

WORK SHOP MANUAL

NY125

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50 SERIES

FBT10/13/15/18P

NICHIYU
NIPPON YUSOKI CO.,LTD.

KYOTO, JAPAN

0. GENERAL

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0. GENERAL

0-1 MODEL NAME AND NAME PLATE

1. Model coding system

Table 1

F <input type="checkbox"/> <input type="checkbox"/> 18 <input type="checkbox"/> - 50 <input type="checkbox"/> - 300 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <small>Capacity Model designation Lift height</small>	
BT	(BT) Three wheel
C	(C) Cushion tires
P	(P) Pneumatic tires
PN	(PN) Pneumatic shaped solid tires
B	(B) Large capacity battery equipped
D	(D) Electrical enclosure
Z	(Z) Special type electrical components
	(P) Two stage full visibility mast
PFL	(PFL) Full free lift mast (Full visibility mast)
M	(M) Three stage full free lift mast (Full visibility mast)
	CS (CS) Cold storage use for -35°C
	WB (WB) Wide bar lift bracket
<input type="checkbox"/> () Attachment	

2. Name plate

NIEHIYU NIPPON YUSOKI CO.,LTD				
MODEL				
MAXIMUM LOAD / LIFT	mm	kg /	mm	
	mm	kg /	mm	
SERIAL NO.				
SERVICE WEIGHT W/O BATTERY			kg	
BATTERY WEIGHT MIN.		kg, MAX.	kg	
VOLTAGE	V	MFG. YEAR		

For European Economic Community with Ⓢ mark

NIEHIYU NIPPON YUSOKI CO.,LTD			
MODEL			
MAXIMUM LOAD / LIFT	mm	kg /	mm
	mm	kg /	mm
SERIAL NO.			
SERVICE WEIGHT W/O BATTERY			kg
BATTERY WEIGHT MIN.		kg, MAX.	kg
VOLTAGE	V	MFG. YEAR	

For overseas except European Economic Community

Fig.0-1 Name plate

0-2 POSITION OF SERIAL NUMBERS ON FRAME AND COMPONENTS

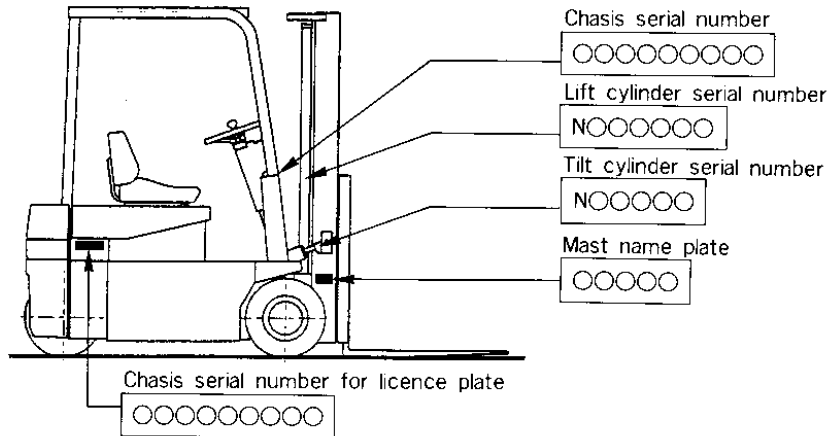
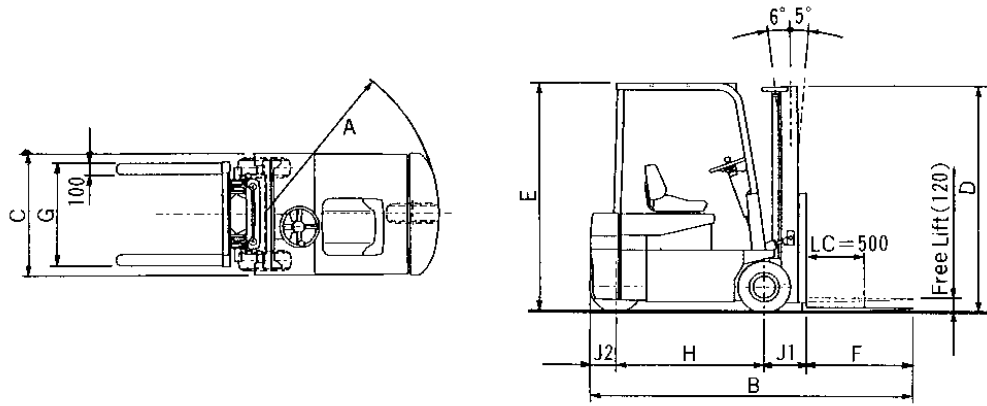


Fig.0-2 Position of serial numbers

0-3 SPECIFICATIONS

NOTE) Specifications are subject to change without notice.



