#### **BUCKET SELECTION GUIDE**

# 2000 2500 3000 3500 4000lb/vdi

#### SUPPLEMENTAL SPECIFICATIONS

Description	Change in operating weight kg(lb)	Change in static tipping load-straight kg(lb)	Change in static tipping load-40° turn kg(lb)	
17.5-25 12PR L2	-60 (-132)	-43 (-95)	-38 (-84)	
17.5 R25 XHA*	+80 (+176)	+57 (+126)	+50 (+110)	



# STANDARD EQUIPMENT

# **Electrical system**

Alternator, 70A Alarms, audible and visual

- air filter clogging
- transmission erro - alternator voltage
- brake oil pressure
- engine oil pressure
- parking brake
- fuel level
- hydraulic oil temperature - coolant temperature
- service brake oil pressure Alarm, back-up

Batteries, 850 CCA, 12V, (2) Gauges

- engine coolant temperature
- fuel level
- hydraulic oil temperature - speedometer
- transmission oil temperature voltmeter

Horn, electric

- Indicator lights - clutch cut-off
- high beam
- turn signal LCD Display
- clock and fault code
- operating hour counter - engine rpm

- transmission gear range indicator - job time and distance temperature (coolant,
- hydraulic oil, T/M oil) Lighting system
- LED dome light - 2 stop and tail lights
- 4 turn signals
- brake lights (counterweight) - 2 head lights on front tower
- 2 working lights on front roof - 2 working lights on rear roof
- Switches - work load
- clutch cut-off
- Ignition key, start/stop switch - main light (illumination and
- head light)
- parking
- rear wiper & washer
- work light - battery master switch
- pilot cut-off Starter, electric
- (24-volt)
- Starting and charging system

Cab, ROPS(ISO3471)/FOPS(ISO3449) (sound suppressed and

- pressurized) with - cigar lighter & ashtray
  - coat hook Automatic climate control
  - air conditioner & heater - defroster
  - intermittent wiper and washer, front and rear
  - personal storage space: holder, can and cup - rear view mirrors (1 inside)
  - rear view mirrors (2 outside) - 2" retractable seat belt &
  - adjustable suspension seat with armrests
  - tilt / telescopic steering column
  - steering wheel with knob - roller type sunshade
  - (front window) - tinted safety glass Magazine pocket
  - Pedals - one accelerator pedal - one brake pedal Rubber floor mat

Antifreeze Engine, Cummins QSB4.5 - low Emission Diesel, Tier-III

3 operating mode - power/standard/econo Engine enclosure, lockable Engine fuel priming pump

Fan guard Fuel/water separator Fuel warmer

Muffler, under hood with large exhaust stack

Rain cap, engine air intake Radiator (deaeration type) Starting aid (air intake heater) Water sensor on fuel filter

Power Train Brakes: Service, enclosed wet-disc Parking brake

Torque converter Transmission, computer-controlled electronic soft shift, auto-shift and kick down-shift features included

Boom kickout automatic

Hydraulic system, - 2 spool, single lever, pilot

control for boom and bucket actuation Steering, load-sensing

Remote cooling fan, hydraulically-driven, temperature sensing type

# **Others**

Articulation locking bar Coolant level sight gauge Counterweight Door and cab locks, one key Doors, service access (locking) Drawbar with pin Engine oil level dipstick gauge Ergonomically located and slip

- resistant, left & right - handrails
- ladders
- platforms

Transmission oil cooler **Hydraulics** Bucket positioner, automatic Diagnostic pressure taps

- steps Fenders (front / rear) Guard, bucket cylinder rod Hydraulic oil level sight gauge License plate bracket Lift and tie-down hooks Steering stops, cushioned Tires (17.5-25, 12PR.L3) Transmission oil sight level Vandalism protection caplocks

# **OPTIONAL EQUIPMENT**

24-volt to 12-volt DC converter Climate control - air conditioner only

- heater only Beacon light, rotating Auxiliary, 2 working lights on front

(Xenon working lights) Auxiliary, 2 working lights on rear roof

3 piece cutting edge, bolt-on type

Secondary steering system Fire extinguisher High lift arrangement with

3rd spool for auxiliary function Joystick with travel switch(FNR) Mud quard

optional counterweight. 410 kg (904 lb) Hydraulic control, 2 lever Hydraulic control, 3 lever

