



DX520LC

Engine Power : DIN 6271, net 245kw (333ps) @1,800rpm

SAE J1349, net 245kw (328HP)@1,800rpm

Operating Weight : 50,700kg (111,800 lb)

Bucket Capacity(PCSA) : 0.92~3.2m³ (1.20~4.19cu.yd)

Width for 3.2m³ (PCSA) with cutter : 2,101mm(6'11")

without cutter : 2,024mm(6'8")



Technical Data

Engine

| | |
|----------------------------|---|
| Model | Doosan DV11 |
| Type | Water-Cooled, Common Rail, Direct Injection |
| Aspiration | Turbocharged Air to Air intercooled |
| No. of cylinders | 6 |
| Rated flywheel horse power | |
| DIN6271,net | 245KW(333PS)at 1,800rpm |
| SAEJ1349,net | 245KW(328HP)at 1,800rpm |
| Piston Displacement | 10,964cc(669cu.in) |
| Maximum torque @ 1,300rpm | 157kgf.m(1,540Nm, 1,137lbf.ft) |
| Bore and stroke | 128mm X 142mm (5.0" X 5.6") |
| Starting system | 24V x 7.0kw Electric motor |
| Batteries | 2 X 12V X 150AH |

Hydraulic System

e-EPOS (Electronic Power Optimizing System) allows the operator to maximize work efficiency over a full range of operating conditions and to minimize fuel consumption.

- Hydraulic system assures fully independent and combined operations.
- Automatic 2 speed travel system for high traction force and travel speed.
- Cross-sensing and fuel saving pump system.
- Auto idle system.
- 2-Working / 2-Power mode selection system.
- Computer aided engine-pump control.

| | |
|--------------------|--|
| Main pumps | Parallel, Bent-axis, axial piston |
| Max.oil flow | 2 X 355 ℓ /min (2 X 93 US gpm, 2 X 78 Imp gpm) |
| Pilot pump | Gear pump |
| Max. oil flow | 22 ℓ /min (5.8US gpm, 4.8Imp gpm) |
| Swing motor | |
| Relief valve | 225bar (3,700psi, 260kgf/cm ²) |
| Main relief valves | |
| Boom/Arm/Bucket | Normal: 314bar (4,550psi, 320kgf/cm ²) Power Boost: 343bar(4,970psi, 350kgf/cm ²) |
| Travel circuit | 314bar(4,550psi, 320kgf/cm ²) |

Hydraulic cylinders

High-strength piston rods and tubes are used. Cylinder cushion mechanism is provided for all cylinders to assure shock-free operation and extend life of cylinder.

| Cylinders | Q'ty | Bore X Rod dia. X Stroke |
|-----------|------|--|
| Boom | 2 | 170 X 115 X 1,610mm(6.7" X 4.5" X 63") |
| Arm | 1 | 190 X 130 X 1,805mm(7.5" X 5.1" X 71") |
| Bucket | 1 | 170 X 115 X 1,341mm(6.7" X 4.5" X 52.8") |

Super-structure revolving frame

A deep, full-reinforced box section. Heavy-gauge steel plates used for ruggedness.

Operator's cab

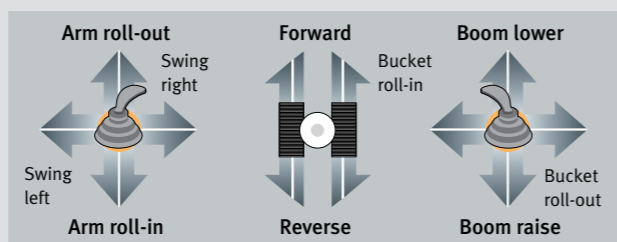
A roomy, independent, shock and noise-free operator's cab, 4 side safety glass windows give all-round visibility. Front window slides up and stores in the roof and side window can be opened for ventilation. Fully adjustable suspension seat. Air conditioner. ISO standard dab.

Noise Levels (dynamic value)

| | |
|------------------------------|-----------------------|
| LWA External noise | |
| Guaranteed Sound Power Level | 106 dB(A)(2000/14/EC) |
| Measured Sound Power Level | 105 dB(A)(2000/14/EC) |
| LPA Operator noise | 72 dB(A)(ISO 6396) |

Controls. 2 Implement levers

Pilot pressure control type. Right lever is boom and bucket control, left lever for swing and arm control.



