TM 55-1650-261-40 C 7

HEADQUARTERS DEPARTMENT OF THE ARMY WASHINGTON, DC, 29 August 1986

Aviation Unit and Intermediate General Support Maintenance Manual

SLIDE VALVE ASSEMBLY PART NO. HP796100

TM 55-1650-261-40, 3 January 1968, is changed as follows:

1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

Remove pages

1 and 2

Insert pages

2. Retain this sheet in front of manual for reference purposes.

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR. General, United States Army Chief of Staff

Official

R. L. DILWORTH Brigadier General, United States Army The Adjutant General

DISTRIBUTION:

To be distributed in accordance with DA Form 12-31, AVUM and AVIM requirements for OV-1B Airplane, Observation.

CHANGE NO. 7

HEADQUARTERS DEPARTMENT OF THE ARMY WASHINGTON, DC, 13 February 1973

CREIGHTON W. ABRAMS General, United States Army

Chief of Staff

GS Maintenance Manual

SLIDE VALVE ASSEMBLY

PART NO. HP796100

TM 55-1650-261-40, 3 January 1968, is changed as follows:

Page 8. Paragraph 16 is superseded as follows:

16. Testing

CHANGE

No. 6

Apply 18 to 30 VDC to solenoid assembly to determine if solenoid assembly is in a serviceable condition. Plunger (28) and spring (26) must be installed to facilitate testing.

Page 9. Add the following CAUTION between paragraphs 20c and 20d:

CAUTION

Release test hydraulic pressure before removing plug from return port.

Page 9. Add the following CAUTION after paragraph 20e:

CAUTION

Release hydraulic pressure prior to removing lines or plugs.

By Order of the Secretary of the Army:

Official:

VERNE L. BOWERS Major General, United States Army The Adjutant General

DISTRIBUTION:

To be distributed in accordance with DA Form 12-31 (qty rqr blocks no.217 and 224, cumulative for all blocks) Direct And General Support Maintenance Requirements for OV-IA, B, and C, and OV-ID Aircraft.

CHANGE No. 5, HEADQUARTERS DEPARTMENT OF THE ARMY WASHINGTON, D. C., 13 May 1969

GS Maintenance Manual

SLIDE VALVE ASSEMBLY

PART NO. IIP796100

TM 55-1650-261-40, 3 January 1968, is changed as follows:

Page 1. Add "Appendix B, Repair Parts and Special Tools List, Page 10" to Table of Contents.

Page 4, table 2. (As changed by C3, 27 August 68.) Under "Part, Model or Mil Des" column, delete "HA5-1-2-3-5-6-7;" add "I{ASDVRM1F3-4-7-8-9." In line 2, add "FMC 26337" to "Nomenclature" column.

Page 6.(As changed by C4, 20 Jan 69.) So much of Figure 3, Index No. 20 as reads "Part No. HIP796401" is changed to read "Part No. [IP796501."

Page 9, paragraph 19. (As changed by C3, 27 Aug 68.) In line 2, delete "Part No. IIA5-1-2-3-5-6-7:" add "Part No. HA5DVRM1F3-4-7-8-9."

Page 10. Appendix B is added as follows:

APPENDIX B

REPAIR PARTS AND SPECIAL TOOLS LIST

SECTION I. INTRODUCTION

1. Scope

This appendix lists repair parts, special tools, special purpose test equipment and maintenance supplies required for the performance of general support maintenance of the valve, directional flow.

2. General

This Repair Parts and Special Tools List is divided into the following sections:

a. Repair Parts - Section II. A list of repair parts and maintenance supplies (MSUP) authorized for the performance of maintenance at the general

^{*}These changes supersede Change 4, 20 January 1969.

support level. This section is arranged in figure and item number sequence. Items appearing more than once in an assembly will be repeated to show relationship to the illustration. The illustrations appear in the narrative portion of this manual.

b. Special Tools and Test Equipment - Section III. Not applicable.

c. Federal Stock Number and Reference Number Indexes - Section IV. This section is divided as follows:

(1) A list of Federal stock numbers in ascending numerical sequence, cross-referenced to illustration figure number and item number.

(2) A list of reference numbers in ascending alpha-numerical sequence, cross-referenced to illustration figure number, item number and Federal supply code for manufacturer.

3. Explanation of Columns

The following provides an explanation of columns in the tabular lists in Sections II and III.

a. Source, Maintenance and Recoverability Codes (SMR) - Column 1. (Common hardware type items are not assigned SMR codes.)

(1) Source code indicates the selection status and source for the listed item.

CODE EXPLANATION

- P Applies to repair parts which are stocked in or supplied from the GSA/DSA, or Army support system and authorized for use at indicated maintenance categories.
- X1 Applies to repair parts which are not procured or stocked, the requirement for which will be supplied by use of next higher assembly or component.
- X2 Applies to repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain through cannibalization; if not obtainable through cannibalization, such repair parts will be requisitioned with accompanying justification through normal supply channels.

