

TA 1000-1109

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

Technical Instruction

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Tekniske anvisninger

Technical instruction

Technische Richtlinien

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Технические инструкции

Τεχνικές οδηγίες

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GE imagination at work



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

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The activities and conditions defined in this Technical Instruction shall be performed and/or observed by the plant operator. This shall not apply if this Technical Instruction is expressly allocated to the area of responsibility of GE Jenbacher or a contractual agreement between the operator and GE Jenbacher provides for a different arrangement.

1 Scope

This Technical Instruction applies to all Type 2, 3, 4 and 6 GE Jenbacher gas engines.

2 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.



3 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 and sulphur cause the lubricating oil to acidify.
Organic silicon compounds cause wear.

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

- **Class A: natural gas and gases that permanently comply with the restrictions regarding trace and accompanying elements in acc. with TI 1000-0300, TI 1000-0301 and TI 1000-0302**
Natural gas, associated petroleum gas, 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 1000-0112

TI 1000-0099 A, B, C, D.

4 Lubricating oil requirements for GE Jenbacher engines

SAE 40

Additives suitable for four-stroke spark-ignition gas operation.

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

5 Lubricating oil tables – selection overview:

5.1 Note

- **Product names (in boldface)*** are suitable for prolonged oil change intervals in GE Jenbacher gas engines using class A fuel.
- **Mobil Pegasus 1005**** can be assessed using increased oil limit values (see TI 1000-0099B).
- **A, B, C:** fuel gas classes
- **CAT:** if an oxidation catalytic converter is included in the GE Jenbacher scope of supply



5.2 Lubricating oil table for Type 2 and 3 GE Jenbacher engines

Firma	Produktname	A	B	C	CAT
Mobil	Pegasus 705	X			X
	Pegasus 805	X			
	Pegasus 610			X	
	Pegasus 710		X		
	Pegasus 1005**	X			
Castrol	Duratec L	X	X		X
	Duratec MX		X	X	
Shell	Mysella S3N	X			X
	Mysella S3S		X	X	
	Mysella S5S		X	X	
	Mysella S5N	X			X
Petro Canada	Sentron LD 5000*	X			X
	Sentron LD 8000*	X			
	Sentron CG 40 Plus		X	X	
	Sentron CG 40		X	X	
Texaco Chevron Caltex	Geotex LA 40	X			
	Geotex LF 40		X		
	HDAX 5500 LFG Gas Engine Oil 40		X	X	
	HDAX 5200 Low Ash Gas Engine Oil 40	X			X
	HDAX 6500 LFG Gas Engine Oil 40		X	X	
	HDAX 7200 Low Ash Gas Engine Oil 40	X			
Total	Nateria MH 40	X			X
	Nateria ML 406		X		
	Nateria MJ 40		X		
	Nateria MP 40	X			
Fuchs	Titan Ganymet LA	X			X
	Titan Ganymet			X	
	Titan Ganymet Plus		X		
	Titan Ganymet Ultra*	X	X		X
Cepsa	Troncoil Gas 40	X			
	Troncoil Gas LD 40	X			
	Troncoil Gas JGC 40	X			X
OMV	Gas LEG 40	X			
	Gas XDI 40	X			
	Gas HD 40		X	X	
LUKOIL	Efforse 4004	X			
	Efforse XDI 4004	X			
	Efforse HD 4009		X	X	



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Firma	Produktname	A	B	C	CAT
Q8	Mahler G4	X			X
	Mahler G5	X	X	X	X
	Mahler G8		X	X	
	Mahler HA		X	X	
Roloil	Mogas G4	X			X
	Mogas G5	X	X	X	X
	Mogas G8		X	X	
	Mogas AC-40		X	X	
PEAK	Navitus G4	X			X
	Navitus G5	X	X	X	X
	Navitus G8		X	X	
	Navitus HA 40		X	X	
Addinol	MG Extra LA	X			X
	MG Extra Synth*	X			X
	MG Extra Plus		X	X	
	Gas Engine Oil LG 40		X	X	
	Gas Engine Oil NG 401	X	X		
Repsol	Long Life Gas 4005*	X			
	Long Life Biogas 4005		X	X	
	Super Motor Gas 4005	X			
Valvoline	GEO Plus LA Engine Oil SAE 40		X	X	
Mol	GMO MA		X		
Eneos	NOC 440 (M)	X			
SRS	Mihagrun LAX 40	X	X		
	Mihagrun X 40		X	X	
Cenex	NGEO 2500 MA		X		



