TM 9-4910-630-14&P

TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS LIST

FOR

RELINER, BRAKE AND CLUTCH MODEL 501G (METAL-NAX SALES DIVISION) (NSN 4910-00-173-5310)

HEADQUARTERS, DEPARTMENT OF THE ARMY

MAY 1980

Technical Manual

No. 9-4910-630-14&P

HEADQUARTERS DEPARTMENT OF THE ARMY Washington, DC, 23 May 1980

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS LIST FOR RELINER, BRAKE AND CLUTCH MODEL 501G (METAL-NAX SALES DIVISION) (NSN 4910-00-173-5310)

REPORTING OF ERRORS

You can help improve this manual by recommending improvements using, DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 located in the back of this manual. Mail your form direct to Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-MAS, Rock Island, IL 61299. A reply will be furnished direct to you.

NOTE

This manual is published for the purpose of identifying an authorized commercial manual for the use of the personnel to whom the reliner is issued.

Manufactured by: Metal Nax P. O. Box 666 Plainfield, New Jersey 07061

Procured under Contract No: DAAA09-76-C-6224

This technical manual is an authentication of the manufacturers' commercial literature and does not conform with the format and content specified in AR 310-3, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.

TABLE OF CONTENTS

SECTION I - Use and Maintenance	Paragraph
	1-1 thru 1-4
TABLE OF SPECIFICATIONS	1-5
INSTALLATION	1-6 thru 1-12
OPERATIONAL PROCEDURES	
MAINTENANCE PROCEDURES	1-41 1-42 1-43 1-44
DISASSEMBLY	1-46
SECTION II Parts Ordering Parts List Parts Drawing Tool List Tool Drawing	

SECTION I USE AND MAINTENANCE

1-1. INTRODUCTION

1-2, The heavy duty combination brake reliner, model 501G, is engineered to give years of precision, trouble-free performance as well as keeping maintenance expenses at a minimum and operating efficiency at a maximum

- 1-3. The model 501G is designed to rivet and derivet brake shoes, brake bands, and clutch discs.
- 1-4. Numbers in parentheses in the following paragraphs refer to the item numbers. (see figure 2-1).

1-5. TABLE OF SPECIFICATIONS

Deriveting capacity range (rivet Diameter) 1/8" to 1 Drilling capacity range(diameter) 1/8" to 1 Countersinking capacity range (diameter) 1/8" to 1/2 Grinding capacity range (diameter) 1/8" to 2 Grinding capacity range (diameter) 6" to 2 Grinding capacity width 7/2" Grinder RPM 1,725 Throat depth .61/2" Dimensions length width 2	¹ ⁄4" 4" 16" 24"
width 2 height 4	••

Motor	1/3hp, 115V, 60MZ, I phase, 175 RPM
totally	/ enclosed fan cooled, fungus proof.
Weight	

1-6. INSTALLATION

1-7. Remove machine and all accessories from shipping container and conduct visual inspection for inshipment damage.

1-8. Check all parts with packing slip to insure all items are included.

1-9. Clean all machined surfaces and tooling that are covered with a protective coating. It is recommended that a good grease solvent be used.

1-10. Place machine in desired location and securely bolt to floor, making sure machine is level.

1-11. Insert cord and plug (61) with part no. 507M, plug adapter, from tool box, on end of plug, into electrical outlet. Machine is now properly installed and ready for operation.

1-12. Theory of Operation: The 501G is foot powered, using levers and linkage to transmit and multiply the force applied to the foot pedal (78), from the foot pedal (78) to the upper tool holder (69).

1-13. OPERATIONAL PROCEDURES

1-14. Deriveting.

1-15. Rotate lower tool holder (562) fully clockwise.

1-16. Select proper knockout punch and punch point, (see tool application chart, paragraph 1-40).

1-17. Insert knockout punch into upper tool holder (69) with tapered end going into upper tool holder (69). It is very important that when installing tools into machine that you do the following in order to get perfect alignment.

First, clean taper on tool you are inserting into upper tool holder (69). This is done by wiping with a rag. Then insert tool into holder.

1-18. Insert knockout bushing (#36 or 76) into lower tool holder (562).

1-19. Insert driver (#73) into lower tool holder (#562) and bushing (#36).

