

R140LC-9 **SMART**

OPERATING WEIGHT: 13790 kgs

GROSS POWER : 105 HP @ 2200 rpm

BUCKET CAPACITY: 0.65 - 0.72m³



R140LC-9 **SMART**

BEST-IN CLASS PERFORMANCE

- Advanced CAPO system
- Hydraulic flow summation
- Regeneration system
- Excellent digging forces



OPERATOR COMFORT

- Spacious cabin
- Fully adjustable seat
- Enhanced visibility
- User friendly functionality



IMPROVED FUEL EFFICIENCY

- Electro hydraulic control system
- One touch deceleration
- Auto deceleration system
- Efficient breaker mode



DESIGNED FOR SMART WORK



Increased Machine Durability

- Strengthened undercarriage
- Proven upper structure
- Durable components
- Heavy duty front attachment



Simplified Maintenance

- Easy serviceability
- Extended maintenance
- Large capacity fluid tank
- Low life cycle cost



Parts & Support

- Hyundai genuine parts
- Max parts availability
- On-site product support
- Hi-Mate (RMS - Optional)



Performance

USER ADVANTAGES

Lower fuel and oil consumption as compared to other engines in this class.

Components like fuel pump, lube oil and lube oil filters on one side of the machine helps for easy maintenance.

Highly acceptable Kirloskar engine with easy parts availability.

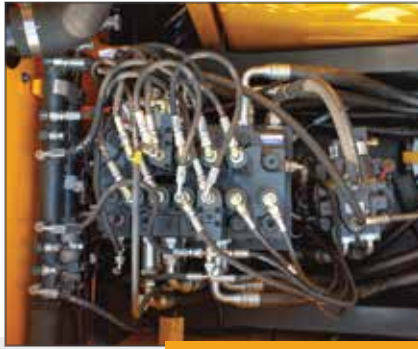


ENGINE

The four cylinder, turbocharged, water cooled diesel engine is built for heavy operation, maximum economy & reliability. The power units are produced to meet the high precision and quality standards.



R140LC-9 **SMART**



HYDRAULIC SYSTEM

Hydraulic pressure sensing system provides wide range of flow at various workloads. Open center Main Control Valve (MCV) ensures faster response and maximum efficiency. Travel & swing motor provides excellent mobility and faster cycle time.

CHOICE OF OPERATING MODE

Working Mode	Advantage
P Mode	<ul style="list-style-type: none"> • Uses 100% engine power for mass production
S Mode	<ul style="list-style-type: none"> • Uses 85% engine power for all work
E Mode	<ul style="list-style-type: none"> • Uses 70% of engine power for reduced fuel consumption
Breaker Mode	<ul style="list-style-type: none"> • Sets pump flow to optimal level and boosts efficiency



POWER BOOST SYSTEM

Increased digging forces by 10% than normal system pressure for short duration.

SWING PRIORITY

- Boost higher hydraulic flow to swing system
- Improved cycle time.

EXCELLENT DIGGING FORCES

Higher output even in tough working condition

- **Bucket - 11290 kgf**
- **Arm - 8580 kgf**



REDESIGNED MCV

- Redesigned wider oil galleries
- Quick response and better power output



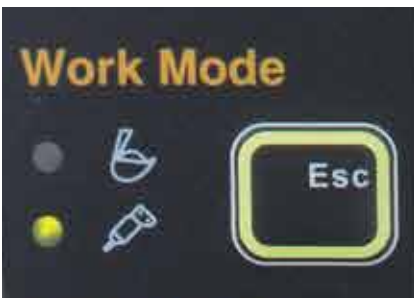


Fuel Efficiency



IMPROVED FUEL EFFICIENCY

New MCV, Improved MCU with auto deceleration function, Advanced CAPO system, Power & working mode options results in excellent fuel efficiency.



EXCLUSIVE BREAKER MODE

Excellent fuel saving due to exclusive power for breaker operation



ONE TOUCH IDLE & AUTO DECELERATION

Prevents fuel losses by reducing engine rpm during no-load condition



PUMP FLOW CONTROL SYSTEM

Reduced pump flow during machine idle condition to minimize power loss.

ARM REGENERATION SYSTEM

- Smooth operation
- Prevent cavitation
- Increased performance & fuel efficiency





Operator Comfort

COMFORTABLE OPERATOR ENVIRONMENT

The ergonomically placed control levers and seat can be adjusted to provide maximum operator comfort.

The seat is fully adjustable for optimum operating position, reducing operator fatigue.

