

Syntilo 2109 Simplifies Customer's Process

MACHINERY MANUFACTURE (USA)

Agricultural Wheel Hub Machining

Castrol Syntilo® 2109

Cleaning Step Eliminated from Manufacturing Process



THE SITUATION

An agricultural wheel manufacturer was machining wheel hubs made of cast iron. They were installing a new central coolant system and were interested in simplifying their process at the same time.

They sought a coolant that would allow them to paint the wheel hubs without the need for cleaning first.

BEFORE

- New manufacturing line
- Coolant needs identified:
 - ❖ Strong performance on cast iron
 - ❖ Paintable residue
 - ❖ Good corrosion protection

AFTER

- Syntilo 2109 oil-absorbing synthetic charged to the system
- Excellent machining of cast iron
- Residue was paintable with this facility's paint line (no washer needed)
- No rust on parts or machine surfaces

THE SOLUTION

- Syntilo 2109 was implemented at 5% concentration.
- Machining operations are milling, drilling and turning of cast iron.
- A large central system (20,000 gal) feeds 17 machine centers.
- Syntilo 2109 leaves minimal residue on the parts, so they can be painted in this customer's paint line. (Note that this may not be possible with all paint lines).
- The Syntilo 2109 is low foaming and provides excellent rust protection to the parts & machines.
- Tramp oil and cast iron fines are easily filtered from the Syntilo 2109 to keep the system clean.

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RECOMMENDATIONS

Syntilo 2109 works well in places where minimal residue is needed. Excellent corrosion protection is provided to cast iron by its oil-absorbing characteristics. Up to 2-3% tramp oil will be absorbed by the Syntilo 2109 to prevent clinkering (rusty blocks of chips) which is commonplace with most synthetic fluids in cast iron machining.

The filtration should be a good paper bed filter to remove the cast iron fines. Tramp oil removal is often done with a coalescing unit (Syntilo 2109 will reject excess tramp oil beyond 2-3%).

CONCLUSION

Syntilo 2109 is a versatile synthetic coolant that leaves minimal residues but provides excellent corrosion protection to cast iron parts. In this case, the residue from the coolant was paintable and eliminated a washer stage from the customer's process.



Wheel hub in
agricultural application



OTHER POTENTIAL APPLICATIONS

Syntilo 2109 is an oil-absorbing synthetic coolant that works well in machining cast iron and mild steel metals. It is designed to absorb a small amount of tramp oil to impart additional rust protection and lubricity to the fluid.