

AIRFIX
CONSTRUCTION KIT

1/32 SCALE VETERAN VEHICLES

DENNIS FIRE ENGINE

It was in 1895 that the brothers John and Raymond Dennis opened a sports and cycle shop in Guildford High Street. The Speed King and Speed Queen bicycles that they manufactured at this shop were so successful that within three years they had started experimenting with motorised tricycles and shortly afterwards with cars. Here again they met with great success, and full-scale production of cars started in new premises in 1901 and went on until 1913. In the meantime, thought had been given to the manufacture of specialised commercial vehicles, and it was in 1908 that the first fire engine was introduced and taken into service by the City of Bradford. The Dennis, which employed a multi-stage centrifugal pump, was found to be far in advance of the horsedrawn steam fire engines of the day, and within two years production was running at the rate of some 30 a year. In 1915 the London Fire Brigade decided to convert to motor appliances and purchased 68 Dennis's in that year alone. From this point the Company can be said to have taken the lead in the fire engine field and up to, during and since the Second World War Dennis Fire Engines have been supplied to home and overseas Brigades in ever-increasing quantities. The current range includes Appliances powered by Rolls-Royce petrol engines with automatic or conventional transmissions, and also high-performance diesel engines fitted with pumps up to 1,000 G.P.M. output, and tanks of up to 1,000 gallons capacity, 100-ft. or 125-ft. Turntable Ladders, Snorkels and other specialist Appliances. In addition to being England's leading Fire Engine manufacturers, Dennis Bros. are also manufacturers of an extensive range of municipal and commercial vehicles and lawn mowers.

This model is based on the first motor appliance supplied to the City of Coventry Fire Brigade, which, having served in that City for over 44 years, including, of course, in the great raid of October 1941, has been restored by Dennis Bros. to nearly original condition and is preserved at the Guildford factory. It is fitted with a 9-litre petrol engine developing 75 B.H.P. at 1,150 R.P.M. and is still capable of pumping 500 G.P.M. of water. Its top speed is about 35 M.P.H. and it weighs nearly 4½ tons.