360 degree visibility for better and safe operations.



AIR CONDITIONING SYSTEM

- 9 air ducts
- Advanced AC console
- Allaround air circulation

Operator comfort results in increased productivity

OTHER FEATURES



POWER SOCKET



10 STAGE RPM DIAL



SUNROOF WITH HINGED COVER



MULTI ADJUSTMENT SEAT



MP3/USB PLAYER WITH REMOTE



CABIN TOP LIGHT



SMOOTH TRAVEL PEDAL

INSTRUMENT PANEL

The display shows hydraulic oil temperature, fuel level, Engine oil temperature and 12 warning indicators. Facilitate diagnostic checks & maintenance management to optimize productivity needs ensuring fuel efficiency.



Reliability

STRONG & STABLE LOWER FRAME

Use of specialized advance steel plates and reinforced design for higher strength and durability.



RUGGED UNDERCARRIAGE

X frame provides excellent resistance to torsional bending to enhance structure life



RELIABLE ELECTRICALS

- Dust and water proof connectors
- Longer component life



RELIABLE COMPONENTS

Swing system and travel system exclusively designed by Hyundai ensuring reliable performance.



HD FRONT STRUCTURE

- Thicker plates
- Casted component
- Internal baffle plate
- Added wear plates on arm
- Reinforced bucket



REINFORCED IDLER GUIDE AREA



REINFORCED BUCKET



BELLY GUARD



TRACK LINKS



Serviceability

EASY ACCESSIBILITY

Easy access for maintenance means regular checks get done faster. Hyundai's SMART machines feature easy service access to increase uptime to reduce operating costs.

LEADING SERVICE INTERVAL

More efficient cooling system which extend service intervals, minimize operating cost and reduce machine down time.

CHANGE INTERVAL	
Hydraulic oil	5000 hrs
Hydraulic filter	1000 hrs
Engine oil	500 hrs
Engine Filter	500 hrs

MAINTENANCE MANAGEMENT



SELF DIAGNOSTIC SYSTEM



LARGE LCD MONITOR

Operator can check the machine's vital signs without any difficulties

- **Maintenance Management**
Proactive maintenance
- **Self Diagnostic**
Reduces down time
- **Warning Indicator**
Ensures safe working

FUEL FILLER PUMP (OPTIONAL)

- Ensuring clean fuel to the engine
- Avoids fuel contamination from air

EASY ENGINE MAINTAINENCE

- Cooling and pre-heating systems provides optimal and immediate operation
- Longer engine & hydraulic component life
- Servicing the engine and the hydraulics has been considerably simplified





Safety

SAFETY - PEACE OF MIND AND OPERATOR CONFIDENCE

Cabin is integrally welded with high strength steel to provide enhanced protection. Handrails and steps are provided for easy operation. Anti-slip pads provide safety against skidding while climbing machine.



COUNTER BALANCE VALVE

Works as a hydrostatic brake and prevents machine against accidental roll down in steep gradients.



BOOM & ARM HOLDING SYSTEM

Prevent attachments from drifting against gravity due to prolonged overhanging.



ANTI RESTART FUNCTION

Prevents starter from damage during engine operation



AUTO ENGINE OVERHEAT PREVENTION



BATTERY DISCONNECT SWITCH



AIR BREATHER GUARD



UPPER UNDER COVER



Parts & Support

HYUNDAI GENUINE PARTS

Developed in synergy with our machines, Hyundai parts and lubricants ensure that you get the high levels of performance, reliability and safety that come with the complete Hyundai experience.

Enjoy the confidence and assurance of the most stringent testing procedures and the high quality manufacturing processes safeguarding your machine's health. Experience the versatility of our 200+ strong outlet network across India

WHY RISK IT?

Maximize profits and extend your machine's life.



BENEFITS OF USING GENUINE HYUNDAI PARTS AND LUBRICANTS

- Genuine Hyundai Parts meet strict specifications and standards in Chemistry, Microstructure and Tensile Strength.
- Benefit from the continuous improvements and advancements made by Hyundai's technical team
- Improved performance of hydraulics and engine components
- Enjoy greater productivity with higher uptime
- Higher resale values
- Reduced oil consumption and unexpected breakdowns
- Enhanced component life



HiMATE

REMOTE MANAGEMENT SYSTEM

Our Unique remote management system allows customers to access machine operating information & obtain service & maintenance alerts at the touch of a button.

