



标准配置 Standard configuration		
全液压动力四轮制动	液晶数字化仪表	倒车蜂鸣器
Hydraulic power brake acts on four wheels	LCD digital instrument	Backward buzzer
全液压横置油缸式动力转向	2kg干粉灭火器	防滑踏板
Fully hydraulic transverse cylinder steering	2kg fire extinguisher	Antiskid footplate
机械换向	随机备件箱	后工作灯
Mechanical direction changing	Spare parts box with tractor	Rear working light
全封闭驾驶室(含顶灯)	半包围双座椅	灭火消声器
Fully enclosed cab(with overhead light)	Double Semi-closed seat	Extinguishing muffler
橘红/蓝灰色涂装	高进气	天窗
Orange/steel gray painting	High air intake	Scuttle
电风扇 Electric fan	倒车镜 Rearview mirror	

选项配置 Optional configuration						
前牵引座	空调	总电源开关				
Front traction seat	Air conditioner	Power switch				
用户自选涂装	暖风机	实心胎				
Customized painting	Warm air blower	Solid tyre				
电液换向	双空滤	警示灯				
Electro-hydraulic direction changing	Double air filter	Warning light				
双层/多层牵引机构	速度里程表	排气火花熄灭器				
Dual-layer/multi-layer operation stick & pin component	Speedometer	Exhaust spark arrester				
后窗防护栏 Guard grid of cab rear window	隔热防晒棚 Thermal insulation awning					

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- 文中插图不一定是该机型的标准款,插图中产品配置和外观颜色与实际机型存在差异,以实物为准。
- Our products are keeping improving and HELI have the rights to update truck specifications and design without prior notice.
- The figure in the brochure may not be the standard model and its configuration and color may be different from actual machine. Please refer to the real machine.





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## G系列6-8吨内燃牵引车

G SERIES 6-8T INTERNAL-COMBUSTION TOW TRACTOR



整车简介
 General Introduction

合力G系列6-8t内燃牵引车是安徽合力股份有限公司研制的新型柴油液力传动牵引车。整车充分利用了本公司成熟的设计、制造技术、整机由车身系统、动力系统、传动系统、变速操纵系统、行车制动系统、油门操纵系统、转向系统、电气系统、前、后悬挂、转向桥、驱动桥、牵引销机构、驾驶室等部分组成。该车广泛应用于港口、码头、工矿企业等作业场合。

G series 6-8t diesel powered internal-combustion tow tractor with tor-con is a series of new product designed by HELI. The whole tractor adequately adopts the mature design and manufacturing technology of our company. It's composed of bodywork system, power system, transmission system, transmission control system, service brake control system, accelerator control system, steering system, electric system, front suspension ass'y, rear suspension ass'y, steering axle, drive axle, operation stick & pin component, cab and so on. The tractor is widely used for following working sites: ports, docks, industrial and mining enterprises and so on.



## 动力传动系统 Power and transmission system

- 采用工程机械专用的国内知名品牌柴油机,其功率储备大,噪音低,环保性能好,可靠性高,整机排放标准符合国Ⅲ最新环保标准。
- 液力变速箱传动比合理,前进和后退均为两档且换档平稳无冲击,具有良好的散热和密封性能。
- Domestic famous diesel engine specially for engineering machinery are adopted which has characteristics of large power margin, low noise, environment friendliness, high reliability, the tractor conforming to China III emission standard.
- The transmission ratio of hydraulic powered transmission box is reasonable, both forward and backward are two gears, and the
  gear shifting is smooth and no impact. The transmission box have excellent cooling and sealing performance.

## 制动系统 Brake system

- 全液压动力行车制动系统使得制动简捷、轻便,安全、可靠,制动器性能符合GB10827-89的有关规定,保证在发动机坡道意外熄火的情况下,仍然可以实现8脚以上的制动。
- The tractor adopts fully hydraulic powered service brake system, has easy, secure and reliable
  braking. The brake performance is according to the relevant regulations of standard GB10827-89, ensures effective brake for
  eight times after the engine is flame out on a slope.

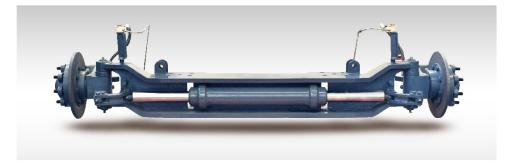






### G系列6-8吨内燃牵引车

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### 转向系统 Steering system

- 合力自行研发的全液压横置油缸动力转向技术,刚性好,转向轻便、准确。该项技术解决了国内同类产品转向桥刚性不足.
   轮胎过早磨损、前桥早期报废等问题。
- The tractor adopts HELI homemade fully hydraulic transverse cylinder powered steering technology, has good rigidity, has easy and
  accurate steering and operating feeling, thus effectively avoids the problems such as steering axle rigidity insufficient, tyre early worn
  out and front axle early discarding in domestic similar products

## 弹性悬挂装置 Suspension system

- 采用专业汽车配件生产厂家生产的前、后板弹簧悬挂装置。且前桥另装有筒式阻尼减震器,使得整机更加具有良好的平稳性。
- The tractor adopt leaf spring suspension at front and rear axle which are made by professional auto parts manufacturers. Further more, the shock absorber is assembled on the front axle, which makes the tractor has favorable stability.

