

Estimate Name **Target Estimate - 01/11/2024**

Estimate Date 01/11/2024
Customer Automotive Customer
Project
Estimated By jeffb@toolplanners.com
Completed Date
Estimate Status In-Progress
Die Spec A Class Die (High Production)
Labor Rate USA Cost (flat)
Confirmed Price (USD)
Confirmed Delivery (wks)
Notes



Part

Part Name Lever
Part Number 16
Rev/EC A
Material Type Steel - HSS High Strength 60ksi (400 Mpa)
Material Thickness 0.111 in

Operation

Part Annual Usage
Die Type Progressive Die
Parts Per Stroke 1

Die Stations

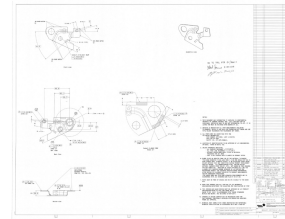
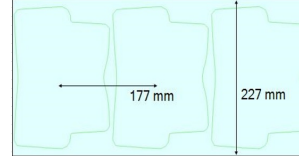
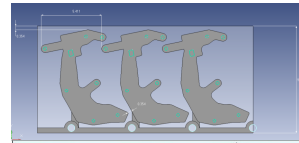
Cutting Stations 2
Forming Stations 5
Idle Stations 1
Total Number of Stations 13

Die Size

Die Size L-R 82 in
Die Size F-B 28 in
Die Shut Height 8.67 in
Buildup Height 9.33 in
Shut Height 18 in
Step 5.411 in
Blank Size F-B 9.535 in
Blank Size L-R 5.411 in
Die Weight 6239 lb

Die Force

Cutting
Bending
Drawing
Stripping
Bending Pad
Draw Pad
Total Force



Die Cost Estimate

Description	Material Cost	Labor Hours	Labor Cost	Total Cost	Percentage
Die Set (Shoe)	\$ 8771	17	\$ 1324	\$ 10095	10 %
Build Up	\$ 9633	28	\$ 2142	\$ 11775	12 %
Punch and Die	\$ 960	290	\$ 22588	\$ 23548	24 %
Punch and Die Options	\$ 1250	179	\$ 13966	\$ 15216	15 %
Spring Pads	\$ 2916	42	\$ 3240	\$ 6156	6 %
Stock Control	\$ 1210	135	\$ 10515	\$ 11725	12 %
Cams	\$ -	-	\$ -	\$ -	-
Sensors	\$ 500	12	\$ 935	\$ 1435	1 %
Tool Steels	\$ 1964	-	\$ -	\$ 1964	2 %
Wire EDM	\$ -	69	\$ 5374	\$ 5374	5 %
Die Surface Machining	\$ -	-	\$ -	\$ -	-
Custom Items	\$ -	-	\$ -	\$ -	-
Design	\$ -	68	\$ 5297	\$ 5297	5 %
Tryout	\$ -	46	\$ 3583	\$ 3583	4 %
Part Approval	\$ -	30	\$ 2317	\$ 2317	2 %
Die Approval	\$ -	8	\$ 623	\$ 623	1 %
Total	\$ 27204	923	\$ 71904	\$ 99108	

Totals

Material Profit	\$ 0
Labor Profit	\$ 0
Subtotal	\$ 99108
Adjustment	
Total Cost Estimate	\$ 99108
Labor Hours	923 hrs
Delivery	wks

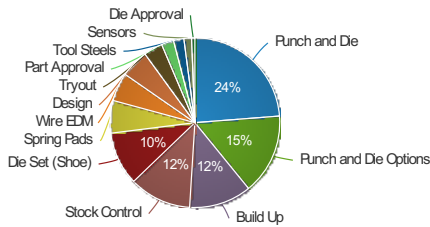
Hours By Cost Center

Labor Rate	Hours
Design	68
Machine/Assembly	710
Die Surface Machining	0
Wire EDM	69
Tryout	46
Inspection	30

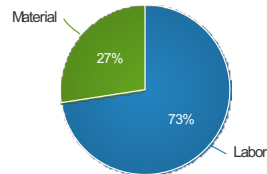
Part Cost Estimate

Material Cost	\$ 0.813
Setup Cost	\$ 0.015
Run Cost	\$ 0.050
Total Part Cost	\$ 0.878
Tool Amortization	\$ 0.496

Cost Breakdown

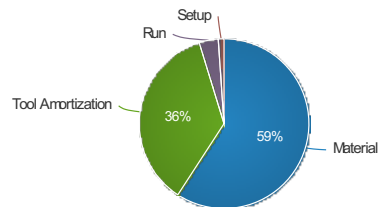


Material, Labor, and Profit



Part Cost

Part Cost with Tool Amortization



Die Construction Specification

3d Design Required	Yes
Fully Detailed Design	Yes
Replaceable Details	Yes
Documentation Required	Yes
Document "As Built"	Yes

Heavy Duty Catalog Retainers	Yes
Hardened Backing Plates	Yes
Ball Lock Catalog Punches	No
Scrap Ejector Pins	Yes
Cutting Inserts	Yes
Die Buttons	Yes
Forming Inserts	Yes
Adjustable Forms	Yes
Punch Guiding	No
ID Die Details	Yes

Stripper & Pad Spring Type	Nitrogen Drop in Springs
Stripper & Pad Spring Retention	Spring Pockets
Stripper Retention	Spools
Stripper Guiding	No Stripper Guiding Required
Stripper Windows	No
Draw Pressure Type	Tankers Manifold

Die Set Type	Plate
Die Set Guide Type	Precision Ball
Die Set Bosses	No
Die Set Thrust Blocks	No
Setup Blocks	Yes
Build Up Type	Parallel Build Up
Change / Master Plate	No Quick Change
Die Handling	Tapped Holes Set of Four
Data Label	Yes

Die Set Steel	ANSI - A36
Cutting Steel	ANSI - D2
Forming Steel	ANSI - D2
Draw Die Steel	ANSI - D2
Draw Punch Steel	ANSI - D2
Stripper Steel	ANSI - 4140 HT
Form Pad Steel	ANSI - 4140 HT
Draw Binder Steel	ANSI - D2
Punch Plate Steel	ANSI - 4140 HT
Die Plate Steel	ANSI - 4140 HT
Backing Plate Steel	ANSI - A2
Riser Plate Steel	HRS
Pilot Punch Steel	ANSI - M4

Parts To Inspect 100%	6
Parts To Inspect Criticals Only	30
Number of Inspections	1
Process Capability Studies	Yes
Run Off Location	Run Off At Seller
Run Off Quantity	300
Run Off Time	8 hours