MF5600 Series Utility Tractors Pocket Guide

This pocket guide is formatted for optimal viewing on your tablet and/or mobile device.

Updated: 09/01/2013

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Photos

Model Overview

Model	5609	5610	5611	5612	5613
Frame Size	Small Frame		Large Frame		
PTO HP (kW)	70 (52)	75 (56)	80 (60)	90 (67)	100 (75)
Engine HP (kW)	90 (67.1)	100 (74.6)	105 (78.3)	115 (85.8)	125 (93.2)
Engine Type	AGCO Power 3.3L 3-cylinder Diesel, Tier 4i		AGCO Power 4.4L 4-cylinder Diesel, Tier 4i		
Transmission	Dyna-4: 16x16 Power Shift and Power Shuttle				
Front Axle	Adjustable 2wd; Fixed Mechanical 4wd		Adjustable 2wd; Fixed or Suspended Mechanical 4wd		
Configuration	Large 6-post Deluxe Cab, Completely Flat Deck				

Model Progression

Massey Ferguson 5600 Series Mid-Range			
New Models		Replaced Models	
MF5609	70 PTO HP	MF5445	70 PTO HP
MF5610	75 PTO HP	MF5450	75 PTO HP
MF5611	80 PTO HP	MF5455	85 PTO HP
MF5612	90 PTO HP	MF5460	95 PTO HP
MF5613	100 PTO HP	MF5465	100 PTO HP

Configurations

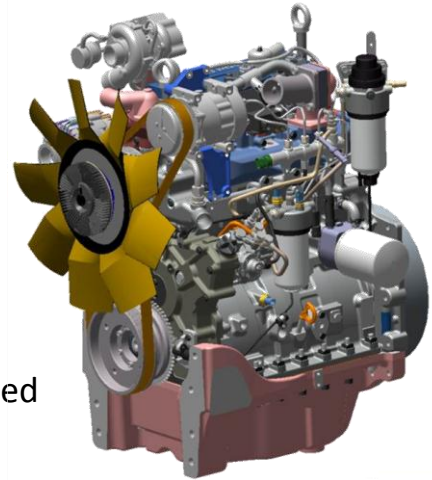
Basic Specification “Affordable HP” • Standard front axle • Open center hydraulics • Mechanical hydraulic valves • T-handle in RH console	5609 5610 5611 5612 5613

Medium Specification • Suspended front axle • Closed center hydraulics • 2 electronic hydraulic valves • T-handle in armrest • Control Center Display (CCD)	5611 5612 5613

Engine – Small Frame

Common AGCO Power Engine in Small Frame

- Model 33 AWI HD 3-cylinder engine
- Manufactured by AGCO Power
- 3.3 liter (201 cu in) displacement
- Turbocharged and Intercooled
- 4 valves per cylinder, centered injector
- Bosch high pressure common rail (HPCR) injection system (23,000+ psi)
- SisuTronic EEM4 electronic engine mgmt.
- Structural block. Side support rails included when loader is installed
- Hand and foot throttle



Engine – Small Frame

EPA Tier 4i Emissions Compliant

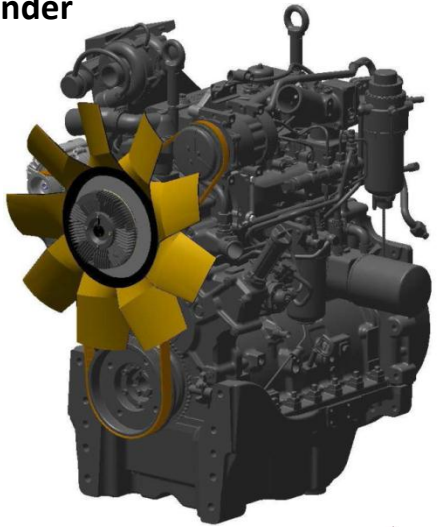
- External cooled Exhaust Gas Recirculation (EGR)
- Diesel Oxidation Catalyst (DOC)
- No SCR, no need to add exhaust fluid
- No Diesel Particulate Filter (DPF)
- No filter regeneration
- No heat build-up, no wasted fuel
- No downtime

Just put in fuel and drive!

Engine – Small Frame

Advantages of 3-Cylinder Engine vs 4-Cylinder

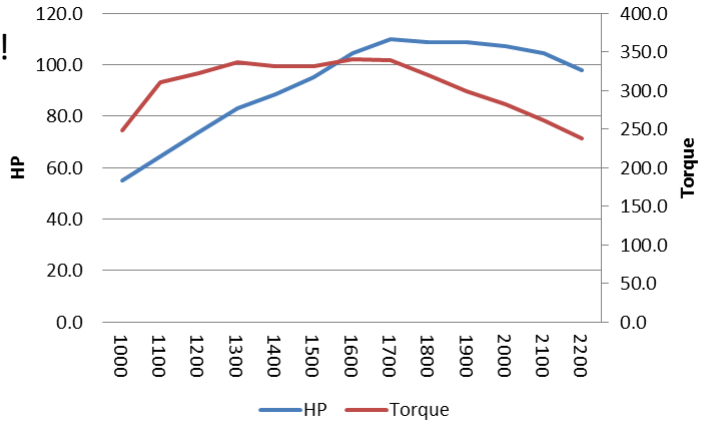
- Smaller, more compact design
- Fit in smaller spaces, more room under hood for accessories and coolers
- Shorter wheelbase for tighter steering
- Fewer moving parts internally
- Less friction, more fuel efficient
- Less expensive to produce
- Less potential for failure, as failure tends to occur where parts interact



Engine – Small Frame

How to Sell the 3-Cylinder Engine

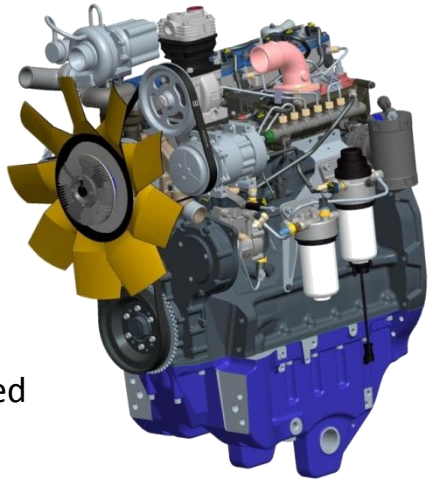
- Number of cylinders is NOT what does work!
- Torque does work!
- 33 AWI HD engine has greater torque across engine range than previous Perkins® 4-cylinder engines in MF utility tractors.



Engine – Large Frame

Common AGCO Power Engine in Large Frame

- Model 44 AWI 4-cylinder engine
- Manufactured by AGCO Power
- 4.4 liter (269 cu in) displacement
- Turbocharged and Intercooled
- 4 valves per cylinder, centered injector
- Bosch high pressure common rail (HPCR) injection system (23,000+ psi)
- SisuTronic EEM4 electronic engine mgmt.
- Structural block. Side support rails included when loader is installed
- Hand and foot throttle



Engine – Large Frame

EPA Tier 4i Emissions Compliant

- Selective Catalytic Reduction (SCR)
  - 2nd generation e^3 technology
  - Requires Diesel Exhaust Fluid (DEF)
  - Incorporates Diesel Oxidation Catalyst (DOC)
  - Highly fuel efficient
- No Diesel Particulate Filter (DPF)
- No filter regeneration
- No heat build-up
- No wasted fuel
- No downtime

ENERGY | ECONOMY | ECOLOGY

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Engine – Large Frame

IMPROVED

2nd Generation SCR

- Sensors throughout exhaust
- DEF usage based on actual conditions
- Reduced DEF consumption
- More efficient system

1st Generation SCR

- Few sensors
- DEF usage based on algorithms
- Greater DEF consumption
- Less efficient system

e3 ENERGY | ECONOMY | ECOLOGY

Engine – Large Frame

What is DEF?

