

GRESLEY A1/A3 'PACIFIC' INSTRUCTIONS.

PLEASE READ THROUGH THE INSTRUCTIONS BEFORE STARTING.

FIG. 1.

Cut out the running plate (1) and the valances (2). Do not remove the valance frames. The frame will hold the valance in shape while you are forming the running plate, and will hold everything firm while you are fitting the cab and boiler. File all the tabs off of the edges.

Fold the rear drag beam down. Fold the front end of the running plate down at 90°. Form the front curve (leaving the centre section flat) and the reverse curves next to the front splasher opening using the valances as a template. Roughly form the rear reverse curves as well. When the valances fit into the front curve and reverse curves you can tack them into their recesses. Start from the front and go right back to the reverse curves. Using a piece of dowel simply push against the running plate and force it into the concave "second" curve in the valance. This should automatically form both the curves and you can tack solder them in place. Solder along the seams to form a rigid structure.

Solder the bufferbeam (3) into the recess at the front of the running plate.

Do not remove the valance frames just yet. Check that the rear dragbeam and the bufferbeam line up square. Make any adjustments by twisting the running plate gently.

Solder an 8BA screw into the hole at the front end and two 10BA screws into the holes at the back end.

Fold up the smokebox saddle (4) with the fold lines on the inside. Solder the smokebox saddle over the 8BA screw head. Form the saddle top (5) to shape with the half etched lines facing up and solder it onto the saddle.

Fold the flap that is between the front running plate curves up at 90°. Solder the front frame extensions (13) and the upper frame tops (14) into the recesses in the top of the running plate. Take either the early (19) or late (20) centre cylinder cover and solder between the frame extensions.

Now turn to the cab. Solder the cab sides (21 & 22) into their slots making sure that they are an even distance from the rear drag beam. Solder the cab front (23) into the two slots and then solder along the joint between the front and the sides. File off any overlap. Solder the cab floor support (24) in place. Solder the cab floor (25) onto the support. Form the rear curves on the cab side overlays (26 & 27) to match the curve on the cab floor. Solder the overlays onto the cab sides.

Curve the cab roof (28) to match the cab front profile. You may need to file away a little bit of the cab front to get a better fit. Hold the roof in position and tack solder it in place at the front and then at the corners. Check it sits square and level. When satisfied with this solder around the seams. Check the level again and alter it if necessary.

Solder the riveted roof overlay (29) to the centre rear of the roof. Curve the two parts of the roof shutter mount (30) and solder them onto the roof. Solder the double roof shutters (31) on top of the mount. Note which way round they go.

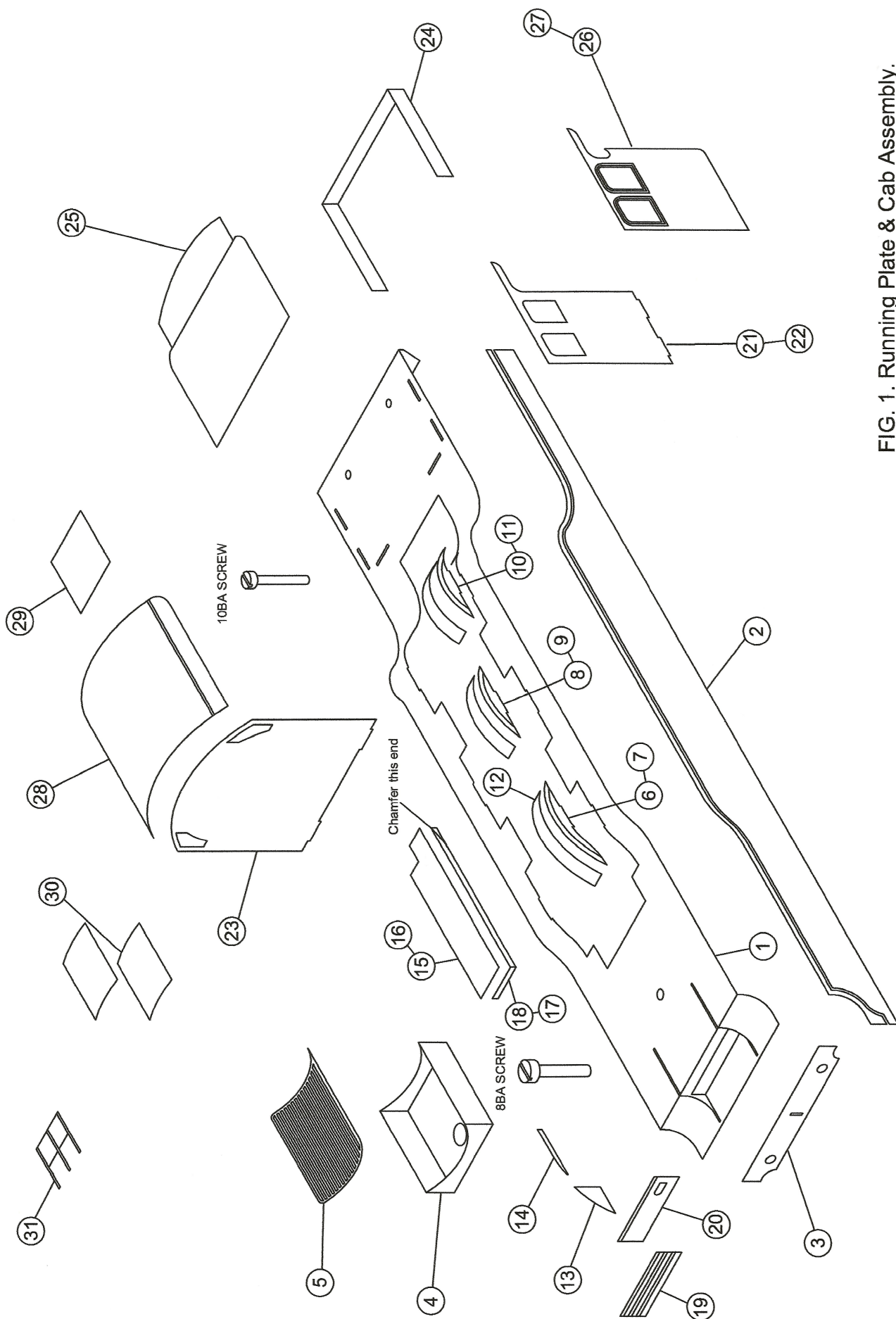


FIG. 1. Running Plate & Cab Assembly.

