



MASSEY FERGUSON

MF 4600

Series Tractors

Models: 4608 / 4609 / 4610

SERVICE MANUAL

FROM MASSEY FERGUSON

4608 / 4609 / 4610 Service Manual

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1.1 Introduction

1.1.1 The service manual

Read the table of contents and basic layout. Become familiar with all parts of this service manual. This service manual gives the technician very important information.

Machine movement when in normal use determines right-hand and left-hand.

This manual covers general safety practices for this machine.

The photos, illustrations, and data used in this manual were current at the time of printing. Inline production changes can make machines vary from the information in the service manual. The manufacturer reserves the right to redesign and change the machine as necessary without notification.



WARNING:

In some of the illustrations and photos used in this manual, shields or guards may have been removed for clarity. Never operate the machine with any shields or guards removed. If the removal of shields or guards is necessary to make a repair, they must be replaced before operation.

1.1.2 Replacement parts

To receive prompt efficient service, remember to have the following information:

- Correct part description and part number
- Model number of the machine
- Serial number of the machine

1.1.3 Units of measurement

Measurements are given in metric units followed by the equivalent in US units. Hardware sizes are given in millimeters for metric hardware and inches for US hardware.

1.1.4 Machine identification

Each machine is identified by a model and a serial number.

Record these numbers in the spaces given.

Give the model number and serial number to your dealer when parts or service are required.

Machine model number:	
Machine serial number:	

Date of delivery:	
-------------------	--

Dealer name:	
Dealer address:	
Dealer telephone number:	
Dealer e-mail address:	
Dealer fax number	

1.1.5 Serial number plate

The serial number plate (1) is located below the operator seat.

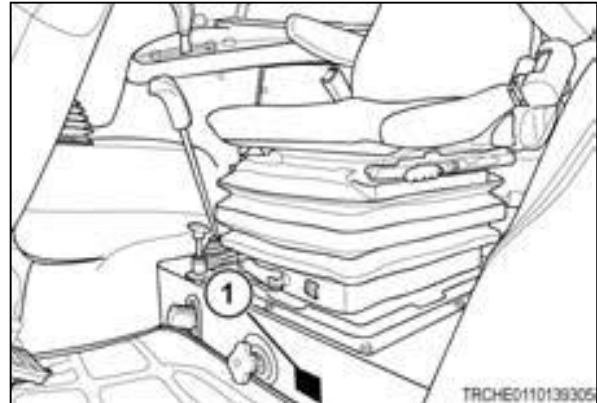


Fig. 1

The serial number plate contains the model number and serial number.

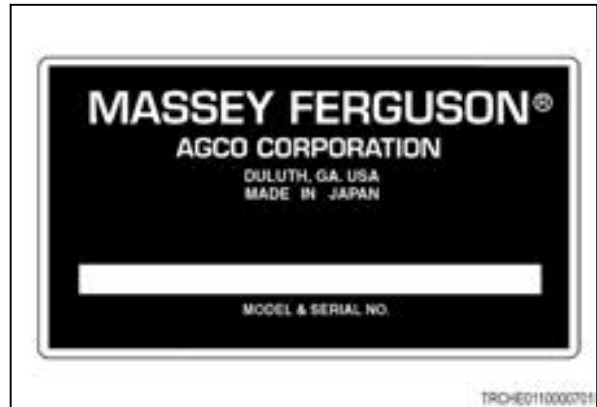


Fig. 2

1.1.6 Engine identification

The engine model number (1) is cast on the right-hand side of the engine block, below the injection pump.

The engine serial number (2) is stamped into the cylinder block, below the engine model number.

Engine model number:	
Engine serial number:	

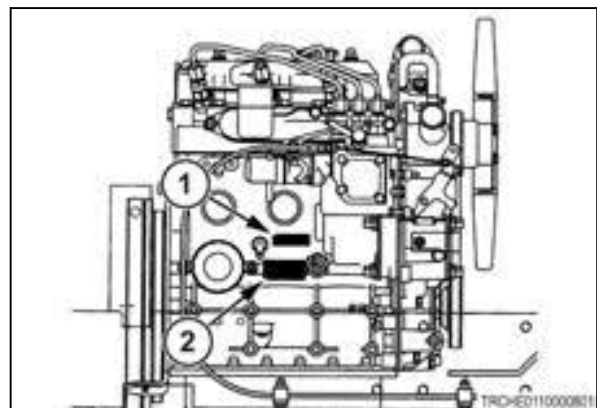


Fig. 3

1.1.7 Chassis number

The chassis number (1) is stamped in right-hand side of front frame.

