

Information and Instructions

This individual shop manual is one unit of a series on wheel type tractors. Contained in it are the necessary specifications and the brief but terse procedural data needed by a mechanic when repairing a tractor on which he has had no previous actual experience.

The material is arranged in a systematic order beginning with an index which is followed immediately by a Table of Condensed Service Specifications. These specifications include dimensions, fits, clearances and timing instructions. Next in order of arrangement is the procedures paragraphs.

In the procedures paragraphs, the order of presentation starts with the front axle system and steering and proceeding toward the rear axle. The last paragraphs are devoted to the power take-off and power lift systems. Interspersed where needed are additional tabular specifications pertaining to wear limits, torquing, etc.

HOW TO USE THE INDEX

Suppose you want to know the procedure for R&R (remove and reinstall) of the engine camshaft. Your first step is to look in the index under the main heading of ENGINE until you find the entry "Camshaft." Now read to the right where under the column covering the tractor you are repairing, you will find a number which indicates the beginning paragraph pertaining to the camshaft. To locate this wanted paragraph in the manual, turn the pages until the running index appearing on the top outside corner of each page contains the number you are seeking. In this paragraph you will find the information concerning the removal of the camshaft.

INDEX (By Starting Paragraph)

	Series 2050	Series 2150		Series 2050	Series 2150
MODELS			MODELS		
BELT PULLEY	195	195	FRONT SYSTEM		
BRAKES	190	190	Four-wheel drive	7	7
CLUTCH			Front axle member	1	1
Engine clutch adjustment	120	120	Front bolster	4	4
Engine clutch R&R	121	121	Pivot pin	1	1
Engine clutch overhaul	122	124	Spindle (knuckle)	5	5
Power take-off clutch	200	200	Tie rods & toe-in	3	3
COOLING SYSTEM			GOVERNOR ADJUSTMENT	102	102
Water pump	111	111	HYDRAUL SHIFT	130	130
Radiator	110	110	LIFT SYSTEM, HYDRAULIC		
Thermostat	112	112	Control levers and linkage, R&R	265	265
DIESEL SYSTEM			Depth-Stop:		
Fuel system bleeding	90	90	Internal valve	263	263
Governor adjust	102	102	External valve	277	277
Injection pump, R&R	101	101	Draft control actuating assy.	269	269
Injection pump, timing	99	99	Draft control cylinders	270	270
Nozzles, testing	92	92	Draft control spring, adjust	247	247
Nozzles, R&R	93	93	Drain and refill	237	237
Nozzles, overhaul	98	98	Electrical tests	227	227
Trouble shooting	87	87	Hydraulic housing	264	264
DIFFERENTIAL			Hydra-Lectric stop control unit	261	261
Adjust	174	174	Interlock bleed screws	243	243
Overhaul	175	175	Lubrication and bleeding	236	236
Remove and reinstall	170	170	Manifold	253	253
ELECTRICAL			Oil filter	239	239
Alternator	113	113	Pressure relief valve	248	248
Regulator	113	113	Pump	249	249
Starting Motor	114	114	R&R hydraulic unit	264	264
ENGINE			Remote (Hydra-Lectric) cylinders ..	273	273
Assembly, R&R	60	60	Restrictor valves	241	241
Cam followers	67	67	Rockshaft	268	268
Camshaft	72	72	Servo valve	267	267
Connecting rod and bearings	78	78	System adjustments	240	240
Crankshaft and bearings	79	79	Trouble shooting	210	210
Cylinder heads	61	61	POWER STEERING	35	35
Cylinder sleeves	74	74	POWER TAKE-OFF		
Flywheel	82	82	Clutch adjustment	200	200
Front oil seal	80	80	Clutch overhaul	207	207
Main bearings	79	79	Drive shaft, R&R	202	202
Oil cooler	86	86	PTO unit, R&R	203	203
Oil pump	83	83	STRAIGHT DRIVE	145	145
Pistons	75	75	TRANSFER DRIVE	28	28
Piston pins	77	77	TRANSMISSION		
Piston and rod removal	73	73	Bevel pinion shaft	159	159
Piston rings	76	76	Countershaft	157	157
Rear oil seal	81	81	Input shaft	155	155
Regulator valve, oil pressure	85	85	Lubrication pump	154	154
Rocker arms	68	68	Reverse idler	164	164
Tappets	67	67	Shifter rails & forks	153	153
Timing gear cover	70	70	Top cover	150	150
Timing gears	71	71	TURBOCHARGER	108
Valve guides	63	63			
Valve rotators	65	65			
Valve springs	66	66			
Valve timing	69	69			
Valves and valve seats	62	62			
FINAL DRIVE					
Bevel gears	176	176			
Bull pinions	185	185			
Differential	170	170			
Planetary Drive	183	183			
Wheel axle shaft	178, 179	178, 179			