

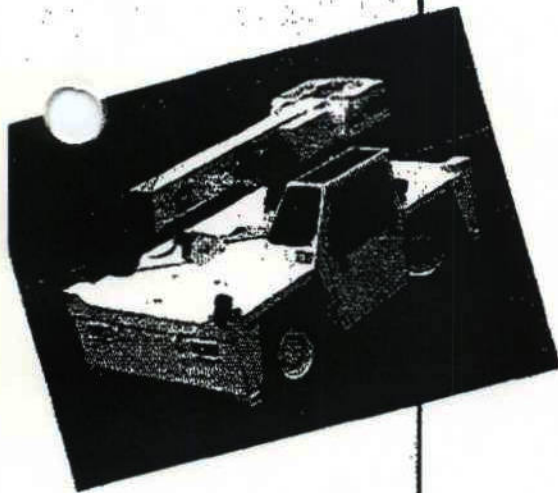
# SPECIFICATIONS

# D 85i

8.5 Ton (7.7 tonne) Capacity  
Carry Deck Industrial Crane



 **TEREX CRANES, INC.**



## 185i FEATURES

### Boom Choices:

The longest standard boom in the class at 25 ft. (7.6 m), or a four section 32 ft. (9.8 m) boom.

### Pick and Carry Capacity:

At almost 8 tons (7.5 tonnes), it's the highest in its class.

### Versatile and Agile:

Designed specifically for industrial in-plant operation, its compact dimensions and four wheel steering make it very maneuverable.

### Strong Winch:

At 12,000 lbs. (5445 kg), it has the highest maximum line pull of any crane in its class. Reduces reeving changes.

### Electronic LMI:

A load moment indicator is standard, giving the operator precise crane information under any load conditions.

### Load Capacity:

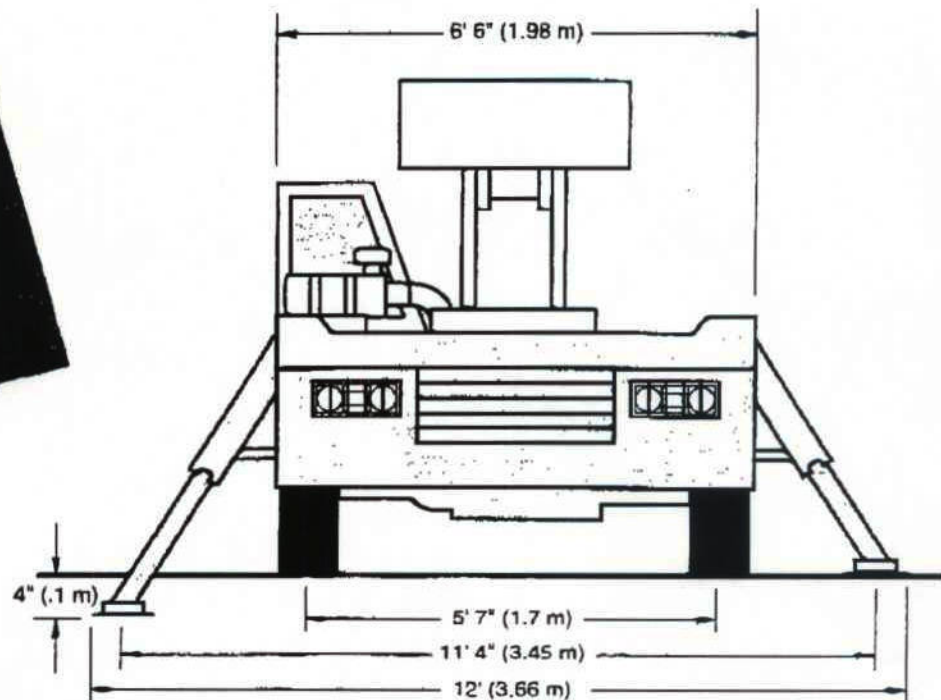
Crane capacities are among the highest in the industry and a carry deck capacity of 14,340 lbs. (6505 kg) adds to the machine's utility.

