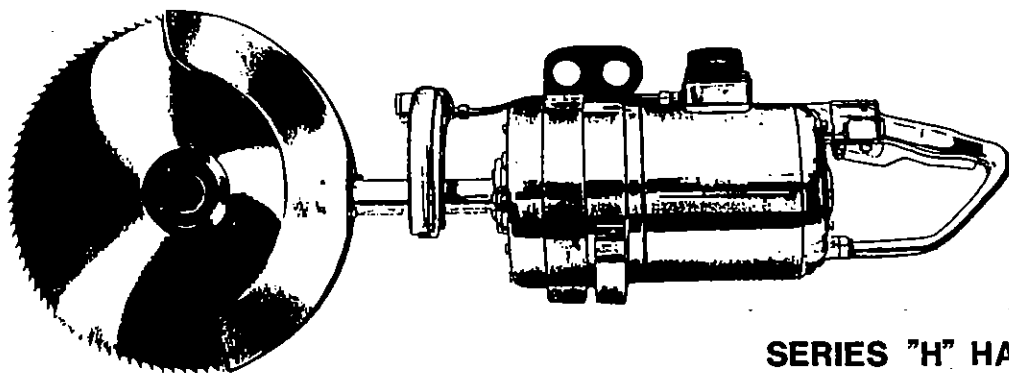
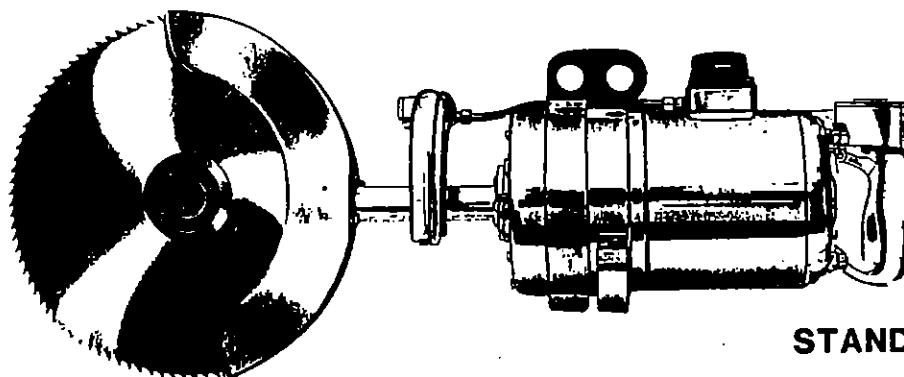


**PARTS & SERVICE MANUAL**  
**MODELS "766/IS" & "764/IS"**  
**MODELS "766" & "764"**  
*HOG SPLITTERS*



**SERIES "H" HANDLE**



**STANDARD HANDLE**

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**USDA  
APPROVED**

**FOR MORE INFORMATION CONTACT:**

**BEST & DONOVAN**  
5570 Creek Road, Cincinnati, OH 45242, USA

TOLL FREE:  
TELEPHONE  
CABLE:  
FAX:

1-800-553-2378  
(513) 791-9180  
WEPCO  
513-791-0925



# **WARNING**

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ALWAYS EXERCISE CARE WHEN OPERATING OR PERFORMING MAINTENANCE, REPAIRS, AND ADJUSTMENTS. Always disconnect the electrical connector before attempting to work on this tool. Be sure all electrical tools are properly grounded.

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## ***UPON RECEIVING***

Inspect your B & D Hog Splitter for possible damage as soon as you receive it. If you discover any damage, notify carrier's agent at once and request him to inspect the damage. Also notify Best & Donovan. Check the packing list against the contents.

## ***ELECTRICAL HOOKUP***

This machine is designed to operate through a remote starter unit that uses a stepdown transformer for the control voltage to the dual control handles. Less than 50 volts is recommended for the control voltage.

The 4-wire Plug is to be the power source line with the 3-Wire Plug being used as the control voltage hookup. Refer to the Diagram on the following page for complete hookup instructions.

**NOTE:** MAKE SURE THAT THE MACHINE IS PLUGGED INTO THE SAME CURRENT AS IS INDICATED ON THE NAMEPLATE ON YOUR MACHINE.

## ***CHECKING DIRECTION OF ROTATION***

Before placing your machine into operation, place the machine on a workbench or table to check the saw blade rotation which is indicated by the arrow stamped on the Saw Guard (7596300, 7557000).

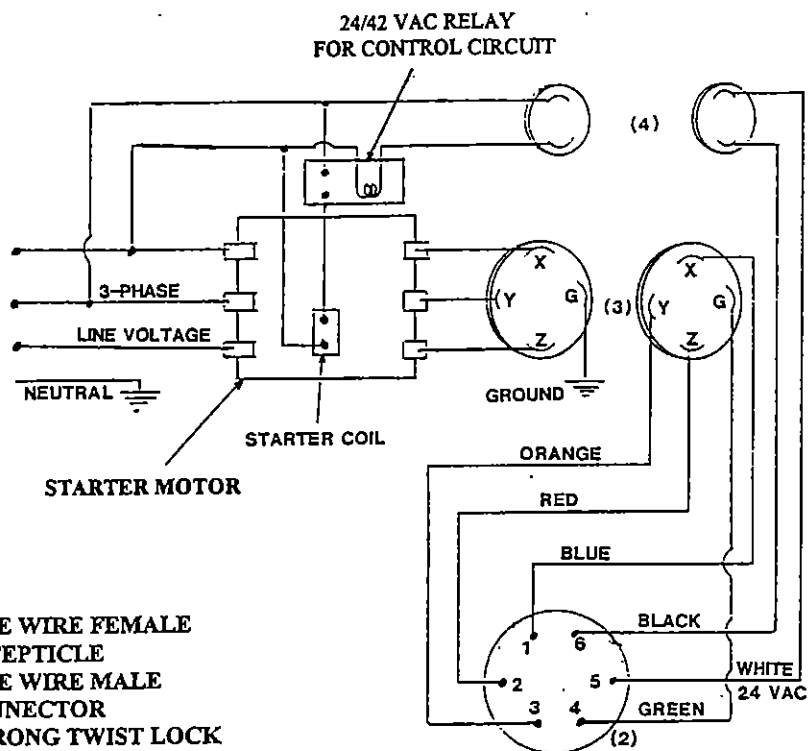
The Saw Blade (14", 16") must rotate in a counterclockwise direction. To reverse direction of rotation, interchange any 2 (two) line wires (NOT THE GROUND) at the 4-Wire Twistlock Plug.

## ***INSTALLATION***

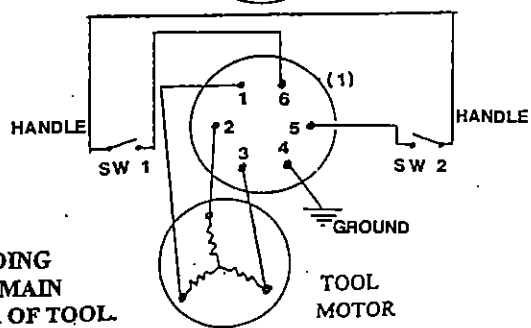
The Models "766/IS" and "764/IS" Hog Splitters should be suspended from either a No. 6341100 Counterbalance with a 7 ft. (2.1 meters) cable travel or a No. 6341500 Counterbalance with a 9 ft. (2.7 meter) cable travel.