Models		Unit	FBT10P-300	FBT13P-300	FBT15P-300	FBT18P-300	
Performance	Capacity	kg	1000	1250	1500	1750	
	Load Center	mm	500				
	Lift height	mm	3000				
	Free lift	mm	120				
	Lifting speed	Loaded	mm/s	325	315	305	285
		Unloaded	mm/s	475	475	465	455
	Mast tilt angle		Front 5° Rear 6°				
	Travel speed	Loaded	km/h	13	12.5	12	11.5
		Unloaded	km/h	15	14.5	14	13.5
	Min. turning radius	A mm	1340	1385	1480	1540	
Overall length	B mm	2470	2515	2765	2825		
Dimensions	Overall width	C mm	990		1070		
	Overall height (mast lowered)	D mm	1960				
	Overall height (OHG)	E mm	1985				
	Fork length	F mm	770		920		
	Fork adjustment (Min-Max)	G mm	200-900				
	Wheelbase	H mm	1180		1280		
	Under clearance	I mm	95				
	Overhang	Front	J1 mm	360		365	
		Rear	J2 mm	160	205	205	260
	Service weight	kg	2600	2810	2950	3270	
Tires	Types		Pneumatic				
	Front	PR	18 × 7-8-10	18 × 7-8-14			
	Rear	PR	18 × 7-8-19	18 × 7-8-14	18 × 7-8-14	18 × 7-8-16	
Type of control			FET Chopper				
Motor	For drive	KW	3.0 × 2				
	For hydraulic	KW	7.7				
	For power steering	KW	0.47				
Battery	Voltage	V	48				
	Capacity	Ah/SHR	280	320	350	390	
	Option	Ah/SHR	320 350	350 370	390 415	515 555	

0-4 STABILITY OF TRUCKS AND LOAD CHART

1. Stability of truck

When rated capacity is exceeded, the rear wheel can come off the ground and the truck may tip over. The longer the load center (distance from the shank face of the forks to the center of gravity of the load) is, the smaller the rated capacity of the truck becomes, because it is equivalent to handling a heavier load.

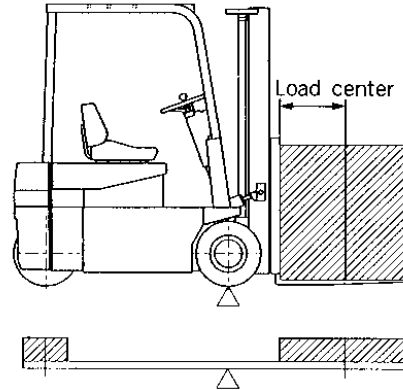


Fig.0-3 Load and stability of truck

2. Load chart

Distance from the shank face of the forks to the center of gravity of the load is called LOAD CENTER. Load charts show the capacity which the truck can handle for the load with longer load center. The forks should be lifted by 15-20cm from the ground and the mast should be tilted fully backward, when traveling with a load.

NOTE) The truck may tip over when traveling with a load tilted fully forward or lifted up.

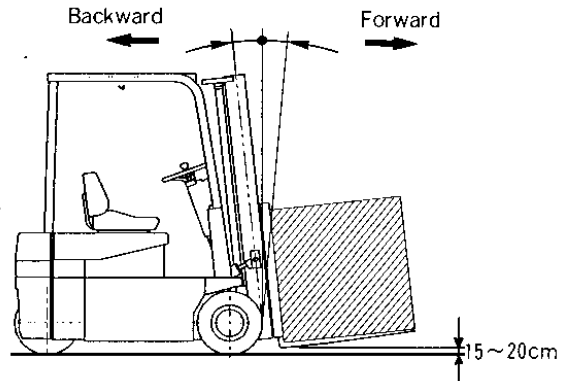
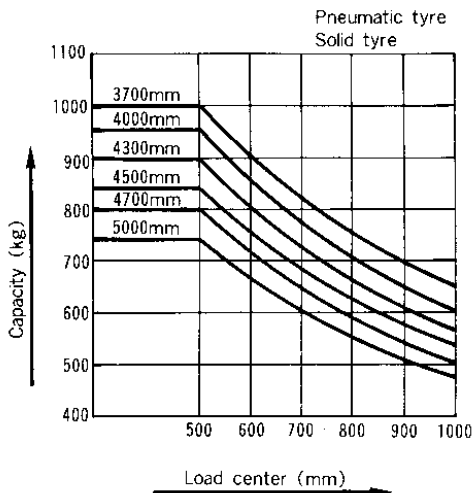


