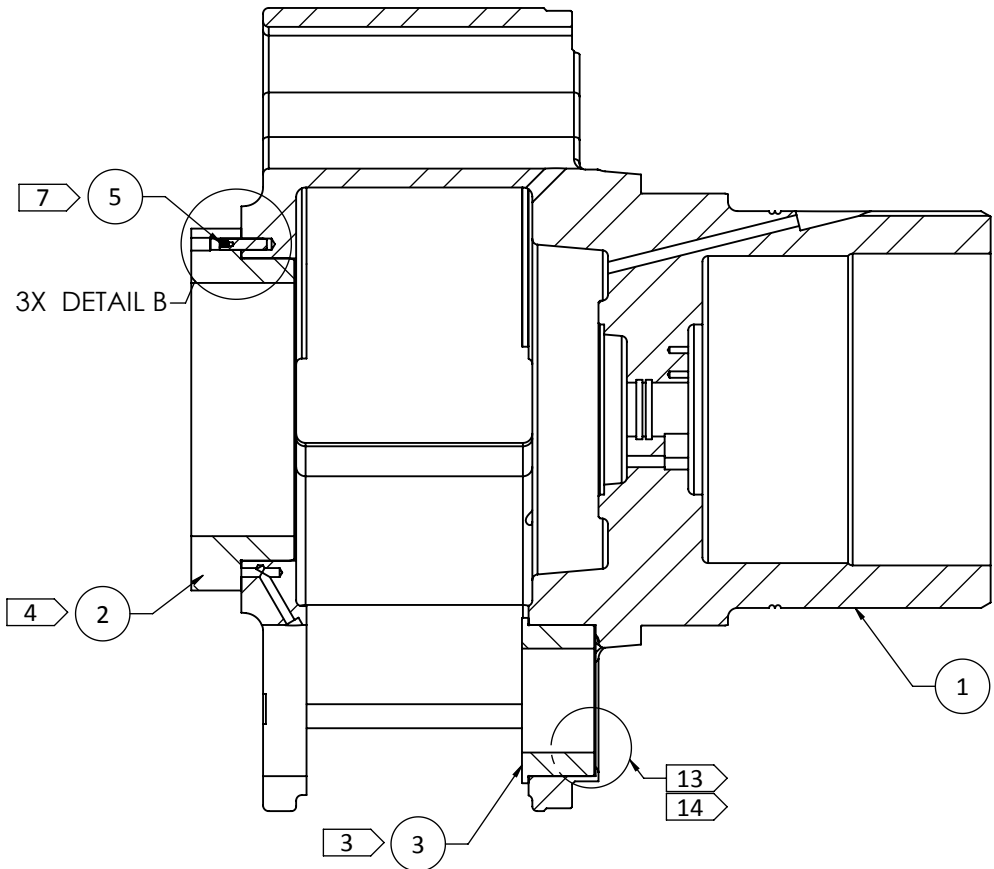
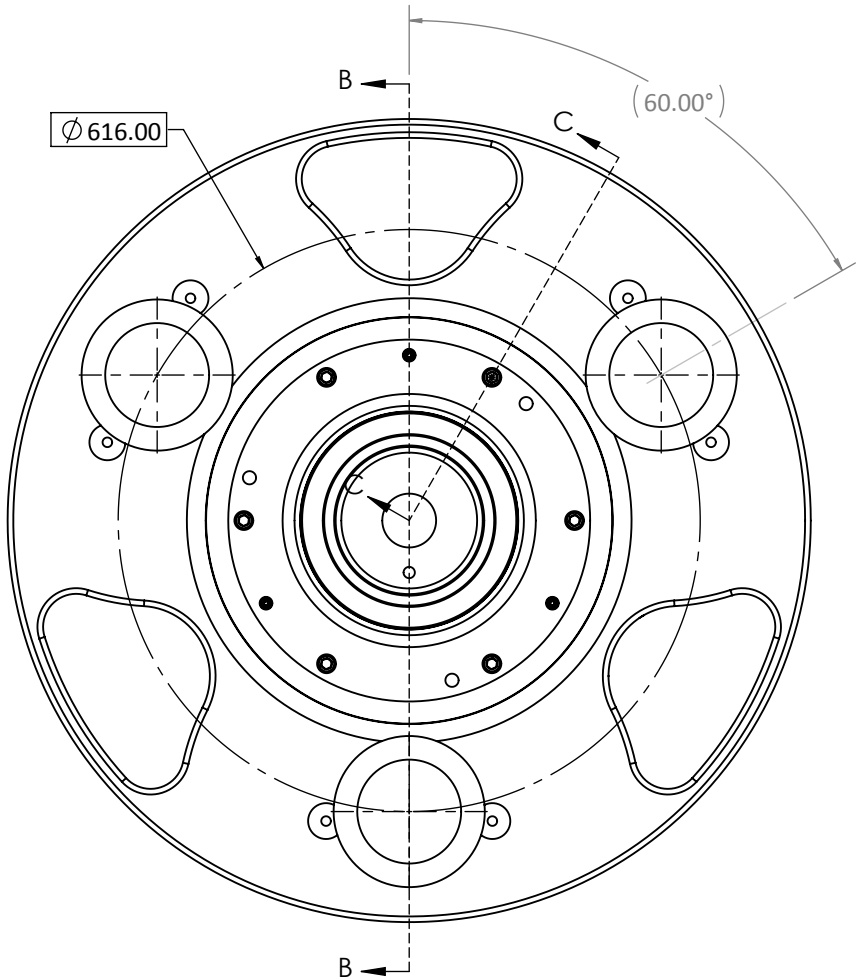
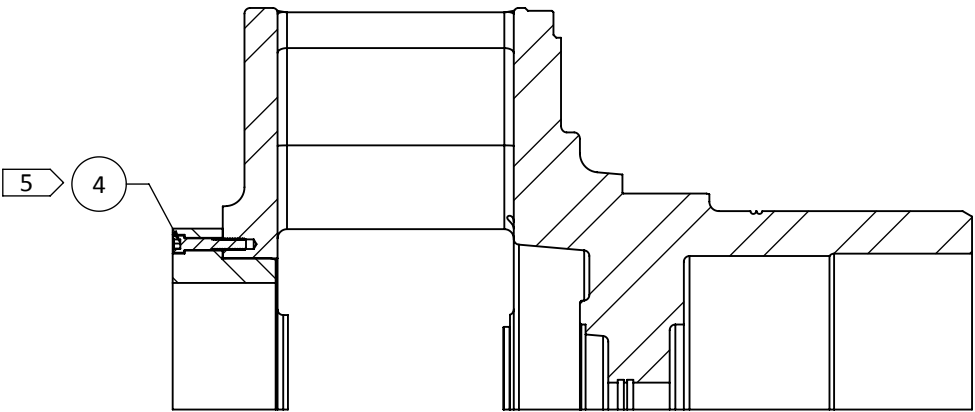


