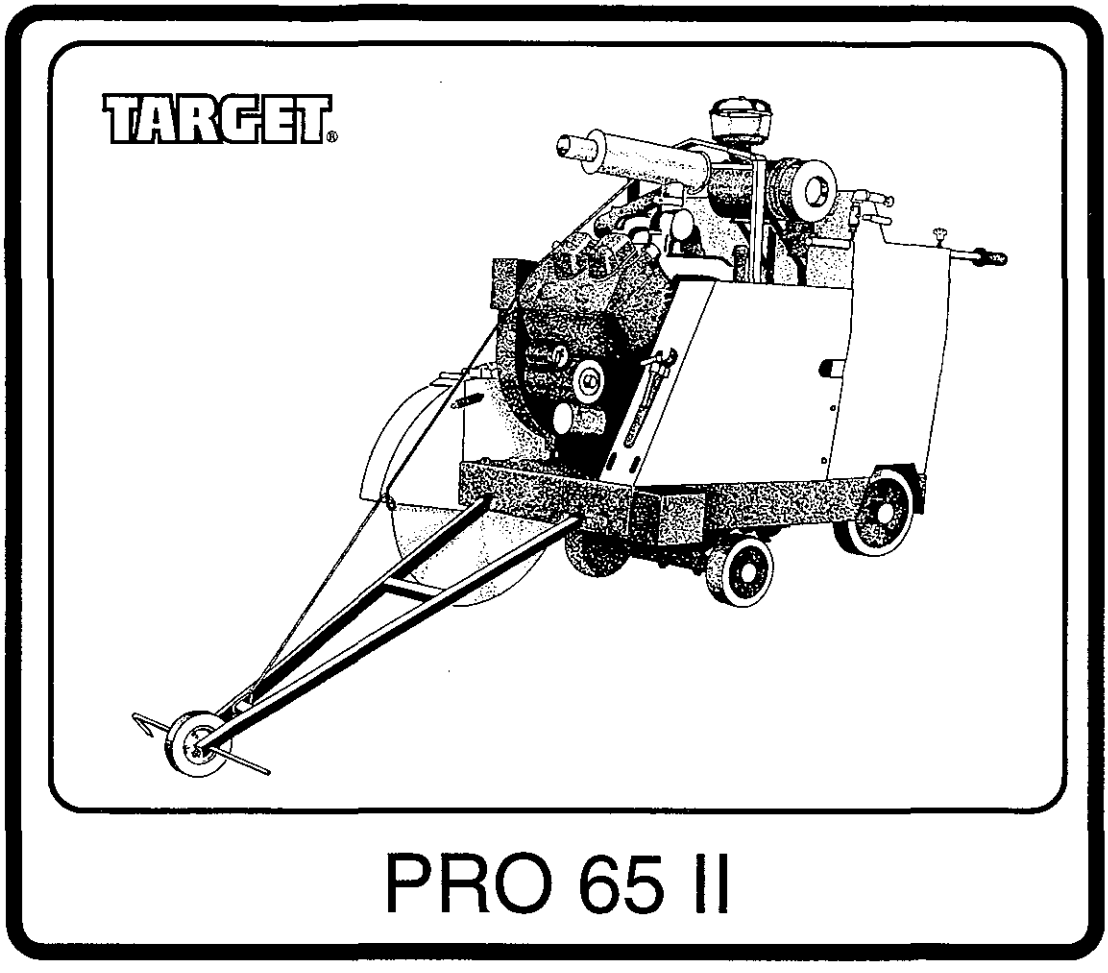
OPERATING INSTRUCTIONS AND PARTS LIST
INSTRUCCIONES DE OPERACIÓN Y LISTA DE PIEZAS



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TARGET®
4320 Clary Boulevard
Kansas City, MO 64130
Customer Service ..... 800~288~5040
Corp. Office ..... 816~923~5040
Cust. Service FAX ..... 800~825~0028
Corp. Office FAX ..... 816~923~7958
Int'l. FAX ..... 816~923~0028

Target Products Asia
Room 806
Taichi Roppongi Mansion
6-3-15 Roppongi
Minato-Ku
Tokyo, Japan 106
PHONE ..... 03~5411~2775
FAX ..... 03~5411~2776

Diamant Boart /
Target International Trading Co.
Australia
26/7 Salisbury Road
Castle Hill, N.S.W. 2154
Australia
PHONE ..... 02~634~4677
FAX ..... 02~680~4982
DIAMANT BOART INC.

0A7610
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Printed in U.S.A.

SAFETY WARNINGS FOR OPERATION OF SAW.
FAILURE TO COMPLY WITH WARNINGS COULD RESULT IN SERIOUS BODILY INJURY.

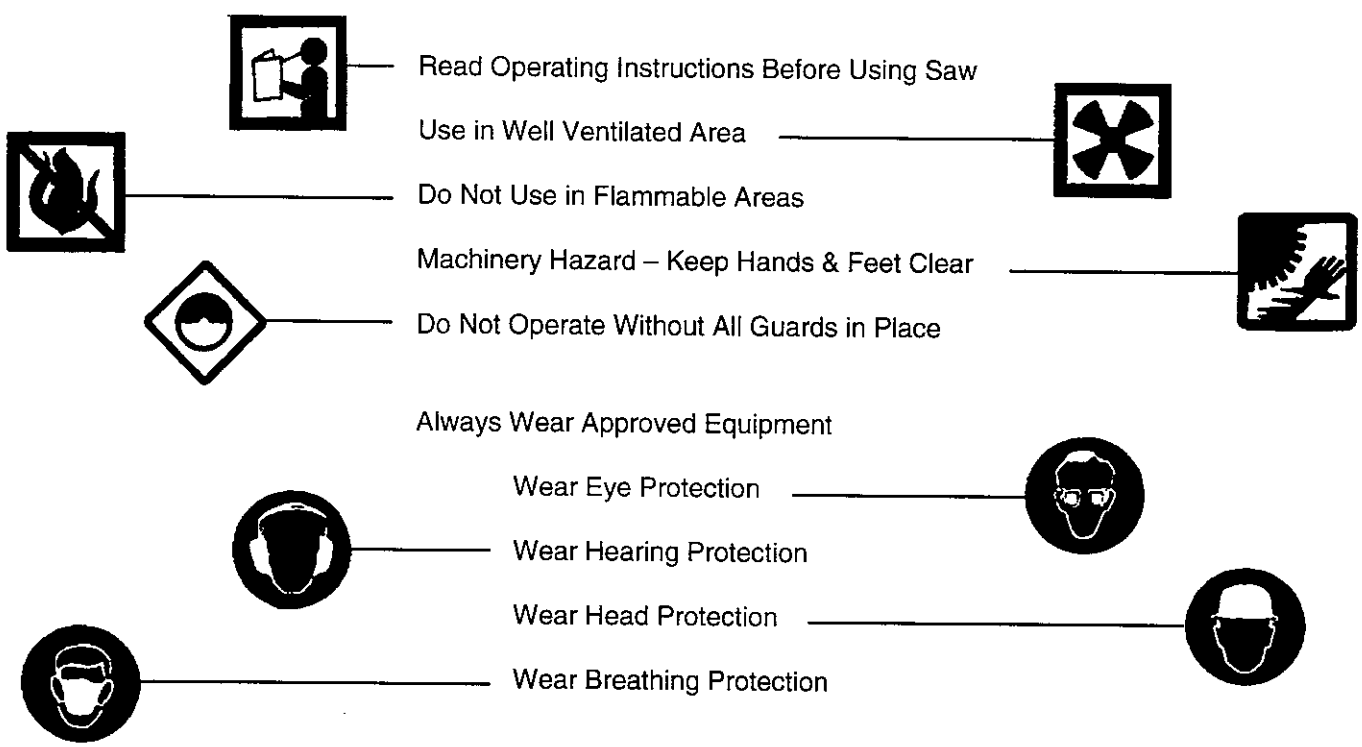
DO

DO read and understand the instructions before operating the saw.
DO always keep the guards in place.
DO always wear safety approved hearing, eye, head and respiratory protection.
DO keep all parts of your body away from the blade and all other moving parts.
DO know how to stop the saw quickly in case of an emergency.
DO shut off the engine and allow it to cool before refueling.
DO inspect the blade, flanges, and shafts for damage before installing the blade.
DO use only reinforced abrasive blades or steel center diamond blades manufactured for use on concrete saws.
DO use only blades marked with a maximum operating speed greater than the blade shaft speed.
DO use caution and follow the instructions when loading and unloading the saw.

DO NOT

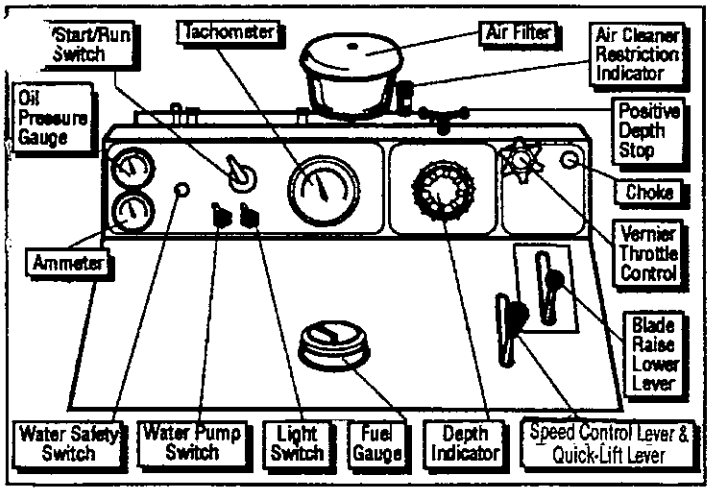
DO NOT use an abrasive blade that has been dropped.
DO NOT allow other persons to be near the saw when starting, refueling, or when cutting.
DO NOT operate a gasoline engine in an enclosed area unless it is properly vented.
DO NOT use damaged equipment or blades.
DO NOT operate the saw in areas of combustible material. Sparks from the saw could cause a fire or an explosion.
DO NOT allow blade exposure from the guard to be over 180 degrees.
DO NOT leave the saw unattended with the engine running.
DO NOT operate the saw while under the influence of drugs or alcohol.

⚠ Symbol Definitions



GENERAL INSTRUCTIONS

Before operating the saw, review the instructions in the engine manual for operation of the engine, and become familiar with the controls and features.



BEFORE SAWING

⚠ **WARNING**: Follow the detailed operating instructions on the top of the cowl.

1. Mount the blade solidly and firmly on the arbor. The lock pin in the outer blade flange must go completely through the blade and into the matching hole on the inside blade flange. Tighten the blade flange nut securely.

2. The front and rear pointer must be checked for alignment with the blade. They MUST be in line with the blade mounted on the blade shaft. Use a chalk line or long straight edge to verify alignment.

3. Saw in a straight line. Mark the cutting line clearly so the saw operator can follow the line without difficulty and not have to twist the saw from side to side trying to force the blade back on line.

4. Start the engine. Follow the procedures in the Wisconsin Engine Manual. Always have the hydrostatic transmission Speed Control Lever in the ***STOP*** position when starting the engine.

5. Let the engine warm up at moderate speed for a few minutes.

6. For wet sawing, open the water valve FULL open. Be sure the water jets in the blade guard are open and each side of the blade has an adequate supply of water before you lower the blade. You must have 2-1/2 to 5 gallons of water per minute flowing over the blade to get maximum blade life. If the water supply is interrupted, stop cutting immediately. The Water Safety Switch will stop the engine.

   ⚠ **NOTE**: The Water Safety Switch cannot detect a clogged water line because it senses pressure, *NOT* flow.

   To start the saw when cutting dry, or when the water is not under pressure, push in the re-set button in the center of the Water Safety Switch. Once the switch is pushed in to reset, water pressure MUST be present to activate the safety shutdown.

   ⚠ ***Never run the water pump without water flowing through it.***

7. All sawing is done at full throttle. The Governor is factory set for the correct speed. *Do not change the Governor setting* unless you are changing the blade capacity and need to adjust the blade shaft speed (Refer to charts on page 4).

TO MANEUVER: MANUALLY AND WITH SPEED CONTROL

1. Raise the blade as high as required so the blade will not strike pavement when maneuvering.

   This saw is equipped with an electrically powered hydraulic lift. By pulling back on the Blade Raise/Lower Lever, or engaging the Quick Lift Button, the blade will be lifted quickly, without operator effort. The engine need not be running. To lower the blade, simply push the Raise/Lower Lever forward. To lower slowly, push the lever forward very slightly. The rate of descent of the saw is proportional to the distance the lever is pushed.

2. Pull out the extension guide handles to the length of the desired leverage. Lift the rear wheels just clear of the pavement and maneuver as desired.

3. The hydrostatic Speed Control Lever lets the operator quickly maneuver the saw forward or reverse at infinitely variable speeds from 0 to approximately 250 ft. per minute forward, and 250 ft. per minute in reverse. By moving the Speed Control Lever backward from the ***STOP*** position, the saw will move in reverse. By moving the Speed Control Lever forward from the ***STOP*** position, the saw will move forward. For maximum maneuvering speeds, push the speed control lever all the way forward, or all the way backward for reverse.

   ⚠ ***IMPORTANT:*** When maneuvering with power, the engine should be running at half or more maximum speed so the hydraulic pump can operate efficiently. For maximum speeds forward or reverse, the engine must be running at maximum speed.

TO START SAWING

1. Follow all the instructions outlined above.

2. Lower the blade into the cut (never deeper than required) by pushing forward on the Blade Raise/Lower hydraulic control Lever located on the right side, top of cowl.

   ⚠ **WARNING: Care must be taken when lowering the blade into the cut in order to prevent damage to the blade.**

   ⚠ ***WARNING: If the engine should stall for any reason — raise the blade completely out of the cut before starting the engine again!*** When lowering the blade into a partially made cut, be certain the blade is perfectly aligned within the cut.

3. ADJUSTMENT AND USE OF DEPTH INDICATOR – To properly use the Depth Indicator, lower the blade until it touches the pavement, then set the pointer on the dial to "0". The pointer will then indicate on the dial the actual depth of the cut as the blade penetrates the concrete.

   POSITIVE DEPTH STOP – Lower the blade until it touches the pavement. Set the Depth Indicator to "0". Cut into the pavement until the blade reaches the desired depth. Turn the Positive Depth Stop handle CLOCKWISE until resistance to turning is noticeable. For greater depth, turn the handle COUNTERCLOCKWISE. For lesser depth, turn the handle CLOCKWISE.

   STOP BOLT ADJUSTMENT – To prevent blade flange wear due to contact with the pavement, adjust the 1/2"-13 stop bolt, located between the saw frame and the front axle.

4. Move the Speed Control Lever forward, slowly, until the desired cutting speed is obtained. Monitor the engine speed shown on the Tachometer for greater cutting efficiency.

5. ADJUSTMENT FOR STRAIGHT LINE SAWING – (Adjustment bolt is located at rear, lower left of saw.) Varying job conditions, blade

diameter and differences in aggregate hardness can sometimes cause the saw to pull to one side. If this occurs, loosen the two bearing mounting bolts, then turn the adjustment bolt CLOCKWISE to correct it if the saw is leading off to the left, or turn the adjustment bolt COUNTERCLOCKWISE if the saw is leading off to the right. ***DO NOT FORCE*** the adjustment bolt. Retighten the bearing mounting bolts.

AT FINISH OF CUT

1. Move the Speed Control Lever to the ***STOP*** position. Bring the blade out of the cut by pulling back on the hydraulic Blade Raise/Lower Lever, or by engaging the Quick Lift Button. Raise the blade high enough to clear the pavement when maneuvering the saw.

2. Push the engine throttle to the ***IDLE*** position.

3. Turn off the water valve.

4. If the hydrostatic Speed Control Lever is used for maneuvering, the engine should be at half throttle or more–then operate the Speed Control Lever to get the desired speed in either direction.

MAINTENANCE INSTRUCTIONS

1. LUBRICATION – The blade shaft bearings must be greased after every 8 hours of operation. Lubricate the blade shaft while the shaft is rotating at a slow speed by slowly pumping 3 to 5 times, or until grease starts to "ooze" from under the seal. All other fittings should be greased after a maximum of 40 hours of operation. If a bearing is subject to continual water spray, it should be greased more often. Use a general purpose #2 lithium based grease without molybdenum disulfide.

2. CHECK ENGINE OIL DAILY – Keep oil at the proper level. Keep oil clean. Change every 50 hours of operation using oil meeting API classification MS, SD, SE or better. Change the filter with every oil change. The system capacity with the filter is 7 quarts.

3. CLEAN AIR FILTER outer element when the Air Cleaner Restriction Indicator appears red. Do not clean the inner safety element! Replace the inner element yearly, or if it becomes damaged. Clean the precleaner dust bowl when dust accumulates.

4. CHECK HYDROSTATIC TRANSMISSION OIL level in the oil expansion tank periodically. When adding oil, use SAE30W30 with API classification SE, CC, CD or better.

