

# ACE

# 20 XW

## Rough Terrain Crane

Capacity : 20 Tons  
Four Wheel Drive and Four Wheel Steer

**ACE** INDIA'S NO. 1  
MOBILE & TOWER CRANE CO.



- Best in class stability
- Better Creep Speed
- Heavy Duty & Robust Construction
- Ergonomically designed Cabin

*Nothing beats an **ACE***

# Specifications

**20XW**

<b>LIFTING CAPACITY</b>	20 Tonnes
<b>ENGINE</b>	Ashok Leyland 6 cylinder , Liquid cooled, Diesel engine developing 160 hp @2300 or equivalent engine
<b>TRANSMISSION</b>	Power shift with torque converter with 4 forward and 3 reverse speed maximum road speed 32 Kmph
<b>HYDRAULIC SYSTEM</b>	Tandem gear hydraulic pump mounted directly on power shift transmission supplying hydraulic oil to all circuits separate pump is provided for steering system
<b>ELECTRICAL SYSTEM</b>	24 V, DC Battery, 2X 180 AH,12V, Negative earth
<b>SUPER STRUCTURE</b>	Super structure is capable of unlimited slewing in either direction and is mounted to chassis with sealed slew gear ring
<b>BOOM DERRICKING</b>	Double acting hydraulic cylinder with counter balance safety valve
<b>SLEWING</b>	Slewing through planetary gear box with built in spring applied hydraulically released multi-disc brake and driven by hydraulic motor, Dual control balance is provided for smooth operation. Free slew run for aligning of boom during hosting provided by a foot switch in the cabin.
<b>HOIST SYSTEM</b>	Hydraulic motor driving grooved hoist barrel through a planetary gear box and equipped with spring applied hydraulically released multi disc brakes. Over-lowering switch is provided in winch to prevent over-lowering Counter balance is provided for controlled lowering
<b>TELESCOPIC BOOM</b>	Double acting hydraulic cylinder is provided for boom telescoping .Three part jib fabricated from high tensile steel is extendable from 8.8 Mtrs to 21.4 Mtrs
<b>HOOK BLOCK</b>	3 Sheave block is provided
<b>HOIST ROPE</b>	16 MM Diameter
<b>CHASSIS</b>	Fabricated from high tensile steel plates
<b>OUTRIGGERS</b>	Four hydraulically operated outrigger beam with vertical hydraulic jacks fitted with lock valves. Hydraulic operation is controlled from driver's cabin. Outrigger foot pad is removable and stow-able. Protected piston rods of outrigger jacks.
<b>STEERING</b>	Power steering with four mode (front wheel steer only, rear wheel steer only, 4 wheel steer-crab or coordinated.) Automotive reversable steering. Steering Column – Tilttable
<b>DRIVE</b>	4x4 / 4x2

<b>AXLES FRONT</b>	Drive steer with planetary wheel hub and mounted rigidly to chassis
<b>REAR</b>	Drive steer with planetary wheel hub and mounted on oscillating cradle
<b>CAPACITIES</b>	Hydraulic Tank 300 Ltrs. Fuel Tank 250 Ltrs.
<b>TYRES</b>	14.00 x 25 – 24 PR
<b>BRAKES</b>	Hydraulic brakes on all wheels
<b>OPERATOR'S CABIN</b>	Steel frame cabin with maximum all around vision is fitted with lockable sliding door. All controls for crane motion, travel , outriggers, operation and electrical controls are provided in the cabin,Adjustable seat,sunvisor, Fan, cabin light provided
<b>SAFETY EQUIPMENT</b>	Safe load indicator provides boom angle,length,radius & lifted load with visual indication of approach to overload. Audible warning for overload and over hoist along with motion cut. Automatic braking of suspended load in case of power failure
<b>PERFORMANCE DATA</b>	Derrick Angle – 2° to + 70° Derrick In 35-40 sec Derrick Out 30-35 sec Jib Extension 60-65 sec Jib Retraction 40-45 sec Slewing 2 RPM Hoist Single line speed 50m/min
<b>TURNING CIRCLE DIA</b>	Outer TCD 19 Mtrs. 4 wheeler steer 10 Mtrs.
<b>OUTRIGGERS</b>	Out 12 sec In 7 sec Down 17 sec Up 12 sec
<b>AXLE LOADS</b>	Front Axle 10,200 Kgs Rear Axle 10,200 Kgs Total weight 20,400 Kgs
<b>GRADEABILITY</b>	44 %
<b>WADING DEPTH</b>	1000 mm
<b>OPTIONAL EQUIPMENT</b>	<ul style="list-style-type: none"> <li>● Air conditioning</li> <li>● Heater / Demisting</li> <li>● 8m side folding fly jib</li> <li>● Dual speed winch</li> <li>● Spare wheel</li> <li>● Cold starting kit</li> <li>● Workmen basket</li> </ul>

