

Dept. D4, OP50

TOOL MATRIX
2014 DANA REARS, TUBE ASSY
Lathe - Drilling, Asset # 10120,10121,10122,10123,10426,10428

Rev. level I
 Rev date: 3/24/20

Pos #	P SP D	Tool Description	Supplier	USM / Vendor #	QTY. REQ'D	EDGES	REGRIND	Tool Life Machine Cycles	Pcs/ Tool	Tool Cost	Reg rind Cost	Cost / Piece "P"	Cost / Piece "SP"	Cost / Piece "D"	Annual Tool Usage	Annual Tool Cost	MI N	MAX
		Keyway Cutter - 25.4 dia.																
T2	D	Driven Gear Hobber Assy.	MD Tooling	OKU0502100	1	1		600,000	600,000	\$8,100.00		\$ -	\$ -	\$ 0.01	1	\$ 4,725.00	1	2
	SP	Driven Arbor	MD Tooling	SPC 1421001	1	1		135,000	135,000	\$575.00		\$ -	\$ 0.00	\$ -	3	\$ 1,490.74	1	2
	SP	Fitting Spacer			1	1		135,000	135,000			\$ -	\$ -	\$ -	3	\$ -	1	2
	SP	Outboard Bushing	MD Tooling	SPC 1421003	1	1		135,000	135,000			\$ -	\$ -	\$ -	3	\$ -	1	2
	SP	Washer 8.4 x 16 x 1.6	MD Tooling	UNI 6592	1	1		135,000	135,000			\$ -	\$ -	\$ -	3	\$ -	1	2
	SP	Nut M8 x 1	Metric Unlimted	M8x1 nyloc	1	1		135,000	135,000			\$ -	\$ -	\$ -	3	\$ -	1	2
	P	Keyway Cutter - 5.13 x 25.4 dia.	Tool Craft	TD-14917	1	1	6	500	3,500	\$ 385.00	\$ 75.00	\$ 0.24	\$ -	\$ -	100	\$ 83,500.00	8	13
	P	Keyway Cutter - 8.00 x 25.4 dia.	Tool Craft	TD-14915	1	1	6	500	3,500	\$ 385.00	\$ 75.00	\$ 0.24	\$ -	\$ -	100	\$ 83,500.00	8	13
	P	Drive Key (Long)	CCT	SPC 1421004	1			100,000	0	\$ 43.00							5	10
	P	Drive Key (Short)	CCT	SPC 1421005	1			100,000	0	\$ 43.00							5	10
		Deburr Flange Holes (4)																
T4	D	Axial ER40 Hldr. 2:1 Reduction	MD Tooling	OKU0480140	1	1		600,000	600,000	\$4,125.00		\$ -	\$ -	\$ 0.01	1	\$ 2,406.25	1	2
	SP	ER40 Collet	Techniks	04240-1	1	1		60,000	60,000	\$ 22.50		\$ -	\$ 0.00	\$ -	6	\$ 131.25	1	2
	SP	ER40 Collet Nut	MD Tooling	GHSTER40	1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	SP	Altered ER32 Extension	WTR	TD-15033-01	1	1		120,000	120,000	\$ 140.00		\$ -	\$ 0.00	\$ -	3	\$ 408.33	1	2
	SP	ER32 Collet	Techniks	04232-21/32	1	1		60,000	60,000	\$ 20.25		\$ -	\$ 0.00	\$ -	6	\$ 118.13	1	2
	SP	ER32 Collet Nut	Techniks	41932	1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	SP	Coolant thru adjustment screw	Techniks	16089C-20	1	1		120,000	120,000	\$ 0.42		\$ -	\$ 0.00	\$ -	3	\$ 1.23	1	2
	SP	16.5 dia. Deburring Tool	Cogsdill	MYB-16.5	1	1		50,000	50,000	\$ 75.13		\$ -	\$ 0.00	\$ -	7	\$ 525.91	1	2
	P	Deburring Blade	Cogsdill	TB DAP-4	1	1		1,000	1,000	\$ 10.19		\$ 0.010	\$ -	\$ -	350	\$ 3,566.50	29	44
