



# **HYDRAULIC STACKER – Model No. MN397**

## **Operating Instructions and Parts List**



**Note: Do not use the platform stacker before reading and understanding these operation instructions.**

Thank you for using platform stacker. Your stacker is made of high quality steel and is designed for the horizontal lifting and transport of loads on a pallet or standardized containers on a level, fixed base. For your safety and correct operation, please carefully read this instruction before using it.

## 1. GENERAL SPECIFICATIONS

Type	Capacity (Kg)	Size of platform(mm)	Min. / Max. fork height (mm)	Caster Dia. (mm) (PU)	Front roller Dia. (mm) (PU)	N. W. (Kg)
MN397	400	650X576	85-1500	Φ 127x40	Φ 75x40	91

## 2. INTENDED USE

The hydraulic stacker, with forks/platform for independent lifting of loads, is intended for both manual lifting / lowering and the manual transporting of loads. **Its use requires a level and firm floor/ground surface.**

The hydraulic stacker, with forks/platform for independent lifting of loads, is intended for on-site transporting of unit loads, e.g. in warehouses associated with industry and delivery companies etc., for short range transporting of standard and wire mesh pallets as well as other palletised loads.

It is not suitable for use in potentially explosive locations.

Alterations to the hydraulic stacker and the addition of auxiliary units are only permitted with our express written approval.

Ensure that you take note of the technical data and details on functional characteristics!

## 3. Safety instructions

### Operation, assembly and maintenance only by: Instructed, qualified operators

(Definition of qualified operators in accordance with IEC 364)

Qualified operators are persons who, on the basis of their training, experience, instruction and knowledge of the relevant standards and regulations, regulations for prevention of accidents and operating conditions, are authorised by the persons responsible for the safety of the plant to carry out the respective required tasks whilst being able to recognise and prevent potential associated dangers.

- **Operation is only permitted on a level and firm floor/ground surface.**
- **Transporting of persons and a presence within the danger zone is not permitted.**
- **A presence under a raised load is not permitted.**
- **The specified load capacity must not be exceeded.**
- **The loaded material must be distributed evenly on the fork/platform.**
- **The hydraulic stacker must never be loaded whilst the fork/platform is in a raised position.**
- **The stacker is not made for or capable of off-loading like a fork lift truck or crane.**

- Never leave the load unattended in a raised position.
- Never reach into moving parts.
- Defects are to be dealt with competently as soon as they become apparent.
- Only use genuine spare parts.

## Inspections

In accordance with Section 37 of the BGV D27 the hydraulic stacker must be inspected by a competent technical expert at least once per year, and otherwise as required.

We recommend that you record the results of the inspections in an inspection book.

## 4. Operating instructions

### Functional description

The fork/platform stacker is a manually-operated hydraulic device.

### Handling

**Before taking into operation, check:**

- perfect function of the operating elements
- function of the parking brake
- state of the travelling rollers and roller axles
- load chains for adjustment, chain tension and wear

### Parking brake

One or two steering wheel of the hydraulic stacker is equipped with a parking brake. For depositing, actuate the parking brake.

### Picking up a load

Check that the load does not exceed the loading capacity of the hydraulic stacker.

Roll the hydraulic stacker slowly up to the pallet/load. Roll the fork prongs under the pallet until the back end of

the fork rests against the load (pallet). Lift the load by executing the pumping movements.

**The load must be evenly distributed across both prongs of the fork / platform.**

**The load centre of gravity must not be exceeded.**

### Moving with the load

**As only a parking brake is provided, the hydraulic stacker must not be operated uphill and on gradients.**

Travel with the load in lowest possible position in consideration of the floor clearance under the load.

