



NOTES: MAKE FROM MODEL : 1509-HG-005-B

- MATERIAL: STEEL BAR OR FORGING GRADE 4140H, 4340H, QUENCH AND TEMPERED TO 269-321 BHN
- IDENTIFY WITH PART NUMBER, SUPPLIER CODE NUMBER, MANUFACTURERS LOT NUMBER, AND REV. LEVEL
- NITRIDE ALL OVER EXCEPT THREADS. USE PLASMA METHOD .20/.25 DEPTH MAXIMUM TEMPERATURE 565 °C

REV	CHANGED FROM	BY	DATE	APRD
A	PRE-RELEASE	JFC	8/22/12	
B	REVIEWED & UPDATED PER 1509-ENC-004	CPS	1/18/13	
C	REVIEWED & UPDATED PER 1509-ENC-011 & NREL DRW REVIEW	CPS	3/6/13	
D	RELEASE FOR PRODUCTION	CPS	4/22/13	
E	REPAIR DANGLING DIMENSION LEADER, NOTE	JMG	10/17/13	
F	NITRIDE ALL OVER EXCEPT THREADS, INSTEAD OF ENVELOPE ONLY	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  $\sqrt{\mu\text{m Ra}}$  <math>\leq \pm 0.5^\circ</math>  
 .X ±0.5  
 .XX ±0.25  
 COPYRIGHT ©  
 NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY  
 DRAWN JFC DATE: 8/22/12  
 CHECKED NJB THIRD ANGLE PRJ

**National Renewable Energy Laboratory**

TITLE: MANIFOLD, RADIAL

SIZE **B** DWG. NO. 254498 REV **F**

SCALE: 1:3 WEIGHT: 16.08 kgs SHEET 1 OF 1