



MT500D Series High Horsepower Tractors Pocket Guide

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

Challenger

Updated: 04/2014

Serious Machinery, Serious Results.

Photos



*Photos may include global configurations and/or take the appearance of other AGCO branded tractors.

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Model Overview

Model	MT515D	MT525D	MT535D	MT545D
PTO HP	110	110 ¹ / 120 ²	120	130
Engine HP	120	130	150	165
Engine Type	AGCO POWER 6.6L 6-Cylinder Diesel, Tier 4i			
Transmission	AP4	AP4, AP6, & CVT	AP6 & CVT	AP6 & CVT
Drivetrain	4WD All Models, Suspended Front Axle Available			
Configuration	Classic, Deluxe, or Premium Packages			

AP4 = AutoPower IV, AP6 = AutoPower VI, CVT = TechStar CVT

1: AP4; 2: AP6 & CVT

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Model Overview

Model	MT555D	MT565D	MT575D	MT585D	MT595D
PTO HP	140	150	165	180	195
Engine HP	170	180 ¹ / 185 ²	200	220 ¹ / 225 ²	240
Engine Type	AGCO POWER 6-Cylinder Diesel, Tier 4i				
Displacement	6.6	6.6	AP6 7.4 CVT 6.6	7.4	7.4
Transmission	AP6 & CVT				AP6
Drivetrain	4WD All Models, Suspended Front Axle Available				
Configuration	Classic, Deluxe, or Premium Packages				

1: AP6; 2: CVT

AP6 = AutoPower VI, CVT = TechStar CVT

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Configurations

Customer Focused Packages - Classic



Base Specification

- Simplicity
- AP4 / AP6 gear transmission only
- Standard front axle
- Closed center hydraulics
- Mechanical hydraulic valves
- Mechanical loader joystick
- T-handle on Control Center
- Dash Control Center Only – No Tractor Management Center (TMC) Display
- AgCommand Ready
- No guidance capability

Configurations

Customer Focused Packages - Deluxe



Medium Specification

- AP6 or CVT transmission
- OptiRide front axle suspension
- Closed center hydraulics
- Mechanical and electronic hydraulic valves
- T-handle on Command Control Armrest
- OptiRide hydraulic cab suspension
- Tractor Management Center (TMC) Display
- AgCommand Ready
- Guidance ready
- TruTrak quick steering

Configurations

Customer Focused Packages - Premium



High Specification and Refinement

- Advanced tractor electronics
- AP6 or CVT transmission
- MultiPad controller
- OptiRide front axle suspension
- Electronic hydraulic valves
- OptiRide hydraulic cab suspension
- Automatic climate control
- Tractor Management Center (TMC) Display
- AgCommand ready
- Auto-Guide 3000 complete
- TruTrak quick steering

Engine

- AGCO POWER
- 66AWI / 74AWI 6-cylinder diesel engine
- Manufactured by AGCO POWER
- 6.6 / 7.4 liter (402 / 452) displacement
- Turbocharged and Intercooled
- 4 valves per cylinder, centered injector
- Bosch high pressure common rail (HPCR) fuel injection system (29,000+ psi)
- SisuTronic EEM4 electronic engine mgmt.
- Structural block
- Same construction as AGCO POWER 9.8 liter 7-cylinder engine (7.4L)



Engine

EPA Tier 4i Emissions Compliant

- Electronic engine management
- Closed crankcase ventilation (CCV)
- Diesel oxidation catalyst (DOC)
- 2nd generation SCR Technology
 - Variable DEF injection rate
 - Sensors for accuracy
 - Low DEF usage rate:
 - 2 fuel tanks = 1 DEF tank
- No diesel particulate filter (DPF)
- No filter regeneration
- No heat build-up, no wasted fuel, no downtime



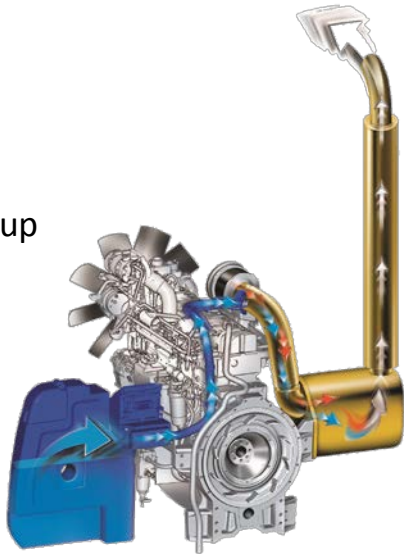
Engine

Why SCR Technology?

- Simple, reliable, proven
- Widely used in on-road trucks
- Engine built to perform, SCR simply cleans up exhaust
- Better performance and efficiency

Features of DEF

- Specific mixture
 - 32.5% urea, 77.5% distilled water
- Clear liquid, non toxic, non flammable
- Biodegradable
- 12 month shelf life (ideal conditions)



Engine

How SCR Works

1. Exhaust gas exits the turbocharger and enters the diesel oxidation catalyst (DOC).
2. DOC builds heat from the hot exhaust gases.
3. Heat in DOC promotes a reaction within the exhaust gas to convert harmful hydrocarbons (HC) and carbon monoxide into harmless carbon dioxide (CO_2) and water (H_2O).



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Engine

How SCR Works

4. As exhaust gas exits the DOC, a variable rate injector sprays a controlled amount of diesel exhaust fluid (DEF) into the exhaust stream.
5. Exhaust and DEF mix enters catalyzing chambers in exhaust stack.
6. DEF reacts with the exhaust gas to convert harmful nitrogen oxides (NOX) into harmless nitrogen (N₂) and water (H₂O).



