We build a better future

HYUNDAI DIESEL FORKLIFT TRUCKS Applied Tier 4 Interim Engine

110/130/160D-7A

HYUNDAI
CONSTRUCTION EQUIPMENT AMERICAS, INC.

■ Some of the photos may include optional equipment.

NEW Diesel Engine Forklift Trucks

Your satisfaction is our Priority

110 /130 /160D-7A

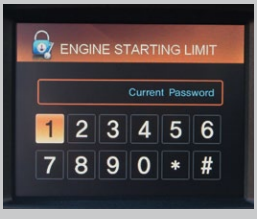
Excellent

Instrument Switch Panel

Air Conditioner & Heater (Option)

Rear View Camera (Option)

Wheel Angle Sensing
Load Indicator (Option)



ESL (Engine Start Limit)

Ability of best, the new master on the job-site!

Smooth running, efficient, and ergonomically designed,
110D-7A/130D-7A/160D-7A series are made to meet your needs.

Powerful Engine

Cummins QSB6.7 Engine

The six cylinders turbo-charged engine is built for power, reliability and economy. This engine meets EPA Tier 4 Interim and EU stage IIIB emission regulation.

Variable Geometry Turbo

Unique sliding nozzle design controls EGR flow and boosts response at all engine speeds.

New CM2250 (ECU)

3 x faster processing power
2 x increased memory capability
Increases HPCR capability and provides a seamless interface to equipment systems.

Clean Crankcase Filter

Removes crankcase emissions and eliminates oil drips or mist for ultra-clean engine operation.

High Efficiency Combustion

Removes high value of PM at source – less for catalyst to remove. Incorporates a proven cooled EGR system enabling up to 5% improved fuel efficiency.

165 HP / 2,200rpm
74.6kgf.m/1,500rpm

Engine Control Mode

According to operating load, the operator can select engine mode by changing side panel switch.
STANDARD Mode : Fuel reduction mode for light-duty operating load
POWER Mode : Heavy-duty or operating at slope

Adjustable Engine Low Idle RPM

While engine runs, low idle rpm can be increased by unit of 25rpm and it keeps previously set rpm when engine restarts.

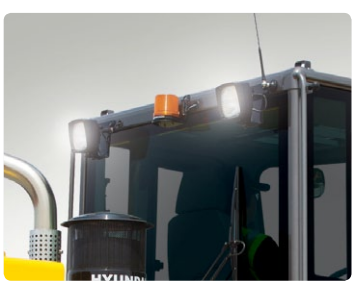
Electronic Full-automatic Transmission

High quality ZF transmission gives easy, convenient handling and soft, smooth shifting. The operator can select two stage of full automatic modes. (1stage : 1st↔3rd, 2stage : 2nd↔3rd)
The optimum shifting quality control offers soft and smooth shifting, and improved control by proportional modulation.

Self Diagnosis Function Error indication on display

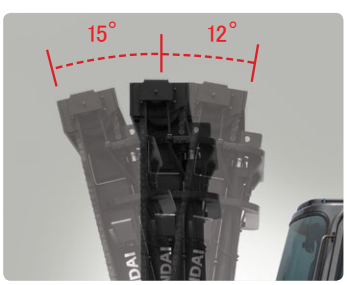
■ Some of the photos may inclu

Transmission Control Switch



Excellent Night Work

- Multiple work lamps provides the operator more comfortable and safe operating environments.
- Front : fender (2), mast (2) - Rear : cab (2)



Increased Mast Tilting Angle

Utilizing the mast tilting angle of 15 degrees forward and 12 degrees backward, the operator can perform loading and unloading jobs safely and rapidly.

High Power Low Noise

ude optional equipment.

Faster Travel Speed & Better Gradability

The powerful high-output engine provides greater acceleration, better gradability and faster travel speed on any tough terrains or slopes.

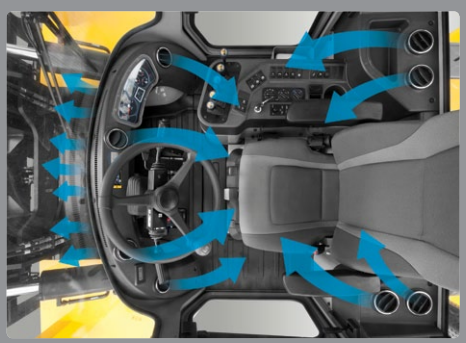
Gradability (Loaded)	Travel Speed (Unloaded)
110D-7A : 38.2% (20.9°)	110D-7A : 21.6 mph
130D-7A : 34.6% (19.1°)	130D-7A : 21.4 mph
160D-7A : 33.7% (18.6°)	160D-7A : 18.1 mph

Ergonomic driving space design!

