HD HYUNDAI XITESOLUTION

25/30 35DE-7U

Internal Combustion Diesel Engine Forklift Truck

35DE-7U

Low fuel consumption as well as outstanding comfort and durability!

Experience the excellent cost-effectiveness unique to the 35DE-7U series.

PRODUCT FEATURES
OVERVIEW

■ Optimization of torque ratio & final reduction

6.7%

Higher fuel efficiency than 30DE-7

PERFORMANCE UP

- TCO saving - Fuel efficiency increased by 6.7% compared with 30DE-7
- Semi-permanent wet disc brake with excellent credibility
- Application of large-capacity aluminum radiator - Satisfaction of heavy-duty application
- T/M & Drive axle designed considering the environment for heavy-duty work
- Fully hydraulic steering system characterized by easy operation and agile, precise response

SAFETY UP

- LED working lamp guaranteeing clear field of vision during operation indoors and at night
- Operator Position Sensing System (OPSS) – Limiting driving, lifting, and tilting **Option**
- Ensuring a wide rear field of view – Panorama, RH and LH side mirrors applied by default
- Fork safety feature – Maintaining safety in case of rupture of mast hydraulic line during operation
- Rear grip bar & horn guaranteeing convenience and safety of driving during backward movement **Option**

25/30 35DE-7U

■ Application of slope-type engine mounting & detachable T/M & D/A

50%

Reduction of vibrations by 50% compared to 30DE-7

CONVENIENCE UP

- Slope-type engine mounting + detachable T/M & D/A - Formation of low-vibration driving environment
- Cockpit design by applying ergonomic design providing consistent comfort
- MCV lever with deck-mounted structure to minimize movement of the driver's arms
- Hood insulation reducing noise and heat introduced into the cockpit
- Grammer full-suspension deluxe seat including cushion-height adjustment function **Option**
- Standard tilt cylinder cover for keeping the leg room clean, preventing the inflow of dust into the cockpit during cabin mounting
- Polyurethane floor mat reducing vibration and noise to the operator

SERVICE UP

- Application of detachable T/M and D/A - Reduction of follow-up management time and costs compared to the transaxle type
- Side cover and floor plate with tool-less structure to reduce operating hours
- Mission controller and filter mounted on top of transmission
- Plastic sub-bonnet configuration exclusive for radiator maintenance
- Fuse box in automobile style arranged on the front of the dashboard considering the frequent maintenance jobs
- Configuring the rear cover by default for preventing the inflow of foreign substances into the bottom of the engine radiator

ENVIRONMENT FRIENDLY
GREAT PRODUCTIVITY, DURABILITY

PERFORMANCE UP

Durability in addition to economically efficient fuel efficiency!

Experience the outstanding cost performance of **30DE-7U**

Engine with credibility and economic efficiency proven in the market

Mitsubishi S4S-455 Engine is the main engine adopted by many forklift manufacturers leading the forklift market thanks to proven credibility, economic efficiency, and serviceability, with 300,000 sets sold in a year. It also satisfies the EU stage 3A emission regulations.

	Mitsubishi S4S-455 engine
Rated output (kW/rpm)	35.3/2,250
Maximum torque (kg-m/rpm)	18.0/1,700
Displacement (cc)	3,331

Transmission with excellent durability and environmental adaptability

A high-capacity clutch pack and a torque converter with excellent torque conversion efficiency are applied to the forward/reverse 1-speed power shift-type transmission for heavy-duty work with frequent push mode and for successful driving on poor roads. The noise level is also reduced with the application of all grinding gear.

Enhanced fuel efficiency - Reduced TCO

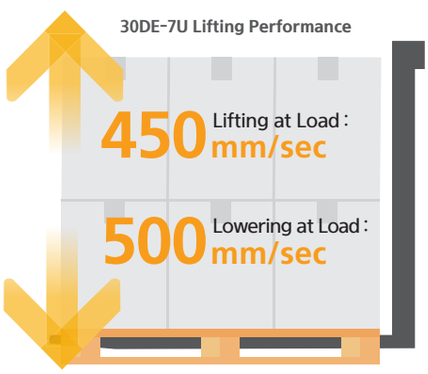
The applied new T/M and drive axle for optimum torque ratio and final reduction of the torque converter improved starting acceleration and maximum driving speed. As a result, fuel efficiency is improved by 6.7% compared to the 30DE-7 series, which is the equivalent transaxle-type forklift of the Company (VDI 2198 old version).

