Owner's Manual

Crane 350

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Thank you for buying Crane 350. We are continuously improving our quality, design and products range to satisfy customer demands.

- **Products Range**

Crane 350, with engine 7HP, mounted in the rear of ATVs or tractors, drives oil pump and outputs hydraulic

oil. Working with seven pieces of cylinders and three pieces of rotators, crane 350 lifts, rotates and unloads etc.. There are moving parts, oil pump, multi-control valves, grapnel, supporting parts and automatic wheel-drive etc in crane..

Crane 350-I

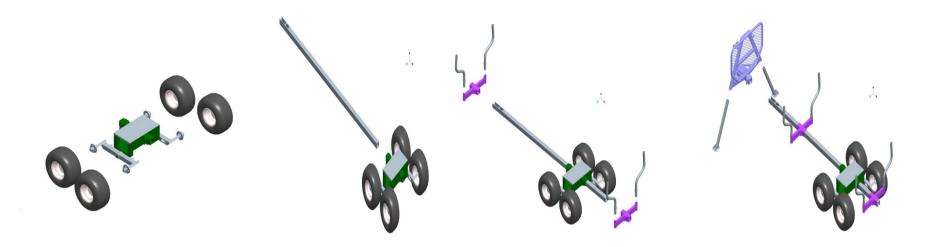
Crane350-II (4X4 remote & electric control)

Items	Technical Data		
Gas Engine	7HP, electric and pull start, adjustable engine speed:1400- 3800rpm		
Oil Pump	16Mpar, 4ML/R		
Hydraulic System	Multi-Control Valves functions:		
	A _N Arm access		
	B、Grappling movement: rotating, open and close, Lifting capacity of Max. reach: 200kg		
	C、Supporting legs adjustable in height of 535mm		
	D、 Wheeldrive driven by two pieces of rotators		
	E_{x} Boom rotation 45° left and right (safely) when the beam in the middle. rotating 90° left and right (maximum)		
Working Temperature	80°C∼-30°C		
	Trailer weight(kg): 260		
Trailer Dimension	Base between two supporting legs(m):1.6		
	Max. loading capacity(kg): 1500		
	Tire size: 22x11-10		
	Dimension including trailer (LWHm):3.65×1.1×1.4		
Crane Spec.	Max. lifting height(m):4.5		
Clane Spec.	Arm length(m): 3.5		
	Gross weight(kg): Crane 350-I : 580 Crane 350-II: 630		

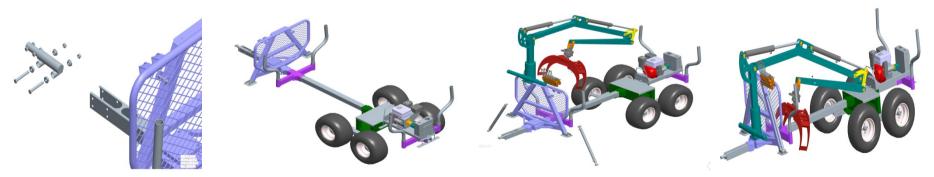
 \Box , Specification

Ξ_{Λ} Installation Instruction(only for SKD loading)

1. Fix on wheels 2. Insert long tube 3. Put on railings 4. Fix front net & supporting legs



5 Put on hook 6. Fit with engine plate 7. Fix on beam cylinders on legs and valves



8. Connecting inlet pipe in valves to exit of oil pump. Connecting outlet pipe to fuel tank

四、Crane 350-II 4x4 Wheel-Drive System

• Wheel-Drive Installation

9, Open cap(1). 10, Four pcs of oil pipes go through (2) to (3). Equip solenoid valve and control box like (4). 11, Connect plugs like (5,6,7) 9, 10, 11,

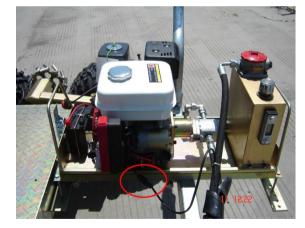


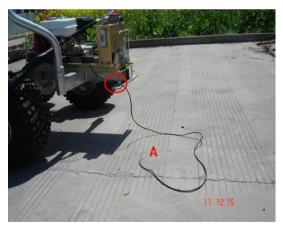




12. Tighten four pcs of oil pipes. Pipe a and c shall be the upper. 13. Tighten inlet and outlet oil pipes. Connect power.12.13.14.