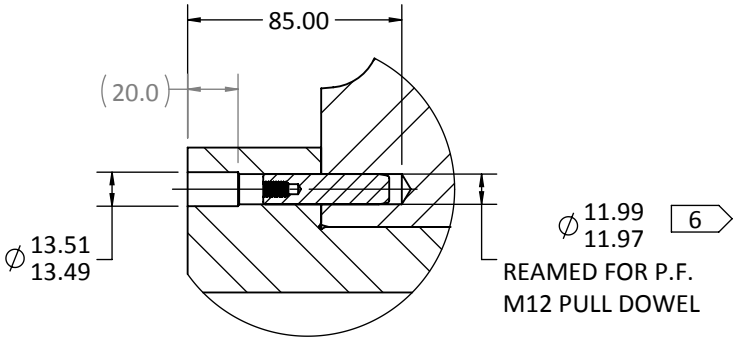
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	254520	PLANET CARRIER REMACHINING	1
2	254515	CARRIER INSERT, SEMI FINISH	1
3	254519	BUSHING, PLANET PIN	3
4	98241	Cap Screw, Socket Head, M12 X 65	6
5	98195	Dowel Pin, Pull-Out (vented) M12 x 50	3



SECTION B-B
SCALE 1 : 8



SECTION C-C
SCALE 1 : 8



3X DETAIL B
SCALE 1 : 3

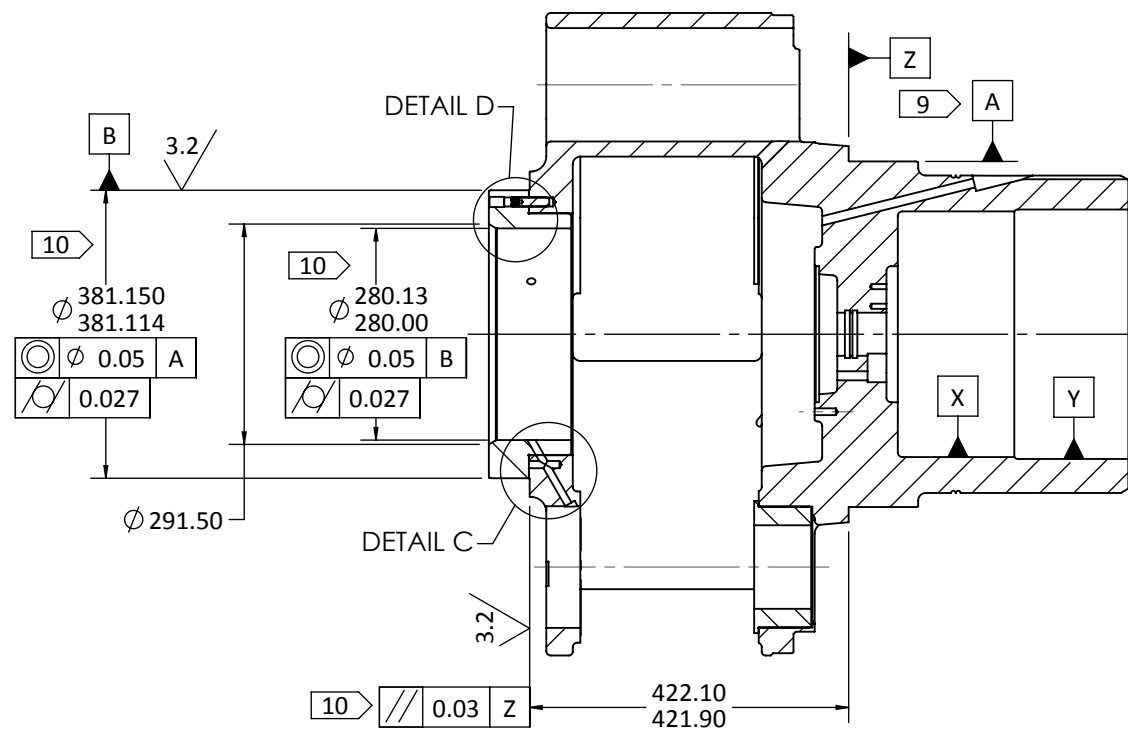
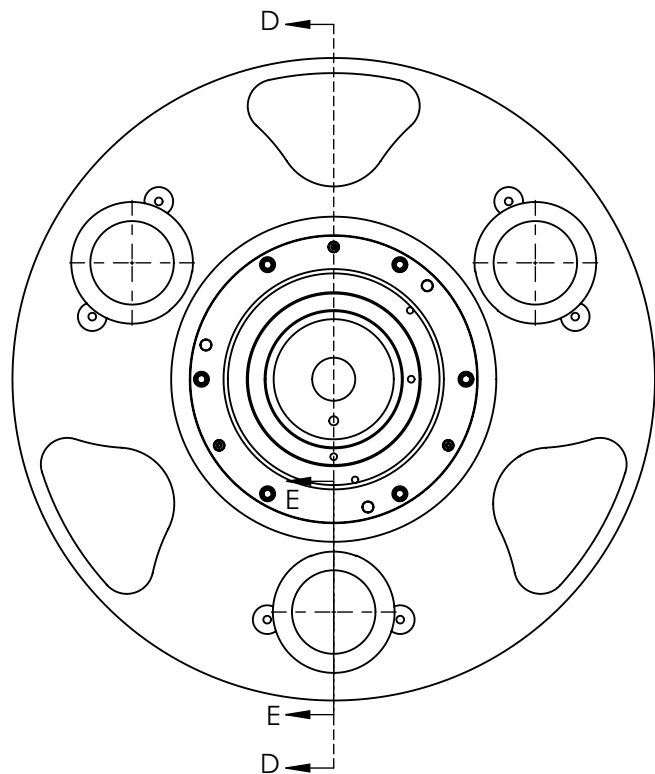
- NOTES:
- MATERIAL: CARRIER 254520
 - WARM CARRIER (p/n 254520) TO APPROX 65.5 °C (150 °F). COOL PIN BUSHINGS (p/n 254519) AND CARRIER INSERT (p/n 254515)TO OBTAIN A MINIMUM OF 79.5 °C (175 °F) DIFFERENTIAL.
 - INSTALL (3) PIN BUSHINGS (p/n 254519), ITEM 3, IN ROTOR SIDE CARRIER
 - INSTALL CARRIER INSERT (p/n 254515), ITEM 2, IN CARRIER BORE, INSTALL SCREWS TO PHASE HOLES
 - AFTER TEMPERATURE IS NORMALIZED, RE-INSTALL SCREWS WITH MEDIUM THREAD LOCK AND TORQUE THE SCREWS TO 117 NM.
 - FROM EXISTING (3) HOLES IN INSERT, DRILL THE CARRIER INSERT AND CARRIER FOR REAM. REAM FOR 12MM DOWELS, PRESS FIT.
 - INSTALL (3) DOWELS (ITEM 5). AFTER INSTALLING, CENTER PUNCH (3) DIMPLES AT DOWEL PIN HOLE EDGE TO “STAKE” IN DOWELS

