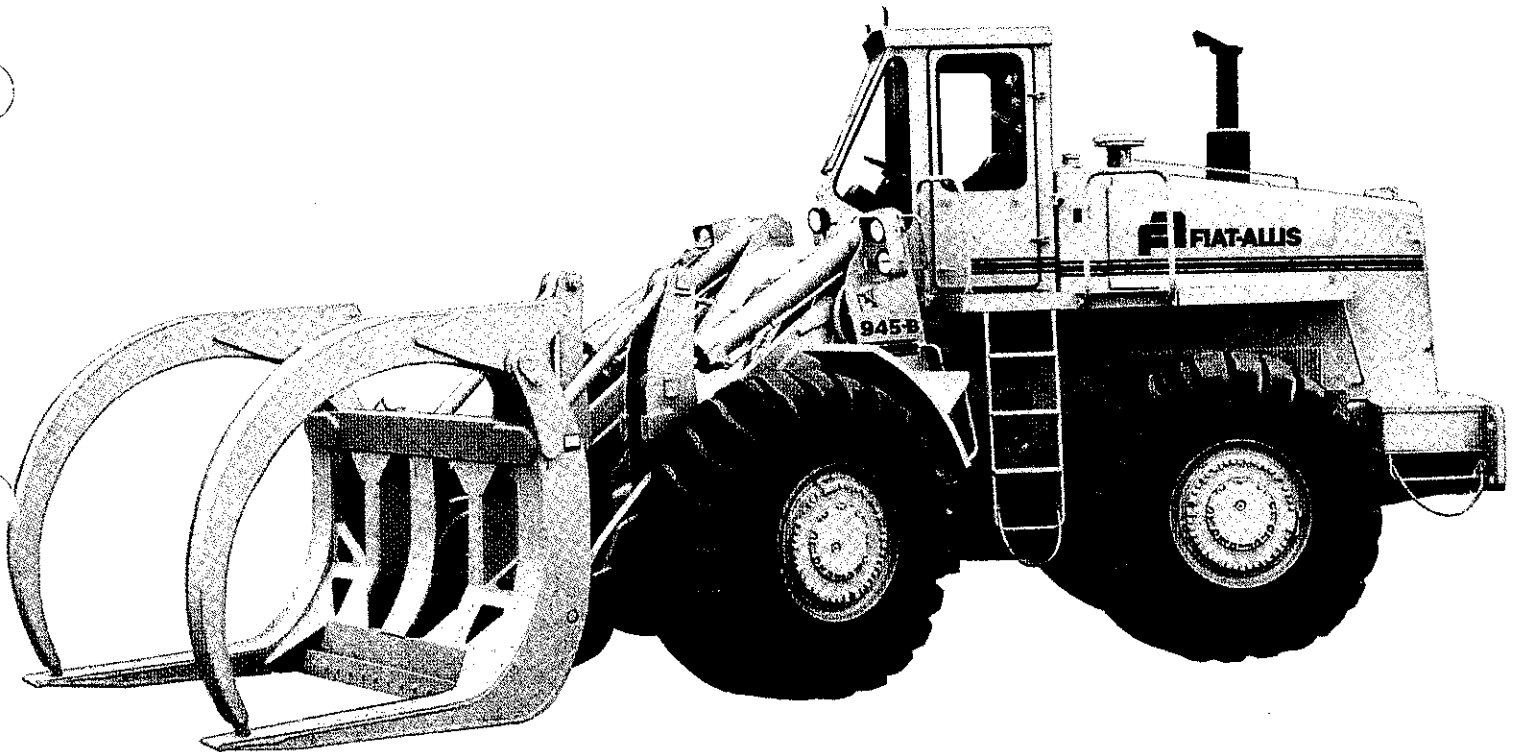




945-B LOG LOADER



945-B

Illustration includes
optional equipment.

POWER

- Flywheel horsepower — 335
- Kilowatts — 250
- Allis-Chalmers 25000 Mark II diesel engine

TRANSMISSION AND CONTROLS

- Single lever transmission control on steering column
- SOF-SHIFT transmission for smooth, fast directional changes
- Twin-turbine torque converter for constant matching of rimpull to workload needs

OPERATING FEATURES

- Demand steering for positive response at all engine speeds
- 45° articulation
- Torque proportioning differentials
- Long wheelbase, 143" (3759 mm)
- Wide tread, 96" (2438 mm)

SERVICEABILITY

- Easy ground level access to:
 - engine
 - batteries
 - fuel tank
 - transmission

