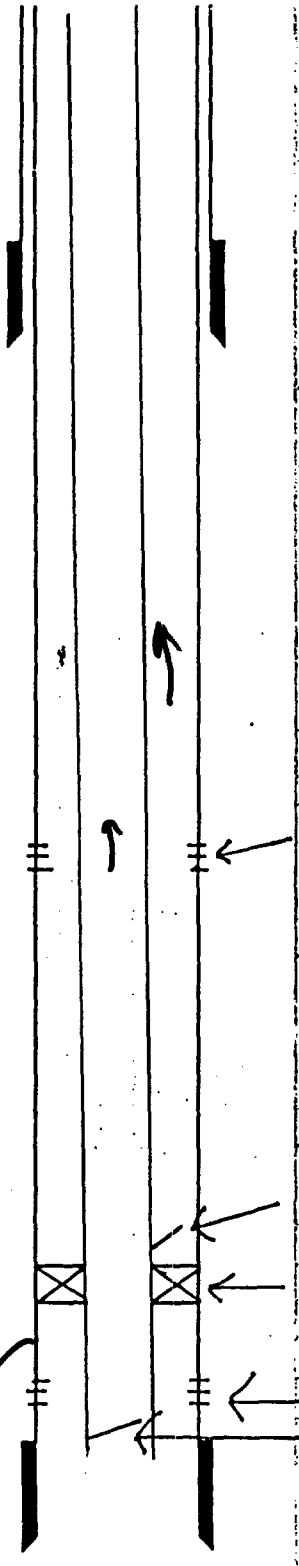
BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
Caulkins EXHIBIT NO. 4
CASE NO. 8573



Mesa Verde Perforations

Baker Reverse Flow Check Valve

Baker Model R-3 Double Grip retrievable or Baker Model "D" Production Packer

Dakota Perforations

Baker Check Valve - Wireline retrievable

7

FORM NO. 20-27 (6/76)

REVERSE FLOW CHECK VALVES

STANDARD OUTSIDE-MOUNTED

Type "DOS" Check Valve
Product No. 868-03.

The Type "DOS" Check Valve is manufactured only in the 1-1/2 in. OD size. It contains two seats with spring loaded O-ring seal drops which offer a double checking arrangement.

Type "OS" Check Valve, Product No. 868-01.

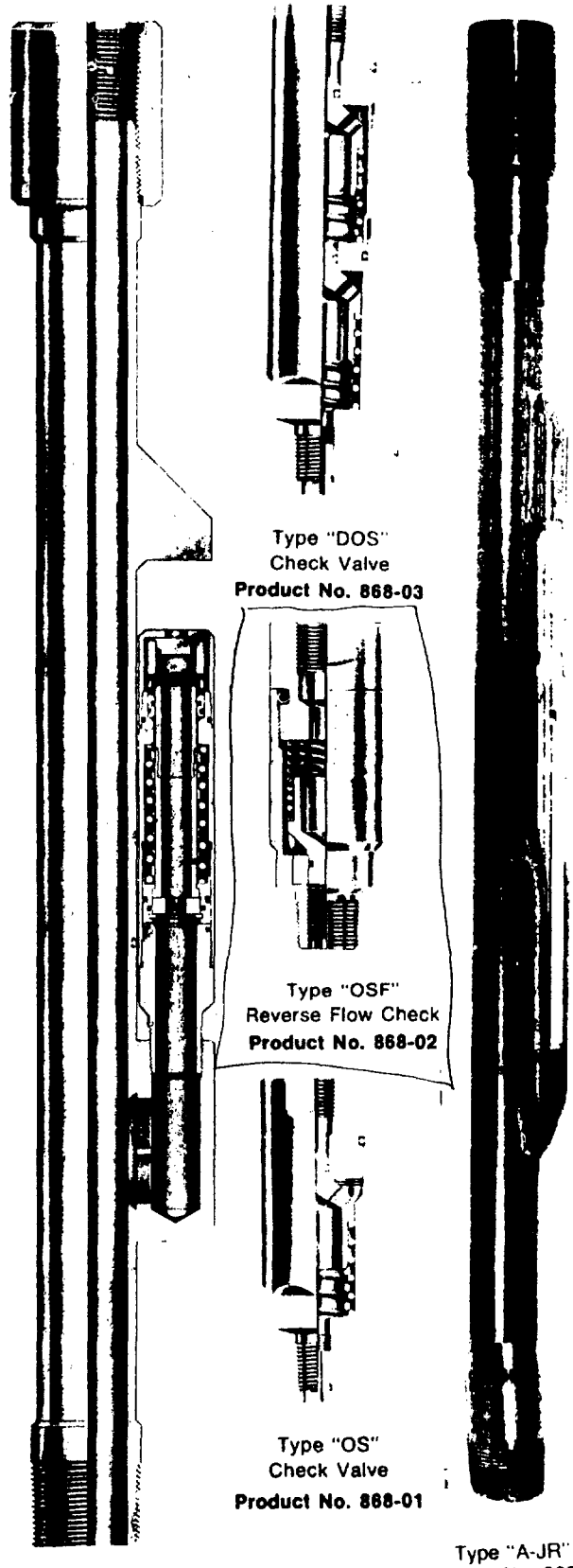
The Type "OS" Check Valve is a spring-loaded, normally closed check valve with an O-ring as well as metal-to-metal sealing surface. This product is made for 1-1/2 in. OD conventional gas lift valves.