1-20. Depress foot pedal (78) to floor, hold foot pedal (78) in this position and rctate lower tool holder (562) until punch point is positioned against driver (73), then release pedal and adjust lower tool holder (562) ¼ of a turn counterclockwise, then depress foot pedal (78) until knockout tool is locked into upper tool holder (69), adjust accordingly. Once this is done remove driver (73) and rotate lower tool holder (562) until punch point is positioned approximately ¼" into lower tool holder bushing (76 or 36). Release foot pedal (78). NOTE: Do not over adjust, as you can break riveter head.

1-21. Place brake shoe etc. on top of lower tool holder (562) with bushing in it (76 or 36). Depress foot pedal (78) fully to punch out rivet. If rivet is not knocked out adjust lower tool holder (562) accordingly as stated in 1-

1-22. Loosen roller handles (50) and place deriveted brake shoe on grinder table (24) against rollers (52). Adjust rollers (52) so brake shoe table will contact all 4 rollers (52) and grinding sleeve at the same time. This is done by loosening clamp screw assemblies (39) and sliding roller guide bracket assemblies (51) to the location desired. Tighten roller handles (50) and clamp screw assemblies (39).

1-23. Switch on motor (56) at switch (60) and move brake shoe back and forth against grinding sleeve until brake shoe table is clean.

1-24. Switch off motor (56) at switch (60).

1-25. Countersinking.

1-26. Select proper countersink and drill (see tool application chart, paragraph 1-40).

1-27. Lift countersink guide (1) and insert countersink into spindle (12), being sure it is fully seated. Tighten socket set screw (11) and return countersink guide (1) to its position.

1-28. Switch on motor (56) at switch (60).

1-29. Adjusting countersink drilling depth, place lining, etc. on drill table (5) over countersink. Push lining down until drill table (5) hits stop screw (10), Then turn stop screw (10) counterclockwise or clockwise to regulate depth required. To determine correct depth slide lining against countersink, and observe mark left by countersink cutting tips. Mark indicates depth of hole countersink will drill.

1-30. Place lining, etc. on drill table (5) over countersink. Align brake shoe, etc., so rivet hole is directly under tip of countersink guide (1). Push brake shoe down until drill table (5) has hit the stop screw (10).

1-31. Riveting. Select proper clincher and plain anvil, (see tool application chart, paragraph 1-40). 1-32. Plain anvil, insert into lower tool holder (562) after tool holder bushing (36) has been put into lower tool holder (562).

1-33. Rotate lower tool holder (562) fully clockwise.

1-34. Insert clincher into upper tool holder (69) with tapered end going into upper tool holder (69). It is very important that when installing tools into machine, that you do the following in order to get perfect alignment.

1st. Clean taper on tool you are inserting into upper tool holder (69). This is done by wiping with a rag. Then insert tool into tool holder.

2nd. Insert #(73) driver into tool holder (562) and bushing (36). Depress foot pedal (78) to floor. Hold foot pedal (78) in this position and rotate lower tool holder (562) until roll set is positioned against driver (73), then release pedal and adjust lower tool holder (562) ¼ of a turn counterclockwise. Then depress the foot pedal (78) until roll set is locked into upper tool holder (69). Adjust accordingly.

Once this is done, remove driver (73) and insert anvil back into the lower tool holder and bushing. 1-35. Place rivet on plain anvil and depress foot pedal (78) to floor and hold in that position,

1-36. Rotate lower tool holder (562) counterclockwise or clockwise until rivet contacts clincher. Release foot pedal (78) and rotate lower tool holder (562) one additional turn counterclockwise.

1-37. Insert rivet into brake shoe, etc. and place head of rivet on top of anvil.

1-38. Depress foot pedal (78) to floor, release foot pedal (78). If rivet is not properly clinched, rotate lower tool holder (562) counterclockwise 1/4 turn. Repeat this procedure until proper clinch is attained. 1-39. Tool application chart.

Rivet Series	Rivet head dia.	Rivet Shank dia.	Knock- out Punch	Punch Point	Counter- sinker	Anvil	Roll Set	Star Set
3	1⁄4 "	1/8"	75	75-1	90	34	77	74**
4	5/16"	9/64"	R-n	R-11p	95	35	77	74**
5	3/8"	9/64"	R-11	R-11p	91	35	77	74**
7	3/8"	3/16"	R-12	R-12p	92	35	78	88*
8	1⁄2 "	3/16"	R-12	R-12p	94	35a	78	88**
10	1⁄2 "	1⁄4 "	R-13	R-13p	96	35a	80	-

**Used only on clutch facings where rivet is clinched against facing material.

1-40. Maintenance procedures.

