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Overview

Created: Jan 22, 1993 Edited: Apr 06, 2021

VEHICLE TYPE Industrial	FUEL TYPE Diesel	CAMSHAFT	VALVE ADJ. MECH	ENGINE CODE 531TA DIESEL
MAKE JOHN DEERE	MODEL 6030	YEAR 1960-1981	VIN A	LITER 8.7
BORE/STROKE	4.7493-4.7507" (120.632-120.668 MM) 5.000" (127.000 MM)			
COMPRESSION RATIO	FIRING ORDER 1-5-3-6-2-4			
COMMENT DIESEL TURBO 6531TA, 6030, 7520 TRACTORS	INTFR Yes			

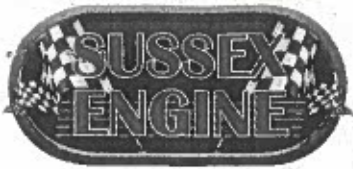
Torque/Tune-Up

Torque Specifications

Description	Specifications
Intake Manifold	50-60 FT/LBS
Exhaust Manifold	50-60 FT/LBS
Flywheel	130 FT/LBS
Flywheel Bolt Sealer	
Flywheel Surfacing	3.207-3.217" CUP
Damper	126-174 FT/LBS
Damper Bolt Sealer	
Main Bearing Cap	205-215 FT/LBS
Additional Main Cap Bolts	
Connecting Rod	55 FT/LBS, + 90°
Cylinder Head	175-185 FT/LBS
Camshaft Cap Torque	
Camshaft Gear Bolt	85 FT/LBS
Comments	* OIL PUMP RELIEF SPRING SET FOR 45-55 PSI HOT IN OIL FILTER HOUSING ONE SHIM EQUALS 5 PSI. ALSO HAS BYPASS FOR FILTER AND OIL COOLER WHICH OPEN @ 30 PSI.

Additional Torque Specifications

ROCKER SHAFT CLAMP	65 FT/LBS
GLAND NUT WITH NEVER SEEZ	34-45 FTLBS
FUEL PRESSURE LINES	35 FT/LBS



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VEHICLE TYPE	Industrial	FUEL TYPE	Diesel	CAMSHAFT	VALVE ADJ. MECH	ENGINE CODE	531TA	
MAKE	JOHN DEERE	MODEL	6030	YEAR	1960-1981	DIESEL		
BORE/STROKE	4.7493-4.7507" (120.632-120.668 MM) 5.000" (127.000 MM)							
COMPRESSION RATIO							FIRING ORDER	1-5-3-6-2-4
COMMENT	DIESEL TURBO 6531TA, 6030, 7520 TRACTORS						INTFR	Yes

Cylinder Block

Cylinder Block

Description	Specifications
Cylinder Bore Diameter	4.7493-4.7507" (120.632-120.668 MM)
Torque Plate	
Cylinder Bore Finish	
Deck Height	12.7455--12.752" (323.736-323.901 MM)
Measured At	TOP OF MAIN To DECK
Surface Finish	
Main to Cam Bore Distance	
Main to Pan Rail Distance	
Bore Center to Center	
Lifter Bore Diameter	
Main Saddle Width	
Comments	

Piston

Description	Specifications
Compression Height	
Piston Protrusion	.010" ABOVE MAX (.254 MM)
Skirt Oil Clearance	.0058-.0082" (.147-.208 MM)
Piston to Rod Assembly Orientation	
Piston Pin Diameter	1.8739-1.8745" (47.597-47.612 MM)
Piston Pin Type	FLOAT
Piston Pin Bore Diameter	1.8748-1.8750" (47.62-47.625 MM)
Piston Ring Gap	

Housing Bore

Description	Specifications
Main Bore Diameter	4.0020-4.0030" (101.651-101.676 MM)
Coal Bore Diameter	

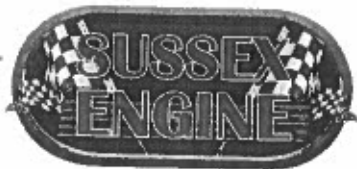
Main Cap Torque	205-215 FT/LBS
Additional Main Cap Bolts	
Camshaft Bore Diameter	ALL - 2.4995-2.5005" (63.487-63.513 MM) - - - - - - -
Auxiliary Shaft Bore Diameter	- - - -
Balance Shaft Bore Diameter	- - - -

Cylinder Sleeve

Description	Specifications
Sleeve Protrusion	.001-.004" (.025-.102 MM)
Sleeve Flange Outside Diameter	
Sleeve Fit	WET
Sleeve Flange Height	.3755-.3765" (9.538-9.563 MM)
Sleeve Upper Fit Diameter	
Sleeve Bottom Fit Diameter	

Cylinder Block Lower Bore	Specifications
Depth	
Inside Diameter	
Fit	7.870" F/DECK (199.898 MM)

Cylinder Block Counter/Upper Bore	Specifications
Depth	.3725-.3745" (9.462-9.512 MM)
Lower Bore Depth Diameter	
Spacer/Deck Plate Thickness	
Outside Diameter	



