

888P/888P4A EXCAVATOR

TABLE OF CONTENTS

DIVISION/SECTION	SECTION N°	FORM N°
1 GENERAL		
Sectional Index		7-33020
Safety, General Information and Torque Specifications.....	1001 *	8-86530
Specifications	1002	7-31291
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Specifications	1002	7-40200
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		
2 ENGINE		
Sectional Index		7-33030
Engine Removal and Installation.....	2000	7-31300
Radiator, Oil Cooler and Coolant Recovery System	2001	7-31310
Engine Specifications	2401	8-26063
Cylinder Head and Drive Train.....	2415	8-26073
Cylinder Block	2425	8-26084
Lubrication System.....	2445	8-26093
Cooling System	2455	8-26103
Turbocharger	2465	8-26110
Turbocharger Failure Analysis	2565	9-78235
3 FUEL SYSTEM		
Sectional Index		7-33040
Fuel System and Filters	3410	8-26131
Fuel Injection Pump and Drive Gear	3412	8-26143
Fuel Injectors.....	3413	8-26152
4 ELECTRICAL		
Sectional Index		7-33050
Electrical Schematics and Troubleshooting.....	4001 *	7-31331
Battery Testing, Maintenance and Booster Battery Connections	4002	7-31340
Starter Motor	4003	7-31350
Alternator.....	4004	7-31360
5 STEERING		
Sectional Index		7-33060
Steering Hand Pump.....	5002	7-31370
Steering Cylinder.....	5003	7-31380
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Steering Cylinder.....	5003	7-40590
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		

THIS TABLE OF CONTENTS REPLACES DON 7-32911

DIVISION/SECTION	SECTION N°	FORM N°
6 POWER TRAIN		
Sectional Index		7-33071
Swing Motor and Reduction Gears	6003	7-31390
Front Axle	6004	7-31400
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Front Axle	6004	7-40120
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		
Rear Axle	6005	7-31410
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Rear Axle	6005	7-40130
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		
Drive Shaft	6006	7-31420
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Drive Shaft	6006	7-40140
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		
Travel Motor	6007	7-31430
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Travel Motor	6007	7-40150
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		
Drop Box	6008	7-31440
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Drop Box	6008	7-40160
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		
7 BRAKES		
Sectional Index		7-33080
Service Brakes	7002	7-31450
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Service Brakes	7002	7-40630
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		
Parking Brake	7003	7-31460
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Parking Brake	7003	7-40520
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		

DIVISION/SECTION	SECTION N°	FORM N°
8 HYDRAULICS		
Sectional Index		7-33091
Hydraulic Components.....	8000	7-31470
Hydraulic Troubleshooting.....	8001 *	7-31480
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Hydraulic Troubleshooting.....	8001 *	7-40340
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		
Low Pressure Pump.....	8002	7-31490
High Pressure Pump.....	8003	7-31500
Attachment Valve.....	8004	7-31510
Drive Control Valve.....	8005	7-31520
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Drive Control Valve.....	8005	7-40530
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		
Option Control Valve.....	8006	7-31530
Stabilizer Valve.....	8007	7-31540
Swing Brake Release Valve.....	8008	7-31550
Swing Control Valve.....	8009	7-31560
Anti-Surge Valve.....	8010	7-31570
Hydraulic Swivel.....	8011	7-31580
(888P Serial Number : Prior to 6199)		
(888P4A Serial Number : Prior to 7699)		
Hydraulic Swivel.....	8011	7-40540
(888P Serial Number : 6201 and After)		
(888P4A Serial Number : 7701 and After)		
Drive Speed Limiter.....	8012	7-31590
Foot Brake and Travel Control Valve.....	8013	7-31600
Option Foot Control Valve.....	8014	7-31610
Hand Control Valves.....	8015	7-31620
Hydraulic Oil Tank.....	8016	7-31630
Forward and Reverse Travel Control Valve.....	8017	7-32640
Attachment Cylinders.....	8018	7-31640
Accumulators.....	8020	7-32400
Clamshell Swing Motor.....	8024	7-40100
Clamshell Swing Safety Valve.....	8025	7-40110
9 CHASSIS		
Sectional Index		7-33100
Upperstructure and Turntable Bearing.....	9001	7-31660
Boom Dipper and Bucket.....	9002	7-31670
Stabilizer and Dozer Blace.....	9003	7-31680
Cab Servicing.....	9004	7-31690

* Schematic Set Sections

Sectional Index

	SECTION NO.
1 GENERAL	
C Capacities	1002
E Electrical System Specifications	1002
Engine Specifications	1002
Engine Special Torques	1002
F Fuel Specifications	1002
G General Information	1001
H Hydraulic Fittings Special Torques	1001
Hydraulic Specifications	1002
R Run-In Instructions	1002
S Safety Warnings	1001
Standard Nut and Bolt Torques	1001
Steering Specifications	1002
T Transmission Specifications	1002

Sectional Index

		SECTION NO.
2	ENGINE	
B	Bearings	2425
	Belt Tensioner	2455
C	Camshaft	2425
	Cooling System (Engine)	
	Cleaning and Maintenance	2425
	Crankshaft Pressure Check (Blow By)	2425
	Crankshaft	2425
	Cylinder Block	2425
	Cylinder Head	2415
E	Engine Installation	2000
	Engine Removal	2000
	Exhaust Valves	2415
	Expansion Plug Replacement	
	Expansion Cylinder Block	2425
	Expansion Cylinder Head	2415
F	Fan Pulley	2455
	Flywheel	2425
I	Intake Valves	2415
L	Lubrication System	2445
O	Oil Filter Housing	2445
	Oil Pan	2445
	Oil Pressure Relief Valve	2445
	Oil Pump	2445
	Oil Seals	2425
P	Pistons	2425
R	Radiator and Oil Cooler Installation	2001
	Radiator and Oil Cooler Removal	2001
	Rocker Arms	2415
	Rods	2425
S	Sleeves	2425
T	Thermostat	2455
	Top Dead Centre (How to Locate)	2415
	Turbocharger	2465
	Turbocharger Failure Analysis	2565
V	Valve Guide Replacement	2415
	Valve Dye Pattern Analysis	2415
	Valve Seats	2415
	Valve Train	2415
W	Water Pump	2455

Section

1001

SAFETY, GENERAL INFORMATION
AND TORQUE SPECIFICATIONS

TABLE OF CONTENTS

SAFETY	3
GENERAL INFORMATION	5
STANDARD TORQUE DATA FOR NUTS AND BOLTS	6
TORQUE DATA FOR HYDRAULIC FITTINGS	7

SAFETY

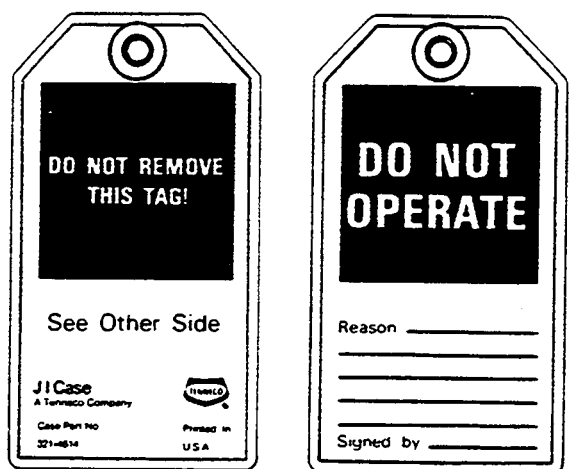


This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED. The message that follows the symbol contains important information about safety. Carefully read the message. Make sure you fully understand the causes of possible injury or death.

1-1-C

To prevent injury always follow the Warning, Caution and Danger notes in this section and throughout the manual.

Put the warning tag shown below on the key for the keyswitch when servicing or repairing the machine. One warning tag is supplied with each machine. Additional tags Part Number 331-4614 are available from your service parts supplier.



B004

WARNING: Before starting engine, study Operator's Manual safety messages. Read all safety signs on machine. Clear the area of other persons. Learn and practice safe use of controls before operating.