Ride control system - 2" static seat belt &

Radio/USB playe

Heated rear view mirrors (2 outside)

adjustable mechanical suspension(vinyl) - 3" static seat belt &

adjustable mechanical suspension - 2" retractable seat belt &

adjustable air suspension (heated)

- 17.5 - 25, 12PR, L2 - 17.5 R25 XHA\*

Tool kit Tooth, 1 piece, bolt-on type Guards

(Remote Management System)

- crankcase - transmission Wheel chock HI-Mate

Rear view camera Dual-brake pedal Roller type sunshade (rear window) License plate & lamp Pre-cleaner engine air intake Limited slip differential

Standard and optional equipment may vary. Contact your Hyundai dealer for more information. The machine may vary according to International standards. All imperial measurements rounded off to the nearest pound or inch.



Operator suit

Head Office(Sales Office)

11F, GLOBAL R&D CENTER, 477 BUNDANG SUSEO-RO, BUNDANG-GU, SEONGNAM-SI, GYEONGGI-DO, 13553, KOREA

PLEASE CONTACT

# HL730-9 With Tier 3 Engine installed





# **Pride at Work**

Hyundai Heavy Industries strives to build state-of-the art earthmoving equipment to give every operator maximum performance, more precision, versatile machine preferences, and proven quality. Take pride in your work with Hyundai!



# **HL730**-9

# **Machine Walk-Around**

# **Reliable Main Components**

#### **Engine Technology**

Proven, reliable, fuel efficient, low noise Cummins Tier-III QSB4.5 engine. Electronically controlled for optimum fuel to air ratio and clean, efficient combustion. HPCR(High Pressure Common Rail) fuel system / Self-diagnostic system. Enhanced function of fuel pre-filter / Enhanced reliability of main parts. 3 step(Power / Standard / Economy) operating mode controlled by switch.

4 step(Manual / Light / Normal / Heavy) shift mode by working condition.

#### **Fully Automatic Transmission**

Protective transmission at low temperature(Automatic warm-up system).

Self-diagnostic & Memory of malfunction history.

Minimum travel shift shock by applying proportional controlling modulation valve / Self adjusting clutch gap. Kick-down button & FNR switch for operating comfort.

#### Axle

Hydraulically lockable front differential front for easy driving on variable ground condition slef-adjusting & wheel speed brake.

#### Improved Durability

Load sensing pump with variable displacement / Closed center type load sensing MCV. Improved cooling system resistant to thermal shock, impulse and vibration. Reinforced and welding stress free cast steel steering cylinder lug.

#### **Load Sensing Hydraulic System**

Load sensing hydraulic pump technology improves fuel efficiency and reduces energy loss by regulating flow and pressure according to load demand.

# **Enhanced Operator Comfort**

#### Improved Visibility

Enlarged cab with rounded front center glass. Good side visibility with newly applied glass on the lower door. Safety glass windows on all sides.

#### Improved Convenience

Increased cooling & heating capacity with full auto air-con control.

Tilting & telescopic steering column and adjustable wrist rest to best suit operator preferences.

AM/FM Radio with MP3 interface and USB input and bluetooth hands-free.

Inclined ladder with aluminum die cast steps for easy and safe entry & exit.

# Advanced 5.7" Color Monitor

Easy-to-read new color LCD display.