The Models "766" and "764" Hog Splitters should be suspended from either a No. 6339700 Counterbalance with a 7 ft. (2.1 meters) cable travel or a No. 6340600 Counterbalance with a 9 ft. (2.7 meters) cable travel.

**ELECTRICAL CONNECTION DIAGRAM  
3-PHASE 24/42 VOLT  
24/42 VOLT DUAL SIMULTANEOUS CONTROL**

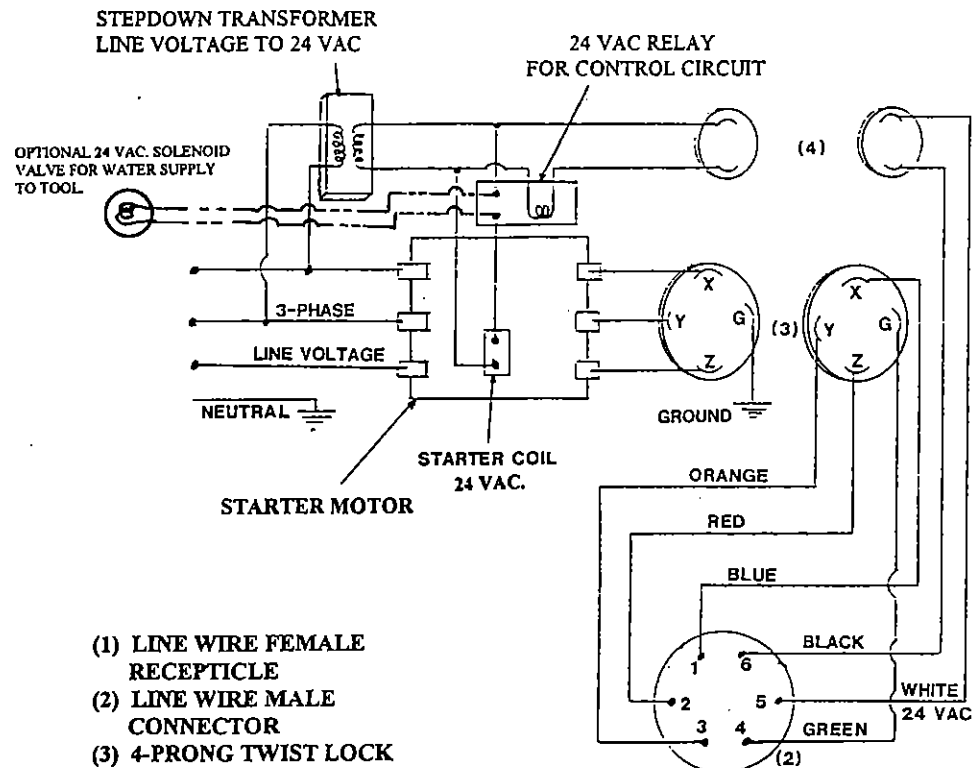


- (1) LINE WIRE FEMALE RECEPTICLE
- (2) LINE WIRE MALE CONNECTOR
- (3) 4-PRONG TWIST LOCK CONNECTOR
- (4) 3-PRONG TWIST LOCK CONNECTOR

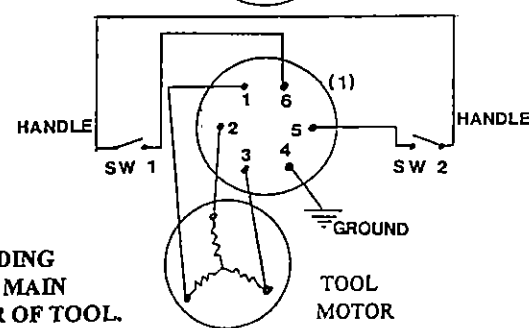


**NOTE :**  
ALL PARTS BETWEEN & INCLUDING TWIST LOCK CONNECTORS TO MAIN POWER SUPPLIED BY THE USER OF TOOL.

**ELECTRICAL CONNECTION DIAGRAM  
3-PHASE 110 THRU 575 VOLT  
24 VOLT DUAL SIMULTANEOUS CONTROL**



- (1) LINE WIRE FEMALE RECEPTICLE
- (2) LINE WIRE MALE CONNECTOR
- (3) 4-PRONG TWIST LOCK CONNECTOR
- (4) 3-PRONG TWIST LOCK CONNECTOR



**NOTE :**  
ALL PARTS BETWEEN & INCLUDING TWIST LOCK CONNECTORS TO MAIN POWER SUPPLIED BY THE USER OF TOOL.

**IMPORTANT NOTE FOR OPTIONAL WATER SPRAY VALVE INSTALLATION**  
WHEN CONNECTING THE WATER SOLENOID VALVE TO ANY EXISTING SYSTEM OR NEW INSTALLATION, MAKE SURE THAT THE STEP-DOWN TRANSFORMER HAS THE CAPACITY TO HANDLE BOTH THE STARTER COIL AND COIL TO THE WATER VALVE. CHECK THE INRUSH CURRENT FOR THE CIRCUIT

# **WARNING**

---

Whenever you replace the blades or whenever your hands or any other part of your person may come into contact with the blades, the tool must be disconnected from the power source to prevent accidental machine operation.

If a tooth should break off a blade while the machine is in operation the operator or someone else could be injured. Always inspect blades for fatigue cracks before installing or using.

---

## ***IMPORTANT***

BEFORE DISASSEMBLING a tool, the area around the work bench should be clean and free from metal chips and other foreign matter. It is good practice to spread a clean cloth on the work bench to prevent the loss of small parts.

IT IS IMPORTANT that all parts are thoroughly cleaned and inspected before assembling. The slightest particles of dirt could create premature mechanical failure.

## ***PREVENTATIVE MAINTENANCE***

Preventative Maintenance is the first step of good maintenance. A periodic check should be made to replace worn parts. A worn part replaced in time may save extensive repairs later.

THIS IS A PRECISION MACHINE made up of precision parts and should be handled with extreme care. Do not squeeze parts in holding devices or otherwise misuse. Too much pressure exerted in a holding device may cause distortion of the part. Be sure you have the correct tools before assembling or disassembling this machine.

## ***BLADE CARE & REMOVAL***

Please note the manner in which the teeth on the new blades are set, .006 - .008 per side alternately. When saw blades become dull and require sharpening, it is important that the teeth be set before placing the blade back into service.

To neglect this will cause an overload on the motor and the machine will be subject to severe strain with resultant wear.

Screw in the Manual Release (7700800) into the brake if provided. This reduces unnecessary beakage of the gear teeth. Insert a small pin through the hole in the saw blade. DO NOT, UNDER ANY CIRCUMSTANCES, INSERT A SCREW DRIVER OR ANY OTHER FOREIGN OBJECT IN THE FAN (7705200). This will lock the blade. Using the Spanner Wrench (5114450), remove the Saw Nut & Cover (7706300). THREAD IS RIGHT HANDED.

# *ATTACHING BLADE*

Reverse the procedure for taking the Blade off MAKING ABSOLUTELY CERTAIN THAT THE SAW BLADE IS PROPERLY SEATED AND THE SAW NUT & COVER (7706300) ARE TIGHTENED SECURELY.

## *LUBRICATION*

The front Gear Head Assembly (7705600) is equipped with two (2) Grease Fittings (6361201). Using a good grade gear lubricant and applying with a pressure type grease gun (furnished with your machine), grease lightly with ONE SHOT in each fitting at noon break and at the end of the daily workshift.

