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MACHINERY MANUFACTURING (USA)

AGRICULTURAL & CONSTRUCTION - ENGINES

Castrol Techniclean® S 5001

ANNUAL SAVINGS: $17,628

THE SITUATION

A major agricultural equipment manufacturer was concerned with the system cleanout frequency of the final parts washers. Castrol was asked to investigate if the system cleanout frequency of the final parts washers could be increased (stretched).

BEFORE

- Monthly system cleanout of final parts washer
- High chemical cost: $9824
- High labor costs: $4680
- High waste treatment costs: $6658

AFTER

- System cleanout frequency extended to every six months
- Reduction in chemical costs
- Reduction in labor savings
- Reduction in waste treatment costs

THE SOLUTION

- Castrol engineers worked with the customer using SPC/Six Sigma to validate that extending the cleanout frequency would not compromise part cleanliness or end performance.
- Castrol evaluated historical cleanliness test data on parts after final wash.
- Using SPC/Six Sigma Methodology a Cpk value above 1.67 was established and extending system cleanout frequency was validated.
- Washer fluid was sampled on bi-weekly basis and extra cleanliness checks on part per month to further validate findings.
- The recommendation was made to extend final washer system cleanout frequency from monthly to every six months.
- Expert knowledge of washer applications coupled with a SPC/Six Sigma methodology yielded the customer a beneficial solution.

- Castrol utilizes SPC/Six Sigma methodology
- Extending system cleanout frequency yielded customer savings.

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RECOMMENDATIONS

Utilizing SPC/Six Sigma Methodology Castrol was able to increase (stretch) system cleanout frequency in the final parts washers. This was supported by historical data as well as performing extra cleanliness testing to validate the recommendation.

CONCLUSION

The outcome was increased (stretched) system cleanout frequency and reduction in chemical usage, labor and on-site waste treatment costs. This allowed the customer to reduce the chemical and labor budget.

OTHER POTENTIAL APPLICATIONS

This type of process improvement can be utilized on most final washers where the system cleanout frequency is considered too high. Proper investigation and utilizing SPC/Six Sigma methodology allowed for proper analysis and recommendation to the customer.

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