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VEHICLE TYPE Industrial FUEL TYPE Diesel CAMSHAFT VALVE ADJ. MECH ENGINE CODE 531TA DIESEL
MAKE JOHN DEERE MODEL 6030 YEAR 1960-1981 VIN A LITER 8.7 CID 531 CYL L 6
BORE/STROKE 4.7493-4.7507" (120.632-120.668 MM) 5.000" (127.000 MM)
COMPRESSION RATIO FIRING ORDER 1-5-3-6-2-4
COMMENT DIESEL TURBO 6531TA, 6030, 7520 TRACTORS INTFR Yes

Crankshaft

Crankshaft

Description	Specifications
Stroke	5.000" (127.000 MM)
Cylinder Bore	4.7493-4.7507" (120.632-120.668 MM)
Comments	

Rod Journal

Description	Specifications
Rod Journal Diameter	3.4980-3.4990" (88.849-88.875 MM)
Journal Width	
Fillet Radius	.250" (6.350 MM)
Oil Clearance	.0024-.0054" (.061-.137 MM)

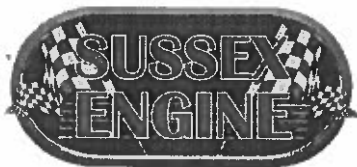
Main Journal

Description	Specifications
Pos. 1	- 3.7480-3.7490" (95.199-95.225 MM) -
Pos. 2	- -
Pos. 3	- -
Pos. 4	- -
Pos. 5	- -
Pos. 6	- -
Oil Clearance	.0019-.0049" (.048-.124 MM)
End Play	.004-.010" (.102-.254 MM)
Fillet Radius	.250" (6.350 MM)
Thrust Width	1.8750" (47.625 MM)
Rear Seal Diameter	6.0000" (152.400 MM)
Front Seal Diameter	2.4300" (61.722 MM)
Pulley Diameter	1.8785" (47.714 MM)
Gear Diameter	2.5025" (63.564 MM)

Journal Finish

Balance

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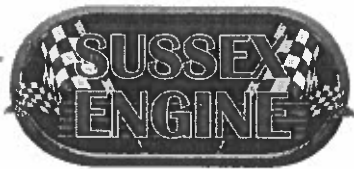
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VEHICLE TYPE	Industrial	FUEL TYPE	Diesel	CAMSHAFT	VALVE ADJ. MECH	ENGINE CODE	531TA	
						DIESEL		
MAKE	JOHN DEERE	MODEL	6030	YEAR	1980-1981	VIN	A	
						LITER	8.7	
						CID	531	
						CYL	L 6	
BORE/STROKE	4.7493-4.7507" (120.632-120.668 MM) 5.000" (127.000 MM)							
COMPRESSION RATIO							FIRING ORDER	1-5-3-6-2-4
COMMENT	DIESEL TURBO 6531TA, 6030, 7520 TRACTORS						INTFR	Yes

Connecting Rod

Connecting Rod

Description	Specifications
Big End Housing Bore	3.6915-3.6925" (93.764-93.790 MM)
Beam Length	
Big End Width	
Big End Side Clearance	
Connecting Rod Torque	55 FT/LBS, + 90°
Bolt Diameter	
Small End Bore For Bushing	2.0600" (52.324 MM)
Small End Bore Finished ID	1.8752-1.8762" (47.630-47.655 MM)
Small End Oil Clearance	.0007-.0023" (.018-.058 MM) BUSHING CLR
Center To Center Distance	9.000" (228.600 MM)
Twist/Bend	
Comment	



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LITER	8.7	CID	531	CYL	L 6		
BORE/STROKE	4.7493-4.7507" (120.632-120.668 MM) 5.000" (127.000 MM)						
COMPRESSION RATIO							FIRING ORDER 1-5-3-6-2-4
COMMENT	DIESEL TURBO 6531TA, 6030, 7520 TRACTORS						INTFR Yes

Camshaft

Camshaft

Description	Specifications
Camshaft Journal Diameters	ALL - 2.3745-2.3755" (60.312-60.338 MM) - - - - - - - - - - - - -
Total Length	
Journal Oil Clearance	.0020-.0050" (.051-.127 MM)
Cam End Play	.003-.011" (.076-.279 MM)
Lifter Type	S
Lifter Diameter	
Camshaft Gear Bolt Torque	85 FT/LBS
Comments	

Camshaft Journal Specifications

Auxiliary Journal	Specifications
Auxiliary Journal Oil Clearance	
Auxiliary Journal Diameters	- - - - - - - -
Timing Gear Lash	

Lobe Configuration

Lobe Configuration Information	Intake	Exhaust
Lobe lift		
Duration at 0.050"		
Center Line		
Valve Event Timing Marks at .050"		

Lobe Separation	
Base Circle New	
Base Circle Min	

Tune-Up Specifications

Description	Specifications
Idle Speed (rpm)	
Compression Ratio	
Firing Order	1-5-3-6-2-4
Spark Plug Gap	
Ignition Timing	
Oil Pressure At Idle	*
Oil Pressure	45-55 PSI @ 1900 RPM HOT
Intake Valve Lash	.018" COLD
Exhaust Valve Lash	.028" COLD (.711 MM)
Lash Adjustment Method	
Comments	