### "Loaded Machine":

Comes standard with typical "options" such as four wheel steer and brakes and a fully enclosed cab with excellent visibility, even to the right.

### Pride Plus Warranty:

The most comprehensive warranty in the business. Covers the crane for 12 months or 10,000 hours of operation. Plus, major weldment structures are covered for 5 years or 10,000 hours.



This crane meets the requirements of ANSI B30.5. The machine structure has been tested per SAE J1063. The machine stability has been tested per SAE J765.

### BOOM

11 ft. to 25 ft. (3.35m to 7.6m) three section full power telescopic boom. Boom point has one nonmetallic main sheave and one nonmetallic idler sheave. A mechanical boom angle indicator is provided.

### Boom Telescope:

One double-acting cylinder and a chain crowd mechanism. Fully synchronous operation.

### Boom Hoist:

One double-acting cylinder provides elevation from 0 degrees to 70 degrees.

### BOOM OPTIONS

#### Four Section Boom:

11 ft. to 32 ft. (3.35m to 9.8m) four section telescopic boom. Boom point has one nonmetallic main sheave and one nonmetallic idler sheave. A mechanical boom angle indicator is provided. Boom is same as standard boom with the addition of a manual pull-out section for increased reach.

### Extension:

Swingaway, 10ft. (3m) self-storing on base section of main boom.

### Rhino Hook:

Mounted at boom point with 6,000 lbs. (2720 kg) capacity, for use where headroom is limited.

### COUNTERWEIGHT

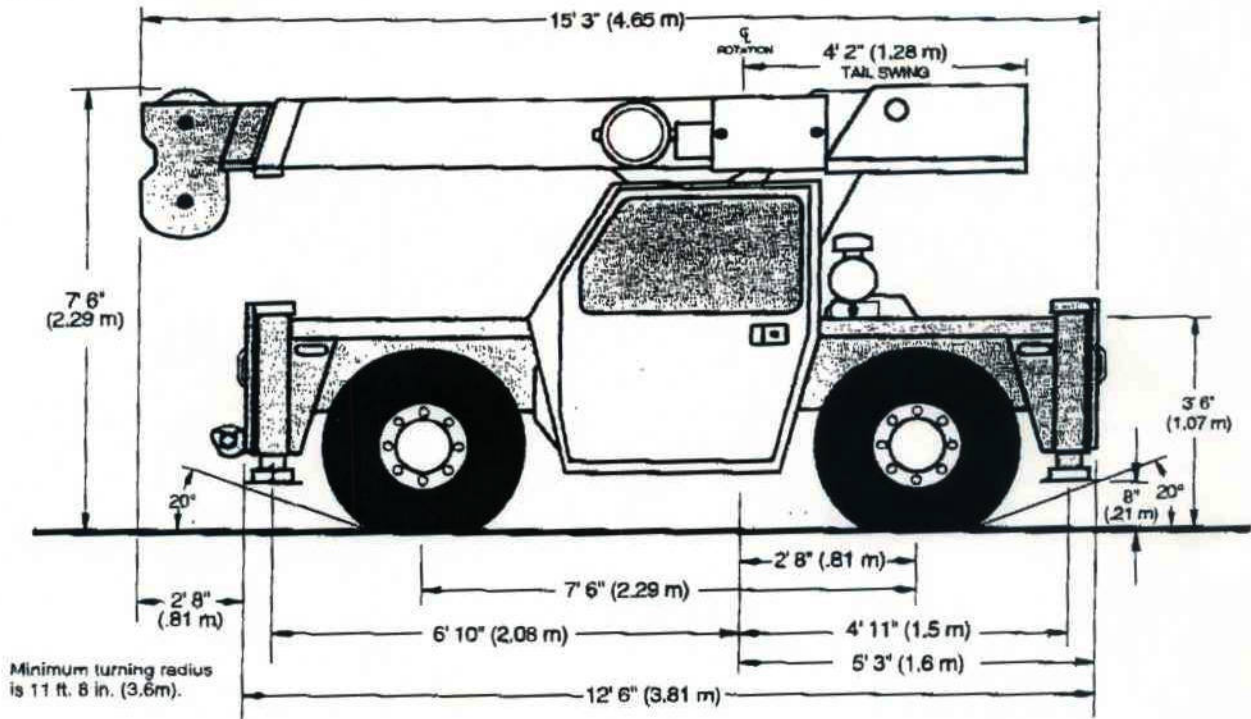
770 lbs. (350 kg).

