

PP028 - Specification Sheet

Land Rover Defender 90 Soft Top

Heavy Duty Hoodstick Replacement

1. MANUFACTURER DETAILS

Protection and Performance
Cambridge House
Holborn Avenue
Mildenhall
Suffolk
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United Kingdom

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E-MAIL: sales@ppcages.com

2. VEHICLE FOR WHICH HEAVY DUTY HOODSTICK REPLACEMENT IS DESIGNED

MAKE: LAND ROVER
MODEL(s): DEFENDER 90 Soft Top with bulkhead
GROSS VEHICLE WEIGHT: 2400 (kg)

3. HEAVY DUTY HOODSTICK REPLACEMENT MATERIAL DETAILS

	B Hoop, D Hoop and Centre Hoodstick Support	Cantrails and Backstays
Material	EN 10305-1 E355 +N	EN 10305-1 E355 +N
External diameter	44.45 mm	38.10mm
Wall thickness	2.64 mm	2.64mm
Yield	355 N/mm ²	355 N/mm ²
Tensile strength	490 – 630 N/mm ²	490 – 630 N/mm ²

4. HEAVY DUTY HOODSTICK REPLACEMENT WEIGHT

WEIGHT OF ALL INTERNAL COMPONENTS: **35 (kg)**

WEIGHT OF COMPLETE FITTING KIT: **7 (kg)** TOTAL: **42 (kg)**

5. DRAWING OF HEAVY-DUTY HOODSTICK REPLACEMENT



6. SEAT BELT ANCHORAGE

Seat belt mountings have been tested in accordance to ECE R14 N1 seat belt anchorage requirements. Both front and rear seating positions were assessed simultaneously.

- The seats were loaded to the N1 requirements of ECE R14 which requires a load of 13.5kN applied to each body block (torso and lap) at 10 degrees to the horizontal.
- An additional 3.14kN was applied across the two body blocks at each seating position, taking into account the inertial loads of the seats themselves.
- The model was loaded to 100%, then held and followed by a 20% overload to ensure design robustness.
- A max displacement of 7.7mm is observed at the front seat anchorage point.
- A peak plastic strain of 3.8% was recorded at the base of the B Hoop tube.
- All bolt loads are within their respective failure criterion.

ECER14 TRACTION DEVICES

Time = 0

Contours of Resultant Displacement

min=0, at node# 309128

max=0, at node# 309128

Resultant Displacement

7.75

6.98

6.20

5.43

4.65

3.88

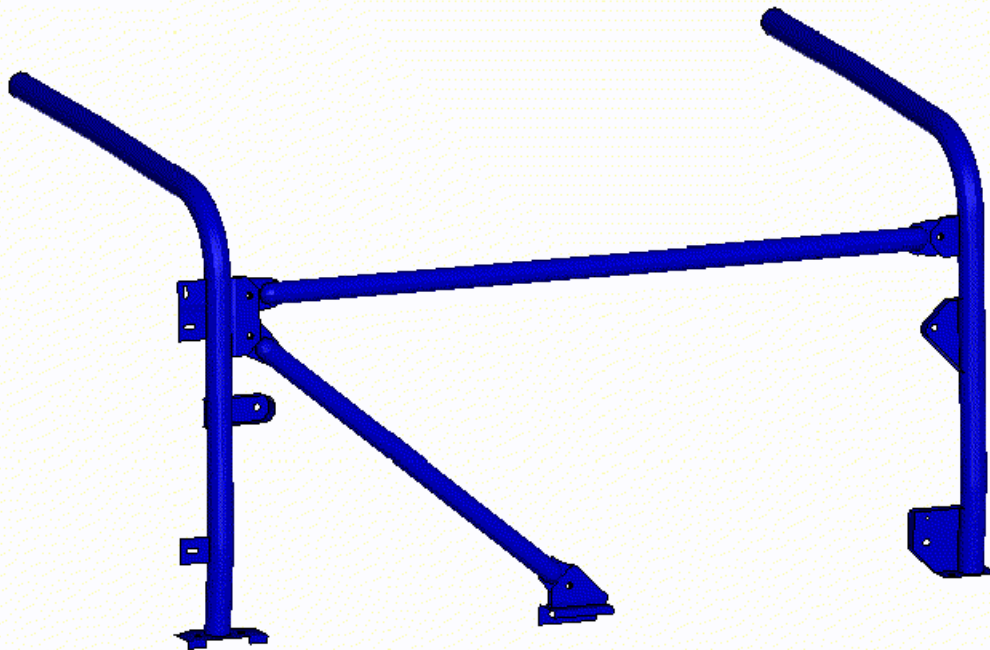
3.10

2.33

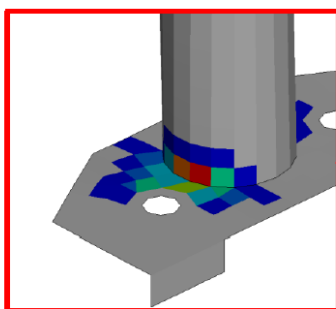
1.55

0.78

0.00



A peak plastic strain of 3.8% was recorded at the base of the A-hoop tube.



ECER14 TRACTION DEVICES

Time = 0

Contours of Effective Plastic Strain

max IP. value

min=0, at elem# 308967

max=0, at elem# 308967

Effective Plastic Strain

0.038

0.034

0.031

0.027

0.023

0.019

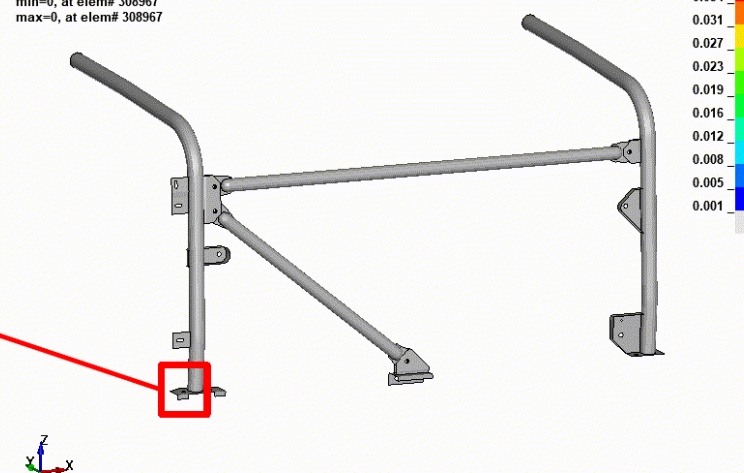
0.016

0.012

0.008

0.005

0.001





PP REF. NO: PP028

DATE: 04/11/2024

7. DECLARATION BY MANUFACTURER

I certify that the ROPS described herein is manufactured to the specification laid out in this document.

DATE: 04/11/2024

NAME: Aeron Lloyd

SIGNATURE:

STATUS: Managing Director