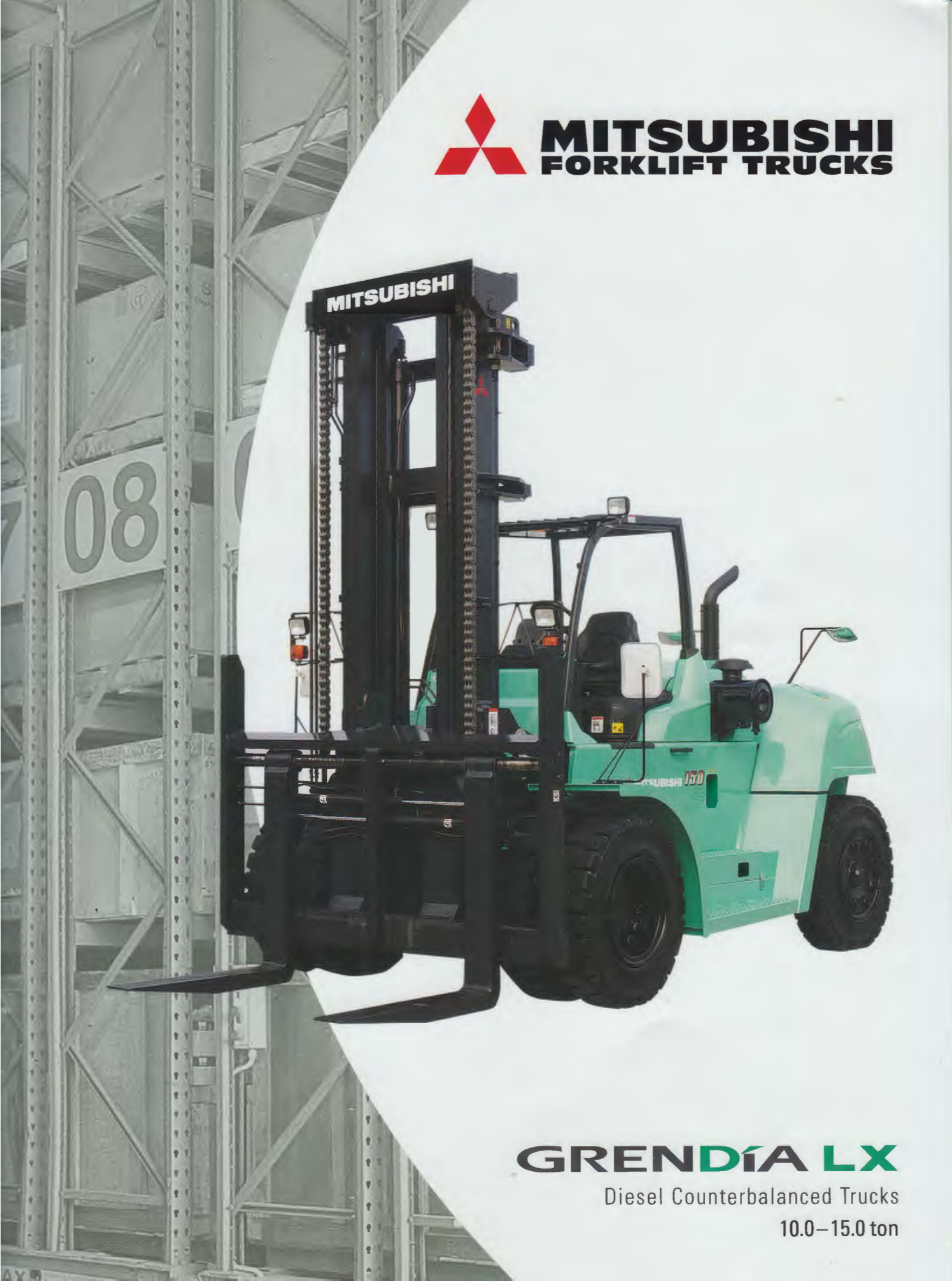
MITSUBISHI
FORKLIFT TRUCKS



GRENDIA LX

Diesel Counterbalanced Trucks

10.0–15.0 ton

TECHNOLOGY WITH THE POWER TO DELIVER

Mitsubishi

GRENDIA LX

FD 100-150AN Series Forklift Trucks

FD150ANM1

* *Picture above is for illustration purpose only. Please contact your local dealers for more information.*

Available in capacities from 10 to 15 tons, heavy duty diesel counterbalanced Mitsubishi forklift trucks are as strong as they are reliable and built to deliver high performance in every kind of environment.

