

## 1GR-FE ENGINE MECHANICAL CYLINDER BLOCK REPLACEMENT

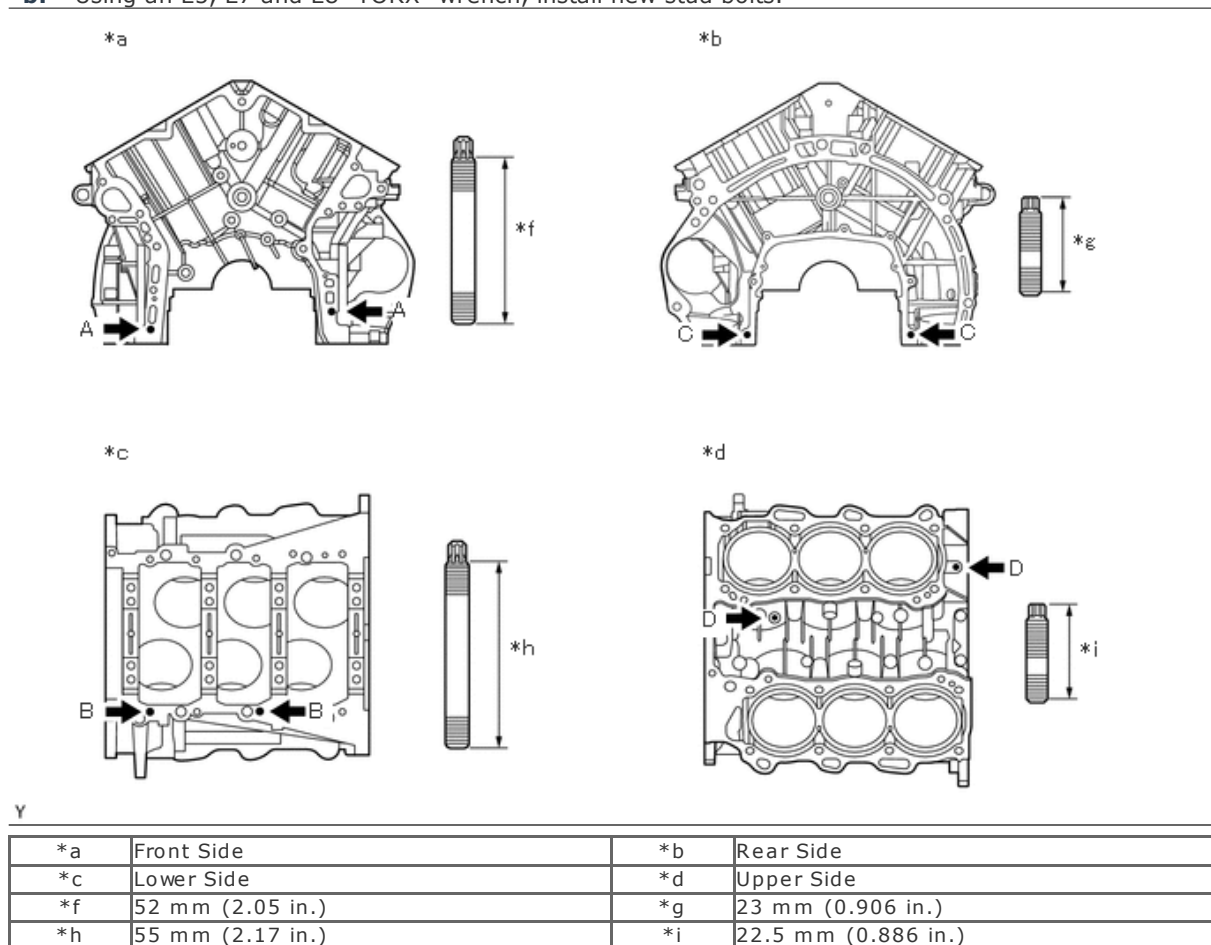
## PROCEDURE

## 1.REPLACE STUD BOLT

## NOTICE:

If a stud bolt is deformed or its threads are damaged, replace it.

- a. Using an E5, E7 and E8 "TORX" wrench, remove the stud bolts.
- b. Using an E5, E7 and E8 "TORX" wrench, install new stud bolts.



