

# 35/40/45DS-7E 50DA-7E

**DIESEL FORKLIFT TRUCKS Environmental - Friendly** 



# FORKLIFT *Excellent* Model 35/40/45DS/50DA -7E **New criterion of Forklift Trucks** Hyundai introduces a new line of 7E-series diesel forklift trucks. Excellent power and performance make your business more profitable. ■ Photo may include optional equipment.

# 35/40/45DS/50DA -7E



# High Power & Performance

# **Powerful Engine**

# Mitsubishi S6S-T Engine

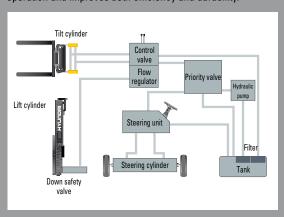
The six cylinders turbo-charged engine is built for power, reliability and economy. This engine meets EPA tier III and EU stage IIIA emission regulation.

# 67,7 kW / 2,300 rpm



### State-of-the-art hydraulic system

The latest designed, large-capacity hydraulic system including a low-noise control valve shortens reaction time during operation and improves both efficiency and durability.





# Fast and stable performance

Being able to quickly raise and lower the mast, as well as tilting forward and backward, the truck provides you the best operational conditions during loading/unloading operations. When the truck is fully loaded, mast lowering speed is carefully controlled to ensure safety by the down control valve.



### Faster Travel Speed & Grade-ability

The powerful high-output engine provides greater acceleration, better grade-ability and faster travel speed on any tough terrain or slope.

# Grade-ability (Loaded) 35DS-7E 38.7% 45DS-7E 30.8% 35DS-7E 27,1 km/h 45DS-7E 26,0 km/h 40DS-7E 34.8% 50DA-7E 30.8% 40DS-7E 26,1 km/h 50DA-7E 26,0 km/h



### **Increased mast tilting angle**

Utilizing the mast tilting angle of 8 degrees forward and 10 degrees backward gives the operator a safe and rapid platform for loading and unloading jobs.



### Wet disc brake system

Wet disc brakes improve the brake performance and make your service intervals longer. Enclosed brakes are protected against dust and water.



### **Fully hydrostatic power steering**

A hydraulic steering system always guarantees smooth and flexible steering, preventing overrun and steering wheel kick-back.



### **OPSS** (Operator Presence Sensing System)

Mast tilting, lifting and lowering operation is not possible when the operator is not seated in normal position. (Option)

# Comfortable Operation



Adjustable steering wheel

Steering wheel with horn button can be adjusted by a lever on the righthand side for the most comfortable operator position.



### Easy and safe shift lever

A single lever on the left side of the steering column gives the operator fast and easy control of speed and travel direction. The engine can only be started in case of neutral position of this lever.



**Multi-function switch lever** 

A multi-functional switch lever gives easy access to lights and horn.



Quick Response of Operating Control Levers

Only minimal operator's effort is required for precise, safe and productive control.



■ Photo may include optional equipment.



### **Ergonomically positioned pedals**

Based on human engineering, the accelerator, brake and inching pedals are optimally positioned for operator's convenience. Easy to remove cleanable rubber floor mat.



Cup holder & console box

Additional storage spaces are located inside the operating space for operator's convenience.

# Comfortable Operation!

A design based on human engineering relieves fatigue and increases operator's efficiency.





### New high visibility for safe operation

The operator is able to work with increased safety and accuracy due to a wider view mast.

# Operator friendly gauges and water-resistant monitor panel



- Parking brake lamp
- 2 Directional indicators
- 3 Fuel warning lamp
- Engine oil warning lamp
- Transmission oil temperature warning lamp
- **6** Battery warning lamp
- Air filter warning light
- 8 Working light indicator
- Water separator lamp
- Pre-heater indicator
- Water temperature gauge
- 1 Fuel gauge
- (B) Hour meter
- Engine check lamp
- Seat belt warningOPSS warning

## Easily adjustable suspension seat

An attractive and adjustable seat, based on a human engineering design, provides great comfort, safety and durability.



### **Full-floating headguard**

Anti-vibration rubbers, installed between the cabin structure and truck frame, reduces vibrations and noise while driving. This reduces operator's fatigue and increases safety.



