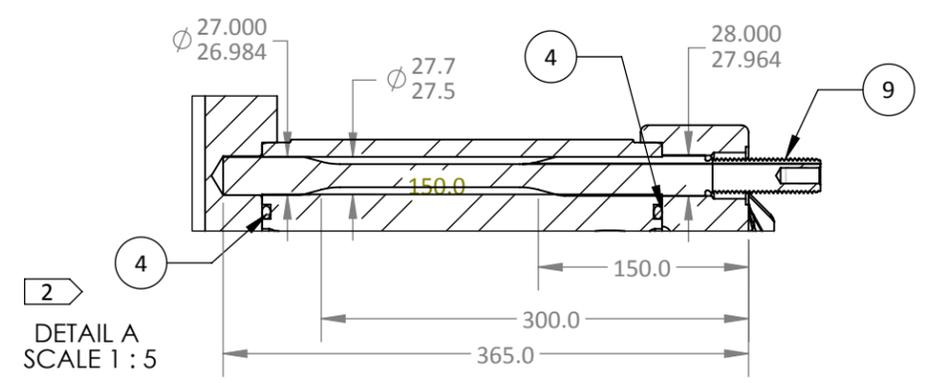
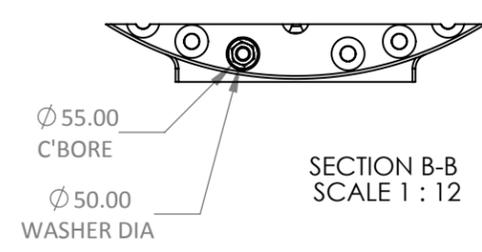
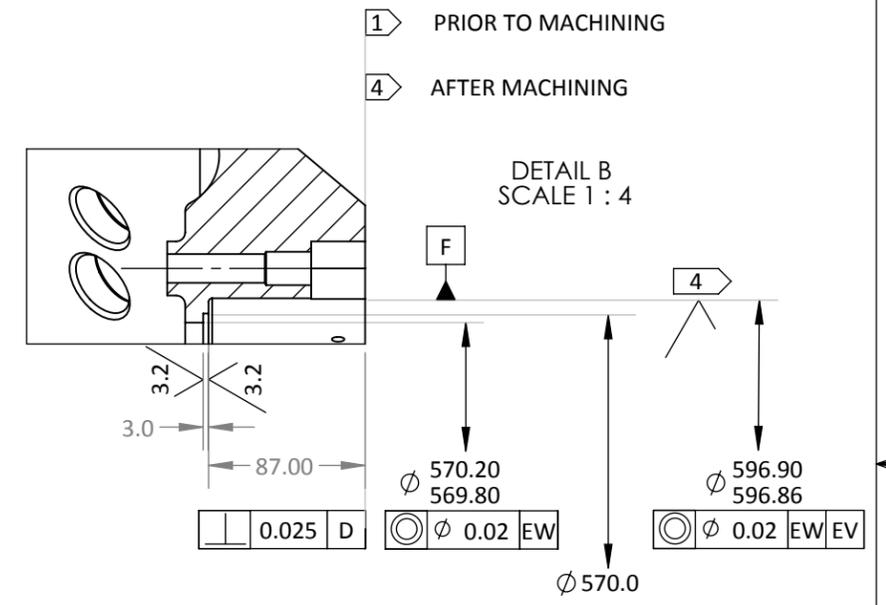


ITEM NO.	PART NUMBER	DESCRIPTION	INLINE MACHINING ASS'Y/QTY.
1	90129	PIN, PULL DOWEL, M25 x 50	1
2	90800	NUT, M24, FULL HEAVY DUTY	16
3	90939	STUD, THREADED, M24 x 500	8
4	93239	O-RING, 8mm x 1060 DIA	2
5	97157	WASHER, SPECIAL M24	16
6	254491	RING GEAR	1
7	254492	REAR HOUSING REWORK	1
8	254506	GEAR HOUSING ASS'Y	1
9	254552	DOWEL, SPECIAL, STEPPED AND NECKED	8
10	95425	SAE 12 - STR THRD PLUG w/ O-RING	1



