

DSC511SHI-1

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REPORT ALL DRAWING ERRORS TO
ENGINEERING

REVISIONS

REVISION	ITEM NO.	ZONE	DESCRIPTION	ENG. AUTH.	VA. OPS.	ENG. RELEASE	DATE	DRAWN	CHECKED	STRESS	APPROVED
			PRELIMINARY - FOR TRIAL INSTALLATION OF MOD 8/2508								

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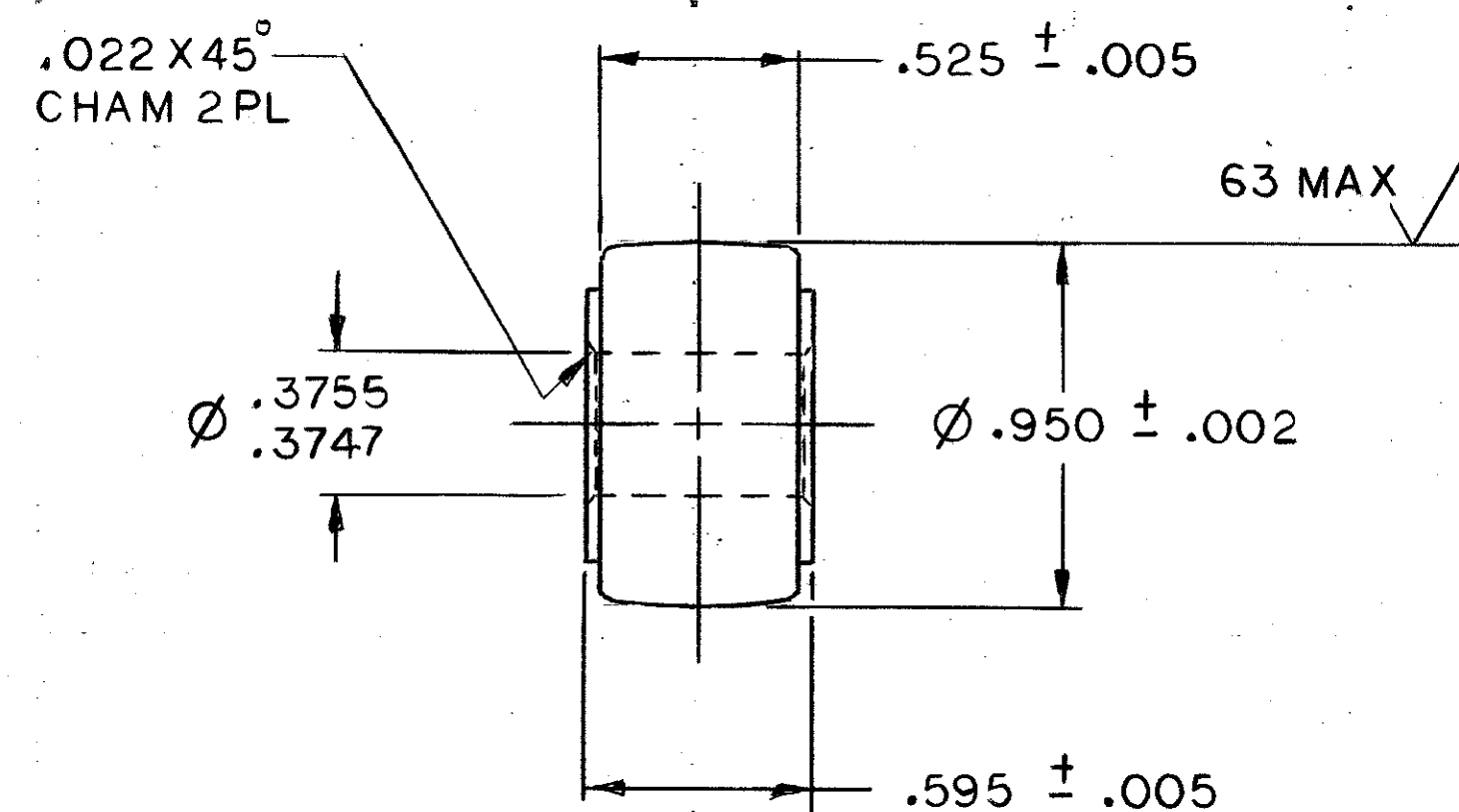
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NOTES

