

Industrial Lift Trucks: Ergonomic Evaluation Checklist

Virtually every forklift truck manufactured today would be expected to perform its basic functions and conform to current OSHA regulations. Some forklift trucks, however, are “ergonomically designed”. This means operator capabilities and limitations are taken into account in the design process.

The application of ergonomic principles to the design of machines can have many positive benefits. Among these are increased operator productivity and comfort, reduced operator error, fewer musculo-skeletal problems and reduced absenteeism rates.

The following checklist may be useful to help evaluate the ergonomic design considerations in forklift trucks. It is not intended to be all encompassing of safety or ergonomics considerations which may be designed into the product and does not address concerns such as product costs and aesthetics.

Carefully consider your answers to each of the questions. You may need to operate the equipment yourself or observe someone else using it. The more positive answers you check, the greater the potential of the equipment to produce positive benefits associated with good ergonomic design.

| | |
|---------------|-----------|
| Date: | Location: |
| Manufacturer: | Model: |

Operator Envelope – Standing Operation

| Can the operator: | Yes | No |
|---|---|---|
| • Stand in a normal posture for forward travel operations? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Stand in a normal posture for reverse travel operations? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Change feet position to relieve leg fatigue? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Change stance to relieve postural fatigue? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Rest the body against a padded, breathable surface? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Achieve good visibility of the work areas without assuming posture? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Achieve good visibility of the travel path without assuming an awkward posture? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Readily store and/or retrieve work items within easy reach? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Get on and off the truck without slipping or tripping? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Stand on a well designed padded surface? | <input type="checkbox"/> | <input type="checkbox"/> |
| SUBTOTAL | <input style="width: 50px; height: 20px;" type="text"/> | <input style="width: 50px; height: 20px;" type="text"/> |

Comments:

Operator Envelope – Seated Operation

| Can the Operator | Yes | No |
|---|--------------------------|--------------------------|
| • Sit in a normal posture for forward travel operations? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Swivel the seat for brief-duration reverse travel? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Change feet position to relieve fatigue? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Easily adjust seat height when seated? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Easily adjust armrests? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Achieve good visibility of the work areas without assuming an awkward posture? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Achieve good visibility of the travel path without assuming an awkward posture? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Choose between seated and standing operation? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Sit without undue seat pressure on the thighs and calves? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Get on and off the truck easily without slipping or tripping? | <input type="checkbox"/> | <input type="checkbox"/> |
| Also: | | |
| • Is the seat made of a padded, “breathable” material? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Does the seat provide adequate lumbar support? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Does the seat feel comfortable to sit in? | <input type="checkbox"/> | <input type="checkbox"/> |
| SUBTOTAL | | |

Comments:

Controls

| Can the operator: | Yes | No |
|---|--------------------------|--------------------------|
| • Work the primary controls with the body in a normal posture and the limbs in a neutral position? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Support one or both arms when operating the controls? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Comfortably operate the primary controls using either bare or gloved hands? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Perform simultaneous functions without large limb movements or excessive force? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Easily operate the primary controls in different stance? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Operate controls without excessive force and/or large limb movements? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Operate controls without awkward hands/wrists/arm positions or excessive wrist rotation? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Operate controls with several hand positions to relieve fatigue? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Operate controls without high local pressure points on hand? | <input type="checkbox"/> | <input type="checkbox"/> |
| Also: | | |
| • Does the direction of movement of each control naturally relate to the direction of operation of the equipment (e.g. left for left movement, forward for forward movement)? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Are controls designed to limit the possibility of accidental activation? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Does the truck help the operator perform difficult tasks by aiding the operator? (speed vs. accuracy of measurement, etc.) | <input type="checkbox"/> | <input type="checkbox"/> |
| SUBTOTAL | | |

Comments:

Displays

Can the operator:

Yes

No

- See appropriate “need-to-know” information? Yes No
- See appropriate “nice-to-know” information? Yes No
- Read the displays in low light levels? Yes No
- Conveniently view the primary display when positioned for forward or reverse travel? Yes No
- Easily read quantitative and qualitative information? Yes No

Also:

- Is displayed information appropriately color-coded (red-low, danger; orange/yellow – advisory, caution; green – go, full, O.K.)? Yes No
- Does the “need-to-know” information/display use standard national/international graphic symbols? Yes No
- Are visual display warnings well designed and augmented by auditory warning when appropriate? Yes No

SUBTOTAL

TOTAL POSITIVE COMMENTS

TOTAL NEGATIVE COMMENTS

Comments:
