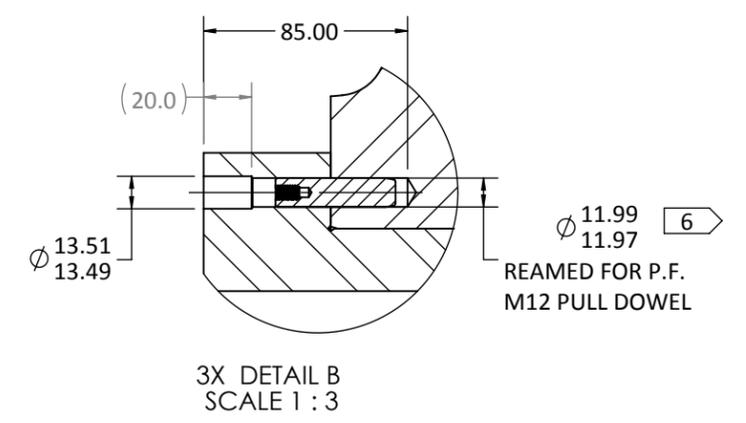
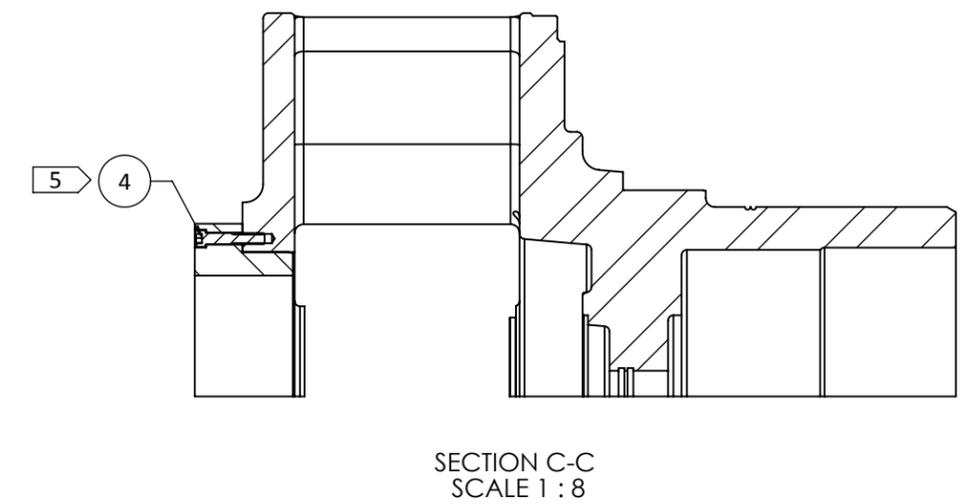
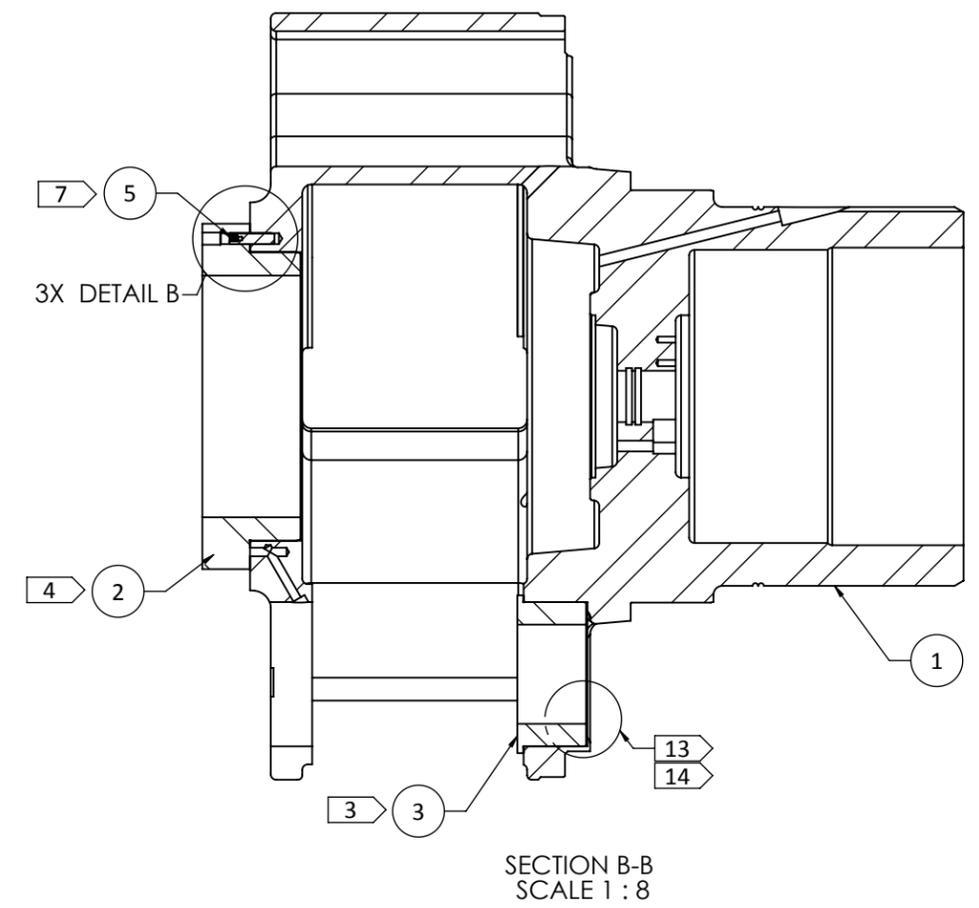
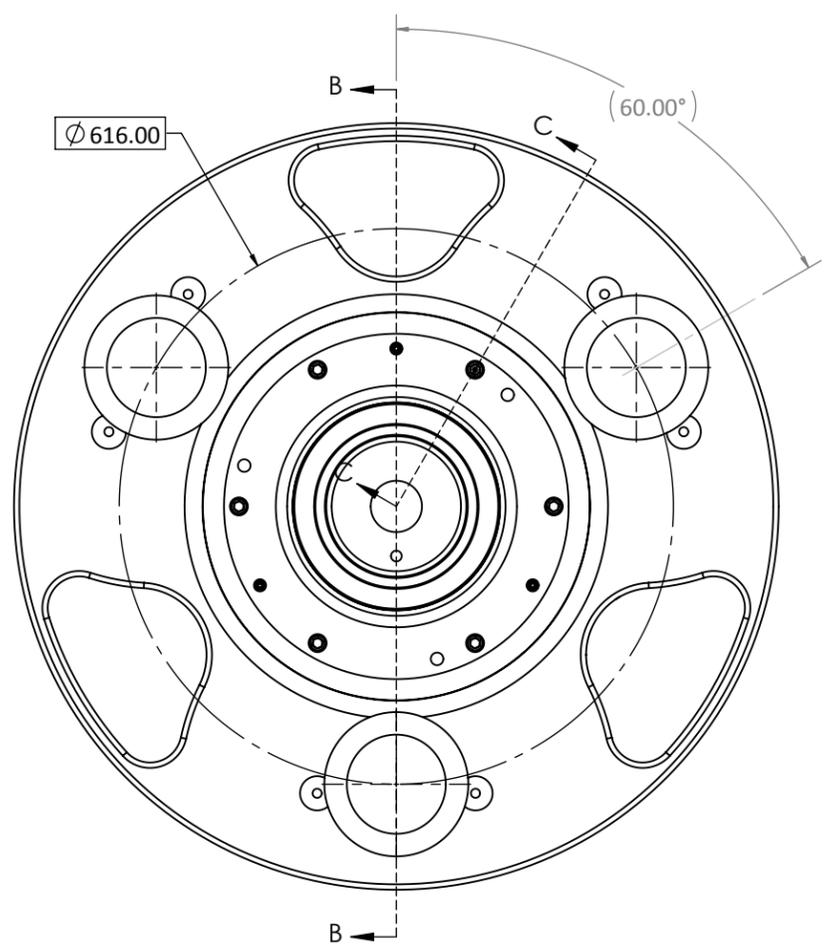


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	254520	PLANET CARRIER REMACHINING	1
2	254515	CARRIER INSERT, SEMI FINISH	1
3	254519	BUSHING, PLANET PIN	3
4	98241	Cap Screw, Socket Head, M12 X 65	6
