distortions.

Any tyre with the following type of damage shall be excluded:

- Bulge; and/or
- Split, cut or crack; and/or
- Deterioration of the tyre structure; and/or
- Distortion; and/or
- Uneven tread wear; and/or
- Exposed ply or cord.

Punctures shall be repaired in accordance with BS AU 159G:2013 (Specification for Repairs to Tyres for Motor Vehicles Used on the Public Highway).

9.5 Target parts testing

Whenever technically possible every target part shall be tested to ensure that it operates correctly as intended by the original equipment manufacturer.

Target parts whose functionality cannot be tested to operate as intended by the original equipment manufacturer shall be classed as Grade U. Grade U parts shall be adequately described in accordance with Section 8.1.1 and specify whether the part has or has not been tested.

9.6 Grading criteria

9.6.1 Mechanical grading

This includes engines, and other mechanical components such as gearboxes and driveshafts from motorcycles, cars, motorhomes and light commercial vehicles¹⁵.

The grading of engines and other mechanical components is based on the mileage displayed on the vehicle’s odometer and its age.

Engines and other mechanical components shall be graded according to the criteria specified in Table A1. Grade A, B (1 or 2), C and U engines fall within the scope of this standard.

Table A1 – Grading of engines and other mechanical components

Grade	A	B1	B2	C	U
Mileage	< 60,000 miles	60,000 - 100,000 miles	60,000 - 100,000 miles	>100,000 miles	-
Vehicle age	-	< 5 years old	5 years old and above	-	-
Quality criteria	Parts function correctly as intended by the original equipment manufacturer. No visible or audible damage or malfunction such as a crack, distortion, oil leak, or contaminated oil or coolant.				Parts may not be tested or may not function correctly as intended by the original equipment manufacturer.

¹⁵ Engines and associated mechanical components from busses, coaches and heavy goods vehicles will require a different mileage-based grading system.

9.6.2 Electrical grading

This includes¹⁶, but is not limited to, starter motors, fuel injectors, alternators, radiator cooling fans, anti-lock braking system pumps, air conditioning pumps, windscreen wiper motors, parking and other sensors, window regulators, power steering pumps, hybrid and electric vehicle drive train/wheel motors, engine control units, and other electronic control units.

Batteries are excluded from this category as they have their own grading criteria.

Target electrical parts that function as intended by the original equipment manufacturer shall be classed as Grade A.

Target electrical parts whose functionality cannot be tested to operate as intended by the original equipment manufacturer shall be classed as Grade U.

9.6.3 Damage grading – appearance sensitive

9.6.3.1 External body panels, grilles and bumpers

This category includes, but is not limited to external panels, grilles, inner wing/liners and bumpers. These target parts shall be graded on the amount of damage or number of defects, expressed as a 'damage unit'.

External body panels, grilles and bumpers shall be graded according to Table A2. Grades A, B, C and U fall within the scope of this standard.

NOTE: This grading scheme assumes that the location of the damage/defect on the panel is unimportant. The important factor is the extent of damage (as this reflects the time and cost of repair); however, contracts with commercial/motor trade purchasers may place additional restrictions on the type and location of damage.

¹⁶ As vehicles become more complex, the number of external electrical components is anticipated to increase; therefore, a comprehensive list of components that may fall under this category will increase. VRA will provide guidance in due course.