LOADING ABILITY

- Pilot-operated control valves
- Responsive tandem-mounted gear type pump

BRAKE SYSTEMS

- Service — full air-actuated, dual system, transmission disconnect actuated by left pedal
- Emergency — independent brake valves
- Parking — fail safe drum brake on drive line, dash mounted control operates fail safe spring actuator

945-B LOG LOADER SPECIFICATIONS



ENGINE

Flywheel horsepower	335
Kilowatts	250
Make and Model	Allis-Chalmers 25000 Mark II
Type	Diesel, 4 cycle, turbocharged intercooled, direct injection
Governed RPM	2100
Number of cylinders	6
Bore & Stroke	5.25" x 6.5" (133 x 165 mm)
Displacement	844 cu. in. (13.8 lit)

*Net flywheel horsepower available at the flywheel of the vehicle engine under SAE standard conditions of 85° F. (29° C) and 29.38" (746 mm) hg. after deductions have been made for fan, alternator, compressor, lube oil pump, water pump, air cleaner, fuel pump and muffler. This vehicle may be operated up to 7,500 ft. (2,286 mm) altitude without derating the engine.

*The International System of Units for power. One (1) horsepower equals 0.746 kilowatt in U.S.A. units.



TORQUE CONVERTER

Type	Twin-turbine
Torque multiplication	4.7 to 1



TRANSMISSION

Type	Power shift planetary		
Forward speeds	mph	km/hr	
1	2.6	4.2	
2	5.1	8.2	
3	9.6	15.5	
4	20.0	32.2	
Reverse speeds			
1	2.8	4.5	
2	5.6	9.0	
3	10.5	16.9	
4	21.9	35.2	

SOF-SHIFT transmission permits full power directional shift changes in low ranges for fast cycle time. Shift from 1st to 2nd and 3rd to 4th is automatic.



AXLES

Planetary reduction at wheel end. Axle shafts removable independent of wheel and planetary. Torque proportioning differentials. Axle housing integral to loader frame.

Rear axle oscillation	22°
Inches vertical travel	18" (465 mm)



BRAKE SYSTEMS

Service — full air actuated, dual system. Transmission disconnect actuated by left pedal.

Emergency — independent brake valves.

Parking — fail safe drum brake on drive line, dash-mounted control operates fail safe spring actuator.



OPTIONAL LOGGING TIRES

Type and Size	29.5 x 29 (34) L3 Tires
	29.5 x 29 (34) L4 Tires



ELECTRICAL SYSTEM

Voltage	24V
Standard alternator	30 amp
Battery amp/hour rating	220
System protected by circuit breakers.	



LOADER HYDRAULIC SYSTEM

Type	Sealed system
Cylinders	Double acting
Lift (2)	8.5" x 38.0" (216 x 965 mm)
Dump (2)	6.5" x 50.0" (165 x 1270 mm)
Pump	Gear type tandem-mounted
Capacity @ governed rpm	135.0 gpm (511.0 lit/min)
Control valve	Two spool pilot-operated standard. Three spool pilot operated optional
Relief valve pressure	2,500 psi (176 kg/cm²)
Lift time	7.7 sec.
Lower time	4.9 sec.
Dump time	3.6 sec.



STEERING SYSTEM

Type	Demand
Cylinders	Two double acting
Bore & Stroke	4.5" x 21.25" (114 x 540 mm)
Pump	Gear type
Capacity @ governed rpm	55.0 gpm (208 lit/min)
With demand valve interconnection to loader hydraulic system.	



FILTRATION SYSTEMS

ENGINE	
Lube oil	Full flow 25 micron
Fuel	Full flow 5 micron
Air cleaner	Dry type w/safety element
Coolant	Filter conditioner
TRANSMISSION - TORQUE CONVERTER	
Lube oil	Full flow 10 micron
HYDRAULIC	
Oil	Full flow 10 micron
	Full flow magnetic

