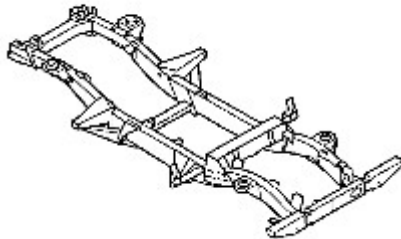


Body and Frame

CHASSIS AND BODY

Chassis

The chassis on all Defender variants are of the box section, ladder type construction, manufactured from 2 mm (14swg) steel and treated with zinc phosphate, cathodic electro coated, followed by waxing in the rear cross member.



J6348

Outriggers and angled brackets welded to the chassis support suspension and axle components and are also used as body mounting points. A detachable box section cross member, located between the two chassis longitudinals is fitted to facilitate main gearbox and transfer box assembly removal.

Should chassis damage occur, a comprehensive range of components are available, including body support outriggers, cross members and radius arm mounting brackets. ALWAYS fit genuine parts that are fully guaranteed and to original equipment specification, fitted with Land Rover's BS 5135 welding standard.

Body



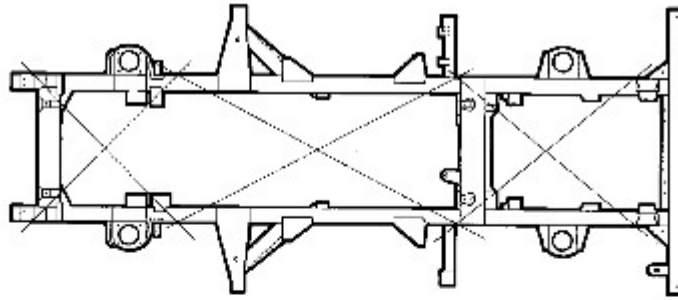
M764325

All body panels, with the exception of the fascia bulkhead, are manufactured from aluminium alloy. Galvanized steel is used for the front wheel arches to give optimum protection. Most panels are also treated with zinc phosphate and cathodic electro coated with polyester surfacer, and are bolted to the welded chassis.

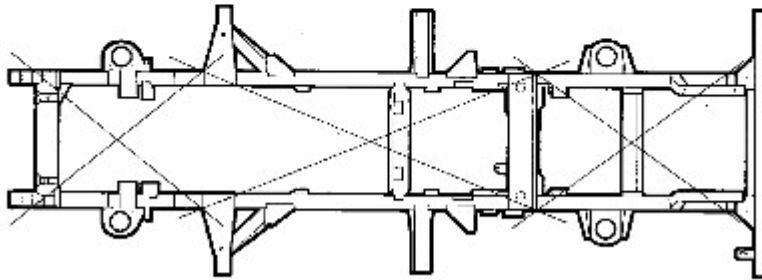
CHASSIS FRAME ALIGNMENT

With the vehicle assembled, a check for chassis squareness can be made as follows:

- 1. Place the vehicle on a level floor.
- 2. Mark measuring points at approximately the locations shown in LR4412M ensuring that the marks are exactly opposite on each side of the chassis frame.
- 3. Hold a plumb line against each of the measuring points in turn and mark the floor directly beneath the plumb-bob.
- 4. Move the vehicle and measure diagonally between the marks made on the floor, if the chassis is square the diagonals between the related measuring points should agree within 9,50 mm.
- 5. Chassis frame dimensional checks can be made, with the vehicle upper structure removed, referring to the applicable illustration and associated key.