5.3 Lubricating oil table for Type 4 GE Jenbacher engines (versions A and B)

Firma	Produktname	A	B	C	CAT
Mobil	Pegasus 705	X	X		X
	Pegasus 805	X			
	Pegasus 1005**	X			
	Pegasus SR			X	
Castrol	Duratec L	X	X	X	X
Shell	Mysella S3N	X	X	X	X
	Mysella S5N*	X			X
	Mysella S5S		X	X	
Petro Canada	Sentron LD 5000*	X			X
	Sentron LD 8000*	X			
	Sentron CG 40 Plus		X	X	
Texaco Chevron Caltex	HDAX 5200 Low Ash Gas Engine Oil 40	X			X
	HDAX 6500 LFG Gas Engine Oil 40		X	X	
	HDAX 7200 Low Ash Gas Engine Oil 40	X			
Total	Nateria MH 40	X	X	X	X
	Nateria MP 40	X			
Fuchs	Titan Ganymet LA	X			X
	Titan Ganymet Ultra*	X			X
Cepsa	Troncoil Gas LD 40	X			
	Troncoil Gas JGC 40	X	X	X	X
OMV	Gas LEG SAE 40	X			
	Gas XDI SAE 40	X			
LUKOIL	Efforse 4004	X			
	Efforse XDI 4004	X			
Q8	Mahler G4	X	X		X
	Mahler G5	X	X	X	X
Roloil	Mogas G4	X	X		
	Mogas G5	X	X	X	X
PEAK	Navitus G4	X			X
	Navitus G5	X	X	X	X
Addinol	MG Extra LA	X			X
	MG 40 Extra Synth*	X			X
	Gas Engine Oil LG 40		X	X	
	Gas Engine Oil NG 40	X	X		
Repsol	Long Life Gas 4005*	X			
	Long Life Biogas 4005		X	X	
	Super Motor Gas 4005	X			
Valvoline	GEO Plus LA Engine Oil SAE 40		X	X	
Eneos	NOC 440 (M)	X			
SRS	Mihagrün LAX 40	X	X		
	Mihagrün X 40		X	X	



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Firma	Produktname	A	B	C	CAT
MOL	GMO Long Life		X	X	

5.4 Lubricating oil table for Type 4 GE Jenbacher engines (as from version C)

Firma	Produktname	A	B	C	CAT
Mobil	Pegasus 705	X	X	X	X
	Pegasus 805	X	X	X	
Shell	Mysella S5N*	X	X	X	X
Petro Canada	Sentron LD 5000*	X	X	X	X
	Sentron LD 8000*	X			
Texaco Chevron Caltex	HDAX 5200 Low Ash Gas Engine Oil	X	X	X	X
Repsol	Long Life Gas 4005*	X	X	X	
Galp	GN LX4005	X	X	X	X

5.5 Lubricating oil table for Type 6 GE Jenbacher engines (versions C and E)

Firma	Produktname	A	B	C	CAT
Mobil	Pegasus SR			X	
	Pegasus 605			X	
	Pegasus 705	X	X		X
	Pegasus 805	X	X		
	Pegasus 1005*	X			
Castrol	Duratec L	X	X	X	X
Shell	Mysella S3N	X	X	X	X
	Mysella S5N*	X			X
	Mysella S5S		X	X	
Petro Canada	Sentron LD 5000*	X			X
	Sentron LD 8000	X			
	Sentron CG 40 Plus		X	X	
Texaco Chevron Caltex	HDAX 5200 Low Ash Gas Engine Oil 40	X			X
	HDAX 6500 LFG Gas Engine Oil 40		X	X	
	HDAX 7200 Low Ash Gas Engine Oil 40	X			
Total	Nateria MH 40	X	X	X	X
	Nateria MP 40	X			
Fuchs	Titan Ganymet LA	X			X
	Titan Ganymet Ultra*	X			X
Cepsa	Troncoil Gas LD 40	X			
	Troncoil Gas JGC 40	X	X	X	X