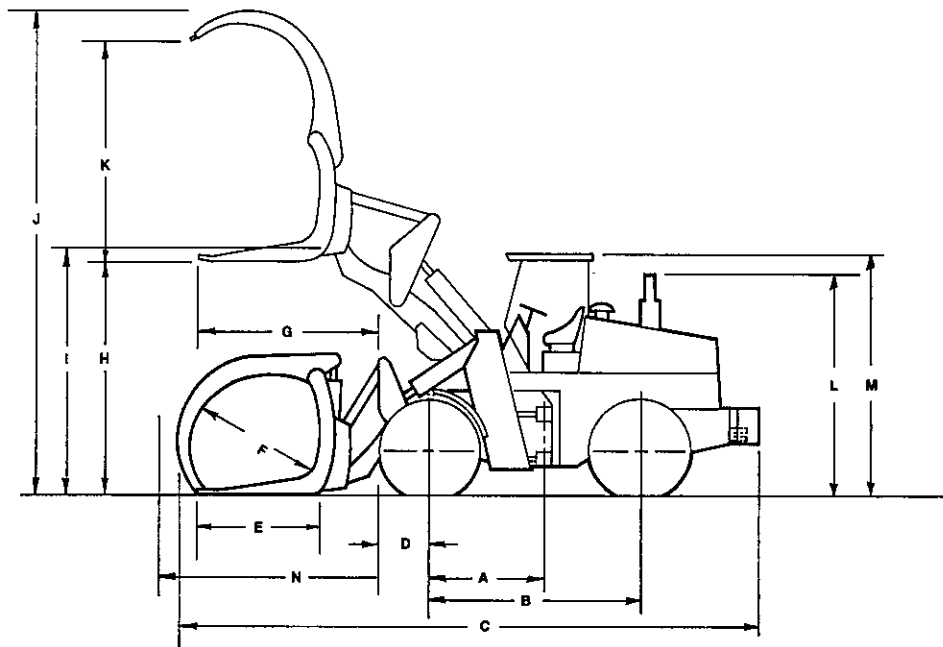


CAPACITIES

ENGINE	
Lube oil	11.75 U.S. gal. (44.5 lit)
Coolant	25.0 U.S. gal. (94.6 lit)
Fuel tank	160.0 U.S. gal. (605.6 lit)
TRANSMISSION	14.0 U.S. gal. (53.0 lit)
HYDRAULIC SYSTEM	144 U.S. gal. (545.1 lit)
AXLES	60.0 U.S. gal. (227.1 lit)

DIMENSIONS

Forks	
72" (1829 mm)	
a -	8' 2" (1880 mm)
b -	12' 4" (3759 mm)
c -	31' 11" (9728 mm)
d -	3' 5" (1041 mm)
e -	6' 0" (1829 mm)
f -	5' 9" (1753 mm)
g -	8' 8" (2642 mm)
h -	13' 10" (4216 mm)
i -	14' 5" (4394 mm)
j -	26' 5" (8052 mm)
k -	11' 10" (3607 mm)
l -	13' 1" (3988 mm)
m -	13' 4" (4064 mm)
n -	11' 1" (3378 mm)



DIMENSIONS

Forks	
84" (2134 mm)	
a -	6' 2" (1880 mm)
b -	12' 4" (3759 mm)
c -	33' 0" (10058 mm)
d -	3' 5" (1041 mm)
e -	7' 0" (2134 mm)
f -	7' 2" (2184 mm)
g -	9' 8" (2946 mm)
h -	13' 10" (4216 mm)
i -	14' 5" (4394 mm)
j -	27' 7" (8407 mm)
k -	12' 0" (3658 mm)
l -	13' 1" (3988 mm)
m -	13' 4" (4064 mm)
n -	12' 1" (3683 mm)

PERFORMANCE DATA

Weight of fork (grapple)
 Width of fork (grapple)
 Turning radius @ 22" (559 mm) carry
 over tires
 over tires
 Load center of fork (grapple)
 Tipping loads*
 Straight ahead
 35° articulation
 40° articulation
 45° articulation
 Operating weight*

72" Fork (Medford)

7,000 lbs. (3175 kg)
 9' 0" (2743 mm)

 20' 2" (6147 mm)
 22' 7" (6883 mm)
 36" (914 mm)

 41,598 lbs. (18870 kg)
 36,798 lbs. (16690 kg)
 35,395 lbs. (16055 kg)
 33,843 lbs. (15350 kg)
 72,647 lbs. (32952 kg)

84" Fork (Medford)

8,000 lbs. (3629 kg)
 9' 0" (2743 mm)

 20' 2" (6147 mm)
 23' 7" (7188 mm)
 42" (1067 mm)

 38,853 lbs. (17623 kg)
 34,269 lbs. (15544 kg)
 32,929 lbs. (14936 kg)
 31,447 lbs. (14264 mm)
 73,647 lbs. (33406 mm)