FIG. 2.

Glue the cab backhead (33) inside the cab. Glue the cab platforms (34 & 35) on the left and right of the cab floor. Glue the reversing screw (36) in place on the left hand platform for L/H drive engines or on the R/H platform for R/H drive. Glue the cab seats (37 & 38) either side of the cab.

FIG. 2. Cab Detailing.

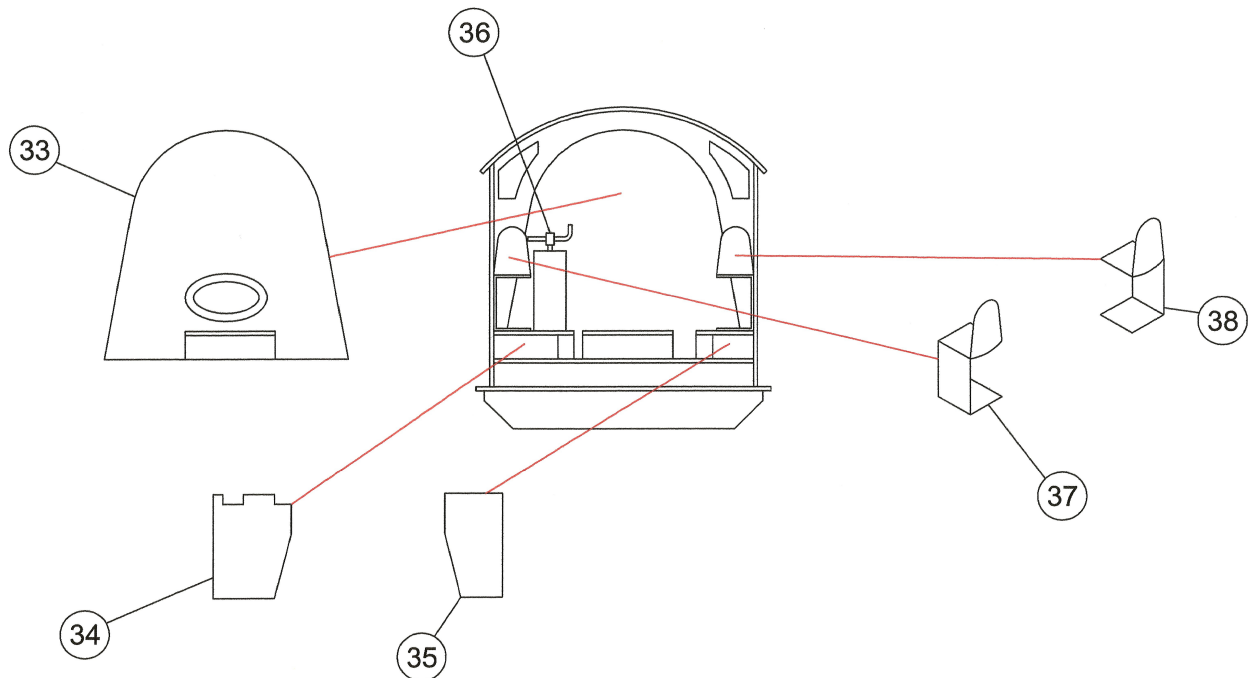


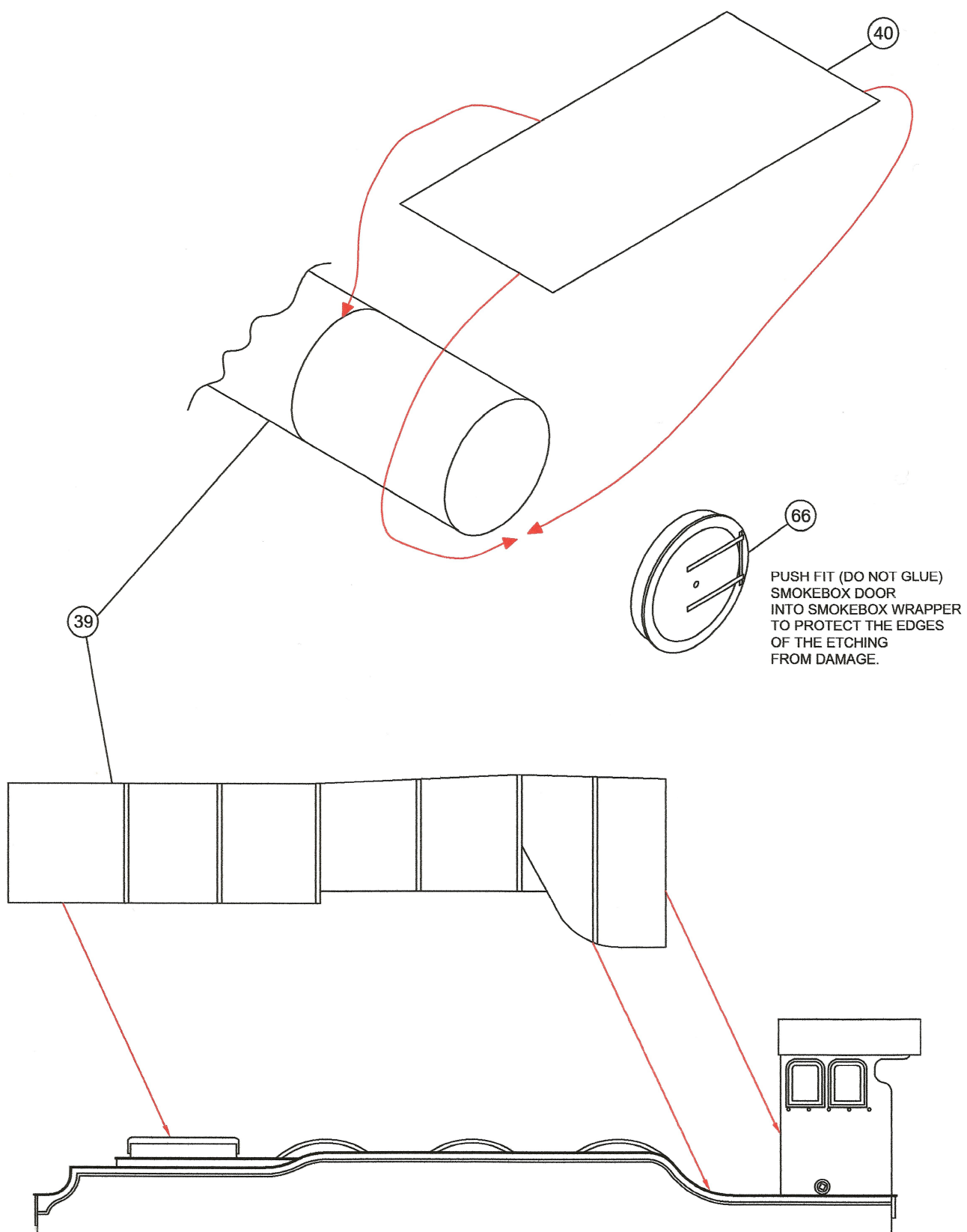
FIG. 3.

Clean up the Boiler (39) removing any lines that may be there. Lightly rough the surface of the resin otherwise it will not be easy to paint (A fibre polishing pen is ideal for this). Remove the smokebox wrapper (40) from the fret and rough up the inside surface. Gently roll it around a piece of dowel or brass approx 15mm in diameter until it is slightly smaller than the boiler diameter, this will prevent it springing open. Hold the wrapper in position around the boiler. Make sure it is lined up correctly and is square. Run superglue along the edges so that it is tacked in place. Check again that everything is square and then glue firmly in place. Push the smokebox door (66) in place but **DO NOT** glue in. This prevents the edges from being damaged.

