

SPECIFICATION FOR TRACK TYPE COMBINE HARVESTER

Prime mover

Make	:	Xin chai
Model	:	4D35ZT
Type	:	IC Engine
HP	:	101 Hp
Maximum speed at no load, rpm	:	2808 +/-50
Rated speed, rpm	:	2600 +/-50
No load engine speed recommended for field	:	2000 +/-100
Low idle speed, rpm	:	850 +/-50
Country of origin	:	China

Cylinder and cylinder head

Number	:	4
Disposition	:	Vertical, in-line
Bore/Stroke, mm	:	98/115
Capacity, cm ³	:	4068
Compression ratio	:	18:1
Arrangement of valves	:	1 inlet, 1 Exhaust Valve on Each Cylinder
Type of cylinder liners	:	Dry
Type of head	:	Cast Iron
Type of combustion chamber	:	Swirl
Valve clearance in cold, mm		
Inlet valve	:	0.35
Exhaust valve	:	0.45

Fuel tank

Material	:	Mild Steel Sheet Fabricated
Size, mm	:	800X450X280
capacity, l	:	90

Combine Harvester

Track

Make	:	Jaan Dear / Yachoo
Type	:	Moulded Rubber Track
Number	:	02
Track distance/spacing, mm	:	1750/750
Width of track, mm	:	500

Grouser height, mm	:	40
Number of grousers	:	56
Grouser pitch, mm	:	90
Length of track on ground, mm	:	1635
Method of track tensioning	:	Adjusting Bolt Is provided with Idler

Driving sprocket

Diameter, mm	:	250
No. of teeth, mm	:	8
Pitch of teeth, mm	:	90

Carrier rollers

Number	:	2 (1 on Each Side)
Diameter, mm	:	140
Face width, mm	:	70
Lubricants	:	Grease

Track roller

Number	:	12 (6 on each side)
Diameter, mm	:	180
Face width, mm	:	70
Lubricant	:	Grease
Distance between front track roller to rear, mm	:	1514
Distance between centre of drive sprocket & idler roller, mm	:	2055

Support roller

Number	:	2 (1 on each side)
Diameter, mm	:	140
Face width, mm	:	70

Ground speed (kmph) (at full throttle engine speed)	:	Approx. 8.0
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HST & Hydraulics

Type	:	Gear (45cc)
Make	:	World Star
Drive Gearbox	:	World Star (85Hp)
No. of Modes	:	3 (Slow, Medium, Fast)

No. of hydraulic cylinders	:	5 (2 for Reel, 2 for cutter bar, 1 for Discharge auger)
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Hydraulic tank

Type	:	Mild steel Fabricated
Capacity of hydraulic tank, l	:	40
No. & type of oil filters	:	2, wire mesh filter

Hydraulic oil coolers

Number(s)	:	1
Make & Model	:	AAI
Type	:	Stacked Plates with fins

Reel assembly

Type	:	Pick up Tyne
Type & Number of tine bars	:	5
Size of tine bars, mm		
	Diameter	: 27mm
	Length	: 2245mm
Diameter & working width of reel, mm	:	Dia = 1032, working width is 2360
RPM	:	32-40 rpm

Cutter bar assembly

Effective cutter bar width, cm	:	7.5 Feet
No. & type of knife blades	:	33

Fingers

No & type of knife guard	:	16
Type	:	Doble Pointed

Cutting platform auger

Type of crop conveyor	:	Auger with retraceable Fingers
Size of auger, mm	:	Dia= 500mm, length =2340mm
Rpm	:	190 rpm

Details of retractable fingers

Number (s)	:	12
Range of throw out, mm	:	2-100
Axial spacing between the fingers, mm	:	40
Peripheral distance between the fingers, mm	:	260
Arrangement for adjustment of fingers length	:	Provided on LHS of Cutter Bar

Feeder Box

Type of feeder conveyor	:	Chain & Feeder Slate
No. size and spacing of comb bar	:	15 No. Distt b/w comb bar is 230mm
Rpm	:	390 rpm

Threshing drum

Type	:	Peg tooth
Diameter and Width, mm	:	Dia is 650mm, width is 1880mm
Rpm	:	550 rpm
No. of bars	:	6
No. of pegs and their spacing on each bar	:	14 No., Spacing b/w pegs is 112mm
No. of hub plate	:	4
Length of peg bar, mm	:	1585
Height of pegs, mm	:	75

Concave

Overall width of concave, mm	:	1356
Effective width, mm	:	1345
Type of concave	:	Open Grate
Peripheral length, mm	:	1323
Peripheral effective length, mm	:	1300
Effective area, sq. cm.	:	17951

Cleaning sieves

Top sieve

No. of sieve	:	1
Type	:	Open grate
Overall size of sieve (LXW), mm	:	750mmX990mm
RPM	:	355

Lift/throw, mm : 35 / 15
Arrangement for varying the opening of the sieve : Adjustment lever With Thread is provided

Bottom sieve

No. of sieve : 1
Type : Round hole Sheet (12mm/ 14mm/16mm)
Overall size of sieve (L XW), mm : 690X1000
RPM : 355

Blower

Dia. mm : 345mm
Effective width, mm : 425 X 2 No.
No. & type of blade : 4, Formed MS Shet
Rpm : 1110 rpm

Method of controlling the air blast : 4 Baffle Sheet are provided to adjust air flow

Bottom Grain Conveyor

Type : Screw Auger
Size of conveyor (Length, Dia, &pitch) mm : Lenth is 1455, Dia is 120mm, Pitch is 112mm
Rpm : 634 rpm

Grain Elevator

Type : Screw Auger
Length of elevator, mm : Lenth is 1445, Dia is 124mm, Pitch is 113mm
Rpm : 795 rpm

Bottom tailing auger

Type : Screw Auger
Size of auger (Length, Dia and Pitch), mm : Lenth is 1440, Dia is 120mm, Pitch is 110mm
Rpm : 860

Tailing elevator

Type : Screw Auger
Length of elevator, mm : Lenth is 795, Dia is 125mm, Pitch is 113mm
Rpm : 1150

Grain tank

Volume m³ : 1.0

Grain unloading auger

Size of auger (Length, Dia and Pitch), mm	:	Vertical Auger (1590mm, Dia is 165, Pitch is 180) Horizontal A (length 1900, Dia 160, pitch is 200) Horizontal B (Length 1730, Dia 160, pitch 200)
Horizontal reach, cm	:	LHS = 1900 Approx. RHS = 3300 Approx
Discharge height above ground level, cm	:	360
Clearance height, cm	:	300
Speed corresponding to recommended no load speed of engine, rpm	:	800
Safety device	:	N/A

Grain conveying auger (Bottom of grain tank

Type	:	Screw Auger
Size of auger (Length, Dia and Pitch), mm	:	1040, Dia is 130, pitch is 130

Overall dimensions of combine harvester (Working Condition)

Length	:	5110
Width	:	2700
Height	:	2900

Ground clearance, mm	:	380 (chassis)
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