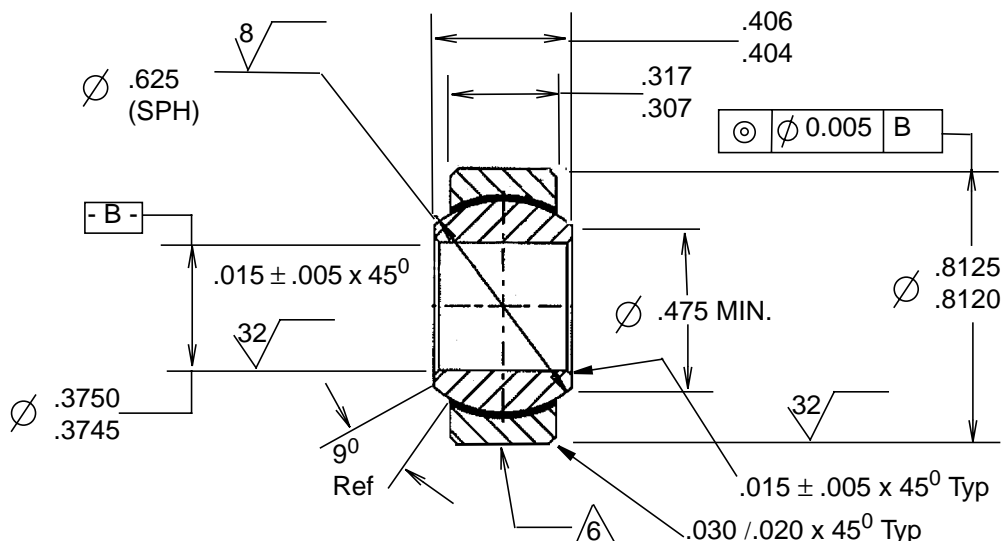


SOURCE CONTROL DRAWING



*** DSC 569 BEARING IS DIMENSIONALLY EQUIVALENT TO MS14104, ALSO BEARING SHALL MEET THE AS-81820 REV. A REQUIREMENTS EXCEPT AS FOLLOWS:**

BEARING REQUIREMENTS:

1. MATERIALS:

OUTER RACE: 17-4PH STAINLESS STEEL PER AMS 5643, Rc 28-37

BALL: 440C PER AMS 5630, Rc 55-62

LINER: NON-PEELABLE, NON-FABRIC, MACHINEBLE A HOMOGENEOUS COMPOSITE CONTAINING PTFE.

2. FINISH: BALL CHROME PLATE PER QQ-C-320, CLASS 2, SPHERICAL OD, 0.0005 - 0.0003 THK
3. NO - LOAD BREAKAWAY TORQUE = 0.1 IN - LBS MAX.
4. MAXIMUM CLEARANCE: RADIAL = 0.0007", AXIAL = .0028"
5. STATIC LIMIT LOADS: RADIAL = 8650LBS, AXIAL = 900LBS
- CONTINUOUS DYNAMIC RADIAL LOAD = 2875 LBS MAX.



IDENTIFY, LASER MARK OR ELECTROLYTIC ETCH THE MANUFACTURER'S PART NUMBER AND DSC NUMBER ON THE OUTER RACE OF THE BEARING.

LINER CHARACTERISTICS

7. LINER CONFORMITY PER AS-81820 PARAGRAPH 3.4.4.2 & 3.4.4.3 EXCEPT:
 - NORMAL CONFORMITY - H/10 THICKNESS TO BE .008" - .018",
 - MIDPOINT TO OCCURE BETWEEN THE H/10 POSITIONS NOT TO EXCEED .030",
 - MINIMUM LINER THICKNESS .008",
 - CIRCUMFERENTIAL CONFORMITY - VARIATION IN THE MEASURED VALUES NOT TO EXCEED .006".
8. MIXTURE OF PTFE SHALL BE INCLUDED IN THE LINER SYSTEM TO ENABLE EXTREMELY LOW COEFFICIENT OF FRICTION (COF) LEVELS OF 0.15

SEE ENGINEERING STANDARDS APPROVAL RECORD FOR ORIGINAL SIGNATURES AND CHANGE SUMMARY

DRAWN	B. EDWARDS	TITLE: BEARING, PLAIN, SELF-LUBRICATING, SELF-ALIGNING, LOW TORQUE, LOW FRICTION	DSC 569
CHECKED	U. GOLAN		
STRESS	B. YOUNG		PAGE 1 OF 3
APPROVED	U. GOLAN		

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APPROVED: 28 APR 2004

SOURCE CONTROL DRAWING

9. OPERATING TEMPERATURE RANGE - 100⁰F TO + 300⁰F (- 73 TO + 149⁰C)
10. THE LINER SURFACE SPEED APPLICATION UP TO 10 FEET PER MINUTE (FPM).

BEARING QUALIFICATION CRITERIA

11. MAX. COF OF 0.18 SHOULD BE TESTED UNDER 14,000 PSI AT AMBIENT TEMPERATURE AND AT LOW TEMPERATURE OF - 70⁰F.
12. MAX. COF OF 0.15 SHOULD BE MEASURED ON THE NEW BEARING THROUGHOUT THE OPERATING LOAD RANGE AT AMBIENT TEMPERATURE AND AT LOW TEMPERATURE OF -65⁰F (-54⁰C).
13. RUNNING COEFFICIENT OF FRICTION (DYNAMIC COF) IS REQUIRED TO BE AS CLOSE AS POSSIBLE TO STATIC COF.
14. MAX. TOTAL DEFLECTION .010" UNDER RADIAL STATIC LIMIT LOAD.
NO PERMANENT SET DEFORMATION GREATER THAN .0035".
(AFTER THE LOAD APPLIED FOR 3 MINUTES).
15. AT ULTIMATE STATIC (RADIAL & AXIAL) LOADS; (ULT= 1.5 LIMIT)
 - BEARING COMPONENTS SHALL REMAIN INTACT WITH THE OUTER RACE IN PLACE (NO PUSH OUT OF THE BALL)
 - RACE OR BALL FRACTURE SHALL NOT OCCUR.
 - PLASTIC DEFORMATION IS ALLOWED
 - LOCAL LINER DISTRESS MAY OCCUR.
16. LINER MUST BE BONDED TO THE OUTER RACE.
17. THE BEARING AND BALL MUST BE FINGER MOVABLE THROUGH THE ENTIRE MISALIGNMENT ANGLE RANGE.

QUALIFICATION TEST

18. SUPPLIER SHALL SUBMIT A QUALIFICATION TEST PROCEDURE PLAN FOR BOMBARDIER APPROVAL.
19. SUPPLIER SHALL TEST 1 SAMPLE BEARING, BASED ON THE FOLLOWING BEARING SPECTRUM:

No. of Cycles	Radial Load	Oscillation	Frequency
11,200,000	333 lbs	± 1.5 ⁰	1 Hz - 2Hz

20. THE BEARING TEMPERATURE SHALL BE MONITORED AND MAINTAINED BELOW 200⁰ F, WHEN THE FREQUENCY IS HIGHER THAN 1 HZ.
21. FOLLOWING QUALIFICATION TEST, MAXIMUM WEAR SHALL NOT BE MORE THAN .0015" OVER THE LIFE OF THE BEARING.
22. THE SUPPLIER SHALL SUBMIT A QUALIFICATION TEST REPORT VALIDATING THE BEARING MEETS ALL OF THE ABOVE REQUIREMENTS.

SEE ENGINEERING STANDARDS APPROVAL RECORD FOR ORIGINAL SIGNATURES AND CHANGE SUMMARY

DRAWN	B. EDWARDS	TITLE: BEARING, PLAIN, SELF-LUBRICATING, SELF-ALIGNING, LOW TORQUE, LOW FRICTION	DSC 569
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STRESS	B. YOUNG		PAGE 2
APPROVED	U. GOLAN		

PARA 19: SAMPLE 1 WAS 3

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de HAVILLAND

CAGE CODE 71867

SOURCE CONTROL DRAWING

ONLY THE ITEM(S) LISTED ON THIS DRAWING AND IDENTIFIED BY VENDOR'S NAME(S), ADDRESS(ES) AND PART NUMBER(S) HAVE BEEN APPROVED FOR USE IN DE HAVILLAND AIRCRAFT. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY DE HAVILLAND ENGINEERING STANDARDS

SOURCE CONTROL DRAWING

PART NUMBER BREAKDOWN:

DSC569 - 6

BORE DIAMETER
(In 1/16ths inch)

BASIC PART NUMBER

DSC P/N	APPROVED VENDOR
	KAMATICS CORPORATION
DSC569-6	KSC414006VS

VENDOR ADDRESS AND CAGE CODE:

KAMATICS CORPORATION, BLOOMFIELD CT.- CAGE CODE 50632

PROCUREMENT INFORMATION:

PROCUREMENT DEPARTMENT SHALL SPECIFY THE DSC NUMBER AND MANUFACTURER'S PART NUMBER ON THE PURCHASE ORDER

SEE ENGINEERING STANDARDS APPROVAL RECORD FOR ORIGINAL SIGNATURES AND CHANGE SUMMARY

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APPROVED: 28 APR 2004