NEW HOLLAND

MZ19H

REPAIR MANUAL

NEW HOLLAND

SERVICE

87045364 2/04

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SECTION 1 - GENERAL INFORMATION

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SPECIFICATIONS

	MZ19H
ENGINE	
Type	Kawasaki
Model	FH580V
Horsepower	14.2 kw (19)@3600 RPM
Cylinders	V-Twin
Displacement	585CC (35.7 cu. in.)
Low Idle Speed	1400 RPM
Maximum Speed: High Idle	3400 RPM
Oil Capacity	1.9 qt. (1.8L)
Spec Number	AS13
Fuel Unleaded Gasoline	87 octane min.
Vertical Shaft	1 in. (2.54 cm) Dia
Charge coil	12v - 13 amp
Other	Air cooled, Dual element air cleaner, Fuel pump, Overhead valve, Four cycle, Electronic ignition, Full pressure lubricated with oil filter
CONSTRUCTION	
Front Frame	Welded 1 x 2 x .120 structural steel tube
Rear Frame	Welded, 7 and 10 ga. high strength steel
Frame Assembly	Front and rear frames bolted together
FUEL SYSTEM	
Capacity	5 Gallon (18.9 L)
Type	Single fuel tank fender mounting on left side
Other	Fuel tank shut-off, Fuel filter (replaceable in-line type), Large diameter vented fuel cap, Tank includes molded beverage holder
TRACTION SYSTEM	
Transaxles	Twin Hydro-Gear Hydrostatic Transaxles
Transaxle Drive	Belt drive with self-tensioning system
Ground speed	Infinite, 0 to 7-MPH (10.5-km/hr) forward, 0 to 3.4-MPH (5.5-km/hr) reverse
Transport Rods	Allow unit to be moved without engine running
ATTACHMENT DRIVE	
Clutch	Electric Clutch
Type	Vertical drive with single deep B-groove Pulley

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	MZ19H
TIRES	
Rear Drive Tires	18 x 10.5-10 4 ply with "Multitrac CS" tread
Front Castor Tires	410/350 x 4 with "sawtooth" tread
Tire Pressure	13 psi (90 kPa), rear, 35 psi (241 kPa) front
OPERATORS SEAT	
Type	High back foam padded with arm rests
Mounting	Hinged mounting for easy access to battery and controls; spring suspension
Adjustment	Fore and aft 3 in. (76 mm) by loosening 2 knobs and sliding seat
STEERING	
Levers	Dual wrap-around levers control hydraulic pumps
Dampening	Dual hydraulic dampers
Turning Radius	Zero radius turn (ZRT)
CONTROLS	
Steering Lever	Dual wrap-around with cushioned grips
Parking Brake	Left hand operated lever with cushioned grip
Attachment Lift	Right hand operated lever with cushioned grip
Cutting Height	Rightside incorporated with attachment lift
Engine Throttle	Rightside console mounted lever
Ignition Switch	Rightside console mounted electric with key
Power Take Off	Rightside console mounted electric
INTERLOCKS	
Seat	Operator presence switch
Control Lever	Dual neutral sensing switch
Power Take Off	Position switch
Brake	Position switch
ELECTRICAL SYSTEM	
Battery Voltage	12 volt negative ground
Battery Type	BCI Group U1
Fused	(1) 30 amp blade type, main (1) 25 amp blade type, charge system (1) 10 amp (blade type) included with optional light kit

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DESCRIPTION AND OPERATION

This manual includes the transaxle general description, hydraulic schematic, technical specifications, servicing and troubleshooting procedures.

The transaxle normally will not require servicing during the life of the vehicle in which it is installed. Should other servicing be required, the exterior of the transaxle will need to be thoroughly cleaned before beginning most procedures.

GENERAL DESCRIPTION

The transaxle is a self contained unit designed for the transfer and control of power. It provides an infinitely variable speed range between zero and maximum in both forward and reverse modes of operation.

This transaxle uses a variable displacement pump with a maximum displacement of 10cc per revolution, and motor with a fixed displacement of 21cc per revolution. The variable displacement pump features a cradle mounted swashplate with a direct-proportional displacement control. Reversing the direction of the swashplate reverses the flow of oil from the pump an thus reverses the direction of the motor output rotation. The pump and motor are of the axial piston design and utilize spherical nosed pistons which are held against a thrust race by internal compression springs.

