

## ENGLISH ELECTRIC 'GT3' GAS-TURBINE 4-6-0

### Historical notes;

Originally conceived by English Electric in the immediate post-war period as a means of selling railway companies a modern power plant to replace the boiler on redundant steam loco chassis, 'GT3' was a long time in the design stage, finally taking to the rails in the late 50's. It utilised an EE gas-turbine engine, driving what was essentially a 'Black 5' 4-6-0 chassis via a mechanical transmission. The tender, mounted on a standard underframe purchased from BR, carried the fuel, a steam heating boiler & water supply, & a lavatory for the crew. The steam loco type layout was chosen both for familiarity, & because, at the time of conception, turntables were still in use at most depots & termini, & their demise, along with the steam loco was not yet anticipated. GT3 began trials on the Great Central line, mostly north of Leicester, but occasionally finding its way down to the London area. 1961 saw it moving to the Settle & Carlisle line, where it put up some impressive performances, though it burnt a lot of fuel in the process... Regretfully, after the publication of the modernisation plan, BR committed itself to diesel & electric traction, & GT3 was quietly returned to its makers in 1962, where it sat in a siding at the works until the press seized upon it as a subject for controversy, & it was hurriedly towed away for scrap, ending another brave experiment in British locomotive history.

**Livery;** GT3 was finished in a red-brown shade, though the colour varies in published photographs;- (I've plumped for Ford 'Laquer red' from Halfords.) the cab rear, tender front & rear, wheels & underframe were finished in a dark olive green, once again of uncertain hue, & a yellow & black lining adorned the cantrail & loco waistline.

### The Kit;

This kit is designed to fit the Chinese-made Hornby 'Black 5' chassis, & will also need a Hornby BR tender underframe & suitable wheels. (There is no reason why the older tender driven chassis could not be used, though you will need to modify the mounting arrangements to suit, & pair with a Britannia or 9F tender drive unit;) Additionally, you will also need a set of oval buffers (Bachmann do some nice sprung ones as an accessory), a couple of dozen handrail knobs & suitable wire. This has proved a difficult loco to model, as the only published drawings I've found have all contained major errors; however, I've surmised as much as possible from photographs, & trust you will find the end result captures the essence of this unique locomotive with reasonable accuracy. There is also plenty of scope for extra detailing, should you wish.

**Chassis modifications;** Firstly, unscrew the valve gear retaining screws from the centre crankpins, followed by the motion brackets on the sides of the chassis, & lastly the cylinders. You can either replace the spacing washers on the centre crankpin, or you can shorten the crankpin to more closely match the outer ones, though in this case, the retaining screw will need to be shortened also, as the thread doesn't go all the way down the pin. Glue the outside bogie frames(11,12) to the bogie, lining up with the wheels. **Tender;** It is possible, with a little effort, to squeeze Romford pinpoint axle wheelsets into the Hornby tender underframe; failing this, you could obtain a trailing bogie frame from a hornby class 37 or 47, which will clip straight in, replacing the drive unit. Carve or file off the steps, sieve boxes, raised beading on the front edge, & buffer shanks, making good as required with a little filler, & glue on the rear bufferbeam extension

piece(14), using the lip to aid positioning. Depending on your curves, you may also wish to fashion an extended coupling pin to increase the gap between loco & tender.

**Superstructure;** As a first step, clean up any moulding pips & part lines with craft knife, fine files & abrasive paper, & have a 'dry run' to familiarise yourself with the various parts. Assembly should be carried out with epoxy or similar glue; Fit the cab(2) to loco body(1), -(You may wish to leave fitting the cab until after painting & glazing!) followed by the air filters (5,6), rounding off the front top corners of these to match the recesses. Add 4 horizontal slats to each of these from .020x.040 microstrip, following the centres of the little circles. Drill the marked dimples for your chosen handrail knobs, & add any other handrailing as desired. Add front chassis mount (7) then fit the keep plate(8) to underside of cab floor, to trap chassis retaining lugs, then fit the cab steps(9,10) with the curved fairings toward the front, butting up under the cabsides. It is now best to paint the loco before adding the clear windows (3,4); these are brittle & should be sawn off the sprue with a fine blade, then hand-painted up to the window frames, & can be fixed with an adhesive such as 'Glue n' glaze'. Any remaining stickiness or loss of clarity can be cured with a coat of gloss varnish. The other windows can be glazed with clear plastic sheet. The tender body (13) just clips to the underframe.

Before painting, give the model a scrub in warm soapy water to remove grease & fingerprints; I recommend Halford's plastic primer as an ideal base for your chosen top coat.

We hope you find this kit enjoyable to build; if you would like details of our full range, please send 4 1st class stamps & an S.A.E to;

GOLDEN ARROW PRODUCTIONS, 392 HAROLD RD. HASTINGS, SUSSEX TN35 5HG; TELEPHONE; 01424 445334 -  
EMAIL; c.meach@tiscali.co.uk

\* Etched GT3 plates are available from; 247 Developments, Seven Acres, Meltham Rd. Marsden,  
W.Yorks. HD7 6JZ

www.247developments.co.uk email gary@247developments.co.uk tel. 07872 823 017  
www.goldenarrow.me.uk

Some sets of detail etchings are now available for this loco, available through the RMweb internet forum. Just log on & enter GT3 as a searchword to find the appropriate link. There are separate sets for the loco, & for the tender underframe.;- Highly recommended..

# ENGLISH ELECTRIC 'GT3' ASSEMBLY DIAGRAM

## EXTRA DETAILING:

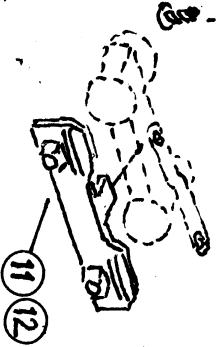
PROTOTYPE FEATURED  
 2 STEP PLATES THIS SHAPE  
 ABOVE FRONT BUFFERS  
 WHICH SUPPORTED 2-RUNG  
 TUBULAR LADDERS.  
 COULD BE MODELLED  
 WITH PLASTICARD &  
 A BIT OF SIGNAL  
 LADDERING



THESE RAISED  
 BEADINGS LIUED  
 YELLOW/BLACK/YELLOW

ROUND OFF  
 FRONT CORNER  
 TO MATCH  
 RECESS

DRILL FOR  
 CHASSIS  
 MOUNTING  
 SCREW



.020" X .040" MICROSTRIP  
 (0.5 x 1mm)

CUT TO  
 MATCH  
 FRAME  
 PROFILE

HORNBY TENDER CHASSIS  
 FILE EDGE FLUSH

REMOVE & MAKE GOOD WITH FILLER  
 - YOU COULD ADD A LADDER (2 RUNGS)  
 TO MATCH STEPS IN TENDER SIDES

TENDER WHEELS:  
 'RORTARD' OR SIMILAR  
 PIN-POINT WHEELS CAN  
 BE SQUEEZED IN, OR A  
 HORNBY CL 37/47 TRAILING  
 BOGIE BLOCK CAN BE  
 CLIPPED STRAIGHT IN,  
 USING WHEELS OF YOUR CHOICE

HANDRAILS  
 THESE WERE IN 4  
 SEPARATE SECTIONS  
 TO MATCH ROOF PANELS  
 26 KINGS REQUIRED