

OLIVER

1550

OLIVER



Service Bulletin

LOCATION Charles City - Wheel

SUBJECT 1550 Tractor Specifications

NUMBER 430 048

DATE 8-18-65

FILE BREAKDOWN A

This bulletin contains 1550 tractor service specifications not completely covered in previous publications. Information relating to LP Gas engine and components is not available at this time but will be covered in a future publication.

INDEX

	Page
General Engine Specifications	2
Engine Torque Values	10
Gasoline Fuel System	11
Diesel Fuel System	11
Electrical System	13
Power Take-Off	14
Trans, Brakes, Differential	14
Hydra-Power Drive	14
Hydraulic System	15
Engine Clutch	15
Rear Axles	15
Power Steering	15
Reverse-O-Torc Drive	15

Service Department

REP:DDH:hr

C- 3300A-459
PRINTED
 IN
 U.S.A.

Rick's Agri-Parts
 Rick Stair
 4511 Silver Road
 Wooster, OH 44691-9293

ENGINE SPECIFICATIONS

GENERAL

	<u>GASOLINE</u>	<u>DIESEL</u>
Engine Serial Number Location	Right side of crankcase on alternator bracket mounting flange	
Weight Of Engine (Pounds)	716	735
Number Of Cylinders	6	6
Firing Order	1-5-3-6-2-4	1-5-3-6-2-4
Bore	3-5/8	3-5/8
Stroke	3-3/4	3-3/4
Piston Displacement	232	232
Engine Speed (rpm)		
Low Idle	450	650
Rated	2200	2200
High No Load	2420	2420
Compression Ratio	8.0:1	16:1
Cranking Speed (rpm)	190	150
Compression Pressure At Cranking Speed (psi)	120	350
Allowable Compression Pressure Variation Between Cylinders	10%	10%
Engine Operating Temperature	155-212° F.	155-212° F.

LUBRICATION

	<u>GASOLINE</u>	<u>DIESEL</u>
Type	Pressure with controlled spurt	
Main Oil Gallery Pressure Control Valve	Non-adjustable, spring loaded, poppet type	
Oil Filter Type	Bypass	Bypass
Recommended Oil	Refer to Operator's Manual	
Minimum Oil Pressure At Engine Operating Temperature		
Main Gallery		
Idle Speed	5 psi	5 psi
2200 RPM	20-40 psi	20-40 psi
Oil Pressure Relief Valve Spring -- Main Gallery		
Free Length	2"	2"
Compressed Length	1" @ 6 ± 1/2 lbs	1" @ 6 ± 1/2 lbs.
Oil Pressure Relief Valve Plunger Diameter Main Oil Gallery	0.498-0.497	0.498-0.497
Oil Change Period	100 hrs	100 hrs
Filter Change Period		Every other oil change
Crankcase Capacity (Without Filter)	5	5

CAMSHAFT

	<u>GASOLINE</u>	<u>DIESEL</u>
Material	Cast iron (proferal) with hardened cam lobes	
End Play	Controlled by spring pressure and thrust button	
Thrust Button Spring		
Free Length	1-3/16	1-3/16
Compressed Length	25/32 @ 15-1/2 - 18-1/2 lbs.	25/32 @ 15-1/2 - 18-1/2 lbs.
Type Of Drive		Gear driven
Method Of Checking Misalignment		"V" Blocks
Maximum Misalignment	0.002	0.002

CAMSHAFT (Continued)

	<u>GASOLINE</u>	<u>DIESEL</u>
Cam Lift		
Intake	0.214-0.226	0.214-0.226
Exhaust	0.194-0.206	0.194-0.206
Journal Diameters		
Front	1.750-1.749	1.750-1.749
2nd, 3rd and 4th	1.7495-1.7485	1.7495-1.7485

