

Mini Excavators

DX27Z-7 DX35Z-7

	DX27Z -7	DX35Z-7
Maximum power	18.4 kW	18.4 kW
Operating weight	2798 kg	3995 kg
Bucket capacity	0.06 m ³	0.11 m ³
Emission standard	Stage V	Stage V





DOOSAN DX27Z-7 AND DX35Z-7 MINI EXCAVATOR: MEET THE NEW GENERATION OF DOOSAN MACHINES

Lift your business to the next level with the DX27Z-7 and DX35Z-7 Doosan excavators.

Exceptionally powerful, yet environmentally friendly, the DX27Z-7 and DX35Z-7 excavators feature extraordinary fuel efficiency.

RAISE PROFITS, PRODUCTIVITY & FUEL EFFICIENCY

DOOSA

TOP PERFORMANCE IN A VERSATILE PACKAGE

- A compact & powerful machine for the best adaptability to any work site.
- Large hydraulic capacity of a tool carrier.
- Works in narrow spaces thanks an ultracompact design and boom swing.
- Designed specifically for heavy duty applications it gives hours of low cost.
- Newly adopted dozer blade makes more dozer lifting height & dozer digging depth.

EFFICIENCY

The new DX27Z-7 and DX35Z-7 offer really high level of efficiency, in any application, thanks to a brand new design. The DX27Z-7 offers the best compactness in the market, where the DX35Z-7 offers the best compromise between compacity and lifting performance, when heavy lifting is needed.

CONTROLLABILITY

- Smooth and precise hydraulic offering high to drive all attachment needed on the job site.
- Operator can proportionally control flow rate.
- 2 Travel speeds with automatic autoshift.
- Foldable travel pedals can utilize a wide range of foot space when not using pedals.
- Control of boom swing by pedal.



EASY MAINTENANCE

- Easy access from ground level to all components, filters and refilling points.
- The DX27Z-7/DX35Z-7 was designed to be easy to keep on the job.
- Offers easy access to filters, fluids and all service points — including the engine, pump package, valve bank, cooling system and plumbing.
- Quick and easy machine diagnosis allows you to monitor critical systems in real time from the 5.7" digital control panel in the cab.

PRODUCTIVITY

Superior digging, pulling and traction forces to face every job site.

SAFETY

- Rear View Camera (optional)
- Powerful LED lights and full visibility on the job site with large glass door
- Boom & Arm Lock Valve
- ROPS Cabin
- OPG Guard (optional)

COMFORT

- One of the most spacious cabs in the market, with low noise & vibration levels and excellent all-round visibility.
- Large glass door for easy access and better visibility.
- Fully adjustable heated air suspension seat, air conditioning with climate control as standard.

POWER

The new Doosan Stage V engine, with DOC and DPF, is exceptionally powerful – with high torque at low revs.



DOOSAN DX27Z-7/DX35Z-7 HIGH-PERFORMANCE HYDRAULIC EXCAVATOR

Offers a host of redesigned features and new technologies to ensure smooth operation, superior productivity and stability, top-class operator comfort and improved fuel efficiency. This powerful machine will give your job site a huge boost.

ALL-ROUND VERSATILITY AND IMPROVED FUEL EFFICIENCY

A MODEL WITH NOVEL FEATURES

Developed with the concept of 'providing optimum value to the end-user', the DX27Z-7/DX35Z-7 (zero tail swing) hydraulic excavator offers additional value to the operator. In concrete terms, this translates into:

- Increased production and improved fuel economy achieved with an electronic control for the hydraulic system and for the engine
- Improved ergonomics, increased comfort and excellent all-round visibility, ensuring a safe and pleasant working environment
- Improved reliability, using high-performance materials combined with new methods of structural stress analysis - have increased component life expectancy, thus reducing running costs
- Reduced maintenance increases the excavator's availability and lowers the operating costs

GUARANTEED HIGHEST PERFORMANCE IN ANY WORK ENVIRONMENT

The advanced hydraulic system, combined with a powerful engine, provides the biggest digging and tractive forces for efficient operation. As a result, the DX27Z-7/DX35Z-7 provides outstanding performance, work efficiency and the ability to adapt to any work environment.

DOOSAN D17 ENGINE

The DX27Z-7/DX35Z-7 has a powerful and eco-friendly heart, always providing high operating efficiency and pleasant working conditions.