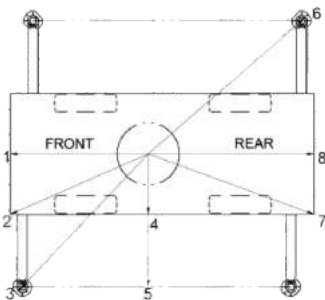
## LOAD CHART (85 % DUTY), 20XW

Boom radius (Mtr.)	360° SLEW ON OUTRIGGER				FREE ON WHEEL (STATIC)				LIFT & MOVE			
					360° SLEW		OVER THE FRONT & REAR		SPEED : ≤ 5 KMPH			
	BOOM LENGTH											
	CLOSED	EXTENDED	EXTENDED	EXTENDED	CLOSED	EXTENDED	CLOSED	EXTENDED	CLOSED	EXTENDED		
8.8 m	8.8 to 12.3m	12.3 to 16.3 m	16.3 to 21.4 m	8.8 m	8.8 to 16.3 m	8.8 m	8.8 to 16.3 m	8.8 m	8.8 to 16.3 m			
m	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg	Kg		
3.0	20,000	14,000			9,500	7,900	14,900	12,500	11,600	11,100		
3.5	17,600	14,000	9,000		7,600	6,600	12,600	11,000	10,100	9,550		
4.0	15,400	14,000	9,000		6,100	5,600	10,000	9,600	8,900	8,400		
4.5	13,400	13,000	9,000		5,100	4,800	8,800	8,500	7,900	7,400		
5.0	11,900	12,500	8,500	6,500	4,400	4,100	7,900	7,600	6,600	6,500		
6.0	9,700	9,500	7,500	6,000	3,300	3,400	6,400	6,100	5,500	5,100		
7.0	7,200	8,100	7,000	5,600	2,500	2,400	5,300	4,800	4,400	4,200		
8.0		7,000	6,500	5,300		1,650		3,700		3,300		
10.0			5,000	5,000		750		2,200		2,200		
12.0			4,000	3,500				1,200		1,200		
14.0				2,700	<b>BOOM WITH 8M FLY JIB (ON OUTRIGGERS)</b>							
16.0				2,100	Radius (M)	8	10	13	16	19	22	24
18.0				1,600	Load (Kg)	1400	1300	1200	1000	900	700	600
19.0				800	For full length boom with 8 m fly jib in working the boom angle must not be less than 30.5°							