(2) Maintenance code indicates the lowest category of maintenance authorized to install the listed item. Capabilities of higher maintenance categories are considered equal or better.

CODE

EXPLANATION

Н

General Support Maintenance Category

(3) Recoverability code indicates whether unserviceable items should be returned for recovery or salvage. Repair parts and assemblies not assigned a recoverability code shall be considered expendable; however, repair may be accomplished on such items to the extent that maintenance instructions and parts are available to the maintenance category authorized to remove, repair and replace the item.

CODE EXPLANATION

R

Applies to repair parts and assemblies which are economically reparable at DSU and GSU activities and normally are furnished by supply on an exchange basis.

b. Federal Stock Number - Column 2. This column indicates the Federal stock number assigned to the item and will be used for requisitioning purposes. An item in one of the following categories will not be published with a Federal stock number.

Items source coded A, M or X1

c. Description - Column 3. This column indicates the Federal item name and any additional description of the item required. There are two sub columns for column 3, which reflect the reference number and models usable on data.

(1) The part number or other reference number followed by the applicable five-digit Federal supply code for manufacturer in parentheses will appear in the subcolumn located to the extreme left of the description column.

(2) The models usable on data applicable to the equipment will appear in the subcolumn located to the extreme right of the description column. Not applicable.

d. Unit of Issue (U/I) - Column 4. This column lists the standard or minimum basic quantity in which the item is issued; e.g.: each, pound, set, etc,

e. Quantity Incorporated in Unit - Column 5. This column indicates quantities required for one assembly only, including instances when similar assemblies are broken down together. When attaching parts are shown as attaching two or more items, the quantities of the attaching parts are those necessary to attach only one of the items. The alphabetic symbol "AR" in this column indicates AS REQUIRED quantities.

f. 30-Day GS Maintenance Allowances - Column 6.

(1) The allowance column is divided into three sub columns. Indicated in each subcolumn, opposite the first appearance of each item, is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have the letters "REF" in the applicable allowance columns. Items authorized for use as required, but not for initial stockage are identified with an asterisk (*) in the allowance column.

(2) The quantitative allowances for GS level of maintenance will represent initial stockage for a 30-day period for the number of equipments supported.

(3) Determination of the total quantity of parts required for maintenance of more than 100 of these equipments can be accomplished by converting the equipment quantity to a decimal factor by placing a decimal point before the next to last digit of the number to indicate hundredths, and multiplying the decimal factor by the parts quantity authorized in the 51-100 allowance column. Example: authorized allowance for 51-100 equipments is 40; for 150 equipments multiply 40 by 1.50 or 60 parts required.

g. 1-Year Allowances per 100 Equipment/Contingency Planning Purpose Column 7. This column indicates opposite the first appearance of each item, the total quantity required for distribution and contingency planning purpose. to provide for adequate support of 100 equipments for one year.

- h. Depot Maintenance Allowance per 100 Equipments Column 8. Not applicable.
- *i.* Illustration Column 9. This column is divided as follows:

(1) Figure number - sub column 9a. This column indicates the figure number of the illustration in which the item is shown. The alpha designator "MSUP" in this column indicates maintenance supplies which are located in Section II.

(2) Item number - subcolumn 9b. This column indicates the callout number used to reference the item in the illustration.

4. How to Locate Repair Parts

- a. When Federal stock number or reference number is unknown.
 - (1) *First.* Find the illustration covering the assembly group to which the repair part belongs.
 - (2) Second. Identify the repair part on the illustration and note the illustration figure and item number of the repair

part.

(3) Third. Using the Repair Parts Listing, find the assembly group to which the repair part belongs and locate the illustration figure and item number noted on the illustration.

b. When Federal stock number or reference number is known.

(1) First. Using the Index of Federal Stock Numbers or Reference Numbers find the pertinent Federal stock number or reference number. These indexes are in ascending Federal stock number and alpha-numerical sequence, cross-referenced to the illustration figure number and item number.

(2) Second. Using the Repair Parts Listing, find the assembly group of the repair part and the illustration figure number and item number referenced in the subject indexes.