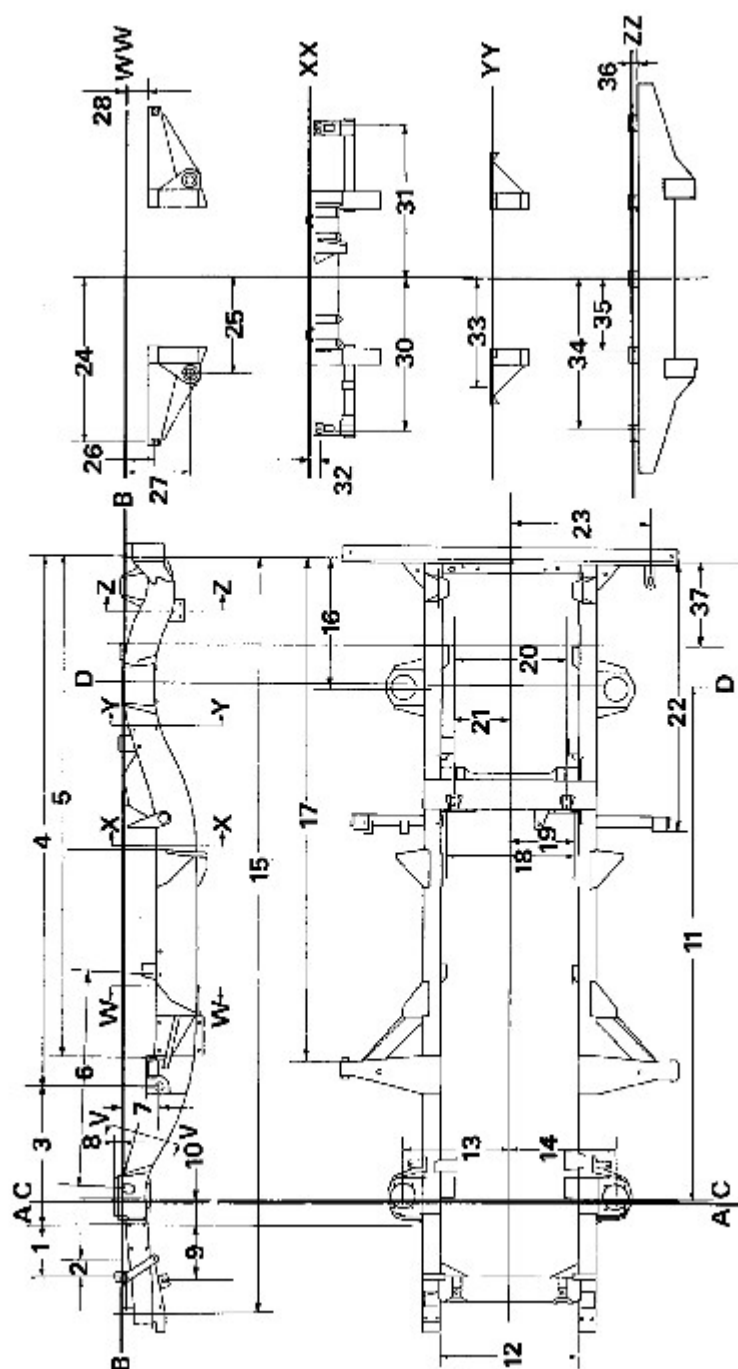
LAND ROVER 90



LAND ROVER 110

LR4412M

90 Chassis



M772128

Chassis alignment dimensions

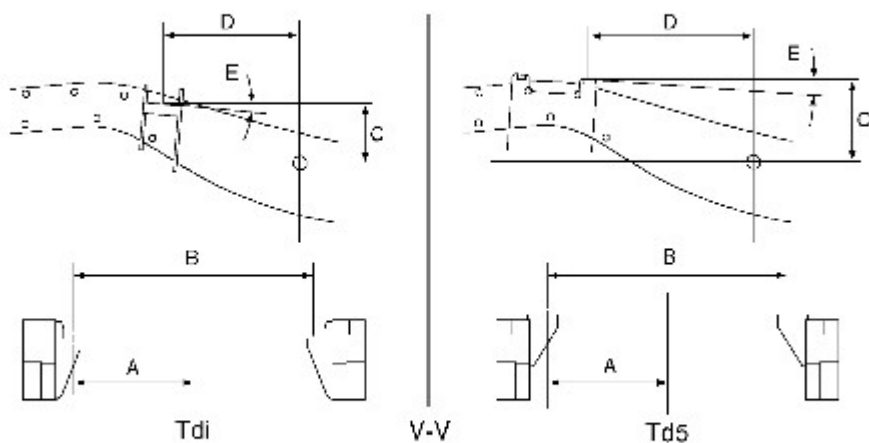
No./Letter	Dimension
A	Front datum
B	Chassis Datum
C	Front axle centre line
D	Rear axle centre line
1.	239,0 - 236,5 mm
2.	82,0 - 79,5 mm
3.	633 mm
4.	2420,6 - 2418,6 mm
5.	2306,4 - 2305,4 mm

