



A Steiger Panther 320

Assembly of tractor cabs at Steiger's Fargo plant



Steiger's 420,000 square foot manufacturing plant in Fargo, North Dakota



Bearcat ST-225 III

Specifications

Engine

Caterpillar 3306T: Turbocharged
Rated horsepower: 225 (168 kW)
Type: In-line 6 cylinder
Bore and stroke: 4.75 x 6 inches
(121 mm x 152 mm)
Displacement: 638 cu. in. (10.5 liters)
Compression ratio: 17.5:1
Rated speed: 2200 rpm
High idle: 2430 rpm (approx.)
Low idle: 830 rpm
Peak torque: 691 ft. lbs. (95.6 kg)
@ 1300 rpm
Torque rise: 28.7%
Oil capacity: 29 qts. (30.3 liters)
including filters
Coolant capacity: 13 gals. (48.8 liters)

Axles

Outboard planetary

Brakes

Service brake: Hydraulically operated,
multiple disc type
Mounting: Transfer case
Parking brake: Hand cable-operated,
multiple disc type

Fuel system

Fuel tank: Integrally built into rear frame
Capacity: 287 gals. (222.4 Imperial gals.)
(1011 liters)
Fuel type: No. 2 diesel. No 1 diesel where
ambient temperature remains consistently
below 32° F (0° C)

Transmission

Dana-Spicer SST 1010: 10 speeds,
constant mesh, spur gear
Transfer Case: 2-speed, oil cooled, tapered
roller bearings with integral lube
system sump.
Provides 20 speeds forward, 4 reverse
when coupled with 10-speed transmission.

Clutch

Dana-Spicer Model AS 1402: 14 in. (356 mm)
2-plate, and angle-spring pull release

Drivelines

Transmission to transfer case:
Mechanics 8C
Transfer case to axles: Mechanics 7C

Electrical system

Alternator: Delco-Remy 90 amps,
12-volt system
Batteries: Four Delco-Remy 12-volt
maintenance-free type 1900 CCA (0° F),
1500 cold-cranking amps (-20° F)
Lights: 6 floodlights, 4 spotlights,
6 forward, 4 rear mounted. Warning
flashers with integral turn signals.
Two combination tail and stop lights.
All instruments illuminated.
Circuit breakers: Automatic resetting type

Dimensions and data

Wheel base: 128 in. (325.1 cm)
Clearance: (axles) 20 in. (50.8 cm) not
including drawbar
Turning radius: 16 ft. (5.5 m) to center
of drawbar
Drawbar: Heavy-duty roller swinging type
Frame articulation: 35° left/right
Frame oscillation: 15°
Frame thickness: 1/2-inch welded steel plate
Fender thickness: 3/16-inch steel plate
standard
Weight: 25,225 lbs. (11,465 kg) approx.
(with standard tires)
Maximum warranted weight:
34,000 lbs. (15,422 kg)

Tires

Singles — 24.5 x 32 and 30.5 x 32
Duals — 18.4 x 38 thru 24.5 x 32

Hydraulic system

Control valve: Green open-center,
stack-type. Four bank standard,
three detent valves, one float valve
Steering: Char-Lynn hydrostatic full-priority.
Load sensing, articulated with
double-acting cylinders
Implement system: Adjustable gallonage to
remote outlets — 8 to 20 gpm
Operating pressure: 2250 psi at rated rpm
Reservoir capacity: 33 gals. (125 liters)
Pump capacity: 29.2 gpm (110.49 lpm)
at 2200 rpm
Filtering system: Spin-on, throw-away
elements. Suction screen inside reservoir

Cab

Air conditioning and heater
Pressurized: For dust control
Rubber mounted
Tinted glass: All
Windshield wipers: Electric front and rear
Doors: Right and left sides
Seat: Deluxe fully weight adjustable,
fore/aft travel, cloth covered, arm rests
Instruments: Tachometer, voltmeter,
fuel gauge, oil pressure, water
temperature, hourmeter, warning lights
Radio: AM/FM stereo
Steering wheel: Tilt/telescoping type
Engine decelerator: Foot-operated
ROPS tested per OSHA
— 29 CFR 1928 Subpart C
Additional items: Ashtray, beverage holder,
cigar lighter, seat belt

Optional equipment

3-point hitch: Category III with quick attach
FIRh hydraulic valve
Dozer blade: 12- and 14-foot widths,
Manually adjustable or hydraulically
adjustable tilt and angle blades.
Sprayer pump kit
Valve stem guards
No-spin differential: (front only)
Windshield washer: (front only)
Operator horn
Field service support package:
(600 hours operation)
Tiger style duals
Row crop hubs
AM-FM stereo cassette radio

HOW TO COMPARE 4-WHEEL DRIVE TRACTORS



When you select a new tractor, you are making a decision that will affect the way you farm and your farm profit situation five to ten years into the future. That's why it is so important to match a new power unit to your farm, the crops you grow and your types of soil. You need to compare 4-wheel drive units with 2-wheel drive. There are big differences between available 4-wheel drive units, too.