Fuel efficiency
(Diesel model only)

6.7%

Optimized mast working speed

The highest level of mast workability is shown in the same class by combining design characteristics such as load sensing function of the optimized priority valve, highest maximum torque of the engine, and low and stable center of gravity of the body.



Drive axle & wet disc brake

Main components such as shaft and hub manufactured by the forging method are applied to the drive axle in order to show excellent durability in a heavy-duty environment, too. The applied semi-permanent wet disc brake boasts of high credibility and low follow-up maintenance cost compared to the dry disk-type brake.

Heat radiation performance - Enhanced credibility of power train

An aluminum radiator with excellent durability and heat radiation performance and a cooling fan consisting of 7 blades to reduce engine noise and increase airflow are applied in order to guarantee the perfect radiation performance of the engine and transmission.

Fully hydraulic power steering

Fully hydraulic power steering without mechanical linkage between steering wheel and steering cylinder and boosting of operability of the wheel by the hydraulic pump reduce the work fatigue of the operator with easy steering operation and agile, secure response.

SAFETY & CONVENIENCE UP

Safety and driving convenience are most important

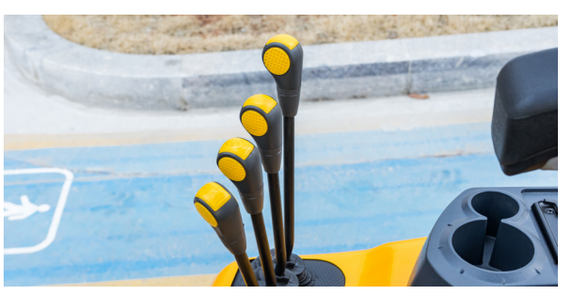
Diverse preventive functions and constant convenience are provided

COCKPIT, A SPACE WHERE OPERATION EFFICIENCY IS ENSURED

As a very important space for ensuring operation convenience and safety, the cockpit is equipped with ergonomic features such as ❶ **cluster with wide visibility**, position-adjustable steering wheel and seat, deck-mounted MCV lever, prompt and responsive pedal, and wide working visibility.

Deck Mount MCV lever

The deck-mounted MCV lever has a feature that reduces movements of the arms of the operator compared to the dashboard-mounted type. In addition, the levers are arranged in the radial direction around the elbow to improve convenience of operation further.



Hood insulation & floor mat

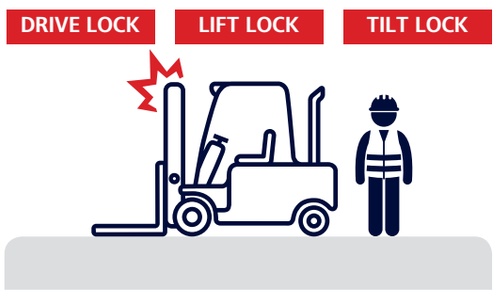
The insulation inside the hood reduces heat and noise from the engine to the cockpit. Furthermore, the polyurethane-foam floor mat reduces vibration and noise from the truck body to provide a pleasant operating environment.

Safety – Lamp & Mirror

LED work lamps, direction indicators, beacon lamps, etc. are basically installed for brighter work vision and to guide the moving direction of the forklift during dark indoor work and night work. Panorama mirror and RH/LH side mirrors are also basically installed to provide driving vision in the rear area.

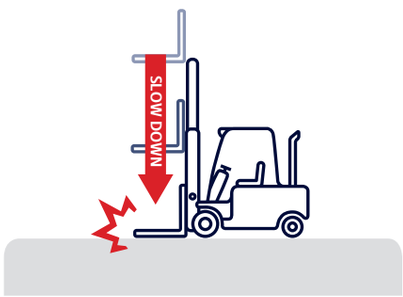
Operator presence sensing system Option

The OPSS restricts driving, lifting, and tilting in when the operator leaves the driver's seat in order to prevent safety accidents.



