

CHANGES	DETAILS	DATE	WRITTEN	APPROVED

DL300-3

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1. GENERAL SPECIFICATION

ITEMS		UNIT	EUST	NAST
OPERATING WEIGHT		kg(lb)	18,570(40,940)	18,420(40,609)
ENGINE (SAE J1995 Gross) (SAE J1349 Net)	RATED POWER (Gross)	kW(hp)/rpm	202(271)/1,800	
	RATED POWER (Net)	kW(hp)/rpm	202(271)/1,800	
	MAX. POWER (Gross)	kW(hp)/rpm	202(271)/1,800	
	MAX. TORQUE (Gross)	N.m(lbf.ft)/rpm	1,275(940)/1,400	
SYSTEM PRESSURE (WORK/STEER)		bar(psi)	250(3,626)/210(3,046)	
TRAVEL SPEED	FORWARD with 5 th Gear (1/2/3/4/5)	km/h (MPH)	6.3/11.2/17.0/26.0/36.0 (3.9/7.0/10.6/16.2/22.4)	
	REVERSE (1/2/3)	km/h(MPH)	6.7/11.8/27.1(4.2/7.3/16.8)	
FRONT SPEED (RAISE/DUMP/LOWER)		sec	5.2/1.6/3.1	
GRADEABILITY		%(°)	51 (27)	
TIRE SIZE		-	23.5R25(L3)	
WORKING RANGE	BUCKET CAPACITY (SAE HEAPED)	m3(yd3)	3.0(3.9) BOT	3.2(4.2) BOC
	DUMP HEIGHT AT 45° H	mm(ft in)	2,725(8'11")	2,845(9'4")
	DUMP REACH AT 45° I	mm(ft in)	1,290(4'3")	1,160(3'10")
	MAX. DUMP ANGLE (fully raised) L	deg	47°	←
	MAX. TILT ANGLE (on ground)	deg	45°	←
	MAX. TILT ANGLE (fully raised) M	deg	61°	←
	MAX. TILT ANGLE (at carry) K	deg	49°	←
	BUCKET HINGE HEIGHT J	mm(ft in)	3,975(13')	←
	DIGGING DEPTH (0° level)	mm(ft in)	125(4.9")	←
TRAVEL DIMENSION	OVERALL LENGTH A	mm(ft in)	8,270(27'2")	8,095(26'7")
	OVERALL WIDTH (bucket) B	mm(ft in)	2,920(9'7")	←
	OVERALL HEIGHT C	mm(ft in)	3,475(11'5")	←
	GROUND CLEARANCE G	mm(ft in)	460(1'6")	←
	WHEEL BASE E	mm(ft in)	3,200(10'6")	←
	TREAD F	mm(ft in)	2,150(7'1")	←
BREAKOUT FORCE		kN(lbf)	169(37,993)	169(37,993)
MAX. STEERING ANGLE		deg	40°	
TURNING RADIUS (Tire edge/Count weight edge) O/P		mm(ft in)	5,800(19') / 5,970(19'7")	
SOUND LEVEL in CAB (ISO 6396)		dB(A)	LpA 73	
EXTERNAL SOUND LEVEL(ISO6395, 2000/14/EC)		dB(A)	LwA 107	
FUEL TANK CAPACITY		Liter(USgal)	297(78)	
UREA TANK CAPACITY		Liter(USgal)	38(10)	
· EUST : (NAST) + LIS + EMR + Rear View Camera + Under Cover + Rubber Protector with Fender				
· ROPS/FOPS Cabin is Standard. 5th gear T/M with lock up is Option.				
· Every dimensions, weights, and performance data based on SAE J732C and SAE742B.				

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2. SPECIFICATION COMPARISON

ITEMS		UNIT	CAT	KOMATSU	VOLVO
			950K	WA380-7	L110G
OPERATING WEIGHT		kg	19,425	17,910	18,280
ENGINE (SAE J1995)	MODEL	-	C7.1 ACERT	SAA6D107E-2	D8H
	EMISSION CONTROL	-	TIER 4i	TIER 4i	TIER 4i
	FUEL CONTROL	-	HPCR	HPCR	HPCR
	Displacement	Liter	7.01	6.69	7.75
	RATED POWER (Gross)	kW/rpm	173/1,900	143/2,100	191/1,700
	MAX. TORQUE (Gross)	N.m	1,054/1,300	-	1,255/1,400
SYSTEM PRESSURE (WORK/STEER)		bar	-	314/245	290/210
TRAVEL	FORWARD	km/h	6.9/12.9/22.7/37.9	6.6/11.7/20.9/36.1	7.0/13.5/28/40
SPEED	REVERSE (1/2/3)	km/h	7.5/14.1/24.8	7.1/12.4/22.3/38.6	7.0/13.5/28
FRONT SPEED (RAISE/DUMP/LOWER)		sec	5.9/1.8/2.5	5.9/1.8/3.3	5.4/2.1/2.5
TIRE SIZE		-	23.5 R25(L3)	23.5 R25(L3)	23.5 R25(L3)
BREAKOUT FORCE		kN	161	158	174.8
WORKING RANGE	BUCKET CAPACITY	m ³	3.1 BOC	3.3 BOC	3.0 BOT
	DUMP HEIGHT AT 45°	mm	2,876	2,950*	2,740
	DUMP REACH AT 45°	mm	1,429	1,150*	1,280
	MAX. DUMP ANGLE (fully raised)	deg	51	-	50
	MAX. TILT ANGLE (on ground)	deg	38	-	40
	MAX. TILT ANGLE (fully raised)	deg	59	-	55
	MAX. TILT ANGLE (at carry)	deg	46	50	45
	BUCKET HINGE HEIGHT	mm	4,021	4,095	4,030
	DIGGING DEPTH (0° level)	mm	90	60*	80
TRAVEL DIMENSION	OVERALL LENGTH	mm	8,162	8,280*	8,090
	OVERALL WIDTH (bucket)	mm	2,927	2905*	2,880
	OVERALL HEIGHT	mm	3,356	3,390	3,380
	GROUND CLEARANCE	mm	397	455	430
	WHEEL BASE	mm	3,350	3,300	3,200
	TREAD	mm	-	2,160	2,070
MAX. STEERING ANGLE		deg	40	40	40
TURNING RADIUS (Tire edge/ Bucket edge)		mm	5,952/ 6,881	- / 7,220*	5,730 / 6,355
SOUND LEVEL in CAB (ISO 6396)		dB(A)	71	72	68
EXTERNAL SOUND LEVEL(ISO6395, 2000/14/EC)		dB(A)	110	108	106
FUEL TANK CAPACITY		Liter	314	300	269

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3. ENGINE SYSTEM

1) ENGINE

EMISSION	U.S EPA TIER 4 (EU STAGE-III B)
MAX POWER at SAEJ1995 gross	202 Kw (274PS, 270HP) / 1,800 RPM
MAX TORQUE at SAEJ1995 gross	130 kg.m (1,275 N.m, 940lb.f) / 1,400 RPM
FUEL CONSUMPTION (min. ~ rated)	141~149 g/ps.hr
TYPE	TURBO CHARGED, AIR TO AIR INTERCOOLED, DIRECT INJECTION
INJECTION SYSTEM	XPI(Extra high Pressure Injection)
AFTER TREATMENT	SCR(Selective Catalytic Reduction)
DISPLACEMENT	9.3 liter
No. OF CYLINDER	5
BORE DIA. & STROKE	Φ130 x 140 mm
HIGH IDLE SPEED	2130 + 20 rpm
LOW IDLE SPEED	900 rpm
STARTING MOTOR	24 V x 6 Kw

2) ALTERNATOR

VOLTAGE	28 V
RATING AMPERES	100 A

3) BATTERY

SYSTEM VOLTAGE	24 V
QUANTITY	12 V x 2
CAPACITY (AMP)	150 AH
COLD CRANKING AMPERES	1050 CCA

4) AIR CLEANER

TYPE	DIRECT AIR FLOW, DRY, DOUBLE ELEMENT
FILTRATION AREA	14.8 m ² (14.05 + 0.75)
SIZE (WIDTH X HEIGHT)	254 x 254 x 305 mm (10 x 10 x 12 inch)
INITIAL AIR RESTRICTION	200 mm H ₂ O at 19.8 m ³ /min AIR FLOW

5) PRE CLEANER

AIR RESTRICTION RATE	90 H ₂ O at 25.8 m ³ /mm
AIR CONTAMINANTS	84% (A.C COARSE DUST)

