

Scope of work for Machining of Wormwheel to Drg No. M46-ASSY-21-4.

Input and output will be as follows:-

No.	Item	Drawing No.	Input matl. to be given to the firm by MPF	Operations to be performed by the firm
1	Wormwheel	M46ASSY-21-4	1. Worm wheel Rim, Drg. No. M46-21-19 >> Casting (in numbers) 2. Wormwheel Hub, Drg. No. M46-21-20 >> Steel Rod. Dia. 155mm - > 20.52 Kg for 1 no. 3. Rivet, Drg. No. M46-21-21 >> Steel Rod. 25mm >> 0.2375 kg / 01 no	1. Machining of all the items i.e. sl. No. 1 (without radius & Gear cutting), 2 & 3 as per drawings & surface treatment as specified in the drawing. 2. Mounting of Wormwheel Hub & Worm Wheel Rim 3. Riveting as per drawing >> there should not be any radial or axial play between Rivet, Wormwheel Hub & Worm wheel Rim. 4. Radius turning of item no. 1 as per drawing on mandrel. 5. Gear Cutting on item no. 1 as per drawing.

1.1 TOTAL QUANTITY REQUIRED - 25 Nos.

Firm should have following machines;

- Centre Lathe or Turning Centre CNC
- Milling Machine or Machining Centre CNC
- Wire cutting/Broaching M/c
- Solid Riveting facility
- Gear cutting M/c's
- Drilling Machine

2. INSPECTION.

- Pre dispatch inspection will be carried out by authorized representative of General Manager, MTPF, Ambarnath at firm's premises as per finish drawing mentioned above. Measuring instruments / gauges will be provided by the firm. However final clearance will be given after final inspection at MTPF.
- The firm should ensure that all the parts machined by them are as per drawings and scope of work provided by MTPF.
- The firm should provide pre-inspection report at the time of offering the store for pre-dispatch inspection.
- The dimensions of machined parts should be within the tolerance limits as mentioned in the drawing.
- Chips, turning/boring, generated out of machining will be retained by the firm consideration of the same to be given while quoting the rate.
- Collection of material from MTPF and Delivery of the finished item to MTPF will be done by the firm.
- Firm has to submit security deposit in the form of Bank Guarantee equal to the value of material ( i.e. 185253+20963.9+3170.1 = 209387/- for minimum qty 10nos which will be the lot size of matl to be given to firm at a time. i.e. for input materials to be given to firm for machining.
- Delivery Schedule:- Firm has to supply the item after machining at the rate of minimum qty 10 nos. per month from the date of receipt of supply order
- 3 nos. of finished Wormwheel Assy as pilot sample is required to be offered before BULK PRODUCTION.

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6/10/17 AWMP-2

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Copy of Noting is forwarded with SIS No. 370001285

Dt. 17/10/17.

NOTING(Outsourcing)

No.:- 1501/Outsource/M46ASSY21-4/2017-18

Date:- 03/10/2017.

Sub:- To take machining assistance from trade for Machining of Wormwheel(Drg no.M46-ASSY21-4)

There is target for manufacturing of wormwheel (Drg no.M46-ASSY21-4) qty 92nos to be supplied as spares. This item involves solid rivetting operation. Rivetting facility is not available in MTPF. Due to existing target, man hours constraints and non-availability of rivetting facility, it is not possible to manufacture subject item inhouse.

Therefore, to increase the value of issues, it is proposed to outsource machining (operation nos. for machining of wormwheel opn 005 to 025, machining of wormwheel hub opn 005 to 045, machining of rivet opn 005 to 015, assy of Wormwheel assy opn 005 to 040 ) of this item through LPC for qty 25nos to be issued against spare this year through LPC. Balance qty 67nos to be procured through OTE.

Raw material for qty 25nos will be issued to firm against material security deposit.

Inhouse machining hrs for opn to be outsourced is 65.58 hrs per job.

Budgetary offer for machining assistance as per scope of work is obtained. Firm has offered Rs. 8154.8/- per job including all the taxes.

If outsourced, total machining cost for qty 25 nos will be Rs. 203872/-

Total machining hours saved will be  $65.58 \times 25 = 1639.5$  hrs

It is therefore proposed to outsource machining of subject item for qty. 25nos. through LPC and balance qty 67nos to be procured through OTE.

Submitted for approval Please.

HOS/MA15

AWMP-II

AGM/P

AGM/P&M

Approved/Not Approved

Sr. General Manager

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