# Endurance & Safety

### Strong overhead guard

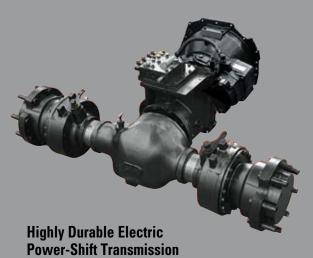
The safety overhead guard meets EEC and ANSI regulations and protects the operator during hazardous jobs.



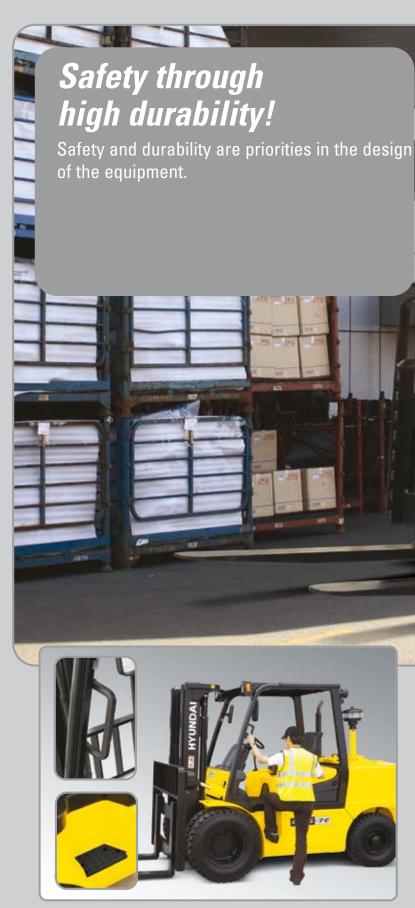
### **Parking Brake**

Toggle type parking brake requires less efforts from the operator to set.





Powershift transmission provides you with fast and quiet travel speed under all heavy load conditions. So boosting your work efficiency.

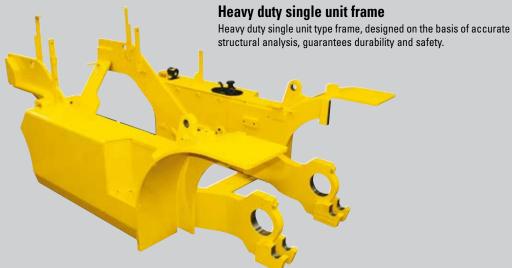


### **Large Footstep & Handle**

Wide "open" step offers convenience and safety when entering and exiting your truck.

# 35/40/45DS/50DA -7E







# Easy access to electric parts

Various electric parts are centralized below the dash board resulting in improvement of maintenance.



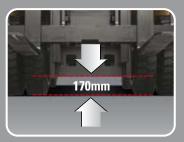
# **Expansion bellows**

The expansion bellows absorbs vibration and reduces noise generated from the exhaust gas system to extend the life span.



### **Bright, protected headlights**

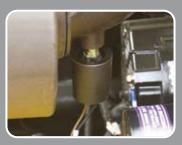
Bright, protected headlights are positioned for increased visibility in dark environments.



### **Ground clearance**

The engine and transmission are assembled horizontally and positioned high in the frame to protect valuable components during operations on rugged surface.

# High Durability & Easy Maintenance



Electrically Monitored Air Filter

Air cleaner sensor alerts the operator of a restricted air filter so allowing replacement before a potential engine damage occurs.

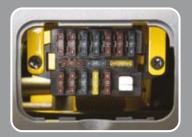


Easy Maintenance oil check
The T/M oil level can be checked easily

The T/M oil level can be checked easily without any disassembly.



Brake fluid reservoir
Highly visible, easily accessible reservoir
makes for quicker daily inspections.



An accessible, compact fuse box for easy inspection



# Centralized design for easy service!

An ideal arrangement of components ensures easy access and convenience during maintenance.