5. HYDRAULIC LIFTING PUMP – Check the oil level periodically and add DEXRON II transmission fluid to bring the level to full. Do not overfill, or fluid will be expelled through the fill cap assembly when lowering the saw. The system capacity is 1.25 quarts.

6. BELT CARE – This saw is equipped with factory tensioned high-tensile V-belts. Check the tension as it is set on the new saw and never tension beyond this point. Use a V-belt tension test to check the setting on a single belt of a matched set of V-belts by applying load at the center of the belt span. Deflection should be 5/16" with a 5 to 6 lb. load. Never allow the belts to slip as not enough tension will destroy them quickly. Change the belts in sets only.

7. HYDROSTATIC TRANSMISSION OUTPUT CHAIN – If the chain becomes too loose it may be tightened by loosening the four hydrostatic transmission bolts and by moving the unit up in the adjusting slot. A jack screw is under the transmission to assist movement and retain the position. Retighten the transmission bolts after adjustment.

   ⚠ *CAUTION:* ***Do not overtighten chain.*** The correct tightness allows a slight amount of slack. After tightening the chains, rotate each sprocket, stopping every 90 degrees, and recheck to make sure the chain is not overtightened.

   Periodically lubricate the chain with oil to reduce chain wear. The easiest way to apply it is with a small brush.

8. ENGINE CARE – See the Wisconsin engine manual. Clean dust and dirt from the cooling fins daily, or as required, to provide adequate cooling.

GOVERNOR SETTING

Wisconsin Engine Model V-465D 65HP

GOVERNOR ADJUSTMENT – The Governor Rod connection to the carburetor must be very carefully adjusted for length, otherwise the Governor will not function properly and will cause the engine to surge. With the engine at rest, the Governor Spring will keep the flyweights in, and the Control Rod must be long enough to hold the Carburetor Throttle wide open at that point.

With the Control Rod disconnected from the Governor Lever, as illustrated in Figure 1, push the rod toward the carburetor as far as it will go. This will put the Carburetor Throttle Lever in a wide open position. The Governor Lever should then be moved as far as possible in the same direction. Holding both parts in the above position, the rod should be screwed in or out of the swivel block on the carburetor until the bent end of the rod registers with the hole in the lever – then screw the rod in one more turn. The extra turn will shorten the linkage slightly and will enable the Carburetor Throttle Lever to bounce back from the Stop pin rather than jam against the pin when a load is suddenly applied to an idling engine. This will eliminate excessive wear on the threads in the Carburetor Throttle Swivel Block.

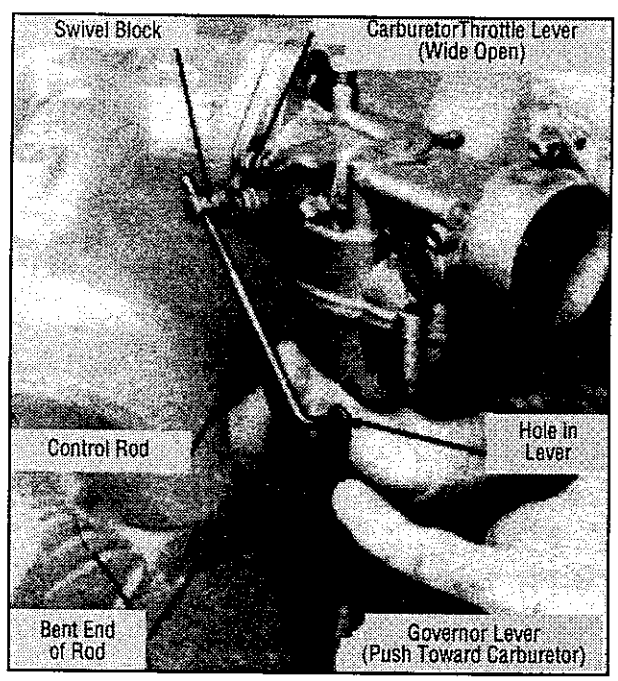


Figure 1

GOVERNOR LEVER (Figure 2) – The Governor Lever is furnished with 12 holes for attaching the Governor Spring. It is very important that the spring is hooked into the proper hole to suit the speed at which the engine is to be operated. The Governor Lever Chart shows the full load and no load speeds of the engine and the hole corresponding thereto. Note that the full load speed is less than the no load speed and this must be taken into consideration in readjusting the Governor. As an example: if the engine is to be operated at 2000 revolutions per minute under load, the spring should be hooked into the 6th hole in the Governor Lever and the spring tension adjusted with the adjusting screw to run 2200 R.P.M. under no load. The speed at full load will then be approximately 2000 revolutions per minute.

The Tachometer or revolution counter should be used against the crankshaft to check the speed while adjusting the Governor spring tension. Tightening the adjusting screw locknut will give higher speeds, while loosening the locknut will lower the spring tension and reduce the R.P.M.

LOAD RPM	NO LOAD RPM	HOLE NO.
1500	1685	3
1600	1825	4
1700	1855	4
1800	2000	5
1900	2055	5
2000	2200	6
2100	2230	6
2200	2375	7
2300	2440	7
2400	2545	8
2500	2695	9
2600	2745	9
2700	2810	9
2800	2935	10
2900	3065	11
3000	3175	12

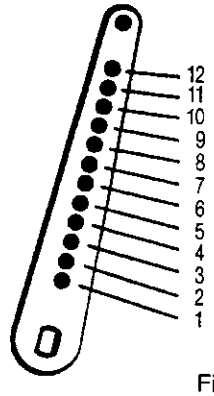


Figure 2

INSTRUCTIONS FOR TRANSPORTING SAW

When transporting the saw on a truck, the Speed Control Lever MUST be in the ***STOP*** POSITION.

Completely lower the unit to relieve the weight on the front axle assembly and the Positive Depth Stop while transporting.

To prevent undue stress and strain on the propelling mechanism for prolonged hauling, the saw must be blocked.

Use **EXTREME CAUTION** and **SLOW SPEED** when using the self-propelled drive to move the saw up or down ramps or when loading or unloading from trucks. Going DOWN ramps: DRIVE the saw FORWARD SLOWLY. Going UP ramps: BACK the saw in REVERSE SLOWLY.

SPECIAL INSTRUCTIONS

FOR CHANGING BLADE SPEEDS ON CONCRETE/ASPHALT SAWS • PRO 65 II

⚠ **WARNING:** Do not exceed blade shaft speed shown for each blade size. Excessive blade speed could result in blade breakage and serious personal injury. As shown on the chart, some blade guards accept more than one size blade.

Never use a larger diameter blade than necessary to cut to a specific depth.

For maximum safety and economy, *always* use the proper pulleys and engine speeds for the diameter blade being used. See the chart for correct engine and blade shaft speeds.

Maximum Blade Capacity and Cutting Depths

Blade Size	Depth of Cut Up To
14"	4-5/8"
18"	6-5/8"
24"	9-5/8"
26"	10-5/8"
30"	11-3/4"
36"	14-3/4"
48"	19-3/4"

BLADE SIZE	BLADE SHAFT LOADED RPM	BLADE SHAFT PULLEY SIZE	ENGINE SPEED LOADED RPM	ENGINE SPEED PULLEY SIZE	ENGINE SPEED MAX RPM	LEVER HOLE NO.
14"	2750	4.12"	2400	4.75"	2600	9
18"	2750	4.12"	2400	4.75"	2600	9
26"	1750	4.12"	2000	3.65"	2200	6
30"	1400	5.20"	2000	3.65"	2200	6
36"	1400	5.20"	2000	3.65"	2200	6
48"	950	7.60"	2150	3.35"	2300	6

⚠ **WARNING: When changing blade size on Model Pro 65 II use this table to select the components that must be changed.**

MODEL PRO 65 II	14"	18"	26"	30"	36"	48"
BLADE GUARD	174287	174288	167475	167676	174275	174276
BLADE SHAFT PULLEY	048067	048067	163723	163724	163724	163879
ENGINE PULLEY	048073	048073	163725	163725	163725	163893
DRIVE BELTS – SET OF 2 (BANDED)	175138	175138	175139	175140	175140	175141
MFG P/N	3VX520	3VX520	3VX500	3VX520	3VX520	3VX710
ACCESSORY PULLEY	047123	047123	N/A	N/A	N/A	N/A
ACCESSORY BELT	046230	046230	166082	166082	166082	166082
MFG P/N	A54	A54	3VX545	3VX545	3VX545	3VX545
BEARING ASSY., ROLLER	163135	163135	163135	163135	163135	163135
BEARING ASSY., BALL	163546	163546	163546	163546	163546	163546
BLADE SHAFT WITH FLANGES	163138	163138	163138	163139	163139	163890
INNER FLANGE	045863	045863	045863	043036	043036	163883
OUTER FLANGE W/PIN	043040	043040	043040	043048	043048	163898
DRIVE SPROCKET	163641	163641	163679	163679	163679	163679
DRIVE CHAIN	163643	163643	163680	163680	163680	163680
BRACE	N/A	N/A	163537	163540	163540	163929

NOTE: Items shown for 48" are for reference only. When converting 14" thru 36" to 48", use 174274 complete conversion kit.

CONSIDERACIONES DE SEGURIDAD AL MANEJAR LA CORTADORA. NO RESPETAR ESTAS ADVERTENCIAS PUEDE RESULTAR EN DAÑOS CORPORALES SERIOS.

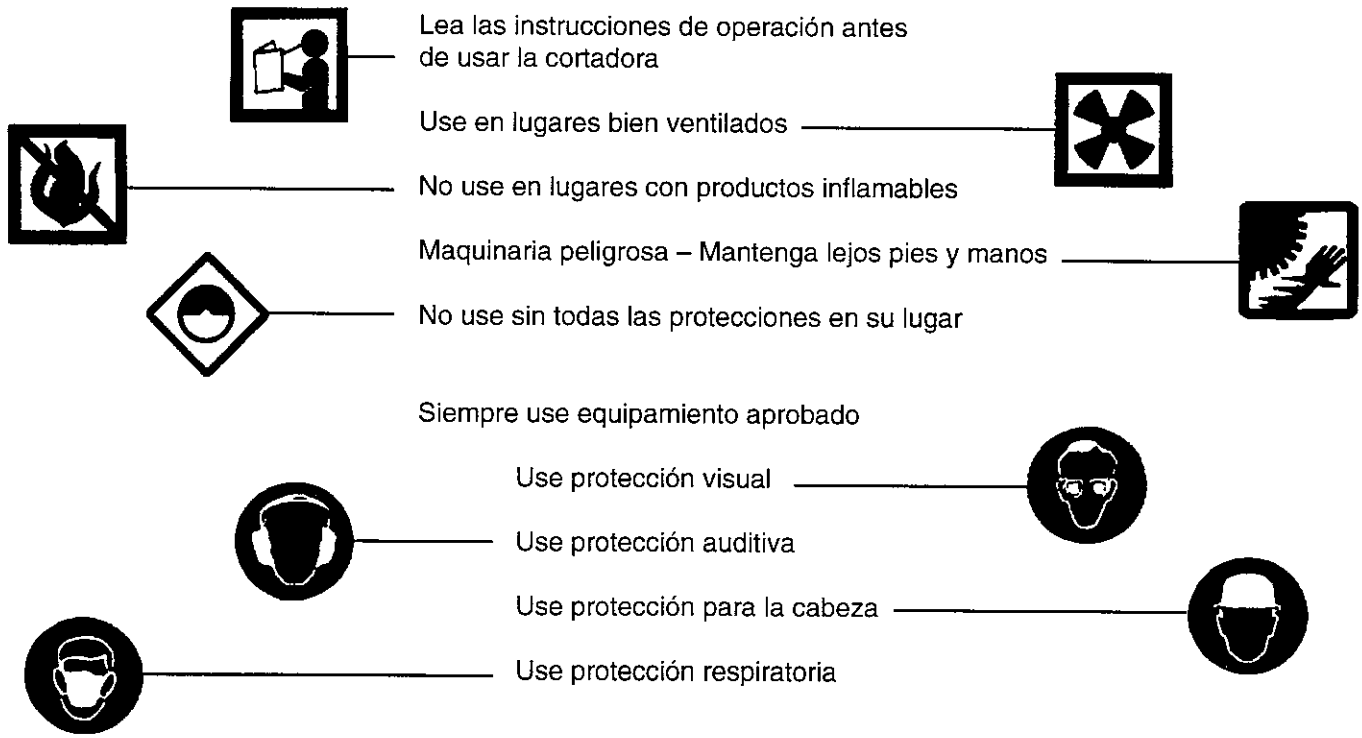
HAGA

- **SI** Lea cuidadosamente y comprenda todas las instrucciones antes de usar la cortadora.
- **SI** Mantenga siempre las protecciones en su lugar.
- **SI** Siempre use protecciones de seguridad confirmada para el oído, vista, cabeza y respiración.
- **SI** Mantenga todas las partes de su cuerpo alejadas del disco y de otras piezas móviles.
- **SI** Sepa cómo detener la cortadora enseguida en caso de emergencia.
- **SI** Detenga el motor y déjelo enfriar antes de poner combustible.
- **SI** Verifique que el disco, bridas y eje del disco no estén dañados antes de instalar el disco.
- **SI** Use sólo discos abrasivos reforzados o discos diamantados con núcleo de acero fabricados para cortadoras de concreto.
- **SI** Use sólo discos que indiquen una velocidad máxima de operación mayor que la velocidad del eje del disco.
- **SI** Tenga cuidado y siga las instrucciones al preparar o transportar la cortadora.

NO HAGA

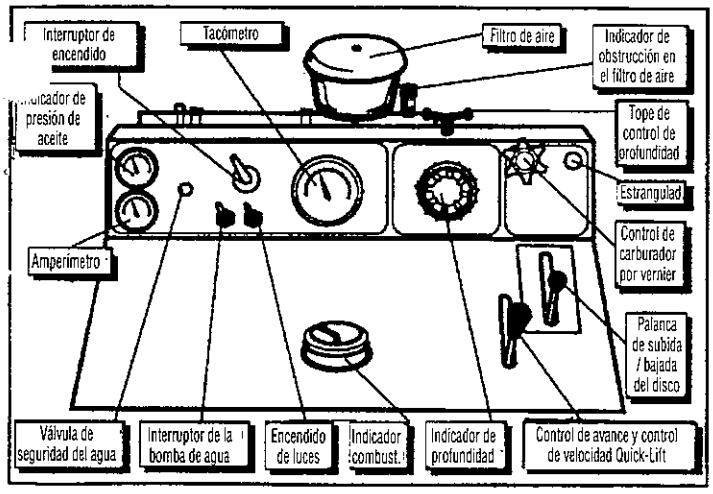
- **NO** use un disco abrasivo que haya sufrido un golpe o caída.
- **NO** permita que otras personas se acerquen a la cortadora al arrancarla, llenar con combustible o al usar la cortadora.
- **NO** use motores a combustión interna en lugares cerrados a menos de contar con ventilación adecuada.
- **NO** use equipo o discos dañados.
- **NO** use la cortadora en zonas con material combustible. Chispas de la cortadora pueden provocar un incendio o una explosión.
- **NO** permita que el disco se salga de la protección más de 180°.
- **NO** deje la cortadora sola con el motor funcionando.
- **NO** use la cortadora bajo la influencia de drogas o del alcohol.

⚠ Definición de los Símbolos



INSTRUCCIONES GENERALES

Antes de usar la cortadora, revise las instrucciones en el manual del motor para el uso del motor, y familiarícese con los controles y características.



ANTES DE CORTAR

⚠ **IMPORTANTE**: Siga las instrucciones de operación detalladas que se encuentran en la parte superior de la cubierta.

1. Instale el disco con firmeza y solidez en el eje. El pasador de traba en la brida exterior del disco debe pasar a través de todo el disco y encajar en el hueco correspondiente en la brida interior. Apriete con firmeza la tuerca de la brida del disco.

2. Es necesario controlar el alineamiento de los punteros delantero y trasero respecto del disco. DEBEN estar en la misma línea del disco montado en el eje de disco. Use una línea de tiza o un largo borde recto para controlar el alineamiento.

3. Corte en línea recta. Marque con claridad la línea de corte para que el operario la pueda seguir sin dificultad y no tenga que doblar la cortadora de lado a lado tratando de forzar el disco hacia la línea de corte.

4. Arranque el motor. Siga las indicaciones del Manual Wisconsin. Siempre tenga la palanca de control de velocidad de la transmisión hidrostática en la posición ***STOP*** al arrancar el motor.

5. Deje calentar el motor a velocidad media por algunos minutos.

6. Para corte húmedo, abra la válvula de agua completamente. Controle que los inyectores de agua en el protector de disco estén abiertos y que ambos lados del disco reciban un flujo adecuado de agua antes de bajar el disco. El disco debe recibir un caudal de 10 a 20 litros (2,5 a 5 galones) de agua por minuto para la máxima duración de éste. Si se interrumpe el flujo de agua, deje de cortar. La válvula de agua cortará el motor.