INCREASED PRODUCTIVITY

Hi MATE empowers you to enhance the efficiency of your operations. Make better decisions by comparing the machine's operating time with its travelling, idling & breaker use duration.

CONVENIENT & EASY MONITORING

Enjoy round the clock & on the move access to your machine's information through the website or the mobile app.



SECURITY & FLEET MONITORING

Protect your machines from theft or unauthorized use. Hi MATE's GPS feature allows you to create a geo-fence & alerts you if the machine moves out of the defined boundary.

Items	Maintenance Interval	Default	Setting	Total	Next Due Date	Alert
Engine Oil	500	62	22	838	29-Mar-2018	100
Travel Reduction Gear Case	1,000	300	0	400	15-Jan-2018	300
Swing Reduction Gear Case	1,000	200	0	400	15-Jan-2018	400
Hydraulic Oil	5,000	350	0	554	05-Feb-2018	96
Pilot Line Filter	1,000	220	0	540	02-Feb-2018	240
Hydraulic Tank Drain Filter	1,000	250	0	540	02-Feb-2018	210

PROACTIVE MAINTENANCE

Access your machine's service & maintenance history with the utmost convenience. Plan your service schedules intelligently with our regular reminders.

Date	Time	Hourmeter	Alarm Type	Alarm Code (SPN)	Description
15-Apr-2018	07:16	910	W	303	Warning! Fuel level low
16-Apr-2018	17:30	800	W	303	Warning! Fuel level low
11-Apr-2018	11:23	491	W	303	Warning! Fuel level low
10-Apr-2018	07:14	484	W	700	Warning! Battery Voltage low
08-Apr-2018	07:41	479	W	303	Warning! Fuel level low
08-Apr-2018	08:58	479	W	303	Warning! Fuel level low
06-Apr-2018	11:34	469	W	313	Warning! Engine Oil Pressure low

ALARMS

Get notified of system alarms & protect your machine from critical faults & experience repairs.



RECEIVE LIVE NOTIFICATION THROUGH SMS & HiMATE APPLICATION ALERTS



Specifications

Specifications

Engine

Maker/Model		Kirloskar4R1040T	
Rated flywheel horse power	ISO3046 (Gross)	105HP@ 2200rpm	
Max Torque		37.5@ 1500rpm	

Hydraulic System

Main pump

Type	Two variable displacement piston pumps
Max. flow	2x130 lpm
Sub-pump for pilot circuit	Gear pump
Cross-sensing & fuel saving pump system	

Hydraulic motors

Travel	Two speed axial piston motor with brake valve and parking brake
Swing	Axial piston motor with automatic brake

Relief valve settings

Implement Circuit	350kgf/cm ²
Travel	350kgf/cm ²
Power Boost	380kgf/cm ²
Swing Circuit	285kgf/cm ²
Pilot Circuit	40kgf/cm ²
Service valve	Installed

Coolant & Lubricant Capacity

REFILLING	LITER
Fuel tank	270
Engine coolant	15.5
Engine oil	11.5
Swing device	2.5
Final drive (each)	3
Hydraulic system / Hydraulic tank	210 / 124

Drives & Brakes

Drive method	Fully hydrostatic type
Drive motor	Axial piston motor in-shoe design
Reduction system	Planetary reduction gear
Traction Force	13256.3kgf (130KN)
Max.travel speed (high/low)	5.5kmph/3.2kmph
Gradeability	35 Degree (70%)
Parking brake	Multi wet disc

Undercarriage

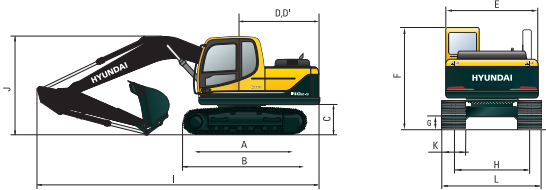
X-Leg type centre frame is integrally welded with reinforced box section track frames. The under carriage includes lubricated rollers, idlers, track adjusters with shock absorbing spring and sprockets and trackchain with triple grouse shoes.