Type "OS-JR" Check Valve
Product No. 868-30.

The Type "OS-JR" Check Valve has the same characteristics as the Type "OS" Check Valve, except it is made for 1 in. conventional gas lift valves.

Type "OSF" Reverse Flow Check
Product No. 868-02

The Type "OSF" Reverse Flow Check is a spring-loaded, normally closed check valve with an O-Ring as well as metal-to-metal sealing surface. This product is made for an 1-1/2" OD BFC-1 gas lift valve. (This product is also available in the 1" OD version, the Type "OSF Jr." Valve, Product No. 868-31 for use with a 1" OD BFC-Jr. Gas Lift Valve.)



Type "DOS"
Check Valve
Product No. 868-03

Type "OSF"
Reverse Flow Check
Product No. 868-02

Type "OS"
Check Valve
Product No. 868-01

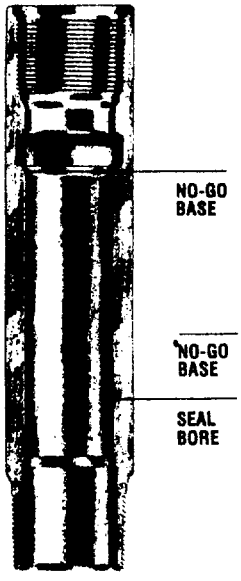
Type "A-JR"
Product No. 869-02

STANDARD OUTSIDE-MOUNTED VALVE MANDRELS
Type "A", Product No. 869-01
No. 869-02, Mandrels.

EQUALIZING CHECK VALVES

Model "F" Seating Nipple
(Product No. 801-50 Alloy Steel)
(Product No. 801-51 Stainless Steel)
(Product No. 801-52 9 CR-1 MO)

[Uses Dog-Type or Collet-Type Locks]



Sizes: 1.18-3.81

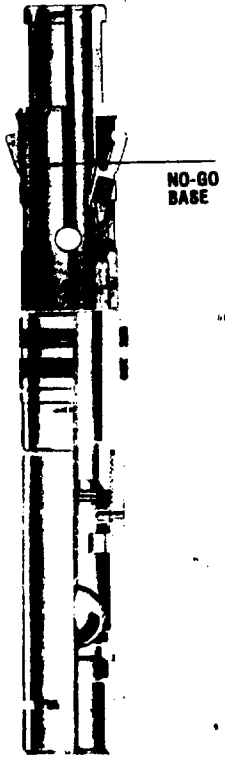
The Model "F" Seating Nipple is a Top No-Go or Selective Seating Nipple that provides for the location of various wireline flow control devices in the production string.

The location and number of Model "F" Seating Nipples should be carefully considered in the completion planning stages to allow maximum versatility in the positioning of various flow control accessories.

Model "F" Seating Nipples are manufactured per NACE MR-01-75 (1980 Revision)

APPLICATIONS:
Model "F" Seating Nipples may be used for the following operations:

- Land blanking plugs to shut in well or to test the production tubing.
- Land Velocity Type Safety Valves (SSCSV).
- Land equalizing check valves.
- Land circulating blanking plugs.
- Land chokes to reduce surface flowing pressures or to have pressure drops downhole to prevent surface freezing in gas production.
- When installed above Blast Joints with a Model "A" Polish Nipple below the Blast Joints, separation sleeves may be installed to repair eroded Blast Joints.
- Land instrument hangers with geophysical devices such as pressure and temperature recorders.



