



J.I. Case

Service Manual

430, 530,

470 & 570

Volume 1 of 2

JENSALES.COM

or Call 1-800-443-0625



THIS IS A MANUAL PRODUCED BY JENSALES INC. WITHOUT THE AUTHORIZATION OF J.I. CASE OR IT'S SUCCESSORS. J.I. CASE AND IT'S SUCCESSORS ARE NOT RESPONSIBLE FOR THE QUALITY OR ACCURACY OF THIS MANUAL.

TRADE MARKS AND TRADE NAMES CONTAINED AND USED HEREIN ARE THOSE OF OTHERS, AND ARE USED HERE IN A DESCRIPTIVE SENSE TO REFER TO THE PRODUCTS OF OTHERS.

CA-S-430,530+

Service Manual

Make: Ji Case	Model: 430	Years Made: 1960-1969
HP-PTO: 34	HP-Engine:	HP-Drawbar:
HP-Range: 34	Engine-Make: CASE	Engine-Fuel: DIESEL
Engine-Cyl(s)-CID: 4/188	Transmission-STD:	Optional:
Fwd/Rev Standard: 4/1	Fwd/Rev Optional: 8/2	Mfwd-Std/Opt:
Tires-Std Front:	Tires-Std Rear:	Wheelbase-Inch:
Pto Type:	Pto Speed: 540	CAT I-3pt Hitch: True
CAT II-3pt Hitch: False	CAT III-3pt Hitch: False	Hitch Lift:
Hydraulics-Type:	Hyd-Cap:	Hyd-Flow: 8.5
Hyd Std Outlets:	Cooling Capacity: 16.5	Fuel Tank Capacity: 13
Cab-Stdm A/C; Rops:	Weight: 3710	New Price: 4389

Make: Ji Case	Model: 470	Years Made: 1970-1973
HP-PTO: 34.3	HP-Engine:	HP-Drawbar:
HP-Range: 34	Engine-Make: CASE	Engine-Fuel: DIESEL
Engine-Cyl(s)-CID: 4/188	Transmission-STD:	Optional:
Fwd/Rev Standard: 8/2	Fwd/Rev Optional:	Mfwd-Std/Opt:
Tires-Std Front:	Tires-Std Rear:	Wheelbase-Inch:
Pto Type:	Pto Speed: 540	CAT I-3pt Hitch: True
CAT II-3pt Hitch: False	CAT III-3pt Hitch: False	Hitch Lift:
Hydraulics-Type:	Hyd-Cap:	Hyd-Flow: 8.5
Hyd Std Outlets:	Cooling Capacity: 16.5	Fuel Tank Capacity: 13
Cab-Stdm A/C; Rops:	Weight: 3560	New Price: 0

PLATE FASTENED TO INSTRUMENT PANEL 430 & 530		
Year	Beginning Serial Number	
1960	3012275	
1960	6144001	
1961	816880	
1961	6162601	
1962	8190001	
1963	8208001	
1964	8229001	
1965	8253501	
1966	8279001	
1967	8306501	
1968	8332101	
1969	8356251	

Make: Ji Case	Model: 530	Years Made: 1960-1969
HP-PTO: 41.2	HP-Engine:	HP-Drawbar:
HP-Range: 41	Engine-Make: CASE	Engine-Fuel: DIESEL
Engine-Cyl(s)-CID: 4/188	Transmission-STD:	Optional:
Fwd/Rev Standard: 12/3	Fwd/Rev Optional:	Mfwd-Std/Opt:
Tires-Std Front:	Tires-Std Rear:	Wheelbase-Inch:
Pto Type:	Pto Speed: 540	CAT I-3pt Hitch: True
CAT II-3pt Hitch: False	CAT III-3pt Hitch: False	Hitch Lift:
Hydraulics-Type:	Hyd-Cap:	Hyd-Flow: 8.5
Hyd Std Outlets:	Cooling Capacity: 16.5	Fuel Tank Capacity: 22
Cab-Stdm A/C; Rops:	Weight: 3600	New Price: 5640

Make: Ji Case	Model: 570	Years Made: 1970-1973
HP-PTO: 35.5	HP-Engine:	HP-Drawbar:
HP-Range: 36	Engine-Make: CASE	Engine-Fuel: GAS
Engine-Cyl(s)-CID: 4/159	Transmission-STD:	Optional:
Fwd/Rev Standard: 12/3	Fwd/Rev Optional:	Mfwd-Std/Opt:
Tires-Std Front:	Tires-Std Rear:	Wheelbase-Inch:
Pto Type:	Pto Speed: 540	CAT I-3pt Hitch: True
CAT II-3pt Hitch: False	CAT III-3pt Hitch: False	Hitch Lift:
Hydraulics-Type:	Hyd-Cap:	Hyd-Flow: 9.3
Hyd Std Outlets:	Cooling Capacity: 14	Fuel Tank Capacity: 22
Cab-Stdm A/C; Rops:	Weight: 3910	New Price: 5691

LEFTHAND SIDE, ABOVE PLATFORM FLOOR, NEXT TO STEERING WHEEL 470 & 570		
Year	Beginning Serial Number	
1970	8650001	
1971	8674001	
1972	8693001	
1973	8712001	
1974	8736601	
1975	8770001	

Paint Codes	
Location	MFG Color Name
RIMS	ALUMINUM
BODY	POWER RD
HOOD & FENDER	POWER WHITE

Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

CLICK ANYWHERE FOR MORE DETAILS

MANUAL PREVIEW

JENSALES[®]

purchase full manual at

430, 530, 470, 570

Tractors

JENSALES.COM

Service Manual

or Call 800-443-0625

9-75302

CLICK ANYWHERE FOR MORE DETAILS

CASE *III*

TABLE OF CONTENTS

430, 530, 470 AND 570 TRACTORS

SERIES	SECTION	DESCRIPTION	FORM NUMBER
10	GENERAL		
	C	Specifications - 430-470	9-77001
	C	Specifications - 530-570	9-77011
20	ENGINES		
	2013	Cylinder Head and Valves - Spark Ignition	9-80512
	2014	Cylinder Head and Valves - Diesel	9-80473
	2023	Cylinder Block Assembly - Spark Ignition	9-76995
	2024	Cylinder Block Assembly - Diesel	9-77005
30	FUEL SYSTEM		
	3010	Fuel System and Filters - 188 and 207 Diesel Engines	9-78785
	3110	Fuel Strainer and Filter - Spark Ignition Engines	9-79065
	3022	Roosa Master DB Fuel Injection Pump	9-80422
	3013	Roosa Master Fuel Injectors	9-78806
	I	CAV Fuel Injectors	9-75492
	35	Model TSX Series Carburetor - 430-470	9-80581
	3033	Model 267 Series Zenith Carburetor - 530-570	9-77016
	NN	LP Gas RDG Regulator and CBX Carburetor	9-76491
40	HYDRAULICS		
	4019	Portable Hyd. Cyl. and Break Away Couplings	9-74197
	D	Servicing the Remote Hydraulic Valves	9-75521
	DD	Servicing the Hydraulic Pump	9-77061
	R	Draft-O-Matic Hydraulic System	9-77081
50	STEERING		
	0	Hydrostatic Steering System	9-76072
	00	Power Steering System	9-76091
	3-0"	Mechanical Steering System	9-76111
		Packing Front Wheel Bearings	9-79341
	4-0"	Servicing the Front Axle	9-76121
60	POWER TRAIN		
	65	Four Speed Transmission and Final Drive	9-80641
	66	Servicing the Mechanical Shuttle	9-80771
	67	Dual Range Assembly	9-80781
	4S	Splitting the Tractor at Torque Tube and Transmission	9-78081
	68	11 Inch Traction Clutch	9-80792
	6S	Standard Power Take-Off	9-77141
	7S	Independent Power Take-Off	9-77151
	X	Case-O-Matic Drive - 530-570	9-75901
70	BRAKES		
	74	Differential Brakes	9-80691
80	ELECTRICAL		
	F	Supl. No. 3 Wiring Diagram - 430-470	9-75541
	F	Supl. No. 4 Wiring Diagram - 530-570	9-75541
	F	Electrical System, Generator System	9-77023
	83	Distributor Ignition System	9-74625
	8012	Starting and Cranking Motors	9-75366
	8013	Battery Servicing and Testing	9-75377
	8014	Prestolite Alternator	9-75399

Rec 9-75304

PRINTED IN U.S.A.

CASE CORPORATION

Compiled and Reproduced From Original by Jensales Inc.

diesel engine

C-2

188 ENGINE SPECIFICATIONS

Type ----- CASE Full Diesel, 4 Cylinder 4 Stroke Cycle Valve-in-Head Engine.
No. of Cylinder Heads ----- 1
Firing Order ----- 1-3-4-2
Bore ----- 3-13/16 Inches
Stroke ----- 4-1/8 Inches
Piston Displacement ----- 188 Cubic Inches
Compression Ratio ----- 17.5 to 1
Oil Filter, Crankcase ----- Replaceable Full Flow Element Type.
Method of Starting Diesel Engine ----- Electric Starting Motor.

Maximum Compression Pressures ENGINE WARMED UP TO OPERATING TEMPERATURE CRANKING AT APPROXIMATELY 200RPM

Altitude Sea Level 1000 ft. 2000 ft. 3000 ft. 4000 ft. 5000 ft.
Compression 400 PSI 389 PSI 373 PSI 359 PSI 346 PSI 332 PSI

Allowable Variance Between Cylinders ----- 20 Pounds

CYLINDER SLEEVES

Type ----- Replaceable Wet Type; Two Rubber "O" Ring Seals Carried on Each Sleeve.
Inside Diameter of Sleeve Bore ----- 3.8110 to 3.8120 Inches. Replace Sleeve When Inside Diameter Below Top Ring Ridge Exceeds 3.819 Inches.
Piston Clearance in Sleeve (At Skirt) ----- .002 to .005 Inch
Cylinder Sleeve Protrusion Above Block ----- .002 to .005 Inch

PISTON AND PISTON PINS

Piston Material ----- Aluminum
Piston Weight (Less Pin) ----- 2.224 to 2.233 Pounds
Diameter of Piston at Top of Skirt (Below Oil Ring Perpendicular to Pin) ----- 3.805 to 3.806 Pounds
Diameter of Piston at Bottom of Skirt (Perpendicular to Pin) ----- 3.807 to 3.808 Inches
Piston Pins ----- Full Floating Type; Held in Position With Snap Rings in Piston. Replaceable Bronze Bushing in Connecting Rod.
Piston Pin Length ----- 3.147 to 3.167 Inches
Piston Pin Diameter ----- 1.2497 to 1.2498 Inches
Piston Pin Fit in Piston ----- .0001 to .0004 Inch
Piston Pin Fit in Connecting Rod Bushing ----- .0002 to .0005 Inch

PISTON RINGS

Rings Per Piston ----- 3 (2 Compression and 1 Oil)
Compression Rings
Width of Ring-Top (Keystone) ----- .1225 to .124 Inch
2nd ----- .0930 to .0935 Inch
Ring End Gap When Compressed in 3.8125 Inch Cylinder ----- .015 to .025 Inch
Side Clearance in Groove of 2nd Ring ----- .0035 to .005 Inch
Oil Ring ----- To Install Replacement Ring, Follow Instructions Packed With Rings.
Width of Ring ----- .1825 to .1885 Inch
Side Clearance in Groove ----- .0000 to .007 Inch

CONNECTING RODS

Connecting Rod Bushing ----- Replaceable Bronze Bushing. Replacement Bushing Must be Reamed. Use 1.2500 to 1.2502 Reamer.

Piston Pin Hole Diameter in Rod (Without Bushing) ----- 1.312 to 1.313 Inches
Inside Diameter of Piston Pin Bushing in Rod ----- 1.2500 to 1.2502 Inches; Install New Bushing If Inside Diameter Exceeds 1.2507 Inches.

Connecting Rod Bearing ----- Replaceable Precision, Steel Backed Aluminum Liners

Connecting Rod Capscrews ----- Self Locking Type, No Lock Wires Required; May Be Used More Than Once.