1-41. Lubrication:

A. Head Assembly (72). Apply a few drops of S.A.E. No. 10 oil, to lower tool holder (562) threads, and upper tool holder (69). Also on item #66, 68, and 68 pins.

B. Grinder assembly (38), apply a few drops of S.A.E. No. 10 oil once a week on lower end of shaft. Also on roller guide bracket assembly (51) on shaft that goes into spring (53).

C. Countersink drill table assembly, oil shaft (7) and guide pin (8) with S.A.E. No. 10 oil, once a week.

D. Countersink spindle (12) oil under dust cover (13) with S.A.E. No. 10 oil, once a week.

E. Linkage pins, apply a few drops of S.A.E. No. 10 oil once a month to pin (68) and pin (66).

1-42. Tooling and Miscellaneous.

A. Punch point removal and installation.

1.) #75 punch, loosen top square head screw and take out. Remove filler pin and take out pin. Reverse procedure for replacement.

2.) R-II, R-12, and R-13. punch. Loosen socket set screw in side of knockout punch and pull out punch point, reverse procedure for replacement.

B. Center Drill removal and Installation on countersinks: 90, 91, 92, 94, 95, 96. Loosen socket set screw in side of countersink and lift out center drill. Reverse procedure for replacement. Being sure socket set screw tightens against flat portion of center drill.

C. Countersink removal and installation, loosen socket set screw (11) and lift out countersink, Reverse procedure for replacement being sure slot in countersink is aligned with hole in spindle (12) and fully seated. Taper end of countersink goes into spindle (12)

D. Grinding sleeve removal and installation, Take off top cover (30) by unloosening 2 screws (28), loosen jam nut (32) and complete grinding assembly will be able to come off. Takeoff expansion cups (31) from both ends and abrasive sleeve (37) will be able to be pulled off and a new one put on. Reverse procedure for replacement,

E. Dust bag (63). When dust bag (63) is 1/3 full of dust, remove clamp (64) and empty.

F. Belt replacement.

1. Belt (23) running from countersink pulley (18) to sander pulley (49). Loosen socket set screw in countersink pulley and take off lower half of this adjustable pulley by turning it counterclockwise. Then drop lower half of coupling (47) by unscrewing socket set screw and remove rubber insert. Remove belt. Insert new belt on angle and push coupling (47) back into place tightening socket set screw on flat part of shaft. Make sure rubber insert has been replaced. Then put belt back into countersink pulley (18) and adjust lower pulley until tension is on the belt. Then turn to flat and tighten socket set screw.

G. To remove tools from upper tool holder (69) use #81 Drift pin.

1-43. Troubleshooting.

1. Riveter

A. Problem: Riveter fails to properly clinch rivet.

Reason: Lower tool holder (562) is not properly adjusted. Incorrect tooling

Defective clincher

B. Problem: Upper tool holder (69) fails to retract.

Reason: Failure to follow lubrication instructions. Broken Spring. (77)

C. Problem: Knockout pins breaking or bending.

Reason: Lower tool holder (562) not properly adjusted.

