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MODEL:

400 Hydrostatic Tractor

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**JOHN DEERE 400 HYDROSTATIC
TRACTOR**
Service Manual
SM-2103 (Mar-82)

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(All information, illustrations and specifications contained in this service manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.)

Section 10
GENERAL
Group 5

TRACTOR IDENTIFICATION

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Group 10 SPECIFICATIONS

TRACTOR SPECIFICATIONS

ENGINE

Manufacturer	Kohler
Model Number	K532QS
Cylinders	2
Type	4 Cycle-Air Cooled
Bore	3.375 in. (8.57 cm)
Stroke	3.000 in. (7.62 cm)
Displacement	53.7 cu. in. (880.14 cc)
Horsepower	19.9 (14.726 kw)
Speeds	
Idle	1700-1900 rpm
High (No Load)	3400-3500 rpm

POWER TRAIN

Hydrostatic Transmission	Sundstrand 15 Series (In-line)
Axle	Peerless (2-Speed) Model 2514
Brakes	Individual Rear Wheel (Drum-Type)

HYDRAULICS

Control Valve	3-Spool (Open Center)
Outlets	2 Sets (Front)
Rockshafts	Rear & Mid-Mounted (Both Operated by One Cylinder)
Power Steering	Standard Equipment

ELECTRICAL SYSTEM

Battery	12-Volt (BGI Group 22F) (AM31186)
Ignition	Battery-Coil
Spark Plug	Prestolite 14-L7B (AT17208)
	AC 45-L (AM1535T)
	Champion H-10 (AM514T)
	*Resistor-Type RH-10 (AM37129)
Spark Plug Gap	
Standard Plug	0.035 in. (0.889 mm)
Resistor Plug	0.025 in. (0.635 mm)
Breaker Point Gap	0.020 in. (0.508 mm)
Charging Capacity	15 Amps

CAPACITIES

Fuel Tank	4.5 U.S. Gallons (17.034 l)
Crankcase	
w/o Filter Change	6. U.S. Pints (2.838 l)
w/Filter Change	7 U.S. Pints (3.308 l)
Transmission (w/filter)	11 U.S. Pints (5.17 l)

*In Canada, compliance with radio interference regulations certified. Replace spark plug with resistor spark plug only.

Litho in U.S.A.

FUEL AND LUBRICANTS

Fuel	Non-Leaded or Regular Grade (85 Octane or Higher)
Crankcase	JD Torq-Gard Supreme (Summer-Above 32°F) SAE 30 or Equivalent (Winter-Below 32°F) SAE 5W-20 or Equivalent
Transmission	JD All-Weather Hydrostatic Fluid or Equivalent
Grease Fittings	JD Multi-Purpose Lubricant or Equivalent

FILTERS

Engine Oil Filter	AM34770
Engine Air Filter (-80000)	M47494
(80001-)	AM34093
Transmission Oil Filter	AM38441

GROUND TRAVEL SPEEDS @ 3400 RPM

Forward (Low)	Variable 0.5 to 5.6 mph (0.8 to 8.85 km/h)
Forward (High)	Variable .5 to 10.8 mph (0.8 to 17.19 km/h)
Reverse (Low)	Variable .5 to 2.1 mph (0.8 to 3.22 km/h)
Reverse (High)	Variable .5 to 4.0 mph (0.8 to 6.44 km/h)

DIMENSIONS

Wheelbase	52 in. (132.08 cm)
Over-All Length	76 in. (193.04 cm)
Over-All Height	46 in. (116.84 cm)
Over-All Width (Max.)	49 in. (124.46 cm)
Tread	
Front	35 in. (88.90 cm)
Rear (Wheels In)	32 in. (81.28 cm)
Rear (Wheels Out)	37 in. (93.98 cm)

TIRES

Standard	
Front	18x8.50-8 High-Flotation
Rear (GT-12)	26x12.00-12 High-Flotation
Accessory (Field Installed)	
Rear (GT-14)	26x12.00-12 Traction Tire
Tire Pressure*	
Front (Std. Tire)	6 to 16 psi (41 to 110 kPa)
Rear	5 to 10 psi (34 to 69 kPa)

WEIGHT

Curb	975 lbs. (442.25 kg)
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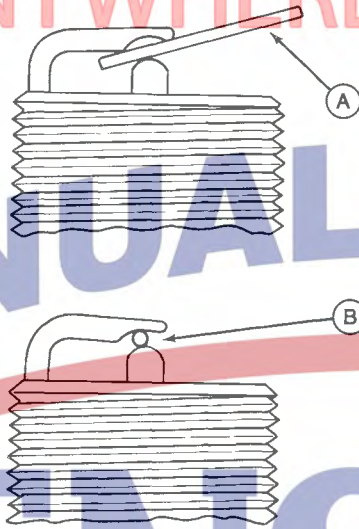
*Inflation will vary with attachment used.

