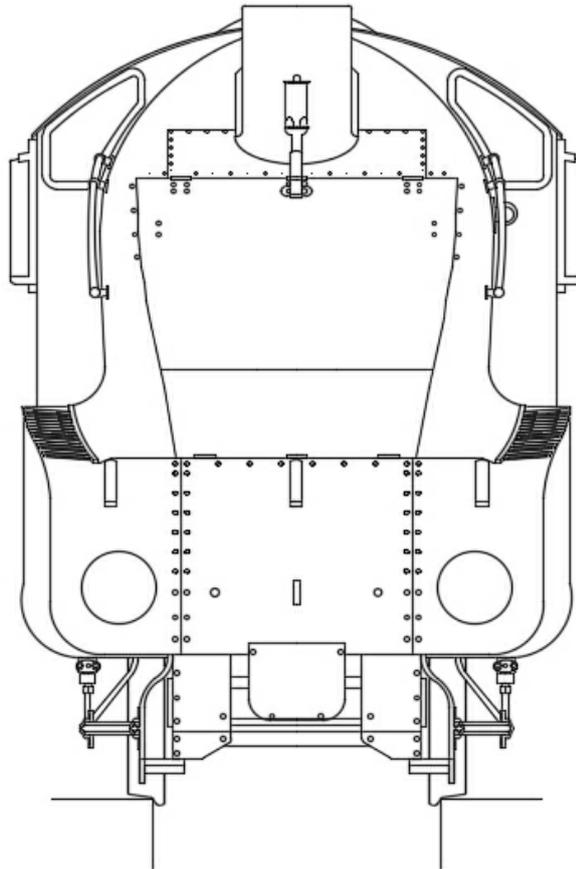


LNER GRESLEY A4 PACIFIC**CAUTION.**

This product contains etched parts with very sharp edges and castings that may contain lead. Neither the Manufacturer, Distributor or Retailer can accept any liability for illness, injury or consequential damage caused when handling or building this product.

Read any instructions before assembly. Do not eat or drink whilst handling.
Wash hands after use.

BRIEF HISTORICAL DETAILS

In 1935, Gresley convinced the LNER directors that, with steam, he could produce a far better commercial return than by following the German example of switching to diesel propulsion for high speed trains. The resulting A4 class were a significant step forward from his previous A3 class which were themselves a development of his original A1 class Pacifics for the Great Northern Railway first introduced in 1922. The new locomotives made an immediate impact both through their looks and their performances on the new high speed services.

The engines were built under 6 Engine Orders as follows:

EO	Numbers	To Traffic	Original Chimney	Original Tender
338	2509-12	9/1935-12/1935	Single	Streamlined Corridor
340	4482-90 4492	12/1936-6/1937 6/1937	Single Single	1928 Corridor Streamlined Corridor
341	4492-97 4498	6/1937-10/1937 10/1937	Single Single	Streamlined Corridor 1928 Corridor
341A	4462-64	12/1937	Single	Streamlined Non-Corridor
342	4465-67 4468 4469, 4499 4500, 4900 4901, 4902	1/1938-2/1938 3/1938 3/1938, 4/1938 4/1938, 5/1938 6/1938	Single Double Single Single Double	Streamlined Non-Corridor Streamlined Non-Corridor Streamlined Non-Corridor Streamlined Non-Corridor Streamlined Non-Corridor
343	4903	7/1928	Double	Streamlined Non-Corridor

For a detailed history of this class Part 2A of Locomotives of the LNER published by the RCTS is essential reading.

Other valuable sources of information and photographs are:

Isinglass Drawings. Drg. N0. 315 & Drg. N0. 316.

Locomotives Illustrated 38 - Ian Allan

The Gresley Pacifics - O.S.Nock - David & Charles

Yeadon's Register of LNER Locomotives - Volume Two - Irwell Press

East Coast Pacifics at work - P.N.Townend - Ian Allan

The A4 Pacifics - P.N.Townend - Ian Allan

The Power of the A4's - Brian Morrison - Oxford Publishing Co.

VARIATIONS/MODIFICATIONS INCORPORATED INTO THE KIT.

Chimney. Single and double chimneys. Double chimneys were fitted to all of the single chimney fitted locomotives between 5/1957 and 11/1958.

Frame rivets. The original engines were built using countersunk rivets and so give a smooth appearance to the frames. Many photographs show a gradual change to some rivets with a visible head as frames were repaired.