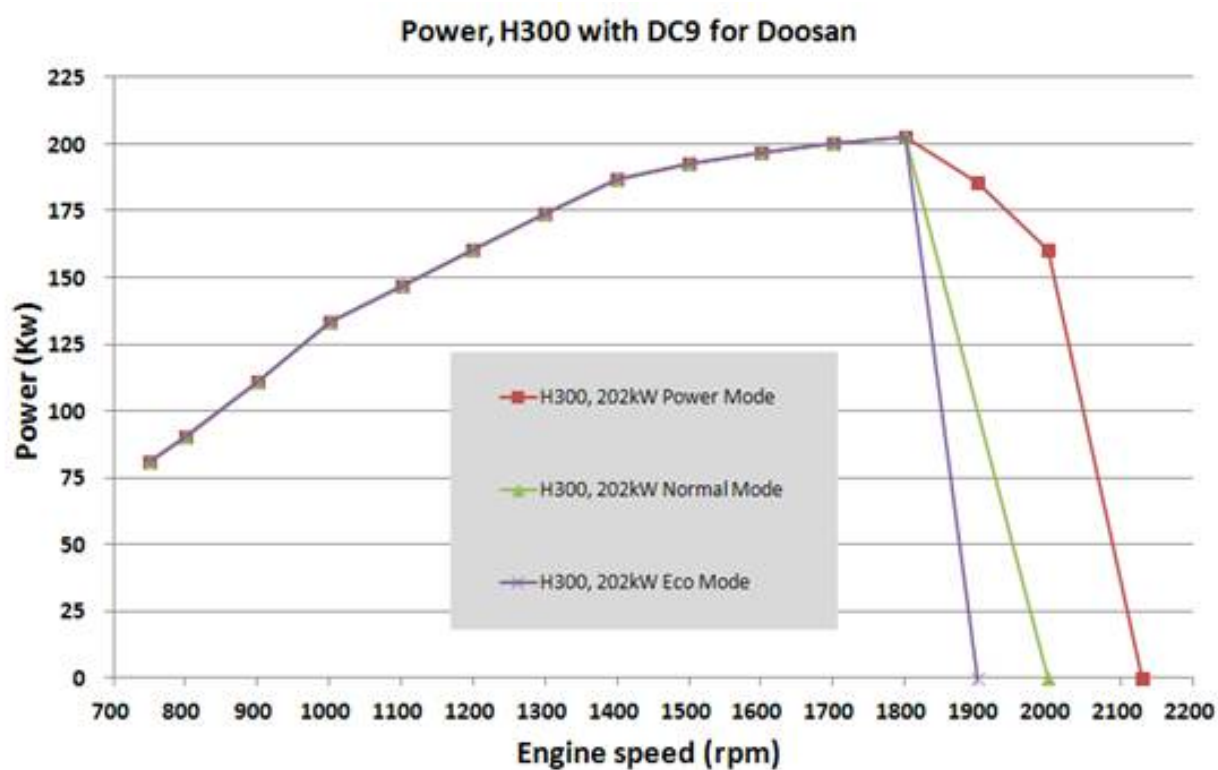
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6) FAN (Driven by hydraulic motor)

TYPE	SUCKER, 8 BLADE, PLASTIC
SIZE	Φ863.6 mm (34 inch)
RPM AT RATED ENGINE RPM	500~1,400 MAX. (CONTINUOUS)

7) ENGINE PERFORMANCE CURVE

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

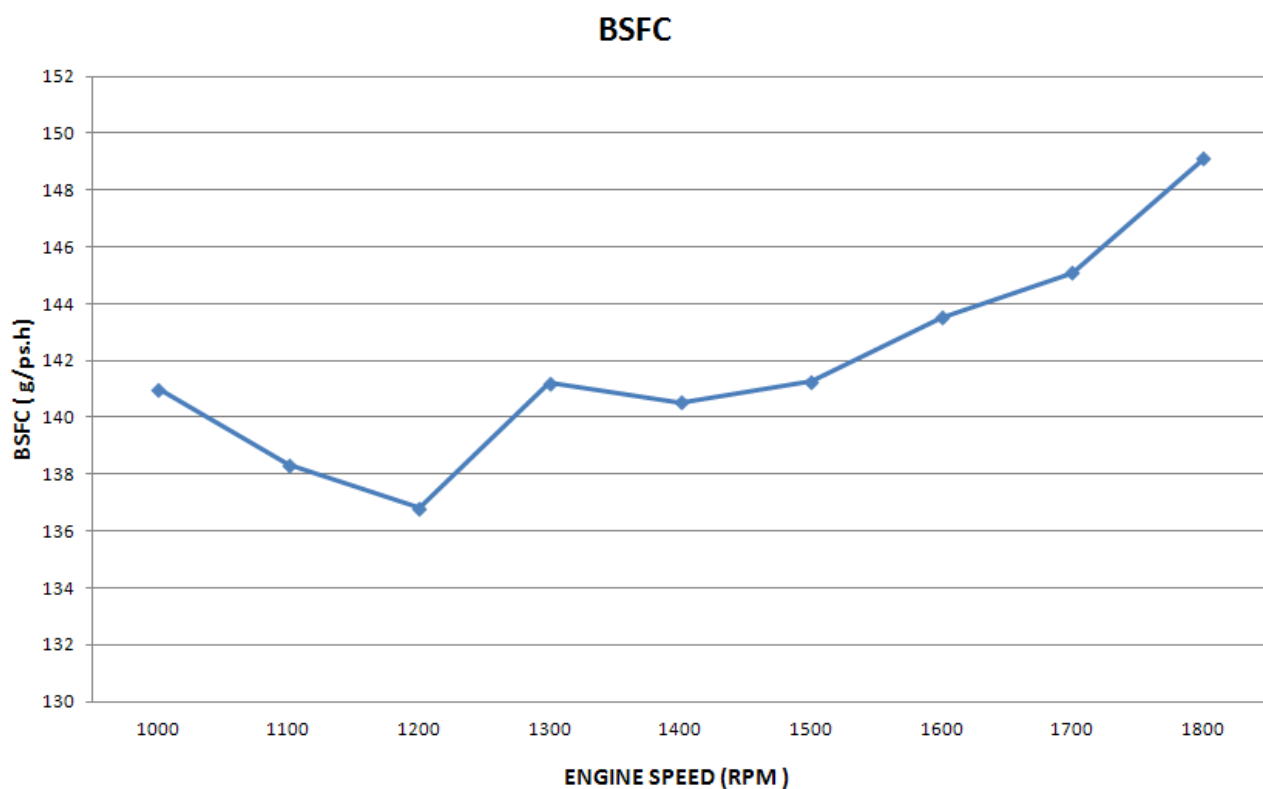
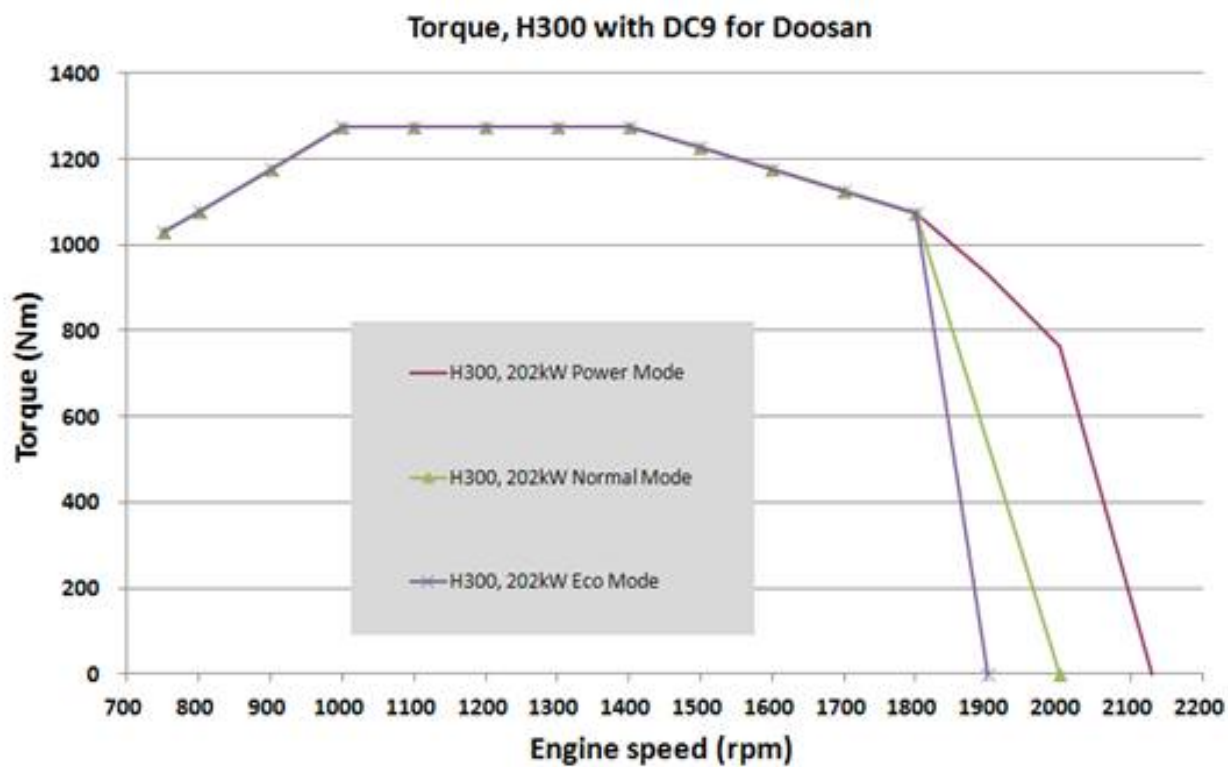