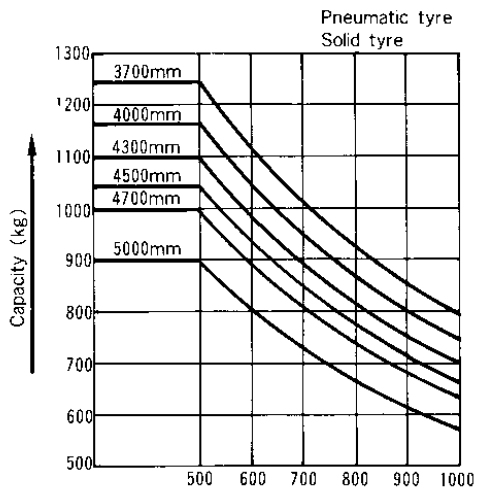
Fig.0-4 Traveling with load

CAPACITY CHART



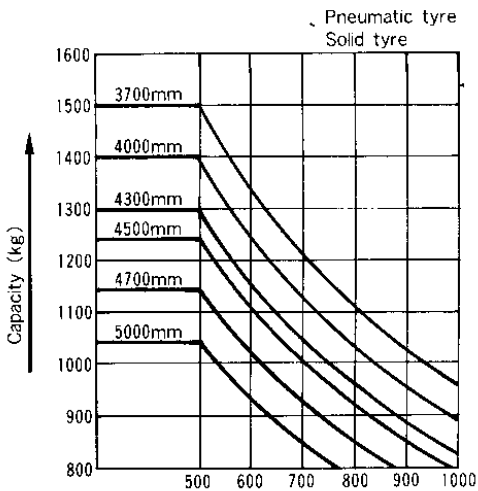
FBT10P

CAPACITY CHART



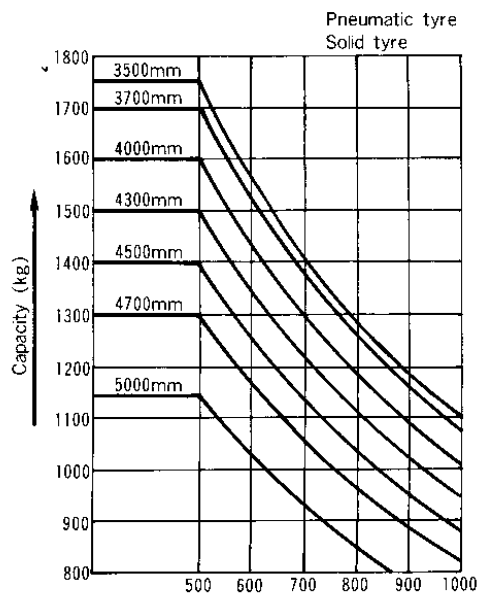
FBT13P

CAPACITY CHART



FBT15P

CAPACITY CHART



FBT18P

0-5 BEFORE STARTING TO WORK

1. Safety work

- (a) When hoisting a truck or a heavy component, use ropes or cable with correct capacity.
- (b) Do not use ropes or cables which are kinked.
- (c) After lifting or jacking up a truck, support it with safety blocks or rigid stands. Prevent tyres from moving, with wedged blocks etc..
- (d) When working under a truck, use a pit or proper safety precautions.

2. Tools and gauges

- (a) Prepare tools, gauges (multimeter, megger meter, ampere meter, pressure gauge, torque wrench etc.) before starting to work.

3. Proper arrangement

- (a) Arrange and clean always a working place to work easily.
- (b) Arrange disassembled parts well.

4. Parts

- (a) When replacing any parts, be sure to use NICHYU genuine parts.
- (b) When replenishing battery electrolyte, be sure to use refined or distilled water.

5. Repairing electrics

- (a) When repairing electrics, be sure to disconnect the battery.
- (b) When trouble shooting with the battery connected, be sure to jack up the drive wheels.
- (c) When disconnecting the lead wires, note the marks and connecting points.

6. Repairing hydraulics

- (a) When removing the hydraulics pipes, cap them with clean rags to prevent dust from entering into the hydraulic components and pipes.
- (b) When disassembling and assembling the hydraulic components, work at clean place and do not damage the parts.

7. Inspection and maintenance

- (a) Handle the truck and the parts carefully.
- (b) Use a flaw detector or color check to check cracks.

8. Tightening torque

- (a) Observe tightening torque specified in this manual. If not specified, refer to the table "Tightening torque for bolts".

**10. MOTOR ASS'Y
(DRIVE-HYDRAULIC-POWER STEERING)**

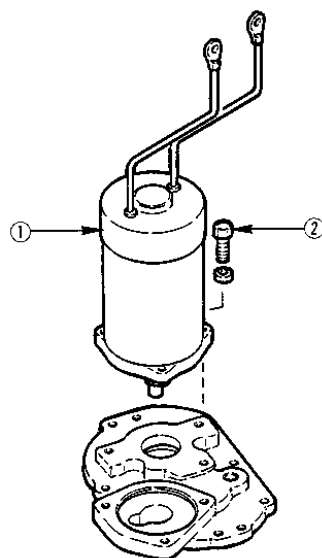
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(NOTE) Before working, be sure to disconnect the battery plug.

10. MOTOR ASS'Y (DRIVE·HYDRAULIC·POWER STEERING)

10-1 REMOVING

1. Drive motor Ass'y
Refer "REMOVING DRIVE ASS'Y" (1-2 Item).
2. Hydraulic motor ass'y
Refer "REMOVING HYDRAULIC MOTOR ASS'Y" (7-3 Item.)
3. Power steering Motor ass'y
 - a) Remove the weight cover
 - b) Disconnect the lead wire from motor.
 - c) Remove the fitting bolts of the motor ass'y and remove the motor ass'y.



- ① Power steering motor
- ② Fitting bolts of the motor

Fig.10-1 Removing of the power steering motor