

# BLACKMER SEAL INSTALLATION

961403  
Page 1 of 4

FORM  
554

## LIP SEAL INSTRUCTIONS AND PARTS

**MODELS: TX206A, TXV 2.5B, 3B; TX200B Series, TX400B Series  
And Discontinued TXV2(A)(B), 2½(A), 3(A), TX200(A), & TX400(A) Series**

Effective  
Replaces

July 2002  
Dec 1995



### This is a SAFETY ALERT SYMBOL.

When you see this symbol on the product, or in the manual, look for one of the following signal words and be alert to the potential for personal injury, death or major property damage



Warns of hazards that **WILL** cause serious personal injury, death or major property damage.



Warns of hazards that **CAN** cause serious personal injury, death or major property damage.



Warns of hazards that **CAN** cause personal injury or property damage.

### NOTICE:

Indicates special instructions which are very important and must be followed.

### NOTICE:

Blackmer truck pumps **MUST** only be installed in systems, which have been designed by qualified engineering personnel. The system **MUST** conform to all applicable local and national regulations and safety standards.

These instructions are intended to assist in the installation of Blackmer lip seal assemblies, and **MUST** be kept with the pump.

Blackmer truck pump service shall be performed by qualified technicians **ONLY**. Service shall conform to all applicable local and national regulations and safety standards.

Thoroughly review the pump manual, all instructions and hazard warnings, **BEFORE** performing any work on Blackmer truck pumps.

Maintain **ALL** system and Blackmer truck pump operation and hazard warning decals.

### WARNING



Hazardous pressure can cause personal injury or property damage

**DISCONNECTING FLUID OR PRESSURE CONTAINMENT COMPONENTS DURING PUMP OPERATION CAN CAUSE SERIOUS PERSONAL INJURY, DEATH OR MAJOR PROPERTY DAMAGE**

### WARNING



Hazardous voltage. Can shock, burn or cause death.

**FAILURE TO DISCONNECT AND LOCKOUT ELECTRICAL POWER BEFORE ATTEMPTING MAINTENANCE CAN CAUSE SHOCK, BURNS OR DEATH**

### WARNING



Hazardous machinery can cause serious personal injury.

**FAILURE TO DISCONNECT AND LOCKOUT ELECTRICAL POWER OR ENGINE DRIVE BEFORE ATTEMPTING MAINTENANCE CAN CAUSE SEVERE PERSONAL INJURY OR DEATH**

### WARNING



Hazardous pressure can cause serious personal injury or property damage

**FAILURE TO RELIEVE SYSTEM PRESSURE PRIOR TO PERFORMING PUMP SERVICE OR MAINTENANCE CAN CAUSE SERIOUS PERSONAL INJURY OR PROPERTY DAMAGE.**

### WARNING



Hazardous pressure can cause personal injury or property damage

**FAILURE TO SET THE VEHICLE EMERGENCY BRAKE AND CHOCK WHEELS BEFORE PERFORMING SERVICE CAN CAUSE SEVERE PERSONAL INJURY OR PROPERTY DAMAGE.**

### WARNING



Hazardous or toxic fluids can cause serious injury.

**IF PUMPING HAZARDOUS FLUIDS, SYSTEM MUST BE FLUSHED, PRIOR TO PERFORMING SERVICE OR MAINTENANCE**

**NOTICE:**  
**THE APPROPRIATE BLACKMER PUMP MANUAL AND PARTS LIST MAY BE OBTAINED FROM THE BLACKMER WEBSITE (WWW.BLACKMER.COM) OR BY CONTACTING BLACKMER CUSTOMER SERVICE.**

**NOTICE:**  
**MAINTENANCE AND TROUBLE SHOOTING MUST BE DONE BY AN INDIVIDUAL EXPERIENCED WITH PUMP MAINTENANCE AND THE TYPE OF SYSTEM INVOLVED.**

**LIP SEAL REMOVAL**

The lip seal assembly consists of a metal housing with elastomer(s) around its outer diameter, and a PTFE lip seal in its inner diameter. TXV "A" and TX200/400 "A" pump models are equipped with spacer washers.

1. Before removing the head assembly, clean the pump shaft thoroughly, making sure the shaft is free of nicks and burrs.
2. With the head assembly removed, use a thin pry bar against the lip seal retaining ring to gently push the housing (152B) out of the head. Use care not to damage the lip seal or head.
3. To remove the lip seal (152A) from the housing, remove the retaining ring (152D) and gently pry the lip seal from the housing.
4. Remove and discard the lip seal (152A), and any housing O-Ring(s) (152E, 152C).
5. If equipped, remove spacer washers (152F).

