

Transfer Case - F150

SPECIFICATIONS

ITEM SPECIFICATION

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Item	Specification	Fill Capacity
Motorcraft® Transfer Case Fluid XL-12	ESP-M2C166-H	1.4L (2.9 pt)
RTV Silicone Sealant TA-31	-	-
Silicone Gasket and Sealant TA-30	WSE-M4G323-A4	-
Thread Sealant with PTFE TA-24	WSK-M2G350-A2	-
Ultra Silicone Sealant TA-29	-	-

TORQUE SPECIFICATIONS

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Description	Nm	lb-ft	lb-in
Crossmember bolts	90	66	-
Drain plug	15	-	133
Exhaust heat shield bolts	15	-	133
Exhaust support bracket bolt	35	26	-
Fill plug	15	-	133
Mode Indication Switch (MIS)	41	30	-
Skid plate bolts	40	30	-
Transfer case bolts ⁽¹⁾	-	-	-
Transfer case field coil nuts	10	-	89
Transfer case-to-transmission bolts ⁽¹⁾	-	-	-
Transmission mount bolts	90	66	-
Transmission mount nuts	25	18	-
Electronic Shift-On-The-Fly (ESOF)			
Shift motor bolts	10	-	89
Shift motor nuts	3	-	27
Mechanical Shift-On-The-Fly (MSOF)			
Shift cable mounting bracket nuts	28	21	-
Shift lever assembly bolts	8	-	71
Shift lever set screw	10	-	89
(1) Refer to the appropriate procedure(s).			

DESCRIPTION AND OPERATION

TRANSFER CASE

Mechanical Shift

The mechanical shift transfer case system consists of the:

- Mode Indication Switch (MIS)
- Transfer Case Control Module (TCCM)
- Integrated Wheel End (IWE) solenoid
- Integrated Wheel Ends (IWEs)
- Transfer case

The Borg-Warner 4418 manual shift transfer case is a 2-piece magnesium design. The unit transfers engine power from the transmission to the front and rear axles. Under normal driving conditions, the unit is in 2-Wheel Drive (2WD) high (2H), but when desired, the operator may shift into Four-Wheel Drive (4WD) high (4H) or 4WD low (4L). The transfer case is shifted manually. The unit is lubricated by a positive displacement fluid pump that channels fluid flow through holes in the rear output shaft.

Electronic Shift

The electronic shift transfer case system consists of the:

- Mode Select Switch (MSS)
- **TCCM**
- **IWE** solenoid
- **IWEs**
- Transfer case
- Transfer case shift motor

The Borg-Warner 4419 electronic shift transfer case is a 2-piece magnesium design. The unit transfers engine power from the transmission to the front and rear axles. Under normal driving conditions the unit is in **2WD** high (2H), but when desired, the operator may shift into **4WD** high (4H) or **4WD** low (4L). The transfer case is shifted electronically. The unit is lubricated by a positive displacement fluid pump that channels fluid flow through holes in the rear output shaft.

All-Wheel Drive (AWD)

The All-Wheel Drive (AWD) consists of the:

- Mode Select Switch (MSS)
- **TCCM**
- **IWE** solenoid
- **IWEs**

The Borg-Warner one-speed torque-on-demand (TOD) transfer case is a 2-piece magnesium design. The transfer case is equipped with an internal electromagnetic clutch. The unit transfers engine power from the

transmission to the front and rear axles. Under normal driving conditions, the unit is in **AWD** , but when desired, the operator may shift into 4H. The transfer case is shifted electronically. The unit is lubricated by a positive displacement fluid pump that channels fluid flow through holes in the rear output shaft.

DIAGNOSIS AND TESTING

TRANSFER CASE


Refer to **FOUR WHEEL DRIVE (4WD) SYSTEMS** .

GENERAL PROCEDURES

TRANSFER CASE DRAINING AND FILLING

Special Tool(s)

SPECIAL TOOL REFERENCE

 <p>ST2323-A</p>	<p>Oil Suction Gun 303-D104 (D94T-9000-A)</p>
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Material

ITEM SPECIFICATION

Item	Specification
Motorcraft® Transfer Case Fluid XL-12	ESP-M2C166-H
Thread Sealant with PTFE TA-24	WSK-M2G350-A2

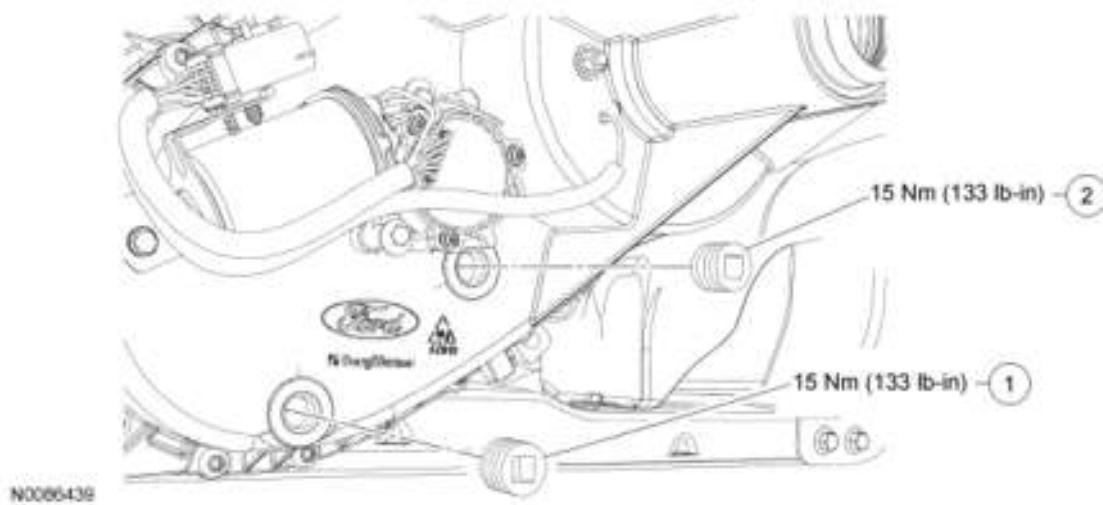


Fig. 1: Identifying Drain Plug And Fill Plug With Torque Specifications
 Courtesy of FORD MOTOR CO.

ITEM DESCRIPTION

Item	Part Number	Description
1	7A110	Drain plug
2	7A110	Fill plug

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to **JACKING & LIFTING**.

NOTE: Position a drain pan under the transfer case.

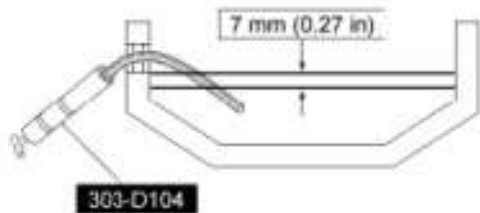
2. Remove the drain plug and drain the fluid.
3. Clean the drain plug and the drain plug area. Apply thread sealant to the drain plug threads and install the drain plug.
 - To install, tighten to 15 Nm (133 lb-in).

NOTE: Prior to removal, clean the area around the fill plug.

4. Remove the fill plug.

NOTE: Incorrect fluid fill will result in transfer case failure.

5. Using the Oil Suction Gun, fill the transfer case with the recommended fluid, to specification.
 - Transfer case capacity is 1.4L (2.9 pt).
 - The fluid must be 7 mm (0.27 in) below the fill plug hole.



N0065790

Fig. 2: Filling Transfer Case With Recommended Fluid
 Courtesy of FORD MOTOR CO.

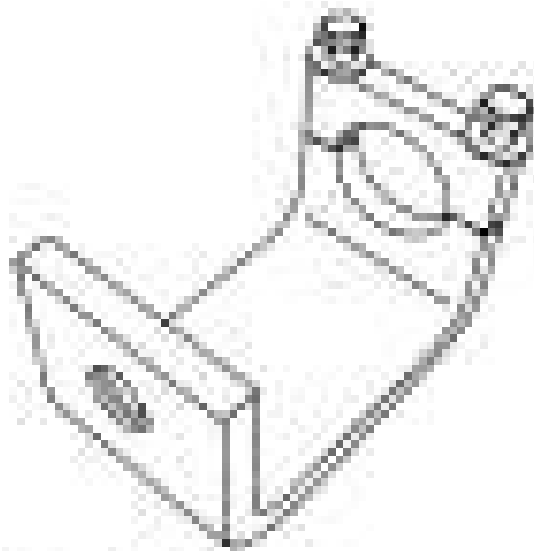
6. Apply thread sealant to the fill plug threads, then install the fill plug.
 - Tighten to 15 Nm (133 lb-in).

IN-VEHICLE REPAIR

TRANSFER CASE SHIFT LEVER

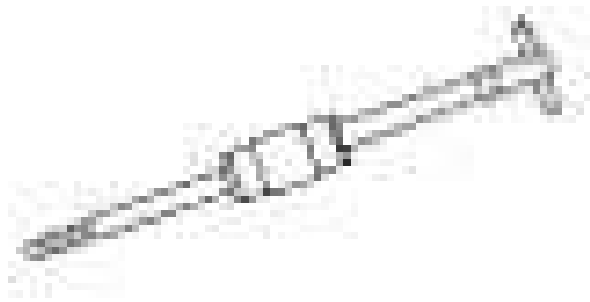
Special Tool(s)