6.	981,2 - 978,7 mm
7.	182,7 mm
8.	41,5 - 37,0 mm
9.	252 - 250 mm
10.	110 mm
11.	2360mm - Wheelbase
12.	636 - 634 mm
13.	488 - 482 mm
14.	488 - 482 mm
15.	3431,1 - 3426,1 mm
16.	588,3 - 586,3 mm
17.	2313,8 - 2311,8 mm
18.	590,5 mm
19.	295,25 mm
20.	519,30 - 517,30 mm
21.	259,80 - 258,50 mm
22.	1242,6 - 1240,6 mm
23.	642,5 - 639,5 mm
24.	750,9 mm
25.	439,5 - 436,5 mm
26.	136,5 mm
27.	299,5 - 295,5 mm
28.	103 - 100 mm
29.	131,5 - 126,5 mm
30.	705,5 - 704,5 mm
31.	705,5 - 704,5 mm
32.	42,2 - 40,2 mm
33.	491 - 486 mm
34.	594,2 - 593,4 mm
35.	283,0 - 282,2 mm
36.	32,25 - 31,25 mm
37.	397 - 395 mm

Engine mounting dimensions - section V-V

NOTE:

The engine mounting bracket dimensions are applicable to all models



M772129

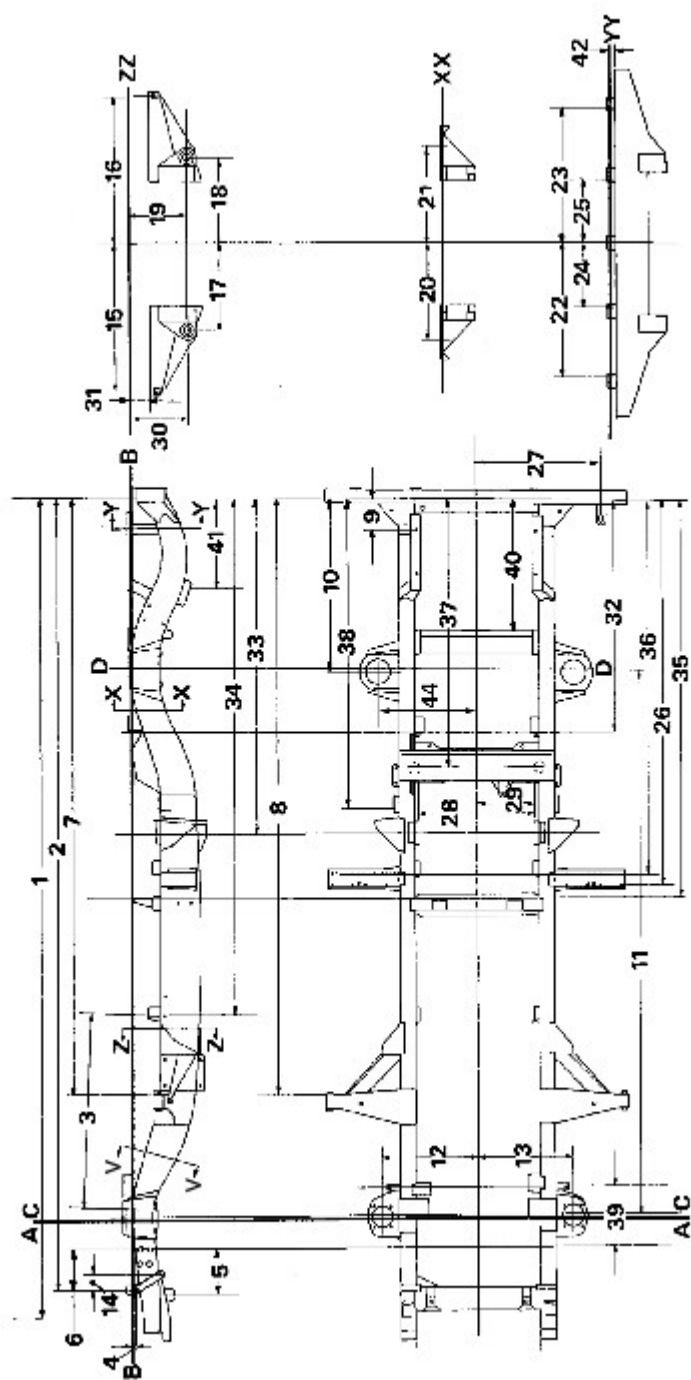
Tdi dimensions

Dimension	value
A	276.5 mm
B	553 mm
C	127.9 mm
D	317.4 mm
E	4 °

Td5 dimensions

Dimension	value
A	273.2 mm
B	546.5 mm
C	187.8 mm
D	347.3 mm
E	4 °

110 Chassis



M772127

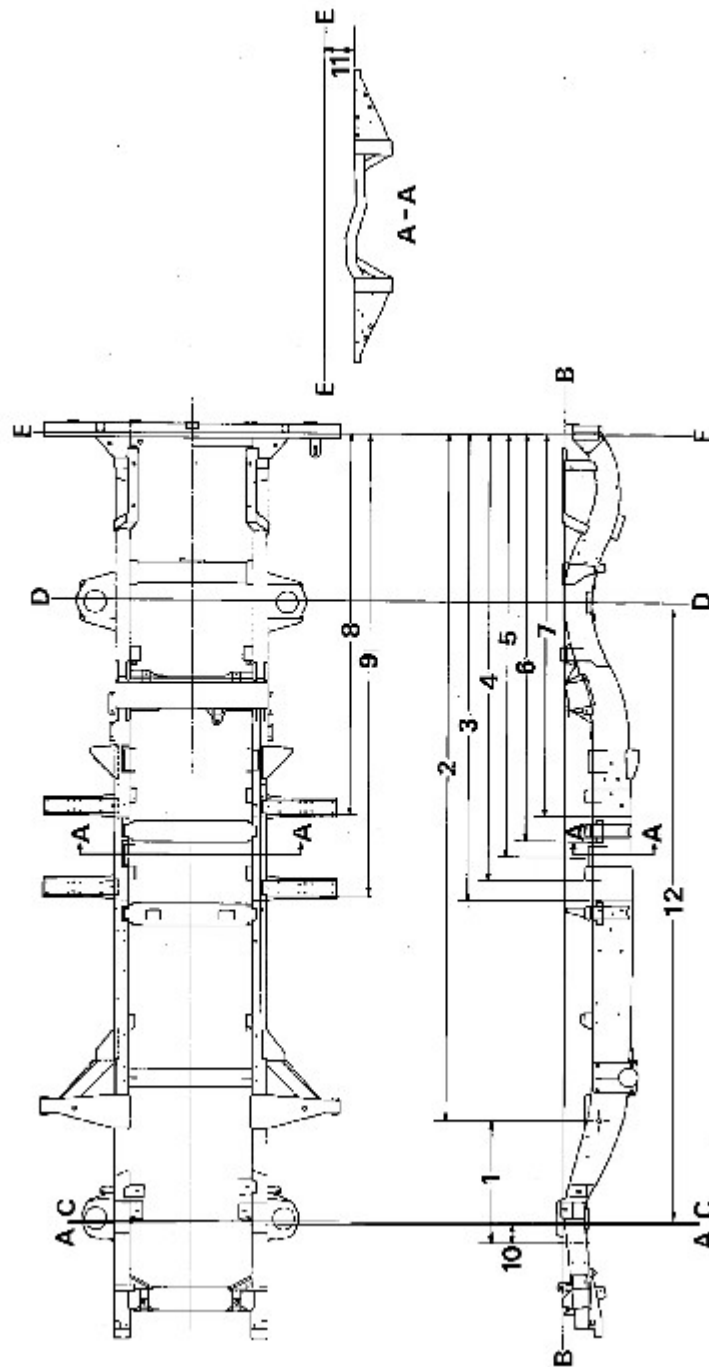
Chassis alignment dimensions