The four model range matches modern design with proven and tested technology, excellent engineering with local back-up, to optimise your productivity.

Driver friendly, they also offer smooth lifting, excellent all-round visibility and high levels of driver comfort.

SAFETY FIRST

INTEGRATED PRESENCE SYSTEM – "IPS"

IPS
INTEGRATED PRESENCE SYSTEM

Grendia LX is fitted with Mitsubishi's IPS, an integrated active safety system designed to improve vehicle safety by actively detect problems, hence eliminate accidents. It does not only ensures safety during vehicle operation but also prevents errors when the operator is not seated, protecting both the operator and the workplace from potential accidents.

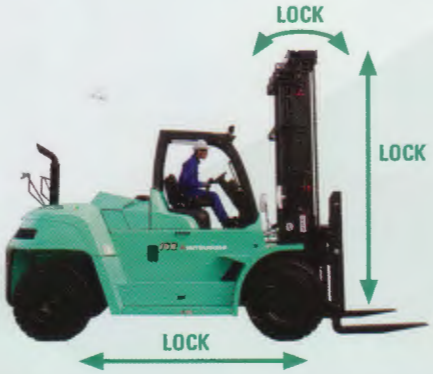
HYDRAULIC AND TRAVEL INTERLOCK

Grendia LX forklift trucks are equipped with hydraulic and travel interlock protection device that is linked to the operator's seat. If the operator is not seated, the hydraulic and the movement of the vehicle itself, are automatically deactivated in order to prevent injury or damage to property.

- Note that brakes are not applied in travel interlocking, so trucks can still move on slopes due to gravity.

LIFT LOCK

The forks on the Mitsubishi Grendia LX are automatically locked when the ignition is switched off, so they remain in position even if the lift lever is accidentally bumped or moved.



PARKING BRAKE ALARM

Buzzer will sound off if parking lever is not engaged when key switch is off. Human tends to forget things and applying the parking brake is probably one of them. That is why the Grendia LX is equipped with an audible alarm that hums off to remind operators if the parking brake lever is not pulled.

OPERATOR SENSING SEAT WITH SEATBELT

The Grendia LX seat is not just comfortable with ample cushioning and suspension, but also equipped with an operator sensing device to constantly detect the operator. In the case that the operator is not detected, the hydraulic and travel interlock will activate to prevent accidents. The seat is also equipped with a seat belt that triggers a warning lamp whenever it is not fastened.

WIDE HIGH-GRIP STEPS

Ample foot space and grip to ensure operator does not slip. Not only are the side steps designed to be wide enough for standing comfortably, the step heights are also aligned ergonomically so that operators can walk up without the need to overstretch their legs. The anti-slip design grips the operator firmly with every step taken. This ensures that operators are kept safe both before and after the truck operation.

PERFORMANCE, RELIABILITY & COMFORT

EASY OPERATION. DRIVER COMFORT

These heavyweight trucks deliver all the productivity and reliability you would expect from a Mitsubishi forklift trucks – in a rugged, extremely powerful package. And although they are tough in action, they are gentle on the driver and the environment. Low noise, effortless hydraulic control and refined ergonomics make driving pleasure, while emissions have been minimised to meet the strict European exhaust emissions regulations.

Overhead guard

VISIBILITY WITH STRENGTH

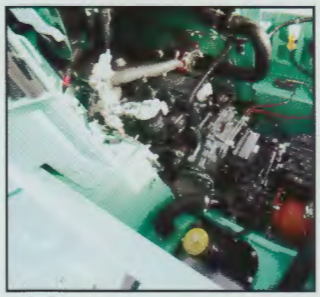
Visibility is one of the important factors that affects performance. Operators who cannot see the loads clearly tend to operate slower and also are more prone to accidents. Usually, the strength of the mast, carriage and overhead guard might be compromised as slimmer or a smaller design is used to increase the visibility.

At Mitsubishi forklift trucks, the mast, carriage and overheard guard are designed with Finite Element Analysis (FEA) computer program which helps design engineers to stretch the components as slim as it can be but at the same time, maintain minimum stress points. When a component is experiencing as little stress as it can be, it will be able to withstand much heavier load and impacts without failing.