Easy Change of Air Cleaner
The air filter is readily accessible for cleaning or replacement. (7inch Cyclone Type)



**Portable Side Cover** 



Rotational battery installation



Aluminum radiator with superb protection against heat



Engine oil condition check



Key-locking fuel cap

# Mast Specifications (35/40/45DS-7E)

Mast Type		Maximum Fork Height			Free Lift (mm)		Tilt Angle		Load Capacity without side shift at 600 mm LC (kg)					Load Capacity with side shift at 600 mm LC (kg)				Truck Weight Unloaded (kg)								
		(mm)	Single Tire	Double Tires	With Backrest	Without Backrest	(deg	ree)	8	Single Tire	9	Di	ouble Tire	s		Single Tire	)	D	ouble Tire	ıs		Single Tire	1	Do	ouble Tire	s
		35/40/45DS-7E	35/40/45DS-7E	35/40/45DS-7E	35/40/45DS-7E	35/40/45DS-7E	Fwd	Bwd	35DS-7E	40DS-7E	45DS-7E	35DS-7E	40DS-7E	45DS-7E	35DS-7E	40DS-7E	45DS-7E	35DS-7E	40DS-7E	45DS-7E	35DS-7E	40DS-7E	45DS-7E	35DS-7E	40DS-7E	45DS-7E
	V270	2,720	2,085	2,070	120	120	8	10	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	5,864	6,328	6,741	6,019	6,434	6,850
	*V300	3,020	2,235	2,220	120	120	8	10	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	5,894	6,358	6,771	6,049	6,464	6,880
2-	V330	3,320	2,385	2,370	120	120	8	10	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	5,932	6,396	6,809	6,087	6,502	6,918
Stage	V350	3,520	2,535	2,520	120	120	8	10	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,450	3,500	4,000	4,450	5,955	6,419	6,832	6,110	6,525	6,941
limited free lift	V370	3,720	2,635	2,620	120	120	8	10	3,500	4,000	4,500	3,500	4,000	4,500	3,500	3,950	4,400	3,500	3,950	4,400	5,975	6,439	6,852	6,130	6,545	6,961
iree iiit	V400	4,020	2,845	2,830	120	120	8	10	3,500	4,000	4,500	3,500	4,000	4,500	3,400	3,900	4,350	3,450	3,900	4,350	6,018	6,482	6,894	6,172	6,588	7,003
	V450	4,520	3,095	3,080	120	120	6	6	3,500	4,000	4,450	3,500	4,000	4,500	3,300	3,750	4,200	3,350	3,750	4,200	6,130	6,594	7,007	6,285	6,700	7,116
	V500	5,020	3,345	3,330	120	120	6	6	3,400	3,900	4,300	3,450	3,950	4,350	3,200	3,700	4,050	3,250	3,700	4,050	6,181	6,645	7,058	6,336	6,751	7,167
2-	VF280	2,805	2,135	2,120	919	1,258	6	8	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	5,905	6,369	6,777	6,057	6,472	6,886
Stage full	VF300	3,005	2,235	2,220	1,019	1,358	6	8	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	5,931	6,395	6,803	6,083	6,498	6,912
free lift	VF315	3,155	2,325	2,310	1,109	1,448	6	8	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	3,500	4,000	4,500	5,951	6,414	6,822	6,103	6,517	6,931
	TF370	3,730	2,035	2,020	812	1,139	6	6	3,500	4,000	4,500	3,500	4,000	4,500	3,350	3,900	4,350	3,450	3,950	4,350	6,121	6,585	6,998	6,276	6,656	7,109
	TF400	4,030	2,135	2,120	912	1,239	6	6	3,500	4,000	4,500	3,500	4,000	4,500	3,300	3,850	4,250	3,400	3,850	4,250	6,151	6,615	7,028	6,306	6,686	7,139
	TF430	4,330	2,235	2,220	1,012	1,339	6	6	3,450	4,000	4,450	3,500	4,000	4,500	3,250	3,750	4,200	3,300	3,800	4,200	6,182	6,646	7,059	6,337	6,717	7,170
3-	TF450	4,510	2,295	2,290	1,072	1,399	6	6	3,400	4,000	4,400	3,500	4,000	4,450	3,200	3,800	4,150	3,300	3,800	4,150	6,201	6,665	7,078	6,356	6,736	7,189
Stage full free lift	TF470	4,720	2,385	2,390	1,162	1,489	6	6	3,350	3,950	4,350	3,450	4,000	4,350	3,150	3,700	4,050	3,250	3,750	4,050	6,237	6,701	7,114	6,392	6,772	7,226
	TF500	5,020	2,485	2,470	1,262	1,589	6	6	3,300	3,850	4,250	3,400	3,900	4,300	3100	3,600	4,000	3,200	3,650	4,000	6,261	6,724	7,137	6,415	6,795	7,249
	TF550	5,520	2,665	2,650	1,442	1,769	6	6	3,000	3,600	4,000	3,300	3,750	4,150	2,850	3,350	3,850	3,100	3,500	3,850	6,322	6,785	7,199	6,476	6,856	7,310
	TF600	6,030	2,845	2,830	1,622	1,949	6	6	2,600	3,100	3,400	3,200	3,650	4,000	2,450	2,950	3,250	3,000	3,400	3,750	6,390	6,854	7,267	6,545	6,925	7,378
																									*	t Standard

