

DL200A

CONTENTS	PAGE
1. GENERAL SPECIFICATION	2
2. ENGINE SYSTEM	3
3. HYDRAULIC SYSTEM	5
4. DRIVE MECHANISM	8
5. HYDRAULIC CYLINDERS	13
6. FRONT	13
7. DIMENSIONS AND WORKING RANGE	15
8. PERFORMANCE DATA	18
9. NOISE LEVEL	18
10. USER SERVICE DATA	19
11. SUB GROUP WEIGHTS	20
12. LIFTING CAPACITY	20

MODEL

DL200A

1/20

1. GENERAL SPECIFICATION

ITEMS		UNIT	STD	OPT
OPERATING WEIGHT		kg	11,120	11,175
ENGINE (SAE J1995 Gross) (SAE J1349 Net)	RATED POWER (Gross)	kW/rpm	121/2,100	
	RATED POWER (Net)	kW/rpm	121/2,100	
	MAX. POWER (Gross)	kW/rpm	121/2,100	
	MAX. TORQUE (Gross)	N.m/rpm	637/1,400	
SYSTEM PRESSURE (WORK/STEER)		bar	200/175	
TRAVEL SPEED	FORWARD (1/2/3/4)	km/h	7.5/12.5/21/36	
	REVERSE (1/2/3)	km/h	7.5/13/23.5	
FRONT SPEED (RAISE/DUMP/LOWER)		sec	6/1.3/4	
GRADEABILITY		%(°)	58(30)	
TIRE SIZE		-	20.5-25-16PR (L3)	
WORKING RANGE	BUCKET CAPACITY (SAE HEAPED)	m³	2.0 BOT	2.1 BOC
	DUMP HEIGHT AT 45°	mm	2,730	2,795
	DUMP REACH AT 45°	mm	1,000	940
	MAX. DUMP ANGLE (fully raised)	deg	45	
	MAX. TILT ANGLE (on ground)	deg	42	
	MAX. TILT ANGLE (fully raised)	deg	64	
	MAX. TILT ANGLE (at carry)	deg	47	
	BUCKET HINGE HEIGHT	mm	3,840	
	DIGGING DEPTH (0° level)	mm	75	
TRAVEL DIMENSION	OVERALL LENGTH	mm	7,320	7,230
	OVERALL WIDTH (bucket)	mm	2,550	
	OVERALL HEIGHT	mm	3,240	
	GROUND CLEARANCE	mm	450	
	WHEEL BASE	mm	2,900	
	TREAD	mm	1,930	
BREAKOUT FORCE		kN	103	
MAX. STEERING ANGLE		deg	40	
TURNING RADIUS (Tire edge/ Bucket edge)		mm	5210/5810	5210/5785
SOUND LEVEL in CAB (ISO 6396)		dB(A)	76	
EXTERNAL SOUND LEVEL(ISO6395, 2000/14/EC)		dB(A)	106	
FUEL TANK CAPACITY		Liter	223	

Every dimensions, weights, and performance data based on SAE J732C and SAE742B.
 ROPS/FOPS Cabin is Standard.
STD : 2.0 BOT, OPT : 2.1 BOC

MODEL	DL200A		2/20
-------	--------	--	------

2. ENGINE SYSTEM

2.1) ENGINE

MAKER & MODEL	Doosan DB58TI
RATED HORSE POWER	121kW/2,100 RPM
MAX. TORQUE	637N.m/1,400 RPM
FUEL CONSUMPTION	149 g/ps.hr @ RATED SPEED
TYPE	TURBO CHARGED DIRECT INJECTION
DISPLACEMENT	5,800 cc
No. OF CYLINDER	6
BORE DIA. & STROKE	Φ102 x 118 mm
HIGH IDLE SPEED	2,300 ± 50 rpm
LOW IDLE SPEED	1,000 ± 50 rpm
STARTING MOTOR	24 V x 4.5Kw

2.2) ALTERNATOR

VOLTAGE	24 V
RATING AMPERES	60 A

2.3) BATTERY

SYSTEM VOLTAGE	24 V
QUANTITY	12 V x 2
CAPACITY (AMP)	100 AH
COLD CRANKING AMPERES	900 CCA

2.4) AIR CLEANER

TYPE	DRY, DOUBLE ELEMENT
FILTRATION AREA	9 m² (7.6 + 1.4)
SIZE (Diameter x width)	300 * 557
INITIAL AIR RESTRICTION	150mm H₂O at 12.5m³/min AIR FLOW

2.5) PRE CLEANER

AIR RESTRICTION RATE	90 H₂O at 25.8 m³ /mm
AIR CONTAMINANTS	84% (A.C COARSE DUST)

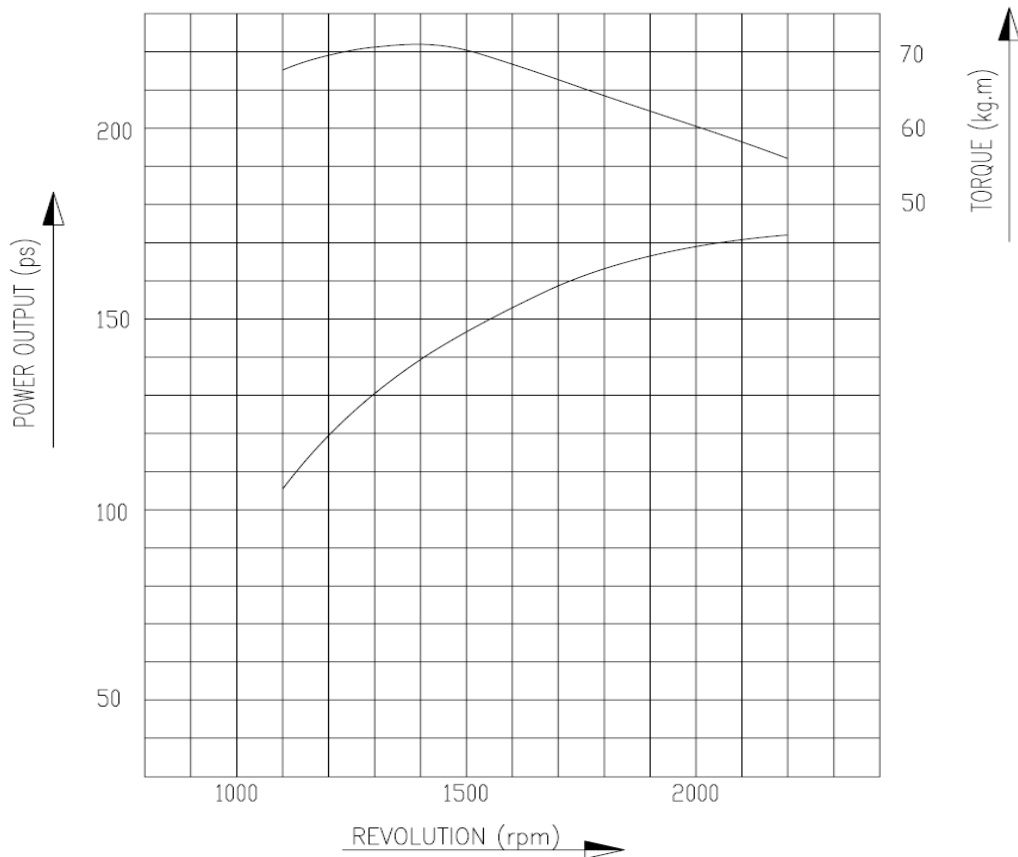
MODEL	DL200A		3/20
-------	---------------	--	-------------