- THIS DRAWING SHOWS A BEARING - ROLLER DESIGNED FOR USE SPECICALLY AS THE 'LOWER DEAD WEIGHT ROLLER' FOR FLAP TRACK # 5 OF THE DASH 8 AIRCRAFT.
- MATERIAL
OUTER RACE - CRES CUSTOM 455 PER AMS 5617
HEAT TREAT CONDITION H1000.
INNER RACE AND END PLATES -
CRES PH 13-8 MO. PER AMS 5629
HEAT TREAT CONDITION H1000.
SEALS - DELRIN AF113 OR EQUIVALENT.
- LOAD RATINGS
NOMINAL RADIAL CAPACITY .17 IN² X 10,000 PSI = 1700 LB
NOMINAL AXIAL CAPACITY .10 IN² X 5,000 PSI = 500 LB
SEE SHEET 2 FOR CAPACITY AS A TRACK ROLLER
- LIFE TESTING
THE BEARING SHALL REMAIN SERVICEABLE WITH NO LINER WEAR THROUGH AFTER A ROLLING TEST AS FOLLOWS:
RADIAL LOAD 300 LBS
STROKE 12 INCHES
30,000 CYCLES
- ENVIRONMENT
DESERT SAND.
TEMPERATURE -65°F TO 160°F
- FEATURES
MAXIMUM RADIAL PLAY .003
AXIAL FLOAT .008 MAX.
THE OUTER RACE MUST BE FREE TO ROTATE WHILE THE INNER RACE IS HELD FINGER TIGHT (2 INCH LB MAX).
- SEE SHEET 2 FOR EXTERNAL PROFILE AND FOR INSTALLATION DETAIL.

