

TECHNICAL CONSTRUCTION FILE (TCF)

The company mentioned below has been audited, according to below stated standard EN ISO 6892-1:2019

- Applicant: Hangzhou Four Wheel Auto Parts Co., Ltd. Address: Room 618, Bldg. 21, Weishangmingfu Wuchang Street, Yuhang District, Hangzhou City, Zhejiang Province, China
- Manufacturer: Hangzhou Four Wheel Auto Parts Co., Ltd. Address: Room 618, Bldg. 21, Weishangmingfu Wuchang Street, Yuhang District, Hangzhou City, Zhejiang Province, China
- Product Description: Aluminium Ramp

Product Model: WR1060-B5

Test Engineer: Eric liu

Test Date: Jan. 15, 2021

Issuance Date: Jan. 28, 2021

Reviewed By:



| EN ISO 6892-1:2019 | | | | |
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| Clause | Test Requirement | | Remark | Verdict |

| Test RequirementsEN ISO 6892-1:2019PTest documentationReport No. SLQP-21/BZZS-6348PAluminum TypeAL6061-T6PCapacity1100lbs/pcPThe test involves straining a test piece in tension, generally to fracture, for the purpose of determining one or more of the mechanical properties defined in clause 4. The test is carried out at ambient temperature between 10 °C and 35 °C, unless otherwise specified. Tests carried out under controlled conditions shall be made at a temperature of 23 °C ± 5 °C.P4Terms and definitionsP5For the purpose of this European Standard, the following terms and definitions apply :Pgauge length (L) length of the cylindrical or prismatic portion of the test piece on which elongation is measured. In particular, a distinction is made between :P4.1.1original gauge length (Lo) gauge length of the cylindrical or force4.1.2final gauge length (Lu) gauge length (L) gauge length (L) gauge length after rupture of the test piece (see 11.1)NOTE The concept of parallel length is replaced by the concept of distance between grips for non-machine dest pieces.NOTE The concept of parallel length is replaced by the concept of distance between grips for non-machine dest pieces.N | 3.1 | General | | |
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| Clause | Test Requirement | | Remark | Verdict |

| 4.3 | elongation increase in the original gauge length (Lo) at any moment during the test | | Ρ |
|-------|---|---|---|
| 4.4 | percentage elongation elongation expressed as a percentage of the original gauge length (Lo) | | Р |
| 4.4.1 | percentage permanent elongation increase in the original gauge length of a test piece after removal of a specified stress (see 4.9), expressed as a percentage of the original gauge length (Lo) | | Р |
| 4.4.2 | percentage elongation after fracture (A) permanent elongation of the gauge length after fracture (Lu - Lo), expressed as a percentage of the original gauge length (Lo) | In the case of proportional test pieces, only if the original gauge length is other than 5,65 So 1) where So is the original cross-sectional area of the parallel length, the symbol A should be supplemented by an index indicating the coefficient of proportionality used, for example : | Ρ |
| 4.4.3 | percentage total elongation at fracture (At) total elongation (elastic elongation plus plastic elongation) of the gauge length at the moment of fracture expressed as a percentage of the original gauge length (Lo) | | Ρ |
| 4.4.4 | percentage elongation at maximum force increase in the gauge length of the test piece at maximum force, expressed as a percentage of the original gauge length (Lo) | A distinction is made between the percentage total elongation at maximum force (Agt) and the percentage nonproportional elongation at maximum | Ρ |

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| Clause | Test Requirement | Remark | Verdict | |

