

ROYAL ENFIELD										Format No:- AP04:460:10R																																																
MATERIAL LABORATORY REPORT																																																										
Report No : U2F81804029																																																										
Part No/Part ID: 2401 / 570205					Part Name: MAIN SHAFT					Date: 2018-04-08																																																
Qty: 1400					Customer: REML					Batch Code: E2D18179																																																
1) Raw Material: 16MnCr5																																																										
2) Heat Treatment:-Case carburised, hardened & tempered																																																										
HARDNESS TRAVERSE GRAPH										<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> </div> <div style="width: 50%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3">2.1 Hardness</th> </tr> <tr> <th>Location</th> <th>Specification</th> <th>Observation</th> </tr> <tr> <td>SURFACE</td> <td>58-62 HRC</td> <td>60-61</td> </tr> <tr> <td>Machined Area</td> <td>79 Min. HRA</td> <td>-</td> </tr> <tr> <td>Core AT RCD (1mm below RCD)</td> <td>30-42 HRC</td> <td>39</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <th colspan="3">2.2 Effective Case Depth @ 513HV1</th> </tr> <tr> <th>Location</th> <th>Specification (mm)</th> <th>Observation (mm)</th> </tr> <tr> <td> </td> <td> </td> <td>-</td> </tr> <tr> <td>RCD</td> <td>0.50-0.80</td> <td>0.67</td> </tr> <tr> <td>OD</td> <td>0.30 min.</td> <td>-</td> </tr> <tr> <th colspan="3">Thread Hardness</th> </tr> <tr> <td>@ 0.2 mm below RCD</td> <td>450 HV MAX</td> <td>337-371</td> </tr> </table> </div> </div>										2.1 Hardness			Location	Specification	Observation	SURFACE	58-62 HRC	60-61	Machined Area	79 Min. HRA	-	Core AT RCD (1mm below RCD)	30-42 HRC	39				2.2 Effective Case Depth @ 513HV1			Location	Specification (mm)	Observation (mm)			-	RCD	0.50-0.80	0.67	OD	0.30 min.	-	Thread Hardness			@ 0.2 mm below RCD	450 HV MAX	337-371
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2.3 Hardness traverse report																																																										
Distance from surface in mm	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0																																						
PCD																																																										
RCD	717	694				538	501																																																			
2.4 Microstructure:																																																										
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CASE										T.M.+R.A.<10%					T.M+R.A.5-10%																																											
CORE										LCM+BAINITE					L.C.M+Bainite																																											
Disposition :- ACCEPTED																																																										
Remarks :- OK																																																										
Checked by :- Dharmendra Rathore					Verified by :- Aditya mishra					Approved by :- Ravindra kale																																																