No./Letter	Dimension
A	Front datum
B	Chassis Datum
C	Front axle centre line
D	Rear axle centre line
1.	4148 - 4143 mm
2.	4009,5 - 4005 mm
3.	978,7 - 981,2 mm
4.	22 - 20 mm
5.	252 - 250 mm

6.	239 - 236,5 mm
7.	3023,3 - 3022,3 mm
8.	3030,7 - 3028,7 mm
9.	155 - 153 mm
10.	871,2 - 869,2 mm
11.	2794 mm - Wheelbase
12.	488 - 482 mm
13.	488 - 482 mm
14.	82 - 79,5 mm
15.	750,9 mm
16.	750,9 mm
17.	440,5 - 435,5 mm
18.	440,5 - 435,5 mm
19.	299,5 - 295,5 mm
20.	500 - 495 mm
21.	500 - 495 mm
22.	594,2 - 593,4 mm
23.	594,2 - 593,4 mm
24.	283 - 282,2 mm
25.	283 - 282,2 mm
26.	1970 - 1968 mm
27.	642,9 - 639,5 mm
28.	750,9 mm
29.	290,5 mm
30.	295,5 mm
31.	299,5 - 295,5 mm
32.	103 - 100 mm
33.	1177,5 - 1175,5 mm
34.	1692,5 - 1689,5 mm
35.	2610 - 2606 mm
36.	2040,5 - 2037,5 mm
37.	1912,5 - 1909,5 mm
38.	1359 - 1357 mm
39.	1573 - 1571 mm
40.	270 - 268 mm
41.	665,5 - 663,5 mm
42.	440 - 438 mm
43.	32,25 - 31,25 mm

Section V-V is through the engine mountings. Dimensional information can be found in the 90 engine mounting dimensions.