Table A2 – Grading of external panels and bumpers

Grade	A	B	C	U
Description of quality	<p>The highest quality part, with no or minimal damage or wear. These target parts look similar to a new OEM part.</p> <p>Light surface imperfections on painted parts can be removed by either polishing and/or buffing.</p> <p>Electronic components/sensors operate as intended by the original equipment manufacturer.</p>	<p>Contains a minor/moderate amount of damage or wear. These target parts are easily repairable.</p> <p>Damage requires a repair procedure, including:</p> <ul style="list-style-type: none"> Panel beating; and/or Filling. <p>Electronic components/sensors operate as intended by the original equipment manufacturer.</p>	<p>Contains more than a moderate amount of damage or wear. These target parts may require repair taking longer than an hour.</p> <p>Damage requires a repair procedure, including:</p> <ul style="list-style-type: none"> Panel beating; and/or Filling. <p>Electronic components/sensors operate as intended by the original equipment manufacturer.</p>	<p>Electronic components/sensors do not operate as intended by the original equipment manufacturer</p> <p>or</p> <p>Testing of electronic components/sensors has not been carried out</p> <p>or</p> <p>Correct operation of electronic components/sensors cannot be confirmed.</p> <p>Damage or wear may be the same as either A, B or C.</p>
Quality criteria	Total area of damage <1 unit of repair	Total area of damage 1-2 units of repair	Total area of damage >2 units of repair	Same as either A, B or C.

9.6.3.2 *Light units*

Light units include front and/or rear lights.

Light units shall be graded according to the criteria specified in Table A3. Grades A, B, C and U fall within the scope of this standard.

Table A3 – Grading of front and rear light units

Grade	A	B	C	U
<p>Description of quality</p>	<p>The light unit has been visually inspected and meets the following criteria:</p> <ul style="list-style-type: none"> All seals and mounting brackets are intact; It does not appear to be cloudy, pitted, broken or contain cracks; and There is no internal moisture or corrosion. <p>Electronic components/ sensors operate as intended by the original equipment manufacturer.</p> <p>All permanently attached mounting hardware is intact and undamaged.</p>	<p>The light unit meets the Grade A criteria but may contain cosmetic imperfections.</p> <p>If included, electronic components/ sensors operate as intended by the original equipment manufacturer.</p> <p>All permanently attached mounting hardware is intact and undamaged.</p>	<p>The light unit is of a lower quality than Grade A or B but is still functional.</p> <p>These target parts may require minor repair.</p> <p>Electronic components/ sensors operate as intended by the original equipment manufacturer.</p>	<p>Ancillary electronic components/ sensors do not operate as intended by the original equipment manufacturer</p> <p>or</p> <p>Testing of electronic components/ sensors has not been carried out.</p> <p>or</p> <p>Correct operation of electronic components/sensors cannot be confirmed.</p> <p>Damage or wear may be the same as either A, B or C.</p>

Table A3 continued – Grading of front and rear light units

Grade	A	B	C	U
Example damage	None. These target parts look similar to a new OEM part.	Light surface scratches to the lens.	<ul style="list-style-type: none"> • Slight clouding of the lens; and/or • A cracked mounting bracket; and/or • Light surface scratches to the lens. 	Same as either A, B or C.

9.6.3.3 External mirrors

External mirrors include door and wing mirrors.

External mirrors shall be graded according to the criteria specified in Table A4. Grades A, B, C and U fall within the scope of this standard.

Table A4 – Grading of external mirrors

Grade	A	B	C	U
Description of quality	<p>These target parts look similar to a new OEM part.</p> <p>The body, cover and glass are not cloudy, pitted, broken or cracked.</p> <p>Electronic components/sensors and mechanical components operate as intended by the original equipment manufacturer.</p> <p>All permanently attached mounting hardware is intact and undamaged.</p>	<p>The body, cover and glass are not cloudy, pitted, broken or cracked.</p> <p>Electronic components/sensors and mechanical components operate as intended by the original equipment manufacturer.</p> <p>All permanently attached mounting hardware is intact and undamaged.</p>	<p>The body, cover and glass are of a lower quality than A or B. The unit is still functional but may need minor repair.</p>	<p>Electronic components/sensors do not operate as intended by the original equipment manufacturer</p> <p>or</p> <p>Testing of electronic components/sensors has not been carried out.</p> <p>or</p> <p>Correct operation of electronic components/sensors cannot be confirmed.</p>
Example damage	<p>The painted cover may have minor defects (e.g. light scratches and grazes) that can be removed by either polishing and/or buffing.</p> <p>This is consistent with sheet metal/panel Grade A (<1 unit of repair).</p>	<p>The painted cover may have minor defects (e.g. light scratches and grazes) that require a repair procedure.</p> <p>This is consistent with sheet metal/panel Grade B (1-2 units of repair).</p>	<p>The painted cover may have defects (e.g. scratches and grazes) that require a repair procedure.</p> <p>This is consistent with sheet metal/panel Grade C (>2 units of repair).</p>	<p>Same as either A, B or C.</p>

9.6.3.4 Glass panels

This includes windscreen, sunroof, door and tailgate glass.