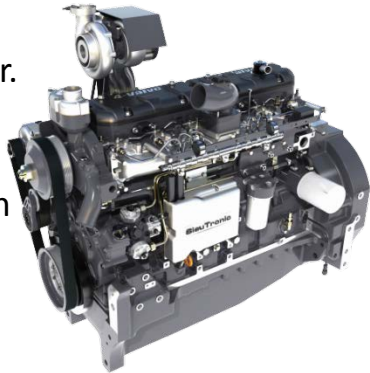
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Engine

How to Sell the Engine

- Torque: Industry leading peak torque and sustains it into lower engine revolutions longer.
- Off-highway engine experts: Designed and engineered for agriculture applications only.
- Reliability: Designed to be the most reliable on the market (balanced rotating group, mid cylinder supports, and fractured split connecting rods).
- Fluid efficiency: Best technologies were included to ensure the lowest cost of operation.



Engine

Engine Power Management (EPM)

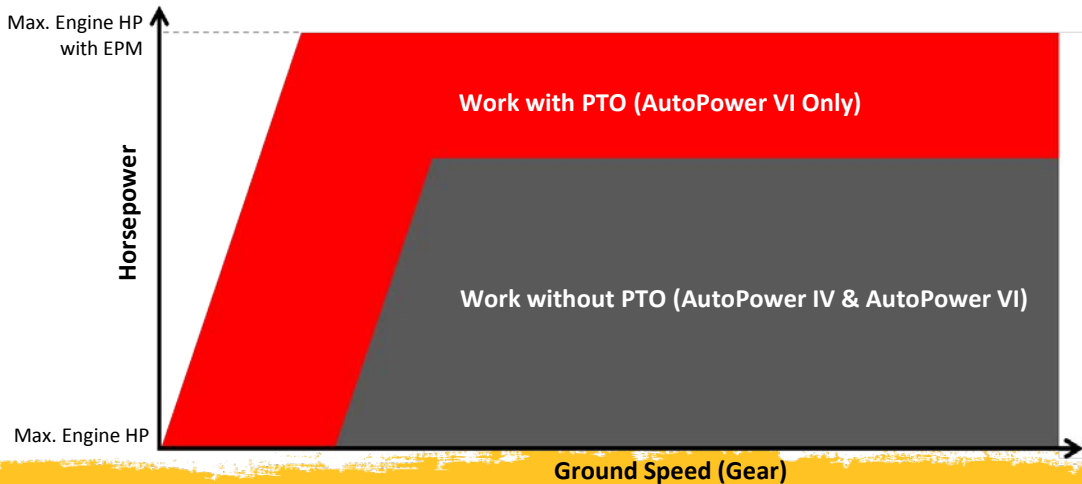
- Available in gear transmissions only
- Enables additional engine power
 - Specific conditions must be met
 - Tractor must be in gear and working
- Fully automated system
 - No operator control, no indication of EPM being active
 - Operator does not know if/when EPM engages



EPM Conditions		Power Gain
AutoPower IV	Speed 3A+ (greater than 3.7 mph (6 kph))	Up to 25 HP
AutoPower VI	Speed 2D+ (greater than 3.7 mph (6 kph)), or when PTO is engaged and tractor is in gear	Up to 35 HP

Engine

Engine Power Management (EPM)



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Engine

ECO Engine Idle Feature

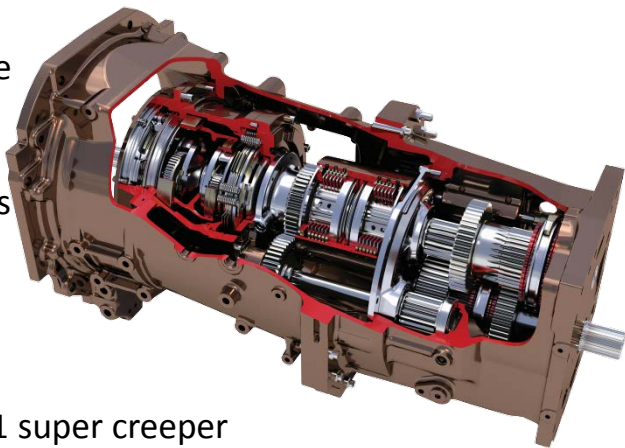
- Built into engine electronics, always active, automatically engages
- Active engine idle is 850 RPM
- ECO idle engine speed is 750 RPM
 - Power control lever must be in “N”
 - Parking brake engaged
- Saves fuel when at idle
- Reduces noise level



Transmission

AutoPower IV Transmission

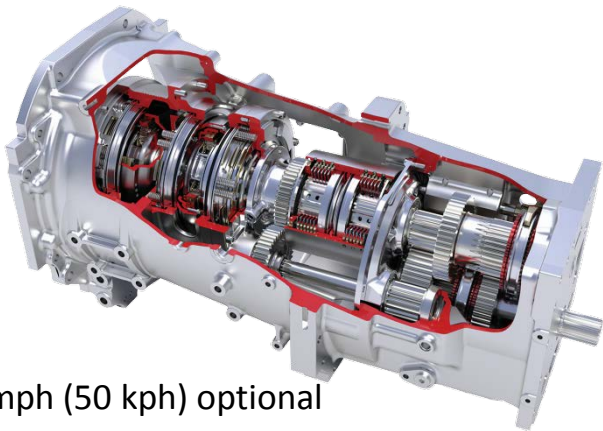
- Power shift and power shuttle
- Wet multi-disc main clutch
- Foot clutch pedal
- 16 forward, 16 reverse speeds
- 4 power shift gears, 4 ranges
- All electronic shifting with speed matching
- 25 mph (40 kph) max speed
- Optional 4:1 creeper and 14:1 super creeper
- AUTODRIVE standard
- Classic MT515D and MT525D only