MAKE FROM MODEL: 1509-AS-001-C

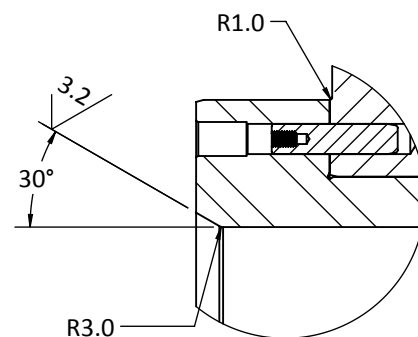
REV	CHANGED FROM	BY	DATE	APRD
A	PRE-RELEASE, REVIEWED PER 1509-ENC-004	CPS	1/14/13	
B	CHANGES REQUESTED PER NREL REVIEW	CPS	3/11/13	
C	RELEASE FOR PRODUCTION	CPS	4/19/13	
D	REPAIR DANGLING DIMENSION LEADERS	JMG	10/18/13	
E	CHANGES REQUESTED PER MANUFACTURER REVIEW	CPG	12/11/13	
F	BOM CORRECTION FOR P/N 254515	CPG	3/26/14	
G	CHANGES PER MFG REVIEW	CPG	10/16/15	
H	CHANGES PER MFG REVIEW	CPG	1/19/16	

REPORT ERRORS & CHANGES REMOVE ALL BURRS AND SHARP EDGES DIMENSIONS ARE IN MILLIMETERS. UNSPECIFIED TOLERANCES:		
DECIMALS:	FINISH:	ANGLES:
X. ±1.0 .X ±0.5 .XX ±0.25	6.3 $\sqrt{\mu\text{m}}$ Ra	≤ ± 0.5°
COPYRIGHT ©		
NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY		
DRAWN	JFC	DATE: 9/22/12
CHECKED	NJB	THIRD ANGLE PRJ

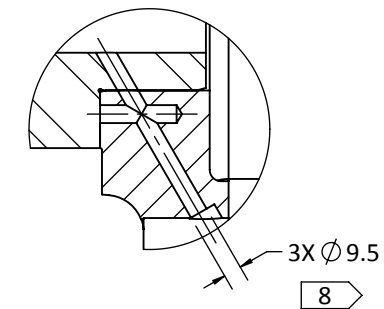
National Renewable Energy Laboratory		
TITLE: PLANET CARRIER STAGE 1 (FINAL MACH & ASS'Y)		
SIZE B	DWG. NO. 254594	REV H
SCALE: 1:10	WEIGHT: 690.96 kgs	SHEET 1 OF 3