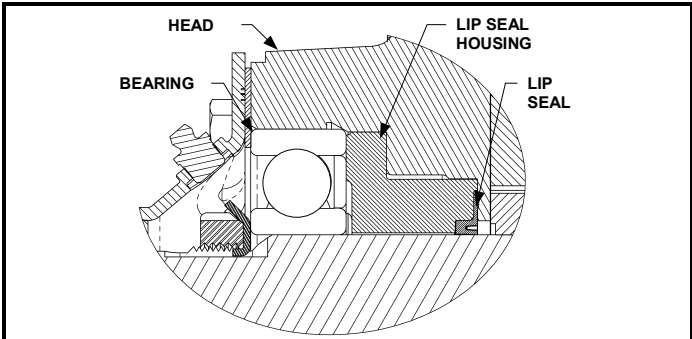
**LIP SEAL INSTALLATION**

1. Apply a small amount of light motor oil on the inner diameter of the lip seal housing (152B) to facilitate lip seal installation.

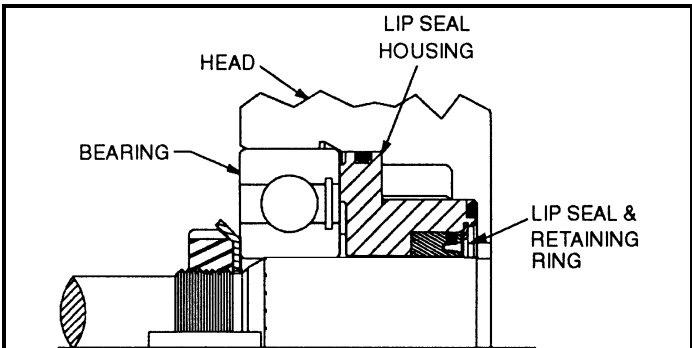
**Note: When installing the lip seal, be careful not to damage the lip seal or lip seal O-Ring.**

2. Figures 1 & 1A on all models, push the lip seal (152A) squarely into the housing (152B). On TXV "B" and TX200/400 "B" series pumps align the pin in the lip seal with the hole in the back of the housing. TX206A models do not have a pin. The lip seal should seat flush or slightly recessed in the housing, around its entire diameter.
3. Figure 2 on discontinued TXV "A" and TX200/400 "A" series pumps, insert the spacer washers (152F) into the housing, then push the lip seal (152A) squarely into the housing (152B) with flat side of the lip seal against the spacer washers. The lip seal should seat flush or slightly recessed in the housing, around its entire diameter. Note: If necessary, the spacer washers can also be located after the lip seal, as shown in Figure 2, to re-position the lip seal on the pump shaft.
4. Figure 3 on discontinued TXV and TX200/400 series pumps, push the lip seal (152A) squarely into the housing (152B) with the flat side of the lip seal against the back of the housing. The lip seal should seat flush or slightly recessed in the housing, around its entire diameter.
5. Insert the retaining ring (152D) into the groove in the housing. TX206A models do not have retaining ring.
6. Install new housing O-Ring(s) in the groove(s) of the housing. Lightly grease the housing O-Ring(s) and push the lip seal and housing assembly into the head recess with the lip seal inward. TX206A models do not have O-rings.

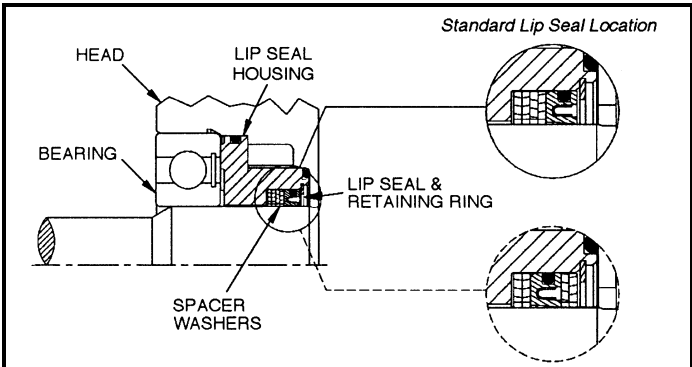
7. Apply a small amount of light motor oil on the shaft to facilitate lip seal installation.



