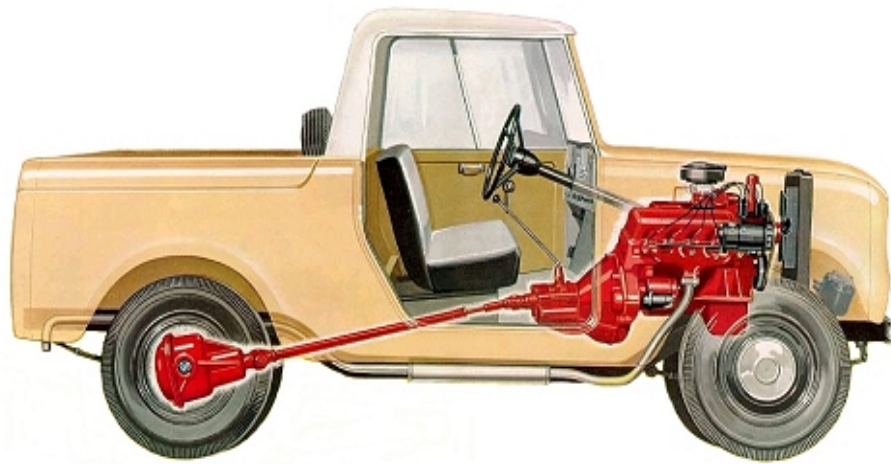


1964-1970 IH Scout engine specifications



4-152
4-196
V-266
V-304
PT6-232

IH ENGINE INFORMATION

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IH ENGINE INFORMATION

This document contains information about
International Harvester engines:

4-152
4-196
V-266
V-304
PT6-232

1. General Engine Specifications for 1964-1970 Scouts

Year	Engine Model	No. Cyls. & Valve Location	Bore & Stroke	Piston Displacement, Cu. In.	Compression Ratio	Horsepower @ R.P.M.	Torque, Lb. Ft. @ R.P.M.	Normal Oil Pressure, Lbs.
1964-65	4-152	4 In Head	3 7/8 x 3 7/32	152	8.19	90@4400	135@2400	50
1966-70	4-152	4 In Head	3 7/8 x 3 7/32	152	8.10	93@4400	143@2400	50
1966-70	4-196	4 In Head	4 1/8 x 3 31/32	196	8.1	111@4400	180@2000	50
1967-68	V-266	8 In Head	3 5/8 x 3 7/32	266	8.4	155@4400	227@2800	40-50
1969-70	V-304	8 In Head	3 7/8 x 3 7/32	304	8.19	193@4400	273@2800	40-50
1970	PT-6-232	6 In Head	3 3/4 x 3 1/2	232	8.50	145@4300	215@1600	32

IH ENGINE INFORMATION

2. Tune Up and Valve Specifications

Year	Engine Model	Firing Order	Spark Plug		Ignition Timing		Valve Seat Angle, Degrees	Valve Clearance		Valve Spring Pressure, Lb. @ In. Length
			Type	Gap (inch)	Timing Mark (Degrees)	Location		Intake	Exhaust	
1964-65	4-152	1342	N5	.028	5 BTC	Damper	45	Zero	Zero	188 @ 1 27/64
1966-68	4-152	1342	N5	.028	4 BTC	Damper	45	Zero	Zero	188 @ 1 27/64
	4-152 Turbo	1342	N5	.028	10 BTC	Damper	45	Zero	Zero	188 @ 1 27/64
1969-70	4-152	1342	UJ10Y	.030	4 BTC	Damper	45	Zero	Zero	188 @ 1 27/64
	4-152 Turbo	1342	UJ10Y	.030	10 BTC	Damper	45	Zero	Zero	188 @ 1 27/64
1966-68	4-196	1342	N5	.025	5 BTC	Damper	45	Zero	Zero	188 @ 1 27/64
1969-70	4-196	1342	UJ10Y	.030	5 BTC	Damper	45	Zero	Zero	188 @ 1 27/64
1967-68	V-266	18436572	J8	.030	4	Damper	45	Zero	Zero	195 @ 1 13/32
1969-70	V8-304	18436572	UJ6	.030	TDC	Damper	45	Zero	Zero	195 @ 1 13/32
1970	PT-6-232	153624	N14Y	.035	TDC	Damper	45	Zero	Zero	195 @ 1 7/16

