



***VALVE
LITERATURE***

**VIKING-CIVES
S.O. #556562**

Presented by:

FORCE America, Inc.

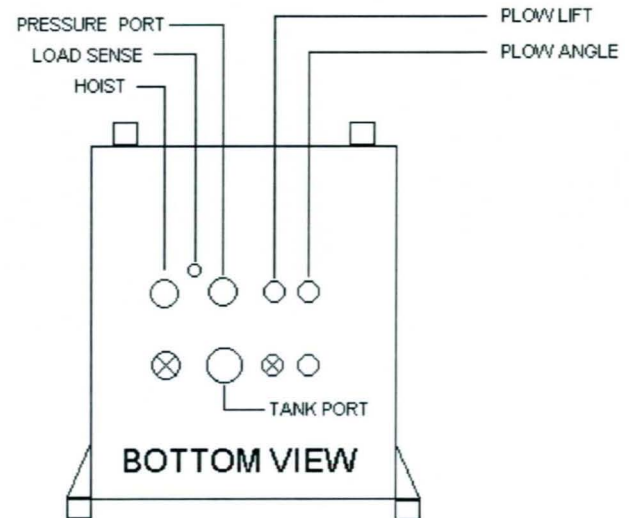
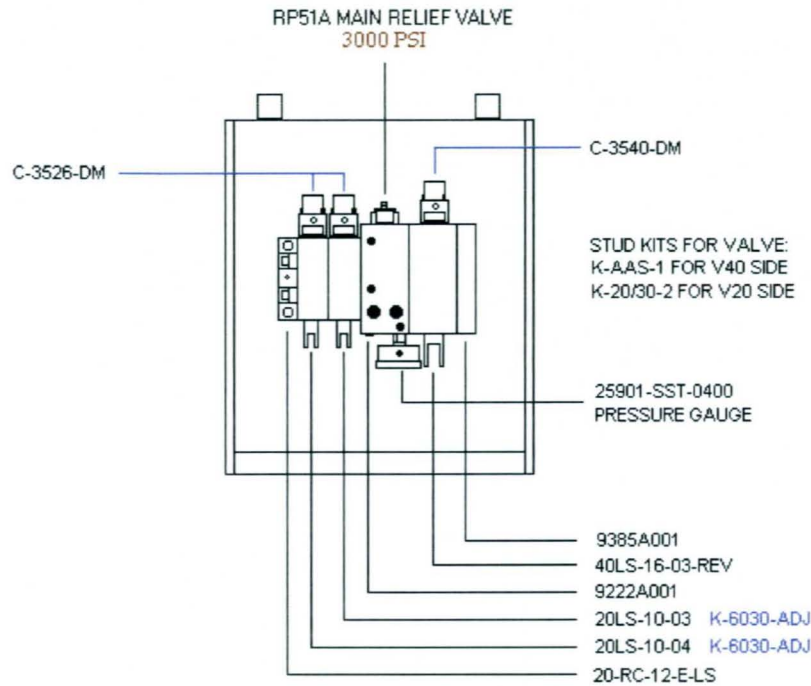
1-800-798-7711

OR

515-955-7711



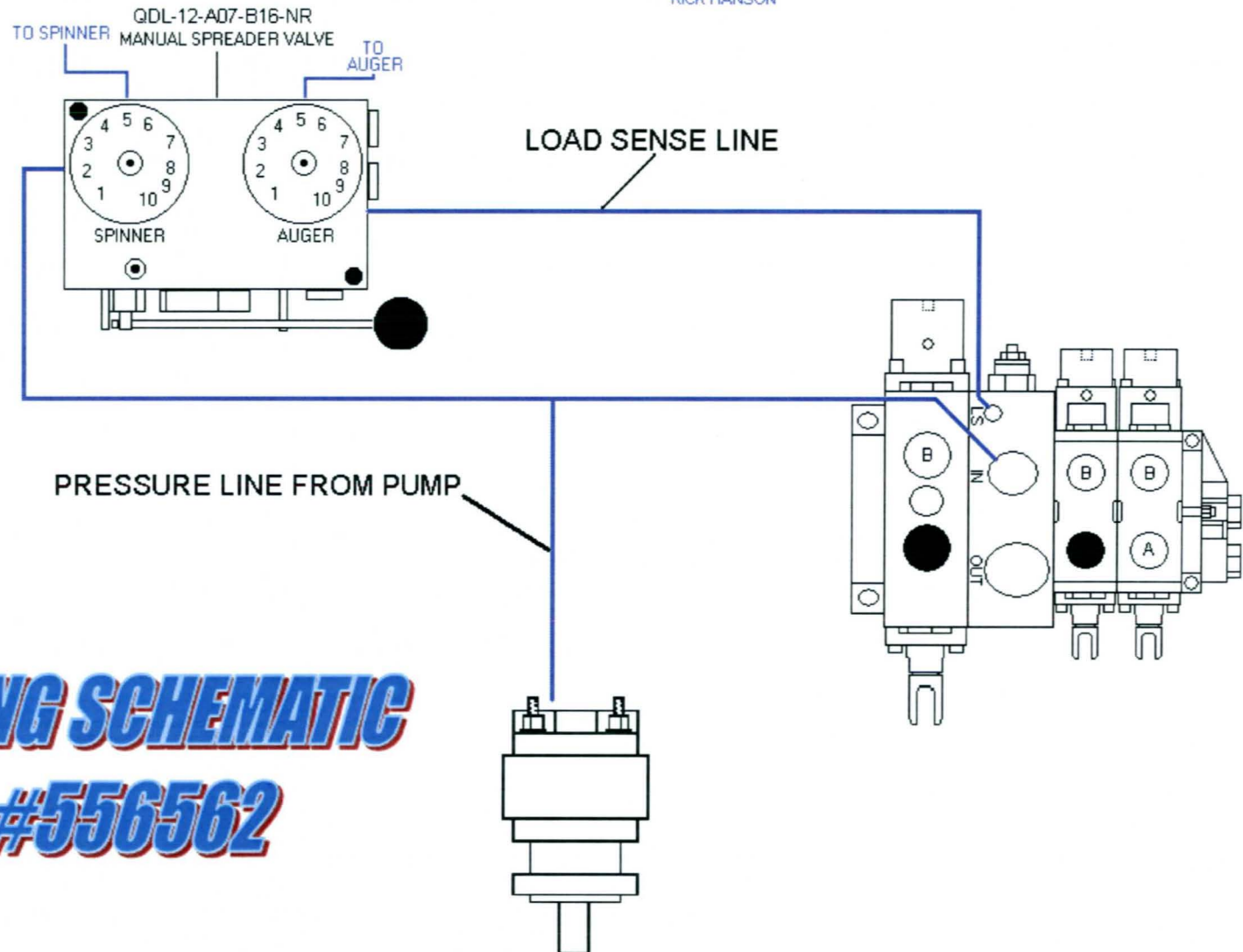
30 N 25TH ST.
 FT. DODGE IA 50501
 515-573-8129
 515-955-2367
 800-798-7711 TOLL FREE
WWW.FORCEAMERICA.COM
 INSIDE CONTACT:
 MIKE GREVE
 OUTSIDE CONTACT:
 RICK HANSON



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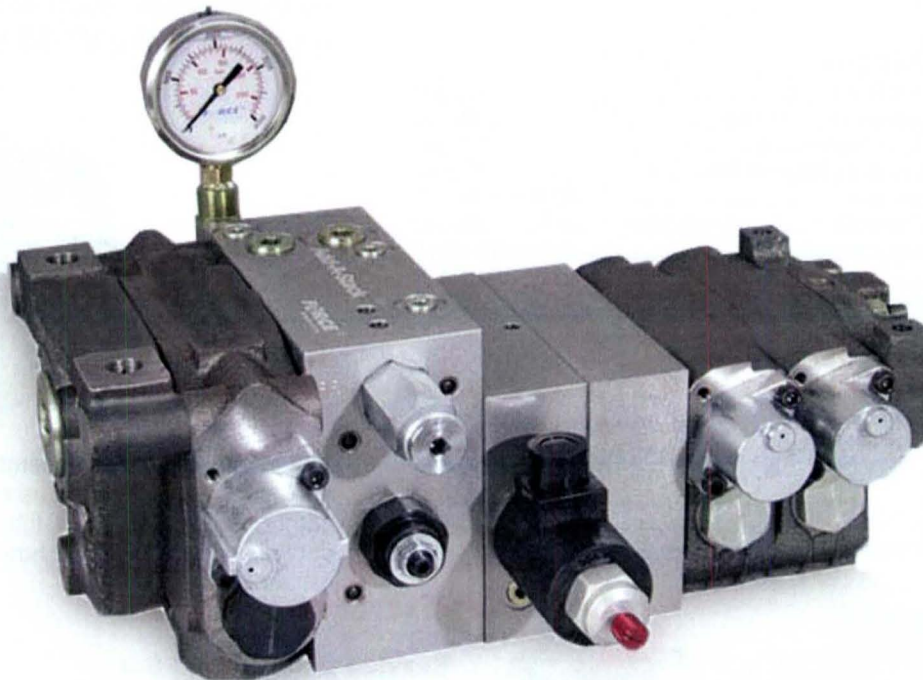
PLUMBING SCHEMATIC

S.O.#556562

F E A T U R E S

The Add-A-Stack® 4020 valve is a multifunction valve originally designed to control cylinders and motors on truck applications. The enclosure is a cost effective solution to protect the valve from typical corrosion problems of exposed valves. A simple rubber latched cover employs a gasketless weather resistant seal design that stops harmful salt spray.

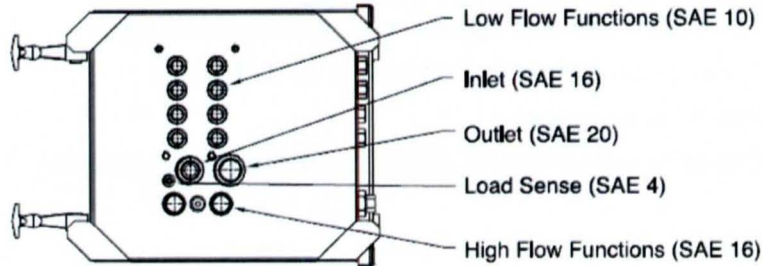
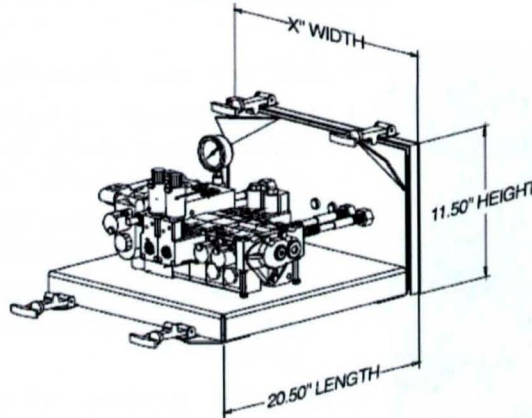
- **Stackable high and low flow sections**
- **Five different valve operators available**
 - Valve can be controlled by cable, electric on/off, electro-proportional, and pneumatic or hydraulic piloted remote
- **Gear pump or load-sensing versions available**
 - Adaptable to open center or closed center systems
- **Work port options standard**
 - Reliefs, anti-cavitations checks, and combinations are available for each workport
- **Stackable Spin-A-Veyer™ valve section**
 - Provides unequalled control for spreader functions on snowplows
- **Hard chrome plated spools**
 - A must to prevent spool and spool seal damage caused by corrosion
- **Optional individual section flow regulators**
 - Each section can be field adjusted to a desired maximum flow
- **Enclosure accommodates bulkhead style sealed cables**
- **Prewired valve harnesses**
- **Level ports all exit on bottom side to accommodate enclosures**



Installation Information

Dim.	Valve Sections				
	4-5	6-7	8-9	10-11	12-13
X	19.00	22.50	26.00	29.50	33.00

All dimensions are approximate.