Incorrect tooling

Defective punch pins

Operator not holding Brake Shoe Securely

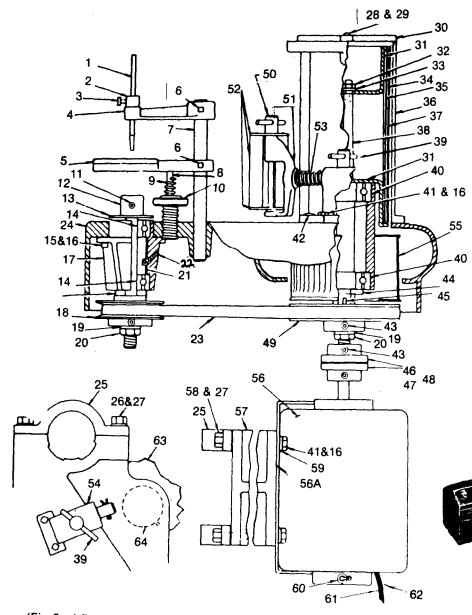
ITEM NO.	ASSEM. NO.	PART NO.	DESCRIPTION	QUAN PER ASSEM.	QUAN PER MACH.
41		SB-632M	1/4"-20X 5/8" LG. HEXAGON HEAD SCREW	6	10
16		SB-634AM	1/4" LOCK WASHERS	6	13
42		SB-381M	3/8"-16 X 5/8" LG. FILISTER HEAD SCREW	3	3
43		SB-254M	5/16"-18X3/8" ALLEN SET SCREW	2	2
44		511M	SANDER SPINDLE BEARING WASHER	1	1
45		576M	KEY, 1/8" X 1/8" X 1/2"	1	1
19		SB-600M	1/2" LOCK WASHER	1	2
20		SB-45	1/2"-20 JAM NUT	2	4
46		581TM	TOP HALF COUPLING, 3/8" HOLE	1	1
47		581BM	BOTTOM HALF COUPLING, 5/8" HOLE	1	1
48		581IM	RUBBER INSERT	1	1
49		547M	AIR ROTOR PULLEY	1	1
50		514CM	CLAMP BOLT ASSEMBLY	2	2
51		514AM	ROLLER GUIDE BRACKET ASSEMBLY	2	2
52		514BM	ROLLER GUIDE ASSEMBLY	2	2
53		544M	ADJUSTOR SPRING	2	2
54		513	ROLLER GUIDE BRACKET HOLDER	2	2
55		509M	AIR ROTOR	1	1
			END GRINDER ASSEMBLY		
	1006		MOTOR ASSEMBLY		
56	1000	572M	MOTOR, 1/3HP, 115V,60MZ, 1 PHASE, 1725 RPM		
50		0,211	TOTALLY ENCLOSED FAN COOLED, FUNGUS PROOF	1	1
56A		SB-646M	3/8"-16 NUT	4	4
57		578M	MOUNTING BRACKET	1	1
58		SB-633M	3/8"-16X1-3/4" LG HEX BOLT	4	4
27		SB-626AM	3/8" LOCK WASHER	4	12
25		865-5M	MOUNTING BRACKET CAP	2	4
41		SB-632	1/4"-20X5/8" LG HEXAGON HEAD SCREW	4	10
16		SB-634A	1/4" LOCK WASHER	4	13
59		SB-630	1/4" PLAIN WASHER	4	5
60		582M	MOTOR SWITCH	1	1
61		567M	CORD AND PLUG 15FT.	1	1
62		507,	PLUG ADAPTER	1	1
	1007		DUST BAG ASSEMBLY		1
63		568M	DUST BAG	1	1
64		569M	HOSE CLAMP, 1-3/4"	1	1
	1008		RIVETER HEAD ASSEMBLY		1
65	1008	CD 10M	1/16" X 3/4" LG COTTER PIN	5	1 8
65 66		SB-12M RFP-221M	TOGGLE LINK PIN	1	° 1
67		RFP-221M RFP-204M	TOGGLE LINK PIN	1	1
68				3	⊥ 4
69		RFP-218M 560M	TREADLE PIPE AND TOGGLE ARM PIN TOOL HOLDER (UPPER)	1	4
70		502M	TOGGLE ARM	1	1
70		561M	TREADLE PIPE	1	1
72		503M	RIVETER HEAD	1	1
73		SB-300M	3/8"-16X1/2" LG. SQ. HEAD SET SCREW	1	1
-					
	1009		PEDESTAL TUBE AND BASE ASSEMBLY		
74		RFP-282M	TOOL RACK	1	1

ITEM	ASSEM	PART		QUAN PER	QUAN PER
NO.	NO.	NO.	DESCRIPTION	ASSEM	MACH.
75		SB-162M	10-32 X 5/8" LG. ROUND HEAD SCREW	2	2
76		RFT-212M	PEDESTAL TABLE	1	1
59		SB-630M	1/4" PLAIN WASHER	1	5
77		RFP-263M	TREADLE PIPE CLOSED SPRING	1	1
78		RFP-202M	TREADLE	1	1
79		RFP-201M	PEDESTAL BASE	1	1
80		RFP-220M	TREADLE PIN	1	1
81		SB-628M	3/8"-16 X 1" CARRIAGE BOLT AND NUT	4	4
82		SB-402M	3/8" PLAIN WASHER	2	2
27		SB-626AM	3/8" LOCK WASHER	4	12
83		508M	TOOL BOX	1	1