5. Federal Supply Code for Manufacturer

CODE	MANUFACTURER AND LOCATION
26337	Greer Hydraulics Inc. 5930 W Jefferson Blvd. Los Angeles CA 90016
81348	Federal Specifications Promulgated by General Services Administration
81349	Military Specifications Promulgated by Standardization Div Directorate of Logistic Services DSA
84685	Hydra-Power Corp Div of Teledyne Inc. 310 Main St. New Rochelle NY 10801
88044	Aeronautical Standards Group Dept of Navy and Air Force
96906	Military Standards Promulgated by Standardization Div Directorate of Logistic Services DSA

TM 55-1650-261-40

C5

	(I) CE,M		(2)									GS LW	(7) 1-YR ALWPER 100	(8) DEPOT MAINT ALWPER	ILLUST	9) RATION
	MAINT OF	RECOV CODE	STOCK NUMBER	REFERENCE NUMBER & MI	FR CODE		USABLE		UNIT	(a) 1 - 20	(Ь) 21-50	(c) 51 - 100	EQUIP	100 EQUIP	(a) FIG NO	(b) ITEM NO
•						SECTION II REPAIR PARTS										
		R	1650-776-1958	HP796100 GSO2-108L3P113	(84685)	VALVE, DIRECTIONAL FLOW		BA	1		:				3	
P X2 P P	H H H H		5305-941-9437 5330-601-5468 1650-994-4283 5340-088-9046 5330-618-8893 5330-604-3419 5330-604-3419	AN500AD4-6 HP345129 HP663118 HP296111 HP663111 MS28774-16 MS28775-016 MS28775-016	(88044) (84685) (84685) (84685) (84685) (96906) (96906)	SCREW MACHINENOTE 1 .GASKETNOTE 2 .SPACERNOTE 2 .SPACERNOTE 1 .THREAD, LOCKNOTE 2 .RING, NETAINLINGNOTE 2 .PACKING, PREFORMEDNOTE 2 .PACKING, PREFORMEDNOTE 2		EA BA BA BA BA BA BA	14 2 1 2 1 2 1 1 2 2	* * * * * *	* * * *	* * * *			, 。	123456789
x2	H		5330-584-0265	MS28775-012 HP663110 HP663112	(96906) (84685)	PACKING, PREFORMEDNOTE 2 .CAP, PRESSURE, END		EA EA RA	1	*	*	÷				9 10 11
P X1 P	н н н		1650-996-2143 5975-966-4470 5330-618-8893 5330-684-3419 4730-969-9690 5330-585-9771	HP795105 HP663102 HP663113 M328774-16 M328775-016 HP663114 HB28775-004	(84685) (84685) (84685) (96906) (96906) (84685) (96906)	SPACER, SLEEVE. SPOOL ASSEMBLY. CAP, END. RETAINER, PACKING		EA EA EA EA EA		* * * * *	* * *	* * * * *				13 14 15 16 17 18 19
X2 P	н н		5305-150-9212 5945-966-4473 5330-833-4210 5330-818-1920	HP796501 HP796104 AN502-10-8 HP663504 MS28774-17 MS28775-017 WS6675-017	(84685) (88044) (84685) (96906) (96906)	.FILTERNOTE 1 .FILARE, SOLENOID		EA EA HD EA EA EA	1 4 1 1 1 1 1 1 1	* * *	* * *	* * *			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	20 21 22 23 24 25
P X1 X1	н		5945-993-6269 5305-253-5603	HP663104-2 HP663104-2 HP663104 MS21318-1 HP796201M P-8	(84685) (84685) (96906) (84685)	.SPRING, HELICAL, COMPRESSIONNOTE 1 LOCK, THREADNOTE 2 PLUNGER, SOLENOID SPOOL ASSEMBLY, PILOT SCREW, DRUVE BODY, MACHINING SHIPPING FLUGNOTE 2		EA EA HD EA	1 2 1 2 1 2 1 2	*	*	*			****	20 27 28 29 31 32
P	н		1650-895-9328	ec-10 HPS31-2 HP7962	(84685)	SHIPPING CAPNOTE 2 SLEEVING. NOTE 2 PARTS KIT, VALVE, SLIDE SELECTOR,		EA EA EA	1 1 1	*	*	*			3 3 3	
P	н		1650-895-9329	HP7963	(84685)	VERDAUL PARTS KIT, VALVE, SLIDE SELECTOR, CURE DATE NOTE 1 COMPONENT OF KIT 1650-895-9328 NOTE 2 COMPONENT OF KIT 1650-895-9329		EA	1	*	*	*			3	

