

Case 845 865 885 Service Manual

Full download: <http://manualplace.com/download/case-845-865-885-service-manual/>

SERVICE MANUAL
Grader
845
865
885
6-46503

1. Trim along dashed line.
2. Slide into pocket on Binder Spine.

TYPE 1-4

SERVICE MANUAL
Grader
845
865
885
6-46503

1. Trim along dashed line.
2. Slide into pocket on Binder Spine.

TYPE 1-4

SERVICE MANUAL
Grader
845
865
885
6-46503

1. Trim along dashed line.
2. Slide into pocket on Binder Spine.

TYPE 1-4

SERVICE MANUAL
Grader
845
865
885
6-46503

1. Trim along dashed line.
2. Slide into pocket on Binder Spine.

TYPE 1-4

845 - 865 - 885 GRADER
Service Manual
Brz 6-46503
Table of Contents

Description	Section Number	Publication Form Number
General		Tab 1
Section Index - General		6-46521
Special Tools - Cross Reference Guide	1000	6-15050
Standard Torque Specifications	1001	6-46530
Fluids and Lubricants	1002	6-46541
Metric Conversion Chart	1003	6-46550
Service Tools	1005	6-75330
Loctite Product Chart		8-98902
Engine		Tab 2
Section Index - Engines		6-46561
For Engine Repair, See the Engine Service Manual		
Charge Air Cooler	2002	6-75420
Fuel System		Tab 3
Section Index - Fuel System		6-46591
For Fuel System Repair, See the Engine Service Manual		
Electrical		Tab 4
Section Index - Electrical		6-46601
Removal and Installation of Starter and Alternator	4001	6-42322
Electrical Diagram	4002	6-46621
Battery	4003	6-42331
Alternator 45 Ampere	4008	6-42361
Steering		Tab 5
Section Index - Steering		6-46661
Front Wheel, Axle and Wheel Lean	5002	6-46681
Steering Control Valve (845 - 865 - 885 Grader)	5003	6-46691
Steering Priority Valve (845 - 865 - 885 Grader)	5004	6-46701
Power Train		Tab 6
Section Index - Power Train		6-46731
Transmission Specifications, Pressure Checks and Troubleshooting (845 - 865 Grader)	6002	6-46751

845 - 865 - 885 GRADER Service Manual Brz 6-46503

Table of Contents (Continued)

Description	Section Number	Publication Form Number
Transmission Specifications, Pressure Checks and Troubleshooting (885 Grader)	6002	6-75350
Transmission (845 - 865 Grader)	6003	6-46761
Transmission (885 Grader)	6003	6-75360
Rear Axle With Differential Lock	6005	6-75370
Limited Slip Rear Axle 845-865 Grader	6005	6-46782
Tandem Drive Limited Slip Rear Axle 845-865 Grader	6006	6-46792
Tandem Drive Differential Hydraulic Lock	6006	6-75380
Brakes		Tab 7
Section Index - Brakes		6-46810
Hydraulic Brake Troubleshooting	7002	6-46831
Brake Pedal Valve System	7003	6-46842
Hydraulics		Tab 8
Section Index - Hydraulics		6-46861
Removal and Installation of Hydraulic Components	8001	6-46872
Hydraulic Schematics	8002	6-75400
Mounted Equipment		Tab 9
Section Index - Mounted Equipment		6-46931
Air Conditioning Troubleshooting	9002	6-46950
Air Conditioning Troubleshooting For Systems With HFC 134A Refrigerant	9002	6-75390
Air Conditioner System Operating Instructions	9003	6-46960
Air Conditioner System Service	9003	6-42650
Removal and Installation of Air Conditioning Components for Systems with HFC 134A Refrigerant	9004	6-46971
Rear Ripper	9007	6-47011
Frame, Articulation Joint, Circle and Scarifier	9008	6-47001
Front Blade and Counterweight	9009	6-47021
ROPS Cab	9010	6-47031
Cab Glass Installation	9011	6-47041

NOTE: CNH Latino Americana 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.