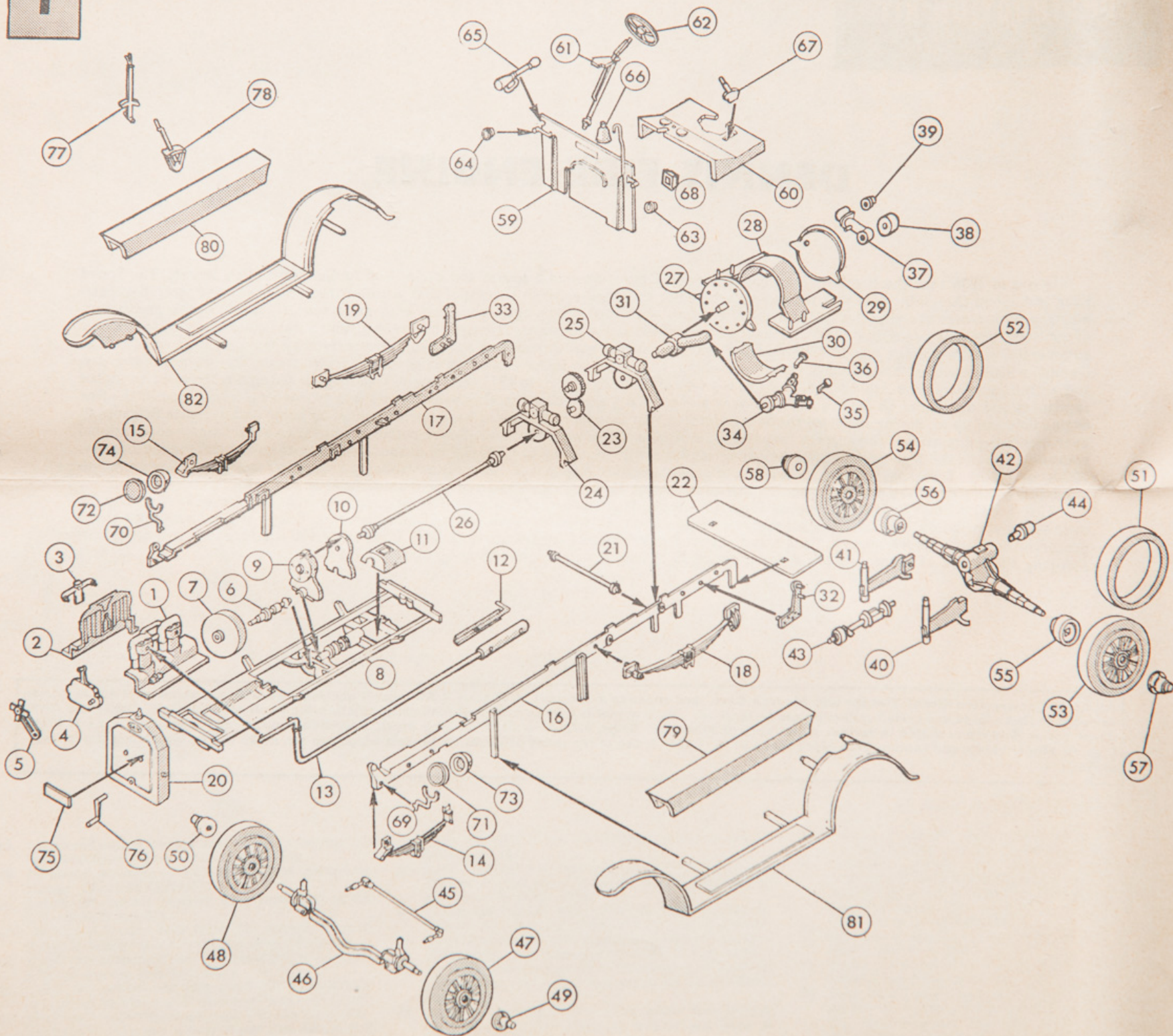
All Airfix Construction Kits of Vintage and Modern Cars, are made to a constant 1/32 scale. All models are designed with the same skill and attention to detail so that a large and varied collection can be built up. Each model is true to scale and realistic in relationship to all other models. Other fine Airfix Construction Kits are available in various scales, such as Historical Ships, 1/72 Aircraft, 00 Rolling Stock, Trackside Houses and Accessories, and 1/12 Model Figures. Modern Ships and Famous Warships 1 in. to 50 ft. (1/600) A list of the many other Airfix Models which you can make will be found on a slip in this package.

INSTRUCTIONS

PAINT ALL DETAILS AND LET DRY BEFORE ASSEMBLING (SEE SECTION 5)
N.B. FOR PAINTING USE "AIRFIX" PAINTS, FOR FIXING USE "AIRFIX" POLYSTYRENE CEMENT.