   ⚠ **NOTA:** La válvula de seguridad de agua no detectará un ducto obstruído debido a que mide la presión y *NO* el flujo de agua.

   Para arrancar la cortadora al cortar en seco, o cuando el agua está sin presión, empuje el botón de rearmado al centro del interruptor de seguridad del agua. Si este botón está rearmado, DEBE haber presión de agua para activar el cierre de seguridad.

   ⚠ ***Nunca haga funcionar la bomba de agua sin flujo de agua.***

   Todo corte se hace a velocidad plena. El regulador está ajustado en fábrica para la velocidad correcta. *No cambie el ajuste del regulador* a menos que cambie la capacidad de disco y necesite modificar la velocidad del eje de disco. (Vea las tablas en pág. 9.)

PARA MANIOBRAR:
MANUALMENTE Y CON CONTROL DE VELOCIDAD

1. Levante el disco lo necesario para que éste no toque el pavimento al maniobrar.

   Esta cortadora está equipada con un mecanismo electro-hidráulico de alzado del disco. Tirando de la palanca de Alzar / Bajar, o presionando el botón de Alzado Rápido, el disco se levanta con rapidez, sin esfuerzo del operario. No es necesario que el motor esté funcionando. Para bajar el disco, basta con empujar la palanca de Alzar / Bajar hacia adelante. Para bajar lentamente, empuje muy poco la palanca. La velocidad de descenso de la cortadora es proporcional a la distancia en que se empuja la palanca.

2. Saque los manillares de extensión hasta tener el largo de palanca deseado. Levante las ruedas traseras del piso y maniobre.

3. La palanca de control de velocidad hidrostático permite al operario maniobrar velozmente la cortadora hacia adelante o atrás a velocidades variables de 0 hasta unos 76 metros por minuto hacia adelante y en reversa (250 pies por minuto). Tirando la palanca de control de velocidad hacia atrás de la posición ***STOP***, la cortadora se mueve en reversa. Empujando la palanca de control de velocidad hacia adelante de la posición ***STOP***, la cortadora avanza. Para las velocidades máximas de maniobra, empuje la palanca de control de velocidad completamente hacia adelante, o completamente hacia atrás para reversa.

   ⚠ **IMPORTANTE:** Al maniobrar con la fuerza motriz, el motor debe funcionar a la mitad o más de la velocidad máxima para que la bomba hidráulica pueda trabajar eficientemente. Para las velocidades máximas hacia adelante o en reversa, el motor debe funcionar a su velocidad máxima.

PARA COMENZAR EL CORTE

1. Siga todas las instrucciones reseñadas más arriba.

2. Baje el disco al corte (nunca a una profundidad mayor que la necesaria) empujando hacia adelante la palanca de control hidráulico de Alzar / Bajar ubicada a la derecha, arriba de la cubierta.

   ⚠ **PRECAUCIÓN: Descienda con cuidado el disco al corte para evitar daños al disco.**

   ⚠ ***PRECAUCIÓN: Si por cualquier razón el motor se calara - ¡saque completamente el disco del corte antes de volver a arrancar el motor!*** Al bajar el disco a un corte ya comenzado, verifique que el disco esté perfectamente alineado con el corte.

3. AJUSTE Y USO DEL INDICADOR DE PROFUNDIDAD – Para usar adecuadamente el indicador de profundidad, baje el disco hasta tocar el pavimento, y ponga en "0" el puntero del dial. Así el puntero mostrará en el dial la profundidad real de corte al entrar el disco en el concreto.

   TOPE POSITIVO DE PROFUNDIDAD – Baje el disco hasta tocar el pavimento, y ponga en "0" el puntero del dial. Corte el pavimento hasta que el disco llegue a la profundidad deseada. Gire el volante de traba de profundidad EN EL SENTIDO DEL RELOJ hasta tener una notoria resistencia al giro. Para mayor profundidad, gire el volante CONTRA EL SENTIDO DEL RELOJ. Para menor profundidad, gire el volante EN EL SENTIDO DEL RELOJ.

   AJUSTE DEL PERNO DE TOPE – Para evitar contacto de la brida del disco con el pavimento, ajuste el perno de tope 1/2"-13 ubicado entre el chasís de la cortadora y el eje delantero.

4. Mueva la palanca de control de avance lentamente hacia adelante hasta tener la velocidad de corte requerida. Controle la velocidad del motor en el tacómetro para mayor eficacia de corte.

5. AJUSTE PARA CORTE EN LINEA RECTA – (El perno de ajuste está atrás, abajo, a la izquierda de la cortadora). Situaciones de corte cambiantes, diámetro del disco y diferencias en la dureza de los áridos pueden provocar que la cortadora tire hacia un lado. Si esto ocurre, suelte los dos pernos de montaje de los rodamientos, y gire el perno de ajuste EN EL SENTIDO DEL RELOJ si la cortadora tiende hacia la izquierda, o gire el perno de ajuste CONTRA EL SENTIDO DEL RELOJ si la cortadora tiene hacia la derecha. ***NO FUERZE*** el perno de ajuste. Apriete los pernos de montaje de los rodamientos.

AL TERMINAR EL CORTE

1. Mueva la palanca de control de avance hacia la posición ***STOP***. Saque el disco del corte tirando hacia atrás la palanca de alzado hidráulico o pulsando el botón del alzado rápido. Levante el disco lo suficiente para no tocar el pavimento al maniobrar la cortadora.

2. Lleve el acelerador del motor a la posición de ralentí (***IDLE***).

3. Cierre la válvula de agua.

4. Si usa el control de velocidad hidrostático para maniobrar, el motor debe quedar a media velocidad o mayor –luego use la palanca de control de velocidad para obtener la velocidad deseada en cualquier dirección.

INSTRUCCIONES DE MANTENIMIENTO

1. LUBRICACIÓN – Los rodamientos del eje de disco deben ser engrasados cada 8 horas de trabajo. Lubrique el eje de disco mientras el eje gira a baja velocidad bombeando lentamente 3 a 5 veces o hasta que la grasa comienza a rebalsar bajo el sello. Todas las otras partes deben ser engrasadas cada 40 horas de trabajo, como máximo. Si un rodamiento recibe permanentemente agua, debe ser engrasado más a menudo. Use una grasa con base de litio de uso general #2 sin bisulfuro de molibdeno.

2. CONTROLE EL ACEITE DEL MOTOR A DIARIO – Mantenga el nivel correcto de aceite. Mantenga el aceite limpio. Cambie cada 50 horas de trabajo usando un aceite que cumpla con la especificación API tipo MS, SD, SE o mejor. Cambie el filtro en cada cambio de aceite. La capacidad del sistema es de 6,7 litros.

3. LIMPIE el elemento externo del FILTRO DE AIRE cuando aparezca la señal roja Indicadora de Obstrucción del filtro de aire. ¡No limpie el elemento interno de seguridad! Cambie el elemento interno cada año, o si se daña. Limpie la caja de prelimpieza al acumularse polvo.

4. CONTROLE el nivel del ACEITE DE LA TRANSMISIÓN HIDROSTÁTICA en el tanque de expansión de aceite periódicamente. Al añadir aceite, use SAE 30W30 con clasificación API tipo SE, CC, CD o mejor.

5. BOMBA HIDRÁULICA DE ALZADO – Controle el nivel del aceite periódicamente y complete hasta llenar con flúido de transmisión DEXRON II. No ponga demás, o saldrá el flúido a través de la tapa de llenado al bajar la cortadora. La capacidad del sistema es de 1,18 litros.

6. CUIDADO DE CORREAS – Esta cortadora está equipada con correas V de alta tensión, ajustadas en fábrica. Registre la tensión de la cortadora nueva y nunga ponga una tensión mayor. Use un medidor de tensión de correas V para controlar la tensión en UNA correa de una juego equiparado de correas V aplicando carga al centro de los apoyos. La flexión debe ser de 0,8 cm con una carga de 2,5 kg. Una tensión insuficiente destruye rápidamente las correas y nunca las deje resbalar. Cambie las correas V sólo por juegos completos.

7. CADENA DE SALIDA DE LA TRANSMISIÓN HIDROSTÁTICA – Si la cadena se suelta puede apretarse soltando los 4 pernos de la transmisión y subiendo el sistema en el canal de ajuste. Bajo la transmisión hay un tornillo de tope para ayudar el movimiento y retener la posición. Apriete los pernos al terminar el ajuste.

⚠ *PRECAUCIÓN:* ***No apriete demasiado la cadena.*** La tensión correcta permite un ligero juego. Después de apretar la cadena, gire cada engranaje, parando cada 90 grados y vuelva a controlar que la cadena no esté demasiado apretada.

Aceite periódicamente la cadena para reducir el desgaste. La manera más fácil es aplicar aceite con un pincel.

8. CUIDADO DEL MOTOR – Vea el manual Wisconsin del motor. Saque la suciedad de las aletas de refrigeración a diario, o cuando se requiera, para mantener un enfriamiento adecuado.

PREPARACIÓN DEL REGULADOR

Motor Wisconsin modelo V-465D 65 HP

AJUSTE DEL REGULADOR – El largo de conexión de la barra del regulador al carburador debe ser ajustado con mucho cuidado, en caso contrario el regulador no funcionará correctamente y causará fluctuaciones del motor. Con el motor en reposo, el resorte del regulador retendrá los contrapesos, y la barra de control debe tener el largo necesario para abrir totalmente el carburador en ese momento.

Con la barra de control desconectada de la palanca del regulador, como se muestra en la Figura 1, empuje la barra hacia el carburador tanto como pueda. Esto abre totalmente la palanca del carburador. La palanca del regulador debe ser movida tanto como sea posible en la misma dirección. Manteniendo ambas piezas en esta posición, la barra debe ser girada hacia adentro o afuera del bloque del carburador hasta que el extremo doblado de la barra esté sobre el orificio en la palanca. Gire la barra una vuelta más. Esta vuelta extra acerca la distancia ligeramente y permitirá a la palanca del carburador saltar desde la clavija de ***STOP*** en lugar de golpear la clavija cuando se aplica una carga a un motor en ralentí. Esto evita un desgaste excesivo en los hilos del bloque del carburador.

Figura 1

PALANCA DEL REGULADOR (Figura 2) – La palanca del regulador tiene 12 orificios para fijar el resorte del regulador. Es muy importante que el resorte se enganche al orificio correcto para ajustarse a la velocidad a la cual se hará funcionar al motor. La tabla de la palanca del regulador muestra las velocidades del motor bajo carga y sin carga, y el orificio correspondiente a esta velocidad. Note que la velocidad bajo plena carga es menor que la velocidad sin carga, lo cual debe ser considerado al reajustar el regulador. Un ejemplo: si el motor trabajará a 2000 revoluciones por minuto bajo carga, el resorte debe ser enganchado al sexto orificio de la palanca del regulador, y el resorte de tensión ajustado con la tuerca del tornillo de ajuste para obtener 2200 RPM sin carga. La velocidad a plena carga será entonces unas 2000 revoluciones por minuto.

El tacómetro o cuenta revoluciones debe usarse en el cigüeñal para controlar la velocidad al ajustar la tensión del resorte del regulador. Apretar la tuerca del tornillo de ajuste resultará en mayores velocidades, y soltar la tuerca reducirá la tensión del resorte provocando una disminución de las RPM.

RPM CON CARGA	RPM SIN CARGA	HOYO NO.
1500	1685	3
1600	1825	4
1700	1855	4
1800	2000	5
1900	2055	5
2000	2200	6
2100	2230	6
2200	2375	7
2300	2440	7
2400	2545	8
2500	2695	9
2600	2745	9
2700	2810	9
2800	2935	10
2900	3065	11
3000	3175	12

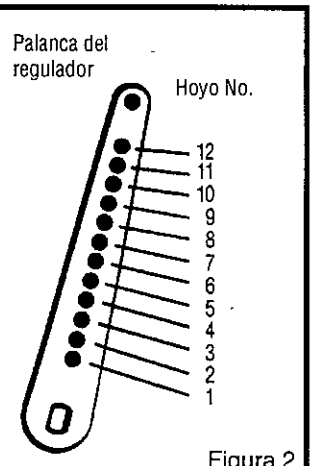


Figura 2

INSTRUCCIONES PARA TRANSPORTAR LA CORTADORA

Al transportar la cortadora en un camión la palanca de control de avance DEBE estar en la POSICIÓN ***STOP***.

Al transportar la cortadora, descienda totalmente la máquina para reducir el peso sobre el conjunto de eje delantero y tope de control de profundidad.

Para evitar esfuerzos y tensiones excesivas sobre el mecanismo de propulsión durante un tranporte prolongado, la cortadora debe ser amarrada sólidamente.

Tenga **EXTREMA PRECAUCIÓN** y use **BAJA VELOCIDAD** cuando use la transmisión autopropulsante para subir o bajar la cortadora por rampas o al cargar y descargar de un camión. Para BAJAR rampas: LLEVE la cortadora ADELANTE LENTAMENTE. Para SUBIR rampas: RETROCEDA la cortadora en REVERSA LENTAMENTE.

INSTRUCCIONES ESPECIALES

PARA CAMBIAR LA VELOCIDAD DEL DISCO EN CORTADORAS DE CONCRETO/ASFALTO • PRO 65 II

⚠ **PRECAUCIÓN:** No exceda la velocidad del eje de disco indicada para cada diámetro de disco. Una velocidad excesiva del disco puede provocar la ruptura del disco y grave daño personal. Como se aprecia en la tabla, algunos protectores de disco sirven para más de un diámetro de disco.

Nunca use un disco de diámetro mayor del necesario para cortar a una determinada profundidad.

Para máxima seguridad y economía, *siempre* use las poleas y velocidades de motor adecuadas para el diámetro del disco en uso. Consulte la tabla para encontrar las velocidades correctas del motor y del eje de disco.

Capacidad máxima de disco y profundidades de corte

Diámetro del Disco	Profundidad Máx. de Corte
14"	4-5/8" - 11,8 cm
18"	6-5/8" - 16,8 cm
24"	9-5/8" - 24,4 cm
26"	10-5/8" - 27,0 cm
30"	11-3/4" - 29,8 cm
36"	14-3/4" - 37,5 cm
48"	19-3/4" - 50,2 cm

DIÁM. DISCO	EJE DE DISCO RPM Con Carga	EJE DE DISCO TAMANO POLEA	VELOCIDAD DEL MOTOR RPM Sin Carga	VELOCIDAD DEL MOTOR TAMANO POLEA	VELOCIDAD DEL MOTOR RPM MÁX.	PALANCA HOYO NO.
14"	2750	4.12"	2400	4.75"	2600	9
18"	2750	4.12"	2400	4.75"	2600	9
26"	1750	4.12"	2000	3.65"	2200	6
30"	1400	5.20"	2000	3.65"	2200	6
36"	1400	5.20"	2000	3.65"	2200	6
48"	950	7.60"	2150	3.35"	2300	6

⚠ **PRECAUCIÓN: Al cambiar el Ø del disco en el Modelo Pro 65 II use esta tabla para seleccionar los componentes que deben ser cambiados.**

MODELO PRO 65 II	14"	18"	26"	30"	36"	48"
PROTECTOR DE DISCO	174287	174288	167475	167676	174275	174276
POLEA DEL EJE DE DISCO	048067	048067	163723	163724	163724	163879
POLEA DEL MOTOR	048073	048073	163725	163725	163725	163893
CORREAS – JUEGO DE 2	175138	175138	175139	175140	175140	175141
CÓDIGO FABRICANTE	3VX520	3VX520	3VX500	3VX520	3VX520	3VX710
POLEA ACCESORIA	047123	047123	N/A	N/A	N/A	N/A
CORREA ACCESORIA	046230	046230	166082	166082	166082	166082
CÓDIGO FABRICANTE	A54	A54	3VX545	3VX545	3VX545	3VX545
JUEGO DE RODAMIENTOS, RODILLOS	163135	163135	163135	163135	163135	163135
JUEGO DE RODAMIENTOS, BOLAS	163546	163546	163546	163546	163546	163546
EJE DE DISCO CON BRIDAS	163138	163138	163138	163139	163139	163890
BRIDA INTERIOR	045863	045863	045863	043036	043036	163883
BRIDA EXTERIOR CON PASADOR	043040	043040	043040	043048	043048	163898
ENGRANAJE DE TRANSMISIÓN	163641	163641	163679	163679	163679	163679
CADENA DE TRANSMISIÓN	163643	163643	163680	163680	163680	163680
ANCLAJE	N/A	N/A	163537	163540	163540	163929

NOTA: Los ítems indicados para 48" son sólo para referencia. Al convertir de 14" a 36" para 48", use el juego de conversión completo 174274.