- Diesel Exhaust Fluid (DEF)
- Solution: 32.5% urea, 77.5% water
- Clear liquid
- Non-toxic
- Non-flammable
- Biodegradable

Usage Rate

- 1 DEF tank = 2 fuel tanks
- Approx. 3-6% consumption rate
- Usage varies based on application
- Real-time measurements for usage

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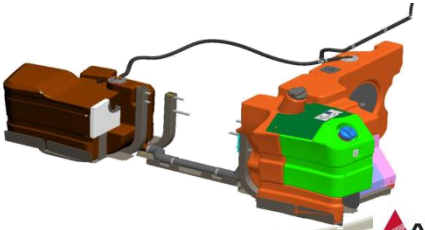
Engine – Large Frame

SCR Emissions System

- Fully automated
- DEF tank incorporated into fuel tank
  - 6.6 gallons DEF, 49 gallons Diesel
- Built-in heater for cold climates
- Left side ground fill, both tanks

How it Works

- DEF reacts with NOx and other gasses
- Heat and catalyzer causes chemical reaction in exhaust system
- Results in N_2 and H_2O release



Engine – Large Frame

SCR at Work

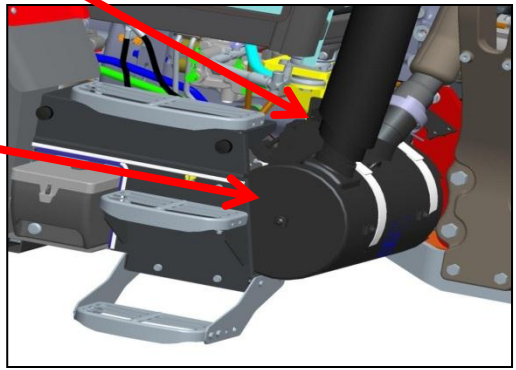
- DEF injected in exhaust stream
  - Sensors adjust flow
  - Sliding scale application
  - Reduces DEF usage

Catalyzer Chamber

- At base of exhaust stack
- Integrated DOC

Flow-Through System

- No clogging
- No maintenance
- Just add fluid



Engine

ECO Engine Idle Feature

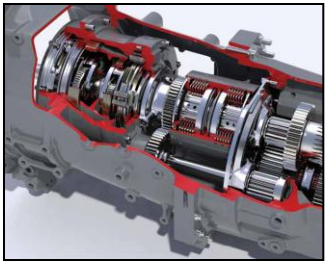
- Built into engine electronics, always active, automatically engages
- Active engine idle is 850 RPM
- ECO idle engine speed is 720 RPM
  - Power control lever must be in “N”
- Saves fuel when at idle
- Reduces noise level

Transmission

Dyna-4 Transmission Standard

- Power shift and power shuttle
- Wet multi-disc main clutch
- Foot clutch pedal
- 16 forward, 16 reverse speeds
- 4 gears, 4 ranges
- All electronic shifting
- 25 mph (40 kph) max speed
- Optional 14:1 creeper

Dyna-4



Transmission

T-handle Transmission Control

- Upshift / downshift by push or pull
- Press orange button when push/pull to shift ranges
- No need to use foot clutch for shifting

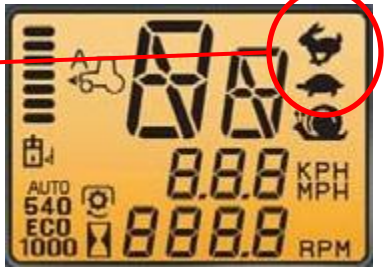
3-function Power Control Lever

- Left side of steering wheel
- Performs 3 functions
  - Shuttle forward/reverse
  - Upshift/downshift
  - Clutch when lifted
- No need to use foot clutch for shifting

Transmission

Field and Road Modes

- Designated by icons in front dash
  - Turtle = field mode
  - Rabbit = road mode
- Change mode by pressing T-handle button 5 seconds (tractor in neutral)
- Field mode allows only gears to be changed with lever pulse or automatically in AUTO-DRIVE
- Road mode allows gears and ranges to be changed with lever pulse or automatically in AUTO-DRIVE



Transmission

Speed Matching

- Standard, built-in electronic function
- Automatic selection of most appropriate gear:
  - After range change
  - After clutch and brake

AUTO-DRIVE System

- Optional feature on Classic models
- Tractor automatically shifts gears like automatic transmission in car
- Use hand or foot throttle to accelerate
- Adjustable on the go

AUTO-DRIVE Control Group

Transmission

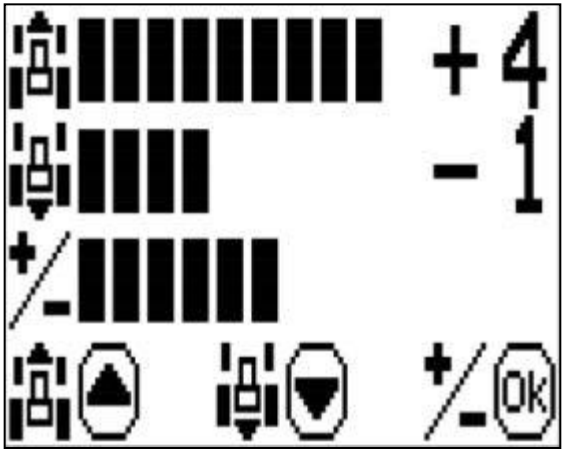
Dash Control Center (Dot Matrix)

- Digital display in lower left corner of front dash
- Input key pad
- Interactive with Operator
- Customize tractor functions and operation
- Standard equipment

Transmission

DCC Screens – Shift/Shuttle Modulation

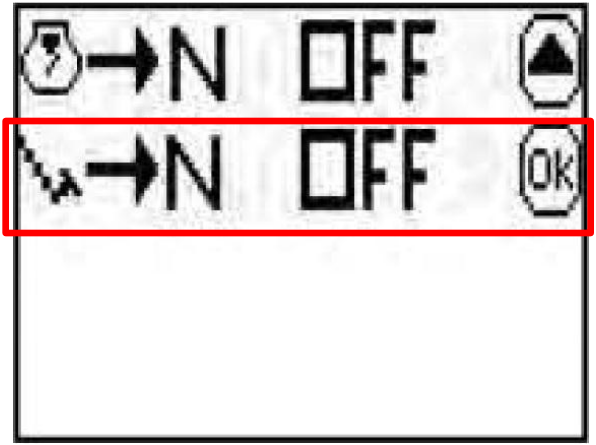
- Adjust the intensity of the shift and shuttle:
  - Adjust how hard the transmission will shift and change direction
- Adjust forward and reverse intensity independently
- Customize for the operator