2.6) FAN

TYPE	SUCKER, 9 BLADE, PLASTIC
SIZE	711mm
RPM AT RATED ENGINE RPM	1,400rpm
RPM AT RATED ENGINE RPM (OPT)	1,200rpm

2.7) ENGINE PERFORMANCE CUREVE

CONDITION(SAE J1995)	SPECIFICATION
ATMOSPHERIC PRESSURE	760 mmHg (20°C)
WARMING UP	SUFFICIENT
COOLING FAN	NOT INSTALLED
ALTERNATOR	NOT INSTALLED
AIR CLEANER	INSTALLED
MUFFLER	INSTALLED



MODEL	DL200A		4/20
-------	---------------	--	-------------

3. HYDRAULIC SYSTEM

3.1) MAIN PUMP

TYPE	GEAR
QUANTITY	1
DISPLACEMENT	44 (cc/rev)
MAX. FLOW RATE	96 LPM
TANK PRESSURIZING DEVICE	SEMI PRESSURIZED (AIR BREATHER)
PUMP CUT-OFF PRESSURE	N/A

3.2) CONTROL VALVE

TYPE	OPEN-CENTER HYDRAULIC SYSTEMS
QUANTITY OF SPOOLS	2
SPOOL ARRANGEMENT	ARM - BUCKET
OVERLOAD RELIEF OF BUCKET	235 bar
OVERLOAD RELIEF OF ARM	235 bar
BACK UP VALVE PRESSURE	5 bar

3.3) 3rd SPOOL CONTROL VALVE (OPTION)

TYPE	OPEN-CENTER HYDRAULIC SYSTEMS
QUANTITY OF SPOOLS	1
SPOOL ARRANGEMENT	OPTION
OVERLOAD RELIEF OF OPTION	235 bar

3.4) REMOTE CONTROL VALVE (STD)

TYPE	PILOT OPERATED JOYSTICK
PRESSURE	21 bar AT 7.5 mm
STROKE CHARACTER	30 bar AT DETENT

3.5) REMOTE CONTROL VALVE (OPT)

TYPE	PILOT OPERATED JOYSTICK WITH 3rd LEVER VALVE, FNR SWITCH (DETENT COILS- ARM RAISE/FLOAT, BUCKET CROWD)
PRESSURE	21 bar AT 7.5 mm
STROKE CHARACTER	30 bar AT DETENT

3.6) BRAKE & PILOT & FAN MOTOR SUPPLY VALVE

BRAKE CHARGING :	80 bar
PILOT REDUCING PRESSURE	28 bar
SOLENOID VALVE Q'TY	PILOT CUT-OFF-1, PARKING-1
SOLENOID VOLTAGE	DC 24V

MODEL	DL200A		5/20
-------	---------------	--	-------------

3.7) AIR BREATHER

RELIEF PRESSURE	0.5 bar
VACUUM RELIEF	0.04 ~ 0.05 bar

3.8) ACCUMULATOR ; BRAKE

TYPE	BLADDER (NITROGEN CHARGE PRESSURE / VOLUME)
QUANTITY OF ACCUMULATOR	3
CHARGE PRESSURE, VOLUME	30 bar / 0.75 L

3.9) ACCUMULATOR ; PILOT

TYPE	BLADDER
CHARGE PRESSURE, VOLUME	15 bar / 0.32 L

3.10) ACCUMULATOR ; LIS (OPT)

TYPE	PISTON
CHARGE PRESSURE, VOLUME	15 bar / 3 L

3.11) FILTERS ; RETURN

TYPE	GLASS FIBER
FILTRATION	10 μ

3.12) DC MOTOR-PUMP ; EMERGENCY STEER (OPT)