2 Travel pedals with levers

Pilot pressure control type. Independent drive at each track allows counter-rotation of the tracks. Levers are detachable.

Brake

Two oil disk brake on final drive input shafts. Parking brake is spring-set, hydraulic-released disc type.

Swing mechanism

High-torque, axial piston motor with planetary reduction gear bathed in oil. Swing circle is singlerow, shear type ball bearing with induction-hardened internal gear. Internal gear and pinion gear immersed in lubricant.

| | |
|-------------------|----------------------------------|
| Swing speed | 0 to 8.8 rpm(min ⁻¹) |
| Rear swing radius | 3,700 mm(12'2") |

Drive

Each track is driven by an independent, high-torque, axial piston motor through planetary reduction gear. Two levers or foot pedal control provide smooth travel or counter-rotation upon demand.

| | |
|-------------------------|-------------------------|
| Travel speed (High/Low) | 5.0/3.1km/h(3.1/1.9mph) |
| Maximum traction force | 33,600 kgf(74,080 lbf) |
| Gradeability | 35° (70%) continuous |

Undercarriage

Tractor type undercarriage. Heavy-duty track frame, all welded stress-relieved structure. Top grade materials are used for toughness. Side frames are welded, securely and rigidly, to the track frame. Lifetime-lubricated track rollers, idlers and sprockets with floating seals. Track shoes of induction-hardened rolled alloy with triple grousers. Specially heat-treated connecting pins. Hydraulic track adjusters with shock-absorbing recoil springs.

Buckets

| Capacity | CECE heaped | Width | | Weight | Recommendation | | | |
|--|--------------------|----------------------|-------------------|-----------------------|-------------------|-------------------|--------------------------------|---------------------------------|
| | | Without side cutters | With side cutters | | 6.3m (20'8") Boom | | | |
| | | | | | 2.4(7'10")Arm | 2.9(9'6")Arm-Std. | 9.0m(29'6") Boom 6.0(19'8")Arm | 11.0m(20'8") Boom 8.0(26'3")Arm |
| 0.92m ³ (1.20yd ³) | 0.81m ³ | 1,236mm (49") | 1,172mm (46") | 707kg (1,560 lb) | - | - | - | A |
| 1.27m ³ (1.66yd ³) | 1.10m ³ | 1,445mm (57") | 1,376mm (54") | 1,091kg (2,410 lb) | - | - | A | - |
| 3.20m ³ Std.(4.19yd ³) | 2.87m ³ | 2,101mm (83") | 2,024mm (80") | 2,600kg (5,730 lb) | A | B | - | - |
| HD. 1.73m ³ (2.26yd ³) | 1.58m ³ | 1,301mm (51") | 1,224mm (48") | 1,831kg (4,040 lb) | A | A | - | - |
| HD. 2.01m ³ (2.63yd ³) | 1.82m ³ | 1,451mm (57") | 1,374mm (54") | 1,948kg (4,290 lb) | A | A | - | - |
| HD. 2.29m ³ (3.00yd ³) | 2.07m ³ | 1,601mm (63") | 1,524mm (59") | 2,106kg (4,640 lb) | A | A | - | - |
| HD. 2.85m ³ (3.73yd ³) | 2.55m ³ | 1,901mm (75") | 1,824mm (72") | 2,381kg (5,250 lb) | A | A | - | - |

A. Suitable for materials with density of 2,000 kg/m³ (3,370 lb/CU • yd) or less
 B. Suitable for materials with density of 1,600 kg/m³ (2,700 lb/CU • yd) or less
 C. Suitable for materials with density of 1,100 kg/m³ (1,850 lb/CU • yd) or less

Number of rollers and shoes(each side) ground contact area

| | |
|------------------------|-----------------|
| Upper rollers | 2+1(Center) |
| (Standard shoe) | |
| Lower rollers | 9 |
| Track shoes | 53 |
| Overall track length | 5,465mm(17'11") |

Weight

Equipped with 6.3m(20'8")boom, 2.9m(9'6")arm, and 3.2m³(4.19yd³; PCSA heaped) bucket and 600mm(24")TG shoes.