FIGURE 1 - COWL & FRAME GROUP

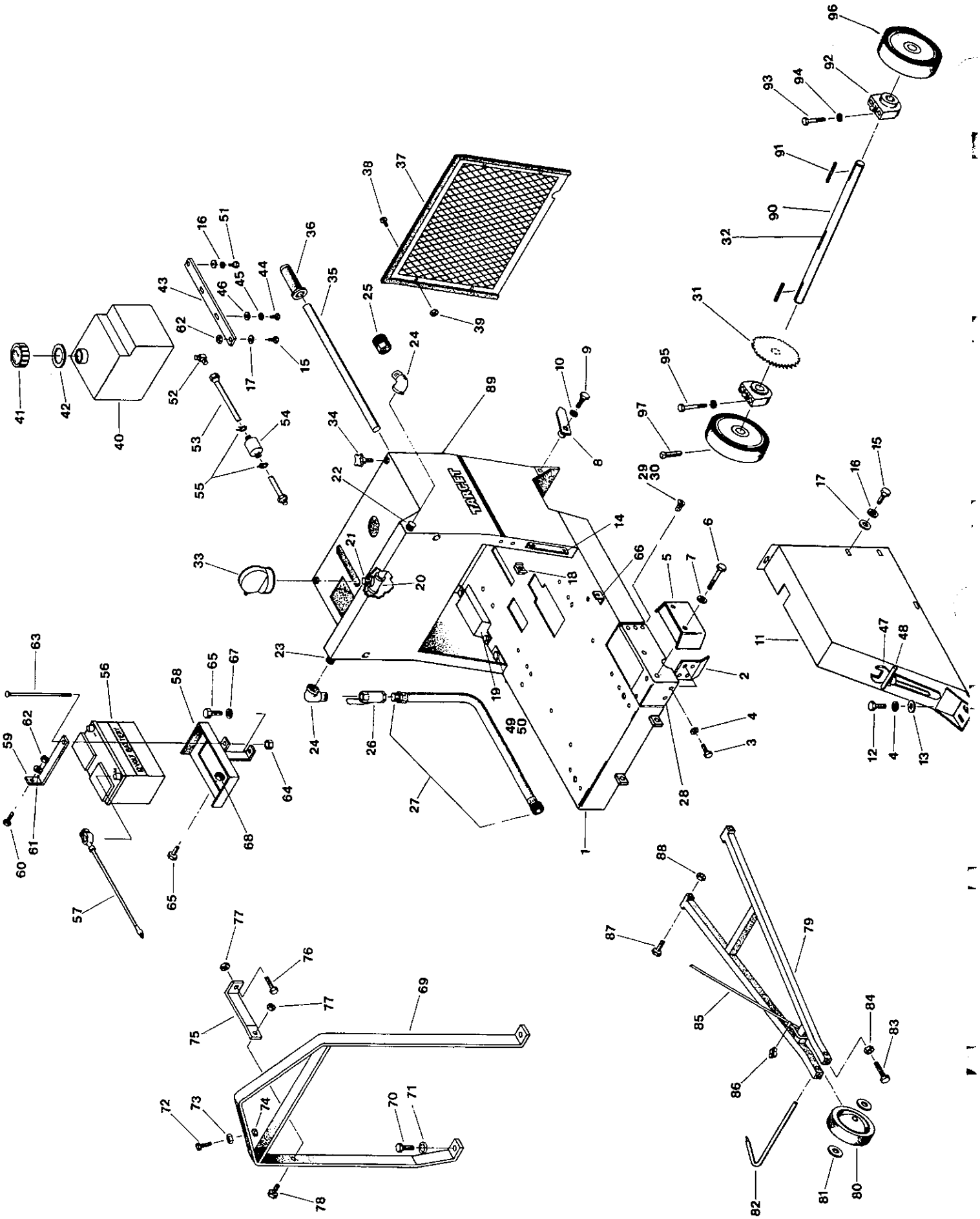


FIGURE 1 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
1	163630	1	Frame Base
	163608	1	Sheave Guard
	020323	2	Capscrew, Hex Hd., 3/8"-16 x 1" lg.
4	020786	4	Lockwasher, Split, 3/8"
5	163022	1	Shaft Guard
6	020334	2	Capscrew, Hex Hd., 3/8"-16 x 4" lg.
7	020786	2	Lockwasher, Split, 3/8"
8	047091	1	Rear Pointer
9	020509	1	Capscrew, Hex Hd., 3/8"-16 x 2" lg.
10	020786	1	Lockwasher, Split, 3/8"
11	163733	1	Belt Guard
12	020322	2	Capscrew, Hex Hd., 3/8"-16 x 3/4" lg.
13	020764	2	Washer, Flat, SAE 3/8"
14	163075	1	Mounting Bracket
	020370	2	Capscrew, Hex Hd., 1/4"-20 x 3/4" lg. (NS)
	020195	3	Locknut, Fiber, 1/4"-20
15	020370	6	Capscrew, Hex Hd., 1/4"-20 x 3/4" lg.
16	020784	6	Lockwasher, Split, 1/4"
17	020762	8	Washer, Flat, SAE 1/4"
18	139052	2	Retainer Nut, 1/4"-20
19	163026	2	Fender
	020370	4	Capscrew, Hex Hd., 1/4"-20 x 3/4" lg. (NS)
	020762	4	Washer, Flat, SAE 1/4" (NS)
	020784	4	Lockwasher, Split, 1/4" (NS)
20	020730	1	Pipe Tee, 1/2" NPT
21	020293	1	Close Nipple, 1/2" NPT
22	020280	1	Pipe Nipple, 1/2" NPT x 6" lg.
23	163623	1	Pipe Nipple, 1/2" NPT x 23" lg.
24	020810	2	Elbow, 90° Street, 1/2" NPT
	045642	1	Hose Swivel w/Washer
	040261	1	Ball Valve
27	163656	1	Hose Assy., Water, 60" lg.
28	163632	1	Frame Base Corner
29	020445	3	Machine Screw, Flat Hd., 1/4"-20 x 3/4"
30	020195	3	Locknut, Fiber, 1/4"-20
31	163251	1	Sprocket w/Set Screw, #50, 35 Tooth
32	020073	1	Key, 1/4" Sq. x 3" lg.
33	047136	1	Water Safety Switch
34	166038	2	Hand Knob
35	117194	2	Handle Extension
36	139568	2	Hand Grip for Handle
37	163250	1	Rear Guard
38	020494	4	Machine Screw, Hex Hd., 5/16"-18 x 1" lg.
39	020197	4	Locknut, Fiber, 5/16"-18
40	160071	1	Fuel Tank
41	160194	1	Fuel Cap w/Gauge
42	045390	1	Grommet, Rubber
43	163025	2	Mounting Bar, Fuel Tank
44	020313	4	Capscrew, Hex Hd., 5/16"-18 x 3/4" lg.
45	020785	4	Lockwasher, Split, 5/16"
46	020742	4	Washer, Flat, SAE 5/16"
47	163281	1	Wrench–15/16" (Q.D. Bladeshaft)
	043650	1	Wrench (STD Bladeshaft)
48	048510	1	Pin
49	020339	6	Capscrew, Hex Hd., 1/2"-13 x 1"
50	020788	6	Lockwasher, Split, 1/2"
51	021423	2	Capscrew, Hex Hd., 1/4"-20 x 1/2" lg.
52	046296	1	Brass Elbow
53	043740	1	Fuel Line
54	045639	1	Fuel Filter
55	045641	2	Hose Clamp
56	163121	1	Battery
57	163179	1	Battery Cable, Neg., 40" lg.
	163180	1	Battery Cable, Pos., 52" lg.
58	163055	1	Battery Bracket
59	163056	1	Battery Hold Down Bracket
60	020370	1	Capscrew, Hex Hd., 1/4"-20 x 3/4" lg.
61	020762	1	Washer, Flat, SAE 1/4"
62	020195	3	Locknut, Fiber, 1/4"-20
63	163123	1	Battery Hold Down Bolt
64	020197	1	Locknut, Fiber, 5/16"-18
65	020322	3	Capscrew, Hex Hd., 3/8"-16 x 3/4" lg.
66	139017	1	Tab
	020370	2	Capscrew, Hex Hd., 1/4"-20 x 3/4" lg. (NS)
	020784	2	Lockwasher, Split, 1/4" (NS)
67	020786	1	Lockwasher, Split, 3/8"
68	020199	2	Locknut, Fiber, 3/8"-16
69	163084	1	Lift Frame
70	15700260A	2	Capscrew, Hex Hd., 3/4"-10 x 2" lg.
71	020791	2	Lockwasher, Split, 3/4"
72	020509	1	Capscrew, Hex Hd., 3/8"-16 x 2" lg.
73	020168	1	Jam Nut, 3/8"-16
74	020136	1	Hex Nut, 3/8"-16
75	163655	1	Brace, Lift Bail
76	020340	1	Capscrew, Hex Hd., 1/2"-13 x 1-1/4" lg.
77	020201	2	Locknut, Fiber, 1/2"-13
78	020464	1	Capscrew, Hex Hd., 1/2"-13 x 1-1/2" lg.
79	163072	1	Front Pointer Frame
80	163582	1	Wheel 5"
81	020766	2	Washer, Flat, SAE 1/2"
82	160196	1	Pointer
83	020377	2	Capscrew, Hex Hd., 3/8"-16 x 1-1/2" lg.
84	020136	2	Hex Nut, 3/8"-16
85	043204	1	Sash Cord, 130" lg.
86	043203	3	Cord Clamp
87	021411	2	Capscrew, Hex Hd., 5/8"-11 x 3-1/2" lg.
88	020204	2	Locknut, Fiber, 5/8"-11
89	163650	1	Cowl Weldment (decals not shown)
	163694	1	Decal, Depth Indicator
	163697	1	Decal, Operating Instructions
	166315	2	Decal, Pro 65 II
	163716	2	Decal, Target (side)
	166092	1	Decal, Target (rear)
	163233	1	Decal, Positive Depth Stop
	163696	1	Decal, Instrument Panel
	163695	1	Decal, Throttle and Choke
	163719	1	Decal, Raise & Lower
90	163024	1	Rear Axle
91	163130	2	Key, 1/4" Sq. x 3-1/4" lg.
92	047161	2	Bearing w/Grease Fitting
93	021415	2	Capscrew, Hex Hd., 1/2"-3 x 3-1/4" lg.
94	020788	4	Lockwasher, Split, 1/2"
95	021404	2	Capscrew, Hex Hd., 1/2"-13 x 3" lg.
96	162065	2	Wheel w/Setscrew, 10" x 3" x 1-1/4" dia.
97	020531	4	Setscrew, Square Hd., 5/16"-18 x 1" lg.
98	163245	1	Grommet 5/8" ID (Not Shown)