SPECIAL TOOL REFERENCE



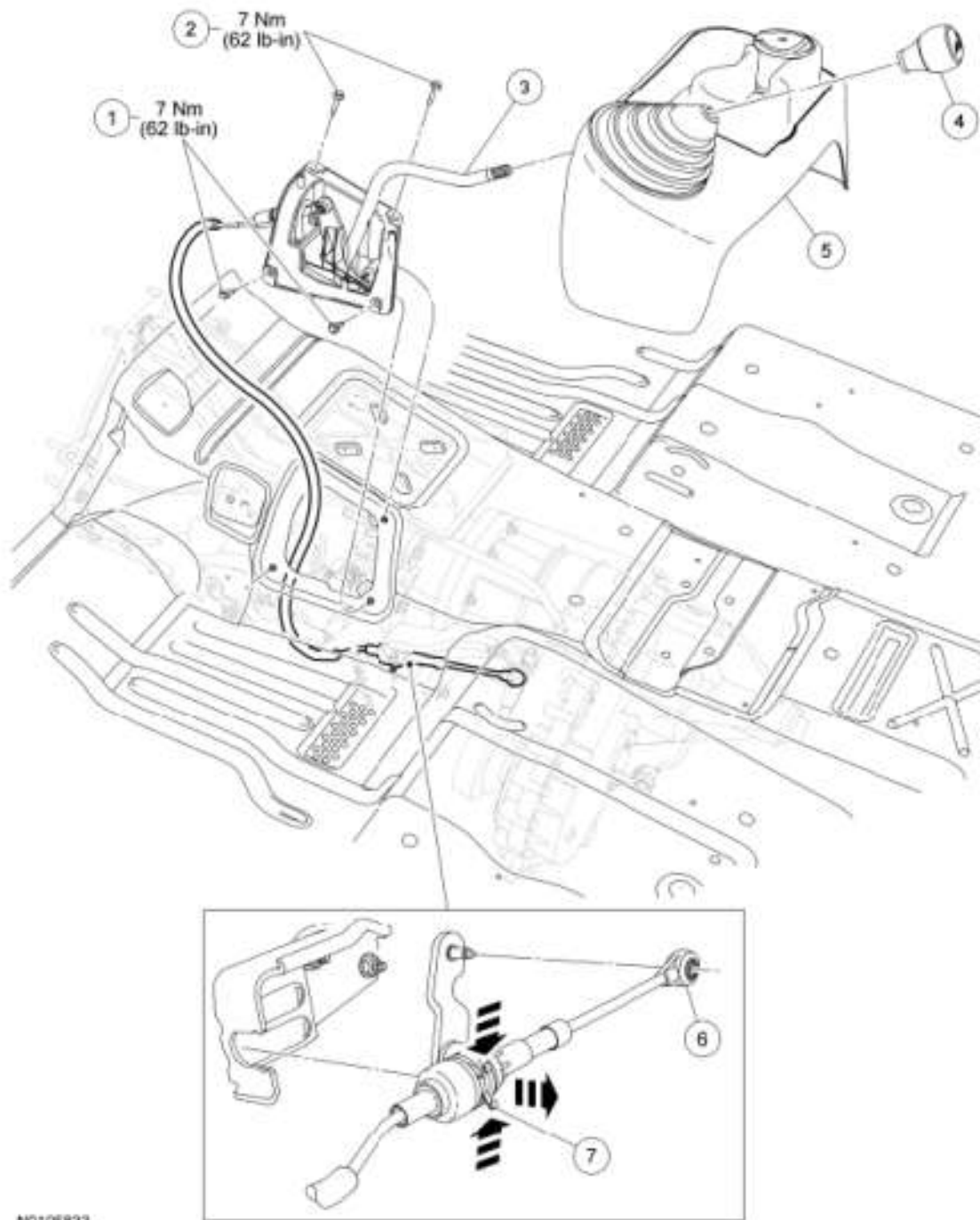
ST2B91-A

Remover, Transmission Fluid Pump
 307-553



Slide Hammer
100-001 (T50T-100-A)

ST1351-A



N0105833

Fig. 3: Identifying Transfer Case Shift Lever Components With Torque Specifications
 Courtesy of FORD MOTOR CO.

ITEM DESCRIPTION

Item	Part Number	Description
1	W807391	Lower shift lever assembly bolts (2 required)
2	W807391	Upper shift lever assembly bolts (2 required)
3	7E069	Shift lever assembly
4	7E067	Shift lever knob
5	045A36	Console
6	7E069	Cable end (part of 7E069)

Removal

NOTE: The transfer case shift lever and cable are serviced as an assembly.

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to **JACKING & LIFTING**.
2. Release the clip securing the shift cable to the shift cable mounting bracket and disconnect the cable end from the transfer case shift lever.

NOTE: Install a durable cloth between the Transmission Fluid Pump Remover and the shift lever shaft and knob, failure to do so may cause damage to the components.



Fig. 4: Removing Shift Lever Knob
Courtesy of FORD MOTOR CO.

3. Remove the shift lever knob, using the Transmission Fluid Pump Remover and the Slide Hammer.
4. Remove the consolette by pulling upward, releasing the 4 clip-type retainers securing the consolette.
5. Remove the LH cowl trim panel. For additional information, refer to **INTERIOR TRIM AND ORNAMENTATION**.
6. Position the carpet away from the shift lever.
7. Remove the 4 bolts and the shift lever assembly.


Installation

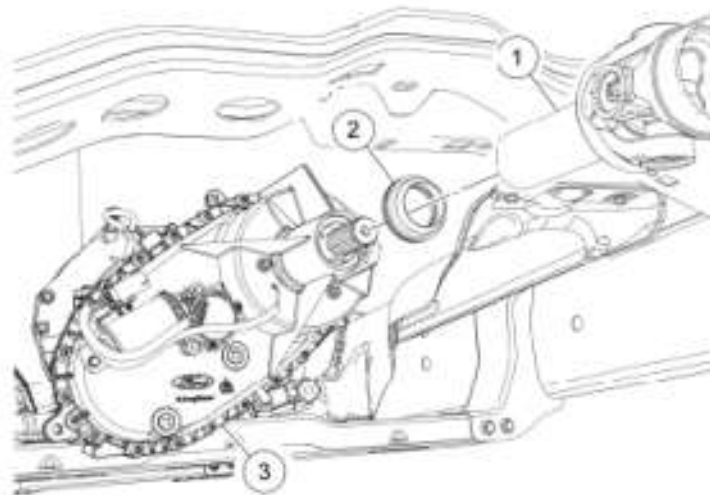
1. Install the shift lever assembly and the 4 bolts.
 - Tighten to 7 Nm (62 lb-in).
2. Position the carpet in place.
3. Install the LH cowl trim panel. For additional information, refer to **INTERIOR TRIM AND ORNAMENTATION**.
4. Install the consolette, securing the 4 clip-type retainers.
5. Install the shift lever knob, carefully tap the knob until it is fully seated.
6. Secure the shift cable to the shift cable mounting bracket and connect the cable end to the transfer case shift lever.

TRANSFER CASE REAR OUTPUT SHAFT SEAL

Special Tool(s)

SPECIAL TOOL REFERENCE

 <p>ST2261-A</p>	<p>Installer, Input Shaft Oil Seal 308-249 (T96T-7127-A)</p>
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N0070874

Fig. 5: Identifying Transfer Case Rear Output Shaft Seal, Transfer Case And Drive Shaft
Courtesy of FORD MOTOR CO.

ITEM DESCRIPTION

Item	Part Number	Description
1	4602	Driveshaft
2	7B215	Rear output shaft seal
3	7A195	Transfer case

Removal

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to **JACKING & LIFTING** .
2. Remove the rear driveshaft. For additional information, refer to **DRIVESHAFT** .
3. Using a suitable seal puller, remove the rear output shaft seal.

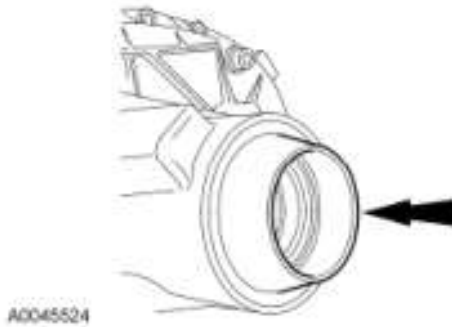


Fig. 6: Locating Transfer Case Rear Output Shaft Seal
Courtesy of FORD MOTOR CO.

Installation

1. Using the Input Shaft Oil Seal Installer, install the rear output shaft seal.

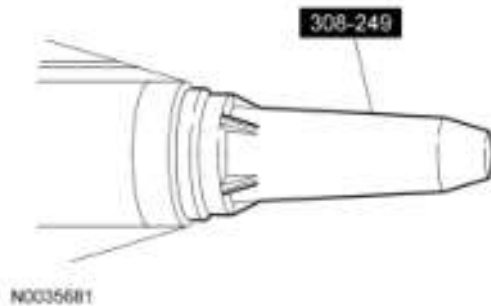


Fig. 7: Identifying Input Shaft Oil Seal Installer
Courtesy of FORD MOTOR CO.

2. Install the rear driveshaft. For additional information, refer to **DRIVESHAFT** .

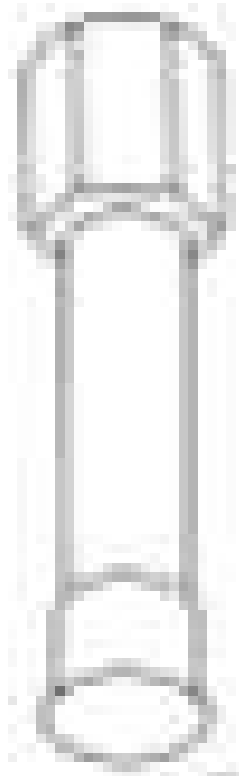
DISASSEMBLY AND ASSEMBLY

TRANSFER CASE - MECHANICAL SHIFT

Special Tool(s)

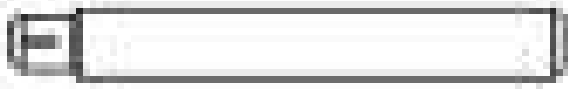
SPECIAL TOOL REFERENCE

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ST1608-A

Collet, (1 1/4" to 1 1/2")
303-D022 (D80L-100-T) or equivalent



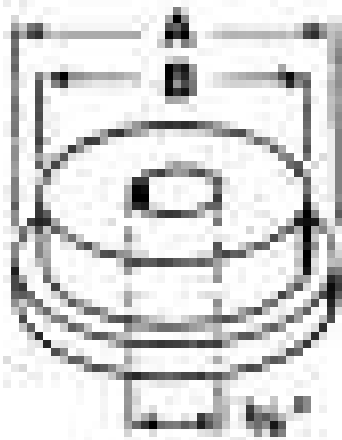
ST1255-A

Handle
205-153 (T80T-4000-W)



Holding Fixture, Transmission
307-003 (T57L-500-B)

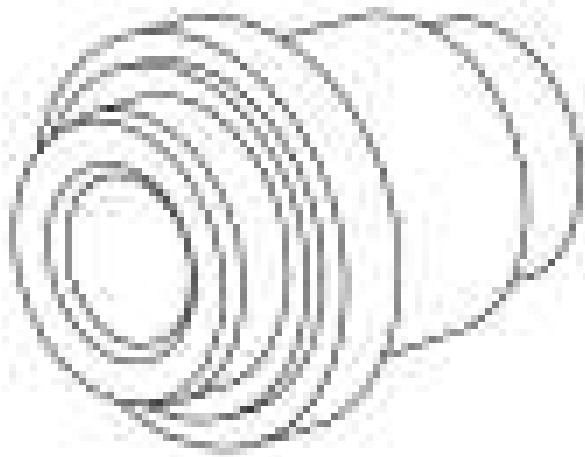
ST1186-A



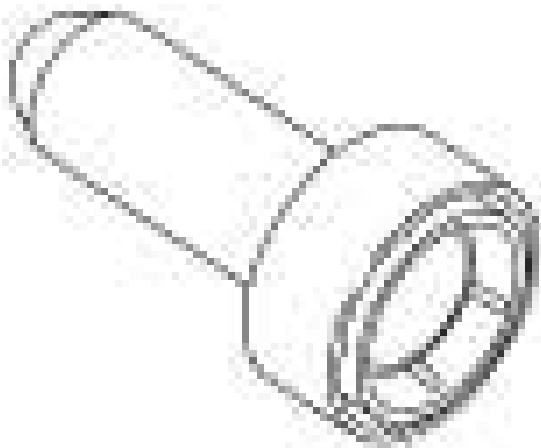
Installer, Bearing Cup
308-017 (T73T-4222-B)