### CAB

All-weather, low profile cab of steel has removable, locking door with easy entrance from ground level. Windows all around and above with tinted safety glass; the right side and door windows open.

Operator's seat is four-way adjustable and has a seat belt. Contains all roading and dash mounted crane function controls. Foot pedals for service brakes and engine throttle.

Front console includes back-lit gauges for engine water temperature, engine oil pressure, and fuel. Also includes hourmeter, tachometer, voltmeter, anti-two block warning device and electronic LMI. Additional cab equipment includes windshield wiper and washer, hot water heater and defroster, dome light, fire extinguisher, machine level gauge, and horn.



## WINCH

Single speed with planetary gearing for equal speed power raising and lowering and infinitely variable speed control. Has automatic multi-disc brake.

### Drum Capacity:

160 ft. (50m) of 9/16 in. (14mm) wire rope.

### Wire Rope:

121 ft. (37m) of 9/16 in. (14mm) diameter, 6x37 EIP.

### Line Pull (Max):

12,000 lbs. (5445 kg) first layer.

### Line Pull (Permissible):

9,730 lbs. (4415 kg) per part of line.

### Line Speed (Max):

92 fpm (28 mpm) second layer.

## HOISTING OPTIONS

### Hook Block:

10 ton (9.0 tonne) with one sheave.

### Headache Ball:

7 ton (6.3 tonne) weighted hook.

## SWING UNIT

360 degree continuous rotation to 1.5 rpm with fully automatic swing brake, integral with worm gear drive.

### House Lock:

Automatic, as swing is locked when hydraulic power is removed from the worm gear drive.

## HYDRAULIC SYSTEM

System uses one tandem gear type pump with a total flow of 44 gpm (166 lpm). Filtration is by a 10 micron return line filter externally mounted to the reservoir. The valves, with the control levers directly connected, have low effort spools and pilot operated relief valves for quick, smooth response.

### Oil Reservoir:

40 gallons (150 liters) capacity.

## CARRIER

### 4 x 2 x 4:

Front wheel drive steer with rear wheel steering.

### Carry Deck:

Surface area is 64 sq. ft. (5.9 sq. m) with a capacity of 14,340 lbs. (6505 kg).

### Outriggers:

Operating in pairs for quick set-up, they are arm type that pivot out, then telescope down, with control from the cab. Extension is

11 ft. 4 in. (3.45m). Front to rear spread is 11 ft. 9 in. (3.58m).

### Outrigger Floats:

80 sq. in. (515 sq. cm) with self-storage on arms.

### Front Axle:

Planetary drive steer with limited-slip differential, rigid mounted. Four wheel steer is standard.

### Rear Axle:

Rigid mounted, steering type.

### Service Brakes:

Dual circuit, hydraulic assisted disc brakes at each wheel. Wet disc on front axle and dry disc on rear.

### Parking Brake:

Disc brake on the transmission output yoke.

### Steering:

Hydrostatic power steering on both axles. The operator selects two wheel steer only, four-wheel clamp, or crab steering, all three modes controlled by the steering wheel. Minimum turning radius is 15 ft. 7 in. (4.8m) with two wheel steer only and 11 ft. 8 in. (3.6m) with four wheel steer.

**Tires:**

255/70R-22.5 tubeless with highway tread.

**Tire Options:**

Spare tire with rim (will fit either front or rear axle).

**ENGINE**

Cummins 4B3.9, 4 cycle, diesel with a displacement of 239 cu. in. (3.9 liters). Output is 76 HP (57 kw) at 2,500 rpm with maximum torque of 184 ft. lbs. (249 Nm) at 1,200 rpm.

**ENGINE OPTION**

Continental dual fuel TM 27, 4 cycle, gasoline/propane (LPG) with a displacement of 165 cu. in. (2.7 liters). Output is 63 HP (47 kw) at 2,500 rpm with maximum torque of 140 ft. lbs. (190 Nm) at 1,200 rpm.

**Electrical:**

12 volt system with negative ground, a battery with 320 cold cranking amps, and a 63 amp alternator.

**Fuel Tank:**

20 gallons (76 liters) capacity.

**TRANSMISSION**

Full synchromesh with steering column mounted shuttle shift operation, four speeds forward and reverse.

**Max Speed:**

19 mph (30 km/h).

**Max Grade:**

96% at 1 mph (1 km/h), theoretical.

**MACHINE WEIGHT**

**GVW:** 16,315 lbs. (7400 kg)

**Front:** 7,180 lbs (3255 kg)

**Rear:** 9,135 lbs. (4145 kg)

**Miscellaneous Equipment****(Standard):**

Under-deck storage compartment, lift-up engine hood, back-up alarm, front and rear tow lugs, headlights, tail lights, turn signals and flashers, with protective grills over all lights.

**Miscellaneous Equipment****(Optional):**

Pintle hooks, floodlights, amber beacon, engine condition warning system, and Rhino Hook.

**TEREX CRANES, INC.**

P.O. Box 260002 Hwy. 501 East/Atlantic Center  
Conway, SC 29528-2602 U.S.A.  
(843) 349-6900 FAX (843) 349-7690

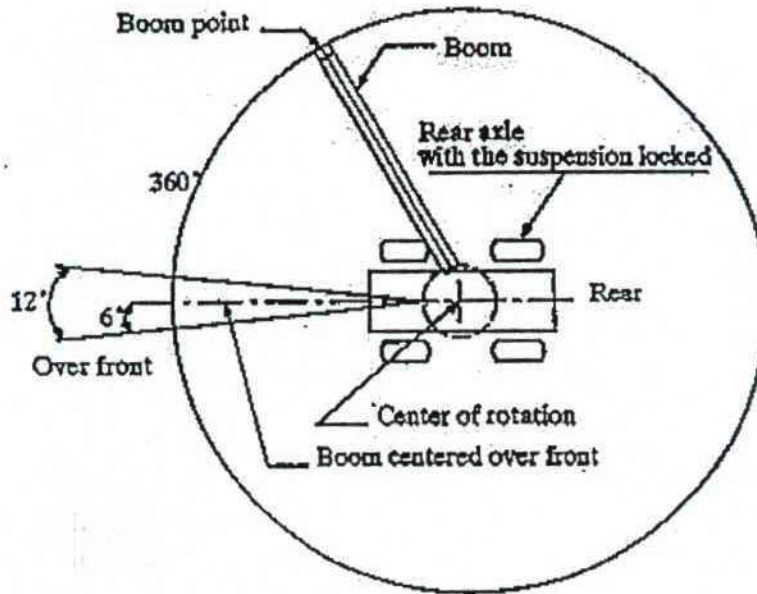
NOTE: All designs, specifications, and components of the equipment described are subject to change at the manufacturer's sole discretion at any time and without advance notice. Capacity charts and information printed here are only a guide and may not be complete. They should not be relied upon to operate the crane. The individual load charts and related lifting data on each crane must be understood and govern operation of the crane. Data published herein is informational in nature and shall not be construed to warrant suitability of the machine for any particular purpose as performance may vary with conditions encountered. The only warranty applicable is our standard warranty for this machine.



## AREAS OF OPERATIONS TIRES

### “ON TIRES” WORK AREA

**NOTE:** These lines determine the limiting position of any load for operation with working areas indicated.



Crane lifting capacities on tires depend on tire capacity, condition of the tires and tire air pressure. Tires must be inflated to the recommended pressure before lifting. (See operator's manual.) The recommended pressures are indicated either in the cab or next to the wheels. When handling loads in the structural range with the capacities close to maximum ratings, travel should be to 'Creep Speed'. 2.5 MPH (4 Km/HR) capacities are permissible on main boom only. NOT on boom extension.





For pick and carry operations, the boom must be centered over the front of the machine, the mechanical swing lock engaged and the load must be restrained from swing.

Do not travel with boom extension erected. Creep: motion less than 200 Ft in a 30 minute period and not exceeding 1 MPH (61 M and 1.5 Km/HR).

**TELESCOPIC BOOM FROM 18.55 Ft TO 32.35 Ft +  
EXTENSION 9.85 Ft ON 4 SECTION  
WITH MANUAL SECTION EXTENDED**

**ON OUTRIGGERS FULLY EXTENDED OVER FRONT +/- 40 DEGREES --  
LMI CODE 11**

**On firm and level ground and with wheels raised clear of the ground**

	32.35 Ft + 9.85 Ft		
		 Lbs	
 R (Ft)	Max. 69°	6500	 R (Ft)
16	68.10	6500	16
18	64.80	5800	18
20	61.40	5100	20
22	57.70	4500	22
24	54.10	3900	24
26	50.40	3300	26
28	46.50	2900	28
30	42.40	2500	30
32	38.20	2300	32
34	33.20	2000	34
36	27.70	1800	36
38	19.60	1600	38
40	8.00	1400	40
--	0°	1300	--





**LOAD DEDUCTIONS:  
SEE NOTES 1 AND 2  
PAGE 9**



**D85i**

**FULLY TELESCOPIC BOOM FROM 11.55 Ft TO 25.40 Ft  
3 SECTION OR 4 SECTION  
WITH MANUAL SECTION RETRACTED**

**LOADS ON WHEELS - STATIC - OVER FRONT +/- 6°  
LMI CODE 01, 06**







 R (Ft)	11.55 Ft / 25.40 Ft		 R (Ft)
	 Max. 69°	 Lbs 16900	
5	16900	5	
6	14700	6	
8	11300	8	
10	8300	10	
12	5900	12	
14	4500	14	
16	3500	16	
18	2800	18	
20	2200	20	
22	1900	22	
23	1650	23	

**LOAD DEDUCTIONS:  
SEE NOTES 1 AND 2  
PAGE 9**

0 DEGREE	500
----------	-----

TIRE INFLATION BAR			
TIRE SIZE	LOADING	2.5 MPH	STATIC
255/70 R 22.5 H	125	125	125

**LOAD DEDUCTIONS:  
SEE NOTES 1 AND 2  
PAGE 9**

	11.55 Ft/ 25.40 Ft		
			
	Max. 69°	9700	
5	9700	5	
6	8400	6	
8	5500	8	
10	3700	10	
12	2700	12	
14	2000	14	
16	1600	16	
18	1300	18	
20	1000	20	
22	800	22	
23	650	23	

TIRE INFLATION BAR			
TIRE SIZE	LOADING	2.5 MPH	STATIC
255/70 R 22.5 H	125	125	125

3232Z433-A

23/30









**D85i**

**FULLY TELESCOPIC BOOM FROM 11.55 Ft TO 25.40 Ft  
3 SECTION OR 4 SECTION  
WITH MANUAL SECTION RETRACTED**

**LOADS ON WHEELS - 4 Km/HR - CENTERED OVER FRONT  
LMI CODE 00, 04**

 R (Ft)	11.55 Ft / 25.40 Ft		 R (Ft)
	 Max. 69°	 Lbs	
5	15900	5	
6	13800	6	
8	10700	8	
10	8300	10	
12	5900	12	
14	4500	14	
16	3500	16	
18	2800	18	
20	2200	20	
22	1900	22	
23	1650	23	



**LOAD DEDUCTIONS:  
SEE NOTES 1 AND 2  
PAGE 9**

0 DEGREE	0.20
----------	------

TIRE INFLATION BAR			
TIRE SIZE	LOADING	4 Km/HR	STATIC
255/70 R 22.5 H	125	125	125

## FULLY TELESCOPIC BOOM FROM 18.55 Ft TO 32.35 Ft 4 SECTION WITH MANUAL SECTION EXTENDED

LOADS ON WHEELS 360 DEGREES - STATIC  
LMI CODE 07

 R (Ft)	18.55 Ft / 32.35 Ft		 R (Ft)
	Max. 69°	Lbs 8400	
6	8400	6	
7	7200	7	
8	5800	8	
10	3900	10	
12	2900	12	
14	2300	14	
16	1800	16	
18	1400	18	
20	1100	20	
22	900	22	
24	800	24	
26	600	26	
28	500	28	

LOAD DEDUCTIONS:  
SEE NOTES 1 AND 2  
PAGE 9



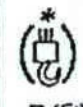

TIRE INFLATION BAR			
TIRE SIZE	ROADING	4 Km/HR	STATIC
255/70 R 22.5 H	125	125	125



**D85i**

**FULLY TELESCOPIC BOOM FROM 18.55 Ft TO 32.55 Ft  
4 SECTION WITH MANUAL SECTION EXTENDED**

**LOADS ON WHEELS 360 DEGREES - STATIC - OVER FRONT +/- 6 DEGREES  
LMI CODE 07**

18.55 Ft / 32.55 Ft		
		Lbs
Max. 69°		14800
		
R (F)		R (F)
6	14800	6
7	13200	7
8	11500	8
10	8700	10
12	6100	12
14	4600	14
16	3600	16
18	2900	18
20	2400	20
22	2000	22
24	1700	24
26	1500	26
28	1300	28
30	1100	30