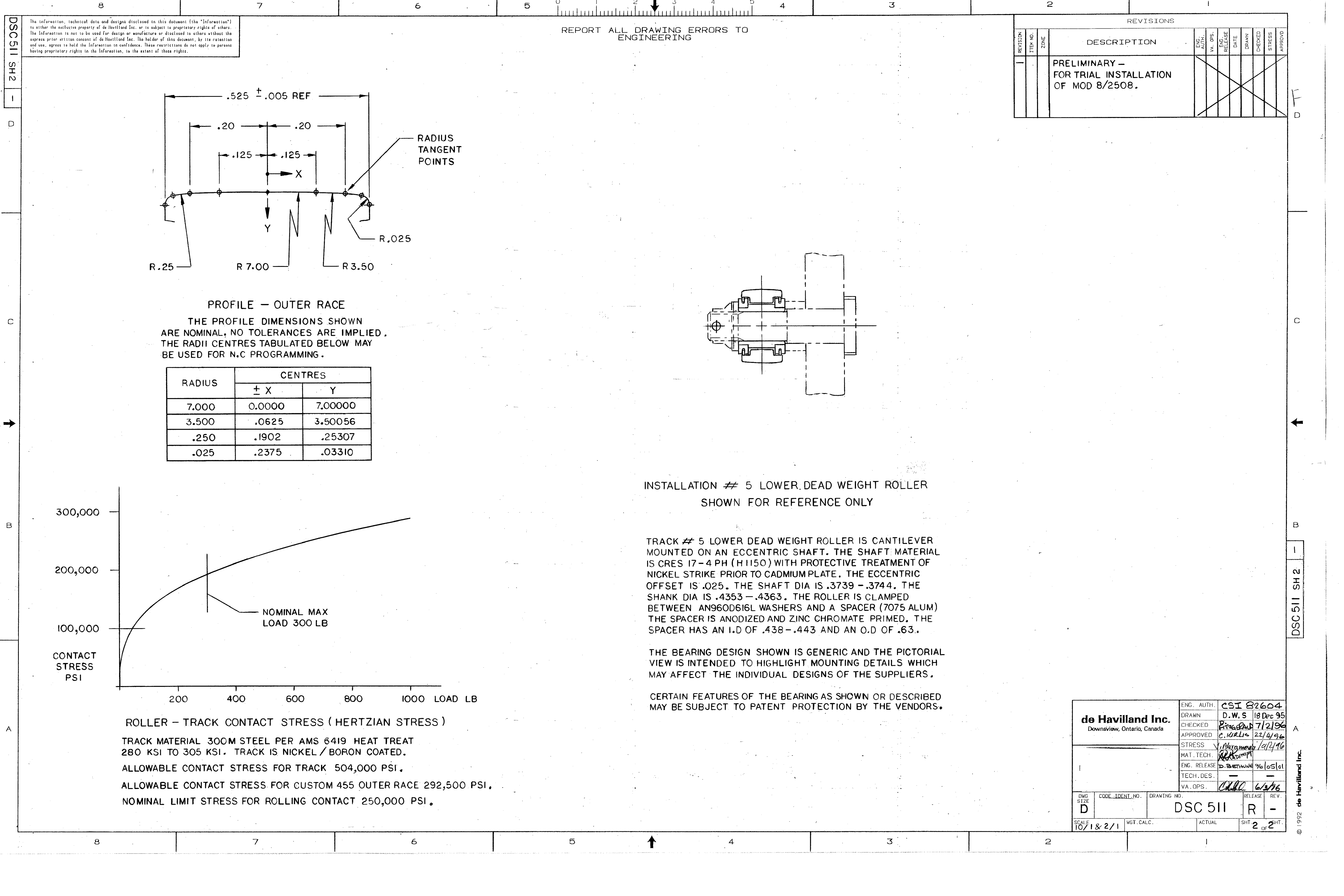


PART N° DSC 511-1

APPROVED VENDOR	VENDOR PART NUMBER

CSI 82604	DHC-8	2	CSI 82604
NEXT ASS'Y	USED ON	NO. REQ. PER A/C	EFFY.
PART NO.	DSC 511-1		

QUANTITY		REQ. PER		ZONE	SHEET	CODE	PART NO.	DESCRIPTION	MATERIAL	MATL. SPEC	FINAL HEAT TREAT	PROT. FINISH
BILL OF MATERIAL												
DO NOT SCALE DWG												
REQUIREMENTS-UNLESS OTHERWISE SPECIFIED								ENG. AUTH.	CSI 82604			
GENERAL								DRAWN	D.W.S. 18 Dec 95			
LIMITS								CHECKED	R. F. 7/2/96			
1. DIM ARE IN INCHES 2. SURFACE ROUGHNESS 125 MAX 3. REMOVE SHARP EDGES 0.015 MACHINE PARTS 4. EDGE FINISHING OF PARTS IN ACCORDANCE WITH P.P.S. 27.02 5. THREADS IN ACCORDANCE WITH MIL-S-7742								APPROVED	E. K. 22/4/96			
1. DECIMALS 1 PLACE ± .1 2 " ± .03 3 " ± .010 2. DIMENSIONS & TOLERANCES APPLY AFTER PLATING 3. AXIAL TOLERANCE FOR MACHINED PARTS .0030" 4. FOR ADDITIONAL TOLERANCES SEE D850								STRESS	de Havilland 1/12/96			
PRODUCTION PROCESS STANDARDS (P.P.S.) AND OTHER STANDARDS LISTED ON DWG IN ADDITION TO THESE STANDARDS CALLED UP IN THE FIELD OF THIS DRAWING SHALL FORM PART OF THIS DRAWING FOR ALL MANUFACTURING AND QUALITY REQUIREMENTS.								MAT. TECH.	de Havilland 1/12/96			
								ENG. RELEASE	de Havilland 1/12/96			
								TECH. DES.	de Havilland 1/12/96			
								VA. OPS.	de Havilland 1/12/96			
DRAWING TITLE								de Havilland Inc. Downsview, Ontario, Canada				
BEARING, SEALED, SELF LUBRICATING LOWER D.W ROLLER # 5 CARRIAGE OUTBOARD FLAPS												
DWG SIZE								CODE IDENT. NO.	DRAWING NO.		HEAT TREAT	REV.
D								71867	DSC 511		R	-
SCALE								WGT. CALC.		ACTUAL		SHT. 1 OF 2
2/1												