Transmission

DCC Screens – Auto-N Function

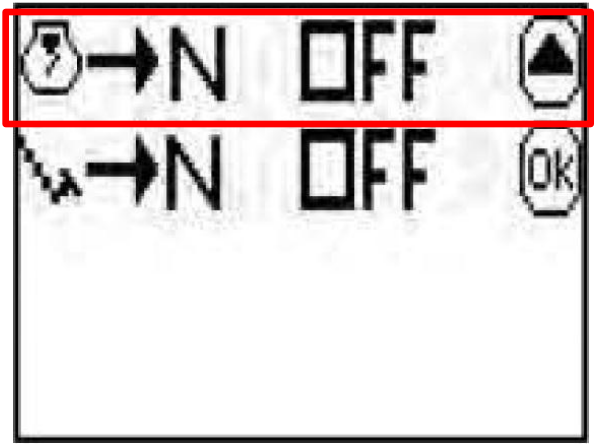
- Standard feature – built in
- Automatically neutralizes transmission when both brakes are applied
- Transmission re-engages upon release of pedals
- Turn feature on and off
- Requires use of both brake pedals
- Ideal for stop-n-go and loader work



Transmission

DCC Screens – Anti-Stall

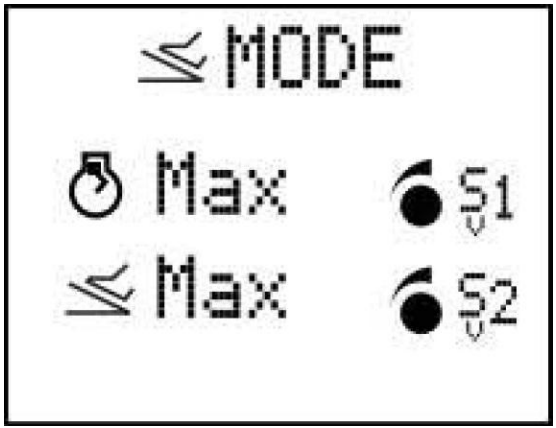
- Standard feature – built in
- Automatically neutralizes transmission when engine speed dips below 650 RPM
- Helps prevent engine stall
- Turn feature on and off
- Ideal for tillage and heavy draft applications where engine might lug down and stall



Transmission

DCC Screens – AUTO-DRIVE

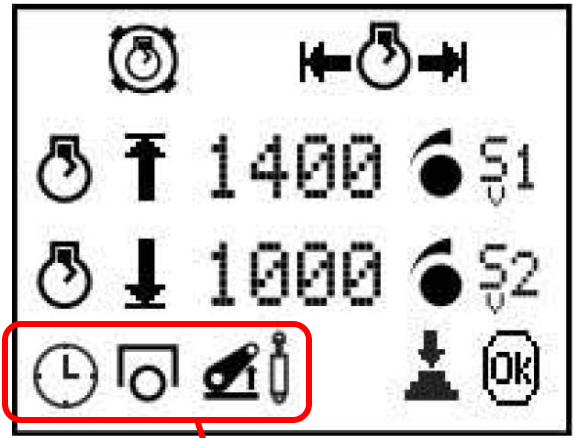
- Optional feature
- Tractor drives like car with automatic transmission – simple
- Auto upshift and downshift
- Push-button engagement
- Operator uses hand or foot throttle
- Adjustable on the go
  - Set max. gear
  - Set max. engine speed for shift



Transmission

DCC Screens – Dyna-TM Function

- Included with AUTO-DRIVE
- Operator sets min. and max. engine speed
- Tractor will automatically shift to maintain engine speed
- Push-button on/off
- Operator can tie function to trigger (engagement):
  - PTO trigger
  - 3-point/hydraulic trigger
  - Always on

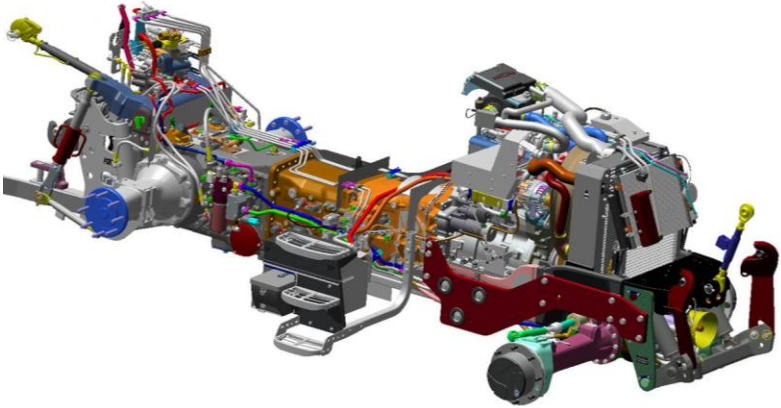


Triggers

Chassis

Rigid, Structural Chassis from Front to Back

- Load bearing structure
- Durable design for better distribution of stress and torque



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Rear Axle

Heavy Duty Cast Steel Rear Axle

- Solid rear axle with flange
- Internal planetary final drives
- Internal wet multi-disc brakes
  - Hydraulically engaged
  - 4-wheel braking with 4wd front axle
- Individual LH and RH brake pedals
- Hand parking brake lever
- Electro-hydraulic differential lock
  - Front and rear axles lock
  - Locks wheels for traction

Front Axle

Adjustable 2wd Front Axle

- Adjustable box-in-box design
- Spindle steering system
  - Hydrostatic power steering
- High steering angle
- High ground clearance
- Axle oscillates for stability on uneven ground
- Triple-ribbed front tires for directional traction

Front Axle

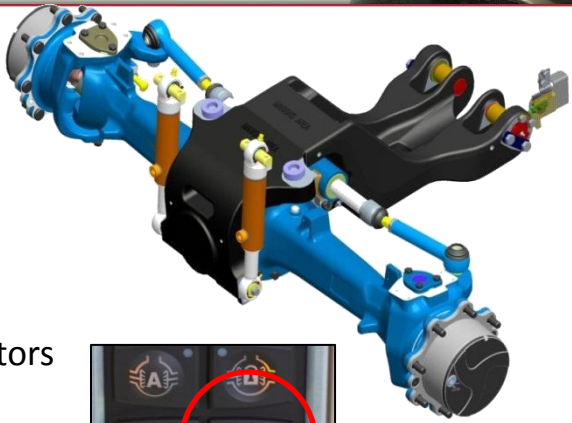
4wd Front Axle

- Solid cast steel design
- Center front differential with electro-hydraulic diff. lock
- Outboard planetary final drives for high torque and long service life
- Hydrostatic power steering
- Centered axle oscillation
- Electro-hydraulic engagement
- Auto-engagement with brake pedals for 4-wheel braking
- Diff. lock automatically engages 4wd

Front Axle

Suspended 4wd Front Axle

- Large frame models only
- New suspension design from Beauvais factory
- Solid axle in cast steel cradle
- Cradle electro-hydraulically suspended in front
- Hydraulic cylinders and accumulators provide suspension effect
- On/off button in cab pillar
- Axle can oscillate when system is off
- 40 kph only



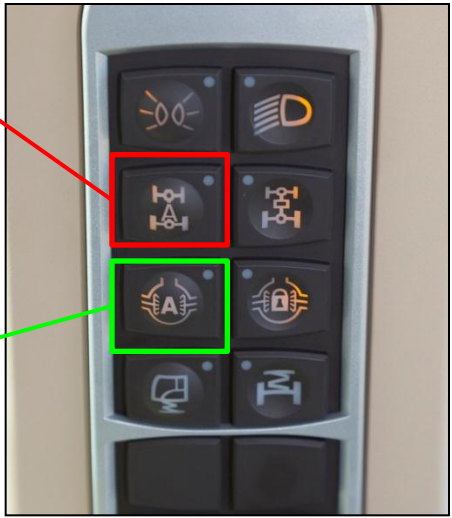
Front Axle

Auto 4wd Engagement

- Provides automated system for engaging and disengaging 4wd
- Controlled by transmission computer