3.12.1) PUMP

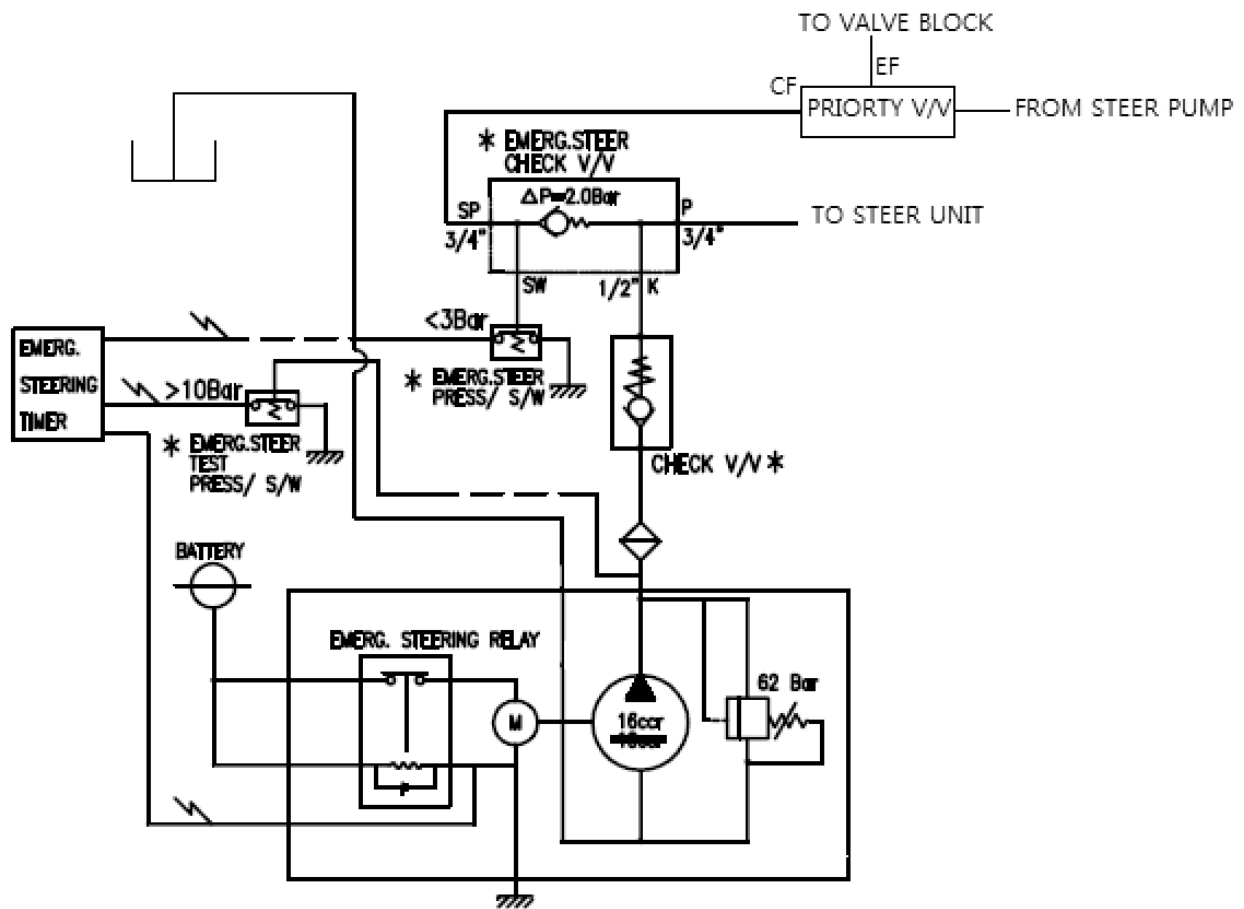
TYPE	GEAR, BUILT IN CHECK & RELIEF
THEORETICAL DISPLACEMENT	16 cc/rev
RELIEF PRESSURE	62 bar
ALLOWABLE SPEED	3,500 rpm

3.12.2) ELECTRIC MOTOR

TYPE	24V DC, DOUBLE TERMINAL, WATER SEALED, MEDIUM DUTY w/ FOOT MOUNTING BRACKET BUILT IN STARTER SWITCH
------	--

MODEL	DL200A		6/20
-------	---------------	--	-------------

3.12.3) EMERGENCY STEER CIRCUIT



MODEL

DL200A

7/20

4. DRIVE MECHANISM

4.1) TRAVELING SYSTEM

4.1.1) TRANSMISSION

TYPE	4SPEED FULL AUTO (STANDATD) POWER-SHIFT, COUNTERSHAFT, ENGINE REMOTE MOUNTED WITH PROPELLER SHAFT AND DAMPER
TORQUE CONVERTER STATOR	FIXED WHEEL STATOR
TORQUE CONVERTER STALL RATIO	2.911
TORQUE CONVERTER SIZE	300 mm
CHARGING PUMP FLOW	83.2 l/min at 2300rpm
HYDRAULIC PUMP P.T.O RATIO	1
POWER SHIFT CONTROL PRESSURE	16~18 bar
CONVERTER SAFETY RELIEF PRESSURE:	11 bar
CONVERTER OUTPUT LIMIT TORQUE	1,098 N.m
MAX. ROTATING SPEED (TM OUTPUT)	3,226 RPM
SHIFT CONTROL	ELECTRIC SHIFT WITH PROPORTIONAL VALVE, SOLENOID VALVES (DC 24 V)
CONTROL UNIT	EST – 37A
OUTPUT FLANGE	FRONT – 6C MECHANICS REAR – 6C MECHANICS
CONTROL CIRCUIT	4SPEED

4.1.2) PROPELLER SHAFT

	FRONT	ARTIC	REAR
MAX. ALLOWABLE TORQUE	310 Kg.m	310 Kg.m	310 Kg.m
MIN. JOINT ANGLE	23°/23°	23°/23°	23°/23°
MAX. PHASE MISALIGNMENT	±1.5°	±1.5°	±1.5°
MAX. SPEED	5,000 rpm	5,000 rpm	5,000 rpm
COUPLING DIMENSION	6C-6C	6C-6C	6C-5C

MODEL

DL200A

8/20

4.1.3) FRONT AXLE

TYPE	FULLY FLOATING PLANETARY-TYPE HUB DRIVE FIXED MOUNTING
	LSD 45%
OVERALL REDUCTION RATIO	22.8
AXLE LOAD (EMPTY)	5,116kg
AXLE LOAD (BREAKOUT)	19,896 kg
WHEEL BOLT P.C.D	Φ425 mm
BRAKE TYPE	WET DISC
BRAKE TORQUE per WHEEL	1,020 kg.m at 40 bar
DRIVE FLANGE	6C MECHANICS

4.1.4) REAR AXLE

TYPE	FULLY FLOATING PLANETARY-TYPE HUB TRUNNION MOUNTING
	LSD 45%
OVERALL REDUCTION RATIO	22.8
AXLE LOAD (EMPTY)	6,384kg
AXLE LOAD (EXCAVATING)	8,396 kg
WHEEL BOLT P.C.D	Φ425 mm
BRAKE TYPE	WET DISC
BRAKE TORQUE per WHEEL	795 kg.m at 40 bar
DRIVE FLANGE	5C MECHANICS