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

Operator friendly gauges and water-resistant monitor panel

Wide visibility with Round Front Glass



High-output Air Conditioner & Heater (Option)

An air conditioner with integrated condenser is mounted on the upper side of the cabin, increasing operator room in the cabin.
And an air conditioner with high-output and heater provides you with comfortable environment when you work.

Luxury Air-suspension Seat with Heat & Head Rest (Option)

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

Rear View Camera (Option)

The rear view camera makes the operation more easy and convenient. And it supports 4 camera channels.

Wheel Angle Sensing

Real-time steering wheel angle is displayed on the monitor for easy operation.

Load Indicator (Option)

A load can be placed on the fork and can be accurately weighed by measuring the hydraulic pressure within ±1lb.

Centralized Instrument Switch Panel

USB MP3 Player & Remote Control

▪ Some of the photos may include optional equipment.

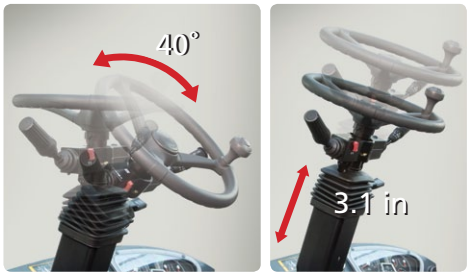
Bluetooth Hands Free Socket (Option)

Quick Response of Operating Control Levers

Only minimal operator's effort is required for precise, safe and productive control.
(3-Lever : standard / 45-Lever : option)

Ergonomically positioned pedals

Based on human engineering ; the accelerator, brake and inching pedals are optimally positioned for the operator's convenience.

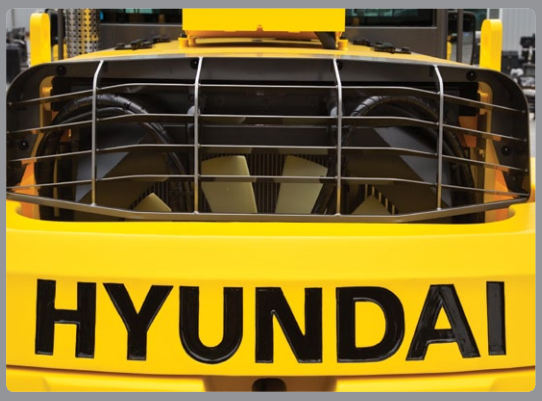


Adjustable Steering Column

Steering wheel assembly is adjustable depending on the operator's body shape.

Danger-free through high durability!

Safety and durability are priorities in design of the equipment.



Enhanced Cooling System

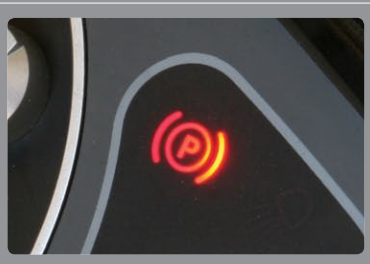
Reduced fuel consumption and low noise are obtained by incorporating a sensor for the cooling fan, transmission oil temperature, coolant temperature, and hydraulic temperature.

OPSS (Operator Presence Sensing System)

Control of mast tilting, lifting and lowering is not possible through operation of the appropriate control when the operators is not in the normal position.

Durable Drive Axle

The bevel gear and hub reduction drive axle smoothly delivers desired torque to the drive wheels.



Auto Parking

The parking brake is engaged automatically when the transmission is in the neutral position and the operator leaves the seat.

Wet Disc Brake System

The wet disc brake system is virtually maintenance free and is enclosed to protect from dust and water.

Fitted Protector for Hub Bolts

Durability has improved by applying protector for preventing bolts breakage.

Cylinder Guard

This guard helps to prevent possible damage from any foreign material.

Grease Fittings

Grease fittings are installed for fast access to steering axle center pin when doing service checks.

■ Some of the photos may include optional equipment.

Highly Durable Mast & Carriage Side Roller

Side roller with great durability for mast and carriage is included.

Highly Durable Carriage

The enhanced carriage made of high tensile structural steel has excellent durability.