Auto Differential Lock Engagement

- Engagement controlled by transmission computer
- Disengages with brake pedals



NOTE: Auto functions require Radar and Slip Control option

Power Take Off

Independent Rear Power Take Off (PTO)

- Options available
  - 540/540e speeds
  - 540/540e/1000 speeds
- Electro-hydraulically engaged
- Multi-disc wet clutch
- Flange-type shaft
  - Easy to change shafts
  - Dry change

540 Shaft Speed	540e Shaft Speed	1000 Shaft Speed
1920 Engine Speed	1560 Engine Speed	1964 Engine Speed

Power Take Off

Electronic PTO Control

- Push-button engagement
- 2-stage rocker switch in RH console
  - On/Off/Brake positions
  - Safety switch prevents accidental engagement
- PTO speed selection buttons in right side cab pillar
- Auto PTO function engages PTO when rear 3-point hitch is lowered
- No front PTO option currently available

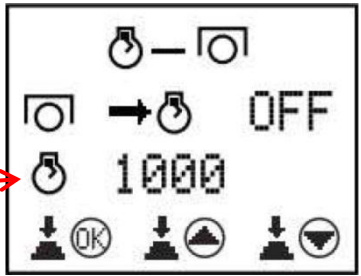
Power Take Off

Economy PTO

- Achieves rated PTO speed at reduced engine speed
- Saves fuel when full power is not required

External PTO Fender Switch

- Turn on/off in Control Center Display
- Allows PTO activation from tractor rear
  - Hold button for 5 sec, PTO will engage
  - Continue to hold button, engine will increase to speed set in CCD
- Press and release button to deactivate



Hydraulics

Implement Hydraulic System

- Open center available (all models)
- Closed center (large frame only)
- 2900 PSI operating pressure
- Hydraulics share transmission reservoir
- Rear valves stacked vertically
- ISO ½” quick connect push/pull couplers
- Up to 4 rear remote valves all models

Standard System

- Open center system with single pump
- 15 gpm flow to implements and 3-point
- Simple, basic, economical system

Hydraulics

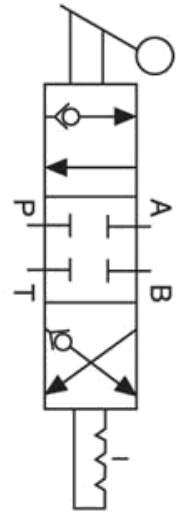
Optional Twin Flow System

- Two separate pumps and circuits
  - 15 gpm pump to 3-point hitch
  - 11 gpm pump to remote valves
- Combining valve connects circuits
  - Electronic push-button
  - Combines flow of 2 pumps
  - 26 gpm flow to remote valves
  - 3-point hitch will not work when combined
- Provides fast implement and loader cycle times

Hydraulics

Optional Closed Center Load Sensing

- Single variable displacement piston pump
  - Instantaneous reaction
  - Fast response to changing conditions
- 29 gpm maximum flow rate
- Only pumps oil when needed
  - Saves power, more efficient
- More consistent flow rate across changing engine speeds
- Offers power beyond ports for implement needs
- Ideal for hydraulic motors



Hydraulics

Valve Types and Configurations

Base Machine	Remote Valve Options and Configurations
Small Frame Classic	Up to 4 mechanical valves – lever controls in RH console
Large Frame Classic	Up to 4 mechanical valves – lever controls in RH console
	* 2 electronic valves – joystick control in RH armrest Up to 2 mechanical valves – lever controls in RH console
Large Frame Deluxe	2 electronic valves – fingertip controls in RH armrest Up to 2 mechanical valves – lever controls in RH console
	2 electronic valves – joystick controls in RH armrest Up to 2 mechanical valves – lever controls in RH console

** Requires ordering loader provision 7293680*

Hydraulics

Factory Loader Provision

- Factory-supplied option
- Provision includes:
  - Loader sub-frames
  - Loader mid-valves
  - Integrated factory loader joystick
- Loader mainframe ordered separately
- Easy loader connection
- Includes Pioneer flat-faced couplers
- Clean factory installation
- Saves dealer time and money
- Includes multi-function loader joystick

Hydraulics

Multi Function Loader Joystick – Available Factory Installed Only

3rd and 4th Loader Functions

Upshift

Travel Direction Change (shuttle)

Downshift

Declutch

Trigger button

Hydraulics

Factory Loader Provision - Classic

- Mechanical joystick option
  - Joystick integrated into RH console
  - Mechanical movement operates loader via pull cables
- Electronic joystick option
  - Large frame models only
  - Joystick integrated into armrest
  - Movement operates loader electrically
  - 2 sets of rear couplers controlled via joystick
  - Must disconnect loader to operate rear couplers

See bulletin MF13-31PMB for more info.

Hydraulics

Factory Loader Provision - Deluxe

- Electronic joystick Standard
  - Joystick integrated into seat armrest with T-handle controller
  - Movement operates loader valves electronically – no cables
  - Joystick movement also controls 2 sets of couplers at rear
  - Must disconnect loader to operate rear couplers

See bulletin MF13-31PMB for more info.

3-Point Hitch

Rear 3-Point Hitch

- ASAE Category II hitch
- Electronically operated
- Telescopic stabilizers
- Fixed and extendable ball ends
- Turn buckle height adjustment
- Lower link draft sensing standard
- Adjustable top link – length and position

Lift Capacity	@ Ball Ends	@ 24”
Small Frame	9,480 lb (4300 kg)	7,100 lb (3220 kg)
Large Frame	11,450 lb (5190 kg)	8,575 lb (3890 kg)

3-Point Hitch

Rear 3-Point Hitch Controls (in Cab)

Draft Sensing

Rate of Drop

Max. Lift Height

Active Transport *(3-point hitch suspension system)*

Depth Wheel

Raise/Neutral/Lower

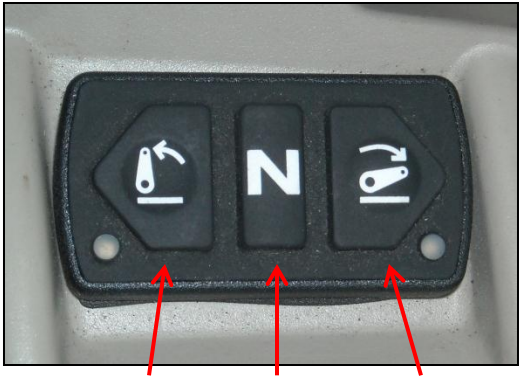
3-Point Hitch

3-Point Activation

- Hitch is locked and inoperable upon engine start-up
- Press N twice to activate hitch

3-Point Operation

- Press “raise” button to raise hitch
- Press “lower” button to lower hitch
- Press N button to hold position
- Press/hold “lower” button for “quick drop”



3-Point Hitch

External 3-point Fender Buttons

- Control hitch from outside tractor
- Quickly press “raise” then “lower” to activate fender buttons