**LOAD DEDUCTIONS:  
SEE NOTES 1 AND 2  
PAGE 9**

0 DEGREE	500
----------	-----

TIRE INFLATION BAR			
TIRE SIZE	ROADING	4 Km/HR	STATIC
255/70 R 22.5 H	125	125	125

## FULLY TELESCOPIC BOOM FROM 18.55 Ft TO 32.55 Ft 4 SECTION WITH MANUAL SECTION EXTENDED

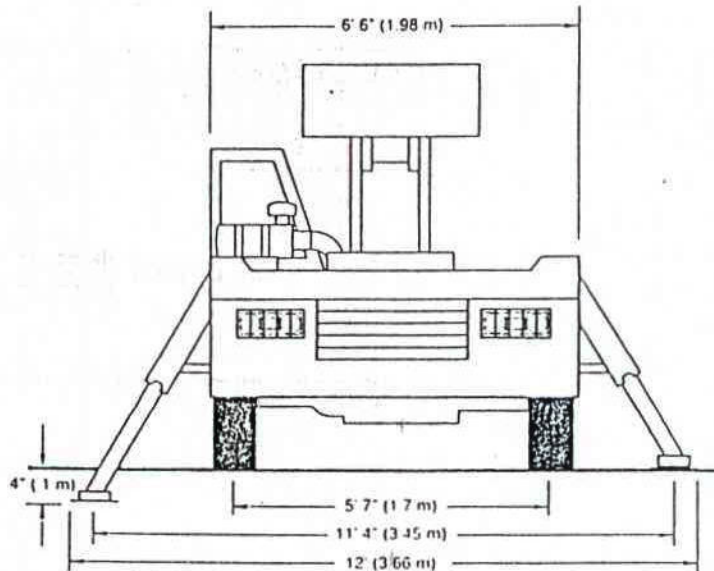
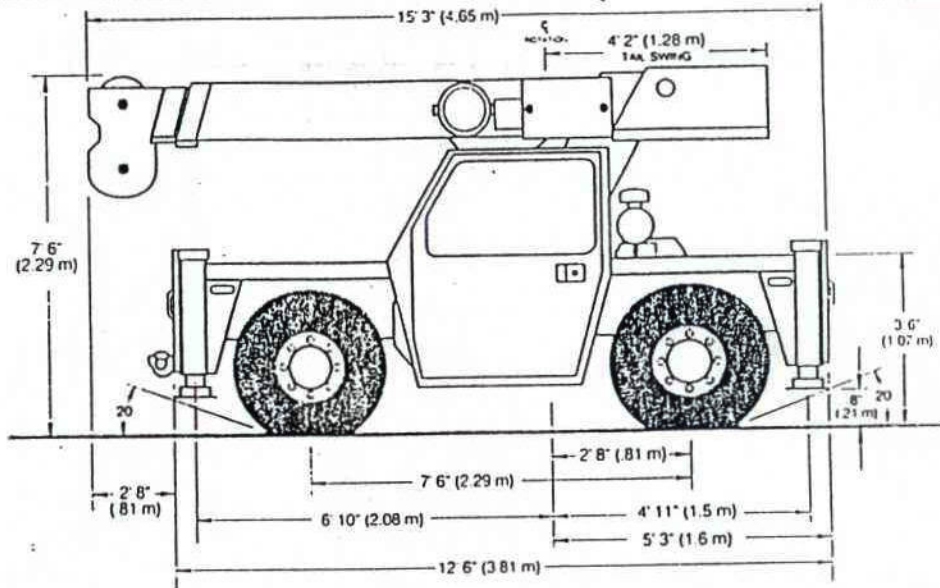
LOADS ON WHEELS - 4 Km/HR CENTERED OVER FRONT  
LMI CODE 06

18.55 Ft / 32.55 Ft			
			
Max.	13800		
69°			
R (m)		R (m)	
6	13800	6	
7	12300	7	
8	10900	8	
10	8700	10	
12	6100	12	
14	4600	14	
16	3600	16	
18	2900	18	
20	2400	20	
22	2000	22	
24	1700	24	
26	1500	26	
28	1300	28	
30	1100	30	