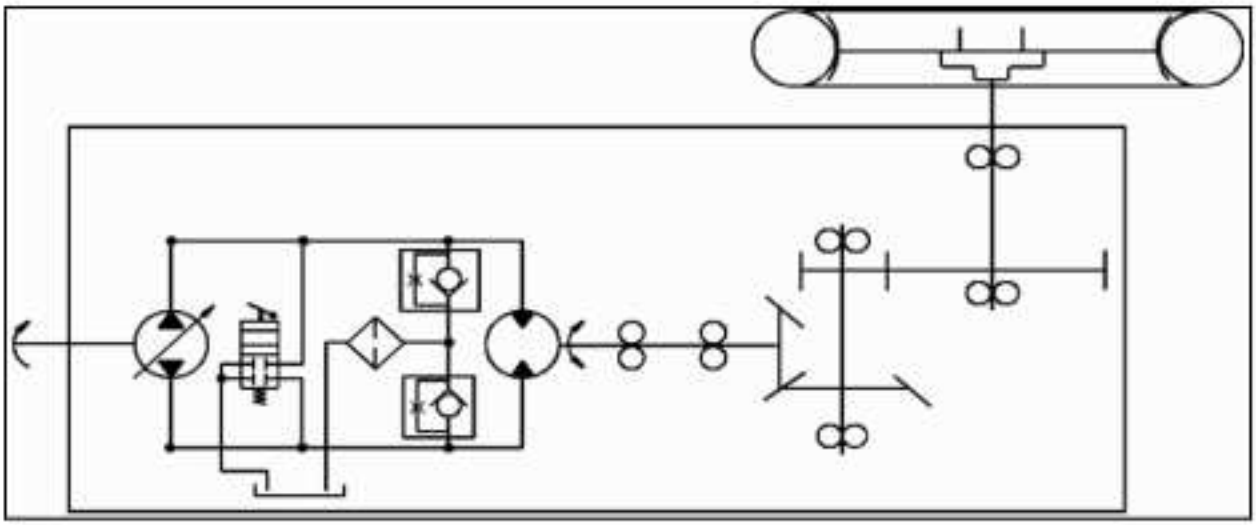
The transaxle has a self contained fluid supply and an internal filter. The fluid is forced through the filter by a positive "head" on the fluid in the housing/ expansion tank with an assist by the negative pressure created in the pump pistons as they operate.

The check valves in the center section are used to control the makeup flow of the fluid to the low pressure side of the loop.

A bypass is utilized in this unit to permit moving the vehicle for a short distance at a maximum of 2 m.p.h. (3.2 Km/h) without starting the engine.

WARNING

Actuating the bypass will result in the loss of hydrostatic braking capacity. The machine must be stationary on a level surface and in neutral when actuating the bypass.



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REQUIRED TOOLS

Miscellaneous	Sockets
MZ19H Service & Repair Manual	3/8"
Flat Blade Screw Driver	1/2"
Torque Wrench	7/16"
Air Impact Wrench	9/16"
Rubber Mallet	E-8 Torx Head
Pliers	**Wrenches**
Needle Nose	1/2"
Large External Snap Ring	
Small External Snap Ring	
Large Internal Snap Ring	

REQUIRED TORQUE VALUES

Operation	U.S. Torque	Metric Torque	Item	Description
Wheel Hub Nut	200-295 ft-lbs	271-400 Nm	108	Nut, hex 3/4-16
Fan/Pulley Nut	360-520 in-lbs	41-59 Nm	49	Nut, hex lock 1/2-20
Back Cover Screws	110-150 in-lbs	12-17 Nm	50	Screw, 1/4-20
Friction Pack Stud	50-120 in-lbs	6-14 Nm	36	Stud, 5/16-24
Control Arm Nut	180-240 in-lbs	20-27 Nm	35	Nut, 5/16-24
Control Bolt	192-252 in-lbs	22-28 Nm	76/121	Nut/Bolt, 5/16-18
Brake Yolk Screw	80-120 in-lbs	9-14 Nm	123/211	Screw, 1/4-28
Cog Brake Arm Screw	110-150 in-lbs	12-17 Nm	123	Screw, hex 1/4-20
Check Plug Assembly	200-360 in-lbs	23-41 Nm	45	Check plug assembly
Lower Housing Screw	110-150 in-lbs	12-17 Nm	50	Screw, 1/4-20
Center Section Screw	525-700 in-lbs	59-79 Nm	44	Screw, 3/8-24
Lock Down Screw	210-270 in-lbs	24-30 Nm	208	Screw, 5/16-24 (Lock Down

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There are two fuses in the system:

- The 30 amp fuse is in the main power supply from the battery.
- The 25 amp fuse is in the battery charge circuit.



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