| | | force (Ag) (see Figure 1). | |
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| 4.5 | extensometer gauge length (Le) length of the parallel portion of the test piece used for the measurement of extension by means of an extensometer | It is recommended that for measurement of yield and proof strength parameters Le Lo/2. It is further recommended that for measurement of parameters "at" or "after" maximum force, Le is approximately equal to Lo. | Р |
| 4.6 | extension increase in the extensometer gauge length (Le) at a given moment of the test | | Р |
| 4.6.1 | percentage permanent extension increase in the extensometer gauge length, after removal from the test piece of a specified stress, expressed as a percentage of the extensometer gauge length (Le) | | Ρ |
| 4.6.2 | percentage yield point extension (Ae) in discontinuous yielding materials, the extension between the start of yielding and the start of uniform work hardening | It is expressed as a percentage of the extensometer gauge length (Le). | Ρ |
| 4.7 | percentage reduction of area (Z) maximum change in cross-sectional area which has occurred during the test (So - Su) expressed as a percentage of the original cross-sectional area (So) | | Ρ |
| 4.8 | maximum force (Fm) the greatest force which the test piece withstands during the test once the yield point has been passed | | Р |
| | For materials, without yield point, it is the maximum value during the test. | | Р |

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| Clause | Test Requirement | | Remark | Verdict |

| 4.9 | stress force at any moment during the test divided by the original cross-sectional area (So) of the test piece | | Ρ |
|---------|---|---|---|
| 4.9.1 | tensile strength (Rm) stress corresponding to the maximum force (Fm) | | Р |
| 4.9.2 | yield strength when the metallic material exhibits a yield phenomenon, stress corresponding to the point reached during the test at which plastic deformation occurs without any increase in the force. A distinction is made between : | | Ρ |
| 4.9.2.1 | upper yield strength (ReH) value of stress at the moment when the first decrease in force is observed (see Figure 2) | | Ν |
| 4.9.2.2 | lower yield strength (ReL) lowest value of stress during plastic yielding, ignoring any initial transient effects (see Figure 2) | | Ν |
| 4.9.3 | proof strength, non-proportional extension (Rp) stress at which a non-proportional extension is equal to a specified percentage of the extensometer gauge length (Le) (see Figure 3) | The symbol used is followed by a suffix giving the prescribed percentage, for example : Rp0,2. | Р |
| 4.9.4 | proof strength, total extension (Rt) stress at which total extension (elastic extension plus plastic extension) is equal to a specified percentage of the extensometer gauge length (Le) (see Figure 4) | The symbol used is followed by a suffix giving the prescribed percentage for example : Rt0,5. | Ρ |

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| Clause | Test Requirement | Remark | Verdict | | |
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| 4.9.5 | permanent set strength (Rr) stress at which, after removal of force, a specified permanent elongation or extension expressed respectively as a percentage of the original gauge length (Lo) or extensometer gauge length (Le) has not been exceeded (see Figure 5) | The symbol used is followed by a suffix giving the specified percentage of the original gauge length (Lo) or of the extensometer gauge length (Le), for example : Rr0,2. | Ρ | | |
| 4.10 | fracture phenomena which is deemed to occur when total separation of the test piece occurs or force decreases to become nominally zero | | Ρ | | |
| 5 | Symbols and designations | | Р | | |
| | Symbols and corresponding designations are given in Table 1. | | Р | | |

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| I able 1 — Symbols and designations |
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| Reference number ^a | Symbol | Unit | Designation |
|----------------------------------|------------------|------|---|
| | | | Test piece |
| 1 | ab | mm | Thickness of a flat test piece or wall thickness of a tube |
| 2 | b | mm | Width of the parallel length of a flat test piece or average width of the longitudinal strip taken from a tube or width of flat wire |
| 3 | d | mm | Diameter of the parallel length of a circular test piece, or diameter of round wire or internal diameter of a tube |
| 4 | D | mm | External diameter of a tube |
| 5 | Lo | mm | Original gauge length |
| - | Ľ _o | mm | Initial gauge length for determination of Ag (see annex H) |
| 6 | L _c | mm | Parallel length |
| - | L _e | mm | Extensometer gauge length |
| 7 | 4t | mm | Total length of test piece |
| 8 | L _u | mm | Final gauge length after fracture |
| - | Ľu | mm | Final gauge length after fracture for determination of A_g (see annex H) |
| 9 | S ₀ | mm² | Original cross-sectional area of the parallel length |
| 10 | S _u | mm² | Minimum cross-sectional area after fracture |
| - | k | - | Coefficient of proportionality |
| 11 | Z | % | Percentage reduction of area : $\frac{S_o - S_u}{S_o} \times 100$ |
| 12 | - | - | Gripped ends |
| | | | Elongation |
| 13 | - | mm | Elongation after fracture : |
| | | | $L_{u} - L_{o}$ |
| 14 | AC | % | Percentage elongation after fracture : |
| | | | $\frac{L_u - L_o}{L_o} \times 100$ |
| 15 | Ae | % | Percentage yield point extension |
| - | ∆ [∠] m | mm | Extension at maximum force |
| 16 | Ag | % | Percentage non-proportional elongation at maximum force (Fm) |
| 17 | A _{gt} | % | Percentage total elongation at maximum force (Fm) |
| 18 | At | % | Percentage total elongation at fracture |
| 19 | - | % | Specified percentage non-proportional extension |
| 20 | - | % | Percentage total extension (see R _t) |
| 21 | - | % | Specified percentage permanent set extension or elongation |