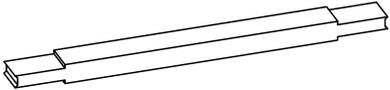
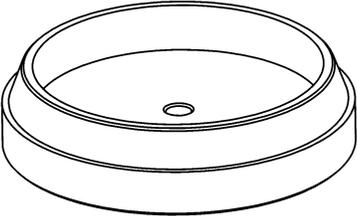
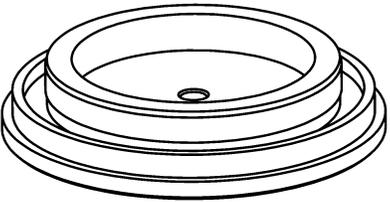
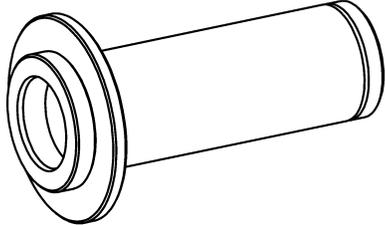
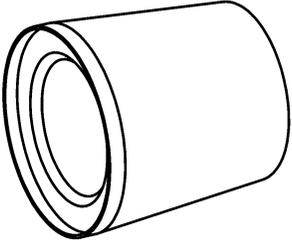
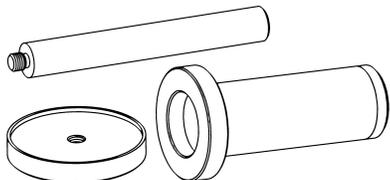
SECTION INDEX

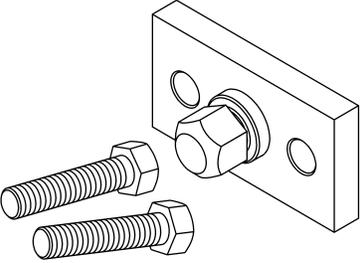
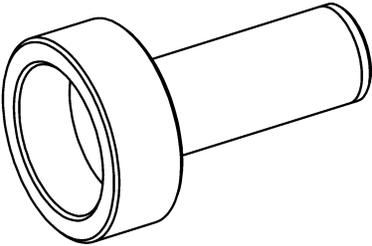
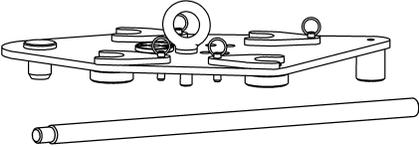
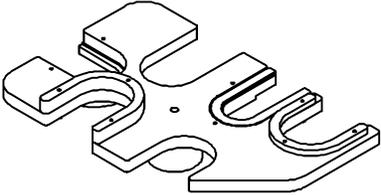
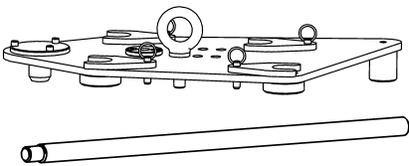
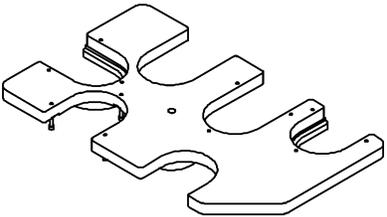
GENERAL

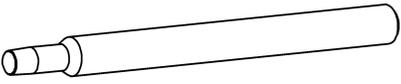
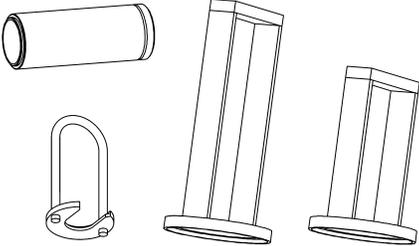
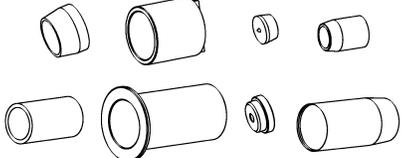
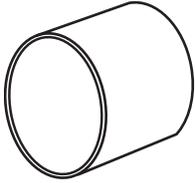
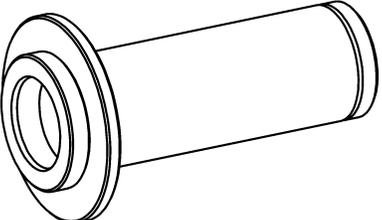
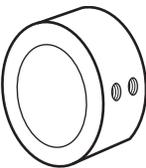
Section Title	Section Number
Special Tools - Cross Reference Guide	1000
Standard Torque Specifications	1001
Fluid and Lubricants	1002
Metric Conversion Chart	1003
Loctite Product Chart	
Service Tools	1005

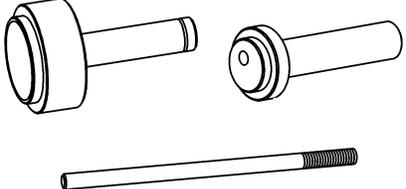
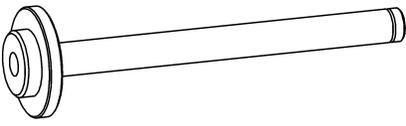
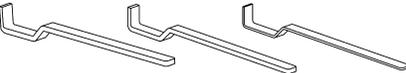
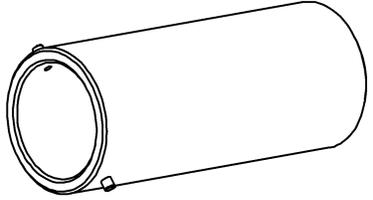
Section 1000