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Firma	Produktname	A	B	C	CAT
OMV	Gas LEG 40	X			
	Gas XDI 40	X			
LUKOIL	Efforse 4004	X			
	Efforse XDI 4004	X			
Q8	Mahler G4	X			X
	Mahler G5	X	X	X	X
Roloil	Mogas G4	X	X		
	Mogas G5	X	X	X	X
PEAK	Navitus G4	X			X
	Navitus G5	X	X	X	X
Addinol	MG Extra Synth*	X			X
	Gas Engine Oil LG 40		X	X	
	Gas Engine Oil NG 40	X	X		
Repsol	Long Life Gas 4005*	X			
	Long Life Biogas Gas 4005		X	X	
	Super Motor Gas 4005	X			
Valvoline	GEO Plus LA Engine Oil 40		X	X	
Eneos	NOC 440 (M)	X			
SRS	Mihagrun LAX 40	X	X		
	Mihagrun X 40		X	X	
MOL	GMO Long Life		X	X	

5.6 Lubricating oil table for Type 6 GE Jenbacher engines (as from version F)

Firma	Produktname	A	B	C	CAT
Mobil	Pegasus 705	X	X	X	X
	Pegasus 805	X	X	X	
Shell	Mysella S5N*	X	X	X	X
Petro Canada	Sentron LD 5000*	X	X	X	X
Texaco Chevron Caltex	HDAX 5200 Low Ash Gas Engine Oil 40	X	X	X	X
Repsol	Long Life Gas 4005*	X	X	X	
Galp	GN LX 4005	X	X	X	X
Q8 Oils	Mahler G5	X			X
Roloil	Mogas G5	X			X
PEAK	Navitus G5	X			X



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5.7 Other products can be used for Type 2 and 3 engines, Type 4 engines (versions A and B) and Type 6 engines (versions C and E)

Firma	Produktname	A	B	C	CAT
Aral	Degasol NGL	X	X		X
Avia	Gasmotorenöl LA SAE 40	X			X
Bellini S.p.A	THG OILEXTRA SAE 40		X	X	
Brad Penn Lubricants	Supreme DDO Low Ash Stat. GEO 40	X			
CITGO	Pacemaker LFG LA Gas Engine Oil		X	X	
Compagnia Italiana Lubrificanti	Vanguard Astra JM 40		X	X	
D.A Lubricant Company	Blue Flame J 40		X	X	
De Oliebron	Tor GEO BG/LF 40		X	X	
Engen	GEO LL 40	X			
	GEO N	X	X		
	GEO BL - 40		X	X	
Exol	Taurus GEO G240	X	X		
Galp	GNLX 4005	X			X
Gazpromneft	G-Profi PSN 40	X	X		
Gulf Oil	Gulfco LFG 40		X	X	
Lotos	Ibis NGO Super LA SAE 40		X	X	
Matrix	GE LA Oil	X	X		
Morris Lubricant	GEO Ultra 40	X	X		
	GEO Ultra G-LF 40		X	X	
Nils	Burian Light SAE 40	X			X
	Burian Plus SAE 40		X	X	
North Sea Lubricants	Tidal Power LA 40	X	X		
Ori-Tecoil	Gas Engine Oil 40 C	X	X		
Orlen	Delgas L 40	X	X		
	Delgas Premium L 40		X	X	
Pakelo	Geoterm LA EVO SAE 40		X	X	
Paramo	Mogulgas B	X	X		
PAZ Lubricants	Biogas 40		X	X	
Petromin	Petrogas Plus 40	X	X		
Rymco	Frya Gas LA Plus	X	X		
Sasol	Gas Engine Oil LA	X	X		
Tectrol	Methaflexx NG	X			X
	Methaflexx HC Premium*	X	X		X
TNB	Gas Engine Oil LA	X	X		
Wameco S.R.L.	NGE OILEXTRA SAE 40		X	X	
77 Lubricants	Gas Engine Oil LA 40	X	X		
Nachstehende Produkte sind nur für Baureihe 2 und 3 Motoren anwendbar					
Agip	AUTOL BGJ 40		X		
Aral	Degasol LFM		X	X	