Fork safety features

As the forks are being lowered, a down-control valve maintains a controlled descent speed. The down-safety valve prevents forks from dropping down in case of sudden damage of hydraulic line.



Reduced vibrations and comfortable driving

Slope-type engine mounting design for significant engine vibration reduction and power train consisting of separate drive axle and transmission reduce body vibrations by 50% compared to the equipment with integrated transaxle and create a comfortable driving environment.

Grammer Seat Option

The full suspension seat of Grammer of Germany has an adjustable cushion depending on the weight of the driver, and convenience specifications such as seat belt switch, arm rests, and heater are optional.

* Semi-suspension seat is applied by default.

Various electric interlocks

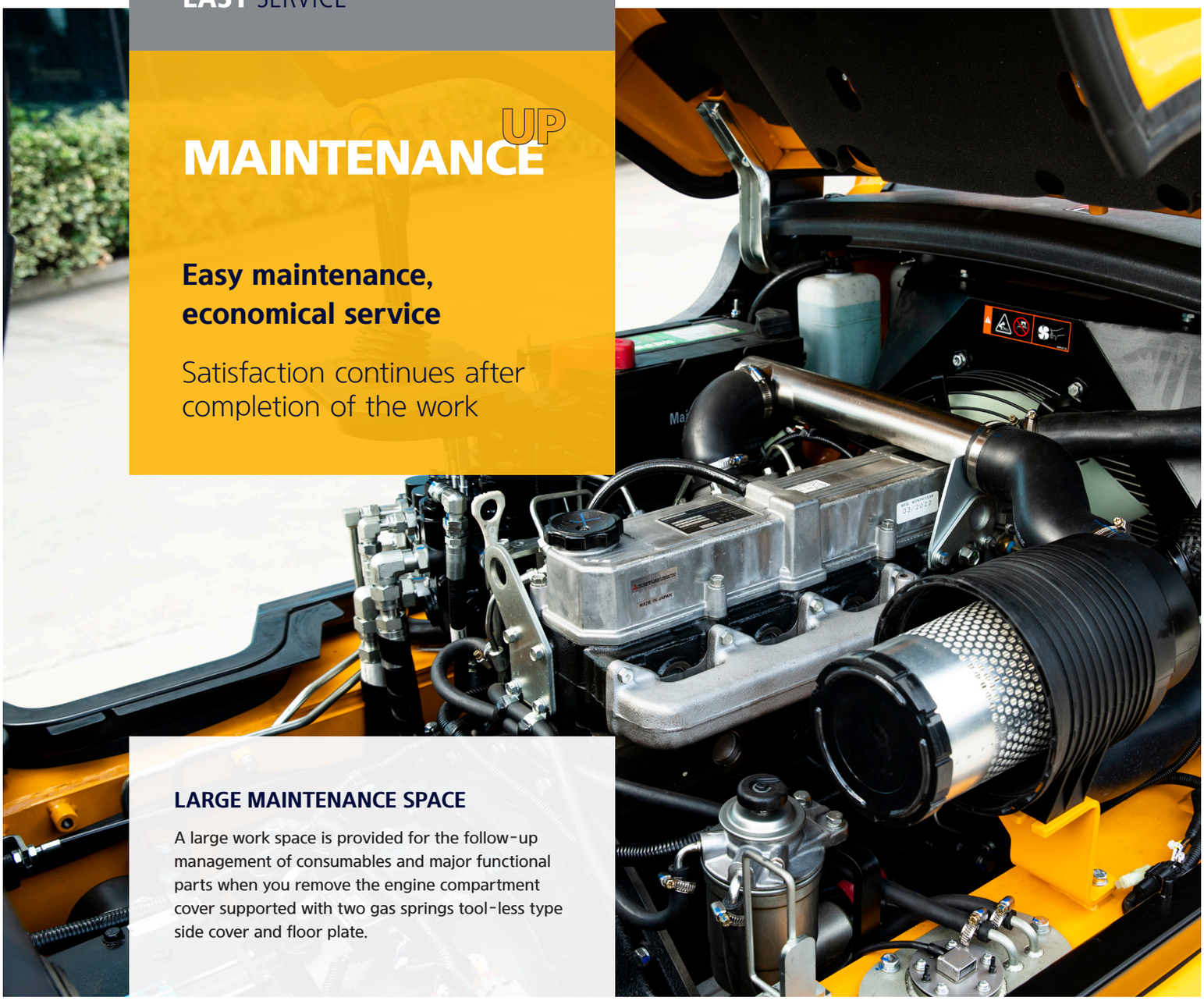
Parking electric interlock
Operation of forklift truck is limited when applying the parking brake to prevent safety accidents that may take place due to the unintended operation of forward/backward levers by the operator.

