

These are the change gears for a South Bend lathe, 9" Junior model, serial # **38068**, shipped from the factory on **3-6-1928** to J. E. Biggs/Beggs [?], a dealer [?] in NYC.

This info is from the brass gear chart attached to the change gear cover.

TPI	[driving] Stud [gear]	Feedscrew [gear]
4	64	32
5	64	40
6	64	48
7	64	56
8	32	32
9	64	72
10	32	40
11	32	44
11-1/2	32	46
12	32	48
13	32	52
14	32	56
16	32	64
18	32	72
20	32	80
22	16	44
24	16	48
26	16	52
28	16	56
32	16	64
36	16	72
40	16	80

From this chart, the following gears are needed:

16T	52T
32T [2]	56T
40T	64T
44T	72T
46T	80T
48T	

I presume one of the above gears is used as the idler?
All of the above gears are 16 DP.

My 9" Junior came with:

16T - 5/8" id 3/16" keyway - 1/2" width - 1.125" od - 16 DP

18/81T compound - 9-36J - 3/4" id w/o keyway - 1/2" width - 1.250"/5.1875" od - 16 DP

92T - 9-42J - 5/8" id 3/16" keyway - 1/2" width - 5.875" od - 16 DP

The spindle gear is:

26T - ????" id - 9/16" width - 1.750" od - 16 DP

The tumbler reverse gears are:

22T - o.625" id - 9/16" width - 1.500" od - 16 DP

The Driven Stud gear [this compounds with the driving Stud Gear on the brass chart]

26T - ????" id - 9/16" width - 1.750" od - 16 DP

--Bob Colquitt

08/17/2003

[only 75+ years later...]