

AD-A164 796

A CENTRIFUGAL TYPE GASKET FOR BEARINGS(U) FOREIGN
TECHNOLOGY DIV WRIGHT-PATTERSON AFB OH
P D KIVKOV ET AL. 03 FEB 86 FTD-ID(R5)T-0899-95

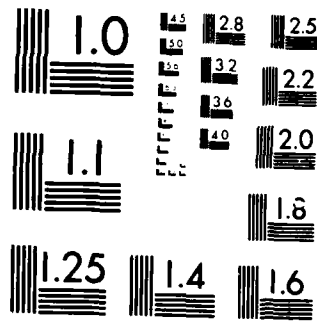
1/1

UNCLASSIFIED

F/O 11/1

NL

									END
	IT								FILED
	1 8								ONE



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

2

FTD-ID(RS)T-0899-85

AD-A164 796

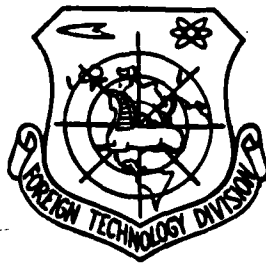
FOREIGN TECHNOLOGY DIVISION



A CENTRIFUGAL TYPE GASKET FOR BEARINGS

by

P.D. Kiykov, B.T. Tsoy and V.A. Brenner



DTIC
SELECTED
FEB 27 1986
S D
A D

DTIC FILE COPY

Approved for public release;
distribution unlimited.



86 2 27 07

EDITED TRANSLATION

FTD-ID(RS)T-0899-85

3 Feb 86

MICROFICHE NR: FTD-86-C-001449

A CENTRIFUGAL TYPE GASKET FOR BEARINGS

By: P.D. Kiykov, B.T. Tsoy and V.A. Brenner

English pages: 4

Source: USSR Patent Nr. 214984, 29 March 1968, pp. 1-2

Country of origin: USSR

Translated by: FLS, INC.

F33657-85-D-2079

Requester: FTD/TQTA

Approved for public release; distribution unlimited.

THIS TRANSLATION IS A RENDITION OF THE ORIGINAL FOREIGN TEXT WITHOUT ANY ANALYTICAL OR EDITORIAL COMMENT. STATEMENTS OR THEORIES ADVOCATED OR IMPLIED ARE THOSE OF THE SOURCE AND DO NOT NECESSARILY REFLECT THE POSITION OR OPINION OF THE FOREIGN TECHNOLOGY DIVISION.

PREPARED BY:

TRANSLATION DIVISION
FOREIGN TECHNOLOGY DIVISION
WP-AFB, OHIO.

U. S. BOARD ON GEOGRAPHIC NAMES TRANSLITERATION SYSTEM

Block	Italic	Transliteration	Block	Italic	Transliteration
А а	<i>А а</i>	A, a	Р р	<i>Р р</i>	R, r
Б б	<i>Б б</i>	B, b	С с	<i>С с</i>	S, s
В в	<i>В в</i>	V, v	Т т	<i>Т т</i>	T, t
Г г	<i>Г г</i>	G, g	У у	<i>У у</i>	U, u
Д д	<i>Д д</i>	D, d	Ф ф	<i>Ф ф</i>	F, f
Е е	<i>Е е</i>	Ye, ye; E, e*	Х х	<i>Х х</i>	Kh, kh
Ж ж	<i>Ж ж</i>	Zh, zh	Ц ц	<i>Ц ц</i>	Ts, ts
З з	<i>З з</i>	Z, z	Ч ч	<i>Ч ч</i>	Ch, ch
И и	<i>И и</i>	I, i	Ш ш	<i>Ш ш</i>	Sh, sh
Й й	<i>Й й</i>	Y, y	Щ щ	<i>Щ щ</i>	Shch, shch
К к	<i>К к</i>	K, k	Ъ ъ	<i>Ъ ъ</i>	"
Л л	<i>Л л</i>	L, l	Ы ы	<i>Ы ы</i>	Y, y
М м	<i>М м</i>	M, m	Ь ь	<i>Ь ь</i>	'
Н н	<i>Н н</i>	N, n	Э э	<i>Э э</i>	E, e
О о	<i>О о</i>	O, o	Ю ю	<i>Ю ю</i>	Yu, yu
П п	<i>П п</i>	P, p	Я я	<i>Я я</i>	Ya, ya

*ye initially, after vowels, and after ъ, ь; e elsewhere.
When written as ё in Russian, transliterate as yě or ě.

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	sinh ⁻¹
cos	cos	ch	cosh	arc ch	cosh ⁻¹
tg	tan	th	tanh	arc th	tanh ⁻¹
ctg	cot	cth	coth	arc cth	coth ⁻¹
sec	sec	sch	sech	arc sch	sech ⁻¹
cosec	csc	csch	csch	arc csch	csch ⁻¹

Russian English

rot curl
lg log

GRAPHICS DISCLAIMER

All figures, graphics, tables, equations, etc. merged into this translation were extracted from the best quality copy available.

