

The LDSH(side-shifting) fork positioner refer to the fork positioner which can automatically move the fork(cargo side-shifting) without human interference by means of a hydraulic driver , and not only improve the handling efficiency , but reduce labor intensity , decrease the damages to cargoes . The fork positioner is designed and manufactured by ourself and have been in the market for many years . Now has becoming a mature and gradually formed series after constant improvements ,tackle key technical problem of key components and comprehensive testings.

The manual is designed to familiarize operators with fork positioned , benefit of operators with basic standard operations.

The manual contains important notes concerning safe and proper and economic working with the equipment . Strict observation of these notes will help to avoid risks , reduce repair costs and down time , and increase the reliability and useful life of the equipment.

In addition to the instructions contained in this manual , all pertinent national and local regulations relating to safety and environment protection must be observed in full". This operating manual must be kept available for ready reference at the equipment's place of use. The manual must be read and followed by all persons involved in work



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The following marks and symbols are used in this operating manual to highlight details holding special importance :

- ▲ used for identifying big or direct dangerous situation , to avoid injury and property damage . If not able to avoid the dangerous situation , can cause serious casualties.
- ▲ used for potential dangerous situation , to avoid injury and property damage . If not able to change the dangerous situation , can cause serious casualties.
- ▲ used for used for potential dangerous situation , to avoid injury and property damage . If not able to change the dangerous situation , can cause serious casualties or property damage.
- ▲ Used for potential hazardous situations, if these hazardous situations cannot be changed, they may cause serious casualties.





Operators can't leave operating room , when load isn't discharged from the fork positioner.

Operators must operating in the instructions of the teleseme when operators are in limited vision or in dangerous place.

Operators must have professional training and qualified guide.

1.3.2 Installation and Use

Only be allowed to use suitable transportation and lift tools with enough load force (fork positioner self-weight labeled in nameplate).



1.3.3 Operation

The equipment must be inspected for visible damage and effects at least once per shift . Any changes occurring (on or in the equipment itself and its working) must be reported immediately to the officer responsible . The equipment must be shut down immediately if conditions warrant.

When working with the equipment , we recommend running hydraulic cylinder below 80 , or failures may occur to the cylinder.

When working with the equipment , make sure that risk of injury to all persons due to the equipment is satisfactory ruled out.

All activities detrimental to the stability of the equipment must be avoided.

Maximum capacity always denotes lifting with two or more forks or load handling arms.

Attention is required to the rated load capacity , maximum working pressure and load center stated on the nameplate.

Moving , reciprocating or rotating parts of the attachment entail danger of pinching , crushing , snagging and dragging . Safe distance must be maintained at all times to prevent clothing , body parts or hair from being caught by such parts.

Loa

Note the following tightening torques which are valid for screws

even death . This applies particularly to improper use of the equipment .

The equipment must not be operated in explosion – hazard areas unless expressly designed and authorized for use in such areas.

For preventions of fire , burn , electric shock , chemical hazards (toxic exhaust , etc .) , risks of electromagnetic interference , noise and other vibration , please refer to the forklift machine manual.

2.1.1 Pressure setting of the forklift safetyvalve(hydraulic circuit supplied to the attachment):The recommended pressure is 14MPa ; the max pressure is 16MPa .

2.1.2 Flow setting of the forklift(hydraulic circuit supplied to the attachment):

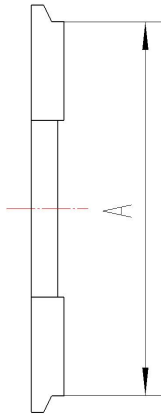
Type	Min	Recommended	Max
Fork positioner	6.0LPM	8.0LPM	11.0LPM
Side-shifting Fork positioner	10.0LPM	15.0LPM	18.0LPM

Flows lower than the min can result in unsteady movement.

Flows higher than the max can result in overheating and thereby degrade the system performance and reduce the service life of the hydraulic system.