Connecting Rod Length (Center to Center Between Pin Hole and Bearing Journal Hole) ----- 7.0029 to 7.0039 Inches

Bearing Liner Width ----- 1.125 Inches

Diameter of Crankshaft Journal Hole in Rod (Without Liner) ----- 2.1870 to 2.1875 Inches

Inside Diameter of Bearing Liner (Standard Liner in Place in Rod and Capscrews Tight) ----- 2.0625 to 2.0640 Inches

Diameter of Crankshaft Rod Journal ----- 2.0605 to 2.0615 Inches

Clearance Between Rod Bearing and Crankshaft Journal ----- .001 to .0035 Inch; Install New Bearing Liners When Clearance Exceeds .006 Inch.

Undersize Bearing Liners Available for Service ----- .002, .010, .020, .030 Inch

Allowable Connecting Rod Bearing End Play ----- .005 to .011 Inch

CRANKSHAFT AND MAIN BEARINGS

Crankshaft ----- Balanced; Drilled to Provide Pressure Lubrication to Main and Connecting Rod Bearings.

Type Main Bearings ----- Replaceable, Precision, Steel Backed Aluminum Liners.

Bearing Capscrews ----- Self Locking Type; No Lock Wires Required. May Be Used More Than Once

Bearing Taking End Thrust ----- Center

Crankshaft End Play (Measured at Center Main Bearing) ----- .001 to .006 Inch; Install New Bearing If End Play Exceeds .012 Inch.

Main Bearing Journal Diameter ----- 2.873 to 2.874 Inches

Crankshaft Main and Connecting Rod Journal Bearings out of Round ----- Maximum .002 Inch

Inside Diameter of Main Bearing Liners (In Place and Capscrews Tight) ----- 3.8748 to 3.8768 Inches

Clearance Between Main Bearing Liner and Journal ----- .0008 to .0038 Inch; Install New Bearing Liner When Clearance Exceeds .006 Inch.

Width of 1st Main Bearing Liner (Front) ----- 1.276 to 1.286 Inches

Width of 2nd and 4th Main Bearing Liners ----- .980 to 1.000 Inches

Width of 3rd (Center) Main Bearing Liner ----- 1.371 to 1.373 Inches

Width of 5th (Rear) Main Bearing Liner ----- 1.5575 to 1.5675 Inches

Width Between Crankshaft Main Bearing Cheeks

5th ----- 1.745 to 1.755 Inches

2nd, 4th ----- 1.185 to 1.189 Inches

3rd (Center) ----- 1.374 to 1.377 Inches

Width Between Crankshaft Rod Bearing Journal Cheeks ----- 1.3105 to 1.3145 Inches

Undersize Main Bearing Liners Available for Service ----- .002, .010, .020, .030 Inch

CLICK ANYWHERE FOR MORE DETAILS

Section

2013

CYLINDER HEAD AND VALVES

148, 159, 188 AND 201 SPARK IGNITION ENGINES

TABLE OF CONTENTS

Specifications	2,3
Special Torques	3
Checking Compression Pressure	4,5
Cylinder Head and Components	
(148 and 159)	6-9
(188 and 201)	10-13
Rocker Arm Assembly	
(148 and 159)	14,15
(188 and 201)	16,17
Cylinder Head Assembly	
(148 and 159)	18,19
(188 and 201)	20,21
Inspection of Valves, Guides, Head and Springs	22,23
Refacing Intake and Exhaust Valves	24
Grinding Intake and Exhaust Valve Seats	25
Locating Top Dead Center and Tappet Adjustments	26

CASE CORPORATION

Rec. 9-80512

PRINTED IN U.S.A.

CLICK ANYWHERE FOR MORE DETAILS

CLICK ANYWHERE FOR MORE DETAILS

Section 2023

ENGINE BLOCK ASSEMBLIES

201G, 188G, 159G, 148G SPARK IGNITION ENGINES

TABLE OF CONTENTS

Camshaft, Bushings and Lifters	18-21
Crankshaft, Bearings, Liners and Oil Pump	32-35
Cylinder Sleeves - Deglazing	25
Cylinder Sleeves - Honing	26
Cylinder Sleeves - Inspection	24
Engine Lubrication	8,9
Flywheel, Oil Pan, Seal Retainer and Oil Filter	10-13
Locating Top Dead Center	40
Oil Pump	36,37
Pistons and Cylinder Sleeves - Inspection	27
Pistons, Rings, Sleeves and Connecting Rods - Assembly	28-31
Pistons, Rings, Sleeves and Connecting Rods - Disassembly, Inspection	22
Special Torques	7
Specifications	2-6
Timing Gear Cover, Gear and Water Pump	14-17
Thermostat and Fan Belt	38,39

or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

CASE CORPORATION

Rac. 9-76995

PRINTED IN U.S.A.

TABLE OF CONTENTS

Camshaft, Bushings and Lifters	22-25
Crankshaft, Bearings, Liners and Oil Pump	36-39
Cylinder Sleeves - Deglazing	29
Cylinder Sleeves - Honing	30
Cylinder Sleeves - Inspection	28
Engine Lubrication	8,9
Flywheel, Oil Pan, Seal Retainer and Oil Filter	10-13
Locating Top Dead Center	44
Oil Pump	40,41
Pistons and Cylinder Sleeves - Inspection	31
Pistons, Rings, Sleeves and Connecting Rods - Assembly	32-35
Pistons, Rings, Sleeves and Connecting Rods - Disassembly, Inspection	27
Special Torques	7
Specifications	3-6
Timing Gear Cover, Gear and Integral Water Pump	14-17
Timing Gear Cover, Gear and Separate Water Pump	18-21
Thermostat and Fan Belt	42,43

JENSALES
purchase full manual at

JENSALES.COM
or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

CLICK ANYWHERE FOR MORE DETAILS

Section

3022

ROOSA MASTER

MODEL DB FUEL INJECTION PUMPS

188 SERIES DIESEL ENGINES

TABLE OF CONTENTS

Description	2
Removing the Fuel Injection Pump	3
Installing the Fuel Injection Pump	4
Timing the Fuel Injection Pump to Engine	6
Engine Speed	7
Checking Engine Speed	7
No Load Governed Engine Speed	8
Low Idle Speed Adjustment	9

Special Torques

High pressure fuel line connection screws	35 ft. lbs.
Fuel inlet filter assembly	20 ft. lbs.