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4. HYDRAULIC SYSTEM

1) MAIN PUMP

TYPE	VARIABLE DISPLACEMENT AXIAL PISTON PUMP
QUANTITY	1
DISPLACEMENT	74 cc/rev
MAX. FLOW RATE	145 L/min (38 GPM)
TANK PRESSURIZING DEVICE	SEMI PRESSURIZED (AIR BREATHER)
PUMP CUT-OFF PRESSURE	250 bar (3,626 psi)

2) MAIN CONTROL VALVE

TYPE	CLOSED-CENTER(LS) HYDRAULIC SYSTEMS WITH VARIABLE PUMPS, PILOT CONTROL w/ FLOAT SPOOL
QUANTITY OF SPOOLS	2
SPOOL ARRANGEMENT	ARM - BUCKET
OVERLOAD RELIEF OF BUCKET	280 bar (4,061 psi)
OVERLOAD RELIEF OF ARM	365 bar (5,294 psi)
BACK UP VALVE PRESSURE	5 bar (73 psi)

3) 3rd SPOOL CONTROL VALVE (OPTION)

TYPE	CLOSED-CENTER(LS) HYDRAULIC SYSTEMS WITH VARIABLE PUMPS, PILOT CONTROL w/ FLOAT SPOOL
QUANTITY OF SPOOLS	1
SPOOL ARRANGEMENT	OPTION
OVERLOAD RELIEF OF BUCKET	280 bar (4,061 psi)

4) REMOTE CONTROL VALVE (STANDARD)

TYPE	PILOT OPERATED JOYSTICK WITH 3rd LEVER VALVE, FNR SWITCH (DETENT COILS- ARM RAISE/FLOAT, BUCKET CROWD)
PRESSURE	21 bar AT 7.5 mm (290 psi AT 0.3 inch)
STROKE CHARACTER	30 bar (435 psi) AT DETENT

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5) REMOTE CONTROL VALVE (OPTION)

TYPE	PILOT OPERATED FINGER TIP LEVER (2 or 3 LEVER) WITH FNR SWITCH (DETENT COILS- ARM RAISE/FLOAT, BUCKET CROWD)
PRESSURE	21 bar AT 7.5 mm (290 psi AT 0.3 inch)
STROKE CHARACTER	30 bar (435 psi) AT DETENT

6) BRAKE & PILOT & FAN MOTOR SUPPLY VALVE

BRAKE CHARGING	120 ~ 140 bar (1,740 ~ 2,031 psi)
PILOT REDUCING PRESSURE	MAX. 30 bar (435 psi)
SOLENOID VALVE Q'TY	PILOT CUT-OFF-1
SOLENOID VOLTAGE	DC 24V

7) ACC. BLOCK

SOLENOID VALVE Q'TY	PARKING -1
SOLENOID VOLTAGE	DC 24V

8) HYDRAULIC FAN MOTOR

TYPE	BIDIRECTIONAL GEAR MOTOR
DISPLACEMENT	31 cc/rev
MAX. PRESSURE	130 bar (1,885 psi)
COOLING FAN RPM	500 ~ 1400 RPM

9) AIR BREATHER

RELIEF PRESSURE	0.45 bar (6.5 psi)
VACUUM RELIEF	0.04 ~ 0.05 bar (0.6~0.7 psi)

10) ACCUMULATOR ; BRAKE

TYPE	BLADDER (50cc OIL IS FILLED WITH NITROGEN GAS)
CHARGE PRESSURE, VOLUME	30 bar, 0.75 L (435 psi, 0.20 USgal)

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11) ACCUMULATOR ; PILOT

TYPE	BLADDER
CHARGE PRESSURE, VOLUME	15 bar, 0.32 L (218 psi, 0.08 USgal)

12) ACCUMULATOR ; LIS

TYPE	PISTON TYPE
CHARGE PRESSURE, VOLUME	20 bar, 4 L (290 psi, 1.06 USgal)

13) FILTERS ; RETURN

TYPE	GLASS FIBER
FILTRATION	10 μ

14) FILTERS ; BRAKE & PILOT

TYPE	GLASS FIBER
FILTRATION	20 μ

15) DC MOTOR-PUMP ; EMERGENCY STEER

15-1) PUMP

TYPE	GEAR, BUILT IN CHECK & RELIEF
THEORETICAL DISPLACEMENT	16 cc/rev
RELIEF PRESSURE	62 bar (899 psi)
ALLOWABLE SPEED	3,500 rev/min

15-2) ELECTRIC MOTOR

TYPE	24V DC, DOUBLE TERMINAL, WATER SEALED, MEDIUM DUTY w/ FOOT MOUNTING BRACKET BUILT IN STARTER SWITCH
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The diagram illustrates the emergency steering system for a 16ccr pump. It includes a 24v DC MOTOR PUMP for EMERG. STEER, an EMG STEERING RELAY, and a 16ccr pump. The system is controlled by an EMG. STEERING TIMER, which is triggered by a GAUGE PANEL (EST-37A) when Travel speed > 5KPH. The timer is also connected to an EMR. STEERING SWITCH and a STARTER SWITCH (Key-on). The pump is connected to a 62 Bar pressure relief valve. The system is powered by a BATTERY and includes a pressure cut-off at 250 bar. The main steer flow is 210 l/min at 1,800 rpm. The pressure cut-off is 250 bar. The system is controlled by an EMG. STEERING TIMER, which is triggered by a GAUGE PANEL (EST-37A) when Travel speed > 5KPH. The timer is also connected to an EMR. STEERING SWITCH and a STARTER SWITCH (Key-on). The pump is connected to a 62 Bar pressure relief valve. The system is powered by a BATTERY and includes a pressure cut-off at 250 bar. The main steer flow is 210 l/min at 1,800 rpm. The pressure cut-off is 250 bar.