2.1.3 Recommended min hole diameter of the rubber and tube connector : 6mm.

2.1.4 The forklift carriage should comply with ISO 2328 or equivalent to Industrial Truck Association(ITA) as detailed below :



Installation	A ISO standard	
	Min	Max
Grade 2	380.0mm	381.0mm
Grade 3	474.5mm	476.0mm

2.1.5 To comply with the industrial standard , it is crucial to ensure that the attachment moves in the direction corresponding to the multi – way valve control handle of the forklift as indicated below :

Control functions of the handle

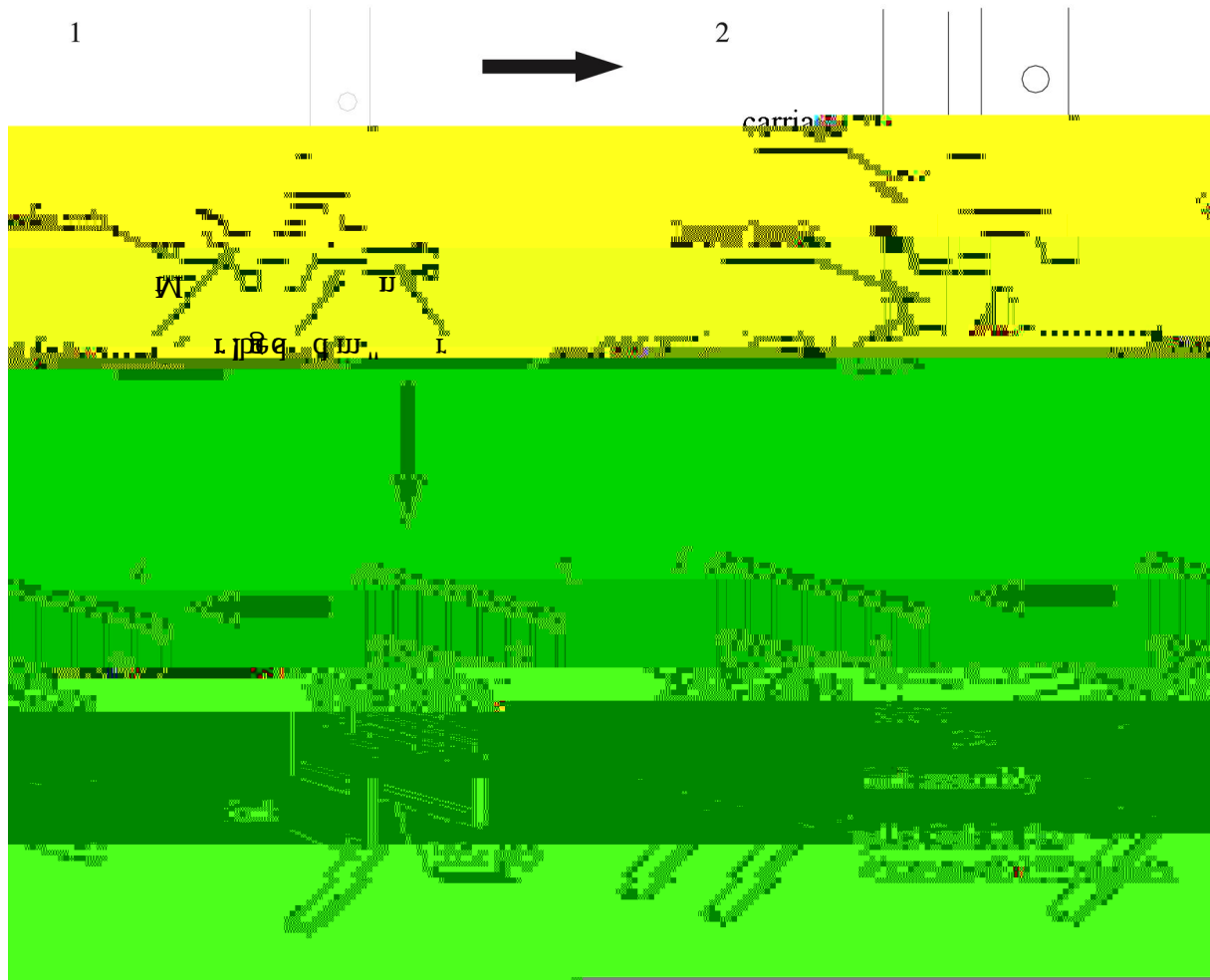
Function	Attachment movement	Multi-way valve handle movement
Side shifting load	Right shift	Backward or upward
	Left shift	Forward or downward
Positioning fork	Close	Backward or upward
	Open	Forward or downward