Extra roof vents. Fitted from 3/37

Casing access doors. There were two types, originally with a press clip fastener replaced, from 11/37 with the locking handle type.

Extra casing access doors each side of the smokebox. From 4/38 locos 2509-11, 4488/90/91/99, 4500 & 4901-3 were fitted with these doors which had two hinges on their top edge. From 1939 these '2 hinge doors' were replaced by a longer three hinge door; all 35 engines received them.

Lamp bracket - smoke box door. From March 1941 the top lamp bracket was moved 9" down the door.

Side skirting. Between 6/41 and 10/42 the skirting both in front of and behind the cylinders was removed from all the locos. This revealed that some of the locomotives had the GNR. pattern valve guides ahead of the cylinders; these are provided in the kit.

Bogie dust shields. At first two small dust shields were fitted to the front of the bogie. From about 1941 these were replaced with a continuous one. Until this time the pipes from the middle cylinder drain cocks were not visible, but when the continuous dust shield was fitted these pipes were brought to the outside, one emerging either side beneath each outside cylinder to be clipped to the pair already there, thus making three pipes on each side from this time onwards.

Frame guard irons. Between 12/52 and 6/54 the large guard irons were removed and consequently the cylinder drain pipes cut back to a point level with the centre of the leading bogie wheels.

TENDERS

As can be seen from the table the locomotives were fitted with three types of tender as follows:

1928 Corridor tender - 10 tenders modified from the tenders originally fitted to the A1 and A3 un-streamlined Pacifics. Easily recognisable because they retained their external beading.

Streamlined Corridor tender - 11 tenders built new for the A4's. They had no external beading.

Streamlined Non-Corridor tender - 14 new tenders. Easily recognisable because of their lack of a corridor and their narrower width over the tank. They too have no external beading.

Tender changes were not uncommon, so a dated photograph is needed to show the type of tender at a given time.

CHASSIS OVERVIEW

Note that many of the components for both chassis and body are handed left/right and care must be taken to ensure the correct component is used. Components are not always identified left/right separately but with care and common sense no problems should arise.

6BA screws are provided as one size only, some will require trimming before final assembly.

Before construction can commence you have to decide which particular chassis you are going to construct. The options are:

Gauge.

For Finescale, where little side play is required, the widest spacers can be used but they will need careful filing to make their width 26.0 mm. If you require your engine to negotiate sharp curves then the middle width spacers should be used.

The widest frame spacers supplied are suitable for Scaleseven and care will be needed to allow sufficient side play, especially in the leading axle to enable the model to negotiate moderate curves.

Suspension.

Rigid. The kit is supplied with top hat bearings to build a rigid chassis. Open out the main axle holes to accept top hat bushes and solder them in place. If the leading axle is 5/32" diameter then reduce the bearing diameter accordingly by fitting a sleeve from short lengths of the 3/16" tubing provided.

Sprung. If you are going to fit sprung horn blocks, you should open out the frame slots by cutting up the half etched lines and follow the manufacturers instructions.

Compensated. The simplest and most reliable suspension system is beam compensation and the necessary compensation beams are provided in the kit. Not provided are the horn guides and bearings for fully sprung units or compensation beam installation, which are available as an extra item and includes instructions for aligning the horn guides accurately.

Pickups. No pickup material is provided. The options are:

Scrapers. Attached to the middle frame spacer using printed circuit board.

Plunger. Open out holes P and fit according to the manufacturers instructions. It may not be possible to use plunger pickups if you wish to fit the inside motion because they may foul each other.

Split axle/frame. We leave this to you. Some useful information can be found at <http://www.euram-online.co.uk/tips/splitaxle/splitaxle.htm>.

COMPONENTS NOT SUPPLIED

WHEELS

Driving wheel - 6' 8", 20 spoke, 3/16" diameter axle (3)

Slater's Ref. 7880G

Bogie wheel - 3' 2" diameter, 10 spoke, 5/32" diameter axle (2)

Slater's Ref. 7838GMF

Trailing wheel - 3' 8" diameter, 12 spoke, 5/32" diameter axle (1)

Slater's Ref. 7843NEMF

MOTOR/GEARBOX

A Canon motor with either an ABC- VML2 gearbox or a SDMP 40L/15 gearbox (available from Finney7).

CRANKPINS

Steel crankpins are available from Finney7.