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What length fork tynes do I require for my forklift for handling a load?

AS2359.2:2013 clause 3.7 (e).

Operators shall ensure that fork arm blades are of sufficient length to support 75% of the load length.

For some applications, e.g. freight container handling will require the fork to support 100% of the load length.

What length fork tynes do I require to use slipper forks?

AS2359.15:2005 clause 6.1.

The fork tyne shall support at least 60% of the length of the fork arm extension (slipper fork).

Note: The load length should not exceed the fork arm extension (slipper fork) length

What is the maximum allowable wear on a drive & steer tyre?

AS2359.2:2013 clause 1.5.1. 60J-line.

The pronounced line above the tyre supplier name on the side of the tyre to indicate the maximum wear limit on resilient (puncture proof) or pneumatic tyres. Consult the tyre supplier for specific information for wear limits, especially of urethane and cushion tyres.

Note: the 60J-line may also be referred to as the “safety line”

What does actual capacity mean and where can I find it on my forklift?


The actual capacity is the capacity marked on the name plate of the truck and relates to the particular serial number and truck configuration, and attachment, where fitted. This is the maximum load that can be safely lifted at the indicated load centre distance on a hard level surface.

AS2359.2:2013 clause 1.5.2.

Actual capacity is the maximum load in kilograms, established by the manufacturer based on component strength and truck stability that the truck can carry, lift and stack to a specified height at a specified load centre distance and reach if applicable, in normal operation.

Notes:

- 1) *The nameplate shall indicate the mast vertical actual capacity and mast tilted forward capacity (for trucks fitted with tilting mast) and be in view of the operator when in the normal operating position.*
- 2) *The actual capacity depends on the configuration of the truck in terms of such variables as the type and lift height of the mast fitted, the actual load centre and any attachments that may be fitted. The actual capacity defines the load handling ability of the particular truck as equipped.*
- 3) *The standard load centre for Australia is 600mm.*

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What does rated capacity mean and where can I find it on my forklift?

The rated capacity is the nominal design capacity for the model series of lift truck. This not the capacity that the truck may safely lift and the actual capacity is often less than the rated capacity.

AS2359.6:2013 clause 3.15.

Rated capacity is the maximum load, expressed in kilograms, established by the manufacturer based on component strength and truck stability that the truck can carry, lift and stack to the standard lift height and at the standard position of the centre of gravity.

Note this may not be marked on the nameplate but may form part of the model number.

What is meant by a hard level surface?

AS2359.2:2013 clause 1.5.12

A surface that is plane to within 5 mm per metre, with grade in any direction not exceeding 2% and able to support the wheel loading of the heaviest truck and load likely to use it without noticeable deflection.

When does a truck become unattended?

AS2359.2:2013 clause 1.5.48

A truck is unattended when the operator is more than 8 m from the truck which remains in their view or whenever the operator leaves the truck and it is not in their view.

Do I need a seat belt on my sit down reach truck?

No.

AS2359.2:2013 clause 3.3 (r)

Sit down or stand up rear entry reach trucks or stand up rear entry counterbalance trucks are designed with open operator compartments to permit easy entry and exit. Although there is no sure way in all circumstances to avoid injury, where possible, in the event of an imminent tipover or off the dock accident, the operator should step off and away from the truck. These actions are intended to reduce the risk of serious injury or death.


Refer to AITA-014 Seat Belt Guidance - Sit Down Reach Truck

May I use a mobile phone whilst operating a forklift?

The use of communication devices may be part of the site operating procedures.

AS2359.2:2013 clause 3.3 (b).

Mobile phones shall not be used while the truck is in motion.

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Note: Operating procedures should be developed for suitable electronic devices, e.g. two-way radios, scanners, touch screens, warehousing terminals, which can be used for communication with the operator while the truck is in motion.

May I replace the forklift's key switch with a toggle switch or a push button?

Yes, where the truck is equipped with a device to prevent unauthorised use' e.g. swipe card or keypad.

AS2359.6:2013 clause 4.2.1 Unauthorised starting.