2.2.1 Mount on the forklift

- 1 Release the 4 locknuts on the lower hook (figure 1) and hang the positioned on the carriage.
- 2 Fix the frame on the forklift carriage with the lower hook and lock the locknut to the moment of 140N.m (figure 2).
- 3 Attach the fork into the carriage from the fork gap (figure 3).
- 4 Release locknut M16 of fork assembly , hang up the whole fork assembly (figure 4).

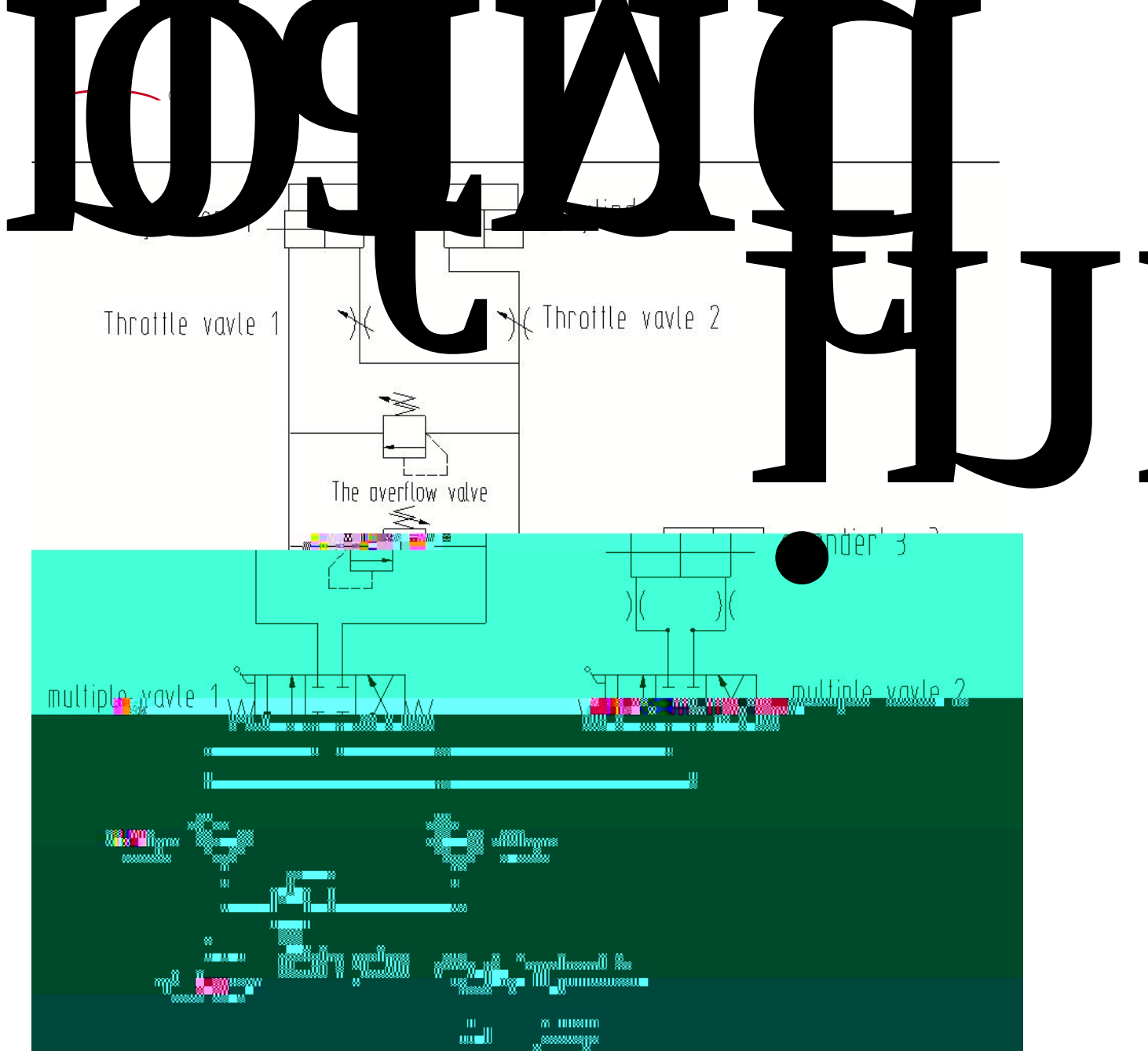
- 5 Lay down the load bracket and join the frame to the load bracket with 4 bolts (figure 5).