Glass panels shall be graded according to the criteria specified in Table A5. Grades A, B and U glass panels fall within the scope of this standard.

Table A5 – Grading of glass panels

Grade	A	B	U
Description of quality	<p>The glass is not cloudy, pitted, broken, cracked, chipped or scratched.</p> <p>All included electronics and motors are functional, and all permanently attached.</p> <p>Mounting hardware is intact and undamaged.</p>	<p>The glass is not broken or cracked but may contain imperfections that do not compromise the structural integrity and safety of the glass.</p> <p>Electronics and motors may not function.</p>	<p>The glass is not broken or cracked but may contain imperfections that do not compromise the structural integrity and safety of the glass.</p> <p>Electronics and motors may not function.</p> <p>The glass may be etched with the registration number or chassis number of the donor vehicle.</p>
Example damage	<p>None.</p> <p>These target parts look similar to a new OEM part.</p>	<p>Light scratches and weathering.</p>	<p>Light scratches and weathering.</p>

9.6.3.5 *Wheels*

Wheels shall be graded in the same way as body panels (on a unit of damage basis) according to the criteria specified in Table A6.

Any damage shall not affect the structural integrity and/or compromise the safety of the wheel.

Grades A, B and C fall within the scope of this standard.

Wheels that fall outside of Grades A, B or C shall not be classed as Grade U.

Table A6 – Grading of wheels

Grade	A	B	C
Description of quality	Undamaged with only minor visual blemishes/ imperfections.	Light kerbing, scuff, lacquer peel or corrosion	Light kerbing, scuff, lacquer peel or corrosion. Contain minor deformations that can be rectified by balancing.
Extent of damage	Total area of damage <1 unit These target parts look similar to a new OEM part.	Total area of damage 1 - 2 units of damage	Total area of damage >2 units

NOTE: Wheels having any crack and/or major distortion shall not be graded. Hammering, straightening or any kind of reforming of the wheel shall not be undertaken by the recycler.

9.6.3.6 *Part-worn tyres*

The sale of part-worn tyres shall comply with The Motor Vehicle Tyres (Safety) Regulations 1994.

Tyres on unused spare wheels shall also be classed as part-worn.

Punctures shall be repaired in accordance with BS AU 159G:2013 (Specification for repairs to tyres for motor vehicles used on the public highway).

Part-worn tyres shall be less than 10 years old.

Tyres shall be graded according to the criteria specified in Table A7. Only Grade A and B seats fall within the scope of this standard. Part-worn tyres that fall outside of Grades A and B shall not be classed as Grade U.

Table A7 – Grading of part-worn tyres

Grade	A	B
Description of quality	The tyre shall not have any of the following: a bulge, split, cut, crack or uneven tread wear, perishing or deterioration of the tyre structure, distortion or exposed ply or cord.	
Tread depth	5-8 mm	3-5 mm

9.6.3.7 Cosmetic parts

This includes, but is not limited to, interior trim panels, parcel shelves, dashboards, steering wheels, carpets and headliners. It excludes electrical components.

Cosmetic parts shall be graded according to the criteria specified in Table A8. Grades A, B, C and U cosmetic parts fall within the scope of this standard.

Table A8 – Grading of cosmetic parts

Grade	A	B	C	U
Description of quality	<p>Clean and undamaged without any visual imperfections.</p> <p>The part shall not be scratched or ripped.</p>	<p>Structurally undamaged but may contain minor imperfections.</p>	<p>Structurally undamaged but may contain moderate imperfections.</p>	<p>Cosmetic parts that fall outside of the scope of Grades, A, B or C.</p>
Example damage	<p>None.</p> <p>These target parts look similar to a new OEM part.</p>	<p>Light staining or marks.</p>	<p>The target part may be stained or marked but is still functional.</p>	<p>-</p>

9.6.3.8 Seats

Seats shall be graded according to the criteria specified in Table A9. Grade A, B and U seats fall within the scope of this standard.