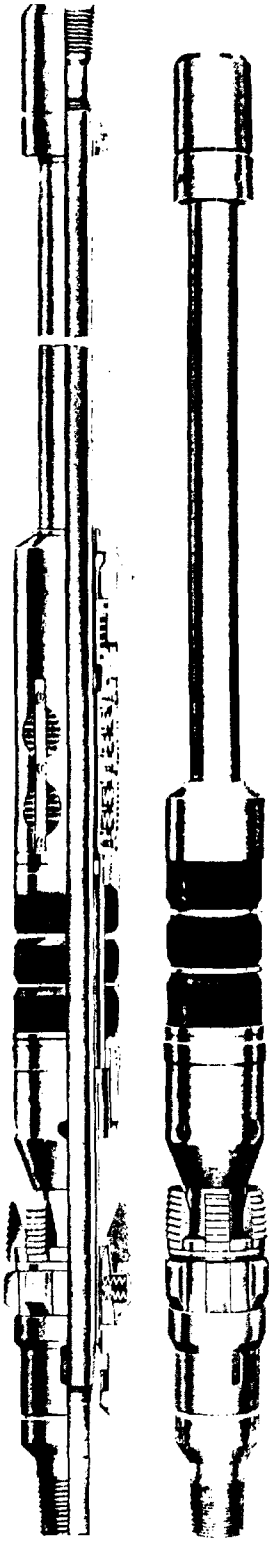
MODEL "V" EQUALIZING CHECK VALVE

"FWV" Prod. No. 809-03; "RZV" Prod. No. 809-04; Baker provides two types of Equalizing Check Valves. They are sometimes called "Standing Valves" because they prevent fluid flow in one direction (downward) while allowing full fluid flow in the opposite direction (upward). Both types have a built-in method of allowing equalizing before pulling.

"V" EQUALIZING CHECK VALVE

The "V" Valve differs from the "B-2" Valve in that it is locked into the nipple or sleeve. It cannot be run with an "S" type lock because the ball cannot be held off the seat during running and landing. (The ball and seat design would prevent the upward movement required when landing with an "S" lock.)

BAKER PACKERS
A BAKER OIL TOOLS COMPANY



Model "R-3" Double-Grip (left) and Single-Grip (right) Retrievable Casing Packers

MODEL "R-3" DOUBLE-GRIP RETRIEVABLE CASING PACKER PRODUCT NO. 642-01

The "R-3 Double-Grip" is a truly versatile setdown-type packer. Proven by its worldwide use, it performs reliably in production, stimulation and testing operations.

FEATURES/BENEFITS

- Hydraulic button-type hold down located below the bypass valve
- Unique, built-in, "differential lock" helps keep the bypass valve closed
- Effective bypass design speeds equalization and resists swab-off
- Field-proven, three-element packing system and rocker-type slips

MODEL "R-3" SINGLE-GRIP RETRIEVABLE CASING PACKER PRODUCT NO. 641-01

In wells where excessive bottom-hole pressure is not expected, the "Single-Grip R-3" is the answer to your needs for a setdown retrievable packer. From the packing elements down, the "R-3 Single-Grip" is identical to the Double-Grip Model. Running, setting and releasing procedures are the same for both packers.

TO SET THE PACKER: The "R-3" is set by picking up, rotating to the right and then slacking off on the tubing. Setdown weight closes and seals the bypass valve, sets the slips and packs-off the packing elements.