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| Clause | Test Requirement | Remark | Verdict |

| Table 1 (| concluded) |
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| Reference | Symbol | Unit | Designation |
|--------------------------|-------------------|------------------|--|
| number ^a | | | |
| | | | Force |
| 22 | F _m | Ν | Maximum force |
| | | | Yield strength - Proof strength - Tensile strength |
| 23 | R _{eH} | MPa ^d | Upper yield strength |
| 24 | R _{eL} | MPa | Lower yield strength |
| 25 | R _m | MPa | Tensile strength |
| 26 | Rp | MPa | Proof strength, non-proportional extension |
| 27 | R _r | MPa | Permanent set strength |
| 28 | Rt | MPa | Proof strength, total extension |
| - | Е | MPa | Modulus of elasticity |
| ^a See Figures | 1 to 13. | | |
| b The symbol | Tis also used | d in steel tuk | be product standards. |
| c See 4.4.2. | | | |
| d 1 MPa = 1 N/ | mm ² . | | |

| EN ISO 6892-1:2019 | | | |
|--------------------|------------------|--------|---------|
| Clause | Test Requirement | Remark | Verdict |

| 6 | Test piece | |
|-------|---|---|
| 6.1 | Shape and dimensions | |
| 6.1.1 | General | |
| | The shape and dimensions of the test pieces depend on the shape and dimensions of the metallic product from which the test pieces are taken. | Р |
| | The test piece is usually obtained by machining a sample from the product or a pressed blank or casting. However products of constant cross-section (sections, bars, wires, etc.) and also as cast test pieces (i.e. for cast irons and non-ferrous alloys) may be tested without being machined. | Ρ |
| | The cross-section of the test pieces may be circular, square, rectangular, annular or, in special cases, of some other shape. | Р |
| | Test pieces, the original gauge length of which is related to the original cross-sectional area by the equation Lo = k So are called proportional test pieces. The internationally adopted value for k is 5,65. The original gauge length shall be not less than 20 mm. When the cross-sectional area of the test piece is too small for this requirement to be met with the coefficient k value of 5,65, a higher value (preferably 11,3) or a non-proportional test piece may be used. | Ρ |
| | In the case of non-proportional test pieces, the original gauge length (Lo) is taken independently of the original cross-sectional area (So). | Ρ |

| | EN ISO 6892-1:2019 | | | |
|--------|--|--------|---------|--|
| Clause | Test Requirement | Remark | Verdict | |
| | 1 | | | |
| | The dimensional tolerances of the test pieces shall be in accordance with the appropriate annexes (see 6.2). | | Ρ | |
| 6.1.2 | Machined test pieces | | | |
| | Machined test pieces shall incorporate a transition curve between the gripped ends and the parallel length if these have different dimensions. The dimensions of this transition radius may be important and it is recommended that they be defined in the material specification if they are not given in the appropriate annex (see 6.2). | | Р | |
| | The gripped ends may be of any shape to suit the grips of the testing machine. The parallel length (Lc) or, in the case where the test piece has no transition curve, the free length between the grips, shall always be greater than the original gauge length (Lo). | | Ρ | |
| 6.1.3 | Non-machined test pieces | | | |
| | If the test piece consists of an unmachined length of the product or of an unmachined test bar, the free length between the grips shall be sufficient for gauge marks to be at a reasonable distance from the grips (see annexes B to E). | | Ρ | |
| | As-cast test pieces shall incorporate a transition radius between the gripped ends and the parallel length. The dimensions of this transition radius are important and it is recommended that they be defined in the product standard. The gripped ends may be of any shape to suit the grips of the testing machine. The parallel length (Lc) shall always be greater than the original | | Ρ | |

