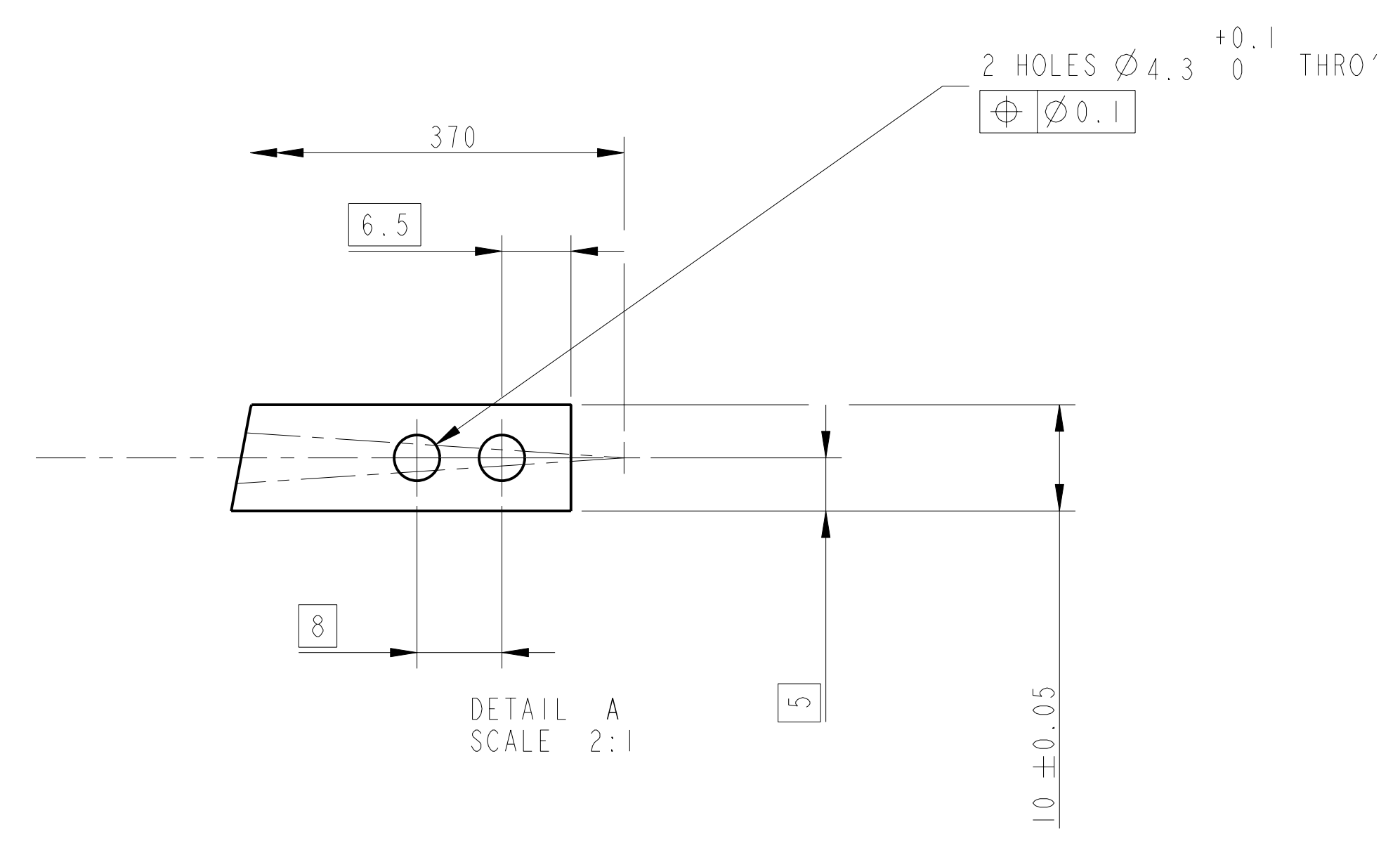
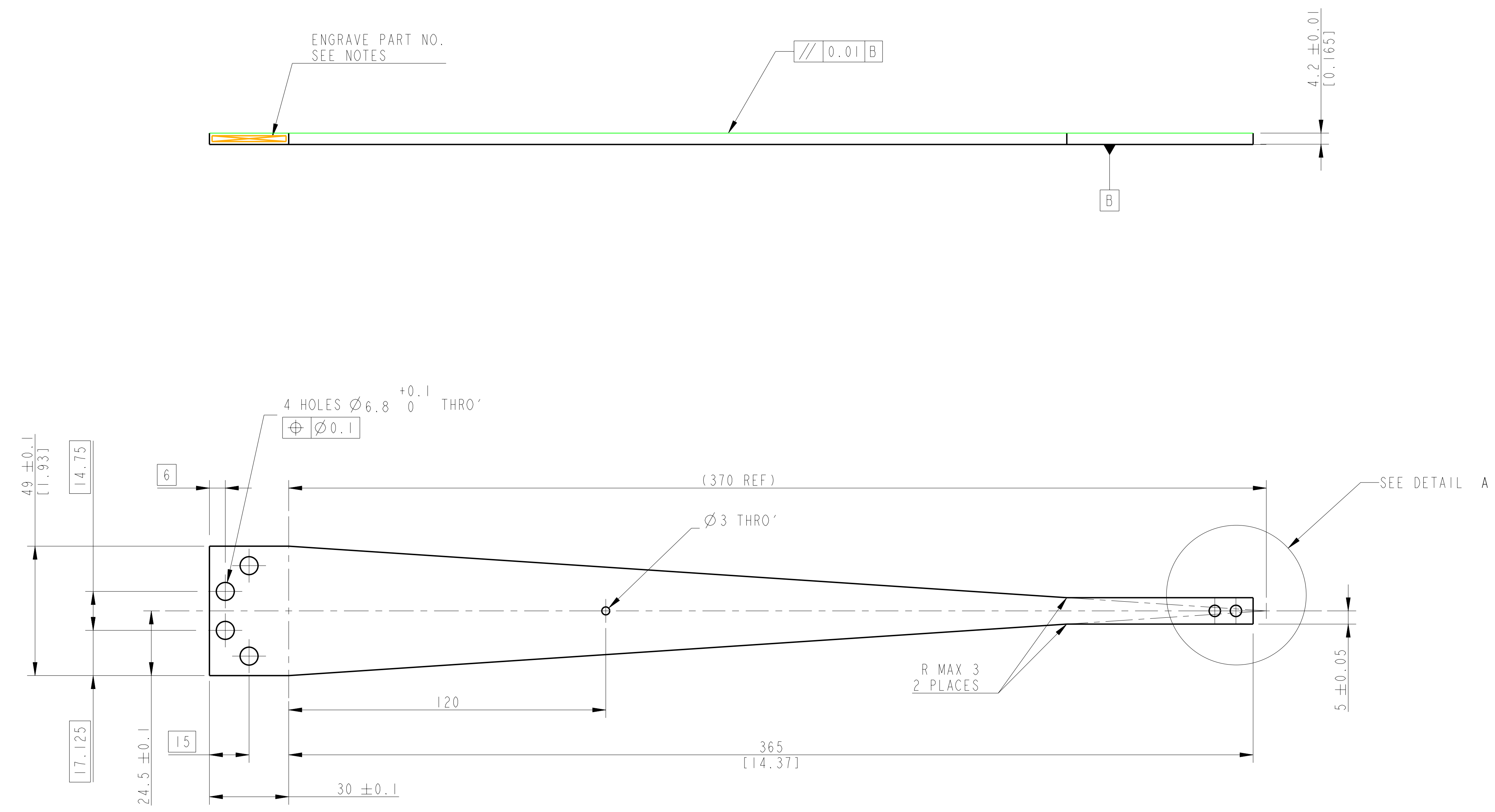


