



MODEL 8460 165 TON TRUCK CRANE

77L HAMMERHEAD BOOM RATINGS

With 68,000 Lb "A-B" Counterweight Extended

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows for 50, 60, 70, 80, 90, 100, 110 feet booms.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows for 110, 120, 130, 140, 150 feet booms.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows for 150, 160, 170, 180, 190 feet booms.

(continued)



77L HAMMERHEAD BOOM RATINGS (Cont.)

With 68,000 Lb "A-B" Counterweight Extended

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows include 190 foot (cont.), 200 foot, and 210 foot.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows include 210 foot (cont.), 220 foot, and 210 foot.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows include 230 foot, 240 foot, and 240 foot.

8460.01

77L HAMMERHEAD BOOM RATINGS

With 68,000 Lb "A-B" Cwt. Retracted

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Free (Over Side, Over Rear), Ft. From Boom Point. Rows include 50 foot, 60 foot, 70 foot, and 80 foot.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Free (Over Side, Over Rear), Ft. From Boom Point. Rows include 90 foot, 100 foot, and 100 foot.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Free (Over Side, Over Rear), Ft. From Boom Point. Rows include 110 foot, 120 foot, and 120 foot.

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NOTE: Counterweight may be hydraulically extended or retracted. The normal operating condition is with the counterweight extended. When working over the side on rubber the counterweight may be retracted to improve back stability and enable the operator to work at shorter radii.



77L TAPERED TIP BOOM RATINGS

With 68,000 Lb "A-B" Counterweight Extended

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows include 80, 90, 100, 110, 120, and 130 foot booms.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows include 140, 150, 160, 170, and 180 foot booms.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows include 180 foot cont., 190, 200, and 220 foot booms.

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TRUCK CRANES

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77L TAPERED TIP BOOM RATINGS (Cont)

With 68,000 Lb "A-B" Counterweight Extended

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows include 220, 230, 240, and 250 foot booms.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows include 250, 260, and 270 foot booms.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, Outriggers Set (Over Side, Over Rear), Ft. From Boom Point. Rows include 270, 280, and 290 foot booms.

8460.02

LOAD HOISTING DATA

Table with columns: Max. Lifting Capacity in Pounds, Min. Parts of Load Line, Max. Hoisting Distance (Main (R.H.) Drum, Aux. (L.H.) Drum). Rows show capacity vs. distance.

Based on 1" EIPS Rope

77L TAPERED TIP BOOM RATINGS

With 68,000 Lb "A-B" Cwt. Retracted

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, OUTRIGGERS FREE (Over Side, Over Rear), Ft. From Boom Point. Rows include 80, 90, and 100 foot booms.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, OUTRIGGERS FREE (Over Side, Over Rear), Ft. From Boom Point. Rows include 110 and 120 foot booms.

Table with columns: Boom Length, Radius In Feet, Boom Angle Degrees, OUTRIGGERS FREE (Over Side, Over Rear), Ft. From Boom Point. Rows include 120 and 130 foot booms.

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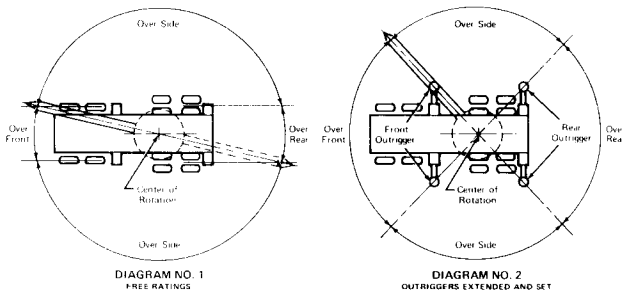
## CRANE RATING DATA

Load ratings are in pounds and do not exceed 85% of the load which would cause tipping with crane standing level on firm uniformly supporting surface. Safe loads depend on ground conditions, boom length, radius of operation, condition and inflation (130 PSI) of tires and proper handling, all of which must be taken into consideration by user. Ratings in shaded areas are based on structural limitations rather than stability. Approved working areas "Free Over Side" and "Free Over Rear" are shown under Diagram No. 1. Approved working areas "Outriggers Extended and Set Over Side or Rear" are shown under Diagram No. 2. Lifting is approved only in those areas for which ratings are shown in the rating chart.