Transmission

AutoPower VI Transmission

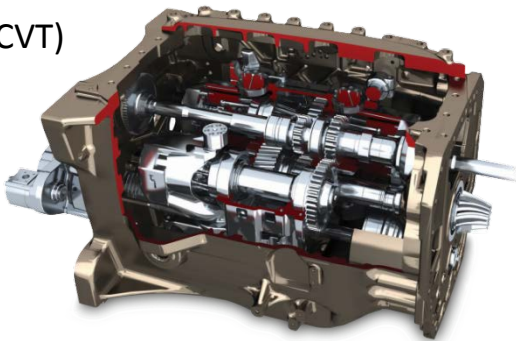
- Power shift and power shuttle
- Wet multi-disc main clutch
- Foot clutch pedal
- 24 forward, 24 reverse speeds
- 6 power shift gears, 4 ranges
- All electronic shifting with speed matching
- 25 mph (40 kph) standard, 31 mph (50 kph) optional
- Optional 4:1 creeper and 14:1 super creeper
- AUTODRIVE standard
- Classic, Deluxe, and Premium models



Transmission

TechStar CVT Transmission

- Continuously Variable Transmission (CVT)
- Infinite speeds from 0 to max
- No gear shifts, no clutches, no loss of traction or power
- Engine and transmission operate independently of each other
- Dedicated fluid reservoir, no sharing
- Simple, highly efficient, highly reliable
- Deluxe and Premium models
- 25 mph (40 kph) standard, 31 mph (50 kph) optional
- Power Management (PM) feature standard



Transmission

3-function Power Direction Lever

- Standard on all tractors
- Left side of steering wheel
- Performs 3 functions
 - Shuttle forward/reverse
 - Upshift/downshift
(speed up/slow down in CVT)
 - Clutch when lifted
- No need to use foot clutch for shifting or speed change
- Industry exclusive!



Transmission

Right Hand Transmission Control

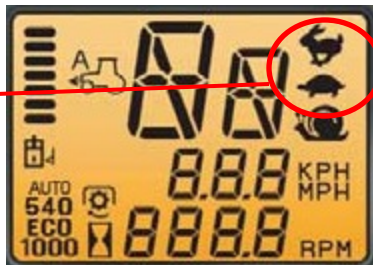
- Traditional T-handle controller
 - Simple operation
 - Change speed or gear by “bumping” handle forward or backward
 - Orange button to change ranges
- MultiPad controller
 - Enhanced capability
 - Operate multiple tractor functions from a single joystick
 - Change speed or gear by pulsing lever forward or backward
 - Buttons operate tractor functions



Transmission

Field and Road Modes (gear transmission)

- 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

Field and Road Modes (CVT)

- Designated by icons in front dash
 - Turtle = field mode
 - Required for heavy draft work
 - Rabbit = road mode
 - Ideal for light work and transport
- Change mode by pressing T-handle button 5 seconds (tractor in neutral)
- Field mode limits maximum travel speed to 17 mph (28 kph)
- Road mode allows full travel speed up to 31 mph (50 kph)



Transmission

Speed Matching (gear transmission)

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

AUTO-DRIVE System (gear transmission)

- Standard feature in pedal mode
- Tractor automatically shifts gears like automatic transmission in car
- Use hand or foot throttle to accelerate
- Adjustable on the go

AUTO-DRIVE On/Off Button



AUTO-DRIVE Control Group

Transmission

Power Management (PM)

- Available in TechStar CVT only
- Standard, built-in electronic function
- Allows engine and transmission to work together for best performance
 - Provides power to the ground when needed in tough conditions
 - Provides fuel-saving economy in lighter conditions
- Adjustable parameters set by the operator
- Tractor does the “thinking”

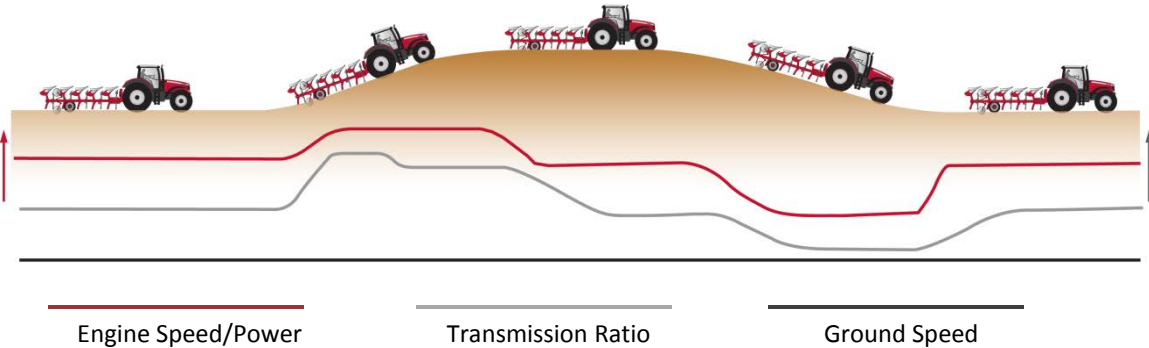
PM On/Off Button



Transmission

Power Management (PM)

- Engine power and transmission ratio automatically adjust to changing conditions



Transmission

Multiple Operating Modes

- Standard mode
 - Hand lever controls transmission, foot pedal controls engine speed
- Pedal mode
 - Foot or hand throttle lever controls engine and transmission speed
 - Like driving a car with automatic transmission
- Forager mode
 - Engine stays constant (PTO speed)
 - Foot or hand throttle controls ground speed

Mode Button



Transmission

Dash Control Center (DCC)

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



DCC

Key Pad

Transmission

Dash Control Center (DCC)

- Adjust tractor functions:
 - Shift/shuttle intensity
 - Acceleration rate (CVT)
 - Anti-stall
 - Auto-Neutral
 - AUTODRIVE settings
 - PM settings
 - Mode settings
 - Engine supervisor settings
 - And more....