Now recheck the fit of the boiler onto the running plate. When you have the boiler sitting centrally tack it in place with superglue. Check it again and then secure it with epoxy resin. Leave it for a few hours, at least, to harden off. Check that the smokebox door is level and glue in place. Refer to the diagram, mark the holes for the handrail knobs and ejector pipe and drill out with a 0.85mm bit.

When the glue is set the valance frames can be removed. Using a small pair of tin Snips cut up the valance frames at intervals of about 15mm. Bend the parts of the frames off of the valance and file off all the tabs.

FIG. 3. BOILER PREPARATION.



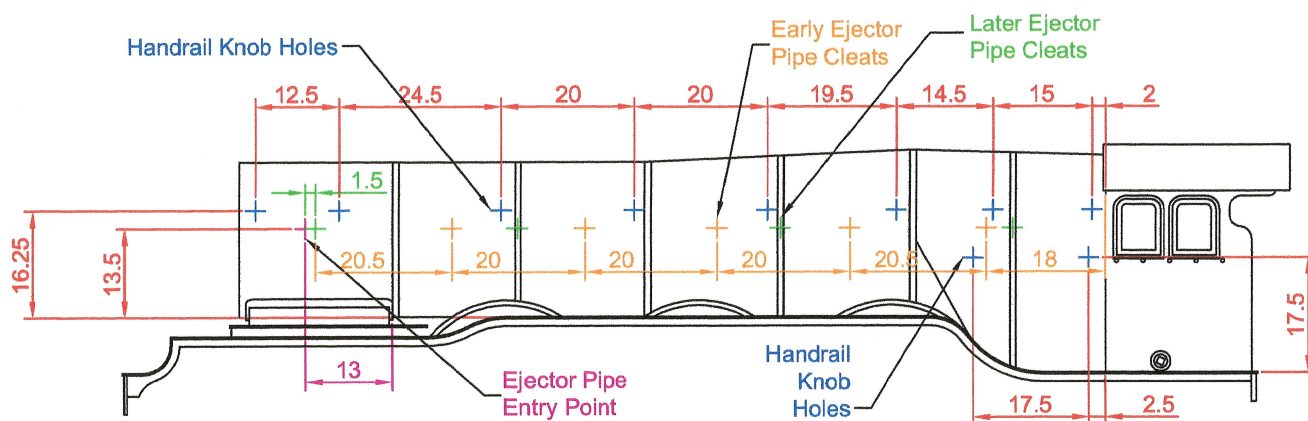


FIG. 4.

To position all these parts as accurately as possible you will need to find as many photographs of the loco you are modelling as you can find. The following books will be of assistance; RCTS - Locomotives of the LNER, part 2A; Yeadons Register of LNER Locomotives, Volume 1. The Isinglass drawings Nos. 327B, 328B, 329B, 330B, 331B, 332B and 333B are also an excellent reference.

