

BRM-GT / Company standard

# Recommendation of Lube Oils wind turbine application

Viscosity Class ISO VG 320 at 40°C mm<sup>2</sup> / s (cSt) DIN 51519

RNM 17425-000

2004-10-01

Subject group 17: Lubricant Recommendations

Replacement for LSN 935 1440-8-Wi: 2000-04-19

### **Modifications**

 Editorial revision and transformation of the LSN numbers in RNM numbers (Rexroth standard mobile Hydraulics)

## 1. Purpose

This standard specifies recommended lubricating oils to be applied in Bosch Rexroth-Gears for wind turbine applications.

## 2. Application

The standard is valid for the product unit BRM-GT. (Bosch Rexroth, Mobile Hydraulics, Product Unit of Gear Technology)

## 3. Responsibility

Responsible for this standards is BRM-GT/NOR

### 4. Lube Oils

Bosch Rexroth AG 2004

Supplier	Oil Brand	Identific.	Pourp. 1) in °C	GFT 2)	Group designation	
		DIN 51502			LS1	LS3
ADDINOL	ECO GEAR 320 M	CLP	-12	hoch	Х	
	ECO GEAR 320 S	CLP HC	-42	hoch	х	х
ARAL	Degol BG 320 Plus	CLP	-15	hoch	Х	
	Degol PAS 320	CLP HC	-48	hoch	х	х
BP	Energol GR-XF 320	CLP	-18	hoch	Х	
Castrol	OPTIGEAR BM 320	CLP	-15	hoch		х
	OPTIGEAR SYNTHETIC A 320	CLP HC	-36	hoch		
FUCHS	RENOLIN CLP 320 PLUS	CLP	-21	hoch	Х	
	RENOLIN UNISYN CLP 320	CLP HC	-54	hoch	х	х
KLÜBER	Klüberoil GEM 1 – 320 N	CLP	-10	hoch		
Kuwait	Q8 Goya NT 320	CLP	-12	hoch		
	Q8 El Greco 320	CLP HC	-21	hoch		х
Mobil	Mobilgear XMP 320	CLP	-18	hoch	Х	
	Mobilgear SHC XMP 320	CLP HC	-38	hoch	х	х
Shell	Omala Oil F 320	CLP	-18	hoch	Х	
	Omala Oil HD 320	CLP HC	-42	hoch	х	х
TOTAL	CARTER SH 320	CLP HC	-36	hoch		х

- 1) The pour point is not to be confused with the lowest application range temperature!
- Micro-pitting (frosting) load-carrying property GFT as per FVA-Nr. 54 / I IV.
   If a gearbox lube oil specified for use lacks an indication of a certain L+S grown
- If a gearbox lube oil specified for use lacks an indication of a certain L+S group, any of the lube oils listed here can be used.

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LS1: Aggravated FZG test:

Even when FZG tested (A/16,6/90) under aggravated conditions these oils reach the properties of breakdown-load stage  $\geq$  12.

LS3: Fully synthetic oils (polyalphaolefins PAO)

These oils can be mixed with mineral oils.

PAO oils tend to foaming when mixed with residues of preservation oil!

The unit must either be flushed out using a suitable purge oil or a mineral oil must be used as running-in oil.

### 5. Note

The listed information are excerpts from current product data sheets at the time this company standard was drawn up.

The generall overview RNM 17420-000 is part of this recommendation on lube oils.

Change of oil as prescribed in the service manual!

Bosch Rexroth does not accept any warranty for the recommended oils! The product responsibility for the listed oils is exclusively with the oil manufacturer.

Before using a certain type of oil the technical product data sheets and the respective safety data sheets are to be considered.