Look at the number of acres you farm, and at the bigger yields that come from planting crops at the optimum time, when choosing the size of a new tractor. On page 2 and 3, you'll find a worksheet that will lead you to a fairly accurate estimate of how big your biggest tractor system should be. Consider the hired help available to you and the cost of doing things the way you are doing them. Estimate the cost trend over the next few years. You'll then be ready to make a sound, dollar and cents decision on the combination of tractor sizes that is right for you.

You can compare tractors using Independent, officially observed test information. This information is readily available on virtually all tractors sold in the U.S.

Here are the key things to look for:

Fuel Consumption: Horsepower hours per gallon is a good measure of the work you get from your fuel investment. As energy becomes more expensive, this measurement is increasingly important.

Drawbar horsepower: This is a much more meaningful rating than pto or bare engine horsepower. The ability to transmit power out beyond the drawbar is the quality you are seeking.

Cost per drawbar horsepower: A key in determining the relative value of one tractor against the other can often be figured by comparing the cost per drawbar horsepower of various units. To determine this figure, divide the tractor's

price by the tested drawbar horsepower. This figure will give you a basis for analyzing the machine's value relative to the work it is capable of doing.

Drive train efficiency: This is a ratio of gross engine horsepower to the drawbar horsepower. It is a key measure of efficiency.

Weight to horsepower: You need plenty of weight to make use of big horsepower. Look for a tractor that has the weight to harness power and transform it to traction.

Noise: Sound level is important in a tractor where you may spend 10 to 12 hours every day. Look for sound engineering that keeps noise at an acceptable level hour after hour.

There are other factors to consider beyond the figures of official tests when you compare 2-wheel and 4-wheel drive power. First of all, big 4-WD power permits one man to work more acres per hour. You pull an implement both fast enough and deep enough to do the job it is supposed to do.

The flotation of a 4-WD tractor is far superior because there's nearly twice as much rubber on the ground. Weight and pull are distributed evenly. There's less slippage, less rolling resistance and more drawbar pull. You can work faster.

Under wet conditions in the spring, a 4-WD can get into the field earlier and that can pay off in higher yields. There are only a few good working days each spring — a big power 4-WD can help you make full use of them.

The facts and figures are only a part of the comparison. You also need to check out comfort, visibility, and convenience through personal testing. For more about independent tests and an objective analysis by Steiger Tractor Inc., see the chart on the back page of this brochure.

Questions and Answers about 4-WD Tractors

Q: How big do I have to be to need one?

A: It depends on more than acres. Length of planting season, and lack of farm labor are critical factors, too. One of the most active 4-WD areas today is the Corn Belt, where as few as 300 acres may justify a 4-WD.

Q: What about working in small fields?

A: The width of the implement determines the turning radius. As for the articulated (bends in the middle) 4-WD tractor itself, it will turn nearly as tightly as a 100-hp, 2-wheel model. In Ohio, for example, they use big 4-WD's in fields as small as 30 to 40 acres.

Q: Are they hard to handle?

A: An articulated tractor handles differently, of course. But the actual steering effort is no greater than for a big 2-wheel tractor.

Q: Why can a 4-WD tractor claim better fuel economy?

A: Compared with a 2-wheel model, the reasons are — less slippage, and less rolling resistance. This is because, under load, the weight distributes equally on all four wheels, and because the front wheels are pulling their own weight instead of just shoving ahead as dead weight.

HOW TO FIGURE YOUR HIGHEST HORSEPOWER NEED

Time is critical in deciding on tractor power. There are only a few days each spring that are the optimum time to get the crop into the ground. Chances are you'll be farming more acres in the years ahead . . . but you won't have any more time.

1 Time — either how much of it the weather gives you, or how much your schedule will allow — is the key factor in your decision on how big your biggest tractor should be.

The first questions you must answer are: What is my planting schedule? How many days do I have to do my single, most critical tillage job? In most cases, weather sets the time limit. Don't look at the average conditions, though; figure on the least amount of time you might have to do a thorough job. You can usually get weather data — norms and extremes — through a local university. The advantage of 4-WD is that its excellent traction and flotation often make it possible for you to get into the field earlier under wet conditions.

Another question about time is, How many hours do you want to stay in the field a day? If you plan to run a double shift, be realistic about maintenance and operator's personal time.

2 Knowing the number of acres you must cover per hour, and the speed which your experience tells you will do the proper tillage job, you can figure the necessary width of the implement.

The number 10, as used here is a factor which computes an average field efficiency of the trailing implement at 82.5%. This percentage accounts for overlap, turning loss, stoppages, and other inefficiencies of actual fieldwork.

If the implement width which you calculate here should be greater than what any manufacturer offers, or is impractical for some other reason, such as road clearance, you have 2 options — You can increase the hours per day you spend in the field, perhaps by going to a double-shift (assuming that you aren't already figuring on that basis) — Or, you can split the implement width between two separate

systems — i.e., 2 tractors, 2 implements, 2 operators. The split should probably not be 50-50, though. If your other tillage operations are less demanding, you may want to match one of the systems to them.