## *ASSEMBLY INSTRUCTIONS FOR EXTENSION HOUSING, STANDARD, & BLADE GEARING*

1. Mount the Extension Housing (7554000) onto the Brake Head (7700400) for the "766/IS" & "764/IS" or to the Front End Bell (7534000) for the "766" & "764" Models with four (4) Screws (9901492) and four (4) Washers (9901975).
2. Press the Bearing (7541893) onto the Extension Shaft (7705400).
3. Screw the Pinion Gear (7705700) onto the Extension Shaft (7705400).  
RIGHT HAND THREADS.
4. Insert the Spacing Sleeve (7705500) into the Extension Shaft (7705400).
5. Insert the Extension Shaft (7705400) into the Extension Housing (7554000).
6. Press the Grease Fittings (6361201) into the Standard (7705600).
7. Slide the Standard (7705600) over the Pinion Gear (7705700), Bearing (7541893), & Spacing Sleeve (7705500).
8. Attach the Saw Guard (either 7557000 or 7496300) to the Standard (7705600) and the Extension Housing (7554000) using three (3) Bolts (9901415).
9. Bolt the remaining hole in the Standard (7705600) to the Extension Housing (7554000) with one (1) other Bolt (9901413).
10. Press the Grease Fitting (6361201) into the Stud (7706500).
11. Remove the outer races from the Roller Bearings (6032093).
12. Press the outer races of the Two (2) Roller Bearings (6032093) into the Bevel Gear (7826093).

# ASSEMBLY INSTRUCTIONS

## CONTINUED

13. Slide a Roller Bearing (6032098) over the Stud (7706500). BE SURE THE BEARING IS MATCHED WITH ITS OWN OUTER RACE.
14. Slide the Lubricating Spacer (7581500) over the Stud (7706500) and Press Spacer and Bearing until the Bearing is seated against the head of the Stud.

**NOTE :** MAKE SURE THAT WHEN PRESSING THE ROLLER BEARINGS (6032098) ONTO THE STUD (7706500), THAT THE LUBRICATING SPACER (7581500) IS PLACED ON TOP OF THE BEARING BEFORE PRESSING ONTO THE STUD OR THE BEARING WILL BE DAMAGED.

15. Take the Bevel Gear (7826093) and place over the Stud (7706500) with the collar of the Bevel Gear facing the head of the Stud.
16. Take one (1) .020 Shim (6032700) and place it over the Stud, down to the Lubricating Spacer (7581500).
17. Press the other side of the Roller Bearing (6032093) onto the Stud on top of the .020 Shim.
18. Place the entire assembly into a vise making sure the Bevel Gear (7826093) is turning freely. The Bevel Gear should spin freely for three (3) revolutions. If the gear does not rotate freely, disassemble and install additional shims as needed until the gear rotates freely .....BUT NOT LOOSELY.
19. Take three (3) shims .010 and slip them over the Stud (7706500) and insert the entire assembly into the Standard (7705600) and tighten down.
20. After tightening down, the assembly that has just been installed in the Standard should have apprimately .005 backlash. If not, remove the entire assembly and shim as necessary to allow the .005 backlash.
21. Connect electric power to the machine and activate trigger to make certain that the gear assembly is rotating freely with proper backlash.
22. Take the Washer (7560200) and Jam Nut (7705900) and insert onto the Stud (7706500). Snug them down BUT DO NOT UNSCREW STUD. Use a 1 1/6" Wrench to tighten the Jam Nut and a 1" Socket Wrench to hold the head of the Stud. THREAD IS LEFT HAND.
23. Press the Double Seal (7706493) into the Gear Cover (7706100). SPRING SIDE DOWN.
24. Install "O" Ring (7706093) onto lip of Gear Cover (7706493).
25. Lightly lubricate the inside of the Standard (7705600) and the rubber portion of the Double Seal (7706493). Install assembly onto Standard.
26. Take four (4) Screws (9900358) and secure the entire Gear Cover assembly onto the Standard, but do not snug down until making sure that everything lines up properly. After lining up the assembly tighten down securely.

