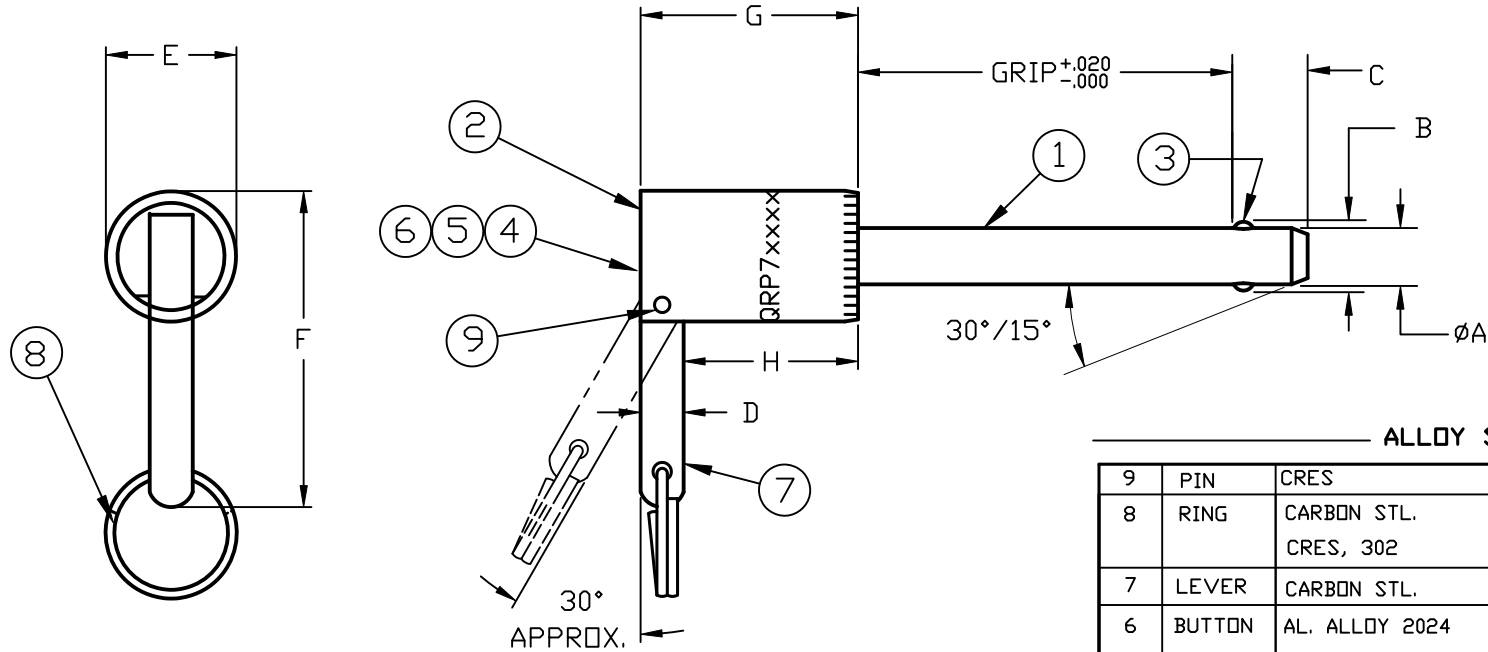


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(WHEN REQUIRED) IDENTIFICATION MARKINGS SHALL BE PLACED ON HEAD. LOCATION, FORMAT, AND CONTENT MAY VARY FROM THAT SHOWN.

REV	ECO NO.	DESCRIPTION	BY	DATE
A	12566	REDRAWN, UPDATED, UPGRADED SPECS.	JLE	8/18/04



ALLOY STEEL

ITEM	NAME	MATERIAL	SPECIFICATION
9	PIN	CRES	PURCHASED PART
8	RING	CARBON STL. CRES, 302	ASTM A228 ASTM A313
7	LEVER	CARBON STL.	ASTM A108
6	BUTTON	AL. ALLOY 2024 CARBON STL	AMS-QQ-A-225/6, ASTM B211 ASTM A108
5	SPRING	MUSIC WIRE CRES, 302 CLASS 1	ASTM A228 ASTM A313
4	SPINDLE	CRES, 17-4PH	AMS 5643
3	BALLS	CRES, 440-C	AMS-QQ-S-763
2	HEAD	CARBON STEEL	ASTM A108
1	SHANK	ALLOY STL, 4130	AMS-S-6758

CORROSION RESISTANT

ITEM	NAME	MATERIAL	SPECIFICATION
9	PIN	CRES	PURCHASED PART
8	RING	CRES, 302 CLASS I	ASTM A313
7	LEVER	CRES, 303	ASTM A484/A582
6	BUTTON	CRES, 303 AL. ALLOY 2024	ASTM A484/A582 AMS-QQ-A-225/6, ASTM B211
5	SPRING	CRES, 302 CLASS 1	ASTM A313
4	SPINDLE	CRES, 17-4PH	AMS 5643
3	BALLS	CRES, 440C	AMS-QQ-S-763
2	HEAD	CRES, 303	ASTM A484/A582
1	SHANK	CRES, 17-4PH	AMS 5643

