

Technical Specification Sheet

model number		CSD300A (12inch)
main body	overall length LOA, m	31
	hull dimension L*B*H, m	23×8.5×2.5
	main pontoon size, m×m×m	13.75×3.5×2.0
	main pontoon weight, kg	49.5T
	side pontoon size, m×m×m	22×2×2.5
	deck/bottom plate/side plate/head sealing plate/tail sealing plate on main ponton, mm	10/10/8/16/14
	deck/bottom plate/side plate/head sealing plate/tail sealing plate on side ponton, mm	8/8/8/14/12
	average draft full load, m	1.7
	displacement full load, m ³	224
	dredging depth at 45°(bridge length x0.7), m	12
	dredging depth at 60°(bridge lengthx0.86),m	13.76
	min depth of dredging, m	2
	max width of dredging calculated as one side at 35°, m	44
	fuel tank capacity, L	33000
	positioning pile diameter mm, wall thickness mm, length m, weight, T	Φ457/20/14/5
	material and length of positioning pile (depth of dredging multiplied by 1.4)	seamless tube
	cutter ladder length (depth of dredging multiplied by 1.4), m	16
	total weight ,t	130
	volume, m ³	690
Warman mud pump	pump inlet and outlet diameter, mm	350/300
	flow rate of clean water,m ³ /h	2500
	pump head, m	48
	drain height, m	5
	rotation speed, r/min	630
	shaft power, KW	500
	impeller diameter/quantity of blades, mm	914/3
	material	Cr27
	slurry concentration, %	15-20
	suction/discharge outer diameter, mm	560/508
	suction/discharge inner diameter, mm	550/492
	mud conveying distance, m	1200
	yield, cbm/h	370-500
	maximum overflow particle size, mm	241
	sealing type	packing seal
	impeller replacement cycle, month	6
front and rear guard replacement cycle, month	6	
pump casing replacement cycle, month	12	
main engine of mud pump	1.Cummins manufacturer/model/power/speed	KT38-M/596KW/1800
	Cummins cylinder diameter/stroke/quantity/displacementL	159/159/12/38
	type	V12-cylinder, turbocharged intercooled, 4-stroke
	torque N.M	2287
	2.Manham manufacturer/model/power/speed	TBD604BL6/637KW/1800
	Cummins cylinder diameter/stroke/quantity/displacementL	170/195/6/26.58

hydraulic system	hydraulic pump	type	vane pump
		work theory	to suck in oil from the hydraulic tank, form pressure oil, and discharge it to the actuator
		quantity of pump	4
		number of hydraulic pumps × model × displacement unit/power	2×3525VQ/ (97/67) /100
		number of hydraulic pumps of side winch × model × displacement unit/power	35VQ/97
		other(landing, oil cylinder) hydraulic pump model × displacement	25VQ/67
		highest speed of cutter	12、20、29
		side rotation speed×max rope return speed	21rpm×25m/min
		manufacturer	21rpm×25m/min
		SIEMENS PLC	valve
	hydraulic control		SIEMENS PLC
	electric control unit		Siemens
	hydraulic working pressure,Mpa		16
	hoisting winch	drum diameter,mm	377
		rope return speed(regulable)	0-16
		motor displacement, ml/r	6858
		working pressure, Mpa	16
		Wire rope diameter (mm)/length (m)	20/110
		pull force, ton	8
		pull force, KN	80KN
		quantity of hoisting winch	1
	side winch	drum diameter,mm	377
		rope return speed(regulable)	0-25
		motor displacement, ml/r	6858
		working pressure, Mpa	16
		wire rope diameter (mm)/length (m)	20/110
		pull force, ton	8
		pull force, KN	80KN
		quantity of side winch	2
	hydraulic cutter	cutter diameter	1500
		cutter motor quantity/power	1/80
		speed rpm	10、20、30
displacement		11870	
torque KN.M		25	
cutting force		1600	
cutting speed, m/s		2.355	
working pressure, Mpa		16	
quantity and material of cutter teeth		30/ZGMn13	
quantity and material of cutter arm		5/ZG35SiMn	
change frequency, day		160	
hydraulic bucket-wheel	bucket wheel diameter, m	2.4	
	torque, N.m	58000	
	speed rpm	0-18	
	power, KW	100	
oil cylinder	hydraulic cylinder diameter and stroke units	Φ160/2500	



auxiliary hydraulic engine	Cummins manufacturer/model/power/speed	NTA855-M/298KW/1800	
	Cummins cylinder diameter/stroke/quantity/displacementL	140/152/6/14	
	type	inline 6-cylinder, turbocharged intercooled, 4-stroke	
	torque N.M	1600	
	2.Manham manufacturer/model/power/speed	TBD234V8/296KW/1800	
	Cummins cylinder diameter/stroke/quantity/displacementL	128/140/8/14.4	
	Commins total power, kw	1193	
	Manham total power, kw	1216	
eg.Comunnis	total oil consumption, L/H	284.047619	
	continuous running time, h	211.2321878	
gland pump	model number	ISZ65-40-250B/26/60/11	
	sealing type	mechanical seal	
	work for	gland pump to inject water into the dredge pump to prevent wear on the dredge pump shaft	
emergency generator	emergency generator model and manufacturer	30GF/Cummins	
	work for	When there is no shore power supply in the berthed state, electricity is provided to the berthed vessel, and maintenance services can also be provided	
deck crane	Deck lifting weight (tons)/turning radius (meters)	3/3	
anchor	anchor, kg	490	
	quantity of anchor	2	
battery	voltage	24V DC/220/380V/AC	
	battery capacity	195 Ah	
	battery quantity	8	
anti-corrosive treatment		marine epoxy zinc rich primer+marine chlorinated rubber topcoat+anti-corrosion zinc block	
anti-corrosion zinc block	quantity		
fire protection and lifesaving	fire water gun	1	
	foam extinguisher	4	
	CO2 extinguisher	4	
	life buoy	6	
	axe	2	
options	throwing anchor rod	anchor rod diameter mm, wall thickness mm, length m, weight T	
	trolley	dimension (LxWxH), m	
		travel, m	4m
		drive method	
	anchor boat		
	bucket wheel		
survey			