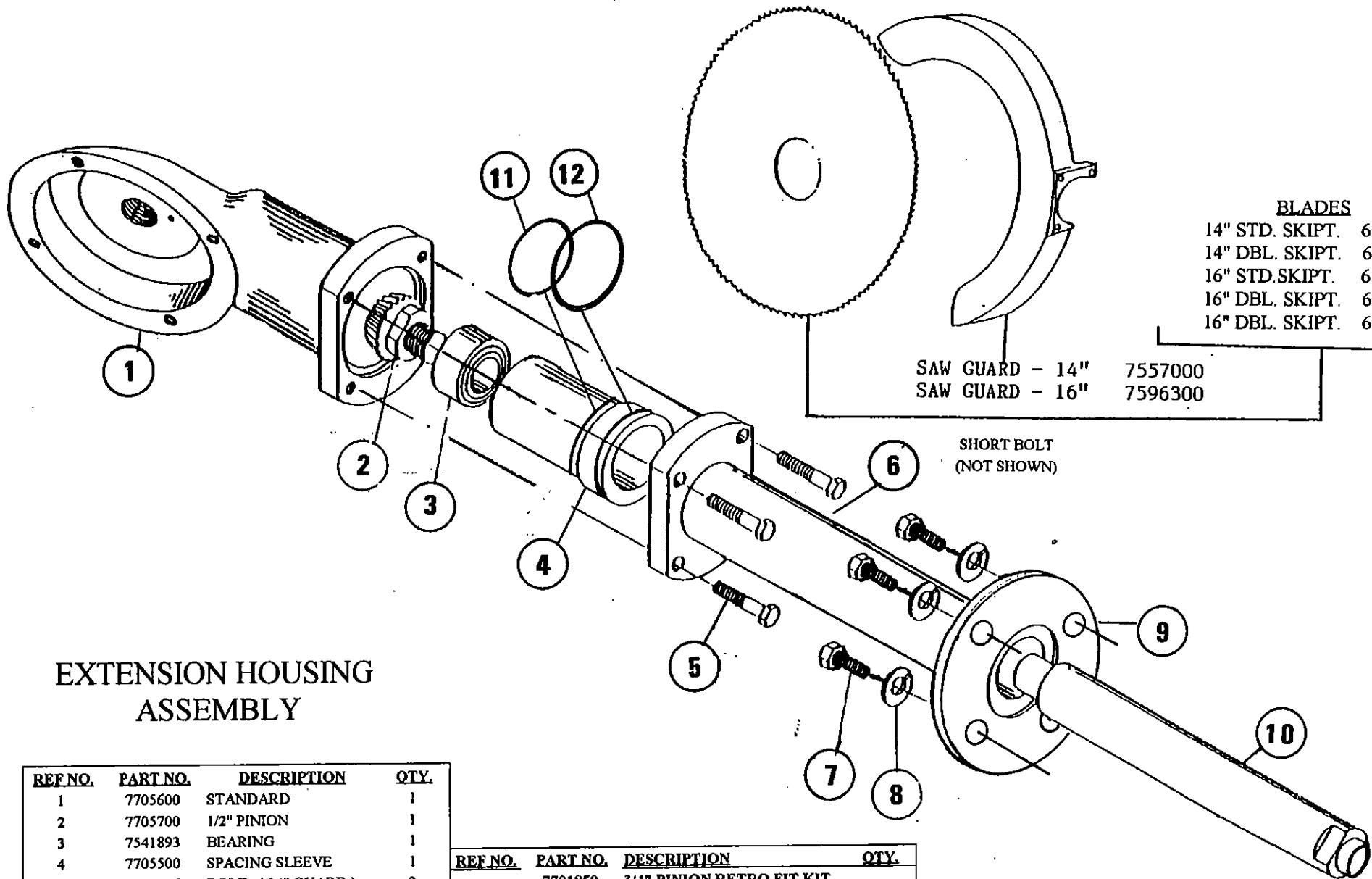
# ASSEMBLY INSTRUCTIONS

## CONTINUED

27. Mount the Saw Blade onto the collar of the Bevel Gear (7826093) making sure that the four (4) notches of the arbor of the blade are seated properly onto the four pins of the Bevel Gear.
28. Take the Saw Nut & Cover (7706300) and screw it onto the collar of the Bevel Gear (7826093). THREAD IS RIGHT HAND. Tighten securely.
29. After all screws, nuts and bolts have been securely tightened, bend over the flat surface of the Washer (7560200) up against the Jam Nut (7705900) on the rear side of the Standard.

### PARTS ACCESSORIES

WRENCH FOR SAW NUT (7706300)	(NOT ILLUSTRATED)	6117150
PIN WRENCH FOR 7572000	(NOT ILLUSTRATED)	8861500
NO. 3 SPANNER WRENCH	(NOT ILLUSTRATED)	6114450
PINION SETTING TOOL	(NOT ILLUSTRATED)	7599300
WATER SPRAY KIT	ELBOW	7557022
	TUBE	7557023



**BLADES**

14" STD. SKIPT.	6103400
14" DBL. SKIPT.	6108000
16" STD. SKIPT.	6103000
16" DBL. SKIPT.	6109000
16" DBL. SKIPT.	6110000

SAW GUARD - 14"	7557000
SAW GUARD - 16"	7596300

SHORT BOLT  
(NOT SHOWN)

**EXTENSION HOUSING  
ASSEMBLY**

REF. NO.	PART NO.	DESCRIPTION	QTY.
1	7705600	STANDARD	1
2	7705700	1/2" PINION	1
3	7541893	BEARING	1
4	7705500	SPACING SLEEVE	1
5	9901415	BOLT (14" GUARD)	3
	9901419	BOLT (16" GUARD)	3
6	9901413	BOLT (BOTH)	1
7	9901493	BOLT	1
8	9901935	SPRING WASHER	4
9	7554000	EXTENSION HOUSING	1
10	7705400	EXTENSION SHAFT	1

REF. NO.	PART NO.	DESCRIPTION	QTY.
	7701850	3/4" PINION RETRO FIT KIT	
2	7826030	3/4" PINION	1
3	7826032	BEARING	1
4	7826031	SPACING SLEEVE	1
10	7701700	EXTENSION SHAFT	1
11	7826073	O-RING SEAL (SMALL)	1
12	7826074	O-RING SEAL (LARGE)	1

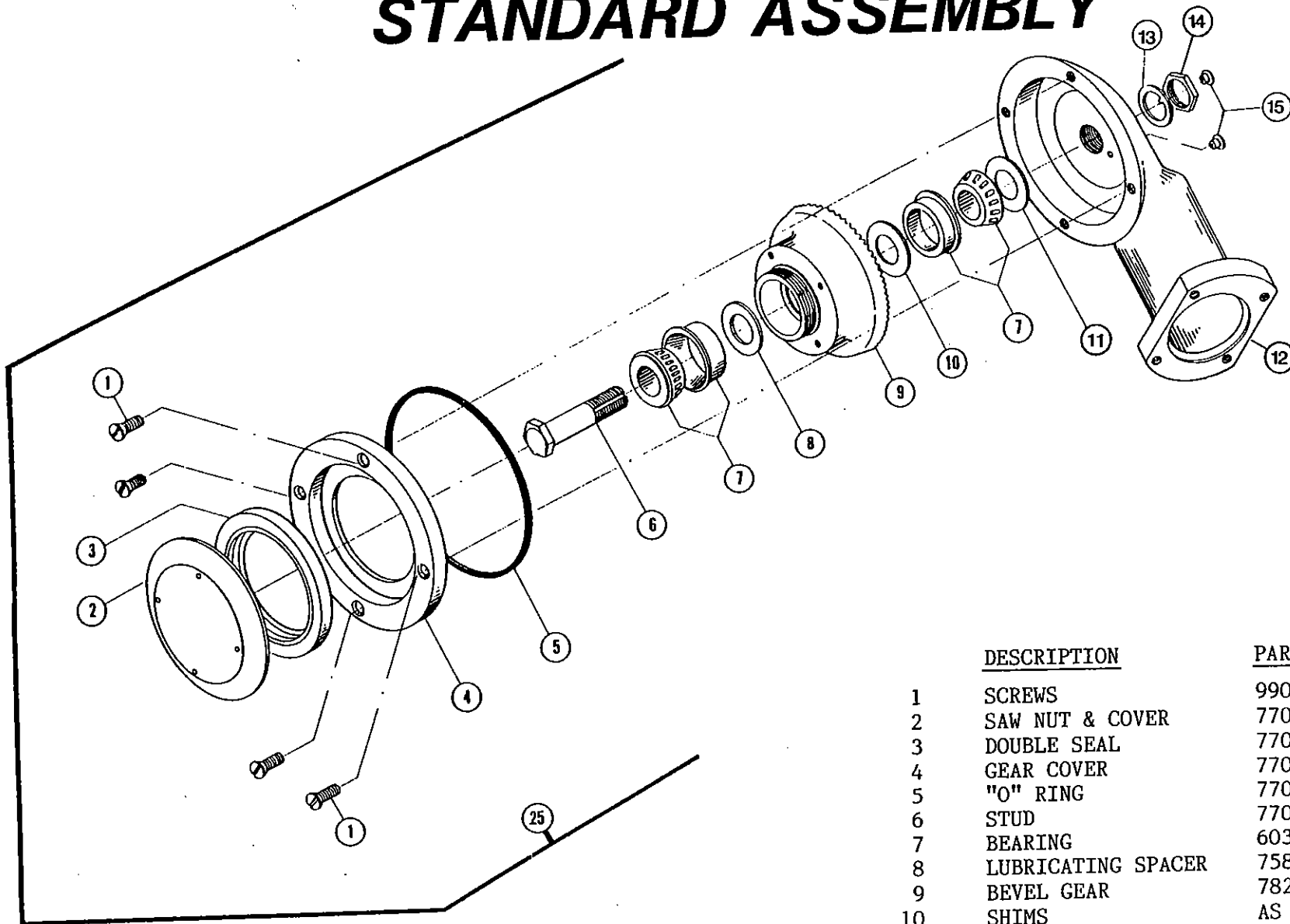
**3/4" RETRO FIT KIT #7701850 INCLUDES  
PARTS #2, 3, 4, 10, 11 & 12 FROM MODIFIED LIST 1/1/96  
TO CHANGE 1/2" TO 3/4" EXTENSION**