OPTIONAL EQUIPMENT PERFORMANCE DATA

WEIGHT

72" Fork Performance Adjustment

0° 35° 40° 45°

84" Fork Performance Adjustment

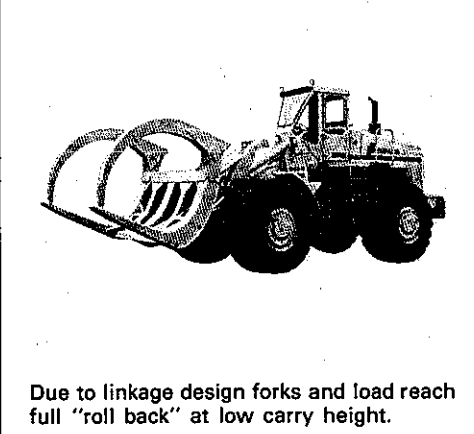
0° 35° 40° 45°

		0°	35°	40°	45°	0°	35°	40°	45°
29.5 x 29 (34) L4 Tires	1100 lbs. (499 kg)	+695 lbs. (315 kg)	+678 lbs. (308 kg)	+672 lbs. (305 kg)	+666 lbs. (302 kg)	661 lbs. (300 kg)	644 lbs. (292 kg)	639 lbs. (290 kg)	632 lbs. (287 kg)
29.5 x 29 (34) L3 Tires w/75% CaCl ₂ in rear	4550 lbs. (2064 kg)	+4762 lbs. (2160 kg)	+4288 lbs. (1945 kg)	4150 lbs. (1882 kg)	3997 lbs. (1813 kg)	4555 lbs. (2066 kg)	4103 lbs. (1861 kg)	3971 lbs. (1801 kg)	3827 lbs. (1736 kg)
29.5 x 29 (34) L4 Tires w/75% CaCl ₂ in rear	5650 lbs. (2563 kg)	5457 lbs. (2475 kg)	4966 lbs. (2253 kg)	4822 lbs. (2187 kg)	4663 lbs. (2115 kg)	5216 lbs. (2366 kg)	4747 lbs. (2153 kg)	4610 lbs. (2091 kg)	4459 lbs. (2023 kg)
**Counterweight (not to be used w/ CaCl ₂ in rear tires)	3600 lbs. (1633 kg)	5232 lbs. (2373 kg)	4577 lbs. (2076 kg)	4386 lbs. (1989 kg)	4175 lbs. (1894 kg)	5004 lbs. (2270 kg)	4378 lbs. (1986 kg)	4196 lbs. (1903 kg)	3995 lbs. (1812 kg)
ROPS CANOPY	920 lbs. (417 kg)	588 lbs. (267 kg)	557 lbs. (253 kg)	548 lbs. (249 kg)	537 lbs. (244 kg)	563 lbs. (255 kg)	533 lbs. (242 kg)	524 lbs. (238 kg)	514 lbs. (233 kg)
ROPS CAB	1410 lbs. (640 kg)	883 lbs. (401 kg)	839 lbs. (381 kg)	826 lbs. (375 kg)	812 lbs. (368 kg)	845 lbs. (383 kg)	803 lbs. (364 kg)	791 lbs. (359 kg)	777 lbs. (352 kg)
GUARD GROUP COMPLETE	550 lbs. (249 kg)	344 lbs. (156 kg)	317 lbs. (144 kg)	310 lbs. (141 kg)	302 lbs. (137 kg)	329 lbs. (149 kg)	304 lbs. (138 kg)	297 lbs. (135 kg)	289 lbs. (131 kg)
Deduction for 7,900 lb. counterweight removal	-7900 lbs. (3583 kg)	-12818 lbs. (5814 kg)	-11101 lbs. (5035 kg)	-10600 lbs. (4808 kg)	-10048 lbs. (4558 kg)	-12260 lbs. (5561 kg)	-10621 lbs. (4818 kg)	-10143 lbs. (4601 kg)	-9616 lbs. (4362 kg)

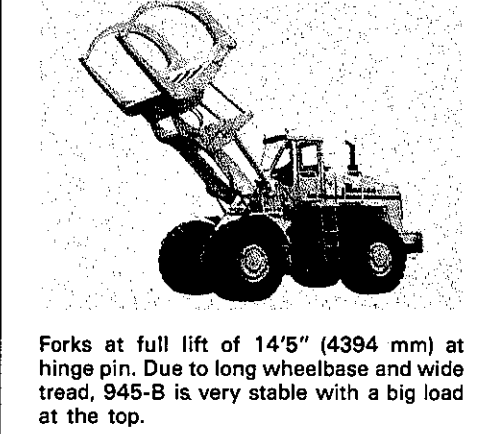
*Calculated with 72" or 84" Medford forks, 29.5 x 29 (34) L3 tires and 7,900 lbs. (3583 kg) of counterweight. Read Optional Equipment chart for additions to tipping load. All data calculated from mid-point of tines.