"Radius in feet" is the horizontal distance at crane base level from center pin to a vertical line through the center of gravity of the suspended load. Blocks, slings, buckets, and other load carrying devices are considered part of the load. The weight of standard hoisting ropes has been calculated as part of the boom point dead load and need not be considered in determining net allowable loads. Retractable A-frame must be in fully raised position for all ratings.

Main load line is 1 inch diameter with a minimum breaking strength of 103,400 pounds. Boom suspension line 3/4 inch diameter with minimum breaking strength of 58,800 lb. Boom suspension pendants 1-1/4 inch diameter with minimum breaking strength of 175,800 lb.

Compliance to B30.5 based on American Carrier Mounting.



## BOOM AND JIB ERECTION†

With Front Bumper Counterweight 18,000 Pounds

BOOM LENGTH	NO. 16HL JIB	NO. 9HL JIB
280' 77L Tapered Tip	—	—
270' 77L Tapered Tip	80'	80'
260' 77L Tapered Tip	100'	80'
240' 77L Hammerhead	—	—
230' 77L Hammerhead	70'	80'
220' 77L Hammerhead	80'	80'

Without Front Bumper Counterweight

BOOM LENGTH	NO. 16HL JIB	NO. 9HL JIB
280' 77L Tapered Tip	—	—
260' 77L Tapered Tip	—	40'
250' 77L Tapered Tip	50'	60'
240' 77L Tapered Tip	80'	80'
230' 77L Hammerhead	—	—
210' 77L Hammerhead	60'	70'
200' 77L Hammerhead	80'	80'

Front bumper counterweight to be used for erection only. †Self-erection over the rear with "A-B" (68,500 lb) counterweight extended and outriggers extended and set.

## PERFORMANCE

SWING SPEED ..... 3.5 RPM Maximum

### SINGLE LINE SPEED:

#### Main and Auxiliary Hoist Drums

Low speed — bottom layer	93 FPM
Low speed — top layer	142 FPM
High speed — bottom layer	189 FPM
High speed — top layer	282 FPM

#### Auxiliary Third Drum

Low speed — bottom layer	142 FPM
Low speed — top layer	192 FPM
High speed — bottom layer	272 FPM
High speed — top layer	368 FPM

### SINGLE LINE PULL:

#### Main and Auxiliary Hoist Drums

Low speed — bottom layer	45,000 lbs. SLP
Low speed — top layer	30,000 lbs. SLP
High speed — bottom layer	22,500 lbs. SLP
High speed — top layer	15,000 lbs. SLP

#### Auxiliary Third Drum

Low speed — bottom layer	37,300 lbs. SLP
Low speed — top layer	29,600 lbs. SLP
High speed — bottom layer	18,650 lbs. SLP
High speed — top layer	14,800 lbs. SLP

### BOOM SPEED:

Time to raise 50 ft. boom from ground to minimum radius	1.9 minutes
Time to lower 50 ft. boom from minimum radius to ground	1.67 minutes

## BOOM COMPOSITION

### 77L Tubular Hammerhead Boom

Boom Length In Feet	30 Ft 77L Inner	10 Ft 77S Center	20 Ft 77S Center	50 Ft 77L Center	20 Ft 77L Outer Base	Hammerhead
50	1	—	—	—	1	1
60	1	1	—	—	1	1
70	1	—	1	—	1	1
80	1	1	1	—	1	1
90	1	—	2	—	1	1
100	1	—	—	1	1	1
110	1	1	—	1	1	1
120	1	—	1	1	1	1
130	1	1	1	1	1	1
140	1	—	2	1	1	1
150	1	—	—	2	1	1
160	1	1	—	2	1	1
170	1	—	1	2	1	1
180	1	1	1	2	1	1
190	1	—	2	2	1	1
200	1	—	—	3	1	1
210	1	1	—	3	1	1
220	1	—	1	3	1	1
230	1	1	1	3	1	1
240	1	—	2	3	1	1

