

**TCM**

**LADEN CONTAINER HANDLER**

**37-43ton**

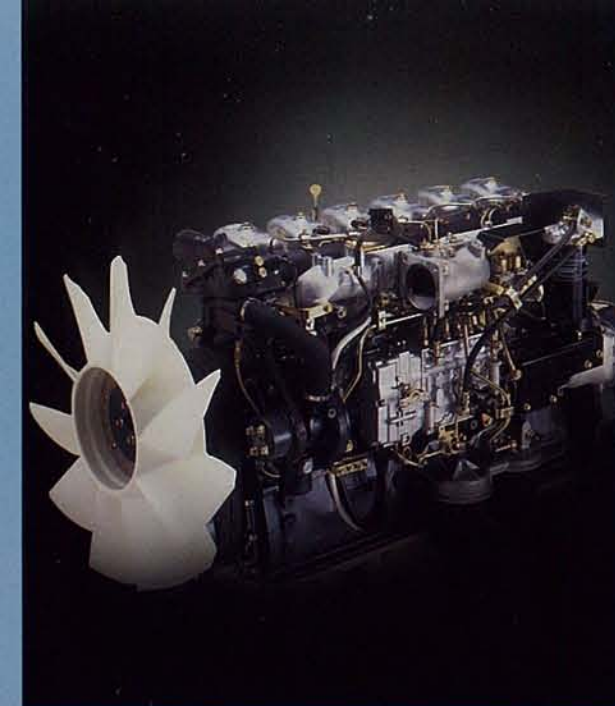
**FD370-2 FD430-2**



# Versatile Trucks, equipped with the new type of Spreader-being capable to stack up to five containers.

## Powerful and Driver Friendly Trucks

TCM has proudly launched its newly revamped heavy duty forklift trucks-model FD430 in response to the needs of ever enlarging container yards as well as heavy industries such as steel mills. "Operator Friendly Trucks"- an ideal pioneering model, mounted with the new engine in compliance with stringent emission controls and being capable of much faster lifting speeds.



### The New Engine clearing the 2nd stage worldwide emission controls

The new diesel engine with 243kW inter-cooler, the largest capacity in its class. Far sufficient and strong power to perform continuous harsh operations.

Total Displacement (cc)	<b>11940</b>
Rated Output (kw/rpm)	<b>243/2200</b>
(ps/rpm)	<b>330/2200</b>
Maximum Torque (N.m/rpm)	<b>1245/1500</b>
(kg.m/rpm)	<b>127/1500</b>



### Industry top-ranked lifting speed-FD430

Remarkably improved lifting speed  
260mm/s → 340mm/s\* (Without Load)  
200mm/s → 230mm/s\* (With Load)

\*Figures in comparison with TCM conventional models.

WORLDWIDE SERVICE

# "The Operator Friendly and Comfortable Cabin", designed through thoughtful and detailed analyses based on the past many years performance and experience.

## Wider Operator's Visibility achieves much safer operation

The elevated cabin for driver's higher eye position (4,850mm from the ground surface) ensures a wider view in handling 9'6" marine containers. What's more, it improves a rear view for safer driving.



Eye Point Height  
4850mm

Height of 9'6"  
Container  
2900mm

Trailer Chassis  
1300mm

## Convenient Lever Layout for easier operation

Compactly laid levers reduce operator fatigue. Moreover, it achieves ergonomically comfortable steering operation.



## Pillar-less Cabin & Compact Meter Panel Board

No front, rear and ceiling (TCM original) pillars in the cabin with compact meter panel board, ensures higher safety as well as wider visibility for the operators.



## Large-capacity Air-conditioner

Equipped with 4.7Kw (4000kcal/h)

## Industry Top Class Lower Noise

Noise at driver's ear-point (inside the cabin) **75dB(A)**



## Multi-Functional Deluxe Driver Seat

Reclining, forward and backward sliding, up and down adjustment, comfortable suspension seat with easily adjustable arm-rest as standard equipment.

# Dependable maneuverability as well as safer operation for superb performance even under very severe working conditions.



### Operation Levers with Hydraulic Automatic Control Valves

Soft finger touch operations for heavy duty cargo handling are now achieved by this hydraulic system.

