



# GV CUP PACKER

## 4-1/2" X 2-3/8"

Manual No:  
**DL-439-4500-856**

Revision: **B**

Revision Date:  
**11/03/2015**

Authored by: J.Anderson

Approved by: K.Riggs

### A) DESCRIPTION

The Type GV Cup Packer is an economical means of isolating casing leaks and depleted zones and is also a production or injection packer for low pressure applications. Depending on application, this packer can be run with cups opposed or in the same direction. This packer is also available with packing element back-up rings for higher pressure applications and comes in a full range of tubing and casing sizes in two-cup or four-cup models.

### B) SPECIFICATION GUIDE

CASING			TOOL		THREAD CONNECTION BOX UP / PIN DOWN	PART NUMBER
SIZE (INCHES)	WEIGHT (LBS/FT)	RECOMMENDED HOLE SIZE (INCHES)	GAGE OD (INCHES)	NOMINAL ID (INCHES)		
4-1/2	9.5 – 13.5	3.920 – 4.090	3.750	2.00	2-3/8 EUE	43945 43945H <sup>1</sup> 43945V <sup>2</sup>
	15.1	3.826	3.650	2.00	2-3/8 EUE	43947 43947H <sup>1</sup> 43947V <sup>2</sup>

Elastomer Trim Options: <sup>1</sup>HSN, <sup>2</sup>Viton

DIFFERENTIAL PRESSURE (MAX)	TENSILE LOAD THRU TOOL (MAX)	RECOMMENDED RUNNING DEPTH (MAX)	RECOMMENDED RUNNING SPEED (MAX)
5,000 PSI	58,500 LBS	7,000 FT	60 FT/MIN

### C) PRE-INSTALLATION INSPECTION PROCEDURES

**CAUTION:** D&L ships tool connections made-up **HAND TIGHT**—labeled with hand-tight tape on the tool (Fig. 1)—unless stated otherwise. Tighten/torque all connections properly before operating tool.



Fig. 1

GENERAL THREAD CONNECTION TORQUE RECOMMENDATIONS			
STUB ACME / ACME THREADS	INTERNAL TAPERED TUBING THREADS		PREMIUM THREADS
	UP TO 2-3/8"	GREATER THAN 2-3/8"	
600 – 800 FT-LBS	600 – 800 FT-LBS	800 – 1,200 FT-LBS	Consult thread manufacturer's recommendations.

Before first use, D&L recommends disassembly and inspection of the tool unless stated otherwise. Ensure parts have not been damaged during shipping. Replace damaged parts with D&L replacement parts. Contact D&L sales for replacement part information.

Re-assemble the tool after inspection. Install parts in the correct order and orientation. Properly tighten connections.

Before re-using the tool, D&L recommends disassembly and inspection of the tool. Clean parts and ensure parts are in good working condition. Replace worn or damaged parts with D&L replacement parts.

When redressing the tool, D&L recommends replacement of all packing elements, o-rings, etc. Contact D&L sales for redress kit and/or other replacement part information.

D & L OIL TOOLS  
P.O. BOX 52220 TULSA, OK 74152  
PHONE: (800) 441-3504 [www.dloiltools.com](http://www.dloiltools.com)



# GV CUP PACKER

4-1/2" X 2-3/8"

Manual No:  
**DL-439-4500-856**

Revision: **B**

Revision Date:  
**11/03/2015**

Authored by: J.Anderson

Approved by: K.Riggs

## D) SETTING PROCEDURES

**CAUTION:** Do not run the tool without properly tightening connections. Running the tool with loose connections may damage the tool and cause malfunction.

Trip packer to desired depth.

## E) RELEASING PROCEDURES

Pull work string to remove packer from well bore.

## F) STORAGE PROCEDURES

When preparing the tool for storage, follow the Pre-Installation Inspection Procedures. Re-assemble the tool with connections hand-tight only and in running position if applicable. Packing elements should be in a relaxed state—free from tension, compression, and other stresses that could cause deformation.

