



TORO Analysis of Paper Goods Machine Setters, Operators, and Tenders to Sewing Machine Operators

INPUT SECTION:

Transfer	Title	O*NET	Filters		
From Title:	Paper Goods Machine Setters, Operators, and Tenders	51-9196.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Sewing Machine Operators	51-6031.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

OUTPUT SECTION:

Grand TORQ:

88

Ability TORQ				Skills TORQ				Knowledge TORQ			
Level				Level				Level			
	91				89				84		
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Arm-Hand Steadiness	51	9	65	No Skills Upgrade Required!				No Knowledge Upgrades Required!			
Rate Control	39	7	59								
Visual Color Discrimination	46	7	56								
Finger Dexterity	44	2	56								
Visualization	39	2	50								
Manual Dexterity	42	1	62								

LEVEL and IMPT (IMPORTANCE) refer to the Target Sewing Machine Operators. GAP refers to level difference between Paper Goods Machine Setters, Operators, and Tenders and Sewing Machine Operators.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Paper Goods Machine Setters, Operators, and Tenders	Sewing Machine Operators	Importance
Arm-Hand Steadiness	42	51	65
Manual Dexterity	41	42	62
Control Precision	48	42	62
Rate Control	32	39	59
Information Ordering	42	37	56
Finger Dexterity	42	44	56
Near Vision	48	48	56



Visual Color Discrimination	39	46	56
Problem Sensitivity	39	39	53
Multilimb Coordination	39	37	53
Deductive Reasoning	37	35	50
Visualization	37	39	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Paper Goods Machine Setters, Operators, and Tenders	Sewing Machine Operators	Importance
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Paper Goods Machine Setters, Operators, and Tenders	Sewing Machine Operators	Importance

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Paper Goods Machine Setters, Operators, and Tenders	Sewing Machine Operators	Description	Paper Goods Machine Setters, Operators, and Tenders	Sewing Machine Operators
10+ years	0%	0%	Doctoral	0%	0%
8-10 years	3%	0%	Professional Degree	0%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
4-6 years	0%	8%	Master's Degree	0%	0%
2-4 years	0%	13%	Post-Bachelor Cert	0%	0%
1-2 years	41%	9%	Bachelors	0%	2%
6-12 months	1%	11%	AA or Equiv	0%	0%
3-6 months	5%	0%	Some College	0%	8%
1-3 months	16%	5%	Post-Secondary Certificate	0%	2%
0-1 month	3%	0%	High School Diploma or GED	74%	12%
None	27%	51%	No HSD or GED	24%	73%
Paper Goods Machine Setters, Operators, and Tenders			Sewing Machine Operators		
Most Common Educational/Training Requirement:					
Moderate-term on-the-job training			Moderate-term on-the-job training		
Job Zone Comparison					
2 - Job Zone Two: Some Preparation Needed			1 - Job Zone One: Little or No 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.			No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before.		
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.			These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.		
Employees in these occupations need anywhere from a few months to one year of working with experienced employees.			Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.		



Tasks

Paper Goods Machine Setters, Operators, and Tenders

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).
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.

Specific Tasks

Occupation Specific Tasks:

- Adjust guide assemblies, forming bars, and folding mechanisms according to specifications, using hand tools.
- Cut products to specified dimensions, using hand or power cutters.
- Disassemble machines to maintain, repair, or replace broken or worn parts, using hand or power tools.
- Examine completed work to detect defects and verify conformance to work orders, and adjust machinery as necessary to correct production problems.
- Fill glue and paraffin reservoirs, and position rollers to dispense glue onto paperboard.
- Install attachments to machines for gluing, folding, printing, or cutting.
- Lift tote boxes of finished cartons, and dump cartons into feed hoppers.
- Load automatic stapling mechanisms.
- Measure, space, and set saw blades, cutters, and perforators, according to product specifications.
- Monitor finished cartons as they drop from forming machines into rotating hoppers and then into gravity feed chutes, in order to prevent jamming.
- Observe operation of various machines to detect and correct machine malfunctions

Sewing Machine Operators

Core Tasks

Generalized Work Activities:

- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- 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.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- 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:

- Attach buttons, hooks, zippers, fasteners, or other accessories to fabric, using feeding hoppers or clamp holders.
- Attach tape, trim, appliques, or elastic to specified garments or garment parts, according to item specifications.
- Baste edges of material to align and temporarily secure parts for final assembly.
- Cut excess material or thread from finished products.
- Cut materials according to specifications, using blades, scissors, or electric knives.
- Draw markings or pin appliques on fabric to obtain variations in design.
- Examine and measure finished articles to verify conformance to standards, using rulers.
- Fold or stretch edges or lengths of items while sewing, in order to facilitate forming specified sections.
- Guide garments or garment parts under machine needles and presser feet to sew parts together.
- Inspect garments, and examine repair tags and markings on garments to locate defects or damage, and mark errors as necessary.
- Match cloth pieces in correct sequences prior to sewing them, and verify that dye



such as improper forming, glue flow, or pasteboard tension.

