

FORD

INDUSTRIAL TRACTORS AND EQUIPMENT SPECIFICATIONS

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FORD QUALITY CARE

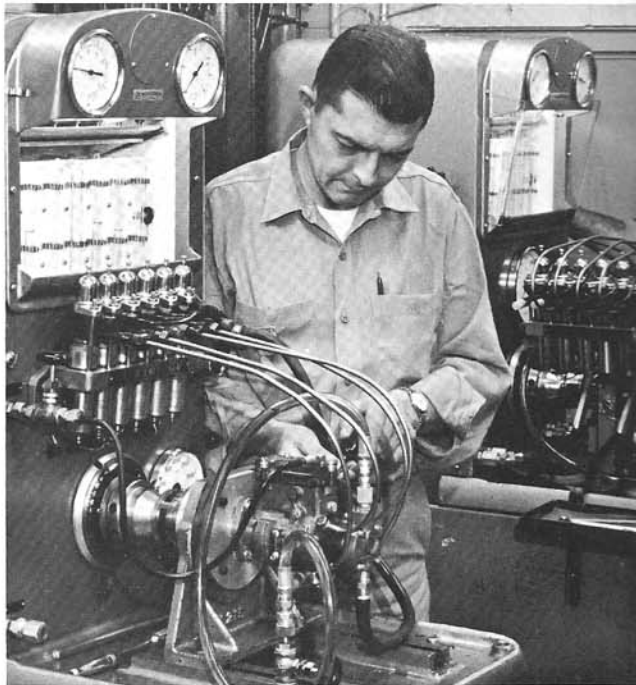
Keeps your Equipment on the job

for example:

DIESEL PUMP EXCHANGE AND 24-HOUR REBUILD SERVICE

Ford's exchange service—available at the 10 Parts and Service Depots shown on map below—enables you to save both money and downtime. Under this plan, Ford exchanges diesel pumps and injectors that have been rebuilt by Ford's trained specialists, using the latest precision equipment. Advantages include:

- **Fast shipment**—dealer's phone order shipped within 24 hours—often the same day.
- **Use your old pump** until the rebuilt pump arrives—no downtime. In emergencies, dealer will usually have rebuilt unit in stock.
- **Flat rate pricing** at favorable terms—you know your exact costs in advance.
- **Latest pump improvements** included in the rebuilt job, at no extra cost.



QUALITY CARE IS EVERYWHERE



As pioneers in the application of tractors to all types of light construction, grounds care, excavating, logging, and many other uses, experienced Ford tractor and equipment dealers are never far from your job location. They're always ready to provide quality care for your Ford tractors and equipment.

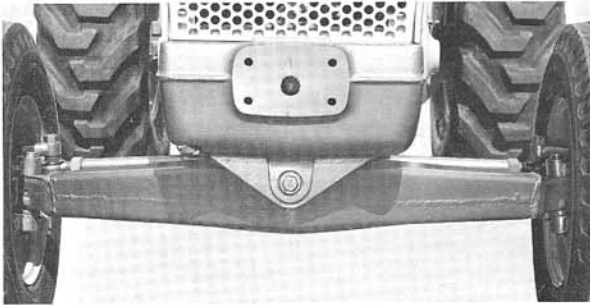
These dealers, in turn, are backed by 10 Ford Parts Supply Depots each carrying complete stocks of service and replacement parts and supplies. For your dealer's name, check the Yellow Pages of your telephone directory under "Tractors" and/or "Contractor's Equipment."

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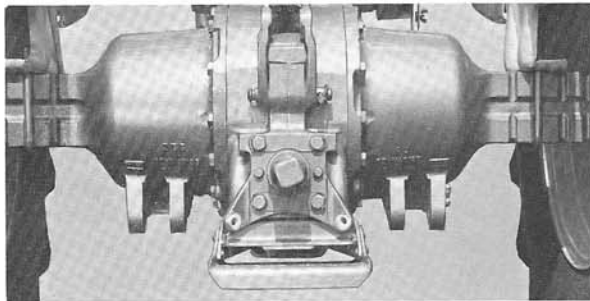
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NEW-SIZE FORD TRACTORS

The new industrial value leaders, 35 to 55 hp



Typical of the great strength built into New-Size Ford tractors, for work with loaders and other front-mounted equipment, is the tapered, box-steel front axle on the 4500 tractor-loader.

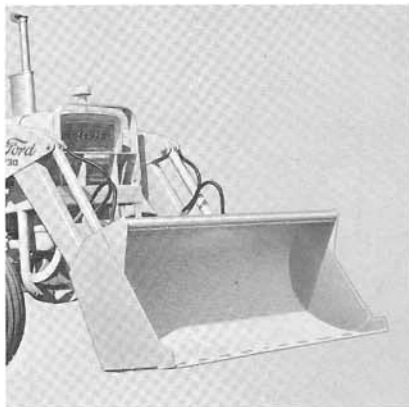


Final drives on 4400 and 4500 tractors are double-reduction, with final reduction by planetary gear sets inboard on forged-steel axle shafts. Note the heavy axle housings.

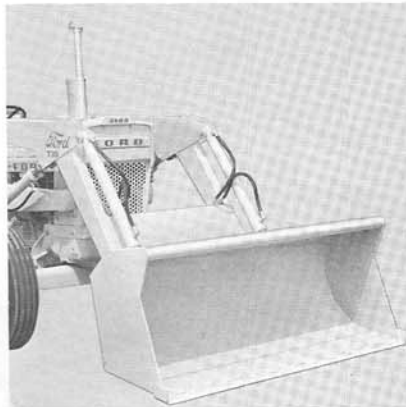
All-new from the ground up! New-Size Ford tractor design adds up to total toughness—delivers outstanding performance at the drawbar, and with mounted loading, excavating and materials-moving equipment. Drive one of these new tractors. You'll experience the "solid" feel of greater strength, weight and balance—not to mention new operating comfort and ease of control. Look at the new and heavier front end construction. You'll see why new Fords handle larger loader capacity. Look at the total chassis and rear end assembly. You'll see new industrial-type strength. Look at the new lineup of models. You'll see the widest selection of tractors for all-purpose, grounds maintenance and general construction applications ever available from Ford. Look at the price tags. You'll see that, more than ever, they are Ford **value-priced**.

Cycle-speeding transmissions include: Torque converter with instant power reversing. Manual reversing 4x4-speed unit with four speeds forward and four virtually equal speeds in reverse. Conventional shift 4-speed. Dual-range, eight-speed. Ford's exclusive power-shift transmission with ten forward, two reverse speeds, now dependability proved by more than 75,000,000 hours of owner service. With a Ford, you can more closely match power and equipment to job requirements. You obtain maximum performance with minimum investment.

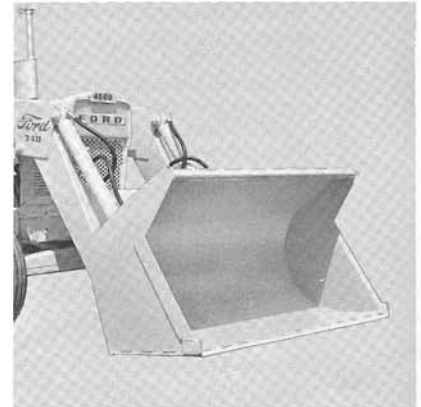
3 NEW HIGH-CAPACITY, FAST-CYCLE LOADERS



New Ford 730 3/4-yard loader has 2,000-pound lift capacity to full height of 10 feet 5 inches with the new Ford 3400 tractor and certain prior models.

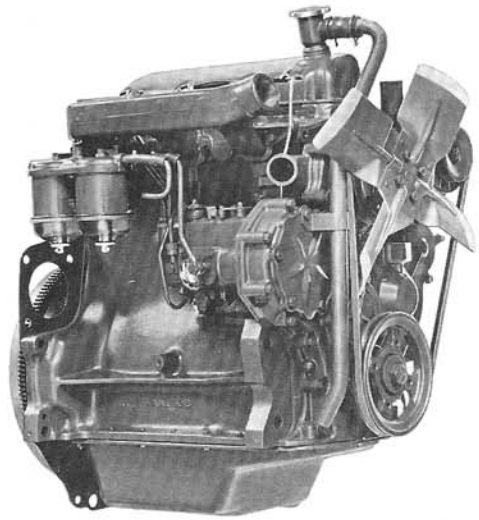


New Ford 735 3/4-yard loader has 2,500-pound lift capacity to 10 feet 6 inches. Matched to new Ford 3500 and 4400 tractors as well as prior models 2000 and 4000 Industrial.



New Ford 740 one-yard loader has 3,750-pound capacity to full lift height of 10 feet 9 inches. Attaches to integral frame of the new Ford 4500 tractor-loader.

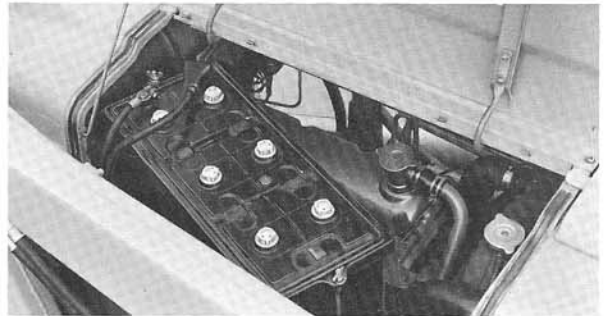
Tough new money-saving engines. Ford's all-new tractor engines were designed solely for heavy-duty service. They are designed first as diesels—with diesel strength fully retained in the gasoline models. Deep, heavy blocks resist distortion and vibration. Big diameter crankshaft can't "whip" under maximum torque loads. Swirl-chamber pistons help burn fuel more efficiently, even under conditions that would choke down many engines. This stronger, tougher construction pays big dividends in economical operation, reduced maintenance, and longer periods between major overhauls. These are lively, responsive engines, built to lug and last!



In the new Ford engine line, models from 35 to 55 hp use a three-cylinder design. This utilizes fewer, stronger parts. Three-cylinder design results in a short, rigid block, providing remarkably smooth operation.

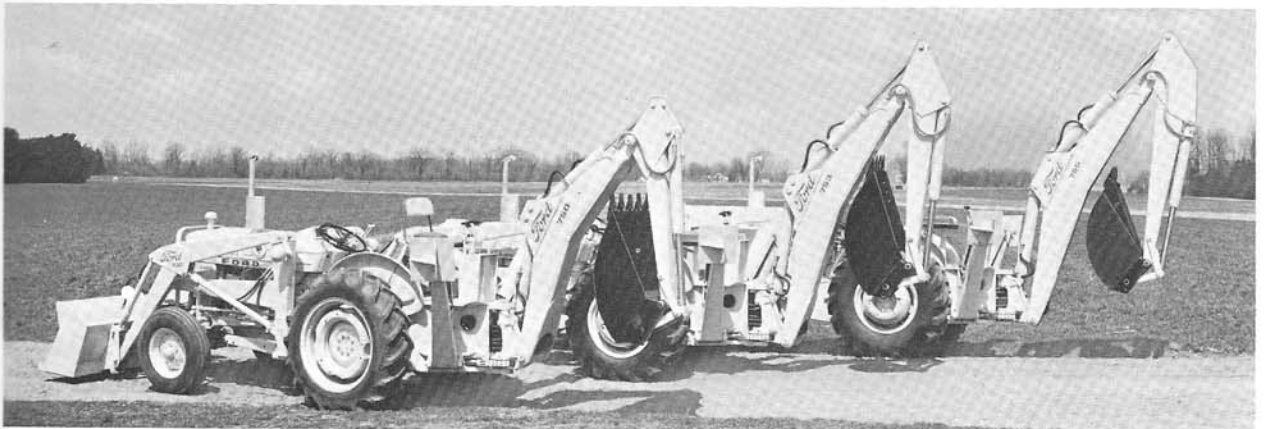


Chrome-faced piston rings. Heat- and wear-resistant inserts for top ring grooves and valve seats. Positive rotators on exhaust valves. Nodular iron rocker arms. In detail after detail, longer life is built into New-Size Ford tractor engines. Connecting rods are heat-treated steel forgings. Main bearings on each side of every rod journal are each $3\frac{3}{8}$ inches in diameter. Look for—and get—top performance in tough industrial tractor service!



New convenience. Battery, for example, swings out for fast, easy inspection and servicing. Provides for easy access to spark plugs or diesel injectors.

3 NEW BACKHOES WITH DEEP-HOLE DIGGING POWER

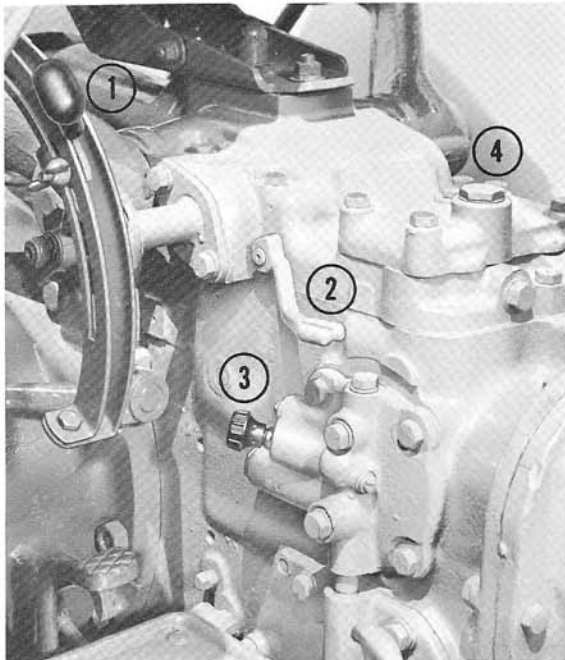


New Ford backhoes provide digging depths to 10-, 13- and 15-feet. New boom design, with in-line boom and crowd cylinder mounting, provides up to 50 percent greater deep-hole digging

power than ever before in a Ford! There is new strength and durability to match!

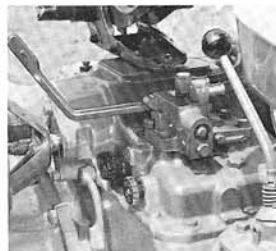
FAMOUS FORD HYDRAULIC CONTROL SYSTEM

Provides precision operation of quick-attached equipment

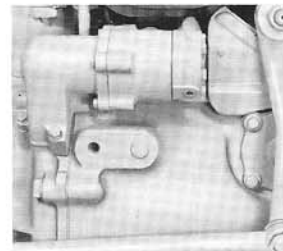


Ford hydraulics, noted for precise control of rear-mounted equipment, have been further improved. Draft on blade, scraper, or similar equipment now reacts on the control system with the hitch top link in either tension or compression (except 2110 and 4110). Consequently, heavy equipment does not "bury" itself if weight of equipment and its load overcomes top link compression. Carrying capacity of the linkage also has been increased, while speed of draft reaction can now be governed by a convenient flow control adjustment.

Simplicity of Ford's hydraulic system contributes greatly to operator convenience. A single lever (1) controls lifting, lowering, and draft control of working depth. System can be changed from draft to position control instantly with lever at (2). Speed of draft reaction is adjusted by control knob (3). Auxiliary hydraulic control outlet (4).



Single spool and double spool remote control valves are also available for control of single- or double-acting cylinders.

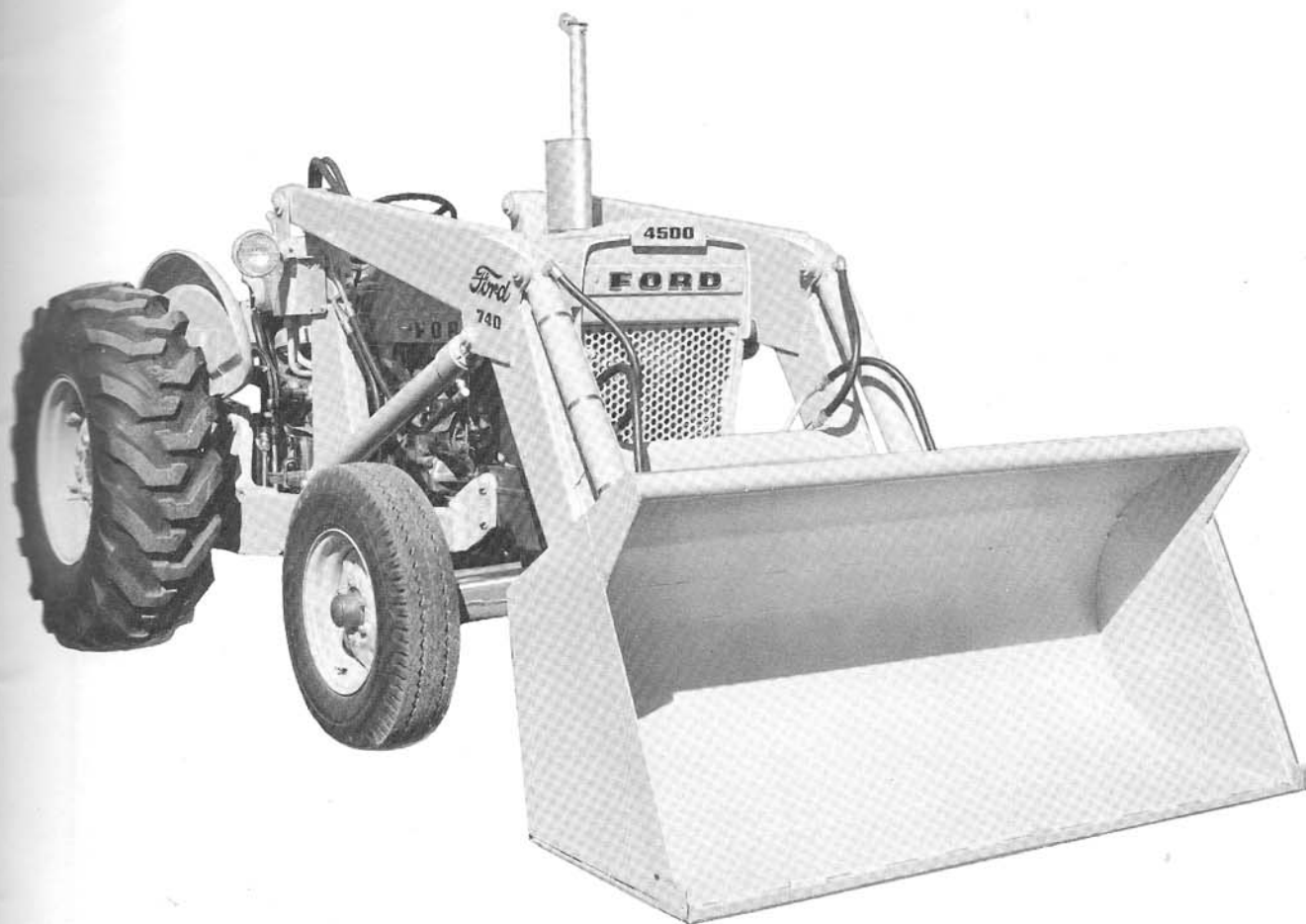


Hydraulic system is always "live", whenever the engine is running. Equipment control system is not affected when engine clutch is disengaged for gearshifting or stopping the tractor.

Ford 3400 and 3500 tractors may be equipped with Category I 3-point hitch; the 4400 and 4500 with Category II hitch, convertible to Category I.

FORD

4500 TRACTOR—LOADER



The heavy-duty Ford 4500 is supplied complete with integral frame and hydraulic system for operation of the Ford 740 loader having full-height lift capacity of 3,750 lbs. The hydraulic system includes pump, valves and complete reservoir and filtration system. The integral frame also permits quick, easy mounting of the Ford 755 high-production backhoe having maximum digging depth of 15 ft., 4 in.

- **Heavy-duty diesel engine**, or gasoline engine built to diesel standards of strength.
- **Heavy-duty front-end construction** with tapered boxed beam, fixed industrial-type axle, including

rugged malleable axle support, heavy spindles and hubs.

- **Transmissions** to match all types of job applications.
- **Long-life disc brakes**, completely sealed against grit and moisture, submerged in oil for maximum heat dissipation.
- **Three sizes of loader buckets**, $\frac{7}{8}$, 1, and $1\frac{1}{8}$ -cu. yd., plus a wide selection of laborsaving loader attachments.

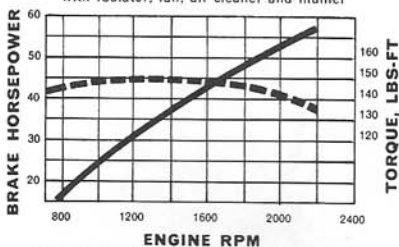
HORSEPOWER

	GAS 2200 rpm	DIESEL 2200 rpm
Net flywheel hp , includes fan, muffler, air cleaner, and radiator (Manufacturer's estimate, maximum corrected*)	55.3	53.2
PTO hp (Manufacturer's estimate, maximum observed) with 10-speed transmission*	45.4	45.6
Drawbar hp (Manufacturer's estimate, maximum observed) with 10-speed transmission*	39.9	39.4
Engine torque (fully equipped engine)	GAS	DIESEL
At rated speed , lb.-ft. (corrected)*	132	127
Maximum torque , lb.-ft. (corrected)*	146	150
At engine speed, rpm	1,450	1,000
Displacement , cu. in.	192	201

*less hydraulic pump on engine

GASOLINE ENGINE CHARACTERISTICS

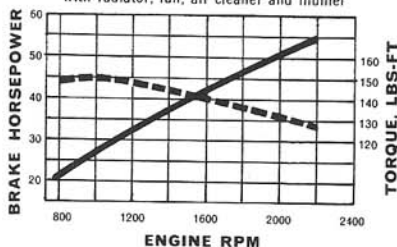
with radiator, fan, air cleaner and muffler



— brake hp, corrected to 29.92 in. Hg, and 60 deg. F, dry air
 - - torque

DIESEL ENGINE CHARACTERISTICS

with radiator, fan, air cleaner and muffler

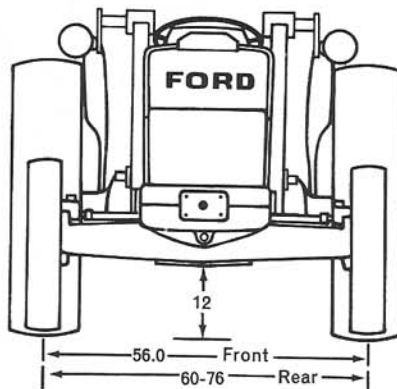
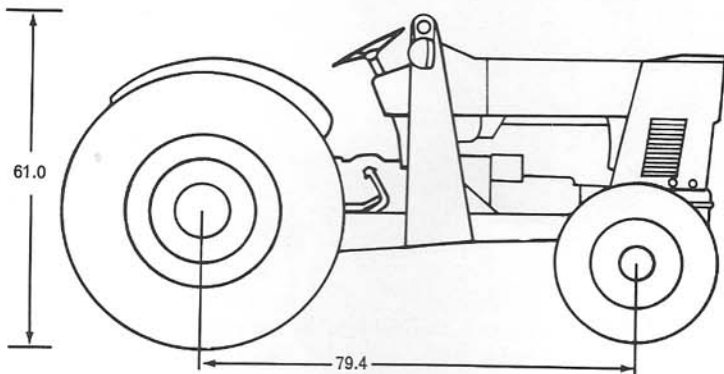


— brake hp, corrected to 29.92 in. Hg, and 60 deg. F, dry air
 - - torque

DIMENSIONS

- Ground clearance—
- Under front axle, in. 12
- Wheelbase, in. 79.4
- Turning radius (loader bucket rolled back at 3 ft. lift height)—
- with brakes 16'2"
- without brakes 17'0"
- Overall height—over loader posts, in. 61.0

- Overall length—
- loader bucket lip on ground,
- to rear tires 14'9"
- Overall width, 60-in. tread, in. 74.9
- Front wheel tread, in. (fixed) 56.0
- Rear wheel tread,
- adjustment range, in. 60-76



CAPACITIES

- Fuel tank, gal. 16.0
- Engine lubrication, with filter, qt. 8.0
- Transmission—
- manual reversing 4x4, qt. 13.2
- power-shift, 10-speed, qt. (Refill) 11.0
- torque converter power reversing 4x4, qt. 17.0
- Cooling system, qt. 15.3

- Rear axle and tractor hitch hydraulic system, qt. 26.3
- Tractor-loader hydraulic system, gal. 14.0
- Approximate shipping weight, including loader frame, hydraulic system and lift assembly with oil, water and 10 gal. diesel fuel, lbs. 6,135

CHASSIS

Final drive—Double reduction with straddle-mounted, 4-pinion differential, plus planetary gear sets, inboard on rear axle shafts. Semi-floating rear axles with forged steel axle shafts. Heavy-duty rear axle housings, 9,000-lb. capacity.

Clutch—(4 x 4 speed transmission) Heavy duty, dry disc. Diameter, 13 in. Total friction area, one side 81.2 sq. in. Foot-operated.

Brakes—Mechanical. Self-energizing wet discs, fully enclosed, mounted between differential and planetary reduction gears. Operated either individually or simultaneously. Diameter, 8 inches. Four discs each axle. Total braking area, 224 sq. in.

FRONT END—AXLE

Static rated load capacity8,500 pounds
Dynamic rated load capacity34,000 pounds

Axle is non-adjustable tapered welded boxed beam, fabricated of high strength steel. A heavy malleable axle support bolts to the cast engine pan as well as to the engine block for extra strength. Heavy truck-type spindles, bearings, pin, and specially forged steering arms are used. An axle pivot pin 1 7/8 in. diameter x 11 in. length provides a generous bearing area and is so long that no additional radius support is required.

Steering—Center pivot, power assist, with cylinder protected within axle support member. Steering wheel turns, stop to stop, 3.13. Engine-mounted, gear-driven, gear-type hydraulic pump, 4.2 gpm capacity, 0 psi @ 1,000 rpm. Steering cylinder, 4.62 in. stroke, 2.75 in. diameter. Pump has replaceable element filter, 600-hour element life.

TRANSMISSION OPTIONS

Ten-speed power shift—A full-range, power-shift transmission that lets operator power-shift into any one of ten forward speeds, on-the-go. Three planetary gear sets in constant mesh. Power flow directed through gear sets by means of hydraulically actuated clutch packs. Two reverse speeds. Fast, easy shuttle shifting for backfilling and loader work.

Manual reversing, 4x4 speed—Dual-range, provides two forward, two re-

verse speeds in low range; two forward, two reverse speeds in high range. Simple back-and-forth shuttle shift pattern. Gear selections for precise peeling, grading, stockpile loading and fast transport.

Torque converter—Provides shock-cushioning, torque multiplying fluid power in combination with power-reversing 4 x 4 transmission. In any gear, automatically matches engine power to the load. Power reverse lever easily moved with left hand. Maximum torque multiplication, 2.15:1. Converter stall speed, approximately 1,750 engine rpm. Converter cooling system includes entire transmission and reverse oil supply. Heat exchanger is located in bottom radiator tank. Signal light indicator for converter oil temperature.

BASIC MODELS

	Diesel	Gas
10-speed transmission, no pto	45011E	45021E
10-speed transmission, 540 rpm independent pto	45014E	45024E
manual reversing 4x4 transmission, no pto	45011G	45021G
manual reversing 4x4 transmission, 540 rpm transmission-drive pto	45012G	45022G
Torque converter power reversing 4 x 4 transmission with no pto	45011F	45021F

OTHER STANDARD EQUIPMENT

Engine components

- Foot accelerator
 - Vertical muffler
- #### Instruments
- Fuel gauge
 - Oil pressure warning light
 - Generator warning light
 - Water temperature gauge

Industrial seat

Fenders

Tool box

Tires

- Front—7.50—16-in., I1, 8-ply
- Rear—16.9—24-in., R4, 6-ply

OPTIONAL EQUIPMENT (Factory Installed)

Front tires

- 7.50—16, I1, 8-ply, truck type T-18

Rear tires

- 16.9—24-in., R3, 6-ply T-47
- 16.9—24-in., R1, 8-ply) Mandatory with T-79
- 16.9—24-in., R4, 8-ply) Ford 15-ft. backhoe T-80

Hydraulics C-5

"Live" hydraulic system with engine-mounted, piston-type pump, 4.8 gpm capacity. System relief pressure, 2,500 psi. Double filter; fine mesh, screen-type intake filter, second filter removes contaminants as fluid returns to sump. "Draft" or "Position" control. "Flow" control for adjusting speed of draft control reaction. Single operating lever for raising, lowering and adjusting implement depth. Category II 3-point hitch with double-acting top link. Hydraulic lifting force 24 inches rear of lower link balls—2,000 lbs. A 3-way auxiliary services control selector valve is available to supply either the main lift cylinder or a single-acting remote cylinder, or both at the same time. Remote control valves to control single-acting or double-acting remote cylinders are available. These open-center, one-spool or two-spool valves provide feathering action from closed position to fully open; may be set for "float"; and automatically return to neutral when cylinders reach fully raised or lowered position.

