NEW HOLLAND

REPAIR MANUAL

MY16
MY17
MY19



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SECTION 1 - GENERAL INFORMATION

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GARDEN TRACTOR SPECIFICATIONS

	MY16	MY17	MY19
ENGINE			
Type	Kohler	Kawasaki	Kawasaki
Model	CV460S	FH500V	FH5000
Horsepower	16.0 HP@3600 RPM	17.0 HP@3600 RPM	19.0 HP@3600 RPM
Cylinders	Single	Single	Double
Displacement	460CC	494CC	540CC
No Load Speed	3250 ±100 RPM	3250 ±100 RPM	3250 ±100 RPM
Electric Start	12V Bendix Drive	12V Bendix Drive	12V Bendix Drive
DC Alternator	15 amp regulated	13 amp regulated	13 amp regulated
Valve Rotators	Exhaust & Intake	Exhaust & Intake	Exhaust & Intake
Other	Cast iron sleeve, Smart choke, Dynamic balanced, Fuel pump, Solid mounted, Vertical shaft, Solid state ignition, Hydraulic lifters, Dry-type air cleaner w/ pre-cleander, Overhead valve, Separate choke and throttle, C.A.R.B. certified, Pressure lubricated with oil filter	Cast iron sleeve, Smart choke, Dynamic balanced, Fuel pump, Solid mounted, Vertical shaft, Electronic spark ignition, Hydraulic lifters, Dry-type air cleaner w/pre-cleander, Overhead valve, Separate choke and throttle, Solenoid fuel shut off, Dual element air cleaner, Fixed jet carburetor, C.A.R.B. certified, Pressure lubricated with oil filter	Cast iron sleeve, Smart choke, Dynamic balanced, Fuel pump, Solid mounted, Vertical shaft, Electronic spark ignition, Hydraulic lifters, Dry-type air cleaner w/ pre-cleander, Overhead valve, Temperature sensor, Separate choke and throttle, Solenoid fuel shut off, Dual element air cleaner, Fixed jet carburetor, C.A.R.B. certified, Pressure lubricated with oil filter
CONSTRUCTION			
Frame	Welded 2" x 2" x 1/4" angle frame	Welded 2" x 2" x 1/4" angle frame	Welded 2" x 2" x 1/4" angle frame
Other	Plastic console, Plastic hood and grille, Steel fender, Rubber footrest mats, V-511 Seat w/ springs, flip plate & no tool adjustment	Plastic console, Plastic hood and grille, Steel fender, Rubber footrest mats, V-511 Seat w/ springs, flip plate & no tool adjustment	Plastic console, Plastic hood and grille, Steel fender, Rubber footrest mats, V-511 Seat w/ springs, flip plate & no tool adjustment
FUEL SYSTEM			
Capacity	3.9 gals (14.7 l)	3.9 gals (14.7 l)	3.9 gals (14.7 l)
Type	Rear mounted tank	Rear mounted tank	Rear mounted tank
Other	Fuel shut-off valve, Fuel filter, Kelch cap w/top vent, 3" filler neck	Fuel shut-off valve, Fuel filter, Kelch cap w/ top vent, 3" filler neck	Fuel shut-off valve, Fuel filter, Kelch cap w/top vent, 3" filler neck, Electronic low fuel sensor

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	MY16	MY17	MY19
TRACTION SYSTEM			
Transaxles	Hydro-Gear 330-3000 Hydrostatic	Hydro-Gear 330-3000 Hydrostatic	Hydro-Gear 330-3000 Hydrostatic
Ground Speed	@3250 RPM, 0-6.8-MPH (0-11.5 km/hr) forward, 0-3.2-MPH (0-5.1 km/hr) reverse	@3250 RPM, 0-6.8-MPH (0-11.5 km/hr) forward, 0-3.2-MPH (0-5.1 km/hr) reverse	@3250 RPM, 0-6.8-MPH (0-11.5 km/hr) forward, 0-3.2-MPH (0-5.1 km/hr) reverse
TIRES			
Rear Tires	23 x 10.50-12 Super turf tread	23 x 10.50-12 Super truf tread	23 x 10.50-12 Super truf tread
Front Tires	16 x 6.50-8 Super turf tread w/ball bearings	16 x 6.50-8 Super turf tread w/ball bearings	16 x 6.50-8 Super turf tread w/ball bearings
STEERING			
Steering Wheel	14" Comfort Grip	14" Deluxe Comfort Grip	14" Deluxe Comfort Grip
Front Wheel Spindle	.75" Dia.	.75" Dia.	.75" Dia.
Tilt Wheel	4 position	4 position	4 position
Turning Radius	16" (406.4 mm) RH & LH	16" (406.4 mm) RH & LH	16" (406.4 mm) RH & LH
Other	1.5 turns lock-to-lock	1.5 turns lock-to-lock	1.5 turns lock-to-lock
CONTROLS	Single lever attachment lift, All controls located for easy operator access, Disk brake operated by neutral return/brake pedal, lever operated choke, Lever operated throttle, Single groove electric PTO clutch	Single lever attachment lift, All controls located for easy operator access, Disk brake operated by neutral return/brake pedal, lever operated choke, Lever operated throttle, Single groove electric PTO clutch, Cruise control	Single lever attachment lift, All controls located for easy operator access, Disk brake operated by neutral return/brake pedal, lever operated choke, Lever operated throttle, Single groove electric PTO clutch, Cruise control
ELECTRICAL SYSTEM			
Battery Type	260CCA	340CCA	340CCA
Button Switch Inside Seat.	2 light warning system PTO and "KeyChoice"	4 light indicator system PTO and "KeyChoice", battery, cruise	6 light indicator system PTO and "KeyChoice", battery, cruise
Fuses	25 amp, Charge circuit 30 amp, Main circuit 10 amp, Light circuit 10 amp, Dash circuit	25 amp, Charge circuit 30 amp, Main circuit 10 amp, Light circuit 10 amp, Dash circuit	25 amp, Charge circuit 30 amp, Main circuit 10 amp, Light circuit 10 amp, Dash circuit