FIGURE 2 - ENGINE & BLADE SHAFT GROUP

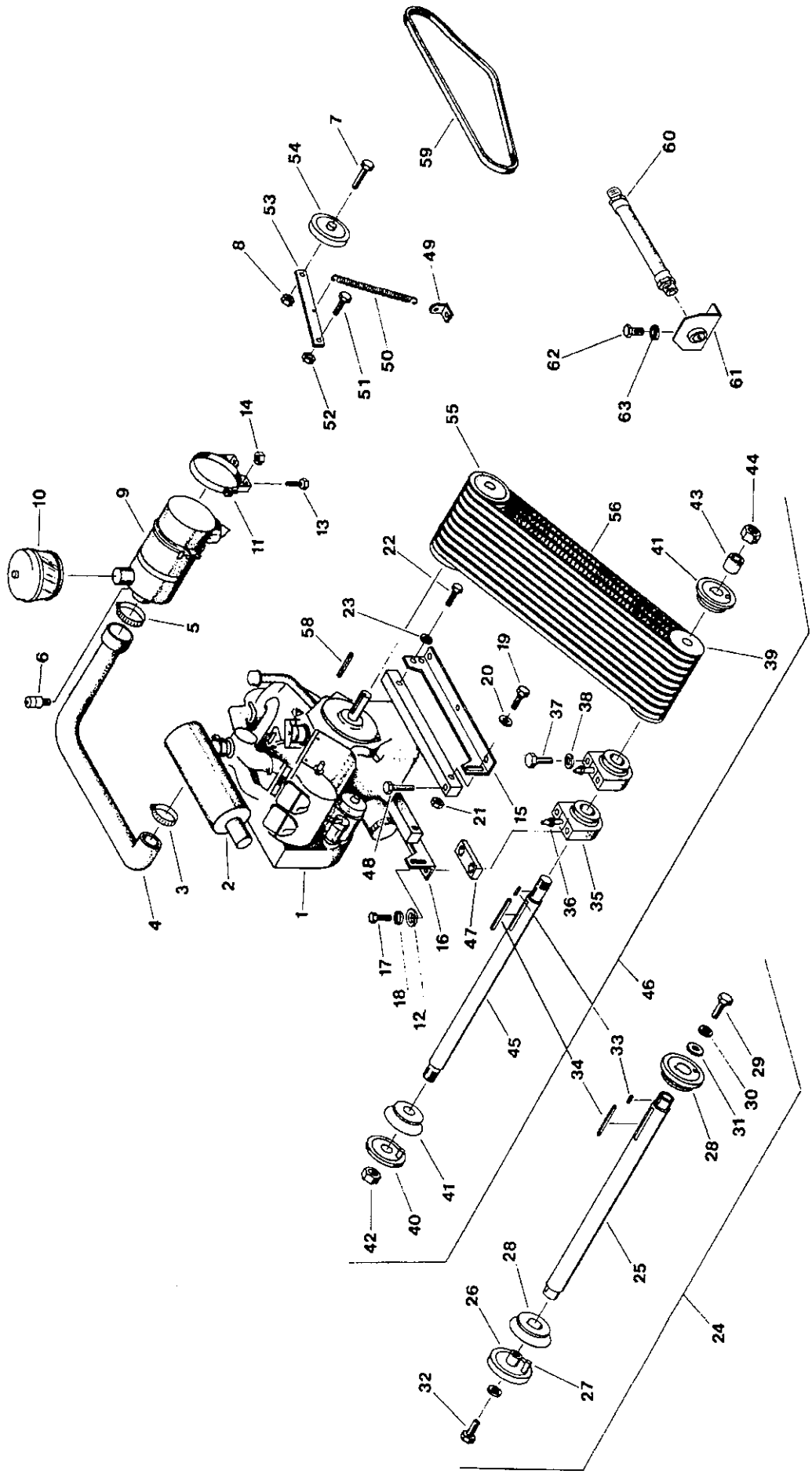


FIGURE 2 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
	163701	1	Engine, 65 HP
	015071	1	Oil Filter
2	015073	1	Muffler
	163583	1	Muffler, Quiet
	163578	1	Muffler, Upright
	163580	1	Rain Cap 2" (Not Shown)
	163579	1	Muffler Clamp, 2-1/2" (Not Shown)
3	020050	1	Hose Clamp
4	163644	1	Hose, Air Intake
5	15700702	1	Hose Clamp
6	163664	1	Indicator, Filter
7	020380	1	Capscrew, Hex Hd., 3/8"-16 x 1-3/4" lg.
8	020199	1	Locknut, Fiber, 3/8"-16
9	163658	1	Air Cleaner Assy.
	163659	1	Filter Element, Primary
	163660	1	Filter Element, Safety
	015002	1	Rubber Dust Unloader
10	15700704	1	Pre-Cleaner
11	045631	2	Mounting Band
12	020766	3	Washer, Flat, 1/2"
13	020313	4	Capscrew, Hex Hd., 5/16"-18 x 3/4" lg.
14	020197	4	Locknut, Fiber, 5/16"-18
15	163015	1	Bracket, Engine Base, left
16	166320	1	Bracket, Engine Base, right
17	020340	6	Capscrew, Hex Hd., 1/2"-13 x 1-1/4" lg.
18	020788	6	Lockwasher, Split, 1/2"
19	021431	2	Capscrew, Hex Hd., 5/8"-11 x 3" lg.
20	160393	2	Washer, 5/8" x 5/16" thick
	020204	2	Locknut, Fiber, 5/8"-11
	15701291	2	Capscrew, Hex Hd., 5/8"-11 x 1-3/4" lg.
23	020790	2	Lockwasher, Split, 5/8"
24	166316	1	Blade Shaft Assy. Quick Disconnect, 14", 18" (Incl. Items 25-39), Roller Bearing
	166317	1	Blade Shaft Assy. Quick Disconnect, 26" (Incl. Items 25-39) Roller Bearing
	163318	1	Blade Shaft Assy. Quick Disconnect, 30", 36" (Incl. Items 25-39), Roller Bearing
25	163098	1	Blade Shaft, Quick Disconnect
26	166307	1	Outer Flange w/Dowel Pin, Quick Disconnect, 14", 18" & 26", 5" dia.
	163272	1	Outer Flange w/Dowel Pin, Quick Disconnect, 30" & 36", 6" dia.
27	020304	1	Dowel Pin
28	166284	2	Inner Flange, Quick Disconnect, 14", 18", & 26", 5" dia.
	163270	2	Inner Flange, Quick Disconnect, 30" & 36", 6" dia.
29	163487	1	Capscrew, Hex Hd., 5/8"-11 x 3-1/2" lg. Quick Disconnect R.H. Thread
30	020790	2	Lockwasher, Split, 5/8", Quick Disconnect
31	020747	1	Washer, Flat, 5/8", Quick Disconnect
32	163488	1	Capscrew, Hex Hd., 5/8"-11 x 3-1/2" lg. Quick Disconnect L.H. Thread
33	043054	2	Key, 1/4" Sq. x 27/32" lg. Round End
34	020076	1	Key, 3/8" Sq. x 4" lg.
35	163137	2	Bearing, Roller 1-3/4" dia.
	160575	2	Bearing, Ball 1-3/4" dia.
36	163140	2	Grease Fitting, 1/8 NPT x 2-5/8" (roller)
37	163136	4	Capscrew, Hex Hd., 5/8"-18 x 3" (roller)
	163547	4	Capscrew, Hex Hd., 5/8"-18 x 3-1/2" (ball)
38	020790	4	Lockwasher, Split, 5/8"
39	048067	1	Pulley w/SS, 8G3VX 4.12 OD 14" & 18"
	163723	1	Pulley w/SS, 10G3VX 4.12 OD 26"
	163724	1	Pulley w/SS, 10G3VX 5.20 OD 30" & 36"
40	043040	1	Outer Flange w/Dowel Pin, 4-1/2" dia., 14", 18" & 26"
	043048	1	Outer Flange w/Dowel Pin, 6" dia., 30" & 36"
41	045863	2	Inner Flange, 4-1/2" dia., 14", 18" & 26"
	043036	2	Inner Flange, 6" dia., 30" & 36"
42	020017	1	Hex Nut, 1"-14 UNF LH Thread (right side)
43	043051	1	Thread Protector Sleeve
44	020018	1	Hex Nut, 1"-14 UNF RH Thread (left side)
45	047008	1	Blade Shaft, Standard
46	163313	1	Blade Shaft Assy., Standard, 14" & 18" (Incl. Items 33-45) w/Roller Bearing
	163314	1	Blade Shaft Assy., Standard, 26" (Incl. Items 33-45) w/Roller Bearing
	163315	1	Blade Shaft Assy., Standard, 30" & 36" (Incl. Items 33-45) w/Roller Bearing
47	047005	2	Spacer, Blade Shaft (ball bearing only)
48	020272	1	Belt Adjustment Bolt, full thread
49	163259	1	Clip, Idler Spring
50	163260	1	Spring, Idler
51	172605	1	Bolt, Hex Tap, 3/8"-16 x 1-3/4" lg.
52	020168	1	Nut, Hex Jam, 3/8"-16
53	043451	1	Idler Arm
54	167764	1	Pulley 1G4L 3.0 3/8" M10 w/Bushing
55	048073	1	Pulley, Engine, 8G3VX4.75 OD 14" & 18"
	163725	1	Pulley, Engine, 11G3VX3.65 OD w/SS, 26", 30" & 36"
56	175138	1	V-Belt, set of 2, 3VX520, 14" & 18" – 4 band
	175139	1	V-Belt, set of 2, 3VX500, 26" – 5 band
	175140	1	V-Belt, set of 2, 3VX520, 30" & 36" – 5 band
57	047121	1	Pulley 1GA 3.5-2.0 w/SS, 14" & 18"
58	163684	1	Key, Bevel End, 1/2" Sq. x 5-1/4" lg.
59	046230	1	V-Belt, Accessory, A-54, 14" & 18"
	166082	1	V-Belt, Accessory, 3VX545 26", 30", 36" & 48"
60	163577	1	Hose, Oil Drain
61	163594	1	Bracket
62	020322	2	Capscrew, Hex Hd., 3/8"-16 x 3/4" lg.
63	020786	2	Lockwasher, Split, 3/8"

FIGURE 3 - SELF-PROPELLING GROUP

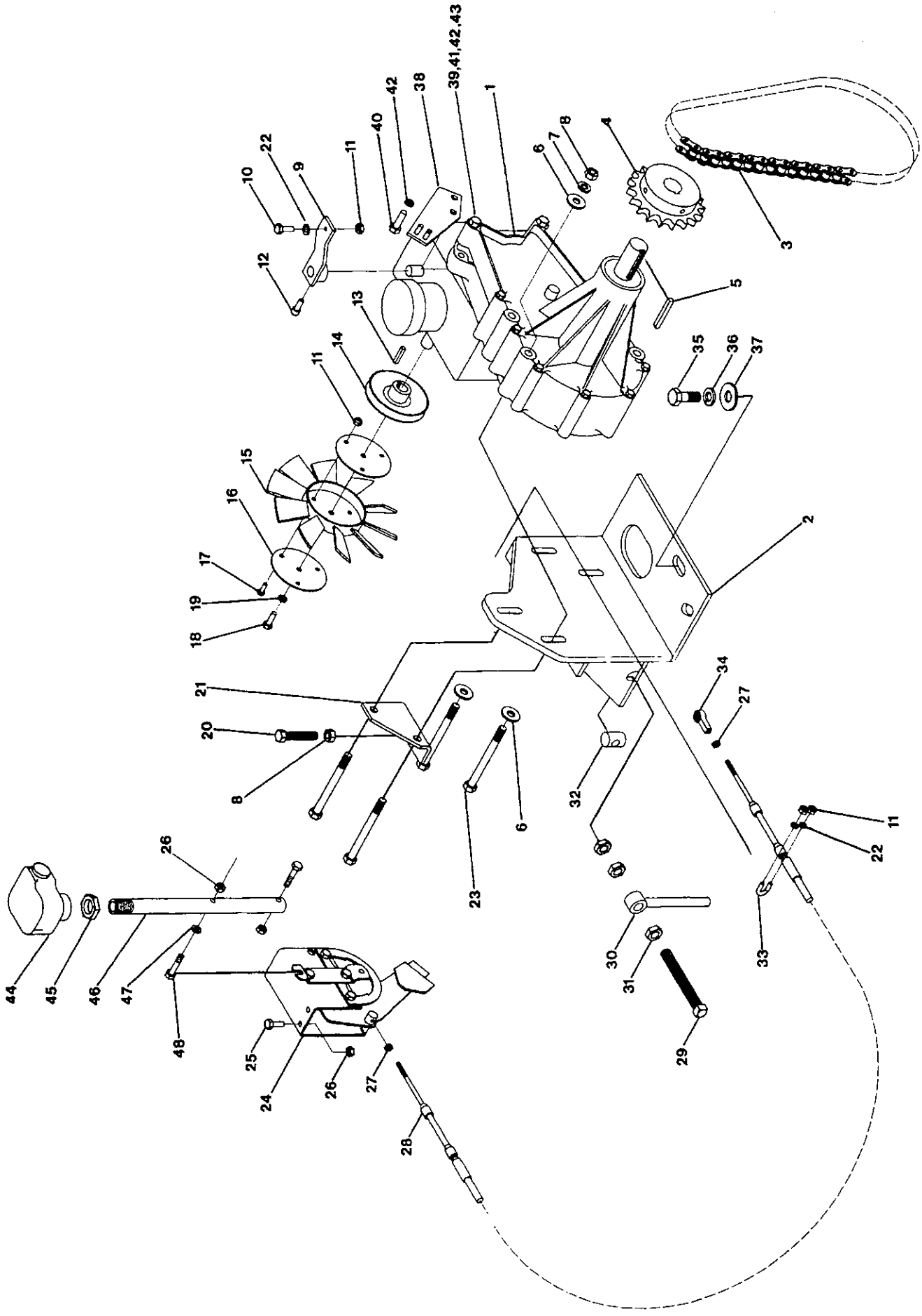


FIGURE 3 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
1	163611	1	Transmission Assy.
	166203	1	Hydro Transmission Only
	175073	1	Reservoir Assy. Only
	166204	1	Gearbox Only (See Fig. 3A)
2	163978	1	Support
3	163643	1	Chain, #50 x 60 Pitch w/Connector, 14" & 18"
	163680	1	Chain, #50 x 56 Pitch w/Connector, 26", 30", 36" & 48"
4	163728	1	Sprocket, w/SS, 27 Tooth #50, 14" & 18"
	163729	1	Sprocket, w/SS, 19 Tooth #50, 26", 30", 36" & 48"
5	163686	1	Key, 1/4" Sq. x 1-3/4"
6	020743	6	Washer, Flat, 3/8"
7	020786	4	Lockwasher, Split, 3/8"
8	020136	5	Nut, Hex, 3/8"-16
*9	167611	1	Lever, Control (Metric)
10	020411	1	Machine Screw, Hex Hd., #10-24 x 3/4"
11	020194	6	Locknut, Fiber, #10-24
*12	173046	1	Capscrew, Socket Hd., M6 x 1.0 x 20mm
13	020060	1	Key, 3/16" Sq. x 1"
14	163734	1	Pulley, 1Gr. w/SS
15	163105	1	Fan Blade
16	163040	2	Plate, Fan Attachment
17	020430	3	Machine Screw, Hex Hd, #10-24 x 1/2"
*18	163688	1	Capscrew, Hex Hd., M6 x 1 x 16
*19	163689	1	Lockwasher, Split, M6
20	020155	1	Setscrew, Square Hd., 3/8"-16 x 2"
*21	167614	1	Bracket, Adjustment
22	020771	3	Washer, Flat, #10
23	020334	4	Capscrew, Hex Hd., 3/8"-16 x 4"
24	166026	1	Speed Control Lever
25	020370	4	Capscrew, Hex Hd., 1/4"-20 x 3/4"
26	020195	6	Locknut, Fiber, 1/4"-20
27	136685	2	Nut, Jam, #10-32
28	164616	1	Cable, Speed Control
29	020219	1	Setscrew, Square Hd., 1/2"-13 x 4"
30	163132	1	Guide Pin
31	020177	3	Nut, Hex Jam, 1/2"-13
32	045071	1	Swivel
33	046195	1	Clamp, Cable
34	046591	1	Rod End, #10-32
35	020340	1	Capscrew, Hex Hd., 1/2"-13 x 1-1/4"
36	020788	1	Lockwasher, Split, 1/2"
37	020745	1	Washer, Flat, 1/2"
38	163984	1	Bracket, Cable Support
39	020374	1	Capscrew, Hex Hd., 5/16"-18 x 3"
40	020313	1	Capscrew, Hex Hd., 5/16"-18 x 3/4"
41	020742	1	Washer, Flat, 5/16"
42	020785	2	Lockwasher, Split, 5/16"
43	020134	1	Nut, Hex, 5/16"-18
44	163948	1	Handle & Switch
45	15700353	1	Nut, Hex Jam, 3/4"-16
46	163946	1	Lever
47	020762	1	Washer, Flat, 1/4"
48	020372	2	Capscrew, Hex Hd., 1/4"-20 x 1-1/4"

GURE 3A - TRANSMISSION DETAIL

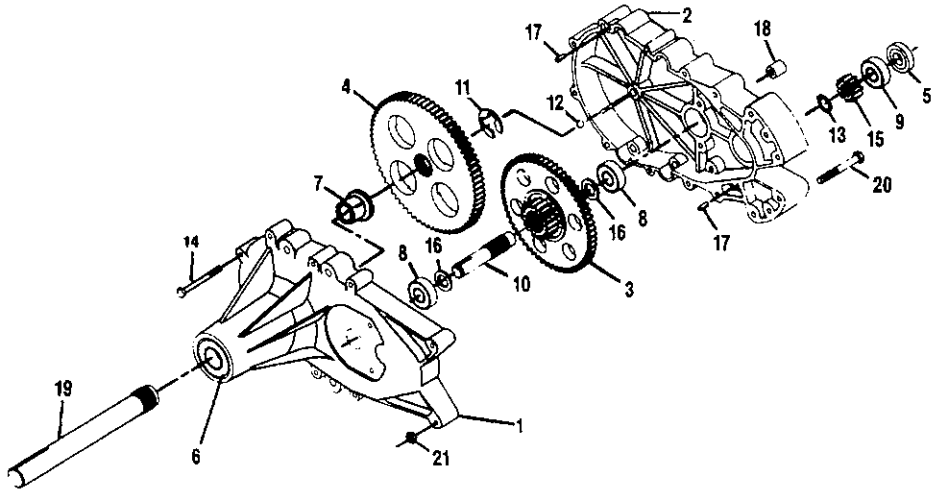


FIGURE 3A - DETAIL PARTS LIST FOR 166204

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
1	166101	1	Axle Carrier Housing
2	166102	1	Hydro Mount Housing
3	166103	1	Splined Reduction Gear
4	166104	1	Splined 72 Tooth Final Drive Gear
	166105	1	Bearing Spacer
	166106	1	Ball Bearing, 52mm x 25mm x 15mm
7	166107	1	Flanged Bearing
8	166108	2	Ball Bearing, .62ID x 1.38 x .44
*9	166109	1	Ball Bearing, 15mm x 35mm x 11mm
10	166110	1	Brake Shaft, Splined
11	166111	1	"E" Ring
12	166112	1	Ball 3/8" Dia.
13	166113	1	Retaining Ring
14	166114	8	Capscrew, Hex Hd., 1/4"-20 x 2-1/2"
15	166115	1	Gear, Input, 11 Tooth
16	166116	2	Washer, .62 ID x 1.0 OD x .05
17	166117	2	Pin, Spring, 3/16" x 1/2"
18	166118	2	Spacer, Mounting
19	166119	1	Axle Shaft, Straight
20	020374	2	Capscrew, Hex Hd., 5/16"-18 x 3"
21	020134	2	Nut, Std. Hex, 5/16"-18

FIGURE 4 - BOLT-ON BLADE GUARD

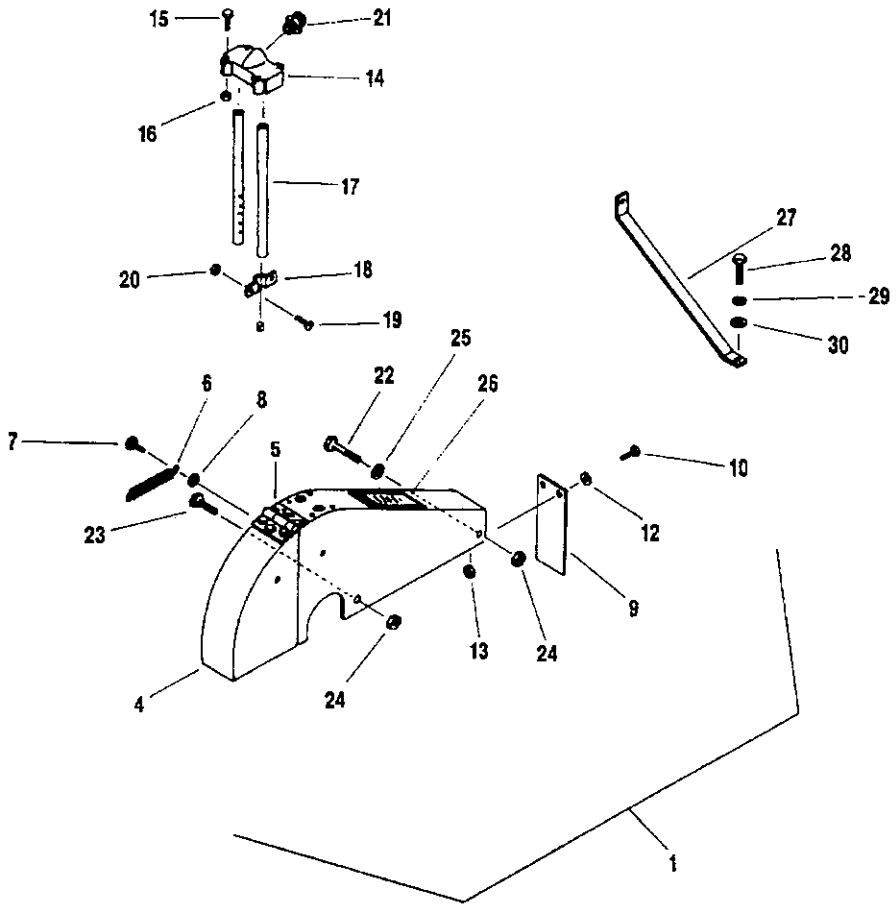


FIGURE 4 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
*1	174272	1	Kit, 14" Blade Guard-Complete (Incl Items 4-26)
*	174273	1	Kit, 18" Blade Guard-Complete (Incl Items 4-26)
*	167475	1	26" Blade Guard-Complete (Incl Items 4-26)
*	167676	1	30" Blade Guard-Complete (Incl Items 4-26)
*	174275	1	36" Blade Guard-Complete (Incl Items 4-26)
*	174276	1	48" Blade Guard-Complete (Incl Items 4-26)
2	———	—	———
3	———	—	———
4	160877	1	Guard, Front only, 14"
	160523	1	Guard, Front only, 18"
	049185	1	Guard, Front only, 26"
	160526	1	Guard, Front only, 30"
	160529	1	Guard, Front only, 36"
	163920	1	Guard, Front only, 48"
5	049154	1	Hinge
*5A	167478	6	Capscrew, Hex Hd., M8 x 1.25 x 25mm (Full Thd)
*5B	173059	6	Washer, Flat, M8
*5C	139738	6	Locknut, Fiber, M8 x 1.25
6	043145	1	Spring
*7	139761	2	Capscrew, Hex Hd., M6 x 1.0 x 20mm
*8	172017	4	Nut, Std. Hex, M6 x 1.0
9	163275	1	Guard, Splash
*10	139761	2	Capscrew, Hex Hd., M6 x 1.0 x 20mm
*11	———	—	———
*12	139746	2	Washer, Flat, M6
13	139745	2	Locknut, Fiber, M6 x 1
14	049196	1	Manifold, Water
	049206	1	Gasket, Manifold