CASE CORPORATION

Rac. 9-80422

PRINTED IN U.S.A.

CLICK ANYWHERE FOR MORE DETAILS

TABLE OF CONTENTS

FUEL INJECTORS	I-4 thru I-19
Description	I-4
Operating Principles	I-4
Special Tools	I-5
Isolating Faulty Injectors	I-6
Removing Injectors	I-6
Installing Injectors	I-7
Nozzle Test Stand	I-8
Preparing Test Stand for Operation	I-9
Testing Injectors	I-9
Correcting Opening Pressure and Leakage	I-10
Setting Opening Pressure	I-10
Testing and Correction of Faulty Nozzles	I-11
Testing for Correct Spray Pattern	I-12
Tools Required	I-13
Removing Nozzle Assembly	I-13
Disassembling Nozzle Assembly	I-14
Cleaning Nozzle Assembly	I-15 thru I-17
Cleaning Nozzle Holder	I-18
Assembling and Adjusting Injectors	I-19
FUEL INJECTION PUMP	I-20 thru I-24
Description	I-20
Timing Injection Pump to Engine	I-21
Removing the Fuel Injection Pump	I-22
Installing the Fuel Injection Pump	I-23 and I-24
ENGINE SPEED ADJUSTMENTS	I-25 thru I-27
High Idle Adjustment	I-25 and I-26
Low Idle Adjustment	I-27

JENSALES.COM

or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

Section 4019

BREAK-AWAY COUPLINGS AND PORTABLE HYDRAULIC CYLINDERS

TABLE OF CONTENTS

Break-away couplings	4019-2
ASAE Standard Break-away Couplings	4019-4
3-1/4" x 8" and 4" x 8" Hydraulic cylinders with mechanical stop	4019-6
3-1/4" x 8" and 4" x 8" hydraulic cylinders with hydraulic and collar locking limit stop	4019-8
3-1/4" x 8" and 4" x 8" hvdraulic cylinders with hydraulic and clamp type locking limit stop	4019-10
Portable cylinder jack pad and base	4019-12

JENSALES.COM
or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

PUMP RELIEF VALVE ADJUSTMENT (Refer to Figure DD-2)

1. Install the Hydra-Sleuth Tester as illustrated with the quadrant lever in the forward position.
2. Move the volume range selector to 10 GPM capacity.
3. Fully open the load valve by turning it to the left.
4. Start the engine and operate at 1500 RPM. Move the quadrant lever to the full raise position.
5. Observe the temperature gauge on the Hydra-sleuth. When the temperature reaches 120°F., gradually close the load valve by turning to the right.
6. Observe the pressure gauge reading. The pressure gauge should read between 1450 - 1550 PSI when the relief valve opens. When the relief valve pressure is observed, open the load valve by turning it to the left.

IMPORTANT Do not continue to leave the load valve closed as the temperature will rise and damage to the relief valve could occur.

7. If the pressure gauge registers below 1450 PSI, remove the adapter housing and turn the adjusting plug in to increase pressure (1/4 turn equals 100 PSI).
8. If the pressure gauge registers above 1550 PSI, remove the adapter housing and turn the adjusting plug out to decrease pressure (1/4 turn equals 100 PSI).
9. When the adjustment is completed, stake the adjusting plug in two places.

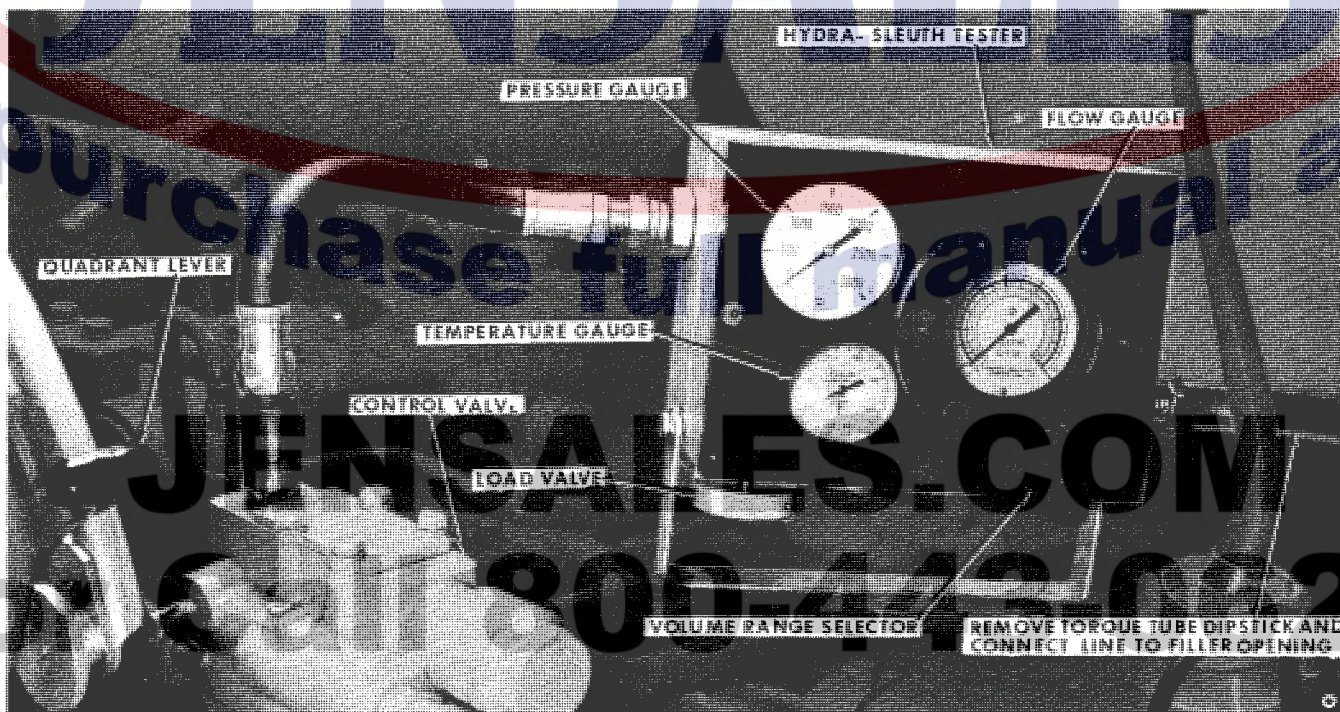


Figure DD-2

NOTE: The CASE CORPORATION reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.

