

Shop Manual

150A 150FA

CRANE

SERIAL NUMBERS

150A -09695 - 10827

150FA -09695 - 10827

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Shop Manual Set SMC-150FA

Covers Model 150-FA
S/N All Serial Numbers

Contains the sections listed below:

1	A-01.20	ROSS POWER STEERING GEAR (G-R-C)
2	B-02.10	TORQUE CONVERTER (MODEL C272 & C273) (G-C)
3	C-07.00	TRANSMISSION (CLARK 2420) (G-C)
4	C-10.00	TRANSMISSION (TT-2241-1) ALLISON (C)
5	E-02.03	PRIMARY MANIFOLDS AND CONTROLS (C)
6	E-02.04	PRIMARY MANIFOLD AND CONTROLS (C)
7	E-02.40	SECONDARY MANIFOLD ASSEMBLY (C)
8	E-03.10	HYDRAULIC CRANE CYLINDERS (C)
9	E-03.11	POLYURETHANE ONE PIECE ROD SEAL USED ON BOOM CYLINDERS (C)
10	E-03.12	HYDRAULIC CRANE BOOM LIFT CYLINDER (C)
11	E-03.13	DUAL CROWD CYLINDER - FOUR SECTION POWER BOOM (C)
12	E-10.10	HYDRAULIC WINCH MOTOR (COMMERCIAL SHEARING) (C)
13	E-11.30	SWING DRIVE MOTOR (COMMERCIAL SHEARING) (C)
14	E-12.01	TANDEM PUMP (COMMERCIAL SHEARING MODEL 25X) (C)
15	E-14.00	SWING COUNTERBALANCE VALVE (C)
16	E-15.00	HYDRAULIC TROUBLESHOOTING (C)
17	F-06.20	BOOM WINCH ASSEMBLY (C)
18	F-10.00	SPRING MOTORS (C)
19	G-06.00	PLANETARY DRIVE AXLE (CLARK SERIES DS-12152) (C)
20	G-07.00	ROCKWELL AXLE ASSEMBLY (C)
21	G-07.10	CLARK AXLE ASSEMBLY (C)
22	J-02.00	LUBRICATION SPECIFICATIONS (G-R-P-C-M)
23	K-02.00	WAGNER POWER MASTER CYLINDER USED WITH FOUR WHEEL SERVICE BRAKES (G-C)
24	K-06.00	DELCO MORAINÉ HYDRAULIC POWER BRAKE ASSEMBLY (WITH ROCKWELL AXLES ONLY) (C)
25	K-06.50	BENDIX MASTER CYLINDER & POWER BOOSTER (C)
26	K-07.00	MINNESOTA BRAKE VALVE (G-P-C)
27	K-10.30	DELCO MORAINÉ POWER BOOSTER (C)
28	L-03.00	WIRING DIAGRAMS - CRANES (C)
29	L-10.00	TROUBLESHOOTING & REMOVAL OF CRANKING MOTORS (M-P-G-R-C)
30	L-11.00	TROUBLESHOOTING & REMOVAL OF ALTERNATORS (M-G-P-R-C)
31	N-03.40	PRE-DELIVERY PROCEDURES (C) (NOT INCLUDED - LISTED FOR REFERENCE ONLY)
32	O-01.00	HEAD AND HOOK BLOCK (C)
33	O-03.00	DRESSER HYDRAULIC CRANE - WIRE ROPE SPECIFICATION (C)
34	Y-01.00	GENERAL TORQUE VALUES (G-R-P-C-M)

Shop Manual

A-1.20 C6

ROSS POWER STEERING GEAR

APPLICABLE GRADER MODELS	SERIAL NUMBERS..
118A	07245 thru 07600
118B	07601 thru 10750
118C	10751 thru 12013
104A	07245 thru 07600
104B	07601 thru 10750
104C	10751 thru 12013
104HA	07245 thru 07619
104HB	07620 thru 10693
160B	02155 thru 02714
160C	02715 thru 03029
160L	02121 thru 03083
T500A	02601 thru 07994
T500L	02944 thru 07994
T600B	01501 thru 02535
APPLICABLE ROLLER MODELS	SERIAL NUMBERS
PTR 9-Wheel Roller	00101 thru 05678
APPLICABLE CRANE MODELS	SERIAL NUMBER§
80	01001 thru 03131
90 thru 125	01150 thru 08774
90A thru 125A	02006 thru 08774
125F	07247 thru 08774
125FA	07990 thru 08774
140F	07571 thru 08774
150A	02832 an3 Up
150FA	07305 and Up
200FA	09401 and Up

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CAUTION

ALL COMPONENTS MUST BE PROPERLY SUPPORTED DURING DISASSEMBLY AND ASSEMBLY.

ALL JACKING, HOISTING, AND GENERAL WORKSHOP EQUIPMENT REQUIRED FOR THIS OPERATION MUST BE IN GOOD WORKING ORDER.

EXTREME CAUTION TO BE OBSERVED AT ALL TIMES TO PREVENT INJURY.

SAFE WORKSHOP PRACTICES ARE A MUST.

