

# 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.

# SHOP MANUAL

# JOHN DEERE

**SERIES 520-530-620-630-720-730**  
**(Gasoline, All-Fuel and LP-Gas)**

## IDENTIFICATION

Tractor serial number stamped on plate on right side of main case.

## INDEX (By Starting Paragraph)

	Series 520 & 530	Series 620 & 630	Series 720 & 730		Series 520 & 530	Series 620 & 630	Series 720 & 730
<b>BELT PULLEY</b> .....	120	120	120	<b>FRONT SYSTEM (Tricycle)</b>			
<b>BRAKES</b> .....	150	150	150	Pedestal .....	1	1	1
<b>CARBURETOR (Not LP-Gas)</b> .....	68	68	68	"Roll-O-Matic" .....	4	4	4
<b>CARBURETOR (LP-Gas)</b> .....	87	87	87	Vertical spindle .....	1	1	1
<b>COOLING SYSTEM</b>				<b>FRONT SYSTEM (Axle)</b>			
Fan and shaft .....	107	107	107	Axle pivot pins .....	7	7	7
Radiator .....	105	105	106	Drag links .....	6	6	6
Thermostat .....	109	109	109	Pedestal .....	8	8	8
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<b>DIFFERENTIAL</b>				Vertical spindle .....	8	8	8
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Connecting rods and bearings .....	53	53	53	Dual remote cyl. valve housing .....	194	194	194
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Crankshaft .....	58	58	58	Operating adjustments .....	178	178	178
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Ignition timing .....	113	113	113	Rockshaft relief valve housing .....	192	192	192
Main bearings .....	55	55	55	Service tests and adjustments .....	181A	181A	181A
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Oil pressure .....	62	62A	62A	Trouble-shooting .....	177	177	177
Oil pump .....	65	65	65	<b>POWER TAKE-OFF</b>			
Pistons and rings .....	51	51	51	Adjust clutch .....	165	165	165
Piston pins .....	52	52	52	Clutch overhaul .....	167	167	167
Piston and rod removal .....	50	50	50	Bevel gears .....	169	169	169
Oil seal (left hand) .....	57	57	57	Oil pump .....	168	168	168
Oil seal (right hand) .....	56	56	56	Output shaft and seal .....	167	167	167
Rocker arms .....	38	38	38	<b>REAR AXLE</b> .....	147	147, 148	147, 148
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Valve guides and springs .....	36	36	36	Power .....	16	16, 29C	16
Valve rotators .....	35	35	35	<b>TRANSMISSION</b>			
Valve timing .....	39	39	39	Countershaft .....	128	135	140A
<b>FINAL DRIVE (Except "Hi-Crop")</b>				Drive shaft .....	127	134	140
Axle shafts .....	147	147	147	Reduction gear cover .....	123	130	136
Bull gears—R&R .....	147	147	147	Shifters and shafts .....	125	132	138
Bull pinions—R&R .....	142	144	144	Sliding gear shaft .....	126	133	139
<b>FINAL DRIVE ("Hi-Crop")</b>				Top cover .....	124	131	137
Axle shafts .....		148	148				
Bull gears—R&R .....		148	148				
Chains and sprockets .....		148A	148A				
Drive shaft and pinion .....		149A	149A				