### NOTES:-

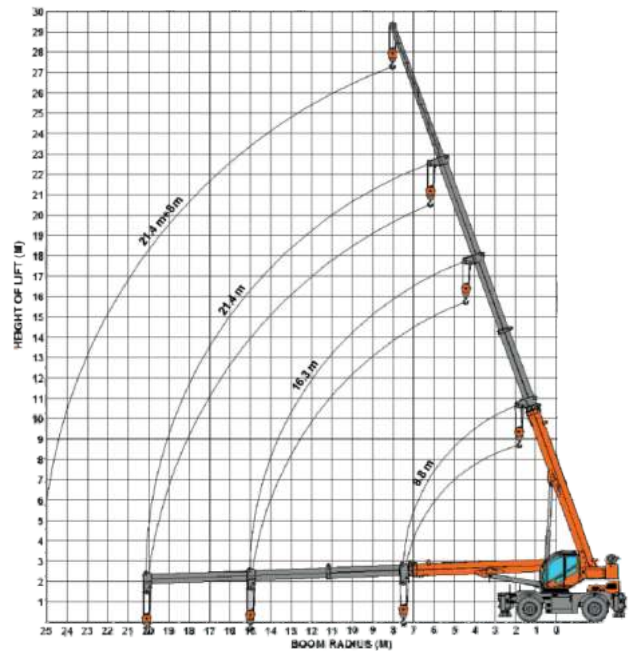
- Lifting capacities are based on 85% duty as per IS 4573.
- Max radius is based on boom angle not less than 18°. Derricking below 18° is not permitted for specified load.
- Weight of slings or any lifting device must be considered as additional load.
- Outrigger extension cylinders are fully extended and jack cylinders rested on firm ground during crane operation on outriggers.
- For free on wheel duties it must be ensured that all tyres are filled to specified air pressure and oscillating axle is locked. Crane should be on level and firm ground.
- Crane should not be operated during high wind condition which affects stability.
- For over front duty, slew must be locked by pin.
- When fly jib is erected, the main boom capacities shall be reduced by 700 Kgs.

### OUTREACH DIAGRAM

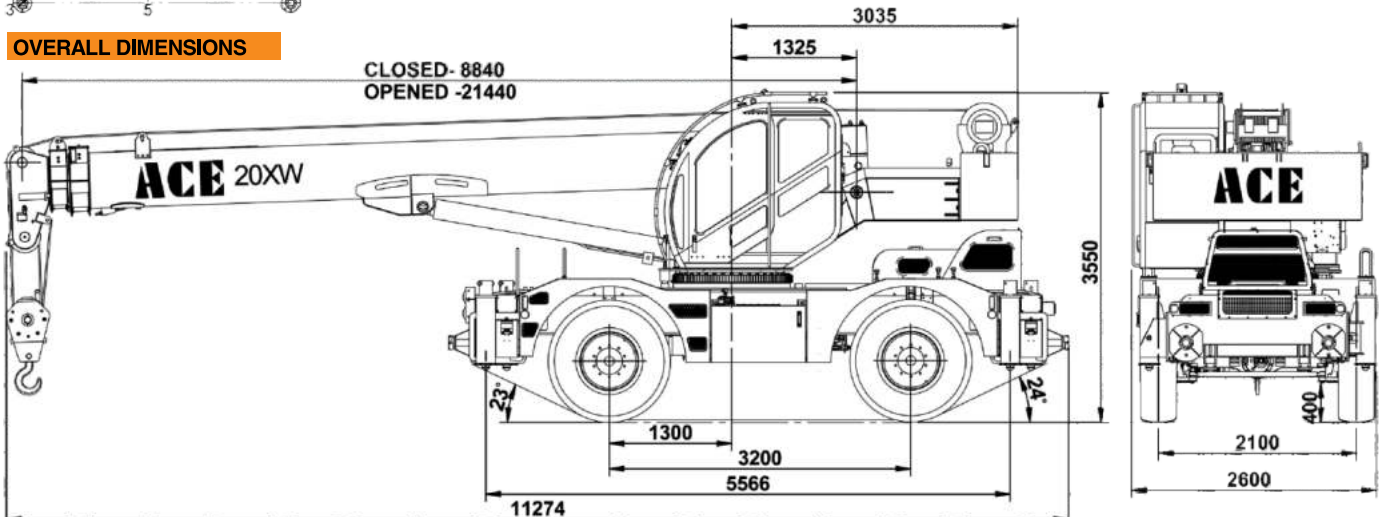


OUTREACH OBTAINED BY DEDUCTION FROM RADIUS	
JIB POSITION	DEDUCTION (Mtrs.)
1	2.94
2	3.07
3	3.96
4	1.25
5	2.75
6	4.25
7	3.44
8	3.40