| EN ISO 6892-1:2019 | | | |
|--------------------|------------------|--------|---------|
| Clause | Test Requirement | Remark | Verdict |

| | gauge length (Lo). | |
|-----|--|---|
| 6.2 | Types | |
| | The main types of test pieces are defined in annexes B to E according to the shape and type of product, as shown in Table 2. Other types of test pieces can be specified in product standards. | Ρ |

| | Type of product | |
|---|------------------------|------------------------|
| Sheets – Plates – Flats With a thickness in millimetres of | Wire - Bars – Sections | Corresponding annex |
| $0,1 \le \text{thickness} \le 3$ | - | В |
| - | < 4 | С |
| <u>≥</u> 3 | ≥ 4 | D |
| | Tubes | E |

| | EN ISO 6892-1:2019 | | | |
|--------|---|--------|---------|--|
| Clause | Test Requirement | Remark | Verdict | |
| | | | | |
| 6.3 | Preparation of test pieces | | | |
| | The test pieces shall be taken and prepared in accordance with the requirements of the relevant European Standards for the different materials (e.g. EN ISO 377, etc.). | | N | |
| 7 | Determination of original cross-sectional area (So) The original cross-sectional area shall be calculated from the measurements of the appropriate dimensions. The accuracy of this calculation depends on the nature and type of the test piece. It is indicated in annexes B to E for the different types of test pieces. | | Ρ | |
| 8 | Marking the original gauge length (Lo) | | | |
| | Each end of the original gauge length shall be marked by means of fine marks or scribed lines, but not by notches which could result in premature fracture. | | Ρ | |
| | For proportional test pieces, the calculated value of the original gauge length may be rounded off to the nearest multiple of 5 mm, provided that the difference between the calculated and marked gauge length is less than 10 % of Lo. The original gauge length shall be marked to an accuracy of \pm 1 %. | | Р | |
| | If the parallel length (Lc) is much greater than the original gauge length, as, for instance, with unmachined test pieces, a series of overlapping gauge lengths may be marked. | | Р | |
| | In some cases, it may be helpful to draw, on the surface of the test piece, a line | | Р | |

| EN ISO 6892-1:2019 | | | |
|--------------------|------------------|--------|---------|
| Clause | Test Requirement | Remark | Verdict |

| | parallel to the longitudinal axis, along which the gauge lengths are marked. | | |
|------|---|---|---|
| 9 | Accuracy of testing apparatus | | |
| | The force-measuring system of the testing machine shall be calibrated in accordance with EN ISO 7500-1 and shall be at least of class 1. | | Р |
| | When an extensometer is used it shall be at least of class 1 (according to EN 10002-4) for the determination proof strength (non-proportional extension) ; for other properties (with higher extension) a class 2 extensometer (according to EN 10002-4) can be used. | For the determination of upper and lower yield strengths, the use of an extensometer is not necessary. | Ρ |
| 10 | Conditions of testing | | |
| 10.1 | Method of gripping | | |
| | The test pieces shall be held by suitable means such as wedges, screwed grips, parallel jaw faces, shouldered holders, etc. | | Р |
| | Every endeavour should be made to ensure that test pieces are held in such a way that the tension is applied as axially as possible, in order to minimize bending. This is of particular importance when testing brittle materials or when determining proof strength (non-proportional extension) or proof strength (total extension) or yield strength. | In order to obtain a straight test piece and assure the alignment of the test piece and grip arrangement, a preliminary force may be applied provided it does not exceed a value orresponding to 5 % of the specified or expected yield strength. A correction of the extension should only be carried out to take into account the effect of the preliminary force. | Ρ |

| EN ISO 6892-1:2019 | | | |
|--------------------|---|--------|---------|
| Clause | Test Requirement | Remark | Verdict |
| | | | |
| 10.2 | Test rate | | |
| 10.2.1 | General | | |
| | Unless otherwise specified in the product standard, the test rate shall conform to the following requirements depending on the nature of the material. | | Ρ |
| | The stress rates in Table 3 and the strain rates referred to throughout 10.2 do not imply specific modes of control by the testing machine. | | Ρ |
| 10.2.2 | Yield and proof strengths | | Р |
| 10.2.2.1 | Upper yield strength (ReH) | | |
| | Within the elastic range and up to the upper yield strength, the rate of separation of the crossheads of the machine shall be kept as constant as possible and within the limits corresponding to the stress rates in Table 3. | | Ρ |

Table 3- Stress rate

| Modulus of elasticity | Stress rate | |
|-----------------------|-------------|-----|
| of the material (E) | Mpa.s-1 | |
| МРа | Min | Max |
| < 150 000 | 2 | 20 |
| ≥150 000 | 6 | 60 |

| 10.2.2.2 | Lower yield strength (ReL) | |
|----------|---|---|
| | If only the lower yield strength is being determined, the strain rate during yield of | Р |

| EN ISO 6892-1:2019 | | | |
|--------------------|---|--------|---------|
| Clause | Test Requirement | Remark | Verdict |
| | | | - |
| | the parallel length of the test piece shall be between 0,000 25 s-1 and 0,002 5 s-1. The strain rate within the parallel length shall be kept as constant as possible. If this rate cannot be regulated directly, it shall be fixed by regulating the stress rate just before yield begins, the controls of the machine not being further adjusted until completion of yield. | | |
| | In no case, the stress rate in the elastic range shall exceed the maximum rates given in Table 3. | | Р |
| 10.2.2.3 | Upper and lower yield strengths (ReH and ReL) | | |
| | If the two yield strengths are determined during the same test, the conditions for determining the lower yield strength shall be complied with (see 10.2.2.2). | | N |
| 10.2.2.4 | Proof strength (non-proportional extension) and proof strength (total extension) (Rp and Rt) | | |
| | The stress rate shall be within the limits given in Table 3. | | N |
| | Within the plastic range and up to the proof strength (non-proportional extension or total extension) the strain rate shall not exceed 0,002 5 s-1. | | N |
| 10.2.3 | If the testing machine is not capable of measuring or controlling the strain rate, a cross head separation speed equivalent to the stress rate given in Table 3 shall be used until completion of yield. | | N |

| EN ISO 6892-1:2019 | | | |
|--------------------|------------------|--------|---------|
| Clause | Test Requirement | Remark | Verdict |

| | After determination of the required yield/proof strength properties the test rate may be increased to a strain rate (or equivalent crosshead separation rate) to no greater than 0,008 s-1. | Ρ |
|------|---|---|
| | If only the tensile strength of the material is required to be measured, the test rate shall not exceed 0,008 s-1 throughout the test. | Ρ |
| 11 | Determination of percentage elongation after fracture (A) | |
| 11.1 | Percentage elongation after fracture shall be determined in accordance with the definition given in 4.4.2. | Р |
| | For this purpose, the two broken pieces of the test piece are carefully fitted back together so that their axes lie in a straight line. | Ρ |
| | Special precautions shall be taken to ensure proper contact between the broken parts of the test piece when measuring the final gauge length. This is particularly important in the case of test pieces of small cross-section and test pieces having low elongation values. | Р |
| | Elongation after fracture (Lu - Lo) shall be determined to the nearest 0,25 mm with a measuring device with a sufficient resolution and the value of percentage elongation after fracture shall be rounded to the nearest 0,5 %. If the specified minimum percentage elongation is less than 5 %, it is recommended that special precautions be taken when determining elongation (see annex F). | Ρ |