ACCESSORIES (Dealer Installed)

Hitch equipment—

- Swinging drawbar
- Clevis for swinging drawbar
- Fixed drawbar
- Linkage drawbar

Hydraulics—

- Auxiliary service control valve
- Remote control valve, 1- or 2-spool
- Double-acting remote hydraulic cylinder
- Quick-release hydraulic coupling (S-A, D-A)

Lighting

- 2 headlights, taillight
- Implement warning light
- Implement work light and switch

PTO—

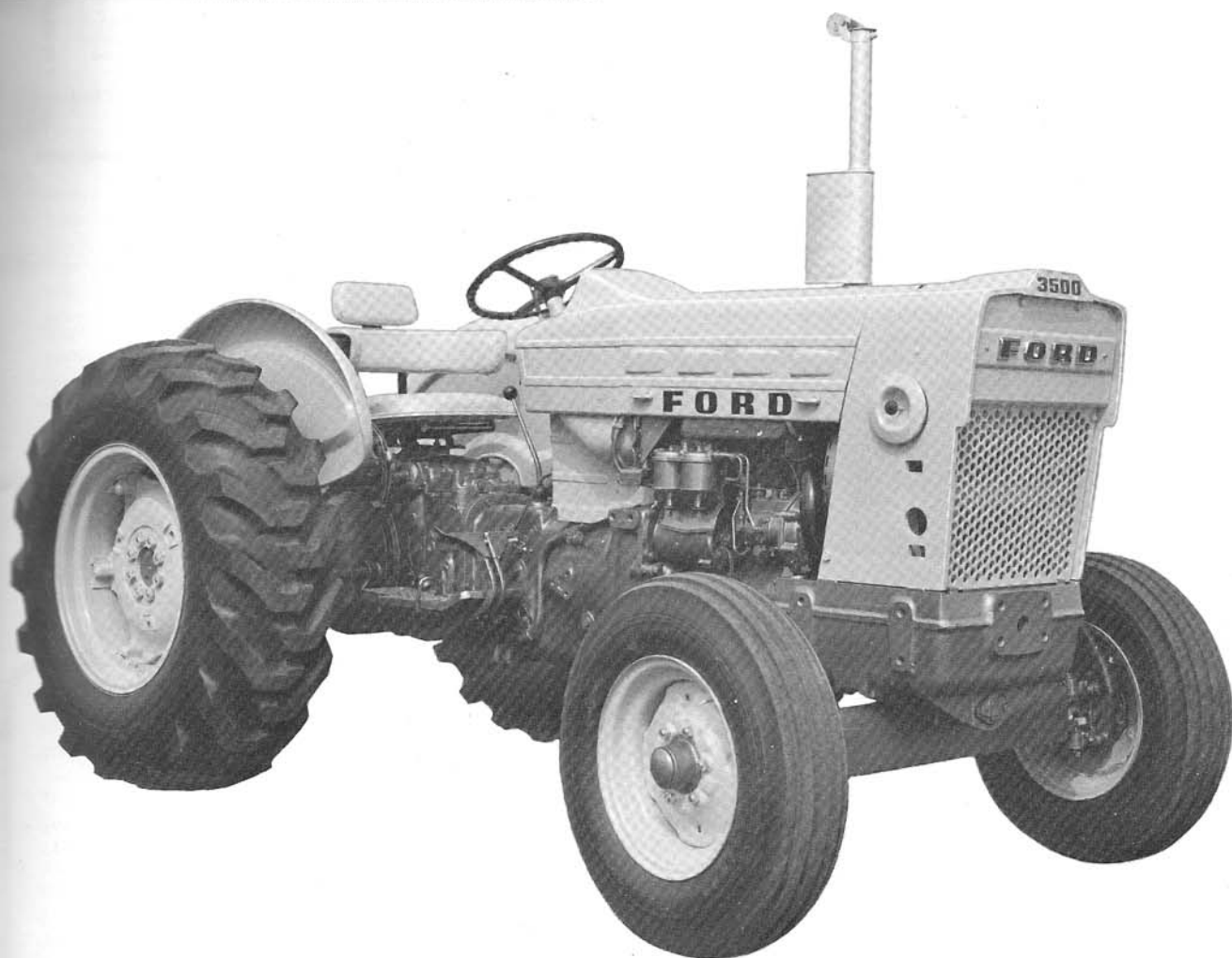
- PTO belt pulley
- PTO guard

Other—

- Air pre-cleaner, long stack
- Front and rear wheel weights
- Grease gun and holster
- Tire pump

FORD

3500 TRACTOR



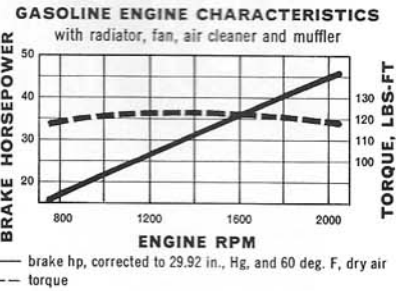
The Ford 3500 is a sturdy, compact, economical industrial tractor with great job versatility. Multiple equipment choices can adapt the 3500 for heavy-duty *loading and backfilling* with its new 2,500-pound Ford loader; *trenching* with either the new Ford 13-foot or 10-foot backhoe, or, for *combinations* such as *loader/rear blade* or *loader/scrapper* for landscaping and snow removal, or *loader/mowers* for year round highway maintenance. A choice of options enables the purchaser to practically "design" the tractor to meet his own particular needs and budget.

• **Heavy-duty diesel engine**, or gasoline engine, built to diesels standards of strength.

- **Heavy-duty front end construction** with fixed-tread, industrial-type front axle. Sturdy rear axle carries up to 9,000 lb. for heavy equipment attachment.
- **Transmission options**—to match all types of job applications.
- **Famous Ford hydraulics** and 3-point equipment attachment and lift system, improved with double-acting top link.

HORSEPOWER

	GAS 2100 rpm	DIESEL 2000 rpm
Net flywheel hp includes fan, muffler, air cleaner, and radiator (Manufacturer's estimate, maximum corrected).....	46.7	44.1
PTO hp (Manufacturer's estimate, maximum observed) with 4-speed transmission.....	39.1	39.4
Drawbar hp (Manufacturer's estimate, maximum observed) with 4-speed transmission.....	34.3	36.3
Engine torque (fully equipped engine)	GAS	DIESEL
at rated speed, lb.-ft. (corrected).....	117	116
Maximum torque , lb.-ft. (corrected).....	123.0	125.7
at engine speed, rpm.....	1,350	1,150
Displacement , cu. in.....	158	175



ENGINE SPECIFICATIONS

GASOLINE ENGINE

Type: in-line vertical, overhead valve. No. of cylinders, 3. Rated speed, 2,100 rpm. Bore, 4.2 in. Stroke, 3.8 in. Compression ratio, 8:1.

Cylinder block—Extra heavy (234 lb.), with deep skirts and heavy ribs for rigidity. Extra wide flanges add strength and provide large gasket areas to help maintain secure sealing against oil leaks. **Crankshaft**—Nodular iron with four main bearing journals. Journal length, 1.46 in. Diameter, 3.37

in. Total main bearing area per piston, 20.58 sq. in. Crank pin length, 1.68 in. Diameter 2.75 in.

Connecting rods—Massive, forged I-beam. Piston end bushing, bronze on steel backing. **Main bearings**—sleeve-type, over-plated copper-lead alloy. **Pistons**—Aluminum alloy fitted with hard, heat-resistant, cast-alloy top ring groove insert. **Piston rings**—One oil ring and two compression rings per piston. All rings, excepting the lower compression ring, are chrome plated. **Piston pin**—Floating type. Length, in., 3.5. Outside diameter, in., 1.5.

Piston travel—1,330 fpm @ 2,100 engine rpm.

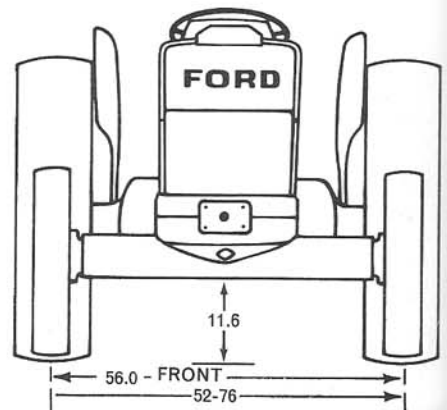
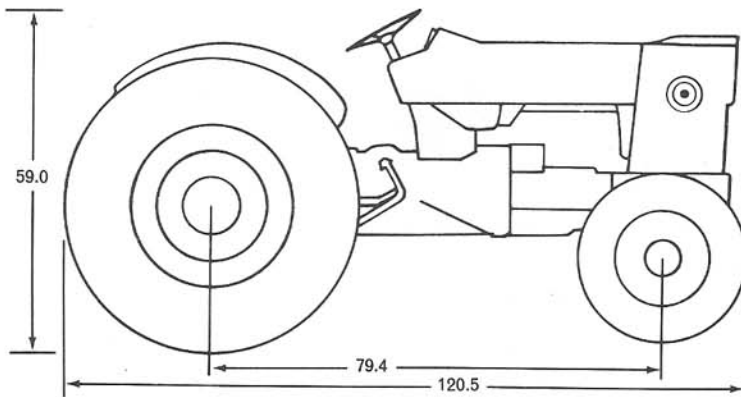
Valves—Positive rotators on exhaust valves. Nodular iron rocker arms. Hardened valve seat inserts. Intake valve, 1.8 in. O.D. Exhaust valve, 1.5 in. O.D. Opposed intake and exhaust manifolds. Water jacketed, temperature-controlled, intake manifold on gasoline models. **Camshaft**—High-lift, flat follower type. **Cylinders**—Sleeveless engine block design to increase rigidity, transfer heat more quickly and uniformly to liquid coolant. **Engine lubrication**—pressurized main

DIMENSIONS

Ground clearance	Overall length
under transmission housing, in..... 14.4	to end of lower lift links, in.....120.5
under front axle, in.....11.6	Overall height
Wheelbase, in..... 79.4	over steering wheel, in..... 59.0
Turning radius	Overall width, @ 52-in. tread.....66.0
with brakes..... 9'9"	Front wheel tread, in. fixed.....56.0
without brakes..... 10'10"	Rear wheel tread
Curb clearance circle	adjustment range, in.....52-76
with brakes.....20'1"	
without brakes.....21'7"	

CAPACITIES

Fuel tank, gal.....	16
Engine lubrication, qt. with filter.....	8
Transmission	
4-speed, qt.....	6
Torque converter power reversing	
4 x 4, qt.....	17.0
Manual reversing 4-speed, qt.....	13.2
10-speed power shift, qt. (Refill).....	11.0
Cooling system, qt.....	13.8
Rear axle and hydraulic system, qt.....	20.5
Approximate shipping weight, including oil, water, 7 gal. fuel and hydraulic lift assembly, lbs.....	4,250



TRANSMISSION OPTIONS

Manual reversing, 4-speed—A dual-range transmission, providing fast shuttle shifting, recommended for loader work. Provides 2 forward, 2 reverse speeds in low range; 2 forward, 2 reverse speeds in high range. Simple shift pattern, with wide range of forward and reverse speeds ideal for all shuttle-type operations, loading, peeling, backfilling, etc.

Torque converter—Provides shock-cushioning, torque multiplying fluid power in combination with power-reversing 4 x 4 transmission. In any gear, automatically matches engine power to the load. Power reverse lever easily moved with left hand. Maximum torque multiplication, 2.15:1. Converter stall speed, approximately 1,650 engine rpm. Converter cooling system includes entire transmission and reverse oil supply. Heat exchanger is located in bottom radiator tank. Signal light indicator for converter oil temperature.

4-speed transmission—Constant mesh, provides 4 forward, 1 reverse speeds. Limited to primary transportation of unit or backhoe work with intermittent loader operations.

10-speed power-shift—A full-range, power-shift transmission lets operator power-shift into any one of 10 forward speeds, on-the-go. Three planetary gearsets in constant mesh. Power flow directed through gearsets by means of hydraulically actuated clutch packs. Two reverse speeds.

BASIC MODELS

	Diesel	Gas
with 4-speed transmission and no pto.....	35011A	35021A
with transmission-drive pto.	35012A	35022A
with 4-speed reversing transmission, no pto....	35011G	35021G
with transmission-drive pto.....	35012G	35022G
with 10-speed power-shift transmission and independent pto....	35014E	35024E

with torque converter power reversing 4 x 4 transmission with no pto.....	35011F	35021F
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OTHER STANDARD EQUIPMENT

Engine components

Foot accelerator
Vertical muffler

Instruments

Tachometer
Fuel gauge
Oil pressure warning light
Generator warning light
Water temperature gauge

Industrial seat—cushioned, with adjustable backrest.

Fenders

Tires

Front—7.50—16, I1, 6-ply
Rear—13.6—28, R1, 4-ply

OPTIONAL EQUIPMENT (Factory Installed)

Front Tires

7.50—16, I1, 6-ply, truck type..... T-15

Rear Tires

14.9—24, R4, 6-ply..... T-45
16.9—24, R1, 6-ply..... T-46
16.9—24, R3, 6-ply..... T-47

Hydraulics..... C-2

“Live” hydraulic system with engine-mounted, piston-type pump, 4.8 gpm capacity. System relief pressure, 2,500 psi. Double filter, fine mesh, screen-type intake filter, second filter removes contaminants as fluid returns to sump. “Draft” or “Position” control. Single operating lever for raising, lowering and adjusting implement depths. Category I 3-point hitch with double-acting top link. Hydraulic lifting force 24 inches rear of lower link balls—1,700 lbs. A 3-way auxiliary services control selector valve is available to supply either the main lift cylinder or a single-acting remote cylinder, or both at the same time.

Remote control valves to control single-acting or double-acting remote cylinders are available. These open-center one-spool or two-spool valves provide feathering action from closed position to fully open; may be set for “float”, and automatically return to neutral when cylinders reach fully raised or lowered position.

Swinging drawbar..... M-2

Lighting..... E-2

2 headlights, taillight, instrument panel lights, electrical outlet and plug.

Diesel engine very cold start..... V-2

ACCESSORIES (Dealer Installed)

Hitch equipment—

Swinging drawbar
Clevis for swinging drawbar
Linkage drawbar
Linkage stabilizers
Fixed drawbar

Hydraulics—

Auxiliary service control valve
Remote control valves, 1- or 2-spool
Double-acting remote hydraulic cylinder (thrust range, 6,000-15,000 psi)
Remote cylinder hose kits
Quick-release hydraulic coupling (S-A, D-A)

Lighting—

2 headlights, taillight, instrument panel lights, electrical outlet and plug
Implement warning light
Implement work light and switch

PTO—

PTO belt pulley and guard
PTO guard

Other accessories—

Air pre-cleaner, long stack
Front wheel and rear wheel weights
Grease gun and holster
Tire pump

FORD

4400 TRACTOR



The Ford 4400 tractor delivers ample horsepower for heavy-duty landscaping or mowing with wide flail and rotary mowers. It provides a sturdy power platform for work with 10- or 13-ft. Ford backhoes and 2,500-lb. Ford loader. A heavy, industrial front axle and support assembly, strong chassis and sealed, oil-immersed disc brakes make it an ideal logging and pulpwood operations unit.

- **Heavy-duty, Ford** diesel or gasoline engines with tested fuel economy.
- **Exceptional front-to-rear weight distribution** for

superior stability with loader and backhoe, and for heavy drawbar loads. Low center of gravity.

- **Double-reduction final drive.**
- **Easy-acting multiple disc brakes**, oil-immersed for long life.
- **Heavy-duty U-boxed, straight industrial front axle** and support members.
- **Transmissions to match all job needs.**
- **Improved Ford single-lever 3-point hitch** and hydraulic draft control.

HORSEPOWER

	GAS 2200 rpm	DIESEL 2200 rpm
Net flywheel hp , includes fan, muffler, air cleaner, and radiator (Manufacturer's estimate, maximum corrected).....	55.3	53.2
PTO hp (Manufacturer's estimate maximum observed) with 8-speed transmission.....	46.3	46.7
Drawbar hp (Manufacturer's estimate, maximum observed) with 8-speed transmission.....	41.4	42.1
Engine torque (fully equipped engine)	GAS	DIESEL
At rated speed , lb.-ft. (corrected).....	132	127
Maximum torque , lb.-ft. (corrected).....	146	150
At engine speed, rpm.....	1,450	1,000
Displacement , cu. in.....	192	201

GASOLINE ENGINE

Type—In-line vertical, overhead valve. No. of cylinders: 3. Rated speed: 2,200 rpm. Bore: 4.4 in. Stroke: 4.2 in. Displacement: 192 cu. in. Compression ratio: 8:1.

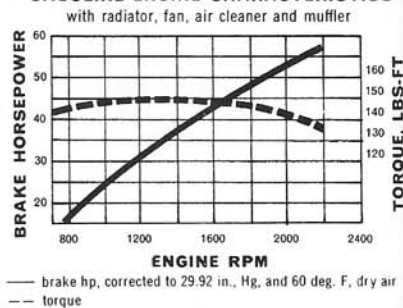
Cylinder block—Extra heavy (234 lbs.) with deep skirts and heavy ribs for rigidity. Extra wide flanges not only add rigidity, but give greater gasket areas to help maintain secure sealing against oil leaks.

Crankshaft—Nodular iron, with four hardened, main bearing journals. Journal length: 1.46 in. Diameter: 3.37 in. Total main bearing area per piston: 20.58 sq. in. Crank pin length: 1.68 in. Diameter: 2.75 in. **Connecting rods**—Massive, forged I-beam. Piston bushing, bronze on steel

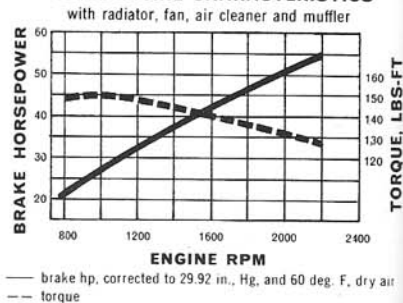
backing. **Main bearings**—Sleeve-type, over-plated copper-lead alloy. **Pistons**—Aluminum alloy, fitted with hard, heat-resistant top ring groove insert.

Piston rings—One oil ring and two compression rings per piston. All rings, excepting the lower compression ring, are chrome plated. **Piston pin**—Floating type. Length: 3.5 in. Outside diameter: 1.5 in. **Piston travel**—1,540 fpm, 2,200 engine rpm. **Valves**—Positive rotators on exhaust valves. Nodular iron rocker arms. Intake valve 1.8 in. O.D.; exhaust, 1.51 in. O.D. Opposed intake and exhaust manifolds. Water jacketed, temperature controlled, intake manifold on gasoline model gives better fuel distribution in cold weather, more efficient performance in hot weather. **Camshaft**

GASOLINE ENGINE CHARACTERISTICS



DIESEL ENGINE CHARACTERISTICS

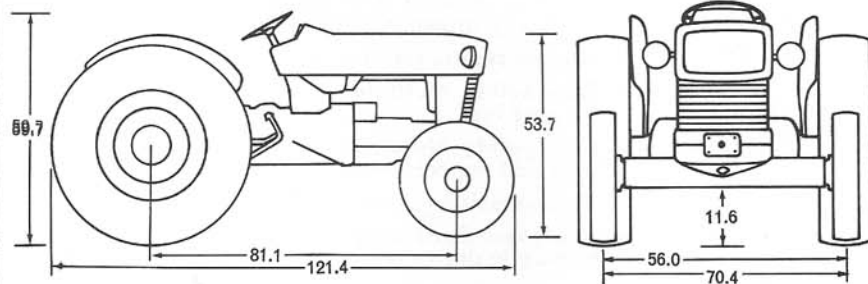


—High-lift, flat follower type. **Cylinders**—Sleeveless design, increases rigidity of block, transfers heat quickly and uniformly to liquid coolant. **Engine lubrication**—Pressurized main system. Gear type oil pump. Gear driven from camshaft. Fixed screen intake. Main bearings, connecting rod

DIMENSIONS:

Ground clearance under transmission housing, in.....	13.7
under front axle, in.....	11.6
Wheelbase, in.....	81.1
Turning radius with brakes.....	10' 2"
without brakes.....	11' 2"
Curb clearance circle, feet with brakes.....	20' 7"
without brakes.....	23' 9"

Overall length to end of lower hitch links, in.....	121.4
Overall height, over hood, in.....	53.7
over steering wheel, in.....	58.1
Overall width, 56-in. tread, in.....	70.8
Front wheel tread, fixed, in.....	56.0
Rear wheel tread adjustment range, in.....	56-76



CAPACITIES

Fuel tank, gal.....	16.0
Engine lubrication, with filter, qt.....	8.0
Transmission, qt. 4-speed reversing.....	13.2
8-speed.....	17.0
10-speed (Refill).....	11.0
Cooling system, qt.....	14.0
Rear axle and hydraulic system, qt.....	26.3

Weight distribution—including fuel to capacity, oil, water

	GAS	DIESEL
Front axle, lb.....	1,774	1,790
Rear axle, lb.....	2,790	2,802
Total, lb.....	4,564	4,592
Shipping weight, including oil, water, 3.5 gal. gasoline or 10.0 diesel fuel...	4,483	4,550

bearings, and camshaft bearings pressure lubricated. Rocker arms, pressure lubricated (intermittent). Piston pin bearings, cylinder walls, and tappets splash lubricated. Timing drive, squirt lubricated. Push rods, lubricated by drip from rocker arms.

Oil filter—Full flow, 2 qt., with replaceable 300-hr. element, safety bypass valve. **Fuel pump**—Eccentric drive from timing idler gear. Positive supply of fuel to carburetor. **Automotive style carburetor**—Single venturi, updraft type. Accelerating well and economizer valve. Sediment bowl and 4 filter screens. **Air cleaner**—Gasoline: dry cartridge type, diameter, 6.5 in. Rated air flow: 100 cfm. **Air circulation**—4 blade, V-belt drive fan. **Cooling system**—Pump-circulated, thermostat-controlled, with fixed bypass. Full length water jackets for uniform cooling. Tube-and-fin radiator, with pressure cap. 28 gpm pump. Thermostat, opening temperature, 188 deg. F.; fully open 212 deg. **Electrical starting and ignition**—Key starter switch and transmission safety lock. Starting motor with positive engagement drive assembly. Distributor has centrifugal and vacuum spark advance. **Battery**—12-volt, 80 amp. hr. Ventilated-type generator, capacity, 22 amp., voltage and current regulator.

DIESEL ENGINE

Type—In-line vertical, direct injection, with cold starting aid. No. of cylinders: 3. Rated governed speed: 2,200 rpm. Bore: 4.4 in. Stroke: 4.4 in. Displacement: 201 cu. in. Compression ratio: 16.5:1. **Crankshaft**—Induction hardened, forged alloy steel. **Pistons**—Aluminum alloy, fitted with hard, heat-resistant, Ni-Resist top ring groove. **Piston Rings**—One oil ring and three compression rings. **Piston travel**—1,613 fpm.

Injection pump — Distributor type with mechanical governor. **Injection nozzles** — 4 orifice type accessible without removing valve cover. **Injector timing**—19 deg. **Dual fuel filters** — Replaceable paper elements. 1,200-hour element life. **Air cleaner**—Oil bath. Rated air flow, 125 cfm. Capacity, 1.15 qt. **Battery**—128 amp hr.

In general, all other specifications which would apply to a diesel engine are the same as for the gasoline engine.

CHASSIS

Differential lock—Improves effective traction in difficult going. Operator engages with pedal near right foot. Both drive wheels turn at equal speed, permitting wheel on firm ground to move the tractor. Spring-loaded coupling automatically unlocks differential when difficult spot is passed.

Double reduction final drive—First reduction, matched pinion gear and spiral bevel ring gear. Straddle-mounted, 4-pinion differential. Second reduction, planetary gear sets, mounted inboard. Semi-floating rear axle, with forged steel axle shafts. Heavy-duty rear axle housing, 9,000-lb. capacity.

Clutch—Heavy duty, dry disc. Diameter: 13 in. Total friction area, one side, 79.6 sq. in. Foot-operated.

Brakes—Mechanical. Self-energizing wet discs, fully enclosed, mounted between differential and planetary reduction gears. Operated either individually or simultaneously. Size, 8 x 6.80 inches. Three discs, with six faces totaling 168 sq. in. for braking.

Front End

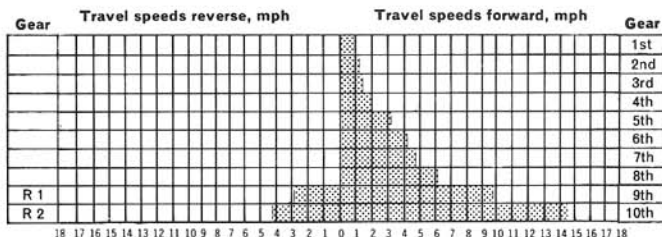
Static loading capacity, lb..... 6,500
Dynamic loading capacity, lb.....26,000

Fixed tread, "U" boxed beam, industrial axle, fabricated of high tensile steel. Extra heavy cast iron axle support is bolted to heavy cast engine pan and block for extra strength. Heavy truck-type spindles. Inner and outer spindle bearings, spindle pin, and specially forged steering arms engineered for strength and durability. 2½-in. by 18-in. effective axle pivot length with generous bearing area. Pivot area extends through axle and solid bar radius rod.

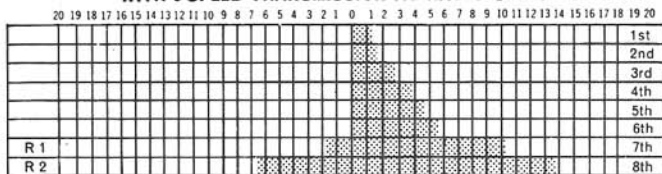
Steering

Center point power assist, with cylinder located in front axle support casting. Steering wheel turns, stop to stop, 3.3. Engine mounted, gear-driven, gear type pump. Pump delivery, 3.5 gpm @ 1,000 rpm and 0 psi. Cylinder, 4.62 in. stroke, 2.75 in. diameter. Replaceable element filter, 600-hour element life.

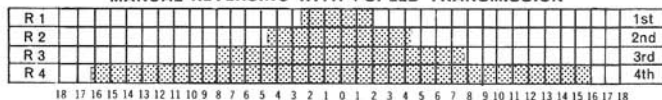
TRAVEL SPEEDS, MPH, APPROX., WITH AVERAGED SIZED REAR TIRES WITH 10-SPEED POWER-SHIFT TRANSMISSION (2200 ENGINE RPM)



WITH 8-SPEED TRANSMISSION AT RATED SPEED



MANUAL REVERSING WITH 4-SPEED TRANSMISSION



POWER TAKE-OFF OPTIONS

Tractor transmission type	PTO type	540 rpm pto delivered at this engine speed
4-speed manual reversing	Transmission-drive	1,500
4-speed manual reversing	Independent	1,500
8-speed	Independent	1,800
10-speed	Independent	1,800

TRANSMISSION OPTIONS

10-speed power-shift — A full-range, power-shift transmission lets operator power-shift into any one of 10 forward speeds, on-the-go. Three planetary gear sets in constant mesh. Power flow directed through gear sets by means of hydraulically actuated clutch packs. Two reverse speeds.

Manual reversing, 4-speed — Dual range, provides 2 forward, 2 reverse speeds in low range; 2 forward, 2 reverse speeds in high range. Simple shift pattern, and wide range of reverse speeds ideal for all shuttle type operations.

8-speed transmission—8 speeds forward—two speeds reverse. Overlap of speeds between high and low range provides a wide latitude of speeds with a minimum of range selector shifting.

Differential lock—Improves traction in difficult spots by minimizing rear wheel spin. Operator engages by depressing a pedal near right foot. Power is directed evenly to both drive wheels, allowing wheel on firm ground to move tractor. As difficult area is passed, the spring-loaded coupling automatically unlocks the differential.

BASIC MODELS Diesel Gas

with 10-speed transmission, and no pto.	44011E	44021E
with 10-speed transmission, and 540 rpm independent pto.	44014E	44024E
with 8-speed transmission and 540 rpm independent pto.	44014C	44024C
with 8-speed transmission and no pto.	44011C	44021C
with manual reversing 4-speed transmission, and no pto.	44011G	44021G
with manual reversing 4-speed transmission and 540 rpm transmission-drive pto.	44012G	44022G
with manual reversing 4-speed transmission and 540 rpm independent pto.	44014G	44024G

OTHER STANDARD EQUIPMENT

Engine components
Vertical exhaust
Muffler

Instruments
Tachometer
Fuel gauge
Oil pressure warning light
Generator warning light
Water temperature gauge
Instrument lights

Industrial Seat
Fenders
Tool Box
Tires
Front—6.00—16, I1, 4-ply
Rear—14.9—24-in, R1, 4-ply

OPTIONAL EQUIPMENT
(Factory Installed)

Front tires
7.50—16, I1, 6-ply..... T14

Rear tires
14.9—24-in., R4, 6-ply..... T45
16.9—24-in., R1, 6-ply T46
16.9—24-in., R3, 6-ply..... T47

Hydraulics..... C-2
“Live” hydraulic system with engine-mounted, piston-type pump, 4.8 gpm capacity..System relief pressure, 2500 psi. Double filter; fine mesh, screen-type intake filter, second filter removes contaminants as fluid returns to sump. “Draft” or “Position” control. “Flow” control for adjusting speed of draft control reaction. Single operating lever for raising, lowering and adjusting implement depth. Category II 3-point hitch with double-acting top link. Hydraulic lifting force 24 inches rear of lower link balls—2,000 lbs. A 3-way auxiliary services control selector valve is available to supply either the main lift cylinder or a single-acting remote cylinder, or both at the same time. Remote control valves to control single-acting or double-acting remote cylinders are

available. These open-center, one-spool or two-spool valves provide feathering action from closed position to fully open; may be set for “float”; and automatically return to neutral when cylinders reach fully raised or lowered position.

Foot Accelerator..... X-1
Varies engine speed to match work requirements, freeing operator’s hand for operation of other tractor controls.

Swinging drawbar..... M-2

Lighting..... E-2
2 headlights, taillight, instrument panel lights, electrical outlet and plug.

ACCESSORIES (Dealer Installed)

Hitch Equipment
Swinging drawbar
Clevis for swinging drawbar
Fixed drawbar
Linkage drawbar
Linkage stabilizers

Hydraulics
Auxiliary service control valve
Remote control valve, 1- or 2-spool
Single-acting remote hydraulic cylinders (thrust range—2500—7500 psi)
Double-acting remote hydraulic cylinder (thrust range—6000—15000 psi)
Remote cylinder hose kits
Quick-release hydraulic coupling (S-A, D-A)

Lighting
2 headlights, taillight
Implement warning light
Implement work light and switch

PTO
PTO belt pulley
PTO guard

Other
Air pre-cleaner, long stack
Front and rear wheel weights
Grease gun and holster
Tire pump

FORD

3400 TRACTOR



The Ford 3400 tractor is a sturdy, compact yet economical tractor with great versatility for landscaping, snow removal, highway and park mowing, material loading and similar applications. A wide list of options enables the purchaser to practically "design" the tractor to meet his own particular needs and budget:

- **Heavy-duty diesel engine**, or gasoline engine built to diesel standards of strength.
- **Non-adjustable I-beam industrial axle and heavy duty front end construction** to withstand the

stresses of loader operation, or dozer snow blade work. Sturdy rear axle construction with 6000 lb. load rating.