Trucks shall be provided with a device (e.g. key, code, magnetic card) which prevents starting without its use.

What should I do to protect myself during a tip over?

Operators must wear a seatbelt when operating sit down counterbalance lift truck. In the event of a tip over follow the instructions to brace and lean away from the direction of tip. Do not leave the truck until it has comes to rest.

AS2359.2:2013 clause 3.3. (r)

In the event of a tipover of a counterbalanced truck with a seated operator, stay within the confines of the operator compartment. Refer to the manufacturer's instruction fitted to the truck, e.g. decal (advisory notice).

AS2359-1:2015 clause 7.4.4 Advisory notice

The advisory notice required by clause 7.4.2 shall give the following instructions in the event of a tip-over:

- (a) Stay with the truck.*
- (b) Hold on firmly.*
- (c) Brace both feet.*
- (d) Lean away from the point of impact.*

The above requirement applies to counterbalance, high lift trucks with a seated operator.

Can I use a forklift to push, pull or tow?

AS2359.2:2013 clause 3.3 (t)


Trucks shall not be used for pulling, pushing, towing, etc., except with the prior approval of the manufacturer

Refer to AITA-003 Forklift Towing Guidance Note

Can I travel on an incline?

Yes, along the incline, provided the forklift is designed for the grade (incline).

AS2359.2:2013 clause 3.6 Travelling (o)

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The truck shall not be driven across any incline of sufficient gradient to risk loss of stability or load. Advice on the truck capabilities shall be sought from the manufacturer

Do I need to have a load backrest extension (LBR) on my forklift?

No, refer to below clause.

AS2359.2:2013 clause 3.7 (i)

A load backrest extension shall be used when handling loads which are high or segmented.

Note: Where a segmented load is to be carried, two thirds of the load or top tier of the load should be supported.

Is my forklift fitted with a ROP and or FOP Ssystem and is it required by the standards?

Generally, lift trucks require an overhead guard designed to AS2359.9 that provides protection against falling objects. ROP and FOP systems are required for rough terrain trucks only.

AS2359.6:2013. Clause 4.9.1.1

Require ride-on trucks with a maximum lift height of more than 1 800 mm above the floor shall be fitted with an overhead guard complying with AS2359.9 to protect the operator from falling objects.

Trucks with an elevating operator position up to and including 1 200 mm that feature a lift height of the load of more than 1 800 mm above the operator platform shall be fitted with an overhead guard complying with AS2359.9 to protect the operator from falling objects.

For further information refer to AITA-008 Overhead guard Guidance Note.

What types of trucks may I use a work platform with?

Work platforms may be used on sit down counterbalance trucks and reach trucks. However they must not be used with pedestrian controlled trucks

AS2359.2:2013 clause 3.10.1 User requirements (d) NOTES 1 (c)


Pedestrian controlled trucks, maintenance or work platforms are NOT permitted.

What capacity forklift do I need to use a work platform?

AS2359.1:2015 clause 12.3.1

Trucks that are used to lift work platforms shall comply with the following requirements:

(a) The actual capacity at a 600 mm load centre of the trucks shall be equal to or greater than the following:

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- (i) *For counterbalanced trucks, 1800 kg or 5 times the combined mass of platform and platform rated load, whichever is the greater.*
- (ii) *For reach trucks (retractable mast or fork arms shall be fully retracted) and straddle trucks, 1000 kg or 3 times the combined mass of work platform and platform rated load, whichever is the greater.*

Does my forklift need to be approved to use a work platform?

Yes, the manufacturer needs to approve the use of the work platform and the lift truck will need to be modified to meet the conditions of AS2359.1-2015, and AS2359.2-2013

AS2359.2:2013 clause 3.10.1

The user shall ensure that the truck nameplate has been amended or an additional nameplate shall include the serial number or model number of the work platform approved for use.

May I use a work platform for regular store duties?