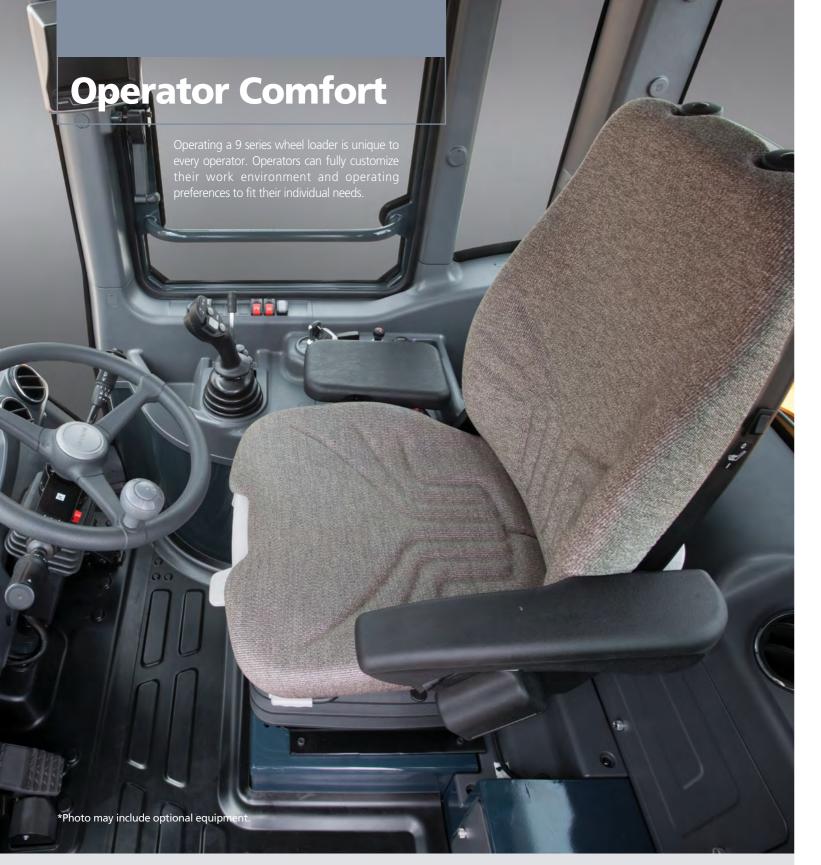
Auto boom kick out and bucket positioner - fully adjustable from within the cab.

Integrated load weighing system, viewable through the monitor, for improved work efficiency and overload prevention. Self diagnostic & monitoring system with active display of engine, hydraulic system, transmission and electrical component information.

Color, rear-view, back-up camera for improved safety and convenience.

#### Serviceability

Auto reversing, remote cooling fan for reduced noise and fuel consumption. Ground level of service points and sight gauges for easy maintenance. Extended life hydraulic oil filter and oil for reduced operating costs.





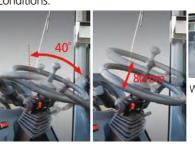
# **Spacious and Convenient Cab**

The newly designed cabin was conceived for more space, a wider field of view and operator comfort. The front glass is rounded and 17% wider than the previous 7A series. Special attention was given to a clean, open and convenient interior with plenty of visibility on the machine surroundings and the job at hand. This well balanced combination of cab ergonomics puts the operator in the perfect position to work safely and securely. The 9 series cab's fully automatic climate control system features 11 air vents and increased cooling and heating capacity for optimum temperature control. The defroster vents located on the front and rear windows and a PTC (electric pre-heater) make working in cold weather more hospitable.

# Operator Comfort

In the 9 series cabin you can easily adjust the steering column and wrist rest to best suit your preferred comfort level. Pilot-operated joystick controls are easy and comfortable to operate. An FNR (Forward/Neutral/Reverse) switch on the control lever facilitates easy

selection of travel direction. Roller type front sunshades on the front window and rear window allow the operator to reduce glare and improve visibility. Heated side mirrors feature built-in hot wires for quick defrosting during cold weather conditions.











Front sunshade Heated side mirrors AMFM Radio with MP3 and Bluetooth Hands-

Tilting / telescopic steering column

# **Reduced Stress**

Work is stressful enough. Your work environment should be stress free. Hyundai's 9 series cabin offers lots of amenities, additional space and a comfortable seat to minimize stress to the operator. A powerful climate control system provides the operator with optimum air temperature. An advanced audio system with AM/FM stereo with MP3 interface and USB input, plus remotely located controls is perfect for listening to music favorites.

# **Advanced Color Monitor**



The advanced new monitor with 5.7 inch wide color LCD screen allows the operator to easily and efficiently control the machine. The operator can adjust boom kick-out and bucket position via switches overhead while monitoring the adjustment settings through the monitor. An integrated load weighing system that contributes to improved work efficiency, can also be viewed through the monitor. Self diagnostics, color rear-view camera maintenance check lists and start-up machine security, were integrated into the monitor to make the machine more versatile and the operator more productive. The new monitor display unit is mounted on an adjustable swivel mount to reduce glare and position according to operator preference.

# **Monitor Tilt Range**







# **Precision & Performance**

Innovative hydraulic system technologies make the 9 series wheel loader fast, smooth and easy to control. 9 series wheel loaders are designed for maximum performance to keep the operator working productively.



\*Photo may include optional equipment.