PERFORMANCE AND RELIABILITY

Performance and reliability is what every machinery should have and the Grendia LX is designed just as such. Using the reliable and robust 6D16 engine assisted with a turbo charger, the truck can reach a top speed of 30km/hr. Its automatic 3 gears shift design ensures that the truck always starts off at the 1st gear with high torque and finishes at the 3rd gear with good power and speed.

To control such great power and momentum, the brake application is vacuum assisted so that operator can easily slow down or stop the truck. Steering is done effortlessly through a full hydrostatic steering design where operator can easily steer tight corners even in a stationary position.



Engine

Robust rear axle

COMFORT

It is important to always keep the operator comfortable so that the work does not get hindered. Grendia LX starts off by having a quick release steering column for easy entry and exit. The seat is well cushioned, and the contoured back support allows the operator to sit nicely in place.

Adjustable features allow operator to move the seat into the most suited position for easy operation. The digital meter panel is placed right behind the steering wheel so that operator may see it without straining the neck or body. The display extracts feedback data and cleverly shows useful information like truck speed, and time as what the operator desires.

Adjustable steering column

Hydraulic levers

Full-suspension seat

SERVICEABILITY

EASY MAINTENANCE

Maintenance is the key factor to keeping your forklift trucks reliable and problem free. And having a truck that is easy to maintain and upkeep should be one of the considerations. Mitsubishi forklift trucks have designed the Grendia LX with easy maintenance constantly in our mind.

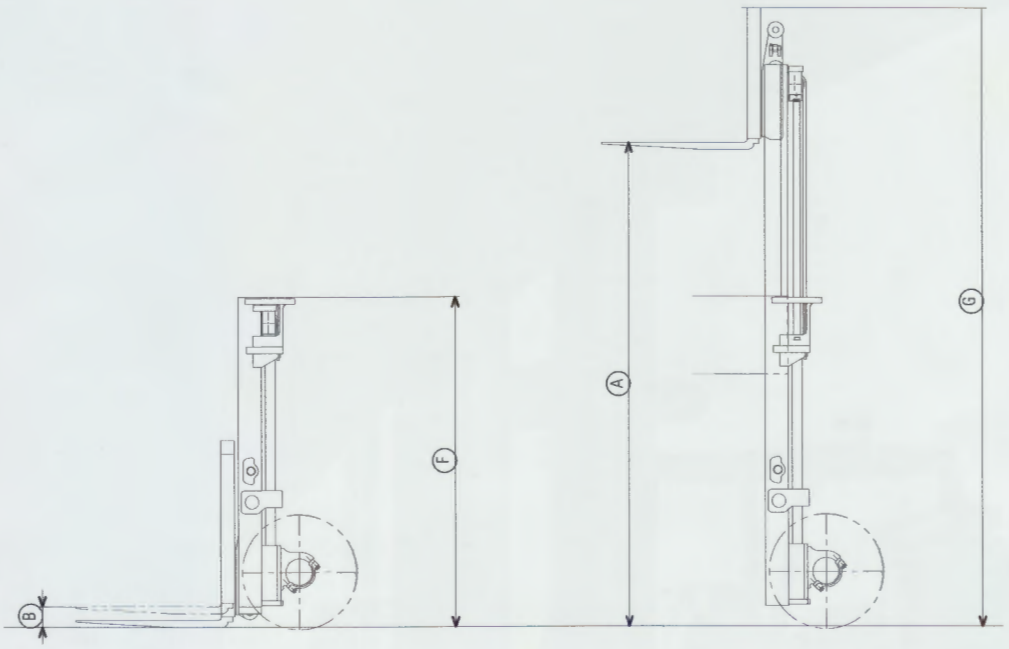
Firstly, the daily checks are simple enough. Dipsticks and oil level gauges are located in easy to reach locations and operators can readily lift up the engine cover without the need of tools. For greater access, the side covers, radiator cover and floor plates can be easily removed to reveal a spacious and unrestricted area. Any periodic servicing or repairs can be completed in a shorter amount of time.

The truck is also equipped with a control module that intelligently monitors the truck conditions. Under abnormal situation, it will trigger an error to inform operator so that minor repairs can be carried out before a major failure. We all know that major failures take both time and money to repair. That is why we designed our system to prevent such situations. Time equals to money and with Mitsubishi trucks in hand, you know you save both!

