

# PICK-OFF GEAR CHART

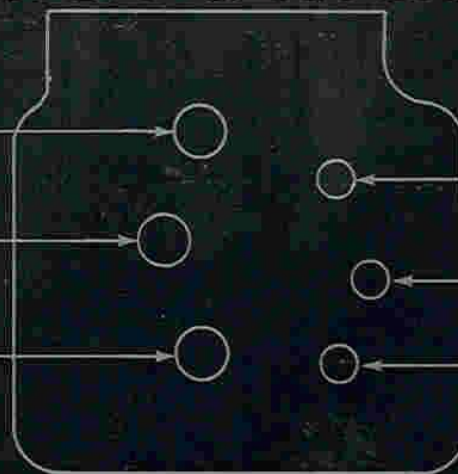
**SPEED SHAFTS**

**FEED SHAFTS**

SHAFT C

SHAFT B

SHAFT A



SHAFT F

SHAFT E

SHAFT D

**INSTALL ALL GEARS WITH HUB DOWN**

## SPINDLE SPEEDS

## SPINDLE FEEDS

LO-SPEED	PICK-OFF GEARS		HI-SPEED	FEEDS	PICK-OFF GEARS		LEADS	
With Gear No. 33355 On SHAFT C and Gear No. 33354 On SHAFT B (Lower Gear)	INSTALL PROPER PICK-OFF GEAR AS GIVEN BELOW OPPOSITE THE DESIRED SPEED		With Gear No. 33356 On SHAFT C and Gear No. 33357 On SHAFT B (Lower Gear)	With Gear No. 33353 On SHAFT D and Gear No. 33352 On SHAFT E (Lower Gear)	INSTALL PROPER PICK-OFF GEAR AS GIVEN BELOW OPPOSITE THE DESIRED FEED OR LEAD		With Gear No. 33352 On SHAFT D and Gear No. 33353 On SHAFT E (Lower Gear)	
	SPINDLE R.P.M.	SHAFT A SPINDLE			SHAFT B UPPER GEAR	SPINDLE R.P.M.	THOUSANDTHS PER REV	SHAFT E UPPER GEAR
51	33413	33412	154	.0029	33710	33711		.0204
61	33415	33414	184	.0039	33380	33379	36	.0278
72	33417	33416	216	.0043	33353	33352	32	.0313
82	33419	33418	252	.0048	33384	33383		.0347
98	33421	33420	295	.005	33406	33407	28	.0357
112	33423	33422	338	.0052	33408	33409	27	.037
129	33425	33424	388	.0059	33386	33385	24	.0417
144	33427	33426	444	.0068	33388	33387		.0485
161	33426	33427	484	.0070	33404	33405	20	.050
184	33424	33425	554	.0078	33390	33389	18	.055
212	33422	33423	634	.0087	33392	33391	16	.0625
243	33420	33421	729	.0098	33395	33394		.069
284	33418	33419	852	.0100	33403	33402	14	.0714
231	33416	33417	993	.0107	33397	33396		.076
389	33414	33415	1168	.0108	33401	33400	13	.0769
464	33412	33413	1392	.0112	33399	33398		.0798
<b>CLEEREMAN SERIES - A PRODUCTION DRILLING MACHINE</b>				.0117	33378	33378	12	.0833
				.0122	33398	33399	11½	.0868
				.0126	33400	33401		.090
				.0127	33396	33397	11	.0909
				.0137	33402	33403		.0973
				.0140	33394	33395	10	.100
				.0156	33391	33392	9	.111
				.0177	33389	33390	8	.125
				.0195	33405	33404		.1385
				.0201	33387	33388	7	.1429
				.0234	33385	33386	6	.1667
				.0263	33409	33408		.1875
				.0273	33407	33406		.194
				.0280	33383	33384	5	.200
				.0310	33352	33353	4½	.222
.0350	33379	33380	4	.250				