ST1471-A

Installer, Input Shaft Bearing
308-085 (T83T-7025-C)



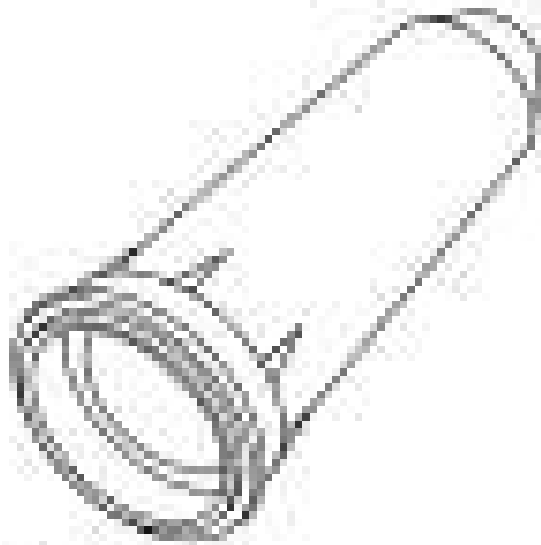
ST1789-A



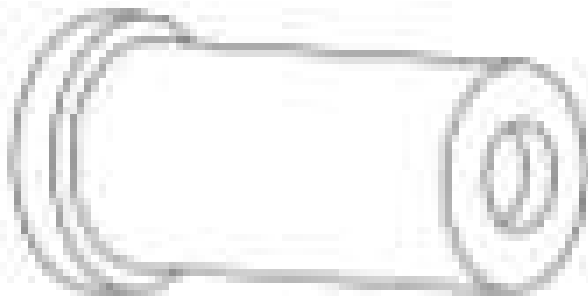
ST2305-A

Installer, Input Shaft Oil Seal
308-186 (T90T-7127-B)

Installer, Input Shaft Oil Seal
308-249 (T96T-7127-A)



ST2261-A



ST1758-A

Installer, Mainshaft Bearing
308-060 (T77J-7025-K)

Installer, Valve Stem Oil Seal
303-367 (T90P-6510-AH)

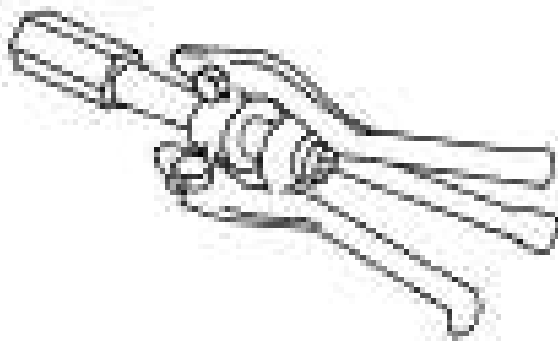


ST1466-A



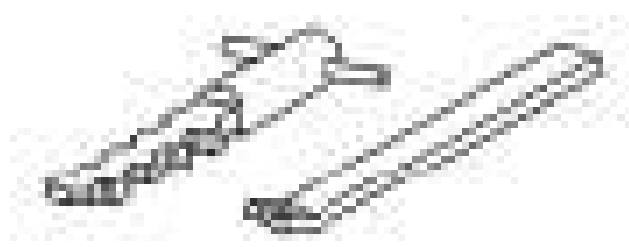
ST1143-A

Protector, Shaft Oil Seal
308-251 (T96T-7127-C)



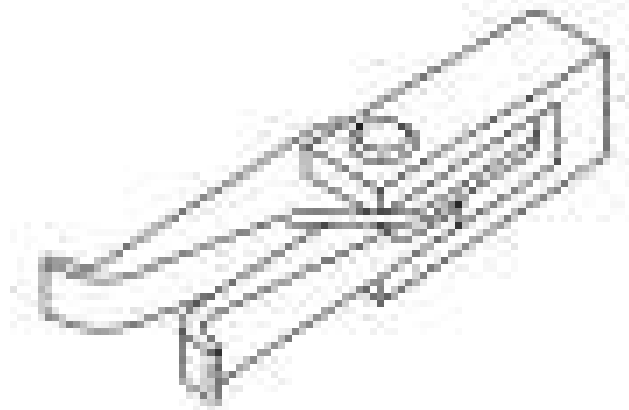
ST1200-A

Remover, Bearing Cup
308-047 (T77F-1102-A)



Remover, Oil Seal
303-409 (T50T-6700-CH)

ST1385-A



Remover, Stator Bearing
307-318 (T94P-77001-KH)

ST1382-A

Slide Hammer
100-001 (T50T-100-A)

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		+RVH FODPS
		+RVH
	\$	/XEH SLFNXS DQG ILOWHU
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&RXUWHV\ RI)25' 02725 &2

\$VVHPEO\

8VLQJ WKH 9DOYH 6WHP ~~W L K H 6 H K L O W , Q M W P Q M W~~ ~~O V H U D Q~~ QVWDOO

)LJ _____, QVWDOOLQJ 6KLIW /HYHU 6HDO
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH VKLIW OHKLIW HDRP GRXWHQ VHV & UFDJ HDQG /

)LJ _____, QVWDOOLQJ 6KLIW /SYHLQJ 6SKLQ GW HMDP QWH VRIHQWH 6
&RXUWHV\ RI)25' 02725 &2

127(\$FFHVV WKH VKLIW OHYHU VHWKR EDWHZ WKURXJK

7LJKWHQ WKH VKLIW OHYHU VHW VFUHZ

z 7LJKWHQ WR 1P OE LQ

)LJ _____ /RFDWLQJ 6KLIW /HYHU 6HW 6FUHZ
&RXUWHV\ RI)25' 02725 &2

8VLQJ D VXLWDEOH SUHVWBQZLWKH WKH HDUHQG QMS LQVWD
EHDULQJ

)LJ _____ , GHQWLI\LQJ %HDULQJG&XHS , QVWDOOHU :LWK +DQ
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH , QSXW 6KDIW ~~VKE 6HDO~~ , ~~QXWSXW VKDIW~~ ~~WBD~~

)LJ _____ , QVWDOOLQJ)URQW <RSHFIRD)ODRRD 6HDO 8VLQJ
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH IURQW RXWSXW VKDIW
3RVLWLRQ WKH IURQW RXWSXW VKDIW
, QVWDOO WKH IURQW RXWSXW VKDIW VQDS ULQJ

)LJ _____ , QVWDOOLQJ)URQW 2XWSXW 6KDIW
&RXUWHV\ RI)25' 02725 &2

8VLQJ D SUHV DQG D VXLW ~~DEO~~ ~~WEHDURQ~~ ~~JLS~~ ~~SYD~~ ~~DHWH~~

)LJ _____, QVWDOOLQJ)URQW 3ODQHW &DUULHU %HDULQJ
&RXUWHV\ RI)25' 02725 &2

3RVLWLRQ WKH ULQJ JHDUL Q Q WRDW KHQ D S VHL Q Q VWDOO WK
, I UHPRYHG XVLQJ D VXLW KH D E W H % S H D H V L Q J Q Q G V W D Q Q B S Q W R
WKH IURQW SODQHW FDUULHU

)LJ _____ /RFDWLQJ)URQW 2XWSXW 6KDIW \$QG 6QDS 5LQJ
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH IURQW SODQHW FDUULHU DQG WKH WKUXV

)LJ _____, QVWDOOLQJ)URQW 3ODQHW &DUULHU \$QG 7KUXV
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH 6KDIW 2LO 6HDOD BW R W G F W R D D Q G W D K H Q S

)LJ _____, QVWDOOLQJ, QSXW 6HDO 8VLQJ 6SHFLDO 7RRO
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH VKLIW IRUN DQG WKH UHGXFWRQ KXE

)LJ _____ /RFDWLQJ 6KLIW)RUN \$QG 5HGXFWRQ +XE
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH VKLIW UDLO

)LJ _____, QVWDOOLQJ 6KLIW 5DLO
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH RLO SXPSW ~~RZDWBW~~ VKDIW DQG WKH WKUX

)LJ ,QVWDOOLQJ 2LO 3XPS W2XDWSKHU 6KDIW \$QG 7KUXV
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH PDJQHW LQWR LWV VORW LQ WKH FDVH

)LJ ,QVWDOOLQJ 2LO 3DQ 0DJQHW
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH GULYH FKDEQ\DQG VSURFNHWV DV DQ DVV

)LJ ,QVWDOOLQJ 'ULYH &KDLQ \$QG 6SURFNHWV
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH ORFNXS KXOE ZDWGHWDRFNHPSKXG DFVHUPER
3RVLWLRQ WKH ORFNXS FROODU
,QVWDOO WKH ORFNXS FROODU VSULQJV
,QVWDOO WKH ORFNXS KXE
,QVWDOO WKH DUPDWXUH

,QVWDOO WKH ORFNXS KXE VQDS ULQJ

)LJ \$VVHPEOLQJ /RFNXS +XE \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH ORFNXS KXIEQDQG WKH VKLIW IRUN DQG VS

)LJ /RFDWLQJ /RFNXS +XE \$QGJ6KLIW)RUN \$QG 6SU
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH FRLO KRXLQJ

)LJ ,QVWDOOLQJ &RLO +RXVLQJ
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH VQDS ULQJ

)LJ /RFDWLQJ 6QDS 5LQJ
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH 0DLQVKDIW %H DUHDCW R XWS X WOHKDIWQ E MDLQJ

)LJ ,QVWDOOLQJ 5HDU 2XWSXW 6KDIW %HDULQJ
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH 0DLQVKDIW %H DUBQW , R XWS X WOHKDIW VEHDCJ Q

)LJ ,QVWDOOLQJ)URQW 2XWSXW 6KDIW 5HDU %HDULQJ
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH WUDQVIHG W BMH QXWG FRLO ZDVKHUV DQ
z 7LJKWHQ WR LQ1P OE