SPECIAL TOOLS Cross Reference Guide

	Description	Old Number	New Number
	Axle Brake Disc Go/No Go Gauge	75301703	380000378
	Axle Seal Installer	75301704	380000379
	Axle Seal Installer	75301705	380000380
	Transmission Input Seal Installer	75310180	380000387
	Transmission Oil Seal Guide	75310181	380000388
	Transmission Seal Driver	75310185	380000391

	Description	Old Number	New Number
 <p>A technical drawing of a hub remover assembly. It consists of a rectangular metal plate with two circular holes. One hole has a hex nut and a bolt inserted through it. To the left of the plate, there are two additional bolts and hex nuts, one of which is partially inserted into the second hole of the plate.</p>	Hub Remover	75312684	380000394
 <p>A technical drawing of a seal driver. It is a cylindrical tool with a wider, flanged end on the left and a narrower shaft extending to the right.</p>	Seal Driver	75310190	380000397
 <p>A technical drawing of a lifting device. It features a flat, rectangular base plate with several small, raised feet. On top of the plate, there are several small circular components and a larger ring. A long, thin cylindrical rod is shown below the plate, intended to be used with the device.</p>	Lifting Device	75289947	380000374
 <p>A technical drawing of a stack nest. It is a complex, multi-ported metal component with several curved, hook-like protrusions extending from its top surface.</p>	Stack Nest	75289948	380000375
 <p>A technical drawing of a lifting device, identical to the one in the third row. It shows a flat base plate with feet, small circular components, a ring, and a long cylindrical rod.</p>	Lifting Device	75289949	380000376
 <p>A technical drawing of a stack nest, identical to the one in the fourth row. It shows a complex metal component with curved protrusions.</p>	Stack Nest	75289950	380000377

	Description	Old Number	New Number
	Plug Installer	75301709	380000381
	Assembly Tools	75310177	380000382
	Retaining Ring Tool	75310178	380000385
	Sizing Sleeve	75310179	380000386
	Sleeve Installer Adapter	75310180	380000389
	Bearing Installer	75310183	380000390

	Description	Old Number	New Number
	Assembly Tools	75310186	380000392
	Bearing Driver	75310187	380000393
	Clutch Clearance Gauge	75310188	380000395
	Aligning Sleeve	75310189	380000396

Section 1001

STANDARD TORQUE SPECIFICATIONS

TABLE OF CONTENTS

TORQUE SPECIFICATIONS - DECIMAL HARDWARE	3
TORQUE SPECIFICATIONS - METRIC HARDWARE	4
TORQUE SPECIFICATIONS - STEEL HYDRAULIC FITTINGS	5
TORQUE SPECIFICATIONS - STEEL HYDRAULIC FITTINGS	6

NOTE: 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.

TORQUE SPECIFICATIONS - DECIMAL HARDWARE

Use the torques in this chart when special torques are not given. These torques apply to fasteners with both UNC and UNF threads as received from suppliers dry, or when lubricated with engine oil. Not applicable if special graphities, Molydisulfide greases, or other extreme pressure lubricants are used.

Grade 5 Bolts, Nuts, and Studs		
		
Size	Pound-Inches	Newton metres
1/4 inch	108 to 132	12 to 15
5/16 inch	204 to 252	23 to 28
3/8 inch	420 to 504	48 to 57
Size	Pound-Feet	Newton metres
7/16 inch	54 to 64	73 to 87
1/2 inch	80 to 96	109 to 130
9/16 inch	110 to 132	149 to 179
5/8 inch	150 to 180	203 to 244
3/4 inch	270 to 324	366 to 439
7/8 inch	400 to 480	542 to 651
1.0 inch	580 to 696	787 to 944
1-1/8 inch	800 to 880	1085 to 1193
1-1/4 inch	1120 to 1240	1519 to 1681
1-3/8 inch	1460 to 1680	1980 to 2278
1-1/2 inch	1940 to 2200	2631 to 2983

Grade 8 Bolts, Nuts, and Studs		
		
Size	Pound-Inches	Newton metres
1/4 inch	144 to 180	16 to 20
5/16 inch	288 to 348	33 to 39
3/8 inch	540 to 648	61 to 73
Size	Pound-Feet	Newton metres
7/16 inch	70 to 84	95 to 114
1/2 inch	110 to 132	149 to 179
9/16 inch	160 to 192	217 to 260
5/8 inch	220 to 264	298 to 358
3/4 inch	380 to 456	515 to 618
7/8 inch	600 to 720	814 to 976
1.0 inch	900 to 1080	1220 to 1465
1-1/8 inch	1280 to 1440	1736 to 1953
1-1/4 inch	1820 to 2000	2468 to 2712
1-3/8 inch	2380 to 2720	3227 to 3688
1-1/2 inch	3160 to 3560	4285 to 4827
NOTE: Use thick nuts with Grade 8 bolts.		