Specifications

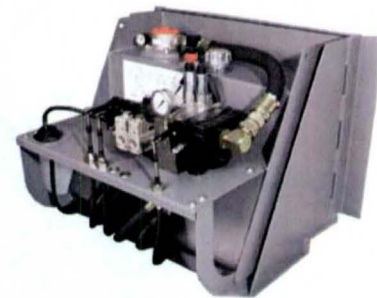
Valve Specifications

Nominal inlet flow rating.....	40 gpm*
Operating pressure (maximum).....	3500 psi
Tank pressure (maximum).....	300 psi
Minimum pressure requires (electric).....	200psi
Temperature range.....	-40°F to +180° F
Fluid requirements.....	Petroleum based 50-4000 ssu
Filtration requirements.....	ISO 4406 18/14
Seals	BUNA-N
Mounting sensitivity.....	None

Electrical Specifications

Rated voltage.....	12 VDC
Coil resistance (at 68°).....	7.5 ohms
Maximum current rating.....	2 amps
Watts.....	20 watts
Duty cycle.....	100%
Frequency.....	50 Hz pwm
Electric connector.....	24"leadwire with Packard connector

Add-A-Stack® 4020 valves are also available in the VT-35 Valve/tank



The VT-35 valve tank assembly combines the valve enclosure and tank into one easy to install assembly. All components; tank, valve, filter, filter/breather, sensors, cables, valve fittings and hose ends are under one rubber latched cover.



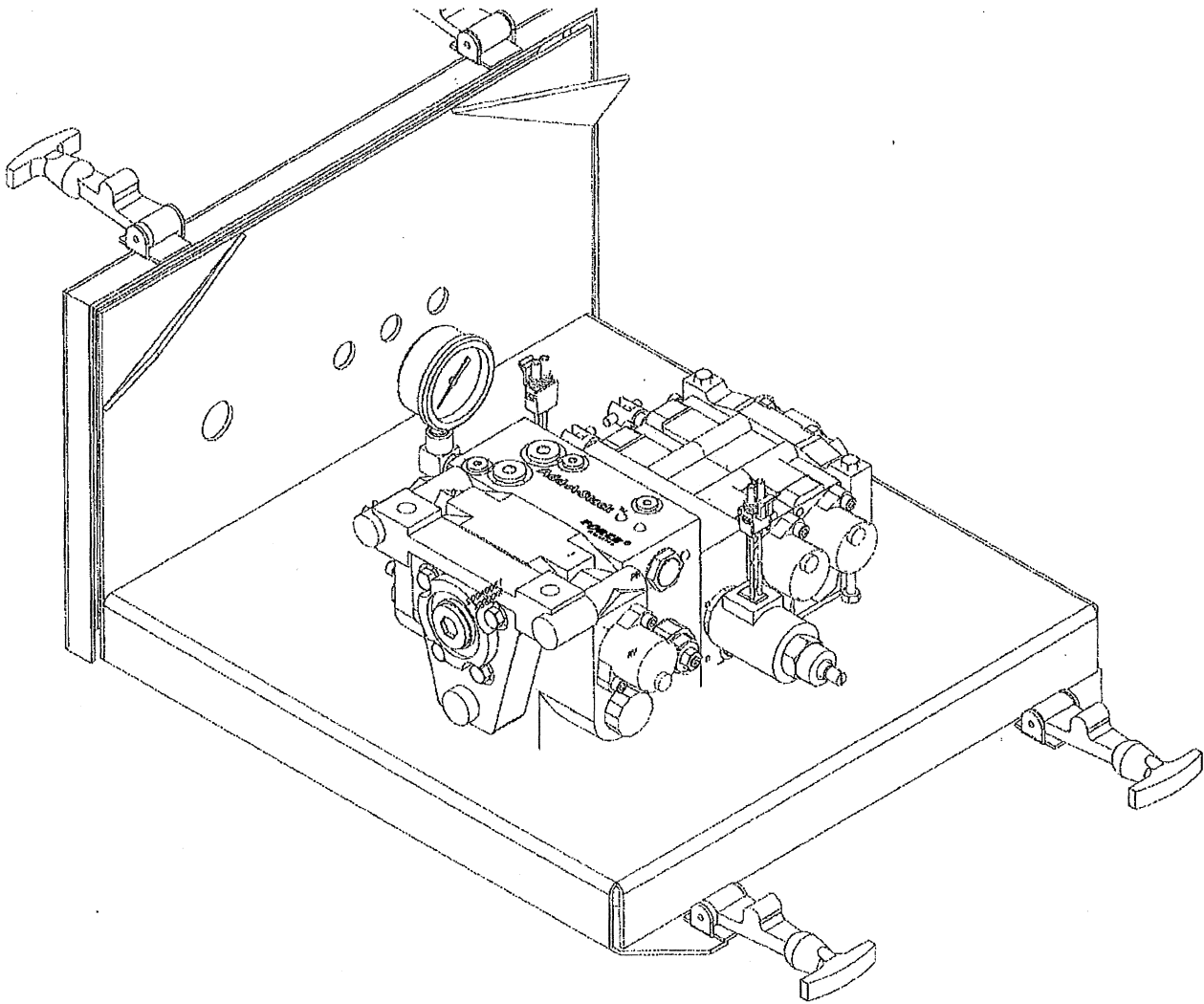
501 East Cliff Road
Burnsville, Minnesota 55337

1-888-99FORCE
www.forceamerica.com

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Part Number: FA1000

Service Centers and Sales

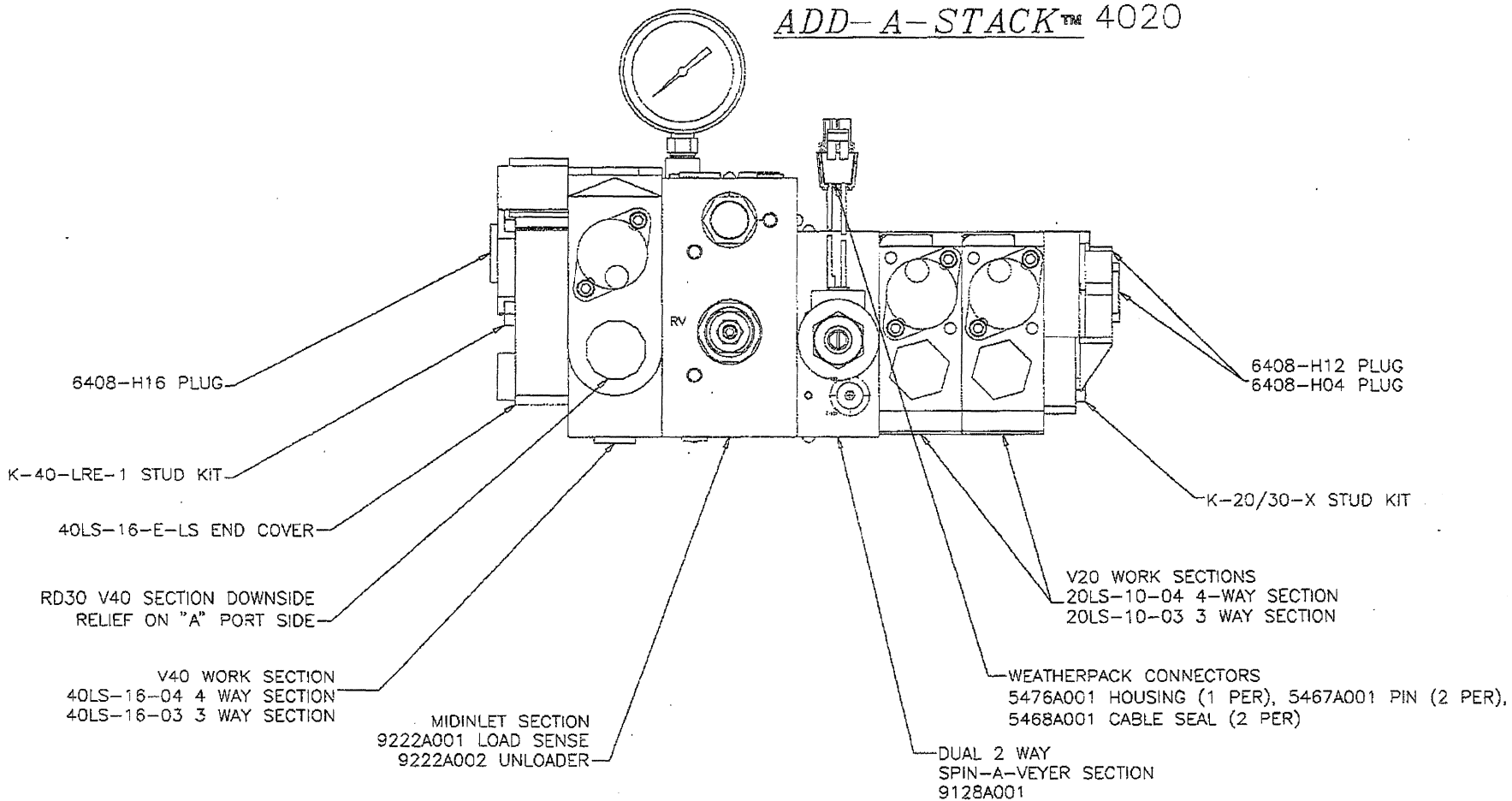
Bismarck, ND	800-624-7568	Fort Dodge, IA	800-362-2994
Charlotte, NC	800-788-8598	Kansas City, MO	800-383-4724
Chicago, IL	800-433-5765	Milwaukee, WI	800-722-5844
Columbus, OH	888-449-0356	Minneapolis, MN	800-328-2732
Dallas, TX	800-893-7225	Philadelphia, PA	800-492-6621
Denver, CO	888-833-7711	Salt Lake City, UT	877-230-0505



FORCE[™]
America, Inc.

