

Assignment 9-10 Combined Figure 7-9 Page 328

Rev 1 20200415

Punch Press Shearing Forces

SHAPE	MATERIAL	LENGTH OF CUT				THICKNESS	SHEAR STRENGTH	TONNAGE=TN=SLT / 2000			STRIPPING FORCE TNS = 3500LT / 2000
		OUTSIDE	INSIDE	# OF HOLES	TOTAL			TOTAL	OUTSIDE	INSIDE	
Figure 7-9 Page 328	ALUMINUM 1100-0				18.9847	0.032	9000	2.73	N/A	N/A	1.06

S = Shear Strength in PSI (Pounds per Square Inch)

L = Length of Cut

T = Thickness of Material

For Stripping Force use the Total Length

Center of Pressure

Element	L	x	y	Lx	Ly
1	4.0000	0.0000	6.2500	0.0000	25.0000
2	4.7124	1.5000	9.2000	7.0686	43.3540
3	3.2016	4.0000	7.0000	12.8062	22.4109
4	2.5000	4.0000	5.0000	10.0000	12.5000
5	3.0000	1.5000	4.2500	4.5000	12.7500
6	1.5708	1.0000	0.0000	1.5708	0.0000

Summation	18.9847			35.9456	116.0149
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$X = (\sum Lx) / \sum L =$	1.8934
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$Y = (\sum Ly) / \sum L =$	6.1110
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