

**1417/1423
TRACTORS
SERVICE MANUAL
1449219M2**

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GENERAL INFORMATION

TRACTOR IDENTIFICATION

Model/Serial Numbers

Each Tractor is identified by means of Tractor model and serial numbers. As a further identification, engine and chassis are provided with identification numbers.

FIG. 1: Standard transmission Tractor identification plate, 1, located below operator's seat on right-hand side of vertical floor panel.

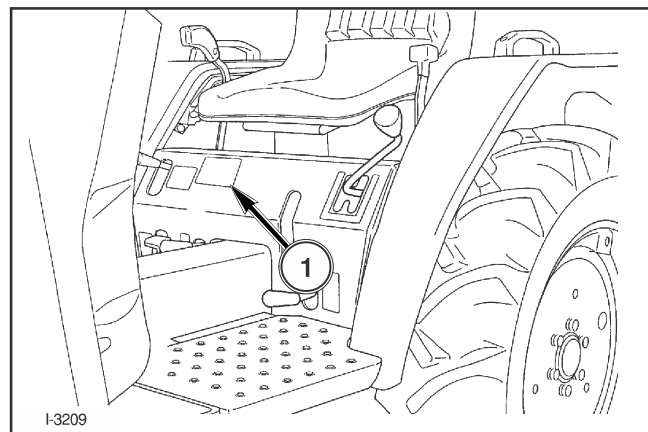


FIG. 1

FIG. 2: The hydrostatic transmission Tractor identification plate, 1, located below drivers seat, close to floor.

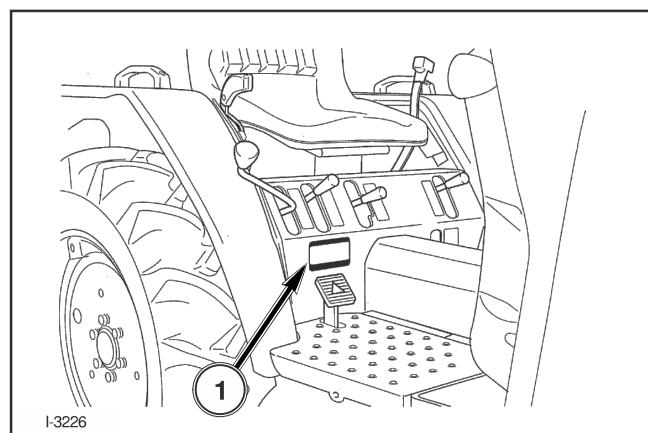


FIG. 2

FIGS. 3, 4 & 5: Identification plate, for each model, contains model numbers, machine series numbers and weight in addition to Tractor serial numbers.



