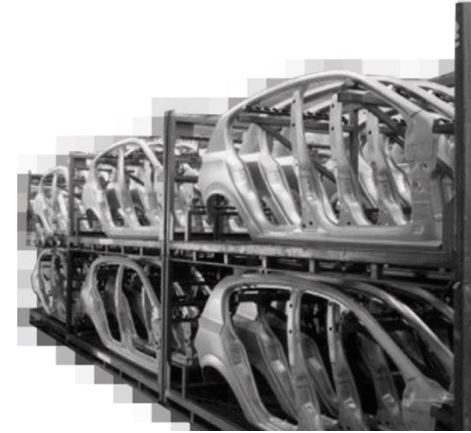


AUTOMOTIVE (USA)

BODY / PRESS SHOP

Castrol Anvol® SWX 68*

ANNUAL SAVINGS: \$35,750



THE SITUATION

A competitive oil was used as a fire-resistant fluid in the Body Shop hydraulic units. This oil was approved by Factory Mutual Group.

Due to the Body Shop shutdown schedule, oil is changed annually. It is very important to note that according to the Body shop maintenance: "It is too early to change this oil after 6 months in service and too late after 12 months."

With the previous product, it was noted that after about 9 months in service, oil produced sludge and varnishes, dropping viscosity and reducing fire protection properties.

This caused unplanned shutdowns due to the cleaning and increased parts replacement cost.

BEFORE CASTROL

- Total Volume Used – 6,600 gal.
- Total Product Cost – \$79,200
- Changing Frequency – 12 months
- Oil Change Labor – \$8,400
- Oil Analysis Cost – \$13,200
- Oil Waste Cost – \$19,800
- Portable Filter Carts (2) – \$4,600
- **Total Maintenance Cost – \$125,200**

AFTER CASTROL

- Total Volume Used – 3,300 gal.
- Total Product Cost – \$39,600
- Changing Frequency – 24+ months
- Oil Change Labor – \$4,200
- Oil Analysis Cost – \$0
- Oil Waste Cost – \$9,900
- Portable Filter Carts (2) – \$0
- **Total Maintenance Cost – \$54,700**

THE SOLUTION

After introduction of Castrol Anvol SWX, changeover cycle was increased over two times. Combined with equipment inspections, an oil sampling and analysis program and improved filtration, the Body Shop total maintenance cost, labor and disposal costs were substantially lowered. It was achieved by longer oil life, reduced consumption and longer hydraulic component life.

Castrol has instituted an oil sampling and analysis program. Necessary filtration improvements were determined based on oil sample results and Castrol provided two portable filter carts valued at \$4,600 free of charge.

Castrol hydraulic oils have also shown improved seal life by keeping seals closer to their original condition for far longer than previous hydraulic oil.

- Right product for the right application
- Better proven fire protection
- Castrol Anvol SWX does not contain polymers or droplet size control materials and therefore is very shearing stable. There is no resultant loss of viscosity over time due to shearing

*Formerly known as Anvol SWX 68 FM



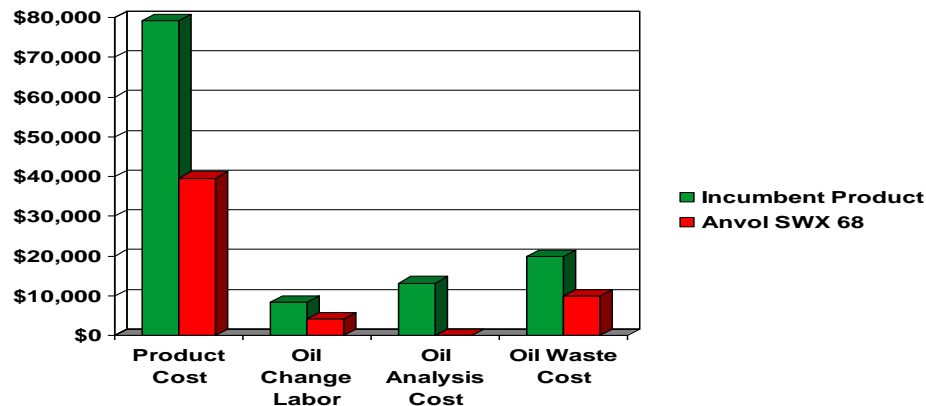
RECOMMENDATIONS

Castrol Anvol SWX is the safest product in its class for continuous trouble-free production. This oil is Factory Mutual approved.

Better fire protection – Castrol Anvol SWX does not contain polymers or ‘droplet size control materials’ and therefore is very shearing stable. There is no resultant loss of viscosity over time due to shearing.

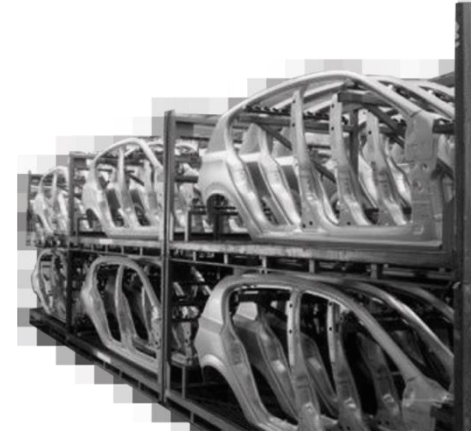
Improved system performance – Castrol Anvol SWX offers superior anti-wear and more resistance to the build up of sludge and varnishes. This saves on replacement costs, cleaning and unplanned shutdowns.

Longer working life – Castrol Anvol SWX lasts longer in hydraulic systems. Unlike competitors, it does not rely on polymers (so called ‘reclassifiers’), which are quickly degraded or sheared by pumps.



CONCLUSION

- Castrol Anvol SWX is able to handle the automotive Body Shop robotic welding environment.
- The Anvol SWX 68 service life was two years.
- No loss of equipment or down time was related to the use of Anvol SWX 68.
- Fluid usage over two years was reduced by 50%.
- Waste oil disposal costs were reduced by 50%.
- Through oil analysis, fluid life was extended using portable filter carts and in-line filter changes.
- **Total two years savings after introduction of Castrol Anvol SWX – \$71,500**



OTHER POTENTIAL APPLICATIONS

Castrol Anvol SWX is ideal for any hydraulic system where fire-resistant hydraulic fluid is required. The application of Anvol SWX will significantly increase equipment life and provide overall trouble-free operation.

Castrol Anvol SWX is able to handle not only automotive body hydraulic systems, but any other hydraulic system that requires fire-resistant hydraulic fluid such as Melt Shop and Caster at Steel Mills.

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