5	98195	Dowel Pin, Pull-Out (vented) M12 x 50	3



- 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 6.3 μm Ra < ±0.5°
.X ±0.5
.XX ±0.25

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NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY

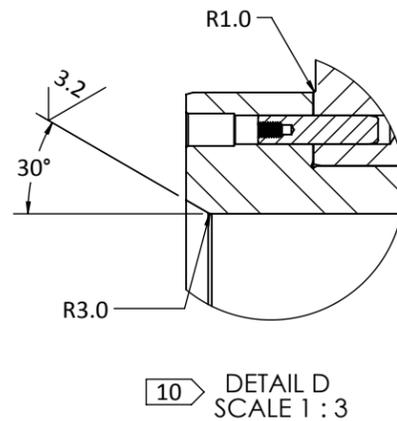
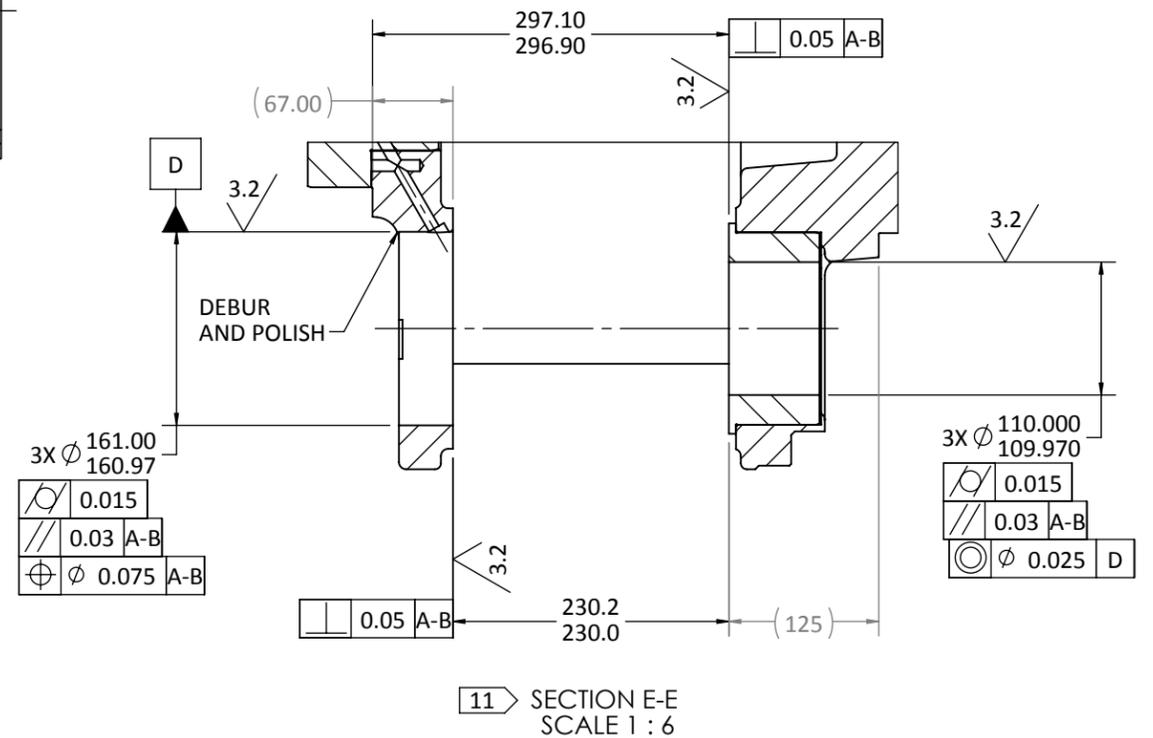
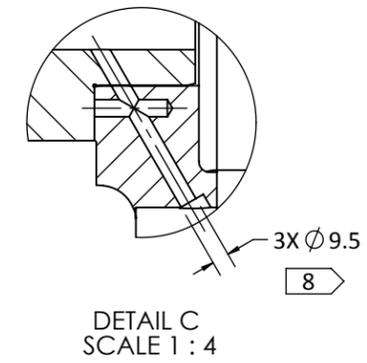