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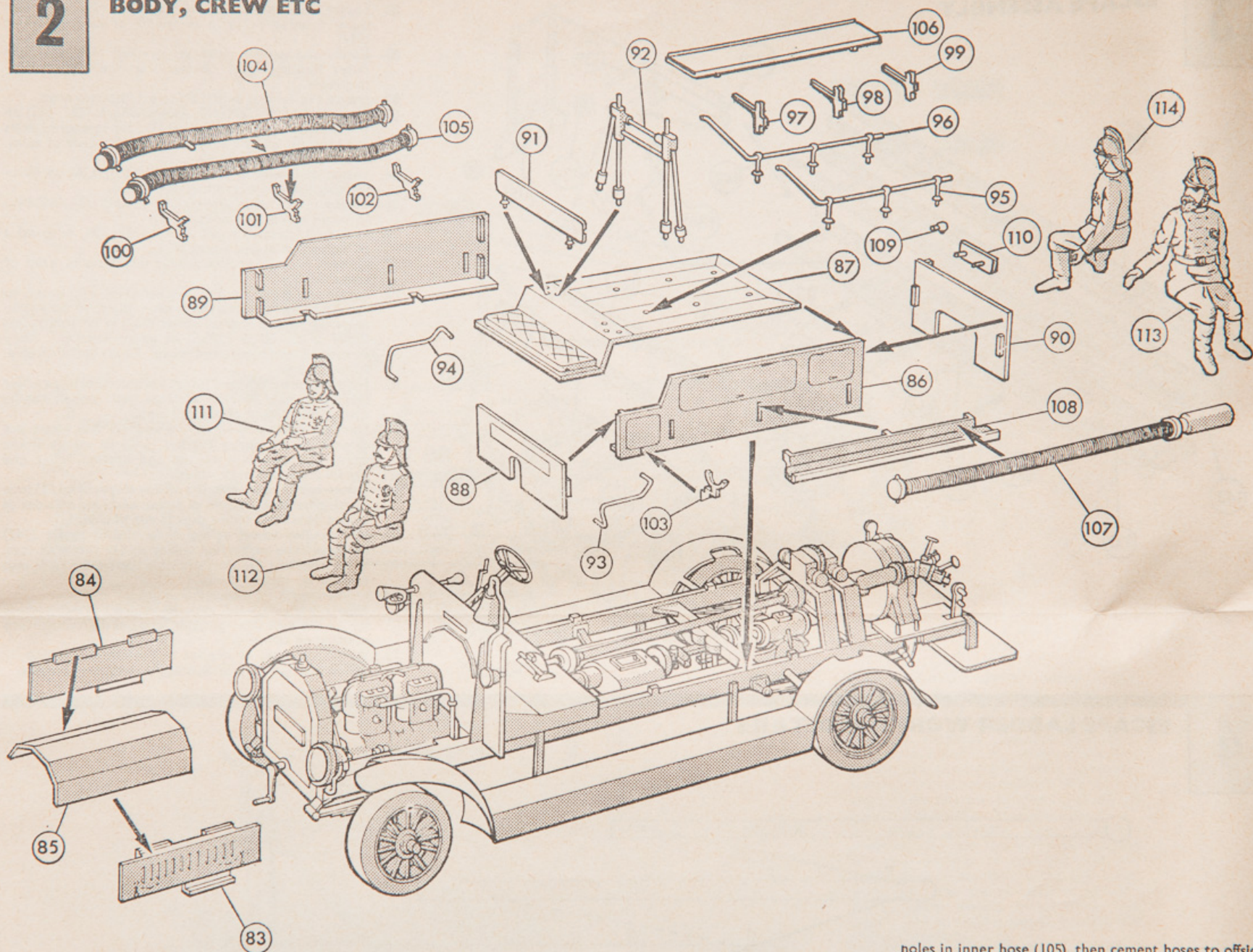
CHASSIS, TRANSMISSION, PUMP



It is recommended that the instructions and exploded view are studied before commencing assembly. Note that small parts and crew are best painted before assembly, also THE BONNET AND BODY ARE SEPARATE UNITS ENABLING THE CHASSIS TO BE DISPLAYED SHOWING INTERNAL DETAILS.

