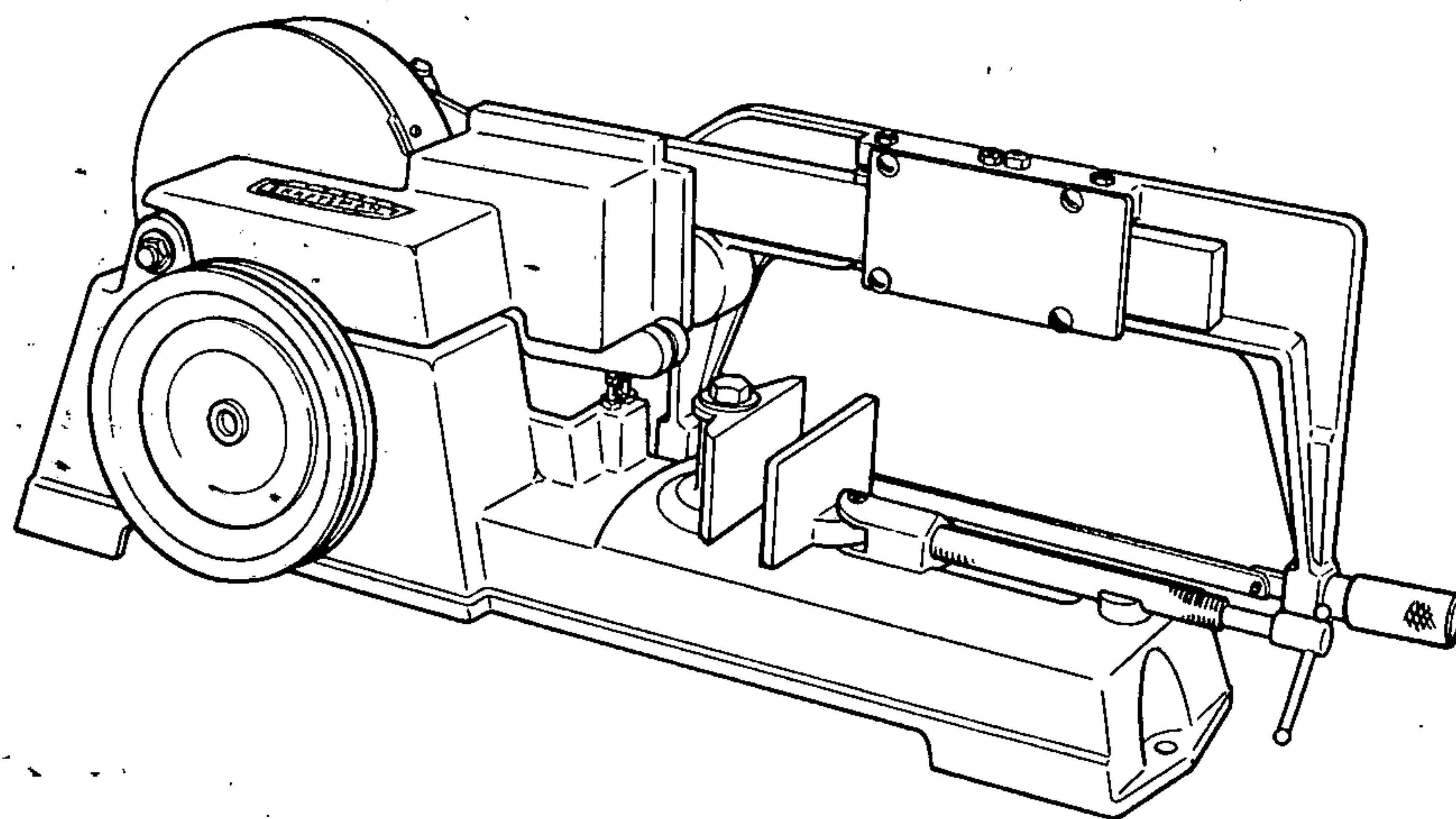
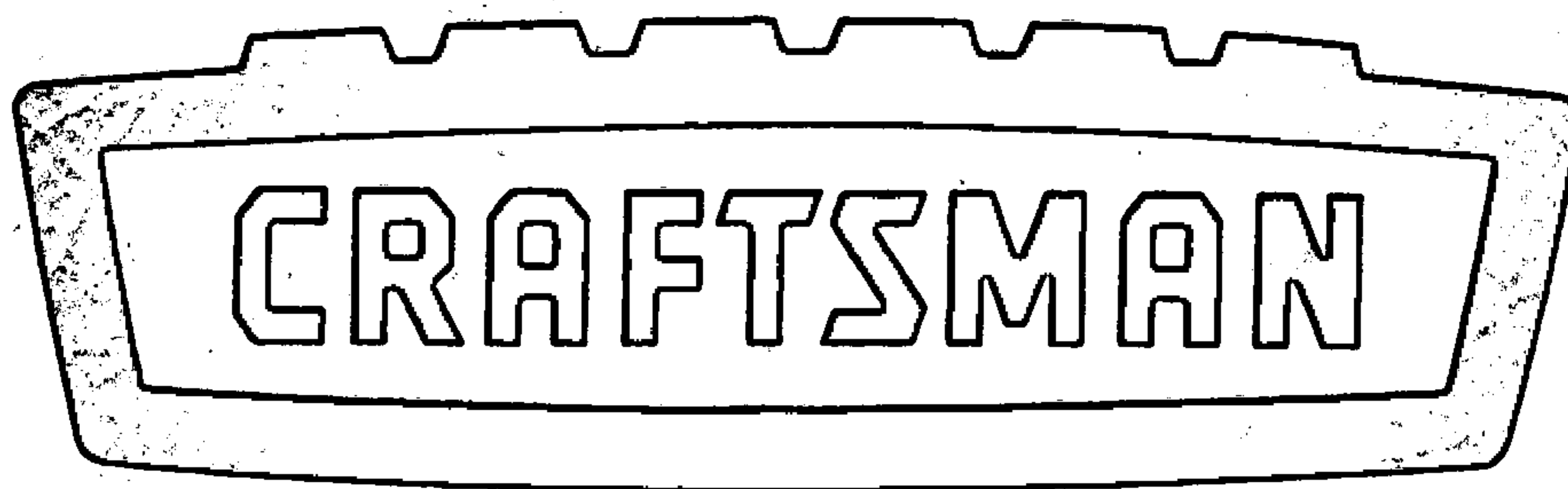