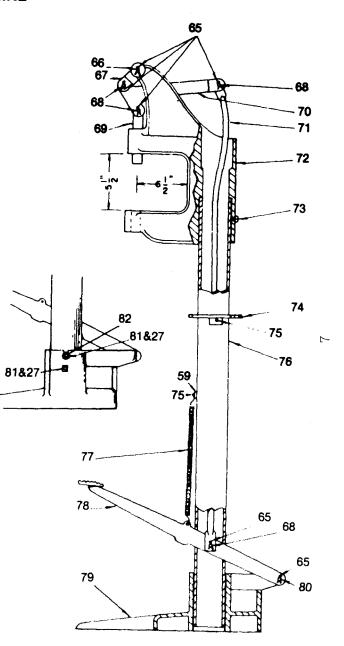
6

REPLACEMENT PARTS AND TOOLS LIST FOR 501G MACHINE

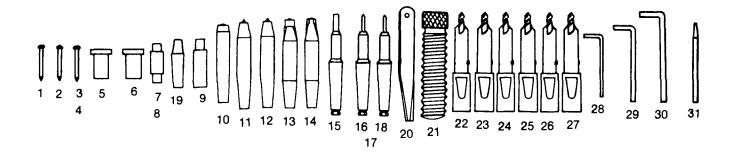
83



⁽Fig 2-1 Parts Breakdown Model 501G)



ITEM	ASSEM.	PART		QUAN PER	QUAN PER
NO.	NO.	NO.	DESCRIPTION	ASSEM.	MACH.
	1000		LOCATING ROD ASSEMBLY		1
1		DU-800-13M	LOCATING ROD	1	1
2		GFP-6011M	LOCATING ROD COLLAR	1	1
3		SB-90M	1/4"-20X3/8" LG. HEXAGON HEAD CAP SCREW END		
			LOCATING ROD ASS.	1	1
	1001		COUNTERSINK DRILL TABLE ASSEMBLY		1
4		549M	LOCATING ROD ARM	1	1
5		531M	DRILL TABLE	1	1
6		SB-307M	1/4-20X1/2" LG. SQUARE HEAD SCREW	2	2
7		551M	GUIDE ROD, 5/8"	1	1
8		552M	GUIDE PIN	1	1
9		DU-800-21M	DRILL TABLE RETURN SPRING	1	1
10		550M	STOP SCREW	1	1
			END COUNTERSINK, DRILL TABLE ASSEMBLY		
	1002		COUNTERSINK SPINDLE ASSEMBLY		1
11		SB-637M	10-32X1/4" LG ALLEN SET SCREW	1	1
12		533M	COUNTERSINK SPINDLE	1	1
13		548M	DUST COLLAR	1	1
14		DU-805-11M	BEARING	2	2
15		SB-634M	1/4"-20 X 1" ALLEN CAP SCREW	3	3
16		SB-634AM	1/4" LOCK WASHER	3	13
17		534M	COUNTERSINK SPINDLE BEARING SUP.	1	1
18		579M	COUNTERSINK TAKE UP PULLEY	1	1
19		SB-600M	1/2" LOCK WASHER	1	2
20		SB-45M	1/2"-20 JAM NUT	2	4
21		535M	COUNTERSINK SPINDLE OUTER SPACER	1	1
22		SB-636M	1/4"-20 X 1/2" ALLEN SET SCREW	1	1
			END COUNTERSINK SPINDLE ASSEMBLY		
	1003		BELTS		1
23		580M	"V" BELT	1	1
	1004		TABLE ASSEMBLY		1
24		577M	BASE	1	1
25		865-5M	MOUNTING BRACKET CAP	2	4
26		SB-626M	3/8"-16 X 1-1/4" MEX HEAD SCREWS	4	4
27		SB-626AM	3/8" LOCK WASHERS	4	12
	1005		GRINDER ASSEMBLY		1
28		SB-155M	10-32X1/2" LG ROUND HEAD SCREW	2	2
29		SB-155AM	10-32 LOCK WASHER	2	2
30		536M	SANDER HOUSING COVER	1	1
31		532M	EXPANSION CUP	2	2
32		SB-19M	3/4"-16 JAM NUT	1	1
33		SB-602M	3/4" SHAKE PROOF WASHER	1	1
34		522M	SANDER RUBBER SLEEVE	1	1
35		521	SANDER RUBBER SLEEVE REINFORCER	1	1
36		516M	SANDER HOUSING	1	1
37		554M	ABRASIVE SLEEVE, 4" DIA X 7 1/2"	1	1
38		512M	SANDER SPINDLE	1	1
39		557AM	CLAMP SCREW ASSEMBLY	2	2
40		574AM	BEARING	2	2