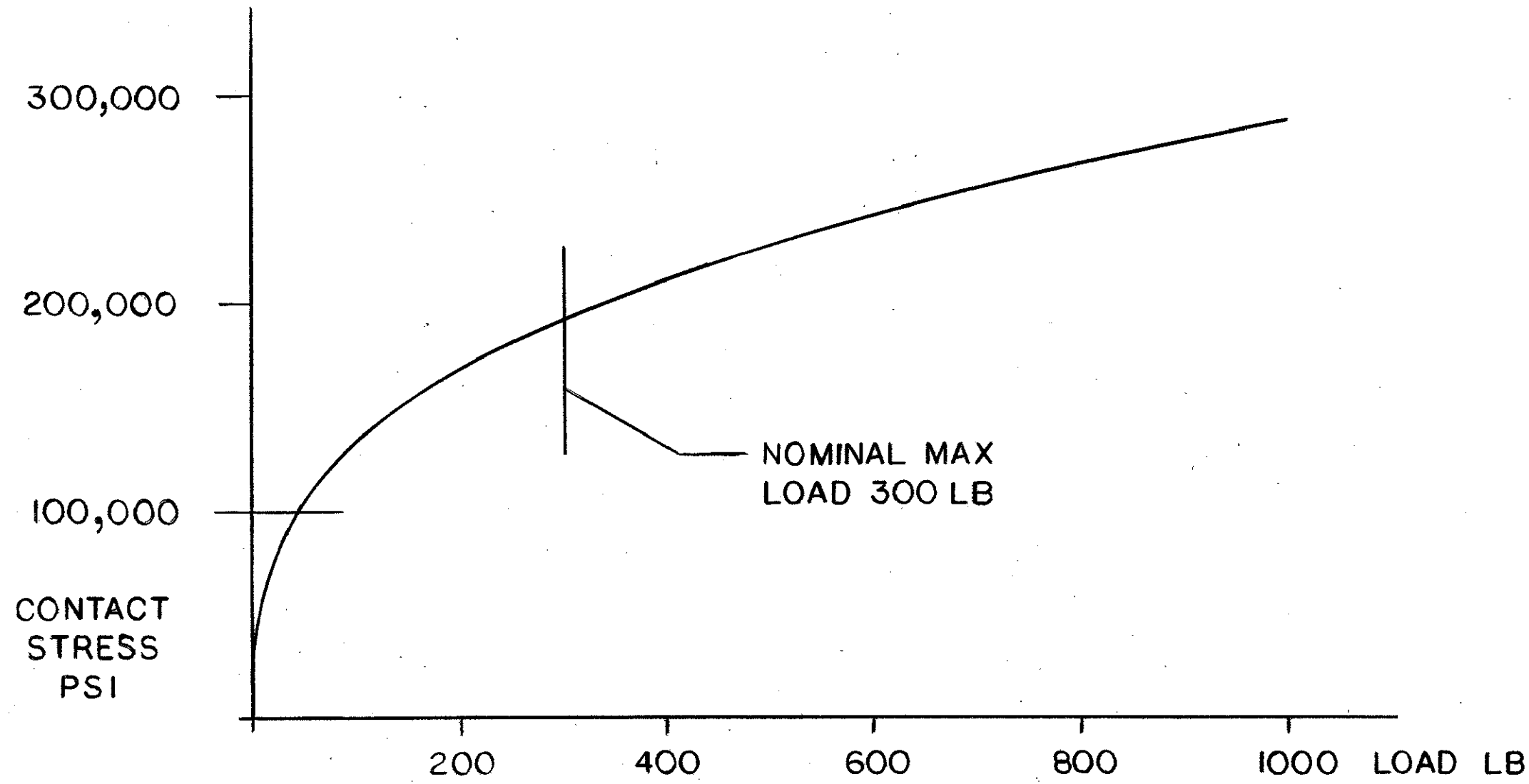
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1			PRELIMINARY - FOR TRIAL INSTALLATION OF MOD 8/2508.						