3 The chart below shows the amount of load (draft) in pounds per foot that major implements present to the tractor in typical soils. Simply multiplying the width of the implement you must pull, by the appropriate figure in the chart, tells you the total draft.

This is where you begin to see how today's higher horsepower can affect the productivity of your land. Now you can have horsepower enough to pull the right implement deep enough and fast enough to work your soil thoroughly and within the optimum time. However, exercise care in defining your own particular soil type as accuracy will help to assure a matched tractor and implement, whereas inaccuracy could create overloading of the tractor.

4 The figure you get from this equation, drawbar horsepower, is the amount of pull you need to do the job.

How it relates to gross engine horsepower depends on ground conditions, speed, tires, and ballasting. The conversion figures given on the worksheet will help you estimate what size of engine you should be looking at — but the best thing to do is talk with a knowledgeable dealer or applications engineer.

If the amount of horsepower you need is borderline, i.e., a choice between the biggest 2-wheel-drive tractor you can buy, and a smaller 4-wheel-drive, be sure to weigh such factors as —

- future growth plans • future labor • fuel costs • resale value
- special 4-WD uses, such as dozing, scraping and ripping.

TYPICAL DRAFT IN POUNDS PER FOOT OF IMPLEMENT

(except in the case of the V-chisel which is pounds of draft per shank)

Implement	Depth (in.)	Speed (mph.)	TYPE OF SOIL				
			Heavy (Gumbo)	Mod. Heavy (Clay loam)	Average (Loam)	Mod. Light (Sandy loam)	Light (Sandy)
Moldboard plow	8	4-5	1200	1000	800	600	400
Chisel plow	8-12	4-5	800	650	500	350	200
Stubble mulch plow	3-5	4-6	375	325	275	225	175
Field cultivator	3-4	4-6	500	375	250	200	150
Light finishing disc	2-4	4-6	400	325	250	175	100
Heavy tandem or offset disc	3-6	4-6	800	500	400	300	200
Giant offset disc	12-16	4-8	1600	1500	1400	1300	1200
V-chisel—with parabolic shank	16-22	3-4	3900	3350	2800	2250	1700

pounds per shank

*NOTE: These typical values are subject to variation due to soil moisture content. If, for example, your type of soil is average, but unusually hard and dry (or very wet) choose the heavy draft figure instead.

Sources: Oklahoma State Univ., Ext. Service; North Dakota State Univ., Ext. Service; Towser Manufacturing Company; Steiger Tractor, Inc.

PLANNING GUIDE

Using your own figures, plus the draft chart of the page at left, you can come up with a close idea of what kind of horsepower you need in order to complete your most critical fieldwork, on time, with a single tractor — or with a minimum of tractors.

EXAMPLE:

You farm 1200 acres of grain in a part of the country where the weather allows you about 15 working days during the optimum planting period. Planting involves 2 stages of seedbed preparation — heavy disking and field cultivation — plus the actual seeding. Thus, you have to get over the ground 3 separate times.

Consider the disking to be your most critical, high-draft operation. Allow 6 days, and figure that you want to work 10 hours a day.

$$\frac{1200 \text{ acres}}{6 \text{ days} \times 10 \text{ hours}} = 20 \text{ acres/hour}$$

In order to cover 20 acres per hour at the recommended speed of 6 mph, allowing for normal overlapping, turns, and personal time, you will need a disc of the following width:

$$\frac{10 \text{ (factor)} \times 20 \text{ acres/hr}}{6 \text{ mph}} = 33.3 \text{ or } 34 \text{ ft.}$$

Assuming that the density of your soil is average, the total load which the 34-ft. wide implement presents to the tractor is —

$$34 \text{ ft} \times 400 \text{ (from chart)} = 13600 \text{ lbs.}$$

The drawbar horsepower required to pull this amount of load at the speed of 6 mph is

$$\frac{13600 \text{ lbs} \times 6 \text{ mph} \times 1.20}{375 \text{ factor}} = 261 \text{ hp (drawbar)}$$

1 ACRES PER HOUR

$$\frac{\text{Total acres to till}}{\text{No. work days} \times \text{Avg. hours per day}}$$

2 WIDTH OF IMPLEMENT

$$10 \times \frac{\text{Acres per hour}}{\text{Speed (mph)}}$$

3 TOTAL DRAFT

$$\text{Width of implement} \times \text{draft per foot}^*$$

*from chart, see other side of page.

4 DRAWBAR HORSEPOWER

$$\frac{\text{Total draft} \times \text{Speed (mph)} \times 1.20^{**}}{375 \text{ factor}^*}$$

*A standard factor, or constant, for determining a drawbar horsepower requirement. The factor is used to mix pounds of pull and speed (mph) in the standard equation for computing drawbar horsepower. Source: Oklahoma State University.