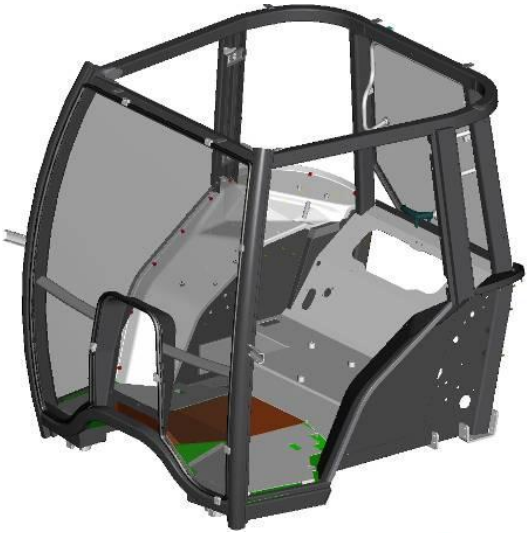
Front 3-Point Hitch

- Factory option
- 5,500 lb lift capacity at ball ends
- Side frame rails for support
- Double-acting cylinders
- Rear remote valve for operation
  - Manual diverter valve controls oil flow

Operator's Area

Cab Only All Models

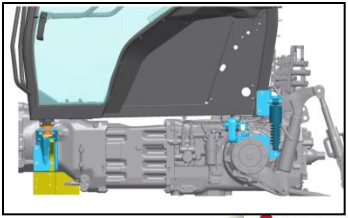
- 6-post ROPS design
- 62.5 ft^2 of glass
- 71 dB(A) inside sound level
- Rounded design offers more room and improved styling
- Two curved all-glass doors
- Foot steps and grab handles for entry on either side
- Completely flat rubber-coated floor



Operator’s Area

Operator Comfort

- Mechanical suspended swivel seat with full adjustment standard
- Retractable seat belt and folding armrests
- Manual adjust air suspended seat or auto air suspended seat optional
- Instructor’s seat available
- Mechanical cab suspension optional
  - Coil spring over shock in rear
  - Silent block bushings up front



Operator’s Area

Cab Ventilation

- Manual adjust HVAC with roofline controls
- 4-speed fan for operator preference
- Replaceable outside air filter
- Replaceable inside recirculation air filter
- Cool box for drink storage cooled by HVAC
- Rear and corner windows open
- Pull-down front shade

Operator’s Area

Visibility

- Steeply sloped Hi Vis hood
- Narrow front dash cross section for exceptional forward visibility
- Operator sits up high for bird’s eye view all around
- Visio Roof for visibility of raised loader bucket without leaning forward

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Operator's Area

Front Dash

- Adjustable with steering wheel
- Digital and analog display
- Incorporates Dash Control Center (DCC) in lower left corner
- Operator can customize information displayed
- Easy to read at a glance
- Keeps operator informed of tractor status and operation

Operator’s Area

Control Center Display

- Deluxe models only
- Advanced user interface
- Color terminal with video input
- ISO BUS compatible
- More capability than DCC
- Easy to use, intuitive
- Greater display of information
- Customizable screens
- Adjustable on-the-go
- Not guidance capable

Operator’s Area

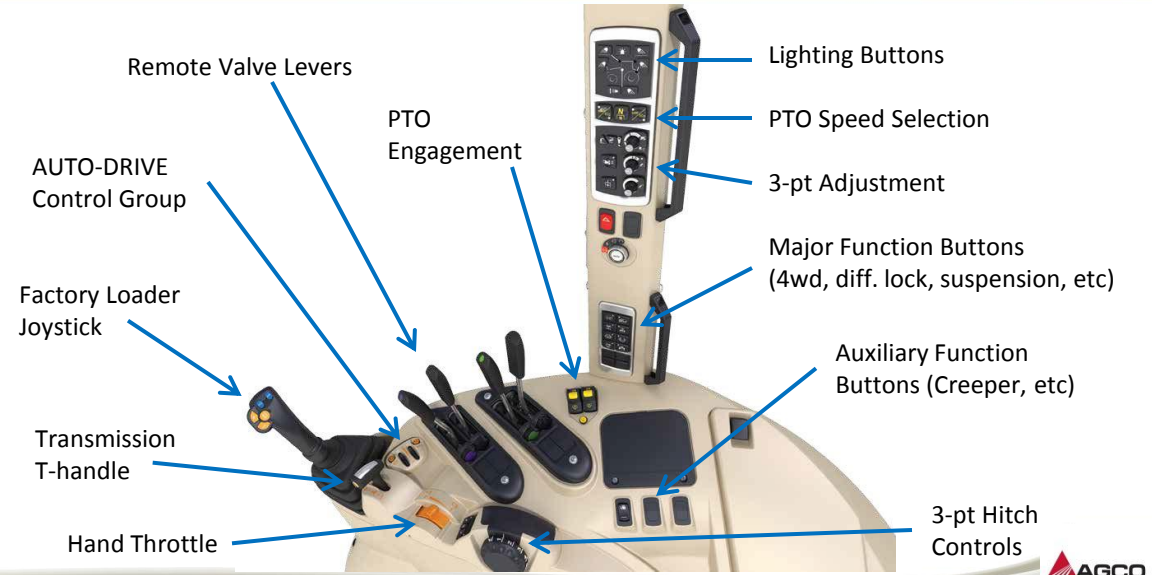
Right Hand Console and Pillar

- Convenient location of major tractor functions
- Ergonomically designed for natural hand placement
- Intuitive layout with recognizable controls

Operator’s Area

Classic Layout

Operator's Area



Operator’s Area

Deluxe Layout

Operator’s Area

Electronic Joystick for Loader & Hydraulics

Transmission T-handle

Stored Function Buttons
- Headland
- SV1
- Engine Speed

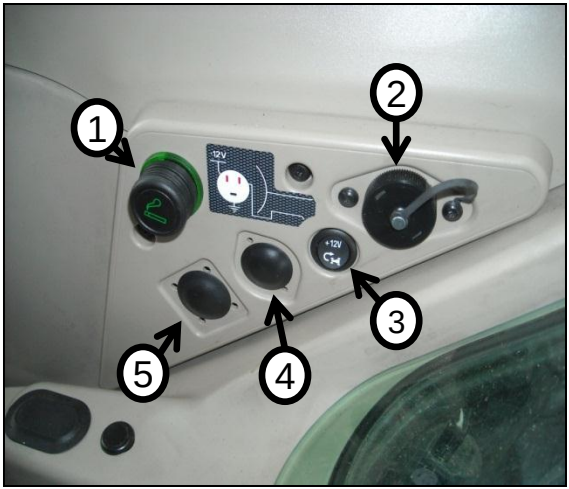
3-point Hitch Controls

Hand Throttle

Operator’s Area

Electrical

- 120 amp alternator
- Multiple in-cab plugs
  1. 12v cigarette plug
  2. 12v 3-prong power plug
  3. On/off switch for 12v power plug
  4. ISO 11783 Plug *(when equipped)*
  5. ISO 11786 Plug *(when equipped)*
- 7-pin trailer plug standard



Operator’s Area

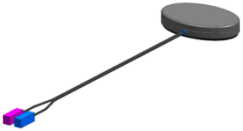
Tractor Lighting

- Ample halogen work lighting for night time jobs
- Roof-line work lights
  - 4 front / 4 rear
- Rear fender lights
- Front waist-line lights
- Front headlights – low/high beams
- Marker and hazard lights
- Optional rotating beacons
- Light controls in RH pillar

Operator's Area

AG COMMAND Ready

- All tractors AG COMMAND ready standard
- Wiring harness and connectors included
- System collects data and transmits to central server
- Data can include: location, hours, status, work, diagnostics, etc.
- Customer can access info for machine and fleet management
- AM50 "black box"
  - Brains of system in tractor
  - Connects to tractor CAN-bus



Service

Service Items

- Fuel tank and DEF under platform – ground level fill
- Single piece raising hood with lockable push button latch
- Easy access to:
  - Engine oil check
  - Engine air filter
  - Battery
  - Transmission check
  - Cabin air filters
- Integrated lockable toolbox