Centre frame	X-leg type
Track frame	Pentagonal box type
No. of shoes on each side	46
No. of carrier rollers each side	1
No. of track rollers. each side	7
No. of rail guard each side	1

Swing System

Swing motor	Axial piston motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease bathed
Swing brake	Multi wet disc
Swing speed	12.0 rpm

Dimensions



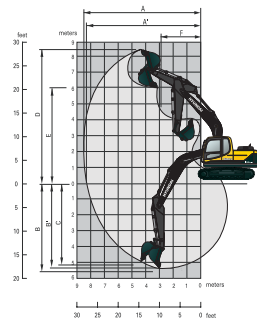
Dimensions

(mm)

		(mm)
A	Overall length	7850
B	Overall width, with 500 mm track shoe	2400
C	Overall height	2760
D	Super structure width	2600
E	Overall height of cab	2860
F	Ground clearance of counter weight	940
G	Engine cover height	2210
H	Minimum ground clearance	440
I	Rear-end distance	2330
r	Rear-end swing radius	2330
1	Distance between tumblers	3000
K	Undercarriage length	3750
L	Undercarriage width	2400
M	Track gauge	1900
N	Track shoe width, standard	500

Working Ranges (mm)

	Boom length (std.)	4.60
	Arm length (std.)	2.10 2.50
A	Maximum Digging Reach	7920 8330
A'	Digging Reach on Ground	7770 8180
B	Max Digging Depth	5150 5550
B'	Max- Digging Depth (8' level)	4900 5340
C	Vertical Digging Depth	4900 5330
D	Maximum Digging Height	8100 8300
E	Maximum Dumping Height	5750 6060
F	Minimum Swing Radius	2670 2650
	Arm Crowd Force	7900 (8580)* 6700 (7270)*



Bucket Digging Force 10400 (11290)* kgf
*Power Boost

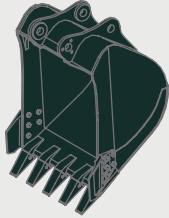


Specifications

BUCKETS

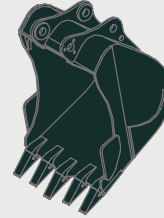
All buckets are welded with high-strength steel.

GENERAL PURPOSE



0.72m³SAE heaped bucket

HEAVY DUTY



*0.65m³SAE heaped bucket

Capacity m ³ (yd ³)		Width mm (in)		Weight. kg (lb)	Recommendation mm (ft -in)
SAE heaped	CECE heaped	Without side cutters	With side cutters		4.6m (15' 1") Boom
				2.1m (6' 11") Arm	
*0.72m ³ (0.93yd ³)	0.60m ³ (0.78yd ³)	1205mm(47.4")	1305 (51.4")	540 kg (1190 lb)	●
◎0.65m ³ (0.85yd ³)	0.55m ³ (0.72yd ³)	1110mm(43.7")	1210mm (47.6")	500 kg (1100 lb)	■

* : Standard GP bucket
◎ : Heavy Duty bucket

● Applicable for materials with density of 1,100 kg/m³ (1,850 lb/yd³) or less
■ Applicable for materials with density of 1,600 kg/m³ (2,700lb yd³) or less

ATTACHMENT

Boom and arm are welded with a low-stress, full-box section design. 4.6m (15' 1") mono boom and 2.1m (6' 11") Arm is available. Buckets are all-welded, high-strength steel implements.

Arm	Length	mm (ft.in)	*2,100 (6' 11")
Bucket digging force	SAE	kN	87.3 (94.8)
		kgf	8,900 (9,660)
		lbf	19,620 (21,300)
	ISO	kN	102 (110.8)
		kgf	10,400 (11,290)
		lbf	22,930 (24,890)
Arm crowd force	SAE	kN	73.6 (79.9)
		kgf	7,500 (8,140)
		lbf	16,530 (17,950)
	ISO	kN	77.5 (84.1)
		kgf	7,900 (8,580)
		lbf	17,420 (18,910)

*: Standard arm weight including cylinder and linkage



Lifting Capacities

LIFTING CAPACITIES R140LC-9 SMART



Rating over-front



Rating over-side

- Boom: 4.6m (15' 1") • Arm: 2.10m (6' 11") • Bucket: 0.65m³
- Shoe: 500mm (24") triple grouser with 1900kg (4190lb) Counterweight