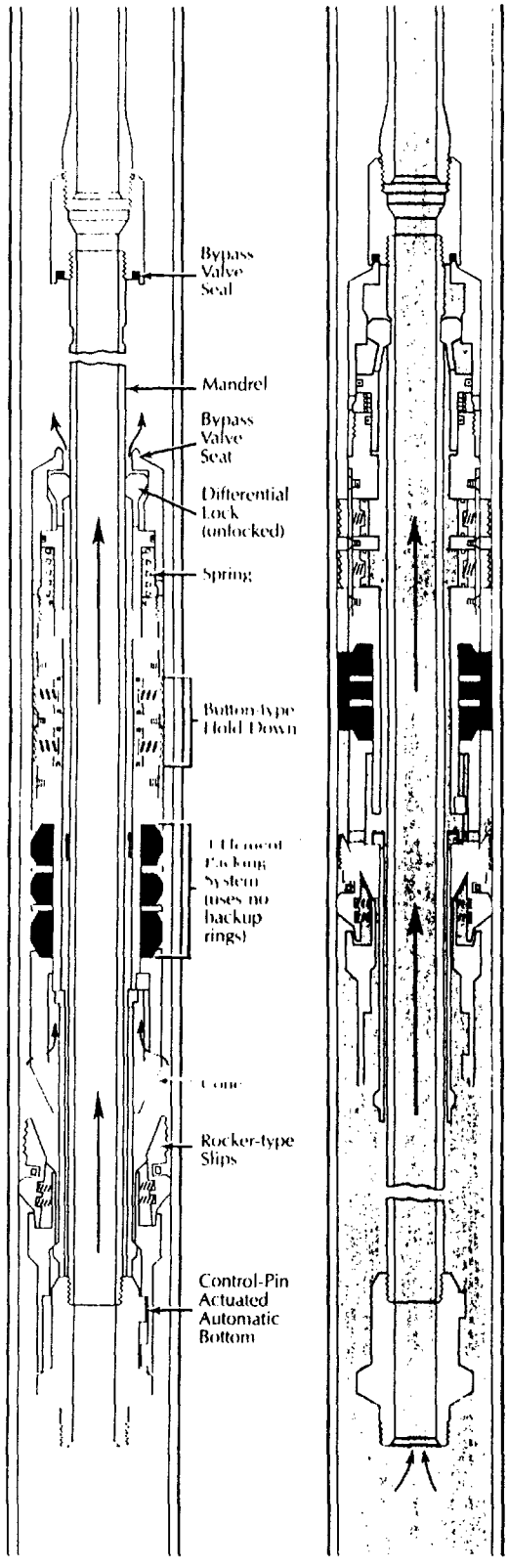
TO RELEASE THE PACKER: Picking up the tubing releases the packer (no rotation required). When the tubing is raised, the bypass valve opens to permit circulation through and around the packer.

When the tubing string is raised the full length of the packer, the J-pins (on the bottom sub) are oriented for automatic reengagement. By then lowering the tubing slightly, the J-pin engages the J-slot thus assuring complete release and preventing accidental resetting while retrieving the packer.

ORDERING EXAMPLE:

PRODUCT NO. *642-01*
SIZE *47B4 (7" OD 20-26 lbs/ft casing)*
MODEL "R-3" DOUBLE-GRIP RETRIEVABLE CASING PACKER
w/2-7/8" OD EU 8Rd Box x Pin, for
J-55, 6.5 lbs/ft tubing

MODEL "R-3" DOUBLE-GRIP PACKER OPERATION



Running In

Producing

"AR-1" SNAP-SET COMPRESSION PACKERS AND "MR-1" SNAP-SET PACKERS

Product Nos. 635-31, 636-31, 635-21, 636-21

Baker Models 'AR-1' Snap Set Compression Packer, 'AR-1' Snap Set Compression Packer with hold down and the 'MR-1' Single and Double Grip Snap-Set Packers are Retrievable Set Down Packers featuring a bypass area through the packer and an integral unloader. They are used as the upper packer in a single string two-packer installation for zone isolation, injection, or production. The "MR-1" Packers (with slips) are used above Baker Retainer Production Packers and the "AR-1" Packers (without slips) are used above either Retainer Production Packers or Retrievable Packers (see **OPERATION**).

FEATURES:

1. Reliable - A multiple packing element system that has been proven on the Model "R-3" Retrievable Casing Packer.
2. Simple Operation - No tubing rotation is required. Application of approximately 7,000 lbs. setdown weight (against a lower packer)will set and pack-off the packer. A straight upstrain releases the packer.
3. Simple - A collet type snap-latch prevents the packer from setting before landing the seal assembly (or setting a lower retrievable packer). The lower portion of the tool is rotationally locked in order to deliver torque in either direction through the packer.
4. Versatile - The four models available can fulfill a variety of requirements. The Double-Grip "MR-1" Snap-Set Packer, with slips and integral hold-down, will support high differentials from either direction while supporting the load in the annulus. The Single-Grip "MR-1" does not provide the holddown and may be used when high differentials from below are not anticipated. The "AR-1" Compression Packers (without slips) are more economical than the "MR-1" Packers and may be used where differentials from above are not severe.

OPERATION:

"MR-1" and "AR-1" Setting Above a Baker Retainer Production Packer

1. Run and set a Baker Retainer Production Packer.
2. Make up the Snap-Set Packer in the tubing at the desired location and run the tubing string into the well until the Locator Sub of the Tubing Seal Assembly lands in the Retainer Production Packer.
3. Apply set-down weight (see chart below) to set and pack-off the packer.