Engine Starting at Neutral Position
The engine will start only with the forward and reverse levers kept at neutral positions to prevent safety accidents that may take place when starting the engine with such levers kept at forward or reverse positions.

MAINTENANCE UP

Easy maintenance, economical service

Satisfaction continues after completion of the work

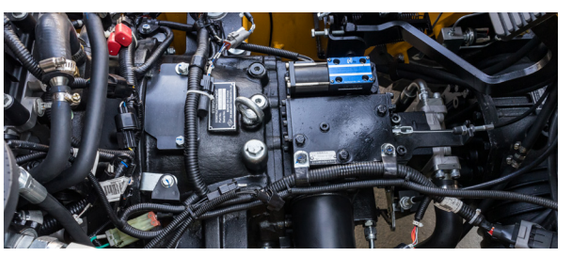


LARGE MAINTENANCE SPACE

A large work space is provided for the follow-up management of consumables and major functional parts when you remove the engine compartment cover supported with two gas springs tool-less type side cover and floor plate.

Transmission maintenance

The transmission separately configured from the drive axle significantly reduces the follow-up maintenance time and cost compared to the integrated transaxle type.
In addition, the main functional components, i.e., control valve and filters, are arranged on the upper part of the transmission for easy maintenance.



Detachable radiator cover

The plastic tool-less radiator sub-hood on top of the counterweight separated from the main hood reduces the downtime for checking the cooling water level and makeup.

Dual element & Pre-cleaner Option

The air cleaner with 6-inch dual-element structure may be repaired without disassembling surrounding parts by opening the hood. The added optional pre-cleaner also extends the service life of the air cleaner element.

Brake oil reservoir

Oil reservoir is mounted on top of the dashboard for the convenient management of brake oil, which should be frequently inspected and made up for safe operation.

Centralized fuse holders

Fuse is an item demanding the most frequent maintenance works among the components of the electric system of the forklift truck. All of the fuses are centralized on the front of the dashboard for convenient inspection and replacement of fuses.

Standard & Option

	Part	All
POWER TRAIN & CHASSIS	Mitsubishi S4S Diesel Engine	●
	F1/R1 Power shift Transaxle	●
	Wet Disc - Service Brake	●
	Pre cleaner	○
	Hydraulic Power Steering	●
OPERATION ROOM	Head Guard(2170mm)	●
	Cabin	○
	Cabin Top, Front + Rear + Top + Wiper	○
	Non Slip Floor Mat	●
	A/C, Heater	○
	Hood Insulation	●
	Convenience Tray	●
	Non Suspension Seat + Belt	●
	Suspension(Grammer) Seat + Belt, Arm rest	○
	Panorama Mirror + RH,LH Side Mirror	●
SAFETY	OPSS - Drive , Drive + Mast	○
	Fire Extinguishers(1.0kg)	○