TABLE OF CONTENTS

SPECIFICATIONS	R-2
INTRODUCTION	R-3
GENERAL	R-4
OPERATION OF LOAD DEPTH CONTROL SENSING LINKAGE	R-6
OIL FLOW DIAGRAMS	R-8 thru R-15
Holding Position	R-8
Lifting Position	R-10
Lowering Position	R-12
Floating Position	R-14
DRAFT-O-MATIC COMPONENTS	R-16 and R-17
DISASSEMBLY AND INSPECTION OF THE VALVE	R-18
ASSEMBLY OF THE VALVE	R-20
DISASSEMBLY, INSPECTION AND ASSEMBLY OF THE ROCKSHAFT HOUSING	R-22
VALVE LOWERING PISTON ADJUSTMENT	R-24
DRAFT-O-MATIC ADJUSTMENTS	R-26

SPECIFICATIONS

Control Valve Flow Divider Valve	Valve Spool in Slow Speed Lift 4 GPM Valve Spool in High Speed Lift 10 GPM
Type of Oil	Case TCH Oil.

JENSALES.COM

or Call 800-443-0625

TABLE OF CONTENTS

SPECIFICATIONS	O-2
INTRODUCTION	O-3
OIL FLOW DIAGRAMS (430 SERIES)	O-4 thru O-11
Right Turn Engine Running	O-4
Left Turn Engine Running	O-6
Right Turn Engine Not Running	O-8
Left Turn Engine Not Running	O-10
OIL FLOW DIAGRAMS (530 SERIES)	O-12 thru O-19
Right Turn Engine Running	O-12
Left Turn Engine Running	O-14
Right Turn Engine Not Running	O-16
Left Turn Engine Not Running	O-18
REMOVAL AND INSTALLATION OF HYDROSTATIC STEERING COMPONENTS	O-20
DISASSEMBLY, INSPECTION AND ASSEMBLY STEERING COMPONENTS	O-22 thru O-29
Power Steering Pump	O-22
Steering Control Valve	O-24
Manual Steering Pump	O-26
Steering Cylinders	O-28
OIL FLOW AND PRESSURE CHECKS	O-30 and O-31
BLEEDING AND FILLING THE STEERING SYSTEM	O-31
CHECKING STEERING WHEEL SLIPPAGE	O-32

SPECIFICATIONS

Power Pump Oil Flow -----	6.5 GPM at 1200 PSI(oil Temperature of 150°F.) at Full Governed No Load Engine RPM.
Power Pump Relief Valve Pressure -----	1500 to 1700 PSI at Engine Speed of 1500 RPM.
Type of Oil -----	Case TCH
Front Wheel Toe In Adjustment -----	1/4"
Capacity of Pump Reservoir -----	1 Quart
Capacity of System -----	2.5 Quarts

TABLE OF CONTENTS

POWER STEERING TORQUE MOTOR AND VALVE OO-2 thru OO-19

Removal of Torque Motor from Tractor	OO-2
Valve Removal, Disassembly, Inspection and Assembly - Prior to Serial No. 8259171	OO-4
Seal, Bearings and Valve Installation - Prior to Serial No. 8259171	OO-6
Valve Removal, Disassembly, Inspection and Assembly - Serial No. 8259171 and after	OO-8
Seal, Bearings and Valve Installation - Serial No. 8259171 and after	OO-10
Disassembly and Inspection of Torque Motor	OO-12
Assembly of Torque Motor	OO-14
Installation and Assembly	OO-16
Power Steering Pump With Integral Reservoir	OO-18

POWER STEERING

Removing Torque Motor from Tractor (Refer to Figures OO-1) and OO-2)

NOTE The Steering Valve can easily be removed while the torque motor is in place in the tractor. Clean the area around the valve thoroughly before removing.

1. Drain radiator, lock brakes and block up tractor front end.
2. Remove hood, grille screens, radiator side members, grille cap and cultivator support frame.
3. Disconnect the two hose lines.
4. Drive the roll pin out of the universal joint.
5. Loosen the lower radiator bracket, if necessary.
6. Remove the single front wheel assembly or the dual front wheel spindle assembly.
7. The six bolts that hold the torque motor in place can then be removed and the torque motor lifted out.
8. Disconnect the front axle pedestal from the radiator bracket.
9. Loosen the capscrews that hold the radius rod bracket to the radiator bracket.
10. Disconnect the steering arm from the torque motor.
11. Raise the tractor enough so there is clearance to remove all six of the torque motor mounting bolts.
12. Lift the torque motor out of the tractor.

SINGLE OR DUAL FRONT WHEELS

Removing Gear Housing from Torque Motor (Refer to Figures OO-3) and OO-4)

1. Using an Allen Head wrench, remove plug and drain fluid. If the air bleed tube is used, loosen the tube and remove it.
2. Remove housing top cover and "O" ring.
3. Remove thrust ball retaining plug, thrust ball and saddle.
4. Remove the tubes from the valve to the housing.
5. Remove the two bolts from the gear housing and lift the housing off the torque motor vane body.

IMPORTANT

When loosening the tube fittings, hold the inlet and outlet connectors with a wrench so the connectors cannot turn with the tube fittings and cause damage.