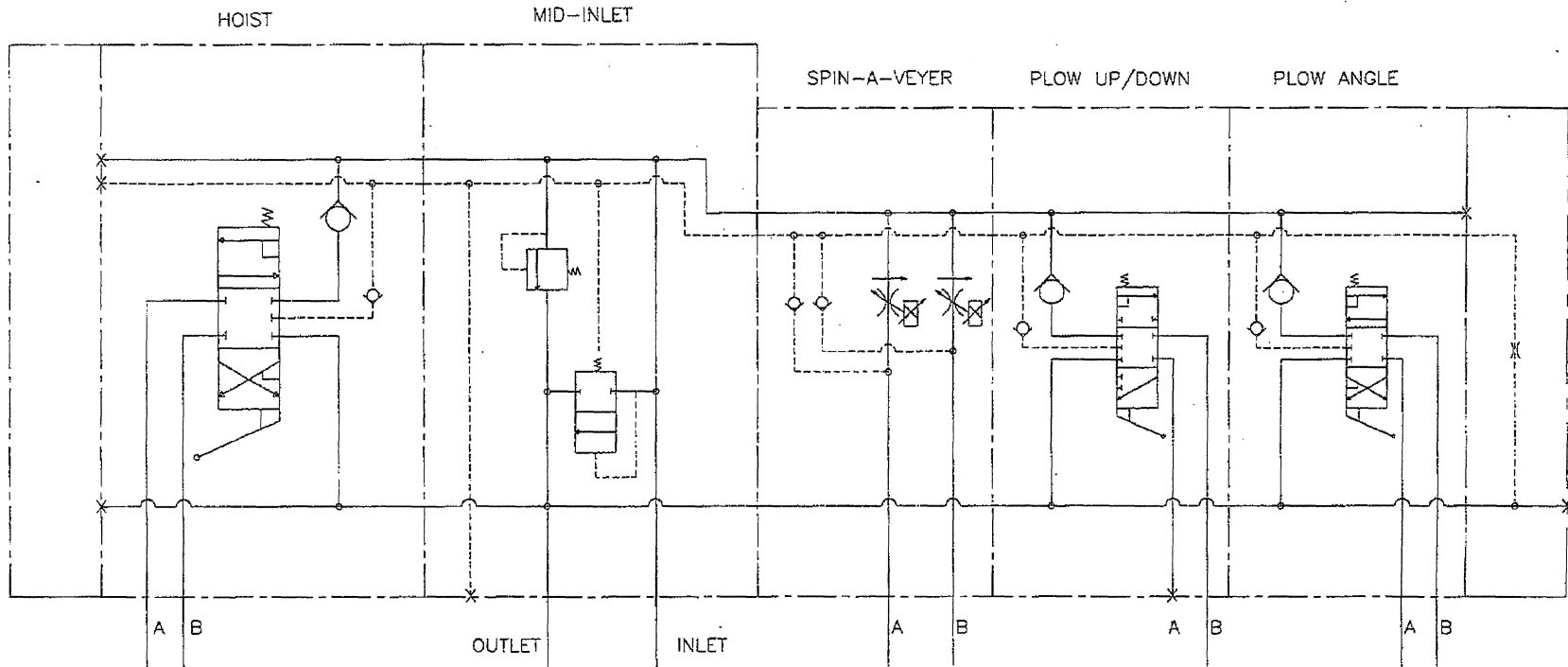
Providing Systems and Components to Control Motion

ADD-A-STACK™ 4020



<small>FOR THE USER'S PROTECTION, ALWAYS READ ALL INSTRUCTIONS CAREFULLY BEFORE USING THIS EQUIPMENT. FAILURE TO DO SO MAY CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.</small>	
<small>DATE</small> <small>REV. BY</small> <small>DATE</small> <small>REV. BY</small> <small>DATE</small> <small>REV. BY</small>	<small>DESIGNED BY</small> DJR <small>DATE</small> 8/02/06 <small>APPROVED BY</small> <small>DATE</small> <small>REV. BY</small>
4020 TYPICAL INSTALLATION	
<small>FOR THE USER'S PROTECTION, ALWAYS READ ALL INSTRUCTIONS CAREFULLY BEFORE USING THIS EQUIPMENT. FAILURE TO DO SO MAY CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.</small>	
<small>DATE</small> <small>REV. BY</small> <small>DATE</small> <small>REV. BY</small>	<small>DATE</small> <small>REV. BY</small> <small>DATE</small> <small>REV. BY</small>
15709A001	

ADD-A-STACK™ 4020



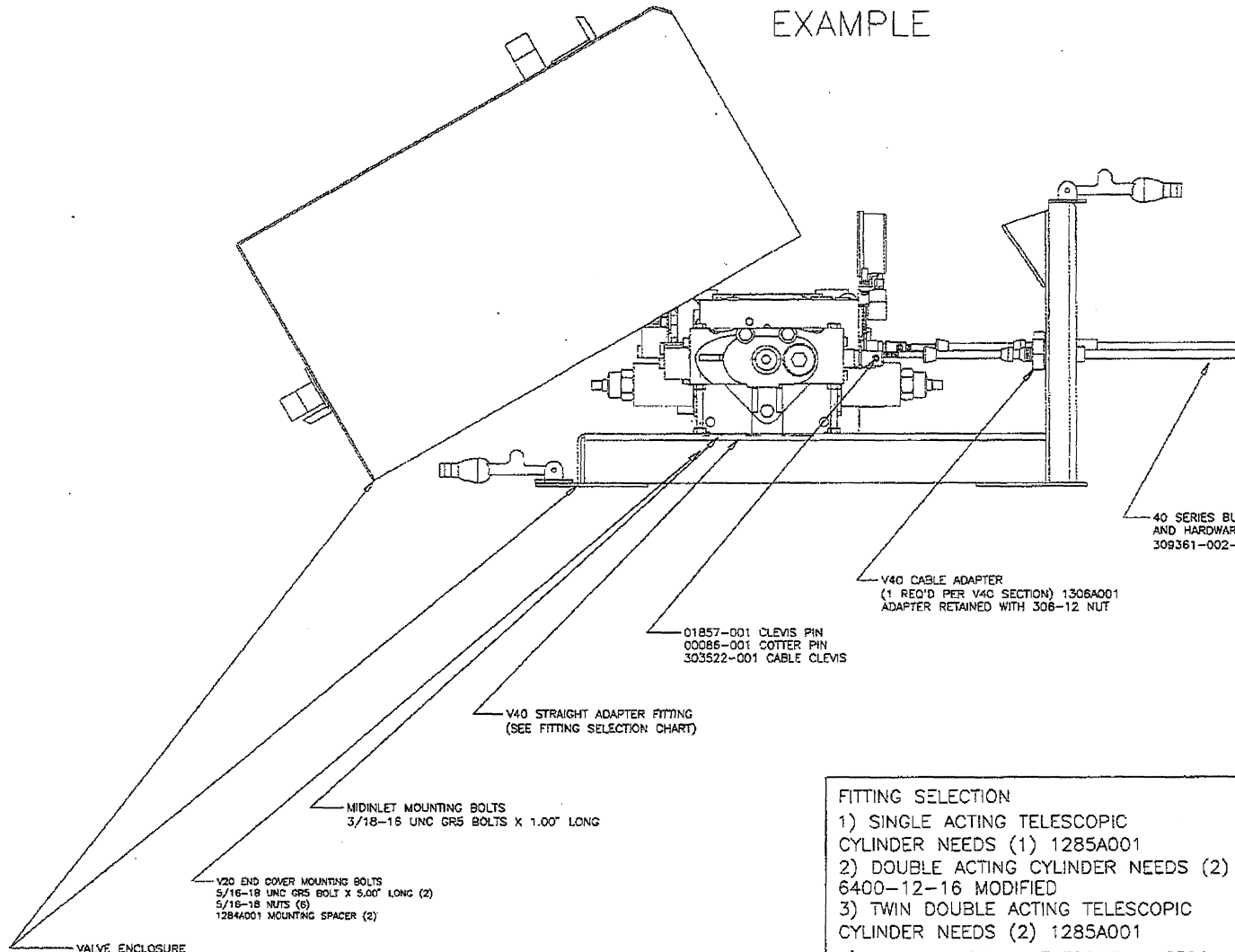
SHOWN WITH
UNLOADER INLET

PORT SIZES:

- INLET SAE -16
- OUTLET SAE -20
- V40 SECTION SAE -16
- V20 SECTION SAE -10
- SPIN-A-VEYER SAE -10

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DATE: 08/04 DRAWN BY: JAG CHECKED BY: JAG APPROVED BY: JAG SCALE: 1:1	<b style="font-size: 12px;">FORCE America 8/02/04 4020 TYPICAL INSTALLATION C 15709A001

ADD-A-STACK™ 4020 EXAMPLE



40 SERIES BULKHEAD CABLE
AND HARDWARE
309361-002-XXX (LENGTH)

V40 CABLE ADAPTER
(1 REQ'D PER V4G SECTION) 1306A001
ADAPTER RETAINED WITH 308-12 NUT

01857-001 CLEVIS PIN
00085-001 COTTER PIN
303522-001 CABLE CLEVIS

V40 STRAIGHT ADAPTER FITTING
(SEE FITTING SELECTION CHART)

MIDINLET MOUNTING BOLTS
3/18-16 UNC GR5 BOLTS X 1.00" LONG

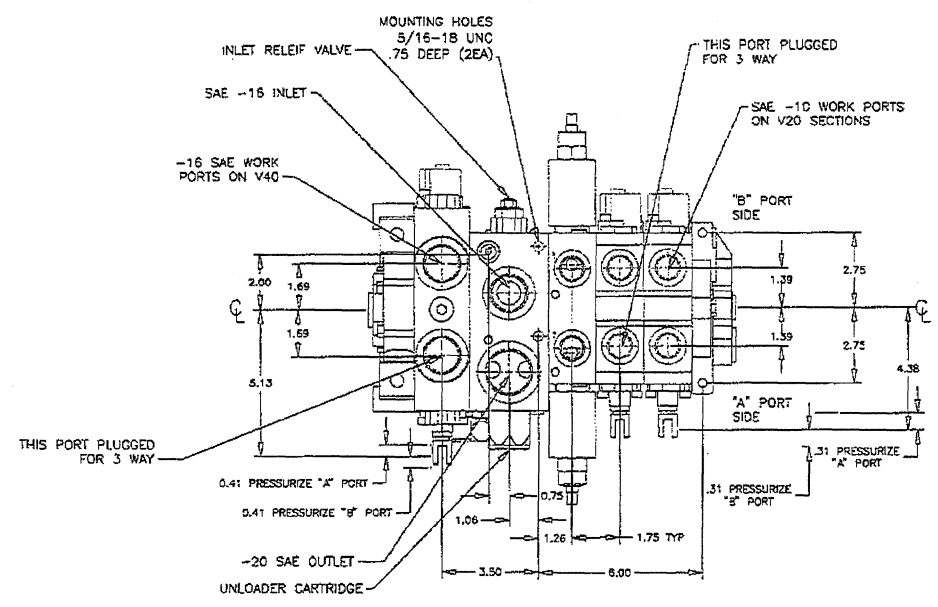
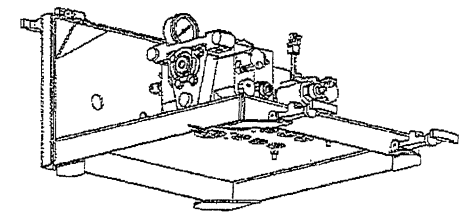
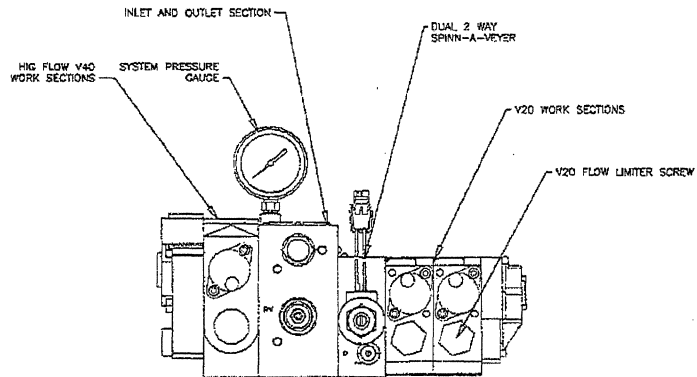
V20 END COVER MOUNTING BOLTS
5/16-18 UNC GR5 BOLT X 5.00" LONG (2)
5/16-18 NUTS (6)
1284A001 MOUNTING SPACER (2)