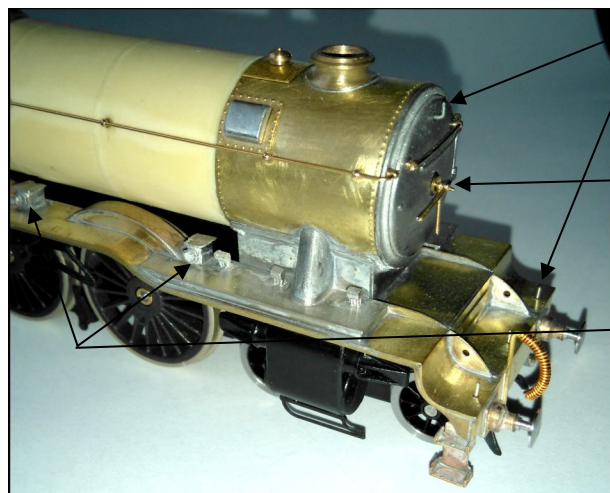
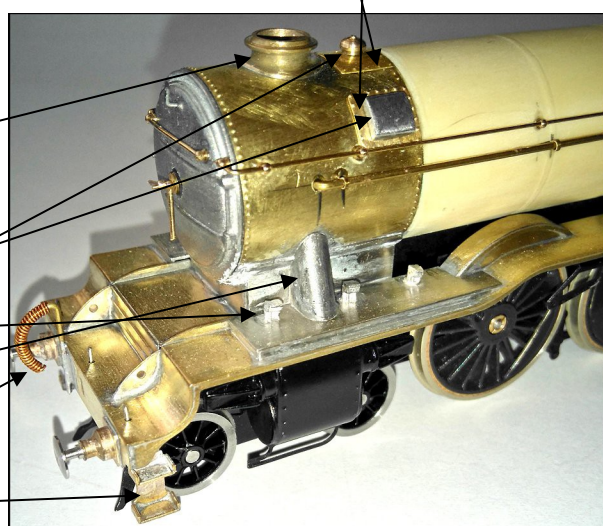
Glue the anti-vacuum valve base (41) and the superheater cover bases (42) in position.

Glue or solder the Double chimney (43) or the single chimney (44) in place.

The anti vacuum valve (47) and the superheater (48) covers can now be fitted.

Glue or solder the oilboxes (60) and the steam pipes (54) in place.

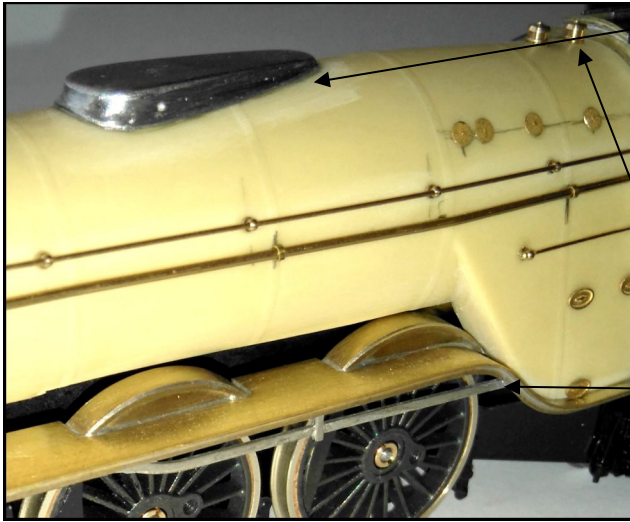
The front running plate steps (49) and vac pipe (57) will be better soldered in place.



Drill out the holes for the lamp brackets (56) and glue them in place.

Drill out the hole for the smokebox door handle (58). Glue the spigot in the hole and fit the handle to the spigot.

Glue or solder the mechanical lubricators (59) in place. (As shown for L/H drive, other side for R/H drive).



Fit either the streamline dome (45) or the single dome (46). The streamline dome fits in position as shown, but the single dome sits on the boiler band that marks the point at which the boiler changes from parallel to tapered.

The ross pop safety valves (61) can be fitted after painting.

Solder together the reversing bar, either the L/H Doncaster (50), the R/H Doncaster (51) or the R/H North British (52) style. Solder it in position.

The positions and measurements for the washout plugs are shown in drawing 4b.

FIG. 4b.