TOLERANCES UNLESS OTHERWISE SPECIFIED  
DECIMALS ANGLES  
XX ±.03 ±2°  
XXX ±.010

FINISH:  
AS NOTED

SHEET 1 OF 2



QRP, Incorporated

2307 Mercantile Drive N.E.  
Leland, North Carolina 28451

SAPP

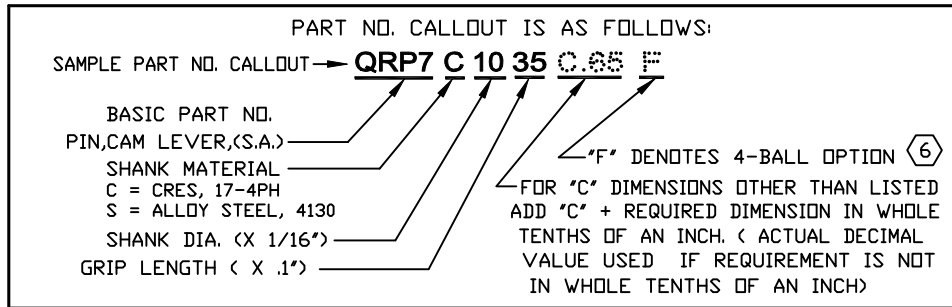
PIN, CAM LEVER, SINGLE ACTING

DRAWN BC	DATE 1/3/89	SCALE: DNS	REV A
CHECKED	DATE	CAD FILE: QRP7s	
APPROVED	DATE	BLOCK: SAPP	DRAWING NO. QRP7XXXX
IDENTIFICATION (CAGE) CODE:	09094		

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QRP7XXXX [A]


REV	ECD NO.	DESCRIPTION	BY	DATE
A	12566	REDRAWN, UPDATED, UPGRADED SPECS.	JLE	8/18/04



SHANK DIA	NOM DIA	AØ		B ±.005	C MAX	D ±.015	E ±.03	F ±.05	G MAX	H MIN	CALCULATED DOUBLE SHEAR STRENGTH	
		MAX	MIN								STEEL	CRES
		03	3/16									
04	1/4	.2485	.2470	.289	.290	.188	.44	.93	1.125	.47	8,200	9,200
05	5/16	.3110	.3095	.375	.330	.188	.50	1.11	1.125	.47	12,800	14,400
06	3/8	.3735	.3720	.440	.365	.188	.56	1.15	1.500	.48	18,400	20,600
07	7/16	.4360	.4345	.509	.380	.250	.63	1.36	1.500	.52	25,000	28,000
08	1/2	.4985	.4970	.594	.460	.250	.69	1.39	1.500	.62	32,800	36,800
09	9/16	.5610	.5595	.666	.510	.250	.75	1.45	1.500	.69	41,200	46,000
10	5/8	.6235	.6220	.750	.580	.375	.81	1.72	1.750	.72	51,200	57,500
12	3/4	.7485	.7470	.887	.670	.375	.94	1.91	2.000	.88	73,600	82,500
14	7/8	.8735	.8720	1.046	.760	.500	1.06	2.12	2.500	.94	100,000	112,500
16	1.00	.9985	.9970	1.219	.890	.500	1.25	2.21	2.500	1.00	131,000	147,000

NOTES: [A]

- HEAT TREATMENT: 17-4 PH CRES; 180/210 KSI PER AMS-H-6875.  
4130 ALLOY STEEL; 160/180 KSI PER AMS-H-6875.
- FINISH: CRES. PASSIVATE IAW AMS-QQ-P-35. CARBON AND ALLOY STEEL;  
CAD PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2. ALUMINUM ALLOY;  
ANODIZE PER MIL-A-8625 OR CHEMICAL FILM PER MIL-C-5541.
- BALL HARDNESS: RC 58-62. (BALLS MAY BE ROTATED OTHER THAN SHOWN.)
- ALL PINS FURNISHED WITH ATTACHING RING, SIZE AT QRP'S OPTION.
- FOR "C" DIMENSIONS OTHER THAN LISTED ADD C+ REQUIRED DIMENSION  
TO END OF PIN CALLOUT.
- FOR HIGHER TENSILE STRENGTH APPLICATIONS, ADD "F" TO END OF  
PIN CALLOUT FOR FOUR BALLS INSTEAD OF STANDARD TWO BALLS.
- IF GRIP CANNOT BE CALLED OUT IN HOLE NUMBERS OF  
TENTHS, USE A DECIMAL AND CALL OUT ACTUAL GRIP.  
(EXAMPLE: 1.625 = 1.625 GRIP)

TOLERANCES UNLESS OTHERWISE SPECIFIED  DECIMALS ANGLES XX ±.03 ±2° XXX ±.010  FINISH: AS NOTED  SHEET 2 OF 2	 <b>QRP, Incorporated</b> 2307 Mercantile Drive N.E. Leland, North Carolina 28451		SAPP	
			PIN, CAM LEVER, SINGLE ACTING	
	DRAWN BC	DATE 1/4/89	SCALE: DNS	REV A
	CHECKED	DATE	CAD FILE: QRP7s	
	APPROVED	DATE	BLOCK: SAPP ST2	DRAWING NO. <b>QRP7XXXX</b>
IDENTIFICATION (CAGE) CODE:	09094			