

**Department of Human Resources**

Employee Health & Safety Division
Disability Services Section
500 4th Avenue, Room 500
Seattle, WA 98104
(206) 477-3350
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www.kingcounty.gov

Employee :

Claim # :

JOB ANALYSIS

Job Title:	Bus Assembly Inspector		
Department:	Transportation	Division:	Capital
DOT Title:	Inspector, Motor Vehicles	DOT #:	168.267-058
SVP:	5, adjusted to 8	Requestor:	Troika Braswell
Worksite Address:	201 South Jackson Seattle, WA 98104	Office Contact Name/ Phone/ Email:	William Haber 206-477-6126 William.Haber@kingcounty.gov
Original Analyst:	Kyle Pletz, VRC, CDMS	Analysis Date:	6/10/20
Update Analyst:		Update Date:	

☐ On-Site ☒ Interview ☐ Representative

JOB DUTIES:

Bus Assembly Inspectors serve as King County's representative at the bus manufacturer's plant during the assembly of all buses and are responsible for monitoring the contractor's assembly processes and quality assurance program.

ESSENTIAL FUNCTIONS ACCORDING TO THE EMPLOYER:

All King County jobs require ability/essential function to:

- Demonstrate predictable, reliable, and timely attendance.
- Follow written and verbal directions to complete assigned tasks on schedule.
- Read, write, and communicate in English & understand basic math.
- Learn from directions, observations, and mistakes and apply procedures using good judgment.
- Work independently or as part of a team and interact appropriately with others.

Job Specific Requirements:

1. Ensure each bus is manufactured in accordance with all MTD contract requirements and specifications, including all Federal Transit Administration and other federal requirements.
2. Conduct inspection and approve vehicles for delivery at bus manufacturer's plant and at King County facilities.
3. Identify design problems and inform Fleet Procurement Contract Administration of compliance issues found during the pre-production, production, and assembly phases of vehicles.
4. Serve on the Bus Procurement Team including review bus specifications and evaluate vehicle demonstrations and proposals.
5. Lead and/or participate in meetings regarding production, engineering, and related topics with bus manufacturer's officials.
6. Create reports and make presentations to management as requested.
7. Perform other related tasks as required.

EXPERIENCE, QUALIFICATIONS, KNOWLEDGE, SKILLS:

Knowledge of Federal, State, and local regulations and standards regarding vehicle production
Knowledge of vehicle production and assembly techniques and methods
Knowledge of in-plant inspection in a bus manufacturing plant environment
Knowledge of contract administration, project management, quality control, vehicle production, and assembly
Knowledge of quality assurance and quality control principles and techniques in a manufacturing environment



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Knowledge of transit vehicle maintenance
 Skill in operating transit buses of various lengths to conduct road testing of new buses
 Skill in verbal and written communication
 Skill in negotiating and facilitation
 Skill in comprehending, analyzing, and interpreting technical information
 Skill in working under pressure and meeting deadlines
 Skill in taking initiative to identify improved and/or more-effective design strategies
 Skill in developing, analyzing, and implementing procedures
 Ability to understand vehicle component configurations
 Ability to read, comprehend, and interpret vehicle procurement contracts, technical specifications, and engineering drawings
 Ability to effectively engage in and sustain relationships with people from diverse cultures and socio-economic backgrounds
 Ability to work independently and as a team member
 Demonstrated proficiency with business applications, such as Microsoft Office suite and Skype

Education and Experience Requirements

Any combination of education and experience that clearly demonstrates the ability to perform the job duties of the position.

Licensing, Certification and Other Requirements

Valid Washington State Driver License
 Commercial Driver License with appropriate endorsements
 Must pass a post-offer, pre -employment physical examination
 Must pass drug and alcohol testing provisions for safety sensitive positions as required by the U.S. Department of Transportation, 49 CFR Parts 40 and 655
 Additional licenses, certifications and other requirements determined to be necessary to meet the business needs of the employing unit may be required

Machines, Tools, Special Equipment, Personal Protective Equipment Used:

Computer, County vehicles, rental cars, busses, telephone, smart phone, sharp edge tester, headset, fax machine, copy machine, scanner, spreadsheets, flashlight, measuring tapes, laptop, tablet and databases. Hearing protection, safety vest, hard hat, eye protection, fall protection, welding glasses, half-mask respirator.