130 Chassis



M772126

Chassis alignment dimensions

NOTE:

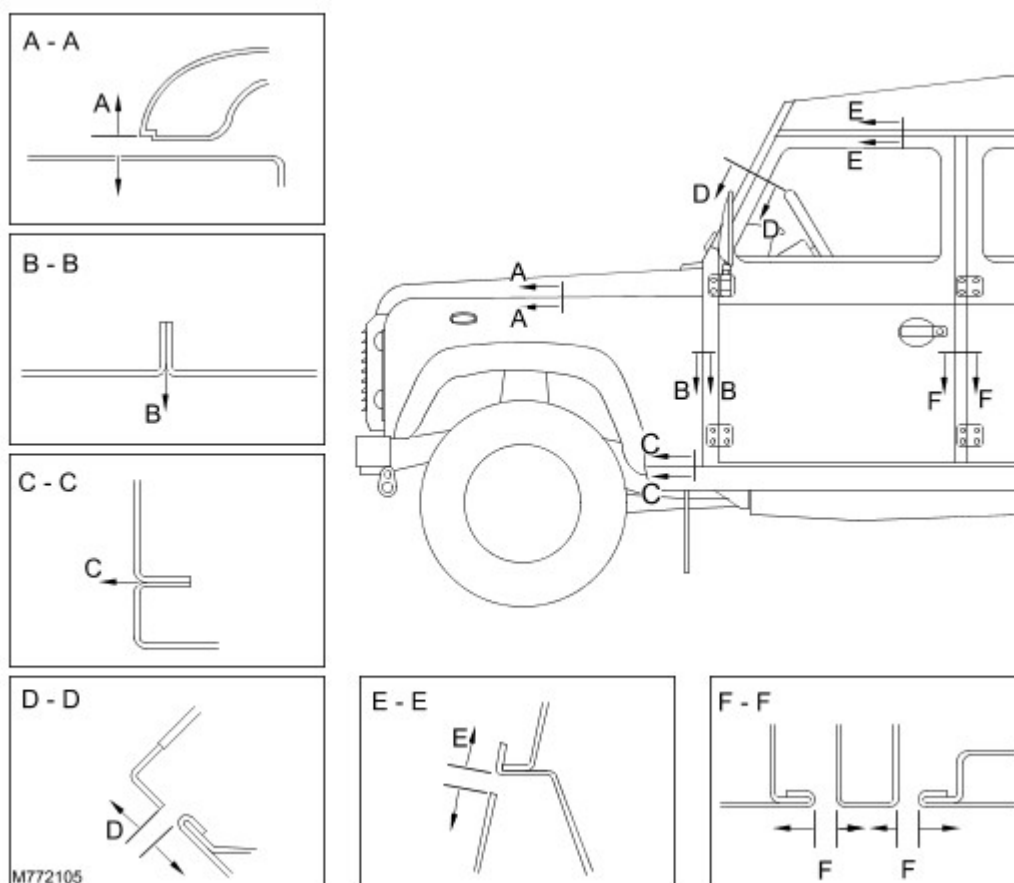
The above dimensions are for the Land Rover 130 chassis frame. For additional measurements, refer to the Land Rover 110 chassis frame drawing and alignment dimensions.

No./Letter	Dimension
A	Front datum
B	Chassis Datum
C	Front axle centre line
D	Rear axle centre line
E.	Chassis Datum, section A-A
1.	663,0 mm reference only

