PADERBORN UNIVERSITY
The University for the Information Society

Profile of rolling bearing damage (Bearing: KA01)

Category			Unit	Specification/Value
General info		Bearing Type	-	deep groove ball bearing
		Bearing designation (dimension series, bore code)	-	6203
		Suffix	-	-
Manufacturer specific information	Geometry	Diameter of inner raceway	mm	n/a
		Diameter of outer raceway	mm	n/a
		Pitch circle diameter	mm	29.05
		Number of rolling elements	pc.	8
		Rolling element diameter	mm	6.75
		Length of rolling element	mm	6.75
		Nominal pressure angle	°	0
	Parameters	Static load rating	N	n/a
		Dynamic load rating	N	n/a
		Speed limit	min^{-1}	n/a
		Manufacturer	-	MTK
Application specific information	Identification	Bearing code	-	KA01
		Sample number	-	6203-A1
	Place of operation	Installation site	-	-
		Installation type (system type)	-	-
		Operator	-	Chair of design and Drive Technology, Paderborn
	Operating conditions	Number of load cycles	cycles	artificial damage, bearing was not operated
		Lifetime	h:min	
		Load	N	
		Dynamic equivalent load	N	
		Rotational speed	min^{-1}	
		Load direction	°	
		Comment	-	

Dipl.-Ing. Christian Lessmeier
Pohlweg 47-49, 33098 Paderborn, Germany
Tel.: +49 5251-60-2299
Email: christian.lessmeier@upb.de

Chair of Design and Drive Technology
Prof. Dr.-Ing. Detmar Zimmer

		Number of damages		1		
Category				**Damage 1**	**Damage 2**	**Damage 3**
Damage	Type of Damage	Mode		artificial		
		Sub-mode		n/a		
		Symptom		n/a		
	Damage location	Component		OR		
		Position of damage		raceway		
		Damage combination		S		
		Arrangement of the respective damages		without repetitive damage		
	Geometry	Length	mm	0.25		
		Extent of damage		1		
		Width	mm	total		
		Depth	mm	1		
		Characteristic of damage		single point		
	Damage occurrence	Damage method		EDM machining		
		Cause of damage (category)		artificial		
		Cause of damage (detailed)		n/a		

Legend

OR: outer ring
IR: inner ring
S: single damage
R: repetitive damage
M: multiple damage

Dipl.-Ing. Christian Lessmeier
Pohlweg 47-49, 33098 Paderborn, Germany
Tel.: +49 5251-60-2299
Email: christian.lessmeier@upb.de
Chair of Design and Drive Technology
Prof. Dr.-Ing. Detmar Zimmer