### 77L Tubular Tapered Tip Boom

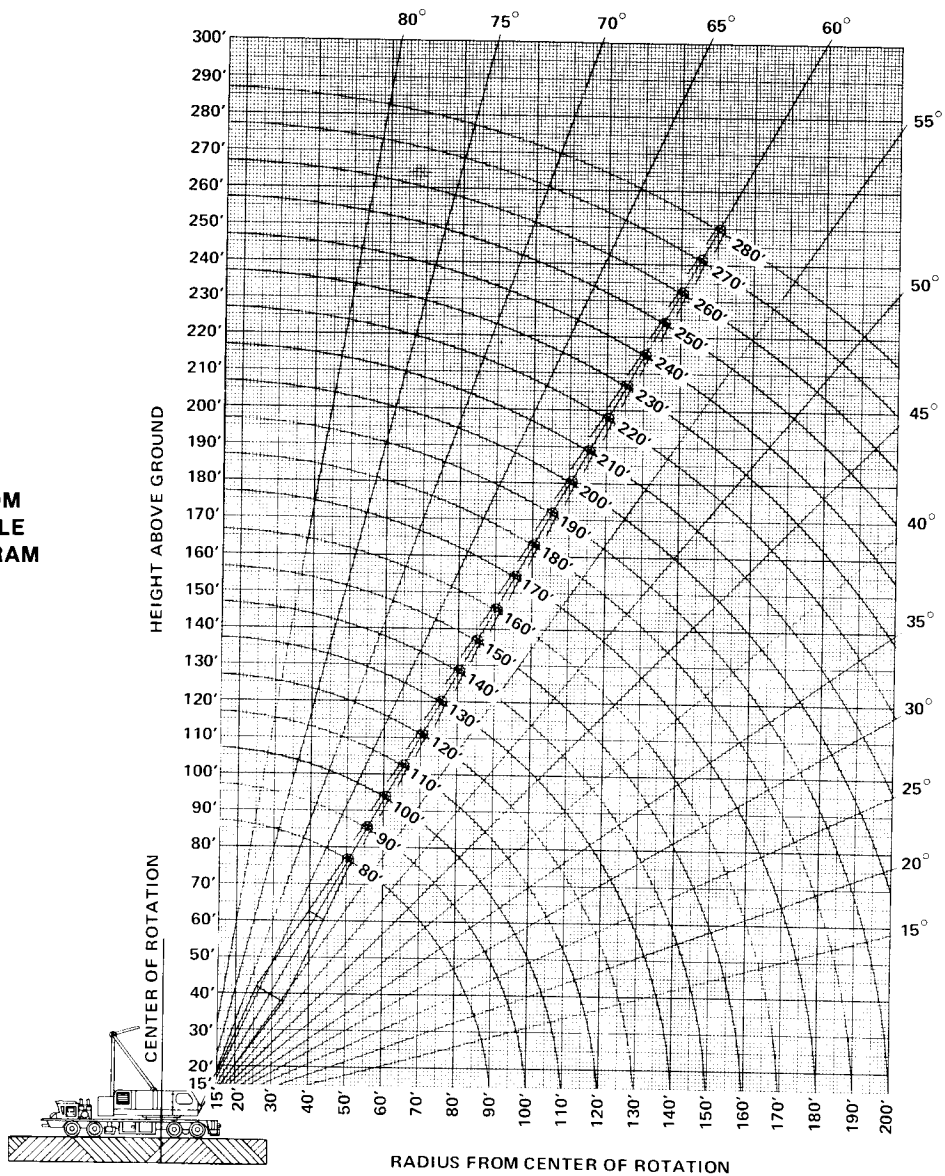
Boom Length In Feet	30 Ft 77L Inner	10 Ft 77S Center	20 Ft 77S Center	50 Ft 77L Center	20 Ft 77L Outer Base	30 Ft 77L Tapered Tip
80	1	—	—	—	1	1
90	1	1	—	—	1	1
100	1	—	1	—	1	1
110	1	1	1	—	1	1
120	1	—	2	—	1	1
130	1	—	—	1	1	1
140	1	1	—	1	1	1
150	1	—	1	1	1	1
160	1	1	1	1	1	1
170	1	—	2	1	1	1
180	1	—	—	2	1	1
190	1	1	—	2	1	1
200	1	—	1	2	1	1
210	1	1	1	2	1	1
220	1	—	2	2	1	1
230	1	—	—	3	1	1
240	1	1	—	3	1	1
250	1	—	1	3	1	1
260	1	1	1	3	1	1
270	1	—	2	3	1	1
280	1	—	—	4	1	1

NOTE: In accordance with varying material situations, and the Company's policy of constant product improvement, these specifications subject to change without notice and without incurring responsibility to units previously sold.