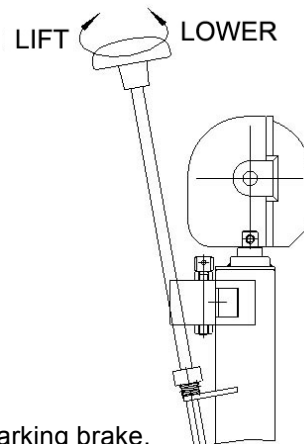
**The load should be moved with lifted fork / platform only for stacking and depositing on even surface.**

Travel with steady speed adapted to the load and the floor conditions. For depositing, actuate the parking brake.

### Setting the load down

- ⇒ Stop just before the stacking area and lift the load in safe distance over the pile.
- ⇒ Manoeuvre the load directly above the pile.
- ⇒ Lower the load until platform is discharged.
- ⇒ Lower the load by turning the release valve.
- ⇒ Ensure safe reversing, move away and lower the platform.

## 5. MAINTENANCE



### 5.1 OIL

Please check the oil level every six months. The oil can be hydraulic oil: ISO VG32, its viscosity should be 30cSt at 40<sup>0</sup> C, total volume is about 2.0lt.

### 5.2 TO BANISH THE AIR

The air may come into the hydraulic oil because of transportation or pump in upset position. It can cause that the forks do not elevate while pumping in the **RAISE** position. The air can be removed in the following way: let the control handle (FP216) on the **LOWER** position, then move the pedal (FP242) up and down for several times.

### 5.3 DAILY CHECK AND MAINTENANCE

Daily check of the stacker can limit wear as much as possible. Special attention should be paid to the wheels, the axles, as thread, rags, etc. It may block the wheels. The forks should be unloaded and lowered in the lowest position when the job is over.

### 5.4 LUBRICATION

All bearings and shafts are provided with long-life grease at the factory. You only need provide with long-life grease at monthly intervals or after each time the truck is cleaned thoroughly to the lubrication points.

### 5.5. Inspection and maintenance instructions

**Safety warning: Before inspection and maintenance work is carried out, appropriate measures should be taken to remove all loads from the platform stacker.**

Maintenance and inspection work	Inspection intervals
Check operating elements for faultless operation.	Daily or each time before use
Check condition of the travelling rollers and roller axles	
Check the firmness of the supply and the tension of the chain	
Check the chain, if necessary grease	
Grease joints and bearings	monthly
Check functioning of wheels and rollers	
Check the level of the hydraulic oil with forks completely lowered and the stacker in horizontal position.	Every 3 months
Check hydraulic system for leakage (Is the top lifting height reached effortlessly?)	
Check the adjusting of the lifting chain and of the movement chain, if necessary adjust, clean and grease	
Check the set-up of the control lever	
Check all screw and bolt connections for tightness	
Grease joints and bearings	
Check functioning and turning capability of wheels and rollers	
Check all parts of the hydraulic stacker for wear and replace defective parts where necessary	Annually
Change oil in the hydraulic system (suck the oil out of the tank, refill with new oil) <b>-Ventilate the hydraulic system-</b>	
Check readability of type plate.	
Authorize inspection by competent technical expert	

