

GENERAL INFORMATION

INDUSTRY

Rubber and plastic

MACHINE

Crushing machine – two stage gearbox

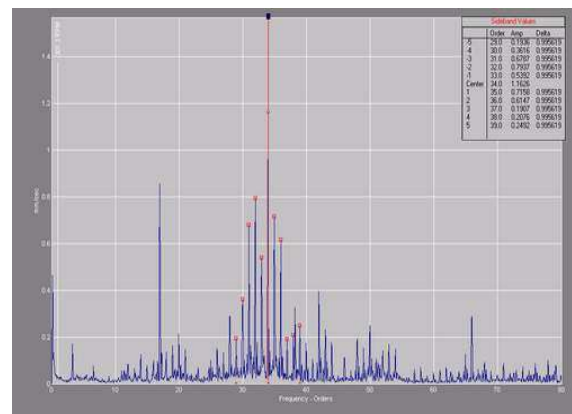
TECHNOLOGY USED

Vibration analysis

PROBLEM ENCOUNTERED

A trend analysis of the global values of vibrations acquired periodically, in line with the predictive maintenance plan, has highlighted a gradual increase. On the last visit, an increase in noise level was evident.

Vibrations spectra of gearbox



RESULTS OF ANALYSIS

DIAGNOSIS

Analysis of the vibration spectra has shown localized damage to the pinion of the intermediate shaft. In addition, the characteristics of the spectra have shown misalignment between the intermediate shaft and the output shaft.

EVALUATION

Serious

RECOMMENDATIONS

Overhaul the gearbox after a detailed inspection of the subcomponents (visual inspection of gears, inspection of the tolerances of the couplings and the gear alignment).

Damaged gear



RESULTS OF ACTION TAKEN

RESULTS OF INSPECTION / CHECK UP

Damage confirmed to the teeth of the pinion of the intermediate shaft because of incorrect gearmesh due to misalignment.

AVOIDED OCCURENCE

Functional failure of the gearbox.

AVOIDED DOWNTIME

8 hours of plant shut-down

COST BENEFIT OF LOST PRODUCTION AVOIDED

25.000 euro

Damaged gear

