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LATEST COMPUTER TECHNOLOGY USED BY A1 PROJECT IN NRM

The A1 Steam Locomotive Trust, which is building the new ex-LNER Class A1 Pacific 60163, continued to move forward during March and April 1993.

ENGINEERING UPDATE

Drawings

During the two weeks after Easter, the engineering team has been digitally scanning approximately 800 original A1 drawings into a Computer Aided Design (CAD) system at the National Railway Museum in York. The system, which consists of a digital scanner linked to a computer, enables electronic copies of the drawings to be made without damage to the originals. The scanned drawings can be converted into vector form for modification using the CAD system.

David Elliott, Head of Engineering of the A1 Steam Locomotive Trust commented:

“The A1 Project is achieving yet another first in railway preservation by the use of CAD. The flexibility of this latest technology will allow us to save huge amounts of time in producing copies of drawings for component manufacturers and in making modifications to correct A1 faults such as rough-riding just as the LNER/Eastern Region would have done if steam had continued”

More Engineers join the A1 Project

Bob Meanley, a specialist in boiler design and project engineer working professionally on the design and construction of power stations, has joined the engineering team. Best known for his work in the Birmingham Railway Museum where he is responsible for the design of the Bloomer replica, Bob also designed the all-welded boiler for the Ffestiniog Railway's new 'double Fairlie' "David Lloyd George"

Bob has agreed to be in charge of redesigning the boiler of 60163 to an all-welded design with a steel firebox, in order to comply with modern safety and manufacturing standards as well as to reduce cost, weight and maintenance.

Other valued recent recruits to the engineering team include Bob Alderman, an engineering programme manager with Westland Helicopters; Steve Bell, a safety consultant with the nuclear industry; Eric Layfield, who recently retired as power equipment engineer with Railfreight Distribution having started his career as a premium apprentice at Doncaster works; and Ray Pettit who is a consultant in engineering information management systems.

CONSTRUCTION

Locomotive

The A1 Steam Locomotive Trust currently plans to begin the construction of 60163 with the laying of the locomotive's frames in the UK in early 1994. 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 next stage in the construction of the tender is the grit blasting of the frames back to the bare metal. Drawings are currently being produced on the CAD system for the modification of the frames to accept roller bearing axleboxes and hornguides.

Support Coach

Due to the rapid decline in the number of serviceable Mark 1 coaches owned by British Rail, the A1 Steam Locomotive Trust has reached an agreement to purchase a vacuum braked Mark 1 BSK (Brake Second Corridor) for use as 60163's support coach.

HUGE INTEREST IN A1 PROJECT AT EXHIBITIONS

The marketing team of the A1 Steam Locomotive Trust had a stand at the International Model Railway Exhibition in London over the Easter holiday and, thanks to the railway artist John Wigston, a presence on a stand at the York Model Railway Exhibition. Thousands of people were handed information about the project, with many asking how they could help.

Mark Allatt, Marketing Team Leader, commented:

“We were delighted at the enthusiasm shown at both of these exhibitions for the A1 Project <196> ranging from people who worked on, or even helped to build the A1s, to those, like myself, who are too young to have ever seen one. One concern that I was happy to put to rest was that 60163 will definitely be built in the UK.”

CALLS FOR HELP

The Project received an excellent response to its appeal for help from people for CAD work, with at least a dozen volunteers and many more enquiries. However, in order for all of the activities to progress at the required rate, the A1 Project is looking for volunteers in the following areas:

Designers/draughtsmen (railway experience not essential) with CAD expertise.

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

Professional marketers with experience in direct mail, advertising, public relations and sponsorship.

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.

SPONSORSHIP

The A1 Project is looking for the donation of IBM PC compatible computers. The minimum system requirements are ATs for administrative/basic CAD use and high specification 386 PCs for use as CAD workstations.

FIRST PHOTOGRAPH OF COMPLETED A1

Enclosed is the first photograph (a colour transparency) of A1 Pacific 60163 as she will look after completion. This is taken, with permission, from a Colour-Rail original of 60156 >Great Central on Doncaster Shed using the latest computer technology for the manipulation of the photograph. Other photographs of A1s and of various stages of the A1 Project are available.

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

“The construction, in Britain, of 60163 will begin in early 1994 with the laying of the frames with the objective of completing the 50th Class A1 in the summer of 1998. Preliminary work is now well advanced and we are seeking more covenantors to speed construction”