VALVE ENCLOSURE
GRM-ENCL-(NUMBER OF SECTIONS) FOR 4020 WITH SINGLE V40 SECTION
GRM-ENCL-(NUMBER OF SECTIONS)P FOR 4020 WITH 2 V40 SECTIONS

FITTING SELECTION

- 1) SINGLE ACTING TELESCOPIC CYLINDER NEEDS (1) 1285A001
- 2) DOUBLE ACTING CYLINDER NEEDS (2) 6400-12-16 MODIFIED
- 3) TWIN DOUBLE ACTING TELESCOPIC CYLINDER NEEDS (2) 1285A001
- 4) DOUBLE ACTING TELESCOPIC NEEDS (1) 1285A001 AND (1) 6400-10-16 MODIFIED

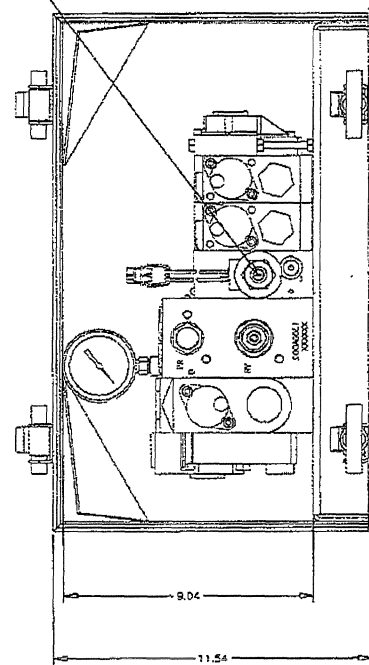
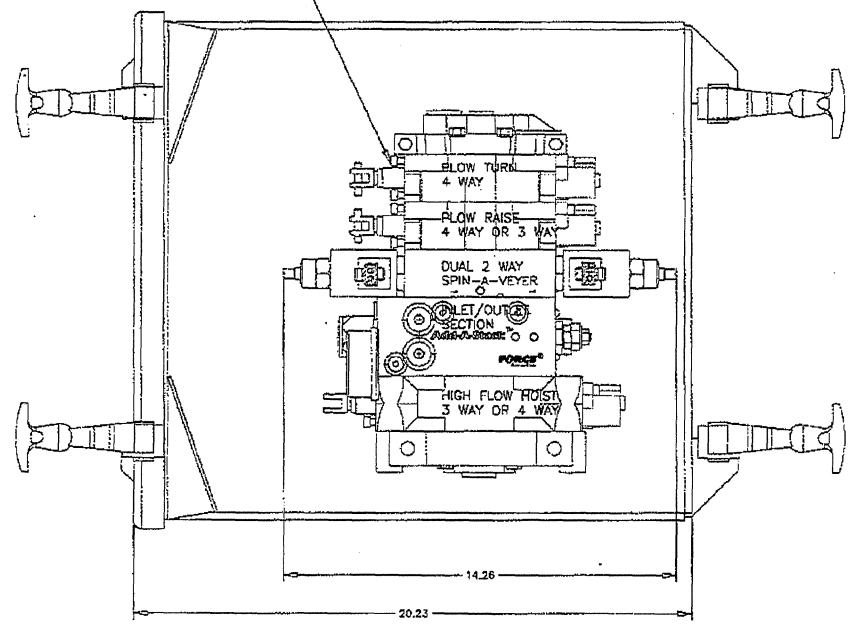
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4020 TYPICAL INSTALLATION		PART NO: 15709A001
SIZE: [blank] ANGLE: [blank] PART NO: [blank]	C: [blank]	15709A001



<small>FOR THE USE OF THE CUSTOMER, THIS DRAWING IS A REPRESENTATION OF THE DESIGN OF THE PRODUCT AS SHOWN IN THE PHOTOGRAPH. THE CUSTOMER IS RESPONSIBLE FOR VERIFYING THE DESIGN OF THE PRODUCT AS SHOWN IN THE PHOTOGRAPH.</small>	
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PART NUMBER: C 15709A001	
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SPOOL IN POWER "A" PORT

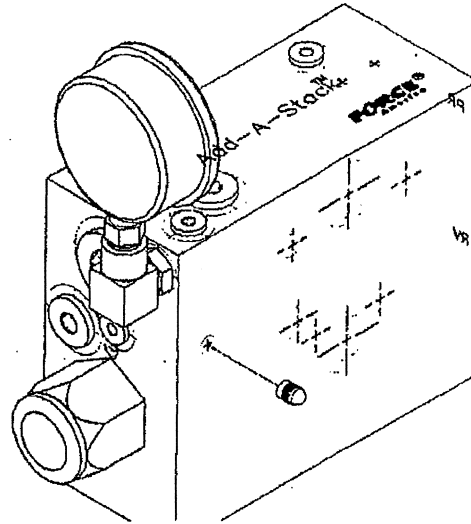
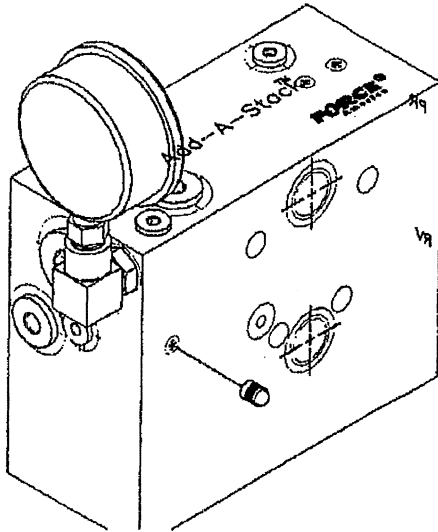
ENERGIZING "B" SOLENOID
POWER "B" PORT



<small>FOR THE USER'S INFORMATION, THIS DRAWING IS A REPRESENTATION OF THE GENERAL CONCEPTS OF THE DESIGN AND IS NOT A SUBSTITUTE FOR THE MANUFACTURER'S INSTRUCTIONS. THE USER SHOULD CONSULT THE MANUFACTURER'S INSTRUCTIONS FOR ALL SAFETY INFORMATION.</small>	
<small>REVISIONS:</small> <small>DATE</small> <small>BY</small> <small>REASON</small> <small>1</small> <small>1</small> <small>1</small> <small>2</small> <small>1</small> <small>1</small> <small>3</small> <small>1</small> <small>1</small> <small>4</small> <small>1</small> <small>1</small> <small>5</small> <small>1</small> <small>1</small>	FORCE America DIVISION OF BURNER MANUFACTURING COMPANY 15709A001
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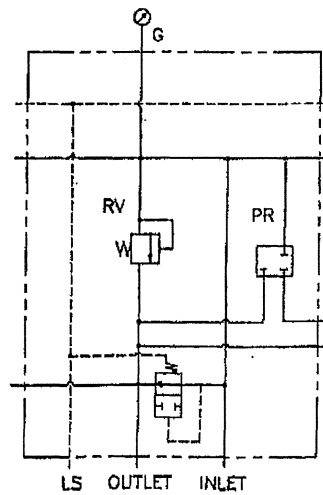
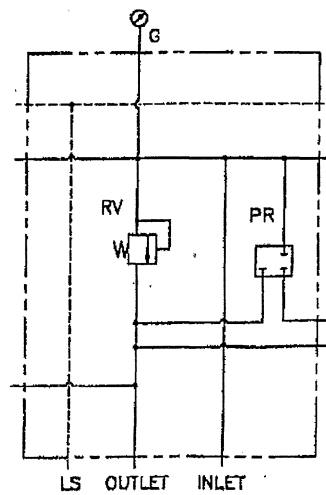
ADD-A-STACK™ 4020

MID INLETS



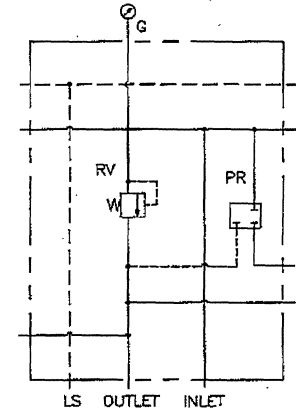
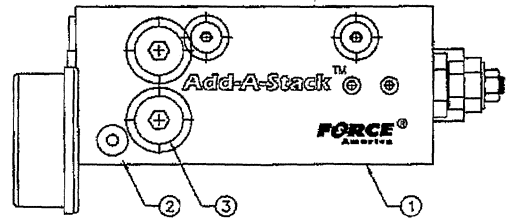
The conventional load sense mid inlet is used with a piston pump. This allows for best efficiency. A load sense pump delivers only the oil demanded by the system. The load sense port allows the valve to communicate to the pump. When not in use the pump will pump zero flow at standby pressure (300-400 PSI)

The unloader inlet is used with a gear pump. The unloader inlet marries a fixed pump to the existing closed center load sense valve sections. The unloader bypasses oil not used by the valve sections back to the tank. The load sense port normally won't be used unless a load sense sander valve is used. When not in use the inlet unloads full flow at 150 to 220 psi.

