

### **ARTICULATED DUMP TRUCK**

## Stable Powerful Economical

#### **PERFORMANCE**

High power and torque engines with the right torque curve characteristics are perfectly matched to smooth-shifting, efficient transmissions in a light, yet strong chassis, providing class leading power and payload to weight ratios, to maximize cycle speed and efficiency.

The AH400-D's higher standard specification includes reliable wet disc, full-hydraulic activated brakes which boost braking force and decrease stopping distances, while providing unaffected performance in deep mud applications.

EVB(Engine Valve Brake) and exhaust brake as primary retarders are stronger and more efficient, and substantially contribute to strong downhill retardation.

In addition, D-series has the transmission output retarder as main retarder.

New AH300-D has been equipped with OM926LA engine which delivers an additional 35 kW gross power compared with previous model. New WDB for the AH300-D has been available as an option.



#### **PRODUCTIVITY**

Hitachi machines feature high power to weight ratios, and now combined with larger payloads, more stopping power and comfortable cabs, operators will be able to produce faster cycle times, delivering



more material throughout the longest shifts. The new AH-D series have been equipped with more durable ribless bodies. The ribless body design allows for more flexibility in its structure with varying loads, and this higher flexibility tolerance helps to reduce the occurrence of body warping.



#### **ECONOMY**

Highly fuel-efficient, electronically managed diesel engines coupled to efficient planetary automatic transmissions in a light overall package deliver higher torque at lower revs where less fuel is burned. The transmission spends as much time as possible in lock-up mode to save fuel.



#### OFF-ROAD PERFORMANCE

Six-wheel drive ADT's perform best when they are built light, with evenly laden axles, equal torque split to each axle, high suspension travel and good ground clearance and approach angles.



# Better comfort and ease of operation boosts operator performance.

#### **COMFORT**

The all-new ROPS and FOPS steel framed operator cabins, have fewer pillars for excellent all-round vision. Inside, the soft touch, wrap around dashboard gives an automotive feel, and all controls are clustered and within easy reach.

A dedicated ADT instrument cluster provides all operational data, along with diagnostic displays and malfunction warnings.

The latest full-hydraulic orbital steering system provides smooth, low effort, yet direct steering.



#### SIMPLE, AUTOMATIC AND **ABUSE-PROOF OPERATION**

It is Hitachi's mission to provide the market with simple to operate machines, as skilled plant operators are hard to come by.

Starting with the fully automatic transmission with \*touch pad shift control, automatic gear downshifts and retarder activation to the \*abuseproof CTD(Controlled Traction Diffs) differentials operators are able to concentrate on the job at hand, while giving the owners peace of mind from possible costly machine damage.



\*AH400-D AH350-D Only

#### **LOW MAINTENANCE AND** HIGH SERVICEABILITY

Extended service intervals and the use of modern, low maintenance bearing materials, long life synthetic transmission and transfer case oils have reduced the D-Series maintenance requirements.

The entire driveline, electric and hydraulic components as well as all electronics are fully





