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## NEW LOCOMOTIVE CONSTRUCTION COMPANY FORMED

### PROJECT MOVES INTO PRE-CONSTRUCTION PHASE

#### THE LOCOMOTIVE CONSTRUCTION COMPANY LIMITED

The A1 Steam Locomotive Trust, which is building the new ex-LNER class A1 pacific 60163, has formed a new company, 'The Locomotive Construction Company Limited'. This wholly owned subsidiary of the A1 Steam Locomotive Trust has been formed to build 60163 and other new and replica steam locomotives.

David Elliott, Managing Director of The Locomotive Construction Company and Head of Engineering of the A1 Steam Locomotive Trust commented:

“We have formed The Locomotive Construction Company to build A1 60163, the first mainline steam locomotive to be built in Britain since 1960, and after this has been completed, other new and replica steam locomotives. In this way we can pass on directly to future projects the valuable experience accumulated in building 60163.”

#### THE PRE-CONSTRUCTION PHASE

##### Drawings

Before the construction of 60163 can begin, copies of all the relevant design drawings must be obtained and any necessary updating/redesigning undertaken. To date, the Trust has examined almost 400 drawings located in the archives of the National Railway Museum (NRM) and produced a computerised catalogue of a further 300 drawings cross referenced from those already examined. It is anticipated that further research will reveal more drawings.

The A1 Steam Locomotive Trust has approached the NRM with a proposal to digitally scan the original drawings to provide a compact and convenient means of storage and reproduction. It will also allow the Trust to convert the scanned drawings into vector form for modification using a Computer Aided Design (CAD) system.

The effort put in by the Research and Development team, all of which has been donated free to the project, has been evaluated at £50,000 worth of professional time during 1992.

##### Research

The Trust continues to research into the background of the A1 design and their operations in British Railways' service. Invaluable information has recently been provided by many contemporary railwaymen, including Mr J F Harrison, former assistant Mr A H Peppercorn (the designer of the A1s) during their design and Mr Peter Townend, Shedmaster at Kings Cross locomotive sheds during the late 1950s and author of books including “East Coast Pacifics at Work” and “Top Shed” Mr Townend has also accepted the position of Honorary Vice-President of the A1 Steam Locomotive Trust.

##### Company Procedures

In order to control the design and manufacture of the locomotive, manuals are being prepared to ensure the standardisation of areas such as quality, tolerances, dimensioning, material specifications, configuration control and contractual procedures. As well as being good engineering practices, these controls will help to facilitate BS5750 accreditation when appropriate.

## CONSTRUCTION

### Locomotive

The A1 Steam Locomotive Trust currently plans to begin the construction of 60163 in 18 months to two years time, once the redrawing is sufficiently advanced. The planned completion date for the 50th class A1 is Summer 1998 - the 50th anniversary of the roll-out of the first A1.

### Tender

The construction of the tender has already begun with the acquisition of Flying Scotsman's spare tender (number 5332). The severely corroded tender tank has been removed and the tender frames inspected. They are generally in good condition and will form a good basis for a tender for 60163. The next stage in the construction of the tender is the grit blasting of the frames back to the bare metal and the production of roller bearing axleboxes and hornguides.

## CALLS FOR HELP

In order for all of the above activities to progress at the required rate, the A1 Steam Locomotive Trust is looking for volunteers in the following areas:

Designers/draughtsmen with access to CAD which can handle two dimensional DXF files.

Quality Control Managers/Engineers to assist in ensuring that subcontractors manufacture to an acceptable standard and to supervise erection of the locomotive.

## SPONSORSHIP

The A1 Steam Locomotive Trust is looking for the donation of IBM PC compatible computers. The minimum system requirements are IBM ATs for administrative use and the following high specification for use as CAD workstations: 25Mhz 80386SX based personal computer with 80387 math coprocessor, 8Mb RAM, 128Kb cache, 100Mb hard disk, 1.44Mb 3 1/2" disk drive, 250Mb cartridge tape streamer, 14" 1024x768 pixel non-interlaced monitor, 1Mb SVGA video card, Mouse, DOS 5 and Windows 3.1.

The Trust is also keen to contact anyone who may have ex-A1 artifacts and is prepared either to donate them or lend them as patterns to assist manufacture.

David Champion, Project Manager for the A1 Steam Locomotive Trust, commented:

“The A1 Steam Locomotive Trust is now well placed to meet its objective of completing 60163, the 50th class A1, in time for the 50th anniversary of the completion of the first A1 in the Summer of 1998. We have put together the necessary expertise for building steam locomotives and have a dedicated and professional team. We are now seeking more covenantors to speed construction.”