



# GV CUP PACKER

## 5-1/2" X 2-7/8"

Manual No:  
**DL-439-5500-485**

Revision: **C**

Revision Date:  
**04/30/2020**

Authored by: *B.Mathis*

Approved by: *K.Plunkett*

### 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)		
5-1/2	14.0 – 20.0	4.778 – 5.012	4.625	2.50	2-7/8 EUE	43956 43956H <sup>1</sup> 43956V <sup>2</sup>
	20.0 – 26.0	4.548 – 4.778	4.375	2.50	2-7/8 EUE	43957 43957H <sup>1</sup> 43957V <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	72,000 LBS	7,000 FT	60 FT/MIN

### C) PRE-INSTALLATION INSPECTION PROCEDURES

**CAUTION<sub>1</sub>:** 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.

GENERAL SCREW TORQUE RECOMMENDATIONS									
SCREW SIZE (INCHES)	#6	#8	#10	1/4	5/16	3/8	7/16	1/2	5/8 and larger
TORQUE RANGE (INCH-POUNDS)	5 – 8	10 – 15	18 – 25	25 – 40	50 – 80	90 – 135	160 – 210	250 – 330	450 - 650

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.

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



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## C) PRE-INSTALLATION INSPECTION PROCEDURES (cont'd)

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) 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 RECOMMENDATIONS

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	40° - 250°F
HSN (HNBR)	70° - 300°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



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### I) DISASSEMBLY

- I-1) Clamp mandrel (1) in vise.
  - I-1.1) Unscrew and remove coupling (2) from mandrel (1).
  - I-1.2) Remove cup 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.

### J) ASSEMBLY

**NOTE:** 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 cup retaining rings (3) from mandrel (1).
    - CAUTION:** 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	14.0 – 20.0# P/N 43956	20.0 – 26.0# P/N 43957
1	1	MANDREL	DLMS60	43956211	
2	1	COUPLING	DLMS80	CP-BAC-BBC-B	
3	2	CUP RETAINING RING	DLMS35	43955831	43957830
4	2	CUP SPACER	DLMS60	43955821	
5	2	CUP	DLMS60 / 80 DURO NITRILE	70255512	70257512
6	2	336 O-RING	90 DURO NITRILE	90336	

REDRESS KIT (RDK)		43956050	43957050
ASSEMBLED WEIGHT		26 LBS	25 LBS



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### K-1) ELASTOMER TRIM OPTIONS

**NOTE:** For temperature range, refer to Elastomer Trim Temperature Guide.

#### A-1.1) HSN

ITEM	QTY	DESCRIPTION	MATERIAL	14.0 – 20.0# P/N 43956H	20.0 – 26.0# P/N 43957H
5	2	CUP	80 DURO HSN	70255512H	70257512H
6	2	336 O-RING	90 DURO HSN	90336H	

REDRESS KIT (RDK)		43956050H	43957050H
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#### K-1.1) VITON

ITEM	QTY	DESCRIPTION	MATERIAL	14.0 – 20.0# P/N 43956V	20.0 – 26.0# P/N 43957V
5	2	CUP	80 DURO VITON	70255512V	70257512V
6	2	336 O-RING	90 DURO VITON	90336V	

REDRESS KIT (RDK)		43956050V	43957050V
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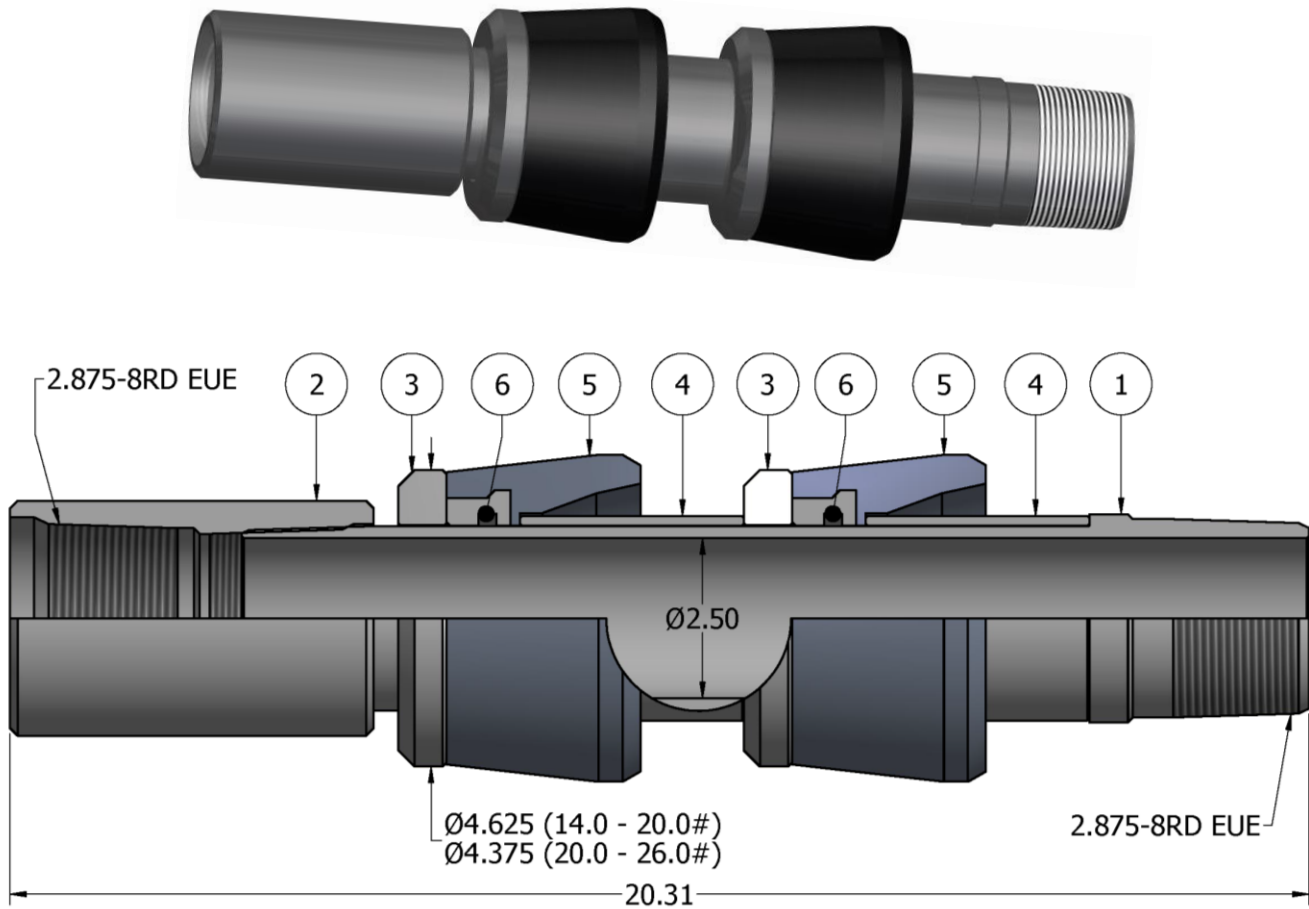
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### L) TECHNICAL ILLUSTRATION



### M) REVISION HISTORY

DATE	REVISION	DESCRIPTION OF CHANGES	REVISED BY	APPROVED BY
04/30/2020	C	Removed tool drift ID; Added General Screw Torque Recommendations; Revised Elastomer Trim Temp. Guide, CP-BAC-BBC-B was CP2875E2875N	J.Anderson	E.Visaez
05/20/2015	B	Rewrote manual	J.Anderson	K.Riggs