Large Footboard & Handle

Wide "entry/exit" step offers convenience and safety when entering and exiting the truck.

Centralized design for easy service!

An ideal arrangement of component parts ensures easy access and convenience for maintenance.

Enlarged Engine Hood Cover

Highly accessible engine compartment assures fast and efficient maintenance.

Electronic Cab Tilting System

This system makes servicing of all power train components quick and easy. An electrically assisted hydraulic actuated cylinder tilts operator cabin to left side about 55 degrees for easy access to inside of truck components.

Easy Change Air Cleaner

This air filter is readily accessible for cleaning or replacement.

Fresh Air Cab Filter

The internal pressure is maintained to be slightly higher than that of outside to exclude dust and to reduce noise levels.

Compact fuse Box for Easy Inspection

Mechanic Friendly Fuel Filter Replacement

Highly accessible engine compartment allows quick replacement of filters.

Electrically Monitored Air Filter

Air cleaner sensor alerts the operator of a clogged air filter and allows replacement before damage.

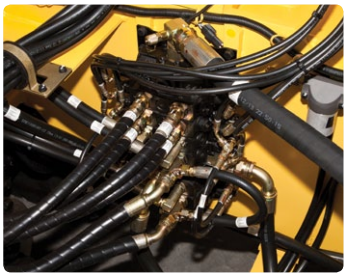
Automatic Self Locking Gas Spring

Engine compartment hood is safely opened by a self locking gas spring.

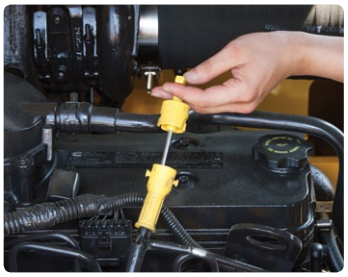
■ Some of the photos may include optional equipment.

Master Switch
A master switch disconnects the battery power to protect the electrical system from excess electrical drainage.

Large Tool Box



Pressure Gauge Port



Easy Maintenance Oil Check

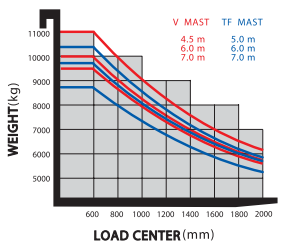
Mast Specification

Mast Type		Maximum Fork Height (mm / in)	Overall Height (Lowered) (mm / in)	Free Lift Height (mm / in)	Tilt Angle (deg) Fwd / Bwd	Load Capacity (24 in LC)(kg / lb)		Truck Weight (Unloaded) (kg / lb)	
		110D/130D-7A				110D-7A	130D-7A	110D-7A	130D-7A
2-Stage Limited Free Lift	V280	2,805 / 110.4	2,900 / 114.2	0 / 0.0	15 / 12	11,000 / 24,251	13,000 / 28,660	15,595 / 34,381	16,350 / 36,046
	* V300	3,005 / 118.3	3,000 / 118.1	0 / 0.0	15 / 12	11,000 / 24,251	13,000 / 28,660	15,628 / 34,454	16,383 / 36,118
	V330	3,305 / 130.1	3,150 / 124.0	0 / 0.0	15 / 12	11,000 / 24,251	13,000 / 28,660	15,704 / 34,621	16,459 / 36,286
	V350	3,505 / 138.0	3,250 / 128.0	0 / 0.0	15 / 12	11,000 / 24,251	13,000 / 28,660	15,754 / 34,732	16,509 / 36,396
	V400	4,005 / 157.7	3,550 / 139.8	0 / 0.0	15 / 12	11,000 / 24,251	13,000 / 28,660	16,006 / 35,287	16,761 / 36,952
	V450	4,505 / 177.4	3,800 / 149.6	0 / 0.0	15 / 12	11,000 / 24,251	12,600 / 27,778	16,131 / 35,563	16,886 / 37,227
	V500	5,005 / 197.0	4,100 / 161.4	0 / 0.0	15 / 12	11,000 / 24,251	12,200 / 26,896	16,281 / 35,893	17,036 / 37,558
	V550	5,505 / 216.7	4,350 / 171.3	0 / 0.0	15 / 12	11,000 / 24,251	11,800 / 26,015	16,511 / 36,401	17,266 / 38,065
	V600	6,005 / 236.4	4,650 / 183.1	0 / 0.0	15 / 12	10,600 / 23,369	11,400 / 25,133	16,663 / 36,736	17,418 / 38,400
	V650	6,505 / 256.1	4,900 / 192.9	0 / 0.0	15 / 12	10,300 / 22,708	11,100 / 24,471	16,796 / 37,029	17,551 / 38,693
	V700	7,005 / 275.8	5,150 / 202.8	0 / 0.0	15 / 12	10,000 / 22,046	10,800 / 23,810	16,927 / 37,318	17,682 / 38,982
3-Stage Full Free Lift	TF440	4,405 / 173.4	2,950 / 116.1	1,595 / 62.8	10 / 10	11,000 / 24,251	12,300 / 27,117	16,682 / 36,778	17,449 / 38,468
	TF470	4,750 / 187.0	3,050 / 120.1	1,695 / 66.7	10 / 10	11,000 / 24,251	12,100 / 26,676	16,752 / 36,932	17,519 / 38,623
	TF500	5,005 / 197.0	3,150 / 124.0	1,795 / 70.7	10 / 10	11,000 / 24,251	11,800 / 26,015	16,823 / 37,088	17,590 / 38,779
	TF550	5,505 / 216.7	3,317 / 130.6	1,962 / 77.2	10 / 10	10,600 / 23,369	11,500 / 25,353	16,991 / 37,459	17,758 / 39,150
	TF600	6,005 / 236.4	3,484 / 137.2	2,129 / 83.8	10 / 10	10,300 / 22,708	11,100 / 24,471	17,109 / 37,719	17,876 / 39,410
	TF650	6,505 / 256.1	3,651 / 143.7	2,296 / 90.4	10 / 10	10,000 / 22,046	10,800 / 23,810	17,323 / 38,191	18,090 / 39,882
	TF700	7,005 / 275.8	3,818 / 150.3	2,463 / 97.0	10 / 10	9,700 / 21,385	10,500 / 23,149	17,442 / 38,453	18,209 / 40,144