1. Locate and cement the two engine halves (1, 2) together.
2. Locate and cement intake manifold (3) into locating holes on offside of engine.
3. Locate and cement timing case (4) to front of engine, locating pins to nearside and top, and facing forward.
4. Locate and cement combined fan and fanbelt (5) onto locating pins on front of timing case, fan to top.
5. Insert long narrow diameter pin on end of flywheel coupling (6) through recessed back of flywheel (7), end of pin protrudes through boss on front of flywheel.
6. Locate and cement flywheel and coupling into recess in housing in sump and into recess in centre of chassis (8).
7. Locate and cement engine assembly to chassis.
8. Locate and cement the two pump gear box halves (9, 10) together, then cement lugs on bottom of assembly over coupling into slots in lower part of pump gear box body on chassis. NOTE: Upper locating hole to rear.
9. Locate and cement gear box cover to top of gear box (11).
10. Cement silencer half with tail pipe (12) to exhaust silencer half (13), then cement locating pins into locating holes in nearside cylinder heads, set aside to dry.
11. Locate and cement the two small front road springs (14, 15) with locating holes in square lugs to front, steps to inside, onto locating pins on inner front sides of chassis frames (16, 17), rear of springs behind, and into shallow cut out on bottom of frames.
12. Locate and cement locating pins on the two large rear road springs (18, 19) into locating holes at rear of chassis frames, springs to outer sides of frames and commencing from first locating hole next to long vertical supports in each case. NOTE: large curved brackets on road springs to rear.
13. Identify nearside chassis frame with both long and short vertical supports and cement to chassis, locating onto front, and rear cross members of chassis, and supports on chassis into square recesses on inner sides of frames, at the same time cement silencer onto locating pins inside small vertical supports.
14. Similarly locate and cement offside chassis frame to chassis.
15. Locate and cement locating pins on radiator (20) sides into and between locating holes in raised supports on inner sides of chassis frames and to front of chassis.
16. Locate and cement chassis brace (21) into blind recesses between inner chassis frames centrally above rear springs.
17. Locate and cement rear platform (22) beneath ends of chassis frames, locating holes to front.
18. Cement small and large locating pins on top and bottom of priming gears (23) between and into locating holes on inner sides of priming engines (24, 25).
19. Locate and cement one end of pump drive (26) into locating hole in rear of pump gear box.
20. Locate and cement opposite end of pump drive into locating hole in front of priming engine, at same time cement priming engine assembly to cut out in side of frames.
21. Locate and cement pump front with single central square projection (27) to front of pump casing (28).
22. Locate and cement pump rear (29) to rear of pump casing.
23. Locate and cement pump lower casing (30) to bottom of pump casing.
24. Locate and cement outlet pipe (31) to square projection on pump front, outlet pipe to nearside and top. Set assembly aside to dry.
25. Locate and cement trunnions (32, 33) to outside and rear of side frames, projections to outside and top.
26. Slide cut outs in pump assembly base over sides of trunnion and cement base onto chassis, at same time locating and cementing outlet pipe into rear of locating hole in priming engine.
27. Locate and cement outlet valve (34) onto outlet pipe, locating holes upwards.
28. Locate and cement outlet screw valves (35, 36) into locating holes in top of outlet valve, heads of valves to rear.
29. Cement long locating pin on inlet pipe (37) into locating hole in pump rear.
30. Locate and cement central boss (38) to locating pin on inlet pipe.
31. Locate and cement inlet cover (39) to locating pin on end of inlet pipe.
32. Locate and cement two halves of rear axle stays (40, 41) together, then cement assembly into square recess in rear axle (42).
33. Locate and cement long locating pin on final drive (43) into locating hole in circular housing in top of rear axle.
34. Locate and cement rear axle cap (44) into locating hole in rear of axle.
35. From beneath locate and cement rear axle assembly onto rear road springs, rear axle supports into locating holes in cross members of chassis frame and final drive into locating hole in rear of gear box.
36. Locate and cement track rod (45) to rear of front axle (46), allow to dry.
37. Locate and cement front axle onto locations on front road spring.
38. Position front wheels. DO NOT CEMENT. (47, 48) onto ends of axles, hubs to outside.
39. Carefully cement front hub caps (49, 50) onto protruding ends of axles.
40. Locate and cement rear tyres (51, 52) onto inner flanges of rear wheels (53, 54).
41. Locate and cement brake drums (55, 56) onto square locations on rear axles, "V" formers to inside and bottom.
42. Position, DO NOT CEMENT rear wheels onto ends of axles.
43. Locate and cement rear hub caps (57, 58) onto protruding ends of axles.
44. Locate and cement dashboard (59) between and onto recessed location on side frames.
45. Locate and cement cab floor (60) to rear of dash and top side frames.
46. Locate steering column (61) through slot in cab floor and cement support into recessed location in rear of dashboard.
47. Cement steering wheel (62) to top of column.
48. Locate and cement side lights (63, 64) onto supports on outer sides of dashboard.
49. Locate and cement horn (65) to small cut out in offside of dashboard.
50. Cement bell (66) onto end of support.
51. Cement lug on pump gear lever (67) into cut out in cab floor beside top of pump body.
52. Locate and cement recess in fuse box (68) onto small rectangular lug on dashboard.
53. Locate and cement headlight supports (69, 70) into front locating holes in chassis side frames.
54. Cement headlight lens (71, 72) into front of headlights (73, 74).
55. Locate and cement completed headlights onto headlight supports.
56. Locate and cement front number plate (75) into locating holes centrally in radiator front.
57. Locate and cement starting handle (76) into locating hole in lower radiator front.
58. Locate and cement locating pin on brake lever (77) into locating hole in gear lever (78), then locate and cement pins of gear lever into locating holes in side frame.
59. Locate and cement running board lockers (79, 80) onto location on near and offside running boards (81, 82).
60. Locate and cement locating pins on mudguards into holes in front and rear of near and offside side frames and running boards to long vertical supports.

THIS COMPLETES CHASSIS ASSEMBLY.