4.1.5) TIRE & WHEEL

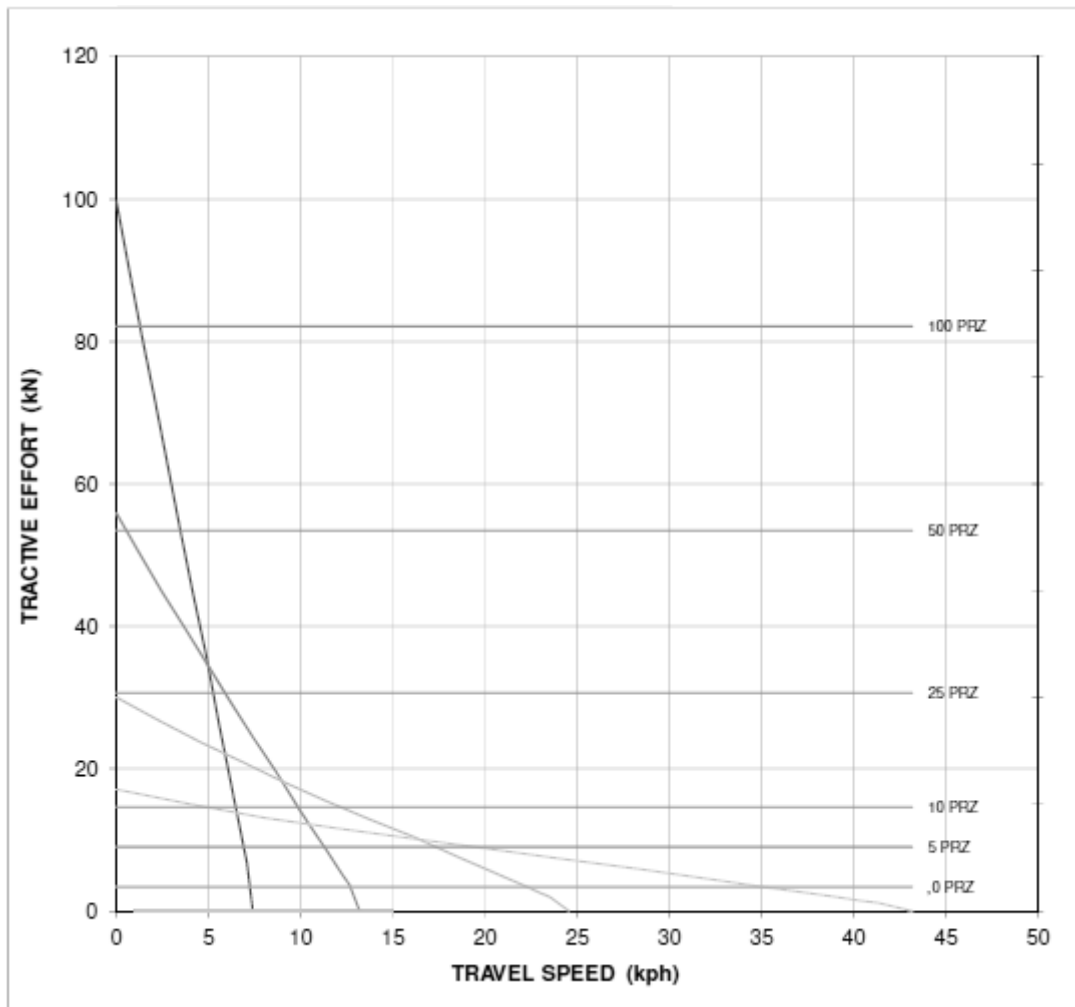
TYPE TYPE	TUBELESS, SINGLE
TIRE SPEC.	17.5-25 12PR (L3), 17.5-25 16PR (L3) 20.5R25 (L2), 20.5R25 (L3) 20.5-25 16PR (L3), 20.5-25 12PR (L3)
RIM SPEC.	14.00-25 / 17.00-25
DISC OFFSET	35mm

4.1.6) TRAVELING PERFORMANCE (REFER TO NEXT PAGE)

MAX. SPEED	36 km/h
MAX. TRACTIVE EFFORT	10 ton
GRADEABILITY	30° (58%)

MODEL	DL200A		10/20
-------	---------------	--	--------------

4.2) WG - Gear ratio : 3.611/2.024/1.088/0.619



4.3) BRAKE SYSTEM

4.3.1) FAN PUMP

TYPE	GEAR
DISPLACEMENT	16 cc/rev
MAX. SUPPLY FLOW	35 LPM

4.3.2) SERVICE BRAKE PEDAL VALVE (DUAL)

SYSTEM	FULL HYDRAULIC, SEPARATE DUAL LINE
BRAKE PRESSURE	45 bar
PEDAL FORCE	16kg at 18°

MODEL	DL200A		11/20
-------	--------	--	-------

4.3.3) PARKING BRAKE

TYPE	SPRING-APPLIED HYDRAULIC-RELEASED,
RELEASE PRESSURE	60 bar
MAX. CLAMPING FORCE (1mm CLEARANC)	34kN
MAX. STATIC CIRCUMFERENTIAL FORCE	25.16 kN