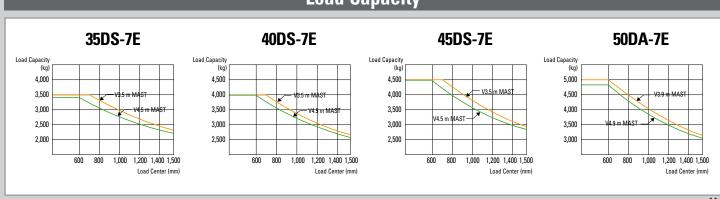
### \* Standar

# Mast Specifications (50DA-7E)

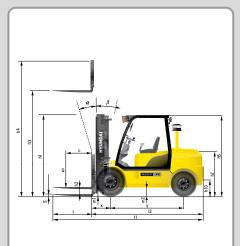
		Maximum Fork Height (mm)	Overall (Lowere		Free (m	Tilt Angle		Load Capacity without side shift at 600 mm LC (kg)		Load Capacity with side shift at 600 mm LC (kg)		Truck Weight Unloaded (kg)		
Mast	Туре	Fork Height (mm)	Single Tire Double Tires		With Backrest Without Backrest		(deg	ree)	Single Tire	Double Tires	Single Tire	Double Tires	Single Tire	Double Tires
		50DA-7E	50DA-7E	50DA-7E	50DA-7E	50DA-7E	Fwd	Bwd	50DA-7E	50DA-7E	50DA-7E	50DA-7E	50DA-7E	50DA-7E
	V260	2,630	2,085	2,070	120	120	8	10	5,000	5,000	5,000	5,000	7,156	7,271
	*V290	2,930	2,235	2,220	120	120	8	10	5,000	5,000	5,000	5,000	7,232	7,302
2-	V320	3,230	2,385	2,370	120	120	8	10	5,000	5,000	5,000	5,000	7,206	7,322
Z- Stage	V340	3,430	2,535	2,520	120	120	8	10	5,000	5,000	4,950	4,950	7,231	7,346
limited free lift	V360	3,630	2,635	2,620	120	120	8	10	5,000	5,000	4,900	4,900	7,247	7,363
iree iiit	V390	3,930	2,845	2,830	120	120	8	10	5,000	5,000	4,800	4,800	7,283	7,398
	V440	4,430	3,095	3,080	120	120	6	6	4,850	4,950	4,650	4,650	7,386	7,502
	V490	4,930	3,345	3,330	120	120	6	6	4,700	4,800	4,500	4,500	7,428	7,544
2-	VF270	2,697	2,135	2,120	905	1,223	6	8	5,000	5,000	4,700	4,750	7,215	7,327
Stage full	VF290	2,897	2,235	2,220	1,005	1,323	6	8	4,900	5,000	4,650	4,700	7,240	7,352
free lift	VF305	3,047	2,325	2,310	1,095	1,413	6	8	4,800	4,900	4,550	4,600	7,258	7,370
	TF360	3,672	2,035	2,020	807	1,074	6	6	5,000	5,000	4,700	4,800	7,399	7,503
	TF390	3,972	2,135	2,120	907	1,174	6	6	4,950	5,000	4,650	4,700	7,425	7,529
	TF420	4,272	2,235	2,220	1,007	1,274	6	6	4,850	4,950	4,550	4,600	7,450	7,554
3- Stone full	TF440	4,452	2,295	2,290	1,067	1,334	6	6	4,800	4,900	4,500	4,550	7,467	7,570
Stage full free lift	TF460	4,662	2,385	2,390	1,157	1,424	6	6	4,700	4,800	4,450	4,500	7,490	7,594
	TF490	4,962	2,485	2,470	1,257	1,524	6	6	4,650	4,750	4,350	4,450	7,515	7,619
	TF540	5,462	2,665	2,650	1,437	1,704	6	6	4,500	4,600	4,250	4,300	7,567	7,671
	TF590	5,972	2,845	2,830	1,617	1,884	6	6	4,100	4,450	4,100	4,200	7,608	7,711

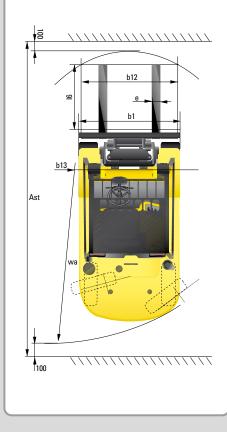
### \* Standard

# **Load Capacity**



# **Dimensions**





# **Specifications**

Ident	ification					
1.1	Manufacturer		Hyundai	Hyundai	Hyundai	Hyundai
1.2	Туре		35DS-7E	40DS-7E	45DS-7E	50DA-7E
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas, mai	nual	DIESEL	DIESEL	DIESEL	DIESEL
1.4	Type of operation: hand, pedestrian, standing, seated, order-		Seated	Seated	Seated	Seated
1.5	Load capacity (standard)	kg	3,500	4,000	4,500	5,000
1.6	Load center distance	c mm	600	600	600	600
1.8	Load distance, center of drive axle to forks	x mm	561	561	561	576
1.9	Wheelbase	y mm	2,000	2,000	2,000	2,000
Weig	ihts					
2.1	Service weight (single tire / double tires)	kg	(5,894 / 6,049)	(6,377 / 6,464)	(6,791 / 6,880)	(7,213 / 7,302)
2.2	Axle loading, loaded front / rear (single tire / double tires)	kg	(8.371/1.024) / (8.526/1.024)	(9,204/1,173) / (9,291/1,173)	(9,999/1,292) / (10,088/1,292)	(10,839/1,373) / (10,928/1,373
2.3	Axle loading, unloaded front / rear (single tire / double tires)	kg	(2,841/3,054) / (2,996/3,054)	(2,884/3,493) / (2,971/3,493)	(2,889/3,902) / (2,978/3,902)	(2,899/4,313) / (2,988/4,313)
Whe	els, Chassis					
3.1	Tires: solid rubber, superelastic, pneumatic, polyurethane		Pneumatic	Pneumatic	Pneumatic	Pneumatic
3.2	Tires size, front (single tire / double tires)		(8.25-15-14) / (7.50-16-12PR)	(300-15-18PR) / (7.50-16-12)	(300-15-18PR) / (7.50-16-12)	(300-15-18PR) / (7.50-16-12)
3.3	Tires size, rear		7.00-12-12	7.00-12-12	7.00-12-12	7.00-12-14
3.5	Wheels, number front / rear (X= driven wheels) (single tire / d	louble tires)	(2x / 2) / (4x / 2)	(2x / 2) / (4x / 2)	(2x / 2) / (4x / 2)	(2x / 2) / (4x / 2)
3.6	Track width, front (single tire / double tires)	mm	(1,162 / 1,312)	(1,150 / 1,312)	(1,150 / 1,312)	(1,150 / 1,312)
3.7	Track width, rear	mm	1,140	1,140	1,140	1,140
	C Dimensions		1,140	1,140	1,140	1,140
4.1	Mast / fork carriage tilt forward / backward	degrees	8 / 10	8 / 10	8 / 10	8 / 10
4.2	Lowered mast height (standard)	h1 mm	2,235	2,220	2,220	2,220
4.3	Free lift	h2 mm	120	120	120	120
4.4	Lift height (standard)	h3 mm	3,000	3,000	3,000	2,900
4.5	Extended mast height (standard)	h4 mm	4,224	4,224	4,235	4,135
4.7	Overhead guard height (low opt/ std/ high opt)	h5 mm	2,210 / 2,240 / 2,340	2,210 / 2,240 / 2,340	2,210 / 2,240 / 2,340	2,210 / 2,240 / 2,340
4.8	Seat height / standing height	h7 mm	1,100	1,100	1,100	1,100
4.12	Coupling height	h10 mm	364	364	364	364
4.19	Overall length	I1 mm	4,140	4,195	4,405	4,450
4.20	Length to face of forks	12 mm	3,070	3,125	3,185	3,250
4.21	Overall width (single tire / double tires)	b1 mm	(1,400 / 1,776)	(1,448 / 1,776)	(1,448 / 1,776)	(1,448 / 1,776)
4.22		ExL mm	1,070 x 122 x 50	1,070 x 150 x 50	1,220 x 150 x 50	1,200 x 150 x 60
4.23	Fork carriage ISO 2328, class / type A, B		III/ A	III/ A	IV/ A	IV/ A
4.24	Fork carriage width	b12 mm	1,300	1,600	1,600	1,600
4.31	Ground clearance, loaded, under mast	m1 mm	170	155	155	155
4.32	Ground clearance, centre of wheelbase	m2 mm	215	200	200	200
4.33	Aisle width for pallets 1,000 x 1,200 crossways (L x W)	Ast mm	4,331	4,391	4,451	4,511
4.34	Aisle width for pallets 800 x 1,200 lengthways (W x L)	Ast mm	4,351	4,416	4,471	4,531
4.35	Turning radius	Wa mm	2,770	2,830	2,890	2,950
4.36	Smallest pivot point distance	b13 mm	996	996	996	996
Perfo	ormance Data					
5.1	Travel speed, unloaded	km/h	27.1	26.1	26.1	26.0
5.2	Lift speed, loaded / unloaded	mm/s	520 / 580	520 / 580	520 / 580	450 / 470
5.3	Lowering speed, loaded / unloaded	mm/s	500 / 500	500 / 500	500 / 500	500 / 500
5.5	Drawbar pull, loaded	kg	3,773	3,859	3,842	3,867
5.7	Gradient performance, loaded / unloaded	%	38.7 / -	34.8 / -	31.8 / -	30.8 / -
5.9	Acceleration time, loaded / unloaded (10 m)		-	-	-	-
5.10	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic
Engir	16					
6.1	Engine manufacturer / type		Mitsubishi S6S-T	Mitsubishi S6S-T	Mitsubishi S6S-T	Mitsubishi S6S-T
6.2	Engine power acc. to ISO 1585	kW	67.7	67.7	67.7	67.7
6.3	Rated speed	1/min	2,300	2,300	2,300	2,300
6.4	No. of cylinder / cubic capacity	anz/cm³	6 / 4,996	6 / 4,996	6 / 4,996	6 / 4,996
6.5	Fuel consumption acc. To VDI cycle	ℓ /h	3.5	3.7	3.9	3.9
Othe	r Details					
8.1	Type of drive control		Torque Converter 2/2	Torque Converter 2/2	Torque Converter 2/2	Torque Converter 2/2
8.2	Operating pressure (System / attach)	bar	210 / 210	210 / 210	210 / 210	210 / 210
8.3	Hydraulic oil volume	l	66	66	66	66
8.4	Sound level at driver's ear according to DIN 12053	db (A)	82	82	82	82

Contact your Hyundai dealer for more information. The machine shown may vary according to International standards. All US measurement rounded off to nearest pounds or inches. Materials and specifications are subject to change without notice.

# HYUNDAI MATERIAL HANDLING

Head Office(Sales Office)

1 JEONHA-DONG, DONG-GU, ULSAN, KOREA Tel (82) (52) 202-7970, 7729, 0971 Fax (82) (52) 202-7979, 7720

U.S. Operation : Hyundai Construction Equipment U.S.A., Inc. 955 ESTES AVENUE, ELK GROVE VILLAGE IL.,60007 Tel (1) 847-437-3333 Fax (1) 847-437-3574

European Operation : Hyundai Heavy Industries Europe N.V. VOSSENDAAL 11, 2440 GEEL, BELGIUM Tel (32) 14-562200 Fax (32) 14-593405-06

India Operation : Hyundai Construction Equipment India PVT., Ltd PLOT NO.A-2, CHAKAN INDUSTRIAL AREA, VILL.- KHALUMBRE. TALUK.- KHED., DIST.- PUNE 410 501, INDIA Tel (91) 21-3530-1700 Fax (91) 21-3530-1712

**PLEASE CONTACT**