**Factor determined by Deere Tractor, Inc. to reflect actual on-level efficiency possible without excess weighting or overloading.

NOTES:

INDEPENDENT TESTS GIVE YOU SOUND COMPARISONS

There are officially observed, independent tests that make it possible for you to compare tractors in many ways. These tests have received wide acceptance and are used by farmers, governments and large corporations around the world as they select tractors. The tests adhere closely to standard tractor evaluation procedures published by the Society of Automotive Engineers (J 708 C).

Rubber-tired tractors go through a series of tests on a concrete test track. Engineers and technicians verify the

manufacturer's horsepower claims. They also measure fuel consumption and resulting efficiency. Tractors with pto also are run on a power absorbing dynamometer to verify pto power claims. Sound levels in the tractor cab are included in test results.

Test results are available to any farmer planning to purchase a tractor. You can compare tractors to the same general power size in several key categories as you make your buying decision.

OFFICIAL TEST RESULTS OF CURRENT PRODUCTION 4WD'S RANKED BY PERFORMANCE

ENGINE AND DRAWBAR POWER				FUEL EFFICIENCY		CAB QUIETNESS		
Model	Advertised Engine Horsepower	Tested Drawbar Horsepower	Model	% of Engine Horsepower at Drawbar	Model	Tested Fuel Efficiency HP Hrs./Gal.	Model	Tested Sound Level
1 Steiger ST 450 @ approx. 1700 rpm	470	387.31	Steiger PT 350 (1)	89.04%	Steiger ST 450 @ 1700 rpm	15.57	Steiger ST 450 @ 1700 rpm	75.5
2 Steiger ST 450 @ 2100 rpm	470	372.61	Steiger ST 350	89.04%	Steiger PT 350 (1)	15.03	Steiger ST 450 @ 2100 rpm	76.5
3 Steiger ST 350	350	311.84	Steiger PT 350 (2)	87.28%	Steiger ST 350	15.03	Steiger PT 270 (1)	78.0
4 Steiger PT 350 (1)	350	311.84	Steiger ST 325	88.75%	Steiger PT 350 (2)	14.91	Steiger PT 270 (2)	78.5
5 Steiger PT 350 (2)	350	305.48	Steiger ST 270	84.80%	Steiger ST 325	14.82	Allis-Chalmers 7580	79.0
6 Steiger ST 325	325	281.94	Steiger ST 310	84.45%	Steiger ST 251	14.74	Steiger ST 270	80.0
7 Steiger ST 310	310	261.78	Steiger PT 225 (1)	83.37%	Steiger ST 450 @ 2100 rpm	14.18	Steiger ST 251	80.0
8 International 4586	300	235.72	Massey 1505	83.30%	Steiger ST 310	13.95	Steiger PT 225 (1)	80.0
9 Steiger ST 270	270	228.96	Steiger PT 270 (1)	83.18%	John Deere 8630	13.67	John Deere 8430	80.0
10 Versatile 875	260	228.35	Steiger ST 450 @ approx. 1700 rpm	82.41%	Versatile 875	13.60	Steiger PT 350 (1)	80.5
11 Steiger PT 270 (1)	270	224.54	Steiger ST 251	82.33%	John Deere 8430	13.44	Steiger PT 350 (2)	80.5
12 Allis-Chalmers 8550	300	224.18	Steiger ST 210	81.64%	Case 2870	13.42	Steiger ST 325	80.5
13 Case 2870	300	219.61	Versatile 875	81.55%	Steiger ST 270	13.32	Steiger PT 225 (2)	80.5
14 Steiger PT 270 (2)	270	219.39	Steiger PT 270 (2)	81.28%	Case 2470	13.30	Steiger ST 310	81.0
15 Steiger ST 251	250	205.82	Massey 1805	81.03%	International 4186	13.01	White 4-150	81.0
16 John Deere 8630	275	202.31	Steiger PT 225 (2)	80.38%	Case 2870	12.96	John Deere 8630	81.5
17 Case 2870	256	194.60	Steiger ST 450 @ 2100 rpm	79.28%	Steiger PT 270 (1)	12.97	White 4-180	81.5
18 Steiger PT 225 (1)	225	187.59	International 4586	78.57%	International 4586	12.89	Case 2870	82.0
19 Steiger PT 225 (2)	225	180.86	International 4386	76.53%	Steiger PT 225 (1)	12.81	International 4586	82.0
20 International 4386	230	176.02	White 4-150	78.19%	Massey 1805	12.76	International 4386	82.0
21 Steiger ST 210	210	171.44	Case 2870	78.02%	Steiger PT 270 (2)	12.73	Case 2470	83.0
22 Massey 1805	210	170.17	Allis-Chalmers 8550	74.73%	Steiger ST 210	12.71	Steiger ST 210	84.0
23 Allis-Chalmers 7580	222	160.79	John Deere 8430	74.60%	Allis-Chalmers 8550	12.47	Versatile 875	84.0
24 John Deere 8430	215	160.39	International 4186	74.55%	White 4-160	12.46	Allis-Chalmers 8550	84.5
25 White 4-180	210	156.54	White 4-180	74.54%	International 4386	12.43	Case 2870	84.5
26 Case 2470	213	154.24	John Deere 8630	73.57%	Massey 1505	12.27	Massey 1505	85.5
27 Massey 1505	185	154.10	Case 2870	73.20%	Allis-Chalmers 7580	12.22	Massey 1805	86.5
28 White 4-150	175	133.34	Allis-Chalmers 7580	72.43%	Steiger PT 225 (2)	12.02	International 4186	89.5
29 International 4186	175	130.47	Case 2470	72.41%	White 4-180	11.79		

