

MULLINS WORKSHOP SERVICES:

Bulletin No: 58

CRACK TESTING HEAVY DUTY WHEELS & RIMS

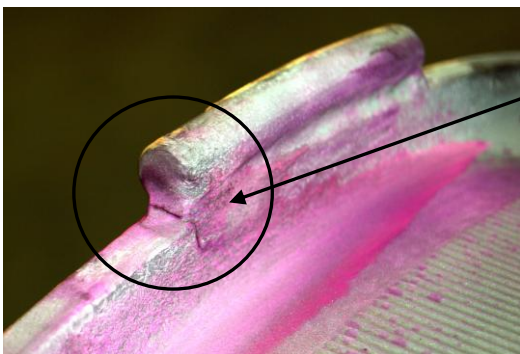
Heavy duty wheels & rims used in Earthmover, mining, industrial & agricultural applications, are often exposed to extreme loads and harsh operating conditions.

Tyres fitted to heavy duty 3 piece and 5 Piece wheels and rims are inflated to very high operating pressures and as such are classified as pressure vessels.

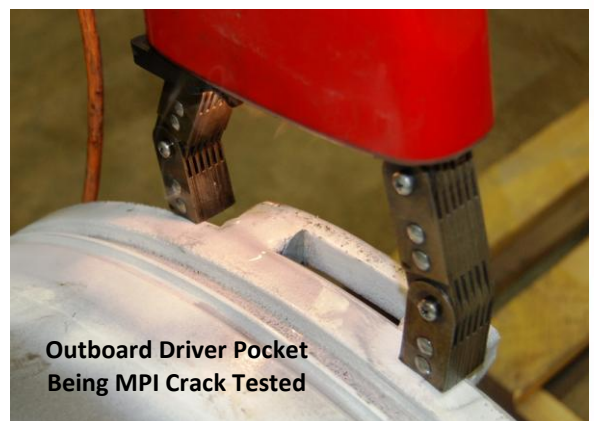


Most industrial sites operating heavy equipment now require all wheels and rims to be periodically crack tested.

This specialised service is called Magnetic Particle Inspection (MPI) Crack Testing and must be carried out by a specially trained wheel technician.



Crack Detected
on Outboard
Driver Lug



Outboard Driver Pocket
Being MPI Crack Tested

All critical areas of the wheel or rim are systematically checked for cracks using a certified MPI testing procedure which will expose hidden cracks

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Example: 24H Caterpillar Grader – Heavy Duty Mining Application



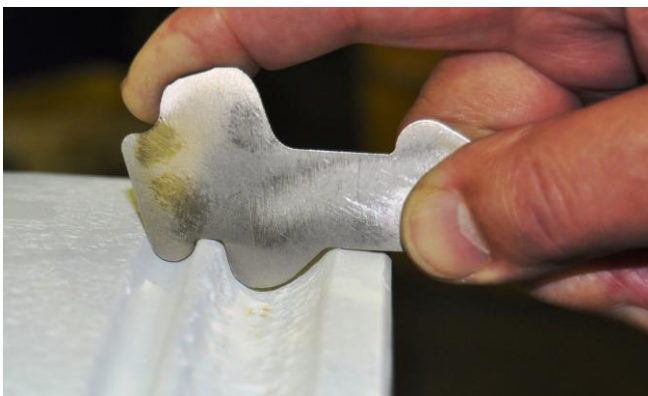
Wheels are removed and Grit Blasted back to bare metal before MPI testing



The wheel is then subjected to MPI Testing of all critical areas and welds to detect hidden cracks



Critical Dimensions are checked such as Lock Ring Groove wear



After the wheel has passed all tests it is painted and returned to service



mullins wheels

Servicing mining for over 100 years