

**RT**

RT Fork Hoist Services

Inspection and Repair of Forks in Service on Forklift Trucks

The following are extracts from NZS/ANSI/ASME B56.1 Safety Standard for Low Lift and High Lift Trucks

Forks in use shall be inspected at intervals of not more than 12 months (for single shift operations) or whenever any defect or permanent deformation is detected. Severe applications will require more frequent inspection.

Inspection

Fork inspection shall be carried out carefully by trained personnel with the aim of detecting any damage, failure, deformation, etc., which might impair safe use. Any fork which shows such a defect shall be withdrawn from service, and shall not be returned to service unless it has been satisfactorily repaired.

(a) Surface Cracks.

The fork shall be thoroughly examined visually for cracks and if considered necessary, subjected to a non-destructive crack detection process, special attention being paid to the heel and welds attaching all mounting components to the fork blank. This inspection for cracks must also include any special mounting mechanisms of the fork blank to the fork carrier including bolt type mountings and forged upper mounting arrangements for hook or shaft type carriages. The forks shall not be returned to service if surface cracks are detected.

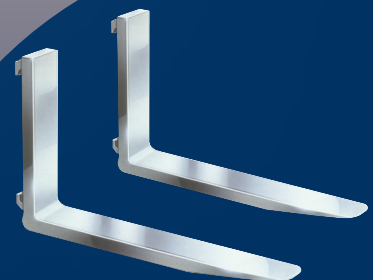
(b) Straightness of Blade and Shank.

The straightness of the upper face of the blade and the front face of the shank shall be checked. If the deviation from straightness exceeds 0.5% of the length of the blade and/or the height of the shank, respectively, the fork shall not be returned to service until it has been repaired.

(c) Fork Angle. (Upper Face of Blade to Load Face of the Shank).

Any fork that has a deviation of greater than 3 degree from the original specification shall not be returned to service. The rejected fork shall be reset and tested.

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(d) Difference in Height of Fork Tips.

The difference in height of one set of forks when mounted on the fork carrier shall be checked. If the difference in tip heights exceeds 3% of the length of the blade, the set of forks shall not be returned to service until repaired.

(e) Positioning Lock (When Originally Provided).

It shall be confirmed that the positioning lock is in good repair and correct working order. If any fault is found, the fork shall be withdrawn from service until satisfactory repairs have been effected.

(f) Wear

Fork Blade and Shank. The fork blade and shank shall be thoroughly checked for wear, special attention being paid to the vicinity of the heel. If the thickness is reduced to 90 % of the original thickness, the fork shall not be returned to service.

Fork Hooks (When Originally Provided). The support face of the top hook and the retaining faces of both hooks shall be checked for wear, crushing, and other local deformations. If these are apparent to such an extent that the clearance between the fork and the fork carrier becomes excessive, the fork shall not be returned to service until repaired.

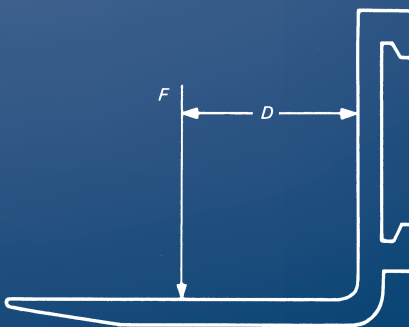
Repair and Testing

(a) Repair.

Only the manufacturer of the fork or an expert of equal competence shall decide if a fork may be repaired for continued use, and the repairs shall only be carried out by such parties. It is not recommended that surface cracks or wear be repaired by welding. When repairs necessitating resetting are required, the fork shall subsequently be subjected to an appropriate heat treatment, as necessary.

(b) Test Loading.

A fork that has undergone repairs other than repair or replacement of the positioning lock and/or the marking, shall only be returned to service after being submitted to, and passing, the tests described below:



A test load F shall correspond to two and a half times the load rating of the fork arm and shall be applied to it at the applicable distance D from the front face of the fork arm shank. (refer diagram).

The fork arm shall be restrained in a manner identical to that used on the forklift truck.

The test load shall be applied twice, gradually and without shock, and maintained for 30 sec each time.

The fork arm shall be checked before and after the second application of the test load. It shall not show any permanent deformation.



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