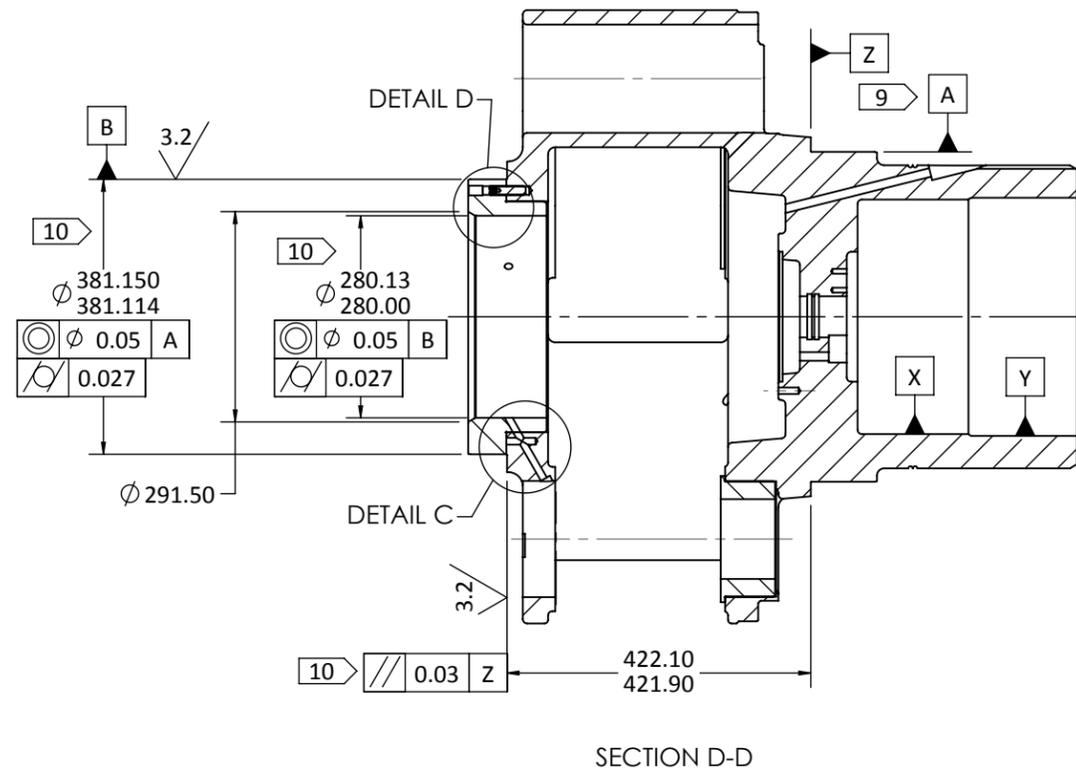
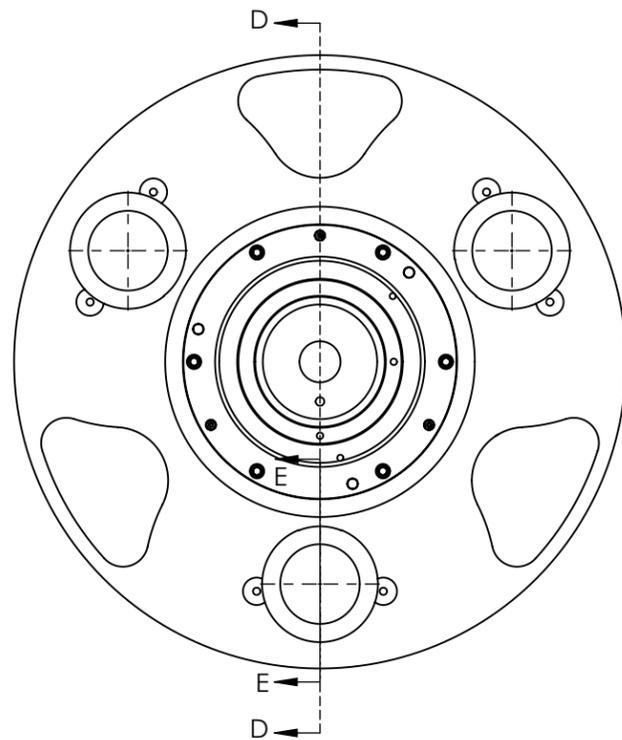
DRAWN JFC DATE: 9/22/12
CHECKED NJB THIRD ANGLE PRJ

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

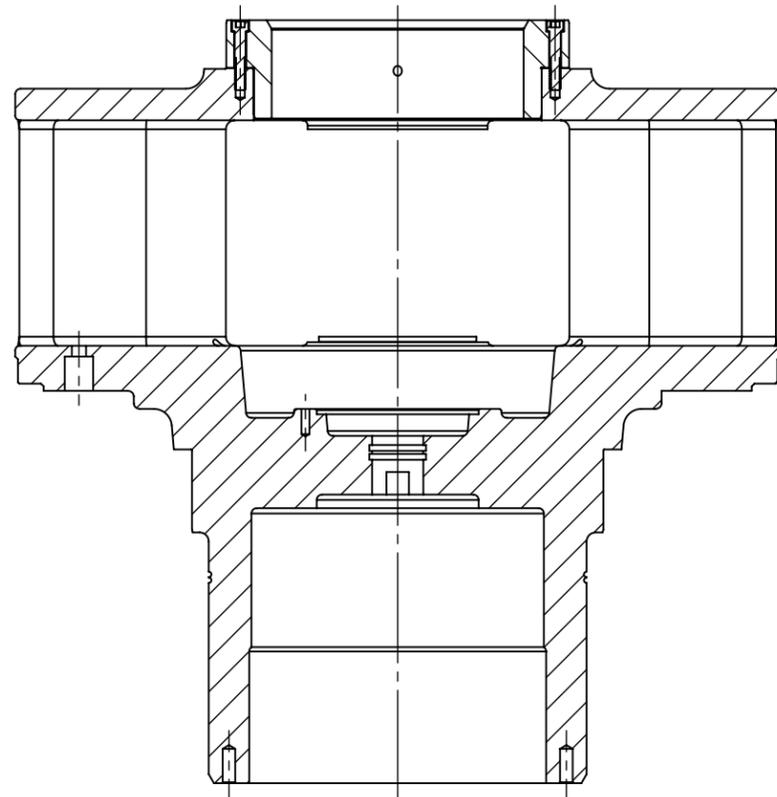


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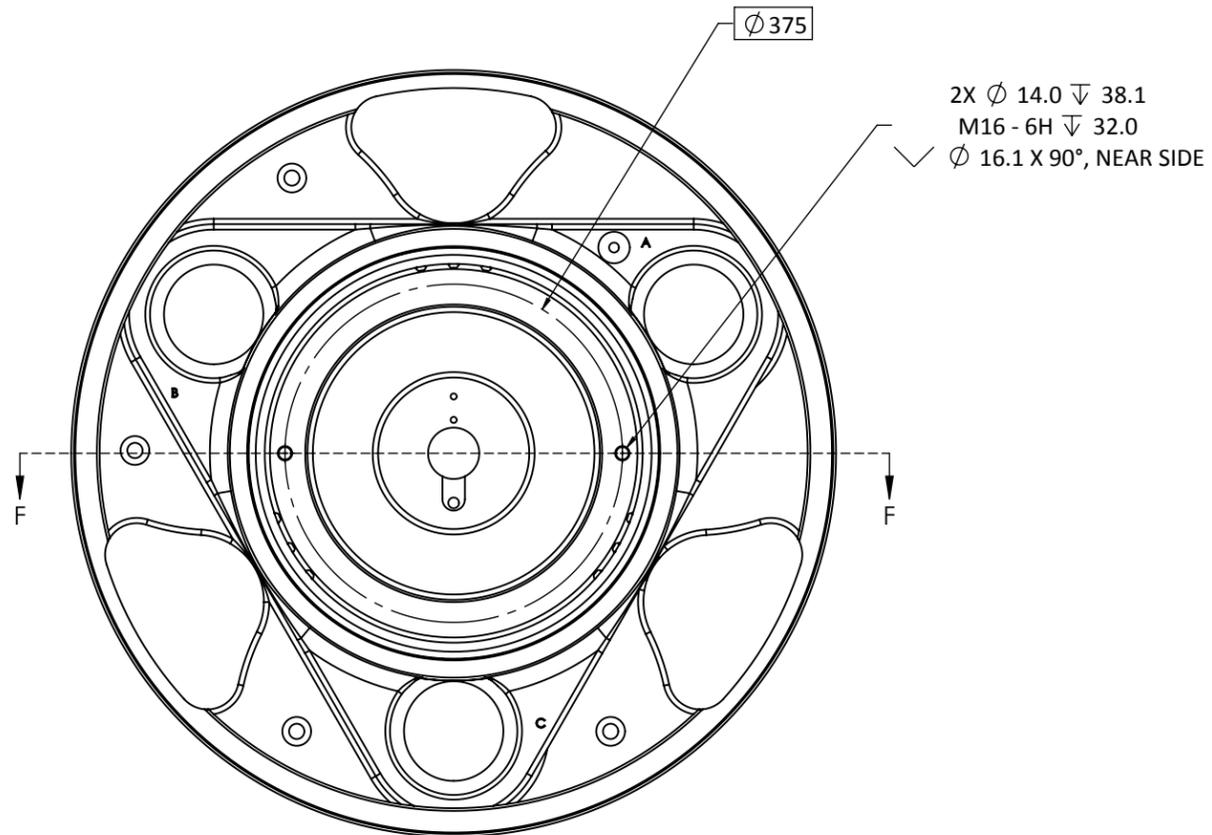
- 8 DRILL PARTIAL HOLES FROM CARRIER BORE THRU TO ID AS SHOWN
