Test-Report E-Chains

page 1 of 2		Test No.:	**3203a**

Client:			
Name:	Team: lab	Date: 12.02.09	Result: 20.08.09

Order-Info:	
Customer/ No.: igus®	
Series / No: 255.10.075.0	Installation type:
Goal: determine the influence of cutting and cooling oils regarding the e-chain's stability against pull forces.	

Technical data	**Series data**
Length [links] or [m]:	Mat.-No.:
Additional load [kg/m]:	Prod.-date:
Chain weight [kg/m]:	Origin: ☐Stock ☐Production ☐Customer
Temperature [°C]:	- Other:
a acceleration [m/sec^2]:	tempered ☐ No ☐ Yes
Mounting brackets:	conditioned ☐ No ☐ Yes
Filling (Sketch-No.):	- moisture absorption [%]

Cycles	**v** Speed [m/s]

Remark:

Experimental setup (Sketch, Photo ...)

A machine was build for e-chains to run in the oil. For this test the e-chains were running for 4 months.

Three oils were tested as the main focus:
- cutting fluid 1
- cutting fluid 2
- cooling lubricate con. 10 %

Original → Test Lab
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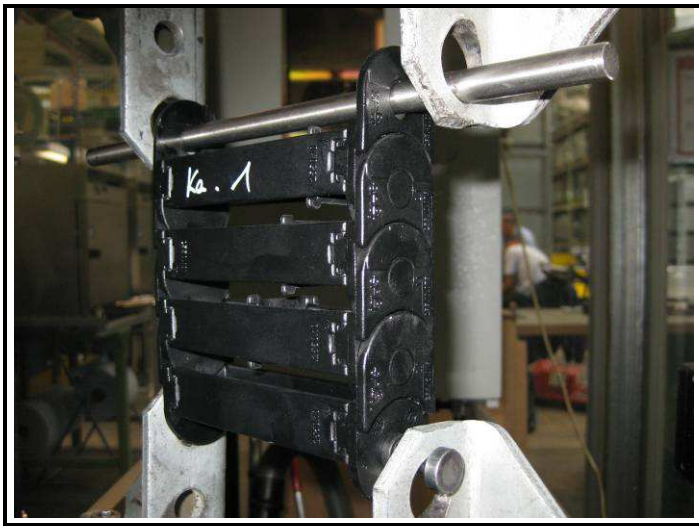
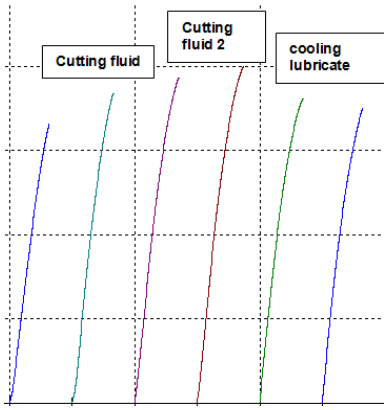


experimental setup pull test

Investigational procedure

From: 17.07.09	To: 20.07.09	Examiner:

Result



force-way-diagram pull test

	Maximum pull force
dry area	**100%**
Cutting fluid 1	**85%**
Cutting fluid 2	**95%**
Cooling lubricate	**86%**

☐ Report: Sheets

Evaluation

The pull force that the e-chains withstand is in average 10% weaker after they have been running in the liquids. This needs to be considered in the designing process.

Name: Date: 20.08.2009

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