Star XL

Star Concept

KEY DATA

Concentrated solution of additives specifically developed for the suppression of « stick and slip » and vibrations phenomenon which can sometimes occur in Earth Moving, Mining or Quarries machinery axles.

USES

Star XL is used in Public-Works or Construction machinery axles when they generate some noise when turning or at the end of braking phases.

Star XL is used together with Star Concept lubricants.

Star XL should not be used in organs which require a CAT TO-4 level of performance lubricant, except when recommended by TotalEnergies Lubrifiants technical staff.

PROPORTIONINGS

The following proportion have to be respected :
For all noisy machinery axles (see exceptions) :

- Use Star Trans lubricant and add Star XL at around 3%.
- Double the dosage if the noises don't disappear after 1 hour of use.

Exceptions :
VOLVO and KOMATSU wheel-loaders :

- Use Star Max lubricant and add Star XL at around 3%.

In all cases, refer to the Lubrication Chart given by TotalEnergies Lubrifiants.

APPLICATIONS

The product has to be added preferably during the oil filling operation after the drain.
Proceed as follows :

1. Fill the axle up to half of the capacity with the recommended lubricant
2. Add Star XL additive directly in the axle filler plug.
3. Finish the filling operation with the recommended lubricant

It's advised to use the machine, at least a few minutes, immediately after the filling.

The above procedure has to be done at each drain operation.

It's possible to put the additive, whenever needed, directly in a noisy axle. Follow the below instructions:

1. Let the machine cool during one hour or, if not, be cautious when opening the filler plugs, because hot oil ejections can occur.
2. Be sure that the inside oil level permits the insertion of Star XL without overflowing, otherwise, the equivalent additive quantity has to be removed.

The machine has to be used immediately after the insertion of Star XL.

PERFORMANCES & CUSTOMER BENEFITS

- Permits to maintain the rationalization advantage provided by the Star Concept for all machinery types, whatever the brand and the model, without going back to a supplementary new oil quality.
- Permits the used axle lubricant to meet the technical requirements of friction or chemistry imposed by the material manufacturer.
- Maintains the drain intervals recommended by the OEMs.

CHARACTERISTICS*

TEST	UNIT	TEST METHOD	RESULT
Kinematic viscosity at 40°C	mm²/s	ASTM D445	61
Pour point	°C	ASTM D97	-15

* The characteristics given above are obtained with a standard tolerance threshold during production and may not be considered specifications.

RECOMMENDATIONS FOR USE

Before using the product, the vehicle's maintenance guide should be checked. Oil changes should be carried out in accordance with the manufacturer's recommendations.

The product should not be stored at temperatures over 60°C. It should be kept away from sunlight, intense cold and extreme temperature fluctuations. If possible, the packaging should not be exposed to the elements. Otherwise, the drums should be laid horizontally in order to avoid any contamination from water and to prevent the product's label from rubbing off.

HEALTH, SAFETY AND THE ENVIRONMENT

Based on the toxicological information available, this product should not cause any adverse health effects, provided it is used for its intended purpose and in accordance with the recommendations laid out in the Safety Data Sheet (SDS).

This can be obtained on request from your local reseller and is available for consultation at https://ms-sds.totalenergies.com.

This product should not be used for any purposes other than the ones for which it is intended.

TotalEnergies