ALL PARTS ARE FOR TOOLS BEFORE 1/1/96

MODIFIED PARTS AS OF 1/1/96



# STANDARD ASSEMBLY



## No. 10 BEVEL GEAR SHIMS

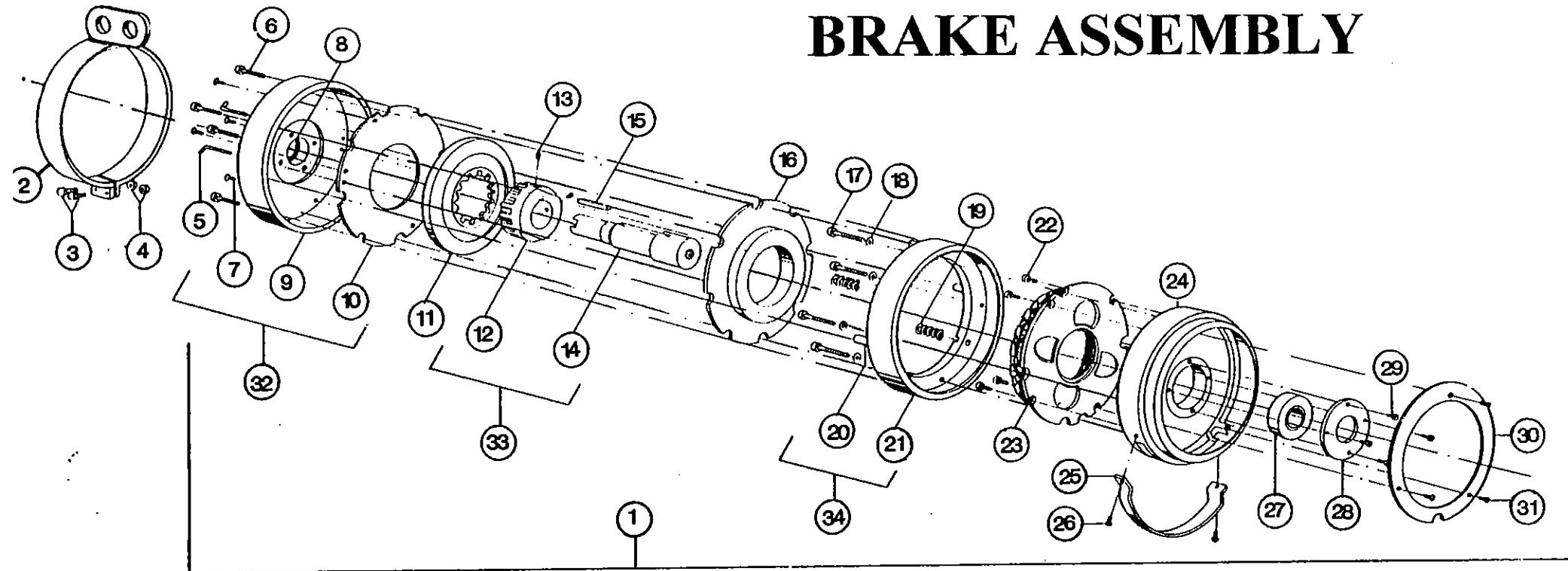
6032700	.020
6032800	.005
6032900	.003
6033000	.002

## No. 11 BACKLASH SHIMS

7572700	.010
7572600	.005
7572500	.003

	DESCRIPTION	PART NO.	QTY.
1	SCREWS	9900358	4
2	SAW NUT & COVER	7706300	1
3	DOUBLE SEAL	7706493	1
4	GEAR COVER	7706100	1
5	"O" RING	7706093	1
6	STUD	7706500	1
7	BEARING	6032093	2
8	LUBRICATING SPACER	7581500	1
9	BEVEL GEAR	7826093	1
10	SHIMS	AS NEEDED	
11	SHIMS	AS NEEDED	
12	STANDARD	7705600	1
13	LOCKING WASHER	7560200	1
14	JAM NUT	7705900	1
15	GREASE FITTINGS	6361201	2

# BRAKE ASSEMBLY



REF. NO.	PART NO.	DESCRIPTION	QTY.	REF. NO.	PART NO.	DESCRIPTION	QTY.
1	(SEE LISTING)	COMPLETE BRAKE KIT	1	18	9901975	WASHERS	4
2	7550060	HANGER	1	19	7701393	SPRINGS	2
3	9901502	SCREWS	2	20	9901297	SCREWS	4
4	9902308	STOP NUTS	2	21	7700300	BRAKE SUPPORT PLATE	1
5	7700800	MANUAL RELEASE	2	22	9901297	SCREWS	4
6	9901416	SCREWS	4	23	(SEE LISTING)	COIL	1
7	9901490	SCREWS	4	24	7700200	BRAKE ADAPTOR	1
8	7701493	SEAL	1	25	7701600	FAN GUARD	1
9	7700400	BRAKE HEAD	1	26	9901408	SCREWS	2
10	7700700	WEAR PLATE	1	27	7541793	BEARING	1
11	7701093	BRAKE PAD	1	28	7700900	BEARING RETAINER	1
12	7701293	BRAKE DRIVE	1	29	9902703	SCREWS	4
13	9901893	SET SCREWS	2	30	7701500	BAFFLE	1
14	7702000	DRIVE CLUTCH	1	31	9900122	SCREWS	3
15	7701100	KEY	1	32	7700450	FRONT END S.A.	1
16	7700500	BRAKE PLATE	1	33	7702050	DRIVE CLUTCH S.A.	1
17	9901306	SCREWS	4	34	7700350	BRAKE SUPPORT S.A.	1

# MANUAL SPLITTER INTERNAL PARTS LISTING FOR VOLTAGE VARIATIONS

*NOTE : CHECK INFORMATION PLATE ON MOTOR HOUSING FOR MANUAL  
SPLITTER SPECIFICATIONS.*

<u>DESCRIPTION</u>	<u>PART NO. PREFIX</u>
BRAKE KIT	77000xx
MOTOR & STATOR	77039xx
STATOR	77072xx
COILS	77001xx

<u>VOLTAGE AVAILABLE</u>	<u>SUFFIX NO.</u>
24/3/50	31
42/3/50	24
110/3/50	25
110/3/60	14
208/3/60	12
220/3/50	35
220/3/60	16
240/3/60	20
380/3/50	26
400/3/50	23
415/3/50	27
440/3/50	22
440/3/60	17
460/3/60	19
480/3/60	39
550/3/60	21
575/3/60	37

EXAMPLE FOR ORDERING THESE ELECTRICAL COMPONENTS :

PART NEEDED :                      MOTOR & STATOR                      #77039xx  
 VOLTAGE STATED ON MOTOR TAG : 220/3/60                      16