# Improved Durability & Reliability



An enhanced axle improves driving over variable ground conditions. Self adjusting brakes that automatically regulate disc clearance, reduce service time and improve brake reliability and performance. The new load sensing hydraulic system with a variable volume piston pump and closed center main control valve, provide efficient hydraulic power and additional energy savings. Service and clean-out are easier on the 9 series, now equipped with a completely redesigned, parallel-mounted, cooler configuration and non louvered fins to prevent clogging. All coolers are designed with aluminum bar plate configuration and undergo strict factory tests for thermal shock, impulse and vibration to assure long term durability. A top mounted, non-louvered aluminum air condenser and variable displacement A/C compressor are designed for maximum cooling capacity, energy savings and easy clean-out. Additionally, the redesigned steering cylinder lug is now cast steel for additional strength and reliability.

# Variable Operating Modes



9 series wheel loaders are designed to allow the operator to customize the machine's engine power, automatic transmission shift timing and clutch cut-off activation based on the job condition and personal operator preference. Convenient rotary type switches allow for easy adjustment of engine power mode, transmission power shift mode, and clutch cut-off mode. Additionally, if equipped with the optional ride control system, the operator has the option to turn the system on or off with an overhead switch. The ride control system has a shock absorbing accumulator that cushions the boom, improves operator comfort and reduces material loss. The versatility of the 9 series operating modes contributes to improved productivity, enhanced operator comfort and reduced fuel consumption.



3 Mode Engine Power Selection P(Power) Mode: Heavy duty work S(Standard) Mode: General work E(Economy) Mode: Light duty work

# 4 Mode Transmission Power Shift System M(Manual) Mode

S(Standard) Mode : General work
E(Economy) Mode : Light duty work
Auto L(Light) Mode : Light duty & long distance carry
Auto N(Normal) Mode : General excavating & loading
Auto H(Heavy) Mode : Heavy duty excavating & loading

#### 3 Mode Clutch Cut-Off System

L(Low) Mode : Short distance & faster loading M(Medium) Mode : General loading H(High) Mode : Slope ground



Eco-friendly Cummins QSB 4.5 Engine

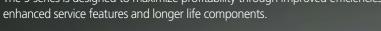
The Cummins QSB4.5 electronic control engine combines full-authority electronic controls with the reliable performance. The combination of high pressure common rail system and advanced incylinder combustion technology results in increased power, improved transient response and reduced fuel consumption. And the QSB4.5 used advanced electronics controls to meet the emission standards EPA Tier3 and EU Stage III-A.



Fully Automatic Transmission

Fully automatic transmission designed for maximum durability, minimum power loss, improved travel speed and low noise. Improved clutch control and minimized shifting shock when traveling, contribute to a smoother ride. Error messages and transmission fault history are recorded and accessible through the monitor.

# **Profitability** The 9 series is designed to maximize profitability through improved efficiencies,







# Hi-MATE (Remote Management System)

Hi-MATE, Hyundai's proprietary remote management system, provides operators and dealer service personnel access to vital service and diagnostic information on the machine from any computer with internet access. Users can pinpoint machine location using digital mapping and set machine work boundaries, reducing the need for multiple service calls. Hi-MATE saves time and money for the owner and dealer by promoting preventative maintenance and reducing machine downtime.



# Auto-reversing, Remote Cooling Fan

The remote mounted, hydraulically powered cooling fan regulates fan speed according to working temperatures for coolant, intake air, transmission oil and hydraulic oil. This new fan design contributes to reduced fuel consumption and machine noise. The fan is designed to auto reverse periodically or manually reverse to keep debris from accumulating on the coolers.



# Easy Access

The engine fan is integrated into the rear door which swings open to over 45 degrees for easy access and regular maintenance. Conveniently located coolant and transmission oil site gauges make checking fluid levels fast and efficient. Ground-line access to fuel and oil filters grease fittings, fuses, machine computer components and wide open compartments makes service more convenient on the 9 series.



# Full Fenders and Mud Guards (Option)

9 series wheel loaders can be equipped with optional full rear fenders and front and rear mud flaps to reduce material splatter to the cab and machine frame.



Hydraulic filter (1,000 hr)



Hydraulic Oil (5,000 hr)

# **Extended Life Components**

The 9 series is designed for longer lubrication intervals and extended component life. Long life hydraulic filters now have 1,000 hours service intervals and Hyundai certified hydraulic oil can last up to 5,000 hours before changing. Also, a new center pivot roller bearing design, now double tapered, requires less maintenance as well. Long life and extended wear components save the operator time and money.