SOU At	(I) RCE,M/ ID REC CODE	AINT OV	(2) FEDERAL	DES	DESCRIPTION		DESCRIPTION		(4) UNIT OF ISSUE	(5) QTY INC IN UNIT	(6) 30-DAY MAINT		6) [7] GS 1-YR T ALW ALWPEI 100 EQUIP		(8) DEPOT MAINT ALWPER 100		P] RATION (b)
DURCE		200	NUMBER	REFERENCE NUMBER & MFR CODE		ON			1 - 20	21-50	51 • 100	CNTGCY	EQUIP	FIG	ITEM NO		
S	<u>2 2 3</u>	22			MAINTENANCE SUPPLIES												
			3439-224-3567	(81348)	SOLDER, TIN ALLOY COMPOSITION SN60,.		EA	AR	*	*	*			MSUP			
			5350-221-0872	(81348)	CLOTH, ABRASI VE-CROCUS GRADE,9 IN.W,		sv	AR	*	*	*			MSUP			
			6850-264-9038	(81348)	DRY CLEANING SOLVENT LIQUID FORM, FOR DEGREASING METALS AND DRY		PL	AR	*	*	*			MSUP			
			8010 - 52 7- 2884	(81349)	CLEANING JED-D-800 TYPE 1,5 GAL IACQUER-ACRYLIC NITROCELLUIDSE TYPE JET BLACK JUSTERLESS, 40 MIN MAX DRY HARD TIME MIL-L-19358		CN	AR	*	*	*			MSUP			
			9150-252 -63 83	RL102A (81439)	HYDRAULIC FLUID, PETROLEUM BASE ANTIWEAR, CORROSION & OXIDATION		QT	AR	*	*	*			MSUP			
			9150-265-9413	(81349)	HYDRAULIC FLUID, PETROLEUM BASE ANTIWEAR, CORROSION & OXIDATION RESISTANT, RED, MIL-H-6083, TYPE 1, 1 QT CAN		QT	AR	*	¥	*			MSUP			
					SECTION III SPECIAL TOOLS AND TEST EQUIPMENT												
					(NOT APPLICABLE)												
											ļ						

FEDERAL STOCK NUMBER CROSS-REFERENCED TO FIGURE AND ITEM NUMBER									
STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM				
1650-776-1958 1650-895-9328 1650-895-9329	3 3 3								
$\begin{array}{c} 1650-994-4283\\ 1650-996-2143\\ 3439-224-3567\\ 4730-969-9690\\ 5305-150-9212\\ 5305-253-5603\\ 5305-941-9437\\ 5330-543-7090\\ 5330-584-0265\\ 5330-585-9TT1\\ 5330-601-5468\\ 5330-618-8893\\ 5330-618-8893\\ 5330-618-8893\\ 5330-618-8893\\ 5330-618-849\\ 5330-618-849\\ 5$	3 3 MSUP 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	5 13 18 22 31 2 9 10 19 3 7 16 8 17 25 24 6							
5350-221-0872 5945-966-4473 5945-993-6269 5975-966-4470 6850-264-9038 8010-527-2884 9150-252-6383 9150-265-9413	MSUP 3 3 MSUP NSUP MSUP MSUP	23 28 15	8						

SECTION IV REFERENCE NUMBER CROSS-REFERENCED TO FIGURE AND ITEM NUMBER

REFERENCE NUMBER	MFG CODE	FIG NUMBER	ITEM NUMBER	REFERENCE NUMBER	MFG CODE	FIG NUMBEF	ITEM NUMBER
AN500AD4-6	88044	3	2	HP796100	84685	3	
AN502-10-8	88044	3	22	HP796104	84685	3	21
EC-10		3		HP796105	84685	3	13
GS02-10SL3P113		3	1	HP7962	84685	3	
HPS31-2		3		HP796201M	84685	3	32
HP296111	84685	3	5	HP7963	84685	3	
HP345129	84685	3	3	HP796501		3	20
HP663102	84685	3	14	MS21318-1	96906	3	31
HP663104	84685	3	29	NS28774-12	96906	3	9
HP663104-2		3	27	Ms28774-16	96906	3	7
HP663106		3	26	MS28774-16	96906	3	16
HP663108	84685	3	28	MS28774-17	96906	3	24
HP663110	84685	3	11	MS28775-004	96906	3	19
HP663111	84685	3	6	MS28775-012	96906	3	10
HP663112		3	12	Ms28775-016	96906	3	8
HP663113	84685	3	15	MB28775-016	96906	3	17
HP663114	84685	3	18	MS28775 -017	96906	3	25
HP663118	84685	3	4	P-8		3	
'P663504	84685	3	23	RL102A	81349	MSUP	

By Order of the Secretary of the Army:

Official

W. C. WESTMORELAND, General, United States Army, Chief of Staff.

KENNETH G. WICKHAM, Major General, United States Amy, The Adjutant General

DISTRIBUTION:

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HEADQUARTERS DEPARTMENT OF THE ARMY WASHINGTON, DC, 11 June 1968

General Support Maintenance Manual

SLIDE VALVE ASSEMBLY

PART NO. HP796100

TM 55-1650-261-40, 3 January 1968, is changed as follows:

Page 6. The nomenclatures and part numbers for Figure 3 are superseded as follows:

Figure &	5.	2	Quantity	Usable	
Index	Part	Description	Per	On	
No.	No.	1234567	Assembly	Code	
3-	HP796100	Slide Valve Assembly	1		
-1	GS02-10SL3P113	Connector, Receptacle, Electrical	1		
-2	AN500AC4-6	Screw	4		
-3	HP345129	Gasket, Rubber	2		
-4	HP663118	Spacer	1		
-5	HP296111	Lock, Thread	2		
-6	HP663111	Ring, Lock	1		
-7	MS28774-16	Retainer	1		
-8	MS28775-016	Packing	1		
-9	MS28774-12	Retainer	2		
-10	MS28775-012	Packing	1		
-11	HP663110	Cap, Pressure	1		
-12	HP663112	Spring	1		
-13	HP796105	Ring	1		
-14	HP663102	Spool Assembly	1		
-15	HP663113	Сар	1		
-16	MS28774-16	Retainer	1		
-17	MS28775-016	Packing	1		
-18	HP663114	Plug	1		
-19	MS28775-004	Packing	1		
-20	HP796401	Filter	1		
-21	HP796104	Flange	1		
-22	AN502-10-8	Screw	4		
-23	HP663504	Solenoid Assembly	1		
-24	MS28774-17	Retainer	1		
-25	MS28775-017	Packing	1		
-26	HP663106	Spring	1		
-27	HP663104-2	Lock, Thread	2		
-28	HP663108	Plunger	1		
-29	}iP663104	Pilot Spool Assembly	1		

* This Change supersedes Change 1, 15 April 1968.

1

CHANGE

No. 2

HAROLD K. JOHNSON, General, United States Army, Chief of Staff.

Figure & Index No.	Part No.	Description 1 2 3 4 5 6 7	Quantity Per Assembly	Usable On Code	
2 20		Nomenlate	1		
-31	ANS35-00-2	Screw	2		
-32	HP796201M	Body	1		
REF	HP7962	Kit, Overhaul			
REF	HP7963	Kit, Cure Date			

By Order of the Secretary of the Army:

Official:

KENNETH G. WICKHAM, Major General, United States Army, The Adjutant General.

DISTRIBUTION:

To be distributed in accordance with DA Form 12-31 requirements for Direct and General Support Maintenance Instructions for OV-1 Aircraft.

DEPARTMENT OF THE ARMY TECHNICAL MANUAL General Support Maintenance Manual SLIDE VALVE ASSEMBLY PART NO. HP796100

Headquarters, Department of the Army, Washington, DC

3 January 1968

WARNING PRECAUTIONARY DATA

Personnel performing instructions involving operations, procedures, and practices which are included or implied in this technical manual shall observe the following instructions. Disregard of warnings and precautionary information can cause serious injury, death, or an aborted mission.

USING TOXIC MATERIALS. Provide adequate ventilation, as cleaning solutions and testing chemicals are toxic. Avoid prolonged contact with solutions and chemicals.

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SECTION	I.	INTRODUCTION		
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		Reporting of Improvements	2	2
		Purpose	3	2
		Equipment Records	4	2
		Description	5	2
		Leading Particulars	6	2
		Painting Requirements	7	2
		Preservation, Packaging, Packing, and Marking Requirements	8	2
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		Test Equipment	9	4
		Special Tools	10	4
		Consumable Materials	11	4
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		Cleaning		7
		Inspection	14	7
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APPENDIX A	A. REFEI	RENCES		10

*This publication supersedes TM 55-1650-261-40, 31 January 1964.

1. General Information

This technical manual comprises overhaul instructions for Slide Valve Assembly, Part No. HP796100, FSN 1650-776-1958 (see figure 1), manufactured by Hydra-Power (Corporation (84685), New Rochelle, New York. Sections I through IV of this technical manual contain instructions for this part number.



Figure 1. Slide Valve Assembly, Part No. HP796100.

2. Reporting of Improvements

Direct reporting of errors, omissions, and recommendations for improving this manual by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes DA Publications) and forwarded directly to to Commanding General, U.S. Army Aviation Materiel Command, Attn.: AMSAV-M. P. O. Box 209, St. Louis, Missouri 63166.

3. Purpose

The slide valve assembly is used to control speed brake systems on aircraft.

4. Equipment Records

The Army equipment record system and procedures established in TM 38-750 apply to .this equipment. The applicable forms as required by TM 38-750 shall be used.

5. Description

The slide valve assembly is a two-position, four-way, single solenoid valve.

6. Leading Particulars

Leading particulars for the slide valve assembly are as follows:

Operating pressure	3000 psi
Proof pressure	4500 psi
Burst pressure	7500 psi
Current drain	75 amperes at 30 volts and
	70°F (21°C)
Operating voltage	18 to 30 volts
Ambient temperature	65'F t-53'C) to + 160F
(+7 1C)	
Weight (actual)	2.25 lb

7. Painting Requirements

a. Mask all ports, nameplates, holes, and electrical connector.

b. Paint slide valve assembly in accordance with instructions listed in table 1.

8. Preservation, Packaging, Packing, and Marking Requirements

Preserve, package, pack, and mark slide valve assembly in accordance with instructions contained in figure 2.

