



GR2153

MOTOR GRADER

平地机

The GR2153 motor grader is mainly used for ground leveling, ditching, slope scraping, bulldozing, scarification, snow removal for large areas such as highway, airports, farmlands etc. It is the necessary construction machinery for national defense construction, mine construction, urban and rural road construction and water conservancy construction, farmland improvement and so on.

GR2153平地机主要用于公路、机场、农田等大面积的地面平整和挖沟、刮坡、推土、松土、除雪等作业。是国防工程、矿山建设、城乡道路等建筑施工和水利建设、农田改良等所必须的工程机械。

Performance Characteristics / 性能特点

- **Energy saving and noise reduction:** adopt low speed engine transmission line, low fuel consumption and energy saving and environmental protection; The transmission system is equipped with low speed ratio, and the average fuel consumption is reduced by about 8%. Three levels of engine, cab and seat vibration reduction; The cab is supported by six points; Deceleration of engine, cooling fan with large diameter, sound absorption sponge inside the hood, good sealing of the cab reduces noise of the whole machine.
- **Strong power:** Shangchai efficient China stage III engine and hydraulic torque converter, the optimal torque converter achieves the best matching of torque converter and engine, reducing the start time, increase the work of torque output at low speed, strong and powerful. The optional herringbone tread tires, the adhesion can be increased by 10% in loosening soil and leveling, further enhance the power output.
- **Rotation with load:** improve the pressure of hydraulic system system, the rotary force of the blade, the high frequency quenching treatment improves the wear resistance and life span, and realize the rotation operation.
- **Efficient operation:** improves the displacement of hydraulic pump and hydraulic motor, increase the oil cylinder speed by 20%, realizes the industry leading work efficiency, the optimized blade shape can turn and remove the soil quickly and efficiently, and realize optimal load distribution and the minimum material accumulation within the rotary disc area.
- **节能降噪:** 采用低转速发动机传动路线, 额定点的比油耗低, 节能环保; 传动系统进行低速比配置, 平均油耗降低8%左右; 发动机、驾驶室、座椅三级减振; 驾驶室六点组合支承; 发动机降频减速、风扇大直径低速比、机罩内贴吸音海绵、驾驶室良好密封, 整机噪音降低。
- **动力强劲:** 采用上柴高效国III变功率发动机, 匹配液力变矩器, 选用最优的变矩器循环圈直径, 实现变矩器与发动机的最佳匹配, 减少整车启动提速时间, 加大低速工作时的扭矩输出, 强劲有力。选配人字形花纹轮胎, 在松土、平整等工况整车附着能力可提升10%左右, 进一步提升动力输出。
- **带载回转:** 提高液压系统系统压力, 铲刀回转力大大提高, 齿圈高频淬火处理, 耐磨性和寿命提高, 实现带载回转作业。
- **高效作业:** 提高了液压泵和液压马达的排量, 实现油缸速度提高20%, 作业效率行业领先, 对铲刀弧形进行优化, 能够快速高效地翻土和排土, 实现最佳的负载分配和回转盘区域内最小的物料堆积。



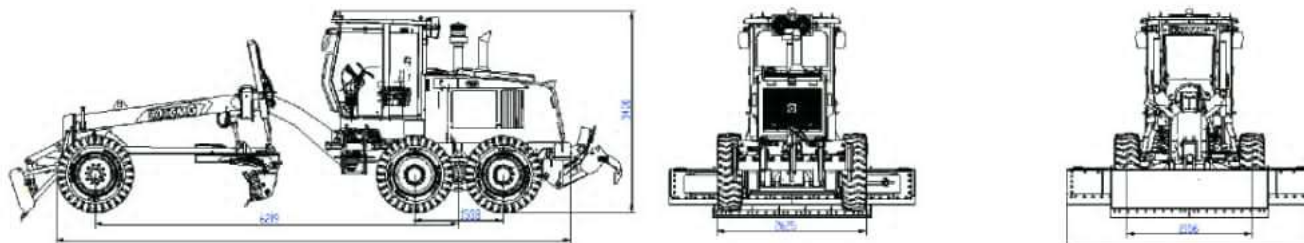
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Main Dimensions

主要尺寸



Main Specifications

主要技术参数

	Item	项目	单位 Unit	GR2153
Basic parameters 基本参数	Engine model	发动机型号		QSB6.7
	Rated power/speed	额定功率/转速	kW/rpm	164/2000
	Overall dimension (standard)	整机外型尺寸 (标配)	mm	8970 × 2625 × 3420
	Total weight (standard)	整机重量 (标配)	kg	16500
	Tire specification	轮胎规格		17.5-25
	Ground clearance (front axle)	离地间隙 (前桥)	mm	430
	Tread	轮距	mm	2156
	Space of front and rear axles	前后桥距	mm	6219
	Space of middle and rear wheels	中后轮距	mm	1538
	Forward velocity	前进速度	km/h	5、8、11、19、23、38
Performance parameters 性能参数	Reverse speed	后退速度	km/h	5、11、23
	Tractive effort f=0.75	牵引力f=0.75	kN	≥85
	Maximum gradeability	最大爬坡能力	%	≥25
	Inflation pressure of tires	轮胎充气压力	kPa	260
	Working system pressure	工作系统压力	MPa	20
	Transmission pressure	变速箱压力	Mpa	1.3—1.8
	Maximum steering angle of front wheels	前轮最大转向角	°	±48
Working parameters 工作参数	Maximum inclination angle of front wheels	前轮最大倾斜角	°	±17
	Maximum swing angle of front axle	前桥最大摆动角	°	±15
	Maximum swing angle of balance box	平衡箱最大摆动角	°	前15、后15 Front 15, rear 15
	Maximum steering angle of frame	车架最大转向角	°	±27
	Minimum turning radius	最小转弯半径	m	7.3
	Maximum lifting height	最大提升高度	mm	400
	Maximum shoveling depth	最大铲土深度	mm	500
	Maximum lateral inclination angle	最大侧倾角度	°	90
	Cutting angle	切削角	°	28—70
	Slewing angle	回转角	°	360
Oil filling amount 加注油量	Length × chord height	长度×弦高	mm	3965 × 610
	Coolant	冷却液	L	50
	Fuel tank	燃油箱	L	280
	Engine	发动机	L	24
	Transmission	变速箱	L	38
	Balance box	平衡箱	L	46
	Drive axle	驱动桥	L	28
	Hydraulic oil	液压油	L	110