# **Specifications & Dimensions**

# **ENGINE**

Maker/Model	CUMMINS QSB4.5
Туре	Watercooled, 4-cycle, turbocharged, charge aircooled direct injection, electronic controlled diesel engine
Gross power	125 HP(93 kW) / 2,100rpm
Net power	123 HP(92 kW) / 2,100rpm
Max. power	128 HP(95 kW) / 1,800~2,000rpm
Maximum torque	56 kg.m(408 lb.ft) / 1,400rpm
No. of cylinders	4
Bore x Stroke	107 mm (4.21") x 124 mm (4.88")
Displacement	4.5 <i>l</i> (275 cu in)
Compression ratio	17.2 : 1
Air cleaner	Dry, Two stages dual elements
Alternator	24V, 70 Amp
Battery	2 x 12V, 80 Ah.
Starting motor	24V, 3.7 kW

<sup>\*\*</sup> No derating for continuous operating required up to 2,133m (6,998ft). This engine meets the EPA(Tier III) / EU(Stage III-A) Emission regulation.

#### **TRANSMISSION**

Torque converter type	3-elements, single-stage single-phase
Tire	17.5-25, L3

# Full automatic power shift, countershaft type with soft-shift in range and direction. Properly matched torque converter to engine and transmission for excellent working ability.

Travel speed		km/h (mph)
Forward	1st	6.1(3.8)
	2nd	11.2(7.0)
	3rd	22.2(13.8)
	4th	37.2(23.1)
Reverse	1st	6.4(4.0)
	2nd	11.8(7.3)
	3rd	23.4(14.5)

# **AXLES**

Drive system	Four-wheel drive system
Mount	Rigid front axle and oscillating rear axle
Rear axle oscillation	±10° (total 20°)
Hub reduction	Planetary reduction at wheel end
Differential	Conventional
Reduction ratio	22.0

# **HYDRAULIC SYSTEM**

Туре		Load-sensing hydraulic system			
Pump		Variable axial piston type, 132 liters/min 34.9 gal/min			
Control valve		2spool (Bucket, Boom) 3spool (Bucket, Boom, Aux) Pilot pressure controlled type System pressure : 250 kgf/cm²(3.556PSI)			
Bucket Controls	Туре	Pilot operated lift and tilt circuit, single-lever(joystick) control standard.			
Lift Circuit		The valve has four functions; raise, hold, lower and float. Can adjust automatic kickout from horizontal to full lift.			
Tilt Circuit		The valve has three functions; tilt back, hold and dump. Can adjust automatic bucket positioner to desired load angle.			
Cylinders  Lift HL730-9/730XTD-9/730TM-9 Tilt HL730-9/730XTD-9 HL730TM-9		Type : Double acting No. of cylinders-bore x stroke; 2-ø100 mm x 750 mm(3.9" x 29.5") ø110 mm x 510 mm(4.3" x 20.1") 2-ø90 mm x 775 mm(3.5" x 30.5")			
Cycle Time		HL730-9 / HL730XTD-9	HL730TM-9		
Raise(with load) Dump Lower(empty) Total		5.4 sec 1.0 sec 2.8 sec 9.2 sec	5.4 sec 1.4 sec 2.8 sec 9.6 sec		

# **AIR CONDITIONING SYSTEM**

The air condition system for the machine contains the fluorinated greenhouse gas with global warming potential of R134a.

(Global Warming Potential: 1430)

The system hold 0.75kg refrigerant consisting of a CO<sub>2</sub> equivalent 1.07kg metric tonne. For more information, Please refer to the manual.

# **BRAKES**

Service Brakes	Hydraulically actuated, wet disc brakes actuate all 4 wheels independent axle-by-axle system Self adjusting & in board brake	
Parking Brake	Spring-applied, hydraulically released brake in Front Axle	
Emergency Brake	When brake oil pressure drops, indicator light alerts operator and parking brake automatically applies.	

# STEERING SYSTEM

Type Load-se Pump  Relief Valve Setting	ensing hydrostatic articulated steering	
·		
Relief Valve Setting	Piston pump, 132 <i>l</i> /min (34.9 gal/min)@governed rpm	
noner rance setting	210 kg/cm <sup>2</sup> (2,986 ps	
Cylinder Type Bore x Stroke	Double acting 60mm x 412mm(2.4" x 16.2")	
Steering Angle	40°(each direction)	

Feature

- Center-point frame articulation. - Tilt and telescopic steering column.