Steiger Tractor Test Note: (1) Tested without PTO; (2) Tested with PTO

Columns in Steiger green are Steiger's engine analysis. Columns in the white are official independent observed test results. Write Steiger Tractor Inc. for complete test results.

Complete test results available from Steiger or your Steiger dealer.



STEIGER TRACTOR INC.

3101 1ST AVE. NO., FARGO, NORTH DAKOTA 58102.

Our four-wheel-drive tractors
were tested against the others.

Ours Won!

Official Test Results of Current Production 4WDs
Ranked By Performance

ENGINE AND DRAWBAR POWER					FUEL EFFICIENCY		OAE QUIETNESS		
	Model	Advised Engine Horsepower	Tested Drawbar Horsepower	Model	% of Engine Horsepower at Drawbar	Model	Tested Fuel Efficiency (GPH per PTO HP)	Model	dB(A)
1	Steiger ST 450 @ approx. 1700 rpm	470	367.31	Steiger PT 350 w/o PTO	69.04%	Steiger ST 450 @ 1700 rpm	15.37	Steiger ST 450 @ 1700 rpm	75.5
2	Steiger ST 450 @ 2100 rpm	470	372.61	Steiger ST 250	69.04%	Steiger PT 350 w/o PTO	15.03	Steiger ST 450 @ 2100 rpm	76.0
3	Steiger ST 350	350	311.64	Steiger PT 350 w/PTO	77.28%	Steiger ST 350	15.03	Steiger PT 270 w/o PTO	76.0
4	Steiger PT 350 w/o PTO	350	311.64	Steiger ST 325	86.75%	Steiger PT 350 w/PTO	14.91	Steiger PT 270 w/PTO	76.0
5	Steiger PT 350 w/PTO	350	305.48	Steiger ST 270	84.80%	Steiger ST 325	14.82	Allis-Chalmers 7580	76.0
6	Steiger ST 325	325	294	Steiger ST 310	84.45%	Steiger ST 251	14.74	Steiger ST 270	80.0
7	Steiger ST 310	310	261.78	Steiger PT 225 w/o PTO	63.37%	Steiger ST 450 @ 2100 rpm	14.19	Steiger ST 251	80.0
8	International 4586	300	236.72	Massey 1505	63.30%	Steiger ST 310	13.95	Steiger PT 225 w/o PTO	80.0
9	Steiger ST 270	270	219.96	Steiger PT 270 w/o PTO	63.16%	John Deere 8630	13.67	John Deere 8430	80.0
10	Versatile 875	250	229.30	Steiger ST 450 @ approx. 1700 rpm	62.41%	Versatile 875	13.60	Steiger PT 350 w/o PTO	80.0
11	Steiger PT 270 w/o PTO	270	224.54	Steiger ST 251	62.23%	John Deere 8430	13.44	Steiger PT 350 w/PTO	80.0
12	Allis-Chalmers 8550	300	224.18	Steiger ST 210	51.64%	Case 2670	13.42	Steiger ST 325	80.5
13	Case 2670	300	219.61	Versatile 875	61.55%	Steiger ST 270	13.32	Steiger PT 225 w/PTO	80.5
14	Steiger PT 270 w/PTO	270	219.09	Steiger PT 270 w/PTO	61.25%	Case 2470	12.90	Steiger ST 310	81.0
15	Steiger ST 251	250	206.82	Massey 1805	51.03%	International 4166	13.01	White 4-150	81.0
16	John Deere 8630	275	202.31	Steiger PT 225 w/PTO	60.38%	Case 2670	12.98	John Deere 8630	81.5
17	Case 2670	250	194.00	Steiger ST 450 @ 2100 rpm	70.26%	Steiger PT 270 w/o PTO	12.97	White 4-180	81.5
18	Steiger PT 225 w/o PTO	225	187.59	International 4586	76.57%	International 4586	12.89	Case 2670	82.0
19	Steiger PT 225 w/PTO	225	180.86	International 4356	75.93%	Steiger PT 225 w/o PTO	12.81	International 4586	82.0
20	International 4386	230	175.02	White 4-150	76.19%	Massey 1805	12.76	International 4386	82.0
21	Steiger ST 210	210	171.44	Case 2670	76.02%	Steiger PT 270 w/PTO	12.73	Case 2470	83.0
22	Massey 1805	210	170.07	Allis-Chalmers 8550	74.73%	Steiger ST 210	12.71	Steiger ST 210	84.0
23	Allis-Chalmers 7580	222	166.79	John Deere 8430	74.50%	Allis-Chalmers 8550	12.47	Versatile 875	84.0
24	John Deere 8430	215	160.09	International 4186	74.55%	White 4-150	12.46	Allis-Chalmers 8550	84.5
25	White 4-180	210	156.54	White 4-180	74.54%	International 4356	12.43	Case 2670	84.5
26	Case 2470	210	154.24	John Deere 8630	73.57%	Massey 1505	12.27	Massey 1505	85.0
27	Massey 1505	185	154.10	Case 2670	73.20%	Allis-Chalmers 7580	12.22	Massey 1605	86.5
28	White 4-150	175	133.04	Allis-Chalmers 7580	72.43%	Steiger PT 225 w/PTO	12.02	International 4166	89.5
29	International 4186	175	130.47	Case 2470	72.41%	White 4-180	11.79		