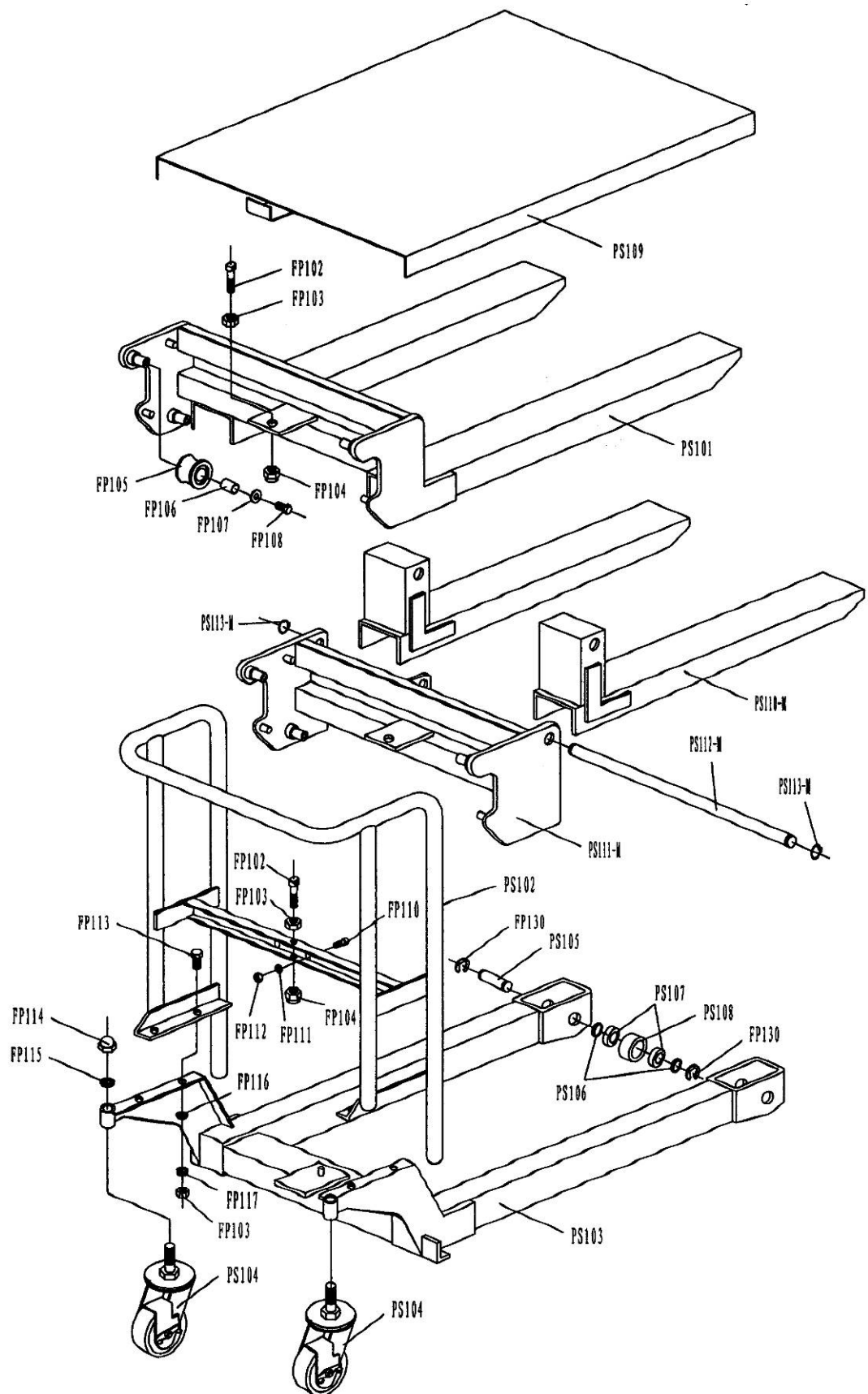
The service life of your hydraulic stacker is limited. Worn parts must be renewed in good time.