No, work platforms may only be used for special short duration tasks

AS2359.2:2013 clause 3.10.1

The use of the work platforms shall be limited to those situations where it is necessary to elevate personnel to perform special tasks of short duration and where it is not practicable to use a scaffold or equipment designed to elevate people, e.g. scissor lift. The platforms shall not be used for order picking, or for production or stores (administrative) types of activity such as stocktaking. Lift height limiters (electric) are not permissible to reduce the lift height to comply with actual capacity requirements so as work platform can be used.

May a second person be elevated in an order picker (stock picker)?

Yes, where the second person is authorised, and provided the same level of protection as the operator.

AS2359.2:2013 clause 4.1.1 User responsibility


a) Where it is intended to carry a second person in an elevated position, special approval is required from the truck manufacturer. When operating the truck the second person shall be within the operator's compartment.

May two operators be attached to the same anchor point on an order picker (stock picker)?

Yes, where the anchor point is rated for two persons.

AS 5144.3 clause 4.4.5.6 Anchorage points of fall protection device(s)

Anchorage point(s) of fall protection devices shall be capable of withstanding three consecutive drop tests of 135 kg falling a distance of 1,800 mm without failure of the anchorage point. If a second person is to use the same anchorage point, the test weight

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shall be 270 kg.

Do I need to use a harness & lanyard when operating an order picker?

AS2359.2:2013 clause 4.1.2 Operator responsibility (h)

Where there is risk of a fall from the platform, see Clause 4.1.1(e), the primary method of protection shall be guarding by means of a handrail or similar. If this is not practicable, e.g. it is removed for the loading of bulky items, then the operator and other occupants shall wear a full body harness with lanyard and anchorage attachment using restraint technique as specified in AS/NZS 1891.4.

What standards does the harness & lanyard need to comply with?

Lanyard and harness needs to comply with AS1891.

This also includes requirements for operator training and periodic equipment inspection

May a pedestrian be within the order picker work area whilst order pickers are in use (stock picker)?

The site traffic management plan must address pedestrian exclusion where elevating operator equipment is used, refer to AS2359.2

AS2359.2:2013 5.2. Pedestrian access and fencing Clause 5.2.1 Access restriction


Where order-picking high-lift trucks, turret type high-lift trucks (VNA), or automatically controlled trucks are operated, users shall apply one of the following restrictions to pedestrian access:

- (a) The operating area shall be fenced off from unauthorised personnel, other than the operator of the truck and any operators of any other trucks operating in the same area or essential maintenance personnel.
- (b) Where it is not practicable to provide fencing, either—
 - (i) the travel motion of the truck shall be stopped when the load or the operator’s cabin is elevated in excess of 600 mm above floor level; or
 - (ii) a pedestrian detection sensing system shall be fitted so that travel motion is automatically limited when a pedestrian is close to the truck.

May an Internal Combustion (IC) forklift be used in doors or in a confined area?

Generally, a battery electric powered lift truck is preferred for use indoors or in confined areas. Where Internal Combustion (IC) lift trucks are used adequate ventilation must be provided.

AS2359.2:2013 clause 5.7.1 Atmospheric contaminants concentration.

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The concentration of atmospheric contaminants resulting from emission of exhaust gases into any space and within breathing zones of an operator which could have an irritating effect on the eyes and nasal passages of persons, e.g. aldehydes, shall be prevented from reaching an irritating level.

Note:

- 1 *The use of internal combustion trucks in poorly ventilated space such as cool stores, cold stores and containers may present a serious risk of carbon monoxide poisoning and may result in a fatality.*
- 2 *National occupational exposure standards for atmospheric contaminants are published by Safe Work Australia. Users must ensure that workers exposure to atmospheric contaminants does not exceed the relevant exposure standards.*
- 3 *These exposure standards do not represent a fine line between safe and unsafe levels of exposure. Therefore, these standards and the results of any monitoring should be interpreted by a suitably trained person such as an occupational hygienist. Atmospheric monitoring may be required in some circumstances where there is an exposure to the atmospheric contaminant and if there is some uncertainty about the level of exposure.*
- 4 *Additional information may be available from Safe Work Australia.*

How often do I need to have my forklift serviced?

Lift trucks should be serviced and maintained to the manufacturer's recommendations.