Table A9 – Grading of seats

Grade	A	B	U
Description of quality	<p>These target parts look similar to a new OEM part.</p> <p>Clean and undamaged without any visual imperfections.</p> <p>Frame undamaged.</p> <p>All motors and associated parts function properly.</p>	<p>Structurally undamaged but may contain minor imperfections.</p>	<p>May contain major imperfections.</p>
Extent of damage	<p>None.</p>	<p>Light staining or marks; bolt-on motors non-functional.</p>	<p>Heavy staining; rips or tears in the fabric / trim; bolt-on motors non-functional.</p>

9.6.3.9 Electrical components

This includes¹⁷, but is not limited to, dashboard switches, door switches, column switches, ignition switches, steering wheel switches, audio and infotainment units, satellite navigation systems, rear view mirrors with sensors, cameras, heater control units, instrument panels, heater fans, alarms and eCall systems.

Batteries are excluded from this category as they have their own grading criteria.

¹⁷ As vehicles become more complex, the number of internal electrical components is anticipated to increase; therefore, a comprehensive list of components that may fall under this category will increase. VRA will provide guidance in due course.

Electrical components shall be graded according to the criteria specified in Table A10. Grade A, B and U seats fall within the scope of this standard.

Table A10 – Grading of electrical components

Grade	A	B	U
Description of quality	<p>These target parts are similar to a new OEM part.</p> <p>The part shall function as intended by the original equipment manufacturer.</p> <p>Clean and undamaged without any visual imperfections.</p>	<p>The part shall function as intended by the original equipment manufacturer.</p> <p>May contain minor cosmetic imperfections.</p>	<p>The part has not been tested to function as intended by the original equipment manufacturer.</p> <p>or</p> <p>Correct operation cannot be confirmed.</p> <p>or</p> <p>May contain major cosmetic imperfections.</p>
Example damage	None.	Light staining or marks.	Heavy staining or marks.

9.6.4 Damage grading – appearance non-sensitive

9.6.4.1 *Parts with no moving components*

This includes, but is not limited to, parts that have no moving components such as track control arms, stabilizer bars, sub-frames, axles, hubs, anti-roll bars, fuel tanks, tow bars, washer bottles, air cleaner/box, wheel arch liners, body under shields, bumper reinforcers and chassis extensions.

These parts shall not be bent, twisted, distorted, cracked or excessively corroded. They shall function as intended by the original equipment manufacturer. All mounting points shall be intact. All target parts in this category shall be classed as Grade A¹⁸.

9.6.4.2 Radiators and air conditioning evaporators

Radiators and air conditioning evaporators shall not have any cracks, bends, leaks, compressed fins or damage to the mounting brackets and fixings. Air conditioning evaporators shall show no evidence of F-gas egress from the system as evidenced by fluorescent dye staining of the exterior.

Coolant shall not be contaminated with oil.

Radiators and air conditioning evaporators shall be graded as either A, B or U according to the criteria in Table A11.

¹⁸ There is no Grade B or C in this category, as all parts should function as intended by the original equipment manufacturer. They shall also comply with the Road Traffic Act (1991) (as amended) and Ministry of Transport (MOT) testing criteria.

Table A11 - Grading of radiators and air conditioning evaporators

Grade	A	B	U
Description of quality	<p>The part should function as intended by the original equipment manufacturer.</p> <p>Clean and undamaged without any visual imperfections.</p>	<p>The part should function as intended by the original equipment manufacturer.</p> <p>May contain minor cosmetic imperfections.</p>	<p>The part has not been tested to function as intended by the original equipment manufacturer.</p> <p>or</p> <p>Correct operation cannot be confirmed.</p> <p>or</p> <p>May contain major cosmetic imperfections.</p>
Example damage	None.	Crack in a mounting bracket that doesn't affect performance or safety of the part.	-

9.6.5 Grading criteria – batteries & high voltage components

9.6.5.1 Lead acid batteries

The casing and terminals shall be fully intact, not show signs of electrolyte leakage and shall be undamaged. The battery shall function as intended by the original equipment manufacturer. All lead acid batteries shall be classed as Grade A¹⁹.

