

CLICK ANYWHERE FOR MORE DETAILS



MANUAL PREVIEW

J.I. Case

Service Manual

1490 & 1690 Diesel

2 & 4 Wheel Drive

David Brown

Volume 1 of 6

JENSALES.COM

or Call 800-443-0625



CLICK ANYWHERE FOR MORE DETAILS

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-1490+

TABLE OF CONTENTS 1490 AND 1690 TRACTORS

SERIES	SECTION	DESCRIPTION	FORM NUMBER
10	GENERAL	Service Repair Manual - Introduction and Contents	9-43599
20	ENGINES		
	2010	Separating the Tractor - Low Profile - 1490 Tractor	9-43508
	2110	Engine Removal - 1490 Tractor without Cab	8-24380
	2115	Cylinder Head, Valves and Rocker Arm - 1490 Tractor	8-24100
	2215	Six Cylinder Engine - 1690 Tractor	9-43586
	2120	Cylinder Block - 1490 Tractor	8-24110
	2135	Crankshaft, Main Bearings, Flywheel and Oil Seals - 1490 Tractor	8-24400
	2145	Lubrication System - 1490 Tractor	8-24120
	2245	Lubrication System - 1690 Tractor	9-43518
	2155	Cooling System - 1490 Tractor	8-24080
	2255	Cooling System - 1690 Tractor	9-43514
	2165	Turbocharger - 1490 Tractor	8-24090
	2565	Turbocharger Failure Analysis - 1490 Tractor	9-78235
30	FUEL SYSTEM		
	3210	Fuel System - 1690 Tractor	9-43516
	3140	Fuel Tanks	9-43511
	3141	Fuel Tank Removal	8-23720
40	ELECTRICAL		
	4141	Wiring Diagram - High Platform	9-43593
	4142	Wiring Diagram - Low Profile	9-43594
	4001	Tractor Electrical System Troubleshooting	8-24130
	4002	Cab Electrical System Troubleshooting (Sims Cab)	8-24150
	4205	Electrical Equipment	9-43571
	4015	Cab Electrical Wiring Diagram	8-23860
50	STEERING		
	5010	Steering Hand Pump	8-24040
	5130	Front Axle (MFD) 1490 Tractor	8-23290
	5140	Hydrostatic Steering - High Platform	9-43561
	5160	Front Axle (Carraro) 1690 Tractor	8-23480

JENSALES.COM
or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

SERIES SECTION

DESCRIPTION

**FORM
NUMBER**

60

POWER TRAIN

6010	Separating the 1490 Tractor between Engine and Transmission	8-24410
6225	Power Shift Hydraulic Pump	8-23680
6230	Power Shift	8-23550
6235	Power Shift Control Valve	8-23660
6236	Power Shift Sequence Valves	8-23670
6140	Independent Clutch Assembly - 1490 Tractor	9-43522
	Update Page for Section 6140 (9-43522)	9-43524
6140	12 Speed Synchromesh Transmission	8-23540
6240	Three Speed Transmission - Power Shift	8-23640
6141	12/12 Laycock Independant PTO Clutch	8-24420
6142	Transfer Gearbox (MFD) - 1490 Tractor	8-23340
6242	Transfer Gearbox (Carraro)	8-23490
6245	PTO - Reversible Shaft	9-43555
6060	Differential - Synchromesh Transmission - 1690 Tractor	8-23750
6160	Differential - Synchromesh Transmission - 1490 Tractor	8-23610
6260	Differential - Power Shift Transmission	8-23650
6161	Independent Clutch Assembly - 1690 Tractor	9-43521
6161	Synchromesh Gearbox - 1690 Tractor	9-43531
6170	Final Drive - 1490 Tractor	8-23620
6270	Final Drive - 1690 Tractor	8-23760

70

BRAKES

7110	Brake Valves, Lines, Linkage and Air Removal	8-23770
7140	Brakes	8-23630

80

HYDRAULIC

8110	Inlet Filter - Hydraulic System	8-24440
8190	Remote Valve and Couplers	8-23590
8204	Hydraulic Adjustments	9-43565
8205	Hydraulic System - Specifications, How It Works, Fault Finding	9-43566
8235	Selectamatic Valve	9-43574

90

CHASSIS

9140	Engine Cover	9-43581
9140	Cab Removal	8-23690

JENSALES.COM

or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

2120-24

STEP 73



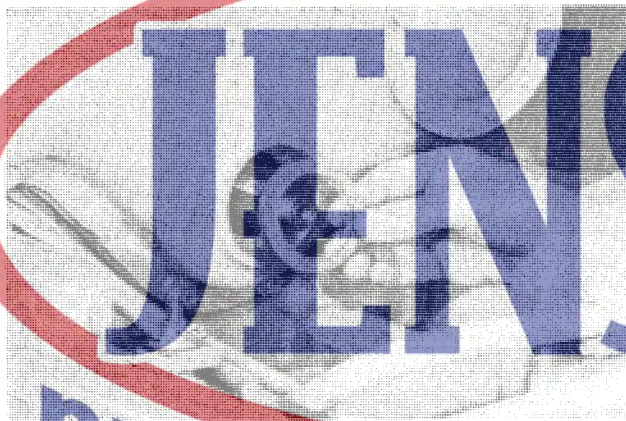
Remove the felt seal from the timing gear cover.