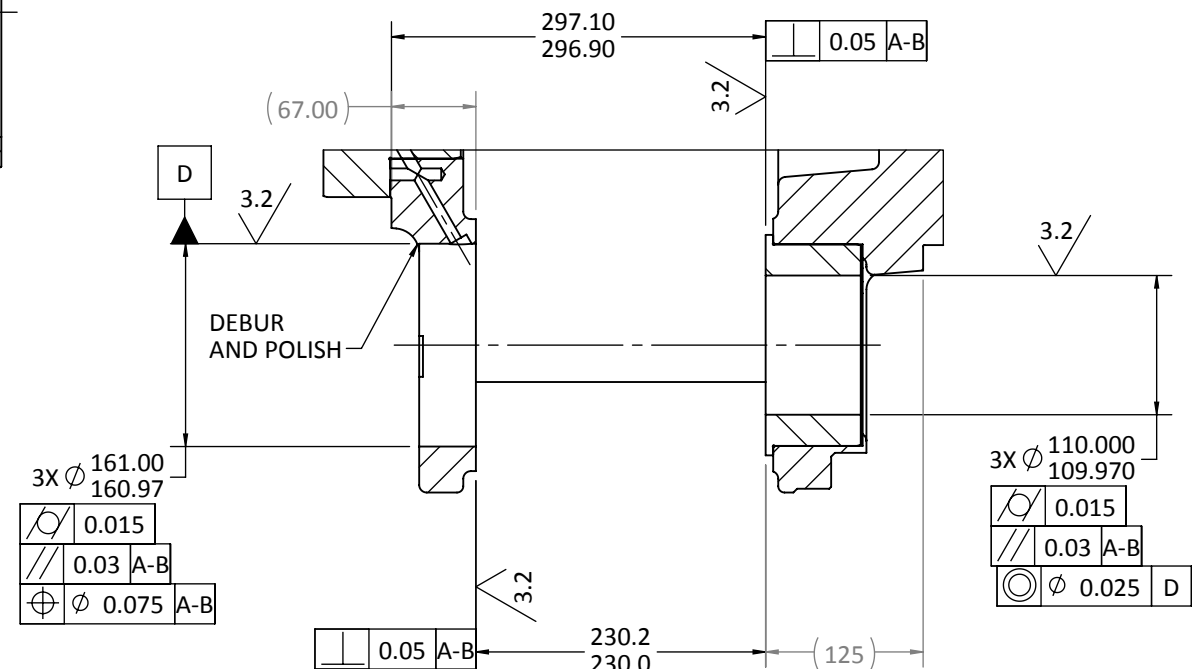
SECTION D-D



10 DETAIL D
SCALE 1 : 3



DETAIL C
SCALE 1 : 4