BOOM SWING

The boom swing function allows you to work in very narrow areas.

POWERFUL DIGGING FORCE (BUCKET)

Powerful, efficient, and with increased digging force can face every job site condition.

DOZER BLADE

Welded, unitized blade provides durability even under harsh working conditions. Automatically controlled blade floating for quick and easy leveling operations.

SECOND SPEED AND AUTO-SHIFT

The travel motors automatically return to high speed after downshifting under load. This allows smoother turns and easier dozing work.





- . Sunviso
- 2. Window grip
- 3. Parallel wiper
- Display monitor
- 5. Doosan Smart Touch
- 6. Redesigned pedals
- 7. Flat, spacious, easy-to-clean floor
- Keyless start (Doosan Smart Key)
 Joysticks and switches integrated in adjustable control consoles
- 10. Seat with heating option
- 11. Improved visibility of the bottom
- 12. Storage compartment for
- sunglasses
- 13. Seperate seat height adjustment level and cushion tilting function

THE IDEAL WORKSPACE – DESIGNED AROUND YOU

THE CABIN HAS BEEN ERGONOMICALLY DESIGNED WITH COMFORT IN MIND

The DX27Z-7/DX35Z-7 is designed to provide you with the best possible working conditions. The sophisticated pressurised ROPS cab is ISO-certified for your safety. Its spacious interior offers a fully adjustable and comfortable seat. Comfortably seated, you have easy access to several storage compartments and a clear allround view of the worksite. Noise and vibration levels are reduced while air conditioning allows you to maximise your productivity and return on investment. Air conditioner (optional) performance has improved by applying more nozzles than equivalent equipment.

MORE DURABILITY – LESS MAINTENANCE

A reinforced chassis provides strength, while the optimised boom shape ensures uniform load distribution for more durability. Top quality materials, the most advanced computer-aided design and endurance testing under the most demanding conditions ensure your excavator will keep on performing.

The DX27Z-7/DX35Z-7 is designed for low maintenance with longer intervals resulting in more machine availability on site while skilled Doosan-trained technicians are available to provide extra support when needed.





MORE DURABILITY – LESS MAINTENANCE

The most advanced technology developed by Doosan Infracore s.r.o was integrated into the DX₂₇Z-7 & DX₃₅Z-7 excavators for powerful performance and simple, easy maintenance. This provides the operator with convenient maintenance check points and maximizes the DX₂₇Z-7 & DX₃₅Z-7's work efficiency.

OP

BEST MAINTENANCE ACCESS

MAINTENANCE ACCESS MADE SIMPLE

- A battery cut-off switch makes it easy to disconnect the battery during long-term storage
- The hour meter display can be easily checked from ground level
- For extra accessibility and servicing convenience, all filters (engine oil filter, fuel pre-filter, fuel filter and pilot filter) are accessible from ground level.

AIR BREATHER

The hydraulic system was designed to prevent the pump from cavitating.

STRENGTHENED BOOM

Using finite elements and 3-dimensional computer simulation, the shape of the boom has been optimally designed for better load distribution throughout the structure. This enhancement, combined with increased material thickness, limit element fatigue for improved durability and reliability.

ARM ASSEMBLY

In the arm assembly greater strength is gained by using cast elements and reinforcement around the bosses to increase the life of the component.

RUBBER TRACKS

The rubber tracks offer greater non-slip and grip capabilities, and are less harmful to sidewalks and road surfaces in urban environments.

ENGINE ROOM

The engine compartment is designed for easier service, and the sturdy sound-proofing inside the engine cover reduces the noise to provide a more comfortable environment for the operator and those working around the machine.

OIL GAUGE

Hydraulic oil level can be easily checked through the gauge on the side of the hydraulic tank.

GREASE PIPING

Integrated grease piping is designed for easy maintenance of the swing bearing and boom swing cylinder.

EXTERNAL FUEL CAP

The external lockable fuel cap makes refueling easy and safe. For extra convenience, a warning beep sounds when the maximum fuel level has been reached.

TRANSPORTABILITY

Both models are compact and easy to transport.