4.3.4) BRAKE PERFORMANCE

BRAKING DISTANCE	10 m at 36km/h
------------------	-----------------------

4.4) STEERING SYSTEM**4.4.1) PUMP**

TYPE	GEAR
QUANTITY	1
DISPLACEMENT	44 (cc/rev)
MAX. FLOW RATE	96 LPM

4.4.2) STEERING UNIT

TYPE	LOAD SENSING, NON REACTION
DISPLACEMENT	630 cc/rev

4.4.3) STEERING CYLINDER

CUSHION STROKE	30 mm
----------------	--------------

MODEL

DL200A

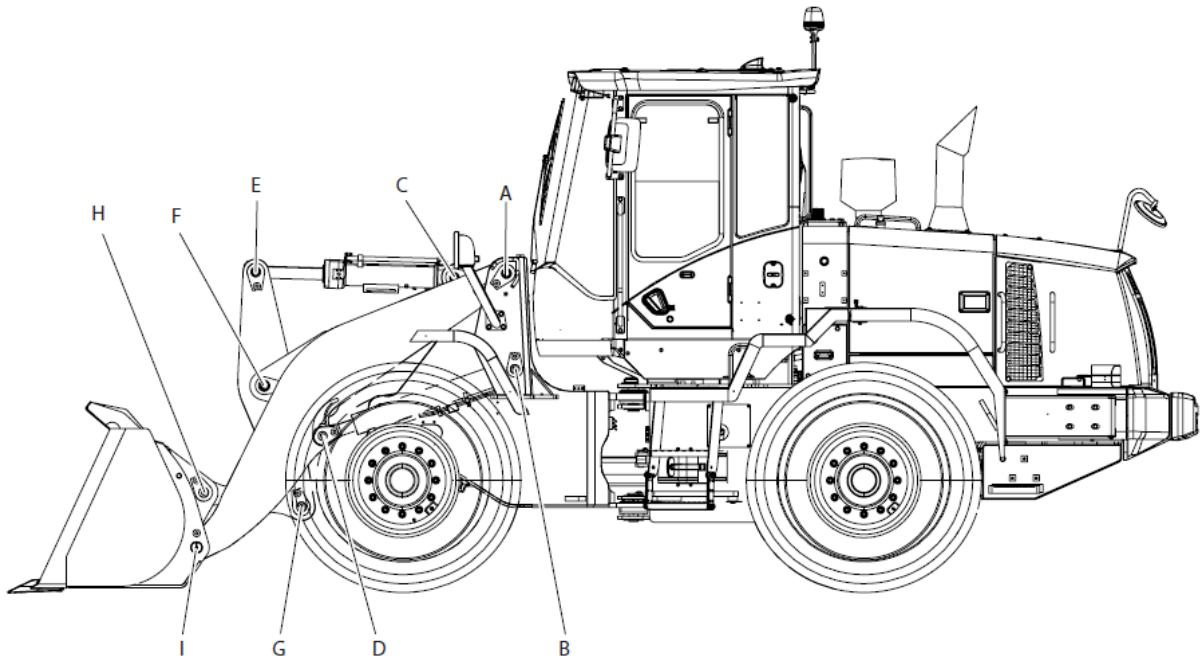
12/20

5. HYDRAULIC CYLINDERS

	LIFT	BUCKET	STEER
QUANTITY	2	1	2
BORE	120	140	70
ROD DIA.	70	75	35
STROKE	798	495	370
CLOSED LENGTH	1213	955	780
RETRACTING CUSHION	X	X	O
EXTENDING CUSHION	X	X	X

6. FRONT

6.1) FRONT LINKAGE PIN SIZES



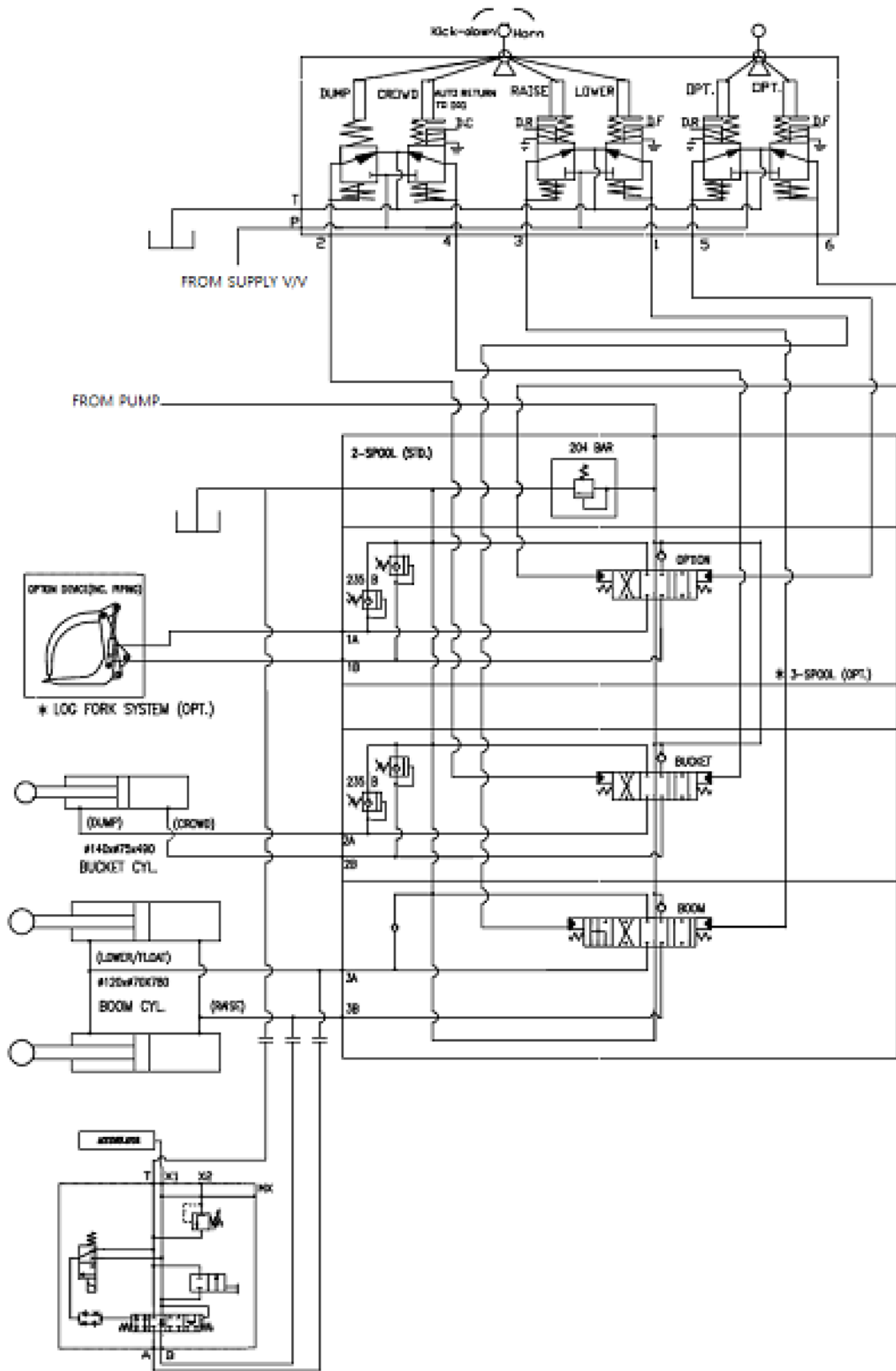
POINT	DIA. (mm)	LENGTH (mm)
A	80	255
B	65	255
C	80	216
D	65	160
E	80	172
F	90	294
G	70	172
H	70	184
I	70	213