- **Heavy-duty chassis throughout.**
- **Outstanding fuel economy** from all-new Ford tractor engines.
- **Four transmission options.**
- **Advanced hydraulics**; 3-point lift system with double acting draft control that operates with top link in either compression or tension.

HORSEPOWER

	GAS 2100 rpm	DIESEL 2000 rpm
Net flywheel hp includes fan, muffler, air cleaner, and radiator (Manufacturer's estimate, maximum corrected).....	46.7	44.1
PTO hp (Manufacturer's estimate, maximum observed)		
with 4-speed transmission.....	39.1	39.4
with 10-speed transmission.....	36.4	38.0
Drawbar hp (Manufacturer's estimate, maximum observed)		
with 4-speed transmission.....	34.3	36.3
with 10-speed transmission.....	30.0	33.3
Engine torque (fully equipped engine)	GAS	DIESEL
at rated speed, lb.-ft. (corrected).....	117	116
Maximum torque , lb.-ft. (corrected).....	123.0	125.7
at engine speed, rpm.....	1,350	1,150
Displacement , cu. in.....	158	175

ENGINE SPECIFICATIONS

GASOLINE ENGINE:

Type: in-line vertical, overhead valve. No. of cylinders: 3. Rated speed: 2,100 rpm. Bore: 4.2 in. Stroke: 3.8 in. Compression ratio: 8:1.

Cylinder block — Extra heavy (234 lb.), with deep skirts and heavy ribs for rigidity. Extra wide flanges add strength and provide large gasket areas to help maintain secure sealing against oil leaks.

Crankshaft—Nodular iron with four main bearing journals. Journal length: 1.46 in. Diameter: 3.37 in. Total main bearing area per piston, 20.58 sq. in. Crank pin length: 1.68 in. Diameter: 2.75 in.

Connecting rods—Massive, forged

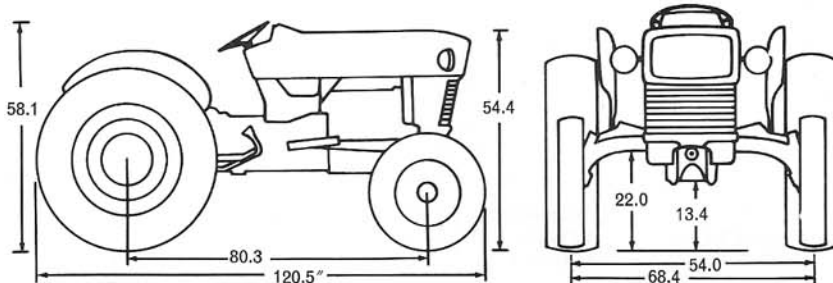
I-beam. Piston end bushing, bronze on steel backing. **Main bearings**—sleeve-type, over-plated copper-lead alloy. **Pistons**—Aluminum alloy, fitted with hard, heat-resistant cast iron top ring groove insert. **Piston rings**—One oil ring and two compression rings per piston. All rings, excepting the lower compression ring, are chrome plated. **Piston pin**—Floating type. Length: 3.5 in. Outside diameter: 1.5 in. **Piston travel**—1,330 fpm @ 2,100 engine rpm.

Valves—Positive rotators on exhaust valves. Nodular iron rocker arms. Hardened valve seat inserts. Intake valve: 1.8 in. O.D. Exhaust valve: 1.5 in., O.D. Opposed intake and exhaust manifolds. Water jacketed, temperature-controlled, intake manifold on gasoline models. **Camshaft**—

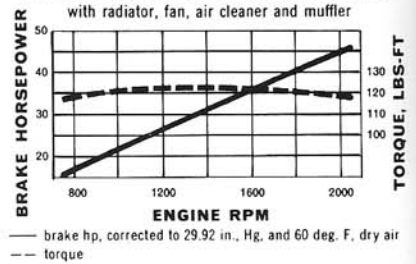
DIMENSIONS

Ground clearance	
under transmission housing, in.....	13.4
under front axle, in.....	22.0
Wheelbase, in.....	80.3
Turning radius	
with brakes.....	9'9"
without brakes.....	10'4"
Curb clearance circle, ft.	
with brakes.....	20'1"
without brakes.....	21'7"

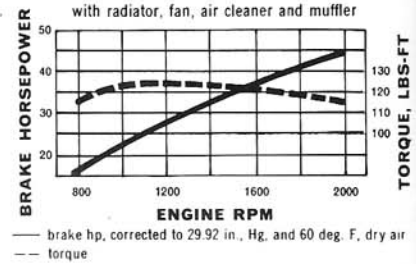
Overall length	
to end of lower lift links, in.....	120.5" —
Overall height	
over hood, in.....	54.4
over steering wheel, in.....	58.1
Overall width, 52-in. tread, in.....	68.4
Front wheel tread, in. fixed.....	54.0
Rear wheel tread adjustment range, in..	52-76



GASOLINE ENGINE CHARACTERISTICS



DIESEL ENGINE CHARACTERISTICS



high-lift, flat follower type. **Cylinders**—Sleeveless engine block design to increase rigidity, transfer heat more quickly and uniformly to liquid coolant. **Engine lubrication**—Pressurized main system. Gear type oil pump. Gear driven from camshaft. Fixed screen intake. Main bearings, connecting rod bearings, and camshaft bearings pressure lubricated. Rocker arms, pressure lubricated (intermittent).

CAPACITIES

Fuel tank, gal.....	13
Engine lubrication, qt. with filter.....	8
Transmission	
4-speed, qt.....	6
Manual reversing 4-speed, qt.....	13.2
8-speed, qt.....	17
Triple range, 10-speed, qt. (Refill).....	11
Cooling system, qt.....	13.8
Rear axle and hydraulic system, qt....	20.5

Weight distribution—including fuel to capacity, oil and water.

Front axle, lb.....	1540
Rear axle, lb.....	1860
Total, lb.....	3400
Shipping weight, including oil, water, 7 gal. fuel, lb.....	3358

TRANSMISSION OPTIONS

10-speed power-shift—A full-range, power-shift transmission. Operator may power-shift into any one of 10 forward speeds, on-the-go. Three planetary gear sets in constant mesh. Power flow directed through gear sets by means of hydraulically actuated clutch packs. Two reverse speeds.

8-speed transmission—8 speeds forward—two speeds reverse. Overlap of speeds between high and low range provides a wide latitude of speeds with a minimum of range selector shifting.

Manual reversing, 4-speed—A dual range, fast shuttle transmission. Provides 2 forward, 2 reverse speeds in low range; 2 forward, 2 reverse speeds in high range. Simple shift pattern, with wide range of forward and reverse speeds ideal for all shuttle type operations, loading, peeling, backfilling, etc.

4-speed transmission—Constant mesh, provides 4 forward, 1 reverse speed. Forward gears, helical cut. Reverse gears, helical-spur.

BASIC MODELS

	Diesel	Gas
with 4-speed transmission and no pto.....	34011A	34021A
with transmission-drive pto.....	34012A	34022A
with 8-speed transmission and transmission-drive pto.....	34012C	34022C
with 8-speed transmission and no pto.....	34011C	34021C
with power-shift 10-speed transmission, no pto.....	34011E	34021E
and independent pto.....	34014E	34024E
with manual reversing 4-speed transmission, no pto.....	34011G	34021G
and with transmission-drive pto.....	34012G	34022G

OTHER STANDARD EQUIPMENT

- Engine components**
- Vertical exhaust
- Muffler
- Instruments**
- Tachometer
- Fuel gauge
- Oil pressure warning light
- Generator warning light
- Water temperature gauge
- Instrument illumination
- Pan seat**
- Fenders**
- Tires**
- Front—6.00—16-in., I1, 4-ply
- Rear—12.4—28-in., R1, 4-ply

OPTIONAL EQUIPMENT (Factory-installed)

	Option Code
Front tires	
6.50—16, I1, 6-ply.....	T-11
7.50—16, I1, 6-ply.....	T-14
Rear tires	
13.6—28-in., R1, 4-ply.....	T-57
13.6—28-in., R3, 4-ply.....	T-58
14.9—24-in., R4, 6-ply.....	T-45
16.9—24-in., R1, 6-ply.....	T-46

Power-assist-steering.....F-1
 Drag-link controlled, two sides. Engine-mounted, gear driven, gear type pump. Pump delivery, 3.5 gpm @ 1,000 rpm, and 0 psi. Replaceable element filter, 600 hour element life. Cylinders, separate from control valve, 12 in. stroke, 1.49-in. ID.

Hydraulics.....C-2
 "Live" hydraulic system with engine-mounted, piston-type pump, 4.8 gpm capacity. System relief pressure, 2500 psi. Double filter, fine mesh, screen-type intake filter, second filter removes contaminants as fluid returns to sump. "Draft" or "Position" control. "Flow" control for adjusting speed of draft control reaction. Single operating lever for raising, lowering and adjusting implement depths. Category I 3-point hitch with double acting top link. Hydraulic lifting force 24 inches rear of lower link balls—1,700 lbs. A 3-way auxiliary services control selector valve is available to supply either the main lift cylinder or a single acting remote cylinder, or both at the same time. Remote control valves to control single-acting or double-acting remote cylinders are available. These open-center one-spool or two-spool valves provide feathering action from closed position to fully open; may be set for "float"; and automatically return to neutral when cylinders reach fully raised or lowered position.

Differential lock.....A-2
 Improves traction in difficult spots by minimizing rear wheel spin. Operator engages by depressing a pedal near right foot. Power is directed evenly to both drive wheels, allowing wheel on firm ground to move tractor. As difficult area is passed, the spring-loaded coupling automatically unlocks the differential.

Foot accelerator.....X-1
 Varies engine speed to match work requirements, freeing operator's hand for operation of other tractor or loader control.

Swinging drawbar.....M-2

Lighting.....E-2
 2 headlights, taillights, instrument panel lights, electrical outlet and plug.

Deluxe Seat.....G-1
 Contour shaped cushion seat and suspension.

Industrial Type Seat.....G-3
 Deep padded with arm and back rests.

Diesel engine very cold start.....V-2
 standard with triple range, 10-speed transmission

ACCESSORIES: (Dealer Installed)

- Hitch equipment**—
- Swinging drawbar
- Clevis for swinging drawbar
- Linkage drawbar
- Linkage stabilizers
- Fixed drawbar
- Hydraulics**—
- Auxiliary service control valve
- Remote control valves, 1- or 2-spool
- Single-acting remote cylinders (thrust range—2500—7500 psi)
- Double-acting remote hydraulic cylinders (thrust range—6000—15,000 psi)
- Remote cylinder hose kits
- Quick-release hydraulic coupling (S-A, D-A)

Lighting—

- 2 headlights, taillight
- Implement warning light
- Implement work light and switch

PTO—

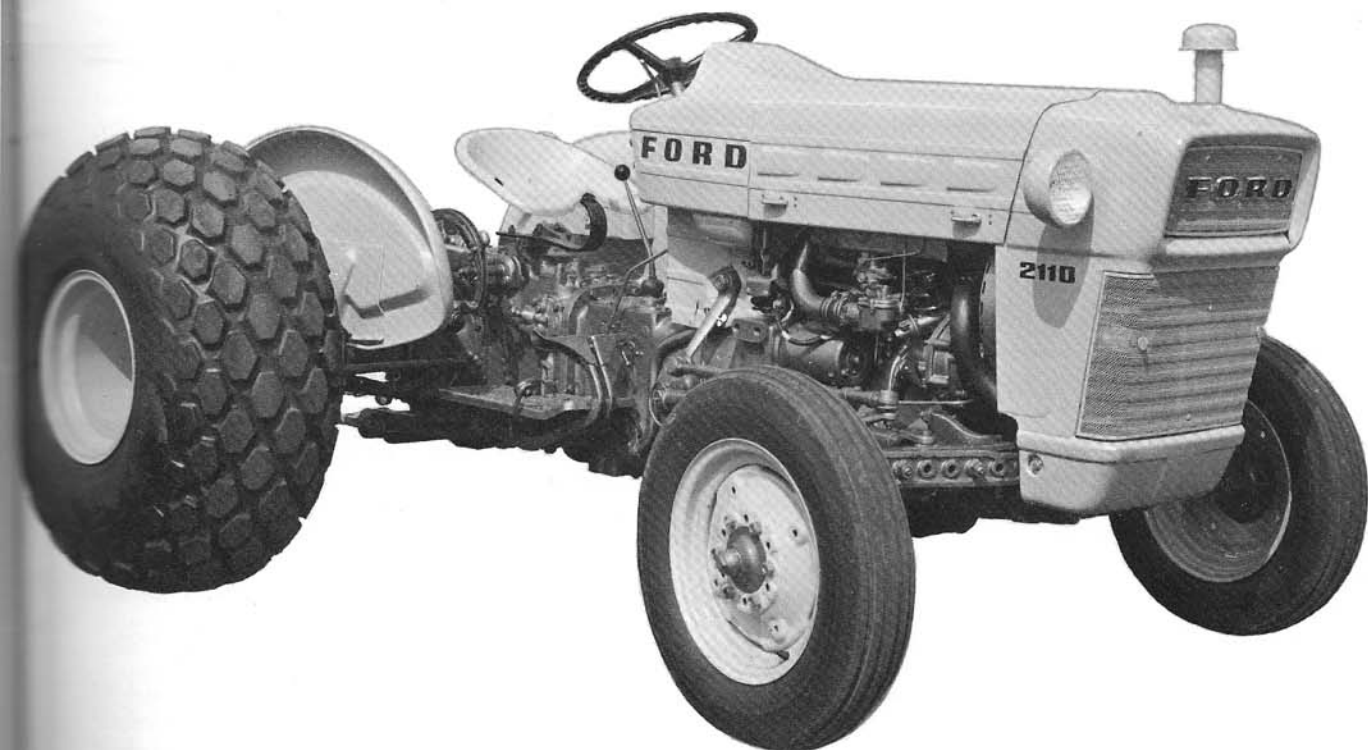
- PTO belt pulley and guard
- PTO guard

Other accessories

- Air pre-cleaner, long stack
- Front wheel and rear wheel weights
- Diesel engine very cold start (standard with triple range 10-speed transmission)
- Grease gun and holster
- Tire pump

FORD

2110 LCG TRACTOR



The Ford 2110 LCG tractor is a compact unit with exceptionally low center of gravity. It is designed especially to meet the need for low cost power on a wide variety of mowing and towing applications. In addition to its low center of gravity, the 2110 provides a good distribution of weight between front and rear wheels, resulting in excellent front-end stability and steering under all conditions.

- **All-New gasoline engine** built to diesel standards of strength. Unusually quiet and smooth running, reducing operator fatigue.
- **Low center of gravity** for safer operation on side slopes.
- **Adjustable front and rear wheel tread** to meet required mowing settings for rear or side-mounted cutterbar, rear-mounted rotary or flail mowers, and towed gang reel mowers.
- **Ford front-mounted loader**, single-arm type with 1,200lb lift capacity, or snow blade may be mounted on tractor.
- **Choice of transmissions**—4-speed manual shift (standard), 10-speed power shift or dual range 8-speed with PTO options.

HORSEPOWER

GAS

Net flywheel hp, @ 1900 rpm, includes fan, muffler, air cleaner, and radiator (Manufacturer's estimate, maximum corrected)..... 36.0

PTO hp (Manufacturer's maximum observed) with 4-speed transmission.. 30.5

Engine torque (fully equipped engine)

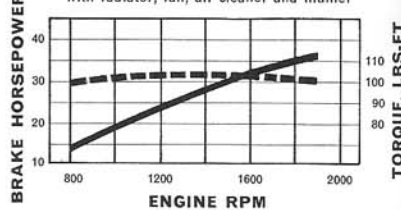
at rated speed, lb.-ft. (corrected)..... 100

Maximum torque, lb.-ft. (corrected)..... 102.7

at engine speed, rpm..... 1,350

GASOLINE ENGINE CHARACTERISTICS

with radiator, fan, air cleaner and muffler



— brake hp, corrected to 29.92 in. Hg, and 60 deg. F, dry air
 - - - torque

GASOLINE ENGINE

Type—In-line vertical, overhead valve. No. of cylinders: 3. Rated speed: 1,900 rpm. Bore: 4.2 in. Stroke: 3.8 in. Displacement: 158 cu. in. Compression ratio: 8:1.

Cylinder block —Exceptional strength with deep skirts and heavy ribs for rigidity. Extra wide flanges not only add rigidity, but give greater gasket areas to help maintain secure sealing against oil leaks.

Crankshaft—Nodular iron, with four

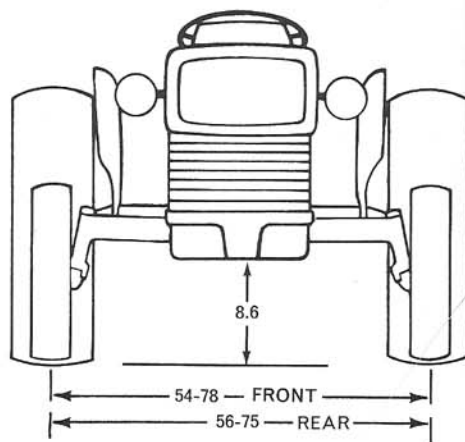
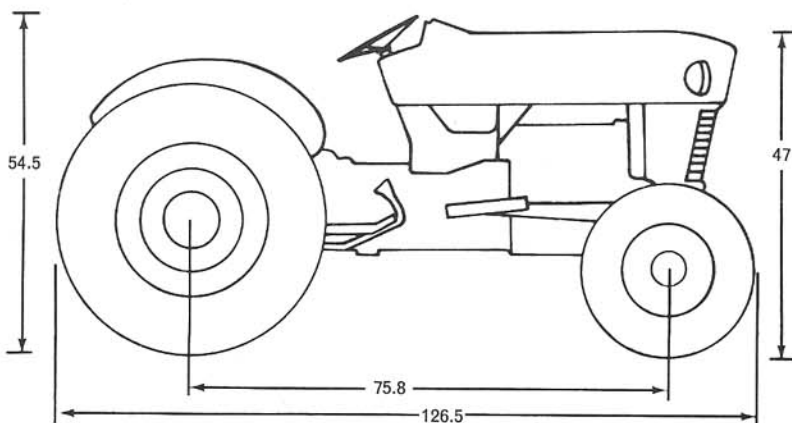
hardened, main bearing journals. Journal length: 1.46 in. Diameter: 3.37 in. Total main bearing area per piston: 20.58 sq. in. Crank pin length: 1.68 in. Diameter: 2.75 in. **Connecting rods**—Forged I-beam. Piston bushing, bronze on steel backing. **Main bearings**—

DIMENSIONS

	w/8.3—24 in. rear tires	w/8.3—24 in. dual rears	w/18.4 in low pressure tires
Wheelbase, in.....	75.8	75.8	75.8
Height to top of steering wheel, in.....	54.5	54.5	55.5
Height over hood, in.....	47	47	48
Center of gravity: height above ground, in....	21.75	21.75	22.75
Length overall, front sheet metal to end of lower hitch links, in.....	126.5	126.5	126.5
Width overall, in.....	68.6	84.7	92.5
Ground clearance, under transmission, in....	8.6	8.6	9.6
Front wheel tread, adjustable, in.....	54-78	54-78	60-78
Rear wheel tread, adjustable, in.....	56-75	56-75	74 fixed tread
Curb clearance circle, with brakes, ft.....	20'0"		
without brakes, ft.....	22'3"		

CAPACITIES

Fuel tank, gal.....	13
Engine lubrication, including filter, qt.....	7
Transmission, 4-speed, qt.....	6.5
10-speed, qt.....	11
Cooling system, qt.....	13.2
Rear axle and hydraulic system, qt.....	23.5
Weight distribution —including oil, water, 7 gal. fuel	
Front axle, lb.....	1,500
Rear axle, lb.....	1,730
Shipping weight, lb.....	3,230



Sleeve-type, over-plated copper-lead alloy. **Pistons**—Aluminum alloy, fitted with hard, heat-resistant top ring groove insert.

Piston rings—One oil ring and two compression rings per piston. All rings, excepting the lower compression ring, are chrome plated. **Piston pin**—Floating type. Length: 3.5 in. Outside diameter: 1.5 in. **Piston travel**—1,205 fpm, 2,000 engine rpm. **Valves**—Positive rotators on exhaust valves. Nodular iron rocker arms. Intake valve 1.8 in. O.D.; exhaust, 1.5 in. O.D. Opposed intake and exhaust manifolds. Water jacketed, temperature controlled intake manifold on gasoline model gives better fuel distribution in cold weather, more efficient performance in hot weather. **Camshaft**—High-lift, flat follower type. **Cylinders**—Sleeveless design, increases rigidity of block, transfers heat quickly and uniformly to liquid coolant. **Engine lubrication**—Pressurized main system. Gear type oil pump. Gear driven from camshaft. Fixed screen intake. Main bearings, connecting rod bearings, and camshaft bearings pressure lubricated. Rocker arms, pressure lubricated (intermittent). Piston pin bearings, cylinder walls, and tappets splash lubricated. Timing drive, squirt lubricated. Push rods, lubricated by drip from rocker arms.

Oil filter—Full flow, 2 qt., with replaceable 300 hr. element, safety bypass valve. **Fuel pump**—Eccentric drive from timing idler gear. Positive supply of fuel to carburetor. **Automotive style carburetor**—Single venturi, updraft type. Accelerating well and economizer valve. Sediment bowl and 4 filter screens. **Air cleaner**—Dry cartridge type, diameter, 6.5 in. Rated air flow: 100 cfm. **Air circulation**—4 blade, V-belt drive fan. **Cooling system**—Pump-circulated, thermostat-controlled, with fixed bypass. Full length water jackets for uniform cooling. Tube-and-fin radiator, with pressure cap. 26 gpm pump. Thermostat, opening temperature, 188 deg. F.; fully open 212 deg.

Electrical starting and ignition—Key starter switch and transmission safety lock. Starting motor with positive engagement drive assembly. Distributor has centrifugal and vacuum spark advance. **Battery**—12-volt, 80 amp. hr. Ventilated-type generator, capacity, 22 amp., voltage and current regulator.

CHASSIS

Final Drive—Matched pinion and spiral bevel ring gear sets. Straddle mounted 4-pinion differential, semi-floating rear axle, with forged steel axle shafts.

Clutch—Heavy-duty, dry disc. Diameter 11 in. Friction area, one side, 55.7 sq. in. Foot operated.

Foot Accelerator—Varies engine speed to match work requirements.

Brakes—Mechanical. Expanding shoe. Operated either individually or simul-

taneously. May be locked together for highway operation. Diameter: 14 in. Total lining area: 98.46 sq. in. Ribbed cast iron drums to dissipate heat.

Front Axle—Sweptback, adjustable with 3 forged steel overlapping sections. Center section pivoted within heavy cast support. Pivot pin diameter 1.75 in.

Steering—Manual. Ball-nut type, with 18 in. diameter steering wheel. Steering wheel turns, stop to stop, 2.6.

TRAVEL SPEEDS, MPH, APPROX., WITH 8.3 OR 18.4 IN. REAR TIRES WITH 10-SPEED POWER-SHIFT TRANSMISSION AT RATED ENGINE RPM

Gear Travel speeds reverse, mph: Travel speeds forward, mph: Gear

	10	9	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
																														1st	
																															2nd
																															3rd
																															4th
																															5th
																															6th
																															7th
																															8th
R 1																														9th	
R 2																														10th	

WITH 8-SPEED TRANSMISSION AT RATED ENGINE RPM

	10	9	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8		
R 1																					
R 2																					

WITH 4-SPEED TRANSMISSION AT RATED ENGINE RPM

	10	9	8	7	6	5	4	3	2	1	0	1	2	3	4	
																1st
																2nd
																3rd
R 1																4th

POWER TAKE-OFF OPTIONS

Tractor transmission type	PTO type	Engine rpm at which 540 rpm pto delivered
4-speed.....	Transmission drive	1,500
8-speed.....	Live	1,600
10-speed.....	Independent	1,800

TRANSMISSION OPTIONS

4-speed; constant mesh—4 forward speeds, and 1 reverse. Forward gears, helical cut. Reverse gears, helical-spur combination.

10-speed Power-Shift—Full-range power-shift transmission. Operator may power shift into any one of the 10 forward speeds on-the-go. Three planetary gear sets in constant mesh. Power flow directed through gear sets by means of hydraulically actuated clutch packs. Two reverse speeds.

8-speed transmission—8 speeds forward—two speeds reverse. Overlap of speeds between high and low range provides a wide latitude of speeds with a minimum of range selector shifting.

BASIC MODELS

- with 4-speed transmission and no pto.....21121 A
- with 4-speed transmission and 540 rpm transmission-drive pto.....21122 A
- with power shift 10-speed transmission and independent 540 rpm pto.....21124 E
- with 8-speed dual range transmission and live (2-stage clutch) pto.....21123 C

OTHER STANDARD EQUIPMENT

Engine Components

Vertical or horizontal muffler installation

Instruments

Tachometer
Fuel gauge
Oil pressure warning light
Generator warning light
Water temperature gauge

Pan Seat

Fenders

Swinging Drawbar

Tires

Front: 6.50—13, F3, 4-ply
Rear: 8.3—24, R3, 4-ply

OPTIONAL EQUIPMENT

(Factory Installed)

Flotation Tire Package consists of:
Rear: 18.4—16A, R3, 6-ply.....T-40
Front: 6.00—16, 11, 4-ply.....T-09
Dual Rear Wheels.....J-2
Power-Assist Steering.....F-1
Drag-link controlled, two sides. Engine-mounted, gear-driven, gear-type pump. Pump delivery, 3.5 gpm @ 1,000 rpm, and 0 psi. Replaceable element filter, 600 hour element life. Cylinders, separate from control valve, 12 in. stroke, 1.49 in. ID.

Hydraulics.....C-2

“Live” hydraulic system with engine-mounted, piston-type pump, 4.0 gpm capacity. System relief pressure, 2,500 psi. Double filter, fine mesh, screen-type intake filter, second filter removes contaminants as fluid returns to sump. “Draft” or “Position” control. “Flow” control for adjusting speed of draft control reaction. Single operating lever for raising, lowering and adjusting implement depth. Category I 3-point hitch. Hydraulic lifting force 24 inches rear of lower link balls—1,700 lbs. A 3-way auxiliary services control selector valve is available to supply either the main lift cylinder or a single-acting remote cylinder, or both at the same time. Remote control valves to control single-acting or double-acting remote cylinders are available. These open-center one-spool or two-spool valves provide feathering action from closed position to fully open; may be set for

“float”; and automatically return to neutral when cylinders reach fully raised or lowered position.

Differential lock.....A-2

Improves traction on wet grass, mud and slopes by minimizing rear wheel spin. Operator engages with pedal near right foot. Both drive wheels turn at equal speed. Spring-loaded coupling automatically unlocks differential when difficult spot is passed.

Lighting.....E-2

Includes two headlights, one taillight and instrument panel illumination.

ACCESSORIES

(Dealer Installed)

Hitch Equipment

Linkage drawbar
Linkage stabilizer

Hydraulics

Auxiliary services control
Remote control valves 1 or 2 spool
Single-acting remote cylinders (thrust range 2,500-7,500 psi)
Double-acting remote cylinders (thrust range 6,000-15,000 psi)
Remote cylinder hose kits
Quick-release hydraulic couplings

Lighting

2 headlights, taillight
Implement warning light
Implement work light and switch

PTO

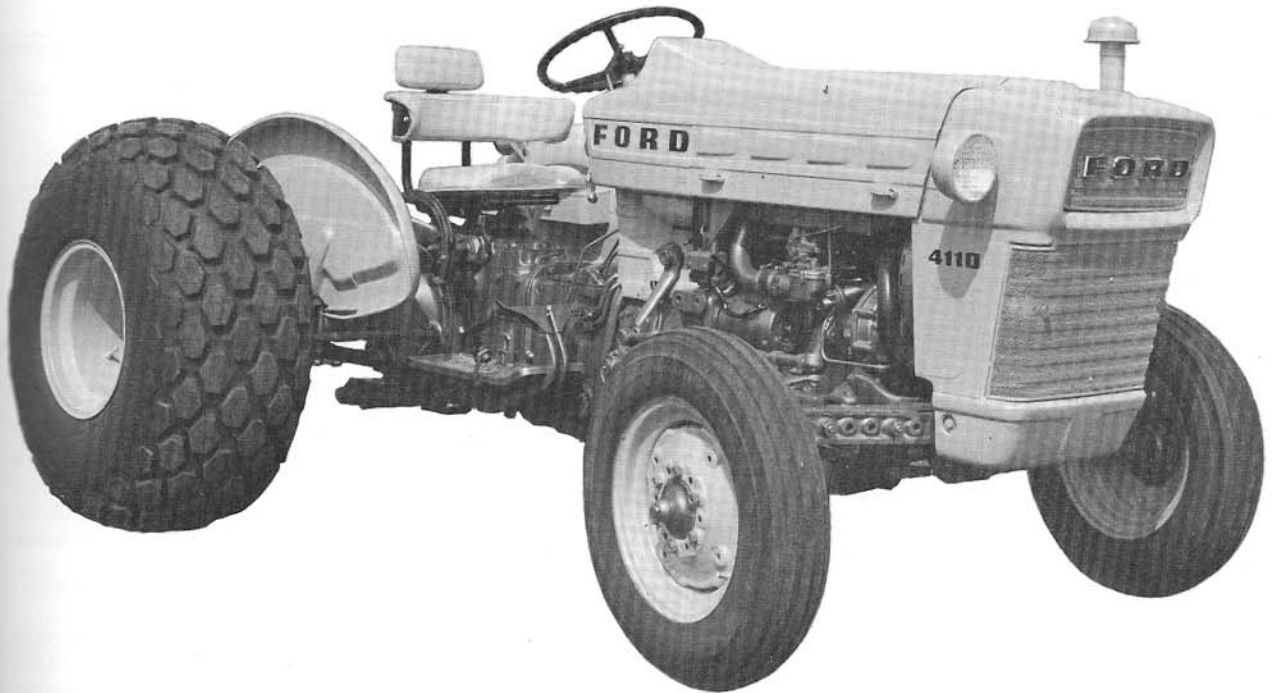
Belt pulley and guard
PTO guard

Other Accessories

Air pre-cleaner, long stack
Grease gun and holster
Tire pump

FORD

4110 LCG TRACTOR



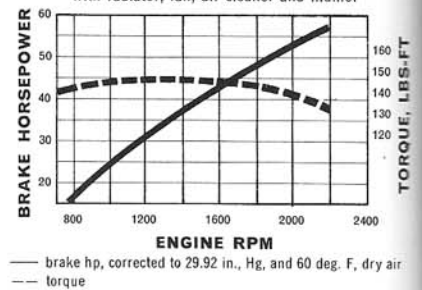
The Ford 4110 LCG tractor has ample power for heavy PTO loads such as three-unit rotary mowers, 7-foot Ford flail mower, combinations of rear and side-mounted mowers, and 9-gang or larger trailing, reel-type mowers. Excellent weight distribution adapts it for work on fine turf when equipped with dual tires or low-pressure, flotation-type rear tires.