Full test results available from Steiger or your Steiger dealer.

STEIGER 4WD... Best-by-test

Steiger gives you more
reason to
get more tractor:

CONSTANT POWER



The Steiger with a new twist.

Steiger's new hydrostatic PTO is unlike any system you've ever used. It features a governed mode that provides a constant 105 horsepower, and consistent 1000 RPM — under load, or in no-load conditions.

When the single control lever is full forward, you are in governed mode - and neither engine RPM nor PTO variances up to 500 engine RPM, or changes in gears affect either PTO horsepower, or shaft speed.

What that means to you is that you can use the unique Steiger decelerator pedal at the headland, and not lose PTO power — or shaft speed. Your implement gives you maximum production all the time. With Steiger's hydrostatic PTO, there's no guessing. Rather, you have positive control, something lacking in mechanical units. You have an electronic controller that tells you the shaft RPM, and if you're achieving rated horsepower. When you are, a light tells you.

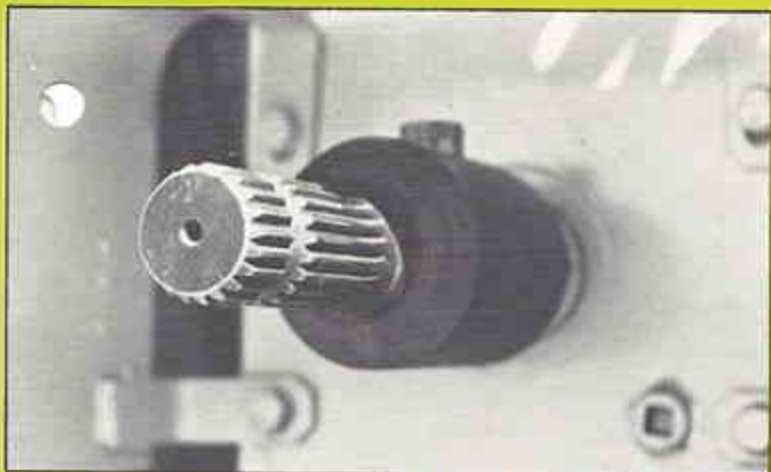
And if the PTO system loses pressure, a sensor cuts off the engine's fuel supply. The engine is shut down.

How about overload? There's automatic protection here, too. When demand exceeds 125 horsepower, a red light and buzzer warn you. Six seconds later, the PTO automatically disengages.

To protect the operator, you have dynamic braking. And to protect the system, and the implement, there are infinitely variable speeds from 0 to 1000 RPM — so you gradually can build up PTO speed and not induce high torque loads during start-up.

Finally, this exclusive system gives you a reverse, so you can easily clear a jammed machine. Even in reverse, you have infinitely variable speeds, so slugs can be eased out.

 **STEIGER**®



Three ways to get more tractor...

The new Steiger PT Series!

STEIGER PT 225 Bearcat III

- 3306T 6 CYLINDER CAT[®] diesel engine — 225 rated hp.
- Turbocharged with a 28% torque rise.
- 2200 RPM operating speed.
- 185 Drawbar Horsepower — Mfg. Est. (without PTO option).
- 175 Drawbar Horsepower — Mfg. Est. (with PTO option).
- 14-inch 2-plate cerametallic clutch.
- Oil-cooled transmission coupled with the Steiger 2-speed power divider, 20 speeds forward, 4 reverse.
- Outboard planetary axles.
- Four 12-volt maintenance-free batteries, 90-amp alternator.
- 1000 RPM, 105 continuous hp hydrostatic PTO (540 RPM optional).

STEIGER PT 270 Cougar III

- 3306T 6 CYLINDER CAT[®] diesel engine — 270 rated hp.
- Turbocharged and aftercooled with a 20% torque rise.
- 2200 RPM operating speed.
- 220 Drawbar Horsepower — Mfg. Est. (without PTO option).
- 210 Drawbar Horsepower — Mfg. Est. (with PTO option).
- 14-inch 2-plate cerametallic clutch.
- Oil cooled transmission coupled with the Steiger 2-speed power divider gives 20 speeds forward, 4 reverse.
- Outboard planetary axles.
- Four 12-volt maintenance-free batteries, 90-amp alternator.
- 1000 RPM, 105 continuous hp hydrostatic PTO (540 RPM optional).