# AMERICAN MODEL 8460 TRUCK CRANE WORKING RANGES

BOOM ANGLE DIAGRAM



5JR784

FORM NO. 8460-TR-1

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TRUCK CRANES

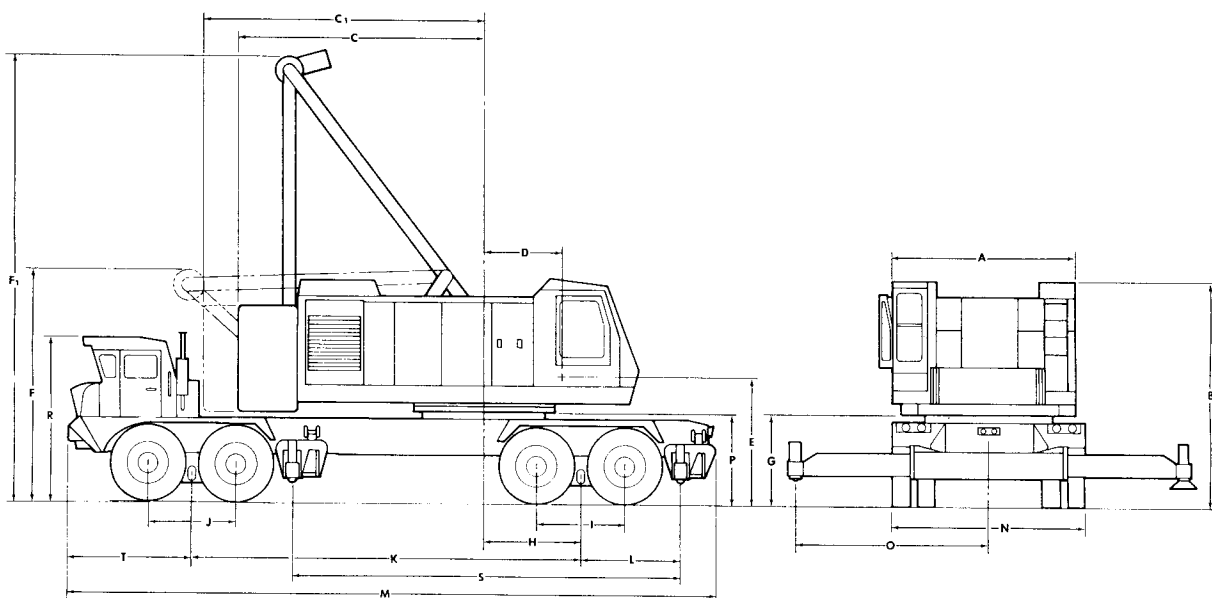
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# 8460 CARRIER SPECIFICATIONS



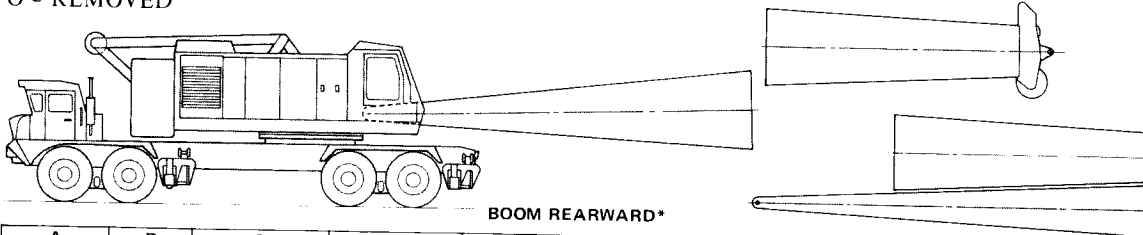
## GENERAL DIMENSIONS

A.	Width of cab	10' 4"	K.	Centerline of rear bogie to centerline of front bogie	22' 0"
B.	Height to top of cab	13' 0"	L.	Centerline of rear bogie to centerline of rear outrigger	6' 3-3/4"
C.	Tailswing - Cwt. Retracted	14' 0"	M.	Overall length	37' 1-3/4"
C <sub>1</sub> .	Tailswing - Cwt. Extended	16' 0"	N.	Overall width	11' 0"
D.	Centerline of rotation to centerline of boom foot	4' 6"	O.	Outriggers extended	11' 0"
E.	Ground to centerline boom foot	7' 2-3/4"	P.	Height over mounting plate	5' 0-1/2"
F.	Height over A-Frame (lowered)	13' 2"	R.	Height over carrier cab	9' 4"
F <sub>1</sub> .	Height over A-Frame (raised)	25' 2"	S.	Centerline or rear outrigger to centerline of front outrigger	22' 0"
G.	Ground to bottom of counterweight	5' 3-1/2"	T.	Distance from Front Bogie to Front Bumper	7' 2-1/2"
H.	Centerline of rotation to centerline of rear bogie	5' 6 1/4"		Turning radius	65' 0"
I.	Distance between rear axles	5' 0"		Clearance (under rear equalizing beam)	7-1/2"
J.	Distance between front axles	5' 0"		Clearance (under rear differential)	12"