CAMSHAFT BUSHING AND BORE

	<u>GASOLINE</u>	<u>DIESEL</u>
Type		Steel back, lead base, tin plate
Front Bushing Bore	1.8755-1.8745	1.8755-1.8745
Front Bushing Inside Diameter		
Standard	1.7520-1.7515	1.7520-1.7515
Maximum	1.7560	1.7560
Cam Bore For 2nd, 3rd and 4th Journals	1.7515-1.7520	1.7515-1.7520
Bushing Width	1"	1"
Running Clearance		
Standard	0.0015-0.003	0.0015-0.003
Maximum	0.005	0.005

CONNECTING RODS

	<u>GASOLINE</u>	<u>DIESEL</u>
Material		SAE 1045 steel forging
Rod Misalignment	None	None
Rod Offset	0.130-0.120	0.130-0.120
Length From Center Of Small End to Center Of Large End	6.750-6.745	6.750-6.745
Connecting Rod Side Clearance		
Standard	0.0075-0.0135	0.0075-0.0135
Diameter Of Piston Pin Bushing Bore	1.312-1.313	1.312-1.313
Diameter Of Rod Bearing Bore	2.4205-2.4200	2.4205-2.4200
Weight With Bearing, Bushing And Cap (Pounds)	2 lbs. 11 oz.	2 lbs. 11 oz.
Number Of Connecting Rod Bolts	2	2
Bolt Size	3/8 - 24	7/16 - 20

CONNECTING ROD BEARINGS

	<u>GASOLINE</u>	<u>DIESEL</u>
Type		Replaceable shell, precision bearings
Material		Steel backed, copper-lead base, tin plate
Manner Of Adjustment	None	None
Running Clearance		
Standard	0.0005-0.0015	0.0005-0.0015
Maximum	0.0025	0.0025
Bearing Width	1-5/32	1-5/32
Undersize	0.003	0.003
	0.020	0.020

CRANKSHAFT

	<u>GASOLINE</u>	<u>DIESEL</u>
Type		Dynamically balanced
Material		C1045 steel forging
End Play Controlled By		No. 3 main bearing
End Play		
Standard	0.0045-0.0085	0.0045-0.0085
Maximum	0.010	0.010
Number Of Main Bearings	4	4
Main Bearing Journal Diameter	2.250-2.249	2.250-2.249
Connecting Rod Journal Diameter	2.250-2.249	2.250-2.249
Maximum Journal Out-Of-Round Or Taper	0.0005	0.0005
Maximum Main Bearing Journal Length		
Front	1-3/4	1-3/4
2nd And 4th	1.630-1.620	1.630-1.620
3rd	1.6295-1.6275	1.6295-1.6275
Maximum Connecting Rod Journal Length	1.375-1.379	1.375-1.379
Main Bearing Cap Bolt Size	1/2-13	1/2-13
Maximum Allowable Shaft Misalignment	0.002	0.002
Flywheel Mounting Flange Runout	0.001	0.001