Store the tool, if possible, in an enclosed, temperature and humidity controlled environment. Avoid excessively high temperatures over long periods of time. Shield elastomeric parts from ultraviolet light sources. Keep tool dry and protected from condensation. Do not store in contact with or near volatile or corrosive chemicals. Do not store near ozone generating equipment or operations such as welding.

## G) ELASTOMER TRIM TEMPERATURE GUIDE

RUBBER TYPE	TEMPERATURE RANGE
NITRILE	70° - 300°F
HSN (HNBR)	70° - 325°F
VITON	100° - 350°F

## H) RECOMMENDED HAND TOOLS

- VISE
- GLOVES
- ALLEN WRENCHES
- TAPE MEASURE
- O-RING PICK
- BAR
  - 1/2-INCH
  - 3/4-INCH
- PAINT BRUSH, 2-INCH
- PIPE WRENCH, 3-FT (2 EA)
- "CHEATER" PIPE, 4-FT LONG
- ADJUSTABLE WRENCH, 12-INCH
- CORDLESS DRILL, 18V
- SNAP RING SPREADER PLIERS
- ALIGNING PUNCH
- SCREWDRIVER SET, FLAT-TIPPED
- SOCKET SETS
  - 3/8-INCH DRIVE
  - 1/2-INCH DRIVE
- HAMMERS
  - SLEDGE
  - BALL PEEN
  - DEAD BLOW

## I) DISASSEMBLY

I-1) Clamp mandrel (1) in vise.

I-1.1) Unscrew and remove coupling (2) from mandrel (1).

I-1.2) Remove retaining rings (3), cups (5), and cup spacers (4) from mandrel (1).

I-1.2.1) Remove o-rings (6) from cups (5).

I-2) Unclamp mandrel (1) and remove from vise.



# GV CUP PACKER

## 4-1/2" X 2-3/8"

Manual No:  
**DL-439-4500-856**

Revision: **B**

Revision Date:  
**11/03/2015**

Authored by: J.Anderson

Approved by: K.Riggs

### J) ASSEMBLY

**NOTE<sub>1</sub>:** Clean and inspect all parts. Replace all worn and damaged parts. Install parts in proper order, and orientation and tighten/torque all connections properly.

J-1) Clamp mandrel (1) in vise.

J-1.1) Install o-rings (6) in o-ring grooves in cups (5).

J-1.2) Install cup spacers (4), cups (5), and retaining rings (3) from mandrel (1).

**CAUTION<sub>3</sub>:** Do not rip or tear o-ring during installation.

J-1.3) Screw coupling (2) onto mandrel (1).

J-2) Unclamp mandrel (1) from vise and remove assembled tool.

### K) PARTS LIST

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 43945	P/N 43947
1	1	MANDREL	DLMS60	43945210	
2	1	COUPLING	DLMS60	CP-BAB-BBB-A	
3	2	RETAINING RING	DLMS60	43945831	43947831
4	2	CUP SPACER	DLMS60	43945821	
5	2	PACKER CUP	80 DURO NITRILE	70245512	70247513
6	2	332 O-RING	90 DURO NITRILE	90332	

REDRESS KIT (RDK)		43945050	43947050
ASSEMBLED WEIGHT		17 LBS	16 LBS

#### K-1) ELASTOMER TRIM OPTIONS

**NOTE<sub>2</sub>:** For temperature range, refer to Elastomer Trim Temperature Guide.

K-1.1) HSN

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 43945H	P/N 43947H
5	2	PACKER CUP	80 DURO HSN	70245512H	70247513H
6	2	332 O-RING	90 DURO HSN	90332H	

REDRESS KIT (RDK)		43945050H	43947050H
-------------------	--	-----------	-----------

K-1.2) VITON

ITEM	QTY	DESCRIPTION	MATERIAL	P/N 43945V	P/N 43947V
5	2	PACKER CUP	80 DURO VITON	70245512V	70247513V
6	2	332 O-RING	90 DURO VITON	90332V	

