



D7推土机概况

D7 Bulldozer

D7推土机系半刚性悬挂、高驱动、液压机械传动，液压操作的230马力履带推土机，工作装置可配置直倾铲、角铲、推煤铲、单钩松土器、三钩松土器，驾驶室为翻浪保护司机棚，可配置空调。

D7-230马力高驱动推土机集现代科技成果于一身，其全新的结构布置，卓越的整机性能，极高的作业效率，安全舒适的操作条件，可靠的整机质量，优质的服务是您明智的选择。

D7 bulldozer are 230 horsepower track-type dozer with elevated sprocket, hydraulic direct drive, semi-rigid suspended and hydraulic controls. It can be equipped with straight tilting blade, angle blade, coal pushing blade, single shank ripper, three shanks ripper. The cab is Rops with air conditioner.

D7-230 horsepower, elevated sprocket bulldozer integrate modern science into it, its new structure, good performance, high working efficiency, safety and comfortable operation condition, reliable entire quality, excellent service is your wise choosing.

整机性能参数

Main specifications

使用质量(不包括松土器):	23800kg
松土器质量:	3900kg
发动机飞轮功率:	169kW
接地压力(不带松土器):	71.9kPa
离地间隙:	404mm
履带接地长度:	2890mm
履带中心距:	1980mm
外形尺寸(长×宽×高):	7604×3823×3402mm(特指配置直倾铲时)
(带单钩松土器)	
爬坡角度:	纵向30° 横向25°
理论行驶速度(km/h):	
前进一档	0-3.9
前进二档	0-6.5
前进三档	0-10.9
推土机作业率(运距40m):	350m/h

Operating weight(not including ripper):	23800kg
Ripper weight:	3900kg
Engine flywheel power:	169kW
Ground pressure(without ripper):	71.9kPa
Ground clearance:	404mm
Ground contact length:	2890mm
Track gauge:	1980mm
Overall dimensions(L×W×H):	7604×3823×3402mm (with single shank ripper)
(with straight tilting blade)	
Gradeability:	Latitude 30° Transverse 25°
Theory travel speed(km/h):	
1st gear forward	0-3.9
2nd gear forward	0-6.5
3rd gear forward	0-10.9
Dozing operation rate(moving distance 40m):	350m/h

发动机性能参数

Diesel engine specifications

A. 柴油机型号:	NT855-C280(重庆康明斯Cummins)
柴油机型式:	水冷单行、立式、四冲程、涡轮增压、六缸、140mm缸径
额定转速:	2100RPM
飞轮功率(转速为2100RPM时):	169kW
B. 柴油机型号:	上柴 C6121ZLG10(卡特许可证生产的3306发动机)
柴油机型式:	水冷单行、立式、四冲程、涡轮增压、六缸、121mm缸径
额定转速:	2100RPM
飞轮功率(转速为2100RPM时):	169kW
启动方式:	24伏电启动
A. Model:	NT855-C280 (Cummins made in chongqing)
B. Model:	C6121ZLG10(Licensed CAT 3306 diesel engine Made in shanghai)
Type:	Water cooled, single line, vertical, four strokes, turbocharged, 6-cylinders, diameter A. 140mm; B. 121mm.
Rated speed:	2100RPM
Flywheel power(speed at 2100 rpm):	169kW
Starting mode:	24V electric starting

变矩器部件

Torque converter

D7推土机配套用变矩器为功率外分流式液力机械变矩器。

Torque converter used in D7 bulldozer is power separating hydraulic-mechanical type.

变速总成

Transmission assembly

独到的结构将中央传动、变速箱和变速控制阀构造成为一个整体部件。可将总成或其中任一部件拆装,极其便于维修。变速箱为多级行星传动,完全实现了积木式拆装,并通过性能优良的多功能控制阀可在前进或倒退一、二、三各档位之间任意快速的变换。

It integrates center drive, transmission and speed changing control valve into one component. It can be assembled or disassembled as a assembly or as a part. It is very convenient to service. Transmission is multi-stage planetary gear drive to realize modular assembling and disassembling. The shift can be changed among 1st gear, 2nd gear, 3rd gear forward or reverse rapidly, through multi-functional control valve.