- ① Lifting ② Tilting ③ Side shifter
- ④ Twist Lock ⑤ Indicator 20' container
- ⑥ Spreader telescopic operation switch (20' ⇄ 40')
- ⑦ Indicator 40' container



### 3-Speed Automatic Transmission with Two Stick Levers

It is feasible to be automatically selected from 1st to 3rd speed depending on the extent of operation, similar mechanism as passenger cars.



### One Touch Parking Brakes

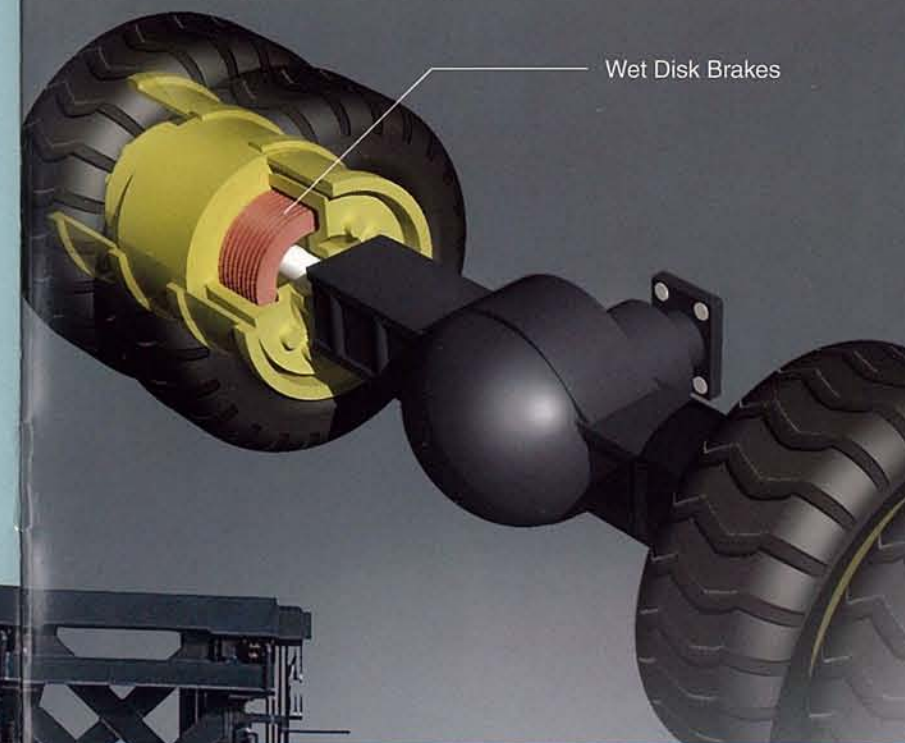
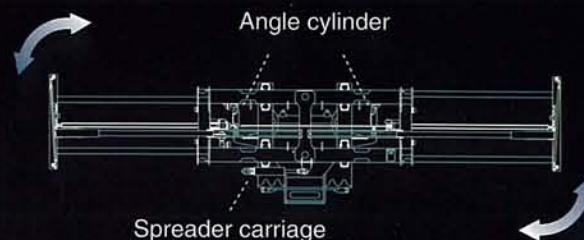
Equipped with the air pressure type spring brake, what's required for the operator is just to pull back the air valve when parking. In case of insufficient air pressure, the brake is automatically locked on.

### New type Inter-lock Safety System

Hoist and twist interlocking system to prevent falling the container by mishandling the spreader. Moreover, a new sounding and visual warning device for excessive cargo lifting and tilting.

### New Spreader Angle System

TCM original spreader angle system. The safe container position is always kept in enough allowance between the spreader and the cabin for safer and efficient container handling.



### Dependable Wet-Disk Brakes

Just-on-time stopping as well as efficient functioning by the new type brakes largely contribute to longer life of brake-linings, no abrasive dust and accurate stoppage on the wet surface grounds. Moreover, this achieves lower maintenance costs as well.



### Easier Tuning and Inspection

The fully opening top and side panels facilitates easy inspection and maintenance. In addition, integrated grease supply inlet, air-cleaner attached to bonnet, battery cover plate are conveniently equipped.



### Heavy-Duty FD430 Forklift Truck (Optional)



Amazing powerful forklift truck (243kW power) efficiently conducts very severe cargo handling such as heavy steel products.