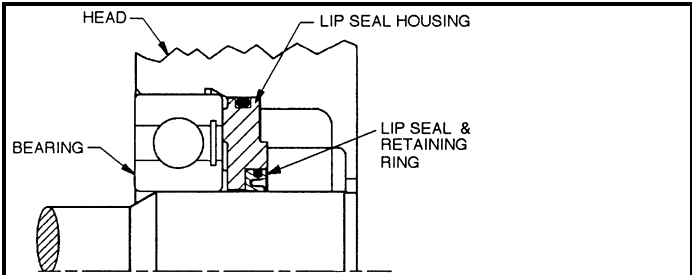
**Figure 1 – Lip Seal Configuration  
TX206A Pump**



**Figure 1A – Lip Seal Configuration  
TXV "B" and TX200/400 "B" Pump Series**



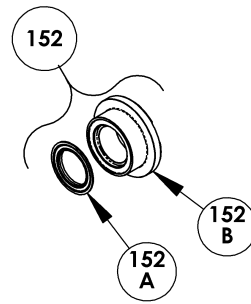
**Figure 2 – Lip Seal Configuration  
Discontinued TXV "A" and TX200/400 "A" Pump Series**



**Figure 3 – Lip Seal Configuration  
Discontinued TXV and TX200/400 Pump Series**

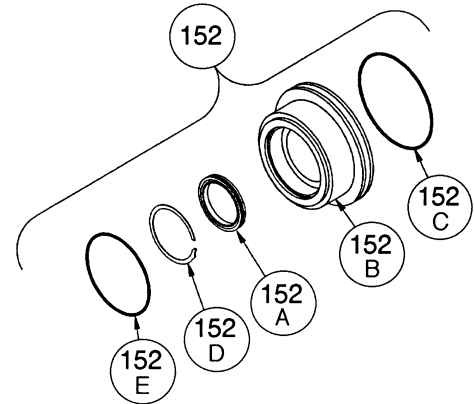
### Lip Seal Parts - TX206A

Ref. No.	Part Name	Parts Per Pump
152	Lip Seal Complete	2
152A	Lip Seal - Stationary	2
152B	Housing - Lip Seal	2



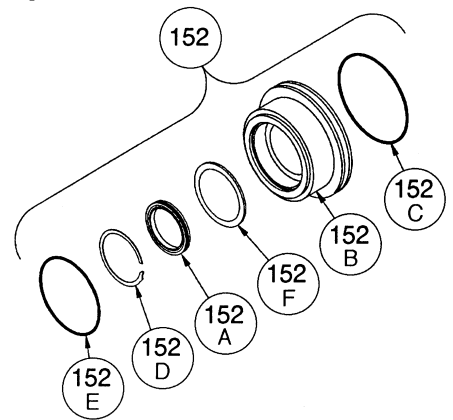
### Lip Seal Parts - TXVB; TX200B, TX400B Pump Series

Ref. No.	Part Name	Parts Per Pump
152	Lip Seal Complete	2
152A	Lip Seal w/ O-Ring	2
152B	Housing - Lip Seal	2
152C	Outer O-Ring – Housing	2
152D	Retaining Ring - Lip Seal	2
152E	Inner O-Ring – Housing	2



### Lip Seal Parts - Discontinued TXVA; TX200A, TX400A Pump Series

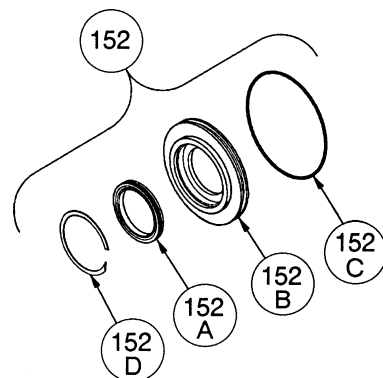
Ref. No.	Part Name	Parts Per Pump
152	Lip Seal Complete	2
152A	Lip Seal w/ O-Ring	2
152B	Housing - Lip Seal	2
152C	Outer O-Ring – Housing	2
152D	Retaining Ring - Lip Seal	2
152E	Inner O-Ring – Housing	2
152F	Spacer Washers*	8-10



- TXV2A, TXV2½A pump models are equipped with ten (10) spacer washers.
- TXV3A, TX200A and TX400A pump models are equipped with eight (8) spacer washers.

### Lip Seal Parts - Discontinued TXV; TX200. TX400 Pump Series

Ref. No.	Part Name	Parts Per Pump
152	Lip Seal Complete	2
152A	Lip Seal	2
152B	Housing - Lip Seal	2
152C	O-Ring - Housing	2
152D	Retaining Ring - Lip Seal	2



## NOTES



1809 Century Avenue, Grand Rapids, Michigan 49503-1530, U.S.A.  
Telephone: (616) 241-1611 / Fax: (616) 241-3752  
E-Mail: [blackmer@blackmer.com](mailto:blackmer@blackmer.com) / Internet: [www.blackmer.com](http://www.blackmer.com)