)LJ 5HPRYLQJ &RLO 1XWV \$QG :DVKHUV
&RXUWHV\ RI)25' 02725 &2

127(,I WRR P XFK VLOLF RQH VHDODQW KLH FXR YHGU ZK R Q
WKH H[FHV VHDODQW FDQ SO XJ W WHU DOXLI G U LFOD
IDLOXUH

\$SSO\ D VPDOO EHDG RI WLOLJFR QWHI V FHDV BRQ W WHR FDKH PD
3RVLWLRQ WKH WUDQVWHUH FD WHU R Q O MHU FDDQGH W R JKWWH Q
LOOXVWUDWLRQ
z 7LJKWHQ WR 1P OE IW

)LJ ,GHQWLI\LQJ 7UDQVIHW H&DLVHU +6DHYXHH Q&FRHWV 7L
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH ,QSXW 6KDIW R HOUGHDDOR, QW SVDV QKDIW QVHD

)LJ _____, QVWDOOLQJ 5HDU 2XWSXW 6KDIW 6HDO
&RXUWHV\ RI)25' 02725 &2

, QVWD, GO WKH
z 7LJKWHQ WR 1P OE IW

)LJ _____ /RFDWLQJ 0RGH, QGLFDWLRQ 6ZLWFK
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH WUDQVIHU FDRUGLQJ)L[WXUH DQVPLVVLRQ +

)LJ _____, GHQWLI\LQJ 7UDQVPLVVLRQ +ROGLQJ)L[WXUH
&RXUWHV\ RI)25' 02725 &2

75\$16)(5 &\$6((/(&7521, & 6+,)7

6SHFLDO 7RRO V

63(&, \$/ 722/ 5() (5(1&(

--	--

+DQGOH
7 7 :

+ROGLQJ)L[WXUH 7UDQV
7 / %

,QVWDOOHU %HDU QJ &X
7 7 %

,QVWDOOHU ,QSXW 6KDIW
7 7 &

,QVWDOOHU ,QSXW 6KDIW
7 7 %

,QVWDOOHU ,QSXW 6KDIW
7 7 \$

,QVWDOOHU 0DLQVKDIW 9
7 - .

3URWHFWRU 6KDIW 2LO 6
7 7 &

5HPRYHU %HDULQJ &XS
7) \$

5HPRYHU 2LO 6HDO
7 & &+

5HPRYHU 6WDWRU %HDUL
7 3 .+

6OLGH +DPPHU
7 7 \$

0DWHULDO

,7(0 63(&,) ,&\$7,21

,WHP	6SHFLILFDWLRQ
579 6LOLFRQH 6HDODQW 7\$	
6LOLFRQH *DVNHW DQG 6HDODQW 7\$	:6(0 * \$
8OWUD 6LOLFRQH 6HDODQW 7\$	

7UDQVIHU &DVH ([SORGHG 9LHZ (OHFWURQLF 6KLIW

)LJ ([SORGHG 9LHZ 2I 7UDQV (DUH & DVRIQ&LFP6KRLQ WQWYI
&RXUWHV\ RI)25' 02725 &2

,7(0 '(6&5,37,21

,WHP	3DUW 1XPEHU	'HVFULSWLRQ
'		/RFNXS KXE
'		6SULQJ
		/RFNXS FROODU
		'ULYH VSURFNHW
=		7KUXVW ZDVKHU

	\$	2LO SXPS DVVHPEO\
		2XWSXW VKDIW
		5HGXFWRQ KXE
		+RVH FODPS
		+RVH
	\$	/XEH SLFNXS DQG ILOWHU
	'	7KUXVW EHDULQJ
		1HHGOH EHDULQJ
	\$	)URQW SODQHW FDUULHU
		6QDS ULQJ
	\$	5LQJ JH DU
		%HDULQJ
		&DVH
	%	,QSW IODQJH VHDO
		9HQW WXE H
		)URQW RXWSXW VKDIW
	%	)URQW RXWSXW VKDIW VHDO
		'RZHO SDUW RI
	(	0DJQHW
		%HDULQJ
		6QDS ULQJ
		'ULYHQ VSURFNHW
	\$	'ULYH FKDLQ DVVHPEO\

)LJ (ISORGHG 9LHZ 2I 7UDQVI(0U F&DV RQ&LP6R LQ WQ W Z I
&RXUWHV\ RI)25' 02725 &2

,7(0 '(6&5,37,21

,WHP	3DUW 1XPEHU	'HVFULSWLRQ
)	6SULQJ	
&	6KLIW IRUN SDGV	
+	\$UPDWXUH	
	5HGXFWRQ VKLIW IRUN DVVHPEO\	
	6QDS ULQJ	
*	+XE DQG FRLO KRXVLQJ	
	6QDS ULQJ	
	/RFNXS IRUN	
*	7UDQVIHU FDVH ILHOG FRLO	

		%HDULQJ
		&DVH
	\$	%ROW
	1 & 6	1XW
	*	7UDQVIHU FDVH VKLIW PRWRU
	\$	&DVH SOXJ
		%XVKLQJ SDUW RI
		6HDOLQJ ULQJ SDUW RI
	%	5HDU RXWSXW VKDIW VHDO
	)	6KLSSLQJ SOXJ
	1 6	%ROW
		:LUH FRQQHFWRU VSDFHU SDUW RI
	\$	%ROW
		%DU FRGH ODEHO SDUW RI
	\$	&DVH SOXJ
		%HDULQJ
		/RFNXS IRUN VSULQJ
		6KLIW UDLO
	)	6KLIW FDP DVVHPEO\
	%	&RLO QXW ZDVKHU

*

'LVDVVHPEO\

127('LVFDUG DOO VHDOV DIWHU UHPRYLQJ WKHP

&OHDQ WKH WUDQVIHU FDVH VKLIW PRWRU DQG GUI\ ZLV
8VLQJ WKH 7UDQVPLVVLQRQ+ROGLQJ)L(WXUH

)LJ ,GHQWLI\LQJ 7UDQVPLVVLQRQ +ROGLQJ)L(WXUH
&RXUWHV\ RI)25' 02725 &2

,I QRW GRQH SUHYLRXVO\ UDEBYMKWKI@XGLGLQ SOXJ I

)LJ /RFDWLQJ 'UDLQ 3OXJ
&RXUWHV\ RI)25' 02725 &2

8VLQJ D VXLWDEOH VHDOSXWOOKDIWUWPHBØH WKH UH DU RX

)LJ /RFDWLQJ 7UDQVIHU &DHD 5H DU 2XWSXW 6KDIW 6
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH LQQHU FRQQOHFWRU WBIW DIQQH UHBBMMWFK KHF
VKLIW PRWRU HOHFWULFDO FRQQHFWRU

)LJ /RFDWLQJ &RLO :LUH 3LQRUQ (OHFWULFDO &RQQH
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH WUDQVIHU FNDHM ERDIW PRQRURFRHQQWKEIU

)LJ /RFDWLQJ 7UDQVIHU &DVH 6KLIW 0RWRU %ROWV
&RXUWHV\ RI)25' 02725 &2

127(7KH WUDQVIHU FDVH EROWV WULH QROIPWDSVSRQJ
VKDYLQJV ZKLOH UHPRYLQJ WKH FRYHU

)LJ 5HPRYLQJ 7UDQVIHU &DVH %ROWV
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH WUDQVIHU FDVH EROWV
8VLQJ WKH SU\ ERVVHV FR\$BUDWH WKH WUDQVIHU FDVH

)LJ 6HSDUDWLQJ &RYHU)URP &DVH
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH WUDQVIHU FV D HQ GL MQJG QF RILHU QFXDWH IZ B DIGH

)LJ 5HPRYLQJ &RLO 1XWV \$QG :DVKHUV
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH %HDULQJ &XS 5HPRYHJHJERWK WKH 60DGHKXDF

)LJ ,GHQWLI\LQJ %HDULQJ &85HPRYHU :LWK 6OLGH
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH %HDULQJ &XS 5HPRYHJHJERWK WKH 60RQW RDM

)LJ 5HPRYLQJ)URQW 2XWSXW 6KDIW %HDULQJ
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH VKLIW FROODU KXE VQDS ULQJ

)LJ /RFDWLQJ 6QDS 5LQJ
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH FRLO KRXVLQJ

)LJ 5HPRYLQJ &RLO +RXVLQJ
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH VKLIW IRUN
5HPRYH WKH ORFNXS KXE
5HPRYH WKH VKLIW IRUN DQG VSULQJ

)LJ 5HPRYLQJ 6KLIW)RUN \$QG 6SULQJ
&RXUWHV\ RI)25' 02725 &2

127(5HPRYH WKH ORFNXS KXE DVVHPEO\ DVVHPEO\ DVVHPEO\ DVVHPEO\ DVVHPEO\
UHTXLUHG SURFHGG ZLWK WKH IROORZLQJ

'LVDVVHPEOH WKH ORFNXS KXE DVVHPEO\
5HPRYH WKH ORFNXS KXE VQDS ULQJ

6HSDUDWH WKH ORFNXS FROODU
6HSDUDWH WKH ORFNXS VSULQJV
6HSDUDWH WKH ORFNXS KXE
5HPRYH WKH DUPDWXUH

)LJ 'LVDVVHPEOLQJ /RFNXS +XE \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

127(5HPRYH WKH GULYH FKDLQ DQGPVSURFNHWV DV

)LJ 5HPRYLQJ 'ULYH &KDLQ \$QHPVSURFNHWV \$V \$Q \$V
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH GULYH FKDLQZDWSURFNHWV DQG WKH WKUXV
5HPRYH WKH PDJQHW IURP LWV VORW LQ WKH FDVH

)LJ ,GHQWLI\LQJ 2LO 3DQ 0DJQHW
&RXUWHV\ RI)25' 02725 &2

127(7KH SXPS DVVHPEO\ LV QRW UHSDLUDEOH

)LJ 5HPRYLQJ 2LO 3XPS \$QG 2XWSXW 6KDIW
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH RLO SXPS DQG WPKH R X5WSPRW H/ VKLIW FDLO DSQ ID
VKDIW

5HPRYH WKH VKLIW UDLO

)LJ 5HPRYLQJ 6KLIW 5DLO
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH VKLIW IRUN DQG WKH UHGXFWRQ KXE
5HPRYH WKH VKLIW IRUN
5HPRYH WKH UHGXFWRQ KXE

)LJ ,GHQWLI\LQJ 2XWSXW 6KDIW 6SHHG 6HQVRU
&RXUWHV\ RI)25' 02725 &2

127(7KH HOHFWULF VKLIW FDP LV \VHR YLFW GGDVDDVQH
WKH VKLIW FDP DVVHPEO\

)LJ 5HPRYLQJ (OHFWULF 6KLIW &DP \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH HOHFWULF VKLIW FDP DVVHPEO\
5HPRYH WKH IURQW SODQHW FDUULHU