### HEIGHT & LIFT DIAGRAM



### OVERALL DIMENSIONS



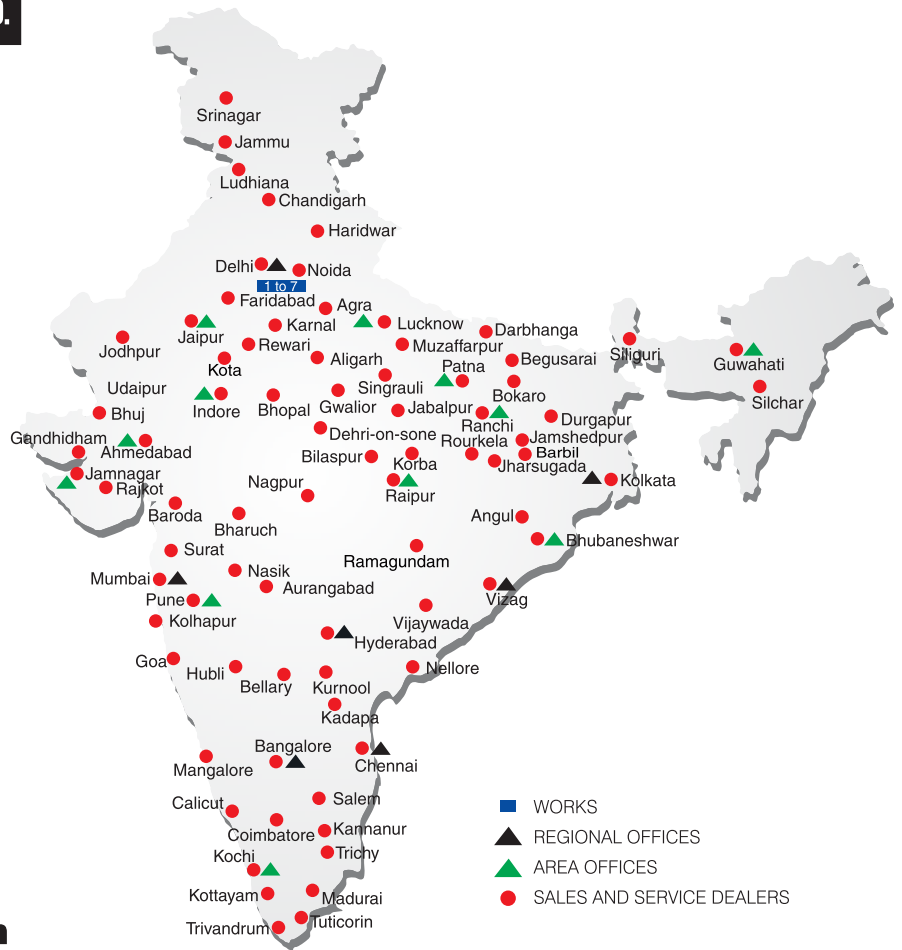
# BUILT TO PERFORM



**ACE** INDIA'S NO. 1  
MOBILE & TOWER CRANE CO.

**RELIABLE AND  
DEPENDABLE  
EFFICIENCY**

## NETWORK



**Toll Free Help Line  
1800 1800 004**

[www.ace-cranes.com](http://www.ace-cranes.com)

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**Action Construction Equipment Ltd.**

Contact:



ACE reserves the right to alter any specifications without prior notice. Dimensions, weights & capacities mentioned herein are variable by ± 5%. Accessories if shown are not part of the Standard Equipment.