### FLAT PROFILE



NOTES: (UNLESS OTHERWISE SPECIFIED)

- DO NOT SCALE FROM DRAWING.
- INTERPRET DIMENSIONS PER: ANSI Y14.5-1987
- ALL MACHINING FLAVES SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410 (STAINLESS STEEL).
- FABRICATE FROM SHEET MATERIAL; FORM RADIUS BY ROLLING.
- REMOVE ALL SHARP EDGES; R 0.02 MIN.
- SCRIBE, ENGRAVE OR STAMP DRAWING PART NUMBER ON NOTED SURFACE OF PART AND A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST PART AND PROCEED CONSECUTIVELY. USE "01" HIGH CHARACTERS. EXAMPLE: 000100-001 - A VIGNATION TOOL MAY BE USED.
- AFTER PARTS ARE ROLLED TO RADIUS, HARDEN FOR HEAT TREATMENT AT 435 DEG C FOR 100 HOURS AND AIR COOL. PARTS MUST BE SUPPORTED WITH TOOLING DURING HEAT TREATMENT TO AVOID RADIUS CHANGE DUE TO SELF WEIGHT. TOOLING FOR HEAT TREATMENT MAY BE A "BIRE BACK" TYPE OF TOOL THAT WILL ALLOW THE PARTS TO BE MOUNTED ON THEIR SIDES. PARTS MAY BE ROLLED AGAIN AFTER HEAT TREATMENT TO ADJUST RADIUS TO SPECIFICATION.