Load point height m (ft)		Load radius								At max. reach		
		1.5 m (5.0 ft)		3 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20 ft)		Capacity		Reach
												m (ft)
6.0m (20ft)	kg lb					*3090 *6810	*3090 *6810			*3030 *6680		6.17 (20.2)
4.5m (15.0ft)	kg lb					*3340 *7360	*3340 *7360	*2900 *6390	2240 4940	2700 5950	1680 3700	7.09 (23.3)
3.0m (10.0ft)	kg lb			*5810 *12810	*5810 *12810	*4230 *9330	3530 7780	3490 7690	2170 4780	2380 5250	1450 3200	7.54 (24.7)
1.5m (5.0ft)	kg lb			*8760 *19310	6090 13430	*5340 *11770	3270 7210	3370 7430	2070 4560	2290 5050	1380 3040	7.62 (25.0)
Ground Line	kg lb			*8470 *18670	5770 12720	5180 11420	3080 6790	3280 7230	1980 4730	2400 5290	1440 3170	7.35 (24.1)
-1.5m (-5.0ft)	kg lb	*6370 *14040	*6370 *14040	*9780 *21560	5740 12650	5110 11270	3010 6640	3250 7170	1950 4300	2800 6170	1700 3750	6.68 (21.9)
-3.0m (-10.0ft)	kg lb	*10300 *22710	*10300 *22710	*8590 *18920	5850 12900	5160 11380	3060 6750			3700 8160	2430 5360	5.41 (17.7)

- Boom: 4.6m (15' 1") • Arm: 2.50m (8' 2")
- Shoe: 600mm triple grouser

Load point height m (ft)		Load radius								At max. reach		
		1.5 m (5.0 ft)		3 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20 ft)		Capacity		Reach
												m (ft)
6.0m (20ft)	kg lb									*2810 *6190	1920 4230	6.69 (21.9)
4.5m (15.0ft)	kg lb							*2770 *6110	2270 5000	2440 5380	1500 3310	7.53 (24.7)
3.0m (10.0ft)	kg lb			*4930 *10870	*4930 *10870	*3830 *8440	3570 7870	*3380 *7450	2190 4830	2170 4780	1310 2890	7.95 (26.1)
1.5m (5.0ft)	kg lb			*8030 *17700	6240 13760	*5010 *11050	3300 7280	3380 7450	2070 4560	2100 4630	1250 2760	8.03 (26.3)
Ground Line	kg lb			*8780 *19360	5800 12790	5200 11460	3090 6810	3270 7210	1970 4340	2180 4810	1300 2870	7.77 (25.5)
-1.5m (-5.0ft)	kg lb	*5740 *12650	*5740 *12650	*9910 *21850	5700 12570	5080 11200	2990 6590	3220 7100	1920 4230	2500 5510	1500 3310	7.15 (23.5)
-3.0m (-10.0ft)	kg lb	*8760 *19310	*8760 *19310	*9040 *19930	5770 12720	5100 11240	3000 6610			3340 7360	2030 4480	6.01 (19.7)
4.5m (15.0ft)	kg lb			*6590 *14530	6030 13290							

1. Lifting capacity is based on SAE J1097, ISO 10567.
2. Lifting capacity of the Robex Series does not exceed 75% of the tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The load point is a hook (standard equipment) located on the back of the bucket.
4. (*) indicates the load limited by hydraulic capacity.



Standard / Optional List

Standard Equipment

ISO standard cabin

All-weather steel cab with all-around visibility
Safety glass windows
Sliding fold-in front window
Sliding side window
Lockable door
Accessory box & Ashtray

Computer Aided Power Optimization (New CAPO) system

3-power mode, 2-work mode
Auto deceleration & one touch deceleration system
Auto overheat prevention system
Self diagnostic system
Centralized monitoring
LCD display
Fuel level gauge
Engine coolant temperature gauge
Hyd. oil temperature gauge

Warning

Fuel level
CPU
Engine oil pressure
Engine coolant temperature
Hyd. oil temperature
Low battery
Air cleaner clogging
Tool kit
Door and cab locks, one key
One outside rearview mirror
Fully adjustable suspension seat
Slidable joystick. pilot-operated
Two front working lights and two cabin work lights
Electric horn
Batteries (2 x 12V x 80 AH)
Battery master switch
Rear open window
Removable clean out screen for oil cooler
Automatic swing brake

Removable reservoir tank
Fuel pre-filter
Boom holding system
Arm holding system
Counter weight (1900kg)
Mono boom (4.6m, 15' 1")
Arm (2.1m, 6' 11")
Track shoes (500mm)
Track rail guard
Operator kit
FM radio
Cabin lights
General Purpose bucket (0.72 m³)
Sun visor for cabin inside
Air-conditioner (5000kcal/hr, 20000 BTU/hr)
Cabin front protector

Optional Equipment

Beacon lamp
Single acting piping kit
Quick coupler
Accumulator, work equipment lowering

Optional Buckets (SAE heaped)

Heavy duty bucket (0.65m³)
Track shoe (600mm)
Fan
Hi-Mate (Remote management system)
Arm (2.5m, 8' 20")