TOOLS FOR MODEL 501G HEAVY DUTY COMBINATION BRAKE RELINER

item NO.	PART NO.	DESCRIPTION
1 2	R-12p R-11p	punch pin, used with R-12 punch, 3/16 rivets punch pin, used with R-11 punch, 9/64 rivets
3	R-13p	punch pin, used with R-13 punch, ¼ rivets
4	75-1	punch pin, used with 75 punch, 1/2 rivets
5	36	tool holder bushing
6	76	tool holder bushing
7	35	anvil, combination double ended for double service 5/16" - %" rivets
8	34	anvil, ¼" rivets
9	35a	anvil, ½" rivets
10	80	roll set, for setting ¼" shank rivets
11	74	star set, 9/64" rivets, for setting clutch facing rivets only
12	88	star set, 3/16" rivets, for setting clutch facing rivets only
13	77	Roll Set, for setting 9/64" shank rivets, and 1/4" shank rivets
14	78	Roll Set, for setting 3/16" shank rivets
15	R-11	Knockout Punch, 9/64" rivets, for removing old rivets from brake lining
16	75	Knockout punch, 1/4" rivets, for removing old rivets from brake lining
17	R-12	Knockout punch, 3/1 6" rivets for removing old rivets from brake lining
18	R-13	Knockout Punch, ¼" rivets for removing old rivets from brake lining
19	73	Driver: Insert in no. 76 tool holder bushing and put in 560 tool holder.
20	81	Drift pin: for removing tapered tools from tool holders
21	562	Tool Holder (lower)
22	90	Countersink, carboloy, ¼" complete with ½" M.S.S. drill
23	95	Countersink, carboloy, 5/16" complete with no. 22(9/64") M.S.S. drill
24	91	Countersink, carboloy, 3/ complete with no. 22(9/64) M.S.S. drill
25	92	Countersink, carboloy, 3/2 complete with no. 10 (3/16") M.S.S. drill
26	94	Countersink, carboloy, 1/2" complete with no. 10(3/16") M.S.S. drill
27	96	Countersink, carboloy, 1/2" complete with 1/4" M.S.S. drill
28	SD-28	#10-32 Allen wrench
29	SD-29	#32 Allen wrench
30	SD-37	5/16" Allen wrench
31	DU-805-4	Knockout pin

By Order of the Secretary of the Army:

E. C. MEYER General, United States Army Chief of Staff

Official:

J. C. PENNINGTON Major General, United States Army The Adjutant General

		\mathcal{N}		SOMETI	NING	WRONG	WITH THIS PUBL	ICATION?
1 ()	THEN	JOT DOWN THE	FROM:	(PRINT YOUR UN	IT'S COMPLETE ADDR	ESS)
53			DOPE A	BOUT IT ON THIS	Yo	ur mailing	address	
		A Y		LD IT AND DROP IT	DATES			
\		P)			<u> </u>		filled out th	
	ION NUM			PUBLICATION D	ĺ	Reliner, B	τ ε rake and Clute	ch
		30-14&F		23 May 19		Model 501G		
PAGE	PARA-	FIGURE	TABLE	IN THIS SPACE TELL AND WHAT SHOULD E				
№ . Cover	GRAPH	NO.	NO.	NSN is shown as Errors Page, NSN is correct. Cov	l is s	hown as 491	0-00-173-5310	
able of onten	2S			Table of Content is para l-6 Ta				
				CAM	\mathcal{P}			
					<u> </u>	LL		
RINTED N	AME, GRA	DE OR TITLE	AND TELEP	PHONE NUMBER	SIGN HE	RE:		

REVERSE OF DA FORM 2028-2

FILL IN YOUR UNIT'S ADDRESS

FOLD BACK

POSTAGE AND FEES PAID DEPARTMENT OF THE ARMY DOD 314



Ŀ

OFFICIAL BUSINESS PENALTY FOR PRIVATE USE \$300

DEPARTMENT OF THE ARMY

Commander US Army Armament Materiel Readiness Command ATTN: DRSAR-MAS Rock Island, IL 61299