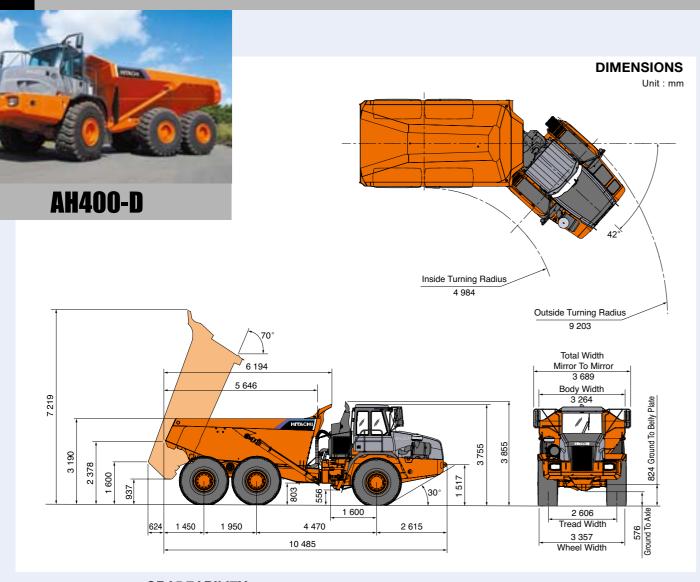




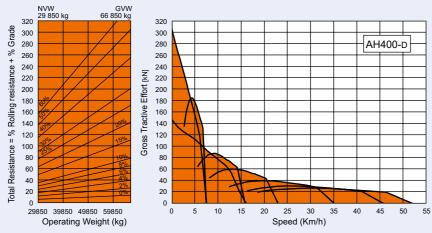




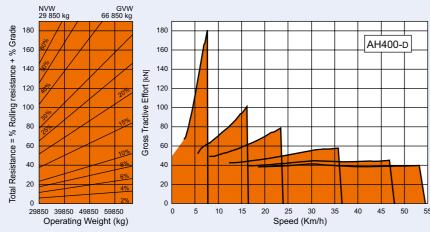


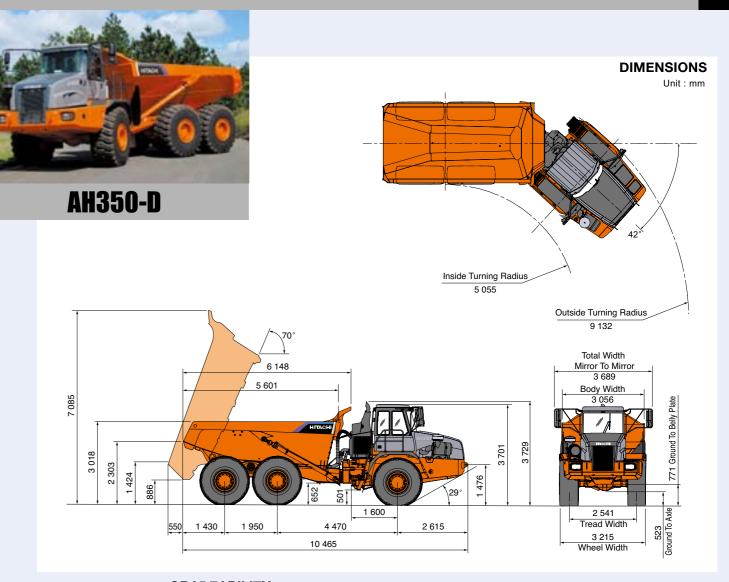


#### **GRADEABILITY**

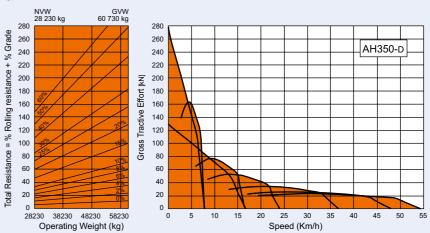


#### **RETARDATION**

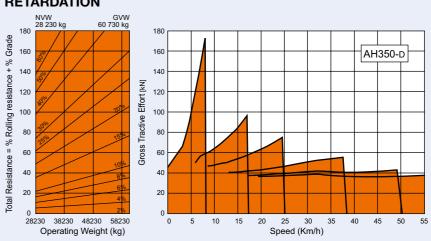