OPERATING INSTRUCTIONS
and
PARTS LIST



POWER HACK SAW
MODEL 101.22941

SEARS, ROEBUCK AND CO.—U.S.A.
SIMPSONS-SEARS LIMITED—CANADA

CRAFTSMAN

SAFETY RULES FOR POWER TOOLS

1. KNOW YOUR POWER TOOL

Read the owner's manual carefully. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.

2. GROUND ALL TOOLS

If tool is equipped with three-prong plug, it should be plugged into a three-hole receptacle. If adapter is used to accommodate two-prong receptacle, the adapter wire must be attached to a known ground. Never remove third prong.

3. KEEP GUARDS IN PLACE

and in working order.

4. REMOVE ADJUSTING KEYS AND WRENCHES

Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on tool.

5. KEEP WORK AREA CLEAN

Cluttered areas and benches invite accidents.

6. AVOID DANGEROUS ENVIRONMENT

Don't use power tools in damp or wet locations. Keep work area well illuminated.

7. KEEP CHILDREN AWAY

All visitors should be kept a safe distance from work area.

8. MAKE WORKSHOP KID PROOF

— with padlocks, master switches, or by removing starter keys.

9. DON'T FORCE TOOL

It will do the job better and be safer at the rate for which it was designed.

10. USE RIGHT TOOL

Don't force tool or attachment to do a job it was not designed for.

11. WEAR PROPER APPAREL

No loose clothing or jewelry to get caught in moving parts.

12. USE SAFETY GLASSES

Also use face or dust mask if cutting operation is dusty.

13. SECURE WORK

Use clamps or a vise to hold work when practical. It's safer than using your hand, frees both hands to operate tool.