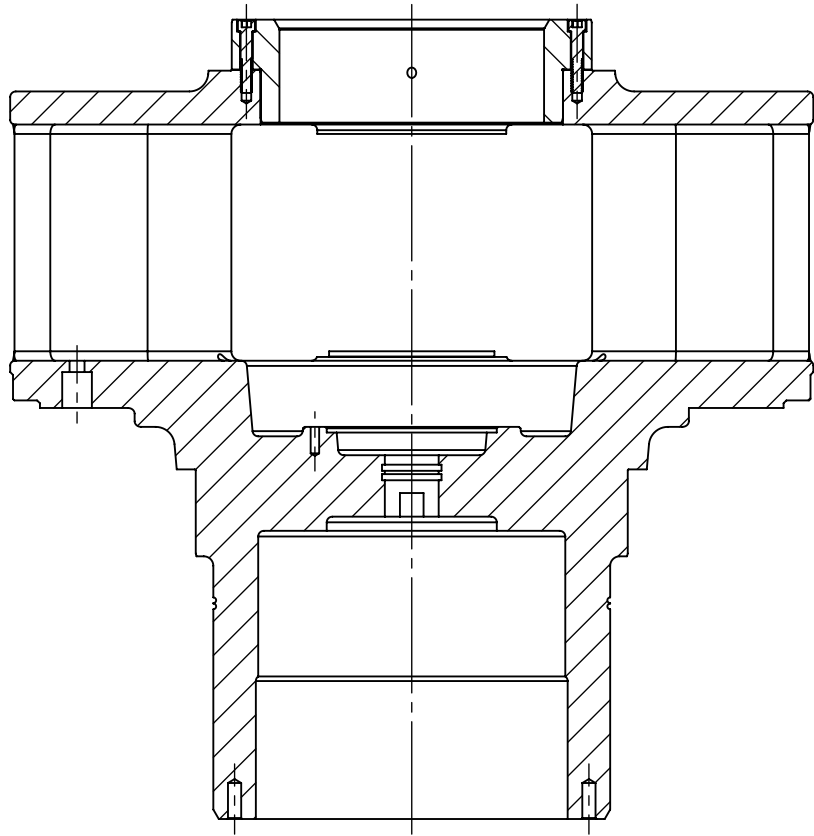


11 SECTION E-E
SCALE 1 : 6

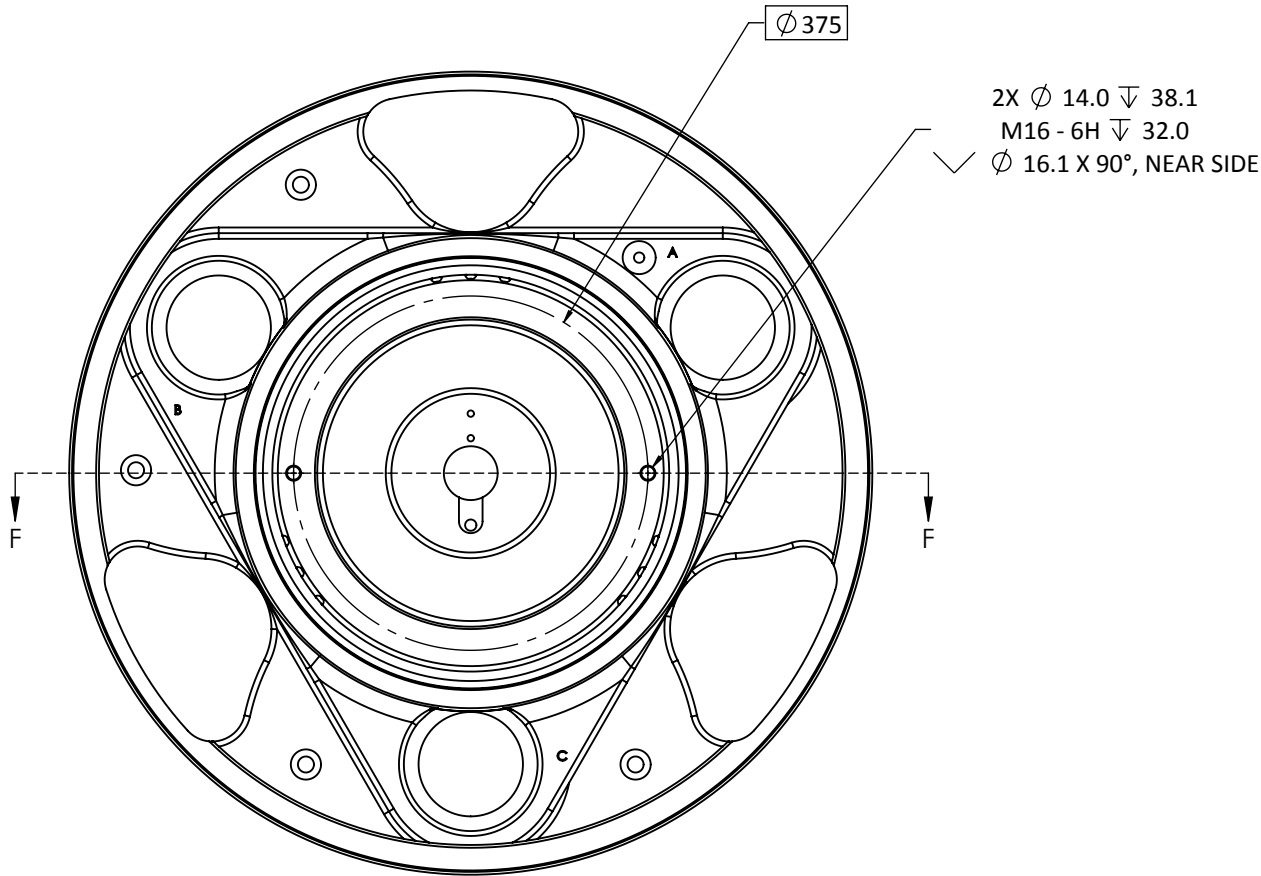
NOTES:

- 8 DRILL PARTIAL HOLES FROM CARRIER BORE THRU TO ID AS SHOWN
- 9 TRUE COMPONENT TO DATUMS "A" AND "Z".
- 10 MACHINE BEARING DIAMETER AT "B" TO SIZE, MACHINE FACE TO SIZE, BORE ID TO SIZES AND SPECIFICATIONS SHOWN
- 11 RECHECK ALIGNMENT OF DATUMS, MACHINE (6) PIN BORES TO SPECIFICATION SHOWN. MACHINE PIN PAD FACES TO 297.00mm DIMENSION AND OPENING BETWEEN PADS AS SHOWN. REMOVE SHARP EDGES AND BURRS
12. PROVIDE FOR DOCUMENTATION OF FINISH MACHINED PART INCLUDING CONCENTRICITY AND TRUE POSITION BASED ON DATUMS A-B
- 13 ULTRASONIC TESTING: TESTING OF FORGINGS MUST FOLLOW THE PROVISIONS OF EN-10228-3 LEVEL 3 (AGMA A-388- TO AN EQUIVALENT 3 mm FLAT BOTTOMED HOLE IS AN ACCEPTABLE ALTERNATIVE.)
- 14 CRACK TESTING: MAGNETIC PARTICLE TESTING OR DYE PENETRANT TEST GROUND SURFACES TO ISO 6336-5 (ALT: AGMA 2001-D04-GRADE 3) NO CRACKS ALLOWED. VISUALLY INSPECT 100%

REPORT ERRORS & CHANGES REMOVE ALL BURRS AND SHARP EDGES DIMENSIONS ARE IN MILLIMETERS. UNSPECIFIED TOLERANCES: DECIMALS: FINISH: ANGLES: X. ±1.0 6.3 $\sqrt{\mu\text{m Ra}}$ < ± 0.5° .X ±0.5 .XX ±0.25 COPYRIGHT © NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY			National Renewable Energy Laboratory		
DRAWN JFC DATE: 9/22/12 CHECKED NJB THIRD ANGLE PRJ			TITLE: PLANET CARRIER STAGE 1 (FINAL MACH & ASS'Y)		
SIZE B		DWG. NO. 254594		REV H	
SCALE: 1:10		WEIGHT: 690.96 kgs		SHEET 2 OF 3	



SECTION F-F



2X \varnothing 14.0 ∇ 38.1
M16 - 6H ∇ 32.0
 \varnothing 16.1 X 90°, NEAR SIDE

REPORT ERRORS & CHANGES REMOVE ALL BURRS AND SHARP EDGES DIMENSIONS ARE IN MILLIMETERS. UNSPECIFIED TOLERANCES: DECIMALS: FINISH: ANGLES:			National Renewable Energy Laboratory		
X. \pm 1.0 .X \pm 0.5 .XX \pm 0.25			TITLE: PLANET CARRIER STAGE 1 (FINAL MACH & ASS'Y)		
6.3 μ m Ra			SIZE B	DWG. NO. 254594	REV H
COPYRIGHT © NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY			SCALE: 1:8 WEIGHT: 690.96 kgs SHEET 3 OF 3		
DRAWN CHECKED	JFC NJB	DATE: 9/22/12 THIRD ANGLE PRJ			