61. Locate and cement bonnet sides (83, 84) to bonnet top flush with front and rear of bonnet top (85).
62. Fit bonnet assembly to cut outs in top of chassis side frames. DO NOT CEMENT.
63. Locate and cement nearside body panel (86) to rib beneath body top (87).
64. Locate and cement body front (88) beneath front of body, lug fitting cut out in rib on nearside body side.
65. Locate and cement offside body panel (89) as for nearside and locating with body front.
66. Locate and cement rear body panel (90) beneath body top and locate with rear of off and nearside body panels.
67. Locate and cement front seat back (91) into front locating holes in body top at back of seat (cut outs in seat back to rear).
68. Locate and cement gallows (92) into locating holes in

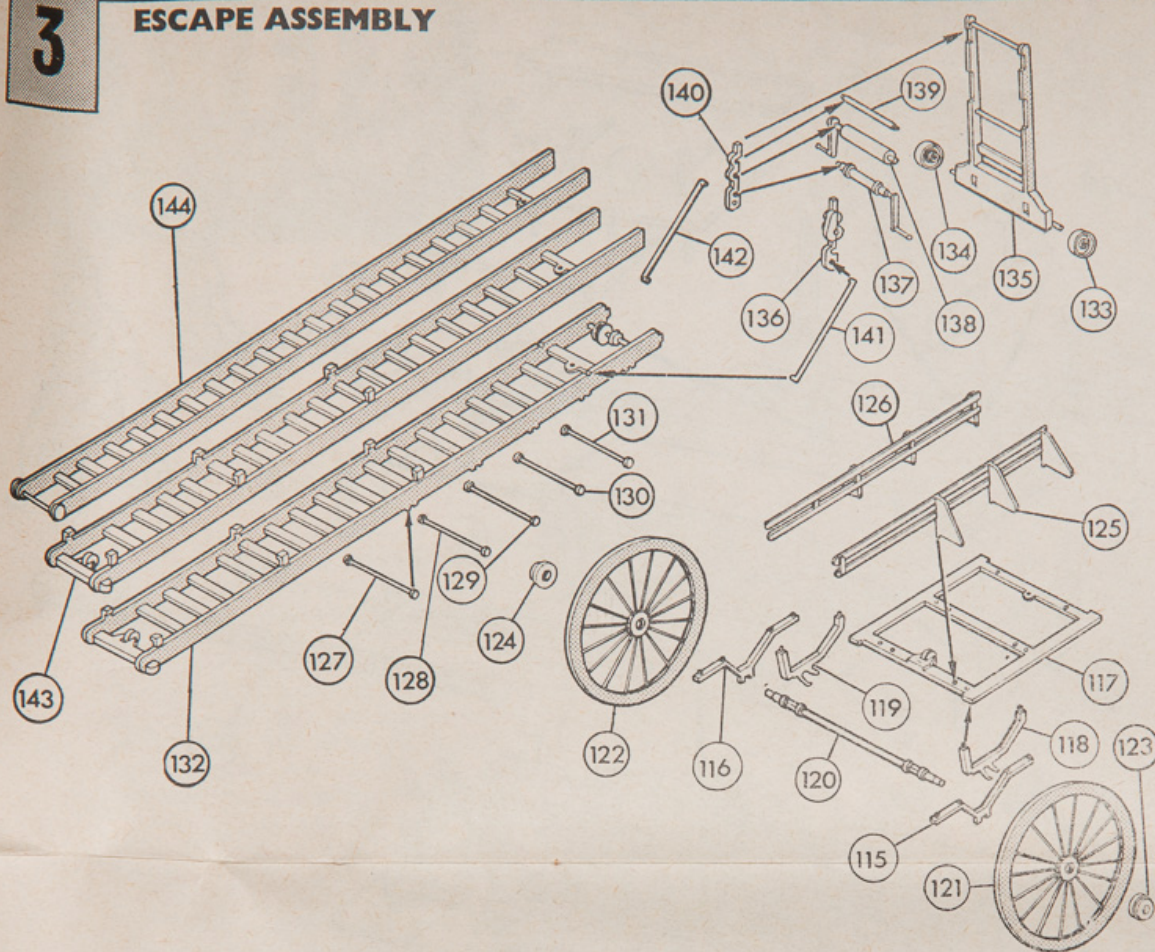
- body top behind seat back (recesses on support of gallows to rear).
69. Locate and cement near and offside front seat arms (93, 94) into recesses behind seat back and into locating holes beneath sides of seat.
70. Locate and cement guard rails (95, 96) into locating holes in body top and into recesses at rear of gallows.
71. Locate and cement lugs on the three footboard brackets (97-99) into top locating slots in offside body panel.
72. Locate and cement lugs on the three large hose brackets (100-102) into rectangular recesses at bottom of offside body panel.
73. Locate and cement small nearside suction hose bracket (103) to rectangular recess at bottom and front of nearside body panel.
74. Cement locating pins on outer hose (104) into locating