STEP 76



Remove the timing gear cover and gasket.

STEP 74



Remove the oil seal from the timing gear cover.

STEP 77



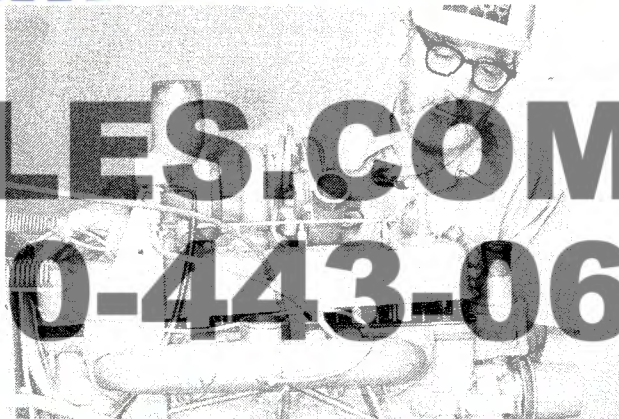
Loosen the clamps and remove the air intake pipe on turbocharged engines.

STEP 75



Remove the bolts from the timing gear cover.

STEP 78



Remove the cover from the cylinder head.

CLICK ANYWHERE FOR MORE DETAILS

MANUAL PREVIEW

JENSALES[®]

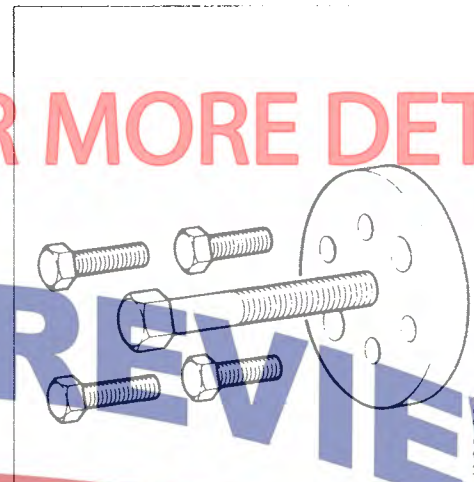
Purchase full manual at

JENSALES.COM
or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS



12. HANDLE SET FOR SEAT CUTTER
CHURCHILL MS.76



15. PULLER FOR REMOVING THE COOLANT
PUMP PULLEY DB. 960597A



13. CENTRING TOOL AND OIL SEAL REPLACER
FOR THE TIMING GEAR COVER DB. 962560



16. CRANKSHAFT PULLEY REMOVER FOR
6-CYLINDER ENGINE – MAKE LOCALLY

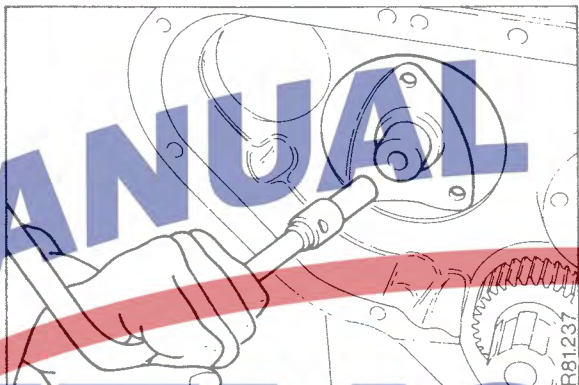
- A. K600318, $\frac{5}{8}$ UNC setscrew
- B. K600403, $\frac{3}{8}$ UNC setscrew – 4 off
- C. Extractor plate, mild steel
- D. 108 mm (4 $\frac{1}{4}$ in) diameter
- E. 19 mm ($\frac{3}{4}$ in) thick
- F. Drill 4 holes 10.5 mm ($\frac{13}{32}$ in) diameter on 90.5 mm ($3\frac{9}{16}$ in) pitch circle diameter.
- G. Drill 1 hole 13.9 mm (0.547 in) diameter and thread $\frac{5}{8}$ – 11UNC.



14. PULLER FOR REMOVING THE CRANKSHAFT
GEAR DB. 960604

The Crankshaft Gear

NOTE: If it is necessary to remove this gear the engine will have to be removed, see page 65.