PHYSICAL REQUIREMENTS

Frequency Scale	Strength	Work Pattern	
N = Never	<input type="checkbox"/> Sedentary	<input checked="" type="checkbox"/> Full-time	
S = Seldom (1-10 %, up to 48 min)	<input checked="" type="checkbox"/> Light	<input type="checkbox"/> Part-time	
O = Occasional (11-33%, 49 min. – 2 hr 40 min)	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Seasonal	
F = Frequent (34-66%, 2 hr 41 min – 5 hr 20 min)	<input type="checkbox"/> Heavy	8-10	Hours Per Day
C = Constant (67-100%, more than 5 hr 20 min)	<input type="checkbox"/> Very Heavy	4-5	Days Per Week
Work Pattern (continued)		FLSA Exempt <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	



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- In this position there is the need for weekend work, domestic and international travel etc. This position is predominantly (90%) performed in the field. This can include domestic and international travel.

Job Demand	Frequency and Weight (lbs)					Activity Description
	N	S	O	F	C	
Lifting floor – waist		1-19 *20-50				Up to 5 lbs. at 30 sec./time, 1 min. total with a ream of paper (5 lbs.), laptop, printer, binders (5 lbs.), files, wheel chocks (1-5 lbs.), etc. *Travel backpack/luggage (20-50 lbs.) once every three weeks when traveling.
Lifting waist–shoulder		1-19 *20-50				Up to 5 lbs. at 30 sec./time, 1 min. total with a ream of paper (5 lbs.), laptop, printer, binders (5 lbs.), files, wheel chocks (1-5 lbs.), etc. *Travel backpack/luggage (20-50 lbs.) every three weeks when traveling.
Lifting above shoulder		1-5 *6-25				Up to 1 min./time, 5 min total; while using a flashlight to inspect busses. *Up to 20-25 lbs. when placing luggage in overhead compartments every 3 weeks when traveling.
Carry (Distance/Surface)		1-2 3-15				Up to 1 hr./time, 4 hrs. total with 1-2 lbs. while using a clipboard during inspections. Up to 10-15 lbs. at 20 min./time, 45 min. total with a notebook, laptop, backpack, reference materials, luggage or binders.
Pushing/Pulling (Distance/Surface)		1-40				Chair (2-3 lbs.), drawers (2-3 lbs.) and doors (6 lbs. for interior, 12 lbs. exterior), bus panels, etc. Up to 5-10x/day, an employee may need to open the rear engine compartment with 33-40 lbs. of force. Once the door is opened, it lifts hydraulically. Also, the employee needs to pull overhead 25-30 lbs. for up to 1 min./time while resetting the electrical poles. The employee may need to push/ pull up to 33 lbs. for up to 10 sec./time, 1-10x/shift while manually opening or closing the wheelchair ramp.