TABLE OF CONTENTS

CLAUSEN TYPE MECHANICAL STEERING 3"O"-3 thru 3"O"-7

Removal 3"O"-3

Disassembly - Inspection 3"O"-4

Assembly - Installation 3"O"-6

CASE TYPE MECHANICAL STEERING 3"O"-8 thru 3"O"-11

Removal - Disassembly - Inspection 3"O"-8

Assembly - Installation 3"O"-10

MANUAL PREVIEW

JENSALES®

purchase full manual at

JENSALES.COM
or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

3"O"-2

TABLE OF CONTENTS

FRONT WHEEL BEARINGS AND SEALS (Except Single Front Wheel)4"O"-3

 Inspecting and Repacking Bearings4"O"-3

 Bearings Adjustment4"O"-3

SINGLE FRONT WHEEL BEARINGS AND SEALS4"O"-4

 Bearing Lubrication4"O"-4

 Bearing Adjustment4"O"-4

FRONT AXLES4"O"-5

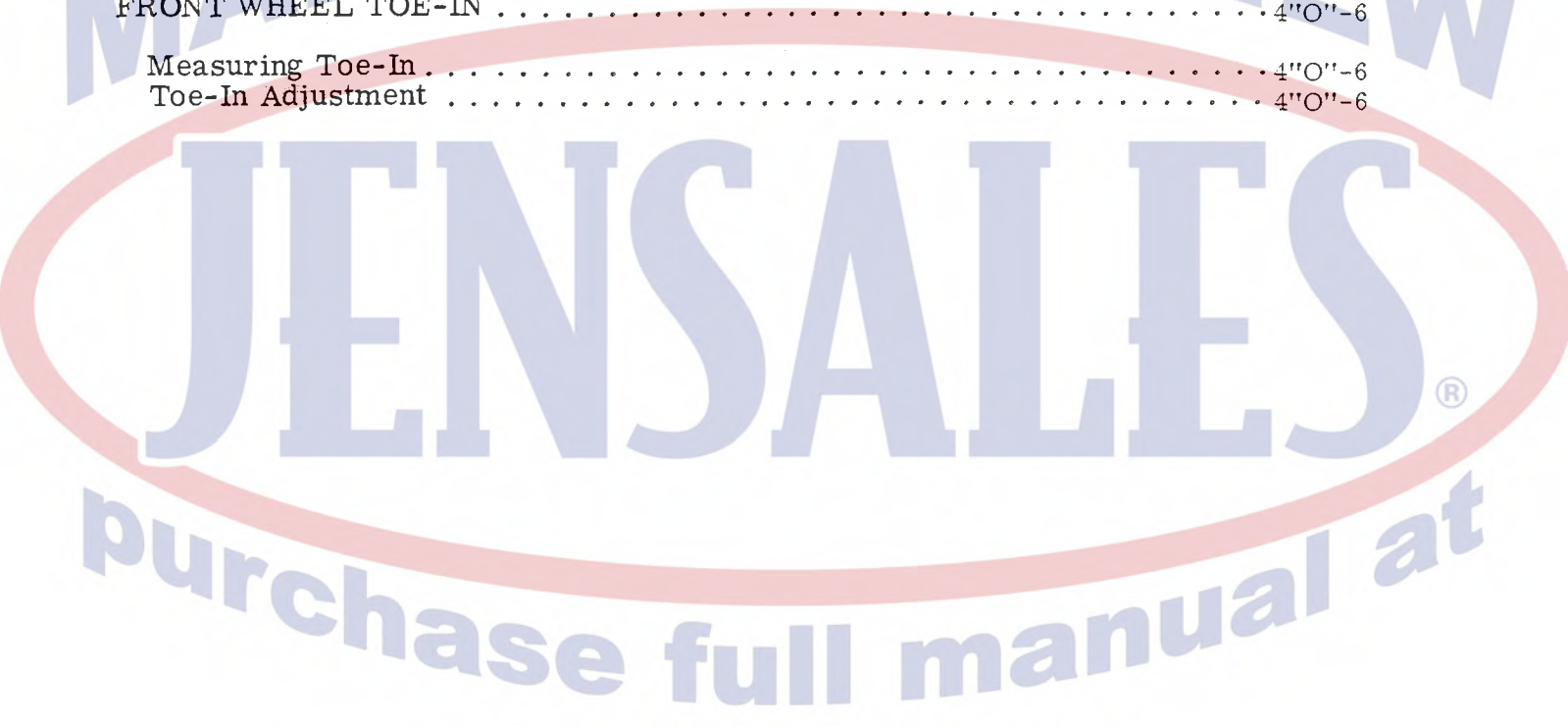
FRONT WHEEL TOE-IN4"O"-6

 Measuring Toe-In4"O"-6

 Toe-In Adjustment4"O"-6

CLICK ANYWHERE FOR MORE DETAILS

MANUAL PREVIEW



JENSALES.COM
or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

FRONT AXLES

Disassembly-Assembly-Adjustments

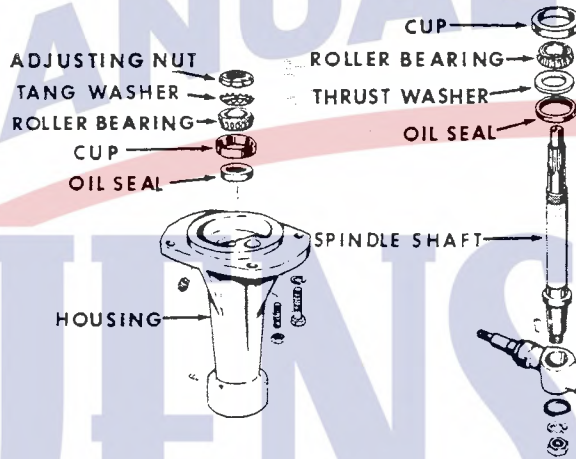
DUAL FRONT WHEELS

ADJUSTABLE FRONT AXLES

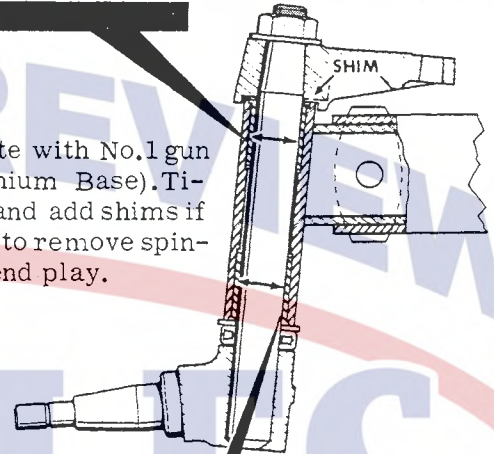
Assembly and Adjustment Notes:

Lubricate the top bearing with SAE 90 and the lower bearing with No. 1 gun grease (lithium base) before assembly, tighten the adj. nut until a drag is felt while rotating the spindle shaft, then back off nut to first slot and lock with tang washer.