holes in inner hose (105), then cement hoses to offside brackets.

75. Cement footboard (106) to offside brackets, outer brackets locating inside ribs beneath footboard
76. Locate and cement locating pins on suction hose (107) into locating holes in combined hose gutter and footboard (108), when dry locate and cement lugs on gutter into locating slots on nearside body panel, front of hose resting in small support.
77. Locate and cement rear light (109) to offside locating hole in rear body panel.
78. Locate and cement rear number plate (110) to locating holes in rear body panel next to rear light.
79. Body should now be painted and transfers applied (see section 5) before placing driver (111) and co-driver (112) on driving seat. The two crew members (113, 114) should be positioned and cemented after escape is in position.

3

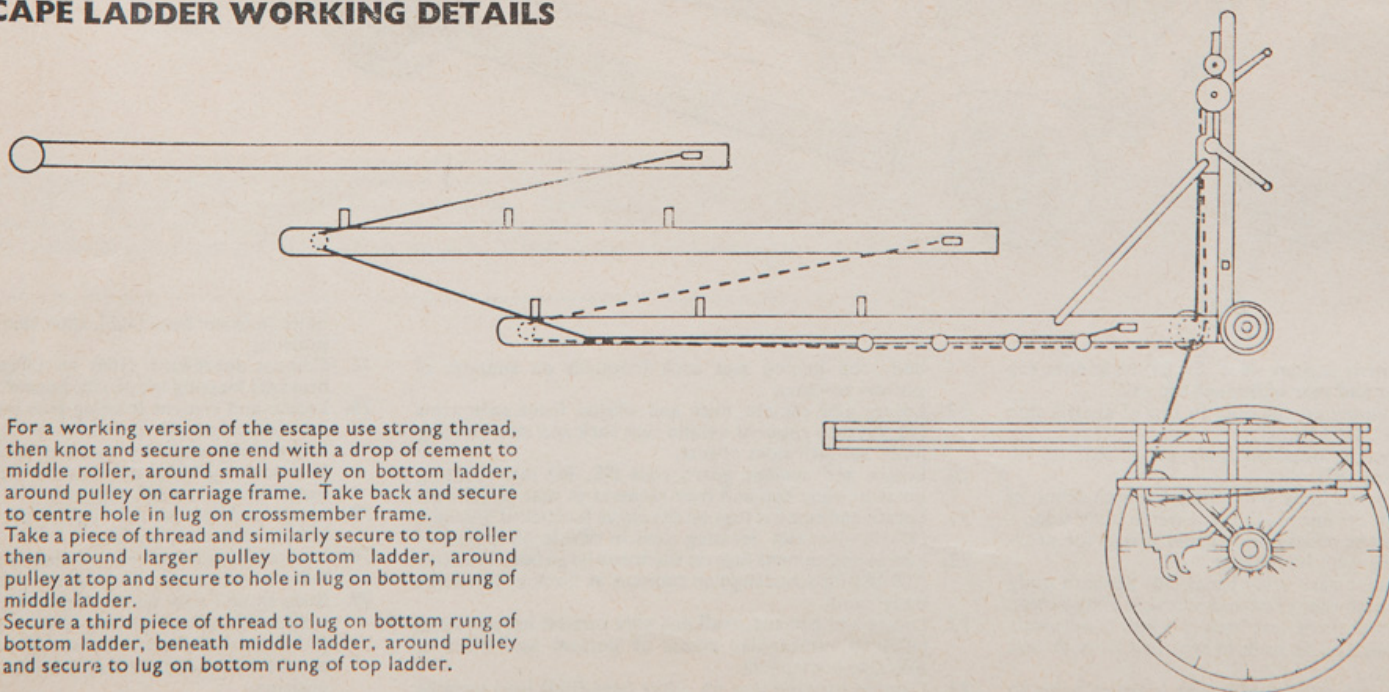
ESCAPE ASSEMBLY



80. Locate and cement axle bearing arms (115, 116) into outer locating holes in underside of carriage frame (117).
81. Locate and cement mounting brackets (118, 119) into outer locating holes beneath carriage frame crossmembers.
82. Locate and cement axle (120) to axle bearing arms.
83. Place, DO NOT CEMENT, escape wheels (121, 122) on ends of axles, place hub caps (123, 124) on ends of axles and carefully apply a drop of cement to ends of axles, ensure wheels turn freely.
84. Locate and cement carriage rails (125, 126) to inner locating holes in top of carriage frame.
85. Locate and cement ladder guide wheels (127-131) into locations on bottom ladder (132).