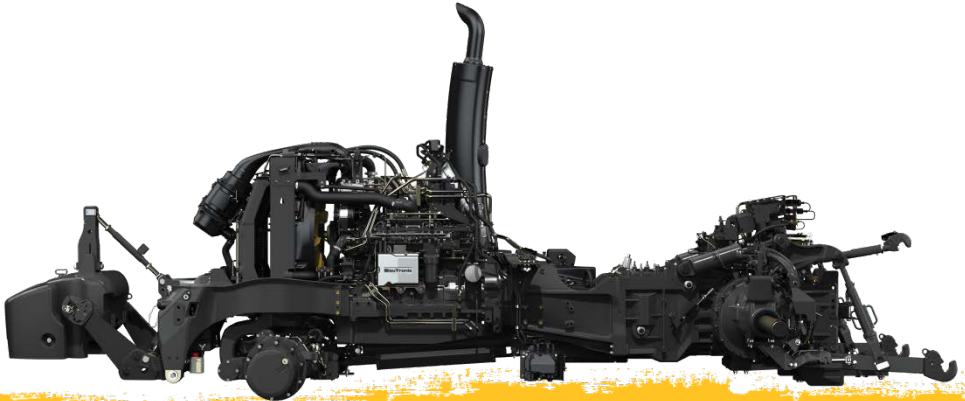


DCC

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 or bar
- Internal planetary final drives
- Internal wet multi-disc brakes
 - Hydraulically engaged
- Individual LH and RH brake pedals
- Hand parking brake or Park Lock
- Electro-hydraulic differential lock
 - Front and rear axles lock
 - Locks wheels for traction

Rear Axle Models		
	Gear	CVT
MT515D- MT545D	GPA23	HA130
MT555D- MT565D	GPA12	HA130
MT575D	GPA42	HA160
MT585D- MT595D	GPA45	HA160.1



Rear Axle

Axle Length (in)

	Axle	MT515D- MT545D	MT555D- MT595D
AP4	Flange	72.2	-
	Short	79.7	-
	Long	105.2	-
AP6	Flange	72.2	-
	Short	79.7	84.4 / 86.7*
	Long	105.2	112.1 / 118.2*
CVT	Short	89.6	89.6
	Long	113.0	113.0

*: GPA45 (MT585D & MT595D)



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Front Axle

4WD Front Axle

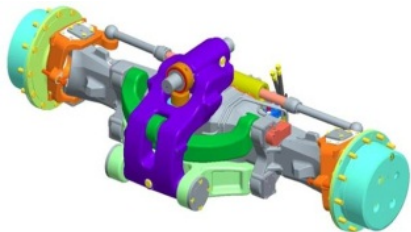
- Solid cast steel design
- Center front differential w/ electro-hydraulic diff. lock
- Hydrostatic power steering
- Axle oscillation of +/- 11°
- Electro-hydraulic engagement
- Outboard planetary final drives for high torque and long service life
- Diff. lock automatically engages 4WD
- 55° steering angle
- Auto-engagement with brake pedals for 4-wheel braking

	AP4	AP6	CVT
MT515D	Dana 735	-	-
MT525D	Dana 740	Dana 735	
MT535D	-	Dana 740	
MT545D	-	Dana 740	
MT555D	-	Dana 745	
MT565D	-	Dana 745	Dana 750
MT575D	-	Dana 750	
MT585D	-	Dana 755	
MT595D	-	Dana 755	-

Front Axle

Suspended Front Axle

- Challenger OptiRide design
- Pushes front wheels into the ground for consistent, uninterrupted traction
- 3.5" (90 mm) suspension travel
- Provides improved ride on uneven ground
- Electro-hydraulic system
- Can turn on/off via button in cab
- Full axle oscillation when on or off
- Required for 31 mph (50 kph)
- Integrated into front design



Front Axle

Available TruTrak Function

- Adjusts steering ratio for turning the front wheels
- More or fewer steering wheel turns from lock to lock
- Electronic steering valve
- On/off push button in cab
- Ratio adjustment in DCC
- System disengages above 12 mph
- Not available on Classic models



Front Axle

Auto 4WD Engagement

- Disengages above 12 mph, re-engages below 12 mph
- Disengages beyond 25° steering angle, re-engages under 25° angle

Auto Differential Lock Engagement

- Disengages with brake pedals
- Disengages above 12 mph, does not automatically re-engage
- Disengages beyond 7° steering angle, re-engages under 5° angle

NOTE: Auto functions require Radar and Slip Control option



Power Take Off

Independent Rear Power Take Off (PTO)

- Electro-hydraulic engagement
- Wet multi-disc clutch
- Exchangeable PTO shaft (AP4/6)
- Flange type shaft (CVT & MT555D-MT595D AP6)