转向与制动离合器部件

Steering and braking clutch

转向离合器与制动离合器均为免调式、湿式多片离合器,制动离合器为碟簧压紧、液压分离的常结合离合器,转向离合器为液压压紧的非常结合离合器。转向与制动离合器联动、手操纵,可实现缓转弯、急转弯、整机制动,脚踏板实现整机总制动,设计有停车制动杆,启动发动机时行走系保持制动状态,保证坡道启动发动机不溜车。

Steering clutch and braking clutch are adjustment free, oil-type, multi-disc clutch. The braking clutch is pressed by spring, separated hydraulically, constant meshed type. Steering clutch is hydraulic pressed, non-constant engaged clutch. The action of steering and braking is combined, operation manually to realize steering slowly, sharply and braking. The braking of entire machine can be realized through the pedal. Parking braking rod is designed to keep the undercarriage system in braking condition when starting the engine and guarantee the machine not to slip on slope when starting the engine.

终传动

Final drive

终传动为两级行星传动减速机构,装在转向与制动离合器外侧,组合式链齿、拆装极其方便。

Final drive is two-stage planetary reduction gear mechanism. It is mounted at outside of steering and braking clutch. Combined sprocket segment is very convenient for assembling, disassembling and service.

底盘液压系统

Hydraulic system of the machine

底盘液压系统由油泵、变速控制阀、转向与制动控制阀、顺序阀、变矩器出口溢流阀、滤油器及管路等组成。

主泵:	齿轮泵
流量:	160L/min
工作压力:	3.1MPa

It is composed of oil pump, transmission control valve, steering and braking control valve, sequence valve, relief valve at torque converter outlet, filter and lines.

Main pump:	Gear pump
Oil flow:	160L/min
Working pressure:	3.1MPa

防倾翻保护配空调司机棚

Rops with air conditioner cab

司机棚为六边形薄壁箱形结构。六面均装有玻璃,视野开阔,后面是推拉玻璃,空调只有冷热两种功能。翻车防护架结构刚性强,推土机在非正常状态时能有有效的保护司机机的安全。

The cab is hexagonal thin wall box-type structure. Glass is mounted at six sides with wide viewing area. Pulling and pushing glass is installed at back side. Air conditioner adapts a type of cooling and heating. The structure of Rop is rigid. It can protect the driver efficiently when the bulldozer is in special condition.

工作装置液压系统

Implement hydraulic system

工作装置液压系统控制铲刀的升降、倾斜及松土器的升降动作，主要由油泵、油箱、进口阀组、换向阀组、油箱管路及操纵部分组成。

主泵：高压齿轮泵
流量：194L/min
系统工作压力：18.6MPa

Implement hydraulic system can control lifting, lowering and tilting of the blade. It also can control lifting, lowering of the ripper. It mainly consists of oil pump, cylinder, inlet valve group diverter valve group, oil tank line and controlling parts.

Main pump: High pressure gear pump
Oil flow: 194L/min
System working pressure: 18.6MPa

左右行走系统

Left and right undercarriage system

行走系统履带呈三角形布置，驱动轮高置，行走架前后两个引导轮，七个支重轮。行走系统配置弹簧缓冲、液压缸张紧装置，行走架后端支重轮在枢轴上，前部与平衡梁铰接。通过选配不同宽度的履带板，保证推土机发挥最佳的牵引效率。

The track is triangle shape. The sprocket is elevated. There are two idlers in front and at rear of the frame and seven track roller. Recoil spring and cylinder adjuster is mounted at the undercarriage. The rear end of undercarriage frame is supported on the pivot. The front end is articulated with the equalizer bar. Choosing different width of track shoe can ensure the bulldozer developing its optimum traction efficiency.

维护保养加容量

Maintenance filling capacity

柴油箱：450升
冷却系水箱：118升
发动机曲轴箱：20升
后桥箱：160升
工作装置油箱：190升
枢轴润滑油箱：15升
终传动：15升

Fuel tank: 450L
Water tank of cooling system: 118L
Camshaft box of the engine: 20L
Bevel gear case: 160L
Implement oil tank: 190L
Pivot lubricating tank: 15L
Final drive: 15L

可选工作装置和部件 (带 * 者为普通型)

Optional implement and components (* ordinary)

- 1) 司机棚：
 - a. 防倾翻保护空调司机棚*
 - b. 防倾翻保护司机棚
 - c. 防倾翻保护司机凉棚
- 2) 前置工作装置：
 - a. 直倾铲*
 - b. 角铲
 - c. U型铲(推煤铲)
- 3) 后置装置：
 - a. 单钩松土器*
 - b. 三钩松土器
 - c. 后牵引机构
- 4) 行走系统履带板可配制履带板宽度：
 - a. 510mm
 - b. 560mm*
 - c. 660mm
 - d. 914mm
- 5) 根据用户特殊需求可配森林用铤齿推土机、沙漠推土机、湿地推土机、环卫推土机等。

- 1) cab:
 - A. Rops with air conditioner cab*
 - B. Rops cab
 - C. Rops canopy
- 2) Front mounted implement:
 - A. straight tilting blade*
 - B. Angle blade
 - C. U-type blade
- 3) Rear mounted implement:
 - A. single shank ripper*
 - B. three shanks ripper
 - C. back drawing mechanism
- 4) Track shoe of undercarriage Optional track shoe width:
 - A. 510mm
 - B. 560mm*
 - C. 660mm
 - D. 914mm
- 5) Winch dozer used in forest, desert dozer, LGP dozer, HW dozer can be chosen according to special requirements of customer.