STEP 29. Remove the 3 bolts which hold the camshaft retaining plate in place, remove the plate.

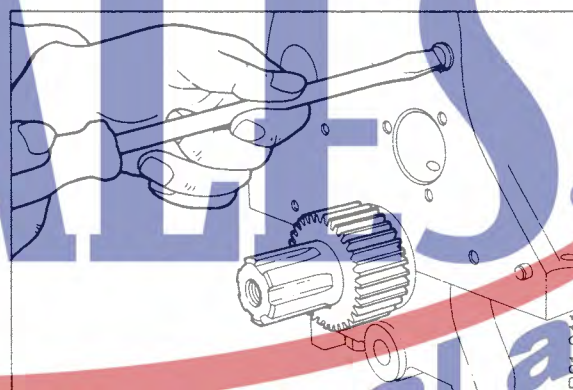


STEP 30. Use a slide hammer with a $\frac{5}{16}$ UNC thread at the end to remove the intermediate gear shaft.

STEP 31. Remove the fuel injection pump.



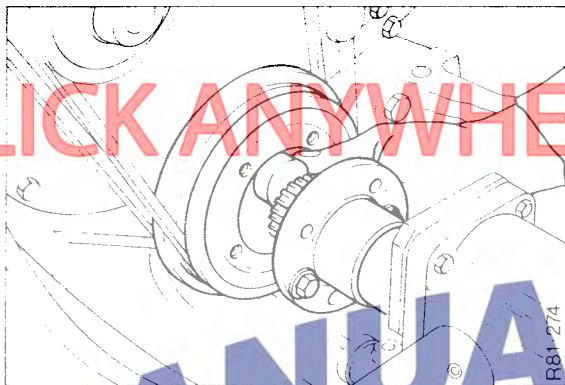
STEP 32. Remove the timing gear housing.



STEP 33. Remove the oil supply restrictor for the timing gears. Clean with compressed air and install again.



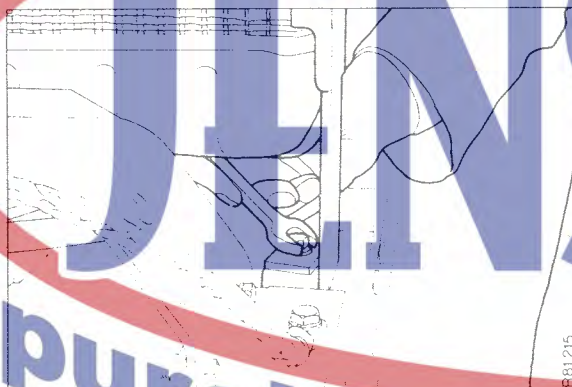
STEP 34. Fit the special tool, see page 7, and remove the crankshaft gear.



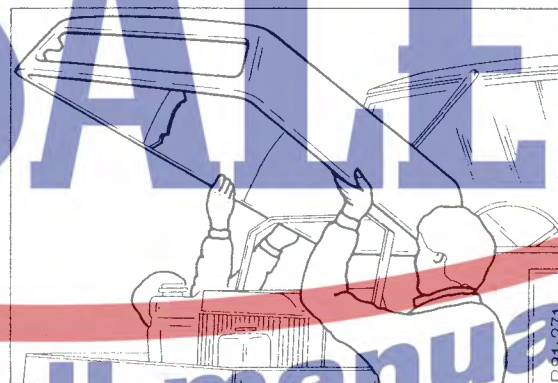
STEP 7. Install the drive shaft to the hydraulic pump. Fit the rubber pad between the crankshaft pulley and the drive shaft.



STEP 11. Install the air cleaners.



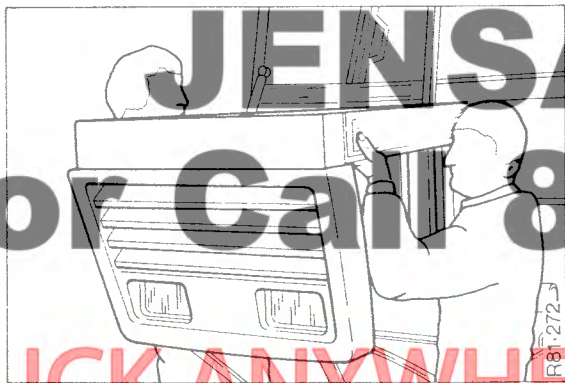
STEP 8. Install the radiator.



STEP 12. Install the engine cover.

STEP 9. Connect the halves of the tractor together.

STEP 13. Install the battery. DO NOT CONNECT.



STEP 10. Install the engine cover frame.

STEP 14. Fill the engine with the correct grade of oil to the correct level.

STEP 15. Fill the transmission with the correct grade of oil to the correct level.