Service

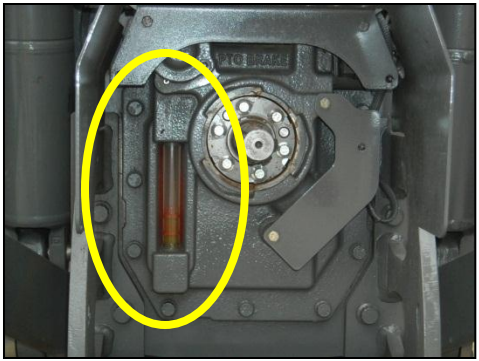
Service Items

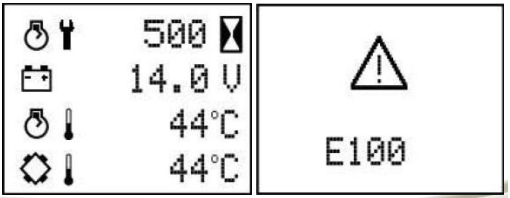
- Cooling package designed for easy cleaning
- Radiators
  - Engine coolant
  - Intercooler
  - Fuel cooler
  - Transmission cooler
  - A/C cooler
- Engine oil check using accessible dipstick
- 2-stage dry engine air filter is easy to check

Service

Service Items

- Transmission oil level check via sight-glass at rear
- Transmission fill at rear
- Battery access under step on right side of tractor
- Service screen and error codes displayed in CCD
- EDT tool required for tractor diagnostics and service



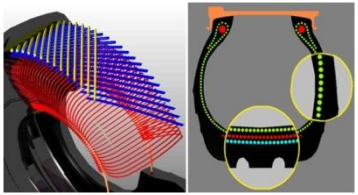


AGCO
Your Agriculture Company

Tires & Ballast

Radial R1 Tires

- R1 radial agricultural tires only
- Excellent off-road traction
- Improved construction over bias tires
- Flexible sidewall for traction
- Balanced for better road speed



18.4 R 30 R1W

- 18.4 — Tire Width
- R — Radial
- 30 — Rim Diameter
- R1W — Tread Design

480/70 R 34 R1W

- 480 — Tire Width
- 70 — Sidewall Aspect Ratio *(as % of tire width)*
- R — Radial
- 34 — Rim Diameter
- R1W — Tread Design

Tires & Ballast

Ballast

- Ballast improves traction and provides machine stability
- Front ballast counteracts heavy rear draft loads for pulling efficiency
  - Suitcase weights, front 3-pt hitch weights, front loader
- Rear ballast counteracts heavy front loads, such as loader
  - Wheel weights, rear 3-pt hitch weight, rear implement

Loaders

Loader Models & Features

- Manufactured by ALO
- 3 models available
- Quick-attach design
- Built-in parking stands, no tools to disconnect
- High quality design and manufacture, very durable

MF931	Non-self leveling	Small frame only
MF941	Non-self leveling	All models
MF946	Self leveling	All models

Loaders

Hydraulics

- Factory mid valves on RH side of tractor
- Mechanical valves with electrical connection for 3rd function
- Flat-face couplers for easy connection
- Optional single lever quick-connect
- Optional 3rd function capability with diverter valve – grapple, bale pinch
- Optional soft-ride loader suspension system

Loaders

Quick Attach Loader Tools

- Amplifying links for bucket
- Bucket level indicator
- Grill guard
- Quickly change loader tools
  - Manual quick attach
  - Hydraulic quick attach
- 3rd function capable
- Tools available:
  - Buckets – multiple sizes
  - Bale spear
  - Pallet forks
  - Grapple buckets

Specifications

Performance

	5609	5610	5611	5612	5613
Rated Engine HP	90	100	105	115	125
Max Engine HP	95	105	110	120	130
Rated Engine Speed	2200 RPM				
PTO HP	70	75	80	90	100
Rated Torque	TBA	237 lb ft @ 2200 RPM	TBA	TBA	TBA
Maximum Torque	298 lb ft @ 1600 RPM	304 lb ft @ 1600 RPM	468 lb ft @ 1500 RPM	502 lb ft @ 1500 RPM	545 lb ft @ 1500 RPM
Torque Rise	TBA	28.3%	TBA	TBA	TBA

Specifications

Engine – Small Frame

Make	AGCO Power
Model	33 AWI HD
Cylinders	3
Bore x Stroke	4.25 in. x 4.72 in.
Displacement	3.3 L (201 in^3)
Cylinder Construction	Wet replaceable liner
Intake	2-stage dry
Aspiration	Turbocharged and intercooled
Turbocharger	Fixed geometry, Wastegate
Injectors	Direct, centered
Valves	4 / cylinder

Injection Type	Bosch Common Rail
Injection Pressure	23,000+ psi
Rotation	Counter clockwise
Engine Management	Electronic
Engine Controller	SisuTronic EEM4
EPA Compliance	Tier 4i
Emissions Components	External EGR, DOC
Low / High Idle	850 RPM / 2402 RPM
Starting Aid	Intake Heater
Alternator	95 amp
Starter Motor	3.2 kW, 12V
Bio Fuel Use	Up to B20

Specifications

Engine – Large Frame

Make	AGCO Power
Model	44 AWI
Cylinders	4
Bore x Stroke	4.25 in. x 4.72 in.
Displacement	4.4 L (269 in^3)
Cylinder Construction	Wet replaceable liner
Intake	2-stage dry
Aspiration	Turbocharged and intercooled
Turbocharger	Fixed geometry, Wastegate
Injectors	Direct, centered
Valves	4 / cylinder

Injection Type	Bosch Common Rail
Injection Pressure	23,000+ psi
Rotation	Counter clockwise
Engine Management	Electronic
Engine Controller	SisuTronic EEM4
EPA Compliance	Tier 4i
Emissions Components	SCR, DOC
Low / High Idle	850 RPM / 2402 RPM
Starting Aid	Intake Heater
Alternator (amp)	120 std / 175 opt
Starter Motor	TBA
Bio Fuel Use	Up to B20

Specifications

Transmission and Rear Axle

Transmission Model	Dyna-4
Type	power shift / shuttle
Gears	4, electro-hydraulic shift
Ranges	4, electro-hydraulic shift
Clutch Type	Wet multi-disc
Transmission Controls	LH 3-function Shuttle Lever and RH T-Handle
Shuttle Lever Location	Left side steering wheel
Shuttle Lever Control	Electro-hydraulic
Shuttle Lever Function	Shuttle, upshift & downshift, clutch
T-Handle Location	RH Console or Armrest
T-Handle Control	Electro-hydraulic

T-Handle Function	Upshift & downshift
Foot Clutch	Modulating valve
Travel Speeds	16 forward x 16 reverse
Creeper Reduction	14:1
Rear Axle Type	Cast Steel with Flange
Axle Reduction	Internal Planetary
Diff. Lock Type	Dog clutch, fully locking
Diff Lock Control	Electro-hydraulic
Brakes Type	Internal wet disc
Brake Actuation	Hydraulic
Optional Trailer Brakes	Pneumatic & hydraulic
Parking Brake	Hand lever, 4wd engage
Flange to Flange (in)	62.8 (5609), 66.1 (5610), 69.8 (5611/12/13)

Specifications

Drivetrain Components (compared to previous models)