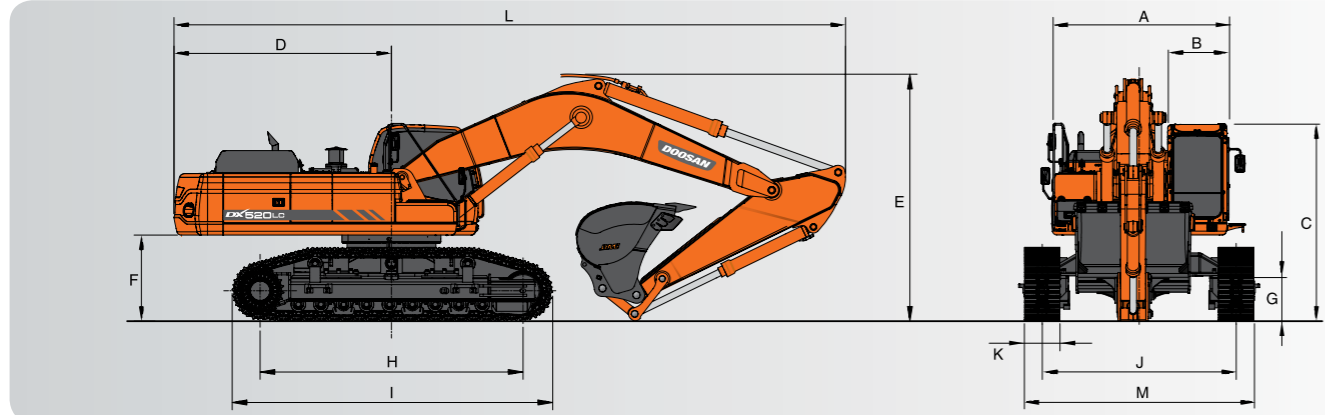
| Shoe type | shoe width | Operating weight | Ground pressure |
|----------------|----------------------|-------------------------|---|
| Triple grouser | 600mm(24") (Std.) | 50,700kg (111,800lb) | 0.88kgf/cm ² (86kpa, 12.5psi) |
| | 750mm(28") (Opt.) | 51,400kg (113,300lb) | 0.71kgf/cm ² (70kpa, 10.1psi) |
| | 800mm(32") (Opt.) | 51,700kg (114,000lb) | 0.67kgf/cm ² (66kpa, 9.5psi) |
| | 900mm(34") (Opt.) | 52,200kg (115,100lb) | 0.60kgf/cm ² (59kpa, 8.5psi) |
| Double grouser | 600mm(24") (Opt.) | 51,600kg (113,800lb) | 0.89kgf/cm ² (87kpa,12.6psi) |

Service refill capacities

| | Liters | US gal | Imp gal |
|--------------------|--------|--------|---------|
| Fuel tank | 620 | 164 | 136 |
| Cooling system | 40 | 10.6 | 8.8 |
| Lubrication | | | |
| | Liters | US gal | Imp gal |
| Engine oil | 44 | 11.6 | 9.7 |
| Swing drive(each) | 4 | 1.1 | 0.9 |
| Final drive(each) | 6 | 1.6 | 1.3 |
| Hydraulic tank | 500 | 87.2 | 110 |