¹⁹ There is no Grade B or C in this category, as all lead acid batteries should operate as intended by the original equipment manufacturer.

9.6.5.2 *High voltage batteries*

This includes lithium ion and nickel cadmium batteries.

The casing and electrical connections shall be fully intact and undamaged, and the battery shall function as intended by the original equipment manufacturer. There shall be no evidence of impact, water or fire damage.

A full vehicle scan shall be completed prior to dismantling the vehicle with the condition of the battery, the state of charge of the battery and individual cell/module readings recorded.

A 'run test' shall also be completed to confirm that the assembly works as intended by the original equipment manufacturer.

The service disconnect (orange) plug shall be intact and supplied with - but not fitted to - the high voltage battery.

High voltage batteries shall be graded according to the criteria in Table A12. Grades A, B and C fall within the scope of this standard.

Table A12 – Grading of high voltage batteries

Grade	A	B	C
Mileage	<30,000 miles	30,000 - 60,000 miles	>60,000 miles
Vehicle Age	<3 years old	3 - 6 years old	> 6 years old
Notes	Scan data comparable to manufacturers original equipment settings and run test available	Scan data comparable to manufacturers original equipment settings and run test available	Scan data comparable to manufacturers original equipment settings and run test available

9.6.5.3 High voltage components other than batteries

This includes, but is not limited to, high voltage inverters, converters, air conditioning pumps and electric motors. It may also include complete transmission packs from a high voltage vehicle that include an electric motor.

The casing and electrical connections shall be fully intact and undamaged and shall function as intended by the original equipment manufacturer. There shall be no evidence of impact, water or fire damage.

A ‘run test’ shall also be completed to confirm that the assembly works as intended by the original equipment manufacturer.

High voltage components shall be graded according to the criteria in Table A13. Grades A, B and C fall within the scope of this standard.

Table 13 – Grading of high voltage components

Grade	A	B	C
Mileage	<30,000 miles	30,000 - 60,000 miles	>60,000 miles
Vehicle Age	<3 years old	3 - 6 years old	> 6 years old
Notes	No evidence of incorrect oil or coolant being used, no cracks, distortion, leaks or evidence of water ingress into component. Run test available	No evidence of incorrect oil or coolant being used, no cracks, distortion, leaks or evidence of water ingress into component. Run test available	No evidence of incorrect oil or coolant being used, no cracks, distortion, leaks or evidence of water ingress into component. Run test available

NOTE: All cables and connections shall be removed from their high voltage components in accordance with the manufacturer’s instructions or recognised safe system of work. High voltage orange cables shall NEVER be cut.

10 ANNEX B (NORMATIVE) – MULTI-COMPONENT PARTS DESCRIPTION

10.1 Purpose

Some vehicle parts consist of multiple components, which may be sold collectively or individually. In order to manage customer expectations, fulfil contractual obligations and comply with consumer law vehicle recyclers shall ensure that multi-component parts are accurately described.

This annex sets out criteria to aid a vehicle recycler accurately describe a multi-component target part.

10.2 Multi-component target part categories

A vehicle recycler shall describe a reclaimed target part on the same basis as new original equipment as supplied by a dealer.

A multi-component part, such as a door, bonnet or bumper, shall be described as either **bare** or **dressed** according to the criteria in Table B1.

Table B1 – Multi-component target parts description criteria

Category	BARE	DRESSED
Criteria	Supplied on the same basis as new original equipment as supplied by a dealer e.g. a door with all non-shell components removed (e.g. glass, rubber, rubbing strips, locks, wiring etc.); or an engine without starter motor, alternator, turbo charger, AC pump etc.	Supplied with components, as specified by the customer. Specified components shall function correctly. Components shall be listed individually on any invoice accompanying the part.