It is your responsibility to understand and follow manufacturers instructions on machine operation, service, and to observe pertinent laws and regulations. Operator's and Service Manuals may be obtained from your J.I. Case dealer

45-2

WARNING: If you wear clothing that is too loose or do not use the correct safety equipment for your job, you can be injured. Always wear clothing that will not catch on objects. Extra safety equipment that can be required includes hard hat, safety shoes, ear protection, eye or face protection, heavy gloves and reflector clothing



45-3-A

WARNING: Read the operator's manual to familiarize yourself with the correct control functions.



46-27

WARNING: When working in the area of the fan belt with the engine running, avoid loose clothing if possible, and use extreme caution.



35-4

WARNING: Operate the machine and equipment controls from the seat position only. Any other method could result in serious injury.



48-55

WARNING: When doing checks and tests on the equipment hydraulics, follow the procedures as they are written. DO NOT change the procedure.



47-44

WARNING: This is one man machine, no riders allowed.



35-8

WARNING: When putting the hydraulic cylinders on this machine through the necessary cycles to check operation or to remove air from a circuit, make sure all people are out of the way.



47-45



WARNING: Use insulated gloves or mittens when working with hot parts.

47-41A



CAUTION: Lower all attachments to the ground or use stands to safely support the attachments before you do any maintenance or service.

49-11



CAUTION: Pin sized and smaller streams of hydraulic oil under pressure can penetrate the skin and result in serious infection. If hydraulic oil under pressure does penetrate the skin, seek medical treatment immediately. Maintain all hoses and tubes in good condition. Make sure all connections are tight. Make a replacement of any tube or hose that is damaged or thought to be damaged. **DO NOT** use your hand to check for leaks, use a piece of cardboard or wood.

40-6-A



CAUTION: When removing hardened pins such as a pivot pin, or a hardened shaft, use a soft head (brass or bronze) hammer or use a driver made from brass or bronze and a steel head hammer.

46-17



CAUTION: When using a hammer to remove and install pivot pins or separate parts using compressed air or using a grinder, wear eye protection that completely encloses the eyes (approved goggles or other approved eye protectors).

46-13



CAUTION: Use suitable floor (service) jacks or chain hoist to raise wheels or tracks off the floor. Always block machine in place with suitable safety stands.

40-7-A



CAUTION: When servicing or repairing the machine. Keep the shop floor and operator's compartment and steps free of oil, water, grease, tools, etc. Use an oil absorbing material and or shop cloths as required. Use safe practices at all times.

40-8



CAUTION: Some components of this machine are very heavy. Use suitable lifting equipment or additional help as instructed in this Service Manual.

40-10



DANGER: Engine exhaust fumes can cause death. If it is necessary to start the engine in a closed place, remove the exhaust fumes from the area with an exhaust pipe extension. Open the doors and get outside air into the area.

48-56



DANGER: When the battery electrolyte is frozen, the battery can explode if (1), you try to charge the battery, or (2), you try to jump start and run the engine. To prevent the battery electrolyte from freezing, try to keep the battery at full charge. If you do not follow these instructions, you or others in the area can be injured.

48-35



DANGER: Batteries contain acid and explosive gas. Explosions can result from sparks, flames or wrong cable connections. To connect the jumper cables correctly to the battery of this machine see the Operator's Manual. Failure to follow these instructions can cause serious injury or death.

GENERAL INFORMATION

CLEANING

Clean all metal parts except bearings, in mineral spirits or by steam cleaning. Do not use caustic soda for steam cleaning. After cleaning dry, and put oil on all parts. Clean oil passages with compressed air. Clean bearings in kerosene, dry the bearings completely and put oil on the bearings.

INSPECTION

Check all parts when the parts are disassembled. Replace all parts that have wear or damage. Small scoring or grooves can be removed with a hone or crocus cloth. Complete visual inspection for indications of wear, pitting and the replacement of parts necessary will prevent early failures.