- **All-new engines**, diesel or gasoline. Exceptionally quiet and smooth running for maximum operator comfort.
- **10-speed, power-shift transmission** permits on-the-go shifts as terrain or load varies.
- **Independent power take-off** maintains power-drive mowers and other such PTO equipment at rated speed, regardless of stopping, starting or changing tractor travel speeds. Ground drive PTO feature is available.
- **Lower center of gravity** for safer mowing on side slopes.
- **Good front-to-rear weight distribution** contributes to front-end stability for accurate steering and when pulling uphill.
- **All-day riding comfort** with adjustable deluxe seat and suspension.

HORSEPOWER

	GAS 2200 rpm	DIESEL 2200 rpm
Net flywheel hp , includes fan, muffler, air cleaner, and radiator (Manufacturer's estimate, maximum corrected).....	55.3	53.2
PTO hp (Manufacturer's estimate, maximum observed) with 10-speed transmission.....	45.4	45.6
Engine torque (fully equipped engine) at rated speed, lb.-ft. (corrected).....	GAS 132	DIESEL 127
Maximum torque , lb.-ft. (corrected).....	146	150
at engine speed, rpm.....	1,450	1,000

GASOLINE ENGINE CHARACTERISTICS
with radiator, fan, air cleaner and muffler



ENGINE SPECIFICATIONS

GASOLINE ENGINE:

Type—In-line vertical, overhead valve. No. of cylinders: 3. Rated governed speed: 2,200 rpm. Bore: 4.4 in. Stroke: 4.2 in. Displacement: 192 cu. in. Compression ratio: 8:1.

Cylinder block—Extra strong with deep skirts and heavy ribs for rigidity. Extra wide flanges not only add rigidity, but give greater gasket areas to help maintain secure sealing against oil leaks.

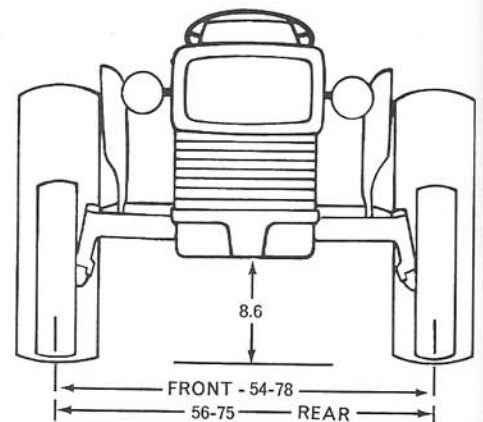
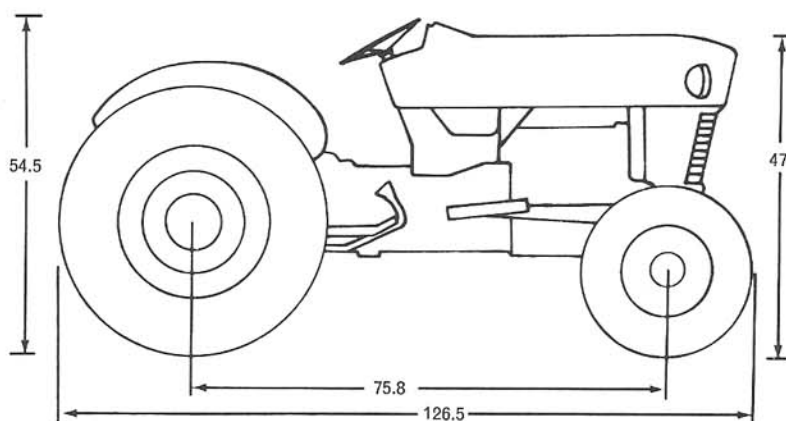
Crankshaft—Nodular iron, with four main, hardened bearing journals. Journal length: 1.46 in. Diameter: 3.37 in. Total main bearing area per piston: 20.58 sq. in. Crankpin length: 1.68 in. Diameter: 2.75 in.

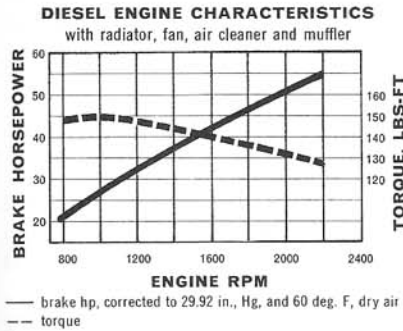
DIMENSIONS

	w/8.3–24-in. rear tires	w/8.3–24-in. dual rears	w/18.4 in low pressure tires
Wheelbase, in.....	75.8	75.8	75.8
Height to top of steering wheel, in.....	54.5	54.5	55.5
Height over hood, in.....	47	47	48
Center of gravity height above ground, in....	21.75	21.75	22.75
Length overall, front sheet metal to end of lower hitch links, in.....	126.5	126.5	126.5
Width overall, in.....	68.6	84.7	92.5
Ground clearance, under transmission, in....	8.6	8.6	9.6
Front wheel tread, adjustable, in.....	54-78	54-78	60-78
Rear wheel tread, adjustable, in.....	56-75	56-75	74 fixed tread
Curb clearance circle, with brakes.....	20'0"		
without brakes.....	22'3"		

CAPACITIES

Fuel tank, gal.....	13
Engine lubrication, qt.....	8
Transmission, 10-speed, qt.....	12
Cooling system, qt.....	14
Rear axle and hydraulic system, qt.....	23.5
Weight distribution —including oil, water, 7 gal. fuel	
Front axle, lb.....	1,500
Rear axle, lb.....	1,730
Shipping weight, lb.....	3,230





Connecting rods—Forged I-beam. Piston bushing, bronze on steel backing. **Main and rod bearings**—Sleeve-type, over-plated copper-lead alloy. **Pistons**—Aluminum alloy, fitted with hard, heat-resistant top ring groove insert. **Piston rings**—One oil ring and two compression rings per piston. All rings, excepting the lower compression ring, are chrome plated. **Piston pin**—floating type. Length: 3.5 in. Outside diameter: 1.5 in. **Piston travel**—1,540 fpm, 2,200 engine rpm.

Valves—Positive rotators on exhaust valves. Nodular iron rocker arms. Intake valve 1.8 in. O.D.; exhaust, 1.51 in. O.D. Opposed intake and exhaust manifolds. Water jacketed, temperature controlled, intake manifold on gasoline model gives better fuel distribution in cold weather, more efficient performance in hot weather. **Camshaft**—High-lift, flat follower type. **Cylinders**—Sleeveless design to increase block rigidity and to transfer heat quickly and uniformly to liquid coolant. **Engine lubrication**—Pressurized main system. **Gear-type oil pump**. Gear-driven from crankshaft. Fixed screen intake. Main bearings, connecting rod bearings, and camshaft bearings pressure lubricated. Rocker arms, pressure lubricated (intermittent). Piston pin bearings, cylinder walls, and tappets splash lubricated. Timing drive, squirt lubricated. Push rods, lubricated by drip from rocker arms.

Oil Filter—full flow, 2 qt., with replaceable 300 hr. element, safety bypass valve. **Fuel pump**—Eccentric drive from timing idler gear. Positive supply of fuel to carburetor. **Automotive Type carburetor**—Single venturi, updraft type. Accelerating well and economizer valve. Sediment bowl and four filter

screens. **Air Cleaner**—Gasoline: dry cartridge type, diameter, 6.5 in. Rated air flow: 100 cfm. **Air circulation**—4-blade, V-belt drive fan. **Cooling system**—Pump-circulated, thermostat-controlled, with fixed bypass. Full length water jackets for uniform cooling. Tube-and-fin radiator, with pressure cap. 28 gpm pump. Thermostat, opening temperature, 188° F.; fully open 212° F. **Electrical starting and ignition**—Key starter switch and transmission safety lock. Starting motor with positive engagement drive assembly. Distributor has centrifugal and vacuum spark advance. **Battery**—12-volt, 80 amp. hr. Ventilated-type generator, capacity, 22 amp voltage and current regulator.

DIESEL ENGINE:

Type—in-line vertical, direct injection, with cold starting aid. No. of cylinders: 3. Rated governed speed: 2,200 rpm.

Bore: 4.4 in. Stroke: 4.4 in. Displacement: 201 cu. in. Compression ratio: 16.5:1.

Crankshaft—Induction hardened, forged alloy steel. **Pistons**—aluminum alloy, fitted with hard, heat-resistant, Ni-Resist top ring groove. **Piston Rings**—One oil ring and three compression rings. Piston travel: 1,613 fpm. All rings, except the lower compression ring, are chrome-plated.

Injection pump—Distributor type with mechanical governor. **Injection nozzles**—4 orifice type, accessible without removing valve cover. **Dual fuel filters**—Replaceable paper elements. 1,200 hour element life. **Air cleaner**—Oil bath. Rated air flow, 116 cfm. Capacity, 1.15 qt. **Battery**—128 amp hr.

In general, all other specifications are the same for gasoline and diesel engines.

CHASSIS

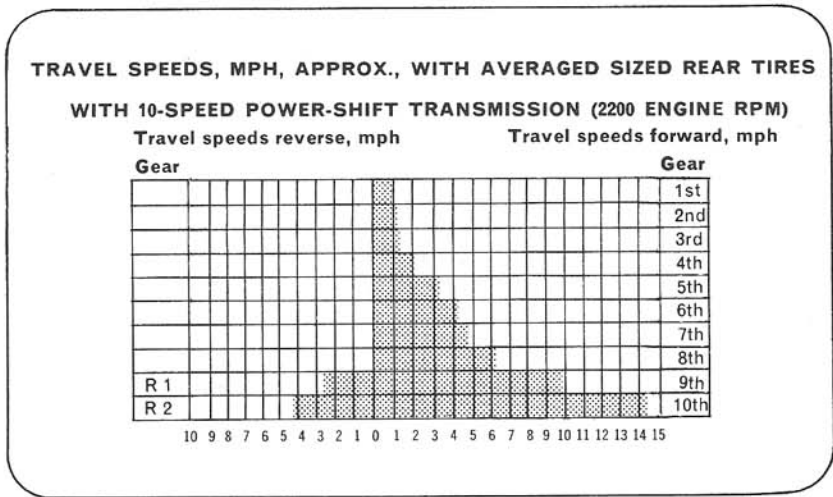
Final drive—Matched pinion and spiral bevel ring gear sets: Straddle-mounted 4-pinion differential, semi-floating rear axle, with forged steel axle shafts. Heavy-duty rear axle housing, 6,000 lb. capacity.

Brakes—Mechanical. Expanding shoe. Operated either individually or simultaneously. May be locked together for highway operation. Diameter: 14 in. Total lining area: 98.46 sq. in.

Front axle—Swept back, adjustable with three forged steel overlapping sections. Center section pivoted within heavy cast support. Pivot pin diameter, in., 1.75.

Steering—Manual. Ball nut type, with 18 in. diameter steering wheel. Steering gear ratio, 15.43:1. Steering wheel turns, stop to stop, 2.6.

Foot accelerator—Varies engine speed to match work requirements.



TRANSMISSION :

Power-shift 10-speed—A full-range, power-shift transmission. Operator may power-shift into any one of 10 forward speeds, on-the-go. Three planetary gear sets in constant mesh.

Power flow directed through gear sets by means of hydraulically actuated clutch packs. Two reverse speeds.

Power take-off—Independent power take-off (540 rpm at 1,800 engine rpm). Or, independent power take-off, 540/1,000 rpm with ground-drive.

BASIC MODELS

	Diesel	Gas
With 10-speed transmission, no pto.....	4111E	41121E
With 10-speed transmission and 540 rpm independent pto.....	41114E	41124E
With 10-speed transmission and 540/1,000 rpm independent pto with ground drive feature.....	41116E	41126E

OTHER STANDARD EQUIPMENT

Engine Components

Vertical or horizontal muffler installation

Instruments

- Tachometer
- Fuel Gauge
- Oil Pressure Warning Light
- Generator Warning Light
- Water Temperature Gauge

Deluxe Seat and Suspension

Tool Box

Fenders

Swinging Drawbar

Tires

Front: 6.50—13, F3, 4-ply
Rear: 8.30—24, R3, 4-ply

OPTIONAL EQUIPMENT (Factory Installed)

Flotation Tire Package Consists of:

Rear: 18.00 x 4 x 16A, R3, 6-ply.... T-40
Front: 6.00 x 16 11,..... T-09

Dual Rear Wheels.....J-2

Power-Assist Steering.....F-1

Drag-link controlled, two sides. Engine-mounted, gear-driven, gear-type pump. Pump delivery, 3.5 gpm @ 1,000 rpm, and 0 psi. Replaceable element filter, 600 hour element life. Cylinders, separate from control valve, 12 in. stroke, 1.49 in. ID.

Hydraulics.....C-2

“Live” hydraulic system with engine-mounted, piston-type pump, 4.8 gpm capacity. System relief pressure, 2,500 psi. Double filter; fine mesh, screen-type intake filter, second filter removes contaminants as fluid returns to sump. “Draft” or “Position” control. “Flow” control for adjusting speed of draft control reaction. Single operating lever for raising, lowering and adjusting implement depth. Category II, 3-point hitch. Hydraulic lifting force 24 inches rear of lower link balls—1,700 lbs. A 3-way auxiliary services control selector valve is available to supply either the main lift cylinder or a single-acting remote cylinder, or both at the same time. Remote control valves to control single-acting or double-acting remote

Option Code

cylinders are available. These open-center one-spool or two-spool valves provide feathering action from closed position to fully open; may be set for “float”; and automatically return to neutral when cylinders reach fully raised or lowered position.

Differential Lock.....A-2

Improves traction on wet grass, mud and slopes by minimizing rear wheel spin.

Lights.....E-2

Includes two headlights, one taillight and instrument panel illumination.

Industrial seat.....G-3
Deep padded with arm and back rests.

ACCESSORIES :

(Dealer Installed)

Hitch Equipment

- Linkage Drawbar
- Linkage Stabilizer

Hydraulics

- Auxiliary service control valve
- Remote control valves, 1- or 2-spool
- Single-acting remote cylinders (thrust range 2,500-7,500 psi)
- Double-acting remote cylinders (thrust range 6,000-15,000 psi)
- Remote cylinder hose kits
- Quick-release hydraulic couplings

Lighting

- 2 headlights, taillight
- Implement warning light
- Implement work light and switch

PTO Belt Pulley and Guard

Other Accessories

- Air precleaner, long stack
- Grease gun and holster

FORD

ALL PURPOSE 2000

SPECIFICATIONS

HORSEPOWER

GAS

Flywheel hp @ 1,900 rpm, includes fan, muffler, air cleaner, and radiator (Manufacturer's estimate, maximum corrected)..... 36.0

PTO hp (observed)..... 30.5

Drawbar hp (observed)..... 27.7

Drawbar pull, maximum lbs.(observed) 4,360

ENGINE TORQUE

at rated speed, lbs.-ft. (corrected)..... 100

Maximum torque, lbs.-ft. (corrected)..... 102.7

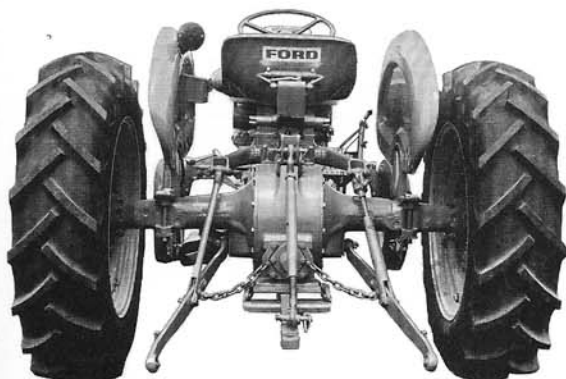
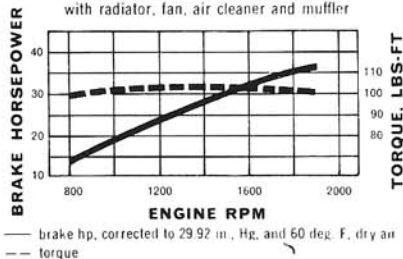
at engine speed, rpm..... 1,350

TRAVEL SPEEDS, approx.

	mph
1st gear.....	4.0
2nd gear.....	4.8
3rd gear.....	7.0
4th gear.....	14.8
Reverse.....	4.2



GASOLINE ENGINE CHARACTERISTICS
with radiator, fan, air cleaner and muffler



TRACTOR DIMENSIONS (on 12.4-28-in. rear tires)

Wheelbase, in.....	75.8
Height, to top of steering wheel, in.....	57.5
Height over hood, in.....	52.5
Length overall, front sheet metal to end of lower hitch links, in.....	126.5
Width overall, @ 52-in. tread setting in.....	63.4
Ground clearance, under front axle, in.....	21.5
Ground clearance, under center housing, in.....	13.9

Front wheel tread, adjustable, in..... 52 to 80

Rear wheel tread, adjustable, in..... 48 to 76

Turning radius—with brakes, in..... 117
without brakes, in..... 129

Curb clearance circle—with brakes, ft..... 20.0
without brakes, ft..... 22.25

CAPACITIES

Fuel tank, gal.....	13
Engine lubrication, qt.....	7
Transmission, 4-speed, qt.....	6
Cooling system, qt.....	13.2
Rear axle and hydraulic system, qt.....	23.5

WEIGHT DISTRIBUTION

Front axle, lb.....	1,585
Rear axle, lb.....	2,010
Total, lb.....	3,595

ENGINE SPECIFICATIONS

GASOLINE ENGINE—Type, In-line vertical, overhead valve. No. of cylinders: 3. Rated speed: 1,900 rpm. Bore: 4.2 in. Stroke: 3.8 in. Displacement: 158 cu. in. Compression ratio: 8.1.

CYLINDER BLOCK—Heavy-duty cast iron with deep skirts and heavy ribs. **Crankshaft**—Four main, hardened bearing journals. Length, in., 1.46. Diameter, in., 3.37. **Connecting rods**—Massive, forged I-beam. Piston end bushing, bronze on steel backing. **Bearings**—Sleeve-type, over-plated copper-lead alloy main bearings. **Pistons**—Aluminum alloy, fitted with hard, heat-resistant top ring groove insert. **Piston rings**—One oil ring and two compression rings per piston. All rings, excepting the lower compression ring are chrome plated. **Piston pin**—Floating type. Length, in., 3.5. Outside diameter, in., 1.5. **Piston travel**—1,265 fpm @ 2,000 engine rpm. **Valves**—Positive rotators on exhaust valves. Nodular iron rocker arms. Hardened valve seat inserts. Intake valve, 1.8 in. O.D. Exhaust valve, 1.5 in. O.D. Opposed intake and exhaust manifolds. Water jacketed, temperature controlled intake manifold. **Camshaft**—High-lift, flat follower type. **Cylinders**—Sleeveless design, provides maximum rigidity, transfers heat quickly and more uniformly to liquid coolant. **Engine lubrication**—Pressurized system. Main bearings, connecting rod bearings and camshaft bearings pressure lubricated. Rocker arms, pressure lubricated (intermittent). Piston pin bearings, cylinder walls and tappets splash lubricated. Timing drive, squirt lubricated. Push rods, lubricated by drip from rocker arms. Fixed screen intake. 200-hr., 1-qt. oil filter, with throwaway cartridge. **Automotive type carburetor**—single venturi, updraft type with accelerating well and economizer valve. Sediment bowl and filter screens. **Air cleaner**—dry-type, diameter, 6.5 in. Rated air flow, 100 cfm. **Air circulation**—4-blade, V-belt driven fan. **Cooling system**—Pump-circulated, thermostat-controlled, with bypass. Full length water jackets. Tube-and-fin radiator, with pressure cap. 26 gpm pump. Thermostat, open temperature, 188 deg. F.; full open, 212 deg. F. **Electrical starting and ignition**—Key starter switch and transmission safety lock. Starting motor with positive engagement drive assembly. Centrifugal and vacuum spark advance. Voltage and current regulator. Battery, 12-volt, 80-amp-hr. 128-amp-hr. available. Ventilated-type generator, capacity, 22 amp.

CHASSIS

TRANSMISSION—Constant mesh. Four forward, one reverse speeds. Forward gears, helical. Reverse gears, helical-spur combination.

FINAL DRIVE—Matched pinion and spiral bevel ring gear sets. Straddle mounted 4-pinion differential, semi-floating rear axle, with forged steel axle shafts.

POWER TAKE-OFF—Transmission-drive power take-off, splined to transmission countershaft. 540 PTO rpm @ 1,490 engine rpm.

CLUTCH—Heavy-duty, dry disc. Diameter 11 in. Friction area, one side, 55.7 sq. in. Foot operated.

FRONT AXLE—Swept-back, adjustable with three forged steel overlapping sections. Center section pivoted within heavy cast support. Tubular pivot pin, diameter, in., 1.75.

STEERING—Manual. Recirculating ball nut type, with 18-in. diameter steering wheel. Steering gear ratio, 15.43:1. Steering wheel turns, stop to stop, 2.6.

BRAKES—Mechanical. Expanding shoe. Brakes can be operated either individually or latched together and operated simultaneously. Diameter, in., 14. Lining area, sq. in., 98.46.

HYDRAULIC SYSTEM, and Category I 3-point hitch. "Live" hydraulics with position and draft control. 3-point hitch, hydraulic lifting force, 1,700 lbs., at point 24 inches rear of lower link balls. Engine-driven, piston-type pump, capacity, 4 gpm @ 2,000 engine rpm @ 2,500 psi. Also available: 3-way selector valve which can be installed in the tractor hydraulic system to permit operation of single-acting remote cylinder by means of the 3-point hitch lift control lever. 1-spool or 2-spool remote control valves available to control single-acting or double-acting remote cylinders. These open-center valves provide feathering action from closed position to fully open; may be set for "float"; and automatically return to neutral when cylinders reach fully raised or lowered position.

STANDARD EQUIPMENT—Tachometer-hour-meter. Fuel gauge. Swinging drawbar. Fenders. Oil pressure warning light. Generator warning light. Water temperature gauge. Vertical exhaust. Pan seat. Lights, including two headlights, taillight, instrument panel lights, and electrical outlet and plug. 5.50—16-in., 4-ply, F2 front tires. 11.2—28-in., 4-ply, R1 rear tires.

OPTIONAL EQUIPMENT

(Factory Installed)

Horizontal exhaust

Power-assist steering—eases maneuvering, frees operator's hand for operation of hydraulic, and hitch controls.

Rear tires 12.4—28-in., 4-ply, R1. 13.6—24-in., 4-ply, R1.

ACCESSORIES

(Dealer Installed)

Deluxe seat. Auxiliary services control valve. Clevis for swinging drawbar. Linkage stabilizers. Remote control valve, 1-spool or 2-spool. Double-acting remote hydraulic cylinder. Quick-release hydraulic coupling (D.A.). Implement work light and switch. Implement warning light. Front bumper. Grease gun, holster. Spark plug tire pump. Front end weights. Front wheel weights. Rear wheel weights. PTO belt pulley. Canvas cab. Linkage drawbar. Air pre-cleaner and long stack. PTO guard.

FORD

ALL PURPOSE 3000

SPECIFICATIONS

HORSEPOWER	GAS DIESEL	
	2100 rpm	2000 rpm

Net flywheel hp, includes fan, muffler, air cleaner, and radiator (Manufacturer's estimate, maximum corrected)..... 46.7 44.1

PTO hp (observed)
with 4-speed transmission..... 39.1 39.4
with 8-speed transmission..... 37.8 39.2
with 10-speed transmission..... 36.4 38.0

Drawbar hp (observed)
with 4-speed transmission..... 34.3 36.3
with 8-speed transmission..... 33.2 36.1
with 10-speed transmission..... 30.0 33.3

Drawbar pull, maximum lbs. (observed)
with 4-speed transmission, lb..... 4,622 4,629
with 8-speed transmission, lb..... 5,059 5,106
with 10-speed transmission, lb..... 5,019 5,016

ENGINE TORQUE	Gas	Diesel
at rated speed, lbs.-ft. (corrected)	117	116
Maximum torque, lbs.-ft. (corrected)	123.0	125.7
at Engine Speed, rpm.....	1,350	1,150

TRAVEL SPEEDS, mph, approx.

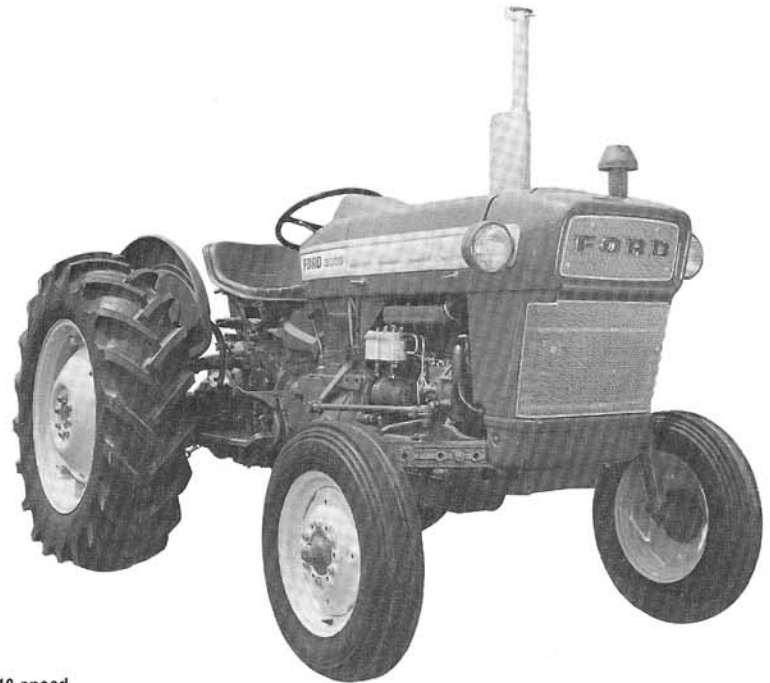
Gear	with 8-speed (dual-range) transmission		
	with 4-speed transmission	with 8-speed (dual-range) transmission	with 10-speed transmission
1st.....	4.0	1.6	1.0
2nd.....	4.8	2.0	1.4
3rd.....	7.0	3.6	1.6
4th.....	14.8	4.8	2.2
5th.....		5.8	3.6
6th.....		7.2	4.6
7th.....		12.8	5.4
8th.....		17.4	6.8
9th.....		—	11.0
10th.....		—	16.4
1st Rev.....	4.2	2.4	3.2
2nd Rev.....		8.4	4.6

TRACTOR DIMENSIONS (on 12.4—28-in. rear tires)

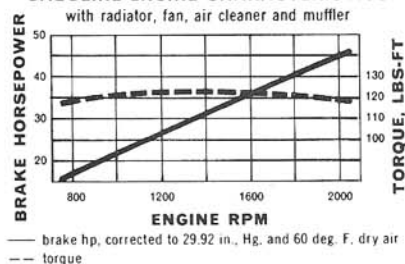
Wheelbase, in.....	75.8
Height, to top of steering wheel, in.....	58
Height over hood, in.....	54
Length overall, front sheet metal to end of lower hitch links, in.....	127
Width overall, @ 52-in. tread setting, in.....	64
Ground clearance, under front axle, in.....	21.5
Ground clearance, under center housing, in.....	14.9
Front wheel tread, adjustable, in.....	52 to 80
Rear wheel tread, with manual adjustable wheels, in.....	52 to 76
Turning radius, with brakes, in.....	117
without brakes, in.....	129
Curb clearance circle, with brakes, ft.....	20
without brakes, ft.....	22.25

CAPACITIES

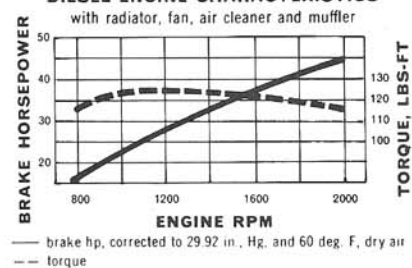
Fuel tank, gal.....	13
Engine lubrication, qt.....	8
Transmission, 4-speed, qt.....	6
8-speed, qt.....	17
10-speed, qt.....	11
Cooling system, qt.....	13.8
Rear axle and hydraulic system, qt.....	20.5



GASOLINE ENGINE CHARACTERISTICS



DIESEL ENGINE CHARACTERISTICS



WEIGHT DISTRIBUTION

Front axle, lb.....	1,600
Rear axle, lb.....	2,190
Total, lb.....	3,790

ENGINE SPECIFICATIONS

ENGINE, gasoline—Type, in-line vertical, overhead valve. Number of cylinders, 3. Rated speed, rpm, 2,100. Bore, in., 4.2. Stroke, in., 3.8. Displacement, cu. in., 158. Compression ratio, 8:1.

