

SHOP MANUAL

CASE/INTERNATIONAL

MODELS 235, 235H, 245, 255, 265 & 275

The tractor model number and product identification (serial) number is on a plate located on the right side of the front frame rail. The engine serial number is stamped into the injection pump mounting pad on right side of engine. Serial number of the ROPS (Roll Over Protective Structure) is located on right side of structure. On some models, the transmission serial number is stamped into the right of case.

INDEX (By Starting Paragraph)

	Models					
	235	235H	245	255	265	275
BRAKES						
Adjustment.....	194	194	194	194	194	194
Operation.....	193	193	193	193	193	193
R&R and Overhaul.....	195	195	195	195	196	197
CLUTCH						
Clutch Linkage						
All Models Without Live Pto.....	112	112	112	112	112	112
Models With Live Pto.....	113	113	113	113	113	113
Clutch Split.....	115	115	116	116	115	117
Cover, Pressure Plate and Disc.....	118	118	118	118	118	118
COOLING SYSTEM						
Belt.....	105	105	105	105	105	105
Radiator.....	103	103	103	103	103	103
Thermostat.....	104	104	104	104	104	104
Water Pump.....	106	106	106	106	106	106
DIESEL FUEL SYSTEM						
Fuel Filter and Lines.....	89	89	89	89	89	89
Fuel Shut-Off Solenoid.....	102	102	102	102	102	102
Glow Plugs.....	101	101	101	101	101	101
Governor and Injection Pump Camshaft....	94	94	94	94	94	94
Injection Pump.....	91	91	91	91	91	91
Injector Nozzles.....	96	96	96	96	96	96
DIFFERENTIAL	186	186	186	186	186	186
ELECTRICAL SYSTEM						
Alternator and Regulator.....	107	107	107	107	107	107
Circuit Description.....	110	110	110	110	110	110
Safety Switches.....	109	109	109	109	109	109
Starting Motor.....	108	108	108	108	108	108

INDEX (CONT.)

	Models					
	235	235H	245	255	265	275
ENGINE						
Cam Followers	74	74	74	74	74	74
Camshaft	78	78	78	78	78	78
Connecting Rods and Bearings	81	81	81	81	81	81
Crankshaft and Main Bearings	82	82	82	82	82	82
Crankshaft Seals	83	83	83	83	83	83
Cylinder Head	69	69	69	69	69	69
Flywheel	85	85	85	85	85	85
Maintenance	64	64	64	64	64	64
Oil Pan	87	87	87	87	87	87
Oil Pump	86	86	86	86	86	86
Pistons, Cylinder Block and Rings	80	80	80	80	80	80
R&R Engine Assembly	68	68	68	68	68	68
Rocker Arms and Push Rods	73	73	73	73	73	73
Rod and Piston Units	79	79	79	79	79	79
Timing Gears	75	75	75	75	75	75
Timing Gear Cover	77	77	77	77	77	77
Valve Clearance	70	70	70	70	70	70
Valve Springs	72	72	72	72	72	72
Valves, Guides and Seats	71	71	71	71	71	71
FINAL DRIVE	187	187	187	187	189	191
FRONT AXLE SYSTEM (TWO-WHEEL DRIVE)						
Axle Main Member	9	9	10	10	11	12
Spindles and Bushings	5	5	6	6	7	8
Steering Bellcrank . . . . .	...	...	...	...	...	15
Tie Rod and Toe-In	2	2	4	2	3	4
Tires, Wheels and Bearings	1	1	1	1	1	1
Tread Adjustment and Drag Link Non-Adjustable Axle	13	13	14	14	14	14
FRONT-WHEEL-DRIVE SYSTEM	16	16	25	25	...	34
Axle and Steering Linkage	18	18	27	27	...	36
Differential	23	23	32	32	...	41
Differential Bevel Pinion	22	22	31	31	...	40
Front Drive Spindles and Inner Axles	21	21	30	30	...	39
Front Final Drives and Wheel Axles	20	20	29	29	...	38
Front Wheel Drive	24	24	33	33	...	42
Maintenance	17	17	26	26	...	35
HYDRAULIC LIFT SYSTEM						
Auxiliary Valve	216	216	216	216	216	216
Fluid and Filters	202	202	202	202	202	202
Hydraulic Pump	212	212	212	212	212	212
Lift Cover	214	214	214	214	214	214
Troubleshooting	203	203	203	203	203	203
Tests and Adjustments	204	204	205	205	209	211
MANUAL STEERING SYSTEM	44	44	44	44	47	50
POWER STEERING SYSTEM . . . . .	...	...	54	54	57	60

INDEX (CONT.)