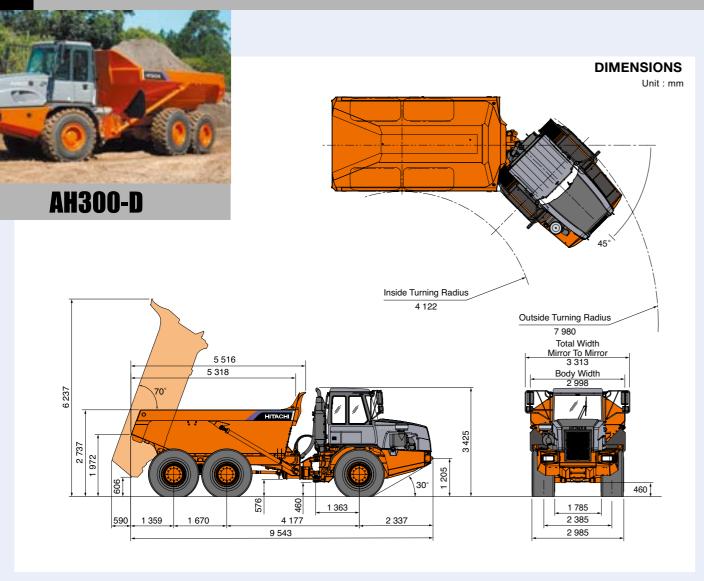


#### **GRADEABILITY**



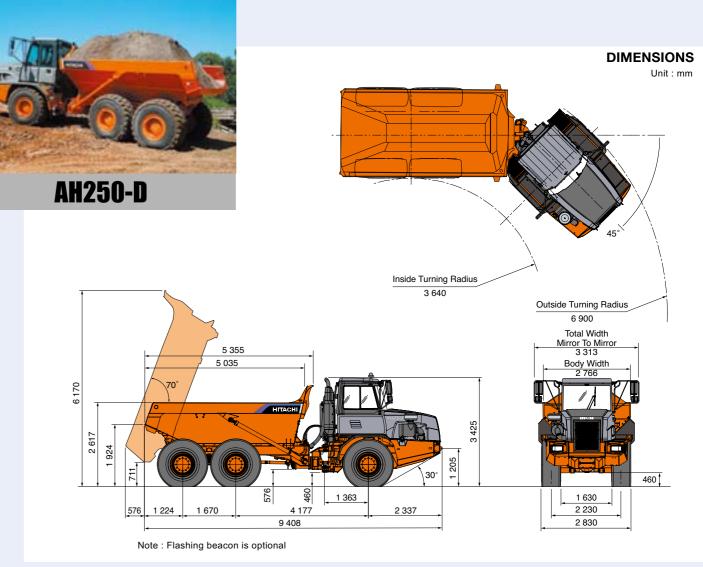
#### RETARDATION



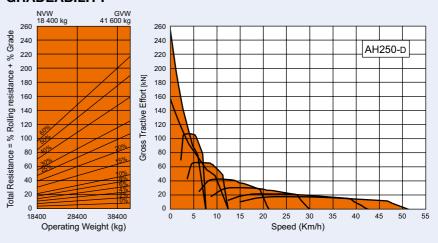


#### **GRADEABILITY** GVW 46 200 kg 240 % 220 240 AH300-D 220 200 200 <u>₹</u> 180 180 160 160 120 100 80 60 0 5 10 15 20 25 30 35 40 45 50 55