TECHNICAL SPECIFICATIONS DX27Z-7

ENGINE

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Designed to deliver superior performance and fuel efficiency, the Doosan D17 diesel engine fully meets the latest Stage V emission regulations. To optimize machine performance, the engine uses high-pressure fuel injectors, natural aspiration, and electronic engine controls. 4-Cycle Water-Cooled, with EGR.

Model			
D17	 2 travel speeds offer either increased torque or high speed Cross consing nump system for fuel savings 		
No. of cylinders	 Cross-sensing pump system for fuel savings Auto-deceleration system 		
3	 3 operating modes 		
Rated power at 2400 rpm	 Flow and pressure control of a 	uxiliary hydraulic circuits from	
ISO 14396 18.4 kW (25 hp)	control panelComputer-aided pump flow co	ntrol	
Max. torque at 1600 rpm	Main pumps		
97 N.m	Variable axial pistons pumps	2 × 28.8 l/min	
Idle (low - high)	Gear pump	1 × 19.2 l/min	
1300 - 2400 rpm	Pilot pump		
Displacement	Gear pump		
1647 cm ³	Maximum flow at 2400 rpm	10.8 l/min	
Bore × stroke	Relief valve settings		
87 mm × 92.4 mm	Implement	220 kgf/cm²	
Starter	Travel	220 kgf/cm ²	
12 V / 1.7 kW		170 kgf/cm² 23 kgf/cm²	
Batteries - Alternator	i not		
1 × 12 V, 55 Ah – 13.5 V, 75 A			
Air filter			
Double element air cleaner			

UNDERCARRIAGE

Extremely robust construction throughout - made of high-quality, durable materials, with all welded structures designed to limit stresses.

- Track rollers lubricated for life
- Idlers and sprockets fitted with floating seals
- Track shoes made of induction-hardened alloy with triple grouser
- Heat-treated connecting pins
- Hydraulic track adjuster with shock-absorbing tension mechanism

Upper rollers (standard shoe)

1 Lower rollers

3

Number of links & shoes per side

44

HYDRAULIC CYLINDERS

HYDRAULIC SYSTEM

via a data transfer link.

The e-EPOS (Electronic Power Optimising System) is the brain of

the excavator – minimising fuel consumption and optimizing the

To harmonize the operation of the engine and the hydraulics, the

e-EPOS is connected to the engine's electronic control unit (ECU)

efficiency of the hydraulic system for all working conditions.

High-strength steel piston rods and cylinder bodies. Shockabsorbing mechanism fitted in all cylinders for shock-free operation and extended piston life.

Cylinders	Quantity	Bore × rod diameter × stroke (mm)	
Boom	1	70 × 40 × 575	
Arm	1	70 × 40 × 506	
Bucket	1	65 × 35 × 435	
Dozer	1	85 × 40 × 129	
Boom swing	1	80 × 45 × 643	

CAB

The air-conditioning and heating systems are integrated for optimal climate control. An automatically-controlled fan supplies the pressurized and filtered cab air, which is distributed throughout the cab from multiple vents.

The heated air suspension, adjustable operator's seat includes a seat belt. The operator can adjust the ergonomic seat and joystick console separately according to his preferences.

A-weighted emission sound pressure level at the operator's position, LpAd (ISO 6396:2008) Declared: 78 dB(A)

A-weighted sound power level, LwAd (2000/14/EC)

Declared: 97 dB(A) Measured: 96 dB(A)

SWING MECHANISM

The swing mechanism uses an axial piston motor, driving a 2-stage planetary reduction gear bathed in oil for maximum torque.

- Swing bearing: single-row, shear type ball bearing with induction hardened internal gear
- Internal gear and pinion immersed in lubricant

Maximum swing speed

9.3 rpm

Maximum swing torque 868.3 kgf·m

FLUID CAPACITIES

Fuel tank	43 l
Cooling system (radiator)	4.8 l
Hydraulic oil tank	38 l
Engine oil	5.8 l
Travel device	2 × 0.9 l

DRIVE

Each track is driven by an independent, high-torque axial piston motor through a planetary reduction gearbox. Two levers / foot pedals guarantee smooth travel with counter-rotation on demand. The track frame protects the travel motor, brake and planetary gears. The multi-disc track brakes are spring-applied and hydraulic released.