14. DON'T OVERREACH

Keep your proper footing and balance at all times.

15. MAINTAIN TOOLS IN TOP CONDITION

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

16. DISCONNECT TOOLS

before servicing and when changing accessories such as blades, bits, cutters.

17. AVOID ACCIDENTAL STARTING

Make sure switch is "OFF" before plugging in cord.

18. USE RECOMMENDED ACCESSORIES

Consult the owner's manual. Use of improper accessories may be hazardous.



The operation of any power tool can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before commencing power tool operation. We recommend **Wide Vision Safety Mask** for use over spectacles, or standard safety glasses... available at Sears retail or catalog stores.



CRAFTSMAN POWER HACK SAW

MODEL NO. 101.22941

HOW TO ORDER REPAIR PARTS

The Model Number will be found on a plate attached to your saw, at the base. Always mention the Model Number when requesting service or repair parts for your POWER HACK SAW.

All parts listed herein may be ordered through SEARS, ROEBUCK AND CO. or SIMPSONS-SEARS LIMITED. When ordering parts by mail, selling prices will be furnished on request or parts will be shipped at prevailing prices and you will be billed accordingly.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE
FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

- | | |
|---------------------|-----------------------------|
| 1. The PART NUMBER | 2. The PART DESCRIPTION |
| 3. The MODEL NUMBER | 4. The NAME of ITEM - POWER |
| 101.22941 | HACK SAW. |

Your Sears merchandise takes on added value when you discover that Sears has over 2,000 Service Units throughout the country. Each is staffed by Sears-trained, professional technicians using Sears approved parts and methods.

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SIMPSONS-SEARS LIMITED, CANADA**

