TIME FASTENER COMPANY 5301 unit G Longley lane Reno Nevada 89511 (800) 423-4070 (775) 829-1026 www.timesert.com

# TIME-SERT®

LAND ROVER RANGE ROVER 1996 - 2002 LAND ROVER DISCOVERY 1999- 2004 P/n 12188

# **LAND ROVER 7/16-14 HEAD BOLT KIT**

## - WARNING -

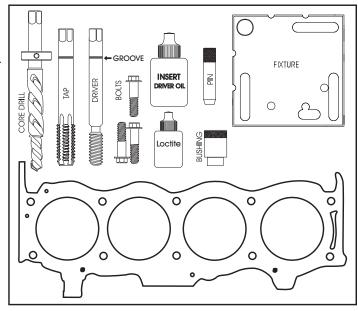
Cutting tools may shatter if broken. The wearing of safety glasses is required in the vicinity of their use.

# **CUTTING FLUID**

A Cutting fluid is necessary for drilling and tapping. (WD40)

#### DRILL MOTOR

The use of a half inch drill motor is recommended for drilling.



Tools needed:
Drill fixture
Drill bushing
Alignment pin
Bolts (3)
Step drill
Tap
Insert driver
Inserts (10)
loctite
Driver oil

# STEP 1

# INSTRUCTIONS

PLACE LARGEST HOLE IN DRILL FIXTURE OVER THE HOLE TO BE REPAIRED. PLACE BUSHING IN FIXTURE, THEN PLACE LINE UP PIN IN BUSHING TO PICK UP HOLE. DO NOT FORCE PIN INTO HOLE. USE 2 BOLTS AND TIGHTEN TO SECURE FIXTURE IN PLACE. REMOVE LINE PIN.

#### STEP 2

USE A SUITABLE DRILL MOTOR AND STEP DRILL THE HOLE UNTIL THE STOP COLLAR ON THE DRILL LINES UP WITH THE TOP OF THE DRILL BUSHING. THIS WILL REQUIRE REMOVING DRILL AND BUSHING SEVERAL TIMES TO CLEAR CHIPS. CLEAN OUT ALL CHIPS.

NOTE: If drill bushing turns while drilling hole, Remove drill and drill bushing, Clean out all chips. We recommend using a long air nozzle 3" to blow out all chips.

#### STEP 3

TAP THROUGH THE DRILL BUSHING UNTIL THE GROOVE ON THE TAP LINES UP WITH THE TOP OF THE DRILL BUSHING. THIS WILL REQUIRE REMOVING THE TAP AND BUSHING SEVERAL TIMES TO CLEAR CHIPS. CLEAN ALL CHIPS USING BRAKE OR CONTACT CLEANER THAT WILL NOT LEAVE AN OILY RESIDUE, THE HOLE MUST BE CLEAN AND DRY. USE A FLASHLIGHT TO INSPECT THE HOLE FOR CHIPS AND CLEANLINESS.

NOTE: If drill bushing turns while TAPPING hole, Remove TAP and drill bushing, Clean out all chips.

## STEP 4

LEAVE DRILL FIXTURE PLATE AND DRILL BUSHING ON FOR FINAL STEP! USE INSERT DRIVER OIL (DO NOT USE WD40.)

OIL THE THREADS OF THE INSERT DRIVER. SCREW AN INSERT ONTO THE DRIVER, APPLY A SMALL AMOUNT OF LOCTITE ON THE BOTTOM OUTSIDE THREADS ON THE INSERT AND SCREW THE INSERT INTO THE PREPARED HOLE. WHEN THE HEAD OF THE INSERT IS SEATED THE DRIVER WILL TIGHTEN UP, USE A LITTLE MORE POWER TO SCREW THE DRIVER THROUGH THE INSERT UNTIL THE GROOVE OF THE DRIVER LINES UP WITH THE TOP OF THE DRILL BUSHING. REMOVE INSERT DRIVER REPAIR IS COMPLETE.