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
*15	167551	4	Capscrew, Hex Hd., M6 x 1.0 x 40mm
*16	139745	4	Locknut, Fiber, M6 x 1.0
17	161003	2	Water Tube w/ Pipe Plug-14"
	161004	2	Water Tube w/ Pipe Plug-18"
	161005	2	Water Tube w/ Pipe Plug-26"
	161006	2	Water Tube w/ Pipe Plug-30"
	161007	2	Water Tube w/Pipe Plug-36"
	163925	2	Water Tube w/Pipe Plug-48"
18	049212	2	Clamp, Water Tube
*19	139760	4	Screw, Flat Hd., M6 x 1.0 x 20mm
*20	139745	4	Locknut, Fiber, M6 x 1.0
21	040275	1	Hose Adapter
22	020352	1	Capscrew, Hex Hd., 1/2"-13 x 5 (14" & 18" Gd. Only)
*	167531	1	Capscrew, Hex Hd., M12 x 1.75 x 130mm (14" &18" Gd. Only)
*	167532	1	Capscrew, Hex Hd., M12 x 1.75 x 140mm
*23	139751	1	Capscrew, Hex Hd., M12 x 1.75 x 25mm
24	020201	1	Locknut, Fiber, 1/2"-13 (14" & 18" Gd. Only)
*	139742	2	Locknut, Fiber, M12 x 1.75
25	020788	1	Lockwasher, Split, 1/2"
26	046128	1	Decal, Caution
27	163537	1	Brace, Blade Guard, 26"
	163540	1	Brace, Blade Guard, 30" & 36"
	163929	1	Brace, Blade Guard, 48"
*28	139749	1	Capscrew, Hex Hd., M10 x 1.5 x 25mm
*29	162004	1	Lockwasher, Split, M10
*30	173014	1	Washer, Flat, M10

FIGURE 5 - SLIP-ON BLADE GUARD

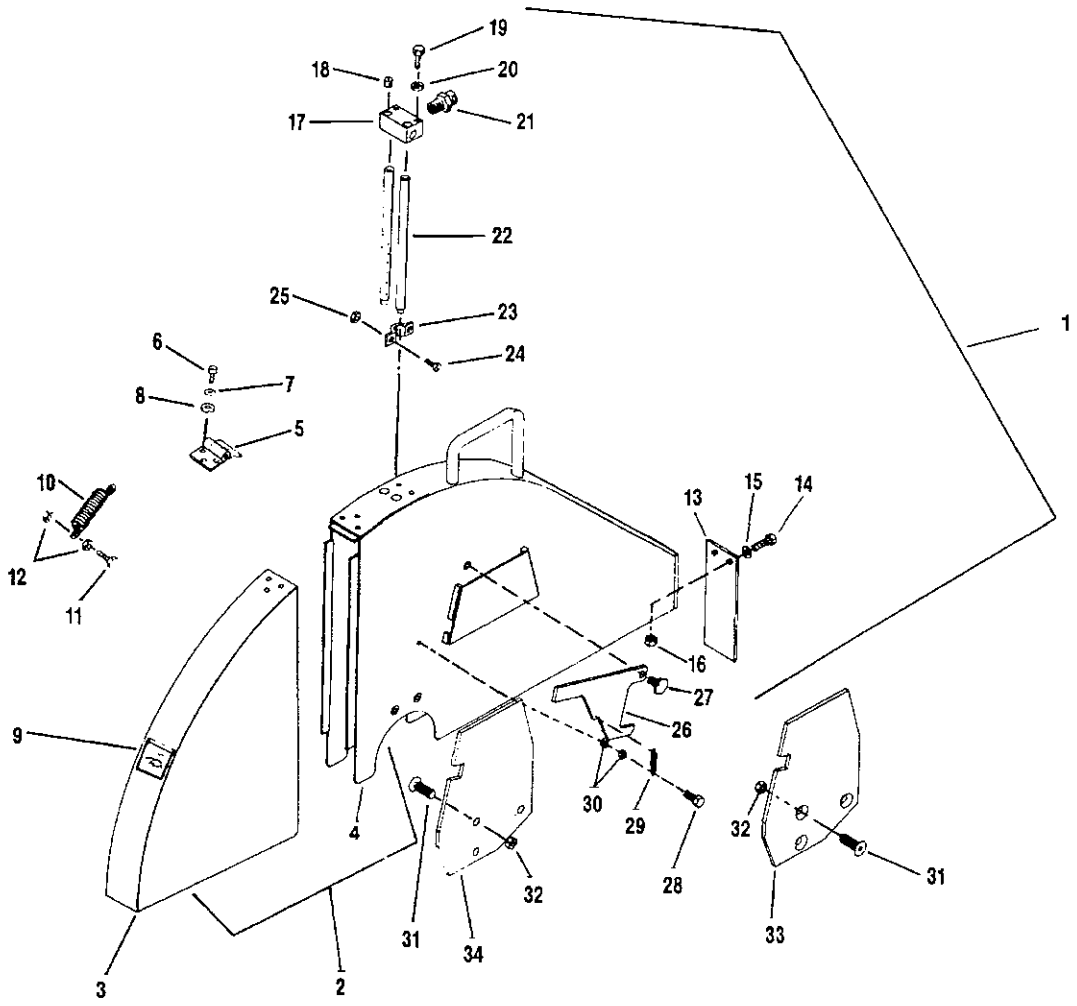


FIGURE 5 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
*1	167492	1	Blade Guard-14" (Includes Items 3, 5-30)
*	167495	1	Blade Guard-18" (Includes Items 3, 5-30)
*	167498	1	Blade Guard-26" (Includes Items 3, 5-30)
*3	174050	1	Kit, Front Guard Weldment-14" (Incl. 5-9, 36)
*	174051	1	Kit, Front Guard Weldment-18" (Incl. 5-9, 36)
*	174052	1	Kit, Front Guard Weldment-26" (Incl. 5-9, 36)
5	167824	1	Hinge
*6	197227	6	Capscrew, Hex Hd., M8 x 1.25 x 20mm
*7	173019	6	Lockwasher, M8
*8	173059	6	Washer, Flat, M8
9	046128	1	Decal, Caution
10	043145	1	Spring
*11	139761	2	Capscrew, Hex Hd., M6 x 1.0 x 20mm
*12	172017	4	Nut, Std. Hex, M6 x 1.0
	163389	1	Guard, Splash
	139761	2	Capscrew, Hex Hd., M6 x 1.0 x 20mm
*15	139746	2	Washer, Flat, M6
*16	139745	2	Locknut, Fiber, M6 x 1.0
17	163388	1	Manifold
18	020864	2	Plug, 1/8" NPT, Socket Hd., Brass
*19	139759	2	Capscrew, Hex Hd., M6 x 1.0 x 45mm
*20	163689	2	Lockwasher, Split, M6
21	040275	1	Adapter 3/8" NPT x 3/4" Male Garden Hose
22	164449	2	Water Tube-14"
	163394	2	Water Tube-18"
	163427	2	Water Tube-26"
23	163395	2	Clamp, Water Tube
*24	167818	4	Screw, Flat Hd., M6 x 1.0 x 16mm
*25	139745	4	Locknut, Fiber, M6 x 1.0
26	165986	2	Latch
*27	167503	2	Bolt, Pivot, M8 x 1.25 (Special)
*28	167761	2	Capscrew, Hex Hd., M5 x 0.8 x 20mm
29	163188	2	Spring
*30	172011	2	Nut, Hex, M5 x 0.8
*31	167491	6	Capscrew, Counter Sunk Hd., M10 x 1.5 x 25mm
*32	139748	5	Locknut, Fiber, Hex, M10 x 1.5
*33	174053	1	Kit, LH Spade (Metric) (Incl. Items 31, 32, 36)
*34	174054	1	Kit, RH Spade (Metric) (Incl. Items 31, 32, 36)
*35	167624	1	14" Kit-Slip On Blade Guard (Field Installed)
*	167625	1	18" Kit-Slip On Blade Guard (Field Installed)
*	167626	1	26" Kit-Slip On Blade Guard (Field Installed)
36	0A7665	1	Instruction Sheet, Blade Guard & Spade Kits

FIGURE 6 - LIFT ASSEMBLY

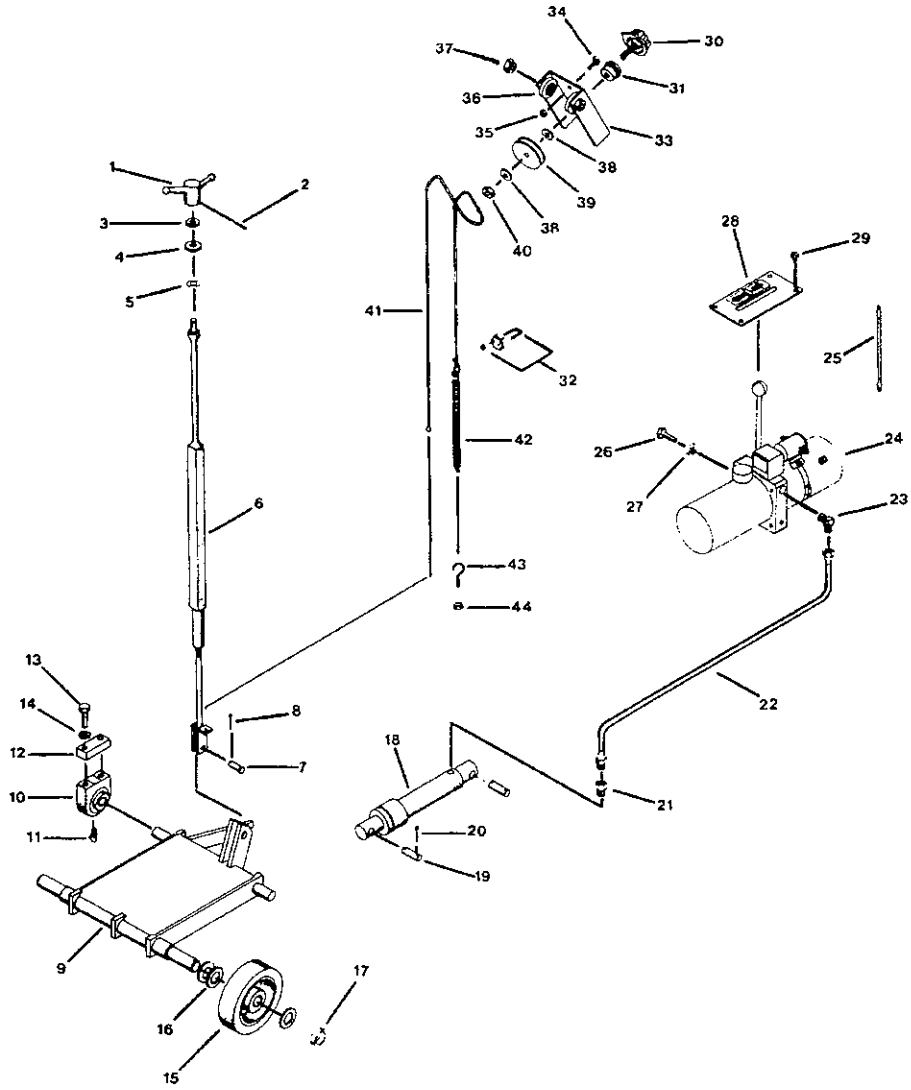


FIGURE 6 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
1	047591	1	Handle
2	020641	1	Pin, Roll, 3/16" x 1-1/4"
3	020745	1	Washer, Flat, 1/2"
4	046424	1	Washer, Fiber
5	046425	1	Washer, Bowed
6	163238	1	Stem Assy.
7	160164	1	Pin, Pivot
8	020612	1	Cotter Pin, 3/32" x 3/4"
9	163605	1	Front Axle Assembly
10	047161	2	Bearing, 1-1/4"
11	041175	2	Fitting, Grease
12	163044	2	Riser Block
13	020351	4	Capscrew, Hex Hd., 1/2"-13 x 4-1/2"
14	020788	4	Lockwasher, Split, 1/2"
15	047150	2	Wheel, 8" x 2-1/2" x 1"
	047152	2	Seal & Bearing Kit
16	020751	6	Washer, Flat, 1"
17	048078	2	Collar, Set, 1" (Includes Item 17A)
18	048310	1	Hydraulic Cylinder
19	048321	2	Pin, Hydraulic Cylinder
20	020622	4	Cotter Pin, 3/16" x 2"
21	163610	1	Fitting, Adapter, 3/8" Pipe , 1/4" Tube
22	163642	1	Hose Assembly, 36" lg.
23	163035	1	Fitting, Elbow 90°, 1/4" Tube, 3/8" O-Ring
24	166125	1	Hydraulic Pump
25	048542	1	Battery Cable, Pos.
	139260	1	Battery Cable, Neg.
*26	173005	3	Capscrew, Hex Hd., M10 x 1.5 x 16mm
*27	162004	3	Lockwasher, Split, M10
28	166083	1	Cover Plate, w/Decal
	163719	1	Decal, Raise/Lower
29	020587	4	Screw, Self-Tapping, #10-24 x 3/8"
30	163261	1	Pointer Knob
31	043696	1	Bearing
32	043698	1	Cable Clamp
33	043711	1	Bracket, Mounting
34	020602	2	Machine Screw, Pan Hd., #10-24 x 1/2"
35	020194	2	Locknut, Fiber, #10-24
36	030822	2	Pulley & Bearing
37	032366	2	Locknut, 5/16"-18 KEPS
38	020763	2	Washer, Flat, SAE 5/16"
39	043694	1	Plastic Cable Pulley
40	020197	1	Locknut, Fiber, 5/16"-18
41	163228	1	Cable Assy.
42	163168	1	Spring
43	020250	1	Eye Bolt, 1/4"-20
44	020133	1	Nut, Hex Jam, 1/4"-20

FIGURE 7 - HYDRAULIC PUMP GROUP

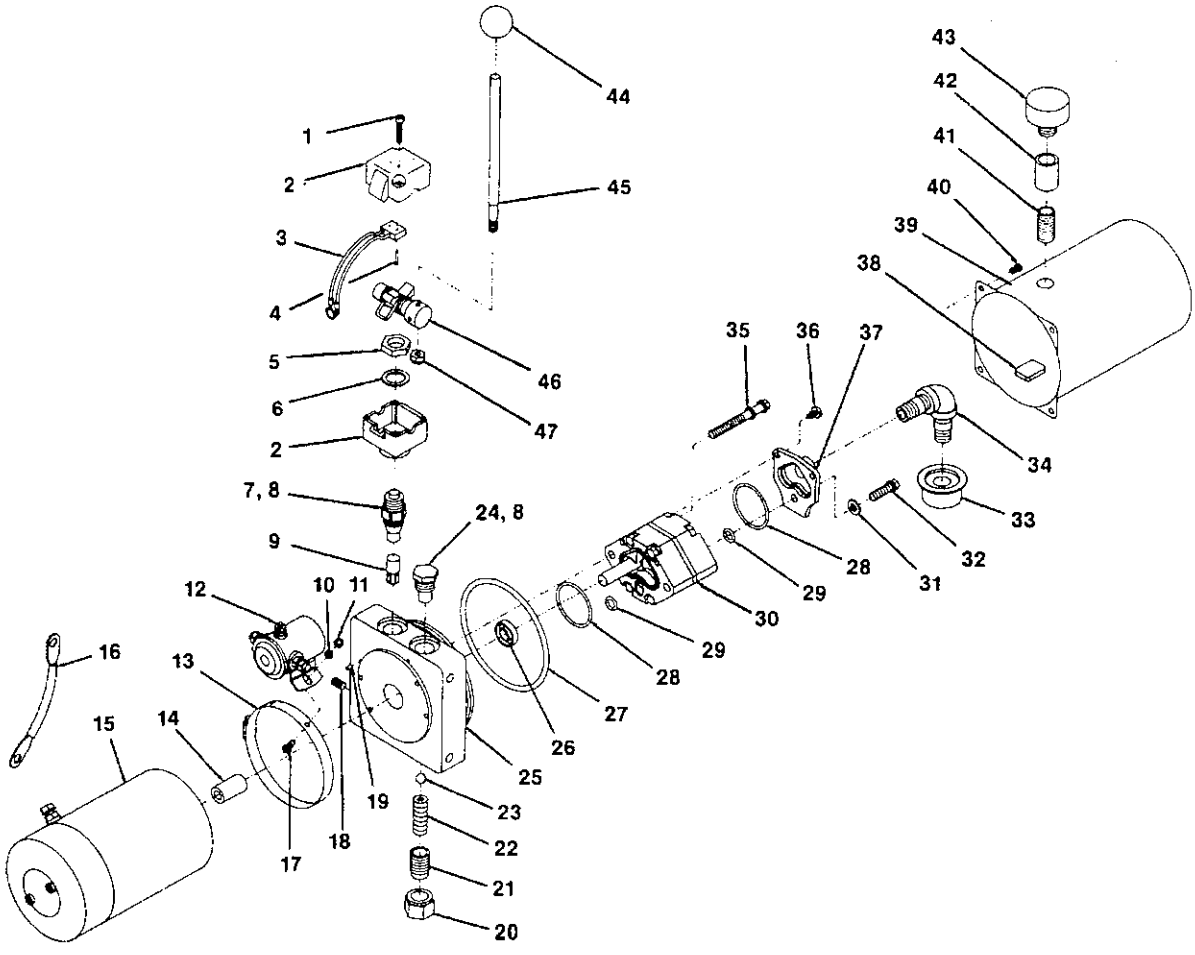


FIGURE 7 - PARTS LIST FOR 166125

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
1	166260	2	Capscrew, Socket Hd., #10-32 x 1" lg.
2	166261	1	Bracket, Release
3	166338	1	Switch, Electric (Sealed)
4	166259	2	Screw, #2-56 x 3/8"
5	166265	1	Nut, Jam, 3/4"-16 x 1/4" Thick
6	166266	1	Washer, Internal Tooth
7	166245	1	Valve, Cartridge, Release
8	045659	2	O-Ring
9	166239	1	Valve, Flo-Control .5 GPM
10	020740	2	Washer, Flat, 3/16"
11	020132	2	Nut, #10-24
12	166121	1	Solenoid Switch
13	166262	1	Clamp, Hose
14	166229	1	Coupling, Drive
15	048205	1	Motor, 12V DC
16	163344	1	Cable, Motor
17	020462	2	Screw, Pan Hd., #10-24 x 1/2"
18	170569	1	Plug, 1/16" NPT
19	045664	1	Pin, 1/8 x 1/4
20	048297	1	Relief Cap Assy (w/ O-Ring)
21	048202	1	Screw, Adjustment
[illegible]	166237	1	Spring
	166230	1	Ball, 3/8" Steel
24	166235	1	Valve, Cartridge, Check
25	166241	1	Endhead
26	166231	1	Seal, Shaft
27	166240	1	O-Ring
28	166264	2	O-Ring

