

SHAFT EXAMINATION AND REPAIRS

Shaft examination and repairs are carried out weekly, and at intervals not exceeding **ten days**. The main purpose of this examination is to examine the condition of the shaft, gates, doors and all safety devices on the different levels.

1. VERTICAL SHAFTS

The person in charge will make pre arrangements and an entry in the driver logbook.

All pre-arrangements must be in writing and state clearly what must be done.

Such entry must also state the time and the signature of the person in charge.

The driver must countersign the entry made by the person in charge and by any driver relieving him.

(Refer to reg. 16.55).

The driver must: -

Receive and reply signals from the onsetter to travel to the highest man landing station in the shaft, to await the timber man and his crew.

Receive a clear signal from the onsetter.

Receive the clutching signal and a clear signal from the banksman.

Lower the top conveyance to the bank.

Select to the man position.

Test both brakes separately, and if satisfactory, unclutch the drum at the bank.

Lower the bottom conveyance to the lowest examination point in the shaft.

Control the speed of the winder to 2,5 m/sec.

Stop at the lowest examination point.

Clutch in and test both brakes separately, if satisfactory,

Signal the clutching complete signal 4-4-4 to the banksman

Lower the conveyance slowly after being signalled 4-2 by the banksman.

Stop when signalled 1 by the banksman. (Roof of the conveyance at the bank).

Receive the mark signal 4-4 from the banksman.

Mark the drum and depth indicator

Acknowledge the mark signal 4-4 to the banksman

Reply the signal 7 from the banksman.

The person in charge will secure the platform, hood or cover to the top of the conveyance and test the shaft examination signalling system.

The driver must:-

Acknowledge the signal 7-7 to the banksman.

Acknowledge to the shaft examination signal 6-6-6-6 from the banksman.

Reply the signal 3 from the banksman.

Receive the signal 4-2 from the banksman

Pause at least 10 seconds and await a signal 2 to lower from the timber man on the shaft examination signalling system.

Lower slowly.

Stop when signalled 1 by the person in charge on the shaft examination signalling system e.g. contact wire, pull bell or E-cam, if not, stop within one turn below the bank and await a signal to lower from the timber man.

The purpose for this action is to test the signaling systems, should it not operate the person in charge will request the banksman verbally, to signal the driver to return the conveyance to the bank on the lock bell system.

The driver must:-

Lower the timber man after receiving the signal 4-2

Restrict the winder speed to walking pace (1 m/sec.).

Stop when signalled by the timber man at any required point in the shaft. Secure the winder and apply at least one side brake. Should you stop to prevent any movement when not required or trip the safety circuit.

Act on any further signals received from the timber man.

Stop at all levels the onsetter when available will ring all the lock bell signals and travel with the timber man.

Raise the conveyance to the bank when shaft examination has been done and the necessary signals received from the person in charge.

Stop at the bank, or when receiving the signal 1 from the banksman.

Signal 3 on the lock bell persons may leave the conveyance.

Receive the signal 7 from the banksman.

Reply the signal 7 to the banksman to remove the platform, hood or cover and equipment from the conveyance.

Acknowledge the signal 7-7 from the banksman when all persons are clear.

Raise the other conveyance to the bank after receiving a call over and a clear signal from the banksman.

Follow the same procedures as described above to examine the other compartment.

When the person in charge has cleared the logbook the driver must countersign the entry. Any signal following this procedure will cancel the shaft examination signal.

2. INCLINE SHAFT

The conveyances are seldom used to examine an incline shaft. This is sometimes done in steeply incline shafts.

The person in charge will make an entry in the logbook and pre arrangements with the driver.

All pre-arrangements must be in writing and state clearly what has to be done.

Such entry must also state the time and the signature of the person in charge.

The driver must countersign the entry made by the person in charge and by any driver relieving him.

The normal procedure is as follows: -

The driver must: -

Receive and reply signals from the onsetter to travel to the required landing station in the shaft to await timber man No 2.

Reply the signal 3 to enable the banksman to load timber man No.2 and 3, their gangs and equipment into the conveyance.

Reply the destination signal from the banksman.

Pause at least 10 seconds when signalled away. (Signalled 2).

Lower to the onsetter.

Stop and signal 3 to allow timber man No. 2 to leave the conveyance.