Engine

SPECIFICATIONS

Characteristics									
1	Type of Truck					DIESEL ENGINE TRUCK			
2	Model					FD100NM1	FD120NM1	FD135NM1	FD150ANM1
3	Loading Capacity			kg		10000	12000	13500	15000
4	Load Center			mm		600			
Performance									
5	Maximum Fork Height			mm	A	3000	3000	3000	3000
6	Free Fork Height			mm	B	72	79	88	88
7	Speeds	Lifting	Loaded	mm/s		460	390	340	330
			Unloaded	mm/s		500	500	420	420
		Lowering	Loaded	mm/s		460	460	480	480
			Unloaded	mm/s		500	500	420	420
8	Tilt	Mast	Forward	deg		15	15	15	15
			Backward	deg		12	12	12	12
9	Speeds	Traveling	Loaded	km/h		24.5	22.5	21	19.5
			Unloaded	km/h		30	29.5	30	29.5
10	Maximum Drawbar Pull	stationary on slope	Loaded	kN		106	106	96	96
	Drawbar Pull	at 1.6km/h	Loaded	kN		73	73	67	67
11	Maximum Gradeability	stationary on slope	Loaded	%		42.1	42.3	33.2	31
	Gradeability	at 1.6km/h	Loaded	%		31.9	27.7	22.8	21.3
12	Turning Radius			mm	C	4000	4060	4160	4550
13	Practical Intersecting Aisle Width			mm		3510	3545	3645	3825
Dimensions									
14	Overall Length to Fork Face			mm	D	4310	4390	4535	4840
15	Width	with Standard Tires		mm	E	2515	2515	2605	2605
16	Height	with Lowered Mast		mm	F	3087	3087	3330	3330
		with Extended Mast (with backrest)		mm	G	4486	4486	4927	4927
		to top of Overhead Guard		mm	H	3015	3020	3060	3060
17	Forks (Thickness x Width x Length)			mm		72x180x1220	79x180x1220	88x180x1220	88x180x1220
18	Forks Spread (Out-to-Out Minimum / Maximum)			mm		475-2010	475-2010	475-2010	475-2260
19	Front Overhang (Centre of Front Axle to Fork Face)			mm	K	770	780	800	805
20	Wheelbase			mm	L	2800	2800	2800	3100
21	Tread Width	Front, Standard Tires		mm	M	1900	1900	1905	1905
		Rear, Tires		mm	N	1965	1965	1925	1925
22	Ground Clearance	at Lowest point mast		mm		260	260	305	300
		at Center of Wheelbase		mm		310	310	355	355
23	Tire Size	Front		mm		10.00-20-14FR	10.00-20-16FR	12.00-20-18PR	12.00-20-18PR
		Rear		mm		10.00-20-14FR	10.00-20-16FR	12.00-20-18PR	12.00-20-18PR
Weight									
24	Machine Weight			kg		14550	15800	17430	17960
Brake									
25	Service Brake Type					Air Hydraulic Composite			
26	Parking Brake Type					Mechanical			
Power Train									
27	Engine	Model				6D16-TL			
		Max. Rated Power/rpm to DIN70020		kW/rpm		100/2200			
		Max. Rated Torque/rpm to DIN70020		Nm/rpm		490/1200			
		Displacement		cc		7550			
		Fuel Tank Capacity		L		180	180	180	220
28	Transmission	Type				Powershift			
		Forward				3 speed			
		Backward				3 speed			
29	Relief of Pressure	For Attachments		Mpa		20.6			