MT515D-MT545D	
AP4	540/1000 or 540/540E/1000/1000E
AP6	540/1000 or 540/540E/1000/1000E
CVT	540/540E/1000
MT555D-MT595D	
AP6	540/1000 or 540/540E/1000 or 540E/1000/1000E
CVT	540/540E/1000

Standard PTO Speed	2000 RPM Engine Speed
Economy PTO Speed	1500 RPM Engine Speed

Power Take Off

Electronic PTO Control

- Push button engagement
- 2-stage rocker switch on RH console
 - On/Off/Brake positions
 - Safety switch prevents accidental engagement
- PTO speed selection via mechanical levers on RH console – AP4/6
- PTO speed selection buttons on right side cab pillar – (CVT & MT555D-MT595D AP6)
- Auto PTO function engages PTO when rear 3-point hitch is lowered



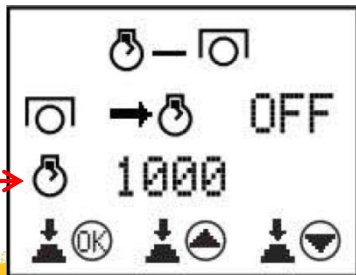
Power Take Off

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 Dash Control Center
- 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 DCC
- Press and release button to deactivate



Hydraulics

Hydraulic Systems Available

- Standard closed center system (2,900 psi)
- 29 GPM; Optional 39 GPM flow rate (Large frame Deluxe and Premium)
- Single gear-driven pump supplies 3-point hitch and implements
- Classic, Deluxe, and Premium models
- Up to 4 remote valves available
 - Mechanical or electric remotes
- ISO ½" quick connect couplers
- Separate reservoir for transmission and auxiliary hydraulics (CVT)



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Hydraulics

Optional Twin Flow System (Small Classic)

- Open center 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
- Up to 4 rear remote valves with RH mechanical levers
- Provides fast implement and loader cycle times



Hydraulics

Closed Center System

- Closed center load sensing system
- 29 GPM standard; Optional 39 GPM
- Single variable displacement pump
 - Only sends oil when required
 - Instantaneous response
 - Efficient, saves power
- Classic, Deluxe, and Premium models
- Up to 4 rear remote valves
- Mechanical or electric valve operation
 - Fingertip or joystick operation of rear valve
 - Hydraulic system management with TMC Display



Hydraulics

Factory Loader Provision

- Factory option
- Provision includes:
 - Loader sub-frames
 - Loader mid-valves
 - Integrated factory loader joystick
- Loader mainframe ordered separately
- Easy loader connection
- Clean factory installation
- Saves dealer time and money
- Better equipment than field installed



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Hydraulics

Multi-Function Loader Joystick

- Joystick motion controls loader movement
 - Forward/back = loader raise/lower
 - Side to side = curl/dump
- Joystick orange buttons control transmission
 - Forward/reverse shuttle
 - Upshift/downshift
 - De-clutch
- Joystick blue buttons control hydraulics
 - Hydraulic 3rd function
 - H3 and H4 controls can be programmed

Only Available Factory Installed

No Field Installed Kit Available



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Hydraulics

Multi Function Loader Joystick



Hydraulics

Mechanical Loader Joystick

- Available in Classic models only
- Joystick integrated into RH console
- Mechanically operates loader valves
 - Push/pull cables
- Available only with factory loader provision



Hydraulics

Electronic Loader Joystick

- Available in Deluxe and Premium models
- Joystick integrated into RH seat armrest
- Electronically operates loader valves OR two rear remote valves
- Available with or without factory loader provision



3-Point Hitch

Rear 3-Point Hitch (MT515D-MT545D)

- ASAE Category II/III hitch
- Electronically operated
- Left and right side external controls
- Ball ends or hook ends
- Turn buckle height adjustment
- Draft sensing
- Active transport control
- Adjustable top link – length and position
- Telescopic, rub block, or automatic stabilizers



	MT515D	MT525D	MT535D	MT545D
Max. lift capacity at link ends (lbs)	Gear: 9800	Gear: 9800 CVT: 11500	Gear: 9800 CVT: 11500	

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3-Point Hitch

Rear 3-Point Hitch (MT555D-MT595D)

- ASAE Category III hitch with quick hitch
- Electronically operated
- Left and right side external controls
- Ball ends
- Turn buckle height adjustment
- Draft sensing
- Active transport control
- Adjustable top link – length and position
- Rub block stabilizers



	MT555D	MT565D	MT575D	MT585D	MT595D
Max. lift capacity at link ends (lbs)	Gear: 14000 CVT: 13715				

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3-Point Hitch

Rear 3-Point Hitch Controls (in Cab)



Draft Sensing

Rate of Drop

Max. Lift Height



Depth Wheel

Raise/Neutral/Lower

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

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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”



Raise N (Neutral) Lower

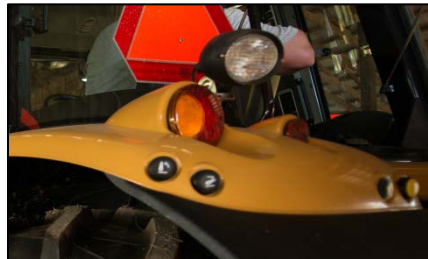
3-Point Hitch

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
- Lift capacity
 - MT515D-MT545D: 7054 lbs
 - MT555D-MT595D: 8818 lbs
- Uses rear remote valve for operation
 - Manual diverter valve controls oil flow