REDRESS KIT (RDK)		43945050V	43947050V
-------------------	--	-----------	-----------



# GV CUP PACKER

## 4-1/2" X 2-3/8"

Manual No:  
**DL-439-4500-856**

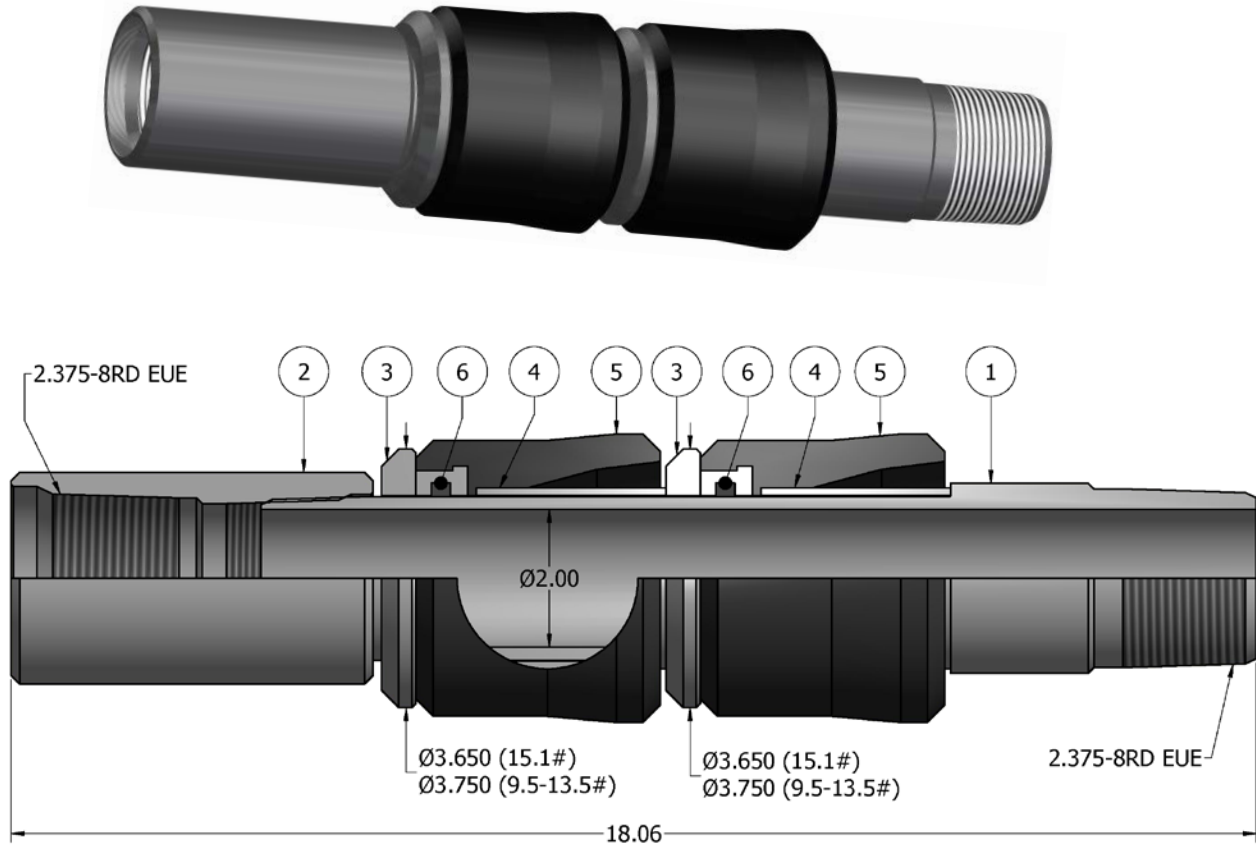
Revision: **B**

Revision Date:  
**11/03/2015**

Authored by: J.Anderson

Approved by: K.Riggs

### L) TECHNICAL ILLUSTRATION



### M) REVISION HISTORY

DATE	REVISION	DESCRIPTION OF CHANGES	REVISED BY	APPROVED BY
11/03/2015	B	Added P/N 43947; Removed tool drift ID	J.Anderson	B.Bishop
05/20/2015	A	Created new tech manual	-	-