)LJ 5HPRYLQJ)URQW 3ODQHW &DUULHU
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH 2LO 6HDO 5HPRYHU UHPRYH WKH LQSXW VHD

)LJ 5HPRYLQJ ,QSXW 6HDO 8VLQJ 6SHFLDO 7RRO
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH WKUXVW EHDPEW 8HPRYH WKH VHDGODI KH

)LJ 5HPRYLQJ 1HHGOH %HDULQJ
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH ULQJ JHDU
5HPRYH WKH ULQJ JHDU VQDS ULQJ
5HPRYH WKH ULQJ JHDU

)LJ 5HPRYLQJ 5LQJ *HDU \$QG 6QDS 5LQJ
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH 6WDWRU %HDULQJ ~~LDJ~~ ~~PH~~ ~~RU~~ ~~HP~~ ~~Z~~ ~~HWK~~ ~~KW~~ ~~KIW~~ ~~6Q~~ ~~W~~ ~~GS~~ ~~H~~

)LJ 5HPRYLQJ)URQW 3ODQH ~~WS~~ ~~BL~~ ~~DQ~~ ~~HUR~~ ~~%~~ ~~H~~ ~~DULQJ~~ 8VLC
&RXUWHV\ RI)25' 02725 &2

127('R QRW OHW WKH IURQW ~~RX~~ ~~W~~ ~~SY~~ ~~LVQ~~ ~~J~~ ~~K~~ ~~DIW~~ ~~VQDS~~ ~~Z~~
GDPDJH WR WKH FRPSRQH QW PD\ RFFXU

5HPRYH WKH IURQW RXWSXW VKDIW
5HPRYH WKH IURQW RXWSXW VKDIW VQDS ULQJ

5HPRYH WKH IURQW RXWSXW VKDIW

)LJ 5HPRYLQJ)URQW 2XWSXW 6KDIW
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH 6WDWRU %HDULQJ 5HPRYLQJ)URQW 2XWSXW 6KDIW %HDULQJ

)LJ 5HPRYLQJ)URQW 2XWSXW 6KDIW %HDULQJ
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH %HDULQJ &XS 5HPRYLQJ)URQW 2XWSXW 6KDIW %HDULQJ

)LJ 5HPRYLQJ)URQW <RNH 7R)ODQJH 6HDO
&RXUWHV\ RI)25' 02725 &2

\$VVHPEO\

8VLQJ D VXLWDEOH SUHV\OBQZLWKH WKH %HDULQJ &XS LQVWD
EHDULQJ

)LJ _____ , GHQWLI\LQJ %HDULQJG&XHS , QVWDOOHU :LWK +DQ
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH , QSXW 6KDIW ~~VKH 6HDO~~ , ~~QXWSXW VKDIW~~ ~~WBD~~

)LJ _____ , QVWDOOLQJ)URQW <RSHFIRD)ODRRD 6HDO 8VLQJ
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH IURQW RXWSXW VKDIW
3RVLWLRQ WKH IURQW RXWSXW VKDIW
, QVWDOO WKH IURQW RXWSXW VKDIW VQDS ULQJ

)LJ _____ , QVWDOOLQJ)URQW 2XWSXW 6KDIW
&RXUWHV\ RI)25' 02725 &2

8VLQJ D SUHV DQG D VXLW ~~DEO~~ ~~WEHDURQJ~~ ~~WLS~~ ~~SYD~~ ~~DHWH~~

)LJ _____, QVWDOOLQJ)URQW 3ODQHW &DUULHU %HDULQJ
&RXUWHV\ RI)25' 02725 &2

3RVLWLRQ WKH ULQJ JHDQJ LQJ DFKM QDS/ H L QJ V W D O O W K H U
, I U H P R Y H G X V L Q J D V X L W K D E W H % S I D H V L Q J D Q G V W K Q Q B S Q W R
WKH IURQW SODQHW FDUULHU

)LJ _____/RFDWLQJ)URQW 2XWSXW 6KDIW \$QG 6QDS 5LQJ
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH IURQW SODQHW FDUULHU DQG WKH WKUXV

)LJ _____, QVWDOOLQJ)URQW 3ODQHW &DUULHU \$QG 7KUXV
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH 6KDIW 2LO 6HDOO BW R W G F W R D D Q G W D K H Q S

)LJ _____ ,QVWDOOLQJ ,QSXW 6HDO 8VLQJ 6SHFLDO 7RRO
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH HOHFWULF VKLIW FDP DVVHPEO\

)LJ _____ ,QVWDOOLQJ (OHFWULF 6KLIW &DP \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH VKLIW IRUN DQG WKH UHGXFWRQ KXE

)LJ _____ /RFDWLQJ 6KLIW)RUN \$QG 5HGXFWRQ +XE
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH VKLIW UDLO

)LJ _____, QVWDOOLQJ 6KLIW 5DLO
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH RLO SXP SW ~~RZDW~~ ~~KNW~~ VKDIW DQG WKH WKUX

)LJ _____, QVWDOOLQJ 2LO 3XPSV ~~WX:V~~ ~~DSXW~~ U6KDIW \$QG 7KUX
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH PDJQHW LQWR LWV VORW LQ WKH FDVH

)LJ _____, QVWDOOLQJ 2LO 3DQ 0DJQHW
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH GULYH ~~FDLQ~~ ~~HB~~ ~~BC~~ WKH VSURFNHWV DV DQ

)LJ _____, QVWDOOLQJ 'ULYH &KDLQ \$QG 6SURFNHWV
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH ORFNXS KXE DVVHPEO\ ZDWG HVORFNHPS O H
IROORZLQJ VWHSV

3RVLWLRQ WKH ORFNXS FROODU

,QVWDOO WKH ORFNXS FROODU VSULQJV

,QVWDOO WKH ORFNXS KXE

,QVWDOO WKH DUPDWXUH

,QVWDOO WKH ORFNXS KXE VQDS ULQJ

)LJ _____ \$VVHPEOLQJ /RFNXS +XE \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH ORFNXS KXIEQDQG WKH VKLIW IRUN DQG VS

)LJ _____ /RFDWLQJ /RFNXS +XE \$QG 6KLIW)RUN \$QG 6S
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH FRLO KRXLQJ

)LJ _____, QVWDOOLQJ &RLO +RXVLQJ
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH VQDS ULQJ

)LJ _____/RFDWLQJ 6QDS 5LQJ
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH 0DLQVKDIW %H DUHQW RQ WS XVOHKD IWQ E MDUOLQJ

)LJ _____, QVWDOOLQJ 5HDU 2XWSSWF 6XOIR %DULQJ 8VLQJ
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH 0DLQVKDIW %H DUBQW, RXWSXO HK DI QVEHDOOLQJ

)LJ _____, QVWDOOLQJ)URQW ~~ZXW6SSXVF L6KD~~ I7R R%OHDULQJ 8VL
&RXUWHV\ RI)25' 02725 &2

, QVWDOO WKH WUDQVIHG ~~WEMH QXW6~~ FRLO ZDVKHUV DQ
z 7LJKWHQ WR 1P OE LQ

)LJ 5HPRYLQJ &RLO 1XWV \$QG :DVKHUV
&RXUWHV\ RI)25' 02725 &2

127(,I WRR PXFK VLOLFRRQH VHDODQW ~~KLH FRVYHGU ZK R Q~~
WKH H[FHVV VHDODQW FDQ SOXJW ~~WHU DOXUIG ULFO~~
IDLOXUH

\$SSO\ D VPDOO EHDG RI ~~WLOLJFR QWHI VFIH ORD QWK HW R DW KHD R Q~~
3RVLWLRQ WKH WUDQV ~~WHU FD ER QW O YLQV WDKHG WHITXKWHQ~~
z 7LJKWHQ WR 1P OE IW

)LJ ,GHQWLI\LQJ 7UDQVIKW 8VLQJ+DIOTXH@RI@WV 7I
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH ,QSXW 6KDIW 2LKH6RDO V@V@D@D@H@P@R@V@D@O

)LJ ,QVWDOOLQJ 2LO 6HDO 8VLQJ 6SHFLDO 7RRO
&RXUWHV\ RI)25' 02725 &2

\$SSO\ D VPDOO EHDG RIDQV@HFUR@D@V@H@D@D@D@W@P@R@R@V@K@P@D@W@U

127(7KH IROORZLQJ VWHSV QHHG WR UHHSWURR@PHUGZ
LQVWDOOLQJ WKH WUDQVIHU F@R@O@R@Z@I@W@K@P@R@W@R@U
FRUUHFW RUGHU PD\ UHVXOW LQ GDPDJH WR WK

,QVWDOO WKH WUDQVIH@R@D@W@H@ VKLIW PRWRU DQG WKH
z 7LJKWHQ WR LQ1P OE

)LJ /RFDWLQJ 7UDQVIHU &DVH 6KLIW 0RWURU %ROW
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH WUDQVIHU ~~OW~~ DVH VKLIW PRWRU EUDFNHW E
z 7LJKWHQ WR 1P OE LQ
6HFXUH WKH WUDQVIHU ~~UX~~ DVH VKLIW PRWRU EUDFNHW Q
z 7LJKWHQ WR 1P OE LQ

127(\$IWHU WKH FRLO ZLUH LV ~~LFQWRHU WJHC~~ ~~WOW~~ ~~B~~ ~~XVOKH~~
EDFN WR YHULI\ WKH SLQ LV ~~ORF~~ ~~UNHG~~ LQVLGH WK

)LJ /RFDWLQJ &RLO :LUH ~~SEWRQ~~ (OHFWULFDO &RQQ
&RXUWHV\ RI)25' 02725 &2

,QVHUW WKH FRLO ZLUH ~~SWRO~~ ~~LDQ~~ ~~W~~ ~~K~~ ~~H~~ ~~V~~ ~~D~~ ~~H~~ ~~O~~ ~~W~~ ~~L~~ ~~K~~ ~~H~~ ~~O~~ ~~F~~ ~~R~~ ~~H~~ ~~O~~ ~~H~~
5HPRYH WKH WUDQVIHU ~~FDR~~ ~~OGILUP~~) ~~W~~ ~~K~~ ~~H~~ ~~O~~ ~~H~~ ~~D~~ ~~Q~~ ~~V~~ ~~P~~ ~~L~~ ~~V~~ ~~V~~ ~~L~~ ~~R~~ ~~Q~~ +

)LJ ,GHQWLI\LQJ 7UDQVPLVLRQ +ROGLQJ)L[WXUH
&RXUWHV\ RI)25' 02725 &2

75\$16)(5 &\$6(63((' 72548(21 '(0\$1'

6SHFLDO 7RRO V

63(&,\$/ 722/ 5() (5(1&(

+DQGOH
' ' / \$ RU HTXLYDO

+ROGLQJ)L[WXUH 7UDQVPLV
7 / %

,QVWDOOHU)URQW \$[OH 2LO
7 7 \$

,QVWDOOHU ,QSXW 6KDIW 2L
7 7 %

,QVWDOOHU ,QSXW 6KDIW 2L

7 7 \$

,QVWDOOHU 0DLQVKDIW %HD
7 - .