86. Locate and cement small wheels (133, 134) onto axles on bottom of escape frame (135).
87. Cement lugs on bottom ladder into slots in front of escape frame.
88. Locate and cement pulley bracket (136) with gears, to cut out in front of nearside escape frame, at same time enclosing handle of small roller (137) in bottom recess (NOT LOCATING HOLE) in pulley bracket. Keep cement clear of handle and recess. Gears outside frame. Allow to dry.
89. Hold ladder upright and insert pin on end of large roller (138) into hole in rear of large gear wheel, handle resting on to front of offside frame.
90. Similarly insert pins on top roller (139) then locate and cement offside pulley bracket (140) to escape frame front, enclosing pins on top and bottom roller and handle of middle large roller.
91. Locate and cement near and offside stays (141, 142) into locating holes in bottom of pulley brackets on sides of escape frame and to cut outs in top of ladder.
92. With pulley wheel at top slide middle ladder (143) between sides of bottom ladder under retaining lugs.
93. With wheels at top similarly slide top ladder (144) into position on middle ladder.
94. If a non-working ladder is required:
Engage first pair of ladder guide wheels beneath bottom ladder between carriage guide rails and slide ladder into position on carriage.
95. Escape can now be clipped in position on engine trunnions by clips on bottom of mounting bracket.

4

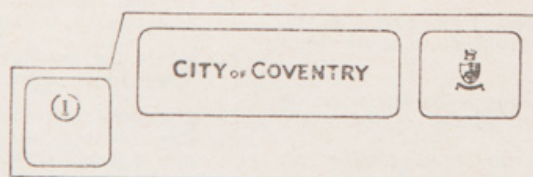
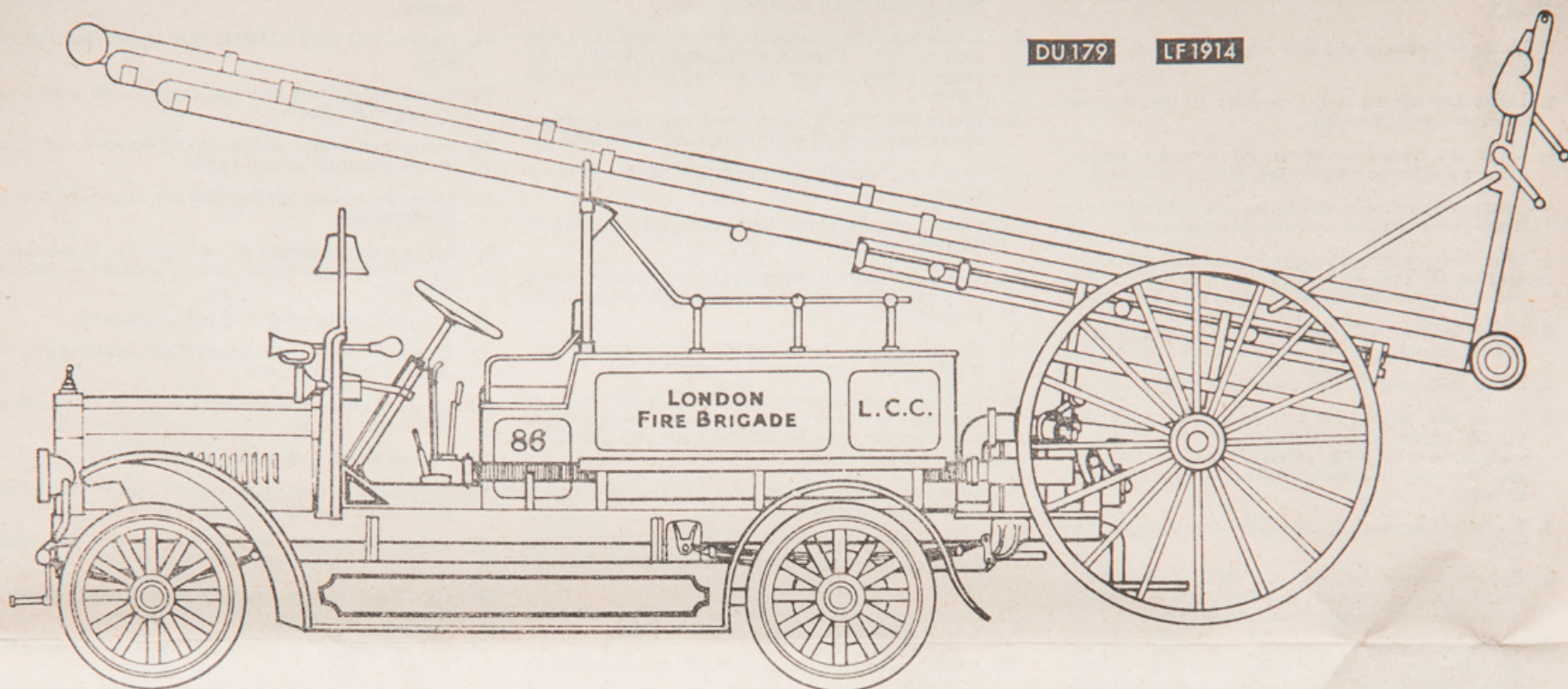
ESCAPE LADDER WORKING DETAILS