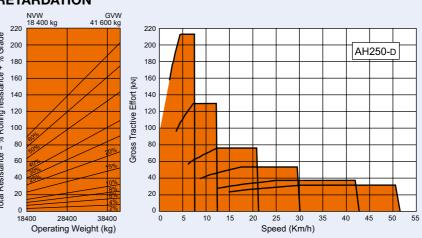




#### **GRADEABILITY**



#### RETARDATION



#### **SPECIFICATIONS**

			AH400-D	AH350-D		
RATED PAYLOAD			37 000 kg	32 500 kg		
BODY CAPACITY: HEA	PED		22.5 m³	20.1 m <sup>3</sup>		
ENGINE NET POWER			308 kW (413 HP)	283 kW (380 HP)		
BODY	Capacity:	Struck	16.9 m³	15.2 m <sup>3</sup>		
		Heaped: SAE 2:1	22.5 m³	20.1 m <sup>3</sup>		
	Rated Payload		37 000 kg	32 500 kg		
	Lowering time		8 seconds			
	Raise time		13 seconds			
	Tipping angle		70 degrees			
OPERATING WEIGHTS	Unladen	Front	14 650 kg	14 120 kg		
		Middle	7 810 kg	7 060 kg		
		Rear	7 390 kg	7 050 kg		
		Total	29 850 kg	28 230 kg		
	Laden	Front	19 590 kg	18 350 kg		
		Middle	23 840 kg	21 200 kg		
		Rear	23 420 kg	21 180 kg		
		Total	66 850 kg	60 730 kg		
NGINE	Model		MercedesBei			
	Configulation		V-6 with exhaust brake and Engine Valve Brake (EVB)			
	Emmision Certification		Meets Europe (EU) Stage IIIA ratings			
	Aspiration		Turbocharged and intercooled			
	Cooling system		Liquid cooled with single pass rac			
		AE J1995)	315 kW (422 HP) @1 800 min <sup>-1</sup> (rpm)	290 kW (389 HP) @1 800 min <sup>-1</sup> (rpm)		
	Gross power (SAE J1995)  Net Power		308 kW (413 HP) @1 800 min <sup>-1</sup> (rpm)	283 kW (380 HP) @1 800 min <sup>-1</sup> (rpm)		
	Net torque		1 974 N·m @1 300 min <sup>-1</sup> (rpm)	1 824 N·m @1 300 min <sup>-1</sup> (rpm)		
	Displacement			11.95 L		
	Fuel tank capacity		485 L			
LECTRICAL SYSTEM	,	,	24 V			
			2 X 105 Ah			
	Battery capacity Alternator rating		28V 100A			
RANSMISSION	Model		Allison HD4500R ORS with integral retarder			
THE WORLDON	Layout		Engine mounted box with rear output			
	Gear layout		Constant meshing planetary gears, clutch operated			
	Clutch type		Hydraulically operated multiple disc			
	Control type		Electronic			
	Torque converter layout		Hydrodynamic, with lock-up in all gears			
	Vehicle speeds: 1st		7.4	8.0		
	km/h	2nd	15.7	17.0		
	KIII/II	3rd	22.8	24.0		
		4th	34.8	37.0		
		5th	45.6	48.0		
		6th	52.0	54.0		
		Reverse	6.3	6.3		
RANSFER BOX	Model / type	neverse				
NANSFER BOX	lviodei / type		VGR 17000 / Three i			
XLES	Model		67/33 torque proportioning, pneumatically lockable on the move			
ANLES			25T			
	Туре		High strength steel fabricated with spiral bevel type gears on the Controlled Traction differential (CTD) and heavy duty outboard planetary gears.			
BRAKING SYSTEM	Service brake		Dual circuit, hydraulically actuated wet disc brakes on	Dual circuit, hydraulically actuated dry disc brake		
	D. J. 0. F		front and middle axles. calipers on all axles.			
	Park & Emergency		Spring applied, air released driveline mounted disc  Transmission retarder, automatic exhaust brake and Engine Valve Brake (EVB)			
WILEEL C	Auxiliary brake Tire	Size	29.5R25	st brake and Engine valve Brake (EVB)  26.5R25		
WHEELS		Туре	Radial Ea			
	Laden ground pressure at 15% sinkage of unloaded radius and specified weights		Middle: 158 kPa	Middle: 169 kPa		
SUSPENSION	Front type		Semi-independent leading A-frame supported by nitrogen and oil filled struts.			
	Rear type		Pivoting walking beams, distributing equal load through laminated rubber suspension blocks. Each axle is coupled to the chassis by a Tri-Link system of three rubber-bushed links for ideal vertical movement and a transverse link for lateral restrain			
IYDRAULIC SYSTEM	Pump type		Variable displacement, loadsensing piston			
	Application		Steering, tipping, hydraulic brake charging and cooling fan drive			
STEERING SYSTEM	Angle		42°side to side			
rticulated with two double cting hydraulic cylinders	Lock to lock tur	ns	4.7			
			Air Drier with heater and integral unloader valv			