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5. DRIVE MECHANISM

5.1 TRAVELING SYSTEM

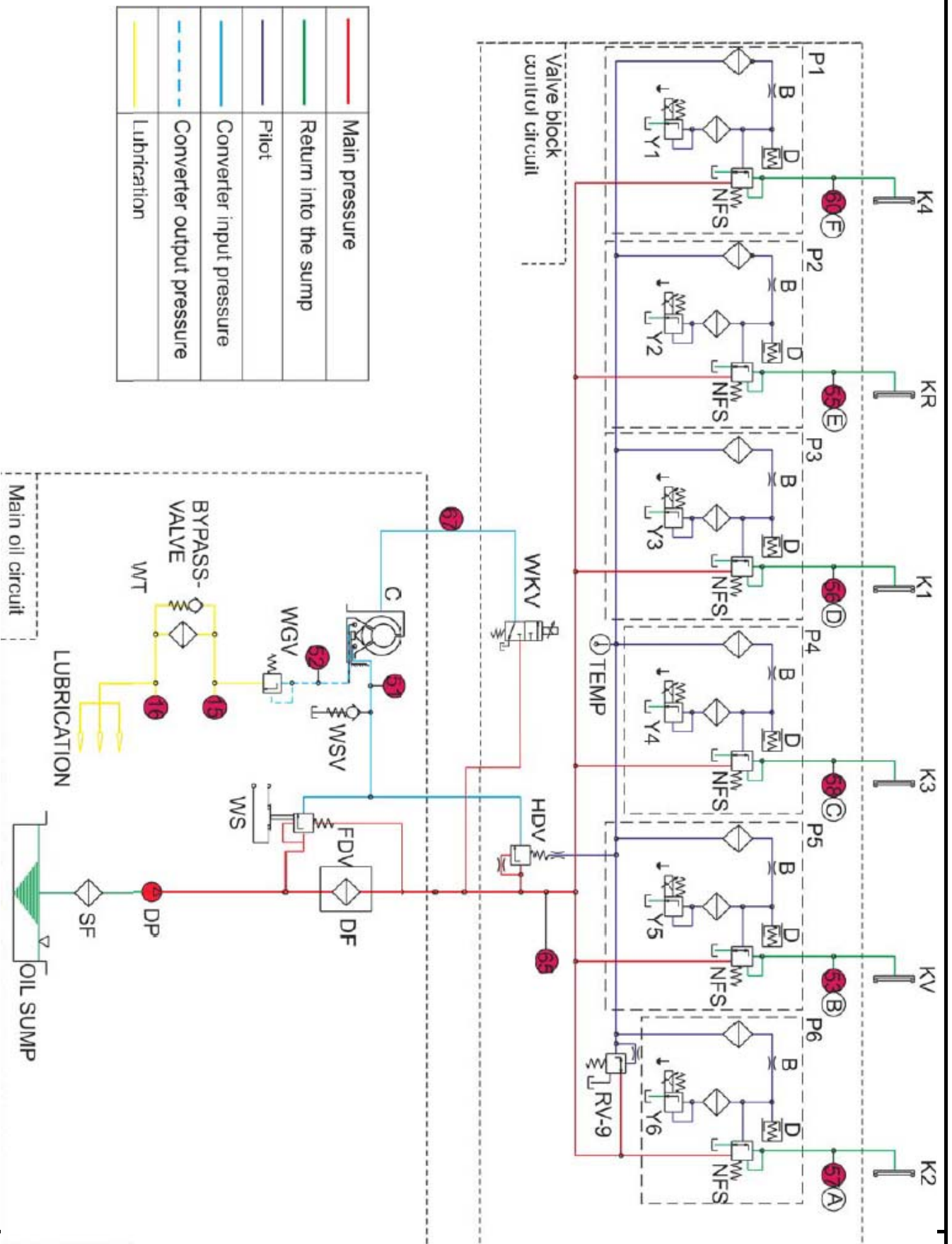
1) TRANSMISSION

TYPE	4SPEED FULL AUTO (STANDATD)
	5SPEED w/Lock-up (OPTION)
	POWER-SHIFT, COUNTERSHAFT, ENGINE REMOTE MOUNTED WITH PROPELLER SHAFT AND DAMPER
TORQUE CONVERTER STATOR	FIXED WHEEL STATOR (STANDARD)
TORQUE CONVERTER STALL RATIO	2.283
TORQUE CONVERTER SIZE	340 mm (1'1")
CHARGING PUMP FLOW	105 L/min at 2,000 rpm
HYDRAULIC PUMP P.T.O RATIO	1
POWER SHIFT CONTROL PRESSURE	16~18 bar (232~261 psi)
CONVERTER SAFETY RELIEF PRESSURE:	11 bar (160 psi)
CONVERTER OUTPUT LIMIT TORQUE	1,650 N.m (1,217 lbf.ft)
MAX. ROTATING SPEED	2,600 rpm
SHIFT CONTROL	ELECTRIC SHIFT WITH PROPORTIONAL VALVE, SOLENOID VALVES (DC 24 V)
CONTROL UNIT	EST – 37A
OUTPUT FLANGE	FRONT – 7C MECHANICS
	REAR – 7C MECHANICS
CONTROL CIRCUIT	4SPEED / 5SPEED

2) PROPELLER SHAFT

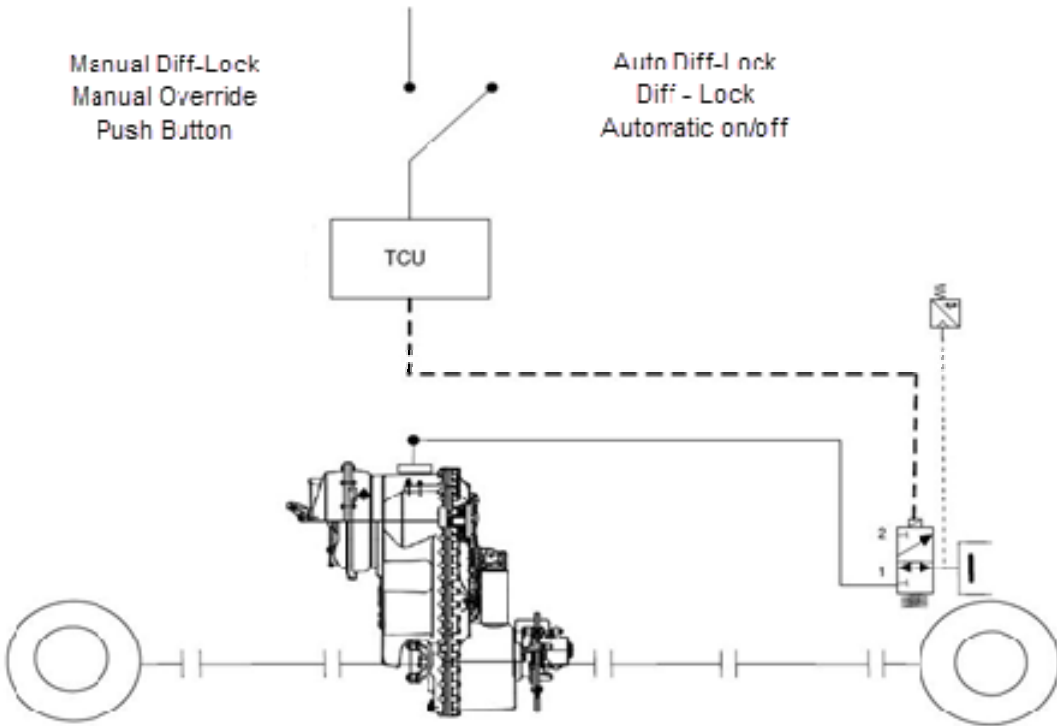
	FRONT	ARTIC	REAR
MAX. ALLOWABLE TORQUE	6,463 N.m (4,767 lbf.ft)	5,688 N.m (4,195 lbf.ft)	8,895 N.m (6,560 lbf.ft)
MIN. JOINT ANGLE	25°/25°	25°/25°	10°/10°
MAX. PHASE MISALIGNMENT	±1.3°	±1.3°	±1.5°
MAX. ALLOWABLE SPEED	3,349 rpm	3,349 rpm	3,349 rpm
COUPLING DIMENSION	7C	7C	7C

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3) DIFFERENTIAL HYDRAULIC LOCK

ACTUATION PRESSURE TO AXLE	16 bar + 4 bar
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4) FRONT AXLE

TYPE	FULLY FLOATING PLANETARY-TYPE HUB DRIVE FIXED MOUNTING
	LSD 30%(STANDARD), DHL(OPTION)
OVERALL REDUCTION RATIO	23.334
AXLE LOAD (EMPTY)	8,342 kg (18,391 lb)
AXLE LOAD (BREAKOUT)	32,005 kg (70,559 lb)
WHEEL BOLT P.C.D	Φ425 mm (1'5")
BRAKE TYPE	WET DISC
BRAKE TORQUE per WHEEL	37,455 N.m at 60 bar (27,625 lbf.ft at 870 psi)
DRIVE FLANGE	7C MECHANICS

4) REAR AXLE

TYPE	FULLY FLOATING PLANETARY-TYPE HUB DRIVE FIXED MOUNTING
	LSD 30%(STANDARD), OPEN(OPTION)
OVERALL REDUCTION RATIO	23.334
AXLE LOAD (EMPTY)	10,158 kg (22,395 lb)
AXLE LOAD (BREAKOUT)	13,505 kg (29,773 lb)
WHEEL BOLT P.C.D	Φ425 mm (1'5")
BRAKE TYPE	WET DISC
BRAKE TORQUE per WHEEL	37,455 N.m at 60 bar (27,625 lbf.ft at 870 psi)
DRIVE FLANGE	7C MECHANICS