,QVWDOOHU 2XWSXW \$KDIW

5HPRYHU %HDULQJ &XS
7) \$

6OLGH +DPPHU
7 7 \$

0DWHULDO

,7(0 63(&,) ,&\$7,21

,WHP	6SHFLILFDWL RQ
ORWRUFUDIWS 7UDQVIHU &DVH)OXLG ;/	(63 0 & +
8OWUD 6LOLFRQH 6HDODQW 7\$	

6SHHG 7UDQVIHU &DVH 5HDU 9LHZ

)LJ ([SORGHG 9LH5Z HIG57UDDUQVIHU &DVH &RPSRQHVMRQ.M.W
21

&RXUWHV\ RI)25' 02725 &2

,7(0 '(6&5,37,21

,WHP 3DUW 1XPEHU		'HVFULSWLRQ
		6QDS ULQJ
1		6SDFHU
'		&DJHG WKUXVW EHDULQJ
*		+XE DQG FRLO KRXLVQJ
\$		%DOO UHTXLUHG
5		&DP
'		:DYH VSULQJ
		6QDS ULQJ
&		&OXWFK SDFN DVVHPEO\ 'ULYH VSURFNHW
'		&DJHG WKUXVW EHDULQJ
&		7KUXVW ZDVKHU UHTXLUHG
\$		2LO SXPS DVVHPEO\ +RVH FODPS
+		2LO SXPS SLFNXS KRVH
\$		2LO SLFNXS DQG ILOWHU
*		7UDQVIHU FDVH ILHOG FRLO
		5HDU RXWSXW VKDIW VXSSRUW EHDULQJ
		)URQW RXWSXW VKDIW UH DU EHDULQJ
		&DVH
		5HDU RXWSXW VKDIW VXSSRUW EXVKLQJ SDU
\$	%	7UDQVIHU FDVH ER OW UHTXLUHG
\$		)LOO SOXJ
		&RLO QXW UHTXLUHG
\$	\$	&RQQHFWRU EUDFNHW ER OW UHTXLUHG
.		&RQQHFWRU EUDFNHW
\$		&RQQHFWRU
%		:DVKHU

6SHHG 7UDQVIHU &DVH)URQW 9LHZ

)LJ ([SORGHG 9L657HIG57HDDQVIHU &DVH &RPSRQHQWV 2
&RXUWHV\ RI)25' 02725 &2

,7(0 '(6&5,37,21

,WHP	3DUW 1XPEHU	'HVFULSWLRQ
	2XWSXW VKDIW	
	2XWSXW VKDIW FROODU	
\$	,QSXW JHDU	
\$	'ULYH FKDLQ	
	'ULYHQ VSURFNHW	
	6QDS ULQJ	
	)URQW RXWSXW VKDIW VXSSRUW EHDULQ	

	(	0DJQHW	
		&DVH	
	%	'RZHOV	
		)URQW LQSWX VKDIW VXSSRUW EHDULQJ	
	%	)URQW RXWSXW VKDIW RLO VHDO	
		)URQW RXWSXW VKDIW	
		9HQW WXEH	
	%	,QSWX IODQJH VHDO	

'LVDVVHPEO\

127(8VH D VXLWDEOH FOHDQLQJ JUDQYHHQ WDW R FCHDDO
RSHQLQJV EHIRUH FOHDQLQJ WKH7WLVV D QV OHOU SFDH
HQWU\ RI GLUW DQG ZDWHU ZKLFW PDQD QD X VH G
FRPSRQH QWV

&OHDQ WKH WUDQVIHU FDGH\HQ WWHU IFRP ZU WVKV H BODYHU W D
8VLQJ WKH 7UDQVPLVVLRQH+ W O G Q Q J H U [FDXUH WRH B X ZRU M K
FDVH VR WKDW WKH RXWSXW VKDIW LV SRLQLQJ XSZDUG

)LJ ,GHQWLI\LQJ 7UDQVPLVVLRQ +ROGLQJ)L[WXUH
&RXUWHV\ RI)25' 02725 &2

'UDLQ WKH IOXLG IURP WQH SWUHYDQR KHVDFDVH LI QRW GR

)LJ /RFDWLQJ 'UDLQ 3OXJ
&RXUWHV\ RI)25' 02725 &2

8VLQJ D VXLWDEOH WRRUW URXPSYHW DQGD GVL WFDUOG WKH UH

)LJ 5HPRYLQJ 5HDU 2XWSXW 6KDIW 6HDO
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH LQQHU FRQQHFWRU WDFNHWV DQG WKH FR

)LJ /RFDWLQJ ,QQHU &RQQHFWRU 5HWDLQHU
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH FRQQHFWRUHEWDFNHWV DQG WKH FR

)LJ /RFDWLQJ &RQQHFWRU %UDFNHW %ROWV
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH FRLO QXWV DQG ZDVKHUV

)LJ /RFDWLQJ &RLO 1XWV \$QG :DVKHUV
&RXUWHV\ RI)25' 02725 &2

127(,W LV QRUPDO WR ILQG PHWDO WKH YLQOM VDDV SIL
WUDQVIHU FDVH EROWV

)LJ 5HPRYLQJ 7UDQVIHU &DVH %ROWV
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH WUDQVIHU FDVH EROWV
8VLQJ WKH SU\ ERVVHV ~~KEDVDWH~~ WKH WUDQVIHU FDVH

)LJ 6HSDUDWLQJ 7UDQVIHU &DVH +DOYHV
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH %HDULQJ &XS 5HPRYH HJH ERWK WKH 6EDGHR XDPV
EHDULQJ

z , QVSHFW WKH EHDULQJ IRUH Z HEDLD IR LUQG DDPD QHH F, QVWDDO

)LJ 5HPRYLQJ 5HDU 2XWSXW 6KDIW 6XSSRUW %HD
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH %HDULQJ &XS 5HPRYH UH Z ERWK WKH 6URQW RDX
z , QVSHFW WKH EHDULQJ IRUH Z HDU BUQG DPD QH F HQWDDO

)LJ 5HPRYLQJ)URQW 2XWSXW 6KDIW 5HDU %HDULQ
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH VQDS ULQJ
z , QVSHFW WKH VQDS ULQJ IRUH Z HDU BUQG DPD QH F HQWDDO

)LJ /RFDWLQJ 6QDS 5LQJ
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH VSDFHU

)LJ /RFDWLQJ &DP &RLO +RXVLQJ
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH FDJHG WKUXVW EHDULQJ DVVHPEO\
z , QVSHFW WKH EHDULQJ IRUH Z HEDLD RLUQG DDPD QHF , QVWDDO

)LJ /RFDWLQJ &DJHG 7KUXVW %HDULQJ \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH FDP FRLO KRXVLQJ

)LJ /RFDWLQJ &DP &RLO +RXVLQJ
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH VWHHO EDOOV DQG WKH FDP

)LJ /RFDWLQJ &OXWFK 3DFN \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH FOXWFK SDFN DVVHPEO\
5HPRYH WKH GULYH FKDLQVDPPEOMKH VSURFNHWV DV DQ D

z ,QVSHFW WKH GULYH FKDLQWKU ZSDRNUHWDPIBUHEURW
,QVWDOO QHZ FRPSRQHQWV DV QHFHVVDU\
,QVSHFW WKH GULYH FKDLQWKU ZSDRNUHWDPIBUHEURW

)LJ /RFDWLQJ 'ULYH &KDLQ\ \$QG 6SURFNHWV \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH WKUXVW EHDULQJ DVVHPEO\
5HPRYH WKH WKUXVW ZDVKHU

z 7KH XSSHU WKUXVW ZDVKHUF RBWEH DWWDFKHG WR

5HPRYH WKH WKUXVW EHDULQJ
5HPRYH WKH WKUXVW ZDVKHU

z ,QVSHFW WKH ZDVKHUV DQG ,EHDULQJ QHZ ZFRDPS RQ
QHFHVVDU\
,EHDULQJ QHZ ZFRDPS RQ

)LJ _____,GHQWLI\LQJ 7KUXVW %HDULQJ \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

5HPRYH DQG FOHDQ WKH RLO SDQ PDJQHW

)LJ _____/RFDWLQJ 2LO 3DQ 0DJQHW
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH RLO SXPS DVVHPEO\

)LJ _____/RFDWLQJ 2LO 3XPS \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH RXWSXW VKDIW

)LJ _____/RFDWLQJ 2XWSXW 6KDIW
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH LQSXW VKDIW

)LJ /RFDWLQJ ,QSXW 6KDIW
&RXUWHV\ RI)25' 02725 &2

127('R QRW OHW WKH IURQW RXWSXW JVKH HWVQDS ULQJ
5HPRYH WKH VQDS ULQJ DQG WKH IURQW RXWSXW VKDIW
z ,QVSHFW WKH VQDS ULQJ IRUHZHDO & WIGDPDVHQHGWV

)LJ /RFDWLQJ 6QDS 5LQJ \$QG)URQW 2XWSXW 6KD
&RXUWHV\ RI)25' 02725 &2

127(&DUHIXOO\ UHPRYH WKH VHDOOGERQRW GDPDJH

)LJ /RFDWLQJ)URQW 2XWSXW 6KDIW 2LO 6HDO
&RXUWHV\ RI)25' 02725 &2

5HPRYH DQG GLVFDUG WKH IURQW RXWSXW VKDIW RLO V
127(&DUHIXOO\ UHPRYH WKH VHDOOGERQIRW GDPDJH

)LJ /RFDWLQJ)URQW , QSXW 6KDIW 6HDO
&RXUWHV\ RI)25' 02725 &2

5HPRYH DQG GLVFDUG WKH IURQW LQSXW VKDIW VHDO
8VLQJ D VXLWDEOH GULYWKDIW HPRDYHLWKH IURQW LQSXW

)LJ 5HPRYLQJ)URQW , QSXW 6KDIW %HDULQJ
&RXUWHV\ RI)25' 02725 &2

8VLQJ D VXLWDEOH GULYWKDUMPRYSHRUKH EHDQWRXWSXV
z , QVSHFW WKH EHDULQJ IRUHZHEDRILUQGDPDQH FJQWDDO

)LJ 5HPRYLQJ)URQW 2XWSXW 6KDIW 6XSSRUW %H
&RXUWHV\ RI)25' 02725 &2

\$VVHPEO\

/XEULFDWH DOO LQWHUQDOH ~~GHQWLI\LQJ~~ ~~URQW~~ ~~2XWSXW~~ ~~6KDIW~~ ~~6XSSRUW~~ ~~%H~~ ~~DDUGLQJ~~ ~~, Q~~
&OHDQ WKH PDWLQJ VXUIDFHV RI WKH FDVHV
8VLQJ D VXLWDEOH SUHVVD, ~~GHQWLI\LQJ~~, ~~URQW~~ ~~2XWSXW~~ ~~6KDIW~~ ~~6XSSRUW~~ ~~%H~~ ~~DDUGLQJ~~ ~~, Q~~
LQSXW VKDIW EHDULQJ