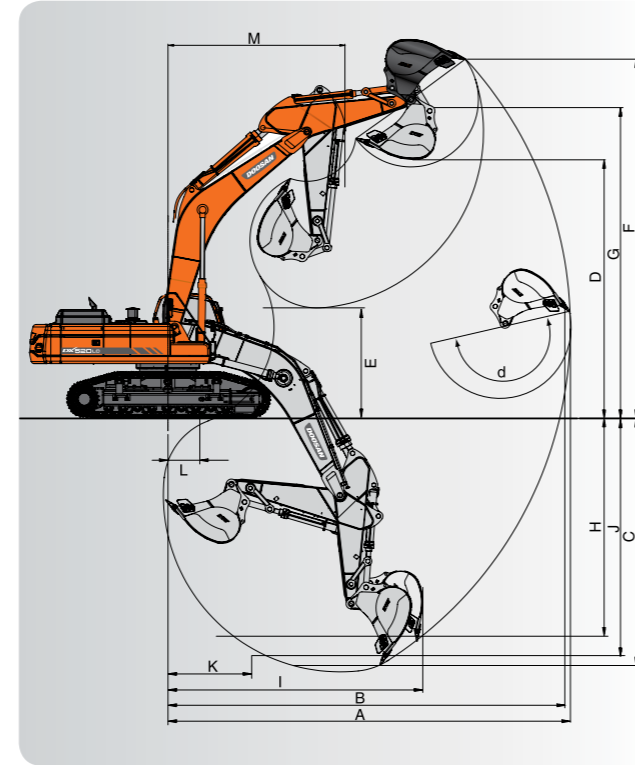
Dimensions & Working Ranges

Dimensions (6,300mm(20'8")Boom, 2,900mm(9'6")Arm, 600mm(24")shoe) - Std.



| | | | |
|---------------------------------------|-----------------------------|--------------------------|--------------------|
| Boom length | 9.0m(29'6") | (Std.) 6.3m(20'8") | 11.0m(36'1") |
| Arm length | 6.0m(19'8") | (Std.) 2.9m(9'6") | 8.0m(26'3") |
| Bucket type(pcsa) | 1.27m ³ | (Std.) 3.2m ³ | 0.92m ³ |
| A Overall width of upper structure | 2,990mm(9'10") | | |
| B Overall width of cab | 1,010mm(3'4") | | |
| C Overall height of cab | 3,350mm(11'0") | | |
| D Tail swing radius | 3,700mm(12'2") | | |
| E Overall height(Hose) | 3,910mm(13'0") | 4,200mm(13'9") | 4,070mm(13'4") |
| F Clearance under counterweight | 1,460mm(4'9") | | |
| G Ground clearance | 770mm(2'6") | | |
| H Tumbler distance | 4,470mm(14'8") | | |
| I Track length | 5,465mm(17'11") | | |
| J Track gauge(Standard Track) | 3,300/2,740mm(10'10"/9'10") | | |
| J' Track gauge(Narrow Track) | 2,920/2,360mm(9'7"/7'9") | | |
| K Track shoe width | 600mm(2') | | |
| L Overall length | 14,050mm(46'1") | 11,430mm(37'6") | 16,090mm(52'9") |
| M Overall track width(Standard Track) | 3,900mm(12'10") | | |
| M' Overall track width(Narrow Track) | 3,520mm(11'7") | | |

Working ranges (Std.)



Digging forces(Maximum radialtooth forces)

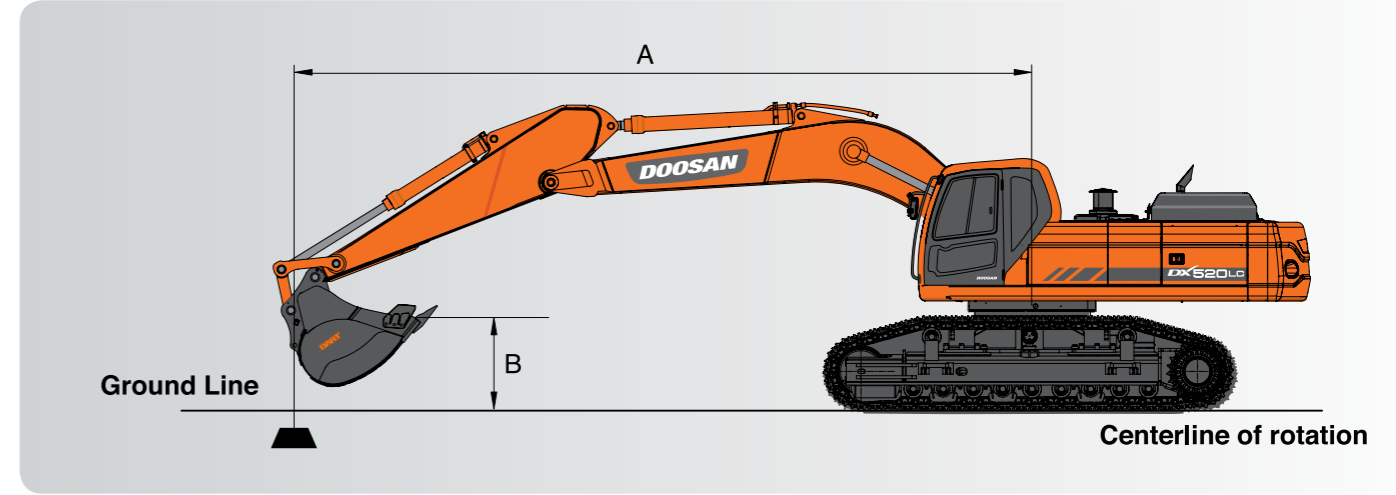
| | 6.0m Arm | (Std.) 2.9m Arm | 8.0m Arm |
|----------------------|------------|-----------------|------------|
| Bucket digging force | 20,300 kgf | 30,100 kgf | 15,200 kgf |
| | 200 kn | 300 kn | 150 kn |
| | 44,800 lbf | 66,400 lbf | 33,500 lbf |
| Arm digging force | 15,100 kgf | 25,800 kgf | 11,900 kgf |
| | 150 kn | 250 kn | 120 kn |
| | 33,300 lbf | 56,900 lbf | 26,200 lbf |

