

WORK SHOP MANUAL

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60 SERIES

FBT 13P/15P/18P

NICHIYU
NIPPON YUSOKI CO.,LTD.
KYOTO, JAPAN

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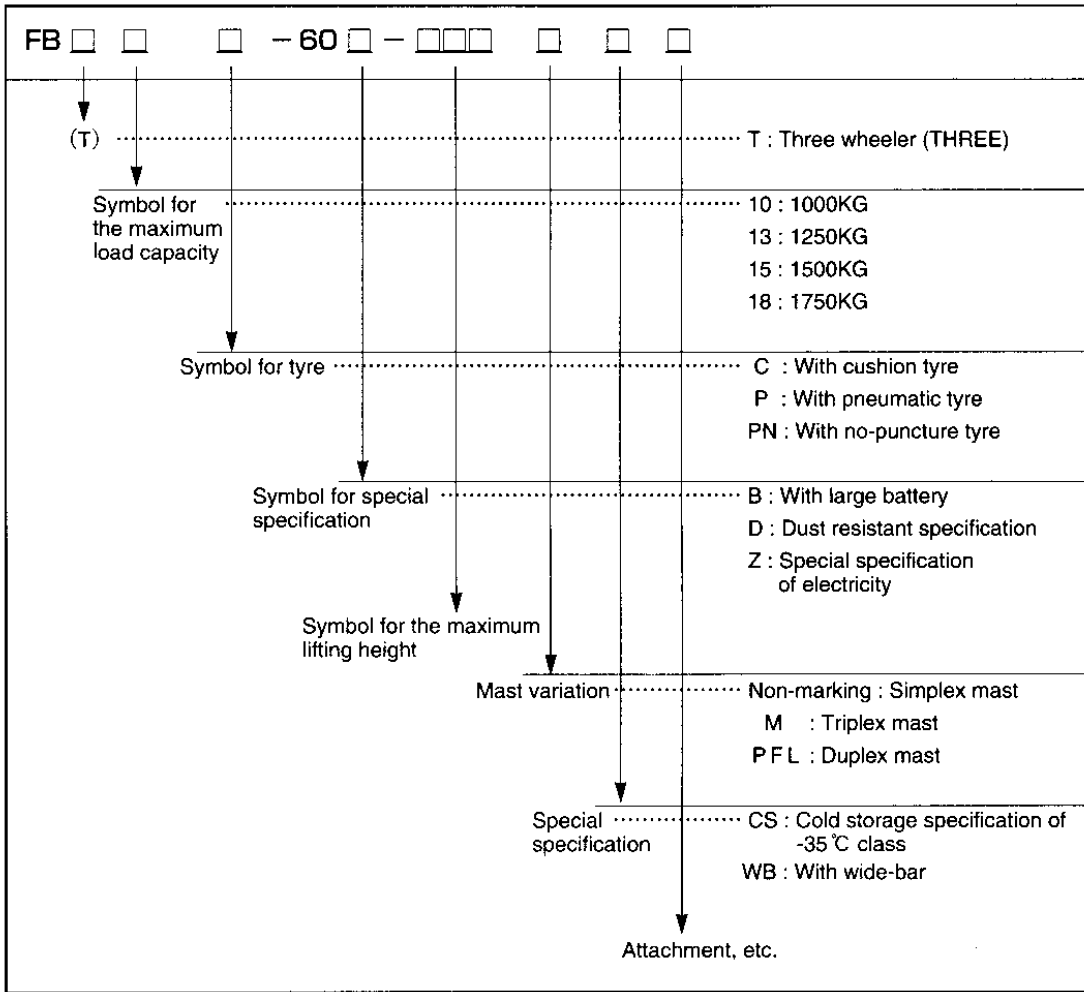
0 INTRODUCTION

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0 Introduction

0 - 1 Model coding system and name plate

1. Model coding system



2. Plate, name (Model & rating)

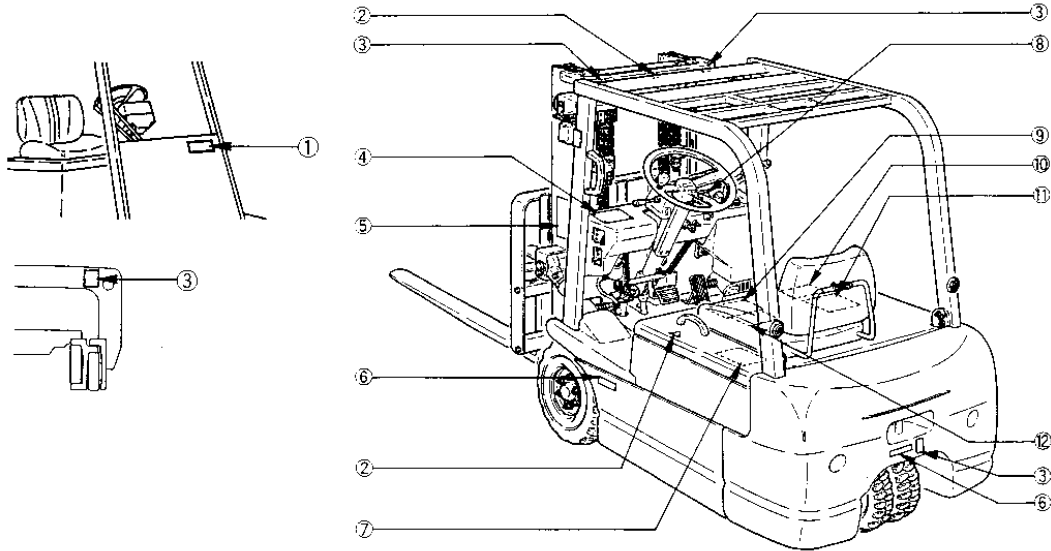


Fig. 0 - 1 Precaution for charging

① Plate, name (Model & rating) (For Std.)

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

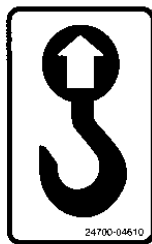
① Plate, name (Model & rating) (For CE)

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

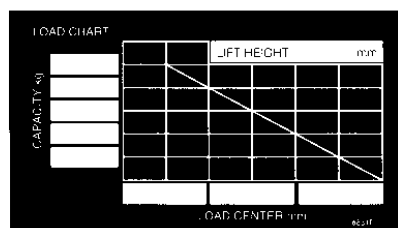
② Pinch warning



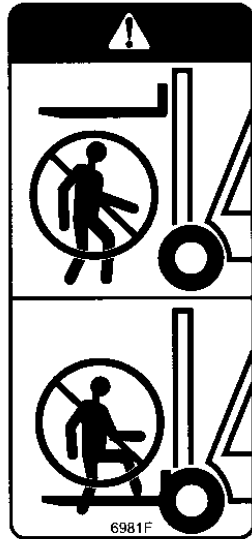
③ Hook applying position



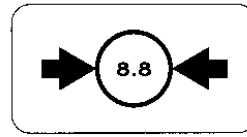
④ Load chart



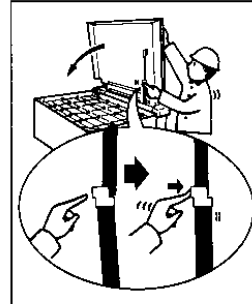
⑤ Warning not enter on and under forks



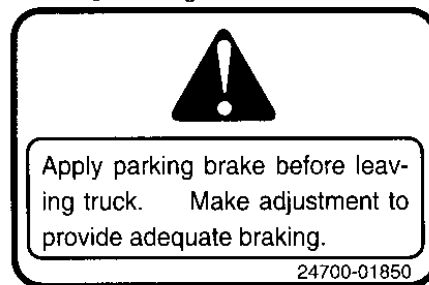
⑥ Air pressure



⑦ How to close battery cover



⑧ Parking brake instruction



⑨ Safety precaution for battery (For GS battery only)

	<p>DANGER</p> <ul style="list-style-type: none"> · GASES produced by this battery can be explosive. Cigarettes, flames or sparks could cause battery to explode. Make sure batteries are stored and charged in a well-ventilated area. · Batteries contain SULFURIC ACID can cause severe burns. Avoid contact with skin, eyes or clothing. In event of accident flush with water and call a physician immediately. · Wear rubber gloves to prevent ELECTRIC SHOCK during checking and maintaining. · Keep out of reach of children. <p style="text-align: center;">IMPORTANT POINT FOR MAINTENANCE</p> <ol style="list-style-type: none"> 1. Keep the electrolyte level at proper height. (When electrolyte decreased, fill purified water and stop filling immediately if confirmed the white line of the float as shown herein, for over-filling causes overflow.) 2. Always give the battery an adequate charge and do not use the battery at overdischarged condition. 3. Keep the surface of battery clean and dry. 	
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⑩ No riding