- 9 TRUE COMPONENT TO DATUMS "A" AND "Z".
- 10 MACHINE BEARING DIAMETER AT "B" TO SIZE, MACHINE FACE TO SIZE, BORE ID TO SIZES AND SPECIFICATIONS SHOWN
- 11 RECHECK ALIGNMENT OF DATUMS, MACHINE (6) PIN BORES TO SPECIFICATION SHOWN. MACHINE 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 .X ±0.5 .XX ±0.25	6.3 $\sqrt{\mu\text{m Ra}}$	≤ ± 0.5°
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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	DWG. NO.	REV
B	254594	H
SCALE: 1:10	WEIGHT: 690.96 kgs	SHEET 2 OF 3



SECTION F-F



$2X \text{ } \varnothing 14.0 \pm 0.05 \text{ } 38.1$
 $M16 - 6H \pm 0.05 \text{ } 32.0$
 $\varnothing 16.1 \times 90^\circ, \text{ NEAR SIDE}$

REPORT ERRORS & CHANGES REMOVE ALL BURRS AND SHARP EDGES DIMENSIONS ARE IN MILLIMETERS. UNSPECIFIED TOLERANCES: DECIMALS: FINISH: ANGLES:			National Renewable Energy Laboratory TITLE: PLANET CARRIER STAGE 1 (FINAL MACH & ASS'Y)		
X. ±1.0	6.3 $\sqrt{\mu\text{m Ra}}$	≤ ± 0.5°			
NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY			SCALE: 1:8 WEIGHT: 690.96 kgs SHEET 3 OF 3		
DRAWN JFC	DATE: 9/22/12				
CHECKED NJB	THIRD ANGLE PRJ				