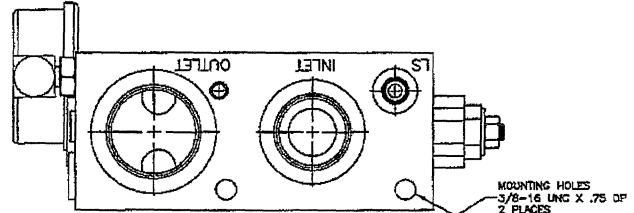
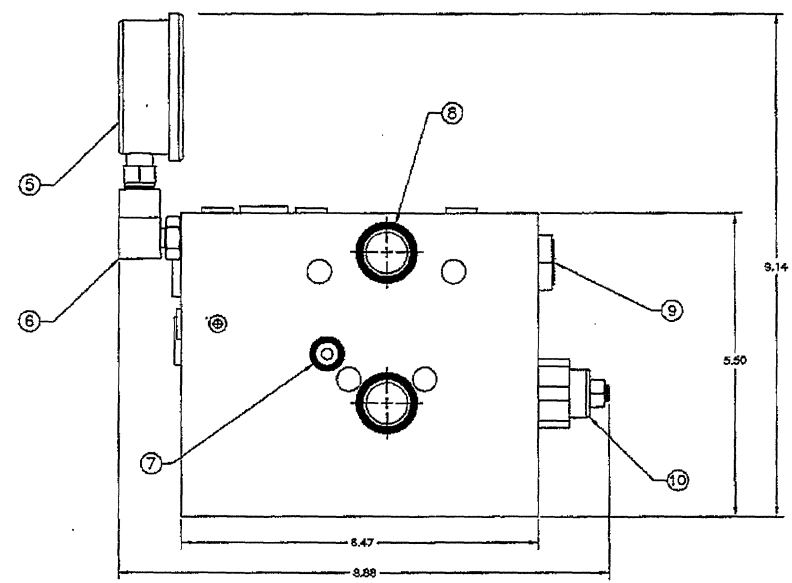
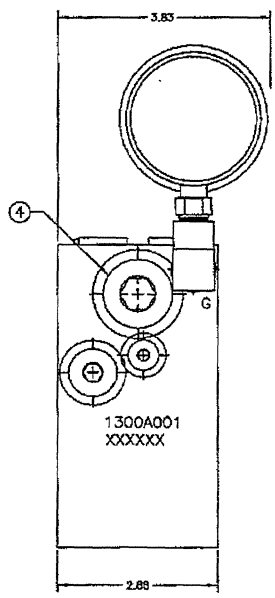
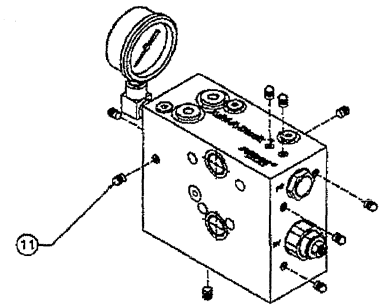
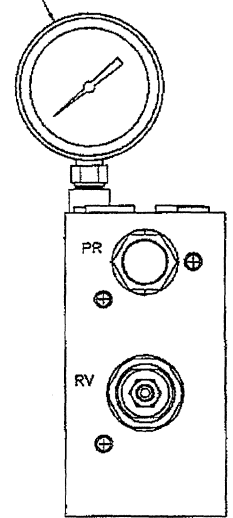


BILL OF MATERIALS			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1300A001	BODY, VALVE
2	4	225-S04	PLUG, SAE -04
3	3	225-S08	PLUG, SAE -08
4	1	225-S12	PLUG, SAE -12
5	1	LCS-25B-04000-T-N	PRESSURE GAUGE
6	1	8905-04-04	ADAPTER, 90°
7	1	700TA111	O-RING, -111
8	2	700TA119	O-RING, -119
9	1	P10-3	CAVITY PLUG
10	1	RPS1A	CARTRIDGE, RELIEF
11	8	M8600-080	EXPANDER PLUG, BMM

REVISIONS			
REV	ECO NUMBER	DATE	BY
A	10104	1/27/00	TRB
B	10166	12/11/00	TRB
C	10252	2/15/02	TRB



ASSEMBLE WITH GAGE FACING DIRECTION SHOWN

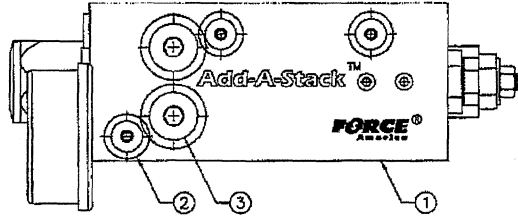


MOUNTING HOLES
3/8-16 UNC X .75 DP
2 PLACES

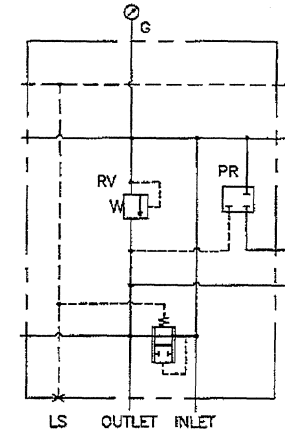
NOTES:
1. PORT SIZE
SAE -04: LS, C
SAE -16: INLET
SAE -12: OUTLET

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PART NUMBER: 9222A001		
SCALE: 1X		

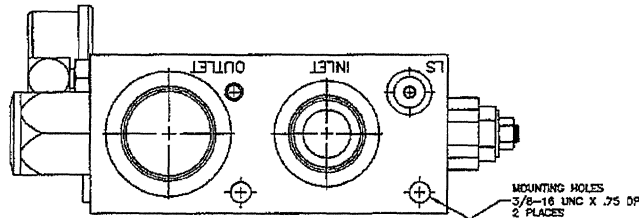
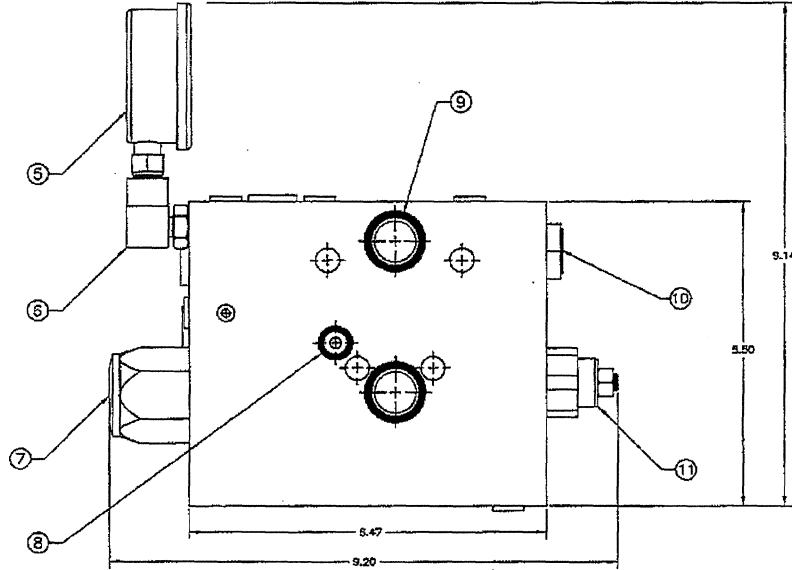
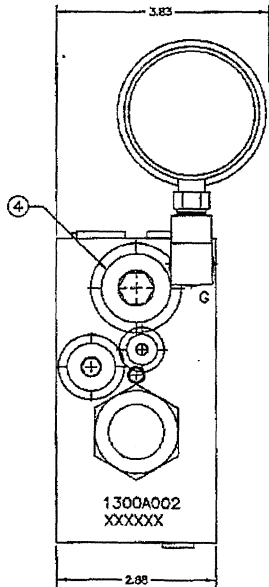
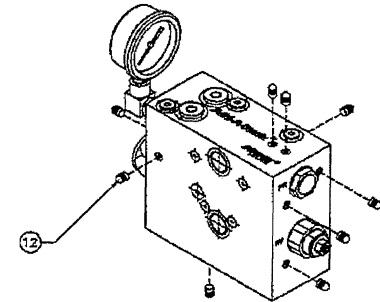
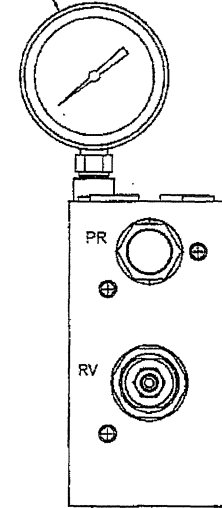
2	5	225-504	PLUG, SAE -04
3	3	225-508	PLUG, SAE -08
4	1	225-512	PLUG, SAE -12
5	1	LGS-25B-04000-T-N	PRESSURE GAUGE
6	1	85CB-04-04	ADAPTER, 90°
7	1	16SLC2-A-150	CARTRIDGE, UNLOADER
8	1	7001A111	O-RING, -111
9	2	7001A119	O-RING, -119
10	1	P10-3	CAVITY PLUG
11	1	RPS1A	CARTRIDGE, RELIEF
12	8	NB500-C80	EXPANDER PLUG, 8MM



B	10165	12/11/00	TRB
C	10252	2/13/02	TRB



ASSEMBLE WITH GAGE FACING DIRECTION SHOWN



NOTES:
 1. PORT SIZE
 SAE -04: LS, G
 SAE -16: INLET
 SAE -12: OUTLET

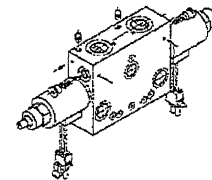
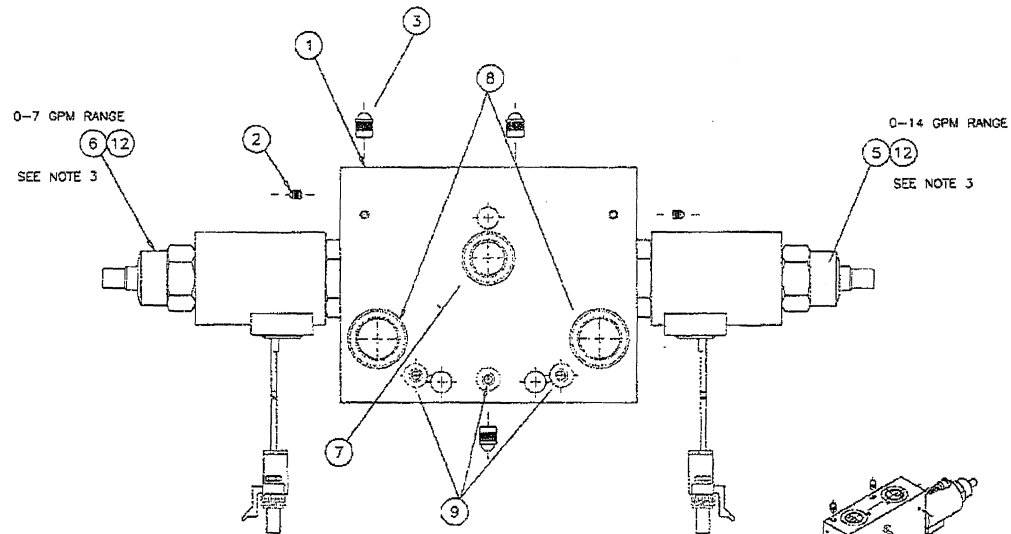
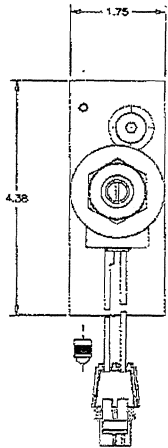
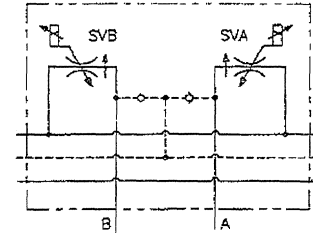
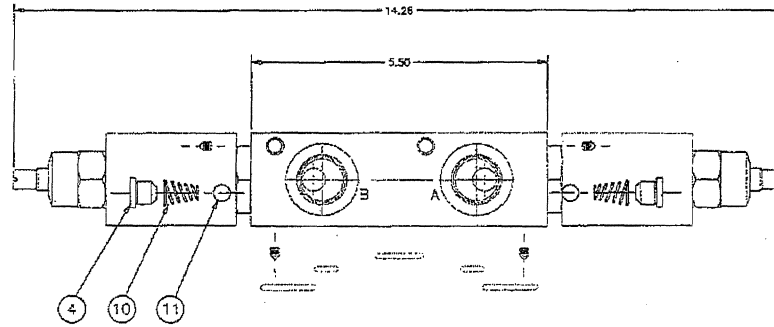
MATERIAL		DESIGN BY	CSC
DATE		1/20/00	
APPROVED BY		TRB	
DATE		1/27/00	
TITLE			
ASSY, UNLOADER MID-INLET			
PART NO.		9222A002	C
SCALE		1:1	DO NOT SCALE DRAWING
PAGE		1	OF 1