⑪ Safety precaution for operation

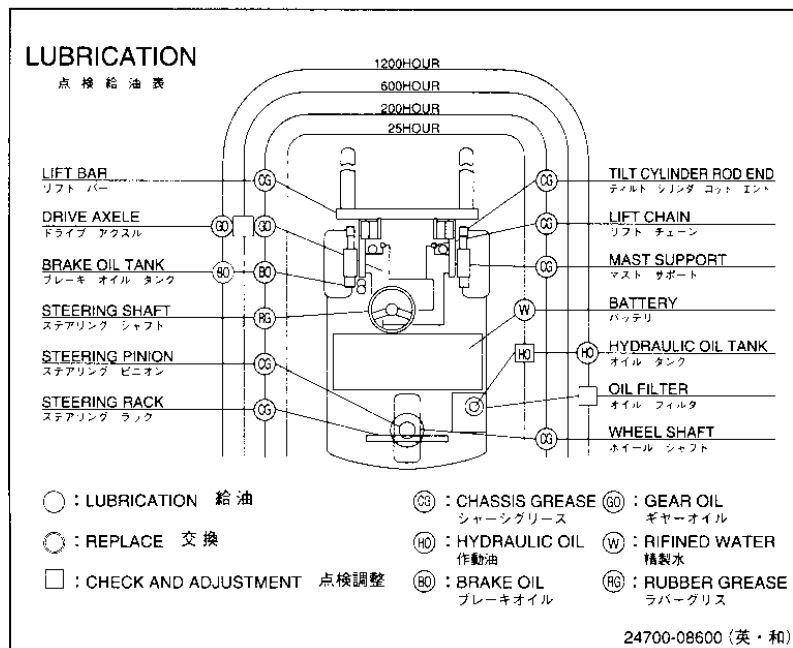
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PRECAUTIONS FOR SAFETY OPERATION

1. DO NOT OVERLOAD.
OBSERVE ALLOWABLE LOAD (BLUE ZONE).
2. PRIOR TO OPERATION, CHECK PERFORMANCE OF BRAKE.
3. DO NOT MAKE A SUDDEN START AND BRAKE OR TURN QUICKLY.
4. DO NOT MAKE A SUDDEN VALVE LEVER OPERATION AT A HIGH LIFT.
5. DO NOT RUN SIDEWAYS OR HANDLE ON AN INCLINE.
6. WHEN THE RED LAMP OF BATTERY CAPACITY INDICATOR TURNS ON, CHARGE BATTERY.
7. CHECK ELECTROLYTE EVERY WEEK AND REPLENISH WATER.
8. BE SURE TO USE THE PRESCRIBED FUSES.