DIMENSIONS ARE IN mm  
TOLERANCES:  
LINEAR  $\pm 0.25$  mm  
ANGULAR  $\pm 0.25^\circ$

MATERIAL: MARRAGING STEEL 250  
 $\sqrt{\mu m (LIN)}$  Ra = 0.8

FINISH: CLEAN AND DEGREASE

NAME	DATE
DRAWN	1 WLM/DJ 26/JUL/06
CHECKED	RJS 27/JUL/06
APPROVED	RJS 27/JUL/06

SCALE: 1:1 PROJECTION: SHEET 1 OF 2

CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
RUTHERFORD APPLINGTON LABORATORIES

SYSTEM: **ADVANCED LIGO**

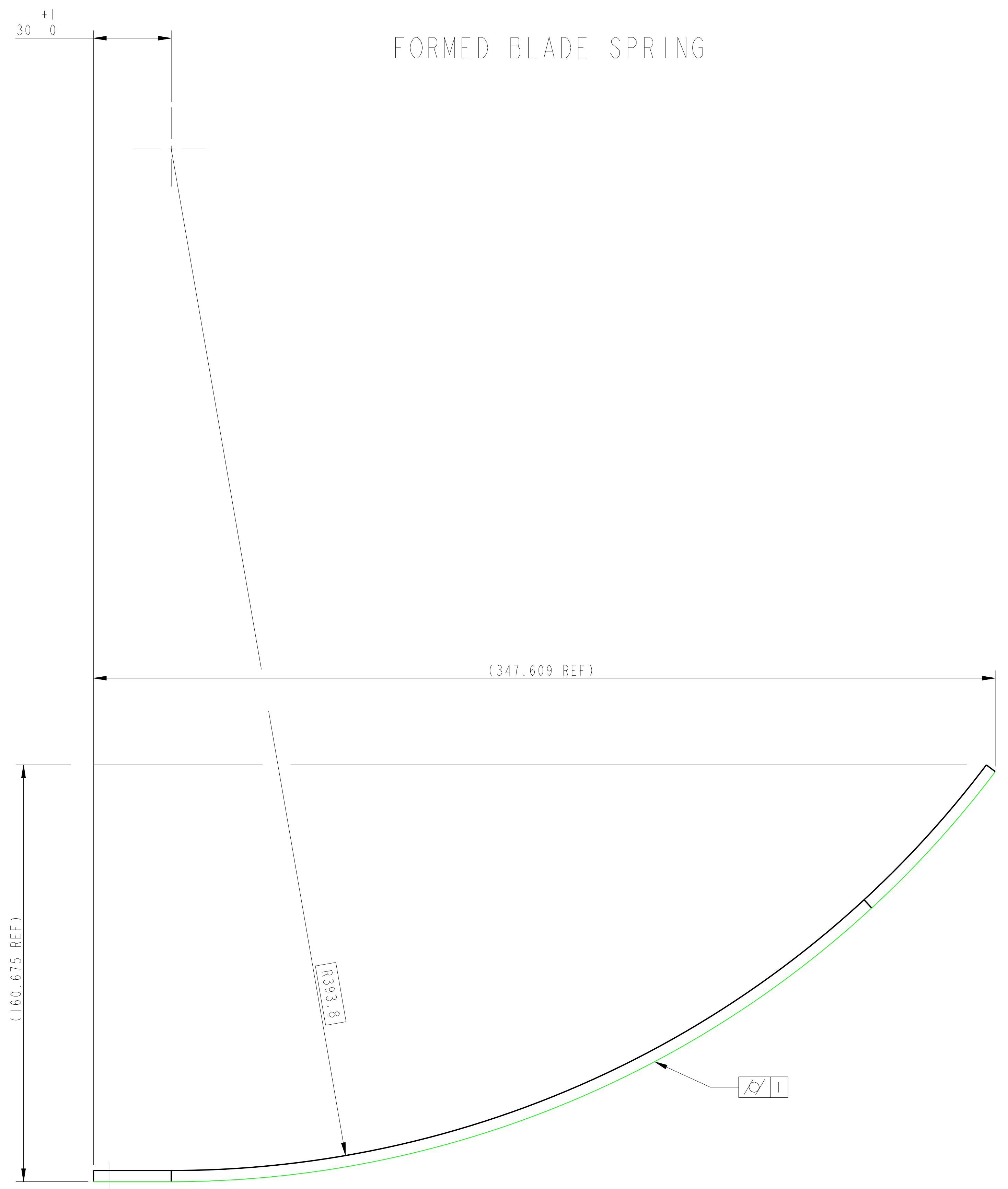
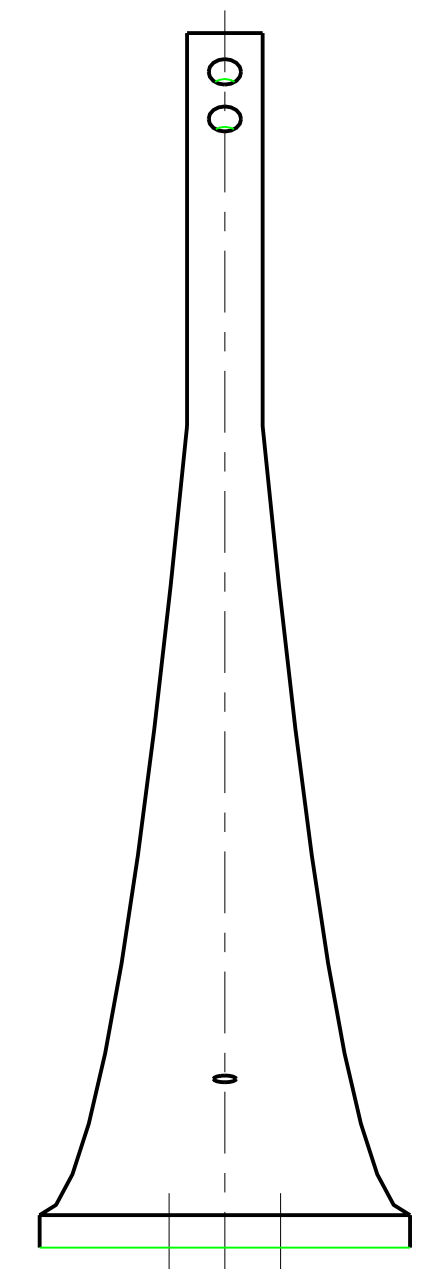
SUB-SYSTEM: **SUS**