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
29	166263	2	O-Ring
30	166242	1	Pump Assy.
31	166232	1	Washer, 0.338 x 0.625 x 0.06
32	166236	1	Bolt, 5/16"-18 x 1" Torx
33	048213	1	Filter, Inlet Screen
34	166244	1	Plumbing Assy. Inlet
35	166228	2	Bolt, 5/16"-24 x 2.75" Torx
*36	166234	2	Screw, M6 x 1.0 x 12 mm Taptite
37	166233	1	Cover, Suction 3/8" NPT
38	163327	1	Magnet
39	166243	1	Reservoir
40	166238	4	Screw, Hex Washer Hd., #12-24 x .29
41	166098	1	Nipple, Close 3/8" NPT
42	020847	1	Coupling, 3/8" NPT
43	043871	1	Breather, 3/8" NPT
44	166255	1	Knob
45	166257	1	Handle
46	166337	1	Cam & Shaft Assy. (includes 46A-46H)
46A	166247	1	Pin, Roll .156" Dia. x 5/8"
46B	166248	2	E-Series Circlip
46C	166249	1	Pin, Roll .156" Dia. x 7/8"
46D	166250	1	Pin, Roll .156" Dia. x 1-3/8"
46E	166251	1	Spring, Torsion
46F	166252	1	Cam
46G	166253	1	Camshaft
46H	166254	2	Bushing
47	166256	1	Locknut, Fiber, 5/16"-24

FIGURE 8 - 48" CONVERSION KIT

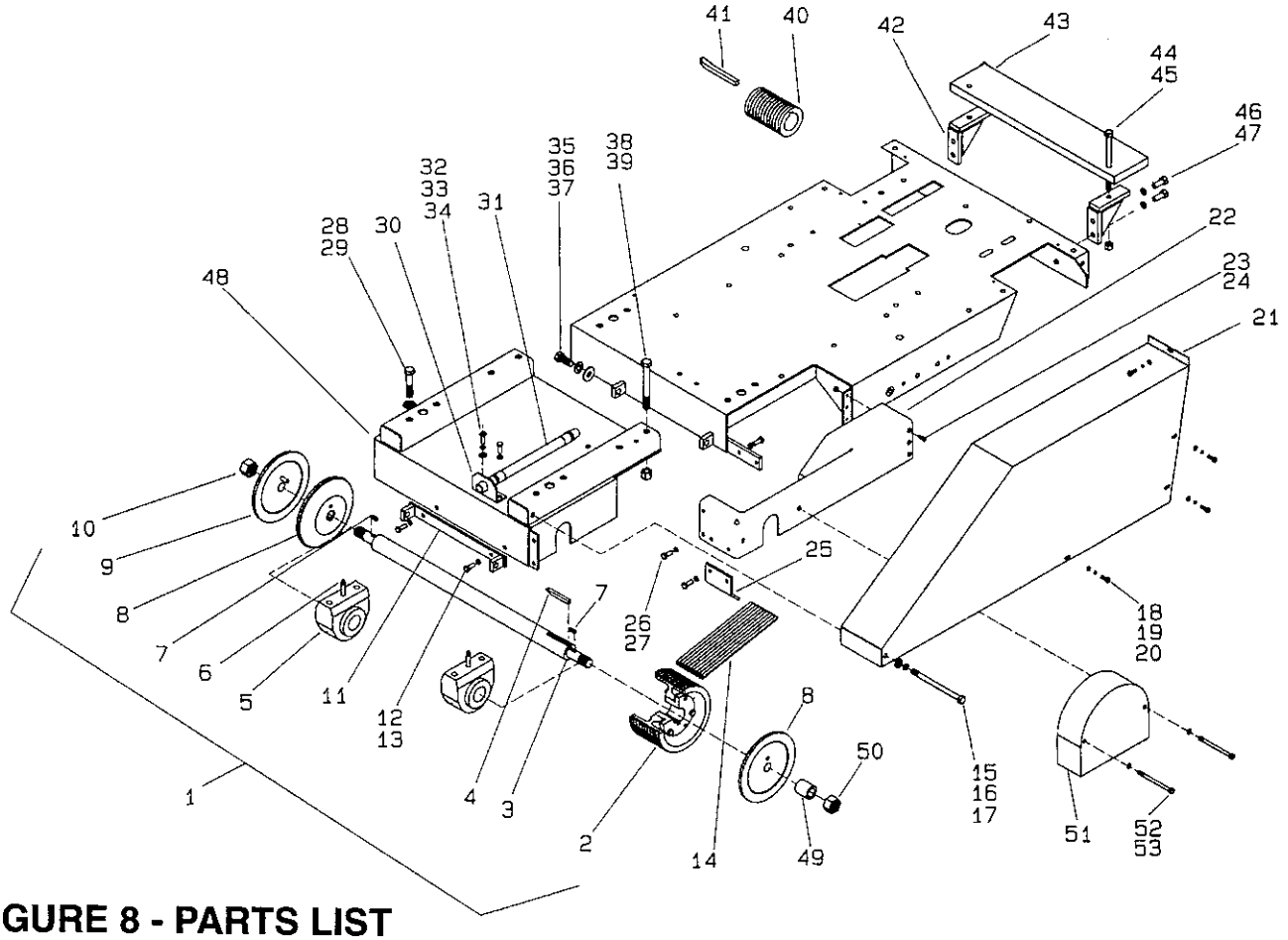


FIGURE 8 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
1	163931	1	Replacement Blade Shaft Assy. (Incl. Items 2-10)
2	163879	1	Pulley Assy. w/Bushing
	163880	1	Pulley, 10G3V7.60
	160642	1	Bushing, 1-3/4"
3	047008	1	Blade Shaft
4	020092	1	Key, 3/8" Sq. x 3-1/4" lg., Beveled End
5	163137	2	Bearing, Roller 1-3/4" dia.
6	163140	2	Grease Fitting, 1/8" NPT x 2-5/8" lg.
7	043054	2	Key, 1/4" Sq. x 27/32" Round End
8	163883	2	Blade Flange, Inner 8" ID
9	163898	1	Blade Flange, Outer w/Dowel Pin
	020304	1	Dowel Pin, 3/8" dia. x 1-1/2"
10	020017	1	Hex Nut, 1"-14 UNF LH Thread
11	163871	1	Bracket, Front Pointer
12	020323	2	Capscrew, Hex Hd., 3/8"-16 x 1" lg.
13	020786	2	Lockwasher, Split, 3/8"
14	175141	1	V-Belt, Set of 2, 3VX710 – 5 band
15	165297	1	Capscrew, Hex Hd., 1/2"-13 x 7" lg.
16	020788	1	Lockwasher, Split, 1/2"
17	020745	1	Washer, Flat, 1/2"
18	020370	5	Capscrew, Hex Hd., 1/4"-20 x 3/4" lg.
19	020784	5	Lockwasher, Split, 1/4"
20	020762	5	Washer, Flat, 1/4"
21	163899	1	Belt Guard Assy.
22	163875	1	Cover
23	020445	3	Screw, Flat Head Machine, Slotted, 1/4"-20 x 3/4" lg.
24	020195	3	Locknut, Fiber, 1/4"-20
25	163901	1	Sheave Guard
26	020322	6	Capscrew, Hex Hd., 3/8"-16 x 3/4" lg.
27	020786	6	Lockwasher, Split, 3/8"
28	163136	4	Capscrew, Hex Hd., 5/8"-18 x 3" lg.
29	020790	4	Lockwasher, Split, 5/8"
30	163594	1	Bracket, Oil Drain
31	163907	1	Hose, Oil Drain
32	020322	2	Capscrew, Hex Hd., 3/8"-16 x 3/4" lg.
33	020786	2	Lockwasher, Split, 3/8"
34	020743	1	Washer, Flat, 3/8"
35	021419	2	Capscrew, Hex Hd., 5/8"-11 x 1-1/2" lg.
36	020790	2	Lockwasher, Split, 5/8"
37	020747	2	Washer, Flat, 5/8"
38	163906	4	Capscrew, Hex Hd., 5/8"-11 x 5-1/2" lg.
39	020204	4	Locknut, Fiber, 5/8"-11
40	163893	1	Pulley, 11G3.35 w/SS
41	163684	1	Key, 1/2" Sq. x 5-1/4"
42	138059	2	Weight Bracket
43	163927	6	Weight
44	046897	2	Capscrew, Hex Hd., 1/2"-13 x 7-1/2" lg.
45	020201	2	Locknut, Fiber, 1/2"-13
46	020340	2	Capscrew, Hex Hd., 1/2"-13 x 1-1/4" lg.
47	020788	2	Lockwasher, Split, 1/2"
48	163865	1	Frame Extension, Weldment
49	043051	1	Thread Protector Sleeve
50	020018	1	Hex Nut, 1"-14 UNF Thread
51	166344	1	Shaft Guard
52	020334	2	Capscrew, Hex Hd., 3/8"-16 x 4"
53	020786	2	Lockwasher, Split, 3/8"
	174274	1	Complete Conversion Kit Includes 48" Blade Guard & Brace (see page 10)

FIGURE 9 - SIDE PLUNGE KIT

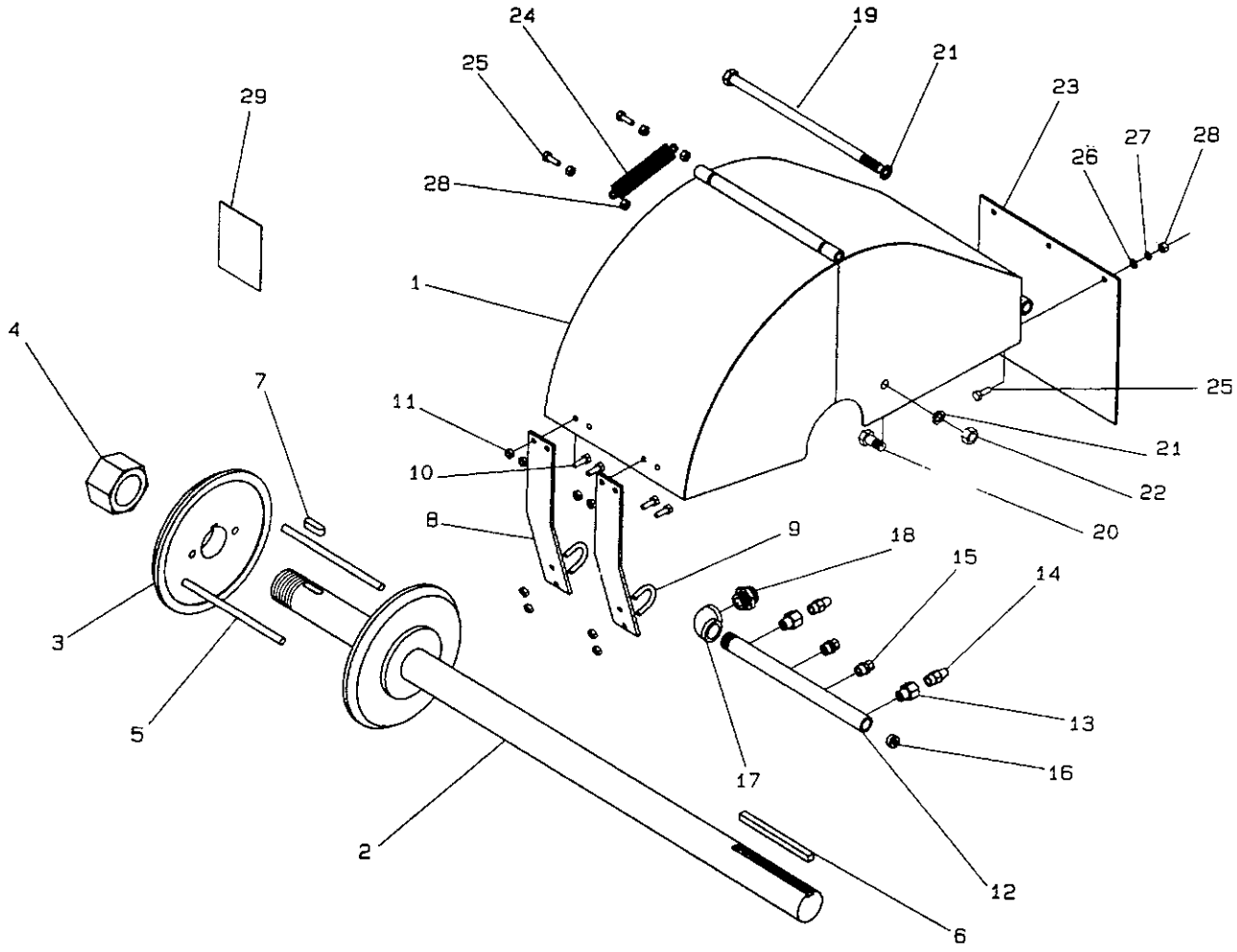


FIGURE 9 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
	163943	1	Blade Guard Assy. (Items 1, 23-29)
1	048866	1	Blade Guard
2	048868	1	Blade Shaft & Tight Collar Assy.
3	049871	1	Loose Collar
4	049264	1	Nut, Blade Shaft
5	048895	2	Drive Pin
6	020052	1	Key, 3/8" Sq. x 5"
7	048894	1	Key, 3/8" Sq. x 1"
8	048880	2	Bracket, Manifold
	020032	2	"U" Bolt
	020370	4	Capscrew, 1/4"-20 x 3/4"
11	020195	8	Locknut, Fiber, 1/4"-20
12	048878	1	Manifold, Water
13	091129	2	Adapter, Pipe
14	091136	2	Nozzle, Side
15	048901	2	Nozzle, Straight
16	020853	1	Plug, Pipe, 3/8"
17	020827	1	Elbow, 90°, 1/2" Pipe
18	040274	1	Connector, 1/2" Pipe
19	048755	1	Capscrew, Hex Hd., 1/2"-13 x 10-3/4"
20	020339	1	Capscrew, Hex Hd., 1/2"-13 x 1"
21	020788	2	Lockwasher, Split, 1/2"
22	020140	1	Nut, Hex, 1/2"-13
23	048905	1	Flap, Rubber
24	043145	1	Spring
25	020370	5	Capscrew, Hex Hd., 1/4"-20 x 3/4"
26	020741	3	Washer, Flat, 1/4"
27	020784	3	Lockwasher, Split, 1/4"
28	020133	7	Nut, Hex, 1/4"-20
29	046128	1	Decal, Caution, Blade Guard
30	049925	1	Wrench, Blade Shaft (Not Shown)
	163944	1	Complete Side Plunge Kit P/N