- TCM retains the right to change these products and specifications without incurring any obligation relating to such changes.
- These products and specifications are subject to change without notice.
- Photos and illustrations may or may not include optional equipment and accessories.

Manufactured by

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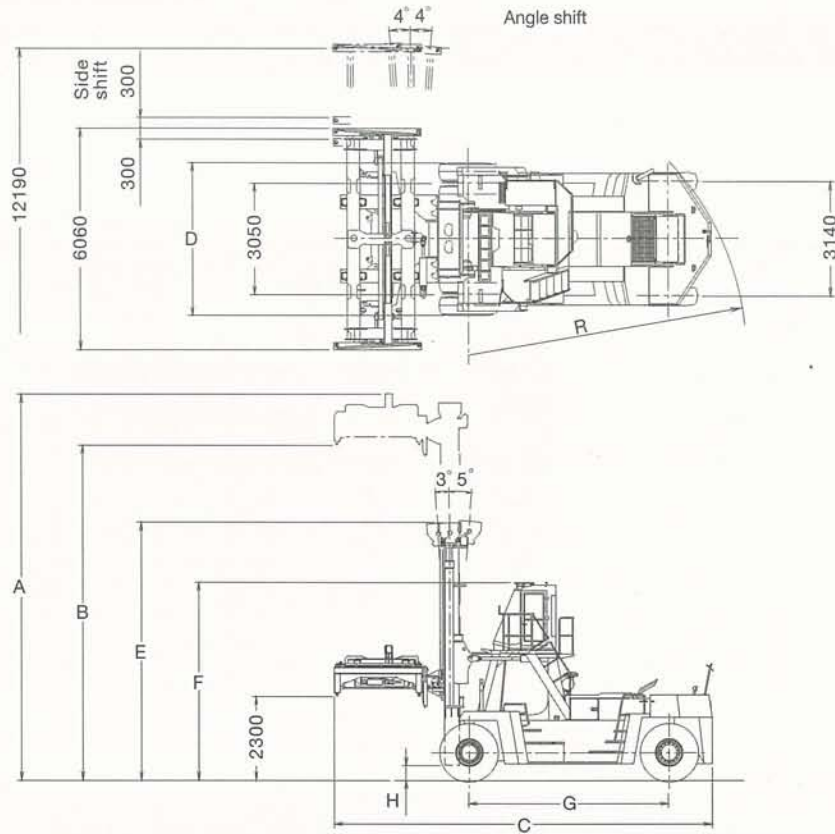
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Standard specifications							
Model: Top-lifter/Telescopic spreader			FD370-2		FD430-2		
Number of stacking-high( inc. 9'6" )			3STACK		3STACK	4STACK	5STACK
<b>■ Performance</b>							
Load capacity	kg(lbs)		32000(70500)	35000(77200)	30500(67200)	18000(39700)	
Load center	: spreader	mm(in)	under spreader		under spreader		
Max. spreader height	: upper surface	mm(in)	A	11050(435)	11050(435)	13500(531)	16800(661)
Max. lifting height	: under spreader	mm	B	2300~9550	2300~9550	2300~12000	2300~15300
		in		227~376	227~376	227~472	227~602
Lifting speed	: with load	mm/s(fpm)		240(47.2)		230(45.3)	
	: without load	mm/s(fpm)		340(66.9)		340(66.9)	
Lowering speed	: with load	mm/s(fpm)		560~600(110~118)		560~600(110~118)	
	: without load	mm/s(fpm)		400(78.7)		400(78.7)	
Mast tilt angle	: forward/backward	deg		3/5		3/5	
Max. Travel speed (with load)	: forward	km/h(mph)		22(13.6)		21(13.0)	
	: reverse	km/h(mph)		22(13.6)		21(13.0)	
Max. Travel speed (without load)	: forward	km/h(mph)		30(18.6)		30(18.6)	
	: reverse	km/h(mph)		30(18.6)		30(18.6)	
Side-Shift range	: each	mm(in)		300(11.8)		300(11.8)	
Angle-shift	: each	deg		4		4	
Turning radius (outside)		mm(in)	R	6900(272)		7950(313)	
Gradeability	: with load(1.6km/h)	%		18	17	17	16
<b>■ Dimensions &amp; Weight</b>							
Overall length	: with spreader	mm(in)	C	9700(382)		10400(409)	
Overall width		mm(in)	D	4200(165)		4200(165)	
Overall height	: mast	mm(in)	E	7100(280)	7100(280)	8320(328)	9970(393)
	: steel cabin	mm(in)	F	5435(214)		5435(214)	
Wheelbase		mm(in)	G	4800(189)		5500(217)	
Min. ground clearance(mast)		mm(in)	H	400(15.7)		400(15.7)	
Service weight		kg		61700	62800	65500	69100
		Lbs		136000	138000	144000	152000
<b>■ Engine &amp; Transmission</b>							
Internal combustion engine	: model			MITSUBISHI 6D24T with turbo-charger/inter-cooler			
	: piston displacement	lit.(in <sup>3</sup> )		11.94(728.6)/6cyl			
	: rated output / r.p.m.			243kw(330ps)/2200r.p.m.			
				SAE GROSS 257Kw(345HP)/2200r.p.m.			
	: maximum torque / r.p.m.	kg · m/rpm		127/1400			
	: generator output			24V 90Amp			
	: starting battery			2 x 12v- 120Ah			
: fuel tank capacity	lit.(gal.)		450(119)				
Transmission	: type			Automatic power-shift transmission Y88750X			
	: number of speed			3 - 3(Fwd / Rvs)			
<b>■ Tire &amp; Brake</b>							
Type of tire	: front/rear			Pneumatic			
Tire size / number	: front			18.00-25-36PR / 4			
	: rear			18.00-25-36PR / 2			
Brake	: service(front braking)			Air-over-hydraulic / built in axle, multiple wet disc brake			
	: parking			Propeller-shaft braked mechanical / duo-surbo type			
Steering system				Full hydrostatic power steering			