OPERATION AND MAINTENANCE INSTRUCTIONS

POWER HACK SAW - MODEL NUMBER 101.22941

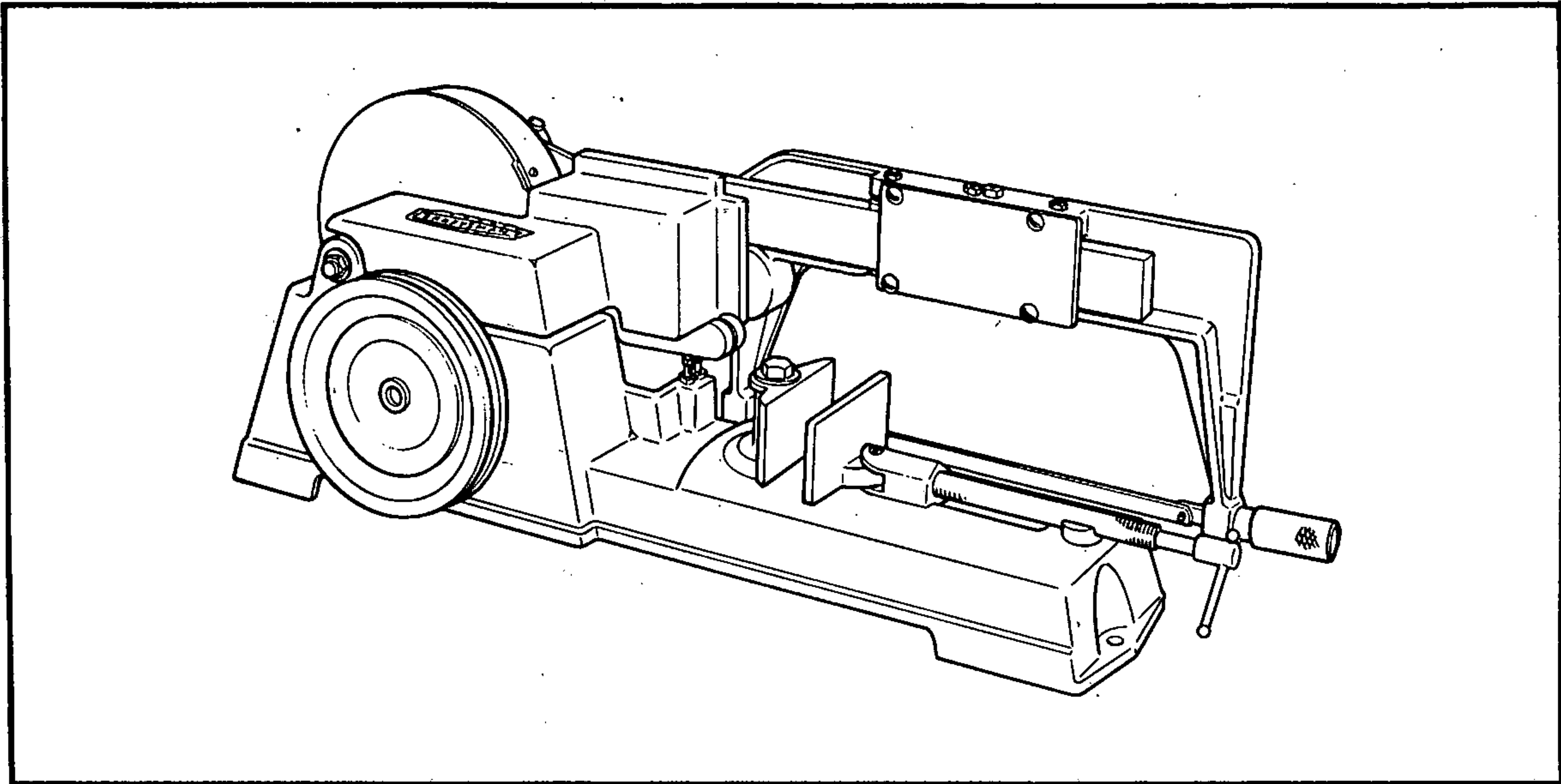


FIGURE 1

SETTING UP YOUR POWER HACK SAW

Unpack the power hack saw carefully. Weight, motor pulley and drive belt are separately wrapped and packed under the saw base. Remove rust-preventive from machined surfaces with kerosene.

For stationary use, bolt the saw to a workbench in a position which will provide room for handling the longest stock you will cut. For portable use, bolt it to a suitable board (1 to 2 inches thick) on which the motor can also be mounted. In either case, shim under the feet as required to prevent twisting of the saw base when the bolts are tightened. Attach weight to main slide.

The motor used to drive the saw must be a 1750 rpm type to obtain the proper blade speed for smooth cutting. We recommend a minimum of 1/4 hp size. Be sure electric motor is properly grounded.

The two inch motor pulley supplied with your hack saw will reciprocate the saw blade at about 80 strokes per minute. This is the proper cutting speed for cast iron, machine

steel, pipe and conduit. For other materials use pulley shown in following table.

MATERIAL	STROKES PER MIN.	PULLEY OD
Aluminum, brass, fiber, plastic	100	2-1/2
Annealed tool steel, alloy steel	60	1-1/2

Mount the motor pulley on your motor, and mount the motor on the bench (or board) in a position which will align the motor pulley with the saw drive pulley — so that the saw main gear will rotate in direction indicated by the arrow on the gear. When mounted, the belt must run straight and have the proper tension. If it is too loose, it will slip and wear out; if too tight, it can damage the motor and hack saw drive shaft bushings. We suggest mounting the motor on a motor rail or similar pivot type mount which will allow motor weight to keep correct belt tension. Otherwise, provide some means of adjusting the belt tension, and adjust it so that finger pressure at its mid point will depress the belt approximately 1/2 inch.

OPERATING PRINCIPALS

Your Craftsman Power Hack Saw is designed to cut through metal stock up to 3-1/2" wide x 4" high. NOTE: Maximum stock width at 45° is 2-1/2". The saw has drawcut action and cuts when the blade moves toward the rear. The blade is raised slightly on the forward stroke to avoid drag.

The saw blade is secured to a main slide by pins at either end, blade tension is maintained by the large tension knob. Reciprocal motion is applied to the main slide by a crank lever eccentrically attached to the main gear which is turned by a pinion mounted on the same shaft as the drive pulley. The lifting arm supports the main slide and may be raised up out of the way when loading with stock. A ratchet arrangement prevents the saw from dropping while work is being clamped in the saw vise.

The vise jaw can be positioned straight (for a 90° cutoff), or at any angle to 45°. Loosening of a hex head capscrew permits setting the jaw at a desired position. When sawing at more than a 15° angle, remove the capscrew and move the vise jaw to the right hand position on the base.

The vise swivel jaw (which swivels to adjust automatically to any position of the vise jaw) is mounted on a slide which permits it to be moved for opening or closing of the vise jaws. It can be moved freely when the vise screw handle is raised. When the handle is lowered and the screw engages the nut, the jaws can be tightened to firmly hold the workpiece. The screw must be loosened before the handle can be raised.

OPERATING PROCEDURE

1. Raise the main slide enough to insert workpiece under saw blade. Turn main gear until ratchet plates engage ratchet block to hold main slide in raised position.
2. Adjust stationary vise jaw for desired angle and tighten the capscrew. The stationary jaw can be set square with saw blade by using a machinist square held against the blade and the jaw.
3. Raise the vise screw and slide swivel jaw against the workpiece. Lower the vise screw and tighten to clamp the workpiece securely.

CAUTION

Solid clamping is essential to prevent blade breakage.

4. Lift the main slide, disengage ratchet plates from ratchet block and lower blade onto workpiece.

CAUTION

Do not allow main slide to drop. Shock of the ratchet plates striking the ratchet teeth may cause damage to these parts.

5. Check clearance of saw frame at each end of stroke before starting machine.

6. Check saw blade pressure. Saw pressure is varied by moving the weight (33, page 4) on the main frame. Proper saw pressure depends upon the type of material to be cut. Soft materials require less pressure than hard material. Cross-sections having little material require less pressure than solid cross-sections. Never over feed, as this causes blade breakage and poor quality cuts.

ADJUSTMENTS

The following adjustments are provided to compensate for wear and should be checked if you have excessive blade breakage.

LIFTING ARM. The lifting arm (9, page 4) swings on tapered bearing surfaces and is adjusted (only when necessary) by turning the lock nut (68) with a wrench.

RATCHET MECHANISM. Lifting action of the saw arm is controlled by a cam arrangement on the main gear, connected to two dogs (1) by a crank lever (5). Two hardened steel plates on top of the dogs serve as the pawl against a ratchet block (13). The plates are adjusted by the set screws (4) with which they are attached. When worn the plates may be removed and resharpened and are easily replaced when worn out. The plates should be so adjusted as to clear the ratchet on the cutting stroke but engage on the return stroke.

MAIN SLIDE. The main slide (41) should slide freely on the bar (71) but without side play. Takeup gib (42) is provided for this adjustment. Three jam nuts (48) lock this adjustment when made.

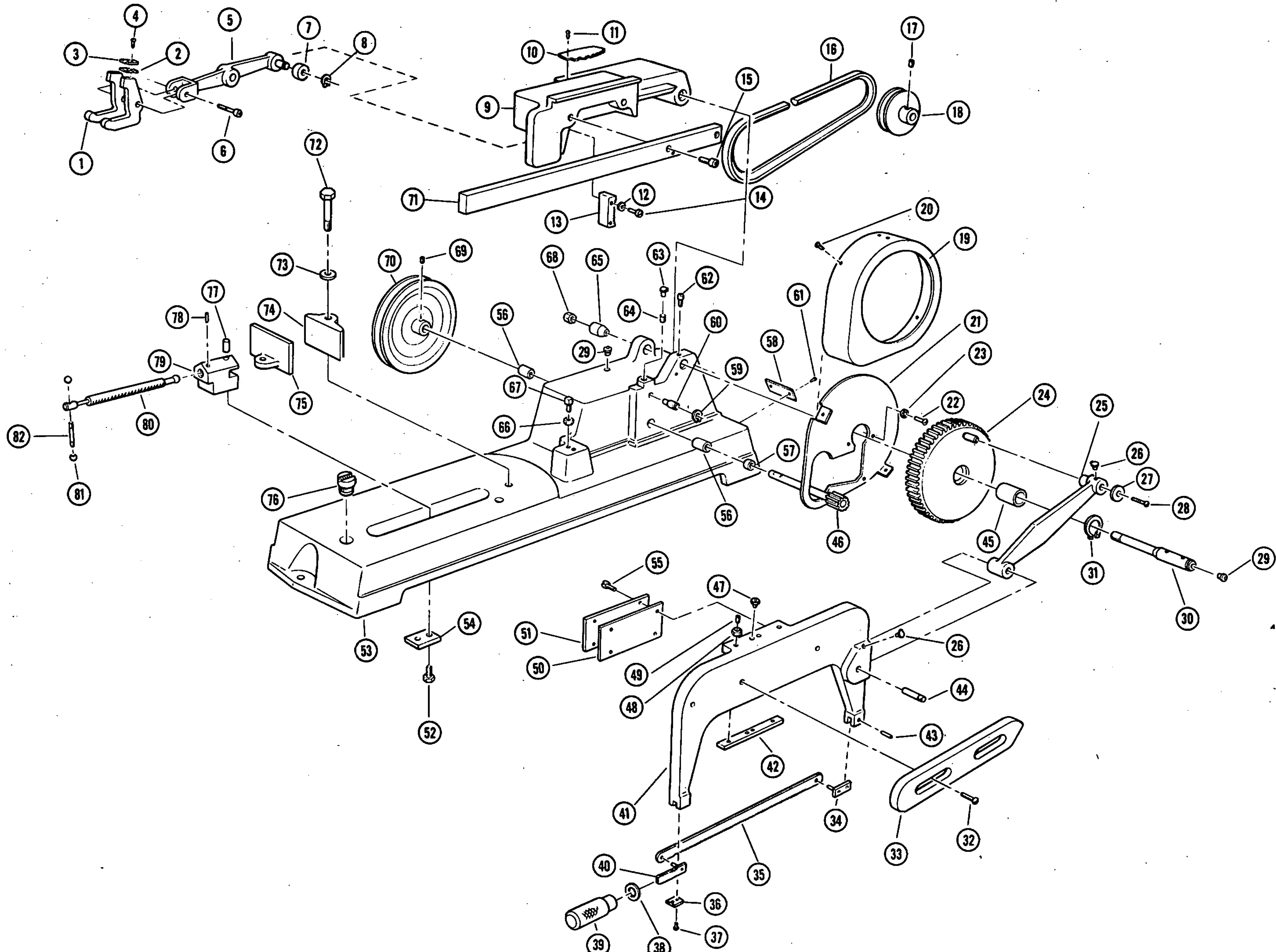
LUBRICATION

Lubricate regularly by putting 3 to 4 drops of SHELL TELLUS #29 (or SAE #10 AUTOMOTIVE) oil into each of the oil holes, Located at:

- Two on the top of saw base (One ball & one cup oiler).
- Two on the main slide (One ball & one cup oiler).
- Two on the front guard (Two holes at the top of guard).
- Oiler in pin (One ball in end).
- Oiler in crank lever.

CRAFTSMAN POWER HACK SAW - MODEL 101.22941

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PARTS LIST FOR CRAFTSMAN POWER HACK SAW

MODEL NO. 101.22941

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	452-055	Lever, Raising (2 Req'd)	40	4350-18	Pin & Holder Assembly
2	699-225	Spacer, Raising Lever Plate (Use One Only)	41	704-070	Slide, Main
3	556-289	Plate, Raising Lever (2 Req'd)	42	345-070	Gib, Main Slide
4	100749	* Rd. Hd. Mach. Screw, #8-32 x 1/4 (4 Req'd)	43	455734	* 1/8 x 3/4 Roll Pin
5	4350-22	Lever & Pin Assembly	44	562-151	Pin, Crank
6	562-153	Pin	45	L3-109	Bushing
7	4350-21	Roller Bushing Assembly	46	4350-13	Shaft & Pinion Assembly
8	641-082	Retainer Ring	47	DB4-35	Oiler
9	002-086	Arm, Lifting	48	114501	* Hex Jam Nut, 1/4-20 (3 Req'd)
10	536-042	Nameplate, Craftsman	49	102710	* Hd'Less Set Screw, 1/4-20 x 7/8. (Cup Pt., 3 Req'd)
11	145370	* P.K. Drive Screw, #2 x 1/4 (2Req'd)	50	711-088	Shim, Main Slide Plate
12	114604	* 1/4 Shakeproof Washer (2 Req'd)	51	556-335	Plate, Main Slide
13	053-047	Block, Feed Ratchet	52	106324	* Hex. Hd. Cap Screw, 5/16-18 x 5/8 (2 Req'd)
14	114361	* Fillister Hd. Mach. Screw, 1/4-20 x 1-1/2 (2 Req'd)	53	4350-20	Base with Bushings & Oiler Assembly (Includes 29, 56)
15	138241	* Soc. Hd. Cap Screw, 3/8 - 16 x 3/4 (2 Req'd)	54	556-287	Plate, Vise Slide
16	051-023	Belt "V"	55	113955	* Rd. Hd. Mach. Screw, 1/4-20 x 1/2 (4 Req'd)
17	115321	* Soc. Hd. Set Screw, 5/16 - 18 x 5/16 (Cup Pt.)	56	049-050	Bushing (2 Req'd)
18	560-168	Pulley, Motor	57	123-139	Collar
19	342-101	Guard, Front	58	536-024	Nameplate, Craftsman #Mod.
20	169684	* Rd. Hd. Self Tapping Screw #6 - 1/4 (2 Req'd)	59	641-080	Retainer, Ring
21	342-102	Guard, Rear	60	562-168	Pin, Pivot
22	113954	* Rd. Hd. Mach. Screw, 1/4-20 x 3/8 (2 Req'd)	61	145370	* P.K. Drive Screw, #2 x 1/4 (2 Req'd)
23	114604	* 1/4 Shakeproof Washer (3 Req'd)	62	102570	* Soc. Set Screw (Cup Pt.), 1/4-20 x 3/8
24	4350-19	Main Gear Assembly (Includes 45)	63	547-016	Oiler
25	452-057	Lever, Crank	64	696-276	Screw, Special Set
26	547-014	Oiler, Drive (2 Req'd)	65	702-160	Sleeve, Drive Gear Pin
27	932-140	Washer	66	114501	* Hex Jam Nut, 1/4-20 (2 Req'd)
28	113954	* Rd. Hd. Screw, 1/4-20 x 3/8	67	102872	* Sq. Hd. Set Screw, 1/4-20 x 3/4 (Cup Pt., 2 Req'd)
29	DB4-35	Oiler (2 Req'd)	68	9414201	* Self Locking Nut 3/8-16
30	562-175	Pin, Drive Gear	69	102592	* Soc. Hd. Set Screw, 3/8-16 x 3/8
31	641-084	Retainer, Ring	70	560-166	Pulley, Drive
32	113862	* Rd. Hd. Mach. Screw 5/16-18 x 7/8 (2 Req'd)	71	048-075	Bar, Main Slide
33	946-001	Weight	72	100164	* Hex. Hd. Cap Screw, 1/2-13 x 3
34	4350-11	Pin & Holder Assembly (Rear)	73	9420422	* Washer, 1/2 x 1-1/8 x 1/16
35	042-036	Blade, Hack Saw (Craftsman)	74	431-015	Jaw, Stationary
36	556-290	Plate, Frt. Saw Holder	75	431-014	Jaw, Swivel
37	100750	* Rd. Hd. Mach. Screw, #8-32 x 3/8 (2 Req'd)	76	537-159	Nut, Vise Screw
38	932-077	Washer	77	456713	* Roll Pin, 3/8 x 1
39	441-105	Knob, Front Saw Holder	78	455862	* Roll Pin, 1/8 x 7/8
			79	704-058	Slide, Vise
			80	696-275	Screw, Vise
			81	L2-41A	Ball, Screw Handle (2 Req'd)
			82	L2-29B	Handle
				421-115	Owners Manual (not illustrated)

*Standard Hardware Items — May Be Purchased Locally.