Travel speed (low - high)

2.4 - 4.2 km/h

Maximum traction

3.13 t

Maximum gradeability

25° / 70%

WEIGHT & GROUND PRESSURE

	Machine weight (kg)	Ground pressure (kgf/cm²)	
300 mm rubber shoes	2798	0.28	

FRONT ATTACHMENTS

	Length (mm)	Weight (kg)	Digging forces (ISO) (ton)
Std. boom	2090	96.5	-
Std. arm	1300	55	1.30
Short arm	1100	47	1.45

TECHNICAL SPECIFICATIONS **DX35Z-7**

ENGINE

Designed to deliver superior performance and fuel efficiency, the Doosan DN1.7 diesel engine fully meets the latest Stage V emission regulations. To optimize machine performance, the engine uses high-pressure fuel injectors, natural aspiration, and electronic engine controls. 4-Cycle Water-Cooled, with EGR.

Model DN1.7	 2 travel speeds offer either increased torque or high speed Cross-sensing pump system for fuel savings Auto developmentary system 		
No. of cylinders 3 Rated power at 2200 rpm ISO 14396 18.4 kW (25 hp)	 Auto-deceleration system 3 operating modes Flow and pressure control of auxiliary hydraulic circuits from control panel Computer-aided pump flow control 		
Max. torque at 1600 rpm	Main pump		
97 N.m	Variable axial piston pump 2 × 37 l/min Gear pump 20.7 l/min		
Idle (low - high)			
1300 - 2350 rpm	Pilot pump		
Displacement	Gear pump		
1647 cm ³	Maximum flow at 2200 rpm 10.8 l/min		
Bore × stroke	Relief valve settings		
87 mm × 92.4 mm	Implement 250 kgf/cm ²		
Starter	Travel 250 kgf/cm ²		
12 V / 1.7 kW	Swing 220 kgf/cm ² Pilot 23 kgf/cm ²		
Batteries - Alternator 1 × 12 V, 55 Ah – 13.5 V, 75 A			
Air filter Double element air cleaner			

UNDERCARRIAGE

Extremely robust construction throughout - made of high-quality, durable materials, with all welded structures designed to limit stresses.

- Track rollers lubricated for life
- Idlers and sprockets fitted with floating seals
- Track shoes made of induction-hardened alloy with triple grouser
- Heat-treated connecting pins
- Hydraulic track adjuster with shock-absorbing tension mechanism

Upper rollers (standard shoe)

1 Lower rollers

3

Number of links & shoes per side

44

Link pitch

101.6 mm

HYDRAULIC SYSTEM

The e-EPOS (Electronic Power Optimising System) is the brain of the excavator – minimising fuel consumption and optimizing the efficiency of the hydraulic system for all working conditions. To harmonize the operation of the engine and the hydraulics, the e-EPOS is connected to the engine's electronic control unit (ECU) via a data transfer link.

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HYDRAULIC CYLINDERS

High-strength steel piston rods and cylinder bodies. Shockabsorbing mechanism fitted in all cylinders for shock-free operation and extended piston life.

Cylinders	Quantity	Bore × rod diameter × stroke (mm)	
Boom	1	85 × 50 × 633	
Arm	1	80 × 55 × 726	
Bucket	1	70 × 45 × 600	
Dozer	1	110 × 60 × 197	
Boom swing	1	95 × 60 × 449	

CAB

The air-conditioning and heating systems are integrated for optimal climate control. An automatically-controlled fan supplies the pressurized and filtered cab air, which is distributed throughout the cab from multiple vents.

The heated air suspension, adjustable operator's seat includes a seat belt. The operator can adjust the ergonomic seat and joystick console separately according to his preferences.

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Maximum swing speed

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Maximum swing torque 868.3 kgf·m

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Fuel tank	43 l
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Engine oil	5.8 l
Travel device	2 × 0.9 l

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Each track is driven by an independent, high-torque axial piston motor through a planetary reduction gearbox. Two levers / foot pedals guarantee smooth travel with counter-rotation on demand. The track frame protects the travel motor, brake and planetary gears. The multi-disc track brakes are spring-applied and hydraulic released.