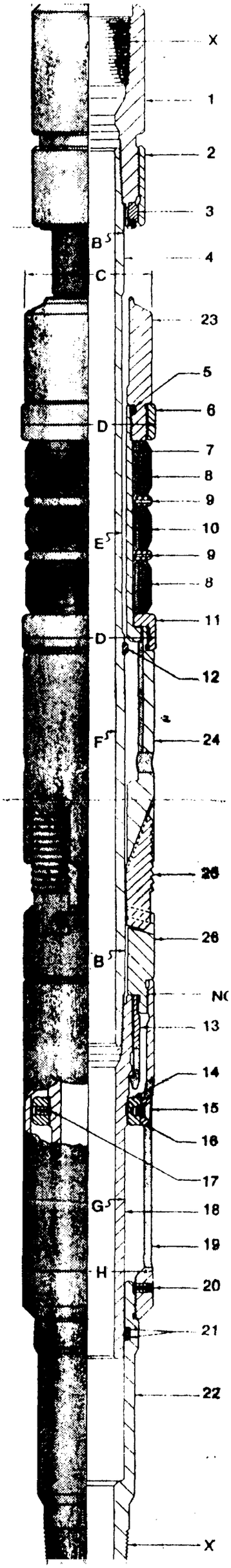
"AR-1" Only Setting Above A Retrievable Packer

1. Make up both packers on the tubing string and run them into the well.
2. Rotate the tubing as required to prepare the lower packer for setting, and apply set-down weight (shown in chart below) to set and pack-off both packers.

SET-DOWN WEIGHT REQUIRED TO PACK-OFF PACKING ELEMENT SYSTEM

PACKER SIZE	SPEC. HARDNESS 80-60-80	STANDARD HARDNESS 90-70-90	SPEC. HARDNESS 95-80-95
43, 45, or 47	6,000 lbs.	7,000 lbs.	8,000 lbs.

Note: The maximum telescoping motion to set and pack-off packers in any size casing is seven inches and must be considered when spacing out equipment through the packers.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Releasing:

To release the packer simply pick up on the tubing string. If the weight of the tubing string below the packer is less than 1,500 lbs., the snap-latch will not "recock", and any attempt to lower the tool back down the hole during retrieving may not be successful. The unloader will not be locked open, or in the case of the "MR-1" Packers, the slips may not be fully retracted. However; if the weight of the tubing below the packer is greater than 1,500 lbs., the snap-latch will "recock" to the running-in position. The packer can then be raised or lowered during the retrieving operation.

EFFECT OF PRESSURING OPERATIONS ON BYPASS VALVE

The Bypass Valve on the Model "MR-1" Snap-Set Packer is essentially the same as the Valve on the Model "R-3" Retrievable Casing Packer; however, the hydraulic effects of pressuring operations on the bypass valve differ from the Model "R-3".

There are three points at which pressure changes may occur with a Snap-Set Packer instead of the Two points in the Model "R-3" Packer.

The points at which pressure changes may occur are:

1. In the annulus above the Snap-Set Packer.
2. In the isolated zone below the Snap-Set Packer and above the lower packer.
3. In the tubing through the Snap-Set Packer.

The number of square inches acted upon by pressure changes at these three points is listed in the chart on page 3. Areas tending to close the Unloader are **unshaded** and areas tending to open the unloader are **shaded.** The use of this chart is the same as that for the Model "R-3" Packer. Example problems and instructions for use of the chart may be found in the Model "R-3" Retrievable Casing Packer unit filed under this same index.

DISASSEMBLY:

The upper portion of the Compression and Snap-Set Packers use standard Model "R-3" Retrievable Casing Packer parts (refer to unit filed under this same index) and will be disassembled according to the methods presently used on the Model "R-3" Packers. The disassembly procedure which follows below applies only to the lower portion of the Snap-Set and Compression Packers since they are different from the Model "R-3". The lower portion of the Snap-Set and Compression Packers is identical.

1. Place the rotational Lock Sleeve in the vise and remove the Key and all Set Screws.
2. Break the Bottom Sub from the Rotational Lock Sleeve.
3. Place the Connector Sleeve in the vise (Compression Packer) or the Slip Ring (Snap-Set Packer) and remove the Rotational Lock Sleeve.

* *

CAUTION:

This is a left-hand thread.

* *

4. After removing the Set Screw, with back-up on the Upper Body, remove the Rotational Lock Nut.
5. Remove the Latch from the Connector Sleeve (Compression Packer) or the Slip Ring (Snap-Set Packer).
6. Hold Back-up on the Upper Body and remove the Lower Body by placing wrench in groove provided.

* *

CAUTION:

Do not damage seal surface on OD of Lower Body.

* *

NOTE:

The Snap Ring on the Upper Body does not require removal if it is not damaged.

* *