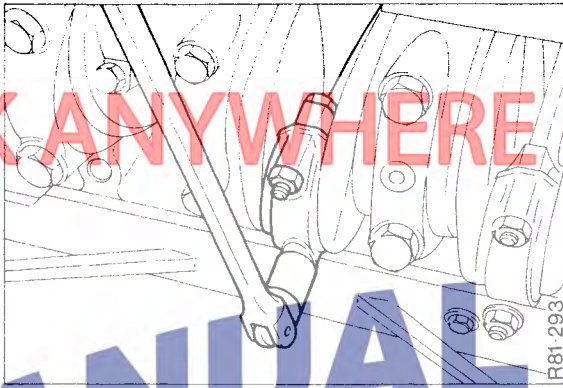
STEP 16. Fill the cooling system.

STEP 17. Connect the battery, ground cable last.

STEP 18. Install the side panels.

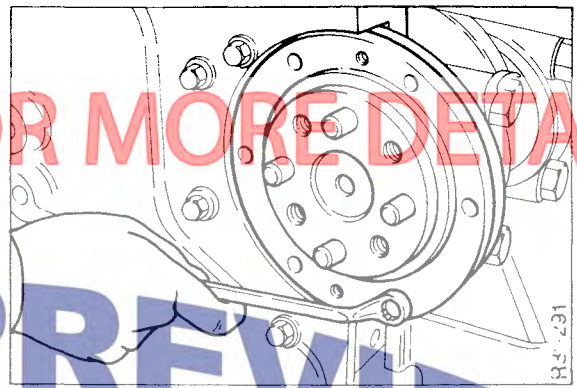
STEP 19. Close the engine cover and install the exhaust.

STEP 20. Start the engine and check for fuel, oil, and coolant leaks.

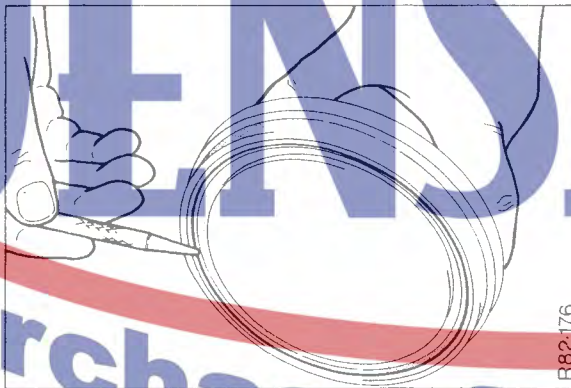


STEP 6. Install new bearing halves in the piston connecting rods in the same way as the main bearings.

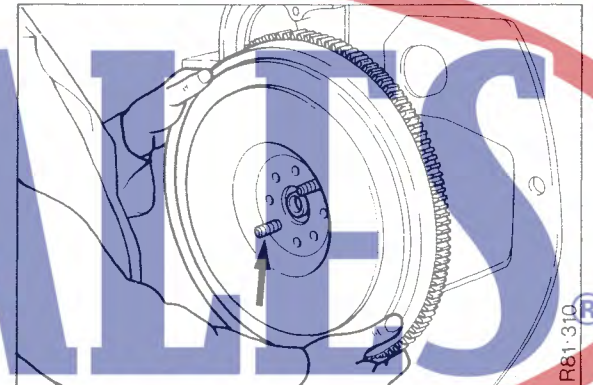
Connect the rods to the crankshaft and tighten the nuts to 68 Nm.



STEP 9. Put grease on the seal lip. Install the housing.



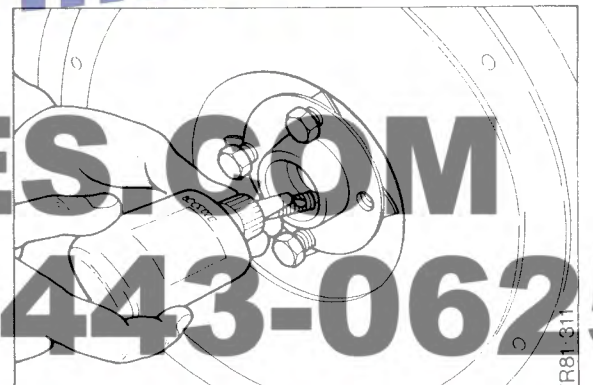
STEP 7. Install a new crankshaft rear oil seal on the special tool DB 1163 with the lip away from the tool.



STEP 10. Install two guide studs in the rear flange of the crankshaft. Slide the flywheel into position on the studs.



STEP 8. Use the tool as shown to press the seal into the seal housing.



STEP 11. Put Loctite Hydraulic Sealant on the threads of the flywheel retaining bolts. Install new tabwashers, the retaining plate and the four bolts.

68 Nm = 6.9 kg m = 50 lb ft