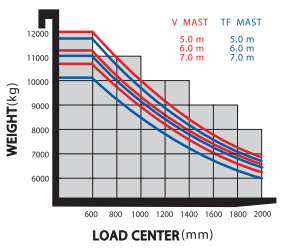
Mast Type		Maximum Fork Height (mm / in)	Overall Height (Lowered) (mm / in)	Free Lift Height (mm / in)	Tilt Angle (deg) Fwd / Bwd	Load Capacity (24 in LC)(kg / lb)	Truck Weight (Unloaded) (kg / lb)
		160D-7A				160D-7A	160D-7A
2-Stage Limited Free Lift	V295	2,950 / 116.1	2,950 / 116.1	0 / 0.0	15 / 12	16,000 / 35,274	19,173 / 42,269
	* V300	3,010 / 118.5	3,250 / 128.0	0 / 0.0	15 / 12	16,000 / 35,274	19,337 / 42,631
	V330	3,310 / 130.3	3,400 / 133.9	0 / 0.0	15 / 12	16,000 / 35,274	19,431 / 42,838
	V350	3,510 / 138.2	3,500 / 137.8	0 / 0.0	15 / 12	16,000 / 35,274	19,476 / 42,937
	V400	4,010 / 157.9	3,750 / 147.6	0 / 0.0	15 / 12	16,000 / 35,274	19,764 / 43,572
	V450	4,510 / 177.6	4,000 / 157.5	0 / 0.0	15 / 12	15,900 / 35,053	19,918 / 43,912
	V500	5,010 / 197.2	4,300 / 169.3	0 / 0.0	15 / 12	15,900 / 35,053	20,100 / 44,313
	V550	5,510 / 216.9	4,550 / 179.1	0 / 0.0	15 / 12	15,200 / 33,510	20,369 / 44,906
	V600	6,010 / 236.6	4,850 / 190.9	0 / 0.0	15 / 12	14,600 / 32,187	20,551 / 45,307
	V650	6,510 / 256.3	5,125 / 201.8	0 / 0.0	15 / 12	14,200 / 31,306	20,717 / 45,673
	V700	7,010 / 276.0	5,375 / 211.6	0 / 0.0	15 / 12	13,800 / 30,424	20,868 / 46,006
2-Stage Full Free Lift	VS300	3,010 / 118.5	3,200 / 126.0	1,550 / 61.0	10 / 10	16,000 / 35,274	19,323 / 42,600
	VS330	3,310 / 130.3	3,350 / 131.9	1,700 / 66.9	10 / 10	16,000 / 35,274	19,416 / 42,805
	VS350	3,510 / 138.2	3,450 / 135.8	1,800 / 70.9	10 / 10	16,000 / 35,274	19,479 / 42,944
	VS400	4,010 / 157.9	3,700 / 145.7	2,050 / 80.7	10 / 10	16,000 / 35,274	19,637 / 43,292
	VS450	4,510 / 177.6	3,950 / 155.5	2,300 / 90.6	10 / 10	15,800 / 34,833	19,887 / 43,843
	VS500	5,010 / 197.2	4,250 / 167.3	2,550 / 100.4	10 / 10	15,400 / 33,951	20,119 / 44,355
	VS550	5,510 / 216.9	4,500 / 177.2	2,800 / 110.2	10 / 10	15,100 / 33,290	20,307 / 44,769
	VS600	6,010 / 236.6	4,800 / 189.0	3,050 / 120.1	10 / 10	14,600 / 32,187	20,600 / 45,415
3-Stage Full Free Lift	TF395	3,964 / 156.1	2,950 / 116.1	1,610 / 63.4	10 / 10	15,600 / 34,392	20,450 / 45,085
	TF450	4,504 / 177.3	3,130 / 123.2	1,790 / 70.5	10 / 10	15,300 / 33,731	20,611 / 45,439
	TF500	5,004 / 197.0	3,297 / 129.8	1,957 / 77.0	10 / 10	14,900 / 32,849	20,786 / 45,825
	TF550	5,504 / 216.7	3,464 / 136.4	2,124 / 83.6	10 / 10	14,500 / 31,967	20,969 / 46,229
	TF600	6,004 / 236.4	3,631 / 143.0	2,291 / 90.2	10 / 10	14,100 / 31,085	21,125 / 46,573
	TF650	6,504 / 256.1	3,798 / 149.5	2,458 / 96.8	10 / 10	13,700 / 30,203	21,403 / 47,186
	TF700	7,004 / 275.7	3,965 / 156.1	2,625 / 103.3	10 / 10	13,400 / 29,542	21,546 / 47,501

