

### PARTS INCLUDED

A complete built up hub assembly is included along with the following parts



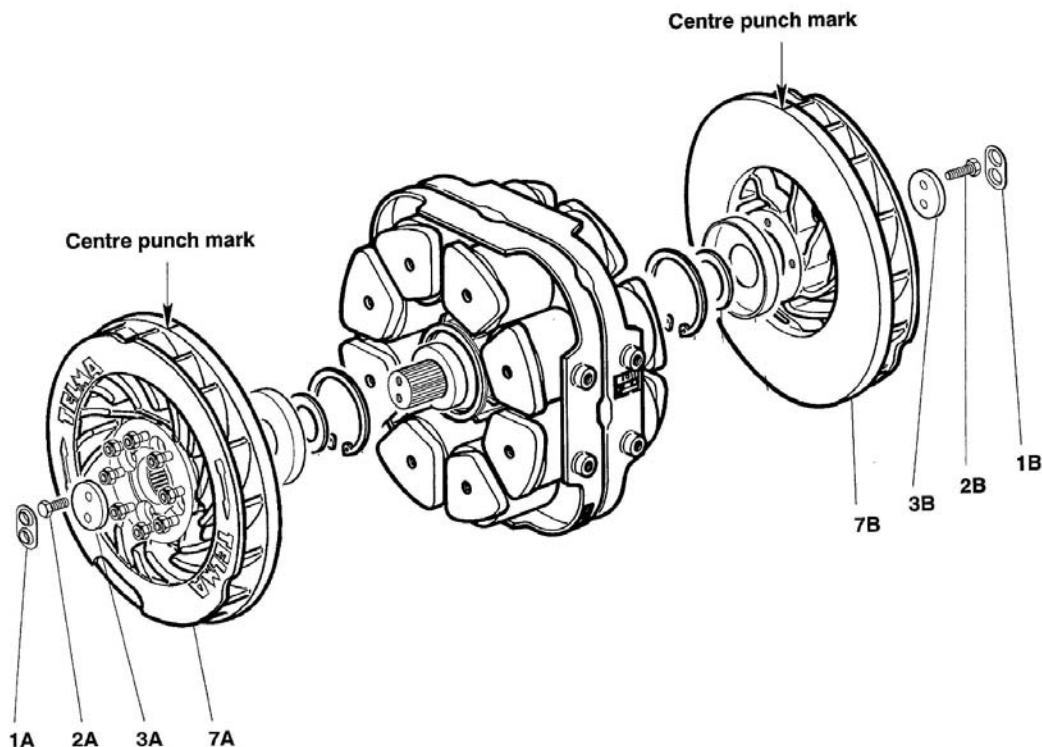
1. Sealed pre-greased fully assembled hub
2. Set of air gap adjusting shims
3. End shaft plate
4. Hub mounting nuts
5. Threaded bushing for vent tube
6. Vent tube
7. Dust covers
8. Hub mounting bolts (not included in all kits)
9. Hub mounting washers
10. End shaft bolts
11. End shaft bolt lock tabs

Below are the replacement hub assembly part numbers for each model.

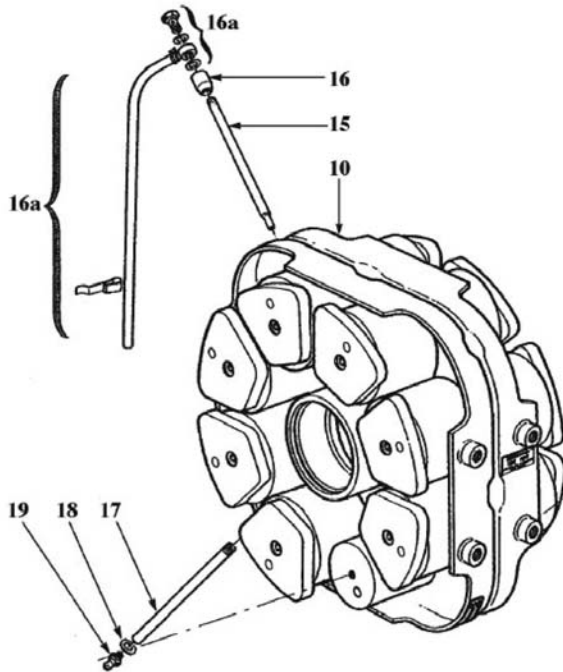
MODEL	HUB ASSEMBLY PART N°
AC50-55	VB107963
AC50-65	VB107956
AC50-80	
AC51-00	
AC61-25	
AC61-35	VB107962
AC61-60	
AC72-00	
AC81-80	VB107957
AC82-45	
AC82-70	
AC83-00	
AC83-31	