PART NAME: **BOTTOM BLADE SPRINGS**

DRG. NO.: **D060237**

INTERNAL NAME: D060237  
 FOR INTERNAL USE ONLY:  
 E=186Gpa  
 TOTAL SUSP MASS = 39.5 KG  
 WIRE CLAMP OFFSET = 4.12 DOWN  
 BLADE BEND RAD CALCULATED BY FEA

# FORMED BLADE SPRING



NOTES: (UNLESS OTHERWISE SPECIFIED)

- DO NOT SCALE FROM DRAWING.
- INTERPRET DIMENSIONS PER: ANSI Y14.5-1987
- ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410 (STAINLESS STEEL).
- FABRICATE FROM SHEET MATERIAL; FORM RADIUS BY ROLLING.
- REMOVE ALL SHARP EDGES; R.02 MIN.
- SCRIBE, ENGRAVE OR STAMP DRAWING PART NUMBER ON NOTED SURFACE OF PART AND A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST PART AND PROCEED CONSECUTIVELY. USE "01" HIGH CHARACTERS. EXAMPLE: 000100-001. A VIGNATION TOOL MAY BE USED.
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DIMENSIONS ARE IN mm		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY OR, GLASGOW UNIVERSITY GEC ROX GROUP RUTHERFORD APPLETON LABORATORIES
TOLERANCES:		
LINEAR ± 0.25 mm	ANGULAR ± 0.25 °	
MATERIAL: MARAGING STEEL 250		SYSTEM <b>ADVANCED LIGO</b> SUB-SYSTEM <b>SUS</b> NEXT ASSY <b>UPPER INTERMEDIATE MASS</b> PART NAME <b>BOTTOM BLADE SPRINGS</b>
FINISH: CLEAN AND DEGREASED	NAME	DATE
√um (μin) Ra = 0.8	DATE	DATE
DRAWN I WLMOT 26/ JUL/04	CHECKED RJS 27/ JUL/06	APPROVED RJS 27/ JUL/06
DRG. NO. <b>D060237</b>		SCALE 1:1 PROJECTION
SHEET 2 OF 2		