CRANKSHAFT MAIN BEARINGS

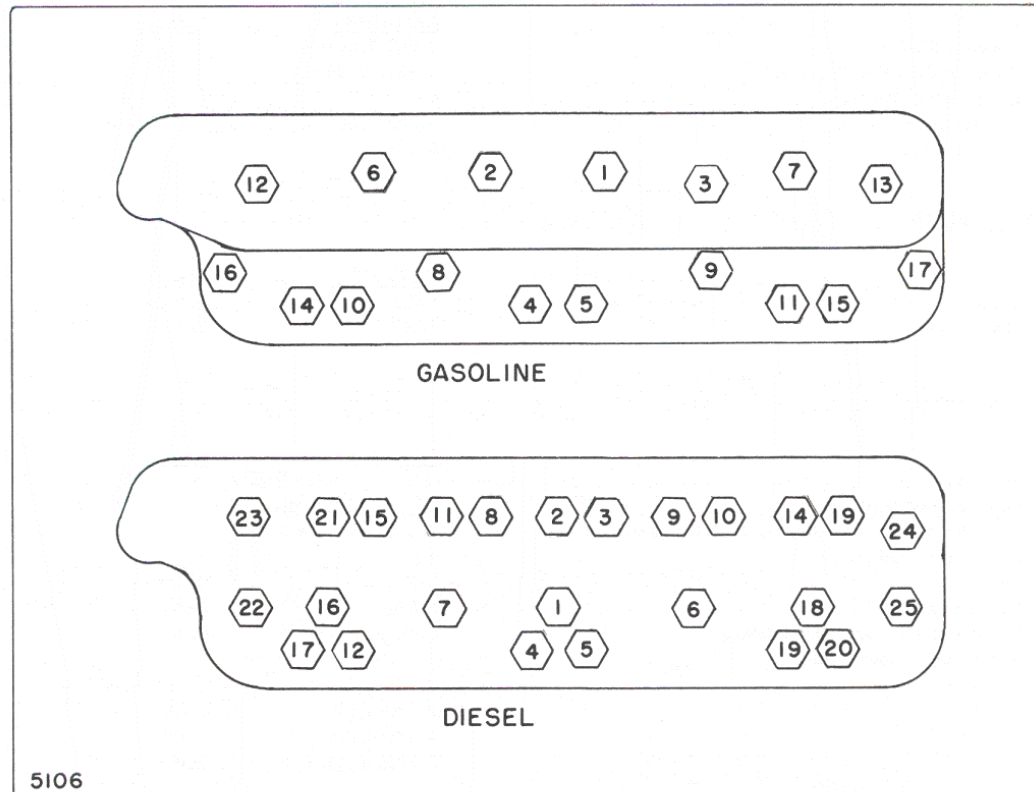
	<u>GASOLINE</u>	<u>DIESEL</u>
Type		Replaceable shell, precision
Material		Steel back, copper-lead base, lead-tin plate
Manner Of Adjustment		None
Running Clearance		None
Standard	0.0002-0.0032	0.0002-0.0032
Maximum	0.0045	0.0045
Undersize		
0.003	0.003	0.003
0.020	0.020	0.020
Bearing Shell Width	1-3/8	1-3/8
Thrust Bearing Width	1.623-1.621	1.623-1.621
Crankcase Bore	2.4210-2.4215	2.4210-2.4215

CYLINDER HEAD

	<u>GASOLINE</u>	<u>DIESEL</u>
Type		Over head valve
Material		Cast alloy iron
Construction		One piece
Cap Screw Size	1/2 - 13	1/2 - 13
Number Of Cap Screws	17	25
Maximum Cylinder Head Run-Out	0.005	0.005
Valve Port Diameters		
Intake	1.250-1.245	1.128-1.122
Exhaust	1.125-1.120	1.003-0.997
Valve Seat Angle	45°	45°
Valve Seat Width		
Intake	0.066-0.056	0.066-0.056
Exhaust	0.080-0.090	0.066-0.076
Maximum Valve Seat Runout	0.002	0.002

CYLINDER HEAD (Continued)

	<u>GASOLINE</u>	<u>DIESEL</u>
Exhaust Valve Seat Inserts		
Material	L, E, Jones J-83	
Thickness	Rockwell "C" 46-54	
Inside Diameter	0, 250-0, 248	
Outside Diameter	1, 130-1, 120	
Counterbore Diameter	1, 4400-1, 4395	
Counterbore Depth	1, 4375-1, 4365	
Intake Valve Seat Inserts		
Material		L, E, Jones
Thickness		AMS-5710
Inside Diameter		Rockwell "C" 35-45
Outside Diameter		0, 2055-0, 2105
Counterbore Diameter		1, 128-1, 122
Counterbore Depth		1, 3770-1, 3775
		1, 374-1, 375
		0, 217-0, 219



Cylinder Head Cap Screw Tightening Sequence