## Dimensions



mm

## STANDARD EQUIPMENT AND ACCESSORIES

### [Equipment]

- Adjustable deluxe suspension seat with seat belt
- Air-dryer for brake line
- Automatic 3-speed powershift transmission
- Cartridge type air, fuel, engine oil, converter oil and hydraulic filters
- CFC free air-conditioner
- Cyclopack type double element air cleaner
- Cylinder type bonnet stay with locking function
- Drawbar device
- Electrically-controlled parking brake
- Engine after glow system
- Engine auto glow system
- Engine oil dipstick
- Front dual drive wheels
- Full hydrostatic power steering
- High mounted cabin with air-conditioner
- Hydraulic oil gauge (view level)
- Load check valve
- MITSUBISHI diesel engine with turbo-charger
- Overhead exhaust system
- Pneumatic tires
- Tilt adjustable steering post
- Tilt lock valve
- Torque converter oil dipstick
- Wide view 2-stage mast

### [Accessories]

- Back-up buzzer
- Electric horn
- Head lights
- Operator tool kit
- Rear combination lights (turn signal, tail, stop, back-up and side lights)
- Rear reflectors
- Rear under-view mirror
- Room mirror
- Seat adjust lever
- Side view mirrors
- Turn signal lights (front)
- Working lights (front, rear)

### [Switch & Controls]

- Automatic transmission mode select switch (power mode / economy mode)
- Electrically-controlled direction change lever (inc. Neutral safety lock device)
- Electrically-controlled parking brake switch
- Lift lever
- Light switch
- Preheater switch (inc. starter, main switch)
- Speed change hold switch (1st fixed / 2nd fixed / Automatic speed shift)
- Tilt lever
- Turn signal lever

### [Instruments]

- Air cleaner clogging warning indicator
- Brake air pressure meter
- Brake air pressure warning indicator
- Brake oil level warning indicator
- Charge indicator
- Converter oil level warning indicator
- Converter oil temperature warning indicator
- Engine oil pressure warning indicator (inc. engine oil filter clogging warning)
- Engine water temperature meter
- Fuel meter
- Hourmeter
- Parking brake indicator
- Speedometer
- Turn signal indicator

## OPTIONAL EQUIPMENT AND ACCESSORIES

### [Equipment]

- Alternative fork length
- Alternative mast height
- Central greasing system
- Exhaust purifying muffler

- Front 6 wheel drive system
- Middle profile mounted cabin
- Overhead guard type cab.

### [Accessories]

- Custom paint-works
- Fire extinguisher
- Rotating warning light(Beacon)

Other on request