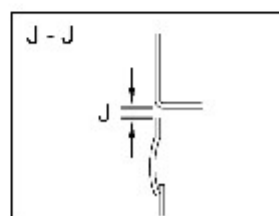
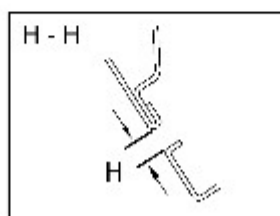
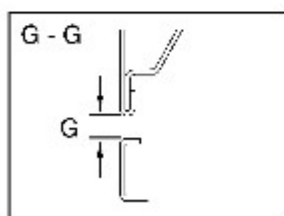
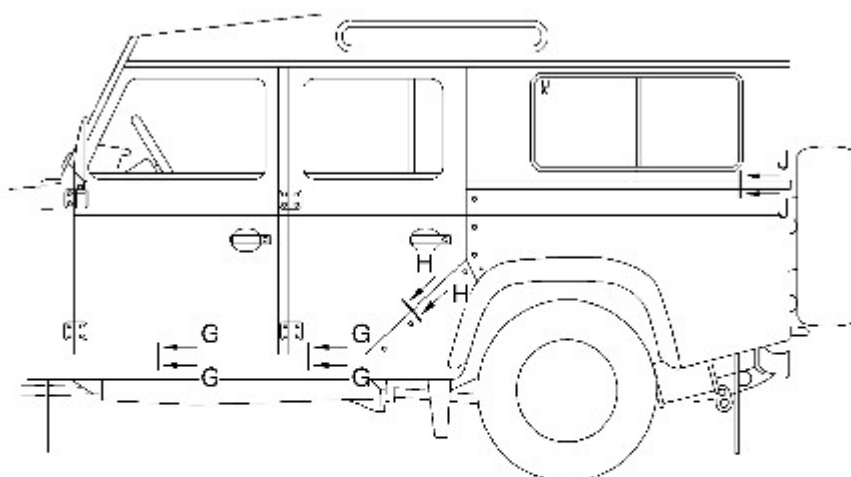
2.	3569,3 - 3567,3 mm
3.	2421,8 - 2419,8 mm
4.	2317,5 - 2314,5 mm
5.	2188,3 - 2185,3 mm
6.	2119,5 - 2117,3 mm
7.	1990 - 1988 mm
8.	1970 - 1968 mm
9.	2401,8 - 2399,8 mm
10.	110,0 mm reference
11.	149,7 - 146,7 mm reference dimension
12.	3225,8 mm wheelbase

GAP AND PROFILE INFORMATION

The following information is to be used as a guide to assist the technician in refitting exterior body panels and trim items, to achieve a correctly aligned and cosmetically acceptable vehicle.

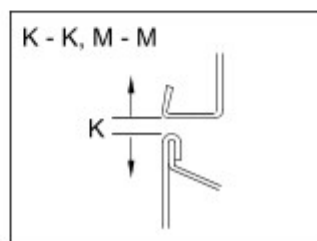
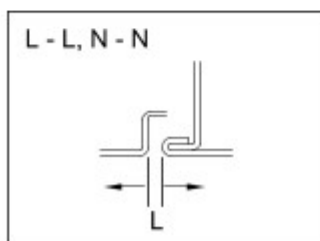
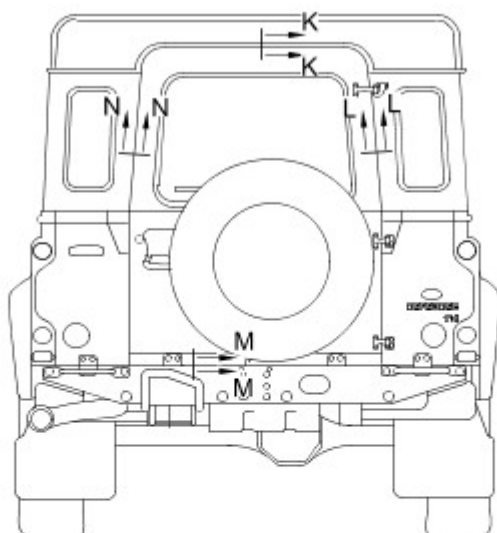


- Section A-A, Bonnet to wing gap A = 3 - 8 mm. To be parallel within 2 mm
- Section B-B, Wing to 'A' post lower, gap B = 0. Profile = ± 1 mm
- Section C-C, Wing to sill, gap C = 0. Profile = ± 1 mm
- Section D-D, Screen aperture to door frame, gap D = 5 - 9 mm
- Section E-E, Door frame to roof, gap E = 7 - 11 mm
- Section F-F, Front and rear door to 'B'/'C' post, gap F = 7 - 11 mm



M772106A

- Section G-G, Door to sill gap $G = 7 - 11$ mm. Door profile to sill = 0 to + 2 mm
- Section H-H, Rear door to body gap $H = 7 - 11$ mm. Door profile to body = 0 to + 3 mm
- Section J-J, Body side lower to body, gap $J = 0 - 4$ mm. To be parallel within 2 mm



M772107A

- Section K-K, Roof to taildoor, gap K = 7 - 9 mm. Profile = ± 1 mm
- Section L-L, N-N, Body side to taildoor, gap L = 56 - 7 mm. Profile = ± 1 mm
- Section M-M, Body rear to taildoor, gap M = 7 - 9 mm