**To be mounted with 7,900 lb. (3583 kg) counterweight for total counterweight of 11,500 lbs. (5216 kg).

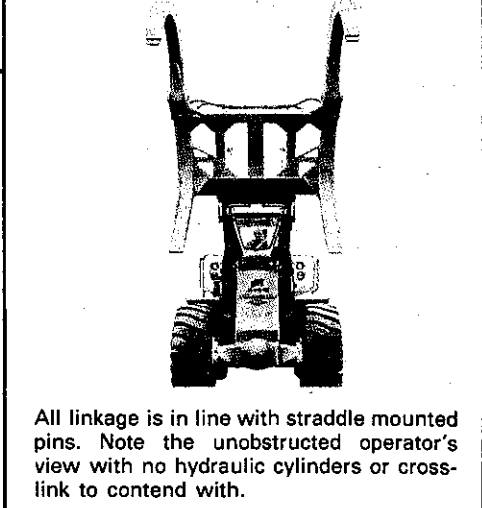
FROM THE LOGGER'S VIEWPOINT



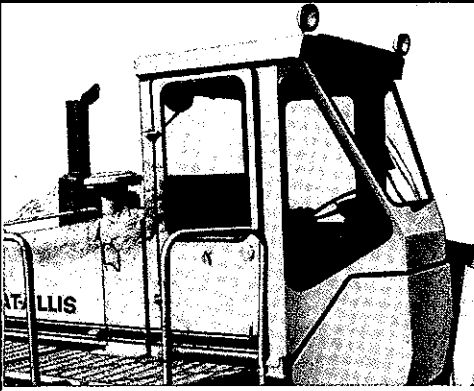
Due to linkage design forks and load reach full "roll back" at low carry height.



Forks at full lift of 14'5" (4394 mm) at hinge pin. Due to long wheelbase and wide tread, 945-B is very stable with a big load at the top.

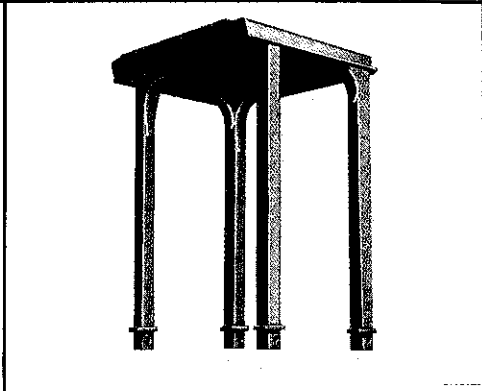


All linkage is in line with straddle mounted pins. Note the unobstructed operator's view with no hydraulic cylinders or cross-link to contend with.



- Cabs and canopies comply with SAE and OSHA requirements.
- Standard equipment front wiper and tinted safety glass.
- ROPS accessories – rear wiper, 40,000 BTU heater, defroster fans, sound suppression kit, auxiliary lighting, sliding windows.
- Pin-connected to loader main frame.
- Vibration isolated.

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- Standard equipment front wiper and tinted safety glass.
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- Pin-connected to loader main frame.
- Vibration isolated.



- [illegible]

- Radiator fan belt
- Oil level sight gauge
- Oil pressure gauge
- Oil filter
- Water pump
- Engine
- Oil filler cap
- Procedure working light and buzzer
- Generator
- Oil temperature gauge
- Oil pressure gauge
- Engine water temperature gauge
- Fuel level dipstick
- Hour meter
- Hydraulic oil level sight gauge
- Transmission oil pressure
- Water filter

- ☐ a) $\frac{1}{2} \ln 2$
- ☐ b) $\frac{1}{2} \ln 3$
- ☐ c) $\frac{1}{2} \ln 4$
- ☐ d) $\frac{1}{2} \ln 5$
- ☐ e) $\frac{1}{2} \ln 6$

- Seal
 Cooling fluid pump
 Shopping lists
 Three speed valve and
 piping group
 Tires
 20.5 x 29 (34) L3
 20.5 x 29 (34) L4
 Tool kit
 Transmission guard
 Vandalism protection group



The information contained herein is general in nature and is not intended for specific application purposes. Fiat-Allis reserves the right to make changes in specifications shown herein or add improvements at any time without notice or obligation. Illustrations show standard and non-standard items.