#### 驾驶室 Cab

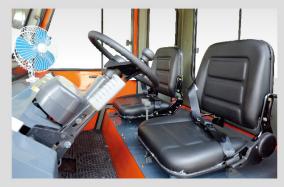
- 全框架结构的驾驶室具有足够的强度,室内宽敞且视野良好,可以实现全方位的观察。
- 驾驶室的前、后、左、右挡风玻璃均采用安全玻璃,且前玻璃装有两档多速控制雨刮器。
- 采用在驾驶室顶部高端进气,提高了发动机进气质量,同时采用不经过驾驶室的独立管道技术,有效降低了噪音。
- The fully framed cab has enough strength. What is more, the cab is wide and has good view from where omnibearing observing can be achieved.
- The front, rear, left and right windscreen of the cab are all safety glass, and the front glass is equipped with two-stage multi-speed control wiper.
- High air inlet mechanism at the top of the cab is adopted to improve the quality of air entering the engine, moreover, the independent
  pipeline technology without passing through the cab can effectively reduce the noise.

## 液压系统 Hydraulic system

- 采用摆线转阀式全液压转向器、齿轮泵等专业化生产厂成熟的优质液压元件,工作密封可靠,无泄露。采用双联齿轮泵,制动和转向分开,保证制动和转向对液压油的不同需求,提高制动和转向的可靠性。大容量的液压油箱足够满足工作和散热要求。液压系统配备有齐全的安全保护阀。
- The tractor adopt cycloid rotary valve type wholly hydraulic steering unit,gear pump and other mature high quality hydraulic components produced by specialized manufacturers. The hydraulic system sealing reliable, no leakage. The tractor assembled with double gear pump, thus the separate control of braking and steering is achieved, ensures the different demands of hydraulic oil for braking and steering, and the reliability of braking and steering is improved. Enlarged hydraulic oil tank ensures working and cooling requirement. The hydraulic system is equipped with a complete range of safety protection valves.

## 操纵牵引销机构 Operation stick & pin component

- 设置在驾驶室内的操纵牵引销采用自动脱钩及自动导引机构,使得牵引作业方便、效率高。牵引机构的自锁功能有效避免因误操作或行车颠簸导致拖车脱销的隐患,提高行车安全性。 牵引机构可视性好,驾驶员坐在座椅上可以直接观察到牵引座。
- The tractor adopts traction pin mechanism with automatic unhook and automatic guide function, the traction pin is assembled in cab, the operation is easy and efficient. Self lock function of traction pin mechanism effectively avoids trailer hook suddenly off caused by vehicle jolt during travelling or mis-operation, improves travelling safety.
- . Traction pin mechanism has good visuality, driver can observe the traction seat directly from seat











# G系列6-8吨内燃牵引车

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	参数名			单位Unit	QYCD60-WXG	QYCD70-WXG	QYCD80-WXG	
	Parame							
1	Max.dr	awbar.pu		kN	60 70 80		80	
2	Max.Tr	ravel spe	起度(前进) ed(without load, forward)	km/h	30			
3	Grade		rithout load)	%		30		
4	最小转弯半径 Min.turning radius		mm	≤4710				
5	Service		distance (20Km/h)	m		≤5		
6		量(含油 Veight(in	cluding oil and coolant)	kg	9000	10980	11610	
7	桥负荷	前桥 Front	kg	1900	2390	2390		
_	Axle lo	oad	后桥 Rear	kg	7100	8590	9220	
8			型 号 Model		锡柴CA6DF3-16GAG3U			
	发动机	发动机	缸径×冲程 Bore×stroke	mm	6-110×125			
	Engine	额定功率/转速 Rated output	kW/rpm	m 118/2200				
			最大扭矩/转速 Max. output	N·m/rpm	n 640/1300—1700			
9	燃油箱 Fuel ta	容积 ink capad	city	L	150			
10	长 Overall length			mm	4165(不含前牵引座 without front coupler) , 4340(包括前牵引座 with front couple			
	外形尺寸 External dimensions	宽 Overall Width	mm		2180			
		高 Overall height	mm	2685	2695	2695		
11	轴 距 Wheel			mm	2100			
12	前 轮 轮距 Front			mm	1700			
12	Tread		后 轮 Rear	mm	1600			
13		最小离地间隙 Min.underground clearance		mm	200			
14	牵引座中心线离地高度 Center height of drawbar		mm	450(可选 customized)				
15	电压/容 Battery		e/capacity)	V/Ah	2-6-QW-80 12V×2 80Ah×2			
16	驱动桥 Drive a				P82D3-00001			
	变速箱 型号 Model Transmission case 型式 Type			P82H3-80001				
17					无级变速 Stepless char	nge speed 变矩器直径340	Tor-con diameter:340	
18	制动器 Brake Textilization Frake				全液压四轮动力制动 Hydraulic oil acts on four wheels			
10	apparatus	停车制动 Parking brake		机械式,作用于变速箱中间轴上	Mechanical type acts on the midd	le shaft of the transmission b		
	前轮 Front 轮胎 Tyre	规格 Model			2-7.50-16-12PR			
19			气压 Air pressure	kPa		790		
17		后轮	规格 Model			4-9.00-20-14PR		
		Rear	气压 Air pressure	kPa		760		

## 防水型组合式仪表 Waterproof combined instrument