## 6. TROUBLES SHOOTING

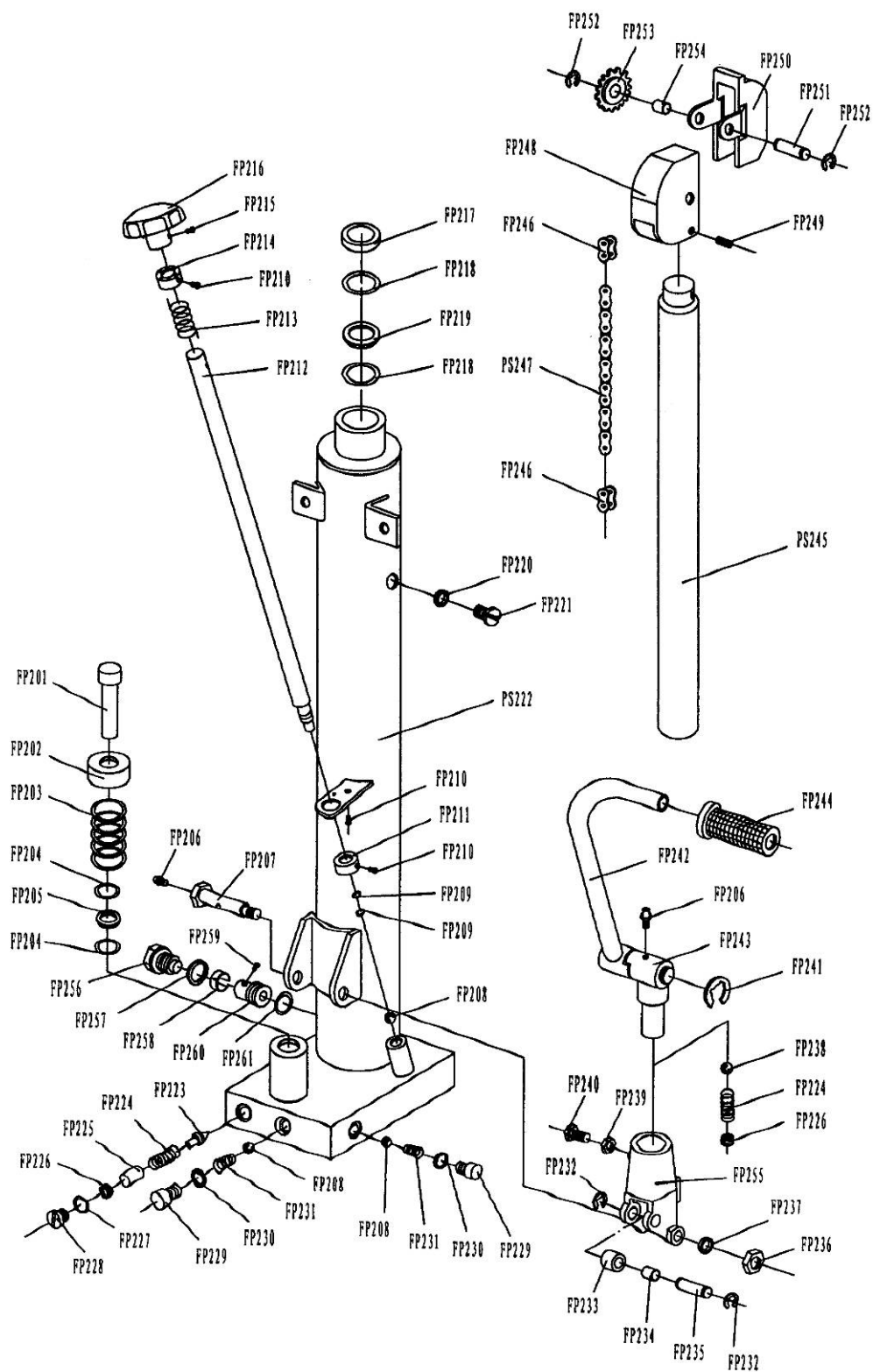
No	Trouble	Cause	Fixing Methods
1	The forks can not be lifted up the maximum height.	-The hydraulic oil is not enough.	-Pour in the oil.
2	The forks can not be lifted up.	- Without hydraulic oil. - The oil has impurities. -The handle (FP216) is on the wrong position, keep the lowering valve open. - Air comes into the hydraulic oil.	- Fill in the oil. - Change the oil. - Turn the handle (FP216) on the right position. - Banish the air.(see item 6.2)
3	The platform can not be lowered.	- The piston rod (FP245 or PS245) or pump (FP222 or PS222) is deformed resulting from partial loading slanting to one side or over-loading. - The platform was kept in the high position for long time with piston rod bared to arise in rusting and jamming of the rod. - The screw (FP215) is loose.	- Replace the piston rod or pump.  - Keeping the fork in the lowest position if not using, and pay more attention to lubricate the rod.  - Tighten the screw (FP215)
4	Leaks	- Sealing parts worn or damaged. - Some part cracked or worn into small.	- Replace with the new one. - Replace with the new one.
5	The forks lowered without the release valve working.	- The impurities in the oil cause the release valve to be unable to close tight. - Some parts of hydraulic system is cracked or bored. - Air come into the oil. - Sealing parts worn or damaged. - The handle (FP216) is on the wrong position, keep the lowering valve open.	- Replace with new oil.  - Inspect and replace the waste parts.  - Banish the air. (See item 6.2) - Replace with the new one. - Turn the handle (FP216) on the right position.