## Torque:

for stud bolt A and B : 11 N\*m (112 kgf\*cm, 8 ft.\*lbf)  
for stud bolt C and D : 4.0 N\*m (41 kgf\*cm, 35 in.\*lbf)

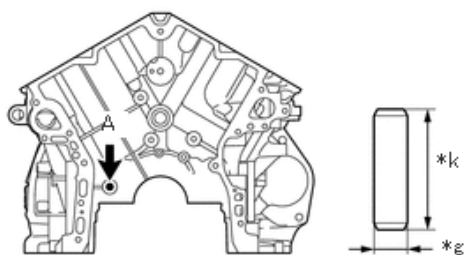
## 2.REPLACE STRAIGHT PIN

## NOTICE:

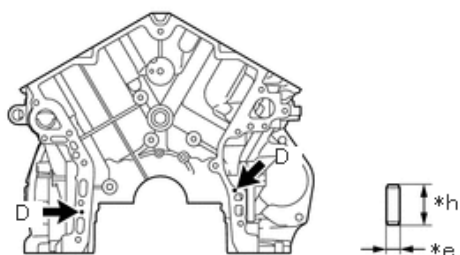
It is not necessary to remove the straight pin unless it is being replaced.

- a. Remove the straight pins.
- b. Using a plastic-faced hammer, tap new straight pins into the cylinder block.

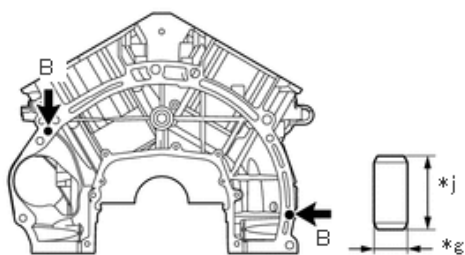
\*a



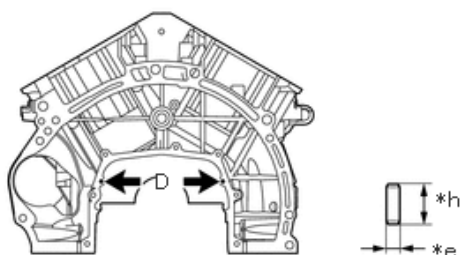
\*a



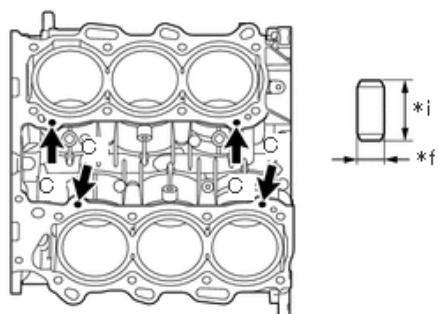
\*b



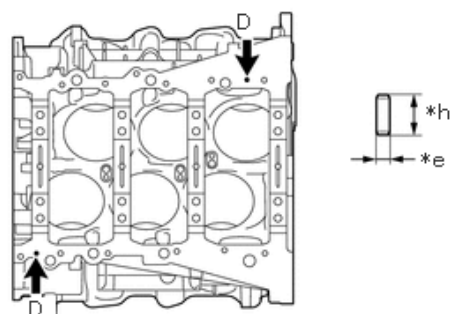
\*b



\*c



\*d



P

*a	Front Side	*b	Rear Side
*c	Upper Side	*d	Lower Side
*e	4.0 mm (0.157 in.)	*f	8.0 mm (0.315 in.)
*g	10 mm (0.394 in.)	*h	12 mm (0.472 in.)
*j	18 mm (0.709 in.)	*j	22 mm (0.866 in.)
*k	36 mm (1.42 in.)	-	-

### Standard Protrusion Height:

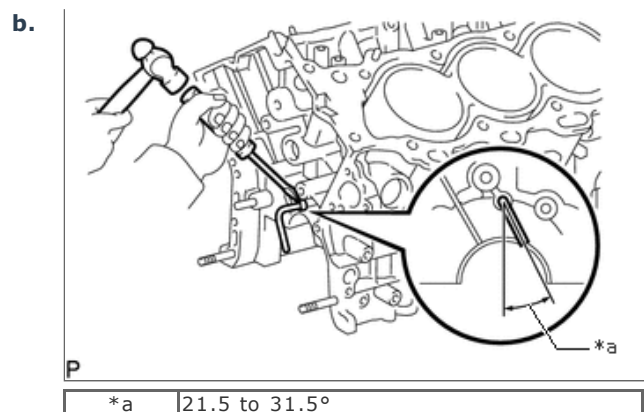
Item	Specified Condition
Pin A	22.5 to 23.5 mm (0.886 to 0.925 in.)
Pin B	10.5 to 11.5 mm (0.413 to 0.453 in.)
Pin C	8.5 to 9.5 mm (0.335 to 0.374 in.)
Pin D	5.5 to 6.5 mm (0.217 to 0.256 in.)

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**NOTICE:**

It is not necessary to remove the oil jet unless it is being replaced.

a. Using a screwdriver and hammer, tap out the oil jet.



Using a screwdriver and hammer, tap in a new oil jet as shown in the illustration.