Chassis number:	
-----------------	--

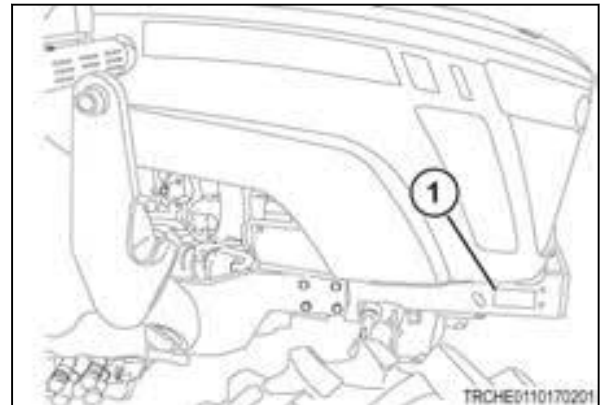


Fig. 4

1.2 Specifications

1.2.1 Engine specifications

	4608	4609	4610
Type	Four stroke diesel engine		
Model	33 AWIC		
Make	AGCO power		
Number of cylinders	3		
Aspiration	Turbocharged and air to air intercooled		
Injection	Direct		
Bore	108 mm		
Stroke	120 mm		
Displacement	3.3 L		
Rated speed	2200 rpm		
Low idle speed	912 to 988 rpm		
High idle speed	2218 to 2402 rpm		
Maximum torque at rpm	346 Nm at 1500 rpm	387 Nm at 1500 rpm	410 Nm at 1500 rpm
Engine horse power (Maximum output)	63 kW at 2000 rpm	71 kW at 2000 rpm	75 kW at 2000 rpm
Engine cooling	Liquid, forced circulation		
Air cleaner	Dual stage, dry element		
Air intake	Engine cover grille		
Cold starting aid	Intake heater		
Firing order	1-2-3		
Valve clearance (cold)	0.35 mm		

1.2.2 Electrical specifications

	4608	4609	4610
System voltage	12 volt		
Grounding	Negative		
Battery cold cranking amperes (cca) @ - 18 °C	799 cca		
Battery JIS type	130E41R		
Battery case dimensions			
Length	410 mm		
Width	175 mm		
Height	234 mm		
Alternator	12 volt, 95 ampere		
Starter	12 volt, 3.0 kW		

1.2.3 Transmission specifications

	4608	4609	4610
Primary transmission	Six speed synchronized		
Range transmission	Without creep gear, two speed sliding mesh		
	With creep gear, three speed sliding mesh		
Mechanical shuttle	Electro-hydraulic control with multi plate wet disc, 95% reverse reduction		
Gear speeds			
Power shuttle	Without creep gear, 12 forward, 12 reverse		
	With creep gear, 18 forward, 18 reverse		
Clutch	Multiple stage wet with 128 mm disc		

1.2.4 Power takeoff specifications

	4608	4609	4610
Type	Independent, engine driven		
Control	Electro-hydraulic control		
Clutch	Hydraulically engaged, multi-plate wet disk		
Output	Clockwise rotation from the rear of the tractor		
Shaft			
540 rpm (North America only)	35 mm diameter, 6 spline, ISO type 1		
1000 rpm (North America only)	35 mm diameter, 21 spline, ISO type 2		
540/750 rpm (Australia)	35 mm diameter, 6 spline, ISO type 1		
Engine speed			
540 rpm	1993 rpm		
1000 rpm (North America only)	2178 rpm		
750 rpm (Australia only)	2129 rpm		

1.2.5 Front axle specifications

	4608	4609	4610
Engagement	Mechanical		
Joint on axle	Bevel gear		
Oscillation angle	6 to 8 degrees		
Steering	Hydrostatic		
Rear wheel to front wheel drive ratio	1:1 .45	1:1 .4	

1.2.6 Rear axle specifications

	4608	4609	4610
Final reduction	Planetary		

1.2.7 Brake specifications

	4608	4609	4610
Type	Wet multi disc		
Actuation	Mechanical		
Braking area	467.36 sq cm (72.68 sq in) x 8 pieces		
Parking brake	Hook type		

1.2.8 Hydraulic specifications

	4608	4609	4610
Main hydraulic system			
Pump	Transmission mounted		
Maximum output	66.5 l/min		
Pressure	19.6 mPa		
Steering system			
Type	Hydrostatic		
Pump	Transmission mounted		
Maximum output	25.7 l/min		
Pressure	15.8 mPa		
Rear linkage			
Type	Three-point hitch		
Size	Category II		
Control	Single control lever		
Lift capacity - measured at ball ends			
Standard:	2500 kg		
Optional:	3300 kg		
Lift capacity - measured at 610 mm			
Standard:	1500 kg		
Optional:	2000 kg		

1.2.9 Fuel specifications

	4608	4609	4610
Type	Ultra low sulfur fuel only		
Above 4 °C	No. 2-D		
Below 4 °C	No. 1-D		

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