# 8460 TRAVELING WEIGHTS

X = IN PLACE  
O = REMOVED



BOOM REARWARD\*

A TAPER TIP FOLDED	B BLOCK	C OUTER BOOM HAMMERHEAD	D INNER BOOM	E COUNTER- WEIGHT	F FRONT OUTRIGGER	G REAR OUTRIGGER	FRONT TANDEM (LB)	REAR TANDEM (LB)	GROSS WEIGHT (LB)
O	X	X	X	X	X	X	77410	136080	213500
O	O	X	X	X	X	X	81870	129630	211490
X	O	O	X	X	X	X	91760	116190	207950
O	X	X	X	O	X	X	21960	123040	145000
O	O	X	X	O	X	X	26410	116580	142990
X	O	O	X	O	X	X	36310	103150	139460
O	X	X	X	O	O	X	14250	119940	134190
O	O	X	X	O	O	X	18710	113490	132200
X	O	O	X	O	O	X	28610	100050	128660
O	X	X	X	O	X	O	25050	109140	134190
O	O	X	X	O	X	O	29510	102690	132200
X	O	O	X	O	X	O	39410	89250	128660
O	X	X	X	O	O	O	17350	106040	123390
O	O	X	X	O	O	O	21810	99590	121400
X	O	O	X	O	O	O	31700	86150	117850
O	O	O	X	X	X	X	97680	106130	203810
O	O	O	X	O	X	X	42220	93090	135310
O	O	O	X	O	O	X	34520	89990	124510
O	O	O	X	O	X	O	45320	79190	124510
O	O	O	X	O	O	O	37620	76090	113710
O	O	O	O	X	X	X	105350	89260	194610
O	O	O	O	O	X	X	49890	76220	126110
O	O	O	O	O	O	X	42190	73120	115310
O	O	O	O	O	X	O	52990	62320	115310
O	O	O	O	O	O	O	45290	59220	104510

\*NOTE: In all conditions the traveling weights for the front and rear tandem are more equally balanced with the boom foot facing the rear of the carrier. EXAMPLE: With boom foot facing forward and items A thru G removed; front tandem = 25,160; rear tandem = 79,350; gross weight 104,510.

NOTE: Due to back stability, full counterweight must not be swung over side of machine without outriggers extended and set.

## ADDITIONAL WEIGHT REDUCTION

ITEM	TOTAL WEIGHT ADJUSTMENT (LB)	EFFECT PER ITEM		ITEMS REMOVED	FRONT TANDEM (LB)	REAR TANDEM (LB)	GROSS WEIGHT (LB)
		FRONT TANDEM (LB)	REAR TANDEM (LB)				
H—Counterweight Beams Rollers and Pins	2,380	-1560	- 820	A thru H	43,730	58,400	102,130
J—Laggings and Ropes, Main Hoist Drums	4,770	-1430	-3340	A thru J	42,300	55,060	97,360
K—Retractable A-Frame	4,700	-4070	- 630	A thru K	38,230	54,430	92,660
L—25% Full Upper Fuel Tank ... Was 50% Full	200	- 130	- 70	A thru L	38,100	54,360	92,460
M—Modular Operator's Cab	470	- 0	- 470	A thru M	38,100	53,890	91,990
Carrier with outriggers and swing bearing — less upper					27525	49555	77080
Carrier with swing bearing — less upper and outriggers					22920	32560	55480

NOTE: Because of variable manufacturing tolerances a variance of ±3% should be allowed on these weights.

SEE OPERATOR'S MANUAL FOR MAXIMUM MPH TRAVEL SPEED RESTRICTIONS AS LIMITED BY TIRE LOADS.





# 8460 CARRIER SPECIFICATIONS

Specifications for AMERICAN MODEL 8460, 165 ton, 264" wheelbase, 8 x 4 carrier.

**FRAME:** Box welded frame members designed and manufactured to provide adequate support for crane weight and capacities; high strength alloy steel used throughout the construction of the carrier; tow bars are provided front and rear.

