

Hammer Maintenance Chart

ITEM	FREQUENCY	ACTION
IMPACT BLOCK	20 MIN. **	LUBRICATE WITH FLEX LUBE, 10 SHOTS PER FITTING
FUEL & OIL PUMP	20 MIN. **	OIL WITH TK680 3 TO 4 SHOTS PER FITTING
HAMMER GIBS	BEFORE DRIVING OR AS NEEDED	LUBRICATE WITH EP2 GREASE AS NEEDED
TRIP GIBS	BEFORE DRIVING OR AS NEEDED	LUBRICATE WITH EP2 GREASE AS NEEDED
WASTE TANK	DAILY OR AS NEEDED	DRAIN AND DISPOSE OF IN ACCORDANCE TO LAWS
REMOTE THROTTLE	WEEKLY OR AS NEEDED	FILL WITH DEXTRON II/III OR EQUAL
GREASE FITTINGS	MONTHLY	REMOVE AND INSPECT—CLEAN CAVITIES IN HAMMER AND FITTINGS AND/OR REPLACE
TRIP LINKAGE	MONTHLY OR AS NEEDED	LUBRICATE WITH EP2 GREASE AS NEEDED
IN-LINE FUEL FILTERS	MONTHLY OR AS NEEDED	REMOVE AND REPLACE
FUEL CARTRIDGE FILTER	MONTHLY OR AS NEEDED	REMOVE AND REPLACE
COMPRESSION RINGS	SEMI - ANNUALLY OR AS NEEDED	REMOVE AND REPLACE
CUSHION RINGS	SEMI - ANNUALLY OR AS NEEDED	REMOVE AND REPLACE
NOTE: ** DENOTES "RUNNING TIME" FOR FURTHER SERVICE INFORMATION REFER TO THE HAMMER MANUAL		



Hammer Pocket Manual

Web Version 1.0

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Torque Specifications—Socket Head Cap Screw

Imperial Coarse Thread

SHCS Holo Krome 1960 Series A574	With Nord Lock Washer	Loctite Only
	(ft lbs) w/ oiled threads	(ft lbs) with loctite
1/4"	12	16
5/16"	23	34
3/8"	39	61
7/16"	60	99
1/2"	93 *	150 *
9/16"	141 *	225 *
5/8"	184	283
3/4"	321	500
7/8"	514	687
1"	776	1041
1 1/4"	1530	2083
1 1/2"	2640	3791

Metric Coarse Thread

SHCS Holo Krome 1960 Series Grade 12.9	With Nord Lock Washer	Loctite Only
	(ft lbs) w/ oiled threads	(ft lbs) with loctite
M8	23	31
M10	47	62
M12	80	107
M14	128 *	173 *
M16	193	269
M18	272	368
M20	379	523
M22	515	708
M24	654	899
M27	949	1327
M30	1298	1807
M33	1742	2456
M36	2251	3156
M39	2894	4075

* If torquing injector clamp bolts, use 40 ft. lbs. Alternate the tightening of these bolts using uniform torque so that the clamp pulls 'straight' on the injector body and does not introduce a 'bending' load – this can cause poor injector performance and excessive injector 'drip', and the possibility of injector or bolt failure.

Maintenance

Fuel, Oils & Lubes

Fuel – Diesel*

Use a good grade of filtered #2 diesel fuel.

DO NOT USE STARTING FLUIDS

Lube Oil –Piston and Cylinder

Use any good multi-grade detergent oil (15W40). Use (5W30) oil for temperatures below –20° F. Before driving squeeze the oil primer bulb several times to prime the oil pump

NOTE: Observe the hammer piston for several minutes as it rises out of the upper cylinder - if the piston is shiny the oiling system is working

properly. If the piston is not shiny, check the oil tank. Ensure that the tank vents & valves are open. Check to see Oil pump indicator is visibly triggering on each stroke. Squeeze the primer bulb three times and test again. See “Troubleshooting” in the hammer manual for more information.

Re-fueling and Re-oiling

Ensure that the tank vents are open. Keep all tanks full of fluid to prevent condensation from forming. If hammer is not equipped with ground re-fueling, remove the fuel and/or oil tank plug and fill the tank with the aid of a funnel.

If ground re-fueling is present, wipe the quick disconnects clean and using the quick-connect fittings supplied in the toolbox attach the ground fueling and oiling lines. It is best to attach these lines before the hammer is operated and becomes hot. Pump fuel and/or oil into the fitting marked “DIESEL” or “OIL” located at the bottom of the hammer.

* **NOTE:** Biodegradable alternatives are available from Berminghammer.

Lube Oil –Fuel and Oil Pump

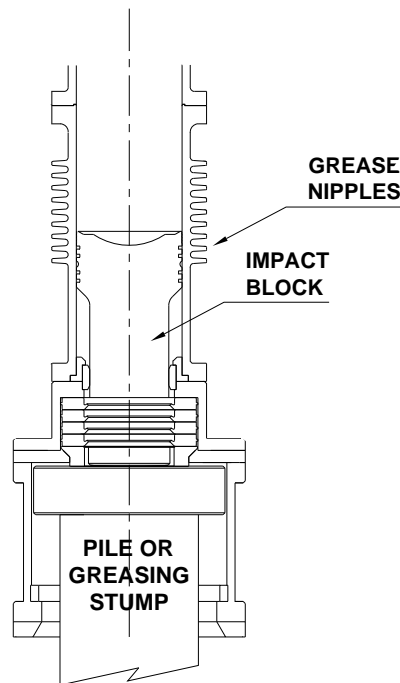
The pumps should be oiled through the lubrication fittings, using ESSO Cyclesstic TK680, as per maintenance chart.

**USE OIL!
DO NOT USE GREASE TO
LUBRICATE PUMPS**

Greasing

Only high temperature clay based greases can be used. Zep Flex Lube grease is approved for this application. Apply the grease through the grease fittings located

The hammer must be sitting on a pile or drive adapter to ensure the grease fittings are aligned to the correct greasing position. See pictorial.



on the lower cylinder. In the service chart it is referred to as greasing the “Impact Block”.

Hammer Throttle Control

- We strongly recommend two dry drops (no throttle) for first of the day starts, as well as “re-strikes”. For cold starts and heavy pile batters, the piston should be lifted slowly with a slight pause above the exhaust port to allow impact block to settle on the pile.
- Fuel and oil tank vents and shut off valves must be open.
- Hammer should start between 200-350 PSI on the hydraulic hand pump. Lower pressures should be tried first. Higher pressures may be required in softer driving.
- Maximum stroke should occur between 550-600 psi. The maximum rated stroke may not be obtainable in all driving conditions.
- Use caution on pile “restricks” – higher strokes may occur at lower throttle pressures. Attempt to start hammer at a lower setting.
- Release pressure on hand pump to shut off hammer. See “Troubleshooting” in the hammer manual for more information.

Emergency Hammer Stop

In case the remote throttle control fails to stop hammer, lifting the hammer body approx 6 inches can stop the hammer.

Service Check List

- Check to see that all bolts, especially gibs bolts and guide ring bolts, are tight.
- Grease the hammer as per service chart.
- Maintain Oil & Fuel levels in tanks.
- Drain waste tank as needed and dispose of in accordance to laws.
- Observe the condition of the hammer cushion rings when the hammer is not on a pile or lying horizontally, and replace when the rings appear loose.
- Observe the condition of the cushion materials (for drive cap helmet only) and replace when worn.
- Install weather and exhaust caps nightly and between piles during heavy rain.