



# TORO Analysis of Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic to Bindery Workers

## INPUT SECTION:

Transfer	Title	O* NET	Filters		
From Title:	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	51-4031.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Bindery Workers	51-5011.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

## OUTPUT SECTION:

Grand TORQ:



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Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	93	Level	90	Level	93

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Perceptual Speed	37	7	50	Equipment Maintenance	56	4	69	No Knowledge Upgrades Required!			
Control Precision	52	2	77	Operation and Control	62	3	71				
Arm-Hand Steadiness	45	1	55								
Written Comprehension	38	1	52								

LEVEL and IMPT (IMPORTANCE) refer to the Target Bindery Workers. GAP refers to level difference between Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic and Bindery Workers.

## ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Bindery Workers	Importance
Control Precision	50	52	77
Information Ordering	45	41	67
Manual Dexterity	46	44	67
Arm-Hand Steadiness	44	45	55
Written Comprehension	37	38	52



Problem Sensitivity	34	34	50
Perceptual Speed	30	37	50
Extent Flexibility	42	38	50
Near Vision	44	42	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Bindery Workers	Importance
Quality Control Analysis	63	63	73
Operation and Control	59	62	71
Equipment Maintenance	52	56	69
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Bindery Workers	Importance

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Bindery Workers	Description	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Bindery Workers
10+ years	0%	0%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	0%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
4-6 years	0%	2%	Master's Degree	0%	0%
2-4 years	0%	7%	Post-Bachelor Cert	0%	0%
1-2 years	11%	24%	Bachelors	0%	0%
6-12 months	17%	16%	AA or Equiv	0%	0%
3-6 months	9%	0%	Some College	0%	0%
1-3 months	19%	0%	Post-Secondary Certificate	1%	0%
0-1 month	8%	3%	High School Diploma or GED	79%	56%
None	33%	44%	No HSD or GED	18%	42%
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic			Bindery Workers		
Most Common Educational/Training Requirement:					
Moderate-term on-the-job training			Short-term on-the-job training		
Job Zone Comparison					
2 - Job Zone Two: Some Preparation Needed			2 - Job Zone Two: Some Preparation Needed		



Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.

These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.

Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

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## Tasks

### Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

#### Core Tasks

##### Generalized Work Activities:

- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.

#### Specific Tasks

##### Occupation Specific Tasks:

- Adjust ram strokes of presses to specified lengths, using hand tools.
- Clean and lubricate machines.
- Examine completed workpieces for defects such as chipped edges and marred surfaces, and sort defective pieces according to types of flaws.
- Grind out burrs and sharp edges, using portable grinders, speed lathes, and polishing jacks.
- Hand-form, cut, or finish workpieces, using tools such as table saws, hand sledges, and anvils.
- Hone cutters with oilstones to remove nicks.

### Bindery Workers

#### Core Tasks

##### Generalized Work Activities:

- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Performing General Physical Activities - Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

#### Specific Tasks

##### Occupation Specific Tasks:

- Clean work areas, and maintain equipment and work stations, using hand tools.
- Crease or compress signatures before affixing covers; then place paper jackets on finished books.
- Examine stitched, collated, bound, and unbound product samples for defects such as imperfect bindings, ink spots, torn or loose pages, and loose and uncut threads.
- Feed books and related articles such as periodicals and pamphlets into binding machines, following specifications.
- Fill glue reservoirs, turn switches to activate heating elements, and adjust flow of glue and speed of conveyors.