A
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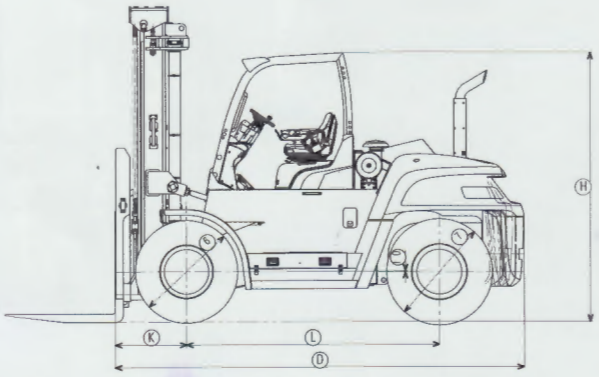
F
G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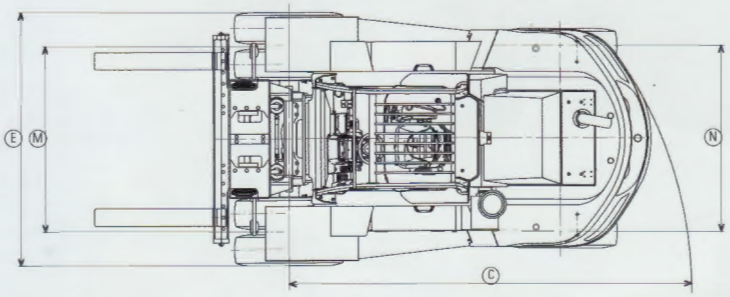
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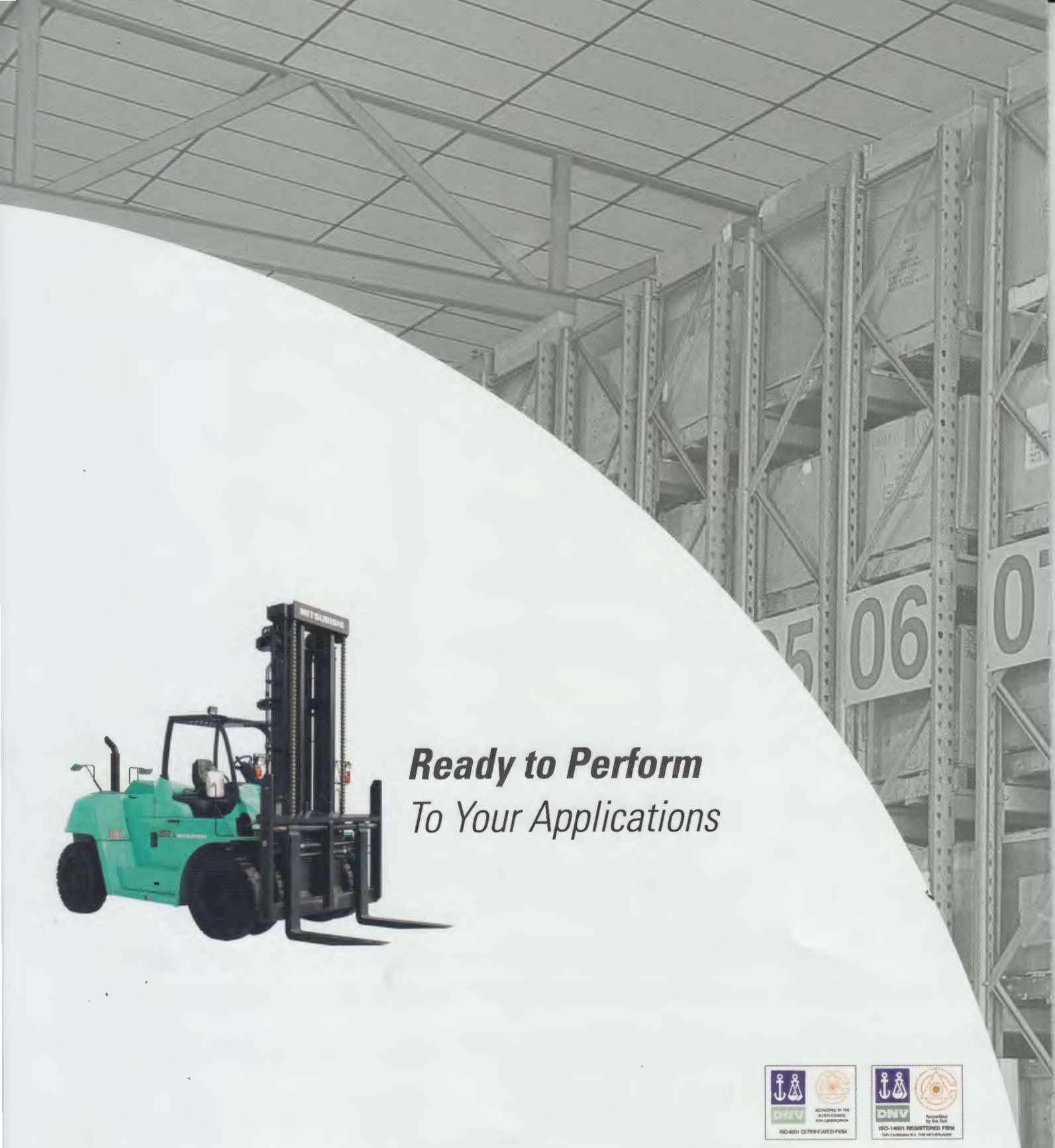

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To Your Applications

MITSUBISHI FORKLIFT TRUCKS

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FMIT0125 (02/14)

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