STEIGER PT 350 Panther III

- VT903 V-8 Cummins diesel engine — 350 rated hp.
- Turbocharged with a 20% torque rise.
- 2600 RPM operating speed.
- 280 Drawbar Horsepower — Mfg. Est. (without PTO option).
- 270 Drawbar Horsepower — Mfg. Est. (with PTO option).
- 15.5 inch 2-plate cerametallic clutch.
- Oil cooled transmission coupled with the Steiger 2-speed power divider, 20 speeds forward, 4 reverse.
- Steiger S-34 outboard planetary axle — 25.59:1 overall reduction ratio.
- Four 12-volt maintenance-free batteries — 90-amp alternator.
- 1000 RPM, 105 continuous hp hydrostatic PTO (540 RPM optional).

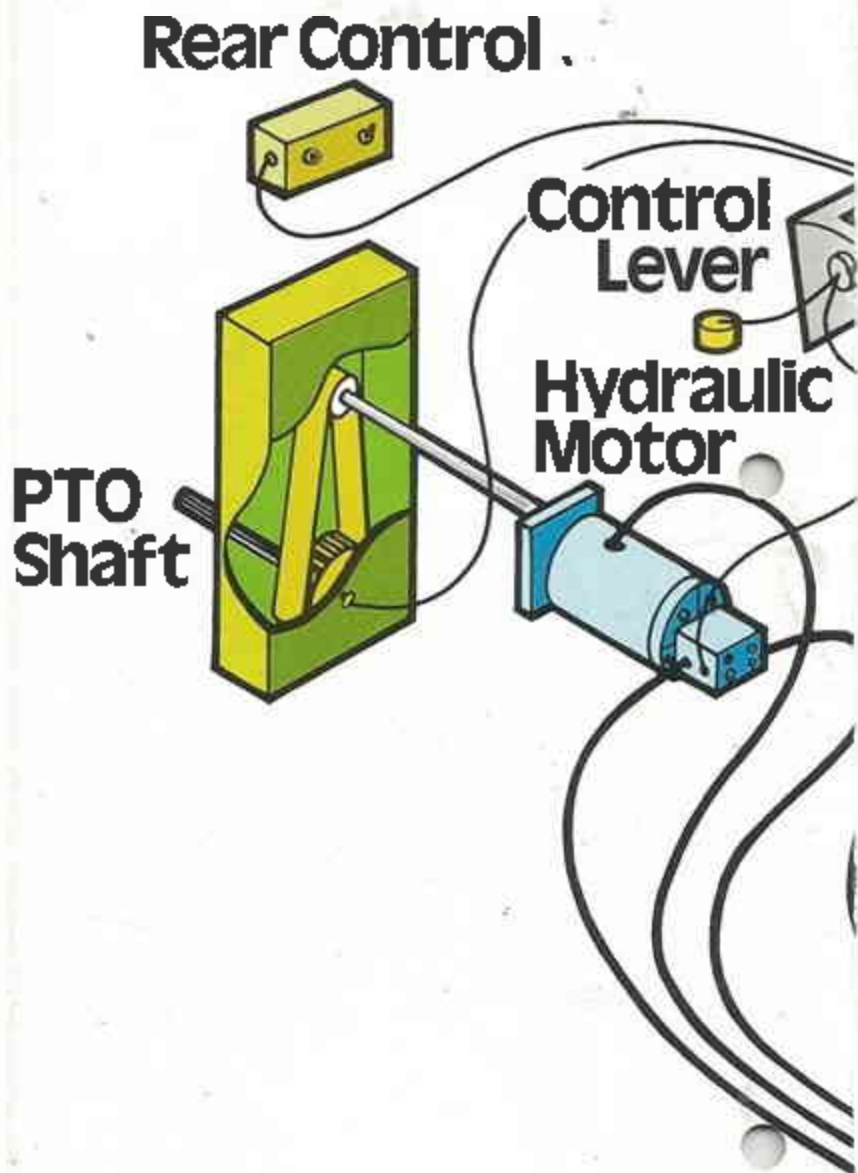
Just like their ST-series brothers, these tractors are unmistakably Steiger, including the Safari cab. Why not put yourself in control of the situation? Steiger can show you how.