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6. Check Spark Plug



M17298N

A—Flat Feeler Gauge

B—Wire Gauge

Fig. 11-Checking Spark Plug Gap

Analyze spark plug (refer to "Spark Plug Analysis" in Section 40).

Replace spark plug if necessary.

Regap plug (refer to "Specifications" in Section 10). Bend only the outer electrode when setting gap. A wire gauge (B) should be used, because a flat feeler gauge (A) cannot accurately measure the true width of the spark plug gap, Fig. 11.

Always use a new spark plug gasket when replacing spark plug.

Install both spark plugs. Torque spark plugs to 22 ft-lbs. (29.83 Nm).

Connect spark plug wire to each plug.

7. Check and Adjust Timing

NOTE: Some engines were built with a timing sight hole that was too small. Enlarge the small hole as shown, Fig. 12.



A—Cap Screw and Lock Washer
B—Throttle Cable Bracket

C—Small Hole
D—Expansion Plug

Fig. 12-Drilling Timing Sight Hole

Remove cap screw and lock washer (A), Fig. 12.

Move throttle cable bracket (B) out of way, but do not stretch cable.

Enlarge small hole (C) with a $\frac{3}{8}$ inch drill bit. Remove shavings from engine.

Remove expansion plug (D).



A—Rectifier-Regulator

B—SP Timing Mark

Fig. 13-Chalking Timing Mark

Remove rectifier-regulator (A), Fig. 13.

Rotate flywheel manually until "SP" timing mark (B) is visible.

Chalk the top of the projection between "S" and "P."

Reinstall rectifier-regulator (A). Make sure rectifier-regulator and all connections are tight.

Section 20

Group 5

KOHLER ENGINE GENERAL INFORMATION

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DISASSEMBLY



A—Cap Screws and Lock Washers
B—Crankcase Breather
C—Gasket

Fig. 4-Removing Crankcase Breather

Remove two cap screws and lock washers (A), Fig. 4.

Remove crankcase breather (B) and gasket (C).



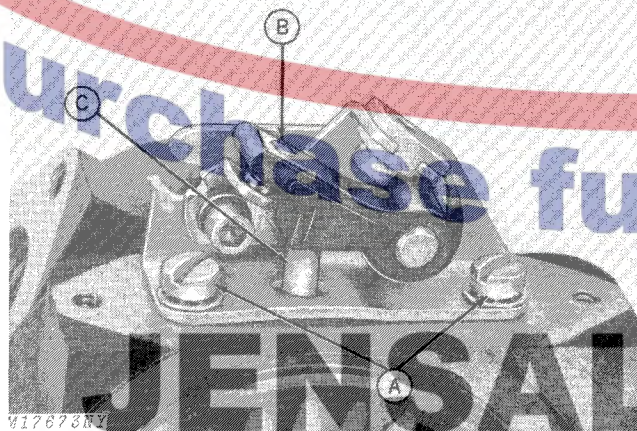
A—Retaining Ring
B—Governor Gear
C—Key

Fig. 6-Removing Governor Gear

Remove retaining ring (A), Fig. 6.

Remove governor gear (B).

Remove key (C) from governor shaft.



A—Slotted Screws and Lock Washers
B—Breaker Point Assembly
C—Breaker Plunger

Fig. 5-Removing Breaker Point Assembly

Remove two slotted screws and lock washers (A), Fig. 5.

Remove breaker point assembly (B).

Remove breaker plunger (C).



A—Slotted Screws and Lock Washers
B—Governor Housings
C—Governor Spring
D—Nut
E—Speed Control Lever

Fig. 7-Splitting Governor Housing

Remove three slotted screws and lock washers (A), Fig. 7.

Separate the governor housings (B).

Remove governor spring (C). Mark holes on speed control bracket and governor lever so spring can be connected in some holes.

Remove nut (D).

Remove speed control lever (E).

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ELECTRICAL SYSTEM

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