- NOTES:
- WHILE REAR HOUSING IS MOUNTED IN MACHINING CENTER:
- INSTALL PHASING DOWEL (ITEM 1), GEAR SEALS (ITEM 4), AND MOUNT ANNULUS GEAR TO HOUSING AND SECURE GEAR WITH TEMPORARY BOLTS AND WASHERS. INDICATE ANNULUS FACE AND ROTOR SIDE FIT DIAMETER. RECORD VALUES. ADVISE PROJECT MANAGEMENT IF TIR IS GREATER THAN 0.08. TORQUE BOLTS AND WASHERS TO 300 NM.
 - USE EXISTING 26.0mm DOWEL HOLES ON ANNULUS GEAR AS GUIDES, DRILL, AND REAM (8) HOLES AS SHOWN. MATCH MARK DOWELS TO HOLES.
 - INSTALL SPECIAL STEPPED DOWELS (ITEM 9), THRU ANNULUS GEAR AND INTO HOUSING. REMOVE TEMPORARY BOLTS AND WASHERS. MOUNT TORQUE ARM ONTO ASS'Y AND SECURE WITH (8) OF THE STUD, WASHER, AND NUT ASSEMBLIES EQUALLY SPACED.
 - RECHECK DATUM "EW", "EV", & "F". MUST BE CONCENTRIC WITHIN .04 mm. TORQUE BOLTS TO 580 NM. MACHINE BEARING DIAMETER "F" AND SHOULDER FACE DETAILS ON TORQUE ARM (DETAIL B). RECHECK CONCENTRICITY- REPORT TO ENGINEERING PROJECT MANAGEMENT IF CHANGE OCCURS
 - INSPECT ALL GEAR AND BEARING BORES, PROVIDE REPORT ON POSITIONAL AND GEOMETRY ACCURACY.
 - INSTRUMENTATION TO BE COMPLETED PRIOR TO ASSEMBLY PER LAYOUT DRAWINGS 1551-LY-101, 1551-LY-102, AND 1551-LY-103.

TORQUE NOTES:

300 Nm FOR TEMPORARY BOLTS AND WASHERS (ITEM 1)

580 Nm AFTER MACHINING (ITEM 4)

MAX TORQUE FOR M24 IS 1000 Nm @ ~ 250 KN STRETCH

REV	CHANGED FROM	BY	DATE	APRD
A	PRE-RELEASE	CPS	1/14/13	
B	CHANGES PER NREL DRW REVIEW, UPDATE BORDER	CPS	3/18/13	
C	CHANGES PER CUSTOMER REVIEW & RELEASE FOR PRODUCTION	CPS	4/9/13	
D	REPAIR DANGLING DIMENSION LEADERS	JMG	10/18/13	
E	CHANGES PER MANUFACTURER REVIEW AND INSTRUMENTATION	CPG	1/29/14	

REPORT ERRORS & CHANGES REMOVE ALL BURRS AND SHARP EDGES DIMENSIONS ARE IN MILLIMETERS. UNSPECIFIED TOLERANCES:

DECIMALS: FINISH: ANGLES:

X. ±1.0 6.3 $\sqrt{\mu\text{m Ra}}$ $\le \pm 0.5^\circ$

.X ±0.5

.XX ±0.25

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

DRAWN CPS DATE: 1/14/13

CHECKED NJB THIRD ANGLE PRJ

National Renewable Energy Laboratory

TITLE: FR. HOUSING INLINE MACHINING & ASS'Y

SIZE DWG. NO. REV

B 254550 **E**

SCALE: 1:24 WEIGHT: 2063.65 kgs SHEET 1 OF 1