BILL OF MATERIALS			
REV	QTY	PART NUMBER	DESCRIPTION
1	1	1355A001	BODY, SPIN-A-VEYER
2	5	M8600-050	EXPANDER PLUG, 5 MM
3	3	M8600-070	EXPANDER PLUG, 7 MM
4	2	225-504	PLUG, SAE -4
5	1	PV72-2006-D-N-0	PROPORTIONAL VALVE, 0-14 GPM
6	1	PV72-2004-D-N-0	PROPORTIONAL VALVE, 0-7 GPM
7	1	7055A117	O-RING, -117 NITRILE
8	2	7055A119	O-RING, -119 NITRILE
9	3	7055A108	O-RING, -108 NITRILE
10	2	12439	SPRING
11	2	12691	BALL, .312 DIA
12	2	9289A012	COIL, 12 VDC(6507212 W/WEATHERPACK)

REVISIONS			
REV	DATE	BY	APP
A	10/14/8	8/28/00	MJV
B	10/20/8	5/26/01	TRB
C	10/25/8	3/8/02	TRB
D	10/25/8	4/26/02	TRB

NOTE:

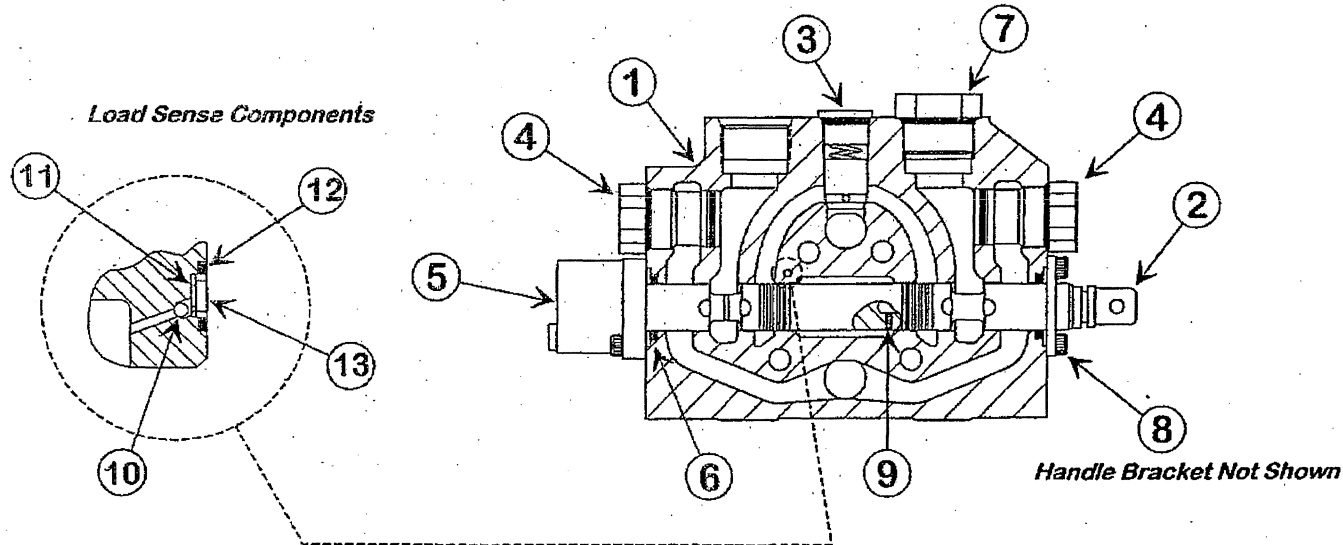
1. PORT SIZE
SAE -10: A, B
2. THIS VALVE SECTION MOUNTS TO
GRESEN V20 SECTIONAL VALVES
3. REPLACEMENT NUT WITH MANUAL
OVERRIDE SCREW FOR SOLENOID
VALVES IS P/N 6501620



DATE: 9/21/00 BY: TRB CHECKED: MJB APPROVED: MJB	DATE: 9/21/00 BY: TRB CHECKED: MJB APPROVED: MJB
TITLE: ASSY, SPIN-A-VEYER	
C 9128A001 D	

40LS-16-03 & 40LS-16-04 Work Section Components

Parent Ass'y No.	Description	Rev	Customer Part No	Page
13650091 & 13650593	40LS 3-Way and 40LS 4-Way Work Section Components			1 of 3

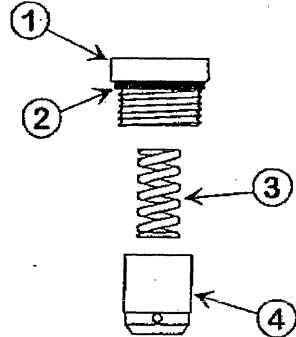
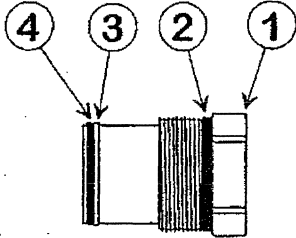


Seq No	Part No.	Description	Qty/Ass'y	Service With	Customer No.
1	24054011	V40LS Work Section Housing	1	Not Serviceable - Order Replacement Section	
2	23346001 22981001	V40LS 3-Way Spool (Includes No. 9) V40LS 4-Way Spool	1 1	Not Serviceable - Order Replacement Section	
3	20895001	Load Check Plug	1	K-40011 (Load Check Plug Kit - Page 2)	
4	11788001	No Relief Cavity Plug (Used on both 'A' and 'B' Port Ends)	2	CK-7505 (NR Plug Kit - Page 2) K-7506 (Plug Seal Kit - Page 2)	
5	11914006	Spring Return Spool Positioner	1	11914006 (Spool Positioner Kit - Page 3)	
6	20393001	Spool Seal Assembly	2	K-7544 (Spool Seal Kit - Page 2)	
7	06442001	SAE 16 Plug (3-Way Sections Only)	1	06442001 (SAE 16 Plug)	
8	08352001	Handle Bracket Assembly	1	K-40012 (Handle Bracket Kit - Page 3)	
9	23351001	Hex Set Screw (3-Way Spool Only)	1	23351001 (Hex Set Screw)	
10	07937001	Load Sense Ball	1	07937001 (Load Sense Ball)	
11	24848001	Washer	1	24848001 (Washer)	
12	00926001	Load Sense Pilot O-Ring Seal	1	K-40020 (Section Seal Kit - Page 2)	
13	24849001	Sleeve	1	24849001 (Sleeve)	

See Pages 2 & 3 for Service Kit Components

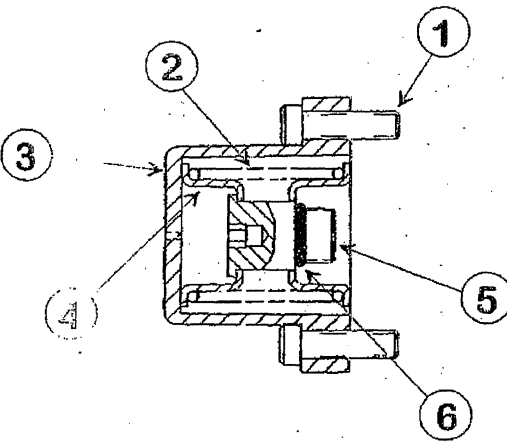
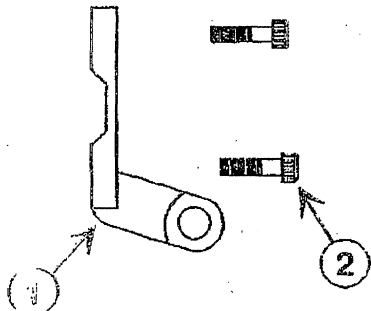
40LS-16-03 & 40LS-16-04 Work Section Components

Parent Ass'y No.	Description	Rev	Customer Part No	Page
13650591 & 13650593	40LS 3-Way and 40LS 4-Way Work Section Components			2 of 3

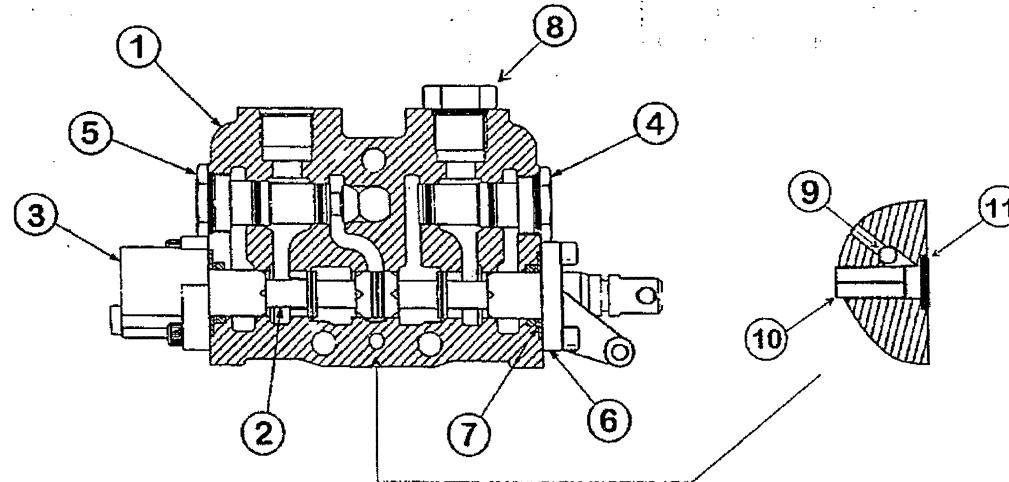
Kit No.	Description	Seq No.	Qty/Kit	Parts Included in Kit:	Customer Part No.
K-7544	Spool Seal Ass'y		1	20392001 Spool Seal	
			1	11530001 Washer	
			1	11531001 Seal Retainer	
K-40020	Section Seal Kit		2	21733001 O-Ring Seal	
			1	21735001 O-Ring Seal	
			2	09000112 O-Ring Seal	
			1	00926001 O-Ring Seal	
	K-40011 Load Check Plug Kit	1	1	09435110 Plug	
		2	1	02702001 O-Ring Seal	
		3	1	00976001 Spring	
		4	1	20577001 Poppet	
	CK-7505 No Relief Plug Kit <i>(Includes all Items Listed Here)</i>				
	K-7506 Plug Seal Kit <i>(Items 2 thru 4 Only)</i>	1	1	11802001 NR Plug	
		2	1	01615001 O-Ring Seal	
	3	1	06619001 Back Up Ring		
	4	1	06815002 O-Ring Seal		