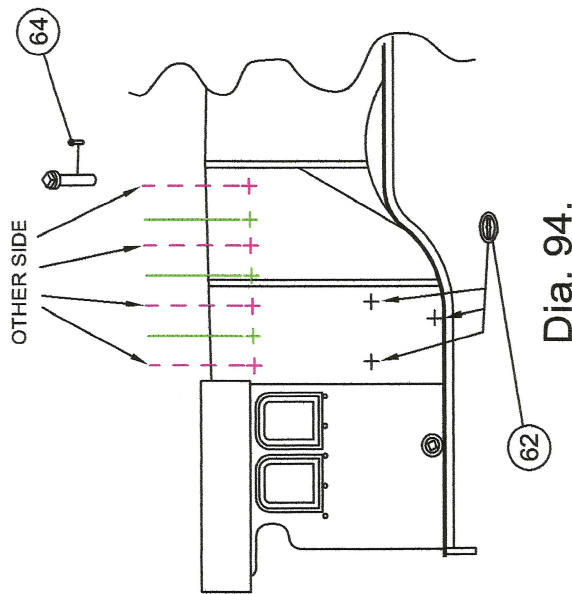
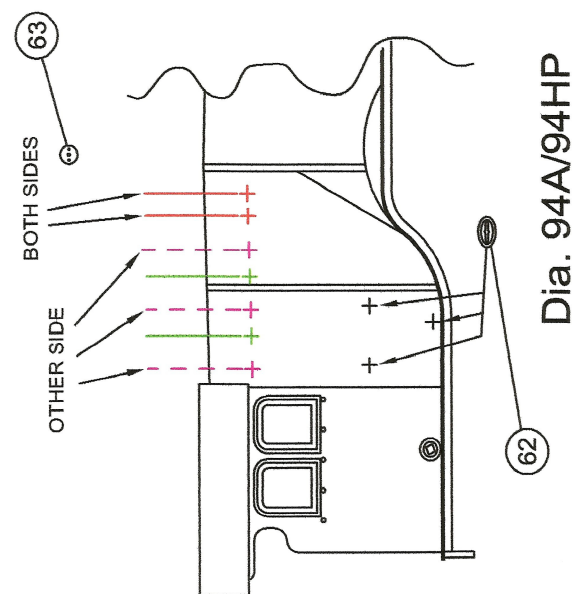
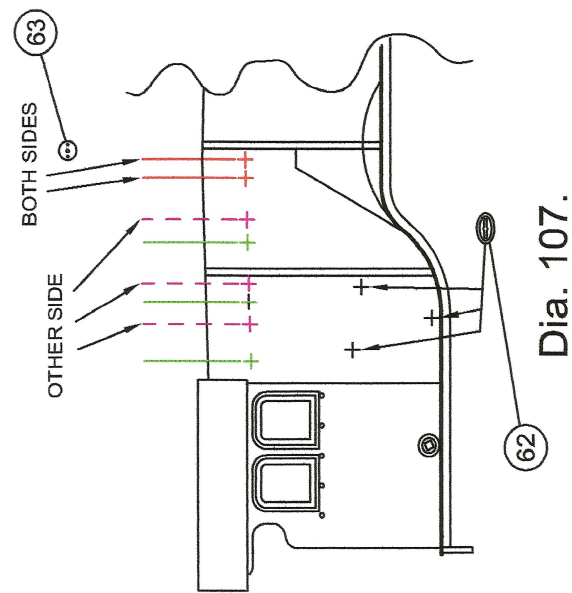
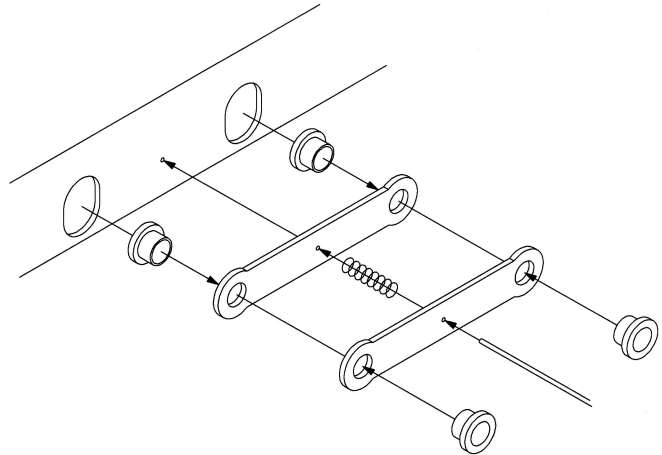


FIG. 5.

The chassis can be built rigid or compensated so decide now which one you are going to make. If building a compensated chassis remove the sections from the axle holes.

Cut out the mainframes (1). Also cut out the bogie mounting spacer (3), pony mount (5), rear spacer (4) and rear frame stretcher (6). Fold the frames up and solder spacers 3, 4 and 5 in place. Bend out the rear frames to the width of the rear frame stretcher (6) and solder the stretcher in place. Tack some solder across the back of the frame folds to give added strength.



Compensated Chassis – Remove the centre sections from the front and middle axle openings. Solder the axle bearings (7) into the compensating beams (2). Fit the compensating beams by passing brass wire through the frames, through one of the beams, then one of the springs, then the next beam and finally out the other side of the chassis. Hold the beams away from the chassis side while soldering the wire in place to prevent them being soldered to the frames. Fit the wheels so you can test the compensating mechanism and when satisfied that it works O.K. remove the wheels and put them to one side.

Rigid Chassis - Solder the chassis bearings (7) into the frames (you may need to file these down a bit to give wheel clearance).

Cut the main motion bracket (8) from the valve gear fret and fold as shown, likewise with the front motion bracket (8a). Locate and solder them in the slots in the top of the frames. Solder a 10BA screw into the drawbar mount (26). Solder a 10BA screw into the pony mounting spacer spacer (5) and an 8BA screw into the bogie mounting spacer (3). Solder the cab steps (9 & 10) into the slots at the back of the frames.

Assemble the brake hangers (11) and blocks (12) making three L/H and three R/H. Cut the brass wire (36) into suitable lengths (1½ ins approx) and solder into the holes in the bottom of the frames. The assembled brake shoes can be attached to the ends of the wire approx 2.5mm from the side of the frames. Once in place the brake rodding (13) can be attached by passing wire through the bottom of the brake hangers then the two rods and then through the hangers on the opposite side. The rodding should run just inside the line of the frames,

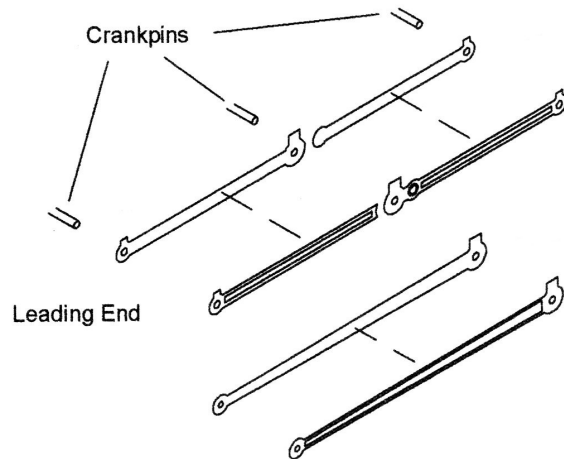
Fold the cylinders (14) and solder them into the frames. Shape the cylinder sides (15) and solder these to the cylinders. Fit the front cylinder covers (16). Curve the bogie splashers (20) and solder into the recesses in the wheel arches. Using low melt solder fit the front valve guides (18), rear valve guides (19) and rear cylinder covers (17). At this point glue the Cartazzi axleboxes (30 & 31) to the rear frames

The frames can now be painted. Take care not to gum up the moving parts if you have built a compensated chassis.

