

Profile of rolling bearing damage (Bearing: KA16)

Category		Unit	Specification/Value
General info		Bearing Type	-
		Bearing designation (dimension series, bore code)	-
		Suffix	-
Manufacturer specific information	Geometry	Diameter of inner raceway	mm
		Diameter of outer raceway	mm
		Pitch circle diameter	mm
		Number of rolling elements	pc.
		Rolling element diameter	mm
		Length of rolling element	mm
		Nominal pressure angle	°
Application specific information	Parameters	Static load rating	N
		Dynamic load rating	N
		Speed limit	min ⁻¹
		Manufacturer	-
	Identification	Bearing code	-
		Sample number	-
	Place of operation	Installation site	-
		Installation type (system type)	bearing damage test bench (KAT)
		Operator	Chair of design and Drive Technology, Paderborn
	Operating conditions	Number of load cycles	cycles
		Lifetime	h:min
		Load	N
		Dynamic equivalent load	N
		Rotational speed	min ⁻¹
		Load direction	°
		Comment	-

		Number of damages	2		
Category			Damage 1	Damage 2	Damage 3
Damage	Type of Damage	Mode	fatigue	fatigue	
		Sub-mode	n/a	n/a	
		Symptom	Pitting	Pitting	
	Damage location	Component	OR	OR	
		Position of damage	raceway	raceway	
		Damage combination	R	R	
		Arrangement of the respective damages	random	random	
	Geometry	Length mm	2	3	
		Extent of damage	2	2	
		Width mm	total	total	
		Depth mm	n/a	n/a	
		Characteristic of damage	single point	single point	
	Damage occurrence	Damage method	lifetime test	lifetime test	
		Cause of damage (category)	operating conditions and lubricant	operating conditions and lubricant	
		Cause of damage (detailed)	overload, wrong viscosity, contamination	overload, wrong viscosity, contamination	

Legend

OR: outer ring

IR: inner ring

S: single damage

R: repetitive damage

M: multiple damage