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Firma	Produktname	A	B	C	CAT
Avia	Gasmotorenöl HA SAE 40		X	X	
	Gasmotorenöl S40 SAE 40		X	X	
Eurolube	Gasmotorenöl HGM Plus		X	X	
Nils	Burian SAE 40		X		
Oilfino	Famagas HA 40		X		
Pakelo	Geoterm MA SAE 40		X		
Phi Oil	Gas Engine Oil MA 40		X		
Tectrol	Methaflexx HC Plus		X		
	Methaflexx GE-M		X	X	
Zeller+Gmelin	Divinol Spezial Typ 4 SAE 40	X			
	Divinol SpezialHA SAE 40		X	X	

6 Revision code

Revision history

Index	Date	Description/Revision summary	Creator Auditor
13	29.01.2015	Grundlegende Überarbeitung/ fundamental revision	Bilek Chvatal S.
		Hinweis zur Einhaltung der Bedingungen / Information on observing the conditions	Bilek Lippert
12	19.02.2014	Grundlegende Überarbeitung / Fundamental revision	Bilek Chvatal S.
11	02.04.2013	Generelle Überarbeitung von Punkt 1.6 / General revision of point 1.6	Provin Anderson
		E-Freigaben / E-Release: Chevron HDAX 6500 LFG BR 2/3/4/6 [E] in B & C, OMV Gas LEG XDI BR 2/3/4/6 [E] in A;	
		Freigaben/Release: Avia Gasmotorenöl LA BR 2/3 in A; Brad Penn Supreme DDO LA BR 3/4 in A; Cepsa Troncoil Gas JGC 40 BR 2/3 in A, BR 4/6(E) in A,B & C; Nils Burian Light BR 2/3 in A;	
		Namensänderung / Rename of products: „Shell Mysella“ & Chevron/ Tecaxo/ Caltex	
10	06.09.2012	Ergänzung rechtlicher Hinweis/ legal notice added	Provin Spieker
9	10.05.2012	Type 2,3 Produkt "Geterm MA SAE40" Class B fuel gas. Type 4,6 Produkt "Mysella XL" [CAT] fuel gas. Type 6 E-version Produkt "Pegasus 1005" Class A fuel gas.	Bilek Chvatal Susanne
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 Chvatal Susanne



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Revision history

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</i> <i>Susanne</i>
6	21.02.2011	Pos. 3 Treibgas Klasse B / Point 3 Class B fuel gas. Produkt / Product Fuchs.	Bilek <i>Chvatal</i> <i>Susanne</i>
5	30.10.2010	BR 2,3 Produkt "Fuchs" Treibgasklasse B / BR 4,6 Produkt "Mobil" Treibgasklasse C / type 2, 3 Produkt "Fuchs" Class B fuel gas / type 4, 6 Produkt "Mobil" Class C fuel gas.	Bilek <i>Chvatal</i> <i>Susanne</i>
4	15.10.2010	Entwicklungsfreigaben/Development release: 071_2010-NOC ENEOS M40(M) BR/type 6.	Bilek <i>Chvatal</i> <i>Susanne</i>
3		Treibgasklasse A/Class A fuel gas. 059_2010-Cenex, NGE0 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 C ontent M anagement S ystem ersetzt / replaced Index: c	Schartner <i>Giese</i>