### NOTE:

- 1) DO NOT ATTEMPT TO REPAIR THE PALLET TRUCK UNLESS YOU ARE TRAINED AND AUTHORIZED TO DO SO.
- 2) After placing out of service, the hydraulic stacker parts must be disposed of or recycled in accordance with legal provisions.



No.	Description	Qty.	No.	Description	Qty.
PS101#	Fork Carriage	1	FP115	Elastic Washer	2
FP102	Bolt	2	FP116	Washer	4
FP103	Nut	6	FP117	Elastic Washer	4
FP104	Nut	2	PS103	Mast	1
FP105	Roller	4	PS104	Caster	2
FP106	Bushing	4	FP130	Locking ring	4
FP107	Washer	4	PS105	Axle for roller	2
FP108	Bolt	4	PS106	Washer	4
PS102-0485	Handle	1	PS107	Bearing	4
PS102-0412			PS108	Roller	2
PS102-0415			PS109	Platform	1
FP110	Bolt	2			
FP111	Washer	2			
FP112	Nut	2			
FP113	Bolt	4			
FP114	Nut	2			





No.	Description	Qty.	No.	Description	Qty.
FP201	Pump Piston Rod	1	FP233	Pressure Roller	1
FP202	Spring Cap	1	FP234	Bushing	1
FP203	Spring	1	FP235	Shaft	1
FP204	O-Ring	2	FP236	Nut	1
FP205	Washer	1	FP237	Elastic Washer	1
FP206	Oil-holder	2	FP238	Steel Ball	1
FP207	Shaft	1	FP239	Nut	1
FP208	Steel Ball	3	FP240	Bolt	1
FP209	O-Ring	2	FP241	Locking Ring	1
FP210	Bolt	4	FP242	Footplate	1
FP211	Sleeve	1	FP243	Seat	1
FP212	Shaft	1	FP244	Sleeve	1
FP213	Spring	1	PS245-0485	Lifting Piston Rod	1
FP214	Sleeve	1	PS245-0412		
FP215	Bolt	1	PS245-0415		
FP216	Control Handle	1	FP246	Linking Chain	2
FP217	Dust Ring	1	PS247-0485	Chain	1
FP218	O-Ring	2	PS247-0485		
FP219	Washer	1	PS247-0485		
FP220	Seal Washer	1	FP248	Cover	1
FP221	Bolt	1	FP249	Bolt	1
PS222-0485	Body of Pump	1	FP250	Cap	1
PS222-0412			FP251	Shaft	1
PS222-0415			FP252	Locking Ring	2
FP223	Valve Spindle of Pump	1	FP253	Chain gear	1
FP224	Spring	2	FP254	Bushing	2
FP225	Pin	1	FP255	Bracket	1
FP226	Adjust Screw	2	FP256	Screw	1
FP227	O-Ring	1	FP257	Seal washer	1
FP228	Bolt	1	FP258	Sleeve	1
FP229	Screw	2	FP259	Screw	1
FP230	Seal Washer	2	FP260	Seat of valve	1
FP231	Spring	2	FP261	O - ring	1
FP232	Locking Ring	2			