	Part	All
MAST & ATTACHMENT	2 Stage Standard mast(3,000mm)	●
	Various Option Mast - 2, 3 Stage	○
	1,070mm(2.5Ton), 1,050mm(3.0/3.5 Ton) Fork	●
	Various Option Fork(900 ~1,800mm)	○
	Carriage - Hook(1,100mm)	●
	Carriage - Hook Wide(1400mm) : Double Tire	○
	Integral S/S, Integral S/S+ Fork Positioner	○
	Side Shifter, Hinged Bucket, Rotating Fork, Paper Roll Clamp	○
HYDRAULICS	MCV 2 Spool	●
	MCV 3, 4 Spool	○
TIRE	Single Pneumatic	●
	Double Pneumatic	○
	Solid, Non marking Tire - Single/Double	○
VISIBILITY	LED Working Lamp - Front	●
	LED Working Lamp - Front & Rear	○
	Turn Signal Lamp	●
	Beacon Lamp	●
CONVENIENCE	Load sensor	○
	Rear Horn & Grip Bar	○
OTHERS	Rear Tire Cover	●

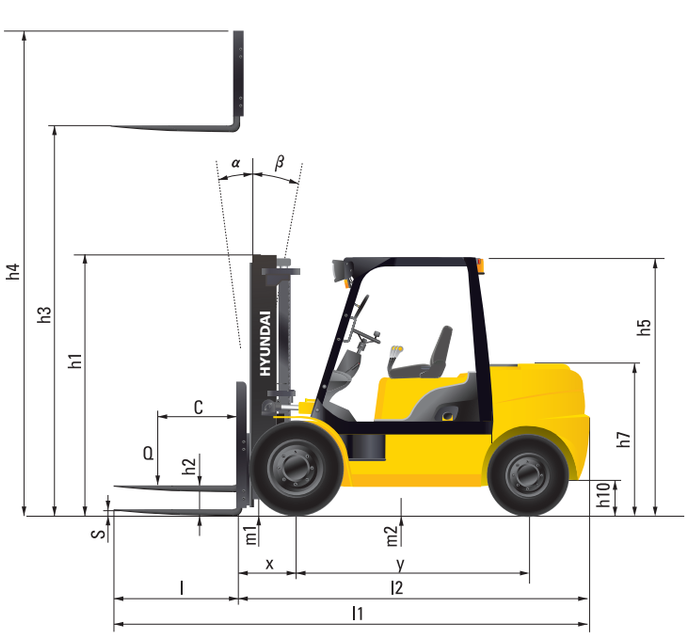
* Operator manual is provided by USB memory stick.