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MOTOR/CENTER SECTION/PUMP ASSEMBLY

NOTE: *Brake Assembly, Input Assembly, Charge Pump Assembly, and Lower Housing/Filter/ Manifold Assembly have to be removed before the following steps can be performed.*

Disassembly

1. Remove washer. 82, snap ring, 83, 16T pinion gear, 28, spacer, 27, and shaft, 28.
2. Remove motor thrust bearing retainer, 57.
3. Remove motor thrust bearing, 25, and 21cc motor cylinder block assembly, 21.
4. Remove each piston, 23, spring, 18, and piston seat, 22, from the 21cc motor cylinder block assembly.
5. Remove bypass plate, 38, from the center section assembly, 3.
6. Remove the three screws 44, from center section assembly, 3.
7. Lift center section assembly, 3, out of the main housing, 1.
8. Remove the two center section assembly pins, 43.
9. Remove bypass actuator, 39, from the center section assembly, 3.
10. Remove 10cc pump cylinder block assembly, 15.
11. Remove each piston, 17, spring, 18, piston seat, 16, from the 10cc pump cylinder block assembly, 21.
12. Remove block spring, 14, and block thrust washer, 13, from the shaft.

Inspection

1. Inspect running surface of thrust bearing, 25, for excessive wear (grooving or smearing).
2. Inspect each piston, 23, spring, 18, and piston seat, 22, in the motor cylinder block assembly.
3. Inspect seal lands of the 21cc motor cylinder block assembly, 21, for excessive wear (grooving or smearing).
4. Inspect the two running surfaces of center section assembly, 3, for excessive wear (grooving or smearing). Abnormal wear patterns will usually be visible. Any wear is detectable when a fingernail is dragged across the surface is cause for rejection.
5. Inspect each piston, 17, spring, 18, piston seat, 16.
6. Inspect seal lands of 10cc pump cylinder block assembly, 15, for excessive wear (grooving or smearing).

Assembly

1. Install pump cylinder block thrust washer, 13, and spring, 14, onto input shaft assembly, 12.
2. Install piston washers 18, springs, 17, and pistons, 18, in cylinder block, 15.
3. Install pump cylinder block assembly, 15. Be sure the spring tension is even around the entire block.
4. Install the two center section assembly pins, 43.
5. Install the center section assembly, 3, into main housing, 1. Make sure center section seats are fully on its mating surface.
6. Secure center section assembly, 3, by installing three screws, 44. Apply a few drops of loctite on screws when installing.
7. Install bypass plate, 38, into center section assembly, 3.

NOTE: *To hold bypass plate, 38, in position, apply a small drop of grease to its slot before installing.*

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8. Install the rubber boot over the steering shaft and secure the boot to console with the rubber clip.



9. Align the steering wheel on the steering shaft. Secure the steering wheel with lock washer and nut. Install steering wheel cover.



STEERING SPECIFICATIONS

ITEM	SPECIFICATION
Free play - front axle pivot pin	0 - 0.015" (0 - 0.4 mm)
End play - front wheel on spindle	0 - 0.015" (0 - 0.4 mm)
Toe-in	1/8" - 1/4" (3 - 6 mm)
Steering wheel free play (backlash)	0.5" - 1.0" (13 - 25 mm)
STEERING SHAFT BUSHINGS (STANDARD DIMENSIONS)	
Top (Fiber)	ID 0.752 - 0.756" (19.1 - 19.2 mm) OD 1.310 - 1.320" (33.3 - 33.5 mm)
Mid (Metal)	ID 0.755 - 0.760" (19.2 - 19.3 mm) OD 0.988 - 1.00" (25.3 - 25.4 mm)
Bottom (Metal)	ID 0.753 - 0.758" (19.1 - 19.2 mm) OD 1.380 - 1.385" (35.0 - 35.2 mm)

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SCHEMATICS

The remaining pages contains the main wiring diagram followed by circuit diagrams for the MY16, MY17, and the MY19 Series tractors. All circuit diagrams should reference the legend shown below.

LEGEND	
Black	Blk
Blue	Bu
Brown	Bn
Green	Gn
Grey	Gy
Orange	Or
Pink	Pk
Red	Re
Tan	T
Violet	Vio
White	W
Yellow	Y

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