

Haarup 3000 mixer service call requirements

Parts to order from Columbia part department to have on sight for Haarup Mixer service performed by Columbia Machine, along with service tool box and items listed below.

Required parts:

<u>Quantity</u>	<u>Description</u>	<u>Part No.</u>
1	Coupling Element	4601-10173
2	Breather filter- Element only	4601-10025
12	45mm Long 12mm bolts	100019.12.45
2	Drain plug	4601-17421
3	Safety Fuse	4601-17364
12	12mm Washers	100239.12
3 sets	Spider Seals for 3000 Mixer	4601-17405

Customer Supplies:

Two (2) cases	of brake clean, this is used to wipe out the gear box inside.
Large bag	of cloth rags.
Five (5) Gallons	of AW 46 oil
Three (3) (55) Gallons	of 220 gear oil for 2250 with anti foaming agent.
Two (2)	Come-a-longs. Grainger # 4ZY93
Two (2)	Trolleys. Grainger # 4Z464
One (1) Oil pump	for pumping heavy oils like a Diaphragm pump with ¾ to 1 inch ports is best. (¾" Size -Grainger # 2UV61 or 1" size – Grainger #2P598)
½ inch	Torque Wrench for smaller bolts.
¾ inch	Torque Wrench for large bolts on ring gear.
Three (3) Tubes	of RTV gasket type silicone used as oil seal.
Metric Tool Set	sockets, wrenches, hand tools, etc..
One (1)	Allen wrench to remove drain plugs.
One (1)	30X3.5 MM coarse thread Lifting eye bolt, Grainger # 1ZU62
Three (3)	Rare Earth magnets, Grainger # 6YA47

Customer responsibilities:

Things to do before service representative is on sight, (to speed up service work and safety).

- Install I-beam over mixer motor, used for lifting motor and torque convertor.
- Clean around the five bearing plates on underside of gear box and blot heads. It's best to use a needle gun for this so bolt heads and plate don't get damaged, bolts will get replaced if bearing is adjusted.
- **Spider seal replacement:** match mark arm locations, remove arms with shovels as one peice from the spiders, clean bolts, threaded holes and clamp plates ready for re-install.
- Removing the arms and shovels and cleaning around underside bearing plates before we arrive will save time and money.
- **This service does not include cleaning the mixer, installing new liners (side or bottom) these can be done at extra cost along with other general**

Thank you for your help on the above items and we look forward to working with your team.