PROFILE - OUTER RACE
THE PROFILE DIMENSIONS SHOWN
ARE NOMINAL, NO TOLERANCES ARE IMPLIED.
THE RADII CENTRES TABULATED BELOW MAY
BE USED FOR N.C PROGRAMMING.

RADIUS	CENTRES	
	± X	Y
7.000	0.0000	7.00000
3.500	.0625	3.50056
.250	.1902	.25307
.025	.2375	.03310



ROLLER - TRACK CONTACT STRESS (HERTZIAN STRESS)
TRACK MATERIAL 300M STEEL PER AMS 6419 HEAT TREAT
280 KSI TO 305 KSI. TRACK IS NICKEL / BORON COATED.
ALLOWABLE CONTACT STRESS FOR TRACK 504,000 PSI.
ALLOWABLE CONTACT STRESS FOR CUSTOM 455 OUTER RACE 292,500 PSI.
NOMINAL LIMIT STRESS FOR ROLLING CONTACT 250,000 PSI.

INSTALLATION # 5 LOWER DEAD WEIGHT ROLLER
SHOWN FOR REFERENCE ONLY

TRACK # 5 LOWER DEAD WEIGHT ROLLER IS CANTILEVER
MOUNTED ON AN ECCENTRIC SHAFT. THE SHAFT MATERIAL
IS CRES 17-4 PH (H1150) WITH PROTECTIVE TREATMENT OF
NICKEL STRIKE PRIOR TO CADMIUM PLATE. THE ECCENTRIC
OFFSET IS .025. THE SHAFT DIA IS .3739 - .3744. THE
SHANK DIA IS .4353 - .4363. THE ROLLER IS CLAMPED
BETWEEN AN960D616L WASHERS AND A SPACER (7075 ALUM)
THE SPACER IS ANODIZED AND ZINC CHROMATE PRIMED. THE
SPACER HAS AN I.D OF .438 - .443 AND AN O.D OF .63.

THE BEARING DESIGN SHOWN IS GENERIC AND THE PICTORIAL
VIEW IS INTENDED TO HIGHLIGHT MOUNTING DETAILS WHICH
MAY AFFECT THE INDIVIDUAL DESIGNS OF THE SUPPLIERS.

CERTAIN FEATURES OF THE BEARING AS SHOWN OR DESCRIBED
MAY BE SUBJECT TO PATENT PROTECTION BY THE VENDORS.

de Havilland Inc. Downsview, Ontario, Canada	ENG. AUTH.		CSI 82604
	DRAWN		D.W.S 18 Dec 95
	CHECKED		7/2/96
	APPROVED		22/4/96
	STRESS		12/4/96
	MAT. TECH.		12/4/96
DSC 511	ENG. RELEASE		96/05/01
	TECH. DES.		
	VA. OPS.		6/5/96
	SCALE		10/1 & 2/1
D		DSC 511	
SCALE		ACTUAL	
10/1 & 2/1		SHT 2 OF 2	