STEIGER TRACTOR INC.
3101 1ST AVE. NO., FARGO, NORTH DAKOTA 58102

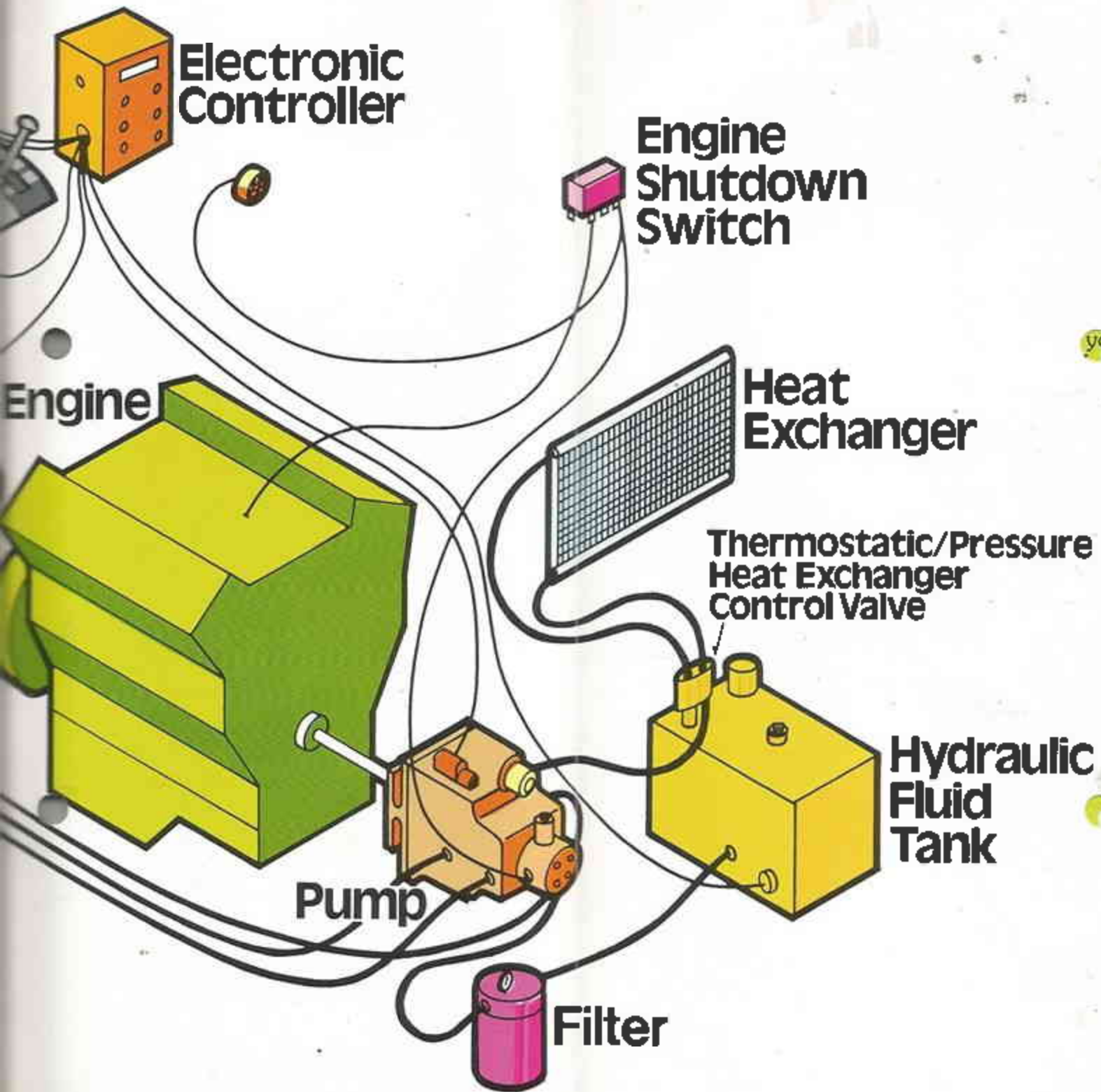
Steiger's Hydrostatic System...

...a closer look

- Variable displacement pump provides constant flow and pressure under varying gear settings, and engine speeds.
- Fluid flow electronically controlled for precise operation, through electro-hydraulic control unit built into the pump, the solid state electronic controller, and pressure transducer on the hydraulic motor.
- Operator monitors rated load and system overload in cab. Readings transmitted by pressure transducer.
- Built-in protection if system pressure is lost. Engine shutdown magnetic switch cuts off engine fuel supply. Operator warned by means of low-pressure light.
- Automatic protection for overload, too. When demand exceeds 125 horsepower, light flashes, buzzer sounds. Six seconds, PTO automatically disengages.
- System maintains most efficient operating temperature via the thermostatic control valve on the PTO hydraulic reservoir, and the free-flowing heat exchanger.
- System reservoir maintains its own pressure with its own pressure regulator valve.
- Operator has control in the cab with the Electronic Controller and PTO Performance Display. No guess work.
- Infinitely variable speed control lets you ease in torque load during implement start-up. No more high torque shock loads.



- Dynamic braking for operator safety. Twenty-foot remote cord and external switch let you shut down the system.
- Slow reverse lets you clear a jammed machine. It minimizes costly down-time and dismantling of equipment to dislodge the slug.
- Components in the open — easy to get at.





One of Steiger's new Series III tractors.