Load Capacity

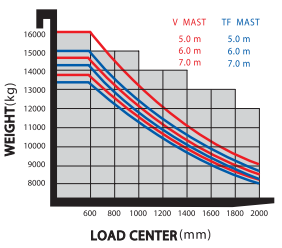
110D-7A



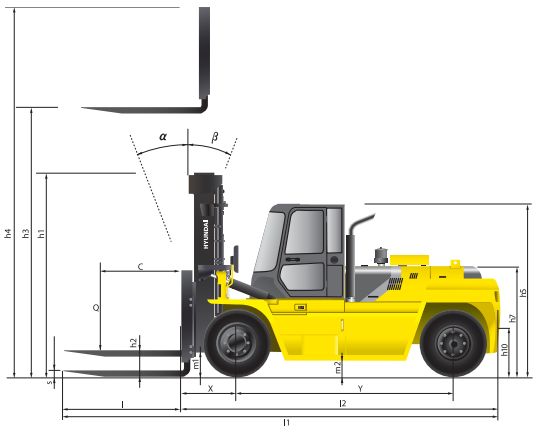
130D-7A

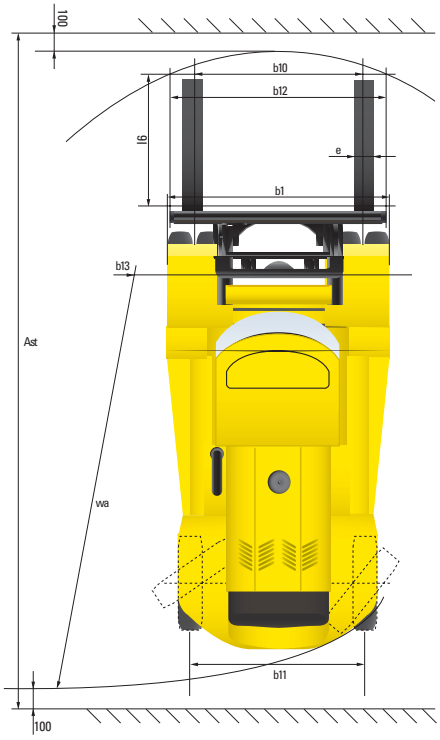


160D-7A



Dimension





Specification

Identification					
1.1	Manufacturer		Hyundai	Hyundai	Hyundai
1.2	Manufacturer's type designation		110D-7A	130D-7A	160D-7A
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	Q (kg / lb)	11,000 / 24,000	13,000 / 28,500	16,000 / 35,000
1.6	Load center distance	c (mm / in)	600 / 24	600 / 24	600 / 24
1.8	Load distance, center of drive axle to fork	x (mm / in)	760 / 29.9	770 / 30.3	815 / 32.1
1.9	Wheelbase	y (mm / in)	2,900 / 114.2	2,900 / 114.2	3,300 / 129.9
Weights					
2.1	Service weight	(kg / lb)	15,628 / 34,454	16,383 / 36,118	19,337 / 42,631
2.2	Axle loading, loaded front/rear	(lb)	52,274 - 6,431	59,183 - 5,595	70,801 - 7,103
2.3	Axle loading, unloaded front/rear	(lb)	16,649 - 17,805	16,982 - 19,136	20,404 - 22,227
Wheels, Chassis					
3.1	Tires:pneumatic, solid		Pneumatic	Pneumatic	Pneumatic
3.2	Tires size, front(width x Φ)		10.00 - 20	10.00 - 20	12.00 - 20
3.3	Tires size, rear(width x Φ)		10.00- 20	10.00 - 20	12.00 - 20
3.5	Wheels, number front x rear (x=driven wheels)		4 x 2	4 x 2	4 x 2
3.6	Track width, front	b10 (mm / in)	1,842 / 72.5	1,842 / 72.5	1,842 / 72.5
3.7	Track width, rear	b11 (mm / in)	1,910 / 75.2	1,910 / 75.2	1,960 / 77.2
Basic Dimensions					
4.1	Mast / fork carriage tilt forward / backward (α / β)	(deg)	15 / 12	15 / 12	15 / 12
4.2	Lowered mast height	h1 (mm / in)	3,000 / 118.1	3,000 / 118.1	3,250 / 128.0
4.3	Free lift	h2 (mm / in)	0 / 0.0	0 / 0.0	0 / 0.0
4.4	Lift height	h3 (mm / in)	3,000 / 118.1	3,000 / 118.1	3,000 / 118.1
4.5	Extended mast height	h4 (mm / in)	4,465 / 175.8	4,465 / 175.8	4,710 / 185.4
4.7	Overhead load guard (cab) height	h5 (mm / in)	2,900 / 114.2	2,900 / 114.2	2,935 / 115.6
4.8	Seat height / standing height	h7 (in)	1,723 - 1,884	1,723 - 1,884	1,749 - 1954
4.12	Coupling height	h10 (mm / in)	600 / 23.6	600 / 23.6	600 / 23.6