FIG. 3

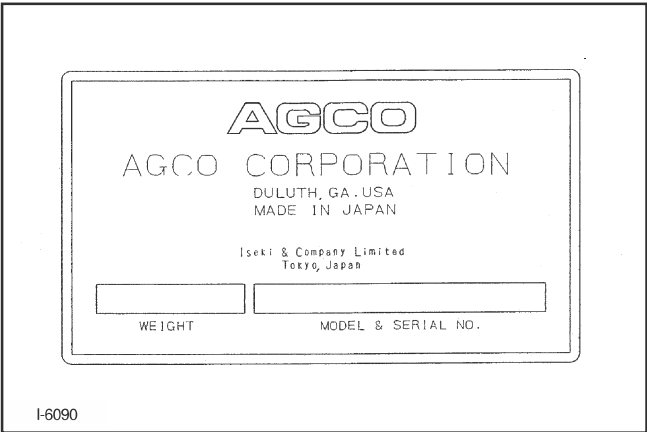


FIG. 4

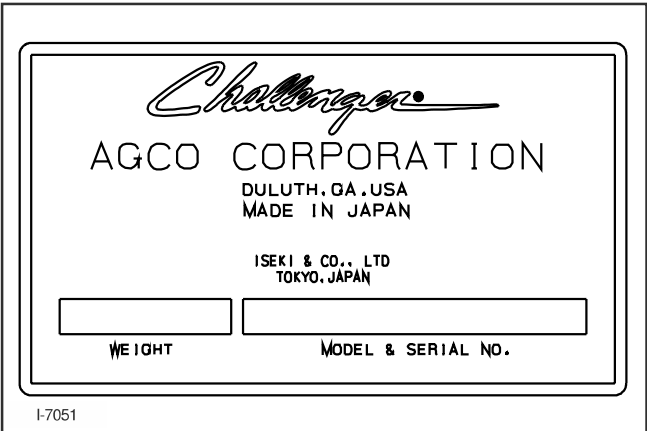


FIG. 5

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FIG. 6: Engine model number, 1, is cast on right side of engine block, below the injection pump.

Engine serial number, 2, is stamped into cylinder block, below engine model number.

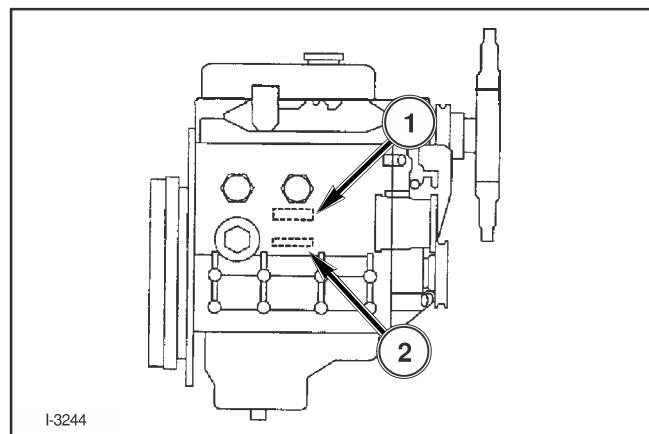


FIG. 6

FIG. 7: Chassis number, 1, is stamped in right side of front frame.

NOTE: Reference to left-hand and right-hand, used throughout this book, refers to the position when seated in operator's seat and facing forward.

NOTE: Terms "hydrostatic" and "standard" refer to type of Tractor transmission. Information in this book will apply to all Tractor versions unless indicated otherwise.

