

TA 1000-1109

Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines

Technical Instruction

3 2 4 9 2 0 3 1 2 3 1 6 6 2 0 2 3 8 4 2 2 7 5 6 1 3 4 5 1 5 3 6 2 5 4 1

Tekniske anvisninger

Technical instruction

Technische Richtlinien

技术指导

Indicazioni tecniche

Технические инструкции

Τεχνικές οδηγίες





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1 General

When selecting a lubricating oil suitable for use in GE Jenbacher gas engines, account must be taken of the engine's requirements and the requirements related to the fuel gas and - possibly - the exhaust gas treatment unit.

2 Effects on the lubricating oil and the oil service life

Fuel gases contain trace and accompanying elements which can cause deposits in the combustion chamber, acid attack of components and wear.

Experience shows that the following harmful substances have the greatest effects on the lubricating oil and the oil service life:

Chlorine, fluoride, sulphur cause the lubricating oil to acidify, and
Organic silicon compounds cause wear.

Accordingly, fuel gases can be divided in the following classes:

- **Class A: Class A: natural gas and gases that permanently fulfil the limitations regarding trace and accompanying elements in acc. with TI 1000-0300, TI 1000-0301 and TI 1000-0302**
Natural, Associated Petroleum, mine gas, biogas (sulphur < 200 mg/10 kWh), special gases (thermoselect and steel plant gases).
- **Class B: gases containing acid-forming trace elements or trace elements that primarily affect the oil condition**
Biogas, sludge gas, wood gas and/or pyrolysis gases.
- **Class C: gases containing acid-forming trace elements and additional trace elements causing wear**
Landfill gas

Lubricating oil can lose its corrosion protection characteristics due to impurities in the fuel gas. The results of regular lubricating oil analyses are indicative of fuel gas impurities. In this respect, see also the following Technical Instructions:

TI No.:1000-0112

TI no. 1000-0099 A, B, C and D.



Technical Instruction: TA 1000-1109 Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines

Product names (in boldface)* are suitable for prolonged oil change intervals in GE Jenbacher gas engines.
Mobil Pegasus 1005** can be assessed using increased oil limit values (see TI 1000-0099B).

3 Lubricating oil requirements for GE Jenbacher type 2 and 3 engines








SAE 40

additives suitable for spark-ignition gas operation.

Release procedure successfully completed in acc. with TI 1000-0099A.

Selection overview

A, B, C:	Class fuel gas
[CAT]:	with catalytic converter for formaldehyde conversion included in GE Jenbacher scope of supply

	A	B	C	[CAT]
	Pegasus 705 Pegasus 805 Pegasus 1005**	Pegasus 710	Pegasus 610	Pegasus 705
	Energas NGL	Energas NGL Energas LFM	Energas LFM	Energas NGL
	Duratec L	Duratec L Duratec MX	Duratec MX	Duratec L
	Mysella LA 40 Mysella XL 40*	Mysella MA 40	Mysella MA 40	Mysella LA 40 Mysella XL*
	Sentron LD 5000*			
	Geotex LA SAE 40 HDAX Low Ash Gas Engine Oil SAE 40	HDAX LFG Gas Engine Oil SAE 40	HDAX LFG Gas Engine Oil SAE 40	HDAX Low Ash Gas Engine Oil SAE 40
	Geotex LA SAE 40 HDAX Low Ash Gas Engine Oil SAE 40	Geotex LF SAE 40 HDAX LFG SAE 40	HDAX LFG SAE 40	HDAX Low Ash Gas Engine Oil SAE 40



Technical Instruction: TA 1000-1109 Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines

	A	B	C	[CAT]
	Geotex LA SAE 40 HDAX Low Ash Gas Engine Oil SAE 40	Geotex LF SAE 40 HDAX LFG Gas Engine Oil SAE 40	HDAX LFG Gas Engine Oil SAE 40	HDAX Low Ash Gas Engine Oil SAE 40
	Nateria MH 40	Nateria ML 406		
	Titan Ganymet LA Titan Ganymet Ultra*	Titan Ganymet plus Titan Ganymet Ultra	Titan Ganymet	Titan Ganymet Ultra Titan Ganymet LA
	Troncoil Gas 40			
	LEG 40	Gas HD 40		
		AUTOL BGJ 40		
	Mahler G4	Mahler HA Mahler G5	Mahler HA Mahler G5	
	Long Life Gas 4005* Super Motor Gas 4005			
	Mogas G4	Mogas AC-40 Mogas G5	Mogas AC-40 Mogas G5	
	Mahler G4	Mahler HA Mahler G5	Mahler HA Mahler G5	






Technical Instruction: TA 1000-1109 Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines

	A	B	C	[CAT]
	MG 40 Extra LA MG 40 Extra Synth*	MG 40 Extra Plus		MG 40 Extra LA
		Burian SAE 40		
	NOC ENEOS M40(M)			
	Methaflexx NG Methaflexx HC Premi- um*	Methaflexx HC plus Methaflexx HC Premi- um Methaflexx GE-M Methaflexx MD	Methaflexx D Methaflexx GE-M	Methaflexx NG Methaflexx HC Premi- um
		Mihagrun 40		
	GEO LA 40			
		NGEO 2500 MA		
	Divinol Spezial Typ 4 SAE 40	Divinol Spezial HA SAE 40	Divinol Spezial HA SAE 40	
		Gasmotorenöl HA SAE 40		
		Gasmotorenöl HGM SAE 40		



Technical Instruction: TA 1000-1109 Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines

	A	B	C	[CAT]
	GN LX4005			GN LX4005
		Famagas HA 40		
		Mol GMO MA 40		

4 Lubricating oil requirements for GE Jenbacher type 4 engines:





SAE 40

additives suitable for spark-ignition gas operation.

Release procedure successfully completed in acc. with TI 1000-0099A.

Selection overview

A, B, C:	Class fuel gas
[CAT]:	with catalytic converter for formaldehyde conversion included in GE Jenbacher scope of supply

	A	B	C	[CAT]
	Pegasus 705 Pegasus 805 Pegasus 1005**	Pegasus 705 Pegasus 805	Pegasus SR Pegasus 605	Pegasus 705
	Energas NGL	Energas NGL		Energas NGL
	Duratec L	Duratec L		Duratec L
	HDAX Low Ash SAE 40			HDAX Low Ash SAE 40








Technical Instruction: TA 1000-1109 Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines

	A	B	C	[CAT]
	HDAX Low Ash SAE 40			HDAX Low Ash SAE 40
	Titan Ganymet Ultra*			Titan Ganymet Ultra
	Mysella LA 40 Mysella XL*			Mysella LA 40
	NOC Eneos M40(M)			
	Mahler G4	Mahler G4 Mahler G5	Mahler G5	
	Long Life Gas 4005* Super Motor Gas 4005			
	Mogas G4	Mogas G4 Mogas G5	Mogas G5	
	Mahler G4	Mahler G4 Mahler G5	Mahler G5	
	MG 40 Extra Synth*			
	Methaflexx HC Premium*			Methaflexx HC Premium



Technical Instruction: TA 1000-1109 Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines

	A	B	C	[CAT]
	Nateria MH 40	Nateria MH 40	Nateria MH 40	
	GEO LA 40			
	Gas LEG 40			
	Divinol Spezial Typ 4 SAE 40	Divinol Spezial Typ 4 SAE 40		
	GN LX4005			GN LX4005

5 Lubricating oil requirements for GE Jenbacher type 6 engines:



SAE 40

additives suitable for spark-ignition gas operation.

Release procedure successfully completed in acc. with TI 1000-0099A.