Assemble the bogie (21) and pony truck (23). Fold them as shown and solder in the 2mm bearings (24). Solder the front and rear strengtheners (22) into the bogie.

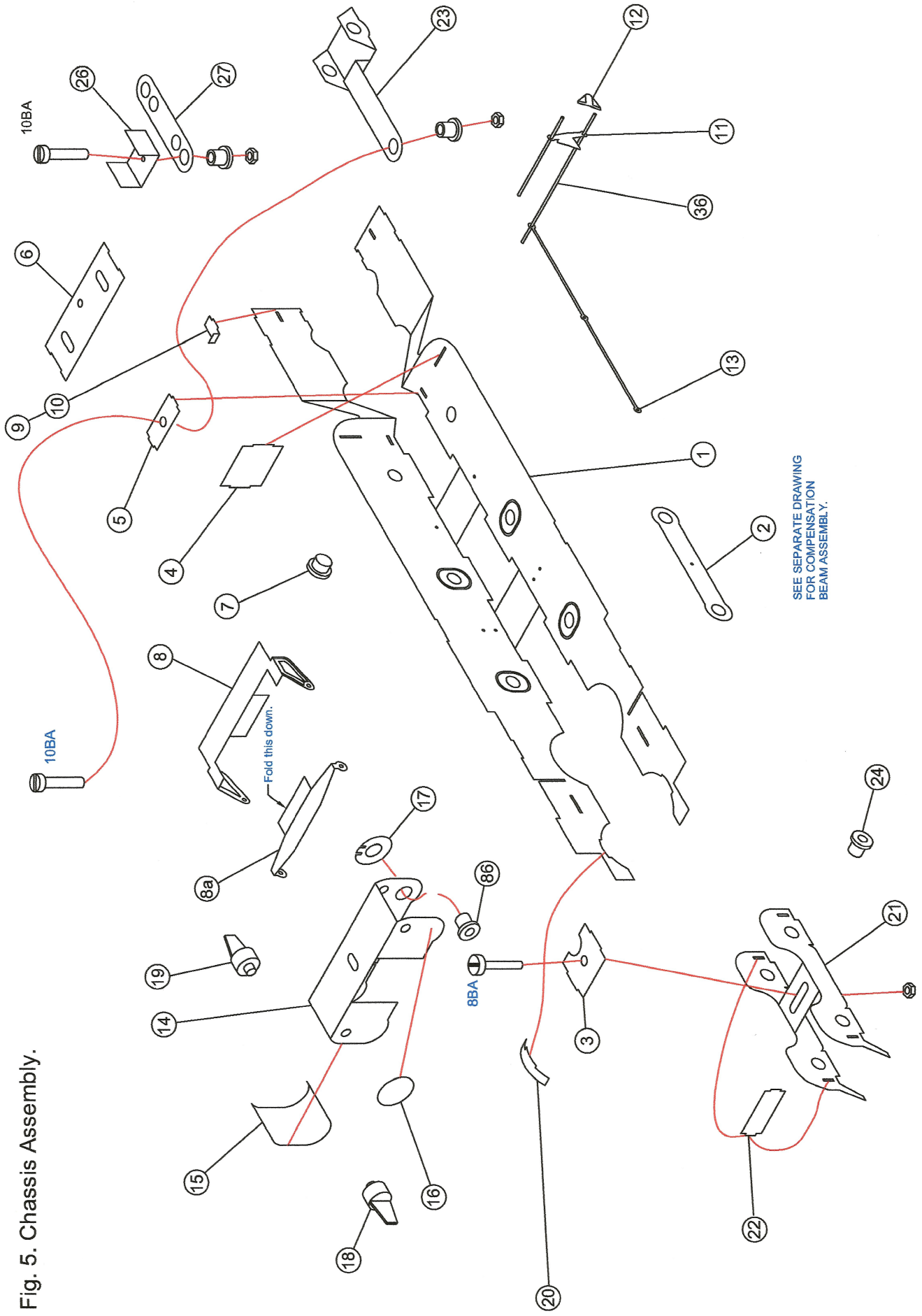
Sweat together the coupling rods (32) and connecting rods (33). Fit the coupling rods to the wheels (not shown) making sure that the chassis runs freely. Screw the connecting rods to the crossheads (28) using the 16BA nuts and screws provided.

Refer to Fig. 6 and rivet together the valve gear parts (take care with this and you should have no problems). Attach the assembled valve gear to the motion bracket (8) using 16BA nuts and screws and fix the drop links to the crossheads in the same way.