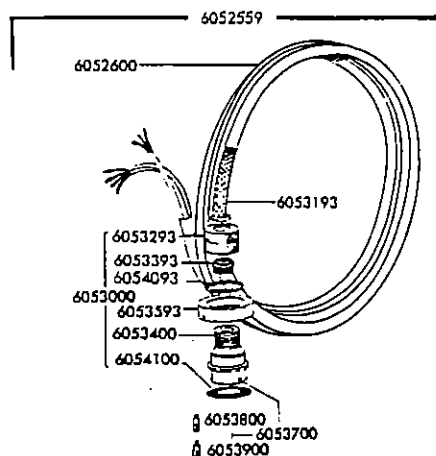
ORDER PART NUMBER #7703916

PLEASE CALL BEST & DONOVAN FOR ASSISTANCE IF NEEDED AT 1-800-553-BEST

# ELECTRICAL CONNECTIONS

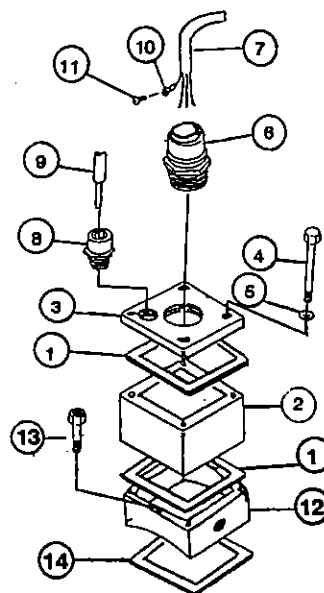
## SCREW ON LINE WIRE

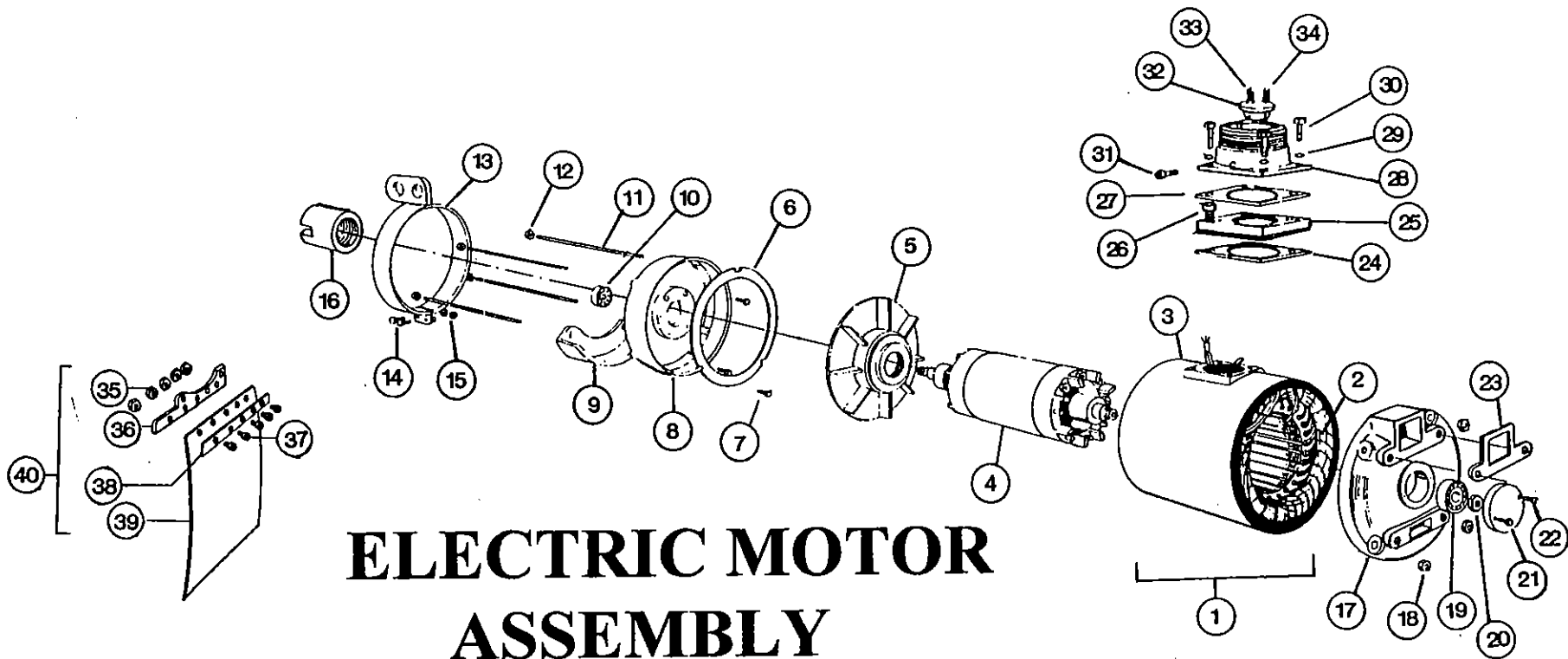
<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
6052559	LINE WIRE COMPLETE	1
6052600	LINE WIRE	1
6053000	COUPLING ASSY.	1
6053193	STRAIN RELIEVER	1
6053293	NUT	1
6053393	RUBBER GROMMET	1
6053400	PLUG SHELL	1
6053593	NUT	1
6053700	FEMALE INSERT COUPLING	1
6053800	FEMALE POST	5
6053900	FEMALE GROUND POST	1
6054093	WIRE CLIP	1
6054100	GASKET	1



## 24 & 42 VOLT HARD WIRE CONNECTORS

<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	6050500	CONNECTOR BOX GASKETS	2
2	8517800	CONNECTOR BOX	1
3	8518000	42 VOLT CONNECTOR BOX COVER	1
	8518024	24 VOLT CONNECTOR BOX COVER	1
4	9801420	SCREWS	4
5	9801935	LOCK WASHERS	4
6	6056300	42 VOLT LINE WIRE COUPLING	1
	1131193	24 VOLT LINE WIRE COUPLING	1
7	6270200	42 VOLT LINE WIRE	12 FT.
	1131393	24 VOLT LINE WIRE	12 FT.
8	1046200	CONTROL LINE WIRE COUPLING	1
9	1117293	CONTROL VOLTAGE LINE WIRE	12 FT.
10	9900119	SCREW	1
11	1135293	CONNECTOR	1
12	7598976	CONNECTOR BOX ADAPTER	1
13	9901297	1/4-20 x 5/8" S.H.C.S.	2
14	7541400	ADAPTER GASKET	1