**HYDRAULIC OUTRIGGERS:** Two independent housings fabricated from 100,000 PSI yield steel; outrigger beams with horizontal and vertical hydraulic movements; automatic check and manual shutoff valves in hydraulic jacks to assure maximum safety for all lifts; hardened chrome plated rams, fitted with 42" dia. spun high strength steel floats, pin connected and removable; maximum stroke of vertical jacks is 12 inches; maximum lift under floats is 7 inches; outrigger controls for RH outriggers on RH side of carrier and controls for LH outriggers on LH side.

**ENGINE:** Detroit Diesel (GM) 8V-71-N Model No. 7087-7040 diesel engine, 8 cylinder, 4-1/4" bore x 5" stroke, 568 cu. in. displacement, rated 318 HP at 2100 RPM.

**OPTIONAL ENGINE:** Cummins NTC-350 diesel engine, 6 cylinder, 5-1/2" bore x 6" stroke, 855 cu. in. displacement, rated 350 HP at 2100 RPM thermostatically controlled radiator shutters.

**FUEL TANK:** One 125 (U.S.) gallon safety fuel tank.

**ELECTRICAL:** 12 volt system; 500 watt alternator; 2 - 8D 12 volt batteries.

**POWER STEERING:** Garrison twin-ram hydraulic power steering with Ross cam, 20" dia. steering wheel.

**CLUTCH:** Spicer AS 1402, two plate, dry type, angle spring clutch hydraulically actuated.

**MAIN TRANSMISSION:** Fuller Model T955ALL modified to give 5 + 1 speeds forward and 1 + 1 reverse.

**RATIOS:**

Low . . . . .	26.54:1	Fourth . . . . .	1.16:1
First . . . . .	6.35:1	Fifth . . . . .	1.00:1
Second . . . . .	3.75:1	Reverse . . . . .	6.48:1
Third . . . . .	2.04:1	Reverse Low . . . . .	27.09:1

**AUXILIARY TRANSMISSION:** Spicer Model 1241C, Four Speed.

**RATIOS:**

First . . . . .	2.37:1
Second . . . . .	1.24:1
Third . . . . .	1.00:1
Fourth . . . . .	0.81:1

**FRONT AXLES:** Shuler FTCA-34-L-30 in tandem. 48,000# highway capacity.

**REAR AXLES:** Clark planetary 91000 tandem assembly, non-spin differential on leading axle; ratio 9.00:1

**SUSPENSION:** Hendrickson solid mount with rubber bushed torque rods front and rear.

**PROPEL SHAFT:** Spicer 1710 Series and 1810 Series.

**SERVICE BRAKES:** Air on all wheels with 14.5 C.F.M. air compressor and two reservoirs; lining area 20" x 7" (1000 sq. in.) rear; 17-1/2" x 4" (495 sq. in.) front; 1495 sq. in. total lining area.

**EMERGENCY BRAKES:** Spring set, air release system on both rear axles with operator's control on dash panel; air reservoir for release of spring set chambers.

**WHEELS:** Cast spoke front; rear integrally cast with axles; 10.00 x 24 rims.

**TIRES:** Michelin 14:00 x 24 XRB — Three Star.

**CAB:** One man cab 32" wide; fully enclosed offset to left side; hinged and removable panel for engine access; air cushion driver's seat.

**STANDARD EQUIPMENT:** West Coast type mirrors, air windshield wiper, windshield washer, heater, defroster, sealed beam oval headlights, front and rear directional signals, combination stop and taillights, backup lights, clearance lights on cab top and side, electrical and air horns, seat belts, dome light, indirect lighted instrument panel, speedometer, ammeter, fuel gauge, engine temperature indicator, air pressure gauge, oil pressure gauge, low air pressure warning signal, and tachometer.

### OPTIONAL ACCESSORIES:

- A. Remote control
- B. Ether cold weather starting kit
- C. Spare tire & rim
- D. Engine brake
- E. Full length fenders
- F. Side mounted storage box
- G. Float racks
- H. Heavy duty front axles

### PERFORMANCE:

Maximum Governed Speed . . . . .	45 MPH
Minimum Speed (1000 RPM) . . . . .	0.26 MPH
Maximum Gradeability (Off Highway With CTWT) . . . . .	25%

NOTE: In accordance with varying material situations, and the Company's policy of constant product improvement, these specifications subject to change without notice and without incurring responsibility to units previously sold.