ENGINE, diesel—Type, in-line vertical, direct injection, with cold starting aid. Number of cylinders, 3. Rated speed, rpm, 2,000. Bore, in., 4.2. Stroke, in., 4.2. Displacement, cu. in., 175. Compression ratio, 16.5:1.

CYLINDER BLOCK—Heavy duty cast iron with deep skirts and heavy ribs. **Crankshaft**—Four main, hardened bearing journals. Journal length, in., 1.46. Diameter, in., 3.37. **Connecting rods**—Massive, forged I-beam. Piston bushing, bronze on steel backing. **Bearings**—Sleeve-type, over-plated copper-lead alloy main bearings. **Pistons**—Aluminum alloy, with hardened top ring insert; holds top ring with firm precision to resist wear and extend ring life. **Piston rings**—One oil ring and two compression rings per piston (gasoline engine); three compression rings (diesel). All rings except lower compression ring are chrome-plated. **Piston pin**—Floating type. Length, in., 3.5. Outside diameter, in., 1.5. **Piston travel**—Gasoline: 1,265 fpm @ 2,000 engine rpm. Diesel: 1,400 fpm @ 2,000 engine rpm. **Valves**—Positive rotators on exhaust valves. Hardened valve seat inserts. **Camshaft**—High-lift, flat follower type. **Cylinders**—Sleeveless design, increases rigidity of block, transfers heat quickly and uniformly to liquid coolant. **Engine lubrication**—Pressurized system. Main bearings, connecting rod bearings, and camshaft bearings pressure lubricated. Rocker arms, pressure lubricated (intermittent). Piston pin bearings, cylinder walls, and tappets splash lubricated. Timing drive, squirt lubricated. Push rods, lubricated by drip from rocker arms. Fixed screen intake. 300-hr., 2-qt. oil filter, with replacement element. **Carburetor**—Single venturi, updraft type. Accelerating well and economizer valve. **Injection pump (diesel)**—Distributor type with mechanical governor. Injector timing, 19 deg. Dual fuel filters, replaceable paper element. **Air cleaner—Gasoline**: dry-type. Diameter, in., 6.5. Rated air flow, cfm, 100. **Diesel**: oil bath. Rated air flow, cfm, 125. Capacity, qt., 1.15. **Air circulation**—4-blade, V-belt drive fan. **Cooling system**—Pump-circulated, thermostat-controlled, with bypass. Full length water jackets. Tube-and-fin radiator, with pressure cap. 26 gpm pump. Thermostat, open temperature, 188 deg. F.; full open, 212 deg. F. **Electrical starting and ignition**—Key starter switch and transmission safety lock. Starting motor with positive engagement drive assembly. Centrifugal and vacuum spark advance. Voltage and current regulator. Battery, 12-volt, 80-amp-hr. Ventilated-type generator, capacity, 22 amp. **Injection nozzles (diesel)**—4-orifice type, accessible without removing valve cover.

CHASSIS

TRANSMISSION OPTIONS—4-speed: Constant mesh. Four speeds forward, 1 reverse. Forward gears, helical. Reverse gears, helical-spur. **8-speed (dual-range)**: Provides lowest 4 forward speeds in low range, highest 4 forward speeds in high range, and 2 reverse speeds. Gears, front position, combined helical-spur; rear position and reverse, spur. **10-speed (Select-O-Speed)**: Full-range, power-shift transmission, lets operator power-shift into any one of 10 forward speeds, on-the-go. Three planetary gear sets in constant mesh. Power flow directed through gear sets by means of hydraulically-actuated clutch packs. Two reverse speeds.

POWER TAKE-OFF SYSTEMS AVAILABLE

Tractor transmission	PTO type	540rpm PTO speed delivered at this engine rpm
4-speed	Transmission-drive	1,490
8-speed	Transmission-drive	1,600
8-speed	"Live"	1,810
10-speed	Independent	1,810
10-speed	Independent	(540 rpm PTO)
	540/1,000 and ground-drive	1,810
		(1,000 rpm PTO)
		1,960

FINAL DRIVE—Matched pinion gear and spiral bevel ring gear; 6.16:1 reduction ratio with manual transmissions; 6.67:1 with 10-speed (Select-O-Speed) transmission. Pinion gear, straddle-mounted, carried on 3 roller, 2 tapered, 1 straight bearing. 4-pinion differential, supported on tapered roller bearings. Semi-floating rear axle, with steel forged axle shafts.

CLUTCH—Heavy-duty, dry disc. Diameter 11 in. Friction area, one side, 55.7 sq. in. Foot operated.

FRONT AXLE—Swept-back, adjustable with three forged steel overlapping sections. Center section pivoted within heavy cast support. Tubular pivot pin, diameter, in., 1.75.

STEERING—Manual. Recirculating ball nut type, with 18-in. diameter steering wheel. Steering gear ratio, 15.43:1. Steering wheel turns, stop to stop, 2.6.

BRAKES—Mechanical. Internal expanding shoe, self-energized. Brakes can be operated either individually or latched together and operated simultaneously. Diameter, in., 14. Lining area, sq. in., 98.46. Cast iron drum.

HYDRAULIC SYSTEM and Category I 3-point hitch—"Live" hydraulics with position and draft control. Double-acting draft control reacts to both compression and tension in the top link for maximum traction with light or heavy equipment in all soils. Flow control valve lets operator adjust speed of draft control reaction, matching equipment weight and soil conditions, 3-point hitch, hydraulic lifting force, 1,700 lbs. at point 24 inches rear of lower link balls. Also available: 3-way selector valve which can be installed in the tractor hydraulic system, to permit operation of single-acting remote cylinder by means of the 3-point hitch lift control lever. 1-spool or 2-spool remote control valves available to control single-acting or double-acting remote hydraulic cylinders. These open-center valves provide feathering action from closed position to fully open; may be set for "float"; and automatically return to neutral when cylinders reach fully raised or lowered position. Engine-driven, piston-type pump, capacity 4.8 gpm @ 2,000 engine rpm @ 2,500 psi.

STANDARD EQUIPMENT—Tachometer-hour-meter. Fuel gauge. Swinging drawbar. Fenders. Tool box. Oil pressure warning light. Generator warning light. Water temperature gauge. Vertical exhaust. Pan seat. Lights, including two headlights, taillight, instrument panel lights, and electrical outlet and plug. 5.50—16-in., 4-ply, F2 front tires. 12.4—28-in., 4-ply, R1 rear tires.

OPTIONAL EQUIPMENT (Factory Installed)

Power-assist steering—Cylinder on drag link, both sides, separate from control valve. Engine-mounted, gear-driven 4.3 gpm gear pump.

Differential lock—Improves traction in difficult spots by minimizing wheel spin. Operator engages by depressing a pedal near right foot. Power is directed evenly to both wheels, allowing wheel on firm ground to move tractor. As difficult area is passed, the spring-loaded coupling automatically unlocks the differential.

Power Adjusted Rear Wheels

Horizontal Exhaust

OPTIONAL TIRE EQUIPMENT

Front—6.00-16-in., 4-ply, F2.

Rear—16.9-24-in., 6-ply, R3.

14.9-24-in., 4-ply, R1.

13.6-28-in., 4-ply, R1.

ACCESSORIES (Dealer Installed)

Deluxe seat. Auxiliary services control valve. Clevis for swinging drawbar. Linkage drawbar. Air pre-cleaner and long stack. PTO guard. Linkage stabilizers. Remote control valve, 1-spool or 2-spool. Double-acting remote hydraulic cylinder. Quick-release hydraulic coupling (D.A.). Implement work light and switch. Conversion kit—Category I to Category II 3-point hitch. Implement warning light. Front bumper. Freeze gun, holster. Spark plug tire pump. Front end weights. Front wheel weights. Rear wheel weights. PTO belt pulley. Canvas cab. 128-amp-hr. battery, (diesel only). Diesel cold start aids.

FORD

INDUSTRIAL LOADERS



Look at a new Ford tractor-loader rig. Note the neat, clean design. The absence of hydraulic line clutter. With a Ford, unlike many units of this type, the operator can step up to the seat easily, from either side of the tractor.

Headed by the rugged 4500 tractor-loader with its one-yard, 3,750-pound lift capacity, the Ford line also offers tractor-matched loaders of 2,000- and 2,500-pound capacity.

- **High-strength steels** in the box beam design, provide built-in strength for lasting durability and bigger payload.
- **A deep-section cross member** resists twisting strains on lift arms, provides rigidity.
- **Positive easy-feathering valves** accurately control lift-dump on precise peeling jobs.
- **Fast lift-dump-lower cycle** for productivity.
- **Ford-built cylinders** are honed to micro-finish to assure durability, long life. Piston rods are turned, heat-treated and hard chrome plated. Chevron packings are used.



Ford loaders provide ample reach at dumping height to heap the load in the center of big dump trucks, from one side of the truck.



New Ford industrial tractor design provides a solid chassis and front end strength for the heaviest, toughest on-job conditions when loading, peeling or backfilling.

FORD

*Figures shown correspond to the Specification Definitions of the Industrial Equipment Manufacturers Council.

A versatile low-profile loader with 16 cu. ft. (approx. $\frac{5}{8}$ cu. yd.) bucket capacity.

730 loader fits

- New 3400 tractor
- Prior model 2000 and 4000 Industrial tractors
- Prior model 2000-4000 All-Purpose tractors equipped with heavy-duty front axle
- Prior model 601 and 801 All-Purpose tractors equipped with heavy-duty front axle

730 loader models are available with:

	Shipping Weight
• double-acting lift cylinders	946 lb.
• double-acting lift cylinders with valve including "float" position	971 lb.
• single-acting lift cylinders	1,021 lb.
• self-leveling action	

2,000-lb. lifting capacity, full height*

Maximum load supported at center of gravity of bucket, positioned to retain maximum load (at maximum rollback, tractor stationary but not anchored). Lifting capacity limited to 1,600 lb. for certain prior model Ford All-Purpose tractors.

2,900-lb. breakout force*

Vertical upward force exerted at tip of cutting edge when it is flat on ground (tractor weighted and in neutral).

Self-Leveling Loader Bucket Action (Optional)

New compensating loader valve automatically regulates bucket rollback as lift arms are raised to transport or dumping height. Retains full bucket loads. You maintain full lifting power. No extra hydraulic cylinders or mechanical linkage to maintain. Operator may override self-leveling of bucket at any time.

21-degree bucket rollback*

Beginning with bucket flat on ground, the maximum rotation of the bucket above horizontal (without moving lift arms).

4-in. digging depth below ground level*

Depth bucket will dig below ground level with bucket bottom horizontal.

19½-in. reach at maximum height*

Reach from farthest forward point on loader bumper to vertical line from bucket cutting edge, bucket dumped 42 degrees (with 16 cu. ft. bucket).

4.5 seconds, raising time to full height*

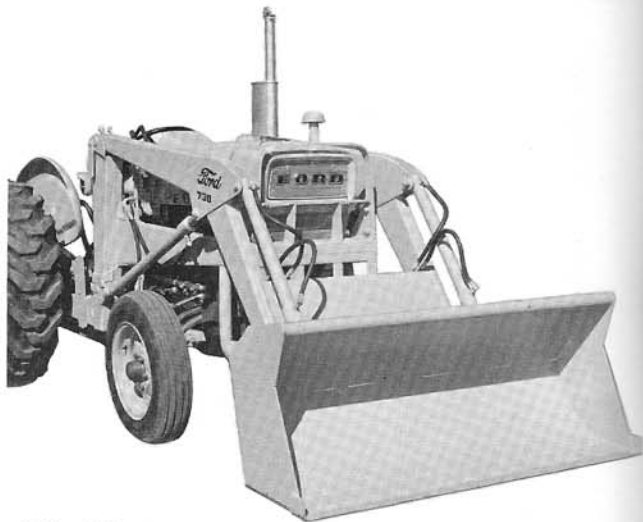
2.2 seconds, lowering time(a).

Time required to raise empty bucket from normal loading position at ground level to maximum height.

3.0 seconds, bucket dumping time*(a)

(a) Time, approximately 10% faster with optional 15.8 gpm hydraulic pump.

730 SERIES LOADER



28 ft., 11 in. turning clearance circle*

The diameter of the smallest circle which will enclose the outermost points of projection of the vehicle while executing its sharpest practical turn. (Measured with bucket hinge pin 3' above ground, bucket at maximum rollback, with brakes.)

STRUCTURAL DATA

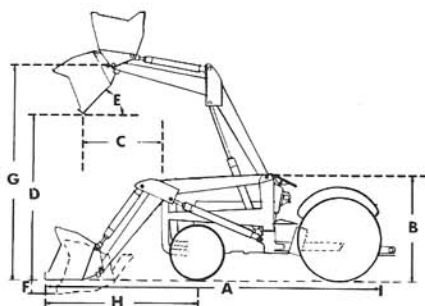
Frame: Heavy-duty, all-welded, low-profile frame designed for maximum operator visibility and strength. Easy access to the tractor seat is provided. Wrap-around frame includes an integral bumper. Tapered box-section side members provide extra built-in strength at points of heaviest stress. For maximum strength, cast steel knees form the junction of the base of the loader vertical posts and the rear frame members.

Frame mounting: Frame mounting design using two 1-in. heat-treated bolts secures the frame to the front tractor bracket. The frame "floats" on the mounting bracket, transferring shock loads directly to the rear axle housings.

Rear mounting: Rear attaching points of the loader frame bolt directly to the tractor rear axle housings, and are rigidly secured by fender bolts. Rigid rear mounting makes the tractor-loader a tight, unitized outfit.

Lift arms: Tapered rectangular lift arms, welded along top and bottom seams. Box section design provides extra built-in strength without excess weight. Forward sections are high-strength steel. Outer ends are tied together by a husky box section member, to resist racking and distortion under load.

Pivot pins: Heat-treated, lubricated, replaceable pivot pins, 1-in. diameter, provide ample bearing surface, resist wear and distortion. Pressure grease fittings on all points except bucket.



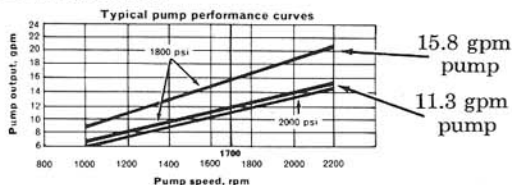
DIMENSIONS

Ford 730 loader with 16 cu. ft. bucket mounted on Ford 3400 Tractor

- A Length..... 14 ft.
- B Height, min..... 4 ft., 10 in.
- C Reach @ max. height*, bucket dumped 42 deg., 19-333 bucket..... 19½ in.
- D Clearance*, bucket dumped 42 deg., 19-333 bucket.. 8 ft., 7 in.
- E Maximum dumping angle*..... 42 deg.
- F Maximum digging depth*..... 4 in.
- G Height to bucket hinge pin*..... 10 ft., 5 in.
- H Reach, bucket on ground..... 5 ft., 2 in.

HYDRAULIC DATA

Pumps: Type—Vane type in two capacity ratings to match companion equipment operating needs; 11.3 gpm @ 1,700 rpm @ 2,000 psi; or 15.8 gpm @ 1,700 rpm @ 1,800 psi, using Ford M2C48A hydraulic oil @ 180 deg. F fluid temperature.



15.8 gpm pump recommended for optimum backhoe cycle time; also steps up loader cycle time approximately 10 %, compared with 11.3 gpm pump.

Hydraulic system capacity*: 10 gallons

System relief valve setting: For 11.3 gpm pump—2,000 psi + or - 50 psi @ 11.3 gpm with Ford M2C48A hydraulic fluid, temperature 110-115 deg. F.

For 15.8 gpm pump—1,800 psi + or - 50 psi @ 14 gpm with Ford M2C48A hydraulic fluid, temperature 110-115 deg. F.

Filtration*: 40 micron rating filter, full flow with bypass relief. Replaceable tube element, located on suction side at lowest point in hydraulic reservoir.

Pump mounting: direct to tractor, engine crankshaft driven for smooth, positive drive. Flexible coupling protects against shock, accommodates shaft misalignment.

Hydraulic system: Provides cool operating temperatures with its 10-gallon capacity, and frame design which constantly exposes oil to a large surface area. Reservoir outlet located at low point of frame post to provide a constant supply of oil to the pump at all times, even on steep grades.

Hydraulic lines: Routed to form a durable system with minimum flow resistance. Easy to service. Hose and steel tube lines, with brazed fittings or 37° flares. Fittings are SAE "O" ring or JIC 37-degree flared type. The 37-degree union, selected for its large mating surface and strength, provides full metal-to-metal contact over large surface areas. SAE "O" ring seals, with built-in metal-to-metal stop, provide a preset "O" ring squeeze, fully protect ring against over-tightening.

Hose and tube sizes: Pump to valve: ½-in. OD tube. Valve to cylinders: ¾-in. OD steel tubing, and ¾-in. hose, to ¾-in. pipe and ¾-in. hose with pipe fittings.

Valve type: 2-spool. **Capacity**: 20 gpm. **Lift spool options**: Three position—up pressure, down pressure, neutral; or four position lift spool with "float" position available. **Bucket spool**: Three position: up, down, neutral. **Positive feathering**: Provided by tapered lands on valve spool. **Bucket anti-cavitation check**: Provides instant bucket response. **Restrictor in bucket circuit**: Reduces shock on lift arms when shaking bucket to clear materials, etc.

Mechanical bucket stops: at full open and retract, allow ½ to ¾ in. reserve stroke to prevent pistons from "bottoming" in cylinders. These stops absorb shock to protect pistons and rods. The reserve stroke increases over-all bearing length for added strength.

Cylinders: Positioned to exert maximum breakaway force. Two single or double-acting lift cylinders available. Two bucket cylinders, one at each side, prevent twisting and racking of bucket and lift arms.

	Lift Double-acting	Lift Single-acting	Bucket Double-acting
Extended length (max.)	76 in.	76 in.	51.38 in.
Retracted length (min.)	42.68 in.	42.68 in.	31.31 in.
Stroke	33.32 in.	33.32 in.	20.07 in.
Piston diameter	2 in.	2 in.	2 in.
Rod diameter	1½ in.	2 in.	1½ in.

Durability features: Piston rods are turned, polished, and hard chrome-plated.

Rod and piston packing: Rod gland and piston packings of chevron type to meet the demands of high-pressure hydraulic systems. Either phenolic or glass-filled nylon adaptors used on packing sets for optimum bearing and packing life. External wipers clean rod with each stroke. "O" ring seal between gland and cylinder barrel. Cylinder barrels' finish held to close tolerance. Finish achieved with final honing operation.

Shipping weight: 975 lb. approx., less bucket and pump.

INTERCHANGEABLE BUCKETS AND ATTACHMENTS

BUCKETS* (*IEMC)

Type & Model No.	SAE Capacity		Outside Width (Inches)	Length Lip to Pin (Inches)	Weight (Pounds)
	Struck (Cu. Ft.)	Nominal Heaped (Cu. Ft.)			
Stockpile:					
19-252	15.2	16.0	42.0	37.12	350
19-217	10.0	11.0	41.5	30.75	340
General Materials:					
19-125	13.6	15.0	61.5	28.33	360
19-333	13.5	16.0	67.5	26.0	410
Light Materials:					
(Snow)					
19-99		¾ yd.	73.2	30.34	365

Brush or manure fork can be used for reach; lifts up to 1,250 lbs. at full height, with 5 to 9 replaceable tines. depending on tractor.

Crane lifts up to 775 lbs. at max.

Dozer blade, 6 ft. wide. Angle adapter, spring release, skid shoe top extensions available.

Fork lift with two tines 42 inches long lifts up to 1,100 lbs. @ 21-in. load center.

Scarifiers—for buckets, and dozer blade.

Loader bucket teeth—for 11 cu. ft., 15 cu. ft., and 16 cu ft. buckets. Six or nine required.

Counterweight requirements: Minimum 2,000 pounds rear counterweight is recommended. Weight can be added through use of rear wheel weights, water-chloride tire solution, or rear-mounted equipment.

FORD

*Figures shown correspond to the Specification Definitions of the Industrial Equipment Manufacturers Council.

A rugged low-profile loader with 19 cu. ft. (approx. $\frac{3}{4}$ cu. yd.) bucket capacity.

735 LOADER FITS:

- New 3500 Tractor
- New 4400 Tractor
- Prior model 2000 and 4000 Industrial tractors

SELF-LEVELING BUCKET ACTION AVAILABLE

2,500-lb. lifting capacity, full height*

Maximum load supported at center of gravity of bucket, positioned to retain maximum load (at maximum rollback, tractor stationary but not anchored).

3,770-lb. breakout force*

Vertical upward force exerted at tip of cutting edge when it is flat on ground (tractor weighted and in neutral).

Self-Leveling Loader Bucket Action (Optional)

New compensating loader valve automatically regulates bucket rollback as lift arms are raised to transport or dumping height. Retains full bucket loads. You maintain full lifting power. No extra hydraulic cylinders or mechanical linkage to maintain. Operator may override self-leveling of bucket at any time.

22-degree bucket rollback*

Beginning with bucket flat on ground, the maximum rotation of the bucket above horizontal (without moving lift arms).

4-in. digging depth below ground level*

Depth bucket will dig below ground level with bucket bottom horizontal.

25-in. reach at maximum height*

Reach from farthest forward point on loader bumper to vertical line from bucket cutting edge, bucket dumped 45 degrees (with 19 cu. ft. bucket).

4.8 seconds, raising time to full height*—

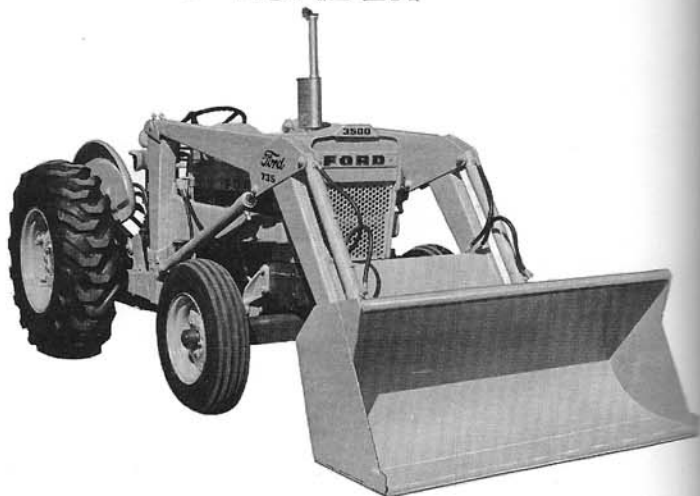
2.3 seconds, lowering time*(a)

Time required to raise empty bucket from normal loading position at ground level to maximum height.

3.1 seconds, bucket dumping time*(a)

(a) Time approximately 10% faster with 17.8 gpm hydraulic pump.

735 SERIES LOADER



30 ft., 7 in. turning clearance circle*

The diameter of the smallest circle which will enclose the outer-most points of projection of the vehicle while executing its sharpest practical turn. (Measured with bucket hinge pin 3 ft. above ground, bucket at maximum rollback, with brakes.)

STRUCTURAL DATA

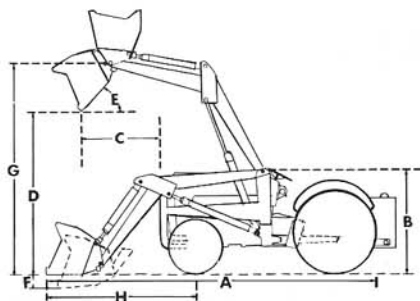
Frame: Heavy-duty, all-welded, low-profile frame of high-strength steel designed for maximum operator visibility and strength. Easy access to the tractor seat is provided. Wrap-around frame includes an integral bumper. Tapered box-section side members are provided with extra built-in strength at points of heaviest stress. For maximum strength, cast steel knees form the junction of the base of the loader vertical posts and the rear frame members.

Frame mounting: Frame mounting design using two 1-in. heat-treated bolts secures the frame to the front tractor bracket. Side frames "float" on front mounting brackets, transferring shock loads directly to the rear axle housings.

Rear mounting: Loader frame rear attaching points bolt directly to the tractor rear axle housings, and are rigidly secured by fender bolts. Rigid rear mounting makes the tractor-loader a tight, unitized outfit.

Lift arms: Tapered rectangular lift arms, welded along the top and bottom seams. Box section design of high strength steel throughout, provides extra built-in strength without excess weight. Lift arms are tied together by a husky box section member to resist racking and distortion under load.

Pivot pins: Heat-treated, lubricated, replaceable pivot pins, 1-in. diameter, provide ample bearing surface, resist wear and distortion. Pressure grease fittings on all points except bottom of bucket.



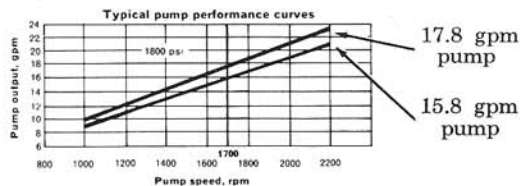
DIMENSIONS

Ford 735 loader with 19 cu. ft. bucket mounted on Ford 4400 Tractor

- A Length..... 14 ft., 11 in.
- B Height, min..... 4 ft., 9 in.
- C Reach @ max. height*, bucket dumped 42 deg., 19-334 bucket..... 25 in.
- D Clearance*, bucket dumped 42 deg., 19-334 bucket.. 8 ft., 6 in.
- E Maximum dumping angle..... 45 deg.
- F Maximum digging depth*..... 4 in.
- G Height to bucket hinge pin*..... 10 ft., 6 in.
- H Reach, bucket on ground..... 6 ft., 1 in.

HYDRAULIC DATA

Pumps: type—Vane type, in two capacity ratings to match operating needs of companion equipment; 15.8 gpm, and 17.8 gpm, @ 1,700 rpm, @ 1,800 psi, system using Ford M2C48-A hydraulic fluid @ 180 deg., F oil temperature.



17.8 gpm pump recommended for optimum backhoe cycle time; also speeds up loader cycle time approximately 10 %, compared with 15.8 gpm pump.

Hydraulic system capacity*: 10.5 gallons.

System relief valve setting: 1,800 psi + or - 50 psi at 14 gpm, M2C48-A Ford hydraulic fluid, temperature 110-115 deg. F.

Filtration*: 40 micron rating filter, full flow with bypass relief. Replaceable tube element, located on suction side at lowest point in hydraulic reservoir.

Pump mounting: direct to tractor, engine crankshaft driven for smooth, positive drive. Flexible coupling protects against shock, accomodates shaft misalignment.

Hydraulic system: Provides cool operating temperatures with its 10.5-gallon capacity, and frame design which constantly exposes oil to a large surface area. Reservoir outlet located at low point of frame post to provide a constant supply of oil to the pump at all times, even on steep grades.

Hydraulic lines: Routed to form a durable system with minimum flow resistance. Easy to service. Hose and steel tube lines, with brazed fittings or 37° flares. Fittings are SAE "O" ring or JIC 37 degree flared type. The 37-degree union selected for its large mating surface and strength; provides full metal-to-metal contact over large surface areas. Reusable sleeves and tube nuts are used on tubes. SAE "O" ring seals, with built-in metal-to-metal stop, provide a preset "O" ring squeeze, fully protects ring against over-tightening.

Hose and tube sizes: Pump to valve: 3/8-in. OD tube. Valve to cylinders: 3/8-in. OD steel tubing, and 3/8-in. hose, to 5/8-in. OD tubing and 3/8-in. hose with "O" rings. All hoses are single wire, spiral wrapped to provide high burst strengths.

Valve type: 2-spool. Capacity—20 gpm. **Lift spool**: Four position—up pressure, down pressure, neutral, and "float." **Bucket spool**: Three position: up, down, neutral. **Positive feathering**: provided by tapered-lands on valve spool. **Bucket anti-cavitation check**: provides instant bucket response.

Mechanical bucket stops: at full open and retract, allow 1/2 to 3/8 in. reserve stroke to prevent pistons from "bottoming" in cylinders. These stops absorb shock to protect pistons and rods. The reserve stroke increases over-all bearing length for added strength.

Cylinders: Positioned to exert maximum breakaway force. Two bucket cylinders, one at each side, prevent twisting and racking of bucket and lift arms.

	Lift Double-Acting	Bucket Double-Acting
Extended length (max.)	78.5 in.	53.44 in.
Retracted length (min.)	46.62 in.	33.68 in.
Stroke	31.88 in.	19.76 in.
Piston diameter	2.37 in.	2.37 in.
Rod diameter	1.63 in.	1.25 in.

Durability features: Piston rods are turned, polished, and hard chrome-plated.

Rod and piston packing: Rod gland and piston packings of chevron type to meet the demands of high-pressure hydraulic systems. Either phenolic or glass-filled nylon adaptors used on packing sets for optimum bearing and packing life. External wipers clean rod with each stroke. "O" ring seal between gland and cylinder barrel. Cylinder barrels' finish held to close tolerance. Finish achieved with final honing operation.

Shipping weight: 1,040 lb. approx., less bucket and pump.