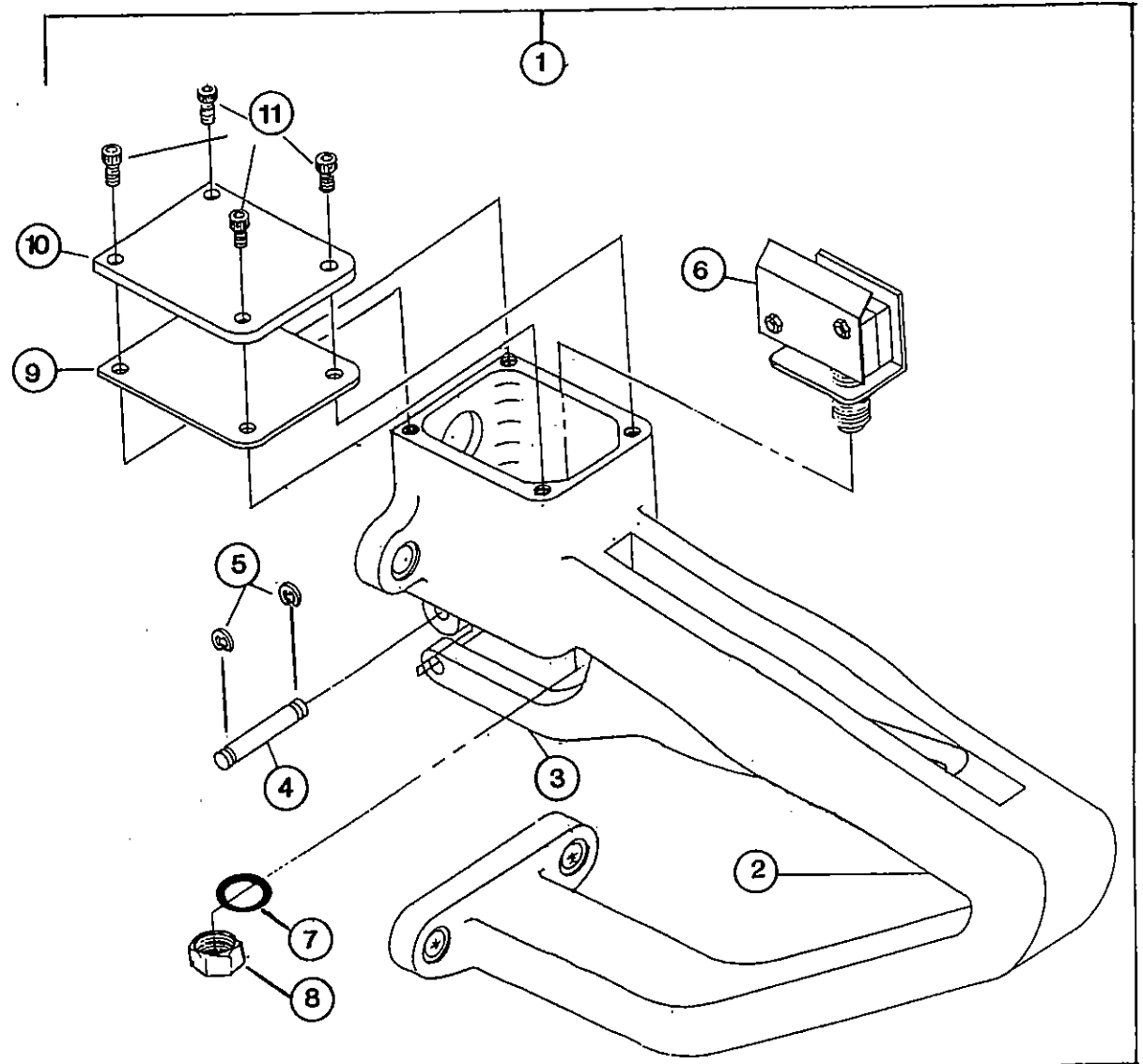


# ELECTRIC MOTOR ASSEMBLY

REF. NO.	PART NO.	DESCRIPTION	QTY	REF. NO.	PART NO.	DESCRIPTION	QTY
1	(SEE LISTING)	MOTOR CASE & STATOR		20	7705000	LOCK NUT	1
2	(SEE LISTING)	STATOR		21	7542000	BEARING COVER	1
3	7500900	MOTOR CASE	1	22	9902671	SCREWS	2
4	7707161	ROTOR/SHAFT ASSEMBLY	1	23	6041500	HANDLE GASKET	1
5	7705200	FAN	1	24	7541400	GASKET	1
6	7701500	BAFFLE PLATE	1	25	7598976	RECEPTACLE HOUSING BASE	1
7	9900122	SCREWS	3	26	9901296	BOLTS	3
8	7534000	FRONT END BELL	1	27	6050500	GASKET	1
9	7535000	SPLASH GUARD	1	28	6050000	SHELL BASE	1
10	7541793	BEARING	1	29	9901975	WASHERS	12
11	7537000	MOTOR BOLT	4	30	6051093	BOLTS	4
12	9901706	NUTS	8	31	6050001	SET SCREWS	2
13	7550060	HANGER	1	32	6051500	MALE POST ASSEMBLY	1
14	9901492	BOLTS	2	33	6051600	MALE POST	5
15	9902308	NUTS	2	34	6051700	MALE POST GROUND	1
16	7705300	CLUTCH - FEMALE	1	35	9901674	NUTS	5
17	7540000	REAR BELL - SLOTTED	1	36	7546300	SHIELD BRACKET	1
	7599500	REAR BELL - ENCLOSED	1	37	9902670	BOLTS	5
18	9901706	NUTS	8	38	7546200	STRAP	1
19	1057093	BEARING	1	39	7546100	DUST BONE SHIELD	1
				40	7546059	DUST BONE SHIELD COMPLETE	1

# SERIES "H" HANDLE

<u>NO.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>QTY.</u>
1	REAR "H" HANDLE COMPLETE	7706659	1
2	REAR HANDLE	7706600	1
3	TRIGGER	7706800	1
4	TRIGGER HINGE PIN	6044500	1
5	RETAINING RINGS	1208193	2
6	SWITCH ASSEMBLY COMPLETE	6047559	1
7	"O" RING	6046093	1
8	SWITCH LOCKNUT	6045500	1
9	CAP GASKET	7706900	1
10	HANDLE CAP	7706700	1
11	CAP SCREWS	9902668	4



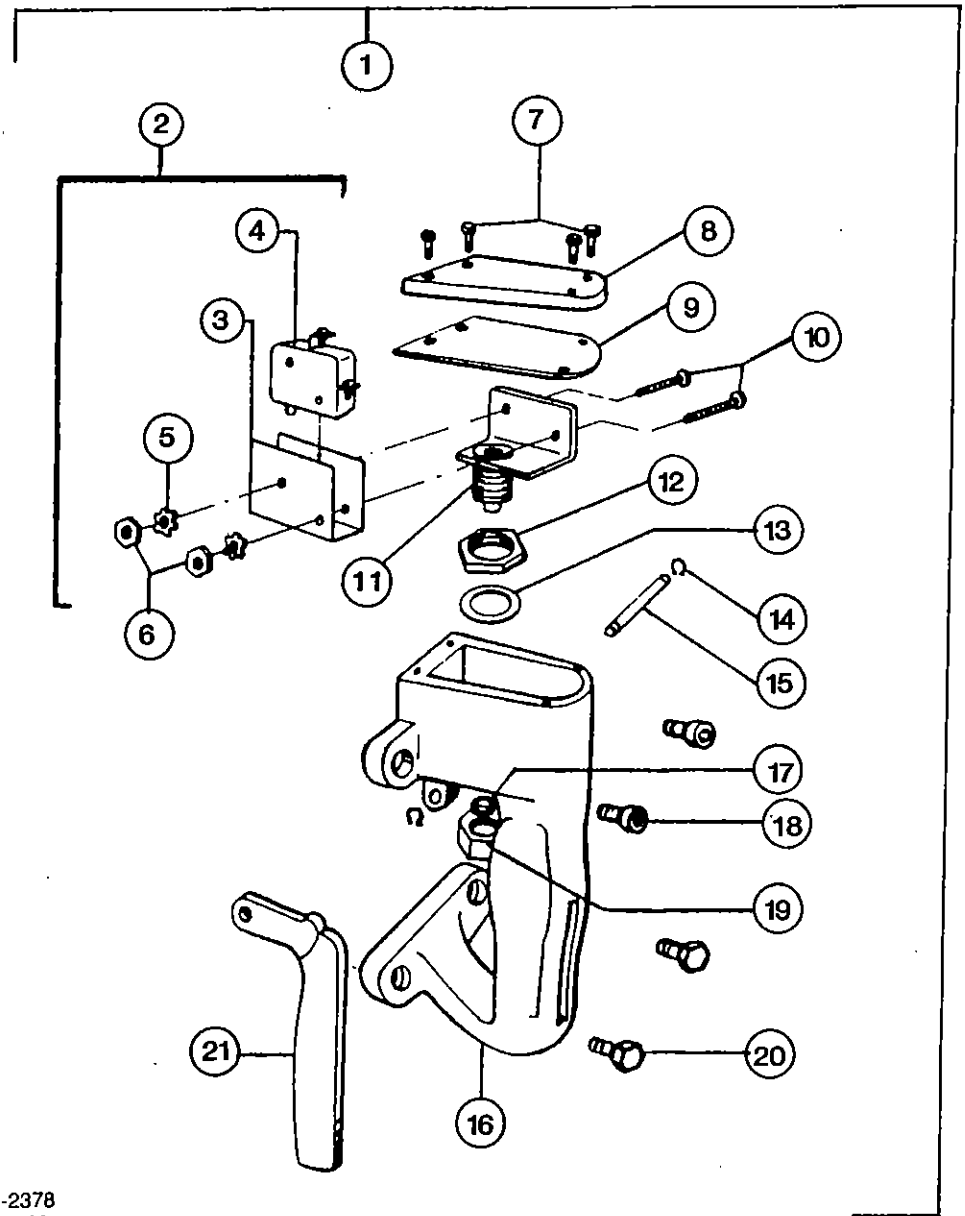
**BEST & DONOVAN**  
 5570 Creek Road, Cincinnati, OH 45242, USA