40LS-16-03 & 40LS-16-04 Work Section Components

Parent Ass'y No.	Description	Rev	Customer Part No	Page
13650491 & 13650593	40LS 3-Way and 40LS 4-Way Work Section Components			3 of 3

	Kit No.	Description	Seq No.	Qty/Kit	Parts Included in Kit:	Cust No.
	11914006	Spool Positioner Ass'y	1 2 3 4 5 6	2 1 1 2 1 1	03731101 Screw 01608001 Spring 11793005 Bonnet 11795001 Spring Collar 11796001 Spool Collar 00449001 O-Ring Seal	
	K-40012	Handle Bracket Kit	1 2	1 2	11824001 Bracket 03731099 Screw	

Section B/M No	Description	Rev	Customer Part No	Page
08650-XXX	V20LS 3-Way Work Section Assembly			1 of 3

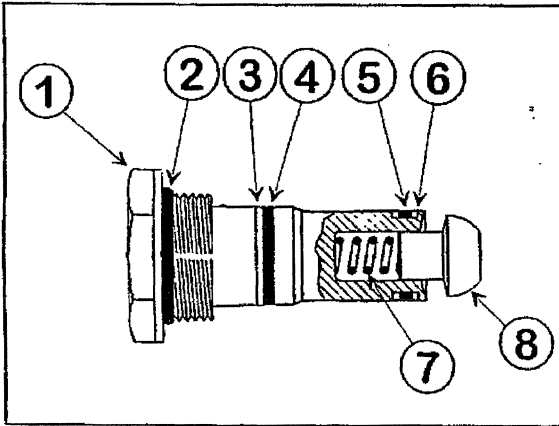


Seq No	Item No	Description	Qty/Ass'y	Service With	Customer No.
1	08364-XXX	V20LS Work Section Housing	1	Not Serviceable - Replace Section	
2	08388-004	V20C 4-Way Spool (Used for 3-Way LS)	1	Not Serviceable - Replace Section	
3	06139-007	4-Position Float Positioner	1	K-6125 (Spool Positioner Kit - Page 3)	
4	06140-003	Load Check Plug - Less Poppet (Used on 'A' Port End)	1	K-6030 (Load Check Kit - Page 2) K-6032 (L/C Plug Seal Kit - Page 2)	
5	06140-001	Load Check Assembly (Used on 'B' Port End)	1	K-6030 (Load Check Kit - Page 2) K-6032 (L/C Plug Seal Kit - Page 2)	
6	06426-002	Handle Bracket Assembly	1	K-6031 (Handle Bracket Kit - Page 3)	
7	06755-001	Spool Seal Assembly	1	K-6035 (Spool Seal Kit - Page 2)	
8	07054-001	SAE #10 Plug	1	K-SAE-10 (SAE #10 Plug - Page 2)	
9	07937-001	Load Sense Ball	1	07937-001 (Load Sense Ball)	
10	08392-001	Spring Pin	1	08392-001 (Spring Pin)	
11	21866-001	Load Sense Pilot O-Ring Seal	1	K-6156 (LS Section Seal Kit - Page 2)	

See Pages 2 & 3 for Service Kit Components

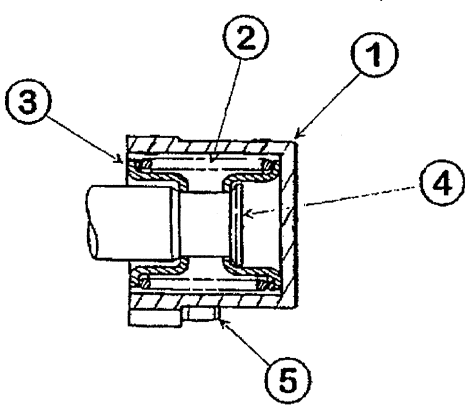
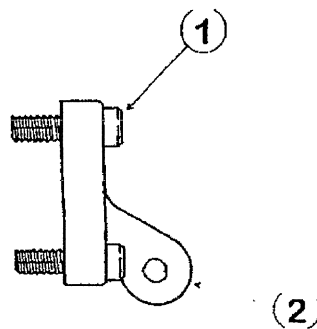
V20LS 3-Way Work Section Service Kits

Section B/M No	Description	Rev	Customer Part No	Page
08650-XXX	V20LS 3-Way Work Section Assembly			2 of 3

Kit No.	Description	Seq No.	Qty/Kit	Parts Included in Kit:
K-6035	Spool Seal Kit		2	03765-001 Backup Washer
			2	07700-001 Spool Seal
K-6156	LS Section Seal Kit		2	21857-001 O-Ring Seal
			3	21733-001 O-Ring Seal
			1	21866-001 O-Ring Seal
K-SAE-10	SAE #10 Plug Kit		1	01458-001 Plug
			1	02707-001 O-Ring Seal
	K-6030 Load Check Plug Kit <i>(Remove Items 7 & 8 when installing in the 'A' Port End of V20LS Sections)</i> K-6032 Plug Seal Kit <i>(Items 2 thru 6 Only)</i>		1	03411-001 Plug
			2	02707-001 O-Ring Seal
			3	01821-001 Backup Ring
			4	01819-001 O-Ring Seal
			5	01820-001 Backup Ring
			6	01818-001 O-Ring Seal
			7	01868-001 Spring
			8	02781-001 Poppet

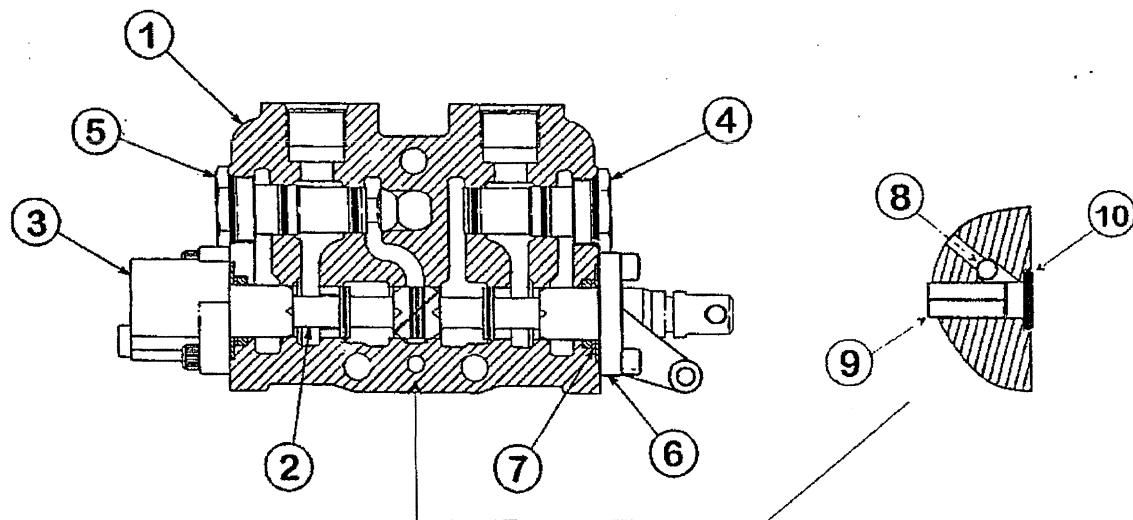
V20LS 3-Way Work Section Service Kits

Section B/M No	Description	Rev	Customer Part No	Page
08650-XXX	V20LS 3-Way Work Section Assembly			3 of 3

	Kit No	Description	Seq No	Qty/Kit	Parts Included in Kit
	K-6125	Spring Return Positioner Kit	1 2 3 4 5	1 1 2 1 2	01811-003 Bonnet 07433-001 Spring 01809-001 Spring Collar 10892-001 Spool Spud 09161-407 Screw
	K-6031	Handle Bracket Kit	1 2	1 4	09161-407 Screw 01801-001 Bracket

V20LS 4-Way Work Section Components List

Section B/M No	Description	Rev	Customer Part No	Page
08650-XXX	V20LS 4-Way Work Section Assembly			1 of 3



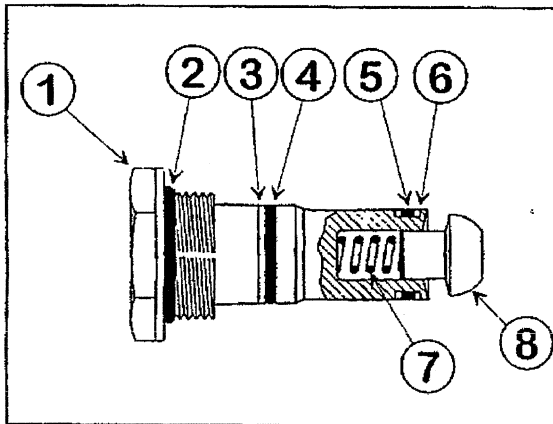
Seq No	Item No	Description	Qty/Ass'y	Service With	Customer No.
1	08364-XXX	V20LS Work Section Housing	1	Not Serviceable - Order Replacement Section	
2	08388-001	V20LS 4-Way Spool	1	Not Serviceable - Order Replacement Section	
3	06139-007	4-Position Float Positioner	1	K-6125 (Spool Positioner Kit - Page 3)	
4	06140-003	Load Check Plug - Less Poppet <i>(Used on 'A' Port End)</i>	1	K-6030 (Load Check Kit - Page 2) K-6032 (L/C Plug Seal Kit - Page 2)	
5	06140-001	Load Check Assembly <i>(Used on 'B' Port End)</i>	1	K-6030 (Load Check Kit - Page 2) K-6032 (L/C Plug Seal Kit - Page 2)	
6	06426-002	Handle Bracket Assembly	1	K-6031 (Handle Bracket Kit - Page 3)	
7	06755-001	Spool Seal Assembly	1	K-6035 (Spool Seal Kit - Page 2)	
8	07937-001	Load Sense Ball	1	07937-001 (Load Sense Ball)	
9	08392-001	Spring Pin	1	08392-001 (Spring Pin)	
10	21866-001	Load Sense Pilot O-Ring Seal	1	K-6156 (LS Section Seal Kit - Page 2)	