5) TIRE & WHEEL

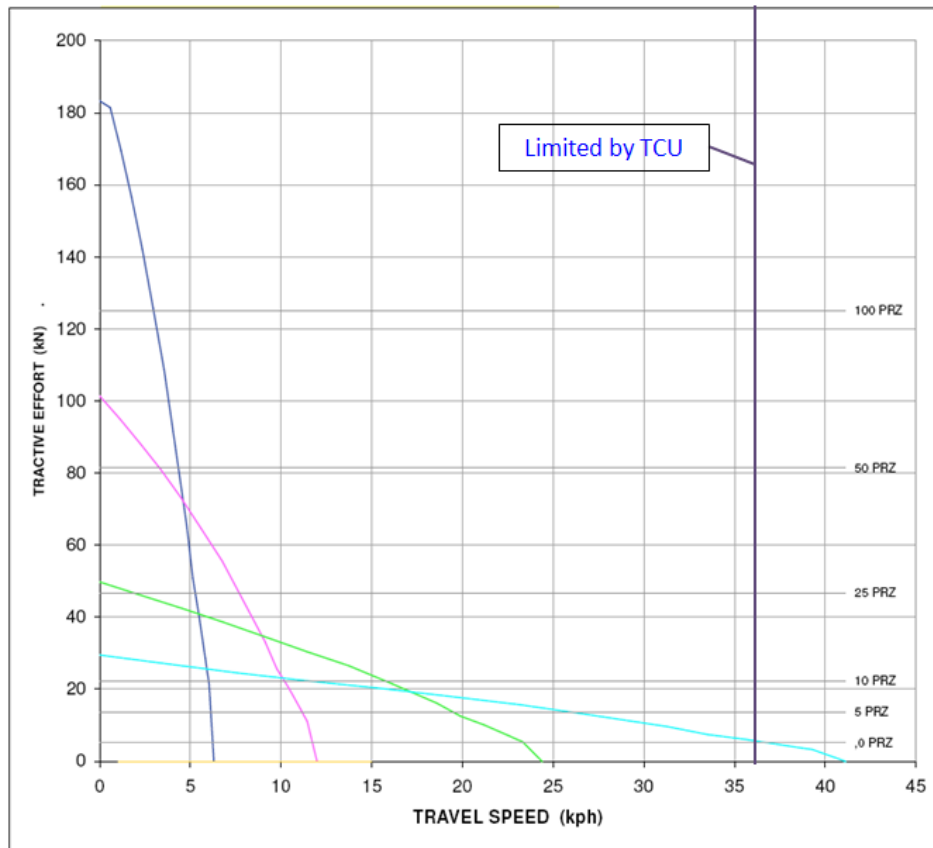
TYPE TYPE	TUBELESS, SINGLE
TIRE SPEC.	23.5-25-16PR(L3)
	23.5R25XHAT2(L3), 23.5R25XLDD2AT(L5)
	23.5R25 TRI(L3), 23.5R25 VJT (L3)
RIM SPEC.	19.5 x 25
DISC OFFSET	33.5 mm (3.2")

6) TRAVELING PERFORMANCE (REFER TO NEXT PAGE)

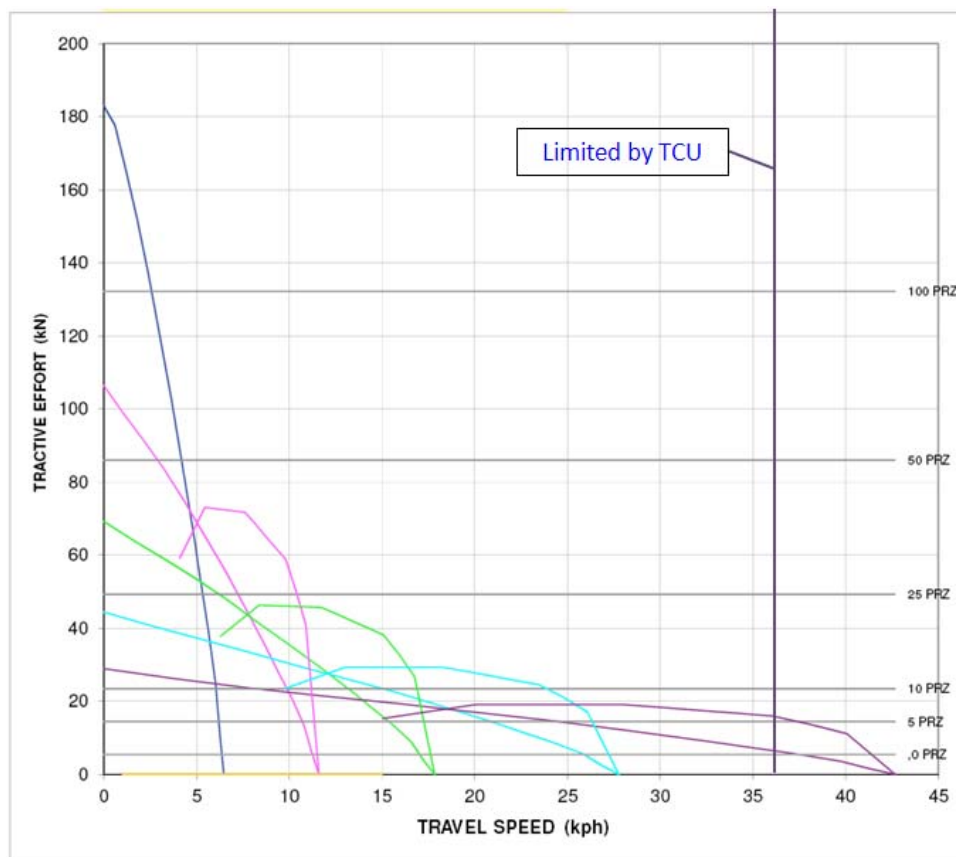
MAX. SPEED	36.0 km/h (22.4 MPH)
MAX. TRACTIVE EFFORT	18.6 ton (41,006 lb)
GRADEABILITY	27° (51%)

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- 4WG - Gear ratio : 4,152/2,184/1.072/0.636



- 5WG – Gear ratio : 4.043/2.255/1.466/0.942/0.613



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5.2 BRAKE SYSTEM

1) FAN & BRAKE PUMP

TYPE	VARIABLE DISPLACEMENT AXIAL PISTON PUMP
DISPLACEMENT	28 cc/rev
MAX. SUPPLY FLOW	58 L/min (15.3 GPM)

2) SERVICE BRAKE PEDAL VALVE (DUAL)

SYSTEM	FULL HYDRAULIC, SEPARATE DUAL LINE
BRAKE PRESSURE	60 bar (870 psi)
PEDAL FORCE	17.0 kg at 60 bar, 175 mm RAD.

3) PARKING BRAKE

TYPE	SPRING-APPLIED HYDRAULIC-RELEASED, SLIDING CALIPER DISC BRAKE ON THE FACE OF TRANSMISSION
RELEASE PRESSURE	206 bar
Disc DIA.	380 mm (1'3")
CLAMPING FORCE BY 0.0 mm CLEARANCE	42.2 KN (9,494 lbf)
CLAMPING FORCE BY 0.1 mm CLEARANCE	34.0 KN (7,644 lbf)

4) BRAKE PERFORMANCE

BRAKING DISTANCE	10.5 m at 33 km/h (34'5" at 21 MPH)
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5.3 STEERING SYSTEM

1) STEERING PUMP

TYPE	VARIABLE DISPLACEMENT AXIAL PISTON PUMP
QUANTITY	1
DISPLACEMENT	74 cc/rev
MAX. FLOW RATE	145 L/min (38 GPM)

2) STEERING UNIT

TYPE	LOAD SENSING, NON REACTION
DISPLACEMENT	120 cc/rev

3) FLOW AMPLIFIER

TYPE	CONTAINS A DIRECTIONAL VALVE, AN AMPLIFICATION STAGE A PRIORITY VALVE, A PILOT PRESSURE RELIEF VALVE AND SHOCK AND SUCTION VALVE
AMPLIFICATION FACTOR	8 (150 x 8 = 1,200 cc/rev)
CONTROL PRESSURE	10.5 bar (153 psi)
LS RELIEF VALVE SETTING	185 bar (2,683 psi)

4) ACCUMULATOR; STEER

TYPE	BLADDER (50cc OIL IS FILLED WITH NITROGEN GAS)
CHARGE PRESSURE, VOLUME	35 bar, 0.16 L(508 psi, 0.04 USgal)

