

SECTION FOUR – HI-AB HYDRAULIC CRANE 071

INTRODUCTION

The safe and efficient use of the hydraulic crane and the handling of loads is entirely dependent upon the skills and knowledge of the person operating the machine, and whilst experience on this type of appliance is important, it is also essential that the operator has received formal training so that he/she is fully aware of the correct methods of operating the crane, and the potential associated hazards.

Without such training the operator will be working with some degree of ignorance, and may put himself/herself and others at risk as a result.

Each year several accidents occur involving cranes and slinging applications, some of them **fatal**, and in many cases such accidents can be directly attributed to a lack of positive formal training. It therefore follows that the first step to ensure safe systems of work is TRAINING - and the second step is for the trained operator to put his/her training into practice at all times, thus developing safe working methods as a matter of habit.

It should be remembered that competence in any skill can only develop from sound initial training.

FOR THESE REASONS, ONLY WHOLETIME FIREFIGHTERS FROM WELLINGTON ARE ALLOWED TO OPERATE THE HI-AB

ISSUE

The HI-AB hydraulic crane is fitted to the Rescue Tender at Wellington.

DESCRIPTION

The HI-AB 071 is a compact, all hydraulic vehicle crane in the 7 tonne-metre class, specially adapted for hook and attachment service.

The particular model that the Shropshire Fire and Rescue Service have adopted is the HI-AB 071 AW which has a hydraulic out-reach of 7.2 metres.

The HI-AB 071 is fitted with a manual boom extension of some 2.5 metres in length. The main components of the crane are:

- 1 Base with training system
- 2 Body
- 3 Boom system
- 4 Hydraulic cylinders

- 5 Valve system
- 6 Support legs
- 7 Oil tank

The type designation of the crane can be found on the nameplate.

OPERATION

Operating procedures should only be carried out by Wholetime firefighters at Wellington who have attended the necessary training course.

These firefighters are issued with personal operating notes, and there is no need to duplicate them in this order.

SAFETY

- 1 Be conversant with the Safe Working Load plate on the crane and never exceed the lifting capacity for the stated lifting radius.
- 2 When setting up the vehicle and crane for operation always take into account surrounding hazards and any overhead obstructions.
- 3 When operating the crane ensure that the vehicle is parked on level ground away from trenches, ditches and excavations,
- 4 Never operate the crane on severe slopes or inclines, and should it be necessary to operate on a slight incline, ensure the vehicle cab is facing up the slope. Chock the front wheels.
- 5 When operating the crane ensure the stabiliser legs and feet are correctly positioned.
- 6 The stabiliser feet should be positioned just touching the ground and not taking the weight of the vehicle.
- 7 Where necessary, use ground plates under the stabiliser feet to spread the load on soft ground.
- 8 Do not move the vehicle at any time whilst a load is suspended from the crane boom.
- 9 Ensure that the stabiliser legs are fully retracted and secure before moving the vehicle.
- 10 Do not use the crane to drag or break out any load.
- 11 Operate from a position where you are not likely to be struck by the crane or a suspended load and never allow the crane/load to pass above your head.
- 12 Keep all personnel well clear when operating the machine.

- 13 Always ensure that the crane is correctly folded and stowed before travelling.
- 14 Operate all controls smoothly and gently and avoid harsh jerky movements.
- 15 Never operate the crane within 6 metres of overhead power lines.
- 16 Always ensure landing areas are free from obstruction and are level.
- 17 When slinging loads always inspect the slings and lifting tackle before and after use.
- 18 Do not use if faulty.
- 19 Ensure that slings and lifting tackle provided on the Rescue Tender are of adequate strength (Safe Working Load) to handle the loads being lifted.
- 20 Position the lifting hook over the load centre of gravity.
- 21 Always take a test lift to ensure that the load is correctly slung.
- 22 When lifting loads on the blind side of the vehicle always obtain the assistance of other trained personnel.
- 23 If working with other trained personnel always follow the recommended hand signals and never operate unless a signal is given.
- 24 When lifting large loads in windy conditions always take into account the effects of wind upon the load.
- 25 Use guide lines to steady and control loads when lifting, training or lowering.
- 26 Ensure that all lifting tackle is stowed away after use,
- 27 When working on public highways always take into account oncoming traffic – always cone off the vehicle and obtain assistance from other trained personnel.

STANDARD TESTS

ANNUAL

The Rescue Tender will be returned to Workshops in June each year to be mechanically load tested and re-certificated by a suitably qualified and accredited organisation.