| EN ISO 6892-1:2019 | | | |
|--------------------|------------------|--------|---------|
| Clause | Test Requirement | Remark | Verdict |

| | This measurement is, in principle, valid only if the distance between the fracture and the nearest gauge mark is not less than one third of the original gauge length (Lo). However, the measurement is valid, irrespective of the position of the fracture, if the percentage elongation after fracture is equal to or greater than the specified value. | | N |
|------|---|---|---|
| 11.2 | For machines capable of measuring extension at fracture using an extensometer, it is not necessary to mark the gauge lengths. The elongation is measured as the total extension at fracture, and it is therefore necessary to deduct the elastic extension in order to obtain percentage elongation after fracture. | | N |
| | In principle, this measurement is only valid if fracture occurs within the extensometer gauge length (Le). The measurement is valid regardless of the position of the fracture cross-section if the percentage elongation after fracture is equal to or greater than the specified value. | If the product standard specifies the determination of percentage elongation after fracture for a given gauge length, the extensometer gauge length should be equal to this length. | Ν |
| 11.3 | If elongation is measured over a given fixed length, it can be converted to proportional gauge length, using conversion formulae or tables as agreed before the commencement of testing (for example as in EN ISO 2566-1 and EN ISO 2566-2). | Comparisons of percentage elongation are possible only when the gauge length or extensometer gauge length, the shape and area of the cross-section are the same or when the coefficient of proportionality (k) is the same. | Ρ |
| | In order to avoid having to reject test pieces in which fracture may occur outside | | Р |

| EN ISO 6892-1:2019 | | | |
|--------------------|---|--|---------|
| Clause | Test Requirement | Remark | Verdict |
| | the limits specified in 11.1, the method based on the subdivision of Lo into N equal parts may be used, as described in annex G. | | |
| 12 | Determination of the percentage total elongation at maximum force (Agt) | | |
| | The method consists of determining the extension at maximum force (_Lm) on the force-extension diagram obtained with an extensometer. | | N |
| | The percentage total elongation at maximum force shall be calculated from the following equation : | A manual method is described in annex H. | Р |
| 13 | Determination of proof strength, non proportional extension (Rp) | | |
| 13.1 | The proof strength (non-proportional extension) is determined from the force-extension diagram by drawing a line parallel to the straight portion of the curve and at a distance from this equivalent to the prescribed nonproportional percentage, for example 0,2 %. The point at which this line intersects the curve gives the force corresponding to the desired proof strength (non-proportional extension). The latter is obtained by dividing this force by the original cross-sectional area of the test piece (So) (see Figure 3). | Sufficient resolution in drawing the force-extension diagram is essential. | Ρ |
| | If the straight portion of the force-extension diagram is not clearly defined, thereby preventing drawing the parallel line with sufficient precision, the following procedure is recommended (see Figure 6). | | Р |

| EN ISO 6892-1:2019 | | | |
|--------------------|---|---|---------|
| Clause | Test Requirement | Remark | Verdict |
| | When the presumed proof strength has been exceeded, the force is reduced to a value equal to about 10 % of the force obtained. The force is then increased again until it exceeds the value obtained originally. To determine the desired proof strength a line is drawn through the hysteresis loop. A line is then drawn parallel to this line, at a distance from the corrected origin of the curve, measured along the abscissa, equal to the prescribed nonproportional percentage. The intersection of this parallel line and the force-extension curve gives the force corresponding to the proof strength. The latter is obtained by dividing this force by the original cross-sectional area of the test piece (So) (see Figure 6). | Several methods can be used to define the corrected origin of the force-extension curve. A method which may be used is to construct the line parallel to that determined by the hysteresis loop so that it is tangent to the force-extension curve. The point where this line crosses the abscissa is the corrected origin of the force-extension curve (see Figure 6). | Ρ |
| 13.2 | The property may be obtained without plotting the force-extension curve by using automatic devices (microprocessor, etc.), see annex A. | | N |
| | Determination of proof strength, total extension (Rt) | | |
| 14.1 | The proof strength (total extension) is determined on the force-extension diagram by drawing a line parallel to the ordinate axis (force axis) and at a distance from this equivalent to the prescribed total percentage extension. The point at which this line intersects the curve gives the force corresponding to the desired proof strength. The latter is obtained by dividing this force by the original cross-sectional area of the test piece (So) (see Figure 4). | | Ν |
| 14.2 | The property may be obtained without plotting the force-extension diagram by | | Ν |