	Table 1. Painting Requirements									
Item Name	Paint Type and Specification	Method of Application	No. of Coats	Notes						
Slide Valve Assembly	Lacquer, Acrylic- Nitrocellulose, MIL-L-19538 Color Black 37038	Spray	2	Paint outside surface only.						

U.S. GOVERNMENT PRINTING OFFICE: 1986 652-126/20203

	PRESERVAT	ION	I, PACKAGING	G, PACK	ING A	ND MARKIN	G REQUIREM	ENTS	
NOMENCLAT	URE				STOCK N	UMBER			
ł						1650-776-	1958		
Val	ve Assembly.	Sl	ide		PART NUMBER				
}						HP796100	I		
NET WEIGHT		DIME	INSIONS		GROSS WI	EIGHT	CUBIC FE	ET	
2	.25 pounds								
	All specifications and	=	fards applicable to the r	rquirements	herein shai	li be the issue in effe	ct on date of invitation	for bids.	
PACKAGING					EVEL B			c	
	PACKAGING SHALL BE IN ACCORDANCE WITH SPECIFICATION MIL-P-116. THE FOLLOWING DETAILED REQUIREMENTS SHALL APPLY:								
	UNIT PKG Q	TY	METHOD	PRESER	VATIVE	WRAP	DUNNAGE	CONTAINER	
							l		
	DTHER (Specify)								
	NOTE: IF CONTRA Package	IN AC	R HAS A GOVERNMENT CORDANCE WITH SUCH	APPROVE	D ANA PT	LIST, DISREGARD AI	BOVE REQUIREMENT	S AND	
PACKING	LEVEL A				LB		LE VEL	c	
	TEMS PA	CKAG ATIGI	ED AS ABOYE \$HALL I.	BE PACKEC	H CONT	AINERS CONFORMIN	G TO		
	ITEMS PA PRACTICA APPLICAN	CKAG E IN A BLE R	ED AS ABOVE SHALL I MANNER ACCEPTABL MTE.	BE PACKEL LE TO COM	N ACCO	RDANCE WITH GOOD THER CARRIER AT T	COMMERCIAL HE LOWEST		
	D ITEMS PAG	CKAG	ED AS ABOVE WILL BE	PACKED	N ACCORD	ANCE WITH SPECIF	ICATION.		
	C OTHER (Sp	ecijy.	1						
MARKING	MARKING SHALL B	EIN	ACCORDANCE WITH ST	ANDARD M	iL-STD-129				
REMARKS									

Figure 2. Preservation, Packaging, Packing, and Marking Requirements

9. Test Equipment

Test equipment required for overhaul of the slide valve assembly is listed in table 2.

10. Special Tools

Not applicable.

11. Consumable Materials

Consumable materials required during overhaul of the slide valve assembly are listed in table 3.

Part, Model, or		Technical	
Mil Des	Nomenclature	Description	
HA5-1-2-3-5-6-7	Hydraulic Test Bench (Greer Hydraulics, Inc., Los Angeles, California)	Used during final, testing of the slide valve assem- bly	

Table 2. Test Equipment Required

Table 3. Consumable Materials Required

Item		Type or	Government	
No.	Material	Grade	Specification	
1	Dry Cleaning Solvent		P-D-680	
2	Cloth, Abrasive, Crocus		P-C-458	
3	Hydraulic Fluid, Petroleum Base		MII,-H-5606	
4	Hydraulic Fluid, Petroleum Base		MIL-H-6083	
5	Solder, Tin Alloy		QQ-S- 571	

SECTION III OVERHAUL INSTRUCTIONS

12. Disassembly

Disassemble the slide valve assembly in accordance with index number sequence assigned to exploded view illustration (figure 3) and the following instructions: a. Cut lock wire and remove connector (1) from body (32) by removing screws (2) and unsoldering electrical leads. Remove gaskets (3) and spacer (4).

b. Remove locks (5) and ring (6) from body (32) allowing pressure cap assembly to extend from body.

c. Separate retainer (7), packing (8), retainers (9), and packing (10) from pressure cap (11).

d. Remove spring (12) and ring (13) from pilot spool assembly (14).

e. Remove cap (15), retainer(16), and packing (17) from body (32).

/. Remove plug (18), packing (19), and filter (20) from body (32).

g. Cut lock wire and remove flange (21) from body (32) by removing screws (22).

h. Lift solenoid assembly (23) from body (32). Separate retainer (24) and packing (25) from solenoid assembly. i. Remove spring (26), locks (27), plunger (28), and spool-plug assembly (29) from body (32).

Unscrew spool-plug assembly from plunger.

i. Remove nameplate (30) from body (32) by removing screws (31).