MODEL

DL200A

13/20

6.2) OPTION PIPING(Log Fork)

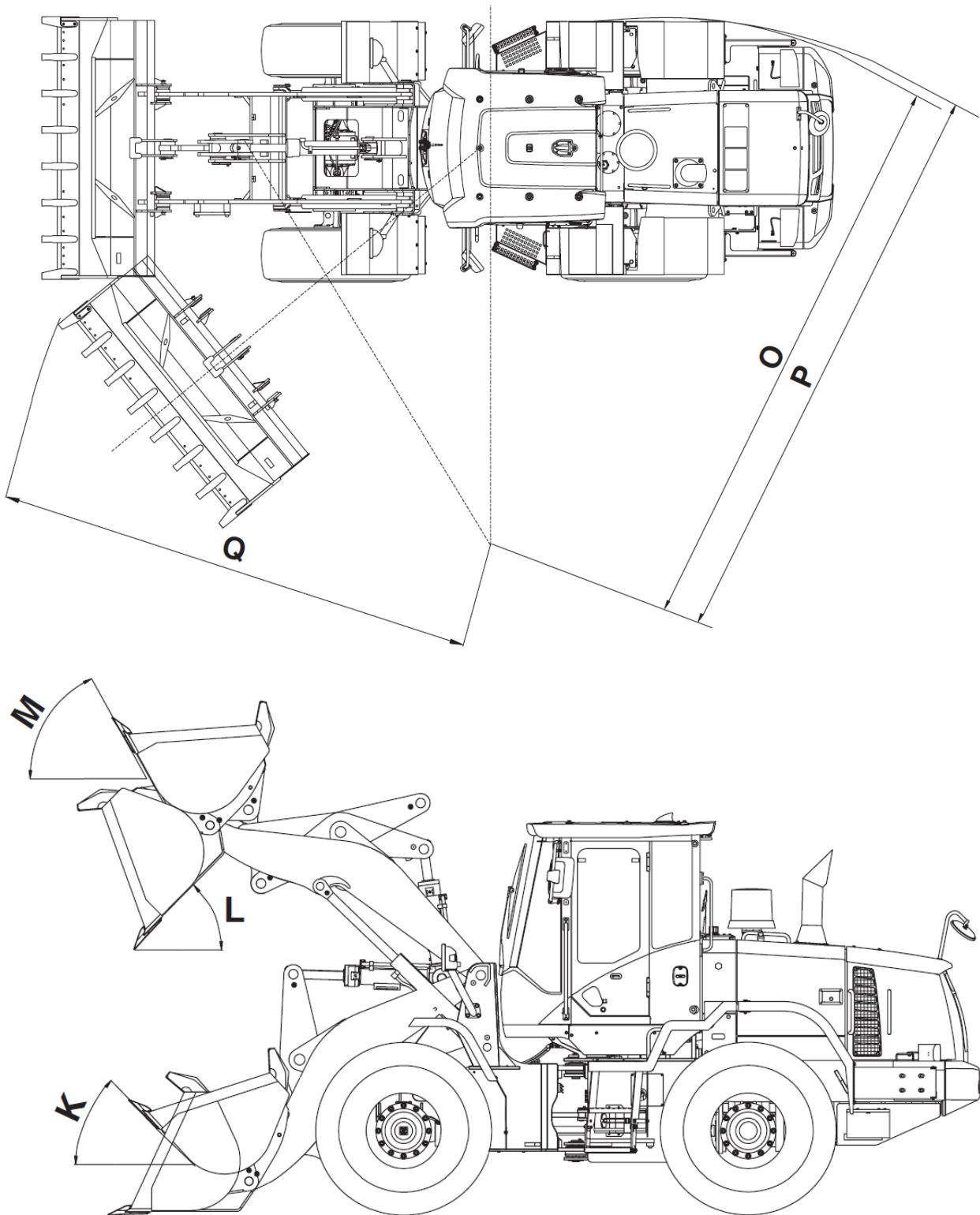


MODEL

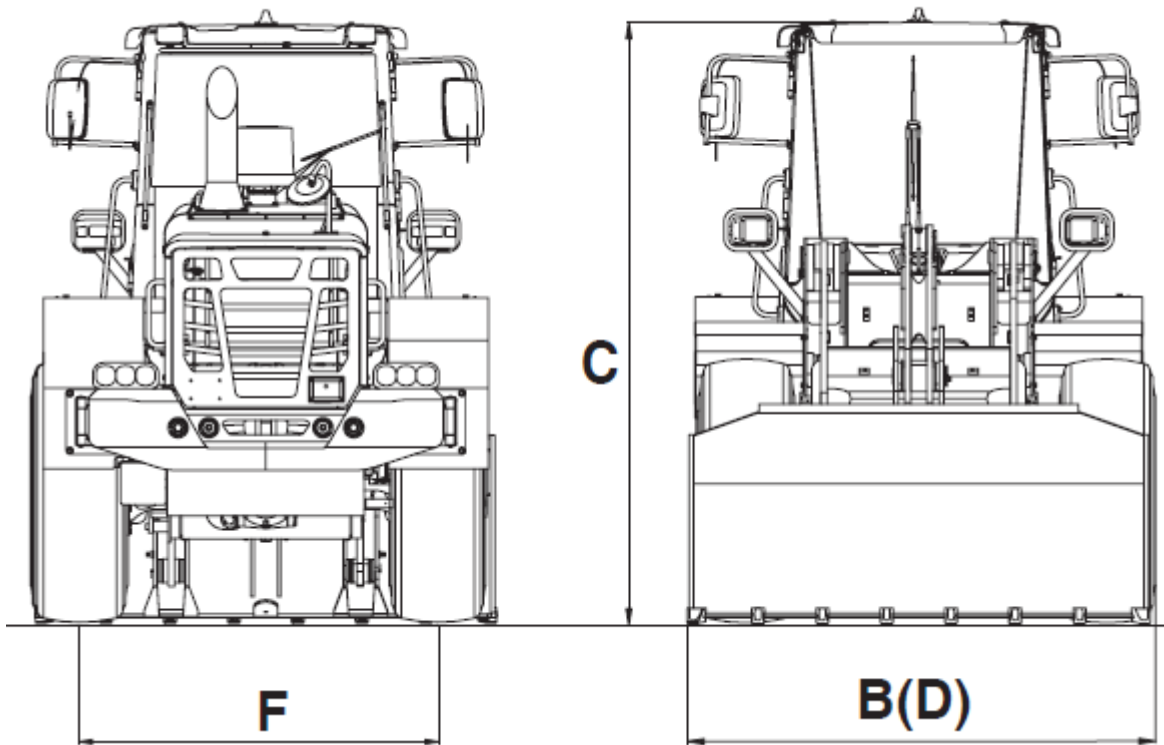
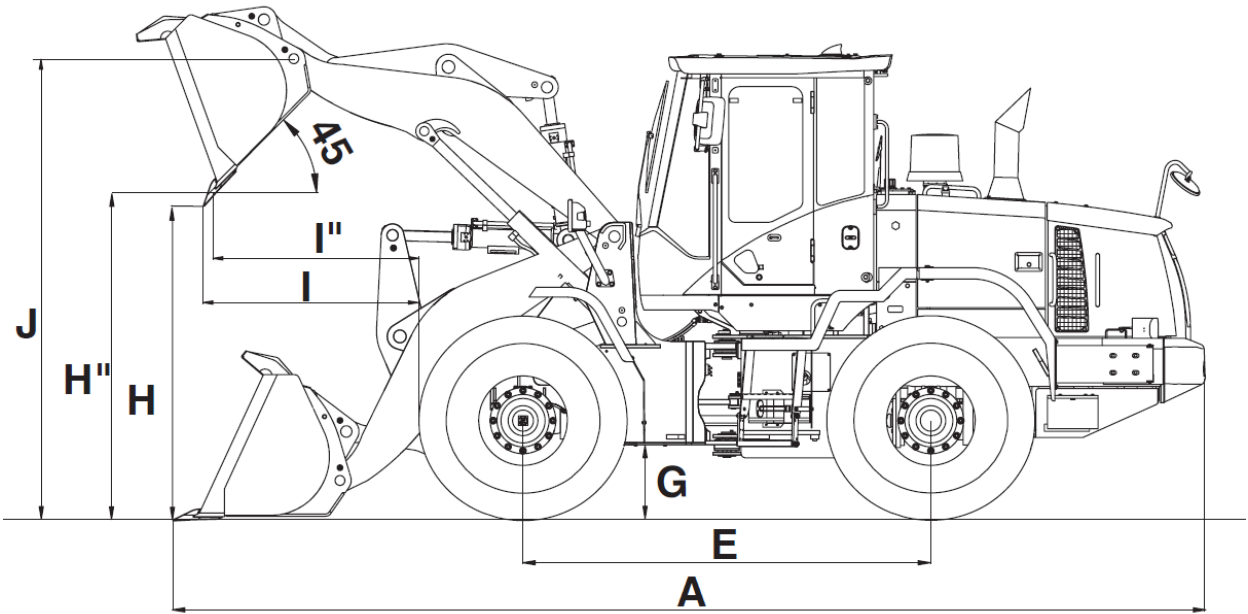
DL200A

14/20

7. DIMENSIONS AND WORKING RANGE



MODEL	DL200A		15/20
-------	--------	--	-------



MODEL	DL200A		16/20
-------	--------	--	-------

Loader type			General purpose			
Bucket mount			PIN ON	PIN ON	PIN ON	PIN ON
Configuration	Code	Unit	Teeth	Bolt-on edge	Teeth	Bolt-on edge
			(std.)		(std.)	
Capacity heaped ISO/SAE	-	<i>m³</i>	2.0	2.1	2.0	2.1
Bucket width	B	<i>mm</i>	2,550	2,550	2,550	2,550
Breakout force	-	<i>kN</i>	103	103	103	103
Static tipping load (straight)	-	<i>kg</i>	8,690	8,630	8,610	8,545
Static tipping load (at full turn)	-	<i>kg</i>	7,260	7,210	7,195	7,140
Dump height (at 45°) (at fully raised) ¹⁾	H	<i>mm</i>	2,730	2,795	2,675	2,740
Dump reach (at 45°) (at fully raised) ¹⁾	I	<i>mm</i>	1,000	940	955	895
Dump height (at max. dump) (at max. reach) ¹⁾	-	<i>mm</i>	800	880	745	825
Dump reach (at max. dump) (at max. reach) ¹⁾	-	<i>mm</i>	1,570	1,520	1,525	1,475