| EN ISO 6892-1:2019 | | | | |
|--------------------|------------------|-----|-----|---------|
| Clause | Test Requirement | Rem | ark | Verdict |

| | using automatic devices (see annex A). | |
|----|---|---|
| 15 | Method of verification of permanent set strength (Rr) | |
| | The test piece is subjected to a force for 10 s to 12 s corresponding to the specified stress and it is then confirmed, after removing the force, that the permanent set extension or elongation is not more than the percentage specified for the original gauge length. | Z |
| 16 | Determination of percentage reduction of area (Z) | |
| | Percentage reduction of area shall be determined in accordance with the definition given in 4.7. | Ρ |
| | The two broken pieces of the test piece are carefully fitted back together so that their axes lie in a straight line. The minimum cross-sectional area after fracture (Su) shall be measured to an accuracy of ± 2 % (see annexes B to E). The difference between the area (Su) and the original cross section (So) expressed as a percentage of the original area gives the percentage reduction of area. | Ρ |

| EN ISO 6892-1:2019 | | | |
|--------------------|------------------|--------|---------|
| Clause | Test Requirement | Remark | Verdict |



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Appendix A: EC Declaration of conformity

| | Applicant: | |
|----------------------|-----------------------------|--------------------------|
| Hang | zhou Four Wheel Auto Parts | Co., Ltd. |
| Room 618, Bldg. 21 | WeishangmingfuWuchang | Street, Yuhang District, |
| Hang | zhou City, Zhejiang Provinc | e, China |
| | Manufacturer Name: | |
| Hang | zhou Four Wheel Auto Parts | Co., Ltd. |
| Room 618, Bldg. 21 | WeishangmingfuWuchang | Street, Yuhang District, |
| Hang | zhou City, Zhejiang Provinc | e, China |
| Certify that the pro | duct described below is | in conformity with the |
| | standards | |
| , | Product Name Aluminium R | amn |
| Type: WR1060-B5, V | /R1060-B6, WR1060-B7, W | R1062-B5. WR1062-B6. |
| WR1062-B7, WR | 1001, WR1001-SP, WR100 | 2, WR1035, WR1200 |
| Have been assesse | d by the application of th | ne following standards: |
| | EN ISO 6802-1-2010 | |
| 1. 2 | EN 130 0092-1.2019 | |
| A 15 P *** | 1900 | |
| ngzhoù City | 1 | 2 |
| Jam 25, 2021 32 | 1 Ait 5 | 122 1216 |
| 1 1 6 | | |

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Appendix B: Product Diagram And Specification

| Item No. | Description |
|------------|---------------------------|
| | WR1060-B5 Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Capacity: 1100lbs/pc |
| | Product Size: |
| WR1060-B5 | Unfolded: 183x83.5x7.5cm |
| | Folded: 183x42x16cm |
| | Use Height: 76-96.5cm |
| | N.W.: 12.60kg |
| | G.W.: 15.0kg |
| | Packing Size: 187x46x21cm |
| | WR1060-B6 Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Capacity: 1100lbs/pc |
| | Product Size: |
| W/R1060-B6 | Unfolded: 208x77.5x7.5cm |
| | Folded: 208x38.5x16cm |
| | Use Height: 91.5-112cm |
| | N.W.: 13.8kg |
| | G.W.: 17.0kg |
| | Packing Size: 213x43x21cm |
| | WR1060-B7 Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Capacity: 1100lbs/pc |
| | Product Size: |
| | Unfolded: 240x77.5x7.5cm |
| VVR1000-D7 | Folded: 240x38.5x16cm |
| | Use Height: 106.5-127cm |
| | N.W.: 15.8kg |
| | G.W.: 17.0kg |
| | Packing Size: 245x43x21cm |