See Pages 2 & 3 for Service Kit Components

V20LS 4-Way Work Section Service Kits

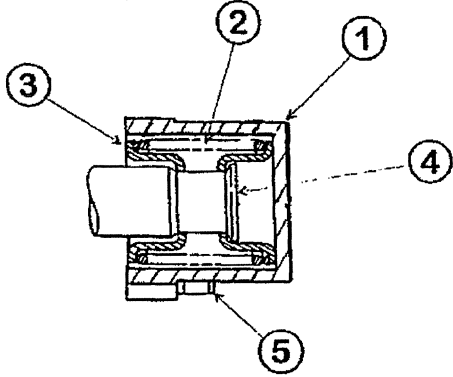
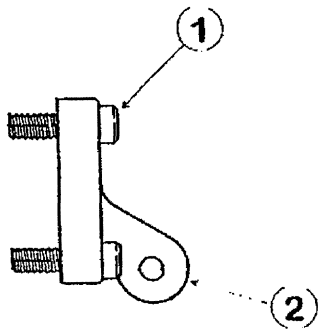
Section B/M No	Description	Rev	Customer Part No	Page
08650-XXX	V20LS 4-Way Work Section Assembly			2 of 3

Kit No.	Description	Seq No.	Qty/Kit	Parts Included in Kit:
K-6035	Spool Seal Kit		2	03765-001 Backup Washer 07700-001 Spool Seal
			2	
K-6156	LS Section Seal Kit		2	21857-001 O-Ring Seal 21733-001 O-Ring Seal 21866-001 O-Ring Seal
			3	
			1	
K-6030	Load Check Plug Kit <i>(Remove Items 7 & 8 when installing in the 'A' Port End of V20LS Sections)</i>	1	1	03411-001 Plug 02707-001 O-Ring Seal 01821-001 Backup Ring 01819-001 O-Ring Seal 01820-001 Backup Ring 01818-001 O-Ring Seal 01868-001 Spring 02781-001 Poppet
		2	1	
		3	1	
		4	1	
		5	2	
		6	1	
		7	1	
		8	1	
	K-6032 Plug Seal Kit <i>(Items 2 thru 6 Only)</i>			



V20LS 4-Way Work Section Service Kits

Section B/M No	Description	Rev	Customer Part No	Page
08650-XXX	V20LS 4-Way Work Section Assembly			3 of 3

	Kit No	Description	Seq No	Qty/Kit	Parts Included in Kit
	K-6125	Spring Return Positioner Kit	1	1	01811-003 Bonnet
			2	1	07433-001 Spring
			3	2	01809-001 Spring Collar
			4	1	10892-001 Spool Spud
			5	2	09161-407 Screw
	K-6031	Handle Bracket Kit	1	1	09161-407 Screw
			2	4	01801-001 Bracket

Load Sense Bleed-Down Plug for 6770LS Outlet Cover

K-6255 Bleed Down Cartridge Kit

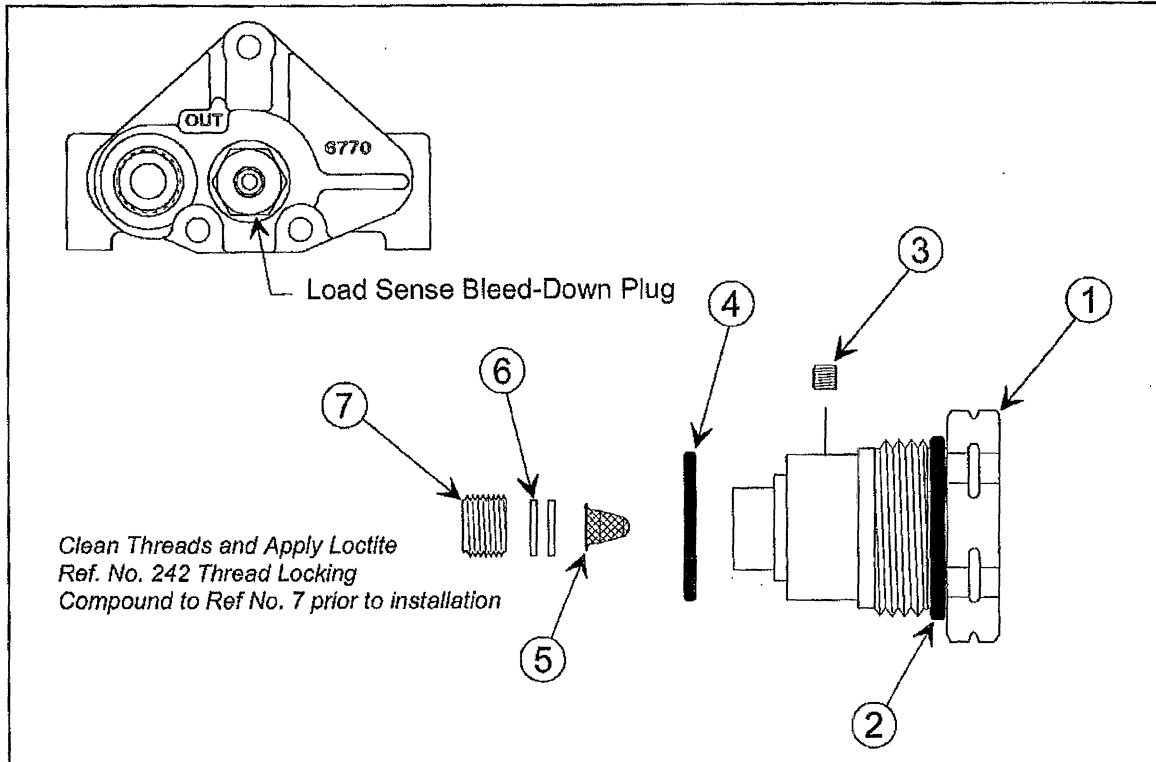


Figure 22. Load Sense Bleed-Down Plug for 6770LS Outlet Cover

Ref No.	Part No.	Description	Quantity
	16012002	K-6240 Bleed-Down Cartridge Kit (Includes All Ref No's Listed Below)	
	16088001	K-6269 Cartridge Seal Kit (Includes Ref No's. 2 and 4 Only) ①	
1	22249001	Bleed-Down Plug	1
2	02708001	O-Ring Seal (Serviced in K-6269 Cartridge Seal Kit) ①	1
3	22489001	.018 Orifice Screw (Standard) ②③	1
4	09001115	O-Ring Seal (Serviced in K-6269 Cartridge Seal Kit) ①	1
5	11839001	Filter Screen	1
6	12293001	Back-Up Washer	2
7	11056001	Locking Screw	1

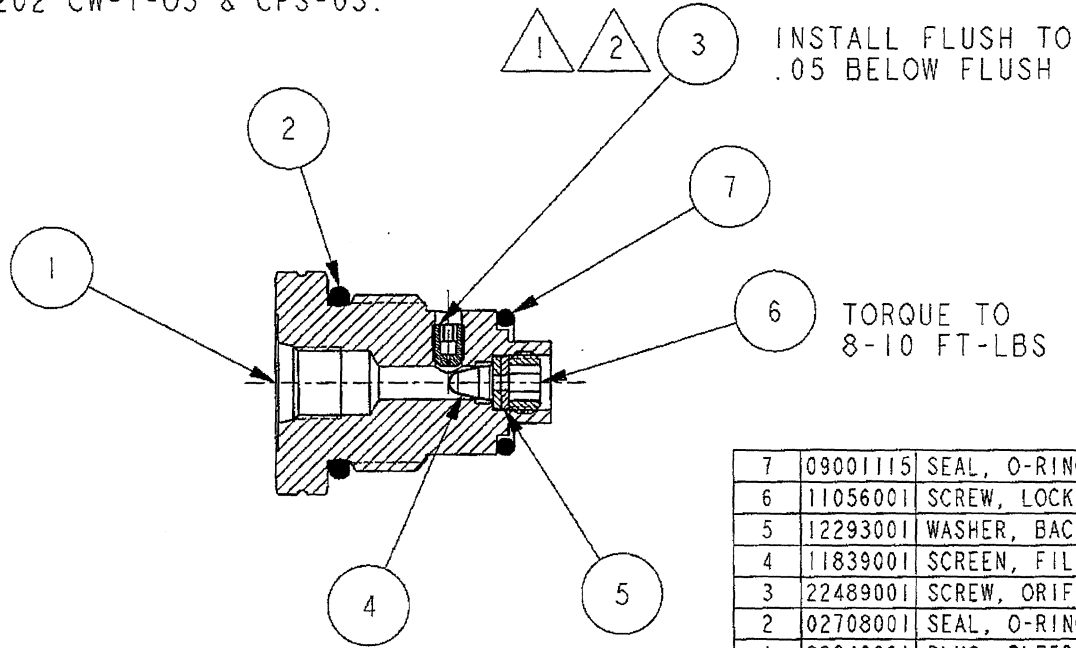
① Buna-N seals are standard for all **Gresen** valve assemblies. For Viton seals, contact the **Gresen** factory.

② Optional Orifice Screws are available from the **Gresen** factory. Available bleed hole diameters sizes are: .020, .030 & .040.

③ The Load Sense Bleed-Down Plug can be converted to a no-bleed assembly in the field by replacing the Orifice Screw with a solid screw – **Gresen** Part Number 09275304. Install plug flush or slightly below surface.

NOTES:

- ▲ APPLY TYPE II, GRADE N (BLUE), THREAD LOCKING COMPOUND PER ENGRG SPEC 4.700.001 (REF LOCTITE #242).
- ▲ CHECK THAT HOLE IS OPEN AFTER INSTALLATION INTO ITEM #1 (REF #77 DRILL).
- 3. CLEANLINESS PER ENGR MFG SPEC 2.005.202 CW-1-05 & CPS-03.



ITEM#	PART#	DESCRIPTION	QTY
7	09001115	SEAL, O-RING AS-115, 90 DUR	1
6	11056001	SCREW, LOCKING	1
5	12293001	WASHER, BACKUP	2
4	11839001	SCREEN, FILTER	1
3	22489001	SCREW, ORIFICE	1
2	02708001	SEAL, O-RING AS-912, 90 DUR	1
1	22249001	PLUG, BLEED-OFF	1

REF ENGRG STD				2.004.001	4.700.001	2.005.202	GRESEN® GRESEN HYDRAULICS DIVISION DANA CORPORATION 600 HOOVER STREET NE MINNEAPOLIS, MN 55413	
TOLERANCE UNLESS OTHERWISE SPECIFIED				MATERIAL		TITLE		
.XX ± N/A .XXX ± N/A				MACHINE FINISH		ASSY, PLUG-BLEED-OFF		
FRACTIONS ± N/A				ANGLES ± N/A°		22539001		
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B	9/23/99	SRD	24002	THIRD ANGLE PROJECTION		DATE 23-Sep-99		
REV	DATE	DRN	CHK	ERO	CHK	DATE	SCALE 1:1	
REF	PROV	ENGRG		JSS	PROJ NO	1180-63	SHEET 1 OF 1	