3. Distributor Specifications

Year	Model	Distributor Part No.	Rotation	Breaker Gap (inch)	Dwell Angle Deg.	Breaker Arm Spring Tension	Centrifugal Advance Degrees @ R.P.M. of Distributor		Vacuum Advance	
							Advance Starts	Full Advance	Inches of Vacuum to Start Plunger	Max. Adv. Dist. Deg. @ Vacuum
1964-65	All	1110266	/	.016	75	19-23	1 @ 350	14 @ 2100	3-5	10 @ 7
1966-70	4-152 Standard	301574	/	.025	36	17-20	1 @ 375	15 @ 2000	2-5	7 @ 10
	4-152 Turbocharged	301573	/	.016	72	17-20	1 @ 600	12 @ 2000	-----	-----
1966-70	4-196	344730	/	.025	36	17-20	1 @ 300	17 @ 2000	5-7	14 @ 11.5
1967-70	V-266, 304	285098	C	.016	30	17-21	1 @ 350	14.5 @ 2000	5-7	14 @ 11.25

IH ENGINE INFORMATION

4. Piston, Pin, Ring, Crankshaft, & Bearing Specifications

Year	Engine Model	Wristpin Diameter	Piston Clearance, In.	Ring End Gap, In. Minimum	Crank Pin Diameter, Inch		Rod Bearing Clearance, In.	Main Bearing Journal Diameter, In.	Main Bearing Clearance, Inch	Thrust On Bearing No.	Shaft End Play
					Comp.	Oil					
1964-70	4-152,196	1.0624	(2)	.010	(1)	2.373-2.374	.0011-.0032	2.7484-2.7494	.001-.004	3	.001-.005
1967-68	V-266	1.0624	.0035	.010	(1)	2.373-2.374	.0011-.0033	2.7484-2.7494	.001-.004	3	.001-.005
1969-70	V-304	1.0624	.0035	.010	(1)	2.373-2.374	.0011-.0033	2.7484-2.7494	.001-.004	3	.001-.005
1970	PT-6-232	.9306	.0005	.010	(1??)	2.0934-2.0955	.001-.002	2.4981-2.5001	.001-.002	3	.0015-.007

(1)-No gap at ring joint; steel rail gap .015"

(2)-With .0035" feeler 1" wide, pull on spring scale should be 3 to 7 lbs.

5. Starting Motor Specifications

Year	Model	Part No.	Bushings Spring Tension, Ounces	No Load Test			Torque Test		
				Amperes	Volts	R.P.M.	Amperes	Volts	Torque Lbs. Ft.
1964-69	Scout	1107709	35	49-76	10.6	6200-9400	270-310	4.3	---

IH ENGINE INFORMATION

6. Engine Tightening Specifications

Engine	Spark Plugs Ft. Lbs.	Cylinder Head Bolts Ft. Lbs.	Intake Manifold Ft. Lbs.	Exhaust Manifold Ft. Lbs.	Rocker Arm Shaft Bracket Ft. Lbs.	Rocker Arm Cover Ft. Lbs.	Connecting Rod Cap Bolts Ft. Lbs.	Main Bearing Cap Bolts Ft. Lbs.	Flywheel to Crankshaft Ft. Lbs.	Vibration Damper or Pulley Ft. Lbs.
4-152, 196	28-30	90-100	40-45	40-45	14-16	---	45-55	75-80	45-55	100-110
V-266,304	28-30	90-100	40-45	40-45	---	---	45-55	75-80	45-55	100-110
PT-6-232	25-30	80-85	20-25	20-25	20-23	45-55 (inch pounds)	26-30	75-85	100-110	70-80