Operator's Area



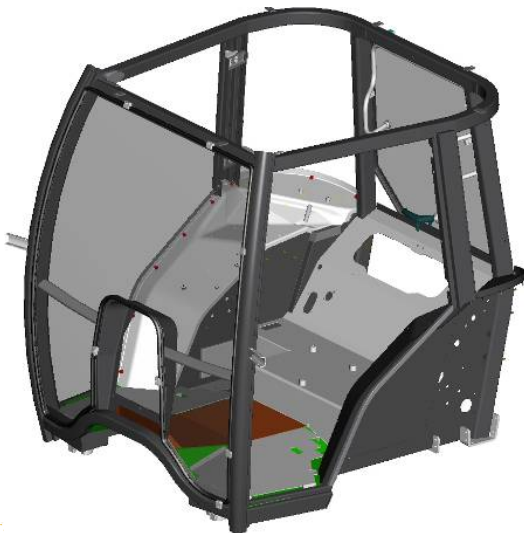
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Operator's Area

Cab Only All Models

- 6-post ROPS design
- 62.5 ft² 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

- Air-suspended swivel seat with automatic adjustment standard
- MT515D-MT545D Classic:
Manual adj.
- Superluxe seat with lumbar support, 8 different adjustments, and heating is optional
- Retractable seat belt and folding armrests
- Instructor's seat with retractable seat belt standard



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Operator's Area

Mechanical Cab Suspension

- Optional on Classic & Deluxe models
- Spring-over-shock dampeners at rear cab corners
- Not adjustable



Hydraulic Cab Suspension

- Hydraulic dampeners (2) with accumulators at rear cab corners
- Adjustable electronically in cab
- Standard on Deluxe & Premium



Operator's Area

Cab Ventilation

- Manual adjust HVAC with roofline controls, or
- Auto climate control (Std. in Premium)
- Replaceable outside air filter in roof
- Replaceable inside recirculation air filter
- Cool box for drink storage cooled by HVAC
- Rear and corner windows open
- Pull-down front shade
- Interior rearview mirror



Operator's Area

Visibility

- 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
 - Available in small frame Classic and Deluxe tractors



Operator's Area

Front Dash

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



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 Models



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Operator's Area

Classic Models

Remote Valve Levers

AUTO-DRIVE
Control Group

Mechanical Factory
Loader Joystick

Transmission
T-handle

Hand Throttle

PTO
Engagement

Lighting Buttons

PTO Speed Selection

3-pt Adjustment

Major Function Buttons
(4WD, diff. lock, etc)

Auxiliary Function
Buttons (Creeper, etc)

3-pt Hitch
Controls

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Operator's Area

Deluxe Models



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Operator's Area

Deluxe Models

Factory Loader
Joystick - Electronic

AUTO-DRIVE
Control Group

Remote Valve Levers

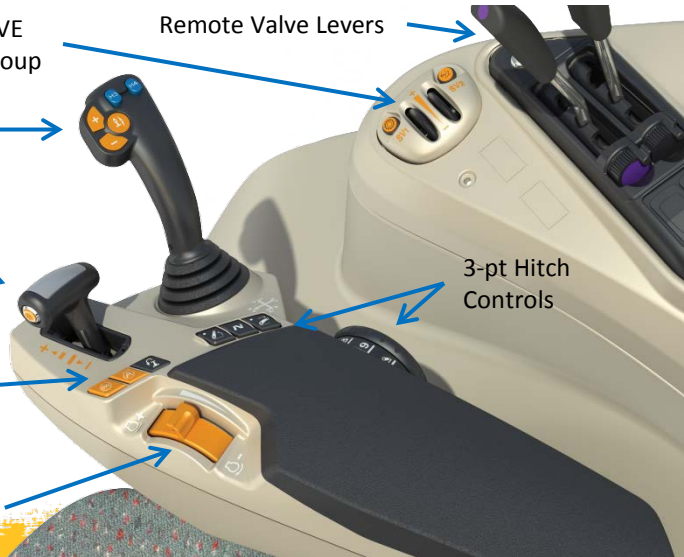
Transmission T-handle

Buttons for:

- SV1 Cruise Control
- Engine A Preset
- Headland Sequence or SV2 Activation

Hand Throttle

3-pt Hitch
Controls



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Operator's Area

Premium Models

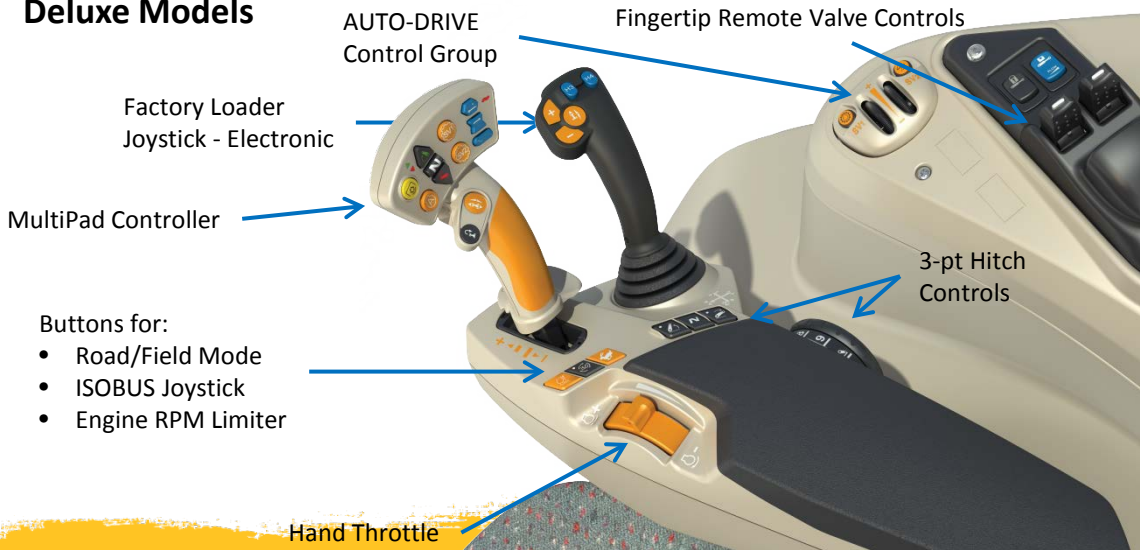


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Operator's Area

Deluxe Models



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Operator's Area

MultiPad Controller

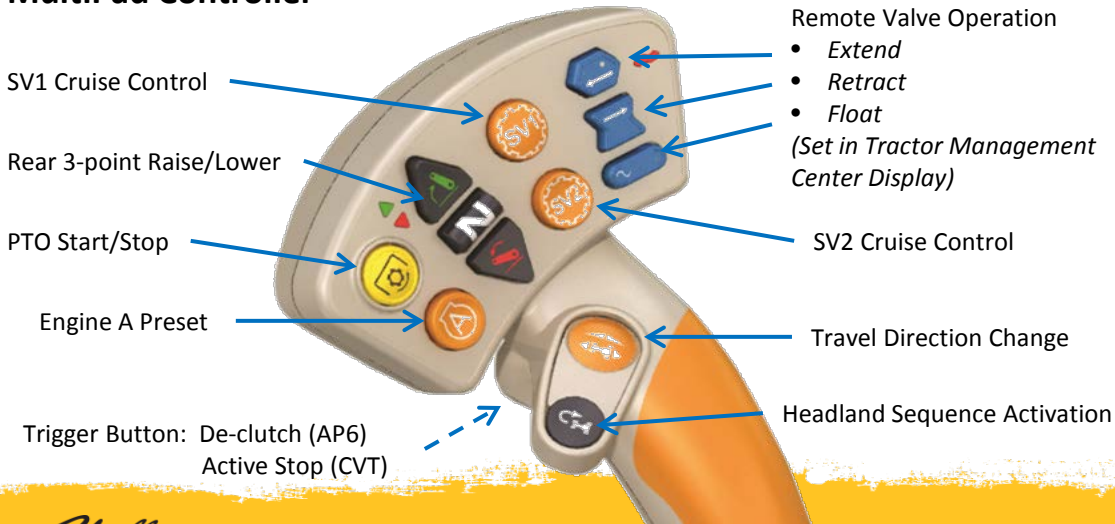


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Operator's Area

MultiPad Controller



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Operator's Area

Electrical

- 175 amp alternator, or
- 2 x 120 amp alternators
- Multiple in-cab plugs
 1. 12v cigarette plug
 2. 12v 3-prong power plug
 3. On/off switch for 12v pin in trailer plug *(see decal)*
 4. ISO 11786 Plug *(when equipped)*
 5. ISO 11783 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, work lights
- Marker and hazard lights
- Optional rotating beacons
- Light controls on RH pillar



Operator's Area

AgCommand Ready

- All models are AgCommand ready
- 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



Operator's Area

Auto-Guide 3000 Guidance System

- Factory guidance option
- Integrated into tractor and cab wiring
 - Plug and play
 - Use factory TMC terminal
- Top Dock readily connects to cab roof
- Base accuracy of sub-meter
- Accuracy upgradeable to sub-centimeter
 - Snap-in modules



Service

Service Items

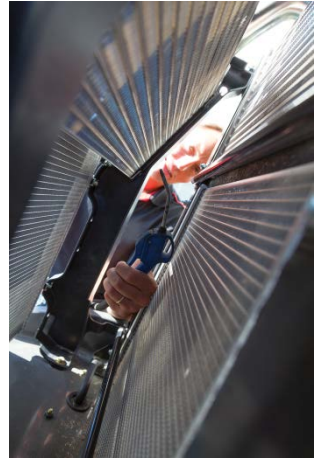
- Single piece raising hood with lockable push button latch
- Easy access to:
 - Engine oil check
 - Engine air filter
 - Battery
 - Transmission check
 - Cabin air filter
- MT515D-MT545D8: 82 Diesel / 8 DEF
- MT555D-MT595D: 114 Diesel / 11 DEF
- Integrated lockable toolbox



Service

Service Items

- Cooling package designed for easy cleaning
- Multiple radiators:
 - Rigid mounting
 - Efficient cooling
 - Easy access for cleaning
- Engine oil check using accessible dipstick
- Cartridge-type dry engine air filter is easy to check
- Electronic controlled viscous drive fan



Service

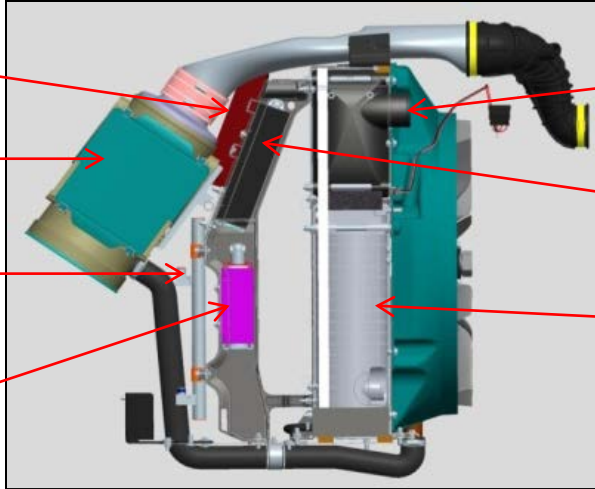
Cooling Package

Fuel Cooler

Air Filter

A/C Condenser

Transmission
Cooler (CVT)