)LJ ,GHQWLI\LQJ 2XWSXWV6KDIW)URQWK%+HDDUGLQJ , Q
&RXUWHV\ RI)25' 02725 &2

8VLQJ D VXLWDEOH SUHVVD, ~~GHQWLI\LQJ~~ ~~URQW~~ ~~2XWSXW~~ ~~6KDIW~~ ~~6XSSRUW~~ ~~%H~~ ~~DDUGLQJ~~ ~~, Q~~
VXSSRUW EHDULQJ

)LJ ,GHQWLI\LQJ)URQW \$IWK 2DDGEBB , QVWDOOHU
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH ,QSXW 6KDIW ~~GHQWLI\LQJ~~ ~~URQW~~ ~~2XWSXW~~ ~~6KDIW~~ ~~6XSSRUW~~ ~~%H~~ ~~DDUGLQJ~~ ~~, Q~~

)LJ _____,GHQWLI\LQJ ,QSXWU6KDIW 2LO 6HDO ,QVWDOOH
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH FDVH WR WKH 7681X8HVWKRIQFDR8GLQG WLK
)L[WXUH WR WKH ZRUN EHQFK

)LJ _____,GHQWLI\LQJ 7UDQVPLVLRQ +ROGLQJ)L[WXUH
&RXUWHV\ RI)25' 02725 &2

8VLQJ WKH ,QSXW 6KDIW 2LO 6HDO QVWDOOH WKH 7681X8HVWKRIQFDR8GLQG WLK

)LJ _____,GHQWLI\LQJ ,QSXWU6KDIW 2LO 6HDO ,QVWDOOH
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH IURQW RXWSXW VKDIW DQG WKH VQDS I

)LJ /RFDWLQJ 6QDS 5LQJ \$QG)URQW 2XWSXW 6KDIW
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH LQSXW VKDIW

)LJ /RFDWLQJ ,QSXW 6KDIW
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH RXWSXW VKDIW

)LJ /RFDWLQJ 2XWSXW 6KDIW
&RXUWHV\ RI)25' 02725 &2

127(ODNH VXUH WKH RLO SXPS IWKHFDLWHLQ WKH VO

)LJ /RFDWLQJ 2LO 3XPS \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH RLO SXPS DVVHPEO\
,QVWDOO WKH RLO SDQFDDJHQHW LQWR WKH VORW LQ WKH
,QVWDOO WKH SLHFH WUKUXWVEZDVKJJDWKHPEO\ EMDH
,QVWDOO WKH GULYH FDLQDQ\WKH VSURFNHWV DV DQ

)LJ /RFDWLQJ 'ULYH &KDLQ\ \$QG 6SURFNHWV \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

127(:KHQ LQVWDOOLQJ WKH FOXWBI DDWV HAPKEO\ FCGRW E
DVVHPEO\ 7KH WKUXVW ZDVKHU LQ VMKHWOREZ/HWR
LW LQ SODFH ,I WKH WKUXVW ZDVKJHUIHLV QDRWH LF
SUREOHP ZLOO RFFXU

)LJ _____ /RFDWLQJ &OXWFK 3DFN \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH FOXWFK SLEJ DWKH PEO WFOK SB FWX ZHWKRWD
,QVWDOO D QHZ VQDS ULQJ

)LJ _____ /RFDWLQJ 6QDS 5LQJ
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH ZDYH VSULQJ

)LJ _____ /RFDWLQJ :DYH 6SULQJ
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH FDP DQG WKH VWHHO EDOOV

)LJ /RFDWLQJ 6WHHO %DOOV \$QG &DP
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH FDP FRLO KRXVLQJ

)LJ /RFDWLQJ &DP &RLO +RXVLQJ
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH FDJHG WKUXVW EHDULQJ DVVHPEO\

)LJ /RFDWLQJ &DJHG 7KUXVW %HDULQJ \$VVHPEO\
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH VSDFHU

)LJ _____ /RFDWLQJ &DP &RLO +RXVLQJ
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH VQDS ULQJ

)LJ _____ /RFDWLQJ 6QDS 5LQJ
&RXUWHV\ RI)25' 02725 &2

8VLQJ D VXLWDEOH SUHV, ~~QVWDOO~~ ~~WKH~~ ~~U~~ ~~D~~ ~~L~~ ~~Q~~ ~~W~~ ~~D~~ ~~O~~ ~~%~~ ~~H~~ ~~D~~ ~~U~~ ~~G~~
EHDULQJ

)LJ _____ ,QVWDOOLQJ 5HDU 2XMSXW 6KDIW 6XSSRUW %HDU
&RXUWHV\ RI)25' 02725 &2

8VLQJ D VXLWDEOH SUHV ~~D~~ ~~O~~ ~~W~~ ~~K~~ ~~H~~ ~~0~~ ~~D~~ ~~Q~~ ~~W~~ ~~D~~ ~~O~~ ~~%~~ ~~H~~ ~~D~~ ~~U~~

)LJ ,QVWDOOLQJ)URQW 2XWSXW 6KDIW 5HDU %HDULC
&RXUWHV\ RI)25' 02725 &2

127(\$SSO\LQJ WRR PFK VLOLFRRHIOXDGDIQWZLLOOQ
WUDQVIHU FDVH IDLOXUH

\$SSO\ D EHDG RI VLOLFRRHIOXDGDIQWZLLOOQ WR UWR FHW 3 B D D M H U
WRJHWKHU DOLJQLQJ WKKFRHO VWXIGWHQKWRXJK WDECFD
VWDU SDWWHUQ

z 7LJKWHQ WR 1P OE IW

)LJ 5HPRYLQJ 7UDQVIHU &DVH %ROWV
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH FRLO ZDVKHUV DQG QXWV

z 7LJKWHQ WR 1P OE LQ

8VLQJ WKH ,QSXW 6KDIW 2LKH6HBDU, QXWISXWHVKLIQW WBD

)LJ ,GHQWLI\LQJ ,QSXW 6KDIW 2LO 6HDO ,QVWDOOH
&RXUWHV\ RI)25' 02725 &2

127(

\$IWHU WKH ZLUH LV LQVHUWHHQWQWSXWQKHWRHQZ
YHULI\ WKH SLQ LV ORFNHG LQVLGH WKH FRQQHF

)LJ /RFDWLQJ ,QQHU &RQQHFWRU 5HWDLQHU
&RXUWHV\ RI)25' 02725 &2

,QVHUW WKH FRLO ZLUHFWRQ LQQWKLQVNDHQWULKHQDFRQW
,QVWDOO WKH FRQQHFWRU EUDFNHWEDQVWKH FRQQHF
z 7LJKWHQ WR 1P OE LQ

)LJ /RFDWLQJ &RQQHFWRU %UDFNHW %ROWV
&RXUWHV\ RI)25' 02725 &2

6HFXUH WKH WUDQVIHU EDQHMWRNDDQGLWDEBYHWWIDQWPLD
7UDQVPLVLRQ +ROGLQJ)L[WXUH

)LJ ,GHQWLI\LQJ 7UDQVPLVLRQ +ROGLQJ)L[WXUH
&RXUWHV\ RI)25' 02725 &2

5(029\$/

75\$16)(5 &\$6(

7UDQVIHU &DVH /HIW 6LGH

)LJ _____, GHQWLI\LQJ 7UDQVIHU & DVH & RPSRQH QWV
&RXUWHV\ RI)25' 02725 &2

,7(0 '(6&5,37,21

,WHP	3DUW 1XPEHU	'HVFULSWLRQ
		&URVVPHEHU EROW UHTXLUHG
:	6	+HDW VKLHOG EROW UHTXLUHG
		&URVVPHEHU
1	6	7UDQVPLVLRQ PRXQW QXW UHTXLUHG
(		6NLG SODWH
:	6	6NLG SODWH WR IUDPH EROW UHTXLUHG

7UDQVIHU &DVH 6LGH

)LJ _____ ,GHQWLI\LQJ 7UDQVIHU & DVH 6LGH GRIPSRQH QWV
 &RXUWHV\ RI)25' 02725 &2

,7(0 '(6&5,37,21

,WH	DUW 1X	PEHU	'HVFULSWLRQ
\$		7UDQVIHU FDVH WR WUDQVPLVVLRQ	EROW
\$		7UDQVIHU FDVH	
'		9HQW WXEH	
:	6	7UDQVPLVVLRQ PRXQW	EROW UHTXLUHG
'		7UDQVPLVVLRQ PRXQW	
:	6	([KDXVW VXSSRUW EUDFNHW	EROW
		6KLIW PRWRU HOHFWULFD	O2ERQHFOMRU(62X

UHT

OHFV

7UDQVIHU &DVH /HIW 6LGH OHFV OLFDO 6KLIW 2Q 7KH

)LJ _____, GHQWLI\LQJ 7UDQVIHU\WDLG & RPSR)QH QWV
&RXUWHV\ RI)25' 02725 &2

,7(0 '(6&5,37,21

,WHP 3DUW 1XPEHU	'HVFULSWLRQ	
%	7UDQVIHU FDVH VKLIW FDEOH PRXQWL	QJ EU
:	7UDQVIHU FDVH VKLIW FDEOH PRXQWL	QJ EU
(	7UDQVIHU FDVH VKLIW FDEOH	

\$OO YHKLFOHV

:LWK WKH YHKLFOH LQ 1(875\$/)SRVDGGRWLRODQ & DQKRUPLD
/,)7,1*

,I HTXLSSHG UHPRYH WKPRYHNWGHSONWGHSEODWHV DQG UH

)LJ _____/RFDWLQJ 6NLG 3ODWH %ROWV
&RXUWHV\ RI)25' 02725 &2

'UDLQ WKH IOXLG LI WKHVVHDEOHG FDVH LV WR EH GLV
z , QVWDOO WKH GUDLQ SOXJ ZKHQ ILQLVKHG GUDLQLQJ
z 7LJKWHQ WR 1P OE LQ
5HPRYH WKH IURQW GULYHVDLRO 'SRVDGGRWLRODQ LQIR
5HPRYH WKH UHDU GULYHVDLRO)SRVDGGRWLRODQ LQIRU