Digging depth	-	<i>mm</i>	75	75	130	130
Height at bucket Hinge point	J	<i>mm</i>	3,840	3,840	3,785	3,785
Max. tilt angle at carry position	K	<i>deg</i>	47	47	47	47
Max. tilt angle at fully raised	M	<i>deg</i>	64	64	64	64
Max. tilt angle on ground	-	<i>deg</i>	42	42	42	42
Max. tilt angle at max. reach	-	<i>deg</i>	62	62	62	62
Max. dump angle at max. reach	L	<i>deg</i>	55	55	55	55
Max. dump angle on ground	-	<i>deg</i>	56	56	56	56
Max. dump angle at fully raised	-	<i>deg</i>	45	45	45	45
External radius at tire side	O	<i>mm</i>	5,210	5,210	5,210	5,210
External radius at bucket edge	Q	<i>mm</i>	5,810	5,785	5,835	5,810
Wheel base	E	<i>mm</i>	2,900	2,900	2,900	2,900
Width at tyres	-	<i>mm</i>	2,460	2,460	2,375	2,375
Tread	F	<i>mm</i>	1,930	1,930	1,930	1,930
Ground clearance	G	<i>mm</i>	450	450	395	395
Overall length	C	<i>mm</i>	7,320	7,230	7,320	7,230
Overall height	-	<i>mm</i>	3,240	3,240	3,185	3,185
Tyre size	-	-	20.5-25- 16PR TRI(L3)	20.5-25- 16PR TRI(L3)	17.5-25- 16PR TRI(L3)	17.5-25- 16PR TRI(L3)
Operating weight	-	<i>kg</i>	11,120	11,175	10,950	11,005