	Models					
	235	235H	245	255	265	275
POWER TAKE-OFF	199	199	200	200	200	199
TRANSMISSION (235H HYDROSTATIC)						
Hydrostatic Unit	181	...	...	...	...
Lubrication	175	...	...	...	...
Overhaul	182	...	...	...	...
Range Transmission	183	...	...	...	...
Tests and Adjustments	177	...	...	...	...
Troubleshooting	176	...	...	...	...
TRANSMISSION (235 SLIDING GEAR)						
Inspection	120	...	...	...	...	...
Lubrication	121	...	...	...	...	...
Overhaul	123	...	...	...	...	...
Remove and Reinstall	122	...	...	...	...	...
TRANSMISSION (245, 255 AND 265 CONSTANT MESH)						
Inspection	133	133	133	...
Lubrication	134	134	134	...
Overhaul	136	136	136	...
Remove and Reinstall	135	135	135	...
TRANSMISSION (245, 255 AND 265 SYNCHROMESH)						
Inspection	144	144	144	...
Lubrication	145	145	145	...
Overhaul	147	147	147	...
Range Transmission	155	155	155	...
Remove and Reinstall	146	146	146	...
TRANSMISSION (275 MODEL)						
Hydraulic Clutch	171
Inspection	161
Lubrication	162
Overhaul	166
Remove and Reinstall	163

DUAL DIMENSIONS

This service manual provides specifications in both U.S. Customary and Metric (SI) systems of measurement. The first specification is given in the measuring system perceived by us to be the preferred system when servicing a particular component, while the second specification (given in parenthesis) is the converted measurement. For instance, a specification of 0.011 inch (0.28 mm) would indicate that we feel the preferred measurement in this instance is the U.S. Customary system of measurement and the Metric equivalent of 0.011 inch is 0.28 mm.

CONDENSED SERVICE DATA

	Models				
	235, 235H	245	255	265	275
GENERAL					
Engine Make	Mitsubishi				
Engine Model	K3B	K3D	K3E	K3H	K3M
Number of Cylinders	3				
Bore	68 mm (2.677 in.)	73 mm (2.874 in.)	76 mm (2.992 in.)	78 mm (3.071 in.)	84 mm (3.307 in.)
Stroke	78 mm (3.071 in.)			90 mm (3.543 in.)	
Displacement	849 cc (51.81 cu.in.)	979 cc (59.74 cu.in.)	1061 cc (64.75 cu.in.)	1290 cc (78.72 cu.in.)	1496 cc (91.29 cu.in.)
Compression Ratio	23:1				
TUNE-UP					
Firing Order	1-3-2				
Valve Clearance, Cold —					
Inlet	0.25 mm (0.010 in.)				
Exhaust	0.25 mm (0.010 in.)				
Valve Face and Seat Angle —					
Inlet	45°				
Exhaust	45°				
Injector —					
Opening Pressure	10,789-12,749 kPa (1565-1849 psi)			14,714-16,672 kPa (2134-2418 psi)	
Engine Low Idle	900-950				
Engine High Idle	2825-2900				2825-2880
Engine Rated Speed	2700	2700	2800	2700	2700
Battery —					
Voltage	12				
Ground	Negative				
Transmission —					
Types Available	*	†	†	†	‡
Speeds —					
Sliding gear	6F - 2R	.....			.....
Hydrostatic	Variable × 2	.....			.....
Constant mesh .....	....	9F - 3R			....
Synchronesh	9F - 3R				
SIZES					
Crankshaft Main Journal					
Diameter	52 mm (2.0472 in.)			57 mm (2.44 in.)	
Crankshaft Crankpin					
Diameter	42 mm (1.6535 in.)			48 mm (1.890 in.)	
Piston Pin Diameter	19 mm (0.905 in.)			23 mm (0.905 in.)	
Valve Stem Diameter	6.6 mm (0.2598 in.)			8.0 mm (0.3150 in.)	

CONDENSED SERVICE DATA (CONT.)

	235, 235H	245	Models 255	265	275
CLEARANCES					
Main Bearing, Diametral Clearance, Maximum			0.1 mm (0.004 in.)		
Rod Bearing Diametral Clearance, Maximum			0.15 mm (0.006 in.)		
Camshaft Bearing, Diametral Clearance, Maximum — Front			0.15 mm (0.006 in.)		
Crankshaft End Play, Maximum			0.1 mm (0.004 in.)		
CAPACITIES					
Cooling System	6 L (6.34 qt.)	5.3 L (5.6 qt.)	5.8 L (6.1 qt.)	6 L (6.34 qt.)	
Crankcase With Filter	3.5 L (3.70 qt.)	4.5 L (4.8 qt.)	4.7 L (5.0 qt.)		
Transmission — Constant Mesh .....	....	20 L (5.3 gal.)	46 L (12.2 gal.)	....
Sliding Gear	12 L (3.17 gal.)	....	....	....
Synchronized .....	....	25 L (6.6 gal.)	46 L (12.2 gal.)	#	
Hydrostatic	14 L (3.70 gal.)	....	....	....
Front Drive Axle	2.5 L (2.6 qt.)	3.5 L (3.7 qt.)	....	7.3 L (7.7 qt.)	

* Model 235 is equipped with a sliding gear transmission and 235H model is equipped with a hydrostatic transmission. Both the sliding gear transmission and the variable speed (F/R) hydrostatic transmission are coupled to a two speed, range transmission.

† Models 245, 255 and 265 may be equipped with either a constant mesh transmission or a synchromesh transmission. Both constant mesh and synchromesh transmissions are coupled to a three speed range transmission, which provide 9 forward and 3 reverse speeds. The constant mesh transmission is used without live pto; the synchromesh transmission is used with live pto.

‡ Model 275 tractors are equipped with a three forward and 1 reverse speed synchromesh transmission coupled to a three speed range transmission, which provides 9 forward and 3 reverse speeds.

On 275 models, capacity of the gear transmission is 6.5 L (1.7 gal.), capacity of the range transmission is 19 L (5.0 gal.), and capacity of the rear axle gear case is 3 L (0.8 gal.) for each side.

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