Current Models			
Model	Trans. Model	Rear Axle Model	Front Axle Model
MF5609	GBA50	GPA52	Dana 725
MF5610	GBA50	GPA54	Dana 725
MF5611	GBA25	GPA54	Dana 730
MF5612	GBA25	GPA54	Dana 730
MF5613	GBA25	GPA54	Dana 730

Previous Models			
Model	Trans. Model	Rear Axle Model	Front Axle Model
MF5435	GBA25	GPA21	Dana 720
MF5445	GBA25	GPA21	Dana 720
MF5450	GBA50	GPA54	Dana 725
MF5455	GBA25	GPA21	Dana 720
MF5460	GBA25	GPA22	Dana 730
MF5465	GBA25	GPA22+	Dana 735

Specifications

Front Axle	Small Frame	Large Frame
2wd Axle Design	Adjustable box-in-box	Adjustable box-in-box
Steering Angle	55 degrees	55 degrees
4wd Axle Design	Cast Steel Fixed	Cast Steel Fixed or Suspended
Differential	Centered, locking	Centered, locking
Diff. Lock Engagement	With rear axle	With rear axle
4wd Engagement	Electro-hydraulic / with brake pedals	Electro-hydraulic / with brake pedals
Final Reduction	Outboard planetary	Outboard planetary
Steering System	Hydrostatic	Hydrostatic
Steering Angle	55 degrees	55 degrees
Oscillation	± 6 degrees	± 6 degrees
4wd Lead Ratio	1.383	TBA
Flange to Flange	64.57 inches	TBA

Specifications

PTO

PTO Clutch Type	Wet multi-disc
PTO Engagement	Electro-hydraulic via in-cab rocker switch
PTO Speeds Available	540/540e/1000 RPM
PTO Speed Selection	Electro-hydraulic via in-cab push button
PTO Shaft Change	Dry 6-bolt flange
540 RPM PTO Speed	1920
540e RPM PTO Speed	1964
1000 RPM PTO Speed	1560
540 Shaft Size	1 3/8” 6-spline
1000 Shaft Size	1 3/8” 21-spline

Implement Hydraulics

Standard System Type	Open center
Pump(s)	Single, gear-type
Pump Drive	Transmission driven
Flow to Implements	15 gpm
System Pressure	2900 psi
Rear Remote Valves	2 std, up to 4 available
Valve Type	Mechanical Spool
Valve Control	Levers in RH console
Loader Mid Valves	Optional, mechanical
Factory Loader Joystick	Integrated in RH console

Specifications

Implement Hydraulics, continued…

Twin Flow System Type	Open Center
Pumps(s)	Two, gear-type
Pump Drive	Transmission driven
System Pressure	2900 psi
Flow to 3-pt Hitch	15 gpm
Flow to Remotes	11 gpm
Combined Flow	26 gpm to remotes
Combining Valve	Electronic, push button in cab
Rear Remote Valves	2 std, up to 4 available
Valve Type	Mechanical or Electric
Valve Control	Levers in RH console or RH armrest

Closed Center	Closed Center Load Sensing
Pumps(s)	Variable displacement piston pump
Pump Drive	Transmission driven
System Pressure	2900 psi
Flow to Implements	29 gpm
Rear Remote Valves	2 std, up to 4 available
Valve Type	Mechanical or Electric
Valve Control	Levers in RH console or RH armrest

Specifications

Rear Hitch

ASAE Category	2
Hitch Operation	Electro-hydraulic
Hitch Control	ELC in RH console
Functionality	Position and draft control
Draft Sensing	Lower Link
Lower Link Stabilizers	Telescopic
Implement Connection	Extendable
Lift Arm Adjustment	Twin turnbuckle
Lift Capacity Sm Frame	7,100 lb @ 24”
Lift Capacity Lg Frame	8,575 lb @ 24”
Active Transport	Can be turned on/off in Dash Control Center

Front Hitch

Category	ASAE Category II
Hitch Operation	Double action
Control	Via tractor remote valve
Implement Connection	Fixed hook ends
Lift Capacity Sm Frame	5512 lb @ Hitch
Lift Capacity Lg Frame	TBA
Configuration	Fold for stowage
Design	Integrated into tractor front frame
Additional Hydraulics	Set of implement couplers at front

Specifications

Fluid Capacities – Small Frame

Engine Crankcase Oil	13.7 qts (13 L)
Cooling System	15.3 qts (14.5 L)
Coolant Type	50/50 Mix
Fuel Tank	42.3 gal (160 L)

Transmission	17.2 gal (65 L)
4wd Axle Beam	5.3 qts (5 L)
4wd Axle Final Drive	0.85 qts (0.8 L)
Grease Type	Lithium Base #2

Fluid Capacities – Large Frame

Engine Crankcase Oil	TBA
Cooling System	TBA
Coolant Type	50/50 Mix
Fuel Tank	49 gal (185)
DEF Tank	6.6 gal (25)

Transmission	19.5 gal (73.8)
4wd Axle Beam	1 qts (.94 L)
4wd Axle Final Drive	0.85 qts (0.8L)
Grease Type	Lithium Base #2

Specifications

Hydraulic Valve Types

SA	Single acting	Oil flows out and back through same port
DA	Double acting	Oil flows out one port and in through other port
SA/DA	Single acting / double acting	Valve can be altered from SA to DA
KO	Kick out	Detent valve will stay in flow position until pressure kicks it back to neutral
FL	Float	Detent position where oil flows in and out of tractor without restriction
NF	Notch Float	Combines normal detent float with zero leak capability
FD	Flow Divider	Regulates oil flow to valve, making oil flow available to other valves
ZL	Zero Leak	Reduces internal leakage in valve, preventing ram movement from position

Specifications

Tractor Dimensions (16.9R38)

Dimension	Small Frame (16.9R38)	Large Frame (18.4R34)
Wheelbase	97.1 in	TBA
Length w/o Weights	167.5 in	TBA
Length w/ Front Weights	183.8 in	TBA
Length w/ front Hitch	188.7 in	TBA
Width at Fenders	79.3 in	TBA
Height to Top of Cab	109.5 in	TBA
Height to Top of Beacon	115.7 in	TBA
Ground Clearance	17.6 in	TBA
2wd Base Weight	8,426 lbs	TBA
4wd Base Weight	8,978 lbs	TBA

Specifications

Tractor Dimensions

Capacities	Small Frame	Large Frame
2wd Front Axle	6,085 lbs	TBA
4wd Front Axle	10,500 lbs	TBA
Rear Axle	11,000 lbs	TBA
Maximum Allowable Machine Weight	21,500 lbs	TBA

Specifications

Loader Capacities

	931	941	946
Loader Type	Non-self leveling	Non-self leveling	Self leveling
Lift Height Under Level Bucket	126 in	135 in	135 in
Lift Capacity @ Pivot	3,880 lbs	4,735 lbs	3,965 lbs
Max. Rollback Force	5,313 lbs	6,170 lbs	6,100 lbs
Max. Dump Angle	60 degrees		
Max. Curl Angle	44°	43°	43°
Rated Hydraulic Pressure	2900 psi		
Tractor Compatibility	5600 Series		
Tool Attachment Method	“Euro” quick attach design, single handle		
3rd Function Capability	Standard 3rd function optional, electric diverter valve		
Loader Weight	992 lbs	1,135 lbs	1,290 lbs

Specifications

5609 Speed Chart (MPH) with 16.9-38 Rear Tires

Range / Gear	Speed MPH (1800 engine RPM)	Speed MPH (2200 engine RPM)
1 / A	1.11	1.36
1 / B	1.37	1.67
1 / C	1.69	2.07
1 / D	2.08	2.54
2 / A	2.73	3.34
2 / B	3.36	4.10
2 / C	4.15	5.07
2 / D	5.09	6.21