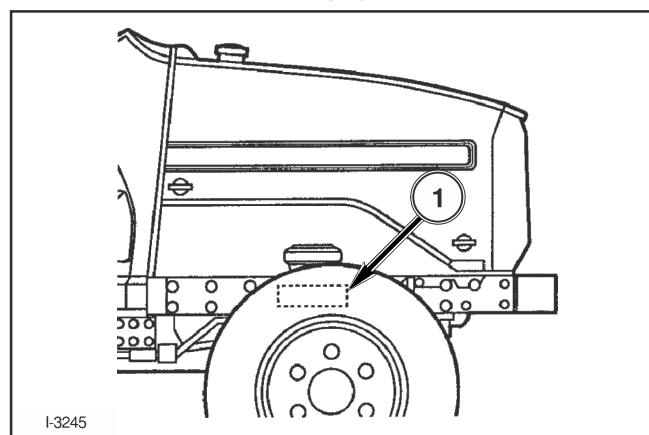


FIG. 7

SPECIFICATIONS

			1417 Mech.-4WD	1417 HST-4WD	1423/ST25/MT2 25 HST-4WD	1423/ST25/ MT225 Mech. 4WD
Dimensions (with ag-tires)						
Tire size	Front		5-12	5-12	5.00-12	5.00-12
	Rear		8-16	8-16	9.5-16	9.5-16
Overall length			254.5 (100.2")	254.5 (100.2")	268.0 (105.5")	268 (105.5")
Overall width			100.0 (39.4")	100.0 (39.4")	104.0 (41")	104.0 (41")
Overall height (at steering wheel)			128.0 (50.0")	128.0 (50.0")	130.0 (52")	130.0 (52")
Wheel base			142.5 (56.1")	142.5 (56.1")	152.0 (59.8")	152.0 (59.8")
Wheel tread	Front		75.0 (29.5")	75.0 (29.5")	75.0 (29.5")	75.0 (29.5)
	Rear		77.0/95.0 (30.3/37.4")	77.0/95.0 (30.3/37.4")	80.0/91.0 (31.5/35.8")	80.0/91.0 (31.5/35.8")
Minimum ground clearance (under-rear-axle bottom)			25.5 (9.6")	25.5 (9.6")	28.0 (11.0")	28.0 (11.0")
Minimum turning radius: with braking [without] (m)			2.1 (80.7") [2.4] (94.5")	2.1 (80.7") [2.4] (94.5")	2.1 (80.7") 2.4 (94.5")	2.1 (80.7") 2.4 (94.5")
Weight (with fuel, oil & coolant)			605 (1334 lbs)	630 (1390 lbs)	680 (1499 lbs)	650 (1433 lbs)
Traveling Speed	Km/hr (mph)					
	Range	Main shift				
	L	1	1.17 (.73)			1.27 (.79)
		2	2.11 (1.31)	0-7.93 (4.93)	0-9.30 (5.80)	2.29 (1.42)
		3	3.48 (2.16)			3.77 (2.34)
		R	1.90 (1.18)	0-5.60 (0-3.48)	0-7.00 (0-4.35)	2.06 (1.28)
	H	1	5.86 (3.64)			6.36 (3.95)
		2	10.60 (6.59)	0-18.5 (0-11.5)	0-21.61(0-13.40)	11.50 (7.15)
		3	17.40 (10.81)			18.90 (11.74)
		R	9.50 (5.9)	0-13.0 (0-8.08)	0-16.2 (0-10.0)	10.32 (6.40)

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			1417 Mech.-4WD	1417 HST-4WD	1423/ST25/MT225 HST-4WD	1423/ST25/MT225 Mech 4WD
Dimensions (with turf-tires)						
Tire size		Front	20.5 x 8.00-10	20.5 x 8.00-10	23.0 x 10.50-12	23.0x10.50-12
		Rear	29 x12.00-15	29 x12.00-15	315/75D-15	315/75D-15
Overall length			254.5 (100.2")	254.5 (100.2")	268 (105.5)	268 (105.5)
Overall width			119.0 (46.9")	119.0 (46.9")	121.5 (47.8")	121.5 (47.8")
Overall height (at steering wheel)			127.0 (50.0")	127.0 (50.0")		131.0 (51.6")
Wheel base			142.5 (56.1")	142.5 (56.1")	152.0 (59.8")	152.0 (59.8")
Wheel tread		Front	87.0 (34.25")	87.0 (34.25")	87.0 (34.25")	87.0 (34.25")
		Rear	90.0 (35.43")	90.0 (35.43")	90.0 (35.43")	90.0 (35.43")
Minimum ground clearance (under-rear-axle bottom)			24.5 (9.64")	24.5 (9.64")	29.0 (11.4")	29.0 (11.4")
Minimum turning radius: with braking [without] (m)			2.1 (80.7") 2.4 (94.5")	2.1 (80.7") 2.4 (94.5")	2.4 (106.3")	2.4 (106.3")
Weight (with fuel, oil & coolant)			610 (1345 lbs)	636 (1400 lbs)	695 (1532 lbs)	665 (1466 lbs.)
Traveling speed	Km/hr (mph)					
	Range	Main shift				
	L	1	1.12 (.69)			1.28 (.80)
		2	2.02 (1.26)	0-7.60 (0-4.72)	0-9.4 (0-5.83)	2.32 (1.44)
		3	3.33 (2.07)			3.81 (2.37)
		R	1.30 (.81)	0-5.37 (3.34)	0-7.00 (0-4.35)	2.08 (1.29)
	H	1	5.61 (3.49)			6.42 (3.98)
		2	10.10 (6.23)	0-17.7 (0-11.0)	0-21.8 (0-13.54)	11.60 (7.21)
		3	16.60 (10.32)			19.08 (11.85)
		R	6.80 (4.23)	0-12.5 (0-7.77)	0-16.4 (0-10.20)	10.40 (6.46)