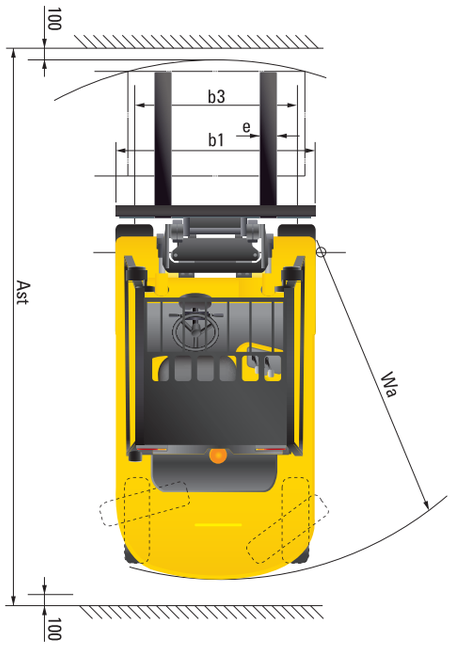
● STD / ○ OPT

Specification

IDENTIFICATION					
1.1	Manufacturer		Hyundai		
1.2	Manufacturer's type designation		25DE-7U	30DE-7U	35DE-7U
1.3	Drive: electric(battery or mains),diesel,petrol,fuel gas,manual		DIESEL	DIESEL	DIESEL
1.4	Type of operation:hand,pedestrian,standing,seated,order-picker		seated	seated	seated
1.5	Load capacity / rated load	kg	2,500	3,000	3,500
1.6	Load center distance	c mm	500	500	500
1.8	Load distance, center of drive axle to fork	x mm	468	468	468
1.9	Wheelbase	y mm	1,650	1,700	1,700
WEIGHTS					
2.1	Service weight(including battery)	kg	3,734	4,168	4,529
2.2	Axle loading, loaded front	kg	5,481	6,384	7,098
	Axle loading, loaded rear	kg	802	885	1,073
2.3	Axle loading, unloaded front	kg	1,514	1,676	1,605
	Axle loading, unloaded rear	kg	2,269	2,593	3,066
WHEELS, CHASSIS					
3.1	Tires:solid rubber, superelastic, pneumatic, polyurethane		Pneumatic	Pneumatic	Pneumatic
3.2	Tires size, front		7.00-12-14PR	28x9-15-16PR	28x9-15-16PR
3.3	Tires size, rear		6.00-9-10PR	6.50-10-12PR	6.50-10-12PR
3.5	Wheels, number front x rear (x=driven wheels)		2x2	2x2	2x2
3.6	Track width, front	mm	965	1,005	1,005
3.7	Track width, rear	mm	980	980	980
BASIC DIMENSIONS					
4.1	Tilt Of Mast/Fork Carriage Forward/Backrward	Degrees	6/10	6/10	6/10
4.2	Height, Mast Lowered	H1 (mm)	2,040	2,040	2,040
4.3	Free Lift	H2 (mm)	155	155	155
4.4	Lift Height	H3 (mm)	3,000	3,000	3,000
4.5	Height, Mast Extended	H4 (mm)	4,180	4,180	4,180
4.7	Height Of Overhead Guard (Cabin)	H5 (mm)	2,160	2,180	2,180
4.8	Seat Height / Stand Height Rel. To Sip	H7 (mm)	1,185	1,205	1,205
4.12	Coupling Height	H10 (mm)	283	299	299
4.19	Overall Length	l1 (mm)	3,685	3,742	3,827
4.20	Length To Face Of Forks	L2 (mm)	2,635	2,692	2,777
4.21	Overall Width	b1 (mm)	1,230	1,230	1,230
4.22	Fork Dimensions	lxexs (mm)	1,050x100x45	1,050x122x45	1,050x122x45
4.23	Fork Carriage Iso 2328, Class / Type A, B		II/A	III/A	III/A
4.24	Fork-Carriage Width	b3 (mm)	1,102	1,102	1,102
4.31	Ground Clearance, Below Mast, Loaded	m1 (mm)	145	145	145
4.32	Ground Clearance, Center Of Wheelbase	M2 (mm)	171	189	189
4.33	Aisle Width For Pallets 1000 X 1200 Crossways	Ast (mm)	3,981	4,066	4,123
4.34	Aisle Width For Pallets 800 X 1200 Lengthways	Ast (mm)	4,181	4,266	4,323
4.35	Turning Radius	Wa (mm)	2,313	2,398	2,455
PERFORMANCE DATA					
5.1	Travel speed, loaded/ unloaded	km/h	16.2/17.7	17.7/18.8	17.5/18.8
5.2	Lift speed, loaded/ unloaded	mm/s	550/660	450/550	450/550
5.3	Lowering speed, loaded/unloaded	mm/s	500/450	500/360	500/360
5.6	Max. Drawbar pull, loaded/unloaded	N	21,212/19,976	18,946/18,603	18,907/18,515
5.8	Max. Gradeability, loaded/unloaded	%	32.6/22.6	24.8/20.8	22.0/18.4
5.10	Service brake		Hydraulic	Hydraulic	Hydraulic
ENGINE					
7.1	Engine manufacturer / type		MITSUBISHI / S4S	MITSUBISHI / S4S	MITSUBISHI / S4S
7.2	Engine power acc. to ISO 1585	kW/rpm	35.3/2,250	35.3/2,250	35.3/2,250
7.3	Maximum torque	kgf.m/rpm	18/1,700	18/1,700	18/1,700
7.4	No. of cylinder / cubic capacity	EA/cc	4/3,331	4/3,331	4/3,331
7.5	Fuel Consumption Acc. To Vdi Cycle	ℓ	3.9	4.0	4.2
OTHER DETAILS					
8.1	Operating pressure(system / attach)	bar	210	210	210
8.2	Oil Volume For Attachments	LPM	60	60	60