TORQUE SPECIFICATIONS - METRIC HARDWARE

Use the following torques when specifications are not given.

These values apply to fasteners with coarse threads as received from supplier, plated or unplated, or when lubricated with engine oil. These values do not apply if graphite or Molydisulfide grease or oil is used.

Grade 8.8 Bolts, Nuts, and Studs		
		
Size	Pound-Inches	Newton metres
M4	24 to 36	3 to 4
M5	60 to 72	7 to 8
M6	96 to 108	11 to 12
M8	228 to 276	26 to 31
M10	456 to 540	52 to 61
Size	Pound-Feet	Newton metres
M12	66 to 79	90 to 107
M14	106 to 127	144 to 172
M16	160 to 200	217 to 271
M20	320 to 380	434 to 515
M24	500 to 600	675 to 815
M30	920 to 1100	1250 to 1500
M36	1600 to 1950	2175 to 2600

Grade 10.9 Bolts, Nuts, and Studs		
		
Size	Pound-Inches	Newton metres
M4	36 to 48	4 to 5
M5	84 to 96	9 to 11
M6	132 to 156	15 to 18
M8	324 to 384	37 to 43
Size	Pound-Feet	Newton metres
M10	54 to 64	73 to 87
M12	93 to 112	125 to 150
M14	149 to 179	200 to 245
M16	230 to 280	310 to 380
M20	450 to 540	610 to 730
M24	780 to 940	1050 to 1275
M30	1470 to 1770	2000 to 2400
M36	2580 to 3090	3500 to 4200

Grade 12.9 Bolts, Nuts, and Studs



Usually the torque values specified for grade 10.9 fasteners can be used satisfactorily on grade 12.9 fasteners.

TORQUE SPECIFICATIONS - STEEL HYDRAULIC FITTINGS

Tube OD Hose ID	Thread Size	Pound- Inches	Newton metres
37 Degree Flare Fitting			
1/4 inch 6.4 mm	7/16-20	72 to 144	8 to 16
5/16 inch 7.9 mm	1/2-20	96 to 192	11 to 22
3/8 inch 9.5 mm	9/16-18	120 to 300	14 to 34
1/2 inch 12.7 mm	3/4-16	180 to 504	20 to 57
5/8 inch 15.9 mm	7/8-14	300 to 696	34 to 79
Tube OD Hose ID	Thread Size	Pound- Inches	Newton metres
3/4 inch 19.0 mm	1-1/16-12	40 to 80	54 to 108
7/8 inch 22.2 mm	1-3/16-12	60 to 100	81 to 135
1.0 inch 25.4 mm	1-5/16-12	75 to 117	102 to 158
1-1/4 inch 31.8 mm	1-5/8-12	125 to 165	169 to 223
1-1/2 inch 38.1 mm	1-7/8-12	210 to 250	285 to 338

Tube OD Hose ID	Thread Size	Pound- Inches	Newton metres
Straight Threads with O-ring			
1/4 inch 6.4 mm	7/16-20	144 to 228	16 to 26
5/16 inch 7.9 mm	1/2-20	192 to 300	22 to 34
3/8 inch 9.5 mm	9/16-18	300 to 480	34 to 54
1/2 inch 12.7 mm	3/4-16	540 to 804	57 to 91
Tube OD Hose ID	Thread Size	Pound- Inches	Newton metres
5/8 inch 15.9 mm	7/8-14	58 to 92	79 to 124
3/4 inch 19.0 mm	1-1/16-12	80 to 128	108 to 174
7/8 inch 22.2 mm	1-3/16-12	100 to 160	136 to 216
1.0 inch 25.4 mm	1-5/16-12	117 to 187	159 to 253
1-1/4 inch 31.8 mm	1-5/8-12	165 to 264	224 to 357
1-1/2 inch 38.1 mm	1-7/8-12	250 to 400	339 to 542