Range / Gear	Speed MPH (1800 engine RPM)	Speed MPH (2200 engine RPM
3 / A	5.72	7.00
3 / B	7.02	8.58
3 / C	8.68	10.61
3 / D	10.64	13.01
4 / A	13.56	16.58
4 / B	16.63	20.33
4 / C	20.57	25.13
4 / D	25.21	30.81

Tire Size	Multiply By:
16.9R34	0.9423
16.9R30	0.9158

Tire Size	Multiply By:
18.4R30	0.925
18.4R34	0.9913

Tire Size	Multiply By:
13.6R38	0.9453

Specifications

5610 Speed Chart (MPH) with 16.9-38 Rear Tires

Range / Gear	Speed MPH (1800 engine RPM)	Speed MPH (2200 engine RPM)
1 / A	1.06	1.29
1 / B	1.29	1.58
1 / C	1.60	1.95
1 / D	1.96	2.39
2 / A	2.58	3.16
2 / B	3.17	3.88
2 / C	3.92	4.79
2 / D	4.81	5.87

Range / Gear	Speed MPH (1800 engine RPM)	Speed MPH (2200 engine RPM
3 / A	5.41	6.61
3 / B	6.63	8.11
3 / C	8.20	10.03
3 / D	10.44	12.29
4 / A	12.82	15.66
4 / B	15.71	19.21
4 / C	19.44	23.75
4 / D	24.13	29.12

Tire Size	Multiply By:
16.9R34	0.9423
16.9R30	0.9158

Tire Size	Multiply By:
18.4R30	0.925
18.4R34	0.9913

Tire Size	Multiply By:
13.6R38	0.9453

Specifications

5609 Speed Chart (MPH) with 16.9-38 Rear Tires (14:1 Creeper)

Range / Gear	Speed MPH (1800 engine RPM)	Speed MPH (2200 engine RPM)
1 / A	0.08	0.10
1 / B	0.10	0.12
1 / C	0.12	0.15
1 / D	0.15	0.19
2 / A	0.20	0.24
2 / B	0.24	0.30
2 / C	0.30	0.37
2 / D	0.37	0.45

Range / Gear	Speed MPH (1800 engine RPM)	Speed MPH (2200 engine RPM
3 / A	0.42	0.51
3 / B	0.52	0.63
3 / C	0.63	0.78
3 / D	0.78	0.95
4 / A	0.72	1.21
4 / B	1.22	1.49
4 / C	1.50	1.84
4 / D	1.85	2.25

Tire Size	Multiply By:
16.9R34	0.9423
16.9R30	0.9158

Tire Size	Multiply By:
18.4R30	0.925
18.4R34	0.9913

Tire Size	Multiply By:
13.6R38	0.9453

Specifications

5610 Speed Chart (MPH) with 16.9-38 Rear Tires (14:1 Creeper)

Range / Gear	Speed MPH (1800 engine RPM)	Speed MPH (2200 engine RPM)
1 / A	0.07	0.09
1 / B	0.09	0.12
1 / C	0.12	0.14
1 / D	0.14	0.17
2 / A	0.19	0.23
2 / B	0.23	0.29
2 / C	0.29	0.35
2 / D	0.35	0.43

Range / Gear	Speed MPH (1800 engine RPM)	Speed MPH (2200 engine RPM
3 / A	0.40	0.48
3 / B	0.48	0.59
3 / C	0.60	0.73
3 / D	0.73	0.90
4 / A	0.94	1.14
4 / B	1.15	1.40
4 / C	1.42	1.73
4 / D	1.74	2.13

Tire Size	Multiply By:
16.9R34	0.9423
16.9R30	0.9158

Tire Size	Multiply By:
18.4R30	0.925
18.4R34	0.9913

Tire Size	Multiply By:
13.6R38	0.9453

Web Links

Massey Ferguson Website	www.masseyferguson.us/
MF5600 Series Tractor Spec Page (English)	http://www.masseyferguson.us/Library/upload/massey-ferguson-5600-series-spec-sheet.pdf
MF5600 Series Tractor Spec Page (French)	http://www.masseyferguson.us/Library/upload/massey-ferguson-5600-series-spec-sheet-french.pdf
AGCO Corporation Website	www.agcocorp.com/
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Conversions

TABLES OF CONVERSION FACTORS

TO CONVERT FROM METERS TO INCHES, FOR EXAMPLE, FIND THE ROW LABELED "1 METER" AND THE COLUMN LABELED "IN." THE CONVERSION FACTOR IS 39.37. THUS, 1 METER = 39.37 IN.

LENGTH	CM	M	KM	IN	FT	YD	MI
1 CENTIMETER	1	0.01	10^{-3}	0.3937	3.281×10^{-2}	1.094×10^{-2}	6.214×10^{-6}
1 METER	100	1	10^{-3}	39.37	3.281	1.094	6.214×10^{-4}
1 KILOMETER	10^{5}	1000	1	3.937×10^{4}	3281	1094	0.6214
1 INCH	2.54	0.0254	2.54×10^{-5}	1	0.0833	0.0278	1.578×10^{-5}
1 FOOT	30.48	0.3048	3.048×10^{-4}	12	1	0.3333	1.894×10^{-4}
1 YARD	91.44	0.9144	9.144×10^{-4}	36	3	1	5.682×10^{-4}
1 MILE	1.6093×10^{5}	1609.3	1.6093	6.336×10^{4}	5280	1760	1

VOLUME (CAPACITY)							
	CM^3	M^3	IN^3	FT^3	ℓ	OZ	GAL
1 CUBIC CENTIMETER	1	10^{-6}	0.06102	3.531×10^{-5}	1.000×10^{-3}	0.03381	2.642×10^{-4}
1 CUBIC METER	10^{6}	1	6.102×10^{4}	35.31	1000	3.381×10^{4}	264.2
1 CUBIC INCH	16.39	1.639×10^{-5}	1	5.787×10^{-4}	0.01639	0.5541	4.329×10^{-3}
1 CUBIC FOOT	2.832×10^{4}	0.02832	1728	1	28.32	957.5	7.480
1 LITER	1000	1.000×10^{-3}	61.03	0.03532	1	33.81	0.2642
1 OUNCE	29.57	2.957×10^{-5}	1.805	1.044×10^{-3}	0.02957	1	7.813×10^{-3}
1 GALLON	3785	3.785×10^{-3}	231	0.1337	3.785	128	1
1 GALLON = 4 QUARTS (QT) = 8 PINTS (PT) = 16 CUPS (C)							
1 CUP (C) = 8 ONCES (OZ) = 16 TABLESPOONS (TBSP) = 48 TEASPOONS (TSP)							

Calendar

2013

January

Mo	Tu	We	Th	Fr	Sa	Su
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

February

Mo	Tu	We	Th	Fr	Sa	Su
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

March

Mo	Tu	We	Th	Fr	Sa	Su
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

April

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

May

Mo	Tu	We	Th	Fr	Sa	Su
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

June

Mo	Tu	We	Th	Fr	Sa	Su
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

July

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August

Mo	Tu	We	Th	Fr	Sa	Su
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September

Mo	Tu	We	Th	Fr	Sa	Su
30						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

October

Mo	Tu	We	Th	Fr	Sa	Su
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

November

Mo	Tu	We	Th	Fr	Sa	Su
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

December

Mo	Tu	We	Th	Fr	Sa	Su
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

Notes