Dimension

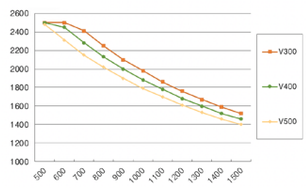




Load Capacity

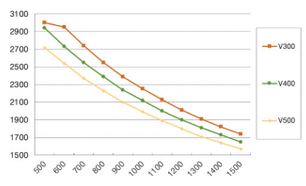
25DE-7U	30DE-7U	35DE-7U

CAPACITY (kg)



LOAD CENTER (mm)

CAPACITY (kg)



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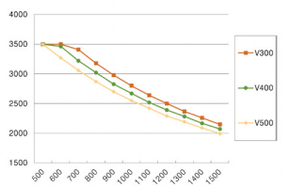

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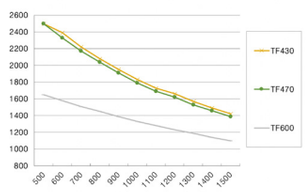

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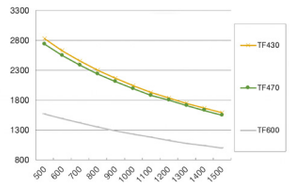

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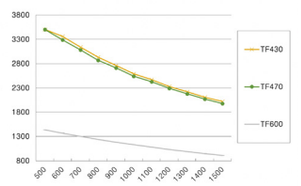

LOAD CENTER (mm)

Mast Specification

25DE-7U

Mast Type		Maximum Fork Height	Overall Height (Lowered)	Free Lift Height			Tilt Angle		Load capacity without Side shift		Load capacity with Intergral Side shift		Truck Weight (Unloaded)	
				With Load Backrest	Without Load Backrest	Without Load Backrest (3/4-SPOOL)	Fwd	Bwd	24in LC	500mm LC	24in LC	500mm LC		
		mm	mm	mm	mm	mm	deg	deg	lb	kg	lb	kg	lb	kg
2 Stage Limited Free Lift	*V300	3,000	2,040	155	155	155	6	10	5,000	2,500	5,000	2,500	8,410	3,815
	V330	3,300	2,190				6	10	5,000	2,500	5,000	2,490	8,455	3,835
	V400	4,000	2,590				6	10	5,000	2,500	5,000	2,360	8,607	3,904
	V450	4,500	2,890				6	6	5,000	2,310	4,990	2,270	8,768	3,977
	V500	5,000	3,140				6	6	5,000	2,400	4,800	2,190	8,849	4,014
2 Stage Full Free Lift	VF295	2,950	2,025	845	1,361	1,221	6	6	5,000	2,500	5,000	2,500	8,490	3,851
	VF325	3,250	2,175	995	1,511	1,371	6	6	5,000	2,500	5,000	2,480	8,563	3,884
	VF345	3,450	2,275	1,095	1,568	1,428	6	6	5,000	2,500	5,000	2,440	8,629	3,914
3 Stage Full Free Lift	TF430	4,300	2,040	860	1,314	1,175	6	6	5,000	2,430	5,000	2,290	8,781	3,983
	TF450	4,500	2,140	960	1,414	1,275	6	6	5,000	2,390	4,950	2,250	8,829	4,005
	TF470	4,700	2,190	1,010	1,464	1,325	6	6	5,000	2,360	4,850	2,220	8,860	4,019
	TF500	5,000	2,290	1,110	1,564	1,425	6	6	5,000	2,310	4,750	2,170	8,909	4,041
	TF550	5,500	2,490	1,310	1,764	1,675	6	6	4,900	2,230	4,500	2,090	9,138	4,145
	TF600	6,000	2,690	1,510	1,964	1,875	6	6	4,730	2,150	4,400	2,010	9,253	4,197