*At power boost
*ISO

| | 9,000mm(29'6") | (Std.) 6,300mm(20'8") | 11,000mm(36'1") |
|---------------------------------------|--------------------|--------------------------|--------------------|
| Boom length | 9,000mm(29'6") | (Std.) 6,300mm(20'8") | 11,000mm(36'1") |
| Arm length | 6,000mm(19'8") | (Std.) 2,900mm(9'6") | 8,000mm(26'3") |
| Bucket type(pcsa) | 1.27m ³ | (Std.) 3.2m ³ | 0.92m ³ |
| A. Max. digging reach | 16,060(52'8") | 10,750(38'7") | 19,610(64'4") |
| B. Max. digging reach at ground level | 15,870(52'1") | 10,460(34'4") | 19,460(63'10") |
| C. Max. digging depth | 11,800(38'9") | 6,770(22'3") | 15,130(49'8") |
| D. Max. dumping height | 9,840(32'3") | 6,720(22'1") | 11,950(39'2") |
| E. Min. dumping height | 2,080(6'10") | 2,950(9'8") | 1,980(6'6") |
| F. Max. digging height | 12,800(41'12") | 9,600(31'6") | 14,520(47'8") |
| G. Max. bucket pin height | 11,455(37'7") | 8,520(27'4") | 10,735(35'3") |
| H. Max. vertical wall depth | 10,330(33'11") | 1,190(3'11") | 12,840(42'2") |
| I. Max. radius vertical | 9,510(31'2") | 10,100(33'2") | 9,730(31'11") |
| J. Max. digging depth(8'level) | 11,685(38'4") | 6,590(21'7") | 15,020(49'3") |
| k. Min. radius 8' line | 4,910(16'1") | 3,215(10'7") | 4,930(16'2") |
| L. Min. digging reach | 250(10") | 1,240(4'1") | 270(11") |
| M. Min. swing radius | 6,470(21'3") | 4,750(15'7") | 6,210(20'4") |
| d. Bucket angle | 175° | 174° | 178° |

Lifting Capacities

Standard



Metric Boom : 6,300mm(20'8") Arm : 2,900mm(9'6") Bucket : SAE 3.2m³ HEAPED(CECE 2.87m³) Shoe : 600mm(2')(TG) Unit : 1,000kg