			AH300-D	AH250-D		
RATED PAYLOAD			27 300 kg	23 200 kg		
BODY CAPACITY: HEA	APED .		16.6 m <sup>3</sup>	13.8 m <sup>3</sup>		
ENGINE NET POWER			232 kW (311 HP)	198 kW (265 HP)		
BODY	Capacity:	Struck	12.6 m³	10.5 m <sup>3</sup>		
		Heaped: SAE 2:1	16.6 m <sup>3</sup>	13.8 m³		
	Rated Payload		27 300 kg	23 200 kg		
	Lowering time		6 seconds			
	Raise time		12 seconds			
	Tipping angle		70 de	grees		
OPERATING WEIGHTS	Unladen	Front	9 710 kg	9 620 kg		
		Middle	4 490 kg	4 420 kg		
		Rear	4 490 kg	4 360 kg		
		Total	18 690 kg	18 400 kg		
	Laden	Front	13 350 kg	12 860 kg		
		Middle	16 320 kg	14 400 kg		
		Rear	16 320 kg	14 340 kg		
		Total	45 990 kg	41 600 kg		
ENGINE	Model		MercedesBenz OM926LA	MercedesBenz OM906LA		
	Configulation		I-6 with exhaust brake and	, ,		
	Emmision Certific	ation	Meets Europe (EU) Stage IIIA ratings			
	Aspiration		Turbocharged a			
	Cooling system		Liquid cooled with single pass rac			
	Gross power (SAE	J1995)	240 kW (322 HP) @2 200 min <sup>-1</sup> (rpm)	205 kW (275 HP) @2 200 min <sup>-1</sup> (rpm)		
	Net Power		232 kW (311 HP) @2 200 min <sup>-1</sup> (rpm)	198 kW (265 HP) @2 200 min <sup>-1</sup> (rpm)		
	Net torque		1 200 N·m @1 200-1 600 min <sup>-1</sup> (rpm)	970 N·m @1 200-1 600 min⁻¹(rpm)		
	Displacement		7.2 L	6.37 L		
	Fuel tank capacity	/	340 L			
ELECTRICAL SYSTEM			24 V			
	Battery capacity		2 X 105 Ah			
	Alternator rating		28V 80A			
TRANSMISSION	Model		ZF 6HP592C with integral retarder			
	Layout	Enç	Engine mounted bo	·		
	Gear layout		Constant meshing planetary gears, clutch oprtated			
	Clutch type					
	Control type					
	Torque converter					
	Vehicle speeds:	1st		Hydraulically operated multiple disc  Electronic  Hydrodynamic, with lock-up in all gears  8		
	km/h	2nd	1:			
		3rd	2:			
		4th	3			
		5th	4			
		6th Reverse	5.			
		neverse				
TRANSFER BOX	Model / type		VGR 13100 / Three i 67/33 torque proportioning, pne	umatically lockable on the move		
AXLES	Model		18T	15T		
	Туре		High strength steel fabricated on the Limited Slip locking differential (LSD			
BRAKING SYSTEM	Service brake		Dual circuit, hydraulically actuated dry disc brake calipers on all axles.			
	Park & Emergency	у	Spring applied, air released driveline mounted disc			
	Auxiliary brake		Transmission retarder, automatic exhau	st brake and Engine Valve Brake (EVB)		
WHEELS	Tire	Size	23.5R25			
	Type Radial Earthmover	rthmover				
	Max. ground pressure unloaded radius and s		Middle: 155 kPa	Middle: 140 kPa		
SUSPENSION	Front type		Semi-independent, quad rubber mounted leading arm linkages supported by nitrogen and oil filled struts.			
	Rear type		Pivoting walking beams, distributing equal load throu coupled to the chassis by four rubber-bi	gh laminated rubber suspension blocks. Each axle is		
HYDRAULIC SYSTEM	Pump type		Variable displacement, loadsensing piston			
	Application		Steering, tipping, hydraulic brake			
STEERING SYSTEM	Angle		45°side			
Articulated with two double acting hydraulic cylinders	Lock to lock turns		4.	1		
PNEUMATIC SYSTEM			Air Drier with heater and integral unloader val	ve, serving park brake and auxiliary functions		