		Deburr Flange Holes (4)																
T4	D	Axial ER40 Hldr. 2:1 Reduction	MD Tooling	OKU0480140	1	1		600,000	600,000	\$4,125.00		\$ -	\$ -	\$ 0.01	1	\$ 2,406.25	1	2
Short	SP	ER40 Collet	Techniks	04240-17	1	1		60,000	60,000	\$ 22.50		\$ -	\$ 0.00	\$ -	6	\$ 131.25	1	2
	SP	ER40 Collet Nut	MD Tooling	GHSTER40	1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	SP	16.5 dia. Deburring Tool	Cogsdill	MYB-16.5	1	1		50,000	50,000	\$ 75.13		\$ -	\$ 0.00	\$ -	7	\$ 525.91	1	2
	P	Deburring Blade	Cogsdill	TB DAP-4	1	1		1,000	1,000	\$ 10.19		\$ 0.010	\$ -	\$ -	350	\$ 3,566.50	29	44
		Drill Flange Holes (4)																
T5	D	Axial ER40 Hldr. 2:1 Rdtn. Int Coolant	MD Tooling	OKU0480240	1	1		600,000	600,000	\$4,650.00		\$ -	\$ -	\$ 0.01	1	\$ 2,712.50	1	2
	SP	ER40 Coolant Collet	Techniks	04547-1	1	1		60,000	60,000	\$ 41.25		\$ -	\$ 0.00	\$ -	6	\$ 240.63	1	2
	SP	ER40 Collet Nut	MD Tooling	GHSTER40	1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	SP	Altered ER32 Extension	WTR	TD-15033-01	1	1		120,000	120,000	\$140.00		\$ -	\$ 0.00	\$ -	3	\$ 408.33	1	2
	SP	ER32 Coolant Collet	Techniks	04546-3/4	1	1		60,000	60,000	\$ 37.50		\$ -	\$ 0.00	\$ -	6	\$ 218.75	1	2
	SP	ER32 Coolant Collet Nut	Techniks	41632	1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	SP	Coolant thru adjustment screw	Techniks	16089C-20	1	1		120,000	120,000	\$ 0.42		\$ -	\$ 0.00	\$ -	3	\$ 1.23	1	2
	P	Special Step Drill 19.05/16.63	Gurhing	TD-14912	1	1	4	500	2,500	\$ 339.00	\$ 50.00	\$ 0.22	\$ -	\$ -	140	\$ 75,460.00	12	18
		Drill Flange Holes (4)																
T5	D	Axial ER40 Hldr. 2:1 Rdtn. Int Coolant	MD Tooling	OKU0480240	1	1		600,000	600,000	\$4,650.00		\$ -	\$ -	\$ 0.01	1	\$ 2,712.50	1	2
Short	SP	ER40 Coolant Collet	Techniks	04547-3/4	1	1		60,000	60,000	\$ 41.25		\$ -	\$ 0.00	\$ -	6	\$ 240.63	1	2
	SP	ER40 Collet Nut	MD Tooling	GHSTER40	1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	P	Special Step Drill 19.05/16.63	Gurhing	TD-14912	1	1	4	500	2,500	\$ 339.00	\$ 50.00	\$ 0.22	\$ -	\$ -	140	\$ 75,460.00	12	18



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Pos #	P SP D	Tool Description	Supplier	USM / Vendor #		QTY. REQ'D	EDGES	REGRIND	Tool Life Machine Cycles	Pcs/ Tool	Tool Cost	Reg rind Cost	Cost / Piece "P"	Cost / Piece "SP"	Cost / Piece "D"	Annual Tool Usage	Annual Tool Cost	MI N	MAX
		Drill Vent Hole																	