Split Flange Mounting Bolts		
Size	Pound- Inches	Newton metres
5/16-18	180 to 240	20 to 27
3/8-16	240 to 300	27 to 34
7/16-14	420 to 540	47 to 61
Size	Pound- Feet	Newton metres
1/2-13	55 to 65	74 to 88
5/8-11	140 to 150	190 to 203

TORQUE SPECIFICATIONS - STEEL HYDRAULIC FITTINGS

Nom. SAE Dash Size	Tube OD	Thread Size	Pound-Inches	Newton metres	Thread Size	Pound-Inches	Newton metres
O-ring Face Seal End					O-ring Boss End Fitting or Lock Nut		
-4	1/4 inch 6.4 mm	9/16-18	120 to 144	14 to 16	7/16-20	204 to 240	23 to 27
-6	3/8 inch 9.5 mm	11/16-16	216 to 240	24 to 27	9/16-18	300 to 360	34 to 41
-8	1/2 inch 12.7 mm	13/16-16	384 to 480	43 to 54	3/4-16	540 to 600	61 to 68
					Thread Size	Pound-Inches	Newton metres
-10	5/8 inch 15.9 mm	1-14	552 to 672	62 to 76	7/8-14	60 to 65	81 to 88
Nom. SAE Dash Size	Tube OD	Thread Size	Pound-Inches	Newton metres	1-1/16-12	85 to 90	115 to 122
					1-3/16-12	95 to 100	129 to 136
-12	3/4 inch 19.0 mm	1-3/16-12	65 to 80	90 to 110	1-5/16-12	115 to 125	156 to 169
-14	7/8 inch 22.2 mm	1-3/16-12	65 to 80	90 to 110	1-5/8-12	150 to 160	203 to 217
-16	1.0 inch 25.4 mm	1-7/16-12	92 to 105	125 to 140	1-7/8-12	190 to 200	258 to 271
-20	1-1/4 inch 31.8 mm	1-11/16-12	125 to 140	170 to 190			
-24	1-1/2 inch 38.1 mm	2-12	150 to 180	200 to 254			

Section 1002

1002

FLUIDS AND LUBRICANTS

845 - 865 - 885 Grader

TABLE OF CONTENTS

CAPACITIES AND LUBRICANTS 845 MODEL.....	3
CONVERSION FORMULAS	3
CAPACITIES AND LUBRICANTS 865 MODEL.....	4
CONVERSION FORMULAS	4
CAPACITIES AND LUBRICANTS 885 MODEL.....	5
CONVERSION FORMULAS	5
ENGINE OIL RECOMMENDATIONS.....	6
DIESEL FUEL SYSTEM	7
LUBRICATION & MAINTENANCE CHART model 845	8
LUBRICATION & MAINTENANCE CHART model 865	10

845 GRADER FLUIDS AND LUBRICANTS

COMPONENTS	CAPACITY LITERS	CAPACITY US Gal.	SPECIFICATIONS
Fuel Tank (Total Capacity)	341.0	90.0	DIESEL N°. 2
Engine Oil (With Filter Change) (Without Filter Change)	16.4 14.2	4.3 3.7	N°. 1 ENGINE OIL SAE15W-40 API CH4 MAT 3507 (MS 1121)
Engine Cooling System (Total Capacity)	40.0	10.5	50% WATER + 50% ETHYLENE GLICOL MS 1710
Hydraulic System Total Capacity Hydraulic Tank With Filter	180.0 94.6	47.5 25.0	HY-TRAN ULTRA MAT 3505 (MS 1209)
Transmission Refill capacity (with filter change) Refill capacity (without filter change)	25.0 19.0	6.4 5.0	HY-TRAN ULTRA MAT 3505 (MS 1209)
Rear Axle Graziano Model (Standard) Center Compartment End / Brake compartment (each)	29.0 5.0	7.7 1.33	HY-TRAN ULTRA MAT 3505 (MS 1209)
Rear Axle Clark Model (Optional) Center Compartment Planetary Hubs (Each)	12.0 6.0	3.2 1.6	HY-TRAN ULTRA MAT 3505 (MS 1209)
Tandem Drive Case (For Graziano Axle) Refill capacity (each)	29.0	7.7	SAE 80W-90 135H EP API GL5
Tandem Drive Case (For Clark Axle) Refill capacity (each)	22.5	5.9	SAE 80W-90 135H EP API GL5
Circle Turn Gear Refill Capacity	2.8	0.75	SAE 80W-90 135H EP API GL5
Grease Fitting Rear Ripper / Front Scarifier and Dozer Blade	UQN	UQN	CASE MOLYDISULFIDE GREASE