INTERCHANGEABLE BUCKETS AND ATTACHMENTS

Type & Model No.	BUCKETS* (*IEMC)		Outside Width (Inches)	Length Lip to Pin (Inches)	Weight (Pounds)
	Struck (Cu. Ft.)	SAE Capacity Nominal Heaped (Cu. Ft.)			
Stockpile:					
19-252	15.2	16.0	41.5	37.12	350
19-217	10.0	11.0	41.5	30.75	340
General Materials:					
19-125	13.6	15.0	61.5	28.33	360
19-253	17.2	19.0	61.5	28.75	387
19-333	13.5	16.0	67.5	26.0	410
19-334	16.9	19.0	67.5	29.38	455
Light Materials:					
(Snow)					
19-99		3/4 yd.	73.2	30.34	365
19-435(b)		1 1/4 yd.	85.5	35.25	560

(b) Requires 19-442 bushing adaptor kit.

Brush or manure fork can be used with 5 to 9 replaceable tines. **Crane** lifts up to 1,100 lbs. at max.

reach; lifts up to 1,600 lbs. at full height, depending on tractor.

Dozer blade, 6-ft. wide. Angle adapter, spring release, skid shoe top extension available.

Fork lift with two tines 42-inches long lifts up to 1,520 lbs. @ 21-in. load center.

Scarifiers—for buckets and dozer blade.

Loader bucket teeth—for 16 cu. ft. and 19 cu. ft. buckets. Nine required.

Counterweight requirements: minimum 3,000 pounds rear counterweight is recommended. Weight can be added through use of rear wheel weights, water-chloride tire solution, rear-mounted equipment, or counterweight box.

FORD

740 SERIES LOADER

*Figures shown correspond to the Specification Definitions of the Industrial Equipment Manufacturers Council.

A rugged, low-profile loader featuring self-leveling $\frac{3}{8}$ or one cu. yd. materials buckets. Designed for attachment to the integral frame and hydraulic system of the Ford 4500 tractor. Loader consists of lift arms, lift cylinders, bucket cylinders, and hydraulic lines.

3,750-lb. lifting capacity, full height*—Maximum load supported at center of gravity of bucket, positioned to retain maximum load (at maximum rollback, tractor stationary but not anchored).

6,000-lb. breakout force*—Vertical upward force exerted at tip of cutting edge when it is flat on ground (tractor weighted and in neutral).

Self-Leveling Loader Bucket Action—New compensating loader valve automatically regulates bucket rollback as lift arms are raised to transport or dumping height. Retains full bucket loads. You maintain full lifting power. No extra hydraulic cylinders or mechanical linkage to maintain. Operator may override self-leveling of bucket at any time.

30-degree bucket rollback*—Beginning with bucket flat on ground, the maximum rotation of the bucket above horizontal (without moving lift arms).

4-in. digging depth below ground level*—Depth bucket will dig below ground level with bucket bottom horizontal.

26.5-in. reach at maximum height*—Reach from farthest forward point on tractor bumper to vertical line from bucket cutting edge, bucket dumped 42 degrees (with $\frac{3}{8}$ cu. yd. bucket).

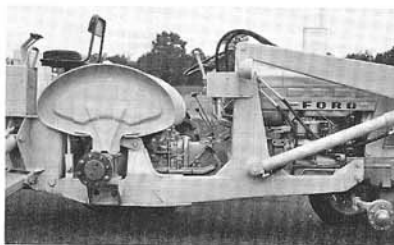
5.5 seconds, raising time to full height*
—3.4 seconds, lowering time*—Time required to raise empty bucket from normal loading position at ground level to maximum height.

3.7 seconds, bucket dumping time*



STRUCTURAL DATA

Integral frame serves as (1) attaching member for the 740 series loader, (2) basic hydraulic reservoir with generous cooling area, (3) attaching points for Ford 13-ft. or 15-ft. backhoe, or a loader counterweight box. Overall profile of loader when attached provides excellent visibility, easy access to the seat, and convenient control location.



Integral loader and backhoe mounting frame for the 4500 tractor.

Lift arms: Tapered rectangular lift arms, welded along the inner and outer seams. Box section design, of high-strength steel, provides extra built-in strength without excess weight. Rigidity of the lift arm assembly assured by a large box section cross member.

Pivot pins: Pivot pins, loader arms to posts, 2-in. diameter. Others, 1.25 in. diameter. All are heat-treated, lubricated, and replaceable, providing ample bearing surface to resist wear and distortion. Pressure grease fittings, recessed for protection, on all points except bucket. Heat-treated bushings are replaceable, split-type.

HYDRAULIC DATA

Pumps: High-volume vane-type. Capacity, 21.3 gpm @ 1,700 rpm and 1,600 psi, system using Ford M2C48-A hydraulic fluid @ 180 deg. F.

Hydraulic system capacity*: 14 gallons. (10½ tractor, 3½ loader).

System relief valve setting: 1,600 psi + or - 50 psi at 1,700 rpm, M2C48-A Ford hydraulic fluid, temperature 110-115 deg. F.

Hydraulic fluid filter: 10 micron filter rating. Full flow with bypass relief. Replaceable paper element, located on the exhaust side of the control valve. The element is located in the front reservoir immediately above the pump.

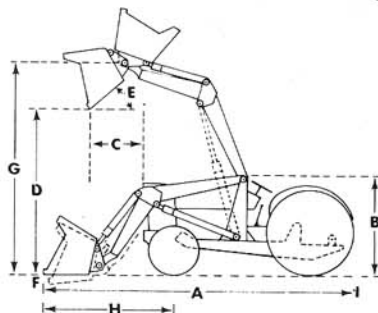
Pump mounting: The pump is mounted directly to tractor for smooth, positive drive. Flexible coupling from engine crankshaft front pulley to pump protects against shock, prevents misalignment.

Hydraulic system: The main reservoir, located in the tractor equipment frame, constantly exposes the oil to a large surface area to provide cool operating temperatures. Reservoir is connected to an elevated supply tank, which maintains a constant oil supply to the pump.

DIMENSIONS

Ford 19-421 loader with 1/8 cu. yd. bucket mounted on Ford 4500 Tractor

A—Length*	14 ft., 9 in.
B—Height, Min.*	5 ft., 1 in.
C—Reach @ max. height*, bucket dumped 42 deg., 19-433 bucket	26.5 in.
D—Clearance*, bucket dumped 42 deg., 19-433 bucket	8 ft., 8.5 in.
E—Maximum dumping angle*	42 deg.
F—Maximum digging depth*	4 in.
G—Height to bucket hinge pin*	10 ft., 9 in.
H—Reach, bucket on ground	6 ft., 3 in.



Hydraulic lines: Routed to form a durable system with minimum flow resistance. Easy to service. Hose with brazed fittings and steel tube lines. Fittings are SAE "O" ring or JIC 37-degree flared-type. The 37-degree union selected for its large mating surface and strength; provides full metal to metal contact over large surface areas. Reusable sleeves and nuts are used on tubes. SAE "O" ring seals, with metal-to-metal stop, provide a preset "O" ring compression to protect ring against over tightening.

Hose and tube sizes: 5/8-in. O.D. steel tubing with 3/8-in. flared fittings. Hose assemblies, 1/2-in. ID single wire braid, double spiral wire wrap construction.

Valve type: Stack-type, 2-spool with compensation to provide self-leveling. May be overridden. **Lift spool:** Four position—up pressure, down pressure, neutral and "float." **Bucket spool:** Three position: up, down, neutral. **Positive feathering:** provided by tapered lands on valve spool.

Mechanical bucket stops at full open and retract, allow 1/2 to 3/8 in. reserve stroke to prevent pistons from "bottoming" in cylinders. These stops absorb shock to protect pistons and rods.

Brush or manure fork† can be used with 7 to 13 replaceable tines for breaking up material, handling light brush.

Dozer blades† 6 or 7 ft. wide. Skid shoe, top extension available.

Scarifiers†—for buckets and dozer blade.

**Effective counterweight depends on both weight and distance behind rear wheels.

The reserve stroke increases overall bearing length for added strength.

Cylinders: Positioned to exert maximum breakaway force. Two bucket cylinders prevent twisting and racking of bucket and frame.

Type	Lift (2) Double-Acting	Bucket (2) Double-Acting
Extended length (max.)	83.00 in.	58.75 in.
Retracted length (min.)	47.00 in.	36.12 in.
Stroke	36.00 in.	22.63 in.
Piston diameter	3.00 in.	3.00 in.
Rod diameter	2.00 in.	1.50 in.

Durability features: Piston rods are

turned and hard chrome-plated.

Rod and piston packing: Rod gland and piston packings of chevron type to meet the demands of high-pressure hydraulic systems. Either phenolic or glass-filled nylon back-up rings used on packing sets for optimum bearing and packing life. External wiping ring cleans rod with each stroke. "O" ring seal between gland and cylinder barrel. Smooth micro-finish of cylinder barrels achieved with final honing operation.

Shipping weight: Approx. 800 lb., less bucket (mounting frame integral with tractor).

**INTERCHANGEABLE BUCKETS AND ATTACHMENTS
BUCKETS* (*IEMC)
SAE Capacity**

Type & Model No.	Struck	Nominal Heaped	Outside Width (Inches)	Length Lip to Pin (Inches)	Approx. Weight (Pounds)
Stockpile:					
19-433	.864 cu. yd.	1/8 cu. yd.	71.5	30.75	599
General Materials:					
19-434	.938 cu. yd.	1 cu. yd.	71.5	33.62	629
Light Materials:					
19-435		1 1/8 cu. yd.	85.5	35.25	560

ATTACHMENTS

Crane† at max. reach lifts up to 1,450 lbs. to a 11 ft., 7 in. lift height; at minimum reach lifts up to 2,450 lbs. to 16 ft., 3 in.

Loader bucket teeth—for 3/8, 1, and 1 1/8 cu. yd. buckets. Six to ten required.

Counterweight box—19-436 has 9.75 cu. ft. capacity. Requires attaching kit 19-393.

†These attachments require bushing adaptor kit 19-437.

Fork lift† with two 42-in. long, shaft-type tines lifts up to 2,100 lbs. @ 21-in. load center, to full 10-ft. lift height.

Counterweight requirements: 5,000-6,500 pounds** effective rear counterweight is recommended. Weight can be added through use of rear wheel weights, water-chloride tire solution, counterweight box and/or rear-mounted equipment such as backhoe.

FORD

BACKHOES WITH NEW DEEP-HOLE DIGGING POWER

Remarkable deep hole digging power is an outstanding characteristic of new Ford backhoes. Average digging force, particularly at deeper trenching and excavating depths, is as much as one-third greater than former models. This greater yardage-producing ability results from larger lift and crowd cylinders, combined with in-line placement on the boom. With this design, the lift and crowd cylinders combine force to produce greater digging power.

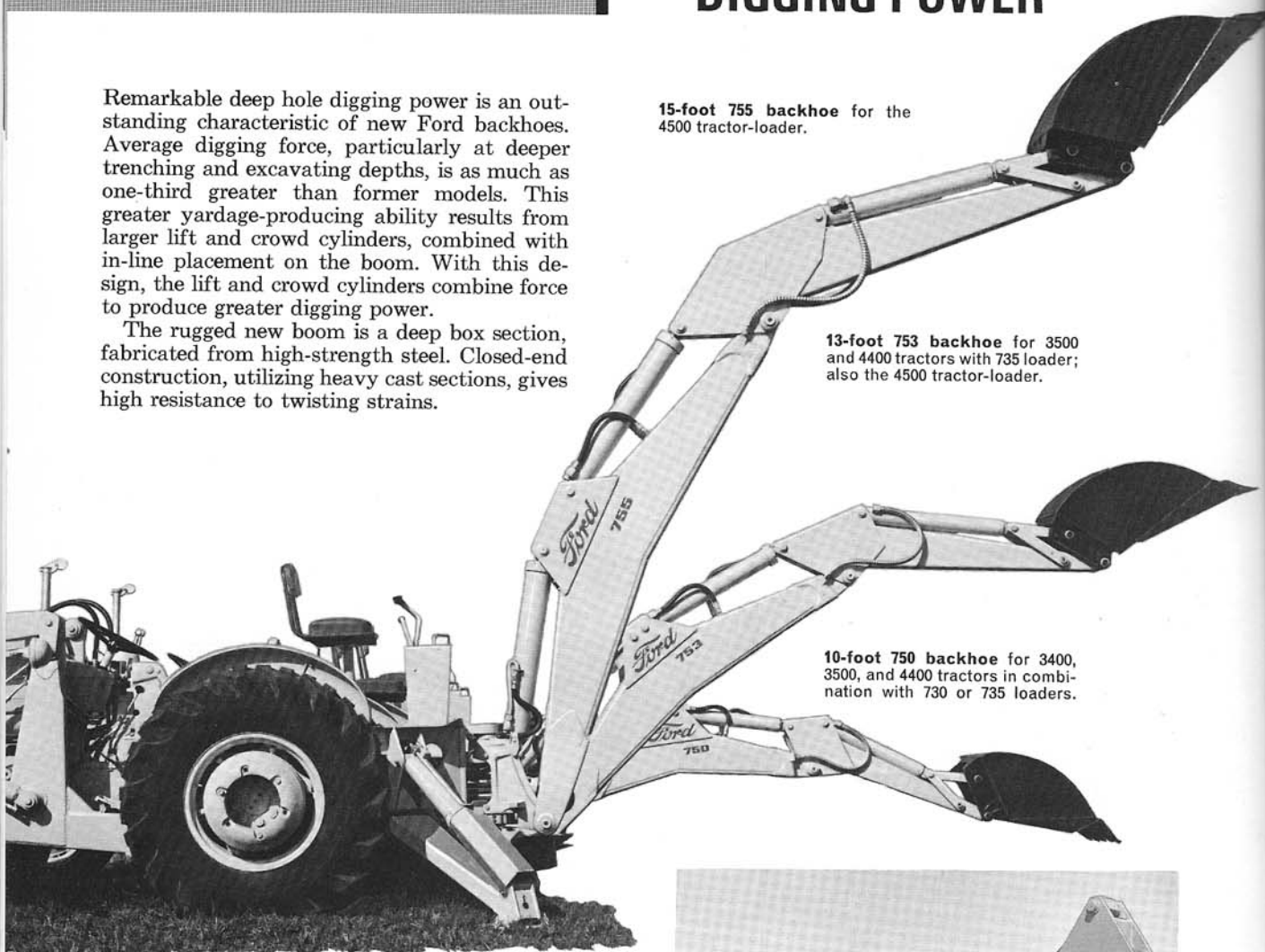
The rugged new boom is a deep box section, fabricated from high-strength steel. Closed-end construction, utilizing heavy cast sections, gives high resistance to twisting strains.

15-foot 755 backhoe for the 4500 tractor-loader.

13-foot 753 backhoe for 3500 and 4400 tractors with 735 loader; also the 4500 tractor-loader.

10-foot 750 backhoe for 3400, 3500, and 4400 tractors in combination with 730 or 735 loaders.

- **Bucket rotation of 194 degrees** (except 750) leads the tractor-mounted backhoe field. Provides deeper straight wall digging ability.
- **Wide-stance stabilizers** provide great lateral stability when swinging the big buckets filled to capacity. Placement angle also provides maximum resistance to tractor movement, when powerful crowd force is exerted on the bucket.
- **New guards** protect stabilizer cylinder rods.
- **Servicing is simplified.** Valves and cylinders are easily accessible. Only four sizes are required for complete hose service.
- **Reliable leaf-type swing chain system** provides constant, high-torque power through the 185-degree arc.
- **Larger diameter pivot pins** are fitted with replaceable bushings at all wear points.



FORD

750 • 753 • 755 BACKHOES

*Asterisk denotes figures and data corresponding to the Specification Definitions of the Industrial Equipment Manufacturers Council (IEMC).

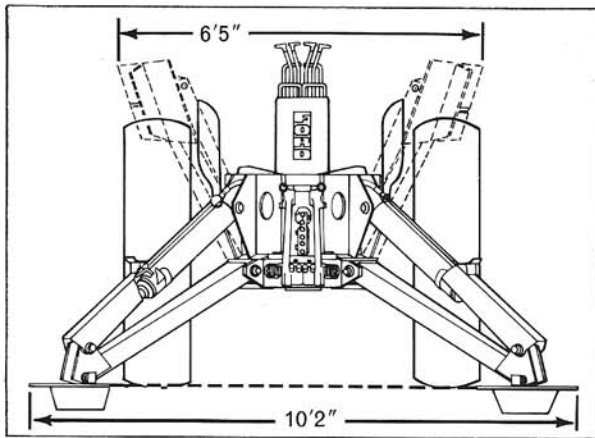


Ford backhoes are powerful trenching and excavating machines for mounting on New-Size and prior model Ford industrial and utility tractors. They are available in three sizes with high productivity maximum digging depths of 10'9", 13'8" and 15'4".

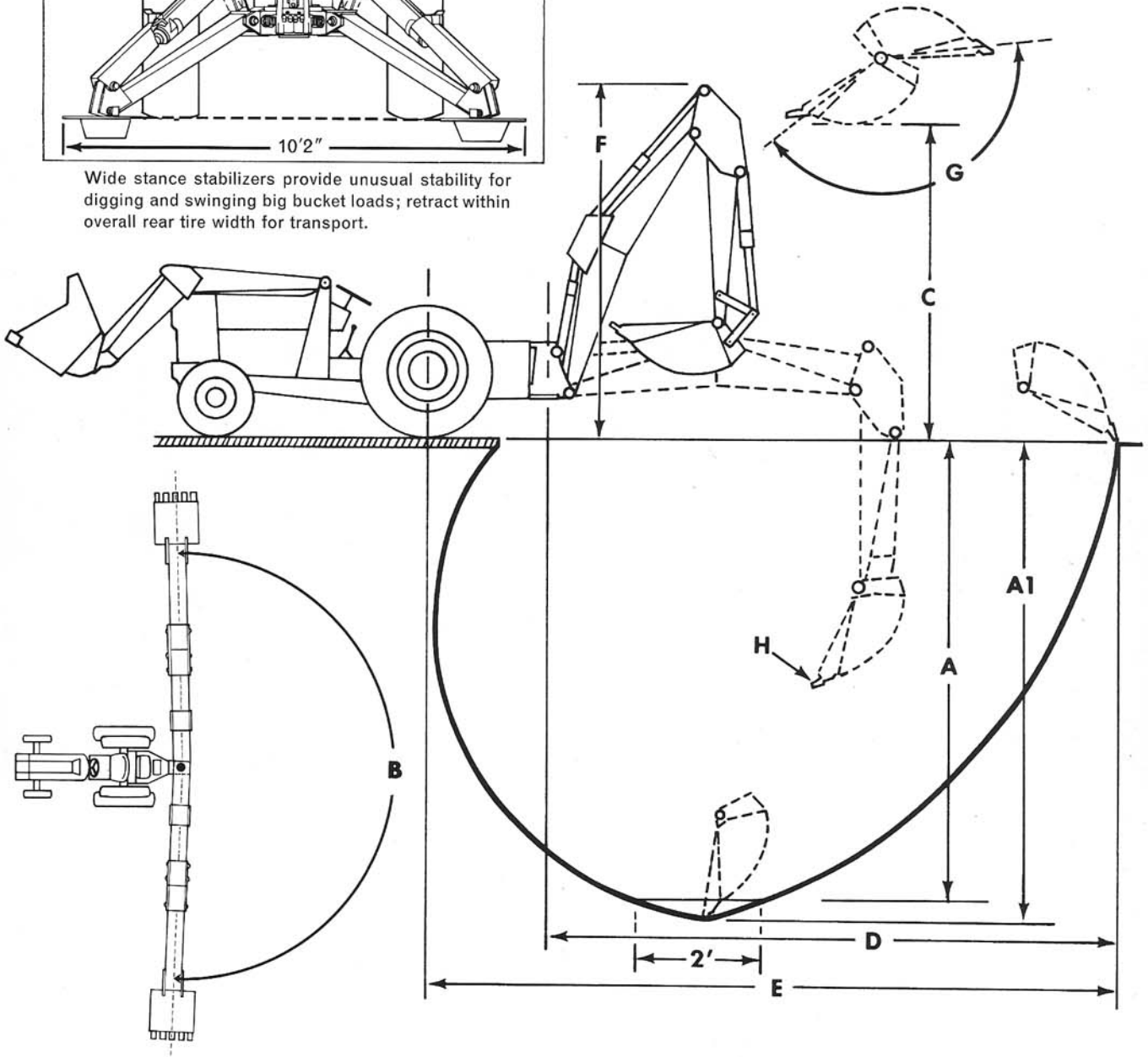
"Deep hole" digging power, rugged durability, and economy through simplified servicing and low maintenance are outstanding qualities of these new digging machines.

- **Exceptional structural strength** with closed-end, deep box design for boom and dipperstick, using high tensile strength steels and castings.
- **Great digging power** at full working depths with in-line arrangement of large-diameter boom and dipperstick cylinders.
- **Complete accessibility** to all hydraulic cylinders, hoses and valves. Only four different size hoses are needed to cover all working hose service.
- **Large diameter pins** with replaceable bushings at all pivot points subject to wear.
- **Undercuts back** of the tractor, (not under it)—keeps tractor on solid footing.
- **Bucket rotation up to 194°** for deeper straight wall digging and high truck loading.
- **Fast, powerful swing cycle** with uniform torque throughout the full swing.
- **Power-beyond backhoe valve** simplifies operation with loader.
- **Exceptional operator visibility.**

BACKHOE SPECIFICATIONS



Wide stance stabilizers provide unusual stability for digging and swinging big bucket loads; retract within overall rear tire width for transport.



A. Digging depth B. Swing arc C. Loading height D. Reach from C/L of swing mast pivot point
E. Reach from C/L of rear wheels F. Transport height G. Bucket rotation H. Digging force

*Based on Ford 3500 with 14.9—24-in. and 4500 Industrial tractors with 16.9—24-in. rear tires. Measurements taken at cutting edge of bucket. (Data vary only in minor degree on other tractor models.)

Diagram Key	Function	3500 TRACTOR		
		24" Std. Bucket	24" Hi-Cap. Bucket	4500 TRACTOR 24" Hi-Cap. Bucket
	Manufacturers Model Designation	750	753	755
	*Shipping Weights (Including all basic machine components, brackets, valves, hose and fittings for mounting on tractor-loader combination, <i>less bucket.</i>)	2,613 lb.	2,813 lb.	2,698 lb.
*A	Digging depth (2-ft. flat bottom)	10'5"	13'2"	14'9"
A ₁	Digging depth (Mfg. rating, tooth point)	10'9"	13'8"	15'4"
*B	Swing Arc	185°	185°	185°
*C	Loading height	8'3"	9'4"	10'0"
*D	Reach from C/L of swing mast pivot point	14'2"	16'8"	18'0"
*E	Reach from C/L of rear wheels	17'7"	20'1"	21'8"
*F	Transport height	8'9"	10'5"	11'3"
*G	Bucket rotation	172°	194°	194°
*H	Digging force (maximum) lb.	8,100	7,900†	7,900†
H ₁	Pryout force, Mfg. rating	25,000 lb. and up, depending on fulcrum established by bucket attitude.		

OTHER DATA

†9,100 lb. with 24 in. standard bucket.

Stabilizer Spread (transport)	6'5"	6'5"	6'5"
Stabilizer Spread (working)	10'2"	10'2"	10'2"
Ground clearance	12½"	12½"	14"
*Buckets—Width	12"-36"	12"-36"	12"-36"
*Capacities, heaped cu. ft. (see p. 6 for details)	1.5 to 6.1	1.5 to 7.8	1.5 to 10.2
Length of Excavation, one setting (surface)	12'2"	14'10"	18'3"
Length of Excavation, 40-in. depth	15'3"	17'10"	19'8"
Maximum Undercut Ability Under 5" Slab	5'8"	6'8"	8'2"
Reach Outside Tires (60" tread)	11'0"	13'7"	14'10"
Crane Lift—Capacity at Full Reach, to Maximum Height, lb.	925	1,200	1,625
Crane Lift to Maximum Height, Using All Cylinders, Any Combination	1,800	2,225	2,700

HYDRAULIC SYSTEM

Model	Pump Cap. gpm	Hydraulic System Cap., gal. with loader	Pump Type	System relief pressure, psi @ 180°F
750	11.1 or 15.5	16 gal.	Vane	2,200 @ 1,700 rpm
753	15.5 or 17.5	17½ gal.	Vane	2,200 @ 1,700 rpm
755	20.5	22 gal.	Vane	2,200 @ 1,700 rpm

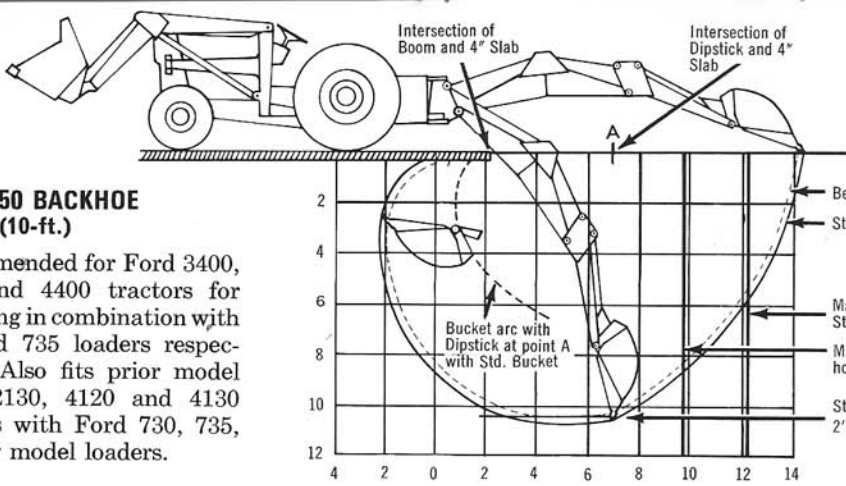
Filtration—10 micron rating filter (4500 tractor with 740 loader, 40 micron with 730 and 735 loaders), full flow with bypass relief. Replaceable tube element.

OTHER HYDRAULIC DATA

Pump capacity—Ratings at 1,700 engine rpm using Ford M2C48A hydraulic fluid @ 2,200 psi relief valve setting @ fluid temperature of 180° F.

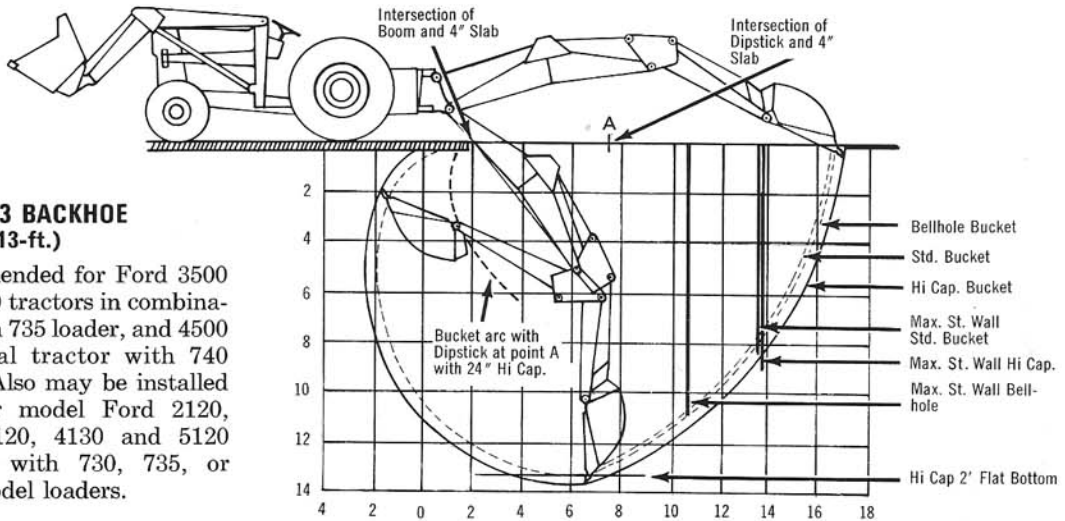
Hydraulic system capacity measured in gallons (U.S.) hydraulic oil required to fill reservoir and hydraulic system to working capacity.

Control valves—Six-spool, open-center with power beyond for operating loader without need for diverter valve. Six well-grouped control levers for minimum hand and arm movement by operator. Flow control and cushioning valves incorporated in system for uniform swing speed and a smooth, cushioned stop. In addition to main relief valve, control valve also contains three circuit relief valves, pilot operated to protect both ends of lift cylinder and rod end of crowd cylinder. All hydraulic valves easily accessible.



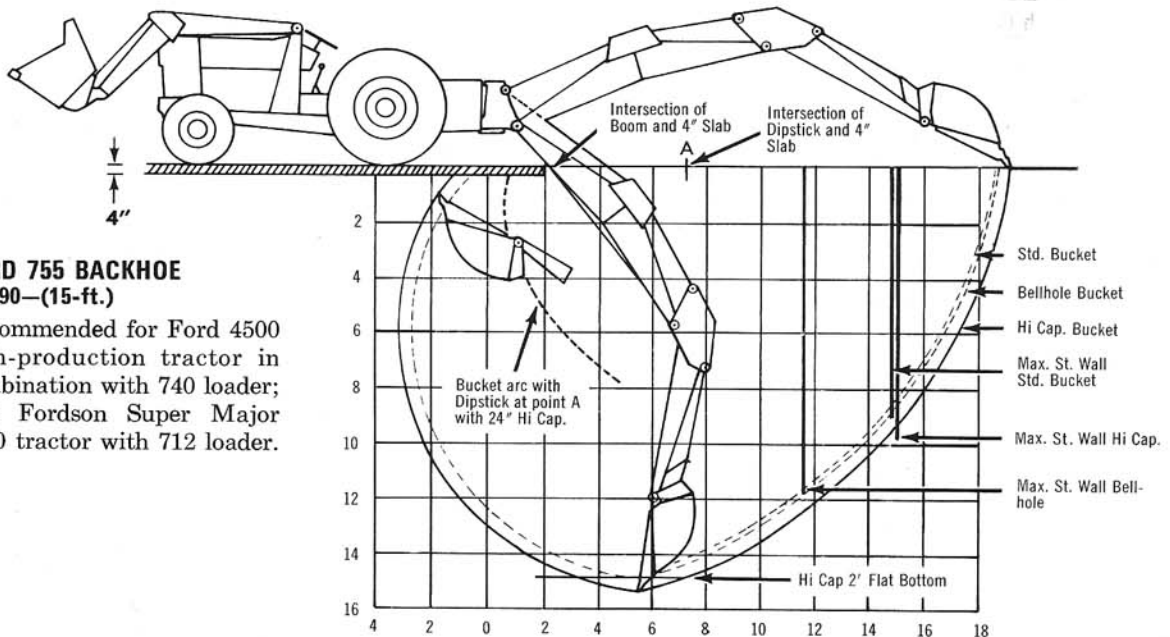
FORD 750 BACKHOE
19-388—(10-ft.)