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Physical Demands	Frequency					Activity Description
	N	S	O	F	C	
Sitting					X*	Up to 2.5 hrs./time, 7 hrs. total while performing computer duties, performing research, attending meetings, driving, taking an airplane (domestic/international), editing/creating documents, writing contract changes, creating presentations; interacting with coworkers, vendors, etc. *A sit/stand workstation would allow the employee to alternate sit/stand as needed while in the office.
Standing			X*			Up to 30 min./time, 2 hrs. total while performing vehicle inspections, conversing with coworkers, conducting presentations, vendors and staff, waiting in lines for flights or utilizing office machines (copy machine scanner, etc.). *A sit/stand workstation would allow the employee to alternate sit/stand as needed while in the office.
Walking					X	Up to 30 min./time, 6-7 hrs. total while traversing within builder/manufacturing facilities, parking lots, roof of bus, airports, office area for office machines; coworkers' workstations, meetings etc.
Perform Work on Ladders		X				Up to 5-10x per shift while utilizing 12' ladders when accessing rooftops and inspecting paint.
Climbing		X				Up to 20 stairs at manufacturing facilities, up to 10-20x/day. When on a rooftop may need to climb over components (such as air conditioner).
Balancing					X	Up to 1 hr./time, 6 hrs. total while performing roof inspections (potentially wet or prior to non-skid surface installation) as well as when traversing manufacturing areas which may include wet/slippery surfaces, rolling staircases, stairs and pits.
Stooping / Bending		X				Up to 30 sec./time, 30 min. total while utilizing low file drawers, placing/removing bags from trunk of automobile, inspecting lower area of buses. *Can alt. with squat/kneel as needed.
Twisting at Neck				X		Up to 30 sec./time, 4 hrs. total when getting in/out of a car or airplane seat and busses. Performing vehicle inspections.
Twisting at Waist		X				Up to 30 sec./time, 10 min total when getting in/out of a car or airplane seat and busses. Performing vehicle inspections.
Squatting / Kneeling		X				Up to 30 sec./time, 30 min. total while utilizing low file drawers, placing/removing bag from trunk of automobile, inspecting lower area of buses. *Can alt. with bend/stoop as needed.
Crawling	X					
Reach waist to shoulder			X			Up to 2 min./time, 1.5 hrs. total while driving busses and cars, using a clipboard, opening compartments, using a flashlight, manipulating documents and reference materials, as well as place/remove items from file drawers and utilizing a computer mouse and laptop.



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Reach above shoulder		X				Up to 2 min./time, 30 min. total for items on upper shelves; climbing ladders, opening and closing hatches and using a flashlight for vehicle inspections. Could use a head lamp to reduce reaching above shoulder when using a flashlight.
Reach below waist			X			Up to 30 sec./time, 2 hrs. total for access panels, drawers and low shelves; performing vehicle inspections.
Keyboarding				X		Up to 10 min./time, 4 hrs. total in a shift when composing emails, presentations, reports, etc.
Wrist Flexion/Extension						Up to 30 min./time 2 hrs. total opening panels, utilizing a flashlight, operating buses for test drives(such as air brake valve, etc.). Battery busses and trolleys may require longer test drives.
Handle/Grasp				X	X	Up to 2 hrs./time 5-6 hrs. total opening panels, utilizing a flashlight and clipboard, inspecting buses, operating buses for test drives(such as air brake valve, etc.). Battery busses and trolleys may require longer test drives.
Forceful Grasp		X				Up to 30 sec./time, 5 min total while pulling on doors that may be stuck, manipulating hatches, inspecting various components for stability.
Fine Finger Manipulation					X	Up to 2 hrs./time, 7 hrs. total with writing, inspecting buses, completing forms, manipulating documents, using telephone, writing, keyboarding and utilizing a computer mouse.
Hand Controls				X		Up to 1 hr./time, 5 hrs. total while operating a computer mouse and driving a vehicle or bus.
Foot Controls			X	X		Up to 45 min./time, 2-3 hrs. total while performing road and functional testing.
Repetitive Motion			X			Body Part: hands Cycles/hr: 200
Vibratory Tasks – High	X					
Vibratory Tasks – Low			X	X		Up to 45 min./time, 2-3 hrs. total while performing road testing, driving and air travel.
Talking					X	Up to 1 hr./time 7 hrs. total while on the telephone, communicating with coworkers, conducting/attending meetings, teleconferences and presentations. Interacting with vendors, performing vehicle inspections, etc.
Hearing					X	Up to 1 hr./time 7 hrs. total while on the telephone, communicating with coworkers, conducting/attending meetings, teleconferences and presentations. Interacting with vendors, performing vehicle inspections, etc. Utilizes hearing for safety purposes when traversing within manufacturing facilities, transit areas and industrial work areas.
Visual – Near Acuity					X	Up to 2.5 hrs./time, 7 hrs. total while performing computer tasks, reviewing documents; some of which may have small print or reduced image quality. Taking notes and completing forms.