Installation diagram :



2.2.2 Connect the rubber hose

Select a proper length of rubber hose and connect it



2.3.1 Before any operation , first operate the multiway valve handle to make yourself intimate with the control functions of the handle and satisfy yourself that the handle movement complies with the foregoing Control Functions of the Handle.

2.3.2

Both head and the load must be centered on the range on the label of a fork lift. When the center of load gravity is outside the rated range, its actual stability is reduced. Avoid keeping operating time to relieve the pressure in the hydraulic system and avoid unnecessary maintenance.

The following operations must be avoided:

- ★ Lifting a load that is too heavy;
- ★ Lifting a load that is too long;
- ★ Moving a load that is too high;
- ★ Swerving or turning while lifting a load;
- ★ Lifting a load that is not centered on the fork;
- ★ Lifting a load that is not stable;
- ★ Lifting a load that is not in a notch on the fork bar;
- ★ Lifting a load for non-designated purpose;
- ★ Lifting a load which is in trouble;
- ★ Lifting a load when there is a person or barrier in its working area;

- ★ Doing welding on a pusher;
- ★ Carrying a person on the pusher or the fork;
- ★ Being hit by external force while pusher working;
- ★ The size of the goods is too large

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- 4.2.1 Check if the system provides the required pressure and flow
 - 4.2.2 Check if there is any deformation in the structure members . If yes , remove the deformation or replace the damaged part
 - 4.2.3 Check of the clearance between the lower hook and the fork is appropriate
 - 4.2.4 Check if there is any leakage in the hydraulic circuit or the side – shifting cylinder.

 - 4.3.1 For any slow shifting movement , expand the throttle slice orifice
 - 4.3.2 For any trembled positioning movement of the fork , check if there is any air infiltration in the hydraulic circuit.

 - 5.1 Check the attachment everyday and verify if there is any leakage in the cylinder or oil tube and if the lower hook fits normally
 - 5.2 Check the attachment per 100 service hours and verify if there is any flexibility in the rubber hose connector , valve connector , cylinder connector or the lock screw of the lower hook ; if the clearance between the lower hook and the lower crossbeam is acceptable , and re – adjust it if the clearance is too large ;
 - 5.3 Lubricate the upper and lower slide blocks of the attachment per 500 service hours ;
 - 5.4 Check the attachment per 1000 service hours and verify the abrasion of the upper and lower slide blocks . Replace any that is less than 1.5mm in thickness for upper slide block and less than 5mm for the lower slide block.

Thank you very much for selecting products from Anqing Axle Factory . To full guarantee your rights and interests , pls read this statement carefully.

1 The quality assurance defined for the forklift attachment products manufactured by Anqing Axle Factory should be

12 months after receipt of the cargo by the buyer;

1000 hours of statutory working days after installation of the attachment;

Whichever comes earlier.

2 The buyer and the final user are advised that :

They should comply with our User's Manual in the installation , commissioning , operation and maintenance of our products to enable successful execution of our quality assurance;

They may repair the attachment with our prior authorization , provided that they shall not remove or replace any part of the product without due approval;

Any unauthorized repair or modification of the our attachment product or any unauthorized use of parts not provided by us , or any incompliance with our Use's Manual , Inspection Specifications . Operation Manual or Maintenance Instructions may lead to disqualification of our quality assurance;

We assume no responsibility for any loss of , or any personal injury or property damage(including any indirect loss or damage)in connection with , the attachment product provided once it is owned or used by the buyer or final user.