TOLL FREE:  
 TELEPHONE  
 CABLE:  
 FAX:

1-800-553-2378  
 (513) 791-9180  
 WEPCO  
 513-791-0925

# STANDARD REAR HANDLE

<u>NO.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>QTY.</u>
1	REAR HANDLE COMPLETE	6047059	1
2	SWITCH ASSEMBLY COMPLETE	6047559	1
3	SWITCH INSULATOR	6048600	1
4	SWITCH	6048500	1
5	LOCKWASHER	9901951	2
6	NUT	9901671	2
7	SCREW	9900339	4
8	HANDLE CAP	6043000	1
9	GASKET	6043500	1
10	SCREW	9900037	2
11	SWITCH BRACKET SUB ASSEMBLY	6047660	1
12	SWITCH NUT	6045100	1
13	SWITCH GASKET	6046500	1
14	RETAINING CLIP	1208193	2
15	TRIGGER HINGE PIN	6044500	1
16	HANDLE & CAP ASSEMBLY	6047155	1
17	"O" RING	6046093	1
18	SCREWS	9901298	2
19	SWITCH RETAINING NUT	6045500	1
20	BOLTS	9901410	2
21	TRIGGER	6044000	1

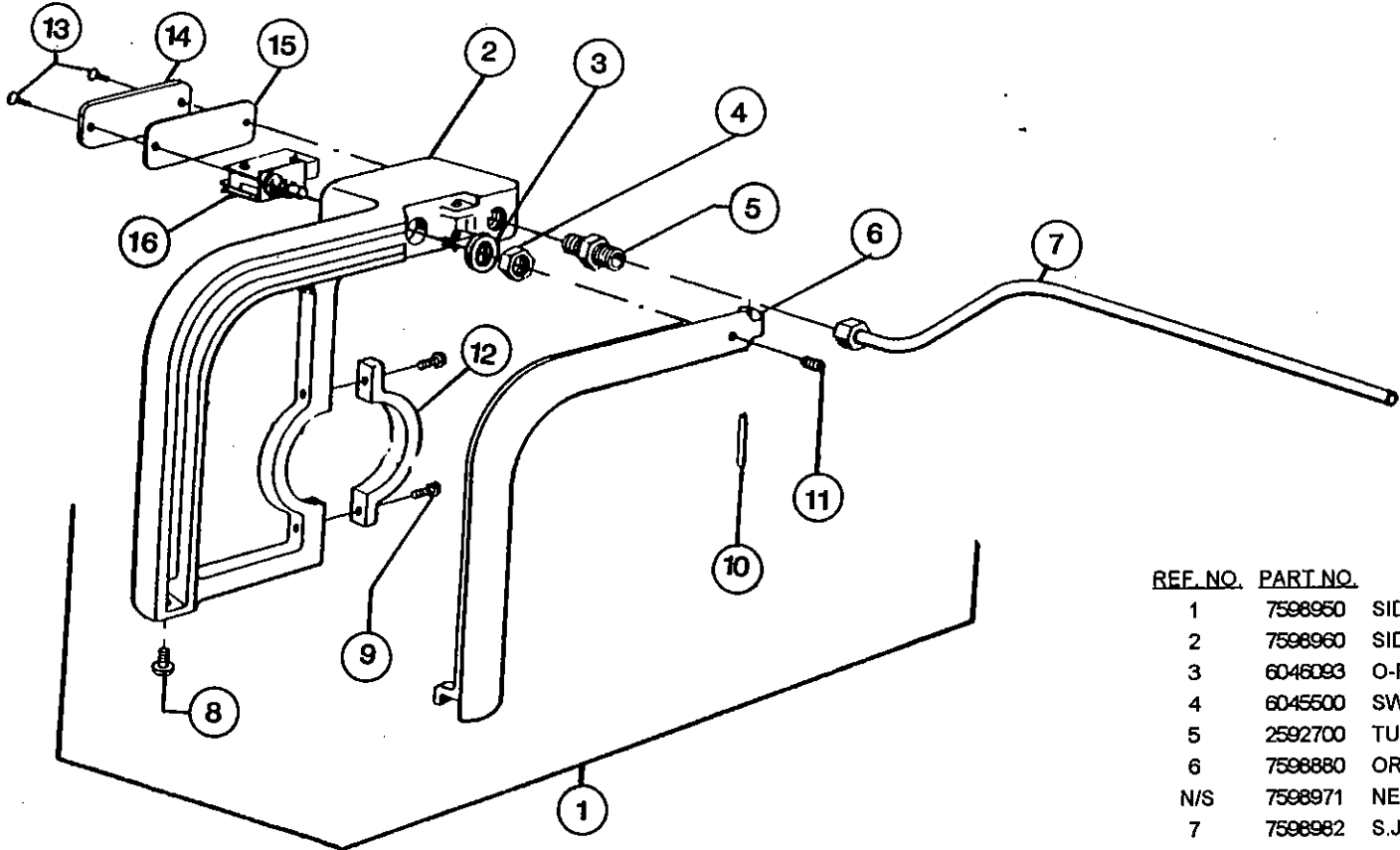


**BEST & DONOVAN**  
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WEPCO  
513-791-0925

# SERIES "D" HANDLE



REF. NO.	PART NO.	DESCRIPTION	QTY.
1	7598950	SIDE HANDLE ASSY.	1
2	7598960	SIDE HANDLE & CAP ASSY.	1
3	6046093	O-RING	1
4	6045500	SWITCH RETAINER NUT	1
5	2592700	TUBE FITTING	2
6	7598880	ORIGINAL STYLE TRIGGER	1
N/S	7598971	NEW STYLE TRIGGER - THIN	1
7	7598982	S.J.O. CORD	
8	9901438	SCREW	1
9	9901492	SCREWS	2
10	9902050	ROLL PIN	1
11	9901922	SET CSREW	1
12	7598991	CLAMP FOR SIDE HANDLE	1
13	9902667	SCREWS	2
14	7598972	SIDE HANDLE CAP	1
15	7598973	SIDE HANDLE GASKET	1
16	6047559	SWTCH ASSY. COMPLETE	1

**BEST & DONOVAN**

5570 CREEK DOAD

CINCINNATI, OHIO 45242, USA.

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