

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

CASE INTERNATIONAL

(DAVID BROWN)

MODELS

**1190-1194-1290-1294-1390-
1394-1490-1494-1594-1690**

INDEX (By Starting Paragraph)

	MODELS					
	1190, 1194	1290, 1294	1390, 1394	1490, 1494	1594	1690
BRAKES						
Adjustment	286	286	286	288	288	288
Disc, R&R .....	....	....	....	290	290	290
Hydraulic System	291	291	291	291	291	291
Shoes & Drums, R&R	289	289	289	....	....	....
CAB						
Remove & Reinstall	349	349	349	349	349	349
CLUTCH						
Adjustment	208	208	209	211	211	213
R&R and Overhaul	219, 220	219, 220	221	221	221	221
Tractor Split	217	217	217	218	218	218
COOLING SYSTEM						
Radiator	151	151	151	151	151	151
Thermostat	152	152	152	152	152	152
Water Pump	153	153	153	153	153	153
DIESEL FUEL SYSTEM						
Bleed System	131	131	131	131	131	131
Filters	130	130	130	130	130	130
Injection Nozzles	143	143	143	143	143	143
Injection Pump	135	138	138	138	140	140
DIFFERENTIAL						
Adjustment	274	274	274	274	274	274
Differential Lock	277	277	277	277	277	277
Differential, R&R	272	272	272	272	272	272
ELECTRICAL SYSTEM						
Accessory System	195	195	195	195	195	195
Charging System	157	157	157	157	157	157
Starting Motor	180	180	180	180	180	180
ENGINE						
Assembly, R&R	75	76	76	76	76	76
Camshaft	97	98	98	98	99	99
Connecting Rods & Pistons	101	101	101	101	101	101
Crankshaft	106	109	109	109	112	112
Cylinder Head	77	78	78	78	79	79
Oil Pump	119	121	121	121	123	123
Timing Gears	93	94	94	94	95	95
Turbocharger .....	....	....	126	126	....	....

INDEX CONT.

	MODELS					
	1190, 1194	1290, 1294	1390, 1394	1490, 1494	1594	1690
FINAL DRIVE						
Assembly, R&R	279	279	279	279	279	279
Overhaul	280	280	280	282	284	284
FRONT AXLE (Two-Wheel Drive)						
Axle Main Member	4	4	4	4	4	4
Front Support	5	6	6	6	6	6
Spindles	2	2	2	2	2	2
Tie Rod & Toe-In	3	3	3	3	3	3
Wheel Bearings	1	1	1	1	1	1
FRONT DRIVE AXLE						
Carraro Axle .....	....	....	24	24	24	24
David Brown Axle .....	....	7	....	7	....	....
HYDRAULIC SYSTEM						
Adjustments	312	312	312	312	319	312
Filters & Fluid	306	306	307	307	307	307
Operating Principles	303	303	304	304	304	304
Pump	322	322	323	323	323	323
Rockshaft & Linkage	341	341	341	341	342	342
Troubleshooting	309	309	309	309	309	309
Valves	326	326	326	326	326	326
MANUAL STEERING						
Assembly, R&R	50	....	....	....	....	....
Overhaul	51	....	....	....	....	....
POWER STEERING						
Bleeding System	57	57	57	58	58	58
Operating Pressure	60	60	60	60	60	60
Pump	61	62	62	62	62	62
Steering Cylinder	66	66	66	68	68	68
Steering Valve	63	63	63	63	63	63
POWER TAKE-OFF						
Assembly, R&R	296	296	296	296	296	296
Overhaul	298	298	300	300	302	302
TRANSMISSION (Power Shift)						
Assembly, R&R .....	....	....	258	258	258	258
Overhaul .....	....	....	260	260	260	260
Pump .....	....	....	257	257	257	257
Range Gearbox .....	....	....	268	268	268	268
Valves .....	....	....	254	254	254	254
TRANSMISSION (Synchromesh)						
Assembly, R&R	223	223	225	225	225	225
Overhaul	227	227	237, 246	237, 246	246	246
Shift Levers	222	222	222	222	222	222

DUAL DIMENSIONS

This service manual provides specifications in both metric (SI) and U.S. customary 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 "0.28 mm (0.011 inch)" would indicate that we feel the preferred measurement in this instance is the metric (SI) system of measurement and the U.S. customary equivalent of 0.28 mm is 0.011 inch.