Reply to the signal 3 from the onsetter.

Acknowledge the signal 3-3-3 from the onsetter.

Reply to the station signal from the onsetter

Pause at least 10 seconds before lowering when signalled 2

Lower to the level where the 3rd timber man will leave the conveyance.

Stop on the correct mark at the level and secure the winder.

Signal 3 to allow the onsetter and timber man to leave the conveyance.

Receive and reply the necessary signals from the onsetter to proceed to the bottom level.

Obtain a clear signal 2-2 from the onsetter.

Receive the signal 4-1 from the banksman.

Raise the top conveyance above the drop sets.

Stop when signalled 1 by the banksman.

Acknowledge the signal 6-6 from the banksman to enable him to lower the drop sets into the shaft.

Acknowledge the signal 6-6-6 from the banksman when the drop sets have been lowered.

Receive the signal 4-2 from the banksman.

Lower the conveyance onto the bank.

Stop when signalled 1 by the banksman.

Receive the clutching signal 4-4-4, the bank signal and a clear signal from the banksman.

Follow the normal procedure to unclutch the conveyance on the bank (See module PCT).

Raise the other conveyance at a reduced speed of 2,5 m/sec., above the drop sets at the bank.

Stop when signalled 1 by the banksman.

Acknowledge the signal 6-6 from the banksman to allow him to lower the drop sets into the shaft.

Acknowledge the signal 6-6-6 from the banksman.

Receive the signal 4-2 from the banksman.

Lower the conveyance onto the bank.

Stop when signalled 1 by the banksman.

Clutch in and test brakes separately.

Signal the clutching completed signal 4-4-4 to the banksman.

Acknowledge the shaft examination signal 6-6-6-6 from the banksman.

Acknowledge the signal 6-6 from the banksman. (Both conveyances on bank).

The timber men examine the shaft by walking down.

The person in charge who examined the top portion of the shaft will receive a paper order or a token from both timber men when they are clear of the shaft.

He will then clear and sign the driver logbook the driver must countersign.

Any signal following the clearance of the driver's logbook will cancel shaft examination.

The driver must: -

Acknowledge the signal 6-6-6 from the banksman.

Receive the clutching signal 4-4-4 and a clear signal from the banksman.

Follow the normal procedure to unclutch one drum at the bank. (See module PCT).

Raise the conveyance to above the drop sets after being signalled 4-1 by the banksman.

Stop when signalled 1 by the banksman.

Reply the signal 6-6 to enable the banksman to raise the drop sets clear of the shaft.

Reply the signal 6-6-6 from the banksman. (Drop sets clear of the shaft).

Receive the clear signal 2-2 from the banksman.

On most mines clutching has to be performed in such a way that wear on the drum bushes is distributed evenly.

E.G: Clutch half a length of wind with the one conveyance and the rest of the wind with the opposite conveyance.

Lower the conveyance at 2,5 m/sec. to one turn above the bottom level.

Stop on the level mark and clutch in.

Test both brakes separately and if satisfactory, signal the clutching complete signal 4-4-4 to the banksman.

Receive the signal 4-1 from the banksman to raise the top conveyance above the drop sets. (2nd conveyance).

Stop on the signal 1 from the banksman.

Acknowledge the signal 6-6 from the banksman to allow him to raise the drop sets clear of the shaft.

Acknowledge the signal 6-6-6 from the banksman.

Receive the clear signal 2-2 from the banksman.

Run one complete trip up and down the shaft. (Refer to reg. 16.72).

Stop at the bottom level where the onsetter is.

Reply to the signal 3 from the onsetter to load timber man No 3

Acknowledge the signal 3-3-3 from the onsetter.

Reply to the destination signal to pick up timber man No 2.

Pause at least 10 seconds when signalled 1 from the onsetter.

Stop at the level where timber man No 2 will be waiting.

Signal 3 to the onsetter persons may leave the conveyance.

Reply the signal 3 from the onsetter to load timber man No 2.

Reply the bank signal from the onsetter.

Pause at least 10 seconds when signalled 1 from the onsetter.

Raise the conveyance to the bank.

Stop on the bank mark and

Signal 3 to the banksman persons may leave the conveyance.

The driver will act on any further signals received and continue normal winding.