# **SERVICE REFILL CAPACITIES**

Fuel tank	200 liters (52.8 USgal)
Cooling system	30 liters (7.9 USgal)
Crankcase	11 liters (2.9 USgal)
Transmission	20 liters (5.3 USgal)

# **OVERVIEW**

	Description		UNIT	HL730-9	HL730XTD-9	HL730TM-9
	Operating weight		kg (lb)	9,800 (21,600)	10,000 (22,050)	10,200 (22,500)
	Bucket capacity	Heaped	m³(yd³)	1.9 (2.5)	1.9 (2.5)	1.7 (2.2)
		Struck	m³(yd³)	1.6 (2.1)	1.6 (2.1)	1.45 (1.9)
	Breakout force-bucket		kg (lb)	9,150 (20,170)	9,070 (20,000)	9,960 (21,960)
	Tipping load	Straight	kg (lb)	7,900 (17,420)	7,120 (15,700)	6,750 (14,880)
		Full turn	kg (lb)	6,900 (15,210)	6,130 (13,510)	5,800 (12,790)

# **TIRES**

Front axle

Rear axle

Hydraulic tank

**Hydraulic system** (including tank)

Туре	Tubeless, loader design tires
Standard	17.5-25, 12 PR, L3
Options include	17.5-25, 12 PR, L2 17.5 R25 XHA*

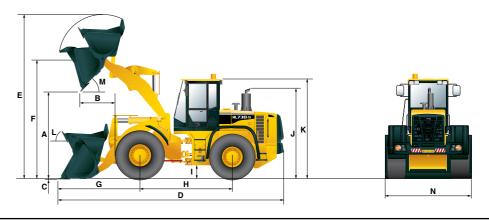
17.7 liters (4.7 USgal)

17.7 liters (4.7 USgal)

121 liters (32.0 USgal)

154 liters (40.7 USgal)

# **DIMENSIONS**



Description		UNIT	HL730-9	HL730XTD-9	HL730TM-9	
	Bucket Type		General purpose bolt-on cutting edge			
A.	A. Dumping clearance at max. height and 45° dump angle.		mm (ft-in)	2,700 (8' 10")	3,035 (9′ 11″)	2,785 (9′ 2″)
B Reach	Full lift	mm (ft-in)	1,040 (3′ 5″)	1,010 (3' 4")	1,130 (3' 8")	
В.	Reach	7ft height	mm (ft-in)	1,470 (4' 10")	1,730 (5' 8")	1,600 (5' 3")
C.	. Digging depth		mm (in)	103 (4.1")	117 (4.6")	95 (3.7")
D. O	0    1	on ground	mm (ft-in)	6,950 (22' 10")	7,240 (23' 9")	7,060 (23' 2")
	Overall length	at carry	mm (ft-in)	6,895 (22' 7")	7,205 (23' 8")	6,870 (22' 6")
E.	Overall height (fully raised)		mm (ft-in)	4,850 (15' 11")	5,190 (17')	4,900 (16' 1")
F.	Bucket pivot max. height		mm (ft-in)	3,640 (11' 11")	3,980 (13' 1")	3,795 (12' 5")

Description			UNIT	HL730-9	HL730XTD-9	HL730TM-9
G.	Front overhang		mm (ft-in)	2,365 (7' 9")	2,655 (8' 9")	2,470 (8′ 1″)
H.	Wheelbase		mm (ft-in)	2,750 (9')	2,750 (9')	2,750 (9')
l.	Ground clearance		mm (ft-in)	370 (1′ 3″)	370 (1′ 3″)	370 (1′ 3″)
J.	Height over exhaust		mm (ft-in)	3,010 (9' 11")	3,010 (9' 11")	3,010 (9' 11")
K.	Height over cab		mm (ft-in)	3,170 (10′ 5″)	3,170 (10′ 5″)	3,170 (10′ 5″)
L.	Roll-back angle	on ground	deg	42	42	50
		at carry	deg	47	49	54
M.	Dump angle		deg	48	48	50
	Clearance circle		mm (ft-in)	11,020 (36′ 2″)	11,300 (37′ 1″)	11,100 (36′ 5″)
NI	Overall width		mm (ft-in)	2 450 (8')	2 450 (8' )	2 400 (7' 10")