T6	D	Radial ER40 Hldr. 2:1 Reduction.	MD Tooling	OKU0430140		1	1		600,000	600,000	\$2,050.00		\$ -	\$ -	\$ 0.00	1	\$ 1,195.83	1	2
	SP	ER40 Collet	Techniks	04240-1		1	1		60,000	60,000	\$ 22.50		\$ -	\$ 0.00	\$ -	6	\$ 131.25	1	2
	SP	ER40 Collet Nut	MD Tooling	GHSTER40		1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	SP	Altered ER25 Extension	WTR	TD-15033-03		1	1		120,000	120,000	\$210.00		\$ -	\$ 0.00	\$ -	3	\$ 612.50	1	2
	SP	ER25 Collet	Techniks	04225-15		1	1		60,000	60,000	\$ 20.25		\$ -	\$ 0.00	\$ -	6	\$ 118.13	1	2
	SP	ER25 Collet Nut	Parlec	25EREN		1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	P	Special Step Drill 15.00/9.80	Tool Craft	TD-15061		1	1	4	500	2,500	\$ 137.00	\$ 50.00	\$ 0.13	\$ -	\$ -	140	\$ 47,180.00	12	18
		Deburr Vent Hole																	
T7	D	Radial ER40 Hldr. 2:1 Reduction.	MD Tooling	OKU0430140		1	1		600,000	600,000	\$2,050.00		\$ -	\$ -	\$ 0.00	1	\$ 1,195.83	1	2
	SP	ER40 Collet	Techniks	04240-1		1	1		60,000	60,000	\$ 22.50		\$ -	\$ 0.00	\$ -	6	\$ 131.25	1	2
	SP	ER40 Collet Nut	MD Tooling	GHSTER40		1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	SP	Altered ER20 Extension	WTR	TD-15033-02		1	1		120,000	120,000	\$165.00		\$ -	\$ 0.00	\$ -	3	\$ 481.25	1	2
	SP	ER20 Collet	Techniks	04220-13/32		1	1		60,000	60,000	\$ 19.15		\$ -	\$ 0.00	\$ -	6	\$ 111.71	1	2
	SP	ER20 Collet Nut	Techniks	41920		1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	SP	Deburring Tool	Heule	SNAP5-9.5		1	1		50,000	50,000	\$ 210.00		\$ -	\$ 0.00	\$ -	7	\$ 1,470.00	1	2
	P	Deburring Blade	Heule	GH-Q-M-30217		1	1		3,000	3,000	\$ 49.50		\$ 0.02	\$ -	\$ -	117	\$ 5,775.00	10	15
		Tap Vent Hole																	
T8	D	Radial ER40 Hldr. 2:1 Reduction.	MD Tooling	OKU0430140		1	1		600,000	600,000	\$2,050.00		\$ -	\$ -	\$ 0.00	1	\$ 1,195.83	1	2
	SP	ER40 Collet	Techniks	04240-1		1	1		60,000	60,000	\$ 22.50		\$ -	\$ 0.00	\$ -	6	\$ 131.25	1	2
	SP	ER40 Collet Nut	MD Tooling	GHSTER40		1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	SP	Altered ER20 Extension	WTR	TD-15033-02		1	1		120,000	120,000	\$ 165.00		\$ -	\$ 0.00	\$ -	3	\$ 481.25	1	2
	SP	ER20 Q-C Tap Adaptor	Techniks	05804-323		1	1		60,000	60,000	\$ 39.00		\$ -	\$ 0.00	\$ -	6	\$ 227.50	1	2
	SP	ER20 Mini Collet Nut	Techniks	2310		1	1		60,000	60,000			\$ -	\$ -	\$ -	6	\$ -	1	2
	P	Tap 7/16-20 3 Flute	OSG	2887001		1	1		1,500	1,500	\$ 8.13		\$ 0.005	\$ -	\$ -	233	\$ 1,897.00	19	29