Travel speed (low - high)

2.4 - 4.2 km/h

Maximum traction

3.13 t

Maximum gradeability

25° / 70%

WEIGHT & GROUND PRESSURE

	Machine weight (kg)	Ground pressure (kgf/cm²)	
300 mm rubber shoes	3995	0.36	

FRONT ATTACHMENTS

	Length (mm)	Weight (kg)	Digging forces (ISO) (ton)
Std. boom	2535	136	-
Std. arm	1500	81.5	1.95
Short arm	1330	74.3	2.12

TECHNICAL SPECIFICATIONS

COMPONENT WEIGHTS (KG)

Item	DX2	DX27Z-7		5Z-7	Remarks
	STD	OPT	STD	OPT	
Upper structure without front (cab/canopy)	1448	1528	16	603	Without counterweight
Counterweight	1	46	630		
Additional counterweight	e	60	1	00	
Lower structure assembly	8	86	11	117	Rubber
Front assembly	316	369	492	499	
Boom assembly	ç	96		45	
Arm assembly	53	54	100	107	
Bucket	49.6	49.6 58		36	
Boom cylinder	22	22 22.5 30			
Arm cylinder	21	21.5	31.5		
Bucket cylinder	1	15.7		24	
Dozer	ç	92		84	
Dozer cylinder	1	16		.6	

DIGGING FORCES (ISO) – ARM TEAROUT FORCE

	Boom (m)	Arm (m)	Arm tearout force (kN)	Arm tearout force (kg)
DX27Z-7	2.00	1.3	12.7	1300
UX2/2-/	2.09	1.1	14.2	1450
DX35Z-7	2.54	1.5	19.1	1950
DA352-7	2.54	1.33	20.8	2120

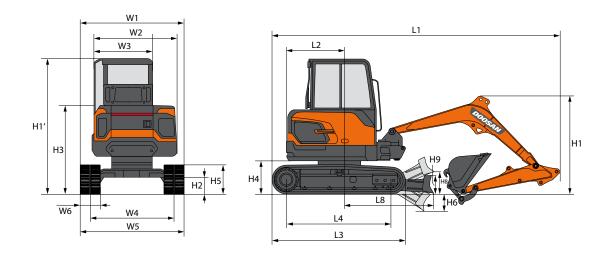
DIGGING FORCES (ISO) – BUCKET BREAKOUT FORCE

	Capacity (SAE) (m³)	Bucket breakout force (kN)	Bucket breakout force (kg)
DX27Z-7	0.08	21.8	2220
	0.06	21.8	2220
DX35Z-7	0.11	31.8	3240

BUCKETS

		Capacity (SAE)	Width (mm)		Weight
		(m ³)	With side cutters	W/O side cutters	(kg)
DV077 7	STD	0.08	476	450	58.5
DX27Z-7	OPT	0.06	398	372	46
DX35Z-7	STD	0.11	576	550	85

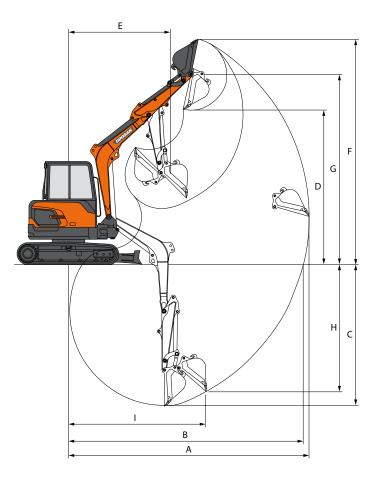
DIMENSIONS



DIMENSIONS

			Unit	DX27Z-7		DX35Z-7	
Front Counterweight Boom length		_ _ 	Cab	Canopy	Cab		
			Additional	-	Additional	-	
			2090		2535		
Arm l	ength		mm	1300	1100	1500	1330
Bucket capacity (ISO)		m³	0.06		0.11		
Unde	rcarriage / Shoe		-	STD / Rubber		STD / Rubber	
L1	Overall length		mm	4191	4186	4777	4760
H1	Overall height	Boom	mm	1688	1556	1679	1589
111	Overall height	Cab	mm	244	48	2479	
W1	Overall width		mm	1550		1700	
R1	Rear swing radius		mm	855	790	945	875
H2	Ground clearance	round clearance		217		235	
L2	2 Rear end distance		mm	855	790	945	875
W2	House width		mm	1500			
W3	Cab width		mm	1062			
H3	Height over cover		mm	1471		1508	
H4	Counterweight clearance		mm	512		537	
H5	Track height		mm	451		475.5	
L3	Track length		mm	1960		2121	
L4	Tumbler distance		mm	1540		1700	
W4	Track gauge		mm	1250		1400	
W5	Undercarriage width		mm	1550 1700		0	
W6	Shoe width		mm	300			
H6	Dozer digging depth		mm	335		429	
H8	B Dozer lift clearance		mm	383		410	
H9	Dozer blade height		mm	259 3		380	0
L8	Distance to dozer end		mm	1450 1605			95
	Boom swing angle (left/rig	ht)	mm	66.5 / 53.5			