VT3961 bushing used on early models had inside Dia. 1.379 (when installed) and oil hole. Also could be reamed if necessary.



Lubricate with No.1 gun grease (lithium Base). Tighten nut and add shims if necessary to remove spindle shaft end play.



A36637 bushing used on later models had inside Dia. 1.371 (when installed) and could be reamed if necessary.

Figure 4"O"-3.

RADIUS ROD REAR BUSHINGS

RADIUS ROD FRONT BUSHINGS

Inside Dia. .861 (when installed) can be reamed if necessary. Lubricate with No. 1 gun grease (lithium base).

Inside Dia. 1.7265 (when installed) can be reamed if necessary. Lubricate with No. 1 gun grease (lithium base).

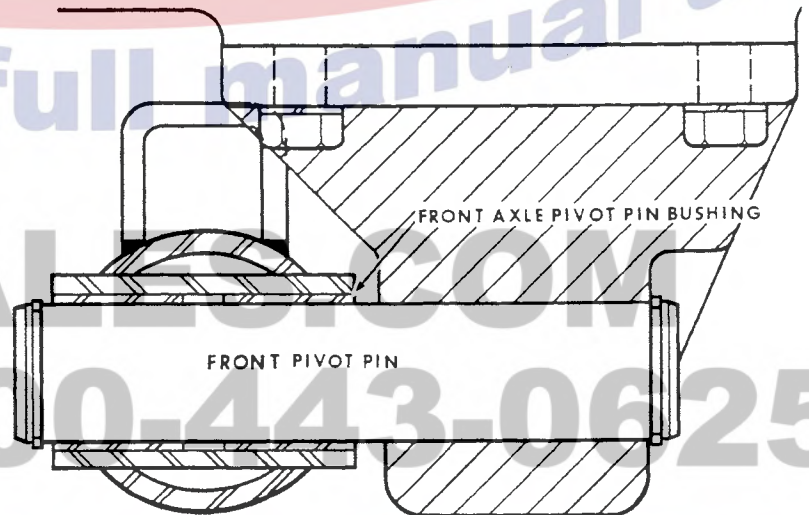
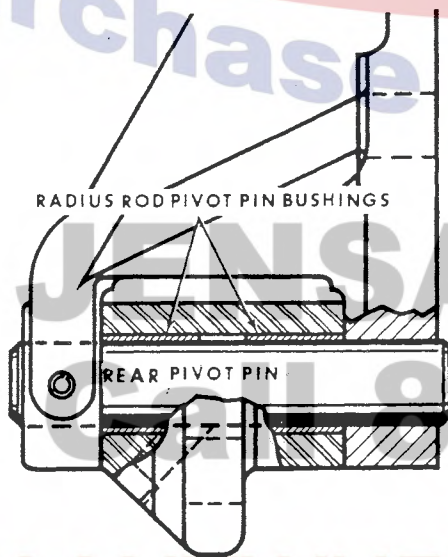


Figure 4"O"-4. Adjustable Front Axle Radius Rod Pivot Pin Assemblies

Section

65

FOUR SPEED TRANSMISSION AND FINAL DRIVE

TABLE OF CONTENTS

Specifications	65-2
Special torques	65-2
Power Trains	
Eight speed dual range	65-3
Eight speed shuttle	65-4
Four speed shuttle	65-5
Power shuttle-torque converter	65-6
General Inspection	65-7
General assembly	65-7
Shifting Sequence	65-7
Transmission housing	65-8
Pinion shaft	65-10
Reverse idler gear (not used with shuttle)	65-12
Differential	65-14
Main drive shaft	65-18
Flanged axle	65-20
Keyed axle	65-22
Gear shift cover	65-24
Adjustments	65-30

Rac. Form 9-80641

PRINTED
IN
U.S.A.

TABLE OF CONTENTS

PTO ASSEMBLY

Removal and Installation 7S-3

PTO CLUTCH

Disassembly and Inspection 7S-4

PTO CLUTCH

Assembly 7S-6

INPUT SHAFT AND CLUTCH DRUM

Disassembly, Inspection and Assembly 7S-8

PTO CLUTCH ADJUSTMENT 7S-10

MANUAL PREVIEW

JENSALES®

purchase full manual at

JENSALES.COM
or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

7S-2

TABLE OF CONTENTS

INTRODUCTION	F-2
BATTERIES	F-2
CRANKING MOTORS AND SOLENOIDS	F-5
REGULATORS	F-6
GENERATORS	F-8
DISTRIBUTORS, COIL AND TIMING	F-10
SPARK PLUGS	F-16

INTRODUCTION

Section F contains the specifications and wiring diagrams necessary to diagnose and make minor adjustments on the electrical components on the Case Wheel Tractors.

All major adjustments and overhaul of electrical components should be performed by an Authorized Electrical Service Station (Delco-United Motors Service or Auto-Lite Service Stations) where specialized equipment and trained personnel are available.

DO NOT ATTEMPT EVEN MINOR ELECTRICAL ADJUSTMENTS WITHOUT THE AID OF PROPER TEST EQUIPMENT

NOTE Gas engines before Serial No. 8233766 and Diesel engines before Serial No. 8232882 used a positive grounded system. These Serial Numbers and after use a negative grounded system.



BATTERY SERVICE AND INSPECTION

IMPORTANT Working with storage batteries all exposed metal surfaces are "live". Never lay a metal object on top of a battery as a short circuit may result. Sparks or open flame must be kept away from batteries due to the presence of explosive gas in and around the batteries while they are being charged or in use.

The sulfuric acid or electrolyte present in a battery is very harmful to your eyes, skin and clothing. If contact is made with it, wash it with a weak solution of baking soda and water. This will neutralize the acid.

Visual Inspection

Check the battery terminals and cables for dirty or corroded conditions which will cause high resistance, resulting in undercharged batteries and very poor cranking speed.