Selection overview

A, B, C:	Class fuel gas
[CAT]:	with catalytic converter for formaldehyde conversion included in GE Jenbacher scope of supply

	A	B	C	[CAT]
	Pegasus 705 Pegasus 805	Pegasus 705 Pegasus 805	Pegasus SR Pegasus 605	Pegasus 705
	Energas NGL	Energas NGL	Energas NGL	Energas NGL



Technical Instruction: TA 1000-1109 Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines

	A	B	C	[CAT]
	Duratec L	Duratec L	Duratec L	Duratec L
	Mysella LA 40 Mysella XL 40*			Mysella LA 40
	Sentron LD 5000*			Sentron LD 5000
	HDAX Low Ash SAE 40			HDAX Low Ash SAE 40
	HDAX Low Ash Gas Engine Oil SAE 40			HDAX Low Ash Gas Engine Oil SAE 40
	Methaflexx HC Premium*			Methaflexx HC Premium
	Nateria MH 40	Nateria MH 40	Nateria MH 40	
	Titan Ganymet Ultra*			Titan Ganymet Ultra
	HDAX Low Ash Gas Engine Oil SAE 40			HDAX Low Ash Gas Engine Oil SAE 40
	Mahler G4	Mahler G4 Mahler G5	Mahler G5	



Technical Instruction: TA 1000-1109 Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines

	A	B	C	[CAT]
	Long Life Gas 4005* Super Motor Gas 4005			
	Mogas G4	Mogas G4 Mahler G5	Mahler G5	
	Mahler G4	Mahler G4 Mahler G5	Mahler G5	
	MG 40 Extra Synth*			MG Extra Synth
	NOC ENEOS M40(M)			
	Gas LEG 40			
	Divinol Spezial Typ 4 SAE 40	Divinol Spezial Typ 4 SAE 40		
	GN LX4005			GN LX4005



Technical Instruction: TA 1000-1109 Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines

6 Revision code

Revision history

Index	Date	Description/Revision summary	Creator <i>Auditor</i>
8	24.04.2012	type 2,3,4,6 Produkt "Fuchs" Class A fuel gas, type 2,3,4,6 Produkt "Q8" Class B,C fuel gas, type 2,3,4,6 Produkt "ROLOIL" Class BC fuel gas, type 2,3,4,6 Produkt "ADDINOL" Class A fuel gas, type 2,3,4,6 Produkt "TECTROL" Class A fuel gas, type 2,3,4,6 Produkt "galp energia" Class A, [CAT] fuel gas, type 2,3 Produkt "olfino" Class B fuel gas, type 2,3 Produkt "MOL" Class B fuel gas.	Bilek <i>Chvatal Susanne</i>
7	30.05.2011	Pos. 3 Treibgas Klasse A / Point 3 Class A fuel gas Produkt / Product "Fuchs, Repsol, Tectrol, Total und/and Adinol". Treibgas Klasse B / Class B fuel Produkt / Product "Fuchs und/and Tectrol". Pos. 4, 5 Treibgas Klasse A / Class A fuel gas. Produkt / Product "Fuchs, Repsol, Tectrol, Total und/and Adinol". Treibgas Klasse B, C / Class B, C fuel Produkt / Product "Total".	Bilek <i>Chvatal Susanne</i>
6	21.02.2011	Pos. 3 Treibgas Klasse B / Point 3 Class B fuel gas. Produkt / Product Fuchs.	Bilek <i>Chvatal Susanne</i>
5	30.10.2010	BR 2,3 Produkt "Fuchs" Treibgasklasse B / BR 4,6 Produkt "Mobil" Treibgasklasse C / type 2, 3 Product "Fuchs" Class B fuel gas / type 4, 6 Product "Mobil" Class C fuel gas.	Bilek <i>Chvatal Susanne</i>
4	15.10.2010	Entwicklungsfreigaben/Development release: 071_2010-NOC ENEOS M40(M) BR/type 6.	Bilek <i>Chvatal Susanne</i>
3		Treibgasklasse A/Class A fuel gas. 059_2010-Cenex, NGENO 2500 MA BR/ type 2,3 Treibgasklasse B/Class B fuel gas.	
2		087_2010 - OMV Gas LEG 40 BR/type 2,3,4,6 Treibgasklasse A/Class A fuel gas.	
		Freigabe - Mittlg / release No. 035/2010 Neu/new: Zeller/Gmelin, AVIA, Eurolub.	
1	26.05.2010	Umstellung auf CMS / Change to Content Management System ersetzt / replaced Index: c	Schartner <i>Giese</i>