WORKING RANGE



WORKING RANGE

	Unit	DX27Z-7		DX35Z-7 2535	
Boom length	mm 2		90		
Arm length	mm	1300	1100	1500	1330
Bucket capacity (SAE)	m ³	0.06		0.11	
A Max. digging reach	mm	4845	4655	5515	5355
B Max. digging reach (ground)	mm	4720	4520	5400	5235
C Max. digging depth	mm	2845	2645	3445	3275
D Max. dumping height	mm	3065	2935	3700	3580
E Min. swing radius	mm	2095	2045	2145	2115
F Max. digging height	mm	4515	4385	5215	5095
G Max. bucket pin height	mm	3795	3665	4460	4345
H Max. vertical wall depth	mm	1690	1565	2045	1980
I Max. radius vertical	mm	3815	3670	4350	4215

STANDARD AND OPTIONAL EQUIPMENT

• Standard • Optional

Engine

- Doosan D17 Common rail diesel engine with direct fuel injection, Stage V compliant
- Auto-idle function

Hydraulic system

- 2 × variable pistons pumps + 2 gears pumps
- Breaker piping with direct return to the tank
- 2-way high flow auxiliary line with settings from the display panel
- Cylinder cushioning & contamination seals
- Rotation line (Pero)
- Quick coupler line

Cab & interior

- 4-pillar canopy with 5.7 inch digtal gauge panel for DX27Z-7
- Pressurized, sound-insulated heated cab for DX35Z-7
- Mechanical suspension seat
- Pull-up type front window and removable lower front window
- Sliding right windows with lock
- Ceiling light
- Intermittent windshield wiper (not for DX27Z-7 canopy)
- Multiple storage compartments
- Flat, spacious, easy-to-clean floor
- Cup holder
- Anti-theft protection
- 5.7 inch Digtal Gauge Panel
- Electric horn
- Engine speed (RPM) control dial
- Hydrostatic 2-speed travel system with manual or automatic shift
- DAB radio with handsfree call system (not for DX27Z-7 canopy)
- USB charger & 12 V power socket
- Serial communication port for laptop PC interface
- Adjustable PPC for arm, boom, bucket and swing, with sliding proportional
- Control for attachments and auxiliary hydraulic buttons
- Travel pedals and hand levers
- Master key
- Pressurized, sound-insulated heated cab for DX27Z-7
- Air conditioning option for DX27/35 cab

Safety

- Roll Over Protective Structure (ROPS)
- Boom and arm cylinder safety valves
- Overload warning device
- Rotating beacon (exception DX27Z-7 canopy)
- Hydraulic safety lock lever
- Safety glass
- Hammer for emergency escape
- Emergency engine stop switch
- Reinforced cast steel pivot points
- Battery cut-off switch
- LED work light (1 on the boom)
- Lockable fuel cap
- LED work lights (2 on top of cab, 1 on top of DX27Z-7 canopy))
- Rear camera (available by kit)

Other

- DX27Z-7: 2090 mm mono boom 1100 mm arm
- DX35Z-7: 2540 mm mono boom 1330 mm arm
- DoosanCONNECT (telematic system)
- Boom cylinder guard
- Double element air cleaner
- Self-diagnostic function
- Battery (12 V, 55 Ah), alternator (12 V, 75 A)
- Remote greasing for swing circle and workgroup pivot points
- DX27Z-7: 2090 mm mono boom 1300 mm arm 60 kg additional counterweight
- DX35Z-7: 2540 mm mono boom 1500 mm arm 100 kg additional counterweight

Undercarriage

- Fixed undercarriage
- Hydraulic track adjuster
- 300 mm rubber tracks
- Dozer blade
- Greased and sealed track links



Powered by Innovation

DISCOVER MORE: DX27Z-7



DX35Z-7