9HKLFOHV ZLWK (OHFWURQLF 6KLIW 2Q 7KH)O\ (62)

'LVFRQQHFW WKH VKLIW ~~FRGWBHWHDFKFWKHFDKDFRQQHFWHVRV~~
WUDQVIHU FDVH

)LJ /RFDWLQJ 6KLIW 0RWRU (OHFWULFDO &RQQHFWRU
&RXUWHV\ RI)25' 02725 &2

9HKLFOHV ZLWK 0HFKDQLFDO 6KLIW 2Q 7KH)O\ 062)

'LVFRQQHFW WKH FDEOH HQG IURP WKH VKLIW OHYHU
5HPRYH WKH VKLIW FDEOH ~~FRGWBHWHDFKFWKHFDKDFRQQHFWHVRV~~ QXWV D

\$OO YHKLFOHV

'LVFRQQHFW WKH YHQW KRVH IURP WKH WUDQVIHU FDVH

)LJ /RFDWLQJ 7UDQVIHU &DVH 9HQW 7XEH
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH 5+ H[KDXVW ~~FRGWBHWHDFKFWKHFDKDFRQQHFWHVRV~~ EROW IURP WKH

)LJ _____ /RFDWLQJ ([KDXVW +HDW 6KLHOG %ROW
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH /+ H[KDXVW ~~FURVVPHPHEHU~~ EROW IURP WKH

)LJ _____ /RFDWLQJ /+ ([KDXVW +HDW 6KLHOG %ROW
&RXUWHV\ RI)25' 02725 &2

6XSSRUW WKH IURQW RI WKH WUDQVPLVVLRQ

)LJ _____ 3RVLWLRQLQJ -DFNVWDQG 8QGHU 7UDQVPLVVLRQ
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH FURVVPHPHEHU ERQV DQG QXWV

)LJ _____ /RFDWLQJ &URVVPHPHEHU %ROWV \$QG 1XWV
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH WUDQVPLVVLRQHPHXOW QXWV DQG WKH FU

)LJ _____ /RFDWLQJ 7UDQVPLVVLRQ 1XWVODWRU \$QG 5HWDL
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH EROW IURP WKHW+ H[KDXVW VXSSRUW EUDF

)LJ _____ /RFDWLQJ /+ ([KDXVW 6RSSRUW %UDFNHW \$QG %
&RXUWHV\ RI)25' 02725 &2

5HPRYH WKH WUDQVPLVVLRQHPHXOW QXWV DQG WKH W

)LJ /RFDWLQJ 7UDQVPLVVLRLQ %RQXODWRU \$QG 5HWDL
&RXUWHV\ RI)25' 02725 &2

8VLQJ D WUDQVPLVVLRLQ QDQFHU SBVHWWRQXUW WRHWWH DQ
VDIHW\ VWUDS

)LJ 6HFXULQJ 7UDQVIHU &DVH
&RXUWHV\ RI)25' 02725 &2

5HPRYH DQG GLVFDUG WKHVVRWDE RQWVFDVH WR WUDQV
6HSDUDWH WKH WUDQVIHU DQG VPRYHRW KWKW WUDQVQDQD LFDVLR
0RYH WKH WUDQVIHU FDVH UHQGJ ZDRZGH UR IU WW KJH R XWKSX W HK

)LJ /RFDWLQJ 7UDQVPLVVLRLQ XMRXQW 5XEEHUV 2Q ([K
&RXUWHV\ RI)25' 02725 &2

, 167\$// \$7,21

75\$16)(5 &\$6(

0DWHULDO

,7(0 63(&,) ,&\$7,21

,WHP	6SHFLILFDWLRQ
ORWRUFUDIWS 7UDQVIHU &DVH)OXLG ;/	(63 0 & +

7UDQVIHU &DVH /HIW 6LGH

)LJ _____,GHQWLI\LQJ 7UDQVIHU K&DRUT&RPSRPHLQWVDRQV
&RXUWHV\ RI)25' 02725 &2

,7(0 '(6&5,37,21

,WHP	3DUW 1XPEHU	'HVFULSWLRQ
		&URVVPHEHU EROW UHTXLUHG
:	6	+HDW VKLHOG EROW UHTXLUHG
		&URVVPHEHU
1	6	7UDQVPLVLRQ PRXQW QXW UHTXLUHG
(		6NLG SODWH
:	6	6NLG SODWH EROW UHTXLUHG

7UDQVIHU &DVH 5LJKW 6LGH

)LJ _____, GHQWLI\LQJ 7UDQVIHU7 & DVH & S S R I G H E W 6 L G H K
&RXUWHV\ RI)25' 02725 &2

,7(0 '(6&5,37,21

,WH	DUW 1X	PEHU	'HVFULSWLRQ
	\$	7UDQVIHU FDVH WR	WUDQVPLVVLRQ EROW
	\$	7UDQVIHU FDVH	
	'	9HQW WXEH	
:	6	7UDQVPLVVLRQ PRXQW	EROW UHTXLUHG
	'	7UDQVPLVVLRQ PRXQW	
:	6	([KDXVW VXSSRUW EUDFNHW	EROW
		6KLIW PRWRU HOHFWULFD	O2EROW QH FOMR U62X

UHT

O H F W

7UDQVIHU &DVH /HIW 6LGH O H F W O L F D O / B Q N I D W I 2 Q 7 K H

)LJ /RFDWLQJ 7UDQVIHU & DVMH&R&SRQIHEDWWL6RQWK 7062)
 /LQNDJH
 &RXUWHV\ RI)25' 02725 &2

,7(0 '(6&5,37,21

,WHP 3DUW 1XP	EHU	'HVFULSWLRQ	
%	7UDQVIHU FDVH VKLIW FDEOH PRXQWL	QJ EU	
:	7UDQVIHU FDVH VKLIW FDEOH PRXQWL	QJ EU	
	7UDQVIHU FDVH VKLIW FDEOH		

\$OO YHKLFOHV

3RVLWLRQ WKH WUDQVIHU RQWR WRKWRKWSUDQVFDVWLRQV
 PP LQ IURP WKH WUDQVFDVWLRQ SKMKWIDQWPLVQVLRQ

127('R QRW UHXVH WKH ROG WUDQVFDVWLRQ WR WU

,QVWDOO QHZ WUDQVIHU FDVH WR WUDQVPLVLRQ EROV

z 7LJKWHQ WKH EROWV HYHPO\ LOOB EQRVV SDWWHUQ W

,QVWDOO WKH WUDQVPLVLRQ PRXQW EGWKH WUDQV

z 7LJKWHQ WR 1P OE IW

)LJ /RFDWLQJ 7UDQVPLVLRQ %QVWWRU \$QG 5HV
 &RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH /+ H[KDXVW VXSSRUW EUDFNHW DQG EROW
z 7LJKWHQ WR 1P OE IW

)LJ /RFDWLQJ ,VRODWRU %ROW \$QG &DS
&RXUWHV\ RI)25' 02725 &2

3RVLWLRQ WKH FURVVPHPERHU DQG QXWV WUDQVPLVVLRQ
z 'R QRW WLJKWHQ DW WKLV WLP

)LJ /RFDWLQJ 7UDQVPLVVLRQ 1XWVODWRU \$QG 5HV
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH FURVVPHPERHU EROWV DQG QXWV
z 7LJKWHQ WKH FURVVPHPERHU EROWV WR 1P OE IW
z 7LJKWHQ WKH WUDQVPLVVLRQWPRXQW QXWV WR 1P

)LJ /RFDWLQJ &URVVPHPERHU %ROWV \$QG 1XWV
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH /+ H[KDXVW KPHDWEWK LHOG EROW WR WKH F
z 7LJKWHQ WR 1P OE LQ

)LJ /RFDWLQJ /+ ([KDXVW +HDW 6KLHOG %ROW
&RXUWHV\ RI)25' 02725 &2

,QVWDOO WKH 5+ H[KDXVW KPHDWEWK LHOG EROW WR WKH F
z 7LJKWHQ WR 1P OE LQ

)LJ /RFDWLQJ ([KDXVW +HDW 6KLHOG %ROW
&RXUWHV\ RI)25' 02725 &2

&RQQHFW WKH YHQW KRVH WR WKH WUDQVIHU FDVH

)LJ /RFDWLQJ 7UDQVIHU &DVH 9HQW 7XEH
&RXUWHV\ RI)25' 02725 &2

9HKLFOHV ZLWK (OHFWURQLF 6KLIW 2Q 7KH)O\ (62)

&RQQHFW WKH VKLIW PRWRW WHDFK WK HFD DDFURQH VIEUFRUWDE

)LJ /RFDWLQJ 6KLIW 0RWRU (OHFWULFDO &RQQHFWRU
&RXUWHV\ RI)25' 02725 &2

9HKLFOHV ZLWK 0HFKDQLFDO 6KLIW 2Q 7KH)O\ 062)

,QVWDOO WKH VKLIW FDEOH ~~EXPRX~~QWLQJ EUDFNHW DQG WK
z 7LJKWHQ WR 1P OE IW
&RQQHFV WKH FDEOH HQG WR WKH VKLIW OHYHU

\$OO YHKLFOHV

127(\$OLJQ WKH LQGH[PDUNV PDGH GXULQJ UHPRYD

,QVWDOO WKH UHDU ~~GUDLQHG~~ ~~WKLQ~~ ~~5~~ ~~DIR~~ ~~SD~~ ~~WGR~~ WLRQDO LQIR

127(\$OLJQ WKH LQGH[PDUNV PDGH GXULQJ UHPRYD

,QVWDOO WKH IURQW ~~GRUPE~~ ~~WKLQ~~ ~~5~~ ~~DIR~~ ~~SD~~ ~~WGR~~ WLRQDO LQ
,I GUDLQHG ILOO WKH ~~DO~~ ~~DQ~~ ~~MR~~ ~~HB~~ ~~DF~~ ~~DS~~ ~~HC~~ ~~6~~ ~~RE~~ ~~&~~ ~~ES~~ ~~G~~ ~~W~~ ~~SL~~ ~~R~~ ~~Q~~ *
\$1'),//,1* LQ WKH *HQHUDO 3URFHGXUHV

,I HTXLSSHG SRVLWLRQ ~~WKH~~ ~~VNL~~ ~~GGSS~~ ~~SD~~ ~~DWH~~ ~~DE~~ ~~RG~~ ~~W~~ ~~Q~~ ~~V~~ ~~W~~ ~~D~~ ~~O~~ ~~O~~
z 7LJKWHQ WR 1P OE IW

)LJ /RFDWLQJ 6NLG 3ODWH %ROWV
&RXUWHV\ RI)25' 02725 &2