Recommended for Ford 3400, 3500 and 4400 tractors for mounting in combination with 730 and 735 loaders respectively. Also fits prior model 2120, 2130, 4120 and 4130 tractors with Ford 730, 735, or prior model loaders.



FORD 753 BACKHOE
19-389—(13-ft.)

Recommended for Ford 3500 and 4400 tractors in combination with 735 loader, and 4500 industrial tractor with 740 loader. Also may be installed on prior model Ford 2120, 2130, 4120, 4130 and 5120 tractors with 730, 735, or prior model loaders.

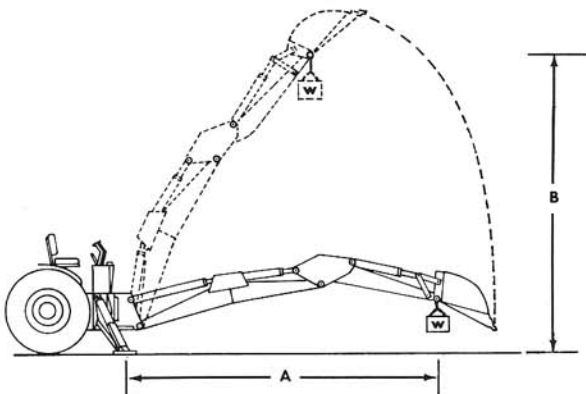


FORD 755 BACKHOE
19-390—(15-ft.)

Recommended for Ford 4500 high-production tractor in combination with 740 loader; also Fordson Super Major 5120 tractor with 712 loader.

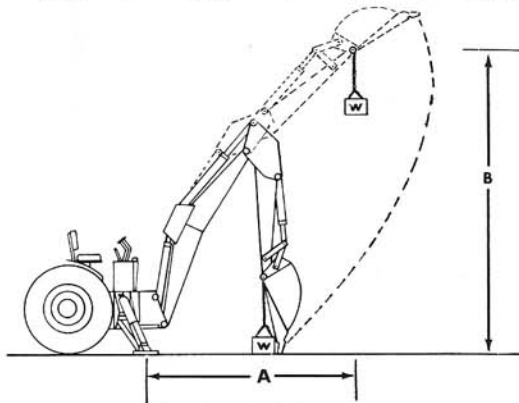
Hydraulic cylinders—All cylinders are designed and manufactured by Ford to provide maximum service life. Quality-made in every detail, heavy-wall barrels are machined to accurate concentricity, and honed to a micro-finish. High-tensile steel rods are hard chrome-plated to resist wear, weather, and abrasion. Pistons on lift, crowd, and bucket actuating cylinders feature double reversed sets of chevron-type packing. Chamfer lock provides positive seal between packing glands and barrel. All cylinders except the swing cylinders are double-acting in design. The swing cylinders perform a single-acting function as they swing the boom.

CRANE LIFT CHARACTERISTICS



Lift capacities at full reach, using lift cylinder only:

Backhoe Model	Distance, boom Pivot to load		Maximum Lift Height	Lift capacity to full height
	A	B		
19-388	11' 1/2"	10'6"	925 lbs	
19-389	13'4 1/2"	11'6"	1,200 lbs	
19-390	15'4 1/2"	12'4"	1,625 lbs	



Lift capacities with lift and crowd cylinders:

Backhoe Model	Distance, boom Pivot to load		Maximum Lift Height	Lift capacity to full height
	A	B		
19-388	6'10"	10'6"	1,800 lbs	
19-389	8'10 1/2"	11'6"	2,225 lbs	
19-390	10'3 1/2"	12'4"	2,700 lbs	

CYLINDER DIMENSIONS

Location	Piston Diameter, in.			Rod Diameter, in.		
	750	753	755	750	753	755
Backhoe No.						
Lift	3.50	4.00	4.50	1.75	2.00	2.00
Crowd	3.50	4.00	4.50	1.75	2.00	2.25
Bucket	3.50	3.50	3.50	2.50	2.50	2.50
Stabilizer	3.50	4.00	4.00	1.75	1.75	1.75
Swing	3.50	4.00	4.50	1.75	1.75	1.75

For maximum productivity, cylinders are arranged so force is applied to the large end of the piston for greatest power during the digging cycle.

STRUCTURAL DATA

Boom—Extra strong, closed-end fabrication with welded, deep box-beam section, formed from high-tensile steel plates and steel castings. Arch-shaped, for more convenient digging, loading and transport. Bottom plate is 66 per cent heavier than sides and top to absorb localized shock stresses. Boom lift and crowd cylinders attach to a common deep-section, steel pivot block with heavy gussets.

Dipperstick—Heavy tapered box section, fabricated from high-strength steel plate with closed ends and heavy gussets at pivot areas.

Swing system—Constant high torque throughout swing cycle is applied by single-acting hydraulic cylinders which rotate the swing post by means of a leaf-type chain. Power is ample for full-speed swing when operating boom uphill, while a flow control valve prevents overspeeding on downhill swings. Spring loaded mechanical linkage feathers valve to slow boom when approaching full swing, preventing damaging shock loads. An override feature allows operator to complete swings to maximum angle. Swing post is a heavy pearlitic malleable casting. Pivot pins are 2 1/2 in. diameter with hardened bushings and steel thrust washer, replaceable as required. All elements of the swing system are accessible without removal of other parts.

Bucket actuated linkage—Four-bar design gives maximum leverage and maintains a high-average tooth force as the bucket moves around pivot point.

STRAIGHT WALL DIGGING DATA

Bucket Type and Backhoe Model	Bucket Rotation	Maximum Straight Wall Depth	Distance Behind Swing Post
750 Backhoe	172°		
Bellhole		8 ft. 3 in.	9 ft. 9 in.
Standard mtl.		6 ft. 0 in.	12 ft. 2 in.
753 Backhoe	194°		
Bellhole		10 ft. 11 in.	10 ft. 8 in.
Standard mtl.		8 ft. 4 in.	13 ft. 7 in.
Hi-capacity		8 ft. 11 in.	13 ft. 8 in.
755 Backhoe	194°		
Bellhole		11 ft. 11 in.	11 ft. 6 in.
Standard mtl.		9 ft. 2 in.	14 ft. 8 in.
Hi-capacity		9 ft. 9 in.	14 ft. 9 in.

Stabilizers—Strong, tapered box beam stabilizers spread to 10 ft. 2 in. working position, retract to 6 ft. 5 in. for transport. Allow 90° digging. Telescoping shields protect stabilizer cylinder rods while working. (Choice of pads, see page 6.)

Pivot points—All pivot points are fitted with hardened, replaceable bushings. Large diameter pins are induction hardened to extend service life and are retained by means of heavy-duty snap rings.

Hydraulic plumbing—Cylinder and valve ports are S.A.E. "O" ring type. Hoses and tubes use J.I.C. 37° flare or SAE "O" ring. Reusable tube sleeves and nuts used on all tubing. Only four different size hose required to service all working hoses on backhoe and reversible boom hoses extend service life.

Seat—Full-cushioned with backrest. Pivots to enable operator to reach engine controls without leaving the seat.

Deck—Non-skid, diamond-point steel.

Transport lock—Chain type, secures boom and stabilizers in raised position.

Quick detach—Designed for five-minute, one-man attachment to, or removal from tractor.

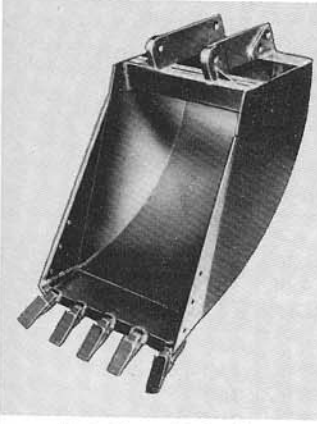
BUCKETS AND ACCESSORIES

Ford heavy-duty backhoe buckets feature replaceable pivot bushings, two-position settings, and teeth with replaceable wear points. Bucket mouths are flared to reduce friction. Buckets can be used with Ford 750, 753 and 755 series backhoes. SAE capacities shown.

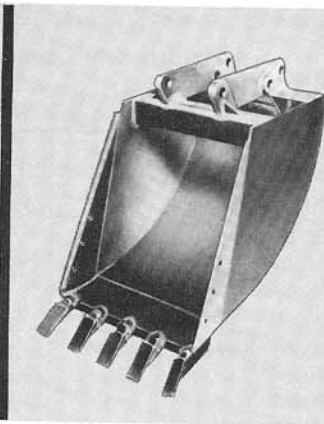
BACKHOE MODEL

Bucket type & Order No.	750		753		755		Weight lb.
	Width in.	*Capacity cu. ft.	Width in.	*Capacity cu. ft.	Width in.	*Capacity cu. ft.	
Standard Trenching							
19-360	12	2.7	12	2.7	12	2.7	175
19-361	18	4.3	18	4.3	18	4.3	205
19-362	24	6.1	24	6.1	24	6.1	240
Cemetery or Bellhole							
19-366	12	1.5	12	1.5	12	1.5	140
19-367	18	2.4	18	2.4	18	2.4	165
19-368	24	3.5	24	3.5	24	3.5	195
19-369	30	4.6	30	4.6	30	4.6	225
19-370	36	5.7	36	5.7	36	5.7	250
High Capacity							
19-363	Not recommended		18	5.4	18	5.4	230
19-364			24	7.8	24	7.8	275
19-365			Not recommended		30	10.2	305

*SAE heaped

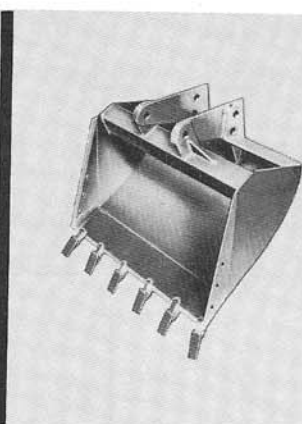


High-Capacity bucket

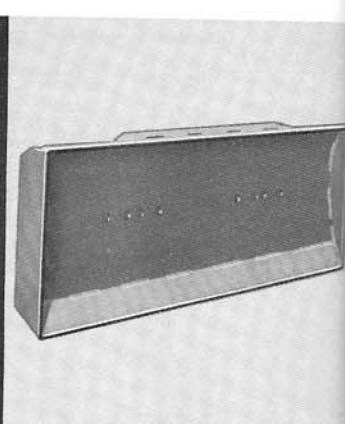


Standard trenching buckets

Side cutters—for backhoe buckets to increase cutting width, and improve side-cutting action.

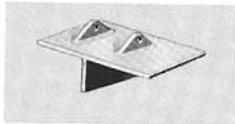


Bellhole buckets



Backfill blade—4 feet wide x 18 inches deep, attaches to 18 in. and 24 in. buckets for scraping, backfilling.

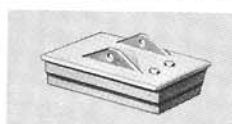
STABILIZER PADS



Standard, 83 lb.



Cemetery, 78 lb.



Street, 65 lb.
(rubber face)



Spike, 85 lb.



Flotation, 118 lb.†

†This pad recommended for 19-390 15-ft. digger for general purpose.

FORD

907 FLAIL MOWER

... for reel mower safety ... rotary cutter capability

"Parallel-to-ground" cutting action of Ford flail mowers leaves a smooth, uniform finish. Even in Bermuda and other coarse grasses or light weeds, cut material is pulverized and well distributed.



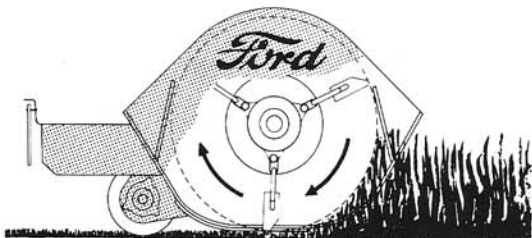
For mowing over rough, or uneven ground, Ford tractors can be equipped with optional "rocker arm." Flexible linkage lets mower follow the contour.



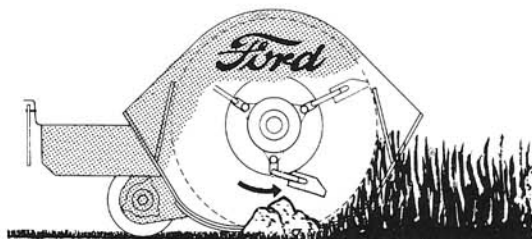
Straight blades, available to use in place of standard knives, penetrate grass runners such as Bermudas or matted accumulations of cut material to let air and water reach soil. Knives do not engage the ground.



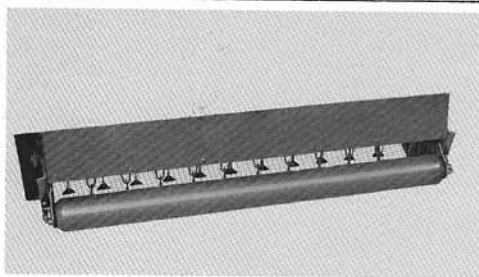
You can mow safely over grave markers, other obstacles with the gauge roller on the Ford flail mower fitted with optional rubber sleeve.



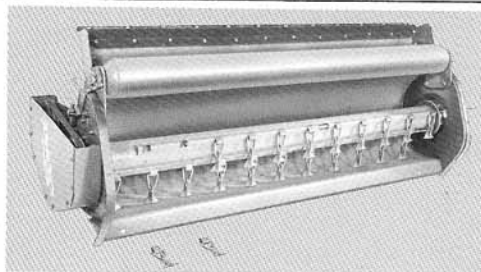
Free-swinging blades, traveling at tip speeds of 100 mph, provide over 70,000 cutting strokes per minute (on 7-foot model). High-speed action cuts growth into fine particles, then serves to distribute the cut material, eliminating windrows and bunching. Blade carriers on the 6 and 7-foot models are dynamically balanced to eliminate vibration, extend bearing life.



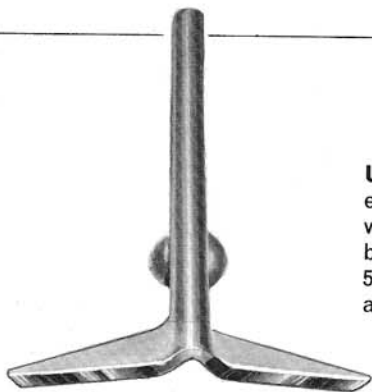
Ford's exclusive triple-hinged blade hanger design provides maximum protection in the event that a blade strikes a stone, stump, or loose debris. The blade falls back, absorbing the shock of impact, then quickly returns to operating position. The rotation of the blade carrier which directs the material engaged by the knives back and down . . . heavy steel shield . . . canvas safety curtain combine to make the flail design a safer machine.



The gauge roller extends the full width of the mower, and sets close to the cutting arc to prevent scalping. Roller ends are beveled, won't gouge turf on turns. Cutting height can be set at any desired height up to five inches above ground by changing the position of the roller, and adjusting the top link of the tractor 3-point hitch.

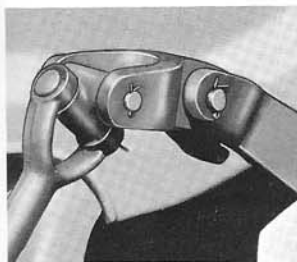


Servicing is fast and easy with Ford's advanced design. It takes one man less than 30 minutes to change blades. A spring-loaded face plate is turned, to remove three retaining rods on which blades are strung. Blades are quickly removed, then restrung. An opening in the center of the blade carrier eases the job of threading the rods back into position.



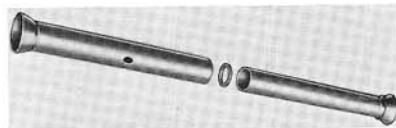
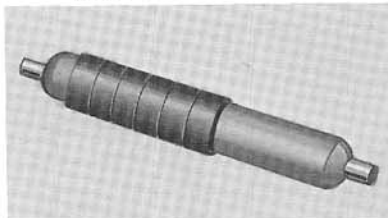
Unlike others, Ford flail blades cut parallel to the ground, leave an even, uniformly-cut appearance. Hardened alloy steel blades, 2 $\frac{1}{4}$ -inches wide, resist wear, require only nominal service. The use of wide, heavy blades reduces the number required. There are only 27 blades on the 5-foot model; 39 on the 7-foot model. This reduces replacement cost and servicing time.

ATTACHMENTS FOR 907 FLAIL MOWER



Rocker arm provides flexible linkage between Ford tractor and mower, lets mower follow the contour when mowing over rough ground.

Rubber sleeves for the gauge roller prevent damage to bronze markers, and other ground installations.

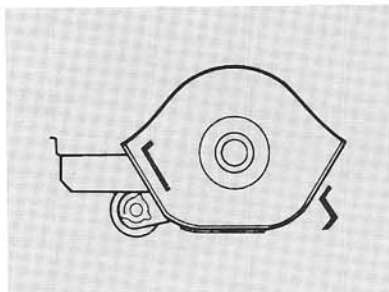


Pto shaft shield is easily installed, and is recommended as an added safety feature.

Thatching knives sever and penetrate runners in grasses and legumes such as Bermuda grass and trefoil. They may also be useful for penetrating and "fluffing" matted accumulations of cut material, deposited by repeated mowings.

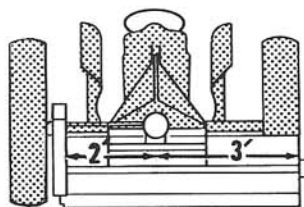


Leaf mulcher helps to retard the material being mowed, and to hold it within the mower housing until thoroughly pulverized. Front deflector shield and the rear shield extend full width of the mower.

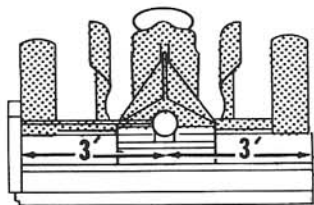


Bumper guard is advantageous in orchards, or areas dotted with a substantial tree population. Guard minimizes tree damage, and also protects the blade carrier mounting and bearings.

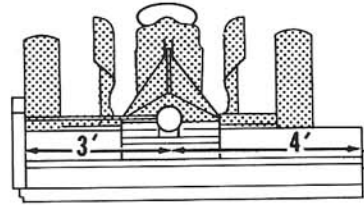
3 cutting widths...to match your requirements



5-FOOT OFFSET*—Offset one foot to the right of center, the 5-foot flail mower cuts up to 2½ inches beyond the right rear wheel depending on wheel spacing and tire size. Low power requirements permit use with older, lower-powered tractors.



6-FOOT IN-LINE*—Trailing directly behind the tractor, the 6-foot flail mower cuts up to 2½ inches beyond the outside of the rear wheels, depending on the wheel spacing and tire size. You can cut close to borders and obstructions from either side of the tractor.



7-FOOT OFFSET*—The 7-foot machine extends up to 14½ inches beyond the right rear wheel, depending on wheel spacing and tire size. This means you can cut under obstructions. It also means you can cut flush with the right rear wheel when extra wide tread or dual wheels are used.

*Also available as a special-duty model with 7/16-inch diameter, blade hanger links in lieu of standard 3/8-inch diameter, and gauge roller with 3/16-inch wall thickness in lieu of standard 1/8-inch wall thickness.

SPECIFICATIONS—FORD 907 FLAIL MOWER

Blades—Number: 27 on 5-ft.; 33 on 6-ft.; 39 on 7 ft. model. • **Blade thickness**— $\frac{1}{8}$ in. • **Blade material**—4130 heat-treated alloy steel. • **Blade width**—2.61 in. • **Rear roller**—6-in. diameter, heavy steel tubing, beveled ends. • **Drive belt**—Single V-belt with positive tension idler. • **Gears**—2.93 to 1 ratio, spiral bevel gears. • **Horizontal blade spacing**—2.2 in. • **Blade cutting angle**—Horizontal to ground. • **Blade carrier assembly**—Heavy steel tubing, 4¾-inches diameter, with 3 heavy steel ribs welded to rotor assembly. • **Rotor carrier speed at 540 pto rpm**—1,850 rpm, approx. • **Blade tip speed at 540 pto rpm**—8,760 ft. per min., (approx. 100 mph). • **Cutting height adjustable**—To 5 in. above ground. • **Weight, approx.**—567 lb., 5-ft. model; 602 lb., 6-ft. model; 637 lb., 7-ft. model.

FORD

502 CUTTER BAR MOWER

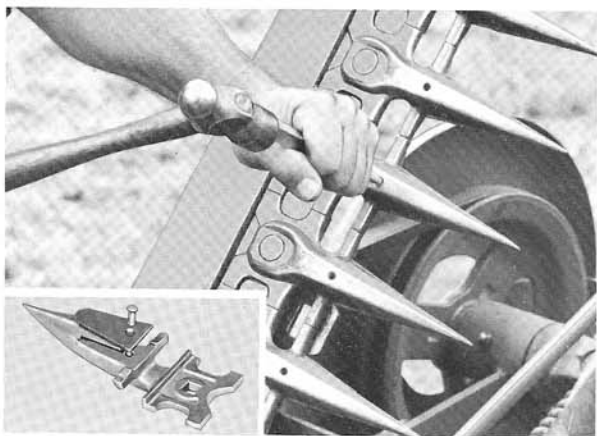


Ford 502 Side Mounted Cutter Bar Mower for prior model Ford 2000 Industrial, 2000 LCG, 4000 Industrial, 4000 LCG tractors, 801, 601, and NAA tractors.

Heavy duty design for mowing road shoulders, unimproved lots, thick grass, and weeds.

Curb lift provides a maximum lift of 10½ inches of ground clearance under the inner shoe (except when used with LCG tractor models).

Standard equipment—5, 6, or 7-foot cutter bar with heavy duty guards, and two heavy duty serrated knives. Attaching kit. 8½-inch drive sheave. Curb lift lever. Drag bar. Inner and outer shoe assembly. Swathboard and grass stick. Belt guard assembly. Safety switch (gas and LPG). *Extra equipment:* 5, 6, or 7-foot knife assemblies with heavy duty plain section, or standard plain or serrated sections. Tilt lever. Clipping wheel. Diesel fuel shut off.



Quick-change ledger plates. Ledger plates can be quickly, easily replaced as they are held by grooved pins, instead of rivets. Just drive the pin in or out—no need to remove guard.

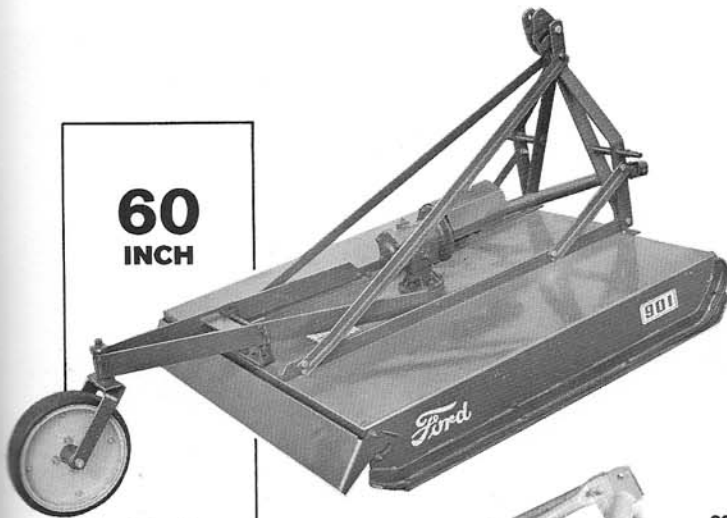


Cut-free guards. Effectively reduce plugging and delays in thick, tangled, or heavy growth and weeds. May be used on one end, on both ends, or on the entire bar.

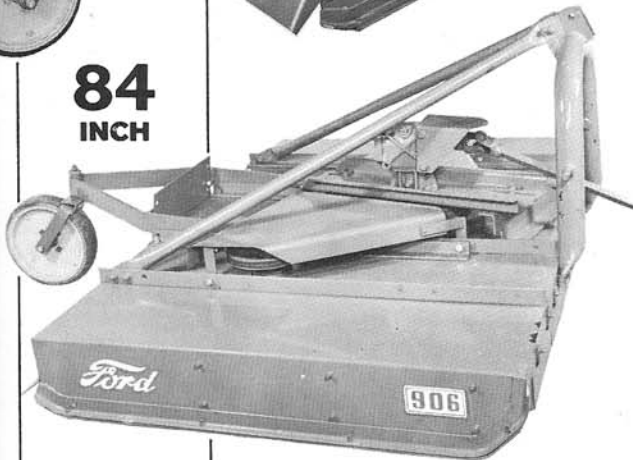
FORD

901—902—906 ROTARY CUTTERS

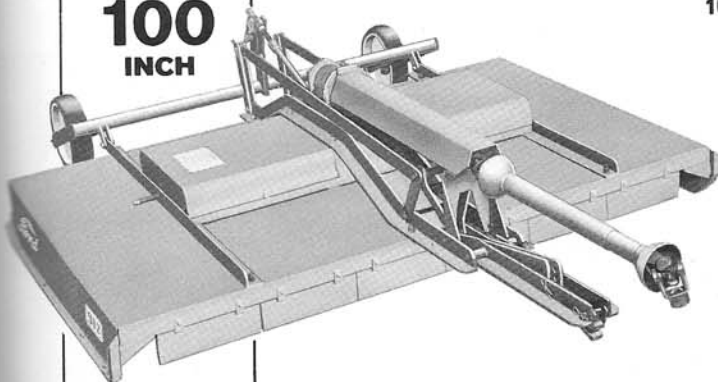
**60
INCH**



**84
INCH**



**100
INCH**



In median strips or park meadows, on road shoulders or airports . . . anywhere large areas of grounds require maintenance . . . you'll find Ford rotary cutters. They do a fast, efficient job in any type of growth . . . grasses, thick tall, or wiry weeds, or brush. To match your requirements, Ford rotary cutters are available in 60-inch, 84-inch, and 100-inch cutting widths. Optional equipment and attachments are available for each model, to adapt them to varied job and field conditions.

60-INCH FORD 901 — full-mounted is available with your choice of shear pin, or torque-limiting slip clutch drive protection . . . wide or narrow skid shoes . . . with or without gauge wheel . . . choice of gauge wheel tires, and types of blades.

84-INCH FORD 906 — is available as a fully mounted model, direct trailing model, and as an offset trailing model. Select wide or narrow skid shoes . . . safety chains . . . types of blades and manual or hydraulic lift for trailing models.

100-INCH FORD 902 — is available with wide or narrow skid shoes — choice of gauge wheel tires — manual or hydraulic lift. In every way, you can tailor Ford rotary cutters to meet your exact needs.

Whatever model you select, you get bonus durability that's been proven in hundreds of thousands of field hours, durability that will reduce your maintenance budget. Wherever rotary cutters are called for, call for Ford for today's best buys.



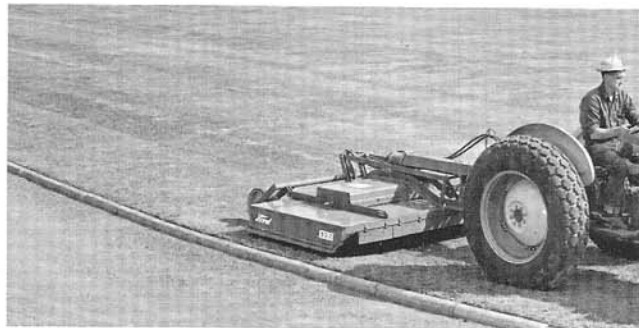
Take on many types of growth with the rugged Ford 901 rotary cutter—even thick weeds, or brush. This durable, fast-working outfit with torque-limiting slip clutch levels thick growth in a hurry—resists the shocks and strains of heavy cutting. For lighter operations, the Ford 901 is available with shear pin protection, instead of slip clutch, at a savings in cost.



Ford 901, full-mounted on Ford tractor power, makes a compact, maneuverable outfit, capable of getting in and out of tight spots, working close to fences, trees, other obstacles. Here's "pick-up-and-go" convenience with just a touch of the hydraulic control lever, making it easy to clear curbs, travel quickly to and from the jobsite.



For "pick-up-and-go" ease, plus 84-inch cutting capacity, it's the full-mounted Ford 906 rotary cutter. Twin-spindle, four-blade design for maximum cutting efficiency. Cutting arcs of blades overlap, for clean mowing across the swath.



Whether it's a football field, or unlimited acreage, mowing operations go fast with the Ford 902. It cuts a 100-inch swath fast and clean, at fast travel speeds, and cuts your mowing costs, measured by the mile or the acre.