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⑫ Lubrication chart



0 - 2 Location of serial and lot numbers

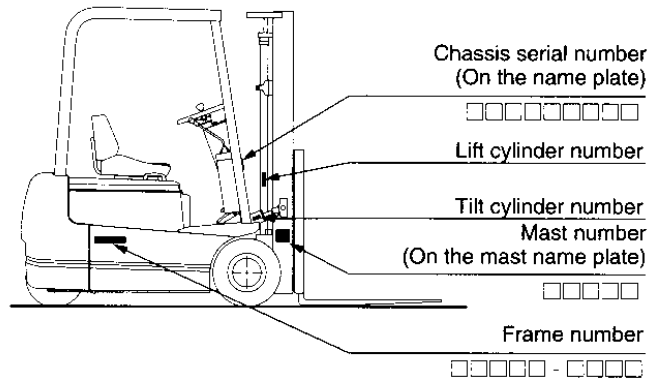


Fig. 0 - 2 Stamping point of numbers

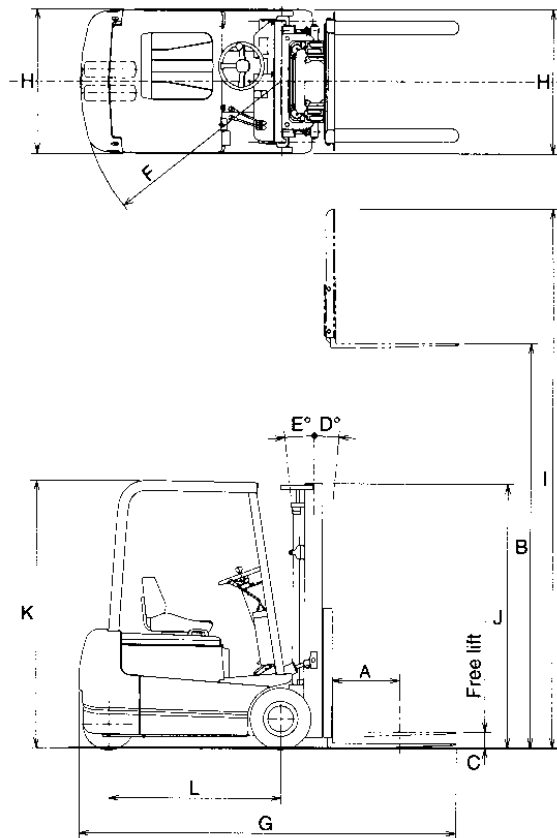


Fig. 0 - 3 Dimensions

Model			FBT10	FBT13	FBT15	FBT18
Maximum load capacity		kg	1000	1250	1500	1750
Load center		A mm	500			
Maximum lifting height		B mm	3000			
Free lift		C mm	120			
Lifting speed	Loaded	mm/s	325	315	305	285
	Unloaded	mm/s	475		465	455
Tilt angle	Forward	D °	5			
	Backward	E °	6			
Travel speed	Loaded	km/h	14	13.5	13	12.5
	Unloaded	km/h	16	15.5	15	14.5
Minimum turning radius		F mm	1395		1495	1550
Overall length		G mm	2540		2790	2845
Overall width		H mm	1070			
Overall height	Mast raised	I mm	4000			
	Mast lowered	J mm	1960			
	Overhead guard	K mm	1985			
Wheelbase		L mm	1180		1280	
Tread (Front / Rear)		mm	895/0		895/180	
Service weight		kg	2695	2800	2900	3170
Tyres	Front	Pneumatic	18 × 7 - 8 - 14PR × 2			18 × 7 - 8 - 16PR × 2
		No-puncture	18 × 7 - 8 × 2			
		Cushion	18 × 6 × 12 1/8 × 2			
	Rear	Pneumatic	18 × 7 - 8 - 14PR × 1	15 × 4 (1/2) - 8 - 12PR × 2	15 × 4 (1/2) - 8 × 2	
		No-puncture	18 × 7 - 8 × 1	5 × 4 (1/2) - 8 × 2	No-puncture	
		Cushion	18 × 6 × 12 1/8 × 1	—		
Control (traction / hydraulic)			FET Chopper			
Motor	Traction		3.5 × 2 (60min)			
	Hydraulic	kw	8.8 (5min)			
	Power steering		0.5 (60min)			
Battery (48V)		Ah/5HR	280	320	350	390
Charger			Automatic stationary charger			
		KVA	5.2		6.4	

These specifications are subject to change without notice.

0 - 4 Stability of forklift truck

1. Stability of truck

As shown in the figure, the counter-balanced forklift truck is balanced on its drive wheel with a full rated capacity load on the forks. Consequently, careful attention should be paid to the load center so that the truck is not unbalanced.

If a load weight exceed the rated capacity of the truck, the rear steering wheel will be lifted off the ground and the possibility of tipping over the truck exists.

If the load center is forward, it is the same thing to increase the load weight. Then the weight should have to be decreased.

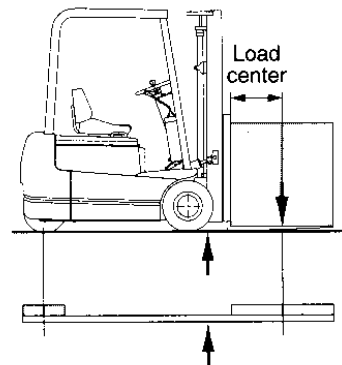


Fig. 0 - 4 Load and truck stability

2. Load center and load chart

Distance from the center of gravity of the load to the surface of the forks is called the load center.

The following capacity chart shows the relation between the load center and the load capacity.

When traveling the truck with loading, raise the forks 150 to 200 mm above the ground with tilting the mast backward fully. Do not lifting or tilting while traveling. This could cause the tip-over the truck by moving the center of gravity of the load.

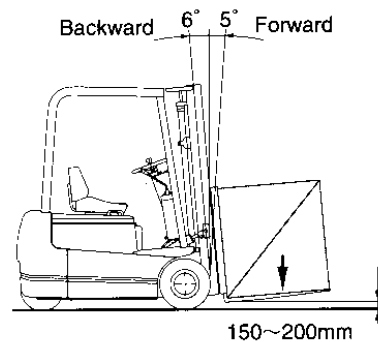


Fig. 0 - 5 Standard condition while traveling

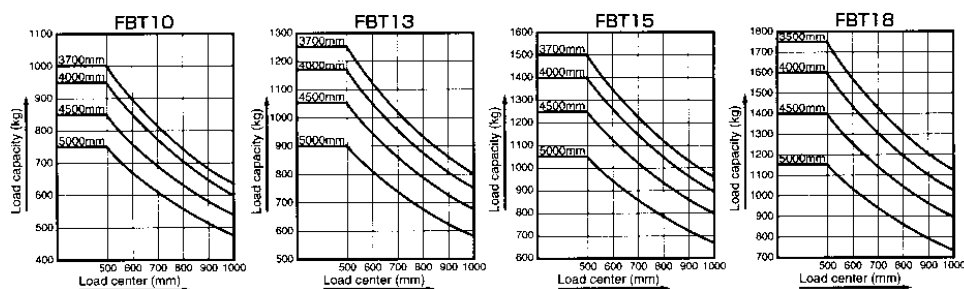


Fig. 0 - 6 Load chart