A CENTRIFUGAL TYPE GASKET FOR BEARINGS

P. D. Kiykov, B. T. Tsoy and V. A. Brenner

> There is a familiar centrifugal-type gasket for bearings, consisting of an immovable inner ring and an outer rotating ring connected to it, both secured on an axle.

However such device does not provide the requisite strength and working durability of the bearing.

> The described device differs from the familiar in that the outer and inner rings have joining conical surfaces, flaring in the direction of the outside of the bearing. The inner conical surface of the outer ring is smooth, while the surface of the inner ring joined to it has annular recesses. (Translations, USSR, Russian language)

Such a design improves the sealing capacity of the device.

Figure 1 schematically shows the traveling roller, general view; Fig. 2, the conical gasket.

The device consists of an outer rotating ring 1, secured to the body of the traveling roller 3 by a screw 2. In the annular slot of ring 1 is installed a rubber sleeve 4. The smooth conical



Availability Codes	
Dist	Avail. 2 d/or special
A-1	

surface 5 of ring 1 is joined to the conical surface of the non-movable inner ring 6, annular recesses 7 of which have a tilt toward the outside.

During the working of the traveling roller, in particular that of a plate conveyor, the axis 8 moves and the traveling roller rolls along the guideway 9. Particles of dust and moisture getting into the annular spacing 10 of the gasket between the surface of ring 1 and ring 6 lose speed and settle (in the upper half of the gasket) in the slots of the annular recess.

During the working of the conveyor or the moving of a cart, ring 1 removes particles of dust and moisture from the annular recesses of ring 6 by an air flow and presses them against the surface of ring 1 in the upper half of the gasket by centrifugal forces, and in the lower half by the joint action of centrifugal and gravitational forces.

The angle of inclination α of the generatrix of the cone of the inner surface of the outer ring 1 and the joined conical surface of the inner ring 6 should be such to provide the necessary magnitude of the tangential component of the resultant of the centrifugal and gravitational forces to move the particles of dust and moisture along the conical surface toward the outside.

Depending on the number of revolutions of ring 1 and the radius of the circle of the conical surface at the location of the dust or moisture particles, the latter may travel either along the smooth conical surface of the outer ring 1 exclusively, or alternately along the surface of ring 1, then along the annular recesses, with simultaneous displacement in the axial direction until they emerge at the outside. This provides protection of the bearing against penetration of dust and moisture particles.

The outer and inner rings of the gasket may be made of plastic.

Patent Claims

A gasket of centrifugal type for bearings, containing a non-movable inner ring, secured to an axis, and a rotating outer ring, joined to the former distinguished by the fact that, to improve the sealing ability, the outer and inner rings have joining conical surfaces, enlarging toward the outside of the body of the bearing; the inner conical surface of the outer ring is smooth, while the surface of the inner ring joined to this has annular recesses.

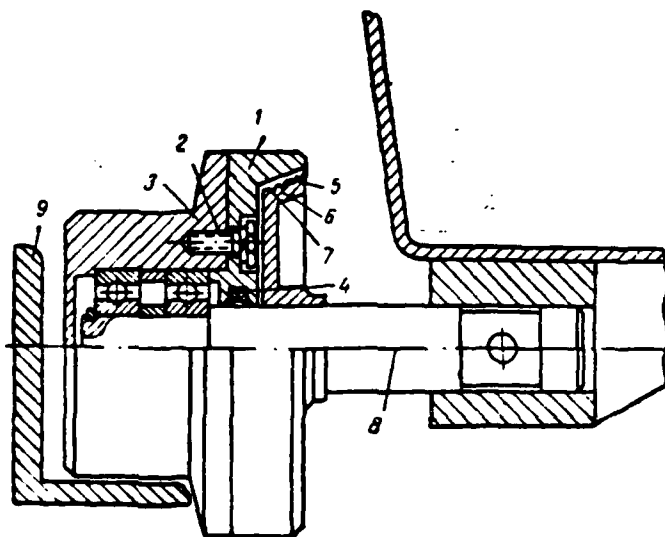


Fig. 1

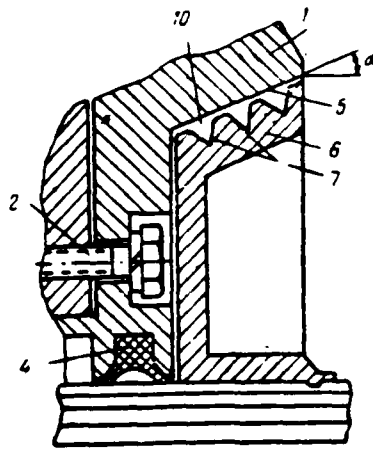


Fig. 2

4

END

FILMED

4-86

DTIC