D7推土机性能简介

D7驱动履带推土机动力强劲。性能优良、作业率高、行驶平稳、视野开阔、舒适性好、操作简单、维修方便、并采用电子监控系统。

一、D7驱动履带推土机突破了传统的履带推土机设计方法，将驱动轮脱离履带行走架，布置到与转向轮、转向制动离合器同轴，中央传动同一轴线上，履带呈三角形布置，消除了地面直接传递给驱动轮的冲击载荷，使传动系统的寿命提高了30%。

二、行走系统与机架的铰接由枢轴式取代了传统的八字梁结构，提高了行车架与机架的连接刚度。整机重心布置可方便地调节，以满足不同机具对整机重心的使用要求。

三、实现了传动部件的模块化设计，装配简单，便于拆卸及维修。

四、液力机械变速器采用外分流机械、液力两部分输出，(液力输出占70%，机械输出占30%)，具备了液力传动能自动适应载荷的变化和机械传动通过性能好的特点，拓宽了发动机与变速器匹配的高效范围，提高了传动效率。

五、动力换挡变速箱采用行星式结构，紧凑合理，体积小，传动效率高，变速箱离合器采用片式湿式，油压结合，弹簧分离，摩擦片采用强制冷却润滑，最大限度地提高了离合器寿命。

六、转向与制动离合器均为免调式，湿式多片离合器，制动离合器为弹簧压紧、液压分离的常闭离合器，转向离合器为常分离、液压结合离合器；转向与制动离合器联动手操纵，可实现换档等、急转弯、整车制动、脚踏板实现整车制动；设有锁车机构，启动发动机时可使整机保持制动状态，保证坡道启动发动机不溜车，使整机作业更加安全可靠。

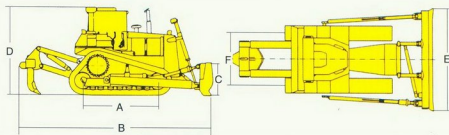
七、终传动用二级行星减速机取代了传统的二级直齿减速机机构，装在转向与制动离合器外侧，组合式铸造，结构紧凑。维修终传动时，不必拆下行走架，维修保养方便。

八、工作装置液压系统采用压力补偿回路，不作业时低压卸载，工作时泵油压力略高于工作负荷压力，减小了溢流功耗，提高了系统自身效率。精确的微调控制，提高了作业平稳性，降低了司机作业的技术要求。

九、工作装置油缸靠近机身近乎垂直地面布置，提高了铲刀的铲掘力，且铲刀容量大，其挖土作业效率大大高于普通型推土机。

十、具有防倾翻保护架，根据安装的六角形驾驶室，视野好，乘坐安全、舒适、操作方便。

十一、由声光电三级报警的电子监控系统取代了传统的仪表监控系统，在推土机工作时分别对柴油机的水温、油压；底盘液压系统和工作装置液压系统的工作油温，油压；柴油箱中的油量等参数进行记录监控。推土机一旦发生故障，电子监控系统即发出报警，避免了由于小故障的发生未能及时处理而造成推土机的严重损坏。



铲刀型式	履带接地长度 A	整机长度 B	铲刀高度 C	整机宽度 D	铲刀宽度 E	履带接地中心距 F	挖掘深度	提升高度	铲刀容量
直倾铲	2895	7604	1550	3402	3500	1980	500	1170	8.4
推煤铲	2895	7880	1350	3402	4428	1980	670	1115	8.1
角铲	2895	7571	1100	3402	4253	1980	670	1115	5.2
低比压铲	3185	7190	1150	3482	4382	2235	635	1170	5.8

Blade type	Track ground contact length(A)	Length of machine (B)	Blade-height (C)	Overall height (D)	Blade width (E)	Track center distance (F)	Digging depth	Lifting height	Blade capacity
Straight tilting blade	2895	7604	1550	3402	3500	1980	500	1170	8.4
Coal pushing blade	2895	7880	1350	3402	4428	1980	670	1115	8.1
Angle blade	2895	7571	1100	3402	4253	1980	670	1115	5.2
LGP blade	3185	7190	1150	3482	4382	2235	635	1170	5.8