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Visual – Far Acuity					X	Up to 2.5 hrs./time, 7 hrs. total while driving and performing inspections; utilizes far acuity for safety purposes when traversing within manufacturing facilities, transit areas and industrial work areas.
Visual – Depth Perception					X	Up to 2.5 hrs./time, 7 hrs. total while driving vehicles and performing inspections; traversing within manufacturing facilities, transit areas and industrial work areas.
Visual – Color Discrimination			X			Up to 1 hrs./time, 3 hrs. total while performing vehicle inspections, paint inspections, preparing presentations.
Visual – Accommodation				X		Up to 2.5 hrs./time, 5.5 hrs. total while driving vehicles/buses and performing inspections.
Visual – Field of Vision					X	Up to 2.5 hrs./time, 7 hrs. total while driving vehicles/busses and performing inspections.
Exposure to Weather			X			Traversing to various facilities, performing road tests.
Extreme Cold		X				Some manufacturing plants are located in northern Canada where temperatures can be subzero.
Extreme Hot			X			Hot equipment, hydraulic systems, manifolds, radiators, etc. Measuring temperatures of equipment, vehicles, etc. Some manufacturers are located in southern United states that have 100+ degree temperatures.
Wet and / or Humidity		X				Vehicle fluids, water tests.
Proximity to Moving Mechanical Parts					X	Inspects vehicles, works in assembly/production plants.
Exposure to Explosives				X		Vehicles fuels, propane, natural gas, welding equipment, hydrogen, batteries, compressed air.
Atmospheric Conditions				X		Dust, fuel fumes, welding fumes, exhaust, etc.
Exposed Heights			X			Climbing on vehicles/equipment.
Exposure to Electricity				X		Wiring, alternators, shop equipment, generators, batteries, on-vehicle generators, overhead charging, plug in for battery buses and various components.
Exposure to Toxic / Caustic Chemicals			X			Vehicle fluids, solvents, cleaners, PCB's, exhaust systems, etc.
Exposure to Radiation	X					
Noise Intensity	<input type="checkbox"/> Very Quiet <input checked="" type="checkbox"/> Quiet <input checked="" type="checkbox"/> Moderate <input checked="" type="checkbox"/> Loud <input checked="" type="checkbox"/> Very Loud					Noise level varies from quiet to very loud, based on compressors, backup alarms, large equipment, engine compartments, mechanical equipment, etc.
Other:						



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Analyst's Comments:

Possible Employer Modifications:

Update Comments (*if applicable*):

Note: The information for this job analysis was gathered by either on-site observation, interview and / or is representative of the labor market as indicated on page one. Additional data may have been obtained from standardized industry resources such as the DOT, GOE, COJ, OOH, WOIS and O-NET. On occasion, practicality and feasibility prevent the direct observation and/or gathering of objective, quantifiable data. For this reason, a "best estimate" may have been used.

Analyst:

Update (if applicable):

Vocational Consultant

Date

Vocational Consultant

Date

Employer Verification:

Employee Verification: (optional)

Name

Date

Name

Date



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MEDICAL PROVIDER:

- ☐ I agree that the employee can perform the physical activities described in this job analysis and can return to work. Date employee is released to return to work if different from today's date: _____
- ☐ I agree the employee can perform the described job but only with modifications (describe in comments section). Modifications are needed on a ☐ permanent basis or ☐ temporary basis.
- ☐ The employee **temporarily** cannot perform this job based on the following physical limitations:

Anticipated release date: _____

Treatment plan: _____

- ☐ The employee is **permanently** restricted from performing the physical activities described in this job analysis based on the following physical limitations (state objective medical findings):

Comments:

Signature

Date

Print Name

- ☐ Attending Physician ☐ Consulting Physician ☐ Pain Program Physician
- ☐ IME Physician ☐ PCE Therapist ☐ OT / PT Therapist ☐ PEP Physician