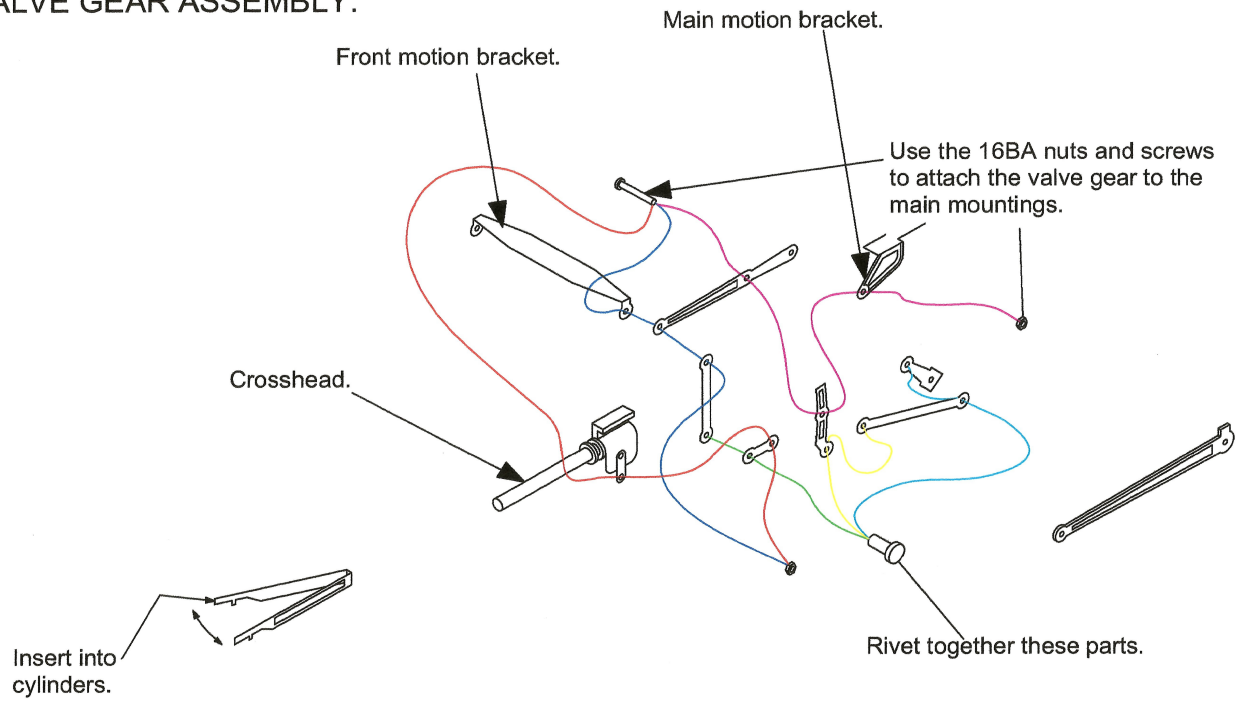


Fit the bogie and pony wheels and attach these units to the chassis. Cut away the front bottom corner of the cylinders as necessary. Using some copper clad plate and brass wire fashion pick ups to your own design.

Fig. 5. Chassis Assembly.



VALVE GEAR ASSEMBLY.



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LOCO BODY PARTS LIST

- | | | |
|----------------------------------|-----------------------------------|--|
| 1. Running plate. | 24. Cab floor support. | 47. Anti-vacuum valve. |
| 2. Valances. | 25. Cab floor (with Fallplate). | 48. Superheater covers. |
| 3. Bufferbeam. | 26. L/H Cab side overlay. | 49. Front running plate steps. |
| 4. Smokebox saddle top. | 27. R/H Cab side overlay. | 50. L/H Drive Doncaster style reversing bar. |
| 5. Smokebox saddle. | 28. Cab roof. | 51. R/H Drive Doncaster style reversing bar. |
| 6. L/H Front splasher side. | 29. Riveted roof overlay. | 52. R/H Drive NB style reversing bar. |
| 7. R/H Front splasher side. | 30. Roof shutter mount (2 parts). | 53. Whistle. |
| 8. L/H Centre splasher side. | 31. Double cab roof shutters. | 54. Steam pipes. |
| 9. R/H Centre splasher side. | 32. Spencer double buffers. | 55. Ejector pipe (.9mm wire). |
| 10. L/H Rear splasher side. | 33. Cab backhead. | 56. Lamp brackets. |
| 11. R/H Rear splasher side. | 34. L/H Cab platform. | 57. Vacuum pipe. |
| 12. Splasher tops. | 35. R/H Cab platform. | 58. Smokebox door handle. |
| 13. Front frame extensions. | 36. Reversing screw. | 59. Mechanical lubricators. |
| 14. Upper frame tops. | 37. L/H Cab seat. | 60. Oilboxes. |
| 15. L/H Platform. | 38. R/H Cab seat. | 61. Ross pop safety valves. |
| 16. R/H Platform. | 39. Resin boiler. | 62. Oval washout plugs. |
| 17. L/H Platform support. | 40. Smokebox wrapper. | 63. Round washout plugs. |
| 18. R/H Platform support. | 41. Anti-vacuum valve base. | 64. Small (Cast) washout plugs. |
| 19. Early centre cylinder cover. | 42. Superheater cover bases. | 65. Cab doors. |
| 20. Later centre cylinder cover. | 43. Double chimney. | 66. Smokebox door. |
| 21. L/H Cab side. | 44. Single chimney. | 67. Handrail knobs. |
| 22. R/H Cab side. | 45. Streamline dome. | 68. Handrail wire (.45mm). |
| 23. Cab front. | 46. Single dome. | |

CHASSIS PARTS LIST

- | | |
|----------------------------------|---------------------------|
| 1. Mainframes. | 24. 2mm Bearings. |
| 2. Compensating beams. | 25. Springs. |
| 3. Bogie mounting spacer. | 26. Drawbar mount. |
| 4. Rear spacer. | 27. Drawbar. |
| 5. Pony mounting spacer. | 28. Crossheads. |
| 6. Rear frame stretcher. | 29. Slidebars. |
| 7. Chassis bearings. | 30. L/H Cartazzi axlebox. |
| 8. Main motion bracket. | 31. R/H Cartazzi axlebox. |
| 8a. Front motion bracket. | 32. Coupling rods. |
| 9. L/H Cab steps. | 33. Connecting rods. |
| 10. R/H Cab steps. | 34. Valve gear. |
| 11. Brake hangers. | 35. Valve gear rivets. |
| 12. Brake blocks. | 36. 0.7mm Brass wire. |
| 13. Brake rodding. | 37. 8BA Screws and nuts. |
| 14. Cylinders. | 38. 10BA Screws and nuts. |
| 15. Cylinder sides. | 39. 16BA Screws and nuts. |
| 16. Front cylinder covers. | 40. |
| 17. Rear cylinder covers. | 41. |
| 18. Front valve guides. | 42. |
| 19. Rear valve guides. | 43. |
| 20. Front bogie wheel splashers. | |
| 21. Front bogie. | |
| 22. Bogie strengtheners. | |
| 23. Pony truck. | |