The battery tray, holddown terminals and cable ends must be cleaned when contaminated with baking soda and water. This will help to prevent self discharge of batteries. After cleaning and drying a thin coating of vasoline, light cup grease or paint will help prevent contamination.

A cracked or leaking battery case will let the electrolyte leak out and cause damage to the equipment, a battery in this condition should be replaced. When just the top sealing compound is leaking the battery can be resealed.

Vent holes in the filler caps should always be kept open to let the battery gases escape. Never remove battery caps except to add water.

The electrolyte level should be checked each week. Never let the level drop to a point where the plates are exposed. Pure or distilled water should only be added when the electrolyte level is low. DO NOT OVERFILL, refer to Figure F-1.

Normal water consumption would be approximately 1 oz. every 60 hours of operation. If it is greater, either the case is leaking or regulator is overcharging and must be adjusted.

Section

83

DISTRIBUTOR IGNITION SYSTEMS

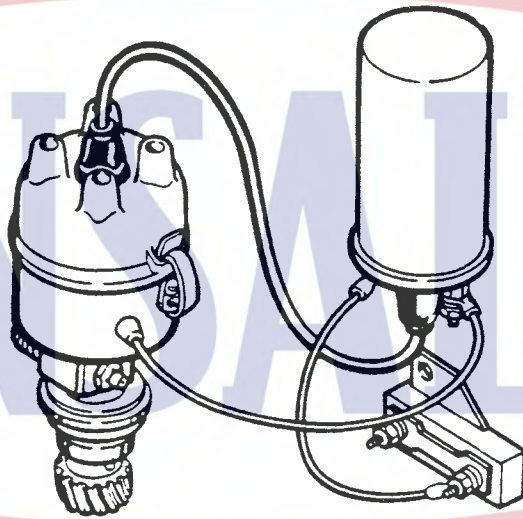


TABLE OF CONTENTS

Distributors, Introduction	83-2
Contact Points	83-4
Cap	83-6
Rotor	83-6
Coil Polarity	83-6
Distributor Static and Running Ignition Timing	83-7
Spark Plugs, Specifications	83-8
Heat Range	83-9
Electrode Condition	83-10
High Tension Spark Plug and Coil Leads	83-11
Checking Ignition Coil Resistor	83-12
Distributor Specifications	83-13
Ignition Coil Specifications	83-13
Static and Running Ignition Timing Chart	83-14

Rec. Form 9-74625

PRINTED
IN
U.S.A.

Section

8012

STARTING OR CRANKING MOTORS

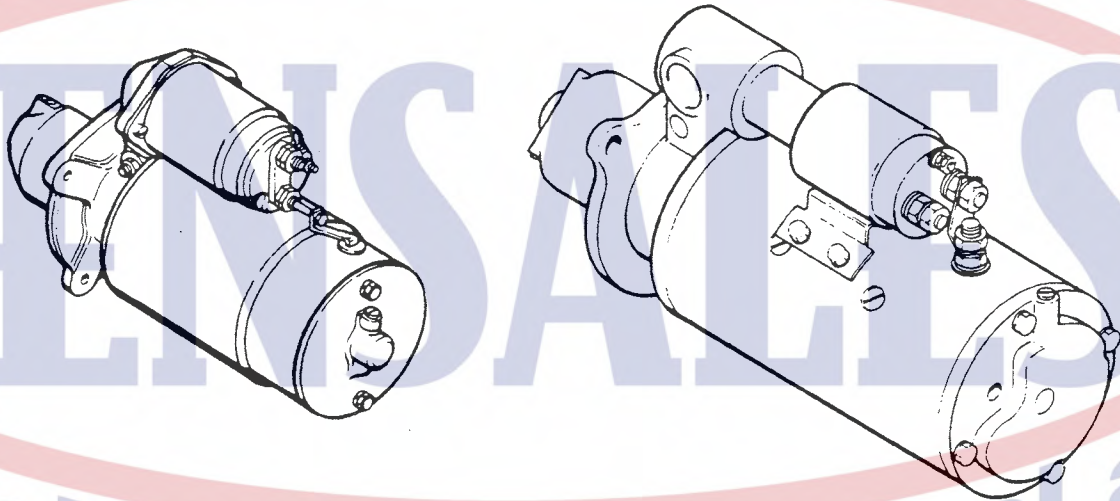


TABLE OF CONTENTS

General Starter Inspection	8012-2
Starter No Load Test	8012-4
Field Coil Tests	8012-5
Armature Tests	8012-6
Checking Pinion Clearance	8012-8
Solenoid Switch Tests	8012-9
Starter or Cranking Motor Specifications - Delco-Remy	8012-10
Solenoid Specifications - Delco-Remy	8012-10
Starter or Cranking Motor Specifications - Prestolite	8012-11
Solenoid Specifications - Prestolite	8012-11

CASE CORPORATION

Rac. 9-75366

PRINTED IN U.S.A.

Section

8014

PRESTOLITE ALTERNATOR SYSTEMS

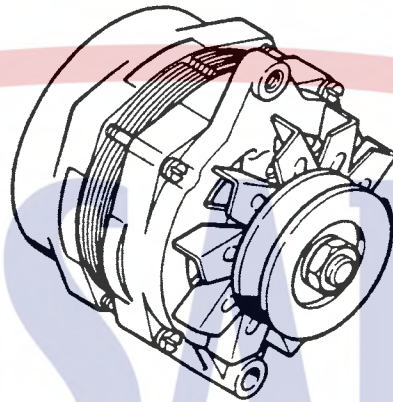


TABLE OF CONTENTS

Prestolite Alternator Charging Systems	8014-2
Precautions to be observed when Servicing the Systems	8014-4
Prestolite Alternator	8014-4
Rotor Inspecting and Testing	8014-6
Testing Rectifier Diodes	8014-7
Stator Ground and Open Tests	8014-7
Checking Alternator Resistor	8014-8
Regulator Output Test	8014-9
Alternator Output Test	8014-10
Alternator Specifications	8014-11
Voltage Regulator Specifications	8014-11

CASE CORPORATION

Rac 9-75399

PRINTED IN U.S.A.