5) DUAL CROSS RELIEF VALVE

MAKER	N/A
RELIEF VALVE PRESSURE	N/A

6) STEERING CYLINDER

CUSHION STROKE	38 mm (1.5")
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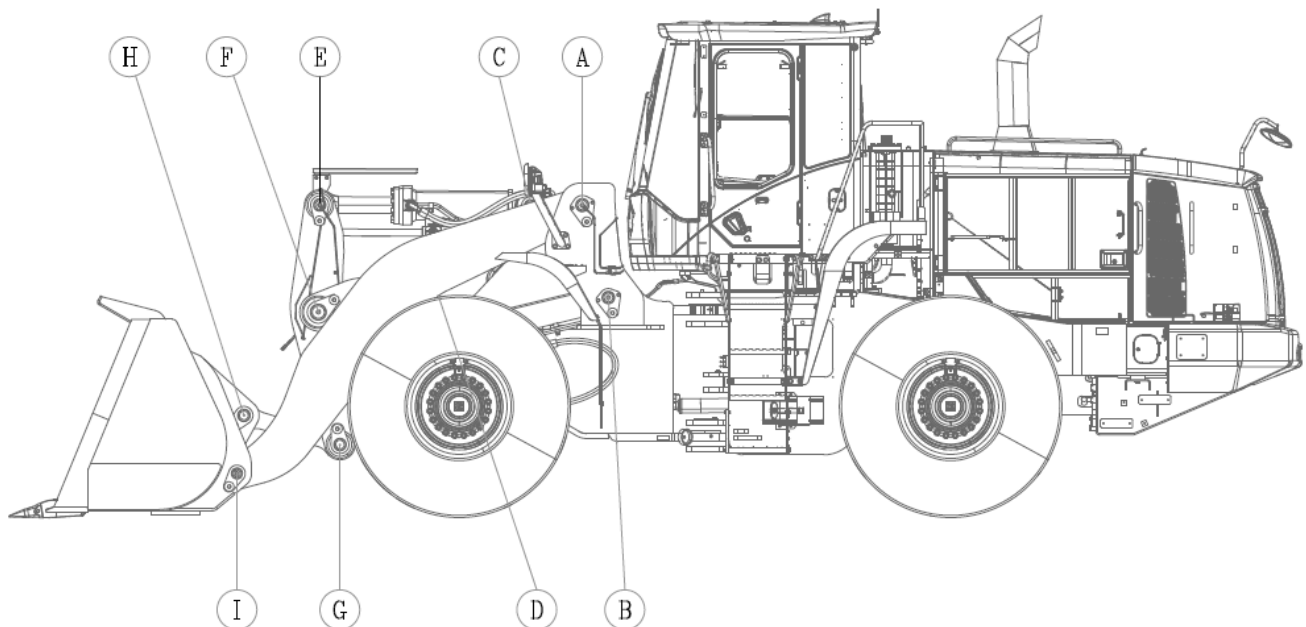
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6. HYDRAULIC CYLINDERS

	UNIT	LIFT	BUCKET	STEER
QUANTITY	-	2	1	2
BORE	mm(ft in)	140(5.5")	180(7.1")	80(3.1")
ROD DIA.	mm(ft in)	80(3.1")	105(4.1")	40(1.6")
STROKE	mm(ft in)	831(2'9")	515(1'8")	450(1'6")
CLOSED LENGTH	mm(ft in)	1,325(4'4")	1,030(3'5")	860(2'10")
RETRACTING CUSHION	-	X	X	O
EXTENDING CUSHION	-	X	X	X

7. FRONT

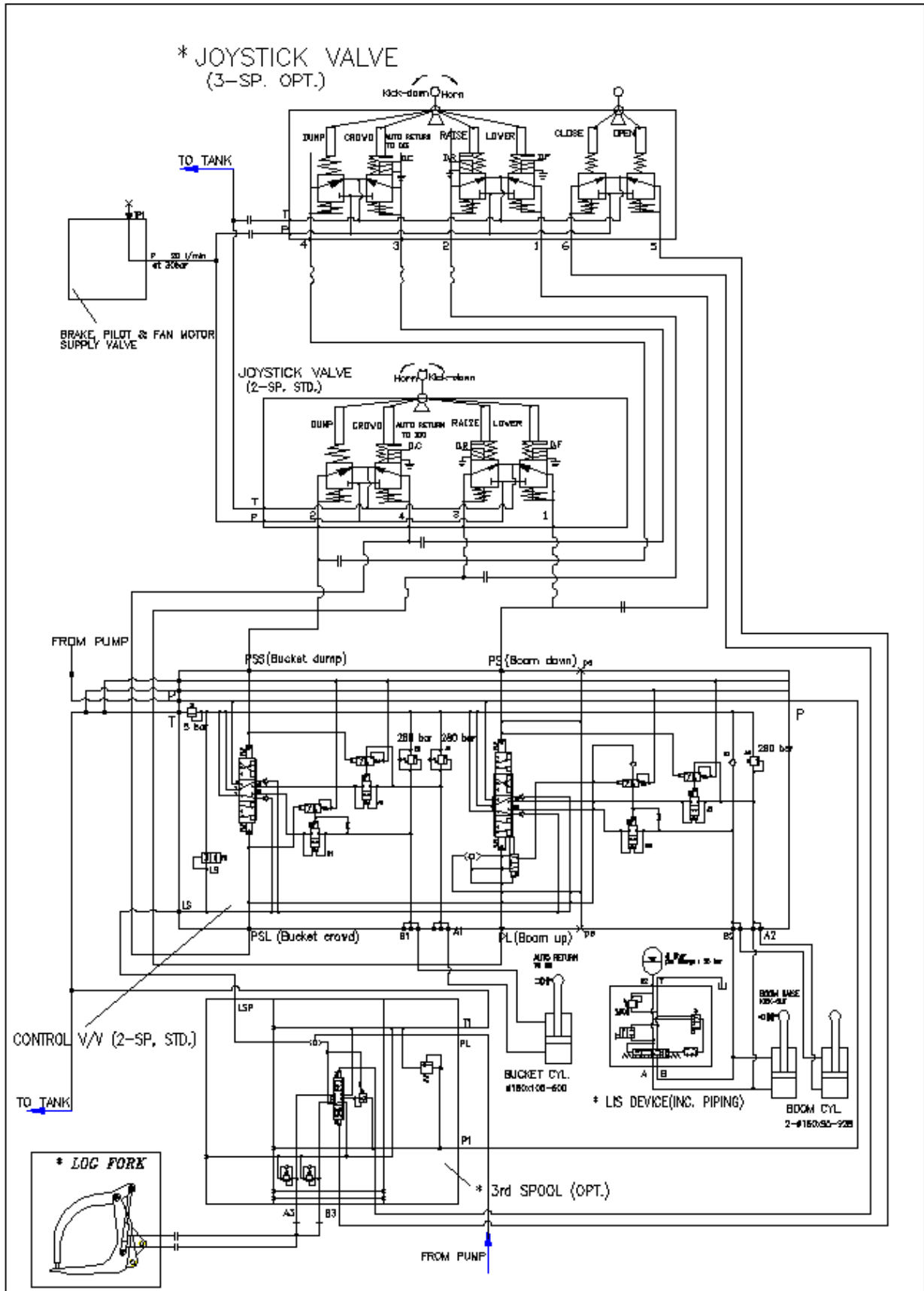
1) FRONT LINKAGE PIN SIZES



POINT	UNIT	DIA.	LENGTH
A	mm(ft in)	110(4.3")	309(1')
B	mm(ft in)	80(3.1")	307(1')
C	mm(ft in)	100(3.9")	361(1'2")
D	mm(ft in)	90(3.5")	216(8.5")
E	mm(ft in)	100(3.9")	300(11.8")
F	mm(ft in)	110(4.3")	525(1'9")
G	mm(ft in)	90(3.5")	300(11.8")
H	mm(ft in)	90(3.5")	282(11.1")
I	mm(ft in)	80(3.1")	248(9.8")

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2) OPTION PIPING(Log Fork)