FIGURE 10 - INSTRUMENT & CONTROL PANEL GROUP

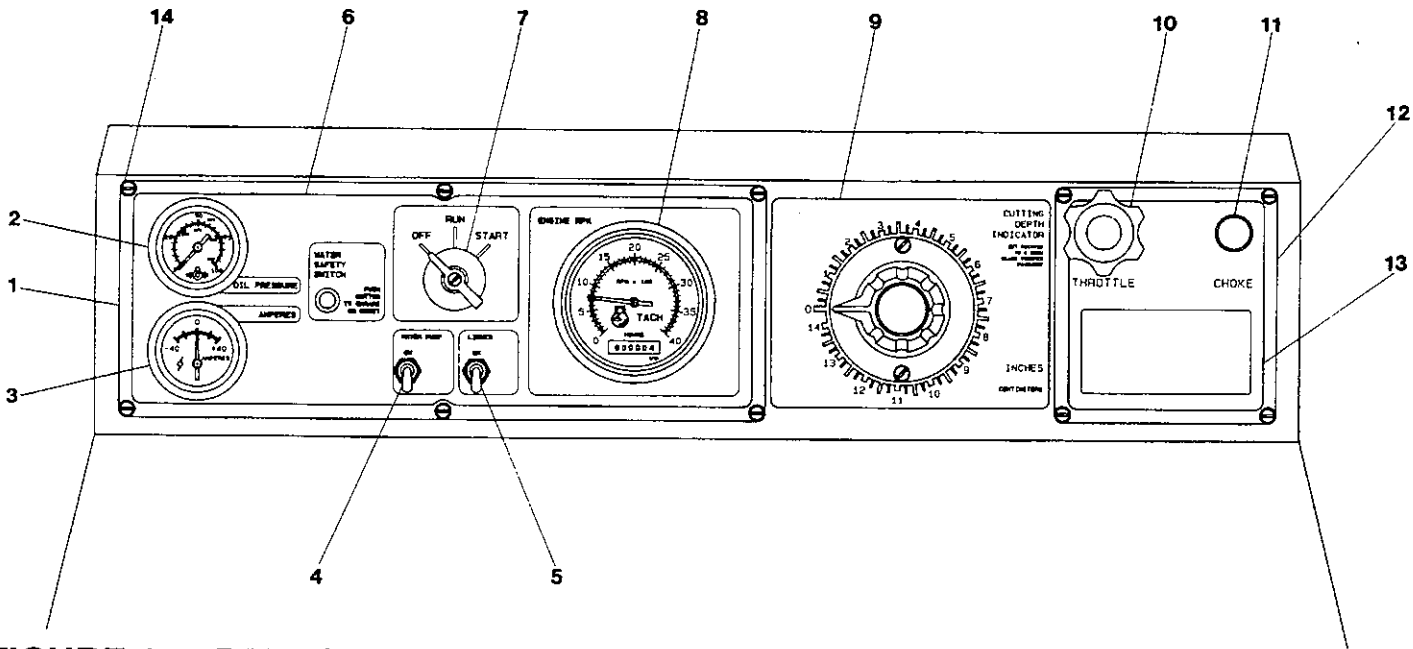


FIGURE 10 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
	163700	1	Panel Assy. (Incl. Items 1-8 and 163698)
1	163573	1	Panel, Gauge
2	163667	1	Gauge, Oil Pressure
3	163666	1	Gauge, Ammeter
4	052120	1	Switch, Water Pump
5	052120	1	Switch, Lights
6	163696	1	Decal, Instrument Panel
7	046360	1	Switch, Ignition
8	163665	1	Gauge, Tach/Hour Meter
9	163694	1	Decal, Depth Indicator
10	160467	1	Throttle Cable
11	160409	1	Choke Cable
12	163670	1	Panel, Dash Cover
13	163695	1	Decal, Throttle and Choke
14	020587	10	Screw, Self-Tapping, #10-24 x 3/8" lg.
	163698	1	Wiring Harness, Instrument (Not Shown)
	163699	1	Wiring Harness, Engine (Not Shown)

FIGURE 11 - LIGHT ASSEMBLY KIT COMPLETE
(METRIC/ENGLISH) P/N 167656

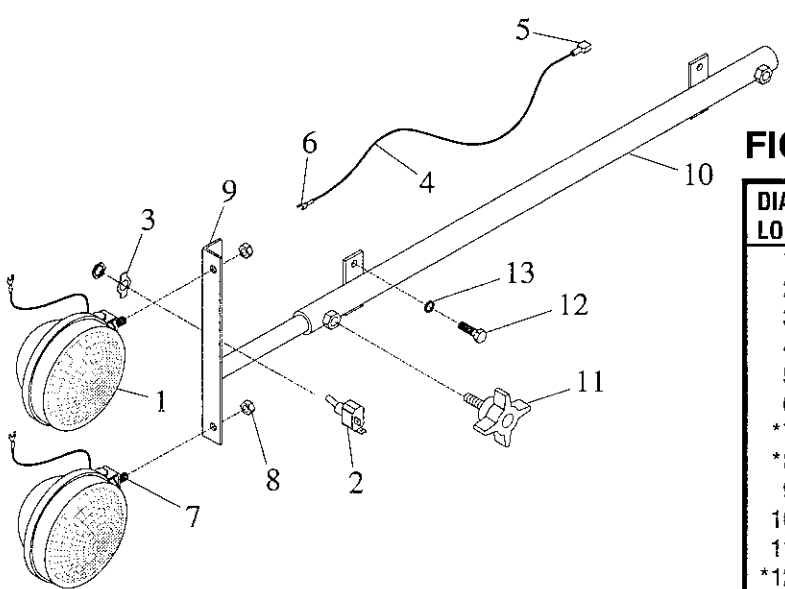


FIGURE 11 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
1	0499919	2	Light
2	052120	1	Switch
3	090552	1	Plate, Switch
4	0499925	1	Wire, 16 GA x 36"
5	164370	1	Terminal, Male
6	046440	3	Terminal
*7	197227	2	Capscrew, Hex Hd., M8 x 1.25 x 20mm
*8	139738	2	Locknut, Fiber, M8
9	163758	1	Bar, Support
10	163754	1	Tube, Support
11	166038	1	Knob, 3/8"-16 UNC Thread
*12	139761	4	Capscrew, Hex Hd., M6 x 1.0 x 20mm
	020370	4	Capscrew, Hex Hd., 1/4"-20 x 3/4"
*13	163689	4	Lockwasher, Split, M6

FIGURE 12 - WATER PUMP KIT GROUP

WATER PUMP KIT COMPLETE (METRIC/ENGLISH) P/N 167554

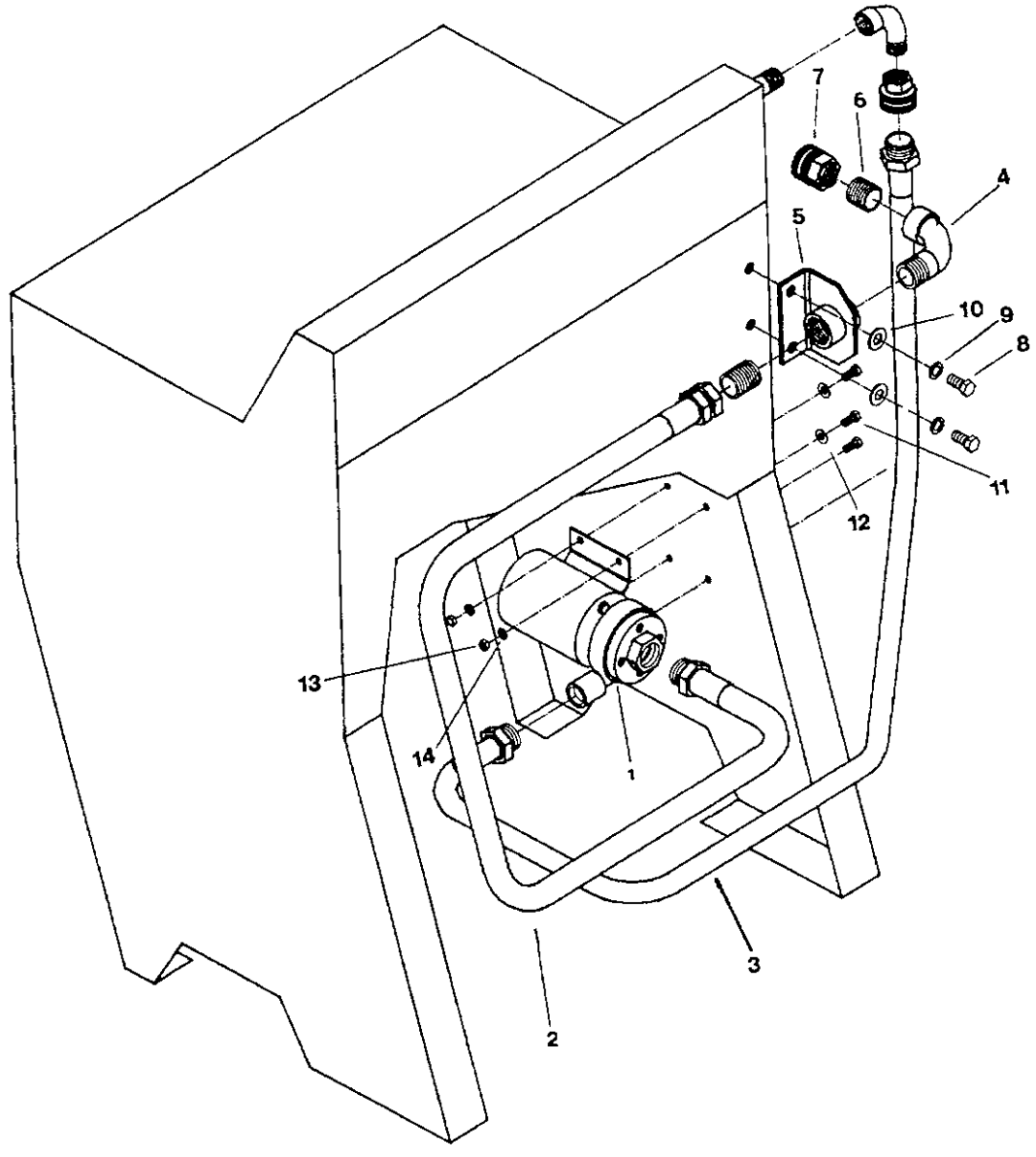
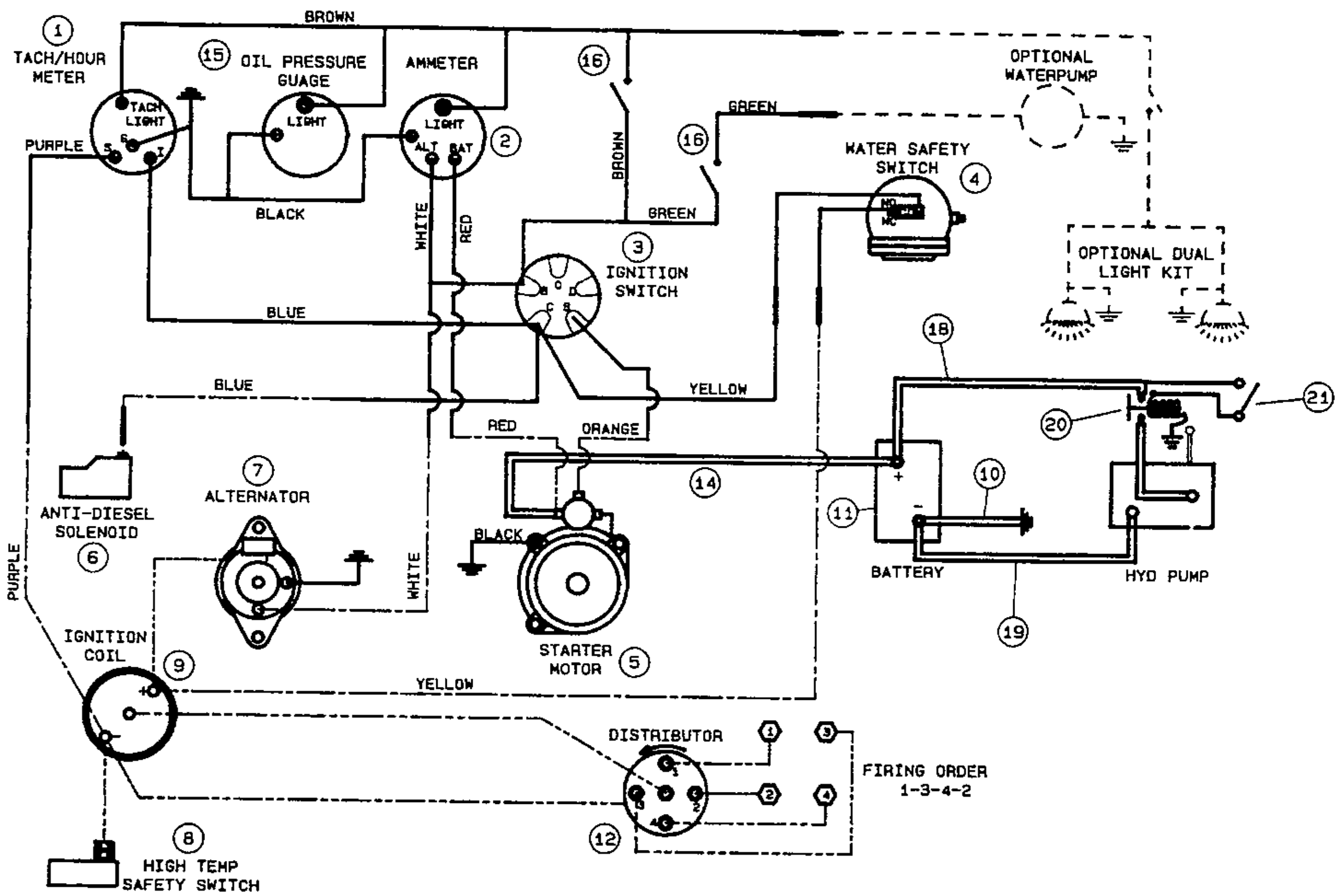


FIGURE 12 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)	DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
1	164977	1	Water Pump With Wire Terminal	6	020296	2	Fitting, Nipple-Close 3/4" NPT
	———	—	Replacement Water Pump Parts:	7	045643	1	Swivel, With Filter (Includes Items 7A-7B)
	164083	1	Motor, Impeller, Gasket & Seal	7A	040271	1	Swivel, Without Filter
	164580	1	Seal And Gasket Kit	7B	045640	1	Washer, Filter
	164578	1	Gasket Only	*8	139744	2	Capscrew, Hex Hd., M10 x 1.5 x 20mm
	164579	1	Seal Only		020322	2	Capscrew, Hex Hd., 3/8"-16 x 3/4"
	164581	1	Impeller Only	*9	162004	2	Lockwasher, Split, M10
	164582	1	Motor Only	*10	173014	2	Washer, Flat, M10
2	163770	1	Hose Assy., 3/4" Dia. (Inlet)	*11	139761	4	Capscrew, Hex Hd., M6 x 1.0 x 20mm
3	163769	1	Hose Assy., 1/2" Dia. (Outlet)	*12	139746	4	Washer, Flat, M6
4	040273	2	Fitting, 90° Street Elbow, 3/4" NPT	*13	139745	4	Locknut, Fiber, M6 x 1.0
5	163594	1	Bracket, Water Pump	14	020762	4	Washer, Flat, 1/4" SAE

FIGURE 13 - ELECTRICAL DIAGRAM

SWITCH POSITION: Off - D to Ground
Run - O to D
C to B
Start - C to B to S



Part of Instrument Harness 163698 (13)
Part of Engine Harness 163699 (17)
Wiring Supplied on Engine
Optional Features

FIGURE 13 - PARTS LIST

DIAG. LOC.	PART NO.	QTY. REQ.	DESCRIPTION (*Denotes Metric Item)
1	163665	1	Gauge, Tach/Hour Meter
2	163666	1	Gauge, 40 Amp Ammeter
3	046360	1	Ignition Switch #YC27BS1
4	047136	1	Water Safety Switch
5	———	1	Starter & Solenoid #YA60
6	———	1	Anti-Diesel Solenoid #YC83AS1
7	———	1	37A 12V Alternator #YB69
8	———	1	High Temp Safety Switch #YC66D
9	———	1	Ignition Coil #YF41AS1
10	163179	1	Battery Cable, Negative, #40-4
11	163121	1	Battery 12V
12	———	1	Electronic Distributor #YF10CS1
13	163698	1	Instrument Wiring Harness
14	163180	1	Battery Cable, Positive, #52-4
15	163667	1	Gauge, Oil Pressure
16	052120	2	Switch
17	163699	1	Engine Wiring Harness
18	048542	1	Battery Cable, Positive
19	139260	1	Battery Cable, Negative
20	166121	1	Solenoid
21	166338	1	Switch