1) Measured to the tip of the bucket teeth or cutting edge

MODEL	DL200A		17/20
-------	--------	--	-------

8. PERFORMANCE DATA

8.1) PRESSURE SETS

WORKING	200 ± 10 bar
STEERING RELIEF (LS PORT SIDE)	175 ± 10 bar
(STEER PUMP SIDE)	200 ± 10 bar
PILOT CONTROL	28 + 2 bar
BRAKE ACCUMULATOR CHARGING	80 bar
SERVICE BRAKE	45 ± 3 bar
PARKING BRAKE RELEASE	60 ± 5 bar
T/M SELECTION PRESSURE	16 + 2 bar

8.2) SPEED & FORCE

OPERATION		UNIT	SPEED-FORCE	REMARKS
ARM	UP	SEC	6.0 ± 0.5	
	DOWN	SEC	4.0 ± 0.4	
BUCKET	CROWD	SEC	1.8 ± 0.3	Max. Height
	DUMP	SEC	1.3 ± 0.3	
STEERING	LOCK TO LOCK	TURN	4.1	
E/G RPM	HIGH	RPM	2270 ± 50	<i>(On machine)</i>
	LOW	RPM	1000 ± 50	<i>(On machine)</i>
E/G RPM	HYDRAULIC STALL	RPM	2,200	
	CONVERTER STALL	RPM	2,200	
	T/C + HYD. STALL	RPM	1,800	
COOLING FAN	MAX	RPM	1,400	1,200 (OPT,COLD)
TRAVEL SPEED (1/2/3/4)		Km/h	7.5/12.5/21/36	
BRAKING DISTANCE		m	10 m at 36 kph	
MAX. TRACTIVE EFFORT		ton	10	
BREAKOUT FORCE		kN	103	
Rated Operating Load		kg	3,650	
STATIC TIPPING LOAD (straight)		kg	8,690	
STATIC TIPPING LOAD (full turn)		kg	7,260	

9. NOISE LEVEL

L_{WA} SURFACE SOUND POWER LEVEL : **76 dB(A) (ISO 6395)**
 L_{pA} OPERATOR'S CABIN NOISE LEVEL : **106 dB(A) (ISO 6396)**

MODEL

DL200A

18/20

10. USER SERVICE DATA

COMPARTMENT/ GREASE JOINT	No, OF C/G	REFILL CAPACITY	FLUID OR LUBRICANT	SERVICE INTERVAL (hr)	
				LUBE	FILTER
COOLING SYSTEM	1	40 ℓ	WATER	1,000	-
FUEL TANK	1	223 ℓ	DIESEL	-	500
HYD. SYSTEM	1	174 ℓ	ISO #46	2,000	1,000
ENGINE CRANKCASE	2	21 ℓ	E/G OIL (15W40)	250	250
AXLE_FRONT	1	18.4 ℓ	GEAR OIL. [TDH PREMIUM]	1,500	-
AXLE_REAR	1	17 ℓ	GEAR OIL. [TDH PREMIUM]	1,500	-
T/C AND T/M	1	30 ℓ	SAE 15W40	250/1,000	250/1,000
FRONT PROPELLER SHAFT	1	-	GREASE	250	-
FRONT PIN	13	-	GREASE	50	-
ARTICULATION JOINT	2	-	GREASE	50	-
REAR AXLE PIVOT	3	-	GREASE	50	-
STEER CYLINDER	2	-	GREASE	50	-

MODEL

DL200A

19/20

11. SUB GROUP WEIGHTS

ITEM	UNIT	WEIGHT	REMARKS
COUNTERWEIGHT	<i>kg</i>	550	
FRONT FRAME	<i>kg</i>	1,041	
REAR FRAME	<i>kg</i>	959	
OIL TANK	<i>kg</i>	117	<i>w/o Oil</i>
FUEL TANK	<i>kg</i>	202	<i>w/o Oil</i>
ENGINE	<i>kg</i>	505	<i>w/Cac pipe& Oil</i>
TRANSMISSION	<i>kg</i>	360	<i>w/o Oil</i>
AXLE_FRONT	<i>kg</i>	590	<i>w/ Oil</i>
AXLE_REAR	<i>kg</i>	585	<i>w/ Oil</i>
TIRE(20.5-25-16PR) at Each Tire	<i>kg</i>	173	
RIM(19.5 x 25) at Each Rim	<i>kg</i>	115	
PROPELLER SHAFTS (3EA)	<i>kg</i>	42	
RADIATOR	<i>kg</i>	154	<i>w/o Water</i>
MAIN PUMP	<i>kg</i>	28	
CONTROL VALVE	<i>kg</i>	22	
COVER GROUP	<i>kg</i>	290	
AXLE PIVOT SUPPORT_FRONT	<i>kg</i>	64	
AXLE PIVOT SUPPORT_REAR	<i>kg</i>	61	
ROPS CABIN ASS'Y	<i>kg</i>	800	
LOADER ARM ASS'Y	<i>kg</i>	665	
TILT LEVER ASS'Y	<i>kg</i>	187	
2.5 m ³ BUCKET ASS'Y (w/ Tooth)	<i>kg</i>	817	
LINK	<i>kg</i>	37	
CYLINDER_ARM	<i>kg</i>	91	
CYLINDER_BUCKET	<i>kg</i>	104	

12. LIFTING CAPACITY (kgf)

BUCKET	UNIT	2.0m ³ BOT	2.1m ³ BOC
Lifting Capacity to Max.Height	<i>kgf</i>	5,590	5,530

MODEL

DL200A

20/20