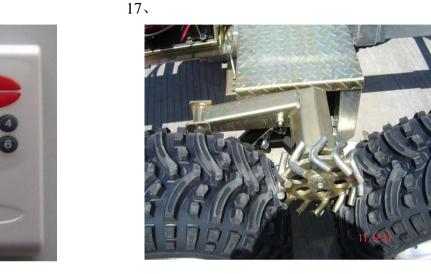






- 14. When the battery voltage is low, use the external power cord into the above diagram, A termination to external 12V battery
- Please read the following before applying wheel-drive system
 - 15 Start the engine, the speed is over 70%

- 16. Click No. 3 on the remote control button, so that driving wheel and tire bonding
- 17. When the driving wheel down to tire tread, click No. 5 or 6 button, so that driving wheel stop declining
- 18. To the end of work for wheel-drive system, click No.4 button to driving wheel up to the highest point, press No. 5 or 6 button to stop
- 19. To ensure sufficient power in engine battery and remote control battery, no battery power will affect work of wheel-drive system
- 16,



N When Use the system, non-stand in front and rear of crane

五、Application

- Please check the following before applying for crane. :
 - 1. Connecting axles and tablets are in proper positions, nuts are tightened.
 - 2. Fill anti-wear hydraulic oil to two- thirds of oil level in fuel tank. (In cold area, hydraulic oil shall be cold temperature resistant)
 - 3、 Fill oil in the middle of dipstick. Fill gas in engine, do not overflow.
 - 4. Lay out hoses in proper position, screw up nuts
- Engine starting: (See engine instruction manual).
- General information about application.

Drive smoothly and reduce loading until you can completely control cranes.

Raising of heavy weights far from side of trailers that will increase pressure to cranes, it shortens the life of trailer significantly.

The ATV's rear wheels shall be raised from ground with supporting legs during loading in order to reduce weight on ATV's ball hitch.

Pressure of oil pump in delivery is about 12Mpar-14Mpar, Max. working pressure is 16Mpar. It's not recommended to adjust pressure for a strong turn.

• Warranty

The warranty's period and coverage is set by importers, distributors and dealerships.

Warranty terms vary from places due to geographical settings.

Scandi factory does not respond for end users, end customers and retailer's warranty claim.

六、Multi-Control Valves

Crane hydraulic system consists of oil pump, multi-control valve, relief valve, balance valve, oscillating cylinder, travel motor, grapple rotator and seven pieces of linear cylinders. Multi-control valves arrays as following:



 Pressure of relief valve is 10Mpar~12Mpar. Please adjust relief valve or increase engine speed for compression to lift heavier weights. Relief valve is in right sight of multi-control valve. Take away the cap, there is A-folt bolt. Clockwise is adding to pressure, Anticlockwise is reducing pressure.

- 2. In initial starting or in the long stopping status, there is air in hydraulic system, valves can not work accordingly. It will work well for a while when air is out.
- 3_{\sim} Operation handles are automatic reset.

Parts	Lubrication material	Period	Picture
10 pcs of axle in beam	Lithium Grease	Every 50 working hours	
6 pcs of couplings in grapnel	Lithium Grease	Every 30 working hours	
oscillating cylinder/ rack and pinion	Lubricants No. 20 (1kg)	Every 100 working hours	

七、Service and Maintenance

Running Bearings/5 pcs of bearings in tire's shaft	Special Lithium-based grease	Every 12 months	
Running Bearings/ in trailer frame	Special Lithium-based grease	Every 12 months	



Phenomenon	Causes	Solutions			
Oil pump voice anomaly	Air in system	Tighten connecting nuts of horses			
Multi-control valves don't work	Air in cylinder	Move valves slightly to let air out			
Boom lifts and declines automatically	Air in system	Tighten seal nuts in hoses			
Crane can't lift weights	Too low pressure in relief valves	Regulating relief valves			
Lift arm moves unstably	Short of hydraulic oil	Add more hydraulic oil			
Engine flameout	Logs overweight	Regulate engine speed or Lower pressure of relief valves			
Interface leakage	Arc tooth seal deformed by temperature or plane seal damaged	Tighten nut or change plane seals			

八、Fault Diagnosis and Rule Out

九、Warranty Registration

The owner must produce this card whenever a claim made:

Engine no.:
Multi-control valves no.:
Model no.:
Color:
Date of Purchase:
Dealer's name:
Dealer's area:
Your name: