CHAPTER 1
GENERAL INFORMATION

1

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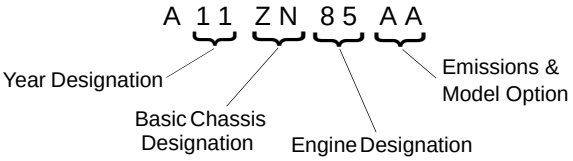
VEHICLE IDENTIFICATION

Model Identification

The machine model number must be used with any correspondence regarding warranty or service.

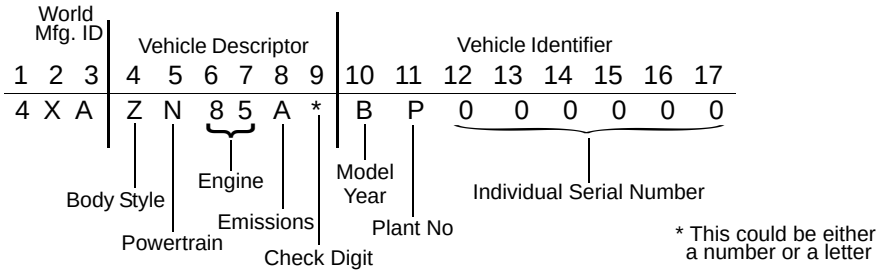
Machine Model Number Identification



Engine Designation Number

1204204 SPM850-11.....Twin Cylinder, 4-Cycle SOHC, Liquid Cooled, Electric Start

Vehicle Identification Number (VIN)



Vehicle and Engine Serial Number Locations

Whenever corresponding about a Polaris ATV, be sure to refer to the vehicle identification number (VIN) and the engine serial number.

The VIN can be found stamped on the lower frame rail on the front LH side of the ATV (see Figure 1-1).

The engine serial number can be found on the rear portion of the engine located on the valve cover (see Figure 1-2).

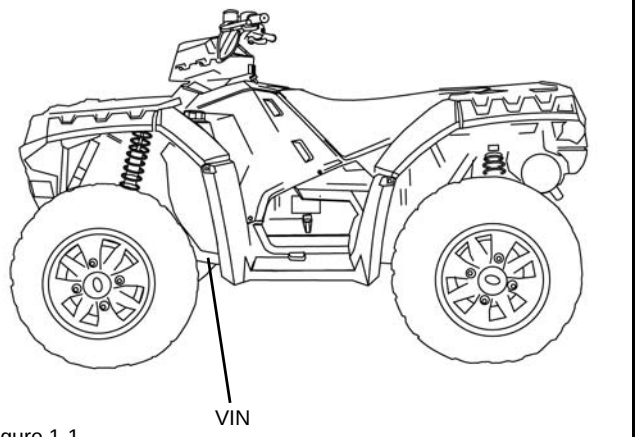


Figure 1-1

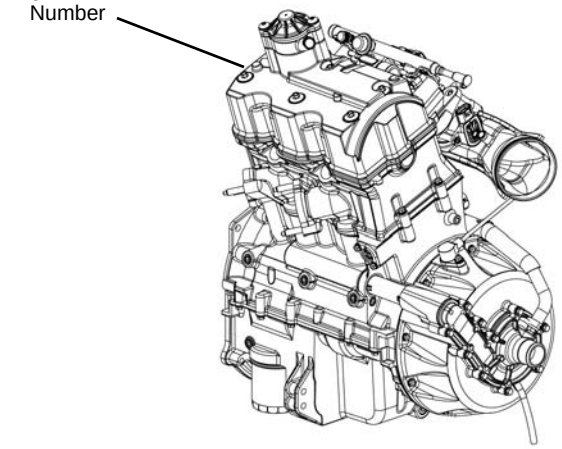


Figure 1-2

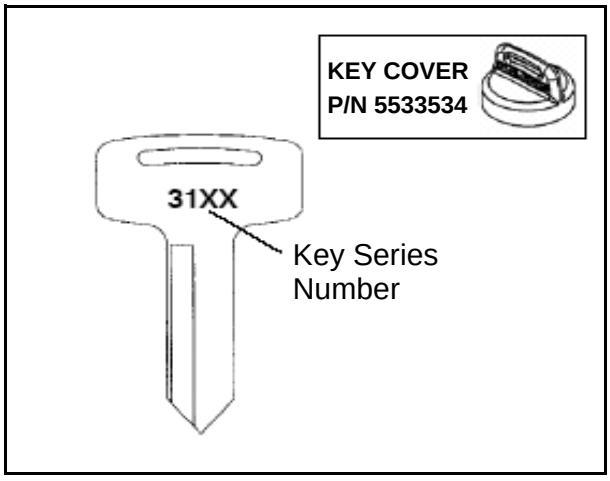
VEHICLE INFORMATION

Publication Numbers

YEAR	MODEL	MODEL NO.	OWNER'S MANUAL	PARTS MANUAL
2011	SPORTSMAN XP 850	A11ZN85AA, AQ, AZ	9922732	9923114
2011	SPORTSMAN XP 850 EPS	A11ZX85AK, AO, AS, AT, AX	9922732	9923117
2011	SPORTSMAN XP 850 EPS INT'L	A11ZX85FF, FL	9922827	9923118
2011	SPORTSMAN X2 850	A11TN85AA	9922731	9923108
2011	SPORTSMAN TOURING 850	A11DX85AF, AG, AZ	9922730	9923065
2011	SPORTSMAN TOURING 850 INT'L	A11DX85FF	9922825	9923066

Replacement Keys

Replacement keys can be made from the original key. To identify which series the key is, take the first two digits on the original key and refer to the chart to the right for the proper part number. Should both keys become lost, replacement of the ignition switch assembly is necessary.



Series #	Part Number
20	4010278
21	4010278
22	4010321
23	4010321
27	4010321
28	4010321
31	4110141
32	4110148
67	4010278
68	4010278

Special Tools

Special tools may be required while servicing this vehicle. Some of the tools listed or depicted are mandatory, while other tools maybe substituted with a similar tool, if available. Polaris recommends the use of Polaris Special Tools when servicing any Polaris product. Dealers may order special tools through Polaris' official tool supplier, SPX Corporation, by phone at 1-800-328-6657 or on-line at http://polaris.spx.com/.

SPECIFICATIONS

MODEL: 2011 SPORTSMAN XP 850

MODEL NUMBER:. . . . . A11ZN85AA, AQ, AZ
ENGINE NUMBER: 1204204

Category	Dimension
Length	**83.25 in. / 211.5 cm**
Width	**47.6 in. / 121 cm**
Height	**50.75 in. / 129 cm**
Wheel Base	**53 in. / 135 cm**
Ground Clearance	**12 in. / 30.5 cm**
Turning Radius	**84 in. / 213 cm (unloaded)**
Dry Weight	**759 lbs. / 345 kg**
Front Rack Capacity	**120 lbs. / 54 kg**
Rear Rack Capacity	**240 lbs. / 109 kg**
Max. Weight Capacity	**575 lbs. / 261 kg**
Towing Capacity	**1500 lbs. / 680 kg**
Hitch Tongue Weight	**150 lbs. / 68 kg**

MODEL: 2011 SPORTSMAN XP 850 EPS / INT'L

MODEL NUMBER:. . . . . A11ZX85AK, AO, AS, AT, AX, FF, FL
ENGINE NUMBER: 1204204

Category	Dimension
Length	**83.25 in. / 211.5 cm**
Width	**47.6 in. / 121 cm**
Height	**50.75 in. / 129 cm**
Wheel Base	**53 in. / 135 cm**
Ground Clearance	**12 in. / 30.5 cm**
Turning Radius	**84 in. / 213 cm (unloaded)**
Dry Weight	**773 lbs. / 351 kg**
Front Rack Capacity	**120 lbs. / 54 kg**
Rear Rack Capacity	**240 lbs. / 109 kg**
Max. Weight Capacity	**575 lbs. / 261 kg**
Towing Capacity	**1500 lbs. / 680 kg**
Unbraked Trailer Towing Capacity (EU)*	**1914 lbs. / 868 kg**
Hitch Tongue Weight	**150 lbs. / 68 kg**

* Data based on EU Directive 76/432/EEC

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2011 SPORTSMAN XP 850 / XP 850 EPS / INT'L

XP MODELS: A11ZN85AA, AQ, AZ
XP EPS MODELS: A11ZX85AK, AO, AS, AT, AX, FF, FL
ENGINE NUMBER: 1204204

Engine	
Platform	Domestic Twin Cylinder, 4-Cycle
Engine Number	1204204
Engine Displacement	850 cc
Number of Cylinders	2
Bore & Stroke (mm)	87 x 71.5 mm
Compression Ratio	11.0:1
Compression Pressure	210 - 250 psi
Engine Idle Speed	1200 ± 50 RPM
Cooling System / Cap.	Liquid Cooled / 2.7 qt. (2.6 l)
Overheat Warning	Instrument Cluster Indicator
Lubrication	Pressurized Wet Sump
Engine Oil Requirement	PS-4 Plus / 2 qt. (1.9 l)
Exhaust System	Stainless Steel Dual Header Pipe w/ Dual Outlet Silencer
Fuel System	
Fuel System Type	Bosch Multi-Port Sequential EFI
Throttle Body / Size	Mikuni Dual Bore / 40 mm
Fuel Delivery	Electronic Fuel Pump (in tank)
Fuel Pressure	43 psi (296.5 kPa)
Fuel Capacity	5.25 gal. (20 l)
Fuel Requirements	87 Octane (minimum)
Electrical	
Alternator Output	475 W @ 1200 RPM / Peak 575 W
Voltage Regulator	3-Phase / 32 Amp
Head Lights	Pod: 12V / 50 Watts Bumper: 12V / 50 Watts x 2
Brake Light	12V / 27 Watts
Tail Light	12V / 7 Watts
Starting System	Electric
Ignition System	Bosch EFI (ECU Controlled)
Ignition Timing	6° ± 5° BTDC @ 1200 RPM
Spark plug / Gap	REA8MCX / .035 in. (.90 mm)
Battery / Model / AH / CCA	YUASA / YTX20HL / 18 AH / 310
Instrumentation	Multifunction Instrument Cluster
DC Outlet	Standard
Relays (Located in Relay/Fuse Box)	Chassis / Start Solenoid / Fan / EFI / Bumper Lights / EPS
Circuit Breaker	Fan Motor: 10A
Fuses (Located in Relay/Fuse Box)	Lights: 20 Amp Drive: 20 Amp Accessory: 20 Amp EFI: 20 Amp Unswitched: 10 Amp EPS: 30 Amp

Drivetrain	
Transmission Type	Automatic PVT In-Line H-L-N-R-P
Transmission Fluid Type / Fluid Capacity	Polaris AGL Plus 37 oz. (1100 ml)
Front Gearcase Fluid Type / Fluid Capacity	Polaris Demand Drive Plus 9.3 oz. (275 ml)
Front Gearcase ADC Reservoir Fluid Type	Polaris Demand Drive Plus
Rear Gearcase Fluid Type / Fluid Capacity	ATV Angle Drive Fluid 7.1 oz. (210 ml)
Clutch Type	PVT w/EBS
Belt	3211123
Steering / Suspension	
Toe Out	0-1/8 in. (0-3 mm)
Front Suspension	Dual A-arm
Front Travel	9 in. / 22.9 cm
Rear Suspension	Dual A-arm w/Rolled IRS
Rear Travel	10.25 in. / 26 cm
Shock Preload Adjustment Front / Rear	Cam Adjustable
Wheels / Brakes	
Front Wheel Size / Bolt Pattern	**Steel:** 14 x 6 / 4-156 **Aluminum:** 14 x 5.5 / 4-156
Front Tire Model / Size	Maxxis AT / 26 x 8 - 14 Carlisle AT 489 II / 26 x 8 - 14
Rear Wheel Size / Bolt Pattern	**Steel:** 14 x 8 / 4-156 **Aluminum:** 14 x 7.5 / 4-156
Rear Tire Model / Size	Maxxis AT / 26 x 10 - 14 Carlisle AT 489 II / 26 x 10 - 14
Tire Air Pressure	Front: 7 psi (48 kPa) Rear: 5 psi (34.5 kPa)
Brakes	Single Control Hydraulic 3-Wheel Disc
Brake Fluid	Polaris DOT 4 Brake Fluid

CLUTCH CHART

Altitude		Shift Weight	Drive Spring	Driven Spring
Meters (Feet)	**0-1800 (0-6000)**	24-60 5632216	Red / Wht 7043349	Red / Wht 3235088
	1800-3700 (6000 - 12000)	24-56 5632394	Red / Wht 7043349	Red / Wht 3235088

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MODEL: 2011 SPORTSMAN X2 850

MODEL NUMBER:. A11TN85AA
ENGINE NUMBER: 1204204

Category	Dimension
Length	**93.25 in. / 237 cm**
Width	**47.6 in. / 121 cm**
Height	**49.5 in. / 126 cm**
Wheel Base	**57 in. / 145 cm**
Ground Clearance	**11.6 in. / 29.5 cm**
Turning Radius	**96 in. / 244 cm (unloaded) 82 in. / 208 cm (in 'Turf')**
Dry Weight	**839 lbs. / 381 kg**
Front Box Capacity	**120 lbs. / 54 kg**
Rear Box Capacity	**400 lbs. / 181 kg**
Max. Weight Capacity	**735 lbs. / 333 kg**
Towing Capacity	**1500 lbs. / 680 kg**
Hitch Tongue Weight	**150 lbs. / 68 kg**

MODEL: 2011 SPORTSMAN TOURING 850 / INT'L

MODEL NUMBER:. . . . . A11DX85AF, AG, AZ, FF
ENGINE NUMBER: 1204204

Category	Dimension
Length	**86.5 in. / 219.7 cm**
Width	**47.6 in. / 121 cm**
Height	**58.25 in. / 148 cm**
Wheel Base	**57 in. / 145 cm**
Ground Clearance	**11.6 in. / 29.5 cm**
Turning Radius	**96 in. / 244 cm**
Dry Weight	**798 lbs. / 362 kg**
Front Box Capacity	**120 lbs. / 54 kg**
Rear Rack Capacity	**240 lbs. / 109 kg**
Max. Weight Capacity	**735 lbs. / 333 kg**
Towing Capacity	**1500 lbs. / 680 kg**
Unbraked Trailer Towing Capacity (EU)*	**1995 lbs. / 905 kg**
Hitch Tongue Weight	**150 lbs. / 68 kg**

* Data based on EU Directive 76/432/EEC

2011 SPORTSMAN X2 850 / TOUR 850 / INT'L

X2 MODELS: A11TN85AA
TOUR MODEL: A11DX85AF, AG, AZ, FF
ENGINE NUMBER: 1204204

Engine	
Platform	Domestic Twin Cylinder, 4-Cycle
Engine Number	1204204
Engine Displacement	850 cc
Number of Cylinders	2
Bore & Stroke (mm)	87 x 71.5 mm
Compression Ratio	11.0:1
Compression Pressure	210 - 250 psi
Engine Idle Speed	1200 ± 50 RPM
Cooling System / Cap.	Liquid Cooled / 2.7 qt. (2.6 l)
Overheat Warning	Instrument Cluster Indicator
Lubrication	Pressurized Wet Sump
Engine Oil Requirement	PS-4 Plus / 2 qt. (1.9 l)
Exhaust System	Stainless Steel Dual Header Pipe w/ Dual Outlet Silencer
Fuel System	
Fuel System Type	Bosch Multi-Port Sequential EFI
Throttle Body / Size	Mikuni Dual Bore / 40 mm
Fuel Delivery	Electronic Fuel Pump (in tank)
Fuel Pressure	43 psi (296.5 kPa)
Fuel Capacity	5.25 gal. (20 l)
Fuel Requirements	87 Octane (minimum)
Electrical	
Alternator Output	475 W @ 1200 RPM / Peak 575 W
Voltage Regulator	3-Phase / 32 Amp
Head Lights	Pod: 12V / 50 Watts Bumper: 12V / 50 Watts x 2
Brake Light	12V / 27 Watts
Tail Light	**X2:** 12V / 8.26 Watts **TOURING:** 12V / 7 Watts
Starting System	Electric
Ignition System	Bosch EFI (ECU Controlled)
Ignition Timing	6° ± 5° BTDC @ 1200 RPM
Spark plug / Gap	REA8MCX / .035 in. (.90 mm)
Battery / Model / AH / CCA	YUASA / YTX20HL / 18 AH / 310
Instrumentation	Multifunction Instrument Cluster
DC Outlet	Standard
Relays (Located in Relay/Fuse Box)	Chassis / Start Solenoid / Fan / EFI / B. Lights / EPS / Rear Diff
Circuit Breaker	Fan Motor: 10A
Fuses (Located in Relay/Fuse Box)	Lights: 20 Amp Drive: 20 Amp Accessory: 20 Amp EFI: 20 Amp Unswitched: 10 Amp EPS: 30 Amp

Drivetrain	
Transmission Type	Automatic PVT In-Line H-L-N-R-P
Transmission Fluid Type / Fluid Capacity	Polaris AGL Plus 37 oz. (1100 ml)
Front Gearcase Fluid Type / Fluid Capacity	Polaris Demand Drive Plus 9.3 oz. (275 ml)
Front Gearcase ADC Reservoir Fluid Type	Polaris Demand Drive Plus
Rear Gearcase Fluid Type / Fluid Capacity	Polaris ATV Angle Drive Fluid **X2:** 6.1 oz. (180 ml) **TOURING:** 7.1 oz. (210 ml)
Clutch Type	PVT w/EBS
Belt	3211123
Steering / Suspension	
Toe Out	0-1/8 in. (0-3 mm)
Front Suspension	Dual A-arm
Front Travel	9 in. / 22.9 cm
Rear Suspension	Dual A-arm w/Rolled IRS
Rear Travel	10.25 in. / 26 cm
Shock Preload Adjustment Front / Rear	Cam Adjustable
Wheels / Brakes	
Front Wheel Size / Bolt Pattern	**Steel:** 14 x 6 / 4-156 **Aluminum:** 14 x 5.5 / 4-156
Front Tire Model / Size	Maxxis AT / 26 x 8 - 14 Carlisle AT 489 II / 26 x 8 - 14
Rear Wheel Size / Bolt Pattern	**Steel:** 14 x 8 / 4-156 **Aluminum:** 14 x 7.5 / 4-156
Rear Tire Model / Size	Maxxis AT / 26 x 10 - 14 Carlisle AT 489 II / 26 x 10 - 14
Tire Air Pressure	Front: 7 psi (48 kPa) Rear: 5 psi (34.5 kPa)
Brakes	Single Control - Hydraulic **X2:** 4-Wheel Disc **TOURING:** 3-Wheel Disc
Brake Fluid	Polaris DOT 4 Brake Fluid

CLUTCH CHART

Altitude		Shift Weight	Drive Spring	Driven Spring
Meters (Feet)	**0-1800 (0-6000)**	24-68 5632418	Red / Grn 7043382	Red / Wht 3235088
	1800-3700 (6000 - 12000)	24-63 5632215	Red / Grn 7043382	Red / Wht 3235088

MISC. SPECIFICATIONS AND CHARTS

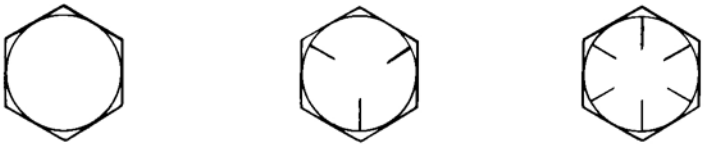
Conversion Table

Unit of Measure	Multiplied by	Converts to
ft. lbs.	x 12	= in. lbs.
in. lbs.	x .0833	= ft. lbs.
ft. lbs.	x 1.356	= Nm
in. lbs.	x .0115	= kg-m
Nm	x .7376	= ft.lbs.
kg-m	x 7.233	= ft. lbs.
kg-m	x 86.796	= in. lbs.
kg-m	x 10	= Nm
in.	x 25.4	=mm
mm	x .03937	= in.
in.	x 2.54	= cm
mile (mi.)	x 1.6	= km
km	x .6214	= mile (mi.)
Ounces (oz)	x 28.35	= Grams (g)
Fluid Ounces (fl. oz.)	x 29.57	= Cubic Centimeters (cc)
Cubic Centimeters (cc)	x .03381	= Fluid Ounces (fl. oz.)
Grams (g)	x 0.035	= Ounces (oz)
lb.	x .454	= kg
kg	x 2.2046	= lb.
Cubic inches (cu in)	x 16.387	= Cubic centimeters (cc)
Cubic centimeters (cc)	x 0.061	= Cubic inches (cu in)
Imperial pints (Imp pt)	x 0.568	= Liters (l)
Liters (l)	x 1.76	= Imperial pints (Imp pt)
Imperial quarts (Imp qt)	x 1.137	= Liters (l)
Liters (l)	x 0.88	= Imperial quarts (Imp qt)
Imperial quarts (Imp qt)	x 1.201	= US quarts (US qt)
US quarts (US qt)	x 0.833	= Imperial quarts (Imp qt)
US quarts (US qt)	x 0.946	= Liters (l)
Liters (l)	x 1.057	= US quarts (US qt)
US gallons (US gal)	x 3.785	=Liters (l)
Liters (l)	x 0.264	= US gallons (US gal)
Pounds - force per square inch (psi)	x 6.895	= Kilopascals (kPa)
Kilopascals (kPa)	x 0.145	= Pounds - force per square inch (psi)
Kilopascals (kPa)	x 0.01	= Kilograms - force per square cm
Kilograms - force per square cm	x 98.1	= Kilopascals (kPa)
π (3.14) x R^2 x H (height)		= Cylinder Volume

°C to °F: $^{9/5}$**(°C + 32) = °F** **°F to °C:** $^{5/9}$**(°F - 32) = °C**

Standard Torque Specifications

The following torque specifications are to be used only as a general guideline. There are exceptions in the steering, suspension and engine areas. Always consult the exploded views or each manual section for torque values of fasteners before using standard torque.



Bolt Size	Threads/In	Grade 2	Grade 5	Grade 8
		Torque in. lbs. (Nm)		
#10 -	24	27 (3.1)	43 (5.0)	60 (6.9)
#10 -	32	31 (3.6)	49 (5.6)	68 (7.8)
		Torque ft. lbs. (Nm)*		
1/4 -	20	5 (7)	8 (11)	12 (16)
1/4 -	28	6 (8)	10 (14)	14 (19)
5/16 -	18	11 (15)	17 (23)	25 (35)
5/16 -	24	12 (16)	19 (26)	29 (40)
3/8 -	16	20 (27)	30 (40)	45 (62)
3/8 -	24	23 (32)	35 (48)	50 (69)
7/16 -	14	30 (40)	50 (69)	70 (97)
7/16 -	20	35 (48)	55 (76)	80 (110)
1/2 -	13	50 (69)	75 (104)	110 (152)
1/2 -	20	55 (76)	90 (124)	120 (166)

Metric

6 x 1.0	72-78 In. lbs.
8 x 1.25	14-18 ft. lbs.
10 x 1.25	26-30 ft. lbs.

*To convert ft. lbs. to Nm multiply foot pounds by 1.382
*To convert Nm to ft. lbs. multiply Nm by .7376.

SPECIFIC TORQUE VALUES OF FASTENERS

Refer to exploded views in the appropriate section.

SAE Tap / Drill Sizes

Thread Size	Drill Size	Thread Size	Drill Size
#0-80	3/64	1/2-13	27/64
#1-64	53	1/2-20	29/64
#1-72	53	9/16-12	31/64
#2-56	51	9/16-18	33/64
#2-64	50	5/8-11	17/32
#3-48	5/64	5/8-18	37/64
#3-56	45	3/4-10	21/32
#4-40	43	3/4-16	11/16
#4-48	42	7/8-9	49/64
#5-40	38	7/8-14	13/16
#5-44	37	1-8	7/8
#6-32	36	1-12	59/64
#6-40	33	1 1/8-7	63/64
#8-32	29	1 1/8-12	1 3/64
#8-36	29	1 1/4-7	1 7/64
#10-24	24	1 1/4-12	1 11/64
#10-32	21	1 1/2-6	1 11/32
#12-24	17	1 1/2-12	1 27/64
#12-28	4.6mm	1 3/4-5	1 9/16
1/4-20	7	1 3/4-12	1 43/64
1/4-28	3	2-4 1/2	1 25/32
5/16-18	F	2-12	1 59/64
5/16-24	I	2 1/4-4 1/2	2 1/32
3/8-16	O	2 1/2-4	2 1/4
3/8-24	Q	2 3/4-4	2 1/2
7/16-14	U	3-4	2 3/4
7/16-20	25/64		

Metric Tap / Drill Sizes

Tap Size	Drill Size	Decimal Equivalent	Nearest Fraction
3 x .50	#39	0.0995	3/32
3 x .60	3/32	0.0937	3/32
4 x .70	#30	0.1285	1/8
4 x .75	1/8	0.125	1/8
5 x .80	#19	0.166	11/64
5 x .90	#20	0.161	5/32
6 x 1.00	#9	0.196	13/64
7 x 1.00	16/64	0.234	15/64
8 x 1.00	J	0.277	9/32
8 x 1.25	17/64	0.265	17/64
9 x 1.00	5/16	0.3125	5/16
9 x 1.25	5/16	0.3125	5/16
10 x 1.25	11/32	0.3437	11/32
10 x 1.50	R	0.339	11/32
11 x 1.50	3/8	0.375	3/8
12 x 1.50	13/32	0.406	13/32
12 x 1.75	13/32	0.406	13/32

Decimal Equivalents

1/64	.0156	
1/32	.0312	1 mm = .0394″
3/64	.0469	
1/16	.0625	
5/64	.0781	2 mm = .0787″
3/32	.0938	
7/64	.1094	3 mm = .1181″
1/8	.1250	
9/64	.1406	
5/32	.1563	4 mm = .1575″
11/64	.1719	
3/16	.1875	5 mm = .1969″
13/64	.2031	
7/32	.2188	
15/64	.2344	6 mm = .2362″
1/4	.25	
17/64	.2656	7 mm = .2756″
9/32	.2813	
19/64	.2969	
5/16	.3125	8 mm = .3150″
21/64	.3281	
11/32	.3438	9 mm = .3543″
23/64	.3594	
3/8	.375	
25/64	.3906	10 mm = .3937″
13/32	.4063	
27/64	.4219	11 mm = .4331″
7/16	.4375	
29/64	.4531	
15/32	.4688	12 mm = .4724″
31/64	.4844	
1/2	.5	13 mm = .5118
33/64	.5156	
17/32	.5313	
35/64	.5469	14 mm = .5512″
9/16	.5625	
37/64	.5781	15 mm = .5906″
19/32	.5938	
39/64	.6094	
5/8	.625	16 mm = .6299″
41/64	.6406	
21/32	.6563	17 mm = .6693″
43/64	.6719	
11/16	.6875	
45/64	.7031	18 mm = .7087″
23/32	.7188	
47/64	.7344	19 mm = .7480″
3/4	.75	
49/64	.7656	
25/32	.7813	20 mm = .7874″
51/64	.7969	
13/16	.8125	21 mm = .8268″
53/64	.8281	
27/32	.8438	
55/64	.8594	22 mm = .8661″
7/8	.875	
57/64	.8906	23 mm = .9055″
29/32	.9063	
59/64	.9219	
15/16	.9375	24 mm = .9449″
61/64	.9531	
31/32	.9688	25 mm = .9843
63/64	.9844	
1	1.0	

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Glossary of Terms

ABDC: After bottom dead center.
ACV: Alternating current voltage.
Alternator: Electrical generator producing voltage alternating current.
ATDC: After top dead center.
BBDC: Before bottom dead center.
BDC: Bottom dead center.
BTDC: Before top dead center.
CC: Cubic centimeters.
Center Distance: Distance between center of crankshaft and center of driven clutch shaft.
Chain Pitch: Distance between chain link pins (No. 35 = 3/8" or 1 cm). Polaris measures chain length in number of pitches.
CI: Cubic inches.
Clutch Buttons: Plastic bushings which aid rotation of the movable sheave in the drive and driven clutch.
Clutch Offset: Drive and driven clutches are offset so that drive belt will stay nearly straight as it moves along the clutch face.
Clutch Weights: Three levers in the drive clutch which relative to their weight, profile and engine RPM cause the drive clutch to close and grip the drive belt.
Crankshaft Run-Out: Run-out or "bend" of crankshaft measured with a dial indicator while crankshaft is supported between centers on V blocks or resting in crankcase. Measure at various points especially at PTO.
DCV: Direct current voltage
CVT: Centrifugal Variable Transmission (Drive Clutch System)
DCV: Direct current voltage.
Dial Bore Gauge: A cylinder measuring instrument which uses a dial indicator. Good for showing taper and out-of-round in the cylinder bore.
Electrical Open: Open circuit. An electrical circuit which isn't complete.
Electrical Short: Short circuit. An electrical circuit which is completed before the current reaches the intended load. (i.e. a bare wire touching the chassis).
End Seals: Rubber seals at each end of the crankshaft.
Engagement RPM: Engine RPM at which the drive clutch engages to make contact with the drive belt.
ft.: Foot/feet.
Foot Pound: Ft. lb. A force of one pound at the end of a lever one foot in length, applied in a rotational direction.
g: Gram. Unit of weight in the metric system.
gal.: Gallon.
ID: Inside diameter.
in.: Inch/inches.
Inch Pound: In. lb. 12 in. lbs. = 1 ft. lb.
kg/cm²: Kilograms per square centimeter.
kg-m: Kilogram meters.
Kilogram/meter: A force of one kilogram at the end of a lever one meter in length, applied in a rotational direction.
l or ltr: Liter.
lbs/in²: Pounds per square inch.
Left or Right Side: Always referred to based on normal operating position of the driver.
m: Meter/meters.
Mag: Magneto.
Magnetic Induction: As a conductor (coil) is moved through a magnetic field, a voltage will be generated in the windings. Mechanical energy is converted to electrical energy in the stator.
mi.: Mile/miles.
mm: Millimeter. Unit of length in the metric system. 1 mm = approximately .040".
Nm: Newton meters.
OD: Outside diameter.
Ohm: The unit of electrical resistance opposing current flow.
oz.: Ounce/ounces.
Piston Clearance: Total distance between piston and cylinder wall.
psi.: Pounds per square inch.
PTO: Power take off.
PVT: Polaris Variable Transmission (Drive Clutch system)
qt.: Quart/quarts.
Regulator: Voltage regulator. Regulates battery charging system output at approx. 14.5 DCV as engine RPM increases.
Reservoir Tank: The fill tank in the liquid cooling system.
Resistance: In the mechanical sense, friction or load. In the electrical sense, ohms, resulting in energy conversion to heat.
RPM: Revolutions per minute.
Seized Piston: Galling of the sides of a piston. Usually there is a transfer of aluminum from the piston onto the cylinder wall.
Possible causes: 1) improper lubrication; 2) excessive temperatures; 3) insufficient piston clearance; 4) stuck piston rings.
Stator Plate: The plate mounted under the flywheel supporting the battery charging coils.
TDC: Top dead center. Piston's most outward travel from crankshaft.
Volt: The unit of measure for electrical pressure of electromotive force. Measured by a voltmeter in parallel with the circuit.
Watt: Unit of electrical power. Watts = amperes x volts.
WOT: Wide open throttle.

NOTES