BEARINGS

Check bearings for easy action. If bearings have a loose fit or rough action replace the bearing. Wash bearings with a good solvent or kerosene and permit to air dry. **DO NOT DRY BEARINGS WITH COMPRESSED AIR.**

NEEDLE BEARINGS

Before you press needle bearings in a bore always remove any metal protrusions in the bore or edge of the bore. Before you press bearings into position put petroleum jelly on the inside and outside diameter of the bearings.

GEARS

Check all gears for wear and damage. Replace gears that have wear or damage.

OIL SEALS, O-RINGS AND GASKETS

Always install new oil seals, o-rings and gaskets. Put petroleum jelly on seals and o-rings.

SHAFTS

Check all shafts that have wear or damage. Check the bearing and oil seal surfaces of the shafts for damage.

SERVICE PARTS

Always install genuine Case service parts, when ordering refer to the Parts Catalog for the correct part number of the genuine Case replacement items. Failures due to the use of other than genuine Case replacement parts are not covered by warranty.

LUBRICATION

Only use the oils and lubricants specified in the Operator's or Service Manual. Failures due to the use of non specified oils and lubricants are not covered by warranty.

STANDARD TORQUE DATA FOR NUTS AND BOLTS

Where no special torque data is specified, the following torque figures should be applied. Threads should be lubricated with engine oil or chassis grease.

TORQUE SPECIFICATIONS \pm 10%									
SIZE	GRADE 8.8			GRADE 10.9			GRADE 12.9		
	lb-ft	Nm	kg/m	lb-ft	Nm	kg/m	lb-ft	Nm	kg/m
5 mm	4	5.5	0.56	5.5	7.5	0.76	6.6	9	0.92
6 mm	6.6	9	0.92	9.2	12.5	1.27	11	15	1.53
8 mm	16.5	22.5	2.3	23	31.5	3.2	26.5	36	3.67
10 mm	32	44	4.5	45	62	6.3	55	75	7.65
12 mm	57	77.5	7.9	81	110	11.2	95	130	13.2
14 mm	88	120	12.2	125	170	17.3	155	210	21.4
16 mm	140	190	19.4	195	265	27	236	320	32.6
18 mm	192	260	26.5	269	365	37.2	320	435	44.3
20 mm	273	370	37.7	383	520	53	457	620	63.2
22 mm	369	500	51	516	700	71.4	619	840	85.6
24 mm	471	640	65.2	665	900	92	796	1080	110
27 mm	702	950	97	996	1350	137.7	1195	1620	165.2
30 mm	955	1300	132.5	1328	1800	183.6	1593	2160	220.3

TORQUE DATA FOR HYDRAULIC FITTINGS

FITTINGS, CONNECTIONS AND PLUGS

Diameter x Pitch	Newton / Metres	Pounds / Feet	Kilogram / Metres
10 mm x 1	20	14.5	2
12 mm x 1.5	35	26	3.6
14 mm x 1.5	45	33.2	4.6
16 mm x 1.5	60	44	6.1
18 mm x 1.5	70	51	7.1
22 mm x 1.5	100	73	10.2
27 mm x 2	200	147	20.4
33 mm x 2	280	207	28.6
42 mm x 2	380	281	38.8

NUTS FOR TUBES AND HOSES

Diameter x Pitch	Newton / Metres	Pounds / Feet	Kilogram / Metres
16 mm x 1.5	20	14.5	2
18 mm x 1.5	35	26	3.6
20 mm x 1.45	45	33.2	4.6
24 mm x 1.5	60	44	6.1

FLANGES

Diameter x Pitch	Newton / Metres	Pounds / Feet	Kilogram / Metres
8 mm x 1.5	28	21	2.9
10 mm x 1.5	55	41	5.6
12 mm x 1.75	90	67	9.2
14 mm x 2	145	107	14.8
16 mm x 2	230	170	23.5



**Section
1002
SPECIFICATIONS**

1002

For 888P Excavators
(888P Serial Number: Prior to 6199)
(888P4A Serial Number: Prior to 7699)

Thanks for your reading.

Please click here to download complete manual instantly.

And can also choose other manuals.

Feel free --->write to me with any questions.

Our service email:

manuals007@hotmail.com