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Pos #	P SP D	Tool Description	Supplier	USM / Vendor #	QTY. REQ'D	EDGES	REGRIND	Tool Life Machine Cycles	Pcs/ Tool	Tool Cost	Reg rind Cost	Cost / Piece "P"	Cost / Piece "SP"	Cost / Piece "D"	Annual Tool Usage	Annual Tool Cost	MI N	MAX
		Probe Flange																
T9	D	Radial Single Static 1" Holder	MD Tooling	OKU0512540	1	1		600,000	600,000	\$600.00		\$ -	\$ -	\$ 0.00	1	\$ 350.00	1	2
	SP	Probe Mounting Shank	WTR	TD-14995-02	1	1		600,000	600,000			\$ -	\$ -	\$ -	1	\$ -	1	2
	SP	Probe Mounting Plate	WTR	TD-14995-01	1	1		120,000	120,000			\$ -	\$ -	\$ -	3	\$ -	1	2
	SP	Probe Plate Mtg Screw	STD	1/4-20 x 3/4 LG	4	1		120,000	120,000			\$ -	\$ -	\$ -	12	\$ -	4	6
	SP	Dowel	STD	.2500 x 3/4 LG	2	1		120,000	120,000			\$ -	\$ -	\$ -	6	\$ -	2	3
	SP	Adapting Flange	Marposs	2027885064	1	1		120,000	120,000			\$ -	\$ -	\$ -	3	\$ -	1	2
	SP	Adapting Flange Mtg Screw	STD	M4-0.7 x 15.0	1	1		120,000	120,000			\$ -	\$ -	\$ -	3	\$ -	1	2
	SP	WRP45 Transmitter	Marposs	671892000	1	1		120,000	120,000			\$ -	\$ -	\$ -	3	\$ -	1	2
	SP	T255 Probe Head	Marposs	341535201	1	1		120,000	120,000			\$ -	\$ -	\$ -	3	\$ -	1	2
	SP	Straight Styli 6mm dia. X 50mm LG	Marposs	3191910875	1	1		15,000	15,000			\$ -	\$ -	\$ -	23	\$ -	2	3
		Rough Locator																
T10	D	Radial Single Static 1" Holder	MD Tooling	OKU0512540	1	1		600,000	600,000	\$600.00		\$ -	\$ -	\$ 0.00	1	\$ 350.00	1	2
	SP	Rough Locator	WTR	TD-14996	1	1		100,000	100,000			\$ -	\$ -	\$ -	4	\$ -	1	2
		Keyway Cutter - 63.5 dia.																
T12	D	Driven Gear Hobber Assy.	MD Tooling	OKU0502100	1	1		600,000	600,000	\$8,100.00		\$ -	\$ -	\$ 0.01	1	\$ 4,725.00	1	2
	SP	Inner Spacer	WTR	TD-15031-01	1	1		135,000	135,000			\$ -	\$ -	\$ -	3	\$ -	1	2
	SP	Socket Set Screw	STD	#8-32 x 1/2 LG	1	1		15,000	15,000			\$ -	\$ -	\$ -	23	\$ -	2	3
	SP	Outer Spacer	WTR	TD-15031-02	1	1		15,000	15,000			\$ -	\$ -	\$ -	23	\$ -	2	3
	SP	Drive Key	STD	1/4 SQ x 7/8 LG	1	1		15,000	15,000			\$ -	\$ -	\$ -	23	\$ -	2	3
	P	Keyway Cutter - 5.13 x 63.5 dia.	Tool Craft	TD-14918	1	1	6	2,000	14,000	\$ 549.00	\$ 150.00	\$ 0.10	\$ -	\$ -	25	\$ 36,225.00	2	3
	P	Keyway Cutter - 8.00 x 63.5 dia.	Tool Craft	TD-14916	1	1	6	2,000	14,000	\$ 549.00	\$ 150.00	\$ 0.10	\$ -	\$ -	25	\$ 36,225.00	2	3
	D	1.00 " Arbor Assy.	MD Tooling	OKU0100109	1				0									
												Perish cost/pc	S-Per cost/pc	Durabl cost/pc		Annual Tool Cost		