4.19	Overall length	l1 (mm / in)	5,690 / 224.0	5,695 / 224.2	6,255 / 246.3
4.20	Length to face of forks	l2 (mm / in)	4,340 / 170.9	4,345 / 171.1	4,905 / 193.1
4.21	Overall width	b1 (mm / in)	2,450 / 96.5	2,450 / 96.5	2,497 / 98.3
4.22	Fork dimensions	s / e / l (in)	3.0 x 7.9 x 53.1	3.3 x 7.9 x 53.1	3.5 x 7.9 x 53.1
4.23	Fork carriage ISO 2328, class / type A,B		Shaft Mount	Shaft Mount	Shaft Mount
4.24	Fork-carriage width	b12 (mm / in)	2,362 / 93.0	2,362 / 93.0	2,488 / 98.0
4.31	Ground clearance, loaded, under mast	m1 (mm / in)	270 / 10.6	270 / 10.6	270 / 10.6
4.32	Ground clearance, centre of wheelbase	m2 (mm / in)	330 / 13.0	330 / 13.0	330 / 13.0
4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm / in)	6,465 / 254.5	6,470 / 254.7	7,071 / 278.4
4.34	Aisle width for pallets 800x1200 lengthways	Ast (mm / in)	6,465 / 254.5	6,470 / 254.7	7,071 / 278.4
4.35	Turning radius	Wa (mm / in)	4,160 / 163.8	4,160 / 163.8	4,706 / 185.3
4.36	Smallest pivot point distance	b13 (mm / in)	1,516 / 59.7	1,516 / 59.7	1,748 / 68.8
Performance Data					
5.1	Travel speed, Unloaded	(km/h / mph)	34.7 / 21.6	34.5 / 21.4	29.1 / 18.1
5.2	Lift speed, Loaded/Unloaded	m/s	0.44 / 0.51	0.43 / 0.51	0.35 / 0.45
5.3	Lowering speed, Loaded/Unloaded	m/s	0.51 / 0.46	0.51 / 0.46	0.43 / 0.39
5.5	Drawbar pull, Loaded	(N)	102,264	103,441	121,446
5.7	Gradient performance, Loaded	(%)	38.2	34.6	33.7
5.9	Service brake		hydraulic	hydraulic	hydraulic
Engine					
6.1	Engine manufacturer / type		Cummins QSB6.7	Cummins QSB6.7	Cummins QSB6.7
6.2	Engine power acc. to ISO 1585	(kW / HP)	123 / 165	123 / 165	123 / 165
6.3	Rated speed	(rpm)	2,200	2,200	2,200
6.4	No. of cylinder / cubic capacity	(no. / in³)	6 / 408.9	6 / 408.9	6 / 408.9
Other Details					
8.1	Type of drive control		Toque Convert 3 / 3	Toque Convert 3 / 3	Toque Convert 3 / 3
8.2	Operating pressure for attachments	(bar)	210	210	210
8.3	Oil volume	(ℓ)	135	135	135
8.4	Sound level at driver's ear according to DIN 12 053	db(A)	82	82	82