- Place rolls of paper or cardboard on machine feedtracks, and thread paper through gluing, coating, and slitting rollers.
- Remove finished cores, and stack or place them on conveyors for transfer to other work areas.
- Stamp products with information such as dates, using hand stamps or automatic stamping devices.
- Start machines and move controls to regulate tension on pressure rolls, to synchronize speed of machine components, and to adjust temperatures of glue or paraffin.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- examine products or work to verify conformance to specifications
- 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
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate pulp or paper making equipment
- read specifications
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment

lots and patterns match.

- Monitor machine operation to detect problems such as defective stitching, breaks in thread, or machine malfunctions.
- Mount attachments, such as needles, cutting blades, or pattern plates, and adjust machine guides according to specifications.
- Perform equipment maintenance tasks such as replacing needles, sanding rough areas of needles, or cleaning and oiling sewing machines.
- Perform specialized or automatic sewing machine functions, such as buttonhole making or tacking.
- Place spools of thread, cord, or other materials on spindles, insert bobbins, and thread ends through machine guides and components.
- Position and mark patterns on materials to prepare for sewing.
- Position items under needles, using marks on machines, clamps, templates, or cloth as guides.
- Position material or articles in clamps, templates, or hoop frames prior to automatic operation of machines.
- Record quantities of materials processed.
- Remove holding devices and finished items from machines.
- Repair or alter items by adding replacement parts or missing stitches.
- Select supplies such as fasteners and thread, according to job requirements.
- Start and operate or tend machines, such as single or double needle serging and flat-bed felling machines, to automatically join, reinforce, or decorate material or articles.
- Tape or twist together thread or cord to repair breaks.
- Turn knobs, screws, and dials to adjust settings of machines, according to garment styles and equipment performance.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- cut or trim fabric or leather
- examine products or work to verify conformance to specifications
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain production or work records



- monitor production machinery/equipment operation to detect problems
- operate sewing machine
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts
- repair tears or defects in fabrics, garments, or leather products
- sew by hand
- use hand or power tools
- use portable electric fabric cutter

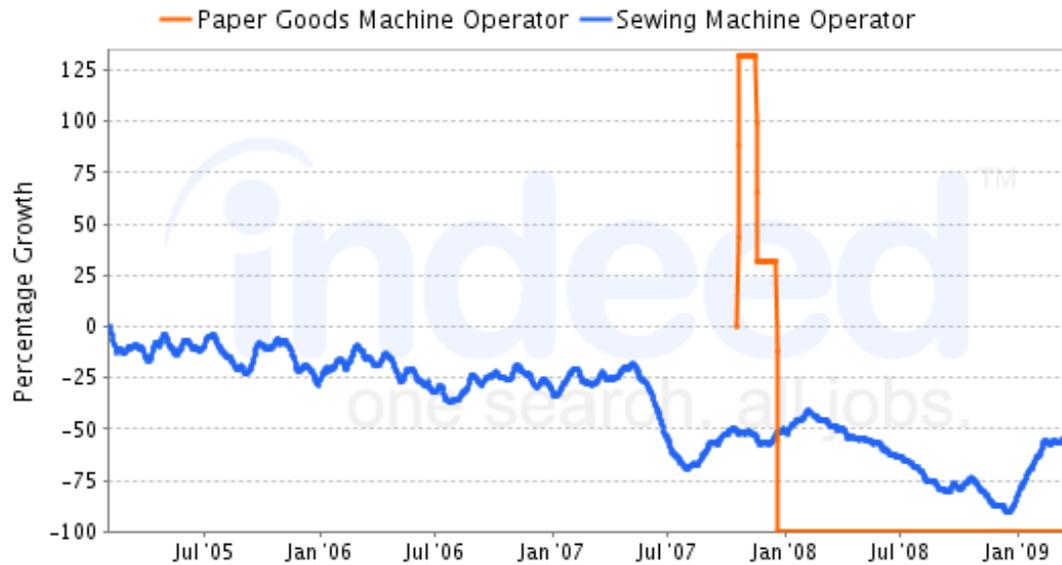
Labor Market Comparison

Description	Paper Goods Machine Setters, Operators, and Tenders	Sewing Machine Operators	Difference
Median Wage	\$ 38,230	\$ 22,440	\$(15,790)
10th Percentile Wage	\$ 25,850	\$ 16,350	\$(9,500)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 45,200	\$ 27,200	\$(18,000)
90th Percentile Wage	\$ 51,680	\$ 31,710	\$(19,970)
Mean Wage	\$ 38,330	\$ 23,030	\$(15,300)
Total Employment - 2007	910	1,080	170
Employment Base - 2006	951	1,077	126
Projected Employment - 2016	700	990	290
Projected Job Growth - 2006-2016	-26.4 %	-8.1 %	18.3 %
Projected Annual Openings - 2006-2016	23	10	-13

National Job Posting Trends

Trend for Paper Goods Machine Setters, Operators, and Tenders

Trend for Sewing Machine Operators

**Job Trends from Indeed.com**Data from [Indeed](http://Indeed.com)**Recommended Programs**

No program data for the occupation.

