BEST PRACTICE

LOCATION:	**Asphalt/Coating plant**	**ARTICLE YEAR**	**2018**
ACTIVITY:	**Maintenance & Housekeeping**	**COMPANY:**	**Colas Ltd**
SUB ACTIVITY:	**N/A**	**COMPANY LOCATION:**	**Carnsew Quarry**
BEST PRACTICE No:	**BP2045**	**COMPANY TEL:**	**0000**
COUNTRY OF ORIGIN:			

TITLE

Asphalt plant mixer shaft replacement

ARTICLE

DESCRIPTION

The foreman fitter at Carnsew Quarry, demonstrated an innovative approach to changing a 2.5 metre mixer shaft weighing 900kg, without any personnel needing to be present on the mixer platform.

This task was necessary due to abnormal wear on one shaft bearing, due principally to a poorly designed filler chute directing filler onto one of the bearings, constantly abrading the shaft bearing. This chute has since been re-aligned.

Ammann, the Swiss plant manufacturer advised that a two-week shutdown would be necessary.

The foreman fitter decided the task could be more effectively performed in-house using the following procedure;

1. A new steel plate was added to the floor surrounding the mixer, so that a trolley jack could be used to remove the gearbox.
2. A system comprising of a supporting frame of angle-irons fabricated and welded to the internal base of the mixer, was used to take the weight of the shaft (minus paddle arms & tips) thus allowing both end bearings to be removed.
3. One cladding panel was removed, allowing the shaft to be pulleyed outside the building onto an improvised platform above the skip track utilising the two sets of plate-mounted rollers. A 16-tonne crane was used to lower the worn shaft to the ground. The procedure was then reversed to install the replacement shaft.

See the pdf for diagram

BENEFITS

- High potential hazard of working in close proximity to shaft during removal
- Plant downtime halved by using this in-house approach
- Cost saving of circa £96K achieved by this approach
- This procedure can be used on other similar Ammann coating plants.

ARTICLE IMAGES