

Safety Bulletin

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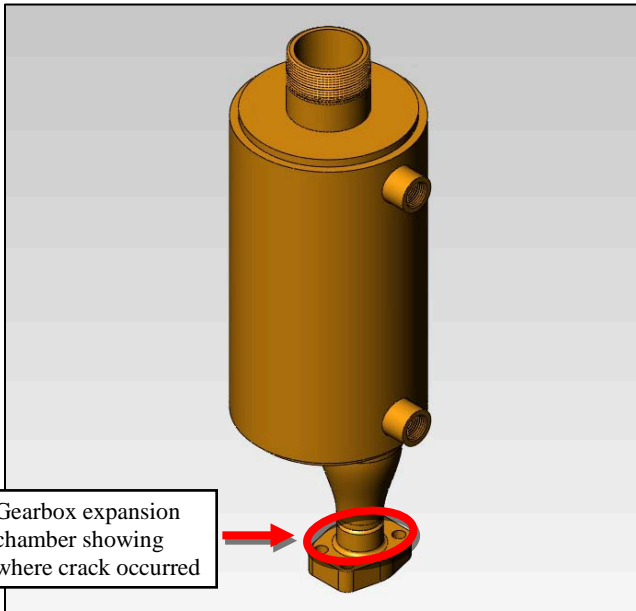
Description: Support Plate for HXI Gearbox Expansion Chamber and Counterbalance Accumulator Mount



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BACKGROUND INFORMATION:

An incident occurred in which an HXI gearbox expansion chamber cracked and fell from the top drive during operation. In a separate incident, an HXI counterbalance accumulator mount also cracked and fell from the top drive. It was found that the cracks occurred at the butt flange of the expansion chamber (Figure 1) and mounting plates of the counterbalance accumulator (Figure 2), resulting in these dropped object incidents.



Gearbox expansion chamber showing where crack occurred

Figure 1: Gearbox expansion chamber



Mounting plates on the accumulator mount where the cracks occurred

Figure 2: Counterbalance accumulator mount

AFFECTED PRODUCT:

All TESCO HXI top drives up to and including unit 973 are affected.

TESCO PART NUMBER	DESCRIPTION
1100040	Mount,Accumulator,Driller's Side,Assembly,250-HXI-700
1100042	Mount,Accumulator,Off-Driller's Side,Assembly,250-HXI-700
1100126	Lug,Swivel Link,Counterbalance,250-HXI-700
1100020	Kit,Swivel Yoke & Counterbalance,250-HXI-700
1270258	Kit,Swivel Yoke & Counterbalance,250-HXI-700,CE/ATEX
721315	Kit,Swivel Yoke & Counterbalance,150-HXI-700

ACTION REQUIRED:

TESCO has developed reinforcement kits for the expansion chamber and expansion chamber gooseneck, which features a reinforcement clamp (Figure 3) that secures the expansion chamber onto the bonnet. The accumulator mount assembly (Figure 4) features a re-designed counterbalance clamp with mounting plates that are now twice as thick, and a swivel link lug that is modified to accommodate the new mounting plate thickness.