- Install, align, and lock specified punches, dies, cutting blades or other fixtures in rams or beds of machines, using gauges, templates, feelers, shims, and hand tools.
- Load workpieces, plastic material, or chemical solutions into machines.
- Lubricate workpieces with oil.
- Mark identifying data on workpieces.
- Measure completed workpieces to verify conformance to specifications, using micrometers, gauges, calipers, templates, or rulers.
- Place workpieces on cutting tables, manually or using hoists, cranes, or sledges.
- Plan sequences of operations, applying knowledge of physical properties of workpiece materials.
- Position guides, stops, holding blocks, or other fixtures to secure and direct workpieces, using hand tools and measuring devices.
- Position, align, and secure workpieces against fixtures or stops on machine beds or on dies.
- Preheat workpieces, using heating furnaces or hand torches.
- Read work orders and production schedules to determine specifications, such as materials to be used, locations of cutting lines, and dimensions and tolerances.
- Remove housings, feed tubes, tool holders, and other accessories in order to replace worn or broken parts such as springs and bushings.
- Replace defective blades or wheels, using hand tools.
- Scribe reference lines on workpieces as guides for cutting operations, according to blueprints, templates, sample parts, or specifications.
- Select, clean, and install spacers, rubber sleeves, and cutters on arbors.
- Set blade tensions, heights, and angles to perform prescribed cuts, using wrenches.
- Set stops on machine beds, change dies, and adjust components, such as rams or power presses, when making multiple or successive passes.
- Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.
- Sharpen dulled blades, using bench grinders, abrasive wheels, or lathes.
- Start machines, monitor their operations, and record operational data.
- Test and adjust machine speeds and actions, according to product specifications, and using gauges and hand tools.
- Thread ends of metal coils from reels
- Fill machine paper feeds.
- Install and adjust bindery machine devices, such as knives, guides, rollers, rounding forms, creasing rams, and clamps, in order to accommodate sheets, signatures, or books of specified sizes, using hand tools.
- Lubricate and clean machine parts, and make minor repairs in order to keep machines in working condition.
- Maintain records of daily production, using specified forms.
- Mount and secure rolls or reels of wire, cloth, paper, or other material onto machine spindles.
- Move controls to adjust and activate bindery machines.
- Observe and monitor machine operations to detect malfunctions and to determine whether adjustments are needed.
- Open machines and remove and replace damaged covers and books, using hand tools.
- Punch holes in paper sheets, and fasten sheets, signatures, or other material, using hand or machine punches or staplers.
- Read work orders to determine setup specifications and instructions.
- Record production sheet information such as the amount of time spent on specific tasks.
- Remove broken wire pieces from machines, and load machines with new spools of wire.
- Remove printed material or finished products from machines or conveyors, wrap products in plastic, and stack them on pallets or skids or pack them in boxes.
- Secure reels of stitching wire on spindles, and thread wire through feeding, cutting, stitch forming, and driving mechanisms to load stitcher heads for stapling.
- Set machine controls to adjust lengths and thicknesses of folds, stitches, or cuts, to synchronize speed of feeding devices and stitching, and to adjust tension on creasing blades and folding rollers.
- Set up, or set up and operate, machines that perform binding operations such as pressing, folding, and trimming on books and related articles.
- Start machines and make trial runs to verify accuracy of machine setups.
- Stitch or glue endpapers, bindings, and signatures to attach them.
- Stock supplies such as signatures, books, or paper.
- Stop machines, cut threads that connect books, and stack separated books.
- Thread spirals in perforated holes of items to be bound, using spindles or rollers.



through slitters, and secure ends on recoilers.

- Turn controls to set cutting speeds, feed rates, and table angles for specified operations.
- Turn valves to start flow of coolant against cutting areas and to start airflow that blows cuttings away from kerfs.

#### Detailed Tasks

##### Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- clean equipment or machinery
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- maintain or repair industrial or related equipment/machinery
- measure, weigh, or count products or materials
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate hoist, winch, or hydraulic boom
- operate metal or plastic fabricating equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- plan or organize work
- read blueprints
- read production layouts
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recognize characteristics of metals
- set up computer numerical control machines
- set up production equipment or machinery
- understand machine setup instructions
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment

- Train workers to set up, operate, and use automatic bindery machines.

#### Detailed Tasks

##### Detailed Work Activities:

- adjust production equipment/machinery setup
- apply adhesives, caulking, sealants, or coatings
- clean equipment or machinery
- clean rooms or work areas
- collate printed materials
- demonstrate or explain assembly or use of equipment
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- maintain production or work records
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate collating machine
- operate printing equipment/machinery
- package goods for shipment or storage
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- use hand or power tools
- wrap products

## Labor Market Comparison



Description	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Bindery Workers	Difference
Median Wage	\$ 27,500	\$ 26,130	\$( 1,370)
10th Percentile Wage	\$ 17,200	\$ 17,110	\$( 90)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 31,510	\$ 31,490	\$( 20)
90th Percentile Wage	\$ 37,720	\$ 36,420	\$( 1,300)
Mean Wage	\$ 27,250	\$ 26,320	\$( 930)
Total Employment - 2007	450	350	-100
Employment Base - 2006	461	366	-95
Projected Employment - 2016	395	293	-102
Projected Job Growth - 2006-2016	-14.3 %	-19.9 %	-5.6 %
Projected Annual Openings - 2006-2016	11	5	-6

### National Job Posting Trends

Trend for Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

Trend for Bindery Workers

Data from [Indeed](#)

### Recommended Programs

Graphic Communications, Other

Graphic Communications, Other. Any instructional program in graphic communications not listed above.



