

# 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. Interpersed 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)

	Models			Models	
	9N-2N	8N		9N-2N	8N
<b>BELT PULLEY</b> . . . . .	142	142	Connecting Rods and Bearings .	39	39
<b>BRAKES</b>			Camshaft . . . . .	32	32
Adjustment. . . . .	135	136	Crankshaft and Main Bearings. .	40	40
Brake Shoes . . . . .	137	138	Crankshaft Oil Seals . . . . .	43	43
<b>CLUTCH</b>			Cylinder Head . . . . .	23	23
Adjustment. . . . .	97	98	Flywheel . . . . .	44	44
Overhaul. . . . .	101	101	Oil Pan . . . . .	45	45
Tractor Split . . . . .	99	100	Oil Pump . . . . .	46	46
Troubleshooting . . . . .	96	96	Piston Pins . . . . .	35	35
<b>COOLING SYSTEM</b>			Piston Rings . . . . .	34	34
Radiator . . . . .	59	59	Sleeves and Pistons . . . . .	36	36
Thermostat. . . . .	63	63	Timing Gears and Cover . . . . .	29	29
Water Pump . . . . .	60	60	Valves . . . . .	24, 25	24, 25
<b>DIFFERENTIAL, BEVEL GEARS AND REAR AXLES</b>			Valve Guides and Springs . . . . .	27	27
Axles and Bearings . . . . .	129	132	Valve Push Rods. . . . .	28	28
Differential. . . . .	124	124	Valve Seats . . . . .	26	26
Main Drive Bevel Gears . . . . .	127	127	<b>GOVERNOR</b>		
Tractor Rear Split . . . . .	126	126	Adjustment. . . . .	57	57
<b>ELECTRICAL AND IGNITION SYSTEM</b>			R&R and Overhaul. . . . .	58	58
Battery Ignition . . . . .	85	85, 88	Troubleshooting . . . . .	56	56
Charging System . . . . .	64	64	<b>HYDRAULIC SYSTEM</b>		
Generator and Regulator. . . . .	65	65	Adjustments . . . . .	149	151
Generator Overhaul. . . . .	73	73	Hydraulic Lift Operation . . . . .	143	143
Ignition System . . . . .	84	84	Hydraulic Pump R&R and Test. .	160	160
Magneto Ignition System (2N) .	92		Lift Cover . . . . .	156	158
Starting Motor and Switch . . . .	81	81	Pump Overhaul . . . . .	169	162
<b>FRONT AXLE</b>			Troubleshooting . . . . .	155	155
Axle Center Member and			<b>LUBRICATION AND MAINTENANCE</b>		
King Pin . . . . .	12	12	Lubrication . . . . .	2	2
Axle Front Support . . . . .	13	13	Maintenance Procedures . . . . .	4	4
Front Wheel Bearings . . . . .	10	10	Scheduled Maintenance. . . . .	1	1
Spindle Bushings . . . . .	11	11	<b>PART NUMBERS</b> . . . . .	175	175
Tread Width and Toe-In. . . . .	9	9	<b>POWER TAKE-OFF</b>		
<b>FUEL SYSTEM</b>			Pto Shifter Unit . . . . .	141	141
Carburetor Operation . . . . .	48	48	Output Shaft. . . . .	139, 140	140
Carburetor Overhaul. . . . .	52	52	<b>SHERMAN TRANSMISSION</b>		
Troubleshooting . . . . .	51	51	Overhaul. . . . .	105	105
<b>ENGINE</b>			Remove and Reinstall . . . . .	103	103
Assembly, R&R. . . . .	21	21	<b>STANDARD TRANSMISSION</b>		
Compression Pressure. . . . .	22	22	Overhaul . . . . .	110	117
Connecting Rod			Remove and Reinstall . . . . .	109	109
and Piston Units . . . . .	33	33	<b>STEERING SYSTEM</b>		
			Steering Gear Adjustment. . . . .	14	16, 18
			Steering Gear R&R		
			and Overhaul . . . . .	15	17, 19