Note: Do not remove nameplate unless it is damaged, deteriorated, or requires reidentification



Figure 3. Slide Valve Assembly, Part No. HP796100, Exploded View

TM 55-1650-261-40

Figure &		Develop	Quantity	Usable
Index	Part		Per	On O
NO.	NO.	1234567	Assembly	Code
3-	HP796100	SLIDE VALVE ASSEMBLY	1	
-1	GS02-10SL3	CONNECTOR Receptacle electrical	1	
•	P13			
	1.10	(ATTACHING PARTS)		
-2	AN500AC4-6	SCREW	4	
-				
-3	HP345129	GASKET, Rubber	2	
-4	HP663118	SPACER	1	
-5	HP296111	LOCK, Thread	2	
-6	HP663111	RING, Lock	1	
-7	MS28774-16	RETAINER	1	
-8	MS28775-016	PACKING	1	
-9	MS28774-12	RETAINER	2	
-10	MS28775-012	PACKING	1	
-11	HP663110	CAP, Pressure	1	
-12	HP663112	SPRING	1	
-13	HP796105	RING	1	
-14	HP663102	PILOT SPOOL ASSEMBLY	1	
-15	HP663113	CAP	1	
-16	MS28774-16	RETAINER	1	
-17	MS28775-016	PACKING	1	
-18	HP663114	PLUG	1	
-19	MS28775-004	PACKING	1	
-20	HP796501	FILTER	1	
-21	HP796104	FLANGE	1	
		(ATTACHING PARTS)		
-22	AN502-10-8	SCREW	4	
-23	HP663504	SOLENOID ASSEMBLY	l 1	
-24	MS28774-17	RETAINER	l 1	
-25	MS28775-017	PACKING	l 1	
-26	HP663106	SPRING	l 1	
-27	HP663104-2	LOCK, Thread (Included with part No. HP 2)	2	
-28	HP663108	PLUNGER	1	
-29	HP663104	SPOOL-PLUG ASSEMBLY	1	
-30	HP796103		ļ 1	
		(ATTACHING PARTS)		
-31	AN535-00-2		2	
20		PODY		
-32	HP/96500		1	

13. Cleaning

a. Clean all metallic parts with dry cleaning solvent (Item 1, table 3). Dry with clean, filtered compressed air not exceeding 15 psi.

b. Remove stubborn dirt or foreign matter from external surfaces of slide valve assembly by scrubbing with a stiff-bristled brush dipped in dry cleaning solvent (item 1, table 3). Dry each component with clean, filtered compressed air not exceeding 15 psi.

14. Inspection

a. Inspect all threaded components for crossed, stripped, or worn threads.

b. Inspect all components for evidence of corrosion.

c. Inspect filter for damaged screen.

d. Inspect electrical receptacle connector for bent or broken pins.

e. Inspect all metallic parts for breaks, cracks, nicks, scratches, scoring, distortion, gouging, or other obvious defects.

f. Inspect springs for deterioration and damage.

g. Inspect solenoid assembly for condition of cover and wiring for wear and damage.

h. Refer to table 4 for serviceability of parts.

Fig Item	Descriptive Nomenclature	Type of Test	Procedure	Applicable Defects
3-1	Connector	Visual		Replace if pins are broken or damaged.
3-12	Spring	Mechanical		Replace if damaged or if it does not support 20.7 pounds + 10 percent at 1.255 inches.
3-7	Retainer	Visual and Dimensional		Replace if OD exceeds 0.500 + 0.005 inch and ID exceeds 0.374 + 0.001 inch.
3-20	Filter	Visual		Replace if filter screen is damaged or distorted.
3-23	Solenoid Assembly	Visual		Replace if case is damaged or if the wiring is damaged or worn to the extent it may impair proper function.
3-26	Spring	Visual and Mechanical		Replace if damaged or plating is deteriorated or if it will not support 3.0 pounds + 5 percent at 0.226 inch.
3-28	Plunger	Visual and Dimensional		Replace if OD exceeds 0.4350 + 0.005 inch.
3-14	Pilot Spool Assembly	Visual		The pilot spool assembly, spool-plug assembly, and body are mating lap surfaces and all must be replaced if any of the lap surfaces are
3-29	Spool-Plug Assembly	Visual		damaged or scored and will not meet the test procedures cited herein. The reference lap diameter of the spool-plug assembly and body
3-32	Body	Visual		is 0.625-inch diameter. The reference lap diameter of the pilot spool assembly and body is 0.187-inch diameter.
15. Repair or Replacement				serviceability criteria of table 4.
a. Replace nylon thread loc Note: The months from co of the unit.	ce all packings, r ocks. age of all packing date of manufacture	etainers, gasket gs must not exc e at time of reas	ts, and eed 24 sembly	 pins with a standard pin straightener. d. Clean and neutralize all areas showing signs of corrosion. e. Replace all threaded components that have crossed, stripped, or worn threads.

Table 4. Non-Desctructive Test Data

/. Resolder all connections, when required, in

of the unit.

b. Replace all parts that have corresponding kitted parts and all parts that do not meet the

accordance with Military Specification MIL-S-6872. g. Replace all metallic parts exhibiting breaks, cracks, or distortion.