30DE-7U

Mast Type		Maximum Fork Height	Overall Height (Lowered)	Free Lift Height			Tilt Angle		Load capacity without Side shift		Load capacity with Intergral Side shift		Truck Weight (Unloaded)	
				With Load Backrest	Without Load Backrest	Without Load Backrest (3/4-SPOOL)	Fwd	Bwd	24in LC	500mm LC	24in LC	500mm LC		
		mm	mm	mm	mm	mm	deg	deg	lb	kg	lb	kg	lb	kg
2 Stage Limited Free Lift	*V300	3,000	2,040	155	155	155	6	10	6,000	3,000	6,000	3,000	9,310	4,223
	V330	3,300	2,190				6	10	6,000	3,000	6,000	2,950	9,356	4,244
	V400	4,000	2,590				6	10	6,000	2,970	6,000	2,790	9,513	4,315
	V450	4,500	2,890				6	6	6,000	2,850	5,900	2,680	9,678	4,390
	V500	5,000	3,140				6	6	6,000	2,750	5,700	2,590	9,762	4,428
2 Stage Full Free Lift	VF295	2,950	2,025	845	1,361	1,221	6	6	6,000	3,000	6,000	3,000	9,438	4,281
	VF325	3,250	2,175	995	1,511	1,371	6	6	6,000	3,000	6,000	2,950	9,515	4,316
	VF345	3,450	2,275	1,095	1,568	1,428	6	6	6,000	3,000	6,000	2,870	9,581	4,346
3 Stage Full Free Lift	TF430	4,300	2,040	860	1,314	1,175	6	6	6,000	2,850	5,900	2,690	9,782	4,437
	TF450	4,500	2,140	960	1,414	1,275	6	6	6,000	2,800	5,800	2,650	9,837	4,462
	TF470	4,700	2,190	1,010	1,464	1,325	6	6	6,000	2,760	5,750	2,610	9,868	4,476
	TF500	5,000	2,290	1,110	1,564	1,425	6	6	5,950	2,700	5,600	2,550	9,918	4,499
	TF550	5,500	2,490	1,310	1,764	1,675	6	6	5,700	2,600	5,400	2,460	10,033	4,551
	TF600	6,000	2,690	1,510	1,964	1,875	6	6	6,500	2,960	4,050	1,850	10,170	4,613

35DE-7U

Mast Type		Maximum Fork Height	Overall Height (Lowered)	Free Lift Height			Tilt Angle		Load capacity without Side shift		Load capacity with Intergral Side shift		Truck Weight (Unloaded)	
				With Load Backrest	Without Load Backrest	Without Load Backrest (3/4-SPOOL)	Fwd	Bwd	24in LC	500mm LC	24in LC	500mm LC		
		mm	mm	mm	mm	mm	deg	deg	lb	kg	lb	kg	lb	kg
2 Stage Limited Free Lift	*V300	3,000	2,040	155	155	155	6	10	7,700	3,500	7,700	3,500	10,130	4,595
	V330	3,300	2,190				6	10	7,700	3,500	7,550	3,450	10,176	4,616
	V400	4,000	2,590				6	10	7,700	3,500	7,200	3,280	10,333	4,687
	V450	4,500	2,890				6	6	7,300	3,330	6,900	3,140	10,498	4,762
	V500	5,000	3,140				6	6	7,050	3,210	6,650	3,030	10,582	4,800
2 Stage Full Free Lift	VF295	2,950	2,025	845	1,361	1,221	6	6	7,700	3,500	7,700	3,500	10,258	4,653
	VF325	3,250	2,175	995	1,511	1,371	6	6	7,700	3,500	7,500	3,410	10,335	4,688
	VF345	3,450	2,275	1,095	1,568	1,428	6	6	7,700	3,500	7,350	3,360	10,401	4,718
3 Stage Full Free Lift	TF430	4,300	2,040	860	1,314	1,175	6	6	7,300	3,320	6,900	3,140	10,602	4,809
	TF450	4,500	2,140	960	1,414	1,275	6	6	7,150	3,270	6,750	3,090	10,657	4,834
	TF470	4,700	2,190	1,010	1,464	1,325	6	6	7,050	3,220	6,700	3,050	10,688	4,848
	TF500	5,000	2,290	1,110	1,564	1,425	6	6	6,900	3,150	6,550	2,990	10,739	4,871
	TF550	5,500	2,490	1,310	1,764	1,675	6	6	6,200	2,820	5,900	2,690	10,853	4,923
	TF600	6,000	2,690	1,510	1,964	1,875	6	6	3,950	1,810	3,700	1,700	10,990	4,985

※ : Standard