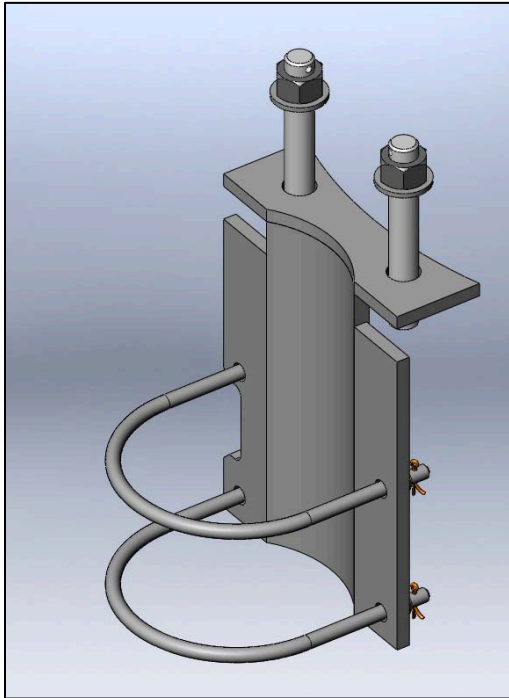


Figure 3: Expansion chamber reinforcement clamp

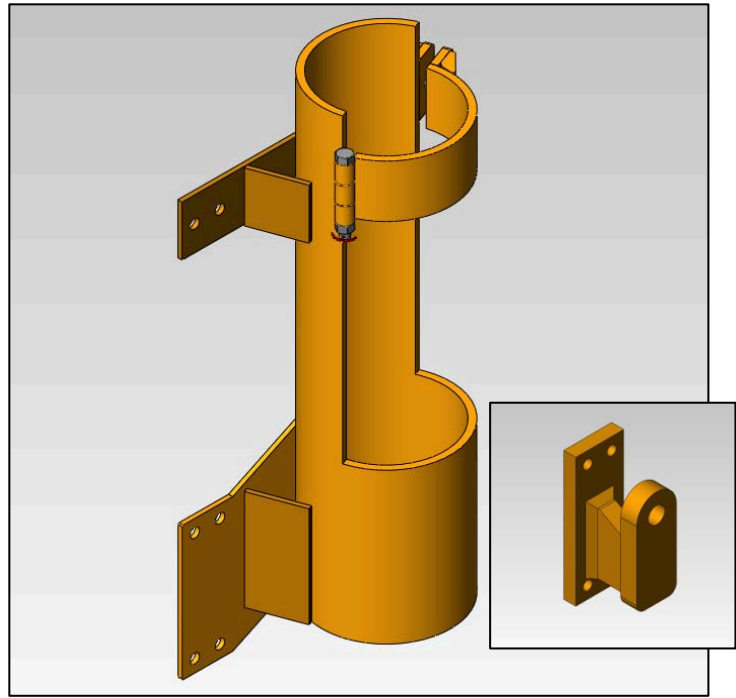


Figure 4: Counterbalance accumulator mount assembly with swivel link lug

On HXI top drives in which the gooseneck is turned towards off-driller’s side (or in the case of reverse-installed top drives that utilize a torque restraint rather than a torque track system, if the gooseneck is turned towards driller’s side), order and install the Expansion Chamber Reinforcement Kit (TESCO part number 5006719).

On HXI top drives in which the gooseneck is turned towards driller’s side (or in the case of reverse-installed top drives that utilize a torque restraint rather than a torque track system, if the gooseneck is turned towards off-driller’s side), order and install the Expansion Chamber Gooseneck Reinforcement Kit (TESCO part number 5006720).

Furthermore, order and install the Driller’s Side Accumulator Mount Assembly (TESCO part number 1100040-1) and the Off-Driller’s Side Accumulator Mount Assembly (TESCO part number 1100042-1). For each accumulator mount, order and install one of the new Counterbalance Swivel Link Lugs (TESCO part number 1100126-1). Two Counterbalance Swivel Link Lugs will be required per top drive.

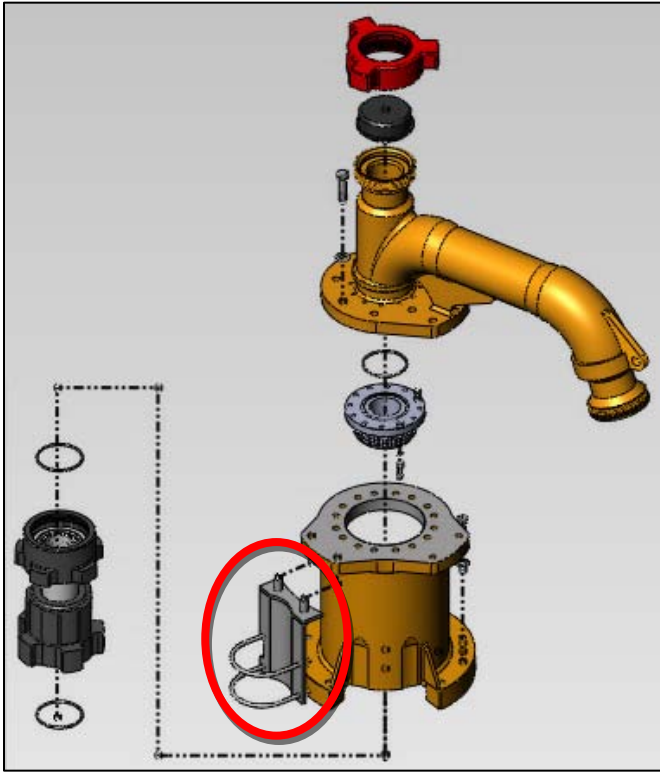


Figure 5: Gearbox expansion chamber gooseneck with reinforcement clamp

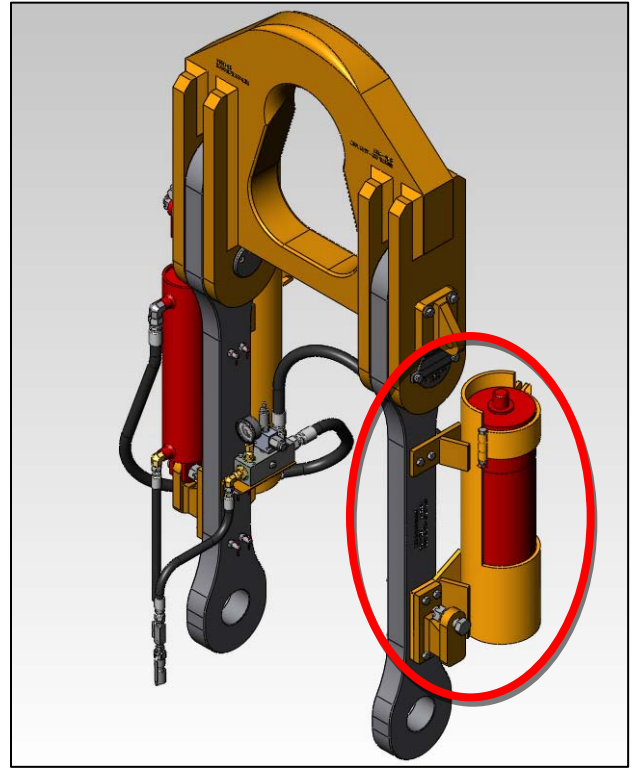


Figure 6: Swivel counterbalance assembly with accumulator mount assembly and swivel link lug

TESCO Business Units should advise customers operating HXI top drives to remove and scrap the old Driller's Side Accumulator Mount Assembly (TESCO part number 1100040), Off-Driller's Side Accumulator Mount Assembly (TESCO part number 1100043), and Counterbalance Swivel Link Lugs (TESCO part number 1100126).

Version	Date (D/M/Y)	ECN	Description of Bulletin Changes
Rev 0	31/05/2011	182-0019	Initial release of document