	\sim		F	ECOMM	ENDED CHAN	IGES T	TO EQUIPMENT TECHNICAL PUBLICATIONS	
$\overline{7}$	2111/27				SOMET	NONE	B WRONG WITH THIS PUBLICATION?	
		Z	DOPE AB FORM, C	OUT IT AREFULI LD IT AI	WN THE ON THIS LY TEAR IT ND DROP IT		DM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)	
	т <mark>іон нимве</mark> і 4910 - 630				PUBLICATION D		PUBLICATION TITLE Reliner, Brake and Clutch Model 501G	
L	DTPIN-PO			IN THIS	SPACE TELL			
PAGE NO.	PARA- GRAPH	NO.	TABLE					
PRINTED	NAME. GRADE	OR TITLE,	AND TELEP	HONE NUM	BER	SIGN H	HERE	
DA 15	UL 79 202	8-2		REVIOUS REOBSOI	EDITIONS LETE.	R	P.SIF YOUR OUTFIT WANTS TO KNOW ABOUT YOU RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.	

FILL IN YOUR UNIT'S ADDRESS FOLD BACK

> POSTAGE AND FEES PAID DEPARTMENT OF THE ARMY DOD 314



TEAR ALONG PI

OFFICIAL BUSINESS PENALTY FOR PRIVATE USE \$300

> Commander US Army Armament Materiel Readiness Command ATTN: DRSAR-MAS Rock Island, IL 61299

\bigcirc				LD IT A	LY TEAR IT ND DROP I		SENT		
	10 N NUMB 4910-61	ER 30-14&F)		PUBLICATIO 23 May		PUBLICATION TH Reliner, Br Model 501G	LE ake and Clutch	L
BE EXAC PAGE NO.	PIN-P PARA- GRAPH	OINT WHE FIGURE NO.	RE IT IS TABLE NO.		8 SPACE TEI Mat Shoul		IS WRONG IE ABOUT IT:		
BOINTER		E OR TITLE.			BEA	SIGN HI	ERE:		

*

1

FILL IN YOUR

DEPARTMENT OF THE ARMY

POSTAGE AND FEES PAID DEPARTMENT OF THE ARMY DOD 314



TEAR ALONG PE

OFFICIAL BUSINESS PENALTY FOR PRIVATE USE \$300

> Commander US Army Armament Materiel Readiness Command ATTN: DRSAR-MAS Rock Island, IL 61299

FOLD BACK

PUBLICA	TION NUMB		DOPE AL FORM, C	JOT DOWN THE BOUT IT ON THIS CAREFULLY TEAR IT DLD IT AND DROP IT MAIL! PUBLICATION DATE PUBLICATION DATE Reliner, Brake and Clutch
TM 9-	4910 - 63	30 -1 4&P)	Reliner, Brake and Clutch 23 May 1980 Model 501G
PAGE NO.	PARA- GRAPH	FIGURE	TABLE NO.	IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
	NAME, GRAD		Pf	PHONE NUMBER SIGN HERE: REVIOUS EDITIONS P.SIF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RE OBSOLETE.

FILL IN YOUR UNIT'S ADDRESS FOLD BACK DEPARTMENT OF THE ARMY

POSTAGE AND FEES PAID DEPARTMENT OF THE ARMY DOD 314



TEAR ALONG

htes u

1

OFFICIAL BUSINESS PENALTY FOR PRIVATE USE \$300

Commander US Army Armament Materiel Readiness Command ATTN: DRSAR-MAS Rock Island, IL 61299

TM 9-4910-630-14&P RELINER, BRAKE AND CLUTCH --- MAY 1980 This fine document...

Was brought to you by me:



Liberated Manuals -- free army and government manuals

Why do I do it? I am tired of sleazy CD-ROM sellers, who take publicly available information, slap "watermarks" and other junk on it, and sell it. Those masters of search engine manipulation make sure that their sites that sell free information, come up first in search engines. They did not create it... They did not even scan it... Why should they get your money? Why are not letting you give those free manuals to your friends?

I am setting this document FREE. This document was made by the US Government and is NOT protected by Copyright. Feel free to share, republish, sell and so on.

I am not asking you for donations, fees or handouts. If you can, please provide a link to liberatedmanuals.com, so that free manuals come up first in search engines:

<A HREF=<u>http://www.liberatedmanuals.com/</u>>Free Military and Government Manuals

Sincerely
Igor Chudov
<u>http://igor.chudov.com/</u>
Chicago Machinery Movers