96. For a working version of the escape use strong thread, then knot and secure one end with a drop of cement to middle roller, around small pulley on bottom ladder, around pulley on carriage frame. Take back and secure to centre hole in lug on crossmember frame.
97. Take a piece of thread and similarly secure to top roller then around larger pulley bottom ladder, around pulley at top and secure to hole in lug on bottom rung of middle ladder.
98. Secure a third piece of thread to lug on bottom rung of bottom ladder, beneath middle ladder, around pulley and secure to lug on bottom rung of top ladder.

DU 179 LF 1914

DU 179 LF 1914



99. Apply transfers: two versions are supplied. For L.C.C. Cut the sheet into eleven separate subjects, dip each in warm water and slide off backing into position shown in illustration. The long panels to sides of running board locker.

The small triangular panels to front sides of cab floor. The words L.C.C. to rear of side body panels, LONDON FIRE BRIGADE to side body panels, the number 86 to front of side body panels. For City of Coventry apply City of Coventry to middle side body panels, the number 1 to front side body panels. The remaining transfers as for L.C.C. version. Cut out printed number plates and cement to front and rear number plates—for L.C.C. LF1914
CITY OF COVENTRY DU179

BRASS (GOLD)

Grip of starting handle, radiator, headlamps, headlamp supports, hose connections, all hub caps, bell, bell support, horn, steering wheel centre, galleys, guard rails, seat supports, seat arms, inlet pipe, inlet cover, outlet valve, outlet screw valves, handles of brake and gear levers, side lights, steering column rods, helmets, belt buckles and buttons of crew, handles of rollers and bonnet side handles, king pin shrouds.

SILVER

Fan, engine assembly, pump gear box assembly, flywheel, flywheel coupling, gear box, exhaust, top of rear platform, cab floor, rear axle assembly, pump gear lever, pump drive arm, top of base plate of pump casing, pulley wheels, pump drive, hose gutter, tops of running boards, bonnet sides and top, headlamp lens.

BLACK

Number plates, front axle, road springs except for shackles, fan belt, road tyres, boots of crew, priming engine and gears, chassis frame, rear chassis brace, dash box, rim of steering wheel, seat back, seat, front of radiator.

DARK BLUE

Uniform of crew.

WHITE

Hoses.

NATURAL WOOD

Rollers, ladders except for ladder retaining lugs, top ladder wheels and axle which are red, and pulley wheels, which are silver.

RED

All other parts.

