## METHOD OF CHANGING MACHINE SPEEDS ON BLUE STREAK COMET

SALES—SERVICE March, 1954 MERGENTHALER LINOTYPE CO.

BROOKLYN 5, N. Y. Service Instruction No. 9-2

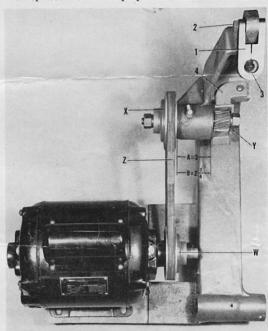
## CHANGING SPEEDS ON COMET MACHINE

To change speeds on the Comet machines to obtain the desired cam shaft revolutions per minute, first check accompanying tables to see what parts (pinion fibre gear, V-belt, countershaft pulley) are to be changed. The motor pulley is never removed for change of speeds. If it is necessary to remove pinion gear the following procedure is recommended:

- 1. Remove screw holding bracket extension 1 to machine base. Then loosen bracket extension pivot screw 2, lift bracket extension 1 to a vertical position and retighten screw 2.
- 2. Loosen lock nut on adjustment screw 3 (this screw moves pinion up and down for proper meshing with driving gear) and back off adjustment screw a few turns.
  - 3. Remove entire motor bracket from machine.
- 4. Remove pinion gear guard 4 by removing one screw holding guard in place.
- 5. Remove nut and washer holding pinion Y and remove pinion.
- 6. If new pinion Y does not slide on shaft easily, after aligning key with keyway, it will be necessary to use a hammer to force it on. Do not hammer on the pinion itself. The pinion is made of fibre and is easily damaged. Place an old pinion in front of new one and tap old pinion until new pinion is forced in place.
  - 7. Replace motor bracket.
- 8. Loosen bracket extension pivot screw 2 and line up extension hole with hole in base.
- Replace bracket extension screw but only tighten "finger tight."
- 10. With lock nut loose, turn adjustment screw 3 until pinion meshes properly with driving gear. (To test for proper meshing place piece of ordinary writing paper between the two gears. Tighten adjustment screw until paper will just bind, this will be a few thousandths clearance necessary for proper meshing).
  - 11. Tighten lock nut on the adjustment screw 3.
  - 12. Tighten bracket extension screw.
  - 13. Tighten extension pivot screw 2.

## To Remove Pulley and V-Belt

- 1. Remove V-belt  $\vec{Z}$  between motor pulley W and countershaft pulley X.
- 2. Remove nut and washers holding pulley X to shaft and remove pulley X.
- 3. Replace pulley X with proper one chosen from tables and replace washers and nut.
  - 4. Replace V-belt Z with proper one as indicated in tables.



For 1725 R.P.M. Motors (110 or 220 volts, 60 cycles, or D.C. Motors)

	Countershaft V-Pulley (X)					Motor Pulley (W)				
Lines	Part No. when hub dimension is: Outside					No. of	Part No. when hub		Outside	
Minute	V-Belt (Z)	A=3"	B = 21/4"	Dia.	Pinion (Y)	Teeth	A = 3"	B = 21/4 "	Dia.	
6½	C-2040	C-2038	C-2104	7 19	C-1235	20	C-2032	C-2103	351	
62/3	C-2040	C-2038	C-2104	719	C-1209	21	C-2032	C-2103	351	
7	C-2040	C-2038	C-2104	719	C-1189	22	C-2032	C-2103	351	
71/3	C-2040	C-2038	C-2104	712	C-1986	23	C-2032	C-2103	351	
72/3	C-2040	C-2038	C-2104	712	C-1304	24	C-2032	C-2103	351	
8	C-2040	C-2038	C-2104	712	C-2064	25	C-2032	C-2103	351	
9	C-2066	C-2065	C-2105	461	C-1234	19	C-2032	C-2103	351	
10	C-2066	C-2065	C-2105	481	C-1209	21	C-2032	C-2103	351	
11	C-2066	C-2065	C-2105	461	C-1986	23	C-2032	C-2103	351	
12	C-2066	C-2065	C-2105	461	C-2064	25	C-2032	C-2103	351	

For 1425 R.P.M. Motors (110 or 220 volts, 50 or 25 cycles)

			Motor Pulley (W) Part No. when hub						
Lines per Minute	V-Belt (Z)	Part No. when hub dimension is: $A = 3''  B = 2\frac{1}{4}''$		Outside Dia.	Pinion (Y)	No. of Teeth	dimension is: A=3" B=21/4"		Outside
61/3	C-2040	C-2038	C-2104	7 64	C-2064	25	C-2032	C-2103	$3\frac{51}{64}$
6%	C-2040	C-2038	C-2104	7 19	C-1264	26	C-2032	C-2103	351
71/3	C-2066	C-2065	C-2105	461	C-1234	19	C-2032	C-2103	351
72/3	C-2066	C-2065	C-2105	461	C-1235	20	C-2032	C-2103	351
8	C-2066	C-2065	C-2105	481	C-1209	21	C-2032	C-2103	354
9	C-2066	C-2065	C-2105	461	C-1304	24	C-2032	C-2103	354
10	C-2039	C-2032	C-2103	3 1 1	C-1235	20	C-2032	C-2103	351
11	C-2039	C-2032	C-2103	311	C-1189	22	C-2032	C-2103	351
12	C-2039	C-2032	C-2103	351	C-1304	24	C-2032	C-2103	3 1 4