Engine details

LNER No.	Final 1946 No.	BR No.	Build Date	A3 Rebuild Date	Disposal Date	Name
4470	-	-	4/22	-	-	Great Northern
4471	102	60102	7/22	10/42	11/61	Sir Frederick Banbury
4472	103	60103	2/23	1/47	11/63	Flying Scotsman
4473	104	60104	3/23	10/41	11/59	Solario
4474	105	60105	3/23	10/42	11/63	Victor Wild
4475	106	60106	4/23	3/47	11/64	Flying Fox
4476	107	60107	5/23	10/46	11/63	Royal Lancer
4477	108	60108	6/23	1/43	11/63	Gay Crusader
4478	109	60109	7/23	11/43	11/62	Hermit
4479	110	60110	7/23	8/42	11/63	Robert the Devil
4480	111	60111	8/23	7/27	11/62	Enterprise
4481	112	60112	9/23	8/46	11/64	St Simon
2543	44	60044	6/24	9/47	6/63	Melton
2544	45	60045	7/24	12/27	11/64	Lemberg
2545	46	60046	8/24	8/41	6/63	Diamond Jubilee
2546	47	60047	8/24	1/48	4/63	Donovan
2547	48	60048	8/24	5/46	9/63	Doncaster
2548	49	60049	9/24	10/45	12/62	Galtee More
2549	50	60050	10/24	12/43	6/63	Persimmon
2550	51	60051	10/24	11/45	11/64	Blink Bonny
2551	52	60052	11/24	8/41	1/66	Prince Palatine
2552	53	60053	11/24	9/43	5/63	Sansovino
2553	54	60054	12/24	7/43	6/64	Prince of Wales
2554	55	60055	12/24	6/42	9/61	Woolwinder
2555	56	60056	2/25	8/44	5/63	Centenary
2556	57	60057	2/25	1/47	10/63	Ormonde
2557	58	60058	2/25	12/45	6/63	Blair Athol
2558	59	60059	3/25	7/42	12/62	Tracery
2559	60	60060	4/25	1/42	9/63	The Tetrarch
2560	61	60061	4/25	5/44	9/63	Pretty Polly
2561	62	60062	5/25	6/44	12/64	Minoru
2562	63	60063	7/25	4/46	6/64	Isinglass
2563	64	60064	8/24	11/42	9/61	William Whitelaw
2564	65	60065	8/24	3/47	6/64	Knight of the Thistle
2565	66	60066	8/24	12/45	9/63	Merry Hampton
2566	67	60067	8/24	11/39	12/62	Ladas
2567	68	60068	9/24	12/48	8/62	Sir Visto
2568	69	60069	9/24	5/42	10/62	Sceptre
2569	70	60070	9/24	1/47	5/64	Gladiator
2570	71	60071	9/24	10/44	10/64	Tranquil
2571	72	60072	9/24	7/41	10/62	Sunstar
2572	73	60073	10/24	11/45	8/63	St Gatien
2573	74	60074	10/24	4/28	4/63	Harvester
2574	75	60075	10/24	6/42	1/64	St Frusquin
2575	76	60076	10/24	6/41	10/62	Galopin
2576	77	60077	10/24	7/43	7/64	The White Knight
2577	78	60078	10/24	1/44	10/62	Night Hawk
2578	79	60079	10/24	5/28	9/61	Bayardo

2579	80	60080	11/24	11/42	10/64	Dick Turpin
2580	81	60081	11/24	2/28	10/62	Shotover
2581	82	60082	11/24	1/43	9/63	Neil Gow
2582	83	60083	12/24	12/41	5/64	Sir Hugo
2743	89	60089	8/28		10/63	Felstead
2744	90	60090	8/28		10/63	Grand Parade
2745	91	60091	9/28		10/64	Captain Cuttle
2746	92	60092	11/28		10/64	Fairway
2747	93	60093	12/28		4/62	Coronach
2748	94	60094	12/28		2/64	Colorado
2749	95	60095	2/29		4/61	Flamingo
2750	96	60096	3/29		9/63	Papyrus
2751	97	60097	4/29		18/63	Humorist
2752	98	60098	4/29		10/63	Spion Kop
2595	84	60084	2/30		11/64	Trigo
2596	85	60085	2/30		10/64	Manna
2597	86	60086	4/30		11/63	Gainsborough
2795	99	60099	4/30		10/63	Call Boy
2796	100	60100	5/30		6/65	Spearmint
2797	101	60101	6/30		4/63	Cicero
2598	87	60087	6/30		10/63	Blenheim
2599	88	60088	7/30		10/63	Book Law
2500	35	60035	7/34		9/61	Windsor Lad
2501	36	60036	7/34		11/64	Colombo
2502	37	60037	7/34		12/63	Hyperion
2503	38	60038	8/34		11/63	Firdaussi
2504	39	60039	9/34		3/63	Sandwich
2505	40	60040	10/34		7/64	Cameronian
2506	41	60041	12/34		12/65	Salmon Trout
2507	42	60042	12/34		7/64	Singapore
2508	43	60043	12/35		5/64	Brown Jack