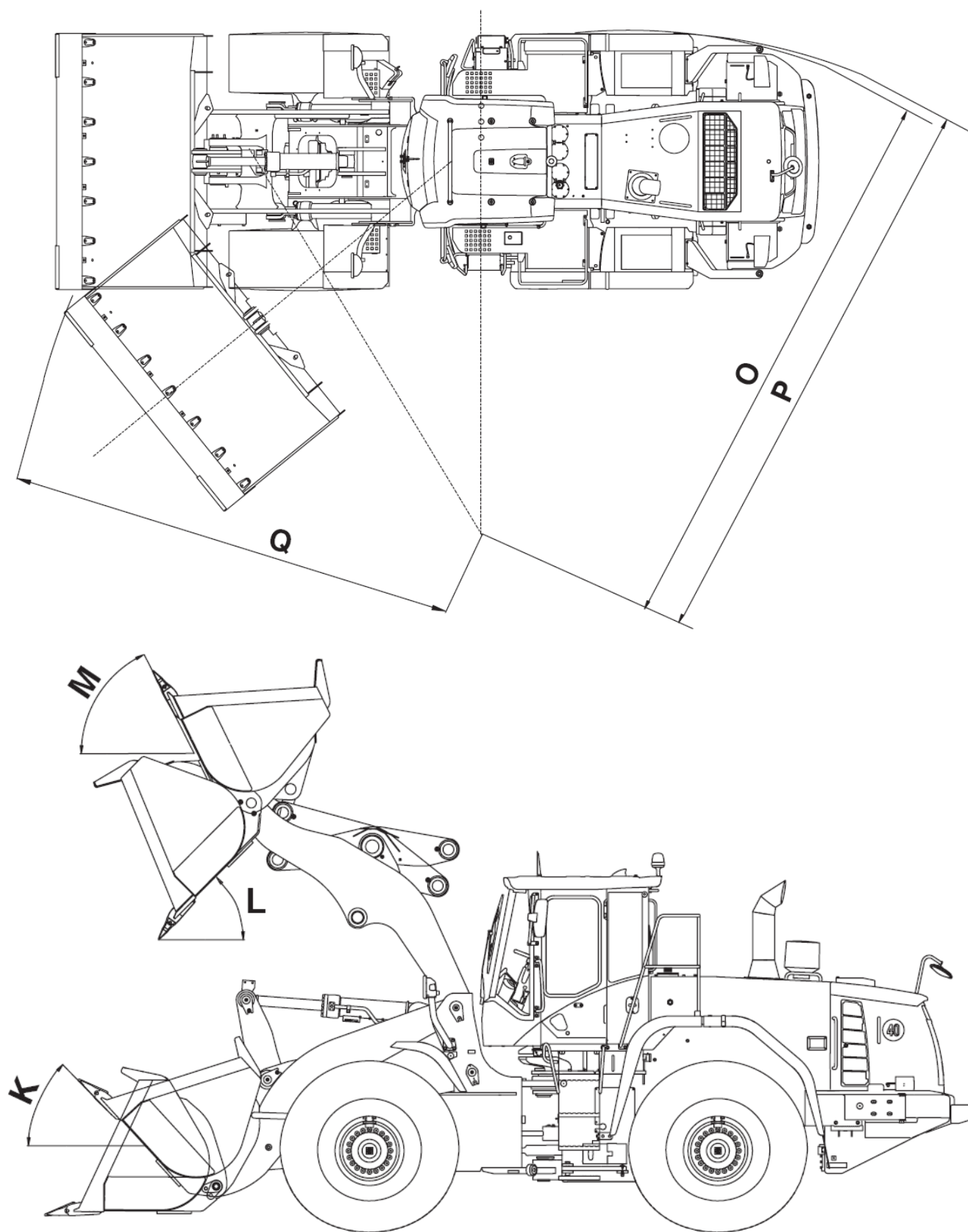
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8. DIMENSIONS AND WORKING RANGE

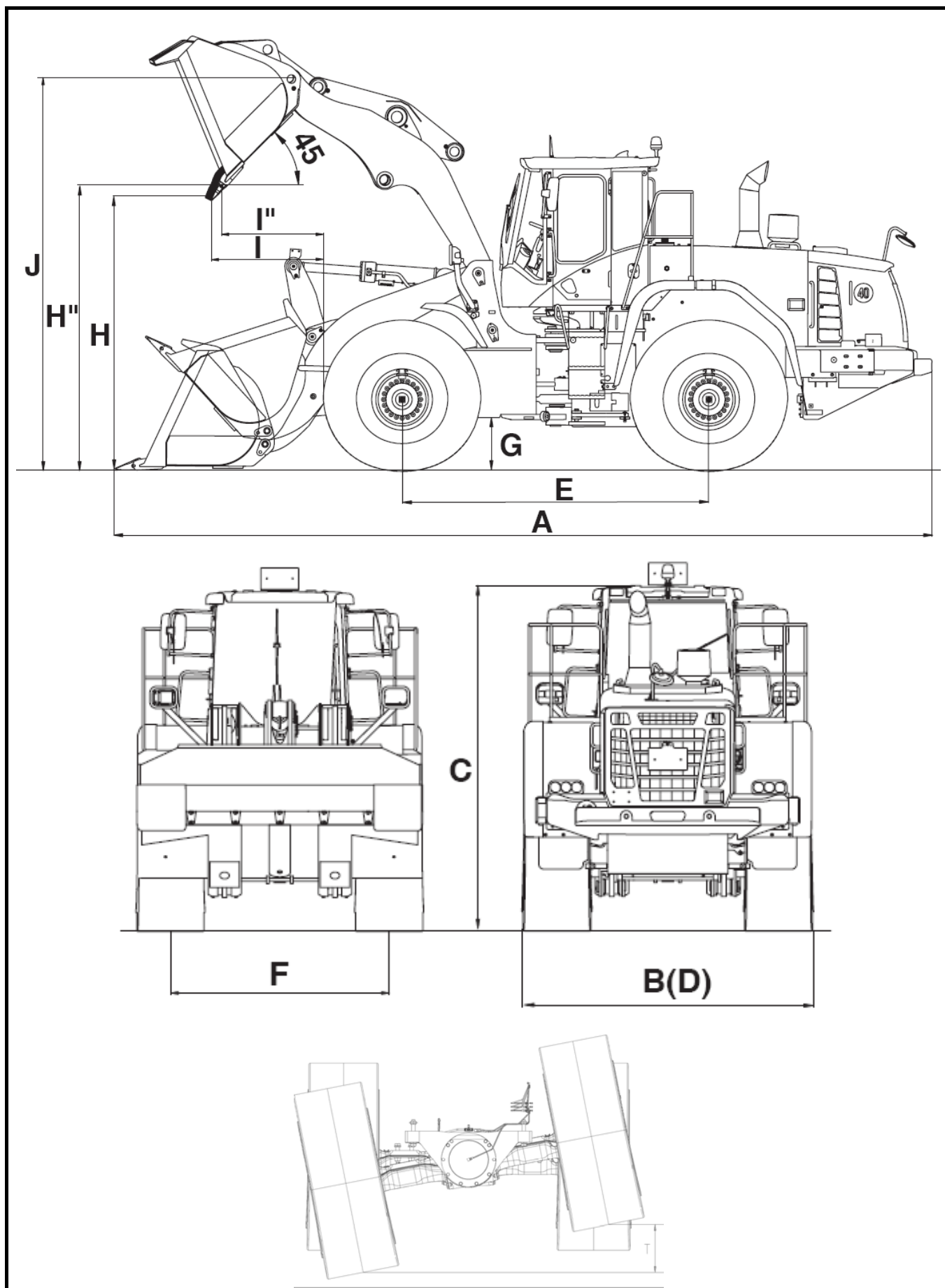


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LOADER TYPE		General purpose			
BUCKET MOUNT		PIN ON	PIN ON	PIN ON	PIN ON
Configuration	Unit	Teeth (Adapter, STD)	Bolt-on edge	Teeth (Adapter)	Bolt-on edge
Capacity heaped ISO/SAE	m ³	3.0	3.2	2.7	2.9
	yd ³	3.9	4.2	3.5	3.8
Bucket width D	mm	2,920	2,920	2,920	2,920
	ft in	8'11"	9'7"	9'7"	9'7"
Breakout force	kN	169	169	170	169
	lbf	37,993	37,993	38,218	37,993
Static tipping load (straight)	kg	15,135	15,010	15,200	15,075
	lb	33,367	33,091	33,510	33,235
Static tipping load (at full turn)	kg	13,070	12,960	13,130	13,020
	lb	28,814	28,572	28,947	28,704
Dump height (at 45°) (at fully raised) 1)	mm	2,725	2,845	2,760	2,880
	ft in	8'11"	9'4"	9'1"	9'5"
Dump reach (at 45°) (at fully raised) 1)	mm	1,290	1,160	1,255	1,120
	ft in	4'3"	3'10"	4'1"	3'8"
Dump height (at max. dump) (at max. reach) 1)	mm	640	800	685	850
	ft in	2'1"	2'7"	2'3"	2'9"
Dump reach (at max. dump) (at max. reach) 1)	mm	1,435	1,365	1,415	1,345
	ft in	4'8"	4'6"	4'8"	4'5"
Digging depth	mm	125	125	125	125
	ft in	4.9"	4.9"	4.9"	4.9"
Height at bucket pivot point J	mm	3,975	3,975	3,975	3,975
	ft in	13'	13'	13'	13'
Max. tilt angle at carry position K	deg	49	49	49	49
Max. tilt angle at fully raised M	deg	61	61	61	61
Max. tilt angle on ground	deg	45	45	45	45
Max. tilt angle at max. reach	deg	61	61	61	61
Max. dump angle at max. reach	deg	69	69	69	69
Max. dump angle on ground	deg	71	71	71	71
Max. dump angle at fully raised L	deg	47	47	47	47
External radius at bucket edge Q	mm	6,455	6,415	6,440	6,395
	ft in	19'	19'	19'	19'
Ground Clearance at 12° osc. T	mm	435	435	435	435
Overall length A	mm	8,270	8,095	8,220	8,055
	ft in	27'2"	26'7"	27'	26'5"
Operating weight	kg	18,570	18,690	18,510	18,630
	lb	40,940	41,204	40,808	41,072