## **REPLACEMENT PROCEDURE**

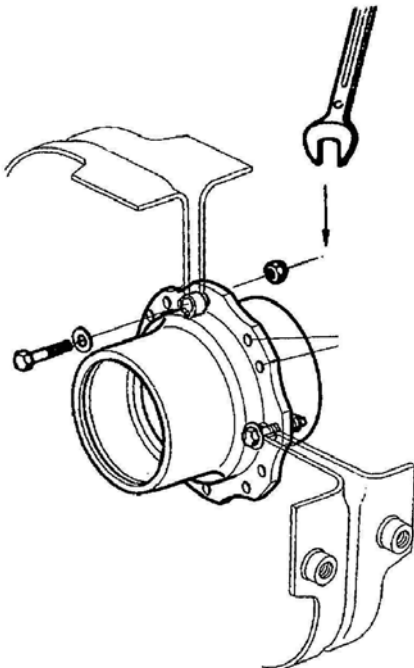
1. Remove drive shaft flange yoke from each side of the retarder.
2. Remove the lock tab (1), two end shaft bolts (2), and plate (3) at each rotor/flange assembly (7).
3. Mark the two rotor/flange assemblies so that they can be reinstalled in the same position relative to each other.
4. Slide each rotor/flange assembly off the shaft and put aside.



5. Remove the vent tube extension (16a), vent tube (15) and grease tube (17) if equipped. The new hub assembly does not use a grease tube.

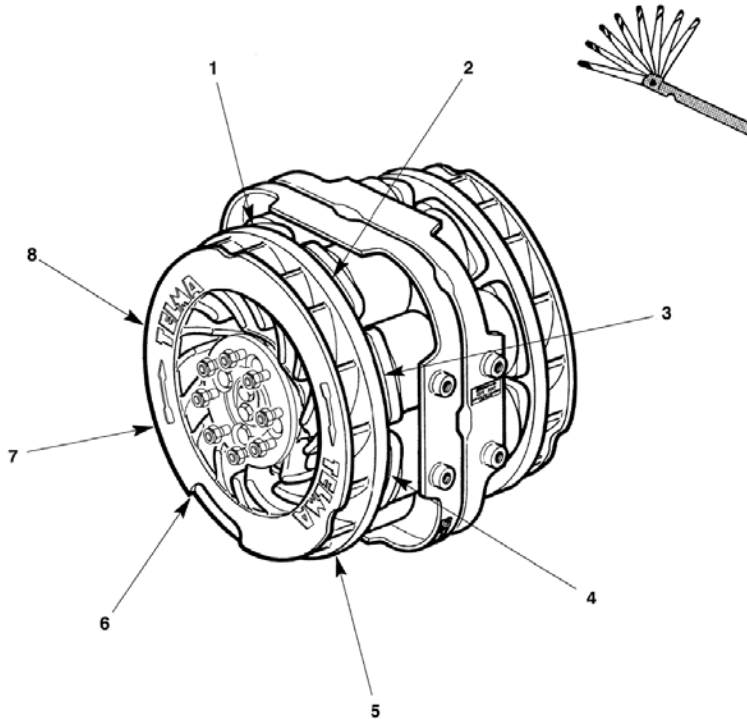


6. Remove the nuts and/or bolts attaching the hub to the stator frame. Depending on model and year the hub may be attached with varying numbers of M8x1.25, M10x1.00, and M12x1.5 bolts and nuts. In addition, the existing fastener combination may need to be changed to the new replacement hub configuration. This may require the removal of some of the welded in place bolts with new ones.
7. Remove the hub assembly from the stator.



Follow steps 1 through 7 in reverse order to install new hub assembly.

Adjust air gap at each rotor as necessary after reassembly using the new set of air gap shims. Install the black shim first, against the bearing.



AIR GAP SETTINGS		
MODEL	INCHES	MM
AC50-55	0.025-0.031	0.65-0.80
AC50-65	0.053-0.059	1.35-1.50
AC50-80	0.025-0.031	0.65-0.80
AC51-00	0.025-0.031	0.65-0.80
AC61-25	0.033-0.039	0.85-1.00
AC61-35	0.069-0.075	1.75-1.90
AC61-60	0.041-0.047	1.05-1.20
AC72-00	0.041-0.047	1.05-1.20
AC81-80	0.041-0.047	1.05-1.20
AC82-45	0.041-0.047	1.05-1.20
AC82-50	0.041-0.047	1.05-1.20
AC82-70	0.041-0.047	1.05-1.20
AC83-00	0.053-0.059	1.35-1.50
AC83-31	0.053-0.059	1.35-1.50

Below are the fastener tightening torque specifications.

Use medium strength Loctite on all fasteners and paint mark after tightening.

FLANGE YOKE FASTENER NUTS					
flange index	bolt size	lb-ft		Nm	
		min	max	min	max
158/152	3/8-24UNF	40	48	54	65
154/157	7/16-20UNF	63	75	85	102
155	1/2-20UNF	97	116	132	157

HUB FASTENER TIGHTENING TORQUES		
BOLT SIZE	LB-FT	Nm
M8X1.25	22	30
M10X1.00	44	60
M12X1.5	66	90

END SHAFT BOLT TIGHTENING TORQUES (ITEM 2)			
MODEL	BOLT PART N°	LB-FT	Nm
AC5-6	VF100380	22	30
AC7-8	VF100500	44	60