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O1001 (PUNCH INSERT.NC)
(1020 STEEL - PETER SMID)

(T21 - 3 DIA FACE MILL)
(T08 - 1 DIA END MILL - 4 FLTS - D58/D78)
(T29 - 1/2 DIA SPOT DRILL)
(T34 - I DRL - 0.272 DIA)
(T35 - 5/16-24 PLUG TAP)

(T21 - 3 DIA FACE MILL)
N1 G20
N2 G17 G40 G80 T21
N3 M06
N4 G90 G54 G00 X2.625 Y-0.6 S509 M03 T08      (F1)
N5 G43 Z1.0 H21 M08
N6 G01 Z0 F50.0
N7 X-2.625 F10.0                              (F2)
N8 G00 Z1.0 M09
N9 G28 Z1.0 M05
N10 M01

(T08 - 1 DIA END MILL - 4 FLTS)
N11 T08
N12 M06
N13 G90 G54 G00 X1.55 Y-1.4675 S401 M03 T29   (R1)
N14 G43 Z1.0 H08 M08
N15 G01 Z-1.55 F50.0
(*** ROUGHING)
N16 G41 Y-0.9175 D58 F2.0                     (R2 - D58=0.5000)
N17 X-1.55                                    (R3)
N18 G00 G40 Y-1.4675                          (R4)
N19 X1.55                                     (R1)
N20 G41 Y-0.8125 D58                          (R5)
N21 G01 X-1.55                                (R6)
N22 G00 G40 Y-1.4675                          (R4)
N23 Z1.0
N24 Y1.4675                                   (R7)
N25 G01 Z-1.55 F50.0
N26 G41 Y0.9175 D58 F2.0                      (R8)
N27 X1.55                                     (R9)
N28 G00 G40 Y1.4675                           (R10)
N29 X-1.55                                    (R7)
N30 G41 Y0.8125 D58                           (R11)
N31 G01 X1.55                                 (R12)
N32 G00 G40 Y1.4675                           (R10)
N33 Z1.0
(*** SEMI FINISHING AND FINISHING)
N34 X-1.75 Y-0.5                              (C1)
N35 G01 Z-1.55 F50.0
N36 M98 P6001 D78 F3.0                        (D78=0.5250 SEMIFINISH)
N37 M98 P6001 D58 F4.0                        (D58=0.5000 FINISH TO SUIT)
N38 G00 Z1.0 M09
N39 G28 Z1.0 M05
N40 M01

(T29 - 1/2 DIA SPOT DRILL)
N41 T29
N42 M06
N43 G90 G54 G00 X-0.5625 Y0.375 S892 M03 T34  (H1)
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N44 G43 Z1.0 H29 M08
N45 G99 G82 R0.1 Z-0.1713 P300 F8.0
N46 X0.5625 Y-0.375                          (H2)
N47 G80 G00 Z1.0 M09
N48 G28 Z1.0 M05
N49 M01

(T34 - I DRL - 0.272 DIA)
N50 T34
N51 M06
N52 G90 G54 G00 X0.5625 Y-0.375 S1053 M03 T35 (H2)
N53 G43 Z1.0 H34 M08
N54 G99 G83 R0.1 Z-1.0765 Q0.3 F8.0
N55 X-0.5625 Y0.375                          (H1)
N56 G80 G00 Z1.0 M09
N57 G28 Z1.0 M05
N58 M01

(T35 - 5/16-24 PLUG TAP)
N59 T35
N60 M06
N61 G90 G54 G00 X-0.5625 Y0.375 S611 M03 T21  (H1)
N62 G43 Z1.0 H35 M08
N63 G99 G84 R0.3 Z-0.875 F24.7
N64 X0.5625 Y-0.375                          (H2)
N65 G80 G00 Z1.0 M09
N66 G28 Z1.0 M05
N67 G28 X0.5625 Y-0.375
N68 M30
%

O6001 (SUBPROGRAM FOR CONTOUR)
N101 G01 G41 X-1.4865 Y-1.05                 (C2 - NO D-OFFSET OR FEEDRATE IN SUB)
N102 G03 X-0.9365 Y-0.5 R0.55                (C3)
N103 G01 Y0.5                                (C4)
N104 G02 X-0.6875 Y0.749 R0.249              (C5)
N105 G01 X0.6875                             (C6)
N106 G02 X0.9365 Y0.5 R0.249                 (C7)
N107 G01 Y-0.5                               (C8)
N108 G02 X0.6875 Y-0.749 R0.249              (C9)
N109 G01 X-0.6875                            (C10)
N110 G02 X-0.9365 Y-0.5 R0.249               (C3)
N111 G03 X-1.4865 Y0.05 R0.55                (C11)
N112 G00 G40 X-1.75 Y-0.5                    (C1)
N113 M99
%
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