

PARTS & SERVICE NEWS

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SUBJECT: STEERING PIN BUSHING KITS

PURPOSE: To inform the field of a bushing kit for renewing worn steering arm pin bores.

APPLICATION: Komatsu Electric Drive Dump Trucks:
 730E: 32530-32845, A30079 & Up
 830E: 31320-32825, A30544 & Up;
 930E: 32604-32816, A30019, A30026-A30120;
 930E-2: A30012, A30098, A30100, A30121-A30303;
 930E-2SE: A30171, A30183;
 930E-3: A30304 & Up;
 930E-3SE: A30318, A30319 & A30322;

FAILURE CODE: 4A10CC

DESCRIPTION: 930E-2/930E-3 Steering Pin Bushing Kit (AK5098),
 930E Steering Pin Bushing Kit (AK5097),
 830E Steering Pin Bushing Kit (AK5108),
 730E Steering Pin Bushing Kit (AK5109)

Over time, some trucks in operation may experience wear in the steering arm pin bore area. If there is excessive wear in the pin bores, the pin bores can be machined larger to accept the installation of bushings instead of replacing the entire steering arm.

The pin kits fit either pin bore in the steering arm (tie rod or steering cylinder). Tables 1-4 list the contents of each Steering Pin Bushing Kit for the 730E, 830E and 930E trucks. Each kit contains a detailed drawing describing machining and installation instructions along with all the necessary hardware to rebuild one pin joint assembly to provide new truck tolerances.

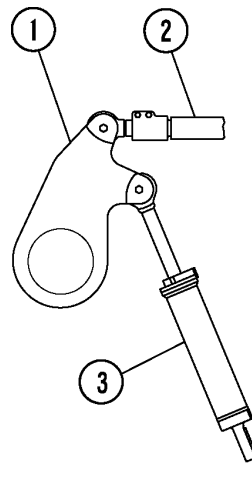


FIGURE 1. STEERING ARM

1. Steering Arm 3. Steering Cylinder
 2. Tie Rod

Figure 2 shows the area in the steering arm pin bore that must be machined to a larger diameter to accept the two bushings. The exact bore dimensions are provided on the installation drawing provided in each kit.

Figure 3 shows the reworked steering pin bore with the new bushings installed. Items 1-11 are included in each steering pin bushing kit.

NOTE: Retainer capscrews (12, Figure 3) must have the heads facing towards the ground when the parts are assembled.

Refer to the appropriate shop manual for safety information, detailed instructions and torque values while servicing the steering arm and pin joints.