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| Item No. | Description |
|-------------|-----------------------------|
| | WR1062-B5 Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Capacity: 1500lbs/pc |
| | Product Size: |
| WR1062-B5 | Unfolded: 183x83.5x7.5cm |
| | Folded: 183x42x16cm |
| | Use Height: 76-96.5cm |
| | N.W.: 15.0kg |
| | G.W.: 15.0kg |
| | Packing Size: 187x46x21cm |
| | WR1062-B6 Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Capacity: 1500lbs/pc |
| | Product Size: |
| WR1062-B6 | Unfolded: 208x77.5x7.5cm |
| WI(1002-D0 | Folded: 208x38.5x16cm |
| | Use Height: 91.5-112cm |
| | N.W.: 16.5kg |
| | G.W.: 17.0kg |
| | Packing Size: 213x43x21cm |
| | WR1062-B7 Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Capacity: 1500lbs/pc |
| | Product Size: |
| | Unfolded: 240x77.5x7.5cm |
| VVR 1002-D7 | Folded: 240x38.5x16cm |
| | Use Height: 106.5-127cm |
| | N.W.: 18.5kg |
| | G.W.: 19.0kg |
| | Packing Size: 245x43x16.5cm |
| | WR1001 Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Capacity: 1500lbs/pair |
| | Product size: |
| | Unfolded: 225x28.5x5cm |
| WK1001 | Folded: 116x28.5x14cm |
| | Packing: 1pair/ctn |
| | N.W.: 14.5kg |
| | G.W.: 16.0kg |
| | Packing Size: 117.5x28x31cm |

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| ltem No. | Description |
|------------|------------------------------------|
| | WR1001-SP Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Capacity: 2000lbs/pair |
| | Product size: |
| W/R1001-SP | Unfolded: 225x28.5x5cm |
| WICTOOT-OF | Folded: 116x28.5x14cm |
| | Packing: 1pair/ctn |
| | N.W.: 17.6kg |
| | G.W.: 18.5kg |
| | Packing Size: 117.5x28x31cm |
| | WR1002 Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Capacity: 1500lbs/pair |
| | Unfolded: 225x28.5x5cm |
| WR1002 | Folded: 116x28.5x14cm |
| | Packing: 1pair/ctn |
| | N.W.: 13.5kg |
| | G.W.: 15.0kg |
| | Packing Size: 117.5x28x31cm |
| | WR1035 Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Middle Ramp: 1500lbs/pc |
| | Side Ramp: 600lbs/pc |
| | Unfolded Size: |
| WP1035 | Middle Ramp:275x44x5cm |
| WK1055 | Side Ramp: 275x29x5cm |
| | Packing: 1set/2ctn |
| | N.W.: 36.5kg |
| | G.W.: 41.0kg |
| | Packing Size: #1: 142x17x46cm, #2: |
| | 142x29x32cm |
| | WR1200 Aluminum Ramp |
| | Aluminum Type: AL6061-T6 |
| | Capacity: 450lbs/pc |
| | Product Size: |
| WR1200 | Ramp Size: 116x17x4.5cm |
| | Platform Size: 192.5x19x5cm |
| | Packing: 1pc/ctn |
| | N.W.: 18.70kg |
| | G.W.: 20.0kg |

| TECHNICAL | TCF |
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| | |

| Item No. | Description |
|----------|---------------------------------|
| | Packaging Size: 197x22.5x13.5cm |

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Appendix C: TEST PICTURE

APPENDIX-PHOTOGRAPHS

| EUT-Picture 1 |
|---------------|
| |

EUT-Picture 2



| TECHNICAL | TCF |
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EUT-Picture 3



EUT-Picture 4



******end of test*****

| TECHNICAL | TCF |
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Notice

- 1. This TCF shall be invalidated in case of its alteration.
- 2. The test results presented in this TCF relate only to the object tested.
- 3. The report is responsibility for the samples only.

Possible test case verdicts:

- Test case does not apply to the test object : N/A
- Test object does meet the requirement : P(Pass)
- Test object does not meet the requirement: F(Fail)