SPECIFICATIONS	
Models	1417
Engine	
Make	ISEKI Diesel
Model	E393
Type	Indirect injection, overhead valve
Displacement	928 cc/56.6 cu. in.
Number of cylinders	3
Bore	74 mm
Stroke	72 mm
Engine horsepower (gross) @ engine rpm	15.5/2500
Firing order	1 - 3 - 2
Compression ratio	22.5:1
Low idle speed	950 rpm
High idle speed	2750 rpm
Valve clearance (cold) - intake and exhaust	0.25 mm / .010"
Air cleaner	Single - dry element
Engine cooling	Liquid, forced circulation
Cold starting	Glow plugs (3)

Transmission		1417 STD	1417 Hydro
Primary		F3/R1	Infinite
Range		2	2
Gear selections		F6/R2	F2/R2
Clutch	Dry single disc (Dia: 184 mm)		
Brakes	Mechanically actuated dry shoes		

Power take off (PTO)		
Control	Sliding gear and clutch	
Rear PTO shaft	35 mm (1.375 in) diameter –six spline	
	Clockwise rotation (facing shaft)	
Output	1417 STD	1417 Hydro
Speeds @ engine rpm	540 @ 2308	540 @ 2398
Mid PTO (accessory) shaft	25 mm (1 in) diameter – fifteen spline	
Output	Clockwise rotation (facing shaft)	
Speeds @ engine rpm	2000 @ 2446	2000 @ 2400

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Hydraulics	
Main hydraulic system	
Pump	Gear pump (Open center)
Output – maximum	4.8 gpm /18.0 liters/min
Pressure - relief valve setting	140 kgf/cm ³ / 1990 psi
Rear linkage type	Three-point hitch
Control	Operated by single 'position' control lever
Lift capacity	1058 lbs./480 kg measured at link ends
Steering system type	Hydrostatic
Pump	Gear/Flow divider
Output–maximum	5.5 liters/min./1.5 gpm
Pressure–relief valve setting	105 kfg/cm ³

Electrical system	
System voltage	12 volt - negative (-) ground
Battery	36hA (5hr)/433 cca
Charging	40 amp alternator with internal regulator
Capacities	
Engine crankcase with filter	2.9 qts/2.7 liters
Transmission and differential housing (including hydraulics) (liters)	STD 14.3 qts / 13.5 liters Hydro 15.9 qts./15.0 liters
Fuel tank	3.6 gal/13.5 liters
Cooling system	5.4 qts/5.1 liters
Front axle - four-wheel drive	2.9 qts/2.7 liters
Maximum axle loading	
Front four-wheel drive – both models	1433 lbs/650 kg
Rear axle – both models	1653 lbs/750 kg
Tire size	
Front	
Agricultural tire	5–12 4PR
Turf tire	20.5 x 8.00-10 4PR
Rear	
Agricultural tire	8–16 4PR
Turf tire	29 x 12.00-15 4PR

SPECIFICATIONS	
Models	1423 / ST25 / MT225
Engine	
Make	ISEKI Diesel
Model	E3112-B05
Type	Indirect injection, overhead valve
Displacement	1123 cc/68.5 cu.in.
Number of cylinders	3
Bore	78.2 mm/3.078"
Stroke	78 mm/3.070"
Engine horsepower (net) @ engine rpm	16.5kW (22.5hp)/2800
Firing order	1 - 3 - 2
Compression ratio	22.5:1
Low idle speed	950 rpm
High idle speed	3050 rpm
Valve clearance (cold) - intake and exhaust	0.25 mm / .010"
Air cleaner	Single - dry element
Engine cooling	Liquid, forced circulation
Cold starting	Glow plugs (3)

Transmission	Hydro	Standard
Primary	Infinite	3
Range	2	2
Gear selections	F2/R2	F6/R2
Brakes	Mechanically actuated dry shoe	