SPECIFICATIONS

Model Designation	901	906	902		901	906	902
Type	Single spindle	2 spindle	2 spindle	Blade speed, fps	197 @ 540 PTO rpm.	203 @ 540 PTO rpm.	290 @ 540 PTO rpm.
Location of Mower	rigid housing 3-point	3-point or pull	semi-mounted, rear	Overload Protection	Shear bolt or torque limiting slip clutch optional	belt	torque limiting slip clutch
Width of Cut (inches)	57	84	100	Drive Requirements	540 rpm	540 rpm or 1,000 rpm	540 rpm
Length (inches)	100	96—lift 126—pull, offset	124	Wheels (if trailer type or gauge wheel equipped)	Zero pressure or carcass type, gauge wheel, optional	Zero pressure, carcass type or automotive rims, optional	Carcass, zero pressure or automotive rims, optional
Width (inches)	64	90	108	PTO Drive & Shielding			
Spindle Arrangement	Single	2 spindle offset	2 spindle offset	Lift Type	Drive line not shielded except universal joint at gear box which is fixed type		
Type of Spindle Drive	Gear	V-belt	V-belt	Pull Type		Telescopic stationary on cutter frame and rotating shield on tractor PTO	Combination of stationary shield on cutter frame and rotating shield on PTO drive shaft.
Blade Enclosure		steel, 11 gauge					
Guards	front & back chain guards optional						
Blade	swinging type—suction and hook, optional						
Blade-Skirt Relationship	1.88 above	1.88 above	1.88 above				
Weight, lbs.	610	1,073 (pull type)	1,344				
Height-of-cut Range (inches)	2-10	2-11	2-11				
Height-of-Cut Adjustment	3-point	3-point, pull-type mechanical or hydraulic optional	pull-type mechanical or hydraulic optional				

FORD

706—719 SCOOPS

FORD 719 SCOOP—20 CU. FT. HEAPED CAPACITY

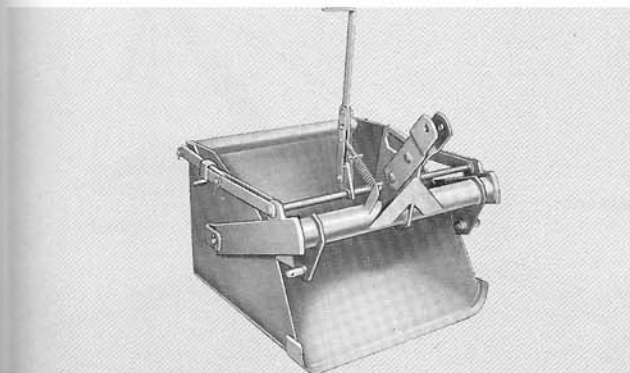
Semi-mounted model for tractors with 3-point hitch, Category I or II



Move big loads with the semi-mounted 719 scoop. Unique tail wheel design provides better penetration, more precise gauging, and eases the load on the tractor lift linkage. High frame clearance and wide open throat let you dig below grade and get a smooth, fast flow of material into the scoop. Lift the cutting edge hydraulically. Easy-to-operate dump handle. Dumps vertically, automatically returns to digging position, and locks.

Specifications—Capacity: heaped, 20 cu. ft.; struck, 15 cu. ft. **Depth,** 26 in. **Height,** 52 in. **Width,** 44 in. **Length,** 92 in. **Shipping weight,** approx., 665 lb.

Mounted model for tractors with Category II 3-point hitch



Team the full-mounted 719 scoop with Ford live-action hydraulics to get constant draft control and traction-boosting performance for fast digging and loading. Angled cutting edge provides suction-type action, like that of a plow. Bites clean and fast, and responds to changing draft conditions. Use the big 719 full-mounted to speed tougher earth-moving jobs.

Specifications—Capacity: heaped, 20 cu. ft.; struck, 15 cu. ft. **Depth,** 26 in. **Height,** 52 in. **Width,** 42 in. **Length,** 42 in. **Shipping weight,** approx., 450 lb.

Ford 706 Reversible Scoop—10 cu. ft. heaped capacity



Versatile Ford 706 scoop is reversible. Can be operated in the normal forward position, or can be reversed within the frame so you can back into materials, dig and load where tractor can't be driven over the jobsite. Use the reversed bucket for backfilling and for working close to walls and footings. All operations are easily controlled from the tractor. You can dump, adjust depth of cut, pitch, and tilt, the handy Ford 706 reversible scoop.

Specifications—Cutting width, 29.5 in. **Length,** 32.5 in. **Depth of scoop,** 15 in. **Transport clearance,** level bucket, 20 in. **Dump angle,** 90 deg. **Shipping weight,** approx., 230 lb.

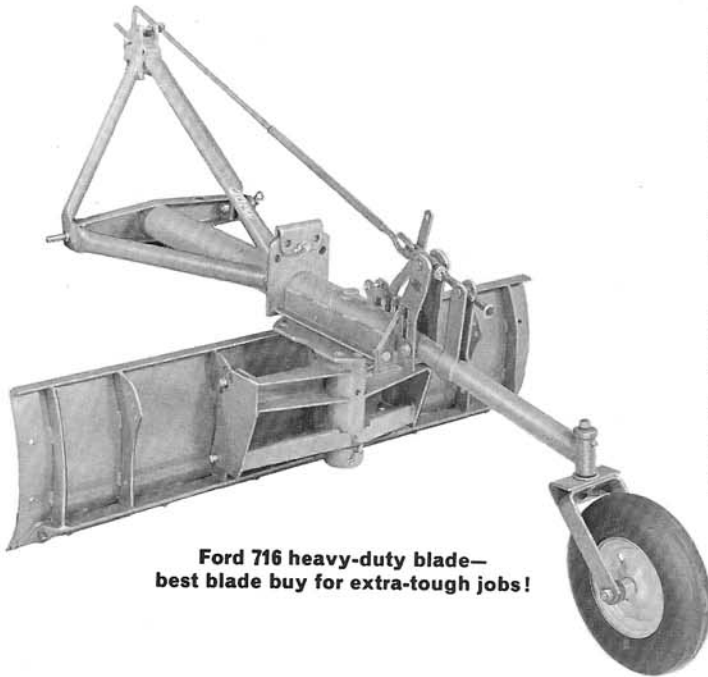
FORD

710—716—726 REAR BLADES

Three Ford-quality rear blades let you match your job requirements, your tractor power, and your budget. Grading . . . leveling . . . terracing . . . ditching . . . backfilling . . . snow removal . . . and all other blade jobs are fast and easy with a Ford rear blade.

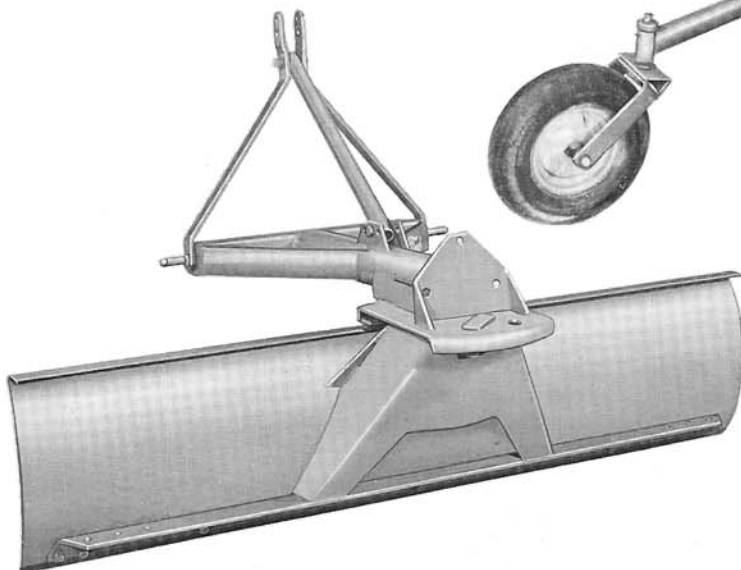
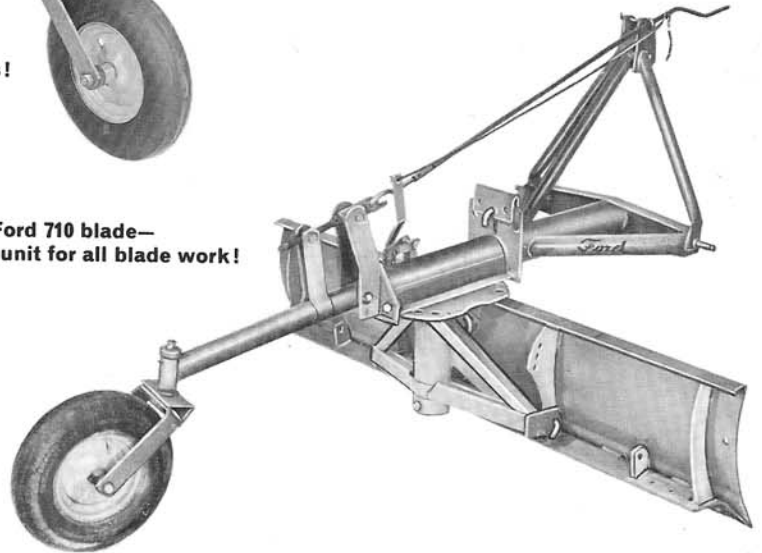
All Ford blades attach easily to any Category I, 3-point hitch tractor. Ford 710 and 716 blades can be quickly adapted for use with Category II, 3-point hitch tractors.

Versatile Ford blades are heavily constructed to provide full seasons of tough service. Main frame members are high-strength steel, precision-formed, mechanically welded. High-carbon steel cutting edge resists shock and abrasion. It can be reversed when one edge is worn, and can be economically replaced when its service life is ended.



**Ford 716 heavy-duty blade—
best blade buy for extra-tough jobs!**

**Ford 710 blade—
versatile unit for all blade work!**



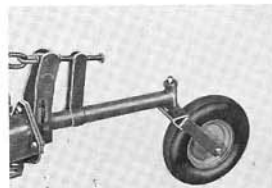
**Ford 726 utility blade—
Ford-quality, priced with the lowest!**



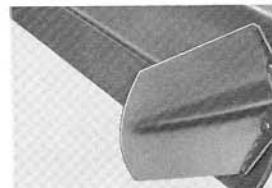
Ford 710 and 716 blades can be offset to work beyond the rear wheel tread, let operator work next to curbs, foundations, other obstacles.

Ford Blade Attachments

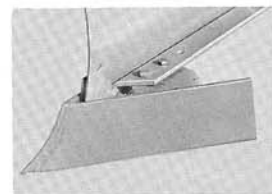
Gauge wheel helps maintain depth control in precision blading.



End Plates hold the load within blade, to move loose material.



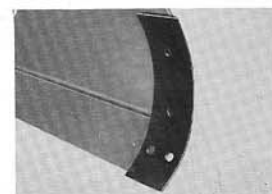
Ditching points, also scarify aggressively in hard ground.



Skid shoes protect blade against damage on paved surfaces.



Side cutting edges available for Ford 716 blade only.



Ford blades can be readily angled to the right or left to windrow material either way. Ford 710 and 716 blades can be angled by the operator from his position on the tractor.

Specifications	716 blade	710 blade	726 blade
Cutting width.....	6' or 8'	6'	6'
Moldboard height...	17½"	17"	17"
Moldboard thickness	¾"	¼"	¼"
Cutting edge, thickness.....	¾"	¾"	¾"
Angling, right or left	15°, 30°, 45°	15°, 30°, 45°	15°, 30°, 45°
Reverses for backfilling.....	yes	yes	yes
Offset—right or left..	12" (on 6' blade) 24" (on 8' blade)	12"	None
Blade tilt, maximum.	40°	40°	Controlled by lower links, tractor hitch.
Blade pitch, degrees	10 deg. either direction from vertical. Additional adjustment through top link, tractor hitch.		
Ship. weight, approx. lbs.....	550, w/6' blade 625, w/8' blade	390	310

FORD

Ford 705 Dozer



Ford 903 Economy Earth Auger



705 DOZER BLADE 903 EARTH AUGER

Specifications—Ford 705 Dozer—

Angle dozer blade width, ft.	6
Angle dozer blade height, in.	20½
Angle settings, both blades, deg.	16½ and 33
Pitch settings, angle dozer blade, deg.	71, 62½, 57
Shipping weight, angle dozer blade, complete, approx. lb.	408
Snow plow blade with spring trip, width, ft.	6
Snow plow blade with spring trip, height, in.	26¼
Pitch, blade snow plow, deg.	71
Shipping weight, blade snow plow complete, approx. lb.	503

Attachments

Skid shoes—Protect cutting edge of blade when working over pavement, or other hard surfaces.

End plates—Hold the load within the blade, boost capacity in loose material or snow.

Hydraulic cable control—Available in lieu of double-acting hydraulic cylinder.

Here is the fast, easy, low-cost way to dig holes from the seat of any tractor equipped with 3-point hitch and power take-off. Attachment is quick, effortless. Lift the auger into transport, lower it for digging with the tractor's hydraulic hitch control lever. Dig vertical holes, even on hillsides.

Twenty sizes and types of augers match jobs and digging conditions. Standard augers with plain or serrated edges are available in 9, 10, and 12-inch diameters. There are heavy-duty augers with replaceable plain or serrated edges in 9, 10, 12, 14, 18, and 24-inch diameters. Also, 4 and 6-inch diameters with non-replaceable edges. Heavy-duty augers recommended for industrial use, have double flights at bottom, single flights at top, to speed digging and reduce clogging. Fish-tail auger point is available for difficult penetration conditions such as ice.

Specifications*—**Drive:** Telescoping drive shaft for ASAE standard 540 rpm tractor PTO. **Gear box:** Heat-treated bevel gears—4 to 1 reduction; oil bath; 2 ball bearings, and 2 tapered roller bearings, double-sealed on output shaft against dust and dirt. **Drilling depth:** 42 in. **Auger protection:** shear pin. **Construction:** One-piece welded tubular steel frame. **Transport height:** 75 in. **Width:** 32 in. **Length:** 80 in. **Transport clearance:** 10 in. **Shipping weight,** less auger: approx. 210 lbs.

*Conforming to IEMC definitions.

FORD

SOIL FITTING IMPLEMENTS

Moldboard Plows

On many landscaping jobs, leveling, grading and final smoothing often is speeded up by first plowing to loosen the soil and ease the job for blades, rakes or scrapers.

Ford fully-mounted moldboard plows are economical, easily and quickly attached to the tractor's 3-point hitch. They are under complete draft or position control with the industry-leading Ford hydraulic system. One and two-bottom sizes are usually preferred for landscaping work. Three and four-bottom sizes are also available. Bottom widths are from 12 to 18 inches, with 24½-inch under-beam clearance. All models may be fitted with spring-trip beams for work in soil containing buried obstructions.



Tandem Disc Harrows

Ford fully-mounted disc harrows form part of many landscape contractor's equipment spreads. Disc harrows are efficient in distributing soil to level "humpy" areas. For aerifying moist soil to hasten drying. For pulverizing lumpy soil to speed work with blades, scrapers, landscape rakes and seeder-pulverizers, or to incorporate additives.

Ford tandem disc harrows are available in two types: the 202 rigid frame model and the 201 Flexo-Hitch model. The former is particularly effective on fairly level ground. The 201 model readily conforms to areas full of humps and holes to perform an efficient leveling action. These harrows are available in 6½, 7½, 8½ and 10-foot widths. The 201 is supplied in 6½ and 7½-foot widths.



801 Fertilizer Spreader

The Ford 801 spreader, with its wide range of application rates, accurately applies all types of commercial fertilizers and certain road stabilization chemicals. It also may be fitted with grass seed attachment. The 801 will apply materials uniformly even in high winds, without noticeable drift. Easy-to-read dial permits accurate selection of distribution rate, from 1.26 lbs. to 160 lbs. per 1,000 sq. ft. A single lever controls all spreading operations. Starts, adjusts and stops flow. Pin-type clutch release stops rotation of distributor mechanism for transport.



SPECIFICATIONS

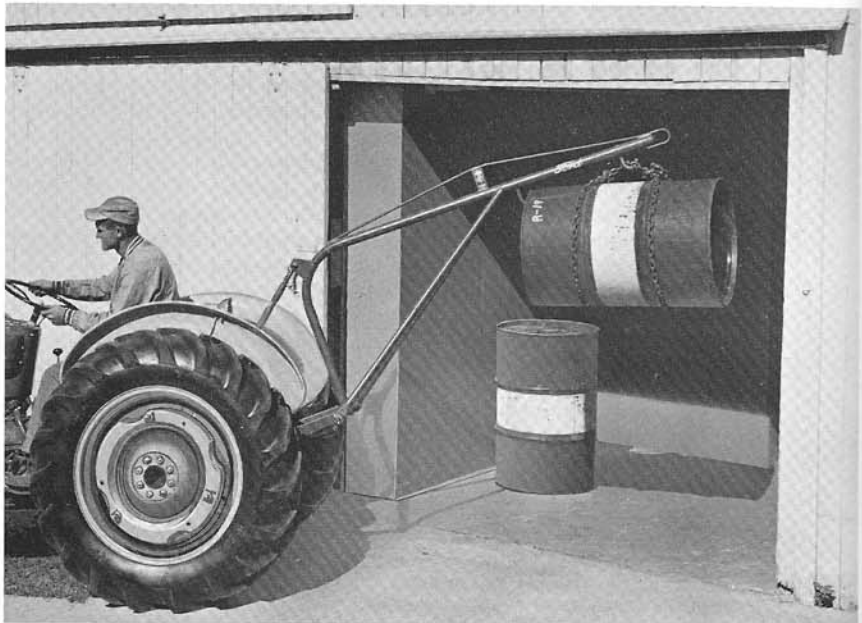
Size	Hopper Capacity	Flow Rate Per Acre	Per 1,000 Sq. Ft.
8-ft.	700-850 lb.	55 to 7,000 lbs.	1.26 to 160 lbs.
10-ft.	950-1,100 lb.	55 to 7,000 lbs.	1.26 to 160 lbs.

FORD

707 REAR CRANE

**Lift and load
hard-to-handle material
707 REAR CRANE**

Lift, transport, and load bulky material weighing up to 740 pounds with 707 rear crane. Fits any 3-point hitch tractor. Two open hooks and a closed end hook provide for a variety of lifting requirements. Welded one-piece frame is rigidly trussed and braced to insure long service.



**Transport equipment, bags,
boxes the easy way**

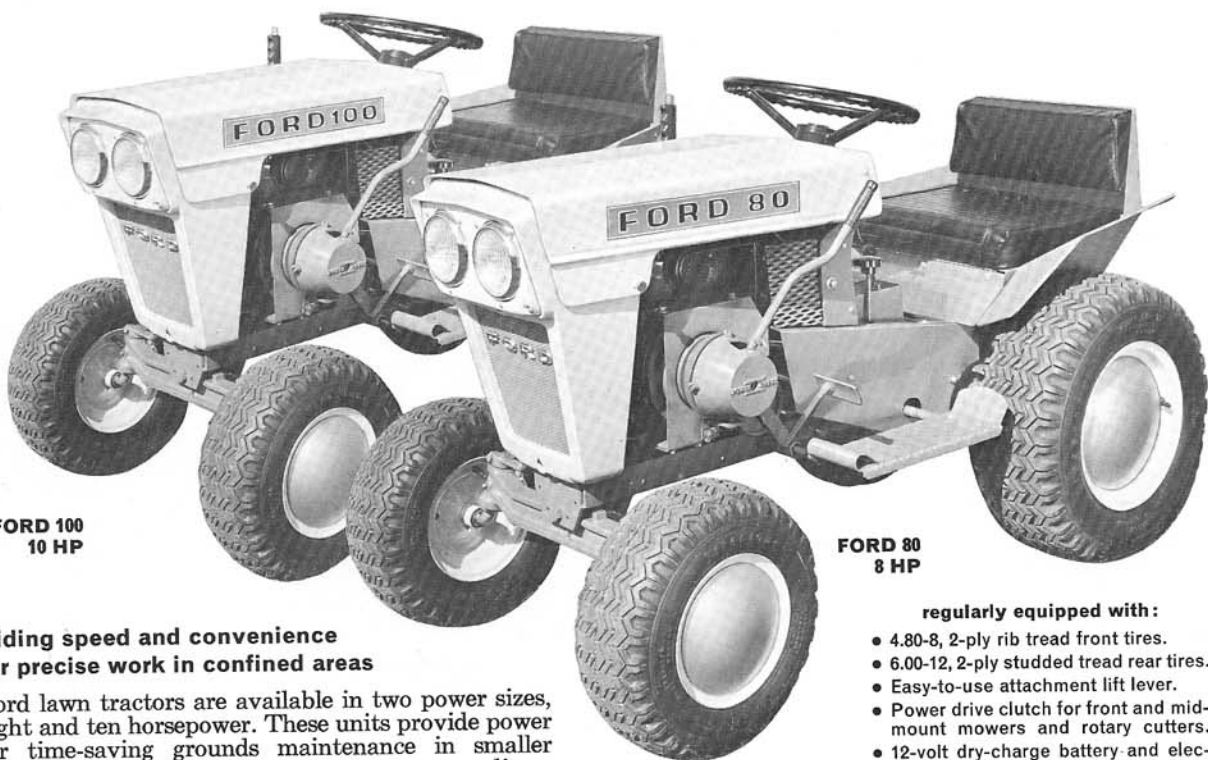
**LIFT FORK
for 3-point hitch**

Load, lift, and carry palletized material. Or add your own platform to the fork tines, and convert your 3-point hitch tractor into a handy carrier. Transport bags, boxes, posts, pipe, wire rolls, equipment, many other items. Lowers to the ground for easy loading.



FORD

LAWN TRACTORS



FORD 100
10 HP

FORD 80
8 HP

Riding speed and convenience for precise work in confined areas

Ford lawn tractors are available in two power sizes, eight and ten horsepower. These units provide power for time-saving grounds maintenance in smaller parks, playgrounds, school grounds, narrow medians, and other confined areas. They may be equipped with a wide range of mowers, snow blower or blade, as well as rotary tiller and other soilworking equipment.

Dimensions:

Length	61 inches
Wheelbase	42 inches
Width (standard tires)	33 inches
Weight, Model 80	535 lbs.
Weight, Model 100	636 lbs.

Ground Clearance:

Front axle	.8 $\frac{1}{4}$ inches
Transmission	.6 $\frac{1}{4}$ inches
Turning Radius	.36 inches

Engine Data:

Four-cycle—Single-cylinder, air cooled

Fuel capacity—1 $\frac{1}{4}$ gal.
Air cleaner—Dry type

Horsepower @ 3,600 rpm	80	100
Oil capacity	8.0	10.0
	2 $\frac{1}{2}$ pts.	5 pts.

Speed: @ 3,200 Engine rpm

1st Gear	.79 mph
2nd Gear	2.48 mph
3rd Gear	4.27 mph
4th Gear	6.32 mph
Reverse	2.83 mph

regularly equipped with:

- 4.80-8, 2-ply rib tread front tires.
- 6.00-12, 2-ply studded tread rear tires.
- Easy-to-use attachment lift lever.
- Power drive clutch for front and mid-mount mowers and rotary cutters.
- 12-volt dry-charge battery and electrolyte, with starter-generator.
- Cigarette lighter in control panel.
- Fenders, foot rests, comfort seat and tool box.

SPECIFICATIONS

Transmission—Automotive-type, 4-speeds forward, one reverse.

Band type brakes on transmission pinion shaft.

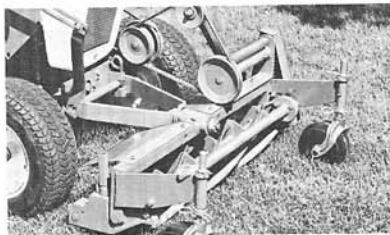
12-Volt Starter Generator—Includes battery, ammeter, starter button, switch, regulator and wiring.

OPTIONAL TIRES

Front: 6.50-8, 2-ply, rib tread
Rear: 8.00-12, 2-ply, studded tread
8.00-12, 2-ply, chevron tread



Snow blower or snow dozer blade make quick work of snow disposal from walks too narrow for larger tractors. Blower clears 36 inches; blade, 42 inches.



Front-mounted 30-inch reel mower has power-driven reel for clean, fast mowing, even in corners. Caster wheels provide for no-scuff work on uneven ground.



Rotary mowers are available in 36 and 42-inch cutting widths for the Ford 80. The Ford 100 also may be equipped with a 48-inch, industrial-quality unit.

MORE OF THE 101 WAYS

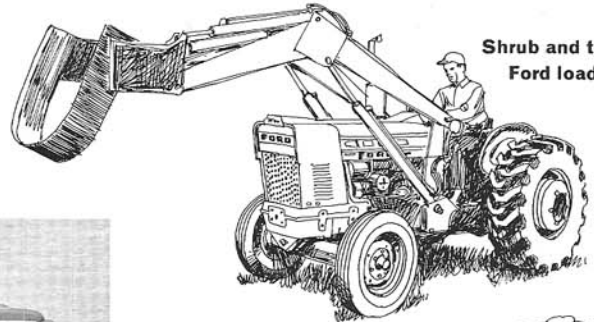


Mounted or trailing scrapers

The combination of three-point hitch, Ford hydraulics and provisions for front- and side-mounting permits use of many types of specialized equipment to reduce job costs with Ford tractors. When your need for such specialized equipment arises, it will pay to consult your Ford tractor and equipment dealer.



Rotary tillers, power take-off driven



Shrub and tree digger,
Ford loader-mounted



Mounted gang reel mowers

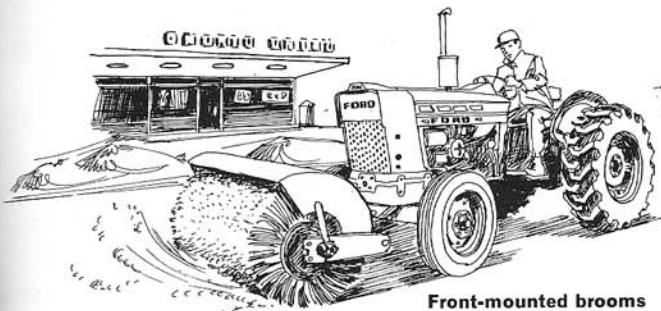


Rear-mounted sweeper



Turf areators, mounted and trailing

TO USE FORD POWER



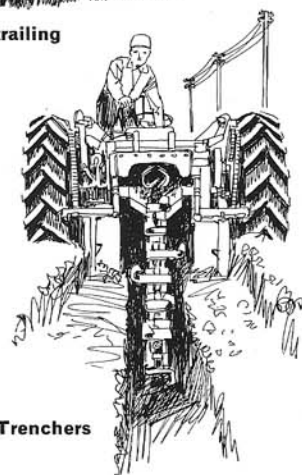
Front-mounted brooms



Sprayers, mounted and trailing

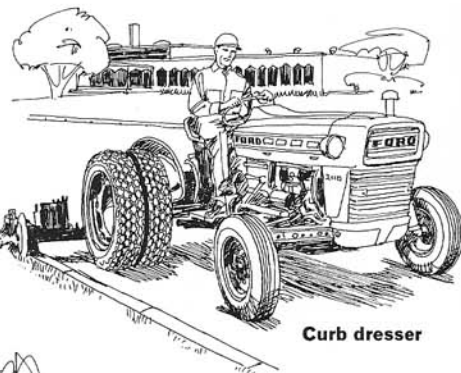


Seeder-spiker

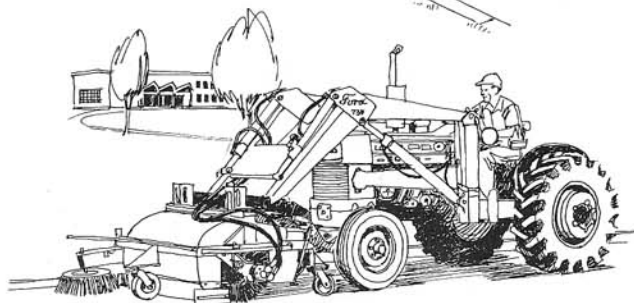


Trenchers

Scraper-scarifiers



Curb dresser



Pickup sweepers, Ford loader-mounted



Year 'round maintenance in the nation's largest metropolitan park and forest preserve system is handled by Ford tractors.

The words on the seal of the City of Chicago read, "City in a Garden." This is a motto come true—through the continuous efforts of city leaders over a period of many years. As a result, Chicago residents today have an unparalleled variety of park and recreational facilities at their disposal. The city's park authority provides 6,857 acres of landscaped park areas, complete year around recreation service, horticultural and zoological gardens, 16 major beaches, 15 street-end beaches, seven harbors, and swimming pools in 50 parks. It operates more than 200 indoor fieldhouses and plays host to seven museums operating on park land.

The commissioners of the Cook County, Illinois, Forest Preserve District have planned equally well for the recreational needs of the area. The Forest

Preserves ring the City of Chicago with some 50,000 acres of land. This constitutes over eight per cent of the total land area within the county. The District is authorized to obtain 10,000 additional acres in the future. Together, the Park District and Forest Preserve provide recreational facilities for 5,250,000 people.

Both the Chicago Park District and the Cook County Forest Preserve District depend heavily on tractor power to keep recreation sites clean and attractive. Included in the extensive equipment fleets are 150 Ford tractors operated by the Forest Preserve and 31 by the Park District. Some of the many construction and maintenance operations handled by these tractors are illustrated on following pages.





Waveland Golf Course, on Chicago's North Side lakefront, attracts over 70,000 players annually. Mowing and other maintenance is handled by this Ford tractor with seven-gang reel mower. Specially devised safety cage protects operator as he mows during play.

Ford tractors help keep Chicago's parks and beaches well-groomed.



Spring reseeding project near baseball diamonds in Lincoln Park, Chicago's largest single park, is handled by Ford tractor power.



First, ground was thoroughly broken up and aerated by a Ford equipped with rotary tiller, above left. Then, above, ground was smoothed . . .



. . . by a Ford with landscape rake. Finally, area was quickly seeded by this Ford tractor equipped with a seeder-packer.



C. I. (Cy) Baker, Director of Landscape, Chicago Park District, is responsible for maintaining over 6,000 acres of park and recreational area at over 400 different locations, including athletic fields, beach, picnic and golf areas, children's playgrounds, and ice skating rinks in winter.

Stop by soon and see your nearby Ford Tractor and Equipment dealer. Let him demonstrate to you why Ford Power is preferred by so many tractor users.

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