No schools available for the program
Shoe, Boot and Leather Repairer
Shoe, Boot and Leather Repair. A program that prepares individuals to apply technical knowledge and skills to repair all types of footwear, including replacement and mending of worn parts; repairing orthopedic footwear, refinishing and dyeing leather; and repairing other leather goods such as handbags, belts, and luggage.
No schools available for the program
Leatherworkers and Upholsterers, Other
Leatherworking and Upholstery, Other. Any instructional program in leatherworking and upholstering not listed above.
No schools available for the program

### Maine Statewide Promotion Opportunities for Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings
51-4031.00	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	100	2	450	\$27,500.00	\$0.00	-14%	11
51-4193.00	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	93	2	120	\$32,160.00	\$4,660.00	16%	5
51-4122.00	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	92	2	120	\$36,960.00	\$9,460.00	2%	3
51-5023.00	Printing Machine Operators	91	2	790	\$29,710.00	\$2,210.00	-3%	18
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	84	2	710	\$31,350.00	\$3,850.00	-23%	12
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	84	2	260	\$28,330.00	\$830.00	-7%	5
51-9191.00	Cementing and Gluing Machine Operators and Tenders	84	1	80	\$27,620.00	\$120.00	-15%	2
51-2041.00	Structural Metal Fabricators and Fitters	83	3	680	\$36,030.00	\$8,530.00	5%	15



51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	83	2	910	\$38,230.00	\$10,730.00	-26%	23
51-5021.00	Job Printers	82	3	140	\$31,890.00	\$4,390.00	-10%	2
51-2031.00	Engine and Other Machine Assemblers	82	3	20	\$29,010.00	\$1,510.00	-45%	1
51-4034.00	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	82	3	110	\$34,350.00	\$6,850.00	-9%	2
51-4121.07	Solderers and Brazers	82	2	1,610	\$38,030.00	\$10,530.00	7%	49
51-2021.00	Coil Winders, Tapers, and Finishers	81	2	90	\$31,910.00	\$4,410.00	-53%	1
51-4023.00	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	81	2	0	\$33,460.00	\$5,960.00	0%	0

### Top Industries for Bindery Workers

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Printing and related support activities	323100	75.67%	49,078	34,998	-28.69%
Employment services	561300	4.66%	3,020	3,822	26.56%
Converted paper product manufacturing	322200	2.30%	1,489	1,125	-24.47%
Advertising and related services	541800	1.69%	1,095	1,112	1.55%
Newspaper publishers	511110	1.53%	993	765	-22.90%
Self-employed workers, primary job	000601	1.32%	853	818	-4.12%
Specialized design services	541400	0.81%	528	636	20.43%
Colleges, universities, and professional schools, public and private	611300	0.42%	271	273	0.69%
Federal government, excluding postal service	919999	0.36%	234	199	-14.92%
Paper and paper product merchant wholesalers	424100	0.33%	214	206	-3.85%
Other support services	561900	0.29%	189	233	23.30%
Management of companies and enterprises	551100	0.17%	109	113	3.75%
State government, excluding education and hospitals	929200	0.15%	100	88	-11.68%
Elementary and secondary schools, public and private	611100	0.11%	71	68	-5.16%



Industrial machinery manufacturing	333200	0.11%	70	52	-26.26%
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### Top Industries for Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Employment services	561300	10.95%	29,744	36,424	22.46%
Motor vehicle parts manufacturing	336300	10.08%	27,394	19,628	-28.35%
Architectural and structural metals manufacturing	332300	8.80%	23,910	22,983	-3.88%
Forging and stamping	332100	6.81%	18,517	13,040	-29.57%
Plastics product manufacturing	326100	5.31%	14,440	13,775	-4.60%
Other fabricated metal product manufacturing	332900	3.61%	9,822	7,833	-20.26%
Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing	333400	2.93%	7,972	6,600	-17.21%
Metalworking machinery manufacturing	333500	2.35%	6,374	4,697	-26.32%
Other general purpose machinery manufacturing	333900	1.82%	4,945	4,018	-18.76%
Boiler, tank, and shipping container manufacturing	332400	1.82%	4,936	4,003	-18.90%
Machine shops	332710	1.79%	4,876	3,630	-25.55%
Steel product manufacturing from purchased steel	331200	1.79%	4,869	3,878	-20.35%
Spring and wire product manufacturing	332600	1.76%	4,776	3,182	-33.37%
Agriculture, construction, and mining machinery manufacturing	333100	1.69%	4,593	3,859	-15.97%
Metal and mineral (except petroleum) merchant wholesalers	423500	1.59%	4,325	4,275	-1.16%