AS2359.2:2013 clause 6.2.1 Servicing.

Trucks shall be periodically inspected, serviced and maintained by competent and responsible personnel authorized by the user. This work shall be carried out in accordance with published recommendations of the manufacturer. Trucks powered by LP Gas or CNG shall also be inspected in accordance with AS 4983.

What maintenance records do I need to keep?

AS2359.2:2013 clause 6.3 Records


The owner, user or personnel responsible for maintenance shall keep a record of every inspection, maintenance service, repair and modification of each truck as follows:

- (a) *Identification (serial number and model) of the truck.*
- (b) *Date.*
- (c) *Where an hour meter is fitted, the hour meter reading.*
- (d) *Detailed report of the work undertaken, details of additional work required and time frame for work to be completed, e.g. tyres need replacement at next service, gas cylinder requires certification.*
- (e) *Name and status of authorized persons responsible for the work.*

How long should I keep pre-operational daily inspection records?

AS2359.2:2013 clause 6.3 (e) Records

under NOTE: Pre-operational daily inspection records should be kept for 12 months, or a longer period if needed to confirm a long term record of care for the plant item.

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How often should my fork tynes be inspected?

Visual inspection of the fork tynes should be conducted as part of the daily pre-operational inspection. Regular inspections shall be carried out by competent persons.

AS2359.2:2013 clause 6.6.1 Inspection of fork arms

Fork arms shall be inspected at each service interval or at 12 month intervals, whichever is the lesser interval and whenever any damage, permanent deformation or other defects are detected.

Where any fault is found on a fork arm, it shall be withdrawn from service until satisfactory repairs have been effected.

May I have my forklift modified by a local engineering company?

Yes, where the modification has been approved by the manufacturer.

AS2359.2:2013 clause 6.8 Modification

Trucks or their attachments shall not be modified in any way that will affect operation or performance within the scope of this standard, except with the prior written approval of the manufacturer. After any such change has been effected, appropriate alterations shall be made to any relevant nameplates and markings prior to returning the truck or its attachments to service.

May I use a slip on attachment on my forklift?

Yes, slip on attachments must be approved for use by lift truck manufacturer and the lift truck rated accordingly. The nameplate shall be marked to identify the attachment and the revised capacity.

AS2359.2:2013 clause 3.2 (b).

Any attachments that are to be used are approved for use with that truck and are identified on the truck. Clause 3.7:

(a) Operators shall assess load weight, load centre, load height and compare it with the actual load capacity of the truck and any attachment fitted, before lifting the load.

Do I need a traffic management plan?

Yes.


AS2359.2:2013 clause 3.6 Travelling.

A traffic management plan (TMP) that includes truck operation shall be in place for the site.

Note: The purpose and objective of a traffic management plan (TMP) together with recommendations for its preparation and implementation are given at Appendix A.

Do I need to inspect a forklift before I operate it?

Yes, pre-operational checks shall be conducted prior to commencing work.

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AS2359.2:2013 clause 3.2 Pre-operating check.

Pre-operating checks are aimed at ensuring a truck is in a fit condition to be used. Prior to use, if the operator does not perform these checks the operator shall sight evidence that the checks have been performed

What should I do if I find a fault with the forklift I am operating?

AS2359.2:2013 clause 3.3 General rules for operators.

When operating a truck, the operator shall observe the following general rules:

(d) In the event of a fault being revealed or if the truck becomes unsafe in any way the operator shall—

(i) report the matter immediately to the user or supervisor; and

(ii) if the fault or condition is immediately dangerous, discontinue use of the truck until it is rectified. The truck shall be tagged 'out-of-service' and isolated.

Do I need training to charge the battery of my forklift?

For battery electric trucks charging should be trained and authorised.

Note: Contact the battery supplier for information about charging and maintaining batteries.

AS2359.2:2013 clause 3.16.4 Battery charging and changing for electric trucks.

For trucks powered by an electric motor, battery charging and changing shall be carried out by trained and authorized personnel and only at locations designed for that purpose.

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