#### **STANDARD & OPTIONAL EQUIPMENT**

				◎:9
	AH400-D	AH350-D	AH300-D	AH250-D
WHEELS AND TYRES				
23.5 R25	N/A	N/A	0	0
26.5 R25	N/A	0	N/A	N/A
29.5 R25	0	N/A	N/A	N/A
Tyre valve guards	0	0	0	0
DRIVELINE				
Control traction differential	0	0	N/A	N/A
Limited slip differential	N/A	N/A	0	0
Inter axle differential lock	0	0	0	0
Engine valve brake (EVB)	0	0	0	0
Engine exhaust brake	0	0	0	0
Transmission retarder	0	0	0	0
Wet disc brakes	0	N/A	0	N/A
Dry disc brakes	N/A	0	0	0
CHASSIS AND LOAD BODY			'	<u>'</u>
STD wheel base	0	0	0	0
Body without liners	0	0	0	0
Body liners	0	0	0	0
Exhaust body heating	0	0	0	0
Tailgate mechanical (Auto gate)	0	0	0	0
OPERATORS STATION				<u> </u>
ROPS/FOPS cab	0	0	0	0
Air conditioner	0	0	0	0
Air suspension seat	0	0	0	0
Arm rests for operator's seat	0	0	0	0
Lockable doors	0	0	0	0
Door hold open strut	0	0	0	0
Tinted safety glass windows	0	0	0	0
Electric rear view mirrors	0	0	0	0
Seat belts ISO tested	0	0	0	0
Document pocket	0	0	0	0
Ash tray	0	0	0	0
Drinks holder	0	0	0	0
Sun visor	0	0	0	0
Cooled/heated lunch box	0	0	0	0
Trainer seat (ISO tested)	0	0	0	0
Cigar lighter/power point 12V	0	0	0	0
Tilt/telescopic steering column	0	0	0	0
Emergency exit hammer	0	0	0	0

	AH400-D	AH350-D	AH300-D	AH250-I
FUNCTION READOUTS				
Tachometer and speedo	0	0	0	
Engine coolant temp	0	0	0	0
Fuel level	0	0	0	0
Hour meter reading	0	0	0	0
Current gear readout	0	0	0	0
Odometer reading	0	0	0	0
Body tip counter	0	0	0	0
Body settings	0	0	0	0
Body position	0	0	0	0
Trans oil temp	0	0	0	0
Retarder oil temp	0	0	0	0
Hydraulic oil temp	0	0	0	0
Wet brake oil temp	0	N/A	N/A	N/A
Warning lights				
Cold start	0	0	0	0
Coolant level	0	0	0	0
Engine fault	0	0	0	0
Engine over speed	0	0	0	0
Park brake	0	0	0	0
Brake pressure	0	0	0	0
Brake temp	0	N/A	N/A	N/A
Hydraulic temp	0	0	0	0
Body raised	0	0	0	0
Transmission fault	0	0	0	0
GENERAL				
Antenna mounting bracket	0	0	0	0
Auto grease system	0	0	N/A	N/A
Two extra batteries	0	0	0	0
Work lights	0	0	0	0
Fuel heater	0	0	0	0
Headlight guard	0	0	0	0
CE Mark	0	0	0	0
Air & Electrical horn	0	0	0	0
Emergency steering (Ground)	0	0	0	0
Artic reverse light	0	0	0	0
Flashing beacon	0	0	0	0

These specifications are subject to change without notice.

Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in color and features.

 before use, read and understand the Operator's Manda for proper operation.					

Hitachi Construction Machinery Co., Ltd. www.hitachi-c-m.com

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