

05-14-1999



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PD-99W004

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JP542 U.S. PTO  
09/304148  
05/03/99

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**PATENT**  
REEL: 9943 FRAME: 0421

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8/11/98  
09/304148

**Correspondent Name and Address**      **Area Code and Telephone Number**

**Name**

**Address (line 1)**

**Address (line 2)**

**Address (line 3)**

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**Pages**      **Enter the total number of pages of the attached conveyance document including any attachments.**      #

**Application Number(s) or Patent Number(s)**       Mark if additional numbers attached

*Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).*

<b>Patent Application Number(s)</b>			<b>Patent Number(s)</b>		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.      Month    Day    Year

**Patent Cooperation Treaty (PCT)**

Enter PCT application number  PCT  PCT   
only if a U.S. Application Number PCT  PCT  PCT   
has not been assigned.

**Number of Properties**      **Enter the total number of properties involved.**      #

**Fee Amount**      **Fee Amount for Properties Listed (37 CFR 3.41):** \$

**Method of Payment:**      Enclosed       Deposit Account


**Deposit Account**  
(Enter for payment by deposit account or if additional fees can be charged to the account.)

**Deposit Account Number:**      #

**Authorization to charge additional fees:**      Yes       No

**Statement and Signature**

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.*

Colin M. Raufer, Reg. No. 40,781            May 03, 1999  
Name of Person Signing      Signature      Date

**ASSIGNMENT**Page 1 of 2  
PD-99W004

WHEREAS, I, as below named sole inventor (if only one name is listed below) or joint inventor (if plural names are listed below) of the city and state as stated below next to my name, have invented a(an **APPARATUS FOR SOLVING BEARING LIFE AND TORQUE COMPENSATION PROBLEMS IN SYSTEMS WITH OSCILLATING COMPONENTS** for which application for Letters Patent of the United States has been executed by me on or before this day, or (if the following is completed) filed on \_\_\_\_\_ as Serial No. \_\_\_\_\_; and

WHEREAS, RAYTHEON COMPANY, (hereinafter referred to as Raytheon), a Delaware Corporation, having its principal place of business in Lexington, Massachusetts, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer to RAYTHEON, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by me, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request The Commissioner of Patents and Trademarks of the United States and all foreign countries to issue all such Letters Patent to said RAYTHEON, its successors, assigns or other legal representatives; covenant that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to RAYTHEON, its successors, assigns or other legal representatives, upon request and at no cost or expense to me, any facts known by me respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by RAYTHEON, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of RAYTHEON, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in RAYTHEON, its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, I have executed this instrument.

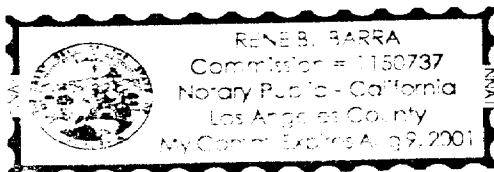
FULL NAME OF SOLE OR JOINT INVENTOR Felix T. Sasso	INVENTOR'S SIGNATURE <i>F. Sasso</i>	DATE 4/29/99
RESIDENCE (CITY AND STATE) 9627 Beverlywood Street, Los Angeles, California 90034		INVENTION AGREEMENT DATE January 14, 1985

FULL NAME OF SOLE OR JOINT INVENTOR John G. Blanche IV	INVENTOR'S SIGNATURE <i>John G. Blanche IV</i>	DATE 4/29/99
RESIDENCE (CITY AND STATE) 1929 West Jacaranda Place, Fullerton, California 92833		INVENTION AGREEMENT DATE February 7, 1983

STATE OF California  
 COUNTY OF Los Angeles } SS:  
 On April 29, 1999 before me, Rene S. Barra  
 a Notary Public in and for said State, personally appeared Felix T. Sasso and  
John G. Blanche IV

personally known to me or  proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



Notary Public *Rene S. Barra*