LOAD DEDUCTIONS:  
SEE NOTES 1 AND 2  
PAGE 9

0 DEGREE	500
----------	-----

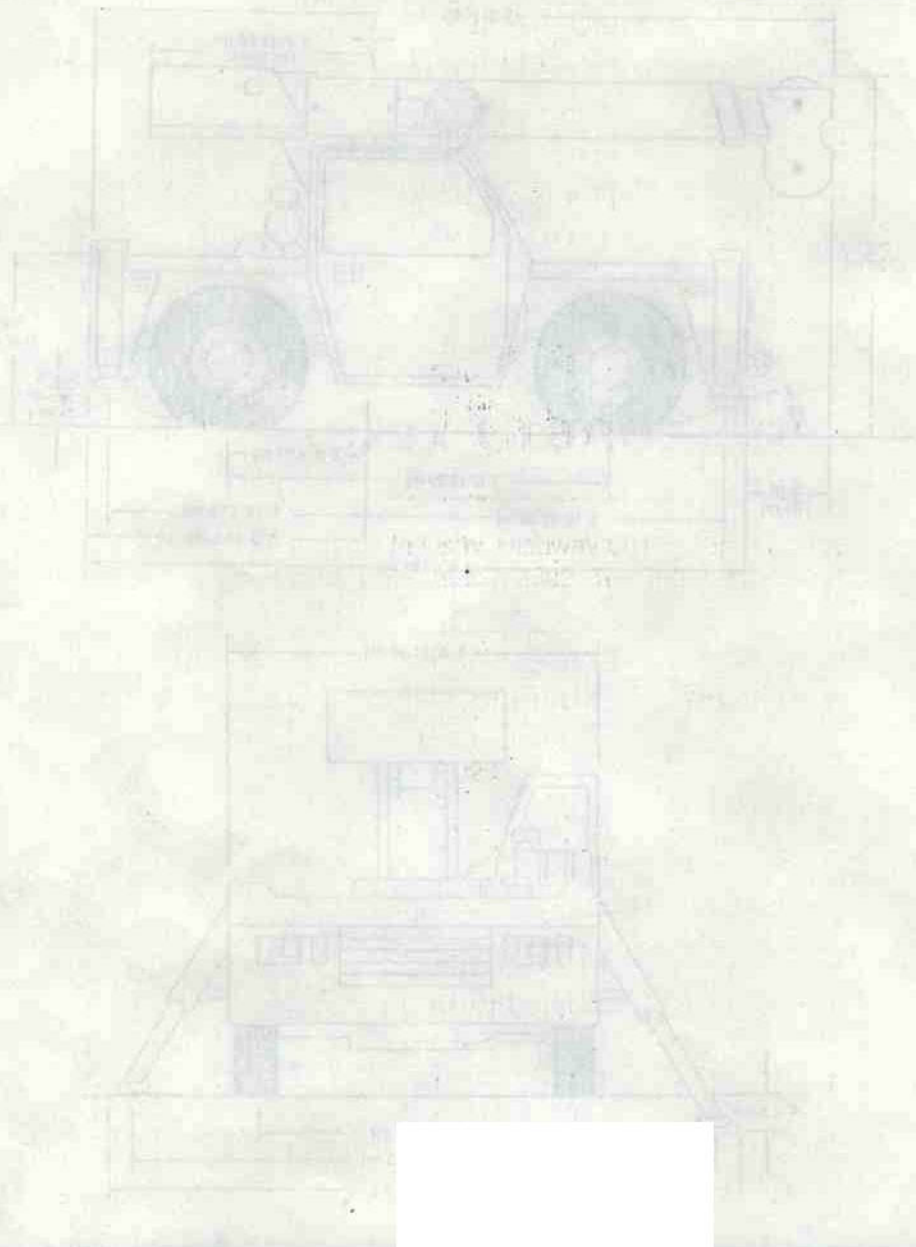
TIRE INFLATION BAR			
TIRE SIZE	ROADING	4 Km/HR	STATIC
255/70 R 22.5 H	8.62	8.62	8.62



HYDRAULIC DATA						
MACHINE DESIGNED TO OPERATE AT THESE MAXIMUM PRESSURE SETTING AND FLOW RATES.						
FUNCTION	TWO SECTION VALVE			TWO SECTION VALVE		
	INLET	SWING	BOOM TELES	INLET	MAIN WINCH	BOOM HOIST
PSI RELIEF SETTING	MAIN 2500	PORT 1200 RIGHT AND LEFT	PORT NONE	MAIN 2300	PORT NONE	PORT NONE
G.P.M. MAX FLOW	15	15	15	29	29	29
OUTRIGGER RELIEF - 2000 PSI - 15 GPM						
STEER RELIEF - 2000 PSI - 15 GPM - (CONTROLLED BY PRIORITY VALVE)						
FLOW RATES TO BE CHECKED AT 2750 ENGINE RPM - NO LOAD - HIGH SPEED						
PRESSURES TO BE CHECKED AT 2500 ENGINE RPM - GOVERNED SPEED						
HYDRAULIC OIL TEMPERATURE MUST BE BETWEEN PLUS 70° AND 100° WHEN SETTING OF ABOVE PRESSURES. DO NOT HOLD ON RELIEF MORE THAN 10 SECONDS TO AVOID OVERHEATING THE OIL AND HYDRAULIC COMPONENT DAMAGE.						

1530

TEREX



**Terex Cranes, Inc.**

Atlantic Center for Business & Industry, Highway 501E, Conway SC 29526

Mailing Address: P.O. Box 260002, Conway, SC 29526-2602, Tel.: (803) 349-6900 • Fax (803) 349-6980

3232U283\_C