Examples of bare and dressed multi-component target parts are illustrated in Table B2.

Table B2 – Examples of bare and dressed multi-component target parts

PART	BARE	DRESSED	EXCLUDED PARTS	NOTES
Door	Door shell only as supplied by original equipment manufacturer.	Door shell plus: <ul style="list-style-type: none"> • Glass (as optioned) • Window regulator and/or motor • Lock mechanism but not key cylinder • Exterior door handle • Exterior mouldings & trims • Interior door handle/ catch • Speaker • Wiring to first disconnect 	<ul style="list-style-type: none"> • Lock cylinder • Interior trim panel • Door mirror • SRS components • Wiring harness if no disconnect 	May be multiple different options fitted, which may also reflect in wiring harness etc. All parts numbers must match if supplied dressed

PART	BARE	DRESSED	EXCLUDED PARTS	NOTES
Front Wings	Wing as supplied by original equipment manufacturer.	Bare wing plus: <ul style="list-style-type: none"> • Side repeaters lamps • Grilles • Mouldings 		Splash guards etc. to be regarded and ordered as separate items.
Bonnet	Bonnet shell as supplied by original equipment manufacturer.	Bare bonnet shell plus: <ul style="list-style-type: none"> • Latches • Catches • Insulator pad • Emblem/ badge 	<ul style="list-style-type: none"> • Hinges • SRS components fitted to bonnet hinges 	
Bumper	Bare main bumper cover as supplied by original equipment manufacturer.	Main bumper cover plus: <ul style="list-style-type: none"> • Rubbing strips • Bottom spoiler/ splitter • Number plate plinth (if fitted) • Radiator top grille • Bottom grill • Parking sensors 	<ul style="list-style-type: none"> • Mounting brackets • Impact absorber pad • Crash/ reinforcing bar • Fog/ spot/ reversing lights • Headlamp wash/wipe components 	
Boot Lid/ Tailgate	Bare tailgate shell as supplied by original equipment manufacturer.	Bare tailgate shell plus: <ul style="list-style-type: none"> • Glass • Weather strips • Mouldings • Latches/ catches/ locks • Brake/ reverse lamps & reflectors (where fitted) • Exterior trim panels • Number plate plinth • Number plate lamps 	<ul style="list-style-type: none"> • Key lock cylinder • Interior trim panels • Wiring harness • Reversing camera • Rear wiper motor • Rear wiper arm/ blade 	

PART	BARE	DRESSED	EXCLUDED PARTS	NOTES
Door Mirror	As supplied complete by original equipment manufacturer	Supplied complete, including: <ul style="list-style-type: none"> • Body • Glass • Motor • Cover • Integrated indicator/lamps sensors & cameras 	<ul style="list-style-type: none"> • Mirror control switch • Interior trim panel 	
Headlight/rear lights	As supplied by original equipment manufacturer	Supplied complete, including Housing <ul style="list-style-type: none"> • Lens • Motors • Wiring (to first connection) • Igniters/transformers etc required for Xenon/LED and other new technology lamps 	<ul style="list-style-type: none"> • Mouldings that are separate to the unit • Wiring harness if no connection 	OE headlight may not be supplied with bulbs, motors, igniters, ECUs etc.
Engine	As supplied by the original equipment manufacturer – cylinder head, block and sump only.	Supplied complete, including: <ul style="list-style-type: none"> • Inlet & exhaust manifold (if no integral catalyst) • Water pump • Fuel pump • Turbo (if fitted) • Injectors etc 	<ul style="list-style-type: none"> • Starter motor • Alternator • Air-con pump • Power steering pump • Catalyst 	An engine wiring loom may also need to be supplied.

NOTE: As there is significant option/specification variation within and between component assemblies, this means that a vehicle recycler shall need to ensure that:

- All relevant component parts are supplied according to the customer's requirements; and
- The part number on every individual component in an assembly is matched correctly.



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