Notes

Optional Items

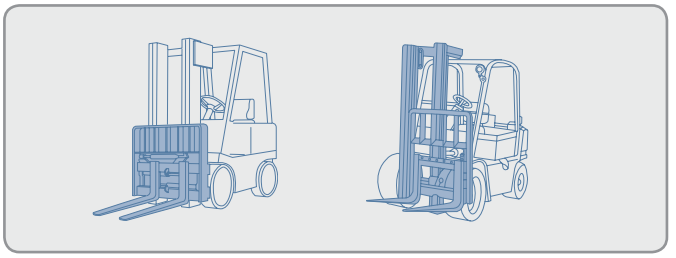
- FORK (L x W x T) (in)

  110D-7A
  3.0 x 7.9 x 47.2 / 3.0 x 7.9 x 59.1 / 3.0 x 7.9 x 65.0 /
  3.0 x 7.9 x 70.9 / 3.0 x 7.9 x 82.7 / 3.3 x 7.9 x 96.1 /
  3.3 x 7.9 x 102.4

  130D-7A
  3.3 x 7.9 x 47.2 / 3.3 x 7.9 x 59.1 / 3.3 x 7.9 x 65.0 /
  3.3 x 7.9 x 70.9 / 3.3 x 7.9 x 82.7 / 3.5 x 7.9 x 96.1 /
  3.5 x 7.9 x 102.4

  160D-7A
  3.5 x 7.9 x 47.2 / 3.5 x 7.9 x 59.1 / 3.5 x 7.9 x 65.0 /
  3.7 x 7.9 x 70.9 / 3.7 x 7.9 x 82.7 / 3.7 x 7.9 x 96.1 /
  3.9 x 7.9 x 102.4
- MAST : SIMPLEX MAST / DUPLEX MAST (160D-7A) / TRIPLEX MAST
- OVER SHOE : 70.9 / 78.7 / 86.6 / 94.5 / 102.4
- MCV : 4 - SPOOL / 5 - SPOOL
- SEAT : NON HEAT / HEAT , AIR SUSPENSION with HEAT
- BEACON LAMP : AMBER / RED / BLUE
- FORK POSITIONER : ø82 / ø100
- INTEGRAL SIDE SHIFT
- INTEGRAL SIDE SHIFT + FORK POSITIONER
- TERMINAL WEST SYSTEM (160D-7A)
- HYDRAULIC LINE : 3 - SPOOL / 4 - SPOOL / 5 - SPOOL
- TIRE : PNEUMATIC / SOLID
- WIDE CARRIAGE (107.5 in)(160D-7A)
- HEAD GUARD
- AIRCON & HEATER

Various Attachments



HYUNDAI | FORKLIFT
CONSTRUCTION EQUIPMENT AMERICAS, INC.

Headquarter Office
6100 Atlantic Blvd, Norcross, GA 30071
TEL (678) 823 7777 / FAX (678) 823 7778

Chicago Office
955 Estes Ave, Elk Grove, IL 60007

PLEASE CONTACT