1) Measured to the tip of the bucket teeth

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LOADER TYPE		General purpose		High Lift
BUCKET MOUNT		PIN ON	PIN ON	PIN ON
Configuration	Unit	Teeth (Mono)	Teeth & segments	Bolt-on edge
Capacity heaped ISO/SAE	m ³	3.0	3.2	3.2
	yd ³	3.9	4.2	4.2
Bucket width	D mm	2,920	2,920	2,920
	ft in	9'7"	9'7"	9'7"
Breakout force	kN	169	169	168
	lbf	37,993	37,993	37,768
Static tipping load (straight)	kg	15,105	14,955	12,355
	lb	33,301	32,970	27,238
Static tipping load (at full turn)	kg	13,045	12,915	10,670
	lb	28,759	28,473	23,523
Dump height (at 45°) (at fully raised) 	H mm	2,735	2,725	3,395
	ft in	9'	8'11"	11'2"
Dump reach (at 45°) (at fully raised) 	mm	1,300	1,290	1,185
	ft in	4'3"	4'3"	3'11"
Dump height (at max. dump) (at max. reach) 	I mm	645	640	835
	ft in	2'1"	2'1"	2'9"
Dump reach (at max. dump) (at max. reach) 	mm	1,450	1,435	1,960
	ft in	4'9"	4'8"	6'5"
Digging depth	mm	120	125	250
	ft in	4.7"	4.9"	9.8"
Height at bucket pivot point	J mm	3,975	3,975	4,525
	ft in	13'	13'	14'10"
Max. tilt angle at carry position	K deg	49	49	51
Max. tilt angle at fully raised	M deg	61	61	57
Max. tilt angle on ground	deg	45	45	45
Max. tilt angle at max. reach	deg	61	61	59
Max. dump angle at max. reach	deg	69	69	61
Max. dump angle on ground	deg	71	71	66
Max. dump angle at fully raised	L deg	47	47	47
External radius at bucket edge	Q mm	6,520	6,455	6,645
	ft in	20'10"	20'10"	20'10"
Ground Clearance at 12° osc.	T mm	435	435	435
Overall length	A mm	8,285	8,270	8,960
	ft in	27'2"	27'2"	29'5"
Operating weight	kg	18,600	18,725	18,875
	lb	41,006	41,282	41,612

 1) Measured to the tip of the bucket teeth

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9. PERFORMANCE DATA

1) PRESSURE SETS

WORKING (PUMP CUT-OFF)	250 ± 10 bar (3,626 ± 145 psi)
STEERING RELIEF (LS PORT SIDE)	185 ± 5 bar (2,683 ± 73 psi)
(STEER PUMP SIDE)	200 ± 5 bar (2,901 ± 73 psi)
PILOT CONTROL	28 ± 2 bar (406 ± 29 psi)
BRAKE ACCUMULATOR CHARGING	120~140 bar (1,740~2,031 psi)
SERVICE BRAKE	60 ± 3 bar (870 ± 44 psi)
FAN MOTOR MAX.	130 ± 10 bar (1,885 ± 145 psi)
PARKING BRAKE RELEASE	120 ± 5 bar (1,740 ± 73 psi)
T/M SELECTION PRESSURE	17 ± 1 bar (247 ± 15 psi)

2) SPEED & FORCE

OPERATION		UNIT	SPEED-FORCE	REMARKS
ARM	UP	SEC	5.2 ± 0.5	
	DOWN	SEC	3.1 ± 0.4	
BUCKET	CROWD	SEC	2.4 ± 0.3	Max. Height
	DUMP	SEC	1.6 ± 0.3	
STEERING	LOCK TO LOCK	TURN	4	
E/G RPM	HIGH	RPM	2,100 ± 50	(On machine)
	LOW	RPM	900 ± 25	(On machine)
E/G RPM	HYDRAULIC STALL	RPM	1960	
	CONVERTER STALL	RPM	1865	
	T/C + HYD. STALL	RPM	1860	
COOLING FAN	E/G HIGH	RPM	1400	
TRAVEL SPEED (1/2/3/4)		km/h	6.2/11.7/23.3/36.0	6.3/11.2/17.0/26.0/36.0
BRAKING DISTANCE		m	10.5 m @ 33 kph	
MAX. TRACTIVE EFFORT		ton	18,600	
BREAKOUT FORCE		kN	169	
Rated Operating Load		kg	6,535	
STATIC TIPPING LOAD (straight)		kg	15,135	
STATIC TIPPING LOAD (full turn)		kg	13,070	

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10. NOISE LEVEL

SURFACE SOUND POWER LEVEL (L _{WA})	107 dB(A) (ISO 6395)
OPERATOR'S CABIN NOISE LEVEL (L _{PA})	73 dB(A) (ISO 6396)

11. USER SERVICE DATA

COMPARTMENT/ GREASE JOINT	No, OF C/G	REFILL CAPACITY	FLUID OR LUBRICANT	INTERVAL (hr)	
				LUBE	FILTER
COOLING SYSTEM	1	50 ℓ (13 USgal)	WATER	2000	-
FUEL TANK	1	297 ℓ (78 USgal)	DIESEL	-	500
DEF/ Adblue TANK	1	38 ℓ (10 USgal)	DEF/Adblue		1000
HYD. SYSTEM	1	180 ℓ (48 USgal)	ISO #46	2000	1000
ENGINE CRANKCASE	2	34 ℓ (9 USgal)	E/G OIL (ACEA E5, API CI-4)	500	500
AXLE_FRONT	1	42 ℓ (11 USgal)	GEAR OIL. [TDH PREMIUM]	1500	-
AXLE_REAR	1	42 ℓ (11 USgal)	GEAR OIL. [TDH PREMIUM]	1500	-
T/C AND T/M	1	54 ℓ (14 USgal)	SAE 15W40	1000	1000
FRONT P/SHAFT	1	-	GREASE	250	-
FRONT PIN	4	-	GREASE	50	-
FRONT PIN	9	-	GERASE	250	
ARTICULATION JOINT	2	-	GREASE	50	-
REAR AXLE PIVOT	3	-	GREASE	50	-
STEER CYLINDER	2	-	GREASE	50	-

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12. SUB GROUP WEIGHTS

ITEM	UNIT	WEIGHT	REMARKS
COUNTERWEIGHT	Kg(lb)	1,100(2,425)	
FRONT FRAME	Kg(lb)	1,632(3,598)	
REAR FRAME	Kg(lb)	1,569(3,459)	
OIL TANK	Kg(lb)	162(357)	w/o Oil
FUEL TANK	Kg(lb)	249(549)	w/o Oil
UREA TANK	Kg(lb)	60(132)	w/o UREA
ENGINE	Kg(lb)	950(2,094)	w/CAC pipe& Oil
TRANSMISSION	Kg(lb)	500(1,102)	w/o Oil
AXLE_FRONT	Kg(lb)	1,085(2,392)	w/ Oil
AXLE_REAR	Kg(lb)	1,085(2,392)	w/ Oil
TIRE(23.5-25-18PR) at Each Tire	Kg(lb)	275.5(607)	Domestic tire
TIRE (23.5R25VJT, L3) at Each Tire	Kg(lb)	345.4(761)	Bridgestone
RIM(19.5 x 25) at Each Rim	Kg(lb)	220(485)	
PROPELLER SHAFTS (3EA)	Kg(lb)	65(143)	
RADIATOR	Kg(lb)	164(361)	w/o Water
MAIN PUMP	Kg(lb)	74(163)	
CONTROL VALVE	Kg(lb)	100(220)	Standard only
LIS V/V + ACCMULATOR	Kg(lb)	45(99)	
EMEGENCY STEER PUMP	Kg(lb)	25(55)	
COVER GROUP	Kg(lb)	415(915)	
AXLE PIVOT SUPPORT_FRONT	Kg(lb)	110(243)	
AXLE PIVOT SUPPORT_REAR	Kg(lb)	210(463)	
CABIN ASS'Y (ROPS)	Kg(lb)	957(2,110)	
LOADER ARM ASS'Y	Kg(lb)	1,100(2,425)	
TILT LEVER ASS'Y	Kg(lb)	396(873)	
3.5 m3 BUCKET ASS'Y	Kg(lb)	1,489(3,283)	
LINK	Kg(lb)	52(115)	
CYLINDER_ARM	Kg(lb)	138(304)	weight of Arm Cyl. 1EA
CYLINDER_BUCKET	Kg(lb)	228(503)	

13. LIFTING CAPACITY

BUCKET	UNIT	3.0 m³ BOT	3.2 m³ BOC	3.2 m³ Rock
Lifting Capacity to Max.Height	kgf	8,618	8,498	8,463

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