Air to Air
Intercooler

Hydraulic Oil
Cooler

Engine Coolant
Radiator

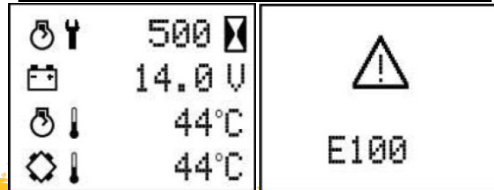
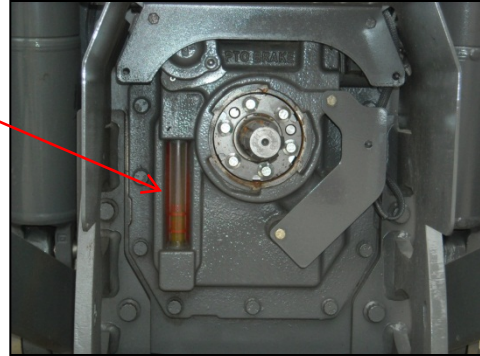
Challenger

Serious Machinery, Serious Results.

Service

Service Items

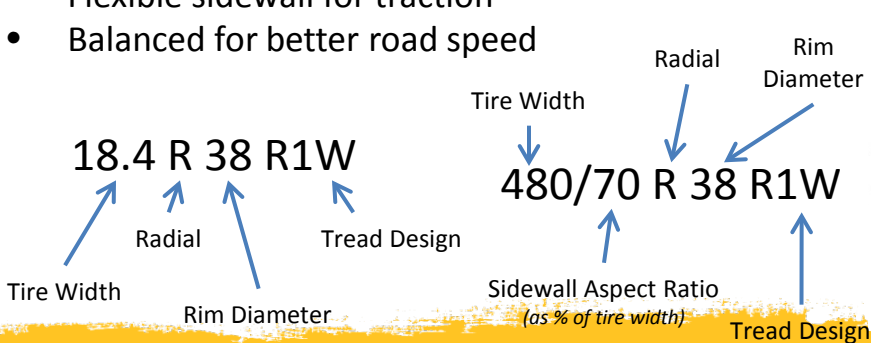
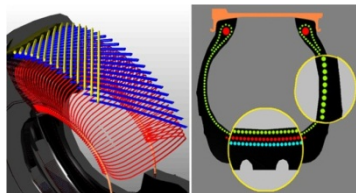
- Transmission oil level check via sight-glass at rear (AP4/AP6)
- Dipstick oil level check (CVT)
- Transmission fill at rear
- Battery access under exhaust stack on right side of tractor
- Service screen and error codes displayed in DCC
- EDT tool required for tractor diagnostics and service



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



Challenger

Serious Machinery, Serious Results.

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
- Models available
 - Non-self leveling: ML61
 - Mechanical self leveling: ML68, ML78, & ML88
- Quick-attach design
- Built-in parking stands – no tools to disconnect
- High quality design and manufacture
- Very durable



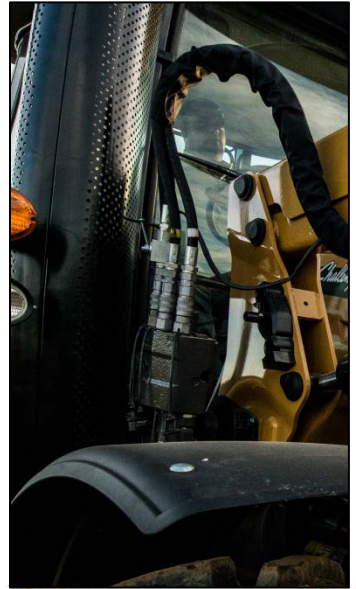
Challenger

Serious Machinery, Serious Results.

Loaders

Hydraulics

- Factory mid valves on RH side of tractor
- Compatible with open and closed center hydraulic systems
- Mechanical or electronic loader valves
- Electrical connection for 3rd function
- Flat-face couplers for easy connection
- Optional single lever quick-connect
- 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



PTO Part Numbers

	Transmission	1 3/4" 20 Spline PTO Shaft Part #
MT565D	AP6 CVT	3716073M2 72478660
MT575D	AP6 CVT	3716073M2 72478660
MT585D	AP6 CVT	3716073M2 72478660



Challenger

Serious Machinery, Serious Results.

Web Links

Challenger Website

www.challenger-ag.us/

MT500D Series Tractor Spec Page

<http://www.challenger-ag.us/Library/upload/ch11p002-challenger-mt500d-spec-sheet.pdf>

MT500D Series Tractor Brochure

<http://www.challenger-ag.us/Library/upload/challenger-mt500d-series-tractors-brochure.pdf>

AGCO Corporation Website

www.agcocorp.com/

AGCO Facebook Page

www.facebook.com/AGCOcorp

AGCO Twitter Page

www.twitter.com/AGCOcorp

AGCO YouTube Page

www.youtube.com/AGCOcorp



Serious Machinery, Serious Results.

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^{-5}
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

2014

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		

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	

September

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					

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		

June

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		

March

Mo	Tu	We	Th	Fr	Sa	Su
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	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			

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

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				

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						

December

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				

Notes