Maine Statewide Promotion Opportunities for Paper Goods Machine Setters, Operators, and Tenders

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	100	2	910	\$38,230.00	\$0.00	-26%	23
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	84	2	850	\$38,860.00	\$630.00	-26%	19
51-4011.00	Computer-Controlled Machine Tool Operators, Metal and Plastic	82	2	720	\$40,490.00	\$2,260.00	6%	12
43-5053.00	Postal Service Mail Sorters, Processors, and Processing Machine Operators	81	2	970	\$41,950.00	\$3,720.00	-12%	10
51-9011.00	Chemical Equipment Operators and Tenders	81	2	0	\$38,790.00	\$560.00	-2%	5
51-4041.00	Machinists	78	3	1,860	\$41,560.00	\$3,330.00	4%	35
51-4192.00	Lay-Out Workers, Metal and Plastic	77	2	180	\$43,870.00	\$5,640.00	-24%	3



53-6051.07	Transportation Vehicle, Equipment and Systems Inspectors, Except Aviation	77	3	60	\$42,890.00	\$4,660.00	5%	2
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	76	3	440	\$49,450.00	\$11,220.00	-19%	15
51-8013.00	Power Plant Operators	75	3	480	\$50,240.00	\$12,010.00	10%	21
49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door	74	3	170	\$47,860.00	\$9,630.00	-9%	3
51-4111.00	Tool and Die Makers	74	3	160	\$51,670.00	\$13,440.00	-11%	2
49-9096.00	Riggers	73	3	250	\$39,140.00	\$910.00	-12%	2
51-1011.00	First-Line Supervisors/Managers of Production and Operating Workers	73	3	3,750	\$45,510.00	\$7,280.00	-4%	65
47-2011.00	Boilermakers	72	4	60	\$39,260.00	\$1,030.00	12%	3

Top Industries for Sewing Machine Operators

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Cut and sew apparel manufacturing	315200	37.46%	87,218	36,829	-57.77%
Other textile product mills	314900	8.50%	19,797	17,782	-10.18%
Textile furnishings mills	314100	7.91%	18,422	16,690	-9.40%
Self-employed workers, primary job	000601	7.29%	16,967	18,076	6.54%
Household and institutional furniture manufacturing	337120	6.35%	14,794	12,383	-16.30%
Apparel accessories and other apparel manufacturing	315900	2.75%	6,400	4,026	-37.09%
Apparel knitting mills	315100	2.14%	4,987	2,805	-43.75%
Medical equipment and supplies manufacturing	339100	2.01%	4,674	4,781	2.29%
Other furniture related product manufacturing	337900	1.88%	4,384	4,577	4.40%
Printing and related support activities	323100	1.73%	4,029	3,192	-20.77%
Motor vehicle parts manufacturing	336300	1.48%	3,443	2,741	-20.39%
Fabric mills	313200	1.36%	3,162	2,233	-29.38%
Drycleaning and laundry services	812300	1.35%	3,133	3,133	0.01%
Clothing stores	448100	1.31%	3,053	2,973	-2.63%



Footwear manufacturing	316200	0.92%	2,134	1,000	-53.16%
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Top Industries for Paper Goods Machine Setters, Operators, and Tenders

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	60.48%	68,412	57,411	-16.08%
Pulp, paper, and paperboard mills	322100	21.93%	24,800	17,202	-30.64%
Printing and related support activities	323100	8.22%	9,293	7,363	-20.77%
Newspaper publishers	511110	1.36%	1,536	1,316	-14.33%
Plastics product manufacturing	326100	1.27%	1,439	1,525	6.00%
Wholesale electronic markets and agents and brokers	425100	0.67%	762	865	13.48%
Employment services	561300	0.55%	618	783	26.56%
Animal slaughtering and processing	311600	0.46%	521	595	14.13%
Advertising and related services	541800	0.40%	448	505	12.83%
Paper and paper product merchant wholesalers	424100	0.39%	440	470	6.83%
Other general purpose machinery manufacturing	333900	0.19%	219	198	-9.73%
Miscellaneous durable goods merchant wholesalers	423900	0.09%	100	114	14.81%
Warehousing and storage	493100	0.07%	76	101	33.58%
Other electrical equipment and component manufacturing	335900	0.06%	69	64	-7.34%
Fruit and vegetable preserving and specialty food manufacturing	311400	0.05%	61	55	-9.33%