| A(m) | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | Max. Reach | | A(m) | | |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|------------|--------|--------|--------|------|
| B(m) | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | | |
| 7 | | | | | | | | | | | | | | | | | | | *9.80 | *9.80 | 7.63 |
| 6 | | | | | | | | | | | | *10.67 | *10.67 | *10.25 | *10.25 | | | | *10.15 | *10.15 | 8.16 |
| 5 | | | | | | | | | | *12.56 | *12.56 | *11.43 | *11.43 | *10.67 | *10.67 | | | | *10.38 | 9.71 | 8.53 |
| 4 | | | | | | *21.12 | *21.12 | *16.61 | *16.61 | *14.01 | *14.01 | *12.35 | *12.35 | *11.23 | 10.68 | | | | *10.61 | 9.10 | 8.77 |
| 3 | | | | | | *25.16 | *25.16 | *18.97 | *18.97 | *15.50 | *15.50 | *13.32 | 13.02 | *11.84 | 10.46 | | | | *10.89 | 8.74 | 8.90 |
| 2 | | | | | | *27.91 | *27.91 | *20.89 | *20.89 | *16.81 | 16.25 | *14.20 | 12.70 | *12.41 | 10.25 | | | | *11.21 | 8.59 | 8.90 |
| 1 | | | | | | *25.78 | *25.78 | *22.12 | 21.32 | *17.75 | 15.88 | *14.87 | 12.44 | *12.83 | 10.07 | | | | *11.58 | 8.65 | 8.80 |
| 0 (Ground) | | | *15.87 | *15.87 | *27.86 | *27.86 | *22.60 | 21.02 | *18.25 | 15.63 | *15.23 | 12.26 | *13.03 | 9.94 | | | | *11.99 | 8.93 | 8.57 | |
| -1 | *16.29 | *16.29 | *21.11 | *21.11 | *28.24 | *28.24 | *22.39 | 20.89 | *18.23 | 15.50 | *15.21 | 12.16 | *12.89 | 9.88 | | | | *12.44 | 9.50 | 8.21 | |
| -2 | *21.47 | *21.47 | *26.94 | *26.94 | *26.72 | *26.72 | *21.51 | 20.91 | *17.65 | 15.48 | *14.70 | 12.15 | | | | | | *12.93 | 10.49 | 7.70 | |
| -3 | *27.09 | *27.09 | *30.48 | *30.48 | *24.41 | *24.41 | *19.89 | *19.89 | *16.38 | 15.58 | *13.46 | 12.24 | | | | | | *13.41 | 12.20 | 7.02 | |
| -4 | *32.77 | *32.77 | *25.85 | *25.85 | *21.06 | *21.06 | *17.28 | *17.28 | *14.07 | *14.07 | | | | | | | | *13.80 | *13.80 | 6.09 | |
| -5 | | | *19.36 | *19.36 | *16.09 | *16.09 | | | | | | | | | | | | *13.74 | *13.74 | 4.76 | |

Feet

| A(ft) | 10' | | 15' | | 20' | | 25' | | 30' | | Max. Reach | | A(ft) | | |
|------------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|------------|---|--------|--------|-------|
| B(ft) | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | 🔧 | | |
| 25' | | | | | | | | | | | | | *21.31 | *21.31 | 23.67 |
| 20' | | | | | | | | | | | | | *22.29 | *22.29 | 26.62 |
| 15' | | | | | | | *22.81 | *22.81 | | | | | *23.09 | 20.76 | 28.38 |
| 10' | | | | | | | *28.68 | *28.68 | *24.70 | *24.70 | | | *23.97 | 19.29 | 29.18 |
| 5' | | | | | | | | | *27.13 | 25.01 | | | *25.09 | 18.94 | 29.09 |
| 0 (Ground) | *35.85 | *35.85 | *55.22 | 53.97 | *39.49 | 33.59 | *30.42 | 23.66 | | | | | *26.44 | 19.69 | 28.11 |
| -5' | *53.87 | *53.87 | *53.26 | *53.26 | *38.98 | 33.27 | *29.73 | 23.48 | | | | | *27.99 | 21.94 | 26.13 |
| -10' | *66.03 | *66.03 | *47.54 | *47.54 | *35.26 | 33.51 | | | | | | | *29.61 | 27.14 | 22.89 |
| -15' | *48.98 | *48.98 | *36.40 | *36.40 | | | | | | | | | *30.59 | *30.59 | 17.70 |

- RATINGS ARE BASED ON SAE J1097
- THE LOAD POINT IS A HOOK LOCATED ON THE BACK OF THE BUCKET.
- * RATED LOADS ARE BASED ON HYDRAULIC CAPACITY.
- RATED LOADS DO NOT EXCEED 87% OF HYD. CAPACITY OR 75% OF TIPPING CAPACITY.

🔧 : Rating Over Front
🔧 : Rating Over Side or 360 degree



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