Note: Minor external nicks and scratches may be worked smooth with cloth (item 2, table 3).

16. Testing

Apply 18 to 30 vdc to solenoid assembly to determine if solenoid assembly is in a serviceable condition.

17. Lubrication

Lubricate packings and related components with hydraulic fluid (item 3, table 3) or hydraulic fluid (item 4, table 3) prior to reassembly.

18. Reassembly

a. Install nameplate (30, figure 3), if removed, and secure with screws (31).

b. Screw spool-plug assembly (29) onto plunger (28). Install spool-plug assembly, plunger, locks (27), and spring (26) in body (32).

c. Install new packing (25) and retainer (24) on solenoid assembly (23). Position solenoid assembly in body (32).

d. Position flange (21) over solenoid assembly (23) and secure to body (32) using screws (22).

e. Install new packing (19) on plug (18). Insert filter (20) in body (32) and install plug.

f. Install packing (17) and retainer (16) in recess of cap (15), and install cap in body (32).

g. Position ring (13) on pilot spool assembly (14). Insert pilot spool assembly, ring, and spring (12) in body (32).

h. Install new packings (8 and 10) and retainers (7 and 9) on cap (11). Install cap in body (32) and secure with ring (6) and locks (5).

i. Properly place gaskets (3) and spacer (4) on body (32). Extend wire leads through gasket and spacer. Solder leads to connector (2) using solder (item 5, table 3). (See figure 4.)



Figure 4. Slide Valve Assembly Wiring Diagram.

j. Properly position connector (1), gaskets (3), and spacer (4) on body (32) insuring holes in parts align with threaded holes in body and install screws (2).

Note: Do not lockwire any hardware until test procedures have been completed.

19. General Test Procedures

Bench-test the slide valve assembly, using hydraulic test stand, part No. HA5-1-2-3-5-6-7. The proof pressure test must be performed first, but thereafter the sequence of performance of the follow ing tests is immaterial. Hydraulic fluid used during tests must conform to Military Specification MIL-H- 5606 or MIL-H-6083. Filter the hydraulic fluid of all foreign matter over 10 microns in size. Conduct tests at room temperature of ^{70°} to 90'F (21' to 32'C) and an oil temperature of 70' to 109'F (21° to 43'C). Record the actual oil temperature during tests.

20. Proof Pressure Test.

a. Deenergize solenoid assembly. (See figure 5.)



POSITION 1 SOLENOID DEENERGIZED

POSITION 2 SOLENOID ENERGIZED

Figure 5. Slide Valve Assembly Schematic Diagram.

b. Plug return and cylinder ports.

c. Apply a hydraulic pressure of 4500 psig to pressure port and ;hold for 1 minute. There must be no evidence of external leakage, failure, or permanent set.

d. Remove plug from return port and plug pressure port.

e. Apply a hydraulic pressure of 4500 psig to return port and hold for 1 minute. There must be no evidence of external leakage, failure, or permanent set.

21. Actuation Test

a. Cap cylinder ports with gages and open return port to drain.

b. With solenoid assembly deenergized, apply a hydraulic pressure of 3000 psig to pressure port. Gage at cylinder port 2 must read 3000 psig.

c. Energize solenoid assembly. Gage at cylinder port I must read 3000 psig, and gage at cylinder port 2 must read 0 psig.

d. Deenergize solenoid assembly. Gage at cylinder port 2 must read 3000 psig, and gage at cylinder port 1 must read 0 psig.

e. Perform steps c and d above 13 times, applying a hydraulic pressure of 100 psig instead of 3000 psig.

f. In each of the above tests, there must be no evidence of lag or hesitation during actuation.

22. Leakage Test

a. Plug cylinder port 2. With solenoid assembly deenergized, apply a hydraulic pressure to pressure port.

b. Remove plug from cylinder port 2 and plug cylinder port 1. With solenoid assembly energized, apply a hydraulic pressure of 3000 psig to pressure port.

c. Remove plug from cylinder port 1 and plug cylinder port 2. With solenoid assembly deenergized, apply a hydraulic pressure of 5 psig to pressure port.

d. Remove plug from cylinder port 2 and plug cylinder port 1 and increase pressure at pressure port to 100 psig. With solenoid assembly energized, apply a hydraulic pressure of 5 psig to pressure port.

e. 'In each of the above tests, combined leakage from open ports must not exceed 20 cc a minute, measured immediately after selection.

f. Lockwire screws (2, figure 3) and screws (22) upon completion of tests.

APPENDIX A

REFERENCES

for
f

By Order of the Secretary of the Army:

Official:

HAROLD K. JOHNSON, General, United States Army, Chief of Staff.

KENNETH G. WICKHAM, Major General, United States Army, The Adjutant General.

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