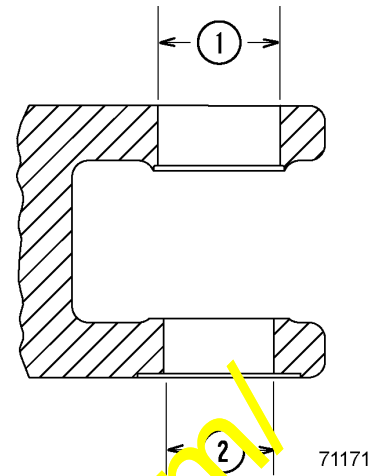


FIGURE 2.
STEERING ARM PIN BORE

- 1. Location to machine, upper bushing
- 2. Location to machine, lower bushing

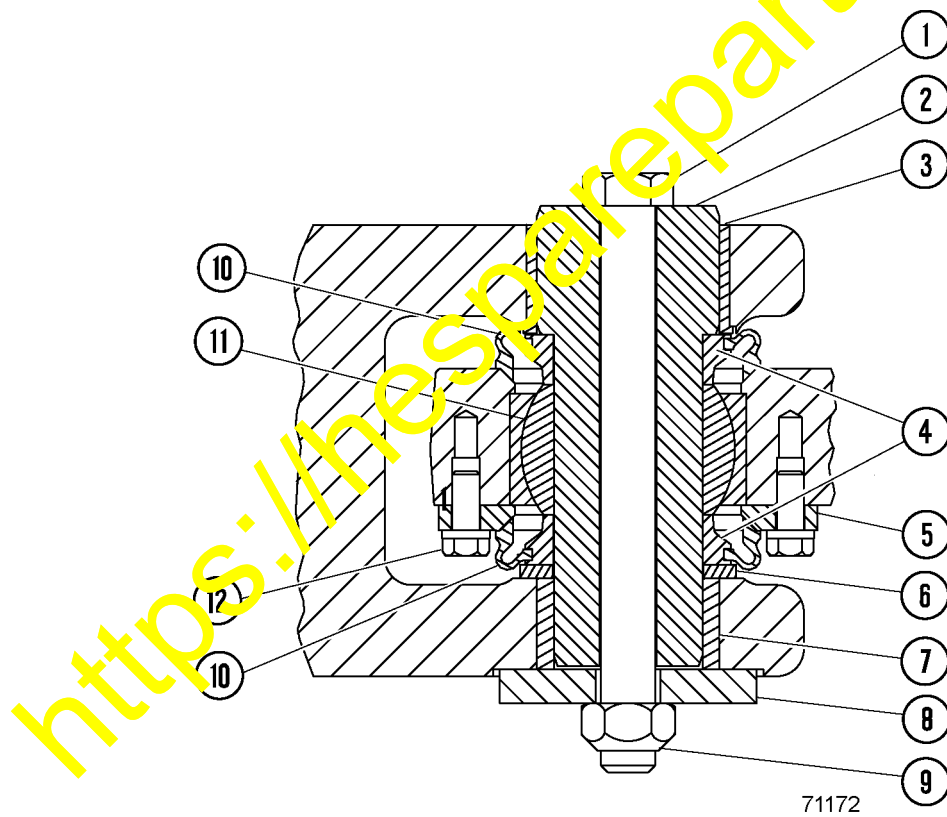


FIGURE 3. STEERING PIN ASSEMBLY (TYPICAL)

- | | | |
|------------------|----------------------------|--------------------|
| 1. Capscrew | 5. Retainer, Anti-Rotation | 9. Locknut |
| 2. Pin | 6. Washer | 10. Seal |
| 3. Upper Bushing | 7. Lower Bushing | 11. Spherical Ball |
| 4. Spacer | 8. Retainer | 12. Capscrew |

TABLE 1. 730E STEERING PIN BUSHING KIT (AK5109)			
Item Number (Figure 3)	Part Number	Description	Quantity
	EL3567	Drawing, Steering Pin Upgrade	1
10	EK3379	Seal, Spherical Bearing	2
4	EK3378	Spacer	2
5	EK9254	Retainer	1
3	EL3568	Bushing, Upper	1
7	EJ8750	Bushing, Lower	1
1	MM0735	Capscrew, M20 X 2.50 X 220	1
2	EH0875	Pin	1
11	PC1680	Bearing, Spherical	1
6	EF7599	Washer	1
8	EB4430	Retainer	1
9	MM0697	Locknut, M20 X 2.50	1

TABLE 2. 830E STEERING PIN BUSHING KIT (AK5108)		
Part Number	Description	Quantity
EL3562	Drawing, Steering Pin Upgrade	1
EK3377	Seal, Spherical Bearing	2
EK3376	Spacer	2
EK3383	Pad, Anti-Rotation	2
EL3563	Bushing, Upper	1
EJ9013	Bushing, Lower	1
KC7131	Capscrew, 1" - 8NC X 9 1/2"	1
EF7971	Pin	1
PC1680	Bearing, Spherical	1
EF7970	Washer	1
EG1853	Retainer	1
VN9755	Locknut, 1" - 8NC	1

TABLE 3. 930E STEERING PIN BUSHING KIT (AK5097)		
Part Number	Description	Quantity
EL3556	Drawing, Steering Pin Upgrade	1
EK2849	Seal, Spherical Bearing	2
EJ8367	Spacer	2
PB8945	Bushing, Ball	1
EL3558	Bushing, Upper	1
EL3557	Bushing, Lower	1
WB0926	Capscrew, 1" - 8NC x 10 1/2"	1
EG1106	Pin	1
EK1030	Retainer, Anti-Rotation	1
EF3387	Washer	1
TY2239	Retainer	1
VH8186	Locknut, 1" - 8NC	1

TABLE 4. 930E-2/SE / 930E-3/SE STEERING PIN BUSHING KIT (AK5098)		
Part Number	Description	Quantity
EL3559	Drawing, Steering Pin Upgrade	1
EK2849	Seal, Spherical Bearing	2
EJ8353	Spacer	2
PC1686	Bearing, Spherical	1
EL3561	Bushing, Upper	1
EL3560	Bushing, Lower	1
WB1145	Capscrew, 1" - 8NC x 10 1/2"	1
EH4367	Pin	1
EK1030	Retainer, Anti-Rotation	1
EF4369	Washer	1
TY2239	Retainer	1
VH8186	Locknut, 1" - 8NC	1