GENERAL TORQUE VALUES

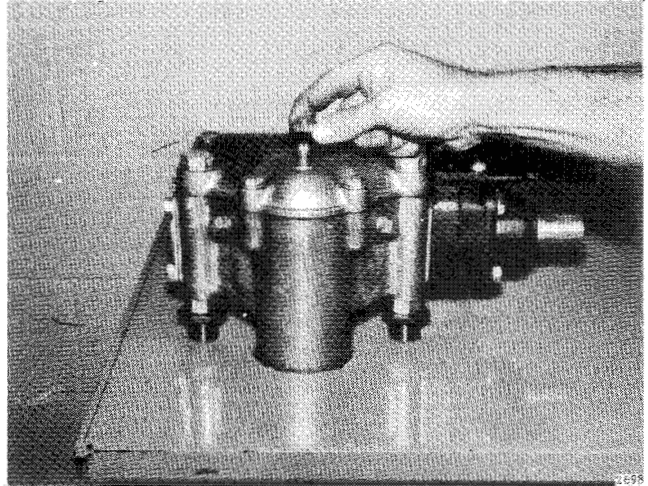
The following General Torques are to be used in all cases where SPECIFIC TORQUES are not given.

NOTE: Torque Values listed throughout this manual are Lubricated (Wet) Threads; values should be increased 1/3 for Non-Lubricated (Dry) Threads.				
Thread Size	Heat treated material Grade 5 & Grade 8			
	Grade 5 (3 radial dashes on bolt or cap screw head)		Grade 8 (6 radial dashes on bolt or cap screw head)	
	Foot Pounds (Ft. Lbs.)	Newton Meters (Nm)	Foot Pounds (Ft. Lbs.)	Newton Meters (Nm)
1/4 - 20	6	8	9	12
1/4 - 28	7	9	11	15
5/16 - 18	13	18	18	24
5/16 - 24	15	20	21	28
3/8 - 16	24	33	34	46
3/8 - 24	27	37	38	52
7/16 - 14	38	52	54	73
7/16 - 20	42	57	60	81
1/2 - 13	58	79	82	111
1/2 - 20	65	88	90	122
9/16 - 12	84	114	120	163
9/16 - 18	93	126	132	179
5/8 - 11	115	156	165	224
5/8 - 18	130	176	185	251
3/4 - 10	205	278	290	393
3/4 - 16	230	312	320	434
7/8 - 9	305	414	455	617
7/8 - 14	335	454	515	698
1 - 8	455	617	695	942
1 - 14	510	691	785	1064
1 1/8 - 7	610	827	990	1342
1 1/8 - 12	685	929	1110	1505
1 1/4 - 7	860	1166	1400	1898
1 1/4 - 12	955	1295	1550	2102
1 3/8 - 6	1130	1532	1830	2481
1 3/8 - 12	1290	1749	2085	2827
1 1/2 - 6	1500	2034	2430	3295
1 1/2 - 12	1690	2291	2730	3701
1 3/4 - 5	2370	3213	3810	5166
2 - 4 1/2	3550	4813	5760	7810

DISASSEMBLY:

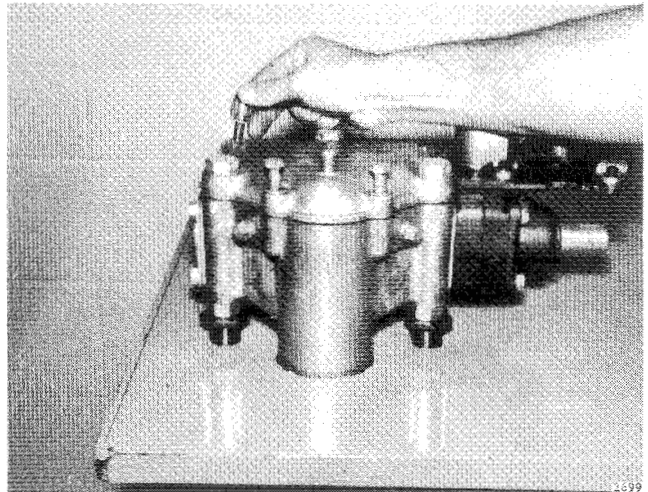
1

Remove adjusting screw lock nut.



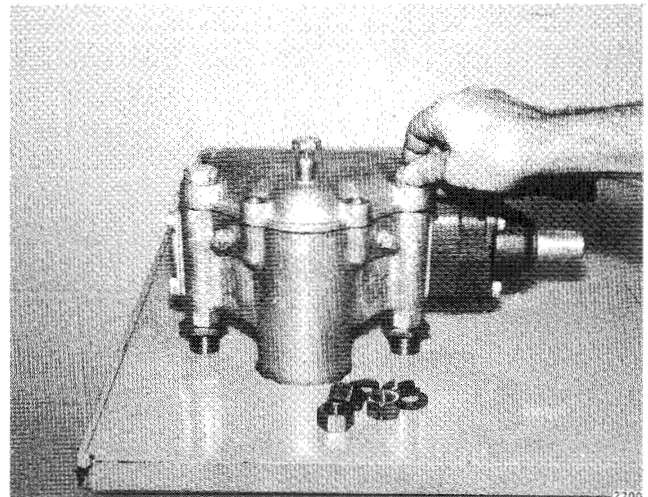
2

Remove small cap screws from cover.



3

Remove nuts and washers from ends of larger cover bolts (beneath steering gear mounting pad), if so equipped.



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